



EUROPEAN CONFERENCE ON QUALITY IN OFFICIAL STATISTICS 2024 ESTORIL - PORTUGAL



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QUALITY IN OFFICIAL STATISTICS
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The ESS Innovation Agenda

Implementation of the ESS Innovation Agenda



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The conference is partly
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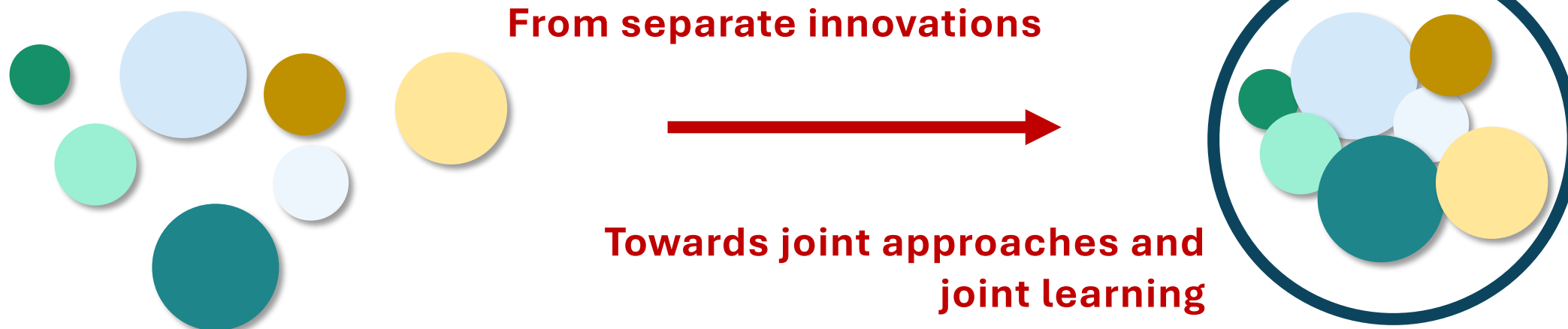
Outline

- Motivation
- Goals
- ESS innovation agenda guiding principles
- Roll out and activities
- Stakeholders and partnerships
- ESS Innovation Network
- Conclusions



Why an ESS Innovation Agenda?

- ESSC **acknowledgment** of the importance of innovation and the necessity to make it an indispensable element of the ESS activities
- Joint **vision and approach for scaling up** innovation and **strengthening** the innovation culture
- Taking **innovation in the ESS** to the next level





Policy Context

- The **ESS Vision 2020 Programme** ended in 2020 delivering a wide range of results
- The recent crisis has proved that **innovation is more important than ever** in a rapidly changing data ecosystem and to respond to new user needs
- A broad consensus on the need to keep a focus on **ESS innovation as part of the Multiannual Action Plan** with a broad scope (product and process innovation)
- New measures and new indicator demands ...

Health

Inclusive
Societies

Security
and
autonomy

Digital,
Industry

Climate,
Energy &
Mobility

Food,
Bioeconomy
, Natural
Resources,
Agriculture &
Environment



The ESS Innovation Agenda Goal

*‘the ESS innovation agenda is meant to **structure and sustain the innovation streams** in the ESS in order to make:*

- the production of European official statistics fit for the future and*
- the ESS in better condition to respond to the challenges ahead’*



Goals



Strengthen the ESS ability to respond rapidly to new and urgent user needs



Augment products and service portfolio for meeting policy needs



Realize efficiency gains to free up resources



Strengthen resilience to shocks and adapt to societal change

Means



Leverage key innovation **drivers and enablers**, offered by the recent technological developments



Promote internal and external **cooperation**



'**Cross-domain**' thinking and working



Focus on implementing in statistical processes



ESS Innovation Agenda



Strategic approach to innovation

- Conducting innovative projects
- Accelerating and enabling innovation
- Reaching out to a larger community of stakeholders that can contribute to ESS innovation activities



Operational action plan

- Annual rolling plan integrating various approaches (quick wins and longer term capacity building)

