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SOCIAL & CREATIVE

Policy Briefing n. 17
OPEN INNOVATION FOR SOCIETY

SOCIAL AND CREATIVE INNOVATION IN THE MEDITERRANEAN

Project co-financed by the European
Regional Development Fund

EXECUTIVE SUMMARY

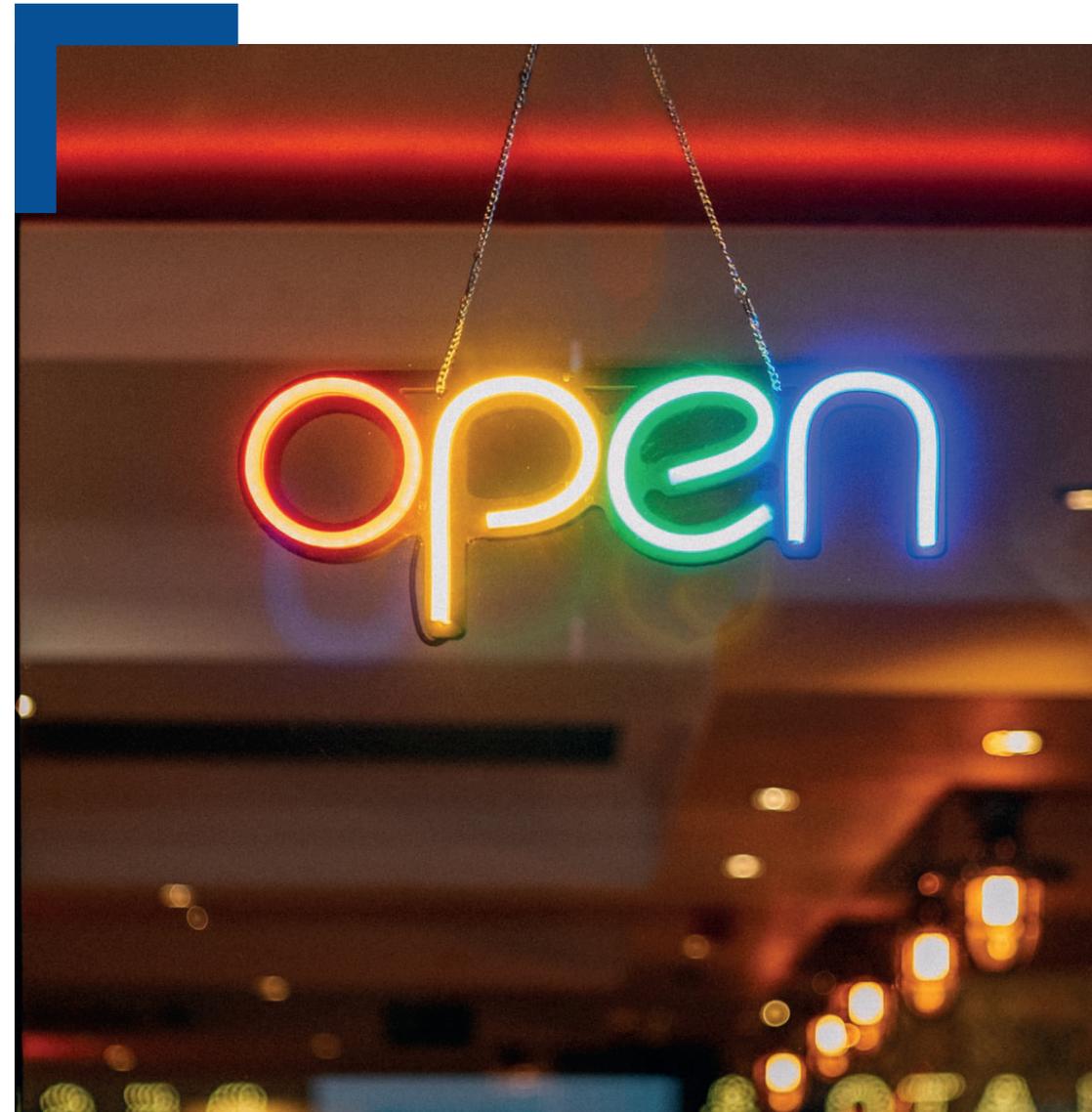
In today's globalized and dynamic world, innovation is key for the economic development of nations and companies. In this sense, **open innovation** (OI) is no exception, understanding it as “a situation where an organisation doesn't just rely on their own internal knowledge, sources and resources (such as their own staff or R&D) for innovation (of products, services, business models, processes etc.) but also uses multiple external sources (such as customer feedback, published patents, competitors, external agencies, the public etc.) to drive innovation”¹.

