

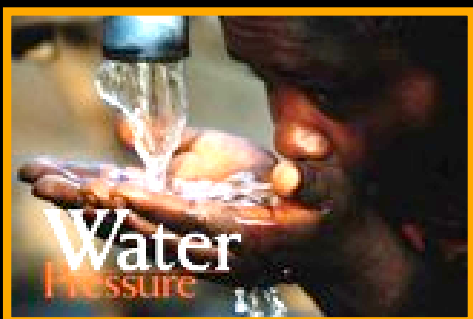


# EU WATER INITIATIVE

International cooperation  
– from knowledge to action



## WATER FOR LIFE



JAROSLAV MYSIAK,  
Fondazione Eni Enrico Mattei FEEM,  
Venice, Italy; [jaroslav.mysiak@feem.it](mailto:jaroslav.mysiak@feem.it)

Trieste, 25.12. 2005

- **Integrated water resource management**
  - Concept and its implementation
  - EU Water Framework Directive
- **EU Water Initiative**
  - Transfer of knowledge
  - Experiences from EU research projects
- **Human dimension and mobility in EU research and development – Marie Curie Actions**

# Integrated Water Resource Management in Europe



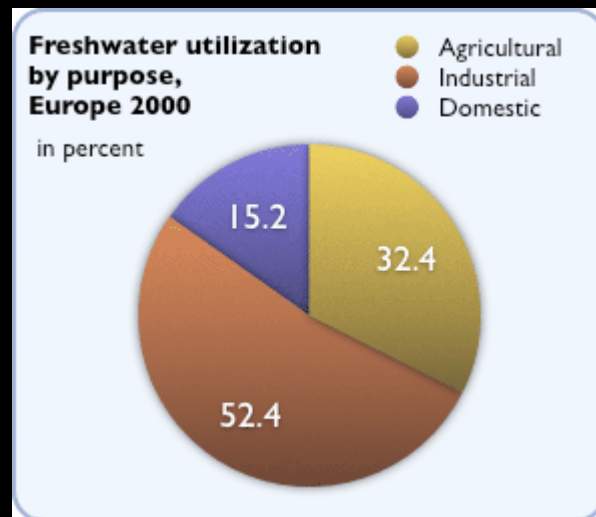
# Water in crisis

- **2 billion** people are affected by water shortages in over forty countries
- Minimum annual per capita water requirement of 1,700 cubic metres (m<sup>3</sup>) of drinking water necessary for active and healthy life
- **1.1 billion** do not have sufficient drinking water
- **2.4 billion** have no provision for sanitation
- by 2050 at least one in four people is likely to live in countries affected by chronic or recurring shortages of freshwater
- **2 million tons** a day disposed of in water courses

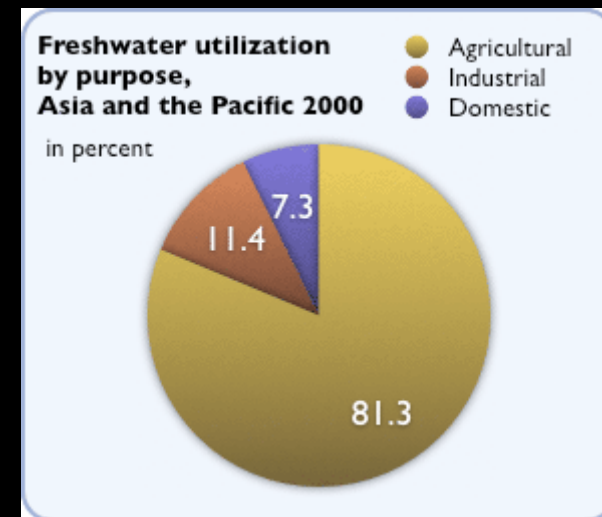


# How fresh water is being used

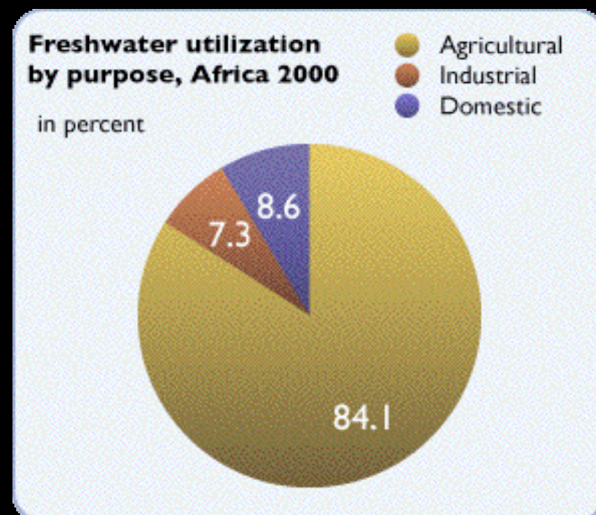
## Europe



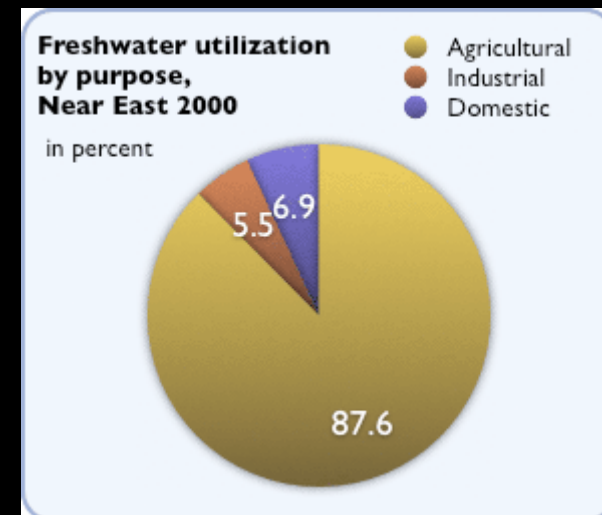
## Asia



## Africa



## Near East



# The concept of IWRM

- **IWRM** is a process which promotes the coordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems (*Global Water Partnership, 2002*),
- **Sustainable development** (Brundtland Commission, 1987)  
“development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs

- ♣ **Freshwater is a finite and vulnerable** resource, essential to sustain life, development and the environment;
- ♣ Water development and management should be based on a **participatory approach**, involving users, planners and policy-makers at all levels;
- ♣ **Water has an economic value** in all its competing uses, and should be recognised as an economic good;



# Magical word “Integration”

- **different objectives**, not mutually exclusive, such as economic efficiency and social acceptability;
- **all water resources** (surface water and groundwater; inland, estuaries and coastal waters) in holistic water management;
- **water- and land-related** issues;
- different **types of water use** (e.g. domestic, industrial, agricultural);
- all **water users** as well as others affected by water uses; and
- **social, economic and ecological impacts** of water policies alongside relevant legal and political factors at various spatial scales

# Cycle of the transition



Figure 1. IWRM is a on-going process to respond to changing situations and needs.

