



Deliverable 3.6

**Selected New
Co-creation Initiatives**



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 741527 and runs from May 2017 to September 2021.

This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 741527.

Project Acronym	ORION	
Project Title	Open Responsible research and Innovation to further Outstanding Knowledge	
Grant Agreement no.	741527	
Start date of the project	01/05/2017	
End date of the project	30/09/2021	
Work Package number	WP3 – Open Experiments	
Deliverable Number	D3.6	
Deliverable title	Selected New Co-creation Initiatives	
Lead Beneficiary	BI	
Due date	M42	
Date of delivery	30/11/2020	
Nature	R (Report)	
Dissemination level	PU (Public)	
<p>DISCLAIMER</p> <p>The information in this document is provided "as is", and no guarantee or warranty is given that the information is fit for any particular purpose. The document reflects only the authors' view. The ORION is not responsible for any use that may be made of the information it contains. The user uses the information at its solo risk and liability.</p>		
Version	Contributors	Comments
1.0	BI	BI first draft
2.0	CRG	BI second draft
3.0	CRG	BI third draft

Contents

1. Executive Summary	4
2. Background	5
3. Design of the call to support novel co-creation initiatives	5
4. Funding Call to Support Novel Co-creation Initiatives	10
5. Funding Call Dissemination	11
6. Evaluation of Proposals	13
7. Selection of Proposals	13
8. Call Resolution & Announcement	14
9. Conclusions	14
10. Annex: selected projects.....	16

1. Executive Summary

Supporting Novel Co-creation Initiatives (ORION task 3.5) sought to support making research funding and performing institutions more permeable to Responsible Research and Innovation principles by encouraging collaboration of Core and Associated ORION partners with stakeholders in the quadruple helix. This report summarises the learnings during the first two phases of this task: the design and dissemination of the funding call; and the evaluation and selection of successful proposals.

The design of the funding call was a co-creation process during which ORION partners started collaborating with stakeholders in industry (Innovative Medicines Initiative/European Federation of Pharmaceutical Industries and Associations), other HE organisations (Eurodoc), and the public sector (European Commissions, DG Santé and RTD; Swedish Innovation Agency).

The co-creation process to design the funding call resulted in an open and flexible call criteria broadly focussed on health and biomedicine. This flexibility supported a wide uptake of the funding call, with 15 proposals submitted covering topics ranging from fundamental life sciences research projects, point of care applications, to projects in science education, public engagement and science communication.

The evaluation and selection of successful proposals allowed a practical collaboration of the ORION consortium with ORION Advisory Board members who evaluated the submitted proposals. ORION Advisory Board members welcomed this opportunity to collaborate and praised the quality of the proposals. The professional proximity between the consortium and the evaluation members allowed to highlight a few challenges and shortcomings, which can be corrected in the future.

Given the proposals scores against the call criteria and the budget available, two initiatives were selected for funding:

1. Ideas MELting pot for TIC and Health science for Citizens in small communities (**MELTIC**)

MELTIC is a proposal for co-creation of research in the disciplines of Health and Information and Communications Technologies to improve the quality of life of European citizens in small communities. The objective is to generate suitable ideas for research in ICT in Health and Biomedicine in topics such as self-learning, false information discrimination and ludopathy prevention in order to innovate about the use of existing public spaces and/or build new ones.

The project is a collaboration between ORION partner ISCIII; the municipalities of La Palma del Condado in Huelva (Spain), Mirabello (Italy), and Reguengos de Monsaraz (Portugal), all committed to improving the quality of life for older adults; and the Hospital of Deta Town (Romania).

2. **VACCINE** is an innovative digital approach for engaging people with the science behind infections, immunity and vaccinations. The seed for the project is a virus simulator developed by Babraham Institute (BI) researchers, which will be used as the focus point for the co-creation of an interactive digital game.

The project is a collaboration between ORION partner BI; a state-funded school in Cambridge; the Cambridge Science Centre, a hands-on science centre for families; and Game Doctor, a game development company specialising in mobile games, software and media for STEM education.

2. Background

Deliverable D3.6 'Selected new co-creation initiatives' gathers information about ORION Task 3.5 'Supporting novel co-creation initiatives'. T3.5 original timeline was from May 2019 to April 2021, yet following a grant amendment this task currently runs until the end of July 2021. D3.6 covers activities from the design and dissemination of the ORION call to support novel co-creation initiatives to the evaluation and selection of the successful proposal(s).

ORION task 3.5 sought to support making research transparent and accessible as well as flexible and adaptable, which is one of the key challenge areas for the ORION project. This task is one of the open experiments part of ORION WP3. The WP3 Open Experiments were devised with three objectives on mind:

1. Develop new interactions between the quadruple helix of stakeholders (those who do not normally interact) through novel engagement.
2. Explore different co-creation methodologies to identify those most effective in a RFPO setting.
3. Use co-creation tools and methodologies to develop new ideas, concepts, and projects to facilitate Open Science at RFPOs.

To meet these objectives, we allocated a fraction of the ORION budget (100.000€) to allow ORION Core Partners and Associated Partners to collaborate in a quadruple helix of stakeholders to develop innovative co-creation experiments on the basis of the results of WP2 and the menu established in Task 3.1.

BI was leading this call, with the support and consensus of the ORION Advisory Board and Steering Committee. A call was launched in the summer of 2019, with project proposals evaluated from October to December 2019 and the winner announced in December 2019 for implementation during the last year of the ORION project (May 2020 – April 2021).

3. Design of the call to support novel co-creation initiatives

ORION partners' workshop, ORION Annual General Meeting, Bologna, April 2018

An initial interactive session for ORION consortium members was organised during the first ORION Annual General Meeting in Bologna in April 2018. The aim of this session was to discuss how to take stock of the results of ORION WP2, which focussed on analyzing and benchmarking Open Science knowledge and practice in the different participating RFPOs.

In this initial session, we discussed how to incorporate the views gathered in ORION Task 2.2, a survey on public opinion in the countries of the project partnering institutions (Czech Republic, Germany, United Kingdom, Spain, Sweden and Italy). ORION AGM participants were split in four groups of seven people each to work on the following questions:

1. **How should this call look like?** The group discussed that the call should be simple. Funders were concerned that this might lead to high volume of proposals. (Facilitator: Digna Couso, CRECIM, Spain)

2. **Who should be involved?** Some of the groups suggested to participate in this call were: Researchers, communications departments, teachers, artists, social scientists, patient organizations, Director of the WHO, etc. (Facilitator: Maria Hagardt, VA, Sweden)
3. **Which type of projects/topics could be funded?** Anything that fits in ORION co-creation menu (D3.1) or something that has not been done before in ORION (Facilitator: Gloria Lligadas, CRG, Spain).
4. **How the call will be informed by the results from the public survey (ORION T2.2)?** One of the results of ORION public attitudes survey, was that the public was eager to learn about the relationship between DNA and lifestyle with wellbeing (figure 1). The criteria of this funding call should therefore take this into consideration this field of research (Facilitator: Jana Šilarová, CEITEC, Czech Republic)

