

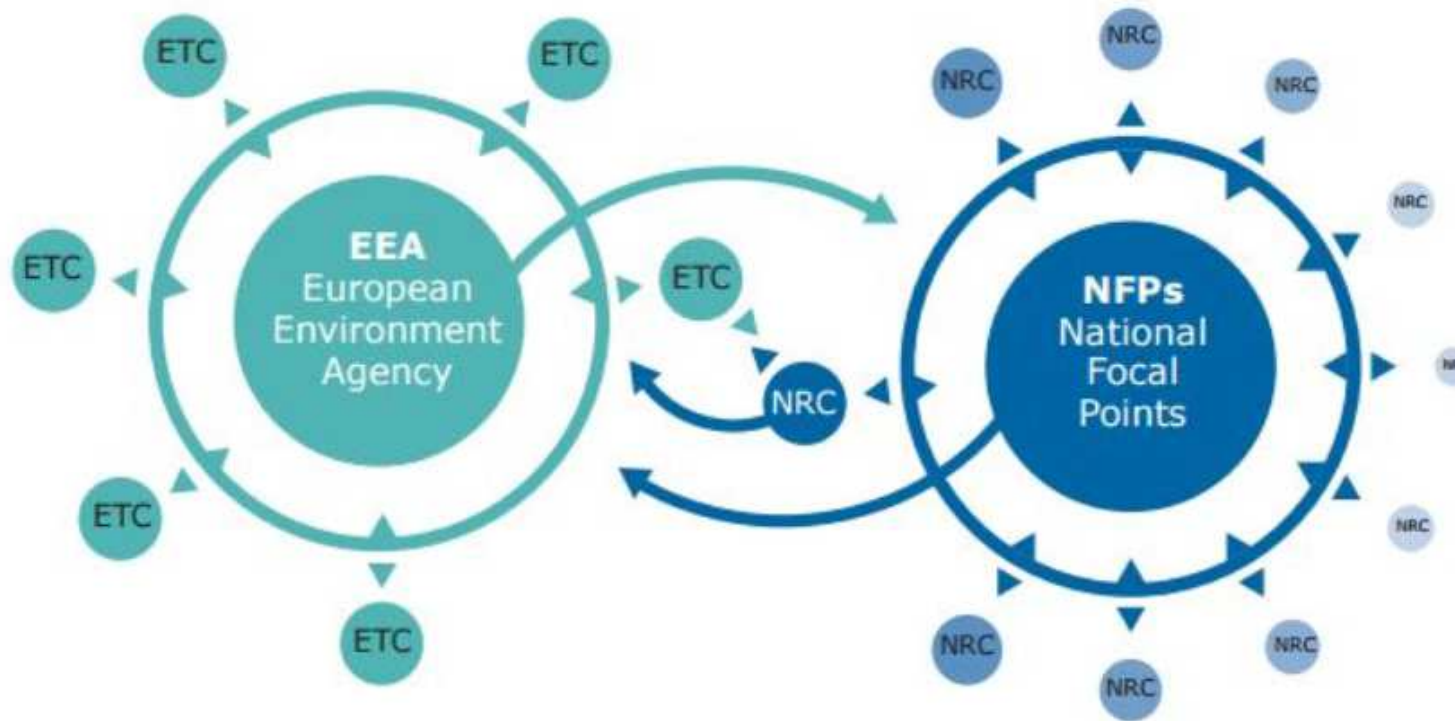
Silvia Giuliatti, Francesc Romagosa, Jaume Fons, Christoph Schröder

| 12.12.2016 | **Workshop on the Implementation of the Protocol on Sustainable Tourism to the Carpathian Convention into National Law, Vienna, Austria**

Developing a “Tourism and Environment Reporting Mechanism” (TOUERM): environmental impacts and sustainability trends of tourism in Europe

ETC/ULS as EIONET partner

European environment information and observation network (Eionet)



The European Topic Center on Urban, Land and soil systems



Conceptual approach

To monitor progress towards a resource efficient, green and low carbon economy, in the context of the 7th Environment Action Programme – “Living well within the limits of our planet”

To provide a more comprehensive picture of tourism within the more general monitoring activities the EEA is also managing for other European economic sectors’ environmental performance (such as transport, energy, agriculture and industry).

