2nd Conference
FET & The City Report

COFET is an initiative of eutema Technology Management GmbH & Co KG, (AT) (co-ordinator), Israeli Industry Center for Research and Development (IL), Optimat Co Ltd. (UK) and youris.com G.E.I.E. (BE). COFET is co-financed by the European Commission's ICT programme in Framework Programme 7 .

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1. Introduction

1.1 Overview

The COFET project aims to support the future development of the FET programme within Horizon 2020 based on a dialogue between science, policy, industry and society. Three conferences will address three different topics, with this report presenting the outcomes and discussions from our Conference held in Pisa, Italy on the 30th and 31st January 2014, and which was focused on all aspects of outreach and stakeholder engagement. The ultimate objective was to move FET projects, and potentially the FET Programme, beyond the traditional view of dissemination and towards a more holistic value driven view encompassing outreach, engagement and citizen science.

1.2 Our Broad View of Outreach

In approaching this conference we decided to adopt a broad view of outreach to encourage an open discussion on how FET projects can ‚engage' with a variety of stakeholders and the value of that engagement. We believed that this was the best way in which to move away from a restrictive ‚dissemination' based approach to a more strategic ‚engagement' approach where FET projects could benefit from current state of the art thinking on outreach, citizen science and engagement and associated technologies.

1.3 Context

Science no longer happens in labs isolated from the outside world or other disciplines. Increasingly, scientists and research managers acknowledge the value of reaching out to broader audiences. This outreach ranges from communication with the broad public through a broad range of media channels, to communicating with selected stakeholder including policy makers, or to networking with experts from other disciplines. Increasingly, outreach targets citizens as contributors in the scientific process, or to foster a positive perception of science with a view of easier adoption of associated technologies and to increase career interest within young people.

However, reaching out is not an easy task for many scientists. This is particularly true for FET research, which is often of a long-term nature and positioned at an early stage of the innovation process. This makes it difficult to communicate with laymen and increases the risk of being misunderstood or creating false expectations.

Still, research programmes such as Horizon 2020, are expected to put ever more emphasis on outreach activities and FET will be no exception.
Dissemination has been the traditional term for ‚informing' about science and its objectives and outputs. This has been gradually being replaced with the term ‚outreach', which aims to take a broader view of communications and associated stakeholders. And more recently Citizen Science has emerged as a discipline of increasing engagement and participation of schools, students and the broad public in science and associated activities (inreach). This broader view of communicating with and engaging a broad stakeholder community for the benefit of science and society is a potentially challenging one for FET research projects due to their ‚exploratory' nature and technology lead-time from market.

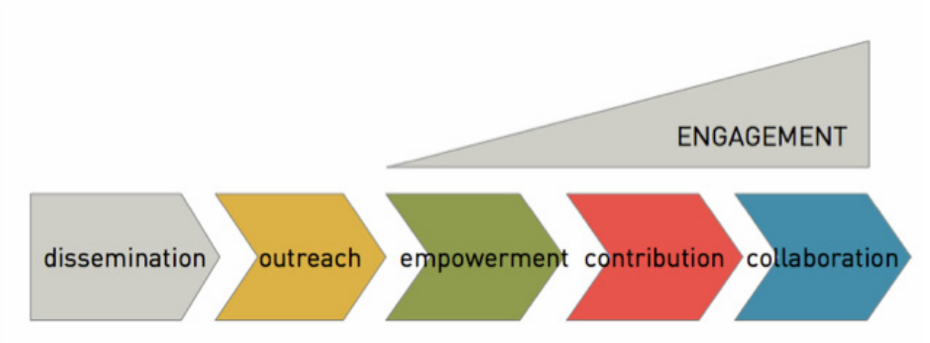
2.

Suggestions Arising from Workshop & Consultation

The following represents a summary of the main points identified during the presentations at the Conference on day-1, the discussion and outputs of the ad-hoc workshop and the consultation exercise with the invited delegates.
It explores a definition of outreach and also the value and implications at a FET Project and Programme level with some suggested initiatives for consideration.

2.1 General

The term dissemination, outreach and in-reach should be replaced with an easily understood and relevant term. This could potentially be Stakeholder Engagement. Engagement is much more than Dissemination or Outreach and includes the promotion of project results (i.e. research papers to peers) but what the science can enable and how it can change and benefit society to increase the perceived wisdom and value of investing in science.



