Professor and Director of ReSEES Laboratory, School of Economics, ATHENS UNIVERSITY OF ECONOMIC AND BUSINESS (www.aueb.gr)

Director of Research, ICRE8 : INTERNATIONAL CENTER FOR RESEARCH ON THE ENVIRONMENT AND THE ECONOMY (www.icre8.eu)

Senior Research Fellow, CCCEP, LONDON SCHOOL OF ECONOMICS w.cccep.ac.uk/people/)

Co-Chair, United Nations Sustainable Development Solutions Network - Greece (www.unsdsn.gr)
Agenda 2030 for Sustainable Development
United Nations Sustainable Development Solutions Network

SDSN was launched in 2012 by UN Secretary General Ban-Ki Moon, in order to mobilize global scientific and technological expertise to promote practical problem solving for sustainable development.
Official Launch of SDSNN

3rd SDSN Mediterranean Conference & Official Launch of SDSN

Sept. 7 - 8, 2017 | Athens, Greece

Co-Chairs:
Prof. Phoebe Koundouri
Prof. Andreas Papandreou

Keynote Speaker: Prof. Jeffrey D. Sachs

International Centre for Research on the Environment and the Economy (ICRE8)

www.icre8.eu

University of Athens
Political Economy of Sustainable Development Lab (PESD)

http://pesd.econ.uoa.gr

Website: www.unsdsn.gr

Co-Chairs
Prof. Phoebe Koundouri
Prof. Andreas Papandreou

Leadership Council
Business, Politicians, NGOs, Policy Making

Youth Section
Christina Christoforou Livani
Regional priorities for the Mediterranean: How do they translate to SDGs?

1. Ensuring sustainable development in marine and coastal areas
2. Promoting resource management, food production and food security through sustainable forms of rural development
3. Planning and managing sustainable Mediterranean cities
4. Addressing climate change as a priority issue for the Mediterranean
5. Transition towards a green and blue economy
6. Improving governance in support of sustainable development
Where do the Mediterranean countries stand relative to the SDGs?

- 2017 SDG Indicator Dashboard and report.

- The report generates “rough grading” for all countries to draw attention to the most urgent SDG related challenges facing each country for each SDG.
Where do the Mediterranean countries stand relative to the SDGs?

<table>
<thead>
<tr>
<th>Country</th>
<th>2017 Global SDG Index Score</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Czech Republic</td>
<td>81.9</td>
<td>Cyprus</td>
<td>70.6</td>
</tr>
<tr>
<td>Slovenia</td>
<td>80.5</td>
<td>Israel</td>
<td>70.1</td>
</tr>
<tr>
<td>France</td>
<td>80.3</td>
<td>Albania</td>
<td>68.9</td>
</tr>
<tr>
<td>Hungary</td>
<td>78.0</td>
<td>Russia</td>
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<tr>
<td>Belarus</td>
<td>77.1</td>
<td>Algeria</td>
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<tr>
<td>Croatia</td>
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<td>Tunisia</td>
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<td>68.5</td>
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<td>67.3</td>
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<tr>
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<td>Morocco</td>
<td>66.7</td>
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<tr>
<td>Italy</td>
<td>75.5</td>
<td>Jordan</td>
<td>66.0</td>
</tr>
<tr>
<td>Moldova</td>
<td>74.2</td>
<td>Bosnia &amp; Herzegovina</td>
<td>65.5</td>
</tr>
<tr>
<td>Romania</td>
<td>74.1</td>
<td>Lebanon</td>
<td>64.9</td>
</tr>
<tr>
<td><strong>Greece</strong></td>
<td><strong>72.9</strong></td>
<td>Egypt</td>
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</tr>
<tr>
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<td>Syria</td>
<td>58.1</td>
</tr>
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<td>Bulgaria</td>
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<td>Iraq</td>
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</table>
## European – Mediterranean Countries 2017 SDG Index Score

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**AVERAGE Global Index Score for European Mediterranean Countries: 73.1**

A sea of shared challenges and opportunities

- Jobs
- Value
- Sustainability

Blue Economy
European Blue Growth Initiative

Seas & oceans are drivers for the European economy and have great potential for innovation & growth.

Blue Growth is the long term strategy of the EU to support sustainable growth in the marine and maritime sectors: achieving the goals of the Europe 2020 strategy for smart, sustainable and inclusive growth. It relates directly to SDG 14 of Agenda 2030.

The 'blue' economy represents:
- 5.4 million jobs
- gross added value of almost €500 billion a year
while further growth is possible in a number of areas which are highlighted within the strategy.
European Blue Growth Initiative

1. Develop sectors that have a high potential for sustainable jobs and growth, such as:
   a. aquaculture; b. coastal tourism; c. marine biotechnology; d. ocean energy; e. seabed mining

2. Essential components to provide knowledge, legal certainty and security in the blue economy
   a. marine knowledge to improve access to information about the sea;
   b. maritime spatial planning to ensure an efficient and sustainable management of activities at sea;
   c. integrated maritime surveillance to give authorities a better picture of what is happening at sea.

