GRANULAR

Tracking diversity of EU rural areas: Towards evidence-informed policies

GRANULAR Bootcamp | Performance indicators in the new MFF: What do they mean for the future of rural areas?

Carlos Tapia (Nordregio)

19 March 2026 (11:30- 13:00 CET)

Online

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Research Executive Agency. Neither the European Union nor the granting authority can be held responsible for them. UK participants in the GRANULAR project are supported by UKRI- Grant numbers 10039965 (James Hutton Institute) and 10041831 (University of Southampton).

Funded by the European Union

RURAL EUROPE IN RESEARCH AND POLICY DOCUMENTS: PREVAILING NARRATIVE

GRANULAR

Prevailing narrative in policy and research

"Rural areas in generalised demographic decline"

Features:

- Population decline & ageing
- Poor infrastructure (digital connectivity, transport)
- Limited public services & amenities
- Reduced job opportunities & lower income
- Housing shortages
- Environmental vulnerabilities
- Weak local governance

Funded by
the European Union

DEMOGRAPHIC CHANGE IN EUROPE'S RURAL AREAS (2011-2021)

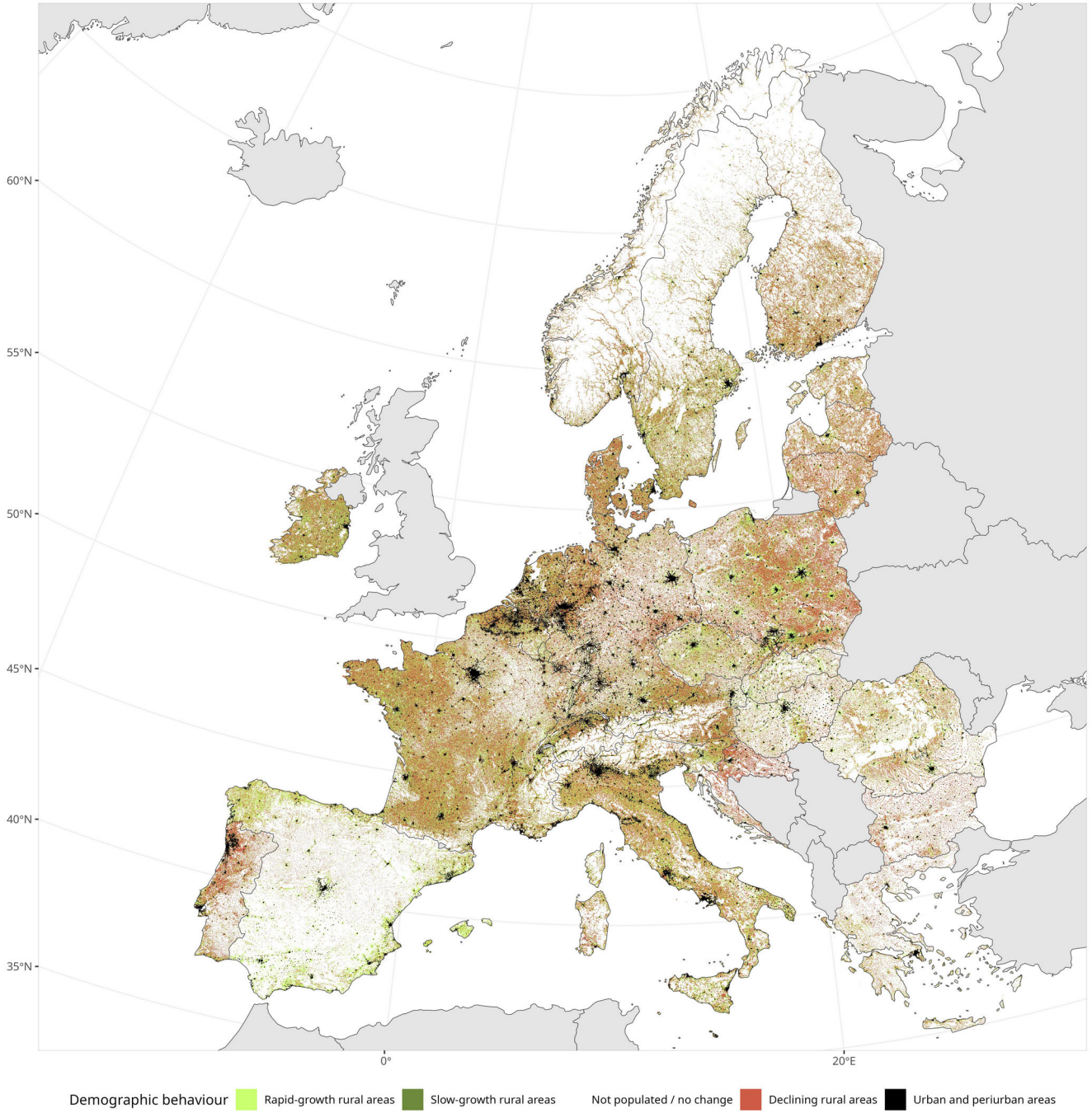
Many rural areas are growing

DEGURBA level 2 (2011)	Rapid-growth	Other areas	Total
311: Very low density rural grid cell	12.1% (14.5%)	71.3% (85.5%)	83.30%
312: Low density rural grid cell	3.6% (32.0%)	7.7% (68.0%)	11.30%
313: Rural cluster	0.5% (27.5%)	1.3% (72.5%)	1.80%
Subtotal (rural cells)	16.2%	80.3%	96.5%
221: Suburban/peri-urban grid cell	0.8% (37.5%)	1.3% (62.5%)	2%
222: Semi dense urban cluster	0.1% (31.0%)	0.2% (69.0%)	0.20%
223: Dense urban cluster	0.2% (30.4%)	0.4% (69.6%)	0.60%
130: Urban centre	0.3% (35.0%)	0.5% (65.0%)	0.70%
Total	17.6%	82.7%	100%

* Grid-cells where population growth exceeds that of the administrative regions (NUTS 0-3) they are part of. Values in brackets are the percentages calculated within each DEGURBA class (row-wise).

Rapid-growth rural areas (2011-2021)

Areas where population growth has been faster than the regions and nations where they are located



SourcC: © EuroGeographics

RURAL (DEMOGRAPHIC) ATTRACTIVENESS

GRANULAR

A multi-faceted concept

- **No single definition**
- Rural attractiveness is '*a complex and multi-faceted concept for which there is no single, universally applicable definition.*' (Čerba & Velten 2024).
- **Focus on rural development**
- **Different tenants involved:**
  - Existing rural populations
  - Newcomers (nationals & migrants)
  - Visitors (tourists)

Funded by the European Union

WHAT MAKES RURAL AREAS DEMOGRAPHICALLY ATTRACTIVE?

Key determinants in the literature

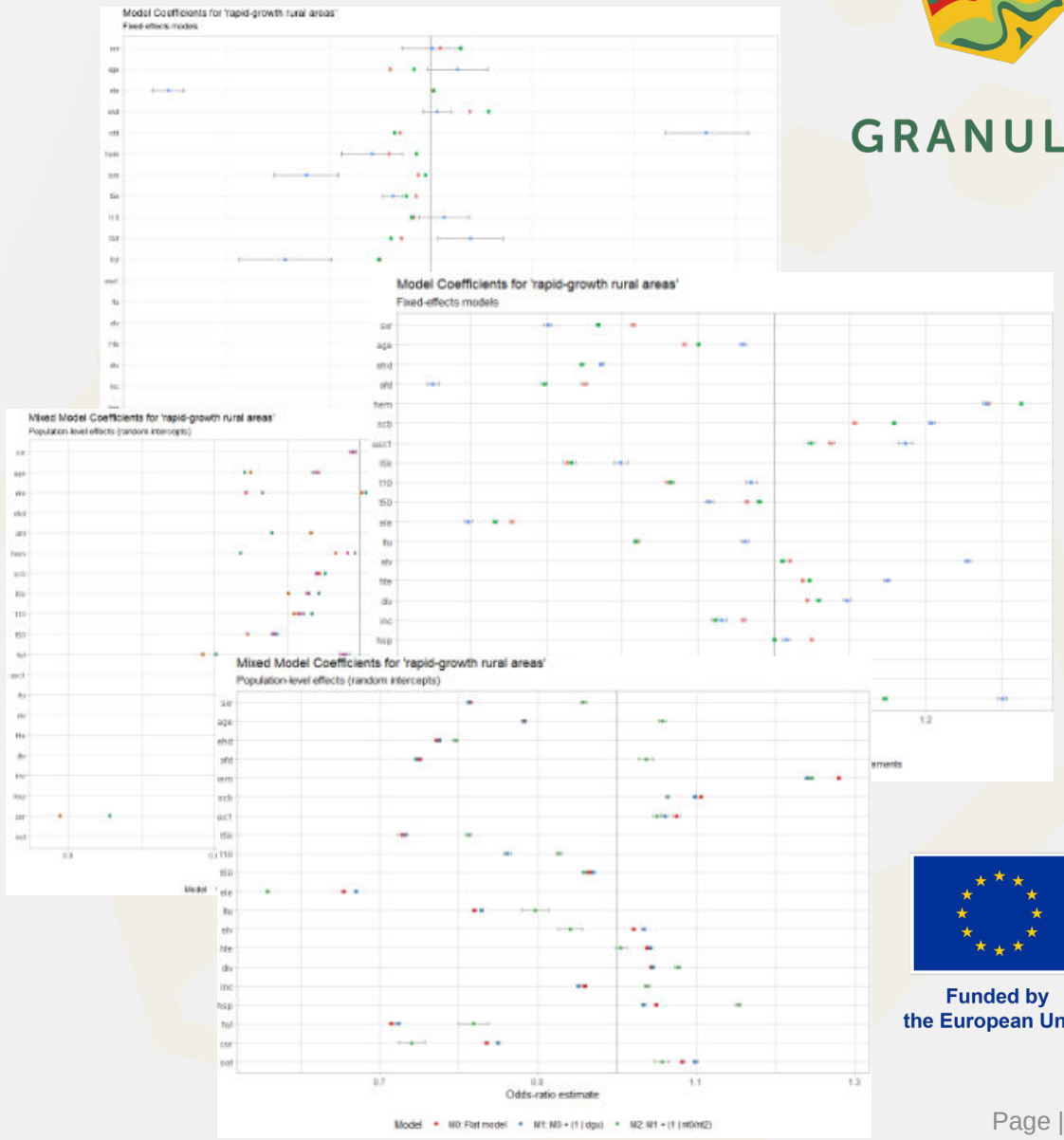
- Accessibility to basic services
- Employment and working conditions
- Material living conditions and inequalities
- Social trust and community bonds
- Quality of life and liveability
- Demographic factors

