



# Digital sovereignty

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bitsec

nixu  
cybersecurity.

<kahn  
>pedersen

  
C-Resiliens

 **TUTUS**

Nationellt Sensorsystem

Mollitiam

 **Tyr** CYBER  
Defense



FÖRSVARSMAKTEN



Säkerhetspolisen



REGERINGSKANSLIET



Посольство Швеции  
в Москве

André Catry

- Entrepreneur
  - C-Resiliens, Tutus Data, Mollitiam , Nationellt SensorSystem , Tyr Cyber Defense, Bitsec
- Author
  - Honungsapan, Tigerögat, Solroskoden
- Advisor
  - Chief engineer / IT & Security Architect SAAB (Consultant)
  - Law firm Kahn Pedersen
  - Security expert /Lead Security Consultant
  - IT & Security Architect / Investigator / Analyst / IT-Forensics
- Security Consultant
  - IT defense unit (ITF)
  - Military Intelligence & Security Service MUST (CERT)
- Avdelningsdirektör (Principal administrative officer)
  - IT security advisor to government agencies
  - Computer Forensics / Investigations
  - Lawful interception
- Departementssekreterare (First Secretary, Desk Officer)
  - IT security, 4 years embassy Moskva
  - Project manager





## André Catry

- Official Uber Elite Cyber Techno Master Ninja Haxor
- Winner of the 2004 Defcon hacking competition in Las Vegas