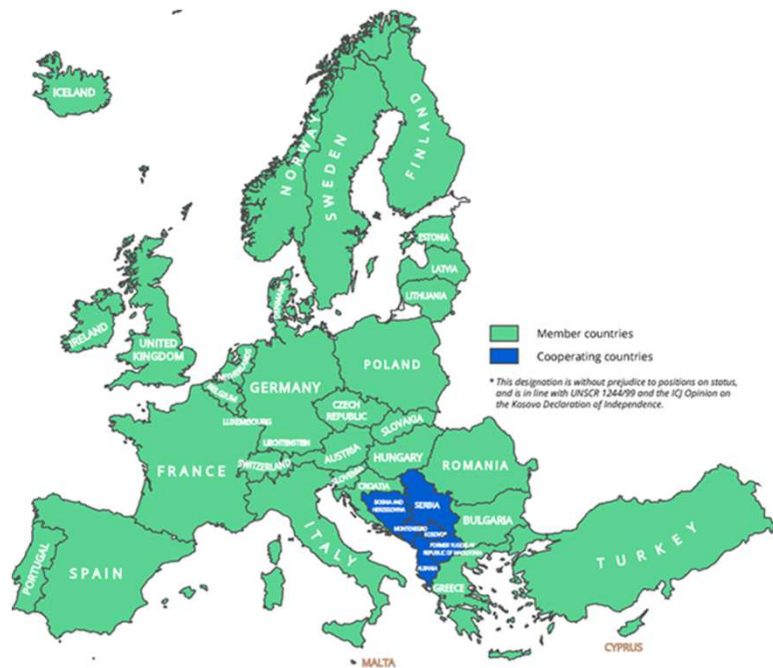
EEA’s multiannual work programme 2014-2018 foresees the development of data sets and indicators to track sustainability trends and the environmental and territorial impacts of land use -dependent economic sectors such as tourism.

Land is as a provider of multiple values that mainly sustain:

- functional-operational services of the sector (transport infrastructure, accommodation establishments, and recreational facilities);
- attractiveness of places through natural and cultural features of landscape, and their combination in different gradients;
- different ecosystem services (cultural services, regulating and provisioning).



The operational approach



Since 2013 cooperation with an Eionet Expert Group - representing to a maximum extent all EEA member and cooperating countries -, Eurostat, WTO and the “European Topic Centre on Urban, Land and Soil systems – ETC ULS” to:

- explore the policy relevance and feasibility of TOUERM as a coherent framework to monitor;
- consider the connection between tourism and environment in Europe;
- identify main topics and indicators to address them.

Identification of key policy questions, to be linked to a set of indicators meant to help answer these questions (among others):

- What characterizes and drives the demand for tourism?
- What are the environmental impacts of tourism?
- Are we getting better at managing tourism demand to preserve natural resources?
- Are we moving towards a better internalization of the external costs of the tourism sector?
- How effective are environmental management and monitoring tools towards a more integrated tourism strategy?

Indicators developed

25 indicators were identified and “**prioritized**” according to: **Data availability, Consolidated methodology, Processing requirements feasible in the frame of the project, Policy relevance, Clarity of the message.**

19 indicators developed so far

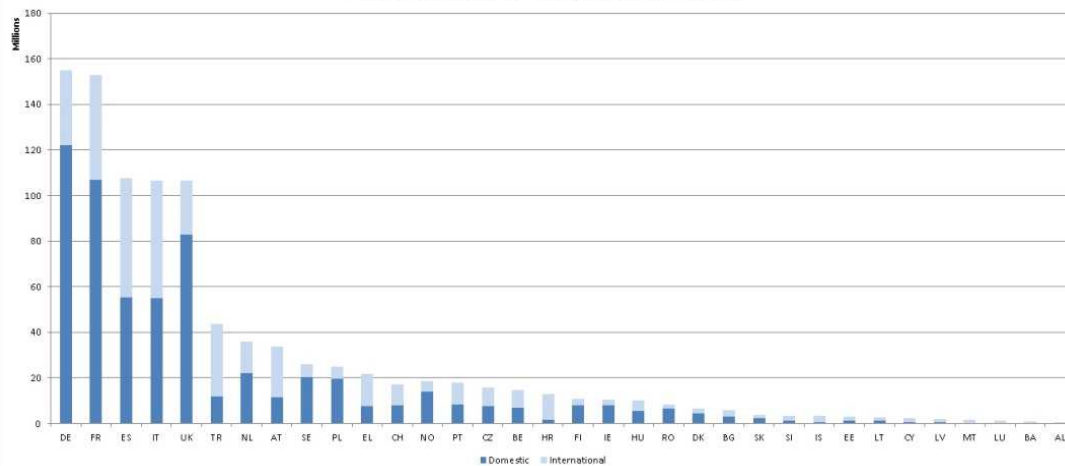
Driver indicators	Pressure indicators	State indicators	Impact indicators	Response indicators
D1 - Tourism arrivals D2- Overnights spent at tourism accommodation establishments D3 - Seasonality of tourism D4 - Tourism related modes of transport D5 - Tourism related modes of transport (I): Airplane D6 - Tourism related modes of transport (II): Cruises	P1 - Tourism density P2 - Tourism intensity P3 - Occupancy rate in tourist accommodation establishments P4 - Most attractive places P5 - Tourism and leisure pressure on protected areas P6 - Water abstraction by tourism	S1 - Bathing water quality	I1 - Spatial impact of tourism facilities (I): Golf courses I2 - Spatial impact of tourism facilities (II): Marina ports I3 - Spatial impact of tourism facilities (III): Ski resorts	R1 - Percentage of destination that is designated for protection R2 - Tourism enterprises using environmental certification / labelling R3 - Blue Flags for beaches and marinas

Several indicators rely on EUROSTAT database, showing also consistency with the European Commission’s European Tourism Indicator System (**ETIS**) (see the highlighted indicators). Whenever gaps in the available statistical databases were found, national statistics or sectoral yearbooks were used to fill the data gaps. Other indicators are based on available spatial data or big data sources providing evidence of the intensity of tourism activities. In combination with protected areas and other areas of environmental interest, indicators about potential pressure of tourism activities can be deduced.

