

Responsible R&I (RRI) is about coping with complexity

And also other perspectives of the EC

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Co-coordinator of the Barcelona-“la Caixa” Living Lab
UIMP, Santander, Julio 2019

With the collaboration of:



1.Examples of RRI

2.Why

3.Complexity

4.Innovation ecosystems for challenges and missions

5.Conclusions

Some examples of RRI projects



Example 1: Community Advisory Board at IrsiCaixa. e.g. vaccine clinical trials:

suggestions to improve protocols with e.g.

- psychological support
- logistic issues,
- communication materials & informed consent
- prevention methods during interruption of treatment
- recruitment of volunteers...

e.g. basic research

- legitimacy & dissemination

Example 2: Dr. Javier Martínez-Picado. Research on treatment with stem cells incorporates immunotherapies suggested in a **meeting with patient advocates**.

Example 3: Association of fibromyalgia co-defines, co-executes and funds research

Some examples of RRI projects



Example 4: Health promotion projects through CBPR:
Knowledge + Learning + Change

Example 5: Informed decision making, public debates & exhibitions on NTs, on research with Embryonic Stem Cells... (with OBD-UB) ...

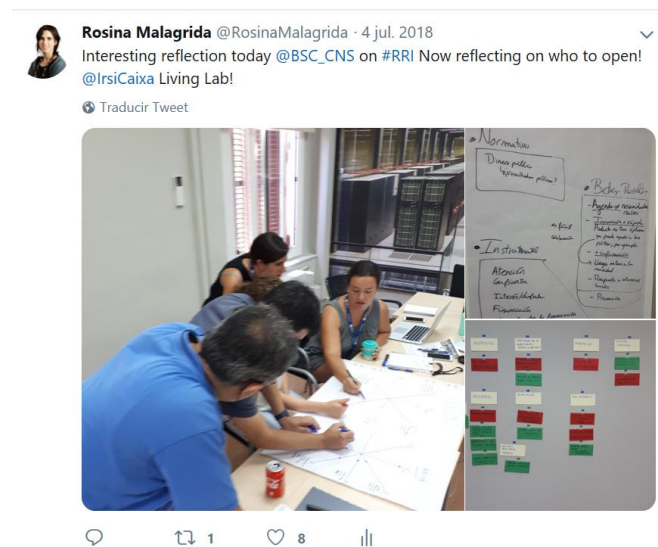


Example 6: Educational programmes

RRI Training and reflection...



