



# EEA and LLTK\* and Citizen Science



\*LLTK: Lay, Local, Traditional knowledge



# About the European Environment Agency

## The European Environment Agency:

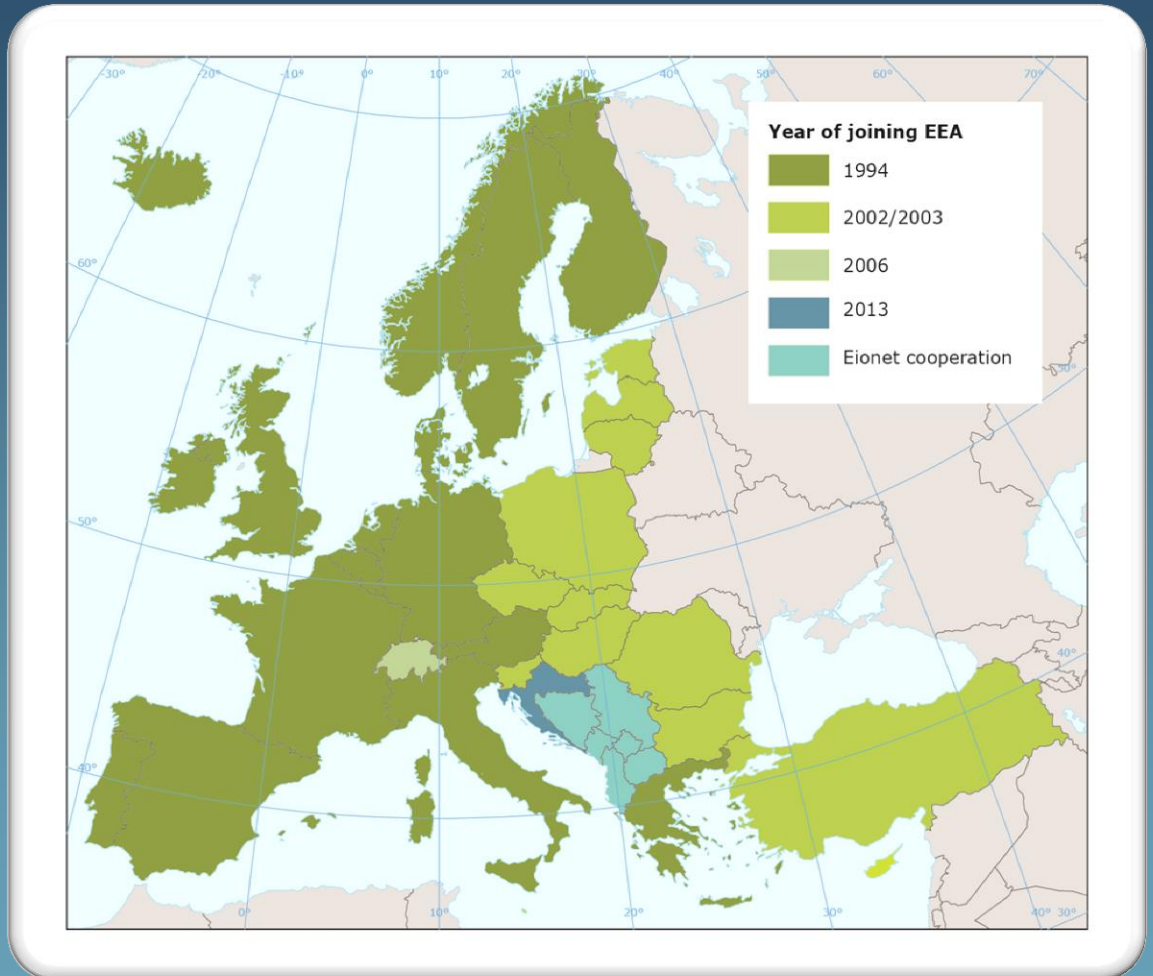
- is established by European Council regulation
- is a provider of independent views of knowledge & information
- is an analyst and assessor
- is building bridges between science and policy
- is dependent upon strong networks to carry out its work