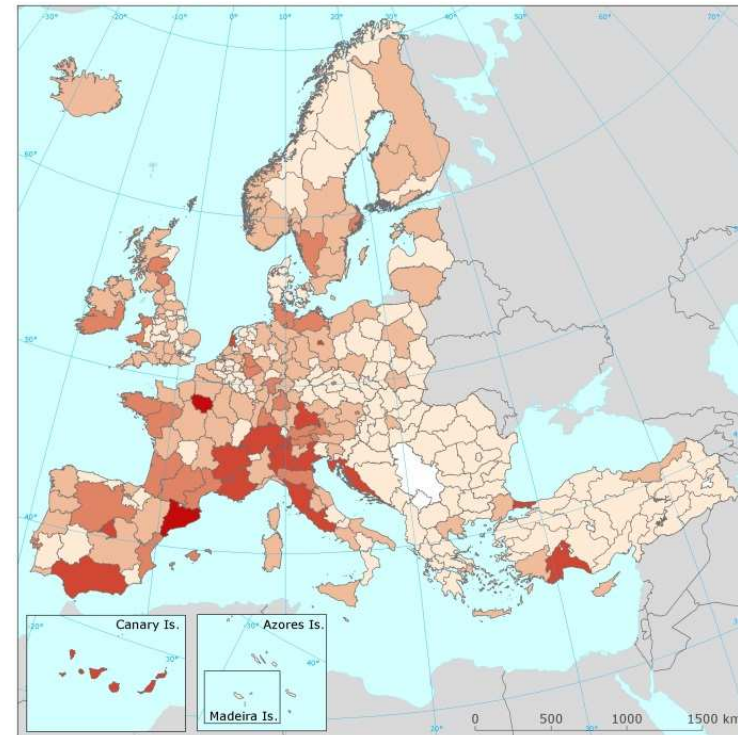
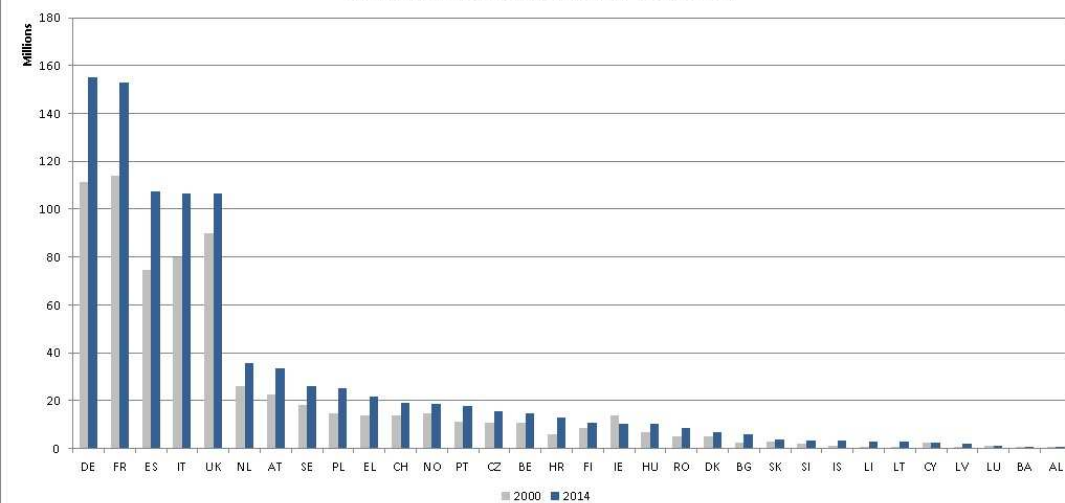
Indicators developed

