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2024 ESTORIL - PORTUGAL

Enhancing Official Statistics with New Data Sources – Methodological Developments for Integrating Mobile Network Operator (MNO) Data with non-MNO Data

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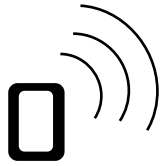
Background Information



- MNO data
  - Today: Valuable results from experimental statistics
  - Future: Usage in regular statistics aspired

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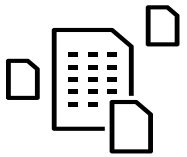

- Non-MNO data
  - MNO data provide more insights when combined with further data sources
  - Traditional as well as further new digital data sources

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MNO-MINDS: Methods for Integrating New Data Sources

The project consortium consists of ten national statistical institutes (NSIs), with ISTAT as the coordinating NSI. The ESSnet project started in November 2023 and lasts for a duration of two years.

Istat
STATISTIK AUSTRIA
Die Informationsmanager
DESTATIS
Statistisches Bundesamt
SCB
INS
Insee
Statistisk sentralbyrå
Statistics Norway
INE
Instituto Nacional de Estadística

November 2023 → November 2025

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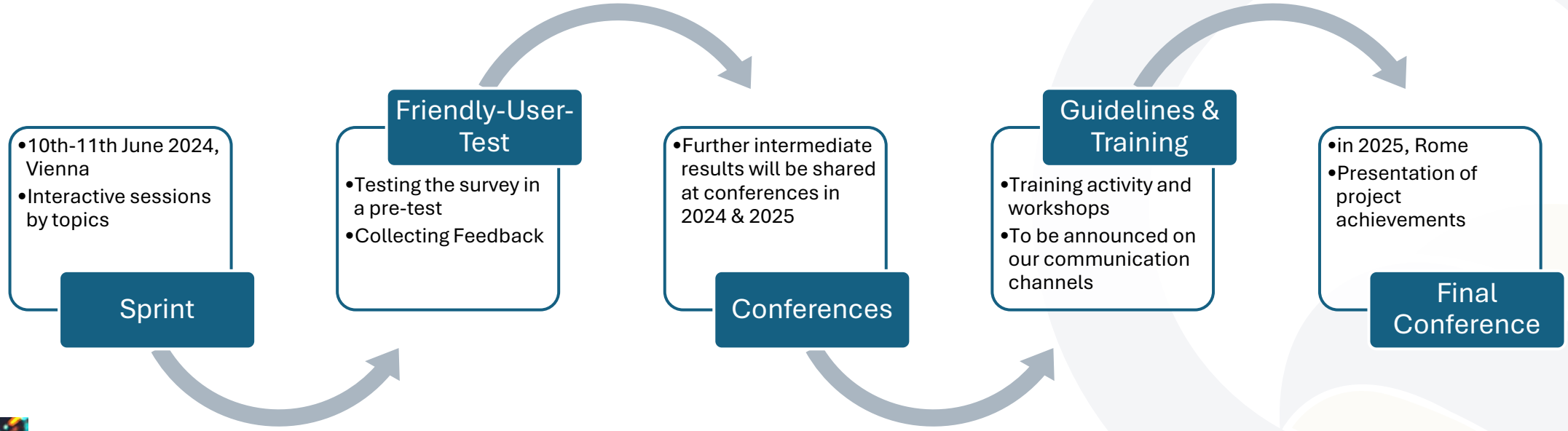
MNO-MINDS: Methods for Integrating New Data Sources

Throughout the two years, there are several milestones, events, and activities foreseen to gain feedback from relevant stakeholders (e.g. Task Force MNO, academia, ESSnet Members, research organisations, MNOs, ...), and to share findings:



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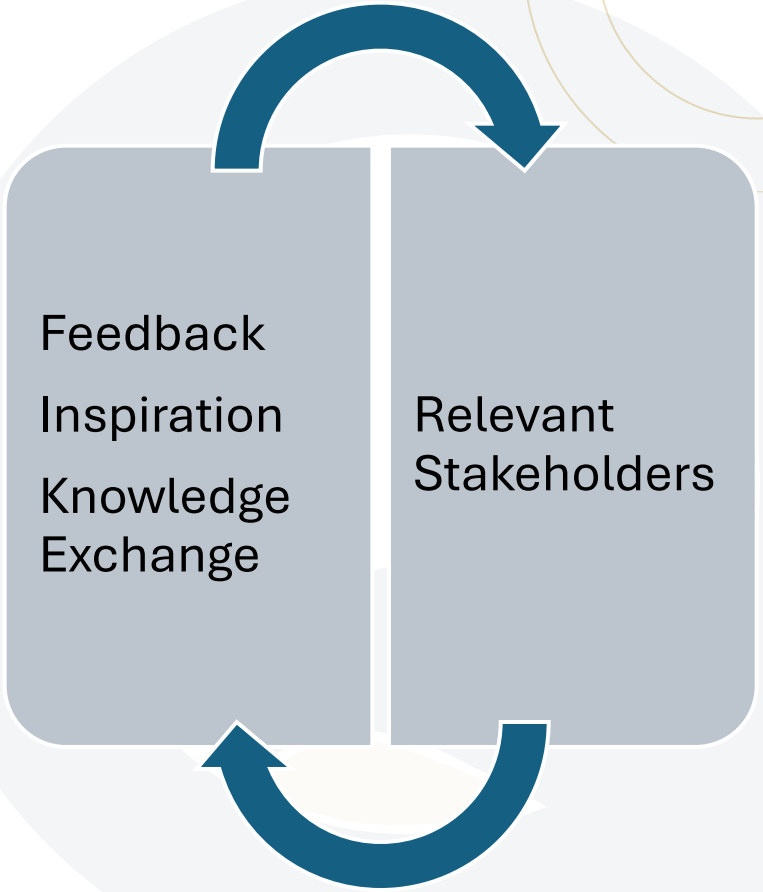
WP1: Communication and dissemination

- Communication and dissemination as a key element for quality improvements
- Communication Channels:
  - LinkedIn @MNO-MINDS ESSnet Project
  - X @TssMethToo_Pj
- Websites: CROS Portal and Project Page by Istat



