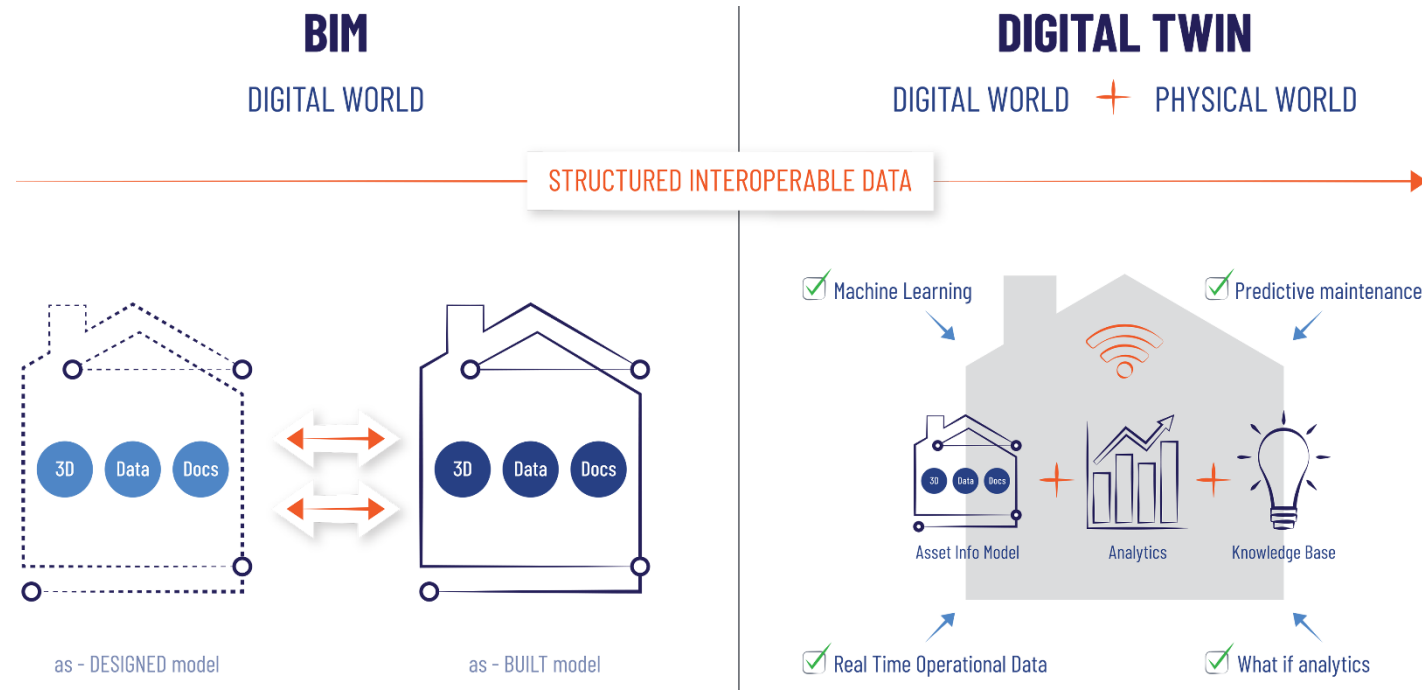


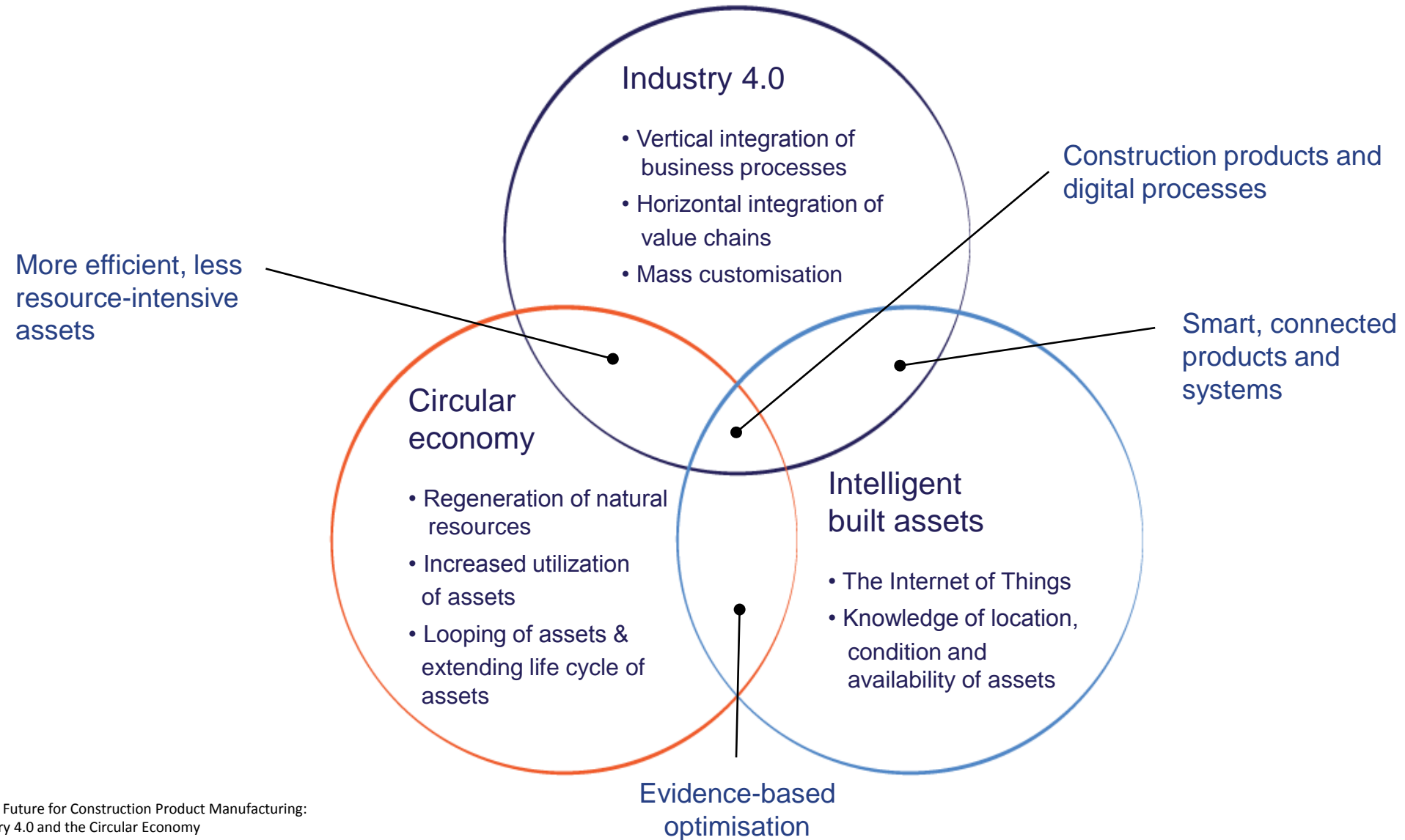
# Digital twin - this new digital market is becoming a priority for market actors



