

Rethinking transformation to face climate change. Insights an energy grassroots experience

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Justification of our work: Need for rethinking current approach to CC

Current approaches are depoliticized. Exclusively value scientific-rational knowledge. Not critically analyzed the model of development and progress. Exclusively focused on top-down approach.

So... we start from the following assumptions:

- A more **transformative, critique and politicized approaches** to transition to sustainability is needed
- Beyond policies and institutional initiatives, an **active, critical and empowering civil society** is needed, this is why is relevant to support initiatives which promote this active citizenship
- There exists **initiatives, bottom-up driven**, that are not only proposing sustainable alternatives but also generating transformative learning, agency and empowering people involved

Justification of our work

This is why we will try to...

To explore **grassroots innovations** processes, where **alternative models and solutions and transformative learning** to address the challenge of climate change are built in bottom-up process, and which are contributing to the transformation of current systems towards more sustainable ones.

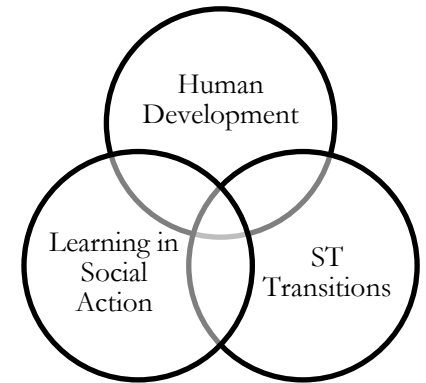
Our research questions:

Zooming out:

- **How these grassroots innovations initiatives are characterised?**
- **Which is the model they propose and which are their strategies?**

Zooming in:

- **Which learning is emerging in these initiatives and to what extent this learning contributes to transition so sustainability?**



Spanish Electricity Model: the Regime

Dimensions Reg. (MLP)	Dominant Electricity Regime
Principles	Electricity as commodity. Government and big companies don't recognise the existence of Fuel Poverty
Technologies	Big plants, dependence on fossil fuels, controlled by a few companies Spanish Electricity System is oversized → payment for capacity
Industrial structure	Complex energy regulations – very difficult for new companies to get into the Spanish energy market → Lack of competitiveness
Relationships producers-consumers	Separation passive clients-providers Complex energy regulations - difficult for users to perfectly understand the energy market and take decisions to choose the best energy offer
Policies and regulations	Powerful lobby 2 periods through the low carbon transition: - Renewable energy boom (2004-2008) - Renewable energy restricted (2010 onwards)
Knowledge sources	Techno scientific and very complex regarding fees for consumers

Spanish Electricity Model: the Niches

New business lobbies:

- wind power companies
- photovoltaic companies
- solar electric industry

Social movement organization:

- ecologists, foundations
- NGO, platforms, associations

New electricity commercializers:



Emerged explicitly in defense of the energy sector

Particularly in the pro-renewable and pro-feed-in tariff camp



Spanish Electricity Model: the case on Som Energia

- Spanish green energy cooperative
- **Commercialization:** provide clean electricity, coming from renewable sources.
 - **Production:** develop small-scale renewable energy projects, owned by all cooperatives members