# Institutionalisation of the concept

- United Nations Conference on the Human environment, Stockholm 1972
- United Nations Water Conference, Mar del Plata 1977
- International Conference on Water and the Environment, Dublin 1992
- United Nations Conference on Environment and Development, Rio de Janeiro 1992
- World Water Council, 1996
- World Water Forum, 1997, 2000, 2003
- Global Water Partnership, 1996
- Stockholm Water Symposium, since 1992
- World Commission for Water in the 21th century
- United Nations Millennium Summit, New York 2000
- World Summit on Sustainable Development, Johannesburg 2002

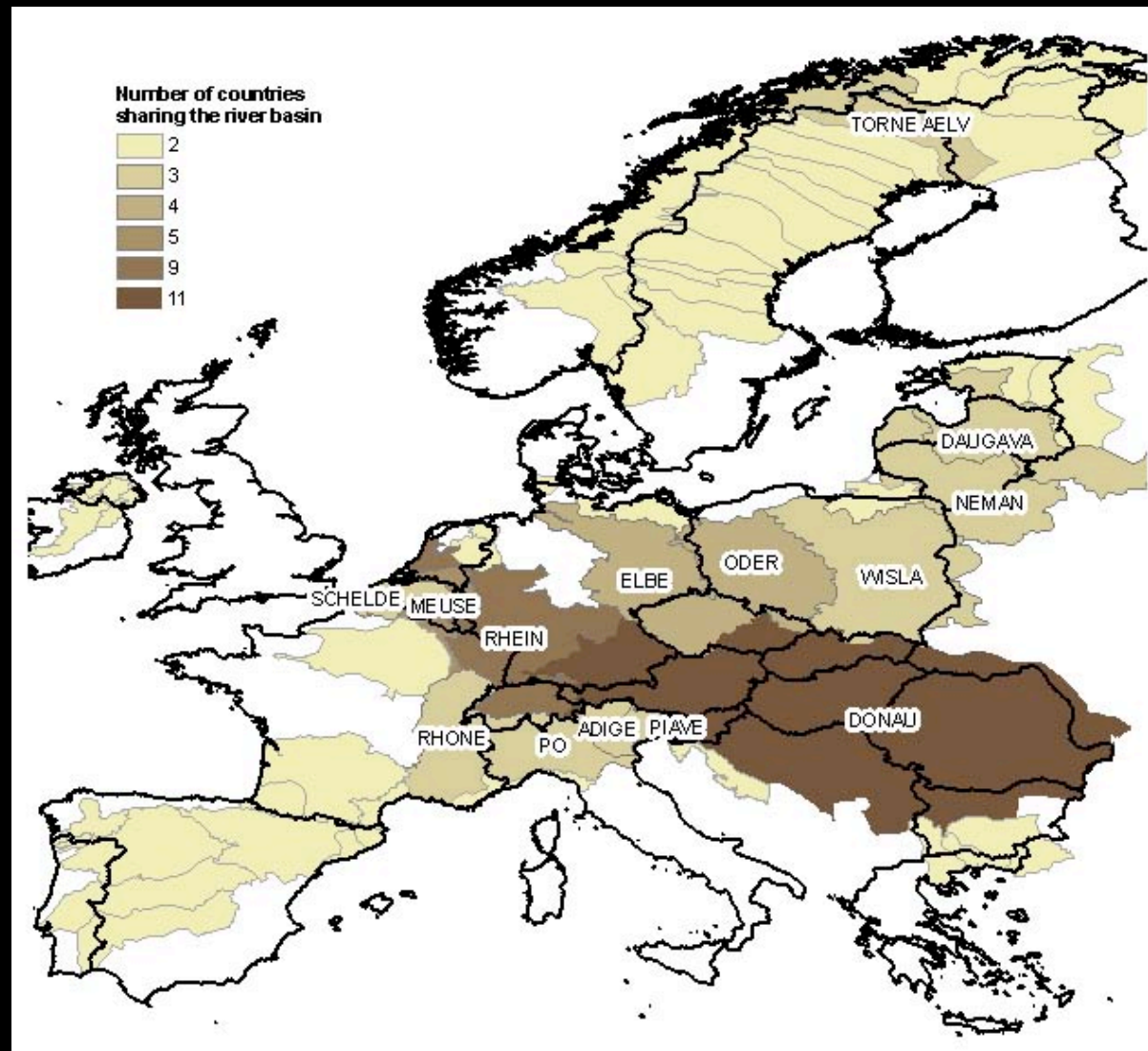
# Rising criticisms

- Not definable and operational
- ♣ Evolving concept
- ♣ Imposes institutional changes, often accompanied by uncertainties and conflicts (institutional overplay)
- ♣ *“The currency of pledges from the international community is by now so debased by non-delivery that it is widely perceived as worthless”* (UN report, 2005),
- *“The growth of disciplinary scientific methods and bodies of knowledge results in an increasing disunity that translates into a multitude of different yet equally legitimate scientific lenses for understanding and interpreting nature”* (Sarewitz, 2004).

# Water Framework Directive (WFD)

- Directive EC 2000/60 establishing a framework for the Community action in the field of water policy
- The Directive harmonises other EU environmental legislative
- Implementation schedule 2000 – 2015
- [http://europa.eu.int/comm/environment/water/water-framework/index\\_en.html](http://europa.eu.int/comm/environment/water/water-framework/index_en.html)

