



**MENBO** Mediterranean Network of Basin Organisations  
**REMOB** Réseau Méditerranéen des Organismes de Bassin  
**REMOC** Red Mediterránea de Organismos de Cuenca

# **Mediterranean White Paper on Water**



## **PROJECT PROPOSAL**

**Mr. Teodoro Estrela**  
Permanent Technical Secretary  
Mediterranean Network of Basin  
Organisations



## OVERALL OBJECTIVE



**A tool to facilitate the integrated water resources management and the decision making in the Mediterranean region, through an integrated reference document on water access, availability, protection, quality, governance, management and environmental issues.**



## TERRITORIAL SCOPE (v1)



### PHASE 1

#### Pilot countries

Jordan

Lebanon

Monaco

Morocco

Spain

Tunisia

**TOTAL : 15 countries**

### PHASE 2

Algeria

Bosnia-Herzegovina

Croatia

Egypt

France

Greece

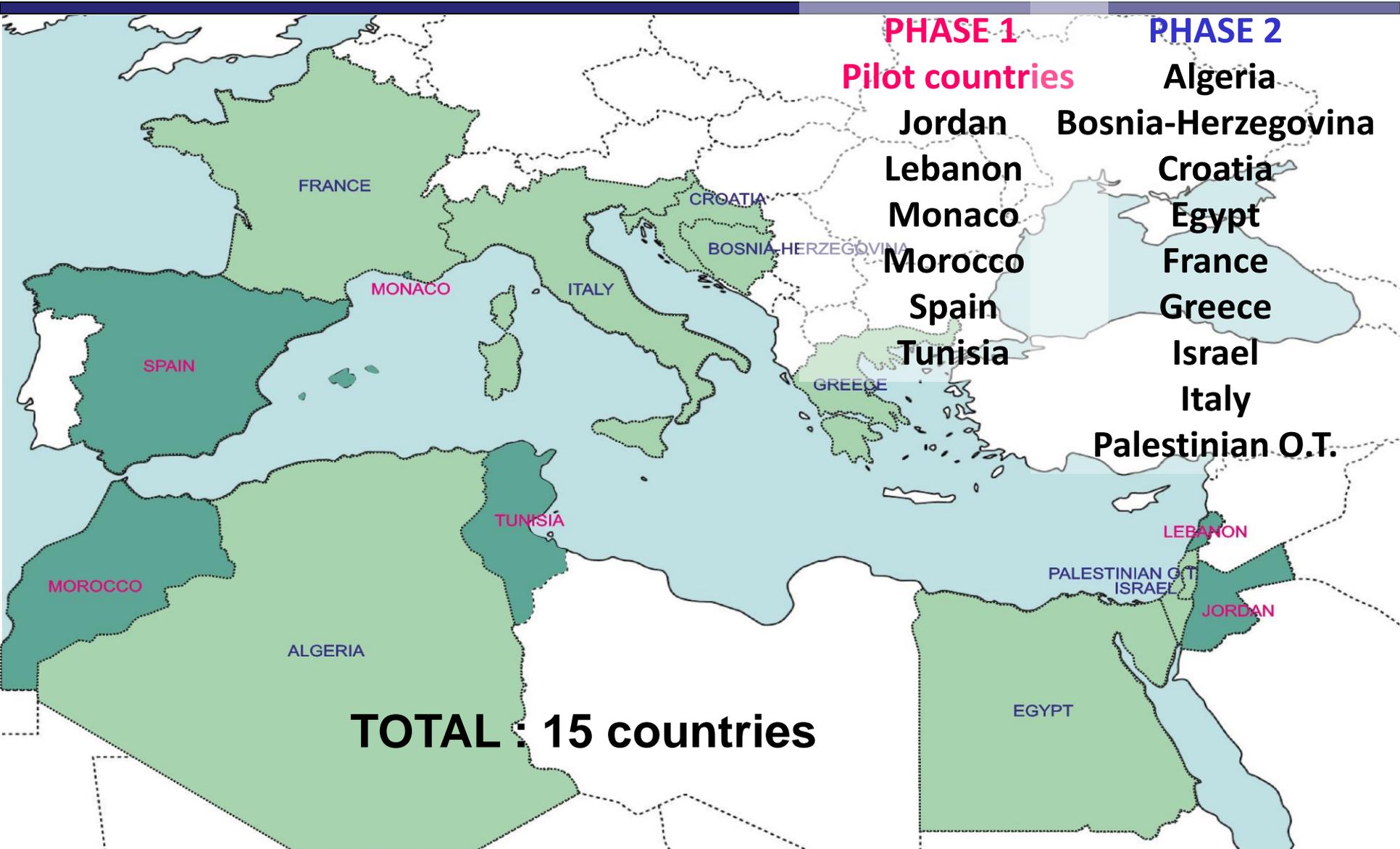
Israel

Italy

**Palestinian O.T.**



# TERRITORIAL SCOPE(v2)





# AVAILABLE BIBLIOGRAPHY AND SCOPE OF EXISTING PUBLICATIONS

Many publications are available and will serve as reference. Data will be updated and quality aspects will be taken into account. Special focus will lay on forecast for the next decades.

Examples are:

- Long-term Strategy for Water in the Mediterranean. UfM, 2010.
- 10 Papers for Barcelona 2010. IEMed, 2010.
- IME (2010). Rapport régional sur la gestion des sédiments dans les barrages en Méditerranée (Atelier régional sur la conception et la gestion durable des barrages en Méditerranée, Marseille, Décembre 2010).
- Regional Documents of the V World Water Forum. 2009
- BP, (2009). UNEP/Mediterranean Action Plan- Blue Plan: State of the Environment and Development in the Mediterranean. UNEP/MAP-Plan Bleu (BP/RAC).
- UN (2009). United Nations Development Programme , Regional Bureau for Arab States. Arab Human Development Report 2009. Challenges to Human Security in the Arab Countries. Alarm SARL.
- Iglesias A. et al. (2007). Challenges to manage the risk of water scarcity and climate change in the Mediterranean. Water resources management (21), (pp. 775-788).
- European Commission – Environment (2007). Mediterranean groundwater report. Technical report on groundwater management in the Mediterranean and the Water Framework Directive.



# THE MEDITERRANEAN CASE CHARACTERISTIC PROBLEMS (v2)



- **Pressures** by population growth → environmental problems.
