



Turning Sustainability Strategy Into Digital Operational Reality

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An Operational Platform to Navigate Complexity





Own
Standards

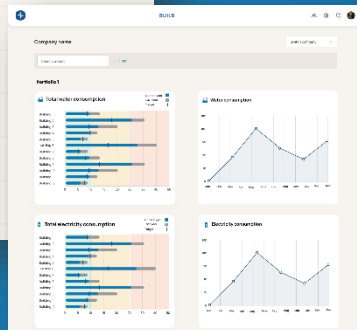
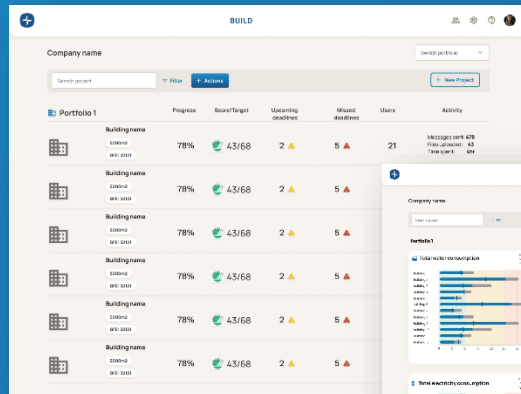


BREEAM®

Asset level
reporting requirements



An Operational Platform to Navigate Complexity



Overview across
building portfolios

- Efficiency
- Collaboration
- Structured Data
- Documentation
- Certification

Overview on all levels

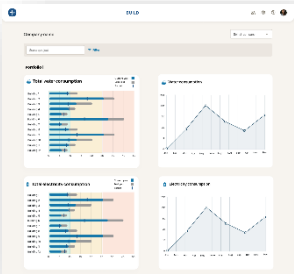
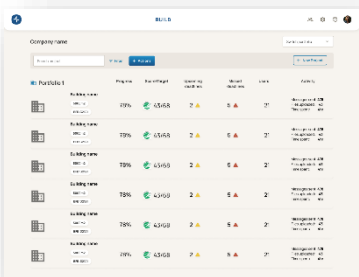
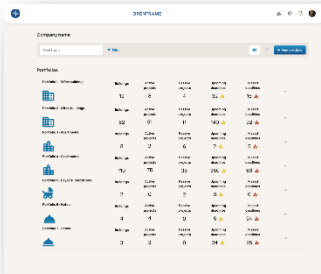


Company

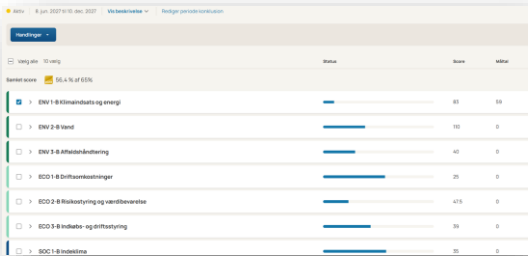
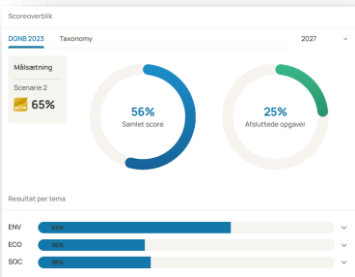
- Knowledge sharing
- Govern your portfolios
- Manage own templates and standards



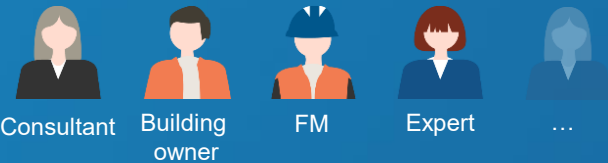
Portfolio



Building



At the building level...

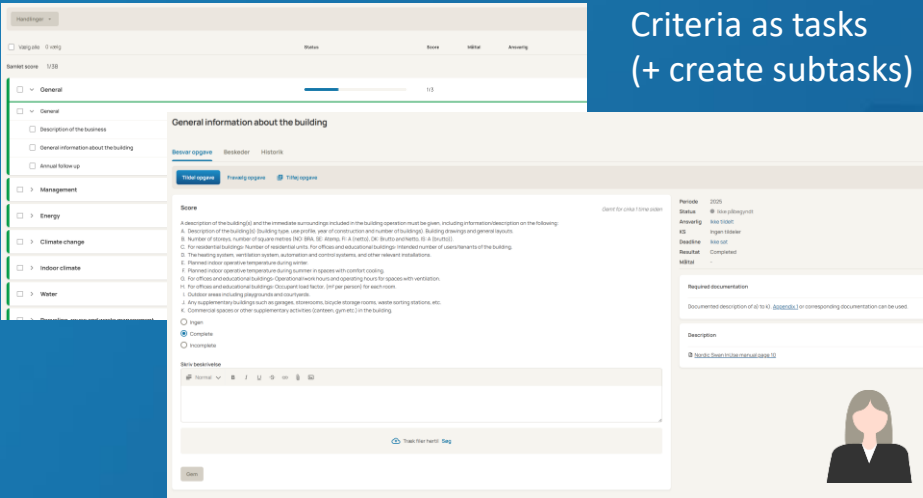


02 General information about the building

A description of the building(s) and the immediate surroundings included in the building operation must be given, containing information/description on the following:

- a) Description of the building(s) building type, use profile, year of construction, situation plan, general layouts and facade drawings).
- b) Number of floors, number of square metres (NO: BRLA, SE: RTA and Atemp, FI: A netto), DK: Brutto and Netto, IS: A brutto).
- c) For residential buildings: Number of residential units. For offices and educational buildings: Intended number of users/tenants of the building.
- d) The heating system, cooling system, ventilation system, automation and control systems, and other relevant installations.
- e) Planned indoor operative temperature during winter.
- f) Planned indoor operative temperature during summer in spaces with comfort cooling.
- g) For offices and educational buildings: Operational/work hours and operating hours for spaces with ventilation.
- h) For offices and educational buildings: Occupant load factor, (m² per person) for each room.
- i) Outdoor areas included in the operation, including playgrounds and courtyards.
- j) Any supplementary buildings such as garages, storerooms, bicycle storage rooms, waste sorting stations, etc.
- k) Commercial spaces or other supplementary activities (cafeteria, gym etc.) in the building.

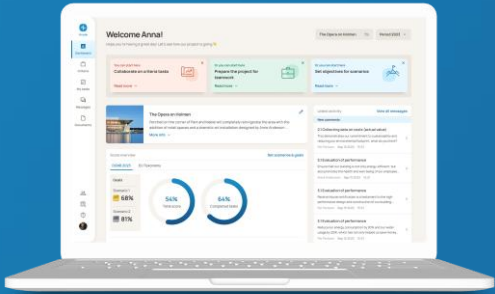
Documented description of a) to k) above. Appendix 1 or corresponding documentation can be used.



