



CONNECTED TECHNOLOGIES FOR SOCIAL GOOD

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Across Europe, a growing movement of people are exploiting community platforms for Connected Social Innovation. The EU funded CAPS (Collective Awareness Platforms for Sustainability and Social Innovation) programme develops bottom-up solutions to link-up stakeholder participation, producer-consumer co-design collaboration, and new forms of decentralized democratic control such as corporate social responsibility ratings, blockchains, trusted ledgers, and more.

More than 40 connected social innovation trials are ongoing. Their goal is to increase network trust, openness, governance, and multi-disciplinarity in developing solutions to pressing problems. However, these platforms are fragmented and still at a relatively small scale. There is scant public and private investment and limited experience with large-scale uptake. Connected Social Innovation solutions are good ideas that lack the reach mandate of civil society NGOs, as compared to large enterprises.

The closer we move toward the Internet of the Future, the more we will need to understand and reshape economic and societal behaviours. A core challenge we must face is to shape the Internet of the Future into an Internet tailored for all citizens, as humans. Europe aims to be an active player in this venture.

There are several questions such as: Can the unprecedented hyperconnectivity enabled by digital technologies and the pervasive Internet change the locus of control in favour of citizens? Can DSI (Digital Social Innovation) scale up to face society's biggest challenges: environmental preservation, reducing inequalities, fostering inclusive and sustainable progress? Maybe connected social innovation platforms are just the first step.

The Magazine is setting the scene of Connected Technologies for Social Good in Europe and showcases innovative results obtained so far, in extending the reach of social care, of minimal income and ethical banking, in municipal participative budgeting, co-operative digital currencies and resource recycling schemes.

Monique Calisti
Executive Director of Martel Innovate

Antonella Passani
Partner of T6 Ecosystems

Stavroula Maglavera
Research Engineer of University of Thessaly

CAPS

COLLECTIVE AWARENESS PLATFORMS FOR SUSTAINABILITY AND SOCIAL INNOVATION



“Internet technologies are shaping our society to an extent that we could not have envisioned only 20 years ago. Making sure that such technologies contribute to the “social good” is an imperative for policy makers, both from an economic and an ethical point of view. In this respect, the type of multidisciplinary pilots and experiments which have been funded under the programme CAPS are playing a key role to pioneer new networking models and understand their societal impact, ultimately driving the definition of research and innovation priorities for a truly human and European Next Generation Internet.”

PEARSE O'DONOHUE

DIRECTOR FOR FUTURE NETWORKS, DG CONNECT

INTERVIEW WITH OLIVIER BRINGER

DEPUTY AND ACTING HEAD OF UNIT, NEXT GENERATION INTERNET, DG CONNECT, EUROPEAN COMMISSION

How is the NGI approaching the process of building the Internet of tomorrow? What are the actions that NGI is putting in place to foster innovation?

Using H2020 instruments we have put in place a system of cascading grants to reach out to real innovators, trying to give them the opportunity to develop their ideas, the opportunity to network and find partners, to market their ideas. We are in the process of selecting intermediaries which will conduct the open calls to select and support the innovators we are targeting.

We must also consider that developing the Internet of tomorrow is not a linear process, we can't simply spell out our roadmap and vision, launch a project and expect to have the Internet of the future in place in ten years' time. It is a very dynamic process, with continuous technologies disruptions, new ways of using the Internet. Business models themselves change dynamically, sometimes you start from a commercial project and you end up with a social oriented platform. In order to be able to refine, revise and keep up the NGI initiative with the ecosystem's changes, we need to engage with the stakeholders: innovators, academia, civil society, industry, member states and the citizens of course. This is what we are trying to do via our NGI platform.

What makes the NGI stand out among other international initiatives aiming at the Internet of the future?

I think the resources we are investing into the NGI initiative make the real difference. I see many other initiatives working towards the same goal of an Internet of Humans, but the NGI initiative benefits from a very significant investment by the

European Commission, both in terms of policy proposals and R&I funding.

If we look at the Digital Single Market (DSM) package adopted on 25th April 2018, it is clear that a lot of the measures adopted will in fact help improve the functioning of Internet. For the first time we have a European strategy on Artificial Intelligence: we commit a high level of investment, we commit to develop a legal and ethical framework for robotics and AI, and we commit to help people, in particular workers, adapt to the changes. Europe is very ambitious on Artificial Intelligence and we set things in motion. We also put in place a mechanism to ensure fairer relations between online platforms and the businesses which use them (many of which are SMEs). We are tackling online disinformation and in particular we want to investigate how technologies can ensure traceability, trustworthiness and identification of information's sources. Finally, of course, we should not forget the General Data Protection Regulation (GDPR), which will enter into force on 25th May. It is a foundational tool to change the functioning of the Internet and give end-users full control of their personal data.

Above all, we are not only putting in place a policy and regulatory framework; we are actually investing in technologies and innovation. Under the current H2020 framework, for the timeframe 2018-2020, we speak about 270 million euros budget dedicated to NGI and covering several technology areas: immersive technologies, artificial intelligence, IoT applications and services, social media, language technologies, digital learning and open internet applications. It is a significant portion of the ICT budget in H2020. We plan of course to work in collaboration with the member states and possibly with the industry to leverage even more investment and bring more good ideas.

In light of recent developments (e.g. Cambridge Analytica), how is NGI shaping its political and research framework beyond 2020?

Thinking of the current status of the Internet and the recent news regarding alleged mass manipulation or the net neutrality debate, we must realize that we have a unique asset in Europe: our regulatory and policy framework. We are the first in the world to have such a comprehensive framework for data protection; we have rules on net neutrality; we have rules on cyber security and electronic identification.

We have the framework to develop the Internet we want. Now we need to develop the technologies to materialise these rules: as an example, what technologies we can put next to the GDPR, to make sure people indeed control their data, could it be AI agents or personal data spaces that help people really decide what to do with their data? People should be able to decide whether they want to share their data with businesses in exchange for services, or share them with public or academic institutions for research or sustainability purposes. How can we use blockchain to ensure more secure and transparent online transactions between end-users, be it in the financial sector, or in the energy sector for example? Right now the European Commission is discussing internally how it can further invest in these technologies under the next multi-annual financial framework, where investment in digital will be considerably increased, as was announced by President Juncker on 2 May.

How is the European Commission helping Europeans to better understand and leverage on these new technologies?

We recently launched the Digital Opportunity Scheme, which aims at helping people in the higher education system to gain the skills to develop and implement advanced technologies, for example in the field of cryptography, High Performance Computing (HPC), or AI.

That's one side and it is a long term exercise, which we just started. We also need to do more

on the literacy side, on re-skilling and up-skilling people to adapt to the digital transformation. That's part of our AI strategy: these technologies will change how people work, travel and interact with each other. We need to help people become familiar with these technologies. We will have to start within the education system, but we will also need to reach out to people when they are outside the education system. We need to think how we can retrain workers, for example. What employees can do to best use the technology, which will massively pervade our online and physical environment.

Are you satisfied with the NGI program awareness among the stakeholders? And how do you plan to improve it?

We have organized online public consultations; we have met citizens and stakeholders in various events and workshops. We have already achieved a lot in a small amount of time, but we need to do more and go beyond awareness. Now we need to come up with concrete achievements, together. We talk about an Internet of Humans, then we need to listen to what people have to say, what they believe in, what their fears are, what opportunities they see. If we ask people directly, I am pretty sure we will get concrete proposals and suggestions to improve the Internet.

How will the CAPS program be embraced within the NGI initiative?

We have to integrate not only the results, but also the philosophy of CAPS in NGI. In our narrative we refer to social innovators, it is a clear NGI path; we need to integrate the technology push with the investment on the social side. Internet is a great platform to share information, to leverage on collective intelligence for public policy purposes, such as tackling environmental issues and improving health care. We are putting in place a system of cascading grants, which can finance both commercial and social innovators. We will also have to organize properly the hand over of CAPS within the NGI initiative. **The NGI is a multifaceted initiative, which will surely embrace the CAPS outcomes and players.**

INTRODUCTION FROM EU's DG CONNECT

FABRIZIO SESTINI, SENIOR EXPERT, DIGITAL SOCIAL INNOVATION, DG CONNECT

The hyperconnectivity offered by the pervasive Internet is changing our society at an unprecedented pace. Like all radical transformations, its impacts are not necessarily positive. Hyperconnectivity offers a tremendous potential for putting people and citizens in contact with each other, across boundaries of nations, languages and cultures, strengthening cohesion and tolerance, enabling economies of scale, sharing and creating knowledge, creating collective awareness of sustainability problems and of possible collective solutions, where each person is at the same time benefiting from new services and actively contributing to them. On the other side, the same hyperconnectivity can be used for monitoring and monetising our behaviours without our consent, pushing propaganda, creating self-inflating information bubbles, reinforcing dominant positions, eventually widening the gap between the haves and the have-nots rather than restricting it. Understanding which technologies hold most potential for social good requires a complex and multidisciplinary redefinition of ethics, where the choice between alternative actions should not only exclude possible harm, but also and foremost maximise positive impacts for society at large, which is not always in line with the mercantile rules dominating our society. If data is the oil of the future (and already of the present), any asymmetry in its distribution (as it happens on the current centralised platforms) will only lead to greater inequalities among people. In this context, it is crucial that public programs like CAPS and the other DSI activities funded by the European Commission enable defining and experimenting new decentralised models for economy and society, put forward by the people for the people, leveraging on collective intelligence and collective wisdom, which are the highest (and perhaps the most unattained) expectations from the Internet. Stakes have never been so high, and opportunities also.



LORETTA ANANIA, PROGRAMME OFFICER, DG CONNECT

Building a sustainable society is a huge challenge, so CAPS was overambitious. The initiative succeeded in engaging all of us in a joint R&D effort: making us more aware of how we can make a difference, because sustainability involves everyone. These trials empowered communities to use online platforms, use collective intelligence to analyse real data, and raise awareness that collaboration is a positive sum game. Even for rich societies, sustainability is an everyday concern.

To empower citizens to make informed decisions about their consumption patterns, to foster behavioural changes and to bring about democratic and inclusive forms of participation. Digital awareness of what peers are doing, querying and having the facts around a situation motivates us to know more so as to do more.

STEFANIA IRINA BURADA, PROGRAMME OFFICER, DG CONNECT

With such a diverse range of stakeholders and along with the ability to reach equally the local communities or individuals, CAPS is now engaging a wide community. As it's not focused on a specific industry sector and it's putting humans first through inclusion and empowerment, social innovation has turned out to be a mentality. Since 2012, it has helped performers grow their ideas into viable projects through European open web platforms, reaching out to citizens through a grassroots approach and building a community oriented towards a common objective: a sustainable society.



DIGITAL SOCIAL INNOVATION MANIFESTO BASIC RULES FOR AN INCLUSIVE DIGITAL SOCIETY

Stavroula Maglavera | Research Engineer of University of Thessaly

The Manifesto for Digital Social Innovation (DSI) is an initiative promoted by the EU project ChiC, a coordination project funded by the European Commission with the collaboration of the DSI4EU project and several other European innovators. This first version of the Manifesto is based on the discussions held during the DSI Fair, which took place in Rome on 1-2 February 2017.

The Manifesto is a EU level Policy Outreach document, which aims at fostering civic participation in Digital Social Innovation (DSI) and CAPS initiatives to counteract prevailing top-down approaches while promoting active citizenship. The Manifesto includes a set of recommendations for policy makers, aiming to facilitate DSI and CAPS initiatives to drive the Digital Agenda in becoming the core Innovation Engine for the entire European society. The Manifesto, which is a living document, will contribute understanding better how social innovation processes can be enforced, transferred and potentially reused for effective scaling up of social innovation initiatives.

Digital technologies and the Internet are rapidly changing the opportunities we have to address some of society's biggest challenges. Across Europe, a growing movement of people are exploring these opportunities, which range from creating digital platforms to setting up social networks for people with chronic health conditions or developing online communities where citizens can map and share data on pollution levels and climate change in their areas. DSI has the great potential to contribute to three of the most important challenges facing Europe today, by reinventing:

- Public services, often providing lower-cost models of addressing social needs
- Communities and how people live and collaborate together
- Business in ways that are better aligned with human needs

Despite this potential, most DSI initiatives still operate at a relatively small scale. The reasons for this are mainly that:

- There has been little public and private investment in DSI
- Evidence shows that new technologies and innovations are easily commercialised through startup companies
- Many of the organisations that could benefit the most from DSI, such as NGOs, do not have the skills, capabilities and resources to make the most of this opportunity
- DSI has mainly operated outside public services

Given the scale of the political, social and economic challenges facing Europe today, we believe now is the time to make the most of the opportunities offered by DSI.

