

Interreg Sudoe

 **TR@NSnet**

European Regional Development Fund

Report
March 10th, 2022

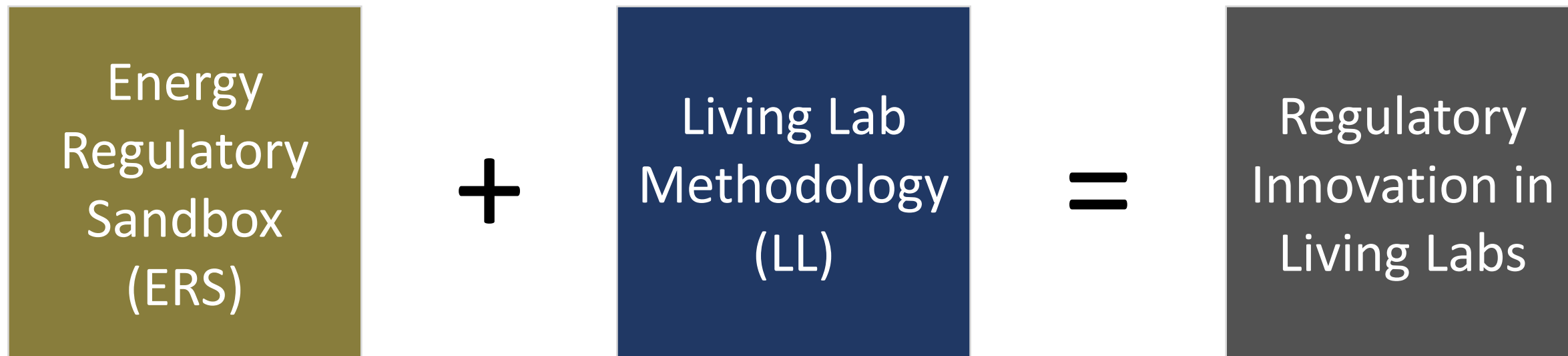


INDEX

1. Objective of the Tr@nsnet and of the *Report*
2. Context of Energy Transition and Regulatory Sandboxes (ERS)
3. Situation in the SUDOE region
4. Recommendations for designing and implementing ERS

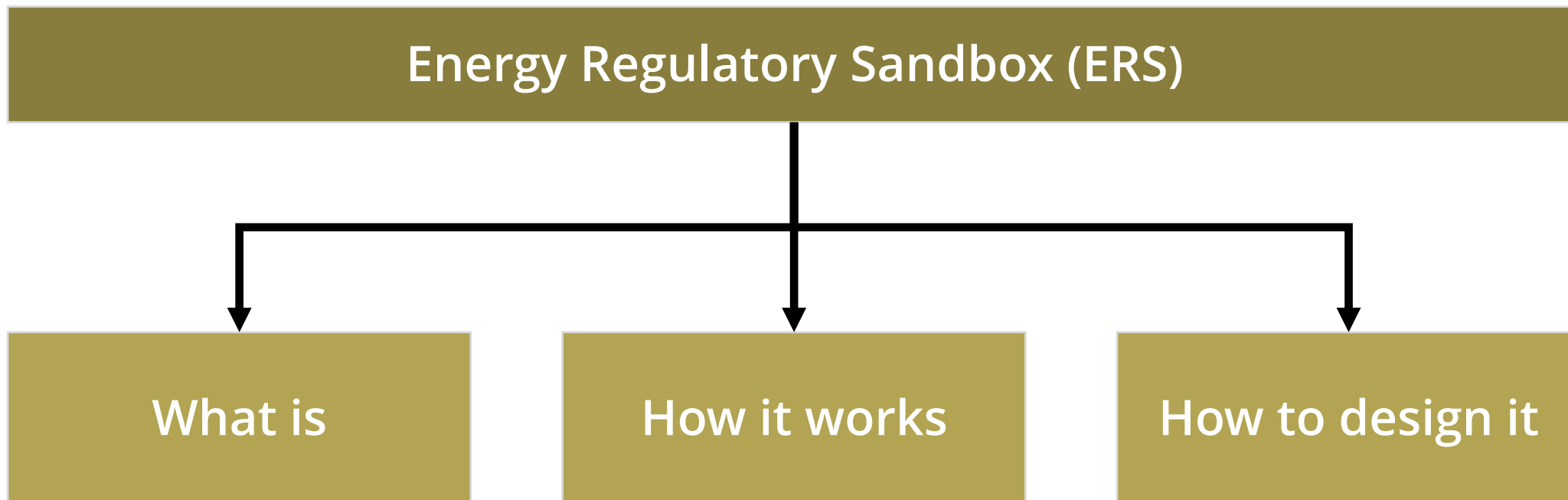
WHAT IS THE OBJECTIVE OF TR@NSNET?

To integrate the study of regulatory innovation into the innovation assessment methodology of Living Labs



WHAT IS THE OBJECTIVE OF THIS *REPORT*?