D1 - Tourism arrivals

Tourism arrivals (2014) - Domestic vs International

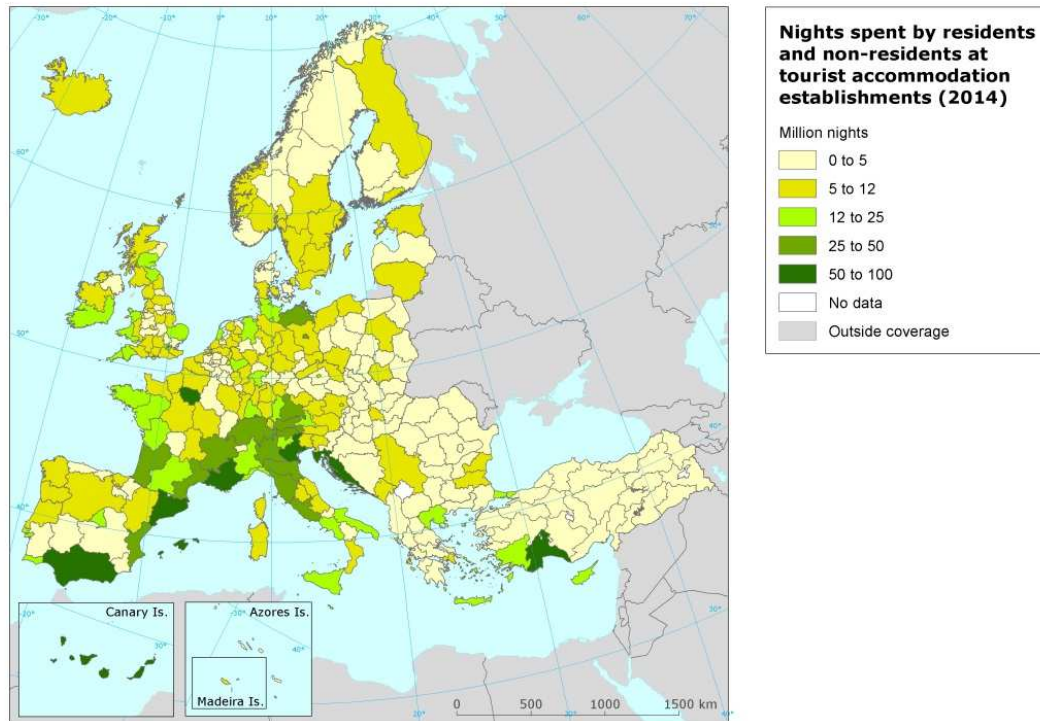


Total tourism arrivals (2000 and 2014)

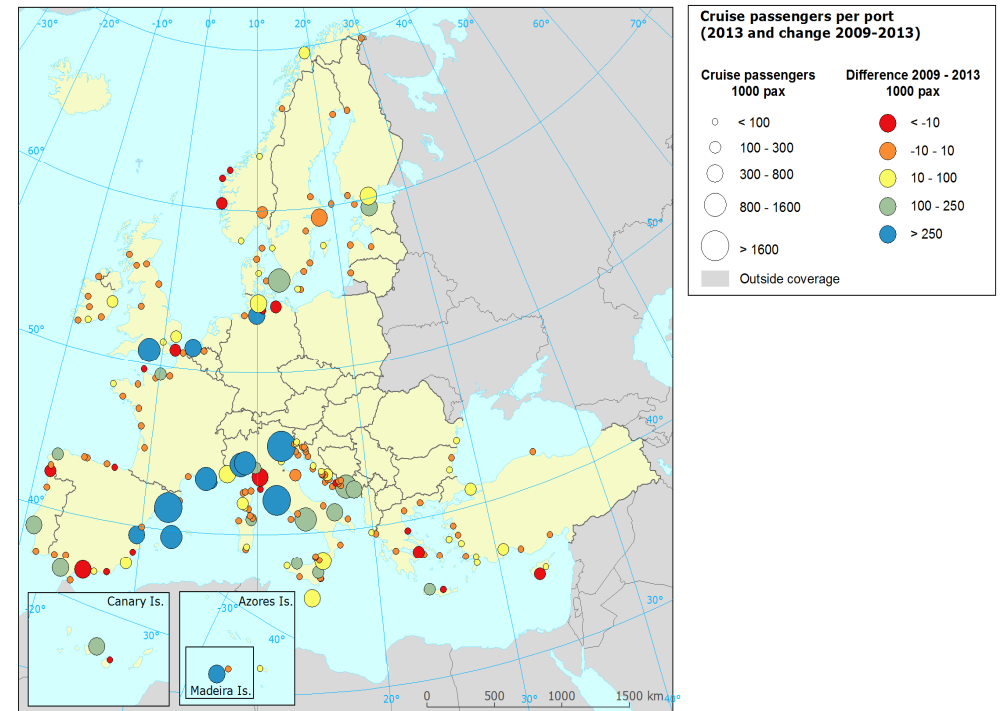


Indicators developed

D2 – Overnight stays

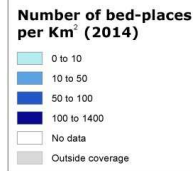
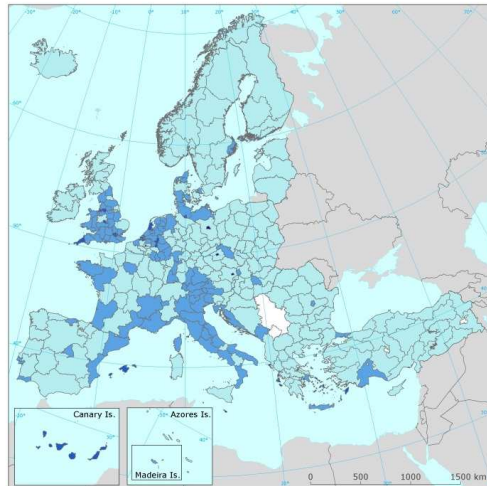