The aim is to work together with communities of people, projects and organisations for whom DSI can make a real difference by developing a Manifesto for DSI in Europe. The purpose of the Manifesto is to set out the opportunities and challenges for DSI, and to define the measures needed to maximise the benefits and overcome the hurdles that stand in the way of its expansion and success.

The key points for the Manifesto:



Openness and
transparency



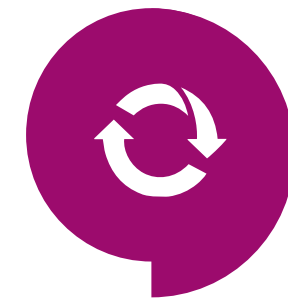
Democracy and
decentralization



Experimentation and
adoption



Digital skills and multi-disciplinarity

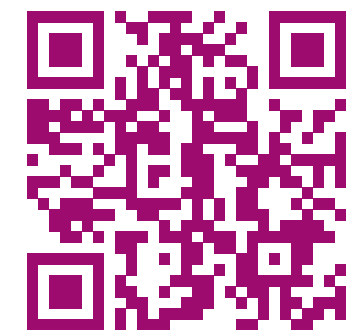


Sustainability

The DSI Manifesto reflects the views of a broad community of innovators, catalyzed by ChiC, as such, it is completely open to incorporate incoming views and opinions, and at the same time it does not intend to promote any particular specific commercial interest of actors of any kind.

The DSI Manifesto is based on input received from interviews with key stakeholders, the policy workshop in Rimini (May 2017), the networking workshop in Volos (July 2017) and a program of open consultation. The aim of this process was to obtain the viewpoints and contributions from a broad population regarding the main priorities that the manifesto should capture. The contributions, along with the outcomes of the DSI Manifesto Workshop held in Rimini in May 2017, shaped the final version of the DSI Manifesto.

During the networking workshop in Volos, it was decided to disseminate the DSI Manifesto for feedback, resulting in endorsement from 287 stakeholders.



WWW.DSIMANIFESTO.EU

INTERVIEWS WITH INNOVATORS



UGO BIGGERI PRESIDENT OF BANCAETICA

The world of social innovation is internally extremely diversified, embracing a variety of sectors that range from education to social services, from environmental protection to public health, from new approaches to production to new ways of fostering participation and democracy.

What is the role of banks, and especially ethical banks in this world?

An "ethical bank" is a bank that selects the projects it will finance through two different kinds of evaluation: Economic feasibility and Social impact.

BancaEtica provides loans only to enterprises and persons whose projects are directed at protecting the environment and at improving people's quality of life. Typically our borrowers run projects aimed at:

- empowering vulnerable people, such as the disabled, immigrants and refugees, the unemployed, etc.
- improving the quality of life in communities, through art, culture, or sport
- stimulating cooperation and the sharing economy, such as co-housing, social housing, and workers' buyouts

- reducing polluting emissions and waste
- promoting renewable energies

BancaEtica was created in 1999 by a network of persons and non-profit organizations who wanted some financial instruments to make sure that their savings were not used by the bank to finance companies producing weapons or violating human rights and the environment. They wanted their money to be used to provide loans to projects that are good for their communities.

BancaEtica is a social innovation project itself, having been made possible through what would today be called "crowdfunding."

Over the past few years, the demand for ethical finance has grown enormously in Europe and abroad. Institutions are starting to listen to our requests: regulations on banks should not only look at profits, returns and performances, but also should encourage and reward those financial institutions that provide resources for social enterprises and sustainable development.

How can technology help you to support the growth and future of social innovation?

Almost 20 years after the creation of BancaEtica, our mission remains the same. But of course, we are attentive to all the technological innovations that can accelerate social improvement for everybody. Fintech is providing us with some

instruments that make it easier for larger numbers of people to choose an ethical bank, by using mobile and online tools. At the same time we encourage our borrowers to consider technological innovation as crucial to the development their projects - just think about how technologies are improving life for people with some disabilities, making it easier to use renewable energy, connecting communities.

That's why we launched crowdfunding announcements for social innovation and signed agreements with start-up incubators.

Digital innovation gives more importance to reputational and impact themes. This is true for all companies, and especially for banks. We are well aware that technology also brings some controversial consequences, including job losses, weakening of social bonds, the centralization of knowledge, dependence on services provided by big companies that are not always very transparent on governance and paying taxes, etc. But we work hard to try to find the best balance through a continuous dialogue with our stakeholders, clients, active members, and public opinion.

AMALIA ZEPOU VICE MAYOR FOR CIVIL SOCIETY AND INNOVATION, DIRECTOR OF SYNATHINA PLATFORM // HARIS BISKOS ARCHITECT, SYNATHINA PROGRAM MANAGER

How does the synAthena model link city government and citizens' initiatives to create a more resilient city?

The synAthena platform is a model for collecting the available capacity of public spirited citizens

to lead to simpler, faster and more sustainable solutions for our city. Through the synAthena platform, the municipality of Athens assists civil society in finding innovative solutions for the city, while also providing updates on local administration services.

To achieve this, synAthina platform uses the following methods and tools:

1. **Collecting:** A digital platform (www.synathina.gr) is used to collect the activities of the engaged citizens. In the platform citizens' groups can register, upload their activities, pin them on a map and publish open calls. In this way they diffuse their messages more effectively while also informing the City of Athens about the citizens' priorities for the city.
2. **Connecting:** We connect the activities of civil society to different stakeholders in order to empower them and help them to flourish and scale-up. The program strengthens their activities by developing tools which help citizens' groups cooperate with each other, but also connects them with sponsors, institutions, city services and any other stakeholder who can support their operations more effectively.
3. **Sieving:** We evaluate collected activities to find and highlight the best practices of civil society. Citizens' activities are filtered through a system of criteria which examines their visibility, connectivity, locality, regularity, originality and transferability. In this way initiatives with the greater impact in the city are acknowledged and highlighted as innovative solutions to contemporary problems.
4. **Incorporating:** We explore the potentiality of specific best practices of civil society to be incorporated to local governance as innovative models that open up new paths for the municipality in order to update its services. Many of them outline the necessity for regulatory changes, others highlight the need for change in cultures and routines and some even rearrange the Mayoral priorities. It is part of the program's mission to activate the municipality's reflexes so that its services can be improved in relation to the changing needs of its citizens.

How can this model be used in other European cities?

Citizens' activities in the past years are revealing commonalities in how European citizens address

local challenges and their cities' pressing needs. As similar new urban problems emerge across Europe, it is of a great importance to find ways to foster the establishment of a common ground to exchange ideas and solutions. The new paradigms of bottom-up solutions encourage a common perception in our relationship with other European cities, helping us realise what unites us in our efforts to face similar challenges.

To highlight similar efforts among European cities in developing systematic mechanisms to involve the active civil society into the development of inclusive solutions for the cities today, synAthina and the Vice Mayor Office for Civil Society and Innovation at the City of Athens have initiated a working group within the Eurocities network called "Creative Citizenship". Fifty-three member cities members-cities participate in this working group sharing experiences and lessons learned on how cities and citizens can co-create solutions to address local challenges but also how this co-creation process drives innovation, reinforces local democracy and contributes to upgrading local public administrations.

What are the future plans for sustainability?

The synAthina team is constantly seeking new ways to scale up the platform's impact while striving to incorporate its mindset into the public administration and city government policymaking processes by applying its methods and tools into different areas of social innovation projects. Its latest achievement has been the successful entry into the Urban Innovative Actions initiative of the European Union, where as a pivotal member of the City of Athens based consortium, it received 5 million euros award to implement the proposal "Curing the Limbo".

This proposal from the City of Athens focused on empowering stranded refugees who have been granted asylum to get out of "limbo" - a condition in which parts of the population are doomed to months and years of waiting for the next stage in their life. The program connects refugees with active citizens of Athens, offering an escape from inertia through their participation in activities for the public benefit that respond to existing needs of the city. At the same time it develops the soft skills required for the refugees' integration and offers incentives and tools for the acquisition of affordable housing.

KEY ACTORS' STATEMENTS





FLAVIA MARZANO
COUNCILLOR OF INNOVATION FOR CITY OF ROME

Rome is simple if it becomes a place where the exercise of rights and respect for the duties are easy for everyone, and where everyone can contribute to improvement. Transparency, democracy, digital skills, accountability, participation and openness are the keywords that have guided us in defining our programmatic lines and in their implementation during our first year and a half of work.

Some results:

- Digital Agenda, the first strategic plan of Roma Capitale realized with a participatory process and with concrete and measurable objectives for digital transformation
- Plan to transition to free software that will free the Administration from suppliers lock-in (more than 5000 installations of LibreOffice already carried out)
- Open Agenda and Open balance for a better transparency: Agenda and Financial Statements are open and easy to read
- Establishment of the Control Room of the new Institutional Portal and definition of the area Participate in the portal itself with the possibility, among other things, of using the petition institution also electronically
- MoU between Rome and Fastweb for the start of experimentation based on 5G and Wi-Fi technologies
- Last but not least, 25 “Punti Roma Facile”, public offices helpful to break down the digital divide and increase citizens’ awareness of the use of ICTs.



MONIQUE CALISTI
EXECUTIVE DIRECTOR OF MARTEL INNOVATE

Connected and increasingly interactive technologies are rapidly and radically changing the dynamics of individual, and collective human experience. To master the ways in which these changes are affecting our society requires a multidisciplinary alignment of efforts amongst researchers, industrial players, policy makers, and civil society players. Public and private investments must ensure that initiatives focusing on development and deployment of digital technologies for social good, like the CAPS, can grow and have tangible impact by addressing people’s real needs, providing applications and services that can improve our quality of life. A radical transformation of our educational systems must emerge, creating the proper skills and opportunities for all citizens to become active players and master the digital revolution we are all part of.

At Martel, we strongly believe that research and innovation initiatives for a better and safer society must promote more open, inclusive, and participatory efforts by design. This is what we preach, and what we practice: open innovation, open data, open source and open hardware as core pillars of next generation human-centered digital technologies.



ANTONELLA PASSANI
PARTNER AND COORDINATOR OF THE SOCIETY,
INNOVATION AND SOCIAL CAPITAL UNIT, T6 ECOSYSTEMS

Digital Social Innovation is building new bridges and is creating a new interdisciplinary domain in which technology and social sciences are re-defining themselves by putting citizens and their needs at the center of their work. Still, there is a lot of work to be done in order to create a reciprocal understanding between people and decision makers with a humanistic background and those coming from science and technology. This is especially true when speaking about socio-technical solutions for supporting citizens’ democratic participation. Technology is not neutral, and neither are participatory processes: those who design the former and those who design the latter need to work closely together in order to develop solutions that take the best from face-to-face and online interactions. There is the risk that digital divide adds-on to other socio-economic and cultural obstacles to participation by reducing the opportunities to make voices heard. How to design participatory processes that assure that social categories normally under-represented in democratic processes have a real opportunity to express themselves? How to incentivize the participation of marginalised groups? How to bring back to participatory process people that have been betrayed by previous experiences?

Around Europe there are interesting examples going on in this direction and some of these are also represented in the Collective Awareness Platform community. It will be interesting to see if they will, as they could, impact the overall governance models of European public administrations pushing for a more distributed, networked governance of all public services.



DEPPY KERANIDOU
CULTURAL ANTHROPOLOGIST AND SUSTAINABILITY
RESEARCHER

European cities and local citizen movements are recognizing their value and reshaping the dynamics of coexistence with several other stakeholders. Online and offline platforms, made by and for citizens, strive to provide democratic and transparent opportunities for various initiatives to discuss, scale up and exchange knowledge and know-how with regards to topics addressing the entire society, such as governance, sustainability, social innovation and awareness. “New Europe - Cities in transition” is an online platform and magazine initiated in Amsterdam, where technology and community building come together for a better, more prosperous and transparent society on local, national and European levels. An ecosystem as such aims to create space for interaction and openness for collaborations among citizen movements throughout Europe with similar interests and challenges leading to more fruitful and corresponding tools to tackle societal obstacles.



GEORGE KOUTALIERIS

INTRASOFT INTERNATIONAL. SENIOR PRESALES AND INNOVATION MANAGER

Although a huge progress has been made over the last decade in improving the so-called “digital divide”, broadband access in rural areas of Europe is still limited. In addition, innovation performance in these same rural regions has decreased during the same period. We firmly believe that the take-up of Digital Social Innovation practices can not only reduce innovation performance gaps but also, and most importantly, improve the Return on Investment (ROI) for investments in access networks and computing infrastructures in rural areas.

