

SWIM and Horizon 2020 Support Mechanism

Working for a Sustainable Mediterranean, Caring for our Future

SWIM-H2020 SM Regional Activities

Elements of environmental performance audit

Presented by:

Mr. Arnulf SCHÖNBAUER,

SWIM and Horizon 2020 SM REG 11 – regional on-site

2nd October 2018, Brussels, Belgium

This Project is funded by the European Union



umweltbundesamt

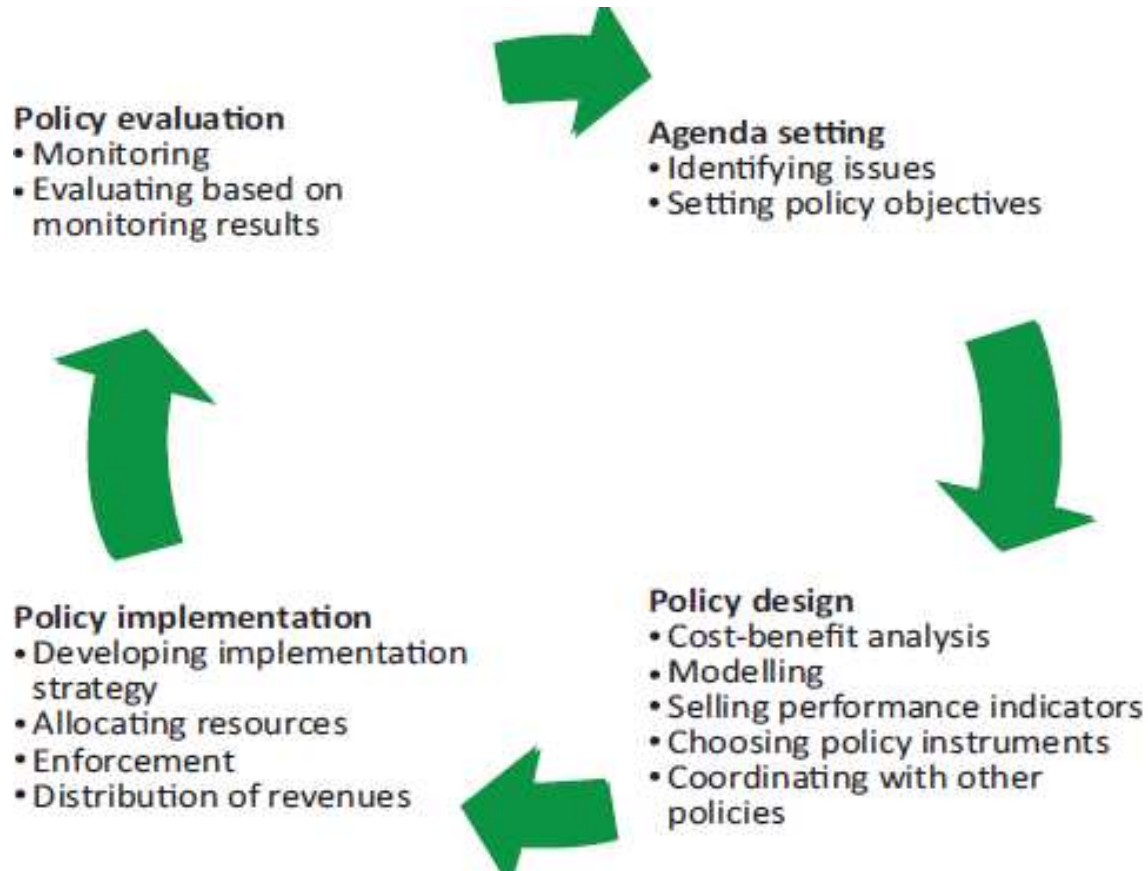
ATKINS

Performance Audit

Performance Audit is an **independent**, objective and reliable examination of whether undertakings, systems, operations, programmes, activities or organisations are operating in accordance with the principles of **economy, efficiency and effectiveness**, and whether there is room for improvement.

