

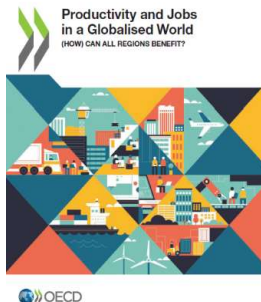
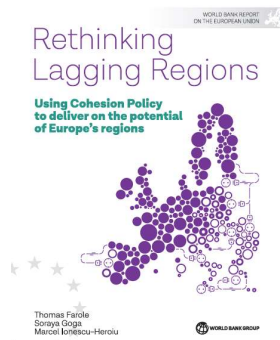


# JRC POINT Review of Greece: Context, Scope and Findings

24 February 2021

Matthjis JANSSEN, Yannis TOLIAS, Dimitrios PONTIKAKIS

Joint  
Research  
Centre

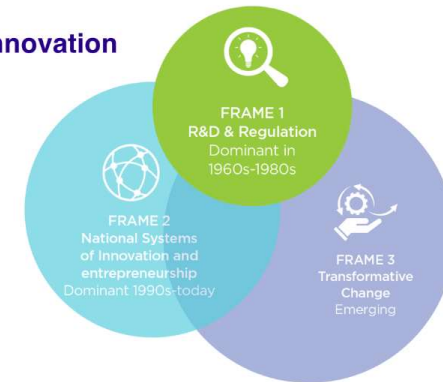


## A European Green Deal

Striving to be the first climate-neutral continent



### The 3 Frames of Innovation



## Challenges of lagging regions

- Industrial decline and mass emigration
- Structural change: low-productivity agriculture/tourism
- Weak tradable sectors; Investment barriers
- Lacking scale-efficient production and business innovation
- Societal and environmental challenges
- Large infrastructure gaps
- Deep productive transformations, esp. in energy and transport systems, and digitalisation
- Renewed interest & new approaches to *industrial policy* – no longer a taboo
- Emergence of new framework of thinking: *transformative innovation policy*
- *European Green Deal and EU Recovery Fund (>1 tn EUR for Green and Digital Transitions)*

**Pressing need to develop knowledge-intensive production capabilities**

→ *Problem*: no framework available for full-blown industrial policy!



# Need to re-discover planning capabilities

## Saturn V: world's most powerful rocket

- Dependent on massive network (est. 400,000 people\*)
- Network disbanded since early 1970s
- Humanity has **since lost** heavy-launch capability
- No point using old 'blueprint' – world moved on

## Industrial transitions

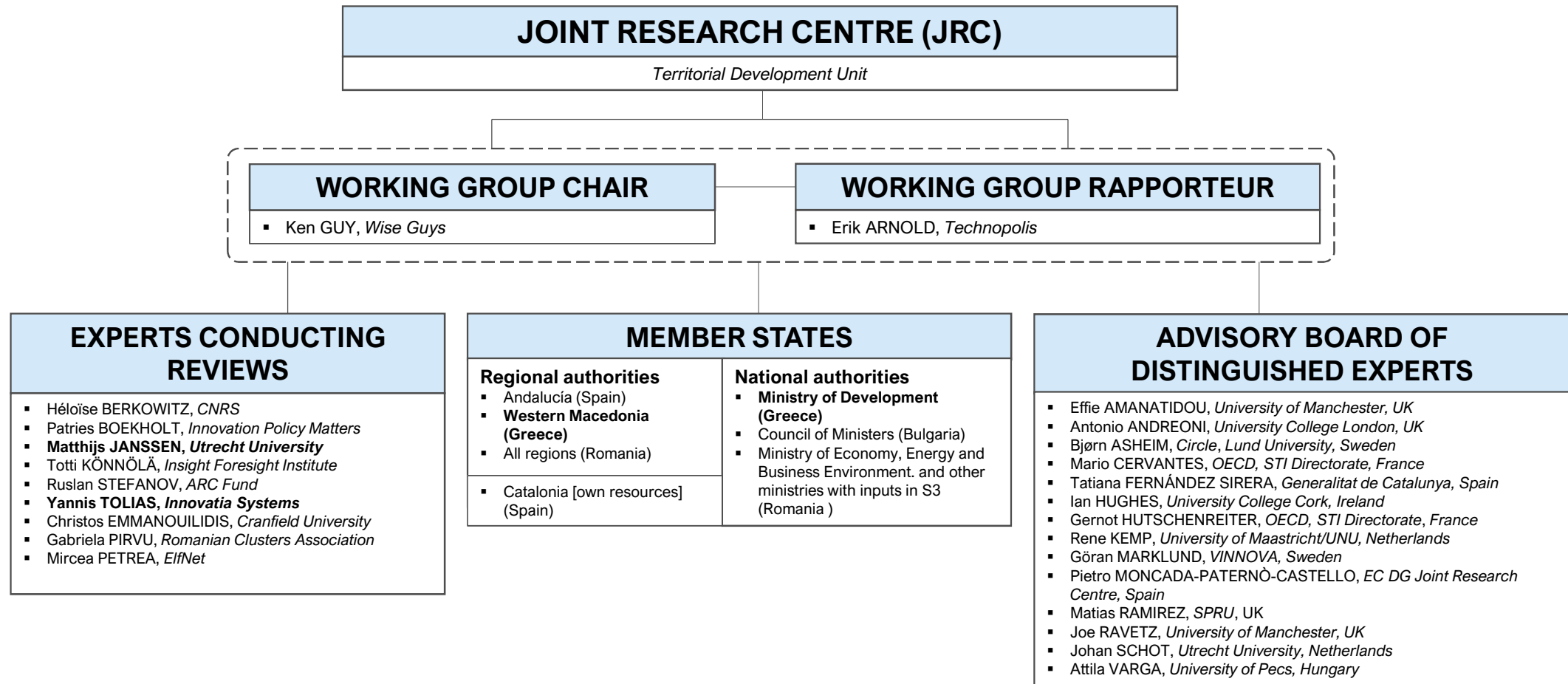
- Lost capability for long-term, large-scale social action
- Climate emergency: Non-negotiable deadlines, Massive coordination task
- No point reviving 20<sup>th</sup> cent. industrial policies - world moved on