The as-designed model is based on input from the design teams which ultimately forms the basis for the as-built model that contains all the characteristics of a building. #CEN #ISO #ASTM etc. standards opens a closed market

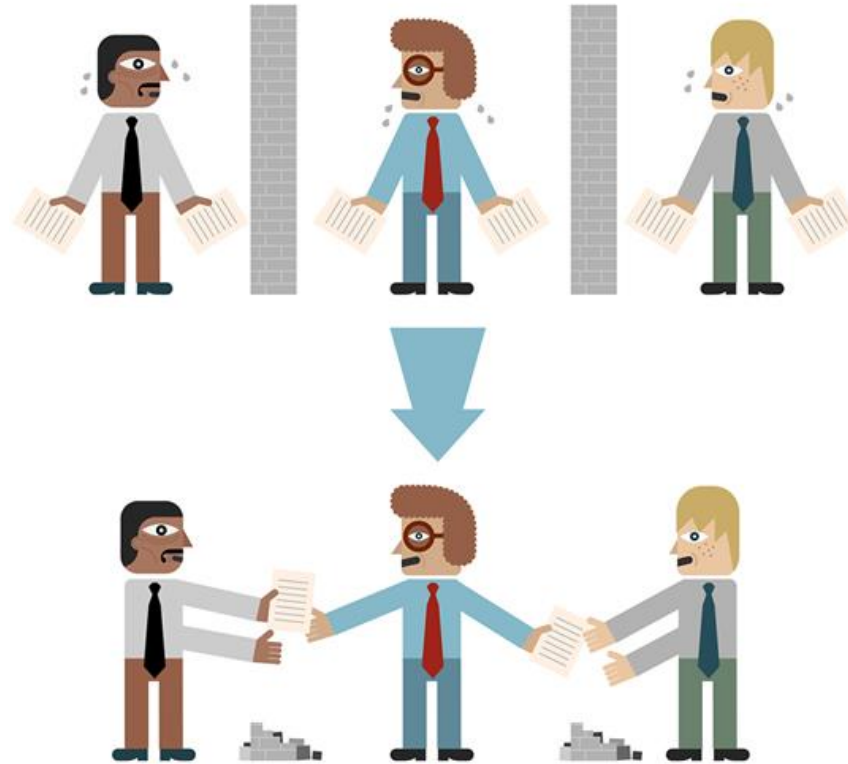
BIM enables Cobuilder to provide data to create Digital Twins which is a virtual representation of physical as-built asset by linking standardized data to 3D. This opens a new digital market on planned development, where assets are sold

# BIM is the digital transformation in the industry. 3 BIG trends

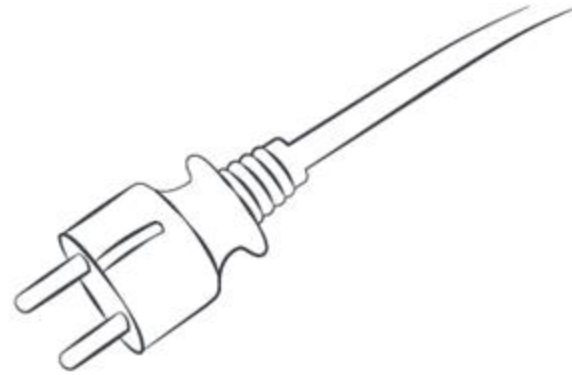
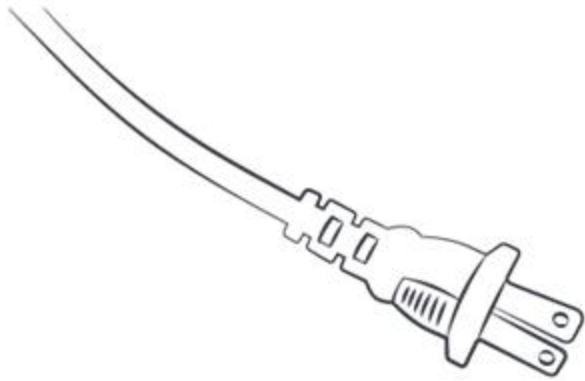


Source: CPA (2016) – Future for Construction Product Manufacturing: Digitalization, Industry 4.0 and the Circular Economy

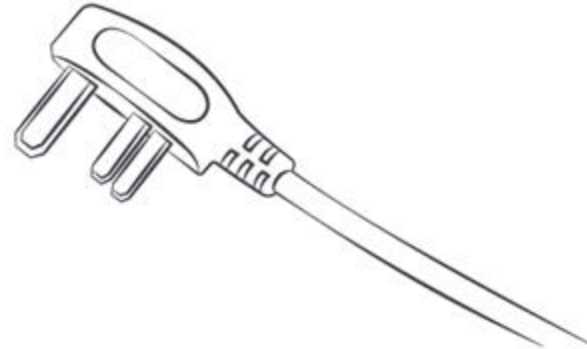
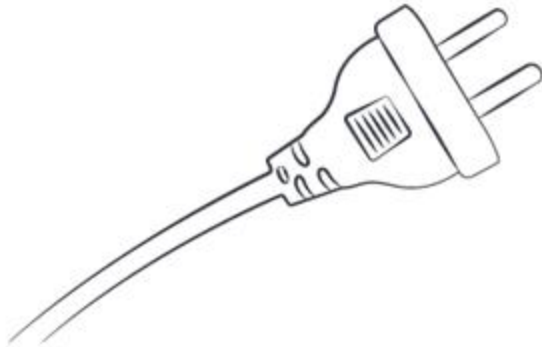
# Issue for the industry - Data is kept in silos



Without standards !

