

EUROPEAN POLICY BRIEF



The Emerging Phenomenon of User Innovation and Entrepreneurship for Sustainable Lifestyles

Finalised project

SUMMARY

Objectives of the research

For the past three years, the EU-InnovatE project has investigated the prospects and obstacles for Europe to achieve sustainable lifestyles and a green economy by 2050. This Policy Brief focuses on one of its major empirical research themes, namely: to analyse user sustainability innovation and entrepreneurship (SIE) shaping current and future transitions.

Scientific approach / methodology

EU-InnovatE has been delivered through an innovative mixed-methodology research design. The research findings presented here draw from a combination of qualitative and quantitative data collection, including case studies, interviews, laboratory experiments, an online survey, and systematic comparison of multiple cases.

New knowledge and/or European added value

The research undertaken has revealed and defined SIE as a sequential process. Sustainable entrepreneurs perceive societal challenges as an opportunity, but transforming this into business ventures depends largely on a founder's identity and values. Community entrepreneurship is emerging as an important phenomenon contributing to systems change, with important implications for public agencies which can support and accelerate its development.

Key messages for policy-makers, businesses, trade unions and civil society actors

The project has highlighted the potential power of people to influence transitions and change in existing systems. In particular, it has revealed the multiple roles that users and citizens play in catalysing a "new normal", and the shifts in strategic corporate and policy thinking that would better harness the potential of this new phenomenon.

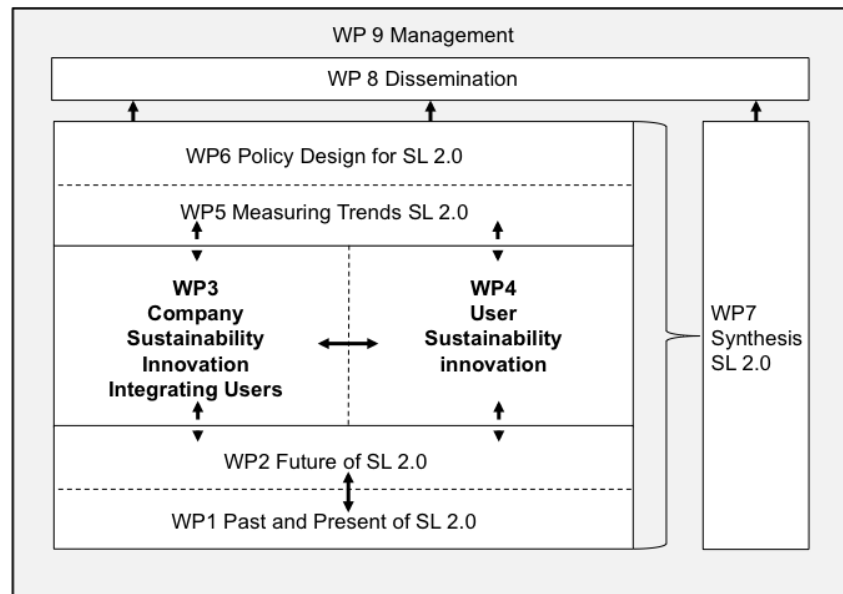
<p>Objectives of the research</p>	<p>In the fourth of our six empirical work packages (WP4), the central objective was to investigate and analyse the emerging phenomenon of user sustainability innovation and entrepreneurship (SIE) as a potential accelerator for systems transitions towards sustainable lifestyles and green economy in Europe by 2050.</p> <p>To achieve this goal, the WP4 research team collected and analyzed large volumes of both qualitative and quantitative data on companies across five European regions, based on three main selection criteria to define SIE eligibility:</p> <ul style="list-style-type: none"> ✓ Developing an innovation which creates economic value as well as social and/or ecological value; ✓ Integrating an innovation process, including invention and commercialisation, which is driven by a user or a group of users; ✓ Covering all phases of the user sustainability innovation process (from the identification of unmet needs; experimentation and creation of novel solutions; interaction with communities; recognition of potential opportunities; user enterprise formation; market entry; and early adoption). <p>Their work involved the following main steps:</p> <ol style="list-style-type: none"> 1. The creation of a reference pool of 210 sustainable enterprises across Europe in the domains of food, energy, living and mobility. These firms were identified and selected on the basis of their “triple bottom line” ethos, combining economic goals with social and environmental impacts; 2. The identification of key elements, phases and motivations which inspired successful SIE in 20 selected “best practice” cases across 8 Member States; 3. The identification of SIE “enablers”, including new legal enterprise forms and innovative financing models such as crowdfunding.
<p>Scientific approach / methodology</p>	<p>As a reflection of the interdisciplinary and transdisciplinary complexity of our central theme and key objectives, the EU-InnovatE project featured an innovative mixed-methodology design applied across all work packages (WPs). The full project framework is shown below.</p> <p>In WP4, case data was collected from multiple perspectives and sources to strengthen comprehensive theory development and policy advice. These included interviews with the user entrepreneur(s) of the sustainable enterprise. Additional data was collected from company reports, newspaper articles, blog writings and other relevant sources available online. Each case relied on 2-5 semi-structured interviews, with the final case reports ranging from 20-30 pages. The results of the cases have been summarized in a case-reporting template and provided a basis for the work in WP2, WP5 and WP6.</p>