[\\*https://www.theguardian.com/science/2009/jul/02/apollo-11-back-up-team](https://www.theguardian.com/science/2009/jul/02/apollo-11-back-up-team)



# LAGGING REGIONS Working group:

## "Understanding and Managing Industrial Transitions"



# First step is evidence: Reviews of Industrial Transition

Coordination hinges on non-readily available **evidence**

Each review is a **study** of the affected industrial system in the territory. Aims:

- Provide evidence about the affected production and consumption system and its direction;
- Identify realistic transition pathways and associated institutional, investment and skills needs;
- Propose governance solutions so that disparate policy domains coordinate under a coherent industrial development logic;
- Make concrete policy recommendations for the advancement of the transition and for managing its downsides.

## Review of Industrial Transition of Andalusia

Renewables, Batteries and their  
Applications in Logistics

Prepared by  
Helene Berkowitz and Totti Kinnola  
for  
European Commission, DG JRC

## Review of Industrial Transition of Greece

Renewables, Batteries and their  
Applications in Mobility,  
Agriculture, Shipping and  
Defence

Prepared by  
Matthijs Janssen and Yannis Tolia  
for  
European Commission, DG JRC

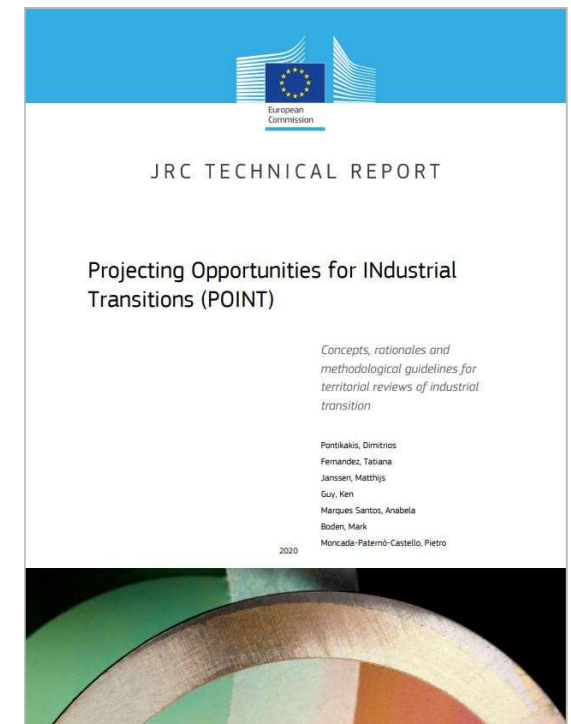
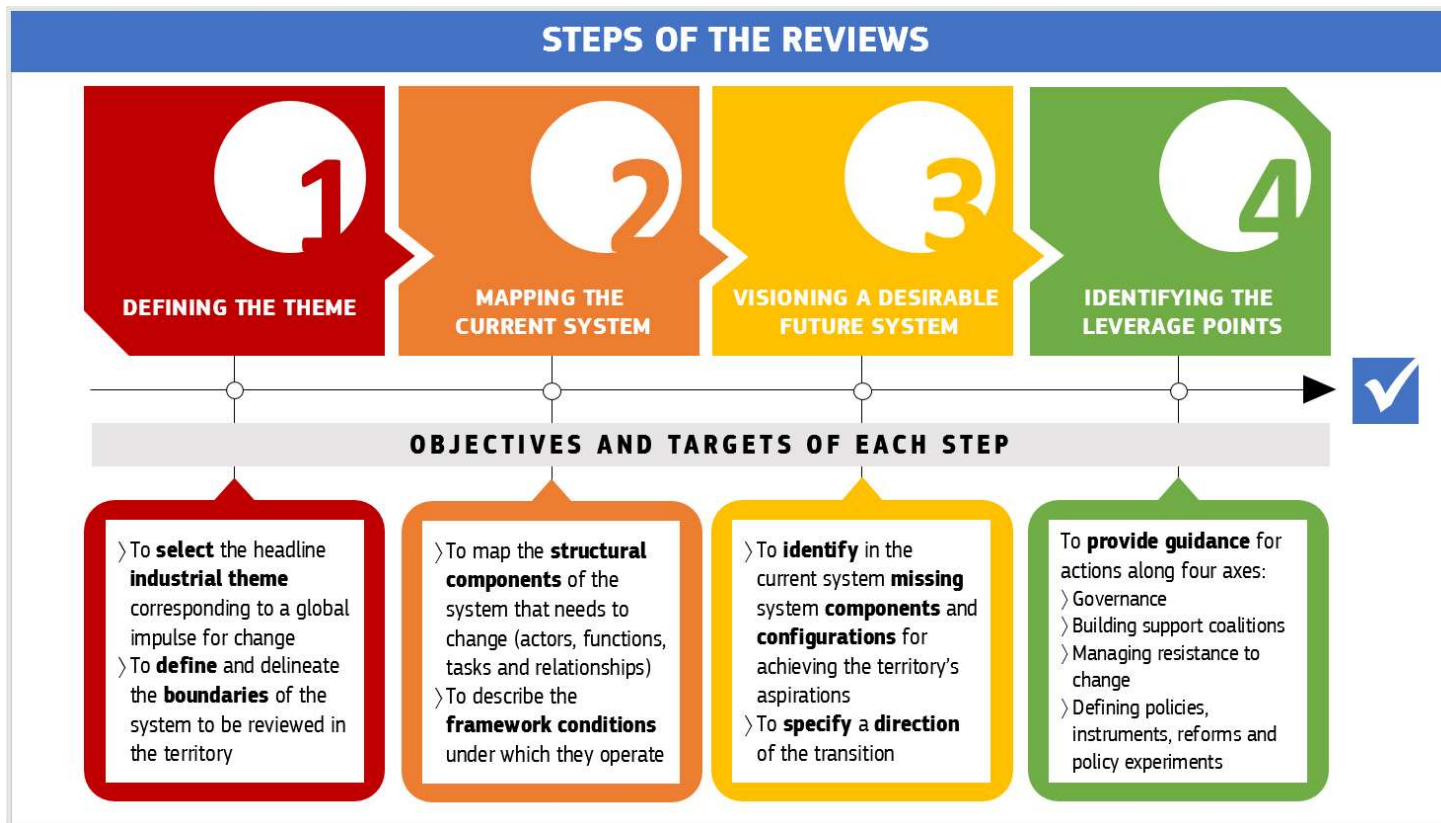
Version 0.3—29 November 2019

**Four pilot reviews on-going in  
Andalusia, Bulgaria, Greece and  
Romania.**

Advance summaries here:

<https://s3platform.jrc.ec.europa.eu/industrial-transition>

# The POINT methodology for reviews



Download full report:  
<https://europa.eu/!Gr34Ng>

# Scope and Process of Review in Greece

## JRC Partners in Greece:

Ministry of Development & Investments; GSRI; NDC; Region of Western Macedonia

## Review Scope:

Renewables, Batteries and their Applications in Mobility, Agriculture, Shipping and Defense

## Process:

- Consultation meetings with stakeholders (Oct. 2019 and Feb. 2020)
- Evidence, analysis, write up and comments on drafts (Nov. 2019 – Dec. 2020)
- Publication (February 2021)
- Presentation to stakeholders (today)