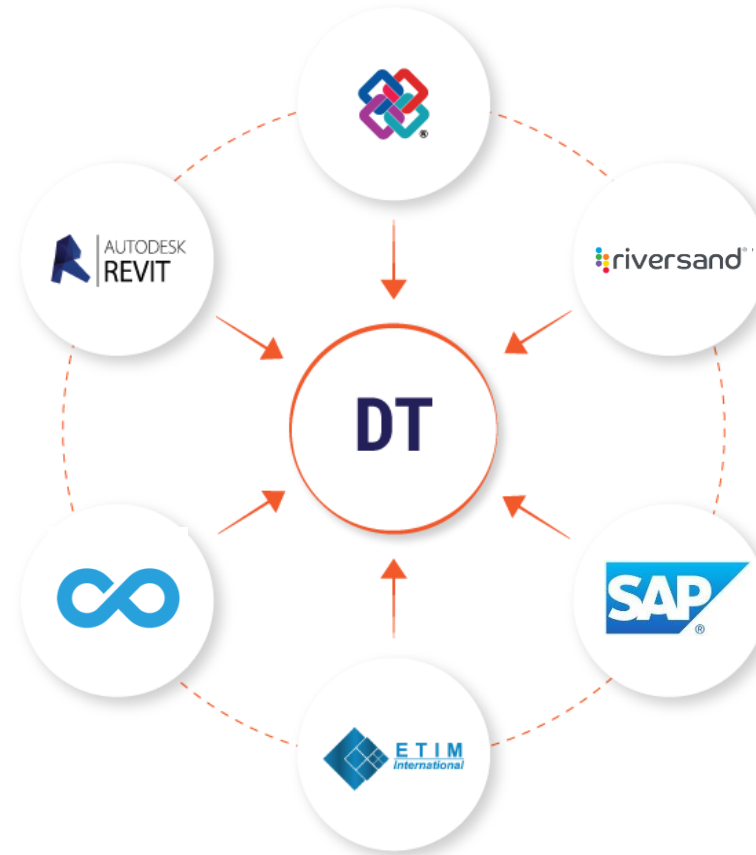


?



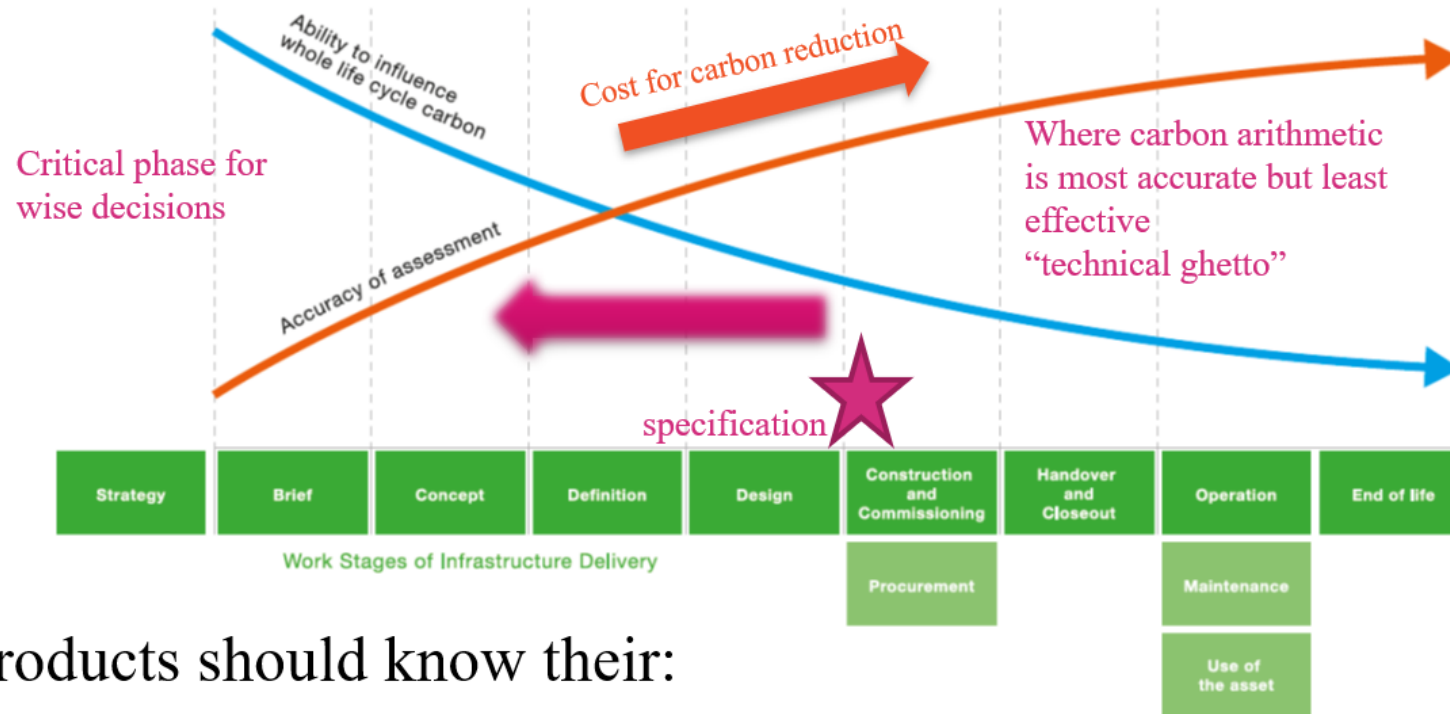
# We need a common language !