# Eu transboundary catchments



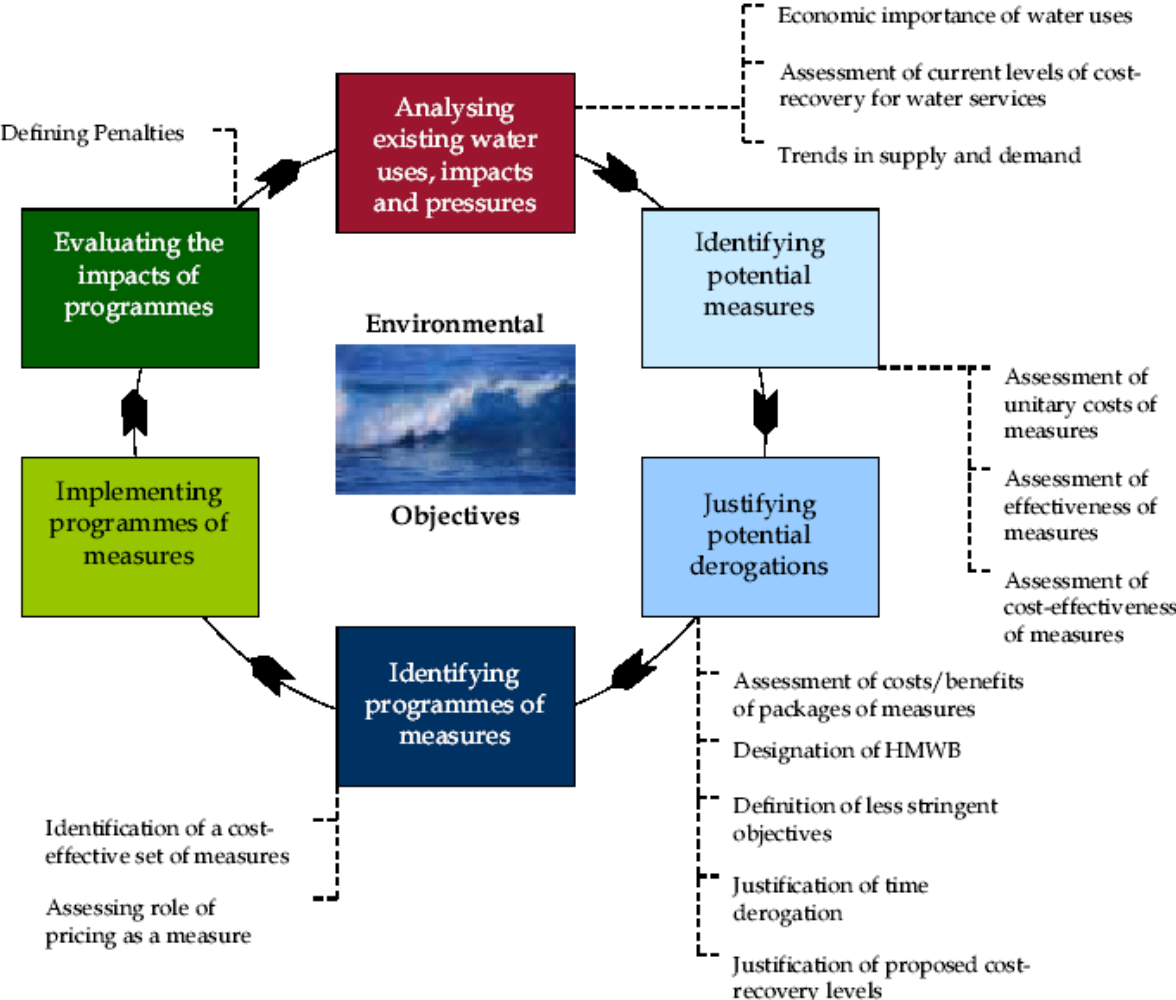
# Implementation obligation

- Legal transposition into national legislation
- Reporting of river basin districts and competent authorities
- Reporting of characterization and analysis on pressure, impacts and water uses
- Reporting of monitoring programmes
- Reporting of River Basin Management Plan including programme of measures

- River basin management and institutions
- Qualitative targets (ecological and chemical status)
- Measures to adopt to achieve the targets
- Public participation
- Economic tools such as cost recovery, pollutant pays principle, economic analysis of water uses
- Transboundary river management



# Planning cycle



# EU WATER INITIATIVE (EUWI)

<http://www.euwi.net/>

[http://europa.eu.int/comm/research/water-initiative/index\\_en.html](http://europa.eu.int/comm/research/water-initiative/index_en.html)

- Partnership and coordinated action among all actors in EU Member States and developing countries
- Launched during the **World Summit on Sustainable Development** to address the MDG:
  - Halving by 2015 the proportion of people without access to clean water and basic sanitation;
  - National integrated water resources management plans with due attention to river basin management and transboundary catchments, using 2005 as a landmark for reviewing progress

# Research Component of the EUWI

- The FP5 (1998-2002) **250 million Euro** invested in **186** water related projects.
- The FP6 (2002-2006) more emphasis on whole **water/sediment/soil systems** and a number of human impacts on them, including erosion, loss of organic matter, contamination, sealing, compaction, salinisation, loss of biodiversity, vulnerability to floods and landslides.
- Transfer of knowledge is supported by **twinning European/third countries** river basins

# Evolution of the research topics

— 2001 — 2002 — 2003 — 2004 — 2005 — 2006 — 2007 ▶



**MULINO-DSS**

**TRANSCAT-DSS**



**NOSTRUM-DSS**



**DSS GUIDE**



**NEWATER**



**Soilwarning,  
Brahmatwinn**



# Evolution of the research topics

— 2001 — 2002 — 2003 — 2004 — 2005 — 2006 — 2007 ▶

Generic DSS for the WFD implementation **MULINO-DSS**

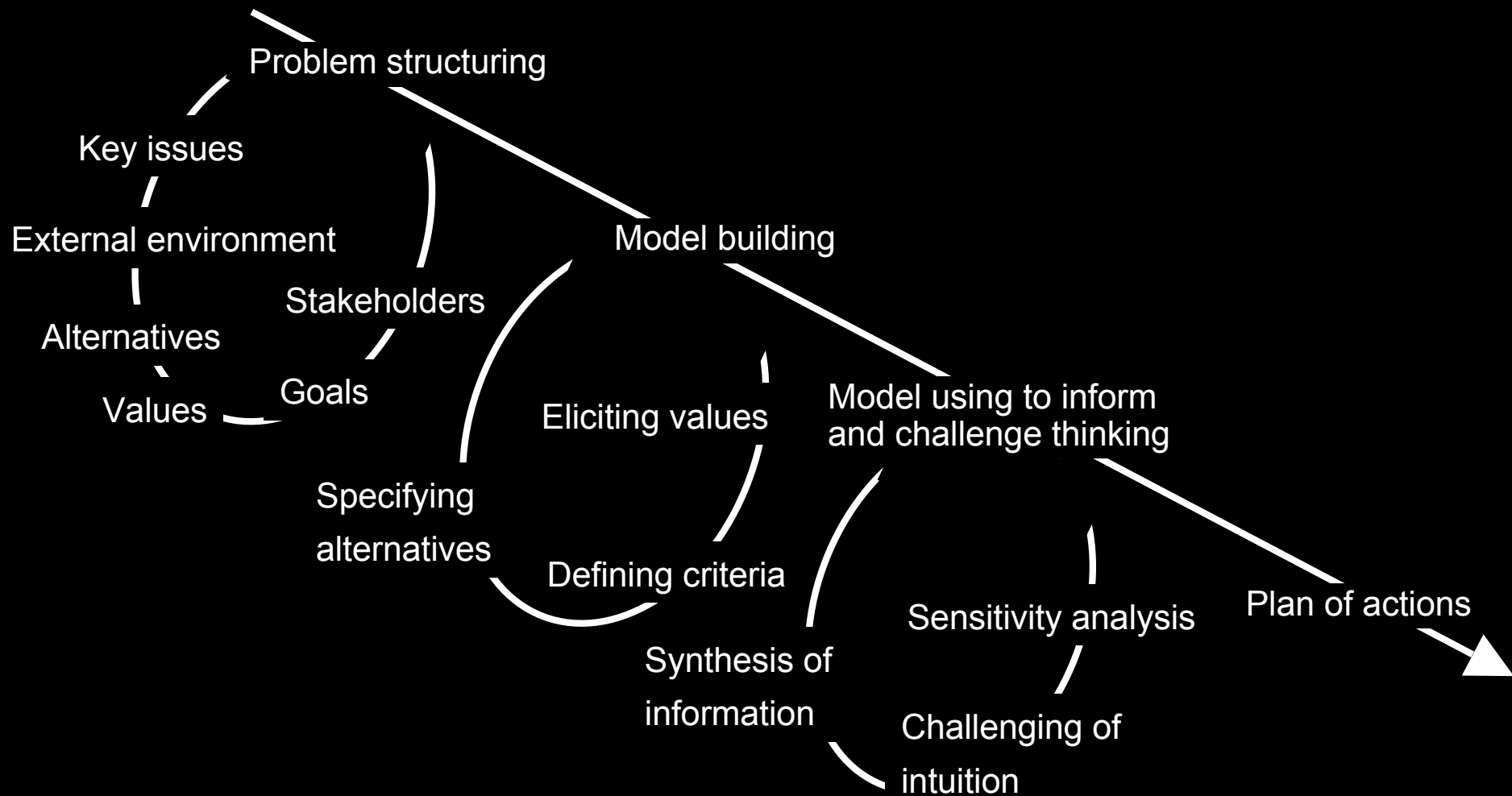
**TRANSCAT-DSS** DSS for transboundary water management

