DELIVERABLE 2.2

Initiation Events Report

Authors

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Brendan Owens (TCD)

Contributors

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Shaun Ussher (TCD), Maria Vicente (ULEI)

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Contributors	Shaun Ussher, Maria Vicente
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Abstract	Report of initial stakeholder mapping and engagements by partners and supporting resources made available to them by WP leads for now and future working to build an open schooling community in their local OSHubs.
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1.1	03 December 2020	Maria Vicente	ULEI	Final Review
1.2	04 December 2020	Brendan Owens	TCD	Final Version

List of Acronyms

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ACRONYM	DEFINITION
CC	Community College
CSA	Coordination and Support Action
DEI	Diversity, Equity and Inclusion
ETSS	Educate Together Secondary School
GA	Grant Agreement
H2020	Horizon 2020
IOS	Inclusion of Self
IT	Information Technology
MCFR	Município de Figueira de Castelo Rodrigo
NGO	Non-Governmental Organization
OSHub.Network	Open Science Hub Network
OSHub	Open Science Hub
OSHub-PT	OSHub Portugal
SISCODE	Society in Innovation and Science through CODEsign
SME	Small and Medium Enterprise
STEM	Science,Technology, Engineering and Mathematics
STEAM	Science,Technology, Engineering Art and Mathematics
SGD	Science Gallery Dublin
TCD	Trinity College Dublin
UCD	University College Dublin
ULEI	University of Leiden
WP	Work Package

Executive Summary

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The OSHub.Network Initiation Events Report is Deliverable 2.2 (D2.2) from the coordination and support action (CSA), OSHub.Network, grant agreement (GA) 824581.

The original concept of 'Initiation Events' in the description of action (part A) envisaged:

"A series of co-design participatory sessions including relevant stakeholders, teachers, management and officials from the education sector, scientists, researchers and advisory group"

Although all OSHub.net partners have participated in training sessions with respect to stakeholder engagement and co-design, the global pandemic's negative impact needs little introduction.

During planning for the kick-off training workshops (Task 4.2) the pandemic shifted the setting online rather than in person. This move to online engagement continued locally across a large period of time between M6 and this deliverable (M14) making diverse multi-stakeholder engagements much more difficult. Out of sequence and to greater or lesser extents, local governments put in place periods of restrictions for public health and safety. This led to a need for a leaner and more flexible approach to stakeholder engagement to best suit individual partner situations.

Despite these factors, collaborative stakeholder engagement has still been a success in the majority of instances leading to progress in defining local missions and projects with schools. The nature of these engagements and their context within the training frameworks is to be outlined here.

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1. INTRODUCTION

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1.1   Background: about OSHub.Network

The Open Science Hub Network (OSHub.Network), a consortium of nine partners across Europe, engages schools and local stakeholders in research and innovation as a tool for sustainable community development.

More specifically, the OSHub.Network is establishing a European network of community hubs – OSHubs, in communities that traditionally do not engage with research and innovation due to various barriers, geographical location, socio-economic status, or ethnic minority group background. OSHubs inspire, empower and engage citizens – from school children to senior citizens – in STEAM (Science, Technology, Engineering, Arts and Mathematics) learning and research opportunities, grounded on collaboration with societal agents.

As such, local OSHubs work as mediators in their local communities, positioning schools as active agents for collaboration between civil society, enterprises, research institutes, and families. This is performed by promoting an open schooling approach grounded in community-based participatory research practices: throughout this process, schools and communities identify local relevant challenges, which are then be transformed into relevant research and innovation projects, led by students and teachers, in collaboration with local stakeholders.

The OSHub.Network is developing a common methodological framework, that allows each OSHub to identify and analyse local needs, issues, opportunities and relevant actors, in order to address socio-economic, geographical, gender equity issues, and untapped growth potential. Inspired by the "Mission-Oriented Research & Innovation in the European Union"[1] approach, developed by Mariana Mazzucato, OSHub.Network will define a set of Open Schooling Missions, aimed at addressing local relevant challenges linked to the Sustainable Development Goals. These Open Schooling Missions will then constitute the basis for the creation and development of the open schooling projects, enabling real collaboration across communities. Importantly, to ensure diversity, inclusion and sustainability, in each OSHub location, there will be a local management board with representatives from local stakeholder groups – schools (including students), families, research institutes and universities, enterprises, industry, media, local governments, civil society organizations and wider society – which will be involved in all key processes and decisions regarding local OSHub programmes and initiatives.

