SciShops

ENHANCING THE RESPONSIBLE AND SUSTAINABLE EXPANSION OF THE SCIENCE SHOPS ECOSYSTEM IN EUROPE

D6.5

Knowledge transfer assessment 2

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Executive summary

The SciShops project aims to contribute to the establishment of productive, mutually beneficial research collaborations between the community and researchers. In this connection, ten new university- and non-university-based Science Shops have been established in Europe, conducting or facilitating community based participatory research (CBPR) via transfer knowledge among Science Shops, and most importantly from Science Shops to society, for the benefit of the community.

This report is the second part of the description of knowledge transfer from the new Science Shops to the community and summarizes different strategies and initiatives. Running CBPR initiatives, knowledge transfer actions carried out by the new Science Shops and feedback received since Deliverable 6.3 [1], are included. The report includes all the Science Shops knowledge transfer activities to the community since March 2019, the feedback received by the community and stakeholders and the lessons learned, the training of the Science Shops during the whole project and indicates changes that could be taken in each Science Shop in order to contribute more effectively to CBPR in the future.

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1. Introduction

SciShops has developed new methodologies and knowledge transfer routes among Science Shops and from Science Shops to communities. Several activities have been organised since the first knowledge transfer round [1]. Webinars, visits to other Science Shops and collaborative activities between partners, as well as co-creation events and the second Summer School, have been already extensively described in previous deliverables (see [2,3]). Here we include updates on knowledge transfer activities of the 10 new Science Shops since March 2019. We also describe in detail the SciShops Pitch Challenge, a newly-established competition by SciShops. This challenge, which is currently open, gives the opportunity to any Science Shop (external and not part of the SciShops consortium) or community research initiative to increase their impact by "pitching" their work with a short YouTube video, transfer knowledge to the communities worldwide and create new collaborations. In the future all knowledge transfer activities will be reported in the SciShops platform www.scishops.eu, building an online platform with good practices for CBPR activities, and promoting collaboration and further training between Science Shops around the world.

2. SciShops Pitch Challenge

2.1. Objectives and aims of the SciShops Pitch Challenge

After a successful Summer School in Cyprus in July 2019, where new and well-established Science Shops developed new skills in communicating, disseminating and starting exploiting their research projects, the SciShops consortium decided to offer the opportunity to more Science Shops and CBPR initiatives to "pitch" their projects to a broader audience - this is how the idea of a SciShops Pitch Challenge was developed. During the Summer School the participants were trained on how to effectively pitch their Science Shop/CPBR initiative/research project in a quick yet interesting way that can keep an audience engaged for a few minutes. Taking this idea further, the SciShops consortium launched this competition where, through a YouTube video, Science Shops around the world can present their work. The vision is that the videos from this challenge will be stored in a media database on the SciShops website.

The SciShops Pitch Challenge is open to all new or well-established Science Shops and CBPR initiatives. Note that the Science Shops of the SciShops project are not eligible to participate in the Pitch Challenge – however they are also currently working on creating their own video pitches [4]. The main idea of the challenge is **to make the world aware of the benefits of CBPR**, to **promote collaborations**, to **inspire new Science Shops/ CBPR initiatives** and to **increase the impact of the existing ones**. The Pitch Challenge constitutes a creative platform for CBPR researchers and Science Shops to promote their work, and allows the consortium network to identify more collaborators and stakeholders. Moreover, it is an ongoing, effective dissemination of the SciShops project until the SciShops symposium (Brescia, January 30-31, 2020).

2.2. Organisation of the SciShops Pitch Challenge

The application and the details of the SchiShops Pitch Challenge were developed by SciCo Cyprus (Vasiliki Bitsouni and Katerina Kaouri), in collaboration with Helen Garrison (Vetenskap & Allmänhet), Carmen Munteanu (SYNYO) and Carlos Perez Garcia (ESU), and were uploaded on the SciShops Pitch Challenge webpage by SYNYO. Angel Priegue and Alberto Tena (CIMNE) provided an online submission that makes the process more automatic. Dissemination materials, such as a flyer, poster, banners and social media "share" pictures were also created (see Fig. 1). A promotion campaign has been coordinated by SciCo Cyprus with help from the other partners. The challenge is being communicated through social media channels (Facebook and Twitter) with the hashtag #SciShopsPitCHallenge (see Appendix), mass and personal emails and mouth-to-mouth dissemination, using the motto "*Pitch your community research to the world*". Furthermore, a poster and flyer were prepared and shared with all partners and other key stakeholders that could help the promotion. The poster was printed by each partner and placed on their announcement board and the flyer is to be shared at events the partners organize or participate.

2.3. Details of the challenge

The applicants can participate in the Pitch Challenge by uploading a new or existing video of their Science Shop/CBPR initiative on YouTube of up to three minutes of duration. They then apply using the online form, mentioning their YouTube video link. The process is simple and the applicant(s) can be any new or well-established Science Shop or other community-based participatory research initiative (organisations or teams of people) around the world that want to present one or more projects.

2.4. Assessment criteria and prize

The Pitch Challenge selection committee are SciShops partners and members of the Expert and Advisory Board, who are experts in public engagement and media. The assessment criteria will be the **ability of the applicant to present their project in a clear and creative manner**, the **innovativeness of the project** and its **impact to society** and **the number of the social media engagements**. The winning team of the challenge will have the chance to participate in the SciShops Symposium in Brescia, Italy (January 30-31, 2020) with all costs covered for 2 members of the winning team. The SciShops Symposium will welcome eminent researchers working with civil society across Europe and world-wide, businesses and civil society representatives. The winner(s) of the Pitch Challenge will have the chance to pitch their initiative to this diverse audience and to meet potential partners or mentors through networking sessions. Furthermore, training workshops will be offered to the Symposium attendees.

