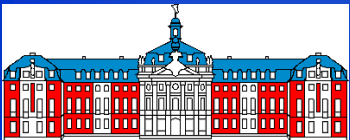


Stakeholder Involvement in Decision Making Processes

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<http://www.uni-muenster.de/Umweltforschung/medis/index.html>



MEDIS

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Introduction

- ◆ **Water management on Mediterranean islands faces significant problems due to increasing water scarcity**
- ◆ **Each island has its specific conditions and characteristics related to water availability and demand**
- ◆ **However, there are also various issues that are common to Mediterranean islands:**
 - ⇒ **isolation → impossibility to draw on distant or more diverse aquifers**
 - ⇒ **depletion of existing reservoirs → desalination as water source**
 - ⇒ **predominance of agriculture as main water consumer**
 - ⇒ **the threat of saline intrusions and the loss of freshwater to sea**
- ◆ **→ this offers the need/opportunity for generic solutions to water management strategies**
- ◆ **Such solutions are also pertinent in the context of the EU- *Water Framework Directive (WFD)***



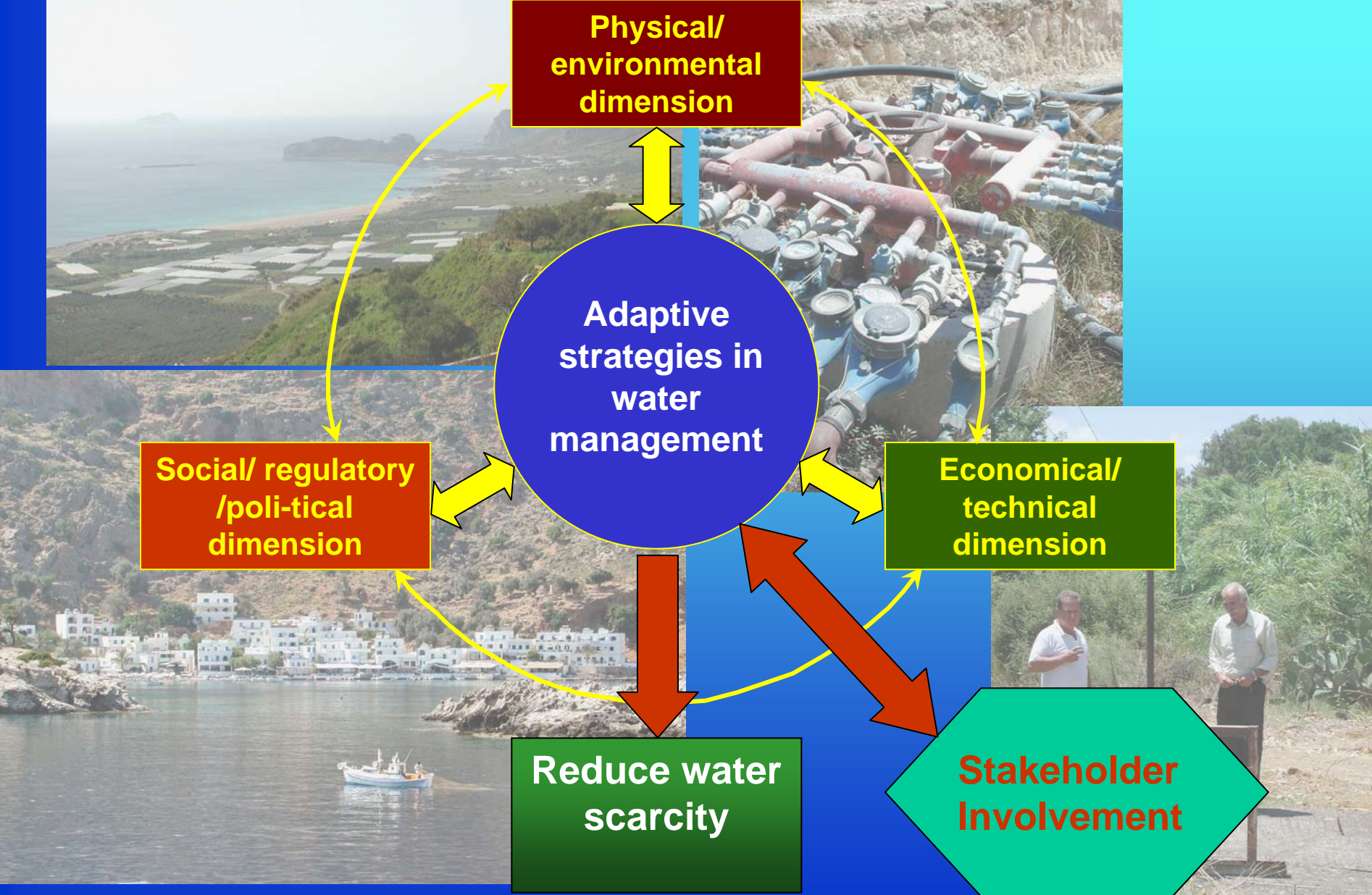
MEDIS

Introduction

- ◆ **Defining measures that are aimed to reduce water scarcity requires considerations of various aspects:**
 - ⇒ **Environmental, biophysical and natural-resource-oriented aspects**
 - ⇒ **Economical, procedural and technological aspects**
 - ⇒ **Political, administrative and institutional aspects**
- ◆ **Two important conditions have to be met in this regard:**
 - ⇒ **Considerations/investigations have to be carried out holistically, i.e., by taking into account all relevant aspects/disciplines**
 - ⇒ **Investigations should strive to involve all relevant stakeholders/actors as early as possible in the process**
 - ⇒ **The latter is in compliance with one of the important requirements of the Water Framework Directive: Ensuring an adequate public participation**

