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Central
Statistics
Office



One-stop-shop for AI-ML for Official Statistics

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November 2024

Background....

- Proposal to form One-stop-shop (1SS) for AI-ML for Official Statistics
- Funded by EU action grant
- Project kick off in April



Key Objectives

Develop, maintain and evolve coherent set of capabilities

Set up sandpit platform/hub

Provide support & guidance for integration & maintenance of AI/ML solutions through training and active support

Build communities around OSS solutions developed by NSI's

Share ideas, experiences, lessons and success/failure stories to stimulate AI/ML innovation

Enable transition from experimental solutions to industrialised and production solutions

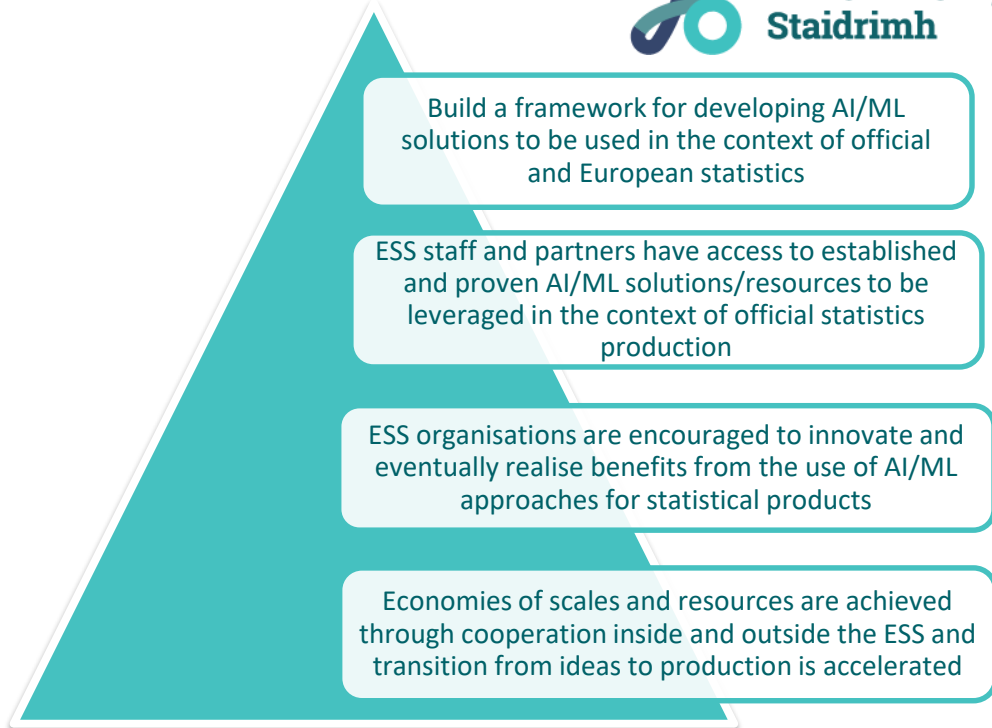


PROJECT OUTCOMES



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Who's Involved?