- Rich in ecosystems and **vulnerable**: deforestation, soil erosion, desertification.
- **Irregular** distribution in time and space → limiting factor for economic activity, development and food production
- **Main water-related problems**: scarcity, irregular distribution, pollution, conflicts between demand sectors, overexploitation of aquifers, seawater intrusion, exhaustion of groundwater in the Maghreb
- **Climate change** aggravate problems → droughts, floods...
- **Policy tools** not fully developed



## THE MEDITERRANEAN CASE CHARACTERISTIC PROBLEMS (V.O.)

- Pressures produced by population growth, tourism and urban development provoke environmental problems.
- Rich in ecosystems and vulnerable due to pressures and related environmental problems: water scarcity, deforestation, soil erosion
- Irregular distribution in time and space. It is very scarce with limited availability of quality and quantity, converting it in a limiting factor for economic activity, development and food production
- Main water-related problems: scarcity, irregular distribution, high point source and diffuse pollution, conflicts between demand sectors, regions and countries, overexploitation of aquifers, causing seawater intrusion in coastal zones, ...
- Droughts, floods, degradation of hydraulic infrastructures and climate change aggravate problems and increase social, environmental and management problems.



## ADDED-VALUE

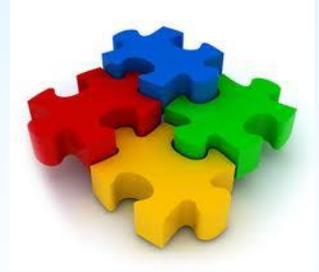


- **Decision support mechanisms** required to face challenges on water
- Adaptation to **new needs**: social, economic transformations and environmental prerogatives
- Regional reference framework for **more efficient dialogue** between **stakeholders**
- **Foundation** upon which **national and regional dialogues** could be based
- **Reference material** for the politics, development and administration of sustainable and **integrated water resources management**



## BENEFICIARIES and LONG-TERM BENEFITS

- National and local water authorities
- Public and private project promoters
- Governmental bodies (Ministries of Environment, Agriculture, Health...)
- Regional or International organisations compiling water-related data
- Civil society and economic activities due to successful water management
- Mediterranean “networks”, donors could take advantage of the vision delivered by MWPW.





