UNIVERSITÀ DEGLI STUDI DI TORINO

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Investigating the potential of Collective Action Initiatives in the energy transition: the COMETS project

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COMETS

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Contents

Framing the problem

How Collective Action Initiatives (CAIs) can help in addressing Social aspects of the Energy Transition (ET)

Collective Action in Et : a preliminary definition

People voluntary acting together in pursuit of common interests

CA results from changing combinations of interests, organization, mobilization, and opportunity

- one of the biggest dilemmas in social sciences history an umbrella to frame a number of different initiatives all performed by collectivities
- as energy users we are private users that pose the problem to cooperate to manage our own energy in a different way

Examples : collective energy purchasing groups; energy cooperatives, energy communities (local or virtual/place or interest)

THE SOCIAL DIMENSION OF ET (1)

"For geothermal energy to be developed the majority of the technical problems, if not already solved, may be solved. The **hard challenge is social**"

(*B.M., geologist, University of Torino*)

The hard challenge (or social aspects) in general is declined as:

- public acceptance-> *from avoiding conflicts to innovation diffusion*
- public engagement -> *from behavioral change to co-design and implementation*
- impacts -> *from employment and income to energy justice and equality to culture and values*

THE SOCIAL DIMENSION OF ET (2)

2 perspectives to look at the social dimension

Passive

What the effects of ET on society:

- *quality of life*
- *occupation and income*
- *local vs global*
- *change in values and culture*

-> acceptance and impact assessment

interacting
overlapping
mutually influencing

Active

How can social factors dynamics influence and being influenced by ET

- *network effects, knowledge sharing, participation*
- *empowerment, enablement*

-> engagement

information → *behavioral change consumption* → *production* → *Co-decision*

CA as means for **actively involving citizens** in supporting the **ET** while providing tools for mitigating/improving the negative/positive effect

Collective Action

✓ **Features/requirements of CA:**

- communication/interaction
- trust and reciprocity
- motivation and values
- reputation
- flexible institutional setting
- decision making
- control/sanction

✓ **Benefits**

- Overcoming limits of individual perspective in policies and behavioral change processes CA can make very good use of the network effect
- Empowerment of people, enabled to be active part of the system thrugh the medaition of a *local* layer
- Improving social impact (e.g. savings, satisfaction of needs, inclusion, energy poverty…)
- Alignment with the features of RES (decentralized,…)

✓ **Challenges**

- expert advice and support
- financial support mechanisms
- awareness (cognitive barrier, familiarity and knowledge) and trust (among members)
- motivate people to participate

ISSUES TO BE ADDRESSED

Theory and Knowledge

- What are the main features and dynamics of CAI in ET?
- How to measure their performance in terms of energy and social impact?
- What are the main drivers of success/failure?

Practice

- What strategies at local, national ,EU level can support CAIs development?
- What knowledge and tools can directly improve their performance?

COMETS PROJECT

(COLLECTIVE ACTION MODELS FOR ENERGY TRANSITION AND SOCIAL INNOVATION)

TO INVESTIGATE CAIS (COMPONENTS AND PROCESSES) AND PROVIDE TOOLS FOR THEIR DEVELOPMENT

WHERE COMETS COMES FROM

The H2020 call : the Buliding Blocks

Energy System and Transition

- complex embedding into society
- co-evolution of tech, institutional, social factors interacting with(in) environments

Social Innovation

- convergence of economic and social performances
- new ideas that simultaneously meet social needs and create new social relationships

Collective Action Initiatives

- social innovation in themselves
- organizational solutions for citizens to transform energy chain

COMETS' OBJECTIVE

Investigate CAIs as the main driver of social innovation in the energy sector.

TWO SPECIFIC OBJECTIVES

Building robust knowledge on social innovative processes in the energy transition by CAIs

to understand what socio-economic, political, technological and cultural factors can facilitate CAIs as an engine of the energy transition

- What are, and what have been in the past, the social innovations in the energy field in terms of processes and products?
- Who participates in a CAI and why?
- In which way are CAIs socially innovative?
- How to distinguish between ‘successful’ and ‘unsuccessful’ CAIs in the energy field?

