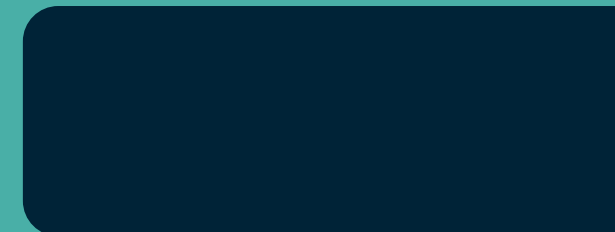




ELEKTROFORENINGEN



ETIM Product Data

An essential building block for the digitalised construction industry
Learnings from Norway

Frank Jaegtnes

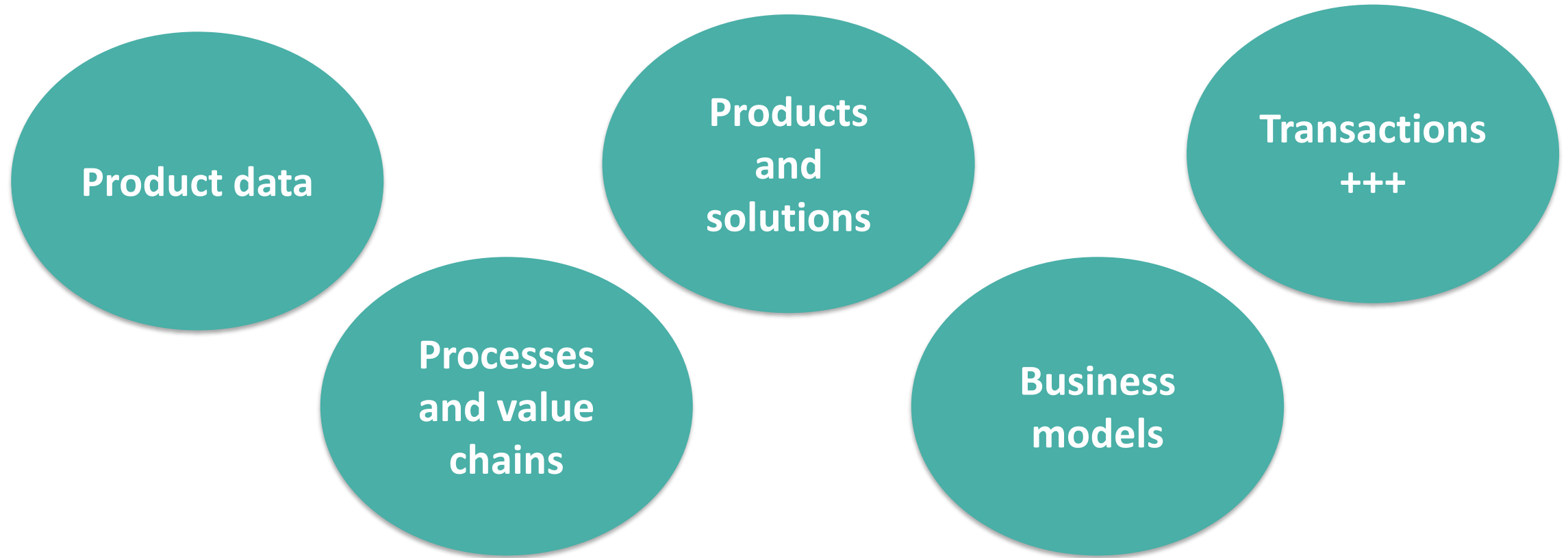
London, December 2nd 2019

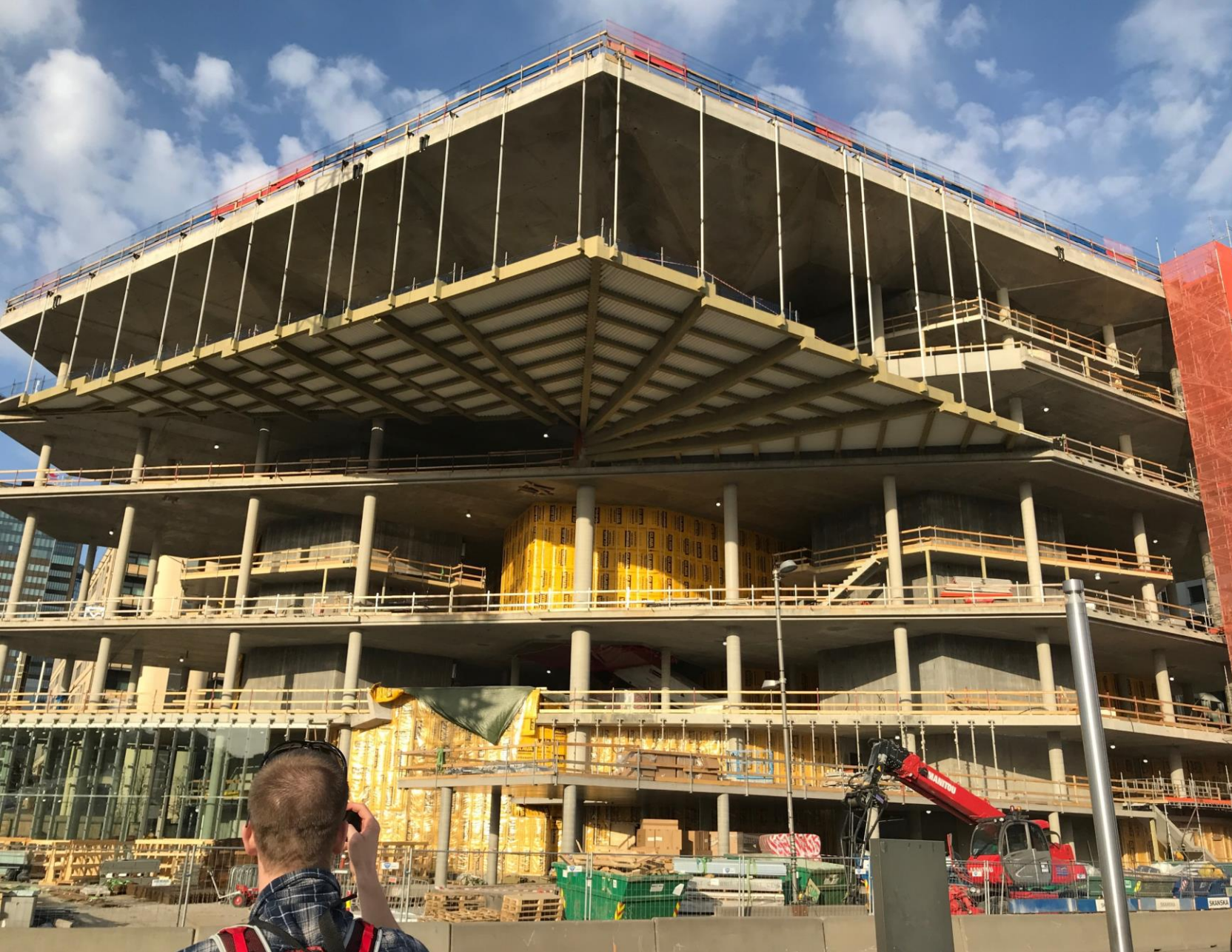


Everybody talks about digitalization in the constuction industry...

