

GINGR Linear Infrastructure Methodology

Adrián Maté

Environmental Coordinator – GINGR Renewables Grid Initiative

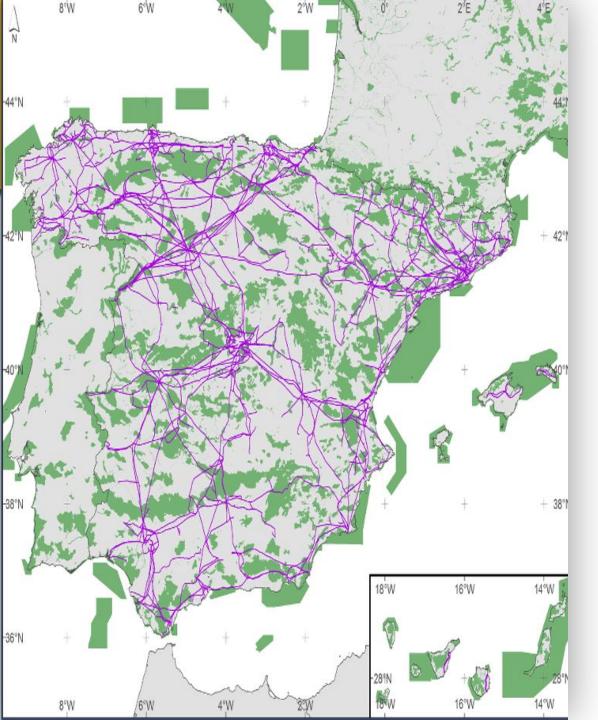
Connecting Pollinator Corridors 11 December 2025 15:00 – 16:30 CET



An initiative of









Power Grids CAN be measured!

- 1. IVM creates stable, diverse habitats
- 2. Field Testing (Quadrats) & Remote sensing (Floral Resources) provides TSOs with a practical, science-based way to quantify IVM's benefits
- 3. We can shift from *standard* corridors to **Socio-Ecological Connectors**
 - → Land Use & Landscape-connectivity
- 4. We can turn IVM into a **measurable**, **comparable and auditable** Biodiversity Gain

Ferrer, M. et al. 2020. Diversity 12(11): 439.





EFRAG launch consultation on simplified European Sustainability Reporting Standards (ESRS) under the Corporate Sustainability Reporting Directive (CSRD)

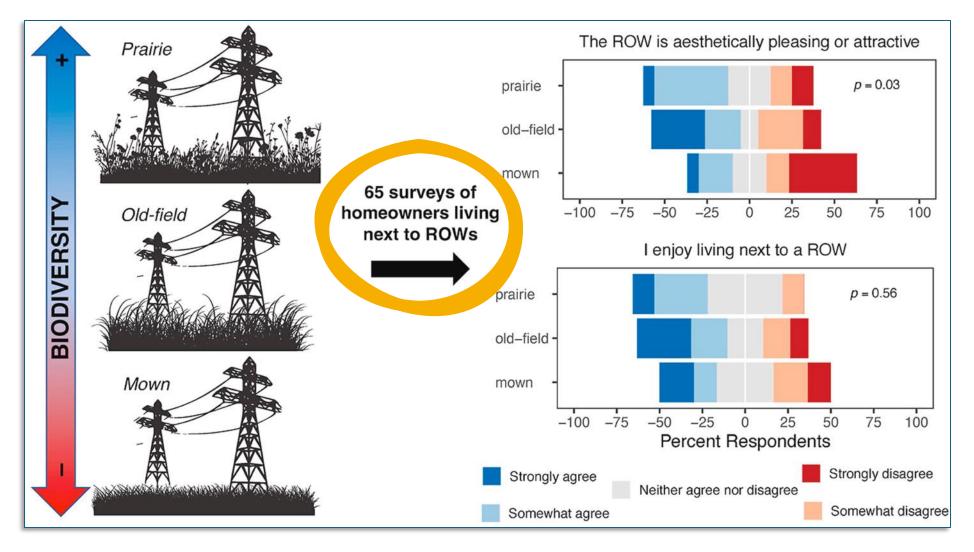
Why measure? TSOs are being asked by regulators and investors how they report nature and people actions...

- → Q1: Can TSOs use simple quantitative/qualitative metrics to show how IVM improves biodiversity and human enjoyment at an easement level?
- → Q2: Can TSOs use metrics to demonstrate measurable gains (lower METRIC A + higher METRIC B = more pollinators)?
- → Q3: Can TSOs use single unitary values per easement to expand their knowledge in other areas (LCOE, LCA) while meeting EFRAG, CSRD and TNFD requirements?



A1. Yes, we CAN measure QUALITATIVE benefits

Measuring human enjoyment, compatible, in this case, with IVM



Garfinkel, M. et al. 2023. J. Environ. Manage. 330: 117175.





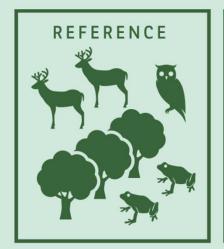
A2. Yes, We CAN measure QUANTITATIVE benefits

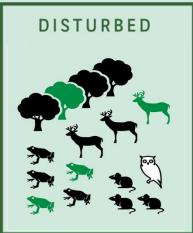
We DREAM with translating complex ecology into simple, and comparable single-number indicators:

- 1. How much biodiversity has been lost compared to a natural baseline (Potentially Disappear Fraction or "Metric A").
- 2. How abundant native species are compared to their baseline condition (Mean Species Abundance or "Metric B").
 - → It will allow TSOs to express ecological change at a corridor segment with one simple number, not thousands of species-level data points.



Errata Naturae Editores. Ey! Esta es mi casa. ISBN 978-8417800765.





$$MSA(r) = \frac{\sum_{i=1}^{R} MSA(r_i) *Area(r_i)}{\sum_{i=1}^{R} Area(r_i)}$$

$$PDF_{j,global} = \frac{\sum_{g} PDF_{g,j,global}}{m}$$

BII=CS=
$$\frac{2\sum_{i=1}^{P} \min(N_{i,S}, N_{i,S_{ref}})}{\sum_{i=1}^{P} (N_{i,S} + N_{i,S_{ref}})}$$

A3. Yes, We CAN use metrics for more than reporting

- Builds on existing work, we CAN develop gridtailored metrics, (understanding its weighting, limitations, definitions, interpretations)
- We CAN combine metrics with Surveys & Remote Sensing to set our baselines, (based on grid impacts on Nature -abiotic & biotic- and People -via ecosystem services).
- Yes, metrics CAN be very useful for Life Cycle Impact Assessments too!

Ben Rejeb-Mzah, I., Jaubert, N., Mrabet, H., & Vincent, A. 2024. Quantifying Biodiversity Loss Risk: Biodiversity Intactness Indices. SSRN.



How it will be done? Via a Co-authoring PROCESS

Stakeholders *Co-creation*



Set *Baselines*



Deliver *NPP Designs*



Justify their Efforts



Please *Investors*

Scientists-Anthropologists





eDNA



TSOs, RE developers



Communities



NGOs Corporations





State of the Art Grids



Permitting Authorities, Regulators can understand additional efforts













Thank you!



News

Towards Convergence on Metrics and Impacts: Update on the GINGR Framework

Adrián Maté

Chair Technical Working Group on Linear Infrastructure

Environmental Coordinator – GINGR Renewables Grid Initiative

adrian@renewables-grid.eu

Happy New Year!



