InSPIRES

Ingenious Science Shops to promote Participatory Innovation, Research and Equity in Science

D2.3

Report on the potential Science Shop 2.0 Model

Transformative ambitions, impacts, social innovation potentials (Month 14)

This report is part of a series of documents produced by the InSPIRES consortium.

The following deliverables have been produced so far:

D2.1, Jan 2018
D2.2, April 2018

Authors:
Bálint Balázs, Anne-Sophie Gresle.

With contributions from:
Zoltán Bajmóczy, Henrik Pap, Janka Horváth, György Pataki.

SUMMARY

The overarching objective of the 4-year InSPIRES project (project number 741677) is to build active cooperation between science and society by supporting the growth of Science Shops and enabling the expansion of responsible, participatory research and innovation in Europe and abroad, to tackle key societal challenges that affect the world population. To achieve our primary goal, the project is organised around eight work packages. WP2 (running from Month 1 to Month 14) created a knowledge base of science shops that help to elaborate and narrate the central achievements through qualitative evidence.

This deliverable is about the potentials of Science Shops including transformative ambitions, impacts, social innovation potentials. A guiding question this report poses is 'How to strengthen this potential – especially where they do not currently exist?' Our ideal reader is a (potential) member of the Living Knowledge - International Network of Science Shops or similar network, and more broadly anyone interested in the work on the interface of society-research interactions. As a primary objective, this report would like to contribute to the rewiring of the Living Knowledge - International Network of Science Shops and help to reach out to a broad range of stakeholders offering new pathways for science shops in our society.

In the central section of the report we present examples of the transformative potential of science shops – based on four primary sources:

1. literature review and lessons from previous studies (DEL 2.1)
2. interviews with the founding fathers of the LK network, best known and recently emerged science shops (DEL 2.1)
3. an online ideation process and offline open innovation exercise about values, community engagement practice and expectations about science shops
4. participation and extracting lessons from interactive sessions at various conferences

More broadly, this deliverable aims to support the InSPIRES project in achieving the project's central goal which is "to build effective cooperation between science and society by supporting the growth of Science Shops and enabling the expansion of responsible, participatory research and innovation in Europe and abroad, to tackle key societal challenges that affect the world population." The deliverable addresses explicitly the project's objective 1 and 4 on co-creation and communication:

- *To co-create, and jointly pilot, refine and implement a set of innovative Science Shop 2.0 models aligned with RRI, OSc and impact evaluation requirements and that are more culturally, health and environment sectors adapted, with a focus on innovative and participatory techniques for systematically engaging civil society and other key RRI stakeholders in research and innovation (O1)*

moreover, simultaneously

- *To widely disseminate these models and to promote international strategic alliances (O4).*

This deliverable aims at completing task 2.2 that is gathering results of the participatory-deliberative event (9-week online ideation and an open innovation session at LK8) and provide an assessment of the transformative ambitions, potentials and impacts of science shops and envision how to strengthen this potential for future development. The purpose of the InSPIRES team was to help to rewire the International Living Knowledge Network of Science Shops.

The process of organising the participatory ideation in the InSPIRES project created unique visibility to the project in extended peer communities and helped deliberation on change ambitions, visions, missions of science shops. It resulted in 120+ early-stage ideas for advancing the notion of science shops towards a science shop2.0 model. Ideas were collected around values, community engagement activities and expectations about science shops to strengthen the potential of science shops. The number of participants taking part in the participatory exercise was more than 400 from 22 countries.

These results contribute to an extended conceptualisation of Science Shops in WP3 (Piloting) - WP4 (Transdisciplinary and Transnational projects & Mentoring) - WP5 (Training) - WP6 (Impact Evaluation) - WP7 (Communication) activities in InSPIRES.

Contents

1. INTRODUCTION

A vision for Europe, as proposed by DG Research, is about making science open to new possibilities and new kinds of people[1]. The question is how socially helpful knowledge and responsible, participatory research and innovation systems would be more available in Europe and abroad? One of the tactics is the strengthening the potentials of science shops offering new pathways for science-society interactions by deliberately inviting diverse civil society network members and independent scientists to work together. It is in this context that this deliverable is looking at the values of and expectations towards science shops to capture their transformative ambitions and social innovation potentials. With this deliverable, the primary purpose of the InSPIRES project is to contribute to the rewiring of the Living Knowledge - International Network of Science Shops and bottom-up, demand-driven, participatory research.

1.1 The models of science shops

Science shops are most often presented as pioneering socially relevant, demand-driven research. This is possible in many ways: providing disadvantaged groups with support in the form of study or setting new research agendas and problem structurations by providing more room to real-world problems, underrepresented societal groups (Mulder et al., 2001, Leydesdorff, 2004; Dorland - Jørgensen, 2016). The concept of Science Shops evolved after 1968 at Dutch universities to give voice to CSOs' salient concerns, and provide access to scientific knowledge and independent, participatory research support in solving societal issues. The message spread from the early 80ies in Europe through this Dutch Science Shop model. Science shops found their base on an outreach function of higher education institutions so that civil society organisations could formulate their research needs addressable by research-scientists and could directly commission research that is relevant to local problems.

From the very beginning, the science shop model meant *research* support and entailed a novel aspect of science literacy, *cooperative* knowledge production. Knowledge co-production implies cooperation of scientific experts with non-experts, and the science shop model provides one of the many types of such collaborative settings (others are for example citizen science, open-innovation, crowd science). In such configurations, the ownership of research is transferred to non-scientific entities at least partly (Irwin 1995). The primary science shop activity is the organisation of the actual cooperation between researchers and CSOs to generate research ideas, questions and agendas co-creatively.

There are diverse ways to organise and operate a science shop in different settings. Sciences Shops initially gather questions from civil society organisations (and other stakeholders) and rephrase them to scientific research topics which will be approached by a researcher or students under the supervision of a professor. The research will lead to a report (or other product) which is made to be of use to the client. A more advanced operation in which Science Shops take the role of a Mediator or Civil Society (Stakeholder) Contact Point to lead tasks in mediating society-science interactions through various methodologies: supporting citizen science, service learning, co-creation; organising science cafés focus groups, scenario workshops; developing training and education for specific topics and needs. Universities and research performing organisations can answer some of the questions themselves, other entities can invite external researchers, higher education students to collaborate. It seems though hard to establish a science shop outside a university, as it is more difficult to get access to students as a resource, the essential resource in the traditional Dutch science shop model.

1.2 The cooperation of science shops

The central support for the cooperation of science shops, the Living Knowledge network, born out of a work package of the SCIPAS EU project in 2001 with the purpose to bring together all actors for independent participatory research support to a concern raised by civil society. It is not a legally defined formal association,

[1] Open innovation, open science, open to the world – A vision for Europe, DG for Research and Innovation, 2016.

but an international umbrella organisation: there is no central administration, or employees, offices, but different science shops take up various roles to perform the network activities. From the very beginning, the Science Shop Bonn acts as an international contact point and maintains the website (www.livingknowledge.org), the only permanent structural artefact of the network. It is serving out science shops as a contact point for communication, a toolbox for actors interested in starting new initiatives, documentation of activities, an archive of past projects and experiences, create possibilities for international collaboration. Beyond mentoring, funding and supporting new structures in Africa, Asia, on a systemic level the Living Knowledge network enabled relations with the EU commission and global organisations (GACER, APUCEN). The actual dispersed experience of science shops needs to be expanded, as suggested by many experts for long (see, e.g. Wynne et al. 2007).

Since 1999 various LK activities have been maintained through EU projects:

- InSPIRES – Ingenious Science shops to promote Participatory Innovation, Research and Equity in Science (2017-2021)
- SciShops – Enhancing the Responsible and Sustainable Expansion of the Science Shops Ecosystem in Europe (2017-2020)
- EnRRICH – Enhancing Responsible Research and Innovation through Curricula in Higher Education (2015-2017)
- PERARES – Public Engagement with Research And Research Engagement with Society (2010-2014)
- EFSUPS – Exploring the Ground - Fostering Scientific Understanding in Primary Schools (2006-2008)
- TRAMS – Training and mentoring of Science Shops (2005-2008)
- ISSNET – Improving Science Shop Networking (2003-2005)
- SCIPAS – Study and Conference on Improving Public Access to Science through science shops (1999-2001)

The EU funding builds on only an insufficient programme line that targets citizen participation and the concerns of society, namely "Science with and for Society" which, as foreseen by the Horizon Europe proposal, is expected to drastically decrease in the next years - with the risk of degrading public engagement to top-down communication.

Therefore national/regional level science shops networking can offer more potentials:

- **Wetenschapswinkels** – a network of Science Shops in the Netherlands and Flemish-speaking Belgium acting as intermediaries for knowledge transfer between society and university - http://www.wetenschapswinkels.nl/
- **Wissnet** – a German-speaking Science Shop Network (Germany, Switzerland and Austria) that builds bridges between the citizens and science institutions. It includes - http://www.wissnet.de/
- **Community-Based Research Canada/US** – a hub for community-based research (CBR) and campus-community engagement in Canada that builds capacity for academic and broader communities to collaborate and use research as a tool to mobilise community participation and action. - https://communityresearchcanada.ca/
- **Community-Campus Engage Canada (CCEC)** a national network and community of practice focused on strengthening Canadian communities by increasing the capacity, infrastructure and impact of equitable community-campus partnerships of all types, including student experiential learning, community-engaged research, and social innovation.
- **Asia-Pacific University-Community Engagement Network (APUCEN)** – a regional network of academic institutions of higher learning concerned with promoting the culture of university-community engagement in a proactive, inclusive, holistic and participatory way. - https://apucen.usm.my/index.php/en/

- **ALISSA** – Francophone Network is gathering about twenty organisations in three continents (Africa, Europe and North America) since 2015 and provides research capability and expertise to answer the needs of CSOs or organised citizens.

1.3 The valuations of science shops

Many assessments have emphasised the uneven and paradoxical development of science shops. While there is ever more need and public acknowledgement for public participation in scientific research, science shops struggle to find a permanent, institutionalised place in a commercialised space of higher education, which initially helped them pioneer in getting citizens involved in scientific research. Research and innovation sectors are also increasingly evaluated and funded based on performance indicators rather than community engagement (see Mulder et al., 2001, Leydesdorf, 2004; Worthington 2007, Emery et al., 2015; Dorland - Jørgensen, 2016, Sijbrandij 2017). Leydesdorff (2004) for example contended that future routes for science shops lead through reconnecting to their roots, the social movements, empowerment of marginalised groups, a stronger international network in the science policy-making and new forms of (profitable) research, business co-operation. Others highlighted the roles of science shop structures in providing divergent, often unarticulated ways towards the democratisation of science (and technology) (Wachelder, 2003) and more surprisingly that their policy impact often needs better evidence-base (Emery et al. 2015). A recent assessment of science shops by Dorland and Jørgensen (2016) highlighted how science shops shaped innovations in their local context. A primary social innovation of science shops is the reimagination of the science-society relation, which focussed on three overlapping aspects:

- Methodology: providing innovative solutions to challenges experienced in civil society facilitated by a participatory research approach.
- Institution: enabling change inside the R&I sector, the universities, opening the ivory tower, forming new structures, courses, and narratives.
- Learning: enhancing the transferable skills and knowledge of students/citizens and the partners in civil society.

In sum, co-producing knowledge with civil society requires social innovations in methodology, institutions and learning to succeed.

Dorland and Jørgensen in the TRANSIT project further analysed four science shops how they experience *Critical Turning Points*, which are moments at which science shops undergo or decide for changes of course:
Wissenschaftsladen Bonn (Germany)
Environmental Social Science Research Group (ESSRG - Hungary)
Science Shop DTU (Denmark)
InterMEDIU (Romania)

The history of the science shop movement illustrates that political backing is crucial. True, that the publicly funded research and education sector, research performing organisations and the science governance system as a whole went through several transformations (commercialisation, digitalisation) which mainstreamed societally relevant research. Still, science shops struggle to maintain their activities. They continually seek new formulas to answer this transformation. While in many countries the science shop activities decreased since 2010, and for example, several universities closed their science shops, the international science shop network registered undiminished interest and enlarged its activities regarding cooperation. Specifically, a new wave of science shops emerged that extends the original university-based and community-based models. The university-based model remains (related closely to a department, faculty, or central administrative unit) and other forms are experimented by NGOs who do not perform research primarily, but community and stakeholder engagement and needs assessment. An entirely new wave of science shop activities is planned to start in businesses and other public or private institutions (hospital, library, science centre, museum, youth program, national contact point, innovation service and technology transfer companies). One of the main concerns these developments raise is

whether science-society engagement – motivated either by social relevance, research ethics, or business cooperation – can lead to more social responsibility and help researchers solve real-world problems. Another interesting question that remains whether the new science shops – either part of a university or independent – can challenge dominant institutions and transform the R&I system in their context. Science shops are the proof that trusted institutions are necessary for interaction among R&I stakeholders and expertise in public engagement is a crucial asset to be developed. The Living Knowledge Network has a role to play in empowering local initiatives towards this, and document how they achieve transformative change, and to support new science shop structure where they do not currently exist.

1.4 About this deliverable

This is the final deliverable of the InSPIRES WP2 that summarises a heavy data collection exercise by collecting existing data on science shops (Database D2.2), launching of a qualitative interviewing on science shops (D2.1) and completing a systematic literature review on science shops (D2.1). WP2 (running from Month 1 to Month 14) created a knowledge base of science shops that help to elaborate and narrate their central achievements through qualitative evidence to inspire new science shops and activities.

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In the central section of the report we present examples of the transformative potential of science shops – based on four primary sources:

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- *To widely disseminate these models and to promote international strategic alliances (O4).*

This deliverable aims at completing task 2.2 that is gathering results of the participatory-deliberative event (8-week online ideation and an open innovation session at LK8) and provide an assessment of the transformative ambitions, potentials and impacts of science shops and envision how to strengthen this potential for future development. The purpose of the InSPIRES team was to help to rewire the International Living Knowledge Network of Science Shops.

The process of organising the participatory ideation in the InSPIRES project created unique visibility to the project in extended peer communities and helped deliberation on change ambitions, visions, missions of science shops. It resulted in 120+ early-stage ideas for advancing the concept of science shops towards a science shop2.0 model. Ideas were collected around values, community engagement activities and expectations about science shops to strengthen the potential of science shops. The number of participants taking part in the participatory exercise was more than 400 from 22 countries.