By supporting local schools and communities with the tools and network to tackle relevant challenges, OSHub.Network aims to create local impact while simultaneously promoting an active global citizenship attitude, thus contributing to community development, innovation and well-being. To

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1   Mariana Mazzucato (2018), Mission-Oriented Research and Innovation in the European Union – A problem solving approach to fuel innovation-led growth', European Commission, Retrieved from: https://ec.europa.eu/info/sites/info/files/mazzucato_report_2018.pdf

encourage usage and maximise impact in Europe and beyond, all resources, products and solutions developed by OSHub.Network will be fully based on Open Standards, such as open education, open technology, open science, open hardware, open design and open architecture. Also, OSHub. Network will create an online platform to share OSHub expertise, resources, and best practices with all OSHubs, their partners and the communities they serve. To ensure the legacy and reach of the project, all OSHub.Network resources will also be shared on existing large online educational repositories, and relevant national networks and repositories.

Finally, OSHubs will develop a legacy and sustainability plan, and will work closely with local governments, to ensure that each local OSHub has the tools and resources to continue beyond the lifetime of the project, and that the Open Schooling approach is incorporated in the school vision and organizational structure.

By the end of the project, it is expected that the OSHub.Network will have impacted 25 000 students, 1 250 teachers and 4 000 members of the community, through involvement in more than 150 school-university-industry-civil society partnerships in open schooling projects and activities.

In the long-run, we envision OSHubs as education brokers in their local communities, supporting local school networks to incorporate Open Schooling in their vision and organizational structure, leading to sustainable quality of education. Most particularly, OSHubs will facilitate the bridge between the needs and realities of schools and their local context and resources, as well as brokering for implementing national/regional policies, passing along signals from schools when policies are failing and advocating for context-sensitive policies.

1.2   Purpose of this report

Stakeholder engagement is integral to the OSHub.network and its co-creation approach. The aim of this report is therefore to outline the initial actions taken by the consortium that supported the development of a sustainable system of stakeholder engagement. While the pandemic may have impeded our initially planned approach, it also fostered a mentality of flexibility, adaptability and responsiveness that will significantly reinforce the resilience of OSHub.network and its legacy. The uncertainty that accompanied COVID-19 also highlighted the necessity to be conscious of and listen carefully to the shifting needs of both stakeholders and consortium partners alike. The approaches that emerged within these circumstances provided an appropriate alternative version of initiation events that still included stakeholder participation, by engaging them in small numbers but with more regularity in an interactive way.

2.   BUILDING BLOCKS

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In establishing the OSHub roadmap, a number of 'Building Blocks' for the consortium have been established. These were created to organise and understand the tools and processes needed to construct the infrastructure for an Open Science Hub[2]. They are:

1.   **School Engagement**
2.   **Stakeholder Mapping**
3.   **Community Building**
4.   **Local to Global Challenges**
5.   **Open Schooling Co-creation**
6.   **Value Proposition**
7.   **Technical and Financial Feasibility**
8.   **Open Schooling Co-creation**

Community Building, Stakeholder Mapping, Open Schooling Co-creation, School Engagement, and Local to Global Challenges were all fundamental to the initiation events of OSHubs (and fall within the scope of this report).

OSHub.Network keeps school engagement and open schooling co-creation at its heart. A fundamental first step involved identifying and engaging schools to partners with each OSHub. Despite the challenges related to COVID-19, each partner met this challenge successfully and the partner school log (see Table 1) shows the schools that at the time of writing have agreed to participate in each OSHub.

Table 1: GDPR compliant table of currently participating schools across the OSHub.network

NAME OF PARTNER SCHOOL	PARTNER	LOCATION	TYPE OF SCHOOL	SCHOOL YEARS (PRIMARY, SECONDARY, …)
Dr. J.A. Gerth van Wijkschool	ULEI	The Hague	Public	Primary – Regular
Dalton basisschool Helen Parkhurst	ULEI	The Hague	Public	Primary – Dalton

