TLP:AMBER

CYBER THREAT RADAR

Dutch Healthcare Sector

COMPUTER EMERGENCY
RESPONSE TEAM
VOOR DE ZORG
CERT

10 October 2022 - Copenhagen
7th e-Health Security Conference

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Wim Hafkamp

- Managing Director Z-CERT
- Dep. Director National Cyber Security Center
- Group CISO Rabobank
- Founder and Chair Financial ISAC NL
- Chair Advisory Board Cybersecurity Research Community NL
- Member of Permanent Stakeholder Group ENISA

300 member organizations

2017
4 employees

2022
27 employees

ROOTS AND ORIGINS OF Z-CERT

Sponsors

Ministerie van Volksgezondheid, Welzijn en Sport

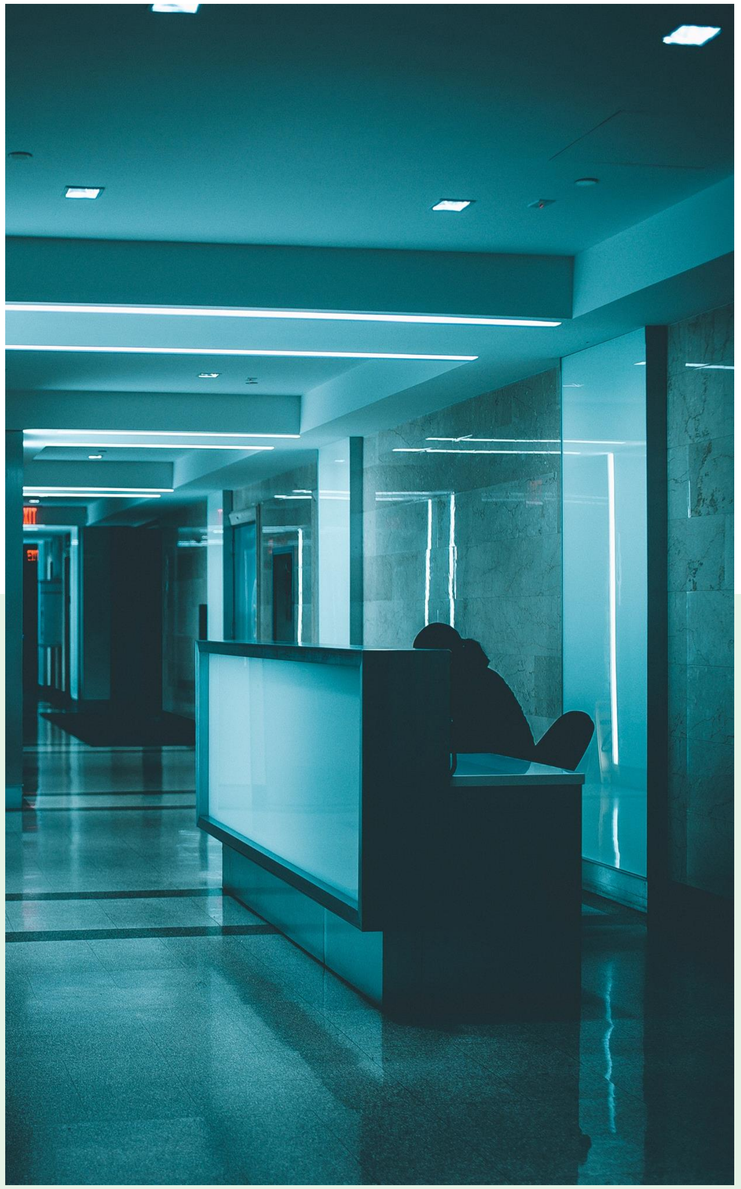
NFU NEDERLANDSE FEDERATIE VAN UNIVERSITAIR MEDISCHE CENTRA

Nederlandse Vereniging van Ziekenhuizen

de Nederlandse ggz

Foundation (Nonprofit)

- Membership fees
- Public funding



(Medical) Advisories

IOCs

Best Practises (NEN7510)

