

DELIVERABLE D7.14: Exploitation Plan

Project Acronym: ENGAGE

Project Name: Equipping the Next Generation for Active Engagement in Science

Call: SCIENCE IN SOCIETY [2013.3.2.2.1-1]

Project Type: Coordination and support actions

Grant Agreement No.: 612269

Project Start Date: 1st January 2014

Project Duration: 39-Months

Actual Submission Date: Month 37

Task Leader: The Open University - UK

Report Author(s): Alexandra Okada (OU), Tony Sherborne (SHU)

Report Collaborator(s): Dalius Dapkus, Mihai Bizoi, Mario Barajas, Silvia Alcaraz-Dominguez, Yael

Shwartz, Kathy Kikis-Papadaski, Maria Evagorou, Francine Pellaud, Harald Bjar,

Elisabetta Parodi, Aristidis Protopsaltis, Vanessa Mignan, Claire Potier

Report Reviewer(s): Matteo Merzagora, Dury Bayram Jacobs, Andy Bullough

Dissemination Level: Public

THE ENGAGE CONSORTIUM

Centre for Science Education – Sheffield Hallam University (Coordinator)	UK
Knowledge Media Institute – The Open University	UK
Institute of Applied and Computational Mathematics, Foundation for Research and Technology	Greece
Innovation in Learning Institute	Germany
<u>Lattanzio Learning</u>	Italy
<u>Traces</u>	France
Valahia University Targoviste	Romania
Weizmann Institute	Israel
Universitat de Barcelona	Spain
Vestfold University College	Norway
Biotechnology & society department, Delft University of Technology	Netherlands
School of High Pedagogy of Freiburg	Switzerland
<u>Lithuanian University of Educational Sciences</u>	Lithuania
Department of Education, University of Nicosia	Cyprus

DOCUMENT HISTORY

Version	Date	Comment	Modifications made by
1	02/10/2016	First Draft	Alexandra Okada
2	02/11/2014	Comments & Contributions	Tony Sherborne
3	02/12/2016	Second Draft	Dalius Dapkus, Gabriel Gorghiu, Yael Shwartz, Mario Barajas, Kathy Kikis-Papadaski, Maria Evagorou, Francine Pellaud, Harald Bjar,
4	10/01/2017	1 st review	Tony Sherborne
5	27/01/2017	Full Version	Alexandra Okada
6	03/02/2017	Completing Missing Information in Annex	Vanessa Mignan, Aristos Protopsaltis, Dury Bayram Jacobs, Elisabetta Parodi, Gabriel Gorghiu, Yael Shwartz,
7	10/02/2017	Peer review	Dury Bayram Jacobs and Matteo Merzagora
8	28/02/2017	Final version reviewed for submission	Andy Bullough

CONTENTS	
THE ENGAGE CONSORTIUM	2
DOCUMENT HISTORY	3
INTRODUCTION	6
PART 1 – OVERVIEW	6
1.1.ENGAGE Outcomes	6
ENGAGE analytics	8
PART 2 - EXPLOITATION STRATEGIES	9
2.1 Overall strategies considering stakeholders	9
2.2 Strategies considering beyond project targets	11
a. Formal education institutions beyond secondary schools	12
b. Informal education beyond museums	12
c.Countries beyond Europe	12
e.ENGAGE National Conferences	14
Institut für Lern-Innovation, Friedrich-Alexander-Universität Erlangen-Nürnberg	14
PART 3 - EVALUATION AND NEXT STEPS	15
3.1 Open Multilingual Educational Portal	15
3.2.Scientix and Social Media	15
3.3 Brokering partnerships with scientists	16
REFERENCES	18
Annex A - Events attended by ENGAGE partners	18
Symposium presentation; Researching PCK in International Contexts: Qualitative Research Approach to stude the Impact of Engage Materials on Chemistry Teachers in different Countries	dy 24
EXPLORING THE IMPACT OF EDUCATIVE MATERIALS ON TEACHERS' PEDAGOGICAL CONTENT KNOWLEDGE	24
Annex B – Conference Programme	25
Lithuania, RRI Festival: ENGAGEment in Science	25
Spain, RRI in science education symposium	25
Romania, RRI Festival	25
GREECE - ENGAGE-ing Science RRI Event	26
THE UK - Engaging Science Mastery	26
ISRAEL Science Festival	27
SWITZERLAND, Enseigner les sciences au XXIe siècle : quels enjeux ?	27
CYPRUS Science Festival	28

NORWAY Engaging Science festival	28
GERMANY	29
FRANCE	29
Annex C – Partners Sustainable Plan	31
UK	30
Lithuania	31
Germany	34
Spain	35
Norway	36
France	37
Switzerland	38
Greece	39
Cyprus	41
Romania	43
Israel	44

EXECUTIVE SUMMARY

This document reports the key strategies of the ENGAGE exploitation plan and its methodology, taking into account the project's objectives, target audiences and its outputs.

ENGAGE exploitation includes a variety of strategic mechanisms focusing on the last project phase: SUSTAINABILITY (December 2016 – March 2017) to ensure that ENGAGE project outcomes will be fully sustained. This document describes the activities that were undertaken by almost all partners for continuation of the ENGAGE project beyond its completion.

In terms of output, ENGAGE provided open multimedia platform in 10 languages, more than 300 open educational resources, 15 MOOC 10 in Open edX, 2 in Moodle and 3 in other platforms delivered and interactive community with more than 15000 members registered in the portal from 80 countries. Its aim focused on equipping the next generation with inquiry skills for Responsible Research and Innovation. In terms of impact, ENGAGE community portal achieved 130000 downloads, more than 3500 review comments and votes by teachers who used ENGAGE and more than 2500 teachers who attended MOOC and workshops in 11 countries in various platforms.

To mainstream project outputs widely in Europe, the ENGAGE consortium has been organising 11 National festivals in Europe from January 2017 to March 2017, whose target groups include a variety of stakeholders

and end-users for knowledge exchange. To multiply its impact and ensure continuity, partners in 11 countries are establishing partnerships within their own Institutions in Science Education to embed MOOC and open educational resources for teachers professional development. This also includes partnerships with national assessment boards and local councils. To sustain the community, ENGAGE resources in WordPress and courses in Open edX will be available until 2020 on the server hosted by Lattanzio Group in Italy.

INTRODUCTION

This document presents the ENGAGE Project Exploitation plan with strategies implemented. It is organised in three main parts.

In the first section, key information about the **project outcomes** and outcomes are introduced and the project exploitation strategies are presented by phases and key stakeholders.

The second section presents the **actions adopted by each partner** to ensure that ENGAGE project outcomes will be fully mainstreamed, multiplied and sustained in their country.

Third, the **evaluation of Exploitation strategies** is discussed and the next steps with plans and ideas are presented for the next 3 years after ENGAGE completion, this means until 2020.

PART 1 – OVERVIEW

1.1.ENGAGE Outcomes

The key objectives of ENGAGE were achieved beyond its targets.

More than 15000 SCIENCE TEACHERS registered in ENGAGE platform, which reached more than

674,638 page views, and 129674 resources downloaded,

Data from evaluation, particularly from teachers who attended MOOC and provided review comments in the Portal about resources confirmed that they were able to:

- help teachers address contemporary science issues and applications relevant to students
- to develop teachers' beliefs, knowledge and classroom practice for 'RRI'.
- to provide students a strong foundation to engage in science issues they will meet during their lives



Figure 1- International Conference ENGAGE WORKSHOP in OXFORD more than 60 teachers 2016

a. Teaching contemporary science issues and applications relevant to students

Teachers who wrote review comments in the Portal and also attended MOOC highlighted that ENGAGE materials and pedagogical tools engaged students with inquiry skills to discuss topical socio-scientific issues. They enjoyed discussing different views and being aware of the uncertainties of innovation and its relevance of responsible research.

"Chose this as it is current in Yorkshire news where we live. Students enjoyed both sides of the argument and were thrilled to do some research into a hot topic" Material Fracking used on 3 July 2016 by Science teacher in York UK

b. Supporting teachers' pedagogical innovation and classroom practice for 'RRI

These teachers who used ENGAGE activities also commented that they appreciated their students' engagement with the discussion, particularly with contemporary topics that were relevant for their school and cities. They also mentioned that the activities were easy-to-use to foster knowledge, skills and classroom practice for 'RRI.

"Excellent for my area of the world. Great information for my students in my subtropical climate (we have just declared a Zika emergency). I love the discussion the lesson promotes. We have something called Argument Driven Instruction here, but I find the format more time consuming than these activities for my 12 year olds. Very well done and super teacher friendly." Material ZIKA used on 6 July 2016 by Science teacher in Miami the USA

c. Engaging students with socio-scientific issues that they will meet in their lives

Some partners had opportunity to observe lessons and interview students. It was possible to identify that students also appreciated to reflect on science issues they will meet during their lives. They considered important to be able to make sense of scientific innovations and being able to make decisions.

"ENGAGE car wars game help us think about advantages and disadvantages of electric cars which are very popular in our town. We discussed benefits and risks of various types of cars for the environment and in terms of costs for our families. Group of 4 girls, 14 years old who used the activity CAR WARS in March 2015 in Milton Keynes, the UK

"We did not know the risk of exterminating mosquito for the ecosystem. Zika is a serious problem in our community, initially we thought that Aedes should be exterminated, and now we think that scientists should find new solutions to exterminate the virus without exterminate the mosquitos" Group of 5 students - 16 years old – who developed Exterminate project in December 2016 in Irece Bahia Brazil.



