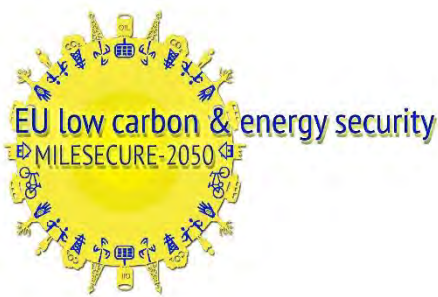# EUROPEAN
POLICYBRIEF

MILESECURE-2050

Multidimensional Impact of the Low-carbon European Strategy on Energy Security, and Socio-Economic Dimension up to 2050 perspective

This policy brief consolidates earlier MILESECURE-2050 insights into recommendations about the governance of secure and low-carbon energy transitions. Particularly, it provides further depth to the notion of the 'human factor' that has so far been underdeveloped.

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HEADLINES

- Citizens have valuable perspectives on energy transitions, and valuable definitions of the problems energy security and low-carbon energy pose. However, these perspectives are currently insufficiently adopted by governance processes, leading to poor alignments of technological and economic interventions with social practices.
- In politics, debates are currently dominated by technological and economic perspectives. These debates should be made more receptive to perspectives from particular cultural and social positions, as well as perspectives from particular local situations.
- In civil society, insufficient effort is made to emphasise the value of citizens' perspectives, and to accommodate their generation. Citizens should be provided with more information as well as with more opportunities to confront this information and their own perspectives.
- Citizens are capable of creating energy solutions, many of which don't fit with existing social and technological infrastructures. For innovation to thrive, these alternative routes to energy transition need to be accommodated into the energy system, which is currently insufficiently flexible to do so.
- Small-scale experiments are potentially important origins of a pan-European energy transition. They should be taken to inform existing sources of policy advice, as well as to inform the establishment of new administrative and policy institutions.
- Top-down and bottom-up strategies must complement each other and be mutually inclusive. Top-down interventions must be geared towards enabling local initiatives and towards empowering communities. And bottom-up initiatives must have an easier route up to the governance chain, to potentially exert influence on governance at the highest level. The manifesto *Secure and Low-Carbon energy is Citizens' energy*, prepared by the MILESECURE-2050 consortium, offers further advice.

INTRODUCTION* / BACKGROUND

The MILESECURE-2050 project has studied over 90 implementations of low-carbon and secure energy transitions in a multidisciplinary perspective. These initiatives show at once the tremendous potential that exists among European citizens to address challenges of energy transitions, and the difficulties facing the same citizens because of restricting and disempowering regulations. This poor alignment between social practices and the regulations imposed by governments needs to be addressed as a matter of urgency. The present research points out three basic avenues for improvement:

- citizens should be explicitly mobilized as sources of knowledge;
- citizens should be provided with a sense of urgency and a feeling of empowerment; and
- citizens should be provided with information in a way that positions them as owners of energy problems and challenges.

MAIN FINDINGS

- The role of citizens and communities has so far been poorly understood. Consequently, people have been insufficiently enrolled, engaged and mobilized as a resource for innovation and change in low-carbon and secure energy transition.
- Policy should be much more aimed at empowering citizens, communities and societal organizations to develop locally-adapted strategies.
- At the same time, top-down approaches need not be abandoned per se, but instead synergies between central and local initiatives should be pursued.
- Current implementations of national and European policies sometimes work counter to the potential of people, and disproportionately emphasize economic and technological arguments. Politics and policy making must be more receptive to knowledge and insights from citizens, in order to realize the potential that is now left unmined.
- Investments need to be made in novel ways: investments in the enrolment and activation of citizens and the emancipation of unprivileged groups, investments into a general receptivity for locally created knowledge, and investments into a socio-technical infrastructure that enables experimentation.

