User and Policy Needs Assessment

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All EuropaBON Partners













Convention on Biological Diversity







































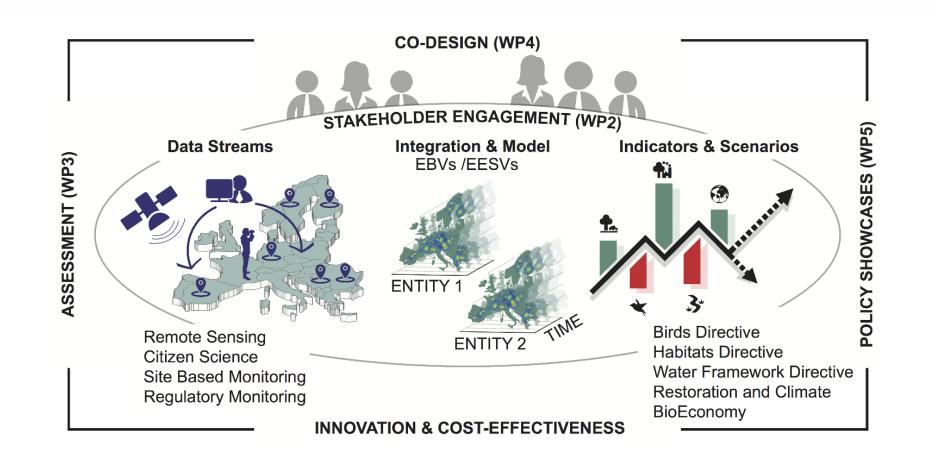
EU Green Deal

Europe must lead the transition to a **healthy planet** and a **new digital world**.

But it can only do so by **bringing people together**



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WP2 Stakeholder Engagement: Tasks

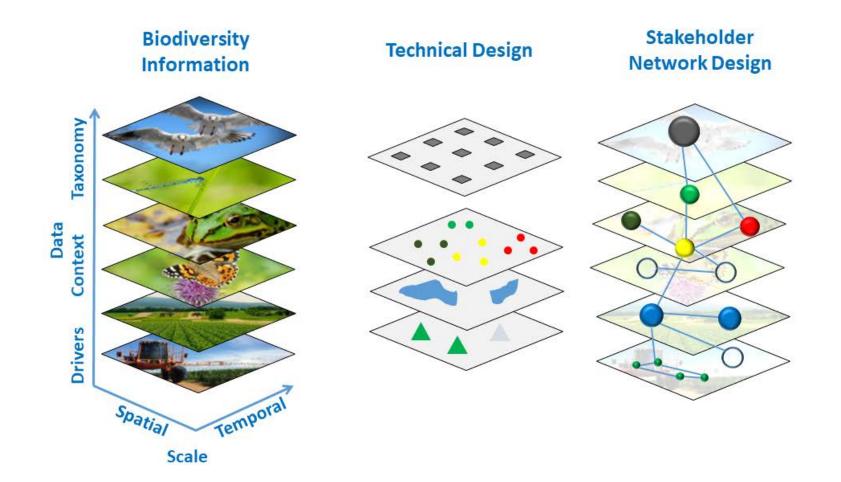
Task List

- T 2.1 Identifying stakeholders
- T 2.2 User and policy needs assessment
- T 2.3 Thematic workshops facilitating knowledgeexchange
- T 2.4 Establishing the Terms of Reference of a Biodiversity Monitoring Coordination Centre
- T 2.5 Communication and Dissemination





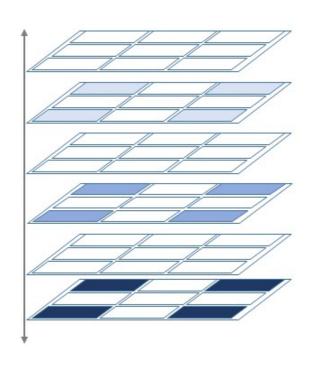
Biodiversity Observation Networks – what do we have?





Kühl, Bowler, Bösch, Bruelheide, Dauber, Eichenberg, Eisenhauer, Fernández, Guerra, Henle, Herbinger, Isaac, Jansen, König-Ries, Kühn, Nilsen, Pe'er, Richter, Schulte, Settele, van Dam, Voigt, Wägele, Wirth & Bonn (2020) Effective Biodiversity Monitoring Needs a Culture of Integration. One Earth, 3, 462-474.