Figure 2 – Electric Cars in Milton Keynes UK and EXTERMINATE ZIKA in Bahia Brazil

ENGAGE analytics



	154,186 % of Total: 100.00% (154,186)	58.47% Avg for View: 58.47% (0.01%)	90,160 % of Total: 100.01% (90,155)	42.58% Avg for View: 42.58% (0.00%)	4.38 Avg for View: 4.38 (0.00%)	00:04:37 Avg for View: 00:04:37 (0.00%)
1. 🖫 United Kingdom	52,013 (33.73%)	62.08%	32,290 (35.81%)	41.94%	4.34	00:03:47
2. Spain	17,524 (11.37%)	56.21%	9,851 (10.93%)	42.03%	4.24	00:04:49
3. Lithuania	9,078 (5.89%)	45.90%	4,167 (4.62%)	31.58%	4.90	00:05:52
4. France	8,842 (5.73%)	68.77%	6,081 (6.74%)	46.64%	4.02	00:04:21
5. srael	8,644 (5.61%)	61.30%	5,299 (5.88%)	37.48%	4.97	00:05:06
6. Romania	8,349 (5.41%)	37.07%	3,095 (3.43%)	24.57%	5.95	00:08:09
7. 🔚 Norway	7,818 (5.07%)	48.38%	3,782 (4.19%)	47.57%	3.79	00:04:33
8. Germany	5,099 (3.31%)	58.48%	2,982 (3.31%)	45.30%	4.42	00:04:01
9. United States	3,915 (2.54%)	76.60%	2,999 (3.33%)	60.41%	2.79	00:02:17
10. III Italy	3,538 (2.29%)	28.72%	1,016 (1.13%)	26.88%	7.91	00:12:05
11. Switzerland	3,534 (2.29%)	44.14%	1,560 (1.73%)	32.54%	4.97	00:06:17
12. Greece	3,218 (2.09%)	39.34%	1,266 (1.40%)	32.38%	5.47	00:06:36
13. Russia	1,965 (1.27%)	85.19%	1,674 (1.86%)	95.88%	1.48	00:00:29
14. Cyprus	1,870 (1.21%)	41.93%	784 (0.87%)	35.72%	5.23	00:06:26
15. Australia	1,716 (1.11%)	69.52%	1,193 (1.32%)	47.20%	3.53	00:03:25

PART 2 - EXPLOITATION STRATEGIES

2.1 Overall strategies considering stakeholders

In order to ensure that ENGAGE project outcomes will be fully mainstreamed, multiplied and sustained in their country, the consortium established three key actions:

- Large Dissemination of outputs focusing key events at local, national, European and International
 events
- National Festivals in Europe for knowledge exchange of best practices and dissemination
- Brokering System: Partnership with Scientists, Formal Education Institutions, Informal Learning Associations and Research Centres
- a. Science teachers' communities: our global sustainable plan focused on key European and International Science Education Communities for large scale dissemination to reach science teachers. Partners engaged local communities for localised dissemination and exploitation actions and well as international networks to engage science educators in Europe. ENGAGE consortium presented various project outputs (including OER and MOOC book) for Science Education community in more than 40 events (see annex A) promoted by:
 - SCIENTIX European community for Science Education
 - EUROPEAN SCHOOLNET innovation in teaching and learning network
 - ECSITE European network of science centres and museums Community
 - PCST Public Communication in Science & Technology International Community
 - NSTA National Science Teacher Association Community
 - Teachers' summer programmes



Fig3 ENGAGE MOOC book

We have a book chapter where we used Engage project as a case for science education in the book "Handbook of Technology Education", (2017). De Vries, M. (Ed.) The name of our chapter is; "A social eco-system of distributed learning through the braid of technology education and communication", van der Sanden, M. & D. Bayram-Jacobs & G. Stijnen.

I think this book chapter is important for dissemination and sustainability of Engage.

b. RRI Experts: ENGAGE consortium established various connections with RRI and IBSE experts who were identified based on Partners' contacts and related EU projects. ENGAGE partners were invited to present project outputs in two major EUROPEAN conferences in Brussels on RRI funded by the European Commission: RRI – Shaping new Horizons in January 2016 and RRI-TOOLS in November 2016. ENGAGE consortium also organised an international RRI seminar for knowledge exchange with a research reported shared widely with more than 50 EC project coordinators and its communities.



2014 September RRI Seminar in Paris

RRI shaping new Horizons in Brussels

2016 November

RRI –Tools Conference in Brussels

Fig 4- RRI EVENTS attended by ENGAGE partners

- c. Science communication experts: Experts in the area of Science communication in Europe were contacted for and during ENGAGE events. These professionals were from some European Science Centres networks and science communication communities. ENGAGE interacted with them during workshops, conferences and seminars. The consortium was supported by ENGAGE French partner TRACES who are a member of ECSITE and works on this field. Some examples of science centre communities
 - and science communication networks:

SCIENTIX Science Education Networks

- ECSITE European network of science centres and museums Community
- EUSEA Science education and Science in the media
- DECIDE, FUND Science governance, discussion games
- Science centre network, France
- Science centre Network, Austria



Fig5 ENGAGE RRI seminar report

The research booklet launched in December 2015 about the ENGAGE RRI seminar also present participants from Scientix, Science Cafes, ECSITE and members of ESERA who provided meaningful contribution for the RRI debate.

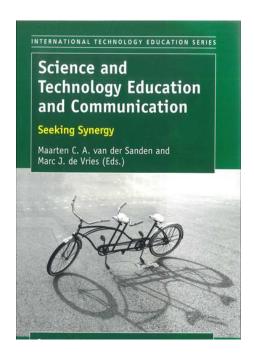
Another publication refers to 2 chapters in the book "Science and Technology Education and Communication: Seeking Synergy" Maarten C.A. van der Sanden & Marc J. de Vires (Eds.).

In this book we have 2 chapter where we used the Engage project as a case.

CH. 9: RRI BRIDGES SCIENCE EDUCATION & COMMUNICATION: AN INNOVATOR'S PERSPECTIVE by Steven Flipse & Dury Bayram-Jacobs

CH.11: COLLABORATION OF SCIENCE EDUCATION AND SCIENCE COMMUNICATION IN THE CONTEXT OF INNOVATION IN SCIENCE EDUCATION: THE CASE FROM THE ENGAGE PROJECT by Dury Bayram-Jacobs

This book is to use in our science education and science communication master studies. In addition, it aims for whole science education and science communication community.



- **d. Policy makers:** Some ENGAGE Partners, for instance in Greece, who have direct connections with Ministry of Education and the European Policy Network on School Leadership (EPNoSL) contacted policy makers for the RRI festivals.
 - EPNoSL; Coordinator: Kathy Kikis-Papadakisemail
 - Eu-SPRI; Université Paris-Est, Institut Francilien Recherche Innovation Société (IFRIS)

The partners' actions focused on:

- Disseminating the RRI policy report locally and nationally
- Organising meetings with policy makers and intermediaries
- Publishing relevant information in the form of:
- media campaigns, newsletters (News Alert Service), which highlight findings about student opinions on RRI issues press releases and identifying a high-profile champion to spearhead the campaign
- Short pithy policy briefs based on evidence emerging from our work, and aimed at ministers of education and their officials in all EU countries.
- Inviting policy makers of ENGAGE events with an interesting role judges in our competitions and at the RRI Seminar



Fig6. ENGAGE RRI policy report

2.2 Strategies considering beyond project targets

ENGAGE exploitation includes a variety of strategic mechanisms for various audiences, which is organised around the three key strategies related to the three project phases: (1) fully mainstream its outcomes (2)

multiply its impact by keeping OER and MOOC available on the web and through SCIENTIX; (3) sustain the project through partnerships.

The ENGAGE project reached a large number of institutions responsible for formal and informal learning who downloaded our resources beyond its target.

a. Formal education institutions beyond secondary schools

Developing skills from Primary Schools to Higher Education

"I am very keen to investigate the mastery method of teaching and learning and I think this looks like something I would be interested in developing. This is certainly what's happening in our primary schools. Currently I'm trying to make investigation skills a cornerstone of KS3 so students build on these all the way up to KS5 as I feel the content lacks cohesion between key stages..

b. Informal education beyond museums

Data from the ENGAGE Portal in English shows that ENGAGE materials reached various organizations apart from secondary schools such as: girls' academy, science club, science centres, NHS (national hospital service), STEM associations, Team up science companies, Singapore and Peru Ministry of Education, Special Centre Associations, Community learning networks, and Home schools.

c. Other Countries in Europe and beyond

Equipping the next generation with knowledge skills and attitude for RRI through ENGAGE resources



Fig7. ENGAGE – members across the world – 80 countries

"Resource very useful, it requires students to reflect on the progress of biology techniques and **evaluate the pros and cons** of its use."

Material: **GM Decision** used on 16 March 2016 in **Portugal** Coimbra

"My students have enjoyed this activity over 2 lessons. They have combined this with PSHE lessons to make a huge impact on their **making decisions** skills. Thank you for this thought provoking activity."

Material: E cigarettes used on 10 December 2016 in China, Qingdao

"Your resources are extremely useful! I think they are very appropriate to cause some **responsible thinking**!" Material: **Breaking News: 3 Parents** used on 10 December 2016 in **India**, Mumbai

"Before becoming a teacher, I worked in **biomedical research** at my local medical university. I worked on Salmonella typhi or Typhoid Fever. Using a mouse model to study the extent and progression of the invasion of the bacteria is absolutely necessary, unless you know some humans willing to ingest typhoid for testing! We were working on a new vaccine. I support this kind of animal testing 100%"

Material: Animal Testing used on 14 December 2016 in South Africa Cape Town

The students were extremely well engaged and responded very well to all the activities. Since I used this with a year 8 class I found that they did not engage very well with the asthma information sheet. I found a great video explaining the symptoms of the disease instead. I got the students discussing examples of each type of **ethical**

thinking instead. I chose some students to give examples of the same and asked the rest of the class whether they would react in a similar way. This brought up a very **lively discussion**. I used the viewpoints sheet as a scaffold for lower ability writers and constructed a **writing** frame for an essay as the main assessment piece from the lesson.

Material: Animal Testing used on 24 September 2016 in London UK

"I and my group of graduate students in science education at Unesp - São Paulo State University (Brazil) welcome this report and considered very timely such an initiative of exploring science education linked to **RRI** principles through pedagogical approaches of socio-scientific issues. In fact, it seems that similar concepts of RRI are flourishing around the world, including programmes such as Pibid, in Brazil, which also encourages schools to engage in social projects. We will surely benefit from the report insights, which in a way respond to what we expect in terms of defining learning outcomes."

Material: Innovative Teaching for RRI report, used on October 2016 in Sao Paulo Brazil

d. Secondary pupils in the ICTPI international conference



Fig.8 OU presenting the IBSE through the European project weSPOT and future steps with ENGAGE project

Seven secondary pupils and two Science Educators represented Stantonbury School at the ICTPI 2015 international conference today. They presented three urban inquiries on: Energy Consumption, Electric Cars and Solar panels. "Urban Inquiries" is an initiative coordinated by the Knowledge Media Institute, supported by Ale Okada, Alex Mikroyannidis and Annika Wolff. Its aim is to help educators and learners develop authentic inquiry based projects and promote Responsible Research and Innovation.

The theme of the 15th International Conference on Technology Policy and Innovation (ICTPI) focused on 'ICT and Science in a Complex World'. It attracted a large audience interested in: Education Futures, Smart Cities, New Economy, Data Security, Energy and MK: Enterprise Growth. This event also included a poster session on STEM Education in Schools, organised by Cliff Zintgraff (University of Texas), Gerd Kortuem and Annika Wolff (MCT, The Open University).

Among others, a team from King Henry VIII School, Coventry presented their Robotic project, which was a finalist at the 2015 Vex Robotics World Championship. Wavendon Gate school demonstrated some games they have been making and Stantonbury school discussed their work related to the Urban Inquiries project, which draws on MK:Smart, WeSpot, ENGAGE and nQuire projects.