2.5. Benefits of the SciShops Pitch Challenge

The SciShops Pitch Challenge is beneficial to the project, the participants and the society. For the project this competition will work as an effective dissemination of the project, promoting the general scope of SciShops and contributing to some of the project's objectives:

- Identifying and engaging relevant community-based research and knowledge transfer from Science Shops to society for the benefit of the community.
- Sharing good practices in community-based research and knowledge transfer from Science Shops to the society by creating a **video database**.
- Launching new collaborations between Science Shops and CBPR-initiatives locally or internationally, on various topics.

The participants will also disseminate their projects and get to know more about other CBPR projects. Also, they will have the chance to take part in the SciShops Symposium, which will be very beneficial for further networking and training.

As for the community and stakeholders, they will benefit from having access to a CBPR platform with best possible practices in the field, guidelines and recommendations for Science Shops establishment and networking activities by one click, getting to know more about these by a very creative and interesting way [5].

Figure 1 Social media "share" picture used to promote the SciShops Pitch Challenge

3. Knowledge Transfer from the new Science Shops to the Community

3.1. ScienceShop.at (SYNYO Science Shop)

Since its establishment, ScienceShop.at (the Science Shop established by SYNYO in Austria) has been working closely together with the national AAL (Ambient Assisted Living), IoT (Internet of Things) and Open Knowledge community with the aim of developing collaborations with stakeholders in the field of emerging technologies. The Science Shop has established synergies with a number of existing networks and initiatives, including the Citizen Science Network Austria, the Citizen Science platform SPOTTERON as well as the Open Knowledge Maps foundation.

The Science Shop has continued ongoing activities in course of **SMARAGD**, a Science Shop project which has been established as a result of the "Idea Lab Mauerbach", a co-creation event held in autumn 2018. The project aims at developing an example of a system for the intelligent aggregation and visualisation of patient data in line with the needs of occupational therapists and physiotherapists, meeting legal and factual requirements to provide a technical proof of concept.

Multiple meetings have been held with stakeholders in the fields of IoT, AAL and most recently migration, to explore further opportunities for community engagement as well as to facilitate new research activities with benefit for the community. Activities in course of the project "**IoThink**" will focus on the engagement of children in order to create awareness for potential threats and opportunities in the Internet of Things.

The SciShops summer school in Cyprus as well as the webinars held in the project enhanced the expertise on using effective tools and strategies for effective community-outreach. This knowledge will be used for further outreach activities as well as to give visibility to the Science Shop and different activities held. Also, further funding opportunities will be sought to take care of specific research requests dealing with challenges in context of emerging technologies.

3.2. Bay Zoltán Science Shop (BZN)

"Open Innovation World Café - Climate Innovation and Bioeconomy"

This event was held on April 12, 2019, in Budapest. The aim of the event was to discuss the links between bioeconomy and climate innovation.

According to the world café format, different questions were discussed during moderated discussions. Target groups of the event were civil society and citizens. As the event focused on the problems of inner Budapest, local citizens were targeted. During the vivid discussion it was agreed that the biggest problems of Budapest are the waste management, traffic and air quality. Bioeconomy has strong potential answering for these challenges. Civil society needs to be enhanced and the cooperation of the different actors has to be strengthened. There are excellent local level innovations whose impact should be measured. If they prove to be successful, they could be promoted. Bio-based materials are not known enough and the industry does not have the intention to transform from oil-based techniques to the bio-based ones. Different incentives could support this transformation.

Lessons learnt:

- Social media is a very useful tool for reaching the target audience. Running a Facebook campaign (even a low budget one) can significantly increase the visibility of the event. However, organisers should keep in mind that marking an event as "Interested" does not mean that people would actually show up.
- According to the feedback forms, organising a world café event during the working hours was not appreciated by the target audience. Interested locals are not always able to participate during working hours. A late afternoon event would have been more appreciated.
- Inviting good moderators and applying good moderation techniques is a must for this kind of event.

Bay Zoltán Science Shop at the Researchers'' Night

This year's European Researchers' Night took place on September 26, 2019. Bay Zoltán Science Shop hosted several activities, such as teaching local pupils how to avoid wasting food. 75 students participated in the lessons. In another place, kids were invited to play a game in order to learn about the proper storage of food. A question box was also set up in which members of the public could submit research questions that they would like to be addressed.

Lessons learnt:

- When working with kids, it is important to let them actively work. Interactive games, tasks to do, time to share their thoughts are essential for keeping their attention. The length of the session cannot be too long.

3.3. CPR-IJS Science Shop

Since March 2019, the JSI (CPR-IJS) Science Shop continued ongoing and facilitated new research activities for the benefit of the community. With regard to involvement of interested parties in the process of developing decision analysis model of the corridor for transmission line from Beričevo to Divača, two knowledge transfer events have been performed. In the first one a concept of the decision analysis model has been discussed among planners of the transmission line, while in the second one this has been done with representatives of the spatial planning authority. In the next phase, a round of at least three workshops are to be performed where elicitation of different parties' values to be considered in the decision analysis model will be discussed. Since some of the parties involved in this participatory research have limited time resources for their engagement (especially groups of interested individuals and NGOs), and since the research and related decision is about a demanding and complex issue, it is expected that the project will last longer than expected – at least still the whole next year.

Additionally, after establishing a partnership with the NGO “Društvo Prihodnost” (transl. Society of Future associated with Greenpeace Slovenia) on the research related to the carbon footprint of the one-time use of packaging containers/materials (PET bottles, PE shopping bags) and its inappropriateness, several campaigns of raising awareness of the issue were performed by the NGO "Društvo Prihodnost". The key messages in these campaigns have been developed commonly among CPR-IJS and the NGO's staff.

Based on this successful participatory research the partnership with the NGO “Društvo Prihodnost” continued on another research project related to massive use of candles during the All Saints' Day. The research focused on both peak material (particularly plastics) consumption, and waste production/management with the attempt to raise awareness of the general population for reducing the both. This project was also successful so the partnership with the NGO “Društvo Prihodnost” has been further strengthen and is expected to continue within future projects.