Automatic reporting



External manual



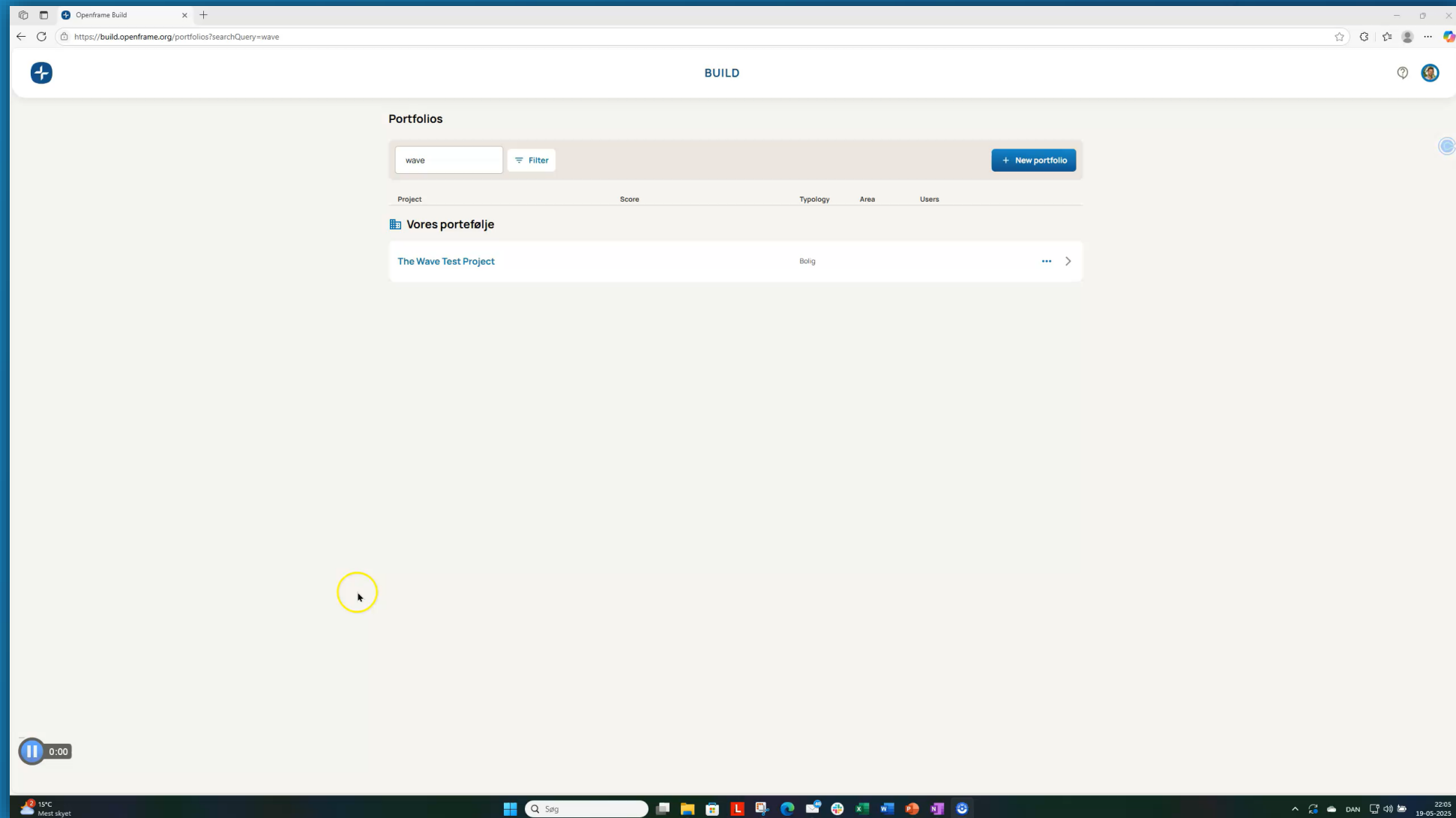
Cloud-based platform

Ongoing updates

Task	Status	Documentation	Period	Priority
Description of the business	Not started	Not started	2022	High
Annual follow-up	Not started	Not started	2022	High
Maintenance plan	Not started	Not started	2022	High
Training of employees	Not started	Not started	2022	High
Information to the users/tenants	Not started	Not started	2022	High
User complaints and fault reports	Not started	Not started	2022	High
Energy action plan	Not started	Not started	2022	High
Energy metering	Not started	Not started	2022	High
Energy efficiency - continuous operation optimization	Not started	Not started	2022	High
Operation and maintenance instructions	Not started	Not started	2022	High
Purchasing of white goods	Not started	Not started	2022	High
Risk analysis climate change	Not started	Not started	2022	High
Adaptation to a changing climate	Not started	Not started	2022	High
Damp, mould and moisture surveys	Not started	Not started	2022	High
Damp, mould and moisture prevention and handling plan	Not started	Not started	2022	High

Individual task lists

Let's take a look at the platform



Our Products

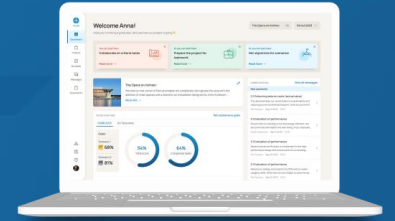


New Buildings and Major
Refurbishments



build™

Existing Building
Portfolios



in use™

Efficient
Management

Easy Changes to
Users and Teams

Ownership of Data

Well-structured
Process

Seamless
Collaboration

Automated
Reporting

Same Process in
Every Project

Transparency

Updated Standards
and Templates

Plan, Delegate,
Execute!

Huge time savings

Reduced complexity

Structured data



Openframe is for the industry



Selects criteria and standards –
and sets goals



Designs the end result
Runs the process and reports



Realizes the project
Documents process and results





Operationalizing sustainability

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INERTWASTE

May 2025



Demonstration project

Period 18 mth

Apr 24 - Sep 25



Miljøministeriet
MUDP

OpenCirc

Partners



DTU



open
frame[®]



Your
Fair
Share

OpenCirc

Supporters



TRIBIA
PART OF ADDNODE GROUP

SYMETRI
PART OF ADDNODE GROUP

Henning
Larsen —

RÅDET
FOR
BÆREDYGTIGT
BYGGERI

MOLIO
— viden, du bygger på

circue

KAB

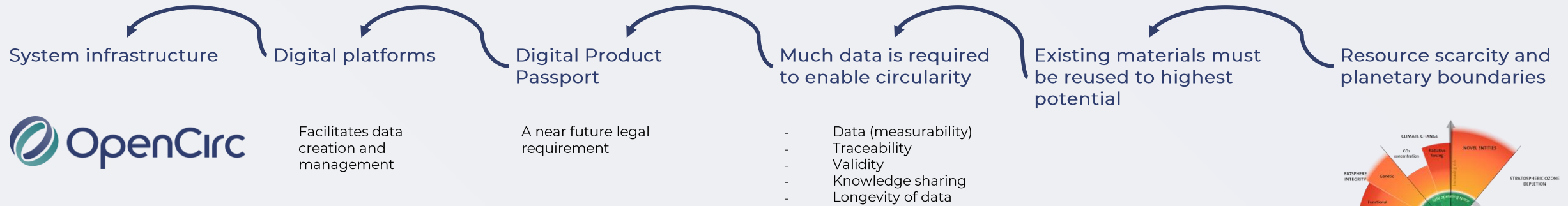
CON
TECH
LAB_

 **SundaHus**
iBinder Group



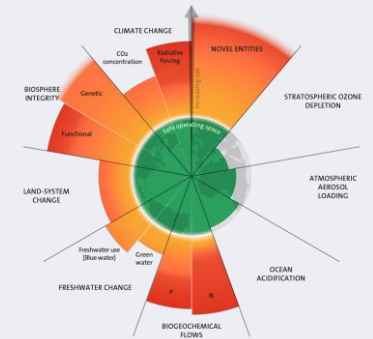
Region
Hovedstaden

The Why



Promises

- Open Source access for anyone to use
- Ensuring consistency across passports
- Maximizing persistence via technical design
- Maximizing data exchange capabilities