INTRASOFT International is one of the main stakeholders of Rural Connect, a PPP venture that has been launched to achieve digital convergence for the most disadvantaged rural areas of Greece. Coupling these technological capabilities with tangible innovation results would greatly improve these region’s growth capacity. Our experience as coordinators of project PhasmaFOOD has provided us with clear indications that it takes only a few new technology-supported local ventures to transform the local economy. For example, food-tech innovations could address the needs of agricultural and livestock product supply chains, as well as food quality and safety needs.

STAVROULA MAGLAVERA

UNIVERSITY OF THESSALY

Connected technologies for social good support the empowerment of people to become active actors in the production, ownership, and control of the digital platforms that mediate their everyday lives. The ongoing centralization of the Internet and its appropriation by a few global corporations poses two critical threats on humanity, such as the loss of independence and sovereignty at multiple levels on the design of online spaces and their corresponding data due to the concentration of enormous power in the hands of commercial global entities and the increasing alienation, Internet addiction, polarization, disempowerment, and lack of social cohesion in cities, accentuated by the economic and immigration crises.

The key premise behind connected technologies for social good should be the vision of a decentralized Internet, framed and implemented in a way that will help address both challenges at the same time, which is perhaps the only way to address each of them separately. Specifically, one of the biggest challenges of the “decentralized Internet”, both in its more liberal form (e.g., diaspora) and more structured (e.g., platform cooperativism), is the democratic governance and a meaningful separation between the individual nodes, autonomous systems, of the envisioned decentralized network.



MASSIMO LEONE

DEPARTMENT OF PHILOSOPHY, UNIVERSITY OF TURIN

Changes in communication technologies interact with other sociocultural novelties and co-determine major shifts in the paradigms of human cognition and cultures. The invention of the printing press with movable characters, for instance, was instrumental to the individualization of books, readings, and interpretations, and, ultimately, to the rise of the Protestant Reformation with its stress on individual hermeneutic freedom. Similarly, the invention of Internet and the massive digitalization of culture is rapidly introducing increasing disintermediation in human societies and cultures. Yet, the Protestant Reformation also led to the elaboration of scientific methods for the interpretation of the Christian sacred texts, and ultimately to the birth of modern biblical philology. Internet interpretive communities, instead, still lack an equally rigorous “digital philology”, providing present-day interpreters with the technical ability to distinguish between the truthful, the fake, the likely, and the unlikely in the vast circulation of words and images across the Internet.

Major interdisciplinary efforts should be made, today, in order to foster the elaboration of this “digital philology”. The collaboration of humanist and technical scholars over this project will be essential. Such effort should result in an increased and progressively perfected ability to make sense of the digital world in a reasonable way, thus avoiding conspiracy, post-truth, and trolling attitudes.

ATHENA VAKALI

PROFESSOR AT THE DEPARTMENT OF INFORMATICS OF ARISTOTLE UNIVERSITY, THESSALONIKI

Web 2.0 dominance and IoT emergence has set new challenges for advancing data to knowledge services in the urban context. The multi-threaded data production over various channels (social media, sensors, mobile apps, etc.) offers many opportunities for harvesting knowledge about urban phenomena. Such knowledge can disrupt conventional ways of services impacting many city’s sectors (e.g. tourism, wellbeing, economy), and this knowledge detection is a demanding task since many cross-disciplinary criteria are involved.

Understanding which criteria are crucial for knowledge harvesting in cities requires synergies and new types of skills from experts of different origins. Technology vendors and developers need to co-create with cities’ communities to capture the criteria (behavioral, temporal, spatial, etc) which impact data production in various urban areas. At the same time, cities’ authorities need to promote synergies amongst creative coders, innovators, and inventors towards identifying and highlighting the skills which will support the resilient cities of tomorrow. Since technological advances (such as artificial intelligence, virtual reality, etc.) are radically changing human experiences in cities, new skills are required to prepare city task forces in many capacities, which should combine ease of coding with communication skills, social interaction with digital literacy, and other factors towards empowering the overall city’s ecosystem.





LAURA SARTORI

ASSOCIATE PROFESSOR OF SOCIOLOGY, DEPT. OF
POLITICAL AND SOCIAL SCIENCES, UNIV. OF BOLOGNA

As territories have specific competencies resulting from long-term dynamics, an emergent ecosystem – like CAPSSI – shows clear-cut competencies as a result of interactive relations among multiple stakeholders. Needless to say, the requested competencies are born and shared in an innovative environment where social scientists, computer scientists, civil society, NGOs, firms and local institutions cooperate and actively reach out for each other. Inside and outside universities, governments and enterprises, multi-disciplinarity becomes inevitable and mandatory.

It still might be a fairy-tale, but a community of innovators – as the one gathered around CAPSI – is the only way towards it. Thus, digital skills turn into the crucial tool to spread the word of innovation in unforeseen social directions, making the ecosystem alive and kicking.



MARTA ARNIANI

FUTURIBILE / CURATING FUTURES

The best we can do for DSI to thrive is to take a step aside from the dominant technocratic paradigm and state boldly that optimisation is not a value per se. Flows of information have become signifiers of identity, personality and social behaviour. Trust is automatised, and relationships are reduced to transactions. European DSI players have two intertwined challenges to tackle in the near future: the first is opposing Silicon Valley's data-extractive fervor with business and investing models more considerate of social impact. The second is fostering education to an informed and proactive use of technology. Both are cultural matters. We need imagination and pragmatism: if we don't create the conditions for keeping humankind in the game, DSI will be just another playground for tech optimisation.

MARA BALESTRINI

CEO OF IDEAS FOR CHANGE



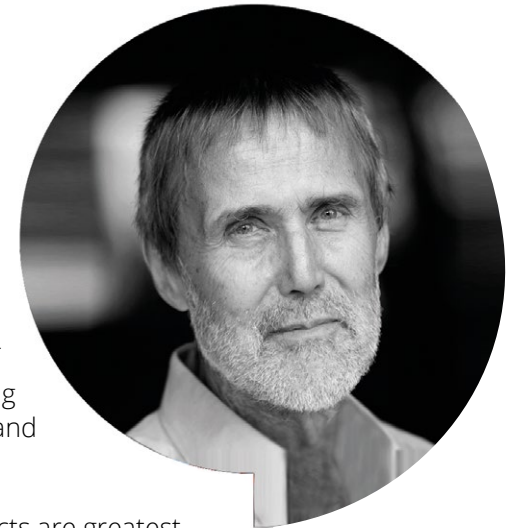
Technological solutions that enable the so-called smart cities have grown exponentially. The citizen, however, is often overlooked in the quest for technological advances and novelty. A perceived sense of inertia by the government in tackling pressing environmental issues, making data abundant and available, as well as the recent advent of open-source technologies and makerspaces have led to a rapidly growing number of smart citizens who want to take the future of their cities into their own hands.

The Making Sense project (H2020 CAPS) looked at ways to harness the potential of this bottom-up energy. It pioneered an approach of participation that overcomes the many gaps that have hindered sustained and meaningful participation in previous IoT and smart city programmes. Throughout nine participatory pilots we investigated how to infrastructure communities with data literacy, critical thinking, open source technologies, and digital fabrication skills so that they can develop environmental sensors, measure their environment and make sense of the data. Following this approach, communities were able to move from awareness to action and change through public interventions, data visualisation, reinvention of public spaces or even new policy proposals.

Projects of this kind are paving the way towards a promising future where citizens not only engage with technology but actually become producers of the city, harnessing the potential of technologies and contributing their expertise, knowledge and emotional intelligence to effect positive change.

JEREMY MILLARD

SENIOR CONSULTANT,
THE DANISH TECHNOLOGICAL INSTITUTE



The CAPS' MAKE-IT project (2016-17) has undertaken in-depth impact analyses of the European maker movement that uses a wide range of technologies, including 3-D printing and other additive manufacturing tools, characterising the societal shift away from mass-production and consumption towards 'mass-customisation' and decentralisation.

Headline results show that social, economic and environmental impacts are greatest when maker initiatives, rather than acting alone or in one-on-one partnerships, operate in relatively large ecosystems of interacting diverse actors, such as along value chains with other start-ups, creative-industries, socially focused NGOs and enterprises, and public institutions. Although large-scale networks composed mainly of makers are useful for common learning and knowledge building, the overall societal impact is less than in such ecosystems, although complementary to it. There are also clear distinctions between male-led and female-led initiatives, with the former more likely to have technical, policy and commercial ambitions and the latter social ambitions, gender balance, openness, skills and sharing. However, across all types of societal impact, female-led initiatives generally do significantly better, despite comprising less than 25% of the total, perhaps because in such a male-dominated activity spurred by new technology, only high-calibre women become active leaders compared to all types of males. This requires further investigation and monitoring, however.



PETER BAECK

HEAD OF COLLABORATIVE ECONOMY RESEARCH, NESTA

Through our work on the DSI4EU project, we have documented hundreds of promising digital social innovations in Europe. However, very few have grown to achieve impact at scale, and we are far from making the most of the potential in DSI. Systemic barriers to growth include the availability and accessibility of funding and skills, a fragmented ecosystem and limited uptake of DSI by the public sector and established civil society organisations due to lack of skills and inflexible procurement practices. Practitioners face barriers including engaging citizens, planning for growth and developing sustainable business models, compounded by a lack of robust impact measurement.

However, we have encountered many exciting ways in which these challenges are being addressed – from maturing funding systems to city-wide DSI strategies, and from innovative business models to more networked approaches. Now we need policymakers, funders and practitioners to work together to begin to realise the transformative potential of DSI. It should be obvious that any 21st-century innovation strategy needs to encompass the ideas and energy of the digital social innovators, and we hope that soon they will be able to take their rightful place in the mainstream.

GIANLUCA MISURACA

SENIOR SCIENTIST & PROJECT LEADER IESI AT THE EUROPEAN COMMISSION'S JOINT RESEARCH CENTRE

To collectively respond to the challenges posed by the profound transformations that will affect European societies and the world of work in the future, Europe must implement innovative solutions. As societies change in the face of digital disruption, traditional models of social protection are no longer fit-for-purpose. During these times of rapid change, Governments need to leverage the growing array of digital data to target scarce resources based on need. This requires a sustained effort to rebuild trust with constituents to earn a mandate to share data for the common good of addressing wicked social problems. Citizens' acceptance of data sharing is akin to a social change movement - not everyone is moving at the same speed and the rights of those moving behind the curve of acceptance need to be accommodated. Moving forward requires a new active citizenship model where people are consulted and engaged in a co-creation and co-design approach to social policy design and service delivery implementation. It is at this level where social innovation enabled by ICTs has significant potential to progress the creation of public value within inclusive societies, promoting social investment strategies and contribute shaping future welfare systems that protect and empower European citizens.



MARLEEN STIKKER

WAAG SOCIETY

The sharing economy is having an enormous impact on our cities. In the coming years, new technological developments will change them even more drastically. The question is: who owns the platforms? The Google's and Airbnb's of this world, who are unaccountable and primarily in it for the money? Or the platform cooperatives, who focus on open technology, the commons and actual sharing? Should we take it one step further and radically change our economic thinking? It has been said many times before: the Internet is a double-edged sword. On the one hand the Internet has opened up endless amounts of opportunities. It enables like-minded souls, innovators and small local initiatives from all over the world to interconnect, organize, share, cooperate and co-create. Knowledge can spread freely and anyone can join in. Its distributed, horizontal architecture (often referred to as peer-to-peer, equal-to-equal) gives the Internet the power to undermine centrally organised markets and traditional hierarchies, giving space to wonderful, more democratic, reciprocal and bottom-up initiatives.

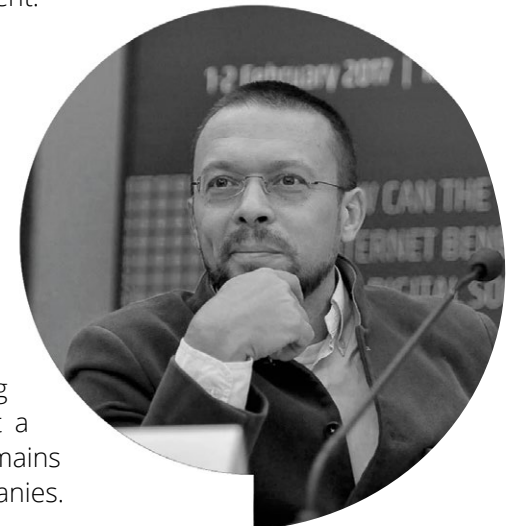
Unfortunately, there are serious reverse sides too. A handful of tech companies have managed to undermine the Internet's decentralised and open architecture. Companies like Google, Uber, Airbnb and Facebook centrally store and exploit intelligence and Internet users' data. We need to prevent that digital innovation is hijacked by mainstream industries. Otherwise innovation will be defined by extractive tech firms and held back by surveillance capitalist mechanisms. This is why it's so important to ditch the last century's macroeconomic thinking. We cannot fix the social, environmental and financial problems of our times without changing the systems that caused them. It's time for a 21st century economic narrative in which we can pursue social justice and ecological integrity. Europe should choose for true economic innovation and embrace the commons as its vital component.