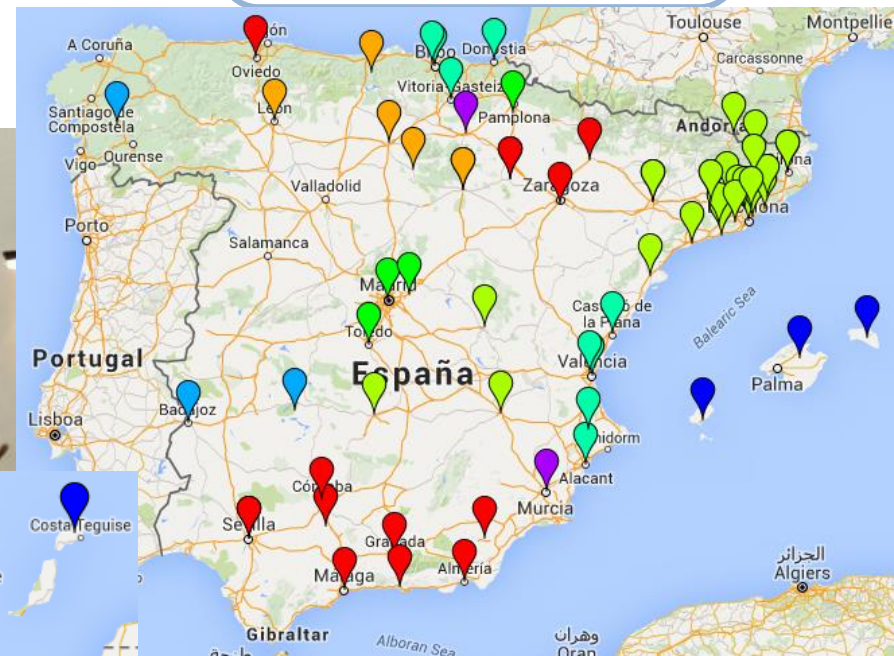
Change energy model

Energy democracy

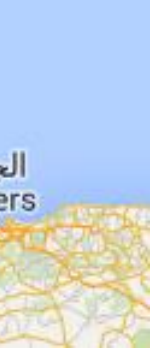
Quickly expansion:
 2010: **350 members**
 2011: 1000 members
 2012: 5000 members

2013: 12000 members
 ...
 2016: **27880 members**

- 65 local groups = Activists
- Conferences
 - debates
 - regular meetings



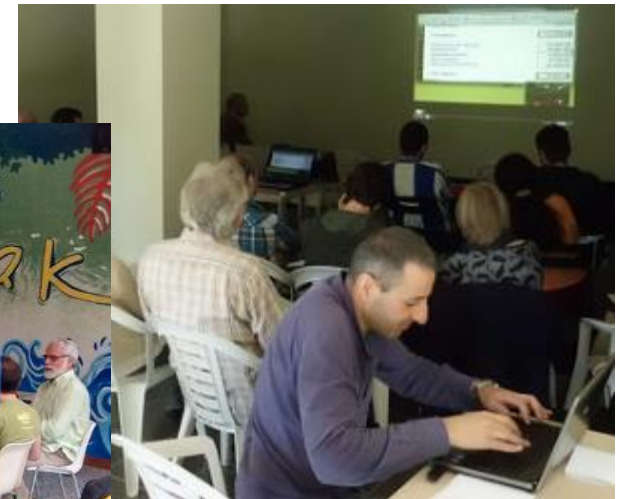
Spanish Electricity Model: the case on Som Energia



Spanish Electricity Model: the case of Som Energia

Three Spaces of interaction:

1) **Annual assembly:** formal representative space. Approval decision (not really a discussion space)



Spanish Electricity Model: the case of Som Energia

Three Spaces of interaction:

2) School of September (annual): training orientation, discussion but not decision taking space



Spanish Electricity Model: the case of Som Energia

Three Spaces of interaction:

3) Meeting Local Groups (annual): strategic planning orientation, discussion and decision taking space. 1 person/ group. Expenses covered by the cooperative



Our research questions

- **How this grassroots innovation initiative (that promote a transition to sustainability) is characterised and to what extent is it transformative?**
- **Which is the model (to transition to sustainability) they propose and which are their strategies?**
- **Which learning is emerging in these initiatives and to what extent this learning contributes to transition so sustainability?**

Theoretical and methodological framework

Insight from three theories:

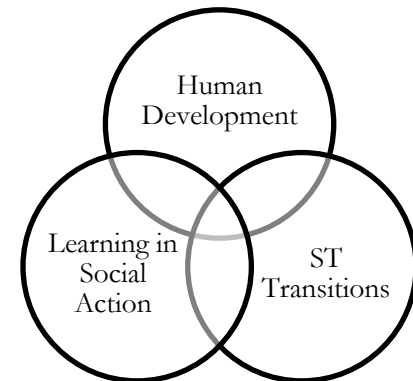
Socio-technical transitions: offers a **comprehensive framework** from which to address processes of change from multi-dimensional and multi-level perspective

Learning in Social action: offers an **exploring framework** about creation of knowledge based on ethical values and global citizenship

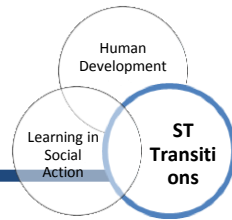
Human development: offers a **normative** and **evaluative framework** from which to explore principles and values in the innovation processes and outcomes.

