A review of integrated approaches for landscape monitoring

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EUROPEAN LANDSCAPE CONVENTION
CONVENTION EUROPÉENNE DU PAYSAGE
COUNCIL OF EUROPE/CONSEIL DE L'EUROPE
Drawn by Alberto Floridi

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Swiss Federal Research Institute WSL
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Aims of the report:

- **overview of landscape observatories/monitoring** initiatives that aim at monitoring the change in
  (a) the **physical and cultural-historical** components of landscapes and
  (b) the **perception of landscapes** by people.
  Special attention is given to approaches that cover both aspects, as they are key to fulfilling the monitoring requirements of the convention.

- **prerequisites** of such integrated approaches

- **criteria for successful implementation** for the parties of the Convention, allowing them to initiate monitoring programmes that cover physical and perceived landscapes.

Landscape Observatories and Monitoring

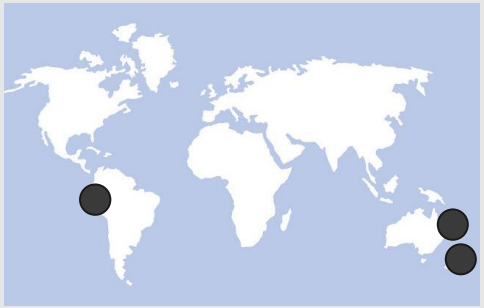
Observatories, centres or institutes

Programmes

recommendation R (2008) 3: **landscape observatories** are envisaged as the primary means of **'taking note of change' = monitoring**

The database: regional and national monitorings

a representative sample but not complete!



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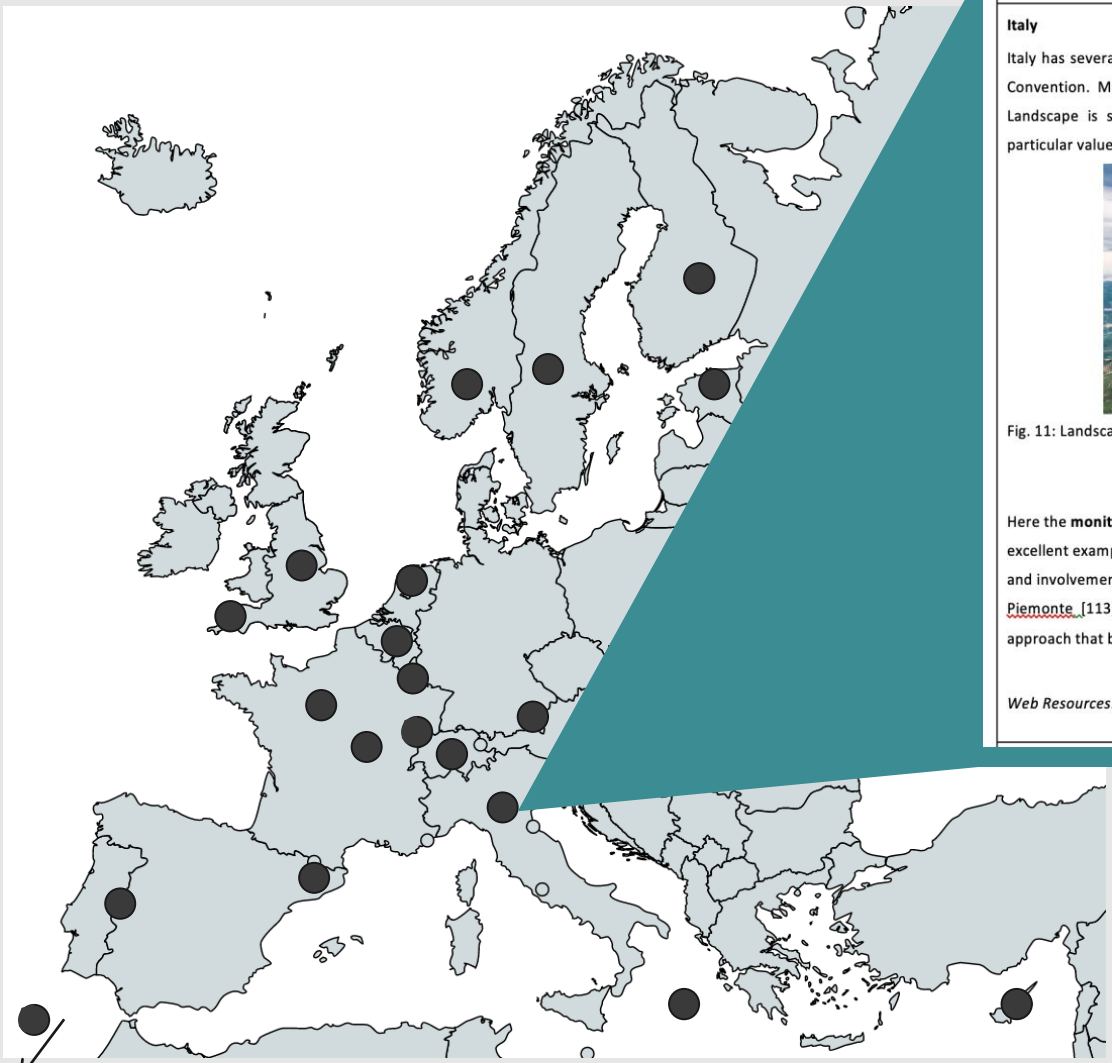