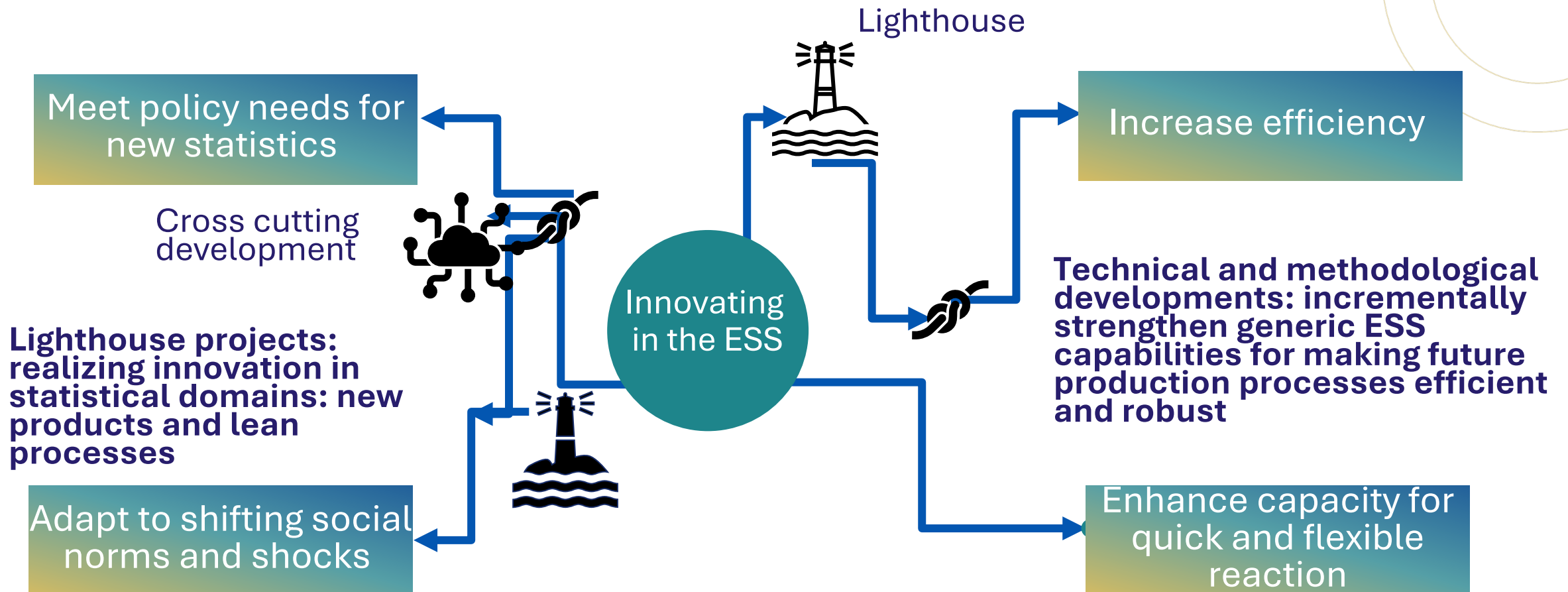


ESS Innovation Agenda: Guiding Principles

- Guiding principles for rolling out the ESS Innovation agenda
 - User information **needs** are the key innovation driver
 - Innovation encompasses the **entire ESS**
 - Innovation needs a '**fail fast**' approach
 - Innovation results are **integrated** in the statistical **production**
 - Participation by an ESS member in the innovation is **voluntary**
 - The **optimal role** distribution between ESS members is established



