United Nations Environment
World Conservation Monitoring Centre

This project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 641762

INSIGHTS FROM EARTH OBSERVATION IN PROTECTED AREAS – ECOPOTENTIAL PROJECT

Dr Fiona Danks

27 SEPT. 2018

RECOMMENDATIONS FOR POLICIES

INCORPORATE

SUPPORT

INVEST

EXPAND

Recommendation 1

Expand the use of Earth Observation to monitor and manage ecosystem services

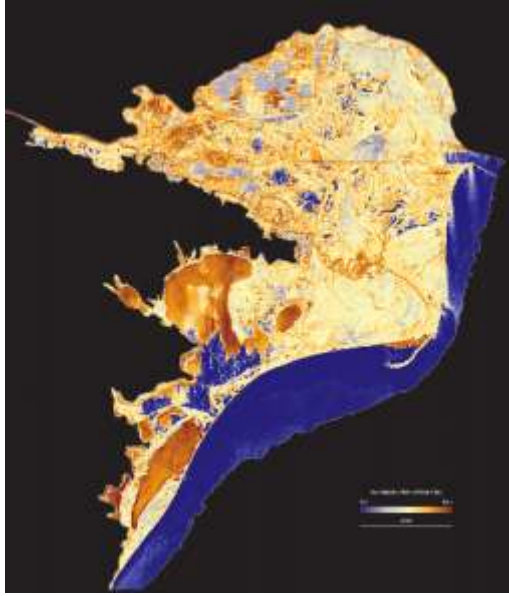
- Ecosystem Services
  - Essential for economy & also society
- Earth Observation
  - New spectrums of understanding
    - Temporal
    - Spatial
    - Radiation

→ Great potential of Remote Sensing & in-situ measurements

- To quantify, assess, measure & monitor ecosystems, activities and ecosystem services
- To **INTEGRATE** Earth Observation with policy development and achievement

Recommendation **2**

Invest in the integration of Remote Sensing and in-situ measurements



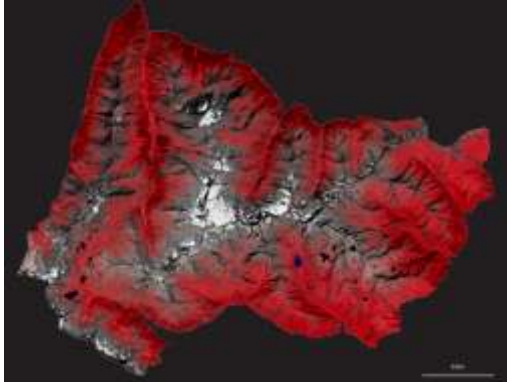
- In-situ data are critical
  - Remote Sensing and in-situ data are complimentary
  - Some variables cannot be measured remotely

→ Opportunity for

- **INTEGRATION** of data, activities and knowledge
  - e.g., eLTER and Lifewatch ERIC

Recommendation **3**

Incorporate Remote Sensing indicators in future environmental strategies

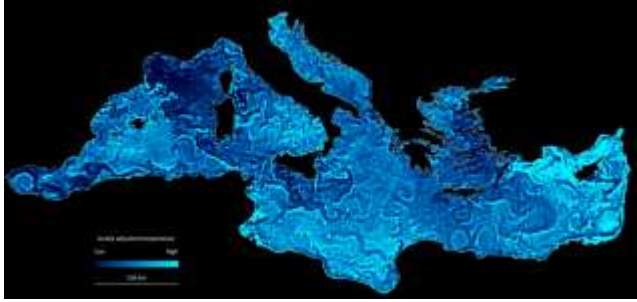


- Remote sensing data
  - Proven
  - Reliable

→ Potential to

- **INTEGRATE** into targets and indicators in future strategies
  - The utility will increase over time - more data & improved analysis
  - Remote sensing based indicators
    - cheap, simple, accurate and comparable
  - Can enhance compliance and alignment with policy goals

Recommendation **4**

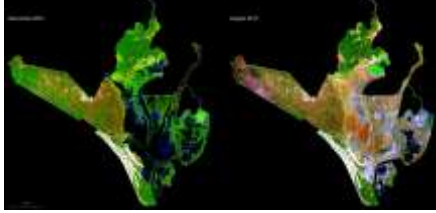


Support innovative ideas alongside proven mechanisms of impact and scientific advancement

- Potential for technological innovation in the use of Remote Sensing and Earth Observation
- Innovative methods and tools should continue