**NOSTRUM-DSS** DSS in Mediterranean countries

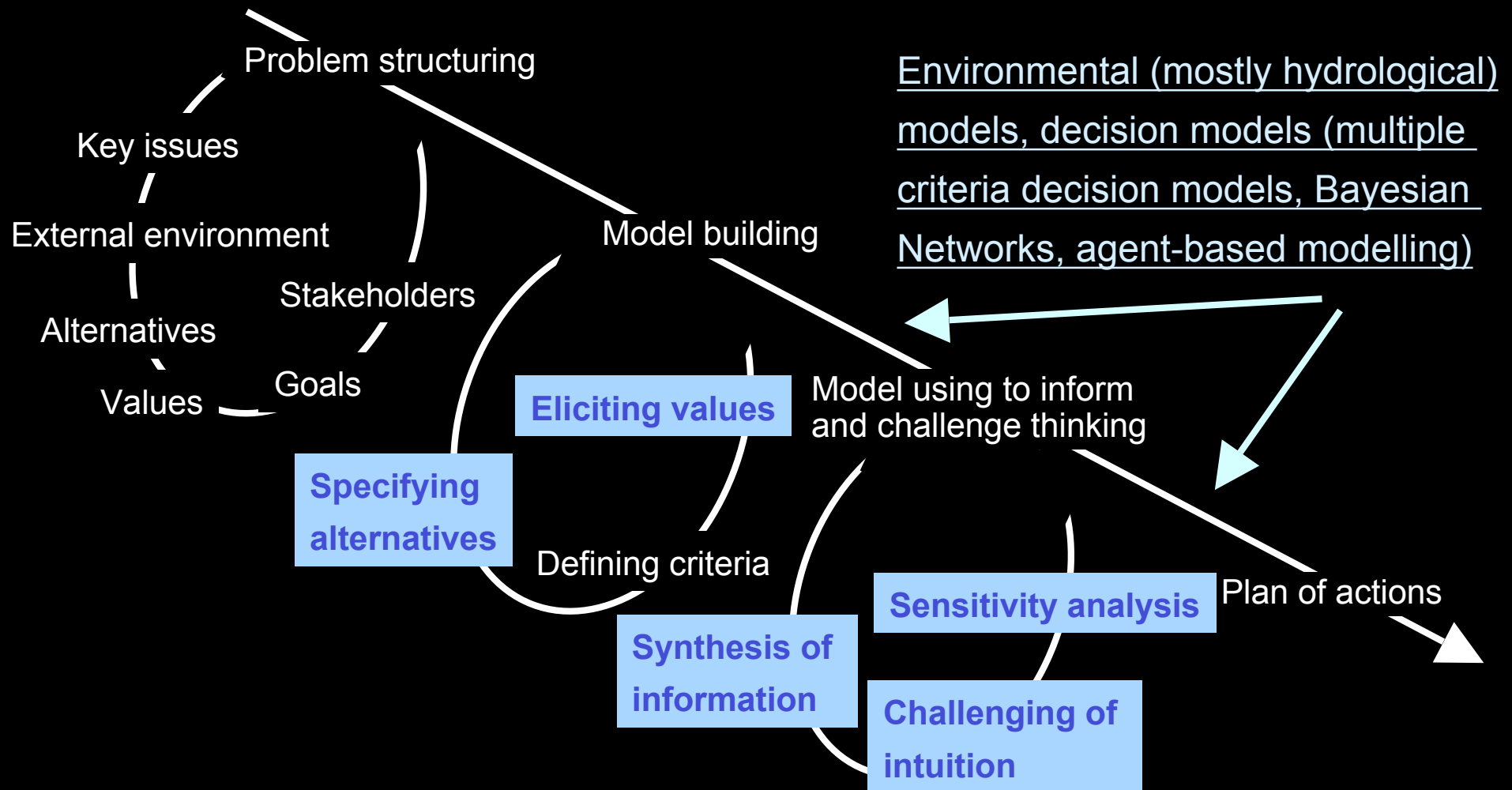
**DSS GUIDE** Success and Failure of DSS