Source: ISSAI 3000, Fundamental Principles of Performance Auditing, INTOSAI

Policy Design Circle



Source: Market Based Instruments for Environmental Protection and Management, INTOSAI Working Group on Environmental Auditing

Supreme Audit Institutions in Participants Countries

Algeria:	Cour des Comptes
Egypt:	Accountability State Authority (ASA)
Israel:	State Comptroller's Office
Lebanon:	Cour des Comptes
Libya:	Libyan Audit Bureau
Jordan:	Audit Bureau
Palestine:	State Audit and Administrative Control Bureau
Morocco:	Cour des Comptes
Tunisia:	Cour des Comptes

Environmental Performance Audit

Why should environmental (water) undertakings, systems, operations, programmes, activities or organisations be audited?

Selecting audit topic

- ❖ Risk analysis
- ❖ Is the issue auditable?
- ❖ Are capacity needed for the audit available?

Performance audit & financial and compliance audit

Aspects	Performance audit	Financial and compliance audit
Purpose	Assess whether funds have been used with economy, efficiency, effectiveness	Assess whether financial operations have been legally and regularly executed and accounts are reliable
Focus	Policy, programme, organisation, activities and management syst.	Financial transactions, accounting and key control
Academic basis	Economics, political science, sociology etc.	Accountancy and law

Source: *Performance Audit Manual, Directorate of Audit Quality Control, European Court of Auditors*

Performance audit & financial and compliance audit

Aspects	Performance audit	Financial and compliance audit
Methods	Vary from audit to audit.	Standardised format
Criteria	More open to the auditors' judgement. Unique criteria for the individual audit	Less open to the auditors' judgement. Standardised criteria set by legislation and regulation for all audits
Reports	Special report published on an ad hoc basis. Varying structure and content, depending on objectives	Annual report. More or less standardised

Source: *Performance Audit Manual, Directorate of Audit Quality Control, European Court of Auditors*

Concept of the 3 E's

Economy

The principle of economy means **minimising the costs of resources**. The resources used should be available in due time, in and of appropriate quantity and quality and at the best price.

Source: ISSAI 3000, Fundamental Principles of Performance Auditing, INTOSAI

Concept of the 3 E's

Efficiency

The principle of efficiency means **getting the most from the available resources**. It is concerned with the relationship between resources employed and outputs delivered in terms of quantity, quality and timing.