FILIPPO ADDARII

CO-FOUNDER AND CEO AT PLUSVALUE

Social progress is not a pleasant stroll into the future. Complex, unpredictable and all-encompassing, it brings a high degree of social disruption. But holding back and putting up barriers is not a solution. We must go forward and get the gain from the pain of disruption. Overall, digital innovation can profoundly transform existing institutions and connected technologies for social good represent a great opportunity to promote radical experiments in multiple domains traditionally resisting change – such as governments and large companies.

As we know, the Internet and, today blockchain technology, have been saluted as powerful tools to increase public accountability, communication, access, efficiency, and transparency, and a key instrument to bring about new ways to think about and engage with democratic practices and processes. However, digital innovations can represent a double-edged sword and they should be treated with care. E-democracy approaches, for instance, do not necessarily lead to a pluralistic debate, because marginal voices can be drowned out by noisy or powerful majorities, and related issues of fake news, filter bubbles, echo chambers, and targeted advertising need to be closely monitored and addressed. In other words, social progress can never be a pleasant stroll into the future, however it is within our power to ensure that new technologies act as a helping hand in the journey towards positive social change.





GEOFF MULGAN

CHIEF EXECUTIVE OF NESTA

Digital social innovation is in many ways thriving across Europe, with an extraordinary range of initiatives underway in data, maker spaces, new services and democracy. But as Nesta and others have shown there are big barriers - lack of capital, public services that resist new ideas, civil society that lags far behind business in its use of technology, and lack of policy attention. DSI4EU has mapped out some of what needs to change. But there's also a bigger prize: to realise a more ambitious vision of collective intelligence. This would help our societies make the most of all of their human and machine intelligence to solve difficult problems. I map out some of this in my book 'Big Mind', looking at how, for example, to shift the EU's Copernicus to link citizen-generated data and action in the environment; how to transform cancer services to be far more data-enabled and empowering of patients; or how to build on experiments in Spain and Iceland to make urban democracy more like a true collective intelligence. Europe could be leading in making these happen - and taking digital social innovation to a much greater level of impact, moving from promising but small projects to something truly revolutionary.

FIORENZA LIPPARINI

FOUNDING PARTNER, RESEARCH DIRECTOR, PLUSVALUE

As remarked in a recent paper I co-authored with Filippo Addarii, Vision and Trends of Social Innovation for Europe, innovation has hardly ever been more visible and pervasive than today. Next generation Internet technologies such as artificial intelligence, virtual and augmented reality, the blockchain and smart devices are disrupting our economies and societies in ways not previously experienced; and setting a line between our online and offline persona is becoming increasingly difficult.

The benefits of innovation are not distributed equally. While the top 1% enjoy increasing material wealth and life choices, many people are at risk of losing their jobs, social standing, and dignity due to innovation processes out of their control. The new European Social Innovation should be Human-centred, System focused and unwaveringly political.

- Human-centred, because people are the best source of innovation and the target beneficiaries. We should invest in people so they can shape and drive innovation in line with their aspirations and values.
- System focused, to turn people's and institutions' potential into positive results, highlighting social innovation at the level of cities and regions as grand scale laboratories.
- At the core of policy making and the political agenda of Europe, to shape a new social contract for Europe.



We will need a great deal of ambition and political capital to challenge the status quo - especially vested interests in current institutional arrangements - and build a new generation of institutions and diffused capacity to use ICT to catalyse and coordinate the action of diverse peoples, companies and public bodies, balancing top-down and bottom-up approaches, and combining effective action with public accountability.

LUCA FRANCESCANGELI

CHANGE.ORG

In my opinion, most people like to pursue two things in their lives. First, they want to connect with others in a meaningful way, and to that end like-minded individuals are obviously the most popular choice. Then they want to show everyone what they are doing, especially the cool stuff. The online environment is the perfect example of these two trends working together.

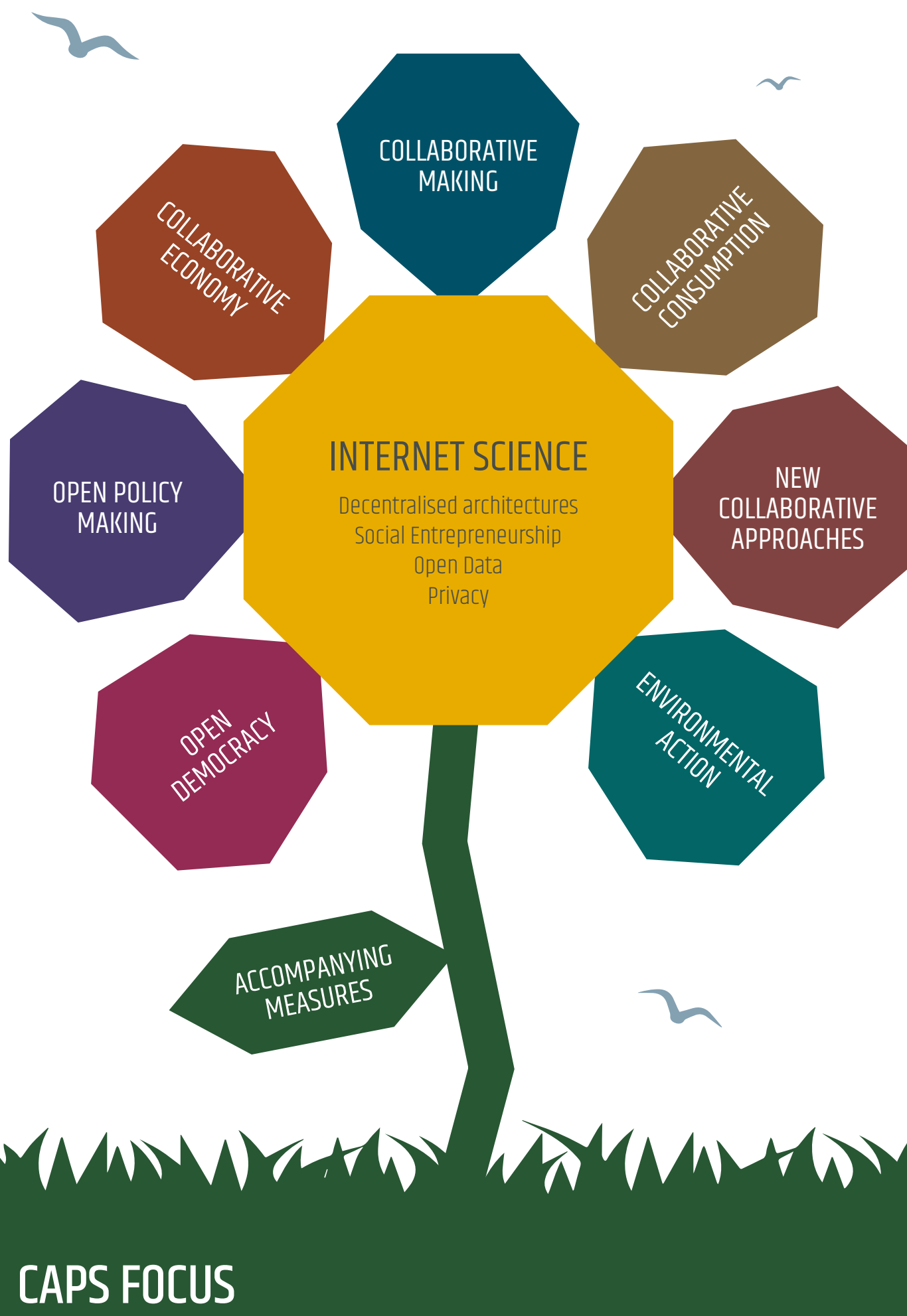
Change.org is the most successful petition platform in the world, because we effectively connect people on issues they deeply care about, and once you've signed a petition, you can let others know on your social feeds, even recruiting others to your call to arms. Indeed, it is an empowering experience for millions of people around the globe, that really changes the world itself, creating self-organized movements of empowered citizens.

Globally we already have more than 220 million users, almost 8 million are Italian, who have already won about 900 campaigns. Quite an amazing ride, considering that when the platform arrived in this country (July 2012), we only had a bit more than 100,000 local users. This strong growth, in Italy as well in all the other key markets where Change.org is operating, is a solid proof on how important technology is to help people mobilize and change things together. Because online petitions DO matter, there is no such thing as "slack-tivism".

On a global level, there is a Change.org campaign that changes the policy of a government or practice of business almost every hour. In fact, we see sometimes people that have historically tried to organize offline, been ineffective, and have used online tools to effectively mobilize a larger group of people. We see the combination of online mobilization and offline change being the most potent force, it's not just one or the other.

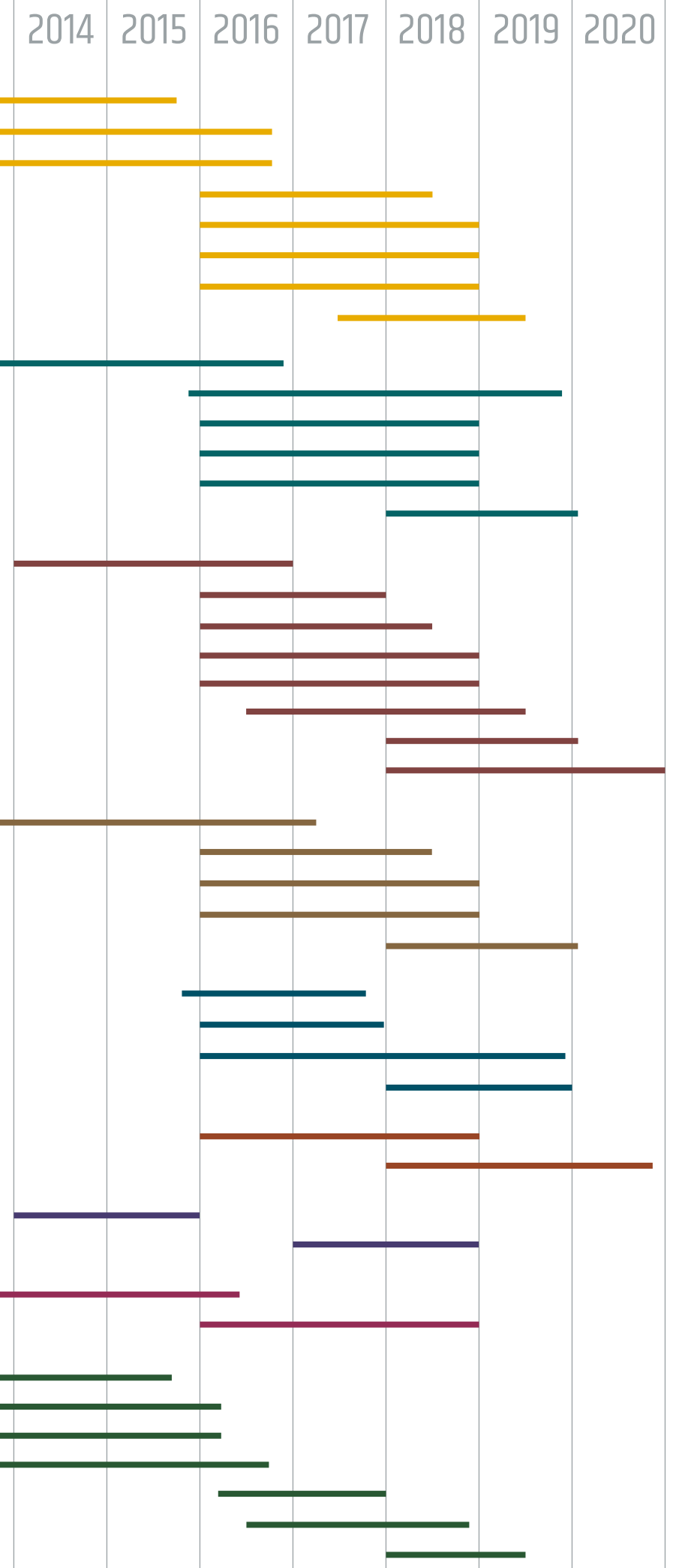
Now Italy is setting up for the next general elections: no doubt Change.org will play a major role in the electoral campaign, with millions of users ready to use our platform to mobilize and aggregate consensus around proposals to be submitted to the main candidates. Italians will ask the main political parties to commit to this or that proposal, if they get to sit in the Parliament or to lead the Government. It is going to be a quite interesting time for Change.org and for democracy.