Energy Transition



ENERGY TRANSITION CHALLENGES

Increasing renewable energy and energy efficiency

Sector coupling

Flexibility services

Integration of energy storage

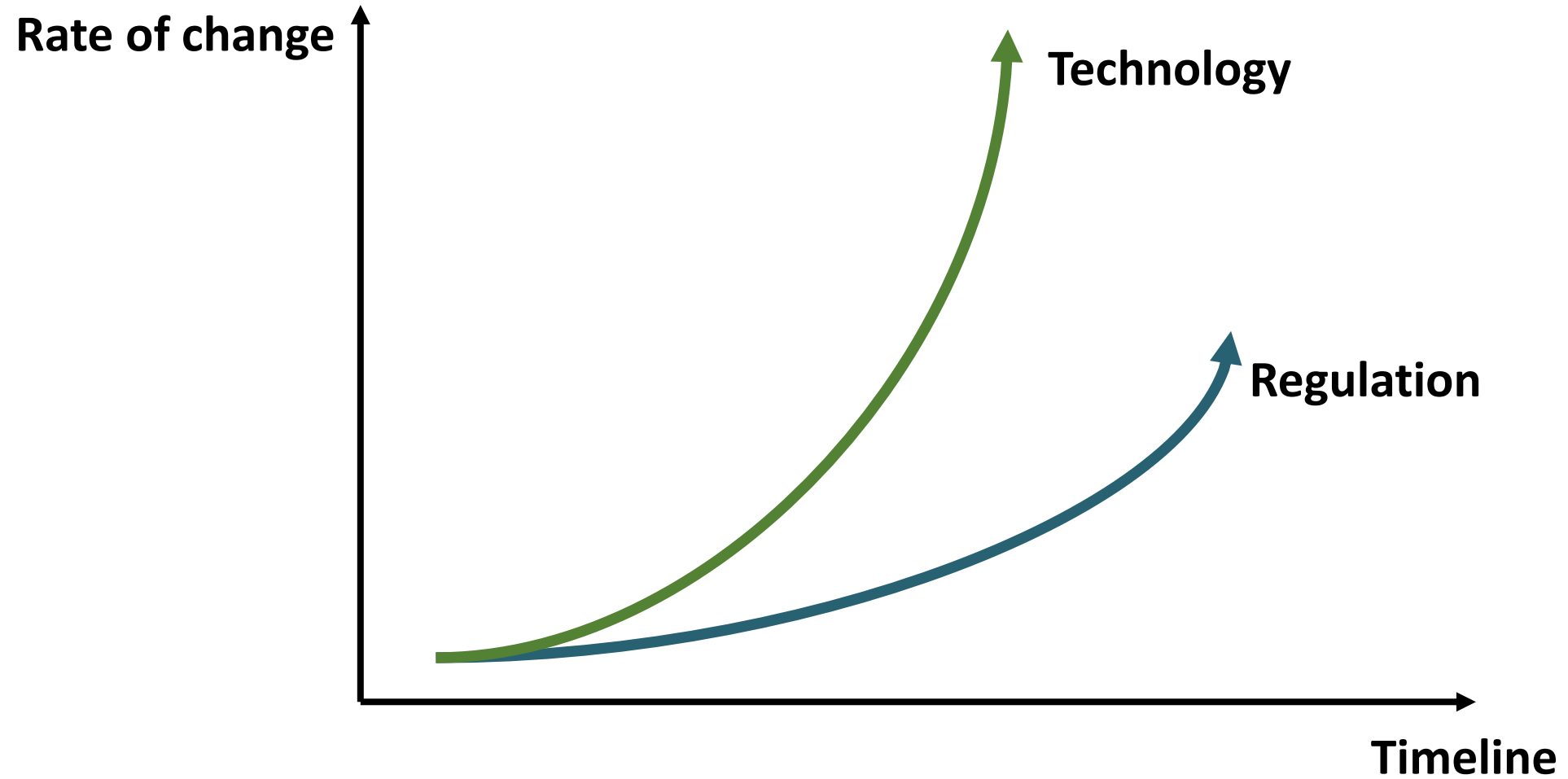
Reduction environmental impacts

Energy communities

Consumer empowerment

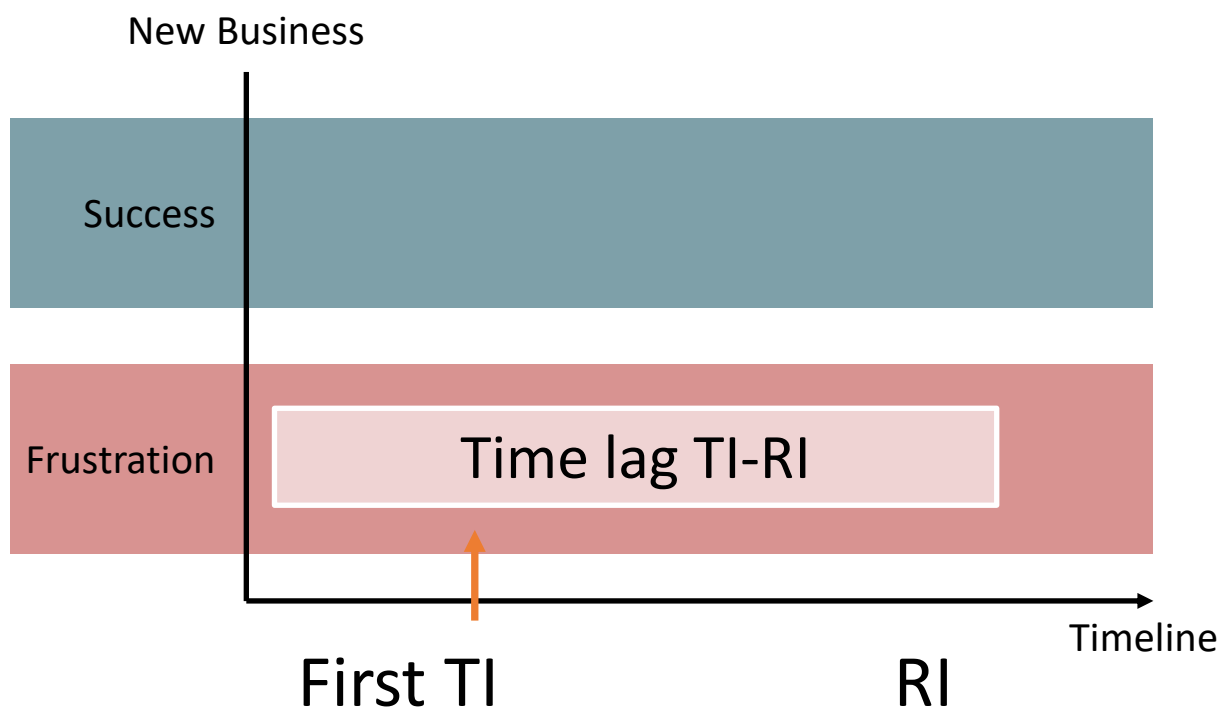
Protection of consumer interests

TECHNOLOGY AND REGULATION: DIFFERENT RATES OF CHANGE

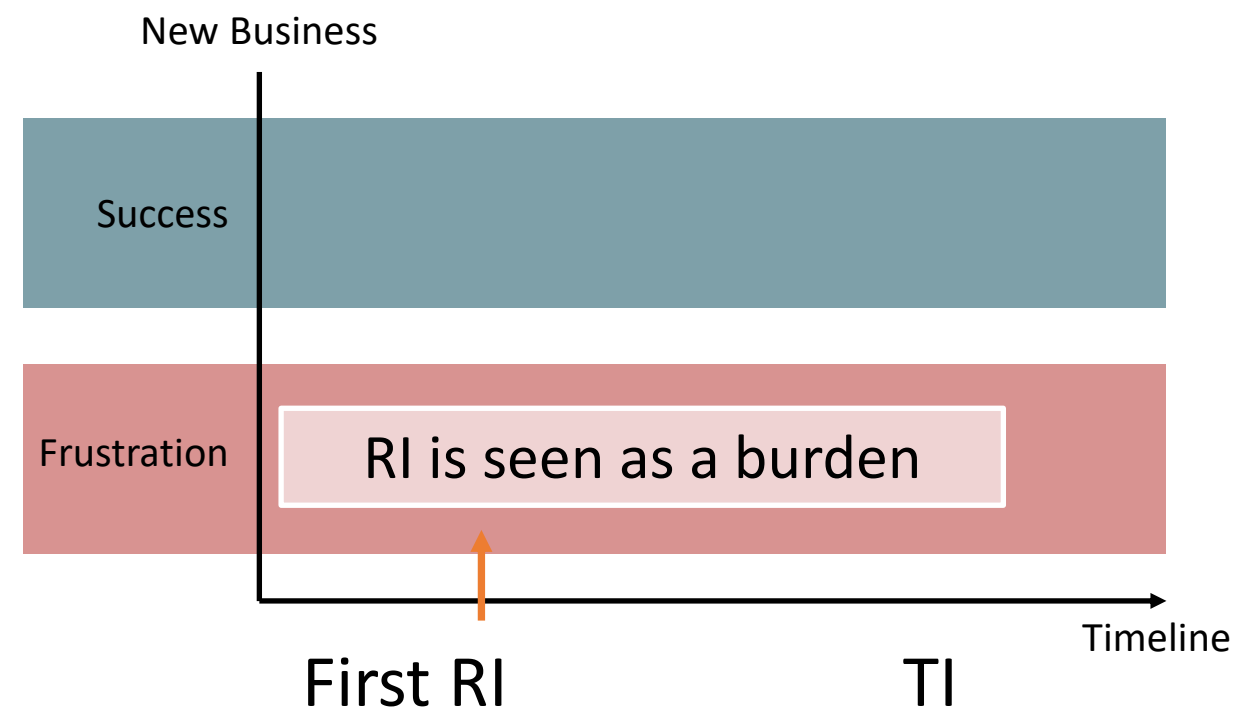


TECHNOLOGICAL INNOVATION (TI) VS REGULATORY INNOVATION (RI)