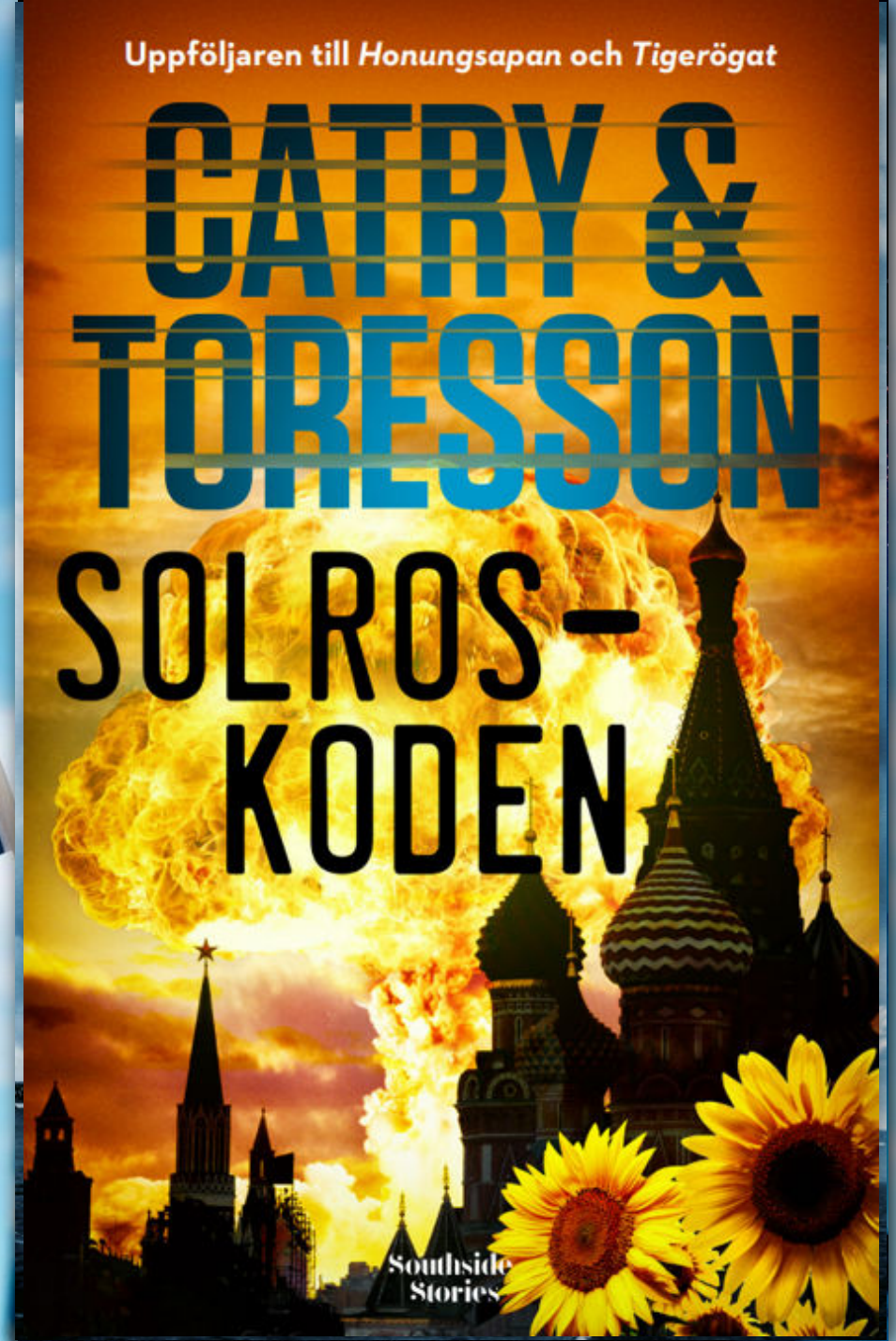


DEF CON FORUMS



## Digital sovereignty

- Digital sovereignty is necessary to ensure our nation effective national independence over time and to safeguard the human rights and freedoms of it's people.
- Whoever controls the access to a nation's data. Has control of that nation.



# Cybersecurity threat landscape

## Cyber crime as an industry

- a) Lack of security design, awareness and poorly programmed and maintained software
- b) Enabled by cryptocurrency
- c) Tolerated by rogue states

Our main headache since about 2015





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- We have been in a state of low intensity cyber war with Russia since the 90's
  - Now it's going to escalate

## Russia-Ukraine Cyberwar Participants 2022


EQUINIX

THREAT ANALYSIS  
CENTER (ETAC)<sup>TM</sup>



# Cyberwarfare Russia - Ukraine



A soldier in desert camouflage is shown from the chest up, aiming a Javelin anti-tank missile launcher. The soldier is wearing a helmet with goggles and is positioned behind a sand ridge. The missile launcher is black with yellow and white markings. The background is a sandy, desert-like environment.

# Sweden and the west is not neutral in this conflict

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## EXTRA



# Egna orden bevis mot misstänkta bröderna

Peyman och Payam Kia misstänks ha spionerat för Ryssland

## HONUNGSAPAN

(HoneyMonkey)

- National Backups
  - Who in Sweden is responsible for evacuating national data
- The electric power supply
  - Do we have any resilience
- Data centers located above ground
- TEMPEST - RÖS
  - Have we forgotten about this
- New and old hacker gadgets
  - USB - Implants - Drones
- Protective security
  - Who can (should) we trust

