



ESS innovation

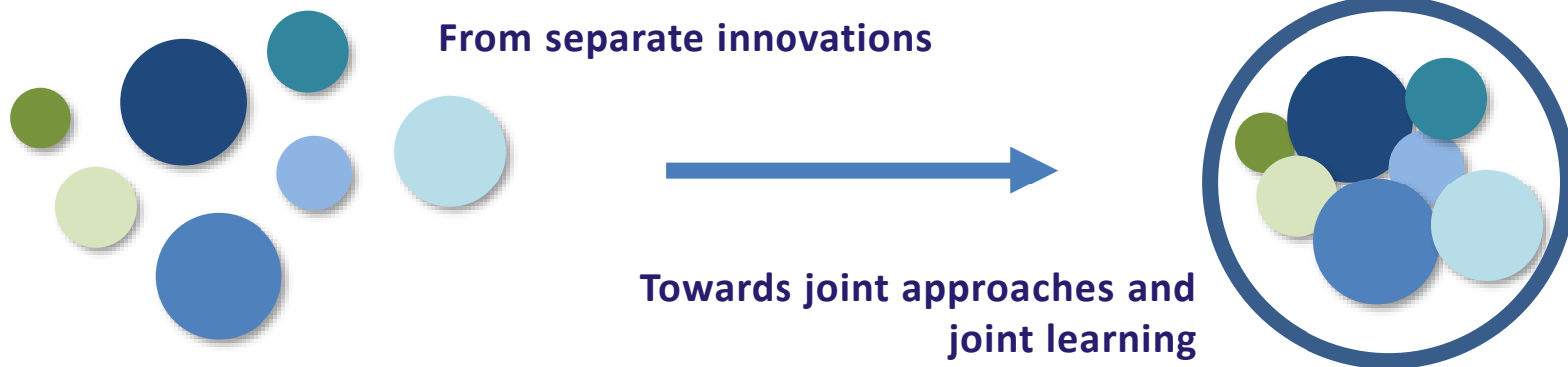
Marleen Verbruggen
Madrid 23-10-2023

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from: Oslo Manual on Guidelines for collecting, reporting and using data on innovation

Why an ESS Innovation Agenda?

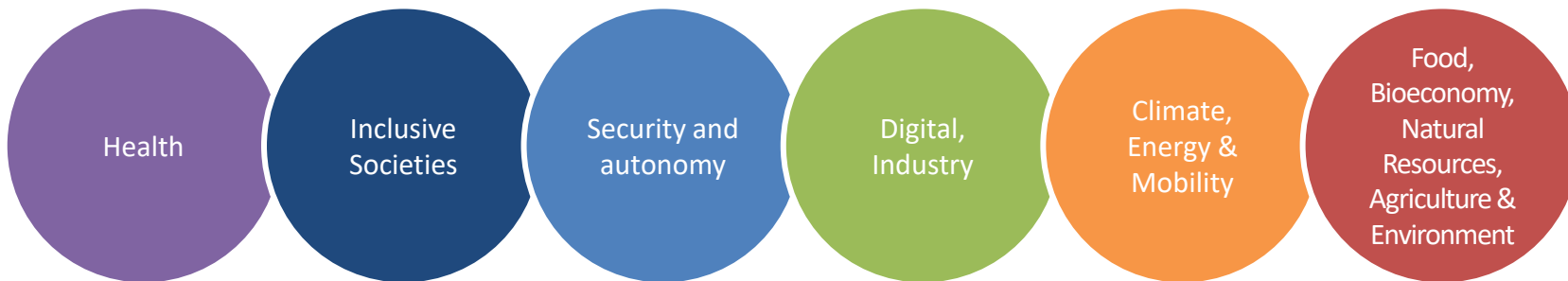
- ESSC **acknowledgment** of the importance of innovation and the necessity to make it an indispensable element of the ESS activities
- Joint **vision and approach scaling up** innovation and **strengthening** the innovation culture
- Taking **innovation in the ESS** to the next level