In the new knowledge economy, the competitive advantages focus more and more on the use of internal and external resources, for a better understanding of the environment, and on the links with external agents to strengthen internal knowledge and technologies ensuring innovations are brought closer to the markets more quickly and obtain a better business performance.

This policy brief examines four sub-challenges of open innovation as identified to be relevant for a selected number of the Social&Creative Modular projects:

- Rethinking financial instruments for enacting OI at the benefit of the society;
- New models of entrepreneurship for realising OI and social inclusion;
- Transnational approaches to implement open innovation for society;
- Open access vs. intellectual property rights to make open innovation efficient for the society.

¹<https://www.oxford-review.com/oxford-review-encyclopaedia-terms/encyclopaedia-open-innovation-definition-explanation/#:~:text=The%20term%20open%20innovation%20means,business%20models%20C%20processes%20etc.>



CONTEXT

The initial conception of open innovation coined by Henry Chesbrough attempted to propose a new model of industrial innovation already in 2003. According to Chesbrough, open innovation is the use of inflows and outflows of knowledge that streamline internal innovation with the aim to expand markets for the external use of the innovation.

Open innovation is understood as the antithesis of the closed traditional model based on the vertical integration of innovation processes. In a closed model, everything is focused on internal R&D activities, so that an innovation reaches its commercialization in such a way that there are neither knowledge spills from which rival companies could benefit, nor external agents that diminish the benefits of innovation.

Since the introduction of the open innovation term, several ways in which a company is committed to using this type of innovation have been identified; whether it is inbound (in which case knowledge flows inside a company), or outbound (in which case knowledge goes beyond the company's borders), as presented in figure 1.

Nowadays, **co-creation** and **crowdsourcing**, classified under inbound non-pecuniary open innovation, are the most trending forms, with co-creation being the more recent term. It is compulsory for a business to acknowledge the differences between the terms in order to make the right decision and by doing so improve its performance development. The use of open innovation has taken off because companies realized that traditional business models have stopped giving satisfactory results. Companies had to become bolder, moving away from the traditional modus operandi, and instead embracing innovation, in any form.

DIRECTION	I N B O U N D	<ul style="list-style-type: none"> - IP in-licensing - Contracted R&D services - Specialized open innovation intermediaries - Supplier innovation awards - University research grants 	<ul style="list-style-type: none"> - Customer&consumer co-creation - Crowdsourcing - Publically funded R&D consortia - Informal networking
	O U T B O U N D	<ul style="list-style-type: none"> - Joint venture activities - Spin offs - Corporate business incubation - Selling market-ready products - IP out-licensing 	<ul style="list-style-type: none"> - Participation in standardization (public standards) - Donations to commons or nonprofits
		PECUNIARY	NON-PECUNIARY

FINANCIAL FLOWS

Figure 1- Classification of Social Innovation

OPEN INNOVATION	CROWDSOURCING	CO-CREATION
- creates an environment where both internal and external actors can actively get involved in the creation of the best solutions for both parties	- occurs when a company decides to outsource specific projects to the public, with the purpose to use the crowd's knowledge and experience, and this way the input comes from a large and unknown group of people	- based on the relationship between a company and a defined group of stakeholders, most of the time its customers
- gives the decision-making process a democratic feature	- considered an open call to the general public, looking for solutions from the crowd	- means working with the end users of a product or a service, exchanging knowledge, experience and resources, to finally deliver unique experience using the company's value proposition
- allows a courageous approach to solving a problem	- establishes a challenge to the crowd/ everyone that wants to get involved, and waits for their points of view and solutions to that challenge	- represents a way of engaging customers by directly involving them in the products' development processes
- builds collaborative communities through the interaction/engagement of broader groups of actors on a mutual issue or challenge	- based on people creating a great idea for a business	
- considered an inclusive, social way to solve difficult issues and to improve different processes within a business		

Table 1- Open innovation vs. Crowdsourcing vs. Co-creation

Open innovation maintains a differentiating approach of openness, collaboration and strategic flexibility in the business model. Human resources play a fundamental role in the use of ideas, scientific knowledge and technology inside the organization, and outside it by means of interaction with external stakeholders (clients, end users, suppliers, intermediaries, competitors, universities, research centres, consultants, R&D outsourcing, government).

On the one hand, this interaction is carried out through incoming flows (incoming OI strategy) from external sources with which we collaborate through networks and Information and Communication Technologies (ICT) to acquire the necessary tools for the development of new products, services, processes and methods.

On the other hand, the interaction can be carried out with external agents through outgoing flows (outgoing OI strategy), where the generated resources are commercially exploited and accelerate internal innovation, seeking the expansion of markets, increased projected profits, sustainable growth, better results in innovation and business performance.

Therefore, open innovation shows an opening of the innovation and technology processes in the company to obtain knowledge through the interaction of external actors to obtain benefits for innovation and business performance.