RAPID-GROWTH RURAL AREAS: KEY DETERMINANTS

GRANULAR

Methodology

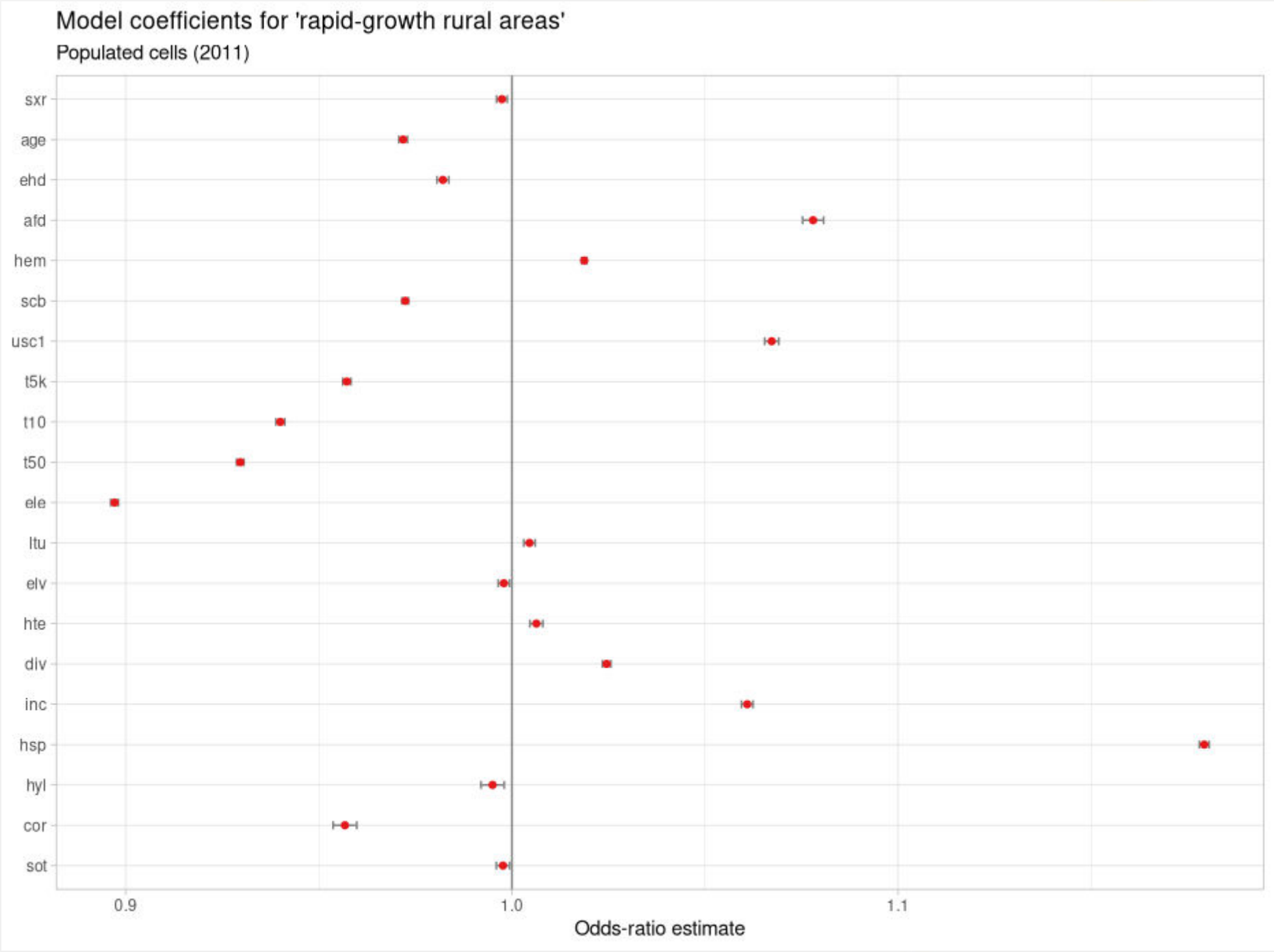
- 30 European countries
- Binary Outcome Variable
- 20 predictors
- Two experimental designs
- Two Model Families
- Model Comparison
- Robustness Checks



Funded by
the European Union

RESULTS

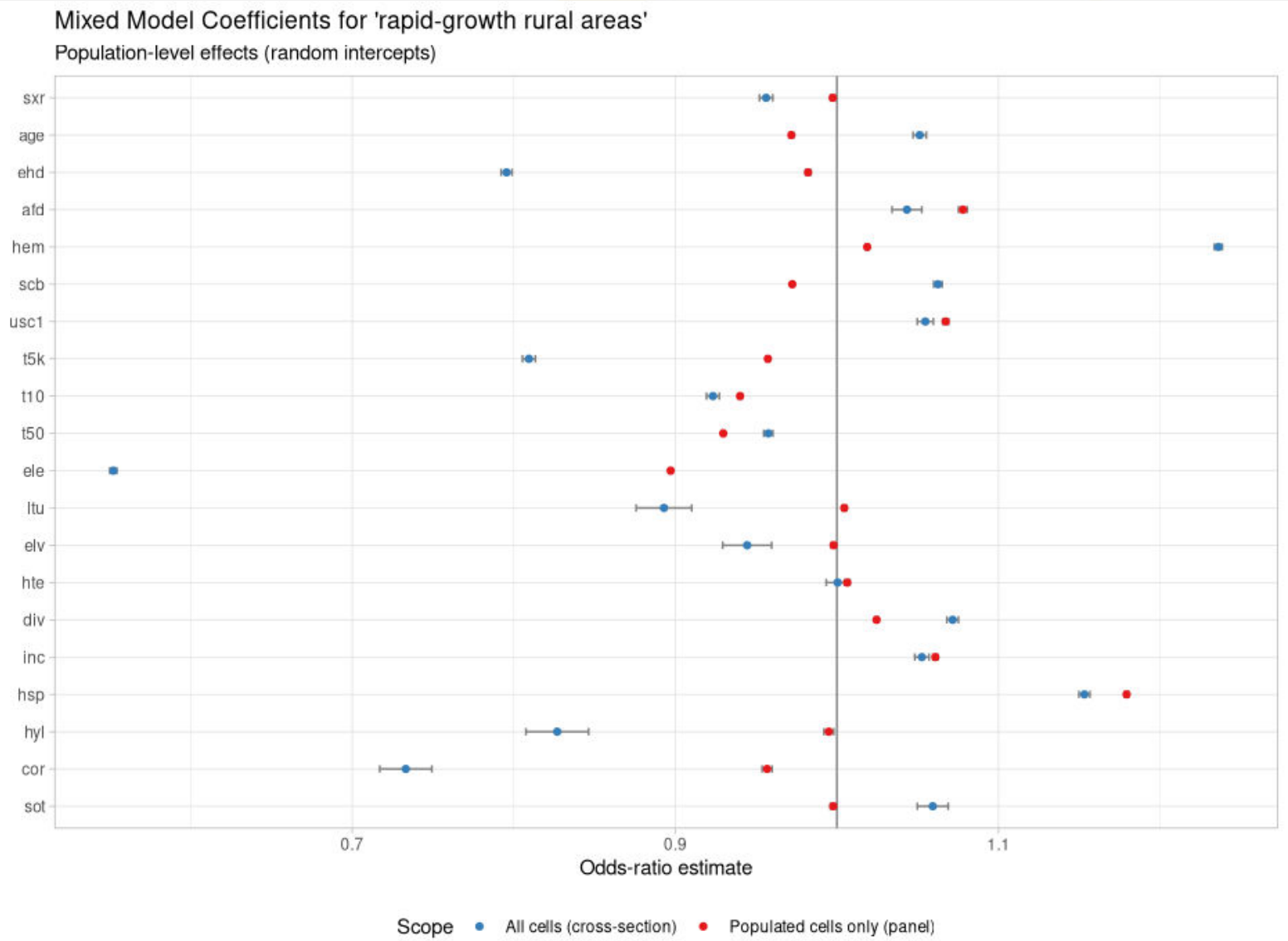
- **Demography**:
  - (-) Sex ratio – M/F (***sxr***)
  - (-) Median age (***age***)
- **Liveability**:
  - (-) Extreme hot days (***ehd***)
  - (+) Frost days (***afd***)
  - (+) Hemeroby index (***hem***)
  - (-) Scenic beauty (***scb***)
  - (+) UNESCO sites (***usc***)
- **Accessibility**
  - (-) Time to 5,000 town (***t5k***)
  - (-) Time to 10,000 city (***t10***)
  - (-) Time to 50,000 city (***t50***)
  - (-) Elevation (***ele***)
- **Labour markets**:
  - (+) Long-term unemployment (***ltu***)
  - (○) Early leavers from education and training (***elv***)
  - (+) Employment in high-tech sectors (***hte***)
- **Material living conditions**
  - (+) Economic diversification (***div***)
  - (+) Household income (***inc***)
  - (+) Housing prices (***hsp***)
  - (-) Years lost (***hyl***)
- **Social trust**:
  - (-) Perceived corruption (***cor***)
  - (○) Social trust (***sot***)



HOW SETTLEMENT STRUCTURE AFFECT RESULTS?

Result comparison

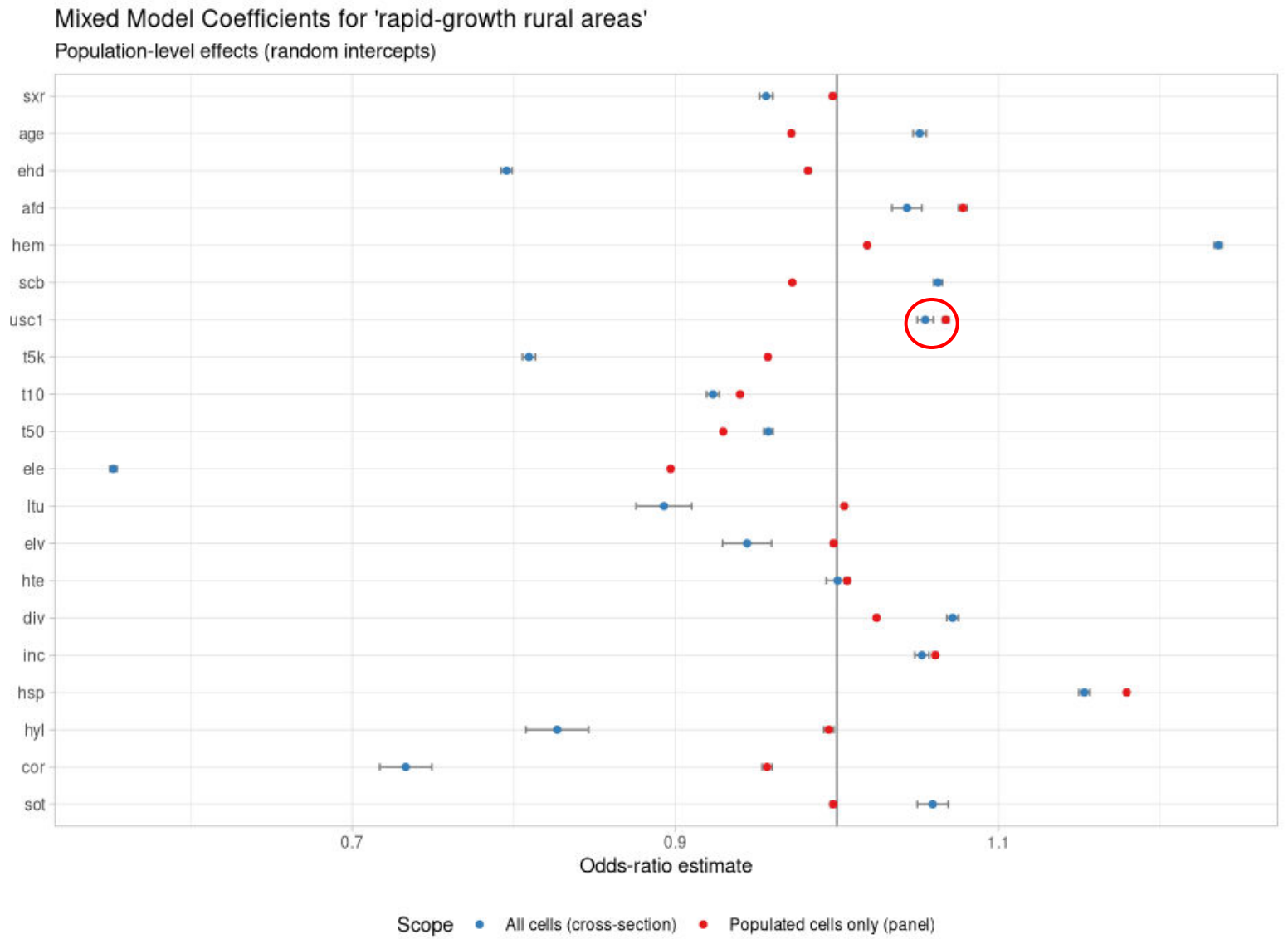
- Multi-level models, same formula
- Random effects for DEGURBA and nested administrative structure
- Points represent fixed-effects coefficients
- Red points: populated cells (2011), panel design
- Blue points: all cells, cross-section



HOW SETTLEMENT STRUCTURE AFFECT RESULTS?