VS




Twitter: @\_fredenlund

# Without “within CapCarb”

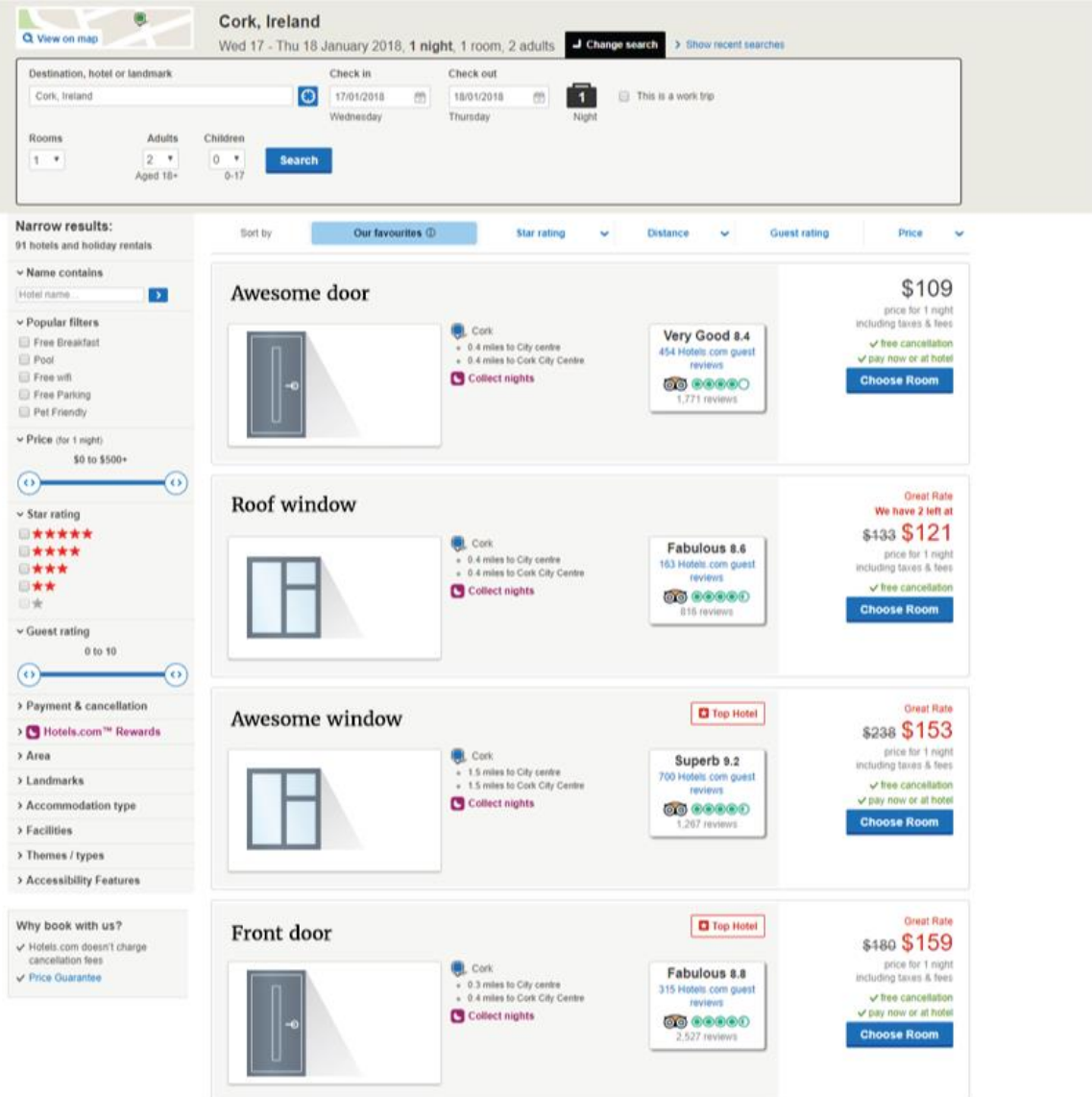


- Products should know their:
- Cost - £ / € ..... as now
- Embodied Carbon - kg CO<sub>2</sub>e / unit etc
- Characteristics – for future removal and reuse – circular economy
- Digitally remember for decades – how?

# We can develop our industry – welcoming data platforms



Similarity, digitalisation in the construction sector made it possible to use structured standard-based product information for both setting specific product requirements and identifying, specifying and purchasing construction products that meet those requirements.



**Cork, Ireland**  
Wed 17 - Thu 18 January 2018, 1 night, 1 room, 2 adults

Destination, hotel or landmark: Cork, Ireland  
Check in: 17/01/2018 (Wednesday)  
Check out: 18/01/2018 (Thursday)  
Rooms: 1  
Adults: 2 (Aged 18+)  
Children: 0 (0-17)

**Narrow results:**  
91 hotels and holiday rentals

**Sort by:** Our favourites, Star rating, Distance, Guest rating, Price

**Awesome door**  
Cork: 0.4 miles to City centre, 0.4 miles to Cork City Centre  
Very Good 8.4 (454 Hotels.com guest reviews)  
\$109 price for 1 night including taxes & fees  
Choose Room

**Roof window**  
Cork: 0.4 miles to City centre, 0.4 miles to Cork City Centre  
Fabulous 8.6 (163 Hotels.com guest reviews)  
Great Rate We have 2 left at \$133 \$121 price for 1 night including taxes & fees  
Choose Room

**Awesome window**  
Cork: 1.5 miles to City centre, 1.5 miles to Cork City Centre  
Superb 9.2 (700 Hotels.com guest reviews)  
Great Rate \$238 \$153 price for 1 night including taxes & fees  
Choose Room

**Front door**  
Cork: 0.3 miles to City centre, 0.4 miles to Cork City Centre  
Fabulous 8.8 (315 Hotels.com guest reviews)  
Great Rate \$180 \$159 price for 1 night including taxes & fees  
Choose Room