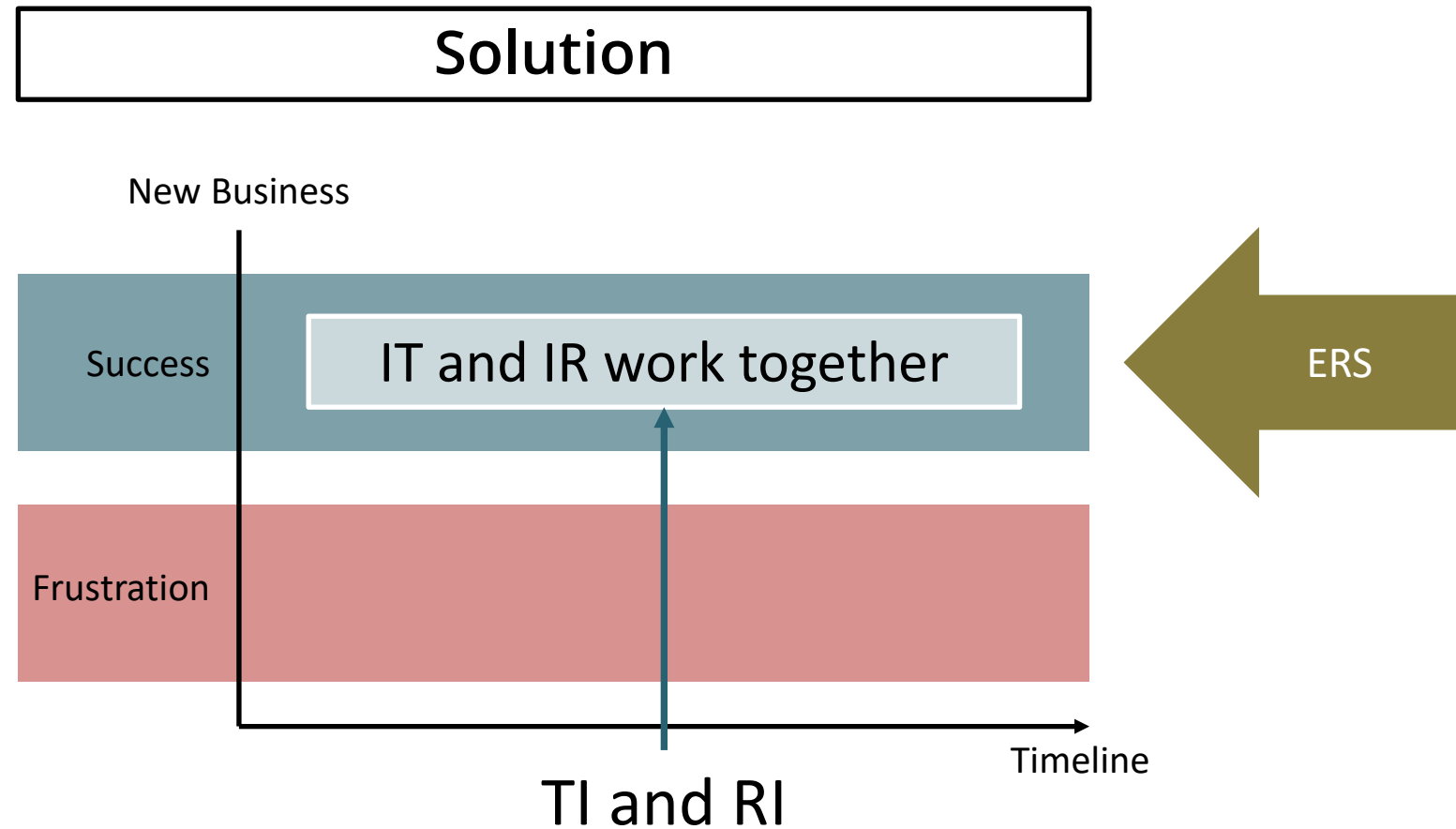
Problem: Case 1



Problem: Case 2



TECHNOLOGICAL INNOVATION (TI) VS REGULATORY INNOVATION (RI)



ENERGY REGULATORY SANDBOXES

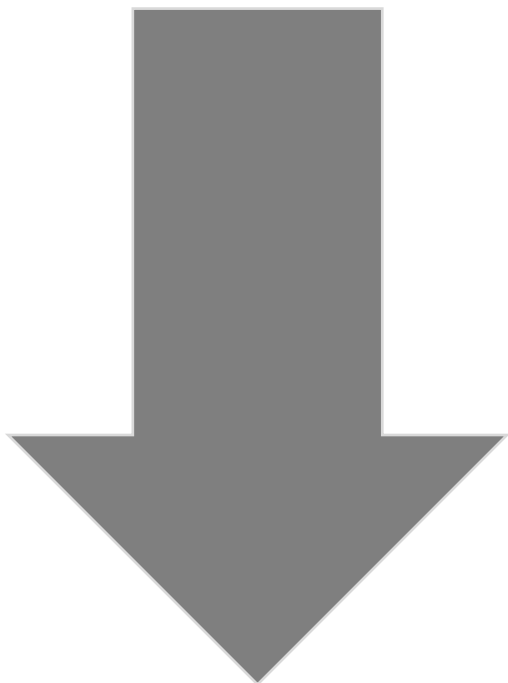
ERS are instruments to support innovation aimed at decarbonising the economy, and helping consumers to access new products and services and protecting their interests.

