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**Deliverable D4.1**  
**Analysis of Options for Future Platforms**  
**Report on User Needs**

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PU = Public

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## Objectives

The NETWATCH Information and Learning Platform, established in 2009, is aimed at stakeholders who are interested in joint R&D programme collaboration between countries within the European Research Area. It was developed and is being managed by JRC-IPTS, which is using the data to support its policy objectives through monitoring reports, policy briefs and impact assessment. The information system consists of databases on networks, their joint calls for cross-border R&D projects and associated national organisations and programmes. The content for the Learning Platform was provided by the original ERA-LEARN project and is being maintained and enhanced by the current successor project (ERA-LEARN 2). NETWATCH and ERA-LEARN are both governed by Advisory Boards consisting of a wider group of national stakeholders. Both of their FP7 contracts will conclude in 2014.

The current Information & Learning Platform has concentrated primarily on the FP6/FP7 ERA-NET Coordination Actions but has also been evolving to include the FP7 ERA-NET Plus instrument and the Article 185 initiatives. The NETWATCH databases are being migrated to a new technical infrastructure, which has a simpler and more functional content management system. The ERA-LEARN 2 project is producing both new and improved learning tools as well as exploring options to enable networks to become more efficient and sustainable.

A key issue for the ERA-LEARN 2 project is the future needs of the ERA-NET (and related) stakeholders for an information, learning and support platform on transnational R&D for the period to 2020. It is clear that the main EU funding opportunity for transnational R&D will be the proposed Horizon 2020 ERA-NET instrument, which will concentrate on co-funding of specific Joint Calls (similar to the FP7 ERA-NET Plus instrument). This new Horizon 2020 ERA-NET instrument will offer co-funding options to help existing bottom-up ERA-NETs engage in Joint Calls and also enable the Joint Programming Initiatives (JPIs) to move beyond their Step 2 activities<sup>1</sup>. In addition, there are various other coordination actions (e.g. JTIs, ETPs, EIPs, Inno-Nets, etc) that could be interested in access to an information & learning platform. The provision of central ICT-based services is likely to be of particular interest to those networks that are striving to be more efficient and sustainable.

Clearly, the transnational R&D coordination landscape has become more complex and multi-level since the NETWATCH platform was conceived. It is therefore timely to consider how in the future, under Horizon 2020, the user needs of the community of research funders in Europe can best be served with a web portal and accompanying activities for mutual learning and exchange of good practice. This is being explored through the ERA-LEARN 2 work package on ‘Analysis of Options for Future Platforms’, which has the following objectives:

1. Identify the main current and potential future stakeholders for the ERA-LEARN/NETWATCH System and their need for information, learning materials, central or joint IT tools, events and virtual communication

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<sup>1</sup> The term ‘Step 2’ comes from the ERA-NET hierarchy of activities and refers to ‘joint analysis of strategic issues’



2. Identify both strategic and technical options for a future ERA-LEARN/NETWATCH System that will effectively address these needs in an efficient manner
3. Assess the relative merits of each option, including due consideration of the inter-relationship with the NETWATCH project
4. Develop the specification for the most appropriate web portal option
5. Develop a practical, costed implementation plan to achieve the transition from the current situation to the proposed future web portal and related activities

This report is concerned with Objective No 1 (the needs of potential users) but also concludes with a discussion on how the identified needs could be delivered through a future platform.

It is based on an iterative process involving both internal and external stakeholders. This commenced with a review of published information aimed at identifying and classifying stakeholders. The results were summarised in an interim report and discussed at the ERA-LEARN consortium meeting in May 2012. Following this, a short consultation paper (Future Options for the NETWATCH/ERA-LEARN Platform) was prepared for telephone consultations with members of the Advisory Boards for both the ERA-LEARN and NETWATCH projects. These were very useful and concluded the 'internal' consultations.

The internal feedback was presented at the June 2012 Workshop with key research funders in Europe on 'The future ERA-NET instrument under Horizon 2020'. This included a draft menu of potential user needs segmented into three categories; information, learning tools and central ICT services to networks. JRC-IPTS also supported the workshop by summarising the NETWATCH platform and options for additional functionality in the short term. This validated the shortlist of potential user needs and identified several additional options.

The final stage of the review was an online survey to prioritise potential user needs across the three categories. The survey was launched at the end of July (via a Commission email to the stakeholder community that had been invited to the June workshop). The survey was closed in mid-September and the analysis of feedback from 75 stakeholders was reported as the lead article in the 3<sup>rd</sup> ERA-LEARN Newsletter in October 2012.