3.4. KPMG Science Shop

Collaboration with CIM

Within the framework of their strategic partnership, KPMG in Cyprus and the Cyprus Institute of Marketing (CIM) organised two-day entrepreneurship workshops under the auspices of the Nicosia Municipality in June 18-19, 2019, and under the auspices of the Limassol Municipality in September 17-18, 2019. The workshops were run in the context of the KPMG Science Shop as a means of engaging with the society. The workshop focused on the tools and skills that founders of new companies should implement in order to face the challenges in a rapidly changing environment. KPMG in Cyprus was represented by Mr Pangratios Vanezis, Mr Konstantinos Botsaris, Mr Petros Sorokkos and Ms Eva Sarpetsa, who elaborated on business models, funding and capital, as well as innovation. By the end of each two -day workshop, participants prepared a 10-minute pitch of their concept, and the winners of the pitch competition won cash prizes.

Moreover, KPMG Science Shop sponsored two scholarships for studies the Cyprus Institute of Marketing. The process led to a large number of applications. KPMG and CIM awarded the scholarships during a ceremony on the 20th of September as follows:

- 1 full scholarship (€ 7.700), for the postgraduate programme MBA Shipping.
- 1 partial scholarship worth € 6.500, for the undergraduate programme of the University of West London, BA (Hons) Accounting & Finance. The scholarship covers the first of the three years of the programme.

The scholarships form part of a series of actions implemented by the KPMG Science Shop.

Collaboration with CMMI

KPMG has joined forces with the Larnaca Municipality for the submission of H2020 TEAMING project Maritec-X. The project was successful in receiving 30 million euros of funding from the Cyprus Government and the EC (15 million) for the establishment of the Cyprus Marine and Maritime Institute, a Centre of Excellence and Research. The CMMI which is based in Larnaca is an independent, international, scientific and business Centre of Excellence for Marine and Maritime activities. It carries out research, technological development, and innovation activities (RTDI) to provide practical solutions to the challenges that the marine and maritime industry, and society, face or will face in the future. The kick-off took place in July 2019 in Larnaca. On the 10th of October 2019, the kick-off meeting took place, with KPMG a firm contributor of resources for the implementation of research projects related to the preparation of prototypes and proof of concepts in the topics of Marine and Maritime studies.

Collaboration with Cardiff University, UK

KPMG was a strategic partner in the 146th European Study Group with Industry/co-creation event with society. In this intensive 5-day workshop teams of researchers, companies and representatives of civil society worked together on three societal challenges (1. “Breaking barriers for women in science”; 2. “Improving filter performance”; 3. Reducing fuel use in tugboats). The workshop was co-organised by SciShops project, the EU Mathematics for Industry Network and Cardiff University and was hosted by the University of Cyprus from 3-7 December, 2018. (More details about this workshop were relayed in previous SciShops deliverables and in the SciShops newsletter.) After the workshop a follow-up meeting took place between the KPMG Science Shop and Cardiff researchers and a follow-up MSc

project was set up in collaboration with the Cypriot company Vasilikos Terminal Services Ltd, on methodologies for reducing fuel reduction in tugboats through data analytics and optimization. The student successfully completed her dissertation in September 2019, under the supervision of Prof. Owen Jones and Dr Katerina Kaouri (who is supporting the KPMG Science Shop through her affiliation to SciCo Cyprus).

Launch event for the KPMG Science Shop

On June 12th 2019, the KPMG Science Shop organised a press conference and event for stakeholders to announce its official launch. In the event, which attracted about 40 stakeholders (many of them journalists), three speakers relayed the vision and activities of the newly-established Science Shop: Mr Christos Vassiliou (KPMG Managing Director), Mr Antonis Bargilly (KPMG Partner), Dr Katerina Kaouri (SciCo Cyprus, NPO supporting the KPMG Science Shop). A lively question and answer session followed and then a networking session (with coffee and canapes), leading to new collaborations.

3.5. Leiden Science Shop

The Leiden Science Shop was created to bring together, serve and make knowledge transfer possible. Both to the stakeholders who are close to research through the Citizen Science Lab and the ones with no access to research, such as rural communities through the Open Science Hub. They manage to transfer knowledge in several EU countries by engaging local stakeholders like schools, NGOs and businesses, as well as local authorities who are financial supporting the initiatives.

Currently, various initiatives are taking place, mainly dealing with stakeholder engagement, research question mining and refinement and matching stakeholders with experts. The Leiden Citizen Science Lab aspires to be an incubator and hub to co-create successful and sustainable citizen science projects, to connect scientists and non-scientists and to address urgent scientific and societal issues. It supports with expertise and funding to first pilot/prototyping stage, with the goal to become a sustainable project delivering new scientific results. Finally, it brings people together from different backgrounds who are active in citizen science or a certain topic.

In 2018, the Citizen Science Lab organised three workshops which brought together stakeholders on specific themes, namely air pollution; archaeology; and languages and cultures. During four to five days various stakeholders, policymakers, governmental and societal organisations and researchers developed ideas for citizen science projects to answer important questions in their field. This resulted in new projects and the workshops also led to the formation of communities of practice.

In 2019 the Lab received funding from the university and the municipality of Leiden to support the pilot of a citizen science project. Therefore, they organized for the first time a call for questions and proposals in Leiden and The Hague. Any citizen or researcher from Leiden and The Hague could send their questions that they wanted answered in a citizen science project. As citizen science is not a well-known expression in the Netherlands, the Lab kept the call as broad as possible. Anyone could send any question that people would like to have answered. A lot of the questions the Lab received can either already be answered with existing knowledge, some are too difficult to answer, or not necessary to be answered with citizen science.

Doing a call for questions asked for a lot of expectation management, with the citizens but also other stakeholders like the municipality. Matching the questions with academics who could help answer them is a challenge. This was also confirmed by the coordinators of the Belfast Science Shop during a webinar with the consortium. You need to emphasize that there is not a guarantee that the question will be answered. These coordinators also acknowledge the difficulties when dealing with questions from individual citizens. They recommend to work only with community organisations as they have time to meet with the Science Shop, and the students and also supervise the students. Also, the questions are clearer and better represent societal relevance, than those of individuals.