The research team also conducted an online survey with customers (n=930) of SIE products and services through three sustainable cooperatives, assessing whether sustainable enterprises induce behavioral and decision-making changes for the adoption of more sustainable lifestyles. A separate analytical report addressed innovation types, user and stakeholder integration methods and organizational enablers of such innovation has been delivered.

A large-scale quantitative study of European sustainable enterprises was also conducted (n=104). Based on a multi-method quantitative approach, this study contributed to a better understanding of how firms co-create sustainable value with customers to achieve superior innovation and sustainability performance.

Last, but not least, the WP4 team undertook a laboratory experiment to explore whether salience affects the motivation and decisions of investors in crowdfunding projects. The experiment consisted of four different treatments using between as well as within designs, and engaged a total of 244 participants.

EU-InnovatE Research Design

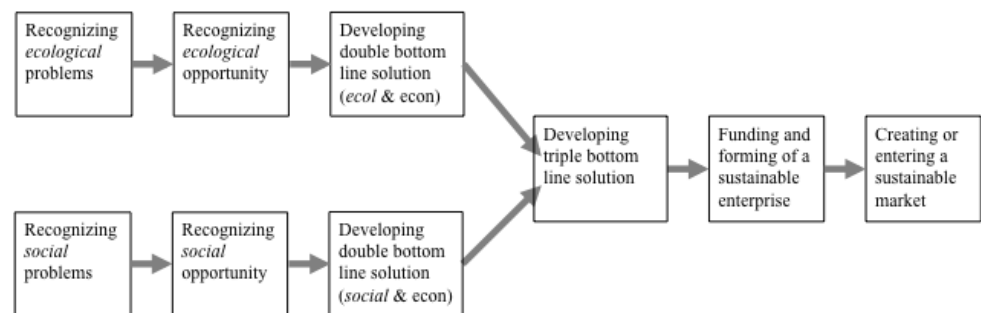


New knowledge and European added value

Sustainable entrepreneurship as a process

One of the major findings of the WP4 research is that the “triple bottom line” of ecological, social and economic goals is integrated sequentially, not simultaneously. As such, we can now understand sustainable entrepreneurship as a process, not merely a random phenomenon, as depicted below:

Sustainable Entrepreneurship Process Model



A key activity in the development of a “double bottom line” solution is the alignment of social or ecological goals with values sought by particular customer groups. The development of a “triple bottom line” solution takes place over time to reduce the complexity of the issue being addressed and the entrepreneurial development of solutions. A significant related insight from our case study analysis is that further triggers could be identified as drivers of the recognition of entrepreneurial opportunities in a sustainable context: in particular, **user problems** (e.g., Lifefood, Otodojazz, Pohjolan Ekotalo), **as well as system changes** (e.g., Kartoffelkombinat, Micibo, RetEnergie, Somenergia).

Social and environmental problems as opportunities

Our research has also revealed new insights into the ways in which users and citizens perceive social and ecological problems as opportunities. Accordingly, we have found that a potential starting point of the sustainable entrepreneurship process (SEP) is a specific social and / or ecological problem on a local or global scale that prospective sustainable entrepreneurs encounter first-hand in their private or professional lives. Rather than seeing social and environmental problems as a negative threat, the sustainable entrepreneurs in our sample perceived such problems as a motivation to do things better. This finding has been further investigated in a verbal protocol experiment, showing that reframing problems into opportunities is a relevant cognitive feat of sustainable entrepreneurs.

