

# HANSEN TECHNOLOGIES

Electricity Market Committee

14<sup>th</sup> December 2021

# HANSEN VISION .

Since 1971 Hansen Technologies has been a leader in billing and customer care solutions to the **Energy**, **Telecommunications** and **Pay-TV** industries.

Through global expansion, today millions of people around the world rely on our software for a secure, accurate and reliable billing experience.

TRUSTED SINCE 1971

1000+ EXPERTS

FOCUSED ON CORE STRENGTHS

MARKET LEADING

# STRATEGIC EXPANSION HAS EXTENDED OUR CAPABILITIES TO OFFER CONVERGENT SOLUTIONS, AND PROVIDE US WITH GLOBAL EXPERTISE

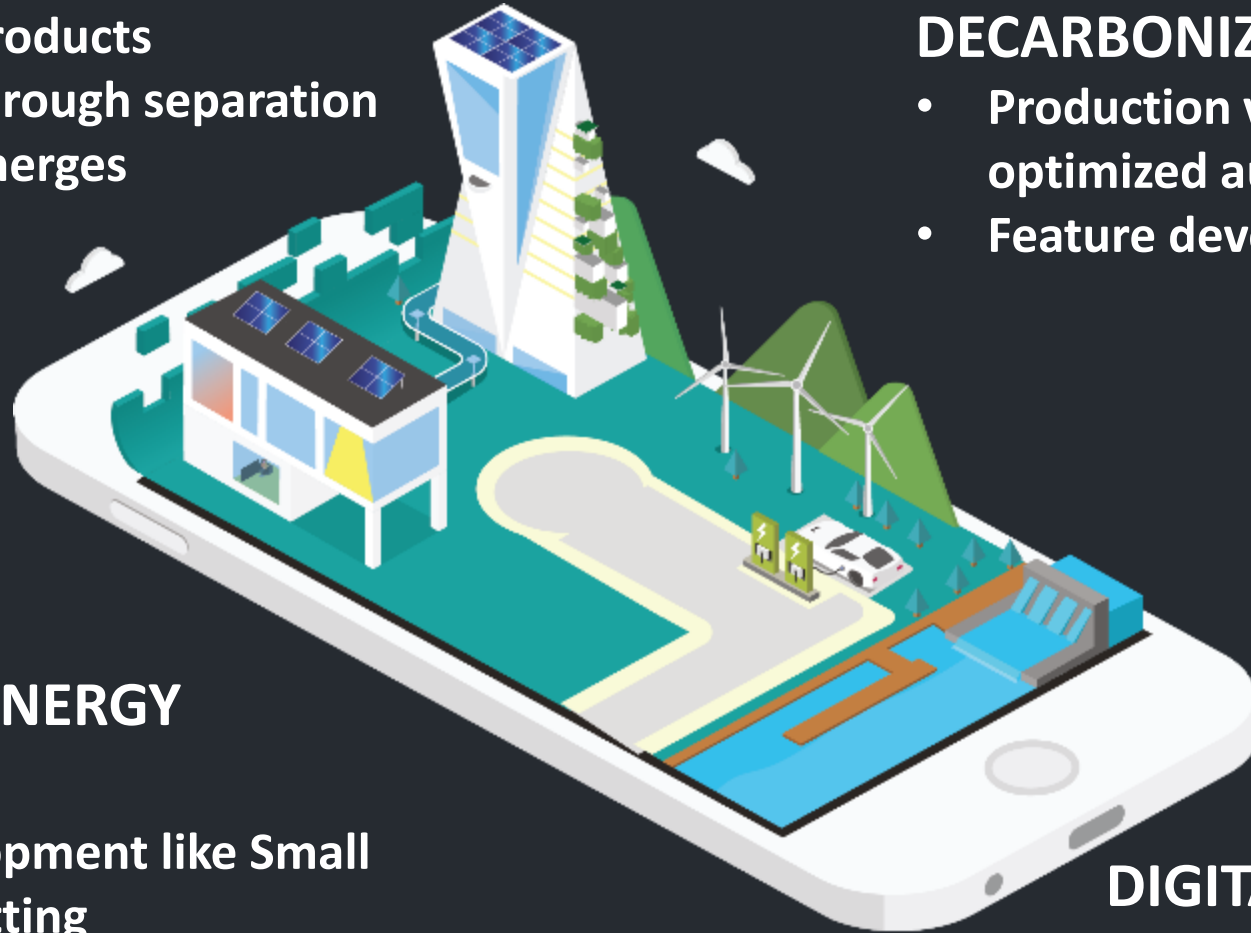
	ACQUISITION	VERTICAL	GEOGRAPHY	RATIONALE
2008	PEACECX	ENERGY	USA/AUS	<ul style="list-style-type: none"> <li>US entry for energy + expansion in AUS</li> </ul>
	NIRVANASOFTCX	ENERGY	USA	<ul style="list-style-type: none"> <li>Expansion of US energy offering</li> </ul>
	ICX	PAY-TV	GLOBAL	<ul style="list-style-type: none"> <li>Entry to Pay TV vertical – emerging market</li> </ul>
	UTILISOFTCX	ENERGY	AUS	<ul style="list-style-type: none"> <li>Expansion of AUS energy offering</li> </ul>
	BANNERCX	WATER/ENERGY	USA/CANADA/ CARRIBEAN	<ul style="list-style-type: none"> <li>Entry to water + expansion of US energy</li> </ul>
	NAVIBILLINGCX	TELCO/PAY-TV	NORTHERN EUROPE	<ul style="list-style-type: none"> <li>Quadplay product – focus is Tier 1&amp;2 Telcos</li> </ul>
	SOLUTIONSCX	ENERGY	USA	<ul style="list-style-type: none"> <li>Expansion of US energy offering - outsourcing</li> </ul>
	HIAFFINITYCX	WATER	UK/AUS/ EMERGING MKTS	<ul style="list-style-type: none"> <li>Expansion of water billing presence</li> </ul>
	ENORO	ENERGY	NORTHERN EUROPE	<ul style="list-style-type: none"> <li>European entry for energy, expanding into Analytics</li> </ul>
	2019	SIGMA	TELCO	GLOBAL