# Findings and Recommendations

POINT Review Greece



# A unique window of opportunity: the sustainability transition

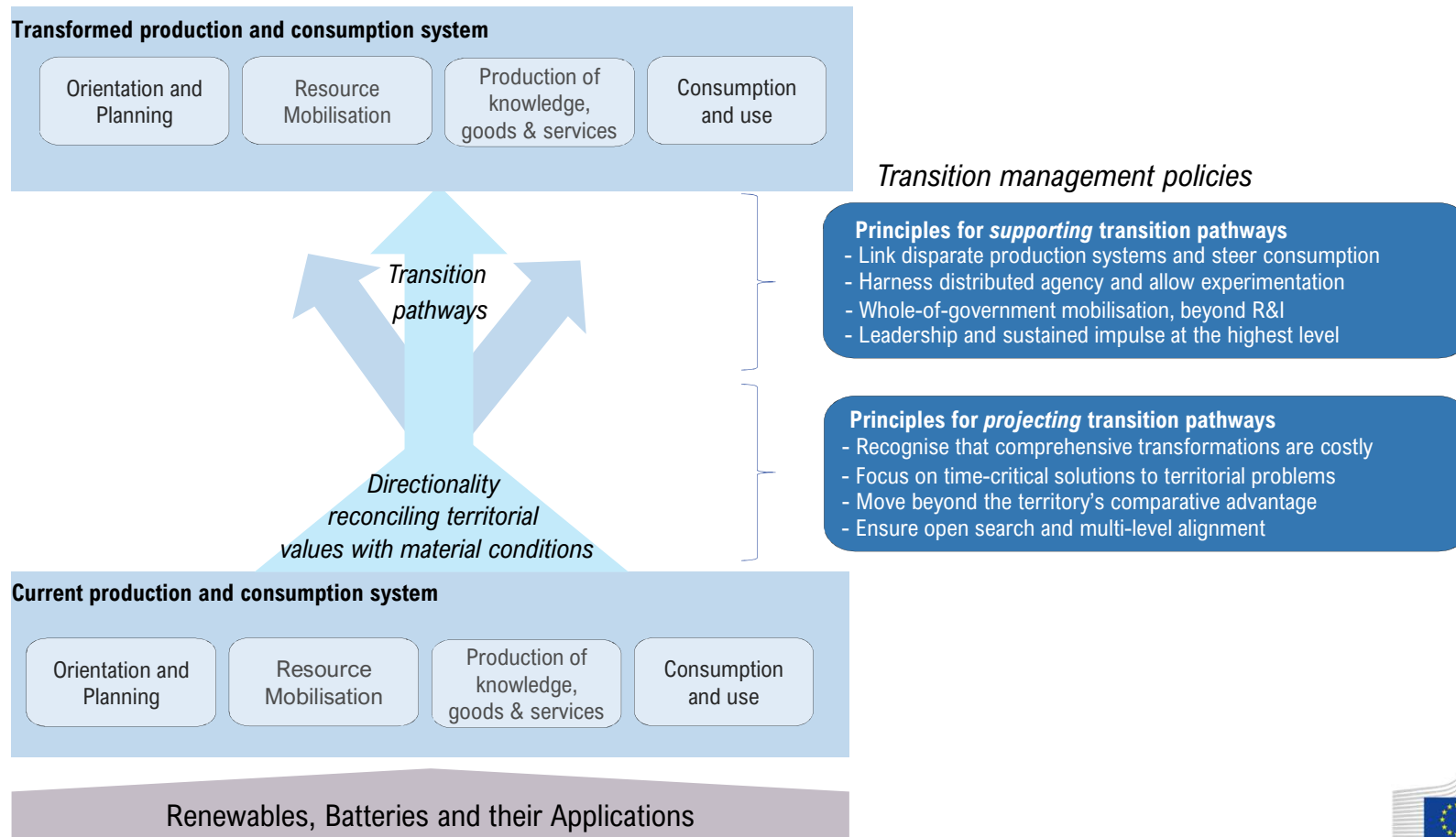
## Households

- Energy efficiency
- Own RES production (prosumers)
- Electric Vehicles
- Mobility solutions