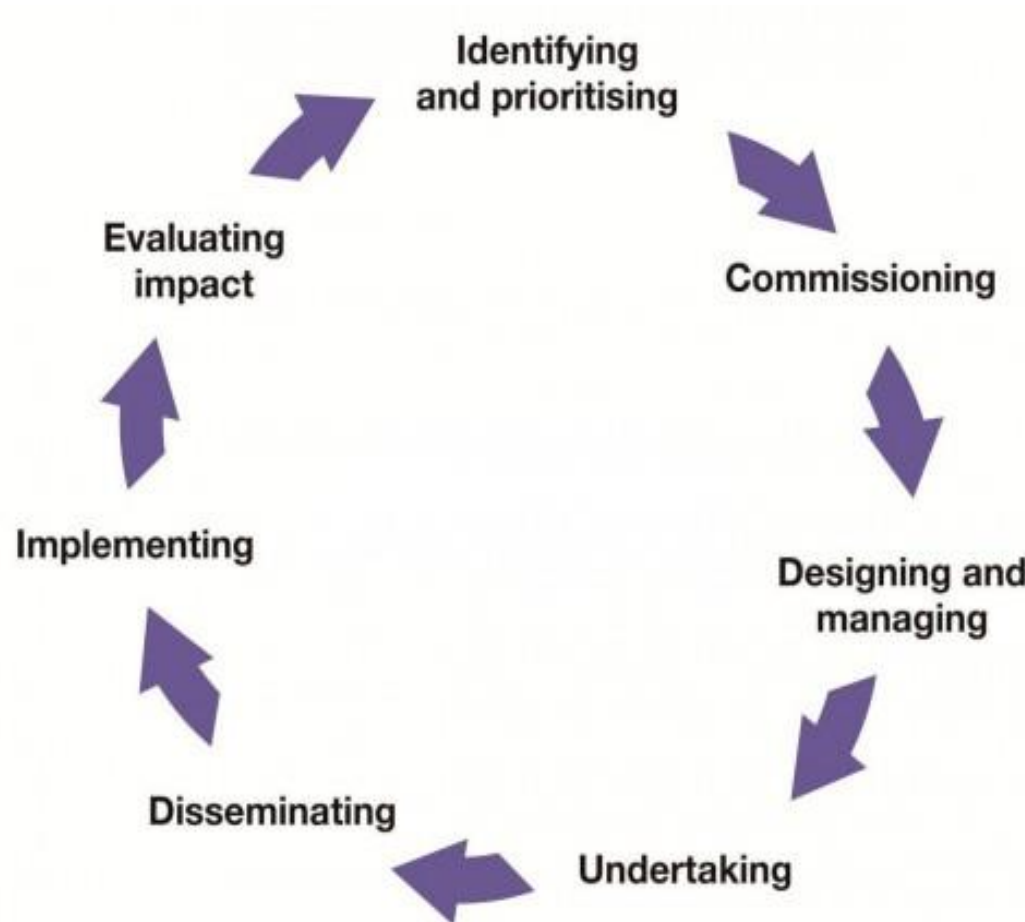
Example 7: Training & guidelines on RRI



Example 8: Reflecting on RRI...



Patient and public involvement, UK



#Why?



1. NORMATIVE
More democratic



2. INSTRUMENTAL
Legitimacy

- Investment in R&I (private & public)
- Public trust

3. SUBSTANTIVE
Better results



SOLUTIONS 2 
COMPLEX PROBLEMS



UNMET NEEDS

participation in R&I agenda setting & in other decision making bodies



-WASTE RESEARCH & + INNOVATION

Biomedical Research:
increasing value, reducing waste



ALIGNED
WITH **VALUES**

RRI...

**#COMPLEX
VS
COMPLICATED**

Responsible R&I (RRI)