D6 – Tourism related modes of transport: Cruises

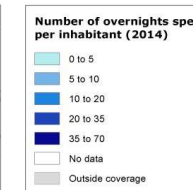
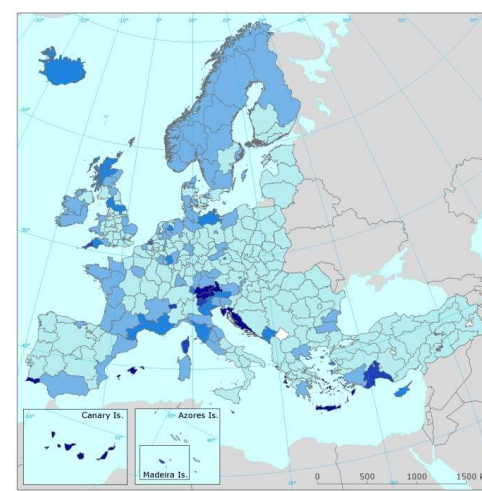
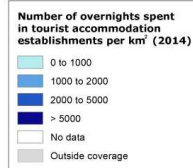
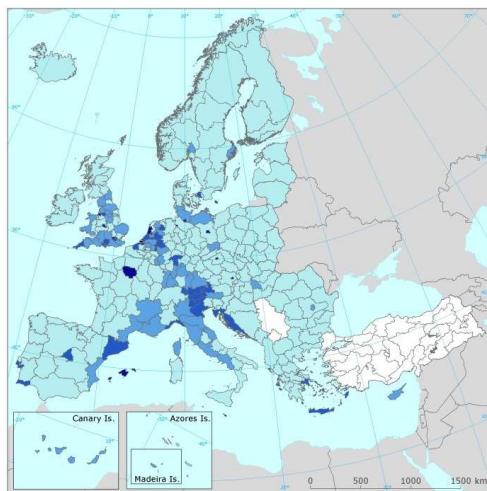
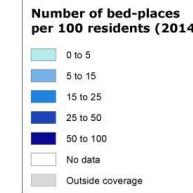
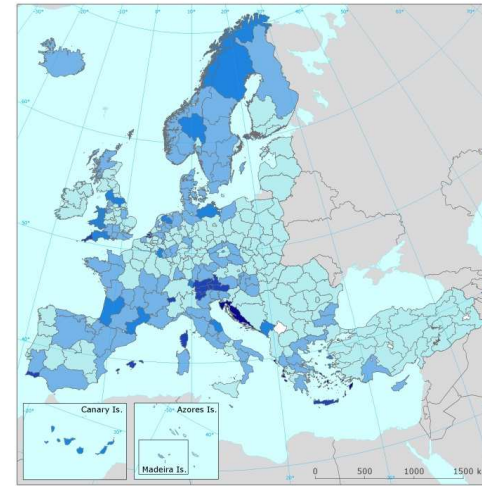


