Society's Resilience | *Prepare for War*

NOREA | Ir. Peter Kornelisse RE

Risk event | 6 November 2024

NOREA

- Dutch Association of Chartered IT auditors

- Knowledge Group Cybersecurity

NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS

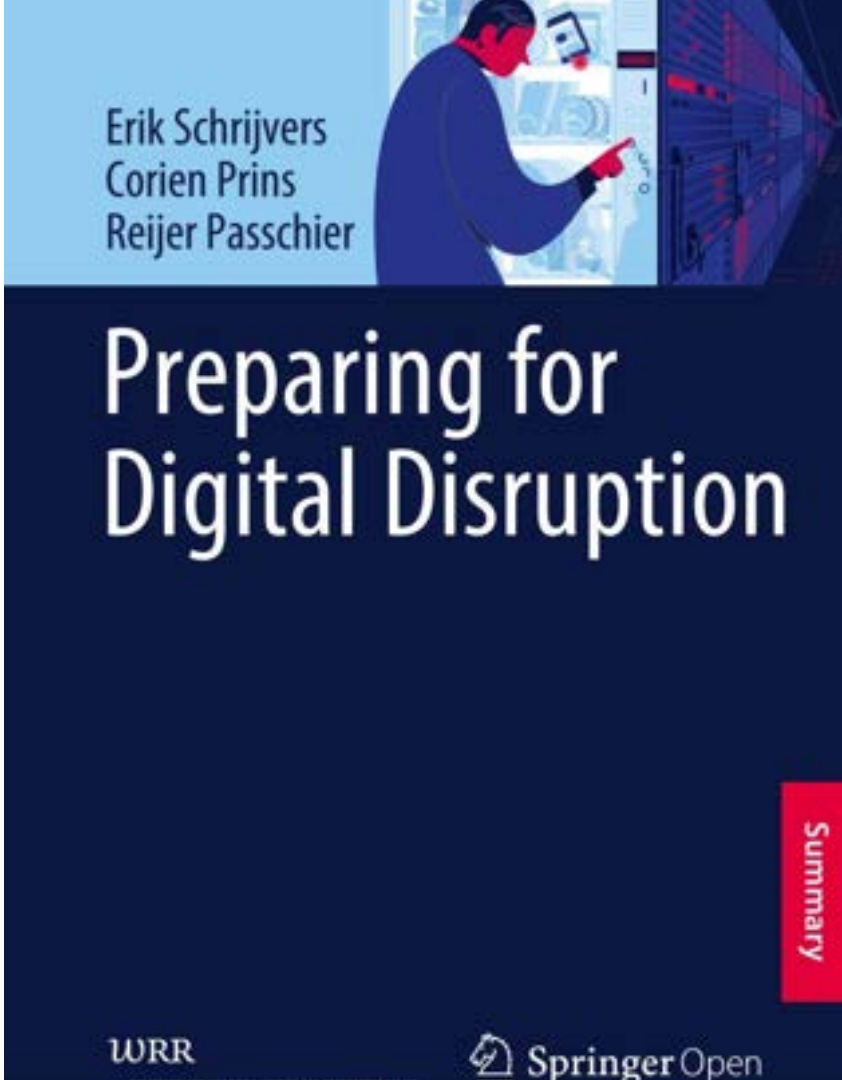
WRR | 2019

Wetenschappelijke Raad voor het Regeringsbeleid

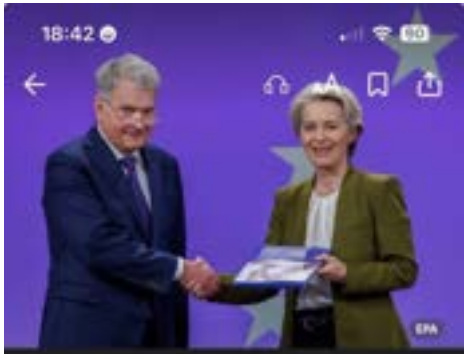
-

Dutch Scientific Council for Government Policy

NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS



2024



NOS Nieuws • vandaag, 16:53

Overheden en burgers EU moeten zich beter voorbereiden op noodsituaties

Kysia Hekster
Correspondent Europese Unie

De Europese Unie moet zich veel beter voorbereiden op grote risico's, zoals gevolgen van klimaatverandering en oorlog. En daarvoor moet de mentaliteit van zowel EU-overheden als burgers drastisch op de schop. Dat staat in het rapport *Preparing Europe for a more dangerous world*, geschreven in opdracht van Europese Commissievoorzitter Ursula von der Leyen.