# CONTENT OVERVIEW



- I. Foreword
- II. Introduction and summarising remarks on the current status of key water issues and management practices in the Mediterranean and the related overall challenges to be met by the White Paper
  1. Description of mandate
  2. Description of methodology
  3. List of existing documents, agreements and studies that serve as a basis for water governance in the region and that are taken into account when drafting the White Paper
  4. Main analysis (see following slides)
  5. Recommendations for a suitable water management and further action in the region

**Annex: Quantitative and qualitative indicators.**



## MAIN ANALYSIS – CHAPTER 4



- 4.1 Natural water **resources**, surface and groundwater, environmental and / or geopolitical restrictions and the available resources, including non-conventional sources, access to sanitation, impact of activities on water quality and aquatic life in the overall water cycle. Effects of the **climate change** in the rain models, temperature raising
- 4.2 Water use and **demand** scenarios (urban and agricultural water supply, industry, hydropower, tourism...), pollutants and hazardous substances, economic characterisation and water footprint.
- 4.3 Hydrological **infrastructures**: regulation and hydropower dams, channels, depuration, irrigation, inter-basin transfers. Impact on environment.
- 4.4 Water **balances**, including availability and water stress indicators, status of surface and groundwater bodies, relation between main pressures and impact.

Chapters 4.3 and 4.4 will take in mind water quality, ecological issues and other pressures such as hydro morphological reclamation, etc.





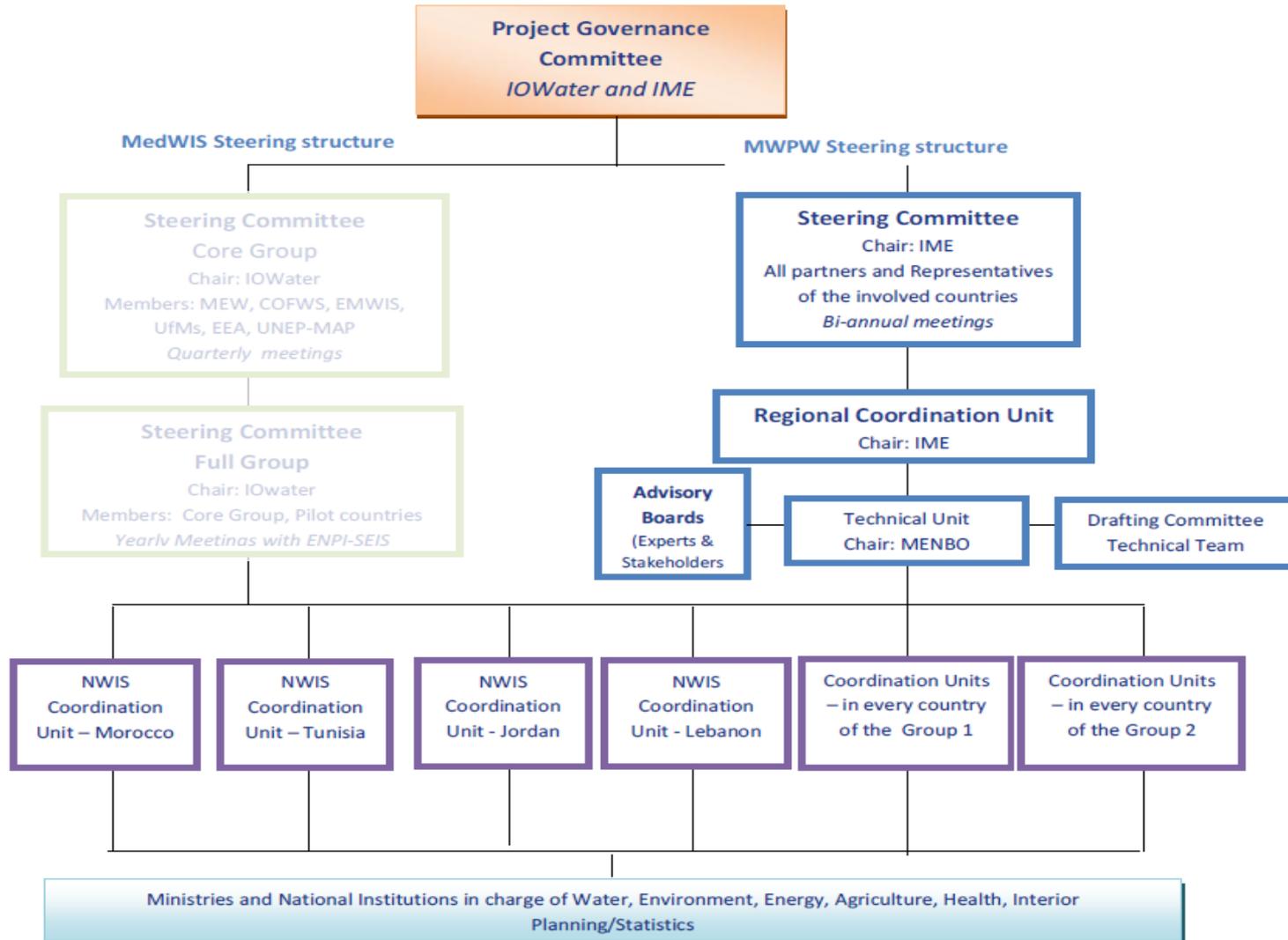
## MAIN ANALYSIS – CHAPTER 4, cont.