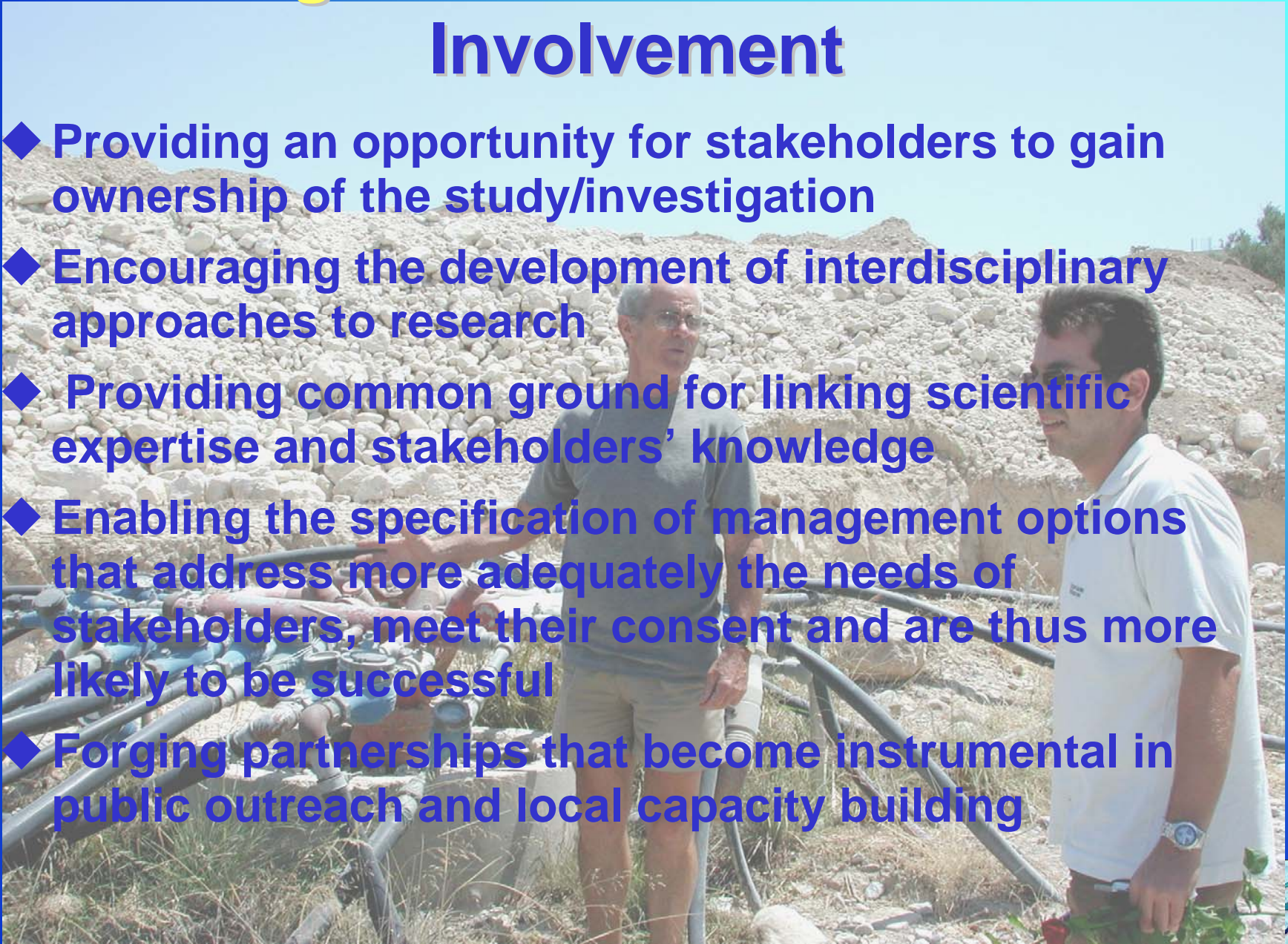


Introduction



Advantages of an Active Stakeholder Involvement

- ◆ Providing an opportunity for stakeholders to gain ownership of the study/investigation
- ◆ Encouraging the development of interdisciplinary approaches to research
- ◆ Providing common ground for linking scientific expertise and stakeholders' knowledge
- ◆ Enabling the specification of management options that address more adequately the needs of stakeholders, meet their consent and are thus more likely to be successful
- ◆ Forging partnerships that become instrumental in public outreach and local capacity building