- **New products**
- **Energy communities**
- **New services: peer-to-peer energy sharing and flexibility**
- **Technological platforms (Blockchain)**
- **New tariff models based on dynamic prices**
- **Business models in new areas**
- **...**

TEST ENVIRONMENTS vs ERS

Top-down: No regulatory innovation

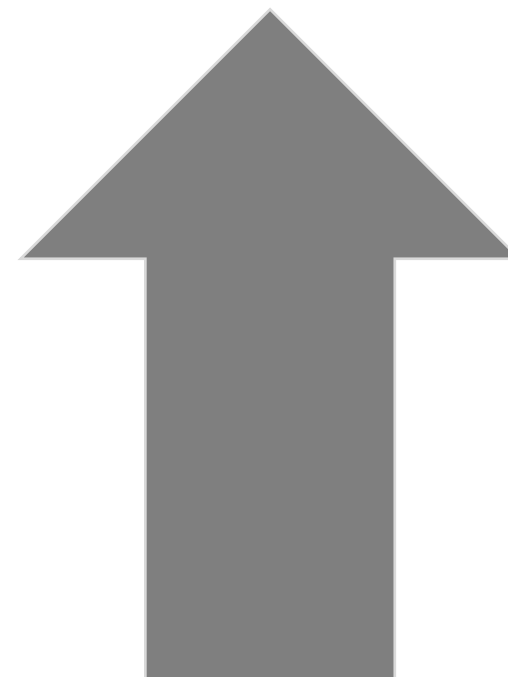
Regulatory Framework



Test environments

Bottom-up: Towards regulatory innovation

Regulatory Framework



ERS

TEST ENVIRONMENTS vs ERS

Top-down: No regulatory innovation

Regulatory Framework

- Limited regulator participation
- Interaction between technological actors
- Validates the technology
- Business model still under design
- TRL 4-6

Test environments

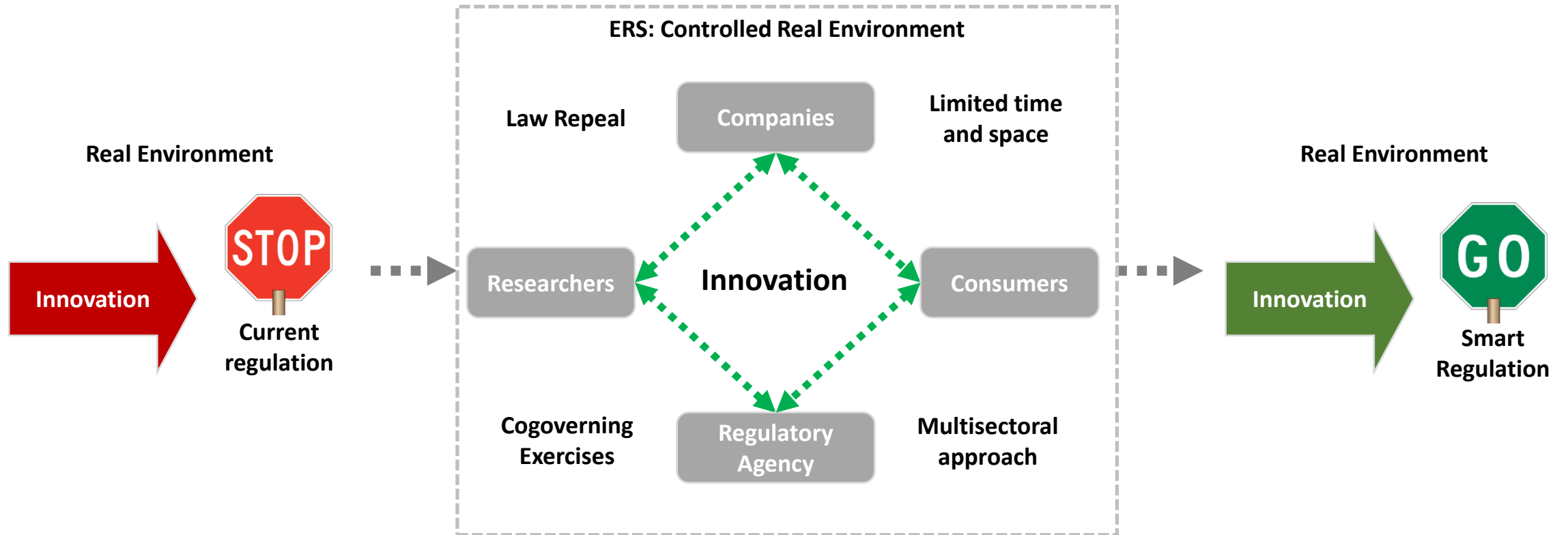
Bottom-up: Towards regulatory innovation

Regulatory Framework

- High level of regulator participation
- Holistic interaction between actors
- Validates the business model
- Designed business model
- TRL 7-9

ERS

HOW AN ERS WORKS?



BENEFITS OF ERS

Innovation is accelerating

Technological Innovation

Social Innovation

Open Innovation

Smart Regulation

Decarbonisation

Direct communication between stakeholders

Specific benefits for each region/country

Benefits for innovators

Test innovation with real consumers

Risk mitigation

Increases access to capital

Benefits for consumers

New products

New services

Interest protection

SITUATION IN THE SUDOE REGION



SITUATION IN THE SUDOE REGION

France

- November 8, 2019 on energy and climate, known as the "Energy-Climate Law"
- In 2020, the CRE announced the application of the "regulatory sandbox"
- In 2021, the CRE opened a second application phase

Portugal

Spain

SITUATION IN THE SUDOE REGION

France

- November 8, 2019 on energy and climate, known as the "Energy-Climate Law"
- In 2020, the CRE announced the application of the "regulatory sandbox"
- In 2021, the CRE opened a second application phase

Portugal

- March 2020, Resolution No. 29/2020 of the Council of Ministers, established the general principles for the creation and regulation of technology free zones (ZLT)

Spain

SITUATION IN THE SUDOE REGION

France

- November 8, 2019 on energy and climate, known as the "Energy-Climate Law"
- In 2020, the CRE announced the application of the "regulatory sandbox"
- In 2021, the CRE opened a second application phase

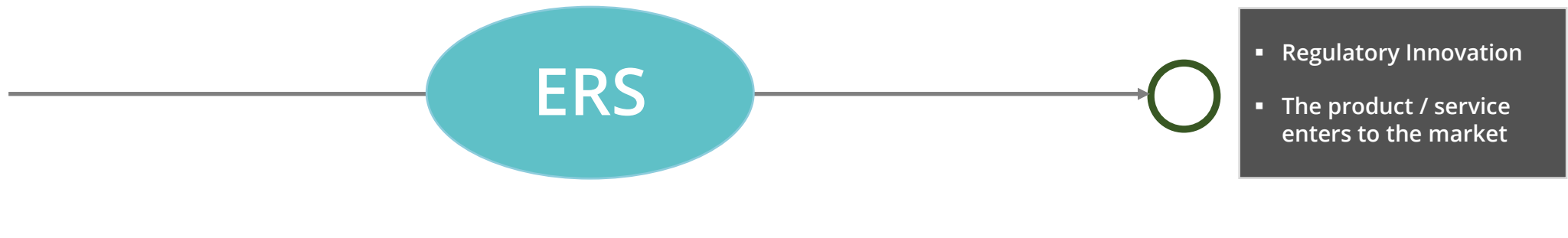
Portugal

- March 2020, Resolution No. 29/2020 of the Council of Ministers, established the general principles for the creation and regulation of technology free zones (ZLT)