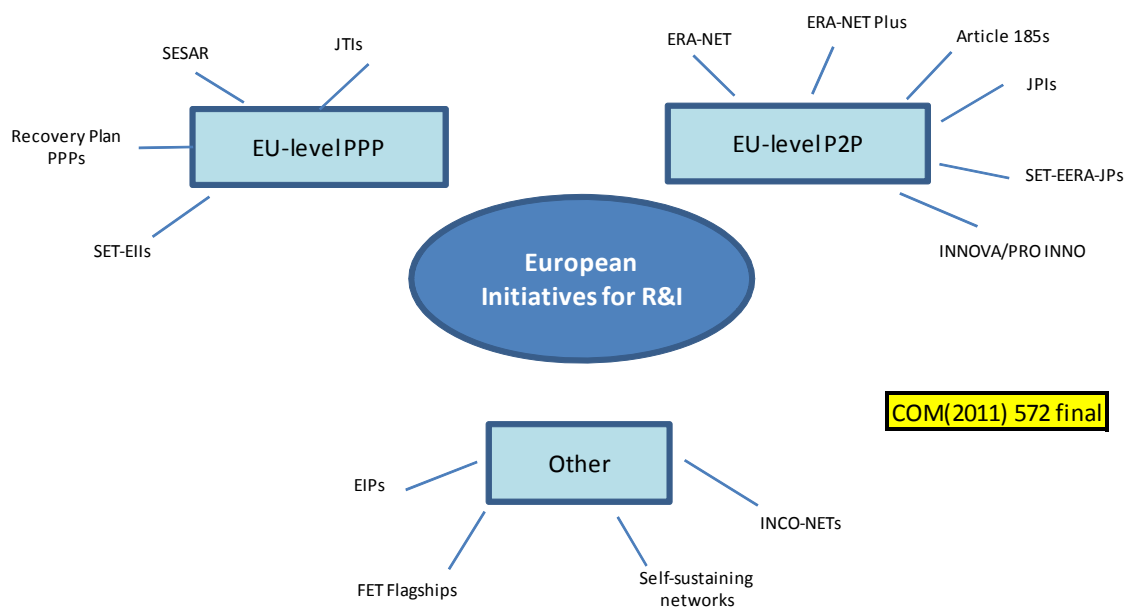
## Current and Potential Future Stakeholders

The core stakeholder group for both NETWATCH and ERA-LEARN is the community of national ministries, funding agencies and research performers that are interested in transnational R&D collaboration. They can be regarded as stakeholders but so can the networks themselves. This means that the analysis of stakeholder needs can be considered at the level of both the networks and the network stakeholders.

### Transnational Networks

The first question for the design of a future platform is its scope in terms of the type of networks that it would seek to cover. Clearly, it should be relevant to ERA-NETs, Article 185's and JPIs as these are the main 'public-public' partnership (P2P) models for joint research programming within the European Research Area. Joint programmes have also been established to achieve better coordination of energy-related research under the SET Plan and a number of pilots have been carried out in the ICT domain aimed at creating coordinated FET Flagship initiatives. The scope of a future platform could also be extended to other types of transnational networks in Europe such as JPIs, EIPs, INNO-NETs and INCO-NETs.

An overview of the range of networks, based on COM(2011) 572 final<sup>2</sup>, is shown below.



<sup>2</sup> Communication from the European Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Partnering in Research and Innovation, Brussels 21.9.2011, COM(2011) 572 final



Clearly, the core stakeholder group (national ministries and agencies) will have most affinity to the P2P model but will also be interested in information on evolving ERA landscape of interrelated initiatives in particular domains. Wider coordination and mutual learning frameworks are starting to emerge such as EIPs and PLATFORM<sup>3</sup>. This may limit the need and scope for the ERA-LEARN project to extend its Learning Platform activities into these thematic network clusters. Nonetheless, other stakeholders will be interested in the inter-relationship between the various initiatives and this will be an issue for NETWATCH.

There are also some sub-European inter-agency R&D networks<sup>4</sup> that extend beyond the more common and traditional bilateral R&D cooperation agreements. In general, the participating agencies are also involved in the wider ERA frameworks and so it can be assumed that their needs will already be covered by the existing Learning Platform. There are also some joint international R&D networks, including INCO-Nets, which could be considered within the scope of a broader platform on transnational R&D programme collaboration.

An overview of the main public-public initiatives that could be relevant for a future platform is provided below.

Initiative	Quantity	Activities	EU funding	NETWATCH Learning Platform	Other Learning Platforms
FP7 ERA-NET	<100	Networking, analysis, joint activities, joint calls	100% of networking costs	Toolbox for joint calls and internal review	Joint Programming events
FP7 ERA-NET Plus	29	Single Call	33% top up for joint calls	ERA-NET joint call toolbox and operational benchmarking	Joint Programming events
H2020 ERA-NETs	>50	Joint activities and Calls	33-50% top up for joint calls	ERA-NET joint call toolbox and operational benchmarking	Joint Programming events
FP6/7 Article 185	5	Multi-annual calls (research, mobility, etc)	Up to 50% of management and joint research costs	Smart Coordination	Joint Programming events
H2020 Article 185	5+	Multi-annual calls and accompanying measures (research & innovation)	Up to 50% of management and joint research costs	Smart Coordination	Joint Programming events
JPIs	10	Develop shared vision, strategic research agenda, preparation to implement the SRA	Development costs	ERA-NET joint call toolbox and operational benchmarking	JPIs to Co-Work, PLATFORM (KBBE)
SET-EERA-JPIs	13	Joint thematic research programmes between national energy institutes and programmes	Development costs	Smart Coordination	SETIS
FET Flagships	2	Large-scale science-driven, research initiatives that aim to achieve a visionary goal	Pilots	Smart Coordination	FLEET/COFET

*Table 1: Joint R&D Initiatives (public-public)*

<sup>3</sup> PLATFORM is a strategic forum for networking and mutual learning between 20 ERA-NETs and two JPIs that are relevant to the knowledge-based bioeconomy

<sup>4</sup> For example, DACH (cooperation between funding research organisations in Germany, Austria and Switzerland), Nordic initiative on climate, energy and the environment, Lead Agency agreements)



The table provides a general impression of the scale and activities of each type of initiative. It also highlights some ‘other learning platforms’ that have been established and these will limit the scope for a single, universal platform.