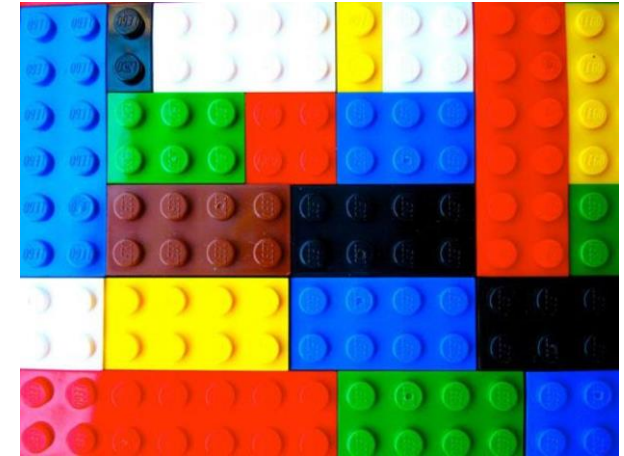


Digitalization at many levels





Imagine Lego bricks..

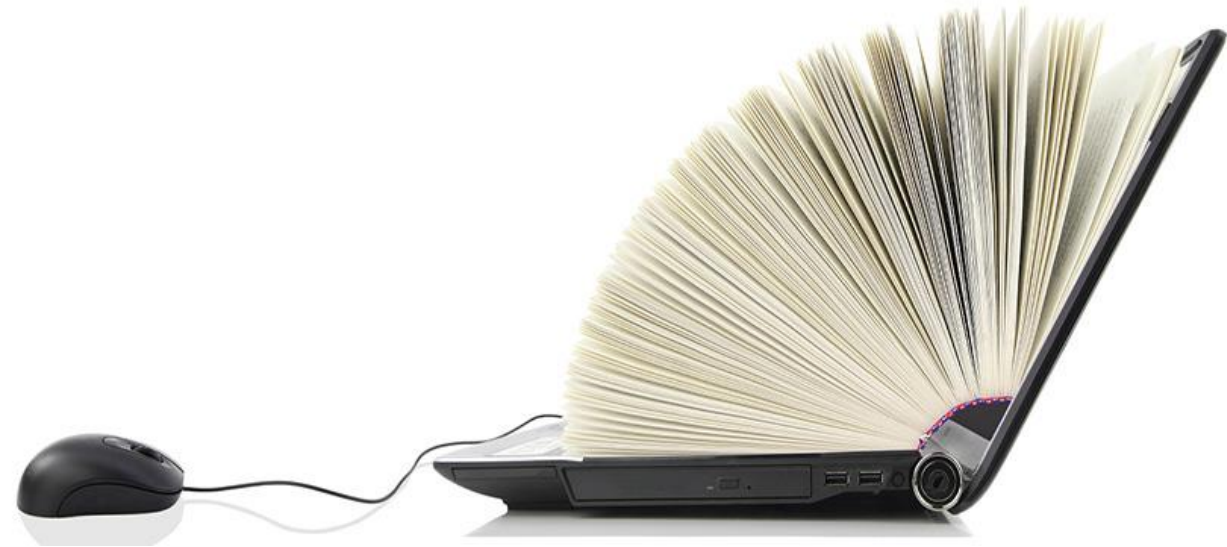


...put into a system

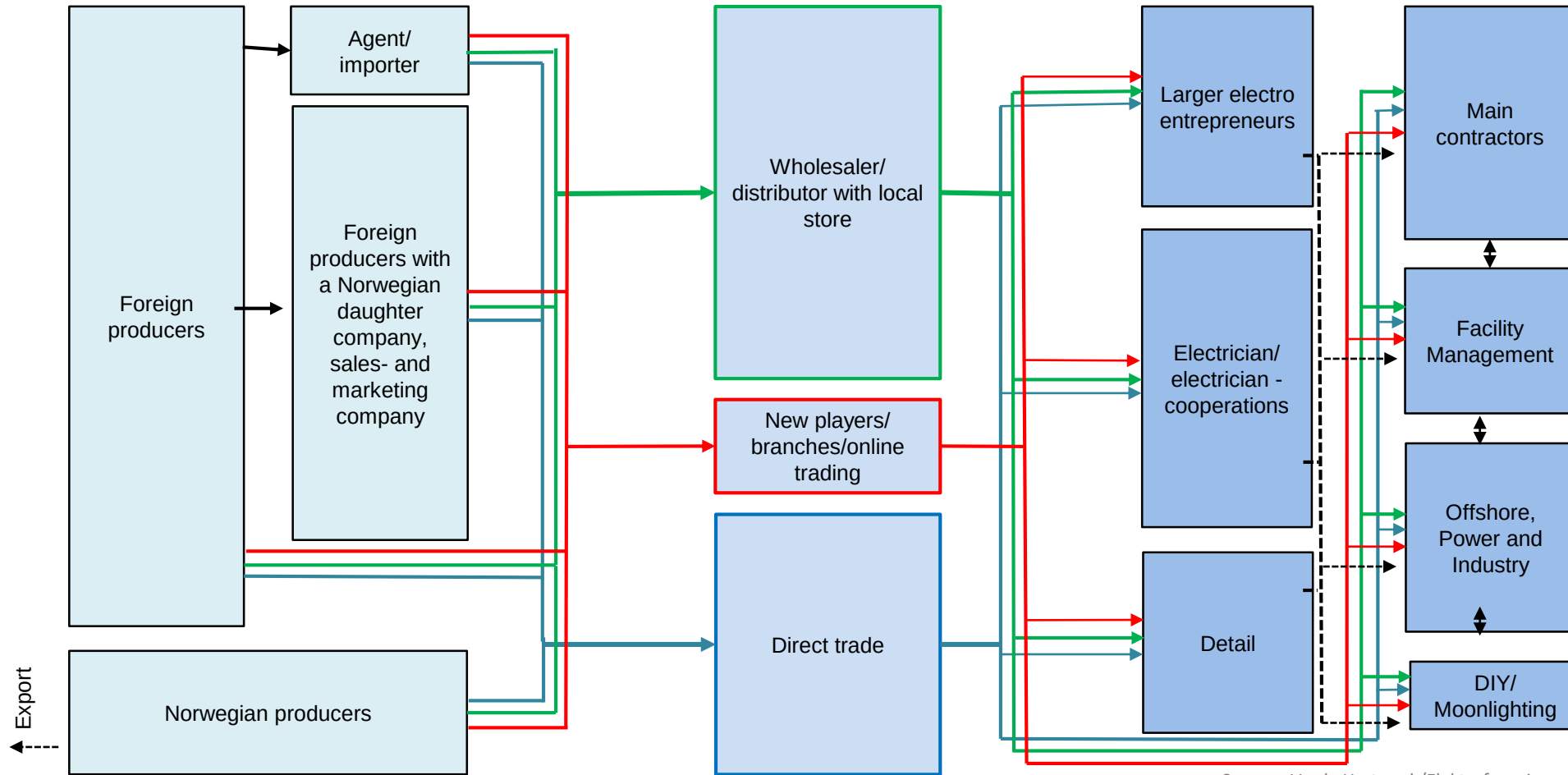


The world of .pdf