Indicators developed

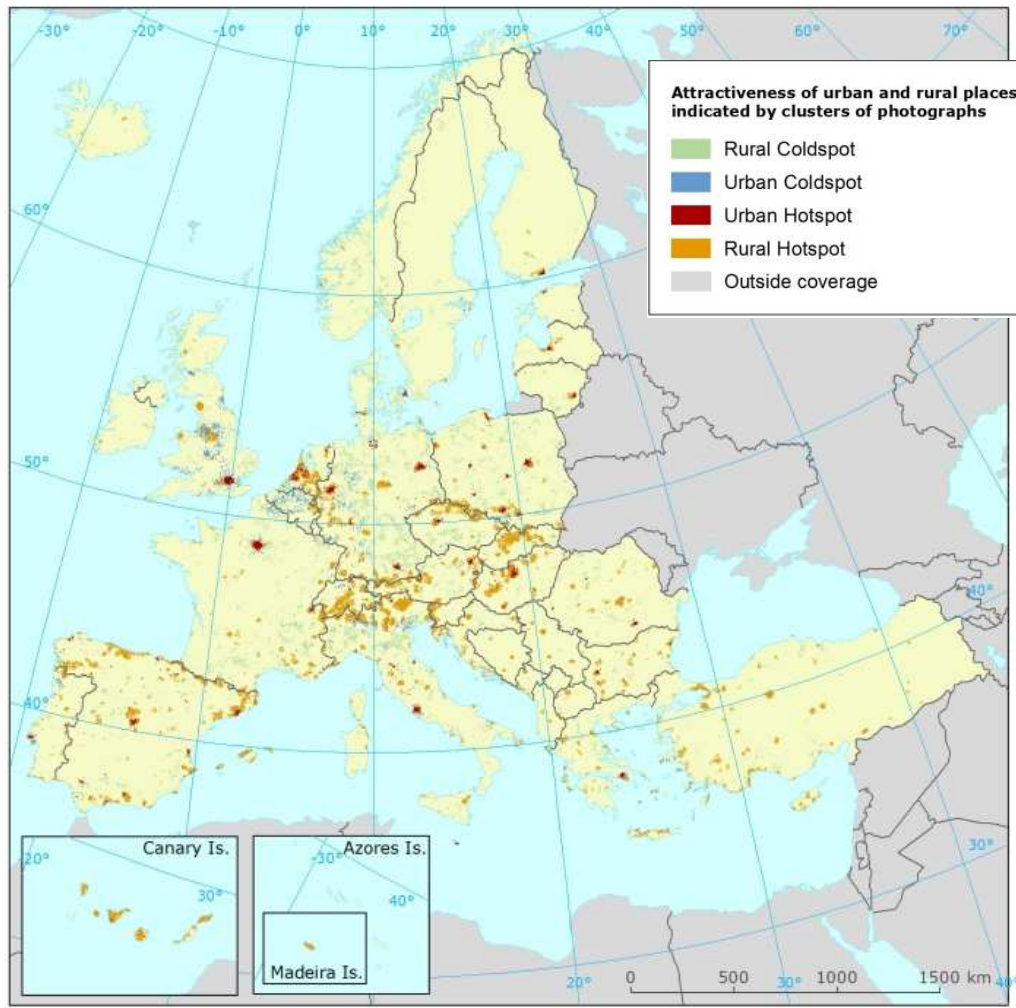
P1 – Tourism density



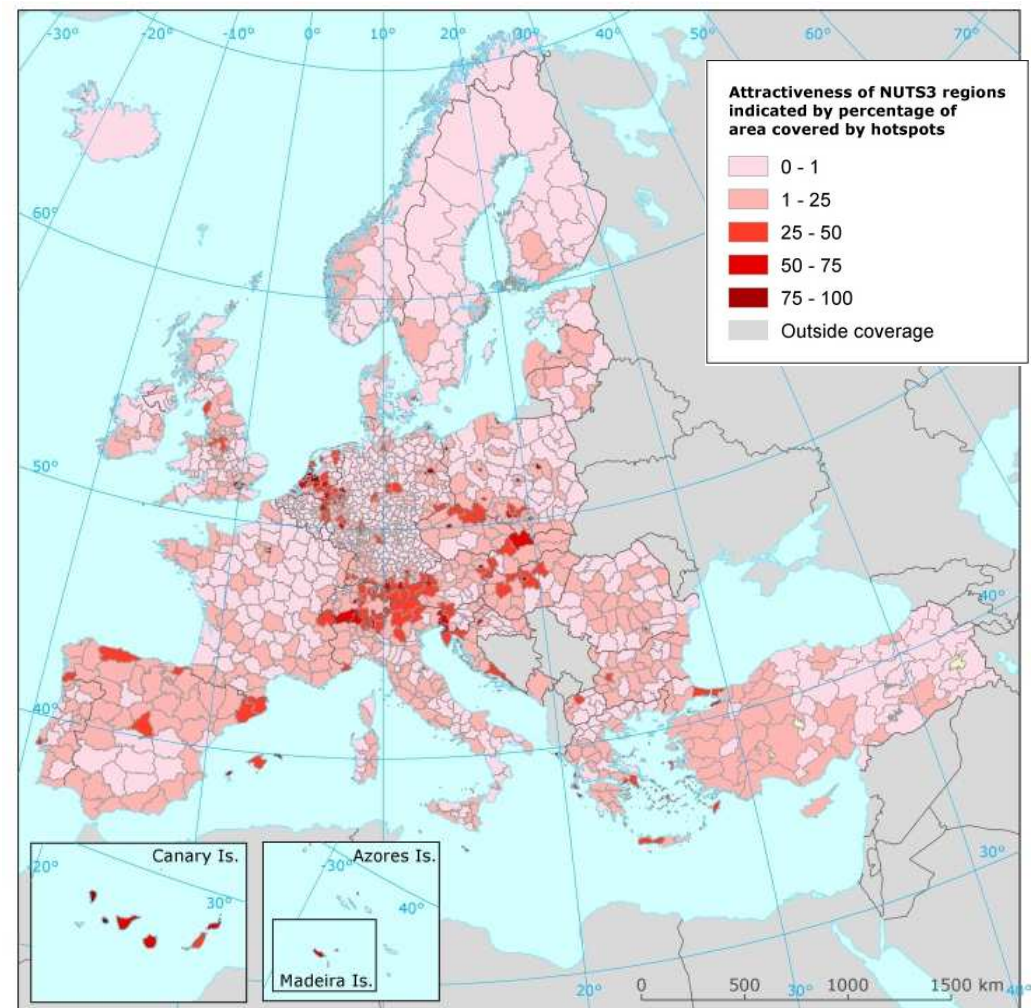
P2 – Tourism intensity



Indicators developed

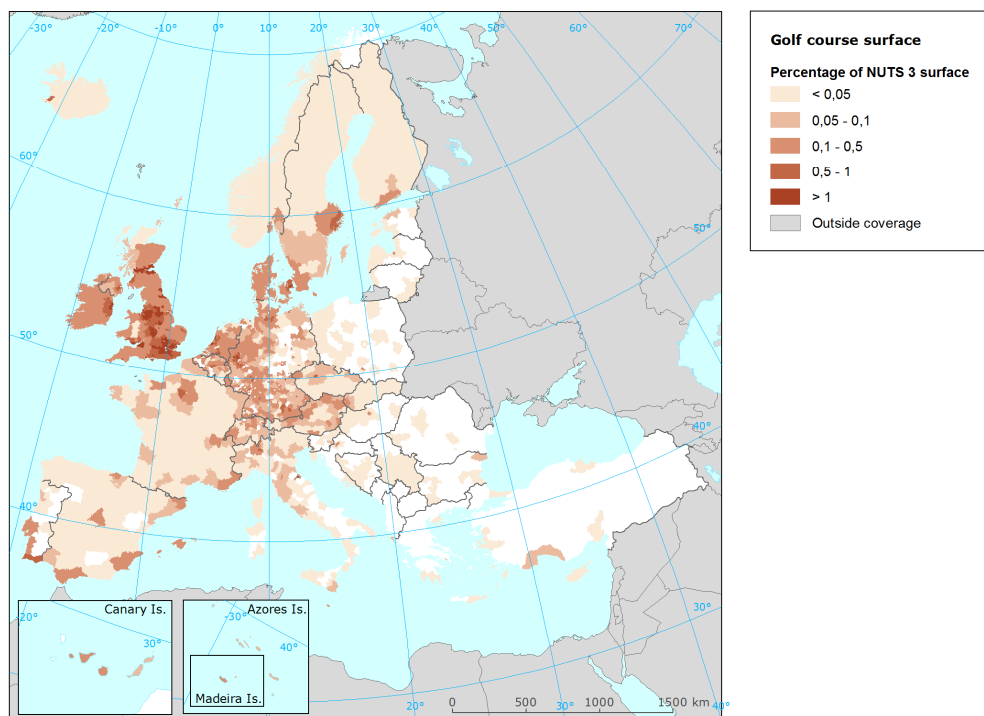


