

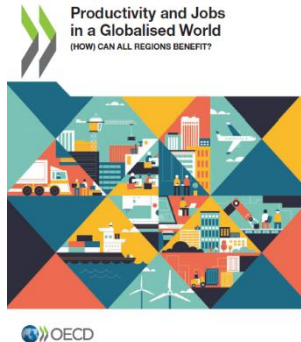


The POINT methodology for Territorial Reviews of Industrial Transition

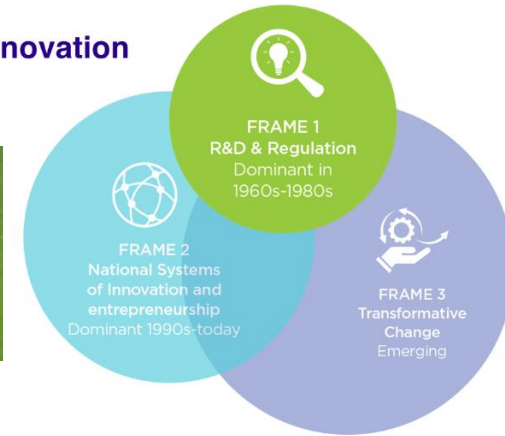
EWRC Session: Evidence for Industrial Transitions

Dimitrios Pontikakis *and* Anabela Santos, *JRC, B3 Territorial Development*

22 October 2020



The 3 Frames of Innovation



A European Green Deal
Striving to be the first climate-neutral continent

Global trends

- *Deep productive transformations*, esp. in energy and transport systems, and digitalisation
- Resurgence of interest in *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)*

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

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 20th 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)



The JRC Working Group: "Understanding and Managing Industrial Transitions"

How to mobilise efforts from all levels/portfolios to develop knowledge-intensive employment (production capabilities)?

Contribute to the development of:

- An integrated *policy framework* in support of industrial transitions
- Appropriate lessons for the *revision* and *extension* of Smart Specialisation Strategies

Central to the approach:

- **Two-sides of the transition:** not just threats/downsides, but also *opportunities*
- **Interdependencies:** Interdependencies can reveal unnoticed levers for change
- **Cross-portfolio coordination:** e.g. R&I, skills/education, employment, large physical infrastructures (energy, transport, environment), urban planning, public procurement
 - **Cross-stakeholder mobilisation:** address both supporters and detractors

Global impulses present a unique window of opportunity

- Global impulses: climate change and massive associated investments in renewables, batteries and electric mobility. Circular economy. AI.
- *Sustainability as a European competitive advantage*

Paradigm shift in electric mobility (a technological revolution?):

- strong backing from global finance
- consumer shift + new/transformed GVCs = opportunities
- massive implications for infrastructures; skills
- strong synergies with other global impulses

(renewables + AI + I4.0 + circular economy)

→ *Example*: RIMAC in Croatia (est. 2011). 400+ people, world's fastest sports car.



LAGGING REGIONS Working group

"Understanding and Managing Industrial Transitions"

JOINT RESEARCH CENTRE (JRC)

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WORKING GROUP RAPPORTEUR

- Erik ARNOLD, *Technopolis*

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- Matthijs JANSSEN, *Utrecht University*
- Totti KÖNNÖLÄ, *Insight Foresight Institute*
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- Christos EMMANOUILIDIS, *Cranfield University*
- Gabriela PIRVU, *Romanian Clusters Association*
- Mircea PETREA, *ElfNet*

MEMBER STATES

Regional authorities

- Andalucía (Spain)
- Western Macedonia (Greece)
- All regions (Romania)
- Catalonia [own resources] (Spain)

National authorities

- Ministry of Development (Greece)
- Council of Ministers (Bulgaria)
- Ministry of Economy, Energy and Business Environment. and other ministries with inputs in S3 (Romania)

ADVISORY BOARD OF DISTINGUISHED EXPERTS

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- Attila VARGA, *University of Pecs, Hungary*

how to understand transformative change

- Literature on system innovation / "Transition management"
- Not the same as "*innovation system*"!
- **Production / Consumption** at centre
- science and technology one (of many) vectors
- **Directionalities** of central importance
- Outcomes ~ **macro-level organisational innovation**