- 4.5 **Extreme events** (droughts – floods) and **climate change**.
- 4.6 Management and **planning instruments**: institutions and legal framework, water management organisation in countries and regions, planning tools and economic instruments, European and Mediterranean policies and international agreements.
- 4.7 Future **challenges**: satisfaction of water demand, protection of water bodies, food safety, social, political-military and territorial conflicts, participatory processes regarding information access and decision making, impact on the sea, climate change, human health, sustainable development based on green economy.
- 4.8 New **technologies and R&D**: monitoring networks, information sources and databases, water information exchange processes, technological advances, water-food-energy nexus, investment priorities and R&D programs.



# PROJECT GOVERNANCE





## RISKS and ASSUMPTIONS



- Timely availability of **funds**
- Availability of **reliable data** (but it is expected that NWIS through NCUs in pilot countries will improve the situation during the course of the project )
- Social and political **stability** in the region with government structures in place and functioning
- At the end of MWPW sub-project, it is expected that countries, river basin authorities and regional entities **will use indicators and recommendations** from the MWPW **to start up planning processes** and water governance structures revisions ; to plan their scenarios for the achievement of their main challenges on water management and to elaborate their national water planning documents.



## MONITORING - Key indicators



<b>Indicators foreseen</b>	<b>Sources of verification</b>
<ul style="list-style-type: none"><li>•Number of NCUs identified</li><li>•National Coordination Unit set up in each country</li><li>•Number of Indicators, graphs or maps defined</li><li>•Number draft chapters completed</li><li>•Number of countries approved the final document</li><li>•Number of book edited / distributed</li><li>•Mid and long term: Number of national water planning documents elaborated in each country in the next five-year periods</li></ul>	<ul style="list-style-type: none"><li>•NCU ToRs validated</li><li>•Local meetings and annual country visits</li><li>•Sub-project documents</li><li>•Steering committee meetings</li><li>•Survey (ex-post)</li></ul>





## Provisional BUDGET



<b>A. REGIONAL ACTIVITIES (€)</b>	<b>2.995.000</b>
• Experts/information fees	2.134.000
• Meetings	386.000
• Translations/publication costs	125.000
• Overheads	250.000
• Miscellaneous und unforeseen	60.000
<b>B. NATIONAL ACTIVITIES</b>	<b>645.000</b>
<b>GENERAL TOTAL</b>	<b>3.600.000 €</b>