Source: Fermin Serrano Sanz, Societize;

It is also about increased participation in science by citizens. Effective stakeholder engagement and citizen science can benefit research projects by reducing the cost of science or getting much more done (and quicker) for the money, by including willing volunteers to carry out specific elements of the research in a coordinated fashion. Of course such participation may not always be desirable or possible.

Source: Rhonda Smith, Minerva;

Stakeholder Engagement also has a public relations (PR) role that may not be immediately beneficial in that it can stimulate interest in science in school children and ultimately encourage students into University and science-based careers.
It will be important to use the correct language for each stakeholder group i.e. from the very technical language of researchers, through application focused language of industry to the lay-mans language of the broader public including school children.
Finally, reaching targeted groups can be done cost effectively utilising a variety of digital media applications and technologies. However, effective use of these is not well understood in general by scientists or even some in traditional media channels. A working knowledge of digital media, social networks and online collaboration tools will be required for effective communication and engagement.

2.2 FET Projects

Increasing engagement has significant potential benefits for projects. For example, input from innovation stakeholders at an early stage can help steer topics and research direction and thus increase relevance of research and the chances of commercial success post project. And Citizen Science and engagement of the broad public can help to solicit and shape views on the public acceptance of the resulting science / technology.

Dissemination has traditionally been a rear-loaded activity based on outputs, however classical communication experts argue that a communication plan is required at the earliest stage and that stakeholders should be involved from the very beginning. By effectively engaging with a community consisting of entrepreneurs, investors and industry it will ultimately catalyse collaborations that will increase the chances of commercial success of any outcome.

Therefore, projects should be required to submit an effective Engagement Strategy and Plan at the application stage, which, if successful, should be continually developed and updated as the project proceeds. An important first part of this Engagement Strategy will be to outline the ‚objectives' of the communications and interactions, with the resulting activities appropriate and relevant for the project, and including a commentary on the foreseen impact at a societal, programme and project level.

Relevance is a key component of any good Stakeholder Engagement plan. Any outreach and engagement activity must be supportive of the research project goals and relevant to the community and project. For that reason there will not be ‚one-size-fits-all' approach to communication and engagement. Innovative approaches and experimentation should be encouraged.

Where possible projects should move from activity based inputs (number of press releases, events, workshops, papers etc.) to real impact / outcomes (people reached, reports taken up, participation of people outside the project) as part of the KPI metrics of the Engagement Strategy and Plan, and these should be closely coupled with, and support the specific goals of the project. For example getting media coverage is a not a goal in itself, but raising awareness in defined numbers of a target audience could be. Knowledge gain of stakeholders is an outcome, however the challenge will be in defining a mechanism for measurement / monitoring. Another important aspect is what to do with the outputs and outcomes, i.e. what happens after the media coverage.

Online consultation with quantitative and qualitative analysis helps to monitor citizen perceptions and feedback and done regularly can monitor changes views as a result of responsive strategies. Such an online consultation may be more appropriate at the programme level and less relevant for shorter three-year research projects.

Scientists are very good at research in their field of specialisation, however are not always the best at PR and communication. There is also a challenge in motivating researchers to carry out Stakeholder Engagement, as their career development is not dependent on such activities. Therefore consideration should be given to including expertise within the project consortium with responsibilities for leading a work package / activity on Stakeholder Engagement and leading the development of the Engagement Strategy and Plan.

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Finally, reaching targeted groups can be done cost effectively utilising a variety of digital media applications and technologies. However, effective use of these is not well understood in general by scientists or even some in traditional media channels. A working knowledge of digital media, social networks and online collaboration tools will be required for effective communication and engagement.
Another consideration could be that scientists are provided with training in new ways of communicating beyond dissemination and how to use digital / social technologies effectively.
There is a tendency amongst researchers to believe that writing research papers is adequate for dissemination. In order to encourage innovative thinking and move away from dissemination myopia it should be stressed that writing research papers is not really dissemination but should be considered as part of the research. However publishing research papers may be the catalyst for a communication cascade i.e. a series of activities that have clear objectives and stakeholder groups.
In general more events within a project should be available to a broader audience, and this could potentially include meetings. In controversial research projects there may be a reluctance to expose the project in this way, however, in controversial projects there is potentially more need for engagement and not less - as it helps to identify emerging conflicts, steer research and prepare responses.
Some successful examples of Engagement in research projects were presented and include:
The Science Café (Trieste, Italy) is a successful example where public have an opportunity once a month to learn from and interact with Scientists on a variety of matters.

