

Grant Agreement Number 612367



Including Responsible Research and Innovation in Cutting-Edge Science and Inquiry-Based Science Education to Improve Teacher's Ability of Bridging Learning Environments

D6.1 Dissemination Manual:

Description of Goals, Methods and Strategies used for Dissemination

Deliverable number: D6.1

Dissemination level: Public

Delivery date: 5 March 2014

Status: Final version

Author(s): Prepared by the WP6 leaders Sevil Akaygun (Bogazici University) and Margherita Venturi (University of Bologna) with the contributions from all the partners



This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 612367. The information and views set out in this report are those of the author(s) and do not necessarily reflect the official opinion of the Commission. Neither the Commission nor any person acting on the Commission's behalf may be held responsible for the use which may be made of the information contained therein.

Table of Contents

| | |
|---|-----------|
| 1. Introduction | 2 |
| 2. Target Groups | 2 |
| 3. Graphic Identity | 3 |
| 4. Dissemination Tools for Target Groups | 3 |
| <i>4.1 Website, social media and mass media channels</i> | 3 |
| <i>4.2 Presentation of the major project outcome</i> | 4 |
| <i>4.3 Leaflets, Posters and Video</i> | 4 |
| <i>4.4 Exhibitions</i> | 4 |
| <i>4.5 Newsletter</i> | 4 |
| <i>4.6 Other Dissemination activities</i> | 5 |
| 5. IRRESISTIBLE Dissemination Guidelines | 5 |
| <i>5.1 Emphasis on Quality</i> | 5 |
| <i>5.2 Presentations to Conferences, Papers for Journals and Publication Agreements</i> | 6 |
| Annex 1 | 8 |
| Annex 2 | 9 |
| Annex 3 | 11 |
| Annex 4 | 17 |
| Annex 5 | 18 |

1. INTRODUCTION

The dissemination aims to raise awareness for the project and to ensure that all the performed activities and outcomes are disseminated and exploited as widely as possible and efficiently to the target audiences using suitable communication methods across Europe. Each partner will be involved in the activities of dissemination locally and internationally.

2. TARGET GROUPS

IRRESISTIBLE includes a large number of partners from different European countries and associates who will valorise the project and its outcomes.

Target groups for the project dissemination will be:

- ***Researchers in Science Education*** who will analyse and discuss the project features and results and will develop the project ideas at research level;
- ***Pre- and in-service science teachers and their professional associations*** interested in:
 - (a) adopting/promoting teaching methodologies that can help to overcome the students' learning difficulties and to promote their motivation to science learning;
 - (b) studying with their students authentic topics, which have a great impact for everyday life, such as the use of new nanotechnology products, and involve ethical issues with particular attention towards Responsible Research and Innovation (RRI);
- ***Parents and their associations***, who are interested in supporting innovations in teaching methodology and introduction of topics that can open wider cultural and occupational opportunities for their sons and daughters;
- ***Policymakers at different levels*** (local, national, European) involved in:
 - (c) designing school curricula to be able to foster the students' interest in science, in order to overcome the present reduction of the number of science professionals;
 - (d) identifying new models of teacher education particularly suited for this purpose;
 - (e) developing in citizens the necessary knowledge to consciously participate in the RRI process;
- ***Media representatives*** interested in new data about students' scientific competences and about teacher professional preparation to be compared with the results obtained so far in international surveys.

3. GRAPHIC IDENTITY

A common graphic identity in all dissemination tasks allows for better visibility and recognition as well as branding of the project.

All dissemination tools and activities must refer to the name and number of the project, to the project's website URL and to the graphic elements described below.

A project logo including the name of the project has been developed by the partners.



The IRRESISTIBLE and European Commission logo will be used for any (internal or external) deliverable, reports and dissemination tools.

Standard templates for IRRESISTIBLE dissemination (leaflets, posters and website and PowerPoint presentations) have to be prepared according to the materials provided by the project coordinator and should be used for all activities.

4. DISSEMINATION TOOLS FOR TARGET GROUPS

A wide range of tools will be developed for dissemination both at the international and national level.

4.1 Website, social media and mass media channels

An interactive and accessible project Irresistible project website will be developed within WP4 activities and will be fully operated by month 3. The Website will include both a public and a private restricted area. The materials such as handouts and worksheets related to the developed in each teaching modules will be posted on the Scientix website (www.scientix.eu) that provides a long term support and availability than the Irresistible project website. The teaching materials will be available for *pre- and in-service teachers* so that they can test them with their students.

The project website will be the main tool for dissemination and it will reach to different target groups. Specifically, the *science education researchers* who are interested in the development and evaluation stages of an educational module integrating RRI in a topic from cutting edge science using the method of inquiry and the exhibits will get detailed information from the website. *Science museum/centre experts* will learn more about how formal and informal education is interconnected through exhibits and see how the science museums in different countries are involved in Project Irresistible. The project website will be open to everybody to emphasize the importance of 'open access', therefore the policy makers will be informed about the progress of the project at different levels.

Social Media channels will be used to disseminate project documents and materials in an informal environment (e.g. national Facebook pages of the project, a project blog and various established channels of the partners). Social media will reach to different target groups; as the announcements published may be followed by pre- and in-service teachers, science education researchers, media representatives and the policy makers.

Mass media will be invited to report on new exhibitions in science museums and universities developed in the frame of the project that can be a platform of interest for public attention. Public awareness of the project activity will be promoted by reporting on the science centre exhibitions in the media of each country. The mass media is also an important tool that will reach to different target groups because most of the mass media are followed by almost all the target groups.

At national level all partners will use web tools locally developed, according to their specific needs and resources that will reach to the local target groups in each country (see Annex 1). **4.2 Presentation of the major project outcomes**

The results of the project will be made available through papers to be published in scientific and educational journals worldwide (see Annex 2) and presented in the framework of national and international conferences (see Annex3). Popular media (press, magazines, etc.) addressed to the users and the general public will also be targeted.

4.3 Leaflets, Posters, and Video

A brochure and a leaflet describing Irresistible objectives and aims, and publicizing the project website will be prepared in English by the project coordinator. Similarly, posters will be created suitably to publicize project dissemination events. The brochure, leaflet and the posters will be disseminated at national and international conference to reach science education researchers, pre-and in-service teachers, as well as media representatives. In addition, these materials will be disseminated to policy makers, public and parents through events and exhibitions involving science museums.

A video, describing project targets and objectives, will be realized by the Project coordinator and made available via You-tube and also via a link in the project Website. This video will provide information to different target groups.

These materials will be made available for all the consortium members for translation in the national languages. In a printed version, these dissemination materials will be used for project visibility in conferences and workshops, and/or for dissemination events organized by the partners of the project. In an electronic format they can be easily and widely distributed via the website and e-mail to interested stakeholders.

4.4 Exhibitions

The science centres involved in the project will use or adapt their exhibitions to the project aims with particular attention towards Responsible Research and Innovation issues. Such exhibitions are meant to catch the interest of the general public, which may include a large number of students and their parents. Furthermore, in the science centres, or alternatively in their schools and/or in suitable places of their cities, teachers and students participating in the project can bring the results of the work performed: scientific objects and instruments, games, videos,

presentations, theatre performances. In this kind of exhibitions, teachers and students are expected to be the principal actors in presenting and explaining to the public the results of their inquiry activities. Therefore the main target group of exhibitions are the teachers, students, parents, general public and policy makers as the invitation will be sent to all of these groups. At least one exhibition will be set up by each of the partners.

4.5 Newsletter

Short electronic newsletters, including a summary of the project news and achievements, will be prepared and sent to interested individuals (e.g. teachers, policymakers, etc.) who ask to receive them using e-mail.

The electronic newsletters, four issues per year, are expected to be published in English and then translated by the partners in their national languages. They will also be published in the Facebook-or Web-pages of each partner. The newsletter will be sent to all the target groups so that each group will find information of their own interest.

4.6 Other Dissemination activities

National and International Conferences will be organized, gathering teachers and researchers (both from this project and from other networks and projects), policymakers, and media representatives. The conferences will be structured in symposia, and panels, each addressing a specific aspect of the themes faced in the project, thus providing the arena for an extended discussion and a further opportunity for promoting collaboration and best practice dissemination.

All partners will submit the announcements of all relevant conferences and events to WP6 (Dissemination) leaders, who will update the list of events made available on the projects' website and enter the planned activity on SESAM website.

5. IRRESISTIBLE Dissemination Guidelines

These guidelines are intended to ensure that the dissemination of IRRESISTIBLE-related activities shall be conducted in the manner that the objectives of the project will be best obtained. All dissemination activities including but not restricted to publications and presentations shall be governed by the procedure of Article II.30.3 of the EC-GA and Section 8 Dissemination of the IRRESISTIBLE Consortium Agreement (see Annex 4).

