



NETBIOME-CSA

STRENGTHENING EUROPEAN RESEARCH COOPERATION FOR SMART
AND SUSTAINABLE MANAGEMENT OF TROPICAL AND SUBTROPICAL BIODIVERSITY
IN OUTERMOST REGIONS AND OVERSEAS COUNTRIES AND TERRITORIES

**Collective definition of 4 common
challenges and implications for research
collaboration and policy landscape**

Reminder

NetBiome (2007 → ...): a long lasting dynamic

2012 RoundTable-Paris :

- “Motivated” science on biodiversity management and enhancement in support to ORs and OCTs sustainable development
- Increase cooperation + knowledge & capacity sharing
- Build on the major scientific opportunities and global reach
- Greater visibility of ORs & OCTs’ research excellence and relevance

ORs&OCTs’ stakeholders involvement : essential

- Get connected to societal needs
- Build bridges through shared topics and joint activities
- Maintain sustainable network to overcome isolation

Challenges' role

Common denominator for research cooperation and joint activities

Connect ORs and OCTs on shared concerns

Mobilize and share knowledge and capacities between stakeholders, disciplines, ORs&OCTs

Impulse interdisciplinary and transregional workgroup activities :

Criteria for relevance

Responding to local needs

Contributing to sustainable development of ORs and OCTs

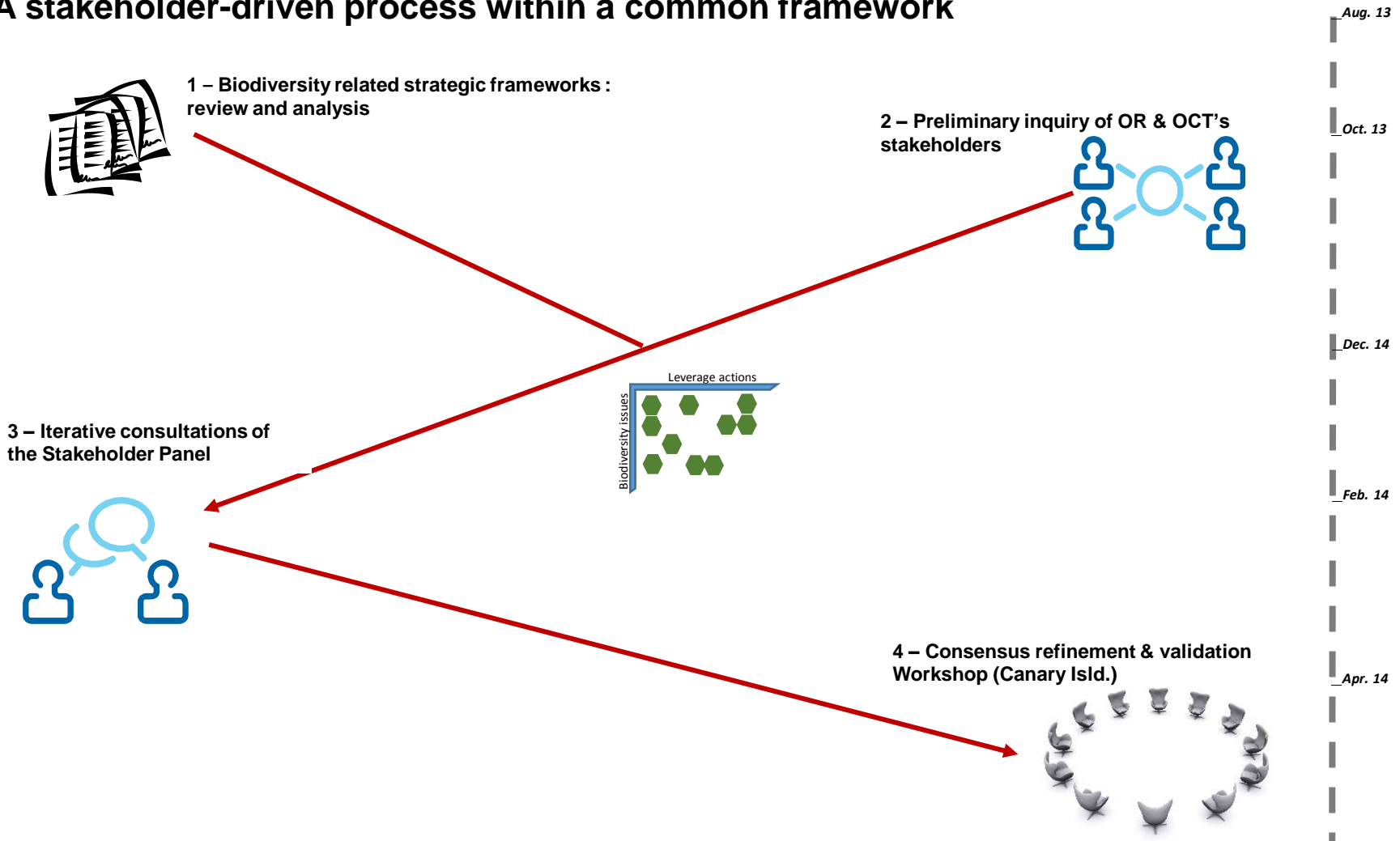
Requirement for coordinated research

In coherence with international and regional priorities and initiatives (EBS, ...)



Approach used

A stakeholder-driven process within a common framework



Approach used

A stakeholder-driven process within a common framework



1 – Biodiversity related strategic framework : review and analysis

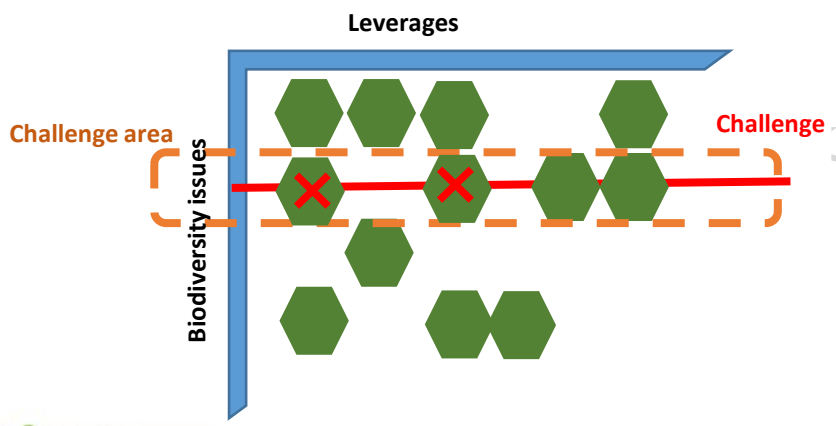
23 strategic documents analyzed
Inventory of keywords & lexical rationalization effort

2 – Preliminary inquiry of OR & OCT's stakeholders



3 – Iterative consultations of the Stakeholder Panel

NetBiome's questionnaire to biodiversity stakeholders (4 helix)
→ 102 individual answers
→ Inventory and occurrence of descriptors



Inclusive matrix (Biodiversity issues vs leverages)