Although it was communicated in different ways, the main feedback was that the focus of the Learning Platform should be primarily on those (public-public) networks that are, or have the ambition to be, engaged in the co-funding of research (and innovation) projects. However, this should not be limited to the two Horizon 2020 instruments as some networks of national or regional R&I funding bodies may wish to implement joint calls without EU co-funding. Some also felt that there is a need for learning material related to Level 2 & 3 activities of ERA-NET’s (perhaps through case studies) as this could also be valuable for the newer initiatives.

A common message was that, whilst the information platform should provide an overview of the network landscape, the learning platform should focus on quality and not try to be too broad. The different feedback suggests that the focus should be on two main types of implementation: 100% joint national funding models and mixed national/EU co-funding models. This would encompass both of the Horizon 2020 instruments but also be helpful to those networks that wish to collaborate without EU funding. The JPIs and others may use either or both options when they reach the implementation stage. One of the big issues with the mixed mode funding models (e.g. ERA-NET Plus) is how to calculate national funding contributions. This is an area that is ripe for case study analysis. The ERA-NETs are moving up a level, and there will be less EU co-funding for networking activities, so the ERA-NET Plus and Article 185 learning needs to be captured and shared.

### Network Stakeholders

Consideration of ‘user needs’ must recognise that there are a variety of stakeholder groups and that their needs may vary, or not, between the different types of network and over time. The table below was used to aid the internal discussion on the potential needs of different stakeholders and how these might vary by type of network.

Initiatives	Participants							Commission Services			
	Proposal developers	Network managers	WP Leaders	Programme managers	Programme owners	Policy makers	Research participants	R&I/JPI	R&I Thematic	JRC/IPTS	Other DGs
FP7 ERA-NET	peer case examples	peer networking	methodologies, case examples	cost/benefit information	cost/benefit information	landscape of ERA initiatives	funding opportunities	monitoring impact	thematic landscape	data for ERA policy analysis	thematic landscape
FP7 ERA-NET Plus	peer case examples	peer networking	joint call methodologies	cost/benefit information	cost/benefit information	landscape of ERA initiatives	funding opportunities	monitoring impact	thematic landscape	data for ERA policy analysis	thematic landscape
H2020 ERA-NETs	emerging policy	low cost networking	benchmarking data	cost/benefit information	cost/benefit information	landscape of ERA initiatives	funding opportunities	monitoring impact	thematic landscape	data for ERA policy analysis	thematic landscape
FP7 Article 185	N/A	peer networking	N/A	cost/benefit information	cost/benefit information	landscape of ERA initiatives	funding opportunities	monitoring impact	thematic landscape	data for ERA policy analysis	thematic landscape
H2020 Article 185	emerging policy	peer networking	N/A	cost/benefit information	cost/benefit information	landscape of ERA initiatives	funding opportunities	monitoring impact	thematic landscape	data for ERA policy analysis	thematic landscape
JPIs	peer case examples	thematic landscape	methodologies, case examples	cost/benefit information	cost/benefit information	landscape of ERA initiatives	N/A	monitoring impact	thematic landscape	data for ERA policy analysis	thematic landscape
SET-EERA-JPIs	peer case examples	peer networking	methodologies, case examples	cost/benefit information	cost/benefit information	landscape of ERA initiatives	funding opportunities	policy learning	thematic landscape	data for ERA policy analysis	thematic landscape
FET Flagship Pilots	global case examples	funding landscape	methodologies, case examples	cost/benefit information	cost/benefit information	landscape of ERA initiatives	funding opportunities	policy learning	thematic landscape	data for ERA policy analysis	thematic landscape

Table 2: Theoretical analysis of stakeholder needs



This suggested that there could be as many as seven different types of network ‘participants’ and another four distinct categories of stakeholders within the Commission as discussed below.:

Proposal developers – the needs of proposal developers will vary depending on the maturity of the initiative, the scope for creativity and the level of competition. For example, the FP7 ERA-NETs have become quite prescriptive and there is virtually no competition. Case study input, particularly from countries outside Europe, is highly valued. Methodologies for transnational joint R&D calls are now quite standardised but there is still quite a variety of other joint activities. This suggests that more case examples are needed to promote good practice beyond the classic joint R&D activities. Positioning individual networks within the wider ERA landscape, and collaboration between them, will also become increasingly more important in the future.