Populated vs all cells

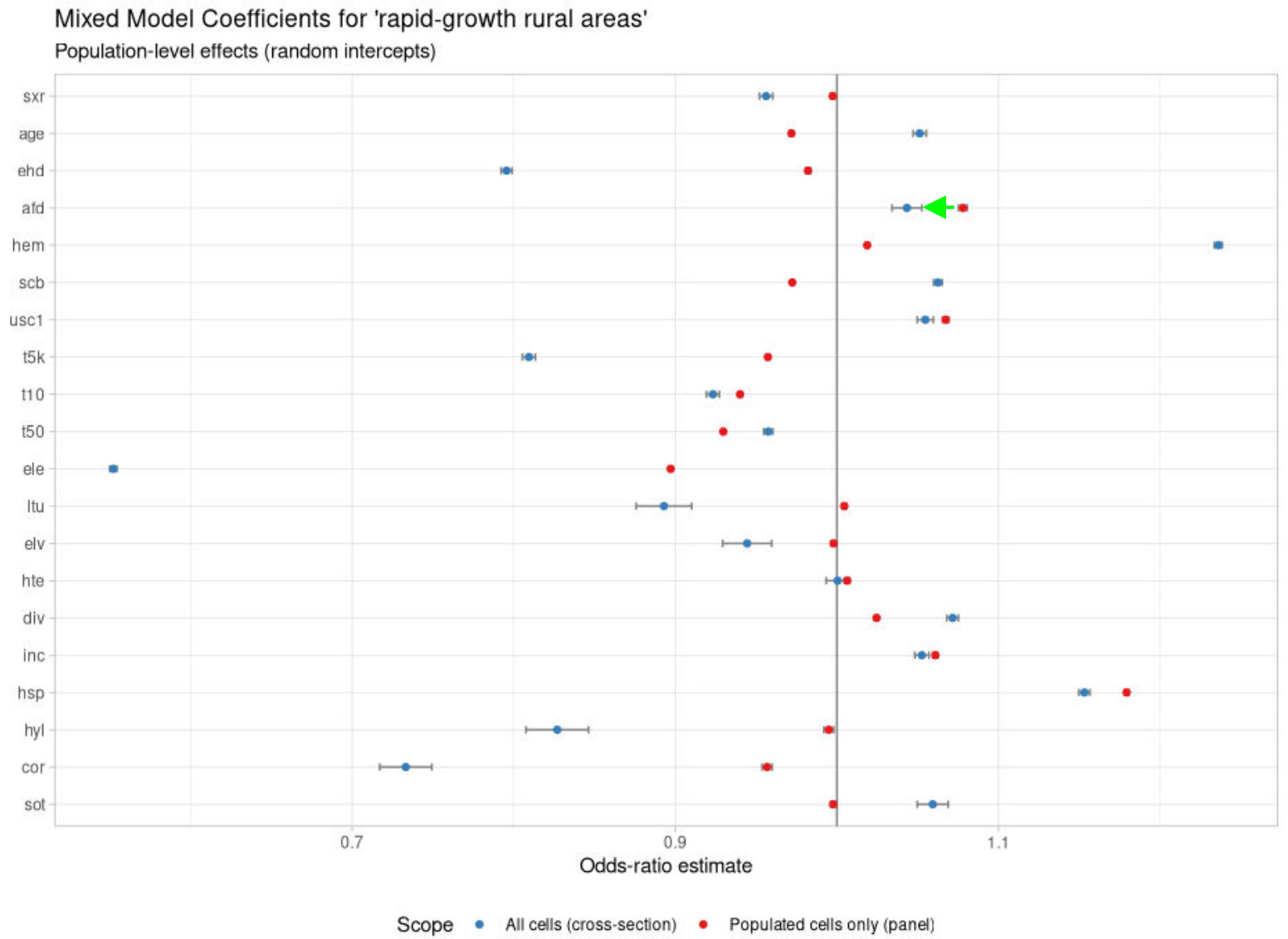
- **Effect unchanged**:
  - Proximity to UNESCO sites (***usc***)



HOW SETTLEMENT STRUCTURE AFFECT RESULTS?

Populated vs all cells

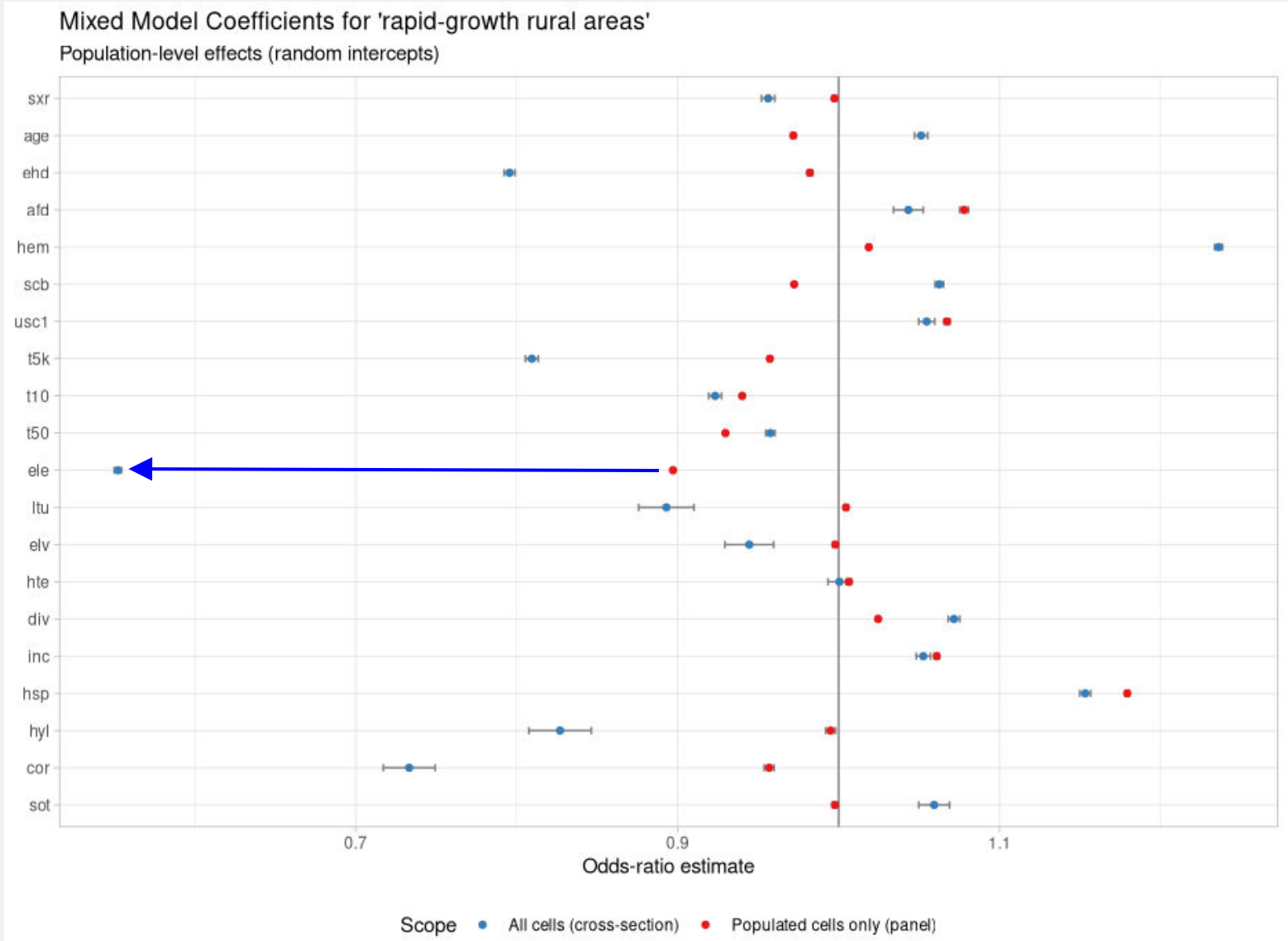
- **Effect unchanged**:
  - Proximity to UNESCO sites (***usc***)
- **Effect attenuates**:
  - Frost days (***afd***)



HOW SETTLEMENT STRUCTURE AFFECT RESULTS?