Scoring and mapping
Prioritization

→ Strategic filter + common language



Aug. 13

Oct. 13

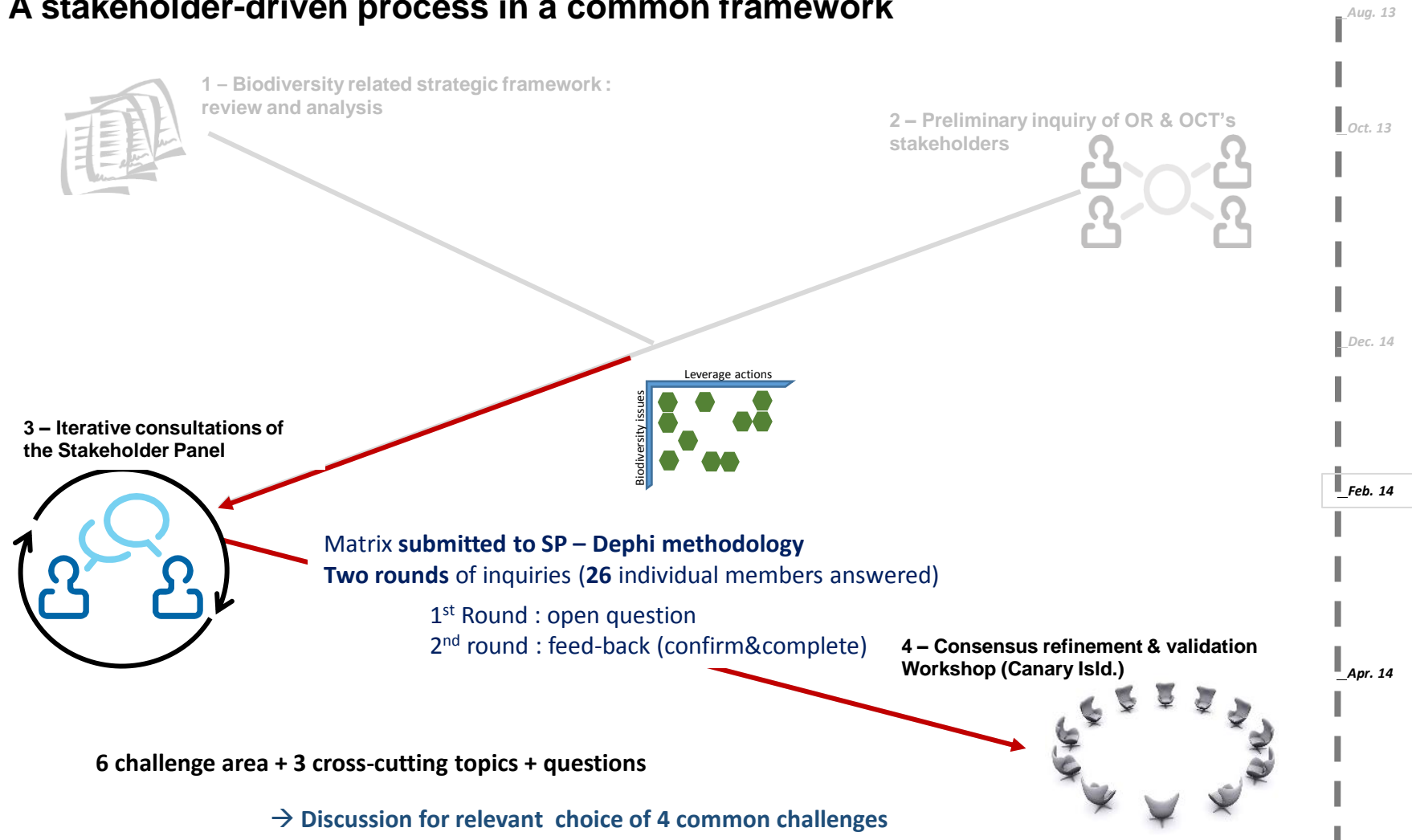
Dec. 14

Feb. 14

Apr. 14

Approach used

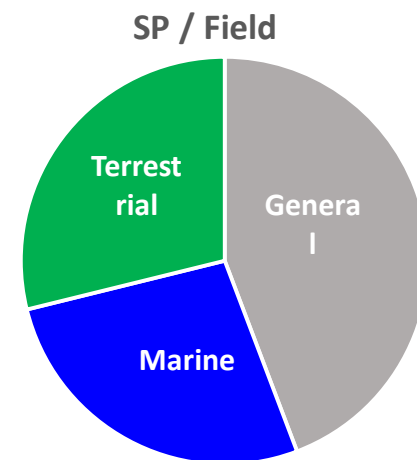
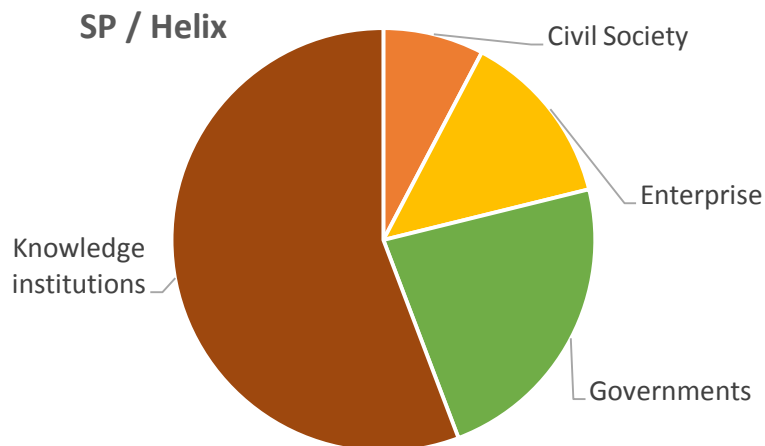
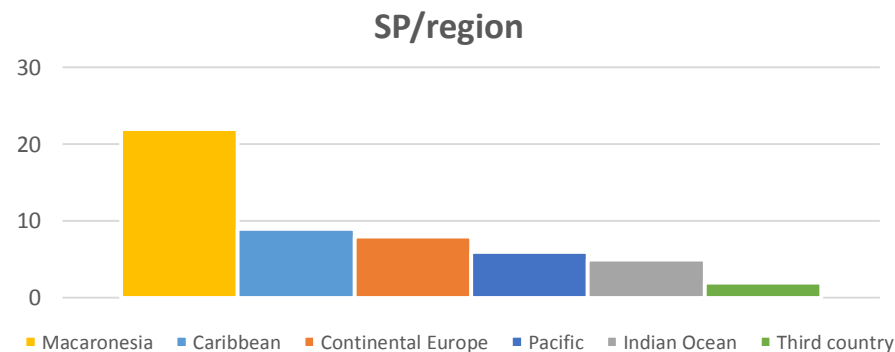
A stakeholder-driven process in a common framework



Preliminary results

Overview

Detailed description



Preliminary results

Overview

**Challenge Area I –
Spatial planning : Integrate nature
capital and services**

- ✓ RESEARCH
- ✓ KNOWL. MGMT
- ✓ GOV. AND COOP.
- ✓ IMPROV. OF POLICY L.
- ✓ FINANCIAL

**Challenge Area II –
Sustainable agriculture
and forestry**

- ✓ RESEARCH
- ✓ KNOWL. MGMT
- ✓ IMPROV. OF POLICY L.
- ✓ FINANCIAL
- ✓ INNO./BIOECO.

**Challenge Area III –
Improve conserv. and mgmt.
status of species and habitat**

- ✓ RESEARCH
- ✓ KNOWL. MGMT
- ✓ GOV. AND COOP.
- ✓ IMPROV. OF POLICY L.

Cross-cutting topics

- Climate change**
- GOING BEYOND THE SCIENTIFIC COMMUNITY**
- IMPROVEMENT OF RESEARCH ENVIRONMENT**



- ✓ RESEARCH
- ✓ IMPROV. OF POLICY L.
- ✓ INNO./BIOECO.

**Challenge Area VI –
Anthropic impacts mitigation**

- ✓ RESEARCH
- ✓ KNOWL. MGMT
- ✓ IMPROV. OF POLICY L.
- ✓ INNO./BIOECO.

**Challenge Area V –
Bio-resource : economic and
legal aspects**

- ✓ RESEARCH
- ✓ KNOWL. MGMT
- ✓ GOV. AND COOP.
- ✓ IMPROV. OF POLICY L.
- ✓ FINANCIAL
- ✓ INNO./BIOECO.