E-mail / Cyware (CSAP)

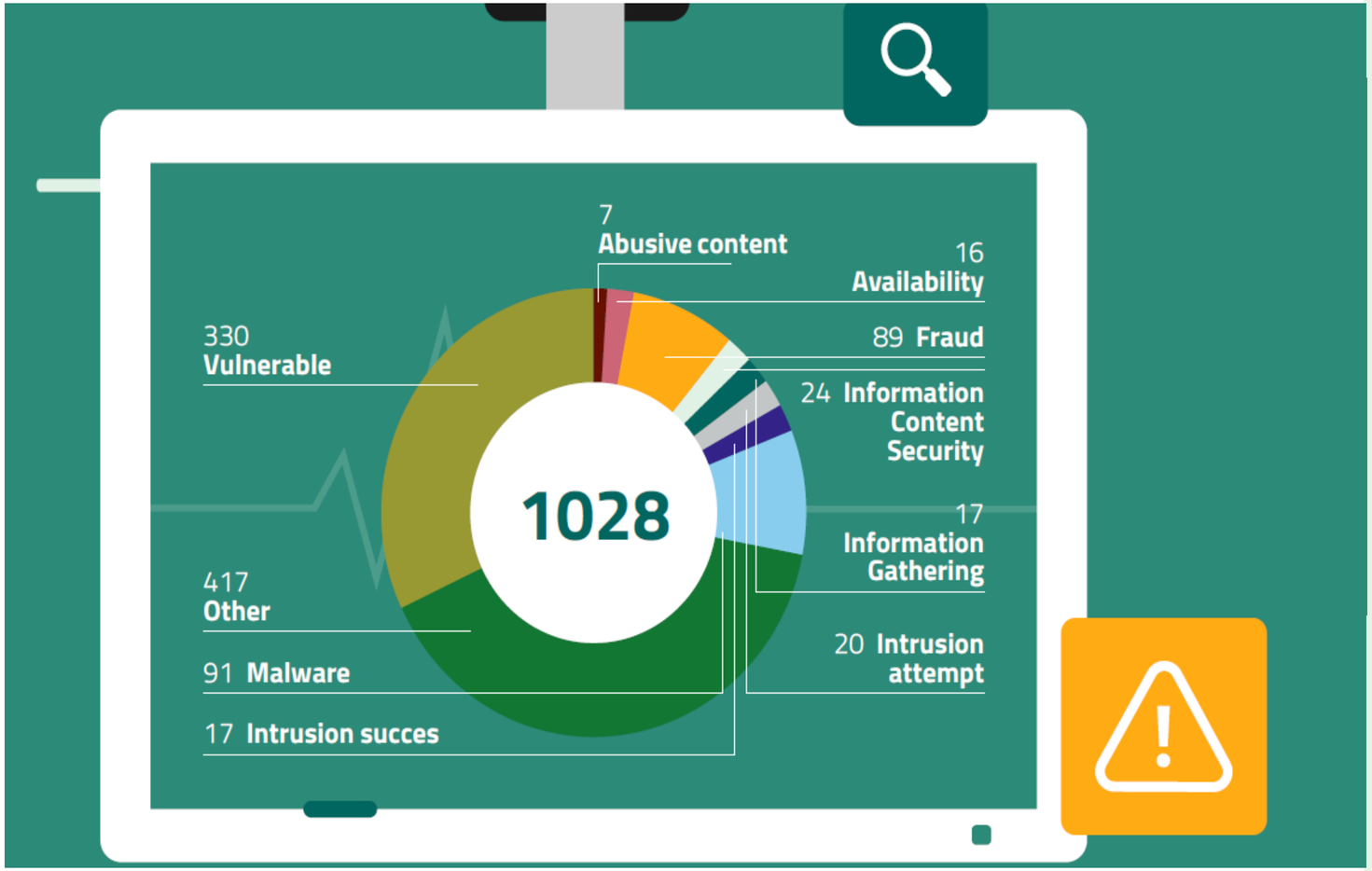
ZDN (MISP)

