2016
Annual Report

eco
ASSOCIATION OF THE INTERNET INDUSTRY

WE ARE SHAPING
THE INTERNET

Content

Prof. Michael Rotert
Chairman of the Board

1. Forword

Dear Readers,

For eco, 2016 was a year full of changes and developments. For instance, as Europe's largest Internet industry association, we managed to attain the magic goal of representing over 1,000 member companies. Our association also grew further in its own right, thus responding to the challenges of an ever more rapidly growing networked society. Such growth is also a prerequisite of our role as the voice of the Internet industry within politics and society and it is rightly expected of us, not only by our own members, but also by other industry, society, and political stakeholders.

With Alexander Rabe in our Berlin Capital Office, we were able to gain a new and experi-

enced Head of the eco Policy, Law, and Regulation Division. Furthermore, following on from our many years of cooperation with EuroISPA, we finally opened our own office with our own eco representation in Brussels.

Which industry-relevant developments took place in 2016?

The Internet gained its independence and American sovereignty over Internet governance was finally handed over to a multi-stakeholder organization – not without resistance, but ultimately successfully and of benefit to everyone in terms of a free, open Internet.

Unfortunately, the less attractive side of the Internet was also clearly brought to light this year. This can also be regarded as one further consequence of the Internet's increasing significance for the economy, society, and politics. In the USA, for instance, we saw the election of a President who calls into question many of the achievements accomplished in our democratic, constitutional society, and who has discovered and extensively exploits the Internet medium as an opinion-shaper and disseminator of dubious messages and populist statements. In their dealings with this technology, many people still do not reflect enough and tend to blindly follow opinions, distorted viewpoints, and prejudices in their own "bub-

ble". This is why politics must rigorously pursue its chosen path of focusing on digital education.

Education is an expensive commodity and after so many years, digital education will, with all certainty, become even more expensive. This is because, in addition to infrastructure and hardware equipment requirements, teachers must be equipped with digital competencies through training and further education – and this applies not only to school and vocational college teachers, but also ultimately to university lecturers. The five billion Euro announced in 2016 by the Federal Ministry of Education and Research (BMBF) must be regarded as just

Which industry-relevant developments took place in 2016?

the first step; the individual states now need to follow up with financial resources and educational concepts.

Together, we need to strive for an educational pact, so that we do not lose pace with the digital transformation of the economy and society as a whole – not just in Germany, but also in Europe.

In this regard, eco is well positioned, and we're pleased that a recognition of this has also taken hold in the political arena. That our significance has registered with the German Federal Government has occurred not least thanks to our Internet Policy Forum 2016. There we were able to speak directly with the three leading

Ministers Sigmar Gabriel, Thomas de Mazière, and Alexander Dobrindt about the implementation status of the Federal Government's Digital Agenda, and could concretely submit our requests to the decision-makers in the context of the Internet Policy Agenda.

As the Annual Report shows, 2016 was a successful year for us – with more activities, supporters and events than ever before. I'd like to thank all members and partners, eco's management, and naturally all staff for the productive teamwork, which allowed us to further and convincingly consolidate our position as the largest European Internet industry association. 2017 is sure to be at least as eventful a year –

the German federal elections are coming up and eco has resolved to conduct its own Internet policy program to accompany the election campaign. Apart from that, we will also continue to actively implement our eco Strategy 2020, which will include a complete modernization of eco in order to ensure that we stay fit for the future. The first results will already be evident in 2017.

You can rest assured: In the future, we will continue to mobilize all of our energy and expertise in the interests of a free, open, and trustworthy Internet. Stick with eco and bring your knowledge and assistance to bear on the work of our industry association.

I look forward to our continued cooperation and constructive exchange.

Sincerely

Prof. Michael Rotert
Chairman of the Board

Harald A. Summa
CEO

2. Report from the Management

It is as if we had seen it coming: the whole of Germany – in fact the whole of Europe, the whole world – is now talking about digitalization and digital transformation. Of course, strictly speaking, the world has actually been digital since the 1960s. Because it was at that time that transistors and binary building blocks started allowing us to build big, loud computers capable of calculating faster than a person could.

Data was still not feature then, but the punch card had already climbed to the No. 1 data carrier position and was poised to replace punched tape.

In those days, computer centers were built that were often far too big for the computers subsequently delivered. Moore's Law still hadn't been written. So you had a mainframe standing in a corner of a sports hall and the head of the computer center wondering what other use he could make of the hall!

It was only with the arrival of the Internet that the computer center started to make sense and mutated into a data center. The pure processing of data was supplemented through storage facilities and networking and this nudged the data center on its path towards becoming a focal point for the digital living and business world.

So the perspective is: Nothing remains as it is. The disruptive and virtual future rushes in and pulls everybody and everything along in its digital wake – and, all too often, confronts us with completely new challenges. In eco, you can witness all of that and more up close and personal on a daily basis, in face-to-face exchanges, in meetings, and in written documents.

We may only be a small industry association, but the industry and its products that we represent are increasingly ever-present. As the Association of the Internet Industry, we are strongly targeting the digital infrastructure

So the perspective is: Nothing remains as it is.

companies, without whom – if I may say – nothing happens! And because the infrastructure is constantly improving, more and more is happening. But we don't want to just talk to our colleagues in infrastructure; we want to bring them together with all dependent representatives from every lifestyle and business sector so that all parties can learn from each other and shape the future together.

This volume, eco's 2016 Annual Report, will also report on the topic of shaping the future – or, in other words, the Internet. From the management perspective, I can only say: It was a good year, a year during which all of us in eco worked at making the future that bit more digital.

But let's come to the facts for the year 2016.

By the end of the year, we could count more than 1,000 companies as members! An unbelievable achievement based on many years of development, and an indicator of the esteem in which our activity is held in the industry. With this success, we'll be able to further consolidate our position as Europe's largest Association of the Internet Industry. We were also able to successfully convert our cooperation with the networker NRW and the Digital Hub FrankfurtMainRhein into a partnership. In this arrangement, both associations and their members will retain their legal independence, but will at the same time benefit from the synergies that being part of a large association

bring. This is a model that we want to work on with a view to integrating even more associations and networks under eco's umbrella.

In Berlin, we brought the Federal Interior Minister, Thomas de Maizière, the Federal Minister for Economic Affairs, Sigmar Gabriel, and the Federal Minister of Transport and Digital Infrastructure, Alexander Dobrindt, together at one table, in order for them to adopt a position on ongoing policy work and for them to hear our suggestions and critique concerning future digital policy and the Federal Republic.

You can read about all this and much more in our 2016 Annual Report. But I'd naturally find it even better if you actively took part in our creative activities for a digital future.

Your

Harald A. Summa
CEO

The eco Group can look back on an exciting and successful year in 2016.

3. Development

3.1 Finances

The eco Group can look back on an exciting and successful year in 2016. The successful dissemination of the eco brand, strengthened by promising cooperation agreements with the networker NRW e.V. and the Digital Hub FrankfurtRheinMain, as well as through the new location in Munich, helped to increase turnover from membership fees by 135,713 Euro growing almost 10 percent.

The CSA, with total growth of 18,083 Euro was also able to generate 2.5 percent growth in 2016. Since the end of December 2016, the CSA has experienced strong growth in new customers, which is a result of the optimization of the order process.

The successful development of the membership fees and the income from services was therefore able to compensate for the slight reduction in funding, which was primarily the result of a delay on the part of the funding body for a new project. However, the project "SIWECOS – on the safe side" was finally launched on 1 September 2016. This project is being undertaken in cooperation with the Ruhr University Bochum, and with support from CMS Garden e.V. and Hackmanit GmbH.

In terms of costs, the eco Group experienced moderate growth of 1.3 percent, of which the largest increase was in personnel costs. As in previous years, 75 percent of the association's funds were spent primarily on personnel, pro-

jects and marketing, and as a result on services that flow directly back to its members.

eco's subsidiaries also developed outstandingly in 2016, and show primarily positive results. eco IT Service und Beratung GmbH was the only subsidiary to experience a slightly negative result, but this could be balanced through profit carried forward from the previous year.

We are proud not only to be able to present a very healthy company group, but also to again be able to demonstrate that the entire eco Group remains on a strong path of success and growth. In 2016, we worked intensively on the further automation and improvement of our internal processes. As has already been

announced, we introduced a new Customer-Relationship Management (CRM) system at the end of the second quarter of 2016. This enables us not only to continuously improve the management of members, but also our financial management and in particular accounts receivables.

For 2017, we forecast constantly growing membership numbers and a continuing balanced result.

Revenue and Expenditure in 2016					Budget for 2017	
eco e.V.	Actual value 2016 in Euro	Percentage	Actual value 2015 in Euro	Change from preceding year (%)	Planned for 2017 in Euro	Percentage
Revenue						
Member fees	1,697,213	62.3%	1,561,500	8.7%	1,725,000	54.9%
Public funding	276,590	10.2%	367,478	-24.7%	520,000	16.6%
Generated proceeds	730,586	26.8%	712,503	2.5%	825,000	26.3%
Other*	18,300	0.7%	150,099	-87.8%	70,000	2.2%
Revenue	2,722,689	100%	2,791,580	-2.5%	3,140,000	100%
Expenditure						
Personnel costs	1,282,227	46.5%	1,237,993	3.6%	1,400,000	44.7%
Administration costs	196,048	7.1%	153,708	27.5%	275,000	8.8%
Occupancy costs	155,550	5.6%	138,327	12.5%	160,000	5.1%
Contributions	33,837	1.2%	29,881	13.2%	32,000	1.0%
Travel costs	88,029	3.2%	105,895	-16.9%	90,000	2.9%
Investments	71,689	2.6%	27,899	157.0%	45,000	1.4%
Marketing/Projects	770,769	27.9%	851,602	-9.5%	977,000	31.2%
Administrative accounting/legal costs	57,135	2.1%	79,413	-28.1%	55,000	1.8%
Other/taxes**	103,466	3.8%	97,790	5.8%	95,000	3.1%
Total costs	2,758,750	100%	2,722,508	1.3%	3,129,000	100%
Surplus/deficit	-36,061		69,072		11,000	

*Other revenue: Registrar Atlas, charging benefits for cars, loans, reimbursement of advanced costs, etc.

**Other expenditure: Bank fees, artists' social security contributions, further education, advanced costs, etc.

3.2 eco Association Structure and Holdings

eco – Association of the Internet Industry e.V. was founded in Bonn in 1995 as eco – Electronic Commerce Forum e.V. and later renamed eco – Association of the German Internet Industry e.V., dropping the 'German' in 2015. From the very beginning, the association included taxable and non-taxable business areas, and was expanded in 2003 to cover asset management. This was necessary due to the spinning off of the working group DE-CIX to become an independent limited liability company (GmbH), and the simultaneous spinoff of individual services into eco Service GmbH. Both companies were established as wholly owned subsidiaries of the eco Association.

In 2005, a further company, eco IT Service & Beratung GmbH, was founded as a wholly owned subsidiary. This is to be understood as an internal service provider.

The internationalization of the DE-CIX activities, decided upon in 2010, was highlighted in 2013 by the establishment of DE-CIX International AG (stock company). At this time, the business purposes of the company were re-formulated. DE-CIX Management GmbH has the task of delivering peering and interconnection services within Germany, whereas DE-CIX International AG is responsible for service provision abroad.

All companies have their headquarters in Cologne, and there are also branch offices in Berlin (eco) and Frankfurt.

In order to open up the American market, DE-CIX North America Inc. was also founded in 2013, in Delaware, as a wholly-owned subsidiary of DE-CIX International AG. To open up the market in the Near East, DE-CIX Istanbul Network Connections LLC was founded in 2015 as a subsidiary of DE-CIX International AG. DE-CIX currently operates exchange points in Frankfurt, Dusseldorf, Hamburg and Munich, as well as in New York, Dallas, Palermo, Marseille, Madrid, Istanbul, and Dubai.

Further exchange points are in the process of being established or are in the planning phase.
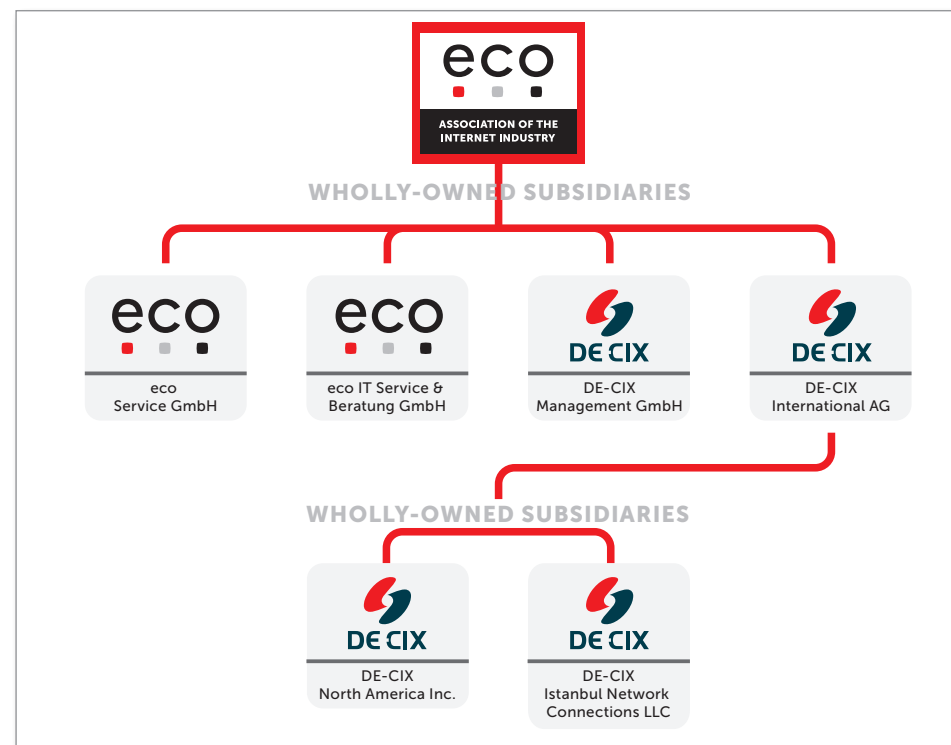
eco – Association of the Internet Industry	eco Service GmbH	DE-CIX International AG	DE-CIX North America Inc.
	eco IT Service & Beratung GmbH		
	DE-CIX Management GmbH		
CEO	CEO	Supervisory Board	Board of Directors
Harald A. Summa	Harald A. Summa	Felix Höger (Chair)	Harald A. Summa
Board of Directors		Klaus Landefeld	Ivo Ivanov
Prof. Michael Rotert		Rudolf van Megen	**DE-CIX Istanbul Network Connections LLC**
Oliver J. Süme		Board of Directors	
Klaus Landefeld		Harald A. Summa	Board of Directors
Prof. Dr. Norbert Pohlmann		Ivo Ivanov	Harald A. Summa
Felix Höger			Ivo Ivanov

Katrin Mielke
Membership Manager

3.3 1,000 Member companies ensure industry power

eco is the largest association of the Internet industry in Europe and is growing constantly. In 2016, the association was able to surpass the 1,000-member mark.

Digitalization is penetrating more and more areas of our professional and private lives, which is reflected in the constantly growing association membership. In eco, over 1,000 member companies are working to shape the Internet. In over 100 events at eco, they can get fully informed about new developments and meet potential business partners and customers. They can inform/present themselves on location and

exchange knowledge with specialists and business leaders from all segments of the Internet industry and with important politicians.

The member companies include Internet service providers, application service providers, telecommunication companies, domain suppliers, hardware manufacturers and software vendors, cloud services providers, IoT specialists, data center operators, and content providers.

The list of eco members is in Chapter 11. Information on member benefits can be found at http://go.eco.de/membership.

New Members, Cancellations and Mergers 2005–2016

New members: 48, 44, 63, 74, 92, 71, 83, 103, 128, 138, 104, 193
Difference: 29, 24, 43, 51, 64, 57, 47, 65, 62, 91, 57, 148
Cancellations: 19, 20, 20, 23, 28, 14, 36, 38, 66, 47, 47, 45

New members | Cancellations | Difference

Membership Development 1998–2016

85, 124, 124, 200, 225, 225, 231, 179, 235, 199, 294, 260, 292, 258, 306, 287, 331, 311, 374, 354, 428, 404, 496, 465, 536, 507, 590, 556, 659, 621, 749, 683, 821, 774, 878, 831, 1,024

eco Board of Directors 2016

Prof. Michael Rotert
 Chairman of the Board
 Managing Partner
 maxspot GmbH

Oliver J. Süme
 Vice-Chairman
 Director Policy, Law & Regulations
 Attorney-at-Law / Lawyer specialized in
 IT Law
 Fieldfisher (Germany) LLP

Klaus Landefeld
 Director Infrastructure & Networks
 nexiu GmbH

Felix Höger
 Director Online Services / Cloud Computing
 Director QSC AG

Prof. Dr. Norbert Pohlmann
 Director IT Security
 Institute for Internet Security – if(is)

4. The Association Work

4.1 Reports from the Board of Directors
4.1.1 Policy, Law and Regulations

Internet skepticism dominated digital policy in 2016. Looking back at the year in network policy, the overall picture appears ambivalent; attempts at restriction, for example in the areas of government surveillance or cyber security, push up against future-orientation such as that found in the areas of digital literacy and Work 4.0.

Fake news, hate speech, social bots, cyber attacks and repeatedly, Big Data: these are just a few of the catchwords that heavily influenced the debate about network policy in the public sphere in 2016.

The power of the digital transformation has not only driven the economy forward, its move into the center of society has deepened, so much so that politics are proportionally and actively taking larger steps on many levels of digitalization. Brexit, the election in the United States and the international refugee situation were launching points for a political discussion in 2016 that addressed the power of the Internet and the significance of technology in opinion-making.

2016 was marked by great insecurity in society and politics, which manifested itself in a wariness toward the Internet. Underlying this was the conviction that the Internet is one of the largest factors in instability and insecurity in our time. That has much to do with the fact that the debate about network policy was heavily determined by domestic political agendas.

In the political sphere, this insecurity has displayed itself in a trend toward increasingly drastic regulation and surveillance aspirations.

As a result, eco is calling for a greater sense of proportion and the careful weighing of opportunities against risks. Digitalization offers tremendous chances for industry and

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Oliver J. Süme, Attorney-at-Law
Vice-Chairman of the eco Board
Director Policy, Law & Regulations

Alexander Rabe
Head of Capital Office
Head of Policy, Law & Regulations Division

Henning Lesch, Attorney-at-Law
Deputy Head of Capital Office
Head of Law and Regulations Team

society based in large part on the foundational principles of openness and freedom on the Internet.

A future-orientated digital policy should create the framework of conditions for the implementation of digitalization so that it will proceed in a way that will benefit everyone. Total control is not something that is possible in the world outside of the Internet and should therefore not be something strived for as a credo for digital policy.

Changes were not limited to the political arena in 2016.

At eco, the business area of policy, law and regulation experienced personnel changes and further development in 2016.

Since September 2016, Alexander Rabe, has headed the Policy, Law and Regulation Division and along with it, the Capital Office at Gendarmenmarkt, Berlin, in the heart of the German capital.

Henning Lesch likewise took on management responsibilities in summer of 2016 and was named Assistant Director in Berlin. With the addition of Thomas Bihlmayer, eco has its own representative in Brussels, who can more effectively put forward the strong political voice that eco has on the European floor. Also new to eco are Philip Ehmann and Nicolas

Goss, who provide added support to the law and regulations team as consultants.

The PR division at the Berlin office has been enhanced to offer even better political communication work at eye-level with those involved in politics, organizations, and leading media. Sidonie Krug was named spokesperson for political communications and Christin Wagner is eco's political PR consultant.

With a highly-motivated team, eco is well-positioned to continue to shape the legal and political framework conditions for our industry. As a pathfinder and contact point for politics, we continue to actively advocate for modern Internet policy.

Prof. Dr. Norbert Pohlmann
Director IT Security

4.1.2 IT Security

The Internet is the engine driving our modern global society and the foundation for our prosperity. As digitalization increases at a rapid pace, it brings along with it changes to the places in which we live. If these spaces are not shaped in a secure and trustworthy manner, they will either go unused or they could endanger prosperity. For this reason, the subject of IT security is one that is growing in importance every year.

States are poor examples

From the Edward Snowden case, we learned that the US government agency, National Security Administration (NSA), were surveilling the entirety of the Internet and weakening IT security technologies under the premise of identifying terrorist activities, to the detriment of companies and citizens alike. Their work included eavesdropping on government officials, including the German chancellor.

With the latest revelations about CIA activities in Germany, we also know that even televisions are being used as surveillance instruments in order to peek into our private lives. WhatsApp communications can, despite encryption, also be viewed by prosecuting authorities. The list of spying and manipulative activities conducted by states, including China and Russia, is quite long.

That which is possible will be done

That is the unfortunate truth uncovered when we read documents from the NSA and CIA and follow daily news reports. But where does that lead us? We are looking at a number of innovations over the next few years that will better our lives; see the Internet of Things (IoT) as just one example. Advancements in healthcare technology will allow us to measure and keep an eye on medical values, which will significantly minimize the dangers of critical situations. Self-driving vehicles will, as a whole, make traffic safer and mobility much more comfortable.

At the same time, it will be possible for security services around the world to turn off the heart pacemaker of a particular person or to arrange for a self-driving vehicle to have an accident if a passenger in it is "undesirable".

Cyber weapons which can be used to manipulate elections in foreign countries, conduct industrial espionage, or attack critical infra-structure can result in financial damages and weaken the Internet, the "motor" of our global community.

How can these inconvenient developments be prevented?

Only when states around the globe agree as a whole to not abuse for their own advantage the many possibilities the Internet affords will positive developments occur. We need an international cyber weapon disarmament treaty similar to the nuclear disarmament treaty; a treaty which requires states not to abuse the Internet for their own interests and not to use cyber weapons. The purpose of the treaty should also be based on the right to "peaceful use" of the Internet.

The failure of states to unite in agreement to not use the Internet for cyberwar will result in delays to the development of the Internet, in the short- and long-term.

IoT manufacturers failed at the first step

Many manufacturers of the IT devices more commonly known as the Internet of Things, such as Internet-accessible video cameras, have made IT technologies available that do not, by a long shot, fulfill the security requirements necessary for today and the future.

Wherein lies the problem?

If an Internet-connected video camera can be hacked, that is initially a problem for the user. The hacker can see into that person's living room, invading his private sphere and increasing the chances of a break-in when he is not at home.

The much larger problem was one we were first confronted with in 2016: Hackers created zombie machines out of numerous video cameras and other devices with Internet connectivity, such as printers, hair dryers, and coffeemakers. They successfully attacked the infrastructure of the Internet as a whole, an enormous problem that showcases the vulnerability of the Internet and makes it unreliable. This has led prominent IT security experts to demand a general authentication for any devices that connect to the Internet.

What can we do?

IT vendors have to accept their extraordinary responsibility here and ensure that they only release trustworthy IT devices onto the market – those products which take the technological requirements mandated by IT security into consideration. In addition, we have to consider an innovative approach to liability requirements in order to make it in the best interests of IT manufacturers and vendors to find secure solutions.

Without the important players in the Internet showing a greater sense of responsibility, the engine and foundation for the prosperity of our modern, global society is endangered.

Cyber Security Services

With botfrei.de and botfree.eu, eco offers a service to help Internet users eliminate damaging bot networks from their computers and make them more secure. This project stems from a former research cooperation between Internet Service Providers and technology partners. Another service offered by eco is the website scanner from Initiative-S. The service reviews the websites of small and medium-sized enterprises (SMEs), scanning for traces of damaging software; should one be discovered, the owner of the website is informed. In the future, Initiative-S will be a part of the SIWECOS Project.

Project: Secure Websites and Content Management Systems

Secure Websites and Content Management Systems (SIWECOS), a research project funded by the German Federal Ministry for Economic Affairs and Energy (BMWi), was launched on 1 September 2016. The goal of the project run at eco is to increase the security of websites for SMEs. In addition to eco, there are several others taking part in the project: Ruhr University Bochum, the startup Hackmanit and CMS Garden.

Further information about eco's Professional Services Division can be found in Chapter 7.

Internet Security Days

In 2016, Internet Security Days took place in a new format in cooperation with Heise Events. Successfully implemented from both a content and a business perspective, the conference had several areas of focus: cryptography for all, digital identities, cloud security, Internet of Things and industrial security, complex hacker scenarios, and cyber crime. Chapter 8 contains further information and event highlights. Internet Security Days will take place again in 2017, on 28 and 29 September, at Phantasialand in Brühl.

Project nrw.uniTS

The nrw.uniTS network has been an active part of the eco Association for years. With a focus on advancing cooperations, it acts as an organizational core for IT Security companies, especially those active in the German state of North-Rhine Westphalia. nrw.uniTS organizes, coordinates and encourages contacts, the exchange of knowledge, projects, and actions in the area of IT security which could be useful for sole proprietorships and other companies; activities which they may not be able to coordinate themselves. The cooperation between universities and businesses guarantees the connection between top researchers in IT security, who are application-oriented,

and the action-oriented entrepreneurial spirit. Events and participation at trade fairs as well as the working through of strategies was successfully accomplished. More about this can be found in Chapter 9, which discusses cooperations and membership.

IT security was a leading subject in the media in 2016

One of the most important topics addressed by the eco PR and communications team in 2016 was IT security. eco received many requests, including for interviews from TV, radio, print, and online journalists about the subject of security from a user's perspective. Explanations, concrete recommendations for actions to be taken and illustrations of correlations were aspects that eco was able to positively convey in discussions about greater IT security.

Extraordinary IT security topics in 2016

In addition to the issue of insecurity in IoT devices, the subject of ransomware (Locky & Co.) was an especially present IT security topic, most of all for hospitals. Ransomware is problematic for the users impacted by it because it creates awareness as to just how dependent we are on the Internet. The amount of work required to recover either via payment of a ransom or via other mechanisms is quite high. But the vulnerabilities in companies as well are becoming painfully clear. Another further,

astounding subject, is that of CEO fraud. That shows just how far awareness in companies has yet to go.

Competence Group Anti-abuse

In 2016, the Competence Group Anti-abuse took up the subject of IT security policies, better abuse response processes and management sensitization about abuse processes at ISPs hosters. The competence group is a closed group for members only is be used especially for the confidential exchange of information amongst ISPs and hosts.

Competence Group Security

The Competence Group Security met at the ISDs in 2016 to discuss topics including ransomware (Locky & Co.), CEO fraud, and cryptography. In addition, a survey regarding Internet security was successfully completed.

Competence Group Infrastructure Security

The Competence Group Infrastructure Security was focused especially on the current subject of DDoS and the possibility of defending against it. DE-CIX, with its corresponding Request for Comment (RFC) and its respective service offerings, stood out.

Competence Group Blockchain

In 2016, eco launched the Blockchain Competence Group, which focuses on the Blockchain technology – a cross-over technology with a high potential for the disruption of many business areas. As a result, the subjects to be considered are very diverse and include: the creation of a legal framework for simplified implementation, the use of appropriate and different IT security measures for secure and trustworthy operations and the exchange of best practices for successful implementation in new business areas.

Trade fairs and conventions in the IT security area

eco was once again quite active in 2016 at numerous events about IT security. The association exhibited at the international RSA Conference in San Francisco and at the it-sa in Nuremberg. In addition, a number of events for members and non-members alike took place, especially road shows such as Firewall on the Road and Secure and Stable Company Networks.

Members from the IT security branch

eco was able to win new members who are experts in IT security and would like to be more engaged in IT security for the association.

Political committees

The eco Association is also involved in politics in a number of different committees which address the subject of IT security. These include, for example, working with "IT security in industry," an initiative by the German Federal Ministry for Economic Affairs and Energy, as well as "Germany is secure in the Internet," by the Federal Ministry of the Interior.

The subject of IT security is one which is very important for the Internet and, along with it, for the prosperity of our modern, global society. For that reason, eco will continue to work to strengthen the Internet and make secure tools for the Internet industry which has enriched our daily lives and work.
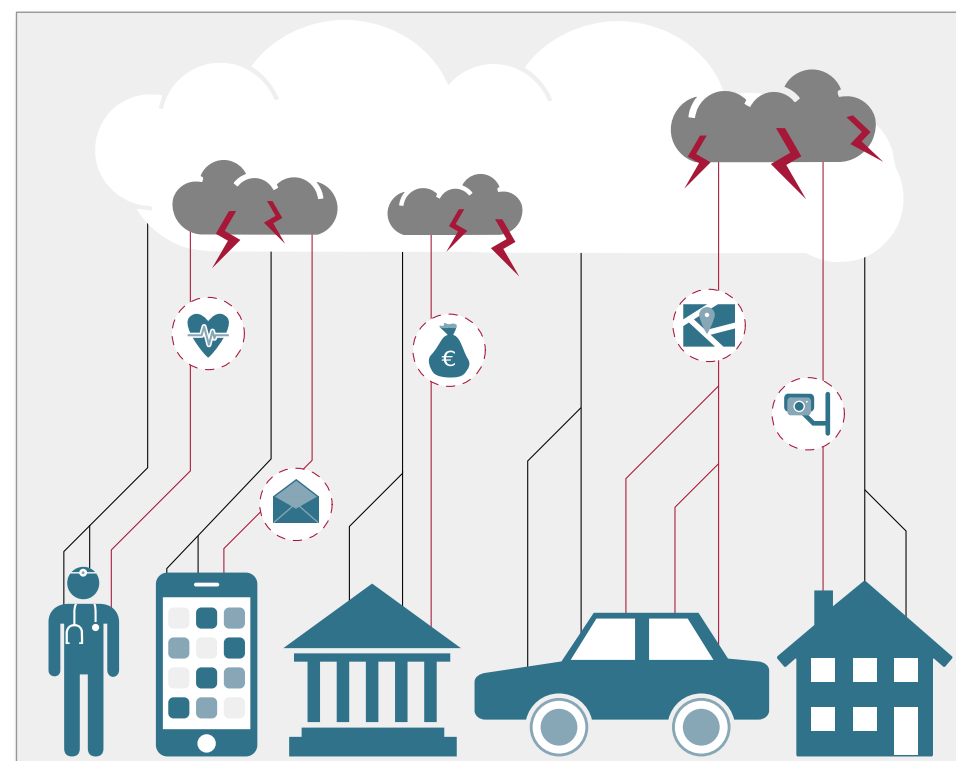
Felix Höger
Director Online Services/Cloud Computing

4.1.3 Online Services/Cloud Computing

If it isn't one thing, it's another. After a bit of consideration about what its potential might be, cloud computing has finally become the standard bearer. Yet companies are now standing at the precipice of the real challenge: the management and integration of many different clouds and types of clouds. As they are entering this whole new world, they can learn a lot from innovations in recent business history. For example, that which took place in the automotive industry.

Then as now: every division for itself

When three researchers at the Massachusetts Institute of Technology (MIT) set out 30 years ago to scientifically map the secrets of the Japanese automotive industry's success, they suddenly saw the classical batch manufacturing used in North America and Europe as something quite old-fashioned. In their classic book, "The Machine that Changed the World," authors James P. Womack, Daniel T. Jones and Daniel Roos took a look at the Mercedes-Benz production facility in Sindelfingen, Germany.

There, they wrote, it took more time and effort to resolve a problem that was created by the use of the assembly line than it would

have required to build a nearly perfect vehicle in a Japanese factory.

The downside of the traditional serial manufacturing process was apparent in the example of Ford, for example. The principles of how work was divided and how the manufacturing process took place was determined by various departments which were each working toward their own contradictory aims and who did not communicate with each other enough. Every department, every team, and sometimes even every employee was most focused on their own contribution without considering the interests of the department or even of another colleague. That held true of their behavior with external suppliers as well.

The parallels to IT production in today's companies are striking. Similar challengers to this way of working are here today, though the challenge is not coming from Japan but rather from Silicon Valley in the form of companies like Uber, Airbnb, or PayPal.

Cloud computing is the new standard

Cloud computing's victory parade has marched through not only well-established large corporations but also traditional medium-sized enterprises. Concerns about the cloud are, for the most part, relegated to the past. That observation is supported by a market study conducted by eco together with the consulting firm Arthur D. Little about the development of

the German internet industry from 2015 to 2019. According to this study, the cloud industry will experience large growth as a result of the fast acceptance of public cloud services, including those of Amazon, Microsoft, and Salesforce, which had previously been criticized and rejected. The Public-SaaS turnover for cloud-based software in Germany alone is expected to increase by 23 percent to around 2.3 billion Euro annually. Public IaaS for virtual infrastructure from the cloud is anticipated to increase annually by 42 percent to about 1.8 billion Euro. One of the core findings of the study is that all cloud segments and deployment models will quickly gain relevance.

A combination of different cloud services

The emphasis lies in plurality: cloud computing's added value lies in the combination and orchestration of various cloud services and types of clouds – whether they be private, public, or hybrid. While we are already on the subject of Toyota's lean production corporate style, let's look at the automotive company again. Automobile manufacturers began to build a finely-meshed and flexible network of suppliers 30 or 40 years ago, creating a network that in the end could deliver everything from individual parts up to the completed system in the exact constellation needed. Similarly, those who offer cloud services today have taken on the supplier role for the IT industry.

Although they do not cover every possible functionality, they are able to provide services in a variety of nuanced capacities: from micro services, which companies can compile for their own applications, to ready-made assemblies, to the complete application of software as a service (SaaS), which can be connected 1:1 with their own IT landscape.

Hundreds of candidates for the multi-cloud

The marketplace for such widely differentiated (multi-)cloud services is well stocked. According to a report that analysts from the Experton Group compiled at the beginning of 2016, there are 450 service providers who offer cloud technology and services on the German market. The big question remains, however: how do individual entrepreneurs manage this digital transformation and sustainably manage the variety of services in the cloud? A look at the estimates that market researchers have provided appears sobering when viewed from the perspective of the service providers.

As the Experton Group wrote in their report "Digital Transformation Vendor Benchmark 2017": "Just seven percent of all relevant IT providers in Germany play a role for their customers in the context of their current digital transformation." Likewise, "Only one percent of companies are 'Full IT Business Transformation Providers'." Finding a service provider who is a "jack-of-all-trades" when it comes to their

services in the context of digital products and services is like searching for a needle in a haystack.

The challenge of multi-cloud management

As a result, the management of a complex multi-cloud scenario can quickly become a governance problem for the CIO or head of the IT division in a company. Standard questions that are posed include: On which server of a public cloud service (PCS) is the exchanged customer data kept and to what legal requirements are the different PCSs held? The greater the number of cloud platforms that are connected to the company network, the more interesting the numbers of possible entry points to the Internet that exist for hackers. How does one ensure that everything is airtight?

Not only that; the fast and flexible switching between cloud providers which could provide greater quality, better functionality, and lower costs only works when the CIO enacts current, meaningful benchmarks or contract periods that are flexible enough. In a muddled scenario, the estimated reduction in costs will quickly prove the opposite. Cost control is, without the centralized steering of services, unthinkable.

The CIO as the director of the cloud?

At the core of the solution is a compromise: a centralized catalogue of cloud services that is oriented toward the demands of the customer and the specialist divisions. At the same time, the catalogue needs to contain a uniform and consistent cloud platform as mandated by IT requirements. The developers and users in a company will order via a mouse click those services which they require and which have been prescribed for them. In order for such a cloud management system to work smoothly, a CIO has to designate roles and define platform-crossing guidelines for the use of cloud services within the company. Yet often in medium-sized enterprises, the personnel resources and specialist knowledge required for this is lacking.

Multi-cloud service provider

In most cases, gaining support from external sources is necessary. Although the market offerings for the integration and steering of multi-cloud environments still looks quite thin, it is worthwhile to search for the best-fitting multi-cloud service provider.

There's more: from the perspective of the German IT industry, in the course of this development, a completely new type of service provider has arisen. Acting as a consultant and intermediary for the effective use of heterogenous cloud worlds, this provider is the first to

really make things possible. Fundamentally, there are two conceivable models: either the service provider manages a portfolio that has already been created based on the cloud services of other suppliers. Or the customer is offered, in addition to the management of services, a selection of their own cloud services.

There are advantages for both sides: with the multi-cloud scenario, users maximize flexibility and targeted cost advantages for their company. The German service provider can at the same time secure its business potential and position in the future cloud marketplace. Against a backdrop of persistently high complexity and dynamics in the cloud environment, this is especially applicable to German mid-sized companies.

eco and EuroCloud Deutschland_eco

That the implementation of cloud scenarios remains a challenging undertaking was evidenced in many discussions that eco and Euro-Cloud held with those responsible parties at both the companies using the services and at the service providers. The need for information and decision-making assistance continues to be high. All the more important then is the explanatory work that eco and EuroCloud carries out.

At CeBIT in 2016, the official presentation of the quality seal and online portal trusted-cloud.de, a new platform, took place. The

online portal provides businesses with important help in getting oriented in the search for a cloud partner. Developed together with the German Federal Ministry for Economic Affairs and Energy (BMWi), the quality seal stands for cloud services which meet the minimum standards in the areas of transparency, security, and conformity with legal requirements. It expands upon the certification for service providers, StarAudit, already provided by Euro-Cloud, which is now available Europe-wide. StarAudit used a thorough catalogue comprised of more than 160 points to provide in-depth analysis and assessment of the quality of cloud service offerings.

Special trainings, webinars, and specialist trade fairs such as the Cloud Expo in Frankfurt along with our own events like the EuroCloud Germany Conference in Cologne provided many opportunities for the exchange of expertise on well-known as well as totally new challenges faced by digital transformation.

"Decisive steps on the way to multi-cloud" was how the content of the first cloud breakfast held by EuroCloud in September 2016 in Hamburg was framed. The focus there was on strategies for the successful orchestration of different cloud worlds and trusted models for proceeding with the selection of the right partner.

No alternative to the multi-cloud

In future, the challenge we will face will for the most part be in filling the existing vacuum in the management of mutli-cloud environments. Companies need to take a lot into their own hands as the appropriate specialists are still quite rare to find and the marketplace for service providers is still in the initial construction phase. Yet with increasing demand, offerings will expand rapidly and differentiate because in the end, there is no alternative to the multi-cloud for the German IT industry. It is much the same for them today as it was for the North American and European automobile manufacturers when they successfully took on the challenges presented by Japan.

If that team of researchers from MIT were to make their way to Sindelfingen today, they might not be able to identify any noticeable differences to Toyota when it comes to productivity. The focus today is much more on how far Mercedes-Benz is ready to go and how capable they are of providing a better and more secure driving experience and additional customer service when compared to their competition by putting assistance from digital services and modern cloud solutions to use. It is still an open race. Whichever service provider here can move into the fast lane will show the path to the future.

Klaus Landefeld
Director of Infrastructure & Networks

4.1.4 Infrastructure & Networks

In my 20 years as a member of the eco board, there has been no other year in which I saw the idea of the Internet as the "network of networks" and driver of globalization with the potential to unify humanity more at risk than through the developments in 2016.

Society is failing at handling the "new" medium responsibly. Platforms and social networks are not being used in a form that corresponds to our understanding of democracy, the constitution, or social order. Where justice and the legal system are helpless, or capitulate as a result of the sheer volume of the problem, platform providers and network access providers are now supposed to implement what

should originally have been a task of the state. In addition, the connected society, the Internet of Things, and associated problems in the areas of security, public order, data protection, and privacy, including protection against crime and flawed software, are to become the responsibility of the network operators. The "end-to-end" problem should – so to say – be solved from the center.

Worldwide, politics is beginning to anchor national regulations as "the" rules for cyberspace; access and platform providers are being required to deny access to offers that are outside of the jurisdiction of the respective nation. The political failure to agree on international regulations for a globalized society is

flowing into a re-nationalization of the regulations. As the icing on the cake, national authorities are being empowered to become active in cyberspace when servers or systems are not located under the jurisdiction of national law – the Internet as a whole is thus subject to the respective national laws, and the activities of the respective national agencies is being legitimated.

For multinational corporations, this situation is difficult when they strive to offer a cross-border service that is then subject to partially conflicting data protection and privacy regulations. The understanding of some of these issues varies greatly between the USA and Europe, but even within the EU. The possibility of codetermination with other states is being completely withheld in areas of "national security".

As an association, we would like to face, with our members, the challenge of developing approaches to solving this problem and putting them up for discussion – true to our motto: "We are shaping the Internet".

Surveillance and signals intelligence

We were also intensively preoccupied with the topic of surveillance in 2016. The German federal government, among other things, revised how and at whose instigation retained data can be searched, and how supervision of the secret services should function today and in

the future. Since the federal law regarding signals intelligence of foreign-to-foreign communications, we also know that the secret service may also, without limitations on volume, collect and process data from the networks of telecommunications providers indiscriminately and without due cause. In this process, data from German and EU citizens is to be immediately deleted by the secret service's filter – as long as it is detected as such.

The difference between this form of surveillance and total surveillance of the population is manifested in the trust in this deletion function, which is not subject to any committee or supervisory body and apparently does not even represent a violation of civil rights according to Para. 10 of the German Civil Code. If one were to even temporarily switch off the filter (e.g. in the case of imminent danger or even just as a test), complete access to all communications will be possible. It is hardly surprising that there have already been a range of cases, which are seen as having a good chance of success, brought against the legislation in the German Constitutional Court.

The law follows a global trend of secret services establishing unfiltered access to all possible electronic services and data sources ("bulk access") and then, through a filtering process by the secret service, establishing the legally required protection of fundamental rights. Out of the discussion about selectors in 2016, it became clear that this cannot work, because

the secret services do not allow insight into either their filters or into their search queries and methods. What's more, every filter system inevitably produces errors – but the type and quality of the filter is not regulated.

As an association, eco is also directly affected, as the planned reform of the G10 Act has been cancelled. As a consequence, our subsidiary DE-CIX Management GmbH was forced to have the legal questions examined in a court of law. To this end, a case was brought in the Federal Administrative Court in Leipzig in September 2016 against the Federal Government of Germany, which questions the legality of the G10 regulations.

Blanket data retention 2.0

The "Law for the Introduction of an Obligation to Retain Traffic Data and Maximum Retention Time Limits" from 10 December 2015 also continued to be a focus. Summary proceedings were rejected by the courts. This is precarious, because the German legal situation can actually not be deemed valid after the EUCJ decision on 21 December 2016. The German government, however, is not considering a revision or abandonment of the matter. Rather, the legislative process is continuing (TKÜV 2016, TR-TKÜV 7.0) and 1 July 2017 remains the intended date of implementation.