www.rri-tolos.eu

RRI...

#PROJECT VS CHALLENGE

Complex socio-scientific problem: future scenario on aging

Little space for deliberating around our model of civilization , the future we want & the R&I required



Socio-scientific issues such as the use of antibiotics, vaccines, ESC, CRISP or aging...

[Video on ageing](#) and RRI (HeirriProject):

Impact on:

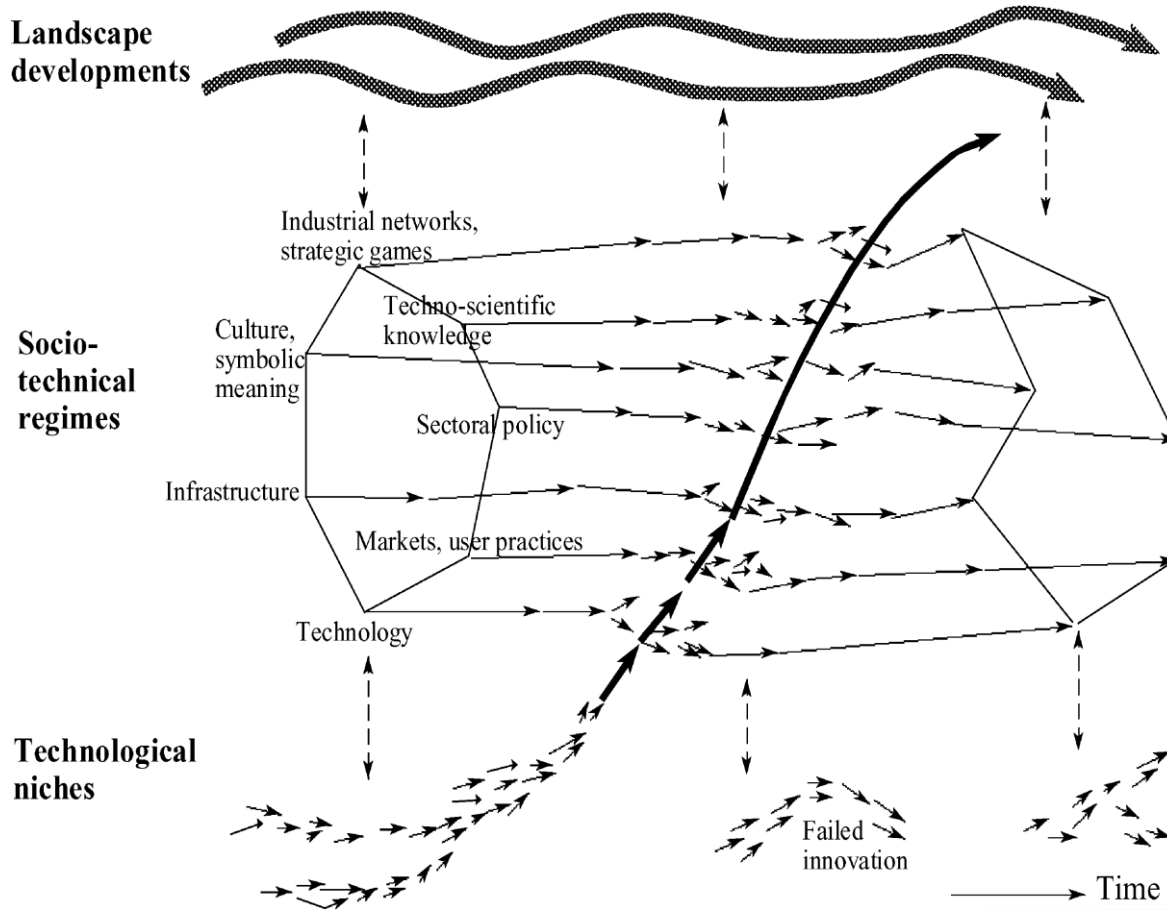
- **Food** resources
- **Economic** inequalities
- **Health** Inequalities
- **Political: Research** is private
- **Social** issues: i.e. loneliness, coping with death, **values** around survival