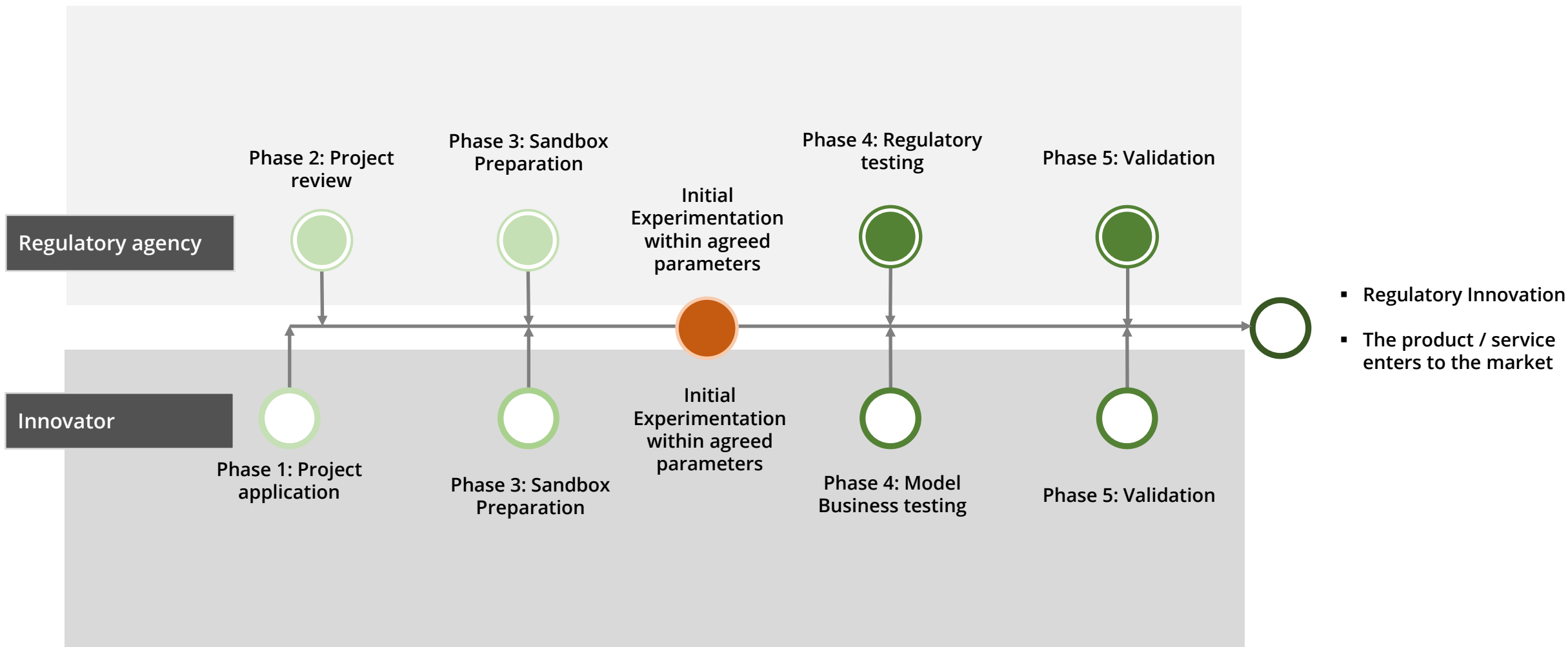
Spain

- Royal Decree-Law 23/2020, of June 23, 2020: "novelties, exceptions or regulatory safeguards that contribute to facilitating research and innovation in the field of the electricity sector"
- 2021-2022 action plan of the CNMC

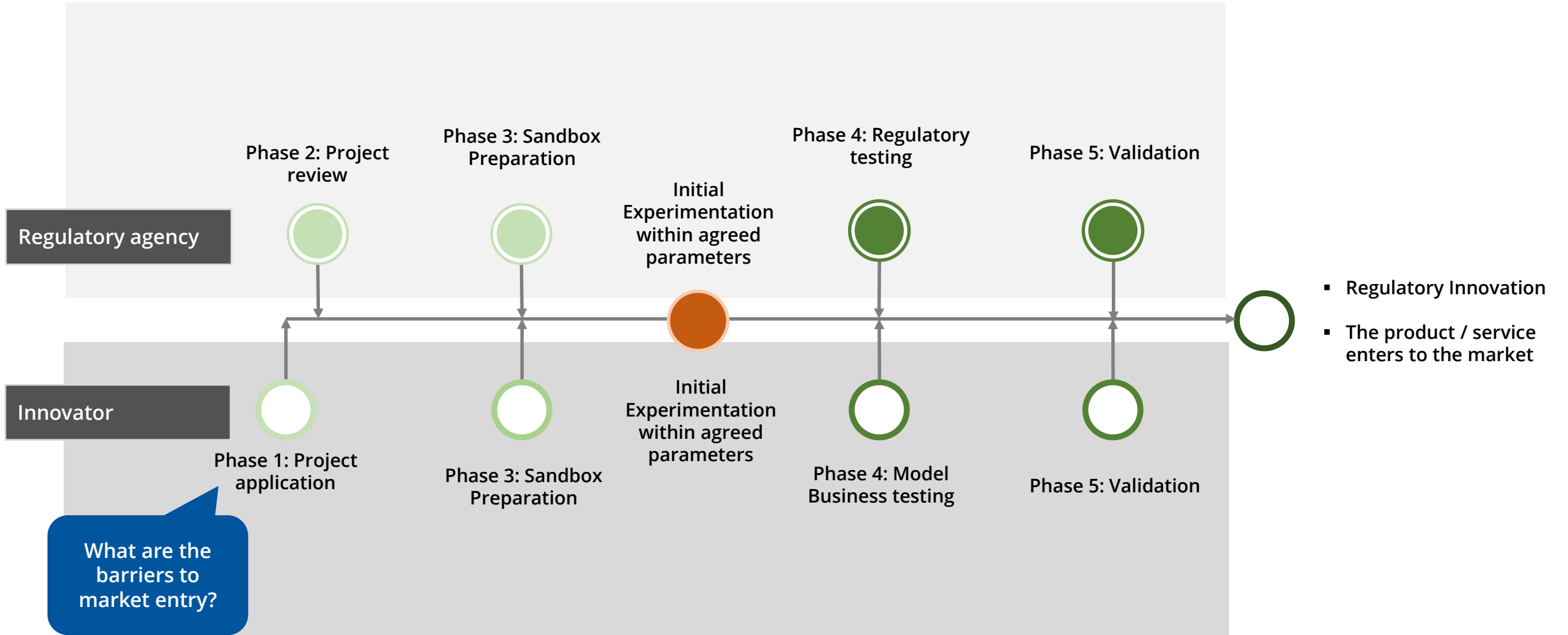
RECOMMENDATIONS FOR DESIGNING AND IMPLEMENTING ERS