EVIDENCE AND ANALYSIS *

In the current policy brief, earlier findings from the MILESECURE-2050 project have been reanalysed to the light of the defining functions of governance: the need to harvest knowledge as well as to implement decisions, and the recognition that this happens at different geographical levels of organisation. For different modes of governance, different lessons are to be learnt. More attention must be paid to citizen, but this requires different coping strategies in political debate than it does in the support of local initiatives. Similarly, it calls for different foci when building infrastructure than it does when conducting public debate. If we want to unleash the potential of human energy, we must also pay attention to broader issues of legitimacy and acceptance of policy.

In MILESECURE-2050 research, the role of people has been studied at various levels, from the local up to the European level. At the local level, citizens, local communities and individual initiatives have been shown to play important parts in the instigation and perpetuation of transitions. They come up with creative and inventive solutions. However, this creativity stands in sharp contrast to the opportunities offered by administrative structures. It often turns out that these are comparably unidirectional: geared towards implementing governmental policies, but not

towards absorbing initiatives and knowledge from the practical field. Radical change at this point is needed.

MILESECURE-2050 research, building on both empirical analysis and an extensive body of governance literature, has pointed out four main functions that need to be fulfilled in the governance of energy transitions:

- A strong receptivity for what people think about issues, not only in terms of their preference for particular solutions over others, but also in terms of how they define issues and problems;
- a strong decisiveness to make sure decisions are implemented firmly in practice, by means of laws, incentives, technological configurations, etc.;
- a high degree of inclusivity, meaning that people have access to a sufficiently broad range of democratic institutions through which they can make their voices heard; and
- a high degree of legitimacy, partly granted by the inclusivity and receptivity, for administrative bodies to take action.

Currently, these functions are insufficiently implemented, which entails wasting important creative and innovative capital and causes people to mount resistance.

At the level of national and European governments, the role of citizens mostly appears as a narrative that has to compete with narratives couched in economic and technological terms. First, this competition is mostly lost in favour of economic and technological discourses. In practice, it turns out that decisions are made that insufficiently reflect cultural and social insights. Second, the forms in which citizen-centred considerations appear in policies and political debates, are often scant: citizens are positioned as yet another factor to be managed, or as the object of interventions aimed at behaviour change. Citizens mostly come in when options for action have been carved out, not in the very process of defining those options, let alone in the process of defining the problems to be solved.

The multidimensional research carried out in the MILESECURE-2050 project has determined success factors for energy transitions. Issues that should receive more attention if we want energy transitions to become successful include:

- Recognition of the importance of 'human energy': all those ways in which human beings can generate and mobilize energy, many of which remain underattended in technological and economic discourses (see earlier MILESECURE-2050 Policy Briefs).
- Recognition of the importance of grass-root movements, political movements and social movements as the primary drivers of societal change. Also lower bodies of administration and government potentially play important roles.
- And infrastructural facilities – not only technological, but also financial and social – should be in place to help scale up locally developed best practices. This is an important task for higher bodies of government, and they should take care that infrastructures are enabling rather than restricting to local initiatives.
- Policies must be made flexible and aimed at learning and adaptation, so as to accommodate the considerable differences that exist between regions and between member states. Differences do not only concern technological and socio-economic development, but also cultural perspectives: people perceive and assess things differently in different contexts, and they differently prioritize options for action accordingly.

The present MILESECURE-2050 research shows that many groups and communities can anticipate and avoid the harm of energy interruption and climate change by independently developing their own distributed low-carbon projects. These projects tend to do well in the context of co-operation and with sufficient knowledge and resources. The research points at the potential for these projects to be used as a template to roll out to a wider European population.

POLICY IMPLICATIONS AND RECOMMENDATIONS*

Getting knowledge from the public

- It is widely accepted that energy transitions, just as much as other important societal changes, cannot proceed without involving the public. However, this seldom transcends the level of mere information distribution into a level of meaningful public discourse. First, the information provided is often not enough to get a full population endorse a certain project. And second, this only taps into a small portion of the knowledge capital that is actually available.