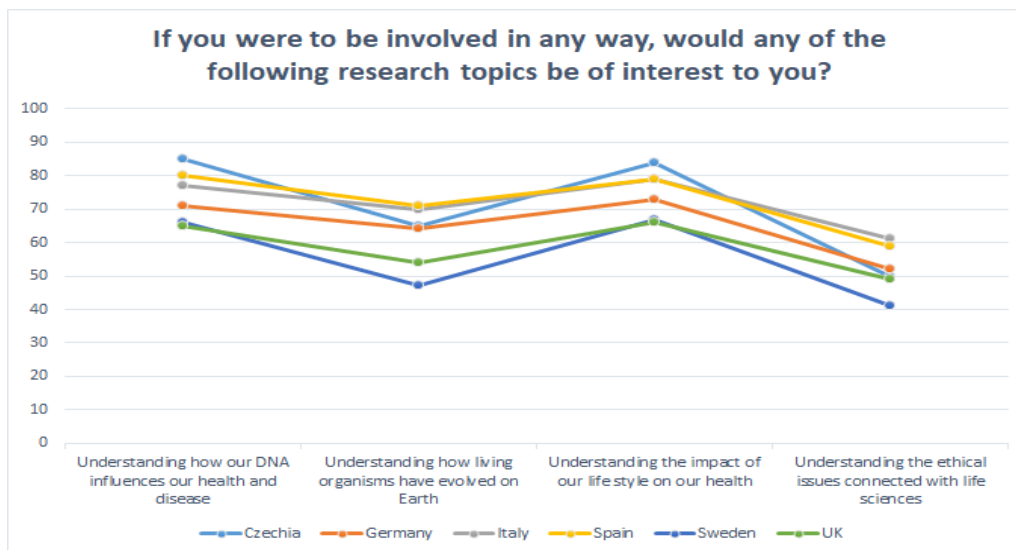


Figure 1. Topics of interest for citizens' involvement (ORION public attitudes survey, T2.2)

The answers were collected in flipcharts (Figure 2) by table facilitators. A recollection of the ideas gathered for each question is shown below:

1. How should this call look like?

- Explain clearly and with examples what a 'co-creation' initiative is. Avoid specific ORION/proposals language.
- Make the call the least bureaucratic possible. Use two-step procedure: 1st very easy and 2nd for very good ideas to help proponents to develop their projects. Use 5 questions to help proponents organize the information.
- Allow for different grants scales (5.000-50.000 Euros).
- Ask for initiatives that are embedded in the institutions (for sustainability).
- Open to all age groups.
- Allow for collaboration with external stakeholders (to ORION consortium).
- Co-create the call with different stakeholders.

2. Who should be involved?

- European Citizens Science Association (ECSA)
- Early Career Researchers
- Communication departments
- Teachers

- Artists/Designers
- Social Scientists
- (Regional/National) policymakers (in health)
- Patient organisations
- Medical Doctors
- Health insurance companies
- Director of World Health Summit
- Open Science experts
- National science education advisors
- Civil Society organisations
- Funding organisations
- National Health Services
- Life Sciences Industries

3. Which type of projects/topics could be funded?

- Define which kind of public we want to target
- Conferences; hackathon
- Collaboration between institutes: Is there any added value?

4. How the call will be informed by the results from the public survey?

- Anything related to health

Novel co-creation initiative → How should the call look like?

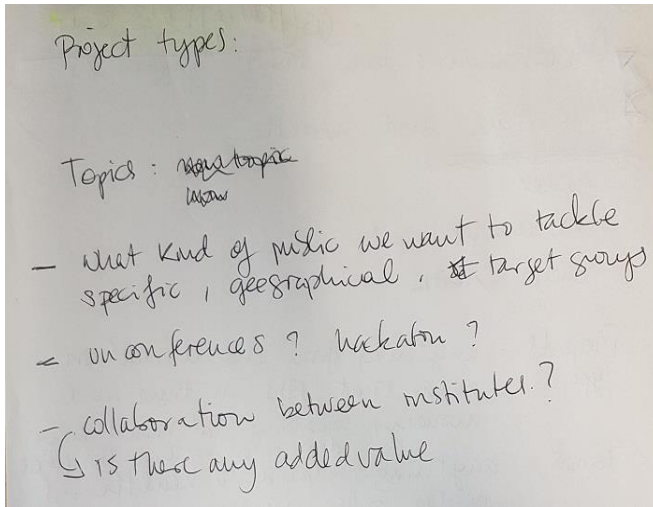
- 1) Explain very clearly and with examples what is a "co-creation initiative" from the beginning. Avoid ORION/proposals' language.
- 2) Make the call as un-bureaucratic as possible. Perhaps two steps. 1st very easy. 2nd, only for very good ideas, help people to develop their projects. Avoid experts on "writing proposals". Use 5 questions to organize info.
- 3) Very open call, ≠ scale of the project (5000€ - 50.000€).
- 4) Ask for initiatives that will be embedded in the institutions/sustainability of the initiative.
- 5) Open to all age groups. Do not forget children.
- 6) people inside and outside (collaborations with external partners).
- 7) Make the call in a co-creation way. Co-create the call with stakeholders. We have already done it here.

Flipchart Question 1

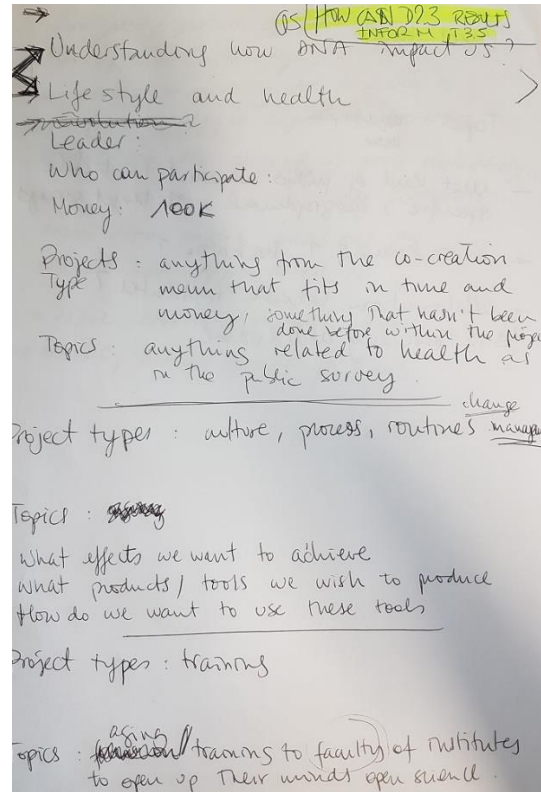
Q2 Who should be involved? ^{Novel} (Co-creation call T3.5)

- * ECSA - citizens science practitioners
- * Young researchers
- * Communication departments
- * Teachers
- * Artists/designers
- * Social scientists
- * Policy makers ← Regional National Health related
- * Patient organisations
- * Doctors (medical)
- * Health insurance companies
- * Director of World Health Summit (ex MDC)
- * Open science experts (expertise) Prof. Gante
- * National science education advisors
- * Civil society organisations
- * Funding organisations → national health system
- * Life science business sector → SMEs Industry

Flipchart Question 2



Flipchart Question 3



Flipchart Question 4

Fig 2: Notes gathered by table facilitator on the question 'Whom to involve'

Multistakeholder workshop, Brussels, April 2019

Following on some of the ideas from the workshop during ORION AGM in 2018, we organized a half a day workshop with multiple stakeholders in the offices of the Swedish Research and Innovation Office in Brussels. The workshop sought to co-create the following aspects of the funding call:

1. What to fund
2. Who can apply
3. The application process
4. The evaluation and selection process

There were 15 delegates coming from the ORION consortium, as well as external partners from academia, industry, the European Commission, government and the public sector, and civil society. Representatives from ORION core and associated partners brought insights from other ORION co-creation initiatives in another EU country (JCMM), patients' and public's perspectives (ANT), and Open Science policies and practices (CRG). Scientists from three ORION core partners' organisations participated in the workshop and represented the views of practising scientists: two postdocs, one from the Babraham Institute and the other one from the MDC, and one member of the higher management team of CEITEC.

Other stakeholder groups' representatives who attended the workshop were:

- Eurodoc: Organisation in support of researchers' professional development
- European Commission, DG RTD and DG Santé
- EU-LIFE

- Innovative Medicine Initiative (IMI), European Federation of Pharmaceutical industries and Associations (EFPIA)

1. What to fund:

The first session of the workshop focussed on defining the scope and criteria of the funding call. Participants were asked to write down in yellow post-it notes three things they would fund and in orange post-it notes three things they would not fund. The group was divided in two breakout subgroups to discuss separately each set of suggestions and then swap.