The challenge

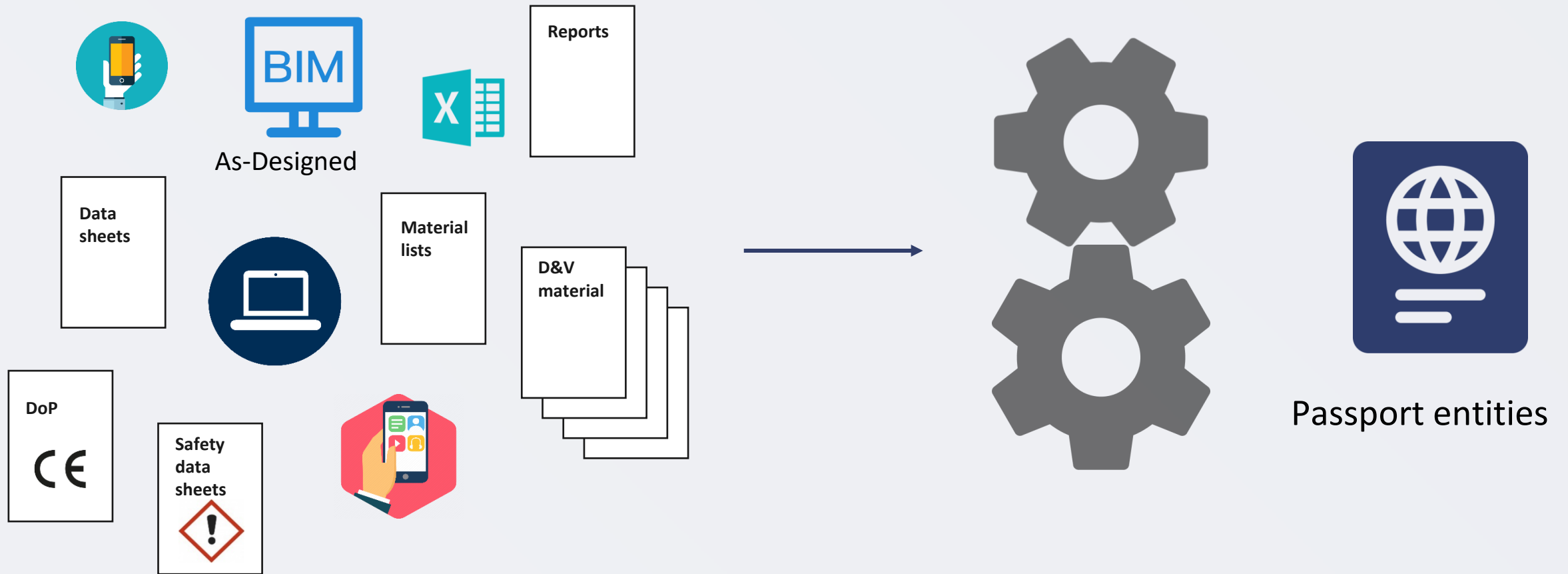
Let's reiterate





The mission

Let's reiterate





Where we're going

**An Open Source, persistent, and decentralized Digital Passport
infrastructure for construction data**

Handling passports

Data between actors



Actor 1

Actor 2

Actor 3

Version 1

- Handheld



Version 2

- Exchange formats



Version 3

- Common data model

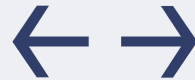


A Digital Twin



Digital Product Passport

Correspondence



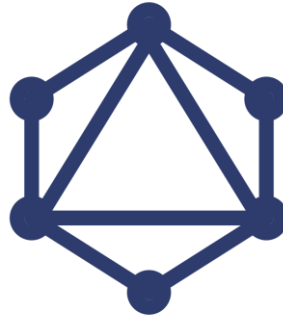
Physical construction
materials

Lifetime > 50 years
(fingers crossed)