The central role of founder identities

Through the WP4 research activities, it became increasingly apparent that a founder's sense of identity is vital in the process of developing "triple bottom line" solutions to societal problems and challenges. A key finding was that founders not only categorize themselves in terms of who they are, but also in terms of who they are *not*, which has an important influence on their entrepreneurial activity.

In addition, we find that founders' social identities significantly affected their interpretation of social structure and in turn their sustainable entrepreneurship process. Exploring the founders' social identities therefore provided us with an explanation of why differences in sustainable value creation processes exist and how this affected opportunity recognition, development, and exploitation.

Collective users as community entrepreneurs

An unexpected and interesting finding was that collective action of users sometimes results in a form of community entrepreneurship. Community entrepreneurship reflects a form of entrepreneurship which focuses on local problems and aims to contribute to improving the living conditions of a specific group of people. Community members collectively establish, own, and manage businesses in pursuit of a common good for their community.

An interesting example is SomEnergia, a cooperative started by a group of professors and students at the University of Girona who were looking for a sustainable alternative for energy consumption that challenges the current energy industry. They see themselves as a social movement and believe they do not have to wait for the governments to make changes as they can initiate the changes for themselves. A key activity is to sustain the emotional loyalty of community members throughout the entrepreneurial process.

Key messages for policy-makers, businesses, trade unions and civil society actors

The Power of People

The research undertaken in WP4 has driven one of the headline findings from the entire EU-InnovatE project – namely, that users and citizens have the power to change predominant systems. Key to the explanation of change is the interaction between three nested levels that constitute socio-technical systems over time: niches at the micro level, socio-technical regimes at the meso level, and socio-technical landscape at the macro level (as represented in the “Multi-Level Perspective (MLP)” which has been applied throughout the project.

The transition towards sustainability can only be achieved when combining “bottom up” and “top down” approaches. While the former is needed to create radical innovations on a niche level, the latter is required to promote, distribute, and establish such innovations on a regime level. This compounded impact – of small sustainable enterprises and incumbent companies that design and implement sustainability-oriented innovation systems – has the potential to promote the transition towards more sustainable systems.

The Active Roles of Users

On basis of the synthesis of the work conducted in all six work packages, the most important finding is that users have a significant role to play in realizing sustainable lifestyle scenarios 2050. The results of EU-Innovate provide compelling evidence for the increasingly active roles of users, either by taking part in sustainable innovation processes of companies (user-integrated innovation) or by starting their own ventures (sustainable entrepreneurship).

A surprising observation was made regarding the specific role of users, which is much more diverse than expected (figure 8). Accordingly, the multiplicity of user roles – defined as *user producers*, *user legitimators*, *user intermediaries*, *user citizens*, and *user consumers* – influences the entire transition process (albeit with varying prevalence in different phases of the process).

Reflecting the project’s aim to explore the innovative, creative, and entrepreneurial role of users, a particular focus was put on the user producer, which EU-InnovatE finds to be a steadily increasing group of sustainable entrepreneurs who are driven by their values, norms, and beliefs in bringing about change. In addition, we find first evidence of user consumers taking over active roles in the sustainable innovation processes of companies. The results therefore suggest that companies and policy makers put a stronger emphasis on enabling users in exploiting their innovative and entrepreneurial potential to foster sustainable transitions.

Supporting sustainable entrepreneurs through new legal forms and funding possibilities

Sustainable enterprises pursuing a “triple bottom line” approach can draw on a variety of potential sources for seed-capital, including family, friends, bank loans, crowdfunding and public funding. These firms create new sustainable niches or enter established niches and segments in the higher end of the market. As the results of the laboratory experiment have shown, using a third-party label for sustainable crowdfunding projects increases funders’ willingness to invest in a project.

In addition to novel funding sources, we have found that new legal enterprise forms have provided an important, even alternative institutional framework for sustainable entrepreneurs. Particularly noteworthy is the legal form of a “benefit corporation” (or “B Corp”), which is currently being implemented in different countries around the world, reflecting the sustainable ventures’ hybridity and legitimizing their entrepreneurial endeavour.

