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Running botnets

..and getting away with it

ISD 2013

Cologne/Brühl

Introduction

- Hein Dries- Ziekenheiner
  - Dutch Law (Masters, ICT and Telecom)
  - eLaw Leiden University
  - Dutch ISP association (RIP)
  - Post And Telecommunications Authority (OPTA now ACM)
  - Consultancy

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Todays subjects

- Dollarrevenue (adware program)
- European law (a lot)
- Dutch law (a little)

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Dividing that 1/3

- Underground economy
- Case in point: Dollarrevenue

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Dividing that 2/3

- Dollarrevenue
  - Case

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Dividing that 3/3

- Analysis
  - What can be enforced under telecoms law?
  - Or the reverse: how can you get away with just about anything?

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Underground economy

Division of labour

- Increasingly used
- Separation between
  - Product
  - Marketing (Affiliates)
  - Payment processing
  - Technical infrastructure
  - Botnet infrastructure

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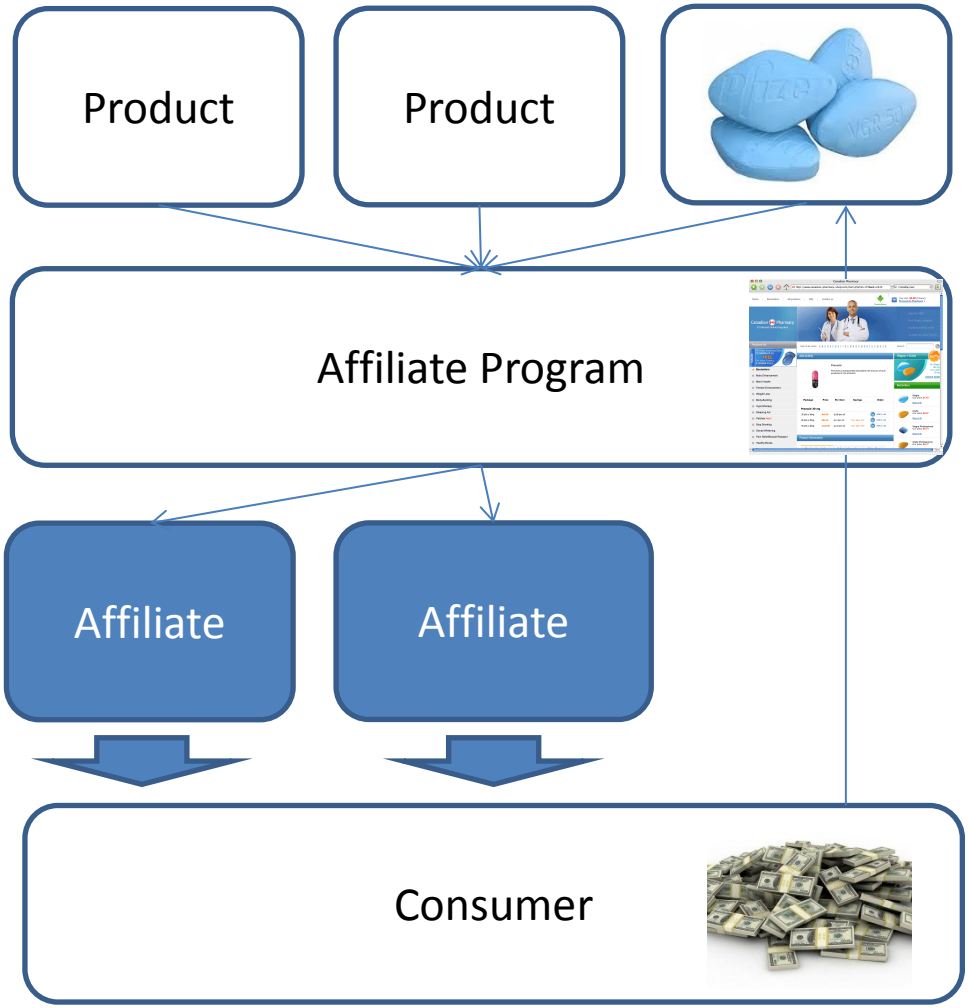
Affiliate marketing



- Affiliates mislead spam or infect consumers
- Transaction: Pay-out
- Affiliates: "create traffic"
- Programs: "sells traffic"