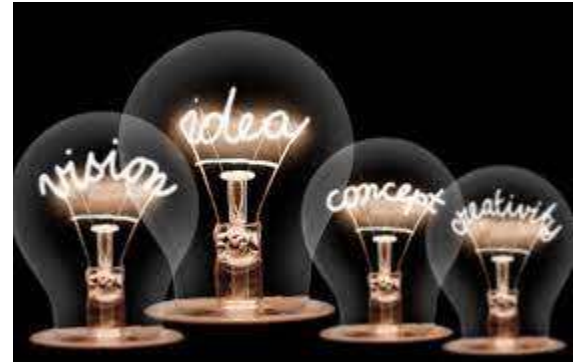
Policy Context

- 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 Multi Annual Plan** with a broad scope (product and process innovation)
- New measure and new indicators demands ...



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

and also:

- **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 process**



ESS innovation agenda



- **Strategic approach to innovation**

- Conducting innovative projects
- Accelerating and enabling innovation
- Reaching out to a larger community of stakeholders active in innovation activities



- **Operational action plan**

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

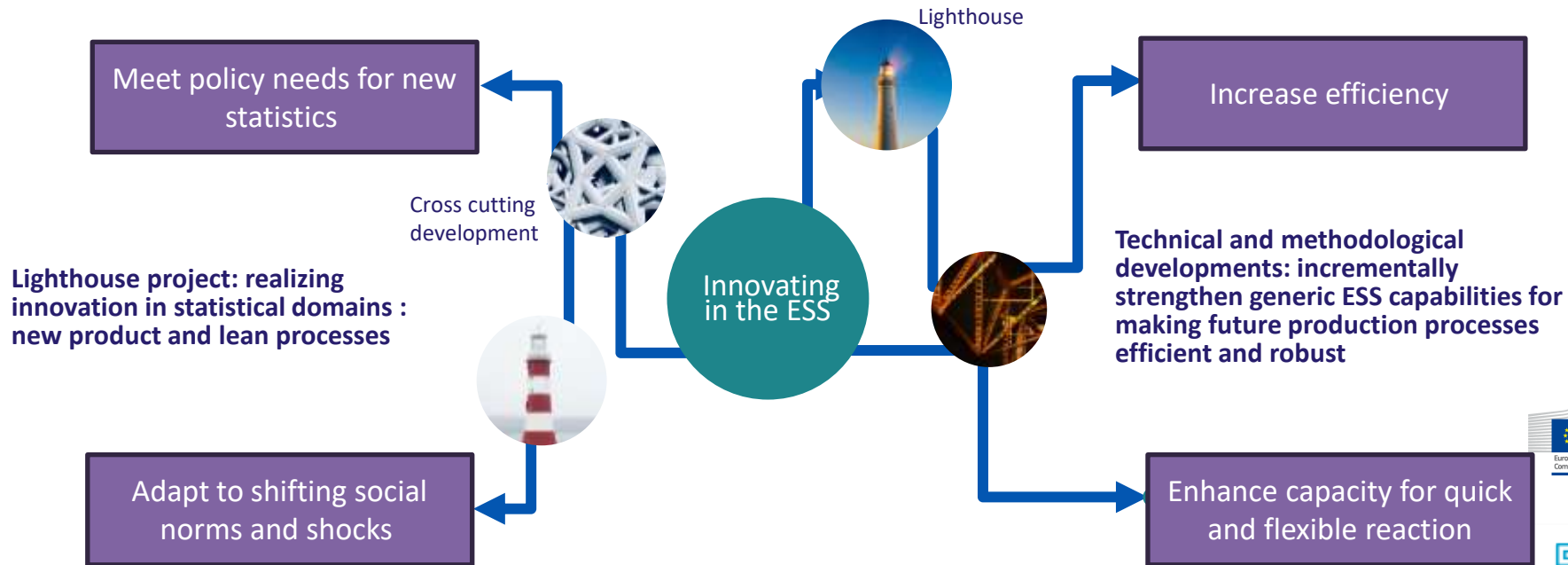


ESS Innovation agenda: Principles

- 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



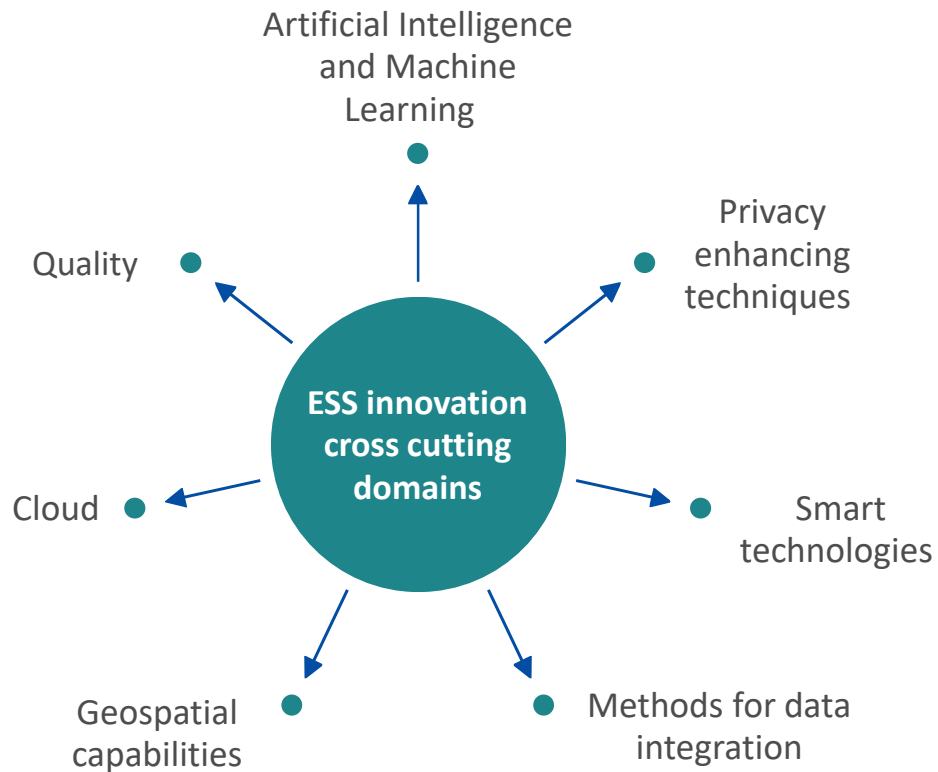
Lighthouse projects examples

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



Methodological and Technological innovations

TOP priorities



Example 1: 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



Example 2: Implementing Smart Surveys

- Applied research (NSIs, universities) to advance, develop and demonstrate the concept of smart surveys i.e., use of smart devices combining active and interactive data collection
- Identify the sharable components of the solutions that could be further developed and used among the NSIs
- Identify and promote good practices for privacy and communication methods for engaging respondents.



Example 3. Privacy Enhancing Techniques

- Accelerating the adoption of Privacy Enhancing Technologies (PET) with 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 (MPSPCaaS).
- Detailed specification, feasibility analysis, prototyping and demonstration - IT procurement and piloting



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

New partnerships – new forms of collaboration

Academics



International organisations



Citizens' Engagement



Private sector



ESS innovation network

- **An European Innovation Network (EIN)** is composed to support the Innovation execution projects.
Tasks of the network include:
 - **Liaison** with member states to learn from experiences and good practices
 - **Boost** innovation process (new ideas, reuse of capabilities, transition from LAB to FAB)
 - **Initiator** of contact with member states, EU organization and external partners
- Projects look beyond statistical offices and also enable collaboration with **external partners / innovation community**



Questions for discussion

Linked with INE

INE

Instituto Nacional de Estadística

- What topics/issues are most relevant for INE?
- How do you organize innovation within INE?
- What are best practices INE can share with the European Innovation Network (EIN)?
- What would you like to learn / copy best practices?





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