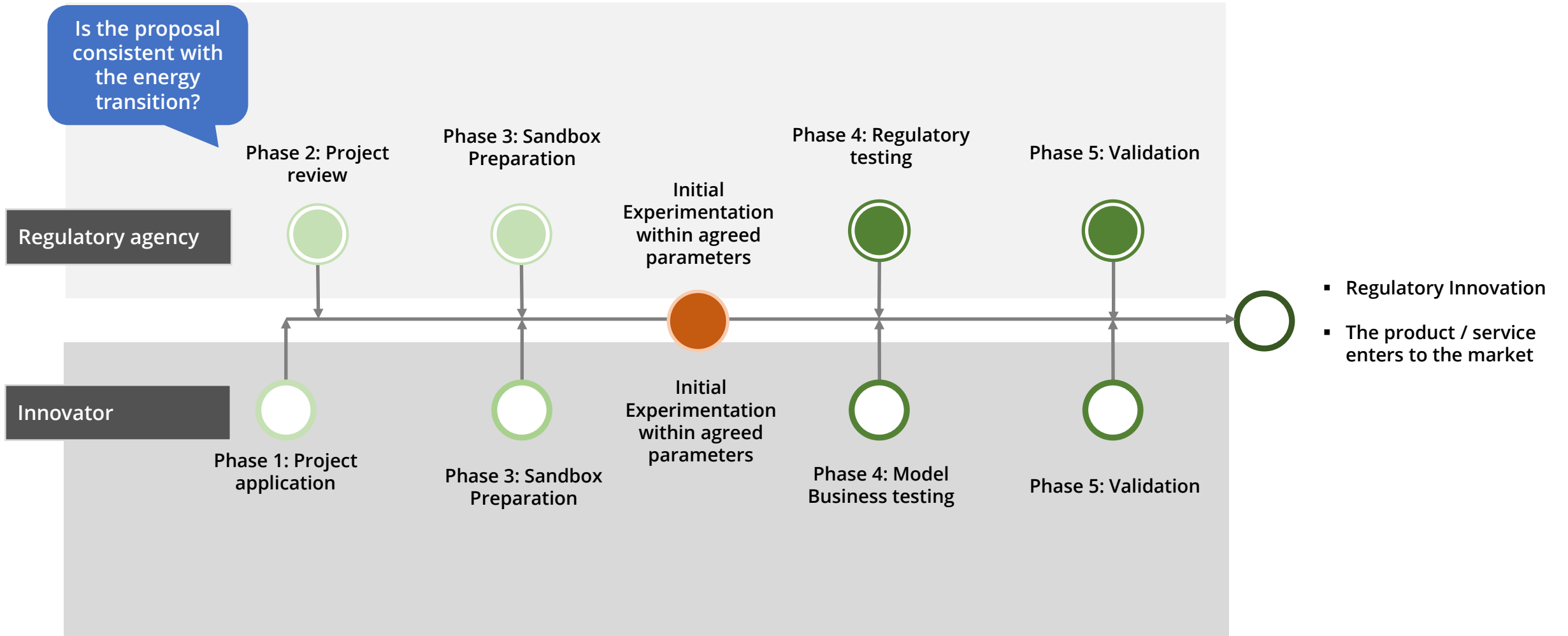
RECOMMENDATIONS FOR DESIGNING AND IMPLEMENTING ERS



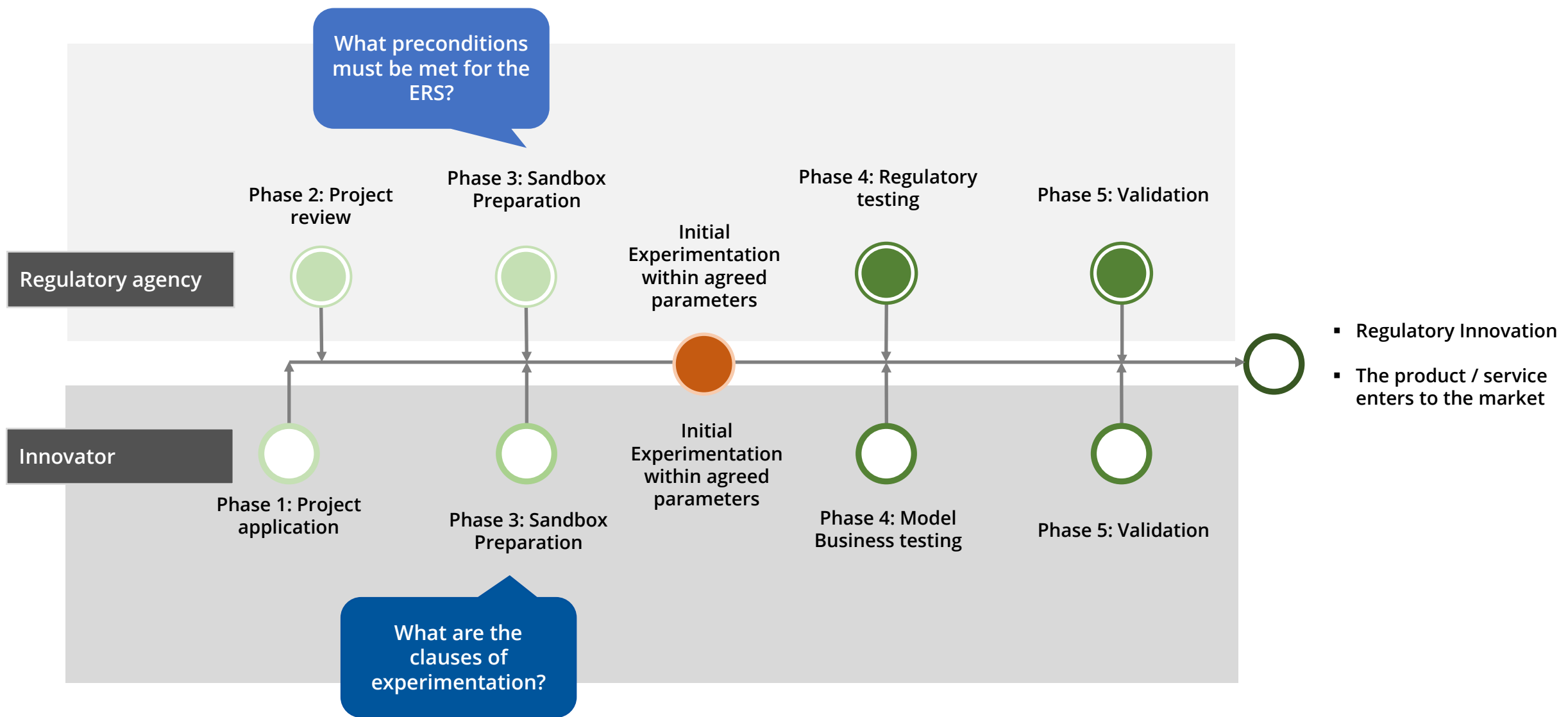
RECOMMENDATIONS FOR DESIGNING AND IMPLEMENTING ERS