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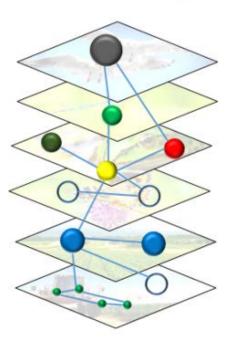


Top Down Monitoring

- Stadardisation of sampling sites
 & methods
- Definition of strict standards for data collection protocols, data mobilization and quality
- Highly controlled & structured design



Stakeholder Network Design







BONs – who is involved?





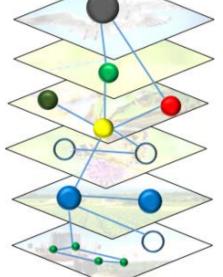




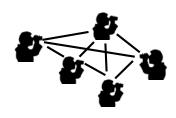






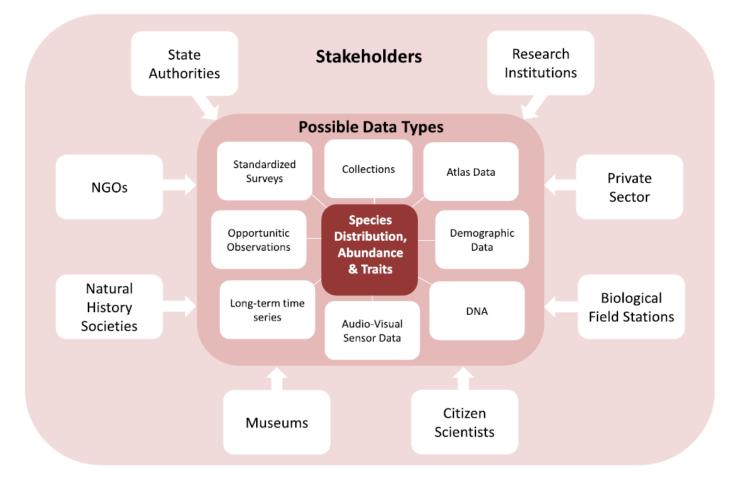








Effective Biodiversity Monitoring needs a Culture of Integration



Collaborative leadership - sense of shared ownership & innovation potential



Kühl, Bowler, Bösch, Bruelheide, Dauber, Eichenberg, Eisenhauer, Fernández, Guerra, Henle, Herbinger, Isaac, Jansen, König-Ries, Kühn, Nilsen, Pe'er, Richter, Schulte, Settele, van Dam, Voigt, Wägele, Wirth & Bonn (2020) Effective Biodiversity Monitoring Needs a Culture of Integration. One Earth, 3, 462-474.

What are the Benefits - Examples?

Stakeholder	Motivation	Benefits	Impediments	Incentives
State authorities	Legal obligation and reporting duties	 Access to info on state and trends of biodiversity otherwise not available 	 Understaffed limited communication concern losing sovereignty? 	 Increased efficiency added value through buy-in by stakeholders Transparency
NGOs	Member integration, influencing planning, intrinsic motivation	 Access to reliable, quantitative information for highlighting threats 	Perceived loss of own visibility	 Increased evidence base for influencing policy and legislation Self-efficacy
Natural history societies	Intrinsic motivation, Enthusiasm for biodiversity	 Exchange with like- minded people Interoperability with environmental data 	• Funding/ capacities	 Access to analytical and statistical expertise Increased recognition of work



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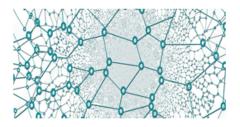
Achieving Integration

Identifying stakeholders



Welcoming and embracing diversity

Turning stakeholders into network nodes



Identifying stakeholders roles, motivation, benefits and strengths

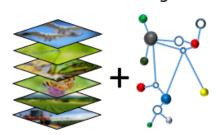
Linking the nodes (stakeholders)



Enabling participation, identify impediments, designing incentives

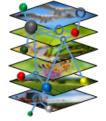


Aligning the social network and technical design



Creating a network design, data standards and sharing policy agreement, infrastructure

Unifying stakeholders around core standardised monitoring programme



Developing biodiversity monitoring program, increase relevance, political and emotional, and joint ownership



(Kühl, Bowler, et al 2020 One Earth)





EuropaBON Stakeholder Meeting

26-28 May 2021

What existing and novel biodiversity data flows are needed now and over the next 5-10 years?