Von der Leyen legde bij de presentatie de link met de vele doden die vielen bij de overstromingen in Oost-Europa. "Overal in

Key messages

- **The risk of Society's (IT) Disruption is real**
- **Resilience in case of Society's (IT) Disruption is needed**
- **Help yourself, and, next, help others**

NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS

Urgency to ensure Society's Resilience

We are increasingly aware that societal developments can impact every individual and organization

NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS

Disruption in Society | Disruption of IT

Energy shortage | Outages of data centers

Climate change | Flooding of Data Centers

Pandemic | Corona and reduction of staff

Social unrest | Foreign influence via Social Media

War | Sabotage and Attacks | Ukraine

Outage due to concentration IT service | Crowdstrike

Criminal activities| Ransomware attacks

NOREA
DE BEROEPSORGANISATIE VAN IT-AUDITORS

Incidental disruption - Road maintenance

VERKEER

Verkeersinfarct rond Amsterdam door afsluiting A10 Oost en ongeval

22 juli 2024, 17:22 uur · Aangepast 2 minuten geleden · Door Redactie

Ondanks de zomervakantie staat het op de wegen rond Amsterdam deze avondspits muurvast. Door een samenspel van werkzaamheden op de A10 Oost en een ongeval aan de andere kant op de A10 West bij de Coentunnel is het vastgelopen op de Ring, de A1, A5 en A9. De kans op herhaling is door de werkzaamheden de komende tijd groot, aldus de ANWB. "De situatie is fragiel."

Na autoverkeer nu ook internetverkeer verstoord door werkzaamheden A10 Noord

43 minuten geleden · Aangepast 25 minuten geleden · Door Robin Antonisse

Niet alleen het autoverkeer rond Amsterdam ondervindt hinder van de werkzaamheden aan de A10 Noord. Sinds gisterochtend ligt ook het internetverkeer via de glasvezel er in delen van Amsterdam uit. Bij sloopwerkzaamheden bij de Zeeburgerbrug is namelijk een glasvezelkabel geraakt. Eurofiber, het bedrijf dat verantwoordelijk is voor de kabel, spreekt van een 'complexe situatie'.

VLN Nieuws / Sam de Joode

NOREA
DE BEROEPSORGANISATIE VAN IT-AUDITORS

Incidental disruption - Crowdstrike

Reizigers over de hele wereld werden getroffen door de superstoring.

© anp/hh 1 / 1

PREMIUM | Het beste van De Telegraaf

CrowdStrike

Experts waarschuwen voor meer ontwrichtende superstoringen: 'Wen er maar aan'

Door EVELINE BIJLSMA

20 jul 2024, 18:21 in BINNENLAND

Updated 1 uur geleden

© ANP / Harun Ozalp / Anadolu

RTL Nieuws

Overal blauwe schermen

IT-storing trof 8,5 miljoen computers: 1 procent, maar 'grote impact'

13 uur geleden
Door RTL Nieuws

De IT-storing die gisteren overal ter wereld computers lamlegde, trof 8,5 miljoen apparaten. Microsoft meldt dat het zo'n beetje 'om 1 procent van alle computers ter wereld' ging. Toch was 'de impact groot', zegt het bedrijf.

NOREA
DE BEROEPSORGANISATIE VAN IT-AUDITORS

Incidental disruption - Network backbone

Reizigers op Eindhoven Airport zijn gestrand door een grote storing die het vliegverkeer van en naar Eindhoven Airport volledig heeft platgelegd. Het bleek te gaan om een fout in software op een ICT-netwerk van Defensie. Deze storing trof ook het communicatie- en alarmeringssysteem van hulpdiensten, waardoor ze onderling moeilijker konden communiceren. Pas aan het einde van de dag werd de storing verholpen.

Sabotage

-

Olympic Games

© ANP / SIPA Press France 1 / 1

Frankrijk opnieuw opgeschrikt door terreur: glasvezelnetwerk op meerdere plekken gesaboteerd

29 jul 2024, 09:54 in BUITENLAND

Updated 3 uur geleden

Olympische Spelen 2024

NOS Nieuws • vandaag, 09:21 • aangepast: 1 minuut geleden

Franse TGV-treinen ontregeld door sabotage, vlak voor opening Spelen

Het treinverkeer in Frankrijk is "zwaar verstoord" als gevolg van brandstichting waarbij treinfaciliteiten beschadigd zijn geraakt. Dat meldt spoorwegmaatschappij SNCF.