The Constitutional Court conditions from the first Blanket Data Retention Act have led to stricter requirements: The protective requirements were defined as "high" for the retained data – regardless of whether the data is already stored in the company systems. Physically separated storage in a secured location within Germany, a "dual-control principle" for all activities, strong encryption with keys changed daily, and other similar requirements are driving costs into the stratosphere. The fact that this is prohibitive for small companies does not play a role – the Federal Network Agency calculates costs of more than 100,000 Euro per company and hundreds of millions of Euro for the sector as a whole. Even if the costs will ultimately need to be reimbursed by the state, regulations for this eventuality have not yet been set.

OTT services and encryption

A further topic that ran through 2016 was the regulation of OTT services as telecommunication services, and the encryption of them. But why should a "revision" of messenger services follow the existing regulation of SMS text messages? Technically and functionally, the "new" IP-based OTT applications are not evolving into classical services – rather, they are supplanting them. A solution in which the existing stipulations for SMS are dispensed with would be considerably less costly. But this is not happening, because the monitorability of messenger services is seen as critical for national security. The declared objective is to subject the OTT services, as telecommunication services, to the obligations for telecommunication surveillance. Whether or not this makes sense for encrypted OTT services remains more than doubtful and leads directly into the current discussions about strong encryption, backdoors, and an obligation for providers of telecommunication services to generate unencrypted copies.

In the eyes of eco, every approach that legitimizes backdoors in software products, weakens the security concepts of services, or even prohibits or limits encryption are to be entirely rejected. Strong, consistent encryption, and appropriate security concepts are the only protection that currently exists for citizens and companies against crime in cyber space. These must not under any circumstances be weakened.

Internet security

As soon as "critical infrastructure" was handled in the NIS Directive, the German IT Security Act and the implementation regulation, it became clear: In a world of connected devices, all sub-categories of IT are relevant – the focus cannot be limited just to critical infrastructure. The insufficient protection of IoT devices against attacks, and the lack of or severely limited possibilities to update them, represent a risk to participants on the Internet. Added to this are the lack of awareness of the problem among users and their associated partial lack of competence to solve the problem.

Dealing with security threats is nothing new for eco. We've been organizing the Internet Security Days for years. Our own projects, like ACDC and the Blackholing service against DDoS attacks at DE-CIX, help in combatting the impact. Even with the only relatively small number of providers that are active in the DDoS project, at any point in time there are at least 1,500 simultaneous attacks reported. This is around 250,000 attacks per quarter – and the number is growing – whose negative impact on the target networks is being considerably reduced.

The road to a secure information society is long, if you look more closely at the long-neglected security of hardware and software products. What is missing is the requirement of "Security by Design," which is anchored at least at the European level. Only the pressure of a large market will motivate manufacturers and vendors to rethink their approach. National unilateral action is not particularly expedient.

Data protection and Privacy Shield

The successor to the "Safe Harbor" regulation, which was overturned by the EUCJ, is the "EU-US Privacy Shield". Together with the "Umbrella Agreement" and the "Judical Redress Act," the rights of EU citizens to data protection should thus be ensured in the USA. An EU Commission Declaration of Equivalence regulates on the EU side that data transfer to the USA is permissible.

To be successful, the "Privacy Shield" requires trust. But the assurances on the US side regarding data protection were pretty weak from the very outset. One of the main arguments in the discussion of Safe Harbor was the access of authorities and prosecutors to stored data, something which companies cannot avoid – and this still remains legally permissible. Welcome successes in the area of user protection in the reporting year, such as those of Apple or Microsoft, will again be in question if the government's fundamental position on data protection and rights to access data changes.

Whether the EU Commission's Declaration of Equivalence can be upheld in the forthcoming review in July 2017 will therefore essentially depend on the new US government and confirmation of the agreements. A renewed termination of the Declaration of Equivalence would be a severe blow for the sector.

Certainly, one of the most important developments was the European Union General Data Protection Regulation (GDPR), concluded on 16 April 2016, which must now be considered as a touchstone for all business models and technical solutions. From 25 May 2018, the regulation is binding in the entire EU. In Germany, the changes will remain relatively manageable, but in the operative area there is still much work to be done: So, for example, the contracting party is responsible for the implementation of data protection measures in sub-

contracting companies and must ensure this for themselves on location. As well as that, all technical protection concepts should be assessed with reference to the GDPR stipulations, in order to implement the necessary changes before May 2018.

Wi-Fi

The revision of Wi-Fi Third Party Liability in 2016 was surprisingly successful: The minor improvement led to a fundamental change. Hotels, cafés, conference centers, authorities, city networks, the Deutsche Bahn, and public transport ensure access to the Internet without registration. The number of "public" hotspots – despite renewed legal uncertainty through the EUCJ – exploded in the course of the year, free Internet access is becoming a reality. Through the further planned change to the legal situation (3rd Revision Law for the Telemedia Act), which has been rejected by eco, new hurdles could soon be created, which could hinder these positive developments. In particular, complex or even impossible network blocking "on demand" should be rejected.

Broadband and network access

2016 was shaped through the controversy around access to the local loop up to the main distribution frame, and for VDSL2 vectoring in proximity areas, as well as the consequences of the "Vectoring 2" decision favoring exclusive expansion by Deutsche Telekom. The com-

petitors are of the opinion that their own offers for expansion in proximity areas were not sufficiently considered and the decision would lead to a re-monopolization, which will, in addition, delay the prompt rollout of fiber in these areas. Deutsche Telekom, on the other hand, sees the expansion as essential to achieve the broadband objectives, and sees their new L2 wholesale products – virtual unbundled access products for the last mile (VULA) – as a suitable alternative.

The topic continues to follow us in 2017, as lawsuits against the decision by a range of competitors are to be expected, and the specific design of the VULA products also remains contentious.

The market has moved towards the entrance into the Gigabit society: In accordance with the agreement in the context of the Network Alliance between the Federal Ministry for Economic Affairs and Energy and market participants, a nationwide offering of 1 GBit/s is to be available by 2025. Fiber is seen as the long term infrastructure goal – eco has been calling for this for years as a prerequisite for the further digitalization of society. Nationwide fiber-optic rollout is urgently needed for our companies and for Germany as an industry location, and is also a requirement for the expansion of the 5G mobile network. eco continues to advocate for this objective, and handles it as a priority within its Internet policy agenda. There is hope that a broadband rollout in the Gigabit range may

be found in the coalition agreement following the German federal election.

However, a field trial quickly shows that even today there is a lack of capacity to implement even the comparatively easy-to-realize FTTC projects rapidly. The building of around 40,000 splitter systems in 2016 exhausted the available resources, and a range of conversation partners estimate seven to twelve years from the beginning of expansion for a nationwide FTTH rollout. In comparison, FTTH connections have been laid in Japan since the end of the 1990s. After 10 years, around 90 percent of households had access, after nearly 20 years it stands at 97 percent.

We started late in Germany. After ten years of fiber rollout, a mere 2.7 million of 38 million households have been reached. Half of these were realized in the last two years. To achieve nationwide FTTH supply by 2025, twice as many connections would need to be made every year than has been achieved in total in the last decade. The majority of the connections of this early Gigabit society will therefore, as previously, be made available by the cable network providers, which today reach around two third of households with a technology that enables "Gigabit networks".

But will that still be sufficient in 2025? Countries like Spain already plan on reaching over 90 percent of households by 2020 with fiber-optic cable. The nations in south-east Asia will

have predominantly 10-GBit/s networks by 2025, as the existing connections there are not sufficient for video services with 4K or 8K UHD technology. As has been seen many times over the last 30 years, these services only develop when a share of around 30 percent of connections can actually use the services. In Germany, we are on the verge of being able to display simple Full-Rate HD-Streaming; that means a bandwidth of 50 MBit/s reaching at least 30 percent of connections.

Telecommunications Transparency Regulation

The rules in the new Telecommunications Transparency Regulation – a political reaction to the "up to" offers on the market and designed to provide consumer protection – are important for network operators. The legislation regulates the adherence to contractual agreements between providers and end customers. From July 2017, there are a range of specifications that need to be provided to the end customer in a standardized format regarding the connection.

For example, alongside details of the contractual terms and length, the maximum, minimum, and generally available bandwidth, among other things, must be provided – both at the time of concluding the contract and also during operation. What is problematic is that these specifications, for example for DSL connections, can only be estimated until the

route is actually switched. For safety, the shared media networks would also need to be deducted from the "generally" available bandwidth, especially at peak times. Much depends on the rules for checking these parameters, something which the Federal Network Agency wishes to define in conjunction with a consultation in 2017.

Blockchain and trust services

New in 2016 was the eco Competence Group Blockchain, which deals with business models and blockchain technology. Examples of applications should show which problems can be economically solved through the use of blockchains. The core question is: When does it make sense to replace a central, institutional trust model with a distributed model which can validate without the need of a central

body? Where can the advantages be found, where is it the most economical, or even the only practicable solution?

There was movement also in the centralized services: The EU eIDAS Regulation provides a legal basis for identification and trust services, without creating a unified technical solution. However, these solutions are necessary to achieve interoperability of the identification services. It will probably remain simpler to accept the systems of other countries, rather than to carry out the complex implementation for the electronic identity card. A breakthrough for secure electronic identification, as for example is standard in several Scandinavian countries, is not to be expected.

DE-CIX

All eleven of DE-CIX's Internet Exchanges, of which seven are in the international environment and four in the national, developed positively during the reporting period. In Frankfurt and Dubai we are leaders, and our hubs in New York and Madrid are established and, as the fastest growing Internet Exchange Points in their respective regions, hold second position with the perspective of becoming the market leaders. In other markets, we provide the absolutely only offer of service. Thus we were able to increase our global turnover from all companies in the group, in our consolidated financial statement, to 29.3 million Euro, up 15 percent from the previous year.

Our exchange in Frankfurt also grew from around 650 participants in 2015 to 714 participants now, an increase of around 10 percent. Even in a contested market like Frankfurt, organic growth is still possible with the right service quality. Peak traffic at the Frankfurt Internet Exchange currently stands at around 5.6 TBit/s. This level is being reached more and more often – real peaks are rare. I see this as a sign of the sustainable growth in the sector, which is less influenced by short-term effects than it was in the past.

Details on DE-CIX's activities can be found in Chapters 7.2.4 (Germany) and 7.2.5 (international) of this report.

Information on the activities of the relevant Competence Groups from the different topics in my board portfolio, like Datacenter, E-Mail, Names and Numbers, and New Work, can be found in the individual reports in Chapter 4.2.

4.2 Reports from the Competence Groups

Markus Schaffrin
Head of Member Services

Overview of attendees at the meetings of the various competence groups in 2016

CG Security

Attendees | Members | Non-Members

CG New Work

E-Business (CGs E-Commerce, Online Marketing)

Attendees | Members | Non-Members

Applications (CGs E-mail, IoT, Blockchain)

Attendees | Members | Non-Members
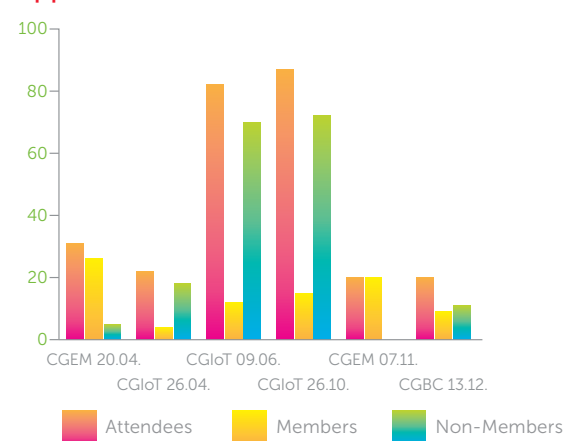
Infrastructure (CGs Data Center, Networks, Names & Numbers Forum)
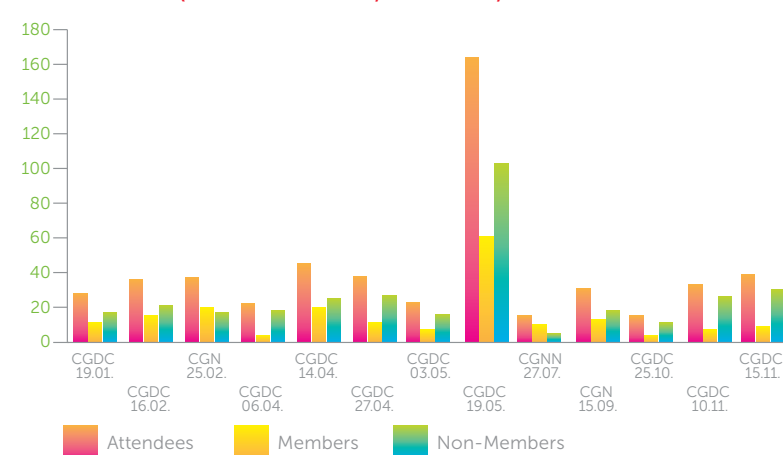
Attendees | Members | Non-Members
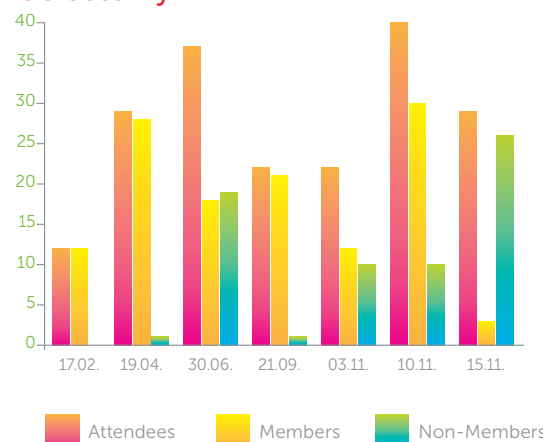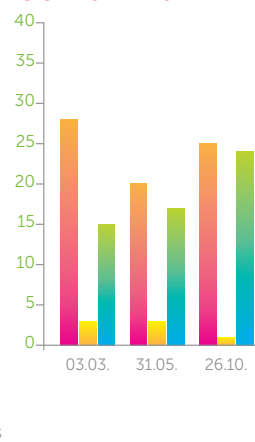
eco shapes the Internet – in all of its many facets. Through their active contributions in one of the many diverse competence groups, members are able to develop guidelines and quality standards for the marketplace together with experts, as well as developing their positions on legal initiatives and political developments that will influence the business models of the Internet industry.

there are numerous application possibilities, for example, in the Internet of Things, e-commerce and e-government. Blockchain makes the automated processing of transactions in the form of so-called Smart Contracts possible. With more meetings planned throughout 2017, the CG Blockchain will be able to gather well-known experts and decision-makers in the Internet industry together for personal exchanges.

Although the competence group is still relatively young, it has already been met with positive feedback in the industry. It is a sought-out media partner and members are regularly invited as guests to other industry events.

4.2.1 Competence Group Blockchain

At the end of 2016, eco members founded a new competence group: Blockchain. It brings together experts and companies in order to exchange Blockchain technology know-how.

The CG officially began their work at a founding meeting on 13 December 2016 in the Cologne offices of eco. "Blockchain is a cross-section technology that makes it possible to transparently conduct and process audit-proof transactions without intermediary agencies," said Stephan Zimprich, Attorney-at-Law at the eco member fieldfisher and leader of the newly founded CG.

"With it, the chance for new business concepts with the high potential for disruption in many branches exists, from the finance industry to the energy industry."

In addition to Zimprich's contribution, there were lectures from Prof. Dr. Wolfgang Prinz, Deputy Head of the Fraunhofer Institute for Applied Information Technology (FIT) and Prof. Dr. Georg Rainer Hofmann, Leader of the eco Competence Group E-Commerce as well as thorough discussions about the next steps for the CG.

Facilitating acceptance and infrastructures

The CG has taken as its aim to encourage the acceptance of the technology, as well as the facilitation of elements that serve it, such as the construction of infrastructure and the legal and political framework. The next step, however, is the evaluation of possibilities and a focus on viable use cases. The CG would like to outline the technical and legal basis as well as compile recommendations for action for the organization and for policy.

New business concepts for many industries

Blockchain technology is what is behind the crypto-payment system Bitcoin. Beyond that,

Further information at:
https://blockchain.eco.de

Roland Broch
Coordination, Data Center Expert Group

Dr. Béla Waldhauser
Leader, Competence Group Data Center Infrastructure

Marc Wilkens
Leader, Competence Group Data Center Efficiency

4.2.2 Data Center Expert Group

Looking back at 2016, the eco Data Center Expert Group could count close to 20 events that they took part in, a large offering of meetings, seminars, and event cooperations, as well as trade fairs and congresses. In addition to the seven meetings held at eco in Cologne were four gatherings in Frankfurt for interested members of the Data Center Expert Group. Other meeting places included Darmstadt, Hamburg (twice), Monaco, Munich (twice), Nuremberg, and Rust.

In addition to this full calendar of events, the eco Data Center Expert Group proved itself in great shape as it brought in the well-known "heads" of the industry and could count a total of 58 different expert statements in 45 reports. Of these, 14 reports consisted of text interviews, seven were specialist articles and press releases, and 18 in the podcast format, as well as five video interviews.

Quarter 1 events

At the dawn of the new year, Roland Broch of eco greeted representatives from the British BroadGroup at the DE-DIX MeetingCenter in Frankfurt on 19 January. After a welcome address by Gregory Gerot, Vice President of BroadGroup, Senior Consultant and Analyst Marion Howard-Healy gave the 20 participants an overview of global data growth and its interconnected development in the European Data Center marketplace.

On January 28, representatives from the eco Data Center Expert Group were on hand to answer questions about IT and data processing centers at the eco trade fair booth as part of the 6th Cologne IT Summit.

Two high-ranking members of the association also represented the association in a panel: Arnold Nipper, Chief Technology Evangelist DE-CIX and Prof. Dr. Norbert Pohlmann, Member of the Board of the eco IT Security division.

"The data center industry in the time of consolidation": that was the focus of the CG meeting with Dr. Béla Waldhauser in Frankfurt on 16 February. In total, 40 participants addressed timely questions about the development of the German data center marketplace with him and experts Andreas Weiss of Euro-Cloud, Donald Badoux of Equinix Deutschland, and Management Consultant Gerd J. Simon.

Three official experts were named by the Association for reworking the German Commission for Electrotechnology (DKE) committee GUK 715.5 "Data Center" to EN50600: CG Leader Marc Wilkens, Tobias von der Heydt, PRIOR1 GmbH, and Hans-Jürgen Niethammer, Commscope Technologies Germany GmbH.

In conjunction with the WorldHostingDays held in Rust, eco organized five panels on 17 March that dealt with the subject of "Doing Business in Germany," as well as three on 18 March on the topic of "Domain Name Talks." 14 industry experts, including Leader of the CG, Dr. Béla Waldhauser, and eco Member of the Board Klaus Landefeld, illuminated different aspects and unique traits about the German business culture and European data center marketplace.

The edited sessions are available for viewing on the eco Association YouTube channel. The content is rounded out with podcast interviews, including one with Dr. Béla Waldhauser (The DC market is a good business to be in), patent attorney Dr. Rolf Claessen (Protecting Intellectual Property Across Borders) as well as

market analyst Vincenz Wagner (Top 3 Tips on German IT Market).

Quarter 2 events

"Accurate capacity planning is essential to the conception of every data center." That was the take-home idea of the third Data Center Dialogs held on 14 April in the eco Kubus meeting room in Cologne. The event format was consciously created so as not to focus on presentations or lectures, but instead was made up of direct dialogues between participants – something which was supported with technical expertise from five data center experts. Initiator and moderator Stefan Maier of PRIOR1 GmbH has held the Dialog since 2015 in close cooperation with the eco Data Center Expert Group, to great success.

"Data Center Life Savers" was the subject of a three-part series of local talks focusing on "Emergency, Power & Networks," which kicked off on 14 April in Hamburg. At the opening of the after-work event, CG Leader Dr. Béla Waldhauser greeted nearly 50 guests in a space provided by ExperTeach GmbH in Hamburg's outer Alster area. Rainer von zur Mühlen, who has planned data centers for many years and produces the trade magazine "Sicherheitsberater" ("Security Consultant"), gave a keynote speech that addressed topics which data center providers might be confronted with in their every day operations. CG Leader Marc Wilkens, energy expert Staffan Reveman and business auditor Holger Klindworth, as well as monitoring specialist Robert Weber took part in the discussion that followed.

At the future thinking trade fair in Darmstadt on 19 and 20 April, members of the eco Data Center Expert Group were on hand at the exhibit to answer questions from the specialist attendees on the subject of data center operations. The first accompanying meeting of the Environment Ministry's project "Key Performance Indicators for Data Center Efficiency" (KPI4DCE) was held on 20 April, on the occasion of the conference. Representing the Association were Marc Wilkens, Leader of the eco CG Data Center Efficiency and Roland Broch of eco. The goal of the research project is to develop a practical and guiding system of indicators that will provide a thorough assessment of resource efficiency and the impact of data centers on the environment. A further gathering is planned for early 2017 at the eco offices in Berlin.
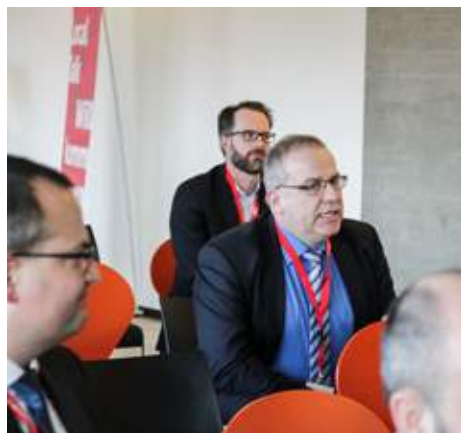
The second of the year's local talk series "Data Center Life Savers" took place on 27 April with a focus on "Energy". Moderated by Alexander Hauser of e3 computing GmbH, a discussion about the current energy situation in Germany featured eco Member of the Board Klaus Landefeld, as well as energy expert Staffan Reveman, Dr. Franz Georg Strauss, Felix Berndt, and Prof. Nico Grove. Dr. Franz Georg Strauss, Member of the Board for the German Association for Business and Public Space Lighting, gave a lightning speech on the current stand of renewable energies as well as the places for improvement in the area of energy efficiency. Prof. Dr. Nico Grove of the Munich Institute for Infrastructure Economics & Management showed the potential that the so-called intelligent energy network of the future could bring with it. Data center managers were welcomed back to

the eco Cologne offices on 3 May for the fourth dialogue in the Data Center Dialog series. The 17 managers invited were treated to a discussion roundtable that addressed subjects such as the economical dimensioning of server rooms with power and cooling capacities, strategies for early fire detection, sensible processes for emergency management, as well as the danger of flashovers due to heightened dust emissions.

The last of the three-part local talk series on "Data Center Life Savers" was marked by a large reception and lively participation when it was held on 19 May in Frankfurt. CG Leader Dr. Béla Waldhauser moderated the afternoon event, held with the launch of the "Grand Opening: the New Digital Highway". More than 160 participants, some of whom came from around Europe for the occasion, had the opportunity to get a

look at the Internet infrastructure, which is growing increasingly strong. Among participants were network and data center experts who mingled with prominent speakers from politics and the industry and took part in the evening's discussions about the global data streams of tomorrow.

In total, eco Data Center Expert Group can look back on 250 participants attending the three-part networking series, comprised of 23 podium discussions in three event locations; Hamburg, Munich and Frankfurt. Beyond that, there were in total 11 participants from the podium discussions who gave podcast interviews on the subject of economical and efficient operation of data centers.

After two successful years, DATACLOUD Europe was held in Monaco for the third time, on 8 and 9 June. Representatives from the Data Center Expert Group were once again on hand with an exhibit booth to present eco members as competent contact persons. On the evening of 7 June, the Data Centre and Cloud Awards 2016 were given out in eight categories. Gerd J. Simon, head of the awards jury, honored the high quality of the submissions.

After a very successful start in 2015, the stage was set for "econnect on Tour" in 2016. On 22 and 23 June, international members of eco were invited by the Data Center Expert Group, the CG Networks, and the eco Names & Numbers Forum to an event just ahead of the eco Gala. There, they were able to connect with the IT companies in Cologne and get to know the

intricacies of German business culture. Initiated and moderated by Judith Ellis, eco International Member Services, it was aimed especially at the leaders of international medium-sized enterprises.

CG Leader Dr. Béla Waldhauser, Thomas Rickert, eco Director Names & Numbers, eco Member of the Board Klaus Landefeld as well as many other well-known experts in the field accompanied the guests on a bus tour with four stops: sedo.com, PlusServer GmbH, the Cologne STARTPLATZ as well as Network Box.

At the eco Internet Awards on 23 June in Cologne, the most innovative companies in the industry were once again recognized for their work. Console Inc. received an award for "Next Generation Infrastructure B2B". Further nomi-

nations in this category were noris network AG and Datapath.io GmbH. The laudatio was given by Gerd J. Simon.

Quarter 4 events

The Nuremberg security conference it-sa, held from 18 to 20 October, gave association representatives the opportunity to discuss current questions on the subject of data center security.

What role will artificial intelligence, robotics, autonomous driving and the Internet of Things play for data centers in the future? Those were the questions taken up on 25 October as part of the Internet Week in Cologne. Data center expert Oliver Fronk, PRIOR1 GmbH, and Dr. Peter Koch, Emerson Network Power, provided a view into the changes expected in the IT

working world in the decade to come in a speech titled, "520 Weeks".

On 10 November, participants in the seminar series "The eco 5 Star Data Center Plus" profited from an event combining equal parts expert know-how, lively podium discussions and exciting short presentations. Moderator Roland Broch of eco greeted the attendees, including experts from six partner businesses: Peter Rauer, Efficient Energy, Roger Bellof, RC Group SpA, Klaus Clasen, Notstromtechnik Clasen, Oliver Rohner, Daxten, Markus Gerber, Pentair Schroff, and Bernd Barten, Minimax. In his opening keynote, Dr. Franz Georg Strauss took on the problematization of resource efficiency. Gerhard Leo Büttner, a data center planner for many years and CEO of DIM, spoke on "5 Virtues in Data Centers".

The four-part roadshow series, "The eco 5 Star Data Center Plus," was presented under the banner of "Technologies for Optimal Energy and Resource Efficiency in Your Data Center". The second date was held on 15 November in Hamburg, where Dr. Ludger Ackermann, dc-ce Data Center Consulting, addressed guests in his keynote. He asked what a 5-star data center should cost in a talk titled "Data Center Expenses." Seminar participants in Hamburg were likewise provided the opportunity to interactively deepen their knowledge on the subjects that had been presented in six short lectures in two expert roundtables.

No data center in the world could be truly secure if emergency and operations processes are not defined. After a greeting by Roland Broch of eco, Stefan Maier, PRIOR1 GmbH, took

on the subject of "Emergency Processes in Data Centers" at the Cologne eco Kubus on 17 November. He was further supported by business auditor Holger Klindworth, auditor Curt Meinig as well as data center specialist Philip Grawe.

Under the direction of Dr. Béla Waldhauser, 20 data center experts met on 23 November as part of the Data Centre World Frankfurt to discuss the new release of the study "Inventory of Efficient Data Centers". The white paper covers diverse aspects of energy and resource efficiency for the entire industry and will be published in 2017. Following the kick-off meeting, the eco Data Center Expert Group invited the specialist visitors to the Data Centre World to two podium discussions. Moderated by Gerd J. Simon, guests Stefan Franssen, Investment42, Jörgen Venot, Etix Everywhere, Werner Kietzmann,

PRIOR1, as well as Bernd Hanstein, Rittal, were invited to the Frankfurt Trade Fair Hall 1.2 to discuss "Innovative Data Center Models of the Future". Dr. Béla Waldhauser then invited trade fair visitors to the discussion roundtable "Colocation Industry – no limits !?" Here, Dr. Béla Waldhauser was supported by Gerd J. Simon, Frank J. Zachmann, DigitalHub FrankfurtRhein-Main as well as Jens Peter Müller, ITENOS.

Further information is available at:
https://datacenter.eco.de

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4.2.3 Competence Group E-Commerce

Workshop: Agenda Setting 2016

The eco Competence Group E-Commerce met on 25 January in Cologne for the first meeting of the year. The meeting was held as part of a workshop discussing the agenda for 2016 and was moderated by CG Leader Prof. Dr. Georg Rainer Hofmann. There, the decision was taken to address several topics more strongly in the future, including: Big Data, e-invoicing as well as aspects of online trade and international issues. At the meeting, the results of eco's quick poll "E-Commerce Trends 2016" were presented. Workshop participants agreed that the topic of the regulation of online trade was one of the most interesting aspects and that the association should take up in its activities and illuminate further.

In April, Prof. Dr. Hofmann was an interview guest for the eco audio magazine series, speaking on the subject of "Ambient User Experience – Customer Experiences Without Boundaries". In the interview, he points to the higher profile of the shopping experience in bricks-and-mortar stores as compared to that in online shops.

Action required?: E-invoicing

On 5 April, the CG E-Commerce met in Cologne to identify those areas which require action and the possibilities for action when it comes to electronic invoicing. The use of electronic invoicing (e-invoicing) and the processes that accompany it – from e-payment, data transmission and storage, to liquidity management and the like – has been increasing in importance as the digitalization of national and European businesses has increased in importance. In the end, these bring enormous advancements and increase efficiency in business processes. Many questions about concrete implementation, however, remain unanswered.

Speakers at the CG meeting included Stefan Engel-Flechsig (Head, FeRD), Dr. Donovan Pfaff (Chairman of the Society for the Advancement of Automated Accounting), Andreas Weiss (Director, EuroCloud Deutschland_eco e.V.), Rudolf van Megen (Chairman of the Board of "German ICT & Media Institutes") and CG Leader Prof. Dr. Hofmann. Attendees had a thorough discussion on the subject of e-invoicing. The event was recorded in its entirety and can be viewed online at https:// e-commerce.eco.

The eco Association's demand for standards for e-invoicing were underlined in a press release dated 12 May; in it, eco appeals for regulatory lawmakers to create appropriate frameworks for electronic invoicing.

On 6 December, the CG E-Commerce presented their study on e-invoicing acceptance factors

and released a press release on the occasion. Prof. Dr. Hofmann noted that the results show that the rapid spread of digitalization has led to ever greater numbers of economic sectors using automated invoicing and payment systems, making it an everyday occurrence.

Mono-brand shops & full services for greater success in E-Commerce

Based on a suggestion from the group of participants on hand at the first CG meeting, CG E-Commerce, together with the CG Online Marketing invited people to Cologne on 13 June to consider the special features of mono-brand shops. Industry experts discussed the subject of "Mono-brand shops & full services for greater success in E-Commerce". The discussion noted that mono-brand shops are not only for large online

retailers but that brands need the right partner in order to successfully present themselves on the web.

Claus Biedermann, CEO of dotfly, explained the challenges and approaches for the construction of a mono-brand webshop. Eric Leuchters, CEO of Schmitt Logistics, provided information about logistics distribution and fulfillment in the age of the Internet economy. Andreas Unger, Vice President of Ask AG, reported on the strategies that vendors have taken to get close to direct sales and Dr. Torsten Schwarz spoke in his capacity as head of CG Online Marketing about the current ranking of German online shop newsletters.

The experts provided examples of best practices from medium-sized enterprises, showing that success in the Internet does not have to

be a coincidence. With the right strategies, the right instruments and the right partners, one can avoid mistakes and quickly achieve goals. It is all about dovetailing the online and offline presence in an optimum manner. The event provided a moderated platform for expert dialogues and knowledge sharing.

The results of the event were published in the press release "Mono-brand shops are the future of strong brand". "The digital transformation of brands has been comprehensive," said CG Leader Prof. Dr. Hofmann. "Brands provide important signals for customer trust-building. The promises that are connected with these brands need to be fulfilled without any hestitation in the online world. A mono-brand shop would not function otherwise, but rather the value of the brand would suffer under the functional and stylistic deficits of the online area." Shortly

afterward, eco produced an audio magazine with Prof. Dr. Hofmann on the subject of "Goodbye Mom and Pop Shop – is Internet commerce to be reckoned with?"

Market surveillance and political market shaping in e-commerce

On 1 and 2 June, Prof. Dr. Hofmann represented the eco Association in Berlin at the 6th knowledge sharing event on market surveillance held by the Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway (Bundesnetzagentur). That same subject was the topic of a further meeting of the eco CGs E-Commerce and Law & Regulations on 25 October in Cologne. Eventually, the digital transformation of national and European businesses and trade creates a need for action in the political market configuration.

Shortly before the meeting, Prof. Dr. Hofmann gave an interview on the subject of geoblocking, as this is a topic that was addressed by the CG in order to discuss global e-commerce regulations. The role of fulfillment centers in e-commerce was likewise a hot topic, as increasingly more products from non-EU countries are appearing on the German market that are not allowed in the EU. Participants therefore discussed how much regulation is necessary and sensible. On hand were Konrad Kraus, CEO of Sabko, Philipp Ehmann, eco Legal Consultant on Internet Law and Telemedia Regulations and Florian Kohl, Press Spokesperson for Bavaria's Junior Chamber International.

A further press release on the topic of the digitalization of traditional sales was released on 19 December.

Further information is available at:
https://e-commerce.eco.de

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4.2.4 Competence Group E-Mail

The Competence Group E-Mail is a well-established part of the German Internet industry, which has been instrumental in the development of common standards for the sending and receipt of emails. Via the group, technical problems of all kind have been resolved using the shortest paths and new developments agreed upon.

CG E-Mail is a closed group, as the handling of mail is a sensitive subject; the data is valuable and needs protecting and participants have to be able to speak more freely about their systems than would be possible in a public venue, in order to find solutions to new challenges. Participation in the group is, however, possible for all eco ISPs. Invitations for participation might also be extended to qualified persons after a group discussion. That is how it was possible to get guest lectures from g10code, the Federal Ministry for Security in IT (BSI), AOL, dmarcian and DMARC.org to enrich the two meetings for the 26 group participants in 2016. The CG E-Mail is headed by two designated experts: André Görmer (MAPP), who represents the perspective of the

senders (ESPs) and Sven Krohlas (1&1 Mail Security), representing the ISP side.

The 2016 business year was once again heavily influenced by security-relevant subjects. The technical directive TR-03108 "Secure E-Mail Transport" was presented and discussed in-depth. Current problems like subscription bombing – registering email addresses of strangers for a large number of newsletters – was addressed, as was "Web Key Services" (WKS) for the distribution of keys for the secure end-to-end encryption. In this regard, the CG was once again actively pursuing experts and participants, including those from the international industry.

Discussions about "Universal Acceptance" and RRVS were continued. Under the setting of the CG, the standards for "signaling the functionality of one-click-unsubscription" in newsletters was addressed, which was taken up in RFC 8058.

Further information is available at:
https://e-mail.eco.de

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Leader, Competence Group Infrastructure Security
(until 06 / 2016)

Oliver Werner
Leader, Competence Group Infrastructure Security
(as of 07/2016)

Cornelia Schildt
Project Management IT Security

4.2.5 Competence Group Infrastructure Security

In 2016, the main focus of the Competence Group Infrastructure Security was on strategies and best practices for defense against DDoS attacks from the perspective of operators of large networks. Representatives from various companies met twice to exchange their views on this subject.

The DE-CIX Tech Meeting was held once again; in this capacity, around 40 network operators met at the DE-CIX MeetingCenter in Frankfurt on 30 June to discuss this topic and share their experiences. Sebastian Abt, rh tec and Darmstadt University of Applied Sciences, kicked off the event by welcoming the participants. He had headed the CG since 2011 and

the issue of DDoS is a challenge that the community acted on throughout his tenure. Sebastian Abt predicted that this trend will continue. eco thanked him for his work.

Oliver Werner new CG Leader

On 1 July 2016, Oliver Werner of netcup GmbH took over the responsibilities as Leader of the CG Infrastructure Security. During the meeting, he presented the approach used by netcup to protect their customers from DDoS attacks. He showed which tools are used to make DDoS defense simple but effective. During the ensuing discussion, participants shared their experiences on the various approaches. In addition, Daniel Kopp (DE-CIX) presented the results of a

study on the efficacy of DDoS mitigation in the wild. In this top quality study, the authors illuminate the extent to which blackholing is used by the IXP members and what influence that has on traffic. The second part of his presentation focused on the current status of the RPKI Prefix Origin Validation for route servers.

Another meeting covering defense strategies

A further meeting in a similar format was held in Frankfurt on 10 November, with more than 40 representatives from network operators once again participating. The focus was placed on the confidential exchange of defense strategies, something which became increasingly urgent

following on the IoT-Mirai botnet attack, which had previously unseen data rates. Matthias Kluth from HeLi NET took the point of view of a regional supplier when presenting his approach, which showed how accomplishments can be made even with low efforts and expenses. Malte von Hagen provided a contrast when he showed how Host Europe confronted this challenge as a large international hosting provider. The discussion was supplemented by an update on the implementation of blackholing at DE-CIX.

International Standardization

In October 2016 the time finally arrived for the publication of the RFC 7999 Blackholing Community by the Internet Engineering Task Force

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4.2.6 Competence Group Mobile/Internet of Things

(IETF). Under the leadership of Dr. Thomas King of DE-CIX and driven by the experiences of the member companies active in the CG, an internationally recognized standard emerged – a further building block for DDoS defense for network operators.

The subject of defending against DDoS attacks will also accompany the CG in 2017.

Further information is available at: **https://sicherheit.eco.de/infrastruktursicher–heit**

The biggest feature of 2016 came from the renaming of the Competence Group, as Mobile became IoT. As the content focus of the CG Mobile had been on the topics of Industry 4.0, M2M, and Internet of Things (IoT) for years, the CG was officially renamed. It is now found online at **https://iot.eco.de**. Of course, the CG's successful work will continue under this new name.

The first date of the year came as part of the Hannover Messe, with what has become something of a tradition: the guided tour. On 26 April, 2016, the CG met with guests from nrw.uniTS for a joint business lunch and networking in the information center. Following that was a sold-out guided tour leading 25 participants through the trade fair under the motto of "Integrated Industry - Discover Solutions!" Participants visited booths to view current products and trends and once again, it was clear how much more you can get from a trade fair visit through interaction, even more so if you can immediately discuss the issue with other experts.

9th Mobile Business Trends

On 9 June, the CG invited members to Mobile Business Trends for the ninth time. In cooperation with the Dusseldorf Chamber of Commerce, the event was held at the SkyLounge on the Vodafone Campus, where participants considered the monetization of IoT. Accenture Digital and the Fraunhofer IESE provided answers to numerous questions in their lectures. Representatives from MHP - a Porsche Company, HPM Facility Management GmbH, Iskander Business Partner GmbH and the head of the project "let's be smart" explained their experiences with the Internet of Things at the panel discussion "Made in NRW - User Reports." In addition, CG participants congrat-

ulated the retiring IHK Managing Director Klaus Zimmermann, and thanked him for the many great moments they shared. After the end of the official program, approximately 80 participants stayed on, using the view of the rooftops of Dusseldorf as a backdrop for their further discussions.

IoT Future Trends as part of Cologne Internet Week

On 26 October, the IoT Future Trends took place in the Filmforum of the Ludwig Museum. Under the motto "Introduction to Digitalization: Experiences and Implementation Tips for the Mobility Sector," the event was supported by the city as well as the IHK Cologne

for the first time. Held under the auspices of the Cologne Internetwoche (Internet Week), the workshop saw some 90 participants attending exciting lectures from the Competence Center for Interoperable Electromobility, Infrastructure and Networks from the Technical University of Dortmund, SWISSPOST CH and DKV Mobility Services.

The second half of the event then devoted itself entirely to IoT platforms. In addition to laying out the important criteria for selecting a suitable platform, Bosch, Microsoft, SAP, PTC Thing-Worx, and Q-loud presented their respective solutions. The final panel discussion focused on barriers, recipes for success and other hindrances to IoT projects.

In addition to their own successful events, the CG was represented at the M2M Summit and the ConCarExpo. They also published several press releases with a wide resonance and conducted two expert surveys.

Further information is available at:
https://iot.eco.de

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Director, Names & Numbers

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4.2.7 Competence Group Names & Numbers Forum

Domain pulse 2016

The eco Competence Group Names & Numbers Forum got a traditional start to the year 2016 with the event Domain pulse. On 1 and 2 February, SWITCH, the Swiss registry for .ch, invited members to Lausanne. On the agenda were the new top level domains with the new TLD. swiss, but they took up far less space this year than in those previous. That provided greater visibility to discussions on topics such as security, increasing domain relevance, or the new requirements of the registries on registers.

Representing eco on the discussion panel "The Internet Governance Macrocosm" was Thomas Rickert. The discussion entailed whether the

removal of the Internet Assigned Numbers Authority (IANA) from US supervision was endangered even before the end of US President Barack Obama's final term in office. The task of "Cross Community Working Group on Enhancing ICANN Accountability" (CCWG Accountability), led by Rickert, was to strengthen the self-management mechanisms of ICANN, which should control the Board in the future. "The challenge is to prevent ICANN from becoming a kind of second FIFA after the abolition of US supervision," said Thomas Rickert.

At the end of February, the CCWG accountability handed over its final report to the ICANN Board of Management. Thomas Rickert gave a series of interviews on the subject, including one

with Bloomberg. The ICANN Board brought tension to the process, however, when it rejected the report. At issue were the prerequisites under which the entire Board can be dismissed by the ICANN Community. Interest in the next meeting, held 5 to 10 March in Marrakech, grew.

ICANN55 Meeting in Marrakech

As in previous meetings, the IANA Stewardship Transition dominated the agenda. CCWG Accountability had handed over its new proposal to the global Internet community on 23 February 2016. It was then in the hands of ICANN's Supporting Organizations and Advisory Committees (SO/AC) to vote on the proposal and adopt it.

The Security and Stability Advisory Committee (SSAC) and the Address Supporting Organization (ASO) were the first to give positive signals. The At-Large Advisory Committee (AL AC) and the Governmental Advisory Committee (GAC) followed on 8 March. The following day, the next SO, the Generic Names Supporting Organization (GNSO) almost unanimously agreed to the proposal by the end of their Council meeting. Afterward, the Country Code Names Supporting Organization (ccNSO) was the last of the six charter organizations left to vote on the CCWG accountability proposal.

Like the GNSO, the ccTLDs agreed to the proposal almost entirely without abstentions or

opposition. Although a different outcome could hardly be expected, there was a tremendous sense of relief when a majority of green voting cards were held up, signifying the acceptance of the proposal for CCWG accountability. With this result, there was nothing to prevent the proposal from being handed over to the ICANN board. On 10 March, Chairman of the Board Stephen D. Crocker finally handed over to the US government the plan drawn up by the international Internet community.

