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H_2FC

Integrating European Infrastructure to support science and development of Hydrogen- and Fuel Cell Technologies towards European Strategy for Sustainable, Competitive and Secure Energy

Deliverable

D2.6 1st Call of H_2FC Researchers Exchange Programme

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Contributing partners (short names)	**KIT, UU**

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Document History

Issue Date	Version	Changes Made/Comments
31.10.2012	1.0	Bittner
28.06.2013	1.1	Svetlana Tretsiakova-McNally
13.11.2013	1.2	Sile Brennan (addition of sentence in introduction, linking to D3.3 and D3.7)

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1. Introduction

Please note that this Deliverable D2.6 "1st Call of H2FC Researchers Exchange Programme" also incorporates that information required in D3.3 and D3.7. It should be noted that due to discrepancies in the project description of work the information required within this document incorporates the contents of D3.3 and D3.7 and presents a more compressive view of the Research Exchange Programme (REP).

The Researchers Exchange Programme (REP) of H_2FC is a joint networking activity to promote the exchange of researchers within the consortium. The main aim of this activity is to reach a mutual knowledge within the consortium team and establish a fundamental technical and scientific understanding needed also to implement a personal communication flow and a cooperative environment in H_2FC.

One strategic objective is to link leading scientists and experts in the same specific technologies in order to harvest and bundle distributed technological knowledge to exploit technical synergies. Another strategic objective however is also to link specific experts from one technological area with another technological area in order to cross-link such technologies which are highly likely to build the base of future H_2FC process chains by exploiting specific technological complementarities.

It is planned to arrange two exchanges annually with a duration from two weeks to three months each. There can be a single (exchange between two centres) or a multiple application (cross-exchange involving 3 or more centres). Information will be collected during the exchange in the REP Proposals list for the benefit of all partners and the results of each approved exchange will be described by participating partners in a report not later than 3 months after the last exchange visit. Exchange researchers have to be affiliated to one of the project partners and have to be located in different countries. The host institution will provide a tutor to assist the researcher during his or her stay. Each particular exchange programme will have a supervisor appointed by Exchange Programme Selection Committee (EPSC), which is not a part of this exchange, but a member of other partners of the H_2FC European Infrastructure.

2. Report of activities

During this first period, main activities of the REP have been focused on the definition, constitution and promotion of the programme.

First activities before the initiation of the 1st call were the formation of the committee to oversee the programme, the rules of the exchange programme (including financial issues, periods of time, …), the applications for the REP, the selection of an Evaluation Panel from the partner institutions in H2FC, the appointment of contact persons for the REP, and the definition of reporting forms to capture/report the outcomes of the programme.

All these activities were carried out during the first months of the project, and will be reported in the deliverable D3.3. The first activities before the 1st call also included the promotion of the programme.

The REP, due to its own nature, is an attractive option for senior as well as junior researchers of the consortium. However, in many cases the complexity of a user application, the uncertainty about different aspects like travelling costs, timing, institution support, etc. or the lack of knowledge about possible exchange options limit the number of researchers willing to participate in the programme. For this reason, it was necessary to prepare tools for promoting the programme within the H_2FC consortium.

In addition, a specific section on the SharePoint dedicated to REP, accessible only for H_2FC beneficiaries and partners, was created. The REP workspace includes a detailed description of the programme regarding the application procedure, the necessary forms and the evaluation procedure.

3. Materials for promoting the programme

The materials for promoting the programme (E-mails, presentations and REP Workspace) will only be distributed internally as access is restricted to H_2FC partners in general. For external access there was implemented an information page on the external website of H_2FC.

3.1 Presentations

A presentation from Sile Brennan (UU) is available regarding REP and Technical school, presented at the Kick-Off meeting. Main objectives are shown on the following slides:

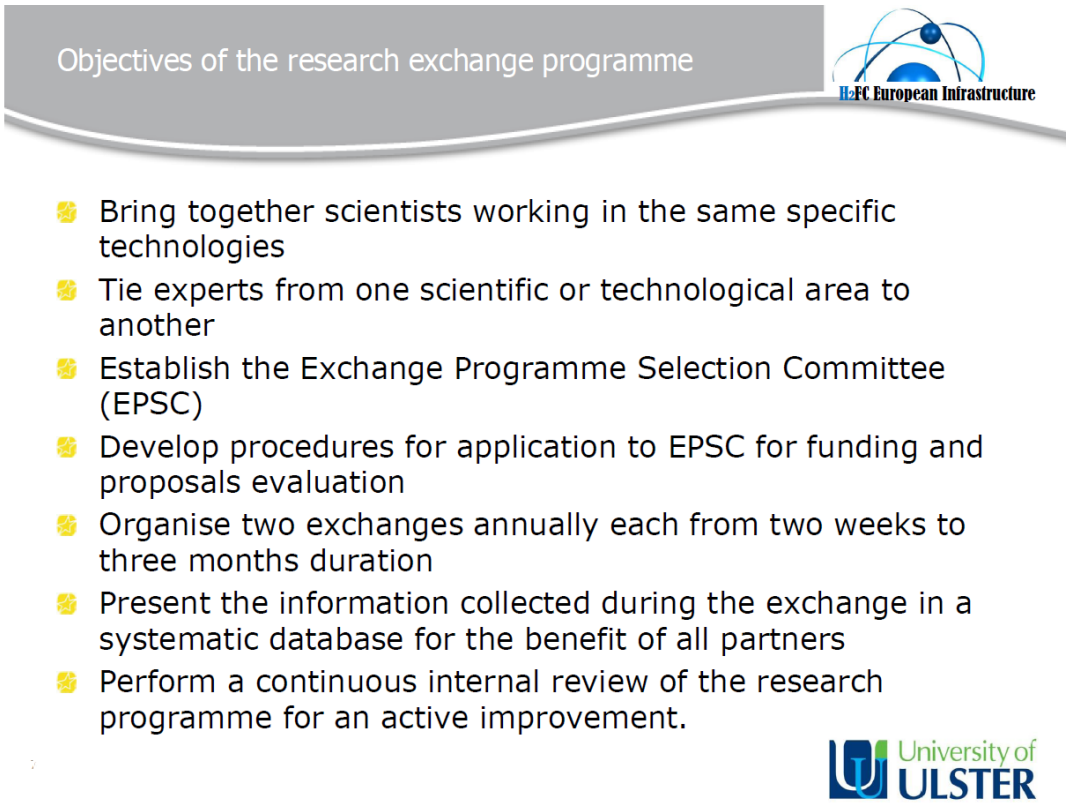


Figure 1: Presentation REP - Objectives

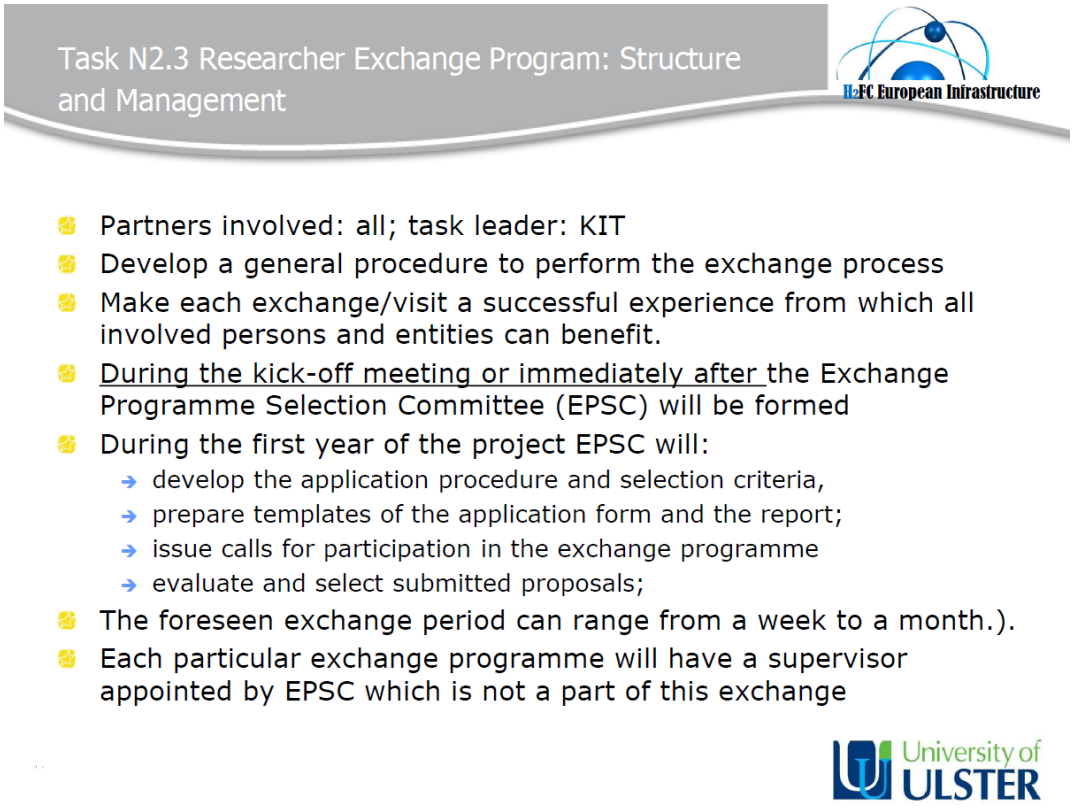


Figure 2: Presentation REP - Structure and Management

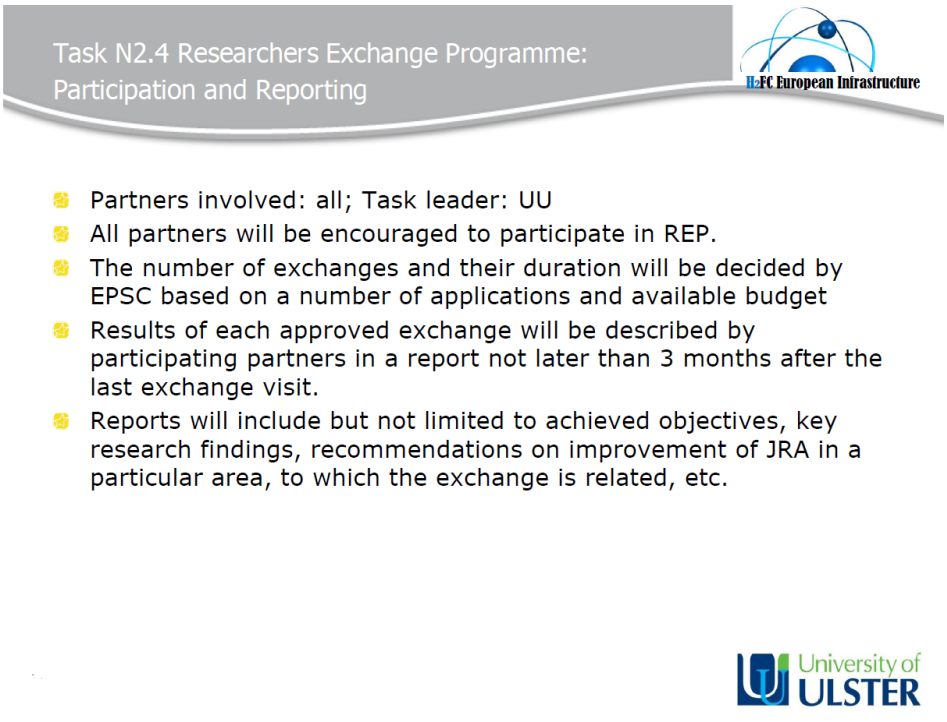


Figure 3: Presentation REP – Structure and Management

3.2 REP Workspace on internal SharePoint

There is a specific section on the H2FC SharePoint dedicated to the REP. This is accessible only for H2FC beneficiaries and partners with the following link:

https://iaikit-sp2.iai.kit.edu/h2fc/rep/SitePages/Home.aspx

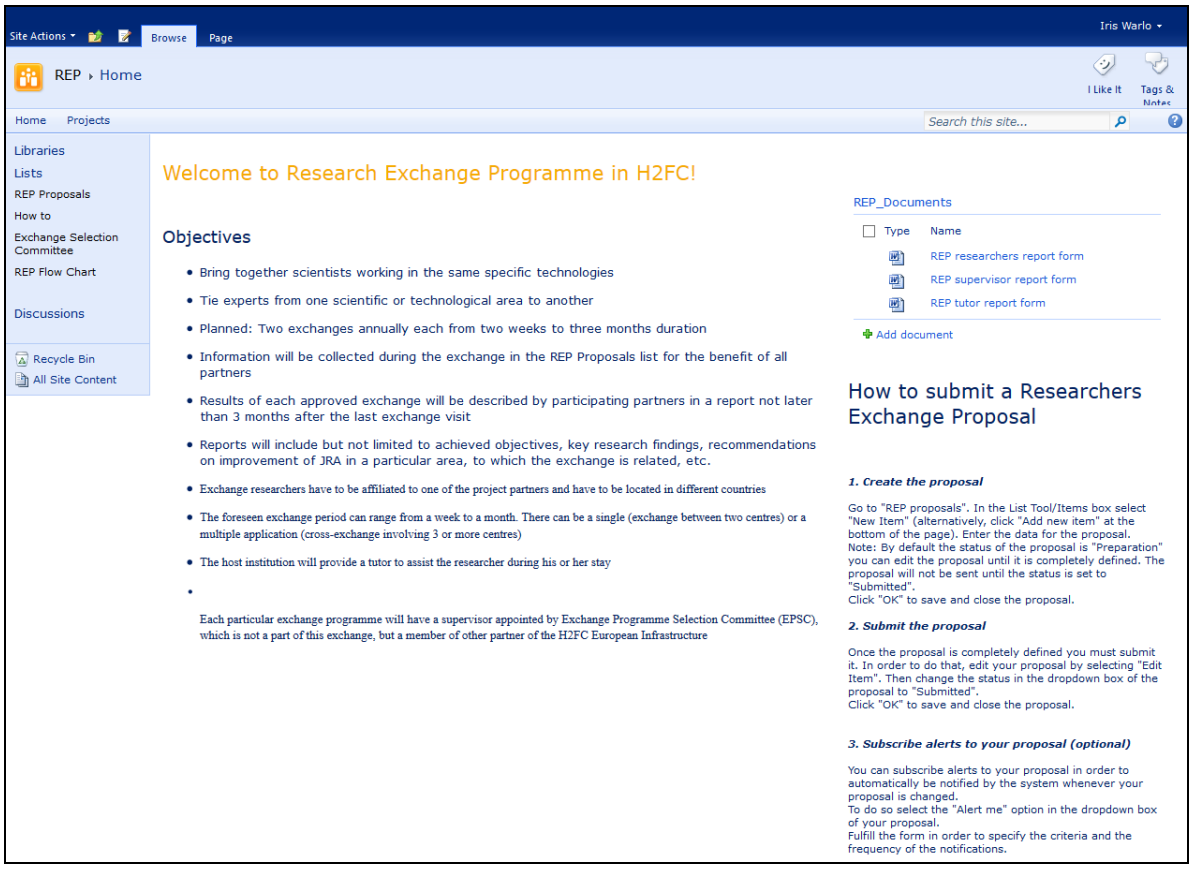


Figure 4: REP Workspace

Here, the partners can find additional information regarding the boundary conditions, guidelines and the application process (see chapter 4).

3.3 REP Information page on external website

For internal and external promotion the 1st Call of H2FC Researchers Exchange Programme is also promoted on the H2FC external webpage: http://www.h2fc.eu/rep

Figure 5: REP page on external webpage

4. Implementation of REP Workspace

The researchers exchange programme is described in detail regarding the method for application, the necessary forms and the evaluation procedure on the SharePoint. The URL is

https://iaikit-sp2.iai.kit.edu/h2fc/rep/Lists/How%20to/AllItems.aspx.

There are also contact persons nominated at each site and the programme coordinator put in place as follows:

- **Researchers Exchange Programme Coordinator:** Olaf Jedicke/KIT
- **Contact persons at the beneficiaries:**
  - Contact Person BAM Ulrich Schmidtchen
  - Contact Person CEA Olivier Gillia
  - Contact Person EMPA Andreas Borgschulte
  - Contact Person ENEA Angelo Moreno
  - Contact Person HSE Stefan Ledin
  - Contact Person IFE Jiri Muller
  - Contact Person JRC Lois Brett
  - Contact Person Jülich Josef Mertens
  - Contact Person KIT Olaf Jedicke
  - Contact Person NCSRD Georgia Charalambopoulou
  - Contact Person NPL Gareth Hinds
  - Contact Person PS Andreas Friedrich
  - Contact Person PSI Pierre Boillat
  - Contact Person SINTEF Paul Inge Dahl
  - Contact Person TECNALIA Iñaki Azkarate
  - Contact Person UP Chiara Barchiesi
  - Contact Person UPI Marco Carcassi
  - Contact Person UU Sile Brennan
  - Contact Person VTT Jari Kiviaho

The guidelines to present a REP proposal using the online application form are given on the intranet and are presented below.

