

22
MAR
2018

Cooperation between Energy Technology and Cyber Security Actors

10.15 -10.35



FISC – Finnish Information Security Cluster

- **FISC association** 
Finnish Information Security Cluster
 - Found in 2012
 - Joint initiative by Finnish Information Security Industry
 - More than 75 member companies
 - An elementary body in the implementation of the National Cyber Security Strategy
 - Member of the Federation of Finnish Technology Industries
 - Member of European Cyber Security Organization

- **Cyberlab Ltd** 
 - A non-profit company owned by FISC
 - Cyberlab mission is to support public sector organizations and enterprises in improving their cyber resiliency
 - Building international business opportunities



FISC - Industrial Internet group



Independent working group



Chairman: Jukka Kyheröinen

Contact: jukka.kyheroinen@flashtec.fi

Mission:

- Dialogue between industry, end-users and cybersecurity vendors
- Identify new business opportunities
- Networking and knowledge sharing

- Follow-up Megatrends with cybersecurity
 - Robotics
 - Artificial Intelligence (AI)
 - Autonomous vehicles
- Interesting cybersecurity topics
 - IoT and personal information (GDPR)
 - Biohacking
 - Smart Clothes/Wearable tech
 - AI
 - AI within cybersecurity
 - Security of AI

FISC Defense Industry group



Independent working group

- Chairman: Ari Knuuti

Targets:

- Dialogue between customers and members
- Conduct visits to the customers
- Participate national level PPP-cooperation
- Networking and business intelligence

What happens in a minute

2017 This Is What Happens In An Internet Minute



This is What Happens in an Evil Internet Minute

- 
- ✓ 1,080 victims
 - ✓ 818 pieces of unique malware
 - ✓ 7300 Records lost / stolen
 - ✓ 1,214 ransomware attacks
 - ✓ 100,000 phishing emails
 - ✓ \$1.9 million is lost to of Cybercriminals
 - ✓ New phishing pages: 100 per minute
 - ✓ 14.5 new malicious malvertising ads
 - ✓ New blacklisted mobile apps: 0.3 per minute
 - ✓ 4,300 people globally exposed to malware from content theft

Cyber security in context of world's money

\$75.5T - Global Economy

Gross Domestic Product (GDP)
(World Bank 2016)

\$3.5T - Global IT-Market (2017)²

\$1T - Global costs of cyber crime (2017)³



\$3.5T

\$1T

\$120B

€120B Global information security spending (2017)³

FISC ry in ECSO (European Cyber Security Organization)

- FISC is a founding member of ECSO
- FISC has been elected to ECSO Board
 - Association Board member: Juha Remes
 - Partnership Board member: Timo Kotilainen
 - Association strategy & coordination committee member: Juha Remes
- Involved in Working Groups
 - Chairman of working group 4 (SMEs): Aapo Cederberg
- ECSO: **The EC will invest up to €450 million** in this partnership (2017-2020)
- FISC has throughout ECSO a great visibility of European cybersecurity status
- EU Cybersecurity package accelerates European Cybersecurity investments with more than 10 Billion Euros next seven years
- **Europe is lacking 350 000 cybersecurity professionals by 2022, Finland 20 000 of them**
- FISC has made partnership agreement with TeleTrust to accelerate cybersecurity cooperation between Finnish and German industries

Importance of Regional Cooperation in the Northern European Region



North European Cybersecurity Cluster (NECC)
Registered 5th of March, 2018 in Helsinki

1. The most important is to engaged Northern European vertical industries with IoT to cybersecurity, providing compelling advantage for digitalization. Utilizing benefits of cooperation based on experience of the national and regional clusters.
2. It will highlight the importance of such regional cooperation in order to secure some positioning in light of the competence centre of the new EC Communication and the project that will be funded to set the whole thing up.
3. Highlight the importance of finding specific areas of interest and of particular strength in order to prove that the Nordic can secure some funding for that specific area (Artificial Intelligence, blockchain, digital identities and many other cybersecurity specific areas).