## DEREGULATION

- New roles for our products
- Simply new deals through separation of DSO/RE and RE merges

## DECARBONIZATION

- Production variation leading to need for optimized automated trading
- Feature development certified electricity



## DISTRIBUTED ENERGY RESOURCES

- Feature development like Small production netting

## DIGITALIZATION

- Automated processes with 15 min measurement
- Analytics



# Hansen **Create-Deliver-Engage**™

for Energy and Utilities Providers

**HansenCIS™**  
Commercial off the shelf Customer Care and Billing Lifecycle Management

**HansenCatalog™**  
Commercial Product and Technical Service Catalog and Lifecycle Management

**HansenInsight™**  
Business and Operational Data Analytics and Decisioning



**HansenTrade™**  
Automated trading Analytics and Risk Management

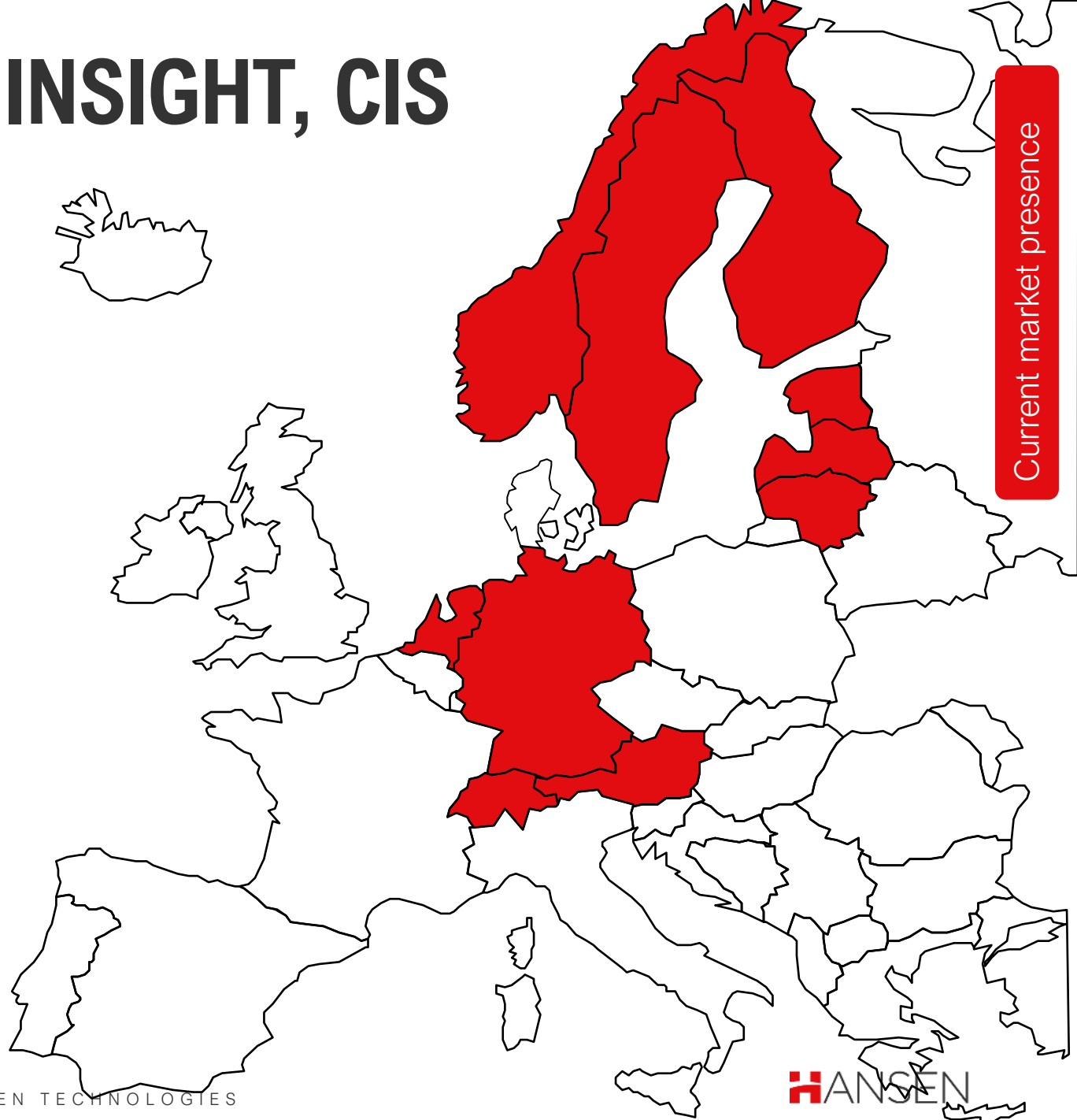
**HansenMDM™**  
Metered AMI, Calculations and Disseminating Event Management

**HansenCPQ™**  
Cross-market Omni-channel Quote and Order Capture

# PRODUCTS OF THE ENERGY SUITE

# HANSEN MDM, TRADE, INSIGHT, CIS

- Generis is our bestseller
  - 270+ installation
  - More than 80 alone in Germany
  - Key selling point is configurability and adaptability
- Meter&Energy