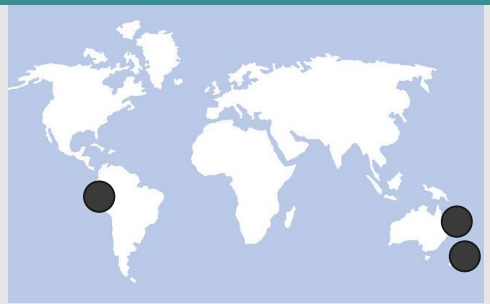
Italy

Italy has several landscape observatories at various spatial levels (Fig. 11). They all refer to the European Landscape Convention. Many of them use indicators to express the changes over time. The National Observatory of Rural Landscape is strongly linked to surveying agricultural practices and traditional knowledge considered to be of particular value for Italy [111].

Fig. 11: Landscape in Piemonte. Image: 'Barolo Landscape' by x1klima on Flickr (licensed as CC BY-ND 2.0)

Here the **monitoring activities of the Piemonte** region **(abbreviation in this report: Piemonte)** are highlighted as an excellent example of the fact that scientifically sound monitoring need not exclude a strong bottom-up component and involvement of the people. On the one hand there are seven local observatories which cover important areas of Piemonte [113]. On the other hand there is a well-elaborated and well-documented indicator-based monitoring approach that bridges all aspects of landscapes from biological aspects to perceptions [3].

Web Resources: [112]-[115]



The classification criteria

Criterion	Pole 1		Pole 2
(1) Type of landscape assessment	Indicator-driven	⟺	Comprehensive narrative landscape assessment focusing on case studies described with characteristics that differ from case to case
(2) Replicability and scientific ambitions	Science-driven (biology, geography, sociology)		Art-driven (photographs, drawings, architectural objects)
(3) Spatial coverage and representativeness	Statistically representative for a region		Case studies without statistical representativeness
(4) Compliance with ELC landscape definition	Integrated (covering all aspects of the ELC landscape definition)		Sectoral (covering selected aspects of the ELC landscape definition)
(5) Legal framework	Endorsed by an official national or provincial body		Endorsed by NGOs or citizens' movements
(6) Protection status of the covered area	Fully protected area		Protected areas form a mosaic in a matrix of unprotected land

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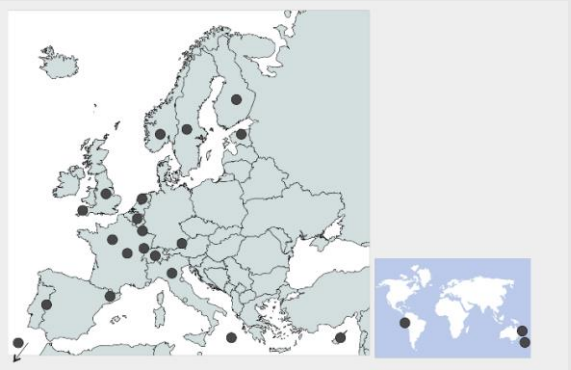

