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**IWRM-NET**

**Towards a European-wide exchange Network for integrating research efforts on  
Integrated Water Resources Management**

*Thematic priority:* Integrated water resource management

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**Brussels 8-9 Dec 2008**

**A good practice guide'**

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# **Proceedings from IWRM-net research Management workshop**

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**'Deliverable 2.4 - a good practice guide'**



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Towards a European-wide exchange Network  
for integrating research efforts on  
Integrated Water Resources Management



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***Editor***

Stephen Midgley  
Scotland and Northern Ireland Forum for Environmental  
Research  
25 Greenside Place  
Edinburgh  
EH1 3AA  
Tel: 00 44 131 524 0971  
[www.sniffer.org.uk](http://www.sniffer.org.uk)

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***Cover photographs***

From left to right – Malta Coastline, Killin Falls Scotland, Water  
of Leith, Scotland, - all © Trevor Elliot.

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## Introduction

*With the development of the European Research Area the sharing of information on all aspects of research management has become increasingly important. The large number of era-nets now funded by the European Commission shows the enthusiasm for collaboration on research matters in a wide range of subjects. When you consider that each of these networks are collaborations between a range of agencies and ministries that have their own priorities and national networks then understanding the processes and mechanisms involved becomes an important task.*

*The event was designed to focus on the research management process to allow the delegates to share experiences in the process of managing programmes in order to maintain the effectiveness and current priorities.*

The following document is a summary of the discussions held in Brussels in December 2008 as part of the IWRM-Net project. The workshop was led by SNIFFER as part of its delivery of sharing knowledge on the processes of identification of research needs. However this was expanded to cover all aspects of research management so that partners could share a wider range of experience.

Many of the other era-nets have carried out a similar process as it is an objective shared by all eranets, to improve our research management capabilities by sharing experience and understanding and from this moving towards a better collaboration.

### Specific Aims of the workshop

1. to share good practice amongst research managers
2. to learn from our common experiences
3. to work at the regional, national and international levels and see if methods are good for one or all levels
4. to find agreement on good practice and publish proceedings with recommendations

### Themes for research management.

The workshop was undertaken in three sections.

- Research Need Identification
- Programme/project Management
- Communication and Evaluation

Three speakers were invited to talk about their experience in managing research programmes based on these topics. The speakers were;

Kirsty Irving - Research Manager for Sustainable Land and Water Management theme in the Scotland and Northern Ireland Forum for Environmental Research.

Henk Senhorst – Senior Research Manager, Ministry of Transport, Public Works and Water Management, Rijkswaterstaat, Centre for Water Management, Netherlands.

Reiner Enders – PTJA, Germany and work package leader for CRUE eranet on the production of a good practice guide for research programme identification, promotion and validation.



All the presentations can be downloaded in full from [www.IWRM-net.eu](http://www.IWRM-net.eu)

## Research Need Identification

In starting the discussion the first question raised was “*What do you write down as a need?*” and while we do not wish to get into a philosophical debate on what is research within this report the question of scope should be first highlighted. In the process of finding answers it is necessary to identify and set out some detail around the questions. Put another way then any management method must define what is the scale of the research programme and projects i.e. an open question or a clear deliverable? with clear boundary conditions identified for the research needs including timescales for implementation of the results. So how would you go about setting the conditions and who should be involved?

### Who should be involved?

Who are the right people? There is a difference between demand and supply side and these differences should be understood. In looking for the right answers then there is a need to put the right questions to the right people. Who will use the answers generated by the research – will the answers be clear for anyone but the scientists?

It was noted as important to identify people at the ‘stakeholder’ level, to bring together people with a common understanding to facilitate agreement which would include both researchers and research users including policy makers. Researchers should know how to find the solution, but also other groups could come up with solutions.

Often in looking for solutions to problems the options can be delimited by the demand. Political constraints can mean that timescales are short and answers should be specific which means that in setting research agendas the process should include the ‘right people’ e.g. policy makers, researchers, end users, communities.

Some of the delegates felt that researchers should have more scope for development, but there are conflicting arguments for this, in that by providing researchers with a specification that is clear and concise they

are less likely to go off on a tangent and more likely to provide a clear solution to the problems identified.

It was felt in general that research works better when projects are well defined in that they can get the right people involved and that a clear end point is set out in the beginning but with an understanding that there will not be a single path from need to solution. This ties in the counter argument - that from a research viewpoint projects shouldn’t be too specific as this constrains the innovative process of research. It seems clear that there is balance to be found and managed as the ideal solution and there is not a specific solution.

