

## In-depth trend discussion

San Sebastian, Spain, June 2019

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### Trend: More recreational use of blue space

Impact: \* *Need for awareness*: more ocean pride, awareness on issues; safety; more risks for unexperienced people;

\* *Need for better management*: increase in litter and use of recreational spaces as a waste disposal; protection against flooding; urbanization; impact on local environment/infrastructure (e.g. coastal paths);

\* *Health impact*: if access and quality, improved mental and physical health; access for all/inequalities; increased physical activity;

\* *Pressure on biodiversity*: impact on benthic communities;

\* *Pollution*: increase of noise; air pollution;

\* *Economy*: more jobs

Research gaps: - *Behavior/education*: Research on behavior in recreational areas, on behavior change ('cleaner' habits), education for people not living by the sea; awareness of recreational use, perception of associated risks;

- *Management*: How to implement zoniak approaches; integrative use of blue spaces (e.g. for all ages); include recreation in marine spatial planning;

- *Capacity*: assessment of sustainable recreation capacity,

- *Relationships*: research on negative relationship between recreation and environment; how risk threats will impact humans; how increase use will impact ecosystems; link human health and recreation; recovery of degraded systems and recreation recovery

### Trend: Towards a circular economy

Impact: \* *Economy*: market uncertainty, loss of jobs; cost of life might increase (inequalities)

\* *Inclusion*: all people (also ageing, sick, disabled, refugees); making knowledge about circularity more accessible for people living in the area (opportunities, threats of waste);

\* *Improvement*: it is necessary now; bigger projects are necessary; renewable energy, less waste; increase the life of goods (reduce impacts);

\* *Change*: new methods/technologies are needed; time it takes to change the current system/habits; unintended impacts; is it possible to replace all plastic uses;

Research gaps: - *Relationships*: research on new impacts from circular economy; does it work (not clear what it is); effect on social inequalities (associated with

full-cost accounting); unknown impacts from renewable energy infrastructures (e.g. windmills); what is the impact of changes in infrastructure/circular economy on people and environment;  
- *Implementation*: research on implementation methods; implementation, motivation and incentives; how can you raise acceptance and support for circular economy; integrate economists, business related to the sea, marine scientists to work together in the design of the circular economy

Promising initiatives: Blue Tourism (SOPHIE), Blue Space infrastructures (BlueHealth), Surfers against sewage (there are other similar organizations as well, e.g. Brazil), Jan Gehl urban planning institute, Allan McArthur Foundation, Plogging (picking up litter in Sweden)

### Trend: Changing institutional and governance structures

Impact: \* *Public driving the agenda*: money for funding following public hypes; politicians 'jumping'; scientists not incentivised to do dissemination (except some EU grants)

Research gaps: - *Behavior/education*: raising awareness for all (not only children); ocean literacy (telling the 'right' story – interpretation, negotiation); engagement; how to make actions happen

### Trend: Increasingly aging population

Impact: \* increase in medicine usage = increase in load in sea basins: *Effect on water quality*: seafood etc.

Research gaps: - *Behavior/education*: information; communication;  
- *Relationships*: cumulative effects research; what makes seafood more healthy and sustainable;

### Trend: Need for blue growth agenda

Impact: \* *Biodiversity*: pressure on biodiversity  
\* *Economy*: e.g. overcrowding due to tourism (vulnerability of economies depending too much on tourism only, especially since it is mostly seasonal labor/younger people)

Research gaps: - *Implementation*: multi-topic platforms; real time monitoring  
- *Relationships*: cumulative effects