If possible, can you also specify which policy goals they are connected to?

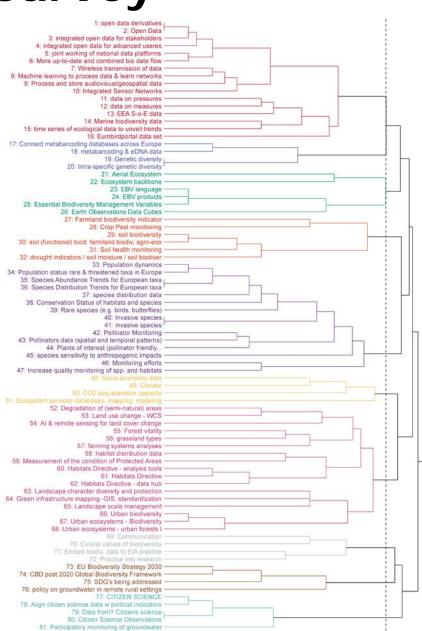
17-21 May rapid survey: 81 entries

https://www.well-sorted.org/output/EuropaBONUserandPolicyNeeds/#Documents











Integrated open data Novel technologies

Genetic diversity

EBV & earth observation

Farmland & Soils

Species Distribution & Trends (incl invasive sp./pollinators)

Ecosystem Services

Habitats Directive Landscapes Urban Biodiversity

Practice (EIA)

EU Biodiv Strategy 2030 / SDG

Citizen Science



Open data derivatives

- Standardized maps for species ranges, species richness, functional properties of assemblages, phylogenetic info
- **Easy to browse** in the web and to **download** for further use.
- Stakeholders, ranging from high-level governmental agencies to ground-work-doing nature conservationists, need simple access to biodiversity access that is integrated, cleaned, follows an accepted taxonomy
- joint interfaces & interoperability between national, regional and EU platforms, implement Open Science and FAIR data

Integrated open data Novel technologies Genetic diversity EBV & earth observation



Novel data types

- Novel data types such as (i) images (phenocams etc), (ii) citizen science based imagery,
 (iii) audiovisual content (audiologs, videos) and
 (iv) spatiotemporal data
- Integrated sensor networks: automated biodiversity monitoring stations, metabarcoding, machine learning approaches
- Multi-scale Earth Observations data from (satellites to drones)
- Time series of biological data
- Genetic diversity
- Also: Marine data & data on pressures

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Habitats Directive Landscapes Urban Biodiversity

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Farmland & Soils

- A pan-European indicator of the biodiversity
 value of farmland- Crucial for CAP evaluation
- Soil biodiversity
 Soil policy; Climate policy; Nature Directives

Species Trends

- Cross-sectional monitoring methodology at European level to robustly assess the population status of rare and threatened taxa in terrestrial, aquatic or marine environments.
 Habitats and Birds Directive, WFD
- EU wide invasive and alien species monitoring
- Pollinator monitoring- Farm2Fork, Biodiversity
 Strategy, Habitats Directive



Farmland & Soils Species Distribution & Trends (incl invasive sp./pollinators)

Ecosystem Services

- CO₂ sequestration capacity- mitigation and adaptation potential of vegetation types
- Socio-economic data
 What does biodiversity mean for job
 availability? For human health? For tourism?

Landscapes and Habitats

- near real time monitoring for land use and land cover change to inform a range of policies (Biodiv., Agriculture, Climate, Water, Health)
- Centrally **organised analysis pipeline** to analyse data collected for the **Habitats Directive**.
- Landscape character -European Landscape
 Convention
- Green infrastructure mapping
- Urban Biodiversity



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Citizen Science

Practice / Communication

- Embed biodiversity data to EIA practice
- Capturing what is going on 'in the field' and inform science about the practical approaches, including open question for science

EU Biodiversity Strategy / SDGs

Serve policy goals

Citizen Science

- establish workflows for citizen science data to inform political indicators
- role needs to be strengthened, amplified and quality assessments performed

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Ecosystem Services

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User & Policy Needs - this morning



Interactive Workshops

- Identify relevant policy questions in 5-10 years
- Co-Design desirable future & EuropaBON services to policy and other users
- Identify roadblocks
- Develop solutions to adress challenges
- Suggest own contriutions to EuropaBON Network













THANK YOU!



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