The initial pilots of Urban Inquiries were developed by five researchers, two science teachers, and a group of 26 students (13 years old). They used weSPOT and nQuire-it to develop their investigations and interact with researchers, science educators, non-academic experts and parents.

First, learners created scientific questions and collected data in weSPOT. Second, they discussed data to facilitate their analysis in nQuire-it. Third, arguments were co-constructed to support their evidence-based reports in Litemap tool. Three posters were co-authored by participants and presented at the ICTPI conference.

Educators and researchers created the activities and provided support based on pedagogical approaches: Scientific Dilemma, Group discussion, Data Inquiry and Storytelling.

The Stantonbury School team was very excited to participate in an international conference. Young students mentioned that it was the first time they participated in an international event. "It was a great opportunity to discuss our projects, obtain interesting feedback and increase our network". - See more at: http://kmi.open.ac.uk/news/18746#sthash.LiUwyi8T.dpuf

e.ENGAGE National Conferences

The ENGAGE consortium has been organising 11 National festivals in Europe from January 2017 to March 2017 Table 2), whose target groups include a variety of stakeholders and end-users for knowledge exchange. Their aim is to mainstream the project outputs nationally to ensure large dissemination, knowledge exchange and new strategies for keep it sustainable

Date	Location and Programme	Organiser	Contact
27 JAN 2017 10h – 14h	Lithuanian University of Educational Sciences	LEU, Lithuania	Dalius Dapkus
3 MAR 2017	Valahia University of Targoviste	VUT, Romania	Laura and Gabriel Gorghiu
23 FEB 2017	<u>Universitat de Barcelona</u>	UB, Spain	Mario Barajas, Silvia Alcaraz- Dominguez
04MAR 2017 10h -14h	Foundation for Research and Technology, Heraklion	FORTH, Greece	Kathy Kikis-Papadakis
11 MAR 2017	The Open University – UK	SHU & OU, UK	Tony Sherborne and Ale Okada
15 MAR 2017	HEP PH Fribourg	HEPFR, CH (Switzerland)	Francine Pellaud, Ignacio Monge
18 MAR 2017	University of Nicosia	UNIC, Cyprus	Maria Evagorou
21 MAR 2017	Weizmann Institute of Science	Weizmann, Israel	Yael Shwartz
23 MAR 2017	University college of Southeast Norway	HSN, Norway	Harald Bjar, Elin Aschim
15 MAR 2017	Institut für Lern- Innovation, Friedrich-Alexander- Universität Erlangen-Nürnberg	ILI FAU, Germany	Aristidis Protopsaltis
4 FEB 2017	Pierre-Gilles de Gennes Science center	TRACES, France	Vanessa Mignan and Claire Potier

Table 2 - ENGAGE NATIONAL CONFERENCES



ENGAGE National Conference in Lithuania - more than 40 teachers



ENGAGE National Conference in France - over 15 teachers sharing their practices

PART 3 - EVALUATION AND NEXT STEPS

3.1 Open Multilingual Educational Portal

The ENGAGE consortium also organised a list of key assets and also strategies after the project ends to ensure its sustainability. The Portal including OER and MOOC were translated in 10 languages. Each translated website presents a network of teachers members from various countries—speak similar language. For instance the ENGAGE website in English includes educators from the UK, Australia, Canada, USA, New Zealand, South Africa, Ireland and international schools (English speakers) from almost all countries in Europe and various across the world such as Brazil, China, Japan and India

The majority of ENGAGE partners contributed to the OER and MOOC production, supporting co-authorship and widely dissemination. The average of lessons translated was 27 topical lessons, 5 sequences (2 lessons) and 3 projects. This resulted in a total of 350 OER and 30 MOOCs and 3 to 15 video clips – all in 10 languages.

3.2. Scientix and Social Media

The key strategies to ensure sustainability in terms of Resources for students (OER) and Teachers (MOOC) ENGAGE consortium will keep the server (engagingscinece.eu) until 2020. After it the resources will be all moved to Scientix http://www.scientix.eu/ and Slideshare http://www.slideshare.net In addition, considering the Open University UK a key partner for Open Education and Open Science, ENGAGE MOOC can be all transferred to OpenLearn Works (http://www.open.edu/openlearnworks) and Course Books and Reports can all be published at the OU ORO (Open repository of online publications)

The example bellow shows resources described by ENGAGE partner in Spain (UB) (Annex c- See more details and other countries' reports)



Fig 9. SlideShare and YouTube - Spain

Slides in Spanish

http://www.slideshare.net/futurelearning/la-conversacin-cientfica

Youtube (videoclips in Spanish)

URL: https://www.youtube.com/watch?v=Q0A0GLdlJTc

URL Dilemma tool: https://www.youtube.com/watch?v=9wdcU3SjdXk

URL Group discussion tool: https://www.youtube.com/watch?v=gO6ASPgxp-w

URL Problem solving tool: https://www.youtube.com/watch?v=bC_5if9eYBI

URL Conversation tool: https://www.youtube.com/watch?v=tMrPuS-itTc

These resources have been being used in other Spanish speaking countries, for example, Argentina, Mexico, Chile, Ecuador, Peru, El Salvador. The ENGAGE approach and materials have been introduced to lecturers who teach didactics of science to pre-service teachers, as well as to lecturers who teach future graduates on Pedagogy (both degrees awarded by UB)

SlideShare URL: http://www.slideshare.net/futurelearning/engage-rri-conference-2016

Link to "Solar roads" material on the catalan telematic network for teachers:

http://xtec.gencat.cat/ca/centres/celebracions/2015/anyllum/hemdestacat

Links to ENGAGE materials in Tiching (largest repository for learning materials in Spanish-speaking community). See example: https://es.tiching.com/carreteras-solares/recurso-educativo/724105

Expert talk about ENGAGE for the eTwinning network of STEM teachers. URL:

https://www.youtube.com/watch?v=QU3HXIInBz0&feature=youtu.be

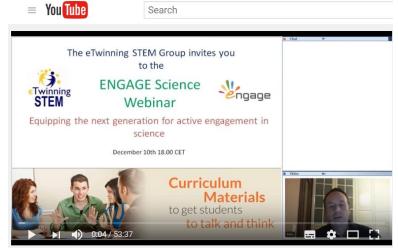


Fig 10 Expert and Scientist Talk

3.3 Brokering partnerships with scientists



Fig 11 Expert and Scientist Profile

4. Summary

Basing on principles reported in this document we can summarize the activities described in section as following:

PHASE	Strategy	Means
Sustainability	To mainstream project outcomes	 Teaching contemporary science issues and applications relevant to students Supporting teachers' pedagogical innovation and classroom practice for 'RRI Engaging students with socio-scientific issues that they will meet in their lives
	To multiply is impacts locally, nationally and internationally	 Overall strategies considering stakeholders Strategies considering beyond project targets Formal education institutions beyond secondary schools Informal education beyond museums RRI seminars Engaging students with international conference Organising National Conferences
	To sustain the project through partnerships	 Brokering partnerships with scientists and Experts Open Multilanguage Educational Portal Scientix and Social Media

Table 10: Summary of dissemination actions

For the next period after the end of the ENGAGE – from April 2017 to April 2020, Lattanzio will continue hosting the platform (WordPress) and the MOOC (in Open edX). The site will remain available online as per the current status. People will still be able to access and download lessons, projects and materials, as well as rating and commenting.

Each partner can export its national site and install it on own premises to their own institutional server and test it by April 2017. Lattanzio will provide the technical instructions.

REFERENCES

Butler, L. (2010). e-Newsletter Best Practices. Retrieved 09 24, 2013, from slideshare: http://www.slideshare.net/landrybutler/e-newsletter-best-practices

Commission, E. (2012). Communicating EU Research & Innovation - A guide for project participants. Publications Office of the European Union.

Commission, E. (n.d.). EU Project Websites – Best Practice Guidelines.

DiVa, c. (2011). DiVa Handbook for Dissemination, Exploitation and Sustainability of Educational Projects.

European Commission. (2007). Science Education NOW: A renewed Pedagogy for the Future. Luxembourg: Office for Official Publications of the European Commission.

Harmsworth, S., & Turpin, S. (2000, July). Creating an Effective Dissemination Strategy.

Jones, M. (2007). Getting the message across.

LinkedIn Users Stats. (n.d.). Retrieved September 5, 2013, from theundercoverrecruiter.com: http://theundercoverrecruiter.com/linkedin-demographics-and-statistics-2012-slides/

Wikipedia. (n.d.). Facebook. Retrieved september 5th, 2013, from Wikipedia: http://en.wikipedia.org/wiki/Facebook

Annex A - Events attended by ENGAGE partners

Date	Event name/title	Where	Partner	Paper (title)
7/4/2014	International Conference NSTA2014 National Science Teachers Association	Boston, EUA	Sheffield Hallam University	Paper: Authentic Inquiry: Raise Motivation and Results with Real Science
8/5/2014	International Conference PCST2914 Public Communication of Science and Technology Conference	Salvador Brazil	The Open University	Paper: Scientific Literacy through co-Inquiry based on non-formal and informal learning
25/05/2014	European Conference The 2014 Ecsite Annual Conference	Hague, Netherlands	TRACES	Networking
28/06/2014	International Conference on Education and Technology International Forum of Education and Technology	Tarragona Spain	The Open University	Presentation
26/10/2014	European Conference 2ND SCIENTIX CONFERENCE	Bussels, Belgium	FAU	Presentation
26/11/2014	National event Annual conference of chemistry teachers	Rehovot Israel	Weizmann	paper & poster Presentations Implementing RRI Aspects in the Classroom- Pilot Results of the ENGAGE Project.