Factsheets / Webinars

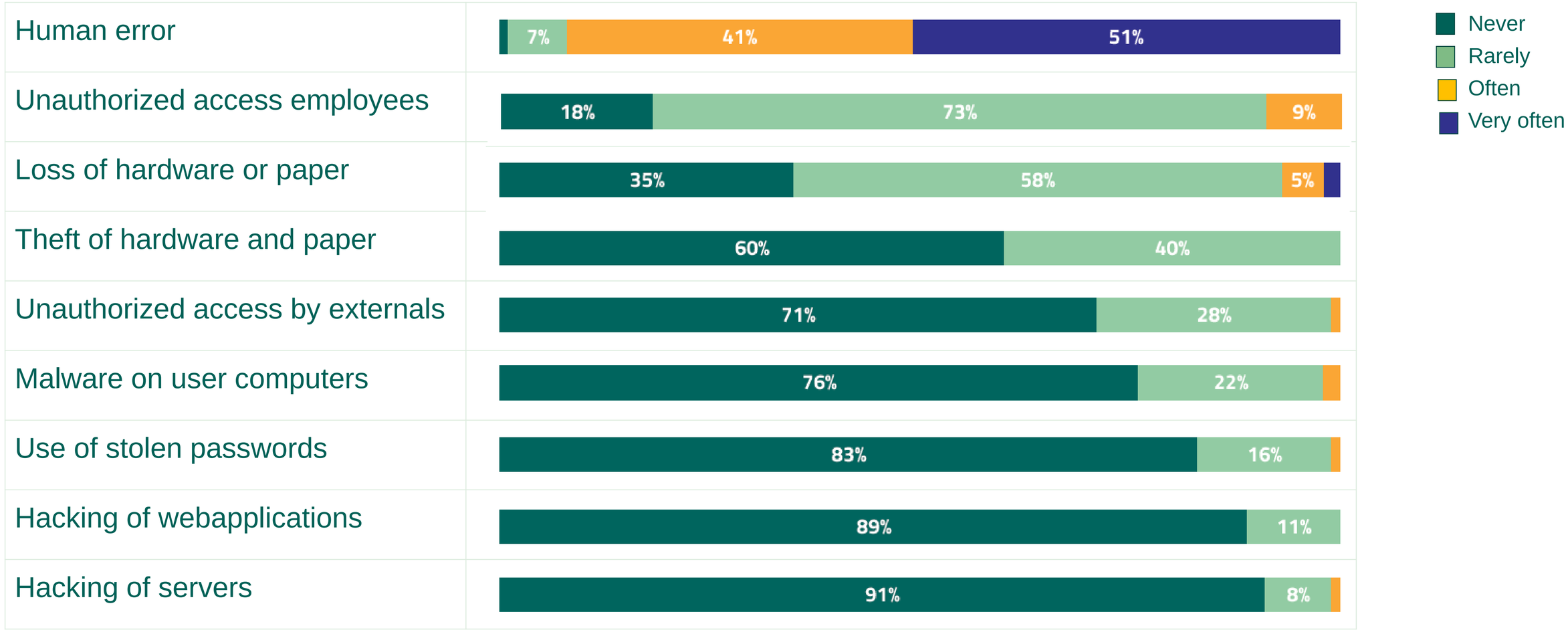
INFORMATION SHARING

“Improve and build up cyberresilience in the Dutch Healthcare sector”