**Challenge Area IV -
Invasive species &
biosecurity**

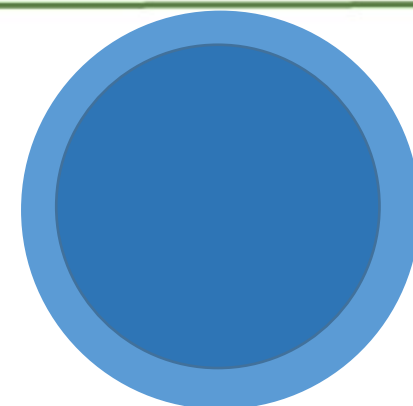
Preliminary results

Detailed description

Challenge Area I –

Spatial planning : Integrate nature capital and services in ..

Multiple benefits of ecosystem services → global approach



NEEDS FOR ACTIONS

- ✓ **RESEARCH / KNOWLEDGE ACQUISITION** Ecosystem functioning (connectivity, ...) and services
Baseline for management (unit, carrying capacity)
- ✓ **KNOWLEDGE MANAGEMENT** Stakeholder involvement (evidence based decision and co-construction)
- ✓ **GOVERNANCE AND COOPERATION** Policy harmonization (neighbour countries)
- ✓ **IMPROVEMENT OF POLICY LANDSCAPE** Coordinated territorial policies
Tools for use and access rights regulation
- ✓ **FINANCIAL LEVERAGE** Taxes and subsidies

LINKAGE TO EU STRATEGIES

EBS - Target 2 *Action 5 : "Improve knowledge of ecosystems and their services in the EU"*
 Action 6 : "Set priorities to restore and promote the use of green infrastructure"

H2020 - Societal Challenge 5

"Further our understanding of the functioning of ecosystems, their interactions with social systems and their role in sustaining the economy and human well-being".

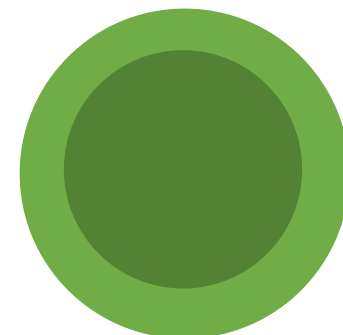
Preliminary results

Detailed description

Challenge Area II –

Smart and sustainable agriculture and forestry practices

Socio economical objectives ←(agro-ecological practices)→ Environmental objectives



NEEDS FOR ACTIONS

- ✓ **RESEARCH / KNOWLEDGE ACQUISITION** Ecological process underlying agro-ecology principles
CC impacts on cultured species
- ✓ **KNOWLEDGE MANAGEMENT** Public awareness
Sharing good practices and case-studies
Stimulate eco-consumption patterns
- ✓ **IMPROVEMENT OF POLICY LANDSCAPE** Protection against chemical and biological pollution
Internat./regional commitments
- ✓ **FINANCIAL LEVERAGE** Taxes and subsidies
- ✓ **INNOVATION/BIOECONOMY** Changes in agro. practices
Breed and varieties
Energy autonomy for farming systems (onsite facility)

LINKAGE TO EU STRATEGIES

EBS – Target 3 " Increase the contribution of agriculture and forestry to maintaining and enhancing biodiversity"

H2020 - Societal Challenge 2

"Increasing production efficiency and coping with climate change, while ensuring sustainability and resilience" / "Providing ecosystem services and public goods" / "Empowerment of rural areas, support to policies and rural innovation"

