



We must not only make humans ready for the Internet

We also need to make the internet ready for humans

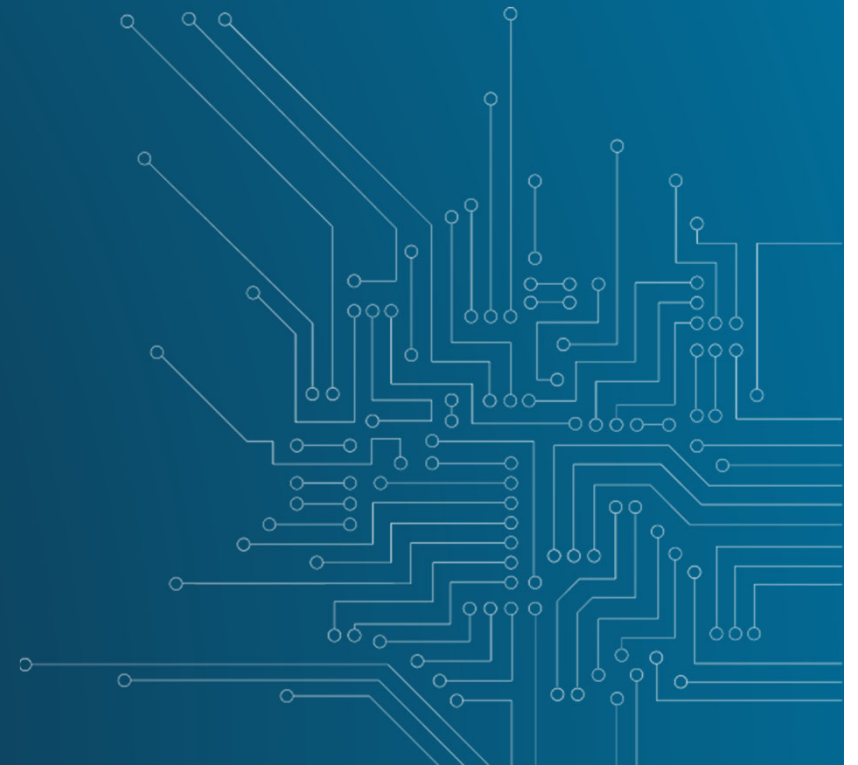
*Miguel De Bruycker*

# Active Cyber Protection

Belgian experiences with an  
added approach to improving  
cybersecurity

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*Pieter Byttebier*  
*International Relations officer*



## @ the beginning of a wonderful story

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Prosperity

Digital  
Transfor-  
mation

TRUST

Security



## Cyber Crime phenomena

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- Phishing
- Ransomware
- Data exfiltration
- Mobile Malware
- DDoS
- Supply Chain
- (Advanced Persistent Threat Actors)

**HACKED**

## How is this possible?

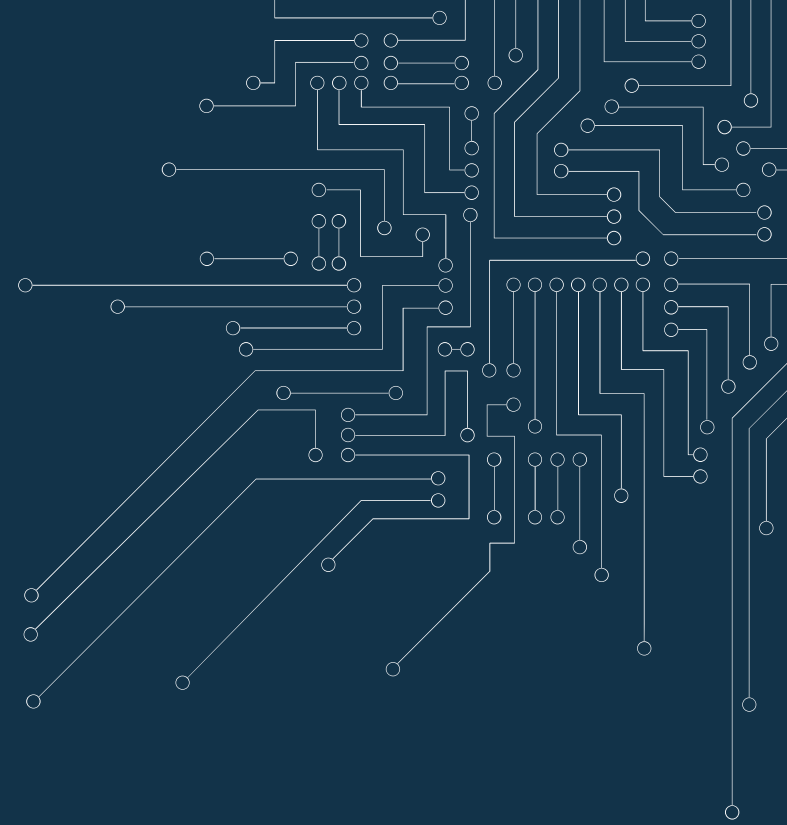


# Vulnerabilities

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- Human
  - Unawareness
  - Ignorance
  - Gullibility
  - Speculation
  - Greed
  - Cluelessness
- Technical
  - ICT Complexity
  - Instant patching pressure
  - Disorganized architectures
  - Supply Chain challenges
  - Business pressure
  - Funding limitations