28/11/2014	EAPRIL conference	Cyprus	HEP FR	Roundtable session
17/4/2015	International Conference DIDAMATICA 2015	Genova, Italy	Lattanzio	Three-stage path for a better engagement of students in science
9/5/2015	HORIZONS21.CH National congress on education to sustainable development	Berne	НЕР	Workshop on ENGAGE ressources
15/05/2015	International Congress on Education for the Future: Issues and Challenges (ICEFIC 2015)	Ankara, Turkey	TUDelft	Responsible Research and Innovation: What is it? How to Engage in Science Education
5/2/2015	European Conference 6th Science Projects Workshop in the Future Classroom Lab at Scientix Projects' Networking European Conference	Brussels	Sheffield Hallam University	Workshop Mastering inquiry skills
11/6/2015	3rd meeting of GROM-DID- SCNAT Group of science didactics of the french speaking Switzerland	Geneva	НЕР	Presentation
9/9/2015	National Conference <u>ITD 2015</u>	Basel, Switzerland	HEP	Research and discussions about transdisciplinarity
13/09/2015	Central & Eastern European LUMEN Conference: LUMEN NASHS2015	Chisinau, Republic of Moldova	Valahia University Targoviste	The ENGAGE Project – A Facilitator Context for Promoting Responsible Research and Innovation in Science Lessons
18/09/2015	The 10th European Conference on Technology Enhanced Learning <u>EC-TEL</u>	Toledo Spain	The Open University	Online argumentative maps for facilitating international debates with experts at large scale
18/09/2015	The 10th European Conference on Technology Enhanced Learning EC-TEL	Toledo Spain	The Open University	Fostering young smart citizens through personal learning environments for urban inquiries
18/09/2015	The 10th European Conference on Technology Enhanced Learning <u>EC-TEL</u>	Toledo Spain	The Open University	Fostering Communities of Practices for teachers' professional development integrating OER and MOOC
14/11/2015	7th LUMEN International Conference: MEPDEV 2015	Targoviste, Romania	Valahia University Targoviste	EngagingScience.eu Knowledge Hub to Equip the Next Generation for Active Engagement in Science

14/11/2015	7th LUMEN International Conference: MEPDEV 2015	Targoviste, Romania	Valahia University Targoviste	Reflective analysis on using "Dilemma lessons" in Science Teaching (published in MULTIDIMENSIONAL EDUCATION & PROFESSIONAL DEVELOPMENT. ETHICAL VALUES, pp. 421-425, 2016)
14/11/2015	7th LUMEN International Conference: MEPDEV 2015	Targoviste, Romania	Weizmann	Responsible Research and Innovation in the Classroom: ENGAGE RRI Goals and Framework
14/11/2015	7th LUMEN International Conference: MEPDEV 2015	Targoviste, Romania	FORTH	The Embedment of Responsible Research and Innovation Aspects in European Science Curricula
25/11/2015	EAPRIL conference	Luxembourg	НЕР	Workshop on ENGAGE resources
30/03/2015	National conference 50 years anniversary of science teaching department	Rehovot Israel	Weizmann	Integrating RRI into school science
25/05/2015	Annual conference of science & technology teachers	Rehovot Israel	Weizmann	Getting to know ENGAGE through Ban Coke activity
08/09/2015	Annual conference of chemistry teachers	Rehovot Israel	Weizmann	The consequences wheel as a teaching
4/9/2015	European Conference ESERA	Helsinki FInland	Weizmann	Responsible Research and Innovation in the classroom: ENGAGE RRI goals and framework
16/04/2015	4th Scientix Projects Networking Event	Barcelona (Spain)	Universitat de Barcelona	Responsible Research and Innovation and STE(A)M
8/5/2015	National Conference <u>Feria de la</u> <u>ciencia</u>	Seville (Spain)	Universitat de Barcelona	Science fair (school projects showcase)
29/50/2015	National Conference Finde científico	Madrid (Spain)	Universitat de Barcelona	Science fair (school projects showcase)
22/10/2015	National event <u>Jornades sobre</u> <u>l'ensenyament de la física i la química</u>	Barcelona (Spain)	Universitat de Barcelona	Teacher symposium on teaching Phisics and Chemistry
25/10/2015	National event Congreso Nacional <u>Scientix 2015</u>	Madrid (Spain)	Universitat de Barcelona	learning strategies involving research and innovation on Science, Tecnhology and Mathematics especially for secondary school
25/11/2015	National event <u>Jornades sobre</u> <u>controvèrsies socio-científiques</u>	Barcelona (Spain)	Universitat de Barcelona	scientific controversies for learning science
12/11/2015	LUMEN Conference	Romania	Weizmann	Responsible Research and Innovation in the classroom:

				ENGAGE RRI goals and framework
10/12/2015	European event eTwinning Expert talk: ENGAGING SCIENCE	Online (eTwinning STEM teachers group which is composed by 400 teachers)	Universitat de Barcelona	Expert talk
3/12/2015	New Perspectives in Science Teaching: An example from an EU project	Nicosia – Cyprus	University of Nicosia	Engage lesson, connecting it to the goals and purposes of the new curricula in Cyprus
3/12/2015	ERIDOB conference	Sweden	University of Nicosia	Biology Education Conference The Influence of Innovative, RRI-Support Chemistry Teaching Materials on Students
13/01/2016	International Conference Responsible Research in Education and Management and its Impact'LSME-RRI	London UK	The Open University, TU Delft	Opportunities and challenges for equipping the next generation for responsible citizenship through the ENGAGE HUB.
13/01/2016	International Conference 'Responsible Research in Education and Management and its Impact' <u>LSME-RRI</u>	London UK	The Open University	Open Educational Resources for Responsible Research and Innovation: a case study with Brazilian universities and schools
14/01/2016	RRI Shapping New Horizon <u>Conference</u>	Brussels	The Open University	Presentation: RRI in Secondary Education through ENGAGE PROJECT
29/01/2016	DiNAT congress 9th swiss forum on science didactics	Fribourg	НЕР	Workshop ENGAGE resources
9/3/2016	Catalonia <u>Education Fair</u>	Barcelona	Universitat de Barcelona	Handing in leaflets
06/04/2016	Regional science teacher conference	Horten, Norway	HBV/HiVE	Session: The Engage project: How to address socio-scientific dilemmas through discussions in your science class
12/04/2016	IV Conference of Science teachers	Madrid (Spain)	Universitat de Barcelona	Oral communication: "ENGAGE: Investigación e Innovación responsable en la enseñanza de las ciencias", by Alcaraz-Dominguez, S, Garrido, B. and Barajas, M.
16/04/2016	World LUMEN Congress. LOGOS UNIVERSALITY MENTALITY EDUCATION NOVELTY 2016	lasi (Romania)	Valahia University Targoviste	Workshop - Responsible Research and Innovation in the Educational Practice -

	(LUMEN 15th Anniversary Edition)			Challenges and Perspectives
16/04/2016	World LUMEN Congress. LOGOS UNIVERSALITY MENTALITY EDUCATION NOVELTY 2016 (LUMEN 15th Anniversary Edition)	lasi (Romania)	Valahia University Targoviste	Teachers' Feedback Expressed in a Training Course Organized in a MOOC Environment (published in European Proceedings of Social and Behavioural Sciences Volume: 15 Pages: 418-427 Published: 2016)
12/04/2015	Annual International Conference NARST	Chicago, USA	Weizmann	Implementing RRI aspects in the classroom- Pilot results of the "Engage" project
17/04/2016	Annual International Conference <u>NARST</u>	Baltimore/th e USA	TU-DELFT	Oral presentation; The Influence of Innovative, RRI Support Teaching Materials on Science Teachers' Practical Knowledge
5/5/2016	National Conference Feria de la ciencia (2016)	Seville (Spain)	Universitat de Barcelona	Science fair (school projects showcase) and project presentation
12/5/2016	The XIVth Edition of the International Conference of Sciences of Education – Learning for Life	Suceava (Romania)	Valahia University Targoviste	A Comparative Analysis of the Moodle and edX Educational Platforms from a Tutor- Student Perspective
12/5/2016	The XIVth Edition of the International Conference of Sciences of Education – Learning for Life	Suceava (Romania)	Valahia University Targoviste	Responsible Research and Innovation in Science Teaching - Romanian Teachers' Reflections Expressed in a On- line Course Organized on edX Environment
12/5/2016	The XIVth Edition of the International Conference of Sciences of Education – Learning for Life	Suceava (Romania)	Valahia University Targoviste	Workshop: Responsible Research and Innovation in Teaching Sciences - Challenges and Perspectives.
6/7/2016	National Conference EDULEARN2016	Barcelona, Spain	Universitat de Barcelona	Fostering reflective practice around RRI in an online course for in-service STEM teachers
10/06/2016	Conference: Responsible Innovation. Societal challenges and solutions NWO-MVI	Amsterdam, the Netherlands	TU-DELFT	RRI and STEM
20/06/2016	Living Knowledge Lab Conference <u>LKL</u>	Ireland	The Open University	Workshop – Science Shops and Transformative Learning with Secondary Schools
04/07/2016	EDULEARN16 conference	Barcelona	Universitat de Barcelona	Oral communication: "Fostering reflective practice around RRI in an online course for in-service STEM teachers", by Barajas, M. and Alcaraz-

D8/07/2015 The 5th International Conference "Education, Reflection, Development" Valabia University Targoviste Capture Proceedings of Social and Research and Innovation in Science Teaching - An Actual Challenge for Science Volume: 18, Pages: 183-191, 2016)					Dominguez, S.
Transdisciplinarity at school Transdisciplinarity and Barcelona Transdisciplinarity and Ba	08/07/2016	"Education, Reflection,		University	Research and Innovation in Science Teaching - An Actual Challenge for Science Teachers (published in: European Proceedings of Social and Behavioural Sciences, Volume:
Research in Chemistry Education de Barcelona Ruture teachers to promote Riture teachers to promise teachers to the past Research and Ennovation in Science Research and Education in Science Research and Education in Science Research and Education Responsible Research and Education in Responsible Research and Education in Responsible Research and Education Resp	01/09/2016		Lucerne	НЕР	"Teaching science using
Education and Educational Conference (ICEEPSY) Series and Benefits (paper published in: European Proceedings of Social and Behavioural Sciences, Volume: 16, Pages: 584-591, 2016) 16/11/2016 3rd International Conference on Bilingual Education Madrid Universitat de Barcelona Bridging Learning Experiences Conference Conference Barcelona Universitat de Barcelona Barcelona Universitat de Barcelona Universitat de Barcelona Barcelona Universitat de Barcelona Mario Barajas participated in the round table: El aprendizaje de la ciencia y la tecnología en la era digital Silvia Alcaraz-Dominguez presented the poster: Recursos digitales para la enseñanza de las ciencias basada en los principios de la Investigación y la Innovación Responsable" 18/11/2016 2nd Central & Eastern European LUMEN International Conference - Multidimensional Education & Professional Development. Ethical Values Figure 1 Implementing Responsible Research and Innovation in Sciences Volume: 16, Pages: 584-591, 2016) Universitat de Barcelona Universitat de Barcelona Universitat de Barcelona Mario Barajas participated in the round table: El aprendizaje de la ciencia y la tecnología en la era digital Silvia Alcaraz-Dominguez presented the poster: Recursos digitales para la enseñanza de las ciencias basada en los principios de la Investigación y la Innovación Responsable" 18/11/2016 18/11/2016 2nd Central & Eastern European LUMEN International Conference - Multidimensional Education & Professional Development. Ethical Values	07/09/2016		Barcelona		future teachers to promote RRI: Implementing Engage project digital materials related to chemistry big ideas", By Guitart, F., Alcaraz-
Bridging Learning Experiences Conference Barcelona Bridging Learning Experiences Conference Barcelona Universitat de Barcelona Universitat de Barcelona Universitat de Barcelona Barcelona Universitat de Barcelona Universitat de Barcelona Barcelona Universitat de Barcelona Mario Barajas participated in the round table: El aprendizaje de la ciencia y la tecnología en la era digital Silvia Alcaraz-Dominguez presented the poster: Recursos digitales para la enseñanza de las ciencias basada en los principios de la Investigación y la Innovación Responsable" 18/11/2016 2nd Central & Eastern European LUMEN International Conference - Multidimensional Education & Professional Development. Ethical Values Development. Ethical Values	13/10/2016	Education and Educational	· · · · · · · · · · · · · · · · · · ·	University	Implementing Responsible Research and Innovation in Science Lessons - Challenges and Benefits (paper published in: European Proceedings of Social and Behavioural Sciences, Volume:
Conference de Barcelona the round table: El aprendizaje de la ciencia y la tecnología en la era digital Silvia Alcaraz-Dominguez presented the poster: Recursos digitales para la enseñanza de las ciencias basada en los principios de la Investigación y la Innovación Responsable" 18/11/2016 2nd Central & Eastern European LUMEN International Conference - Multidimensional Education & Professional Development. Ethical Values de Barcelona the round table: El aprendizaje de la ciencia y la tecnología en la era digital Silvia Alcaraz-Dominguez presented the poster: Recursos digitales para la enseñanza de las ciencias basada en los principios de la Investigación y la Innovación Responsable" Valahia University Targoviste Curriculum Materials Designed in the Frame of "ENGAGE" Project	16/11/2016		Madrid		Promoting Responsible Research and Education in secondary education", by
LUMEN International Conference - Multidimensional Education & Professional Development. Ethical Values (Romania) University Targoviste Targoviste Curriculum Materials Designed in the Frame of "ENGAGE" Project	17/11/2016		Barcelona		the round table: El aprendizaje de la ciencia y la tecnología en la era digital Silvia Alcaraz-Dominguez presented the poster: Recursos digitales para la enseñanza de las ciencias basada en los principios de la Investigación y la Innovación
21/11/2016 Responsible Research and Brussels The Open Speaker: ENGAGE – Equipping	18/11/2016	LUMEN International Conference - Multidimensional Education & Professional	-	University	Teaching Strategies through Curriculum Materials Designed in the Frame of "ENGAGE"
	21/11/2016	Responsible Research and	Brussels	The Open	Speaker: ENGAGE – Equipping