Builds on:

- Socio-technical transition experiences (large body of knowledge in NL)
- Multi-level perspective (Frank Geels / Johan Schot)

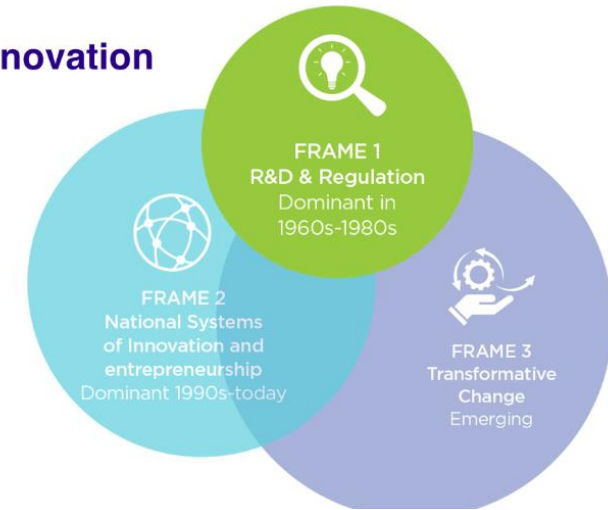
See links below::

OECD [System Innovation Synthesis Report](#)

<http://www.tipconsortium.net/>

<https://www.sciencedirect.com/science/article/pii/S0048733302000628>

The 3 Frames of Innovation

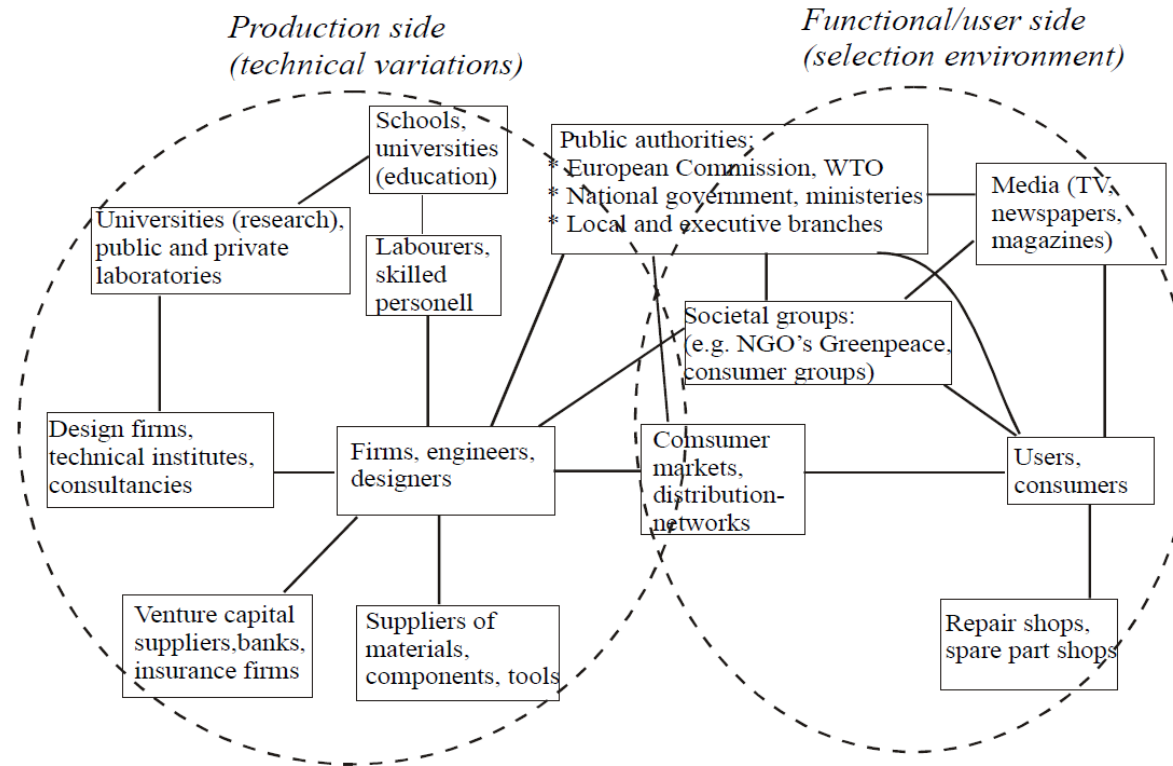


SYSTEM INNOVATION:
SYNTHESIS REPORT



what is “system innovation”? not *just* S&T, not *just* '3-ple/4-ple helix'

Figure 1.2 Societal groups involved in system innovation



Source: Geels (2004: p.901) “From sectoral systems of innovation to socio-technical systems: Insights about dynamics and change from sociology and institutional theory”, *Research Policy*, 33(6-7), pp. 897-920

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
Hélène Berkowitz and Totti Könnölä
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