# EN ISO 23386, prEN ISO 23387 & SmartCE

## - what this means for manufacturers

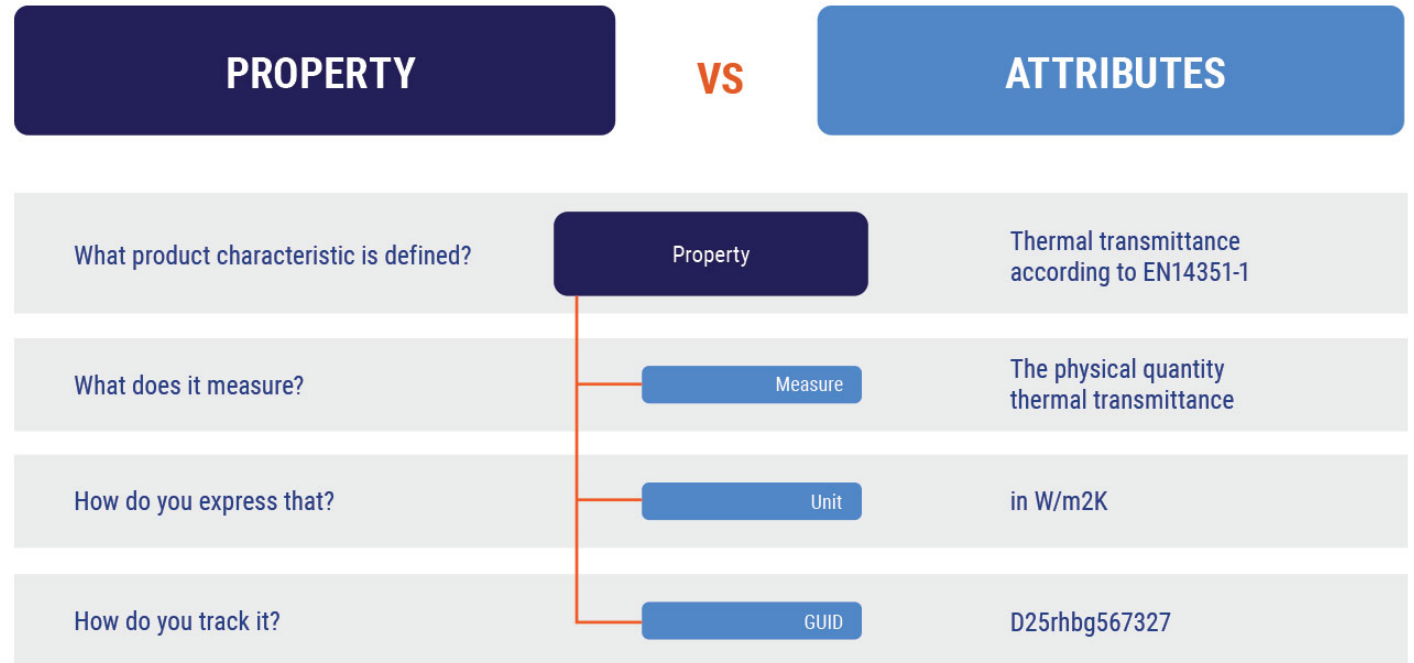
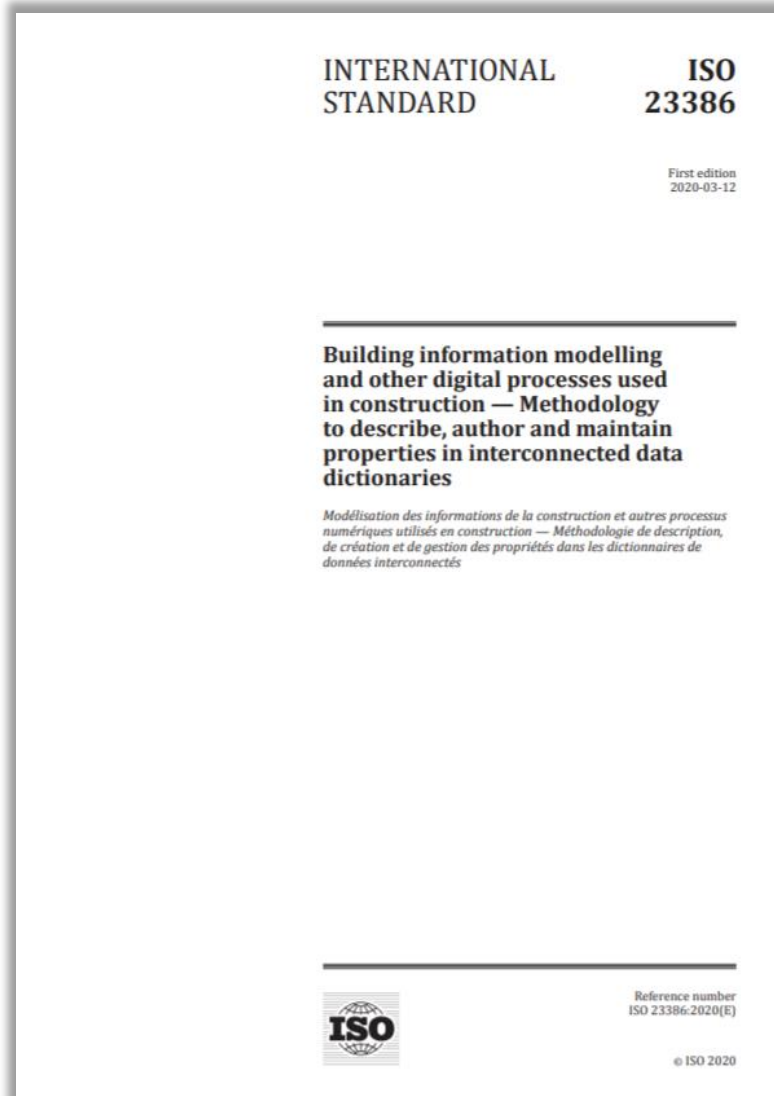
Lars Chr. Fredenlund  
CEO  
Cobuilder

**cobuilder**



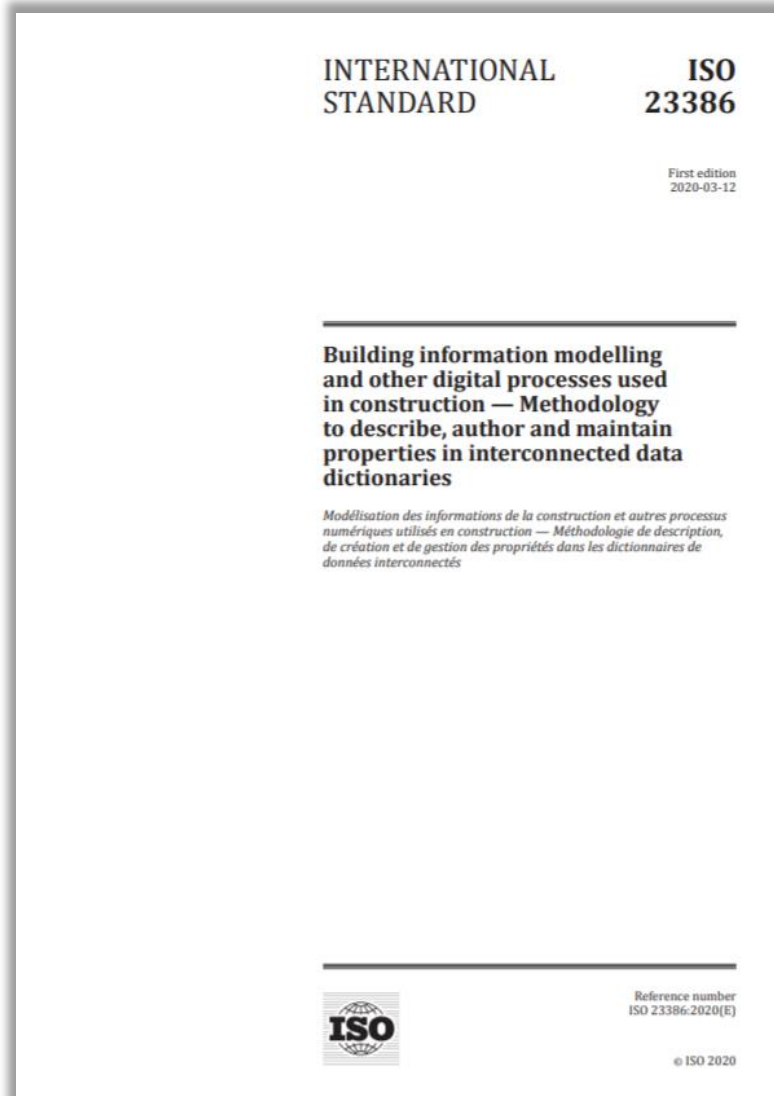


# ISO 23386 - Building information modelling and other digital processes used in construction — Methodology to describe, author and maintain properties in interconnected data dictionaries



©Cobuilder AS and its licensors @ 1997-2020

# ISO 23386 - Building information modelling and other digital processes used in construction — Methodology to describe, author and maintain properties in interconnected data dictionaries