	Innovation Conference RRI Tools		University	the next generation for Responsible Research and Innovation
9/12/2016	PCK Summit: Analysing Science Teachers' Pedagogical Content Knowledge: Digging into the Data	Leiden, the Netherlands	TU Delft, UNicosia, Weizmann, University college of Southeast Norway, Universitat de Barcelona	Poster presentation: The Influence of Innovative Teaching Materials on Chemistry Teachers' PCK in four Countries
26/01/2017	We scientists shape science	Berne	HEP	Booth (stand) on ENGAGE ressources
27/2/2017 and 2/3/2017	YoMo festival (within Mobile World Congress)	Barcelona	Universitat de Barcelona	Stand for Engage at the section on educational activities for STEM teachers
23/04/2017	Annual International Conference NARST	San Antonio, the USA	TU Delft	Symposium presentation; Researching PCK in International Contexts: Qualitative Research Approach to study the Impact of Engage Materials on Chemistry Teachers in different Countries
21-25-08- 2017	ESERA 2017	Dublin	TU Delft, UNicosia, Weizmann, University college of Southeast Norway, Universitat de Barcelona	EXPLORING THE IMPACT OF EDUCATIVE MATERIALS ON TEACHERS' PEDAGOGICAL CONTENT KNOWLEDGE

Annex B – Conference Programme

Lithuania, RRI Festival: ENGAGEment in Science

Date January 27, 2017, Lithuanian University of Educational Sciences, Faculty of Science and Technology

10:00-10:30	Arrival and registration
10:30-11:00	Welcome: Vice-dean of Faculty of Science and Technology;
	Introduction: Dalius Dapkus, local ENGAGE team leader.
11:00-11:30	RRI and engagement in science
11:30-12:10	Example of project activity: Firefighter 2.0
12:10-12:30	Coffee break
12:30-13:00	Teacher's experience of usage of the ENGAGE materials with students (presentation of a
	teacher)
13:00-13:30	Can we ENGAGE students? (presentation of a teacher)
13:30-14:00	ENGAGE project – how interesting it is for students? (presentation of a teacher)
14:00	Discussions

Spain, RRI in science education symposium

Date: Thursday, 23rd of February, 2017, Venue: Universitat de Barcelona - Faculty of Education

16:30-17:00h	Arrival and registration
17-17:30	Welcome: ENGAGE project presentation, by Mario Barajas
17:30-18:00	Keynote: "Understand, decide and act: educating for the new sci-zitenship", by Jordi Domènech
18:00-19:00	Teachers' experience presentations: TRANSFORM projects:
	- Project based on the ADOPT material Solar roadways
	 Project based on the ADOPT material Big bag Ban
	 Project based on the ADAPT material Animal testing
19:00-19:30	Work in groups (with items to discuss):
	 Dilemmas as a pedagogical strategy in science education
	2. Collaboration with scientists and other stakeholders
	3. How to implement RRI in schools?
	One moderator by group collects the results of discussions
19:30-20:00	Final conclusions (presented by moderators)

Romania, RRI Festival

Date: 3rd of March, 2017, Venue: Valahia University of Targoviste, International Conference Center, Building K, Maior Alexandrescu, no. 39, Targoviste

09:00-09:30	Arrival and registration
09:30-09:40	Welcome message
09:40-10:10	ENGAGE Project. Introduction of RRI in Romania
10:10-10:30	Coffee break
10:30-11:00	ENGAGE figures in Romania: results and outcomes
11:00-11:30	Teachers' experience – Engage Workshops / MOOC
11:30-12:00	Teachers' experience – Using Engage lessons
12:00-13:00	Lunch break
13:00-13:45	Open discussion about teachers/students experience with Engage
13:45-14:50	Exhibition of products

14:50-15:00 Closing session

GREECE - ENGAGE-ing Science RRI Event

Saturday 4th March, Foundation for Research and Technology, Heraklion

10:00-10:15	Introduction – Welcome/introduction to the event - Kathy Kikis-Papadakis
10:15 -10:30	Science teaching and learning on/for RRI: Opportunities and challenges from a curriculum and classroom practice perspective in Greece - Presentation on outcomes from the ENGAGE project (RRI curriculum analysis & teachers feedback from the online training courses and workshops) – the Greek ENGAGE team
10:30-11:00	Round table discussion on opportunities and challenges on RRI science teaching/learning – participants: Giorgos Hatzidakis (Science teacher advisor), Maria Kalathaki (Science teacher advisor), Vaso Spiliotopoulou (secondary teacher training institute ASPAITE Patra), Dimitis Stavrou (primary teacher training, University of Crete), Kleanthi Malandraki (Head of the Science Teachers Association in Crete)
11:00-11:30	Learning from example I: Showcases from the ENGAGE project on how to incorporate RRI in science teaching – the Greek ENGAGE team Discussion with participants
11:30-12:00	Learning from example II: Showcases from the IRESISTIBLE project on how to incorporate RRI in science teaching – Dimitris Stavrou, primary teacher training, University of Crete Discussion with participants
12:00-13:00	Lessons learnt from implementing an RRI project - (note: 2 Transform teachers experience on implementing local projects from the online course, case studies) Discussion with participants
13:00-13:30	Towards establishing more synergy between research community and education stakeholders on/for RRI processes and outcomes (Round table discussion with the above participants and also science researchers from our institute)
13:30-14:00	Conclusions, closing the event

THE UK - Engaging Science Mastery

Saturday 11th March - The Open University

9:15	Arrival and registration
10:00	Welcome: Karen Slavin, European Commission
	Introduction, Tony Sherborne, ENGAGE Coordinator
10:15	"Towards a 5 Year Mastery Curriculum", Stella Paes, Head of Science, AQA
10:45	'Responsible Research & Innovation' Challenge
11:10	Seminars part I: ENGAGE presentations on teaching with socio-scientific issues,
	implementing the KS3 Science Syllabus, authentic assessment and mastery learning in
	science
11:40	Refreshment break
12:00	Seminars part 2 & 3
13:00	Lunch, poster session, and RRI challenge prizes, Ale Okada
14:00	(TBC) "Implement mastery learning", live Q&A with mastery expert Professor Thomas
	Guskey, University of Kentucky
14:45	Finish

ISRAEL Science Festival Regional and National conferences

Dates & Location:

21.2.17: Center conference in Davidson Institute, Weizmann Institute

28.2.17: North Conference, Carmiel

14.2.17: South Conference, Beer-Sheva

21.3.17: National conference – the best works from every region will be invited with their teachers Weizmann Institute of Science. Each regional conference will held around 150 students.

A general structure of the festival day:

15:00 – 15:15	Registrations
15:15-16:15	Keynote: A guest lecture - TBA
16:30-17:30	Parallel sessions 1– students presenting their work
17:30-18:30	Parallel sessions 2– students presenting their work
18:30	Certificates for students
	Certificates for teachers

ISRAEL Science Teachers Festival

ENGAGE teachers and PARRISE teachers. (to be confirmed)

Date: 13/3/17

09:00-10:30	ENGAGE teachers presenting their work (preferably transform, but not only)
11:00-12:30	PARRISE teachers presenting their work
13:00-14:00	Discussion – RRI as a framework for inquiry project
14:00-15:30	Dr. Irit Sade, Inspector of Biology education in Ministry of Education - Assessment of RRI projects

SWITZERLAND, Enseigner les sciences au XXIe siècle : quels enjeux ?

Wednesday, 15.3.2017 HEP PH Fribourg

14:45	Arrival and registration
15:00	Table ronde avec des experts : Bilan final du projet ENGAGE en Suisse et perspectives pour l'avenir
16:30	Pause café
17:00	Key note: Pr. Pascale Montpied, from ENS, Lyon Motivation, besoins des élèves et manières de concevoir l'enseignement des sciences.
17:30	Discussion
17:45	5 teachers present their experience on ENGAGE projects (1 from primary level, 3 from secondary I and 1 from secondary 2) 5×15

19:00	OPEN DISCUSSION
19:30	Snack Discussion, exchange between teachers

CYPRUS Science Festival

December 9^{th} , UClan University

9.00 – 13.00	Pre-service teachers from our classes that have participated in Engage training will prepare activities to engage students with SSI topics. The activities are based on the activities that are available in the Engage materials on-line. We will also have posters explaining the ideas of Engage, and computers that the teachers will use to see the Engage materials.
	The Cyprus Science Festival is organized by the Science Teacher Association and the local universities in order to promote science learning. We are participating in this as a way to promote Engage to the students.