In the end the call yielded ten good citizen science proposals, but most of them were initiated by academics, musea. Processing the questions into proposals for citizen science projects was challenging and needs more time and effort than was accounted for in this pilot project. If the Lab will organize a call in the future, they will adjust their approach. Starting with communicating about citizen science, choose a specific theme, connect with relevant community organizations, policymakers, academics and others and then receive proposals for projects.

Two projects were chosen by a jury representing the university and municipality: one focusing on plastic pollution in the regional water bodies, the other one on bringing psychology research to the public. The first one is more bottom-up, initiated by citizens and the other one more top-down,

initiated by researchers. For the first project they organized two co-creation events, one with the citizens, policymakers and other stakeholders. The other one with only employees of the municipality. During the sessions participants shared their ideas for related research questions, the method, target groups and ways to engage with them and share the results.

The Lab attended the Museum night Leiden and the Night of Discoveries where they explained what citizen science is and showcased several projects. These included the plastics and psychology one but also projects of partners like the Natural History Museum and the Faculty of Archaeology in which the public could participate. Almost no visitor was familiar with citizen science as a phrase, but they are familiar with typical citizen science projects as the national garden bird count.

The Lab experienced that it is difficult to involve academics in these co-creation and outreach events and also the project itself, especially when they did not initiate it. While they prefer to meet during working hours, for citizens these events need to be in the evening or weekend. Also, academics find it challenging to create time, to supervise students and to attend meetings, especially when the topic does not completely fit their research programme.

In October the Lab will organize the Climathon in the city of Leiden, a hackathon where teams of students, policymakers and other citizens work together solving local climate challenges. To define these challenges, they organized an initial stakeholder meeting with the local municipality, a construction company, a consultancy, a software company and societal organization. Winning solutions to tackle the challenges will be supported after the Climathon with the help of PLNT, a local center for innovation and entrepreneurship. After the Climathon they will also organize a follow-up with the stakeholders to evaluate and to check the status and plans for the solution development.

Future knowledge transfer events of the Citizen Science Lab include co-creation sessions about climate proof secondary schools. They organized a short session with the teachers to receive some first feedback about changes that could be done to the building and the school yard. A future session will be together with the pupils and afterwards brainstorming with various stakeholders and experts about these ideas. After changes to the school are done with the pupils. The Lab will remain involved in brainstorm events, matching experts and connecting the school with citizen science projects. Dissemination of the results will be done via a guide with recommendations for other secondary schools that want to become more climate proof.

The Leiden Science Shop is further developing its local community networks to keep supporting knowledge transfer and tackle local challenges that often are also globally relevant. The Citizen Science Lab organizes meet-ups about citizen science, invites researchers and organizations to visit their consultation hour, supports various citizen science projects, and is involved in local hackathons. And also, on a national and European level the Citizen Science Lab is involved in building a community network for citizen science.

The Open Science Hubs are now establishing a wider network, and with funding from H2020 will start in October 2019 to implement the same open science approach in 7 other countries around Europe, where community based participatory research approaches will be used through Open Schooling. Schools will work on local societal challenges together with the community outside the school.

3.6. WatShop - UNIBS Science Shop

On the 1st of June 2019 an event was co-organized with the partner Acque Bresciane, the manager of the integrated water service in the major part of the province of Brescia. The event was held in the movie theatre of the village of Tenzano (BS), and the students of the local intermediate secondary school and citizens were invited to participate in it. During the event the activities of both Acque Bresciane and Watshop were presented, together with a documentary exhibition on irrigation techniques in water scarcity conditions. At the end of the presentation the students were engaged in a guided visit of the exhibition.

WatShop coordination and implementation staff currently consists of 5 persons, 4 of whom participated in the summer school, which was held in July 2019 in Cyprus. It was a great opportunity to get more insights about the challenges and tricks of community-based participatory research, exchange best practices and plan future improvements of both research and management activities. Features of specific stories may not play the same role for WatShop, but in many cases they could be the drivers of future improvements. The main lesson learnt is that each step of the participatory research process is unique and needs to be dealt separately, even if it is needed to be tailored to the specific socio-cultural and economic context, as any step skipped can compromise the success of the entire process. Networking, twinning and partnerships can also give crucial support to the Science Shop activities, continuously providing terms of comparison and clues for future improvements.

During the 2nd SciShops Summer School the partner organization Ambiente Parco, a social enterprise managing a park and exhibition area in Brescia, was also represented, something that was very useful to strengthen and better focus the partnership which had already led to the submission of a couple of applications for projects funding. One of these two applications was approved and it is being funded by the Brescia Community Foundation. The project deals with educating high school students to debate and Watshop is involved in topics concerning water resources management. The second application is still under review, but it aims on raising citizens awareness on risks related to water (WatRisk).

Future activities will be mainly focused on the engagement of high school, undergraduate and graduate students in the Science Shop activities, and on the promotion of participatory research at several levels (university, municipality, water district, ...). Parallel activities will take care of further applications for funding for specific research projects dealing with water and climate.

3.7. Wuppertal Science Shop (WiLaWu)

As a pilot project under the framework of SciShops project, the Wuppertal Institute helped to organise the Climathon Wuppertal, a community-based participatory research event that took place on 26 October 2018. Climathon is a global movement dedicated to solving city climate challenges by bringing citizens together to develop solutions to local climate issues. Regular press releases and social media posts in front and during the Climathon Wuppertal 2018 supported the knowledge transfer of the event.

During the Climathon, seven teams spent 24 hours together developing solutions to local climate issues. One idea was a Heavy Rain Kit in response to massive damage caused by heavy rain in May 2018 in Wuppertal, when the roof of a university building collapsed and streets and basements were flooded.

To support the knowledge transfer, the Wuppertal Institute has organised three follow up events after the Climathon, moderated co-creation workshops and introduced scientific tools, such as the WI`s ecological rucksack calculator. The project team sought to create a positive learning experience and supporting knowledge transfer by connecting physically-perceived impressions with easily accessible information about heavy rain. Through this combined approach, the team wants to empower citizens to engage in climate adaption and prevention actions. The Heavy Rain Kit has since been submitted to the POWER Idea Contest for Sustainable Communities and was awarded 3rd place out of 140 ideas.