3. Sea basin strategies to ensure tailor-made measures and to foster cooperation between countries:
   a. Adriatic and Ionian Seas; b. Arctic Ocean; c. Atlantic Ocean; d. Baltic Sea; e. Black Sea; f. Mediterranean Sea; g. North Sea
Achieving **Natural Resources, Economic, Social Sustainability** by developing **scientific and methodologically sound approaches** to recognizing, demonstrating and capturing the **Total Economic Value** of natural resources and other public goods important for social welfare, integrating them in sustainable **management tools and policy making**, while recognizing the **interdisciplinary** nature of the challenge.
• **40 million** Euro of research funding

• **500 published peer-reviewed research papers and books**

• Funding received from the European Commission *(FP4, FP5, FP6, FP7, Horizon2020)*, DG Environment, Numerous Governments and the Private Sector

• Research influenced **policy** & attracted mass **media** coverage all over the world
Official Launch of SDSNN & 3rd SDSN Mediterranean Conference
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- Marine Coastal Management
- Inland Water Management
- Renewable Energy
- Climate Change
- Discount Rate
- Biodiversity
- Forest Management
- Waste Management
- Nuclear Energy

Location of SDSN Greece projects
Approaches

- Mathematical Model of People’s Behavior, NR stocks & flows
- Empirical/Econometric Modeling
- Empirical Models Application & Estimation

Natural Resources, Socio-Economic, Institutional Characterization
- Data Collection

Stages of Analysis

- Qualitative and Quantitative Analysis of Results
- Decision Support Tools
- Policy Recommendations
Official Launch of SDSNN & 3rd SDSN Mediterranean Conference
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Market Interaction Makes Value Explicit

Price should mirror Value

We need $x$ for EACH
- Resource
- Individual
- Space
- Time from today till $\infty$

If You Can't Measure It, You Can't Improve It
(William Thomson, Lord Kelvin)
Methods to elicit Economic Value of non-market Goods & Services

Mathematical Modeling

\[ y_i = f(x_i, \beta) \]
\[ V_i = \frac{dV}{dx_i} = \frac{\partial f}{\partial x_i} \]
\[ \max_{x_i} V_i = \frac{\partial f}{\partial x_i} \]

Econometric Modeling

\[ \pi_i = \frac{\alpha_i}{\beta_i} \]
\[ E_i = \frac{\alpha_i}{\beta_i} \]

Valuation Methods

Survey

Choose Optimal Allocation of Resources:
DSS: GIS based CBA under CC and SE Scenarios

GIS Designing our future

Positives or benefits
Negatives or costs
Implementing Social Welfare Increasing Sustainable Solutions

Nature Based Solutions

Infrastructural Solutions

Socio-Economic Tools
- Pricing
- Tradable permits
- Quotas
- Taxes/subsidies
- Charges
- Direct Controls
- Educational/Awareness Campaigns
- Voluntary Agreements
- Legal Instruments
- Investments
SDSN Greece Focus

SDSN-Greece Thematic Priorities

- Natural Capital Valuation: Sustainable Investment Allocation
- Climate Change: Mitigation and Adaptation Policies
- Sustainable Development in Times of Crisis
1) Natural Capital Valuation: Sustainable Investment Allocation

Indicative Projects

- **MERMAID**
- **AquaStress**
- **BlueBridge**
- **REFRESH**
- **Genesis**
- **The ARID Cluster**
- **Tropos**
2) Climate Change: Mitigation and Adaptation Policies

Indicative Projects

DECISION MAKING UNDER UNCERTAINTY:
THE EXAMPLE OF CLIMATE CHANGE

GLOBAL IQ

MSP Cyprus

GLOBAQUA
3) Sustainable Development in Times of Crisis

Indicative Projects

- SESAME
- DAFNE
- SMIR
- aqua librium
- CIGESMED
- RECONNECT
- Interreg Balkan-Mediterranean
Sustainable Energy and Resource Management

Innovative Multi-purpose offshore platforms: planning, design & operation

**H2Ocean**
Development of a wind-wave power open-sea platform equipped for hydrogen generation with support for multiple users of energy

[http://www.h2ocean-project.eu/](http://www.h2ocean-project.eu/)

**MERMAID**
Innovative multi-purpose offshore platforms: planning, design and operation

[http://www.mermaidproject.eu/](http://www.mermaidproject.eu/)

**TROPOS**
Modular multi-use deep water offshore platform harnessing and servicing Mediterranean, subtropical and tropical marine resources


**The Ocean of Tomorrow**
Investment Assessment of Multi-Use Offshore Platforms: Methodology and Applications - Volume 1

[Springer](https://www.springer.com/)
Sustainable Energy and Resource Management

The BlueBRIDGE Project –
Addressing the Blue Societal Challenge
H2020. Budget: 10,000,000 euro

Building Research environments fostering Innovation, Decision making, Governance and Education to support Blue growth
Many Past & Ongoing Marine Projects
Below List of Ongoing

- **THESEUS**: Innovative technologies for safer European coasts in a changing climate (FP7)
- **OCEANS OF TOMORROW**: Multi-Use Offshore Platforms for Sustainable Blue Growth (FP7)
- **BLUEBRIDGE**: Building Research environments fostering Innovation, Decision making, Governance and Education to support Blue growth (H2020)
- **RECONNECT**: Regional cooperation for the transnational ecosystem sustainable development (INTERREG)
- **MARINE SPATIAL PLANNING** (Ministry of Env, Govt of Cyprus)
- **FISH ON A CHIP**: Innovative Technologies at the Service of the Aquaculture, Fisheries & Research Sectors (H2020)
- **COASTAL**: Collaborative Sea Integration Platform (H2020)
- **BLUEGREENGOV**: Blue-green integrated governance tools for growth (H2020)
Our Projects

- SDSN GREECE
- ICRE8
- National and Kapodistrian University of Athens PESD

- AQUASTRESS
- REFRESH
- SMIRES Science and Management of Intermittent Rivers and Ephemeral Streams
- BRIGAID
- SESAME