Network managers (Coordinators) – In general, network coordinators are likely to be most interested in learning from their peers, engaging with external stakeholders and geographic expansion of the network. According to JRC-IPTS, they are also the most active users of the NETWATCH platform. Within the ERA-NET community, the emphasis will increasingly focus on efficiency, impact assessment and demonstrating added value.

WP Leaders – although the core activity for transnational R&D networks is the Joint Calls there are also other joint activities that either support or complement the R&D activities. These other activities are normally delegated to Work Package (WP) leaders and might include activities such as benchmarking, technology foresighting, education & training, stakeholder engagement, research infrastructures, standardisation, dissemination and impact assessment – ie Step 2 and 3 activities. In some cases, there is scope for development of prescriptive methodologies. For others, case studies may be a more effective learning tool. In addition, a central platform could provide a variety of IT services to support transnational R&D activities including proposal submission, remote evaluation, joint project databases, project monitoring and impact assessment.

Programme managers – the typical transnational R&D network consists of representatives from the national agencies that are responsible for implementation of the national programmes. Some of these carry out the function of network coordinator or WP leaders but others are only concerned with the joint calls. In some cases, the representative is a domain expert. In others, the agency is represented by an individual who has responsibility for coordination of international activities and may be involved in a variety of networks. The proliferation of ERA initiatives is also making some agencies more selective about which networks to support. The common need is likely to be evidence of the benefits of investment in transnational R&D. This issue must be increasing in importance given the public sector budget deficits in Europe. Case studies of different types of positive impacts would surely be of value.



Programme owners – the distinction between R&D programme managers and owners is generally related to the hierarchical relationship between the ministries and the programme management agencies. Funding constraints will mean that they need tangible evidence that participating in joint calls and programmes will provide a better national return on investment than spending the same money at national level.

Policy makers – at a higher policy level, there will also be a need for information on how the various ERA initiatives and networks fit together both now and in the future.

Research participants – these are the beneficiaries of the Joint R&D Calls and any other co-funded activities such as mobility schemes. Their main need will be for advance information on funding opportunities and harmonisation/simplification of funding rules.

DG Research & Innovation (Directorate B – European Research Area) – portfolio mapping & monitoring, impact assessment, policy learning

DG Research & Innovation (Thematic Directorates) – monitoring of thematic landscape, identification of overlaps and gaps, policy learning

JRC/IPTS – data for policy analysis, monitoring of the ERA

Other DGs (e.g. AGRI, ENTR, ENER, ENV, INFSO) – DG INFSO needs will be similar to the Thematic Directorates of DG Research & Innovation. The others may be interested in the ERA landscape in their domain and any policy learning.

In general, the above descriptions and summary of needs was considered to be valid but it was generally felt that there should be fewer participant categories. At the other extreme, the analysis of stakeholders could be limited to just three stakeholder groups (i.e. national/EC policy makers, actors taking part in the networks and beneficiaries of calls).

Another way of differentiating is to consider those who have the money and those that organise the spending of the money. In any case, it was felt that trying to differentiate between programme managers/owners is probably too precise (a similar comment was made relating to WP leaders and network managers). An interesting user group is non-participants in networks that might become participants in EU or wider networks.

The internal stakeholders had the opinion that there is a growing need for comparative impact assessment and indicators to improve efficiency. Policy learning was also considered to be highly relevant for national stakeholders as well as EC/DGs. Several made the point that the need for quantitative evidence of value added and impact is much greater than in the past and this is an area where there may be a need for learning materials.



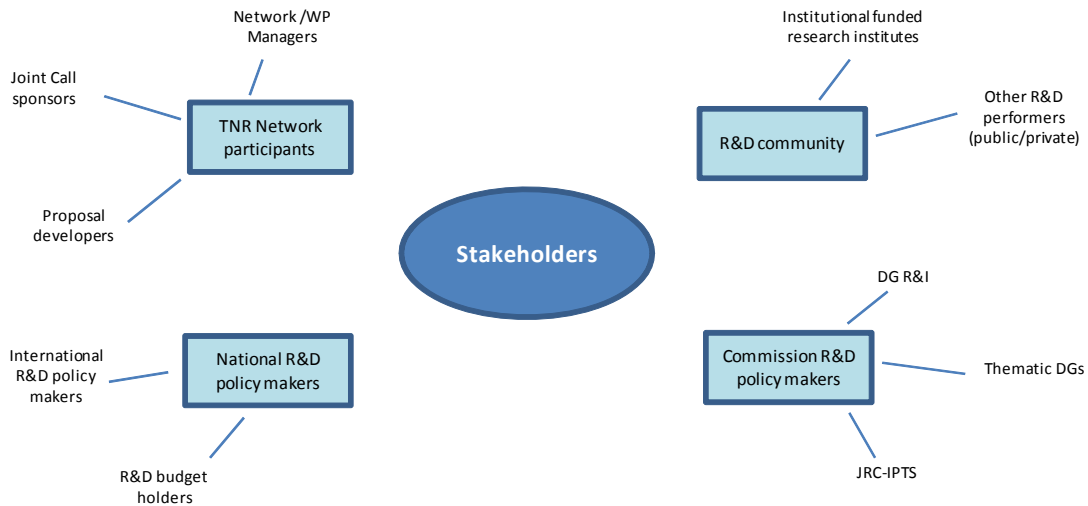


## Prioritisation of user needs

The above perspectives on stakeholders and their potential needs had been gained from the internal consultations within the ERA-LEARN consortium and members of the Advisory Boards for both the ERA-LEARN and NETWATCH projects. This was presented to a wider forum of research funders in Europe at the June 2012 workshop on ‘The future ERA-NET instrument under Horizon 2020’. This focussed on three guiding questions:

- Who are the main stakeholders and what information will they need on transnational R&D programme cooperation
- Should the learning materials focus only on the different models for joint R&D Calls or include other aspects of the transnational networking and cooperation
- Is there a demand for central IT services to networks to improve the efficiency of joint R&D actions

As far as stakeholders were concerned, it was generally accepted that they could be segmented into four main types (national policy makers, transnational network participants, R&D community and Commission policy makers) as shown in the diagram below.



However, it was felt that network coordinators could perhaps be regarded as a discrete stakeholder group rather than be simply classified as ‘network participants’. This suggested that there are five main stakeholder categories in terms of user needs.

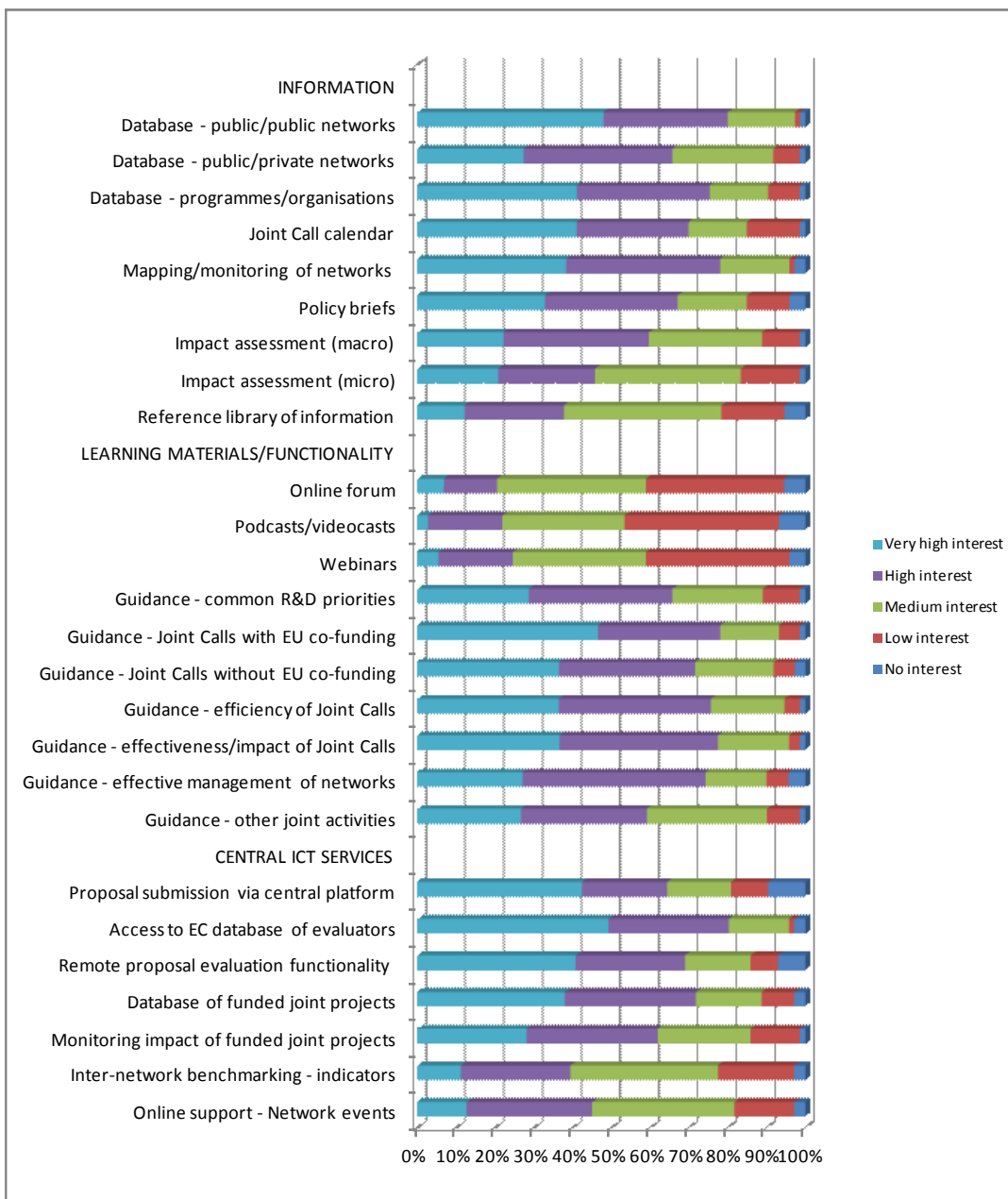
It was also accepted that there are two main types of EU-level networks: public/public partnerships (EU-level P2P) and public/private partnerships (EU-level PPP). Whilst the P2P partnerships were considered to be of most relevance to policy makers, a central platform with



learning tools and ICT-based network support functions could also be useful to other transnational networks to foster coordinated research & innovation activities.