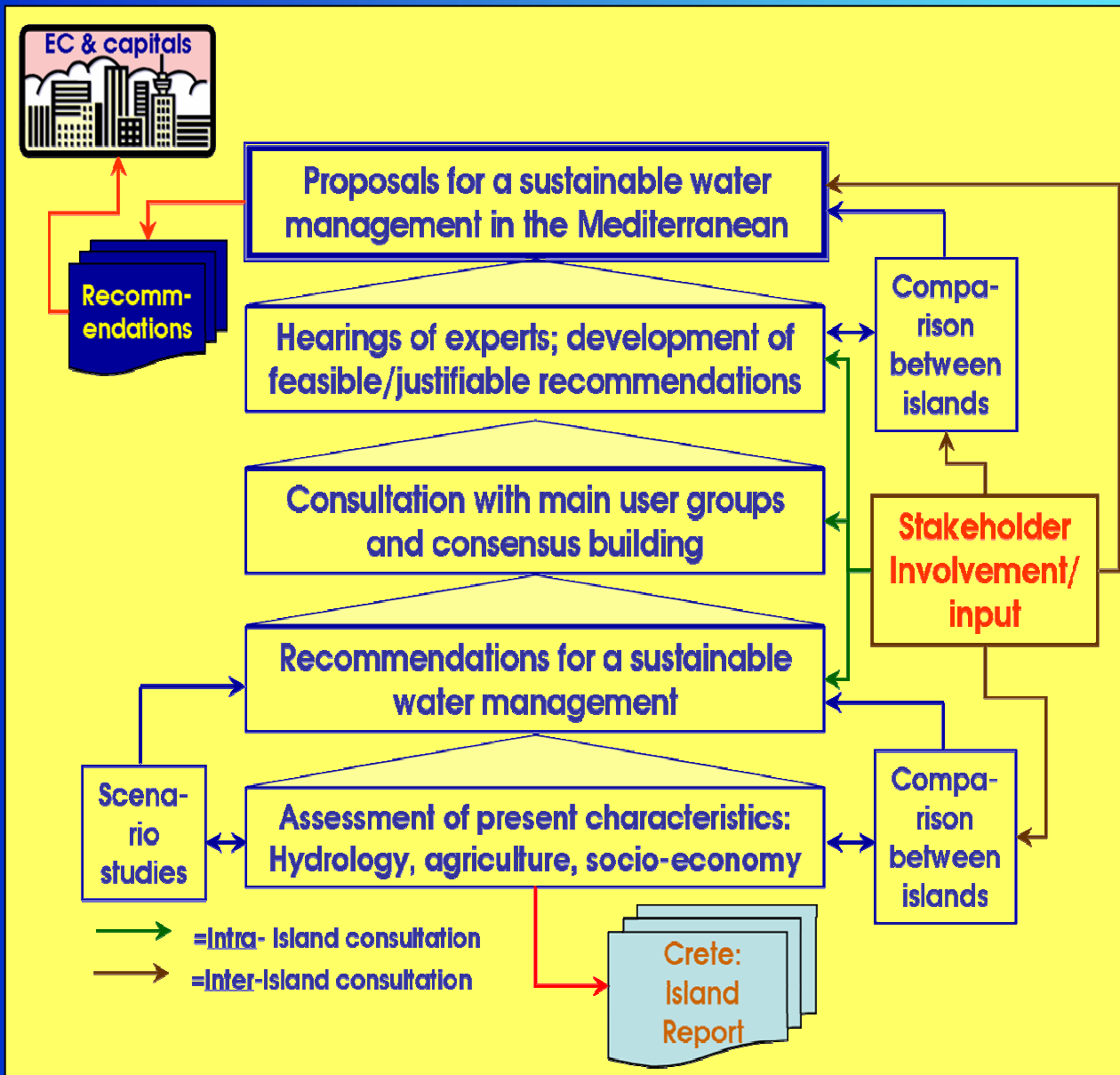
The MEDIS Project: Main Goal

◆ The overall goal of MEDIS is to

contribute towards the sustainable use of water on Mediterranean islands where conflicting demand for water is combined with a wide range of hydrological, social and economic conditions and to specify recommendations for the implementation of the EU-WFD