Rolling out innovation



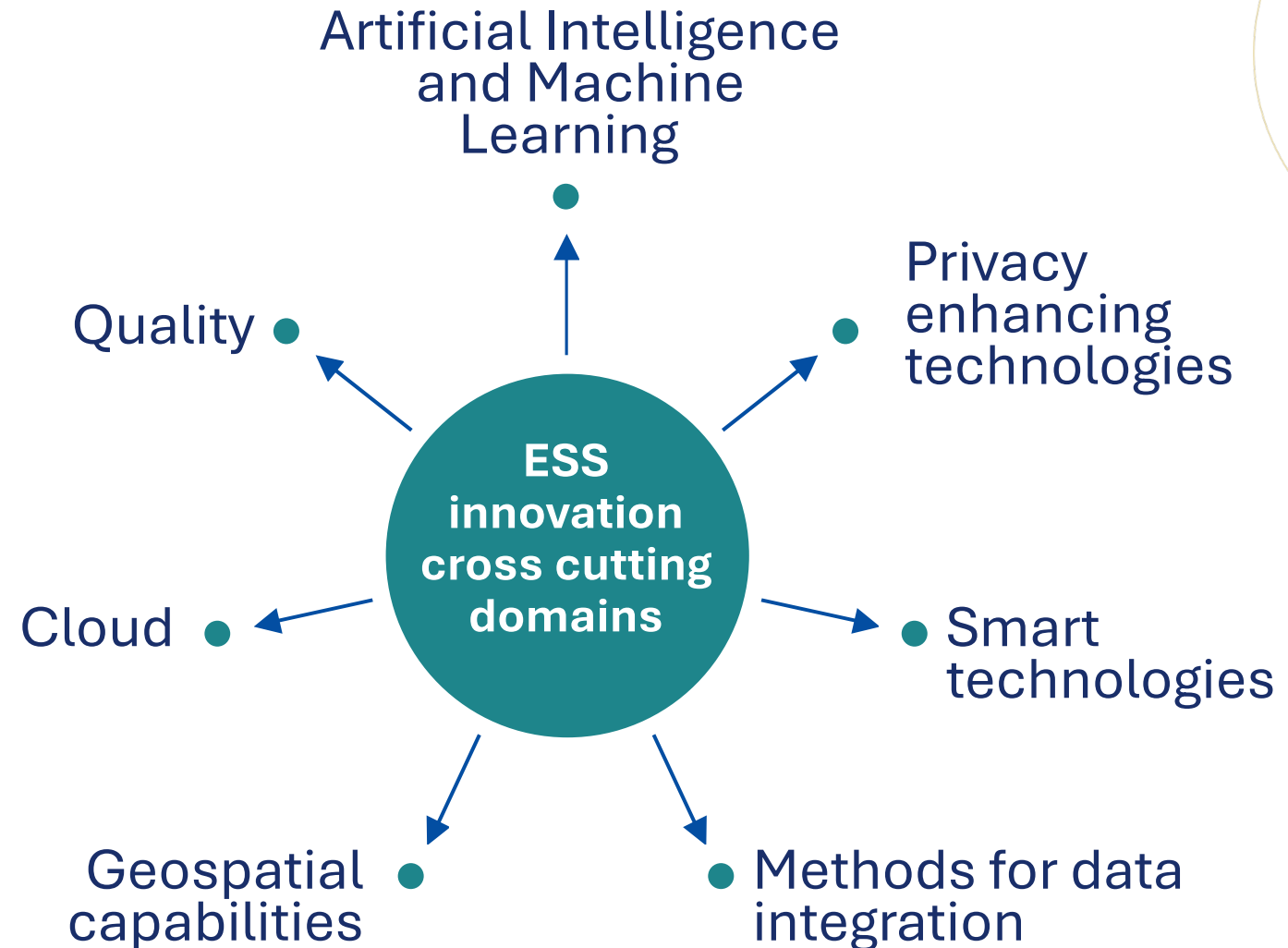


Lighthouse projects examples

1. **Innovative dissemination** tools for Principal European Economic Indicators
2. From experimental statistics to a statistical process: **Distributional National Accounts**
3. Working towards **early estimates** for short-term business indicators
4. **Microdata linking** techniques (MDL) for improved efficiency and new business statistics
5. Implementing measures for **improved European social statistics**
6. New wave of **Household Budget Survey**
7. Development of **environmental ecosystem accounting**.
8. Use of **Automated Identification Systems of vessels** data for improved maritime statistics
9. ML for **automatic classifying** entities according to NACE



Key innovation domains





AI/ML One-Stop-Shop for NSIs

A single-entry point for NSIs staff

- Sandbox infrastructure to test and pilot AI/ML approaches together with training and coaching
- Reference implementation of AI approaches in the production of official statistics (e.g. information extraction, data editing and imputation, automatic coding, use of LLM to support users of statistics)
- Communities to share ideas, experiences, success stories and lessons learned to stimulate innovation based on the use of AI/ML.
- Best practices to facilitate the transition from development and experimentation of AI/ML-based solutions to industrialisation and production
- Time horizon: 2024-2028