Source: ISSAI 3000, Fundamental Principles of Performance Auditing, INTOSAI

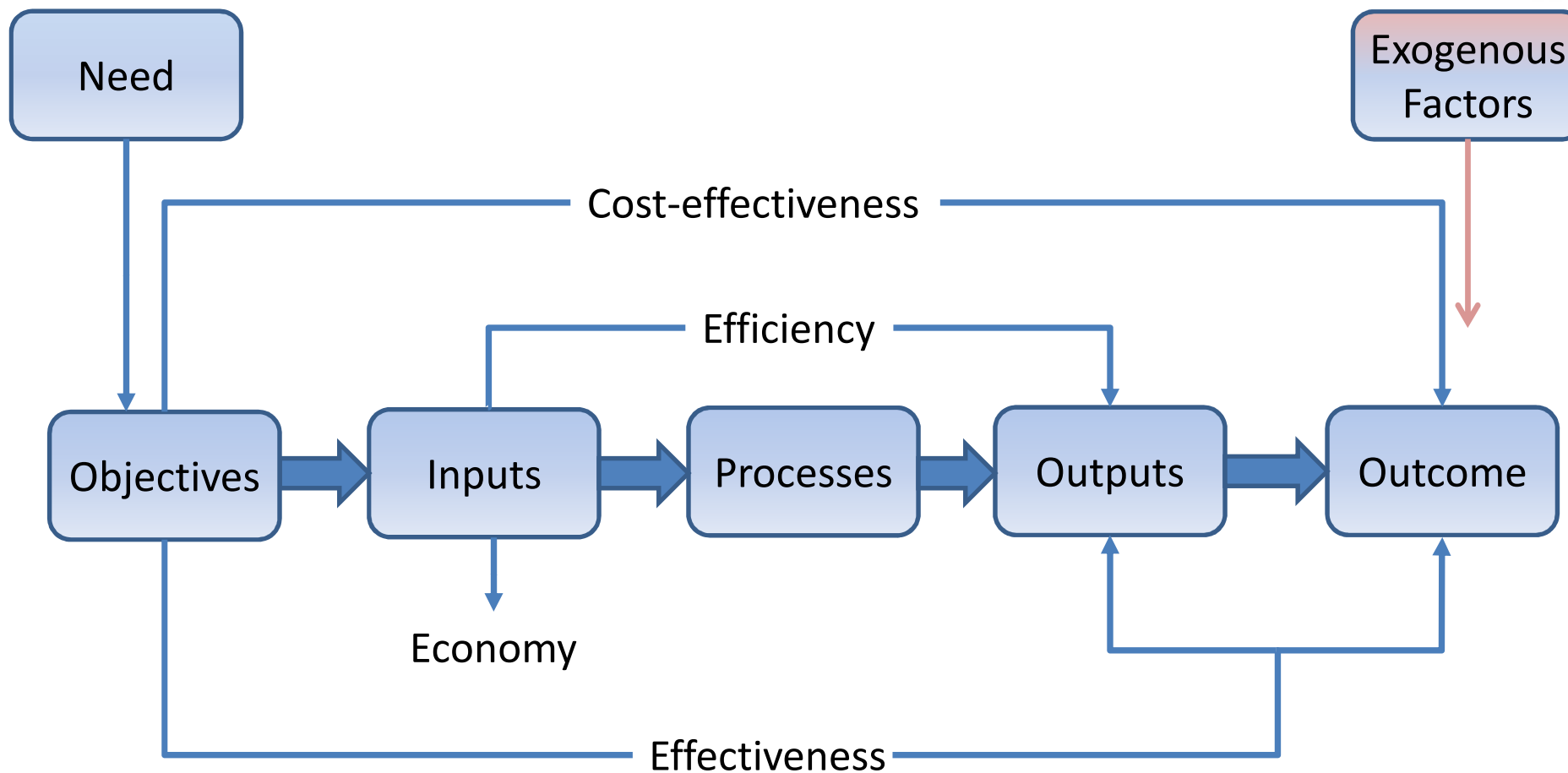
Concept of the 3 E's

Effectiveness

The principle of effectiveness concerns **meeting the objectives** set and achieving the intended results

Source: ISSAI 3000, Fundamental Principles of Performance Auditing, INTOSAI

Concept of the 3 E's



Source: Performance Audit Manual, Directorate of Audit Quality Control, European Court of Auditors

Concept of the 3 E's

Equity and performance auditing

This describes the principle that **everyone** should be able to **exercise their civil rights** and their political and social rights.

Source: ISSAI 3100, Guidelines on Central Concepts for Performance Auditing, INTOSAI

Steps of an performance audit

- ❖ **Planning**, i.e. selection of topics, pre-study and audit design;
- ❖ **Conducting**, i.e. collecting and analysing data and information;



Source: Fundamental Principles of Performance Auditing, ISSAI 300, INTOSAI

Steps of an performance audit

- ❖ **Reporting**, i.e. presenting the outcome of the audit: answers to the audit questions, findings, conclusions and recommendations to users;
- ❖ **Follow-up**, i.e. determining whether action taken in response to findings and recommendations has resolved the underlying problems and/or weaknesses.

Source: Fundamental Principles of Performance Auditing, ISSAI 300, INTOSAI

Evidence collection plan

Audit Questions	Level 2 questions	Level 3 questions	Level 4 questions	Criteria	Evidence	Evidence sources	Data collection methods	Data analysis methods
WHAT DO WE WANT TO KNOW?				WHAT STANDARD DO WE MEASURE AGAINST?	WHAT EVIDENCE WILL ANSWER THE QUESTION?	WHERE ARE WE GOING TO GET THE EVIDENCE?	HOW ARE WE GOING TO GET THE EVIDENCE?	WHAT WILL WE DO WITH IT ONCE WE GET IT?
<ul style="list-style-type: none"> - Answers can be yes, no, yes but, or no but. - Answerable - Logical 				<ul style="list-style-type: none"> - Legislation, regulations, professional standards - Standards, measures or results commitments of auditee - Performance of comparable organisations, best practice, or standards developed by auditor 	<ul style="list-style-type: none"> - Facts (numerical evidence; descriptive evidence, qualitative information) - Experiences / Perceptions / Opinions 	<ul style="list-style-type: none"> - The entity, other public entities, published research, beneficiaries, suppliers, interest groups 	<ul style="list-style-type: none"> - <i>In person</i> (observation, examine documents, interviews, focus groups) - <i>By post, telephone, e-mail</i> (request documents, questionnaires) - <i>Sample surveys</i> (which could be either in person or by post, e-mail) - <i>Benchmark</i> against comparable entities 	<ul style="list-style-type: none"> - Quantitative evidence (e.g. trends, comparisons, ratios) - Qualitative evidence (coding, matrices) - Systems analysis (e.g. flowcharts) - Case studies