## Businesses

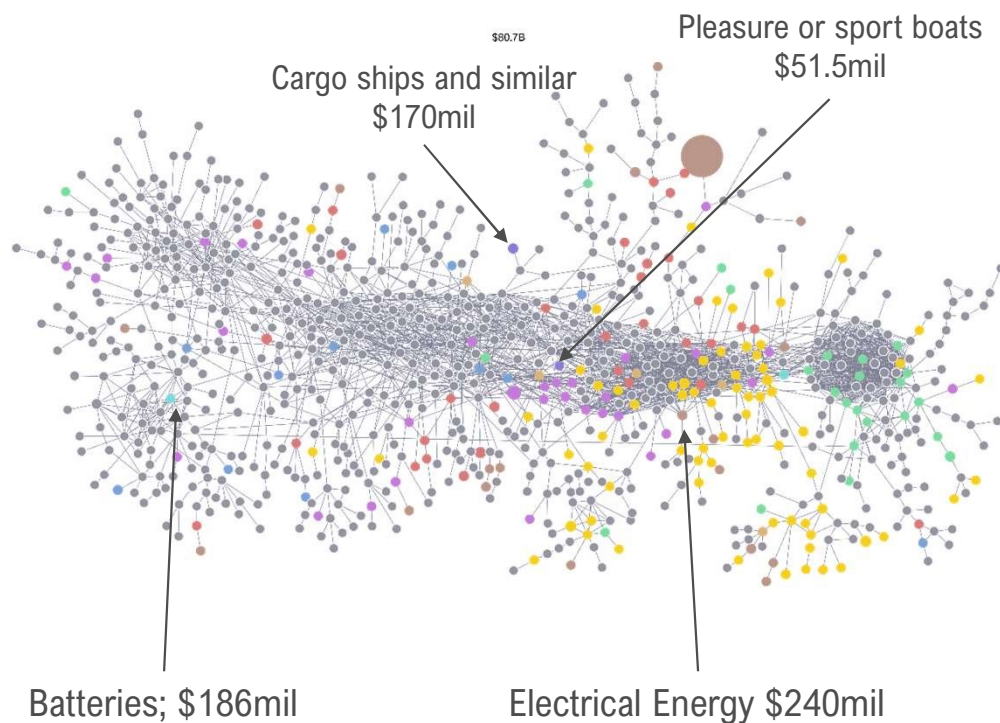
- Energy producers
- ICT solution providers
- Land transport and logistics
- Manufacturing
- Construction