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Following this introduction, we will explain why the main question of this report is posed at all. Then, in section 2, we present our methodological approach based on Appreciative Inquiry and the considerations underlying the selection of methods (interviews, literature review, participant observation, open innovation).
In the result section (Section 3-4), first, we outline previous academic lessons extracted from our explorative studies - interviews, literature review, participant observation:

- The section 3.1 on the scientific evidence on science shops is based on the InSPIRES Systematic literature review **D2.1**
- The section 3.2 analyses the self-image of science shops, based on our Qualitative interviews **D2.1** and Database of science shops **D2.2**

Both achieved exemplary results: InSPIRES D2.1 is the first comprehensive qualitative interview study on 80 science shops, also including the InSPIRES D2.1 is the first systematic literature review on science shops as portrayed in the scientific literature.
Another main empirical source of results is our participant observations in several science shop related session at conferences - see section 3.3:

- **LK8** - 8th International Living Knowledge Conference (30th May – 1st June 2018, Budapest, Hungary) centred around the theme of Enriching Science and Community Engagement - http://www.livingknowledge.org/lk8/
- **ECSA** - 2nd International European Citizen Science Conference for citizen and participatory science (3-6 June 2018 in Geneva, Switzerland) focussed on the theme of Empowering citizens, social innovation, scientific literacy - https://www.ecsa-conference.eu/
- **ECSITE** – 29th International ECSITE Conference (7-9 June 2018 in Geneva, Switzerland) looked at creative collisions between science and society, experts and amateurs, science and politics, art and science, nature and culture, science and faith, real and virtual, old and new - https://www.ecsite.eu/annual-conference

Then, we turn to our critical results from the participatory evaluation (Section 4), comprised of a deliberative and visioning exercise. To involve the maximum potential number of participants we decided to combine 8-week online ideation with a final open innovation session at the LK8 conference. Several parallel sessions organised by the InSPIRES team supported the process. We performed the online deliberative exercise through the Be-novative platform:

https://landing.be-novative.com/inspires

Through the platform, we invited all the 76 actually existing science shops from Europe, and finally, more than 400 participants to anonymously share their most deeply held values about their work, their best practice examples on community engagement, and their expectations on the science shop in our society.

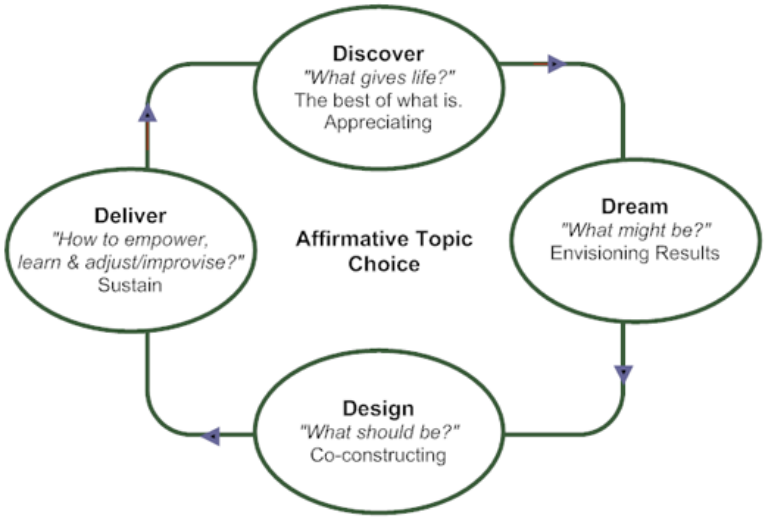
Finally, in section 4.2 we discuss the destiny of science shops and how to turn the results of this report into meaningful action steps during the lifetime of the InSPIRES project. This final section is more forward-looking, providing some learning and, based on this, suggesting ways ahead.

2. METHODOLOGICAL SPECIFICATIONS

2.1 The Appreciative Inquiry (AI) framework

For completing this deliverable, we followed a specific type of action research, the Appreciative Inquiry framework. An Appreciative Inquiry (AI) framework involves searching for the best in people, organizations and communities through the discovery of what gives life to a system when it is at its most effective and most economically, ecologically, and socially capable (Cooperrider & Whitney, 2001) – see also the protocol document for the interviews in D2.1 annex (available upon request). Using the terminology of positive psychology Appreciative Inquiry is a strengths-based approach, that creates positive, generative outcomes.

According to Fiona Cram (2010), AI is a configuration of action research. Rather than focusing on what is wrong, AI practitioners ask affirmative questions and encourage participants to focus on what works well. There are four stages (4-Ds) in Appreciative Inquiry: Discovery, Dream, Design, and Destiny/Delivery.



www.appreciativeinquiry.com

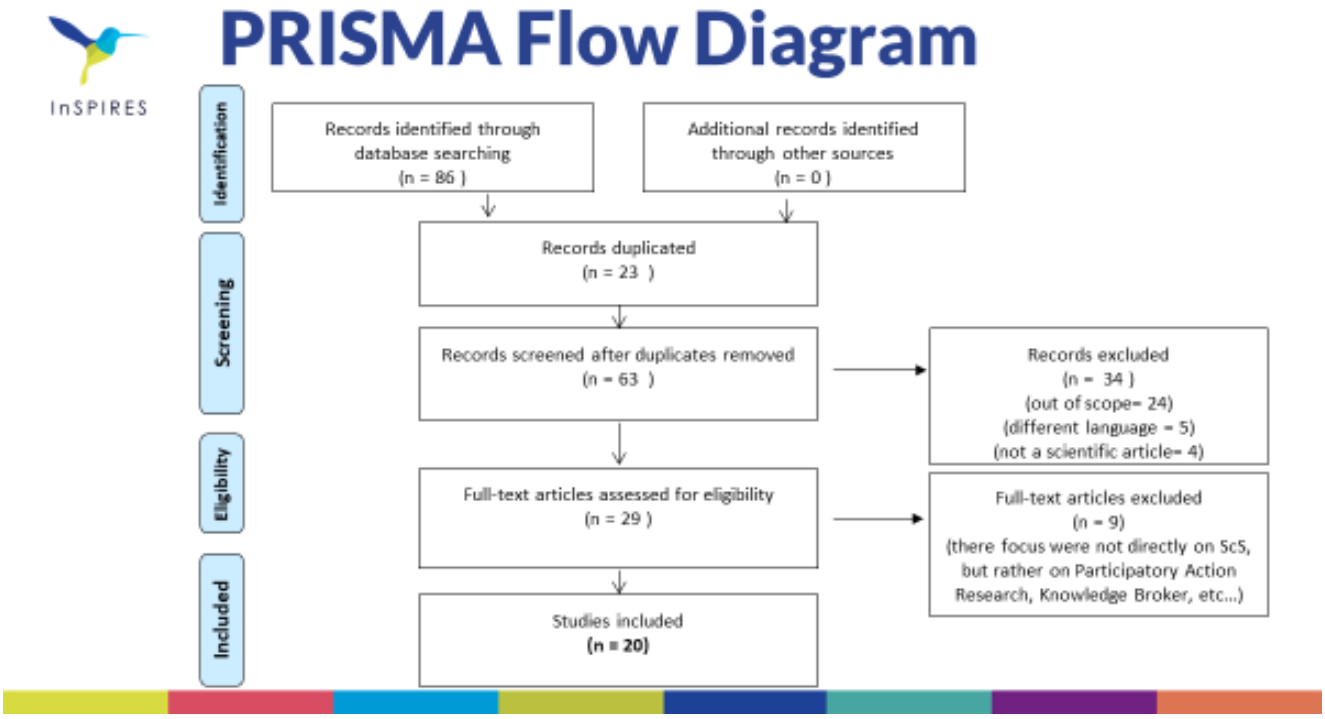
Discovery and Dream are exploratory phases to understand the current and future situation, whereas Design and Delivery are implementary phases to change the current and future situation.

Appreciative Inquiry (AI) framework		InSPIRES WP2 components
exploratory phases	Discovery	literature review and participant observations - Searching for the actual academic picture of science shops
	Dream	interviews - Searching for the best in science shops and community engagement experiences through the self-portrait of science shops
implementary phases	Design	ideation – open innovation through Be-novative

	Delivery	inspirational plans for science shops to be continued in WP3/4

This 4-D cycle results in transformational change, sourced from the collaborative inquiry with participants (Cram, 2010).

In the Discovery phase, the positive capacities of the case need to be explored through the power of unconditional positive questions. The discovery aims to illuminate any factors that have led to the best in a given situation. Therefore it looks at positive discourse (in stories, metaphors) (Ludema et al. 2001). This discovery phase in the InSPIRES project is reflected in the literature review and several participant observations at conferences and workshops around science shops.



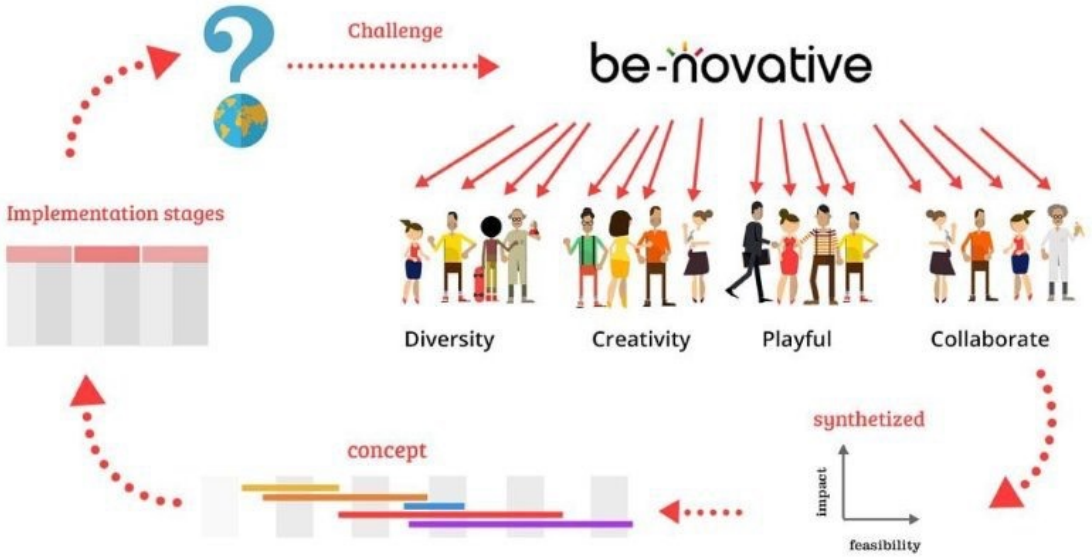
PRISMA flow diagram showing the data gathering phases of the literature review

During the dream phase the ideal future potentials, aspirations need to be clarified by exploring the possibility of what could potentially be rather than the limiting factors. The dream phase is mirrored in the InSPIRES interviews that looked for the best in science shops and community engagement experiences.

Name	Description (text referring to...)
Uni management	... the influence of the university context
Improve	... the possible ways of improving the interviewee's science shop (or science shops in general)
Business model	... the business model of the science shop
Impact	... the ways of having impact
Commitment	... the commitments of the actors
Network	... the network of the science shop
Students	... the role of students in science shops
Question	... the questions the science shop deals with
Community	... the role of communities for science shops
Fields of interest	... the science shop's field of interest
Co-creation	... co-creation processes
Inspiration	... actors being inspired
Learning	... the learning process taking place in science shop activities
Motivate	... the challenge of motivating actors
Commissioner	... the commissioners of the science shop activities
Skills	... the skills required in a science shop
Evaluation	... the evaluation process of science shop activities
Role	... perceived / desirable role of the science shops
People	... the role of particular persons
Open the door	... opening up science
Publication	... scientific publications as outputs
Participatory research	... doing research in a participatory way
Vulnerable group	... vulnerable groups
Flexibility	... the flexibility of science shops
Obligation	... the obligation of science shops and researchers
Comfort zone	... the comfort zone of actors
Empower	... the process of empowering actors

The most critical codes from the interview analysis

Next, the Design Stage is a creative process, an ideation that generates and extracts new (textual, visual, concrete, actionable, or abstract, vague) ideas on how the dream scenario could work. Ludema et al. (2001) suggest that participants are invited to this stage to share discoveries and possibilities. This phase is represented by the ideation through the Be-novative platform that invited all science shops to share experiences and ideas anonymously.



The transformative potential of Science Shops - https://landing.be-novative.com/inspires

Finally, Destiny/Delivery is defined as a commitment to construct the future through innovation and action (Ludema et al. 2001). This phase is a continuation of activities beyond WP2, especially in task 3.1 "To co-develop new inclusive models for Science Shops 2.0 aligning them with RRI, Open Science and Impact Evaluation requirements". The primary goal of this activity is to develop new models and methodologies for inclusive science shops, based on input from WP2 as a starting point.

2.2 Collective creativity with science shops

After taking stock of a fascinating diversity of science shop experiences (literature review, interviews) we turned to actual co-creation exercise with science shops in an open innovation process to jointly evaluate the most widely shared values, the inspiring community engagement examples, and expectations from science shops.

For the completion of the deliberative event, we launched an online ideation process through the Be-novative platform. The ideation run **three parallel questions** or challenges that also mirrored the Discovery-Dream-Design stages of the 4-D cycle to evaluate the achievements of science shops:

1. **Discovery** of moments of excellence, core values -- What values (positive capacities) drive science shops the most?
2. **Dream**: Envision positive possibilities -- What are the most inspiring community engagement examples?
3. **Design**: structures, processes and relationships to support the dream -- What do you expect from a Science shop?

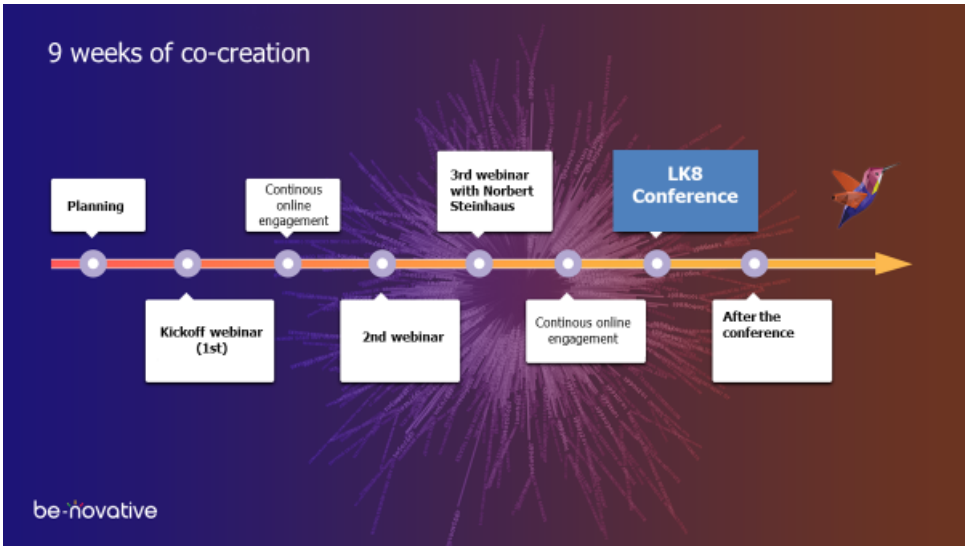
This open innovation invited science shops to deliberate on the factors that strengthen their transformative potentials. This phase has been designed initially as one evaluation session during the LK8 conference, but we extended it with an online deliberation phase. The team of Be-novative Hungary Ltd, interviewed during the qualitative phase as the only successful H2020 SME instrument applicant, suggested that their platform could offer to crowdsource solutions to societal challenges and everyday life situations. Based on their proposal we launched a virtual interactive brainstorming workshop for nine weeks through the Be-novative platform for more than 400 participants. After providing their ideas for inspiring others, participants were asked to harvest top quality, crowd-evaluated concepts. See the platform described in the annex.

The platform offers an innovation process and facilitates collective creativity by opening creative ways to enlist the help of others through gamification, crowdsourcing, and design thinking. Since 2011, Be-novative produced breakthrough global results in program development, organisational/community development and ecosystem-building while reducing time and costs. It is helpful for distributed teams to collaborate and innovate seamlessly. It yields breakthroughs instead of bland, uniform reactions, fosters creative collaboration instead of clashes, keeps participants fully and creatively engaged, committed to implementation. The platform offers a collaborative online space where participants could join online sessions anonymously and engage other participants through creativity-enhancing features, gamified rewards.