5.1 Emphasis on Quality

All products generated by IRRESISTIBLE-activities intended for dissemination, presentation, or publication are expected to be of the highest quality in terms of scientific content, style, and appearance. All project outputs will undergo technical/peer reviews. The translation of documents, when required, will be done by qualified, capable translation specialists.

The following criteria will be considered for determining quality evaluation of dissemination activities:

- i. Efficacy of the dissemination activities in addressing all the relevant target groups through proper communication channels and tools

- ii. Sufficient number of dissemination activities towards research/education community (i.e. the number of papers in journals, workshop and conference proceedings etc.)
- iii. Sufficient number of dissemination activities towards the general public
- iv. Sufficient number of dissemination activities towards the industry sector
- v. Sufficient number of dissemination activities towards end-users groups (especially teachers)
- vi. Good quality of the project presentation in web (including language versions of the project web site) which has to provide useful content to all the identified target groups (measured by the number of visitors and feedback provided by them)
- vii. Efficacy of the dissemination activities and consistency with the schedule of principal project outcomes
- viii. Efficient interaction of the Consortium with relevant standard organisations

5.2 Presentations to Conferences, Papers for Journals and Publication Agreements

a. Presentations to conferences

- i. The presentations meant to illustrate to the scientific community the aims of the project, the activities that will be performed, the topics that will be addressed, the universities/institutions/museum involved (of course important only for the first 12-18 months of the project) will be prepared according to the material provided by the project coordinator. The authors of the presentations should be the persons attending to the conferences, and the project coordinator.
- ii. The presentations dealt with the results obtained in the frame of the project (which will represent the majority of the presentations during the second and third year of the project) should report as the authors who are the persons really involved in the work (researchers, teachers, museum personnel, and, in case, the project coordinator).

b. Papers for journals

- i. Papers illustrating to the scientific community the aims of the project, the activities that will be performed, the topics that will be addressed, the universities/institutions/museum involved (of course more important for the first 12-18 months of the project), will be prepared according to the material provided by the project coordinator and have to contain the list of the partners involved. The authors should be the persons who have written the paper, and the project coordinator.
- ii. Papers concerning the results obtained in the frame of the project (which will represent the majority of the papers during the second and third year of the project), should contain the list of the partners involved, but the authors should be the persons who are really involved in the work (researchers, teachers, museum personnel) and, in case, the project coordinator.

c. Publication Agreements

- i. Presentations to conferences (both types reported at point a) have to include a slide with all the IRRESISTIBLE partners acknowledged.
- ii. The partners of the project should prepare per year at least one paper to be submitted to international journals and one paper to be submitted to national journals.

- iii. All publications based on work funded by EC within the activities of the Project should acknowledge their affiliation to IRRESISTIBLE and bear recognition of the funding. This is generally accomplished by adding a sentence at the end of the paper, or as a footnote on a poster: "*This work has been conducted as part of the project and funded by the European Community (FP7; Grant Agreement 612367)*".
- iv. Draft articles in English will be sent to WP6 leaders before sending out for publication or production 30 days in advance (Consortium Agreement, Section 8, see also Annex 4). This will allow checking if they fulfil the dissemination requirements or whether they conflict with other existing papers.
- v. All draft articles in national language will be sent to the national coordinator before publication or production.
- vi. All articles and abstracts to conferences will be sent to WP6 leaders for reporting and archiving purposes. Moreover, WP6 leaders will decide whether it is appropriate to make the document accessible on the project website.

Annex 1

Web Tools for National Dissemination for different Target Groups

| Country | Tools and Environments |
|----------------|---|
| Finland | Finnish Project Webpage |
| Germany | DeutschesMuseum Webpage DeutschesMuseum Blog |
| Greece | University of Crete (Department of Primary Education) Webpage Eugenides Foundation Webpage Facebook Page Local Irresistible Webpage |
| Ireland | Facebook Page Moodle Linked in You Tube |
| Israel | Facebook (Closed Group) Local Irresistible Webpage Weizmann Institute of Science (Department of Science Teaching) Webpage |
| Italy | Local Irresistible Webpage Facebook Page Link to Irresistible Project Website in the Webpages of Department of Chemistry "G. Ciamician" and Department of Physics and Astronomy of the University of Bologna and in the Webpage of Department of Sciences and Biological, Chemical and Pharmaceutical Technologies of the University of Palermo |

| | |
|-----------|---|
| Nederland | Nestor-Omgeving Project Webpage Unifocus |
| Poland | www.zmmch.pl Facebook Group |
| Portugal | Local Institutional Webpage Facebook Page http://eft.educom.pt/ |
| Romania | National <i>Irresistible project</i> Webpage Webpages of Romanian Partners (Valahia University Targoviste, Prahova Natural Science Museum, History Museum Targoviste) Facebook Page (<i>Irresistible Romania</i>) |
| Turkey | Bogazici University Webpage: www.boun.edu.tr Local Irresistible Webpage Facebook Page: https://www.facebook.com/groups/580300538713742/ |

Annex 2**Journals where articles can be submitted****International Journals**

1. Chemistry Education Research and Practice (CERP)
2. International Journal of Science Education (IJSE)
3. International Council of Associations for Science Education (ICASE) Journal
4. Journal of Chemical Education (JCE)
5. Journal of Baltic Science Education (JBSE)
6. Journal of Research in Science Teaching (JRST)
7. Physics Education
8. School Science Review (SSR)
9. Science Activities
10. Science & Education
11. The Science Teacher
12. Research in Science & Technological Education
13. Journal of Science Education and Technology
14. Research in Science Education
15. Journal of Science Teacher Education
16. Asia-Pacific Journal of Teacher Education
17. Australian Journal of Teacher Education

National Journals

| Country | National Journals |
|----------------|--|
| Finland | LUMAT: Research and Practice in Math, Science and Technology Education |
| Germany | IPN Newsletter TUMSchool of Education Newsletter Chemkon MNU |
| Greece | THEMES(Themes in Science and Technology Education) |
| Ireland | Chemistry in action ISTA- Science Educational Studies Irish Science Teachers' |

| | |
|------------|--|
| | Association (ISTA) Association of Ireland Journals |
| Israel | Alcheme (Journal of Israeli Chemical Teachers) Kriyat Beinayim (for Middle School teachers of Science and Technology) |
| Italy | Giornale di Fisica Fisica nella Scuola Education 2.0 La Chimica nella Scuola (CnS) Naturalmente |
| Nederlands | Bionieuws NUON |
| Poland | Niedzialki Chemia w Szkole Chemik Light Nauczanie Przedmiotow Przyrodniczych (Biuletyn PSNPP) Orbital (PTCHem) |
| Portugal | Educação, Formação & Tecnologias |
| Romania | Journal of Sciences and Arts Acta Didactica Napocensis Studia Universitatis Educatia 21 |
| Turkey | Türk Fen Eğitimi Dergisi (TÜFED) Hacettepe Üniversitesi Eğitim Fakültesi Dergisi Gazi Eğitim Fakültesi Dergisi Boğaziçi Üniversitesi Eğitim Dergisi |

Annex 3**Conferences****1. List of the International Conferences to be held in 2014**

| Name of the Conference | Place | Date | Abstract Deadline |
|---|------------------------------|--------------|---|
| ECSITE (European Network Science Centres & Museums) Annual Conference http://www.ecsite.eu/annual_conference | The Hague, Netherlands | May, 20-24 | Oct, 25 |
| ECRICE (European Conference on Research in Chemical Education) https://www.jyu.fi/kemia/en/research/ecrice_2014/ | Jyväskylä, Finland | July, 7-10 | Apr, 13 th |
| ICCE (International Conference on Research in Chemical Education), http://www.icce2014.org/ | Toronto, Canada | July, 13-18 | Jan, 31 st |
| EuChEMS (Chemistry Congress) http://www.euchems2014.org/Default.asp | Istanbul, Turkey | Aug.31-Sep.4 | |
| GIREP-MPTL (International Conference on Teaching/Learning Physics) http://www.unipa.it/girep2014/index.html | Palermo, Italy | July, 7-12 | Jan, 15 th and Mar, 30 th |
| ECER (European Educational Research Association) http://www.eera-ecer.de/ecer2014/ | Porto, Portugal | Sep, 1-5 | Feb, 4 th |
| ATEE (Association for Teacher Education in Europe) *Spring Conference - Innovation and Challen. in Ed. | Klaipeda, Lithuania | May, 7-9 | Mar, 1 st |
| * Annual Conference - Transitions in Teacher Education and Professional Identities http://www.atee1.org/conferences_and_seminars/?key=conferences_and_seminars | Braga, Portugal | Aug, 25-27 | Mar, 31 st |
| EJER (Eurasian Educational Research) Congress http://ejercongress.org/en | Istanbul, Turkey | April, 24-26 | Feb, 1 st |
| SCS-2014 (The 2nd International Symposium on Educational Science and ScienceCenters) http://www.scs2014.org/index.php | Gazi Magusa, Northern Cyprus | Sep, 20-21 | May, 5 th |