Source: Performance Audit Manual, Directorate of Audit Quality Control, European Court of Auditors

Audit Tools

- Interviews
- Documentation reviews
- Site visits
- Questionnaires & surveys
- Case studies
- Obtaining expert opinions
- Expert panels
- Focus groups
- Database analyses
- Economic analyses
- Scientific analyses
- International benchmarking

Source: Auditing water issues: An examination of SAIs' experiences and the methodological tools they have successfully used, INTOSAI working group on environmental auditing

Audit Reports

- ❖ give well-founded and comprehensive information
- ❖ include the analysis and assessments that add value for decision-makers and stakeholders.
- ❖ Convincing: following on logically from the discovered facts to the conclusions and recommendations

Audit Reports

- ❖ has to be objective and balanced in content and tone.
- ❖ Read-friendly
- ❖ Includes constructive recommendations that are likely to contribute significantly to addressing the weaknesses or problems identified by the audit.

Water issue areas grouped by INTOSAI Working Group on Environmental Auditing

- ❖ Availability of Safe Drinking Water
- ❖ Competing Demands for Limited Water Supplies
- ❖ Drought
- ❖ Flooding
- ❖ Quality of Rivers, Lakes, and Other Surface Waters
- ❖ Marine Environment

Source: Auditing Water Issues: An Examination of SAIs' Experiences and the Methodological Tools They Have Successfully Used, INTOSAI Working Group on Environmental Auditing

Water issue areas grouped by INTOSAI Working Group on Environmental Auditing

- ❖ Planning and Financing for Drinking Water and Wastewater Infrastructure
- ❖ Implementation and Enforcement of Water Laws
- ❖ Challenges of Managing Water Resources Shared by Multiple Nations
- ❖ Adequacy of Water-Related Data
- ❖ Impacts of Climate Change on Water Resources

Source: Auditing Water Issues: An Examination of SAIs' Experiences and the Methodological Tools They Have Successfully Used, INTOSAI Working Group on Environmental Auditing

Example enforcement implementation and enforcement of water law

Audit on the enforcement of laws governing the management of fish resources and the actions of fishermen in Botswana by fisheries division

Source: Auditing Water Issues: An Examination of SAIs' Experiences and the Methodological Tools They Have Successfully Used, INTOSAI Working Group on Environmental Auditing

Example enforcement implementation and enforcement of water law

Objectives / Researchable Question (selection)

- 1) To determine whether the Fisheries Division of the Department of Wildlife and National Parks had a fishing policy framework with clear priorities and objectives.
- 2) To determine whether fishery resources were being exploited in a manner that was consistent with the principles of sustainable development and protection.
- 3) to sub7)

Source: Auditing Water Issues: An Examination of SAIs' Experiences and the Methodological Tools They Have Successfully Used, INTOSAI Working Group on Environmental Auditing

Example enforcement implementation and enforcement of water law

Criteria (selection)

- Legislation – (1) Fish Protection Act of 1975; and (2) National Policy on Agricultural Development (Government Paper No. 1 of 1991)
- “National Development Plans” (numbers 7, 8, and 9)
- Strategic plans for the Department of Wildlife and National
- Parks and the Department of Animal Health and Production
- SADC Protocol on Fisheries

Source: Auditing Water Issues: An Examination of SAIs' Experiences and the Methodological Tools They Have Successfully Used, INTOSAI Working Group on Environmental Auditing