CYPRUS, Making Science Relevant

March 11^{th,} University of Nicosia

9.00 – 9.30	Registrations	
9.30 – 9.45	Welcome speeches	
9.45 – 10.45	Keynote: RRI in our local curricula (Marios Charalambous, Ministry of Education and Culture	
10.45 – 11.00	Coffee Break	
11.00 – 12.00	Sessions and Interactive activities (posters with work from teachers who implemented RRI activities with their students, and interactive activities/science fair activities relevant to SSI by our pre-service teachers). Local representatives from the EU funded projects Ark of Inquiry and PARISSE are also participating in the conference and are sharing their experiences.	
12.00-12.30	Discussion – Making Science Relevant – Teachers, Scientists, Researchers together	

NORWAY

Engaging Science festival

University college of Southeast Norway March 23rd 2017

9:00	Arrival and registration
9:30	Welcome: Head of department, Department of Mathematics and science education, USN
9:45	The fundamentals of engaging students in contemporary science: Dilemmas, Argumentation, Group discussion
11:15	Working with real life problems in secondary school science classes. Students and teachers presenting school projects and sharing experiences
12:15	Lunch
13:00	Project manager Inger Grimm from Den magiske fabrikken (a business for recycling waste/ centre for informal learning)

14:00	Discussion	
14:30	Finish	

GERMANY

09:30	Arrival and registration		
10:00-10:15	0:15 Welcome: Paul Held		
	Introduction: Dr Aristidis Protopsaltis		
10:15-11:00	Key note: Prof Rudolf Kammerl-RRI in Education		
11:00-11:30	Coffee break	ffee break	
11:00-11:30	ENGAGE: Dr Aristidis Protopsaltis		
11:30-12:15	ENGAGE Transform Dr Eline Leen-Thomele & Sonia Hetzner		
12:15-13:00	Discussion		

FRANCE

Pédagogies actives en classe de sciences

February 3rd

Pierre-Gilles de Gennes Science center - Espace des sciences Pierre-Gilles de Gennes (Paris)

16h30	Arrival and registration	
17h00	Welcome and introduction Vanessa Mignan	
17h15	Overview of the ENGAGE project in France Claire Potier	
17h30	Examples de projets from ENGAGE and other organisations - Inverssons la classe = French teacher network of flipclass - La Main à la pâte = French foundation for scientific cooperation by the Académie des Sciences - SynLab = French Citizen Lab for education	
18h15	World café - Motivation - Topic - Network	
19h	Conclusions	

Annex C – Partners Sustainable Plan

The UK

Institution: Sheffield Hallam University / Open University

Exploitation	2017-2019 (3 years) The ENGAGE server available	In 2020 No server
Website English: 27 lessons Materials Translated Portuguese 3 lessons (22) Lesson (5) Sequence (?) Projects	Wordpress URL: http://www.engagingscience.eu/en Slideshare URL: http://www.slideshare.net/alexandraokada/proj eto-europeu-engage-transgenicos Engage website will re-publish old science upd8 materials to give more comprehensive coverage of teaching 'Apply and Extend' for topics at KS3, and become a most visited site for several years.	Scientix URL: http://www.scientix.eu/ Slideshare Engage website will re-publish old science upd8 materials to give more comprehensive coverage of teaching 'Apply and Extend' for topics at KS3, and become a most visited site for several years. Engage materials will be re-published on popular portals like 'TES resources' and 'the STEM Centre' and reproduced in textbooks to help embed the approaches longterm in
	Engage materials will be re-published on popular portals like 'TES resources' and 'the STEM Centre' and reproduced in textbooks to help embed the approaches longterm in teachers practice.	teachers practice.
Online Course EDX	Edx OpenLearn Works is available for all countries URL: http://engage3.exactls.com/courses/course-v1:OU+ALE001+2016_T1/about	The OU- UK OpenLearn Works (available for everyone) URL: Guidelines: http://www.open.edu/openlearnworks/mod/page/view.php?id=51423 http://www.open.edu/openlearnworks/
Online course Booklet	Open University Library Available for all countries	OU Library (large database various languages, well disseminated and outreach) English: http://oro.open.ac.uk/46456/
Video 31 videoclips English 5 in Portuguese	Youtube URL: https://www.youtube.com/user/engagevideoclips	Youtube URL: https://www.youtube.com/user/upd8
Portfolio of Projects	Wordpress and Slideshare URL:	Slideshare URL: http://www.slideshare.net/engage
Number of teachers expected (50)	GLobal and local projects will be published with guidance on the website, along with CPD	Facebook https://www.facebook.com/engagingscience

	materials for adopt, adapt and transform, for self-service use.	
New communities using Your national resources	E.g. Primary: (OU- BanCola) Teachers from other areas: (OU- Brazil: Geography, Maths, Literacy, Arts, Language(English)) Other countries (similar languages Portugal)	
Resources translated to other languages	OU: Portuguese BanCola, GM, ZIKA, Japanese BanCola	
Partnerships:	SHU: AQA have adopted the ENGAGE curriculum framework in their new Syllabus. AQA advertise ENGAGE materials.	SHU: using as a part of the Teacher Training scheme within teacher education

Lithuania

Lithuania		
	2017-2019 (3 years) The ENGAGE server available	In 2020 No server
Materials Translated 27 in Lithuanian 22 Lesson	Wordpress URL: http://www.engagingscience.eu/lt Slideshare	Slideshare URL: http://www.slideshare.net/daldap/
5 Sequence 2 Projects	URL: http://www.slideshare.net/daldap/	Wordpress in Institution URL: http://www.leu.lt
Online Course EDX	Edx URL:http://engage.exactls.com/courses/LEU/LEU_kursas1/2015 T1/about	Institutional URL: institutional Moodle http://www.vma.leu.lt/login/index.php
Online course Booklet	Open University Library Available for all countries	OU Library English: http://oro.open.ac.uk/46456/ URL: http://www.leu.lt
Video	Youtube URL: http://youtu.be/Nzx3miIFME0 https://www.youtube.com/watch?v=0W6enO0unHc https://youtu.be/5uSXnIm2AU0 https://www.youtube.com/watch?v=yDRUWvSNx6U	Youtube URL: http://youtu.be/Nzx3milFME0 https://www.youtube.com/watch?v=0W6e nO0unHc http://youtu.be/5uSXnIm2AU0 https://www.youtube.com/watch?v=yDRU WvSNx6U
Portfolio of Projects	Slideshare	Slideshare

Number of teachers expected (5)	URL: http://www.slideshare.net/daldap/	URL: http://www.slideshare.net/daldap/
New communities using Your national resources	Primary Teachers from other areas (Mathematics, Geography)	Primary Teachers from other areas (Mathematics, Geography)
Partnerships: Teachers Institution National Boards Curriculum Design Teachers association Science Media Policy Makers	E-learning portal: http://www.emokymasis.com/tinklarascarontis/e ngage-projektas Lithuanian Centre of Non-formal Youth Education: http://www.lmnsc.lt/lt/naujienos/1680 Lithuanian Education Development Centre: http://www.upc.smm.lt/naujienos/europa/engag e2.php National Science Education Portal: https://duomenys.ugdome.lt/?/mm/gamtamoksl is/med=30/553 Lithuanian Biology Teachers Association http://www.lbioma.lt/	

Germany

Institution: ILI-FAU

Names: Aristidis Protopsaltis, Sonia Hetzner, Eline Leen-Thomele, Claudio FischerFAU will continue promoting the ENGAGE material. The LehrerOnline site with a membership of 500.000 teachers has asked already for how long the material will be available on the ENGAGE website. FAU is in contact with them to keep promoting the material and the project. All these material will be used. It can be stressed that there is a lot of room for collaboration since they only have published 2 ADAPT material and none of the TRANFORM. However they are committed in continuing to publish the ENGAGE materials. Additionally, FAU is involved in a number of new European project with focus on education. FAU is promoting the ENGAGE project with its material and results to a number of new partners. For instance, Dr Aristidis Protopsaltis participated in a kick off meeting for DIALoguE project in Turkey and during the activities he informed the 50 teachers of the school about the ENGAGE project and material. The videos were used along with sample materials. Finally, ILI is planning on using the results and the material of the project to create either a national or Erasmus + proposal that focuses on more on the needs of the German teachers.

	2017-2019 (3 years) The ENGAGE server available	In 2020 No server
Materials Translated	Wordpress URL:	Slideshare URL:

22 Lessons 4 Sequences 2 Projects	http://www.engagingscience.eu/de Slideshare URL: http://www.slideshare.net/lLI-FAU/	http://www.slideshare.net/ILI-FAU/ Wordpress in your Institution?? URL: http://course.engage.odl.org/ http://www.fim.uni-erlangen.de/index.php/en/projects/2 8-projekte/329-engage
Online Course EDX	Edx OpenLearn Works is available for all countries Other? URL: http://course.engage.odl.org/	Institutional? URL: http://course.engage.odl.org/
Online course Booklet	http://course.engage.odl.org/	http://www.fim.uni- erlangen.de/index.php/en/projects/2 8-projekte/329-engage
Video	Youtube URL: https://www.youtube.com/ watch?v=yYVIb0De- 4&t=12s https://www.youtube.com/u ser/ILILerninnovation https://www.youtube.com/u ser/FAUOpenCampus	Youtube URL: https://www.youtube.com/user/IL ILerninnovation https://www.youtube.com/user/F AUOpenCampus
Portfolio of Projects	Wordpress and Slideshare URL: http://www.slideshare.net/l LI-FAU/	Slideshare URL: http://www.slideshare.net/ILI- FAU/
New communities using Your national resources	E.g.LehrerOnline https://www.lehrer-online.de/ https://lehrermarktplatz.de/	ILI-FAU community
Resources translated to other languages	None	
Educating the Educators Conference	http://educating-the- educators.ph-freiburg.de/	