**NEWATER** Adaptive DSS

# Steps of decision analysis

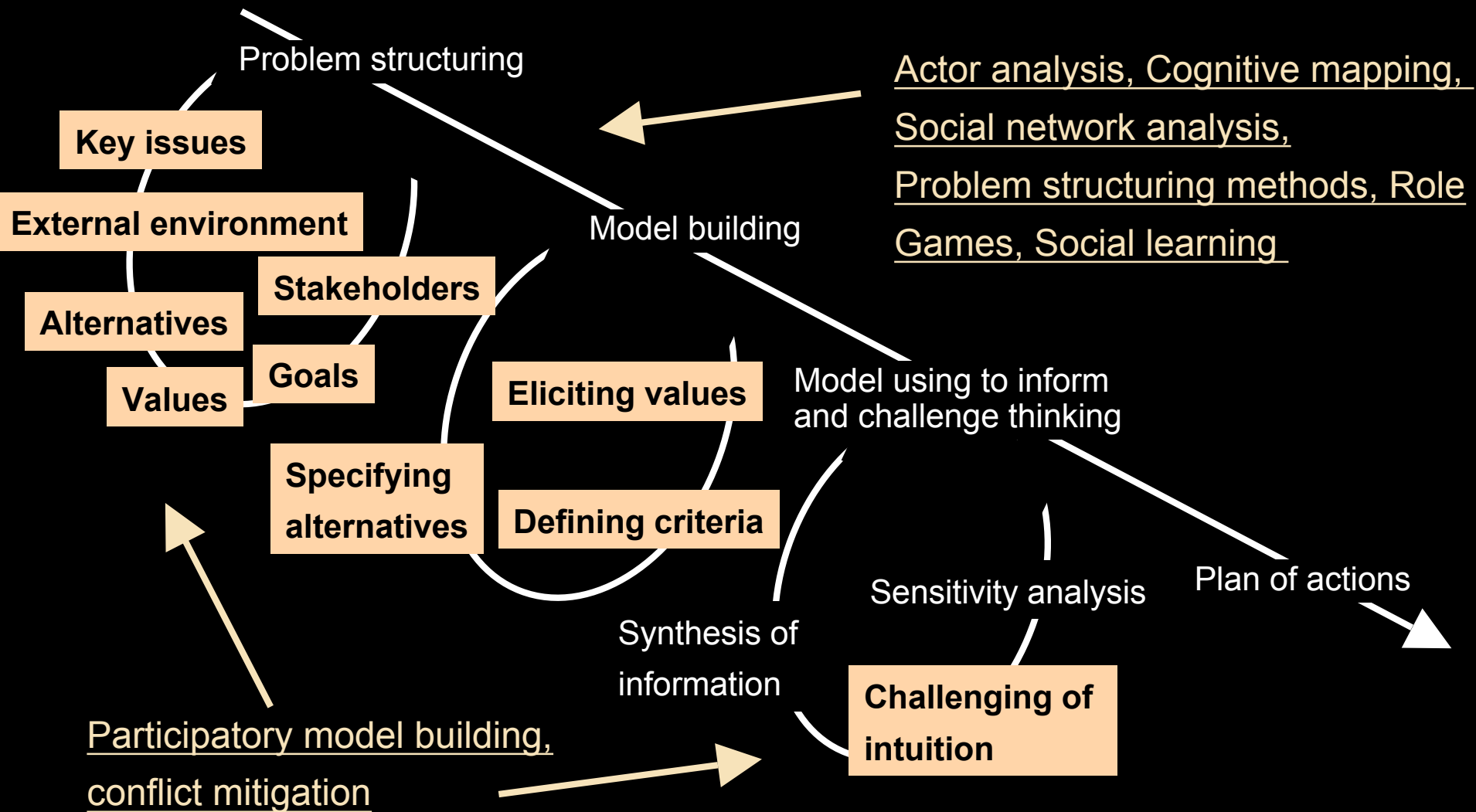


# Traditional DSS areas





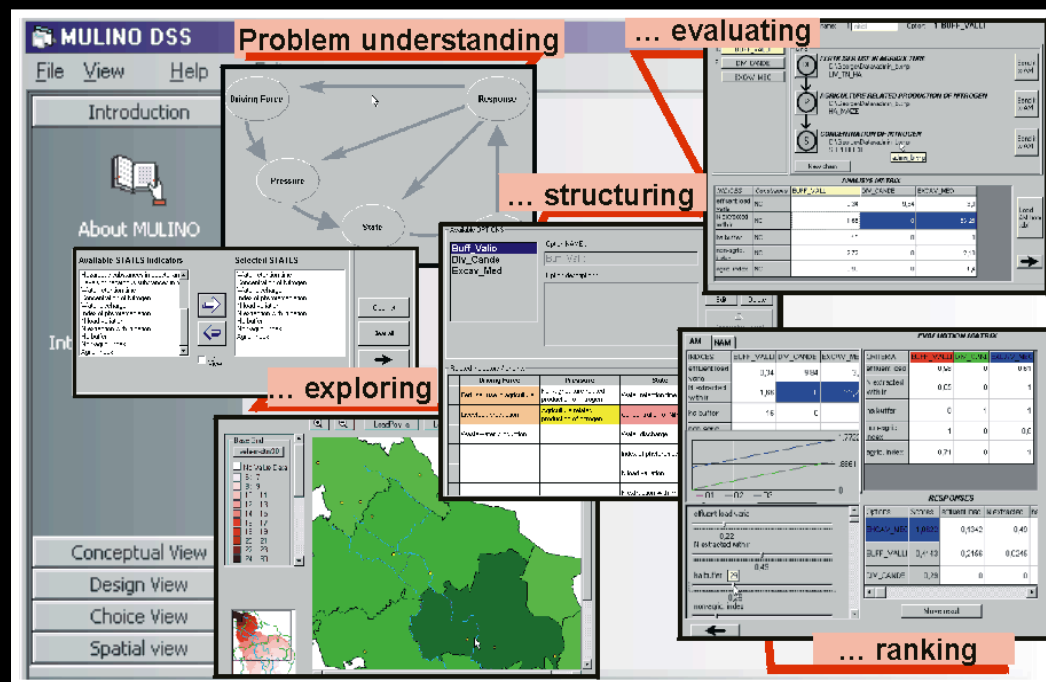
# Focus of recent developments



# MULINO-DSS

Problem  
structuring

Model using  