The Universal Acceptance Steering Group (UASG), in which eco is represented by Lars Steffen, gave an overview of current activities in Marrakech. The meeting of the ISP and Connectivity Provider Constituency (ISPCP), in which eco is represented by Wolf-Ulrich Knoben, was also characterized by the discussion about the IANA Stewardship proposal. An evening of networking, the German evening, was one of the highlights, with DENIC and eco sending out invitations together. Marrakech was also the final meeting for Fadi Chehadé in his role as CEO of ICANN.

WHD.global

Immediately afterwards, the eco Names & Numbers Forum went on to the Europa Park amusement park in Rust for WHD.global. There, the team had the honor of moderating three panel discussions on current topics in the domain sector.

Universal Acceptance was the theme of the first panel on 17 March. After a video introduction by Ram Mohan of Afilias, a lively discussion moderated by Lars Steffen (eco) and Christian Dawson (i2Coalition) began. Participants included Bert Hubert (PowerDNS), Peter Janssen (EURid), and Werner Staub (CORE).

The second panel dealt with brandTLDs, still relatively unknown among the general public. The panel consisted of Achim Brinkmann (Nameshield), Benjamin Crawford (CentralNic), Martin Küchenthal (LEMARIT), Katrin Ohlmer (DOTZON), and Jannik Skou (Thomsen Trampedach). They discussed what they see as the reasons for the low visibility of dotBrands so

far, and where they are expecting greater activity in the future.

The third discussion group, dealing with geo-TLDs, was moderated by Lars Steffen. Participants included: Anja Elsing (regiodot/.ruhr), Dirk Krischenowski (dotberlin/.berlin), Crystal Peterson (Neustar/.nyc, .melbourne, .sydney), Hartmut Schulz (NetCologne/.koeln, .cologne), and Ronald Schwärzler (punkt.wien/.wien). The panel participants presented very diverse business models and applications for the new geoTLDs.

CSA Summit, WSIS Forum, WHD.racing

Lars Steffen gave a talk on Universal Acceptance (UA) at the CSA Summit in Cologne on 21 April. In it, he clarified UA's relevance to the email marketing industry. He was supported by Jean-Jacques Sahel, Vice President Europe of ICANN, and Terry Zink, Program Manager of Microsoft. At the beginning of May, Thomas Rickert took part in the World Summit on the Information Society International Telecommunication Union (WSIS Forum) at the World Summit. On 15 June, he moderated a fireside chat with Max Schrems on "US/EU Privacy Protection and the Future Of Privacy Shield".

Proposal for the IANA Stewardship Transition from NTIA

On 9 June, the National Telecommunications and Information Administration (NTIA) reported that the IANA Stewardship Transition - a proposal submitted by the multi-stakeholder community - had fully met the mandated criteria.

econnect Tour

On 22 June, the eco Names & Numbers Forum was part of the econnect Tour which kicked off the eco Gala at Sedo in Cologne's Media Park. Tobias Flaitz, CEO of the leading trading platform for domains, together with Thomas Rickert explained to the participants the value of domain names for companies today.

56th ICANN Meeting in Helsinki

Although not yet completed, the root zone management of the domain name system from the US supervision to the ICANN community had made advancements in the previous months. Still, the transfer of power was still the defining topic in Helsinki from 27 to 30 June.

After the so-called "Workstream 1" was concluded in Marrakech, "Workstream 2" began. In this workstream, it was necessary to examine such things as legal jurisdiction: whether ICANN can only employ the legal system of the country in which ICANN is seated when giving out contracts or during disputes. In addition, ICANN, its employees, as well as the supporting organizations and advisory committees, asked for concrete information on transparency, diversity and accountability. The meeting in

Helsinki was the first for Göran Marby in his role as the new CEO of ICANN.

On 22 August, Lawrence E. Strickling, Assistant Secretary for Communications and Information and NTIA Administrator, stated that ICANN's independence was a goal at the top of the list. The NTIA was thus ready to finally transfer the IANA functions to ICANN and withdraw completely from its supervisory role.

Brexit

Against the backdrop of the referendum in the UK, the eco Names & Numbers Forum held a large telephone conference on 27 July to discuss the potential impact of Brexit on the domain industry. The results were gathered in the paper "Brexit - Challenges for the Domain Industry?," which eco published in September.

Short domains.at

From 29 August onwards, restrictions on the registration of domains with the Austrian country .at due to restrictions on single and double-digit domain names, were dropped. In order to allow for the fair and transparent registration of these short and very attractive domains, long-standing eco member nic.at divided the award process into three different phases. The related auctions were handled via Sedo.

Internet Governance Forum, dmexco, CENTR, Studienkreis, OX Summit

On 9 September, eco was represented in Berlin at the VIII. Internet Governance Forum held in the city's Rote Rathaus, the City Hall. Thomas Rickert provided an update on the IANA transition.

A few days later, Thomas Rickert and Lars Steffen were on hand at the Sedo booth at the dmexco conference in order to hold short presentations about the new Top Level Domains. On 5 October, the Names & Numbers Forum represented its members in Belgrade at the CENTR Registrar Day. Thomas Rickert represented eco directly following with an appearance in Dubrovnik at the 16th meeting of the ICANN study group.

On 13 October, eco Names & Numbers Forum was on the agenda at the OX Summit in Frankfurt. eco Board Members Klaus Landefeld and Oliver Süme took part in discussion panels on the subject of data privacy and data protection with Christian Dawson (i2Coalition).

The composition of the Steering Committee will be announced in 2017.

Partnership with WorldHostingDays

On 14 December, the WorldHosting Days (WHD) and eco were able to announce their years-long cooperation had reached a new level. Beginning in 2017, the Association will hold panel discussions on the subject of network policy in the main.FORUM and use its own trade fair booth to host exchanges between politics and business. WHD.global is the world's largest hosting and cloud event. The fact that eco now also has a seat on the Content Advisory Board of the WHD underscores this long-term cooperation and provides the foundation for even closer cooperation.

Further information is available at:
https://numbers.eco.de

IANA transition accomplished

Overnight between 30 September and 1 October, the NTIA finally terminated the agreement on the IANA functions with ICANN. For the first time since its founding in 1998, the multi-stakeholder community now controls and administers the so-called zone files of the Top Level Domains autonomously and independently. Considerable efforts made at the last minute by US Republican Senator Ted Cruz to block the transition made things quite exciting in the run-up to the transition.

57th ICANN Meeting in Hyderabad

With more than 3,100 participants, the largest meeting in ICANN's history was held in Hyderabad, India, from 3 to 9 November.

After successful completion of the transition, the Public Technical Identifiers (PTI) took over the operation of the IANA functions. At the same time, the "Customer Standing Committee" (CSC) began its work. It has the task of overseeing the implementation of the IANA naming function, analyzing the monthly performance reports and publishing their results.

During the opening ceremony, Thomas Rickert was presented, along with other community figures, with the Leadership Award. They were honored for their work on the IANA Transition.

On 3 November, the Universal Acceptance Steering Group kicked off the meeting with a half-day workshop. This attracted a great deal of attention, especially among those from the IDN community in India, as it offered an intensive exchange of know-how.

On 7 November, the ISPCP hosted a half-day outreach event for ISPs, telecoms and government representatives from India. Under the title "Connect with What's Next - Companies, Customers and Connectivity," four panel discussions and lightning discussion rounds took place with more than 150 participants. During the ccNSO Member Days, Thomas Rickert organized a number of sessions, among others one together with León Felipe Sánchez Ambia (ALAC) and Michele Neylon (i2Coalition).

eco Names & Numbers Steering Committee

At the end of November, the eco Names & Numbers Forum called on its members to set up a Steering Committee to regularly provide feedback on the Association's work and to have their say on the forum's agenda setting.

Roland Broch

Head of Business Development

Provisional Leader, Competence Group Networks

4.2.8 Competence Group Networks

In 2016, the newly created eco Competence Group Networks emerged. It is to be established as a platform which is broadly based on traffic-based business models. Roland Broch from eco was the provisional leader; the CG leader will be appointed anew in 2017.

Kick-off: Performance vs. Latency

Performance vs. Latency: Requirements for Gaming Infrastructure was the topic of the new CG's kick-off meeting with approximately 40 experts on 25 February, at the DE-CIX MeetingCenter in Frankfurt. How latency-critical are Massively Multiplayer Online Role Playing Games (MMORPG)? How can network traffic be optimized to improve user experience? What does secure and cost-effective data center and network operation look like for game hosters? These and many other questions were addressed by participants along with the twelve speakers at the kick-off event.

In addition to game developers and publishers, the event also provided a good opportunity for game hosts, carriers, and specialized network service providers as well as consulting companies to exchange information about the most important industry trends. The event was supported by the Federal Association GAME as well as by the German Federal Association of Interactive Entertainment Software (BIU).

After the welcome by Roland Broch, Provisional Leader of the CG, and Lars Steffen, eco, came contributions by Tobias Heim of GAME, Andreas Pohl and Kevin Setiono, OnlineFussballManager, Frank Gross, PlusServer, Süleyman Karaman, euNetworks, Matthias Kopp, DARZ, Frank Neubauer, Datacenter Group, Andreas Sturm, DE-CIX, Sebastian Spiess, datapath.io, Frank Orlowski, Console Inc., and Dr. Maximilian Schell of BUI, as well as Klaus Landefeld, eco Member of the Board for Infrastructure & Networks, on the agenda.

Infrastructure for Live Broadcasting

The CG Networks held its second meeting on 15 September, inviting approximately 40 network experts to the DE-CIX MeetingCenter in Frankfurt. The agenda's topic was "Infrastructure for Live Broadcasting," and attendees were there to look at another growth segment in the entertainment industry: streaming services and live broadcasting. They clarified the requirements and challenges for the distribution of live video content over the Internet, in particular, the traffic impacts of the European Football Championship and the Olympic Games. After an introduction to the subject by eco Board Member Klaus Landefeld, other experts expanded upon the challenges faced by broadcasting infrastructure at large events. Speakers included Michael Martens, Riedel Networks GmbH &
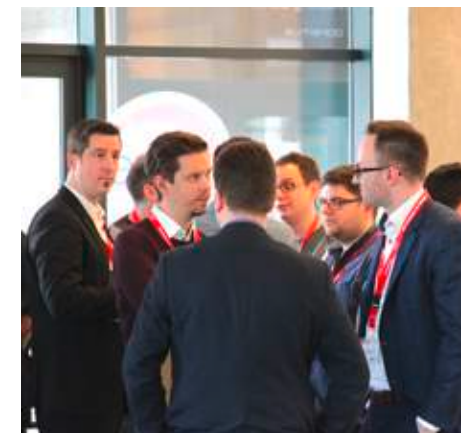
Co. KG, Dr. Thomas King, DE-CIX, Dr. Stefan Lietsch, zattoo.com, Dr. Philip Mackensen, MEDIA BROADCAST, Steve Bisenius, SES Astra, Martin Weber, Intinor Technology, Helmut Jung, Dimetis, Jürgen Sewczyk, Deutsche TV-Plattform, and Arno Ernst, House of Research.

Trend report: broadcasting infrastructure

In the course of the second meeting of the CG Networks, the first publication of the newly founded competence group was published in October 2016. In the eco trend report "Broadcasting Infrastructure" over 70 percent of experts surveyed were of the mind that, when it comes to sporting events, comprehensive media diversity with social media and interactive real-time voting makes the event much more interesting.

The Internet is just as important or even more important than conventional television for many when watching a sporting event. That is at least the opinion of more than 85 percent of survey participants. The relationship between E-Sports and traditional major sporting events is an indicator of the changes in the media world. Nearly a third of the survey participants believe that E-Sports will be of similar significance as the Olympics or the football World Cup by 2024.

Exciting meetings are also planned around traffic-based business models in 2017. If you are interested in the topic and would like to actively promote it within the framework of the Association, you are most welcome to apply to lead the CG (roland.broch@eco.de).

GERMANY CONNECT, GCCM BERLIN, Media Breakfast & ANGA COM

In addition to regular CG meetings, Roland Broch and Judith Ellis represented the CG within the context of the GERMANY CONNECT in Frankfurt on 26 and 27 January as well as at the Global Carrier Community Meeting (GCCM) Operators in Berlin on 28 and 29 June. They were on hand at an exhibition stand to respond to questions about the Association.

Mediakraft Networks invited members of the digital media community, PROdigitalTV and eco, to the 39th Media Breakfast, held at the eco Kubus in Cologne on 19 April. With the digitalization of the classical TV landscape, the subject area was clearly delineated: web-based user platforms are increasingly gaining market share - especially among younger target groups - and are proving themselves to be serious competitors to the classic TV market. It is no longer just established companies determining the media market in Germany, but increasingly young companies are pushing the bar.

At the 39th Media Breakfast, media industry experts discussed young consumers' media usage, the development and use of new moving picture formats, innovative video online networks and new online platforms as well as streaming services. Attendees included: Beate Busch, PROdigitalTV, Michael Frenzel, Media-kraft Networks, Andreas Mauch, Hubert Burda Media Feature Films, Friedl Wynants, explain

it, and Julius Thomas and Holm Krämer of 3Q Media. Together they analyzed the keys to successful business models.

From 7 to 9 June, eco was at the ANGA COM 2016 in Cologne. Industry leaders met at the leading business platform for broadband and content providers to discuss "Where Broadband Meets Content". Lars Steffen and Markus Schaffrin of eco networked with trade fair visitors at an exhibition booth.

What does city Wi-Fi have to do with digital transformation?

That was the question put to attendees of "Digital Base: Kiel" on 20 and 21 June, in conjunction with the Kieler Woche. Approximately 50 network operators and IT experts met with representatives from northern Germany's poli-

tics, research and industry branches on the initiative of Björn Schwarze, Addix Internet Service, and in cooperation with Werner Kässens from the Kiel Economic Development Agency and the Kiel Science Center.

Werner Kässens first reported on opportunities for start-ups in the "digital location" of Kiel. Dr. Ulf Kämpfer, Lord Mayor of Kiel, and Dr. Frank Nägele, State Secretary at the Ministry of Economics, Labor, Transport and Technology of the State of Schleswig-Holstein, welcomed the guests to the Kiel Technical Park. Dr. Wilhelm Hasselbring, professor of software engineering at the Christian-Albrecht University, clearly showed the IT experts how the operations and development of complex software architectures are related.

Further information is available at:
https://datacenter.eco.de

Lucia Falkenberg

Leader, Competence Group New Work

Natalie Haller

Project Manager Assistant

Member Services

eco Point of Contact for New Work

4.2.9 Competence Group New Work

The working world is at the precipice of a major transformation: digital work and new work. Long considered talking points, they are coming to fruition. The digital transformation will have a lasting influence on career paths, working processes and the expectations of employees. It will also bring along with it new opportunities. In 2016, the CG New Work was therefore mainly concerned with the changes to the working world that digitalization will bring.

Agenda setting 2016 & workshop

The first meeting of the CG took place in Cologne on 3 March; it became an interactive inventory-taking that focused on member interests and questions. In the morning, participants asked about the challenges posed by the increasing digitalization of work concepts and whether the framework conditions both within companies and external to them could keep pace with the rapidly changing forms of work.

Through the discussion, it became clear that the following areas of interest are currently occupying the HR scene: job digitalization, modern forms of worker development, demo-cratic leadership approaches and new office concepts, and working time models.

In the afternoon, the focus switched to recruiting and employer branding. How recruiting has changed in recent years and how to reach the right target group were two of the central questions. Employer branding and an authentic external presentation of the company are basic prerequisites for finding and retaining attractive applicants. Discussions on personnel marketing strategies and active sourcing, along with all of its legal facets were particularly promising, as were the very concrete recommendations for action. Overall, it was a highly productive and lively day that came to a harmonious end over catered food and local Cologne beer.

TECH HR – Personnel employees on the trail of nerds and geeks

As the search for suitable applicants for the Internet industry has grown increasingly difficult, the CG New Work invited members to Cologne for a dialogue on 31 May. Lutz Leichsenring and Ivo Betke gave a presentation on "Tech vs. HR," spending the afternoon bringing the world of IT closer in an entertaining and unconventional way. The two speakers gave tips and insights into the basic concepts IT, analyzed strategies in employer branding, and presented best practice examples of successful recruiting campaigns and events aimed at IT professionals. "Recrutainment" has become the motto for inspiring and attracting IT specialists and that has shown through in several unusual formats such as a "scrum barbecue" and "codecaching." Lutz Leichsenring, Creative Head of young targets, sent out an appeal to the human resources personnel present: "Be creative and make the corporate culture perceptible!"

Ivo Betke, founder of webcrowd, then presented on the basic ins and outs of software development, as members of a human resources team should have basic knowledge of the tasks and activities of those computer scientists they are trying so hard to find. It is therefore also a good idea to consult members of the IT department and take their recommendations into consideration. In the ensuing interview, according to Betke, the goal is to remain as

authentic as possible, to be mindful that an atmosphere of mutual respect and appreciation is maintained, one which does not toss around specialist language. The subsequent get-together was used by the speakers and participants for a lively exchange.

eco Award New Work

On 23 June, the Internet branch once again met in the festively decorated The New Yorker DOCK.ONE for the Internet Awards 2016. Among the numerous exciting applicants in the New Work category, "Talentwunder" stood out and was the recipient of the award. The Berlin-based company is embarking on a new approach to recruiting; assisting personnel managers to actively approach the most suitable applicants, who are determined on the basis of very specific search algorithms and

concrete analyses of large volumes of data. The prize recipients celebrated with over 400 guests at the evening gala.

Life and work in the digital city

The next CG meeting took place on 26 October within the framework of the seventh Internet Week in Cologne. Together with Ursula Vranken, Managing Director of the IPA Institute, eco organized a World Café on "Living and Working in the Digital City." More than 40 attendees gathered in small groups to develop ideas and framework conditions for the digital future of the city. The World Café was supported by experts from the digital city of Cologne, the Managing Director of Great Place to Work, the Head of Strategic Accounts & Alliances from Pirobase Imperia and the hosts Ursula Vranken and Lucia Falkenberg.

In continually changing constellations, the participants gathered in groups to develop ideas and discuss one of the four themes:

- Digital City: What kind of infrastructure do we need? (Dr. Susanne Schulte, Tanja Krins)
- Employer 4.0: Who is racing? (Andreas Schubert)
- Diversity and Digitality: How do we get the best from all worlds? (Konstantin Stergiopoulos)
- Leadership and People Management: What motivates us? (Ursula Vranken, Lucia Falkenberg)

The results and findings on new work processes, modern forms of employee production, automation and globalization, as well as the tight interweaving of work and digital technology were collected at the end.

Entrepreneurs Club, networker NRW: "Recruiting Compact"

For the last meeting of 2016, the CG New Work met on 14 November in Bochum. The meeting, on "Recruiting Compact" was by invitation from Hubert Martens (Managing Director of the networker NRW) and the 10th Entrepreneurs Club on "Recruiting Compact" drew a group of interested medium-sized entrepreneurs. Antonia Demuth from ArbeitgeberGold gave a very concrete overview of current and successful-looking channels for the hunt for professionals and was on hand at the networking afterward to speak with and answer participants' questions.

The eco CG New Work looks back on a busy year 2016 and is looking forward to further discussions on current HR trends together with other eco members in 2017 and to help shape the impact of digital transformation on the working world.

For further information, please visit:
https://new-work.eco.de

Dr. Torsten Schwarz

Leader, Competence Group Online Marketing

Lars Steffen

Business Development

Member Services

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4.2.10 Competence Group Online Marketing

"All-in-one solution expert seeking creative job"

For the eco CG Online Marketing, 2016 began with a new cooperation with the social media working group from partner organization net-worker NRW, headed by Ute Corinth and Ralf Barthel. eco was guest at the first SoMedia evening in Dortmund on 7 April at the invitation of networker NRW and Dortmund Business Promotion. At the sweetSixteen cinema, experts met to speak about the role of social media managers under the humorously titled discussion, "egg-laying wool and milk producing sow seeking job with creative opportunities," or more accurately, "All-in-one solution expert seeking creative job."

E-Marketingday Rheinland

Just a few days later it was off to Wuppertal for the e-Marketingday Rheinland. "Online marketing to the point" was on the agenda on 13 April when around 500 decision-makers from the business world met. At the annual event, the Rhineland region Chambers of Industry and Commerce inform their member companies about the possibilities, trends, and developments in digital marketing. For several years, eco has been a partner of the event and trade fair. Lars Steffen from eco moderated a track with lectures.

Digital Marketing Trends

A press release about search engines and email marketing was released by the eco CGs Online Marketing on 10 May. In it, CG Leader Dr. Torsten Schwarz summarized the key results of the report "Digital Marketing Trends 2016" as follows: "Search engine marketing and email marketing are on the rise while event marketing is losing importance. The supposed stars of modern online marketing such as mobile and social media are obviously not as relevant as they might be. Rather, the most powerful channels are search engine, email, and data-driven marketing. And content marketing remains an important topic: more than three-quarters of respondents have got it on

their agenda this year." The report surveyed 172 experts on online and mobile issues in their companies.

Community event with eco Competence Group E-Commerce

As last year, a joint event of the CG Online Marketing and E-Commerce took place in the eco Kubus meeting room in Cologne. Under the title "Mono-brand shops & Full Services for more success in E-Commerce" experts from across the industry met on 13 June to discuss how mono-brand shops not only have to hold their own against large online retailers. Brands need to have the right partners in order to successfully present themselves on the Internet.

Claus Biedermann, CEO of dotfly, reported on the challenges and procedures for setting up a mono-brand web shop. Eric Leuchters, Managing Director of Schmitt Logistics informed attendees about distribution logistics, and fulfillment in the Internet industry. Andreas Unger, Vice President of asknet, explained how manufacturers approach direct sales while CG Leader Dr. Schwarz presented on the current ranking of German online shop newsletters.

Update on email marketing's quality standards

On 10 October, CG Online Marketing held an event together with the Certified Senders Alliance (CSA) to discuss the legal and technical

quality standards for email marketing. The reason for this was the publication of the 6th edition of the eco Directive for Permissible Email Marketing. At the event, experts from the CSA and from across the industry provided information about the innovations and intensively discussed participants' questions.

Sven Krohlas, Mail Security Specialist at 1&1, Rosa Hafezi, CSA Legal Consulting & Certification, Alexander Zeh, CSA Engineering Manager, and CG Leader, Dr. Torsten Schwarz spoke at the event. They addressed such issues as the need for quality standards and reputation mechanisms, the legal innovations of the eco directive, DKIM, DMARC, and the like under the broader umbrella of quality standards for email marketing. They likewise provided an update regarding spam at the major ISPs. The CG will offer this workshop with the CSA again in 2017.

Users amongst themselves

After the first two meetings for Online Marketing users in 2014 and 2015 were met with great popularity, the CG and Dr. Schwarz invited participants to an informal exchange on 17 November, this time on the subject of implementing email marketing in companies. Inspired by lectures by representatives of Deutsche Bank, dm, Zalando, Bosch, and Lampenwelt, the representatives from well-known companies exchanged their views on their daily business and their best practices in email marketing.

The event format is aimed exclusively at users who want to meet in an informal atmosphere to discuss their own experiences in the implementation of professional email marketing. The format will also be available again in 2017.

SoMedia Evening: Short films with enormous impact – with video marketing to success

networker NRW and eco invited participants to a joint SoMedia Evening in BioCampus Cologne on 24 November in order to grapple with the successful implementation of video marketing. Franz-Josef Baldus from koeln-komm reported on "Snack Content & Small Video Formats," Gerhard Schröder of Kreative Kommunikations-Konzepte gave an overview of 360° video streaming and Patrick Schappert of GROBI.TV showed his concept for online marketing on YouTube. The lectures were rounded off with a discussion and a get-together for further questions and making contacts.

Three meetings of the eco CG Online Marketing are planned in different locations in 2017.

Further information is available at:
https://online-marketing.eco.de

Henning Lesch, Attorney-at-Law
Deputy Head of Capital Office
Head of Law and Regulations Team

Dr. Folke Scheffel
Legal Consultant Internet and Media Law

Elisabeth Oygen
Legal Consultant IT Law

4.2.11 Competence Group Policy, Law & Regulations

The Competence Group Policy, Law & Regulations is the centralized platform for discussion and information on the subject for eco members. It is where the content coordination of the group's work takes place, where position papers are prepared, inquiries on legal and regulatory topics are answered, and eco's general positioning on the relevant internet and network policy topics and questions is discussed. Members are given the opportunity to actively participate in legislation at German federal, state, and the EU level, and thus participate in the development of legal policy.

During the year in review, numerous points of discussion arose that the CG Policy, Law & Regulations were able to use as a springboard. The meetings were used in order to provide an overview of current legal issues and legislative proposals and to discuss them with the member companies.

In 2016, the planned changes to Germany's Telemedia Act went into effect. They are to be used to regulate so-called Wi-Fi third party liability and to introduce a legal liability regime for "risk-tolerant services." Topics addressed particularly intensively included reintroducing data retention, the technical requirements catalog prepared by Germany's Federal Network Agency (BNetzA) and the

effects of the EUCJ ruling, as well as the legal proceedings brought by an eco member company before the Administrative Court in Cologne. At the European level, the amendment to copyright law (the Copyright Directive and the Enforcement Directive) and the BEREC consultation on network neutrality were especially relevant to the member companies. The effects and consequences of the EUCJ ruling on Safe Harbor and the EU-US Privacy Shield were discussed and debated with members.

Classification and handling of OTT services

As a result of the revision to the European Legal Framework for Telecommunications, discussions on the classification and handling of Over-The-Top (OTT) services gained renewed relevance. The differing levels of regulation on Internet-based OTT services and classical telecommunications services has created a need for regulatory equality in terms of regulation. This is also a question of competition between the service providers and the extent to which legislators will have to intervene in order to maintain a "level playing field."

Philipp Ehmann
Legal Consultant, Internet Law and Telemedia
Regulations

Nicolas Goss
Legal Consultant, Telecommunications Law and
Regulations

Thomas Bihlmayer
Policy Adviser

One of the meetings of the CG Policy, Law & Regulations took up the current discussion surrounding the regulatory classification and handling of OTT services. In an introductory lecture on the topic, Doris Gemeinhardt-Brenk, Head of the Structural Staff for Digitalization and Networking, BNetzA, provided an overview of the regulatory discussions. In two presentations that followed, the positions and examples of the demands from both the telecommunications and the OTT services were given. Together with participants, the possible impact and consequences were then addressed.

"Digital Platforms": From green paper to white paper

With the introduction of the green paper "Digital Platforms," the Federal Ministry for Economic Affairs and Energy (BMWi) has launched a public consultation process, in the framework of which a broad range of topics in a wide range of areas were raised. Competitive aspects, broadband development/digital networks, consumer rights, and data protection were addressed. The results of these consultations are to be taken into account by the BMWi in the development of a white paper. At a meeting of CG Policy, Law, and Regulations, Andreas Hartl from the BMWi gave an overview of the consultation process on "digital platforms" and provided a look at the further

development and the thematic focus of the white paper. This was followed by a lively exchange with participants about the possible effects and consequences of digital platform regulation.

Further information is available at:
https://recht.eco.de

Image: ©antispameurope

Oliver Dehning
Leader, Competence Group Security

Cornelia Schildt
Project Manager, IT Security

Peter Meyer
Head, Cyber Security Services

4.2.12 Competence Group Security

The eco Competence Group Security deals with all questions concerning IT security and the infrastructures of the Internet industry. The topics range from personal and organizational security to the protection of IT systems (servers, networks) and the security of mobile communications technology (tablets, smartphones, Wi-Fi), to questions of security management and employee awareness.

The CG Security looks back on a long tradition within eco. A cross-cutting issue, it has continuously tackled current topics impacting the industry and its users. Since summer 2015, Prof. Dr. Norbert Pohlmann has represented the topic as a separate division on the eco Board.

Communication and Networking

The CG Security started off in 2016 with an internal workshop in Hannover on 17 February. The goal of the meeting was to work together with member companies to shape the roadmap for the years ahead. It was discussed in detail which subjects the CG should deal with and go deeper into. The 2016 security report was also revealed in detail.

Within the framework of the Internet Security Days, CG Security was responsible for a security session on 28 and 29 September in Brühl. On the subject of "cryptography for all," selected experts explained the challenges of encryption. Klaus Schmeh of cryptovision very vividly illustrated how very far we still are from comprehensive encryption. André Engel and Felix Leder, both from Blue Coat, discussed in their presentation the question of whether SSL and TLS might not also be an added security risk if attackers use these techniques and hide themselves from conventional defense mechanisms. Florian Bierhoff from the Federal Office for Information Security (BSI) showed how email encryption can be implemented, in a presentation he gave on the recently pub-

lished Technical Guideline BIS TR 03108. In conclusion, Christian Kress of inovasec demonstrated the use of SSH in the corporate environment.

In its second meeting, on 3 November in Cologne, the CG Security team was preoccupied with new defense mechanisms. The so-called Advanced Threats had the IT security industry holding its breath last year after cyber attacks. Lukas Hospital in Neuss, Germay, for example, rose to tragic fame after an attack with a Crypto-Trojan. At the CG expert meeting titled "Locky, CEO Fraud and Co.", the defense mechanisms which are available or are currently being developed in the market were discussed. André Engel and Lukas Rist,

both from Blue Coat/Symantec, presented the techniques modern malware uses to protect itself from being revealed and analyzed, in their lecture "A Game of Cat and Mouse in the Sandbox". Dr. Yvonne Bernand from Hornetsecurity reported on experiences with "Security in Practice". Only through the combination of different techniques for analysis is the defense against advanced threats possible.

Also at that meeting, Andreas Kunz from Dtex revealed which techniques are available for use in discovering ransomware at the endpoint. Through a user-centric approach, it is possible to identify risks in different environments and thereby take into account modern working methods. To conclude, Dirk Kunze of the Cybercrime Competence Center of the North-Rhine Westphalian State Office of Criminal Investigations reported on the latest developments in the field of cybercrime. Through timely and coordinated procedures, affected parties can be often be helped, as in the case of CEO fraud in which millions thought to have been lost could be frozen and returned. In NRW, last year alone, companies lost around 31 million Euro through CEO fraud, and that at a presumed number of cases of around 90 percent going unreported. Together with CG Leader Oliver Dehning, the group discussed the different methods presented and concluded: The fight against cyber attacks has not been lost as the security industry makes for a strong opposition!

On the Road

In addition to the CG meetings, which were reserved for the members of the CG, a dialogue with users was also encouraged. Over the course of the year, the roadshow formats "Big Data Security" and "Firewall on the Road" as well as the eco breakfast meeting "Safe and stable corporate networks" were organized. During the eight half-day events, attendees were briefed on the latest technical solutions in a relaxed atmosphere. Members of the CG also participated in the "econnect on tour" format in June 2016. International member companies were invited by eco to an event informing them about the German IT market. At a station about security, the focus was on data protection and the German security industry and culture.

Cooperations

Within the scope of the expanded cooperation with the networker NRW, the cooperation with competence groups that focus on thematically similar subjects has also been strengthened.

That is the case with networker NRW's CG Information Security (formerly ISO 27001), which deals with information security, data protection, and data security. The goal is to get those eco members interested in the areas of IT security and information security to work together with those member companies from networker NRW. In doing so, new businesses might be generated or business activities with partners could be expanded. For this reason, the meetings of the CGs were alternately held and visited by both groups.

The know-how found in the eco CG Security has also been incorporated by the expert group initiated by the BSI Alliance for Cybersecurity on management sensitization. The latter deals with the question as to how to persuade management to implement cybersecurity measures. To this end, an explanatory flyer was created.

Threat Situation
The threat is seen as growing further

7

47

46

%

remaining constant

growing

growing strongly
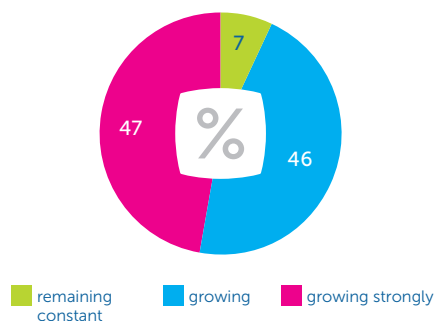
Source: eco survey IT security 2016

Significant Incidents
in Recent Years

16

15

69

%

yes, one

yes, serveral

Source: eco survey IT security 2016

Threat Situation according to Vendors/Users
Vendors assess the situation as more threatening than users

11 5

47

37

%

Vendors of IT
Security

15 8

37

40

%

Users of IT
Security

remaining constant

growing

growing strongly

no answer

Source: eco survey
IT security 2016

eco IT Security Report 2016: fewer real incidents than worries

The threat level in IT security is becoming increasingly acute – that is the assessment for much of the German industry as presented in the eco 2016 IT Security Report. A survey conducted by eco drew responses from 580 companies. Of these, 47 percent perceived the threat level as "strong" with a further 46 percent seeing it as "growing". Seven percent assumed a continuous threat. None of those surveyed perceived a decline in threats.

Providers perceive a greater threat than users

According to the survey, 69 percent of respondents had experienced no significant security problems in the recent past. Just

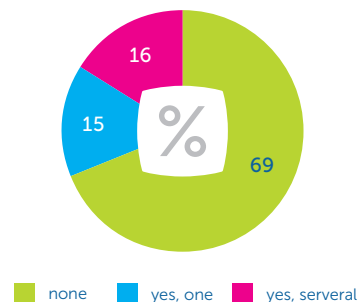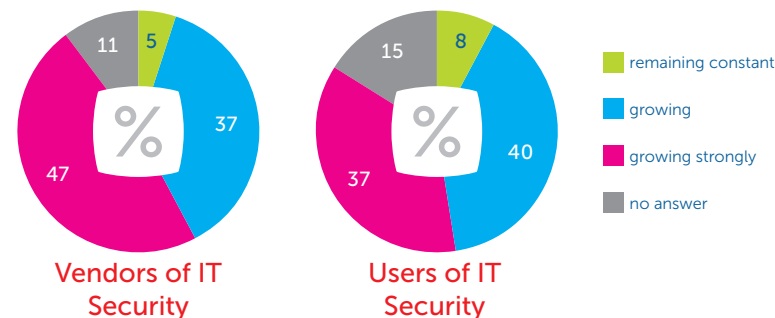under a third (31 percent) of those companies surveyed had had "significant security incidents" in the previous years, while 16 percent were even affected several times. "The real figure of hacked companies, including those who remained unaware of an attack, is significantly higher," said CG Leader Oliver Dehning. In the eco report, vendors of IT security solutions judged the threat as much greater than did the users: 47 percent of vendors saw a threat that is greatly increasing, though only 37 percent of users viewed it the same way. While this may be in the vendors' commercial interests, they are also more likely to have a better overview of the actual situation, as vendors are often confronted with security incidents.

Expenses are increasing and outsourcing is growing

More than half (51 percent) of companies surveyed by eco in 2016 foresaw increasing expenditure on IT security. A further 13 percent even anticipated a sharp increase. Nearly a third (32 percent) wanted to expend as many resources as they had done in the previous year. The development in IT security outsourcing had similar results, with 53 percent wanting to increase their outsourcing costs in 2016 and 34 percent anticipating remaining at the previous year's level.

Most important: data protection, employees, and encryption

In addition, the eco IT Security Report has shown that data protection, employee sensitization, and communications encryption will be

the three most important IT security topics in 2016. In fourth place was data encryption, and cloud security was fifth. The following topics were also said to be of importance with regard to IT security: security devices such as smartphones, tablets, etc., malicious software on the Web, data leakage protection, and botnets.

The impact of Snowden and the NSA felt

"Data protection has been the most important security issue for the German industry in the past three years," explained CG Leader Oliver Dehning, adding: "Encrypted communication is clearly moving forward; Snowden and the NSA may have played a role in sensitizing people to it. In comparison to the previous year, emergency planning has gained in importance considerably. The same applies to IT security orientating to compliance aspects. "

Helping shape the Internet policy agenda

Two years after the publication of the Federal Government's digital agenda, eco published its Internet policy agenda within the framework of the Network Policy Forum in September. In it, eco addresses politics with the core requirements for a modern Internet policy. The agenda provides answers to the challenges and questions surrounding the networked world. One year before the German federal parliamentary election, eco has already contributed to the dialogue on a number of highly debated topics, but also stimulated a discourse on areas that are not at the forefront of the political agenda.

Members of CG Security have actively participated in the subject area of IT security. The following demands have arisen in their dialogue:

IT security must be developed and promoted as one of the core competencies of the entire German industry. This is a pragmatic approach in the framework of a public-private partnership. It should be freed of the regulatory measures in existence that are too narrow but inefficient. This applies as well to the implementation of the EU NIS Directive at the German level. In addition, the development of user-friendly encryption solutions must be encouraged, along with their extensive use.

Further information is available at:
https://sicherheit.eco.de

Patrick Koetter

Leader, Competence Group Anti-Abuse

Peter Meyer

Head, Cyber Security Services

4.2.13 Competence Group Anti-Abuse

The eco Competence Group Anti-Abuse (CG Abuse) is comprised of representatives from the anti-abuse departments of German web hosting companies and Internet Service Providers as well as select experts from the anti-abuse environment. Re-activated in 2015, the group has been headed by Patrick Koetter of sys4 AG in Munich since 2016 and supported by eco's Peter Meyer.

In the first year after its reactivation, the group remade itself anew, defining the objectives and expectations for future cooperation and the CG meetings. The focus is on cross-company cooperation as well as on a professional and open exchange. The codex, concrete contents, opinions and statements of the group continue to be treated with confidentiality, which strengthens the trust within the CG.

Two group meetings took place in 2016. A third meeting scheduled for the autumn in Frankfurt had to be postponed until spring 2017.

The first meeting on April 19, the day before the CSA Summit began, was hosted by NetCologne. Approximately 30 participants were on hand for interesting speeches on DGArchiv/Domain Generating Malware and the new IT security law. In addition, a lively exchange took place about the current threat situation in the area of cyber crime and its impact and the challenges for the anti-abuse departments of individual companies.

The second meeting was held at eco in Cologne on 21 September, the day before the Internet Security Days. The 22 participants learned more about the work of the eco Complaints Office and the CERT organization's new monitoring system. Experts also presented the Dutch tool AbuseIO and the Dutch anti-abuse system AbuseHub.

In addition, there was a lively discussion on the anti-abuse processes undertaken within the individual companies. It was found that the anti-abuse departments are often under-staffed and not provided with the necessary resources. It was therefore agreed that an appropriate document clarifying the advantages and long-term cost savings of a functioning anti-abuse department for a company would be prepared for the upcoming meeting of the CG Abuse.

For 2017, it was agreed that four CG meetings would be held, each with a different focus. At the first meeting the cooperation and the exchange with the neighboring countries Austria and Switzerland are to be strengthened; at the second, the focus is on legal issues; in the third quarter on technical topics and anti-abuse tools. At the fourth and last meeting in 2017, CG Abuse plans to introduce the anti-abuse processes of the larger companies to the local and regional web hosts and ISPs. The CG would like to strengthen its network more closely in order to work more effectively together against abuse.

Further information is available at:
https://sicherheit.eco.de

4.3 eco South
4.3.1 New Support for the Southern Region of Germany and Sponsoring

For more than 20 years, Werner Theiner has been active in the IT branch, successfully networking and connecting tens of thousands of people with markets and companies in the industry. Since April 2016, he has been supporting eco as the Head of the Association's southern branch, eco South. His main task is the development of the continuous visibility of eco in the region of Southern Germany, Austria, and Switzerland.

The Bavarian industry and the IT sector in the region is an especially healthy and stable market, which makes it important for eco to be more visibly engaged in this business area as a strong community.

With Werner Theiner's presence, eco members now also have a competent contact person to reliably support them. Above all, the company's contact with (potential) users is to be intensified - through online formats, but above all also via events. This addition in southern Germany also serves to further expand eco's contacts on the level of local politics as well as with media and other representatives.

Sponsoring: attractive new possibilities

Werner Theiner also looks after the further development of the sponsoring activities at eco. In this way, members should be given even better opportunities to achieve year-round market visibility, generate leads, and make valuable contacts. Among other things, new event formats such as the "Munich Breakfast Roundtable," the "eco DIGITAL PITCHING NIGHT" and "Christmas Joy" were successfully launched in 2016.

In addition, eco has put together new and interesting sponsoring packages to cover live events such as roadshows or broaden the Association's online presence via eco videos, podcasts, or topic portals.

Already in 2016, eco managed to put on more than 20 different, fully sponsored, live events in southern Germany, reaching nearly 1,000 IT people - about 90 percent of whom were from enterprises. These intensive and continuous activities by eco on location were crowning achievements. Well-known partners could be found for initial support, including the Bavarian Ministry of Economic Affairs, the City of Munich, the Bavarian Office for the Protection of the Constitution, and the Chambers of Commerce in Munich and Stuttgart. The "smaller" formats especially, like the "Munich Breakfast Roundtable" with a maximum of 25 hand-selected guests, were very well-received by eco members. But the eco DIGITAL PITCHING NIGHT also attracted a lot of attention from members and the media. In addition, Werner Theiner participated in more than 25 partner / member events in the form of keynotes, short presentations, as table captain or as an exhibitor at booths.

2017 outlook

In 2017, a new project is planned to introduce the members and their stories in the context of roundtables. Efficient Energy will be the first topic, with the title: "Technology drivers: from idea to realization. Stumbling blocks and support."

In addition, eco organizes the following events in southern Germany:
- Roadshow: "5 Star Data Center Plus"
- Roadshow: "Secure and Stable Company Networks"
- Exhibition stand at it-sa Nuremberg
- Exhibition stand at Cloud Expo
- Diverse subject days
- Six to eight Munich Breakfast Roundtables
- Four to six Breakfast Roundtables in other cities
- eco DIGITAL PITCHING NIGHT
- Christmas Joy

Those interested can contact werner.theiner@eco.de.

4.3.2 Event Highlights 2016

All of the events and roadshows were completely financially supported via sponsors. Thank you for the great cooperation and tremendous support!

- **Firewall on the Road** – the eco roadshow series with top IT security subjects – stopped in four cities to greet around 180 participants.

- The roadshow **"Secure and Stable Company Networks"** informed a total of 200 visitors over the course of four days about how to prepare to face the challenges of tomorrow.

- With the **Munich Breakfast Roundtable** in 2016, eco established a meeting series that gathered around 120 of Bavaria's decision-makers, hosters, data center operators and medium-sized businesses together on five occasions. They were greeted, for example, by star chef Alfons Schuhbeck, Franz Georg Strauß, Andreas Keck, the Federal Vice-Chair of the Liberales Mittelstand or also Konrad Best, VP Digital, Munich Airport.

- The **eco DIGITAL PITCHING NIGHT** saw a select group of businesses taking six minutes to pitch their solutions for the digital future and win over the nearly 150 guests present.