  - M&E implements MDM for DSOs and REs with
  - Native cloud technology
- EnoroCX
  - More than 130 customers in Norway
  - Datahub experience by Elhub
  - Market expansion on-going in Finland and Sweden
- Hansen Trade
  - Solution for automated wholesale trading operations
    - Day-ahead
    - Intraday
    - Ancillary markets (mFRR, aFRR, FCR, FFR)



# MARKET CHANGES DRIVE VENDOR ROADMAP

Market features	CY2020				CY2021				CY2022			
	1Q/CY20	2Q/CY20	3Q/CY20	4Q/CY20	1Q/CY21	2Q/CY21	3Q/CY21	4Q/CY21	1Q/CY22	2Q/CY22	3Q/CY22	4Q/CY22
EU or Nordics level changes				▼ eSett change		▼ Nordic Balance Model Change	15 min measurement interval					May 2023 →
Finland			Small production netting				▼		▼ Live			▼
		Datahub			Certification	Trial production use				Datahub 2.0	Certification	
Sweden				Hourly measurement				→ Datahub				
Germany			Mieterstrom		Smart meter roll-out (now three vendors have been certified and it means that roll-out can be technically started)							
Netherlands				▼ Live		▼ Live						
		Sector release 2020			T release 2021			Allocation 2.0				
Switzerland	Smart meter rollout (80% till 2027)											
	ZEV (Zusammenschluss Eigenverbrauch)											
Austria	Smart meter rollout (80% till end of 2020)											
	Mieterstrom											