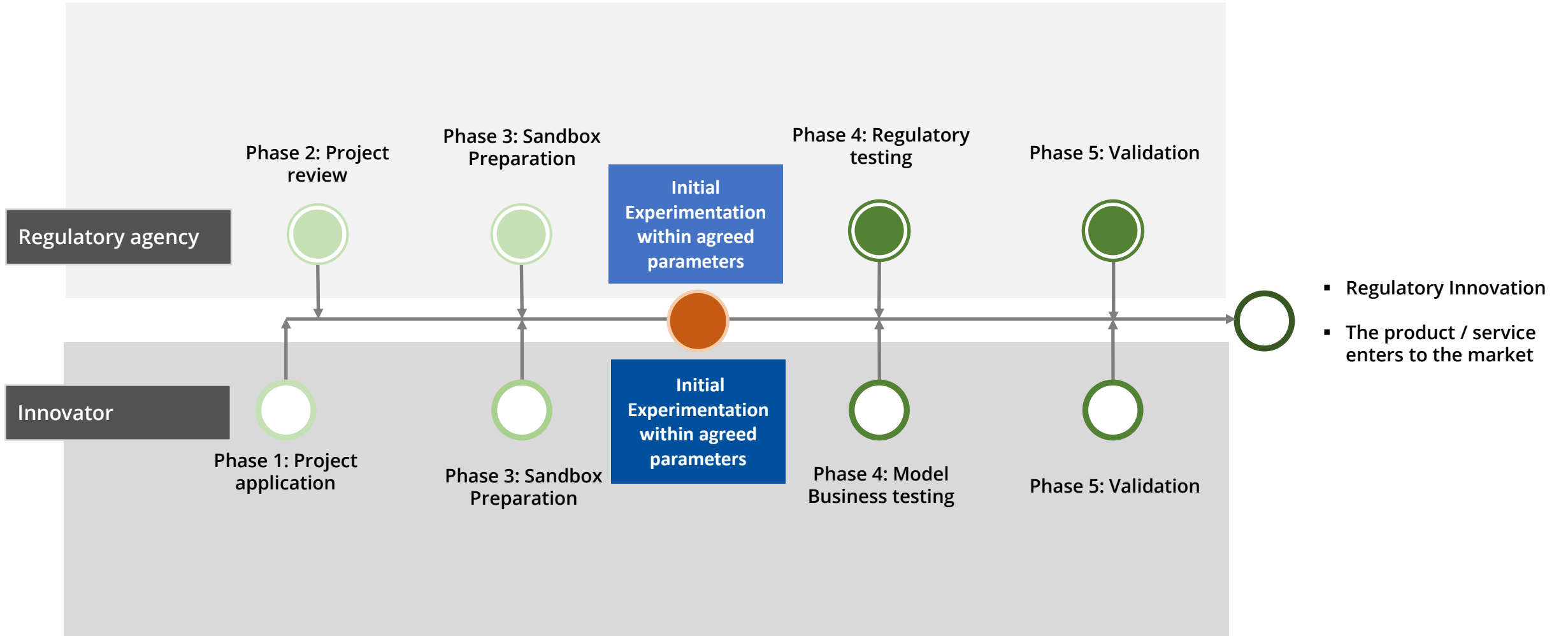
RECOMMENDATIONS FOR DESIGNING AND IMPLEMENTING ERS



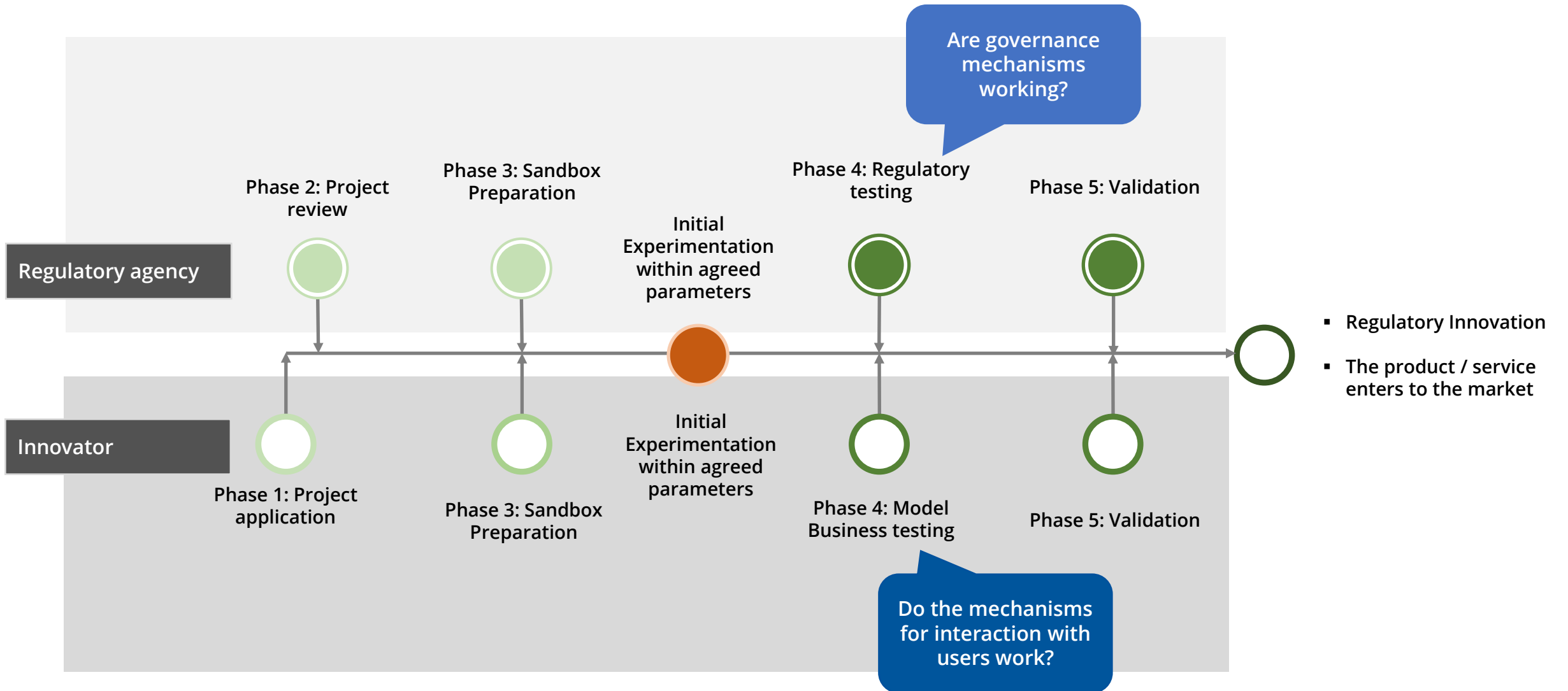
RECOMMENDATIONS FOR DESIGNING AND IMPLEMENTING ERS