→ Opportunity exists

- for the INTEGRATION of environmental management and technology
- For the EU to stay on the forefront of innovative uses of satellites and other Earth Observation



Recommendation **5**

Increase experience sharing and information flow among stakeholders, and consider a coordinated strategy approach

- Disparities exist among environmental management institutions on the use of Earth Observation
  - Different levels of technical expertise and hardware access
- Mutual benefits are found in experience sharing
  - e.g., networks like LifeWatch, ERIC and GEO/GEOSS

→ Potential to create and support

- Communities of practice to INTEGRATE the varying levels and types of expertise
  - Centralized (EU wide/national/regional) technical capacity centres could support Protected Areas and decision makers with Earth Observation application

KEY MESSAGES

Earth Observation for Environmental Management

INCORPORATE

SUPPORT

INVEST

EXPAND

UN environment WCMC

United Nations Environment
World Conservation Monitoring Centre

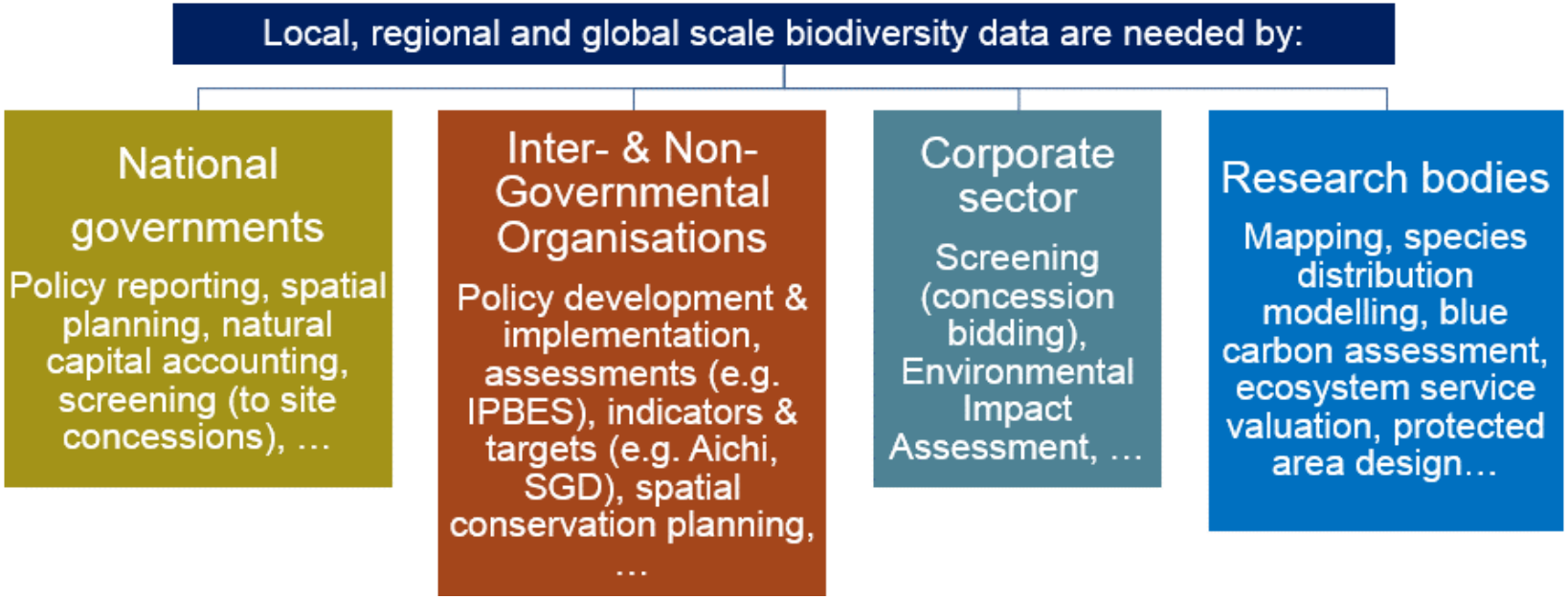
THANK YOU VERY MUCH

Antonello, Fiona & the Ecopotential Team

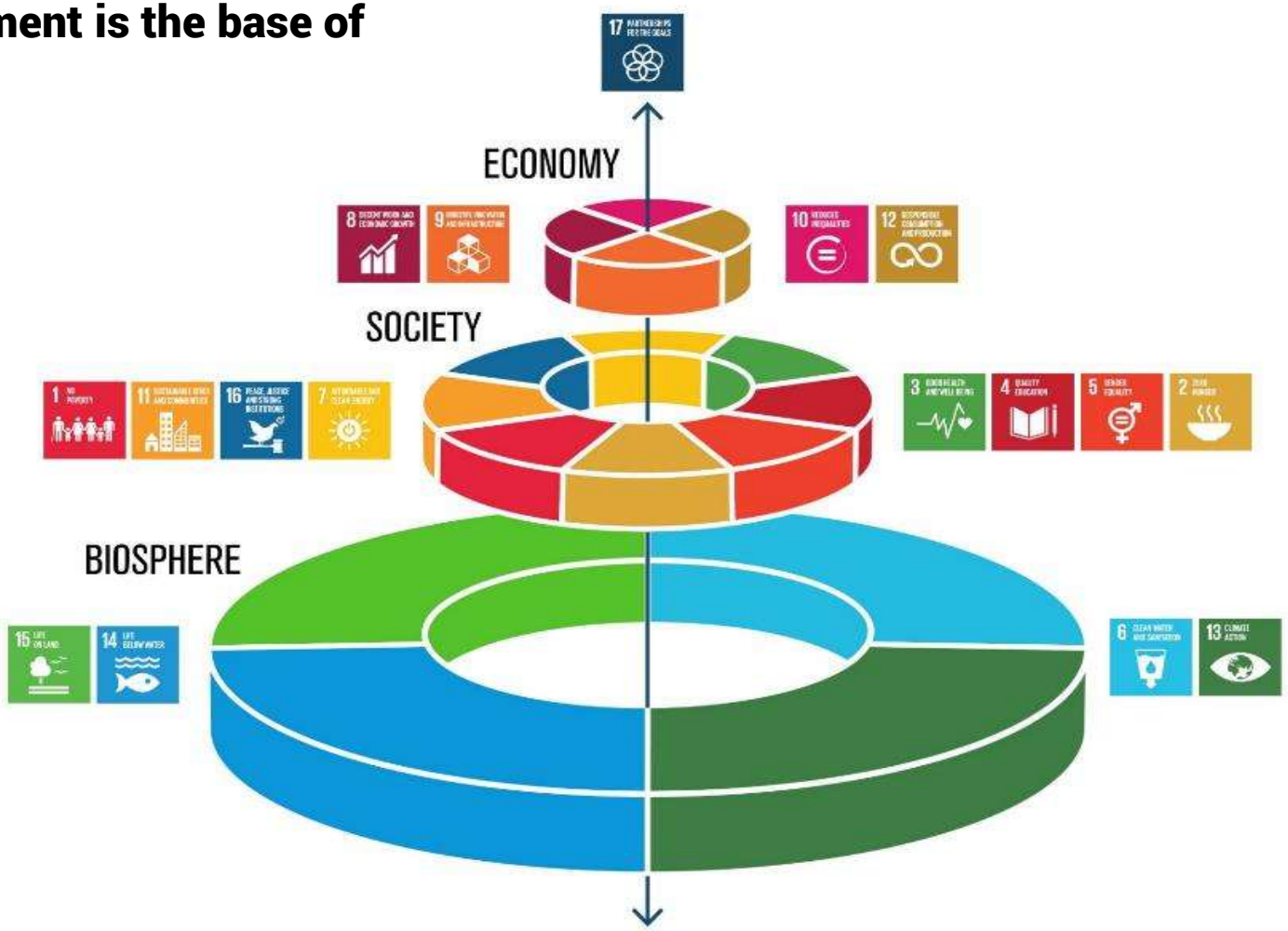
27 SEPT 2018

We put biodiversity at the heart of decision-making

- Providing authoritative information in a way/format that is useful to decision-makers
- There are many sorts of users of biodiversity data!
- Some users might appreciate a bit of “data packaging”



The Environment is the base of the SDGs



What are ecosystem services?

Benefits people obtain from ecosystems

Millennium Ecosystem Assessment (2005)

Normally divided into four groups:

What are the main terrestrial and freshwater ecosystem services?

- Carbon
- Water supply
- Flood prevention
- Pollination
- Eco-tourism
- Non-timber and timber products
- Cultural stuff….

Title style

First level style, to be used for sub headings

- Second level, to be used for main bullet points

  Third level, to be used for supporting text to the bullet points

- Fourth level, to be used for sub bullet points

Fifth level, to be used for image or diagram captions