How to submit a Researchers Exchange Proposal

1. **Create the proposal**
   Go to "REP proposals". In the List Tool/Items box select "New Item" (alternatively, click "Add new item" at the bottom of the page). Enter the data for the proposal.
   Note: By default the status of the proposal is "Preparation" you can edit the proposal until it is completely defined. The proposal will not be sent until the status is set to "Submitted".
   Click "OK" to save and close the proposal.
2. **Submit the proposal**
   Once the proposal is completely defined you must submit it. In order to do that, edit your proposal by selecting "Edit Item". Then change the status in the dropdown box of the proposal to "Submitted".
   Click "OK" to save and close the proposal.
3. **Subscribe alerts to your proposal (optional)**
   You can subscribe alerts to your proposal in order to automatically be notified by the system whenever your proposal is changed.
   To do so select the "Alert me" option in the dropdown box of your proposal.
   Fulfill the form in order to specify the criteria and the frequency of the notifications.

What's next?

1. The Coordinator of the programme will assign a proposal number and will submit it for review.
2. The Exchange Programme Selection Committee (EPSC) will review your proposal, and will approve/reject your proposal.
3. The Coordinator of the programme will notify you with the results of the review.

If your proposal is approved

1. You can start with the activities of the exchange.
2. You must report the activities performed during the exchange.
3. You must set the status of your proposal as "Finished".

If your proposal is rejected

You can modify your proposal in order to be evaluated again. In order to do that follow the next steps:

1. Edit your proposal and change the status to "Preparation".
2. Edit your proposal and modify it taking into account the comments of the Exchange Programme Selection Committee (EPSC).
3. Submit the proposal by changing the status from "Preparation" to "Submitted".

Below you see an example for a filled REP proposal:

Figure 6: REP Proposal Example

The several steps regarding the REP proposal are shown on the following flow chart:

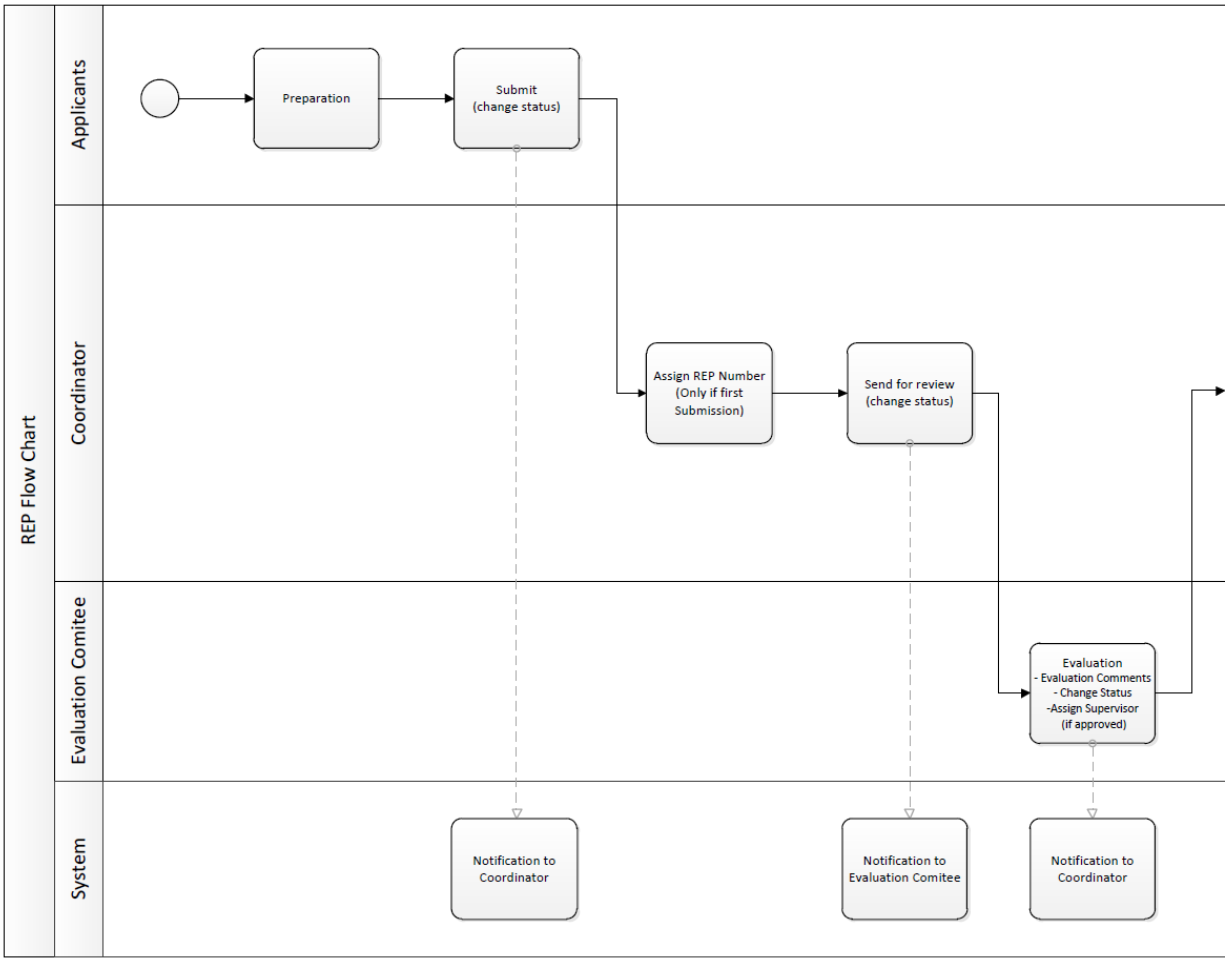


Figure 7: REP flow chart part 1