Putting electricity to paper

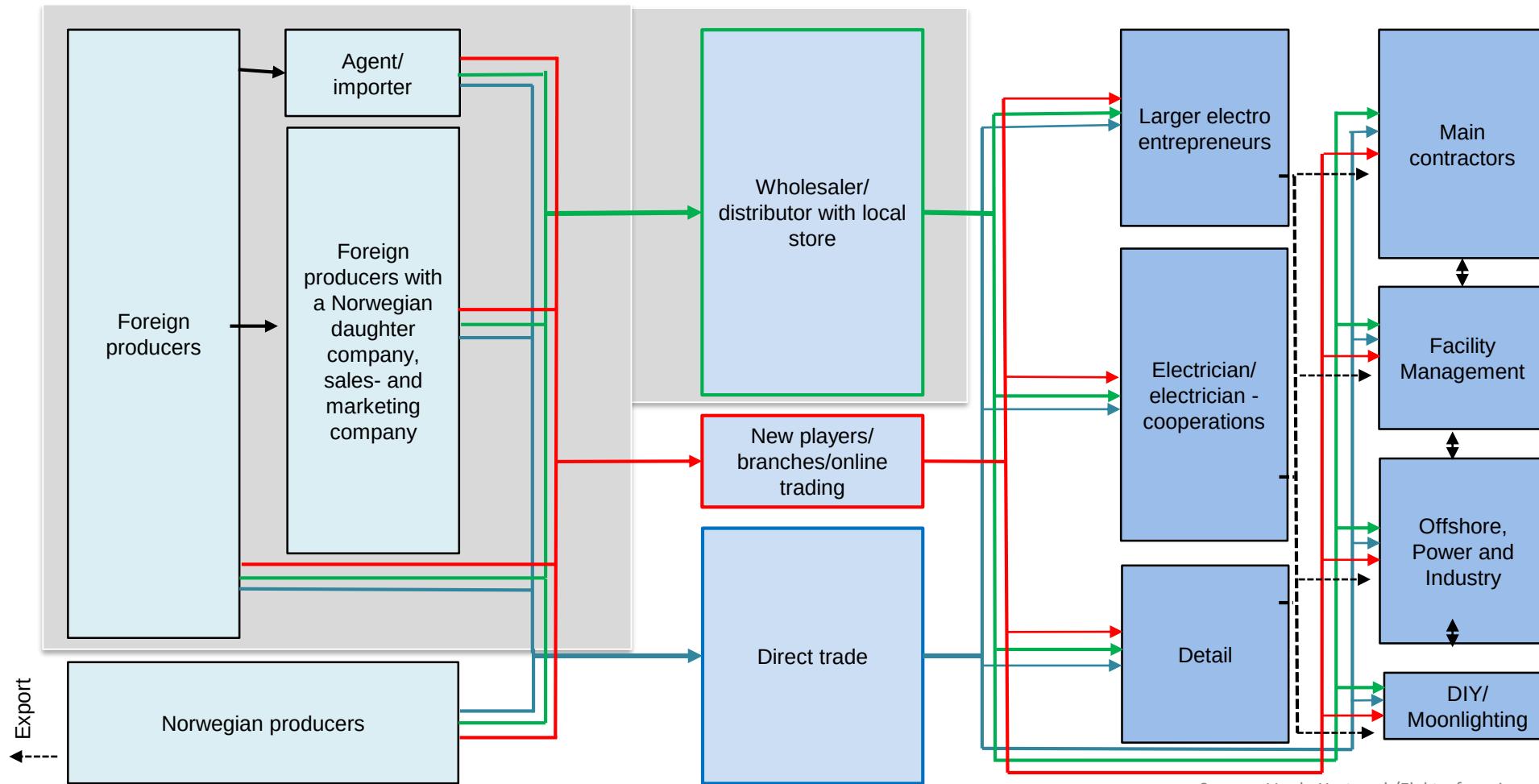


The game is changing and everything is becoming transparent



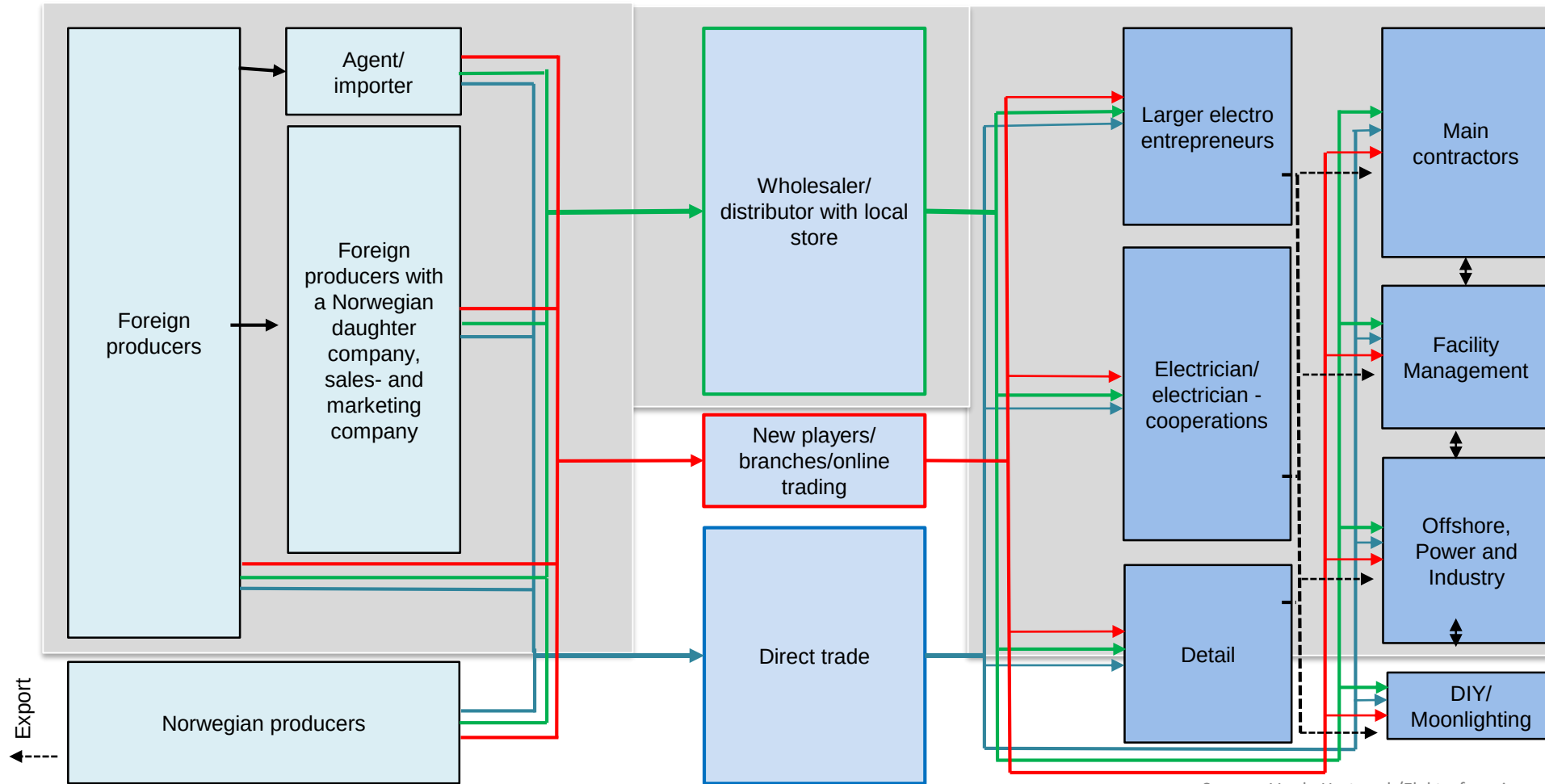
Source : Varde Hartmark/Elektroforeningen