### How do you get them to participate?

The process of consultation is normally workshop but other consultations approaches should be considered e.g. web-based. IWRM-net is developing a web-based forum to develop and prioritise research needs for partners across Europe ([www.iwrm-net.eu](http://www.iwrm-net.eu))

The Centre for Water Management in the Netherlands uses a pragmatic approach where people attend a workshop and come up with a top 5 list of research needs. Combined, these total around 40-50 needs and then they are merged into strategic themes. These stakeholder workshops with NGOs etc work well to get a sense of ownership for the research. This was also noted as important throughout the process, not just the initial identification and will be touched upon later in the proceedings.

The difficulty of developing priority needs and strategic commitment can be that if you include numerous other groups then it becomes more difficult to agree on the top 5 research needs if there is not any common agenda. The suggestion was *a series of workshops to drill down from high-level strategic thinking to focused, condensed results*. The people in the workshops will change as the process moves from broad themes to narrow fields, for example champions from researchers and end users would develop a detailed proposal from the high-level ideas.

Where countries have moved from a structured process of workshops and consultation to one that is now open and researchers have more freedom to propose subjects it was generally felt that this was not as successful in providing applicable outcomes.

In running the workshops it is important to have small groups to tease out the issues, having large groups means that it is difficult to capture and manage all the ideas and thoughts presented by the delegates. Then there should be some form of Prioritisation exercise – what will be funded

The IWRM-Net Edinburgh (2007) workshop was cited as a good practice and an example of a good mix of people and more information can be found on the archive events section of the website ([www.iwrn-net.eu](http://www.iwrn-net.eu))

In Denmark there are big meetings (similar to committees used by Spain for the 04-07 national research programme) from a national water users group to define basic research.

#### **Danish Water Research Platform.**

This platform allows research to be defined from the end-users point of view. Within the platform there are 10 different consortia covering all aspects of water cycle and the funding comes from the Danish Government with some in-kind payments from members of the consortia. With discussions held in big meetings a wide range of stakeholders are give opportunity to define the needs.

#### **Gap analysis?**

In the identification of research it is possible to choose research that has already been done previously. Likely causes are the unawareness of the research that has been carried out (poor dissemination) or the lack of applicable results. For this reason it is important in the process of research need identification to make sure money isn't wasted on something already researched.

The example of a Database/list of existing work in the relevant area as a baseline for identifying remaining gaps was provided and the development of databases within eras is seen as a valuable development that should be supported further. However, the problem today is less about databases not being there, but too many databases being around, leading to a situation that researchers are repeatedly asked to upload information, and end-users of the database do not feel comfortable that the database they query is complete.

To highlight this problem the example was provided in the field of river hydraulics - It was stated that if you looked at what was identified as a research need in 1973 and compared this to 2008 it could be very similar because it's a very narrow field and the devil is in the detail and the progression of science within that narrow field. The classification of research within the databases and the methods you search for results is important to get right so you can easily find the results you are looking for.

So this raised the question – 'what is the outcome of the identification of research needs'? It was proposed that the outcome is simply a research agenda or list of research with the aim to get a new 'state of the art' in the chosen field of research. It was stressed that it is important to have the research agenda derived from a work agenda, so that the outcome and end-user focus remains clear, linking back to comments made earlier about stakeholder involvement.

One example was the Danube commission, which collected all needs in Danube Basin and then developed this into a joint programme where people have to share their best practices and needs.

#### **How often should you review the needs?**

While a specific frequency was not proposed it was agreed that there should be frequent and agreed timescales for the identification of research needs. An example from Spain is that at the national level the needs are identified every 4 years with a parallel process to ask for finance from the ministerial committee.



Using the example of the Danube commission again, the 'joint programme' sets out that in 2 years partners have to declare who has the best practices on a particular measure. From the Hungarian perspective this has shown a change on the way research is considered. Before it was very scientific, whereas now its much more multi-disciplinary with the inclusion of social and economic sciences along with natural sciences.

### **Local, national and International?**

On the basis of all delegates coming from an era-net perspective then the concept of sharing of national and regional priorities was deemed a good thing and partners wished to do this, but within the groups there seemed to be a consensus that national needs are different to international needs. Careful consideration of these different needs should be done before sharing the priorities so that the stakeholders can efficiently reach consensus for collaboration.