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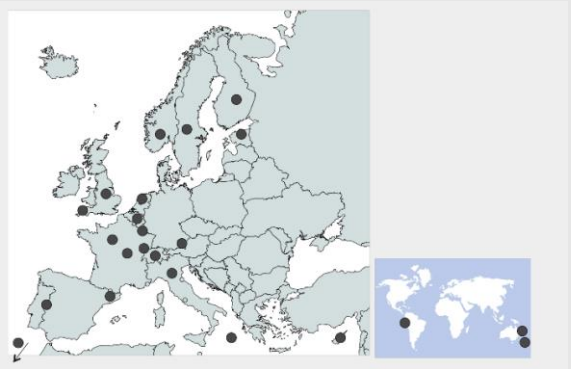

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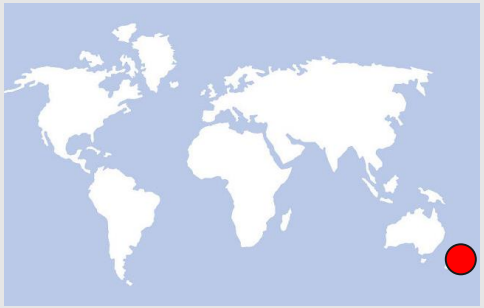
The resulting main types

- Indicator-driven approaches



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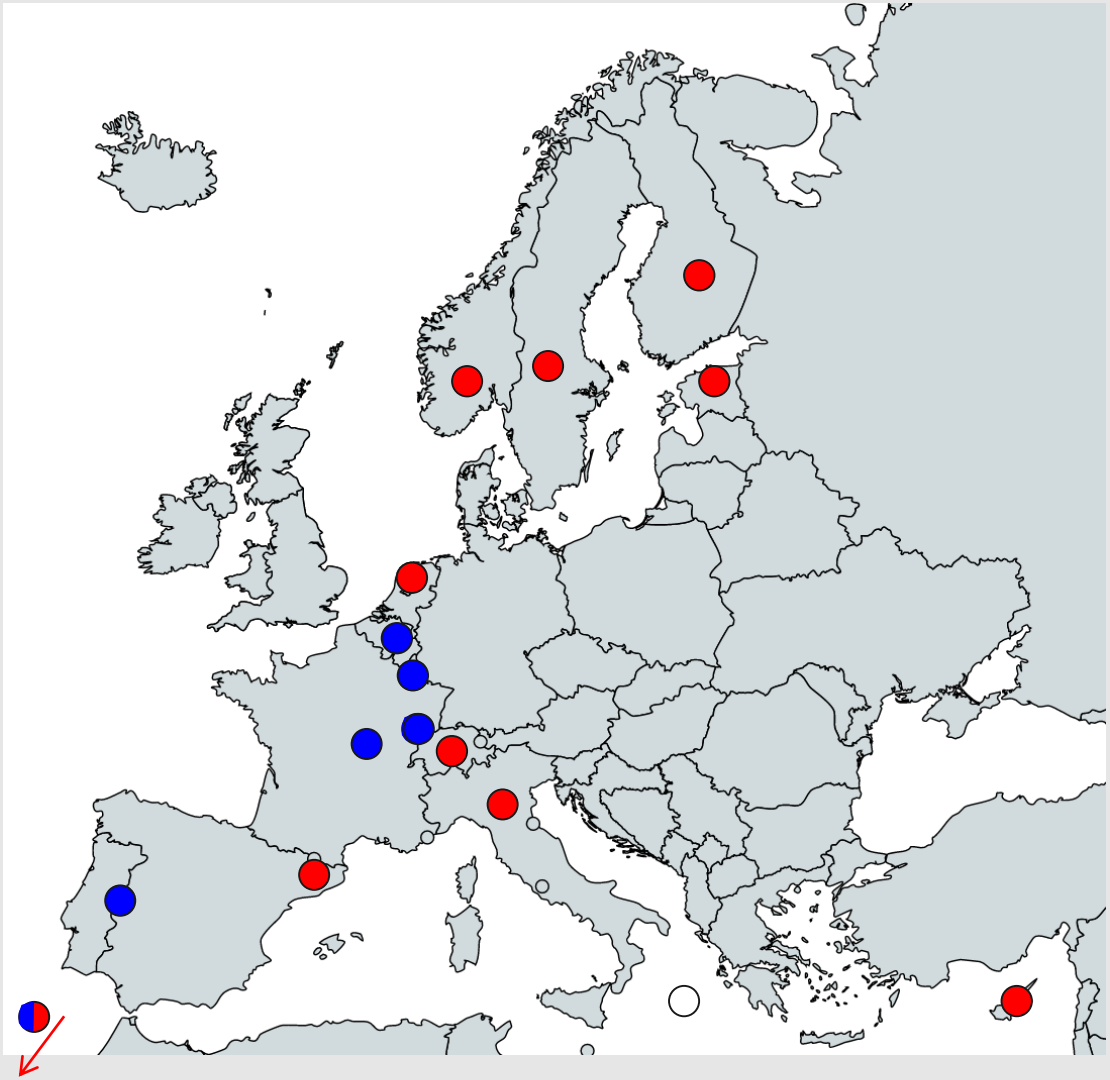
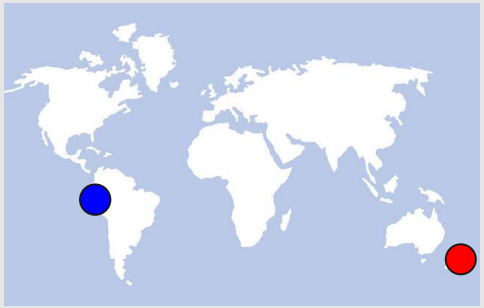