- The P1 opened its exclusive halls for the **eco Net Night**, where over 200 guests discussed the development of the music industry into an IP Business. They were inspired by a talk from the Head of Ampaya, Tobias Trosse, Hollywood composer 7Ray, Producer Achim Kleist and John Jürgens.

- At **Christmas Joy**, a new and unusual networking event for customers from medium-sized enterprises was brought to life. Seasonal delicacies and mulled wine from star cook Alfons Schuhbeck's kitchen were enjoyed by the nearly 80 guests.

- At **Web Week Munich**, eco was on hand with a total of 14 appearances, in a variety of capacities from opening speaker, speaking guest to table captain.

Judith Ellis
International Member Services

Cáit Kinsella
International Member Services

Geographical Distribution of International Members

465

174
9 6
18
27
54
48
56
73

- Western Europe
- Central and Eastern Europe*
- Russia and the CIS
- Great Britain and Ireland
- North America
- Asia
- Near East
- Africa
- The Rest of the World

*not including Germany

4.4 eco International

In 2016, the eco International team focused on continuing the internationalization of the association and its communication work. At the end of the year, around 46 percent of eco's members were international.

eco International worked intensively on growing the membership both in and outside of Germany, and in helping members network and create the basis for successful partnerships. Activities were organized for international members within Germany, and for Germans at the international level, enabling a two-way exchange of ideas and knowledge. Aside from international events and meetings, eco International continued developing eco's English-language communication in order to reach the international players in the Internet industry in Germany and abroad.

Events

WHD.global 2016: eco talks on "Doing Business in Germany"

eco International organized high-quality talks on the topic of "Doing Business in Germany" for WorldHostingDays in Rust in March 2016. A range of members and partners contributed insights into the German market and legal regulations for operators for an international audience.

Topics included:
- German Business Culture: Dos and Don'ts,
- Doing Business in Germany: Dealing with the Law,
- Surveillance in a Digital Society,
- Market Consolidation: The German Data Center Market,
- Outlook for the German Internet Industry – Organic & Inorganic Growth Opportunities for Hosting Companies.

Videos and reports on the talks are available at: **https://go.eco.de/bus_ingermany**

The event series eco LocalTalk on "Data Center Life Savers"

The LocalTalks series was reinvigorated in 2016, with the intention of giving German and international member companies the opportunity to join interesting panel discussions

alongside independent specialists and renowned researchers. The tour included events in Hamburg and Munich, and a large event in Frankfurt in conjunction with an event celebrating the entrance of the Finnish member company Cinia into the German market. Over 400 visitors in total attended the three events, which were accompanied by English and German-language marketing activities.

econnect: Cologne

The two-day exclusive executive-level international event econnect took place on 23 to 24 June in Cologne. The focus of this event was offering the International members and con-

tacts insight into the German IT market – for companies who wish to get a foothold in the German market, or are already on the ground in Germany, but hope to get a better understanding of German business culture. The event brought together 22 IT professionals from six different countries, and was supported by interesting and knowledgeable contributions from twelve German specialists, with tours, demonstrations and hands-on activities, talks, and plenty of opportunities for relaxed networking. Topics for the wide variety of workshops and presentations covered such areas as German Business Culture, Socializing and Networking with Germans, The German IT Landscape, Peculiarities of German Law, and Branding for German Consumers. The participants

visited four local member companies in and around Cologne.

Infrastructure for Live Broadcasting

Held in Frankfurt in the DE-CIX MeetingCenter on 15 September, Infrastructure for Live Broadcasting was the second meeting of the new Competence Group Networks, and brought together German and international members and partners to discuss the growth in live streaming, and the associated hardware and infrastructure requirements. A white paper based on the topic and including the participating member companies, was prepared and will be published in 2017.

eco International on location

eco International was also represented at a range of international partner events in 2016, where the eco team was able to meet our international members and increase our face-to-face contact with members. These included, Capacity Europe, Germany Connect, Data Center World, Data Cloud Europe, Data Cloud Nordic, DE-CIX Summit, Nordic Digital Business Summit, CEE GCCM, and WHD.global.

Corporate communication

eco International published two monthly newsletters https://go.eco.de/news_en throughout 2016; one with industry news for

the international members, eco International, and the second, eco InsiDE, which provided international readers with dedicated information on the German Internet industry, and on relevant developments and policy issues at the national level. A third newsletter, eco Partner Offers, informed members of special offers and membership discounts on a range of partner events, both within and outside of Germany.

In addition to this, eco members, both German and international, took the opportunity to have their own specialist English-language content published on the eco International website members' contributions page, and do podcast interviews on a range of subjects. Over thirty

member companies took advantage of this possibility in 2016.

From September 2016 on, the eco International team began conceptualizing and planning the first issue of eco's new English-language e-magazine, dotmagazine. This will replace the eco International and eco InsiDE newsletters in February 2017 and new issues will be published monthly on www.dotmagazine.online. The magazine offers high-quality specialist content from member companies and select independent specialists, with a different Internet industry focus in each issue. Both international and German member companies can submit their neutral, specialist (English-language) content in dotmagazine, in order to engage with a broader international readership.

In line with the internationalization of eco, a range of eco publications were also published in both English and German in 2016. These included eco Annual Report 2015, the eco/ADL study "The German Internet Industry 2016 – 2019", the eco Names & Numbers Forum Brexit White Paper, an update of the CSA Guidelines, eco Policy & Law White Papers and position papers on EU Copyright, Geoblocking, and the Telecommunications Review, the eco Complaints Office Guidelines V1, EuroCloud Guidelines for Cloud Project Management, the documentation for the eco Data Protection Office Service, and the eco IT Security Study 2016.

Member Support

The eco International team is available to provide advice and support to international members on member services such as legal consultations, marketing opportunities, on finding business contacts within Germany, on participating in eco events or putting on their own events, and on the eco professional services. The team also proactively approaches eco members and tries to include them in eco's work through interesting event formats.
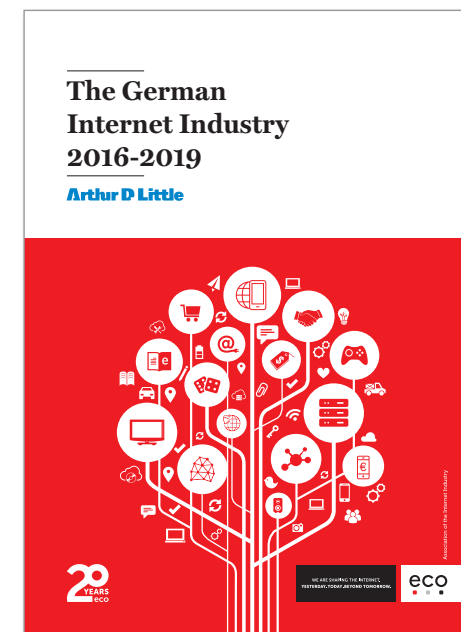
Further information under:
https://international.eco.de

Alexander Rabe
Head of the Capital Office
Head of Policy, Law & Regulations Division

Henning Lesch, Attorney
Deputy Head of the Capital Office
Head of Law & Regulations

5. Political Representation

With digitalization's increasing permeation of society and the economy, not only national and international legal and regulatory policy approaches, but also political activities are becoming more numerous and complex. The Policy, Law & Regulations division brings together eco's expertise on the different aspects of these topics and ensures the association's clear political positioning with political stakeholders.

As a member of eco's management, Alexander Rabe has been leading this division since September 2016. Henning Lesch, Head of Law & Regulations – and now also Deputy Head of the Berlin Office – was likewise drafted into the management committee in summer 2016.

Since 2016, however, eco is no longer only representing the political interests of its members from the heart of Berlin, but also from its own office in Brussels.

The Internet Policy Agenda – with its total of 27 core demands for a future-oriented and modern Internet policy – serves as an excellent example of how coordinated industry positions

can flank the work of the divisions in both Berlin and Brussels.

The demands formulated as part of the Internet Policy Agenda are reflected in meetings, events, and in the political communications of the division. Current representative studies corroborate the theses and positions vis-à-vis political stakeholders, thus contributing to a coherent image of the association's work.

Through newsletters, mailings, and publications, members and interested stakeholders regularly receive an insight into the work of the association and can also take part directly in this work in numerous formats. All position papers, position statements, and background

papers are available at https://politik-recht.eco.de In 2016, the following topics were dominant on our work radar.

Legislative Procedures and Focus Topics

The introduction of the changes to the Data Retention Act brought into effect one of the most unpopular Internet initiatives, and this was still very much a controversial topic in 2016. Apart from the pending constitutional appeal at the Federal Constitutional Court in Karlsruhe, our member company SpaceNet AG also filed a suit with the Administrative Court in Cologne, an action which eco supports and which aims to contribute more legal security to

the industry. A further step towards extended state supervision is the BND Act adopted in October 2016, which effectively grants the German Federal Intelligence Service (BND) the legal grounds for large-scale surveillance in Germany and overseas. Moreover, in November 2016, the Federal Government adopted a cyber security strategy which, among other factors, foresees the further development of the national Cyber Defense Center (NCAZ) as a crisis center. On top of that, "Mobile Incident Response Teams" (MIRTs) are to be established in both the Federal Office for Information Security and the Federal Armed Forces. Additionally, the new ZITIS authority is due to start up and will be responsible for decrypting the encryption of messenger services such as WhatsApp and Telegram. eco criticized both the liability regime announced in the strategy and the inconsistent wording concerning the topic of encryption. Last but not least: the topic "Hate Speech" produced quite a stir in 2016 politics. In particular, the Federal Minister of Justice, Heiko Maas, announced increasingly tough measures requiring platform operators such as Facebook to take more responsibility for combating hate posts in the future.

Germany

But there were also heartening aspects to 2016's digital politics. The Bundestag passed the long and hard-fought for Wi-Fi Bill, thereby marking the end of Wi-Fi third-party liability. This means that one of eco's core demands of the past years has finally been attended to, and the way is free for more Wi-Fi hotspots in Germany.

The Federal Government also recognized the need for action in the field of digital education. With its launch in October 2016 of "Digitalpakt#D," it introduced a funding program for the improvement of digital infrastructure for schools. From the perspective of the Internet industry, this represents an important first step; nonetheless, strategies and the creation of technical conditions do not in themselves go far enough. There must be a simultaneous equipping of teachers with educational concepts suited to introducing these technologies to children and teenagers. The onus is now on the federal states, who must quickly follow up and produce concrete action concepts for the effective integration of IT and media competency development into lesson plans.

The growing networking and digitalization of work processes will also fundamentally change the working world in the next 20 years. From the perspective of the Internet industry, this change ushers in more opportunities than threats. Federal Minister Andrea Nahles has already recognized these opportunities. In her Industry 4.0 White Paper, introduced in October 2016, she set the two correct priorities: the topics of further education and adjustments to labor law. eco welcomes this approach and will accompany the further process of its implementation.

Europe and the World

As of summer 2016, Henning Lesch's team in the Law & Regulations division has received reinforcement in Brussels in the person of Thomas Bihlmayer. It's an exciting time, in that eco is determined to make its Internet industry voice heard even more clearly on the European stage. The current topics on the agenda there include not only the General Data Protection Regulation (GDPR), but also the complex set of issues centered on copyright law, ancillary copyright, and the digital single market. These topics are being supported through meetings and events in Brussels.

eco Complaints Office and Youth Media Protection

The year 2016 was characterized by a controversial and partially misleading debate about fake news and hate speech. Nonetheless, in 2016, eco continued to participate actively in the BMJV Task Force on Hate Speech, where it brought its experiences from the eco Complaints Office to bear. In an atmosphere of emotionally charged discourse, eco was able to draw on its long-standing experience in the field of complaints office management, and it brought its available competencies and its position as the voice of reason to the table in diverse parliamentary briefings and meetings.

Events and Highlights

The central highlight event of 2016 was the Network Policy Forum and adjoining panel discussions, which took place on 6 September 2016 with the Federal Government's three leading Federal Ministers for the digital agenda, and which also offered a platform to representatives of member companies.
In addition to this outstanding event of the year, the "classic" eco formats for political dialog were once again successfully implemented. Below is a short overview of these formats:

- New Year's reception to mark the start of the political year in Berlin
- Policy breakfasts in Brussels and Berlin
- "Schoko & Sushi" event series
- pol/Talks involving intensive evening exchanges between politics and the industry, centered on questions relevant to topical political discussions
- Summer Fest as a launch into the second year half after the parliamentary summer break
- Member-exclusive direct contact with deputies and ministry officials as part of the "Conversation with Policy-makers" series
- Parliamentary dinner with an Internet policy agenda

Whether it's to do with broadband development, imparting media competencies in schools, a restructuring of copyright law, or the further development of data protection and IT security: there are more than enough

Internet policy projects which require promotion or further development. But looking to the past, one would be forgiven for getting the impression that Internet topics have not been accorded the level of political prioritization that their significance would seem to warrant.

This is why eco, in preparing for the 2017 German federal elections, has devised a catalog of demands which sets out the Internet policy goals from the industry's perspective. Produced in conjunction with all of the association's competence groups and with the input of the member companies, this document not only identifies the most important current topics and aspects; it also specifies demands, the fulfillment of which are intrinsically important for Germany's stable development as an industry location. What has emerged is a catalog containing 27 core demands of the Internet industry for a modern Internet politics.

eco, for instance, calls for digital transformation to be seen as a central political project and for a stronger pooling of responsibility for Internet policy topics. The association is also of the opinion that the complete digitalization of authorities and state agencies must occur as soon as possible. Further demands concern the Platform Regulation: here, eco is seeking equal conditions in the competition on digital markets and a unified regulation model for convergent media. In addition, the paper takes a stand on topics such as state surveillance and infringement of rights on the Internet. A further central point concerns industry support and funding, with eco advocating, for instance, that young companies be supported to enter

the digital economy through reduced bureaucracy and improved access to capital.

The "Internet Policy Agenda" (www.eco.de/agenda) was presented for the first time on 6 September 2016 at the "Network Policy Forum" in Berlin, in the presence of three Federal Ministers.

Press and Public Relations

The year 2016 also saw the successful continuation of eco's strategic linking of classic lobbying and political PR work. This success was manifest in several areas, including: a ten percent increase from the previous year in key

media share with respect to coverage on political topics; the successful marketing and dissemination of the core policy demands from the Internet Policy Agenda and from media positioning; and a promising initiation of a new Internet policy campaign, entitled "Wahl/Digital 2017". In 2017, this campaign will be further developed as a type of umbrella brand for eco's political communication in advance of the German federal elections.

Henning Lesch, Attorney-at-Law,
Head of the Competence Group Law & Regulation

Dr. Folke Scheffel
Legal Consultant for Internet & Media Law

Elisabeth Oygen
Legal Consultant for IT Law

5.1 Legislative Processes & Focus Topics
5.1.1 Germany

Data Protection Act for Germany

With the adoption of the EU GDPR in spring 2016, the question of adaptation requirements in Germany also arose. Summer 2016 saw the first announcement that the federal government was planning to replace the Federal Data Protection Act with a new Data Protection Act. A first draft of this act was withdrawn and revised after heavy criticism from data protection specialists and, in December 2016, a second version of the draft act – still under fire from heavy criticism – was released for inter-departmental and associations' consultation. In the relatively short time available for

the associations' feedback, eco devised a position statement which shed further light on different aspects of the DSAnpUG-EU. eco believes that the high standard of the General Data Protection Regulation has been fundamentally respected in the act. The parliamentary procedure is expected to be concluded in 2017.

Data Retention 2.0

Following on from the passing of the controversial law for blanket data retention in December 2015 – which was adopted in the face of massive resistance from the civil society, associations, industry, and the opposition – several stakeholders have brought proceedings against the measure. These include private individuals, associations, the Green Party, and the FDP, all of whom want the Supreme Court Judge in the Federal Constitutional Court (BVerfG) to declare the law as unconstitutional. Whether these efforts will pay dividends is yet to be seen.

eco is likewise supporting its member company SpaceNet AG in a suit. However, in a departure from the course of the other plaintiffs, the association and company are pursuing another route, the goal of which is not a Federal Con-

stitutional Court judgment, but ultimately a ruling from the European Court of Justice (EUCJ). The EUCJ was already engaged with this theme in 2014, when it declared a directive of the European Commission for the retention of traffic data to be incompatible with European law. In so doing, it set the bar higher than the BVerfG for the preconditions determining the legality of an obligation to retain data. From that judgment, it can be deduced that the EUCJ holds the groundless storage of telecommunications traffic data to be generally incompatible with Union law.

On 21 December 2016, the EUCJ decided in a preliminary ruling procedure that groundless data retention in Sweden and Great Britain is incompatible with EU law and, in particular, with the EU Charter of Fundamental Rights. Among other factors, the ruling states that

data retention is only permitted to fight serious crime and that an independent authority or court would have to determine the right to access the retained data. eco is of the opinion that the German law is especially in breach of these conditions.

The EUCJ judgment should also have applicability to the legal regulations in Germany. The responsible Federal Ministers uphold the view that the regulations also satisfy the requirements as now prescribed by the EUCJ. In any case, the judgment must once again be closely examined.

As a direct reaction to the EUCJ's 21 December ruling, eco has called for a moratorium on data retention. In light of the legal situation and the lack of certainty concerning compliance of the German regulations with constitutional and European law, companies should not be asked to invest immense efforts and expense in the implementation of these regulations.

In the meantime, work continued on the concrete, legal guidelines for the implementation of blanket data retention. In summer 2016, the German Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway (BNetzA) presented a draft catalog of requirements in accordance with Para. 113f Telemedia Act (TMG), with the intent of concretizing guidelines for the implementation of the obligation to retain data in companies. eco also took a stance on these requirements and was largely

critical of the BNetzA's proposals. In spite of widespread criticism – also stemming from other experts – the catalog of requirements was subsequently adopted with minimal changes.

In December 2016, the Federal Ministry for Economic Affairs and Energy (BMWi) presented two national draft regulations (KDAV and TKÜV). Respectively, these foresee the adoption of special regulations for automated and manually generated information procedures. The BNetzA published an accompanying Recommended Technical Guideline TKÜV. eco will support its member companies in the implementation of the new system and will avail of every opportunity to intervene at a political level against any unrealistic technical requirements.

Changes to the Telemedia Act (Wi-Fi Third Party Liability)

In spring 2016, the EUCJ interpreted the European E-Commerce Directive that underpins the Telemedia Act (TMG) to mean that Wi-Fi hotspot operators are also access providers who are party to the privileges of the directive. The view of the court was that, while the security of the operators' connections is subject to relevant provisions, the latter do not include restrictions such as the order stipulating that the Wi-Fi hotspot must be encrypted with a password. This interpretation meant that envisaged measures for Wi-Fi operators were no longer covered by EU law.

After a protracted and, above all, a politically controversial legislative process, the second Changes to the Telemedia Act (BGB1 2016, 1766) was able to come into effect. The act should remove the liability of Wi-Fi networks in so far as possible, with legal security in terms of liability for the operation of Internet access services to be established via local wireless networks. From the opposition's perspective, a remaining unresolved issue is that, even though the liability of the network operators has been abolished, the possibility still exists to seek injunctions or the removal of operators.

In October 2016, the BMWi announced that – in response to the ruling of the European Court of Justice in the McFadden case (C-484/14) in the Telemedia Act – it intends to once more review and, if required, firm up on the removal of third-party liability for Wi-Fi operators.

Ancillary Copyright for Publishers

The evaluation flagged up by the federal government as part of its coalition contract is unlikely to take place in this legislative term. As in previous years, the ancillary copyright law in Germany – a subject of constant criticism by eco – was debated primarily before the court. In February 2016, the Cartel Chamber of the Berlin Regional Court ruled in a case taken by eleven publishing groups against Google. The process ended with a dismissal

based on an absence of discrimination by Google against the plaintiffs and a verdict of a "win-win" situation. In April, in a disagreement between VG Media and Google, the Federal Cartel Office then also decided that no proceedings should ensue.

While no progress was to be forthcoming for ancillary copyright in Germany, the same thinking has started to be discussed at European level. There, with the recommendation for a new copyright law in the digital internal market, the failed idea is being given a second chance.

IT Security Act/NIS Directive Implementation Law

In 2015, the German federal parliament passed the IT Security Act. With this act, operators of critical infrastructure – that is, institutions and facilities whose operations are considered indispensable to the community – are obligated to comply with IT minimum security standards. The law came into effect with the publication of the act's text on 25 July 2015. The changes to heighten IT security have a particular bearing on the Telemedia Act (TMG), the Telecommunications Act (TKG) and the Act to Strengthen the Security of Federal Information Technology (BSI Act).

For the purposes of the implementation of the IT Security Act, the Federal Ministry of the Interior (BMI) issued an accompanying statu-

tory regulation, which also applies to the information and communication industries. The statutory regulation specifies which companies are affected and regarded as forming part of the "critical infrastructure". At the beginning of 2016, a statutory regulation was issued for numerous affected industries in the sectors of energy, information technology and telecommunications, transport and traffic, health, water, food, and finance and insurance. For the sector of relevance to the Internet industry – "information technology and telecommunications" (ITC) – the applicable statutory regulation was passed on 22 April 2016. eco intensively accompanied the consultations and development of the regulation and represented its position in the BMI hearing. eco also participated in the especially established industry working groups of the UP KRITIS consultations.

On 9 December 2016, the BMI presented its draft legislation of the NIS Directive Implementation Law (Directive (EU) 2016/1148). This law should see the realization of measures not yet implemented as part of the IT Security Act. eco formulated and submitted a position paper on the draft legislation and also participated in the BMI's hearing in December 2016.

Cyber Security Strategy and eco Guidelines for IT Security

The implementation of the IT Security Act and, above all, debates over cyber crime and repeated targeted hacker attacks in the US election campaign - not to mention the attempt to install a botnet onto several thousand routers in Germany – triggered a fundamental debate on the topic of IT security in 2016. Against this backdrop, the relaunch of the related Cyber Security Strategy, last updated in 2011, was due to take place under the leadership of the BMI. At the heart of the accompanying debate was the question of the degree to which a new liability regulation for IT services and products (IT product liability) was required. Additional factors influencing the debate were the introduction of a new authority called ZITIS, whose role is to decrypt communication, and the question of the establishment of a CERT comprised of industry representatives under the banner "Cyberwehr" (cyber defense).

Within the context of this debate on the Cyber Security Strategy, eco defined its own guidelines for IT security policy in Germany. These guidelines identified numerous aspects that were later addressed in the November 2016 Cyber Security Strategy. The foundations for any further discussions on additional legislative measures on cyber security in the coming legislative period have thus been laid.

Photo: Filipe Castilhos, CC BY-ND 2.0

Amendment to the Act against Restraint of Competition

In mid-2016, the federal government presented its draft of the Seventh Amendment to the Act against Restraints of Competition. The amended act was passed on 28 September by the federal cabinet and is intended to make the German competition law fit for the digital age. Among other features, the law introduces new thresholds for monitoring the existence of a dominant market position. A catalog was also introduced containing the criteria to be applied in vetting the existence or otherwise of a dominant market position.

eco prepared a position statement on the government draft and made it available to those members of the federal parliament engaged since November 2016 in the associated parliamentary process. In its statement, eco emphasized that the thresholds in particular must be legally binding through regulation. With regard to the criteria catalog, eco called for the selection of a less bureaucratic solution and for the focus to be placed more on closing off abuses of dominant positions than on vetting for their existence. eco also criticized the new options for cooperation as they apply to newspapers and magazine publishers, deeming these to be incompatible with a modern competition law which treats all media carriers with equal fairness. The parliamentary process is expected to proceed in 2017, to include a hearing of the Economic Committee of the German federal parliament, and to be concluded in the current legislative period.

Media Convergence

At the time of agreeing its coalition contract, the government announced its intention to set up a joint federal government and German states commission for the reform of media regulations. This was subsequently established in April 2015 and was accorded the following remits: revision of the Directive on Audiovisual Media Services (AVMD Directive); platform regulation; competition and safeguarding variety legislation; regulation of intermediaries; and the topic of net neutrality. eco represented the perspective of the Internet industry through a position paper on the topic of media convergence and contributed to the work of the joint commission through position state-

ments on the individual aspects addressed by the Working Groups.

Regulation of Intermediaries

As early as 2015, a working group was formed dedicated to the topic of "Regulation of Intermediaries" and comprised of representatives from the federal government and the German states. eco's contribution to the discussion on platform regulation took the form of a written response to the associated questionnaire and participation in the hearing. As part of the working group's consultations, an expert meeting was held in January 2016.

In 2016, the Federal Ministry for Economic Affairs and Energy (BMWi) launched an open consultation process as part of a "Green Book Digital Platform".

The debate on the regulation of intermediaries was also addressed as part of these consultations. In the consultations and an associated position statement, eco clearly expressed its view that a "one-size-fits-all" regulation for intermediaries would be inordinately difficult to realize. Elaborating, eco emphasized that platform laws or provisos for the disclosure of algorithms are not helpful. The association also registered this position at a BMWi workshop in Berlin. Moreover, the Competence Group Law and Regulation held a meeting with BMWi representatives to accompany the Green Book process. In early 2017, a White Book is expected to ensue from the Green Book and its feedback material.

Telecommunication Transparency Ordinance

The first draft of a national Telecommunication Transparency Ordinance had already been produced in 2013. Since then, there have been intensive discussions between the Federal Network Agency (BNetzA) and user and industry associations. eco was also very actively involved and contributed a cross-association position statement to the discussion. A positive aspect of this process was the highly constructive dialog with the BNetzA. Companies must now fulfill several statutory information obligations for their end users, the implementation of which will entail a considerable financial and personal outlay. The intention is to achieve a high degree of transparency for the end user. Whether false expectations may have also been awakened remains to be seen.

At the beginning of January 2017, the BNetzA published the draft of a product information sheet for consultative purposes. The national Telecommunication Transparency Ordinance will enter into force on 1 July 2017. It should offer end users of Internet access services transparency when it comes to price, data transmission rates, and data volume. Providers must issue product information sheets for marketed products. A further intention of the ordinance is to promote competition. eco will once again

cooperate with other associations in the consultations and contribute a joint position statement. The impact of the regulations, especially as they affect information on data transmission rates, will be monitored by eco.

Telecommunications Act

In accordance with the Telecommunications Act (TKG), new sanctions proposals were to come into effect in April 2016. The changes to the TKG meant that infringements against certain obligations of the Telecom Single Market Regulation (TSM-VO) would be subject to sanctions. However, as the parliamentary process proceeded in November 2016, arguments claiming a deficiency of customer protection in the TKG increasingly came to the fore. eco managed to successfully counter this claim in a cross-association position paper. In the

expert hearing on the draft policy in the German federal parliament, multiple arguments were taken into account, resulting in a recognition of the sufficiency of procedures already in force. eco will carefully monitor further related developments and will continue to campaign to make sure that its members are not disproportionately affected.

In summer 2016, with a view to improving the fight against international terrorism, the federal parliament agreed to a number of amendments to the TKG. Anybody wishing to purchase a pre-paid SIM card must be able to provide conclusive evidence of his or her identity. With an order in its official journal, the Federal Network Agency (BNetzA) stipulated appropriate procedures for use by mobile phone providers and their distributors. In conjunction with Bitkom, eco submitted a position statement on the draft of this order. In a positive development, the BNetzA adopted many of the proposals and declared further proceedings to be appropriate and permissible. The implementation and its outcomes will be monitored by eco.

Amendment to the Film Promotion Act

Together, ANGA, Bitkom, and eco used the opportunity of a joint position statement to present their views on the shaping of the Film Promotion Act (FFG). This cooperation was motivated both by the associations' joint right to appoint to the committee of the Federal

Film Board (FFA), and by the high degree of consensus in the associations' positions. In their position statement, the associations together spoke out against an extension of the film promotion fee to include other fee-payers. The associations submitted two expert reports to underpin their argumentation. The first report from Prof. Dr. Dieter Wiedemann dealt with film-economic considerations and arrived at the conclusion that, rather than an increase in the film promotion fees, what is actually required is a better distribution of resources. A second report from Prof. Dr. Dr. Paul Kirchhof, produced at the beginning of 2016, was concerned with financial constitutionally-permissible aspects and broached the question of the legal admissibility of an expansion of such an extra levy to include other fee-payers. Both reports were inserted into the discussion process on the FFG.

In spring 2016, the Federal Government Commissioner for Culture and the Media presented a new draft of the FFG. ANGA, Bitkom, and eco used the occasion to comment on the draft within the scope of a further joint position statement. The associations were also invited as experts to take part in the associated parliamentary processes.

Photo: © Amio Cajander

5.1.2 Europe and the World

European General Data Protection Regulation

The European General Data Protection Regulation, which is immediately applicable in all Member States, is to replace the 1995-issued 95/46/EG. Through a horizontal legal framework aimed at full harmonization, the directive aims to eliminate the differences existing to date in the implementation and application of data protection law. With this directive, the European Commission wants to improve the entire data protection law and the right to informational self-determination for European citizens. It also aspires towards providing the foundation for the creation of a modern data economy in the European digital single market, with the intention of

making the European Union fit for competition in the digital market of the future. Few other European legislative procedures in this area were politically so controversial or generated such a high level of media attention. In April 2016, the General Data Protection Regulation was subsequently adopted with the goals of setting standards for data protection in all EU Member States and of guaranteeing a harmonized level of data protection. With the conclusion of the consultations on the General Data Protection Regulation came the starting signal for its implementation in the individual Member States. In parallel, the Data Protection Supervisors Working Party of the EU Member States (Article 29 Working Party) started developing further proposals for the concreti-

zation of the regulation. The first proposals were presented by the working party in November 2016.

In close consultation with EuroISPA, eco intensively accompanied the European process and the legislative procedure for the Data Protection Regulation. Among other measures, eco produced position papers and position statements on this topic.

Net Neutrality/Telecom Single Market Directive

Once again in the current reporting year, the topic of net neutrality featured on the political agenda. In the foreground were questions concerning the concrete implementation and design of the procedures for net neutrality, as well as connected questions on details requiring clarification.

eco continued to intensively accompany the controversial debate concerning the regulation of net neutrality. Among other measures, the association produced a position paper and took part in the various expert events on the topic. The complex topic was also more closely examined in different event formats, and the association drew attention to those aspects of the compromises on net neutrality at the European level which still need clarifying.

In April 2016, the European Telecom Single Market Directive (TSM) came into effect. It

regulates net neutrality in so far as the "best effort principle" essentially applies. Traffic management is possible in time-limited, definitively regulated exceptional cases, for instance in the case of network congestion. Zero rating and specialized services are not per se forbidden. To enable the national regulators to uniformly apply the directive – which in itself is very general and undetailed – across the EU, the Body of the European Regulators for Electronic Communications (BEREC) published guidelines in late August 2016. eco submitted a position statement on the topic.

The BEREC guidelines are very finely detailed and comprehensive. The national regulators – in Germany's case, the Federal Network Agency (BNetzA) – are obliged to comply with these guidelines to the greatest possible extent. With the laying down of the guidelines, the TSM has, on the whole, succeeded in attaining an acceptable compromise between the interests of users and telecommunications providers. BEREC has emphasized that the national regulators should oversee and ensure compliance with the specifications of the TSM. The body will review and, where deemed necessary, update the guidelines. For its part, eco will keep a close eye on how far the guidelines are feasible in practice and will also monitor the concrete application of the guidelines through the national regulators, particularly the BNetzA.

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TK-Review

On 14 September 2016, the European Commission presented several draft directives for the realization of a joint digital single market. Among others, these included the European Code for Electronic Communication, a code which condensed the four official directives that existed until then into one. The new goal proposed in the directive is that of promoting high-speed network expansion. It is planned that responsibility be transferred to the Commission and BEREC. The foremost extensive reforms envisaged are in the fields of market analysis, access regulation, and regulation of frequencies. The principle of regulating major market players (the so-called SMP) is to be retained.

eco recognizes a need for reform in the European regulatory framework for telecommunication, given that the technology and the mar-

ket conditions have undergone massive change since the last EU-level reform in 2009. The competition must be strengthened and, in particular, the expansion of gigabit-capable networks must be expedited. The EU Commission's draft has led to heated public and stakeholder discussions, especially concerning the access regulation and the implications of the transfer of responsibilities to the EU Commission and BEREC. eco will be engaged in and represent its members in the forthcoming further EU-level consultations in 2017.

Digital Single Market Strategy

Arising from the European Commission's 2015 publication of its strategy for the creation of a uniform digital single market, several legislative proposals followed in 2016. These aim to realize the strategy's plans and to guarantee the free movement of goods, persons, services, and capital.

As expected, the Commission presented, inter alia, its proposals for the reform of copyright, for the standardization of the telecommunications regulation, for the containment of unjustified geoblocking, and for the amendment of audiovisual media services.

Plans for 2017 include the reform of the ePrivacy Directive and the enforcement directive, as well as the mid-term review of the implementation of the Digital Single Market Strategy.

Copyright

With the introduction of the Digital Single Market Package in 2015, the European Commission set its focus for the current legislative period on the dismantling of barriers in the digital single market. Subsequently, in September 2016, it presented its proposal for a reform of copyright law in the form of a number of directives and regulations. From eco's perspective, the most important of these pertain to copyright in the digital single market, copyrights and related protection rights as they affect certain online transmissions from broadcasters, and the retransmission of television and radio programs.

By its own account, the Commission's proposal for copyright in the digital single market pursues the goal of giving owners and users more rights in the exploitation of their works. The intention is to achieve this at the European level, on the one hand, through the introduction of a 20-year ancillary copyright for online publications in favor of publishers. On the other hand, in order to vet for possible copyright violations, the proposal foresees the introduction of mandatory content detection and filter systems for content uploaded online by platform users.

eco had previously strongly criticized the introduction of ancillary copyright in Germany and, based on the experiences of the rollout in Germany to date, feels itself justified in this

position. Accordingly, eco commissioned an expert legal study from Prof. Dr. Alexander Peukert of the Goethe Institute in Frankfurt am Main to examine the question of the establishment of a European ancillary copyright for publishers. One of the issues probed by the study is the proposal's conformity with existing EU law. The emerging conclusion comes as no surprise: an ancillary copyright at European level would lead to a "lose-lose" situation for the Internet industry and publishers.

The time schedule of the rapporteur Comodini Cachia anticipates a completion of the committee's work by summer 2017 and a subsequent vote in plenary. The directive must also be subsequently implemented through national laws in the Member States.

With the "SatCab Directive," the goals of the Commission are to provide for retransmission of television and radio programs from other Member States and to facilitate the licensing of copyrights for online and retransmission services. Here, the emphases are on the country-of-origin principle and collective copyright liability. The key task is an extension of the rules for retransmission for satellite, cable, and microwave systems to apply to other transmission methods, regardless of the technology. This would make the purchasing of licenses significantly easier for providers, and it is in principle endorsed by eco, even if the definition of technology neutrality in the proposal still does not go far enough. The SatCab Direc-

tive is also expected to have passed through the committee by summer 2017.

Geoblocking

During the reporting period, the European parliament concluded its work on the regulation introduced in 2015 to ensure the cross-border portability of online content services in the single market and submitted this regulation to the trilogue. In the meantime, in May 2016, the EU Commission announced a draft of a further regulation to eliminate unjustified geoblocking for goods and services. The intention of this proposal is that, in future, customers can also avail of cross-border e-commerce and neither experience unjustified price disadvantages nor be hindered in the completion of a purchase. The regulation has caused unrest among online traders, who fear the impact a limited obligation to enter into contracts will have on their business activities.

Within the scope of the consultations on the geoblocking regulation, eco presented a position statement to the responsible Members of the European Parliament and, at the national level, contributed to the consultations on the positioning of the German federal government in the European Council. The geoblocking regulation is expected to be dealt with by the European Parliament committees in January 2017. A completion of the consultations and an adoption of the regulation is likely to occur in the first half of 2017.

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ePrivacy Regulation

In October 2016, the Federal Ministry for Economic Affairs and Energy (BMWi) issued an invitation to an exchange of views on the further development of the EU's ePrivacy Regulation. The future of the rollout of the regulation was unclear because, even though the EU had set standards for data protection through the General Data Protection Regulation, it had nonetheless simultaneously conducted a consultation discussing the rules for data protection in the Internet. At the end of 2016, it became clear that the EU Commission would forge a path for a new ePrivacy regulation, and the introduction of a draft regulation was announced for January 2017. eco will engage in the consultations at both national and European levels.

Modernization of the AVMSD

Following on from the consultation on the Modernization of the Audiovisual Media Services Directive (AVMSD) in 2015 – to which eco contributed a position statement – the Commission presented its proposals for the new directive in May 2016. Together with the European umbrella association EuroISPA, eco took a stance in advocating for the incorporation of the e-Commerce Directive's primacy of application into the text, and in calling for the elimination of an ex ante mandatory inspection obligation for intermediaries, which does not comply with its regulations. Whereas the completion of the committee report was scheduled for the first half of 2017, both the lively participation and the numerous amendments sought during the consultation process suggest that a debate in plenary in the European Parliament could be subject to further delay.

Safe Harbor and the EU-US Privacy Shield

Following on from the EUCJ ruling in 2015, the Safe Harbor Agreement, which was highly significant for the transatlantic exchange of data, was declared void. In the interests of its member companies, eco became involved at an early stage in the discussion concerning the necessary successor regulation. At both national and European levels, eco highlighted the issue and called for a speedy successor regulation to

Safe Harbor. For this, among other activities, eco published a background paper, organized events in Brussels and Berlin, and participated in expert discussions.

The Safe Harbor Agreement is to be replaced by a new agreement, the "EU-US Privacy Shield". In February 2016, the EU Commission first published drafts of the contract's text and its associated resolutions, with the ratification process continuing into July 2016. The agreement, which had come into effect in the meantime, was criticized by numerous data protection specialists, who queried whether the measures offered a suitable instrument for the enforcement by citizens of their data protection rights. In the course of the consultations, eco had sought compliance of any agreement on data protection with European standards. The association sees this as now being guaranteed, based on changes to the law implemented in the USA. Further political developments in the USA must be carefully observed, because they could potentially also have an impact on the agreed guarantees and security mechanisms of the EU-US Privacy shield agreement.

Internet Governance

In recent years, the topic "Internet Governance," which above all deals with the questions of the future shaping of Internet policy and the future technical and administrative regulation of the Internet, gained increasing importance at both the European and the international level. eco has been advocating for many years for a strengthening of the multi-stakeholder Dialogue on Internet Governance and is convinced that this model is the best variant for the development of a sustainable Internet governance system commanding broad social acceptance. For eco, it is an important concern to maintain and carry forward the successful multi-stakeholder based self-administration of the Internet. Politics and companies, as well as all other stakeholders, should therefore become involved in the relevant committees in which the future shaping of the Internet and Internet policy is discussed.

Restructuring of Internet Administration

The restructuring of Internet administration continued to be one of the central topics and objects of discussion in the area of Internet governance. At the core of the discussion were the questions concerning who has and who should have the supervisory function over the central resources for the operation of the worldwide Internet. For some time now, the international discussions have focused first and foremost on what the reform of ICANN could look like. With the announcement by the USA of their intention to relinquish control over the important Internet Assigned Numbers Authority (IANA), the question of the restructuring and reorganization of IANA gained in importance. The IANA is, among other things, responsible for the allocation and coordination of central Internet resources like numbers, names, and IP addresses, as well as for the Domain Name System. The discussion on the future model for the reform and the supervision of IANA is therefore relevant for companies in the Internet industry, as this can impact the security, stability, and robustness of the central Internet infrastructure.

The ICANN mandate of the US Government should have ended in September 2015. Because of the significance associated with it, and the complex processes of finding consensus, there was considerable need for discussion of the range of options and models, meaning that a

regulation could not be agreed upon within the announced time-limit. Against this backdrop, the mandate of the US Government was extended for a further year until September 2016 to allow for agreement on a consolidated proposal for a reform of ICANN and a reorganization of the IANA function. On the occasion of the ICANN conference in Marrakech in March 2016, an important milestone was reached: the "Marrakech Consensus," a contract package comprised of several hundred pages, met with the approval of all stakeholders. On the strength of this, in June, the US Government confirmed with ICANN that the proposal met the criteria set by the NTIA. With this, the expiration of the IANA contract could be announced for 30 September 2016.

eco participated actively at the German national, European and international level in the discussion process and accompanied this intensively. The association invited members to a range of events to inform participants on the current status of discussions on ICANN reform and the reorganization of the IANA function and made it possible for all stakeholders to exchange ideas. eco is also in close dialog with

the responsible Germany Federal Ministry for Economic Affairs and Energy (BMWi) on this topic.

You can read more about this topic in Chapter 4.2.7 on the Competence Group Names & Numbers Forum.

EuroDIG

At the European level, the European Dialogue on Internet Governance (EuroDIG) has established itself as the most important discussion platform in which stakeholders from industry, governments, science, and the civil society can exchange ideas on the future shaping of the Internet. The 2016 EuroDIG took place on 9 and 10 June, under the title of "Embracing the digital (r)evolution". The keynotes from Andrus Ansip, Vice-President of the EU Commission, Günther Oettinger, EU Commissioner for the Digital Economy & Society, and Thorbjørn Jagland, General Secretary of the European Council, highlighted the status and importance of Internet governance and digital policy at the European level.

Current developments and unresolved questions in Europe's Internet policy were discussed at the event. In focus were developments occurring in the field of the growing digitalization of all areas of life and its related sociopolitical challenges. Key topics were issues arising from the charged relationship between cyber security, terrorism, surveillance, and human rights. Alongside these, other central topics discussed at EuroDIG were those of net neutrality, data protection and privacy, and questions of trust and security in the IoT.

IGF

The international Internet Governance Forum (IGF) took place from 6 to 9 December 2016 in Guadalajara, Mexico. The participating representatives of international governments, companies and NGOs, as well as participants from the civil society, exchanged ideas on the current questions of Internet governance, the continuing development of the Internet for sustainable growth, and the further expansion of participation by all stakeholders. Focal points of discussion were cyber security, human rights, and freedom of expression in the digital age. The discussions and issues relating to the reform process of the IANA stewardship were also once more on the agenda this year.

eco was represented at the IGF by Prof. Michael Rotert, who took part as an expert in numerous workshops and panels. Among other contributions, Prof. Rotert participated in the presentation of the Internet Governance Forum Germany as a national initiative and reported on his experiences as a member of the steering committee.

IGF-D

The Internet Governance Forum Deutschland (IGF-D), initiated by eco and organized jointly with further partners, is an open and informal multi-stakeholder discussion platform for the government, private enterprise, and the civil society, as well as for representatives from the technical and academic community in Germany. The platform handles questions relating to the social, economic, and political development of the Internet.