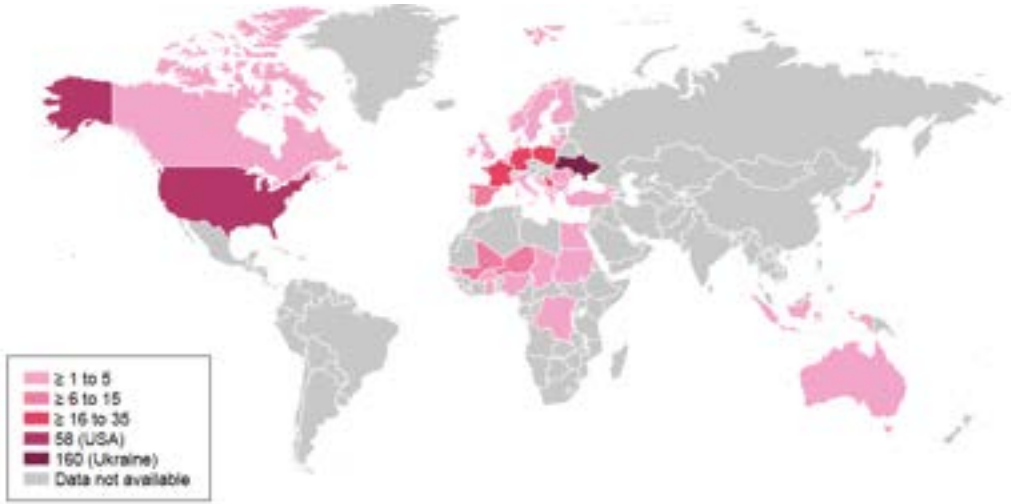
NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS

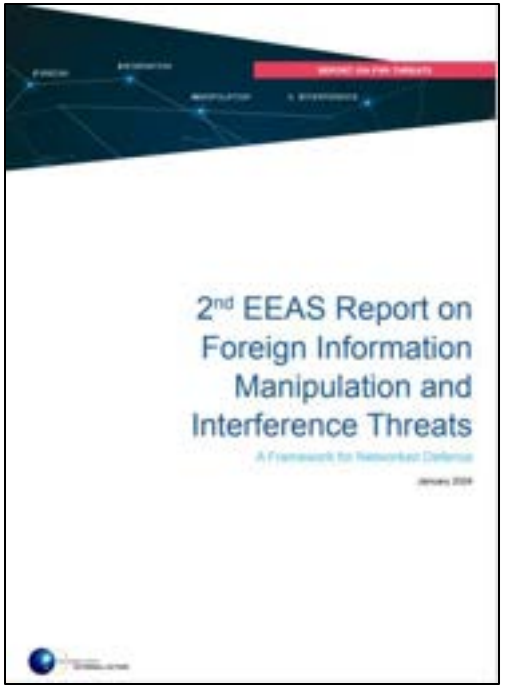
Environmental conditions

NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS

Stimulating social unrest

Foreign interferences





NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS

Changing risks and their impact on organisations

The risks that organizations face, are subject to change

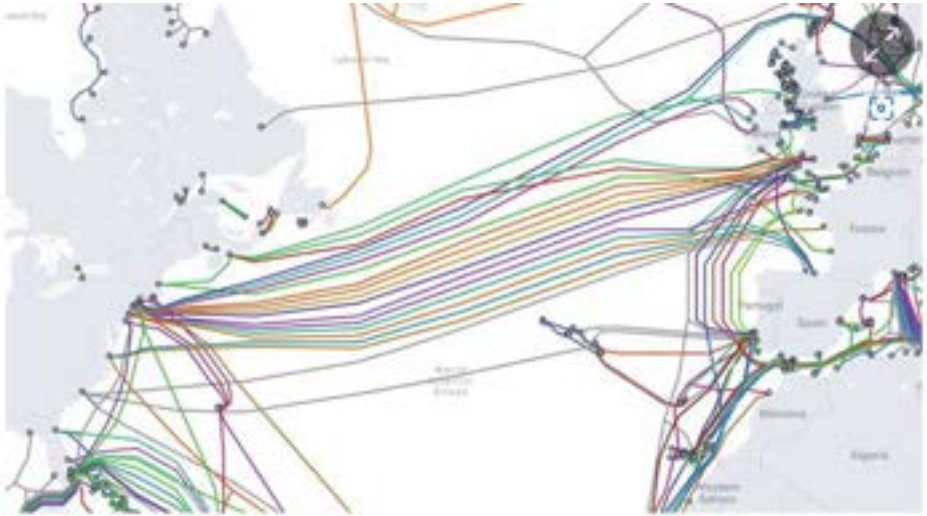
Real risk of a societal disruption occurring, worsened by the mixing of threats

This emphasizes the importance of considering both expected and unexpected risks.