Designing new tools for CAIs assessments, estimation *and maximization* of their contribution potential

to provide tools for supporting SI processes over to two-time horizons

- *short-to-medium time:* support to CAIs and local decision makers through their involvement in the COMETS research activities.
- *medium-to-long time* (i.e. beyond the COMETS duration) the main outputs will be exploited
  Supporting Platform for CAIs, knowledge base, roadmaps, networks of CAIs

THE CONSORTIUM

3 EU level organizations:
1 Energy Agency
6 Academic bodies:
2 Research centres

Methodological framework

Responsible Research and Innovation (RRI): citizens engagement in co-creating knowledge and defining strategies of tech development (empowerment)

Action-Research (AR): researchers and participants actively take part in a changing situation while simultaneously conducting research

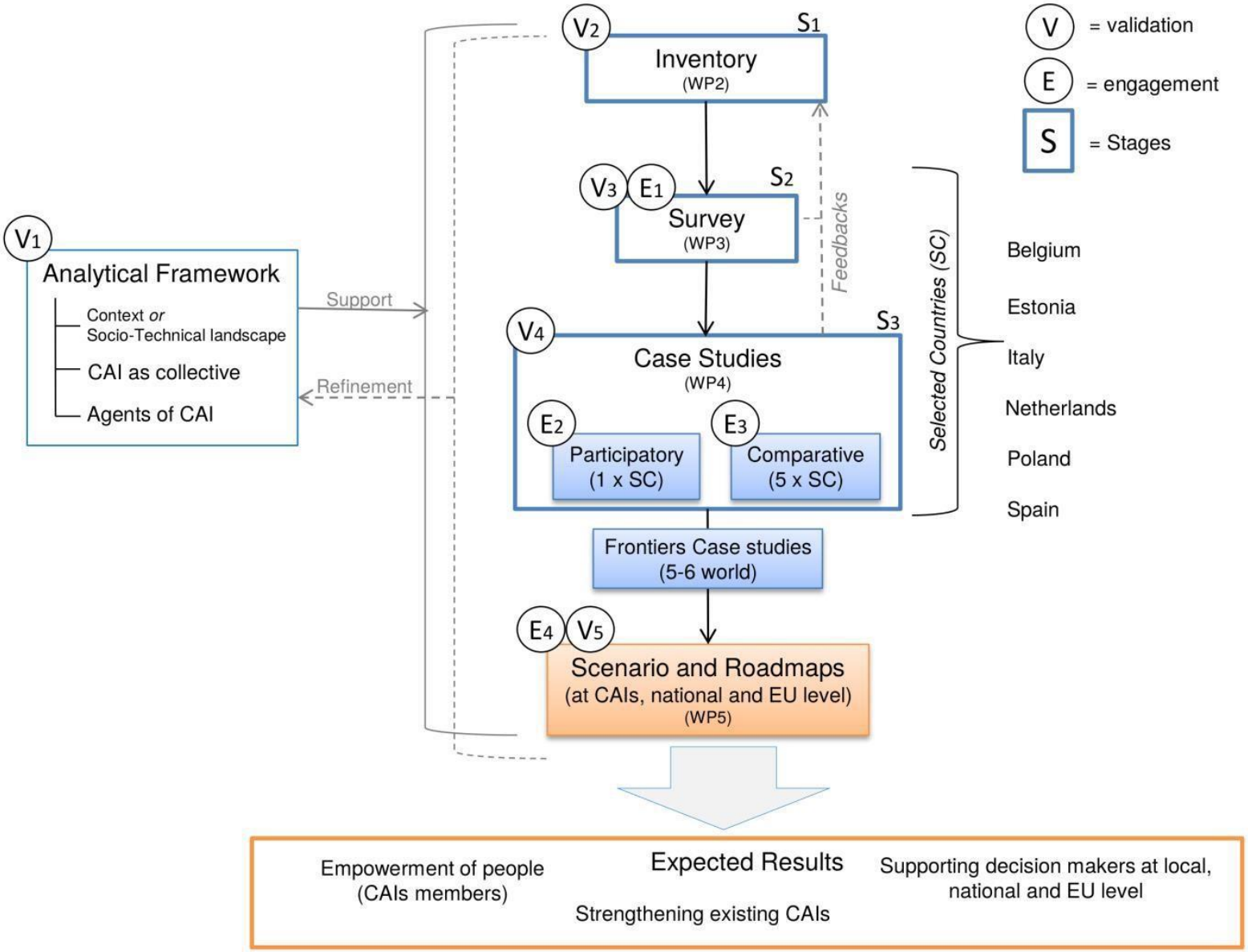
Comparative Analysis: help us make sense of the observed variations and capture the principles of both similarities and differences