## Properties for Systems & Products as per EN ISO 23386



©Cobuilder AS and its licensors @ 1997-2020

# ISO 23387 - Data Templates for construction objects used in the life cycle of any built asset — Concepts and principles

FINAL DRAFT

Licensed to: Schulze Espen Mr  
Downloaded: 2020-03-24T22:58:06.599  
Single user licence only, copying and networking prohibited

INTERNATIONAL STANDARD

ISO/FDIS 23387

ISO/TC 59/SC 13  
Secretariat: SN  
Voting begins on: 2020-03-31  
Voting terminates on: 2020-05-26

**Building information modelling (BIM) — Data templates for construction objects used in the life cycle of any built asset — Concepts and principles**

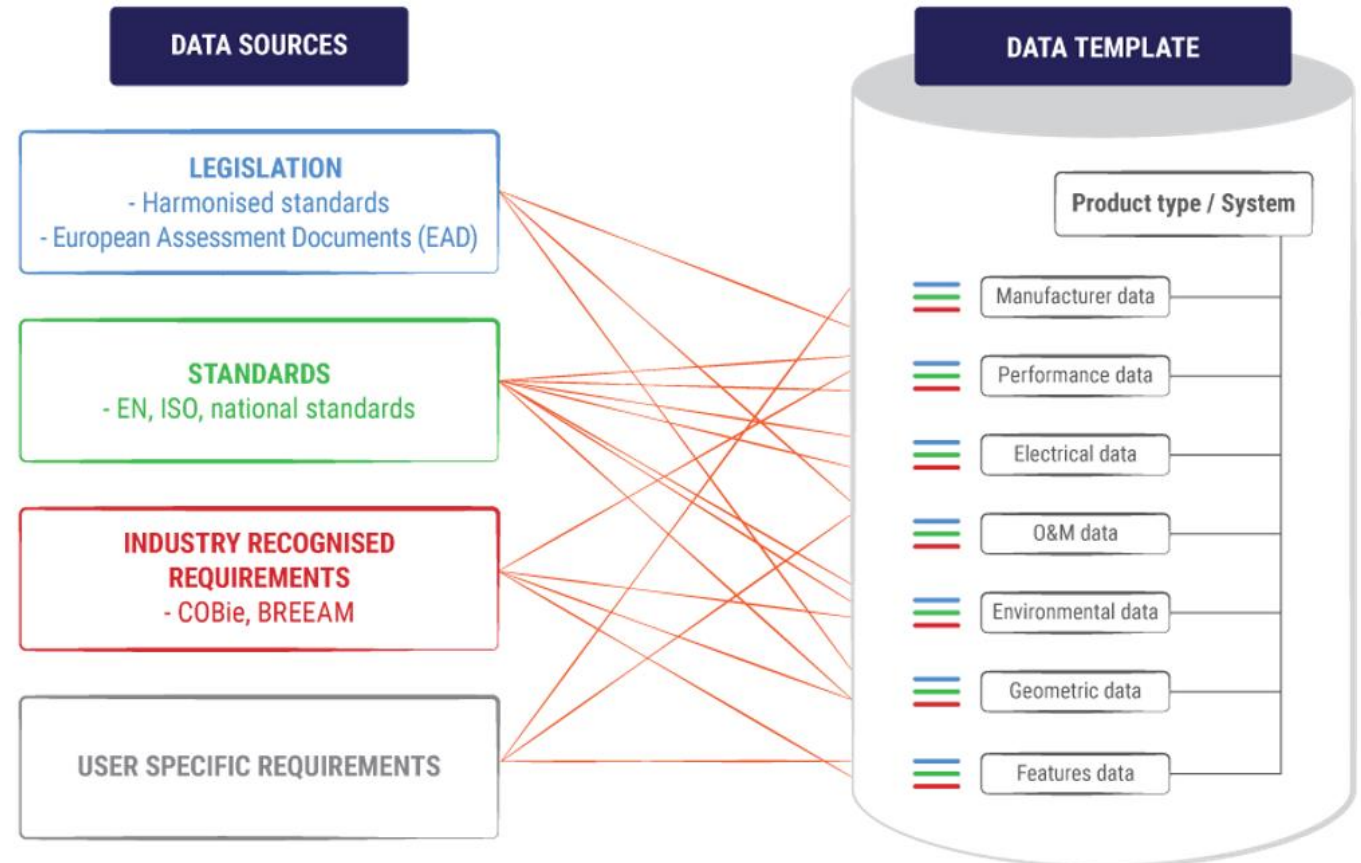
*Modélisation des informations de la construction (BIM) — Modèles de données pour les objets de construction utilisés durant le cycle de vie de tout bien construit — Concepts et principes*