to inform  
and challenge  
thinking

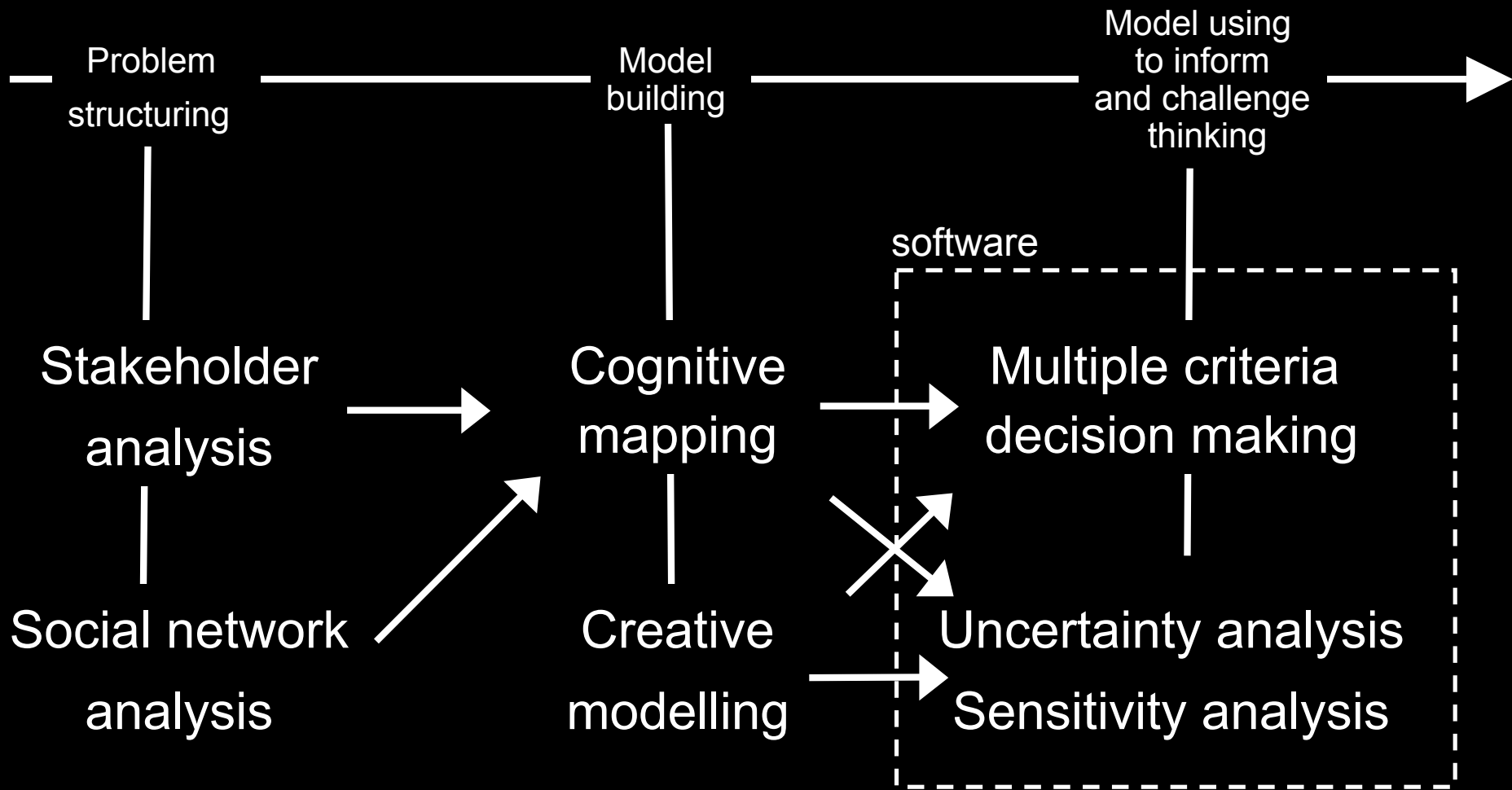


DSS

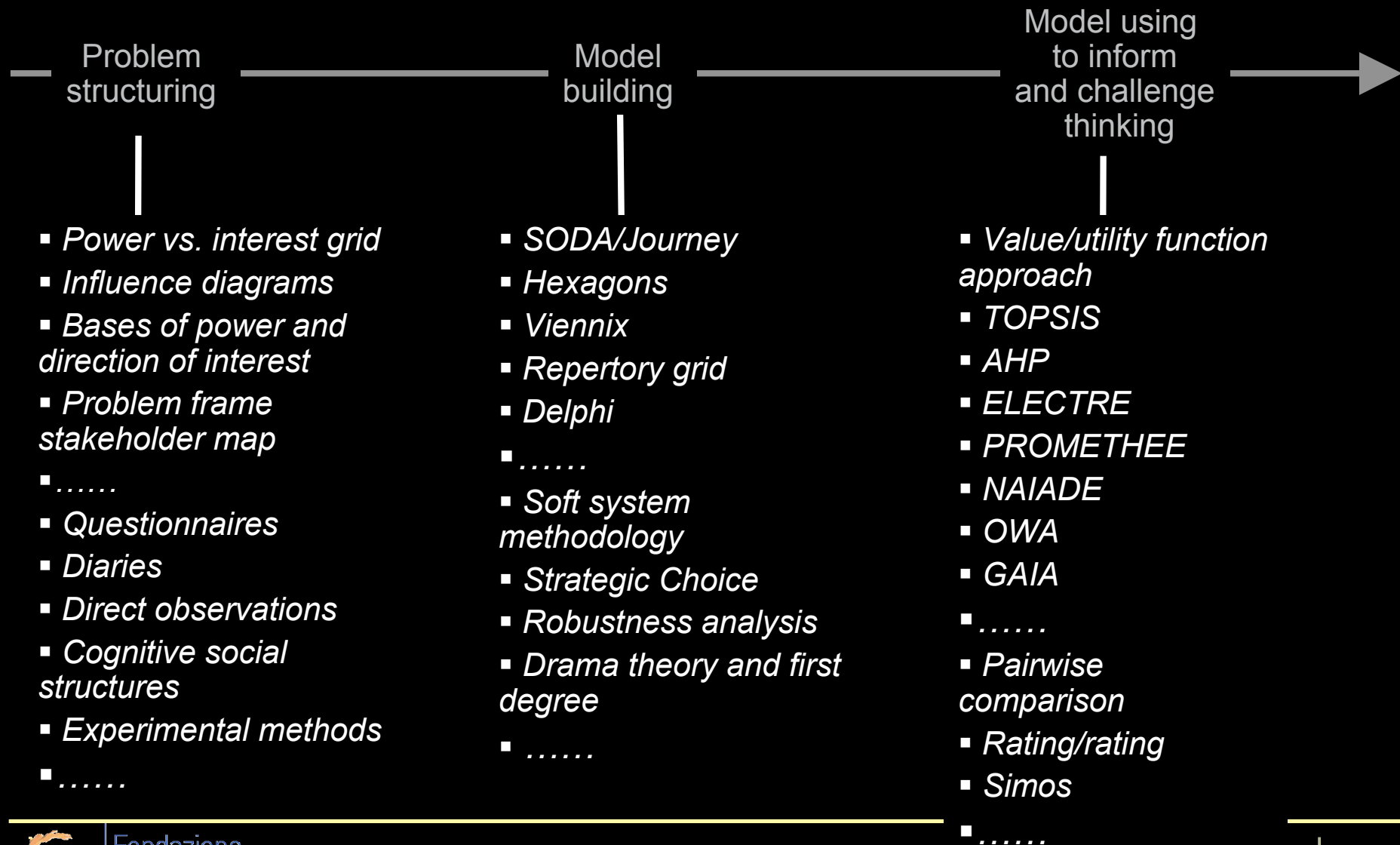
Multiple criteria  
decision making

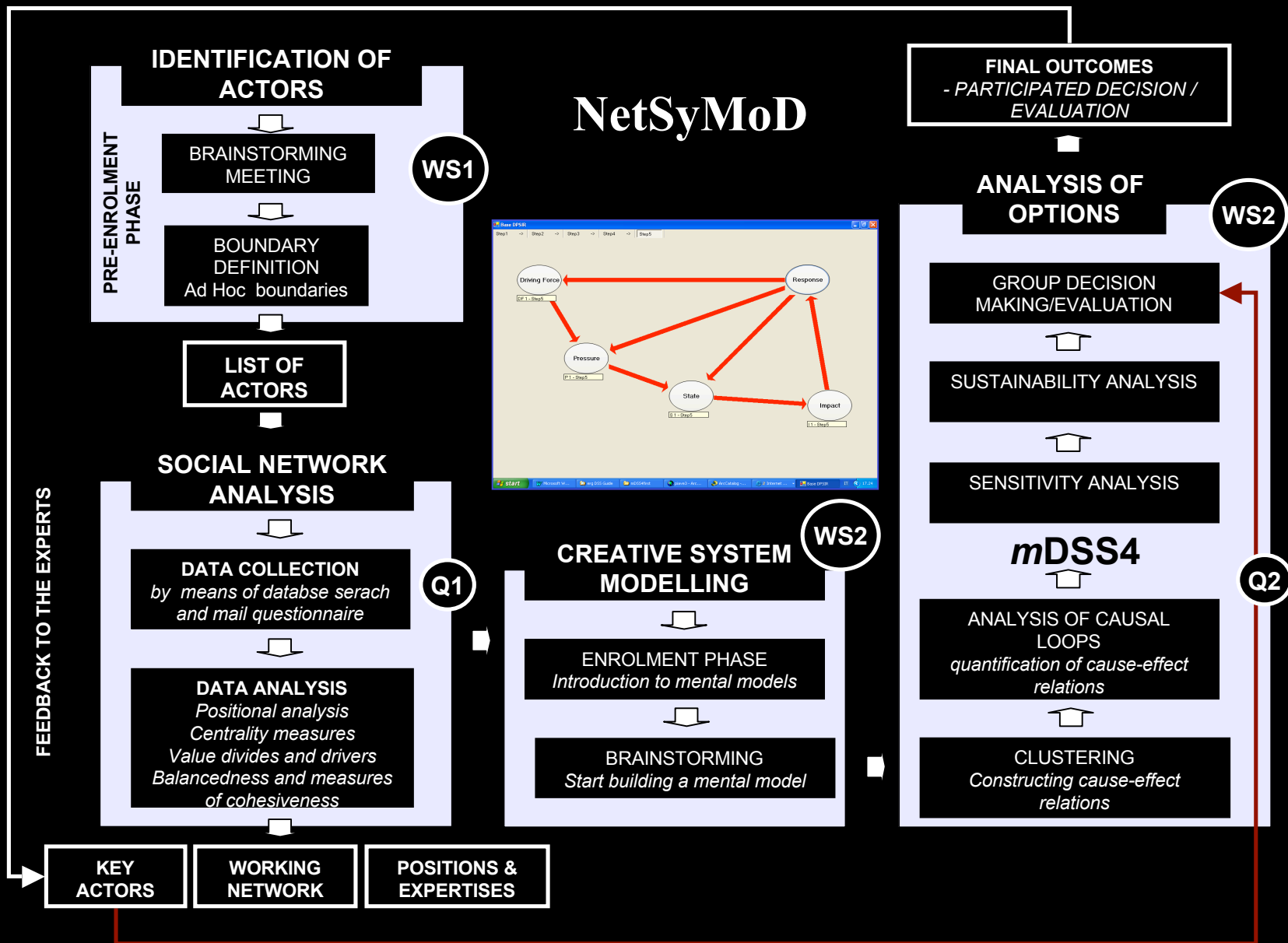
Uncertainty analysis  
Sensitivity analysis