Populated vs all cells

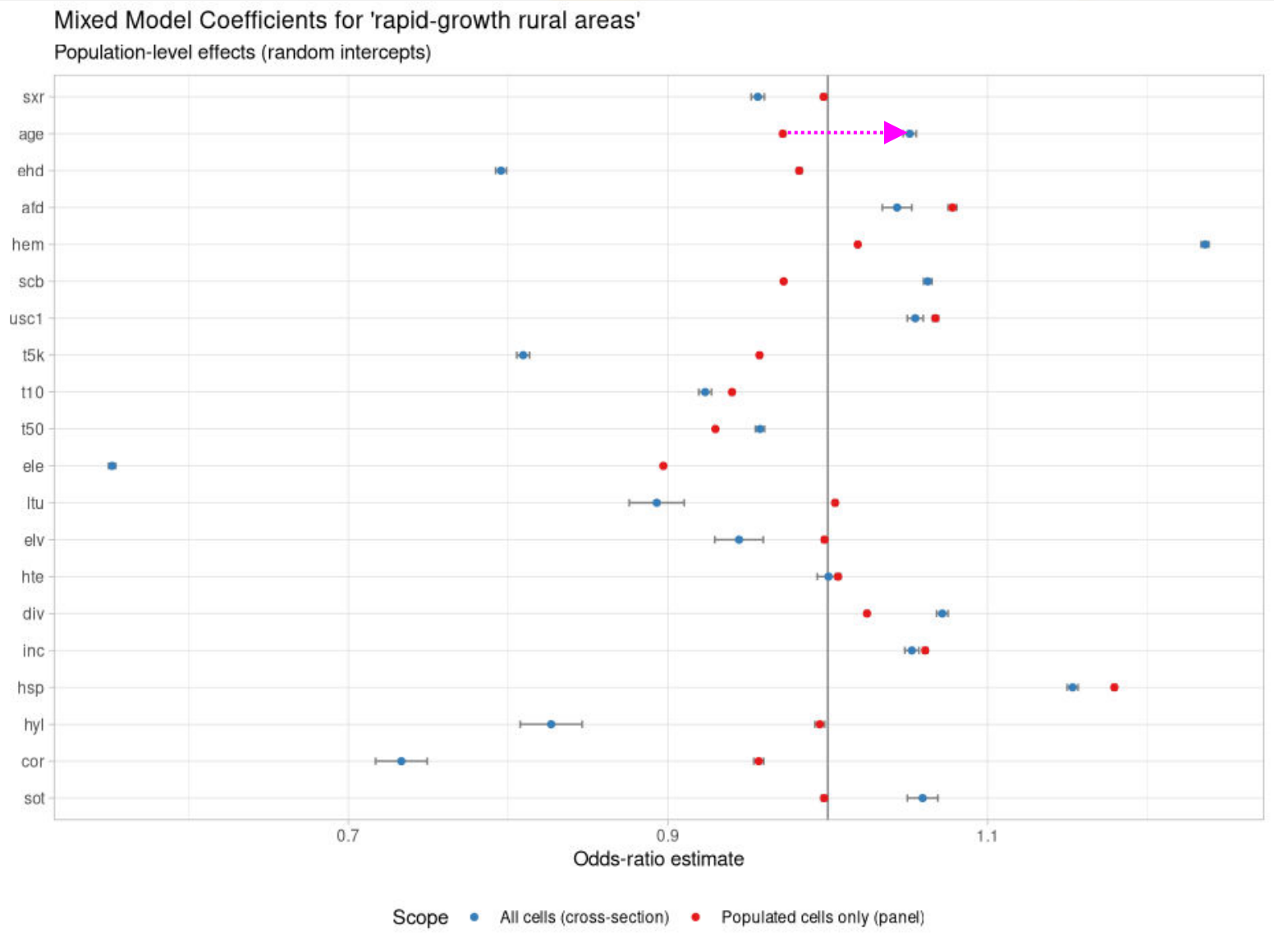
- **Effect unchanged**:
  - Proximity to UNESCO sites (***usc***)
- **Effect attenuates**:
  - Frost days (***afd***)
- **Effect increases**:
  - Elevation (***ele***)



HOW SETTLEMENT STRUCTURE AFFECT RESULTS?

Populated vs all cells

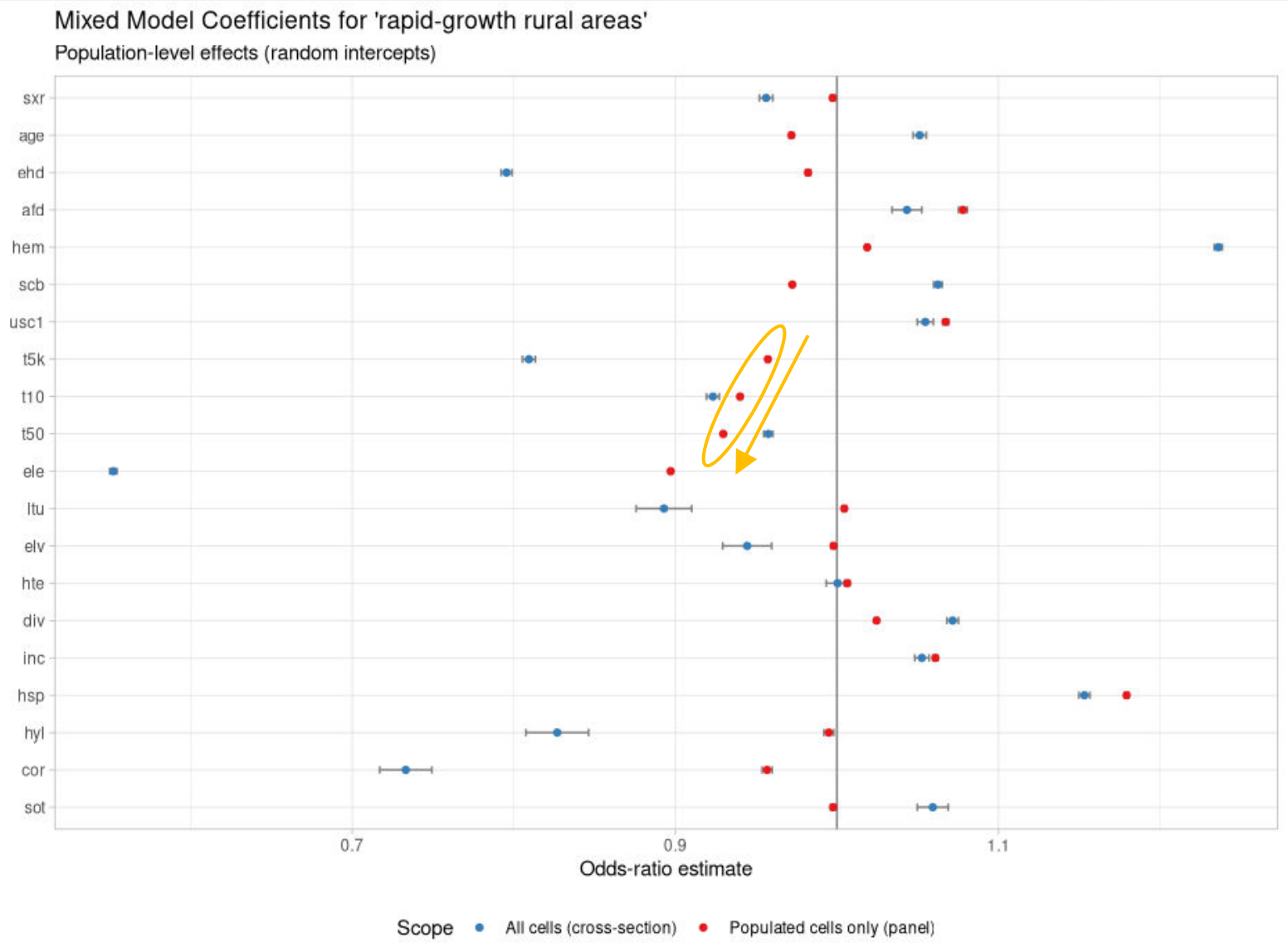
- **Effect unchanged**:
  - Proximity to UNESCO sites (***usc***)
- **Effect attenuates**:
  - Frost days (***afd***)
- **Effect increases**:
  - Elevation (***ele***)
- **Directionality changes**:
  - Median age (***age***)



HOW SETTLEMENT STRUCTURE AFFECT RESULTS?

Populated vs all cells

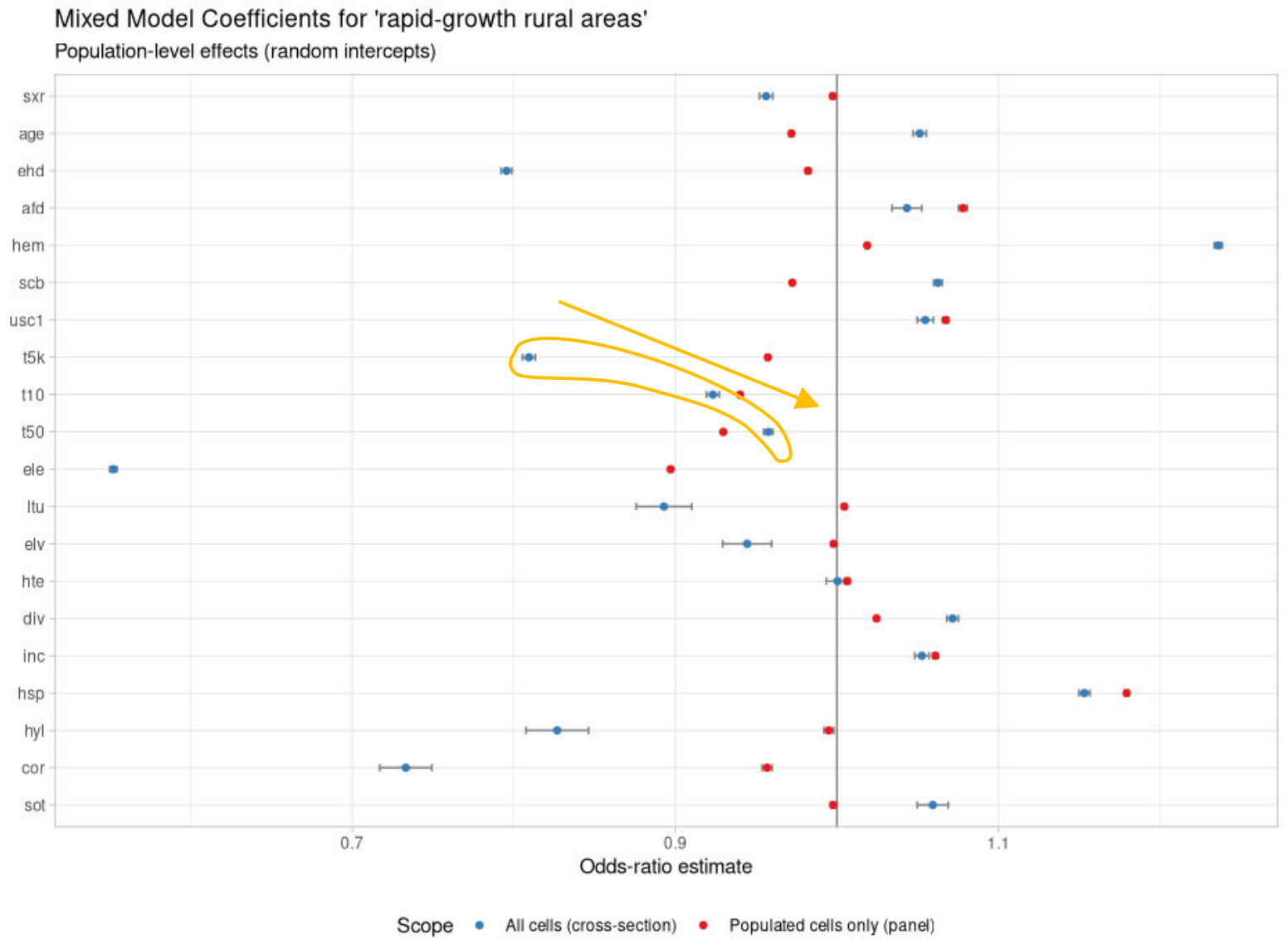
- **Effect unchanged**:
  - Proximity to UNESCO sites (***usc***)
- **Effect attenuates**:
  - Frost days (***afd***)
- **Effect increases**:
  - Elevation (***ele***)
- **Directionality changes**:
  - Median age (***age***)
- **Structural relations differ**:
  - **Accessibility** indicators



HOW SETTLEMENT STRUCTURE AFFECT RESULTS?

