



OT & CYBERSECURITY CONFERENTIE



22 April 2026 • Amersfoort

Rijksinspectie Digitale Infrastructuur
Ministerie van Economische Zaken

Nationaal Cyber Security Centrum
Ministerie van Justitie en Veiligheid

OT Coalitie



FLECS in actie: Windparken op zee trotseren de digitale storm





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Bureau Veritas



Soe van Dijk
Innovatieanalist Cyberweerbaarheid
Energy Innovation NL/FLECS



Maandag 28 April

- Een bijzondere dag





Maandag 28 April

- Een bijzondere dag
 - Realiteit voor velen
 - “Iberian peninsula blackout”
 - Stroom = noodzakelijk!
 - €1 600 000 000 economische schade
 - 8 doden, 25+ gewonden
 - Minder dan 16 uur tot herstel





Shodan.io

Nordex Control - Wind Farm Portal (ver. 13.04.00) GUT_LOSTEN

93.227.38.164
 p5de326a4.dip01.ipconnect.de
 Deutsche Telekom AG
 Germany, Wismar

HTTP/1.1 200 OK
 Date: Sun, 05 Jan 2025 14:12:32 GMT
 Server: Jetty/3.1.8 (Windows 2000 5.0 x86)
 Servlet-Engine: Jetty/3.1 (JSP 1.1; Servlet 2.2; java 1.6.0_14)
 Content-Type: text/html; charset=utf-8
 Set-Cookie: jsessionid=seaktimi;Path=/13_04_00
 Set-Cookie2: jsessionid=seaktimi;Version=1;Pat...

Nordex Control - Wind Farm Portal (ver. 13.04.00) GUT_LOSTEN

217.252.188.248
 p69fbcf8.dip01.ipconnect.de
 Deutsche Telekom AG
 Germany, Wismar

HTTP/1.1 200 OK
 Date: Sat, 04 Jan 2025 17:39:50 GMT
 Server: Jetty/3.1.8 (Windows 2000 5.0 x86)
 Servlet-Engine: Jetty/3.1 (JSP 1.1; Servlet 2.2; java 1.6.0_14)
 Content-Type: text/html; charset=utf-8
 Set-Cookie: jsessionid=n3fpjn01;Path=/13_04_00
 Set-Cookie2: jsessionid=n3fpjn01;Version=1;Pat...

Nordex Control - Wind Farm Portal (ver. 11.06.12) Weilersbach

192.109.235.163
 mdex192-109-235-163.publicip.mde
 x.de
 Wireless Logic mdex GmbH
 Germany, Ulm

HTTP/1.1 200 OK
 Date: Sat, 04 Jan 2025 01:07:16 GMT
 Server: Jetty/3.1.8 (Windows 2000 5.0 x86)
 Servlet-Engine: Jetty/3.1 (JSP 1.1; Servlet 2.2; java 1.6.0_14)
 Content-Type: text/html; charset=8859_1
 Set-Cookie: jsessionid=2jb6bkh7t;Path=/11_06_12
 Set-Cookie2: jsessionid=2jb6bkh7t;Version=1;P...

Product Spotlight: Free, Fast IP Lookups for Open Ports and Vulnerabilities using InternetDB

23.97.162.248

Microsoft Corporation
 Netherlands, Amsterdam

starttls cloud

SSL Certificate

Issued By:
 Common Name:
 DigiCert Global G2 TLS RSA
 SHA256 2020 CA1
 Organization:
 DigiCert Inc
 Issued To:
 Common Name:
 *.mhivestasoffshore.com
 Organization:
 Vestas Wind Systems A/S

220 Welcome to MHI Vestas Offshore Wind SFTP Server
 530 Not logged in. Username/password incorrect, user disabled, or user logged in too many times
 214- The server supports the following commands:
 QUIT
 PASS
 PROT
 USER
 ACCT
 CCC
 XPWD
 PBSZ
 PWD
 OPTS
 RECV



Welcome. This Web site provides access to a LonWorks® network. It is hosted by an i.LON® 100 Internet Server. You can use this i.LON 100 server for:

- Alarming
- Data logging
- Scheduling
- Web-based monitoring and control
- Remote network access via RMI
- Remote network access via SOAP/XML
- Connecting multiple networks
- Integrating disparate devices
- Interfacing to local hardware
- Maintaining date and time

Click the Service button to access the i.LON 100 server configuration Web pages. Click on the Standard button to access a set of demonstration web pages that use the new i.LON Vision toolkit.

For more information on the i.LON family of products, including software updates, please visit www.echelon.com/ilon.