RRI...

**#COMPLEXITY
AT DIFFERENT
LEVELS OF TRANSITIONS**

MULTI-LEVEL PERSPECTIVE IN TECHNOLOGICAL TRANSITIONS

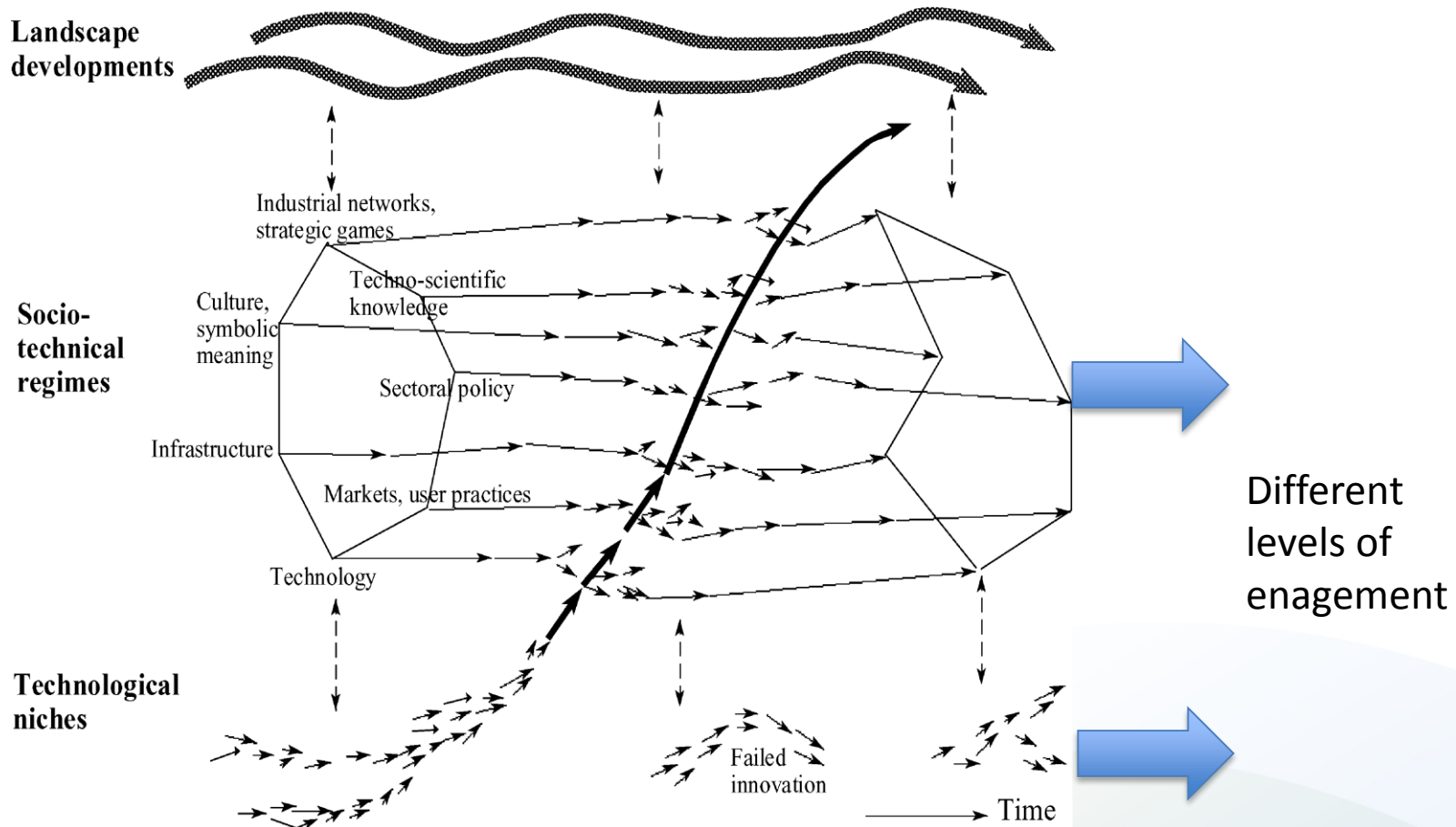
Transdisciplinary complexity



Geels, F. Technological transitions as evolutionary reconfiguration processes: a multi-level perspective and a case-study . Research policy, 2002

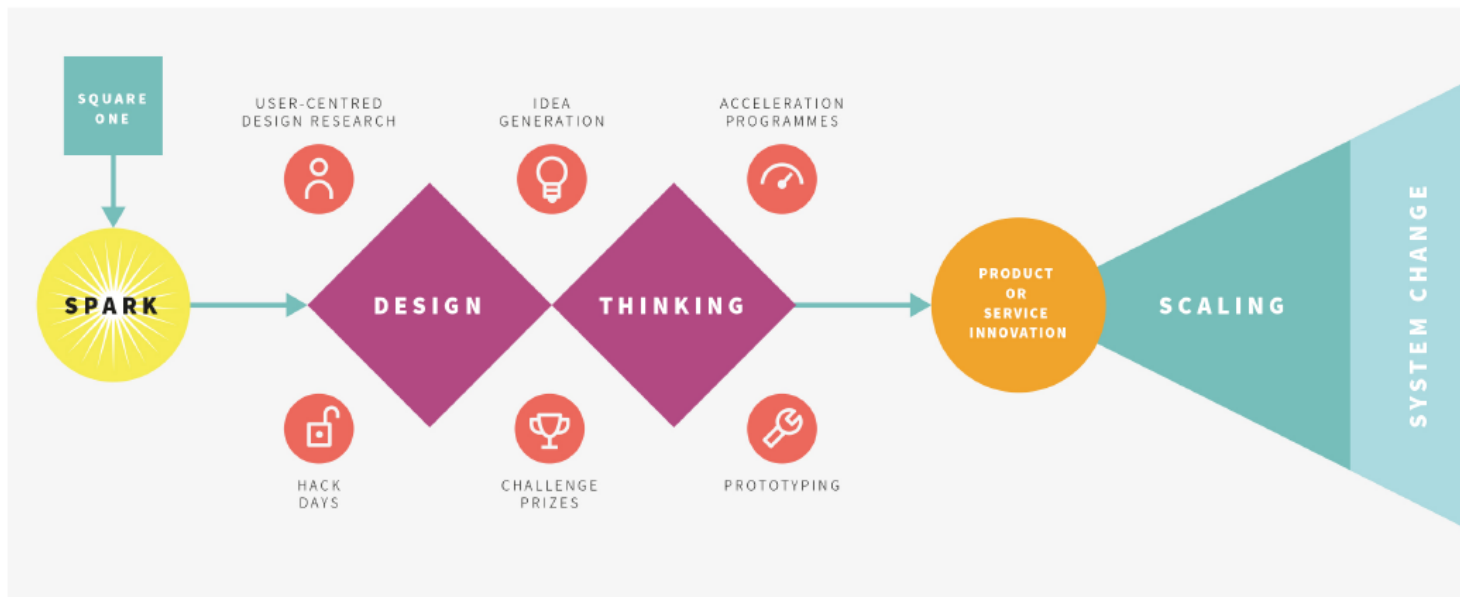
MULTI-LEVEL PERSPECTIVE IN TECHNOLOGICAL TRANSITIONS