CAPS FOCUS

CAPS Projects' timeline



CAPS PROJECTS



INTERNET SCIENCE



CATALYST

COLLECTIVE APPLIED INTELLIGENCE AND ANALYTICS FOR SOCIAL INNOVATION

The CATALYST project ended in September 2016, and brought together deeply experienced community-partners engaged daily in curating very large online communities on social innovation and citizen engagement platforms, and leading academic research partners specialized in Collective Intelligence (CI).

Project lifetime: 01/10/2013 to 30/09/2016

Website: www.catalyst-fp7.eu

P2PVALUE

TECHNO-SOCIAL PLATFORM FOR SUSTAINABLE MODELS IN COMMONS-BASED PEER PRODUCTION

The P2PVALUE project ended in September 2016 and studied Commons Based Peer Production (CBPP), which is a new form of social innovation that is becoming ever more important in the information society. The project developed a software platform designed to facilitate the creation of resilient and sustainable CBPP communities.

Project lifetime: 01/10/2013 to 30/09/2016

Website: www.p2pvalue.eu

USEMP

USER EMPOWERMENT FOR ENHANCED ONLINE PRESENCE MANAGEMENT

The USEMP project ended in September 2016, and aimed at developing a framework that will empower users by enhancing their control over the data they distribute or interact with. The framework reduced the existing asymmetry between data processing and control means available to OSNs and those afforded by citizens.

Project lifetime: 01/10/2013 to 30/09/2016

Website: www.usemp-project.eu

OPEN4CITIZENS

USING OPEN DATA TO DESIGN NEW CITIZENS' SERVICES

The OPEN4CITIZENS project will work in the context of the advancement of contemporary cities towards the concept of smart city. The idea of smart city however, has often been referred to a progressive digitalization of services in everyday life, whereas the social aspects of this advancement have often been neglected.

Project lifetime: 01/01/2016 to 30/06/2018

Website: www.open4citizens.eu

MAZI

A DIY NETWORKING TOOLKIT FOR LOCATION-BASED COLLECTIVE AWARENESS

MAZI aims to provide the technology and knowledge needed to empower local communities, generate location-based collective awareness as a basis for fostering social cohesion, and facilitate interdisciplinary interactions around the design of hybrid space and the role of ICTs in society.

Project lifetime: 01/01/2016 to 31/12/2018

Website: www.mazizone.eu

NETCOMMONS

STUDYING, SUPPORTING AND PROMOTING COMMUNITY-BASED NETWORKING

netCommons aspires to study, support and promote community-based networking and communication services that can offer a complement, or even a sustainable alternative, to the global Internet's current dominant model.

Project lifetime: 01/10/2013 to 30/09/2016

Website: www.netcommons.eu

NEXTLEAP

NEXT GENERATION TECHNO-SOCIAL AND LEGAL ENCRYPTION ACCESS AND PRIVACY

NEXTLEAP pursues the creation of a fundamental rights-preserving socio-technical science of decentralised internet architecture, a re-thinking of the ethical and philosophical foundations of the Internet, and the modular specification of decentralised protocols to achieve this.

Project lifetime: 01/01/2016 to 31/12/2018

Website: www.nextleap.eu

CAPTOR

COLLECTIVE AWARENESS PLATFORM FOR TROPOSPHERIC OZONE POLLUTION

CAPTOR aims to install and maintain a network of low-costs sensors for ozone measurement with and for European citizens, deliver high quality, low cost and valid ozone data from the sensor network, support processes of discussion and learning on local level to find solutions while actively empowering European citizens.

Project lifetime: 01/01/2016 to 30/06/2018

Website: www.captor-project.eu

HACKAIR

COLLECTIVE AWARENESS FOR AIR QUALITY

The hackAIR open platform will enable communities of citizens to easily engage their members in generating and publishing information relevant to outdoor air pollution, leveraging the power of citizen science, online social networks, mobile and open hardware technologies, and engagement strategies.

Project lifetime: 01/01/2016 to 31/12/2018

Website: www.hackair.eu

DECODE

DATA SOVEREIGNTY FOR THE SHARING ECONOMY

DECODE will develop practical means to manage online identity, personal and other data, and collective governance in a citizen-friendly and privacy-aware fashion. This will draw on strong digital rights for data subjects to determine access rights to their information being woven into the technological architecture.

Project lifetime: 20/06/2017 to 20/06/2019

Website: www.decodeproject.eu

ENVIRONMENTAL ACTION



DECARBONET

A DECARBONISATION PLATFORM FOR CITIZEN EMPOWERMENT AND TRANSLATING COLLECTIVE AWARENESS INTO BEHAVIOURAL CHANGE

The DecarboNet project ended in June 2016 aimed to increase collective awareness by identifying determinants of collective awareness, translating awareness into behavioural change, and providing novel methods to analyse and visualise the underlying processes.

Project lifetime: 01/10/2013 to 30/09/2016

Website: www.decarbonet.eu

POWER

POLITICAL AND SOCIAL AWARENESS ON WATER ENVIRONMENTAL CHALLENGES

POWER is an EIP Water Action Group related project pioneering the DSP approach to share the knowledge and experience of water scarcity, security, quality and water consumption-related issues in different EU local authorities, thus creating an important tool for EU water policy.

Project lifetime: 01/12/2015 to 30/11/2019

Website: www.power-h2020.eu

STARS4ALL

A COLLECTIVE AWARENESS PLATFORM FOR PROMOTING DARK SKIES IN EUROPE

STARS4ALL aims to encourage citizens to care and preserve the darkness of European skies beyond 2015, the International Year of the Light. Artificial light at night is associated with the sense of security, wealth and modernity. STARS4ALL is raising awareness about the negative effects of artificial light.

Project lifetime: 01/01/2016 to 31/12/2018

Website: www.stars4all.eu

NEW COLLABORATIVE APPROACHES



PTWIST

AN OPEN PLATFORM FOR PLASTICS LIFECYCLE AWARENESS, MONETIZATION, AND SUSTAINABLE INNOVATION

PTwist is an open platform used to twist plastic reuse practices by boosting citizens' awareness, the circular economy, and sustainable innovation. Activities are based upon existing open source, blockchain, gaming, crowdsourcing components, and open data solutions and developments.

Project lifetime: 01/01/2018 to 31/01/2020

Website: www.ptwist.eu/

CAP4ACCESS

COLLECTIVE AWARENESS PLATFORMS FOR IMPROVING ACCESSIBILITY

The CAP4Access project ended in June 2016, and aimed to develop and pilot-test methods and tools for collectively gathering and sharing spatial information for improving accessibility. The aim was to exploit the power of online maps and mobile devices for fostering awareness of barriers for individuals with limited mobility and for removing such barriers.

Project lifetime: 01/10/2013 to 30/09/2016

Website: www.cap4access.eu

OPENCARE

A COMMUNITY WORKING TO MAKE OPEN AND COLLABORATIVE HEALTH AND CARE SOLUTIONS

OpenCare brings people together, in the virtual and physical world, to share stories and create new solutions rooted in people's everyday realities, needs, and lifestyles. OpenCare is firmly committed to radical openness, publishing under a Creative Commons Attribution 4.0 International License.

Project lifetime: 01/01/2016 to 31/12/2017
Website: www.opencare.cc

COMRADES

COLLECTIVE PLATFORM FOR COMMUNITY RESILIENCE AND SOCIAL INNOVATION DURING CRISES

COMRADES is creating an open-source, community resilience platform, researching how technologies can help communities to be more resistant to crisis situations and by providing a way to optimally share information enable them to proceed with needed help action in due time.

Project lifetime: 01/01/2016 to 31/12/2018
Website: www.comrades-project.eu

PIE NEWS / COMMONFARE

POVERTY, INCOME AND EMPLOYMENT NEWS

The PIE News project aims at improving life conditions for the "new poor": the 25% and rising of the European population composed of precarious workers, the working poor, people unprotected by safety nets, and young people who are no longer in the education system and experience difficulties in finding a job.

Project lifetime: 01/07/2016 to 30/06/2019
Website: www.pienews.eu

CAPSELLA

COLLECTIVE AWARENESS PLATFORMS FOR ENVIRONMENTALLY-SOUND LAND MANAGEMENT

The CAPSELLA project focuses on two complementary domains: agro-biodiversity and the food supply chain. It uses participatory bottom up data collection and top down data integration to develop solutions for these domains, building open data repositories concerning regional agro-biodiversity.

Project lifetime: 01/01/2016 to 30/06/2018
Website: www.capsella.eu

SOCRATIC

SOCIAL CREATIVE INTELLIGENCE PLATFORM FOR ACHIEVING GLOBAL SUSTAINABILITY GOALS

SOCRATIC aims to facilitate a platform for citizens and/or organisations to collaboratively identify specific innovative solutions for achieving the desired Global Sustainability Goals, as defined by the United Nations. The platform proposes new challenges, invites participants, and collectively selects and implement the most promising ideas.

Project lifetime: 01/01/2016 to 31/12/2018
Website: www.socratic.eu

SHARE4RARE

SOCIAL MEDIA PLATFORM DEDICATED TO RARE DISEASES, USING COLLECTIVE INTELLIGENCE

Share4Rare (S4R) is a collective online platform to improve the quality of life of patients and families affected by rare diseases. In S4R, patients and families are in direct contact with researchers and clinicians, acting as researchers of their own disease and sharing their experiences.

Project lifetime: 01/01/2018 to 31/01/2020
Website: www.share4rare.eu

CHILDRESCUE

COLLECTIVE AWARENESS PLATFORM FOR MISSING CHILDREN INVESTIGATION AND RESCUE

ChildRescue uses collective awareness, resourcefulness and action for a more rapid and effective resolution of missing children cases, especially identifying missing refugee minors. This is done through using open-social-linked data to augment the background information on missing children.

Project lifetime: 01/01/2018 to 31/01/2020
Website: www.childrescue.eu

WIKIRATE

CROWDSOURCE BETTER COMPANIES

The WikiRate project ended in September 2016, and had the vision of helping consumers express themselves as ethical economic citizens. The objective of WikiRate was to be the 'go-to' place for information on companies' social and environmental practices.

Project lifetime: 01/10/2013 to 30/09/2016
Website: www.wikirate.eu

CHAINREACT

ENCOURAGING TRANSPARENT, REACTIVE AND RESPONSIBLE CORPORATE NETWORKS

ChainReact is an effort to make supplier networks transparent, understandable, and responsive, so that companies and their stakeholders can see, react to, and ultimately transform corporate network impacts. It will identify irresponsible activity, connect issues to their drivers, and incentivize companies to address the issues.

Project lifetime: 01/01/2016 to 30/06/2018
Website: www.chainreact.org

COLLABORATIVE CONSUMPTION



ASSET

A NEW FORM OF CONSUMERISM

The ASSET project aims at facilitating a new form of consumerism, involving literate decision making from the individual consumer and community building. A consumer interface via a smartphone application linked to social media provides the tool for supporting individual shopping decisions and interacting with the community.

Project lifetime: 01/01/2016 to 30/06/2018
Website: www.asset-consumerism.eu

SAVINGFOOD

INNOVATIVE SOLUTIONS TO TACKLE FOOD WASTE THROUGH ICT NETWORKS

SavingFood seeks to create a social movement for reducing food waste, by engaging all actors of the food waste cycle to become part of the solution. The project brings together the food waste, technical and scientific communities together to create a mutually beneficial environment where food and information is shared.

Project lifetime: 01/01/2016 to 31/12/2018
Website: www.savingfood.eu

GRASSROOTS WAVELENGTHS

HIGHLY NETWORKED GRASSROOTS
COMMUNITY RADIO THROUGH A SCALABLE
DIGITAL PLATFORM

Grassroots Wavelengths has created small, inexpensive, and highly connected micro FM stations. Supported by cloud data and telephony, the stations are a civic information platform. The stations can produce “network effects” through their technical and community interconnection.