Service Standard



Darkweb handel

Showing results for a Domain query, search instead as Free Text

Hacking Discussions 15 | Leaked Credentials +35K | Instant Messaging 806 | **Compromised Accounts +1K** | Breached Servers 0 | Finished Intelligence 1

FILTERS Clear all < Type to search... Fields > Full Credentials Save Query

Showing 1K results

Q+ ID	Service	Username	Password	Q+ Source	Source Type	Posted Date ↓
1a91944145d09...				Blue cloud	Instant Messaging	Jan 27, 2025
09894219d74bf...				Moon Cloud Co...	Instant Messaging	Jan 25, 2025
09894219d74bf...				Moon Cloud Co...	Instant Messaging	Jan 25, 2025
a17f7817dbc3c1...				◆ RANCOM...	Instant Messaging	Jan 25, 2025
a17f7817dbc3c1...				◆ RANCOM...	Instant Messaging	Jan 25, 2025
dd22a515c98f6...				base 34 url:log:...	Instant Messaging	Jan 24, 2025
dd22a515c98f6...				base 34 url:log:...	Instant Messaging	Jan 24, 2025
dd22a515c98f6...				base 34 url:log:...	Instant Messaging	Jan 24, 2025



Supply chain aanvallen



“In response to the attack, ABB terminated VPN connections with its customers to prevent the spread of the ransomware to other networks”



Maandag 29 December

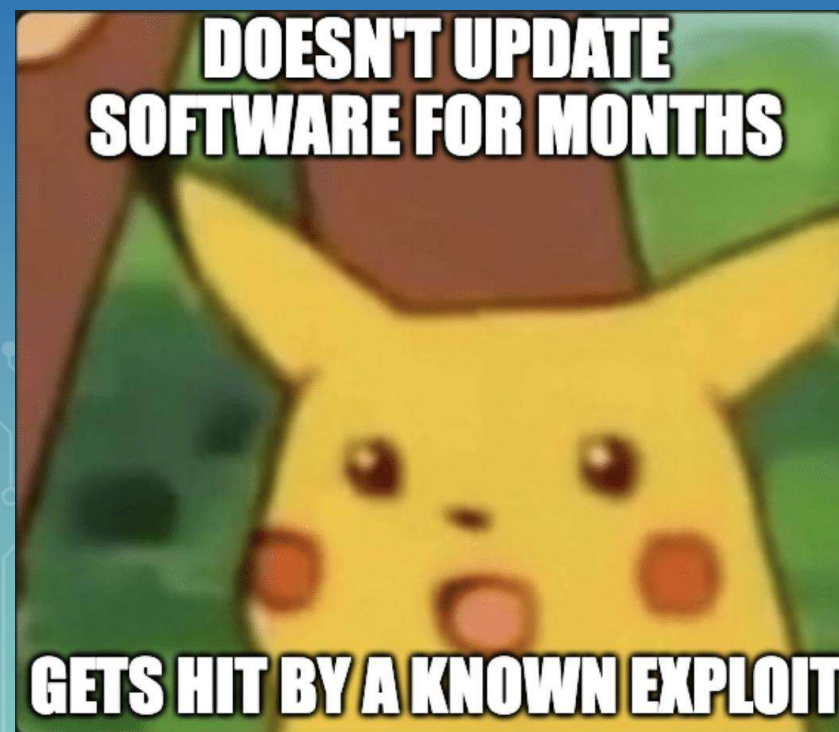
- **Een hele bijzondere dag**
 - “a sophisticated cyber attack”
 - “Electrum” (russian nation state)
 - Potentiële impact 500.000 burgers
 - <2 celsius, geen warmte of stroom
 - Langdurig kapot!
 - Vrede of oorlog?
 - **Waarom daar?**
 - Export naar Oekraïne
 - Overlap omstandigheden stroomnet Spanje





Maandag 29 December

- **Cert.pl write-up**
 - “hoezo advanced?”
 - Fortigate...
 - Default credentials
 - Missing patches
 - Known CVEs
 - Standaard hacktools
 - Geen systeem hardening of segmentatie
 - Wij doen dit al jaren zo!
- Advanced attack? Of nalatigheid verdediging?
- Pure “mazzel”: canary files





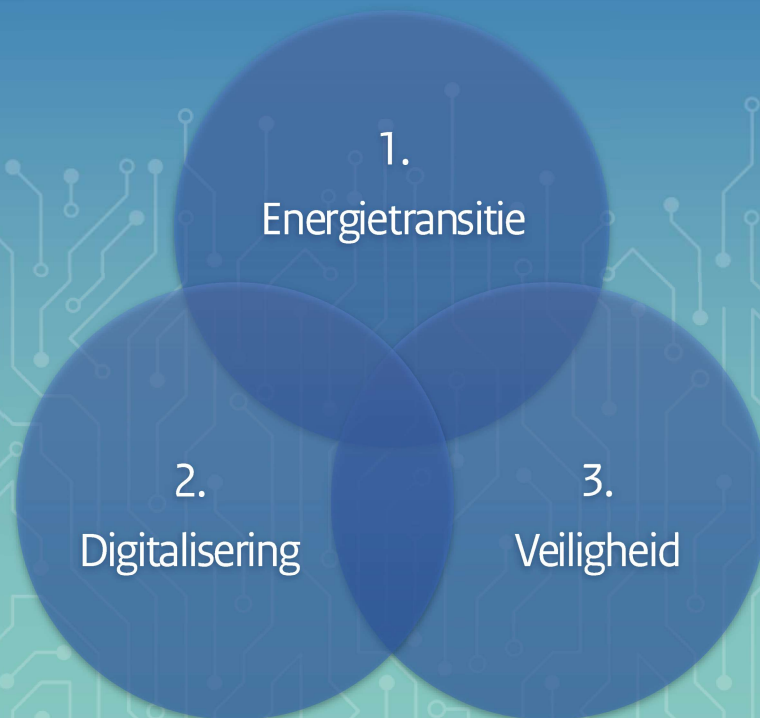
Maandag 29 December

- **Cert.pl write-up**
 - Intentie tot sabotage
 - Kennis inhoudelijk
 - Bereidheid om trekker over te halen
 - Voorbedachte rade!
 - Maandenlange operatie
 - Vergelijking met fysiek
 - Spanje vs Polen





Waarom focus op windparken op de Noordzee?