Social Sciences and Humanities (SSH), Interdisciplinarity: To succeed in moving towards a sustainable future, we have to modify both technologies and society.

Validation efforts: evaluative criteria for assuring that the adopted methodological approach is the most reliable.

Consortium Benchmarking (CB): brings together scientists (the consortium) with practitioners from several organizations that participate in co-defining the research questions and academics, which add theoretical knowledge and ensure methodological rigor.

Activities


V = validation
E = engagement
S = Stages
V1
Analytical Framework
Context or Socio-Technical landscape
CAI as collective
Agents of CAI
Support
Refinement
V2
S1
Inventory
(WP2)
V3
E1
S2
Survey
(WP3)
Feedbacks
V4
S3
Case Studies
(WP4)
E2
Participatory
(1 x SC)
E3
Comparative
(5 x SC)
Selected Countries (SC)
Belgium
Estonia
Italy
Netherlands
Poland
Spain
Frontiers Case studies
(5-6 world)
E4
V5
Scenario and Roadmaps
(at CAIs, national and EU level)
(WP5)
Expected Results
Empowerment of people
(CAIs members)
Strengthening existing CAIs
Supporting decision makers at local, national and EU level

AMBITION

- **Quantifying the aggregate contribution of CAIs to the European and national low-carbon energy transition.**
  - Expanding the collection of data on CAIs to all countries in the European Union
  - Capturing all types of CAIs (not only energy cooperatives)
- **Deeper level qualitative investigation for improving the contribution of CAIs to the European energy transition.**
  - conditions and barriers of implementation of CAIs;
  - economic and societal impacts of CAIs (from a SI 'qualitative' perspective).
- **Mobilizing the contribution of CAIs to the European energy transition that is** currently underexploited because of…
  - Fragmentation of the field: CAIs tend to develop separately from each other;
  - Boundedness of the field: there is much potential in synergizing with CAIs in non-energy fields;
  - Split between research and practice: lot of research on CAIs, much less research *with* CAIs;
  - Challenge of spreading and scaling: the development of CAIs is strongly context-dependent and cannot spread and scale based on a one-size-fits-all approach.

Main outputs and expected results

A.Knowledge

an enhanced, up-to-date definition of CAIs in the energy sector

European-wide inventory of CAIs to be continuously updated;

reports on CAIs determinants, contributions and performance

B.Tools

manuals on strategic roadmap for supporting social innovation in the energy sector