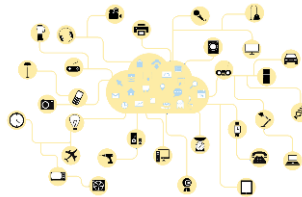
# @ the beginning of ... making cyber space less vulnerable



Malicious Actor



With Intentions



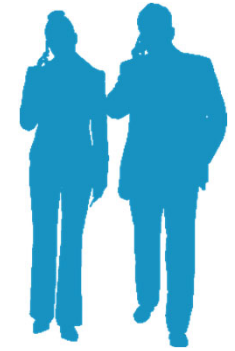
And Infrastructure



Malicious Action



Exploiting a Vulnerability



Of a Target or Victim

Cyber Defence & Intelligence

Cyber Crime Operations

GDPR

Cyber Act

Resilience Act

NIS

Active Cyber Security

*Detect – Disturb - Warn – Involve*

## **Active cyber security/Protection** - a wider preventive and —resilience strategy

- Introducing concepts of **Liability & Accountability**
- A **proactive**, tailored, automated and **participative approach**
- Active and solicited **involvement of users** in their own protection
- Focusing on **actively bettering prevention**, detection, monitoring & analysis
- Offering **free services or tools**
- Rapidly and **automatically share** and understand relevant threat information
- **Directly to the involved parties (spear-warning)**

# Active Cybersecurity

- **Target Technical vulnerabilities**

- Early Warning System
- **Spear Warning**
- Fast and direct alerting
  - Cyber Threats
  - Vulnerabilities
  - Intrusions ...

- SafeOnWeb@Work -> all NIS-2 entities and more?

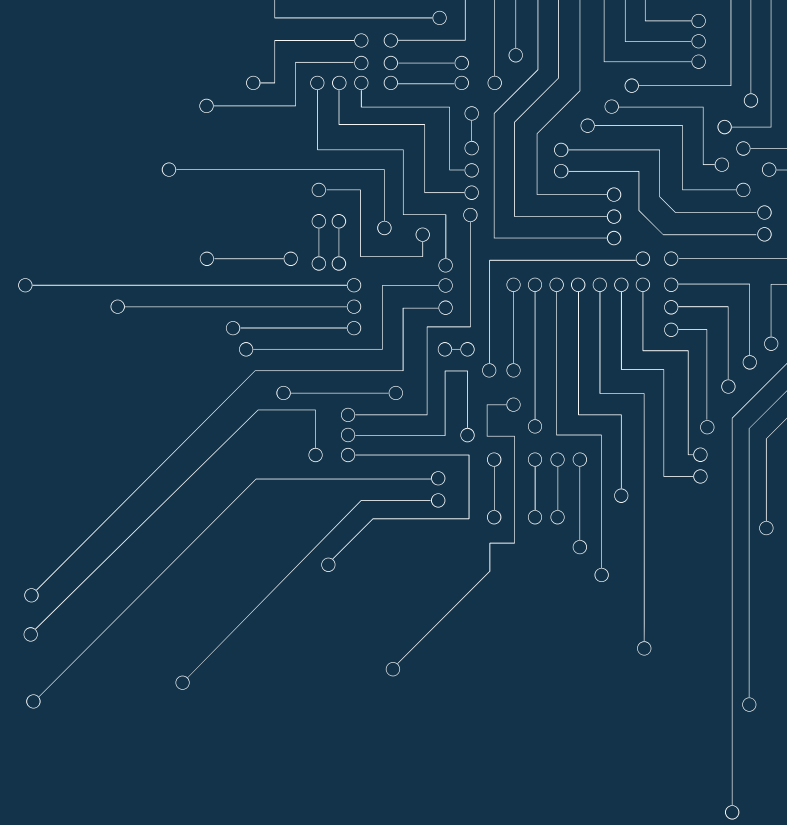


- **Target Human Vulnerabilities**

- suspicious@safeonweb.be
- Safeonweb app
- Belgian Anti-phishing shield
- Validated sites







# @ the beginning of ... new notions on trust?



# Changing the Internet

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Synthetic Trust

Zero trust



Digital identity-based Trust

# Know and understand current and future cyber threats

## Intelligent systems



## Intelligent fraude



- You see Do's number & name
- You hear Do's voice
- Do clearly knows you

No Stir/Shaken  
Deep voice Fake  
SOCMINT

This is possible now

**We must not only make humans ready for the Internet**

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*Miguel De Bruycker, 2021*

Questions ?

[Pieter.byttebier@ccb.belgium.be](mailto:Pieter.byttebier@ccb.belgium.be)