# MARKET CHANGES SUMMARY

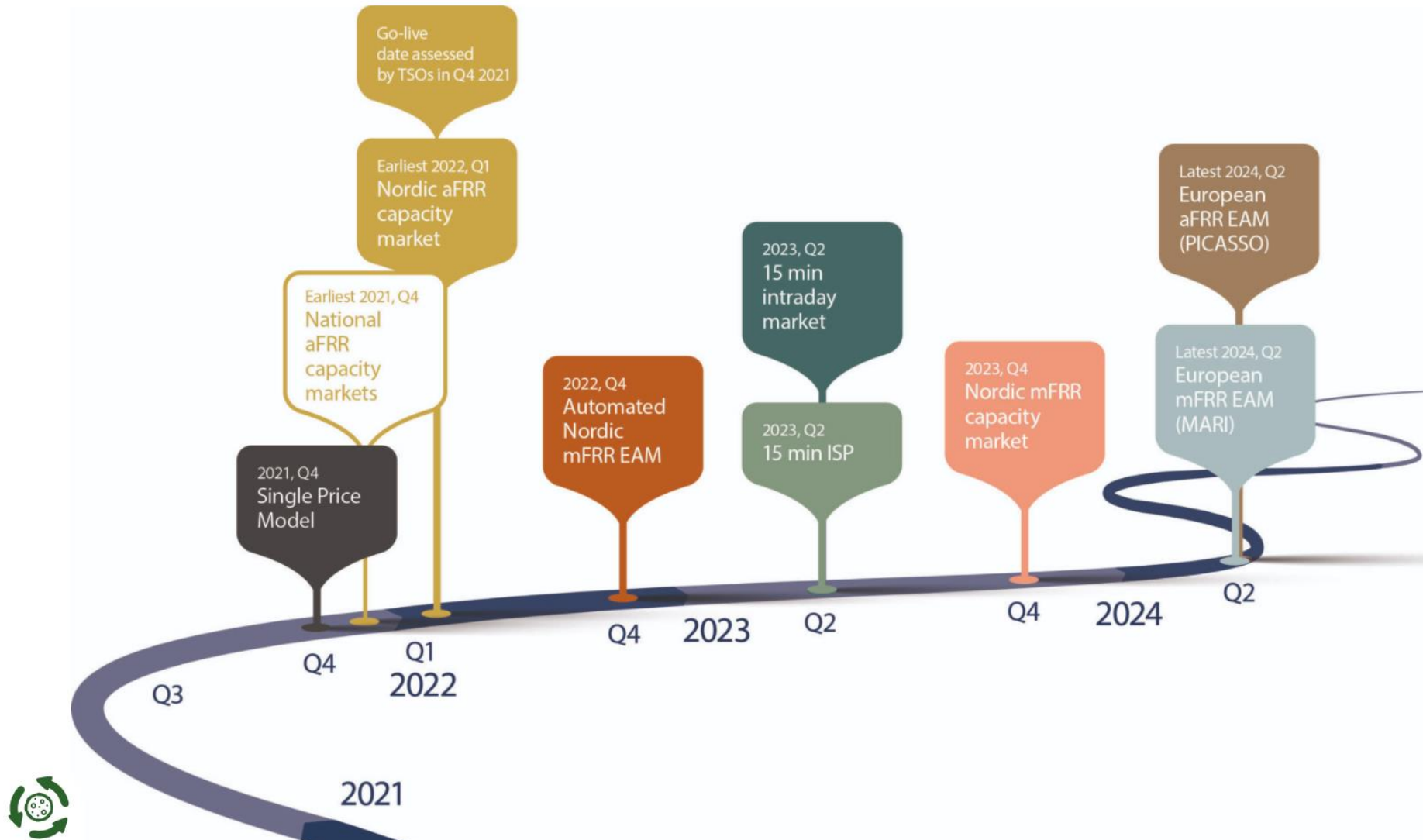
- Key market changes typically are
  - Smart meter roll-out
  - Datahub introduction
  - 15 min resolution
- Datahub socialises competitive advantages
  - Same functionality at the same time
  - Less possibilities to differentiate by retails and DSOs but also by vendors providing solutions
  - Innovation / differentiation needs to be geared up to next level





HANSEN  
POWER THE NEXT.™

# NORDIC BALANCING MODEL



# MARKET CHANGES: NORDIC BALANCING MODEL

- New aFRR capacity market go-live in January 2022
  - Trading in Stattnet's (FiftyWeb) platform with new communication and messaging standard
  - Market trial in Nov/Dec went ok
  - Final fine-tuning ongoing
  - Hansen is ready for go-live
  - Majority of aFRR volumes in Finland through Hansen Trade systems
- mFRR energy market go-live in Q4-22
  - New communication and message standard, new attributes, 15 min resolution etc...
  - New communication and messaging standard and 15 min resolution tested with Fingrid
  - New attributes in progress
  - Majority of mFRR volumes in Finland through Hansen Trade systems
- Hansen has continuous discussions with Fingrid regarding NBM changes