### **Financing the research?**

It was highlighted that needs can often depend on finance and this aspect balances the identification of research needs. Again using the Danube Commission as an example, they have expert groups (e.g. hydromorphology) that provide direction on which research should be done and provide topics that need to be clear and well defined. This is similar to the UKTAG process within the United Kingdom. It is recognised that needs identification should link the research with money available and perhaps use deadlines to prioritise. For many funding organisations they need to see the relevance of a project or programme and thus often require to be involved in the preparatory work in setting benchmarks for implementation and delivery. This links back to earlier statements on the involvement of stakeholders and end-users.

## Programme Management

Once the decision has been made about what the aims of the research programme are, then how do you make the research a reality, what are the roles and responsibilities for organisations and the staff involved? It was very quickly agreed that they must be clear in the following areas;

- Technical/scientific
- Financial
- Monitoring and Auditing

The technical and scientific aspects should be clear to ensure that the right type of research is done that delivers the expected outputs and outcomes. The Financial aspects need to be clear so that all involved know what to expect financially and can plan the research accordingly. Monitoring and auditing supports these aspects in keeping the programme on track and supporting effective delivery and use of resources.

### Roles and responsibilities

A formal secretariat is important along with a programme coordinator and background support. In recognising the importance of these roles, alongside this it should also be recognised that there are certain skills associated with each role. The programme coordinator should have a scientific background or a scientific staff and that someone with financial expertise should manage the administration, budget etc. While it may seem to be obvious, there was a need for this to be stressed as being important for the successful management of research programmes.

The scientific and administrative management together provide a horizontal working group and it was suggested that this works better if from same organisation, but there was no agreement on whether the financing of the programme and management should remain in one organisation. BELSPO undertake both tasks but the German Ministry uses the project management organisations and Scotland and Northern Ireland use an autonomous

organisation (SNIFFER) to manage the projects in certain fields. Some delegates thought that complications can occur if the two functions are split and the Netherlands noted a difficulty when rearrangements occurred that split technical knowledge with funding arrangements.

The use of strategic partnership for research provision depends on situation, for some partners it can be too narrow in terms of research, but it is much easier for administration. The Environment Agency England and Wales use Sheffield University in a strategic partnership. If the calls are completely open then this is good as it gets a balance of research providers. Depending on the proposal review criteria open calls tend to be more productive towards scientific novelty, whereas invitations to tender to specific parties tends to be used for more applied science, since in the latter case the needs are usually clearly expressed and the invitees are selected on known track-records for solving similar issues.

### Guidance and direction

Steering groups were seen as a valuable tool in programme management to involve researchers, universities, clients and administrators. The question arises, how many meetings should such a steering group have? The Austrian Ministry stated that it held 5 meetings per year, but this was deemed time-consuming and 2 per year was considered sufficient to ensure engagement of stakeholders and to steer the research if not heading in the right direction.

It was also proposed that there should be a specific person to disseminate programme results/information who could have specific skills in communicating results.

Reporting was also considered an important element and programme managers needs to report at periodic intervals to grant providers and steering groups to maintain links throughout the programme.

### How long is a programme?

While the delegates did not agree on a set period it was considered that short programmes are not of value and 2 years



was considered too short. Most programmes are 4-5 years, with projects running within this period, but sometimes projects extend beyond this time. The main point was that programmes were between 4 and 6 years and it was concluded that it depends on needs and the subject, but a longer duration is better to allow enough time to deal with problems and complex scientific issues.

For example Spain has 4-5 year programmes with projects lasting 3-5 years and a set budget for specific programmes. Portugal launches research calls every 2 years. Within the length of the programme the workshop delegates discussed how many times should there be a call for research proposals? It was agreed that annual research calls can change when needed and provide an element of flexibility. The length of the projects funded is also very important. Usually groups have financial certainty for 3 years which seems to work well for planning and implementation and also allows for mid-project evaluation to ensure they can be steered in the right direction if not delivering what is expected.

### **Funding**

Aside from who provides the funding there are questions about what should be funded as part of the grant, for example some programmes do not pay any personnel costs and some only fund non-private companies.

For example Spain and Portugal are not allowed to pay private companies or consultants and Era-nets cannot allocate money to private companies. The sometimes bureaucratic rules and regulations for financing projects can cause problems but clarity is required whatever the principles are that define the finances.

Another factor in financing is being able to manage funds flexibly within the civil service rules. Programme funders who use companies' ltd by guarantee can provide flexibility and perhaps allow a certain amount of risk management and ability to deal with urgent needs arising.