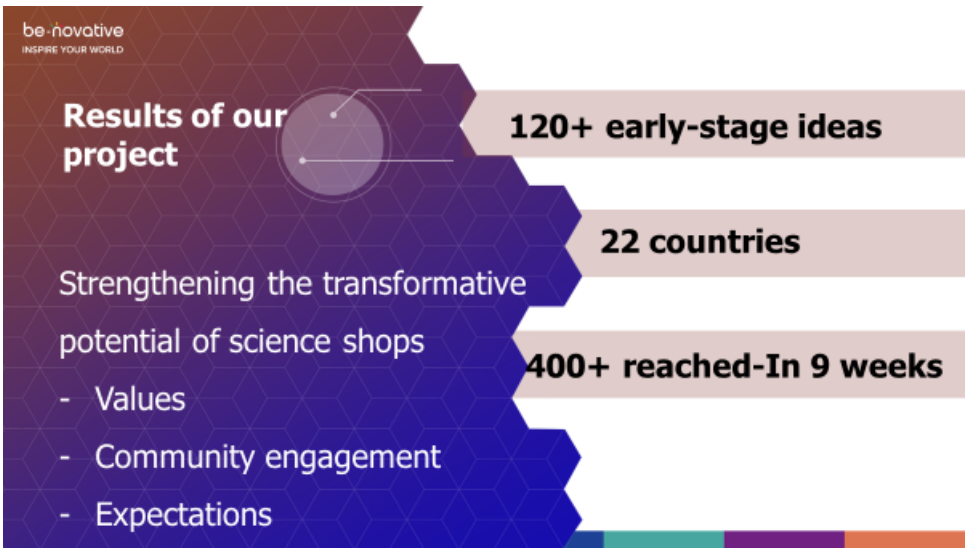
Main features of the online ideation on science shops:

- *Creating challenges* – We featured three challenges for nine weeks on the Activity Feed visible for all participants.
- *Group ideation and creative collaboration sessions* – we organised three parallel working groups using built-in creativity-enhancing techniques around the three challenges.
- *Evaluation of ideas* – via a visualisation on an impact-feasibility graph, participants were invited to create a ranked list of all ideas.
- *Supporting ideas* – participants could provide feedback via a "like" function, sharing suggestions.
- *Forming idea concepts* – participants deepened early-stage ideas with a detailed description of benefits and envisioned a solution
- *Gamification to reward and motivate users* – The platform showed the top ideators of the three challenges based on who shared the most potentially impactful and feasible solutions.

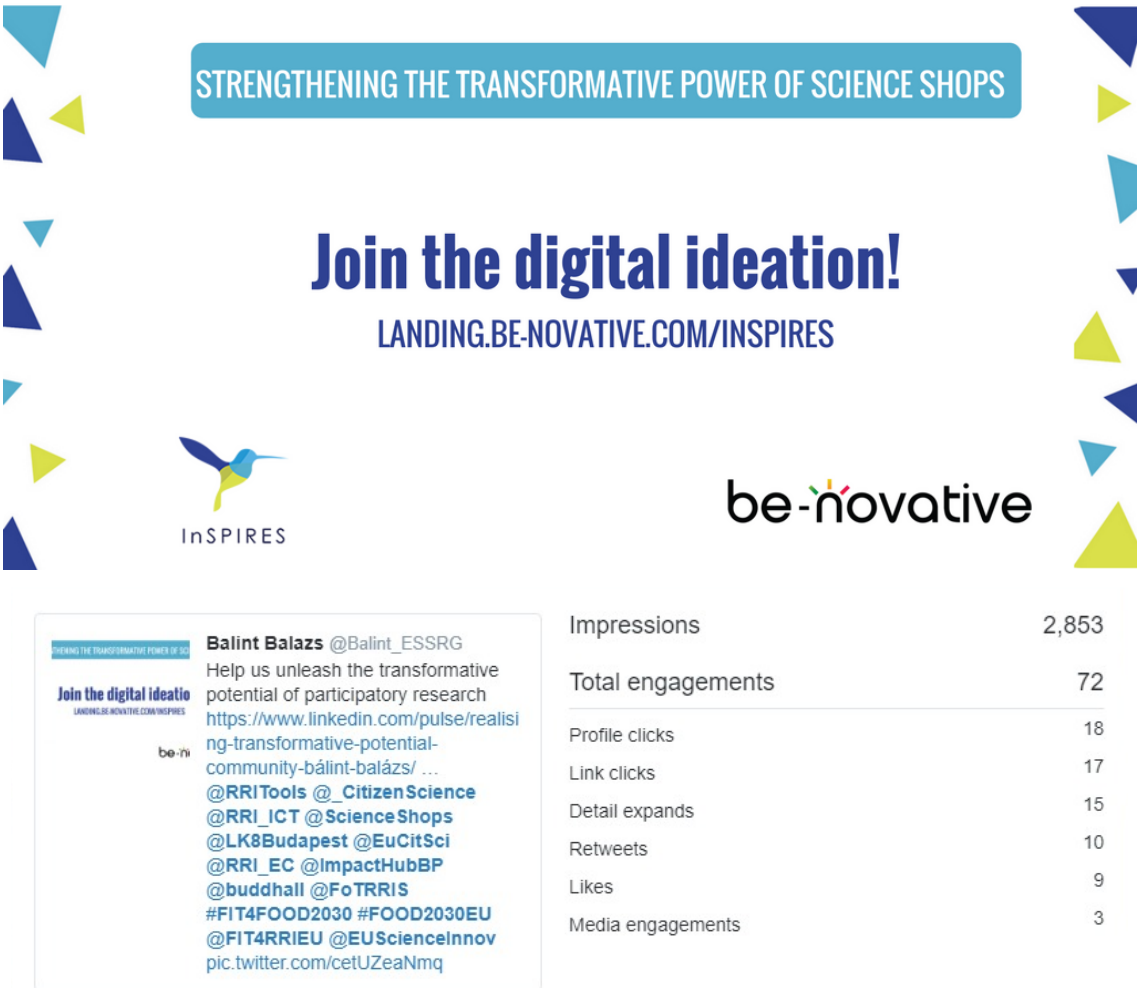
We planned this as a social experiment for rewiring the science shop community. By open innovation, the diverse perspectives of science shops came together to the online platform to deliberate on and co-create tangible solutions. A large quantity of innovative ideas has been recorded, and we also extracted a deeper insight into the needs of the network and contributors.



The process has been facilitated by ESSRG as host and supported the continuous online engagement with three webinars along the eight weeks. During the process, we collected more than 120 early stage ideas around the three themes. Altogether participants connected to this engagement phase in 22 different countries. During this nine weeks of continuous online engagement, we reached out to more than 400 participants.



We set out an invitation to all Science Shops offices in our current database (see D2.2 ANNEX 1). We circulated emails through the Living Knowledge – The International Science Shop Network newsletter and Twitter and Facebook to reach out primarily to science shops. Beyond publishing a call to science shops on the open innovation we also invited similar organisations and stakeholders into ideation. We invited similar like-minded SWAFS communities:



Summary of the tweet activity of the invitation for the open innovation

This has been advertised further at European and worldwide networks:

- PCST: The International Network on Public Communication of Science and Technology (PCST) - http://www.pcst.co
- UNESCO Chair in Community Based Research and Social Responsibility in Higher Education co-directed by Budd L Hall and Rajesh Tandon, board members of the InSPIRES - http://unescochair-cbrsr.org
- ECSA, European Citizen Science Association, represented by Katrin Vohland as Board member of the InSPIRES project - https://ecsa.citizen-science.net/
- ECSITE: European network of science centres and museums that engage people with science - https://www.ecsite.eu/
- European Network of Living Labs: Living Labs (LLs) as citizen-initiated, open innovation ecosystems - https://enoll.org/
- Community-led Innovation | SIC: community for social innovators across Europe - https://www.siceurope.eu

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Finally, many channels have been used: Facebook, LinkedIn, newsletters and Twitter as well. As a final step at the 8th Living Knowledge Conference 2018, 30th May – 1st June 2018 in Budapest, Hungary we also organised an open innovation session where we presented the results of the ideation and invited the audience of the conference for open innovation.

2.3 Working with science shops

2.3.1 Participant observation in the LK8

The international networking of local Science Shops has been observed during the LK8 conference in Budapest. InSpires project as a principal supporter of the conference, co-organiser of the event providing many actual participants. During the LK8 conference many Workshop and Discussion Panel sessions directly tackled the achievements of science shop activities:

- A Typology of Engagement, Sophie Duncan
- Moving forward from EnRRICH: Building Policy to Help European Higher Education Institutions Develop Engaged Curricula, Emma McKenna
- Challenges to Science Shops Establishing a Science Shop in Francophone Africa: Common Challenges and Visions for the Future, Chayma Bensaoud
- Community-University Partnerships, Andrea Toarniczky
- Open innovation in the Living Knowledge Network, Henrik Papp – Bálint Balázs
- Collaborating with Communities, András Martoni
- New Approaches to Science Shops, Floor Vogels
- Participatory Research Agenda Setting, Rosina Malagrida
- Science Shops in Central and Eastern Europe, Réka Matolay
- Reflections on the Emergence & Development of Living Knowledge and Other Networks, and How They Can Develop Further to Empower Local Initiatives in Their Agency to Transform Societies, Jens Dorland – Michael Søgaard Jørgensen
- Pop-up Science Shops, Laura Steinhaus
- Knowledge on Science Shops, György Málovics
- How Experiences and Knowledge from the Past will Guide Us into the Future - Studies from the SciShops Project, Martin Bergman

2.3.2 Participant observation in the ECSA

The workshop sought to stimulate exchange between practitioners from different approaches to participatory research including community-based research as practised in, e.g. Science Shops and citizen science. The focal point of the exchange was the topic of "Empowerment, inclusiveness & equity in community-based research and Citizen Science" led by Michael Søgaard Jørgensen from the Aalborg University science shop with the participation of Bálint Balázs (ESSRG, Hungary) talking about various dimensions of empowerment and how to render the invisible citizen science visible. The session's discussion turned to different aspects of inclusiveness and the creation of an ECSA working group.

See more at:
https://povesham.wordpress.com/2018/06/05/european-citizen-science-association-ecsa-2018-conference-day-2-beyond-the-deficit-model-inclusiveness-libraries-and/

2.3.3 Participant observation in the ECSITE

InSPIRES team (María Jesús Pinazo, Giovanna Pacini and Bálint Balázs) organised a session on "Science shops: participatory innovation, research and equity" with Norbert Steinhaus, the Coordinator of Living Knowledge

International Science Shop Network. We presented stories from several Science Shops experiences to offer an understanding of how this methodology could be adapted to other contexts.

See more at:

https://www.ecsite.eu/annual-conference/programme/science-shops-participatory-innovation-research-and-equity

https://povesham.wordpress.com/2018/06/07/ecsite-2018-conference-day-1-afternoon-science-shops-and-the-current-practice-and-future-of-rri/

3. LESSONS FROM EXPLORATORY PHASES

3.1 Scientific evidence on science shops

InSPIRES created the first systematic literature review on science shops (see the Literature review D2.1.) to gain an understanding of the image of science shops portrayed in the scientific literature. We found a fascinating diversity of aspects of the science shop mechanisms in different settings and at different times. The critical sustainability aspects belong to three meta-categories: (i) context-embeddedness, (ii) co-evolution of organisation models (keeping the original mission and engage with different visions), and (iii) acknowledgement of the activities.

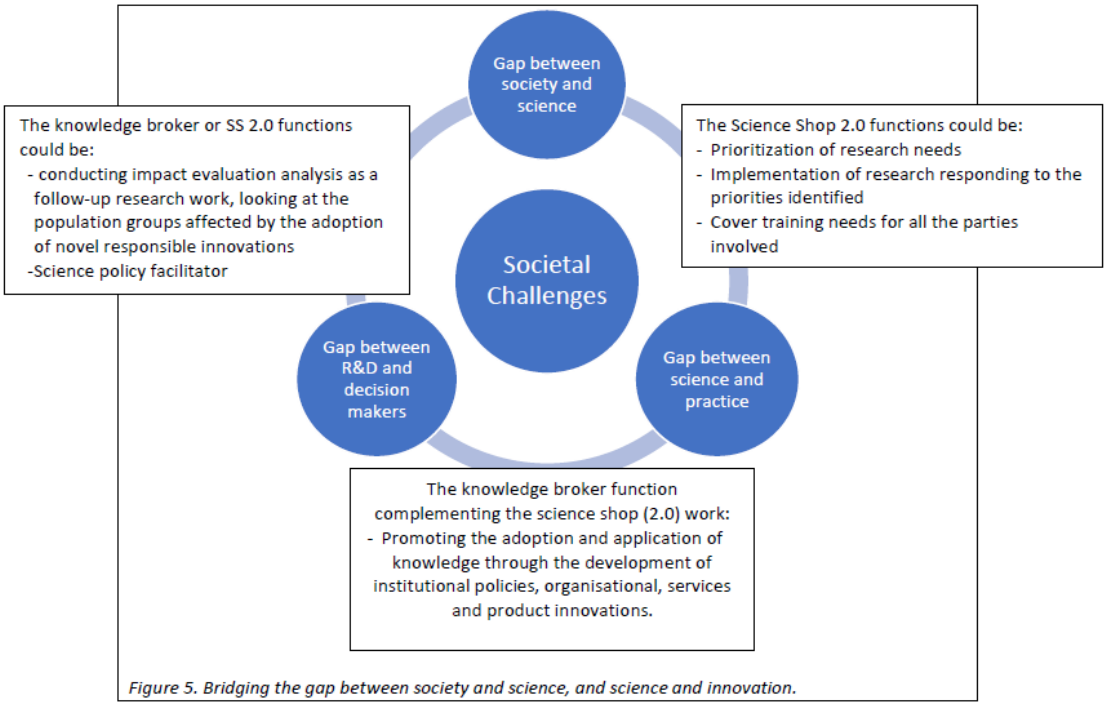


Figure 5. Bridging the gap between society and science, and science and innovation.

The transition of the specific role of science in society, and public engagement, and more broadly the shift of the whole R&I landscape is anticipated, and most probably the Science for and with Society will not continue in Horizon Europe. Therefore it is getting ever more crucial for science shops to accommodate to these changes:

Diversifying resources, decreasing overdependency on public funding: Science shops must lobby for stable public funding and at the same time diversify their funding sources by exploring alternative business models to reduce their dependency on institutions.

Value-based commitments: Science shops should not lose sight of their social values, maintain a bottom-up, demand-driven, co-creation approach for the prioritisation and elaboration of research demands, and involve marginalised groups, students and senior researchers in the research process. This needs to inspire citizens to engage in science.

More visibility for the values: Creating better visibility for the protocols of bottom-up, demand-driven, participatory research could help science shops to become experimenting stations for public engagement methodologies. Science shops should publish more systematically in peer-reviewed, open-access journals to gain greater recognition within the scientific community. Simultaneously use innovative communication tools to reach out to non-academic actors. Science shops need to work out an evaluation tool within open science to assess their work.