Transdisciplinary complexity



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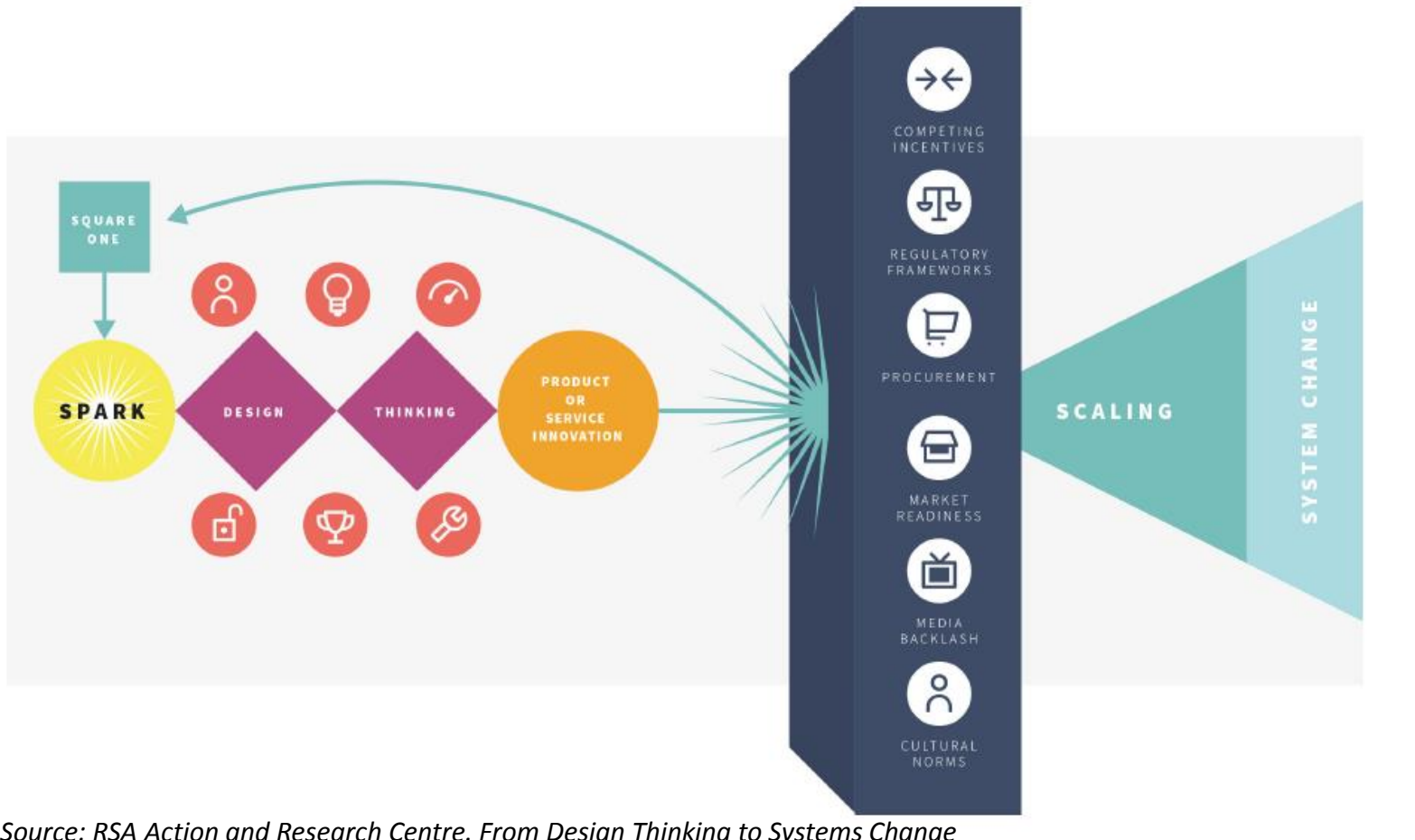
The linear fallacy



Source: RSA Action and Research Centre. From Design Thinking to Systems Change

<https://www.thersa.org/discover/publications-and-articles/reports/from-design-thinking-to-system-change> via Tatiana Fernández, Generalitat de Catalunya

The systemic response (for scientific & socio-scientific challenges)



Source: RSA Action and Research Centre. From Design Thinking to Systems Change

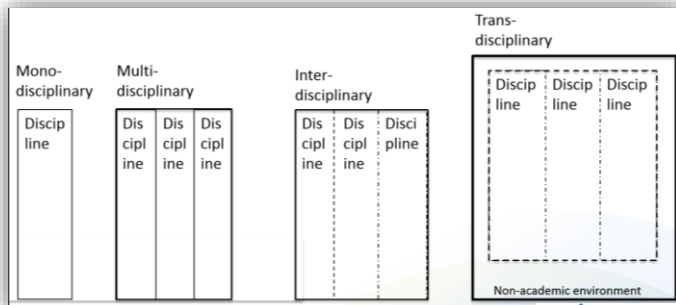
<https://www.thersa.org/discover/publications-and-articles/reports/from-design-thinking-to-system-change> via Tatiana Fernández, Generalitat de Catalunya