Elements



Data Dictionaries



Server deployment
software



Passport entities



Digital platforms & Service
providers

A recursive passport

Parent → Child: 1-to-many

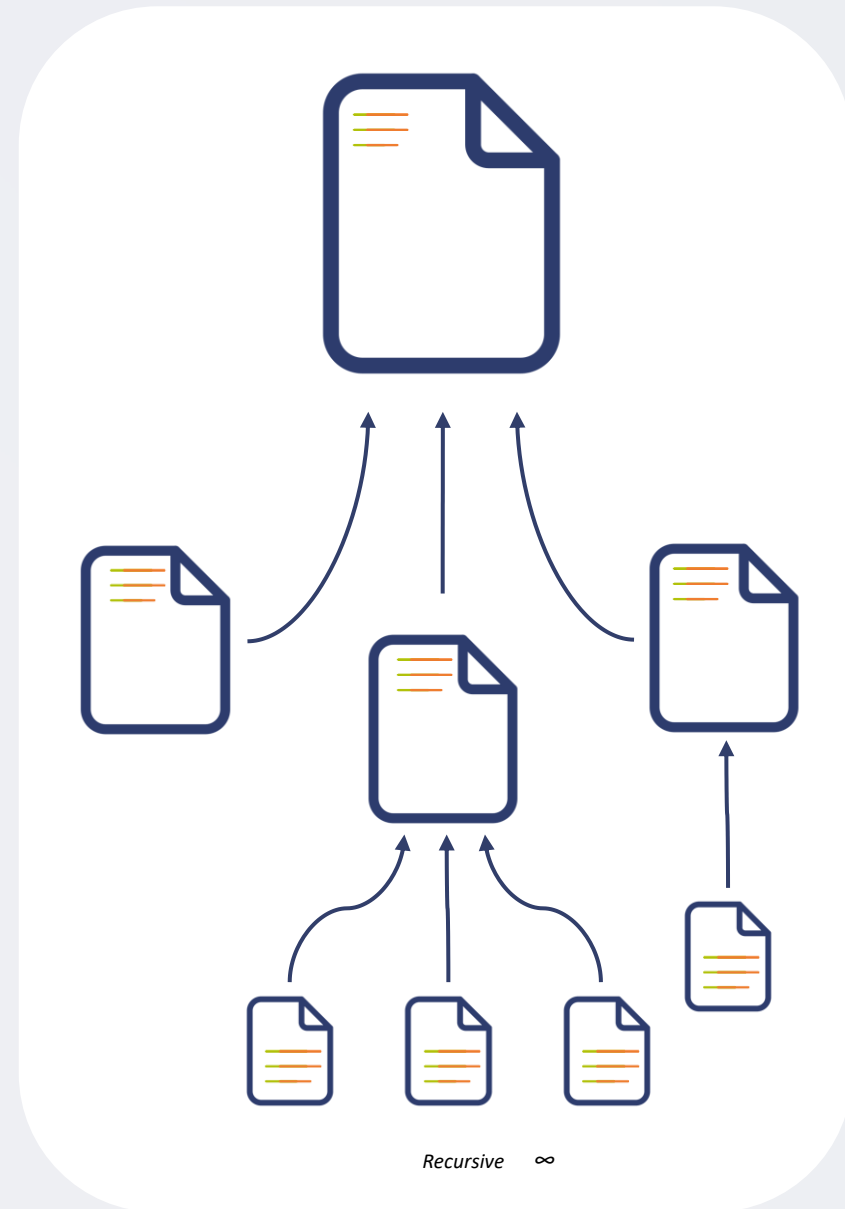
- Parent contain no child ID's
- Add children ad nauseam

Child → Parent: 1-to-1

- Children contain a single parent ID or nothing
- Changes of parent ID is associated with lifecycle events