2   Details of the existing tools used for each building block can be found in the OSHub Deliverable (D4.2)

Van Hoogstratenschool	ULEI	The Hague	Public	Primary – Protestant christ
De Springbok – Pretoriusstraat	ULEI	The Hague	Public	
De Springbok – Wolmaransstraat	ULEI	The Hague	Public	Primary – Regular
Carolusschool	ULEI	The Hague	Public	Roman – Catholic
Balbriggan Community College	TCD	Balbriggan, Co. Dublin	Public	Secondary School
Firhouse Educate Together School	TCD	Firhouse, Dublin 24	Public	Secondary School
Ringsend Community College	TCD	Ringsend, Dublin 4	Public	Secondary School
CFPP – Preprofessional school	FAB	Geneva	Public	Secondary School
CFPT – School of Electronics	FAB	Geneva	Public	Secondary School
Bundes Oberstufen Real Gymnasium	AE	Bad Leonfelden	Public	Secondary School
Collège Lucie Aubrac	CCSTI	Grenoble	Public	Secondary School
Ecole Marat	CCSTI	Echirolles	Public	Primary School
Collège Olympique	CCSTI	Grenoble	Public	Secondary School
Zakladni a materska skola Zdikov	SCIN	Zdikov	Public	Preliminary (3-6), primary+lower secondary (6-15)
DoKrajin	SCIN	Loucna pod Klinovcem	Local civic association	DoKrajin (as an OSHub) collaborates with Public primary school in Jachymov (6-15)

CSOP Volavky	SCIN	Trebon	Local section of the Czech Association of Environmentalists	Works with kids 5-15; collaborates with several schools in Trebon and around
Agrupamento de Escola de Figueira de Castelo Rodrigo – AEFCR (school group of Figueira de Castelo Rodrigo)	MFCR	Figueira de Castelo Rodrigo, Guarda, Portugal	Public	AEFCR is a school group of 6 schools: 4 schools of 1st stage basic education, 1 school of 2nd stage of basic education, 1 school of secondary education.
Gymnasio Livadochoriou	SICO	Lemnos	Public	Secondary

For many of the consortium members the first months of the pandemic saw relationship building with schools put on hold, while others were in a position to seize opportunities to help tackle challenges experienced as a result of the pandemic.

For example, TCD engaged a number of school teachers through an online co-creation session to ideate a series of self-guided activities for secondary schools students to try at home with minimal screen time required during May 2020 in Ireland's first national lockdown.

During the same period, MCFR recognised a need in the school community to help with the transition to remote learning by providing IT digital literacy support and mentoring to local students.

These are not the only examples of action taken as school life pivoted from offline to online at the end of the 2019/20 academic year, and many other partners have been planning future Open Schooling Projects with Covid-19 and the digital divide at the forefront of their minds, in close consultation with educators and education institutions.

Beyond these early interventions, partners consulted with key stakeholders where possible in readiness for the 2020/21 academic year. To help partners expand their horizons in terms of stakeholders, a template for Stakeholder Maps (see Appendix I) was provided for each partner to draw up a longlist of potential collaborators across various stakeholder types (NGO, SME, University etc). These Stakeholder Maps represent the foundation of relationships as opposed to their ultimate form. Partners can list stakeholders they have simply identified and may wish to engage with depending on the progress and nature of Open Schooling co-creation sessions. Or, some on the list may represent a deeper relationship right down to those who have agreed to join their local OSHub Management Board. Those who are recruited to a partners local OSHub Management Board will be deeply involved in key decisions and processes for that OSHub and will represent and protect

diversity equity and inclusion in all their endeavours.[3]

The Stakeholder Map is tabulated per partner and an accompanying Stakeholder Engagement Log (see Appendix I) in a similar format was provided to track stakeholder engagements over time, with particular attention given to the purpose of each engagement and the outcome if applicable. This log was not implemented to surveil partner activity, but instead acts as a record of the evolution of ideas and approaches, regardless of their perceived success. Over the longer term, the potential for each strand of engagements to be implemented as an Open Schooling Project can be reviewed and understood to help the project now or in a future iteration. For example: If a final review of an Open Schooling Project indicates a weak output with regards to policy-making, the log can be investigated. This may lead to identifying the need for more regular meetings to better engage policy makers or pinpoint timing issues such as clashes with key milestones in a policy maker's annual calendar.

Both the map and the engagement log are living documents for the consortium. In the shifting sands of the global pandemic it is more important than ever to have a tether that can connect where we are now to where we began.

3. Stakeholder collaboration: a revised approach

As part of the Training Workshop for WP2 (Build an Open Schooling Community), partners were provided with training in tools for stakeholder engagement and co-creation frameworks, including design thinking canvases from SISCODE 2020 (GA 788217). These tools are optional for partners to use, but designed to provide stepping stones from stakeholder identification to early challenge ideation, to stakeholder recruitment, and on to a co-creation journey. The last stepping stone (in itself another series of stepping stones) has been challenging for partners to activate using a large multi-stakeholder process.