It was proposed that a balance between open competition and open call could

provide a balance of research providers. If there are particular problems to solve then one provider can quickly focus on the specific issue. The best practice would depend on research and organisations but all agreed that financial certainty allows for better planning or resources. Financial uncertainty causes problems for research providers

## Communication, Dissemination and Evaluation

### Setting criteria for evaluation?

Evaluation of success should link directly to the initial stated objectives of the programme and as an ongoing process the programme should link with the end users who identified the research needs to ensure it achieves their aims identifying the needs. End users involvement will help make the process of using the research a lot clearer when results are delivered.

It is important to be clear from day 1 who owns the needs and the outputs to take forward to implementation. An audit trail was seen valuable to try and prove the research influenced policy or implementation in some way, which delegates recognised as difficult but you can provide evidence for a claim that the research has been valuable to those people who 'own' the needs

The two perspectives to be considered for evaluation are scientific and political and the influence of both will depend on the type of research proposed, but also other criteria should be included such as effectiveness, efficiency, sustainability and usefulness. On the more administrative side an important question raised was the evaluation of a programme on the basis of management time involved and research budget. This measurement of efficiency was debated and no clear recommendation was provided.

The idea of measuring success thus should be considered right at the beginning of the research process. Good preparation at the start of a programme should set clear and simple targets that are appropriate for programme.

Risk is also an issue that is recommended for consideration early in programme development. Evaluation should be made on the risk or likelihood of success, with some programmes having a high risk of failure because the research is innovative and unknown (blue-sky)

In some aspects the lines between management and evaluation are a little blurred – The constant evaluation of programmes by management committees being on example, but this was deemed important and raised as an evaluation aspect, i.e. a mechanism to steer the programme if it is heading for problems or more drastically, it is needed to stop the programme.

For research management in Hungary the evaluation is at 2 levels. The first level is the scientific level undertaken through a peer review where other scientists review the work. The following level is the political level where the proposals are evaluated and analyses for political suitability. All levels need to moderate their targets to solve everyone's needs. Once the programme is up and running then it is considered too late for changing the political basis of the programme but the politicians can provide direction e.g. if society needs flood protection but the scientists give expensive solution, politicians can state they want a cheaper solution – it is steering rather evaluation, with the ability to stop a programme if it does not fit the political framework.

### Who should evaluate?

Appropriate evaluation of a project or programme during its life can be done internationally by peer review or internally via the steering group or programme manager. In Portugal, internal evaluation of programmes was done annually and external evaluation every 4 yrs. Within this evaluation process some projects may need flexible deadlines and this links to the management aspects of flexibility. It is important to be able to recognise that a programme or project has not gone to time for valid reasons such as delays in research.

Programme boards are a common means of evaluation and guidance. With Boards meeting on a regular basis – it was suggested biannually - it can provide a good means of internal evaluation. Another method suggested were focus groups which

can ensure stakeholder input into the assessment of the programme.

IWRM-net has developed a research programme self assessment tool and is currently testing this within the project. The **PROSA** is based in four perspectives listed and uses a series of indicators for programme manager to use in the assessment.

- Internal perspective: programme management procedures
- Financial perspective: utilisation of public funds
- External perspective: stakeholder response
- Learning perspective: scientific innovation

For more information contact ....

Criteria should be assessed through each step of the project so that the set objectives are evaluated through the project as well as at the end, which links to the example from Hungary – a close relationship between the end users and researchers should allow a change of direction before a programme does not deliver the political requirements. This recognition of the dynamic nature of programmes was seen as vital for success i.e. if the end user is happy with the research through them being closely involved in steering groups then evaluation can be much simpler.

Post project evaluation should include researchers completing some form of 'lessons learnt' assessment.

Defra have a formal process. Every 5 years the project is assessed by external review and would measure success against the objectives. The EA has process but not everyone uses it. UK process. Sometimes not used. Example from Defra. Not a clear process used in the agency. **UK** Evaluation process: **R**OME, **R**ational, **O**bjective, **M**easurement, **E**valuation.

FCT in Portugal divides its evaluation process into internal and external perspectives. For a 4 year programme, there

is internal evaluation annually and external every 4 years.

BELSPO, the Belgian Federal Ministry for science has its programmes evaluated from 2 aspects similar to others in that they are audited from an administrative perspective and then evaluated scientifically. Each programme is slightly different.

Latvia has 5 thematic council boards within the Latvian Science Council. Each board has experts within their field and they evaluate the scientific issues. There is also one board for the administrative issues.