### Stakeholder Survey

The main output from the workshop was a list of 26 potential user needs segmented into three categories: information, learning materials/functionality and central ICT services. These provided the questions for the online user survey questionnaire that was completed by 75 stakeholders in the summer of 2012. The overall results of the survey are shown in the histogram below:





The main observations that can be made from this analysis would include:

- Strong interest for continuation of the information databases that are included in the current NETWATCH platform
- Strong interest in a broader range of ‘Guidance’ related to joint calls
- Strong interest in central ICT-based services to help networks implement joint calls
- Relatively low interest in the use of a central platform to provide information on the impact of funded R&D projects and enable inter-network benchmarking
- Very low interest in the use of an online forum and multimedia to enable mutual learning

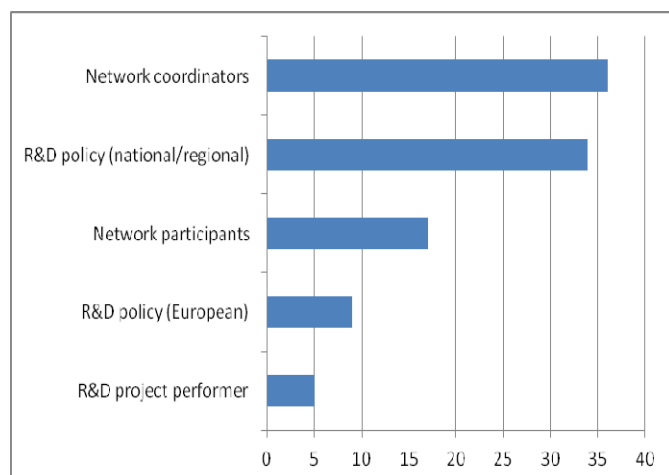
Some of this feedback is as expected but there are also some surprises. For example, if there is strong interest in learning materials in the form of guidance to improve efficiency then why is there such low interest in inter-network benchmarking? Also, how can ‘guidance’ be delivered through a web portal when there is limited interest in modern online communication tools? Are stakeholders simply seeking more prescriptive ‘how-to’ guidance materials or is there a demand for training workshops, seminars and conferences?

Some of the qualitative feedback indicates that a web-based platform will not, on its own, address the needs of this stakeholder community. The inconsistent feedback on some aspects of the menu of options above would appear to support this view. It seems that there is still a need to bring people together either through large events (e.g. annual JPI conference) and/or create opportunities for more focussed networking through common interest groups such as PLATFORM and JPIs TO COWORK.

### Relative importance by stakeholder group

The survey results included feedback from 75 stakeholders in 17 European countries. The majority of these were network coordinators or national/regional policy stakeholders. Some of the responding stakeholders could be classified into more than one type (e.g. some network participants are also national policy stakeholders).

This suggests that those who are responsible for designing, managing and securing national/regional funding for transnational R&D networks have the strongest interest in a future central platform.



A comparison of the relative interest in specific options (i.e. those that indicated ‘high’ or ‘very high’ interest) is included in the Annex. This is limited to network coordinators, national/regional



R&D policy stakeholders and network participants as the samples for the other two stakeholder groups are too small for comparative analysis.

The comparative analysis indicates broadly similar agreement in user interest between these three stakeholder groups. The most interesting differences were:

- Network coordinators seem to be relatively more interested in guidance to improve the efficiency/effectiveness of joint calls and to implement other joint activities. They also indicate higher interest in central ICT services to gain access to independent evaluators and provide database functionality to monitor funded R&D projects. In contrast, there is a relatively low interest in impact assessment.
- Network participants appear most interested in network-related information services and remote proposal evaluation functionality. They also indicate a higher interest in impact assessment than the coordinators.
- National/Regional Policy stakeholders indicate generally higher interest in guidance and central ICT services than network coordinators and participants. They also have the highest interest in impact assessment.



## **How can the high priority options be delivered?**

This question is an important objective of the ERA-LEARN 2 work package on the ‘Analysis of Options for a Future Platform’. It will conclude with a second Deliverable (D4.2), which will be an ‘Options Report with technical specification and implementation’ for the proposed future platform.

It is useful therefore to conclude by elaborating a little on the options and how they could be implemented. This is segmented by each of the main types of support that could be delivered via a central web-based platform.

### Information

The nine options are mostly being delivered already through the NETWATCH platform and there is clearly strong interest in continuation and expansion of the databases. There also seems to be interest in extending the information on networks beyond the ERA-NETs including the public/private networks.

The main issue is how to deliver the central information platform. JRC-IPTS, in line with its main mission, is in the best position to carry out the policy analysis and macro-level impact assessment but of course needs access to the appropriate information. It has hitherto led the development of the web platform and the associated processes for information collection. The routine maintenance of the databases, however, including actively pursuing the regular updating of information by network participants (mainly coordinators), is clearly a time consuming activity for JRC-IPTS.