Within the Social&Creative community of the Interreg MED area, four sub-challenges to the topic of Open Innovation for Society were identified. Each of the sub-challenges links with the study or piloting activities of one of modular projects.

Rethinking financial instruments for enacting OI at the benefit of the Society

Nine different financial instruments were analysed within the **Co-create project**. The project also supported **cross-fertilization** and co-creation between creative industries and traditional clusters, as these are basic tools to stimulate innovation between the sectors. A **Cross- Fertilization Manifesto**² was published as a result of the interaction, which found that there are two main barriers to implementation of cross-fertilisation:

- Low demand from the traditional sector (traditional SMEs), which continue to ignore immense possibilities for their products and services
- Lack of funds and programs to carry out cross-fertilisation and co-creation activities

New models of entrepreneurship for realising OI and social inclusion

The Cross-Fertilization study of Co-creation project found an additional barrier, which is a lack of spaces and infrastructures specifically dedicated to carry-out cross-fertilization and co-creation activities, which would stimulate innovation between the traditional and creative sector.

Coworking spaces, which were studied by **CoWorkMED** project, could be one of these solutions. Coworking spaces are new forms of entrepreneurship, defined by the project as a “physical space aiming to build and implement a dynamic community of users sharing a propensity to foster collaborative, open and sustainable relationships. Coworking spaces are actively managed to promote these goals, also by organising events and activities supporting mutual learning and exchanges and by developing new functional typologies and interactions with other services or centers”³.

²<https://co-create.interreg-med.eu/fr/news-events/news/detail/actualites/co-create-cross-fertilization-manifesto-just-released/>

³<https://ied.eu/wp-content/uploads/2018/04/3-3-1-Coworkmed-Census-28feb18.pdf>

The number of coworking spaces, however, remains limited in the Mediterranean area, with the majority of those located in an urban area. Compared to the working-age population, coworking spaces attract mainly your professionals aged between 25 and 34 who are highly educated. These new entrepreneurial spaces are used particularly by freelancers and professionals working in the ICT sector.

Transnational approaches to implement open innovation for society

A model which applies open innovation principles to co-create and test innovations in real-life context are **Living Labs**. These are user-centered open innovation ecosystems have been applied in the cultural and creative sectors through the **CHIMERA** project and can be applied as well to a wide range of disciplines and environments. Living Labs are based on systematic user co-creation approach, integrating research and innovation processes in real life communities and settings. Living Labs are one example of the open innovation 2.0 ecosystem development and have been instrumental to the integration of Research Development and Innovation with territorial development policy.

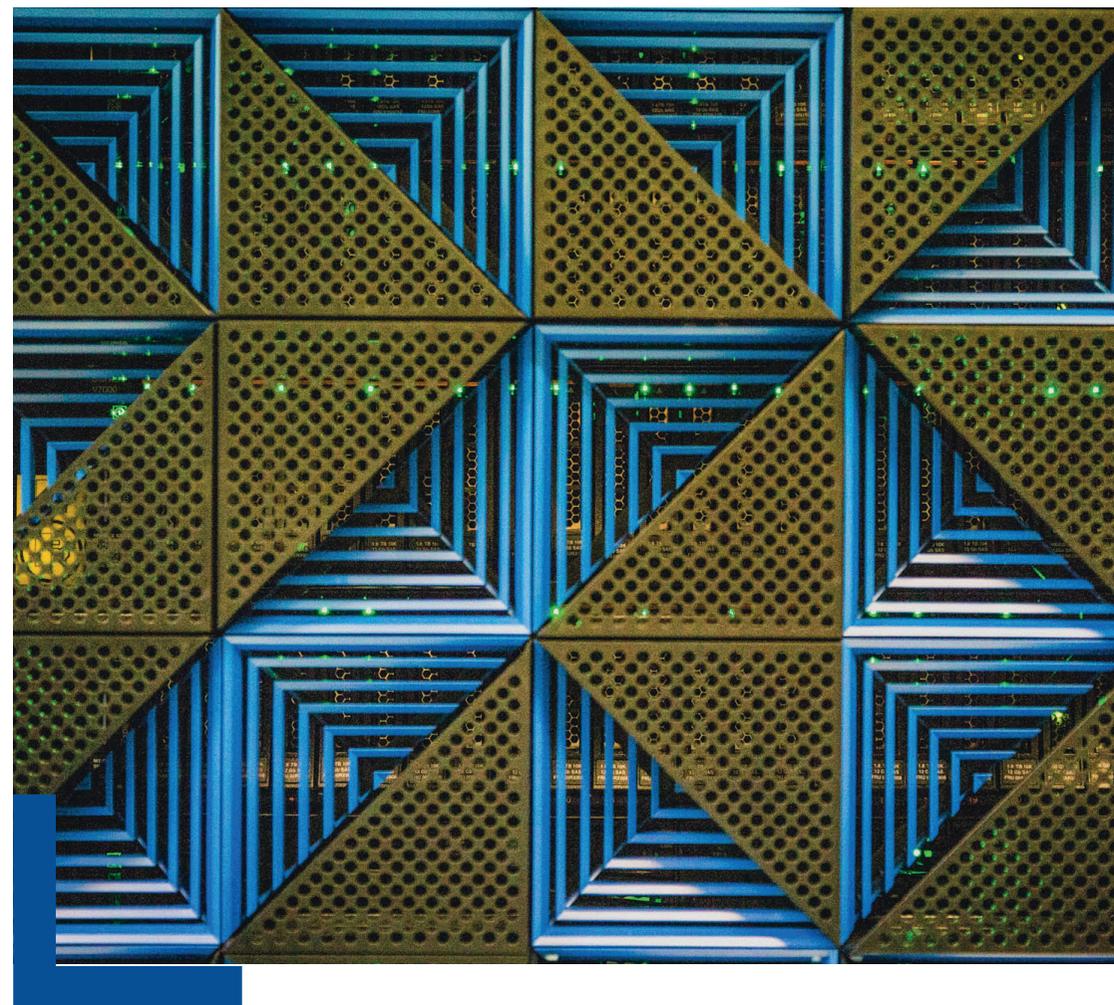
Open access vs. intellectual property rights to make open innovation efficient for the Society