# Framework for participatory model building - NetSyMod

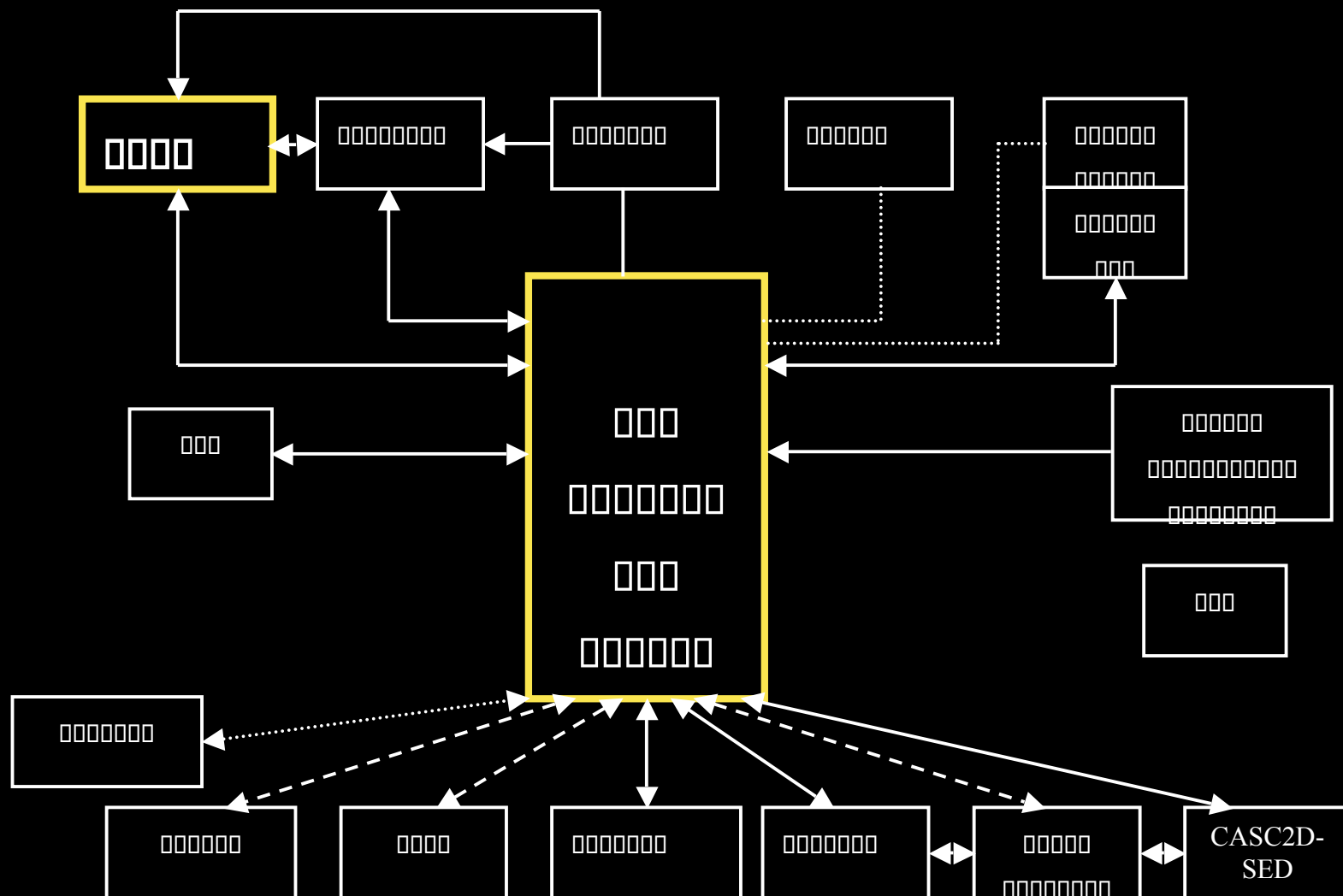


# Variety of methodological approach





# Coupling the DSS with other systems



# Human dimension and mobility in EU research and development

## **MARIE CURIE ACTIONS**

<http://cordis.europa.eu.int/fp6/mobility.htm>

# Marie Curie Actions

- Part of the Specific Programme for “**Structuring the European Research Area**”
- A coherent set of actions, largely based on the financing of **structured mobility schemes for researchers.**





- **Marie Curie Host-driven Actions**
  - Research Training Networks
  - Host Fellowships for Early Stage Research Training
  - Host Fellowships for the Transfer of Knowledge
  - Conferences and Training Courses
- **Marie Curie Individual-driven Actions**
  - Intra-European Fellowships
  - Outgoing International Fellowships
  - Incoming International Fellowships

- **Marie Curie Excellence Promotion and Recognition**
  - Excellence Grants
  - Excellence Awards
  - Chairs
- **Marie Curie Return and Reintegration Mechanisms**

# Number of applications and success rate

## Marie Curie Actions in 2003

Marie Curie Action		Proposals submitted	Eligible	Selected	Success rate
<i>Early stage training</i>					
Early stage training sites	EST	741	706	47	6,7%
Training networks	RTN	336	326	41	12,6%
Scientific conferences	SCF/LCF	347	316	31	9,8%
<i>Transfer of knowledge (Host fellowship)</i>					
	TOK IAP	33	30	13	43,3%
	TOK DEV	218	190	73	38,4%
<i>Advanced training (Individual fellowships)</i>					
Intra-european	EIF	1877	1672	394	23,6%
International outgoing	OIF	287	239	42	17,6%
International incoming	IIF	437	363	56	15,4%
<i>Excellence measures</i>					
Excellence teams	EXT	210	195	18	9,2%
Chairs	EXC	43	36	11	30,6%
Awards	EXA	87	84	5	6,0%
<i>Re-integration measures</i>					
European	ERG	126	120	113	94,2%
International	IRG	42	40	35	87,5%
<b>Total Marie Curie Actions</b>	<b>Total</b>	<b>4784</b>	<b>4301</b>	<b>874</b>	<b>20,30%</b>



# For more information see ...

[http://europa.eu.int/comm/research/fp6/mariecurie-actions/indexhtm\\_en.html](http://europa.eu.int/comm/research/fp6/mariecurie-actions/indexhtm_en.html)

## Marie Curie Actions Website

**Marie Curie Actions**  
Researchers Mobility Policy  
News  
Project Showcase  
Opportunities  
More Information

Welcome to the **Marie Curie Actions** Human Resources and Mobility Activity WEBSITE

Sixth Framework Programme

**Site mission**  
This website provides an overview of the training, mobility and career development opportunities covered under the EU's Sixth Framework Programme (FP6) for R&D. These opportunities are open to researchers of all ages and levels of experience regardless of nationality, and are one of the most visible means of developing and enhancing human resources in the European Research Area (ERA).