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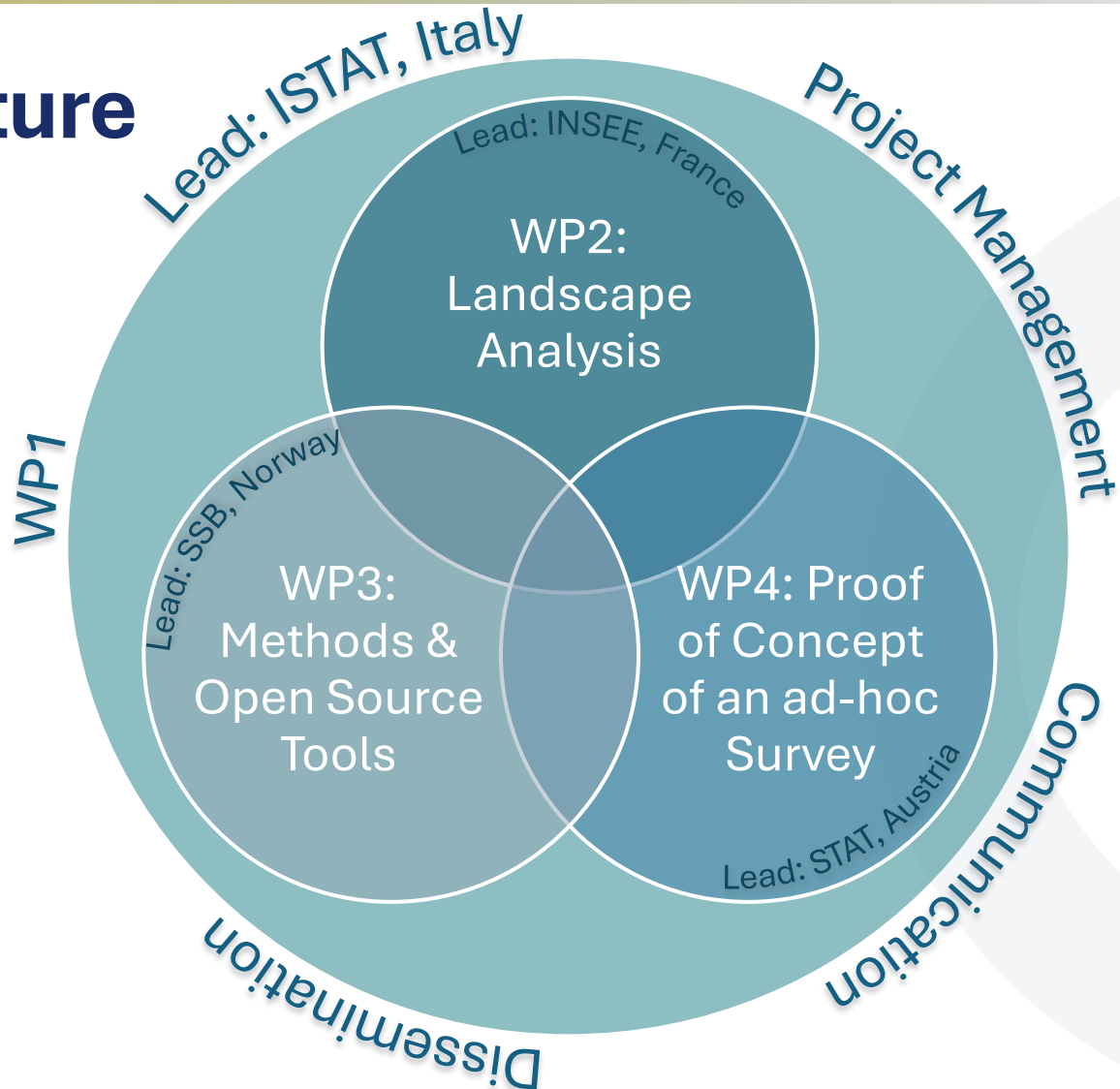
Project Structure