The game is changing and everything is becoming transparent



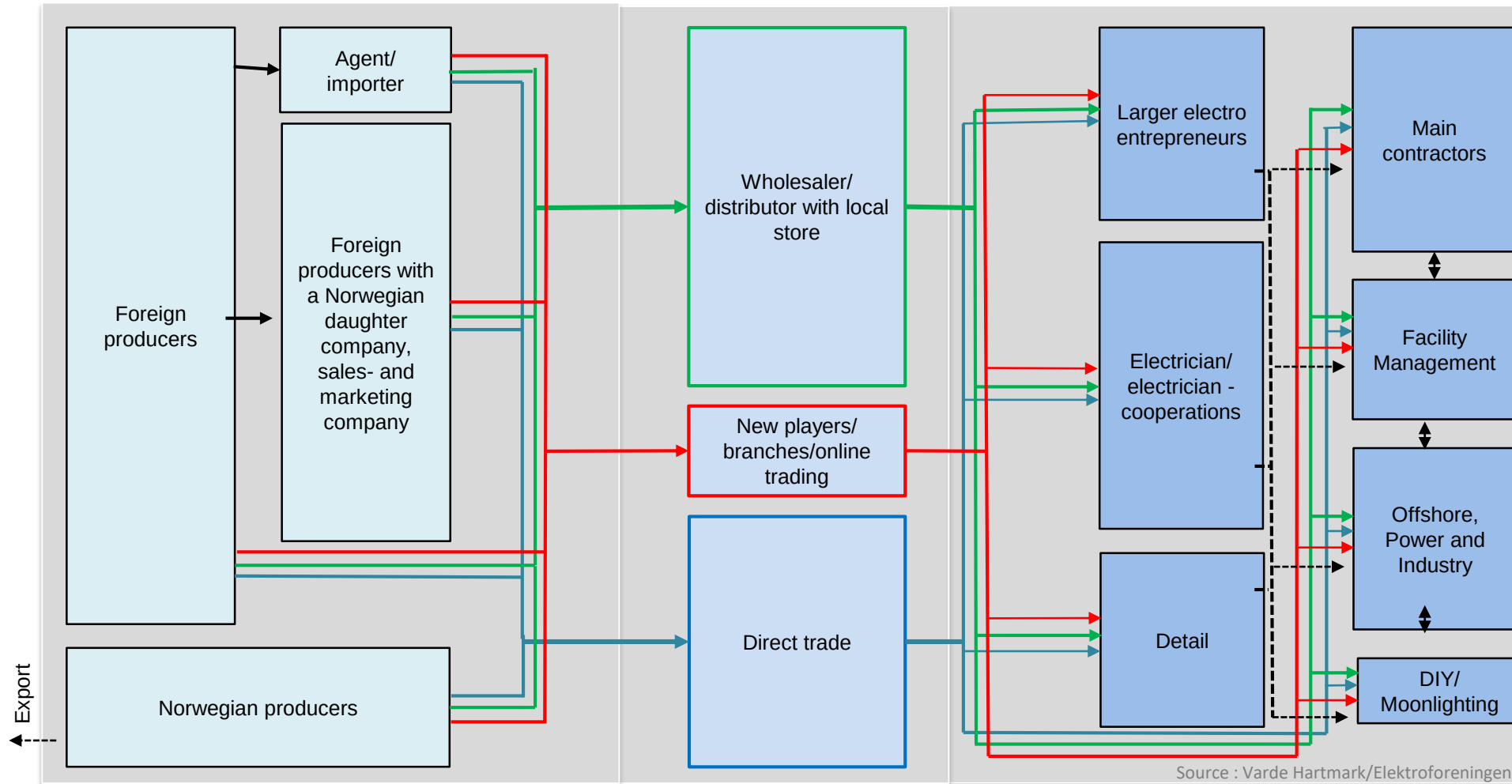
Source : Varde Hartmark/Elektroforeningen