- Therefore, it is recommended that involving the public is more explicitly geared towards exchanging perspectives and problem definitions, rather than the more superficial exercise of asking citizens to assess policy options against their preferences. Only when it is properly understood how people understand and define problems and challenges, does it become possible to mobilize this knowledge. Only then will the full range of options for action become visible.

Top-down approaches

- Top-down approaches must be supportive of local initiative, rather than straightforwardly implementing command-and-control style directives. Since local knowledge is of vital importance for the achievement of sustainability goals, top-down governance must be aimed at incorporating such local knowledge instead of overruling it. Additionally, local knowledge is not a ready-made resource that can be availed to government planners, but something that can only emerge and circulate if local actors are enrolled and taken seriously into decision-making and implementation processes.

- This all means that while top-down approaches are not to be abandoned categorically, they must be critically assessed and arranged such that they become in fact bidirectional forms of communication instead of the classic unidirectional lines of instruction. It is nontrivial how the accommodation of local initiatives, the mobilization of local knowledge and the harvesting of otherwise relevant knowledge outside formal institutions should take place. Therefore, centrally issued policies should be at the same time adaptable to different contexts, and geared towards learning and to incorporating new forms of knowledge. Top-down strategies should seek to incorporate ambiguities, rather than hammer out clear answers.

Bottom-up approaches

- Local actors must develop initiatives, and they need to be enabled to do so. Local actors are the most important holders of knowledge regarding energy challenges at the level of neighbourhoods and households, and therefore it should be both their responsibility and their right to develop innovations. These initiatives should not replace central directives, but should be arranged to be complementary. These initiatives may include calls towards central governors to cater to the particular needs and constraints of local initiatives. Central governments must be receptive to such calls.

- This focus on bottom-up approaches is not about just letting citizens do the work that Brussels should actually be doing. But decarbonisation and secure energy transitions require empowering and educating people. Only if people are able to engage with problems, they will act. An important question in governance should be how local successes can be scaled up to the national and European levels. Not only is this a matter of capitalizing upon what is locally invented, it is also about bringing out innovations that are more credible as examples than are theoretically devised solutions made up by central institutions of expertise.

Quality of governance

- Visionary leadership is needed to keep track of the overall direction of energy transitions. At the same time, strategies must be open-ended and foster processes of continuous learning, negotiation and adaptation, and leave room for innovation at the local level and offer methods for transfer of innovation across regions and contexts.

- European strategies towards secure and low-carbon energy must maximize synergy between local initiatives and central government, between top-down and bottom-up approaches, and between technological and economic approaches and citizen-centred perspectives.

Saving public money

Governance processes should be better geared towards inclusion of the public, and reception of the public's perspectives and problem definitions. This leads to cost reduction in at least the following ways.

- First, solutions will be better adapted to the social contexts in which they matter. Social resistance or even failure is less likely to occur if citizens are better enrolled, and chances are lower that valuable resources are wasted.
- Second, some of the knowledge gaps filled in through consultation of the public might pre-empt expensive expertise.
- Third, if the public is included and enrolled better, it will also better be able to take control and agency. If it is better enabled to develop initiatives, part of the effort to be made for energy transitions is already taking place without burdening governments.

RESEARCH PARAMETERS*

This part of the research consisted of consolidation of findings of earlier parts of the MILESECURE-2050 research project. Within this part, no empirical research was conducted. However, extensive use was made of academic literature on governance of technological societies to bring together the highly heterogeneous body of knowledge produced by the consortium.

RESEARCH TEAM*

Who were the research team?