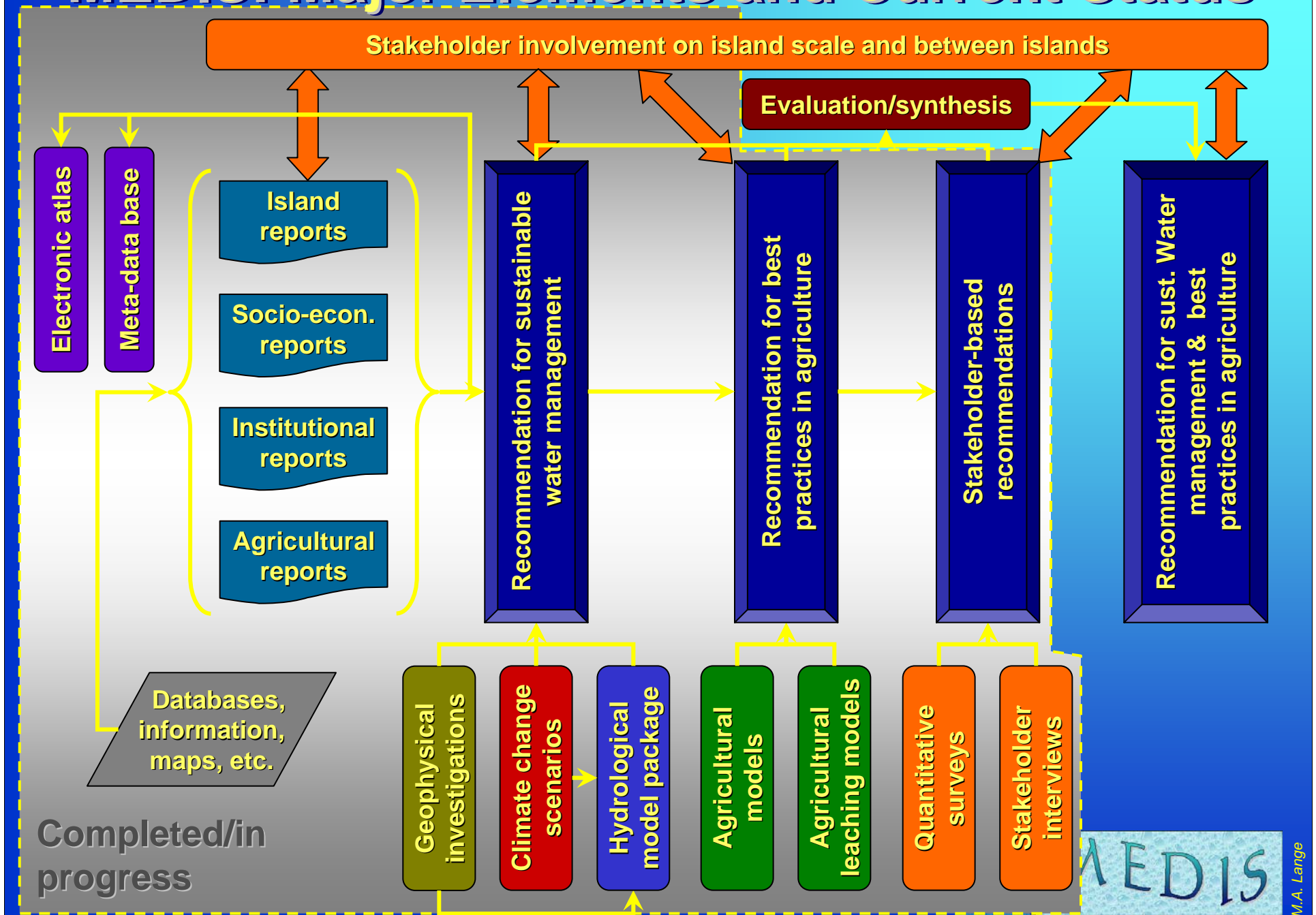
MEDIS: Objectives and Major Methodologies



MEDIS will

- ❖ concentrate on synthesis and integration of existing results
- ❖ seek to develop an infrastructure for participatory stakeholder involvement
- ❖ consider altered climatic conditions
- ❖ be carried out at a catchment-scale on: Mallorca, Corsica, Sicily, Crete and Cyprus
- ❖ concentrate on agriculture and
- ❖ carry out comparative analyses between the islands

MEDIS: Major Elements and Current Status



Stakeholder Involvement/Consultation

- ◆ In order to facilitate an adequate involvement of stakeholders in MEDIS, we employ a number of methods:
 - ⇒ qualitative interviews with stakeholders and experts
 - ⇒ representative surveys (quantitative interviews) involving relevant stakeholder groups
 - ⇒ Intra-island workshops (workshops involving stakeholder groups on a single island)
 - ⇒ Inter-island workshops (workshops involving stakeholder groups from different island)
 - ⇒ an ongoing dialogue amongst stakeholders and between stakeholders and scientists, thus facilitating mutual, cross-cultural learning and synergies

Stakeholder-Scientist Dialogues*

- ◆ As part of our Inter-Island Workshop on Corsica, a structured dialogue between stakeholders and scientists from each of the islands was facilitated
- ◆ Each group was given the task to evaluate various adaptation/mitigation options to reduce water scarcity and to estimate the impacts of these options on a number of economic and societal sectors/concerns, i.e., agriculture, tourism, industry, environmental-, societal- and economical
- ◆ While each group had to come up with their own adaptation/mitigation options, the impacts had to be ranked from 1 to 5 and from -1 to -5 for low to high levels of impact, respectively; no impact was given the grade 0

*)These dialogues were designed and facilitated by Anna Maria Giacomello and Dr. Antonia Donta