Attacks on Essentional infrastructure (1)

NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS

Attacks on Essentional infrastructure (2)



The TeleGeography map of undersea internet cables linking the US with the UK and Europe. Photograph: TeleGeography/https://www.submarinecablemap.com/

iBestuur

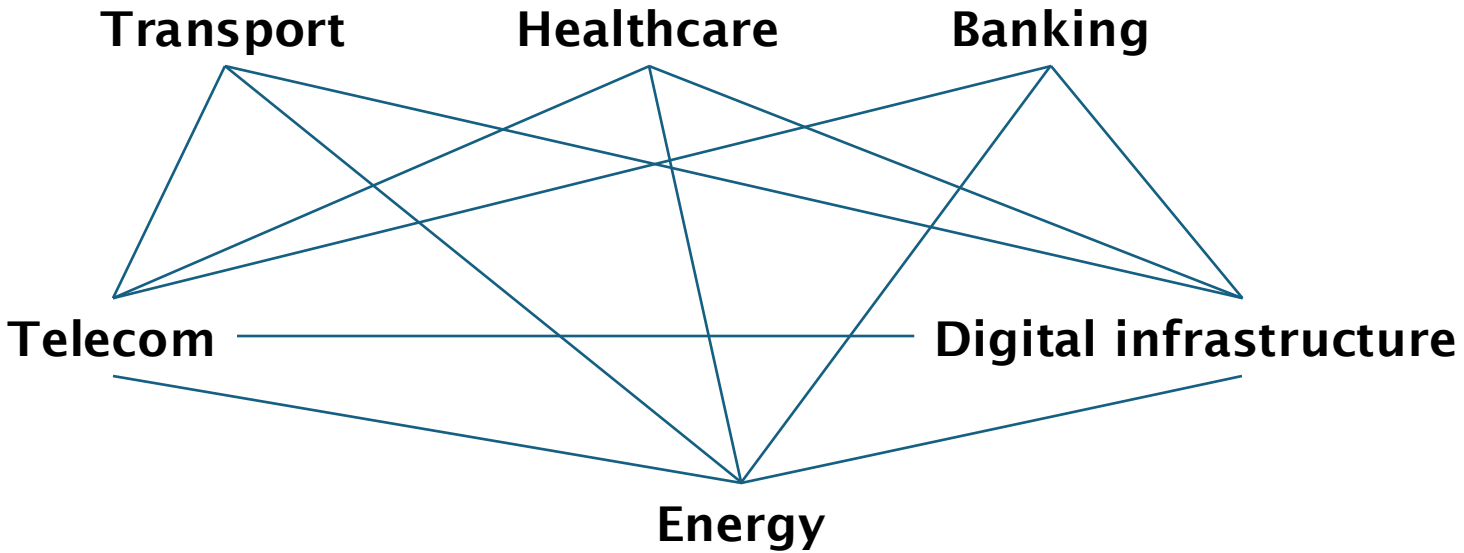
Digitalisering en Democratie | Overheid in Transitie | Markt en Overheid | Data en AI | Digitale Toekom

Digitale weerbaarheid | Nieuws

Experts waarschuwen voor Russische cyberaanval in de Noordzee

NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS

Attacks on Essentional infrastructure (3)



Threat themes by RIVM (2022)

Rijksbrede risicoanalyse Nationale Veiligheid
RIVM ism Analistennetwerk Nationale Veiligheid

Threat theme	Causing vulnerabilities for organisations
Climate and natural disasters	Destruction of data center, loss of staff
Infectious diseases	Loss of personnel, customers, and demand
Major accidents	Unintended failures
Polarization, extremism, and terrorism	Unrest in the workplace
Undesirable interference and influence on the democratic rule of law	Unstable government and uncertain decision-making, limiting the recruitment of foreign personnel or requiring foreign personnel to leave the organization
International and military threats	Organization personnel are asked to be deployed elsewhere, such as conscription or temporarily replacing conscripted employees
Economic threats	Energy and other supplies shortages
Cyber threats	Attacks on the organization, suppliers, and customers, disrupting supply and demand Time to successful attack reduced due to AI by foreign powers
Threats to vital infrastructure	Communication or cloud service outages due to cable disruptions in the North Sea

NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS

Prepare for War

Rijksbrede risicoanalyse Nationale Veiligheid
RIVM ism Analistennetwerk Nationale Veiligheid

Escalation ladder with three hybryde scenarios in three differnet threat themes

NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS

Prepare for War | Examples prepared resilience

NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS

Resilience at Micro and Macro level

To be resilient against societal (IT) disruption, organizations must operate on two levels:

- micro level
- macro level

NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS

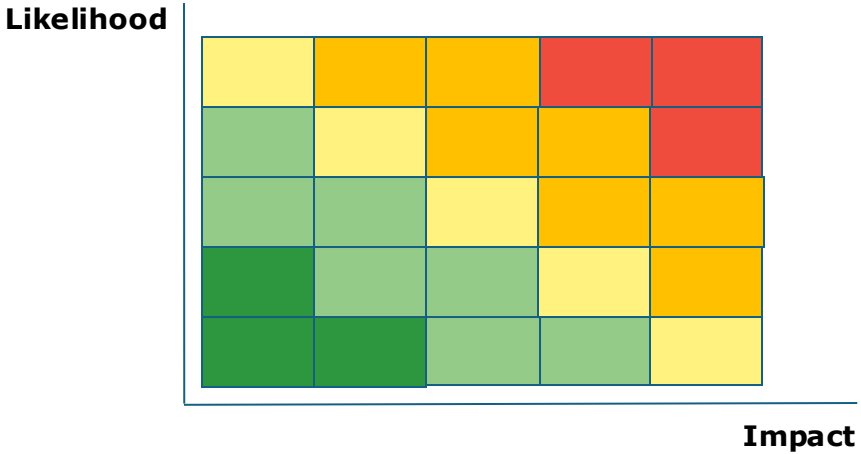
Prepare | Help yourself | Emergency Kit

NOREA
DE BEROEPSORGANISATIE VAN IT-AUDITORS

NOREA
DE BEROEPSORGANISATIE VAN IT-AUDITORS

Prepare | Help yourself (Micro)

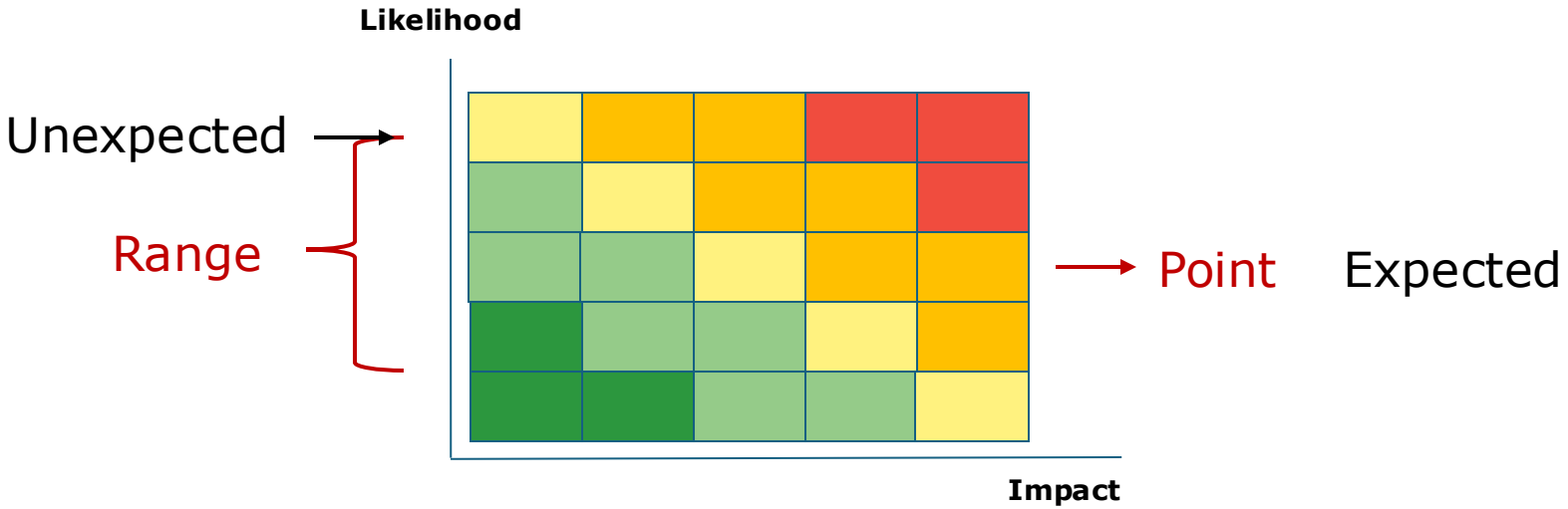
- Risk analysis
  - Threats
  - Likelihood
  - Impact