Populated vs all cells

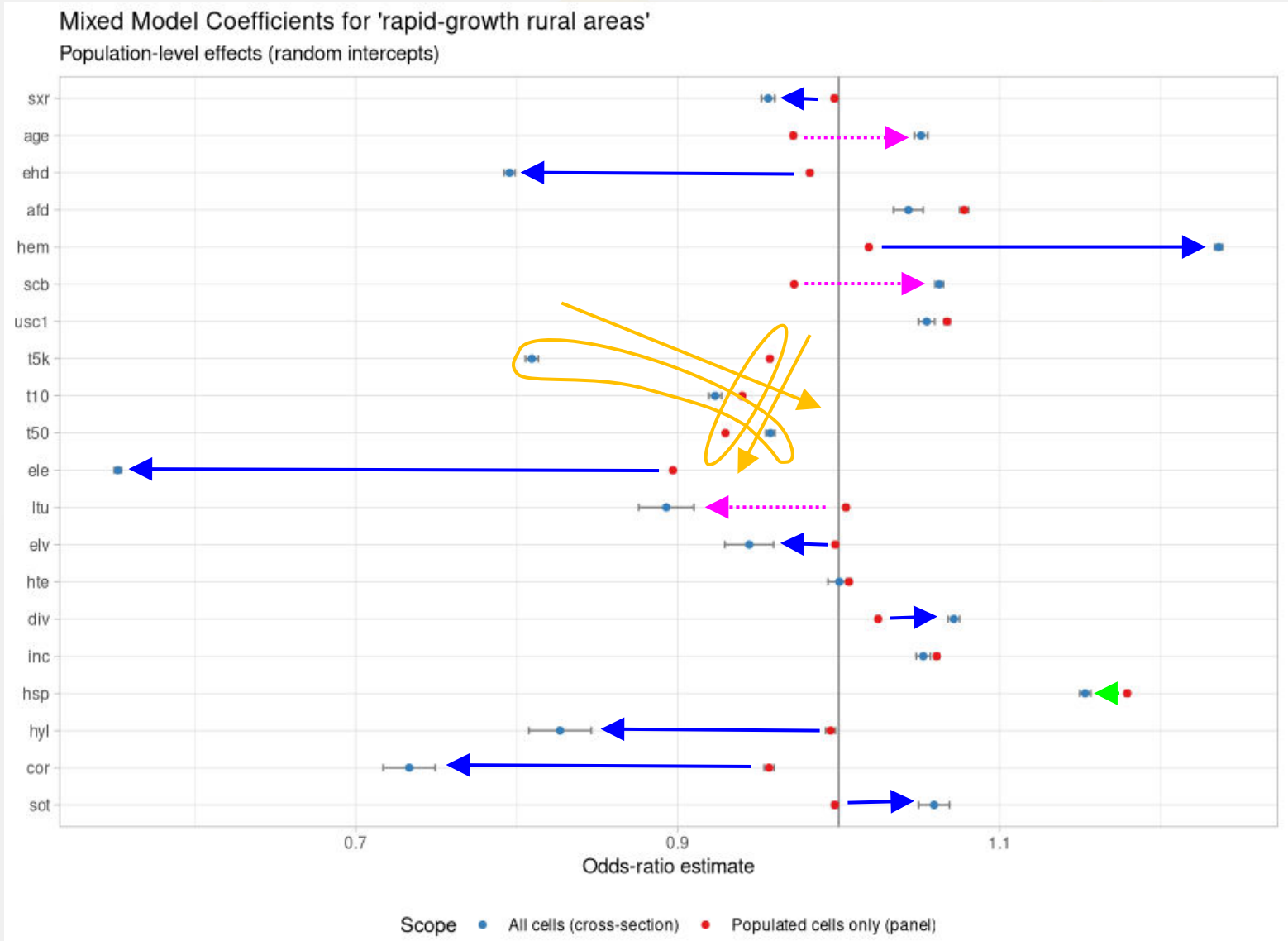
- **Effect unchanged**:
  - Proximity to UNESCO sites (***usc***)
- **Effect attenuates**:
  - Frost days (***afd***)
- **Effect increases**:
  - Elevation (***ele***)
- **Directionality changes**:
  - Median age (***age***)
- **Structural relations differ**:
  - **Accessibility** indicators



HOW SETTLEMENT STRUCTURE AFFECT RESULTS?

Territorial conditions matter!

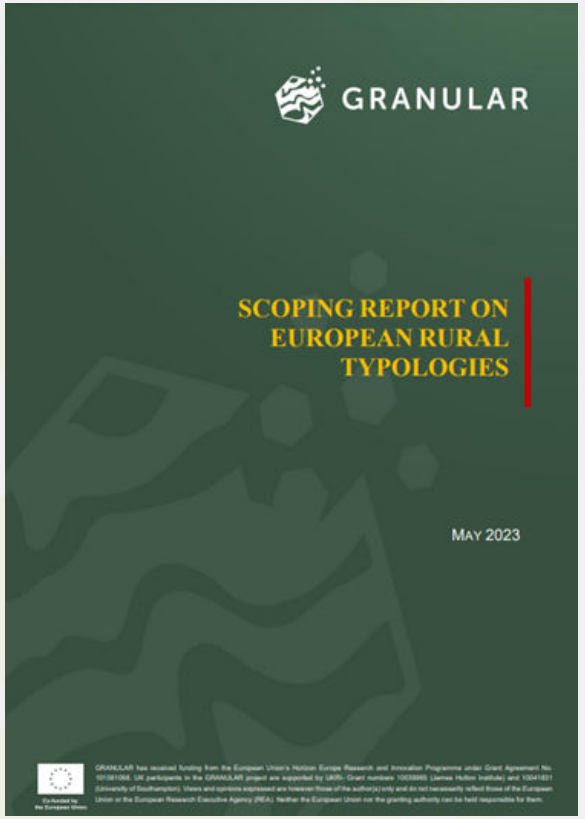
Policies should be adapted to local specificities



CHARACTERISING RURAL DIVERSITY

Lessons learned

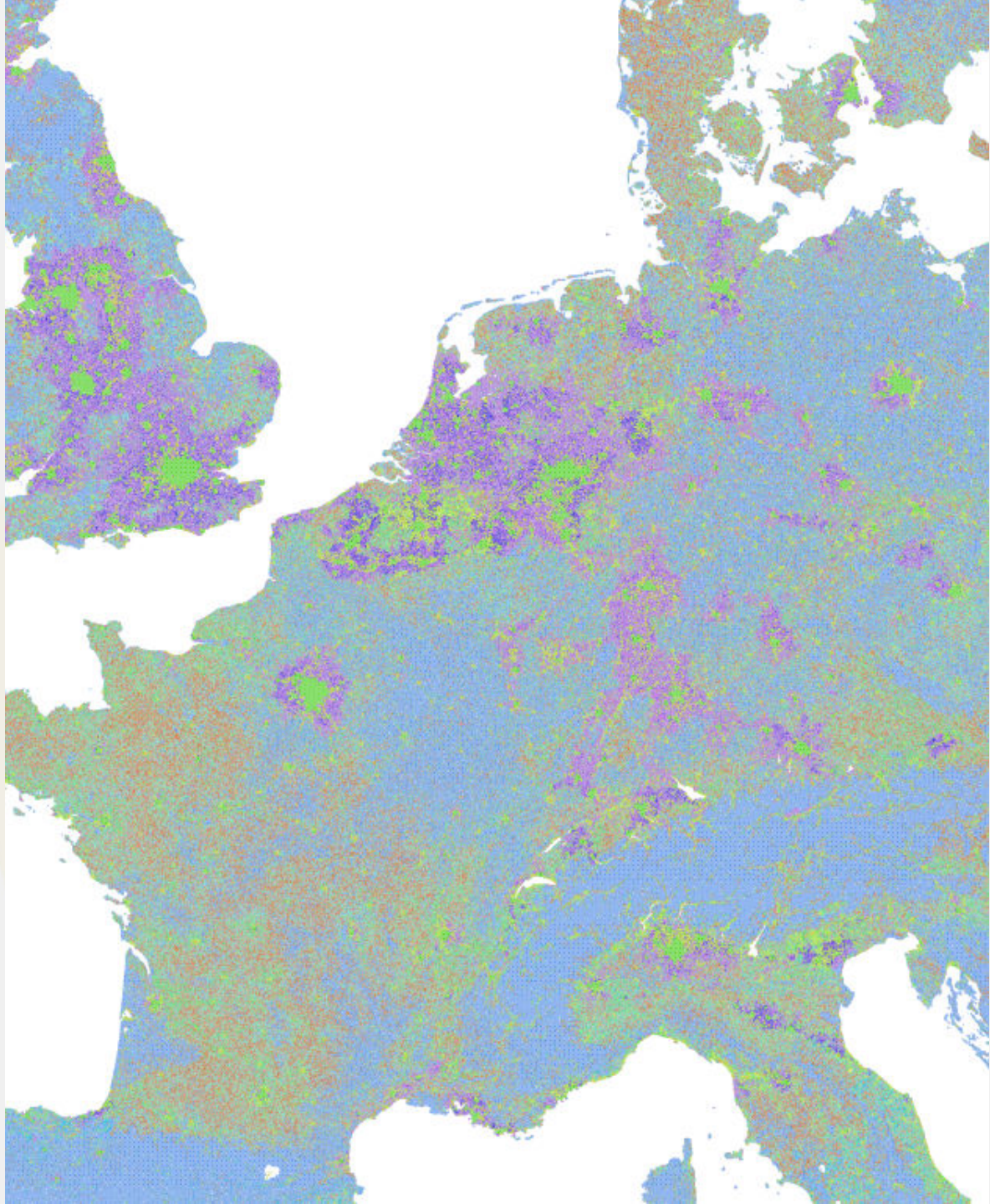
- There is a **need for a more nuanced understanding of the diversity of rural areas** and the inter-linkages within cities
- Typologies are always **simplifications of reality**, and no typology can fully grasp the complexity that they seek to capture
- Decisions regarding **technical aspects** (approach, territorial level, data and variables) **should be aligned to strategic goals**
- No single method or approach is **intrinsically superior** to others
- The **limitations** of methodological choices should be **clearly stated**
- Ensuring that the typology is **aligned** and responsive to specific **research or policy needs** ensures long-term relevance
- **Comparability, reliability and replicability** are important: recurring, comparable and reliable data, transparent methods