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INE

Instituto Nacional de Estadística

STATEC
Luxembourg

SCB

Statistikmyndigheten



Statistisk sentralbyrå
Statistics Norway



INSTITUTO NACIONAL DE ESTATÍSTICA
STATISTICS PORTUGAL



Statistics Poland



REPUBLIC OF SLOVENIA
STATISTICAL OFFICE RS



Centraal Bureau
voor de Statistiek

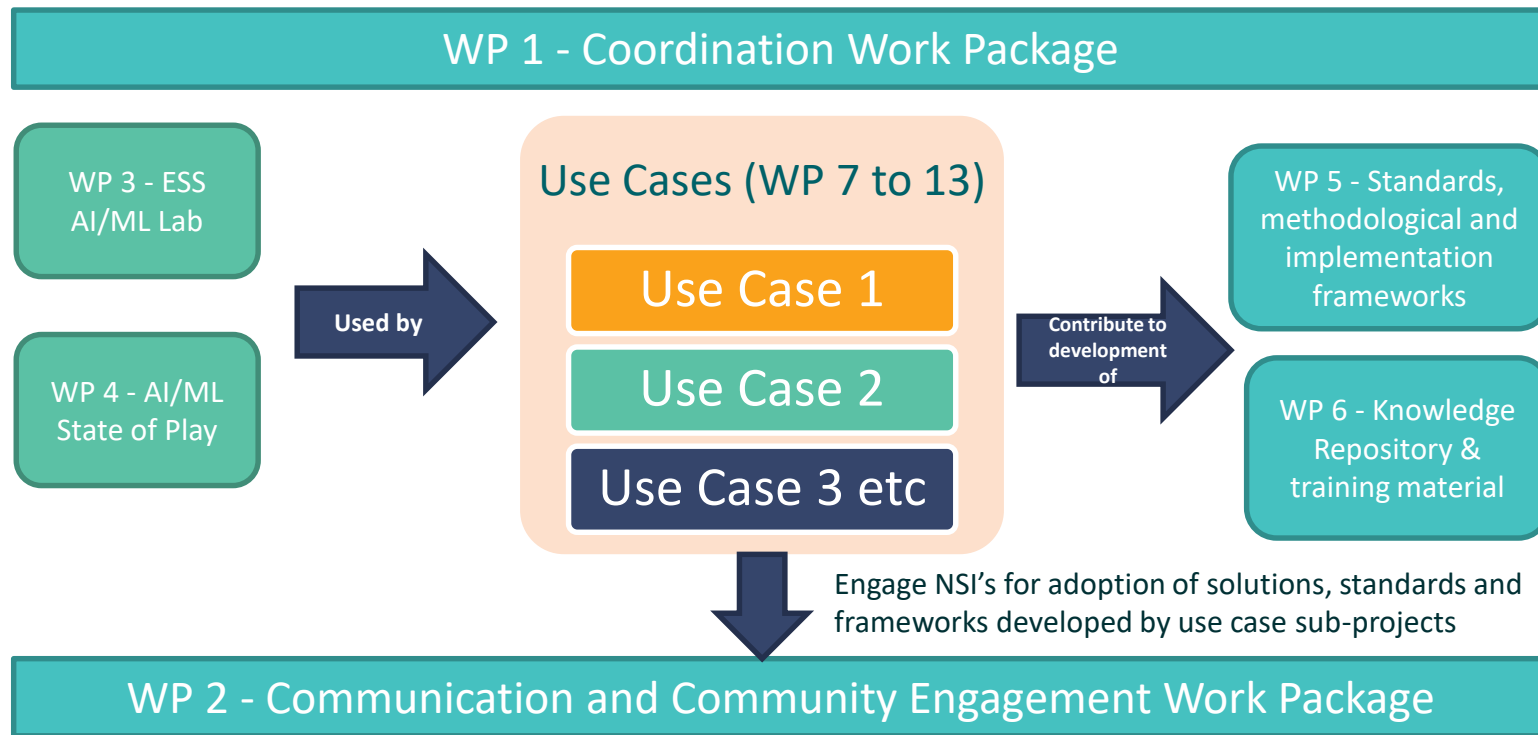


DANMARKS
STATISTIK

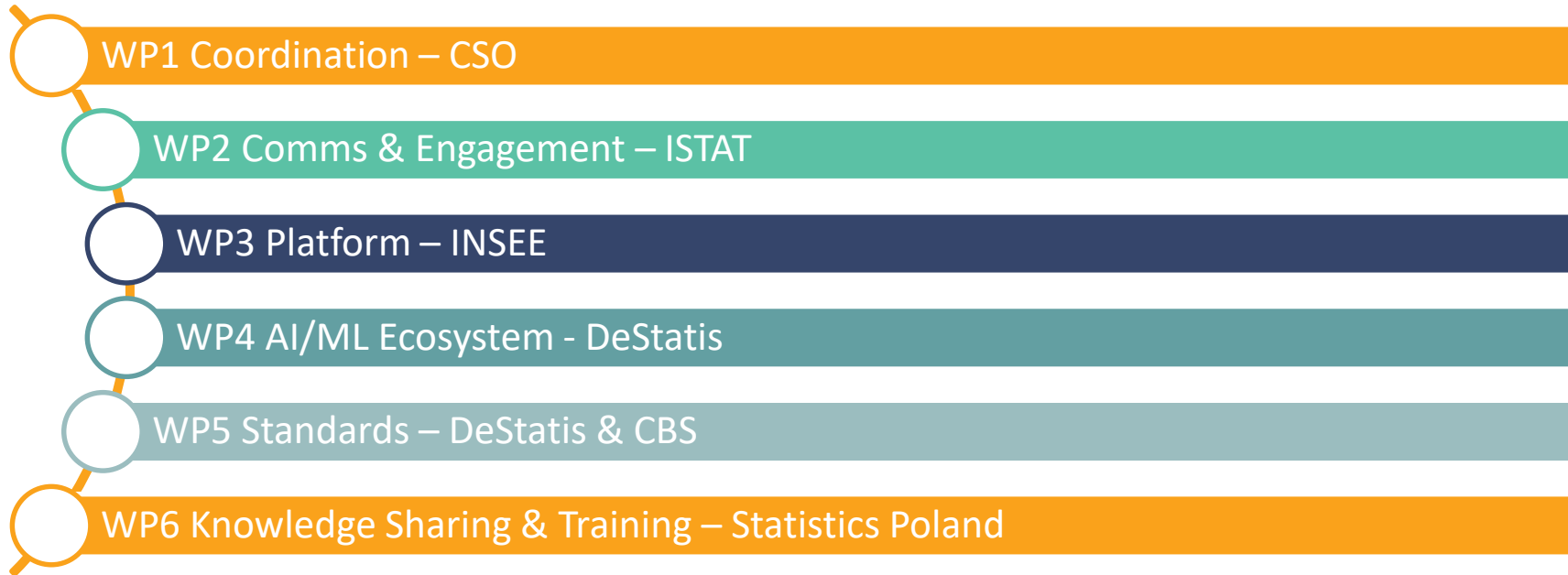


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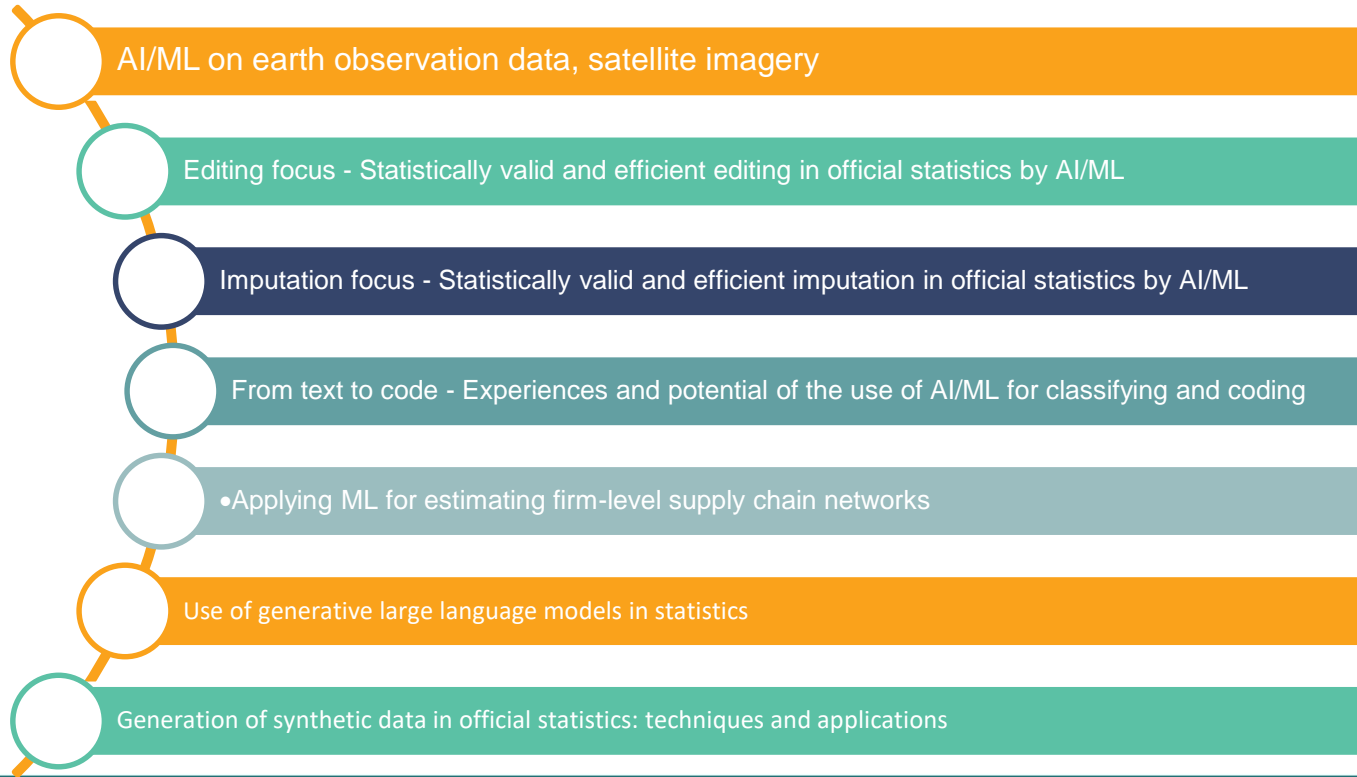
Project