LifeCycle events

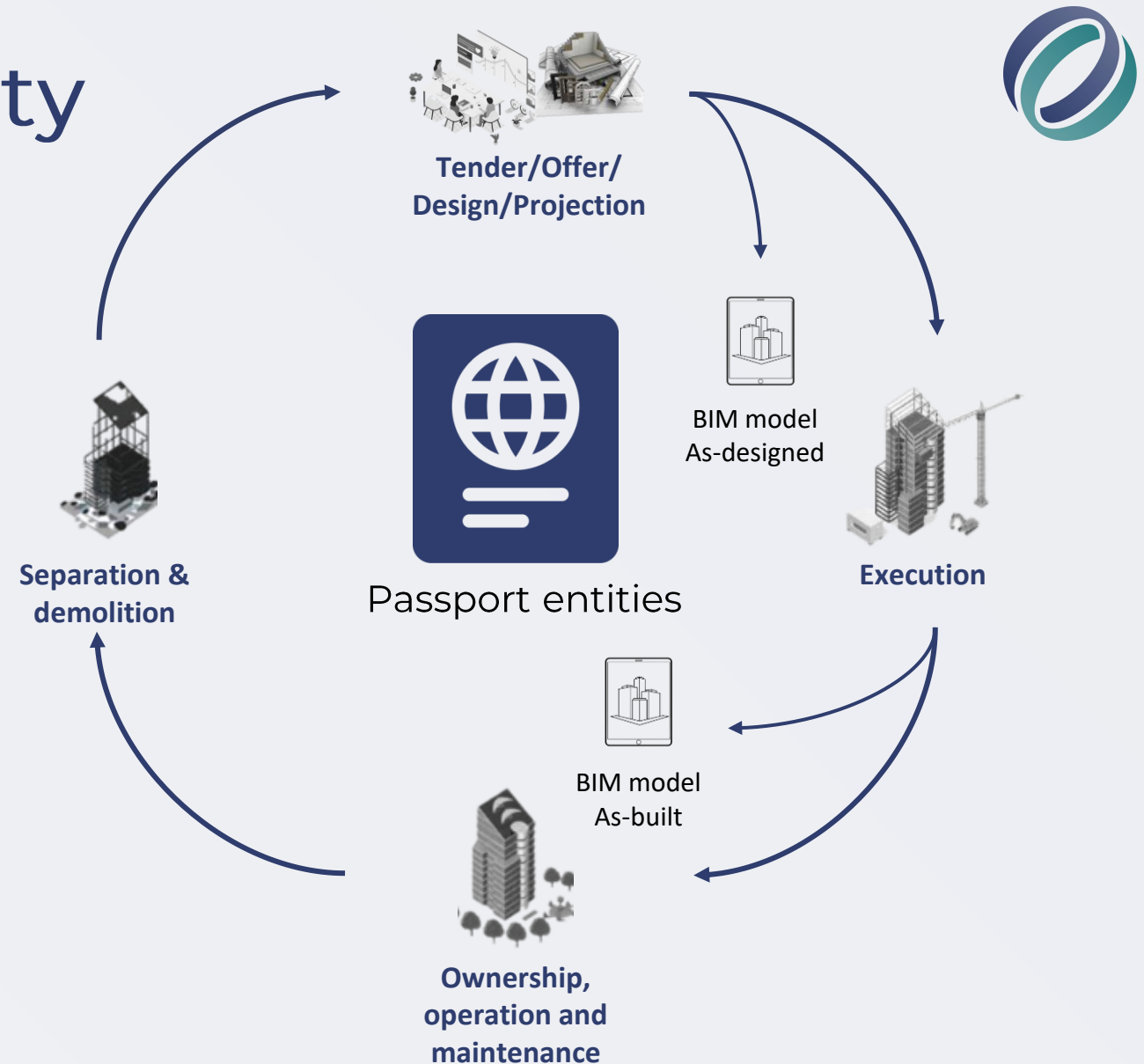
- Creation events
- Change in Passport Entity ID associations
- States: ...?