| | | | |
|--|-----------------------|-----------------|------------------------|
| 2dICSE (International Congress of Science Education) http://congresso.unila.edu.br/icse2014/ | Foz du Iguaçu, Brasil | Aug, 27-30 | Feb, 10 th |
| SCITEED (International Congress & Exhibition on Current Trends in Science & Technology Education) http://www.scited.org/ | Muğla, Turkey | April, 24-27 | Jan, 31 st |
| DidSci (6th International Conference on Research in Didactics of the Sciences) http://didsci2014.up.krakow.pl/index.php/home-2 | Krakow, Poland | June, 25-27 | May, 5 th |
| EARLI - SIG (European Association for research on Learning and Instruction – Special Interest Groups) SIG 14 "Learning and Professional Development" http://www.uv.uio.no/english/about/news-and-events/events/2013/earli-sig-14-conference/ | Oslo, Norway | Aug, 27-29 | Feb, 16 th |
| SIG3 "Conceptual Change" http://www.aub.edu.lb/fas/smec/Pages/The9thInternationalConferenceonConceptualChange.aspx | Bologna, Italy | Aug, 26-29 | Mar, 1 st |
| SIG20 "Computer Supported Inquiry Learning" http://earlisig20.mah.se/ | Malmö, Sweden | Aug, 18-20 | Mar, 24 th |
| NFSUN (The Nordic Research Symposium on Science Education) http://www.helsinki.fi/luma/nfsun2014/ | Helsinki, Finland | June, 25-27 | Jan, 31 st |
| PIXEL (New Perspectives in Science Education) http://conference.pixel-online.net/NPSE/index.php | Florence, Italy | Mar, 20-21 | Jan, 13 ^{tt} |
| ERIDOB (European Researchers in Didactics of Biology) http://eridob.net.technion.ac.il/call-for-papers-2/ | Haifa, Israel | June 30- July 4 | Oct. 20 |
| INTE (International Conference on New Horizons in Education) http://www.int-e.net/index.php?id=home | Paris, France | June, 25-27 | June, 13 th |

| | | | |
|--|----------------------------|-----------------|-------------------------|
| ticEDUCA (The International Congress - ICT and Education) https://www.facebook.com/ticEDUCA?ref=hl | Lisboa, Portugal | Nov, 14-16 | |
| ISER (International Society of Educational Research) http://iser-icer.net/ | Cappadocia, Turkey | Oct. 29- Nov. 2 | June, 30 th |
| FISER (Frontiers in Mathematics and Science Education Research Conference) http://fiser.emu.edu.tr/ | Famagusta, Northern Cyprus | May, 1-3 | Feb, 28 th |
| 9th STEP (Science and Technology in the European Periphery) http://step2014.ciuht.com | Lisbon, Portugal | Sep, 1-3 | Mar, 10 th |
| NDSTE (First International Conference on “New Developments in Science and Technology Education”) http://ndste2014.weebly.com/ | Corfu, Greece | May, 29-31 | Jan, 31 st |
| IsfTE (34th International Society for Teacher Education Conference) http://www.isfte2014.org/default.asp | Antalya, Turkey | April, 22-25 | Jan, 20 th |
| EdMedia (World Conference on Educational Media and Technology) https://www.aace.org/conf/edmedia/ | Tampere, Finland | June, 23-27 | April, 18 th |
| WCETR (World Conference on Educational Technology Researches) http://www.globalcenter.info/wcetr/ | TBA | TBA | TBA |

1.1 List of the project partners attending the 2014 - International Conferences

| Partner | Conferences | Place | Date |
|--------------------------|--|--------------------|------------|
| University of Groningen | ECRICE (European Conference on Research in Chemical Education) https://www.jyu.fi/kemia/en/research/ecrice2014// | Jyväskylä, Finland | July, 7-10 |
| Weizmann Ins. of Science | ECRICE (European Conference on Research in Chemical Education) https://www.jyu.fi/kemia/en/research/ecrice2014// | Jyväskylä, Finland | July, 7-10 |

| | | | |
|--|--|--|--------------------------------|
| IPN (Leibniz Ins. For Science and Mathematics Education) | ECRICE (European Conference on Research in Chemical Education) https://www.jyu.fi/kemia/en/research/ecrice2014// ICCE (International Conference on Research in Chemical Education), http://www.icce2014.org/ | Jyväskylä, Finland Toronto, Canada | July, 7-10 July, 13-18 |
| DeutschesMuseum | ----- | | |
| BogaziciUniversity | ECRICE (European Conference on Research in Chemical Education) https://www.jyu.fi/kemia/en/research/ecrice2014// EJER (Eurasian Educational Research) Congress http://ejercongress.org/en | Jyväskyla, Finland Istanbul, Turkey | July, 7-10 April, 24-26 |
| Universidade de Lisboa | ----- | --- | --- |
| University of Palermo | GIREP-MPTL (International Conference on Teaching/Learning Physics) http://www.unipa.it/girep2014/index.html | Palermo, Italy | July, 7-12 |
| University of Jyväskylä | NFSUN (The Nordic Research Symposium on Science Education) http://www.helsinki.fi/luma/nfsun2014/ | Helsinki, Finland | June, 25-27 |
| University of Bologna | SIG3 "Conceptual Change" http://www.aub.edu.lb/fas/smec/Pages/The9thInternationalConferenceonConceptualChange.aspx GIREP-MPTL (International Conference on Teaching/Learning Physics) http://www.unipa.it/girep2014/index.html | Bologna, Italy Palermo, Italy | Aug, 26-29 July, 7-12 |
| University of Crete | NDSTE (First International Conference on “ New Developments in Science and Technology Education ”) http://ndste2014.weebly.com/ ECRICE (European Conference on Research in Chemical Education) https://www.jyu.fi/kemia/en/research/ecrice2014// | Corfu, Greece Jyväskylä, Finland | May, 29-31 July, 7-10 |
| JagiellonianUniversity | ECRICE (European Conference on Research in Chemical Education) https://www.jyu.fi/kemia/en/research/ecrice2014// DidSci (6th International Conference on Research in Didactics of the Sciences) | Jyväskylä, Finland Krakow, Poland | July, 7-10 June, |

| | | | |
|-------------------------------|--|--|---------------------------------|
| | http://didsci2014.up.krakow.pl/index.php/home-2 2dICSE (International Congress of Science Education) http://congresso.unila.edu.br/icse2014/ | Foz du Iguaçu, Brasil | 25-27 Aug, 27-30 |
| Valahia University Targoviste | SCITEED (International Congress & Exhibition on Current Trends in Science & Technology Education) http://www.scited.org/ EdMedia (World Conference on Educational Media and Technology) https://www.aace.org/conf/edmedia/ WCETR (World Conference on Educational Technology Researches) http://www.globalcenter.info/wcetr/ | Muğla, Turkey Tampere, Finland | April, 24-27 June, 23-27 |
| University of Helsinki | ECER (European Educational Research Association) http://www.eera-ecer.de/ecer2014/ NFSUN (The Nordic Research Symposium on Science Education) http://www.helsinki.fi/luma/nfsun2014/ | Porto, Portugal Helsinki, Finland | Sep, 1-5 June, 25-27 |
| Eugenides Foundation | ECSITE (European Network Science Centres & Museums) Annual Conference http://www.ecsite.eu/annual_conference | The Hague, Netherlands | May, 20-24 |