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Affiliate marketing

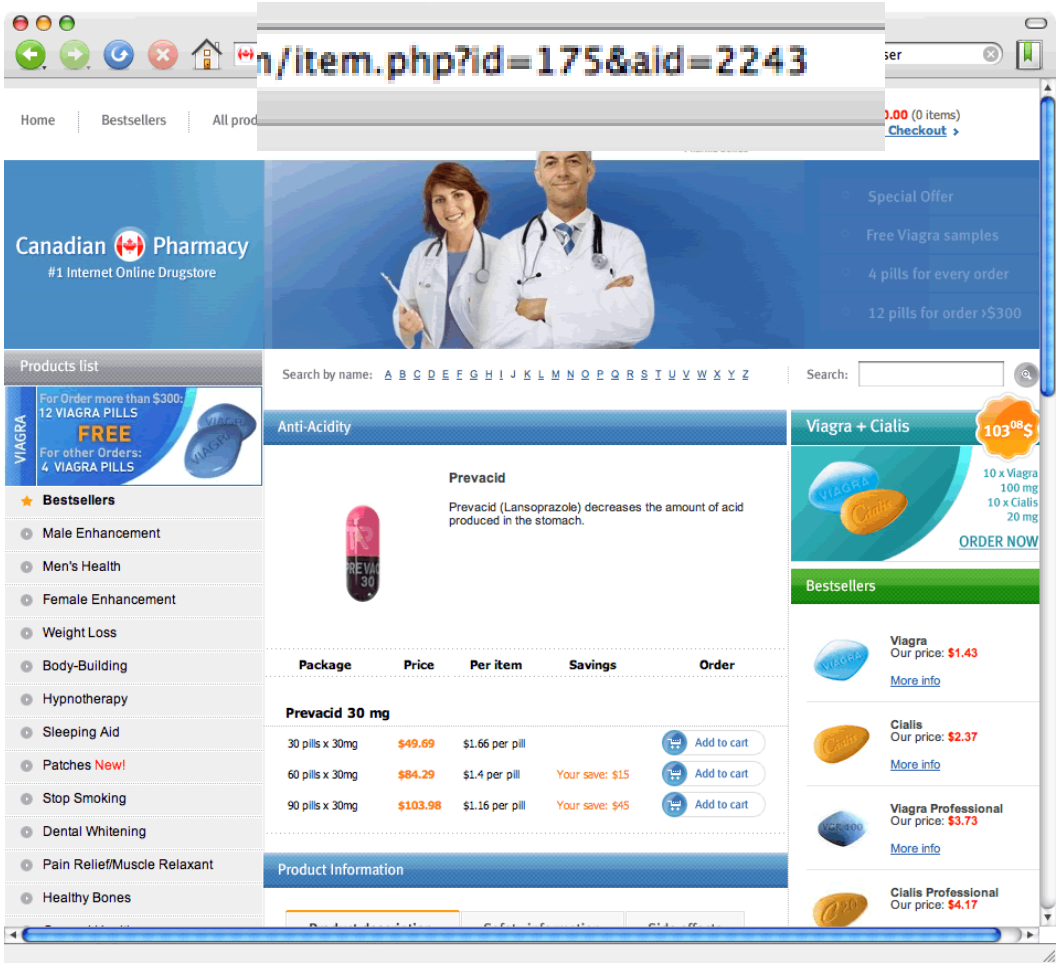

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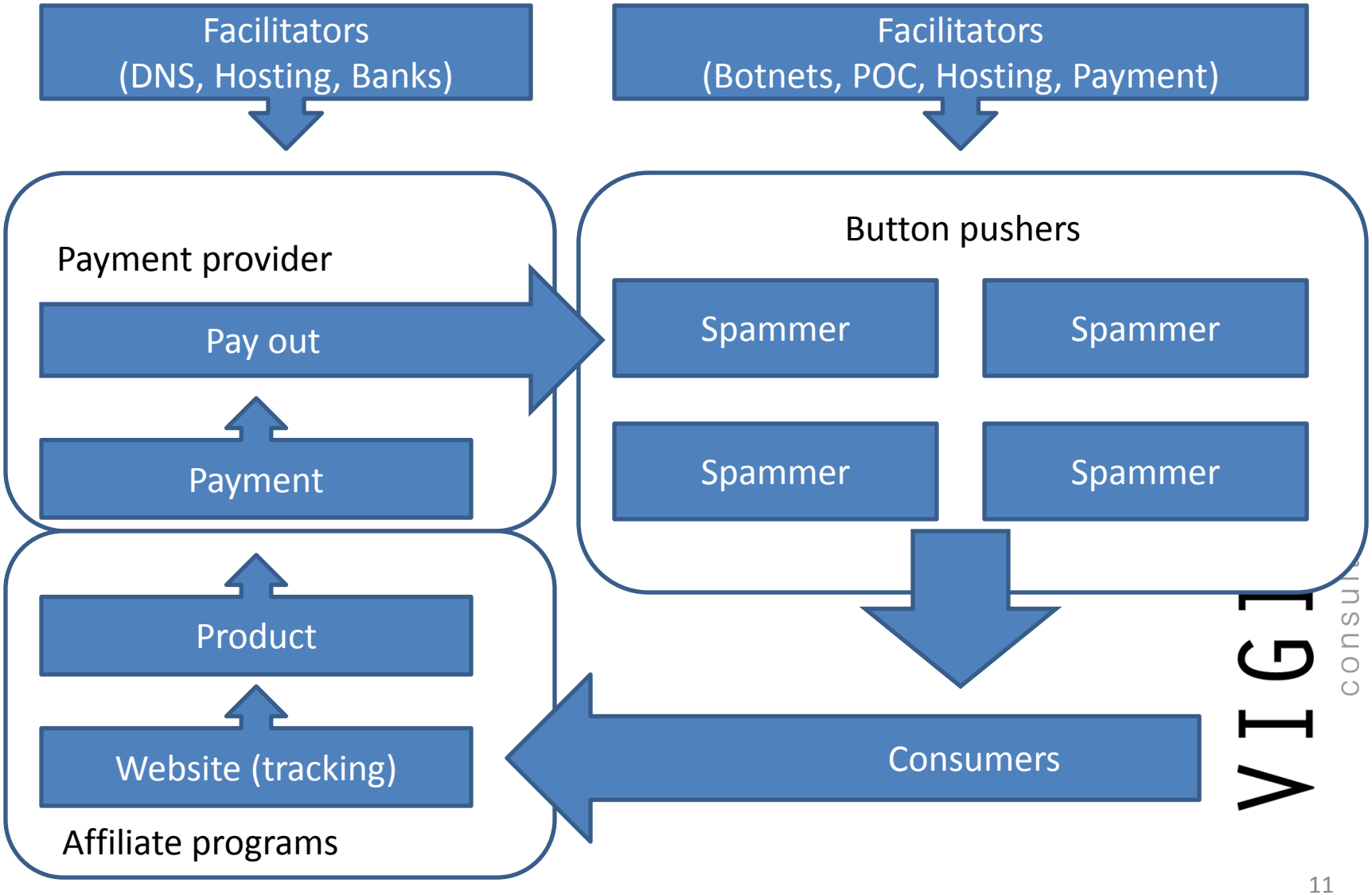
Diagram


Facilitators
(DNS, Hosting, Banks)
Facilitators
(Botnets, POC, Hosting, Payment)
Payment provider
Pay out
Payment
Button pushers
Spammer
Spammer
Spammer
Spammer
Product
Website (tracking)
Affiliate programs
Consumers