Interviews have further highlighted that

> *There is a real need to publish our works; we have some high-quality thesis that deserves to be known in the scientific world. (BOL03)*
>
> *The scientific report is not enough. It is then needed to be translated into recommendations for local authorities, business, or whatever stakeholders of the project. (MSJ-A-G)*
>
> *The Institute executed many studies in different health areas, but generally, they are not known outside the university, or outside the scientific and medical spheres. We need to be closer of people who need those results. (BOL04)*

3.2 The self-image of science shops

InSPIRES created a first comprehensive qualitative interview study on science shop with the participation of 80 science shops. The study pointed out common challenges and numerous turning points that help science shops flourish in their context, given their specific people and organisational objectives. Also, during the establishment and the successful operation of science shops all the initiatives are likely to arrive at specific fundamental decision-making points that shape their direction of development. Among this decision-making (or turning) points are:

- **People:** Science shops are not just organisations, but collectives of engaged, inspired and motivated people. These people together with their partners (including students in many cases) and the community co-create the essence of science shops. Therefore, different teams (and thus different commitments, motivations, skills and networks) build up different science shops.

- **Value Commitments:** In close correlation with "people", science shops may differ alongside their value commitments. All initiatives need to some extent seek for social impact, work for the democratisation of science and co-create their outputs. However, beyond these, they may be committed towards specific values, groups or topics (e.g. sustainability, voiceless, health). These commitments result in different science shops.

- **Specialization:** In close correlation with "value commitments" science shops may choose to specialise in specific fields or issues. The smaller the organisation is, the more likely this will happen. Indeed, specialisation results in specific operational mode, networks, skills and methods, which again lead to different science shops.

- **Level of co-creation:** All science shops co-create their outputs to some extent with partners and the members of the community. However, the extent of co-creation may widely vary. This may end up in longer or shorter-term projects, constant or ever-changing beneficiaries, different methods; all in all, in different science shops.

- **Networks:** Science shops do not carry out their activity alone, or in isolation. They always work as parts of networks. However, differences in the range of partners, or the focus in the networking strategies (e.g. locally, on a national or international scale; with or without business actors, with or without policy actors) will result in different science shops.

- **Impact seeking:** All science shops seek for meaningful, beneficial social impact. However, the strategies they choose (in close connection to their team members, values commitments and context) are manifold. One of the core issues in this respect is either to take on mediating role, try to remain neutral; or to take on an active role, seek for direct policy impact and sometimes take direct actions as well.

Characteristic science shop pathways

Again, it is important to emphasise that there are more than one right answers to the above challenges. Altogether these turning points create a few future pathways for successful science shops:

(1) university-based science shop;

(2) independent science shop; and

(3) mediator of various science-society initiatives.

Pathway 1: The successful operation in a supportive university context presupposes a vision in which science-society activities are highly appreciated in the academic sphere. The university top management is supportive towards science shops since they acknowledge the value they create. It is easy to motivate both researchers and students to take part in science shop activities because it is beneficial both for the organisation and the individuals. The legislative environment acknowledges the "science with and for society" principle.
Responding to (local) societal challenges and co-creating questions and results with societal actors appear in the evaluation (and funding) schemes of universities and public research institutions. The endeavour for open science and equal access to knowledge results in incentives that turn universities towards less solvent and voiceless actors. This is also beneficial for individual researchers since the individual performance assessment schemes appreciate these kinds of activities. Moreover, this also leaves room for more researchers to discover the inspiration and learning potential these activities provide. Students are also motivated to contribute, since community-based research, service learning and similar activities are built into the curricula. This, in turn, reinforces the success of the science shop, because students can carry out quality job, they are often eager to serve the community, and working with students is an impact in itself.
Universities can provide continued financial support for the science shops since they acknowledge their strategic importance for achieving outreach, research and education goals. More additional support can be expected from (local) governments. Moreover, there is no need to continue trying to persuade decision makers about the legitimacy of science shops. The stability provides room for focusing on the internal success factors of the traditional science shops; to develop skills such as: navigating in both the academic and the civil sector, networking, experimenting with new methods, and new ways of communicating the results and having an impact; and improving evaluation.

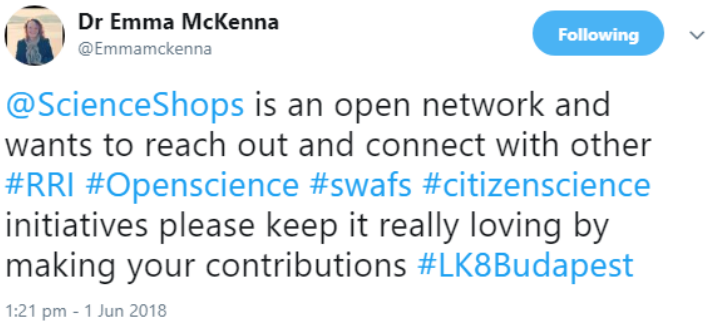
Pathway 2: Flexibility and impact seeking outside the universities build on the opportunities provided by a non-university context. Being outside the academic, operational environment allows for more freedom and flexibility. In this context, a science shop activity is more diverse. Their independence allows them to reflect more unequivocally on their specific value commitments and issues they deem to be the most important and meaningful.
Individual science shops may have more freedom for turning towards marginalised and voiceless actors, engage in longer-term cooperation with groups of the community. They may also be more eager to turn towards direct impact seeking. Taking on an advocacy role and entering the policy / political debates may become integral elements of their activities.
These science shops can experiment with new sources of funding (e.g. turning towards enterprises and social entrepreneurs, or becoming social entrepreneurs), and new organisational structures (e.g. teams where all are equal). They are less restricted by specific academic constraints (publish or perish), which allows them to put more effort in effective communication.
In contrast with the first pathway (supportive university context), which is rooted in the general transformation of the research and innovation system towards "science with and for society" or "responsible research and innovation"; this pathway builds on the ability of science shops to create niches for change.

Pathway 3: Finding links to various forms of science-society initiatives builds on the possible synergies of various initiatives that are all based on ideas such as commitment towards social impact, the democratisation of science, and co-creation. It suggests that there are numerous "niche actors" already in the research and innovation landscape. The networking and joint efforts of these actors may add up to a regime shift: towards research and innovation systems that are more "responsible" and more equipped to provide systemic answers to grand environmental and societal challenges.
In this case science shops recognize that the various niche actors (science cafés, living labs, fab labs, hacker and maker spaces, participatory action researchers, citizen science, further science society initiatives and projects of

universities and public research institutions, intermediary and consultancy firms, etc.) are essential learning sources and partners, both in terms of methods and the pursued values.
The science shops initiate/take part in networks with these sister initiatives and capitalise on their presence in the landscape. They may also find a connection to further similar discourses and support schemes, such as the "responsible research and innovation" discourse, and even shape this discourse according to the values and commitments the science shops pursue.

3.3 Observing Science Shops

The international networking of local Science Shops has been observed during the LK8 conference in Budapest, which currently gives the most robust visibility for the science shop and community based participatory research movements. The purpose of the Living Knowledge Network and thus science shops remains to promote community-based or community-oriented cooperation of local communities and learning/teaching/innovation sectors. The primary mission of science shops is to incorporate the visions, concern, demands and knowledge of civil society to the research and innovation processes as well as the curricula. Science shops also see their way converging towards other related communities of citizen science and public engagement networks (ECSA, ECSITE).



Tweet from the Belfast Science Shop Coordinator

A new way of inspiration comes from national level networks that have been formed in the recent years and continue to operate and share knowledge. Also, thematically focused science shops point to meaningful transnational and transdisciplinary cooperation opportunities. Finally, a range of entirely new actors started to seek and find their place within the network, and some of these have already been taken up by the two H2020 projects, Inspires and SciShops.

During the ECSA conference, a dedicated session for science shops provided space for deliberations on the interlinkages of participatory and community-based research as practised in Science Shops and citizen science. A primary motivation for both is the democratisation of science: to offer research for civic groups that otherwise are not able to finance research and co-create outputs.

Tweet activity during the ECSA session and its impact on related networks

This commitment towards empowerment, inclusiveness and equity, critical aspects of participation are already cultivated to some degree in science shops. Different science shop teams develop skills and networks to face inclusivity in their daily work. There seems to be a trade-off in a proactive or assertive approach and a more passive approach towards inclusivity that is linked to the overall strategy and context of each science shop.

Tweet activity of the director of ExCiteS research group on citizen science

At the ECSITE conference InSPIRES team organised a special session on Science shops together with the Coordinator of Living Knowledge International Science Shop Network.

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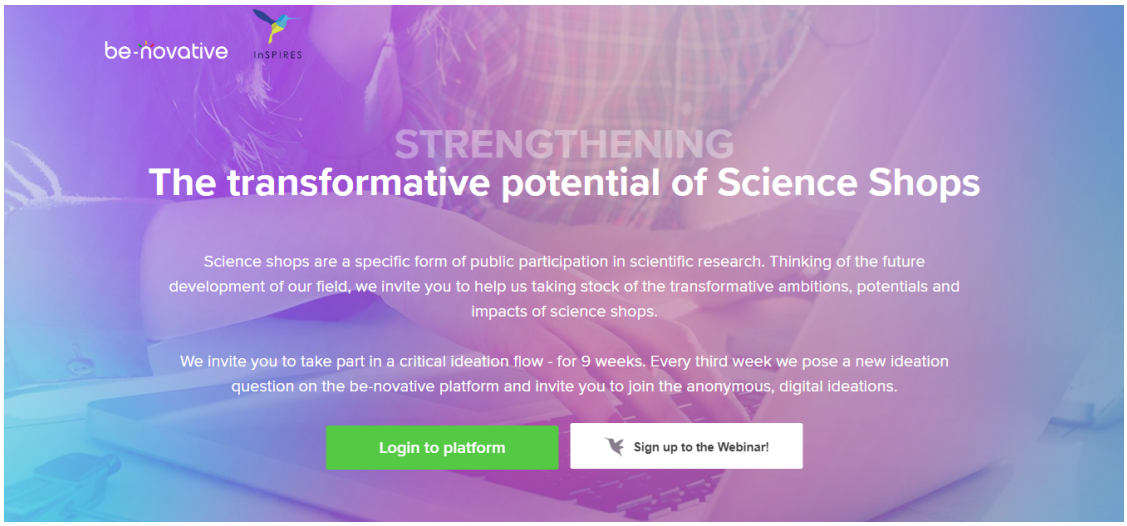
Discussions started about how Science shops create their role in demystifying science and research. Typically, in some science cafés, researchers are invited to leave their usual role and instead of lecturing they can ask their audience. Museums are potential spaces for such science shop model. A valuable lesson is that Science shops when working with stakeholders need to consider the barriers of participation and assertively reach out to engage people.

4. RESULTS FROM THE IMPLEMENTARY PHASES

4.1 IDEATION: DISCOVERY – DREAMING - DESIGNING

Finally, we present here the results of the participatory evaluation, which comprised of a deliberative and visioning exercise. To involve the maximum potential number of participants we decided to combine an 8-week online ideation session (from April to July 2018) with a final open innovation session at the LK8 conference. Several parallel sessions organised by the InSPIRES team supported the process.

We performed the online deliberative exercise through the Be-novative platform:
https://landing.be-novative.com/inspires



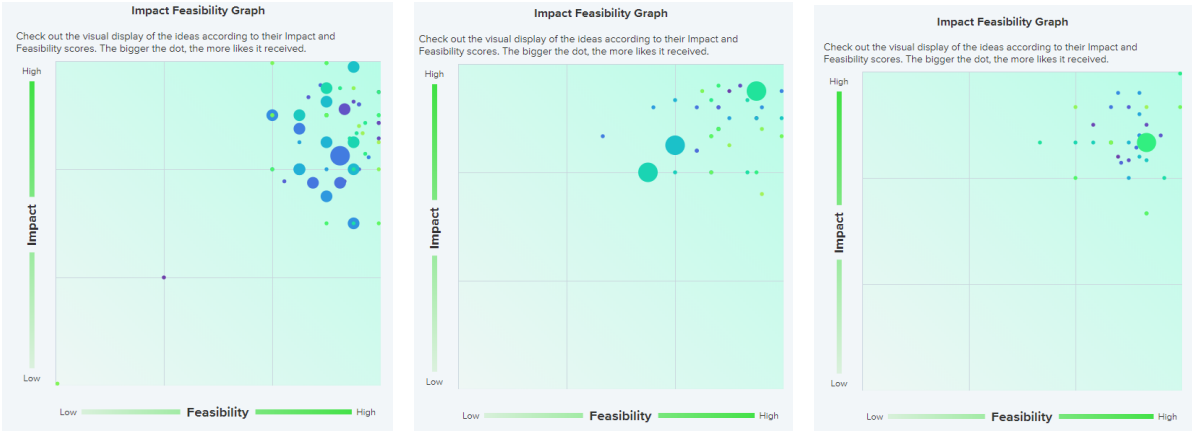
Landing page customised for the science shop innovation challenges

Through the platform, we invited all the 76 actually existing science shops from Europe, and much more beyond and illuminated their best ideas.

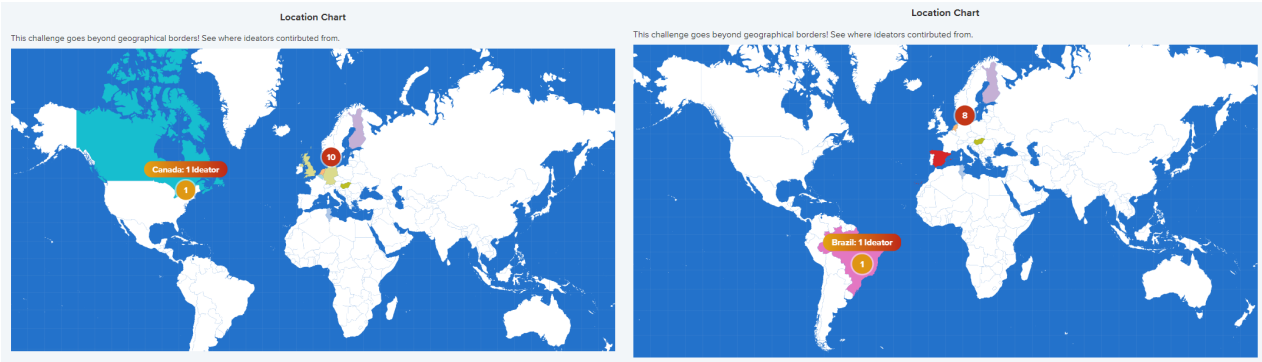
Following the AI stages of the 4-D cycle to evaluate the achievements of science shops we posed three central questions or innovation challenge:
1. Discovery of moments of excellence, core values -- What values (positive capacities) drive science shops the most?
2. Dream: Envision positive possibilities -- What are the most inspiring community engagement examples?
3. Design: structures, processes and relationships to support the dream -- What do you expect from a Science shop?
Participants could anonymously share their most deeply held values about their work, their best practice examples of community engagement, and their expectations for the science shop in our society. Three main innovation challenges as having been prepared for the participants:

1. What are the values of a Science Shop in the society?
To support engagement around this theme we organised a webinar about the interview results on 13th of April, 2018 – see the 6 minutes long webinar recap video: https://www.youtube.com/watch?v=hwraTiuOPCI&feature=youtu.be&ab_channel=HelloBe-novative
2. What are the most inspiring examples you know of community engagement?
To support the engagement around this topic we presented the results from the literature review on the 24th of April 2018. See the downloadable Webinar Presentation: https://cdn2.hubspot.net/hubfs/2623543/20180424_Lit%20Results_Benovative.pptx?t=1530403818974
3. What do you expect from a science shop? Which structures, processes and relationships support the dream?
This has been supported by a webinar organised by InSPIRES team with Norbert Steinhaus, on the 9th of May 2018.