2. List of the National Conferences to be held in 2014

| 2014 - National Conferences | | | |
|-----------------------------|---|----------|----------------------|
| Country | Name | Date | Abstract Deadline |
| Finland | FMSERA (Finnish Mathematics & Science Education Research Association) Conference | Nov | |
| Germany | MINT - Lehrer Kongress (STEM Teachers Congress) Jule Tagung (Young Teachers Conference) GDCh Fachgruppe Chemieunterricht | Dec | |
| Greece | HCICTE 2014 (9 th Pan-Hellenic Conference with International Participation "ICT in Education") http://www.edc.uoc.gr/~hcicte2014/index.php/2013-05- | Oct, 3-5 | Feb, 1 st |

| | | | |
|------------|--|---------------------|------------------------|
| | <u>17-12-03-23/</u> | | |
| Ireland | ESAI (Educational Studies Association of Ireland) http://www.esai.ie/conference-2014-call | April, 10-12 | Jan, 31 st |
| | ISTA (Irish Science Teachers' Association) http://www.ista.ie/events | April, 11-13 | |
| Israel | Annual Meeting of Israeli Chemistry Teachers | March, 17 | |
| Italy | 100° Conference of the Italian Physical Society (Pisa) | Sep, 22-26 | |
| | AIF (Conference of the Italian Association of Physics Teaching) http://www.aif.it/silvia.htm | Oct. | |
| | IX DiDiSCI National Conference (Chemistry Education Division of the Italian Chemistry Society) | Oct. | |
| Nederlands | NIBI Conference Woudschouten ORD NVON | | |
| Poland | Physics Demonstratous Meeting PTChem | June | |
| | Szkola Dydaktyki Chemii | Sep, 14-18 | |
| | Science Centers Meeting | June, 20-22 | |
| | PSNPP | March Sep | |
| Portugal | National Science Education Conference | | |
| Romania | National Chemistry Conference - Secondary Education | September, 12-14 | July 31 st |
| | National Conference on Education, Reflection, Development http://www.educationalsciences.net/ | June, 13-15 | April 30 th |
| Turkey | UFBMEK (National Science & Mathematics Education Congress) http://egitim.cu.edu.tr/ufbmek2014/ | Sep, 11-14 | Apr, 30 th |

Annex 4

(from IRRESISTIBLE Consortium Agreement)

8.3 Dissemination

8.3.1 Publication

8.3.1.1 Dissemination activities including but not restricted to publications and presentations shall be governed by the procedure of Article II.30.3 of the EC-GA subject to the following provisions. Prior notice of any planned publication shall be given to the other Parties concerned at least 45 days before the publication. Any objection to the planned publication shall be made in accordance with the GA in writing to the Coordinator and to any Party concerned within 30 days after receipt of the notice. If no objection is made within the time limit stated above, the publication is permitted.

8.3.1.2 An objection is justified if

- (a) the objecting Party's Legitimate academic or commercial interests are compromised by the publication; or
- (b) the protection of the objecting Party's Foreground or Background is adversely affected.

The objection has to include a precise request for necessary modifications.

8.3.1.3 If an objection has been raised the involved Parties shall discuss how to overcome the justified grounds for the objection on a timely basis (for example by amendment to the planned publication and/or by protecting information before publication) and the objecting Party shall not unreasonably continue the opposition if appropriate actions are performed following the discussion.

Annex 5

| Selected Dissemination Activities performed by the partners for different Target Groups | | | |
|---|---|--|---|
| Country | Target Audience | Channel of Dissemination | Examples (Description and Date) |
| FINLAND | Pre- and in-service science teachers and their professional associations | Pre-service teachers coursework Blog for teachers | <ul style="list-style-type: none"> - Participating in project (1 class in fall 2014, 2 classes in fall 2015) Project ideas discussed in lectures for all students - RRI blog (irresistiblesuomi.tumblr.com) started in September 2015 |
| | Science Museums/Centres | Exhibit at local Natural History Museum | Small permanent exhibit built by CoL1, opened in December 2014 |
| | Researchers in Science Education | Presentations at local and global conferences | ECRICE 7.-10.7.2014, FMSERA 1.9.2014, NOFA 27.-29.5.2015, ESERA 1.9.2015, FMSERA 30.10.2015 |
| | Parents and their associations | Webzine articles | <ul style="list-style-type: none"> - Article in LUMA Sanomat 23.11.2014 |
| | Policymakers at different levels (local, national, European) involved in the design of school curricula | Webzine articles HOPE network (Horizons of Physics Education) | <ul style="list-style-type: none"> - Article in LUMA Sanomat 23.11.2014 - Article in LUMA News, 2014 - Poster presentations in HOPE Forums 2014 (in Helsinki) and 2015 (in Portugal) |
| | Media representatives interested in students' scientific competences | Webzine articles | <ul style="list-style-type: none"> - Articles in LUMA Sanomat and LUMA News |

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 612367. The information and views set out in this report are those of the author(s) and do not necessarily reflect the official opinion of the Commission. Neither the Commission nor any person acting on the Commission's behalf may be held responsible for the use which may be made of the information contained therein.

| | | | |
|----------------|---|---|--|
| GERMANY | Pre- and in-service science teachers and their professional associations | Student lab, Teacher network, Information day | <ul style="list-style-type: none"> - Pre-service teachers in chemistry have a regular training unit in the student lab (running over 1 semester). The lab content is closely related to the Irresistible module, the module is presented there. - The module will be presented in the framework 'Transfer Wissenschaft-Schule / transfer science to school', a network for the exchange of and with teachers. - The module will be presented on an information day on new teaching materials and projects at IPN Kiel on Nov. 9th, 2015. |
| | Science Museums/Centres | Conferences | <ul style="list-style-type: none"> - Workshop on ECSITE conference June 2016 (proposal submitted). - Presentation of the modules at the LeLa conference (association of student labs in Germany) in March 2016. |
| | Researchers in Science Education | Paper | Research paper on the use of student curated exhibitions (planned) |
| | Parents and their associations | Student exhibitions | Student exhibitions at various schools, April-July 2016 |
| | Policymakers at different levels (local, national, European) involved in the design of school curricula | Curriculum development | PI Parchmann is involved in curriculum design activities in Schleswig-Holstein. |
| | Media representatives interested in students' | Local media | Invitation of local media to student exhibition openings at schools, April-July 2016 |

| | scientific competences | | |
|------------------------------------|--|---|---|
| GREECE-Eugenides Foundation | Pre- and in-service science teachers and their professional associations | Teacher networks | EF has developed strategies to connect in-service teachers to the science center's program. In the framework of the project, EF and front-runner schools (from the 1 st CoL) act as hub for local networks. To this end, EF is responsible for supplying the teacher networks with training workshops (if necessary), materials, updates on research and exhibits development etc. during and after the project life. |
| | Science Museums/Centres | <ul style="list-style-type: none"> -Hosting the IRRESISTIBLE exhibition of the 1st and 2nd CoL - Public opening - Night activities - Other events | <p>As science center, EF hosted and supported the IRRESISTIBLE exhibition of the 1st CoL (April-June 2015) at its premises as temporary exhibition, open for the school groups or general public visiting the science center.</p> <p>A public opening of the IRRESISTIBLE exhibition took place on the 3rd of May 2015 in a celebration with the participation of teachers, students and their parents simultaneously in Athens and Crete.</p> <p>The IRRESISTIBLE exhibition of the Greek CoL was presented in the European Museums Night (May 16, 2015, 21:00- 00:00) where Eugenides Foundation participates officially. In the framework of the European Museums Night, students from the Greek CoL attended the event as exhibit designers, docents or explainers. They were stationed at each exhibit, encouraging visitors interaction with the exhibits, assisting them (if necessary) and posing or answering questions. It is estimated that more than 1.000 visitors visited or interacted with IRRESISTIBLE exhibits.</p> <p>EF intends to repeat the successful rewarding event for students of the 2nd CoL, by hosting the new full IRRESISTIBLE exhibition at the premises of the museum (April – September 2016). A public opening (April – May</p> |

| | | |
|----------------------------------|---|--|
| | | <p>2016) will take place with the participation of the students, teachers and parents.</p> <p>The IRRESISTIBLE exhibition will participate in the European Museums Night (May 2016) where EF participates officially. In the framework of this event, students of the 2nd CoL will serve as museum staff and interact with visitors in variety of ways.</p> <p>If possible, the IRRESISTIBLE exhibition of the 2nd CoL will be maintained beyond the above activities for long as we can (till September 2016). General public especially interested families but also education community members or school groups would like to visit the exhibition individually in order to interact with the exhibits and be informed about RRI with a proven way.</p> <p>The participation of the IRRESISTIBLE exhibition in the activities of the European Researchers' Night (September 23, 2016) as supporting event is under consideration. It might include ongoing activities such as exhibit tours, orientations and interpretation activities at each exhibit.</p> <p>Unfortunately, most exhibitions after the end of the events or projects are disassembled. To this end, it is under consideration the possibility to move components of the exhibition to various parts (another schools, museums etc.) so that other teachers can continue using the materials as a pedagogical tool. However, digital exhibits are easy to use them as they can be displayed online in various sites (e.g. website, facebook etc.).</p> |
| Researchers in Science Education | Active presentation in selected national and international conferences. | <ul style="list-style-type: none"> - 9th National Conference on Science Education & ICT, School of Education, Aristotle University of Thessaloniki, Greece (8 – 10.5.2015). -11th Conference of the European Science Education Research |