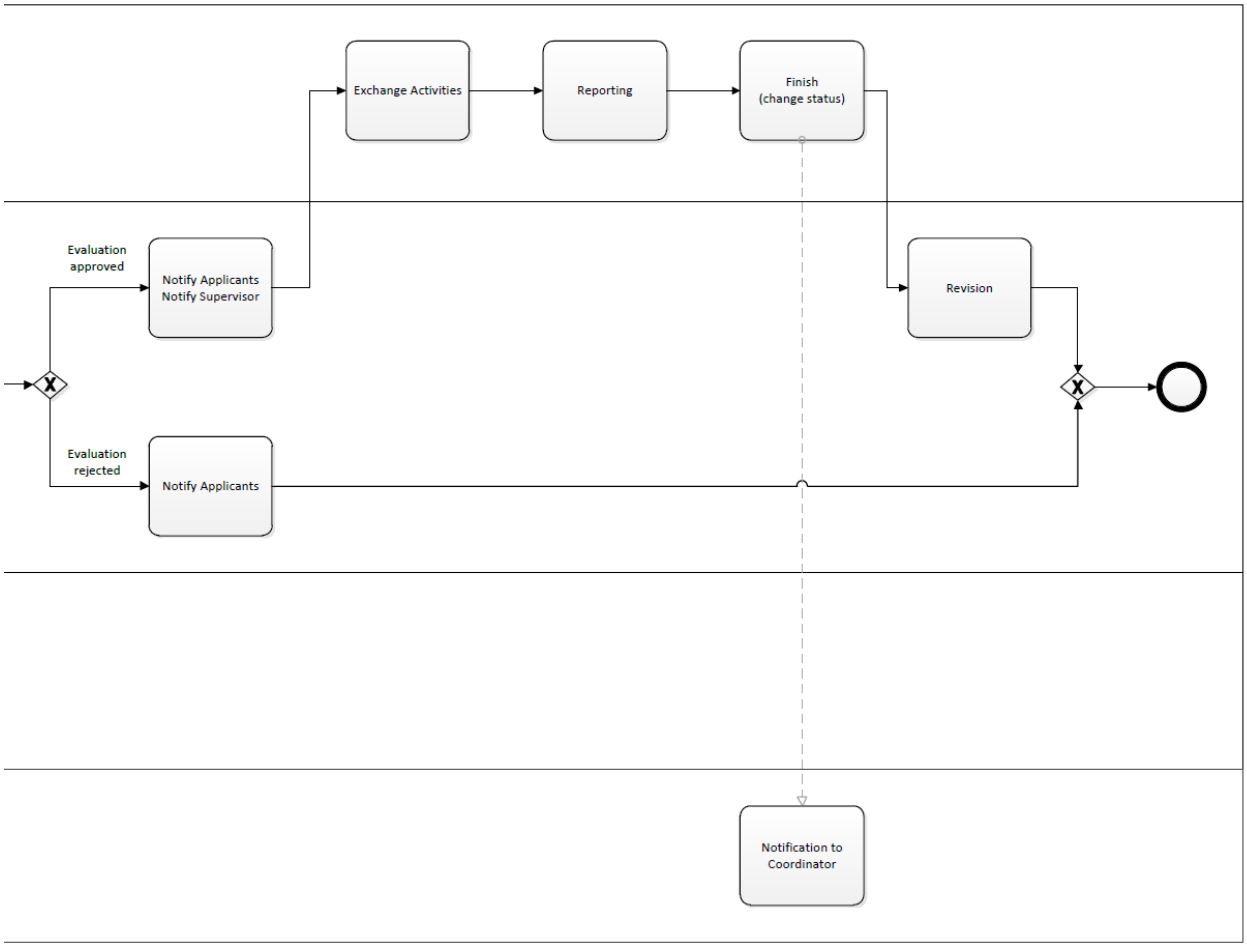
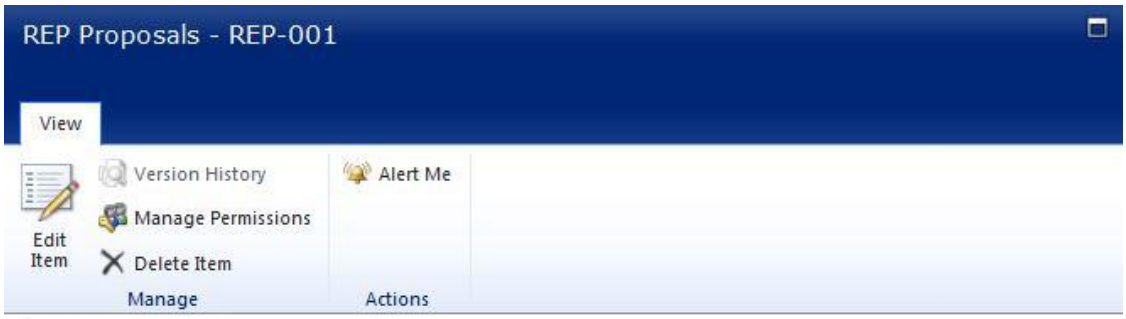