The exercise proved to be helpful in levelling the playing field of science shops and like-minded entities that engaged peoples' ideas in formulating research agendas. Each of the three innovation challenges ideation started with a question that attracted science shop peers to gather ideas for these challenges, then evaluate them in a democratic process.
The platform offered an anonymous, gamified, motivating process for science shop participants to collaborate online. During the community evaluation phase, participants were asked to anonymously evaluate each other's ideas based on impact and feasibility. Participants receive points for their ideas, based on the received evaluations. Then ideas are ranked according to their evaluation score based on impact and feasibility points received during the evaluation. Also, ideas are ranked according to the number of likes they received.



Impact-feasibility matrices of challenge 1-2-3



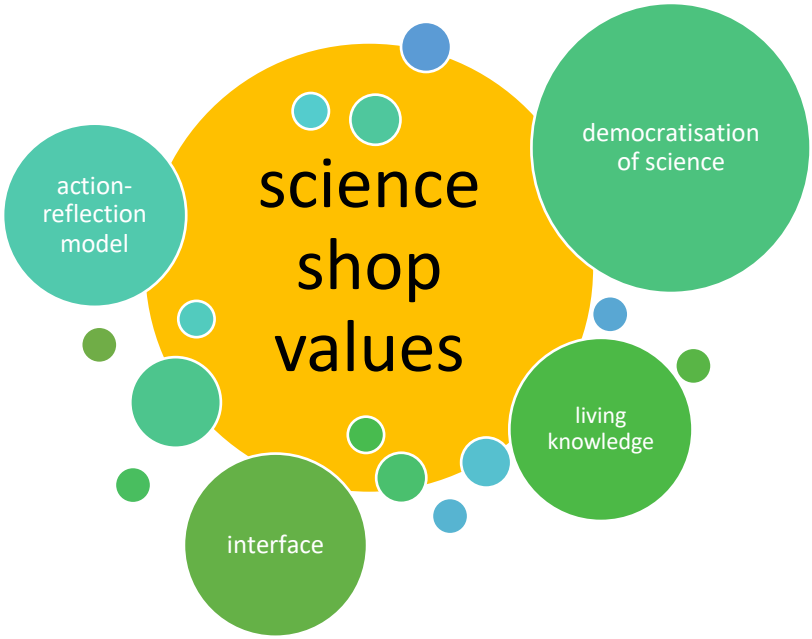
Ideators location chart – for challenge 2-3

Table: number of ideators, ideas and countries of origin

	No of ideators	No of ideas	No of countries
What are the values of the science shops?	21	63	10
What are the most inspiring examples you know of community engagement?	7	20	5
What do you expect from a science shop?	7	34	7
SUM	35	117	22
landing page data:	Views	Submissions	Registered to the platform:
	372	25	44

4.1.1 Core values of science shops

In this challenge, as a discovery phase of our AI model, we sought to identify moments of excellence. We asked: **What are the values of a Science Shop in the society?** During the 65 days of the online ideation, 22 ideators from 10 countries (including Canada and Brazil) shared their 65 ideas in total. Participants liked 17 of those ideas. The extensive list of ideas is in Annex – below we present the values that have generated more than 8,5 points in the ranking.



Core values of science shops

The central value of the science shops is their **action-reflection** model. The most catching phrases that grab this value: "*Science meaning hope of change" (22)* and *"They ask us to reflect; then -- and this is the most important -- they ask us to act."(1)* Such reflective practices, *"taking time to reflect" (9)* are part of the DNA of science shops and points out ability in continuous learning that is not widely shared in the R&I sector.

As an **interface value**, science shops make voices heard, or mainstream societal voices within the research and innovation process. A core commitment of the science shop model is that the science shop activities *build "bridges between science and society" (17) "Science can tackle real, societal problems" (2), "Respond to or connect research to societal needs" (10, 11)*. This is most often implemented by *"bring together researchers and community" (15), "Co-creation of a scientific project inspired by social needs and putting scientific knowledge and skills for civil society service" (5) (12) and initiate co-learning processes between society and science (13.), such as citizen science (18).*

A valued aspect of science shops is that they lend researchers to stretch out of their comfort zones and also empower citizens as users of research results. Science shops in this way facilitated **democratisation of science** and the uptake of RRI by cultivating new forms of public engagement.[2] They developed their capabilities *"To give equal and free access to research, teach students about societal problems, and conduct responsible research." (3),* equip higher education students with participation and RRI skills (19). The main principle behind this operation is *transparency* (4), and *to "give voice to under-represented population/groups" (8),* engage the marginalised groups of society (14) *and "empower society with knowledge and practical approach of science" (9)* values that are still neglected in research.

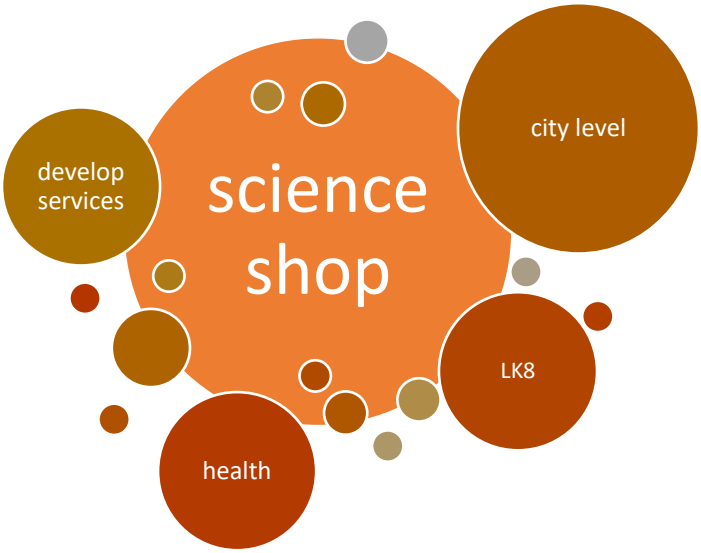
As a primary value, all activities of science shops create opportunities to find new approaches and new solutions. Through a compelling combination of methods, tools, disciplines and competencies science shops ultimately

[2] According to the European Commission, Responsible Research and Innovation (RRI) means that 'societal actors work together during the whole research and innovation process in order to better align both the process and its outcomes, with the values, needs and expectations of European society.' EC (2012).

develop **living knowledge**, *"Opportunities for meaningful learning" (22), meaningful to people (25)* that is able to *"cut through politics, misunderstandings and ignorance while providing general knowledge and shared understandings which constantly evolve and change" (6), engage the marginalised groups of society (14), and also win for students: practical working experience, first professional network, societally relevant research (17).* Science shop activities lead to *"Meaningful learning: the student can add value to somebody. The learning and meaningful project is rewarding" (19).* This practice also leads to impact, by "*solve real-life problems by co-learning and co-creation - and throughout the process, they raise awareness and engage people from the wider public" (16).*

4.1.2 Positive community engagement

In the next dreaming phase of our AI model, we sought to identify the essential community engagement experiences around the science shop model. In this innovation challenge, we asked: **What are the most inspiring examples you know of community engagement?**
During the online ideation, 11 ideators from 8 countries shared 40 ideas in total. Participants liked only three of those ideas. The extensive list of ideas is in Annex – below we present the extracted version of the best ideas around health and urban environment.



Positive examples of community engagement

The best participatory engagement examples where science shops need to develop their services:

- Projects engaging students with small organisations, e.g. for developing a communication strategy (21)
- Community-based brokers for community engagement (13)
- Citizen science (7)
- Cafe Scientifique (8)
- Students working with prisoners-joint reading books -strengthening their social competences and supporting their self-confidence (26)
- find a common language in which all the participants will understand (6)
- recombine available engagement tools for better participation (11)

- Here is one of the issues we find with Community-Campus Engagement (CCE) here in Canada. Small community groups who could potentially benefit the MOST from research often have little to no capacity. (25)
- Especially the information smaller community organisations want to know such as length of engagement? Costs, if any? Will the student(s) have faculty supervision? Do we need to provide a desk/space (14)
- Art as a way to communicate and engage with the community: http://www.tantenetty.nl/site/ (17)
- opinion leaders (18)
- engage the community by asking them (19)
- Science Espresso - easy intro to new topics (20)

Many examples mentioned in the health sector:

- A project about clinical trials that indeed involve the community and the patients (1)
- Irish constitutional assembly 2016: 99 citizens debated over months Irish's abortion laws & recommended removing a constitutional prohibition on abortion which led to a referendum where it was removed (4)
- Citizens Conventions/panels in science and technology run by the Danish Technology Board, e.g. on the human genome, have been important in evaluating ethical implications of new tech and getting policy recs (10)
- Clinical trials were done with the engagement of the community against infectious disease (leishmaniasis) that mostly exist in low or middle-income countries. (12)
- Death cafes (15)
- Voluntary project-participatory projects of students with older adults that live in care homes - joint workshops, picnics, poetry reading (22)
- Alzheimer Cafes - http://www.alzheimercafe.co.uk (24)

City level examples: real-life settings which imply experimentation with new practices

- Barrier map- any barriers identified in the city in collaboration with citizens, a next step is to remove them from the city (5)
- Ottawa Eco-Talent Network is working with CFICE to develop some data standards & open data to share community engagement opportunities at 6+ post-secondary institutions in our region. (oetn.ca) (9)
- The projects of the Eutropian team. It is a research, policy and advocacy organisation helping civic involvement in urban transformation processes. (16)
- Connecting Communities(C2) programme - start with the question 'what's it like to live around here? (27)
- URBAN space planning workshops for kindergarten children (29)

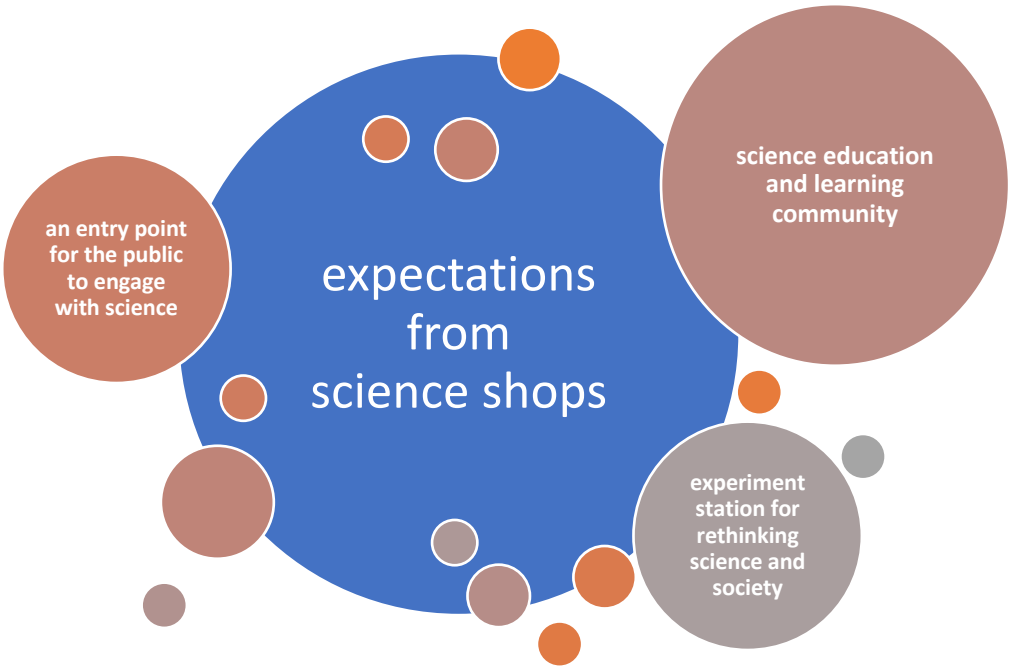
A few examples have also been mentioned connected to the keynotes and sessions of the LK8:

- The City is for All – Budapest (2)
- One of the participatory action research projects of the School of Public Life: nine people living in housing poverty explore the history of the Hungarian housing movements with two social scientists. (3)
- Living Independently in a Community - a Participatory Action initiative- mentioned in the LK8 plenary (23)

4.1.3 Expectations from a Science shop

As a final, design phase of our AI model, we sought to identify which structures, processes and relationships support the dream of science shops. In this innovation challenge, we asked: **What do you expect from a Science shop?**
During the online ideation, nine ideators from 7 countries shared 34 ideas in total. The extensive list of ideas is in Annex – below we present the three most characteristic expectations towards science shops. Al in all, science

shops create a living model and are regarded as open spaces where different methodologies are cultivated to serve best the societal or community needs.



Expectations from a Science shop

Provide science education and learning community: science shops can develop into reflexive, adaptive, and multi-actor learning environments

- It creates learning communities during its operation (20)
- change people minds about science (24)
- to contribute to science education (34)
- To stay open for all different kind of societal questions (30)
- Anchors societal problems in courses and research in the university (4)
- During the science shop project, the members of the emerging learning community learn how to listen to each other (25)
- To mediate between Students, University and Society (27)
- A reservoir of past research of relevance for civil society (22)
- critical thinking and open discussion (7)
- being fresh and tasty - being fancy for students (10)
- Live for learning, i.e. to develop a desire for continuous learning (19)

Provide an entry point for the public to engage with science: science shops need to cultivate sites for the co-creation of knowledge and solutions by conducting local experiments.

- To make knowledge readily accessible to everyone (16)
- To actively search/reach for the needs of society (18)
- To make science available to the public (1)
- to make the public more interested in science (33)
- social responsibility - focus on topics that are socially sensitive, helps the marginalised, and create a better world (15)
- To respond to the needs of society (17)
- detect general societal needs and challenges from marginalised communities whose point is usually left out (5)

- Objective and professional guidance on what the research question might be for the problems we as a community might experience (2)
- promote participatory governance (23)
- university and non-university-based science shops could build on each other's work: one provides public engagement processes and new societal needs, while the other provides students projects for that (12)
- A group of people with excellent knowledge about where to get help with a research problem (14)

Provide an experiment station for rethinking science and society: sciences shops are testbeds for collaborative ways to tackle wicked sustainability issues.

- to make a real change (31)
- Idealistic and engaged researchers that only wants the best for society (21)
- Researchers learn how to conduct research that makes sense to the public (26)
- provide safe spaces for experimentation, exchange, common learning of science and society (6)
- We want Science Shops to generate change (29)
- to make the scientific process more responsible (13)
- making socio-techniques of engagement more accessible (9)
- to make the scientific process more democratic (32)
- cultivate varied participatory engagement methodologies (3)
- searching for new, revolutionary approaches which challenge the actual structures of science and knowledge production (28)
- help communities to reach mutually determined goals and processes with scientists (8)
- mediate the interactions of research and science and civic groups (11)

During the LK8 the 8-week ideation process ended with an open innovation session entitled "Inspire your world! Open Innovation in the Living Knowledge Network"

Session description: InSPIRES (H2020-SwafS-2016-1) is about Ingenious Science shops to promote Participatory Innovation, Research and Equity in Science (inspiresproject.com). ESSRG is leading the work on the state-of-the-art analysis of science shops and community-based participatory research. The project brings together practitioners and experts from across and beyond Europe to co-design, jointly pilot, refine and implement innovative models for Science Shops. The primary ambition is to help the expansion of the Science Shop movement and create new units around responsible research and innovation (RRI) in Europe and abroad.