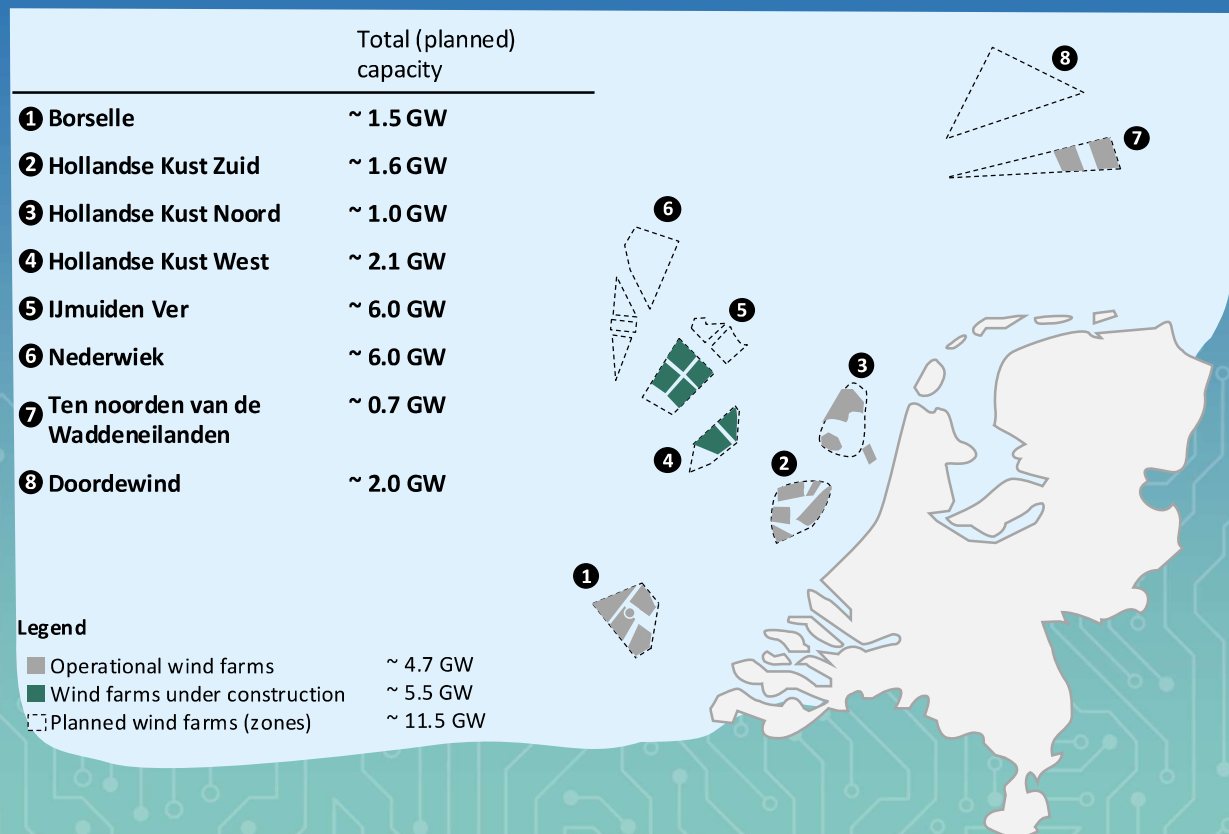
Elektriciteit uit offshore windparken essentieel onderdeel Nederlandse energievoorziening