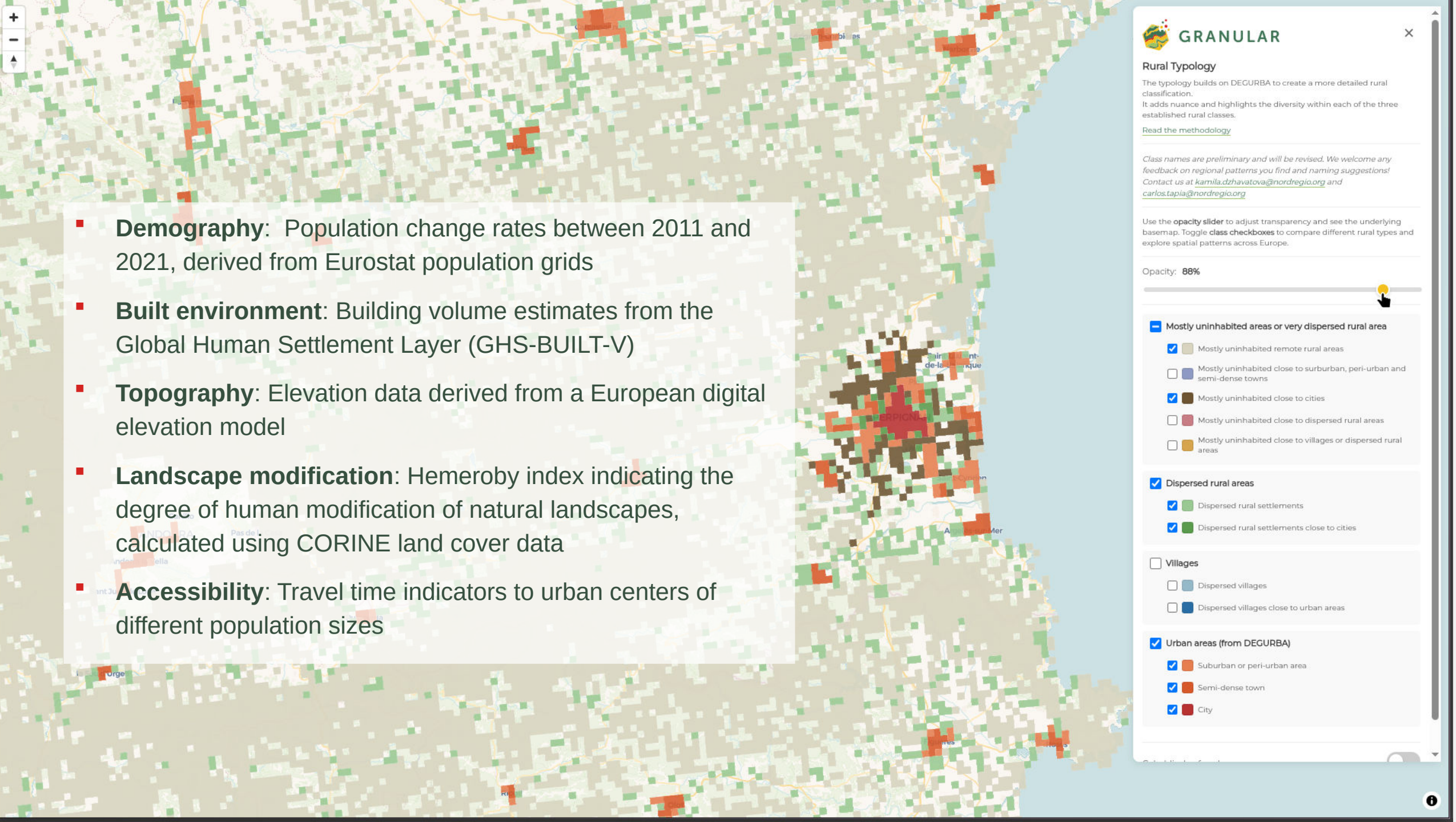


NEW TYPOLOGY FOR EUROPE'S RURAL AREAS

Design principles

- An **analytical tool** for research purposes, aligned with key policy priorities
- Provide a richer understanding of rural areas and thus also **useful for supporting policy and planning**
- **Focus on rural (non-urban) areas** across Europe
- Aims to be **multidimensional**, incorporating diverse indicators
- **Grid level** typology, with potential to scale up to LAU level
- Built using **open data**
- Aims to be **reproducible** and possible to be updated to stay relevant over time
- Final version ready by **May 2025**





- **Demography**: Population change rates between 2011 and 2021, derived from Eurostat population grids
- **Built environment**: Building volume estimates from the Global Human Settlement Layer (GHS-BUILT-V)
- **Topography**: Elevation data derived from a European digital elevation model
- **Landscape modification**: Hemeroby index indicating the degree of human modification of natural landscapes, calculated using CORINE land cover data
- **Accessibility**: Travel time indicators to urban centers of different population sizes

GRANULAR

Rural Diversity Compass

Wageningen University, Rural Sociology Chair

Henk Oostindie
Bettina Bock

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Research Executive Agency. Neither the European Union nor the granting authority can be held responsible for them. UK participants in the GRANULAR project are supported by UKRI- Grant numbers 10039965 (James Hutton Institute) and 10041831 (University of Southampton).

Funded by
the European Union

POINTS OF DEPARTURE

GRANULAR

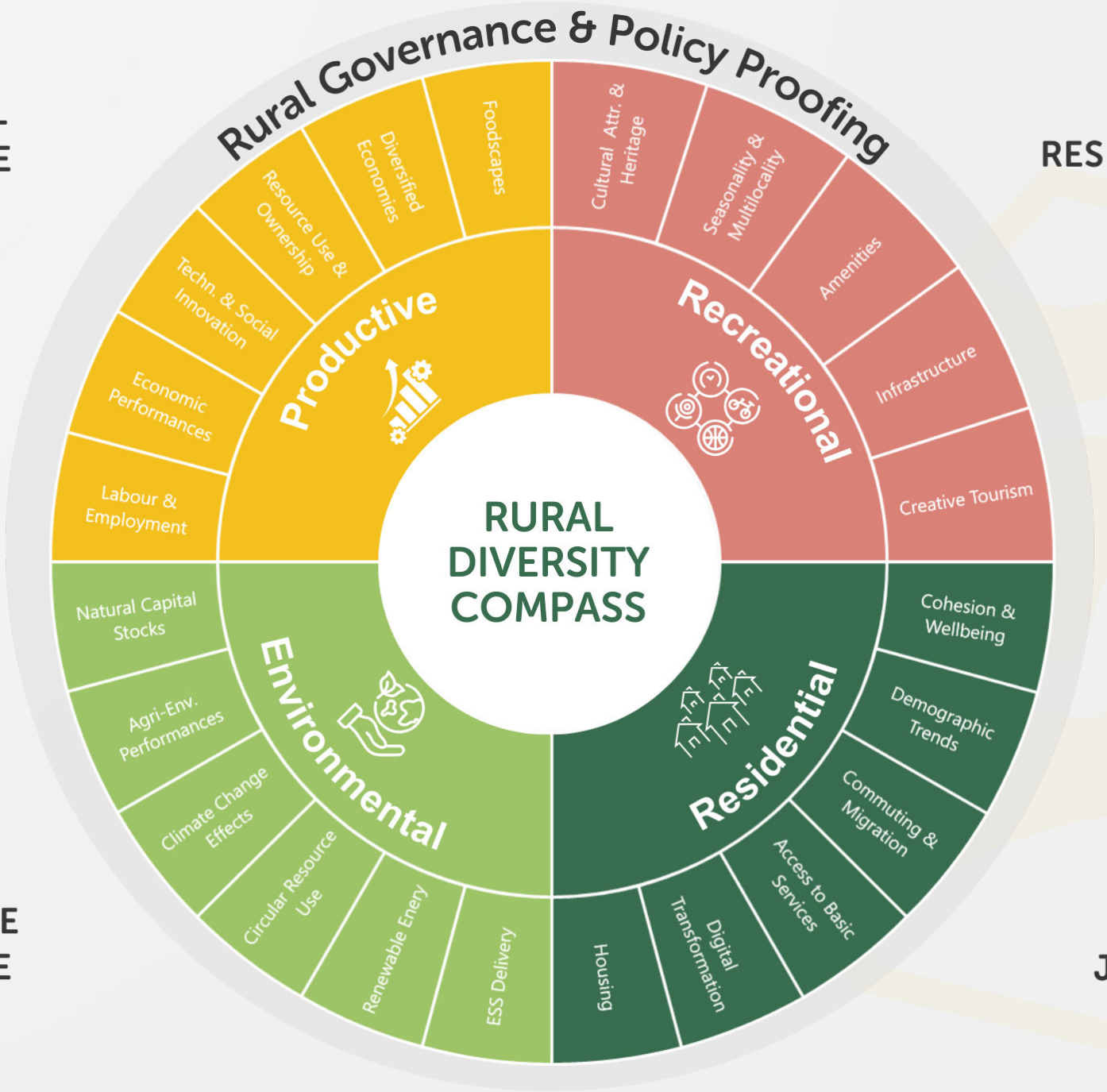
- Rural areas serve **diverse and multiple functions**
- The **balance of functions is**
  - **place-specific**,
  - **influenced by relations** with other areas,
  - **dynamic** (changes in time).
- With the functionalities at the core, **the Rural Compass aims to**
  - Explain the ongoing differentiation of rural areas
  - With place-specific (policy) challenges & opportunities
- Relevant for rural proofing

Funded by
the European Union

SPATIAL JUSTICE

RURAL RESILIENCE

GRANULAR



CLIMATE JUSTICE

SOCIAL JUSTICE

Funded by the European Union

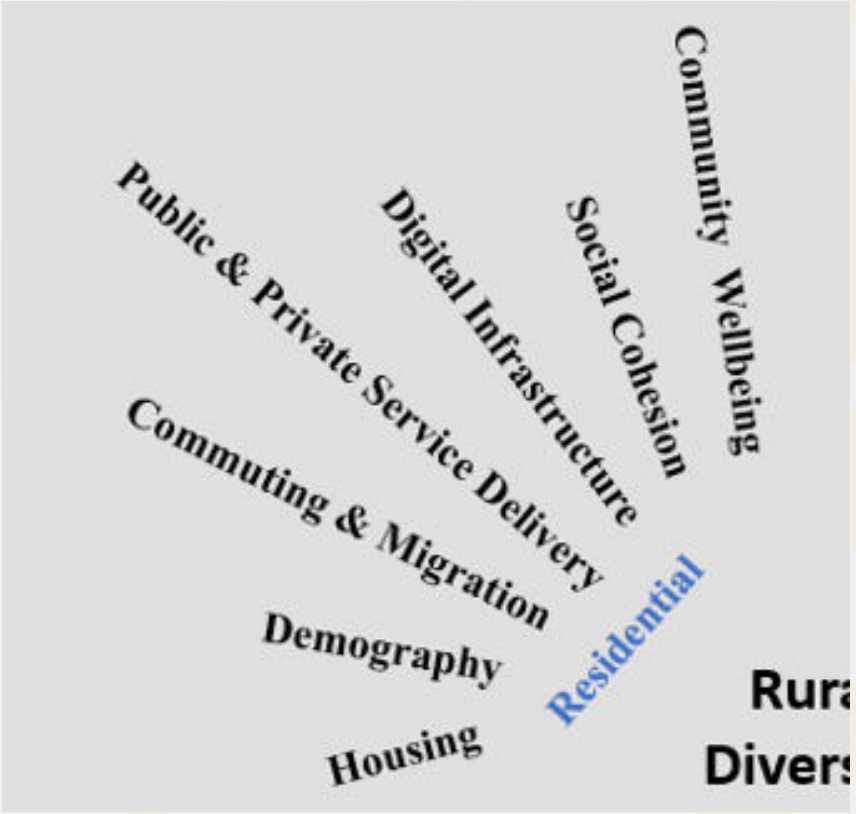
1. RESIDENTIAL FUNCTIONALITY

GRANULAR

Includes dimensions relevant to rural residents & communities:

Social infrastructure: services, housing, digitalisation

Composition: demography, migration & mobility, cohesion & wellbeing



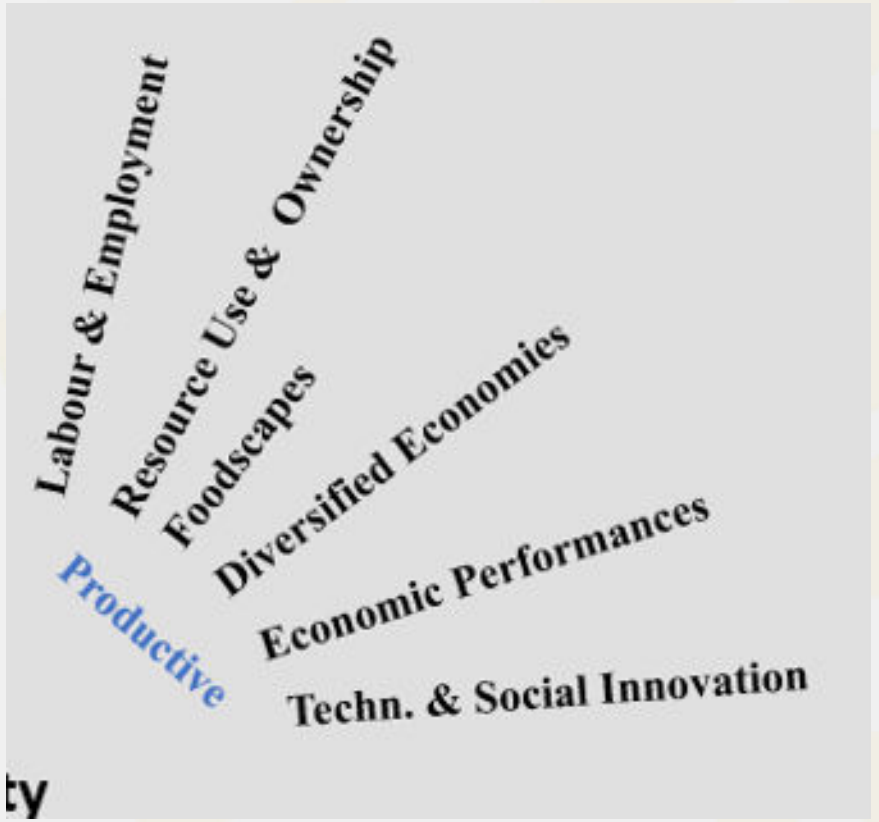
Funded by the European Union

2. PRODUCTIVE FUNCTIONALITY

GRANULAR

Economic structure: range economic sectors; labour & employment, resource use & ownership,