# The approach



# Economic footprint

## Greek exports, 2017, by value

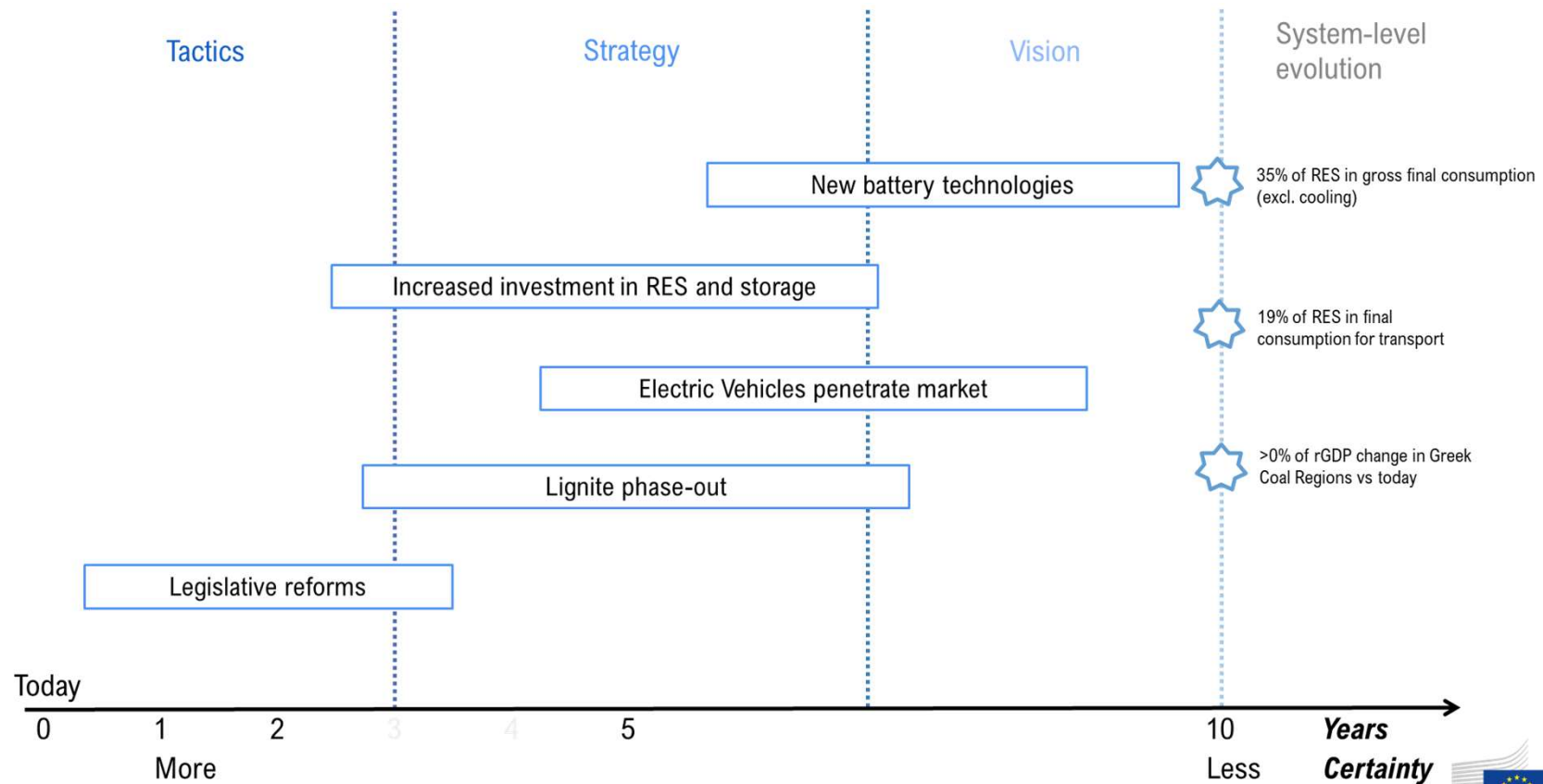


PRODUCT  
SECTORS

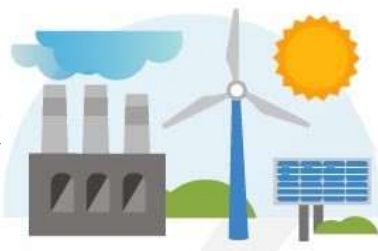


NACEv2	Description	Legal Entities	Turnover (mil EUR)	Employment
19.2	Manufacture of refined petroleum products	35	12 510	3 561
20.5	Manufacture of other chemical products	168	394	1 458
27.2	Manufacture of batteries and accumulators	13	177	638
29.1	Manufacture of motor vehicles	14	7	414
35.1	Electric power generation, transmission and distribution	6 369	18 114	31 295
38.1	Waste collection	440	264	3 083
38.2	Waste treatment and disposal	103	153	1 872
38.3	Materials recovery	203	262	1 969
45.1	Sale of motor vehicles	2 494	3 494	11 593
45.2	Maintenance and repair of motor vehicles	14 640	946	32 296
45.4	Sale, maintenance and repair of motorcycles and related parts and accessories	2 487	410	5 312
46.7	Other specialised wholesale	12 926	15 334	42 075
47.3	Retail sale of automotive fuel in specialised stores	4 981	6 244	17 197
49.1	Passenger rail transport, interurban	9	262	943
49.2	Freight rail transport	5	12	33
49.3	Other passenger land transport	35 052	1 464	70 882
49.4	Freight transport by road and removal services	17 083	2 315	36 493
50.1	Sea and coastal passenger water transport	1 411	1 224	8 776
50.2	Sea and coastal freight water transport	567	775	7 851
72.1	Research and experimental development on natural sciences and engineering	4 200	305	10 887

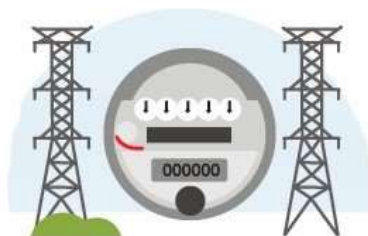
# Nationally-set transition targets



Power Mix



Smart Grid



Data &  
Algorithms



Public EV  
Charging



Home RES  
& Charging



Lightweight  
automotive parts



Batteries  
(EV & Storage)