Open access, a practice of providing online access to scientific information that is free of charge to the user and reusable is one of the core components in making open innovation possible. The practice is recognised in making research results more accessible for better and more efficient science and innovation in public and private sectors.

Odeon project, which has tackled the topic of **Open Data**, has worked on making data more accessible by developing a platform⁴ which hosts open data freely. The platform uses data from the training contents, awareness and capacity building activities, as well as instruments and tools which

can assist SMEs and start-ups in their entrepreneurial initiatives.

When moving to the open access and open science way of working, other challenges such as infrastructure, intellectual property rights, content mining and alternative metrics also need to be addressed.



⁴ <https://opendatahubs.eu/>

POLICY ALTERNATIVES & EXAMPLES OF OPEN INNOVATION IN CREATIVE INDUSTRIES

In order to establish potential mechanisms to help Industries in adopting Open Innovation, it must be noted that:

- SMEs take more advantage of inbound or exploration OI practices, absorbing ideas and technological knowledge from external sources. The preferred external source for SMEs is the customer, either through formal or informal networks, where value is created by seeking new business opportunities in external networks, and by benefiting from opportunities generated through collaboration with external partners.
- The ability to create well-developed external connection channels increases the efficiency of incoming AI and consequently a sustainable and superior performance, so it is important to structure the search and acquisition processes of innovations.
- Most companies adopt the inbound OI strategy and resort to practices with external sources, first with customers, end users, suppliers, intermediaries, rivals and companies in the same industry or sector. At a later stage, there is a tendency to link up with external agents outside the production chain, such as educational institutes, universities, R&D companies, external consultants, companies specialized in research and development, and governments, amongst others.
- Once the most suitable external sources are chosen, companies opt for collaborative practices through formal and informal networks, and looking for alliances with external agents to acquire knowledge, ideas and technology that improves internal innovation. This approach does not imply leaving endogenous research and development aside, but rather, it is about complementing with the intention of reducing time, money and effort to be able to reach the market faster.
- Open innovation and co-creation involve a higher level of engagement and involvement of the crowd/stakeholders in product and service development than crowdsourcing, but this does not mean that crowdsourcing is less important than an open innovation strategy for the future development of the company. Regardless of the strategy chosen,

the companies embracing open innovation, instead of traditional way of working, show a registered performance growth. Using the power of the crowd, putting the trust in total strangers, but truly believing that using inflows and outflows of knowledge to accelerate innovation in order to make a company face the present challenges have proved to be the right and safe way.

- As a rule, the positive outcomes of open innovation do not delay being seen if the instrument is used correctly, right from the time of its adoption and use by a business. Even if the main purpose is to increase the company's performance, many benefits arise from the use of open innovation strategies, one of which is the creation of various online communities, in the first phase, around a particular problem or area of common interest.