Project lifetime: 01/01/2018 to 31/01/2020

Website: www.grassrootsradio.eu

COLLABORATIVE MAKING



MAKINGSENSE

ENGAGING CITIZENS
IN SCIENCE & CHANGE

MakingSense will show how open source software, open source hardware, digital maker practices and open design can be effectively used by local communities to appropriate their own technological sensing tools, make sense of their environments and address pressing environmental problems in air, water, soil and sound pollution.

Project lifetime: 01/11/2015 to 30/10/2017

Website: www.making-sense.eu

MAKE-IT MAKER MOVEMENT DESIGN GLOBALLY, MANUFACTURE LOCALLY

The overall objective of the MAKE-IT project is to understand the role of Collective Awareness Platforms (CAPs) in how the maker movement has grown and operates, particularly in relation to using and creating social innovations and achieving sustainability.

Project lifetime: 01/01/2016 to 31/12/2017

Website: www.make-it.io

OPENMAKER

TOWARDS AN EUROPEAN OPEN
MANUFACTURING ECOSYSTEM

The OpenMaker initiative is a pan-European project to accelerate the 4th Industrial Revolution – driving the radical distribution, decentralization and mass collaboration between manufacturers and makers. It seeks to catalyse creation, development, production and management.

Project lifetime: 01/12/2016 to 30/11/2019

Website: www.openmaker.eu

MADE4YOU OPEN AND INCLUSIVE HEALTHCARE FOR CITIZENS BASED ON DIGITAL FABRICATION

Made4You facilitates co-design of open healthcare for people with physical limitations. Made4You aims to build an ecosystem under the name Careables.Org, linking existing local communities of citizens with disabilities and their families, healthcare professionals, and makers.

Project lifetime: 01/01/2018 to 31/01/2020

Website: www.careables.org

COLLABORATIVE ECONOMY



FAMILIES_SHARE

SOCIALISING AND SHARING TIME FOR
WORK/LIFE BALANCE THROUGH DIGITAL
AND SOCIAL INNOVATION

The Families_Share project offers a co-designed platform to help families share time and tasks related to childcare, parenting, after-school and leisure activities and other household tasks - with a focus on low-income families. It engages through childcare activities, task support, and family events.

Project lifetime: 01/01/2018 to 30/11/2020

Website: www.families-share.eu

WEB-COSI

WEB COMMUNITIES FOR STATISTICS
FOR SOCIAL INNOVATION

The Web-COSI project ended in December 2015, and was a co-ordination action engaging citizens and society at large in the area of statistics and new measures of social progress and well-being. Web-COSI used state of art Web 2.0 technology and social media tools to engage diverse communities in a collective discussion.

Project lifetime: 01/10/2013 to 31/12/2015

Website: www.webcosi.eu

CROWD4ROADS

CROWD SENSING AND RIDE SHARING FOR
ROAD SUSTAINABILITY

The Crowd4Roads project aims at engaging drivers and passengers in the development and adoption of more sustainable car usage habits and road maintenance policies. This is done through a relationship between BlaBlaCar, the world's largest ride sharing community and SmartRoadSense, a crowd sensing system of road surface quality.

Project lifetime: 01/01/2016 to 31/12/2018

Website: www.c4rs.eu

OPEN POLICY MAKING



WEB-COSI

WEB COMMUNITIES FOR STATISTICS
FOR SOCIAL INNOVATION

The Web-COSI project ended in December 2015, and was a co-ordination action engaging citizens and society at large in the area of statistics and new measures of social progress and well-being. Web-COSI used state of art Web 2.0 technology and social media tools to engage diverse communities in a collective discussion.

Project lifetime: 01/10/2013 to 31/12/2015

Website: www.webcosi.eu

EMPATIA

ENABLING MULTICHANNEL PARTICIPATION
THROUGH ICT ADAPTATIONS

EMPATIA aims at producing the first ICT platform capable of fully encompassing both the decision-making cycle and the implementation cycle of participatory processes whose integration is the main driver of the self-sustainability process, through enabling participatory budgeting.

Project lifetime: 01/01/2016 to 31/12/2018

Website: www.empatia-project.eu

OPEN DEMOCRACY



D-CENT DECENTRALISED CITIZENS ENGAGEMENT TECHNOLOGIES

The D-CENT project ended in May 2016, and aimed to accelerate the use of the Internet to help communities share data and collaborate to address major societal challenges. D-CENT created a bottom-up, decentralised, open platform for collective awareness based on integrating already successful open-source codebases.

Project lifetime: 01/10/2013 to 31/05/2016
Website: www.dcentproject.eu

PROFIT PROMOTING FINANCIAL AWARENESS AND STABILITY

PROFIT aims to develop a platform for promoting financial awareness and improving the financial capability of citizens and market participants. It will include specialized financial education toolkits, crowd-sourcing tools, advanced forecasting and a novel personalized recommendation system.

Project lifetime: 01/01/2016 to 31/12/2018
Website: www.projectprofit.eu

ACCOMPANYING MEASURES



IA4SI IMPACT ASSESSMENT FOR SOCIAL INNOVATION

The IA4SI project ended in March 2016, and aimed to develop a structured methodology able to evaluate the potential socio-political, economic and environmental impacts of grassroots social innovation initiatives on society and to map key characteristics able to determine a wider uptake of the initiatives at social level.

Project lifetime: 01/10/2013 to 31/03/2016
Website: www.ia4si.eu

CAPS2020 ORGANIZATION OF THE ANNUAL CAPS INTERNATIONAL CONFERENCE IN THE CONTEXT OF HORIZON 2020

The CAPS2020 project ended in August 2015, and focused on the organization of the annual CAPS international conference in the context of Horizon 2020. In the context of emergence and diversity of CAPS, it was important that an annual international conference focusing on CAPS be held.

Project lifetime: 01/10/2013 to 31/08/2015
Website: www.caps2020.eu

CHEST COLLECTIVE ENHANCED ENVIRONMENT FOR SOCIAL TASKS

The CHEST project ended in June 2016, and aimed to create a Pan-European “point of presence” to activate social interaction and social innovation. The project engaged a large base of organizations, networks, and programs in the areas of social innovation, entrepreneurship, early stage business incubation, service design and creativity.

Project lifetime: 01/10/2013 to 30/06/2016
Website: www.chest-project.eu

DSI4EU DIGITAL SOCIAL INNOVATION FOR EUROPE

The DSI4EU (Digital Social Innovation for Europe) project ended in April 2017. It supported, grew and scaled the current digital social innovation network of projects and organizations, bringing together social entrepreneurs, hackers, communities and academics working on key DSI fields such as the makers movement, the collaborative economy, open democracy and digital rights.

Project lifetime: 01/02/2016 to 01/04/2017
Website: www.digitalsocial.eu

DSISCALE SUPPORTING THE SCALE OF DSI IN EUROPE THROUGH COORDINATION OF EUROPE'S DSI AND CAPS NETWORKS

DSISCALE will bring together different practitioners, policy makers, funders and other stakeholders in digital social innovation (DSI) around specific social challenges to deliver coordination, support and peer learning activities online and offline. In turn, these activities will support DSI initiatives to grow and scale their impact.

Project lifetime: 01/01/2018 to 30/06/2019
Website: www.digitalsocial.eu

SCICAPE 2.0 THE SCIENCE CAFES NETWORK

The SciCafe 2.0 project ended in March 2016, and supported a portable Virtual Platform and Observatory for Crowd Sourcing, knowledge sharing, participative management of societal challenges, and methodologically-guided experiments to engage citizens in the democratic consultative process.

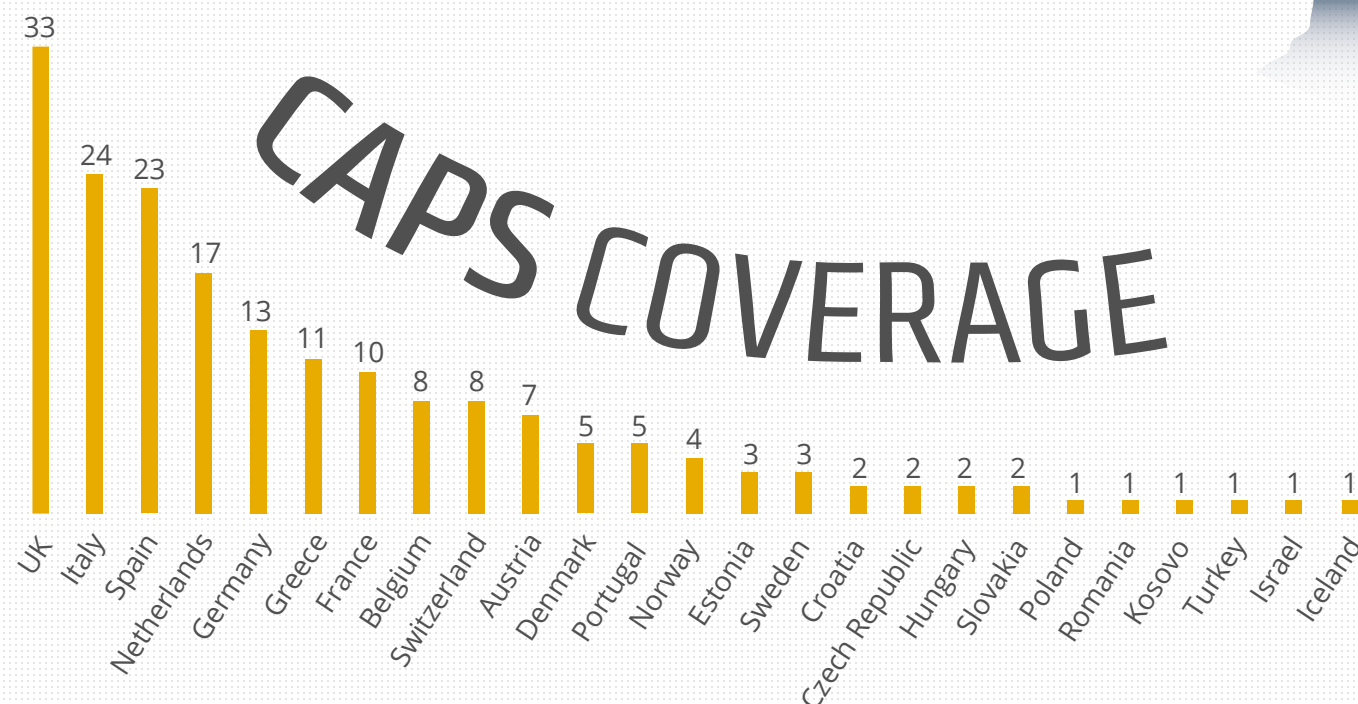
Project lifetime: 01/10/2013 to 31/03/2016
Website: www.scicafe.eu

CHIC COORDINATING HIGH IMPACT FOR CAPS

ChiC is the Coordination and Support Action, amplifying and coordinating CAPS-driven efforts in a broad perspective and refining how digital, sustainable and social innovation can penetrate our society. This is done through community building, knowledge sharing, and best-practice identification and promotion.

Project lifetime: 01/07/2016 to 31/12/2018
Website: www.capssi.eu

CAPS STORIES



The CAPS projects are more than just exercises in new applications for ICT. They represent a testbed for a new paradigm of digital social innovation – a means for communities across Europe to experiment with the decentralization and decapitalization of knowledge and social value. Each project represents a means by which the people can reclaim ownership of some part of their environment and community.

Here, we have selected nine of the CAPS projects to have their story told. Each of these projects tackles a social issue from the grassroots, with technology, ingenuity, and community.



WATER IS FUNDAMENTAL TO LIFE

Water is fundamental to life, and a cornerstone of society. To keep society in control of its water, the POWER Digital Social Platform for water related issues was launched. Created as part of the EU project POWER (Political and sOcial awareness on Water EnviRonmental challenges), POWER includes the Climate Alliance city network, the UK cities of Leicester and Milton Keynes, and two water supply companies in Jerusalem (Israel) and Sabadell (Spain).

While caring about water issues is universal, the specifics are not. POWER puts control in the hands of the populace through an open Digital Social platform both filled with information from experts about water related issues, and used to communicate these issues to decision makers, key stakeholders and the public in order to increase awareness. The POWER platform is already in use for citizens to share best practices, explore options and discuss experiences with the other users of the wide network of POWER cities.

The main goals of the four POWER cities:

- **Jerusalem.** Through the regional water utility, Hagihon, the city is promoting water conservation behaviours, quantifiable water savings and improve awareness regarding water quality.
- **Milton Keynes.** Water is scarce, and POWER aims to reduce consumption with the help of social awareness incentives.
- **Leicester.** Endangered by surface water floods. Leicester aims to strengthen the awareness of extreme weather events. It provides real-time river water levels and predictive warnings for combined sewer overflows in specific geographical areas of the city.
- **Sabadell.** Here, water is delivered in two qualities, potable and non. The water utility CASSA wants to actively involve citizens by implementing an information system that enables real-time information about the quality and conditions of service.