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3   Each local OSHub will have its management board members listed on their local OSHub subpages on oshub. network

3.1 Categories of Stakeholder Inclusiveness

Any co-creation has, out of necessity, happened in piecemeal fashion across the consortium. In the SISCODE Comparative Analysis Report (GA 788217), a collection of case studies and 'innovation biographies' for co-creation resulted in the definition of three different categories of stakeholder inclusiveness: Inclusive, Punctual and Consultative. While not necessarily a result of changing direction for working in restricted pandemic times, these classifications provide scalable methods of engaging various stakeholders, which is useful to OSHub.Net under the circumstances. Each partner's current stakeholder collaborations are included in one or more categories explained below.

1. Inclusive co-creation activities: Stakeholders are co-creating across all development phases and sometimes also beyond on the administrative/managerial level

PARTNER NAME	STAKEHOLDERS	COLLABORATION EXPLANATION
CCSTI	La Machinerie, l'Education Nationale, substitute teacher of La Villeneuve de Grenoble (area where we will be) – A teacher from the Village Olympique High School, several associations working on ecological actions, ecological change and actors of this change	Fabrication and delivery of five pedagogical kits for substitute teachers, responding to the learning needs of childs from 3 to 11 yo. – We are bringing together those different people in order to respond to the solicitation of this teacher who wants to work on an ecological transition project with her students, and maybe, after this first contact between them, we will work on the project with them too.
FAB	Maison de la rivière	With this association, we will 1. define the scientific objectives of the projects in collaboration with HEPIA (university) 2. share pedagogical resources 3. scale up the project on national level
	DIP	To identify schools in need and share the results of the projects regularly.
SCICO	Gymnasio Livadochoriou (School)	Since the beginning of the project we are in collaboration with the director, teachers and students of the school in order to co-create the educational STEM curriculum, identify issues and respective projects that will solve them, provide necessary equipment for projects and create a tangible, inclusive action plan.

SCIN	Institute for Theoretical Studies (Charles University)	Preparation of the basic concept of the project, identifying local challenges and their elaborating on the science.
	Faculty of Science (Charles University)	Preparation of the concept of the educational and engagement approach.
	Do krajin NGO, Municipality of Zdikov, Volavky NGO	Development of educational programs.
MCFR	Firefighters from Figueira de Castelo Rodrigo	Collaboration with the Drinkable Rivers project (citizen science project assessing the water quality of rivers) by providing logistical support (they drive the boat that enables the water collection for analysis).
	Environment office of the municipality of Figueira de Castelo Rodrigo	Performs the water analysis together with the OSHub-PT and the activity participants.
	Coordination of the Citizenship and Development discipline	Collaborates in the coordination of the teachers training program in Open Schooling (approach/methods/tools). Collaborates in the co-creation of an Open Schooling manual with Open Schooling tools.
	Teachers of the Citizenship and Development discipline	These teachers are the target audience of the teachers training program in Open Schooling and are implementing Open Schooling projects autonomously. Also, these teachers will be providing feedback to an Open Schooling manual that we are building and has several Open Schooling tools that have been co-created by the OSHub-PT and the teachers from the local schools.
	School psychology unit	Collaborates in the development and implementation of the Digital Literacy program.
TCD	SGD, UCD, Balbriggan CC, Firhouse ETSS, North Wicklow ETSS	Ideated two top concepts with teachers (and student input through a survey) to develop into a self-guided challenge from home for students in lockdown followed by teacher review of the content proposed and dissemination of the challenge to students.

2. Punctual co-creation activities: Stakeholders are co-creating in selective development Phases

PARTNER NAME	STAKEHOLDERS	COLLABORATION EXPLANATION
AE	Ars Electronica, artists, artistic researchers, school teachers, scientists	Artists working within the domain of Art and Science are invited to develop school workshop programmes that integrate their current artistic practice and respond to existing lesson plans from teachers. Scientists evaluate the scientific concepts of the artist-led workshops and provide feedback to the artists.
FAB	Office Cantonal de l'eau	To share the results of the project and give a lecture to the students about the status of fresh water in the region.
SCICO	University of the Aegean	SciCo is collaborating with the University in order to a) create a series of educational workshops/lectures delivered by the University to the school and the local community and b) work with phD students in order for them to help school students with projects on the one hand and on the other hand receive data and input for their research projects by the school and the local community (citizen science approach).
ULEI	Leiden University; Science Communication Department, Social Sciences (pedagogics, psychology and anthropology), Diversity and Inclusion Expertise Office, ICLON and Governance and Global Affairs – Den Haag Campus	With these stakeholders, we are setting up a training programme for students. This training programme will give them the basic information and pedagogical and didactic skills to be able to start their work on the schools.
SCIN	Charles University	Preparation of specific programs on air quality and particular identified local challenges
MCFR	Local Stakeholders	Different local stakeholders will be involved in co-creation sessions with the teachers, as part of the teachers training program in Open Schooling. We can not specify now which stakeholders will be part of these co-creation sessions because it will depend on the challenges addressed by the Open Schooling projects.