Example enforcement implementation and enforcement of water law

Required information and its sources

- ❖ National legislation and planning documents
- ❖ Documentation maintained by the Fisheries Division
- ❖ Information from Fisheries Division officials through interviews.
- ❖ Information on the extent to which fishermen understand and implement practices to protect fisheries obtained through
 - ❖ interviews with fishermen,
 - ❖ reviews of Fisheries Daily Catch Forms, and
 - ❖ observations made during site visits

Source: Auditing Water Issues: An Examination of SAIs' Experiences and the Methodological Tools They Have Successfully Used, INTOSAI Working Group on Environmental Auditing

Example enforcement implementation and enforcement of water law

Scope and Methodology (selection)

- ❖ Review documents
- ❖ Review data from forms completed by fisherman
- ❖ *Interview Fisheries Division officials,*
- ❖ *Conducted site visits to 11 locations*
 - ❖ *interviewed 46 fishermen*

Source: Auditing Water Issues: An Examination of SAIs' Experiences and the Methodological Tools They Have Successfully Used, INTOSAI Working Group on Environmental Auditing

Example enforcement implementation and enforcement of water law

Challenges Encountered in Conducting the Audit

- ❖ Accesses to some fishing locations
- ❖ deficiencies in the reliability and accuracy of the Fisheries Daily Catch Forms

Source: Auditing Water Issues: An Examination of SAIs' Experiences and the Methodological Tools They Have Successfully Used, INTOSAI Working Group on Environmental Auditing

Example enforcement implementation and enforcement of water law

Audit Results and Key Findings (selection)

- ❖ The Fisheries Division had not developed a policy framework to guide the management, use, and protection of fish resources;
- ❖ Fisheries regulations had not been finalized when audit was conducted , despite originally being called for in the Fish Protection Act of 1975;
- ❖ No management plans had been developed to establish safe harvesting levels for fish and encourage the sustainable use of this resource

Fisheries Division had made some progress in developing the fish information database and in educating fishermen about how to sustainably use fish resources.

Source: Auditing Water Issues: An Examination of SAIs' Experiences and the Methodological

Tools They Have Successfully Used, INTOSAI Working Group on Environmental Auditing

Example planning and financing for drinking water and wastewater infrastructure,

Objective

The National Audit Office audited whether the investments made in water management have helped to achieve the required quality of waste water treatment and drinking water in the public water supply and sewerage systems, whether the water management infrastructure is sustainable and whether the investments have helped to improve the condition of the water bodies

Source: Sustainability of drinking water and waste water systems developed with state support and impact on achievement of environmental goals; National Audit Office Estonia

Example planning and financing for drinking water and wastewater infrastructure,

Criteria (selection)

1. WWTP work according to the requirements established in the permit for special use of water. The WWTP in all large waste water collection areas (pollution load over 2000 p.e.) have operated according to requirements since 31 December 2010;
4. all public water supply systems that extract water for more than 50 residents or more than 10 m³ which have received grants provide drinking water that complies with all quality parameters;
5. the price of the water service guarantees that the investments and improvements made in drinking and waste water management are sustainable for a long time (20-30 years) without compromising on environmental quality;

Source: Sustainability of drinking water and waste water systems developed with state support and impact on achievement of environmental goals; National Audit Office Estonia

Example planning and financing for drinking water and wastewater infrastructure,

Methodology (selection)

- ❖ Analysing documents (permits, legislation, international experiences,
- ❖ Data base research and queries from Environment Agency' database
- ❖ Interviews with officials from the Ministry of Environment, Environmental Investment Centre, Environment Agency, Environmental Inspectorates, Health Board, Public Water Supply and Wastewater treatment Company, scientist and NGO

Source: Sustainability of drinking water and waste water systems developed with state support and impact on achievement of environmental goals; National Audit Office Estonia

Example planning and financing for drinking water and wastewater infrastructure,

Audit Results and Key Findings (selection)

According to the National Audit Office, despite adequate funds, the state has not managed to keep its promise and make all larger drinking water and waste water systems comply with the requirements.

The Ministry of the Environment therefore considers it necessary to invest another 165 million euros of EU money in water infrastructure from 2014-2020.