Economic growth: performance & innovation

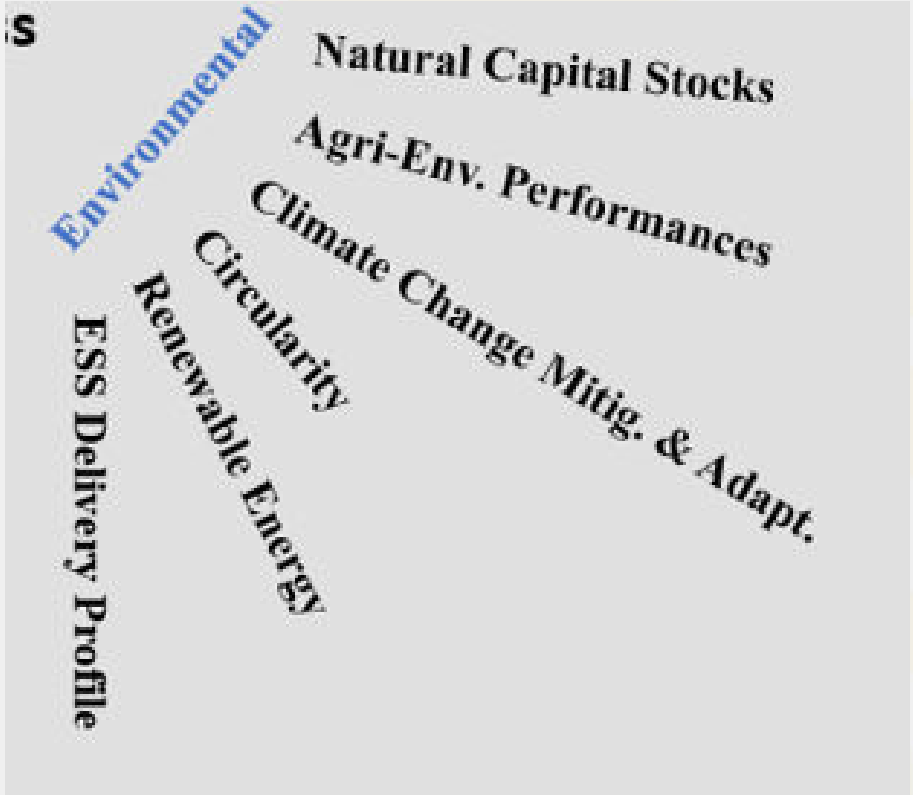


Funded by
the European Union

3. ENVIRONMENTAL FUNCTIONALITY

Environmental capital: natural capital, level of circularity, renewable energy

Environmental performance: climate change, ecosystem services, circularity



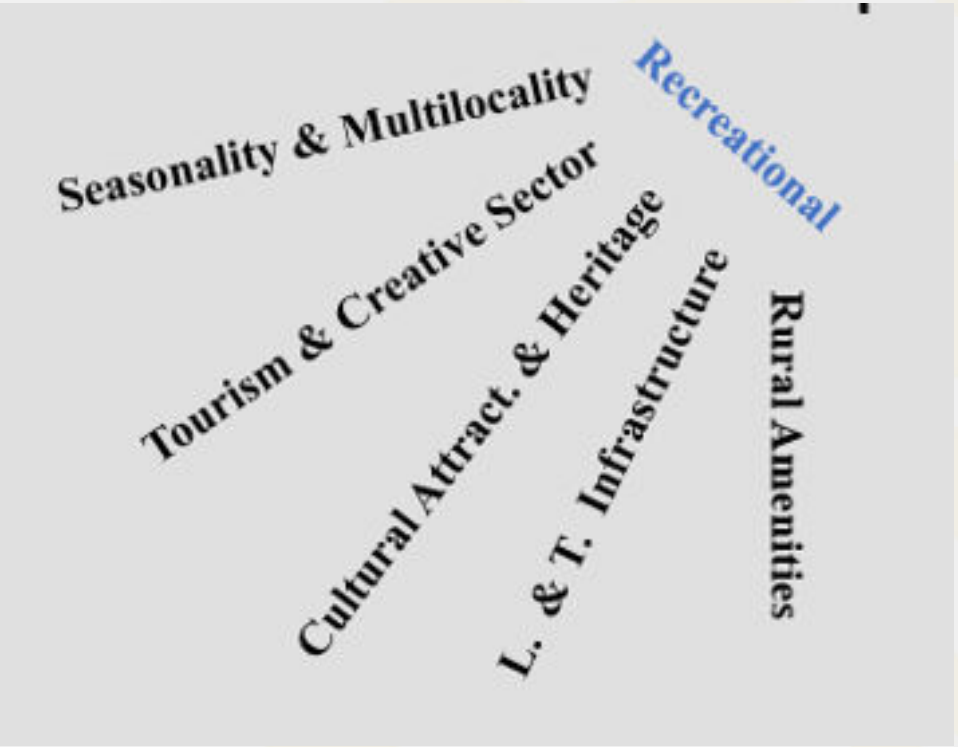
Funded by
the European Union

4. RECREATIONAL FUNCTIONALITY

GRANULAR

Infrastructure for leisure & tourism: amenities, cultural heritage & attractions

Performance/Pressure: seasonality, second home residents/multilocality



Funded by
the European Union

RELEVANCE FOR RURAL GOVERNANCE & RURAL PROOFING

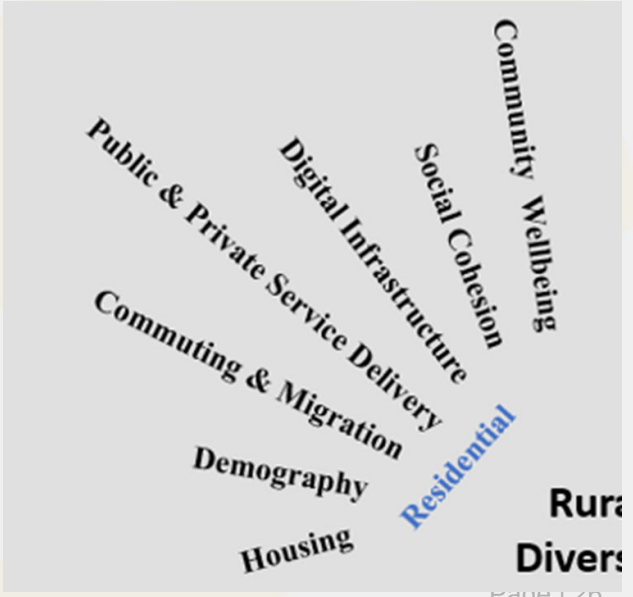
GRANULAR

Interaction of functionalities in time

➔ place-specific (policy) challenges & opportunities

➔ For instance, rural housing = significant issue in many areas

➔ weakness in residential functionality

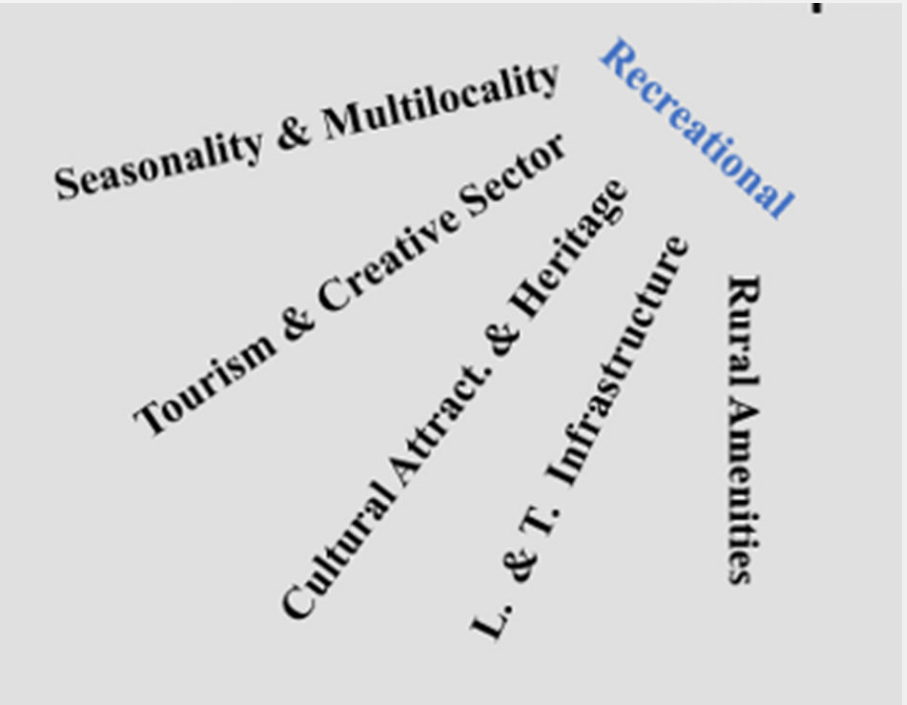


TO BE UNDERSTOOD THROUGH ITS RELATIONS WITH OTHER FUNCTIONS

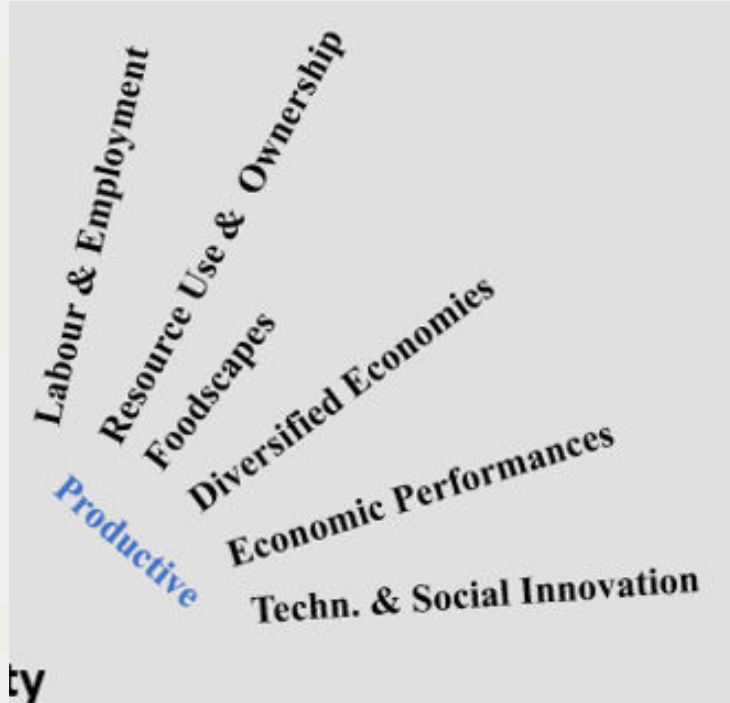
GRANULAR

Defines

- Why housing is needed
- for whom
- potential solutions



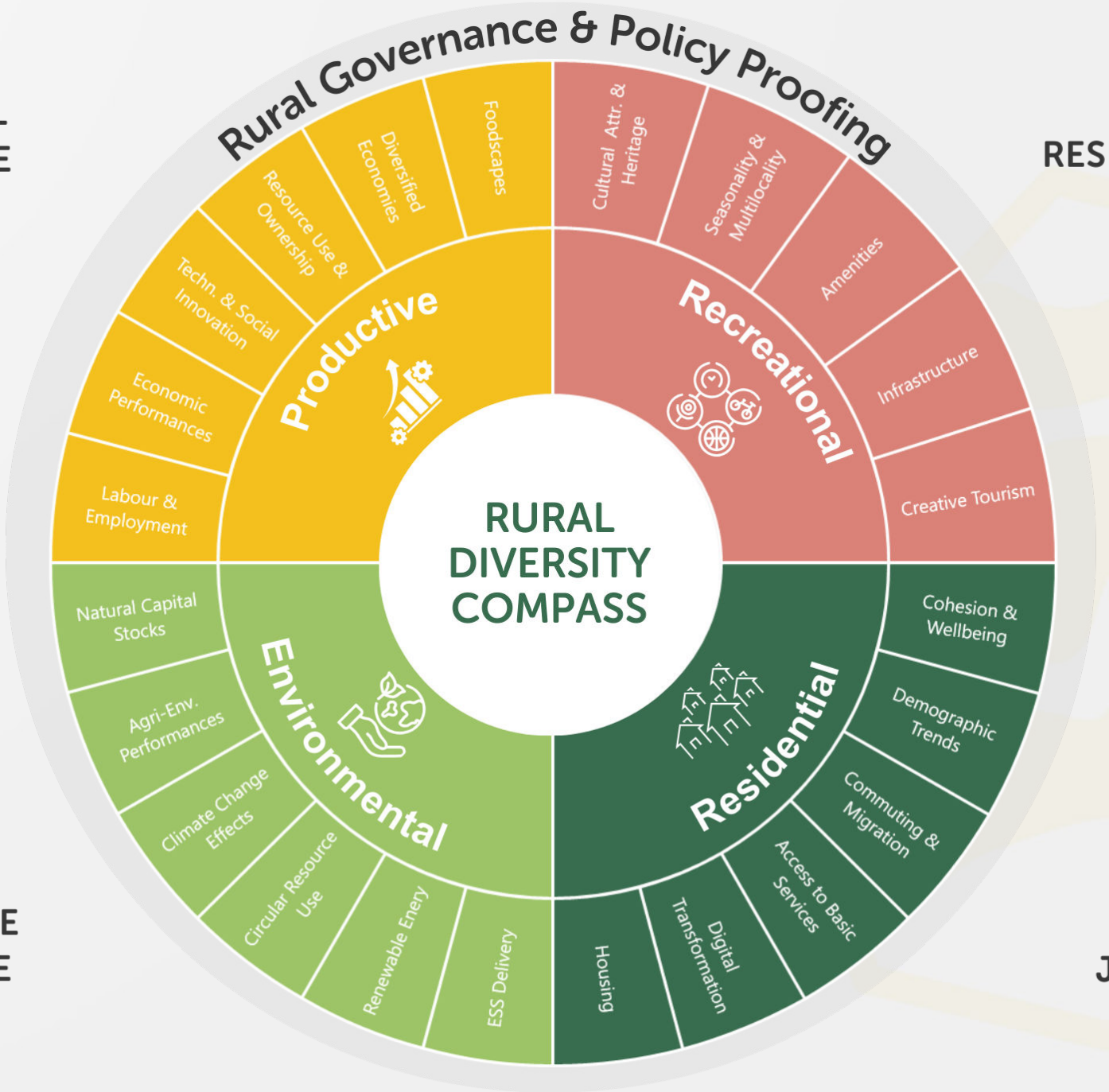
Relevant for rural proofing in solving local challenges



SPATIAL JUSTICE

RURAL RESILIENCE

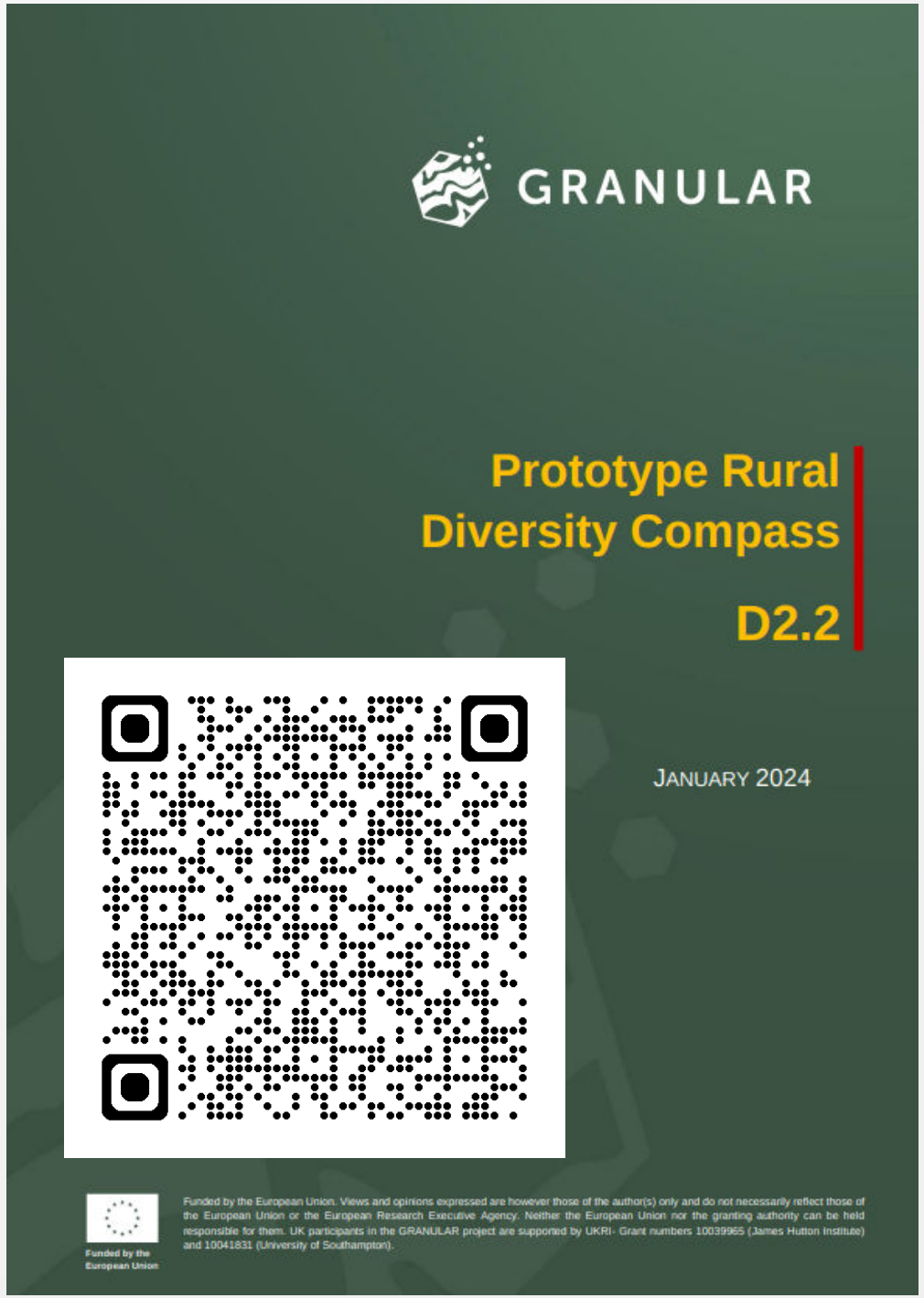
GRANULAR



CLIMATE JUSTICE

SOCIAL JUSTICE

Diversity of Functionality Dynamics Supports governance for justice & resilience



GRANULAR

WANT TO KNOW MORE ABOUT THE RURAL DIVERSITY COMPASS?

Contacts

- Henk.Oostindie@wur.nl
- Bettina.Bock@wur.nl

Funded by the European Union

WRAPPING UP

GRANULAR

Key messages

- Rural diversity shapes demographic performance and vice-versa
- Rural diversity can be characterised in different ways and from different angles. No standpoint is ‘intrinsically better’
- In GRANULAR, we have explicitly demonstrated (at least) two comprehensive perspectives:
  - Structural (change) perspective > New rural typology
  - Functional perspective > Rural Compass
- Rural diversity is key for policy effectiveness > policies should be informed by territorial diversity

Funded by
the European Union

THANK YOU!

carlos.tapia@nordregio.com

GRANULAR

@ruralgranular

@ruralgranular

@ruralgranular

www.ruralgranular.eu

Funded by
the European Union