Dollarrevenue

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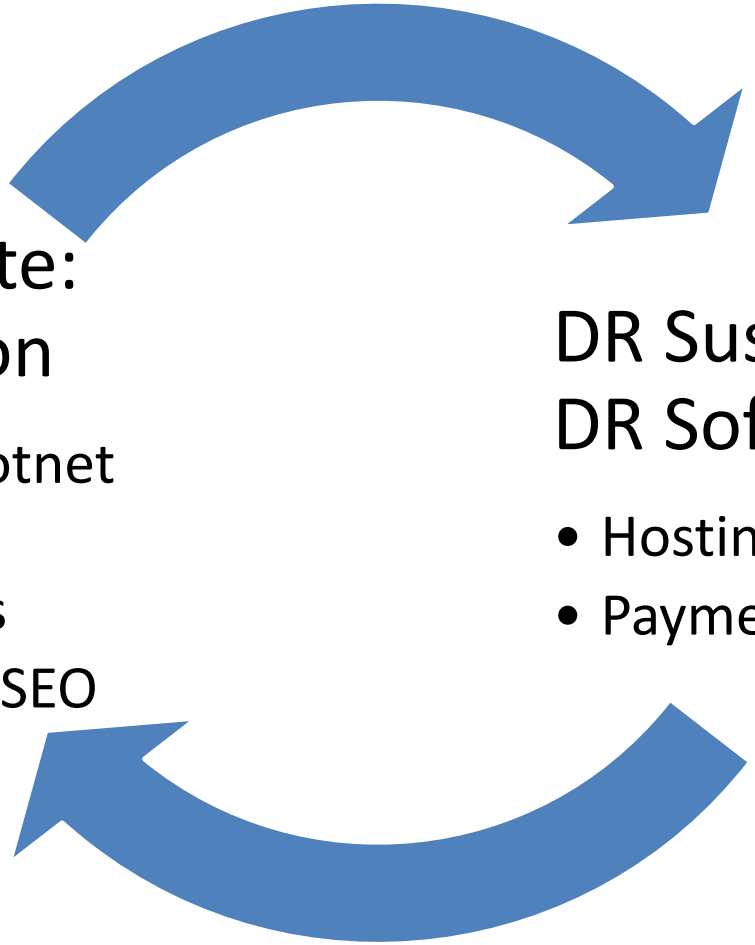
Result: specialisation and facilitators



DR Affiliate:
Installation

- Herder: Botnet Operation
- Spam: lists
- Websites: SEO

DR Suspects:
DR Software

- Hosting
- Payments

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International?

- Dollarrevenue:
  - 22M hosts
  - 1 to 2% NL
- Market:

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International!

Three points

- Division of labour
- Extensive facilitation and specialisation
  - Legal
  - Illegal
- Across International boundaries

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Dollarrevenue

The Law

- Adminstrative Decision on End User Rights and Universal service (4.1 BUDE):
  - Information on what is placed
  - A means to refuse the installation/placement
- Follows from EU telecoms package

  (ePrivacy directive 2002/58/EC)

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EU Law

- Aims to provide similar protection to ALL consumers in internal market
- “Harmonisation”
- Does not cover enforcement
  - National matter
  - Third pillar (law enforcement)

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Fine!

- ACM investigates
- November 2007
- Fines 2 individuals and 3 companies a total of € 1.000.000
- Two appeals stages

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Dollarrevenue & ACM agree:

Not disputed:

- “Software was placed”
- Staged downloader
  - DollarRevenue Controlled software “bundle”
  - Affiliates placed software using several methods
  - Most of these were illegal – mostly since information was lacking (EULA, ActiveX/Browser warnings are insufficient)

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But…. Who?

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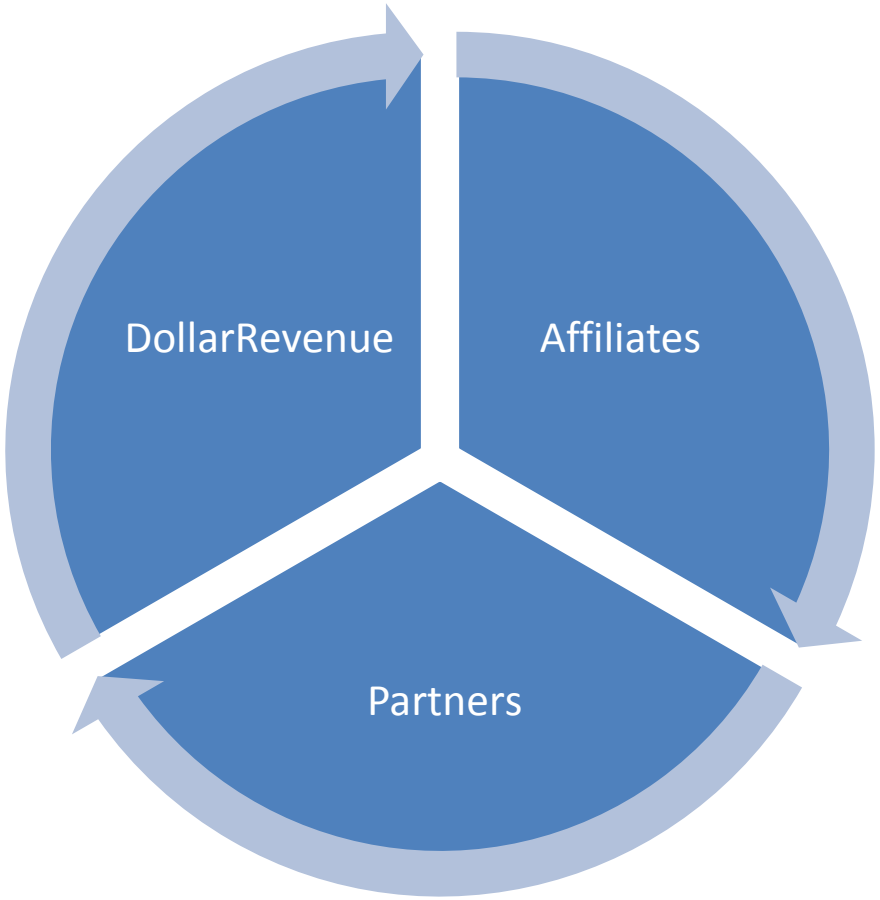
ACM/OPTA