MEDIS

Stakeholder-Scientist Dialogues

SICILY

		POSSIBLE SOLUTIONS TO THE PROBLEM					
		A	B	C	D	E	
		RECYCLING REUSE	WATER LOSS REDUCTION	WATER PRICES INC.	WATER DISTRIBUTION DEMAND	ONE AUTHORITY FOR CAPITAL	
AGRICULTURE	Farm income	2	1	-2	5	1	0
	Number employed in agriculture	1	1	-1	1	0	0
	QUALITY OF LIFE				5	5	-1
TOURISM	Tourism profit	2	1	-3	0	0	0
	Number employed in tourism	1	1	-1	0	0	0
INDUSTRY	Industrial profit	2	1	-1	0	0	0
	Number employed in industry	0	1	-1	0	0	0
ENVIRONMENT	Change in wetlands degradation	0	0	0	0	0	0
	Quality of aquatic habitats	4	0	0	0	0	0
	Water availability	4	3	+3	1	0	+3
	Water quality	3	3	+1	0	0	+1
	SOIL DEGRADATION	-5	0	0	0	0	0
SOCIETY	Domestic users' income	1	-2	2	0	0	0
	Recreation	1	0	0	0	0	1
	Rural traditional knowledge	5	0	-2	0	0	0
	Social cohesion	3	2	-4	0	5	2
Water Authority	Water treatment cost	-3	0	0	0	0	0
	Water companies capital costs	-3	-5	4	0	0	-1
Island economic vulnerability	Island economic vulnerability	4	5	-2	0	0	+2
	Cost of implementing the scheme	4	5	0	0	0	-1

WATER SAVING & GROWING



1 = low level of positive impact
 -1 = low level of negative impact
 0 = impact is not applicable

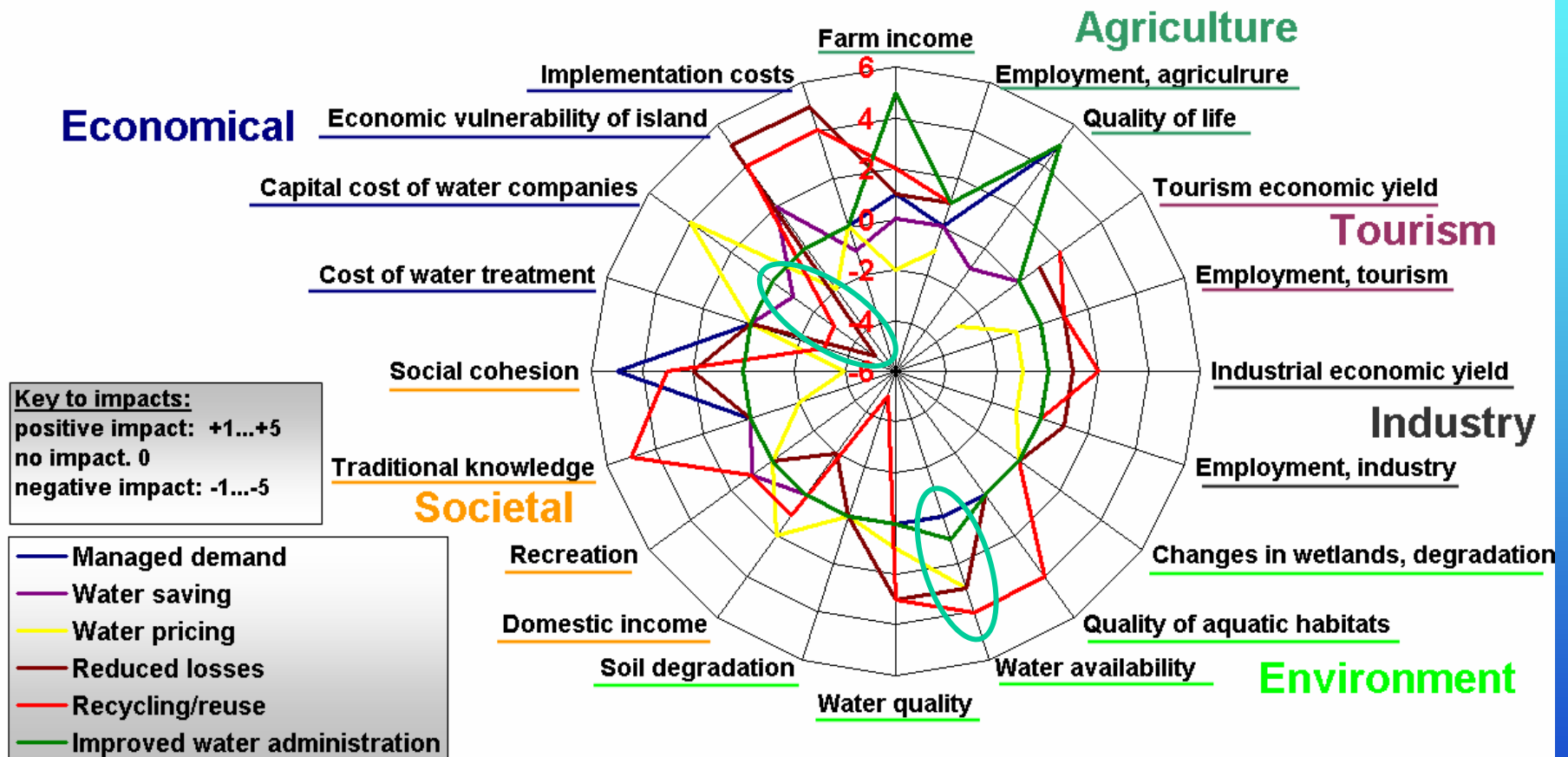
5 = high level of positive impact
 -5 = high level of negative impact