PARTNER NAME	STAKEHOLDERS	COLLABORATION EXPLANATION
MCFR	Eugénia Pinto (IT teacher)	This teacher has been providing support in the selection of students (choosing the ones with most difficulties) that will be part of the digital literacy program.
	School and local community	They are the target audience of the Drinkable Rivers project and collaborate in the collection and analysis of water samples.
TCD	SGD, UCD nutrition and food sustainability researchers	A series of co-creation workshops to co-design two multi-stakeholder 'Food Labs' for the Fit4food H2020 project (in themselves co-design sessions for a new 'food systems' map) with potential for similar techniques to be used as part of future OSHub co--creation phases.

3. Consultative co-creation activities: Stakeholders are not invited to co-create and remain external actors

PARTNER NAME	STAKEHOLDERS	COLLABORATION EXPLANATION
AE	Ars Electronica, secondary school students, young people (U19)	In a series of peer discussions at the Ars Electronica Festival 2020 young people were invited to discuss their creative projects, how they imagine the future and how they want to shape tomorrow's world. Their perspectives will help shape the development of the OSHUB create your world school workshop programme.
FAB	Post Tenebras Lab	It's a sister hackerspace that already developed a ROV and can advise on the technical challenges and solutions.
SCICO	Afthonia	This is an environmental NGO on the island of Lemnos, from whom we receive feedback for specific issues. We are hoping to transorm this collaboration into an inclusive collaboration overtime.
	Municipality of Lemnos	The Municipality is engaged at a consulting level for the time being, providing expertise on environmental issues, through the respective department.

ULEI	Vice-rector municipality of Leiden University	We consulted the vice-rector and policymakers from Leiden University to give us a view on how the project fits the vision of the University and how it could be implemented in the University structure.
MCFR	Drinkable Rivers	The coordination of the Drinkable Rivers supervises the activities in our local hub, by proving, for example, feedback on how to perform the water analysis and gathering our data for statistical analysis.
	Luís Vieira (University of Aveiro)	Gives his feedback/perspective on the OSHub-PT projects related with water pollution.
	School board	Provides feedback on the development/implementation of the teachers training program in Open Schooling and the digital literacy program.
	Teacher from different school cycles	Provide feedback on the development/implementation of the teachers training program in Open Schooling and the digital literacy program.
	School psychology unit	Provides feedback on the development/implementation of the teachers training program in Open Schooling and the digital literacy program.
TCD	SGD, UCD and TCD immunology researchers	Consulted with researchers for designing a 'Trust in Science' workshop, part of the large OSHub TY Programme.

As described in the next section of this report, more work will be carried out by WP leads to support partners as they explore different avenues for co-creation depending on their particular circumstances.

4. Conclusion

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Despite being in a different landscape to the one envisaged in the original project timeline, each partner is making progress towards Open Schooling Projects and the consortium is well placed to multiply stakeholder connections by spotlighting their local hubs as part of Milestone 3 (MS3 OSHubs Opening Verification). Already the project website hosts information documenting the initiation of each local OSHub from the schools engaged, to local management boards, targeted challenges and initial ideas for local Open Schooling projects.

As well as revisiting the tools already introduced, WP leads will endeavour to provide support to partners where blockers are identified. As IH continue to collaborate with ULEI, TCD and the wider consortium, training sessions will be provided to continue constructing the aforementioned 'Building Blocks' for each partner. In parallel, WP leads continue to provide regular meetings alongside the Project Board in the form of Inspiration Sessions[4] and Open Sessions. The former allows for cross-partner sharing of best practice and the latter gives any partner the opportunity to voice an issue they wish to discuss and work through with some or all of the other partners.

It is unlikely that the undulating wave of easing and tightening of restrictions will subside in the very near future, but with regular dialogue across the consortium and across stakeholders in local networks, the co-creation journey for each OSHub can continue with resilience and flexibility.

References

SISCODE Consortium, 2020. SISCODE: D2.3 Comparative Analysis Report Of Co-creation Case Studies And Innovation Biographies, TU Dortmund University, GA 788217

Empathy Map tools adapted from Event Design Collective (edco) Empathy Map, 2020 https://edco.global/empathymap/

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4   https://oshub.network/open_schooling_building_community.html

Annex 1

Consortium 'Stakeholder Maps' (sensitive data removed)

Consortium 'Stakeholder Engagement Logs'

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