Grote ambities

Nu	4.7 GW
2032	21 GW
2040	30-40 GW

Geïnstalleerd
vermogen

Operationele en geplande offshore windparken in Nederland





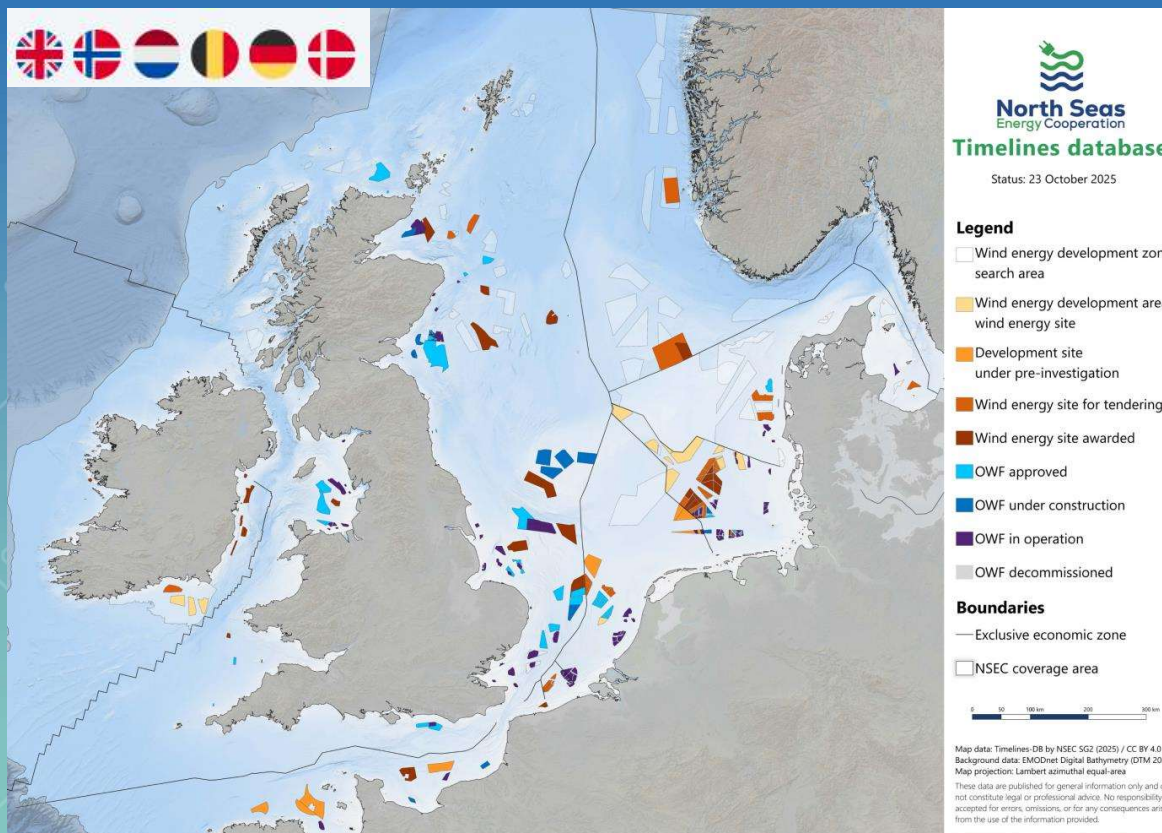
Noordzee als EU's Green Power House

North Seas Energy Cooperation

Grote ambities

Nu	30 GW
2030	76 GW
2050	260 GW

Geïnstalleerd
vermogen



[TIMELINES database, NSEC](#)



Digitalisering en automatisering van offshore wind



Image: Principle Power DIGIFLOAT project

Digitalisering biedt kansen voor:

- Monitoring en toegang op afstand
- Virtuele inspecties
- Voorspellend onderhoud

MAAR, meer verbindingen en geautomatiseerde beslissingen:

- vergroten kwetsbaarheden
- versterken afhankelijkheid van digitale processen







Energie infrastructuur op de Noordzee is een strategisch doelwit voor statelijke actoren

- Snel verslechterende veiligheidssituatie in Europa
- Verafgelegen en op afstand beheerde windparken zijn aantrekkelijk doelwit
- Statelijke / staat-gesponsorde actoren grootste zorg

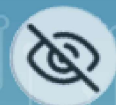




Mogelijke impact

-  Data exposure
-  Loss of control
-  Operational downtime
-  Outage

Voorbeelden offshore wind sector



Sabotage aanval ViaSat satellietcommunicatie (verstoort ook monitoring van 5800 windturbines Enercon)

19 nov '21

24 feb '22

31 maart '22

11 april '22



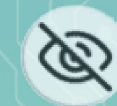
Ransomware aanval op windturbine fabrikant Vestas

Grootschalige Russische invasie in Oekraïne

Ransomware aanval op windturbine fabrikant Nordex Group



Ransomware aanval op beheer- en onderhoudsbedrijf Deutsche Windtechnik





Botsende belangen energietransitie & nationale veiligheid

Sweden scraps plans for 13 offshore windfarms over Russia security fears

Decision comes after military concludes projects would complicate defending Nato's newest member against attack



Sweden's defence minister, Pål Jonson, said the projects could have interfered with sensors and radars vital to the country's defence. Photograph: Universal Images Group/Getty Images

Chinese firm's Highland port plans blocked by UK government

25 March 2026

Share Save Add as preferred on Google

Steven McKenzie, Highlands and Islands reporter and Iain MacInnes, BBC Scotland News



Ardersier Port is a former oil and gas fabrication yard being redeveloped for the renewable industry



Fieldlab Energy Cyber Security

Publiek-private samenwerking tussen

- Ministeries EZK, BZK (AIVD), Nationaal Cyber Security Centrum
- Offshore wind keten: TenneT, windpark operators, OEM's, O&M
- Cybersecurity bedrijven
- Onderzoekers/kennisinstellingen
- Energy Innovation NL (TKI Offshore Energy)

Als onderzoek- en innovatieprogramma onder coördinatie van TKI Offshore Energy

In verbinding met
*Programma Bescherming Noordzee Infrastructuur,
Noordzee landen (NSEC), NAVO en EU initiatieven*



Ambities

1. Het niveau van cyberbeveiliging in offshore windparken verhogen
2. De weerbaarheid in de offshore windketen (waardeketen en toeleveringsketen) verhogen