| | | | |
|-----------------------------|---|--|---|
| | | | Association (ESERA), Helsinki, Finland (31.8 – 4.9.2015). |
| | Parents and their associations | - Visiting and engagement with the IRRESISTIBLE exhibitions - Public opening - Night activities - Other events | Students' parents of the 1 st CoL were invited with personal invitations in the Public opening in order to acknowledge and celebrate their children accomplishments. This activity will repeat in the framework of the 2 nd CoL. Furthermore, interested families will have the opportunity to visit the exhibition individually after the opening or in the framework of other events. The aim is to increase awareness among the general public of the importance of RRI. |
| | Policymakers at different levels (local, national, European) involved in the design of school curricula | Organizing an event/meeting | Key people from different target audiences (representatives from the Ministry of Education, educational institutes and authorities, industry, researchers, local and regional school administrators etc.) will be identified and be invited for a meeting in our premises aiming at the promotion of RRI and IRRESISTIBLE program as a practical and proven method of teaching science. |
| | Media representatives interested in students' scientific competences | Press releases and personal invitations to special guests. | Media coverage is taking place during the project life in order to inspire more visitors and end-users with a special focus on young people and their families. Press releases per event was sent/will be sent to the EF's full list of mass media in Greece (about 3.500 recipients at print and electronic, educational portals etc.) for better promotion and dissemination. |
| GREECE- University of Crete | Pre- and in-service science teachers and their professional associations | - Lectures - Presentations - Invitation | 2 nd Conference Chain Reaction, Heraklion, Crete (21/3/2015) B.Sc & M.Sc Students (One-two lectures at the University of Crete and University of Athens, in spring / winter semester 2014-2015) Invitation for the special event on 3 rd May 2015 in Eugenides Foundation Athens & Natural History Museum of Crete |

| | | | |
|---------------|---|--|--|
| | Science Museums/Centres | Students exhibits in science centers | Exhibition in May –June 2015 in Eugenides Foundation Athens & Natural History Museum of Crete. |
| | Researchers in Science Education | - National & International conferences (Presentations & Proceedings) | e.g. First International Conference on “ <i>New Developments in Science and Technology Education</i> ”, Corfu, Greece (29-31/5/2014) - 9th National Conference on ICT in Education, University of Crete, Greece (3-5 October, 2014) - 9th National Conference on Science Education & ICT, School of Education, Aristotle University of Thessaloniki, Greece (8 – 10.5.2015) - 11th Conference of the European Science Education Research Association (ESERA), Helsinki, Finland (31.8 – 4.9.2015) |
| | Parents and their associations | Open Day of Students' exhibits are presented in a special event to the wide audience | Special event on 3 rd May 2015 in Eugenides Foundation Athens & Natural History Museum of Crete. |
| | Policymakers at different levels (local, national, European) involved in the design of school curricula | Invitation | Local authorities (e.g. school consultants) to attend the students exhibitions on 3 rd May |
| | Media representatives interested in students' scientific competences | Press release in newspapers | Article about Irresistible in two local newspapers published in 26.11.2014 & 29.11.2014 |
| ISRAEL | Pre- and in-service science | Chemistry teachers' annual meeting. | 23.12.2014 8.12.2015 |

| | | | |
|-------|---|---|--|
| | teachers and their professional associations | Pre teachers in The Academic Arab College for Education In Israel – Haifa An article in Hebrew for science teachers regarding the Irresistible project and the Israeli module. | 2-3.12.15 |
| | Science Museums/Centres | Launching the exhibition created by the students in the Science Garden | 22.07.15 |
| | Researchers in Science Education | ESERA, 2015 Finland | RRI poster symposium RRI symposium |
| | Parents and their associations | Not yet | Not yet |
| | Policymakers at different levels (local, national, European) involved in the design of school curricula | The inspector of chemistry, the ministry of education, Israel | Participated in a CoL meeting and in the exhibition launching |
| | Media representatives interested in students' scientific competences | Not yet | Not yet |
| ITALY | Pre- and in-service | oral presentations, posters and leaflets on | <i>Congegni e macchine a livello molecolare (Molecular devices and</i> |

[D6.1 DISSEMINATION MANUAL

IRRESISTIBLE]

| | | | |
|--|--|---|--|
| | science teachers and their professional associations | conferences & meetings; organization of conferences & workshops, papers in journals; presentation on pre-service training, papers | <i>machines), SPAIS Training School for Teachers of Experimental Sciences, (July 21 – 25, 2014, Palermo); oral presentation.</i> <i>I limiti estremi della miniaturizzazione: congegni e macchine a livello molecolare (Extreme miniturization: molecular devices and machines), Teacher Training Course at the Museo di Balì, (September 3, 2014, Saltara, PU); oral presentation</i> |
| | Science Museums/Centres | Oral presentations, posters, exhibition and leaflets on conferences & meetings, website | |
| | Researchers in Science Education | Oral presentations, posters, and leaflets on conferences & meetings; papers in scientific journals | <p><i>Responsible Research and Innovation in Science Education: The IRRESISTIBLE Project, GIREP - MPTL 2014 Teaching/Learning Physics: integrating research into practice (July 7 – 12, 2014, University of Palermo); poster presentation</i></p> <p><i>Responsible Research and Innovation in Science Education: The IRRESISTIBLE Project, SIS-RRI Conference, (November 19-21, 2014, Rome, Italy); poster presentation</i></p> <p><i>Responsible Research and Innovation in Science Education: The IRRESISTIBLE Project, SIS-RRI Conference, (November 19-21, 2014, Rome, Italy); poster presentation</i></p> <p><i>The IRRESISTIBLE project in Science Education: How can RRI become a permanent aspect of science teaching? IOSTE Eurasia Regional Symposium & Brokerage Event (April 24-26, 2015, Istanbul); poster presentation</i></p> <p><i>How can RRI become a permanent aspect of science teaching? ESERA Conference (Helsinki, 31 August- 4 September 2015), poster and oral presentation</i></p> <p>E. Bertozi, C. Fazio, A. Floriano, O. Levini, R. Maniaci, B. Pecori, M. Venturi, J. Apotheker: <i>Responsible Research and Innovation in Science Education: The IRRESISTIBLE Project</i>, in Proceedings of GIREP-MPTL 2014 International Conference</p> |

[D6.1 DISSEMINATION MANUAL

IRRESISTIBLE]

| | | | |
|--------------------|--|---|---|
| ITALY-UNIPA | | | Teaching/Learning Physics: Integrating Research into practise, University of Palermo (22-26 July, 2014) |
| | Parents and their associations | Meetings with parents in schools, invitation to visit exhibitions in schools, school websites | |
| | Policy makers at different levels (local, national, European) involved in the design of school curricula | Letters and leaflets, invitation to visit exhibitions in schools (local) | <i>The environment of the university research - The IRRESISTIBLE project</i> , Conference within the course “Out of the Box” - innovation competences between school, research and entrepreneurship, organized by Regional school-office of Emilia-Romagna and addressed to teachers and principals of the secondary school (April 27, 2015, Lyceum “Galvani”, Bologna) |
| | Media representatives interested in students' scientific competences | | |
| | Researchers (scientists) | Papers, posters, flyers | |
| | Wider public, local community | Articles in local press (newspapers), local tv, exhibitions in schools, websites, posters | Article in the newspaper La Stampa entitled <i>Nanotechnologies and Etics at the IIS Nobili</i> , March 20, 2015. The article has been published in the occasion of the Irresistible meeting held in Bologna during which the students of the IIS Nobili of Reggio Emilia presented their exhibit. |
| | Pre- and in-service science teachers and their professional associations | Exhibit booth-poster, Poster+presentation | EsperienzaInsegna, Science fair 21/28 february 2015 SPAIS 2014, Summer School 21/26 July 2014 SPAIS 2015, Summer School 21/26 July 2015 |
| | Science Museums/Centres | | |
| | Researchers in | Exhibit booth-poster | EsperienzaInsegna, Science fair 21/28 february 2015 |

| | | | |
|--------------------|---|---|--|
| | Science Education | | |
| | Parents and their associations | Exhibit booth-poster | EsperienzaInsegna, Science fair 21/28 february 2015 |
| | Policymakers at different levels (local, national, European) involved in the design of school curricula | Exhibit booth-poster | EsperienzaInsegna, Science fair 21/28 february 2015 |
| | Media representatives interested in students' scientific competences | Exhibit booth-poster | EsperienzaInsegna, Science fair 21/28 february 2015 |
| NETHERLANDS | Pre- and in-service science teachers and their professional associations | Meetings, workshops on conferences emails through associations, articles and advertisements in teacher magazines and personal contact | <ul style="list-style-type: none"> - Workshop and stand, Teachers Day Leeuwarden – June 19, 2015 - Presentation at STEM Teacher Academy – May 22, 2015 - Publication in NVOX- teacher magazine – Sep 2015 |
| | Science Museums/Centres | Twitter and Facebook-accounts Science LinX, Exhibit on Night of Arts and Science | Throughout the year June 4, 2015 |
| | Researchers in | Meetings | IUPAC meeting Committee on Chemistry Education, Aug 10. |