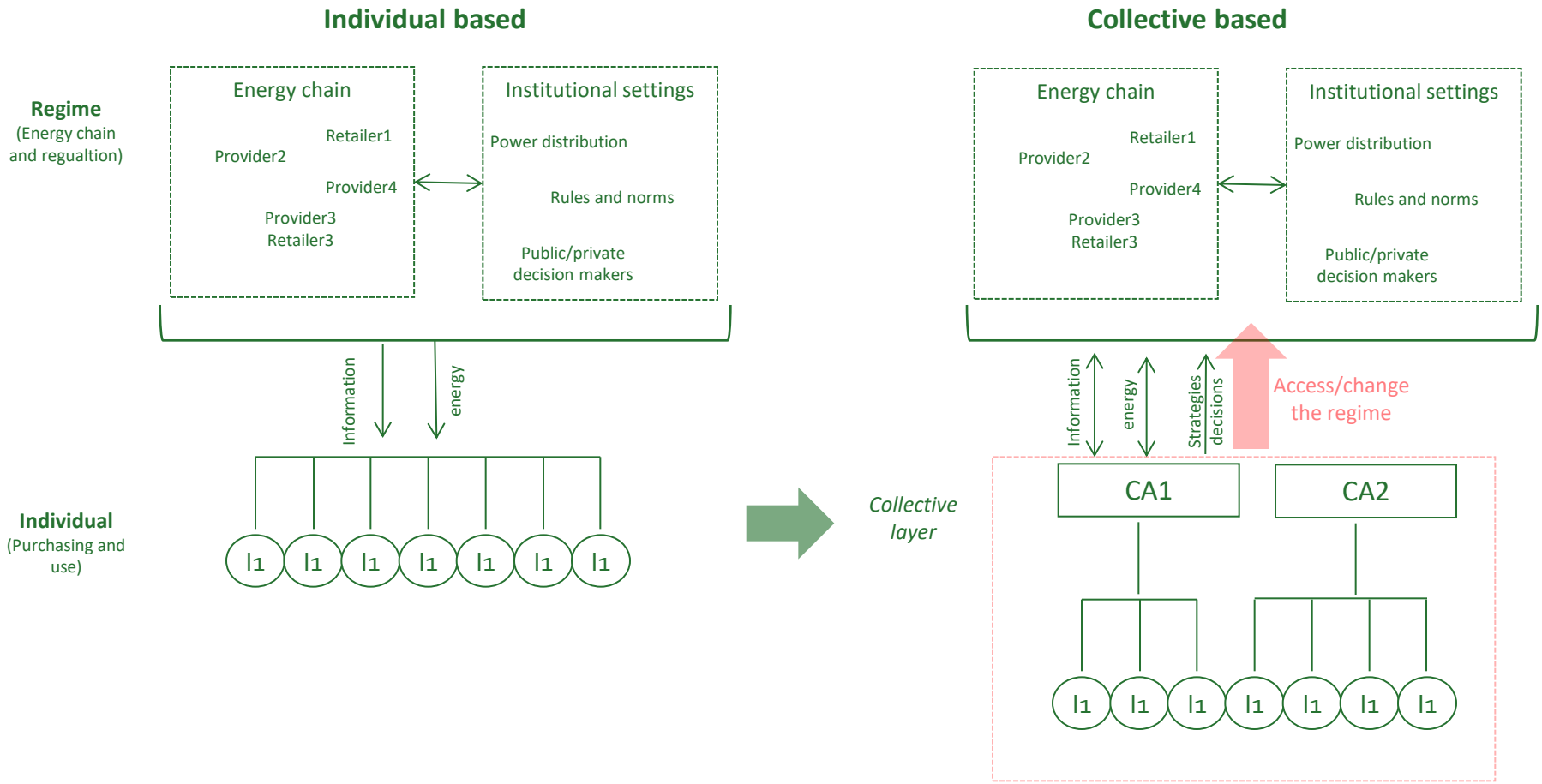
An open-sourced virtual platform for CAIs roadmaps, knowledge and development.

TARGET BENEFICIARIES

- *CAIs (existing and future)* will be able to find solutions for further developments;
- *Citizens* will gain awareness about the benefits of participating in local level energy production, distribution and consumption;
- *Policy makers* will be provided with many evidence-based tools to support the energy transition;
- *The European Union* will be supported in developing a broader decentralized, affordable, secure, inclusive and sustainable energy system.

CONCLUSIONS : WHAT WE ARE TRYING TO DO

Challenging the energy regime? Challenging/integrating the energy market?
Introducing a *middle-layer* between the individuals and the system



THANK YOU !

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