POINT - Projecting Opportunities for INdustrial Transitions

- Structured methodology to identify viable transition paths; emphasis on positive, ambitious visions
- Draws from expertise on system innovation / new industrial policies / foresight / innovation governance
- Developed internally at JRC, with contributions from leading experts (WG Advisory Board)
- Stakeholder interviews (over 50 per territory), combined with desk research
- Focus on territorial responses to one (or more) global impulses for transformational change (e.g. SDGs)
- Gather evidence on functional systems, prevalent territorial values
- Point to synergetic, high spillover paths, make suggestions



JRC TECHNICAL REPORT

Projecting Opportunities for INdustrial
Transitions (POINT)

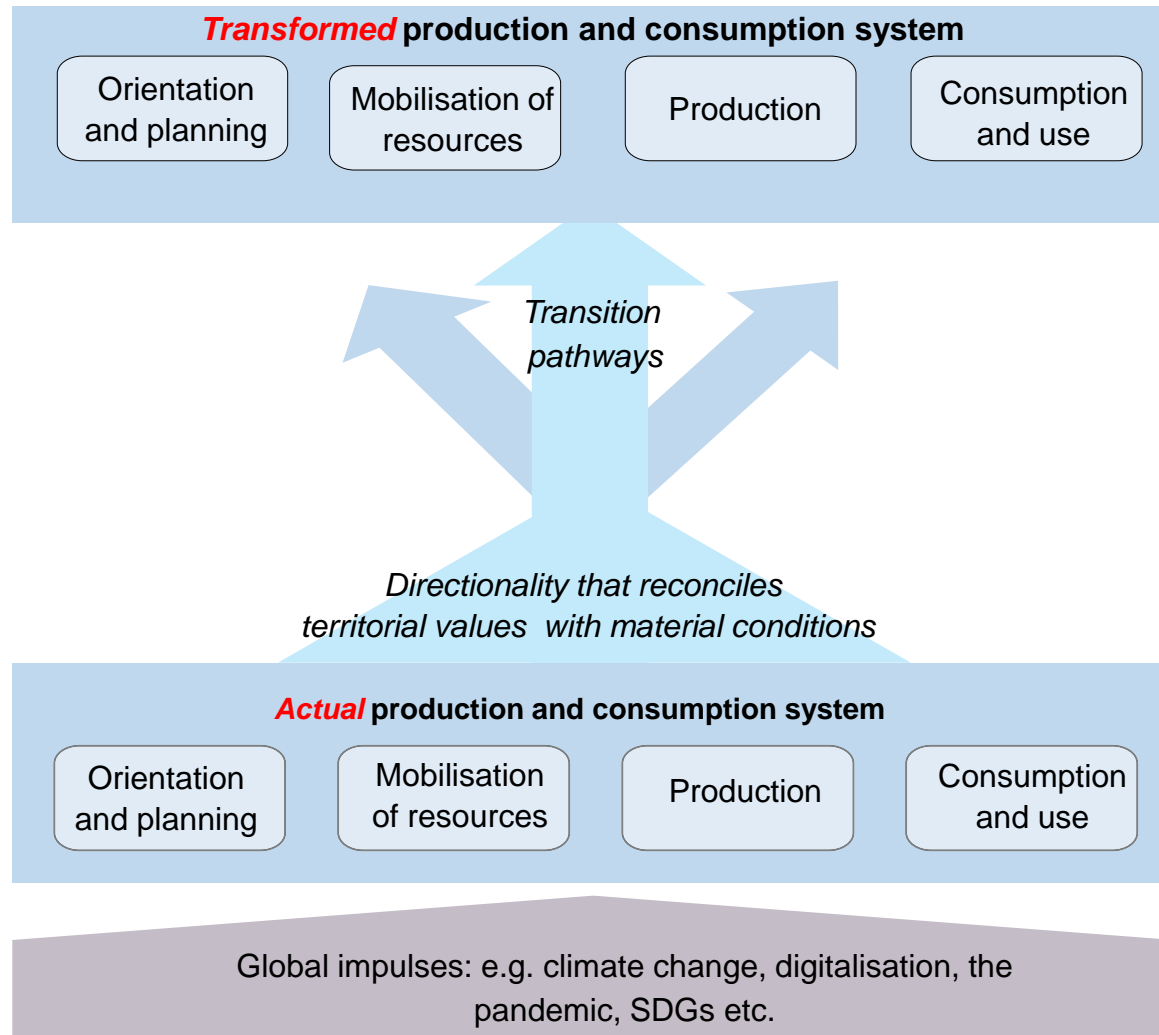
*Concepts, rationales and
methodological guidelines for
territorial reviews of industrial
transition*