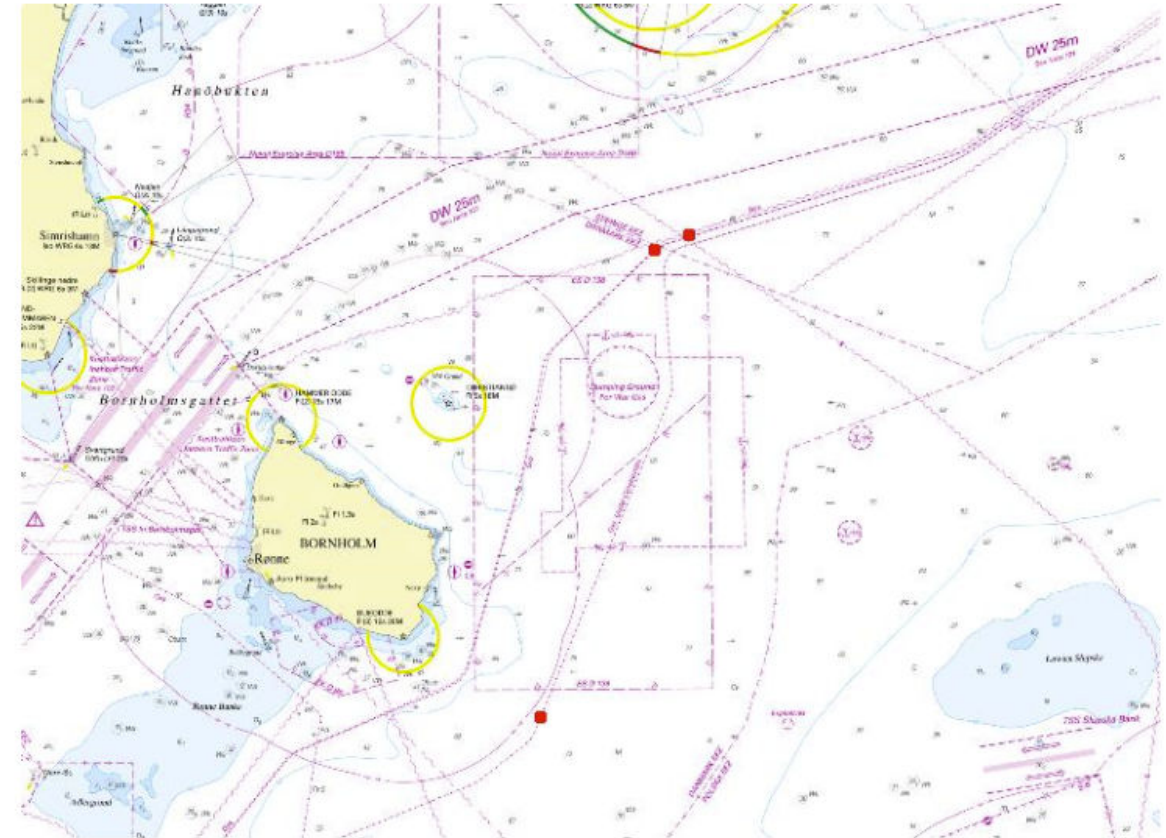


# TIGERÖGAT (TIGER'S EYE)

- Sweden is one of the world's most digitized societies
- Digital economy - stock market - Robot AI trading
- Heavy reliance on single systems
  - BankID
- Infrastructure
  - 3/4/5-G
  - Internet
- Lack of national regulations and laws - Cyber IKFN (rules of engagement)

## Sjöfartsverkets arbete med anledning av läckor på gasledningar i Östersjön

Nyhet 2022-09-27



De röda punkterna visar positionerna för läckorna.

Med anledning av läckor på gasledningarna Nordstream 1 och Nordstream 2 på svenskt och danskt vatten strax utanför Bornholm har Sjöfartsverket skickat ut navigationsvarningar på Navtex och VHF om att fartyg ska hålla sig borta från området. Det är även varningar utfärdade för flygplan med 1 000 meters säkerhetshöjd.