The game is changing and everything is becoming transparent



Source : Varde Hartmark/Elektroforeningen

The game is changing and everything is becoming transparent



A missing digital link



Life Is On

Schneider
Electric

 **GLAMOX**

Suppliers and
Product info

SIEMENS **ABB**



A missing digital link

GRAPHISOFT
ARCHICAD

Contractors/
Entrepreneurs
and applications



AUTODESK®
REVIT®



Life Is On

Schneider
Electric

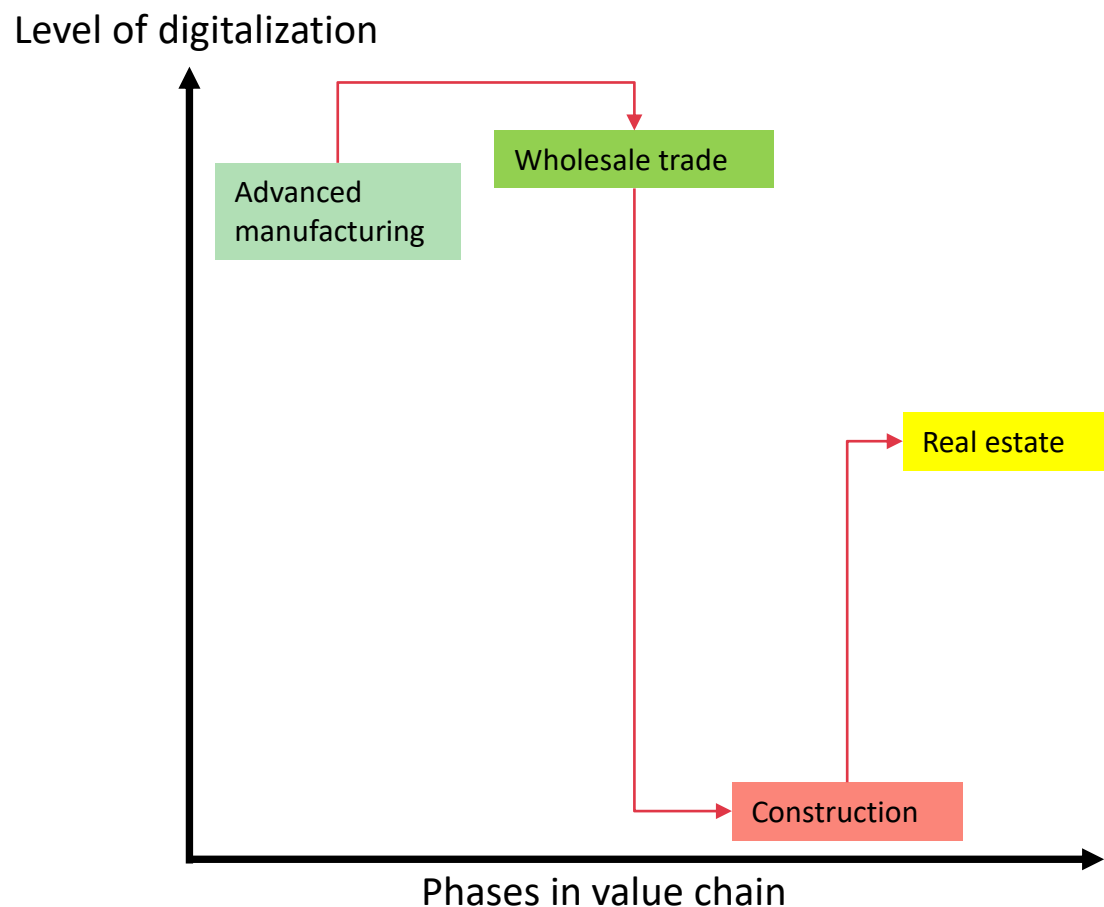
GLAMOX

Suppliers and
product info

SIEMENS ABB

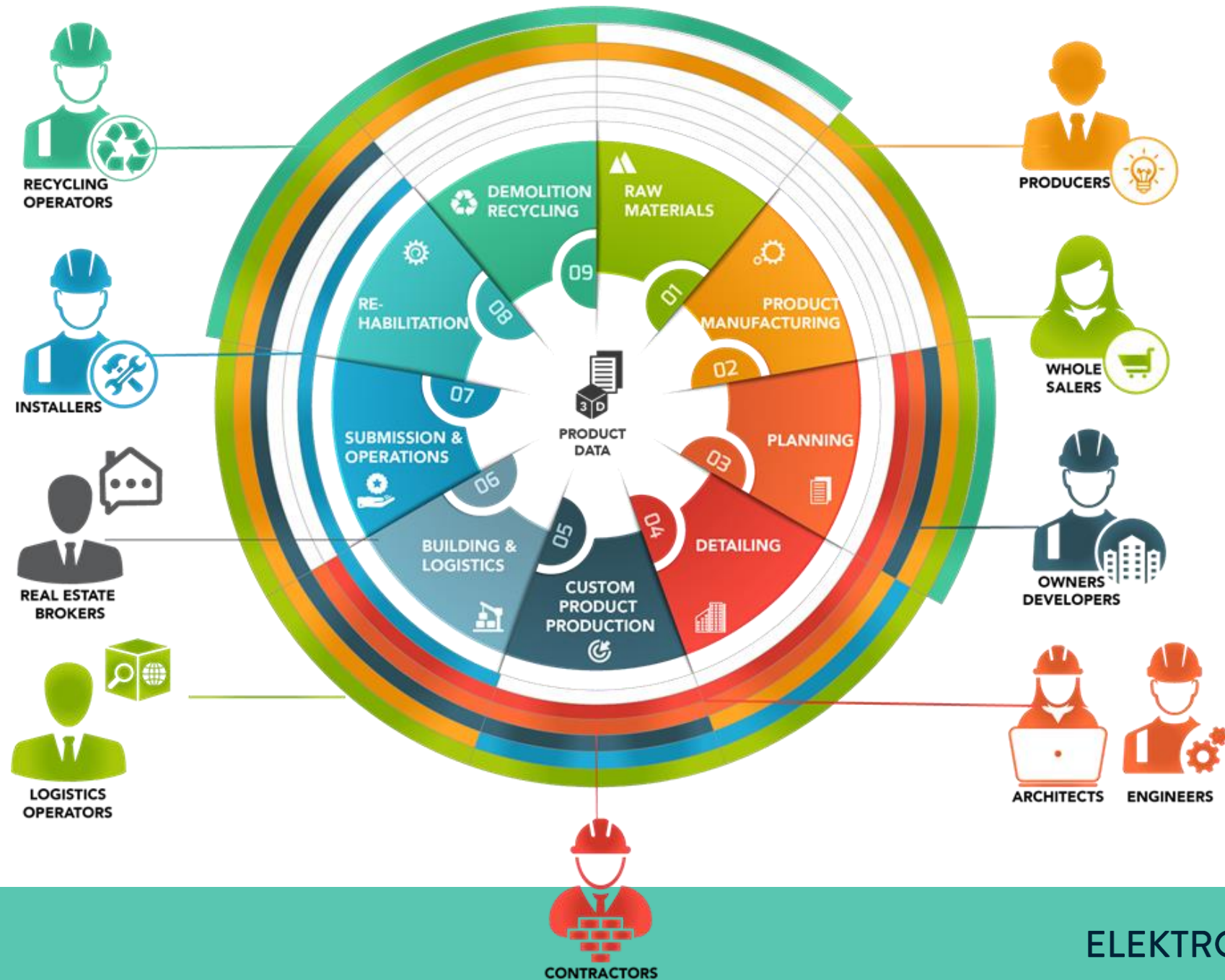


Digitalization is lost and to some extent manually regained



Sector	Assets		Usage			Labor				
	Overall digitization ¹	Digital spending	Digital asset stock	Transactions	Interactions	Business processes	Market making	Digital spending on workers	Digital capital deepening	Digitization of work
ICT ²										
Media										
Professional services										
Finance and insurance										
Wholesale trade										
Advanced manufacturing										
Oil and gas										
Utilities										
Chemicals and pharmaceuticals										
Basic goods manufacturing										
Mining										
Real estate										
Transportation and warehousing										
Education										
Retail trade										
Entertainment and recreation										
Personal and local services										
Government										
Healthcare										
Hospitality										
Construction										
Agriculture and hunting										

Source : McKinsey The construction industry is ripe for disruption (2016)