FLECS Program Plan

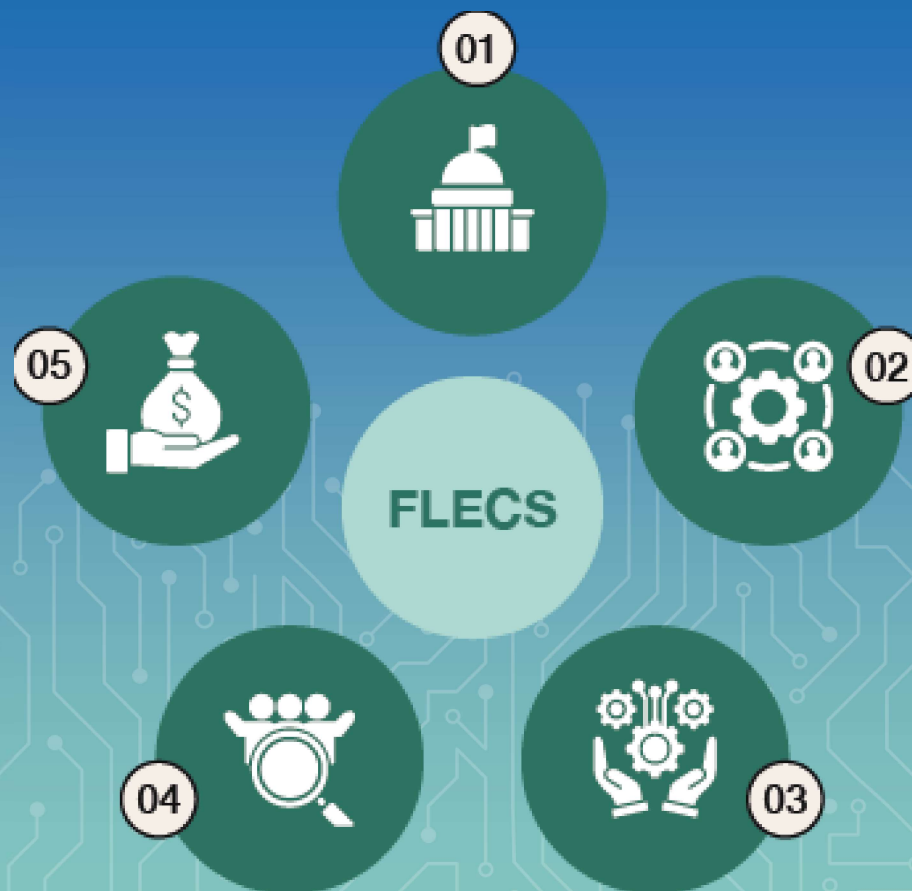
FLECS, Field Lab Energy Cyber Security, is a long term public-private partnership between government, industry (energy and cybersecurity), and knowledge infrastructure with the goal to improve the cyber resilience of offshore wind infrastructure in the Dutch Exclusive Economic Zone.





Functies

1. Beleidsadvies
2. Kennisdeling binnen Community
3. Onderzoek- en Innovatie
4. Human-capital (skills en mensen)
5. Financiering





Hoe brengen we dit in de praktijk?