European Dual – Use Regime

- Set all cybersecurity or total solutions using cybersecurity under Regime
- Limits exports from EU to outside EU

EU GDPR

- New legal frame starting 25th of May, 2018
- The value DATA shall have a official price-tag
- Controls a right to utilize data

EU Privacy Act

- Limits a right to build data related services

EU Cybersecurity Act

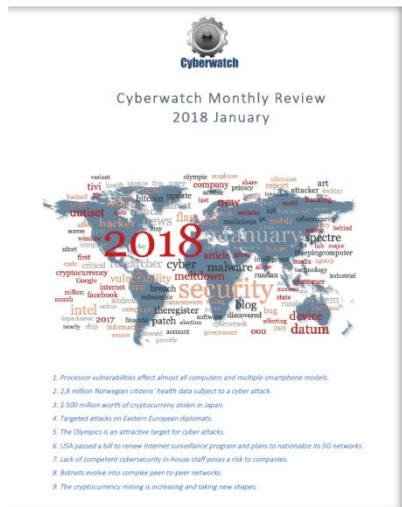
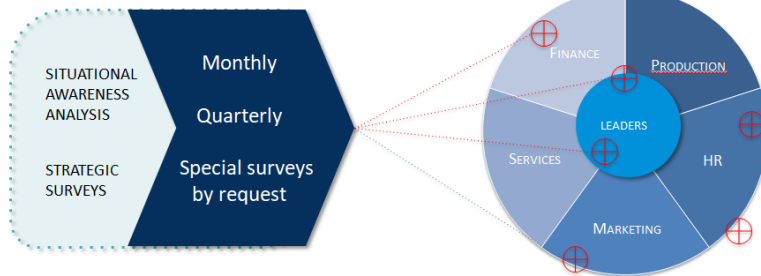
- Billions of new EU funding
- Cybersecurity Center and cross-EU networks

Cybersecurity awareness partners: Cyberwatch and CyberwatchTV

Cyberwatch situational awareness

CYBERWATCH

CUSTOMER / SERVICE PROVIDER



www.cyberwatch.fi/

COUP4

COUP4 HOME SPORT CULTURE EVENTS BUSINESS & SOCIETY



CyberwatchTV interview: Rami Efrati

Aapo Cederberg interviews Rami Efrati, Founder and President of Firmitas

<http://www.coup4.tv/en/stream/cybersecurity>

Cyber Security Nordic

10.-11.10.2018

at

Messukeskus Helsinki

Cybersecurity in Finland (2017)



Advanced cybersecurity industry

- Innovative, top ranked companies
- Wide variety of solutions and services
- National infrastructures built using PPP models