- Dependencies and Vulnerability analysis
  - A&K-analyse (Afhankelijkheden en Kwetsbaarheden)

NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS

Prepare | Help yourself (Micro)



Prepare | Help yourself (Micro)

- **Expected threats** are those types of risks that occur predictably, such as system failures due to component errors.
  - Technical
    - Loss of Data integrity
    - Ransomware
    - Exfiltration of data
  - Business
    - Discontinuity of services
    - Loss of IP

- **Unexpected threats**, such as power outages, are harder to predict but can have catastrophic consequences.
  - Climate and natural disasters
  - Major accidents
  - Polarization, extremism, and terrorism
  - International and military threats
  - Threats to vital infrastructure

NOREA
DE BEROEPSORGANISATIE VAN IT-AUDITORS

Prepare | Help yourself (Micro)

Are organisation's responses to risk assessments effective ?

Do organisations go fast enough ?

Note that legislation stimulates, where organisations and individuals need support to autonomously behave the right way

Name	Full name
NIS2	Network and Information Security Directive II
Ai Act	Artificial Intelligence Act
CRA	Cyber Resilience Act
CER	Critical Entities Resilience
DORA	Digital Operational Resilience Act
GDPR	General Data Protection Regulation

NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS

Prepare | Help yourself (Micro)

Current state of recovery preparedness

- **Business Continuity Plans vary in presence, coverage, and quality**
- **Technical and Organisational preparedness for successful Ransomware attack limited**
  - In recent 5 years, organisations (initiated) move to immutable back-ups
  - Still, many did not define or cannot recover within RTO
- **Choices often not made considering the unexpected risks**
  - Concentration of IT
  - choice of Cloud – vs – non-Cloud
- **Redundancy sometimes lost in innocence (destroying obsolete IT and telecom)**
- **Not always understanding redundancy**
  - Fall-back energy shared
  - Back-up data centers not having capacity for all

NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS

Macro level - Collaboration between organizations

Current focus is mostly on collaboration before the (IT) incident, but how to collaborate after the fact

NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS

Prepare | Help others | Whole of Society Resilience

- **Whole of Society (UN):**

  A whole-of-society approach embraces both formal and informal institutions in seeking a generalized agreement across society about policy goals and the means to achieve them

- **Resilience in context of National Security (RAND):**

  Resilience analysis emphasizes not only preventing and countering threats, but also the ability of a system to recover from various potential disruptions.
  Resilience includes the concept of robustness, which refers to the ability of a society to absorb shocks and disruptions, adapt, and recover.

Prepare | Help others (macro)

- Help partners in value chain
  - Share resources
- Help peers
  - Continue key banking services of peers
  - Shop local (Corona)
- Help others
  - Support National cyber Reserve

In case of the unexpected risk occurring, help each other – this is not only philanthropic but also necessary for the survival of their value chains, and industry sector, but also society !

This can even be a relevant part of stimulation via laws and regulations, such as in the case of CSRD and NIS2

Currently applied CSRD KPIs mostly focus on micro level only

What are functions your organisation can share, and be part of Whole of Society, supporting The Netherlands in times of crisis

NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS

Prepare for (formerly unexpected) ‘War’

	Prepare to Prevent	Prepare to Respond and Recover
Help self Micro level	•Develop relevant security and availability capabilities with RTO in mind •Deal with concentration of IT •Test and train capabilities focussing on unexpected scenarios	•Understand how to recover (MVC) crown jewels with uncommon means •Test these uncommon means (think out of the box)
Help others Macro level	•Ensure information sharing, and cross-organisational coordination of incidents	•Consider how you can prepare help others, what can you share: people, location, transport, services …

NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS

What are you going to do, to support society's (IT) resilience ?

```
If
  'Social Disruption'
Then
{
  Help own people and organisation;
  Help other people and organisations
}
```

NOREA
DE BEROEPSORGANISATIE VAN IT AUDITORS