Fig 3. Picture from first session multi-stakeholders' workshop

At the end, both groups came together to conclude on the main ideas arising from both discussions.

The suggestions on the criteria for the funding call were:

- Collaborative: Social scientists, non-scientists and life sciences scientists
- Focus: Biomedicine
- Innovative, which will need justification in the application.
- Includes an element of social media
- Long term impact
- Of relevance to society
- Research
- Collaboration
- A co-created research topic
- Analysis of current landscape to identify gaps and future opportunities
- Training (less popular)
- Promotion (the least popular)

Participants' ideas on what not to fund were:

- Citizens' Science projects
- A project without public dialogue
- Solely public engagement projects
- Science communication projects/activities (workshop, white papers)

- Industry collaborations, placements, etc
- More small medium enterprises (SME)
- Traditional translational research (there is already a lot of money there)
- A single research proposal (ie, one proposal to get the whole funding)
- Support for merely meetings/traveling
- A research project including only academia/industry stakeholders
- Extensions of similar projects
- Science art projects
- An individual initiative (where the beneficiary is one researcher or one institution)
- Anything that is not collaborative
- Bilateral collaborations between any two stakeholder groups
- Consultancy projects

The conclusions to the other aspects discussed during the workshop were:

2. **Who can apply:** Allow early career researchers to apply to the call in order to promote Open Science practices within the next generation of scientists.
3. **The application process:** Due to item constrictions, we did not discuss this item during the workshop.
4. **The evaluation and selection process:**
 - The number of proposals to fund should be decided in terms of excellence based on the funding call criteria
 - The amount of fund to award should also be left open for proponents to indicate

With the information gathered in both workshops (April 2018 & April 2019), ORION staff drafted the call to support novel co-creation initiatives.

4. Funding Call to Support Novel Co-creation Initiatives

The outcomes of these workshops were distilled into five key characteristics that proposals would be required to address:

- **Research-related:** Building on a relevant research topic in life sciences/biomedicine and directly engaging researchers, especially early stage researchers.
- **Co-creative:** Including at least three different stakeholder groups throughout the whole lifetime of the project, to produce a new product, programme, policy or project.
- **Innovative:** Original and inventive ideas are encouraged. Classic public engagement and two-way stakeholder projects will not be considered (e.g. scientific cafés, school workshops, academia-industry collaborations etc.).
- **Relevant and impactful:** Addressing their relevance to society and how they will achieve long-term impacts.
- **ORION-aligned:** Projects should follow Open Science and RRI principles. Projects are also encouraged to include an international dimension.

Based on these key characteristics, the Babraham Institute developed the call guidelines¹ and a submission template². The ORION Novel Co-creation Initiatives Call³ was open from 24th June to 30th September 2019, for any organisation - in collaboration with at least one ORION partner - to submit proposals to “**bring together [...] different stakeholder groups in innovative and exciting ways, with the goal of making research activities in the life sciences and biomedicine more open, transparent, accessible, relevant and impactful for research and society**”. The budget for the call was €100,000, which was decided to award to one successful proposal.

5. Funding Call Dissemination

A poster summarising the funding call was prepared to support the dissemination of the call.

The information about this call was disseminated by ORION communications channels (newsletters, news flash, social media, website) and by each partners’ communications channels.

The Babraham Institute disseminated the call at a number of external and internal events including the annual science morning and lab talks, and the Milner Therapeutics Symposium, an event aiming to bring together academia and industry in the life sciences.

ORION Open Science
Embedding Open Science in research funding and performing organisations

The ORION Consortium
4 Life Science Research Institutes
1 Social Science Group
2 Funding Bodies
2 Public-Facing Science Organisations

What is Open Science?
Open Science is about becoming open throughout the research cycle, not just open access to published data
Open Science aims to make research easier, more efficient, more accessible and ultimately more impactful

100,000 € Funding for Novel Co-Creation Initiatives

Call for Novel Co-Creation Experiments
The call is open to any projects involving at least one ORION partner. The deadline for project submission is on 30th September

What is Co-creation?
Co-creation brings together different groups of people to share their interests and values and generate new ideas, concepts, products or projects
In co-creative projects, all groups are included and involved throughout the project lifecycle: From planning, to implementation, to dissemination
For more information contact stephanie.norwood@babraham.ac.uk

Research-related
Building on a relevant research topic in life sciences/biomedicine and directly engaging researchers, especially early stage researchers (PhDs)

Co-creative
Including at least three different stakeholder groups throughout the whole lifetime of the project, to produce a new product, programme, policy or project

Innovative
Original and inventive ideas are encouraged. Classic public engagement and two-way stakeholder projects will not be considered

Relevant
Addressing their relevance to society and how they will achieve long-term impacts

ORION-aligned
Projects should follow Open Science and RRI principles. Projects are also encouraged to include an international dimension

www.orion-openscience.eu orion@crg.eu
ORIONOpenScience ORIONOpenScience @ORION_opensci

Figure 3: Poster ORION Funding Call

¹ https://www.orion-openscience.eu/public/2019-06/ORION_Co-creation_Call_Guidelines.pdf (last accessed 22/10/2020)

² https://www.orion-openscience.eu/public/2019-06/ORION_Co-creation_ProjectProposalTemplate.pdf (last accessed 22/10/2020)

³ <https://www.orion-openscience.eu/news/201906/orion-call-novel-co-creation-initiatives> (last accessed 29/10/2020)

In total 15 proposals were received, with projects submitted by six of the nine ORION partners.

Project Name	ORION partner collaborator
Chicken chorioallantoic membrane assay as a versatile patient-derived xenograft platform for precision medicine to study the effect of metallothionein on human prostate cancer chemoresistance	CEITEC
The WOW Resistance Project (WORld Without Resistance Project)	CRG, VA
Indicium - Measuring the efficacy of and the attitudes towards the health apps for diagnosis of respiratory conditions in children	MDC
ARA: Actors and Researchers together in Action.	CRG
Ideas MELting pot for TIC and Health science for Citizens in small communities (MELTIC)	ISCIII
Healthy Environments and Living Through Housing. FORming User eXperiences (HEALTH4UX)	ISCIII
Optimizing HIV-1 vaccine immunogen design through identification of viral genetic features associated with elicitation of broadly neutralizing antibodies	ISCIII
BeeSens – User-driven development of analyzer for diagnosis of honeybee diseases	CEITEC
Vaccines on Tour: Why Should We Care About Vaccination?	BI
SciEdu. Methods for communicating science towards an informed society	CRG
Making our plankton planet visible at low cost: tomorrow, the viruses!	CRG
3rd International Forum on Women’s Brain and Mental Health	CRG
Life-science for Our Lives (LOL): ‘Sell’ science for free	CEITEC
Journal of Methods in Open Science for the Life sciences	MDC
Rapid Intervention System on Heart-Attacks and Coronary Theft	ISCIII

The number of proposals submitted by ORION partners:

- CEITEC: 3
- CRG: 5
- MDC: 2
- ISCIII: 4
- BI: 1
- VA: 1

6. Evaluation of Proposals

The evaluation of submitted proposals took place from October to December 2019. All submitted proposals were distributed evenly between the four ORION Advisory Board members, with a minimum of three evaluators assessing each proposal (with an average of 11 proposals per evaluator).

Evaluators were asked to give 1-5 scores on four criteria:

1. **Originality:** what makes this proposal innovative, in terms of new research and/or engagement?
2. **Co-creativity:** how will different stakeholders be included and what influence will they have on the project? Are they engaging with junior researchers or collaborating internationally? How will the project align with Open Science and RRI principles? What will be produced/developed by the co-creation approach?
3. **Quality and efficiency:** how will the project plan be implemented? Is their plan realistic and efficient in terms of time, resources and costs?
4. **Impact:** what impact will this project have on each of the stakeholders involved, and on society as a whole? What will be the long term impacts? How will they ensure maximum impact? How will impact be measured?