On 9 September, the 2016 IGF-D took place in the Rotes Rathaus in Berlin. The IGF-D was opened by a keynote from Björn Böhning, State Secretary and head of the Senate Chancellery. Under the banner "we#must#talk," the participants debated current sociopolitical topics, such as encryption policy and the export of surveillance technologies. Ethical questions

Photo: © iStock / Teka77

concerning standards and protocols were debated in the context of the growing use of IoT appliances and services. Once again in 2016, one of the key themes was the shaping of the future Internet governance, particularly with respect to the new restructuring of the Internet administration and the reorganization of the IANA function.

Alexandra Koch-Skiba, Attorney-at-Law
Head of Complaints Office

Kira Pleschka
Consultant Complaints Office

eco COMPLAINTS OFFICE

5.2 eco Complaints Office and Youth Media Protection

The successful work of the eco Complaints Office is central to eco's engagement in the area of youth protection. eco is also involved, along with partners from politics and the industry, in a range of initiatives and alliances for combating youth-endangering Internet content and supporting youth protection online. These include I-KiZ, fragFinn and the Federal Ministry of Justice and Consumer Protection's (BMJV) Taskforce "Dealing with illegal hate speech on the Internet". eco was also involved in the discussion on the changes to the youth protection legislation in the field of "media protection".

In the reporting year, eco's Complaints Office once again received reinforcement to its team. Since the beginning of 2016 Kira Pleschka and Sebastian Fitting are now further supporting the work of the Complaints Office in Cologne as legal consultants.

eco Complaints Office for Illegal Internet Content

Internet users can report potentially illegal Internet content, in particular in the area of youth media protection, free of charge and anonymously to the eco Complaints Office (http://go.eco.de/complaintsoffice), and thus contribute to the fight against such content at both the national and international levels.

eco has now operated the Complaints Office for more than 15 years. Since 2004, the complaints office has also been available via the web portal https://internet-beschwerdestelle.de/en, operated together with the Voluntary Self-Monitoring of Multimedia Service Providers (FSM e.V.). Reports submitted there are processed by eco and the FSM according to their respective responsibilities and rules of procedure. Via this portal, a great deal of information and referrals to advice on the topic of media competence is also available.

In addition, the eco Complaints Office is a partner of the information platform for young people, www.jugend.support, and processes reports submitted there together with the complaints offices of the FSM and jugend-schutz.net. Since 2008, as operator of the portal https://internet-beschwerdestelle.de/en/index.html, the eco Complaints Office has been part of the Safer Internet Centre (www.saferinternet.de). Aside from eco, other organizations belonging to the Safer Internet Centre are the FSM, jugendschutz.net, "Nummer gegen Kummer," and klicksafe.de (operated by the Rhineland Palatinate Land Commission and the Regional Office for Media North Rhine-Westphalia). In 2016, the German Safer Internet Centre once again received funding support as part of the Connecting Europe Facility (CEF) and, on the strength of the funding application submitted in January 2016, was able to secure continued support up until the end of 2018. This funding is targeted particularly at the complaints offices' work in processing complaints concerning images of sexual abuse of children and minors, as well as complaints about racist Internet content.

Representation of the sexual exploitation of children and youth through images depicting unnatural, sexually explicit poses, so-called "posing," cannot be distributed under German law (JMStV and StGB). Through the financial support of the

Sebastian Fitting
Consultant Complaints Office

Peter-Paul Urlaub
Consultant Complaints Office

German Federal Ministry for Families, Seniors, Women, and Youth (BMFSFJ), the eco Complaints Office was able to further strengthen its engagement in this area in 2016. The Complaints Office started its analysis of paths and strategies of dissemination, especially focusing on Usenet, and collected and exchanged statistical information – in particular, regarding deletion times – with the other German complaints offices at FSM and jugendschutz.net.

2016 Statistics

The eco Complaints Office team, composed exclusively of lawyers, witnessed an increase in complaints of 11.59 percent in comparison with the previous year and dealt with a total of 249,324 objects of complaint. While there was a small decline in the number of complaints about emails, this area, with 189,787

reports, nevertheless made up by far the greatest proportion of reported complaints, followed by complaints about Usenet contributions (57,020) and websites (2,429). Leaving out the complaints about spam, 96 percent of the examined objects (58,272) contained images of sexual abuse and the sexual exploitation of minors (= images of child or youth sexual abuse or grooming for child and youth sexual abuse material (CSAM)). While the total number of indications in this area rose by approximately 80 percent, the proportionate percentage, when measured against the total number of notices, showed a minimal drop of almost 1 percent in comparison with the previous year. Turning to complaints about incitement of the masses and propaganda in violation of the constitution, eco once again recorded a considerable increase: up 80 percent in comparison with the previous year.

Excluding complaints about pure spam, 1,564 cases were justified complaints, approximately a 33 percent increase. A large share of these cases (63 percent) concerned images of the sexual abuse and sexual exploitation of children (Child Pornography as defined in Para. 184b of the German Criminal Code), signaling a slight increase in the number of cases. The pronounced rise in the number of complaints about incitement of the masses and propaganda in violation of the constitution is reflected in the justified cases: seven percent contained illegal, racist content, which represents a 2.46 percent increase in comparison with the previous year. A striking additional finding for the year was the relatively high share of justified "other cases," attributable to a collective report involving animal pornography content. The complaints were – according to the type of offense and taking into account the country

in which the content was hosted – forwarded to the relevant law enforcement agency, the content provider, the hosting provider, and/or the relevant member of the INHOPE network.

Approximately three quarters of the web-based content reported by eco was taken down or otherwise legalized (e.g. through the implementation of an age verification system). This demonstrates that self-regulation works – also internationally, given that only around one third of the reported URLs were hosted in Germany. The take-down time for CSAM content in the World Wide Web was largely similar to that of the previous year. CSAM content (defined as Child Pornography in Para. 184b of the German Criminal Code) was globally no longer available online on average 4.97 days after the notification to the eco Complaints Office. In Germany, such content was offline within 1.91 days – including weekends and public holidays.

With regard to images depicting posing (images of minors in unnatural, sexually explicit poses, as defined by the German Youth Media Protection Treaty (Paras. 184b, 184c StGB, 4 Section 1 Nr. 9 JMStV) in the World Wide Web, the eco Complaints Office recorded slightly longer take-down times in 2016. Worldwide, such content was on average no longer available within 7.34 days of the report being submitted to eco, whilst in Germany, the content was no longer available after 3.01 days – also including weekends and public holidays. The take-down quotas for illegal, racist content

Development of Justified Complaints in Annual Comparison

Number of Justified Complaints

Source: eco Complaints Office

Legend: Total, WWW

Average Duration until Take-down in Annual Comparison (Child Sexual Abuse Material)

Days

Source: eco Complaints Office

Legend: All Cases, German Cases

Take-down Quotas Child Sexual Abuse Material (All Cases)

in Percent

Source: eco Complaints Office

Legend: 2015, 2016
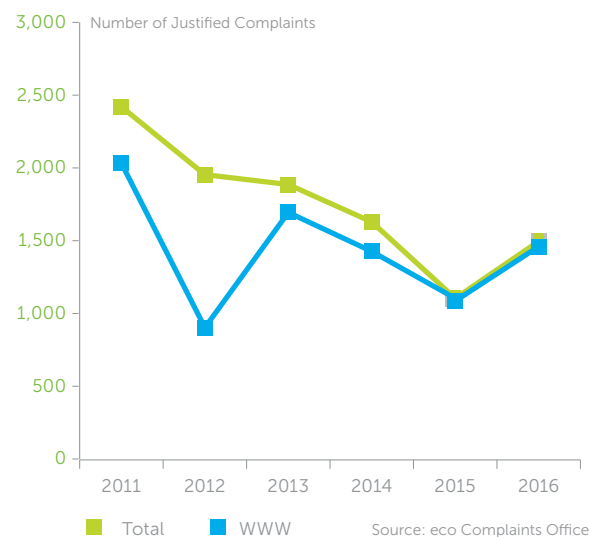
rose by 9 percentage points to 63 percent in 2016. Here it is worth highlighting that just 6 percent of the reported content was hosted in Germany. You can find further information on eco's Complaints Office operations and track record in the office's 2016 Annual Report at http://go.eco.de/complaintsoffice2016

Amendment to the German Interstate Treaty on the Protection of Minors

After prolonged discussions, the amendment to the German Interstate Treaty on the Protection of Minors (JMStV) has been adopted. The draft treaty to amend the JMStV, agreed in December 2015 by the Ministerial Conference of the States, was ratified by the state parliaments and came into force on 1 October 2016. Among other changes, the following reforms now apply:

- the four age group release codes between six and 18 years that apply in the distribution of developmentally-impairing content, as defined in the Youth Protection Act (JuSchG), now also explicitly apply to telemedia. (Para. 5 JMStV). Classifications under the JuSchG will now also explicitly extend to online content. While the area of develop-

mentally-impairing content therefore essentially remains unchanged, considerable clarification has been provided.

- From here on in, user autonomous youth protection programs will be controlled for their suitability by certified self-regulation organizations, instead of by the German Commission for Youth Media Protection (KJM), as was the case until now. Requirements for the certification of youth protection programs have been adjusted accordingly (Para. 11 JMStV).
- The obligation upon larger commercial providers to nominate a youth protection officer is extended in so far as basic infor-

mation on the nominated youth protection officer must be easily recognizable, immediately accessible and constantly available (Para. 7 JMStV). To facilitate quick contact by the public with the officer, the publication of the name, email, address, and further core information is consequently required.
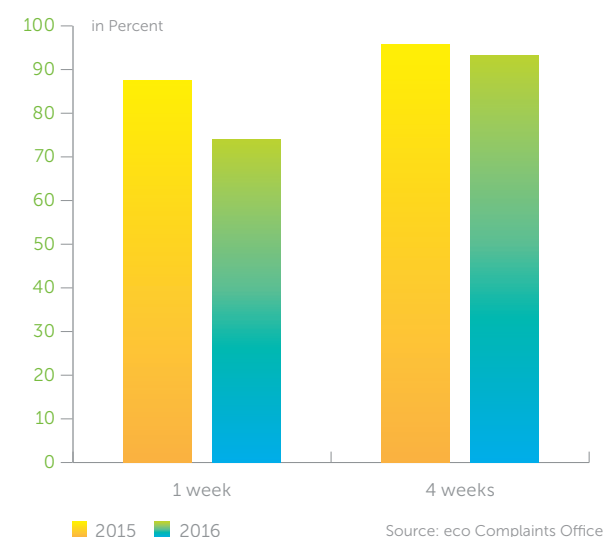
The eco Complaints Office will in future offer the opportunity to appoint an external Youth Protection Officer. In addition to fully qualified lawyers who evaluate online services and identify any necessary steps that need to be taken,

companies also benefit from 20 years of experience in the area of media youth protection, as well as from an international network. You can find more information on Page 77.

Amendment to the Youth Protection Act

In summer 2016, as plans to amend the Youth Protection Act (JuSchG) were underway, eco received the opportunity to submit an opinion on a key issues paper produced by the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth (BMFSFJ). eco seized the earliest possible opportunity to engage in the process and to highlight critical issues, requesting in particular that the finely balanced liability regime for providers be left untouched and that the regulations for the implementation be shaped to be practicable. With regard to the planned supplier dialog, eco saw the need for more far-reaching information and clarification. The association also more broadly questioned the necessity for a statutory regulation on the supplier dialog.

The draft law produced after the short consultation phase entered the phase of interdepartmental coordination in late summer 2016. Given that, at the end of the year, neither the notification procedure nor the parallel state and associations' hearings had taken place, it was deemed unlikely at the time of this report's publication that the amendment would be carried through in this legislative period.

Center for Child Protection in the

Internet

The Center for Child Protection in the Internet, I-KiZ, is one of the BMFSFJ-affiliated platforms that, together with representatives from the industry, science, and politics, is involved in discussing current framework conditions for the shaping of youth protection on the Internet.

After it became clear in 2015 that I-KiZ's fundamental orientation was giving rise to constant debate, and following disagreement on how to handle the recommended actions of the expert commission, the BMFSFJ gave notice that it would rework the I-KiZ concept. At the I-KiZ Symposium in June 2016, the State Secretary Caren Marks announced the end of the I-KiZ project for the end of the year. The reason cited was that, from the outset, no independent legal structure had been intended; instead, in consultation with relevant stakeholders, important areas of work should be anchored in existing structures. Accordingly, the competence center jugend-schutz.net will take over the coordination of the network "No Gray Zones" in January 2017. The portal jugend.support joined the Rhineland Palatinate Authority for Media and Communi-

cation (LMK), which will enable the maintenance of its close connection to the partners of the German Safer Internet Centre. The Safety-by-Design work area, among others, was relocated to the Federal Review Board for Media Harmful to Young Persons (BPjM).

INHOPE

eco is a founding member of INHOPE, the international umbrella organization for Internet complaints offices (www.inhope.org). INHOPE has coordinated a network of Internet complaints offices/hotlines since 1999, and has been financially supported by the European Commission since 2015 as part of the Safer Internet program. Worldwide, INHOPE is the leading organization for the international exchange of user complaints in order to combat illegal content in its country of origin with the help of law enforcement agencies. Currently, INHOPE is comprised of 52 complaints offices in 47 countries (including five offices established with the support of the INHOPE foundation). While the NCBI.cz complaints office and the Internet Association Japan office have left the network, the Columbian complaints office Te Protejo and the Safer

Internet Association Japan complaints office swelled the ranks of member complaints offices in 2016. In 2016, eco also advocated in committees for the targeted expansion of the network and for the funding of a worldwide and effective "Notice and Takedown" of images of child abuse in the country of origin. In addition, eco was active in the further development of the database for the exchange of complaints within the network (ICCAM), for the further development of INHOPE statistics, and for a restructuring of the membership subscription structure. In order to assure compliance with the agreed standards within the network, INHOPE annually conducts a "Quality Assessment" with a number of long-term INHOPE members. In 2016, the eco Complaints Office was also the subject of review. The ensuing report confirmed the excellence of the eco Complaint Office's work, and the office received the Quality Assessment certificate without reservations.

Sicher online gehen (Go online safely)

The initiative "sicher online gehen" was set up in 2012 and involves a consortium of federal, state, company, and association representatives. The common goal of those involved is to advo-

cate jointly for better protection for children on the Internet. Further aims are to sensitize the public concerning risks on the Net, to support media education, and to inform the public about technical protection options. eco is involved in different initiatives which, in turn, are members of "sicher online gehen". These include, for example, the KinderServer and fragFINN, a search engine for content suitable for children. As a proxy server, the KinderServer gives children the chance to surf safely on the Internet. Computer and mobile internet-supported devices can be switched quickly and easily to child-appropriate surfing mode.

Relaunch of fragFINN

fragFINN e.V. invites "the sheltered discovery of the digital world and allows the first steps into the Internet to be undertaken independently in a protected surfing space". With these words, the State Minister for Cultural and Media Affairs Prof. Monika Grütters launched the upgraded children's search machine on 12 September 2016 in Berlin. Since the relaunch, possibly the most important new development at fragFINN.de is its barrier-free design. As well as a text-to-speech

function for children with visual disabilities or reading difficulties, videos are provided with subtitles and audio description. fragFINN.de also offers a picture search, thereby gearing itself more strongly to the current user practices of the young target group. Children can report content that frightens them to the fragFINN team using a new alarm button.

fragFINN e.V. offers a protected surfing space for children, based on a so-called whitelist for Internet sites suitable for children. This whitelist has been developed by fragFINN and is regularly checked by experienced media pedagogues. eco is a founding member of fragFINN.

Taskforce on Hate Speech

In 2016, eco once again participated alongside representatives of social networks, the FSM complaints offices, jugendschutz.net, and other NGOs in the Taskforce "Dealing with illegal hate speech on the Internet," which was set up by the Federal Ministry of Justice and Consumer Protection's (BMJV) in October 2015. In particular, eco brought the experiences of the eco Complaints Office to bear on the handling of reports on illegal, racist Internet content and advocated that, in combating such content, proven courses of action be chosen and that freedom of opinion be respected. In addition, eco took part in September 2016 in the BMJV conference "Together against hate speech on the Net – where do we stand?" In conjunction with academics and representa-

tives of leading companies, the Federal Minister of Justice Heiko Maas und EU Commissioner Věra Jourová discussed effective measures for combating criminal hate speech.

eco Youth Protection Officer Service

In accordance with Para. 7 JMStV (the Interstate Treaty on the Protection of Minors), providers of search engines and commercial providers of generally accessible telemedia that contain content that is developmentally-impairing or youth-endangering must appoint a member of staff to be responsible for youth protection. Important information regarding the Youth Protection Officer, such as name and contact details to enable rapid electronic contact, must be easily recognizable, immediately accessible, and constantly available. The Youth Protection Officer must have appropriate specialist qualifications. The officer provides advice to the provider, is the contact person for users, and is the point of contact for official oversight.

To support members in particular in the implementation of this obligation or in the voluntary appointment of a Youth Protection Officer, eco offers the possibility of appointing an external Youth Protection Officer and the following services:
- A comprehensive consultation on matters relating to youth protection (including examination of the permissibility of the offer with regard to the relevant provisions in the German Criminal Code, the Interstate

Treaty on the Protection of Minors, and the Youth Protection Act, a preventative check with regard to a youth-friendly design of offers, examination of reporting paths, checking of the T&Cs, etc.)
- A neutral point of contact between the service and its users
- Regular updates on developments and legal changes in the area of youth media protection
- Discounted participation in workshops on issues relating to youth media protection and the handling of complaints of illegal Internet content
- Pricing based on the type of provider (content, hosting, or access provider)

Companies benefit from:
- The experience of the eco Complaints Office in the assessment of online offers in the area of youth media protection
- The international network of eco's Complaints Office
- Minimization of liability risk
- Prevention of official fines and written warnings
- Increase in user trust through effective youth protection

Further information in brief is available at: **international.eco.de/internet-complaints-office.html**

Interested parties should send an email to: **jugendschutzbeauftragte@eco.de**.

Melanie Busse
Office and Event Manager Berlin Office

Maria Sürig
Assistant Policy & Law

5.3 Events and Highlights of eco's Capital Office 2016

In the year 2016, within the ambit of eco's Politics, Law & Regulation division's activities, eco managed for the first time to cross the magic threshold of representing over 1,000 members. In total, eco once again organized and led over 20 events in our Capital Office premises and in external locations.

We further developed the "Conversation with Policy-makers" format, and the "Network Policy Forum," both newly introduced in 2015, and these have both now become firmly-established event formats.

The eco Capital Office events were attended first and foremost by political representatives and interested stakeholders from the political arena, as well as by member companies. The focused target groups included federal ministers, state secretaries, spokespersons on Internet policy from parliamentary groups, members of the German federal parliament and their colleagues and representatives of the states' ministries.

As is eco's tradition, the year 2016 started with the eco New Year's reception in Berlin, which was opened by State Secretary Dorothee Bär (Federal Ministry of Transport and Digital Infrastructure) and held under the banner of "Digitalization Perspectives". Numerous other events also featured in eco's 2016 annual calendar, such as the policy breakfasts in Berlin and Brussels, the afternoon "Schoko & Sushi" format, and evening events like the popular eco pol*IT*alks.

A particular event highlight of 2016 was the Network Policy Forum in September, which took place with the Federal Government's three leading Federal Ministers for the digital agenda, Sigmar Gabriel (Federal Ministry for Economic Affairs), Thomas de Maizière (Federal Interior Ministry), and Alexander Dobrindt (Federal Ministry of Transport and Digital Infrastructure). In a follow-up fact-check

round, state secretaries and high-ranking ministry representatives exchanged views with eco's member companies about the significance of the different agenda measures and about potential further developments.

In December, as part of a parliamentary evening, eco also organized an exclusive behind-the-scenes meeting with representatives of the CDU/CSU Parliamentary Group's working group for the digital agenda to discuss the work of eco's Complaints Office in times of hate speech & co.

In the following, you will find detailed information on the Politics, Law and Regulation division's events:

eco Policy Breakfast in Brussels: Europe must opt for "Take-down rather than Blocking"

On 12 January, Sabine Verheyen (MEP) co-hosted the eco policy breakfast, which took place in the European Parliament. Attendees at the breakfast included Members of the European Parliament and their colleagues, as well as representatives of member companies. Their purpose for being there was to become informed on the theme of "Combating Child Sexual Abuse Material on the Internet".

One aspect of the policy breakfast was devoted to the topic of changes in the German criminal code, in so far as it pertains to sexual

activities and the offense "Child and Youth Pornography". Alexandra Koch-Skiba, Head of the eco Complaints Office, also presented the work of the Complaints Office, reported on current take-down times of child sexual abuse material, and explained the background to the EU Hotline funding aid body, the "Connecting Europe Facility" (CEF).

Additional aspects to the breakfast were information and discussion on the European Parliament's and Council's directive from 13 December 2011 on "Combating the sexual abuse and the sexual exploitation of children and child pornography" (2011/92/ EU). This directive envisages an evaluation by the EU Commission

of child pornographic Internet content, concentrating in particular on the "Notice & Take-down" principle. The core conclusion emerging from the follow-on discussion and the breakfast was that the principle "Take-down rather than Blocking" works.

This first Policy Breakfast in Brussels in 2016 represented a good launch to eco's political lobbying at European level.

eco New Year's Reception: New Innovations for Broadband Expansion

On 26 January, eco hosted its traditional New Year's Reception in the Berlin Capital Office.

The evening was celebrated under the caption of "Looking Towards 2016 – Perspectives and Challenges of Digitalization". In his opening address, eco's Chairman of the Board, Prof. Michael Rotert, focused particularly on the Federal Government's broadband initiative. He praised the funding program worth over 2.7 billion Euro introduced by the Federal Government at the end of 2015 and indicated that, as in 2015, 2016 would see an expected investment of 8 billion Euro by TC companies in the expansion of the digital network.

Whether the 2.7 billion Euro from the Federal Government's aid program would prove to be sufficient? – the Chairman of the Board handed this question over to the evening's experts. In her response, the parliamentary State Secretary for the Federal Ministry of Transport and Digital Infrastructure, Dorothee Bär,

detailed the outlook of her ministry's agenda for the new year and reported on substantial projects undertaken in 2015. For Dorothee Bär, the government's 2.7 billion Euro is an important first step and, in this connection, she highlighted the successful cooperation with the Netzallianz coalition.

Her speech earned the parliamentary secretary an enthusiastic round of applause from the approximate 100 evening guests. Included on the guest list were member companies and parliamentary representatives, as well as representatives from the ministries and the industry.

eco Policy Breakfast: Safe Harbor's Successor Regulation on Trial

Just how high the existing legal uncertainty emanating from the declaration of the Safe

Harbor agreement's dissolution is, was evident at eco's 16 February policy breakfast, organized under the heading of "Safe Harbor's Successor Regulation on Trial". The occasion for the panel discussion in eco's Capital Office was the announcement by the responsible EU Commissioners Věra Jourová and Andrus Ansip of an agreement on a successor regulation with the Americans, entitled the "EU-US Privacy Shield". Elisabeth Oygen, eco's Legal consultant for IT Law, presented the key features of the agreement to those in attendance.

The possible impacts to be expected from the agreement formed the basis of heated discussion. There was nonetheless a common point of consensus: namely, the view that a data protection agreement between the Union and the USA would offer the best possible option for legal security.

eco pol/Talk on Safe Harbor 2.0

On 23 February, the first eco pol/Talk of the year took place under the title of "Safe Harbor 2.0 – Can the safe harbor still be saved?" Those present to discuss the new "EU-US Privacy Shield" included the Federal Data Protection Officer, Andrea Vosshoff, Elisabeth Kotthaus (representing the EU Commission), Dr. Dirk Bornemann (of Microsoft Deutschland), Oliver Süme (eco Board Member) as well as the two members of the German federal parliament, Dieter Janecek (Parliamentary Group Bündnis 90/The Greens) and Thomas Jarzombek (CDU/CSU Parliamentary Group).

The discussion focused on those points of the agreement already announced, such as compliance with data protection laws, the transparency rules, the Ombudsman, and the annual transparency report. Elisabeth Kotthaus stressed that, in order to arrive at an agreement, those taking part in the negotiations for a Safe Harbor successor had had to make concessions and find compromises.

From a negotiation perspective, she viewed the new agreement as a real success story, particularly given that a groundless mass surveillance is no longer possible as part of the EU-US Privacy Shield. Andrea Vosshoff considered the pressure that had been exerted by the

Article 29 Data Protection Group to have been the correct strategy in the negotiations. She was of the opinion that this was the clinching factor ensuring that negotiations and results would now shortly ensue. However, she also cautioned against premature praise of the Privacy Shield in advance of the text finally being made available.

For the Microsoft representative Dr. Dirk Bornemann, the agreement plays rather a minor role. As a large corporation, when it comes to cross-border data exchange, the company has opted for many years for standard contractual clauses. Nonetheless, the medium-term would show whether the frequently criticized standard contractual clauses would guarantee legal security in the future, given that the European Court of Justice's (EUCJ) judgment has left many questions

hanging concerning this and the Corporate Binding Rules. In considering the implications of the successor regulation for the broader industry, however, Oliver J. Süme underlined the fact that, for smaller companies, the legal and administrative expense of the current situation is immense, and the establishment of long-term legal security is thus urgently required. Despite representing different parties, both of the parliamentary representatives were united in sharing this view: for start-ups and SMEs, a protracted debate over a successor to Safe Harbor would be unacceptable.

eco Symposium: The Future of Digital Gambling – New State Control?

The ambitious goal of the eco conference on 26 February was to find answers to the question of which reforms are necessary for a future-oriented gambling regulation with the goals of regulating digital operators, guaranteeing user protection, and establishing EU legal conformity. Prestigious spokespersons from politics, industry, and academia were invited to the symposium.

Prof. Michael Rotert, eco's Chairman of the Board, headed up the symposium. In a keynote lecture on the theme of "Economic significance and potentials of the online gambling market," Dr. Iris Henseler-Unger, Director and General Manager of WIK GmbH, explained which economic and fiscal advantages a systematic regulation of the total market would have.

Over the further course of the event, Brigitte Sand, Director of the Danish Gambling Authority, made it clear – in her contribution to the international podium discussion on experiences from other countries – that a regulation of the entire market and an associated licensing of poker and casino games does not inevitably lead to higher consumer expenditure.

Schoko & Sushi: IPv6 and Anonymity – two separate issues

On 11 March, eco hosted the first of the year's popular Schoko & Sushi events on the topic of IPv6. Prof. Dr. Christoph Meinel, Director of the Hasso-Plattner Institute at the University of Potsdam, explained vividly to the over 20 guests that the Internet protocol version IPv6 will, in the long-term, replace the version IPv4.

In the ensuing discussion, the question of the guarantee of anonymity with IPv6 was debated. Prof. Dr. Christoph Meinel was able to offer reassurance on this score: neither user names nor passwords form part of the protocol. This means that anonymity does not depend on either of the protocols. A dynamic allocation of addresses will also continue to be possible with IPv6. Against the backdrop of data retention and the EU General Data Protection Regulation, this imparts an exciting message, proving that every technical change can also have a political component.

eco Conversation with Policy-makers: Broadband Expansion in its Most Decisive Phase

Technology mix, yes; gigabit society, maybe; universal 50 MBit/s for 100 percent, in the year 2017, probably not: this represents a condensed version of the conversation with member of the federal parliament Martin Dörmann. On 26 March, eco member companies met with the MP for a breakfast in the eco Capital Office and discussed the SPD's and the federal government's proposals, activities, and plans for network expansion. The Federal Ministry for Economic Affairs and Energy's (BMWi) paper "Digital Strategy 2015," introduced by

Federal Minister Gabriel at CeBIT, was also naturally a subject of discussion.

Martin Dörmann started by outlining the five building blocks of the SPD's 2012 broadband strategy, the latter which formed the basis of the coalition's negotiations. Much time had been lost with the new expansion because of the reassignment of the area of digital infrastructure within the BMWi's and BMVI's ministries, but broadband expansion is now being expedited through the BMVI funding program. Martin Dörmann was optimistic that the funding program would reduce the 30 percent deficit in universal MBit/s supply to five percent within the next few years. Further focal topics discussed were those of fiber optic network expansion, technology mix and financing.

eco Policy Breakfast: New Perspectives on Regulating OTT Services

The discussion concerning regulatory classification and definition of OTT services has been ongoing for some time and could still not be definitively clarified at eco's policy breakfast on 12 April. The discussion in eco's Capital Office was characterized in particular by questions of definition. A second more concrete component of the discussion considered regulatory measures for the future. Do we need Europe-wide standard TC-services? Will we succeed in creating that much sought-after "level playing field" through more or less regulation? The discussion

was kicked off by Dr. Folke Scheffel, eco's Legal Consultant for Internet and Media Law, with a short talk covering the general background, definitions, principal questions, and sticking points in the OTT debate.

eco Press Breakfast & eco Policy Lunch: Time for a Landmark Decision from the European Court of Justice

The Munich Internet service provider SpaceNet AG, supported by eco, is bringing a lawsuit against the previous year's controversial decision to reintroduce the Data Retention Law before the Administrative Court in Cologne. From its Capital Office on 9 May, together with SpaceNet AG, eco presented all corresponding plans to press and politics and industry representatives.

In a keynote lecture on the lawsuit, Prof. Dr. Matthias Bäcker, who drafted the lawsuit application, started by explaining the motives and relative prospects of success of a case brought to the Adminstative Court, as opposed to the constitutional proceedings instituted by other parties. In 2014, the Luxembourg judges overturned the European Data Retention Directive. Since this judgment, it is still unclear as to whether the Court of Justice's decision on groundless data retention from the previous year holds up as being fundamentally legally permissible.

As an Internet provider for approximately 1,200 business customers and Internet service providers, SpaceNet would have to invest massively in personnel and hardware in order to cover the monitoring mandated by the legislator. For this reason, SpaceNet is representing the entire industry in filing for injunctive relief. As Space-Net's Chair, Sebastian von Bomhard, expressed the matter to the assembled press representatives, "To us, it is unacceptable to be expected to mobilize such high economic costs without knowing whether the law will ultimately stand".

eco Policy Breakfast in Brussels: New Copyright Law Obligations

On 25 May, a policy breakfast was held in Brussels to contribute to the discussion on rights and obligations for intermediaries in the implementation of copyright law. eco co-host-

ed the event with the European Parliament's MEP Petra Kammerevert. The EU Commision's consultation on the Copyright Implementation Directive (IPRED, 2004/48/EG), which is being tested as part of the amendment to copyright law at European level, had already ended in mid-April. In his talk, eco Board Member Oliver Süme, thus initially reported on the current stage of consultation and on the restructuring of the existing directive. Particular focal themes were those of combating cross-border copyright violations and the introduction of "due diligence" procedures for intermediaries. In the follow-up discussion, the main items reviewed were the need for such due diligence and how cooperation in cross-border copyright violations could generally be improved.

Conversation with Policy-makers: Member of the Bundestag Ansgar Heveling on the Anti-Terror Law and Data Retention

Time is of the essence for the Anti-Terror Law, and yet there still exists a need for much discussion – that captures the substance of the eco event "Conversation with Policy-makers," held on 31 May with Ansgar Heveling (CDU). The Chair of the Committee on Internal Affairs of the German federal parliament presented his case for the regulation of a voluntary self-commitment. This regulation is intended to be entered into law and would require operators of online platforms in future to work independently and actively against terrorist propaganda.

According to Ansgar Heveling, the alternative would be to create options for state intervention. In this respect, the member of parliament acknowledged the immense concerns of eco and its members. Above all: is such a regulation ultimately constitutionally possible? How would incidences be reported and who would bear the costs? As one eco member interjected, many of the affected companies are small and medium-sized enterprises with employee numbers in single digits, with the self-commitment therefore being almost impossible to honor.

With regard to data retention, the great current uncertainy existing for Internet companies was voiced. From July 2017 at the latest, Internet access providers will be obligated to collect data.

The costly associated arrangements must now be put in place – even in the absence of clarity as to whether the law will ultimately stand before the Federal Constitutional Court and the European Court of Law.

Schoko & Sushi: Geoblocking

On 17 June, eco once again hosted its popular event format Schoko & Sushi, with the topic of this session being that of the controversial geoblocking. Frank Ruh, Senior Solutions Architect with Vodafone Kabel Deutschland GmbH, offered the insight of an Internet and content provider on the topic and described how the restrictions are dealt with technically on a daily basis.

A lively discussion followed on the EU's current intended plans to proceed with a regulation against geoblocking for those on vacation and business trips. The majority of the guests sought a clarification and a basis from the EU to allow European citizens in the future to easily use the online content purchased or subscribed to at home when traveling in Member States. Consumers are currently finding the situation concerning the lack of availability of legally purchased content and services such as Netflix & Co. hard to fathom. The overriding consensus of the guests was that a new regulation could make the use of many services more attractive.

eco Policy Breakfast: A Wish List for Blanket Data Retention

For companies, data retention is becoming significantly more expensive and more time-intensive than originally envisaged. This was spelt out by Klaus Landefeld, eco Board Member for Infrastructure & Networks, at the policy breakfast held in the Capital Office on 21 June. The catalyst for this statement was the Federal Network Agency's draft on the "Catalog of Technical Arrangements and other Measures," intended to concretize the requirements of the 2015-adopted blanket data retention.

"The ongoing security checks, the generation and deletion of keys, the protocolling of all work steps, and many more aspects of the draft, produce a much higher staffing and

administrative outlay than presumed at the outset," Klaus Landefeld told the eco members. For the installation of the required storage infrastructure, the affected companies will foreseeably have to bear costs estimated at more than 600 million Euro.

"What is at issue here is a political wish list," stated Klaus Landefeld. Data have to be available in their entirety, accessible at all times, and at the same time must be highly secure. The implementation would require the development of completely new systems, but manufacturers have already indicated that, for the moment, they will not develop the relevant new systems – because it is uncertain as to whether blanket data retention will stand up this time in court.

pol*IT*alk on the Topic of Geoblocking

Good weather, cold beer, a big screen, the German national team as winners – that's what a perfect football evening during the European Cup looks like. The game against Northern Ireland on 21 June was the warm-up for the eco pol*IT*alk which, on this occasion, focused on the contentious topic of geoblocking. Country restrictions on the Internet preclude many football fans from watching the games on the Internet when away on business or vacation. It is exactly this type of situation that the EU Commission now wants to redress: In future, EU citizens travelling in other Member States should be able to call up the online content purchased from, or subscribed to, at home.

However, numerous questions still need to be clarified on the topic of geoblocking. In the

historic breakfast room on Potsdamer Platz, Henning Lesch (eco's Head of Law & Regulation), together with Timo Albrecht (Head of DFL's Capital Office), Lina Ehrig (Team Leader of Digital and Media with vzbv) and Alexander Scheuer (Group Public & Regulatory Affairs at Deutsche Telekom) discussed conflicts of interest, the legal situation, and current developments.

Networking BBQ: The Internet Industry Celebrates at the eco Summer Party in Berlin

Once again this year, the "who is who" of the Internet industry met at the eco summer party, which took place on 25 August in the Berlin Kalkscheune venue. Prof. Michael Rotert, Chairman of the Board at eco, opened the event and the much-praised buffet. The evening offered around 200 guests from ministries, the federal parliament, industry, the press, and the Internet community the opportunity to discuss the topics and trends of the coming weeks. While enjoying relaxed networking over cool drinks and delicacies from the barbeque, they were able to tune back into political life.

Internet Policy Forum: Two Years into the Digital Agenda

The Digital Agenda 2014–2017, presented by the German federal government in August 2014, provided German Internet policy with important stimulus. It is true that, one year before the end of the legislative term, not all of the objectives

formulated in the Digital Agenda have been met. However, the federal government has succeeded in decisively setting the course in almost all fields of activity. This was the consensus of representatives of the Internet industry and the three leading ministries on 6 September 2016 at the Network Policy Forum, held in Berlin and organized by eco under the patronage of the German Federal Ministry for Economic Affairs and Energy, the Federal Ministry of the Interior, and the Federal Ministry of Transport and Digital Infrastructure.

Before an audience of around 200 guests from politics, industry and the media, eco Board Member Oliver Süme discussed the milestones and challenges in the implementation of the Digital Agenda with Federal Minister for Economic Affairs Sigmar Gabriel, Minister of the Interior Thomas de Maizière, and Minister for

Transport Alexander Dobrindt. According to Oliver Süme, "the Federal Government has recognized the important status of the Internet industry and, for the very first time, formulated concrete fields of activity and policy objectives for the interdisciplinary topic of digitalization in the Digital Agenda. With this, Internet and digital policy in Germany has taken a crucial step forward". As a result, he regards it as self-evident that the Digital Agenda needs to be further developed after the end of the current legislative period in the coming year.

Following the ministerial discussion, three further panel discussions were held. These gave Sabine Bendiek, CEO of Microsoft Deutschland, René Wienholtz of Strato, and Dr. Wolf Osthaus of Unitymedia, a platform to discuss the status of the Digital Agenda's implementation in individual fields of activity with Harald

A. Summa, Prof. Norbert Pohlmann and Klaus Landefeld from eco, as well as with the State Secretaries Matthias Machnig (BMWi), Klaus Vitt (BMI), and the Head of the Digital Society Directorate, Frank Krüger (BMVI).

Conversation with Policy-makers: Tabea Rössner, Member of the Bundestag (Bündnis 90/The Greens)

The topics of copyright and broadband expansion formed the focus of the final "Conversations with Policy-makers" event of the year, which took place on 19 October in the eco Capital Office. Tabea Rössner, member of the federal parliament (the Greens), attended as a guest and provided an insight into her work in the German parliament. Afterwards, she discussed and answered participants' questions on Internet policy.

Tabea Rössner has long held the view that there is a need for reform of copyright law. She believes that what is needed are standardized European rules which take into account the new modes of reception in the digital age. At the same time, it is necessary "to think in terms of objectives". The goal must be, on the one hand, to preserve cultural diversity and to prevent market and opinion dominance. At the same time, however, the international competition needs to be taken into consideration. Owners should be appropriately compensated but, at the same time, user conditions which are easy to manage and understand need to be guaranteed. On the topic of broadband, Tabea Rössner criticized the federal government's policy, which she viewed as being more concerned with quick success than with sustainability. She did not believe that the 50-MBit/s goal by 2018 could be achieved using this approach. The federation must invest massively in high-speed networks.

eco Policy Breakfast: Take-down Success in the Fight against Images of Sexual Abuse

On 25 October, Alexandra Koch-Skiba, Head of the eco Complaints Office, took stock and provided the guests with a detailed report on the work and successes of the eco Complaints Office. Aspects upon which she provided information were current incidence of complaints and challenges in handling complaints, as well as take-down successes in child sexual abuse material and images depicting posing. The comparison of current figures with previous years shows a marked increase in the incidence of complaints. Moreover, the annual analyses indicated a clear shift in age away from images of youth in the direction of child sexual abuse material.

The follow-up discussion concentrated initially on the differing procedures employed within the worldwide network of complaints offices. There was also much discussion about the challenges of the complaints work, in particular relating to the interpretation of the law, age classifications, and contending with fast-flux networks.

eco Policy Breakfast on the Telecommunications Review: Expansion of High-speed Networks is the Number 1 Goal

With 289 pages and over 280 recitals, the European Commission presented a truly comprehensive draft for the reform of the European Telecommunications Law on 14 September 2016. On 22 November Nicolas Goss, eco Legal Consultant for Telecommunication Law & Regulations, gave the guests of the eco policy breakfast an overview of the draft's goals and chief reforms, as well as the significance of the draft for the companies.

The follow-on discussions focused on the different procedures to achieve these goals. In particular, the topic of expansion and promotion of the high-speed network generated numerous questions, centering on the planned survey of the network expansion, market analysis, suggestions for expansion strategies, and future goals.

Conversations with Policy-makers: Herbert Behrens, Member of the German parliament (DIE LINKE): Fast Future-Capable Internet Requires Investment

The road to the heralded gigabit society remains bumpy: that was the overriding message of the "Conversations with Policy-makers" event, which took place on 29 November in the eco Capital Office. Member of the German parliament Herbert Behrens (DIE LINKE – the Left) was the guest attendee. He provided an insight into his current issues and afterwards answered questions on Internet policy concerns.

DIE LINKE, according to Herbert Behrens, have always demanded a more future-oriented digital infrastructure and, as part of this demand, have consistently advocated for glass fiber technology. The former Spokesperson for Digital Infrastructure stressed that the topic of broadband expansion maintains its high priority for the left parliamentary group, even if the party never succeeded in positioning its demands for glass fiber in the Digital Agenda Committee. The digital divide between rural and urban is growing. In order to counter this trend and to open up "financially unattractive" areas, a de-privatization of broadband development could also be considered. However, concrete concepts for such an approach have not yet been thought through by DIE LINKE.

The follow-up discussion embraced the topics of realizing different expansion strategies, societal participation, and the digital services of the future.

Parliamentary Dinner: eco Complaints Office in Times of Hate Speech & Co.

On 30 November, eco hosted a parliamentary dinner in the eco Capital Office with the CDU/CSU Parliamentary Group's working group for the digital agenda. In this exclusive company, the eco Head of the Complaints Office, Alexandra Koch-Skiba, presented the work of the complaints office network in Germany and Europe and spoke with the deputies about the greatest challenges in dealing with legal violations on the Internet.

Against the background of the current demands for more stringent measures against hate speech, the discussion focused particularly on the legal framework for proceeding against hate speech, especially considering the sensitivity of protecting freedom of expression.

The presentation was followed by a social gathering, which included time for questions and further discussions on topics such as eco's Internet Policy Agenda, product liability for IT services and products, and the possible extension of the blanket data retention to messenger services.

Competence Group Law & Regulation: Platform Regulation and Other Questions Relating to Digitalization

The Competence Group Law and Regulation met on 1 December in the eco Capital Office. One topical focus of the evening, arising from the consultation process of the German Federal Ministry for Economic Affairs and Energy (BMWi) on the Green Book Digital Platforms, was that of the regulatory classification and handling of digital platforms.

In an introductory presentation, Andreas Hartl (Division for Basic Issues of Telecommunications and Post Policy) provided an overview of competition and regulation-policy issues of digitalization, and also talked about technical supervision of the Federal Network Agency in the BMWi and

the consultation process on digital platforms. In the second part of the meeting, the eco consultants Thomas Bihlmayer, Philipp Ehmann, and Nicolas Goss presented the current political topics supported by the eco team in Brussels, Berlin, and Cologne. These include the TC Review, blanket data retention, the EU Data Protection Adaptation and Implementation Law, the planned new version of the ePrivacy Directive, the Copyright Reform, and the SatCab Directive.