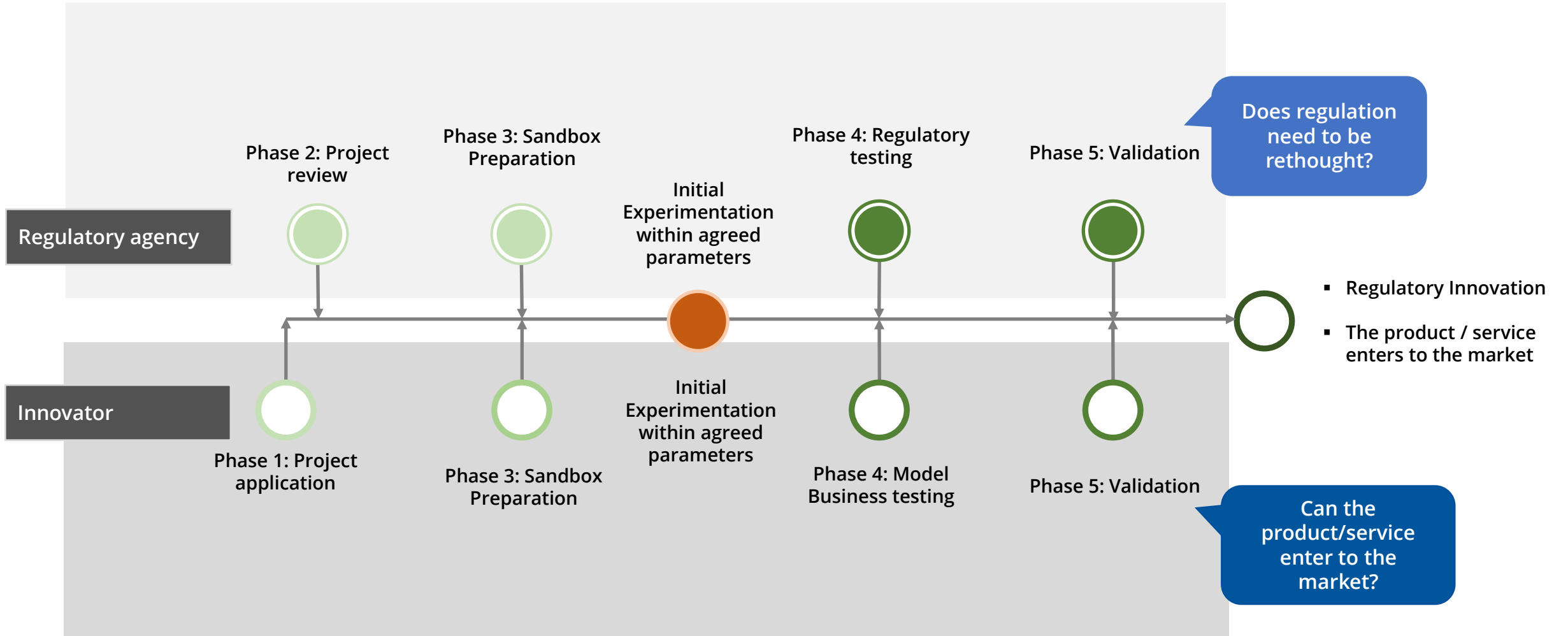
RECOMMENDATIONS FOR DESIGNING AND IMPLEMENTING ERS



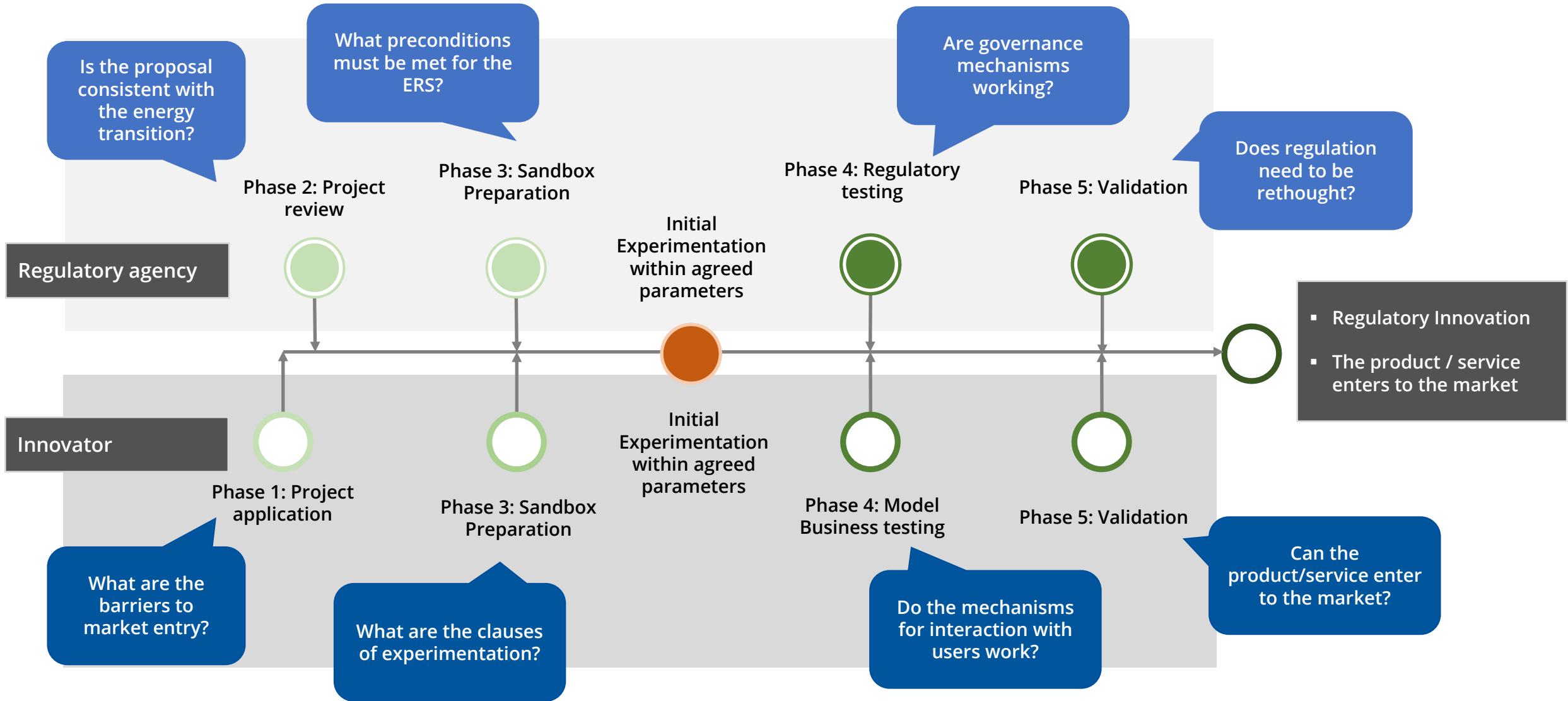
RECOMMENDATIONS FOR DESIGNING AND IMPLEMENTING ERS



RECOMMENDATIONS FOR DESIGNING AND IMPLEMENTING ERS



RECOMMENDATIONS FOR DESIGNING AND IMPLEMENTING ERS



KEY SUCCESS FACTORS OF AN ERS (CONCLUSIONS)

Regulatory Sandboxes and Energy Transition:

Instruments to support innovation towards the decarbonisation of the economy

Relationship with the energy transition:

Energy transition is a consumer-centred, multi-sectoral transformation

Maturity level of innovations:

Business models with validated technologies will help regulatory innovation

Holistic character of evidence:

The new energy model requires progress in new system governance mechanisms

Thank you!

Manuel Villa-Arrieta
Funseam

March 10th, 2022

Interreg

Sudoe

 TR@NSnet

European Regional Development Fund



EUROPEAN UNION