Presenters:

- Anne-Sophie Gresle, Department of Innovation, Barcelona Institute for Global Health, University of Barcelona
- Henrik Pap, Open Innovation Specialist / Education partnerships, Be-novative
- Bálint Balázs, ESSRG

Full session: Workshop (90 minutes)

Keywords: Future Search, Science Shop, Open Science

Results: The workshop carried out a participatory evaluation – comprised of two parts: the presentation of an online deliberative visioning exercise for Science Shops and an open innovation session at the Living Knowledge conference. The results from the on-demand innovation platform by Be-novative served as the main entry point for the discussion on open innovation and how science shops can make use of breakthrough ideas from the SWAFS community. During the workshop, participants unleashed collective creativity around the theme of community engagement.

4.2 DESTINY OF SCIENCE SHOP2.X

Science shops have a crucial role to play in transforming the research and innovation landscape by pointing out shortcomings in the current approach. In WP2 InSPIRES provided a baseline for monitoring the benefits and helping to unfold better impacts for science shops. The InSPIRES project will oversee the implementation, evolution and benefits of science shops to prototype advanced ideas of Science Shop 2.X models. During the lifetime of the InSPIRES project, we will also revise and enhance these pathways based on the feedback from the Living Knowledge community. InSPIRES WP3-4 and 5 will further provide in a later phase of the project suggestions for potential additions or changes.

The ideation identified **four widely shared values** of science shops in our societies: action and reflection is part of the DNA of science shops (*change*); science shops make voices heard (*interface*), building partnership of research and society (*democratisation*); identify new problems, new approaches and new solutions (*living knowledge*).

Several science-society initiatives and **participatory engagement** examples support the dream of science shops. The challenge is to develop services based on the local needs and possibly recombine available engagement tools. A further key is to meaningfully link up students with small local organisations to carry out valuable research. Many excellent examples have been mentioned in the intersection of health/environment and also on the city (municipality) level.

Science shops can do better in **managing the expectations** of their clients. As indicated by many examples during the ideation session science shops can develop into reflexive, adaptive, and multi-actor learning environments, provide science education and learning community. Science shops need to cultivate sites for the co-creation of knowledge and solutions by conducting local experiments and make themselves visible by providing an entry point for the public to engage with science. Potentially science shops are becoming an experiment station for rethinking science and society, create a testbed for collaborative ways to tackle wicked sustainability issues.

By now, **several new pathways** have been explored where science shops can partially develop their activities and find new potential audiences for their original missions. Science shops are institutional misfits: ingenious and creative attitude is indispensable to survive in contexts in which their approach apparently does not fit the dominant paradigm. Regarding governance science shops will continue to work on the interface of science and society as mediators which requires a constant adjustment to the particular 'science culture' of the countries and the local context. The good understanding of the local context is a prerequisite of the governance model of the science shops: established patterns of 'how things are done' in research cultures are often very difficult to overcome and resist structural changes. However, science shops are the evidence themselves that democratisation of science is both possible and is already happening. Peter et al. (2018) illustrate that many similar organisations in the EU are developing their practices on significantly different research and innovation landscape. Their learning could be enriched through Science Shops that systematically collects and shares RRI activities.

The central dilemma outlined in our interview study is whether to stay within or get outside of the mainstream R&I infrastructures. In other words, science shops need to fight against the regime or create their niches. This also entails varied ways how science shops perform their processes of decision-making and steering or how they organise innovation activities, co-create their outputs. Science shops as arenas for active learning: acquiring information, knowledge, experience. Single loop learning is well positioned within the local organisation whereas the international network of science shops and EU projects are suitable places for organising double

loop learning. This also has a consequence on resourcing as currently the most obvious process of acquiring resources is turning towards EU funding and gaining more acknowledgement to the achievements of science shops.

The primary challenge for science shop activism is how they seek for social impact. Organisations are struggling to show their impacts on the public and academics. It is in this context that we urgently need to show how science shops can most effectively evaluate their impact/progress. One of the core issues in this respect is either to take on mediating role, to try to remain neutral; or to take on an active role, seek for direct policy impact and sometimes take direct actions as well. Finally, science shops give voice to people; they are not just organisations, but collectives of engaged, inspired and motivated individuals. These people together with their partners (including students in many cases) and the community co-create the essence of science shops. Therefore, different teams (and thus different commitments, motivations, skills and networks) build up different science shops alongside their value commitments.

The above challenges point towards several right answers. Therefore, several implementation teams could be formed around the task to develop more inclusive models for Science Shops 2.X and align them with RRI, Open Science and Impact Evaluation requirements.

The three primary models and their postulates are summarised in the followings:

University-based science shops	**Independent science shop**	**Mediator of various science-society initiatives**
- It presupposes a robust SWAFS vision in the academic sphere and commitment from the top management. - R&I governance (in the evaluation and funding) acknowledges local societal challenges and co-creating solution seeking with less solvent and voiceless actors. - The strategic importance of Science shops for achieving outreach, research and education goals is acknowledged.	- A non-university context creates diverse opportunities for more independence, flexibility and direct impact seeking. - Also, specific value commitments and thematic issues can be better incorporated. - Creative spaces for advocacy and policy debates. - More diverse sources of funding and innovative organisational structures. - Create niches for change.	- Linking up to various forms of science-society initiatives. - Collective of "niche actors" build their ecosystem to support a regime shift. - Support their active learning communities. - Shape the discourse according to the values and commitments of the science shops.

5. CONCLUSION

The interactive ideation within the InSPIRES project created unique visibility to science shops and the opportunities provided by the InSPIRES project in extended peer communities. It also effectively helped a deliberation process on change ambitions, visions, missions of science shops. We collected 120+ early-stage ideas by involving participant to three science shop challenges before the LK8 conference. More than 400 participants in 22 countries took part in this to advance the notion of science shops towards a science shop2.0 model. The ideation has been promoted on social media and mailing list channels to explain the story, aims, timing and potential rewards for science shops. Continuous technical and methodology help was made available

via a Be-novative Open Innovation Specialist, Henrik Pap. To strengthen the transformative potential of science shops ideas were collected for nine weeks around values, community engagement activities and expectations about science shops. The on-site open innovation workshop (1,5 hours) at the LK8 resulted in a collection of ideas in community engagement.

Several lessons can be drawn for the Living Knowledge - International Network of Science Shops to strengthen their transformative potentials and reach out to a broad range of stakeholders offering new pathways for science shops in our society.

The ideation identified **four widely shared values** of science shops in our societies: action and reflection is part of the DNA of science shops (*change*); science shops make voices heard (*interface*), building inclusive partnership of research and society (*democratisation*); identify new problems, new approaches and new solutions (*living knowledge*).

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Science shops can do better in **managing the expectations** of their clients. As indicated by many examples during the ideation session science shops can develop into reflexive, adaptive, and multi-actor learning environments, provide science education and learning community. Science shops need to cultivate sites for Public Engagement activities, the co-creation of knowledge and solutions by conducting local experiments and make themselves visible by providing an entry point for the public to engage with science. Potentially science shops are becoming an experiment station for rethinking science and society, create a testbed for collaborative ways to tackle wicked sustainability issues.

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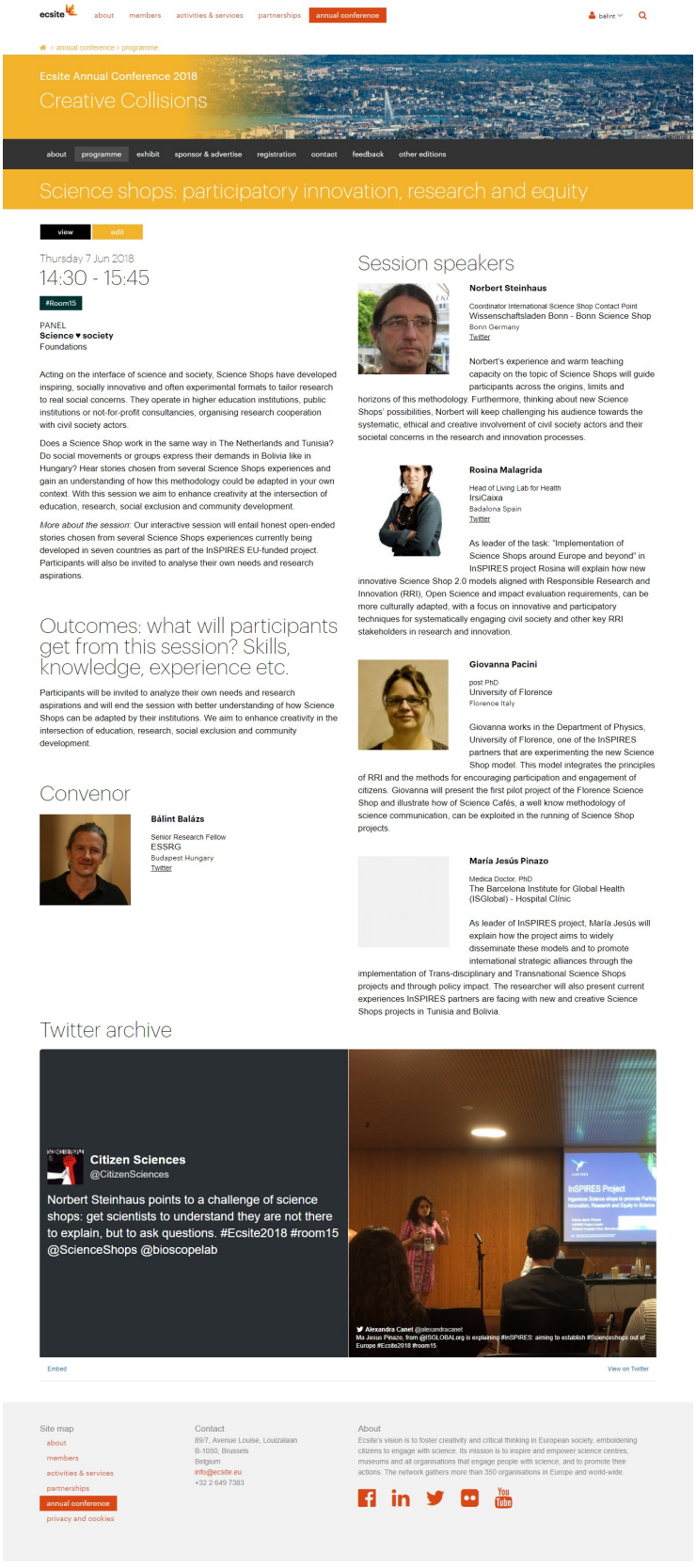
ANNEX 1: ECSITE CONFERENCE SESSION 2018



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Science shops: participatory innovation, research and equity

view edit

Thursday 7 Jun 2018

14:30 - 15:45

#Room15

PANEL

Science ♥ society

Foundations

Acting on the interface of science and society, Science Shops have developed inspiring, socially innovative and often experimental formats to tailor research to real social concerns. They operate in higher education institutions, public institutions or not-for-profit consultancies, organising research cooperation with civil society actors.

Does a Science Shop work in the same way in The Netherlands and Tunisia? Do social movements or groups express their demands in Bolivia like in Hungary? Hear stories chosen from several Science Shops experiences and gain an understanding of how this methodology could be adapted in your own context. With this session we aim to enhance creativity at the intersection of education, research, social exclusion and community development.

More about the session: Our interactive session will entail honest open-ended stories chosen from several Science Shops experiences currently being developed in seven countries as part of the InSPIRES EU-funded project. Participants will also be invited to analyse their own needs and research aspirations.

Outcomes: what will participants get from this session? Skills, knowledge, experience etc.

Participants will be invited to analyze their own needs and research aspirations and will end the session with better understanding of how Science Shops can be adapted by their institutions. We aim to enhance creativity in the intersection of education, research, social exclusion and community development.

Convenor

Bálint Balázs

Senior Research Fellow
ESSRG
Budapest Hungary
Twitter

Session speakers

Norbert Steinhaus

Coordinator International Science Shop Contact Point
Wissenschaftsladen Bonn - Bonn Science Shop
Bonn Germany
Twitter

Norbert's experience and warm teaching capacity on the topic of Science Shops will guide participants across the origins, limits and horizons of this methodology. Furthermore, thinking about new Science Shops' possibilities, Norbert will keep challenging his audience towards the systematic, ethical and creative involvement of civil society actors and their societal concerns in the research and innovation processes.

Rosina Malagrida

Head of Living Lab for Health
IrsiCaixa
Badalona Spain
Twitter

As leader of the task: "Implementation of Science Shops around Europe and beyond" in InSPIRES project Rosina will explain how new innovative Science Shop 2.0 models aligned with Responsible Research and Innovation (RRI), Open Science and impact evaluation requirements, can be more culturally adapted, with a focus on innovative and participatory techniques for systematically engaging civil society and other key RRI stakeholders in research and innovation.

Giovanna Pacini

post PhD
University of Florence
Florence Italy

Giovanna works in the Department of Physics, University of Florence, one of the InSPIRES partners that are experimenting the new Science Shop model. This model integrates the principles of RRI and the methods for encouraging participation and engagement of citizens. Giovanna will present the first pilot project of the Florence Science Shop and illustrate how of Science Cafés, a well know methodology of science communication, can be exploited in the running of Science Shop projects.

María Jesús Pinazo

Medica Doctor, PhD
The Barcelona Institute for Global Health (ISGlobal) - Hospital Clínic

As leader of InSPIRES project, María Jesús will explain how the project aims to widely disseminate these models and to promote international strategic alliances through the implementation of Trans-disciplinary and Transnational Science Shops projects and through policy impact. The researcher will also present current experiences InSPIRES partners are facing with new and creative Science Shops projects in Tunisia and Bolivia.

Twitter archive

Citizen Sciences
@CitizenSciences

Norbert Steinhaus points to a challenge of science shops: get scientists to understand they are not there to explain, but to ask questions. #Ecsite2018 #room15 @ScienceShops @bioscopelab

Alexandra Canet @alexandracanet
Ma Jesus Pinazo, from @ISGLOBALorg is explaining #InSPIRES: aiming to establish #Scienceshops out of Europe #Ecsite2018 #room15

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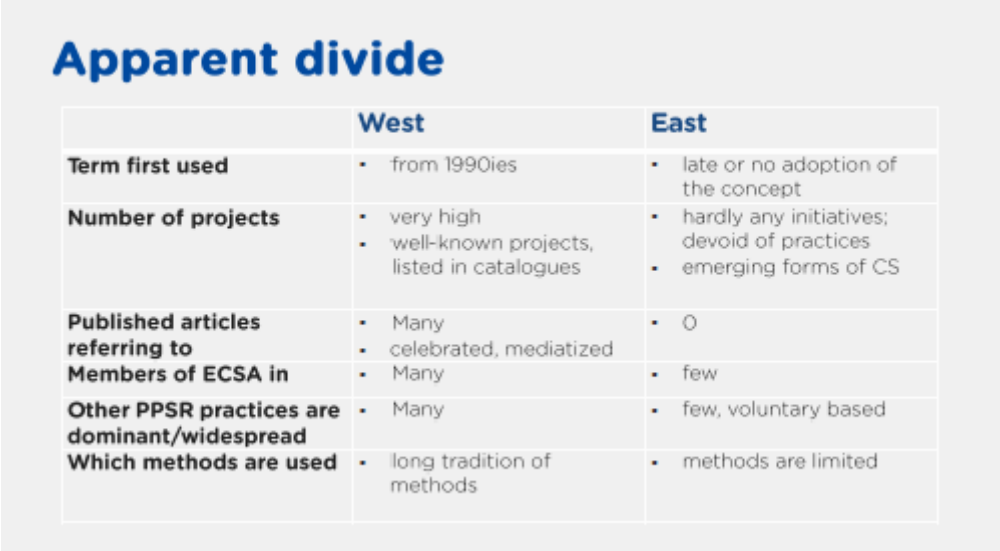
Contact
89/7, Avenue Louise, Louizalaan
B-1050, Brussels
Belgium
info@ecsite.eu
+32 2 649 7383

About
Ecsite's vision is to foster creativity and critical thinking in European society, emboldening citizens to engage with science. Its mission is to inspire and empower science centres, museums and all organisations that engage people with science, and to promote their actions. The network gathers more than 350 organisations in Europe and world-wide.