Preliminary results

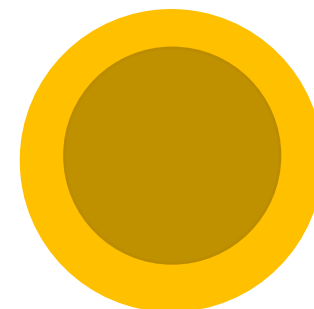
Detailed description

Challenge Area III –

Improve conservation and management status of species and habitats

Halt deterioration of species and habitats status

Birds and habitats directive objective + mainstreaming policies



NEEDS FOR ACTIONS

- ✓ **RESEARCH / KNOWLEDGE ACQUISITION** Drivers affecting biodiversity (e.g. monitoring)
Improved criteria for conservation priorities
CC impacts
Adaptative management
- ✓ **KNOWLEDGE MANAGEMENT** Knowledge transfert for evidence-based decision
Capacity building (taxonomy, ...)
General awarness of public
- ✓ **GOVERNANCE AND COOPERATION** Policy harmonization (neighbour countries)
- ✓ **IMPROVEMENT OF POLICY LANDSCAPE** Long term vision and strategies
Internat./regional commitments

LINKAGE TO EU STRATEGIES

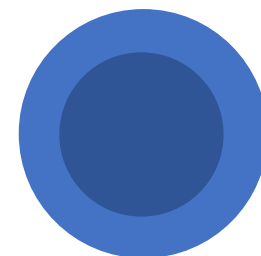
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|----------------|--|
| EBS – Target 1 | Action 1 <i>“Complete the establishment of the Natura 2000 network and ensure good management”</i> |
| | Action 3 <i>“Increase stakeholder awareness and involvement and improve enforcement”.</i> |
| Target 2 | Action 7 <i>“Ensure no net loss of biodiversity and ecosystem services”</i> |

Preliminary results

Detailed description

Challenge Area IV – **Invasive species & biosecurity**

Main driver of biodiversity loss + climate change induced favorable conditions for invasion
Socio-economic consequences of invasion



NEEDS FOR ACTIONS

- ✓ **RESEARCH / KNOWLEDGE ACQUISITION** Invasive species impact and status (i.e. monitoring interactions)
Invasive scenario under CC conditions
- ✓ **KNOWLEDGE MANAGEMENT** Sharing good practices
Capacity building (taxonomy)
- ✓ **GOVERNANCE AND COOPERATION** High level cooperation for early warning system
- ✓ **IMPROVEMENT OF POLICY LANDSCAPE** Policy harmonization (neighbor countries)
Internat./regional commitments
- ✓ **INNOVATION/BIOECONOMY** Enhancement of invasive species biomass ?

LINKAGE TO EU STRATEGIES

EBS – Target 5

H2020 – Societal challenge 5

"Combat invasive alien species"

"Developing comprehensive and sustained global environmental observation and information systems"

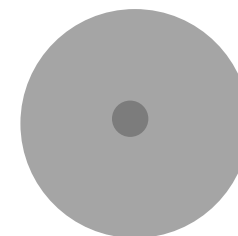
Preliminary results

Detailed description

Challenge V –

Bio-resource : economic and legal aspects

Prospection and enhancement of biodiversity for the production of knowledge, goods and services



NEEDS FOR ACTIONS

- ✓ **RESEARCH / KNOWLEDGE ACQUISITION** Improve knowledge on genetic resources
- ✓ **KNOWLEDGE MANAGEMENT** Data sharing platform
Public awareness for blue&green growth
- ✓ **IMPROVEMENT OF POLICY LANDSCAPE** Legal aspects (ABS)
Internat./regional commitments (i.e. Nagoya protocol)
- ✓ **INNOVATION/BIOECONOMY** Biotechnology

LINKAGE TO EU STRATEGIES

EBS – Target 6 Action 20 *“Regulate access to genetic resources and the fair and equitable sharing of benefits arising from their use”*

H2020 – Societal challenge 2

“Unlocking the potential of aquatic living resources - Boosting marine innovation through biotechnology”, “Sustainable and competitive bio-based industries”