#STAKEHOLDER ANALYSIS

#COLLECTIVE STRATEGIES

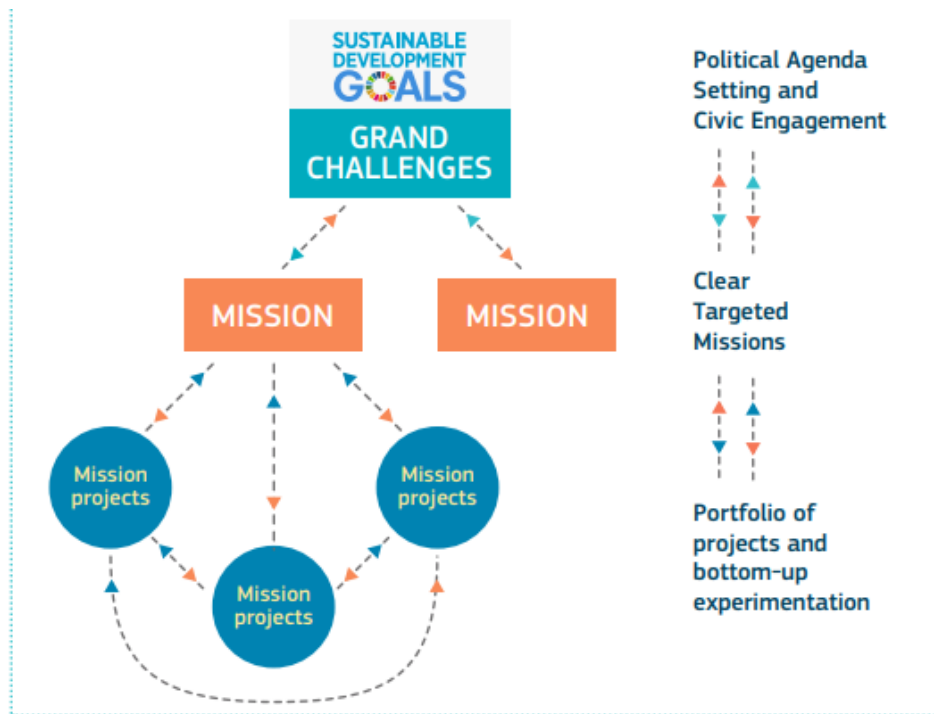
How to transform the R&I system?

Inspiration from different movements...

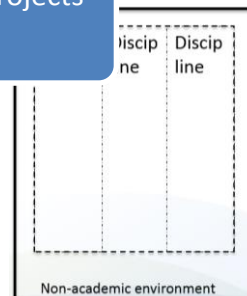


POLICY BRIEF 1
A SYSTEMS APPROACH TO RESEARCH AND INNOVATION FOR FOOD SYSTEM TRANSFORMATION

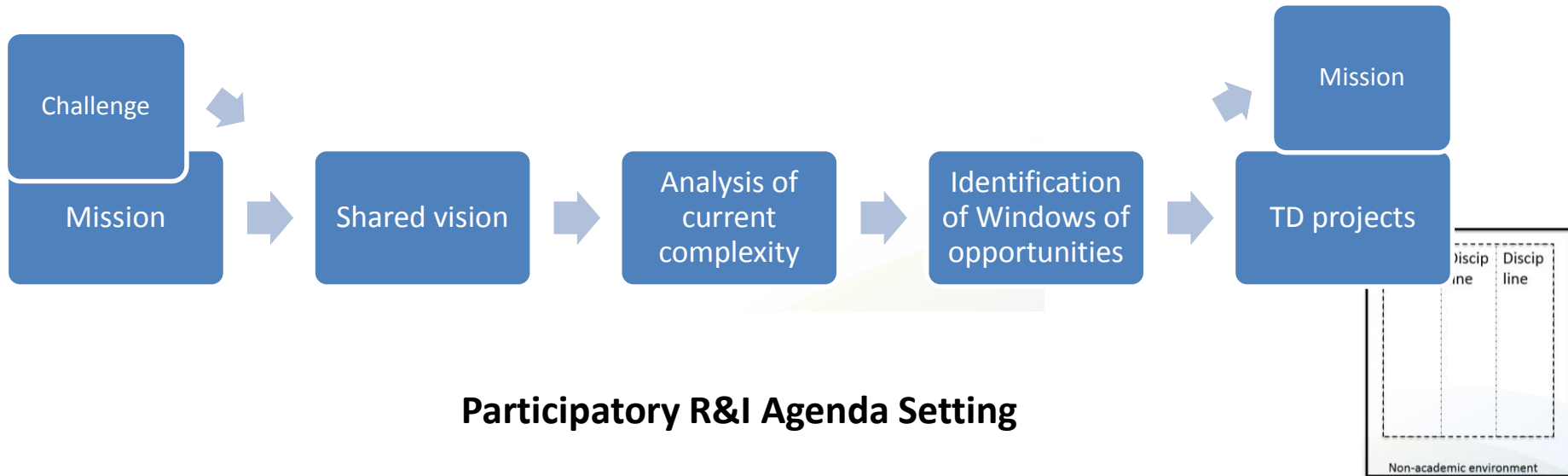
How to define specific missions and projects? How to execute them and implement the results?