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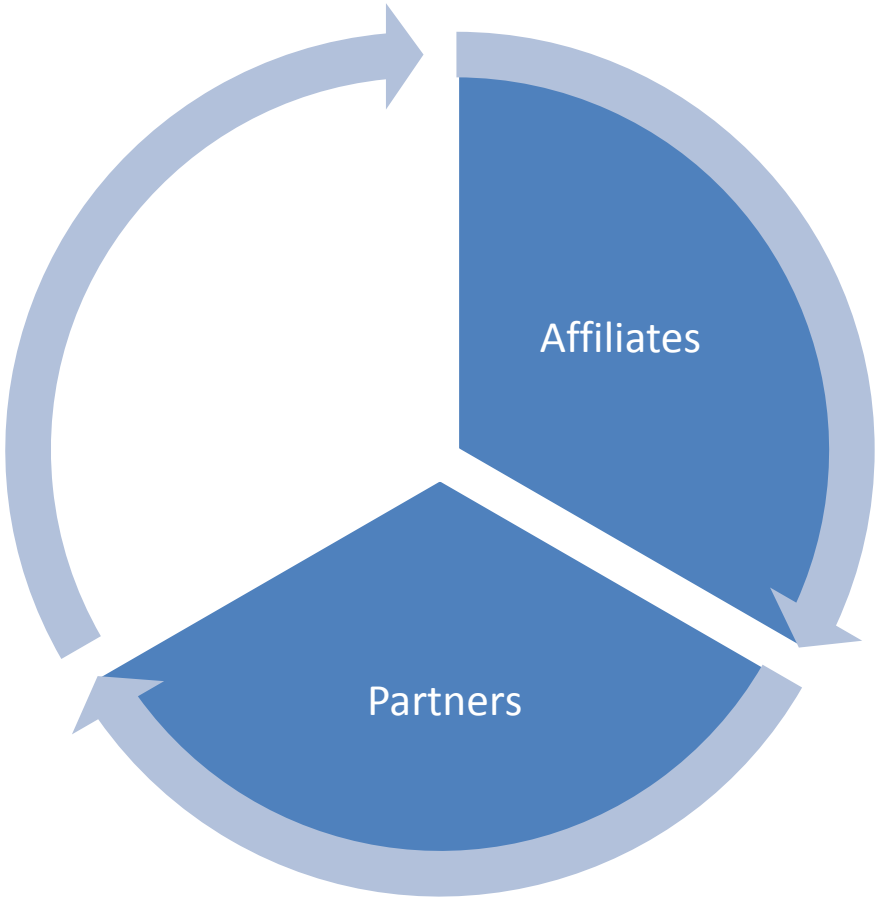
DollarRevenue



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What do you think?