ISO/CEN PARALLEL PROCESSING

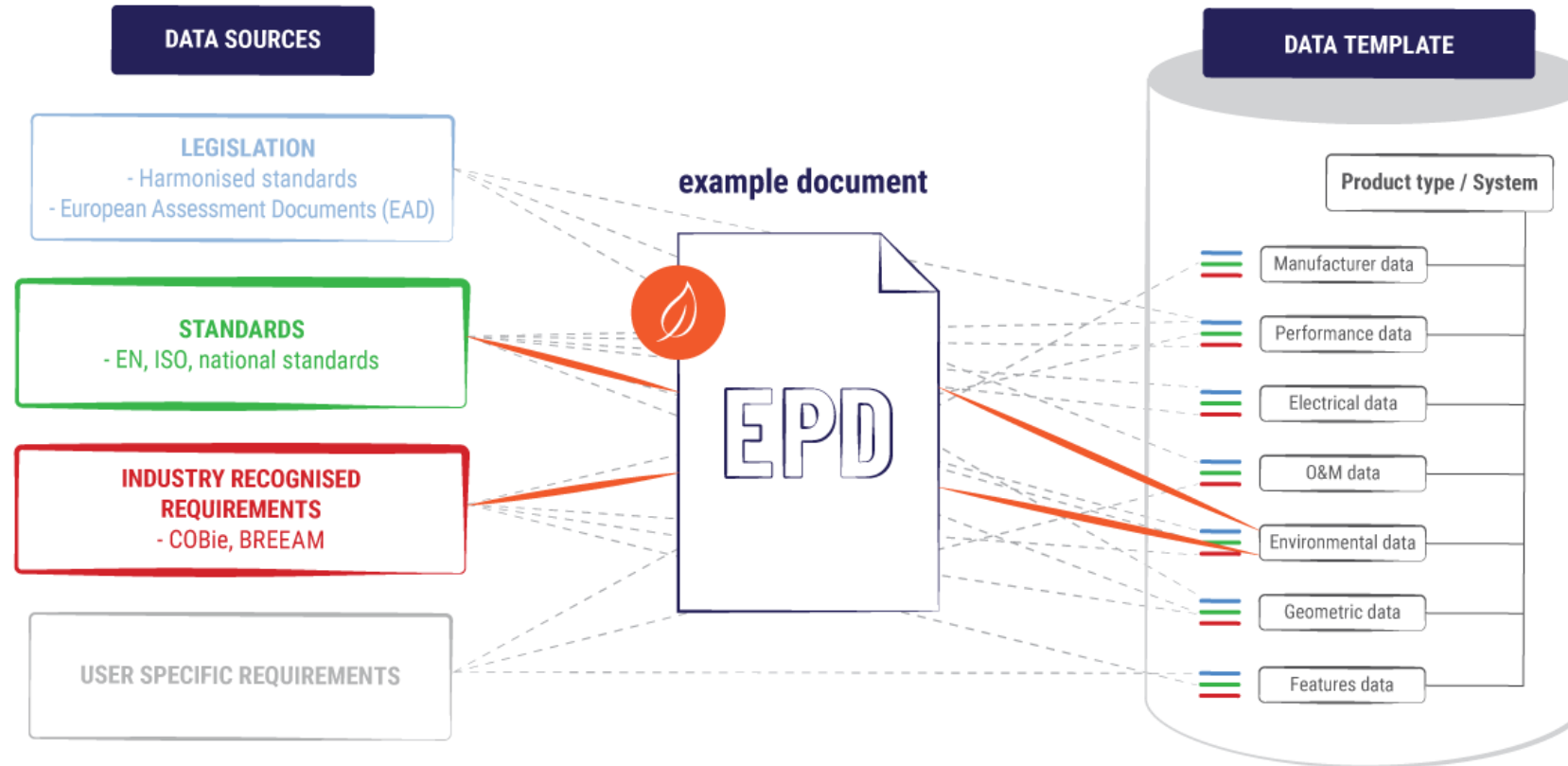
ISO

Reference number  
ISO/FDIS 23387:2020(E)

© ISO 2020

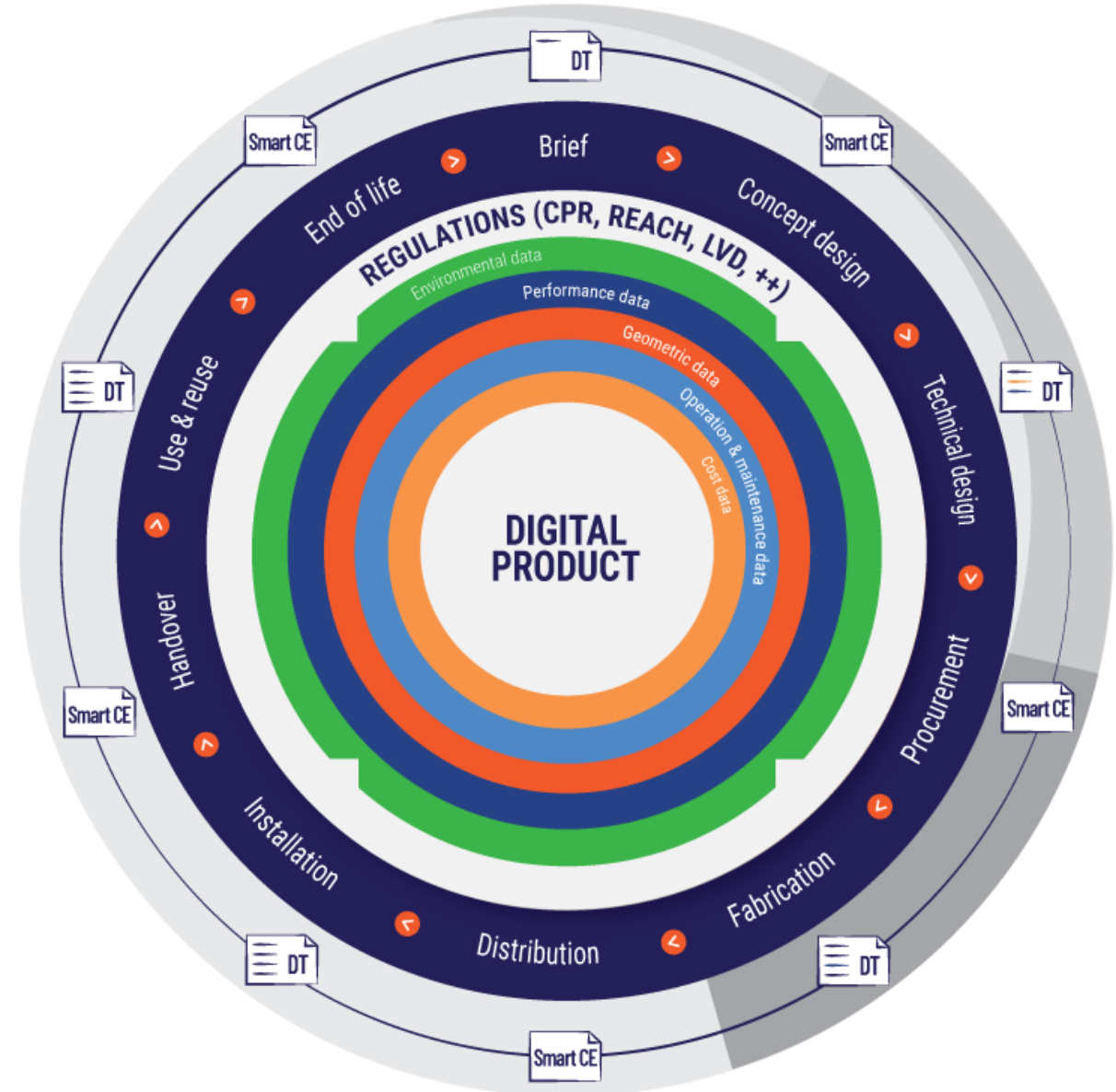
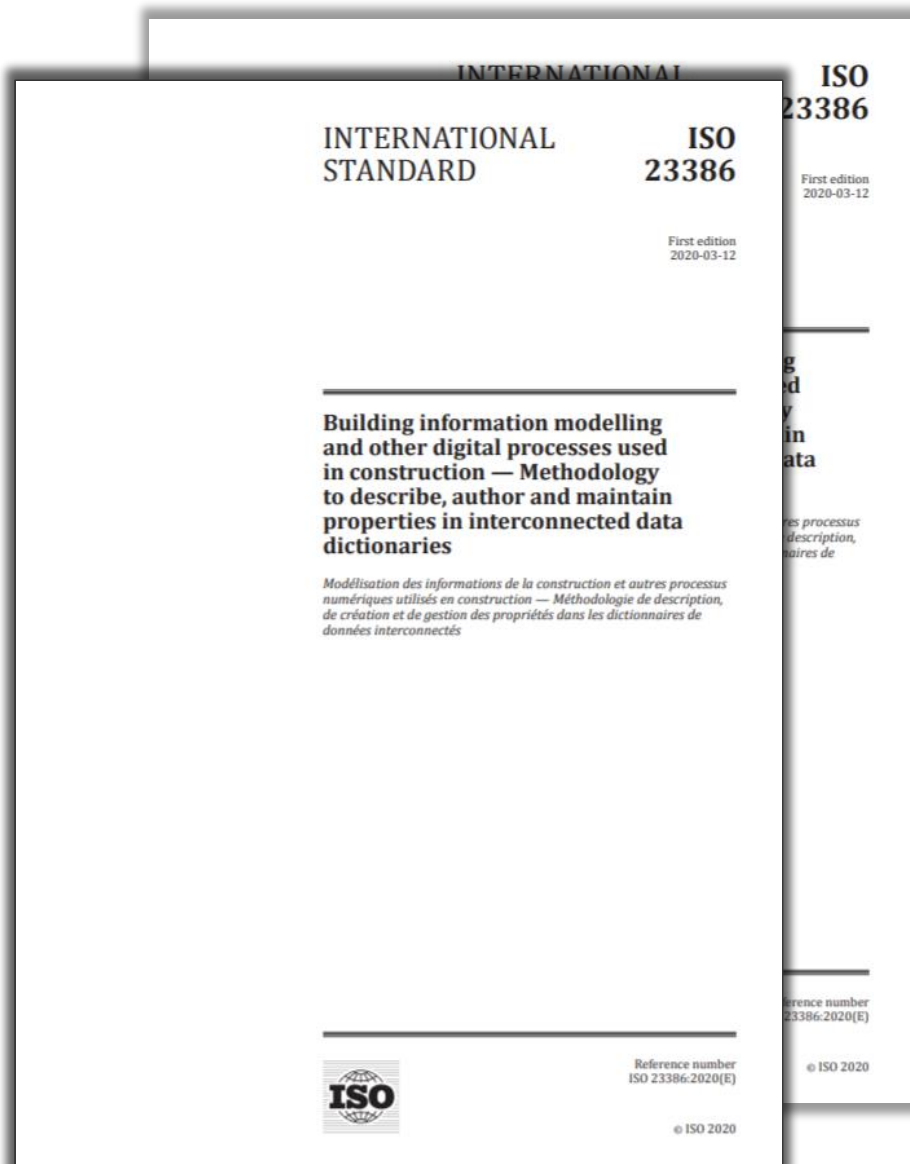