Complex socio-scientific problems

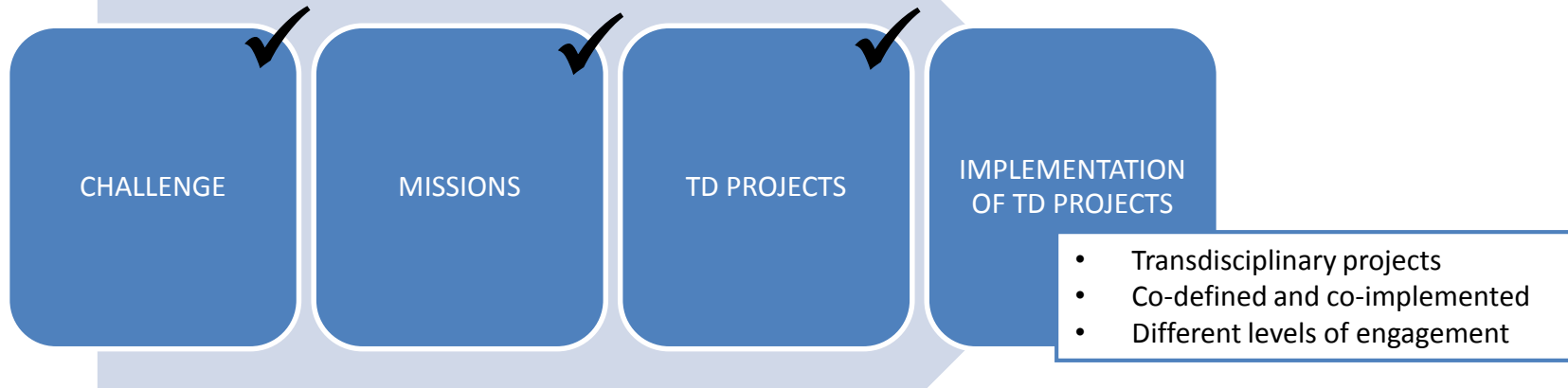


Complex problems



Complex socio-scientific problems

Implementation of Projects



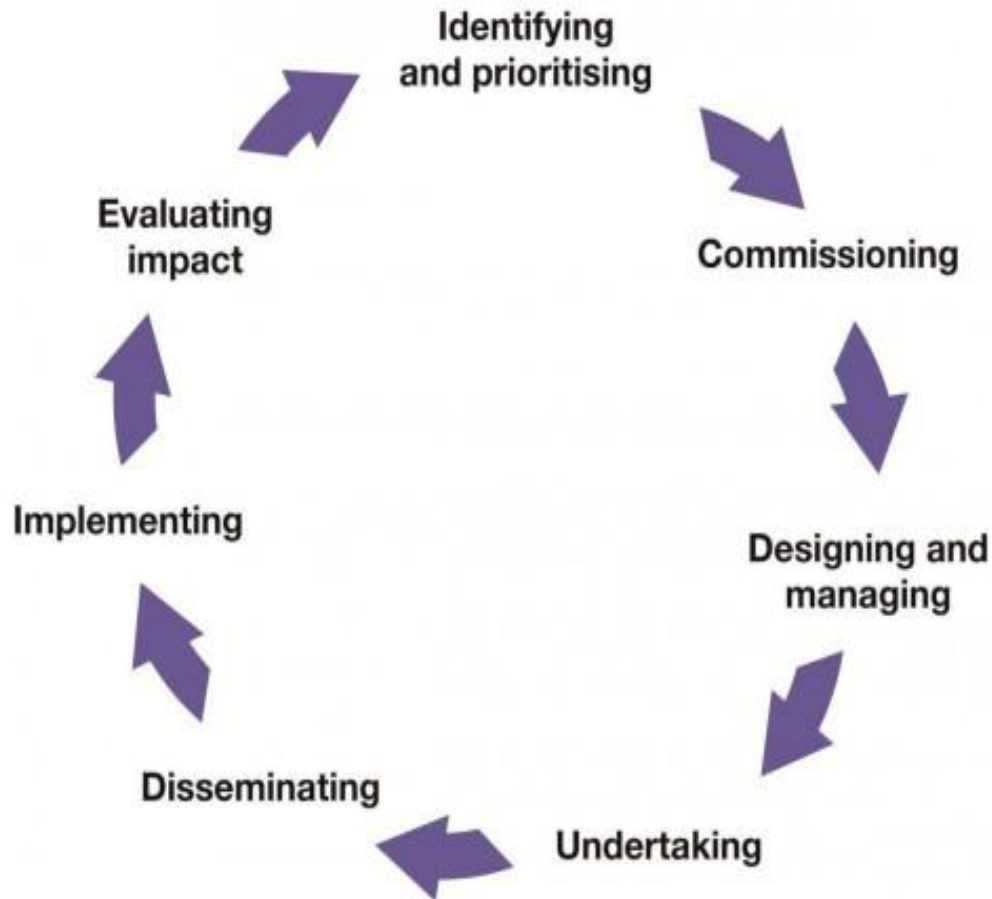
Anticipation

Knowledge integration & mutual learning

Collective strategy

Systemic Evaluation

Patient and public involvement, UK



→ Innovation Ecosystems

New paradigm

#relationship between Science & Society
vs within scientific community and with different
stakeholders



→ Innovation Ecosystems

CHANGE

New form of problem solving

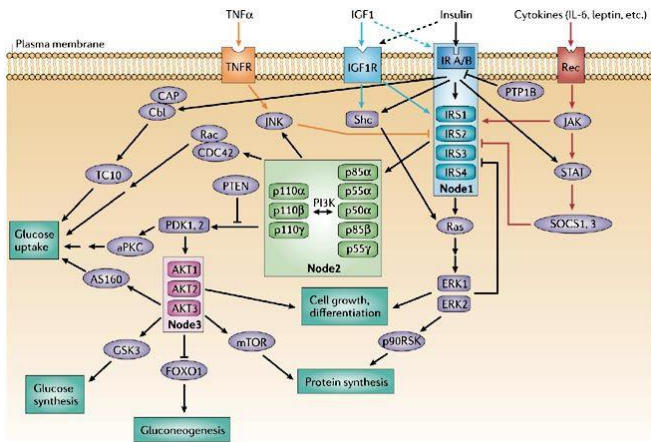


→ Innovation Ecosystems

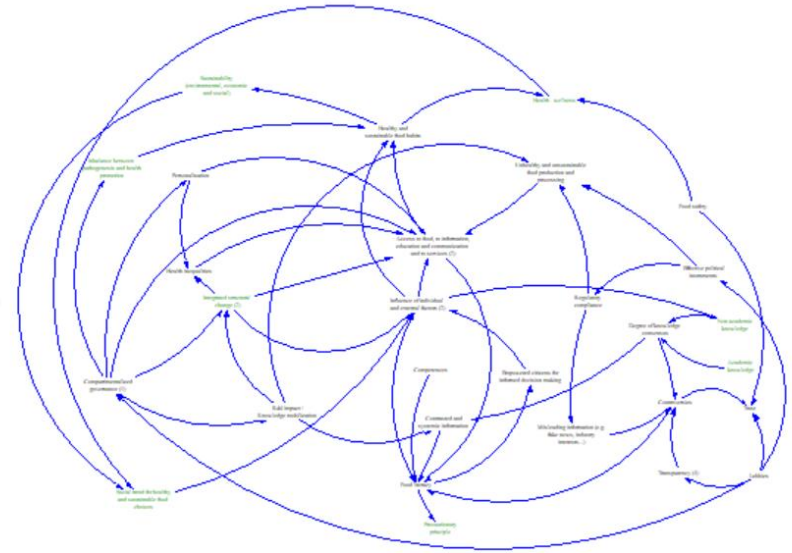
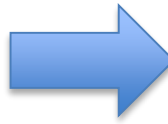
“We have **efficacy** at individual level and **inefficacy** at system level”

René Von Schomberg, EC, Bdebate, October 2018

Mapping nature and mapping complexity for change (at TD)



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Nature Reviews | Molecular Cell Biology



“Missions must include new conversations between **fundamental research, applied research and cutting-edge innovation**”, Mazzucatto, 2018.



Go to www.menti.com and use the code 30 03 09

one word, what do you think should be the main focus point to make food system transformation possible?

Rosina Malagrida @RosinaMalagrida · 20 feb.
The keys for systems transformation are education and collaboration as expressed by the audience @JPI_HDHL #foodsystem #FOOD2030EU #Fit4food



Share your responsibility!
Thanks!

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Living Lab for Health
Promoting Health wit and for society