Methodology:

- Semi-structured interviews to key members of organizations.
- Secondary information.
- Participant observation

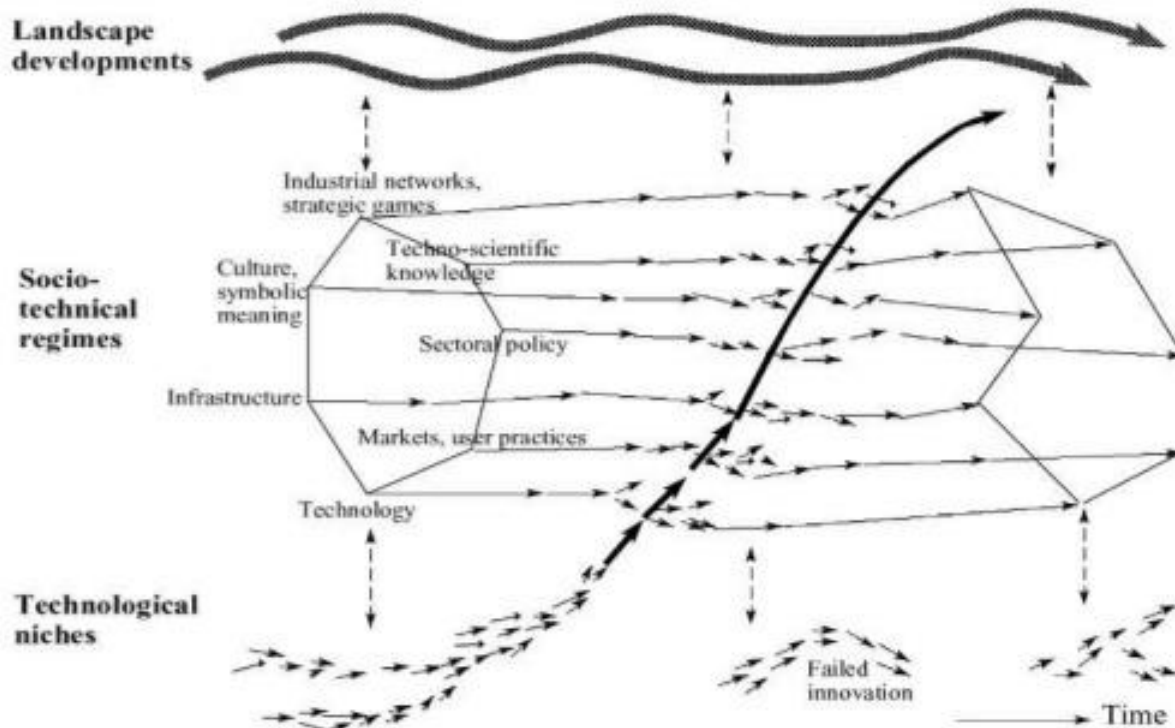


Theoretical and methodological framework



Socio-technical transitions: offers comprehensive framework from which to address processes of change from multi-dimensional and multi-level perspective

Socio-technical transitions: multi level perspective (Geels, 2004)



Long term trends

Economic trends

Demographic

Environmental: Climate Change

Regime

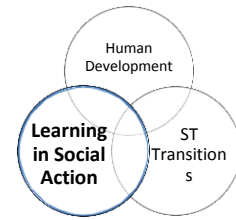
Dominant configuration of features in a system (energy, agrofood, etc.)

Dimensions: technology, policies, industrial structure, consumer-producer relationships, knowledge

Niches

Protected spaces which may challenge, influence or even substitute regime

Theoretical and methodological framework



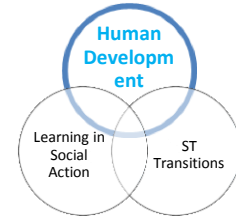
Learning in Social Action

- Is emergent, informal, non planned, tacit and incidental, which have to be unveiled in order to be understood (Foley 1999, 2004)
- This learning takes place through relationships, in permanent and dynamic processes, embedded in particular contexts, where social, political, economic, social and cultural factors are at play (Margaret, 2010), as well as power relationships (Pettit, 2010).

Mezirow (1999, 2000):

- **First order loop:** superficial and practical learning, that allows changing routine.
- **Double order loop:** deeper and critical learning, reflection on values, norms and social structures, that allows changing framings.