Sidonie Krug
PR Specialist Policy & Law

Christin Wagner
PR Specialist and Online Communication
Policy & Law

5.4 Political Communication

Successful Media Balance 2016

The eco Capital Office can look back on 2016 as being a successful year for PR. The strategic interplay between classic lobbying and political PR work continued with great effect in 2016. Using this approach, the central messages of the association – for example in the areas of blanket data retention, cyber security, and Wi-Fi third party liability – were communicated in the public arena via media and multipliers, whilst debates on current political questions were actively supported, and targeted agenda-setting for focus topics such as the Federal Government's Digital Agenda 2014-2017 were initiated. Substantial evidence exists that eco, in its Berlin key editorial office, has come to be appreciated as a competent Internet policy actor and the voice of the Internet industry. Such evidence includes the consistently high and high-ranking attendance at the press breakfasts on the topic of blanket data retention; the ongoing marked increase in media inquiries; and, in comparison with 2015, a 10 percent increase in the share of political press references to eco in leading media.

Study Digital Germany

A core principle of the eco Capital Office's political communication is, through media-oriented content and PR strategies, to complement the content and key messages generated through eco's political work and to position these on the public agenda. In 2016, the success of this approach was exemplified in the marketing of eco's Internet policy statement, the Network Policy Agenda. This agenda was presented to the relevant target groups (politics, media, Internet politics community, and multipliers from the member companies) in September 2016 as part of the high-profile Internet Policy Forum (see also Chapter 5.3 Events and Highlights of eco's Capital Office 2016). From a communications perspective, the event was accompanied by eco's own representative study "Deutschland Digital," which supports the demands of the Internet Policy Agenda with figures from a representative survey commissioned by eco. The press release on the event, composed with the three participating ministries, was distributed exclusively over the German Press Agency dpa in advance and was taken up in over a hundred media reports.

Campaign: Wahl/Digital 2017

The dissemination of eco's Internet Policy Agenda will continue to take center stage in eco's political communication during the election year. To further this objective, a campaign under the headline "Wahl/Digital 2017" was developed in 2016. Running in parallel to the German federal election campaign until September 2017, the eco campaign will constantly advance its focal theme of Internet policy and the interconnected subject areas from the Internet Policy Agenda.

Press Releases Selection of Topics from eco Policy, Law & Regulation 2016 (Print and Online)

Total 2,542

VDS	699
WLAN / TMG	602
Net Neutrality	217
Internet Policy	217
Brexit / Internet Industry	194
IT Security	185
Data Protection	179
Youth Protection	144
Copyright	39
Internet Governance	36
Media Competence	17
Media Convergence	13

PR Activities eco Berlin 2016

total **123**

- Press Releases — 33
- Statements — 22
- Online News — 28
- Guest Contributions — 8
- Members Newsletter — 20
- Newsletter "eco Politik" — 12

The centerpiece of the campaign is the new event series, "pol*IT*alk Special: Wahl/Digital 2017," starting at the beginning of March to coincide with Industry Week. Further elements of the campaign will be monthly PR informa-tion packages covering each chapter of the Internet Policy Agenda, comprised of a press release formulating eco's core messages and demands, a current survey on the topic, and an eco expert interview. The publication of these monthly themes commenced in October 2016, and they have already produced good reso-nance from the media.

Online Communication Further Expanded

A further important element of the campaign strategy is stronger online communication from the eco Capital Office.

To this end, in 2016 the new website **www.eco-digitalpolitik.berlin** was launched, to further develop the central information platform in the form of a campaign.

Since November 2016, the eco Capital Office is also active on Twitter **@eco_politik**. The asso-ciated goal is two-pronged: firstly, stronger cross-linking with the political target group (who are strongly represented on Twitter) and with influencers in the area of Internet policy; and secondly, a communications reinforcement of PR actions and eco messages in the online area.

Thomas Müller

Head of Corporate Communications

Kathrin Jennewein

PR Specialist

6. Corporate Communication

On the strength of stronger in-house PR, a multiplicity of information channels, and a newly designed social media strategy, the eco group was able to increase its number of press releases in 2016 by six percent in comparison with the previous year. Dissemination of Internet industry topics, for which the PR team in Cologne is responsible, rose by a massive 50 percent. In this category, IT security once again proved itself to be the most important drawing factor.

For four years, the Wiesbaden PR agency euro-marcom successfully supported the PR team in Cologne in its public relations for the competence groups' topics. In 2016, eco decided to undertake its future press work for these top-ics in-house. Since the end of 2016, René Bernard has boosted the ranks of Cologne's corporate communication team in Cologne as a permanently employed PR Editor. Through shorter communication channels and the on-site presence, the PR team can better deploy its resources and can react more rapidly to communication needs.

In addition, PR trainee Kathrin Jennewein secured a permanent position with eco and, as PR Specialist, is now above all responsible for the field of Internet and IT security. She is also charged with the task of developing and implementing the association's social media strategy.

Nothing new for eco: Content Marketing

For eco, the times in which associations' PR activities were limited to posting event notices and position papers on websites are long gone. The focus instead is on stories. Which is especially important, given that the association's guiding principle and concurrent high standard – "We are shaping the Internet" – also has to be reflected in our communications.

The spotlight is therefore shared by a variety of topics, such as IT security, e-commerce, online marketing, IoT, and the general impacts of digitalization. Here, eco does not want to simply gaze into a crystal ball, but instead uses reliable studies to identify trends and drivers. Using such an approach, the PR team's communication benefited tremendously from the results and prognoses of the study "The German Internet Industry 2015 – 2019," published at the end of 2015 as an outcome of cooperation between eco and the management consultancy firm Arthur D. Little. Its publication was accompanied by a press conference in Munich, attended by the IT trade press and daily newspapers. Over the course of the year, the media was continuously supplied with information on the individual sections of the study and was more than happy to take up these topics in its reporting. The associated press releases included:

- "An explosion in the volume of data traffic,"
- "Public cloud services are the turbo segment of the German Internet industry,"
- "Web hosting and domain service providers with dream margins, but the market is stagnating," and
- "The German Internet industry overtakes the automobile industry in twelve years".

Content and Social Media

Through social media channels, companies and associations can create a direct connection to the majority of their customers or members. Companies produce their own content, communicate it through different channels, and receive unfiltered feedback in return. The type of "information billiards" of times past, which relied on the cushion of the conventional media as gatekeeper for corporate communica-

Press releases Internet Industry 2016

```
5,000                    ↗ + 50 %
4,000
3,000   ┌──────┐   ┌──────┐
2,000   │ 2015 │   │ 2016 │
1,000   │      │   │      │
   0    └──────┘   └──────┘
         3,300      4,900
```

Annual Comparison Leading Specialist Media eco Cologne

```
300                  ↗ + 50 %
250
200   ┌──────┐   ┌──────┐
150   │ 2015 │   │ 2016 │
100   │      │   │      │
 50   │      │   │      │
  0   └──────┘   └──────┘
        174        261
```

Annual Comparison Leading Industry Media eco Cologne

```
180                  ↗ + 51 %
160
140
120   ┌──────┐   ┌──────┐
100   │ 2015 │   │ 2016 │
 80   │      │   │      │
 60   │      │   │      │
 40   │      │   │      │
 20   │      │   │      │
  0   └──────┘   └──────┘
        112        169
```
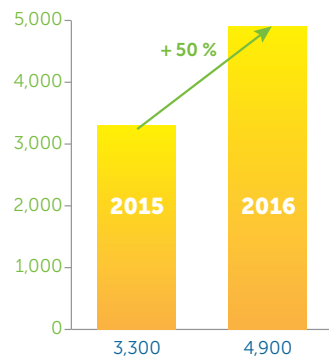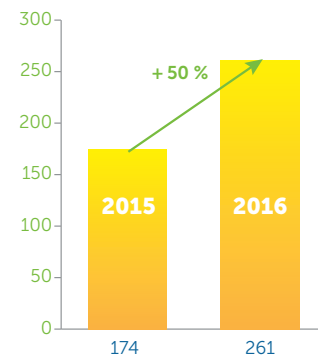
tions, is losing its significance – today, the message can be steered directly to the target group. And users are also becoming more accustomed to receiving their information and stories directly from companies, as opposed to from media houses.

Within this context, eco's Corporate Communication division re-designed its social media strategy at the beginning of 2016, a strategy which has continued to evolve up to the present day. The following goal has been set: eco should benefit from the changed media usage in order to increase its name recognition, its coverage, and its reputation on social networks. With more social content, more moving images, a structuring of columns, and supported advertising, the PR team was able to double the number of Facebook fans between July 2016 and the
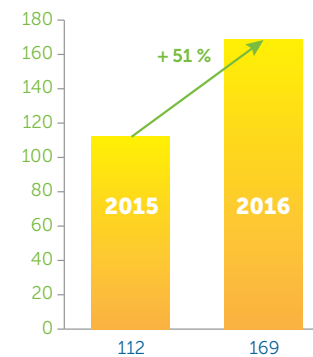
end of the year. You can read more about this topic in Chapter 6.4 eco Social Media.

VoD and Podcast

Moving images are meanwhile integral to corporate communications – and are moreover rewarded by Google and Facebook. The live streaming from eco events (such as from Internet Week 2016) and of short highlight clips have been very well received, as has eco CEO Harald A. Summa's video column "Summa summarum". eco intends to continue its expansion of the use of moving images. You can also read more about this topic in Chapter 6.4.

But the market for audio content is also large, which is evident not just in the success of audiobooks, but also in that of podcasts. In

this area, eco is a pioneer. Since 2006, eco has an unbroken record of producing a monthly podcast, a format which was re-launched in 2015. Since then, the (German-language) eco audio magazine focuses less on daily events, with each edition instead covering a focal topic with a higher "half life"– of premium quality, journalistically produced and edited, and centered on gripping topics such as:
- "FinTechs: Poaching in the drowsy world of banking,"
- "Data Centers – Custodians of the data treasure chests,"
- "Autonomous Driving – Will the license soon be superfluous?" and
- "Netflix & Co. – Gravediggers of the linear TV?"

With such podcasts, eco managed to attract in excess of 1,000 listeners per edition. Experience shows: people with something to say boost ratings and there is a direct correlation between how concretely a video or podcast deals with a topic and the degree and longevity of its appeal. You can read more about this in Chapter 6.3 on the topic of eco media.

Classic Mass Media

For corporate communication, the classic mass media is nonetheless still likely to count as the most relevant part of 360-degree communication for some time yet. And here, a growing interest in Internet industry topics is also discernible. For eco, a further highlight of 2016 was the invitation to contribute to around ten television reports, allowing it address its topics to a broad audience. In particular, eco was a sought-after expert on the topic of IT security.

The contributions included:
- WDR Fernsehen Servicezeit: Mobile phone lockdown scam,
- Deutsche Welle Magazin Shift: on the topic of smart homes with Markus Schaffrin,
- ZDF heute: Pokémon hype in Germany with original audio from Markus Schaffrin,
- WDR Aktuelle Stunde: "How's it going with the Internet Connection?" with a live appearance from Markus Schaffrin,
- WDR Daheim und Unterwegs with a live performance from Markus Schaffrin on the topic of "Fake Shops".

Press Releases eco Selection of Topics on the Internet Industry 2016 (Print and Online)

Bar chart with y-axis from 0 to 4,000:

- IT-Security: 3,504
- Internet of Things / Smart: 388
- E-Commerce: 340
- M2M / Mobile: 92
- eco Events Cologne: 75
- New Work: 60
- eco Gala / Awards: 56
- Internet Security Days: 50
- ADL Studies / Internet Industry: 49
- Games: 48
- Email: 40
- Datacenter: 36
- Online Marketing: 25
- Cloud Computing: 24
- General Services: 18
- Streaming Media: 18
- eco Internal: 15
- Big Data: 13
- Domain Industry: 12

Besides its television appearances, the eco PR team in Cologne also managed to increase the number of press releases in the IT and Internet trade press. The competence groups' topics and the content of eco's services achieved a 50 percent stronger placement level in the "traditional national leading media".

The complete study is available free of charge in English at:
http://go.eco.de/internet_study

The German Internet Industry 2016-2019
Arthur D Little

6.1 Press Analysis eco Total

Press Releases eco Total (Print and Online)

Bar chart:
- 2014: 6,684 (19 %)
- 2015: 8,067 (6 %)
- 2016: 8,489

Press Releases eco Total 2016

Pie chart, total 8,489:
- 113
- 867
- 2,605
- 4,904

Legend:
- eco Berlin
- eco Cologne
- DE-CIX
- EuroCloud
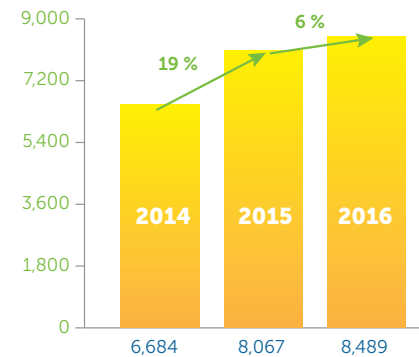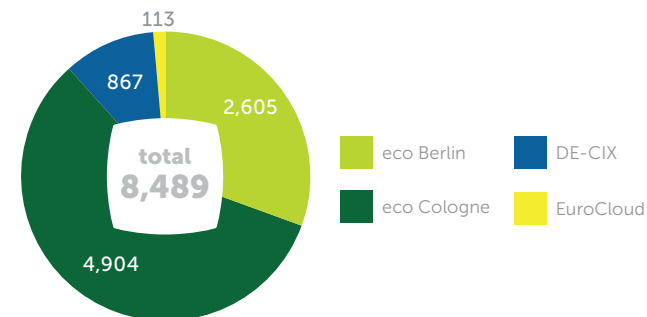
Selected Internet Industry Press Publications

Selected Policy, Law & Regulation Press Publications

6.2 eco Web Sites

Visits to www.eco.de

	2015	2016
Page views	373,796	448,245
Visits	132,428	124,595
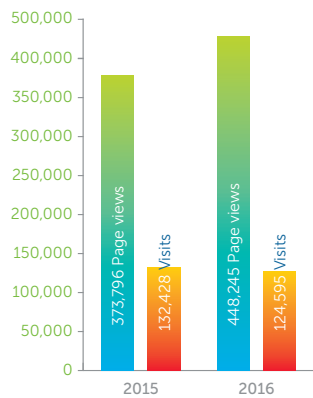
Visits to all eco Websites

	2015	2016
Page views	545,466	623,652
Visits	208,227	195,236
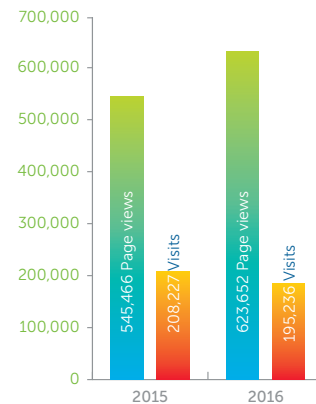
Visits to all Event Microsites 2016

	Internetwoche	Internet Security Days	eco Internet Award	CSA Summit	EuroCloud Deutschland Conference
Page views	87,788	39,100	32,670	4,570	2,850
Visits	21,674	16,700	18,250	2,140	1,500
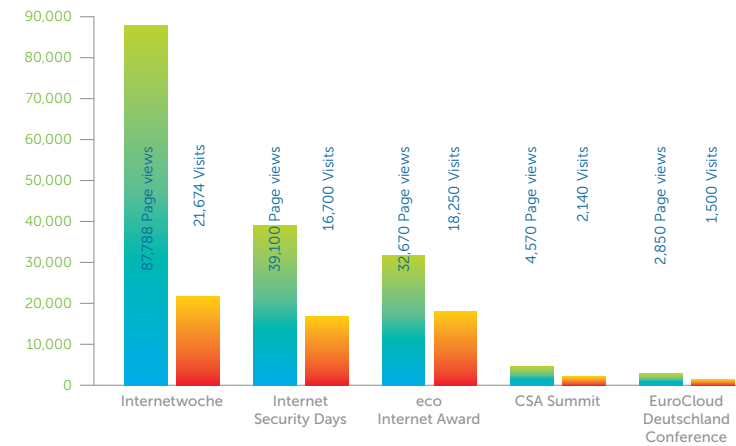
Competence Groups and Topics
Page Views, and Visits to Landing Pages 2016

Site	Page views	Visits
datacenter.eco.de	45,710	18,182
international.eco.de	34,460	14,391
www.eurocloud.de	25,808	11,016
sicherheit.eco.de	9,316	4,750
e-commerce.eco.de	8,306	4,340
numbers.eco.de	6,365	2,872
online-marketing.eco.de	4,846	2,798
politik-recht.eco.de	8,539	2,786
www.dcaudit.de	4,830	1,845
mobile.eco.de	4,343	2,552
new-work.eco.de	3,751	1,880
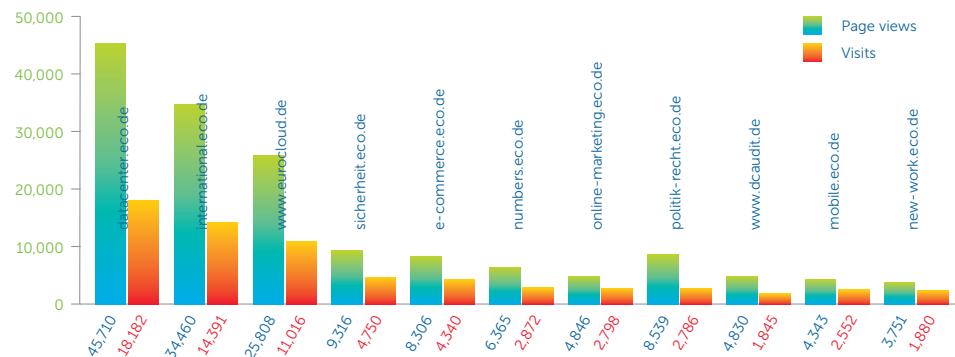
Cyber Security Services, Page Views,
and Visits to Landing Pages 2016

Site	Page views	Visits
botfrei.de	1,262,763	374,975
blog.botfrei.de	695,412	510,968
forum.botfrei.de	57,225	22,662
Initiative-s.de	50,317	20,397
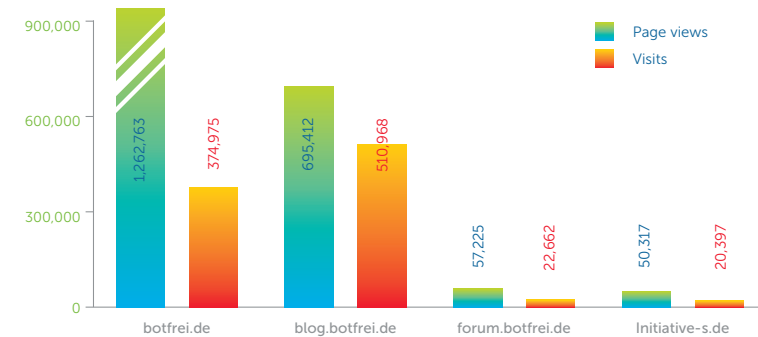
6.3 eco Media

Current to contextual

The six newsletters that are meanwhile produced by the eco association provide an absolute wealth of information. From Cologne, the popular German-language "eco compact" and "eco events" offer on alternate weeks news from the association, the industry, and on important Internet industry events. Complementing these are the international, English-language "eco international" and "eco InsiDE," which keep international members up to date on important developments in the local market. Over and above this, the eco Capital Office, with its "eco Politik & Recht" and "eco politik," publishes two newsletters on national and international Internet and Internet policy topics.

Expert knowledge worth listening to

The association's podcast, newly conceptualized in 2015, continues on its successful trajectory. The German-language eco audio magazine offers a monthly focal topic upon which recognized experts are inte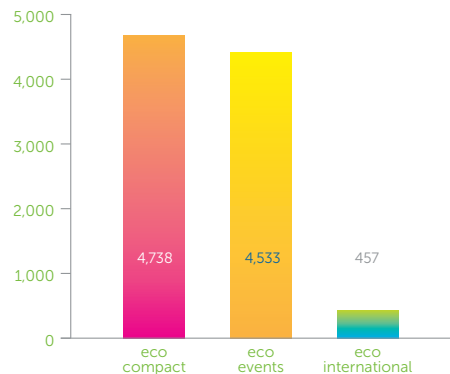rviewed. Prof. Dr. Johannes Caspar, Prof. Dr. Wolfgang Hommel, Karl-Heinz Land, Dr. Holger Schmidt, Jörg Schönenborn, and Christian Solmecke were just a few of the prominent names whose views were heard in 2016. The spectrum of

eco Newsletter Subscribers December 2016

	Subscribers
eco compact	4,738
eco events	4,533
eco international	457

topics covered was also correspondingly wide-ranging – spanning autonomous driving, to anonymity on the Internet and makers, to data centers and the Internet of Things. You can listen to the eco audio magazine at www.eco.de/podcasts.html or subscribe to it free, over Apples iTunes. Editorial responsibility for the webpage news, the Cologne newsletters, the eco audio magazine, and the social media channels was vested in the agency FRESH INFO +++ (http: //fresh-info.agency).

Further information can be accessed at:
www.eco.de/newsletter.html
https://international.eco.de/newsletter.html
www.eco.de/podcasts.html

Kathrin Jennewein
PR Specialist

eco in the Social Media 2016
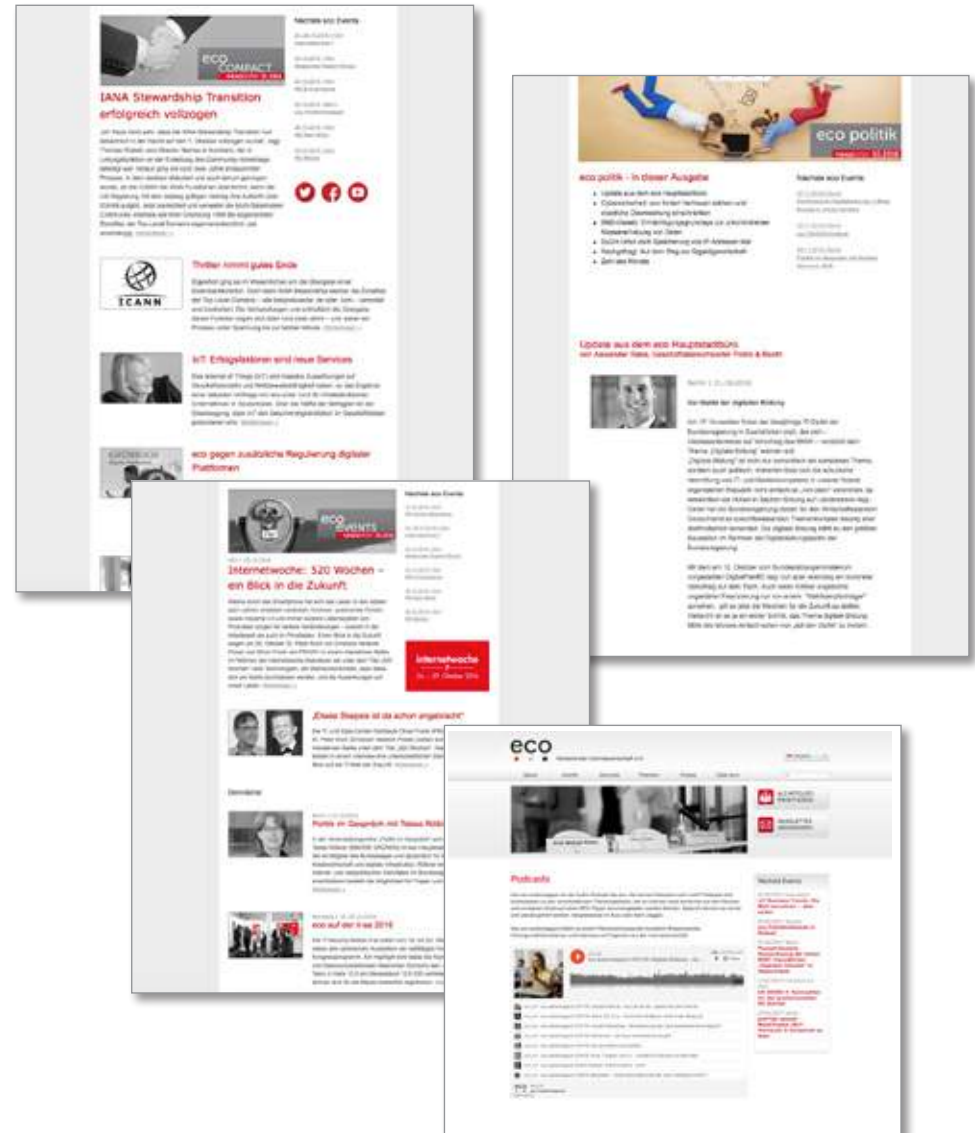
6.4 Social Media

In January 2016, eco's social media team turned a new page and started afresh with a complete newly-structured and upgraded social media strategy, with particular effect f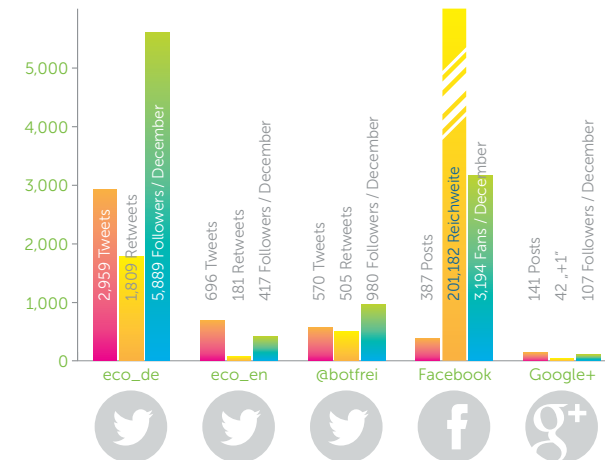or the eco Facebook channel. The latter benefited from a restructuring of its content strategy, resulting in a diversified content mix, a variety of new formats, and a stronger digital orientation. Here the team opted for a wide range of different topics and formats in order to ensure a multifaceted and interesting news stream. This includes not only classic press releases, photos, videos and reports on eco events, but also entertaining formats such as glimpses into the everyday world of eco's workers, or the number of the week.

Thanks to the newly-designed content strategy and flanking advertising measures, eco was able to more than treble the number of Facebook contributions, whilst its number of Facebook fans rocketed from just under 900 in January 2016 to around 3,200 in December 2016.

eco has been successfully active on Twitter for a number of years and, in 2016, was able to further grow its number of followers. Aside from the already established German and English channels **@eco_de** und **@eco_EN**, the association started the new digital policy channel **@eco_politik** in November.

eco strengthens its focus on moving images

The year 2016 also saw eco carving out new paths in the area of moving images. Numerous events, such as the New Year reception, the eco Internet Awards and the Internet Security Days, were accompanied by high quality image films. The association is particularly proud of the fact that it has now built its own internal film team of eco staff members and can thus produce most of its video formats completely in-house.

In 2016, eco was thus able to substantially increase the number of moving image formats on its YouTube channel. Not only did this allow eco to be displayed to its best advantage through interviews, videos of panels and events, and Harald A. Summa's YouTube column "Summa Summarum," but it also offered an extensive overview of eco's activities.

In 2017, eco wants to give its members and interested parties an even closer look behind the scenes and the day-to-day work of the association, and is naturally pleased with each and every additional follower, like, comment and share on Facebook, Twitter, YouTube & Co.

Further information is available at:

@eco_de
@eco_EN
@eco_politik
@DCStarAudit
@EuroCloud_DE
@botfrei
@antibotnet

www.flickr.com/ecoev

www.facebook.com/ecoverband
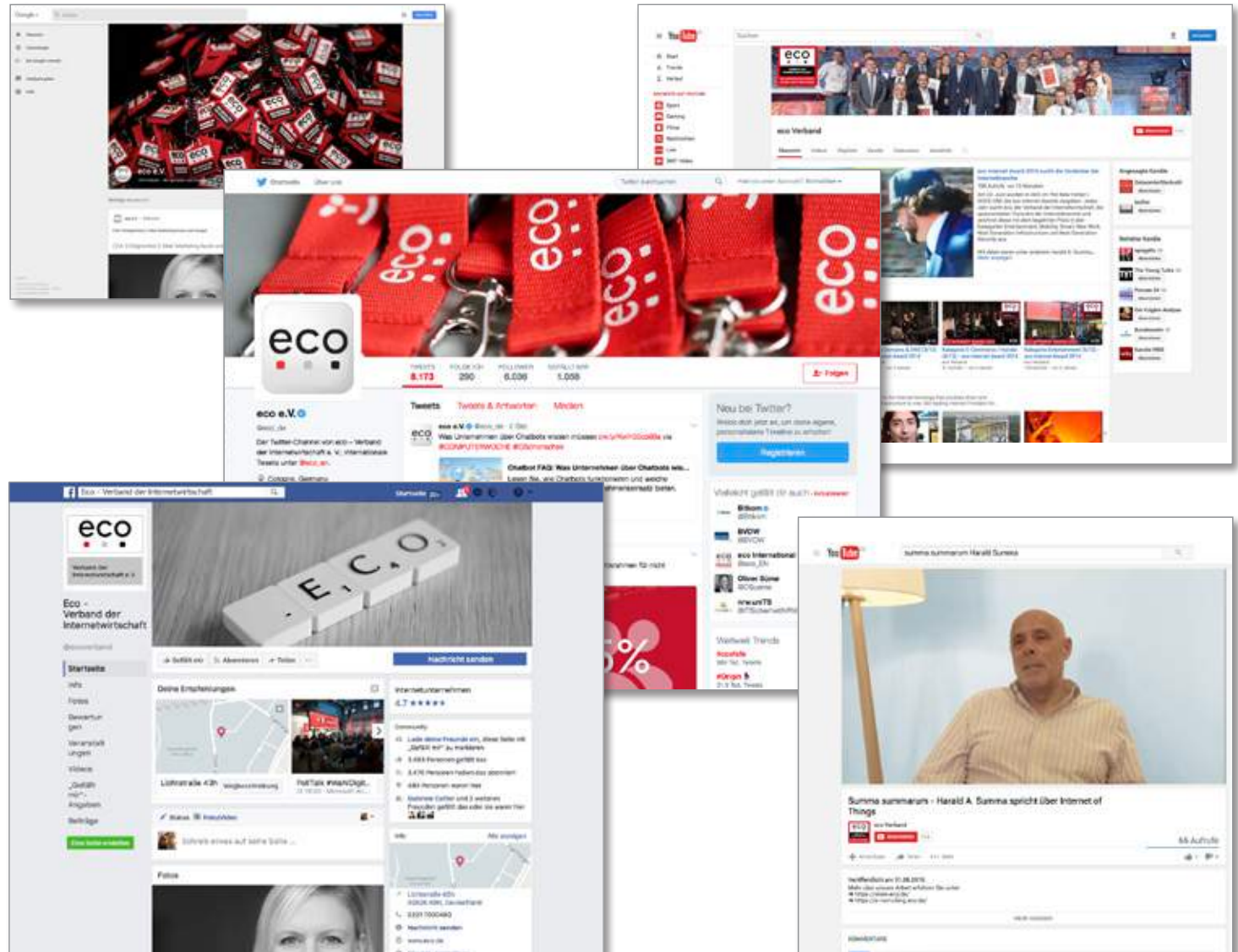
www.xing.com/net/ecoassociation

http://go.eco.de/linkedin_eco

https://go.eco.de/gplus

www.youtube.com/ecoAssociation
www.youtube.com/eurocloud
www.youtube.com/DatacenterStarAudit

Peter Meyer
Head of Cyber Security Services

Markus Schaffrin
Head of Member Services

7. Reports from the eco Services
7.1 Member Services

7.1.1 Cyber Security Services
7.1.1.1 botfrei (Anti-Botnet Advisory Center)

The threat posed by botnets and cyber attacks did not diminish in 2016. In fact, the level of threat actually increased, and with IoT botnets, a completely new attack vector surfaced.

The Mirai botnet was the first media-effective botnet, comprised of IoT devices such as camcorders, surveillance cameras, printers, or televisions. Such IoT botnets present completely new challenges for the industry and Internet users and eco remains on alert to see how this threat and the corresponding solutions will develop over the coming years.

It goes without saying that botfrei will also take up these challenges, given that what is at stake is an important, future-oriented security topic in the consumer area.

botfrei's decisive role in fighting botnets was once again made abundantly clear at the beginning of December, when the international law enforcement authorities succeeded in taking down the massive Avalanche botnet. In the course of the removal of the malware from the infected end-user computers, the Federal Office for Information Security (BSI) referred users exclusively to botfrei and the free EU cleaner as a solution. This confirms botfrei's position as a

neutral information platform amongst the multitude of commercial offers in the segment. The report of Avalanche and the referral to the website was picked up by numerous media providers, leading in turn to a far higher than average number of visits to and downloads from the portal, lasting over many days.

The constant spread of mobile devices is precipitating a further sharp rise in the number of malware-infected smartphones and tablets. botfrei has reacted to these developments and, in May 2016, optimized a new responsive website design which is also suitable for mobile Internet users.

Users also benefit since then from a new EU cleaner for Android devices which, together with eco member G Data Software AG from Bochum, has been made available free on a Europe-wide basis.

Always up-to-date

The updated website is not the only new feature; there is also the new botfrei Wiki (wiki.botfrei.de). With the Wiki, the botfrei team has succeeded in making important tips for protection in the Internet, as well as descriptions and instructions for security programs, centrally available for Internet users.
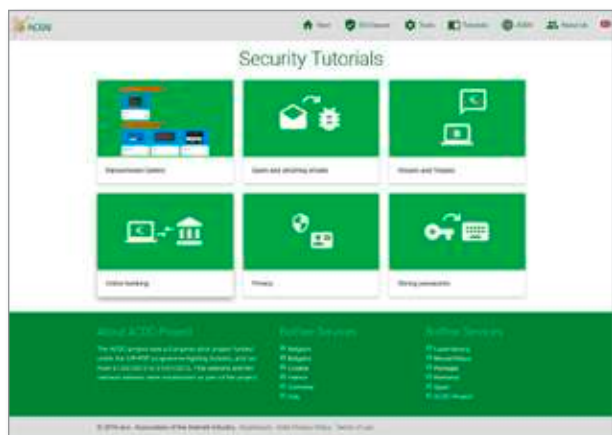
botfrei enjoys a high level of recognition from many parties for successfully explaining on its webpages and blog, in simple language, complex matters from the area of Internet security – in a manner that even the most technophobic visitors can understand. Customers of the affiliated Internet service providers also continue to receive free support in the removal of malware on their devices. This takes place, for example, over the telephone, through the botfrei support hotline, or by email. A further pillar of the area Support and Help is the botfrei Forum, whose operation is made possible through the input of many volunteers from the botfrei community.

Cooperation with Internet service providers was also further consolidated in 2016. In total, nine member companies were involved in different ways in botfrei. Technological partnerships also exist with several renowned companies from the IT security industry.

A further challenge of 2016 was the massive rise in blackmail Trojans. Using information and prevention measures, botfrei engaged very actively with end-users and with small and medium-sized companies. It also constantly kept the public informed through its numerous channels, such as its blog and via social media. Part of this response involved the creation of the "Ransomware Gallery". The gallery provides pictures of the lock screen of dozens of active blackmail Trojans and is regularly updated with the most current information. The gallery also includes supplementary information on how and whether the malware can be removed and whether the user's data can be unencrypted again.

The English botfree site has been accessible since October 2016 at botfree.eu (on the former information site of the ACDC project) and has also been optimized to allow access from mobile devices. What's more, the launch of the English site was the botfrei contribution to the annual ENISA European Cyber Security Month.

Other activities undertaken during the year included: joint participation with the Certified Senders Alliance and the eco Complaints Office in the Safer Internet Day in the form of a quiz; information provision on current threats, imparted over social media and the blog; and running a campaign during the Christmas vacation on how to secure new devices received as gifts. The latter campaign was supported with free software licenses provided by eco member Avira.

botfrei was also engaged locally and, together with the eco Complaints Office and Cologne police, set up a pilot project – the prevention portal Smart-and-Safe-in-the-Internet (SUSII.koeln).

Further information is available at:
www.botfrei.de / Twitter: @botfrei
www.botfree.eu / Twitter: @antibotnet

Peter Meyer
Head of Cyber Security Services

Sebastian Fitting
Consultant, Complaints Office

7.1.1.2 Smart-and-Safe-in-the-Internet (SUSII.koeln)

The year 2016 saw the start of a successful new joint project called Smart-and-Safe-in the-Internet (SUSII.koeln). Partners in this initiative are botfrei and the eco Complaints Office, in cooperation with the Cologne Police Department.

The SUSII website was launched during a joint celebratory event in the Cologne Police headquarters on 28 October 2016. eco managed to secure the support of former Mayor of Cologne and Chief of Police Jürgen Roters as patron of the project. SUSII receives additional support from NetCologne, the Cologne Crafts Council, and the Cologne Chamber of Commerce and Industry through its initiative, DigitalCologne.

Kölsch IT law

SUSII sees itself as a local complement to the existing services of botfrei and the eco Complaints Office. The security portal serves as the first port of call for Cologne's residents and local small and medium-sized enterprises (SMEs) in instances of damages through cyber crime. It also offers simple and easy-to-understand important advice on how to prevent cyber crime.

To emphasize its particular local color, the website is not only available in German and English, but also partially in the Cologne dialect "Kölsch." The "Kölsch IT Law" was fashioned in the style of the locally-famous "Kölsch Constitution," and offers eleven security guidelines in the local dialect. The translation was prepared by the "Akademie för uns kölsche Sproch" ("Academy for our Cologne Dialect").

SUSII is also regarded as being a pilot project, with the possibility of similar cooperation being extended to other regions and cities.

Further information is available at:
https://susii.koeln

Peter Meyer

Head of Cyber Security Services

Cornelia Schildt

Project Management IT Security

Markus Schaffrin

Head of Member Services

7.1.1.3 Initiative-S: SIWECOS

SIWECOS is the name of the new eco security project officially launched on 1 September 2016. The project will be supported until the end of October 2018 by the Federal Ministry for Economic Affairs and Energy (BMWi) as part of the initiative "IT Security in the Economy".

The project is a cooperative venture between eco and the Ruhr University Bochum and is technically supported by CMS Garden e.V. and the Bochum company Hackmanit GmbH. Project management responsibility is vested in eco. SIWECOS stands for "Safe Websites and Content Management Systems," and it will primarily help small and medium-sized companies (SMEs) to identify and rectify security vulnerabilities in their websites.

The project is divided into several phases. Following on from the launch of the website in March 2017, a beta phase will commence, during which selected website operators will accompany the first steps of the SIWECOS service's technical implementation. After the beta phase and the start of the service's operations, an extensive sensitization campaign on IT security will ensue, targeted at SMEs. The project will be able to draw on eco's experience from the earlier funded project "Initiative-S," which successfully implemented similar goals.

Website scanner from Initiative-S

With SIWECOS, several scanners will regularly check the server systems of the registered websites for vulnerabilities and, after a find, will notify the website operator as quickly as possible with recommendations for remedial action. The website scanner from Initiative-S will also be employed here; as one of eco's contributions to the project, it will be directly incorporated into the SIWECOS service. The project will also offer website operators the option of having the security status of their websites displayed through signal colors. In addition, the CMS Community will supply free plug-ins for several content management systems, including WordPress, Joomla, and Typo3.

The SIWECOS portfolio will be augmented with a special service for web hosters. Here, the CMS Garden association will actively communicate with the hosting providers concerning acute vulnerabilities and deploy filter rules for stopping cyber attacks before they reach the customer. The number of successful attacks will thus be reduced in the long-term and security on the Internet will be enhanced.

Further information can be found at:
www.siwecos.de

Peter Meyer
Head of Cyber Security Services

Michael Weirich
Security Analyst

7.1.1.4 Advanced Cyber Defense Center (ACDC)

In 2015, the ACDC project came officially to a successful end as an EU-funded project under the FP7 program. The project and its core topic of data sharing nonetheless continued to enjoy favor with the IT security branch, with the result that even after the project's close, DE-CIX and eco could continue to operate it in 2016.

Over the course of the year, there were numerous inquiries into the project and its outcomes. Among other things, this led to the project representing Europe at a congress in Tokyo with the Japanese telecommunications ministry and representatives from the USA, such as the Department of Homeland Security. The legal opinion on data exchange, based on the data protection regulations, is today still regarded as the standard, serving as the foundation for similar activities across the whole of Europe.

The DFN Cert, a department within the German Research Network and a former partner, declared its interest in operating the central databank in the future and in further developing additional activities within the global CERT community. The transfer of the databank was concluded at the year's end.

eco also redesigned the botfree.eu website and, in cooperation with its international project partners, went live there with the English version of the botfrei website on 26 October. An exchange continues here with the other national anti-botnet advisory centers in Europe that came on stream during the project.

Further information is available at:
www.botfree.eu

Cornelia Schildt
Project Management IT Security

Michael Weirich
Security Analyst

7.1.2 nrw.uniTS –
The IT Security Network for NRW

The goal of the project "Regional Cooperation Structure IT Security," which has existed since 2012, is the development of a thematically defined, regional cooperation structure in the area of IT security. Thanks to their high number of research institutes and the public-private partnership eurobits, North Rhine-Westphalia (NRW) and the Bochum region have a unique and prominent position in Germany's IT security sector. This is why Bochum was chosen as the nucleus for the project, the Rhine-Ruhr metropolitan region as its primary focus, and the NRW as its service area.

The eco association realized the project together with three further partners: the Horst Görtz Institute at the Ruhr University Bochum, the Institute for Internet Security if(is) of the Westphalian University Gelsen-kirchen, and the networker NRW e.V. Cooper-ation partners are Bochum Economic Develop-ment and eurobits. The project is implemented under the organizational core title of "nrw.uniTS". Since 1 July 2015, the project has been supported by the Ministry for Innova-tion, Science, and Research of the State North Rhine-Westphalia (MIWF NRW) under the project name nrw.uniTS-Wiss. The network brings the IT security parties in NRW together and promotes the transfer of technology in NRW.

Constant growth and networking

In 2016, the cooperation established in previ-ous years with industry partners and regional and municipal institutions (chambers of com-merce and industry, business development agencies) was capitalized on extensively for events and broader awareness-raising within the North Rhine-Westphalian industry. The network of partner companies grew by a fur-ther 30 members in 2016 – the new members are introduced in the second edition of the nrw.uniTS brochure, launched at CeBIT.

The network partners made use of events (new as well as established formats), found support for the promotion of innovative pro-jects, networked within the framework of the four coordinatory meetings, and together col-lectively offered a highly qualified prob-lem-solving competence. nrw.uniTS was rec-ognized as a central partner for IT security in NRW and as a network for cooperation and collaboration.