Pontikakis, Dimitrios
Fernandez, Tatiana
Janssen, Matthijs
Guy, Ken
Marques Santos, Anabela
Boden, Mark
Moncada-Paternò-Castello, Pietro
2020

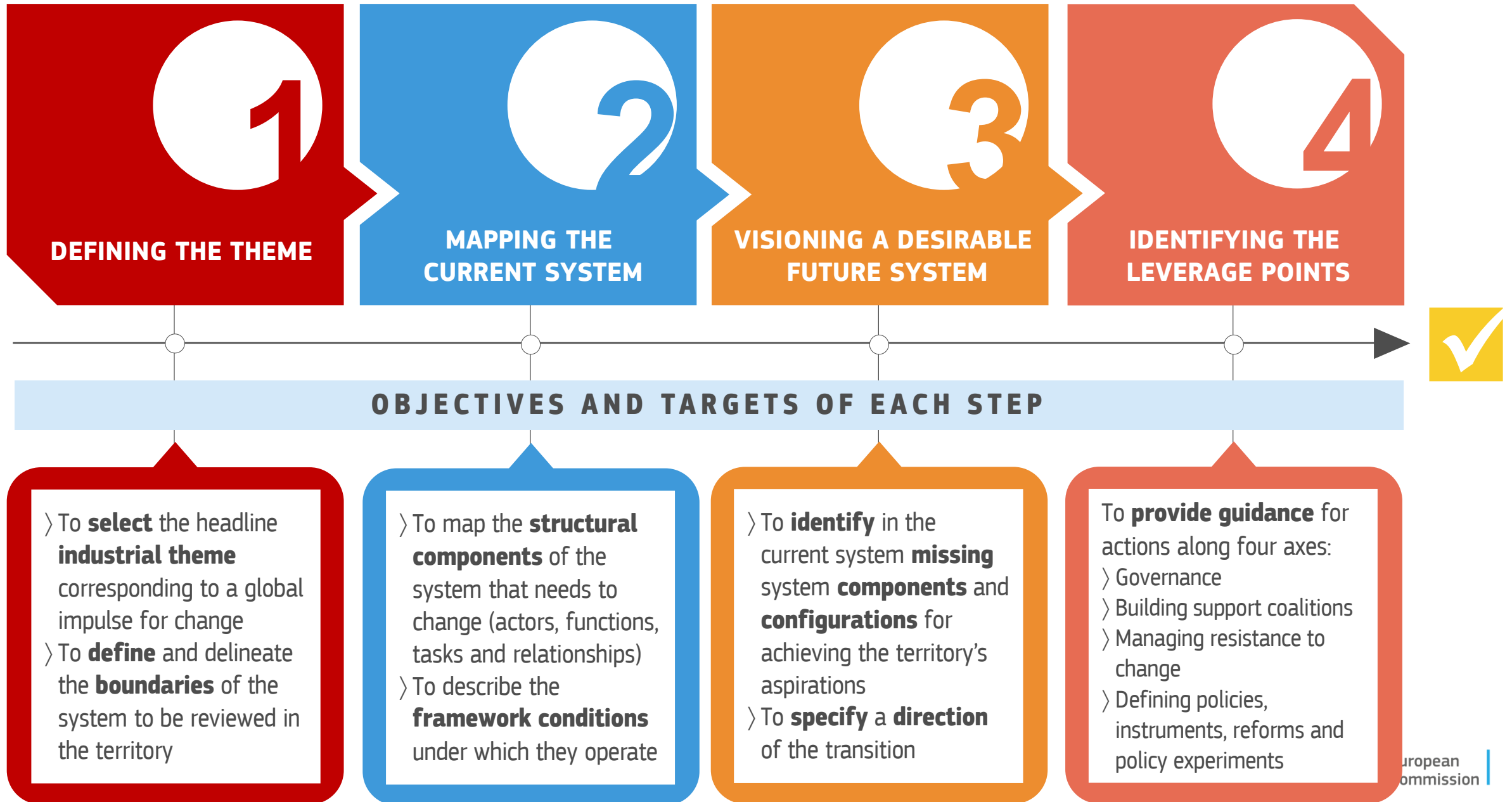


Download full report: <https://europa.eu/!Gr34Ng>

a functional approach to system transformation



STEPS OF THE REVIEWS



QUESTIONS / DIMENSIONS TO BE ANSWERED IN EACH STEP

- › Geographical coverage
- › Reasons for the transition (opportunities / threats for the region)
- › Thematic focus
- › Degree of ambition
- › Timeframe for the transition
- › Linkage with the reflected priorities of the relevant authorities

- › Main actors in the system: roles, capacities and linkages on the four functional sub-systems (orientation and planning; resource mobilisation; production; consumption)
- › Framework conditions of the system
- › Geographic boundaries of the territory in the four functional sub-systems
- › Governance

- › Current scope and degree of ambition
- › Stakeholder vision for the future of territory
- › Required connections and reconfigurations of the system
- › Complementarity between production systems
- › Role of science and technology (obstacles / improvements)
- › Missing parts of the desired system (solutions)

- › Lessons learnt from the past
- › Role of monitoring and evaluation
- › Ways to foster the whole-of-government coordination and mobilisation
- › Developing a support coalition for the transitions
- › Stimulating and protecting the coalitions
- › Resistance to change (reasons for delaying the transition and form of opposition)
- › Appropriate policies reforms, specific instruments and policy experiments
- › Interaction with S3 strategy
- › Financing of the transitions

conclusions: evidence to empower coordination

1. Evidence can change perspectives.

A broad, systemic framing is necessary to find policy levers for transformation. Examples to follow from the ongoing JRC reviews.

2. System-level evidence is unavailable, yet extremely valuable.

JRC reviews can make a contribution. Upgraded policy intelligence needed for the European Green Deal, the Just Transition Fund, the Recovery and Resilience Facility.

3. Evidence is not enough. New framework for transformative stakeholder coordination is necessary.

JRC reviews only a beginning. Not enough to change policies. Need to work directly with stakeholders (through e.g. transformative EDP workshops) and build support coalitions

*No wind is favourable to the one who does not know
to which port to sail.*

Lucius Annaeus Seneca (c. 4 BC – AD 65)



Thank you!

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

Dimitrios.PONTIKAKIS@ec.europa.eu
Anabela.MARQUES-SANTOS@ec.europa.eu