**Highlights**

- [Europe4Researchers](#), the newsletter about career development opportunities for researchers in the ERA.
- [European Charter for Researchers and Code of Conduct for the Recruitment of Researchers](#).
- Consult CORDIS website for information on the [progress of calls and the status of proposals](#), as well as guidance on how to apply, and how to manage your project.
- Visit the "[Marie Curie Funding Opportunities Search Tool](#)" for [fellowship vacancies](#) or funding opportunities for [attending conferences and training courses](#).
- [Other research opportunities](#) available on the [European Researcher's Mobility portal](#)

**What's new?**

**Events**

- [Marie Curie Awards 2005](#)  
**09 December 2005** - Dublin, the home of roving Irish laureates, played host to laureates of a different sort: the five winners of this year's Marie Curie Awards for mobile research excellence.
- [2006 - European Year of Workers' Mobility - Towards a European labour market](#)  
**28 October 2005** - Call for proposals open until 12 December 2005.
- [FP7 draws on 'people power'](#)  
**06 October 2005** - Researchers and their careers are at the heart of the Commission's Seventh Framework Programme (FP7). The dedicated "People" programme will seek to make Europe more attractive to researchers worldwide.  
last update: 12-12-2005
- [CNRS signature of the European Charter for Researchers](#)  
**16 December 2005, Brussels** - France's largest research organisation will commit itself to implementing the European Charter for Researchers and the Code of Conduct for their Recruitment in a ceremony attended by Commissioner Janez Potočnik.
- [Is there a European 'brain drain'? Doing more for research in Europe](#)  
**14 December 2005, Brussels** - The briefing will highlight the measures put in place to support researchers in Europe and to attract researchers from across the globe.

# For more information see ...

[http://europa.eu.int/eracareers/index\\_en.cfm?I1=16&CFID=1709134&CFTOKEN=6f60ba7c2788d208-2860882C-F96F-71F3-2BF23DDD7CB256FC](http://europa.eu.int/eracareers/index_en.cfm?I1=16&CFID=1709134&CFTOKEN=6f60ba7c2788d208-2860882C-F96F-71F3-2BF23DDD7CB256FC)

European Researcher's  
Mobility portal

The screenshot shows the Europe4Researchers website interface. On the left is a vertical navigation menu with the following items:

- Home
- Organisations
  - Registered Organisations
  - Post Research
  - Job Vacancies
  - Find the ideal candidate
- Researchers
  - Registered Users
  - Post your CV
  - Search for Research
  - Job Vacancies
- Visit the National Researcher's Mobility Portals
- Get personalised advice through the European Network of Mobility Centres
- Other career resources for European researchers
- Destination Canada. Get Moving! New Mobility Portal Online
- The European Charter for Researchers and the Code of Conduct for their Recruitment
- Provide us with feedback, suggest new links
- NEWSLETTER EUROPE 4 RESEARCHERS

The main content area is titled "EUROPE4RESEARCHERS/NEWSLETTER" and contains the following text:

Welcome to *Europe4Researchers* – a newsletter that aims to take a few occasional challenges of working and pursuing a career in research

Issue 2 - November 2005  
Issue 1 - September 2005

Subscribe to the Newsletter *Europe4Researchers*

If you have already registered on a Europa research mailing list:

Go to the ['Research Mailing Lists' page](#), enter your e-mail address and password. On the 'Your profile' page, select 'Add subscriptions' or 'Change subscriptions'. Check the box Newsletter 'Europe4Researchers', and save your choice.

If you have not registered on a Europa research mailing list:

Go to the ['Registration page'](#), enter your e-mail address and a password of your mail confirming your registration.  
Go to the ['Research Mailing Lists' page](#), enter your e-mail address and password. On the 'Your profile' page, select 'Add subscriptions'. Check the box Newsletter 'Europe4Researchers', and save your choice.

Disclaimer | [Contact](#)



# Marie Curie Fellowship Association

## Status

- An organisation of the current and former MC Fellows
- An international, non-profit organisation under Belgian law
- A multi- and interdisciplinary network of scientists

## AIMS

- to help advance science in Europe
- to be the voice of young scientists in Europe
- to encourage contacts/collaboration
- to foster a sense of **European identity**

# Links and contact addresses

**MARIE CURIE FELLOWSHIP ASSOCIATION**

Home  
 What's New  
 Contact Us  
 The Association  
 National Groups  
 Membership  
 Communication  
 Career Issues  
 Publications  
 Meetings  
 Miscellaneous

- Contractual issues
- Accommodation
- Useful addresses
- etc.

The welcome packs are usually written in close collaboration with the corresponding national contact points. A complete list of the national contact points in the fifth framework program is available at [http://www.cordis.lu/improving/stc/np\\_nsp.htm](http://www.cordis.lu/improving/stc/np_nsp.htm).

Additional information on your rights as a citizen of the European Community living in an EU country other than your own may be found on the [Dialogue with citizens and business](#) webpage.

If you are interested to contribute to the fellow guide in your country, please contact your national contact person or the corresponding national group co-ordinators. The welcome pack contact people have their own mailing list and can be contacted via the address [welpkt@chips.csb.ki.se](mailto:welpkt@chips.csb.ki.se)

The following table represents the current state and progress of the 'Fellow Guide' in the respective country:

Contact person	Available Formats	Update from
AT <a href="#">Cord Hockemeyer</a>	<a href="#">HTML</a>	July 1999
BE <a href="#">Rosalie Luiten, Karen Attenborough</a>	<a href="#">HTML</a> - <a href="#">PDF</a>	March 2000
CY <a href="#">George Papadopoulos</a>		
DK <a href="#">Lutz Reinhardt</a>	<a href="#">HTML</a> - <a href="#">MSWord67</a> <i>old documents !</i>	late 1996
FI <a href="#">Lutz Reinhardt</a>	<a href="#">HTML</a>	July 1999
FR <a href="#">Dagmar M. Meyer</a>	<a href="#">DVI</a> - <a href="#">PS</a> - <a href="#">HTML</a>	September 1999
DE <a href="#">Meinhard Ober</a>	<a href="#">HTML</a>	January 1999
GR <a href="#">Emilios Harlatis</a>	<a href="#">HTML (Greek)</a> - <a href="#">HTML (English)</a>	October 1998
IE <a href="#">Audrey Hobson</a>	<a href="#">MSWord67</a>	July 1999
IT <a href="#">Oscar Vives</a>	<a href="#">MSWord67</a> - <a href="#">PDF</a>	October 1999
NL <a href="#">Isabel de la Salamanca</a>	<a href="#">MSWord67</a> - <a href="#">postscript</a> - <a href="#">Lieux - steroflex (sdw)</a> - <a href="#">HTML</a>	November 1999
NO <a href="#">Dominique Durand</a>		
PT <a href="#">Manuela Mendes, Paulo Figueiredo</a>	<a href="#">HTML</a> - <a href="#">PDF</a>	June 1999
ES <a href="#">Javier Gilabert, Christine Heller</a>	<a href="#">HTML</a> - <a href="#">MSWord67</a>	September 1999
SE <a href="#">Sophie Maistrier-Patin</a>	<a href="#">HTML</a> - <a href="#">MSWord67</a> <i>old documents !</i>	February 1998
UK <a href="#">Ana M. Ceriteno Tarraga</a>	<a href="#">HTML</a> - <a href="#">MSWord67</a> - <a href="#">PDF</a>	January 1999

Please inform [Rainer M. Meier](mailto:Rainer.M.Meier), (board member responsible for local groups) about any updates, missing links or other relevant information to complete the table. Thank you!

**IMPACT OF GENETICS**  
 Dublin July 2001

[www.mariecurie.org](http://www.mariecurie.org)

[office@mariecurie.org](mailto:office@mariecurie.org)

Thank you for your attention!!

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and

[jaroslav.mysiak@mariecurie.org](mailto:jaroslav.mysiak@mariecurie.org)