The network partners participated in working groups, including groups for risk management, e-health, forensics, and Industry 4.0. An example of work emerging from these groups is the IT security checklist, which allows com-panies within the space of a few minutes to acquire an overview of their company's ITS situation through answering questions on confidentiality, availability and integrity, and general information.

hgi
Horst Görtz Institut
für IT-Sicherheit

nrw.uniTS on the road with SMEs

The IT'S Breakfast in Bochum has now become a fixed date for IT security users. On the last Friday of each month, nrw.uniTS, in cooperation with G Data, organizes a breakfast centered around a stimulating presentation on IT security. In 2016, more than 300 participants were brought up to date on legal topics such as the new EU General Data Protection Regulation or the IT Security Act, on new technical solutions for authentication, on DDoS protection, on new attacks on the Internet of Things and in the smart home environment, and on organizational issues such as ISMS and cyber insurance. In addition to the existing sister event in Bonn, the format has also found a home in the region of East Westphalia. In cooperation with the local chambers of commerce and industry, six events were held at alternating locations in the region in 2016.

On the basis of seven events, the format "nrw. uniTS trifft" was offered in 2016. In cooperation with either clusters or associations from different application sectors, nrw.uniTS organized half-day information sessions focused on the specific IT security concerns of users. The targeted approach ensured great popularity for this format. Events were held with the trade, health care, logistics, and production sectors.

The network and its partners were also showcased at all important events with IT security relevance within and outside NRW. In the first half-year, nrw.uniTS participated in the Cologne IT Summit, in the IT-Trends Sicherheit, and in the IT'S CONNECT in Bochum. The second half of the year saw the nrw.uniTS represented at the Internet Security Days organized by eco in September at Phantasialand in Brühl, as well as at the IT Security Day in Mönchengladbach. As part of a guided tour, nrw.uniTS facilitated a visit by its network partners to the Hannover Trade Fair. At the it-sa in Nuremberg, nrw.uniTS organized a joint stand with four network partners. In April, nrw.uniTS supported students of IT security to participate in the international RuhrSec conference in Bochum.

Ten points for a future-oriented Internet industry in NRW

Svenja Schulze, Minister for Innovation, Science, and Research of the State of NRW, officially received the strategy paper "IT Security in NRW 4.0" at CeBIT on 14 March 2016. Prof. Dr. Norbert Pohlmann (Westphalian University of Applied Sciences, Gelsenkirchen) and Prof. Dr. Thorsten Holz (Ruhr University Bochum) presented the paper on behalf of nrw.uniTS. The strategy contains the ten points considered most important for making NRW fit for the future in terms of IT security. Following the round-table on IT security initiated by the ministry, an expert team derived from industry, research, and associations came together and compiled the most urgent "to-dos" for digitized, safe, and future-oriented science and business in NRW. In 35 pages, the guidelines highlight the most dangerous threats in areas such as mobile security and secure networking and, to tackle these, presents a strategy for greater IT security in NRW. The authors have summarized the most important recommendations for action in ten concise points aiming to set the course for a successful future and to convert the potentials of the digital economy into opportunities.

Developing the future securely in NRW

Alongside Dr. Thomas Grünewald, State Secretary at MIWF NRW, Prof. Dr. Norbert Pohl-mann welcomed the participants and explained that the MIWF NRW had initiated the round table on IT security in order to further develop the strengths in the area of IT security in NRW and to sustainably strengthen science, business, and society. The associated recommendations developed are embedded in the strategy paper "IT Security for NRW 4.0 – Together in the Digital Age. But of course". In a panel discussion, the big names of the industry exchanged views on the strategy paper. Among these were Prof. Dr. Thorsten Holz, Dr. Jörg Bröckelmann from thyssenkrupp AG, and Ammar Alkassar from Rohde & Schwarz Cybersecurity GmbH.

In the afternoon, the topics of "Human Centric Security," "Secure and Trustworthy Software Development," and "Security in Large Networked Systems" were on the agenda. In

the start-up talk Markus Hertlein (XignSys), Johannes Dahse (RIPS Technologies), Carsten Willems (VMRay), and Christian Schmickler (Cryptomator) addressed the participants. The research day was rounded off with the if(is) summer festival, a tour of the institute, and a live hacking session with Frank Timmerman of if(is).

Beyond the Borders of NRW

Attackers do not stop at state borders – so neither should the defenders. With this in

mind, nrw.uniTS entered into three cooperation agreements in 2016.

In April, the cooperation agreement between nrw.uniTS and NRW.Europa was announced. NRW.Europa is a consortium comprising of ZENIT GmbH, NRW.BANK, and NRW.International. It is a central contact point for NRW's small and medium-sized enterprises, as well as for research facilities and universities. NRW. Europa is part of the international Enterprise Europe Network, to which around 600 organizations with some 4,000 experts in more

than 60 countries belong. The new agreement had its origins in the cooperation already initiated at the "Promotion Opportunities for Science and Business" event of January 2016.

The seeds of the cooperation with the Bavarian IT Security Cluster e.V. were already sown at the end of 2015, and were brought to life in 2016 on the strength of two events. Under the motto "Together secure – secure together," members of both networks exchanged ideas and views in Nuremberg in October, and in Dusseldorf in November. The aims are to

initiate a regular dialog, to establish joint projects, and to capitalize on synergies.

At the end of 2016, an additional cooperation agreement was entered into with the research group ITS|KRITIS.

Further information is available at:
www.nrw-units.de

Matthias Kurzhals
Coordinator CEBRA and Coordinator
School Development, Berufskolleg Ennepetal

7.1.3 CEBRA

With the CEBRA initiative, eco imparts up-to-date and immediately applicable e-business knowledge, and the participants qualify with a Certificate of "Counselor for E-Business Related Assignments".

Accreditation, participant administration, and certification are processed in cooperation with the Vocational College Ennepetal. In addition to the coordination input of Matthias Kurzhals, Divisional Co-ordinator of School Development at the Vocational College Ennepetal, a student assistant supports the administrative processes as well as the maintenance and further development of the learning platform and the learning content.

The initiative is aimed, on the one hand, at businesses seeking a further training course for their staff members in e-business related fields. On the other hand, it is also designed with the needs in mind of vocational schools and similar educational providers who want to offer their students an up-to-date learning opportunity in the field of e-business. The number of participating students rose again slightly in 2016, to around 250 participants. Apart from state vocational schools, many of the educational providers attached to the German "ÜbungsFirmenRing" (Practice Enterprise) are either availing of the program or are in the process of testing it out.

The learning in CEBRA's action-oriented modules takes place through cloud-based learning over the eco-cebra.de moodle server. This means that the participants can access the program irrespective of time and place and can also access it partially outside of school times or office hours.

Certified E-Business Knowledge

Applying a case study approach, the training offers practical content and places the focus on imparting competence-oriented action strategies for solving real problems encountered in e-business. Having acquired the multi-layered learning, the participants demonstrate their progress in regular online tests and in a final examination. After successfully passing their exam, the participants receive a certificate issued by eco, which certifies their extensive knowledge and skills in the topic of e-business.

Apart from its support and certification of the accredited schools and other educational providers, CEBRA also once again (with additional information from botfrei.de and the Initiative-S) presented the initiative at the International Practice Enterprise Trade Fair in Ulm. It also generated interest in the CEBRA certification through various meetings with teaching staff.

Further information is available at:
www.eco–cebra.de

Ivo Ivanov
Head of Professional Services
Director CSA

Rosa Hafezi
Attorney-at-Law, Legal Consulting and Certification

Alexandra Koch-Skiba
Attorney-at-Law, Complaints Manager CSA

Alexander Zeh
Engineering Manager CSA

7.2 Professional Services
7.2.1 Certified Senders Alliance

The Certified Senders Alliance (CSA) has been operating since 2003 as a central certifier of email senders. The joint project with the German Dialog Marketing Association (DDV) sets high legal and technical quality standards and certifies companies who comply with these. A certification offers numerous advantages: In addition to the improved delivery of emails to recipients, companies can pro-actively guard against a bad domain reputation, unhappy recipients, and fines for legal infringements.

Growth with an international focus

With 200 inquiries in 2016, the CSA was once again able to report strong growth in interest in comparison to the previous year. It also welcomed new partners including, for example, Hornetsecurity and iMatrix, its first Japanese market partner. Despite the stringency of its high quality standards, the CSA grew further and supported 108 certified companies with a total of 45,811 active IP addresses in 2016. Many new participants hailed from the international market, testifying to the successful implementation of the CSA's internationalization strategy.

Added value for participants

The internationalization of the participants and technical developments prompted the CSA to adapt the regulations in dialog with several partners and the certification committee. The new practical regulations naturally continue to fulfill the highest quality standards and were welcomed by the participants.

As an additional service, the CSA made a certificate available for their certified senders, which can be used for senders' sales and marketing activities to set them apart from the competition as reliable senders. Through a new partnership with the platform "emailvendorselection," the certificate is also displayed where

potential customers search for a new email service provider – the CSA certificate appears right beside the company profile of the service provider, where it directly captures the visitor's attention.

To educate the market, the CSA produced a number of white papers and accompanying press releases in 2016. These covered a num-

Julia Janssen-Holldiek
Head of CSA

Maike Marx
Marketing & Customer Relations

Qadir Rostamzada
Marketing & Business Development

Genc Mulhaxha
Sales Manager

ber of different topics, including those of DKIM set-up and the lawful sending of emails in the German-speaking region. In addition, the CSA worked on the new edition of the Email Directive for Permissible Email Marketing, which includes for instance new legal precedents and an expanded list of countries.

The CSA presented its work with talks at international trade fairs and conferences such as the dmexco in Cologne and the Internet World in Munich. In so doing, they emphasized the relevance and significance of quality standards for email marketing for advertising companies and at the same time positioned themselves even more strongly in that field.

The CSA Summit, with 120 participants from eleven nations and talks from 22 international experts from renowned companies (Yahoo,

MSFT, AOL, Cisco etc.), was an unqualified success. More information is available in Chapter 8.3.
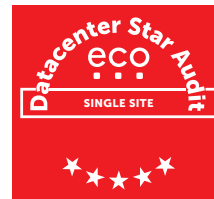
The CSA can look back on 2016 as being a successful year with a growing international focus. It will continue to work on legal and technical standards and their implementation in order to improve the quality of emails internationally.

Further information is available at:
www.certified-senders.eu

Roland Broch

Project Management DCSA

7.2.2 Datacenter Star Audit

In 2005, the first ideas for the Data-center Star Audit were already being mooted. A year later came the market introduction and since then, numerous data centers have been certified with this independent assessment instru-ment – which assesses availability, security, and redundancy and other factors.

In 2016, five data center locations from three operators were successfully assessed with a Single Site Audit. In addition, a fur-ther Interconnected Site Audit appraising the secure interaction between two independent data centers was successfully completed.

An extra star with the designation "Approved Energy Efficient Data Center" was conferred by the auditors on the noris network AG for the data center NBG6.

Hannover, 21 January 2016

With its Datacenter Cluster in Hannover, the net.DE AG acquired a very good result of 4 stars from its latest eco Datacenter Star Audit. The premium business service provider had convincing results in all areas examined.

Munster, 13 April 2016

The successful recertification of the DMI GmbH in Leisnig verified that, in terms of organizational, building-structural, supply, and technical aspects, this data center com-pletely fulfills customer requirements.

Cologne/Nuremburg, 23 June 2016

As early as 23 February, the DCSA auditors were able to recertify the two noris network AG data centers NBG3/4 and NBG6 in Nuremburg, with outstanding results in all categories. In the SingleSite Audit, both noris data centers were examined for their redundancy concept and their organizational, building-structural, technical, and supply security. Both data centers achieved the highest rating, as did their Interconnected Site Audit, where five stars were awarded for the redundant connection of the two data centers. As part of the eco Gala on 23 June in Cologne, Auditor Gerd J. Simon and Pro-ject Leader Roland Broch presented the audit certificates.

Further information at:
www.dcaudit.de

Dr. Katharina Küchler

Attorney-at-Law, Professional Services

Ivo Ivanov

Head of Professional Services

DATA PROTECTION
OFFICER

7.2.3 eco External Data Protection Officer

Towards the end of 2016, eco introduced a new service for its members. With the "eco External Data Protection Officer," the association provides on request an external data protection officer for companies, trains staff members or managers on data protection-related legal topics, and carries out data protection audits.

Growing data protection demands

Most telecommunications and Internet industry companies have a legal obligation to nominate a data protection officer for their company. However, for small and medium-sized companies in particular, instantly charging a team-member with the task of acting as data protection officer is often not an option.

Internal data protection officers have to split their work between their own profession and the new challenges, and their different roles in the company can produce conflicts of interest. Over and above this, they have to complete costly training and further education measures in order to stay up to speed with current legal requirements. And the demands for data protection are steadily growing, not least due to the EU General Data Protection Regulation (GDPR) coming into effect.

EU General Data Protection Regulation

With the EU GDPR, a uniform data protection law for the whole of the EU will be in force for the first time. Companies have until 25 May 2018 to adjust their systems and processes to the new provisions; from that time, the EU GDPR becomes solely applicable and the preceding German Data Protection Act will be dissolved. National provisions will only exist in a limited capacity. These are to be regulated in the German Data Protection Adaptation and Implementation Law which is currently being coordinated.

eco External Data Protection Officer

With the new service, eco members can commission the services of an external data protection officer for their company from the association. The eco data protection officers are qualified data protection experts with a focus on the telecommunications and Internet industry. With this service, eco offers its members a good alternative to the internal nomination of a data protection officer in fulfilling the legal requirements for data protection.

eco supports its members to operate in a data protection-compliant manner and to present themselves optimally on the market. Members are at the same time continually kept abreast of current data protection legal topics on the basis of regular publications. eco thus contributes to the stronger sensitization of companies on the relevance and significance of data protection.

The implementation of the new service is taking place in cooperation with the Rickert Rechtsanwaltsgesellschaft mbH law firm. Aside from commissioning an external data protection officer, eco also offers its members data protection audits and training on data protection.

Further information is available at:
http://go.eco.de/dsb

Harald A. Summa
CEO, DE-CIX Management GmbH

Ivo Ivanov
Chief Strategy and Corporate Development Officer
DE-CIX Management GmbH

7.2.4 DE-CIX in Germany

DE-CIX is on the road to success, both nationally and internationally. Once again in 2016, the Internet Exchange in Frankfurt – with the highest data throughput globally at peak times – has built on its leading position as the largest hub for international data traffic.

More customers, more connected customer capacity, more data traffic: DE-CIX in Frankfurt remains solidly on its road to success. The Internet Exchange there hit a new record peak in data traffic of 5.6 Terabits per second (Tbps). DE-CIX Frankfurt thus retains its top position as the Internet Exchange with the highest worldwide data throughput. In 2016, customer numbers also grew by ten percent,

whilst there was an approximate 20 percent growth in the capacity of connected ports. The trend of constantly growing data throughput is also reflected in the demand for further capacity – the number of connected 100-Gigabit Ethernet ports increased by almost 50 percent to number over 140, with many customers switching directly over from 10-Gigabit Ethernet ports.

The consolidated annual accounts for 2016 show total global turnover across all businesses of 29.3 million Euro, up 15 percent from 2015. The revenues from international activities doubled in comparison with 2015 and represented 7.7 percent of total revenues.

Whereas DE-CIX Frankfurt expanded its dominant role as Europe's capital of peering, DE-CIX Management GmbH's other German Internet Exchanges in Hamburg, Munich and Dusseldorf ensured that local data traffic stayed local. As the largest of the regional locations, Hamburg experienced strong peaks early in the year at close to 54 Gbps, whilst Munich reached 30 Gbps and even Dusseldorf, as the newest Internet Exchange, registered growth. This trend is certain to gain even greater momentum in the future given that, in 2017, DE-CIX will connect the Internet Exchanges in Hamburg and Munich via an additional VLAN with the large international platform in Frankfurt. Through this, DE-CIX customers in Hamburg and Munich will gain access to around 700 further networks from more than 65 countries. GlobePEER Remote is already successfully up and running between

Dusseldorf and Frankfurt, as well as between Frankfurt, New York and Istanbul.

DE-CIX as a natural ecosystem for new interconnection services

In 2017, DE-CIX will continue to equip itself for the future and will introduce a new service model over the course of the year. This unique service model will open up the opportunity for connected network operators to use not just peering, but also a variety of additional interconnection services on the existing infrastructure. On the basis of innovative additional offers, the peering platform will thus become a natural ecosystem for new services, which for customers will mean more efficiency, reduced effort, and lower costs. As the first major step on this path, DE-CIX has been offering the new service DirectCLOUD since the end of 2016.

Customer Growth DE-CIX Frankfurt
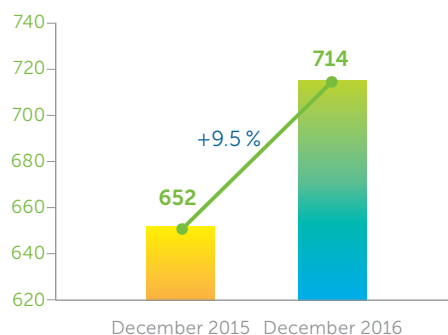
DirectCLOUD: More direct and secure access to the cloud at DE-CIX

More and more companies – including smaller ones – are relocating business processes, infrastructure, or data to the cloud. With DirectCLOUD, DE-CIX is there to support these companies and their Internet service providers. With the new service, Internet service providers can connect with multiple cloud service providers securely, quickly, and easily over VLAN – with just one single port at DE-CIX. On the one hand, this service makes access to the cloud easier for enterprises, because their Internet service provider, when connected with DE-CIX, can now with minimal effort offer an extensive choice of cloud services. They can thus find suitable solutions and also have access to smaller cloud providers. On the other hand, cloud service providers reach potential

customers more easily with DirectCLOUD, whilst providers of niche solutions become more visible. With DirectCLOUD, companies get the solutions for the hybrid cloud that they now need.

Vibrant Networks: the DE-CIX Summits

Networking and exchange are also the goal of the successful DE-CIX events taking place around the globe. For the first time in 2016, the popular DE-CIX summits took place in parallel in Munich, Istanbul and New York. In total, more than 250 participants assembled at all three locations, in order to inform themselves about current market developments and new DE-CIX services and developments.

All signs point to continued growth in 2017

The growth trend looks set to continue in 2017. The linkage of the Hamburg, Munich and Dusseldorf locations with the Internet Exchange in Frankfurt over GlobePEER Remote promises a growth of traffic on all German Internet Exchanges, whilst the further expansion of the cloud market and the new DE-CIX services will secure many new partners.

Beyond that, the declared goals of DE-CIX for 2017 include successfully entering new markets, negotiating strategic partnerships, and responding quickly to new trends. In pursuing

these goals, development as an interconnection center will be steadily advanced – with multiple services which can be flexibly adapted to meet customer needs. With new offers like DirectCLOUD, DE-CIX will thus in future always be on hand to respond to new networking needs of the digital society.

DE-CIX International gaining further ground

With its strategic distribution of Internet Exchanges all across the globe, DE-CIX connects important regions – and in the process, drives the further development of the digital

society forward day-by-day. DE-CIX continued its successful international expansion in 2016 and the individual locations likewise experienced strong growth. You can read more about the international successes in Chapter 7.2.5.

Further information is available at:
www.de-cix.net

DE-CIX International AG – Supervisory Board

Felix Höger
Board Member,
QSC AG

Klaus Landefeld
Board Member, Infrastructure & Networks
eco - Association of the Internet Industry

Rudolf van Megen
Managing Director,
S.T.O.L. Verwaltung GmbH

7.2.5 DE-CIX International

Record growth in New York and two new locations in Madrid and Dallas: Internationally, DE-CIX is not only on the road to expansion, but also on the road to success. In 2016, DE-CIX strengthened its presence in key regions and in the process played a decisive role in the interconnection of data streams worldwide.

With its rapidly growing Internet Exchanges in North America, its strategic locations in Southern Europe, and its Internet Exchanges in Istanbul and Dubai, DE-CIX has opened up the most important regions of the world to premium interconnection services. The DE-CIX locations grew strongly in comparison to previous years – above all, the New York, Dallas, and Madrid locations played a crucial role in the international expansion.

DE-CIX New York attains second place in the metro region

After less than three years in operation, DE-CIX New York managed to increase its number of customers by 47 percent in the 2016 fiscal year, with the peaks in data traffic rising by almost 170 percent to exceed 160 Gbps. The result is that DE-CIX New York is now the second largest Internet Exchange in the New York/New Jersey/Long Island metro region. The absolute goal is to become the regional Number 1 in 2017.

A similar degree of success was registered by the DE-CIX Internet Exchange in Dallas. Just a few months after start-up, by September the exchange there already had close to 20 signed customers. With its strategic location in the heart of the USA, Dallas is the center of a vast telecommunications network.

The drivers of DE-CIX's marked success in North America are the data center and carrier-neutrality, as well as the superb coverage of the metro region, where numerous access points are available in all relevant data centers. The Internet Exchanges in North America are operated by DE-CIX North America Inc. – a wholly-owned subsidiary of DE-CIX International AG.

DE-CIX Madrid with a record start becomes the fastest-growing Internet Exchange worldwide

"From zero to hero": this could be the mantra of DE-CIX Madrid. The new location, also launched in 2016, has achieved a record start. Since commencing operations in May, it has become the fastest growing Internet Exchange in the world, boasting 70 new national and international customers. Owing to its proximity to Lisbon and because of the landing stations for undersea cables coming from West Africa, DE-CIX Madrid has been able to connect the strong - but until now under-served - Spanish market, the Iberian Peninsula, and West Africa. Adding to these are the new transatlantic undersea cables to South

Customer Growth DE-CIX New York

134

+47.3 %

91

December 2015   December 2016

Customer Growth DE-CIX Madrid

68

0

May 2016   December 2016

Number of Worldwide Connected Customers by Location

excluding Frankfurt

total
377

134, 68, 48, 36, 29, 23, 16, 14, 5, 4

- ■ *NYC*
- ■ *Hamburg*
- ■ *Istanbul*
- ■ *Dusseldorf*
- ■ *Madrid*
- ■ *Marseille*
- ■ *Dallas*
- ■ *Dubai*
- ■ *Munich*
- ■ *Palermo*

Status: December 2016

Connected Customer Capacity Worldwide by Location

excluding Frankfurt

total
3,083

1,457, 372, 370, 213, 210, 162, 161, 66, 51, 21

- ■ *NYC*
- ■ *Hamburg*
- ■ *Istanbul*
- ■ *Dusseldorf*
- ■ *Madrid*
- ■ *Marseille*
- ■ *Dallas*
- ■ *Dubai*
- ■ *Munich*
- ■ *Palermo*
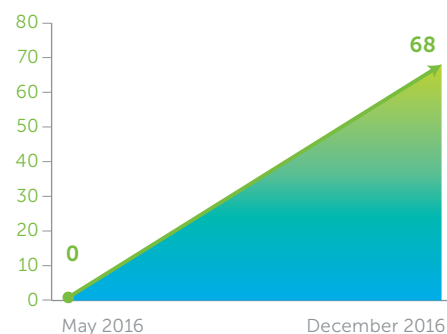
Status: December 2016

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and North America. DE-CIX has thus created a new, cost-efficient alternative on the Iberian Peninsula for interconnecting with low latency for networks from Africa, Europe, and America. In the medium-term, this means that Madrid is poised to replace London as the leading peering point for networks from West Africa.

DE-CIX Istanbul: Politically unperturbed

As the only Internet Exchange in the world to connect two continents within one country, DE-CIX Istanbul is also the only official Internet Exchange in Turkey. Despite the political tensions, DE-CIX Istanbul is growing well. The platform operated by DE-CIX Istanbul Network Connections LLC was extended over five data centers in the metro region, achieving a connected capacity of 66 GE at the end of 2016.

Partnerships with two new partners, the data center operator Zenium and the carrier Turknet, were announced in 2016.

In 2016, DE-CIX Istanbul was also a location for people-centered networking. DE-CIX was host and sponsor of the MENOG 16 (Conference of the Middle East Network Operators Group) and very successfully hosted the second DE-CIX Istanbul Summit, which garnered widespread attention for the Internet Exchange from the Turkish specialist media.

Palermo & Marseille: Key position in southern Europe

The Internet Exchanges in Southern Europe, located at the data traffic gateways from the Middle East and North and East Africa, are strategically important for DE-CIX. In addition
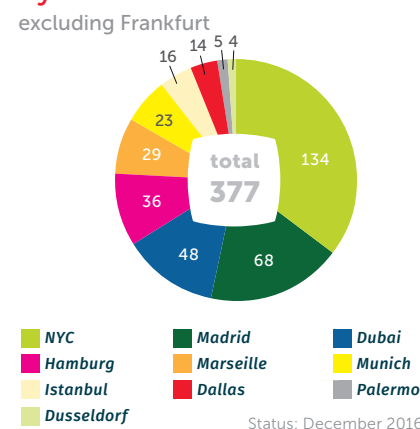
to the west-to-east trend of past years, DE-CIX is now expecting a stronger relocation of the interconnecting of data streams to the south – and the Internet Exchanges in Palermo and Marseille will shorten the paths between the content providers and Internet access networks in Africa and the Middle East.

New cable connections landing in Palermo und Marseille in 2017 will facilitate the transport of immense volumes of data traffic at attractive prices over the coming years and will dramatically improve the connectivity between the Middle East, Asia, Africa, and Europe.
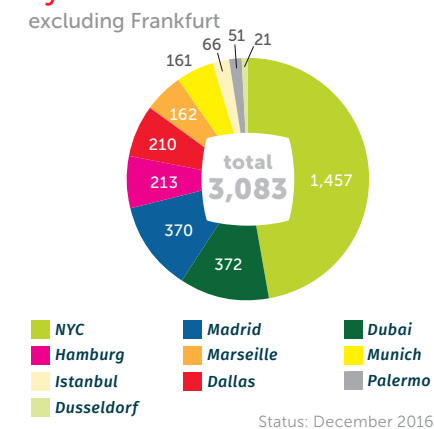
Because DE-CIX is already locally present, customers will be able to exchange high volumes of high-quality data at a reasonable cost.

New Customers for UAE-IX Dubai

The UAE-IX in Dubai is an economic hub of the Middle East. Regional and local interconnections are required there and are facilitated over the UAE-IX. In 2016, customers from Iraq and India joined the ranks of prominent partners such as AliCloud. The peaks in Dubai's data traffic reached almost 70 Gbps in 2016, with an associated rise of 25 percent in connected customer capacity. Over the course of 2017, the UAE-IX platform will be upgraded to

UAE·IX
powered by **DE·CIX**

the DE-CIX Apollon technology platform. The UAE-IX has been operated since October 2012 with the know-how and support of DE-CIX in partnership with datamena.

Excellent Service

DE-CIX's engagement was once again acknowledged through awards in 2016. For the second year in a row, DE-CIX was honored as Best Internet Exchange worldwide at the Global Carrier Awards. For its partnership with Angola Cables, DE-CIX was also crowned with the "Best Africa Service Innovation Award" at the Capacity Africa conference. With support and advice from DE-CIX, Angola Cables operates the Angonix Internet Exchange from its data center in Luanda. Angonix became operational in 2015 and is one of the fastest-growing neutral Internet traffic interconnec-

tion platforms in the region. The aim here is to drive the transformation in the digital economy forward in Angola and in the wider SADC region.

For the best conditions on new markets

Building on its exceptional growth in 2016, DE-CIX will in the future continue to support networking at its locations. In particular, DE-CIX will engage in markets where high growth potential and an urgent need for

improved networking are evident. The DE-CIX services serve a wide bandwidth of network operators, content providers, and companies from all industry sectors – also supporting sectors that until now were seldom represented at Internet Exchanges, such as financial service providers, automobile industry companies, and the health sector. These can find everything that they need for their interconnections at DE-CIX: Flexible, individually tailored services, and the opportunity to interconnect securely, efficiently, and at a reasonable cost.

global carrier
Awards 2016
Winner
Best Internet
Exchange
DE-CIX

Andreas Weiss
Director EuroCloud Deutschland_eco e. V

Peter Koller
Senior Project Manager

7.2.6 EuroCloud Deutschland_eco e.V.

Digitalization represents a fundamental process of change which will engage us all over the coming years. It demands flexibility and agility, the design of new work models, and processes of added value – not to mention the market and customer-focused supply of services of every shape and size. One of the core elements of digitalization is cloud computing – that is, the dynamic and needs-oriented use of IT resources stemming from a communal pool. The cloud acts as the core base for the strategically important topics of the SME sector and thereby serves as the motor of digitalization.

EuroCloud creates transparency

As an independent industry association, Euro-Cloud Deutschland_eco e. V. works to promote the cloud market and, through guidance measures, secures more trust and better market transparency for the cloud. With guidelines, tools, practical recommendations, and information events, the association succeeds in bringing users together with cloud service providers who can meet their needs. It supports providers and users of cloud services with their numerous questions on data protection and security, interoperability and standards, and law and compliance. EuroCloud encourages innovations on the basis of cloud platforms for all fields of business and areas of life.

EuroCloud develops infrastructure

The members of EuroCloud bring the rapid speed of innovation in the information technology sector into play in every sector. To this end, the association of the German cloud computing industry cooperates continuously at national and international levels on work on legal and technical framework conditions in order to further develop and harmonize these conditions.

EuroCloud Germany is therefore an important partner of the cooperation project Trusted Cloud (www.trusted-cloud.de), which was launched officially during CeBIT 2016 under the aegis of the Federal Ministry for Economic Affairs and Energy (BMWi). EuroCloud Germany is a founding member and a Board member of the non-profit organization "Competence Net-

work Trusted Cloud", whose primary goal is to develop a platform for the listing of trustworthy cloud services. The basis for this is a catalog outlining the criteria for all minimal requirements deemed necessary for a trustworthy cloud service in terms of transparency, security, quality, and legal conformity.

Cloud Strategies at the ECDC

With the aims of bringing cloud providers and users up to speed on the newest knowledge and of offering a neutral networking platform, EuroCloud Germany once again hosted the EuroCloud Germany Conference (ECDC) in 2016. This took place under the banner of "Cloud Strategies & Digitalization" in Cologne's Wolkenburg venue. The ECDC was opened by Dr. Alexander Tettenborn of the German Federal Ministry for Economic Affairs and Energy, who

stressed that Germany must catch up with other countries when it comes to cloud technology and usage. In his opinion, "for that to happen, we need to offer companies orientation. Labels like Trusted Cloud are an important step". He also emphasized the special role played by EuroCloud in the establishment of the label. A further highlight of the day was the presentation of the EuroCloud Deutschland Awards. Further information is available in Chapter 8.7.

New frontiers in the European cloud?

EuroCloud Europe (www.eurocloud.org) also hosted its annual conference again in 2016. On 5 and 6 October, the EuroCloud Forum took place in Bucharest with the headline "Digital Single Market – Creating New Frontiers in the European Cloud".

Over 600 participants debated the current status of the European cloud industry and future trends. 40 international speakers representing, for example, the European Commission, CERN, Fraunhofer Fokus, the NIST (USA), along with renowned cloud solution providers, presented new technological and regulatory developments on the two event stages. Thomas von Bülow, Chair of the Board of EuroCloud Germany, presented details on the Trusted Cloud seal of quality, the underlying criteria catalog, and the growing significance of certification for providers of cloud solutions. Andreas Weiss, Director of EuroCloud Germany, presented the results of the research project NGCert to the international audience.

EuroCloud networking events

EuroCloud Deutschland also actively contributed its expert know-how and first-hand information on market-changing developments to numerous other 2016 meetings and events.

For example, Andreas Weiss was guest in February in the live panel discussion on "Cloud Computing" which took place in Cologne on the radio channel "Deutschlandfunk". There he discussed secure use of the cloud with other data protection and IT security experts as part of the "Market Place" radio program.

BME eSolutions Days

The BME eSolutions Days, supported by Euro-Cloud, are now a regular fixture in the March calendar. In Dusseldorf on 8 and 9 March 2016,

the Federal Association for Materials Management, Purchasing, and Logistics e.V. (BME) once again showcased interesting best practice solutions under the banner of "Sourcing – Procurement – Integration". The podium discussion with Andreas Weiss on the topic "Cloud Sourcing from the Cloud – Marketplaces beyond the Yellow Pages" was well attended and offered an intensive exchange on the challenges of finding the right cloud provider who can also fulfill the fundamental requirements of the purchase.

Working Online Simply

At the end of April, the second virtual trade fair "Working Online Simply" (Einfach Online Arbeiten - EOA) took place, organized together with the EuroCloud Competence Group Business Communications under the direction of Detlev

Artelt. In the limelight were the 5 Cs – communication, collaboration, customer service, cloud computing and consumerization. Just like last year, (almost) all possibilities that are open to participants at a real fair were available to the approximate 1,000 participants, in terms of information, expert exchange, and networking. Apart from the virtual exhibition grounds, an ambitious framework program with interesting talks and high-ranking panel discussions were presented from two stages on both days.

DiALOG Trade Forum

EuroCloud Germany organized the Cloud Factory on the first day of the two-day DiALOG Trade Forum for Enterprise Information Management, which took place in Dresden on 28 and 29 April. The most important points for choosing a cloud service provider were pre-

sented in talks, as was the role that targeted project marketing can play in the successful introduction of cloud services. In the follow-up panel discussion "Cloudy with Prospects of Efficiency," participants reported on their experiences with cloud computing.

World of Cloud

At the World of Cloud in Frankfurt at the beginning of May, EuroCloud had its own booth in the trade exhibition. The association also helped to shape the content of the conference through moderating the expert forum "Innovate your Business – New Technologies require new Skills".

UC Cloud Expert Talk

Before the summer break, EuroCloud took part in the UC Cloud Expert Talk in Cologne, where

it provided information on guidance available in cloud selection and on the connected legal requirements.

Cloud Breakfast

After the summer break, EuroCloud, together with its member ScaleUp Technologies, organized the Cloud Breakfast Hamburg on the theme of "Decision Steps on the Way into the (Multi-)Cloud". The target group of systems vendors was brought up to date here on the challenge represented by digital transformation, especially as it applies to integrating cloud services into product portfolios.

Cloud Expo Europe

As a further highlight of the year, the second Cloud Expo Europe was held in November in Frankfurt and was attended by a broad-ranging audience comprised of IT, cloud and data center decision makers, industry experts and international providers. EuroCloud was an event partner again this year and offered a shared stand for its members. ScaleUp Technologies and CA used the opportunity to present their companies and to make exciting new contacts. Aside from its stand presence, EuroCloud was also once more involved in shaping the event's content and organized panel discussions on various topics with the input of the eco/EuroCloud Competence Groups and members. The panel discussions on "Connected Mobility – How cloud platforms are enabling new business models,"

"Open in the Public Cloud," "Multi Services – Business Processes from the Cloud," and "Digitalization – Guidance for the SME Sector" were very well received by the audience.

Competence Groups Develop Guidelines

Content-related work naturally did not get short shrift in 2016. EuroCloud's Competence Groups (CGs) – together with representatives from industry, science, research, and law – were busy developing important recommendations and guidelines.

CG Business Communications

The CG Business Communications was newly founded in 2016 under the leadership of Detlev Artelt, CEO of aixvox. The group emerged from

the eco CG Unified Communications, and offi-
cially started its work in July with the constitu-
ent meeting "Communication Wanders into the
Cloud". The group will concentrate initially on
guidelines on the topic of "Cloud Communica-
tion & Collaboration".

CG Law

The focus of the CG Law was on the finaliza-
tion of the Cloud Privacy Check (CPC, www.
cloudprivacycheck.eu), a product of coopera-
tion between 44 lawyers from 32 countries.
The purpose of the CPC is – with the help of
four simple proofing steps – to assess the
legality of a cloud solution's measures and to
identify necessary legal instruments. Dr. Jens
Eckhardt, Chair of Law with EuroCloud
Deutschland, contributed substantially to the
project in both the development of the CPC and
the identification of requirements for Germany.
The closing conference took place in Vienna at
the end of October.

CG Seal of Quality

With two representatives, EuroCloud Germany
took part in the Advisory Board for the further
development of the Star Audit (www.staraudit.
org). The Star Audit supports the growth of
cloud-based services and innovations world-
wide through delivering a transparent quality
assessment and a rating of cloud services. The
certification scheme strengthens trust in cloud
services. On the basis of defined criteria, every

cloud provider can use the self-assessment tool
to produce a solid profile, thereby facilitating a
further selection decision by the customer. The
Star Audit also represents a full accreditation
of the attainment of the Trusted Cloud label.

CG Open Cloud

The CG Open Cloud's principal activity in 2016
was the development of a flyer on the topic of
"Operate the cloud yourself". This addressed
the area of IaaS and clearly illustrated the ben-
efits of a self-operated open source-based pri-
vate cloud for small and medium-sized compa-
nies. With this as a baseline, the CG is now
working on further guidelines for the use of
open source cloud installations.

2017 even more strongly marked by
digitalization

Germany will gain even greater momentum
through digitalization in 2017 and in the pro-
cess, will inevitably employ cloud services –
which have come to be essential. More and
more processes and applications will be out-
sourced; that is, from fully in-house IT in the
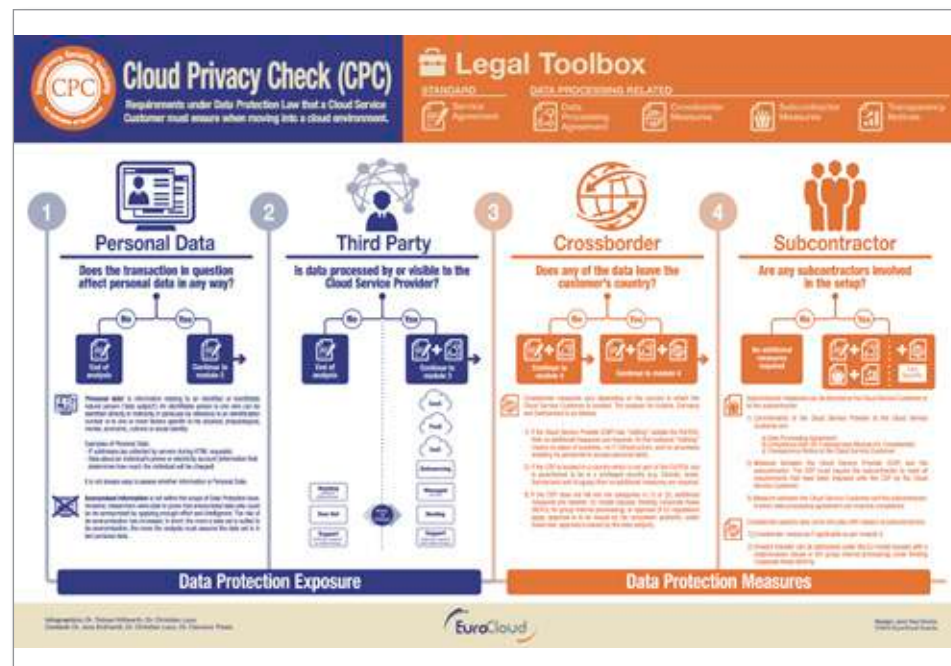
direction of cooperation with external provid-
ers and services. The name for this is hybrid
cloud, a term that embraces a broad spectrum
of scenarios. In 2017, support, important basics,
and reliable know-how will be on offer once
again from EuroCloud as a neutral contact
partner. EuroCloud is already looking forward
to the intensive cooperation with cloud provid-
ers and users, the industry, politics, and sci-
ence.

Further information is available at:
www.eurocloud.de

Unforgettable events, with a finger on the pulse of time and excellent contacts

Christiane Skiba
Branch Manager Cologne
Head of Marketing & Events

8. Event Highlights 2016

Across-the-board growth

During the anniversary year of 2015, eco had set a high bar for itself when it came to events. Yet the association was able to reach even more people in 2016 through its events. In addition to the many meetings held by the eco Competence Groups, larger format events were also organized, such as the New Year's reception, the Gala and the Internet Week. In addition, there was the CSA Summit, the Euro-Cloud Deutschland Conference and the Internet Security Days. The latter was something organized for the first time together with the publishing house Heise Verlag. Accompanying these events were interesting opportunities for sponsorships and advertising campaigns, for

example the successful advertising campaign for the eco Internet Awards in c't, the German magazine for computer specialists.

Beyond that, eco was present at many trade fairs, seminars, and conferences around the world, representing the interests of the Internet industry. The Association was able to capture the attention of businesses within the industry and attract new members. The event team did a remarkable job – with a bit of overtime – as is demonstrated in the reports about the larger events in the pages to come.

8.1 eco Gala

A gala event for pioneers

Under the theme, "Gala for Pioneers," eco honored outstanding businesses in the Internet industry with the eco Internet Award for the 16th consecutive time on 23 June 2016. The jury made up of experts and specialists presented awards in six categories for those who will be indispensable in the future when it comes to the areas of mobility, entertainment, security, and infrastructure.

An industry Who's Who

More than 400 exclusive guests, including CEOs and Internet pioneers, were on hand at The New Yorker | DOCK.ONE in Cologne to be

greeted by eco Chairman of the Board, Prof. Michael Rotert. Harald A. Summa, eco CEO, was also on hand, pleased by the networking opportunity and many constructive conversations. The eco Gala served as an ideal launching pad for new cooperations and innovative plans.

Spirit of the street

As the guiding theme, the spirit of the street was lovingly and harmoniously applied in detail throughout the event. The classic industrial architecture of Cologne's Deutz neighborhood fit well with the Street Art which guests could discover throughout, from the graffiti painted signs to the program brochure and menu.

The art continually grappled with an array of the Association's hot topics. Under the title, "Smart & Mobility," the gala began with finger

food and drinks, including fish'n'chips deluxe, vegetarian pralines and Cosmopolitans.

Pleasure from the finest

After the celebratory presentation of the eco Internet Awards, the team from KAISER-SCHOTE delicacy catering at the New Yorker | HARBOUR.CLUB offered guests further culinary pleasures. In addition to the sushi and oyster bar, there were indulgent H2O courses under the title of "Next Generation Infrastructure".

The main entree for the evening was presented under the banner of "New Work". At live cooking stations, guests could select from low-temperature cooked beef, grilled salmon from the smoker or quesadillas. Five different bratwursts were also made available under the heading, "Next Generation Security". Other highlights could be found under an "Entertainment" theme: an outdoor barbecue station with a flaming pineapple dessert, the turntables of taste and an ice cream painting molecular-spectacular.

Communication and dancing

A communicative atmosphere arose, in part thanks to the cocktail bar, white wine station and outdoor lounge. A number of specialty drinks, from the frozen long drinks to Cremants were available to discover and try in the Crystal, Furnace and Anchor area, along with a

selection of beers and coffees. A virtual graffiti wall was set up so that guests could (legally) leave their tag on the event. The sounds and rhythms provided by the DJ, singer, and saxophone formation of lounge-sax.net had people dancing until the wee hours of the morning.