P5 – Most attractive places

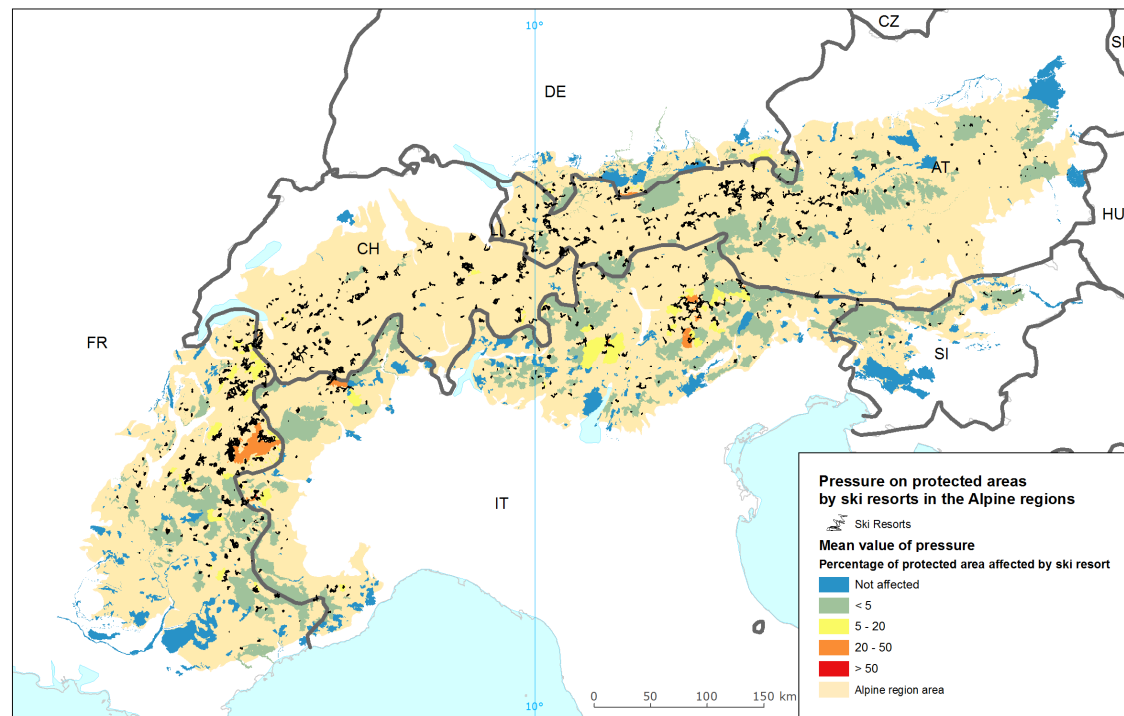


Indicators developed

I1 – Spatial impact of tourism facilities: Golf courses

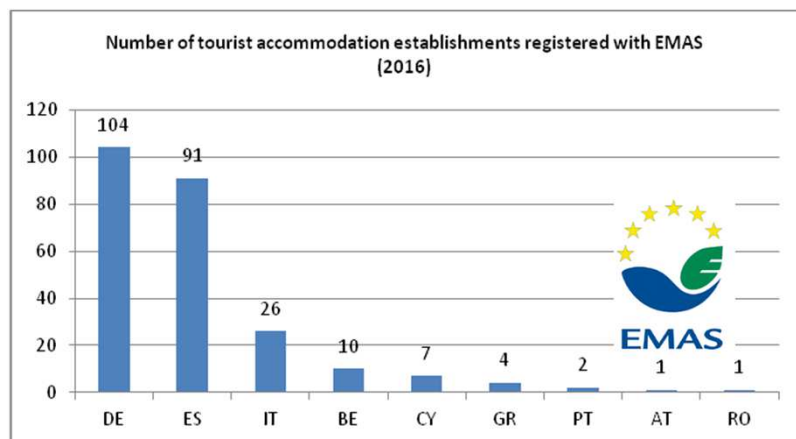
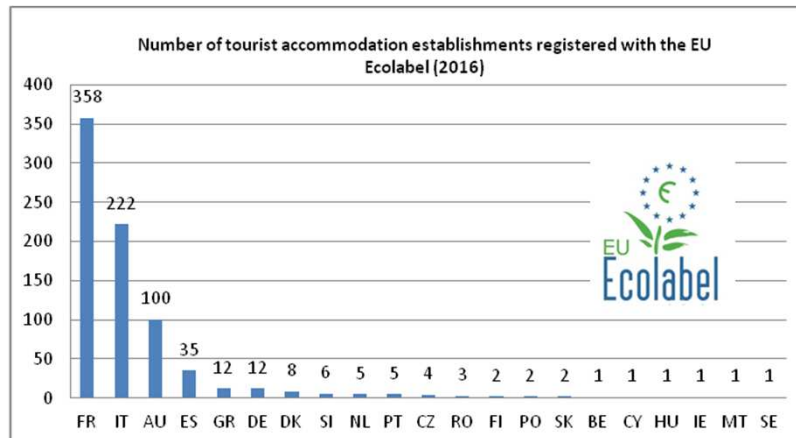