- A: Affiliates
- B: Partners
- C: DollarRevenue
- D: All of the above

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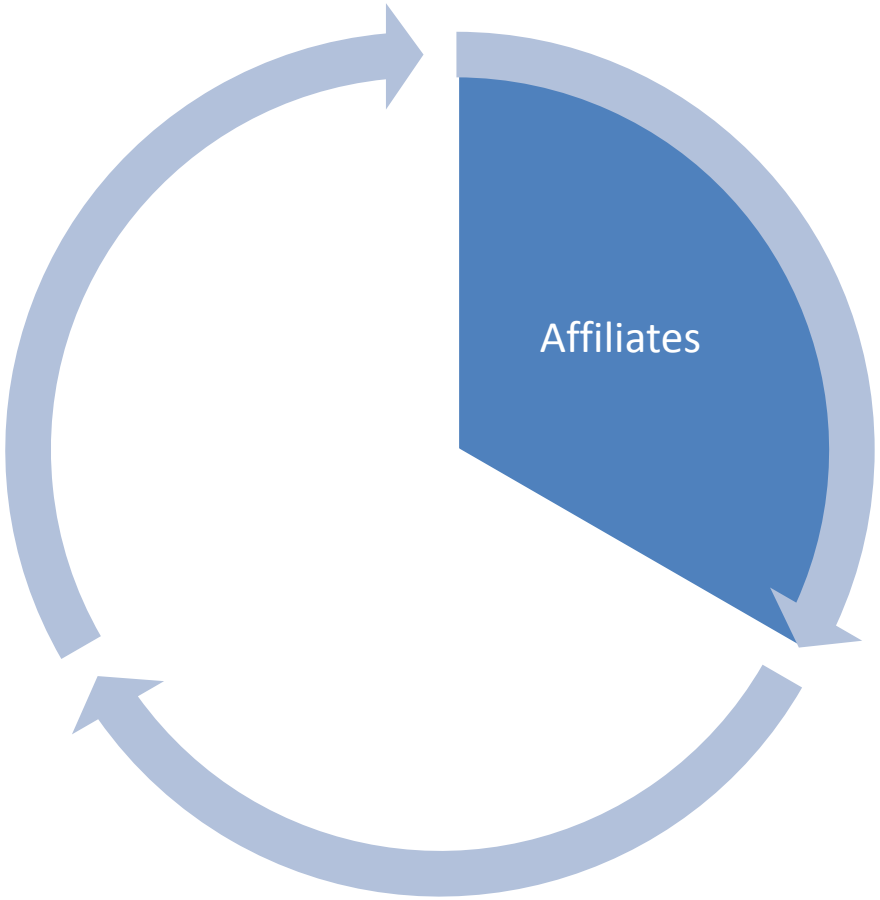
The Court



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And then..