Further information is available at:
https://gala.eco.de

The winners of the eco Internet Awards 2016

The following solutions won over the jury for their creativity, innovation strengths, quality, and market potential:

- Category Entertainment_B2B   **make.tv** (SMT – Streaming Media Technologies GmbH) with Live Video Cloud

- Category Entertainment_B2C   **Hashplay Inc.** with the Virtual Reality Content Creation Platform

- Category Next Generation Infrastructure_B2B   **Console Inc.** with Console

- Category Next Generation Infrastructure_B2C   **Filiago GmbH & Co. KG** with FILIAGO Sat Speed 30.000

- Category Smart_B2B   **Next Kraftwerke GmbH** with the Virtual Power Plant Next Pool

- Category Smart_B2C   **DPD Dynamic Parcel Distribution GmbH & Co. KG** with the DPD App

- Category Mobility   **Emodz BV** with #Vehicle2HollandHouse

- Category New Work   **Talentwunder UG** (limited liability) with Talentwunder

- Category Next Generation Security   **PHYSEC GmbH** with PHYSEC – security for things

- Special Award from the state of NRW for the Digital Economy   **auxmoney GmbH**

8.2 New Year's Reception as part of the art event PASSAGEN

It was the perfect start to the new year for the Internet industry: more than 300 guests were in attendance at the New Year's Reception held in Cologne on 21 January 2016. There, they enjoyed live Latin American music, wine, and cava, alongside extraordinary cocktails and gourmet Spanish tapas by ALEGRIA Catering.

Interactive 3D holograms

Together with 42dp Laps, eco presented an interactive 3D hologram console as one of the highlights. The holograms are already well-known for their creation of special effects in film and television shows. The game, presented via a holographic projection, opens up a new perspective on the entertainment of the future. A vivid depiction, the game can be played and considered from all sides. As a result, the gamer is offered an authentic gaming experience in a tangibly close gaming world.

Numerous spaceships were sunk thanks to the interactive 3D hologram console and dancing kept on until the early morning hours.

8.3 CSA Summit

On 21 April 2016, the CSA greeted their certified senders, partners and interested parties to the CSA Summit held at the German Sport Museum in Cologne. With 120 participants from 11 countries, the CSA experienced measurable growth in comparison to the previous year. Twenty-two experts on email from big name corporations were able to share their perspective on the subject of "No Performance Without Trust".

Ivo Ivanov, Director of the CSA, leapt into the subject, drawing parallels to sports alongside Olympic icon Sebastian Biederlack. Marcel Becker of AOL presented on the high relevance of email for marketing and the expanded functionalities in emails, as they are used for exam-

ple to check-in for flights, for invoice payments, and so on. Alexandra Koch-Skiba, Head of the Complaints Office at eco, provided illumination on the topic of trust from the consumer's perspective. In her observations based on daily work with complaints, she has discovered that many recipients view emails as spam even if they do not conflict with the law. Peter Meyer, Head of eco Cyber Security Services, demonstrated the dangers of malware for consumers and Internet service providers.

Email expert and founder of email-vendorselection, Jordie van Rijn, provided practical advice for email service providers on how to build a trusting relationship with brands. A panel discussion that followed included Sebrus Bercht-

enbreiter (promio.net), Sebastiaan de Vos (Emarsys eMarketing Systems AG), Tobias Herkula (optivo), and Frank Strzyzewski (XQueue). The focus lay in Best Practices for the admission of customers and quality control in order to prevent a loss of reputation.

Following this, Sven Krohlas, Mail Security Specialist at 1&1 and Don Owens, Technical Head at Cisco Systems, explained how senders can build a trusting relationship with them. They presented the CSA whitelist as a trust-building measure. Trust-building with Internet service providers came in the form of a talk by Terry Zink of Microsoft on the subject of email authentication. The automated set-up of SPF, DKIM and DMARC were presented as sensible

solutions. The subject of DMARC was likewise in focus in a panel featuring Elizabeth Zwicky (Yahoo), Tim Draegen (dmarcian), Steve Jones (dmarc.org), Andreas Schulze (DATEV) and Rosa Hafezi (eco). After the initial implementation of DMARC in 2012, already 70 percent of mailboxes were DMARC protected by 2016. Considerations about the compatibility with German law were addressed in the panel; aggregated reports were recommended.

At the end, two topics that could influence the future of email were in the spotlight. Jean-Jacques Sahel (ICANN), Lars Steffen (eco), and Terry Zink (Microsoft) spoke about Universal Acceptance and explained the challenges that arise due to valid domain names, and along

with that, email addresses not being accepted.
Marco Hogewoning of RIPE NCC presented Ipv6
and drew attention to the slow implementation
of the new technology. Guests had plenty of
opportunity to network as well, with a dinner,
football contest and party afterward. On the
following day, the possibility was presented for
participants to deepen their knowledge of the
subjects of the summit via legal and technical
workshops. The three-day event was a roaring
success, with all attendees surveyed saying
they would recommend it.

Further information is available at:
http://go.eco.de/csasummit_2016

8.4 it-sa

One of the most important IT Security trade fairs worldwide, it-sa covers a lot of ground, from cloud computing, IT forensics and data security to hosting. The trade fair is a unique platform for those responsible for IT Security, developers and those who provide services and products in the IT security arena.

In 2016, the conference reached a record for the number of exhibitors and visitors, with 490 exhibitors from 19 countries presenting their IT security solutions from 18 to 20 October in Nuremberg. That's in addition to the well over 10,000 attendees on hand. With that jump in numbers, the trade fair in Nuremberg

experienced a double-digit growth rate for number of visitors. Most noticeably, the fair has become more international: the number of visitors from abroad were noticeably greater than in the previous year.

The eco Association was likewise on hand, presenting current information about cyber security and defense measures as well as Cyber Security Services at their booth. That led to a number of interesting conversations.

On the safe side

In addition, eco organized a panel on 19 October in the auditorium on the subject of "Vulnerable Web Applications: Challenges for the

medium-sized enterprise." Small and medium-sized enterprises are a favorite target of cyber attacks, as they lack the resources and knowledge for protection. It is especially the case that companies which operate at a distance from the IT branch lack the appropriate awareness of cyber criminality.

The favored point of attack on small and medium-sized enterprises tend to be vulnerabilities in web applications and servers. The majority of those attacks could be prevented with simple methods, something the panelists addressed. Peter Meyer, Head of Cyber Security Services at eco, Oliver Werner, CEO of netcup, Patrick Ben Koetter, CEO of sys4 AG and David Jardin, Board Member of CMS Garden,

also discussed the current threats. As part of the panel, eco presented its new project: SIWECOS (Secure Websites and Content Management Systems), which should increase the website security of small and medium-sized enterprises remarkably.

A video recording of the panel can be found at:
http://go.eco.de/it-sa_2016

Further information about SIWECOS can be found in Chapter 7.1.1.3 of this report.

8.5 Internet Security Days 2016

Security should be fun

Developing new solutions in the fight against cyber criminality, building synergies, and experiencing new things: those were the aims of the Internet Security Days held on 22 and 23 September 2016 in the city of Brühl, near Cologne. For the sixth time, eco invited participants to the Phantasialand amusement park – for the first time in cooperation with Heise Media.

Around 600 experts took up the invitation to network and become better informed about the current challenges of online security via a series of lectures, keynotes, workshops, panels and networking events. Numerous partners and top-class sponsors made for a successful event.

Alongside the continually relevant subjects of cyber attacks and measures for protecting against them, the two days illuminated many other areas. On the agenda were topics such as "Digital Identities," "The Security Challenges of Industry 4.0," "Cryptography for all," and "Secure Cloud Infrastructure". During the afternoons, visitors had the opportunity to dive deeper into security practices in workshops. At the accompanying security fair, companies presented effective solutions for IT and Internet Security for today and tomorrow. There was also plenty of opportunity for fun and personal exchanges, as Phantasialand provided a fantastic event environment and the African Internet Security Night created a frame for an extraordinary networking event.

Keynotes about current security challenges

The thorough program started with exciting keynotes by big name experts. "Company leaders have to make the subject of IT security one that is handled at the top levels," said Prof. Michael Rotert, Chairman of the Board at eco in his opening address. Especially in medium-sized companies, there is a need for improvement. With the proper security solutions, however, the delight of new digital possibilities remains clear.

Thomas Haldenwag, Vice President of the German Federal Office for the Protection of the Constitution (BfV), spoke about espionage and cyber terrorism in his keynote. He explained the current security challenges, such as possible hack attacks by foreign spy services and spoke about the attempts made by Islamist groups to manipulate people via social engineering. In the keynote that followed, Dr. Matthias Rosche, SVP at T-Systems, showed how security has become a part of our everyday lives. The branch is standing at the precipice of great security challenges. That is why, he said, it is important that

Sandboxing," "Managing Identity and Access Management via Blockchain," and "Smart Home Hacking," was made possible through workshops.

Under the framework of a podium discussion, experts and the audience discussed the IT security law that went into effect in July 2015. The law has made Germany a forerunner in the fight for IT security. The closing keynote was held by security expert and primary Internet personality Mikko Hypponen of F-Secure. He determined, "Complexity is the enemy of security," and called for security measures to be oriented toward user capabilities.

self-driving vehicles are completely safe and the potential for hacking of things like the locks or braking systems made null.

Much more than "mere" Internet security

Three parallel sessions on security gave interested attendees and the experts on hand the chance to work together to look beyond pure Internet security. They could get a glimpse at the impact IT security has on the areas of Smart Home, Industry 4.0 and automation. As part of that, they had a look behind the scenes at cyber attacks and took on subjects such as the darknet, phishing, and ransomware. Cryptography and secure cloud structures were also addressed. A deepened perspective on subjects such as "Secure Working Environments through Virtualization and

Networking as an important complement to business

A high point of the ISD was the networking event held on the first evening: visitors could relax in an African ambience at the African Internet Security Night event. With exotic dancing, drum rhythms and singing, a bit of African tradition was brought to the event. Meanwhile, visitors had the chance to enjoy delicacies from African cuisine and network with others in a relaxed atmosphere. Those who were up for it took a ride on the Black Mamba roller coaster – as often they wanted! The Phantasialand attraction was reserved exclusively for use by ISD attendees.

An established security event since 2003

The ISD has for years served as a springboard for online security experts to learn something new, create promising synergies and together develop new solutions in the fight against cyber criminality.

The event is exclusively attended by professionals – most of whom are CEOs, CTOs, CIOs, and CISOs. In 2016, eco was able to bring Heise Media, a strong, experienced partner, on board to assist with realization. Together with top-level sponsors as well as numerous media and marketing partners, they were able to secure an excellent launching pad for the German security industry event to attract in more visitors and to ensure that the fight for better Internet security and against cyber threats remains a step ahead.

More to come

By the end of ISD 2016, one thing was clear: Security is both the key and the challenge for the success of products and services in the age of digitalization. The numerous people responsible for security who attended used the opportunity to inform themselves about the most important current issues with Germany's leading online security experts. The concept of combining trade fair, conference, and networking event in an exciting environment was once again a complete success. The ISD is and will remain one of the most important IT security events in Germany that brings together information, idea-exchange and business. The continuation of the annual series of events is already in planning

Further information is available at:
https://isd.eco.de

internetwoche
7
24. – 29. Oktober 2016

Stadt Köln

8.6 Internet Week

Experience the digital future!

More than 130 events, with a total of 500 speakers and a record number of over 10,000 visitors: In its seventh year, the Internet Week (#IW7) in Cologne was a resounding success. From 24 to 29 October 2016, the event offered participants the unique chance to experience the Internet in its many different facets, to expand their knowledge and exchange their experiences in order to actively gain an understanding of digitalization.

It is the seventh time that eco was able to hold the Internet Week in Cologne event together with the City of Cologne. The new mayor of Cologne, Henriette Reker, picked up on the tradition of her predecessor and took over patronage. People from the Internet industry, politicians, and members of the digital community meet at the Internet Week to show and discuss how the average citizen and the entire economy can use digital advancements in a positive, secure and profit-winning way for their benefit. Since 2013, the organization and content of the event has been handled by topiclodge.

Digitalization has forged ahead into all areas of our personal and professional lives – a challenge for citizens and companies alike. The goal of the Internet Week was thus to address the challenges and opportunities presented by

digital transformation in a responsible and self-confident way. In order for the Internet to better our world and our society, we need to work locally – where we live and work.

130 events with 500 speakers

The Internet Week offered a plethora of diverse events in and around Cologne that were intended for all levels, from beginner to expert. At the same time, a broad spectrum of topics were covered from different perspectives: from life and work in the Internet through to changes in society brought out by the Internet.

For the first time this year, Social Community Days in partnership with the Grimme Online Award were held under the umbrella of the Internet Week. Under the title, "Social Engagement in Social Media," an event took up the subject of different methods and possibilities for community engagement which can be organized and disseminated via social media.

The conference SEO-DAY for specialists saw 850 SEO experts met to inform themselves about the new developments in the area of search engine optimization. The beloved Content Management System WordPress was the focus of a Word-Camp on 29 October, held at Cologne's start-up incubator, Startplatz, where around 100 participants met for 28 sessions held in four rooms.

The founders conference "StartupCon," was held on 27 October at the LANXESS arena. There, 300 start-ups presented their ideas, innovations, products, and services to an audience of over 3,000. Numerous workshops and lectures rounded out the event program, connecting the digital thought process of older, more-established companies with that of the younger generation.

Further information is available at:
https://internetwoche.koeln
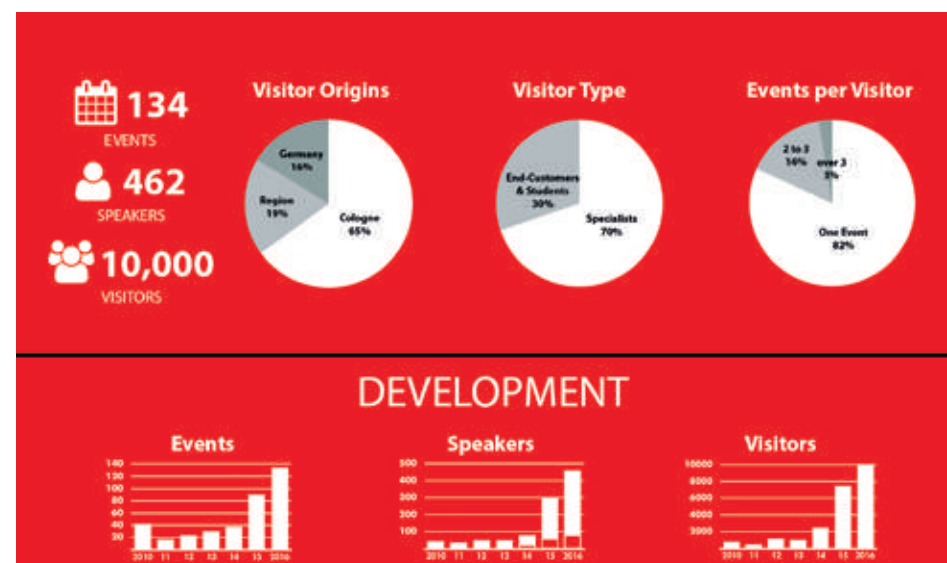
8.7 EuroCloud Deutschland Conference

The cloud as economic factor was the subject of the opening address given by Dr. Alexander Tettenborn of the German Federal Ministry of Economic Affairs and Energy (BMWi) to the 6th EuroCloud Deutschland Conference (ECDC). Cloud experts and business users met in Cologne on 1 June 2016 as part of a full seminar program informing them of current developments in digitalization as well as profitable cloud strategies. The high point of the event was the awards ceremony for the EuroCloud Deutschland Awards.

The keynote on the subject of the new global distribution in a time of digital Darwinism presented by Karl-Heinz Land of neuland GmbH was met with great feedback. Digitalization is not something which can be stopped and under the motto "adapt or die," the digital revolution is eating even its own children. First, products are digitalized, then interconnected and at the end, automated. That's true of nearly every area of industry. "If a product can be interconnected, it will be," he said, warning, "Those who do not consider the cloud in their digital strategy will fail miserably".

Christian J. Pereira of Q-loud GmbH took on the subject of "Industry 4.0 – Drivers and

Capabilities for Total Connectivity". Connectivity is the foundational basis for sharing knowledge and our industry will need to change dramatically. "All IoT platforms have to have one thing in common: security," he emphasized.

SMEs on a positive path

Andreas Weiss, Director of EuroCloud Deutschland_eco e. V., provided concrete cloud strategies in his lecture with the central focus of digitalization. In addition, he presented important initiatives and projects that help to confront the challenges of new designs of IT. In his estimation, the medium sized sector in Germany has already grappled very intensively

with the subject of the cloud – even if it appears differently in the public perception.

The ECDC demonstrated necessary steps to realizing a secure and trustworthy new approach to company orientation. As such, cloud experts with tremendous practical experience took up the most frequently asked questions about innovation and value-adding, cloud transformation, trusted cloud, cloud security and compliance.

"The aim was to give attendees the right impulse to finally make their respective cloud strategies a reality," said Andreas Weiss. He went on to say, "The overwhelmingly positive feedback shows: We have done it and are

excited about the new cloud business models!"

EuroCloud Deutschland Awards

The high point of the ECDC was the awards ceremony for the EuroCloud Deutschland Awards. Among the start-up pitches, the best applicant received the Award in the category of "Best Cloud Service provided by Start-up CSPs". The jury selected root360 as winner for their "Managed Cloud Hosting for E-Commerce Companies and Start-ups" solution. In the category of "Best Cloud Service for Horizontal Markets," the jury was won over by ecratum, with its eponymous solution. The EuroCloud Deutschland Award in the Category "Best Cloud Service for Vertical Markets" was won by 3megawatt for "BluePoint".

Further information is available at:
www.ecd-conference.de

8.8 Further eco Events 2016

eco Events 2016			
Date	Event	Topic	Location
12.01.2016	Policy Breakfast	Europa muss auf „Löschen statt Sperren" setzen	Brussels
19.01.2016	CG Data Center	Trends in the European Data Center Market	Frankfurt am Main
21.01.2016	New Year's Reception	New Year's Reception Cologne	Cologne
25.01.2016	CG E-Commerce	Agenda-Setting 2016	Cologne
26.01.2016	New Year's Reception	Neue Innovationen für den Breitbandausbau	Berlin
29.01.2016	IT'S Breakfast	Das Ende der Ära Passwort	Bochum
04.02.2016	nrw.uniTS	nrw.uniTS trifft Produktion	Bochum
16.02.2016	CG Data Center	Die Data-Center-Branche in Zeiten der Konsolidierung	Frankfurt am Main
16.02.2016	Policy Breakfast	Safe-Harbor-Nachfolgeregelung auf dem Prüfstand	Berlin
17.02.2016	CG Security	Workshop	Hannover
23.02.2016	pol/Talk	Safe Harbor 2.0 – ist der sichere Hafen USA noch zu retten?	Berlin
25.02.2016	CG Networks	Performance vs. Latency – Anforderungen an die Game-Infrastruktur	Frankfurt am Main
25.02.2016	eco Nacht der Netze	SOUND OVER IP	Munich
26.02.2016	eco Fachtagung	Die Zukunft des digitalen Glücksspieles – neue staatliche Lenkung?	Berlin
26.02.2016	IT'S Breakfast	IT-Sicherheitsrecht für KRITIS	Bochum
03.03.2016	CG New Work	Agenda-Setting 2016	Cologne
05 –10.03.2016	CG Names & Numbers	55. ICANN Meeting	Marrakesch
10.03.2016	Positionsbestimmung 2016	Wo steht die EU-Innovationspolitik?	Cologne
11.03.2016	Schoko & Sushi	Warum überhaupt IPv6?	Berlin
16.03.2016	Politik im Gespräch	Breitbandausbau in der entscheidenden Phase	Berlin
17.03.2016	CG Data Center/Networks	Doing Business in Germany	Rust
18.03.2016	CG Names & Numbers Forum	drei Domain Name Talks	Rust
18.03.2016	IT'S Breakfast	Der Spion im Wohnzimmer	Bochum
05.04.2016	CG E-Commerce	Handlungsbedarf für E-Invoicing	Cologne
05.04.2016	CG Law & Regulations	Over-The-Top(OTT)-Dienste	Berlin
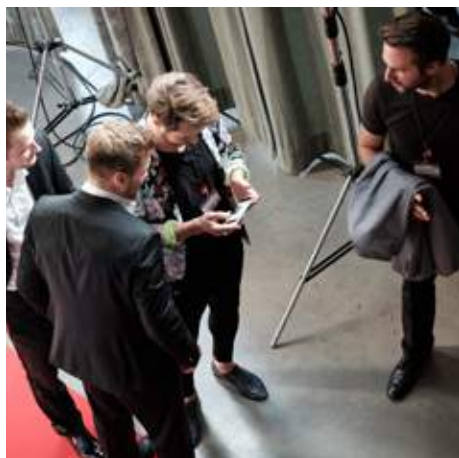
eco Events 2016			
Date	**Event**	**Topic**	**Location**
06.04.2016	CG Data Center	Rechenzentrum-Dialog	Cologne
12.04.2016	Policy Breakfast	Neue Perspektiven bei der Regulierung von OTT-Diensten	Berlin
13.04.2016	IWCGN	Kick-off der Internetwoche 7	Cologne
14.04.2016	eco LocalTalk	Data Center Life Savers – Emergency	Hamburg
19.04.2016	CG Networks	39. Medienfrühstück mit ProDigitalTV & Mediakraft	Cologne
19.04.2016	nrw.uniTS	nrw.uniTS trifft Logistik	Herne
19.04.2016	CG Abuse	Competence Group Meeting	Cologne
20.04.2016	CG E-Mail	Competence Group Meeting	Cologne
20 –22.04.2016	CSA Summit incl. CG Names & Numbers Forum	CSA Summit 2016	Cologne
26.04.2016	Guided Tour Hannover Messe	eco Competence Group Mobile and Deutsche Messe AG	Hannover
26.04.2016	CG Internet of Things	Agenda-Setting 2016 & Workshop	Cologne
27.04.2016	eco LocalTalk	Data Center Life Savers – Power	Munich
29.04.2016	nrw.uniTS	IT'S Breakfast April 2016 – Mobile Security	Bochum
03.05.2016	CG Data Center	Rechenzentrum-Dialog	Frankfurt
09.05.2016	Politik-Lunch	Zeit für eine Grundsatzentscheidung des EuGH	Berlin
09.05.2016	Melting Realities	Transmedia mit Bundesverband GAME	Munich
19.05.2016	eco LocalTalk	Data Center Life Savers – Network	Frankfurt am Main
25.05.2016	Policy Breakfast	Neue Pflichten beim Urheberrecht	Brussels
27.05.2016	nrw.uniTS	Sicherheit für das Internet der Dinge	Bochum
31.05.2016	CG New Work	TECH <> HR – Personaler auf den Spuren von Nerds und Geeks	Cologne
31.05.2016	Politik im Gespräch	Anti-Terror-Gesetz, VDS, Leistungsschutzrecht	Berlin
01.06.2016	EuroCloud Deutschland Conference	Cloud-Strategien und Digitalisierung	Cologne
03.06.2016	Die Münchner Frühstücksrunde	Business in: Arabien	Munich
09.06.2016	CG Internet of Things	9. Mobile Business Trends	Dusseldorf
13.06.2016	CG E-Commerce & Online Marketing	Mono-Brand-Shops und Full Services für mehr Erfolg im E-Commerce	Cologne
13.06.2016	CG Data Center	DIN EN 50600-4: Kennzahlen für den professionellen RZ-Betrieb	Frankfurt am Main
17.06.2016	Schoko & Sushi	Geoblocking	Berlin
20 –21.06.2016	CG Data Center/Networks	Digitale Transformation im Zeichen der Kieler Woche	Kiel

eco Events 2016			
Date	Event	Topic	Location
21.06.2016	pol*IT*alk	Geoblocking bei Sportübertragungen – „Dieses Spiel ist in deinem Land leider nicht verfügbar"	Berlin
21.06.2016	Policy Breakfast	Vorratsdatenspeicherung aus Sicht der Internetwirtschaft	Berlin
22–23.06.2016	CG Data Center/Networks/Names & Numbers Forum	econnect Tour	Cologne
23.06.2016	eco e.V.	Mitgliederversammlung 2016	Cologne
23.06.2016	eco Gala & Internet Awards	Gala für Vordenker	Cologne
24.06.2016	nrw.uniTS	Schutzgelderpressung 2.0	Bochum
27–30.06.2016	CG Names & Numbers Forum	56. ICANN Meeting	Helsinki
30.06.2016	CG Infrastructure Security	Update DDoS Mitigation and Blackholing	Frankfurt am Main
05.07.2016	EuroCloud	Die Kommunikation wandert in die Cloud	Cologne
08.07.2016	CG Security	Firewall on the Road	Berlin
12.07.2016	CG Security	Firewall on the Road	Dietzenbach
19.07.2016	CG Security	Firewall on the Road	Munich
27.07.2016	CG Names & Numbers Forum	Brexit – Challenges for the Domain Industry	remote
29.07.2016	nrw.uniTS	EU-Datenschutz-Grundverordnung	Bochum
25.08.2016	eco Sommerfest	Networking BBQ	Berlin
26.08.2016	nrw.uniTS	Cyberversicherungen	Bochum
06.09.2016	EuroCloud	Cloud Breakfast Hamburg	Hamburg
06.09.2016	Netzpolitisches Forum	2 Jahre Digitale Agenda der Bundesregierung	Berlin
13.09.2016	nrw.uniTS	nrw.uniTS trifft Gesundheitsfachberufe	Bochum
15.09.2016	CG Networks	After The Euros & Olympics – Infrastructure for Live Broadcasting	Frankfurt am Main
21.09.2016	CG Abuse	Kompetenzgruppen-Meeting	Cologne
22–23.09.2016	Internet Security Days	Internet Security Days 2016	Brühl
28.09.2016	EuroCloud	Dynamische Zertifizierung – Workshop für Auditoren und CSP	Cologne
30.09.2016	IT'S Breakfast	Zertifikate – End of Life von SHA1-signierten Zertifikaten	Bochum
10.10.2016	CG Online Marketing / CSA	Workshop: Update der rechtlichen und technischen Qualitäts-standards für E-Mail-Marketing	Cologne
17.10.2016	nrw.uniTS	1. Treffen nrw.uniTS – Bayrisches Sicherheitscluster auf der it-sa	Nuremberg

eco Events 2016			
Date	Event	Topic	Location
19.10.2016	Politik im Gespräch	Vorstellung der aktuellen internet- und netzpolitischen Aktivitäten im Bundestag	Berlin
24–29.10.2016	IWCGN	internetwoche 2016	Cologne
25.10.2016	IWCGN/CG Data Center	520 Wochen – ein Blick in die Zukunft unserer Gesellschaft	Cologne
25.10.2016	IWCGN/CG E-Commerce	Marktüberwachung und politische Marktgestaltung im E-Commerce	Cologne
25.10.2016	Policy Breakfast	4. eco Politikfrühstück	Berlin
26.10.2016	IWCGN/CG Internet of Things	IoT Future Trends 2016	Cologne
26.10.2016	IWCGN/CG New Work	„Leben und Arbeiten in der digitalen Stadt" – World Café im Rahmen der Internetwoche 2016	Cologne
28.10.2016	IT'S Breakfast	Service Provider unter Compliance-Druck – Informationssicherheit und Kontrollsysteme nach PS 951	Bochum
02.11.2016	nrw.uniTS	2. Treffen nrw.uniTS – Bayrisches IT-Sicherheitscluster	Dusseldorf
03.11.2016	CG Security	Locky, CEO-Fraud & Co.	Cologne
04.11.2016	Münchner Frühstücksrunde	Digitalisierung Mittelstand am Beispiel vom Flughafen Munich	Munich
07.11.2016	CG Online Marketing	Anwender unter sich – E-Mail-Marketing im Unternehmen umsetzen III	Frankfurt am Main
07.11.2016	CG E-Mail		Karlsruhe
08.11.2016	CG Data Center	Street Skills First – Zeit für einen Change im IKT-Vertrieb	Frankfurt am Main
09.11.2016	eco digital pitching night	Zur Webwoche Munich – digitale Zukunft in sechs Minuten	Munich
10.11.2016	CG Security	DDoS – It's getting bigger	Frankfurt am Main
10.11.2016	CG Data Center	5 Sterne Rechenzentrum plus	Munich
14.11.2016	networker NRW	Unternehmerclub des networker NRW – „Recruiting Kompakt"	Bochum
15.11.2016	CG Data Center	5 Sterne Rechenzentrum plus	Hamburg
15.11.2016	CG Security	Sichere und stabile Unternehmensnetze	Frankfurt am Main
15.11.2016	nrw.uniTS	nrw.uniTS trifft Handwerk	Bochum
22.11.2016	Policy Breakfast	5. eco Politikfrühstück zur TK-Review: Ausbau von Hochgeschwindigkeitsnetzen ist oberstes Ziel	Berlin
23.11.2016	CG Data Center	Bestandsaufnahme effiziente Rechenzentren	Frankfurt am Main
24.11.2016	CG Online Marketing & networker NRW	SoMedia Abend: Kleine Filme, große Wirkung – mit Video-Marketing zum Erfolg	Cologne
25.11.2016	IT'S Breakfast	I can see for miles	Bochum

eco Events 2016			
Date	Event	Topic	Location
25.11.2016	Policy Breakfast	Löscherfolge bei der Bekämpfung von Darstellungen des sexuellen Missbrauchs und der sexuellen Ausbeutung	Berlin
29.11.2016	Politik im Gespräch	Vorstellung der aktuellen internet- und netzpolitischen Aktivitäten im Bundestag	Berlin
30.11.2016	Parlamentarischer Abend	eco Beschwerdestelle in Zeiten von Hate Speech & Co.	Berlin
01.12.2016	CG Law & Regulations	Plattform-Regulierung und andere Fragen der Digitalisierung	Berlin
13.12.2016	CG Blockchain	Konstituierende Sitzung	Cologne
14.12.2016	CHRISTMAS JOY	Data Santa sagt Ihren Kunden Danke!	Munich
21.12.2016	EuroCloud	StarAudit Training	Cologne

8.9 Events in Cooperation with eco 2016

Events in cooperation with eco 2016			
Date	Event	Event Organizer	Location
28.01.2016	Cologne IT summit 2016 (eco Stand)	JOGECON GmbH	Cologne
01–02.02.2016	Domain Pulse 2016 (Panel)	SWITCH	Lausanne
11.02.2016	IT&MEDIA FUTUREcongress 2016	AMC Media Network GmbH & Co. KG	Darmstadt
24.02.2016	Industrie 4.0 – Mit ICT-Know-how Deutschlands Wettbewerbsfähigkeit sichern!	Böcker Ziemen Management Consultants GmbH & Co. KG	Frankfurt am Main
08 –10.03.2016	eTail Deutschland 2016	Worldwide Business Research	Berlin
10.03.2016	Positionsbestimmung 2016: Wo steht die EU-Innovationspolitik?	eco and We are Europe!	Cologne
15.03.2016	Workshop: Digitales Marketing – driven by content 360°	STARTPLATZ Düsseldorf GmbH	Dusseldorf
17.03.2016	WHD.global	WorldHostingDays GmbH	Rust
04.04.2016	RZ-Dialog	PRIOR1 GmbH	Cologne
05 –06.04.2016	Capacity Balkans 2016	Capacity Media	Bucharest
07.04.2016	Der SoMedia Abend	networker NRW e.V.	Dortmund
07.04.2016	Neue Lösungen für Industrie, Logistik und Handel	European EPC Competence Center GmbH	Neuss
08.04.2016	Workshop: Internet of Things – die vierte industrielle Revolution	STARTPLATZ Düsseldorf GmbH	Dusseldorf
11–17.04.2016	Die erste Düsseldorfer Start-up-Woche	Start-up-Initiative der Düsseldorfer Wirtschaftsförderung	Dusseldorf
12.04.2016	BIG	DATA	SECURITY – Munich	eco and WZ-N	Munich
12.04.2016	Workshop: Scrum – Ein Vorgehensrahmen für das Projektmanagement	STARTPLATZ Düsseldorf GmbH	Dusseldorf
13.04.2016	e-Marketingday Rheinland	IHKs Rheinland	Wuppertal
14.04.2016	BIG	DATA	SECURITY – Frankfurt	eco and WZ-N	Frankfurt am Main
19.04.2016	BIG	DATA	SECURITY – Stuttgart	eco and WZ-N	Stuttgart
19 –20.04.2016	future thinking / Verleihung Dt. RZ-Preis	dc-ce	Darmstadt

Events in cooperation with eco 2016			
Date	Event	Event Organizer	Location
20.04.2016	12. IT-Trends Sicherheit 2016	networker NRW e.V.	Bochum
26.04.2016	Guided Tour Hannover Messe	eco CG Mobile/IoT and Deutsche Messe AG	Hannover
26–27.04.2016	EINFACH ONLINE ARBEITEN	EuroCloud and aixvox GmbH	Online
28.04.2016	5. DiALOG-Fachkongress	The Quality Group GmbH	Dresden
02–03.05.2016	World of Cloud 2016	Management Circle AG	Frankfurt am Main
03.05.2016	RZ-Dialog	PRIOR1 GmbH	Cologne
11.05.2016	Lenkungskreis Social Media	networker NRW e.V.	Dortmund
11.05.2016	Workshop Risikomanagement – Einfach, effektiv und rechtssicher mit IT-Risiken umgehen	Referat für Arbeit und Wirtschaft der Landeshauptstadt Munich	Munich
19.05.2016	The New Digital Highway	CINIA Group	Frankfurt am Main
24.05.2016	Umsatzsteuer und Compliance im Online- und Versandhandel	bevh-Academy Steuerroadshow	Munich
29–31.05.2016	Domaining Europe 2016	Domaining Europe	The Hague
01.06.2016	TEC – Telecommunications Executive Circle: „News aus Silicon Valley!"	Böcker Ziemen Management Consultants GmbH & Co. KG	Frankfurt am Main
01–02.06.2016	Sechster Erfahrungsaustausch Marktüberwachung – 6. ERFA MÜ	Bundesnetzagentur	Berlin
07–09.06.2016	ANGA COM 2016	ANGA Services GmbH	Cologne
07.06.2016	Data Centre and Cloud Awards	BroadGroup	Monaco
08–09.06.2016	Datacloud Europe	BroadGroup	Monaco
09.06.2016	Big Data Konferenz #3	STARTPLATZ Cologne	Cologne
13.06.2016	Umsatzsteuer und Compliance im Online- und Versandhandel	bevh-Academy Steuerroadshow	Cologne
14.06.2016	Israel Mobile Summit 2016	Israel Trade Fairs & Convention Center	Tel Aviv
15.06.2016	Industry round table discussion on EU priorities for data centre operators, The Cloud is a Data Centre	DIGITALEUROPE	Brussels
15–16.06.2016	Capacity Central & Eastern Europe 2016	Capacity	Warsaw
15–16.06.2016	WHD.racing 2016 (Panel)	WorldHostingDays GmbH	Salzburg
21–23.06.2016	eTail Europe 2016	Worldwide Business Research LLC	London

| Events in cooperation with eco 2016			
Date	Event	Event Organizer	Location
27–30.06.2016	56th ICANN Meeting	ICANN	Helsinki
28–29.06.2016	Global Carrier Community Meeting (GCCM)	Carrier Community GmbH	Berlin
29.06.2016	ConCarExpo	VDI Wissensforum GmbH	Dusseldorf
30.06.2016	Update DDoS Mitigation and Blackholing	DE-CIX	Frankfurt am Main
11.07.2016	Umsatzsteuer und Compliance im Online- und Versandhandel	bevh-Academy Steuerroadshow	Hamburg
01.09.2016	6. Bremer IT-Sicherheitstag - Vortrag und offizielle Vorstellung SIWECOS	heise Events	Bremen
09.09.2016	Münchner Frühstücksrunde – Die beste Verkaufsmethode der Welt	WZN	Munich
09.09.2016	VIII. Internet Governance Forum Deutschland (Panel)	Internet Governance Forum Deutschland	Berlin
14.09.2016	Expo & Konferenz: dmexco 2016 (CSA Stand, KG Names & Numbers Forum)	Sedo GmbH	Cologne
04–05.10.2016	CENTR Registrar Day 2016	Council of European National Top-Level Domain Registries	Belgrad
05.10.2016	M2M Summit 2016	M2M Alliance e.V.	Dusseldorf
06–07.10.2016	eco Docker-Seminar – 2/3	neofonie/loodse	Hamburg
06–07.10.2016	16. ICANN-Studienkreis	ICANN	Dubrovnik
11–13.10.2016	F2F Meeting der UASG Coordination Group	UASG	Washington
13–14.10.2016	OX Summit 2016 (eco Stand & Panels)	Open Xchange	Frankfurt am Main
18–20.10.2016	it-sa Nürnberg (eco Stand)	Messe Nürnberg	Nuremberg
19–23.10.2016	Frankfurter Buchmesse 2016	Frankfurter Buchmesse GmbH	Frankfurt am Main
25–27.10.2016	M3AAWG 38th General Meeting	M3AAWG	Paris
27.10.2016	Konferenz: ConversionCon 2016	Media24All UG	Cologne
03.11.2016	IT-Netzwerkfrühstück	networker NRW e.V., Regionalforum Duisburg-Niederrhein	Duisburg
03–09.11.2016	57th ICANN Meeting	ICANN	Hyderabad
03–11.11.2016	Webwoche Munich	Isarnetz	Munich
08.11.2016	TOOLS & PRINCIPLES OF AGILE WORKING	WIRED Campus	Zurich
09.11.2016	DATA & CONSUMER INSIGHTS	WIRED Campus	Berlin
10.11.2016	PHP.RUHR 2016	CNS E-Business Services GmbH	Dortmund

Events in cooperation with eco 2016			
Date	Event	Event Organizer	Location
17.11.2016	Notfall-Management für Ihr Rechenzentrum	PRIOR1 GmbH	Cologne
17.11.2016	DIGITALISATION	WIRED Campus	Berlin
23.11.2016	The Ideation Process	WIRED Campus	Copenhagen
23.11.2016	INNOVATION CAPACITY	WIRED Campus	Munich
23.11.2016	DENOG8	DENOG / DE-CIX	Darmstadt
23–24.11.2016	Data Centre World / Cloud Expo	CloserStill Media	Frankfurt am Main
28.11.2016	INNOVATION – VISUAL THINKING & STORYTELLING	WIRED Campus	Berlin
01.12.2016	IT-Sicherheitstag NRW	IHK NRW - Die Industrie- und Handelskammern in Nordrhein-Westfalen e.V.	Bonn
07.12.2016	Virtual Reality – Können die Telkos hier mitmischen?	Telecommunications Executive Circle	Frankfurt am Main

9. Memberships and Cooperation

9.1 Membership in Pivotal Committees

As an association, one of eco's most important tasks is to represent the interests of its members in politics, and in national and international committees. As well as headquarters in Cologne, eco has its own office in the German capital Berlin and an office in Brussels, and is represented on location in all relevant political decision-making processes.
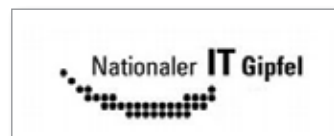
Hubert Martens
Head of networker NRW e. V.

networker : NRW
Der IT Verband

9.2 networker NRW

Since the beginning of 2016, the long-running cooperation between networker NRW and eco has been further intensified: Effective as of 1 January 2016, the two associations signed a cooperation agreement with the objective of bundling and strengthening the representation of interests. In future they will share their resources and make their services, such as Competence Group meetings, member information and networking possibilities, accessible to all members. In addition, stronger cooperation on topics (among others, security, Industry 4.0, and cloud) and closer coordination on event formats and political topics in the state of North Rhine-Westphalia were agreed upon.

While the members of networker NRW benefit from the reach of the largest Internet industry association in Europe, eco receives stronger representation at the state level. Both associations remain legally independent, but members of networker NRW will in future benefit from the possibility of free associate membership in eco. This has been taken up by many members, leading to an increase in membership numbers.

Numerous events were organized together in 2016, and members were mutually invited by eco and networker NRW to the respective Competence Group meetings. The project "Member Portal" was also driven forward: After a joint workshop at the beginning of October 2016, the suggestions from members

were taken up and implemented. The beta version of the member portal is being tested.

A further intensification of cooperation is planned for 2017. Alongside offers for members, political activities with regard to the state government, ministries and the state parliament will be expanded.

Further information is available at:
www.networker.nrw

9.3 Digital Hub FrankfurtRheinMain

The Digital Hub FrankfurtRheinMain e.V. and eco signed a cooperation agreement in 2016. This included a strengthened cooperation on topics, the use of joint resources, and defined a clear delineation of areas of activity. While the members of the Digital Hub benefit from the reach of the largest Internet industry association in Europe at the federal and European level, eco obtains a strong connection at the most important Internet Exchange Point and largest data center location in Germany. Both associations will in future share resources and make their services accessible to all members. The associations remain legally independent; Membership in the Digital Hub FrankfurtRheinMain is automatically expanded to an affiliation with the eco Association. In addition, stronger cooperation on all topics and closer coordination of the established discussion formats was agreed upon.

These include, alongside event series in the Rhine-Main area, intensive contact to decision makers at the communal and regional levels, as well as to the Hessian state government in Wiesbaden. In conjunction with the agreement, the Digital Hub will make joint use of the eco Association's premises in Lindleystrasse in Frankfurt for their office.

Further information is available at:
www.digitalhub–frm.de

9.4 YDE

The "Young Digital Economy" Advisory Board provides the German Federal Minister for the Economy with first-hand advice on the current issues for young digital companies and start-ups in Germany. It is an important connection between industry and politics, because it enables direct and practical dialog. Since the Federal Ministry for Economic Affairs and Energy advisory board was established in 2013, eco CEO Harald A. Summa and DE-CIX Chief Technology Evangelist Arnold Nipper count among its core members. In 2016, the advisory board published, among other things, a position statement on digital education, which calls for stronger training of digital competencies in schools and tertiary institutions. In addition, in December, together with the French Conseil national du numérique (CNNum), it presented the policy document "Digitalization is a fundamental question for Europe!" to the German Federal Minister for the Economy Sigmar Gabriel and his French counterpart Michel Sapin.

Further information is available at:
http://go.eco.de/bjdw

9.5 Further Partners

eco works intensively together with other renowned cooperation partners. Among others, these include:

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11. eco Members 2016

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