According to these criteria, five proposals with the highest score were shortlisted during the evaluation:

- The WOW Resistance Project: WORld Without Resistance Project (CRG)
- ARA: Actors and Researchers together in Action (CRG)
- MELTIC: Ideas MELting pot for TIC and Health science for Citizens in small communities (ISCIH)
- Vaccines on Tour: Why Should We Care About Vaccination? (BI)
- SciEdu: Methods for communicating science towards an informed society (CRG)

The feedback for the five shortlisted proposals from the evaluators was recorded in a document entitled 'Proposal Evaluation Feedback'.

The five shortlisted proposals were intended to be shared with all of the advisory board members to be discussed in a video conference at a later point. However, there was a conflict between task timeline and BI staffing (ORION officer on annual leave), which did not allow the second evaluation round to proceed according to plan.

7. Selection of Proposals

The winning proposal was selected based on absolute score during the evaluation. The MELTIC project proposal scored few points higher than the other four and was accordingly deemed the clear winner. This winning proposal requested only over 40% of the original funding budget, leaving a remaining budget of over 50.000 Euros. The ORION Project Officer and External Evaluator at the Research Executive Agency recommended during the ORION review meeting in January 2020 to consider funding an additional co-creation initiative with the remaining budget of the call. This meant any

additional project to be funded within this ORION call had to be adapted to a new timeline and available budget to be able to benefit from the fund.

The other four projects that scored the highest in the evaluation had very similar scores. After internal assessment on project management and budget feasibility by BI and CRG, the two ORION organisations behind the other four proposals, CRG concluded none of their projects could be adapted to the characteristics of the funding call. Accordingly, the second proposal awarded by ORION novel co-creation funding was Vaccines on Tour project by BI Group Leader Dr. Adrian Liston.

8. Call Resolution & Announcement

The call resolution was announced in two tiers: The first one in December 2019, when the MELTIC project was notified. During January and February 2020 MELTIC project leaders in ISCIII and ORION staff at BI drafted MELTIC Project Specification (Annex 1) and the project started in March 2020 with a duration of one year.

In the interim, ORION project budget and grant agreement had to be amended, approved by all consortium members and agreed by the REA, which would confirm the available remaining budget for this call. The grant amended was granted in October 2020, when the second winner was announced.

In the interim between the publication of this ORION funding call in June 2019 and the announcement of the second winner there was the COVID-19 outbreak, which required social distancing measures and reduction on face to face events to contain the spread of the virus. This new normal argued for the need to change the name of the second winner project to VACCINE and leave out from the project title its original itinerant nature. The VACCINE project started in November 2020 and will run for 9 months until end of July 2021.

9. Conclusions

The events recorded in this report correspond to the following phases of ORION task to support novel co-creation initiatives (T3.5):

- Design of the call to support novel co-creation initiatives.
- Evaluation and selection of proposals.

These two phases of the task have been a learning exercise during which we identified a few success factors as well as challenges. These two phases combined have provided ORION partners an early opportunity to reflect over embedding project results (of WP2 into this task) and to collaborate with new and existing stakeholders.

Other lessons learned during these two phases are:

1. How to allow for **incorporation of WP2 results into this task**. During the brainstorm session in the ORION AGM in Bologna (April 2018), participants found it difficult to translate findings from ORION public attitudes survey (T2.2) about the life sciences research topics citizens' are most interested in into specific actions that we could incorporate in this task. For this reason, we decided to focus the call more broadly on health and biomedicine and to leave the call criteria open and flexible.

2. How to **balance competing timelines**. Due to task timeline and ORION partners' availability, the second workshop to design the call (April 2019) coincided with public holidays in Europe. We therefore decided to delay the workshop and hold it shortly after the public holidays, which resulted in 20% of workshop delegates coming from external organisations. We believe that having hosted the event well ahead or after the public holidays, neither option feasible in this occasion, would have boosted the stakeholder engagement rate. Nevertheless, we received meaningful contributions from the external stakeholders participating in the workshop, particularly around what not to fund with this call.
3. An **open and flexible call criteria** allowed for a successful submission process, with a good number of submitted proposals from diverse disciplines related to health and biomedicine. The number of proposals submitted for this ORION funding call has been three times higher than for ORION Citizens Science Funding Call (T3.4).
4. The **flexibility** in how to allocate the **call budget** allowed for two projects to be funded by this ORION funding call. The inherent challenge to this approach has been how to match available budget to the sum of winner proposals' budget, which originally exceeded the call budget. To overcome this challenge, the second winning proposal had to be adapted to the remaining budget at the discretion of the researcher author of the proposal. On the other hand, funding two projects multiplied the reach to support novel co-creation initiatives and potentially influence more researchers to consider other viewpoints in their research projects, which will eventually need to be assessed in the final evaluation of this task.

The implementation of selected proposals, MELTIC and VACCINE (nee Vaccines on Tour), will indicate whether this novel co-creation initiatives fund encourages further collaboration of Core and Associated ORION partners with stakeholders in the quadruple helix and how these collaborations can support making research funding and performing institutions more permeable to Responsible Research and Innovation principles.

10. Annex: selected projects

- a. MELTIC Project Specification
- b. VACCINE Project Specification



D3.6 ORION

Novel co-creation initiatives to open up research in life sciences and biomedicine

MELTIC Project Specification



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 741527 and runs from May 2017 to April 2021.

Contents

Table of Contents	2
ACRONYMS	3
Project Lead.....	4
Partners	4
Summary.....	4
1. Project Aim and Objectives	4
2. Project Outline.....	5
2.1 Project Work Packages	5
2.3 METHODS (CO-CREATION METHODS).....	9
2.4 STAKEHOLDER ENGAGEMENT AND COMMUNICATION PLAN.....	10
3. Timeline.....	11
4. Project Outputs, desired outcome and potential impact	11
5. Budget.....	12

ACRONYMS

ICT:	Information and Communication Technologies
EU:	European Union
WHO:	World Health Organization
Wi-Fi:	Wireless Fidelity
GPS:	Global Positioning System
ISCIll:	Instituto de Salud Carlos III (Madrid, Spain)
LPdCM:	La Palma del Condado Municipality (Huelva, Spain)
MM:	Mirabello Municipality (Italy)
HoD:	Hospital of Deta (Romania)
CRdM;	Community of Reguengos de Monsaraz (Portugal)

This document outlines the project plan for the “Ideas MELting pot for TIC and Health science for Citizens in small communities (MELTIC)” project, funded by the ORION Open Science project call for novel co-creation initiatives to open up research in life sciences and biomedicine.

Project Lead

Victoria Ramos, Instituto de Salud Carlos III, Tenure Scientist OPI at Telemedicine and Digital Health Research Unit, Madrid (Spain). Victoria Ramos will be main author of project outcomes.

Partners

- Andres Dochao, Head of Friendly City Programme of La Palma del Condado Municipality (Huelva, Spain)
- Roberto D’Amico, Advisor in Friendly Cities Programme in Mirabello Municipality (Italy)
- Dr. Bungău Codruța, Manager of Hospital of Deta (Romania)
- Anabella Caeiro, Head of Friendly City Programme of Reguengos de Monsaraz (Portugal)

Summary

MELTIC Project (Ideas MELting pot for TIC and Health science for Citizens in small communities) is a proposal for co-creation of research in the disciplines of Health and Information and Communications Technologies to improve the quality of life of European citizens in small communities. MELTIC connects with diverse European Policy challenges such as depopulation, health, active aging, education, youth and climate change and seeks to identify current and future needs of citizens. The objective is to generate, through co-creation methodologies, suitable ideas for research in ICT in Health and Biomedicine, in topics such as self-learning, false information discrimination and ludopathy prevention in order to innovate about the use of existing public spaces and/or build new ones. The project will focus on developing a transnational co-creation workshop, during which over 30 participants from small communities with local health-related profiles (patients, parents, doctors, nurses, associations and politicians) in Portugal, Spain, Italy and Romania will generate a *Vade mecum* of 100 ideas for research in ICT in Health and Biomedicine and a model for cooperation in small communities in rural areas. Both outputs will be delivered on line and available for small communities to use.