I3 – Spatial impact of tourism facilities: Ski resorts

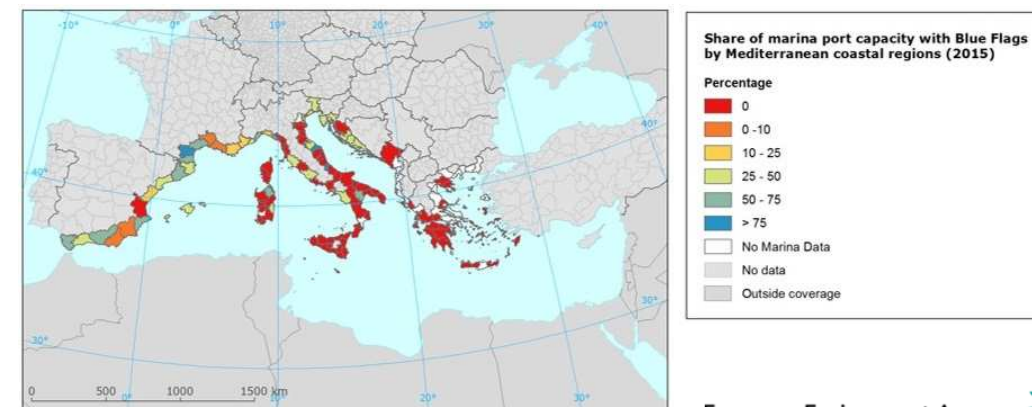
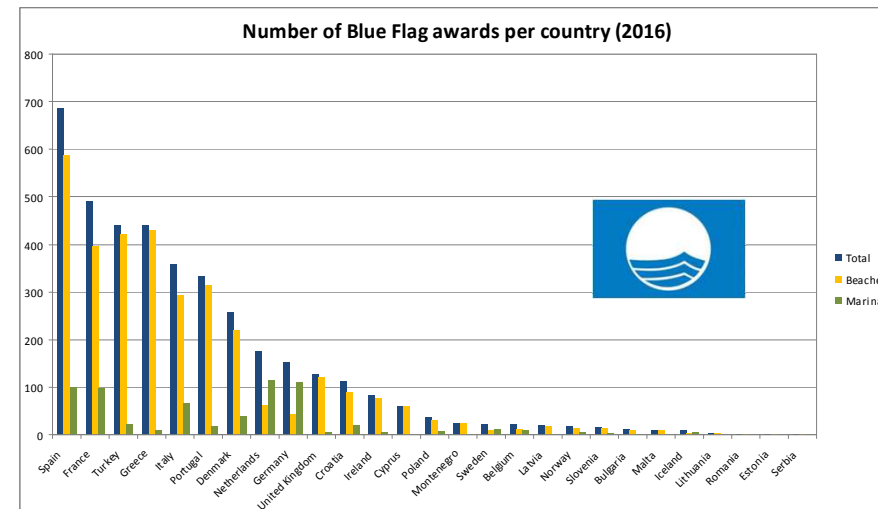


Indicators developed

R2 – Enterprises using environmental certification



R3 – Number of Blue Flag awards



Conclusions

- Tourism is an important sector for the European economies but also a major driving force determining pressures and impacts on the environment.
- Despite many environmental related policies acknowledge these pressures and impacts and call for the sector to become more and more environmentally sustainable it is still quite difficult to define a baseline and to measure to what extent this sustainability goal is being progressively achieved and where in Europe.
- This difficulty lies partially in the complex and cross-cutting nature of the sector that involves many other sectors in the challenge for sustainability and the fragmented available environmental data on tourism, as a reflection of the lack of precise environmental tourism policy targets.
- Currently methodologies presented to developed proxies and ancillary data from emerging sources (e.g. Big data or open source geographic data) provide an opportunity to downscale existing information and develop first assessments. As a consequence, a first indicator based framework is provided.
- However, this is a first stage of a process that should continue in time and consolidate an increasing number of indicators and data that should allow to report on the tourism and environment relationships in Europe, while awaiting that European statistics may in the future also better represent the environmental dimension of tourism impacts, as recently recommended by the European Commission.

Thank you very much for your attention



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