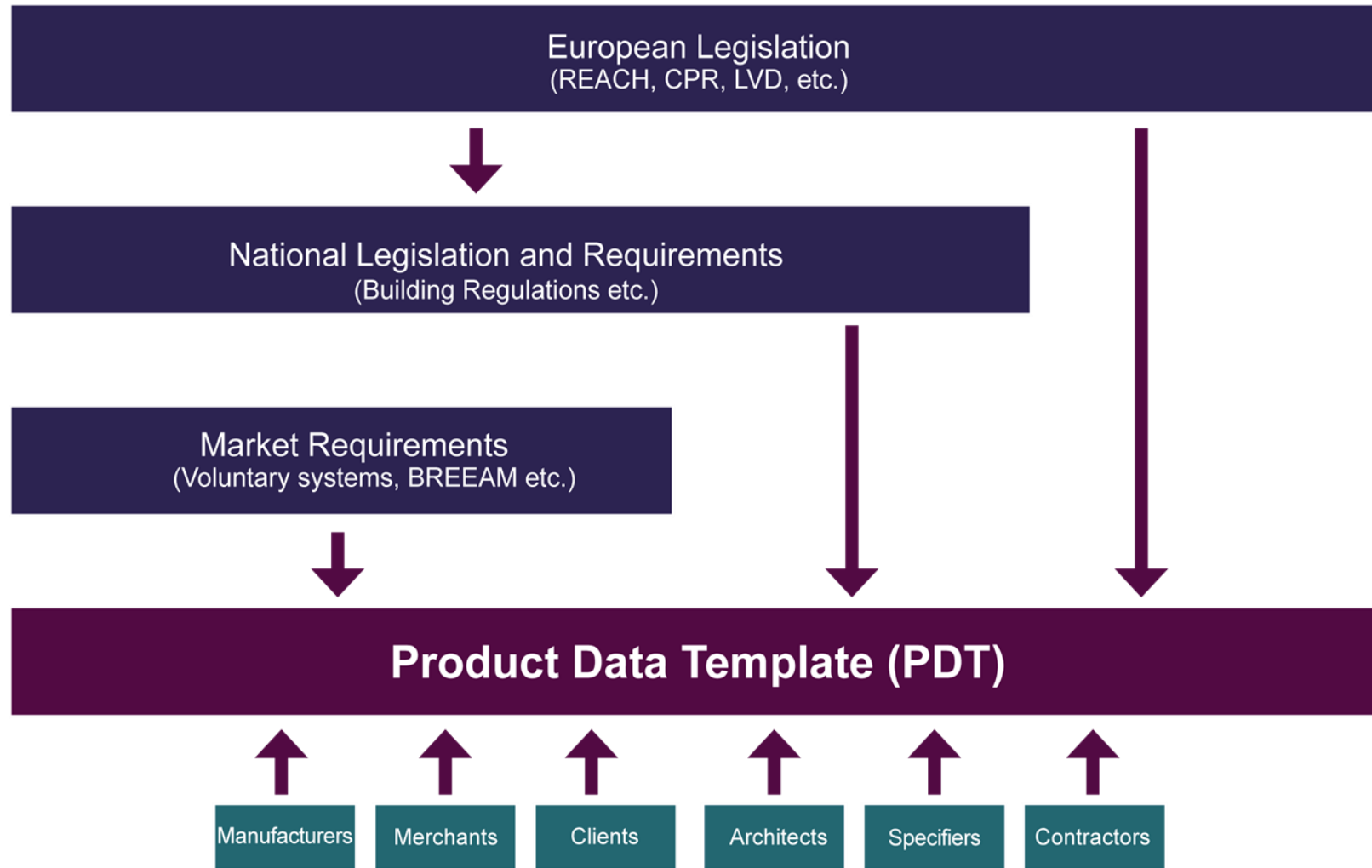




Construction Products Regulation (CPR)

- Lays down harmonized rules for the marketing of construction products in the EU
- Provides a common technical language to assess the performance of construction products
- Ensures reliable information is available to professionals, public authorities, and consumers, so they can compare the performance of products from different manufacturers in different countries

Where does requirement to product properties appear?



Need a open standardised way of describing products

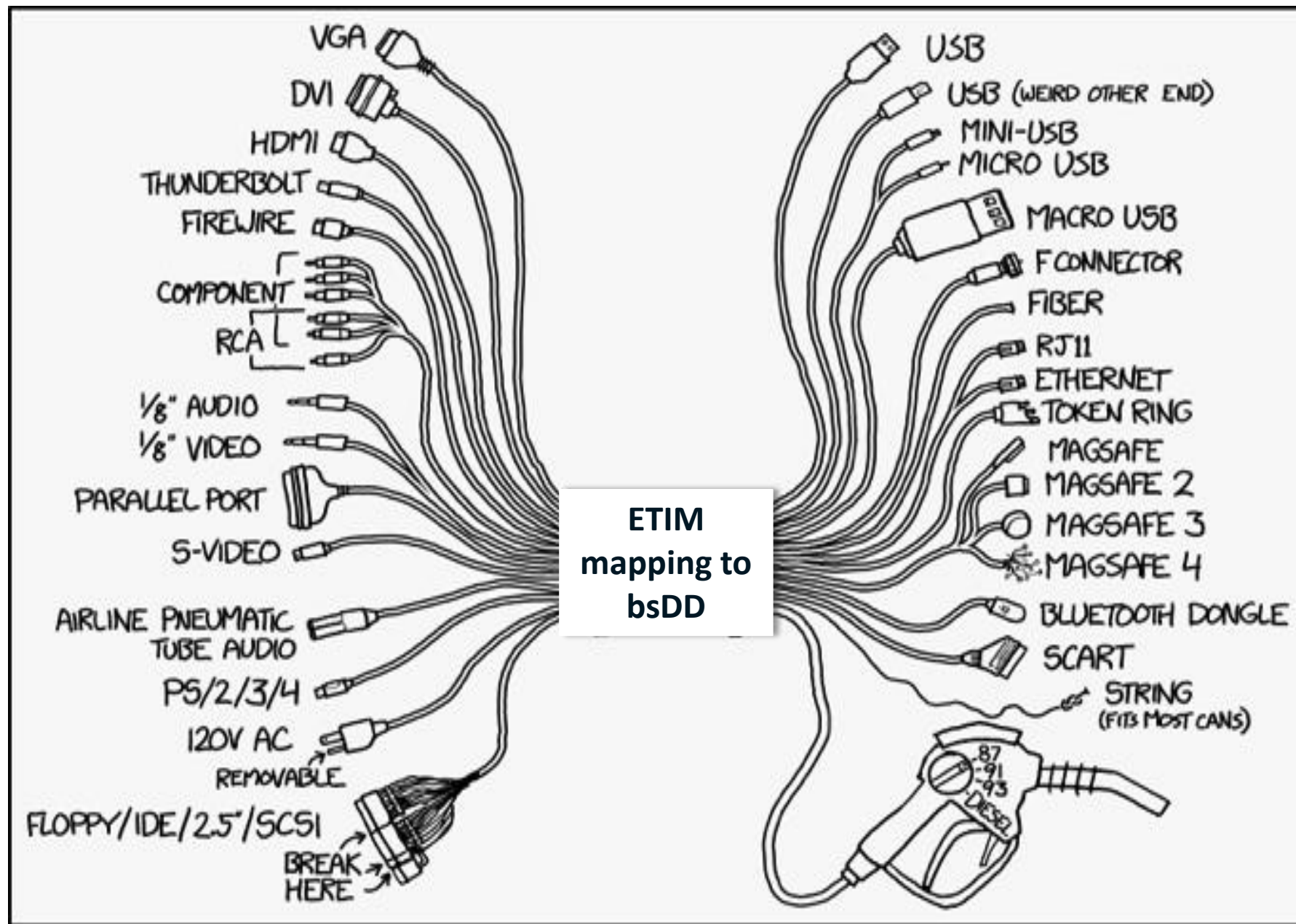


+



=

Access to more features/properties and
huge amounts of real data

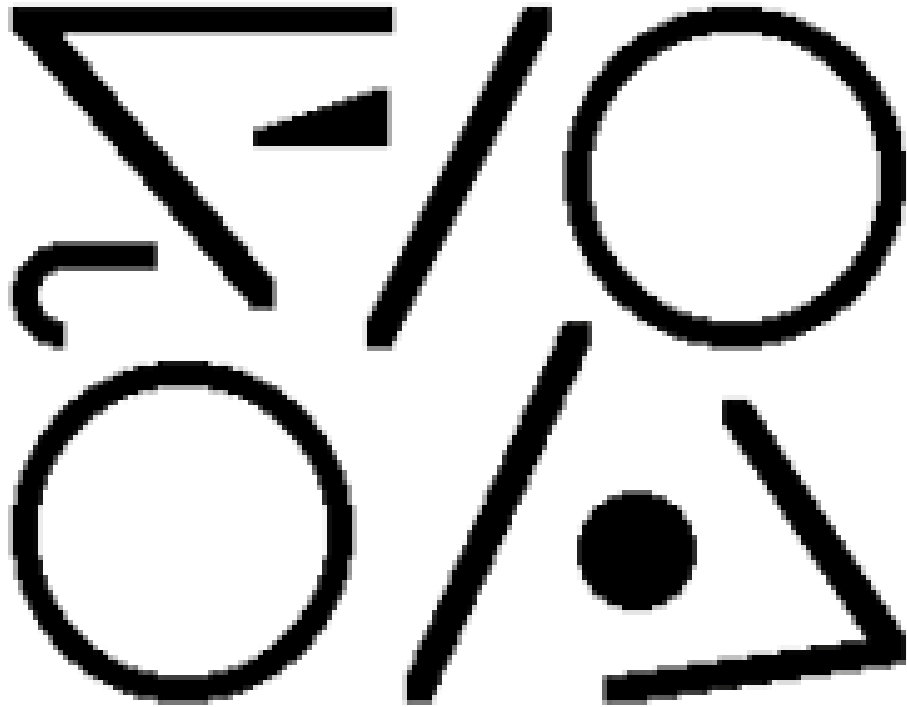


We have mapped ETIM to bSDD and IFC

Enteties		
bSDD	ETIM	number of fields
Subject	Classes	4456
Properties	Features	13343
Value	Value	12720
Units	units	202
		30721