WWW.POWER-H2020.EU

CAPTOR

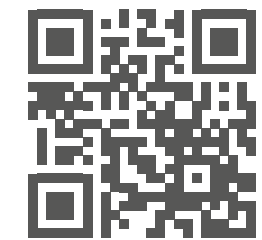
AIR QUALITY CONCERNS US ALL

Air quality is a topic of increasing concern for communities, as it isn't always visible to the citizen on the street, and trustworthy information sources can be hard to find. With CAPTOR, citizens, scientists and environmental organisations collaborate closely to monitor and address ozone pollution in Europe. The program aims to establish a monitoring network for tropospheric ozone using low-cost sensors to measure pollution in affected, mostly rural, areas. A collaborative process, mediated by online tools, will stimulate public discussion and collective solution finding.

Tropospheric ozone is one of the pollutants that most significantly affect human health, agriculture and the natural environment. While precursor gases are emitted mainly in urban environments, the ozone affects rural areas, where it is formed through chemical reactions. While people living in rural areas think they are living with clean air,

they are often the affected ones, ignorant to the problem due to lack of knowledge.

To tackle this problem, the CAPTOR project is carrying out measurement campaigns with volunteers in Spain, Italy and Austria. During the summer periods, when tropospheric ozone reaches maximum concentrations, both concerned citizens and public institutions deploy low cost sensors. The measuring devices, based on open hardware, have been developed with a special attention to delivering high quality data, as this is a crucial point for citizen empowerment and mobilization. The collected ozone data is shared in real time online, raising awareness among the local population and generating public interest. Participants were also encouraged to share and discuss their experiences and own stories via local collaborative online platforms.



WWW.CAPTOR-PROJECT.EU



AIR POLLUTION IS INVISIBLE

HackAIR – using technological innovation for air quality. Air pollution is an interesting issue: it is complex and (mostly) invisible, yet it is the environmental problem Europeans worry about the most. Up to recently, information about current air pollution was only available through relevant environmental agencies. As they open up access to their data, better air quality information platforms are emerging, and citizens are complementing the official measurement stations with other sources of data.

HackAIR is one of these; a new, collective awareness platform for air quality. Citizens across Europe work together to improve air quality data through participatory sensing technology and citizen engagement. HackAIR uses two main user-generated data sources: mobile images and open hardware sensors.

Mobile images: When you take a picture of the sky, the specific shade of blue you see will vary depending on the particulate matter in the air. By analysing the red-green ratio of the sky, hackAIR estimates current air pollution levels, taking into account the specific location and time at which the picture was taken. Researchers initially developed this approach to detect historic volcanic eruptions from paintings, but now HackAIR is now bringing this approach into the smartphone age. To complement user-submitted images, the project is using publicly available photographs from more than 2,000

webcams and the photography website Flickr. When geographic information is not readily available for an image, hackAIR has developed an approach to estimate the approximate location of an image using textual analysis and machine learning. hackAIR currently analyses around 12.000 images daily to provide a richer picture of the air that we breathe.

Open hardware sensors: Affordable air quality sensors have become more widespread in recent years and can be purchased commercially from about 100 Euro. With the hackAIR API, any air quality sensor can contribute data to the shared map of air quality in Europe. In addition, hackAIR provides instructions for a low-cost open hardware toolkit for users keen to assemble their own sensors. This way, we are bringing the cost of owning and operating an air quality sensor down to about 30 Euro – low enough for thousands of sensors to appear across Europe.

The hackAIR platform: To calculate the overall air quality for a city from all these different data sources, hackAIR uses data fusion algorithms to create a continuous map of estimations of the air pollution levels. Similar to the weather report, hackAIR calculates probabilities for locations in which there are no measurements. When zooming in to a neighbourhood, citizens can see the individual measurements that have contributed to the overall estimate – both from official data and data generated from citizens.



WWW.HACKAIR.EU



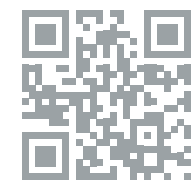
THE FUTURE IS IN THE 'MAKING'

OpenMaker selects the brokers of Industry 4.0 and launches a new digital social space. Urban cultivation on water and without soil, two times faster than conventional agriculture; inexpensive 3D-printed prostheses made of cardboard for war-affected zones; an innovative bodysuit that allows anyone of any age and ability to exercise or rehabilitate in deep water. These are just 3 of the 20 winning projects of the OpenMaker open call, a pan-European contest aimed at awarding successful partnerships between makers and manufacturers that hold the pioneering potential to break through the 4th Industrial Revolution.

Take an old problem, add a new technology, generously sprinkle with creativity and mix. This is the simple recipe used by the makers and manufacturers involved in the OpenMaker community to improve different aspects of our society. OpenMaker aims to strengthen a transformational and collaborative ecosystem across Europe and to foster tech-driven and socially-oriented innovation by bringing together manufacturers and makers. To this end, the Pilot Support Scheme (PSS) is awarding a commission of €420,000 to 20 innovative projects and assigning a special Coordinator's Prize (€20,000 for each project) to help them kick-off their ideas. On top of the financial support, the winners will follow a 9 month acceleration process in 4 local hubs (in Italy, Slovakia, Spain and UK), where they will be comprehensively mentored to test, prototype and finally launch their innovations.

The open call has already encouraged the collaboration of a diverse range of stakeholders, 310 between makers and manufacturers. These new partnerships envisage the direct engagement of more than 7,000 individuals, whereby creating new job opportunities in key sectors that are guaranteed to remain central in the context of the 'smart-factory' city. In the long-run, this should initiate a shift in the current manufacturing paradigm, by reinventing the way we think about traditional manufacturing and proposing sustainable business models, production systems and government practices that can deliver long-lasting social change.

The OpenMaker community will also benefit from the development of the Digital Social Platform, an online space where the call winners and relevant stakeholders can develop partnerships with like-minded innovators and stay engaged beyond their off-line involvement at the local level. The Platform - which is still under revision and continuous improvement - will act as a place in which to source information on new technologies and initiatives, to learn about relevant events, tutorials and workshops, to launch new challenges and share innovative solutions. This will encourage the flourishing of collaborative knowledge and collective intelligence, while supporting informed decision-making and purposeful actions alongside business success. The future is (literally) in the 'making'.



WWW.OPENMAKER.EU



Making Sense

OPEN SOURCE SENSORS

Making Sense has developed and deployed various open source sensors, including Waag Society's BORA sensor and the Smart Citizen Kit version 1.5 by the Institute of Advanced Architecture in Catalonia. These sensors enable citizens to capture data to better understand their living environments, have informed discussions about environmental issues -such as air quality or noise pollution, and take action to achieve real-world results - including a healthier city.

Until recently, environmental sensors were expensive and scarce, although the need for them is huge. From 2010, the open hardware community has developed several open source alternatives to existing sensors, including the Air Quality Egg, SafeCast and the Smart Citizen Kit. In the context of Making Sense, the Smart Citizen Kit has been developed much further, effectively becoming an open platform for (aspiring) citizen scientists. Also, Making Sense has developed the

open source BORA sensor which enables citizens to accurately measure fine particles, humidity and NOx, and answer some simple and fundamental questions, like: is it safe to sit in front of my house, or should I prefer the back?

These sensors have been deployed by groups of citizens in Barcelona and Amsterdam, in real world settings. In Barcelona, citizens galvanised to tackle noise pollution, leading up to an elaborate measurement campaign at the Plaça del Sol. This resulted in new regulation, as well as a refurbishment of public space, and eventually in reduced sound levels. In Amsterdam, Waag Society worked with citizen activists around the city's two most polluted streets, Valkenburgerstraat en Weesperstraat. Their measurements have sparked a debate with local politicians, and helped the National Institute for the Environment to set up a national citizen sensing network.



WWW.MAKING-SENSE.EU



DIY NETWORKING TOOLKIT

Combining community wireless networks with FLOSS software allows for citizens to build their own hybrid, digital and physical, spaces and design them together to foster collective awareness, social cohesion, and conviviality. Because of the complexity of the task and the unfair competition with global platforms like Google and Facebook, toolkits can play a key role in empowering citizens and allow them to focus on the most important design elements that need customization, but also on the surrounding social and political issues.

MAZI team has already developed a usable version of its toolkit using low-cost open hardware and open-software platforms, like Raspberry Pi, Arduinos, OpenWRT mini-routers, sensors and other IoT devices. The conceptualization, design and development of the MAZI prototypes are driven by the community and take place within participatory processes that are open to engaging researchers, developers, actors of the partner communities. As a consequence, applications emerged from prototyping processes in the four different Pilot Studies of the project are being designed and developed for directly addressing generic community needs and challenges. In addition, popular already existing open-source,

self-hosted applications (NextCloud, Etherpad, LimeSurvey and Wordpress) are being integrated in the toolkit, incorporating existing open-source communities in the MAZI ecosystem.

Finally, one of the most important components of the toolkit is the guidelines which assist people to further facilitate the adoption of the toolkit from communities through examples and other media. Even those without any technical knowledge are empowered to deploy a Wi-Fi Access Point, configure Internet accessibility or take advantage of the sensors in their MAZI Zone.

In addition to its toolkit as a concrete outcome of the project, MAZI also innovates from a methodological point of view bringing together four different perspectives on participatory design methodologies interacting between them through the toolkit as the project's boundary object, in its four different pilot studies. This diversity of case studies and methodologies allows for a continuous negotiation process, taking place through cross-fertilization events and self-reflection exercises toward the development of functionalities of the toolkit that are both specific to local needs, and generic to be applied in different scenarios.



WWW.MAZIZONE.EU



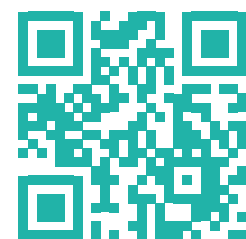
OWN YOUR PERSONAL DATA

The key issue the DECODE (DEcentralised Citizen-Owned Data Ecosystems) project addresses relates to digital sovereignty. People have lost control of the personal data they produce, which is disempowering and leads to economic inequalities. In response, DECODE is creating tools which will give people ownership and control of their personal data. With these tools, data can be shared, on an anonymized basis, to form a collective data commons which can be used for public benefit.

DECODE is coordinated by the City of Barcelona and is a consortium of 14 organizations. The technology will be tested in four pilots in Amsterdam and Barcelona between 2018 and 2019. These will be in the areas of digital democracy, Internet of Things, and the sharing economy.

One of the key aspects of the technology is a distributed ledger, which will be used to store and communicate people's information sharing preferences. Alongside this, attribute based cryptography will enable people to verify information without having to reveal the information itself.

The intended impact of DECODE is to give people better digital rights, putting them in control of how their data is used and for which purposes. DECODE aims to create a data commons and digital platform which will enable new research, products and services to be developed which benefit the public. This could be in the form of more socially responsible sharing economy providers, more engagement with democratic processes, or city governments which are more responsive to citizen needs.



WWW.DECODEPROJECT.EU



SENSING AND RIDE SHARING

Road infrastructure is one of the most valuable assets of a country: its management and maintenance impacts the environment, private and public citizen mobility, development opportunities, and quality of life in several ways. The CROWD4ROADS project tackles the sustainability issues of passenger transportation on roads by raising their awareness and promoting active citizenship initiatives.

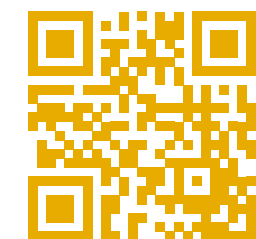
The CROWD4ROADS project primarily combines two aspects of road sustainability: trip sharing and crowd-sensing of road quality. The first kind, in terms of services like BlaBlaCar, aims at reducing overall traffic and increasing the average car occupancy rate. The latter kind harnesses collective intelligence in order to detect and continuously monitor road surface quality, through the anonymous contributions of motivated and engaged citizens.

Road quality monitoring is carried out by SmartRoadSense, a system developed at the University of Urbino that adapts the crowd-

sensing paradigm transforming everyday smartphones and their sensors in road surface monitoring tools. Accelerations of a passenger's smartphone are processed by an application in order to determine rough or uneven surfaces. The final data is aggregated and projected on road maps. Both the data and the mobile application are freely available online.

In the course of the CROWD4ROADS project, the consortium has engaged in pilot applications, deploying the system in municipalities and towns through the collaboration with administrations and their workers. The system is currently active in four European countries and covers approximately 45,000 km of roads.