1. Project Aim and Objectives

Please outline your aims (what do you want to achieve overall?) and objectives (what steps need to be taken to achieve these aims?)

The aim of the project is to make research activities in ICT in Health and Biomedicine more open, transparent, and accessible in order to increase its research and societal impact and contribute thereby to improve the quality of life of European citizens in small communities.

To this aim, one of the objectives of the project is to support innovative and exciting initiatives to bring together different stakeholder groups to co-create research in ICT in Health and Biomedicine.

The objective is to co-produce suitable ideas for research in topics such as self-learning, false information discrimination and addiction prevention (ludopathy to games and gambling). The leading issue is how to use smart technologies to transform public spaces in small communities into people-friendly humane environments, rather than just more high-tech places. The structure of MELTIC project is designed around the importance of inclusive and multidisciplinary co-production and introduces the importance of comprehensive and trans-disciplinary development. A technical proposal about a model for cooperation in small communities in rural areas for citizens will be presented. This will help us to better understand (potential) interactions, at the centre of this discussion.

2. Project Outline

Please outline the tasks that will take place during the year the project will be running. What methods and techniques will you use, especially co-creative methods? Which partners will be responsible for each task?

Please include information on stakeholder engagement (how will you recruit researchers and citizens?) and a communications plan.

Please include the generation of a data management plan at the beginning of the project.

The use of smart technologies in public spaces is increasingly creating new forms of social interactions and practices, which in return creates new socio-spatial relations and promotes interactions and communication between isolated and disperse communities.

This argues for the need to re-think social practices and the use of public spaces, which in turn might also have an impact on the development of ICTs and their devices. The intertwining of real and virtual worlds also opens up new ways of advancing knowledge, gathering and interpreting the data, and disseminating the acquired knowledge.

2.1 Project Work Packages

The project will run for a year and will be organised as follow:

WP1 - Project Management and Data Management Plan (Lead: ISCIll, M1-M12).

Task 1.1: Data Management Plan (M3)

A model of good practice for international transdisciplinary collaboration between the social and other sciences will be followed (Horizon 2020 Programme guidelines). The considerations on Data Protection will also be taken into account: the integrity of the information must be sought to avoid breaches of the confidentiality of health data. The guarantees for maintenance of the personal dignity and privacy: avoid any data leakage, and that all access minimizes the impact of a transmission of information to an unlawful third party. Good research data management to support the FAIR principles (Findable, Accessible, Interoperable, and Reusable) will also be applied when relevant (implementing research projects). Sections 4.1 and 4.2 of Horizon 2020 Programme guidelines will be considerate.

Deliverable 1.1: Data management plan (M3).

Task 1.2: Project Specification (D1.2, ORION D3.6 - February 2020)

Task 1.3: Halfway Report (D1.3, M6)

Task 1.4: Final Report (D1.4, M12)

WP2 – Analysis of ICTs state of the art (Lead: HoD; M1-M3).

Task 2: Literature review (M1-M3).

We are experiencing a digital era of real-time transmission of data and immense computing power. It is astounding how developments in electronics, information and telecommunications permeate our daily lives, and almost every day something new is aggregated. To set a comprehensive baseline for our project, we will develop a review of the state of art of the use of technologies in projects, activities and initiatives:

- a) That include aspects of interaction among users, ICT and social behaviour,
- b) For spatial analyses, planning methodologies and public involvement
- c) On urban games

Deliverable D2: Literature review (M3).

WP3 - Stakeholder analysis and context description to feed into the co-creation process (Lead: MM; M1-M4).

Task 3.1: Identify the stakeholders within the wide group of members formed by government entities, funders, educators, charities, civil societies, patient groups and citizens (M1).

We will make a short list of potential participants with the adequate combination of representation of end and intermediate users of healthcare resources, services, technologies and research and proactive profiles. This short list of stakeholder candidates will be evaluated by MELTIC partners with support of experts in co-creation. The number of stakeholders to participate in the co-creation event will be a maximum of 5 people from each of the four EU participant countries (Spain, Portugal, Italy and Romania).

Task 3.2: Identify shared general topics of interest for above identified stakeholders (M1-M2).

Task 3.3: Exploratory study about interactivity as well as the spatial and social aspects of ICT in small and isolated communities (M1-M4).

The study will also look at their impacts, opportunities and risks that have not yet been systematically compared, discussed and evaluated. The consequences of this relationship are not yet fully investigated; long-term experiences and analyses do not yet exist, meaning that an ultimate evaluation of the consequences of ICT in small communities is still awaited. This fact, accompanied by rapid development and increasing application possibilities, challenges ICT experts, urban designers and social agents.

Deliverable D3: Analysis of stakeholders and context for the co-creation process (M4).

WP4 - Technological proposal for implementation (Lead: ISCIII; M1-M12).

Task 4: We will develop a technological proposal to support and encourage socio-spatial interaction of citizens in small communities (M1-M12).

The technological proposal will be developed out of one of these two options:

ON-LINE WEB PLATFORM: The platform implements and deploys a set of functionalities that provide comprehensive support to the needs of institutions, functional units and coordinating centres:

1. Management of Good Practice guides (BBPP): library of guides based on Horizon 2020 Programme guidelines
2. Organization management: organization hierarchy according to a tree structure
3. User management: module for assigning users to organizations and roles
4. Assignment of guides: support for the process of assigning specific guides and guide views to specific institutions and functional units based on their profile.
5. Measurements: completion (editing-correction) and follow up of guides / guide views
6. Exploitation: module for the generation of enriched internal reports at various levels: territorial, administrative, institutional, and functional unit
7. Export-Import: possibility of exporting raw guide data.

APP. An app allows for the use of interactive virtual environments that enable self-management education, follow-up of the process and results of the sessions, personalized parameterization based on the degree of compliance with the objectives and provide greater objective and subjective security to users. Guide with a training program that can be composed of videos and documents adaptable to the specific needs profile of each user that you can consult at any time.

1. Technologically, it works on Android smartphone and can be designed specifically for other Tablet systems. The app may be developed on the Apache Cordova multiplatform framework
2. For contextual-environmental information, the app accesses free remote services of meteorological information, geolocation, etc., supported by "smartphone" resources such as GPS. The "feedback" aspects can be addressed through audio messages combined with complementary visual information. It allows interacting asynchronously via "web-service" through the Internet with the web platform that allows the monitoring of activities, improving the frequency and objectivity of the evaluation of program compliance, adaptation and user progress.

The development of a technological proposal for citizens in small communities will be based on existing knowledge and experience about the interactions of ICT, public spaces and health in different ways:

- 1) The use of ICT devices in public spaces (phoning, texting, wi-fi, gaming),
- 2) The ICT as information transport media (internet, newsletter),

3) ICT as a tool for social and health reporting and planning (e-planning) - this includes the possibilities the ICT offer for connecting people on small communities (enhancing participation).

4) Interfaces of specific networks

5) Availability functions and services

Another key aspect to develop a technological proposal is ICT features of: allowing on-demand access to content anytime and from nearly anywhere; engaging individual and groups of users to interact and congregate online and share information. The impacts of ICT available in public spaces is already challenging tech designers and landscape architects to meet the needs of people living in an increasingly connected world.

Deliverable D4: Technological proposal to support and encourage socio-spatial interaction of citizens in small communities (either a website or an application) (M12).