Spain

Institution: UB

Names - Silvia Alcaraz-Dominguez, Mario Barajas

Exploitation	2017-2019 (3 years) The ENGAGE server available	In 2020 No server
Spanish: 27 lessons (22) Lesson (5) Sequence Projects (to be published when published in UK site)	Wordpress URL: http://www.engagingscience.eu/es	Slideshare URL: http://www.slideshare.net/futurelearning/
2 Online Courses in EDX	Course 1 (ADOPT + ADAPT) URL: http://engage.exactls.com/courses/UniversitatDe Barcelona/ES00/2015_T1/about Course 2 (ADOPT + ADAPT with self-assessment activities) URL: http://engage3.exactls.com/courses/course-v1:UB+ES01+2016_T2/about	
Online course Booklet	Slideshare Digital repository of the University of Barcelona: http://diposit.ub.edu/dspace/?locale=en	
Slides from online course	Slideshare	Dilemma tool URL: http://www.slideshare.net/futurelearning/es- dilemma-presentation Group discussion tool URL: http://www.slideshare.net/futurelearning/es- group-discussion Problem solving tool URL: http://www.slideshare.net/futurelearning/resoluc in-de-problemas-54757227 Conversation tool URL: http://www.slideshare.net/futurelearning/la- conversacin-cientfica
Video 1 animation Spanish (Dilemma	Youtube	Youtube URL: https://www.youtube.com/watch?v=mfGgiUqY95 k

tool)		
Video 4 introductor y videos by online course tutors, one for each ENGAGE pedagogical tool in Spanish	Youtube channel https://www.youtube.com/channel/UCZJMkC- Z9uKLREI3jv9BVdw	URL Dilemma tool: https://www.youtube.com/watch?v=9wdcU3SjdX k URL Group discussion tool: https://www.youtube.com/watch?v=gO6ASPgxp-w URL Problem solving tool: https://www.youtube.com/watch?v=bC 5if9eYBI URL Conversation tool: https://www.youtube.com/watch?v=tMrPuS-itTc
Portfolio of Projects Number of teachers expected (50)	Wordpress and Slideshare URL:	Slideshare
New communitie s using Your national resources	E.g. Comments on the portal showing that materials are being used by teachers from other areas: (Maths, Technology) The ENGAGE approach and materials are used at the pedagogical university of El Salvador "Dr. Luis Alonso Aparicio" The ENGAGE approach and materials have been introduced to tutors from official in-service teacher training programmes (Regional Government)	Comments on the portal showing that materials are being used in other Spanish speaking countries (Argentina, Mexico, Chile, Ecuador, Peru, El Salvador) The ENGAGE approach and materials have been introduced to lecturers who teach didactics of science to pre-service teachers, as well as to lecturers who teach future graduates on Pedagogy (both degrees awarded by UB)
Resources translated to other languages	Some materials such as "Big bag ban" or "Solar roadways" has been translated to Catalan language	
Project presentatio n	Spanish Knowledge Hub: http://www.engagingscience.eu/es/2016/04/05/iir L	SlideShare URL: http://www.slideshare.net/futurelearning/engage -rri-conference-2016
Partnerships: Teachers Institution National Boards Curriculum Design Teachers association	ENGAGE has been used in pre-service teacher education at Universitat de Barcelona and at Universidad autónoma de Madrid ENGAGE has been presented to in-service teachers in an event by the Unit of Scientific Communication (Outreach programme) from Universitat de Barcelona	Link to "Solar roads" material on the catalan telematic network for teachers: http://xtec.gencat.cat/ca/centres/celebracions/20 15/anyllum/hemdestacat Links to ENGAGE materials in Tiching (largest repository for learning materials in Spanish-speaking community). See example: https://es.tiching.com/carreteras-solares/recurso-

Science		educativo/724105
Media	ENGAGE has been presented in the framework of	
Policy	the Erasmus+ project "Teaching innovative	Expert talk about ENGAGE for the eTwinning
Makers	practices"	network of STEM teachers. URL:
	http://www.engagingscience.eu/es/2016/02/16/e	https://www.youtube.com/watch?v=QU3HXIInBz
	ngage-en-el-proyecto-teaching-innovative-	<u>0&feature=youtu.be</u>
	practices/	
1		

Norway

Institution: University college of Southeast Norway (HSN)

Names: Elin Aschim, Harald Bjar

Trainies: Emi	Aschim, Haraid Bjar	T
	2017-2019 (3 years) The ENGAGE server available	In 2020 No server
Materials Translated 22 Lessons 4 Sequences 2 Projects	Wordpress URL: http://www.engagingscience.eu/no Slideshare URL: http://www.slideshare.net/HaraldBjar/	Scientix URL: http://www.scientix.eu/ Slideshare URL: http://www.slideshare.net/HaraldBjar/
Online Course EDX	Edx http://engage3.exactls.com:18010/course/course- v1:HSN+HSNEngage02+2016T3	Institutional? URL: mooc.no OpenLearn Works? URL: http://www.open.edu/openlearnworks /
Online course Booklet	Open University Library Available for all countries	OU Library English: http://oro.open.ac.uk/46456/ URL: http://www.slideshare.net/HaraldBjar/
Video	Youtube URL: https://www.youtube.com/channel/UCNeY3dAMEiWvKP4j6s X6Vqw	Youtube URL: https://www.youtube.com/channel/UC NeY3dAMEiWvKP4j6sX6Vqw
Portfolio of Projects	Wordpress and Slideshare URL: http://www.slideshare.net/HaraldBjar/	Slideshare URL: http://www.slideshare.net/HaraldBjar/
New communitie s using Your national resources	Include the pedagogical tools and resources more actively in the education of pre-service and in-service science teachers. Inform about pedagogical tools and our resources in a meeting for the National Association for science teacher educators	Include the pedagogical tools and resources more actively in the education of pre-service and in-service science teachers. Inform about pedagogical tools and our resources in a meeting for the National Association for science teacher educators
Partnership	Norwegian website is presented on the national portal for	http://www.naturfag.no/nettstedbeskriv

Teachers Institution National Boards Teachers association Science Media science teachers naturfag.no , with link to website. There are also links to most individual Engage materials from relevant directory pages on naturfag.no	else/vis.html?tid=2116646
---	---------------------------

France

Institution: Traces

Names - collaborators of Exploitation Report: Vanessa Mignan, Claire Potier and Matteo Merzagora

Exploitation	2017-2019 (3 years) The ENGAGE server available	In 2020 No server
French: 27 lessons Materials	Wordpress https://www.engagingscience.eu/fr Slideshare	Scientix URL: http://www.scientix.eu/ Slideshare
Translated (22) Lesson (5) Sequence (3) Projects	URL: http://fr.slideshare.net/MeriemFresson http://www.webpedago.com/	URL: http://fr.slideshare.net/MeriemFresson Wordpress in your Institution?? URL: TRACES or webpedagogique (we are in negotiation)
Online Course	Apolearn URL: http://app.apolearn.com/activity	Apolearn URL: Guidelines: Traces website
Online course Booklet	Traces website (http://www.groupe-traces.fr/publications/) Traces issuuu https://issuu.com/traces	Traces website (http://www.groupe-traces.fr/publications/) Traces issuuu https://issuu.com/traces
Video 22 videoclips in French or subtitle in French	Youtube URL: ENGAGE Francophone https://www.youtube.com/channel/UC_zHD5wu AkdWZYxhuy DYSg	Youtube URL: Traces https://www.youtube.com/user/GroupeTraces
Portfolio of Projects Number of teachers expected (50)	Wordpress and Slideshare	Slideshare URL: http://www.slideshare.net/engage Facebook https://www.facebook.com/engageFrance
New communities using Your national resources	E.g. Webpedagogique Classe inversée Canopé (Official website) http://www.beebac.com/topics/engage/news	

Resources translated to other languages	No resources were translated in another language but we promoted to foreign language teacher (especially English, German and Spanish).	
Partnerships: Teachers Institution National Boards Curriculum Design Teachers association Science Media Policy Makers	Maison pour la science - La main à la pâte The GRAINE network (sustainable development) Union des professeurs documentaliste Union des professeurs de physique chimie	

Switzerland

Institution: HEP PH Fribourg (DICS)

Names - collaborators of Exploitation Report: Francine Pellaud, Ignacio Monge

Exploitation	2017-2019 (3 years) The ENGAGE server available	In 2020 No server
French: 27 lessons Materials Translated (22) Lesson (5) Sequence (3) Projects	Wordpress https://www.engagingscience.eu/ch Slideshare http://fr.slideshare.net/MeriemFresson	We are currently asking for funding at two entities in Switzerland. In the case there is one positive answer, we will continue the swiss Engage site through this continuity project Another alternative possibility is through scientix.eu, as other partners will do. Slideshare as before
Online Course	EdX plateforme http://engage3.exactls.com/courses/course-v1:HEPPHFR+SW02+2016_01/about We have set the course documents and discussions to be accessible to the participants until the end of 2017. Slideshows for tools http://fr.slideshare.net/Engagefrancais/presentations	A new modify version of the last course may be proposed in the context of a continuity project, if funding is found. Slideshows for tools as before
Online course Booklet	We have only used part of the content of the english version of the online course booklet in our online course. We do not have enough resources to translate it completely. Part of it has been translated in collaboration with TRACES.	

Video	Chaîne YouTube Engage - Francophone https://www.youtube.com/channel/UC_zHD5wuAkdW ZYxhuy DYSg	Chaîne YouTube Engage - Francophone as before
New communities using Your national resources	Hub for secondary teachers: - Fribourg https://www.friportail.ch/sciences-nature-c3/paf/9e-harmos - Neuchâtel https://portail.rpn.ch/enseignants/msn/Pages/msn-sn.aspx	Hub for secondary teachers: as before

Greece

Institution: Foundation for Research and Technology (FORTH)

Names:Fotini Chaimala & Giorgos Androulakis

	2017-2019 (3 years) The ENGAGE server available	In 2020 No server
Materials Translated	Wordpress URL: http://www.engagingscience.eu/el/	Scientix URL: http://www.scientix.eu/
22 Lessons 4 Sequences 2 Projects	You tube URL:	We will provide the PDF translated to ALE she can include at the OU library
Tools Powerpoint presentations	https://www.youtube.com/watch?v=wq-y_IEWBxs	
in Greek on:	https://www.youtube.com/watch?v=CevIvT9OjAE	
Dilemma (with audio)	Slide share	
Small Group	http://www.slideshare.net/slideshow/embed_code/key/w YZNo36VRCXnkF	
discussions (with audio)	http://www.slideshare.net/slideshow/embed_code/key/r RhSvn8URCxnwf	
Problem solving		
Conversation s		

Online Course EDX	Edx OpenLearn Works is available for all countries URL: http://engage3.exactls.com/courses/course-v1:FORTH+ENGAGE01GR+2016 C1/about	Institutional? OpenLearn Works? URL: http://www.open.edu/openlearnworks /
Online course Booklet	Open University Library Available for all countries Available through the CPD Will be available in the project's website	OU Library English: http://oro.open.ac.uk/46456/ Please provide the PDF translated to ALE she can include at the OU library (we will)
Video	Youtube Channel Engage Greek URL: https://www.youtube.com/channel/UCjM6HNxxsetPn0H9 fPc5bkA	Youtube Channel Engage Greek URL: https://www.youtube.com/channel/UCj M6HNxxsetPn0H9fPc5bkA
How to use an Engage dilemma lesson video - Greek subtitles	URL: https://www.youtube.com/watch?v=DLdv8SzE92w https://www.youtube.com/watch?v=FdO7IQUcx_w	
Group discussions video - Greek subtitles		
Portfolio of Projects	Wordpress and Slideshare URL: Local projects will be published with guidance on the website	Slideshare
New communities using Your national	E.g. Primary- Half of the people participating in the fisrt series of the online course (almost 25) were primary teachers Teachers from other areas? Literacy, Arts	

resources	Other countries (similar languages) NO	
Resources translated to other languages	NO	