The Wuppertal Science Shop, known as WiLaWu, is now continuing to further develop its local community network to develop new projects and foster knowledge transfer based on community-based participatory research approach.

This year our Science Shop will organize a Climathon in Wupppertal with our local partners the Neue Effizienz and University of Wuppertal. It will take place on October 24-25, 2019. The challenges of this year are: I. “How can we promote climate-friendly travel to concerts for our guests?”; II. “How can we motivate Wuppertal’s citizens to avoid littering and actively help to keep the city clean?” and III. “How can we create climate-neutral production logistics between companies in an urban environment?”. On the 6th of October the detail planning of the event will start with a joint meeting of the coaches and the companies who pitched the challenges.

3.8. KU Leuven Science Shop

The KU Leuven pilot project in the framework of SciShops project investigates the role of teachers in creating a positive and inclusive school climate. The project's focus has emerged out of our discussions with school directors, teachers and Flemish educational officials. More specifically, this project looks at how teachers in Flanders deal with controversial topics and challenges related to religious and cultural diversity in the classroom (integration, racism, polarization, etc.). For example, teachers are expected to identify signs of extremism and radicalisation among students and are offered trainings to counter the 'us versus them' narratives in the classroom.[1] In addition, a hotline has been established for teachers to report worrisome cases to a network of deradicalization experts. Policies such as these have been criticized for potentially contributing to the stigmatization of particular groups and undermining the student-teacher relationship.[2]

As a first knowledge transfer activity, we engaged intensively with stakeholders (i.e. school directors, teachers & education policymakers) in the conceptualization phase of the project. In this phase, potential stakeholders were informed about the project goals and state of the art in academic research regarding the topics of the project. We actively exchanged ideas with stakeholders regarding the design of the survey instruments and the preparation of the pilot project. As part of these discussions, we have conducted and organized interviews and focus group discussions with policy makers, radicalization experts, school representatives, and representatives from VVSG and 'Bijzonder Comité voor Herinneringseducatie' (BCH) in the period September-December 2018. VVSG is a civil society organization representing local governments in Flanders. BCH is a committee that focuses on how teachers should deal with sensitive, controversial, and historical topics in the classroom. These FGDs were organised to collect inputs for the design of the survey instruments for teachers and students.

The exchange of ideas with relevant stakeholders led to the following research questions:

1) Attitudes
    a. What are the attitudes of **teachers** towards superdiversity in the classroom and how should schools address this challenge?
    b. What are the attitudes of **students** towards superdiversity in the classroom? Do these views correspond with the views of the teachers?
2) Experience with controversial topics in the classroom
    a. To what extent do **teachers** discuss controversial topics and societal challenges in the classroom? To what extent do they experience polarization when addressing these topics? Have they experienced ideological/religious conflicts in the classroom?
    b. To what extent are **students** informed about controversial topics through class discussions? How do they experience these discussions? Are they effective?
3) Training: To what extent are teachers aware of existing programmes that help teachers to stimulate social cohesion in the classroom? Do teachers see this as an important part of their job? Do teachers believe that they are sufficiently trained to handle polarized situations or ideological conflicts in the classroom?

After the conceptualization phase of the project, we invited a representative sample of secondary schools in Flanders to participate in the study. We drew a stratified random sample of sixty school from a compiled list of all secondary schools in Flanders. This stratified sample was based on the following

[1] http://www.flanderstoday.eu/education/new-programme-helps-teachers-address-religious-radicalisation
[2] https://www.bbc.com/news/education-40456794

criteria: province, school size, school network (public vs private), and school diversity. At this stage a second knowledge transfer took place. The sampled schools received a personalized letter and email informing them about the goals of the project and inviting them to participate in the study. In addition, all schools were repeatedly contacted by telephone in order to discuss the aim and scope of the project in detail. Data collection started in October 2018 and was finalised in January 2019. In total, 47 schools participated in the study. 2553 students and 850 teachers completed the survey.

A third knowledge transfer occurred with the dissemination of the results of the research project to the participating schools. We have created and disseminated customized reports for each of the 47 participating schools. These reports included detailed summaries of the school's results in comparison to the other schools in the sample. The report included the results of both the student survey and the teacher survey. The report covered the following topics: wellbeing of the students, students' opinions on the handling of controversial topics in the classroom, political and intergroup attitudes of students, wellbeing of teachers, student-teacher relations, teachers' views on the handling of controversial topics in the classroom, and political and social attitudes of teachers. These reports provided every school with a comprehensive summary of the findings of the study. The reports were disseminated in June 2019. Schools were invited to contact us for further details and discussion.

As a final knowledge transfer activity, we plan to host a dissemination event where we will discuss the findings and policy recommendations with school representatives, experts, and policy makers.

3.9. INAECU-UC3M Scicence Shop

Since March, there has been the following events:

- Co Creation Event 1 – Co-design and solution of problems regarding the reuse of lots for social use in Madrid (Madrid, 20/05/2019)

- Focus group “Mobility, pollution and sustainability issues” (Getafe, 22/05/2019)

- Creation of an Iberic Science Shop network (Getafe, 06/05/2019).

- Knowledge Café about pollution and mobility (Getafe, 18/09/2019)

Moreover, some dissemination events have been conducted, as listed below:

- Social impact of research: How does science reach the citizen? (22/02/2019)

- Participation in the Youth Speak Forum 2019 (05/04/2019).

- The challenge of water: Citizen science for a sustainable world (24/04/2019)

- XIII Solidarity Week at UC3M ‘The challenge of sustainability at Universities’ (12/02/2019).

- European Researchers’ Night 2019 (Madrid, 27/09/2019).

During these months, a significant number of meetings have been held with different stakeholders, in order to establish the topics of greatest interest to the community and to work together. Moreover, the summer school and the webinars held in the project, contributed significantly to the better organisation of events, suggesting more participative tools (e.g. Mentimeter) and leading to more efficient dissemination of the events by using social networks and other channels such as leaflets.