Source: Piero Paolo Battaglini, University of Trieste;

Art or Science campaign is a competition for students to present the most artistic photograph from their research with the winner getting the photograph converted onto 7m x 3m posters that are distributed around the city of Trieste.

Source: Piero Paolo Battaglini, University of Trieste;

2.3 FET Programme

Project Proposal Stage

It is important to enforce proper outreach and engagement activities at the proposal stage, as it is very difficult to add them at a later stage.

The evaluation criteria in research proposals should be broadened to include ‚Engagement' and statements made to express the view that projects should aim to go beyond traditional dissemination activities.

FET projects should involve stakeholders early on within the project and have a clear Engagement Strategy and Plan, with consideration given to the inclusion of partners that are experts in communication and engagement. The Engagement Strategy and Plan should be innovative and cater for experimental in its approach with clear objectives, target stakeholders and activities and outcomes.
Communication of science is a time intensive and potentially costly activity, especially for those that are not experts in the subject. Adequate resources within projects should be allocated for Engagement and this could cover costs for including the relevant expertise within the project for events and communication activities and technologies to support engagement. Typically this could be around 5% of project costs.
The traditional view of dissemination should not be forgotten and still has a place within projects, but Engagement Strategies and Plans should be linked to the overall objectives of the project and this will be the deciding factor on type of activity. Proposers need to highlight how their engagement approach and activities will contribute to goals and objectives.

Evaluation & Monitoring

It is important that innovative approaches to Engagement within projects are rewarded at the evaluation stage versus more traditional approaches to dissemination. Therefore proposal Evaluators need to be made aware of the need for engagement

Supporting Actions

There is the potential for some cross cutting support actions that could be implemented by the EC for all FET projects to utilise.
There is limited information and knowledge about which dissemination tools exist currently and this will become especially challenging with a broader view of engagement. For that reason there is potential to have Engagement Training for projects where scientists are trained in good practice for communicating science to a broader audience, and that provides case study examples of the various tools and the application.
This training could also be extended to include relevant EC officials, as it will be important to recognise good engagement within projects at the evaluation stage, in communicating to potential projects i.e. at Proposers Days and in recognising and capturing information for good practice case Studies.
There is also scope for a CSA to provide Engagement Strategy and Planning support to all FET projects. This could comprise a ready-made network comprising industry, technical journalists and communication intermediaries / agencies that projects could tap into to support their engagement activities.

Maybe each project gets a pre-defined number of days support much like a Voucher Scheme and that are part of the conditions of the grant to encourage and catalyse activity. This could also include an online resource for good practice Case Studies and knowledge articles related to Engagement. Training workshops could be delivered through this mechanism also.

An information source on good practice science communication and engagement could prove to be a valuable support document for applicants when preparing proposals, and maybe this is extended to all aspects of good practice in FET research projects.

Tools & Initiatives

DG RTD created an online magazine to disseminate to a broad audience and this is something that FET could adapt and adopt for FET projects and programme announcements. A benefit of such a mechanism is that once a success is published it will often create additional interest from other media i.e. local radio and news stations.

New bidirectional communication tools for crowds are urgently needed that are potentially dedicated to science and research. There are tools available that can be used for different parts and pieces, but these are not joined up and there are also parts missing i.e. crowd collaboration tools linking science with industry, investors, entrepreneurs, and other stakeholder groups. Currently these are mostly limited to forums etc. with some Web 2.0 tools available i.e. Facebook, LinkedIn and Twitter, but not Web 3.0 as yet. That said there is still potential for Forums and Web 2.0 de

3. Summarising

There are a number of key messages arising from this workshop, namely

1. A broad view should be adopted potentially called Communication & Engagement or Engagement
2. Projects should develop a Communication and Engagement Strategy and Plan at the proposal stage
   and which should be included in the evaluation criteria
   a. This has to be closely linked to project objectives
   b. Evaluators need to be trained in the benefits and types of activities and their applications / relevance
3. Appropriate resource should be allocated and the need for expertise within the project from the outset should be recognised
4. Measures need to move from outputs to outcomes and this should also be considered
   in the evaluation and monitoring criteria
5. A good practice guide for applicants that either focuses on Engagement or includes Engagement
   within a comprehensive Proposers Good Practice Guide
6. EC employees could benefit from a programme of training in Communication and
   Engagement to a broad public
7. There is scope for CSAs to support all research projects related to Engagement Strategies e.g.
   a. A central resource to coordinate the scientific community and provide advice and support to projects
   b. How to measure the effectiveness and impact of outreach and engagement activities