*... to support policy processes and inform the public*

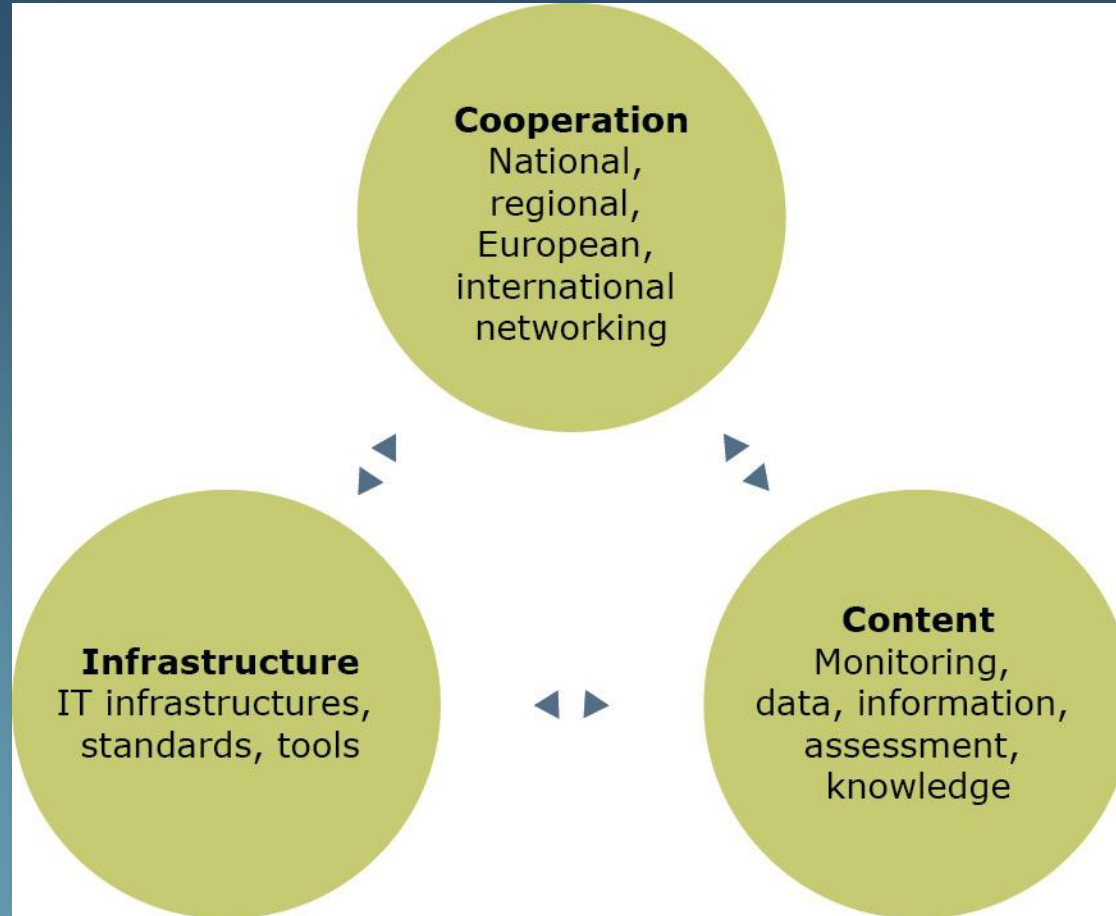


# European Environment Information and Observation Network

Established by COUNCIL REGULATION (EEC) No 1210/90 of 7 May 1990 on the establishment of the European Environment Agency and the Eionet



# Eionet Scope



# Institutional Cooperation

## Eionet partners working together



# How it all started at the EEA?

- Origins in Volume 1 of “**Late Lessons from Early Warnings: the Precautionary Principle 1896-2000**” (EEA, 2001).  
[http://www.eea.europa.eu/publications/environmental\\_issue\\_report\\_2001\\_22](http://www.eea.europa.eu/publications/environmental_issue_report_2001_22)
- Three of the 12 late lessons are
  - to make more use of ‘lay’ and local knowledge
  - to conduct more long-term monitoring.
  - to take account of wider social interests and values.



# Late Lessons from Early Warnings Vol. 2



- Broaden the nature of evidence and public engagement in choices about crucial innovation pathways by complementing scientific knowledge with lay, local and traditional knowledge
- Several cases highlight the benefit of having lay and local knowledge alongside scientific evaluation of harm so that a broader knowledge base can support decision-making
- There needs to be more **long term monitoring** of biological and ecological systems which can be supported in part by citizen scientists



# THE RAINBOW OF LLTK and CS ACTIVITIES

6 main TYPES of ACTIVITIES...