2,500 information security professionals at FISC companies

2,000 information security professionals at other companies

2,000 part-time information security professionals



Cybersecurity in vertical Industries

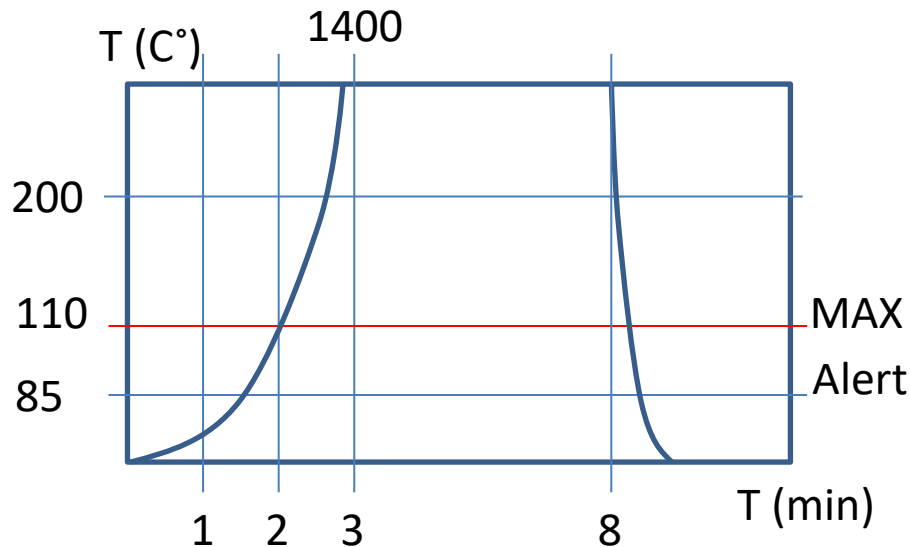


Hansol Paper, example of industrial catastrophe

BEFORE: AMK500L4D BALH 1500kW, Blower



PLC logs: Pt100 temperature of the bearing

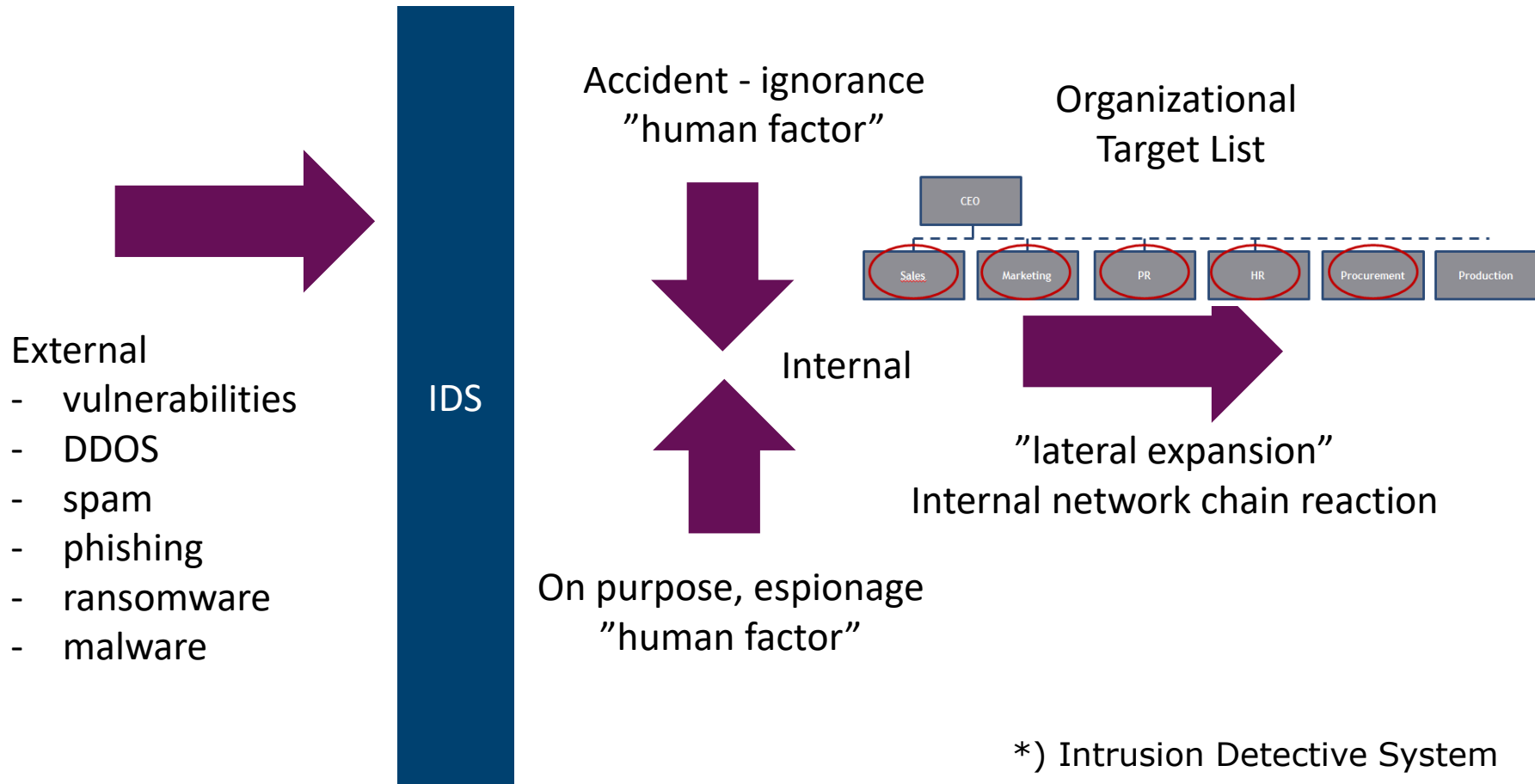


- Example of PLC practice
- Hansol paper get pt100 temperature alarm often due to overloading the machine
- "maintenance crew cut-off the Pt100 alarm sensor cable and operated the machine with overload almost 6 weeks
- Total explosion, destroy the machines, blower and half of paper mill hall

Example of Aurora project, Idaho