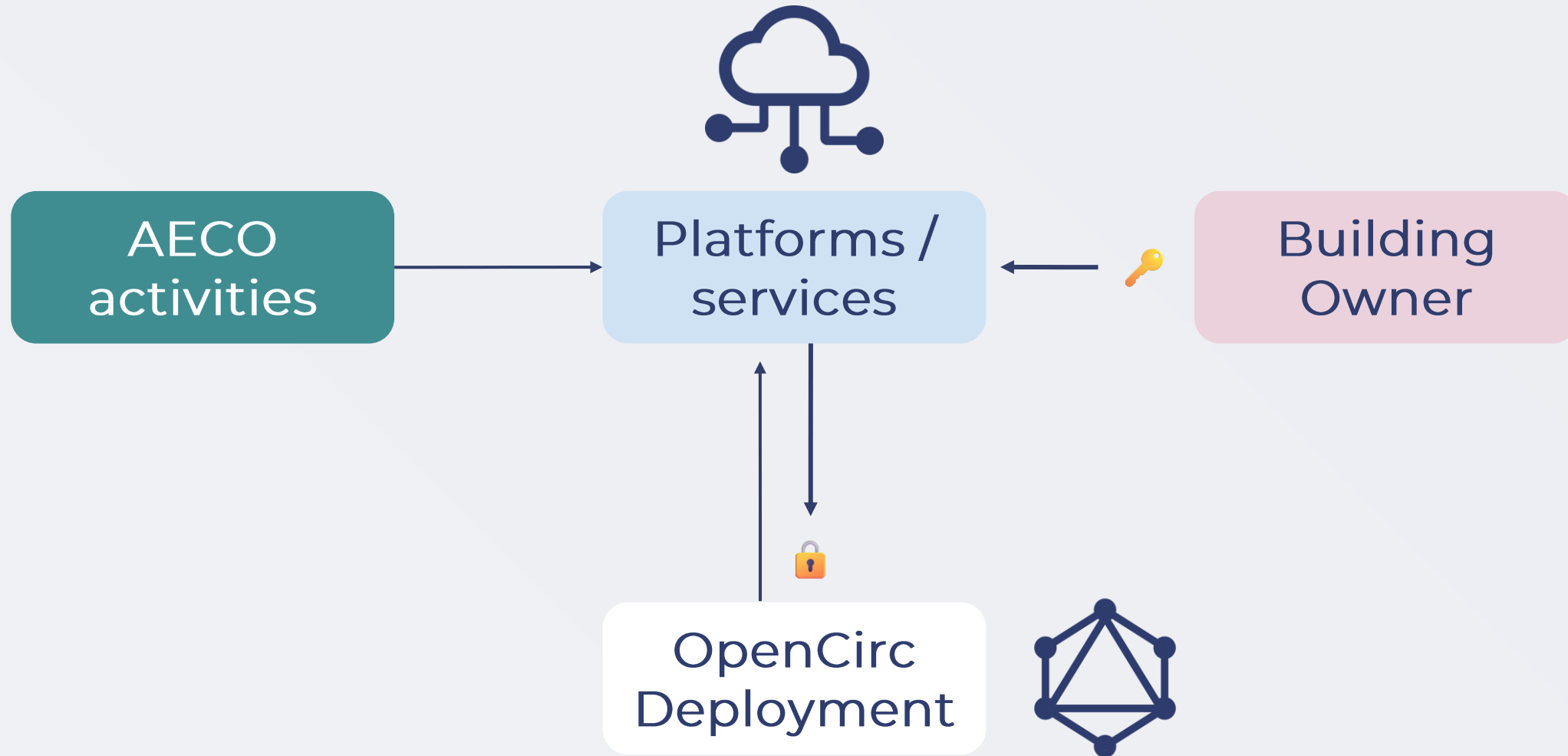
To facilitate circularity

Dataflow aims

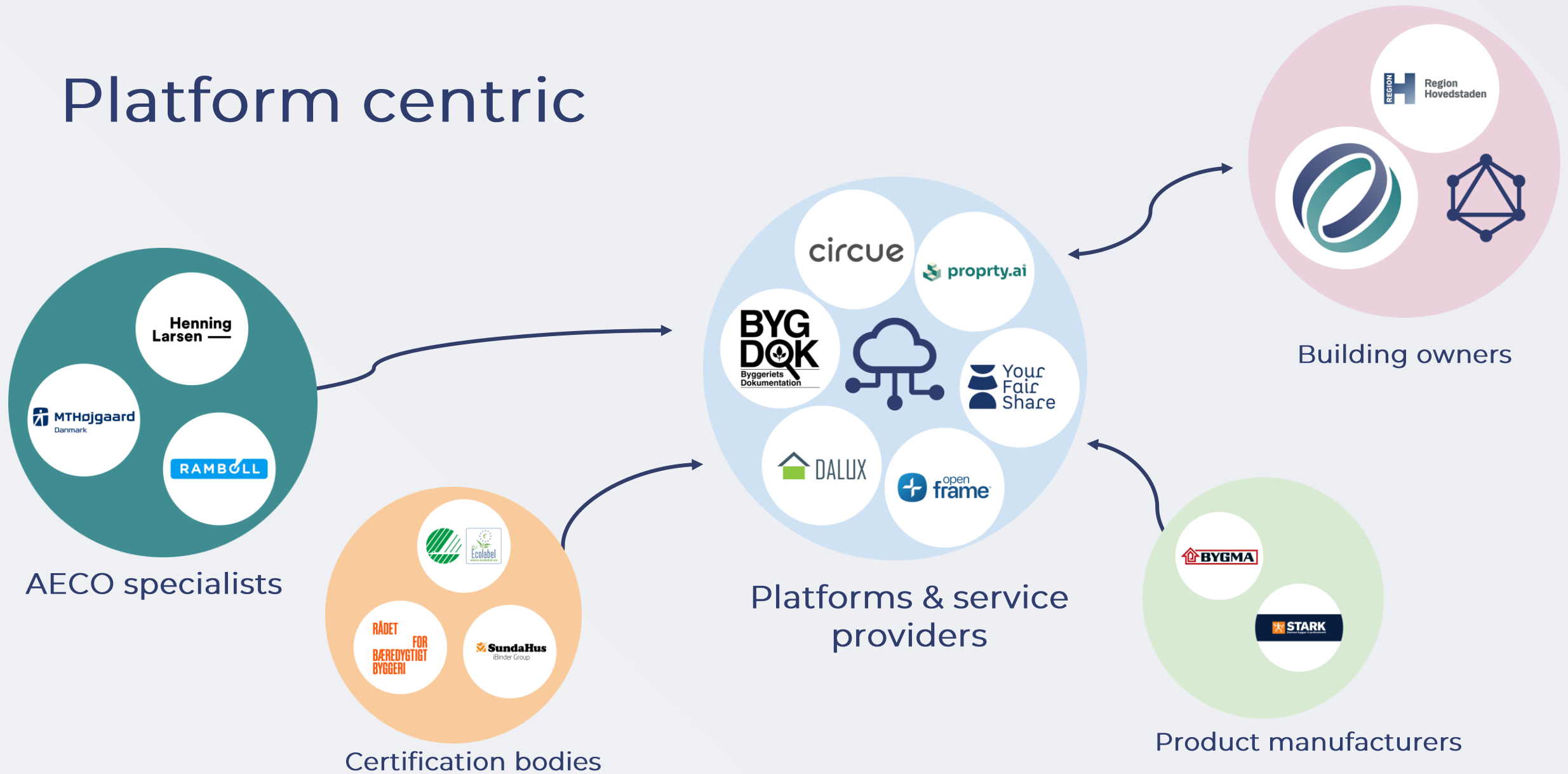
- Design phases (IDS & BIM Integration)
- As-Built BIM (Actual Products)
- Operations
- Resource Mapping / screening
- Ownership changes



