



## Operational Digital Platforms: Lessons from BEGONIA on Cross-Border Coordination, Interoperability, and Governance

OpenTwin International Ideathon  
Online

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# BEGONIA - Digital Solutions for Energy and Transport



Consortium of  
**7** leading **organisations**  
from **5** countries

-  DTU University
-  CEMOSA
-  olivoENERGY
-  Wings ICT Solutions
-  BluePrint Energy Solutions
-  Center Denmark
-  Open & Agile Smart Cities (OASC)

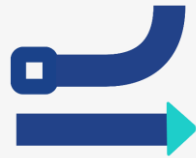




# BEGONIA in a Nutshell – Goals & Impact



Identify and shortlist  
**Operational Digital  
Platform use cases** in  
the energy and  
transport sectors



Conduct **feasibility  
studies** for the shortlisted  
cases to demonstrate the  
benefits



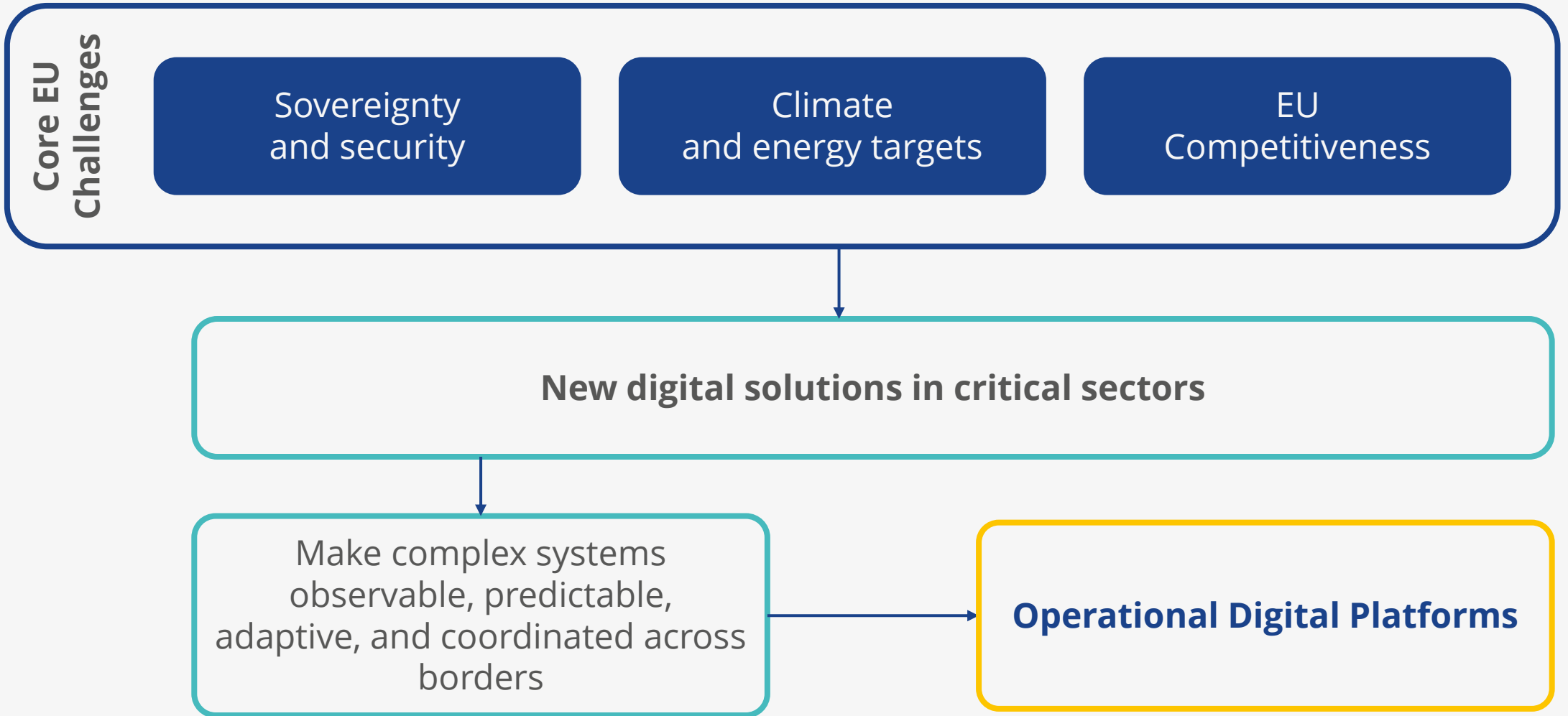
**Prepare** the Operational  
Digital Platforms **for  
deployment**



**Offer feedback to the  
Commission** on the Use  
Cases and the ODP  
concept



# Why coordination matters and the role of ODPs





## The ODP Concept – What is an ODP?

### ODP

A purpose-built digital infrastructure that:

Combines physical and virtual ICT resources

Supports the coordinated operation of critical systems, especially in energy and transport, possibly cross-border

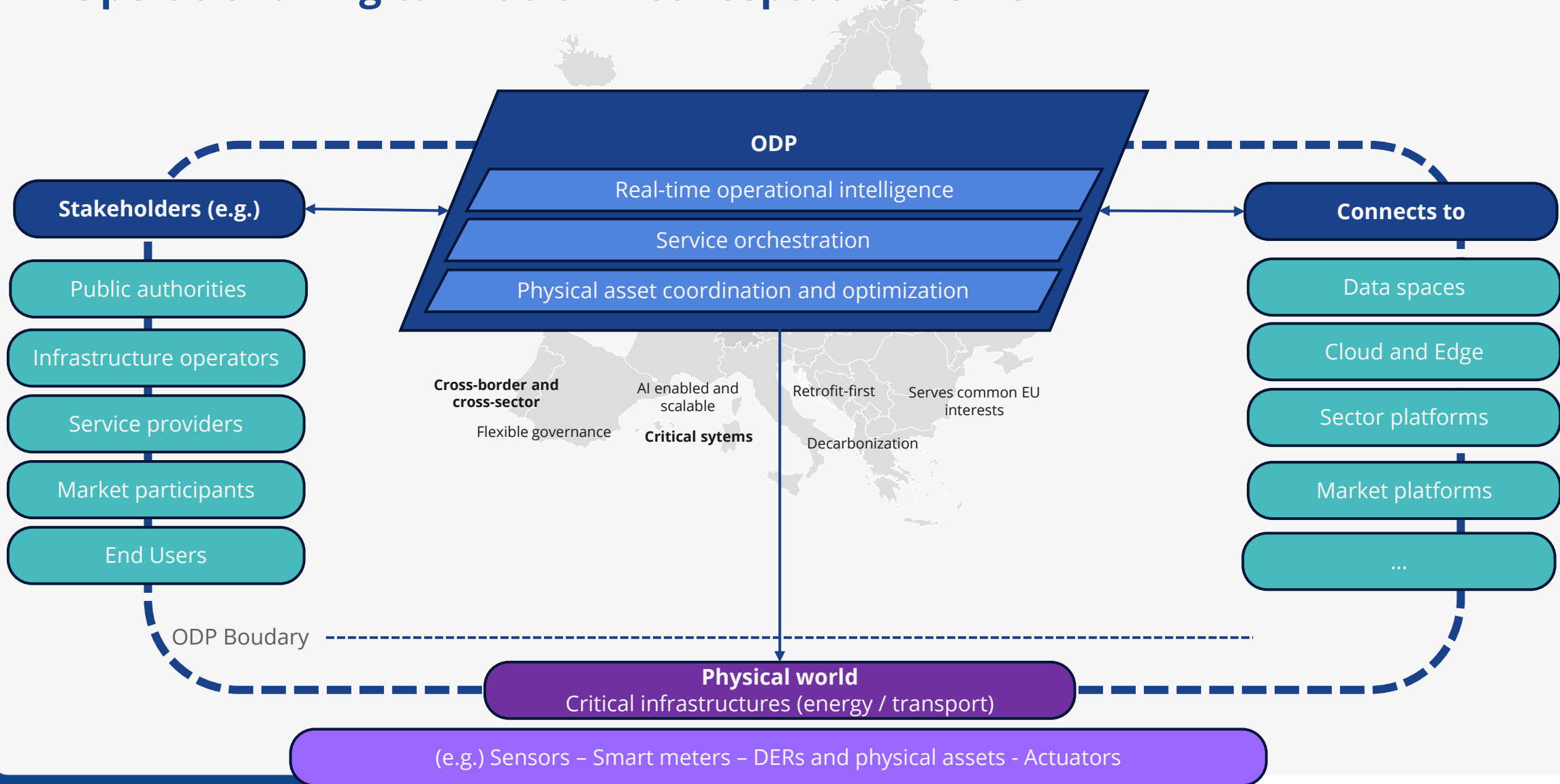
Supports EU climate, digitalisation, and sovereignty objectives

Enables secure, interoperable data flows, real-time operational intelligence, service orchestration, and coordinated decision-making