Lange termijn / verder vooruitkijken

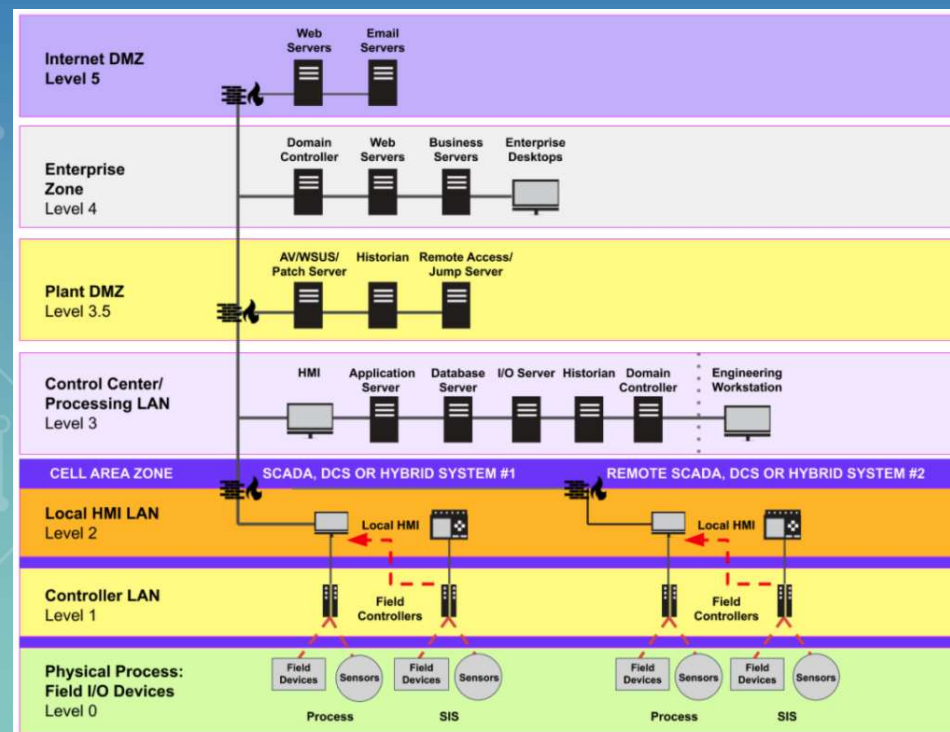
Korte termijn / hier nu acties



Hands-on training & bewustzijn

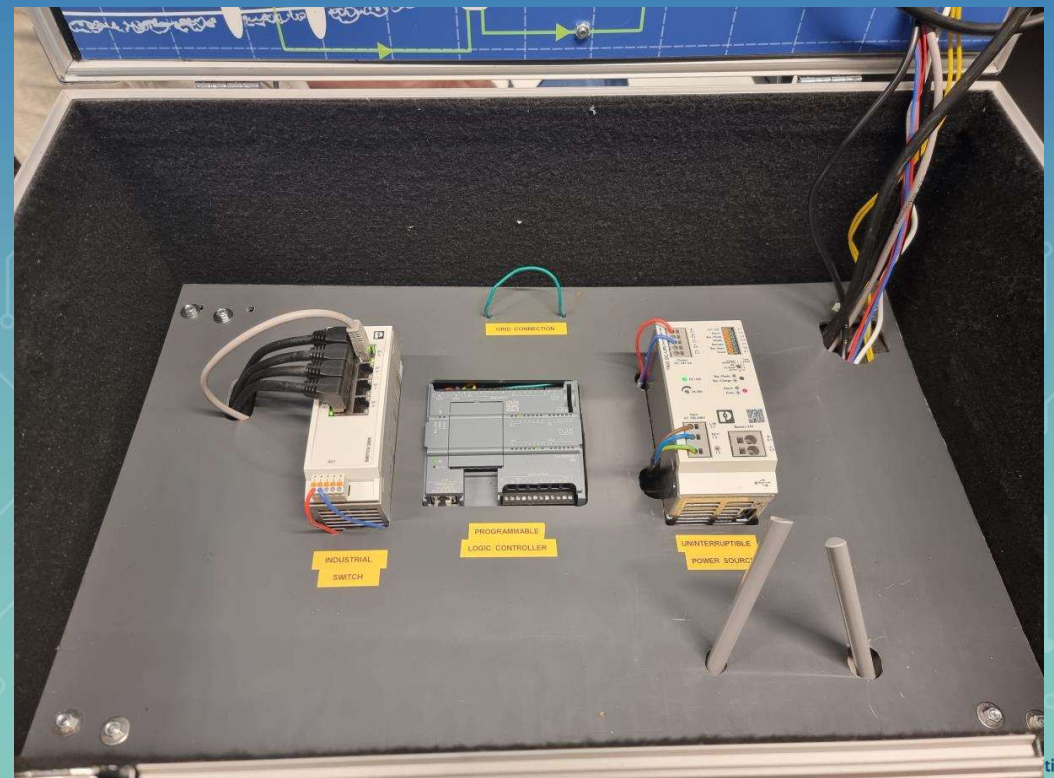
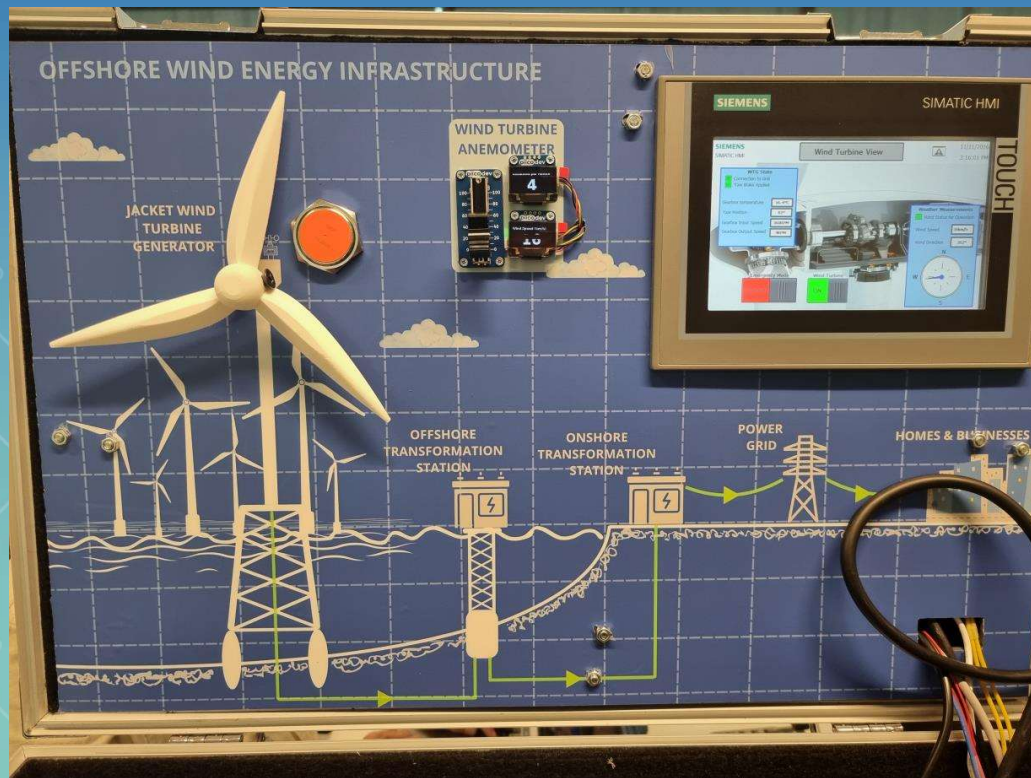
- Deelnemers