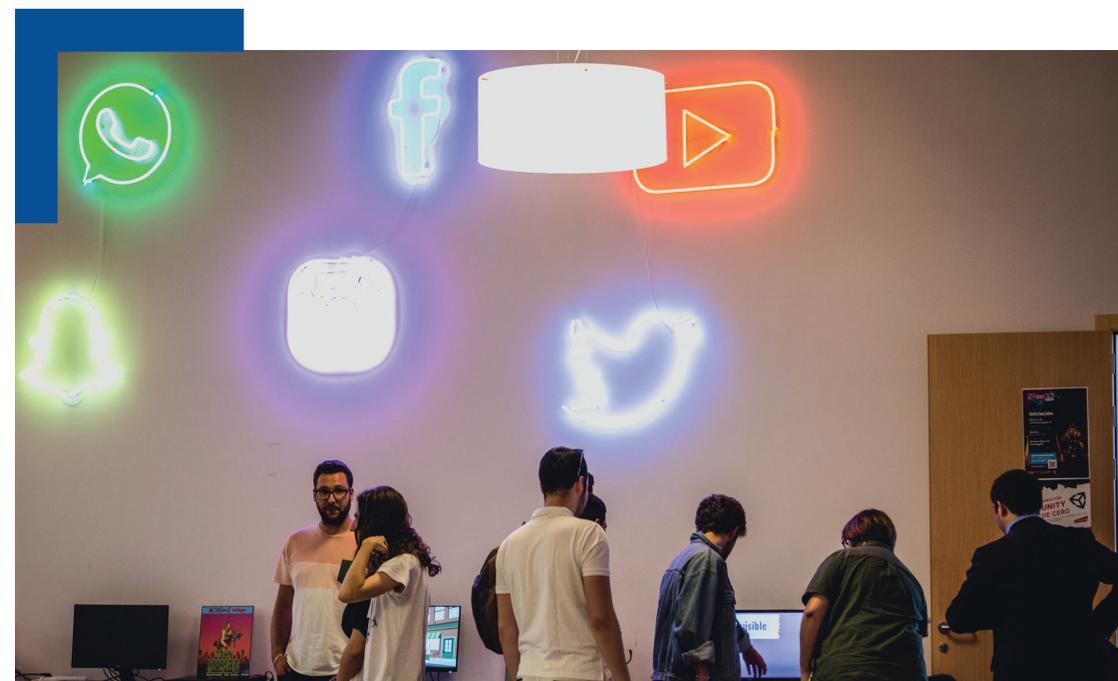


EXAMPLES OF OPEN INNOVATION IN CREATIVE INDUSTRIES

Open Innovation is an important component of the foreseen **European Innovation System**. There is a new paradigm with a more societal approach, called **Open Innovation 2.0** (OI2), based on a Quadruple Helix Model where government, industry, academia and civil participants work together to co-create the future and drive structural changes beyond the scope of what any creative organization could do alone. Below we can find some examples:

Conexiones Improbables⁵: a platform that promotes and develops a methodology for artistically and culturally Open and Collaborative Innovation that combines the needs and challenges of companies or organisations with the creativity and expertise of artists or creators to obtain alternative results. Conexiones improbables uses an Open Innovation methodology to help all manner of businesses and organisations confront a challenge, problem or need in order to achieve more creative and entrenched results than by using classical innovation methodologies. It approaches creativity as a value and driving force of innovation in any sector and activity. Creativity as a core element in the daily life of organisations and citizens. In order to do this, they work with artists, creators and thinkers to form hybrid teams of people comprising of professionals, such as those from the field of arts and culture, as well as members of the company or organisation itself. These teams work together for a fixed period of time to collaborate, co-create and co-investigate a challenge from the organisation. They implement a form of Cross Innovation that leads to “creative disruptions” aimed at innovation.

CRE@TIVE Programme⁶: a funding programme co-financed by the European Union and led by entities with an institutional, commercial



and business profile established in Egypt, Spain, Italy, Jordan, Palestine and Tunisia. The project has a total of 10 entities, highlighting the participation of the Valencian Institute of Business Competitiveness (Ivace). The programme applies the creative industry to the traditional sectors of textile, footwear and leather in the Mediterranean, and it funds the creation of pilot experiences to experiment with new approaches ranging from urban manufacturing, social factories to zero-kilometre production. To do this, a total of 16 entrepreneurs will be able to develop innovative ideas thanks to the launch of a business laboratory that will facilitate relations between the traditional textile, footwear and leather industry with the cultural and creative industry.

⁵ <https://conexionesimprobables.es/>

⁶ https://www.gva.es/es/inicio/area_de_prensa/not_detalle_area_prensa?id=882058

Conquistando la Igualdad⁷: a collaborative project that seeks the implication of the whole of society as a means to achieve equality. Citizens, experts on the subject from various fields, and companies participate in a community where they share and create proposals, democratically and collaboratively, that have very real possibilities for implementation. The salary gap and glass ceiling, the imposition of roles at work and at home, or the balance between work and family life, are some of the topics for discussion, which may need to be redefined within this community.