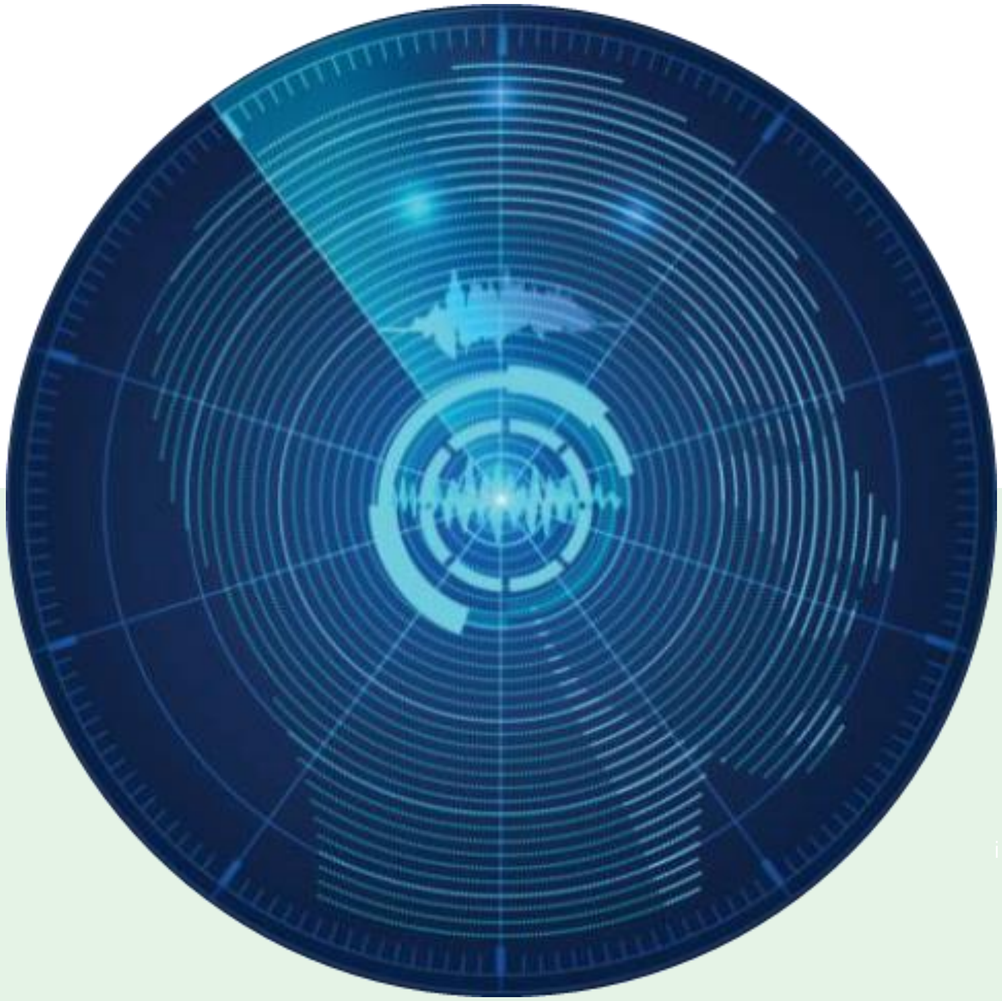
Incidents reported to Z-CERT including operational advisories towards members