Suomi  
Finland

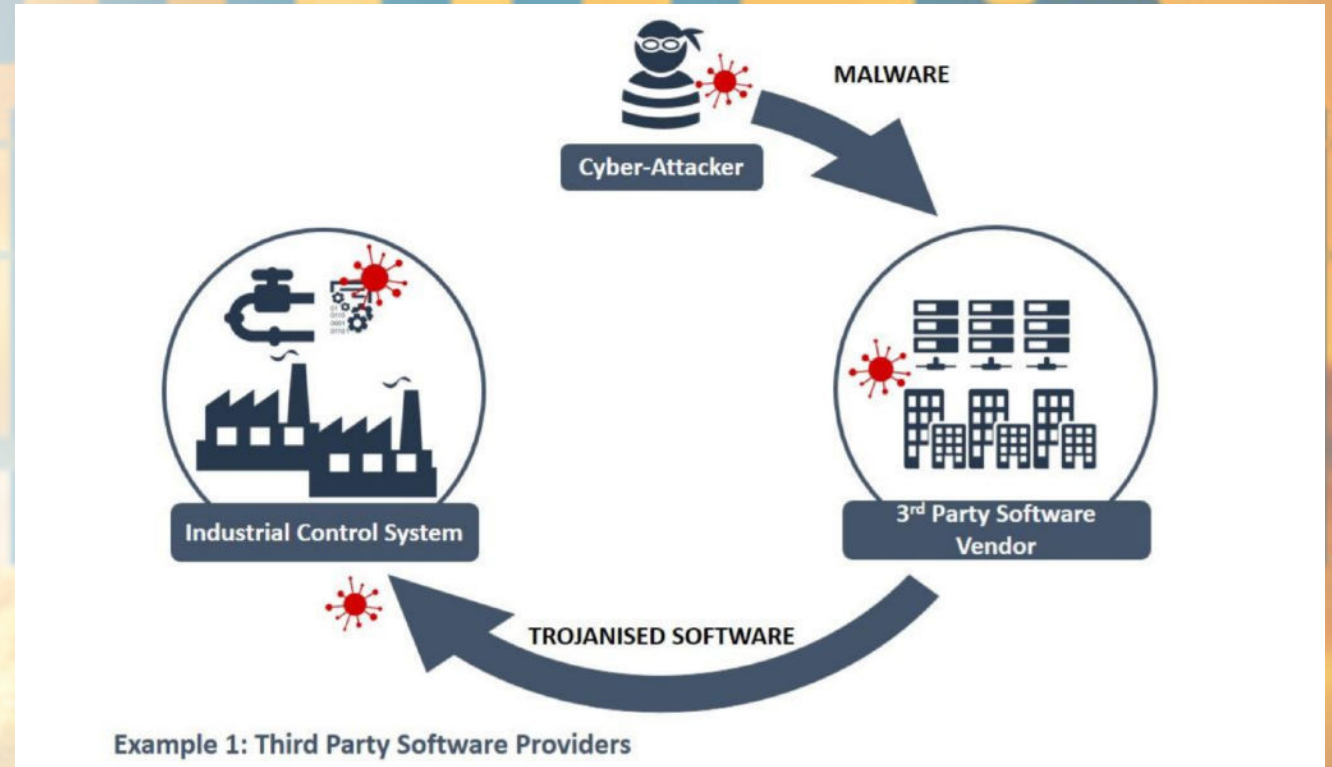
Eesti  
Estonia

Latvija  
Latvia



# SOLROSKODEN(SunflowerCode)

- Sweden - West is vulnerable
- Russia will retaliate
- Supply-chain attacks
  - Solarwinds 2021
  - NotPetya 2017
  - Coop 2021
  - Denmark DSB 2022





# Ukraine power grid hacks

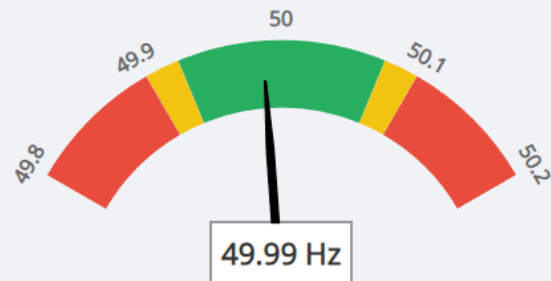


# The control room

## Balance

In order for the electricity system to work, there must always be a balance between production and consumption of electricity and a voltage frequency of 50 Hz.

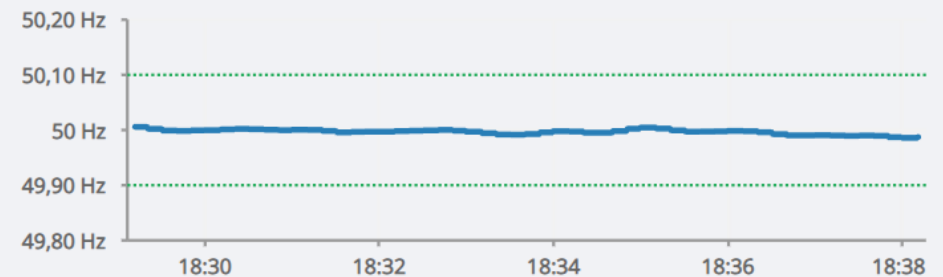
### Current frequency



Measuring the frequency of the network is like checking the blood pressure. The frequency should always be 50 Hz. Then there is a balance between production and consumption and the electric system is healthy. If consumption is higher than production.

Data source: Statnett

### Past 15 minutes



The frequency will sink, if production is higher than consumption the frequency will rise. The balance is regulated both automatically and manually by increase or decrease of production or decrease of consumption.