- RWE
- Eneco
- TenneT
- TKI Offshore Energy
- Siemens Energy
- NCSC
- AIVD





Hands-on training & bewustzijn



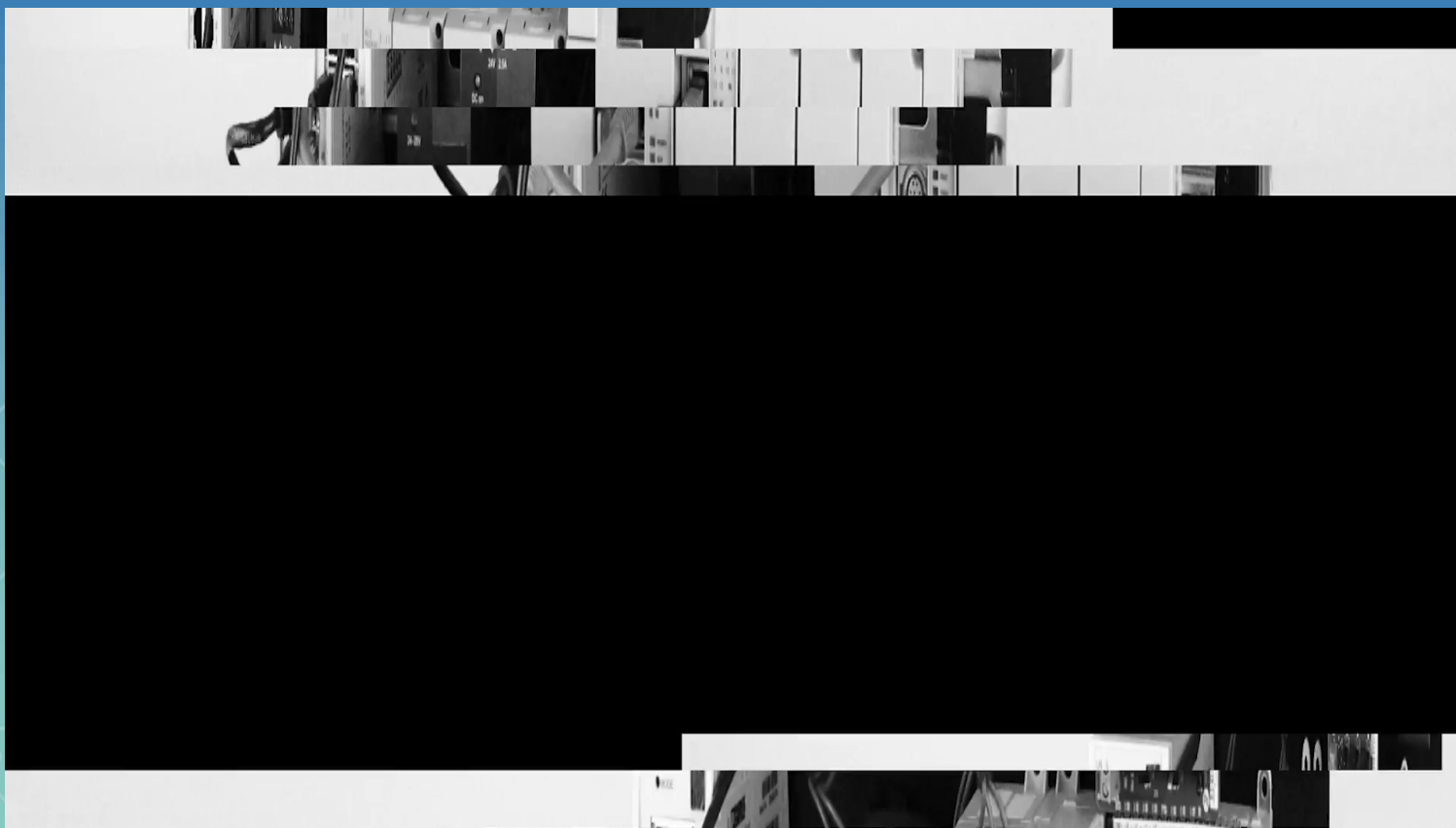


Hands-on training & bewustzijn





Hands-on training & bewustzijn





Operatie windshield

- Hosts



- Deelnemers



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Shaping a World of Trust





Operatie windshield

Attack Path 1:

- Compromise wind parks through The Network Service Provider



Attack Path 2:

- Compromise wind parks through the OEM



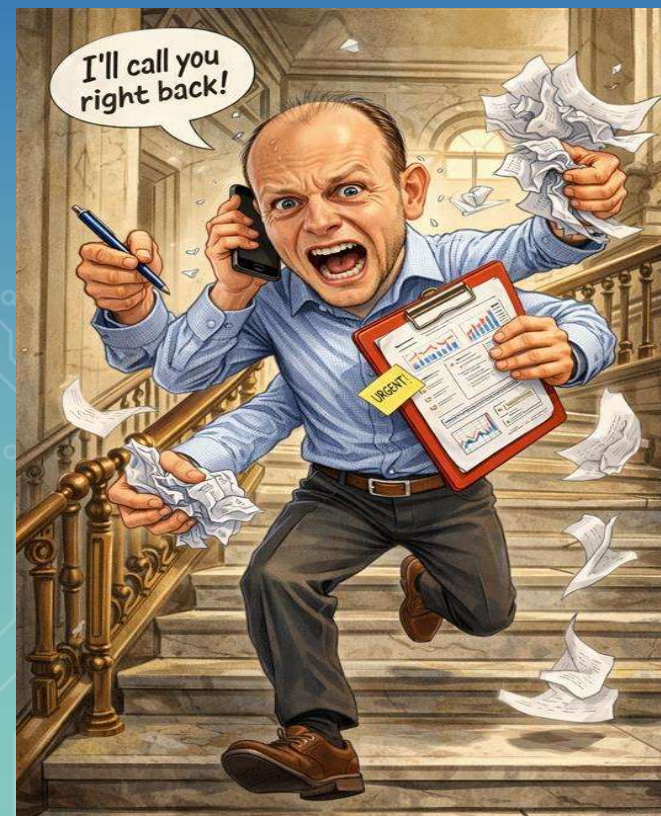
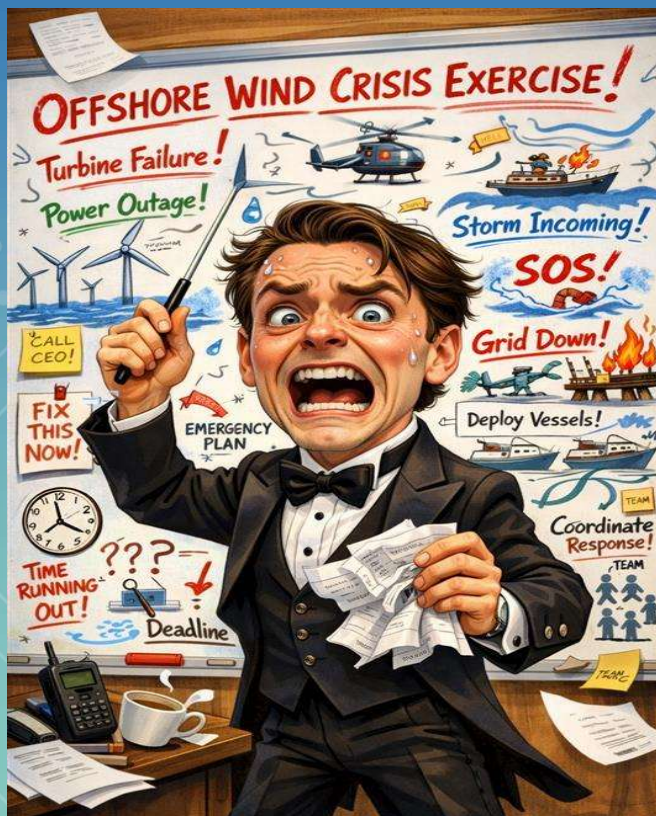
Attack Path 3:

- Bring down the OEM





Operatie windshield





Ongoing research

- Doelen
 - Keten inzichtelijk maken
 - Structurele issues in kaart
 - Advies geven
 - Scenario's met potentieel grote impact helder hebben
 - Openbaar rapport!
- Aanvalsoppervlak sector
 - OSINT & scanning
 - Groepsdiscussies & interviews
 - Zoeken naar de gemene deler
- Nog vol op bezig, doe mee!



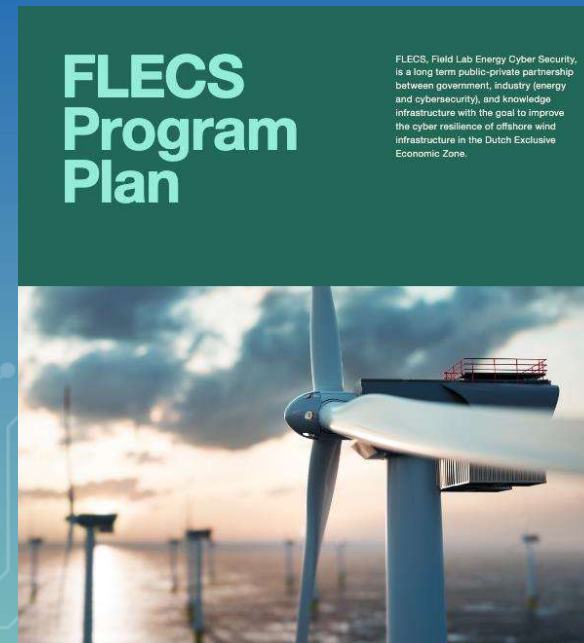
Q&A



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- Innovatieanalist Cyberweerbaarheid



Download hier
het FLECS-
programmaplan
Of scan QR code