Figure 8: REP flow chart part 2

5. REP PROPOSALS

As a result of the 1st call of H2FC Researchers Exchange Programme one proposal for REP was submitted (month 17). The application was made by Dr Dmitriy Makarov (UU). The details of the proposal are shown below. The proposed exchange visit will take place at the beginning of the second reporting period (month 20). The results of the proposed exchange will be reported, following a template developed by EPSC, not later than 3 months after the visit.



REP Number	REP-001
Status	Submitted
Title	Implementation of Ulster deflagration model into the ADREA code
Researcher	Dr. Dmitriy Makarov (UU)
Further Researchers	Prof. Vladimir Molkov (UU)
Description of the Experiment	1. Background: Ulster deflagration model shows good predictive capability for different conditions of experimental deflagrations 2. Detailed description of the proposed experiment: Carrying out a numerical experiment on hydrogen-air deflagration, e.g. in the open atmosphere 3. Aim: Validation of ADREA software simulations with use of Ulster deflagration model 4. Method and expected results: Physical, mathematical modelling and numerical simulations. Validation of ADREA code against experimental data, e.g. the open atmosphere deflagration
Description of further Experiments	
Host Institution	National Centre for Scientific Research DEMOKRITOS (Greece)
Further Host Institutions	
Installations	Cyber-laboratory (JRA4)
Visitor Institution	University of Ulster (UK)
Further Visitor Institutions	University of Ulster (UK)
Estimated Date	6/23/2013
Further estimated Dates	
Estimated Duration of first visit	7
Estimated Duration of further visits	
Finish date	6/30/2013
Local Contacts	Dr. Alexandros Venetsanos: venets@ipta.demokritos.gr
Related to	Cyber-laboratory (JRA4)
Supervisor	Dr. Thanos Stubos
Tutor	Dr. Alexandros Venetsanos
Comments from Reviewers	

Figure 10: Details of the first REP proposal