

Cybersecurity in the oil sector

An administration's
perspective

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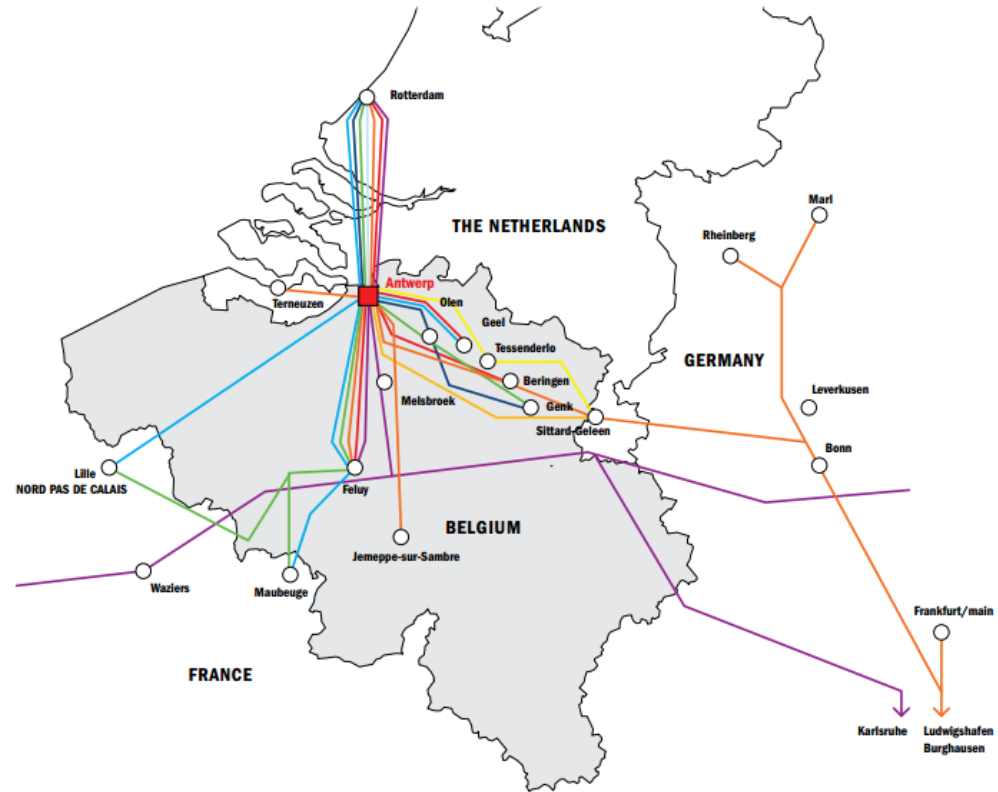
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Introduction

- Perspective of Belgian administration responsible for Energy
- Learning process
- International aspect
- Cybersecurity as part of security culture

Oil market in Belgium

- Hub: Port of Antwerp
 - 4 refineries
 - Petrochemical sector
 - Pipeline connections with neighbouring countries
 - Supply to Antwerp
 - Output abroad



EUROPEAN PIPELINE NETWORK

- Naphtha, Condensate
- Liquid hydrocarbon
- Ethylene
- Propylene
- Fuel oil, Diesel
- Crude oil
- Hydrogen
- Nitrogen
- Oxygen

▲ The pipeline network is not limited to the Antwerp cluster alone but also connects neighbouring clusters in the Netherlands, France and Germany

Oil market in Belgium

- Storage facilities
 - Very diverse in size, location, connectivity, service, products
 - Some are important for security of supply of neighbouring countries
 - Storage of strategic stocks

Oil market in Belgium

- Pipelines
 - Connectivity with neighbouring countries
 - Connectivity in Belgium
 - Between refinery and storage
 - Between refinery and clients
 - Between storage and clients

- Network of service stations

Oil market in Belgium

- Central European Pipeline System
 - NATO
 - Civil use in peace time (especially airports)
 - International connections

Oil market in Belgium

- APETRA
 - Stockholding entity
 - Management of strategic stocks
 - Important role in crisis management

Cybersecurity in Belgium

- Centre for Cybersecurity Belgium
 - General cybersecurity policy
 - Coordination
 - Legislation NIS
 - National CSIRT

Cybersecurity in Belgium

- National Crisis Centre
 - Close partner of CCB
 - Legislation EPCIP
 - Security authority

Cybersecurity in Belgium

- Legislation:
 - Implementation of EU NIS Directive
 - Implementation of EU EPCIP Directive
 - Belgian law on classification of documents and security clearance

Cybersecurity in the oil sector in Belgium

- Implementation NIS directive adapted to oil sector:
 - Sectoral authority: Minister of Energy
⇒ Identifies and designates Operators of Essential Services
 - Inspections: FPS Economy, S.M.E.s, Self-Employed and Energy

Cybersecurity in the oil sector in Belgium

- Implementation NIS directive adapted to oil sector:
 1. Identification of ‘Operators of Essential Services’ (OSE)
 - Which services in oil sector could be essential?
 - Close cooperation with the oil sector

Cybersecurity in the oil sector in Belgium

- Implementation NIS directive adapted to oil sector:
 2. Identified OSE: obligations on short term
 - Appointment of SPOC
 - Prepare inventory of network and information systems on which the essential service(s) depend

Cybersecurity in the oil sector in Belgium

- Implementation NIS directive adapted to oil sector:
 3. Identified OSE: obligations on longer term
 - establish security policy for the network and information systems

Cybersecurity in the oil sector in Belgium

- Implementation NIS directive adapted to oil sector:
 3. Identified OSE: security policy:
 - Conform ISO/IEC/27001 (or equivalent)
 - Take measures in order to prevent or minimize incidents that might have negative influences on the provided essential service

Cybersecurity in the oil sector in Belgium

- Implementation NIS directive adapted to oil sector:
 3. Identified OSE: obligations on longer term
 - Notification of incidents

Cybersecurity in the oil sector in Belgium

- Implementation NIS directive adapted to oil sector:
 4. Identified OSE: inspections
 - Internal audit every year
 - External audit by accredited body
 - Inspections by FPS

Cybersecurity in the oil sector in Belgium

- Hollistic approach:
 - Uniformity between all relevant legislation
 - Cascading effects
 - Restraints (budget, personnel)
 - ISO/IEC/27001 or equivalent

Cybersecurity in the oil sector in Belgium

- CSIRT:
 - So far only national CSIRT
 - Analysis on-going on establishment of sectoral CSIRT and the format

Cybersecurity in the oil sector in Belgium

- Conclusions of first round of informal discussions with oil sector:
 - Oil is backbone
 - Cybersecurity is at high level in oil sector
 - Several systems in place, due to international nature
 - Avoid administrative burden

Thank you for your attention!

Additional questions:

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