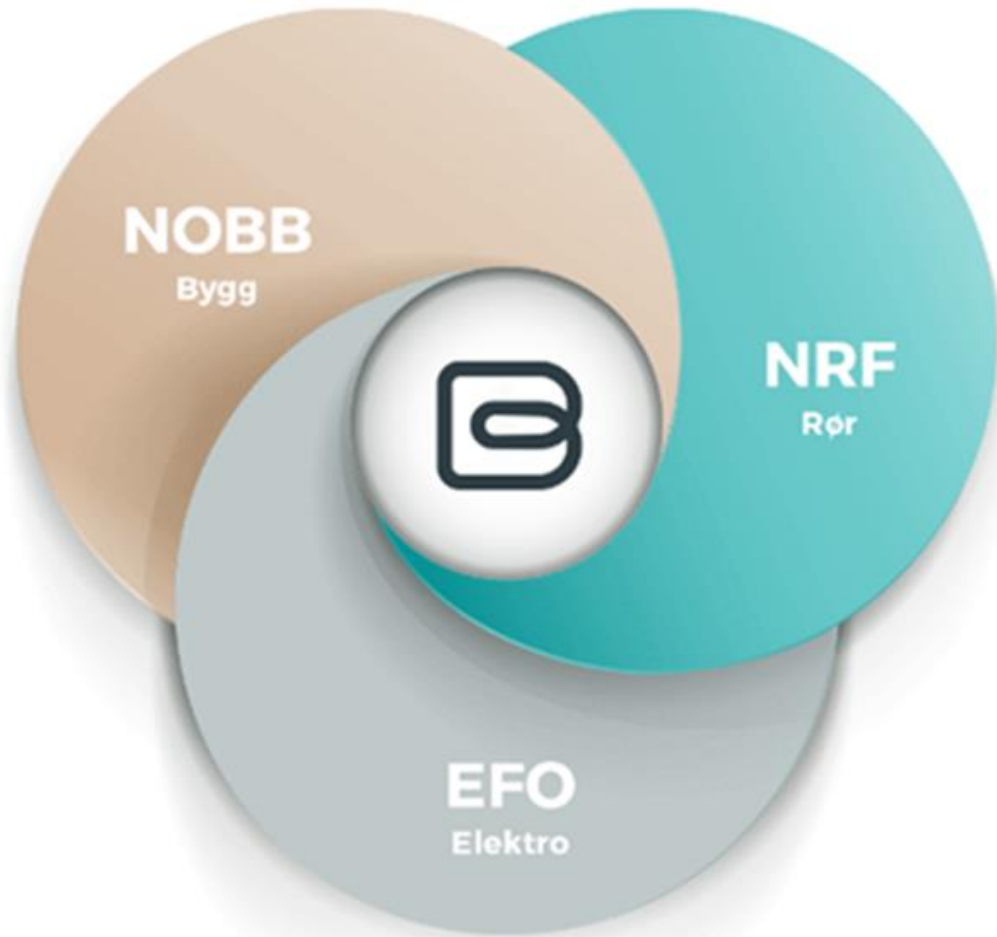
No context



In a context

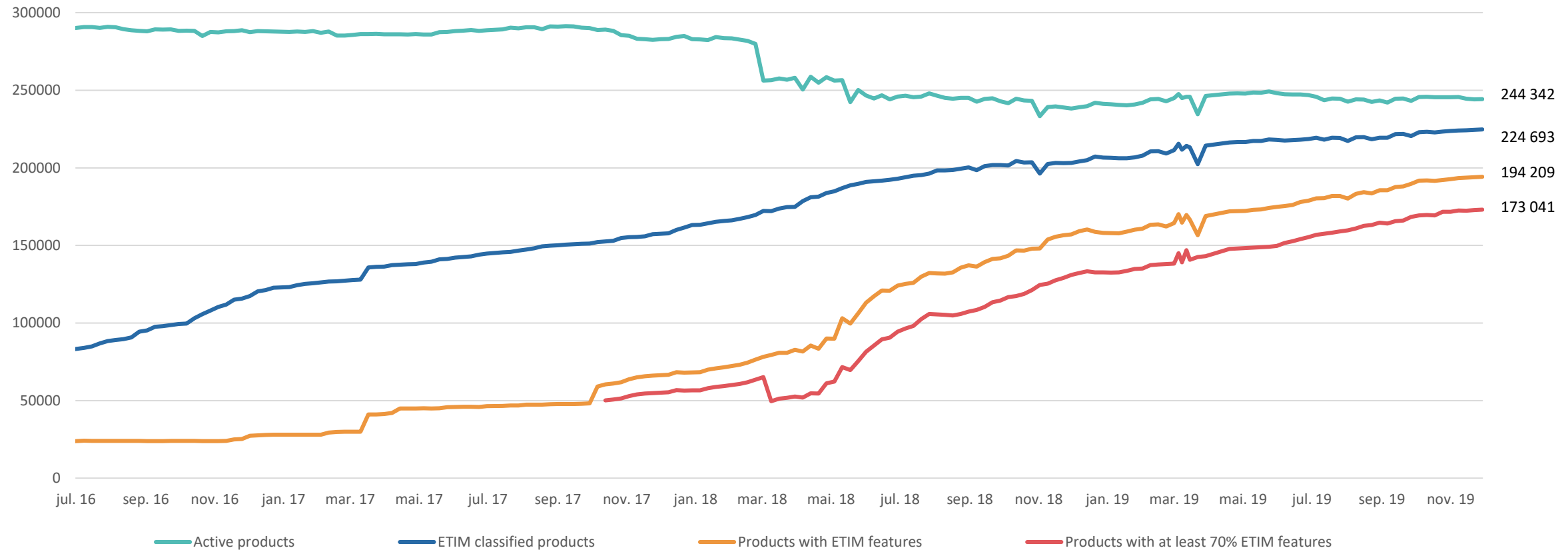


Industry databases prepared for a digital construction

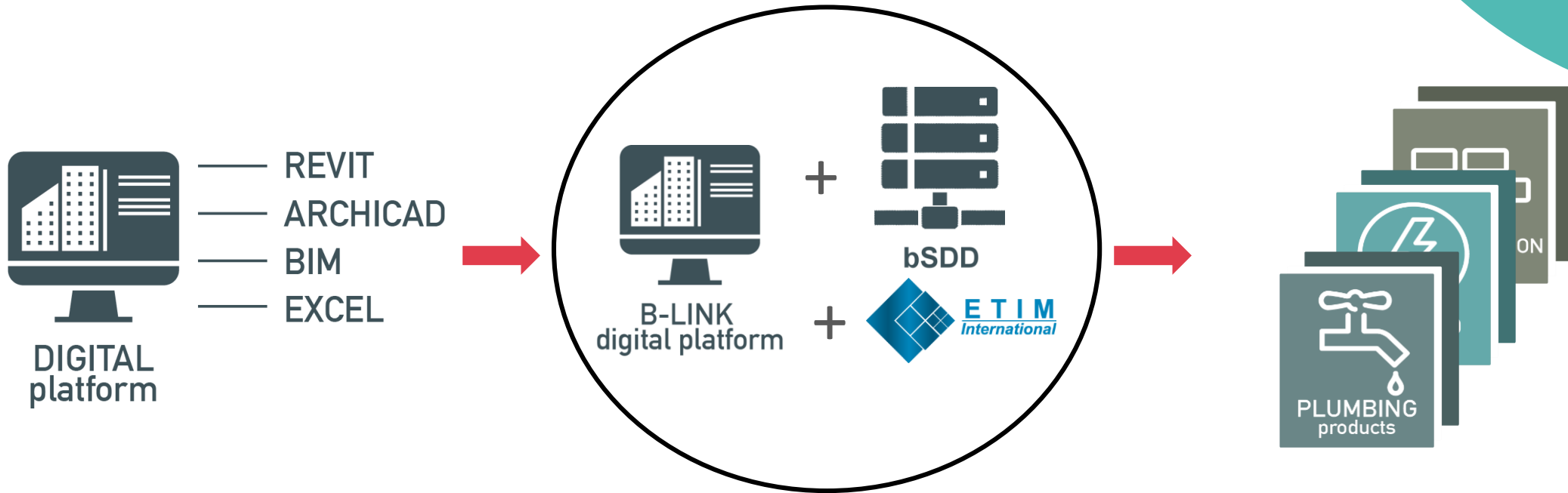


- Open standardized product databases
- For free
- Available for all
- Includes required and relevant data
- Owned and quality assured by product owner

Development of ETIM features in EFObasen



Use of product information in BIM based on features



1. IDENTIFY PRODUCT PROPERTIES/FEATURES

- BIM Systems
- Procurement systems

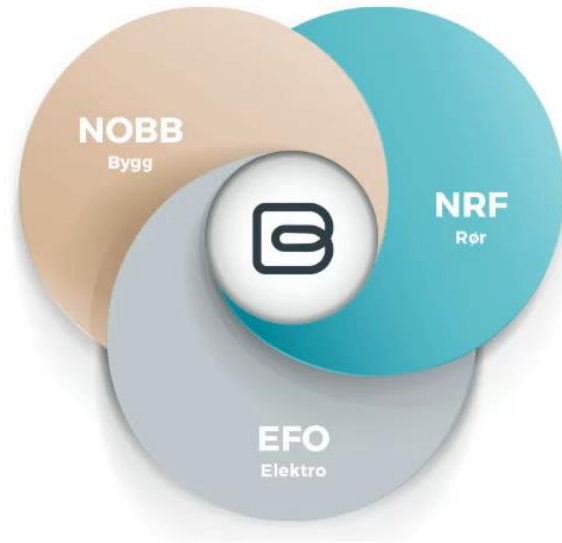
2. SEARCH AND FIND PRODUCTS BASED ON

- Technical properties/features
- Environmental properties
- Product number and GTIN

3. PRODUCT INFORMATION

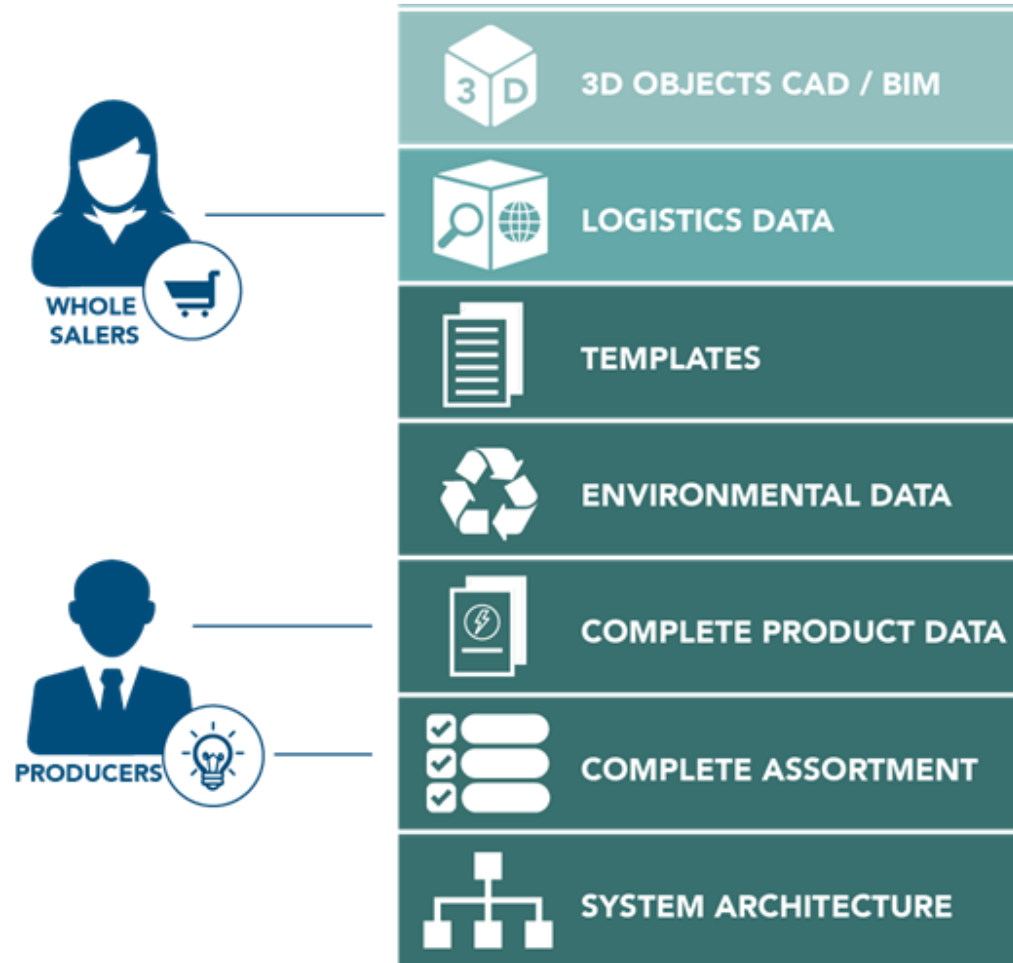
- Product data
- Documentation
- Properties/features

B-Link + ARCHICAD



Direkte kobling med tilgang til all produktinformasjon som man finner i varedatabasene NOBB (Norsk Byggevarebase), EFO (Elektroforeningen) og NRF (Norske Rørgrossisters Forening)

Key learnings



The role of EFObasen:

- Ensure **complete, open and updated product information** (ETIM/PDT) to be used by the **whole value chain**
- **Material data** (EPD) to enable the circular economy
- **Master database** for the industry

DIGITALT VEIKART FOR BYGG-, ANLEGG- OG EIENDOMSNÆRINGEN FOR ØKT BÆREKRAFT OG VERDISKAPING



- Varedatabasebe er sentrale i digitaliseringen av BAE-sektoren
- Nøkkelord:
 - Standardisering (ETIM/BuildingSMART)
 - Felles digital plattform
 - Digitalisere sammen