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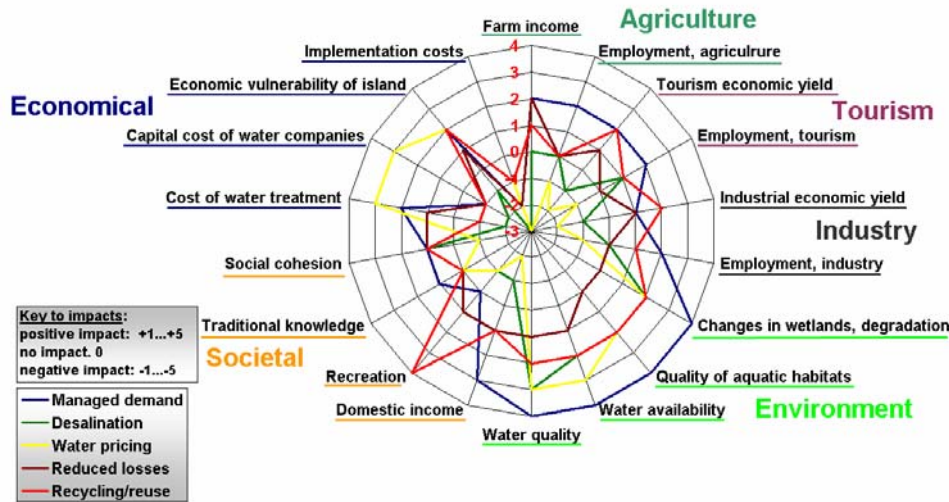
Stakeholder-Scientist Dialogues