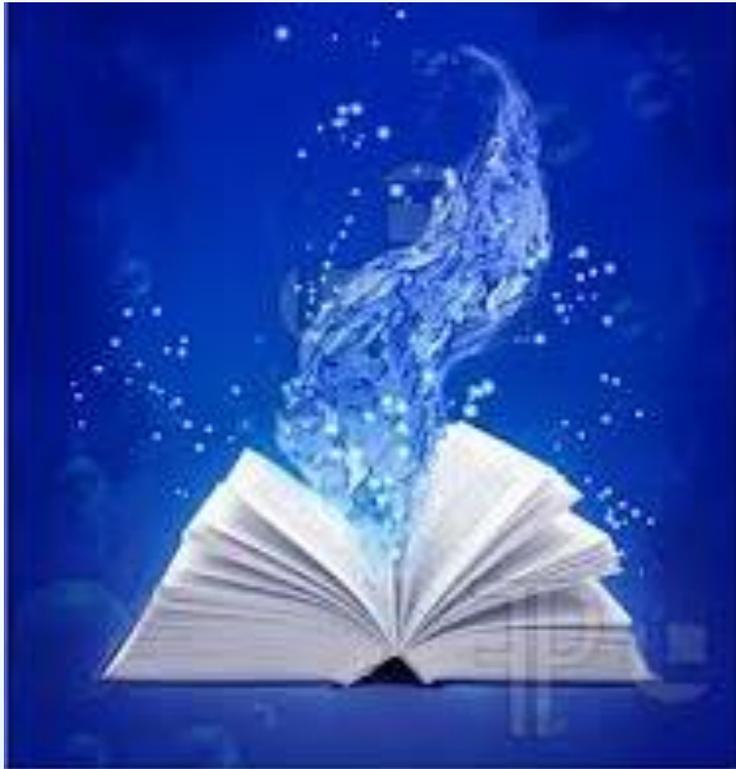
# Provisional BUDGET (details)



Items	Total	Phase 1		Phase 2	
		2 014	2 015	2 016	2 017
<b>A. REGIONAL ACTIVITIES</b>	<b>2 955 000</b>	<b>950 600</b>	<b>868 100</b>	<b>582 600</b>	<b>553 700</b>
<b>Experts/Information Fees</b>	<b>2 134 000</b>	<b>730 100</b>	<b>735 600</b>	<b>442 100</b>	<b>226 200</b>
Experts/Chapter authors	1 096 000	383 600	383 600	246 600	82 200
Internal experts	350 000	125 000	112 500	50 000	62 500
Outside experts	330 000	120 000	150 000	60 000	0
Coordination/Management	180 000	45 000	45 000	45 000	45 000
Technical Unit	130 000	32 500	32 500	32 500	32 500
Information/Website	48 000	24 000	12 000	8 000	4 000
<b>Meetings</b>	<b>386 000</b>	<b>138 000</b>	<b>50 000</b>	<b>63 000</b>	<b>135 000</b>
Kick off meeting	65 000	65 000			
SC/DC Meetings	80 000	20 000	20 000	20 000	20 000
Final Conference	100 000				100 000
Additional SC Meetings	36 000	18 000	0	18 000	0
Additional DC Meetings	50 000	15 000	15 000	10 000	10 000
Other meetings	55 000	20 000	15 000	15 000	5 000
<b>Translation/Publication Costs</b>	<b>125 000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>125 000</b>
Layout costs	8 000				8 000
translation in 2 languages	18 000				18 000
printing in 3 languages	80 500				80 500
Mail costs	8 600				8 600
CD-Rom	9 900				9 900
<b>Overheads</b>	<b>250 000</b>	<b>62 500</b>	<b>62 500</b>	<b>62 500</b>	<b>62 500</b>
<b>Miscellaneous and unforeseen</b>	<b>60 000</b>	<b>20 000</b>	<b>20 000</b>	<b>15 000</b>	<b>5 000</b>
<b>B. NATIONAL ACTIVITIES</b>	<b>645 000</b>	<b>210 500</b>	<b>210 500</b>	<b>112 000</b>	<b>112 000</b>
Capacity Building, IT assistance ...	280 000	93 000	93 000	47 000	47 000
NFP mission	240 000	80 000	80 000	40 000	40 000
NFP/Country visits (annual)	125 000	37 500	37 500	25 000	25 000
<b>General total</b>	<b>3 600 000</b>	<b>1 161 100</b>	<b>1 078 600</b>	<b>694 600</b>	<b>665 700</b>
<i>Total Regional Activities</i>	<i>645 000</i>	<i>421 000</i>		<i>224 000</i>	
<i>Total National Activities</i>	<i>2 955 000</i>	<i>1 818 700</i>		<i>1 136 300</i>	
<b>Total per Phase</b>		<b>2 239 700</b>		<b>1 360 300</b>	



# Mediterranean White Paper on Water



**Thank you  
for your attention!**

**Contact:**

[teodoro.estrela@chj.es](mailto:teodoro.estrela@chj.es)

[remoc@chj.es](mailto:remoc@chj.es)