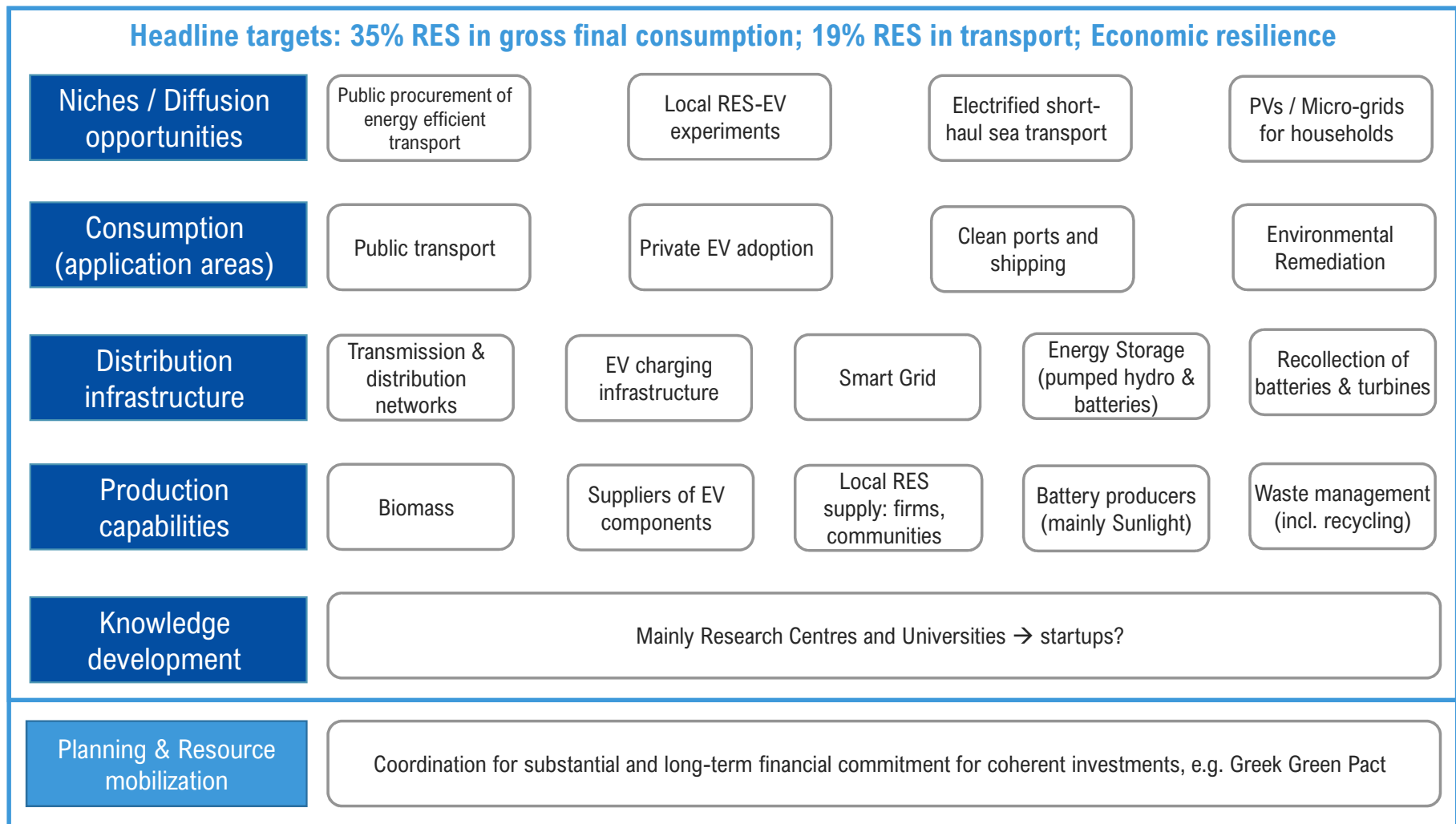
CO2 Reduction



Financing



# The ingredients



# The desired state of the system

## Orientation and planning

- Extend **joint ministerial committee** and 'Green Pact' for electric mobility; e.g., via the use of **working groups** also addressing skills, businesses, regions
- Consider **interregional learning** via e.g., scalable **demonstrator experiments**
- Enhance **industry involvement**, via **roadmaps** and consultation '**fora**'

## Human and financial resource mobilisation

- **Reverse brain drain** via support for development paths targeting local challenges
- **Certify and accredit** the offer of **vocational training**
- Establish **thematic vocational training centres** (cf. CoVES)
- Use **EU funding schemes** linked to the European Green Deal Investment Plan (**EGDIP**)
- Intensify **PCP** and **PPI**
- Develop **rating tools** and a **digital one stop shop** for investments