There should be a loop back to the setting up of a programme, where the development process also sets out what will be evaluated in the programme.

#### French Ministry of Sustainable Development

There is evaluation of policy relevance at the programme level and then scientific evaluation at the project level. The projects are evaluated scientifically at the middle and at the end to see if the aim of the project was adhered to and ranked to track improvements to the project. At the programme level the Board for the evaluation committee of a programme consists of 10 people. The Evaluation manager leads the process with the programme manager and the programme is ranked using 5 different criteria. The first aspect is a paperwork review and then there are a series of interviews with around 10-14 people who are considered interested in the research. There are a total of no more than 4 meetings and an annual workshop. The whole evaluation project can take 6 months and is very structured and transparent. It takes a lot of time and effort but is seen as worthwhile.



## Communication

### Who, why, when, what, where and how...

There was a general consensus among delegates was that communication of research results is not done very well and it requires significant investment to make this better.

Most delegates stated a desire for the research to have a stronger impact and recognised the need for the right skill sets to communicate to the right audiences. One example is the Environment Agency of England and Wales, which has a science communications team that specialises in the research undertaken by the EA. They have specific skills and expertise that is housed in one 'unit'. This specialist function has particular value when speaking to the media, who have their own agenda on what is news. In dealing with the media it is important to use skilled staff to handle the process as the media can turn the story around to sell the story they want.

### Who is the research for?

There was agreement that the public do not need to see results and the important audience are the end users and stakeholders, but the target audience is project dependant. BELSPO have gone into schools to allow scientists to be interviewed by schoolchildren to communicate a general message about science and the work of the programme.

It was recommended that communication should be proactive and be looking for opportunities and to achieve this, having someone responsible for the planning and implementation is valuable. hange (peoples minds?)

### Why communicate?

Henk Senhorst presented the position that it is difficult to provide a report that is valuable to learn from, as an external person to the project. The communication and knowledge transfer should be seen as a process, with people involved in learning throughout the research process. The evolution of research

and knowledge can be abstract to those not involved in the process.

### How to get the message across?

Communication should be creative! and an example of a short film produced by the BLUE MAN Group and example from climate change.

- Training
- How to get schools interested
- Why are you communicating
- What are you trying to change (peoples minds?)

IT is important to set up from the start a Programme level communication strategy, agreed at the beginning with clear responsibilities, information releases all timed and coordinated in a pro-active manner. This also extends to the project level where in each proposal a request for a

### Cost-effective communications?

It was suggested that you can calculate the cost-effectiveness of a seminar when you calculate the number of seminars held, the number of delegates attending and the average salary of each delegate attending. I.e. the amount of resources the stakeholders put into attending the conference.

dissemination plan is recommended.

Workshops were seen as an important tool to dissolve the misunderstanding between policy makers and researchers, but other techniques such as Internet and email should be part of the communication strategy and where workshops are used they should be designed for their target audience.

The people who best understand the research are the scientists or research teams themselves but sometimes they are not the best people to communicate the science. The delegates recommended that research teams to give an executive summary of their research as part of any report. SNIFFER uses this format with any reports published and the programme manager will be the final editor.



One distinction emphasised by the delegates was the difference between a communications budget at project and programme level. The messages and mechanisms for the two levels are two separate things and need to be considered differently.

## Delegates

Allen-Williams	Peter		
Candela	Lucila		
Cowden	Janet		
Danniso	Jesper		
Enders	Reiner		
Gardner	Simon		
Huber	Irene		
Irving	Kirsty		
Miossec	Marie-Perrine		
Sampson	Liz		
Silander	Jari		
Solemnikova	Irina		
verheyden	Sophie		
Vetter	Stefan		
Costa	Cristina		
Rocha	Joao		
Papanthasiou	Chrysoula		
Blind	Michiel		
Senhorst	Henk		
Perger	Laszlo		
Midgley	Stephen		
<b>Group 1</b>	<b>Group 2</b>		
Candela	Lucila	Irving	Kirsty
Cowden	Janet	Miossec	Marie-Perrine
Danniso	Jesper	Silander	Jari
Enders	Reiner	Solemnikova	Irina
Senhorst	Henk	Verheyden	Sophie
Rocha	Joao	Vetter	Stefan
Perger	Lazslo	Costa	Cristina
Gardner	Simon	Papanthasiou	Chrysoula
Sampson	Elizabeth	Blind	Michiel