Santander City Brain⁸: a project in the city of Santander that takes Smart City technology beyond the mere installation of sensors or data collection from neighbours. Since 2013, this community is an instrument open to the ideas and participation from citizens, with influence over various decision-making areas of the City Council. A need that the current Mayor, Gema Igual, sums up by reminding us that “municipal governments are the form of administration that is closest to citizens”. The community has given rise to projects that promote IT in the city, Tourism, and local business, and helps to increase innovation and local resilience.

Plantación⁹: citizens, entrepreneurs and companies have joined forces to create Plantación, a triumvirate seeking to transform its immediate environment. The community, driven by Unltd Spain, interweaves a relationship between these stakeholders to collaboratively create ideas with social impact. Companies and entrepreneurs also participate in their subsequent promotion; demonstrating that returns for today’s companies can also be social. The community also initiates discussion about issues of collective interest, asking, for example, for ideas to make life in cities better, or ideas that can help to extend the useful life of products.

Agenda digital¹⁰: the last edition of the Digital Enterprise Show (DES2018)

invited its attendants to the pioneering experience of proposing their ideas for the evolution of the digital economy in Spain, with the challenge “Ideas for a more digital and innovative Spain”. This benchmark digitalization event wanted to take full advantage of the expertise of the audience and speakers in the matter, although participation was not limited exclusively to those gathered at the event, as it was open to all of society. What’s more, the results gave rise to a report, and were shared by DES as part of a debate with the people responsible for the digital agenda in the country’s main political parties.

La Fura dels Baus – Epicalab¹¹: Epica has the horizontal collaboration between science, technology, and humanities, as the catalyser for disruptive R+D+I in the new digital era. Thanks to the experience gathered in last 40 years of history of its patrons La Fura dels Baus, Epica has distilled a methodology where, performing arts is the vehicle for these new R+D+I processes, enabling to: 1. Promote the knowledge transfer between disciplines and to civil society. 2. Actively engage into the same ecosystem and processes all quadruple helix agents, through common language. 3. Establish the proper sandbox for co-design, experiment, develop, validate, and experience potential future realities and situations (fake realities), new technologies, products and/or processes, through anticipatory arts. Using performing arts, Epica can create a neutral environment for cross-research and mutual learning between disciplines and between different players (citizenship, researchers, institutions, companies).

⁷ <https://conquistandolaigualdad.com/>

⁸ <https://www.ideas4allinnovation.com/case-study-santander-smart-city-brain/>

⁹ <https://plantacion.unltdspain.org/>

¹⁰ <https://acortar.link/jilyM>

¹¹ <https://epicalab.com/>

POLICY RECOMMENDATIONS

Policymakers can directly target the diffusion of knowledge and, by doing so, ensure that the current stock of basic knowledge becomes more widely accessible. Specifically, public intervention can encourage university researchers to put their basic knowledge into practice and create mechanisms that facilitate diffusion such as knowledge valorisation grants, public– private partnerships or technology transfer offices at universities.

Additionally, effective policy making around OI must consider the benefits of openness in science, as exemplified by the requirement for researchers to publish open access articles, and refund the costs incurred in paying the publishers for the service.

Rethinking financial instruments for enacting OI at the benefit of the Society

Innovation is a risky undertaking that requires the allocation of financial and intellectual resources under specific conditions. As a consequence, innovating firms face considerable problems in acquiring external funding.

Innovation policy programmes have traditionally acknowledged this market failure and funded R&D research carried out by firms. Nevertheless, it is not only a matter of providing funding to generate innovations, but also of being aware of difficulties in later stages and supporting the commercialisation of innovations. The funding chain conceptualises the need for appropriate types of financing, from the initial research to the establishment and growth of a new venture, and the type of funding and partners involved will vary in each stage. In addition to direct subsidies, policymakers can also facilitate innovating companies' access to

finance through options such as seed capital, guarantees or matching funds; and well-functioning capital markets that allow for corporate venturing. Hence, together with traditional direct incentives for R&D, policymakers might stimulate private investors including banks, venture capitalists and business angels, as they are specialised in judging and financing business opportunities.

Co-create project found the following instruments as relevant to support the establishment of cross-innovation clusters and creation of new products and services:

- Innovative financial instruments combining grant, tax credit, venture capital schemes or even crowdfunding;
- Innovation vouchers.

New models of entrepreneurship for realising OI and social inclusion

Innovation policies can also design actions specifically aimed to develop a firm's OI processes. Instruments can assist and facilitate implementation of inbound, outbound and coupled OI practices, either by facilitating these practices or by eliminating barriers to their implementation.