| | | | |
|--------|---|---|---|
| | Science Education | | ESERA-meeting, September 2015 |
| | Parents and their associations | Letter to parents | At the start of the project at school |
| | Policymakers at different levels (local, national, European) involved in the design of school curricula | Emails, newsletter, social media, news items on Science LinX website | Throughout the year: http://www.rugnl/scienceinx/partners/irresistible |
| | Media representatives interested in students' scientific competences | Facebook IRRESISTIBLE group of Netherland: https://www.facebook.com/groups/1616514391935088/ | |
| POLAND | Pre- and in-service science teachers and their professional associations | Oral presentations, posters and leaflets on conferences & meetings; organization of conferences & workshops, papers in journals; presentation on pre-service training, papers | Congress of the Polish Association of Science Teachers, Toruń, workshop - 13/09/2014, <i>Niedzialki, 4/2014, p. 78-83</i> |
| | Science Museums/Centres | Oral presentations, posters, exhibition and leaflets on conferences & meetings, website | 6th Conference "Interaction-Integration", Science Center Experiment, Gdynia, presentation, flyers, 14/03/2014; http://www.maius.uj.edu.pl/edukacja-i-nauka/projekty-badawcze |
| | Researchers in Science Education | Oral presentations, posters, and leaflets on conferences & meetings; papers in scientific journals | 6th International Conference on Research in Didactics of the Sciences, DidSci 2014, Krakow, 25/06/2014 |

[D6.1 DISSEMINATION MANUAL

IRRESISTIBLE]

| | | | |
|--|--|--|---|
| | Parents and their associations | Meetings with parents in schools, invitation to visit exhibitions in schools, school websites | www.xvlo.pl |
| | Policy makers at different levels (local, national, European) involved in the design of school curricula | Letters and leaflets, invitation to visit exhibitions in schools (local) | Dissemination of letters and leaflets (mailing), spring 2014, local, regional and national authorities and policy makers |
| | Media representatives interested in students' scientific competences | | |
| | Researchers (scientists) | Papers, posters, flyers | Orbital, 2-3, 2014, p.94-98,paper; Annual Meeting of Polish Chemical Society, Częstochowa, poster, flyers -17.09.2014; Meeting of Chairpersons of EuCheMS Divisions/WPs/EYC N, Vienna, 28.09.2015 oral presentation; |
| | Wider public, local community | Articles in local press (newspapers), local tv, exhibitions in schools, websites, posters | Orka, May 2015, p. 14 „Nanoświat w Bronku” – local TV clip, 19.06.2015; Science Picnic, Warszawa, poster - 31.05.2014 ; http://www.dziecipodbeskidzia.pl |
| | Pre- and in-service science teachers and their professional associations | 1. IE-UL website (Portuguese and English) http://www.ie.ulisboa.pt/portal/page?_pageid=406,1812940&_dad=portal&_schema=PORTAL 2. IRRESISTIBLE brochure (Portuguese) https://pt.scribd.com/doc/280229133/Brochura- | 1. Project description (since January 2014) 2. Project description, teaching modules available, contacts for further clarifications - available since September 2015 (hand-delivered in schools by researchers in science education members of the CoL; delivered in National Science Education Conference - ENEC; disseminated online through e-mail to possible future teachers of CoL2 and through IRRESISTIBLE |

| | | |
|--|--|--|
| | <p><u>IRRESISTIBLE?secret_password=KWHK CudiUEgDvfSeiisO</u></p> <p>3. Facebook IRRESISTIBLE Portugal group (Portuguese) https://www.facebook.com/groups/irresistible.portugal/</p> <p>4. National and International Conferences on Science Education</p> <p>5. Personal Facebook accounts fromCoL members</p> <p>6. Workshops (face to face and online, through Moodle Platform: a) Workshop 1(march to July 2014) b) Workshop 2 (January to July 2015)</p> <p>7. Moodle platform (private)</p> <p>8. YouTube and social networks</p> <p>9. Exhibitions at schools</p> <p>10. Sharing of CoL teachers' practices to pre-service science teachers</p> <p>11. Meetings at schools for presenting IRRESISTIBLE project</p> | <p>Facebook group from Portugal)</p> <p>3. Public group, created in September 2015 for CoL1 and Col2 teachers to share their works regarding IRRESISTIBLE. Also for disseminating the 6 teaching modules available in Portuguese, RRI, IBSE, 7E model resources (texts, papers, news, multimedia), newsletters from the project, project website and other official news (attendance to conferences, meetings, and others).</p> <p>4.1."IRRESISTIBLE Project: Portuguese Community of Learners - Teachers Perceptions" - 24/07/2014; Aveiro (Portugal) - HSCI2014</p> <p>4.2."The empowerment of children for research and collective action about environmental problems: results from the projects 'We Act' and 'Irresistible.'" - 18/03/2015; Murcia, Spain</p> <p>4.3."IRRESISTIBLE Project: the development of scientific exhibitions by students as a strategy of community action fundend in research" - 10/09/2015; Lisbon, Portugal (XVI ENEC - National Encounter of Science Education)</p> <p>4.4."The potential of students' planned and designed exhibits about RRI: Teachers' perspective" - 04/09/2015; ESERA, Helsinki, Finland</p> <p>5. Dissemination of news regarding IRRESISTIBLE workshops and exhibitions at schools.</p> <p>6. This workshops involved CoL1 teachers, science educators and scientists. The first one focused on presenting the IRRESISTIBLE project and it's distinctive aspects (RRI, scientific cutting edge topics, web2.0 tools and interactive exhibitions), having scientists presenting their themes, sharing materials and answering teachers' doubts and questions, and having teachers building the first drafts of the teaching modules. The second workshop focused on RRI and interactive exhibitions development, and aimed at helping teachers, giving them tools to implement the process of exhibition development</p> |
|--|--|--|

| | | |
|-------------------------|--|---|
| | | <p>in their classrooms.</p> <p>7. This platform was created for the workshops, and it's active since march 2014. It serves as a repository of materials for CoL1 and CoL2 teachers.</p> <p>8. Dissemination of vodcasts concerning IRRESISTIBLE, Students Exhibitions, RRI and the 7E Model (available since October 2015):</p> <p>https://www.youtube.com/watch?v=Bk2oWN3Y4Xo: https://www.youtube.com/watch?v=2U_HpXSWY7U https://www.youtube.com/watch?v=RsVy_vtaukQ https://www.youtube.com/watch?v=EmWoYidVJmY https://www.youtube.com/watch?v=pUj4Bp2XEgY</p> <p>9.1. Exhibition at School EB Anselmo de Andrade (Almada, Lisbon, Portugal); 08-12/06/2015 9.2. Exhibition at School EB Nun'Alvares (Seixal, Lisbon, Portugal); 05/06/2015 9.3. Exhibition at School EB Vale de Milhaços (Corroios, Lisbon, Portugal); 05/06/2015</p> <p>10. CoL teachers were invited to present their work concerning IRRESISTIBLE module implementation to pre-service teachers of the Master of Science Education, in IE-UL, from september 2015 to november 2015.</p> <p>11. Science educators and scientists from CoL are presenting IRRESISTIBLE project to teachers in meetings that are taking place at schools (since September 2015 there were 4 meetings). CoL2 teachers are, as for now, 22 and the number of classes involved in testing modules are, as for now, 31.</p> |
| Science Museums/Centres | 1. IE-UL website (Portuguese and English) http://www.ie.ulisboa.pt/portal/page?page_id=406,1812940&_dad=portal&_schema=P | <p>1. Project description (since January 2014)</p> <p>2. During this workshop, CoL2 teachers were able to</p> |