Privacy Enhancing Technologies

- Accelerating the adoption of Privacy Enhancing Technologies (PET) within the ESS as an alternative to direct exchange of personal data between different organisations, lowering privacy and security risks, improving acceptance by data providers and general public.
- Build a shared PET infrastructure based on the concept of Multi-Party Secure Private Computing-as-a-Service ([‘JOCONDE project’](#)).
- Detailed specification, feasibility analysis, prototyping and demonstration (2025-26) - IT procurement and piloting (2026 onwards)



Innovation mechanisms

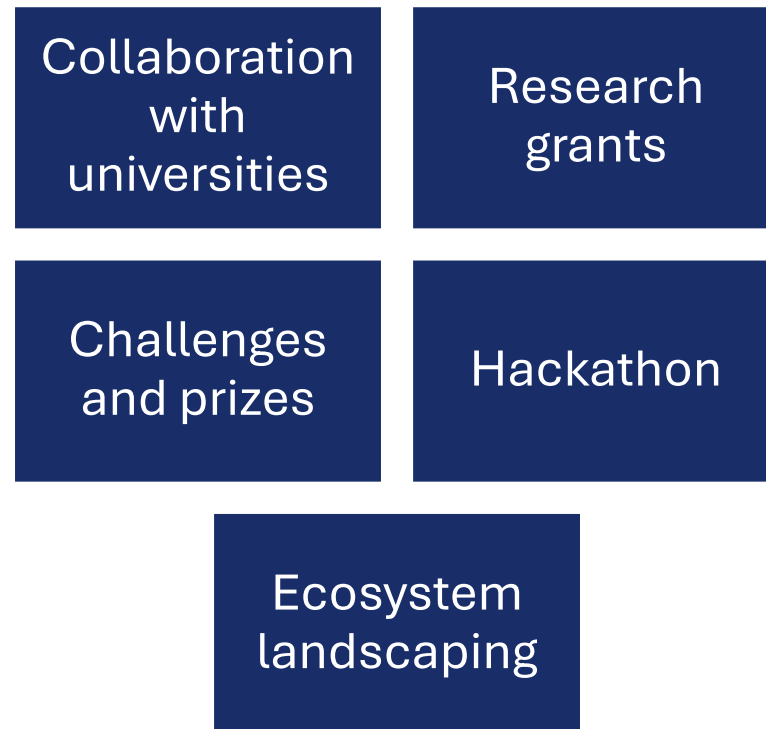


TOP Priorities

1. Peer-to-peer knowledge sharing
2. Capacity building through training and similar activities
3. Process design and framework
4. Communication
5. Legal Framework
6. Citizen engagement and citizen science approaches



Partnerships – reinforced collaboration





ESS Innovation Network (EIN)

Brings together ESS innovation champions to support the Innovation execution

Tasks of the EIN include:

- **Liase** with member states to share experience and good practices
- **Boost** innovation process (new ideas, reuse of capabilities, transition from LAB to FAB)
- **Initiate** contacts with relevant stakeholders at member states, EU organizations and external partners

Projects look beyond statistical offices and also enable collaboration with **external partners / innovation community**



The ESS Innovation Agenda aims to streamline innovation, enhancing the ESS capability to rapidly address new and urgent user demands.



Innovation is not an option, it is imperative for the ESS to remain relevant and responsive to the evolving needs of policy and society



Embracing new technologies, such as AI/ML and Privacy Enhancing Technologies, is essential



Joining forces within and beyond ESS is crucial



Anticipation and agility in governance are necessary to navigate and leverage rapid developments effectively

A strategic, fail-fast approach to innovation is advocated, with **pathways** for integrating successful outcomes directly into statistical production workflows

Addressing the skills gap and instilling a change in culture are recognized as integral to realizing the full potential of the ESS Innovation Agenda

Capacity building and peer-to-peer knowledge sharing are top priorities to empower ESS members with the necessary skills and knowledge.

Legal frameworks, citizen engagement, and partnerships with academia and the private sector are identified as enablers of successful innovation.



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Thank you!



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