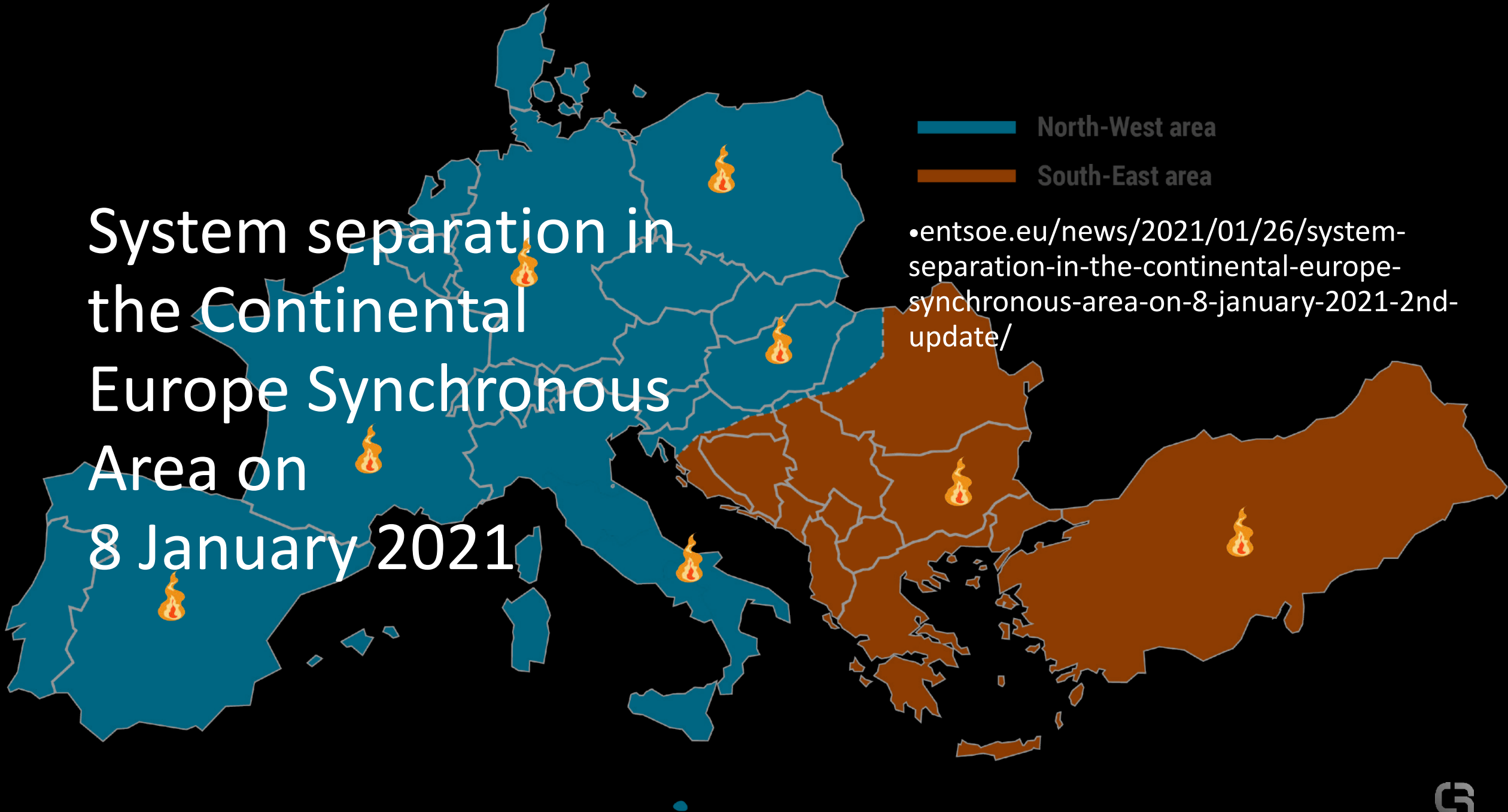
Data source: Statnett

# System separation in the Continental Europe Synchronous Area on 8 January 2021

North-West area

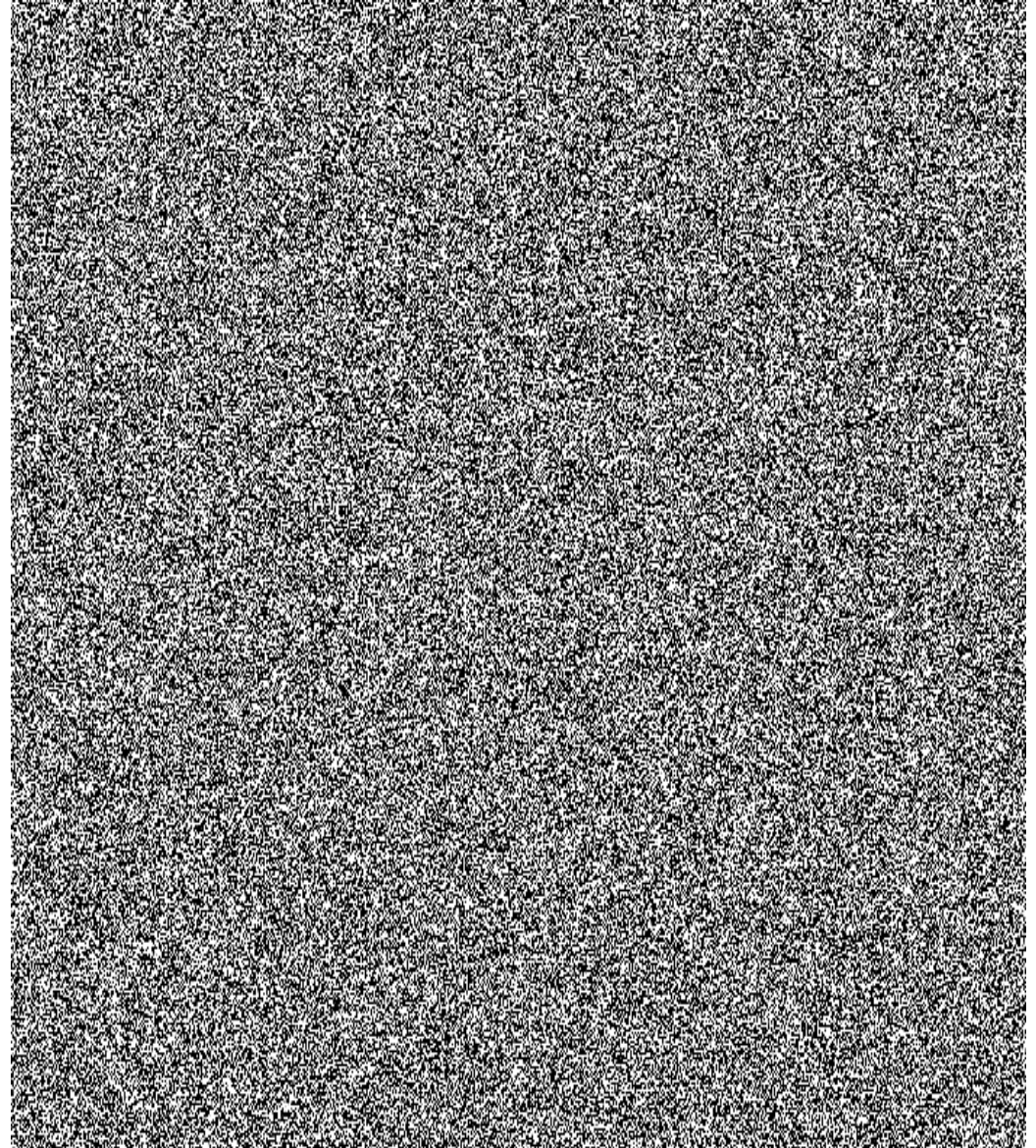
South-East area

• [entsoe.eu/news/2021/01/26/system-separation-in-the-continental-europe-synchronous-area-on-8-january-2021-2nd-update/](https://entsoe.eu/news/2021/01/26/system-separation-in-the-continental-europe-synchronous-area-on-8-january-2021-2nd-update/)





# Sweden's Somewhere on Data Centers the Baltic Sea Hyperscalers





André Catry

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[andre@catry.se](mailto:andre@catry.se)