Overarching Work Packages



Use Cases



AI/ML – In Production

Methodological and implementation guidelines for applying AI/ML in official statistics

Generalised knowledge, identified norms and best practices for developing and operating AI/ML-based solutions in official statistics

Standards in applying AI/ML in official statistics to facilitate the transition from development and experimentation of AI/ML-based solutions to industrialisation and production



AI/ML – Key Aspects for Production

Standards

- Clarity
- Interpretability
- Transparency
- Data Quality
- Auditability
- Ethics

Methodology

- Unbiased
- Reproducible
- Valid statistical outcomes

Implementation

- MLOps
- AI/ML Labs
- Experimentation to Production



Current Status

- Each WP has commenced work
- [Project dashboard](#) launched on CROS
- Newsletter launched



Early Work.....

- Research started across the work packages, for example:
 - Comparison of Earth Observation models across countries to identify which ones can be “generalised”
 - Application of Belgian software solution & Oxford University model on estimating firm-level supply chain networks to Portuguese & Dutch datasets and looking at potential improvements
 - Options on privacy risk measurement for synthetic data
 - Text to code – considering use cases e.g. NACE revision, hierarchical methods for text classifications, synthetic training datasets in multiple languages
 - Using AI/ML for error detection & editing in large datasets

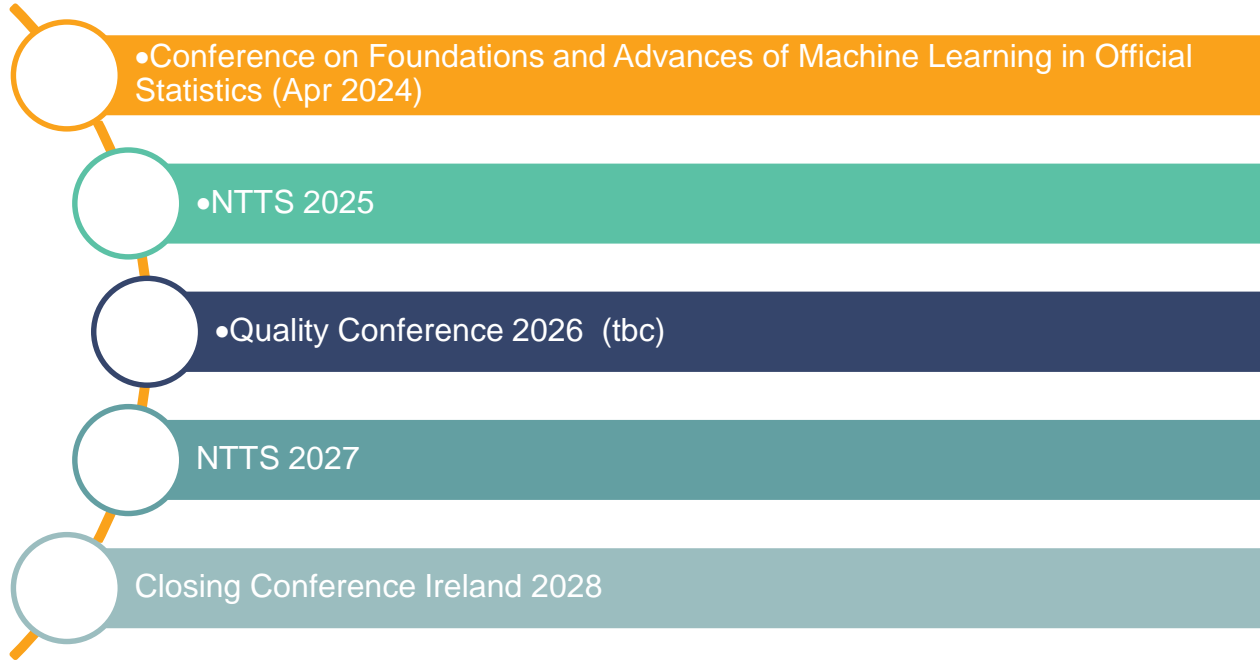


Early Work.....

- Most work packages are still agreeing the specific use case & associated methodology to work on, but
- Testing environment (sandbox) is now available



Key Events





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