There is no particular incentive for the network stakeholders to maintain the databases and it is clear that they are more willing to provide information to the joint programming unit of DG Research & Innovation (with whom they have a direct contractual link). It would therefore seem more logical for the databases to be maintained by the community of stakeholders that are actively engaged in joint programming activities. This would improve data gathering efficiency and enable annual mapping and monitoring activities to be integrated with Commission monitoring of EU co-funded networks. In any case, qualitative comments from stakeholders seem to favour building on the investment that has been made in the NETWATCH databases rather than starting again from the beginning.

### Learning Materials/Functionality

The online survey indicates quite opposing messages about user interest in learning materials and/or functionality that could be delivered through a web platform. There seems to be particular interest in the development of guidance material related to the full cycle of joint R&D programming from defining common priorities to improving the efficiency and impact of Joint Calls. This includes joint calls both with and without EU co-funding. There is also strong interest in guidance on the effective management of transnational R&D networks including other coordination activities apart from joint calls. This could be achieved by continuation of the ERA-LEARN project but it will be necessary to use case-study based approaches for guidance that is



more situation-related. Prescriptive (how to) guidance document may be appropriate for efficient management of joint calls but this would not be the case for other coordination activities, which are more network-specific.

The low interest in web-based functionality to enable mutual learning and communication of good practice seems a little surprising as there is a high level of tacit knowledge within the ERA-NET community that could be better shared and utilised by the newer networks including the JPIs. This suggests that the stakeholder community prefers more traditional approaches to networking and mutual learning such as the annual ERA-NET community events, the more recent joint programming events and thematic networking frameworks like PLATFORM. Certainly, there seems to be no enthusiasm to use the newly launched NETWATCH online forum based on the lack of response to the invitation (in the 3<sup>rd</sup> ERA-LEARN newsletter) to discuss the above survey results. It may be that other experiments, involving those who operate at the leading edge of the Web2.0 community, could offer more innovative ways of encouraging the European joint programming community to engage in virtual networking.

There may also be some merit in experimenting with an integrated approach to demand for guidance that includes both reference material and associated webinar case study presentations by good practice networks.

### Central ICT Services

The current NETWATCH portal already provides both information and learning materials so the challenge is to meet the future needs of potential users in the most efficient and effective manner. However, the user survey also indicates a strong latent demand for central ICT-based services, particularly to support the management of joint calls. In general, the networks need to have a customised website but have a common requirement for 'back-office' functionality to support the ongoing joint call processes and monitoring funded projects. Some networks have been fortunate that they have, within the consortium, an organisation that has the expertise and capacity to provide this functionality. Others have used technical subcontractors.

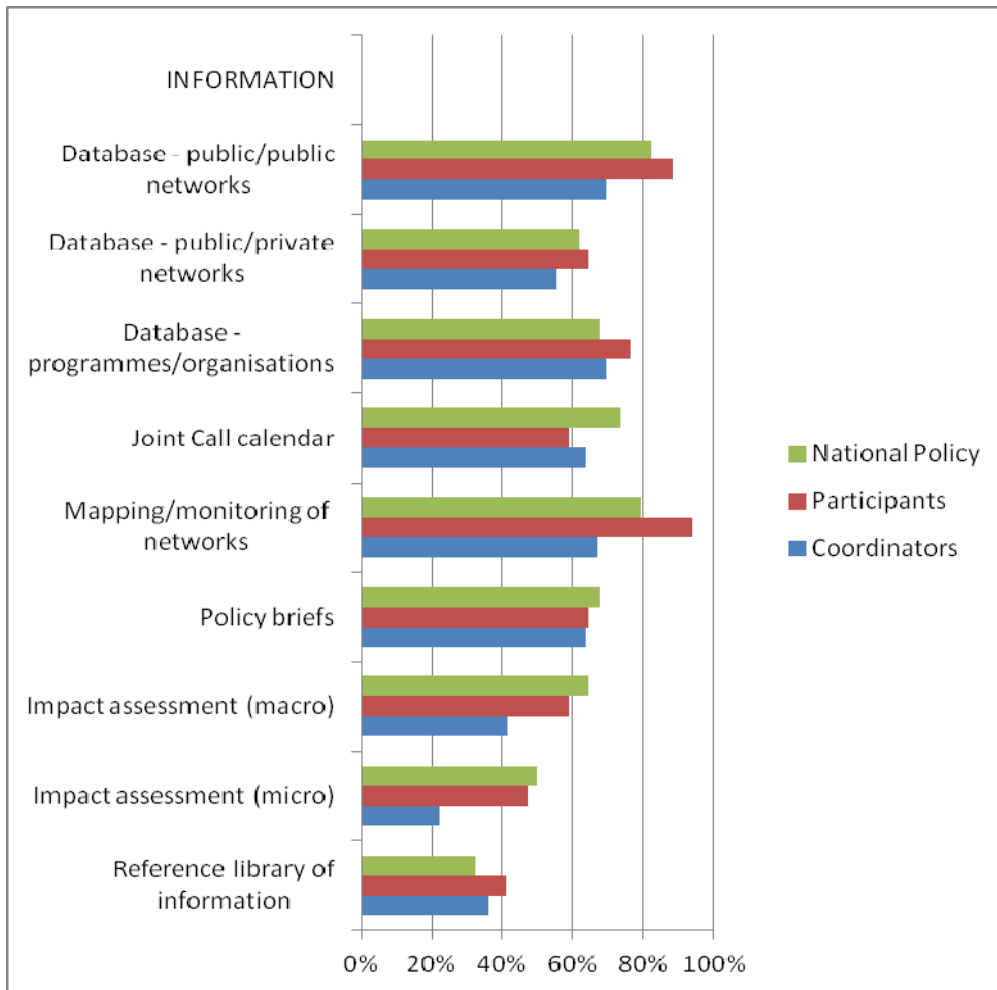
As more and more transnational R&D (and innovation) networks are established it would be logical to create a framework to enable those who would value such support to be matched with organisations that have the practical experience, motivation and capacity to deliver cost effective ICT support services. This would, of course, need to be organised and financed in a different way than the provision of information and learning materials, which are 'common good' services.