Theoretical and methodological framework



Human development: offers an evaluative framework from which to explore principles and values in the innovation processes and outcomes. (Sen, 1990).

Implications in terms of **Values**

Sustainability

Relations with nature cannot limit capabilities of current or future generations

Diversity

Different life options and development models must be recognized

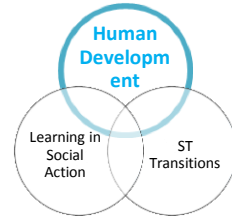
Equity

Equal access to opportunities independent of age, gender, race, ethnic group, origin.

Participation and Empowerment

Real options to participate in political life and be agent of change

Theoretical and methodological framework



Human development: offers an evaluative framework from which to explore principles and values in the innovation processes and outcomes. (Sen, 1990).

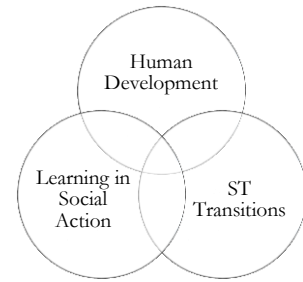
Insight two core elements of Human Development debates:

- **Capabilities:** real opportunities a person has to take decisions and lead the life s/he prefers.
- **Agency:** The ability of someone to pursue and achieve the goals he/she value. Someone who acts and promotes **change happen**. Also capability to change society (not just one's life).

Our research questions

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Results RQ1: How this grassroots innovations initiatives is characterised and to what extent it is transformative?



HD contributes in the following terms:

- **ACTORS:** It emphasizes: the **social and political character** of the activists.
The importance of having the freedom to engage in collective action
- **PURPOSES:** It understands the aims of the initiative not only oriented to sustainability → oriented to the social justice and good → oriented to encourage **processes that ensure that individuals as well as groups can be authors of their own lives**
- **PROCESSES:** It emphasizes the importance of **participation, deliberative democracy, voluntary work and shared values** → Assemblies as central spaces → People individually and collectively exercising their capabilities and agency to active participate in social and political life

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Results RQ2: Which is the model they propose and which are their strategies

	Energy cooperative
Principles	Sustainability and Democracy Citizen control Citizen freedom to chose and build the model they have reasons to value
Technologies	Small renewable plants/equipments Cooperative ownership
Industrial structure	Decentralization Multiplicity of local stakeholders linked with social economy
Relationships producers-consumers	Committed consumer and eventually prosumer
Policies and regulations	Promoting self-production , feed-in tariff renewable energy, making market more transparent, combating battle fuel poverty
Knowledge sources	Techno scientific, but accessible for citizenship

Results RQ2: Which is the model they propose and which are their strategies

SOM ENERGIA (as a member of a broadest energy niche movement):

- Embedded values: Relationships, cooperation, rights-oriented production
- **Analysis from HD values perspective:**
 - **Sustainability:** not only in terms of technology (renewable) but also in terms of relation between actors
 - **Diversity:** recognising different identities in each territory
 - **Equity:** energy as a right, needed to have a life one has reasons to value
 - **Participation:** as a hallmark (physical and digital spaces for participation)

Results RQ2: Which is the model they propose and which are their strategies

Tensions, challenges and contradictions:

- ✓ Inside Som Energia:
 - Narrow down low-carbon transitions to fuel transition (**Sustainability**)
 - Scaling versus maturing (**Participation**)
 - Different growth in different territories (identity, cooperative movement culture..) (**Diversity**)
 - Som Energia's role in combating Fuel Poverty (**Equity**)
- ✓ Inside niche movement:
 - The cooperatives' oligopoly?
- ✓ In relation with the Regime:
 - 1 or 2 transitions? Incumbents are also planning their own transition, top-down.

Our research questions

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Results RQ3: Which learning is emerging in these initiatives and to what extent this learning contributes to transition to sustainability?

SINGLE LOOP:

Knowledge:

- Deeper comprehension about current electricity model
- Deeper comprehension about cooperative movement
- Deeper comprehension about social and solidarity economy

Skills:

- Capacity to communication, to work in groups
- Capacity to deliberation, express their own voice, listen and respect
- Capacity for better work planning
- IT tools

Attitudes:

- Will and awareness to live in a responsible and sustainable way of life (deep concern about future generations)
- Importance collective agency

Results RQ3: Which learning is emerging in these initiatives and to what extent this learning contributes to transition so sustainability?