Education and mobility of workers also favours open innovation, since a high-quality workforce allows knowledge to be extended to other organisations and increases the capacity of companies to absorb external knowledge. Specific actions to facilitate mobility of researchers between public and private institutions can be deployed in the context of an innovation policy. Support for industrial doctorates and for firms to hire technologists and scientists are examples of such interventions, which are already

being implemented in several countries. Also, knowledge diffusion and exchange between universities and business would be improved if academics could be temporarily employed in private companies and vice versa.

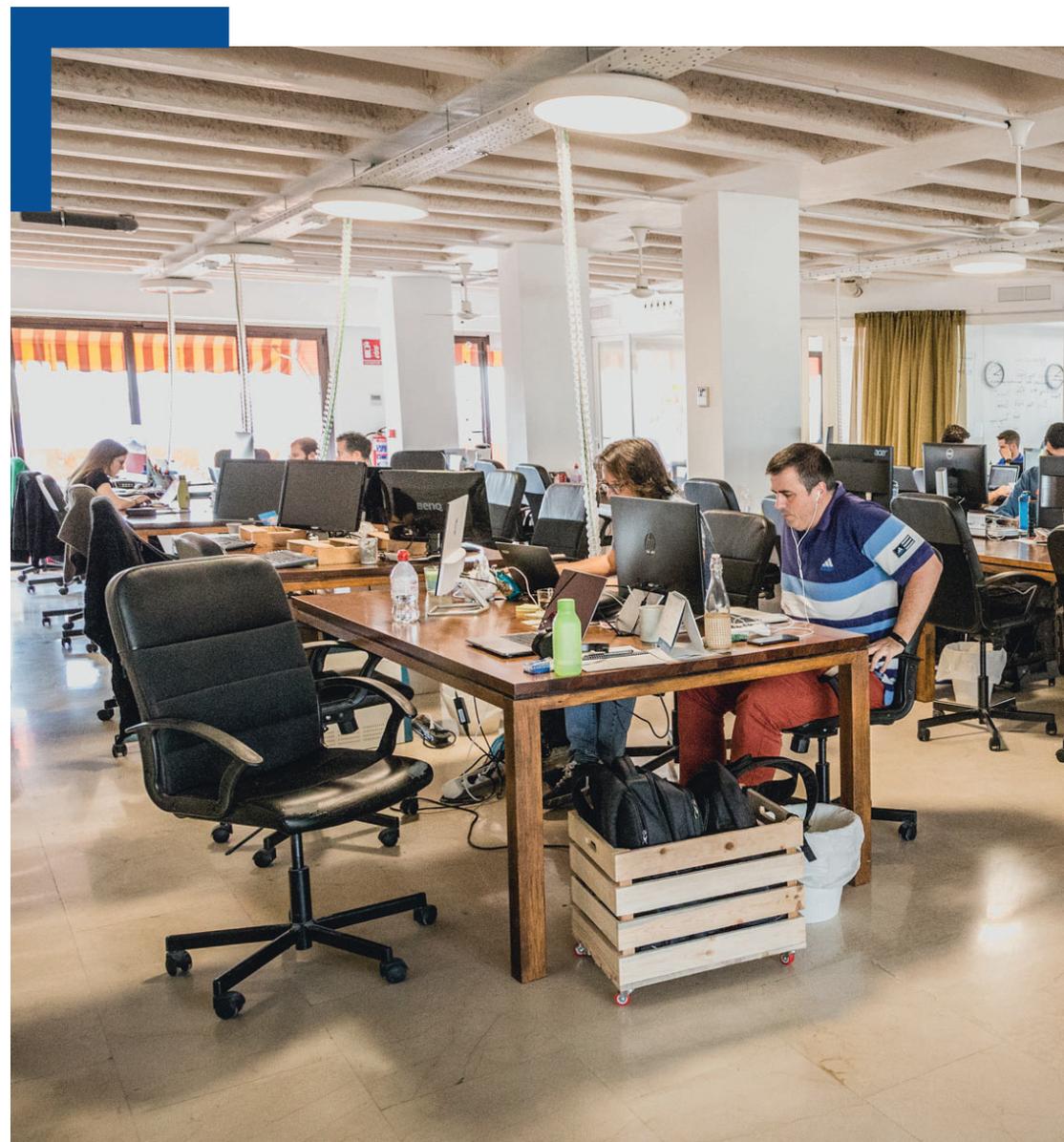
New forms of working and interacting, such as coworking spaces, could also be employed to open up companies to external knowledge and ideas. **COWORKMED** study provided the following recommendations for European public action to support the coworking spaces:

- adopt a broad, non-restrictive definition of coworking spaces;
- support the creation and development of coworking spaces in low-density areas;
- support the creation and development of Mediterranean-wide coworking space and third place networks;
- make third places a pivot for flexible European public policy-making with a greater local emphasis;
- launch a European call for proposals to support coworking spaces and third places that have a direct impact on transitions.