WP5 - Co-Creation experience in ICT in Health and Biomedicine Research (Lead: LPdCM / CRdM; M1-M12)

Task 5.1: A preparatory meeting will be held with the different partners in Madrid to prepare for the co-creation workshop (M1-M3).

Workshop for MELTIC partners to define concepts and select topics and methodology for the co-creation workshop.

Task 5.2: Co-creation workshop about ICT in Health and Biomedicine Research (M4-M6).

A transnational workshop in ICT in Health and Biomedicine research will be held in June 2020 in La Palma del Condado (Spain), with support of a co-creation facilitator (experts in Design Thinking) and participants from Portugal, Spain, Italy and Romania, with local health-related profiles (patients, parents, doctors, nurses, associations and politicians). Will use co-creation methodologies to generate suitable ideas for ICT in Health and Biomedicine research in topics such as self-learning, false information discrimination and addiction prevention (ludopathy to games and gambling).

Task 5.3: Partners workshop and analysis of results of the co-creation workshop (M7-M9). The results of the co-creation workshop will be analysed by all partners during this workshop and following months in order to elaborate final conclusions for ICT in Health and Biomedicine research.

Task 5.4: Elaboration of conclusions for ICT in Health and Biomedicine research (M10-M12).

Deliverable D5.1: A post-event report about the transnational co-creation workshop, including a list of topics covered and a list of ideas generated during that meeting. This report will serve as a base for the partners' workshop (T5.3) and will collect the conclusions from T5.3 deliberations. Therefore, it will be a live document. This report will be uploaded in the online public repository of the ISCIII. (<https://repisalud.isciii.es/>) (M12).

Deliverable D5.2: The ideas generated during the co-creation workshop will be collected in a *Vade mecum* of 100 ideas for ICT in Health and Biomedicine research (M12).

WP6 – Outreach and dissemination (Lead: ISCIII / other partners; M1-M12).

Task 6.1: Dissemination plan (M1-M12).

With the support of all MELTIC partners, the WP leader will develop and implement a communication and dissemination plan where expected results, objectives, target audiences, dissemination actions, methods and tools, timeline and outcome indicators will be clearly outlined. All partners will be actively involved in disseminating project activities and results to the target audiences. This plan will be reviewed towards the end of the project and any update will be included in the final report (D1.4).

Deliverable D6: Dissemination plan (M6).

Task 6.2: MELTIC partners' websites and social media channels (M1-M12).

All partners will play an active role in this task to communicate the project work widely. Social media channels, like Twitter, LinkedIn, Facebook and YouTube, will be utilised to foster networking and promote the activities of the project. ISCIII will be responsible for ensuring relevant postings from all partners. A blog post will be written and used for project promotion purposes either in partners' websites or in ORION communications channels.

2.2 Methods (co-creation methods)

MELTIC will bring together different stakeholders to share their interests and values and generate new ideas, concepts, products or projects. In co-creative projects, all groups are involved and have influence throughout the project lifecycle: from planning, to implementation, to dissemination. There are wide varieties of stakeholders who are interested and can be involved in research activities. These include government, educators, charities, civil societies, patient groups and the public.

In relationship with ORION co-creation process, MELTIC seeks to (1) obtain contributions by users, (2) produce a reference document with all these contributions, and (3) incorporate few selected contributions into products, processes, or services such as an online website or an application.

During MELTIC co-creation workshop, we will use “Manual Thinking”, a tool for the management of creative teamwork, created by Swiss designer Luki Huber (<https://manualthinking.com/>). Its format of maps and labels allow teams to affront any topic, obtaining immediate results with a visual and valuable appearance. This participative approach fosters team commitment and alignment. Furthermore, thanks to its work templates, the tool simplifies the implementation of any method for creativity, strategy and organization.

The co-creation workshop will be guided by experts of Manual Thinking and will have the following stages:

- 1) A process to explore topics join together

- 2) A joint phase of ideation
- 3) A phase of organisation of inputs
- 4) And visualization of the final ideas



2.3 Stakeholder engagement and communication plan

In the case of MELTIC project, one of the objectives is to engage a selected small proactive group of stakeholders. The stakeholders will be selected throughout the analysis of context in WP3. We will identify topics and players of interest within the wide group of members formed by government entities, funders, regulators, educators, charities, civil societies, patient groups and citizens. We will make a short list of potential participants to the co-creation workshop with the adequate combination of representation of end and intermediate users of healthcare resources, services, technologies and research and proactive profiles. The shortlisted stakeholders' candidates will be evaluated by MELTIC partners with support of experts in co-creation. The number of stakeholders to participate in the co-creation event will be a maximum of 5 people from each of the four EU participant countries (Spain, Portugal, Italy and Romania). This group will disseminate the project results to a wider range of around 100 stakeholders in each of the four EU participant countries.

Final plans for further use and dissemination of the MELTIC results will be defined (D6.1) and in the final report (D1.4). The dissemination plan will be based in following channels:

- 1 Dissemination throughout partners' websites and its social media networks (Facebook, Twitter, LinkedIn and YouTube)
- 2 MELTIC project website and partaking academy members' web spaces as Research Gate and Academia (<https://www.researchgate.net/> and <https://www.academia.edu/>).
- 3 WHO website for experiences in its Network of Friendly Cities (<https://extranet.who.int/agefriendlyworld/network/>)

- 4 Scientific articles, which will be shared with ORION partners (<https://www.orion-openscience.eu/>) as well as other and other academic environments (conferences).

Relevant outcomes will be presented in scientific and trade forums. All partners will be called to participate in international conferences, workshops and exhibitions, to promote the project and make it visible to potential beneficiaries.

3. Timeline

Please provide a table outlining approximate timelines for each of the tasks.

				Mz	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb
		Lead partner/s	Duration	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Work Package	Title														
WP1	Project Management and Data Management Plan	ISCIII	12 M												
T1.1	Data Management Plan					D1.1									
T1.1	Project Specification			D1.2											
T1.2	Halfway Report							D1.3							
T1.3	Final Report													D1.4	
WP2	Analysis of ICTs state of the art	HoD	3M												
T2	Literature review					D2									
WP3	Stakeholder analysis and context description for co-creation process	MM	4M				D3								
T3.1	Identify the stakeholders														
T3.2	Identify shared general topics														
T3.3	Analysis of the situation and context description														
WP4	Technological proposal for implementation	ISCIII	12 M												
T4	Technological proposal														D4
WP5	Co-Creation experience in ICT in Health and Biomedicine Rresearch	IPdCM/CRdM	12M												
T5.1	Workshop in definition of concepts, topics to be treated and cocreation methodology		3M												
T5.2	Cocreation workshop about ICT in Health and Biomedicine Research		3M												
T5.3	Analysis of results of Cocreation Workshop		3M												D5.1
T5.4	Elaboration of conclusions for ICT in Health and Biomedicine Research		3M												D5.2
WP6	Outreach and dissemination	ISCIII/Partners	12 M												
T6.1	Dissemination plan								D6.1						
T6.2	MELTIC partners' websites and social media channels														D6.2
		ISCIII: Instituto de Salud Carlos III (Spain)													
		IPdCM: La Palma del Condado Municipality (Spain)													
		MM: Mirabello Municipality (Italy)													
		HoD: Hospital of Deta (Romania),													
		CRdM: Community of Reguengos de Monsaraz (Portugal).													
		Deliverable list:													
		D1.1 Data management Plan													
		D1.2 Final Deliverable Report													
		D1.3 Halfway Report													
		D1.4 Final Report													
		D2 Literature review													
		D3 Analysis of stakeholders and context													
		D4 Technological proposal													
		D5.1 Post event report													
		D 5.2 Vade mecum													
		D6 Dissemination Plan													

D Deliverable
 Full dedication
 Reduced dedication

4. Project Outputs, desired outcome and potential impact

Please outline what are the expected outcomes from this project – this is largely covered in the “compliance with conditions” section of your proposal, but should be summarised here.