Server deployments








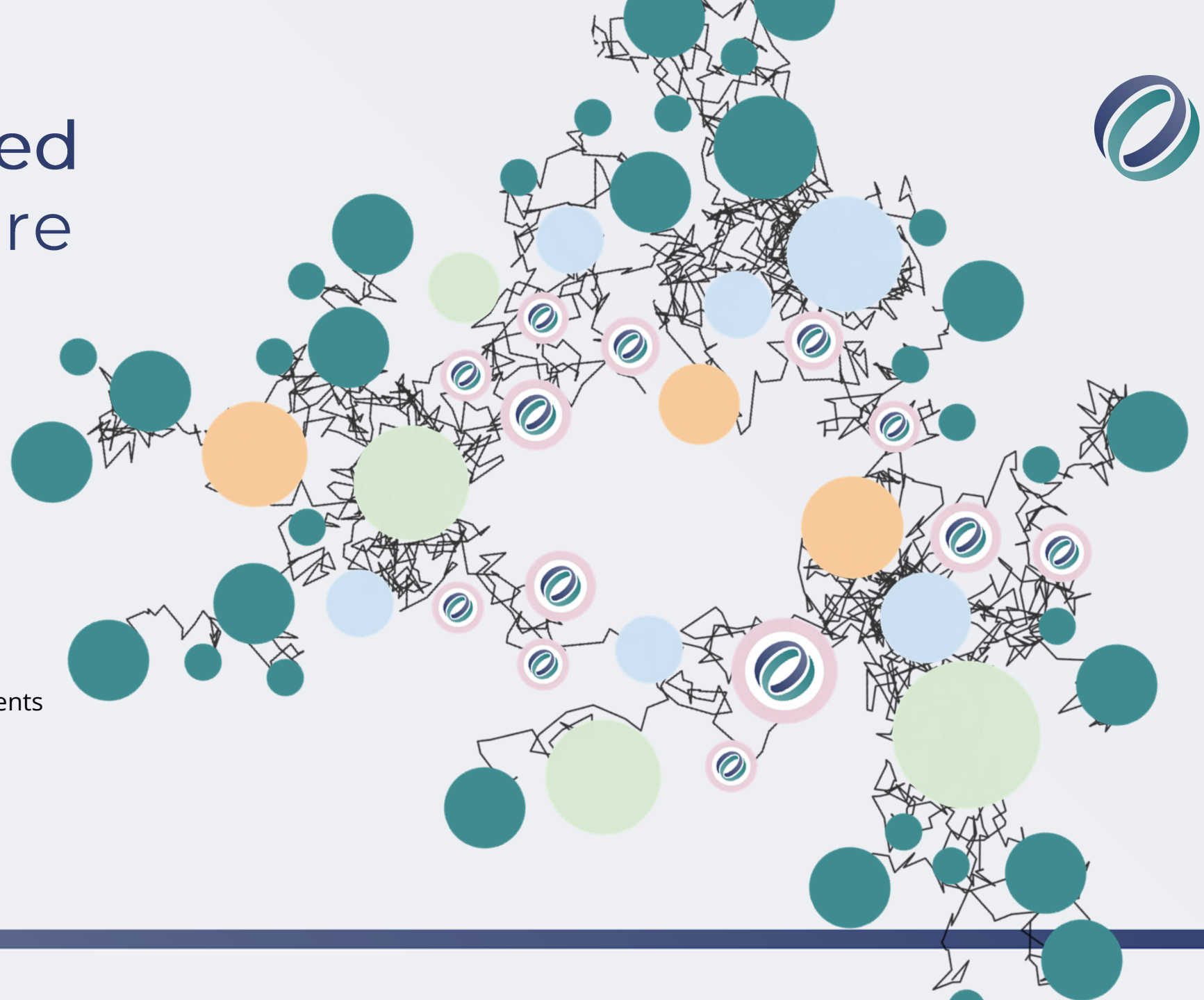
Platform centric



Decentralized infrastructure



-  AECO specialists
-  Building owners & OC deployments
-  Platforms & service providers
-  Product manufacturers
-  Certification bodies



OpenCirc

Maturity

Current activities

- Passport creation e2e tests
- Admin tool frontend implementation
- Data dictionary creation (DTU)
- Data dictionary & template testing & validation

3
UI / UX
&
Data
exchange

2
Backend

1
Data model



MOLIO
viden, du bygger på

cobuilder

 **bSDD**



Thanks!



Updates: opencirc.org

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