- Indicator-driven approaches
- Comprehensive narratives, partially art- and action-driven approaches



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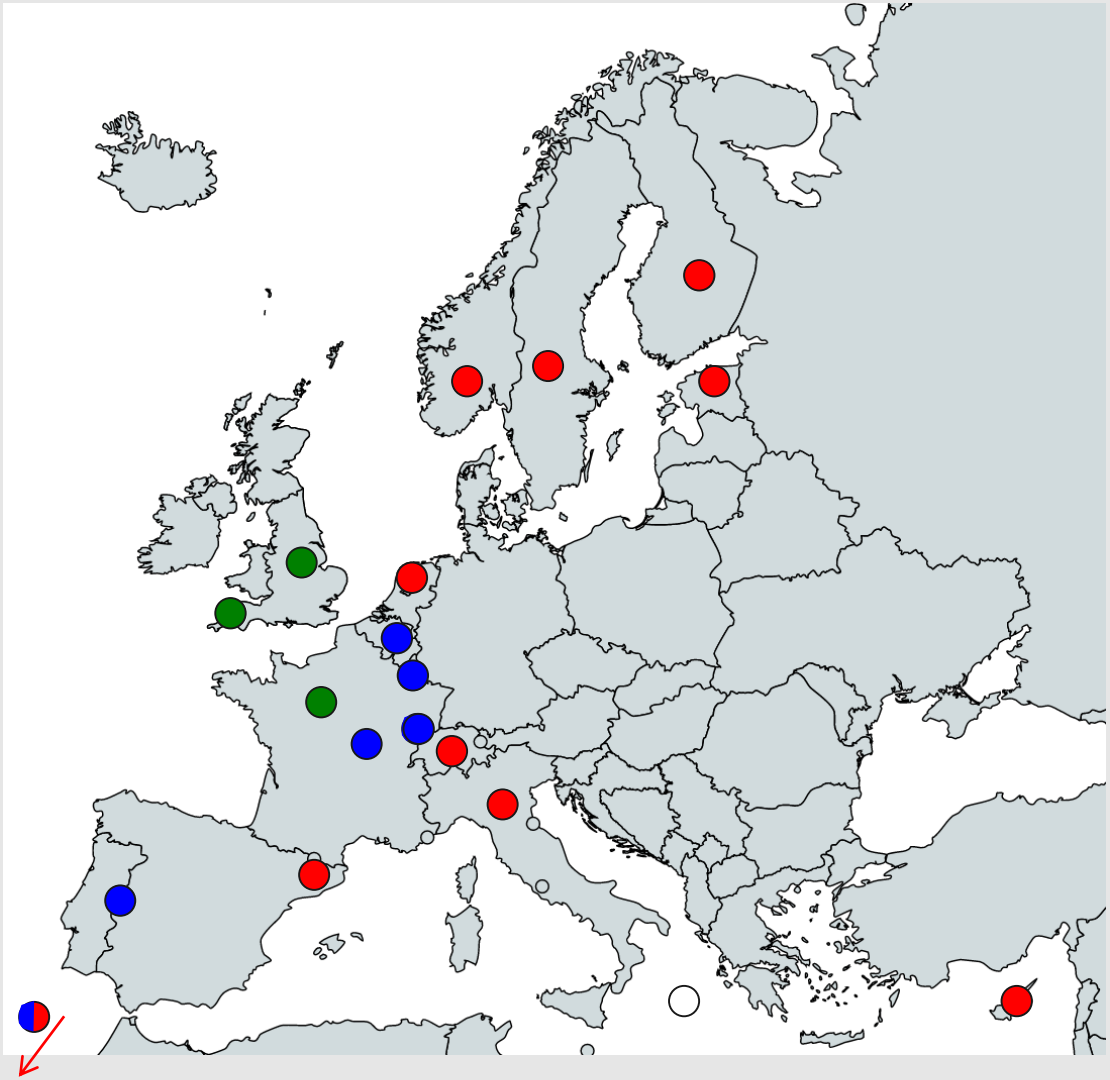
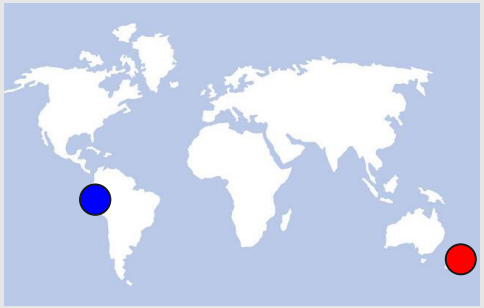


- Indicator-driven approaches
- Comprehensive narratives, partially art- and action-driven approaches
- Landscape character assessments ("Atlas de paysage") with monitoring