Preliminary results

Detailed description

Challenge Area VI – Mitigation of anthropic impacts

Prevent and mitigate anthropic impacts on Biodiversity



NEEDS FOR ACTIONS

- ✓ RESEARCH / KNOWLEDGE ACQUISITION Impact of industrial activities
- ✓ IMPROVEMENT OF POLICY LANDSCAPE Systematic environmental assessments
Internat./regional commitments (EIA)
- ✓ INNOVATION/BIOECONOMY Conditions for the lowest impact
Improved remediation techniques

LINKAGE TO EU STRATEGIES

- | | | |
|------------------------------|-----------|---|
| EBS – Target 2 | Action 7 | <i>“Ensure no net loss of biodiversity and ecosystem services”.</i> |
| Target 6 | Action 17 | <i>“Reduce indirect drivers of biodiversity loss, including pollution”</i> |
| | Action 19 | <i>“Biodiversity proofing of EU funds and projects”</i> |
| H2020 – Societal challenge 2 | | <i>“Food security, sustainable agriculture, marine research and the bio-economy;”</i> |
| | 5 | <i>“Climate action, resource efficiency and raw material”</i> |

Preliminary results

Detailed description

Cross-cutting topics

– Climate change

Understand impacts

Strategic vision for adaptation

EU CC Adaptation strategy (Action 4 & 1) + H2020 Societal challenge 5

– Going beyond the scientific community:

Co-construction based approach --

Involve stakeholders

-- Knowledge transfer and awareness

H2020 societal challenge 6

– Improvement of the Research environment:

Foster cooperation

Between geographic areas and disciplines

With private sector

With internat./regional programs and institutions

Building capacity and securing expertise

Funding mechanisms

Conclusions and debate

And now ?

6 challenge areas and
3 cross cutting topics



4 challenges

What basis ?

- Local perceptions and needs
- Project's strategic criteria
- Feed-back and pending issues

How to get there ?

Today (27th) :
Agree on **4 challenge areas**
(1h30) of plenary debate

Tomorrow (28th) :
4 workgroups,
Agree on the main problems
Prioritize the needs for actions

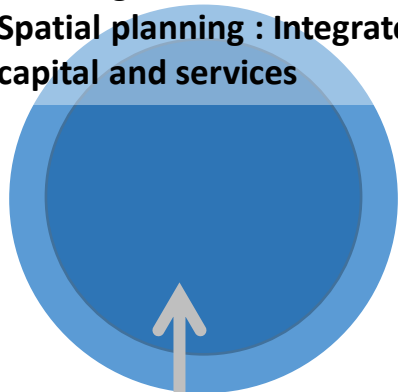
Conclusions and debate

Feed-back and pending questions

➤ Merging some challenges areas with others ?

Mitigation of anthropic impacts embedded in spatial organization strategies ?