<https://www.youtube.com/watch?v=P3DheljYMYU>

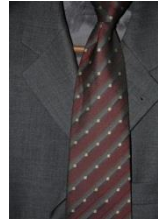
Corporate is attacked via cyber-holes



DATA sources for business



Credit Card Record Information



Business Roles



System Access Control Information



Human Resource Information



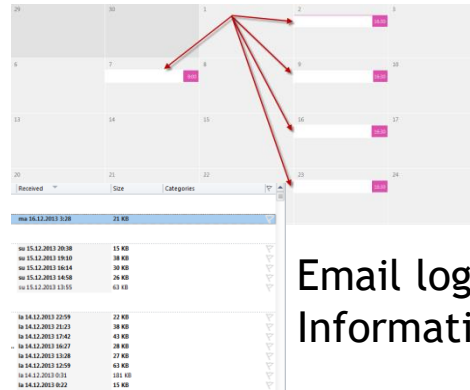
Phone Bill Information



Customer Relationship Information



Travel Expenses Information



Calendar Information



Time Reporting Information

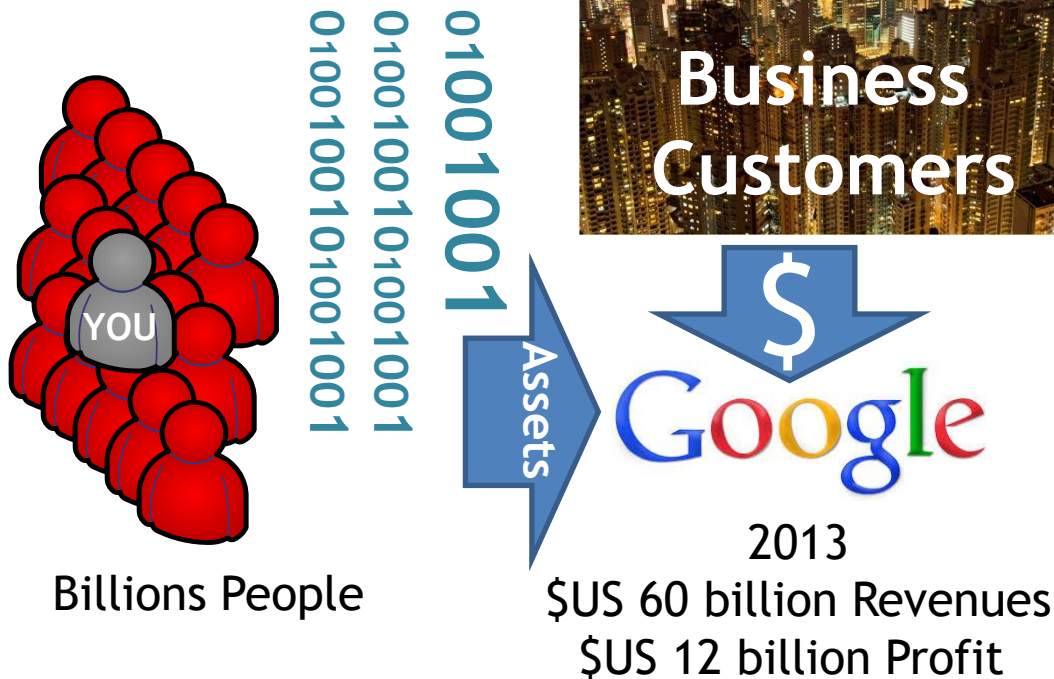


Physical Access Control Information



Working History Information

Business Model: user data, is the product



- What is free to you?
- Is not free to all...
- Every single user is worth of \$US60 for Google and generates \$US12 profit annually.