# Data Templates – also a holder of Carbon data (EPD)



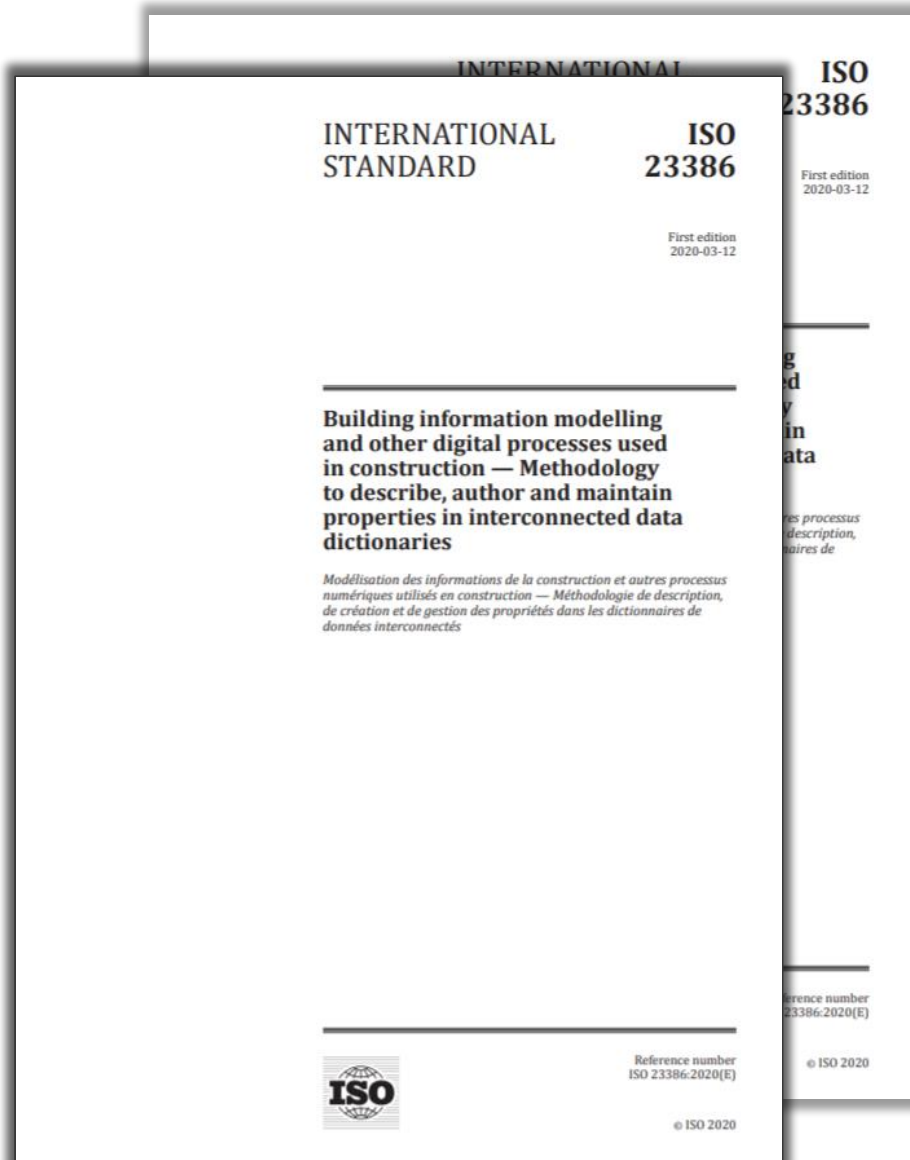
# ISO 23387 & ISO 23387 – Standardisation of Properties and Data Templates guide

## Manufactures how to develop digital products





# ISO 23387 & ISO 23387 – Data Governance for Global, European, National and Manufacturer specific data



# The endgame – data is the new oil !