Increasing the car occupancy rate, promoting sharing economy initiatives, and engaging drivers and passengers in crowd-sensing road monitoring are the main tools that the CROWD4ROADS project leverages in order to provide a solution to the sustainability issues of road passenger transport.



WWW.C4RS.EU



A NEW WAY OF CONSUMERISM

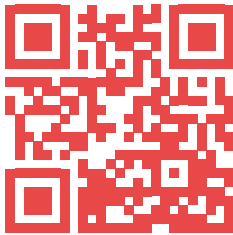
The ASSET project is simplifying how consumers can take care about their attitude while shopping. By giving a purchasing assistant to the consumers in the retail store, consumers are increasingly empowered to buy according to their attitude. The first prototype has just been launched.

Imagine you are standing in front of the pasta shelf of a supermarket. You take out your phone, and it tells you which products there are and how they rank in regard to your personal preferences. That is what the ASSET project does. It lets consumer have a simple and clear overview of how products match their personal preferences.

This simple representation and overview demands high requirements on ICT and interfacing disciplines: product information is aggregated from various sources, it is classified and categorized, and matched to user preferences. The smart phone is enabled to located itself within the store, by relying on additional hardware

installments in the store and by interacting with retailer data to identify the products that are close to the user. Product information, obtained from the retailers, is sent to the device, and visualized for the user via concise information that is easy to understand. Interfacing disciplines, creating structure and orientation with product information and orienting phones in the stores turned out to be the main challenges that the ASSET project has tackled to realize its vision.

All of a sudden, product transparency is brought to a new level. Producers can score with product properties that are currently not visible (e.g. short transportation, working conditions). Consumers have a simple guideline – which is individual for every user - regarding their preference. This transparency, together with a simple communication to users, both empowers consumers in their purchasing decision and gives an alternative for producers to score next to the price.



WWW.ASSET-CONSUMERISM.EU

SOCIO-TECHNICAL SOLUTIONS FOR A BETTER WORLD

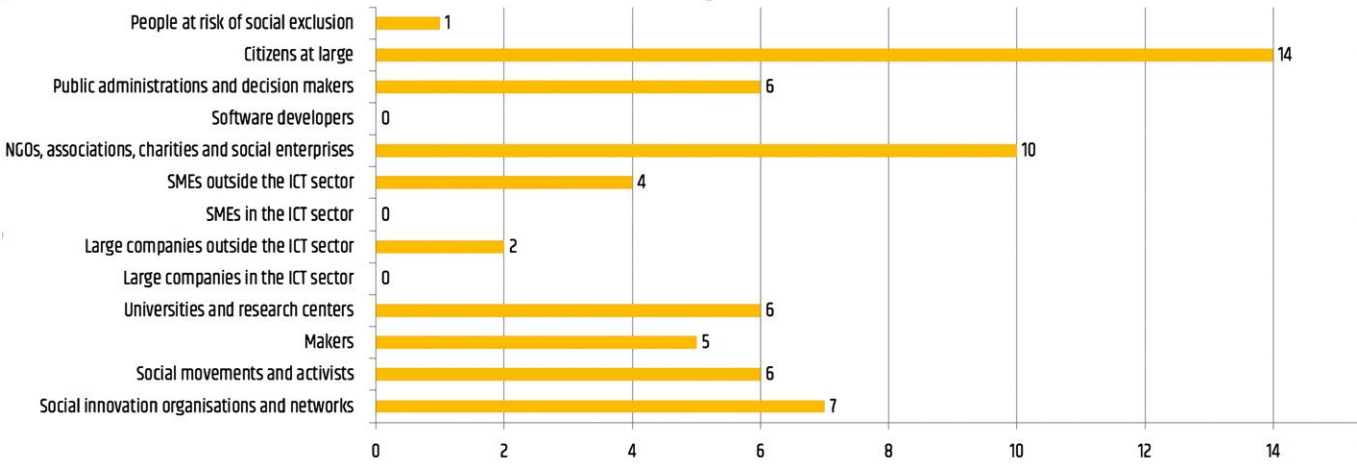
Antonella Passani | Partner of T6 Ecosystems

Digital Social Innovation processes and results are relevant not only for practitioners and social innovators, but for society at large with its many audiences such as decision makers, public administrations, charities and the third sector organisations, communities and grassroots organisations. This implies that DSI solutions should be accessible not only to the scientific world or to technology developers. On the contrary, solutions fostering DSI, such as CAPS ones, should be disseminated and known by the largest possible audience in order to amplify their impacts and their application in the everyday life of European citizens.

Keeping in mind this crucial objective, ChiC developed a catalogue of CAPS projects' outputs that are now accessible through the CAPSSI portal. The CAPS Output Catalogue provides an easy access to the main technological outputs of the CAPS projects by providing information about the tools, their target audiences, the competences and resources needed to use them, the support materials available and ways to contribute to their further development. Each output is described in terms of the socio-economic and environmental benefits pursued, the UN sustainability goals tackled and the technological areas of reference.

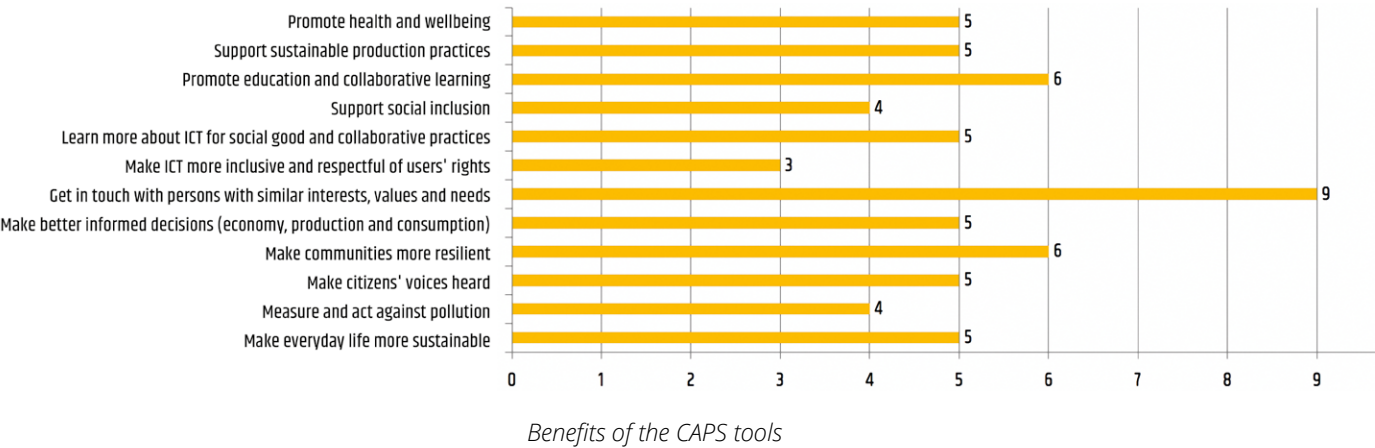
The Catalogue is constantly updated and, at the time of writing, it includes 18 tools: they are very different in scope and address different topics such as new welfare models, more sustainable production and consumption practices and reduction of pollution, but they all share a very similar approach to ICT development and user engagement. Most projects, in fact, follow a co-design, co-development approach, based on iterative and user-centered development processes. They adopt a participatory design approach using, and sometimes developing, a series of methods that bring together stakeholders, map their needs and wants and help clarifying, communicating and disseminating the key innovation elements of their projects.

Stakeholders and, especially, citizens engagement is then crucial for all these projects and communicating innovation goals and challenges is an important task for them all. The charts below visualise the main target users of the tools developed so far and the centrality of citizens among them.



Target users of the CAPS tools

As mentioned, the tools aim to produce benefits for the overall society by, first of all, connecting persons with similar interests, values and needs, provide them with learning opportunities and make communities more resilient (see the chart below).



Finally, the CAPS tools cover almost all the UN sustainability goals, with a special attention to solutions for sustainable cities and communities and responsible consumption and production practices.



CAPS outputs and UN Sustainable Development Goals - COPYRIGHT © UNITED NATIONS

From a technological point of view, the vast majority of the CAPS projects follow an OpenSource, Open Data and Open Knowledge approach; several solutions promote Open Hardware, low-cost and frugal technologies and, in most of the cases they mix up IoT, mobile solutions, big data and analytics and collaborative environments.

The output catalogue will be updated in the next months with new tools and updated ones and hopefully it will become a point of reference to the social innovators community and for actors interested in up-taking CAPS results and applying them to different sectors. These socio-technical solutions, which show the innovation potential of ICT at the service of social good can be powerful tools for meeting European citizens needs and expectations if further tested and supported by a multi-stakeholder coalition of innovators, citizens, civic society organisations, investors and public administrations.

TECHNOLOGICAL OUTPUTS

Innovative tools created for supporting communities to better address pressing social and environmental issues.



SCIENTIFIC OUTPUTS AND OTHER RESOURCES

Scientific outputs produced by the CAPS projects and other results such as videos, tutorials and guidebooks.



MOVING INTO THE NEXT GENERATION OF CAPS DISRUPTIVE TECHNOLOGIES FOR GOOD

Monique Calisti | Executive Director of Martel Innovate

“Technology is neither good nor bad – it’s what you make with it that makes the difference” (M. Benioff)

Humanity and technology are inseparable forces that have shaped the course of history. While technology has always been part of our journey, the progressive digitalisation of our society and the ever-increasing machine-based automation of many aspects of our everyday life have deeply changed the way we act, think, and interact. Digital technologies and the Internet are rapidly and radically changing also the dynamics of collective human experience, the way we behave as groups. Advanced networking and communication, artificial intelligence, blockchains, modern media technologies and hyper connectivity are incredible tools and means at our disposal that can extend and empower human capacities.

The UN has recognised that Internet access is a vital enabler for realising its own Sustainable Development Goals, designed to address inequality and improve the everyday lives of millions of people around the world (www.un.org/sustainabledevelopment/sustainable-development-goals).

However, as many recent reports have highlighted and as Roberto Viola, Director General DG Connect,

underlined in his lecture “Internet of Humans - How we would like the Internet of the future to be” at the Bruno Kessler Foundation in June 2017: “the concentration of power in the hands of a few companies, and the relative lack or abandon of control of citizens on their own personal data, together with restrictions on Internet access because of geographical, economic or cultural reasons raise concerns”.

The Next Generation Internet, NGI, Initiative (www.ngi.eu) has been launched to address these concerns with the ambition to ensure that the increased connectivity and the progressive adoption of disruptive concepts and technologies, spanning across several domains will ground the Internet of the future so that more value will be delivered to the people and to society, by:

- Defragmenting and connecting through the creation of a pan-European ecosystem embracing actors and initiatives reaching beyond the ICT scene and fostering a multidisciplinary culture.
- Engaging new stakeholders, who might not have been necessarily involved in related EC initiatives, so as to ensure new ideas and fresh approaches are injected into the overall ecosystem.
- Linking long-term research with applied research and innovation, with policy and societal expectations, which requires the capability to engage with different kinds of players.
- Promoting new functionalities, services, applications and technologies to support people’s lives and global sustainability goals for the good of our society.
- Reflecting and promoting the European core values of openness, security, privacy and participation, to create a level playing-field for all business actors, open to innovation and preserving democracy.
- Creating a movement for a human Internet as a political objective that can be shared across Europe and to which national, regional and local initiatives can contribute.



AN INTERNET OF HUMAN VALUES

In this respect, the role of research and innovation initiatives like CAPS and the increasing number of Digital Social Innovation projects exploring how technologies can address some of the most pressing societal challenges, are central to realise the NGI ambition. It is fair to say that several CAPS efforts pioneered the NGI by paving the way to more open, inclusive, trusted and multidisciplinary technologies and solutions that deliver better services for the citizens.

However, to grow even further it is necessary to continue investing on new technologies that can help democratizing wealth creation and on efforts that are committed to make a positive impact on the society. This will only be possible by creating increased awareness of the relevance that CAPS-like initiatives are having and by ensuring education, investments, policy and regulations at local, national and international levels are aligned on the common goal of deploying technologies to build a better future for humans.

IF YOU ARE NOT ALREADY ONBOARD, IT'S TIME TO JOIN US!



Collective Awareness Platforms
for Sustainability &
Social Innovation



Coordinating
high impact
for CAPS

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CAPS is managed by the Coordination and Support Action ChIC,
which is partly funded under the Grant Agreement No. 687686 by the European Commission.

This magazine has been created by the ChIC Consortium, with inputs provided by all ongoing CAPS projects.
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AND SOCIAL

INNOVATION

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