Further recommendations for the policymakers suggest that an incremental, horizontal approach should be applied to third places, such as coworking spaces and a radical rethink of public action. The European Union and its institutions should also address social and organizational innovation issues within its own institutions and public policy which help policymakers transform their attitudes and practices.

Transnational approaches to implement open innovation for society

In order to promote open innovation, public policies should enable external conditions to motivate firms to adopt OI processes and develop instruments that facilitate their open innovation



processes and promote also the Quadruple Helix/Living Lab Approach, enhancing the engagement of all stakeholders in the process to innovate but, most of all, the engagement of citizens.

With the adoption of open innovation, the organization's borders become permeable and allow for the combination of company resources with external collaborators. The use of innovation, creativity and human capital represents the keystones for the emergence, development, and evolution of creative industries. The collaboration of all agents is required in the search for open and sustainable innovation and creation of open innovation ecosystems in the form of Living Labs is recommended. Common approach to development of OI environments fostering exchange of skills and knowledge beyond national borders supports further progress in OI practices.

Open access vs. intellectual property rights to make open innovation efficient for the Society

The new knowledge economy encompasses a process of openness and external collaboration, where internal and external knowledge flows lead to better technology advancements and success on the market. To foster open access initiatives, creation of Open Data platforms, such as the **Odeon** Platform, are recommended. Next to that, creation of **Data Hubs** is encouraged with the aim to develop a network of SMEs, public institutions and private sector to offer tailored support for the exploitation of Open Data.

CONSULTED OR RECOMMENDED SOURCES

- Atkinson, R. D., y Court R. H. (1998). *The new economy index: Understanding America's economic transformation*. Progressive Policy Institute.
- Bernal-Torres, C.A., y Frost-González, S. (2015). Innovación abierta en empresas colombianas: reto a superar. *Revista Venezolana de Gerencia*, 20(70), 262–267.
- Bogers, Marcel, Henry Chesbrough, and Carlos Moedas. 2018. “Open Innovation: Research, Practices, and Policies.” *California Management Review* 60 (2): 5-16.
- Buganza, T., y Verganti, R. (2009). Open innovation process to inbound knowledge: Collaboration with universities in four leading firms. *European Journal of Innovation Management*, 12(3), 306–325.
- Chesbrough, H. (2003). *Open Innovation: The New Imperative for Creating and Profiting from Technology*. Boston: Harvard Business School Press
- Chesbrough, H. (2006). *Open Business Models: How to Thrive in the New Innovation Landscape*, Harvard Business School Press, Boston.
- Chesbrough, H. and Brunswicker S. 2013, *Managing Open Innovation in Large Firms* The Garwood Center for Corporate Innovation at the University of California, Berkeley, in the US and the Fraunhofer Society in Germany) 10
- Chesbrough, Henry W., and Wilm Vanhaverbeke. 2018. “Open Innovation and Public Policy in the EU with Implications for SMEs.” In *Researching Open Innovation in SMEs*, edited by Wim Vanhaverbeke, Federico Frattini, Nadine Roijakkers, and Muhammad Usman, 455-492. Singapore: World Scientific. doi:10.1142/9789813230972_0015
- De Jong, Jeroen P.J., Tarmo Kalvet, and Wilm Vanhaverbeke. 2010. “Exploring a theoretical framework to structure the public policy implications of open innovation.” *Technology Analysis & Strategic Management* 22 (8): 877-896. doi:10.1080/09537325.2010.522771
- Herstad, Sverre J., Carter Bloch, Bernd Ebersberger, and Els van de Velde. 2010. “National innovation policy and global open innovation: Exploring balances, tradeoffs and complementarities.” *Science and Public Policy* 37 (2): 113-124. doi:10.3152/030234210X489590
- Parida, V., Westerberg, M., y Frishammar, J. (2012). Inbound Open Innovation Activities in High- Tech SMEs: The Impact on Innovation Performance. *Journal of Small Business Management*, 50(2), 283–309.
- Wang, Yuandi, Win Vanhaverbeke, and Nadine Roijakkers. 2012. “Exploring the impact of open innovation on national systems of innovation — A theoretical analysis.” *Technological Forecasting & Social Change* 79:419–428. doi:10.1016/j.techfore.2011.08.009
- Wazoku, <https://www.wazoku.com/open-innovation-vs-crowdsourcing-vs-co-creation/>, Accessed: 05/03/2018
- Yoon, B., Shin, J., y Lee, S. (2016). Open Innovation Projects in SMEs as an Engine for Sustainable Growth. *Sustainability*, 8(2), 146.

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EUROPEAN UNION



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