The lessons learned since then has been the following:

- Working in a closer environment helps to identify problems and stakeholders. At the very beginning, all-region of Madrid was considered, but eventually we realized that it is easier to start with a closer region.
- Engaging is crucial during the whole process: maintaining relationships helps and encourages the co-work. In this sense, we have different and regular meetings with various stakeholders and we are going to various events (non-academic) to increase the number of involved stakeholders.
- Support of the University and, especially, the Scientific Information Unit. This fact helps to give visibility to the Science Shop and the different activities held.

3.10. Oxford University Science Shop

The Oxford University Science Shop has been actively pursuing a number of options for developing Science Shop activities around Artificial Intelligence (AI). Engagement with researchers in Ethics and AI and upcoming events like the AI@Oxford conference in September and IF Oxford, the large annual science festival in October lead to the plan to establish a Pop-up Science Shop in AI as a 6-month pilot. In mid-July 2019 a coordinator started setting up the Pop-up Science Shop. The ideas and possibilities of twinning within the SciShops project made us decide on recruiting a coordinator from a well-established Science Shop in Groningen, The Netherlands.

The Pop-up Science Shop in Artificial Intelligence will be reaching out to non-profit local organisations and community groups, since especially an institutional function for community relationships is missing in the university beyond capital planning purposes. In the pilot we will build a case to show researchers, the university and funders how a Science Shop can fulfil a role in connecting the local community to the university's expertise. The Science Shop will identify areas of interests in the community and within the university, support or organise meaningful exchanges around these shared areas of interests, set up and evaluate small research projects in various forms to find out what works in the Oxford setting. The community-led collaborative approach ensures responsible research and innovation that is relevant to societal needs and concerns. Knowledge transfer from researchers to the local public in Oxford is taking place very frequently in various forms. The challenge lies in transferring local knowledge and issues to researchers to influence the research agenda and making the whole process more collaborative and interactive.

4. Conclusions

Within the SciShops project the staff from the different Science Shops have organised or participated in a wide range of knowledge transfer events, divided in two rounds. The new Science Shops received, formulated and tackled diverse societal research questions. (These questions are or will be made available on the SciShops platform. After the first round of knowledge transfer events, the Science Shops gathered the feedback from all stakeholder groups and evaluated the lessons learned in order to move forward with more effective and useful knowledge transfer events and further training of the staff based on needed and required changes. Here we have presented how the partners implemented the lessons and final training and how they applied them in the second round of knowledge transfer events, engaging in a very diverse community-based research in a collaborative and supportive way.

5. References

Literature:

[1] Tena, A. (2019) Knowledge transfer assessment 1 (D6.3)

[2] Zübert, C. (2019) Events Status Report 2 (D3.8)

[3] Bitsouni, V. and Kaouri, K. (2019) Staff Training Evaluation. SciShops.eu (D6.4)

[4] Elías Sanz Casado, E. S. and Bautista Puig, N. B. (2019) Knowledge exchange roadmap 2 (D3.9)

[5] "The Wow Project". FastCompany. Retrieved 2018-03-21.

Websites:

1 **Science Shop Pitch Challenge:** https://www.scishops.eu/pitch-challenge/

2 **Oxford University Science Shop:** https://innovation.ox.ac.uk/innovation-news/events/aioxford-conference/

3 **WiLaWu Science Shops:**

3.1 WI`s ecological rucksack calculator: https://www.ressourcen-rechner.de/?lang=en

3.2 Wuppertal Climathon 2019: https://climathon.climate-kic.org/en/wuppertal-the-event-page-2019

4 **KPMG Science Shop**:

4.1. https://home.kpmg/cy/en/home/media/press-releases/2019/07/kpmg-and-cim-offer-2-scholarships.html

4.2. https://www.eurokerdos.com/kpmg-cim-prosferoyn-2-ypotrofies/

4.3 https://www.maritec-x.eu/en/the-cyprus-marine-and-maritime-institute-sets-sail-the-journey-begins-in-larnaca/
https://inbusinessnews.reporter.com.cy/business/services/article/225341/ylopoieitai-sti-larnaka-to-evropaiko-erg-cmmi-maritec-x
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4.4. https://www.esgi-cy.org/

5 **KU Leuven Science Shop**

5.1 http://www.flanderstoday.eu/education/new-programme-helps-teachers-address-religious-radicalisation

5.2 https://www.bbc.com/news/education-40456794

6. Appendix

Here we present materials, and some screenshots from the webpage and social media promotion of the SciShops Pitch Challenge. We also include the flyer and poster.