| | | |
|----------------------------------|--|--|
| | <u>ORTAL</u> 2. Workshop planned in cooperation with Ciência Viva (Pavilhão do Conhecimento) for CoL2 teachers | experiment some of the "interactive" exhibits and assess their interactivity; their feedback was collected by Ciência Viva monitors - 07/02/2015 |
| Researchers in Science Education | <p>1. IE-UL website (Portuguese and English) http://www.ie.ulisboa.pt/portal/page?_pageid=406,1812940&_dad=portal&_schema=PORTAL</p> <p>2. National and International Conferences on Science Education</p> <p>3. Personal Facebook accounts from CoL members</p> <p>4. Facebook IRRESISTIBLE Portugal group (Portuguese) https://www.facebook.com/groups/irresistible.portugal/</p> | <p>1. Project description (since January 2014)</p> <p>2.1."IRRESISTIBLE Project: Portuguese Community of Learners - Teachers Perceptions" - 24/07/2014; Aveiro (Portugal) - HSCI2014</p> <p>2.2."The empowerment of children for research and collective action about environmental problems: results from the projects 'We Act' and 'Irresistible.'" - 18/03/2015; Murcia, Spain</p> <p>2.3."IRRESISTIBLE Project: the development of scientific exhibitions by students as a strategy of community action fundend in research" - 10/09/2015; Lisbon, Portugal (XVI ENEC - National Encounter of Science Education)</p> <p>2.4."The potential of students' planned and designed exhibits about RRI: Teachers' perspective" - 04/09/2015; ESERA, Helsinki, Finland</p> <p>3. Dissemination of news regarding IRRESISTIBLE workshops and exhibitions at schools.</p> <p>4. Public group, created in September 2015 for CoL1 and Col2 teachers to share their works regarding IRRESISTIBLE. Also for disseminating the 6 teaching modules available in Portuguese, RRI, IBSE, 7E model resources (texts, papers, news, multimedia), newsletters from the project, project website and other official news (attendance to conferences, meetings, and others).</p> |
| Parents and their associations | 1. IE-UL website (Portuguese and English) http://www.ie.ulisboa.pt/portal/page?_pageid=406,1812940&_dad=portal&_schema=PORTAL | <p>1. Project description (since January 2014)</p> <p>2. Presence of science educators and scientists from CoL on school exhibitions in order to clarify some questions or doubts of parents concerning IRRESISTIBLE, RRI, and scientific</p> |

| | | |
|---|---|--|
| | <p>2. Exhibitions at schools</p> <p>3. Polar Science blog http://cienciapolar.wordpress.com</p> | <p>topics:</p> <p>2.1. Exhibition at School EB Anselmo de Andrade (Almada, Lisbon, Portugal); 08-12/06/2015</p> <p>2.2. Exhibition at School EB Nun'Alvares (Seixal, Lisbon, Portugal); 05/06/2015</p> <p>2.3. Exhibition at School EB Vale de Milhaços (Corroios, Lisbon, Portugal); 05/06/2015</p> <p>3. This blog was developed by teachers and students regarding the implementation of the Polar Science module at School Anselmo de Andrade (Almada, Lisbon, Portugal). The IRRESISTIBLE project is highlighted in the blog, as well as students activities.</p> |
| Policymakers at different levels (local, national, European) involved in the design of school curricula | <p>1. IE-UL website (Portuguese and english) http://www.ie.ulisboa.pt/portal/page?pageid=4061812940&dad=portal&schema=PORTAL</p> <p>2. National and International Conferences on Science Education</p> | <p>1. Project description (since January 2014)</p> <p>2.1."IRRESISTIBLE Project: Portuguese Community of Learners - Teachers Perceptions" - 24/07/2014; Aveiro (Portugal) - HSCI2014</p> <p>2.2."The empowerment of children for research and collective action about environmental problems: results from the projects 'We Act' and 'Irresistible.'" - 18/03/2015; Murcia, Spain</p> <p>2.3."IRRESISTIBLE Project: the development of scientific exhibitions by students as a strategy of community action fundend in research" - 10/09/2015; Lisbon, Portugal (XVI ENEC - National Encounter of Science Education)</p> <p>2.4."The potential of students' planned and designed exhibits about RRI: Teachers' perspective" - 04/09/2015; ESERA, Helsinki, Finland</p> |
| Media representatives interested in students' scientific competences | <p>1. IE-UL website (Portuguese and english) http://www.ie.ulisboa.pt/portal/page?pageid=4061812940&dad=portal&schema=PORTAL</p> | <p>1. Project description (since January 2014)</p> |

| | | | |
|----------------|---|--|---|
| ROMANIA | Pre-service science teachers | Presentations to future science teachers - in general, examples related to how to introduce RRI in educational activities, having IRRESISTIBLE Romanian Module activities /classroom implementations as support. | The presentations have been introduced since the moment of finalization / implementation in the classrooms of the IRRESISTIBLE Romanian Module activities, as examples in the psycho-pedagogical disciplines (Pedagogy – Year II of study, Didactic of Sciences – Year II and Year III of study), starting with the first semester of the 2014/2015 University Year. |
| | In-service science teachers and their professional associations | Workshops & related Presentations, Conferences (see the section “ Researchers in Science Education ”), Press releases (see the section “ Media representatives interested in students' scientific competences ”), Exhibition (see the section “ Science Museums/Centres ”), IRRESISTIBLE Blog entries, in particular CoL meetings (the last one - just for the member teachers), project website | <ul style="list-style-type: none"> - Workshop organized at History Museum Targoviste, Targoviste, Romania (April 9, 2014): “<i>Nanoștiințele și cercetarea responsabilă</i>” / English translation: “<i>Nanoscience and Responsible Research</i>” - Workshop organized at Prahova Natural Science Museum, Ploiești, Romania (May 14, 2014): “<i>Instrumente multimedia pentru promovarea conceptului de Cercetare și Inovare Responsabilă în cercetarea muzeală</i>” / English translation: “<i>Multimedia Instruments for Promoting the Concept of Responsible Research and Innovation in Museum Practices</i>” - Workshop organized at Dambovita County “Ion Heliade Rădulescu” Library, Targoviste, Romania (June 4, 2014): “<i>Cercetare și inovare responsabilă în domeniul Nanotehnologiilor</i>” / English translation: “<i>Responsible Research and Innovation in the Area of Nanotechnology</i>” - Workshop organized at National College “Constantin Cantacuzino” Targoviste, Romania (October 9, 2014): “<i>Nanobiomimetica și Cercetarea Responsabilă</i>” / English translation: “<i>Nanobiomimetics and Responsible Research</i>” <p>Workshops dedicated to teachers and students - organized in the special week “School, in another way - To know more, To be the best!” (April 6-10, 2015):</p> <ul style="list-style-type: none"> - <i>Applications of nanomaterials in industry</i> (April 6, 2015 - Valahia University Targoviste Campus); - <i>Applications of nanomaterials in medicine</i> (April 7, 2015 - Dambovita County History Museum); - <i>Applications of nanomaterials in renewable energy technologies</i> (April 8, 2015 - Valahia University Targoviste Campus – Multidisciplinary Scientific & Technological Research Institute); - <i>History of nanomaterials. Applications of nanomaterials in practice</i> (April 9, 2015 - “Ion Heliade Rădulescu” Dambovita County Library); - <i>Applications of nanomaterials in museum research</i> (April 10, 2015 |

| | | |
|--|-------------------------|---|
| | | <p>- Prahova Natural Science Museum)</p> <p>Romanian IRRESISTIBLE Blog Entries:</p> <ul style="list-style-type: none"> - <i>The CoL in Romania</i>, by Gabriel GORGHIU, http://www.irresistible-project.eu/index.php/en/blog/94-the-col-in-romania, 26.09.2014 - <i>Applicability of 6E model in Science lessons</i>, by Ana Maria Aurelia PETRESCU, http://www.irresistible-project.eu/index.php/en/blog/95-6e-in-science-lessons, 16.01.2015 - <i>Irresistible involved in the Romanian week: "School, in another way"</i>, by Gabriel GORGHIU, http://www.irresistible-project.eu/index.php/en/blog/101-romanian-week-school-another-way, 10.04.2015 - <i>RRI in the Romanian unit "Nanosciences - a facilitator context for a united collective"</i>, by Gabriel GORGHIU, http://www.irresistible-project.eu/index.php/en/blog/111-rri-unit-romania, 19.06.2015 - <i>"The world of nanomaterials and solar energy" - an exhibition in the city of Târgoviște</i>, by Gabriel GORGHIU, http://www.irresistible-project.eu/index.php/en/blog/156-exhibition-romania, 3.08.2015 |
| | Science Museums/Centres | <p>Workshops & related Presentations (for the events organized in Museums (see the section “In-service science teachers and their professional associations”), Conferences (see the section “Researchers in Science Education”), Press releases (see the section “Media representatives interested in students’ scientific competences”), Exhibition, IRRESISTIBLE Blog entries (see the section “In-service science teachers and their professional associations”), in particular CoL</p> <p>- Exhibition (launched on 1.08.2015) opened at History Museum, in Targoviste city Information and advertisements related to the Exhibition in mass-media - on-line journal: http://www.jurnaldedambovita.ro/jdb_articol--expozitie-de-interes-lumea-nanomaterialelor-si-energia-solara,31677.html, and Columna TV channel: http://www.columnatv.ro/tv/muzeul-de-istorie-gazda-unei-expozitii-inedite/, but also in the IRRESISTIBLE Project Romania Facebook page</p> <p>- Roll-ups and Posters disposed in Museums, small fliers in schools, and also electronic poster uploaded in the IRRESISTIBLE Project</p> |