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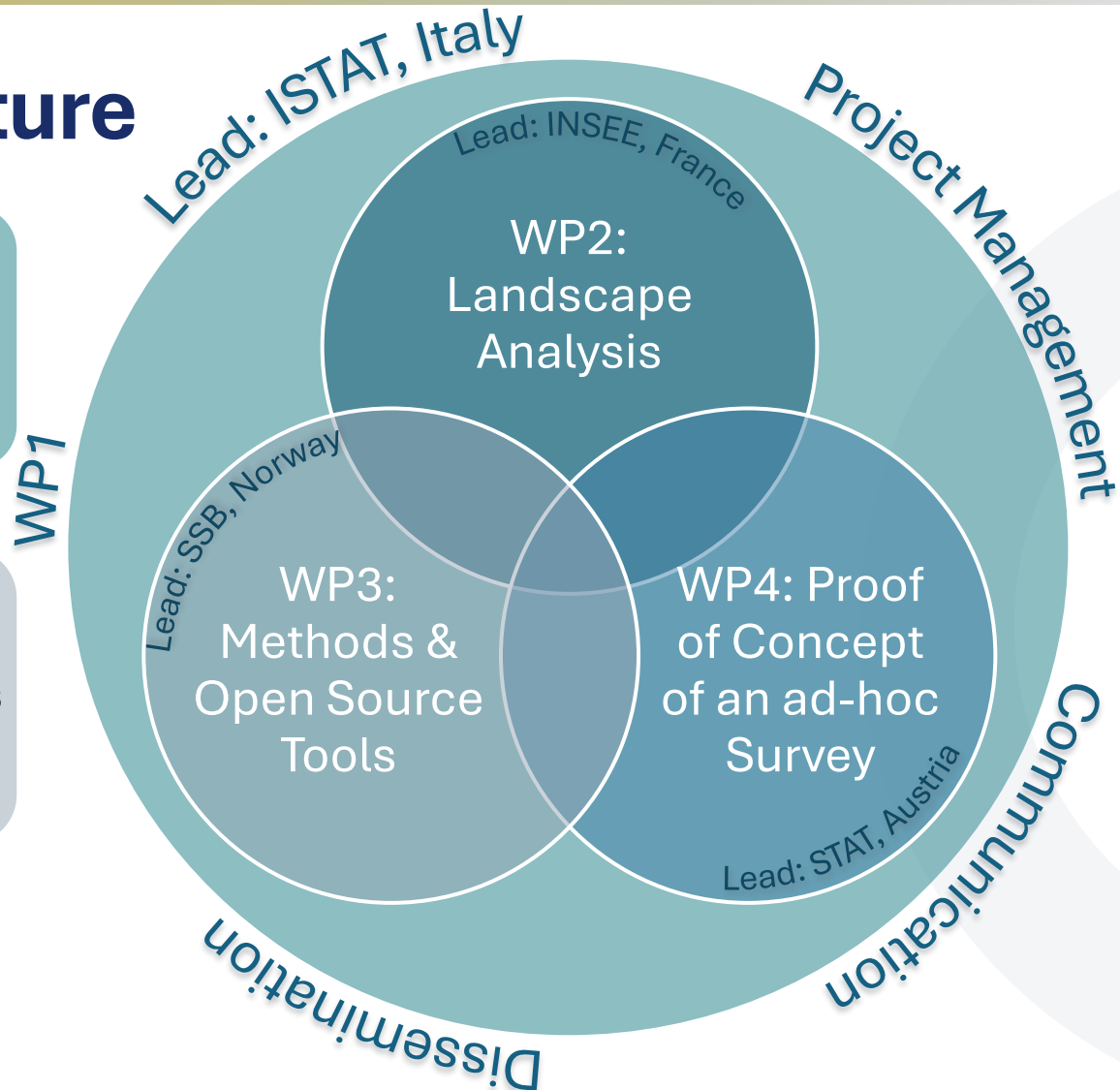
Project Structure

- Work Package 1:
- Project Management, Communication, and Dissemination

- Work Package 3:
- Enabler & Executer
- Three approaches for various scenarios
- Open Source Tools



- Work Package 2:
- Identification & assessment of potential non-MNO sources
- Selection criteria & scoring
- Proposition of a short-list

- Work Package 4:
- Development of a Survey
- Friendly-User-Test
- Implementation Strategies & Guidelines

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WP2: Process, Quality, Criteria

- Feedback
- Data Access across countries

Data Sources → Selection Criteria → Assessment Matrix → Short List + Target Statistics

- Analysis of Relevance
- Refined throughout the project

- Pros & Cons
- Cost & Gains

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WP2: Process, Quality, Criteria

Improve Population Coverage

Quality enhancement through combination of data sources

More Precise Analyses

By additional information, e.g. socio-demographic information, transportation mode, ...

To overcome issues of data quality and completeness

New Topics

Because of changes in the environment

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WP2: First Findings

Traditional

Socio-demographic themes
Mobility
Tourism

New Digital Data

Satellite data
Traffic signals
Electronic invoices
Social media
Credit card transaction data
Google Popular Time

Findings

Access to detailed methodological information
→ Confidentiality

Most data sources have their limits
→ Relevance

Traditional & new data often differ in quality aspects
→ Scoring

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Thank you for your attention!

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@MNO-MINDS ESSnet Project

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