DOUBLE LOOP:

About transformative power of ENERGY (and CONSUMPTION)

- To move from an engineering conception to a **social conception about energy**: interest in issues such as fuel poverty, energy sovereignty, energy democracy
- To realize that energy makes visible that the transformation has to be **systemic** (beyond mix energetic... rules, culture, values, infrastructure)
- To be aware of the social transformative **power of consumption** (energy, food, clothing, telecommunication, finances... etc).

Results RQ3: Which learning is emerging in these initiatives and to what extent this learning contributes to transition so sustainability?

DOUBLE LOOP:

About transformative power of other PERSONAL and SOCIAL relations:

- New ways of relation with each other, no official hierarchy → **Restructuring power relation**
- **Self-management** → Change the paradigm: move the main focus (the most important) from issues as planning / hierarchy / role distribution, efficiency to issues as trust, commitment, discussion, reflexion, learning, common good
- “Discover” the concept of **agency** and its relevance for social change. Be aware of **regime barriers** that hinder the expansion of agency
- Re-think the idea of “**voluntary work**” → from conventional conception to a **political and personal** life option
- Translate these learning to **other spheres of life** (reproductive, labour, etc)

Results RQ3: Which learning is emerging in these initiatives and to what extent this learning contributes to transition so sustainability?

DOUBLE LOOP:

About REGIME and GLOBAL connections

- To be aware that **knowledge is political**: who generates it? From where? To whom? How is it translate? → Necessity to promote new schools of thought based in human development values → “The struggle is not just material, but also epistemological”.
- To reinforce connection between **inter-national** (local-global) and **inter-generational** issues
- Sense that one can have impact on other’s life. **Optimism towards social transformation.**

Results RQ3: Which learning is emerging in these initiatives and to what extent this learning contributes to transition so sustainability?

DRIVERS:

Related with the interaction between people:

Values, principles and interests shared

Mutual formation. Learning from each other.

Related with horizontality and breaking power relation

Democratic and horizontal spaces

Inexistence of route maps seated from the top (each group does what it decides)

Related with how to make possible previous both:

Physical and digital spaces to share information and to self-formation

Spaces of debate and deliberate

Informal spaces: dinners after assemblies; share car, room, table in annual meetings, etc.

Results RQ3: Which learning is emerging in these initiatives and to what extent this learning contributes to transition so sustainability?

Tensions, reflections, limitations... to explore further:

- A great variety of learning in each group → Power relation?
- Second order learning, usually in people with activist background → difficulty to identify which is the contribution of Som Energia
- Efficiency and increase the number of member versus reflection and learning
- After 6 years, people with more experience is becoming “tired” → loss of opportunity of sharing knowledge (go back to former discussions)
- Community leadership model the knowledge emerged in different groups (technical, political, methodological)

Final remarks: about the case study

Som Energia:

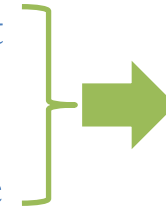
Can be considered as a grassroots social innovation for human development, experimenting with an alternative model in the energy sector.



Expanding capabilities, promoting agency, generating spaces for deliberative democracy

Is contributing to opening ways for transformation;

- imagining and prefiguring this alternative, different and viable model
- making possible the emergence of transformative learning,



Responding to principles aligned to Human Development values: Sustainability, Equity, Diversity, Participation and Empowerment

Final remarks: about the framework

HD + Socio-Technical transitions + Learning in Social Action frameworks may be combined to:

- Understand ends, processes, strategies and outcomes of niche initiatives and their connections
- Understanding the complexity, richness and specificity of bottom-up processes of innovation
- Understand the contribution of these processes to social transformation

HD: offers a robust normative framework, but it is not strong when addressing how changes happen

STT: is strong understanding how change takes place and why, but do not have clear normative standpoints

Learning in Social Action: is strong understanding how values, norms, framings change, but it is not clear explaining how these “mental” changes are linked with more global and transformative changes in the socio-technical system

Reflections and next steps

To explore further... (work in progress)

- How to understand “the” energy transition, where it may be that different transitions are happening at the same time?
- How to stronger connect learning with transition(S) to sustainability?
- To work deeper on the connection of learning with human development, beyond values
- ...

Ideas, comments, suggestion?

Thank you very much.

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