## Production of knowledge, goods and services

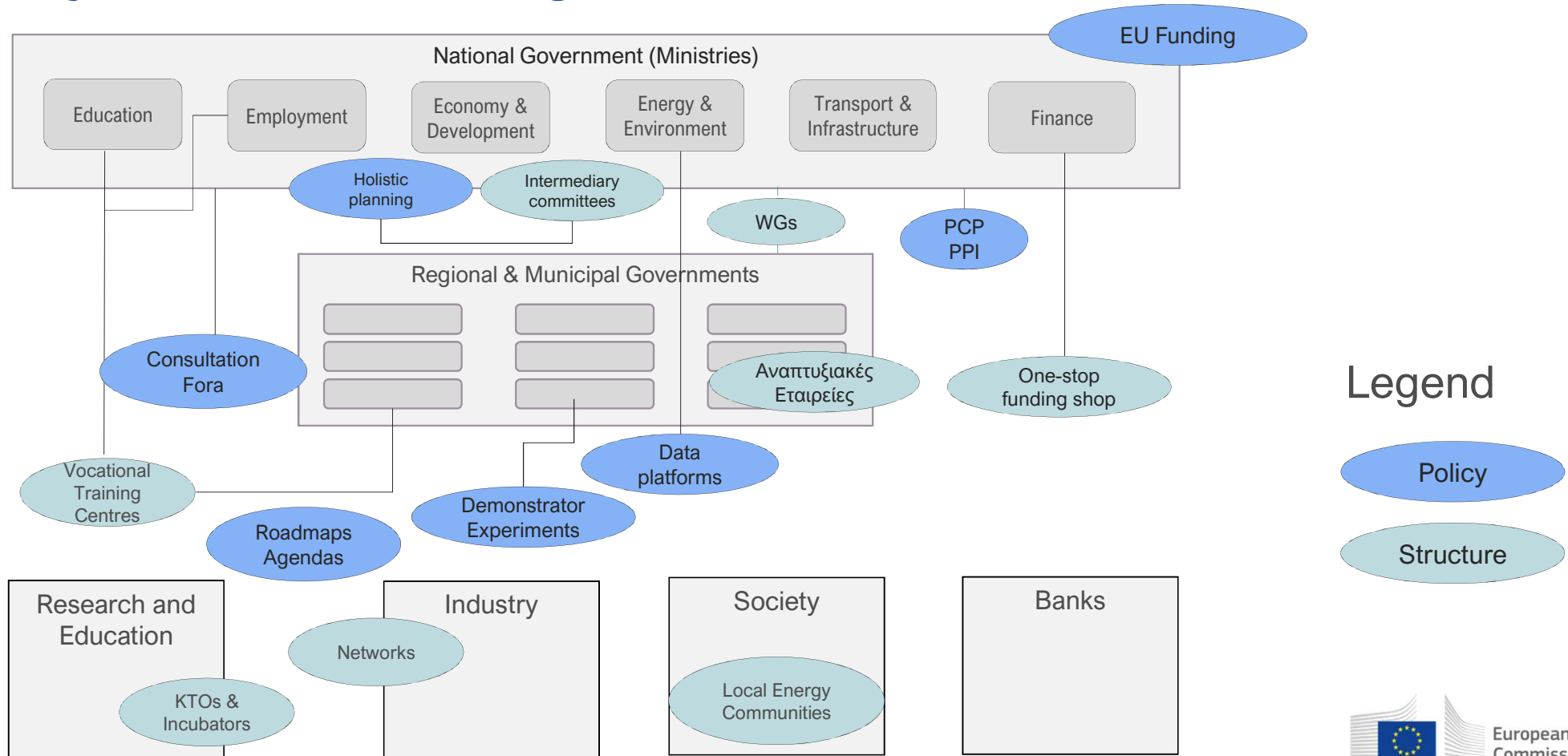
- **Target FDI** at industrialisation related to RES technologies and digitisation
- **Forge links** between energy and transport sectors/systems
- Upgrade **public investments** that create demand and attract businesses and FDI
- Enforce active **environmental regulations**
- Create **regulatory sandboxes** for experimentations
- Support **KTOs** and **incubators**

## Consumption and use

- Enable **prosumers** and reform the **local energy community law** to avoid excesses
- Support **energy citizenship** and link RES production to different application domains (e.g., private EV, electric boats)
- Exploit **niches with special demands**, like EV on islands
- Expand **RES-based public transport** (like buses), e.g., via municipality-owned development companies



# System-enhancing interventions



# Catalysing the Greek Transition

## 1. Coordination process

- A **‘Greek Green Deal for Sustainable Industry and Quality Employment’** following a mission approach, inspired from Dutch ‘Top Sectors’ and Catalan ‘Shared Agendas’
- Advance preparation and planning, government leadership, and wide stakeholder coordination
- Primacy of an industrial development intervention logic over all other logics of intervention
- Sequencing: First, supply side-measures (industrial expansion in relevant areas), then (or in parallel) demand-side measures

# Catalysing the Greek Transition

## 2. Public policy interventions

- **Legislation:** microgrids, sandboxes, enforcement of environmental regulations, policy stability
- **Enabling actions:** Strategic provision of public infrastructure (network infrastructure, 'smart grid', EV charging and hydrogen refueling facilities, ...); Skills (think ahead, (re)train, with/in businesses); demand management (smart meters, city-level standards, EV facilities, etc.); acceptance of RES (energy communities match with territorial values)
- **Financial stimuli:** ecosystem development, facilitate investment and increase appropriability, Public-Private Partnerships
- **R&D&I:** targeted research & development, knowledge transfer, public procurement of innovation, pre-commercial procurement (requires mostly capabilities, not money)

# Thank you!

“No wind is favourable to the one who does not know to which port to sail.”  
Lucius Annaeus Seneca (c. 4 BC – AD 65)

<https://s3platform.jrc.ec.europa.eu/industrial-transition>



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