Interoperates with existing European digital ecosystems



# Operational Digital Platform conceptual scheme

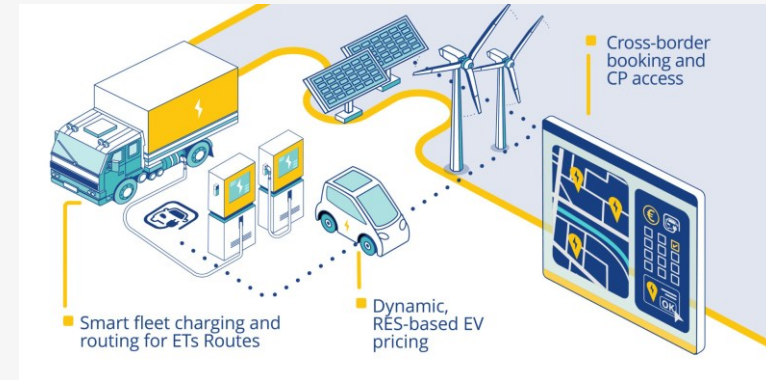




# Three final Use Cases, three coordination scenarios



**UC I: ELECTRICITY CUSTOMER CENTRIC ODP**



**UC II: AI-DRIVEN ODP FOR INTEGRATION OF EVS, ETS, RES AND GRID**



**UC III: DIGITALIZATION OF DATA CENTERS**

**Final three Use Cases studied,  
developed and now Piloted**



# What barriers did we encounter?

## Challenges of solutions operating across multiple countries

### Regulatory challenges

While aligned with EU objectives, deployment encounters different national market rules

### Cross-sector challenges

Different sectors operate under different legal and governance frameworks

### Interoperability issues

Different data models, standards, maturity levels, ....

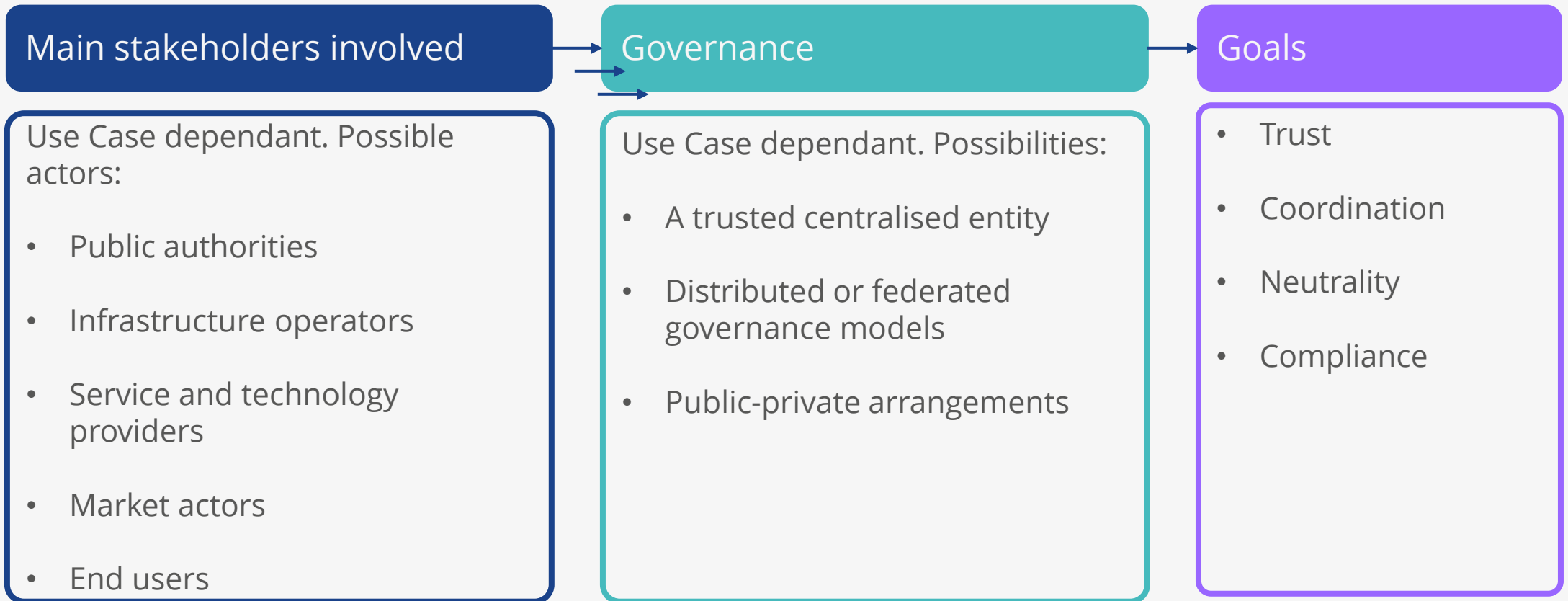
### Governance and accountability

Complex definitions especially when interacting with critical systems and physical infrastructures



# Stakeholders and Governance: a design challenge, not an afterthought

## A multi-stakeholder platform with flexible governance





# Lessons learned from BEGONIA and the ODP Concept

What have we learned and What comes next (on a positive note)

**ODPs are feasible and operationally relevant**

**Design for integration, not ownership**

**Design for evolution, not permanence**

**Governance must follow the use case**

**The foundations exist — the challenge is deployment**



**Begonia**

**Thank you!**