| | | | |
|--|----------------------------------|---|---|
| | | meetings (the last one - just for the museum members). | <i>Romania Facebook page</i> |
| | Researchers in Science Education | Workshops & related Presentations (see the section “In-service science teachers and their professional associations”), Conferences and scientific publications, Press releases (see the section “Media representatives interested in students’ scientific competences”), Exhibition (see the section “Science Museums/Centres”), in particular CoL meetings (the last one - just for the researcher members). | <p>Conference Presentations – National Level Gabriela Alina ANGHEL - Bune practici în predarea Științelor (<i>Presentation of IRRESISTIBLE Project</i>) – Seminarul: “STEM – Practici inovative de predare a științelor”, Târgoviște, April 25, 2015.</p> <p>Conference Presentations – International Level Gabriel GORGHIU – Enhancing the Young Students Competences in Science and Technology in Formal and Non-formal Educational Contexts – The International Valorisation Conference “Key Methodology to Successful Competence Based Learning” (KEYS 2014), Atasehir, Istanbul, Turkey, October 16-18, 2014. Gabriel GORGHIU, Gabriela Alina ANGHEL, Rodica Mariana ION – Students’ Perception Related to a Responsible Research and Innovation Demarche – The 6th International Conference EduWorld 2014: “Education Facing Contemporary World Issues”, Pitești, Romania, November 7-9, 2014. Ana Maria Aurelia PETRESCU, Gabriel GORGHIU G., Ramona Adina LUPU – Non-formal Education - Frame for Responsible Research and Innovation Demarches – The 6th International Conference EduWorld 2014: “Education Facing Contemporary World Issues”, Pitești, Romania, November 7-9, 2014. Gabriel GORGHIU, Carmen ANTONESCU, Gabriel STATE, Ana Maria Aurelia PETRESCU – An Approach Related to Nanotechnology / Nanobiomimetics in the Context of a Non-formal Educational Activity – The 5th International Conference Logos, Universality, Mentality, Education, Novelty (LUMEN 2014): “Transdisciplinarity and Communicative Actions”, , Târgoviște, Romania, November 21-22, 2014. Gabriela Alina ANGHEL, Agnes Terezia ERICH, Luminița Mihaela DRĂGHICESCU - The Role of the Libraries in Promoting the Responsible Research and Innovation – The 5th International Conference Logos, Universality, Mentality, Education, Novelty (LUMEN 2014): “Transdisciplinarity and Communicative Actions”, , Târgoviște, Romania, November 21-22, 2014. Agnes Terezia ERICH, Gabriel GORGHIU - The Public Library and</p> |

| | | |
|---|---|---|
| | | <p>its Involvement in Non-formal Learning Activities – The 6th International Conference Logos, Universality, Mentality, Education, Novelty (LUMEN 2015): “Rethinking Social Action. Core Values”, Iași, Romania, April 16-18, 2015.</p> <p>Jan APOTHEKER, Sevil AKAYGÜN, Gabriel GORGHIU - Raising Awareness of the Importance of Responsible Research and Innovation among Young People and Science Teachers - The IRRESISTIBLE Project - IOSTE Eurasian Regional Symposium & Brokerage Event Horizon 2020 - Science with and for Society Symposium, Istanbul, Turkey, April 24-26, 2015.</p> |
| Parents and their associations | Workshops & related Presentations (see the section “In-service science teachers and their professional associations”), Press releases (see the section “Media representatives interested in students’ scientific competences”), Exhibition (see the section “Science Museums/Centres”), Project website | |
| Policymakers at different levels (local, national, European) involved in the design of school curricula | Workshops & related Presentations (see the section “In-service science teachers and their professional associations”), Exhibition (see the section “Science Museums/Centres”) | |
| Media representatives interested in students’ scientific competences | Press releases (see the section, Exhibition (see the section “Science Museums/Centres”)) | <p>Media - Digital Media</p> <p>Media article (in Romanian) - published in an electronic journal (<i>Gazeta Dâmboviței</i>): - http://www.gazetadambovitei.ro/educatie/uvt-nanomaterialele-prezentate-in-atelierele-scolii-altfel/ (in “<i>Gazeta Dâmboviței</i>” (April 6, 2015), Article Title: “UVT: Nanomaterialele prezentate în atelierele Școlii Altfel” / English translation: “UVT: Nanomaterials presented in the School in Another Way Workshops”).</p> <p>Media article (in Romanian) - published in an electronic journal (<i>Gazeta Dâmboviței</i>): - http://www.gazetadambovitei.ro/educatie/muzeul-de-istorie-nanomaterialele-si-cercetarea-responsabila/ (in “<i>Gazeta Dâmboviței</i>” (April 7, 2015), Article Title: “Muzeul de Istorie - Nanomaterialele și cercetarea responsabilă” / English translation: “History Museum – Nanomaterials and responsible research”).</p> <p>Media article (in Romanian) - published in printed / electronic</p> |

| | | | |
|---------------|--|---|--|
| | | | <p>journal (Jurnal de Dâmbovița): - http://www.jurnaldedambovita.ro/jdb_articol--elevi-damboviteni-lasesiuni-de-prezentare-ale-uvt,29348.html (in “Jurnal de Dâmbovița” (April 8, 2015), Article Title: “Elevii dâmbovițeni la sesiuni de prezentare ale UVT” / English translation: “Young students at UVT presentation sessions”).</p> <p>Media article (in Romanian) - published in printed / electronic journal (Jurnal de Dâmbovița): - http://www.jurnaldedambovita.ro/jdb_articol--elevii-damboviteni-au-invatat-la-universitatea-valahia,29352.html (in “Jurnal de Dâmbovița” (April 9, 2015), Article Title: “Elevii dâmbovițeni au învățat la... Universitatea "Valahia" ” / English translation: “Young students have learned at Valahia University... ”).</p> <p>Media article (in Romanian) - published in printed / electronic journal (Jurnal de Dâmbovița): - http://www.jurnaldedambovita.ro/jdb_articol--elevii-damboviteni-fascinati-de-aplicatiile-nanomaterialelor,29391.html (in “Jurnal de Dâmbovița” (April 10, 2015), Article Title: “Elevii dâmbovițeni, fascinați de aplicațiile nanomaterialelor ” / English translation: “Young students from Dambovita County, fascinated by the applications of nanomaterials ”).</p> <p>Media - Mass Media</p> <p>TV Videoclip during News-time (in Romanian) - broadcast at Columna TV: - https://www.youtube.com/watch?v=yOP9IVhofdE (April 9, 2015) - Clip title: “Istoria nanomaterialelor. Aplicații ale nanomaterialelor în practică” / English translation: “History of nanomaterials. Applications of nanomaterials in practice”</p> |
| TURKEY | Pre- and in-service science teachers and their professional associations | Oral and poster presentations at the conferences and meetings, flyers distributed at the conferences & meetings, international and local project websites, social media, organization of workshops and exhibits, articles in newsletters. | <p>Oral presentation at National Science and Mathematics Education Conference at which teachers and researchers attend:</p> <p>“Öğrenci, öğretmen, uzman ve toplumu birleştiren köprü: Sorumlu araştırma ve inovasyonun fen eğitimine entegrasyonu”, Çukurova University, Adana, Turkey (September 13, 2014)</p> |
| | Science Museums/Centres | Flyers distributed at the conferences, international and local project websites, social media, organization of exhibits, | A Facebook group in Turkish was created for the local audience (February 2014). Various text, pictures and video have been shared with this page. The Facebook group is used |

| | | | |
|---|--|--|--|
| | | articles in newsletters. | for discussion of the CoL members: https://www.facebook.com/groups/580300538713742/ |
| Researchers in Science Education | | Oral and poster presentations at the conferences and meetings, flyers distributed at the conferences & meetings, international and local project websites. | Oral Presentation at European Chemical Education Research Conference: "Teachers' Perceptions of the Community of Learners: The Case of Turkey" at ECRICE, University of Jyväskylä, Finland (July 9, 2014) |
| Parents and their associations | | Invitation to visit exhibitions in schools and at the Science Museum, school websites, school newsletters | - Article published in Voice, Newsletter of The Koc Schools, Winter/Summer 2015, Issue: 29-30 |
| Policymakers at different levels (local, national, European) involved in the design of school curricula | | Project leaflets, invitation to visit exhibition at the Science Museum | |
| Media representatives interested in students' scientific competences | | International and local project websites, social media, organization of workshops and exhibits, articles and announcements in newsletters. | The project was announced in the webpage of Bogazici University: http://www.boun.edu.tr/tr-TR/Content/Duyurular/Duyurular?LoadModule=News&NewsID=1119&Filter=true |