This policy brief highlights the governance-relevant aspects of the consolidated findings of all MILESECURE-2050 partners, and contains contributions from:

- **Max Gruenig, Andreas Prahl (ECOLOGIC)**
- **Oscar Amerighi, Bruno Baldissara, Bruna Felici (ENEA)**
- **Adam Umer (EnergSys)**
- **Maria Kaska, Katarzyna Łabinowicz, Zygmunt Parczewski (Ien)**
- **Tilemahos Efthimiadis (JRC)**
- **Giovanni Caiati, Gabriele Quinti (LSC)**
- **Wiebe E. Bijker, Govert Valkenburg (MUSTS)**
- **Federica Borio, Giancarlo Cotella, Patrizia Lombardi, Jacopo Toniolo (POLITO)**
- **Catherine Barlow, Erik Bichard (USAL)**

This policy brief was authored by Govert Valkenburg and reviewed by Erik Bichard.

REFERENCES

This policy brief is based on all the deliverables produced by the MILESECURE-2050 consortium. These are available on the MILESECURE-2050 website, http://www.milesecure-2050.eu.

NEXT STEPS

The current Policy Brief is based on the final phase of the MILESECURE-2050 project. No next steps are currently envisioned. Nevertheless, if follow-up research is considered, it is recommended that attention be paid to further operationalisation and implementation of mechanisms for the enablement and scaling-up of local initiatives.

PROJECT IDENTITY*[1]

PROJECT NAME	Multidimensional Impact of the Low-carbon European Strategy on Energy Security, and Socio-Economic Dimension up to 2050 perspective (MILESECURE-2050)
COORDINATOR	Prof. Patrizia Lombardi Politecnico di Torino (POLITO) Interuniversity Department of Regional & Urban Studies and Planning, Politecnico di Torino and Università di Torino (DIST) Viale Mattioli 39 - 10125 Torino – Italy E-mail: patrizia.lombardi@polito.it
CONSORTIUM	- POLITO, Politecnico di Torino (Coordinator) (Torino, IT) - MUSTS, Universiteit Maastricht (Maastricht, NL) - PLUS, Paris-Lodron Universität (Salzburg, AT) - USAL, University of Salford (Manchester, UK) - IEn, Instytut Energetyki (Warsaw, PL) - LSC, Laboratorio di Scienze della Cittadinanza (Rome, IT) - ENEA, Agenzia Nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile (Rome, IT) - JRC, European Commission, Joint Research Centre (Brussels, BL) - EnergSys, Badania Sistemowe EnergSys Spzoo (Warsaw, PL) - ECOLOGIC, Ecologic Institute (Berlin, DE) - SMASH, Société de Mathématiques Appliqués et de Sciences Humaines (Paris, FR)
EUROPEAN COMMISSION	EC Scientific Officer Dr. Domenico Rossetti di Valdalbero DG Research and Innovation domenico.rossetti-di-valdalbero@ec.europa.eu
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WEBSITE & SOCIAL NETWORKS	http://www.milesecure2050.eu/ https://www.facebook.com/Milesecure2050 https://twitter.com/MILESECURE2050
FOR MORE INFORMATION	Contact: Federica Borio Project Coordinator Assistant Politecnico di Torino (POLITO) Interuniversity Department of Regional & Urban Studies and Planning, Politecnico di Torino and Università di Torino (DIST) Viale Mattioli 39 - 10125 Torino Phone: +39 011 090 7426 E-mail: federica.borio@polito.it www.milesecure2050.eu info@milesecure2050.eu

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[1] The sections marked by asterisk are listed in the European Commission template.

List up to five current or forthcoming publications the project has produced that might be of interest to policymakers.

- *Secure and Low-Carbon Energy is Citizens' Energy. A manifesto for human-based governance of secure and low-carbon energy transitions.* G. Valkenburg, W.E. Bijker and T.E. Swierstra (editors). Deliverable 5.1 of the MILESECURE-2050 project.
- *Guidelines and recommendations for European policies.* G. Cotella, P. Lombardi et al. Deliverable 5.2 of the MILESECURE-2050 project.

These and other deliverables are available at
http://www.milesecure2050.eu.