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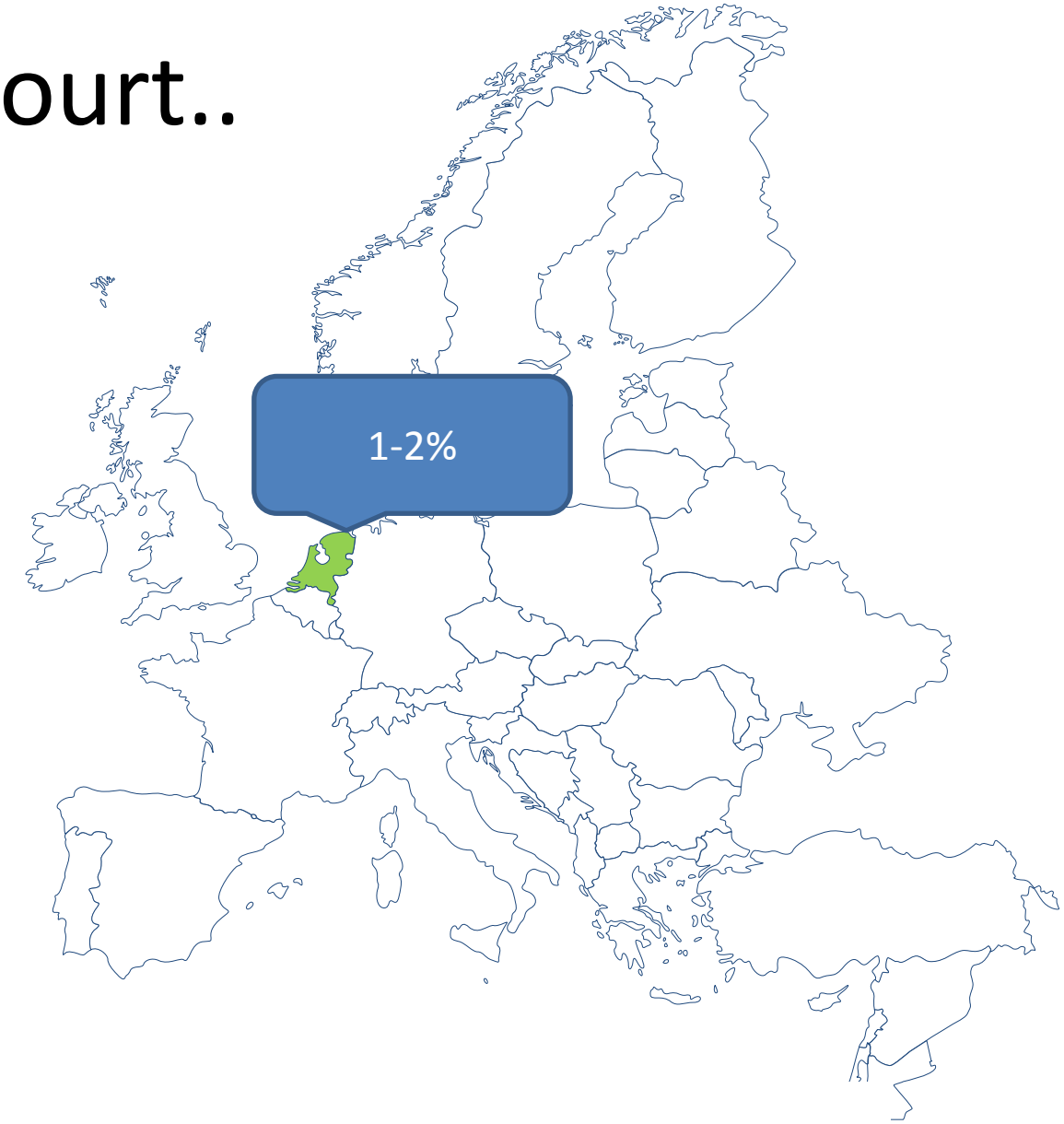
The court..



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Analysis

How to…

Gap analysis…

Autoriteit
Consument & Markt

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Gap analysis…

- Gap between security measures and criminal enforcement
  - Security: ISO 2700x, PCI DSS, COBIT etc…
  - Criminal enforcement: hacking, computer crime
- Difficulties in addressing facilitators to a crime?
  - Division of labor
  - Specialisation

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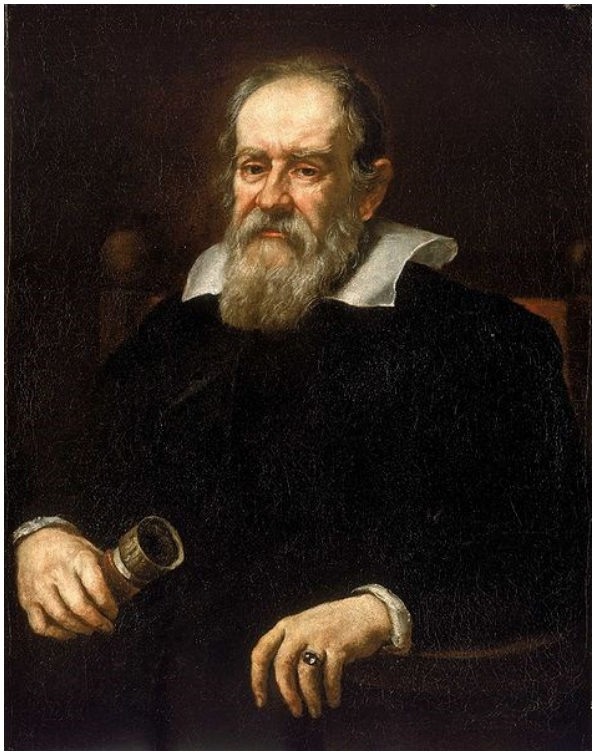
Gap analysis…



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Issues?

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Conclusion

How to… Set up a malware shop in the Netherlands:

- Find many affiliates!
- Make sure they are not from the EU..
- Install abroad (that is .. not in the Netherlands)

- AND: Don’t piss off Dutch police..

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