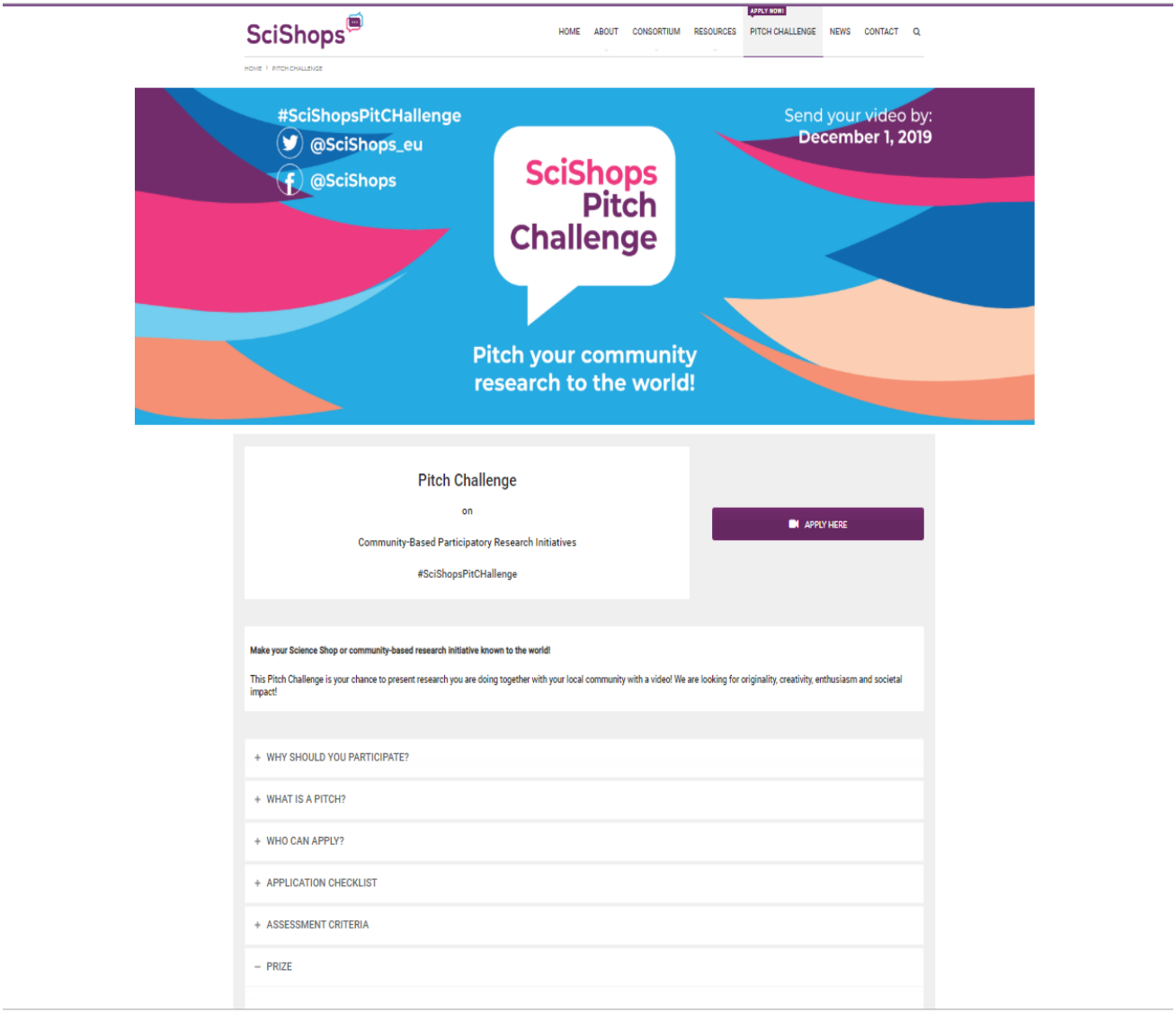
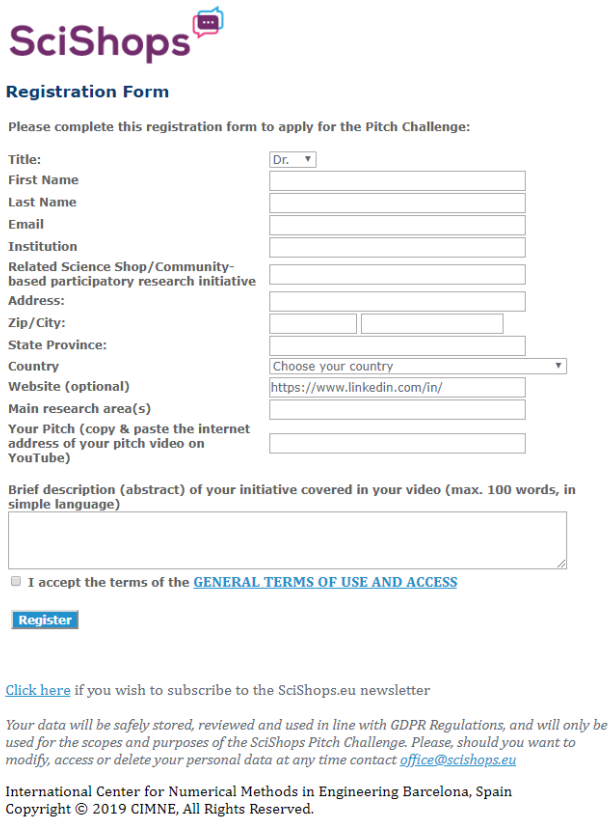


Figure 2 SciShops Pitch Challenge webpage



SciShops

Registration Form

Please complete this registration form to apply for the Pitch Challenge:

Title: Dr.
First Name
Last Name
Email
Institution
Related Science Shop/Community-based participatory research initiative
Address:
Zip/City:
State Province:
Country: Choose your country
Website (optional): https://www.linkedin.com/in/
Main research area(s)
Your Pitch (copy & paste the internet address of your pitch video on YouTube)

Brief description (abstract) of your initiative covered in your video (max. 100 words, in simple language)

I accept the terms of the GENERAL TERMS OF USE AND ACCESS

Register

Click here if you wish to subscribe to the SciShops.eu newsletter

Your data will be safely stored, reviewed and used in line with GDPR Regulations, and will only be used for the scopes and purposes of the SciShops Pitch Challenge. Please, should you want to modify, access or delete your personal data at any time contact office@scishops.eu

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Figure 3. Online registration form of the SciSchops Pitch Challenge