The MELTIC project outputs will be:

1. A model for cooperation in the form of a technological proposal to support and encourage socio-spatial interaction of citizens in small communities
2. A vade mecum of 100 ideas about ICT in Health and Biomedicine research

The desired outcome for the MELTIC project would be for any of the ideas in the vade mecum to be implemented in a research project about ICT in Health and biomedicine in topics such as self-learning, false information discrimination and ludopathy prevention to innovate about the use of existing public spaces and/or to build new ones. The potential impact of such an outcome would be an innovative proposal for the (re)use of existing public spaces and/or build new ones.

5. Budget

ESTIMATED BUDGET OF THE ACTION

ISCIII+Partners (*): Part of budget to partners is just devoted to cover travel and accommodation expenses of its participants and will be managed directly by ISCIII. This part of budget for partners' expenses will not be transferred from ISCIII to them.

ISCIII	Cost (€)	Justification
Travel	13.287,50	Travels + Hosting for participants in meetings, WP3 & WP5
Other Goods and services		
-Consumables	600	Consumables WP1 to 7.
-Research	1.200	Subscriptions of scientific journals and purchase of scientific articles. WP2: Review of State of the art.
-Communication	3.200	Publications in Open Access and conferences fees for dissemination of results. WP6: Dissemination and communication.
-Co-creation Facilitator	12.400	Development exercise through the Design Thinking methodology. With the collaboration of Manual Thinking, experts in DT methodology. WP5/T5.2.
-Discover Game	600	Landing co-creation discover game (gymkhana for meeting citizens with science health and ICT). WP5/T5.2.
-Catering	2.500	Coffee breaks and lunch for assistants in meetings WP5.
TOTAL Other Goods and Services	20.500	
TOTAL	33.787,50	



D3.6 ORION
Novel co-creation initiatives to open up
research in life sciences and
biomedicine
VACCINE Project Specification



Table of Contents

Acronyms	3
Project Lead	4
Delivery Partners	4
Summary	4
1. Project Aims and Objectives.....	4
2. Project Outline.....	5
3. Timeline.....	10
4. Project Outputs, desired outcome and potential impact	10
5. Budget.....	11

Acronyms

BI:	Babraham Institute
BSI:	British Society for Immunology
CCC:	Chesterton Community College
CRECIM:	Centre de Recerca per a l'Educació Científica i Matemàtica (Centre for Research in Science and Mathematics Education)
CSC:	Cambridge Science Centre
ECR:	Early Career Researchers
GD:	Game Doctor
RRI:	Responsible Research and Innovation
STEM:	Science, Technology, Engineering and Mathematics
VACCINE:	Virtual Activity Co-Creation Initiative for Novel Engagement

This document outlines the project plan for the “Virtual Activity Co-Creation Initiative for Novel Engagement” (VACCINE) project, funded by the ORION Open Science project call for novel co-creation initiatives to open up research in life sciences and biomedicine. This project is adapted from an earlier proposal referred to as “Vaccines on Tour”.

Project Lead

Fergus Powell, Babraham Institute (BI) Schools’ Public Engagement Officer.

Delivery Partners

- Adrian Liston and Simon Andrews, BI
- David Timney, Chesterton Community College (CCC) (*unconfirmed*¹)

CCC is a local state-funded school. They champion innovative education methods; specifically, the use of technology in learning. Students aged 11-14 will be involved at every stage of design and production, bringing novel perspectives.

- Mandy Curtis, Cambridge Science Centre (CSC)

CSC are a hands-on science centre for families, with extensive experience developing interactive exhibits, shows, workshops and pop-up events.

- Carla Brown, Game Doctor (GD)

GD are a game development company specialising in mobile games, software and media for STEM education.

Summary

VACCINE is an innovative digital approach for engaging people with the science behind infections, immunity and vaccinations. The seed for the project is a virus simulator developed by Babraham Institute (BI) researchers, which will be used as the focus point for the co-creation of an interactive, digital game. The creation of the game will integrate multiple stakeholder views and needs, using co-creation tools in a series of workshops. We have a diverse range of stakeholders including: scientists, schools, science museums and discovery centres, digital game developers, learned societies, and healthcare professionals. The output of the completed project will be made available to audiences through a variety of channels, such as schools and museums, and its digital nature will ensure an ongoing and lasting legacy to the work.

1. Project Aims and Objectives

Please outline your aims (what do you want to achieve overall?) and objectives (what steps need to be taken to achieve these aims?)

The aim of the project is to engage members of the public with the science behind infections, immunity and vaccinations. This is a timely project: vaccination uptake has declined dramatically throughout Europe, resulting in concerning disease outbreaks.

¹ As of 30/10/20, Chesterton Community College are considering their involvement in the project owing to recent disruption to teaching and the need to recruit new student contributors. While their involvement is unconfirmed, there are a number of suitable alternative schools such as Cambridge Academy of Science and Technology.

The UK recently lost its measles eradication status, leading to urgent calls for action and making vaccination an important and timely issue with the potential for far-reaching impact. Meanwhile, the search for a COVID-19 vaccine has renewed interest in vaccinations.

To this aim, the primary objective of the project is the co-creation of a novel online game which addresses the above topic. As this is a co-creative project, the exact nature of the final output is not predetermined. However, the seed of this co-creative project is the [VirusBreak](#) simulator developed by BI researchers Adrian Liston and Simon Andrews. Adrian is an Immunology [Group Leader](#) researching immune cell function, including types of primary immune deficiencies, while Simon is the Head of [Bioinformatics](#). The objective is to work with various stakeholders to adapt the existing simulation into an online game, which can be used as an engagement tool.

The primary target audience for the game, and the age of the students we will work with to develop the product, is children aged 11-14 (UK school years 7-9). More generally, the project will be of relevance for anyone interested in co-creation of public engagement activities, health communication and working with young people.

2. Project Outline

Please outline the tasks that will take place during the time the project will be running. What methods and techniques will you use, especially co-creative methods? Which partners will be responsible for each task?

Please include information on stakeholder engagement (how will you recruit researchers and citizens?) and a communications plan.

Please include the generation of a data management plan at the beginning of the project.

The project will involve collaboration with school children from CCC and other named delivery partners (see page 4) to achieve its objectives. Including children as an equal stakeholder in design and development is an innovative approach to activity design, and will ensure the end product is effective at engaging this group. Bringing together a diverse range of stakeholders will provide opportunities to develop new ways of thinking, and generate novel ideas that can impact the perception of vaccines across Europe.

This project focuses on creating a freely available educational resource (namely, an online game) and is based around the RRI pillars of public engagement and science education. We will consider gender, ethics and open access throughout by, for example: engaging a gender balanced sample of stakeholders; addressing the ethics of vaccination in workshops; and providing open access resources.

The project will run from 9 months, from 1st November 2020 to 31st July 2021. It will be organised into four work packages (WP) as follows:

WP1: Project and Data Management (M1-M9)

Task 1.1: Project Specification

Deliverable 1.1: Project Specification document, M0. Completed by start of project.

Task 1.2: Data Management Plan

The production of a plan detailing what data will be collected and how and where this will be collected and stored, using [DMPOnline](#) as a guide. As a minimum, any personal data collected will be saved in encrypted (password protected) files. If possible, files containing personal data will be saved in the ORION confidential server.

Deliverable 1.2: Data Management Plan, M2.

Task 1.3: Ethics Self-Assessment

Completion of Ethics Self-Assessment using Horizon 2020 ethics self-assessment guidance. Specifically, sections 2 (human beings) and 4 (personal data) may apply.

The ethics self-assessment documentation will include a copy of informed consent and assent forms, information sheets and, if applicable, ethics committee approval.