The state has failed to give sufficient attention to guaranteeing the future sustainability of the drinking water and waste water treatment systems, the establishment or renovation of which cost a lot of money.

Source: Sustainability of drinking water and waste water systems developed with state support and impact on achievement of environmental goals; National Audit Office Estonia

Example planning and financing for drinking water and wastewater infrastructure,

Audit Results and Key Findings (selection)

The pollution load in many waste water collection areas (agglomerations) may be overestimated, which means that it is not certain that the money allocated for the reconstruction and establishment of waste water treatment systems goes where it is needed the most.

Source: Sustainability of drinking water and waste water systems developed with state support and impact on achievement of environmental goals; National Audit Office Estonia

Example planning and financing for drinking water and wastewater infrastructure,

Audit Results and Key Findings (selection)

- ❖ Financial sustainability objective counters social objective.
- ❖ Water price does not cover the water management costs
- ❖ Water service may not more than 4 % of average annual net income of household members

Source: Sustainability of drinking water and waste water systems developed with state support and impact on achievement of environmental goals; National Audit Office Estonia

Example planning and financing for drinking water and wastewater infrastructure,

Population group (quintile) A	Average annual net income of a household member in Estonia (euros) 2011 B	4% of average net income of a household member per month C = B/12*4%	Maximum price of m ³ of water when the limit is 4% of net income of a household member (consumption 2.9 m ³), euros D = C/2.9	Ability of people to pay for water service in the case of different water prices (€/m ³) 2.6 5.58 E=D-water price	
Lowest quintile	1737,89	5,79	2,00	-0,6	-3,58
Second quintile	3161,67	10,54	3,63	+1,03	-1,95
Third quintile	4034,41	13,45	4,64	+2,04	-0,94
Fourth quintile	5531,07	18,44	6,36	+3,76	+0,78
Highest quintile	9816,96	32,72	11,28	+8,68	+5,7
Average	4857,08	16,19	5,58	+2,98	0

Source: Sustainability of drinking water and waste water systems developed with state support and impact on achievement of environmental goals; National Audit Office Estonia

International Organisation of Supreme Audit Institutions (INTOSAI)

- operates as an umbrella organisation for the external government audit community.
- Related are the International Standards of Supreme Audit Institutions (ISSAI):
 - are a benchmark for auditing public entities (External Audit Standards for public entities).
 - Link http://www.issai.org/en_us/site-issai/issai-framework/4-auditing-guidelines.htm

INTOSAI Auditing Standards

The International Standards of Supreme Audit Institutions (ISSAI) are a benchmark for auditing public entities (External Audit Standards for public entities).

http://www.issai.org/en_us/site-issai/issai-framework/4-auditing-guidelines.htm

European Court of Auditors guidance

As the EU's independent external auditor, the ECA contributes to improving EU financial management, promotes accountability and transparency, and acts as the independent guardian of the financial interests of the citizens of the Union

Guidance documents developed available:

<https://www.eca.europa.eu/en/Pages/AuditMethodology.aspx>

SWIM-H2020 SM

For further information

Website

www.swim-h2020.eu

E: info@swim-h2020.eu

LinkedIn Page

[SWIM-H2020 SM LinkedIn](#)

Facebook Page

[SWIM-H2020 SM Facebook](#)

SWIM-H2020 SM Consortium



LDK Consultants S.A. (Leader)
LDK Consultants Europe S.A.



Haskoning DHV Nederland B.V.



Arab Countries Water Utilities Association (ACWUA)



Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO - ECSDE)



Arab Network for Environment and Development "RAED"



Milieu Ltd



Association of Cities & Regions for Recycling and Sustainable Resource Management (ACR+)



National and Kapodistrian University of Athens (UoA)



Catalan Waste Agency (hosting institution of Regional Activity Centre for Sustainable Consumption and Production (SCP/RAC))



Umweltbundesamt GmbH



EEIG UT – SEMIDE



WS Atkins International Ltd



GLOBE ONE LTD



SWIM and Horizon 2020 Support Mechanism

Working for a Sustainable Mediterranean, Caring for our Future

Thank you for your attention.

This Project is funded by the European Union