Adaptation strategie to water scarcity: Sicily

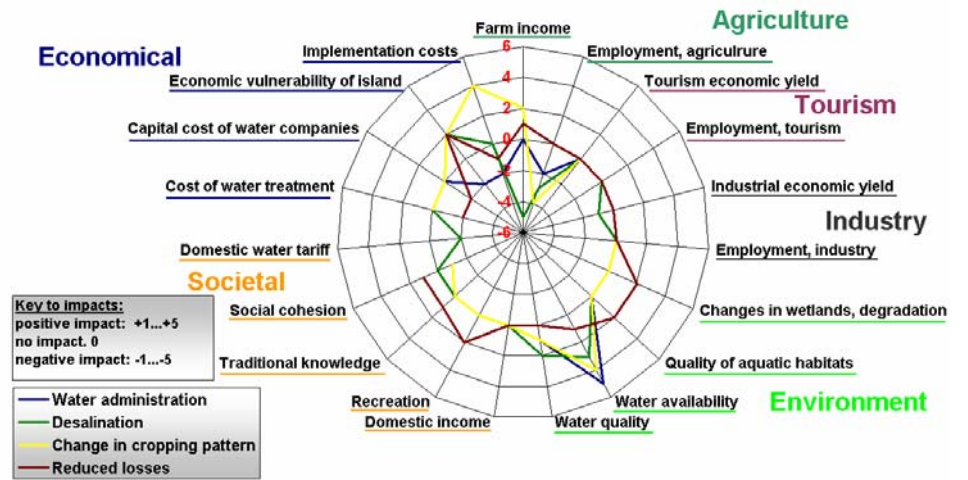


Stakeholder-Scientist Dialogues

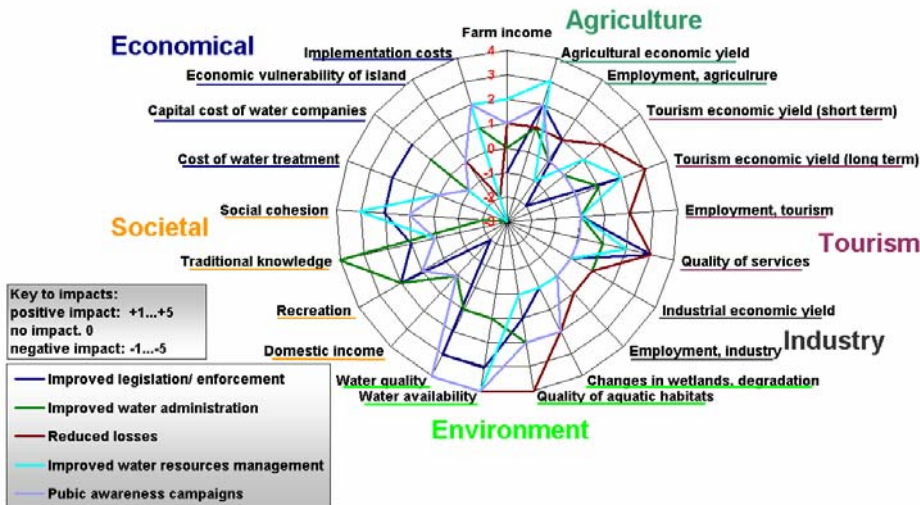
Adaptation strategies to water scarcity: Mallorca



Adaptation strategy to water scarcity: Cyprus



Adaptation strategies to water scarcity: Crete



Each group came up with a number of distinct but also some common measures. Including: reduced losses in distribution network (all), improved water administration (3), desalination (2), managed demand (2), water pricing (2), recycling/reuse (2),

Challenges of an Active Stakeholder Involvement

◆ The effective involvement of stakeholders faces a number of challenges:

- ⇒ Identification of 'suitable' stakeholders in sufficient numbers and ready to get involved
- ⇒ Their persistence throughout the process and their willingness to 'invest' into the process
- ⇒ The interest and enthusiasm of scientists to equally 'invest' and to spend significant time and effort in doing so
- ⇒ The readiness of stakeholders to engage in an open dialogue with scientists and amongst themselves that may challenge their own positions and opinions
- ⇒ Their willingness to openly share their experiences and expertise
- ⇒ Changes in stakeholders' institutions/positions which may interrupt their continued involvement



Conclusions

- ◆ **Specifying recommendations for a sustainable and equitable water management is inconceivable without an adequate involvement of stakeholders**
- ◆ **Stakeholder involvement offers a number of significant advantages but also faces considerable challenges**
- ◆ **There are various methods and approaches which may be employed**
- ◆ **Within MEDIS, stakeholders are involved during the entire process of deriving policy options/ recommendations**
- ◆ **An exchange of ideas in an open dialogue between stakeholders and scientists offers unique opportunities for mutual, cross-cultural learning and synergies**



Thank you for your attention

Information on MEDIS can be found at:
<http://www.uni-muenster.de/Umweltforschung/medis/index.html>