Top 9 Data Breaches in 2021 *



* Source: Z-CERT member survey

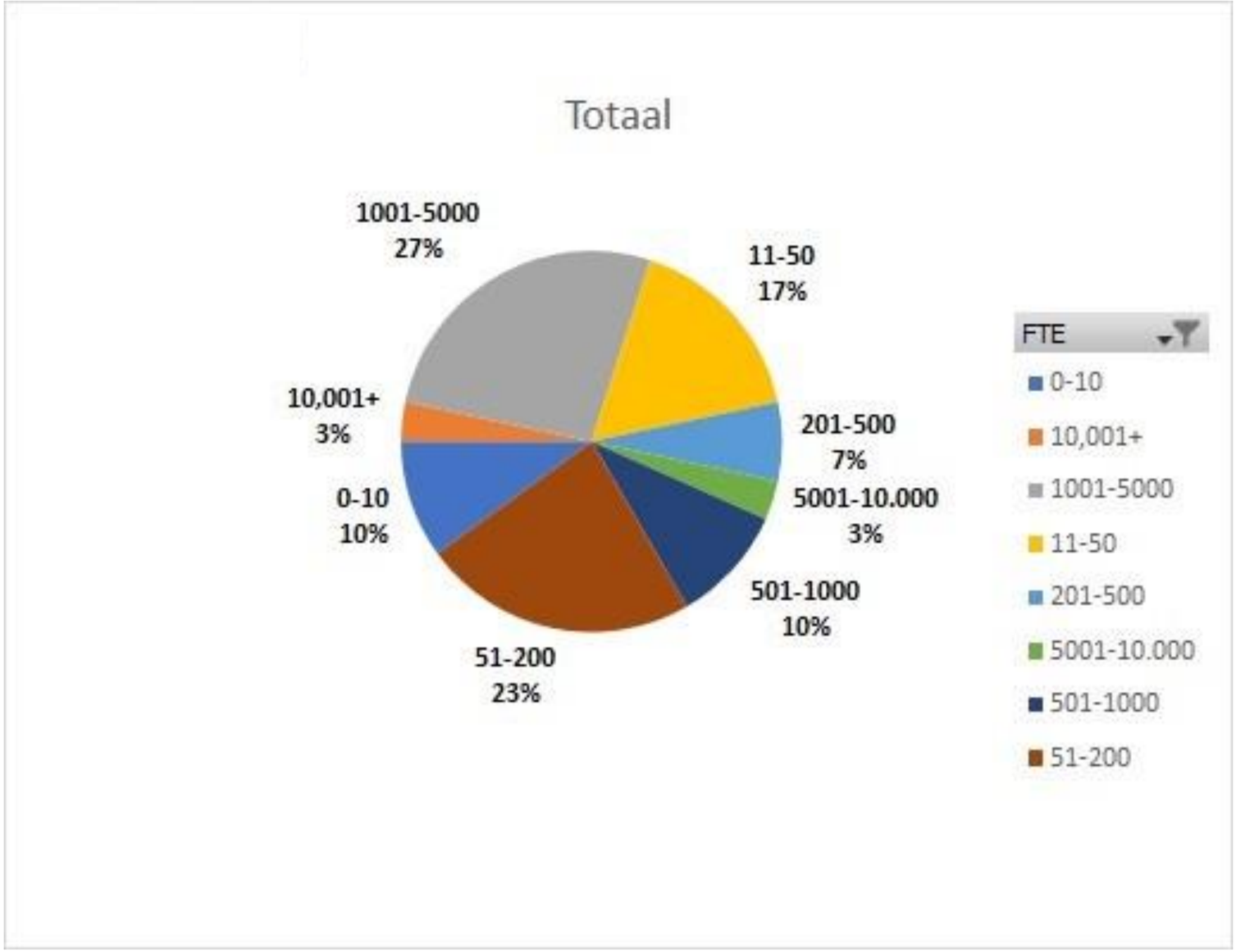


CYBER THREAT RADAR HEALTHCARE NL

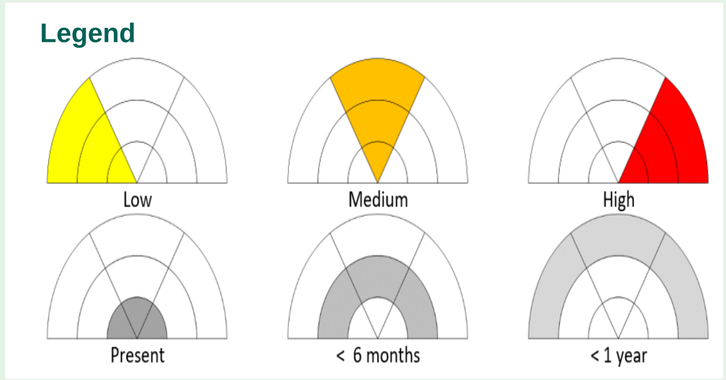
Top 10 Cyber Threats

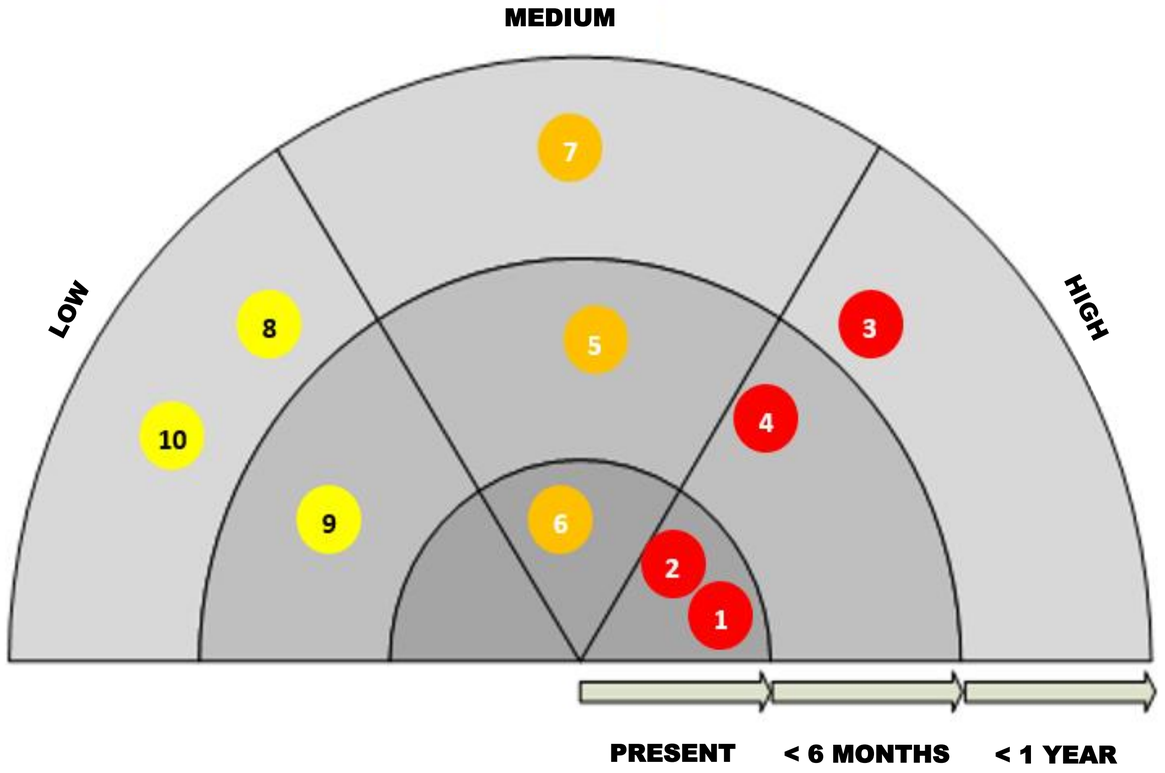
	Threat
1	Ransomware
2	Unavailability of Information Systems or Portals
3	Theft of medical patient records
4	Supply chain attacks
5	Attacks via vendors
6	Phishing
7	Attacks on connected medical devices
8	Insider threats
9	Malware via compromised websites
10	Malicious apps

Healthcare ransomware victims versus #FTE



RADAR





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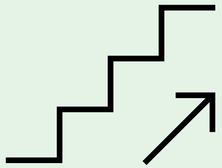
CYBERTHREAT ENABLERS



1	**Vendor market dominance**
2	Shadow IT
3	COVID 19 - IT network bypasses
4	Geopolitical situation (War in Ukraine)
5	Shift to home treatments
6	Cybersecurity mesh
7	Medical systems legacy

CYBERSECURITY DISABLERS

1	Cybersecurity knowledge of IT staff
2	Misconfigured API’s
3	Awareness @ board level
4	Tight cybersecurity labor market
5	Insufficient patch management
6	Awareness @ app developers
7	Cached admin credentials
8	Violation of least privileged policy
9	Disinformation / hoaxes

Stichting Z-CERT

www.z-cert.nl