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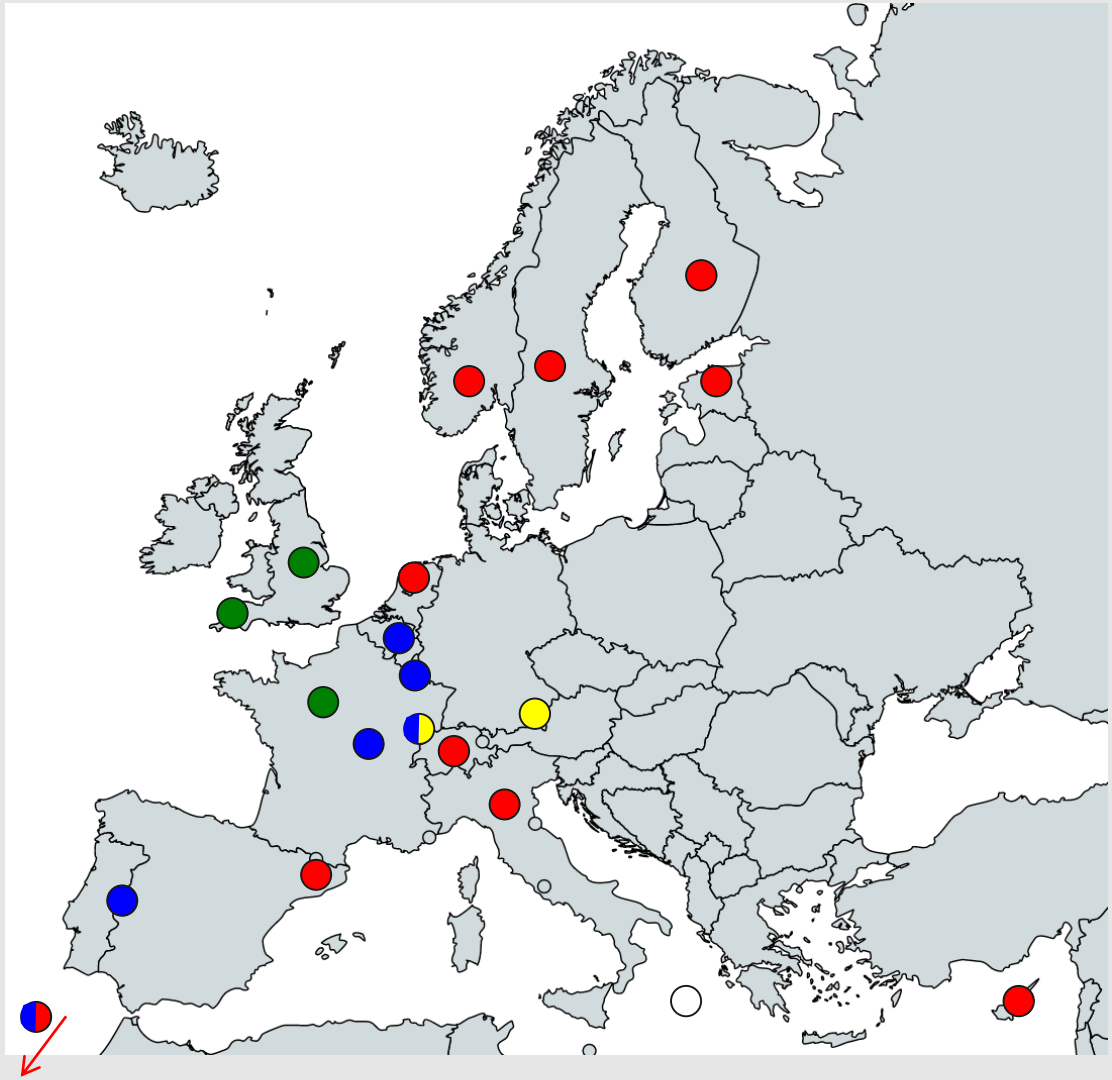

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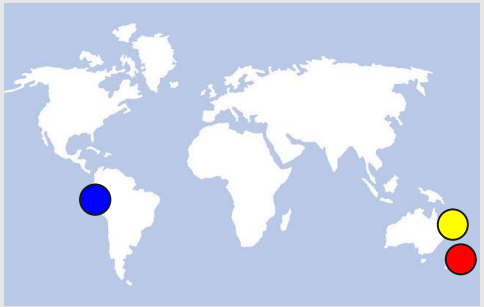
- Approaches for protected areas



Summary of findings

- Use the monitoring type that is appropriate for your geographical situation
- Do not only cover physical aspects (*perception* is a must and there are good prototypes; Norway, Switzerland)
- Indicator-driven monitorings: scientifically driven but expensive, only if highly committed agencies
- Narrative, art and action driven monitorings: quick and publicly effective statements possible, but often not representative, often not repeated except for monitorings using photographies
- LCAs: comprehensive, expensive, large expert pool

Key factors for implementation

- Endorse the monitoring by an official body
- Seek public participation and citizen science input
- Accept a lay view in landscape assessment
- Seek collaboration with research institutes
- Promote rapidly available data (e.g. Sentinel!)
- Be consistent with landscape theories (e.g. space/place concept)
- Use social media to gain insight into what people are writing deliberately about landscape (not within a survey!)

Future challenges

- Recommended use of social media as a participatory tool
- Include light- and soundscape
- Need to go beyond the perception of landscape → need to monitor place attachment
- Develop indicators that measure how easily mobile societies (any type of migrants) can establish a bonding to a place via landscapes
- Develop indicators to monitor the success of legal instruments

Thank you!