As such, policy-makers and public agencies are strongly encouraged to consider how they can better support the development of collaborative funding platforms in their region, and provide more security to sustainable entrepreneurs by creating legal structures that endorse hybrid “triple bottom line” business models and enterprise forms.

Transformative power of sustainable opportunities

Structural change is a necessity for achieving the transition towards sustainable lifestyles. Yet, we know very little about the processes entrepreneurs employ to create opportunities that actually change current unsustainable structures.

Our results provide evidence for sustainable entrepreneurs who: 1) *apply common scripts*, thereby acting within pre-existing templates and structure; 2) *recombine common scripts*, which may result in script changes and the emergence of new ways of doing business; and 3) *create uncommon scripts*, the most complex and transformative value creation process intending to bring about (radical) changes in existing systems.

Thus, a relevant finding is that not all sustainable new ventures have the potential to bring about radical structural changes and that the reason why some engage in more complex and riskier value creation processes can be found in their social identity (see also the previous comments on the central role of founder identities).

Wider implications for (prospective) entrepreneurs, policy makers, and educators

For (prospective) entrepreneurs, the results highlight the possibilities of creating ventures that go beyond a profit focus to achieve multiple value gains simultaneously. The recommendations outlined in the respective deliverables and scientific publications aim to provide entrepreneurs with clear indicators of how sustainable new ventures can be founded, managed, and sustained. To further increase the impact of the scientific results, the findings are disseminated through a blog (<https://euinnovateblog.com>).

For policy makers, our results provide relevant implications for novel support schemes for sustainable entrepreneurs, for instance by providing entrepreneurial ecosystems, financial and administrative support and by incentivizing triple bottom line innovations. The full list of recommendations, including a prioritization of the different measures can be found in WP6.

For educators, the findings can be used to develop sustainable entrepreneurship courses. For instance, the Technical University of Munich is currently developing two courses on basis of the results of WP4: 1) Sustainable Entrepreneurship – Theory; and 2) Sustainable Entrepreneurship – Practice. The syllabi will be open source, so that educators worldwide can apply and adapt the course design. Ultimately, the aim is to collaboratively foster and develop sustainable entrepreneurship on an academic level, to inspire students, and to put theory into practice.

Coordinator	<p>Technische Universität München (TUM) School of Management Freising, Germany</p>
Consortium	<p>Aalto University School of Business Aalto, Finland</p> <p>Aarhus University Department of Management Aarhus, Denmark</p> <p>ABIS – The Academy of Business in Society Brussels, Belgium</p> <p>Copenhagen Business School Department of Intercultural Communication and Management Copenhagen, Denmark</p> <p>Cranfield University School of Management Cranfield, United Kingdom</p> <p>ESADE Business & Law School Barcelona, Spain</p> <p>Forum for the Future London, United Kingdom</p> <p>Katholische Universität Eichstätt-Ingolstadt Faculty of Business Administration Ingolstadt, Germany</p> <p>Kozminski University Business Ethics & Social Innovation Centre Warsaw, Poland</p> <p>Politenico di Milano Department of Management Engineering Milan, Italy</p>

	<p>Technische Universiteit Eindhoven School of Innovation Sciences Eindhoven, Netherlands</p> <p>Università Cattolica del Sacre Cuore ALTIS Postgraduate School of Business & Society Milan, Italy</p> <p>Universiteit van Amsterdam Amsterdam Business School Amsterdam, The Netherlands</p>
Duration	January 2014 – December 2016 (36 months)
Funding Scheme	The European Union's Seventh Framework Programme for Research & Technological Development (Call Identifier: FP7 SSH.2013.2-1-1)
Budget	EU Contribution: € 4,700,000
Website	http://www.eu-innovate.com
Further reading	<ul style="list-style-type: none"> • Innovating in Search of Sustainability: Citizens, Companies and Entrepreneurs • Practitioners Cookbook for Innovation with Stakeholders • Company-driven Open Sustainability Innovation (18 case studies) • Sustainable Enterprises (14 case studies) • International Webinar Series (6 presentations and audio recordings) <p>Available on the project website, plus links to all project deliverables.</p>
Related websites	<p>http://www.globescanforum.com/sustainability_innovation_exchange/ http://52.202.219.239:8080/user_guide (registration required) http://www.sustainable-lifestyles.eu</p>
For more information	Contact: Professor Frank-Martin Belz, Work Package 4 Coordinator frank.belz@tum.de