Deliverable 1.3: Ethics Self-Assessment and related documentation, M2.

Task 1.4: Halfway Report

Although not a mandatory funding condition, a brief halfway report will be produced to document project progress by March 2021.

Deliverable 1.4: Halfway Report, M5.

Task 1.5: Final Report

Deliverable 1.5: Final Report, M9.

WP2: Co-creation phase: design (M1-M5)

Task 2.1: (Re)engagement of stakeholders

Reengagement of key delivery partners, plus additional stakeholders. Key delivery partners (BI researchers, CSC, GD) have already been contacted to ensure their continued involvement in the project, with positive responses.

CCC have not yet confirmed their continued engagement with the project given the updated timeline. However, we are confident students can be recruited for the project from this or another Cambridgeshire school. We will use existing teacher contacts in order to facilitate this.

Following an open call for collaborators we established a large network of additional stakeholders including researchers from across the UK, learned societies, healthcare professionals, STEM education experts, artists and film-makers. If members of this network can be re-engaged, this will allow us to recruit additional relevant participants for specific aspects of the project.

Task 2.2: Immunology meeting

Kick-off meeting of delivery partners to discuss the following questions:

- Which particular audience(s) will the product be targeted at?
- How should the product be disseminated?
- Which particular aspects of vaccine science will the product include and emphasise?

This meeting will use the Nominal Group Technique method to ensure contributions from all participating stakeholders and to facilitate quick solutions. It will be held remotely in December 2020.

Deliverable 2.2: Summary of ideas generated by stakeholder meeting, M2.

Task 2.3: Game design session

In line with ORION co-creation process, the VACCINE project seeks to obtain contributions by users; produce documentation of these contributions; and incorporate contributions into the final product. The design of the product will therefore be a co-creation session(s) with children from CCC (and/or other Cambridgeshire schools). This session will impact the design, format and structure of the final product. By the conclusion of the session, it is anticipated that work on the creation of a prototype game can begin. This first co-creation session is to be held in January 2021 (M3). It is anticipated that this session is likely to be held remotely due to ongoing restrictions to in-person gatherings.

This event can also act as an educational opportunity in itself by including a workshop element on the topic of vaccination, incorporating the existing simulation.

A small focus group of children will be recruited to participate in this co-creation session. Focus groups are an interactive technique used to collect information from a group of interest. By including children in the design of the product, this leads to the creation of new ideas which will improve the appeal of the product to this demographic. Participants will be guided but free to express their thoughts, opinions and attitudes towards the product.

A summary of the event and the decisions made will be produced. This will feed into the halfway and final reports and publicity of the project.

Deliverable 2.3: Summary of design session, M3.

Task 2.4: Creation of beta product

Deliverable 2.4: A working prototype product, M5.

WP3: Co-creation Phase: Testing (M4-M7)

Task 3.1: Game testing session

A second co-creation session, to be held during March 2021 (M5). Child participants will help test the beta product and identify any further improvements. Again, a summary of the session will be produced to examine the effectiveness of the session and clearly identify the changes made as a result. This will feed into the final report.

It is unclear whether this will be an in-person or remote session, as this will depend on restrictions and regulations at the time. Accordingly, a small portion of the budget is allocated for travel and catering, should this event take place in person.

Deliverable 3.1: Summary of testing session, M6.

Task 3.2: Creation of final product

The feedback from the testing session will be incorporated into the final design.

Deliverable 3.2: The finished product, an online game/engagement tool, M7.

WP4: Dissemination and evaluation (M1-M9)

Task 4.1: Evaluation Plan

A plan establishing how to determine the effectiveness of the project in meeting its stated aim: to engage members of the public with the science behind infections, immunity and vaccinations. There are two aspects to the evaluation:

- Evaluation of the final product (game)
- Evaluation of the project itself as a co-creation exercise

As the timeframe for this project is highly ambitious, the time between the completion of the product and the final report being due is limited. This limits the extent to which data can be collected on the use of the product. However, this does not mean the project cannot be robustly evaluated, as the evaluation will also consider the effectiveness of the whole project as a co-creation exercise.

The evaluation will include feedback from those involved in the co-creation process, as well as other users of the product. The plan will be produced in consultation with ORION evaluation partners CRECIM.

Deliverable 4.1: Evaluation Plan, M3.

Task 4.2: Dissemination Plan

A plan outlining how the product will be publicised to ensure maximum dissemination. We will maximise reach using our stakeholder network. Digital resources will be shared online with open access, allowing dissemination throughout the UK, Europe and beyond.

In particular, the dissemination plan will need to address how the product might best reach its target audience of children aged 11-14. In addition, if the immunology kick-off meeting (T2.2) identifies any additional target audiences, this should also be considered in the dissemination plan.

The British Society for Immunology (BSI) maintain a network of around 3500 researchers (approximately half ECRs) and are members of the European Federation of Immunological Societies. If they can be reengaged, BSI in particular will facilitate the dissemination of project outputs to researchers (especially ECRs) as well as maximising impact through their European networks.

Deliverable 4.2: Dissemination Plan (M6)

Task 4.3: Dissemination of product

In line with the dissemination plan. The digital nature of the product will enable it to be accessed more widely than a physical event. Various stakeholders will be used to share the product and increase its impact. This will include, for example:

- Publicising through teacher contact and networks (school audience)
- Partner websites and social media, e.g. Twitter, Facebook, LinkedIn (general audience)
- Presentation at ORION final meeting

Task 4.4: Evaluation of product

In line with evaluation plan. There is no separate deliverable for this task as it will feed into the final report (D1.5), due 31/07/2020.

3. Timeline

Please provide a table outlining approximate timelines for each of the tasks.

Project duration: 1st November 2020 – 31st July 2021

Work Package	Title	Duration	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
			M1	M2	M3	M4	M5	M6	M7	M8	M9
WP1	Project and Data Management	9M									
T1.1	Project Specification	1M	D1.1								
T1.2	Data Management Plan	2M		D1.2							
T1.3	Ethics Self-Assessment	2M		D1.3							
T1.4	Halfway Report	5M					D1.4				
T1.5	Final Report	9M									D1.5
WP2	Co-creation phase: design	5M									
T2.1	(Re)engagement of stakeholders	1M									
T2.2	Immunology meeting	2M		D2.2							
T2.3	Game design session	3M			D2.3						
T2.4	Creation of beta product	3M				D2.4					
WP3	Co-creation phase: testing	4M									
T3.1	Game testing session	3M						D3.1			
T3.2	Creation of final product	2M							D3.2		
WP4	Dissemination and evaluation	9M									
T4.1	Evaluation plan	3M			D4.1						
T4.2	Dissemination plan	6M						D4.2			
T4.3	Evaluation of project	9M									
T4.4	Dissemination of product	3M									

4. Project Outputs, desired outcome and potential impact

Please outline what are the expected outcomes from this project – this is largely covered in the “compliance with conditions” section of your proposal, but should be summarised here.

The VACCINE project output will be:

1. A digital game or engagement tool for engaging the public with the science behind vaccinations, infections and the immune system.

We anticipate project impacts including: school children and parents learn about vaccination; participants and visitors become vaccine confident; stakeholders more willing to participate in co-creative projects; researchers more willing to participate in Open Science; creation of network interested in science engagement and co-creation.

5. Budget

Project management personnel costs are to be incurred by BI and are not included in the budget.

Revised budget	€ 28,400
Personnel	
Digital game development	€ 11,000
Travel and Subsistence	
Travel to workshops	€ 1,000
Catering for workshops	€ 1,000
Materials and Consumables	
For workshops	€ 900
Production Costs	
For digital game	€ 5,000
Communications and Marketing	
Brand development	€ 1,500
Website	€ 5,000
Marketing posters, fliers, etc.	€ 1,000
Other	
Legal, financial and administrative costs	€ 1,000
Contingency	€ 1,000