## ANNEX: Prioritisation of user needs by stakeholder group

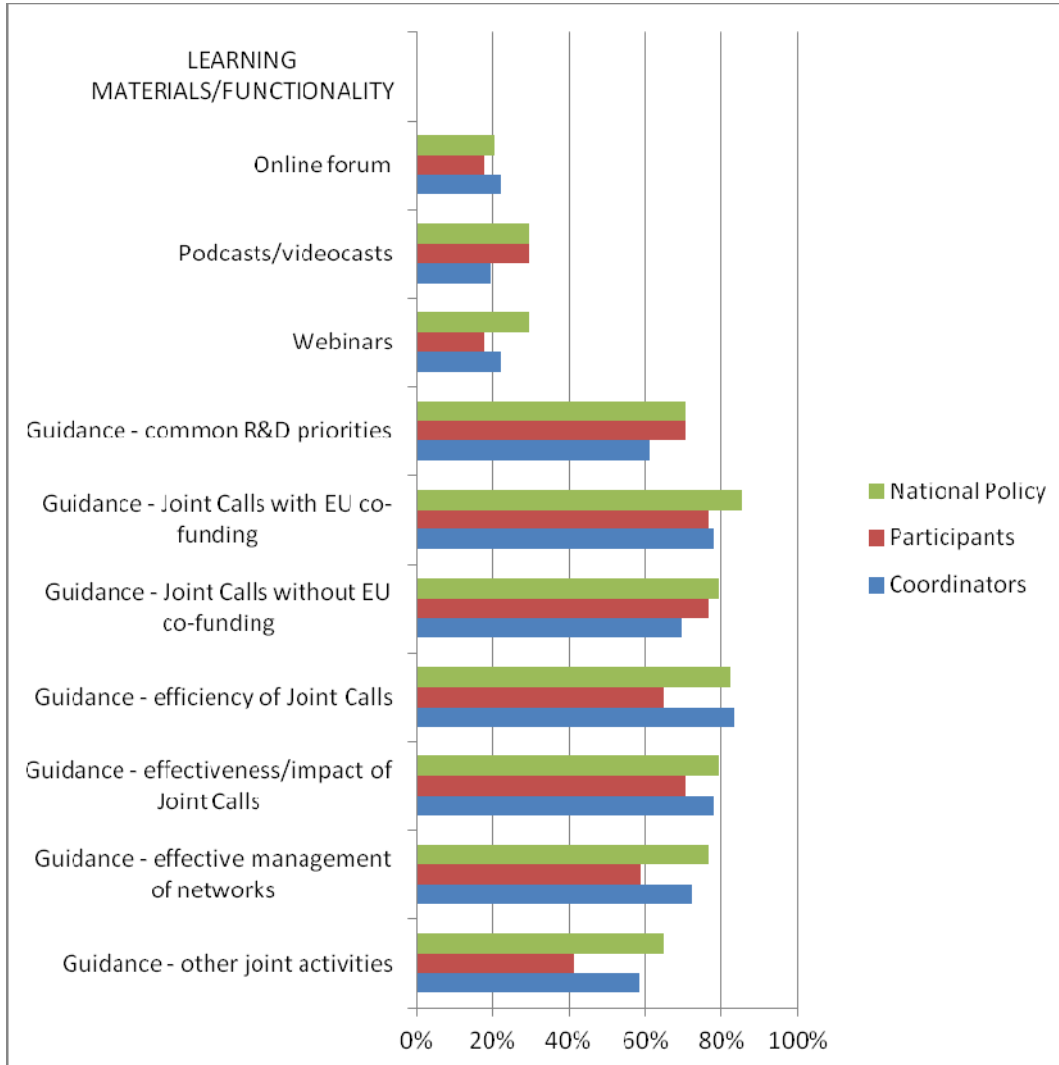
Based on those stakeholders who ranked the options ‘high’ or ‘very high’ interest.

### A.1 Information





## A.2 Learning Materials/Functionality







A.3 Central ICT Services