Business Model: Devices provide Data and the whole world offers ecosystem



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Over 200 Billion Smart Sensors
Over 50 Billion Smart Devices



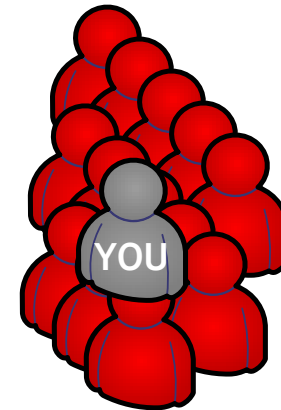
Business Customers



TARGET

+\$US 150 Billion Revenues
+\$US 50 Billion Profit

Refining All Data!



Billions People

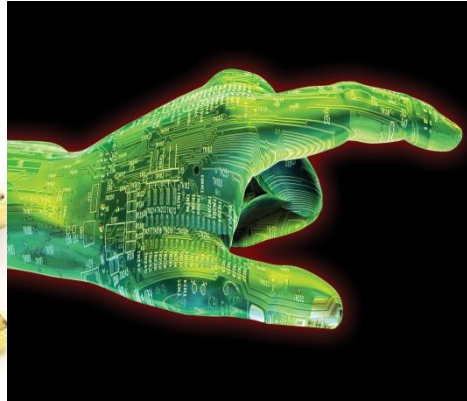


Device records

- Pressure
- Volume
- Temperature
- Speed
- Rotation
- Angle
- Quantity
- Length
- Weight
- Width
- Height
- Time
- Acceleration
- Quality
- Velocity
- Color
- Concentration
- Thickness
- Content
- Shape
- Tolerance
- Date
- Location
- etc.

DATA

well valued Corporate Crown-jewels...



**Corporate Business value relates more than ever on
the Digital Properties!**

In the future this importance of DATA grows...

Cybersecurity protects that FUTURE!

Welcome to FISC

APPLICATION FORM TO FISC RY, Finnish Information Security Cluster



Finnish Information Security Cluster is an organization established in 2012 by major Finnish information security companies to promote their business and operations in national and international context. We believe that cyber security involves everyone. It requires extensive public-private-partnership cooperation models.

Cybersecurity involves every organization.

FISC provides new opportunities within cybersecurity for the organizations related to industrial internet - APPLY!

APPLICATION FORM TO FISC ry as Industrial user member

Company Name	
Name of CEO	
Company registration number	
Company Official Address	
Company Headquarters Address	
Company web-pages	
Company contact person to FISC ry	
Contact person e-mail	
Contact person gsm number	
Company annual revenues	
Employees total in Global	
Employees total in Finland	
Security personal in Finland	
Are you member of Teknologiateollisuus Ry?	
Describe in free format	
- why to join FISC	
- what are your key products and services in information security and cyber security sector	
- what expectations you have from FISC Ry	

- 1 Application management process
- 2 Send you application to juha.remes@cyberlab.fi or juha.remes@fisc.fi
- 3 Application presented and handled by the board application committee
- 4 Applicant is accepted / not accepted by the board - upcoming board meeting
- 5 Applicant is informed of the board decision
- 6 Applicant pays membership fee and annual fee in 14 days after approval of membership

Apply...

 juha.remes@cyberlab.fi

Send

<https://www.fisc.fi/en/contact/palaute/>

Thank You!

Contacts



✉ juha.remes@cyberlab.fi

🌐 www.fisc.fi

🌐 www.flashtec.fi

🌐 www.cyberwatch.fi

@RemesJuhaJR



links:



<http://www.coup4.tv/fi/stream/cybersecurity>

<http://www.coup4.tv/fi/video/aapo-cederberg-kyberhyokkays-suomeen>