**Challenge Area I –
Spatial planning : Integrate nature
capital and services**



**Challenge Area VI –
Anthropic impacts mitigation**

Conclusions and debate

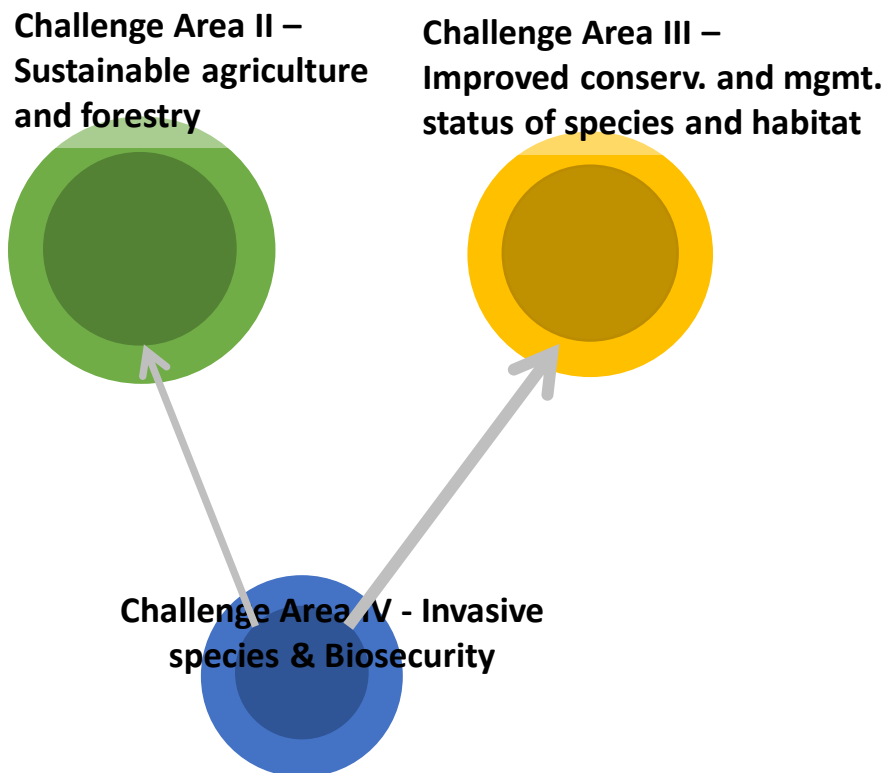
Feed-back and pending questions

➤ Merging some challenges areas with others ?

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Invasive species :

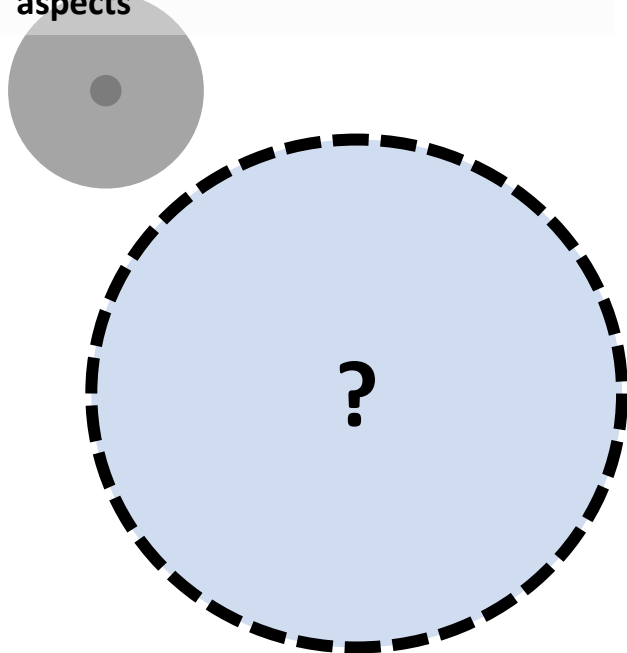
- Specific challenge ?
- Driver of change for II & III ?



Conclusions and debate

Feed-back and pending questions

Challenge Area V –
Bio-resource : economic and legal
aspects



➤ Merging some challenges areas with others ?

Mitigation of anthropic impacts embedded in spatial organization strategies ?

Invasive species :

- Specific challenge ?
- Driver of change for II & III ?

➤ Review the scope of other challenge area ?

Bio-resource : too focused to be a challenge area ?

➤ Gaps ?

No challenge dedicated to marine&coastal issues

To guide the debate

6 challenge areas and
3 cross cutting topics



4 challenges area
(for workgroup breakout)

Pending questions

➤ Merging some challenges areas with others ?

Mitigation of anthropic impacts embedded in spatial organization strategies ?

Invasive species :

- Specific challenge ?
- Driver of change for II & III ?

➤ Review the scope of other challenges area ?

Bio-resource : too focused to be a challenge area ?

➤ Gaps ?

No challenge dedicated to marine&coastal issues

Criteria

- Responding to societal needs
- **Contribution to sustainable development of ORs and OCTs**
- **Capacity to be address through coordinated research related activities**
- **Coherence with international and regional frameworks and initiatives (EBS, ...)**

Thanks to all the contributors

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Thank you for your attention