Cyprus

Institution: University of Nicosia

Names: Maria Evagorou, Aggela Skavia, Georgia Theodoulou

Names: Maria Evagorou, Aggela Skayia, Georgia Theodoulou			
	2017-2019 (3 years) The ENGAGE server available	In 2020 No server	
Materials Translated	Wordpress URL: http://www.engagingscience.eu/cy	Scientix URL: http://www.scientix.eu/	
22 Lessons 4 Sequences 2 Projects	Slideshare URL: https://www.slideshare.net/secret/b31COPEv2f8 miV https://www.slideshare.net/secret/ISG8IpWE7dR yQk https://www.slideshare.net/secret/sNtcRiqtZtqs DW (the videos in slideshare are password protected and the password is provided during the CPD)	Slideshare URL: Same slideshare URL as previous column URL: (e.g. your institution?) I will use my personal website to promote the project since I maintain it and I can easily make changes: http://www.mariaevagorou.com	
Online Course EDX	Moodle as used by UNic - we have the following CPD online:	Moodle as used by UNic - we have the following CPD online:	
	ADOPT +ADAPT	ADOPT +ADAPT	
	ADOPT+ADAPT+TRANSFORM	ADOPT+ADAPT+TRANSFORM	
	The URL is different every semester since we are setting it up every time.	The URL is different every semester since we are setting it up every time.	
	We are also running ADOPT and ADAPT as part of the following MA courses:	We are also running ADOPT and ADAPT as part of the following MA courses:	
	Science Education for Citizenship	EDUC-588: Science Education for Citizenship	
	New Trends in the Teaching of Science	EDUC-535: New Trends in the Teaching of Science	
Online course	Open University Library	OU Library	

	T	T
Booklet	Available for all countries	English: http://oro.open.ac.uk/46456/
	Available on my personal website	Please provide the PDF translated to ALE she can include at the OU library
	Available through the CPD	
		I will use my personal website to promote the project since I maintain it and I can easily make changes: http://www.mariaevagorou.com/engage
Video	https://www.slideshare.net/secret/b31COPEv2f8 miV	https://www.slideshare.net/secret/b31COPEv2 f8miV
	https://www.slideshare.net/secret/ISG8IpWE7dR yQk	https://www.slideshare.net/secret/ISG8IpWE7 dRyQk
	https://www.slideshare.net/secret/sNtcRiqtZtqs DW	https://www.slideshare.net/secret/sNtcRiqtZt qsDW
Portfolio of	Wordpress and	Slideshare
Projects	Slideshare https://www.slideshare.net/secret/b31COPEv2f8 miV	https://www.slideshare.net/secret/b31COPEv2 f8miV
	https://www.slideshare.net/secret/ISG8IpWE7dRyQk	https://www.slideshare.net/secret/ISG8IpWE7 dRyQk
		https://www.slideshare.net/secret/sNtcRiqtZt
	https://www.slideshare.net/secret/sNtcRiqtZtqs DW	<u>qsDW</u>
New	E.g.	
communities using	Primary • We have been contacted by primary	
Your national	school teachers and kindergarten teachers	
resources	who want to participate in our CPD. We will try for the first time in October to have them in CPD and see how we can	
	adapt the materials for younger students. Teachers from other areas	
	Other countries (similar languages) Teachers from Greece who are also our MA students	
Resources	N/A	N/A
translated to other languages		

Country: Romania

Institution: Valahia University of Targoviste (VUT)

Names - collaborators of Exploitation Report: Laura Gorghiu, Mihai Bizoi, Gabriel Gorghiu Exploitation: Please include strategies on how you will promote those resources with URLs

Exploitation	2017-2019 (3 years) The ENGAGE server available	In 2020 No server
Materials Translated in Romanian: 30 Lesson: 22 Sequence: 6 Projects: 2 Local project: 1	Wordpress URL: http://www.engagingscience.eu/ro Slideshare URL: http://www.slideshare.net/engage_ro	Scientix URL: http://www.scientix.eu/projects/project-detail?articleId=156648 Slideshare URL: http://www.slideshare.net/engage_ro
Local project. 1		
Online Course EDX	Edx platform: 1st edition URL: http://engage.exactls.com/courses/VUT/RO01 /S1/about 2nd edition URL: http://engage3.exactls.com/courses/course-v1:VUT+RO002+2016 T2/about Transform course URL: http://engage3.exactls.com/courses/course-v1:Universitatea Valahia Targoviste+RO003+2 016 T4/about	Institutional? URL: http://moodle.ssai.valahia.ro
Video	Youtube URL: https://www.youtube.com/channel/UCOXJuy gfwhstMfheUfS9Cow	Youtube URL: https://www.youtube.com/channel/UCOXJuygf whstMfheUfS9Cow
New communities using your national resources: Insert the ENGAGE project experience in the regular curricula of higher education level from Valahia University of Targoviste	 Introduction of new F2F course to Bachelor level – Methodology of Teaching Sciences to preschool level (Year II, 1st semester) – Faculty of Orthodox Theology and Educational Sciences, Study Programme: Pedagogy of Primary Education and Pre-school Education) – Duration: 14 h courses + 14 h applications, 4 ECTS Introduction of new F2F course to Bachelor level – Methodology of Teaching Sciences to primary level (Year III, 1st semester) – Faculty of Orthodox Theology and Educational Sciences, Study Programme: Pedagogy of Primary Education and Pre-school Education – Duration: 14 h courses + 14 h applications, 3 ECTS Introduction of RRI & ENGAGE Philosophy in the curricula of existing courses to Master Level - Master Programme: Teaching Strategies and Learning Effective Communication, Faculty of Orthodox Theology and Educational Sciences, Course: Teaching Strategies – Maths and Science (Year II, 1st semester, Duration: 28 	 Introduction of new F2F course to Bachelor level – Methodology of Teaching Sciences to preschool level (Year II, 1st semester) – Faculty of Orthodox Theology and Educational Sciences, Study Programme: Pedagogy of Primary Education and Pre-school Education) – Duration: 14 h courses + 14 h applications, 4 ECTS Introduction of new F2F course to Bachelor level – Methodology of Teaching Sciences to primary level (Year III, 1st semester) – Faculty of Orthodox Theology and Educational Sciences, Study Programme: Pedagogy of Primary Education and Pre-school Education – Duration: 14 h courses + 14 h applications, 3 ECTS Introduction of RRI & ENGAGE Philosophy in the curricula of existing courses to Master Level - Master Programme: Teaching Strategies and Learning Effective Communication, Faculty of Orthodox Theology and Educational Sciences, Course: Teaching Strategies – Maths and Science (Year II, 1st semester, Duration: 28 h courses + 14 h applications, 6 ECTS) Introduction of new F2F course to Post-

h courses + 14 h applications, 6 ECTS)

- Introduction of new F2F course to Post-University level – RRI in Education (1st semester) – Teacher Training Department, Study Programme: Teacher Training Programme – Level II – Duration: 14 h courses + 28 h applications, 5 ECTS
- Introduction of RRI & ENGAGE Philosophy in the curricula of existing courses to Bachelor Level Bachelor Programme: *Chemistry*, Faculty of Sciences and Arts, *Course: Methodology of Teaching Chemistry* (Year II, 2nd semester, Duration: 28 h courses + 28 h applications, 5 ECTS)
- Introduction of RRI & ENGAGE Philosophy as new chapters in the curricula of existing courses included in Professional Reconversion Programme "Sciences", programme organised by Faculty of Sciences and Arts and Department for Distance Learning and Lifelong Learning, Course: New Strategies and Guidelines in Teaching Sciences (Year I, 1st semester, Duration: 14 h courses + 14 h applications, 5 ECTS)
- Introduction of RRI & ENGAGE Philosophy as new chapters in the curricula of existing courses included in Professional Reconversion Programme "Sciences", programme organised by Faculty of Sciences and Arts and Department for Distance Learning and Lifelong Learning, Course: New Strategies to Include Scientific Research in Teaching Sciences (Year I, 2nd semester, Duration: 14 h courses + 14 h applications, 5 ECTS)

University level – RRI in Education (1st semester) – Teacher Training Department, Study Programme: Teacher Training Programme – Level II – Duration: 14 h courses + 28 h applications, 5 ECTS

- Introduction of RRI & ENGAGE Philosophy in the curricula of existing courses to Bachelor Level - Bachelor Programme: *Chemistry*, Faculty of Sciences and Arts, *Course: Methodology of Teaching Chemistry* (Year II, 2nd semester, Duration: 28 h courses + 28 h applications, 5 ECTS)
- Introduction of RRI & ENGAGE Philosophy as new chapters in the curricula of existing courses included in Professional Reconversion

 Programme "Sciences", programme organised by Faculty of Sciences and Arts and Department for Distance Learning and Lifelong Learning,

 Course: New Strategies and Guidelines in

 Teaching Sciences (Year I, 1st semester,

 Duration: 14 h courses + 14 h applications, 5

 ECTS)
- Introduction of RRI & ENGAGE Philosophy as new chapters in the curricula of existing courses included in Professional Reconversion

 Programme "Sciences", programme organised by Faculty of Sciences and Arts and Department for Distance Learning and Lifelong Learning,

 Course: New Strategies to Include Scientific

 Research in Teaching Sciences (Year I, 2nd semester, Duration: 14 h courses + 14 h applications, 5 ECTS)

Israel

	2017-2019 (3 years) The ENGAGE server available	In 2020 No server
Materials Translated 22 Lessons 4 Sequences 2 Projects	Wordpress URL: http://www.engagingscience.e u/he/	Wordpress in our Institution will be available May 2017: the websites to the national teachers centers for science & technology (middle school and high school) URL: http://mutal.weizmann.ac.il/

Online Course EDX	Edx OpenLearn Works is available for all countries Other? URL: http://course.engage.odl.org/	Institutional URL:http://engage.exactls.com/cours es/Weizmann/HE01/2016_T1/about Moodle:https://davidsonmoodle.wei zmann.ac.il/course/view.php?id=419
Online course Booklet	Booklet was translated to Hebrew	
Video	URL: https://vimeo.com/182695225/ 6b868c34aa	URL: https://vimeo.com/182695225/6b868 c34aa
New communities using Your national resources	ENGAGE materials are used in Rotchild-Weizmann academic courses for MSc.diploma in science education Darca high-school community had an RRI course based on ADOPT-ADAPT-Transform courses with emphasis on debate and argumentation	ENGAGE materials are used in Rotchild-Weizmann academic courses for MSc.diploma in science education
Resources translated to other languages	Ban Cola will be translated to Arabic	Currently negotiating the option of r getting budget to translate all materials to Arabic