ANNEX 2: ECSA CONFERENCE SESSION 2018



ANNEX 3: LK8 CONFERENCE SESSION 2018

Inspire your world! Open Innovation in the Living Knowledge Network

Presenters:

- Anne-Sophie Gresle (anne-sophie.gresle@isglobal.org) Department of Innovation, Barcelona Institute for Global Health, University of Barcelona
- Henrik Pap, Open Innovation Specialist / Education partnerships, Be-novative
- Bálint Balázs, ESSRG

Full session: Workshop (90 minutes)

Keywords: Future Search, Science Shop, Open Science

Abstract

InSPIRES (H2020-SwafS-2016-1) is about Ingenious Science shops to promote Participatory Innovation, Research and Equity in Science (inspiresproject.com). ESSRG is leading the work on the state-of-the-art analysis of science shops and community-based participatory research. The project brings together practitioners and experts from across and beyond Europe to co-design, jointly pilot, refine and implement innovative models for Science Shops (SS). The primary ambition is to help the expansion of the Science Shop movement and create new units around responsible research and innovation (RRI) in Europe and abroad.

The proposed workshop will carry out a participatory evaluation which comprises of a deliberative exercise and a visioning exercise for Science Shops. Our partner, Be-novative provides an on-demand Innovation platform that unleashes collective creativity to leverage breakthrough ideas from the SWAFS community. It will bring novelty to LK conferences by introducing Be-novative's award-winning, a unique methodology that fuses open innovation with gamification, crowdsourcing, and design thinking principles.

The proposed session will comprise of two phases.

During the pre-conference phase (March-May 2018, 7 to 30 days) we will invite LK and SWAFS communities to participate in an (Open) Innovation Challenge on the Be-novative online platform and support it with a co-branded communication campaign.

The Open Innovation Challenge will possibly offer the following questions:

- What are the most inspiring examples you know of community engagement?
- What kind of training would you need to develop as a science shop?
- How can we further develop the concept of Living Knowledge Network?

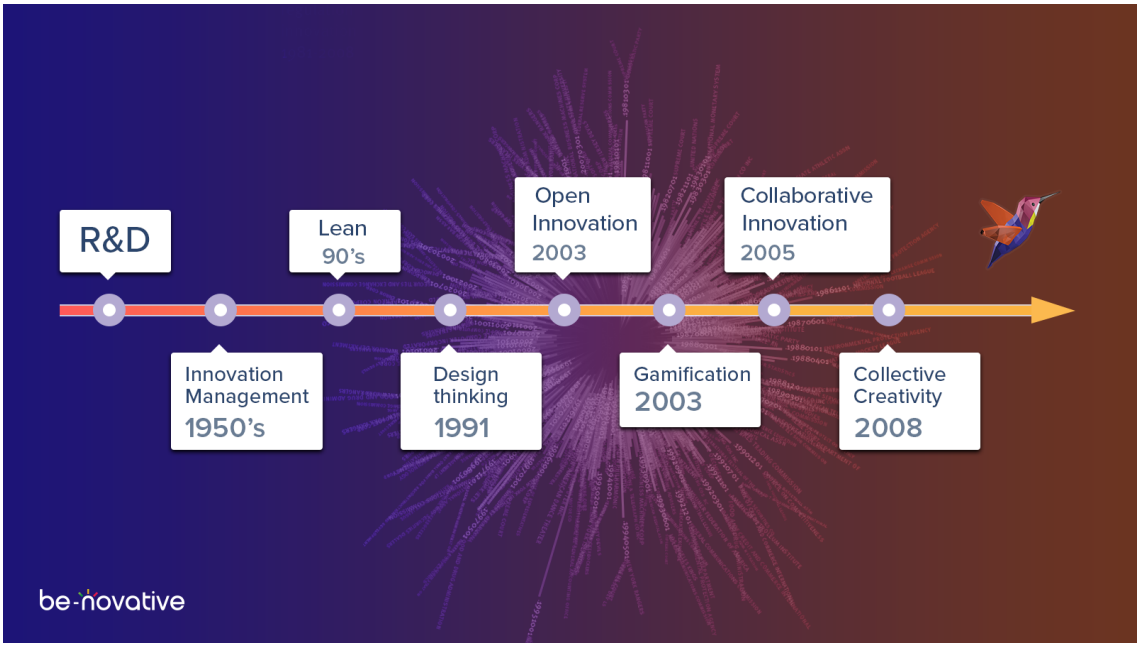
Questions will be tailor-made by InSPIRES, and Be-novative teams, based on the state-of-the-art research carried out in the project.

During the conference the proposed workshop session will present and discuss or reflect on the results in two phases:

- Facilitated Ideation/brainstorming of 1,5 hours as an on-site creative, interactive event for all the conference participant to take part through their mobiles in different innovation challenges supported by 2 Be-novative facilitators.
- Facilitated Workshop of 1,5 hours as a closing event for the top ideators to further elaborate on their ideas using Design Thinking methods. The workshop is organised and supported by 2 Be-novative facilitators. Optionally we let participants use Be-novative in their local communities/teams.


VAIO

ANNEX 4: BE-NOVATIVE PLATFORM FEATURES


R&D
Lean
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Open
Innovation
2003
Collaborative
Innovation
2005
Innovation
Management
1950's
Design
thinking
1991
Gamification
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Collective
Creativity
2008
be-novative


Be-novative is an Innovation SaaS
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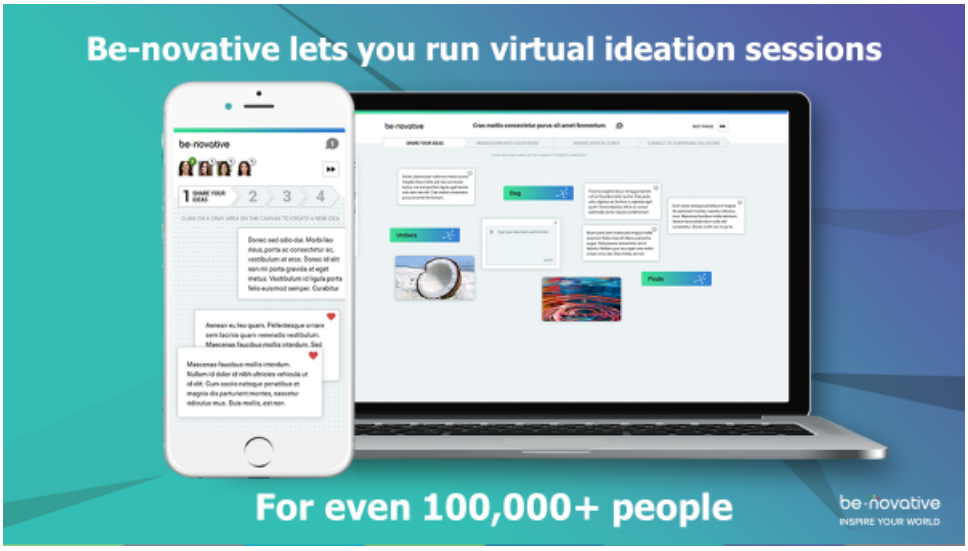
INSPIRE YOUR WORLD
BRAINSTORM
a collaborative engine to inspire breakthrough ideas


Be-novative lets you run virtual ideation sessions
be-novative
For even 100,000+ people
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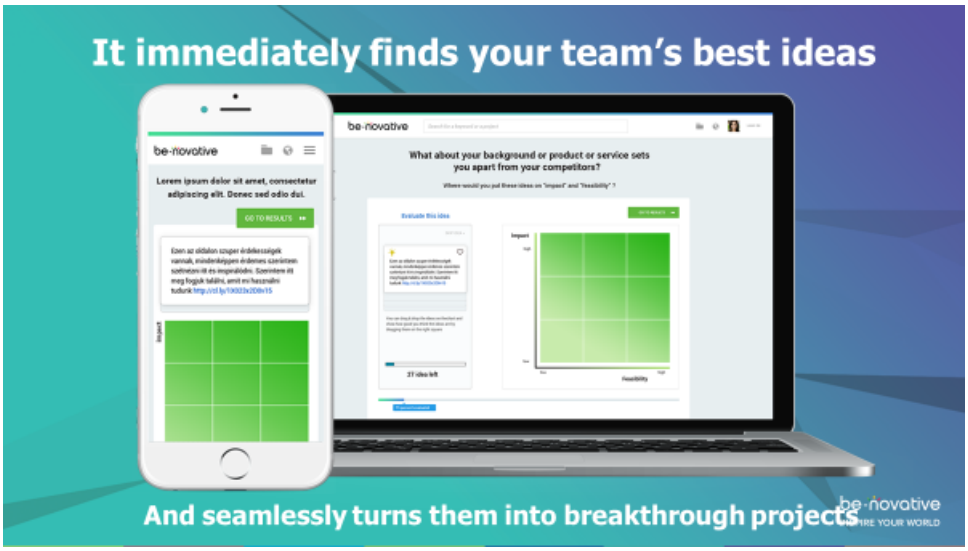
INSPIRE YOUR WORLD


It immediately finds your team's best ideas
be-novative
What about your background or product or service sets you apart from your competitors?
And seamlessly turns them into breakthrough projects
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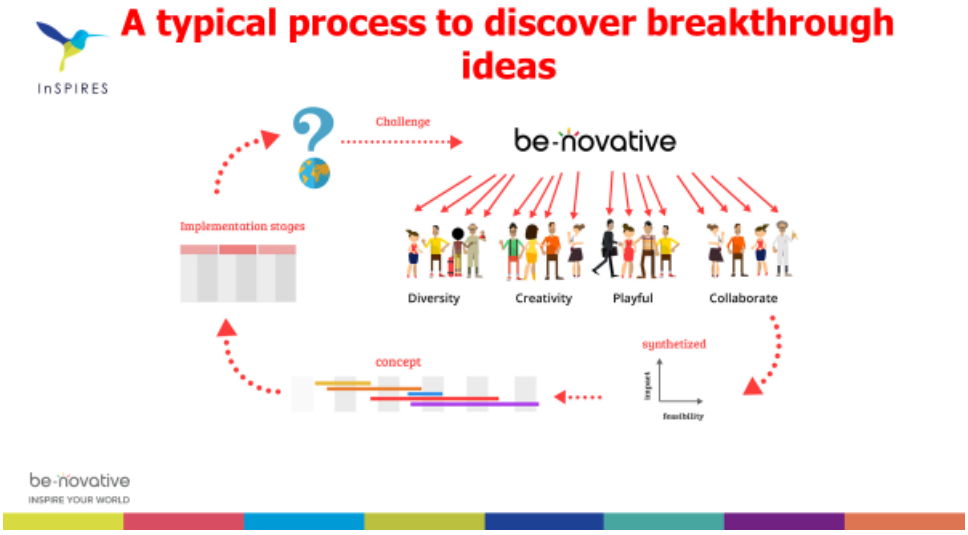

ANNEX 5: BE-NOVATIVE IDEATION – DETAILED RESULTS TABLE

Core values of the science shop DNA

In this challenge, we asked: What are the values of a Science Shop in the society?
The most highly valued results are listed here:

1	They ask us to reflect; then ---and this is the most important-- they ask us to act!	**9,67**
2	Science can tackle real, societal problems through science shop activities.	**9,45**
3	To give equal and free access to research, teach students about societal problems, and conduct responsible research.	**9,45**
4	transparency	**9,35**
5	-Co-creation of a Scientific project inspired by social needs and putting Scientific knowledge and skills for civil society service	**9,35**
6	To cut through politics, misunderstandings and ignorance while providing general knowledge and shared understandings which continuously evolve and change.	**9,17**
7	Empower society with knowledge and practical approach of Science	**9,05**
8	give voice to under-represented population/groups	**9,05**
9	Take time to reflect	**8,83**
10	Respond to civil society needs	**9**
11	to connect research to societal needs	**8,95**

12	co-creation	**8,95**
13	Science shops initiate co-learning processes between society and science.	**8,93**
14	Science Shops can give a chance to science to engage the marginalised groups of society.	**8,93**
15	bring together researchers and community	**8,92**
16	Science shops can solve real-life problems by co-learning and co-creation - and throughout the process, they raise awareness and engage people from the wider public.	**8,67**
17	WIN for students: practical working experience, first professional network, societally relevant research	**8,82**
18	citizen science	**8,79**
19	ref: Meaningful learning: the student can add value to somebody. The learning and meaningful project is rewarding.	**8,58**
20	To equip higher education students with participation and RRI skills	**8,71**
21	Science Shops make bridges between science and society.	**8,67**
22	Science meaning hope of change	**8,61**
23	Some may say to provide ”facts” or ”Best Practices”; however, often our scientific understanding changes over time so too do the ”facts” and ”best practices” (e.g. lead in paint & plumbing).	**8,57**
24	Making science and research more meaningful to people.	**8,5**
25	Opportunities for meaningful learning in higher education	**8,45**
26	create new ideas	**8,22**
27	Making (academic) knowledge accessible, understandable and relevant for society.	**8,42**
28	equity	**8,33**
29	the will to change things	**8,33**
30	Democratisation of Science	**8,33**
31	What if Science Shop is a playground/test field for the new kind of working environment, for example, Sociocracy 3.0 https://sociocracy30.org/ or http://www.reinventingorganizations.com/	**8,33**
32	They are humble.	**8,33**
33	Let student experience what / how they can contribute to the world.	**8,23**
34	It remembers that knowledge resides in all of us (My friend dixit)	**7,8**
35	Creating the sense of collective responsibility	**8,2**
36	dream, meditate, be honest	**8**

37	caring for the marginalised	**8,2**
38	Science Shops can help scientists understanding (please!!!) what people really need from them.	**8,2**
39	convergence of interests and agendas toward a shared public and social goal	**7,85**
40	Recognize other knowledge	**7,79**
41	The customer can be a mentor/teacher to the student. It provides an opportunity to cycle the knowledge.	**7,75**
42	trust	**7,69**
43	Science Shops give a chance to involve various actors and co-create something new	**7,87**
44	respect and protect nature	**7,79**
45	Bringing Science and Society together, work together, share ideas and build useful and relevant knowledge together. This all to address our most challenging societal problems.	**7,79**
46	public and common need	**7,69**
47	be at the service of the society	**7,69**
48	Democratize science	**7,38**
49	Science adapted to the context	**7,5**
50	change the research paradigm	**7,47**
51	Build ecologic and connected households accessible to low-income families	**7,47**
52	prepare/educate our next generation to live respectfully, with the scientist mindset (ask yourself questions, critically analyses the information you receive...)	**7,4**
53	respect	**7,02**
54	cooperation	**7,02**
55	Social transformation	**7,01**
56	Creating social impact	**6,98**
57	one small drop of water can, over time, if constantly, dig a hole into a stone	**6,97**
58	social transformation toward more equitable and sustainable societies	**7,01**
59	power relation equalized	**6,97**
60	make the change possible	**6,67**
61	Global perspective	**6,67**
62	Inspire new ideas	**6,61**
63	community engagement	**6,57**

Summary:

22 ideators

65 ideas

Ideators from 10 country

17 ideas liked

65 days

Community engagement best practices

In this innovation challenge, we asked: What are the most inspiring examples you know of community engagement?