Figure 4. The SciShops Pitch Challenge flyer

Figure 5. SciShops Pitch Challenge poster

Figure 6 SciShops Pitch Challenge promotion through twitter

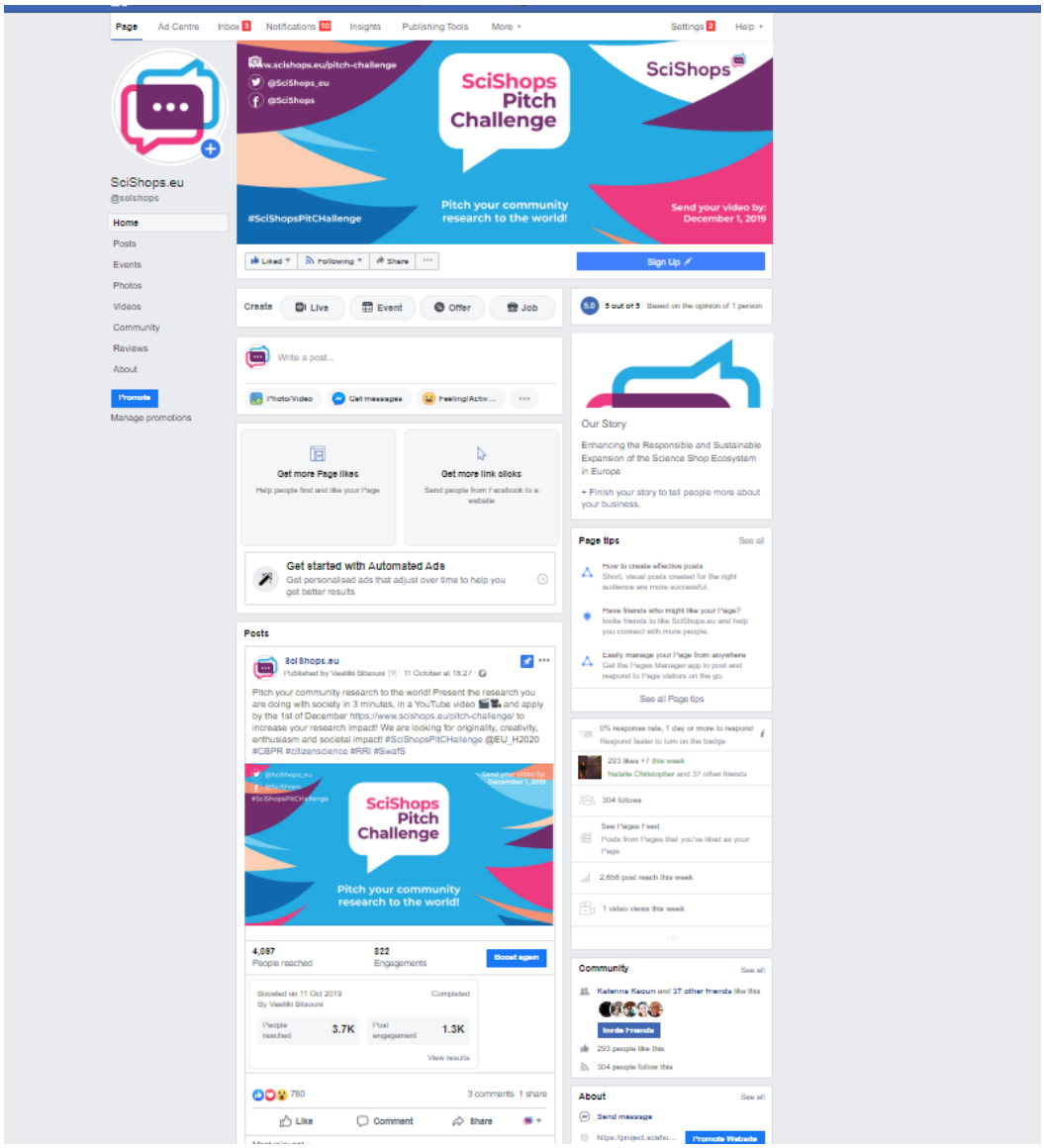

Figure 7 SciShops Pitch Challenge promotion through Facebook

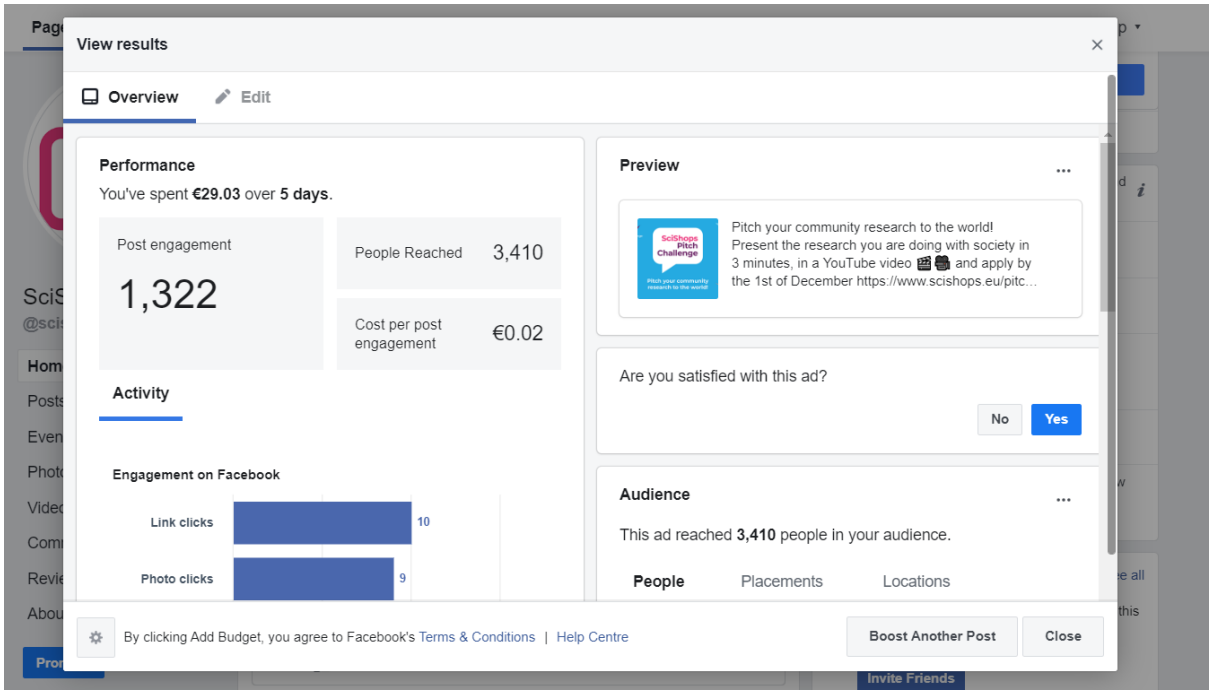

Figure 8 SciShops Pitch Challenge boosted ad on Facebook