...WITH OVERLAPS

Citizen Scientists (1) Gathering data: Birds Butterflies Lichens Alien Species Trees "Eye on Earth" Etc.

Citizen Scientists (2) Analysing data: Earth Watch, Foundation for Citizen Sciences Etc.

Citizen Scientists (3) Proposing and designing research/co -production of knowledge:  
Health (Breast Cancer, Multiple Schlerosis Patients); Nature Conservation, Plant breeding Etc.

Traditional/ Indigenous: Inuit Sami Etc. Sea Ice/ Polar Bear Monitoring/ Assessments Etc.

Professionals: Bee Keepers Fishers Herders Hunters Etc.

Lay/Local Workers: Asbestos, BSE (mad cow disease), Swedish farmers, Etc..

## SOME COMMON THEMES

1. Reliability /Long-term monitoring
2. Organization/Motivation/Recruitment/Training/Guidance
3. Data recording/ Instrumentation
4. Interactions with Scientists/ Policy makers and National/International Organizations
5. Evaluation of activities/ projects.



# LLTK and Citizen Science Workshop

27-28 June 2011, EEA



- 1 and a half days
- 60 participants from across Europe, US, Canada
- **Objectives** of LLTK and CS workshop 2011
  - Review LLTK (lay, local, traditional knowledge) and CS (citizen science) contributions to **collecting and processing information and the long-term monitoring of the environment**
  - Review / discuss LLTK and CS contributions to integrated **assessments of the environment** with a focus on **reliability**
  - Address challenges related to **data handling, quality assurance and effectiveness evaluation** in selected LLTK studies and CS projects.



# Objectives of the LLTK and CS workshop

- Explore the use of **tools** (GIS, mapping, smart monitoring instruments etc.) in citizen science projects.
- Review experiences of interaction between LLTK and CS and policy-makers, scientific communities and relevant organisations.
- Discuss how citizen science networks are organized and maintained.



# After the workshop

- Workshop report prepared and distributed.
- EEA Portal established on LLTK and Citizen Science.  
<http://root.ew.eea.europa.eu/lltk/>
- Citizen Science Newsletter since April 2012.
- Support the fostering of European Citizen Science Network.





# Eye on Earth

- A global public information network for collecting and sharing data from diverse sources that can be visualized on a map.
- [Watches](#) (Air, Water, Noise and Marine Litter Watch)

key components of Eye on Earth

aim to collect and compile environmental data from diverse sources;

transform it into relevant information

make information accessible to a wide diversity of audiences.



# Rio+20 Outcome Document



- The Rio+20 outcome document [\*The Future We Want\*](#) refers to Eye on Earth in paragraph 274.
- “...We note the relevance of global mapping and recognize the efforts in developing global environmental observing systems, including by the Eye on Earth Network and through the Global Earth Observation System of Systems.”
- “We underscore that broad public participation and access to information ...are essential to the promotion of sustainable development.”



# Citizen Science and Policy Making

- EU Biodiversity Strategy to 2020
- “The active involvement of civil society will be encouraged at all levels of implementation. **Citizen Science initiatives**, for instance, are a valuable means of gathering high-quality data while mobilising citizens to get involved in biodiversity conservation activities.”
- 7<sup>th</sup> Environmental Action Programme
  - “Evidence for EU environment policy is based on environmental monitoring, data, indicators and assessments linked to the implementation of EU legislation, as well as formal scientific research and **‘citizen science’ initiatives.**”



# Citizen Science and Policy Making

- In 2010 the Convention on Biological Diversity Conference of the Parties adopted the **Aichi Biodiversity targets**. Aichi Target 1 explicitly states *“By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably”*.
- Citizen science has a role in such awareness raising but also in providing evidence to evaluate the implementation of actions to address the Aichi targets.
- UNECE Aarhus Convention
- Arctic Biodiversity Assessments



# Links and Suggestions with EU BON Project

- Send news to the EEA CS newsletter.
- Possible use of Eye on Earth as a platform  
[malene.bruun@eea.europa.eu](mailto:malene.bruun@eea.europa.eu)
- Session or co-partner at the Second EEA CS workshop to be held in September 2013
- More involvement of Eastern European countries
- Broader understanding of CS, including LLTK.





# Thank you!

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