1	A project about clinical trials that indeed involve the community and the patients	**9,52**
2	The City is for All - Budapest	**9,17**
3	One of the participatory action research projects of the School of Public Life: nine people living in housing poverty explore the history of the Hungarian housing movements with two social scientists.	**9,07**
4	Irish constitutional assembly 2016: 99 citizens debated over months Irish's abortion laws & recommended removing a constitutional prohibition on abortion which led to a referendum where it was removed	**9,05**
5	Barrier map- any barriers identified in the city in collaboration with citizens, a next step is to remove them from the city	**8,95**
6	find a common language in which all the participants will understand	**8,89**
7	Citizen science	**8,83**
8	Cafe Scientifique	**8,81**
9	Ottawa Eco-Talent Network is working with CFICE to develop some data standards & open data to share community engagement opportunities at 6+ post-secondary institutions in our region. (oetn.ca)	**8,76**
10	Citizens Conventions/panels in science and technology run by the Danish Technology Board, e.g. on the human	**8,68**

GA 741677

	genome, have been important in evaluating ethical implications of new tech and getting policy recs	
11	recombine available engagement tools for better participation	**8,68**
12	Clinical trials were done with the engagement of the community against infectious disease (leishmaniasis) that mostly exist in low or middle-income countries.	**8,68**
13	Community-based brokers for community engagement	**8,57**
14	...especially the information smaller community organisations want to know such as length of engagement? Costs, if any? Will the student(s) have faculty supervision? Do we need to provide a desk/space	**8,52**
15	Death Cafes	**8,45**
16	The projects of the Eutropian team. It is a research, policy and advocacy organisation helping civic involvement in urban transformation processes.	**8,4**
17	Art as a way to communicate and engage with the community: http://www.tantenetty.nl/site/	**8,4**
18	find opinion leaders	**8,33**
19	engage the community by asking them	**8,15**
20	Science Espresso - easy intro to new topics	**8,05**
21	Projects engaging students with small organisations, e.g. for developing a communication strategy	**8**
22	Voluntary project-participatory projects of students with older adults that live in care homes - joint workshops, picnics, poetry reading	**8**
23	Living Independently in a Community - a Participatory Action initiative- mentioned in the LK8 plenary	**8**
24	Alzheimer Cafes - http://www.alzheimercafe.co.uk	**8**
25	Here is one of the issues we find with Community-Campus Engagement (CCE) here in Canada. Small community groups who could potentially benefit the MOST from research often have little to no capacity.	**7,85**
26	Students working with prisoners-joint reading books - strengthening their social competences and supporting their self-confidence	**7,79**
27	Connecting Communities(C2) programme - start with the question 'what's it like to live around here?'	**7,78**
28	Institutional-based brokers for Community Engagement	**7,78**
29	URBAN space planning workshops for kindergarten children	**7,69**
30	bring all the stakeholders together and to action	**7,66**

31	A solution we are piloting is using open data & data standards to take public info about institutional research & engagement opportunities outside of institutional walls/websites/pdfs...	**7,55**
32	strengthen the biodiversity together with tenants of social housing	**7,17**
33	Hackathons ---sometimes	**7,33**
34	provide safe spaces for experimentation, exchange, everyday learning of science and society	**7,33**
35	Future changemakers marathon for students- sharing their ideas	**7,17**
36	change your perspective	**7,14**
37	In Canada, there is a large national research project on community engagement from a "Community First" perspective... rather than institutionally-led https://carleton.ca/communityfirst/about/	**7,14**
38	Communication with high	**6,67**
39	projects that lead to change in long terms	**6,62**
40	Urban Agriculture - Developing Innovation. Pooling this knowledge with citizens, making technologies and production facilities more accessible and bringing new ideas to urban food production.	**6,34**

Summary:

11 ideators
40 ideas
Ideators from 8 country
3ideas liked
65 days

Expectations from a Science shop

Finally, we asked which structures, processes and relationships support the dream. Alternatively, and more directly, what do you expect from a Science shop?

	What do you expect from a science shop?	
1	To make science available to the public	**10**
2	Objective and professional guidance on what the research question might be for the problems we as a community might experience	**9,36**
3	cultivate varied participatory engagement methodologies	**9,07**

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4	Anchors societal problems in courses and research in the university	**8,89**
5	detect general societal needs and challenges from marginalised communities (whose point is usually left out)	**8,81**
6	provide safe spaces for experimentation, exchange, common learning of science and society	**8,67**
7	critical thinking and open discussion	**8,67**
8	help communities to reach mutually determined goals and processes with scientists	**8,57**
9	making socio-techniques of engagement more accessible	**8,57**
10	being fresh and tasty - being fancy for students :)	**8,45**
11	mediate the interactions of research and science and civic groups	**8,28**
12	university and non-university-based science shops could build on each other's work: one provides public engagement processes and new societal needs, while the other provides students projects for that	**8,28**
13	to make the scientific process more responsible	**8,25**
14	A group of people with vast knowledge about where to get help with a research problem	**8,05**
15	social responsibility - focus on topics that are socially sensitive, helps the marginalised, and create a better world	**8,02**
16	To make knowledge readily accessible to everyone	**8,01**
17	To respond to the needs of society	**7,95**
18	To actively search/reach for the needs of society	**7,92**
19	Live for learning, i.e. to develop a desire for continuous learning	**7,91**
20	It creates learning communities during its operation.	**7,9**
21	Idealistic and engaged researchers that only wants the best for society	**7,78**
22	A reservoir of past research of relevance for civil society	**7,78**
23	to promote participatory governance	**7,78**
24	to change people minds about science	**7,78**
25	During the science shop project, the members of the emerging learning community learn how to listen to each other.	**7,7**
26	Researchers learn how to conduct research that makes sense to the public.	**7,61**
27	To mediate between Students, University and Society	**7,56**
28	searching for new, revolutionary approaches which challenge the actual structures of science and knowledge production	**7,55**

29	We want Science Shops to generate change (My friends dixit)	**7,4**
30	To stay open for all different kind of societal questions.	**7,34**
31	to make a real change	**7,11**
32	to make the scientific process more democratic	**7,11**
33	to make the public more interested in science	**6,95**
34	to contribute to science education	**6,67**

Summary:

9 ideators
34 ideas

Ideators from 7 countries
1 idea liked
65 days

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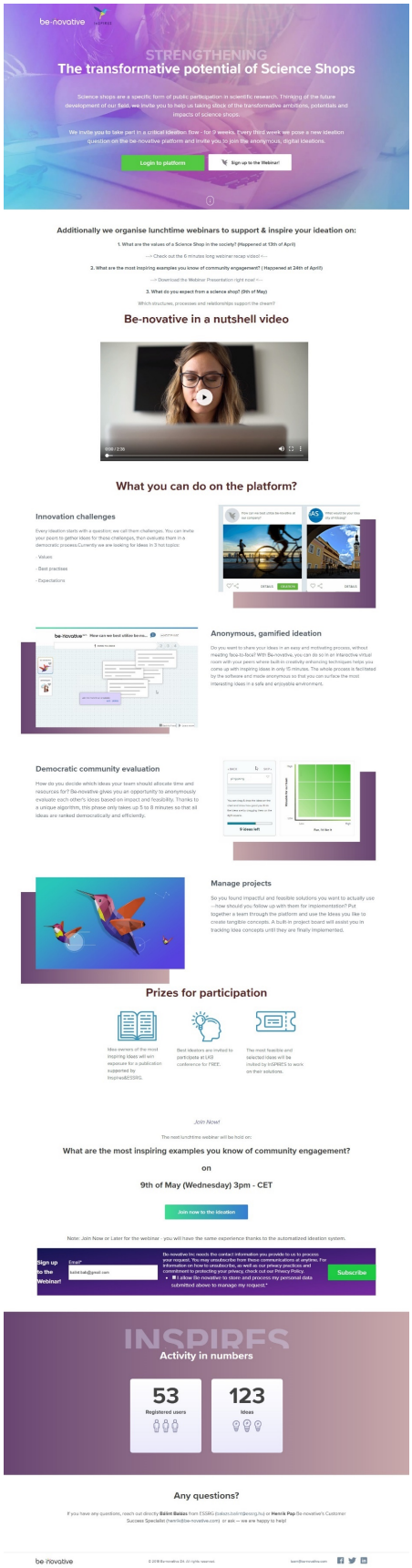
be-novative
STRENGTHENING
The transformative potential of Science Shops
Login to platform
Sign up to the Webinar!
Additionally we organise lunchtime webinars to support & inspire your ideation on:
1. What are the values of a Science Shop in the society? (Happened at 13th of April)
2. What are the most inspiring examples you know of community engagement? (Happened at 24th of April)
3. What do you expect from a science shop? (9th of May)
Be-novative in a nutshell video
What you can do on the platform?
Innovation challenges
Anonymous, gamified ideation
Democratic community evaluation
Manage projects
Prizes for participation
Join Now!
What are the most inspiring examples you know of community engagement?
on
9th of May (Wednesday) 3pm - CET
Join now to the ideation
Sign up to the Webinar!
Subscribe
INSPIRES
Activity in numbers
53
Registered users
123
Ideas
Any questions?
be-novative

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ANNEX 6: LIVING KNOWLEDGE NETWORK: OBJECTIVES, PURPOSES, MEMBERSHIP

Living Knowledge

Preamble

"Living Knowledge" is the network of (persons or organisations involved in) Science Shops and similar organisations active in public engagement and involvement of Civil Society Organisations (CSOs) in Research & Innovation (R&I), and those who support those activities. A 'Science Shop' is an entity that provides independent, participatory research support in response to concerns expressed by civil society. The use of the term 'science' here is in its broadest sense, incorporating social and human sciences, as well as natural, physical, engineering and technical sciences. The Living Knowledge Network - with its persons or organisations involved - pursues the idea of public engagement with, and participation in, all levels of the research and innovation process: participation of citizens and/or CSOs in generating research ideas, questions, and agendas; participation in monitoring, steering, advising on or performing research; in data collection, data analysis or scenario development; and the co-creation of knowledge with the aim of contributing to social change. Living Knowledge promotes open dialogue and debate between science and civil society:

- It provides scientific knowledge for citizens in an open, action-oriented and participatory way
- It brings civil society issues and interests to the scientific discussion
- It promotes the co-creation of knowledge among Civil Society Organisations and researchers

Its objectives are

- to promote the open debate of significant societal challenges and knowledge exchange between civil society and research
- to promote public understanding of science and technology and, likewise, promote the understanding of the public by those in research and innovation
- to facilitate co-operation among Science Shops, universities, community-based research organisations and related institutions in Europe and worldwide, and civil society and its organisations
- to promote co-operation between experts and to strengthen existing expertise and interest in developing participatory research activities
- to promote responsible research and innovation among researchers and in institutions of higher education and research
- to be the European contact for institutions and organisations that wish to act in the field of Public Engagement in Research, notably by setting up international projects.

Within this framework, Living Knowledge has the following aims:

- to promote ideas, innovations, resources and methods to serve the collective aims of both Living Knowledge itself and its members
- to collect, evaluate and disseminate relevant information, both within and outside Living Knowledge

Living Knowledge – Basic Conception

 to propose, organise and support seminars, conferences, courses and international participatory projects

 to promote Civil Society's co-operation with universities and research institutes and organisations to support the aims of Living Knowledge

 to promote collaboration with any organisation wishing to support the objectives of Living Knowledge

 to build up a bank of experts from among its members,

 to encourage and facilitate staff exchanges between member institutions and organisations in the form of training periods and study leaves for professionals, researchers and students, or through Summer Schools and similar,

 To have a strategic impact on research and innovation policies, especially on the international level.

Purpose of the Living Knowledge Network

The purpose of the Living Knowledge Network - with its persons or organisations involved - is to promote the community-oriented cooperation between civil society and those involved in learning and teaching, research and innovation in fostering social and technological development that incorporates views, wishes, demands and knowledge of civil society and its organisations in the research and innovation process and/or curricula. The Living Knowledge Network is dedicated to particular tasks,

 To help individuals and civil society organizations that need research support to pursue their non-profit interests;

 To enable citizens to articulate and represent their interests and needs and making research findings accessible to the public through information and education. To support its members by facilitating the exchange of information and providing mentoring, mediation and coaching;

 To support institutions in the inclusion of civil society-oriented projects and information activities that are consistent with the objectives set out in the preamble.

The purpose of the Living Knowledge Network is to be realised by:

a) Research

- Developing, implementing and communicating research and other scholarship, addressing current and emerging social problems and issues,

- Facilitating joint research or study projects by its members and/or other appropriate entities and engaging in such projects.

- Developing and promoting research approaches and methods that enable full participation and aim at societal and community empowerment.

Living Knowledge – Basic Conception

b) Education

- Acquiring, archiving, processing and communication of scientific information in understandable and accessible formats

- Disseminating results of work produced by Living Knowledge through public events and open-access publications,

- Working with young people and multipliers for a holistic educational formation, political emancipation, community empowerment and civil society engagement.

- Facilitating the inclusion of civil society’s views, wishes, requests, and knowledge into the curricula at all levels of education.

- Supporting members by offering advice, mentoring and training.

c) Collaboration, Participation and Networking

- Collaboration with scientists, students and staff of universities and other academic or research institutions and organisations,
- Collaboration with Civil Society Organisations
- Collaboration with local, national and international organisations that have similar goals,
- Moderation of processes to support the social commitment and the cooperation of various groups of actors in the sense of the Living Knowledge Network's purpose.
- Representing the network in appropriate advisory bodies, seminars, and other events.

The Living Knowledge Network is politically and ideologically independent. The Living Knowledge Network acts in an altruistic manner (free from selfish motives) and does not pursue its economic purposes. Funds may only be used for statutory purposes. The persons or organisations involved may not receive any share of any profits in their capacity as members or any other payments from the funds of the Living Knowledge Network.

Membership

The Living Knowledge Network has no formal membership. The Living Knowledge Network can be joined by subscribing to the Living Knowledge News and Discussion Group. Subscribers will be kept informed about developments related to “Building partnerships for public access to research” and the international network of Science Shops. Any person or organisation that joined the Living Knowledge Network has no claim on the Living Knowledge Network's assets upon leaving the network.