



# Coordination of the European Future Internet Forum of Member States



## D4.1 - Terms of Reference for Roadmap

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# 1. Introduction

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The research roadmap which will be produced by the ceFIMS project, aims to maximise synergies between EU and Member States (National and Regional), and among Member States' initiatives and investments in Future Internet research. The Roadmap will aim to foster stronger collaboration among Member States and Member States R&D Programmes with the European Commission R&D programmes in Future Internet R&D and specifically explore its expression and implementation through an ERA-NET+ and/or cooperation in Joint Programming. In this context, Member States R&D programmes also encompass Regional R&D programmes, since these are essential elements of the overall EU R&D strength.

Synergies between Regional, National and EU investments are crucial to ensure maximum impact on the development of the European Future Internet. Indeed, it appears that much support exists across Europe for an **ERA-NET+** and / or **Joint Programming** initiative on the Future Internet<sup>1</sup>.

- **ERA-NET+:** The objective of an ERA-NET+ is to develop and strengthen the coordination of National and Regional research programmes through specific actions. Under a European ERA-NET+, the European Commission, National and Regional authorities will identify research programmes that they wish to coordinate or open up mutually. Participants in these actions are typically, therefore, programme 'owners' (Ministries or Regional Authorities defining research programmes) or programme 'managers' (such as research councils or other research funding agencies managing research programmes).
- **Joint Programming:** Joint Programming means developing and implementing common strategic research agendas, based on a common vision of how to address major societal challenges. It may involve strategic collaboration between existing National programmes or jointly planning and setting up entirely new ones. Both cases involve: putting resources together; selecting or developing the most appropriate instrument(s); implementing; and, collectively monitoring and reviewing progress. Joint Programming targets public research programmes first and foremost, which means public-public cooperation.

ceFIMS will help support measures for Joint Programming and / or ERA-NET+ through the development of a detailed research roadmap for progression towards a common Future Internet strategy and Vision through engagement with relevant parties and experts in the ceFIMS Working Groups and Member State Authorities in the Future Internet Forum (FIF)

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<sup>1</sup> In June, 2009, ceFIMS partner NWO organised a meeting in The Hague with representatives from a number of research councils and other research organisations. The main aim was to discuss the formation of an ERA-NET and this received support during the event. More work, however, has to be done to align national funding strategies and to combine efforts within the member states.

## 2. Roadmap Process & Activities

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Discussions involving the ceFIMS Working Groups and the Future Internet Forum, together with the analysis undertaken in Work Package 3 (WP3 - Stocktaking and Analysis) of the project will provide the basis for both the interim and final research roadmaps. Knowledge arising from these sources will help prioritise investment in Future Internet research, with agreed priorities then presented in the project's research roadmap.

Note that some Member States have already launched Future Internet research programmes, and many research projects are already under development following independent work programme objectives. Also, some Member States have promoted the incorporation of National Technology Platforms, Interest Groups, and Forums on the topic of the Future Internet.

ceFIMS will identify key actions at local, regional or national level to build consensus leading to the development of the roadmap. Specifically, ceFIMS will:

- Collect information on Member States' Future Internet activities and initiatives (D3.1 - Database, D3.2);
- Undertake an analysis to identify areas of potential synergies and areas for more strategic cooperation between Member States and between Member States and the EU (D3.3);
- Document the progress that has been made towards the realisation of synergies between MS and also between MS and EU (D3.4).

These reports will also feed into the discussions of the working groups and the development of the roadmap.

### 2.1. Specific Working Groups Contribution

The ceFIMS Working Groups (involving technical and other experts) propose to examine the following areas:

- Cloud Computing;
- Trust and Security;
- Real-world Internet (Internet-of-Things, Smart Grids);
- Infrastructure of the Future Internet (Broadband Access, Next Generation Networks, etc.);
- Digital Government (EU-wide e-ID, e-Voting, Safety, EU-citizens mobility, etc.).

It is important to note that there will be flexibility in the working group discussions to allow additional topics to be included, if deemed necessary and in line with the objective of identifying possible

cooperation areas. The Working Group chairpersons will oversee any such shift in focus with respect to the research roadmap.

To support the development of the roadmap, the ceFIMS Working Groups will perform the following specific tasks:

- Discuss particular issues (including those listed above) related to Future Internet research;
- Support the development of the roadmap/implementation framework;
- Provide access to external expertise for the development of the ERA-NET+ roadmap.

The ceFIMS Steering Committee will oversee the roadmap process to ensure that its outputs feed directly into the Member State research investment planning processes in support of investment in the Future Internet. Additionally, relationships between organisations with an interest in the Future Internet will be reviewed as the research roadmap develops.

### 3. Interim Roadmap

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The interim roadmap will:

- Evaluate progress to-date in the achievement of an FI ERA-NET+;
- Analyse the barriers to achieving the FI ERA-NET+;
- Propose a strategy for overcoming these barriers and identify a process for the realisation of a FI ERA-NET+;
- Evaluate the ongoing development of the PPP (in particular its relevance to MS FI initiatives);
- Assess how the PPP impacts on MS initiatives and identify the barriers to greater involvement by MSs in PPP;
- Identify measures for greater collaboration between the PPP and FIF activities and in particular, how greater awareness of PPP can be promoted among Member States;
- Identify specific requirements from stakeholders groups (SMEs, etc.), which may require precise recommendations towards ensuring their wider participation in the R&D FI programmes at Regional, National and EU levels.

## 4. Final Roadmap, Memorandum of Understanding

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The final version of the roadmap will set out a clear plan for achieving an FI ERA-NET+ and Joint Programming harmonisation and for maximum alignment with Member State initiatives, FP7/FP8 and PPP deployment project results. Amongst other elements, the final roadmap will consider the following issues:

- Common research agendas (Digital Agenda, 2020, Innovation Union, etc.);
- Proposed time-lines for future coordinated calls of EU and Member States;
- Common demonstrations of EU, MS initiatives and projects;
- Concertation activities work-plans among FP 7/8 projects - national and regional R&D projects to maximise and exploit the results as well as exploring opportunities for sharing results and strengthening cooperation.

Based on (and in line with) the roadmap a MoU, which will be a multilateral agreement between a number of committed Member States for the creation of an ERA-NET+, will be prepared. It will be presented to the EC at the end of the project as one of the final deliverables (an interim version D4.10A will be available in M24)

## 5. Expected Impact of the Roadmap

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The roadmap will provide the Member States with a clearly defined and agreed-upon set of objectives and priorities which will decrease fragmentation and support synergies of investment by the Member States. Through the engagement of the key stakeholders (government decisions-makers and the Member States funding agencies) in the roadmap process, ceFIMS will ensure stronger co-ordination of Regional and National funding in the establishment of a FI ERA-NET+ and greater awareness of the need for alignment of Member State initiatives and the PPP. Thus, the ceFIMS roadmap is an ongoing process as well as an end-result.

The ongoing dialogue between key stakeholders supported through ceFIMS will ensure that the outcomes of the road-mapping process will inform the PPP and FP8 Framework planning process for future priority areas. This dialog will help decrease fragmentation between national and EU level investment.

Finally, the Memorandum of Understanding intends to involve the practical application of Future Internet research which is framed by the research roadmap. Thus the lasting impact of ceFIMS could be in the form of an FI ERA-NET+ and PPP projects spawned from it via recommendations and terms of reference specified in the ceFIMS reports and roadmap documents.