



# HLG-MOS Online Modernisation Workshop 2021

11<sup>th</sup> Annual Workshop of the High-Level Group for the  
Modernisation of Official Statistics  
*15-16 November 2021*

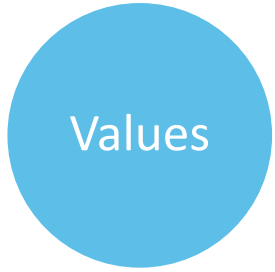




Work collaboratively to identify trends, threats, and opportunities & provide common platform to develop solutions in a flexible and agile way.



Actively engage  
Be a trusted data authority  
Adopt a service-oriented approach  
Have an agile, adaptive culture

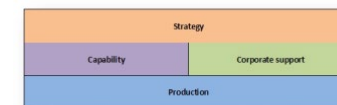


Developing innovative solutions  
Demonstrating leadership and collaboration  
Discussing challenges and opportunities openly  
Ensuring that priorities are community driven  
Supporting a flexible, result oriented and agile approach



# ModernStats Achievements:

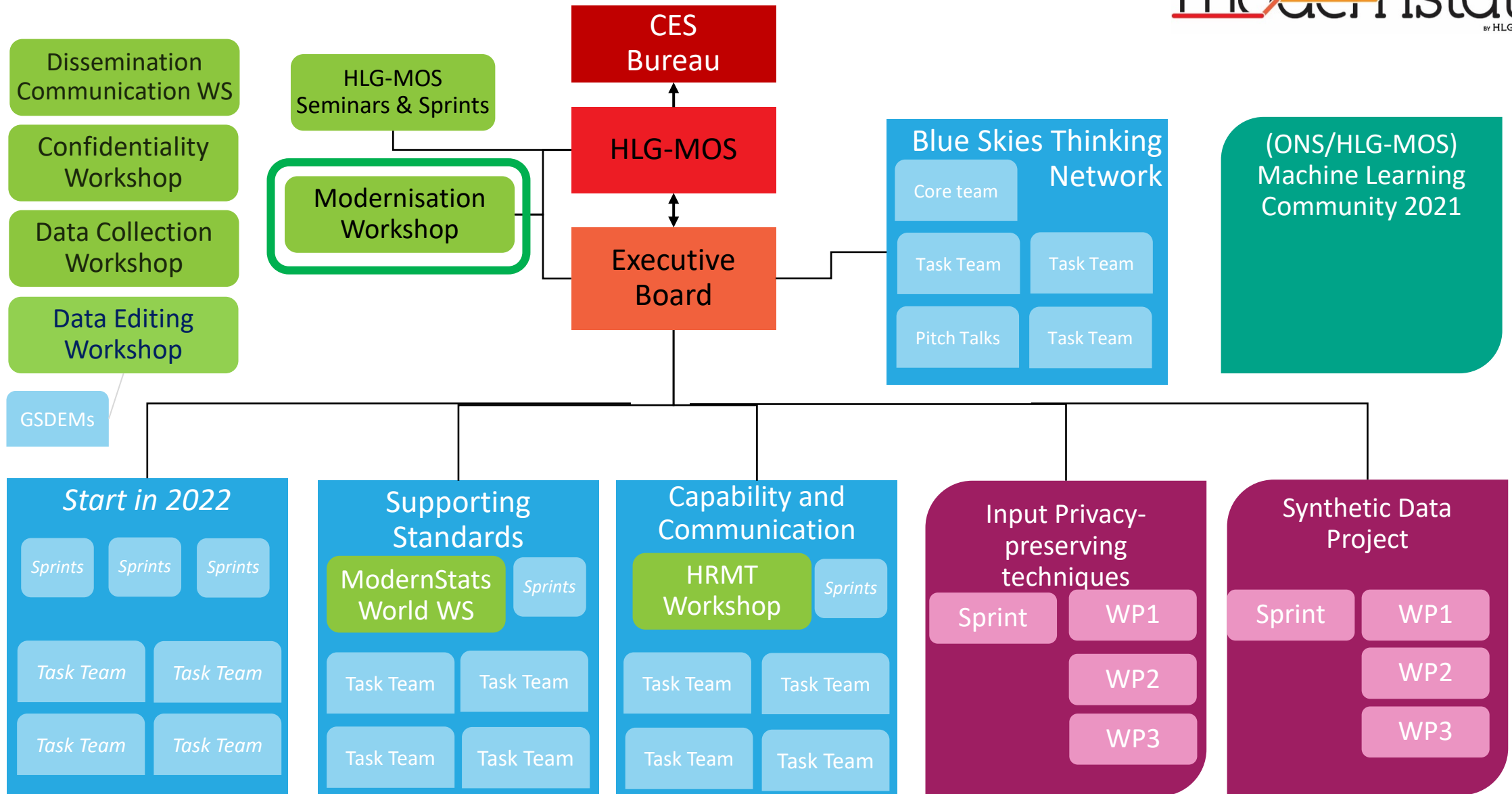
- **Generic Statistical Business Process Model (GSBPM)**
- **Generic Statistical Information Model (GSIM)**
- **Common Statistical Production Architecture (CSPA)**
- **Generic Activity Model for Statistical Organizations (GAMSO)**
- **Generic Statistical Data Editing Model (GSDEM)**
  
- **Many related products such as GSBPM for Spatial data**



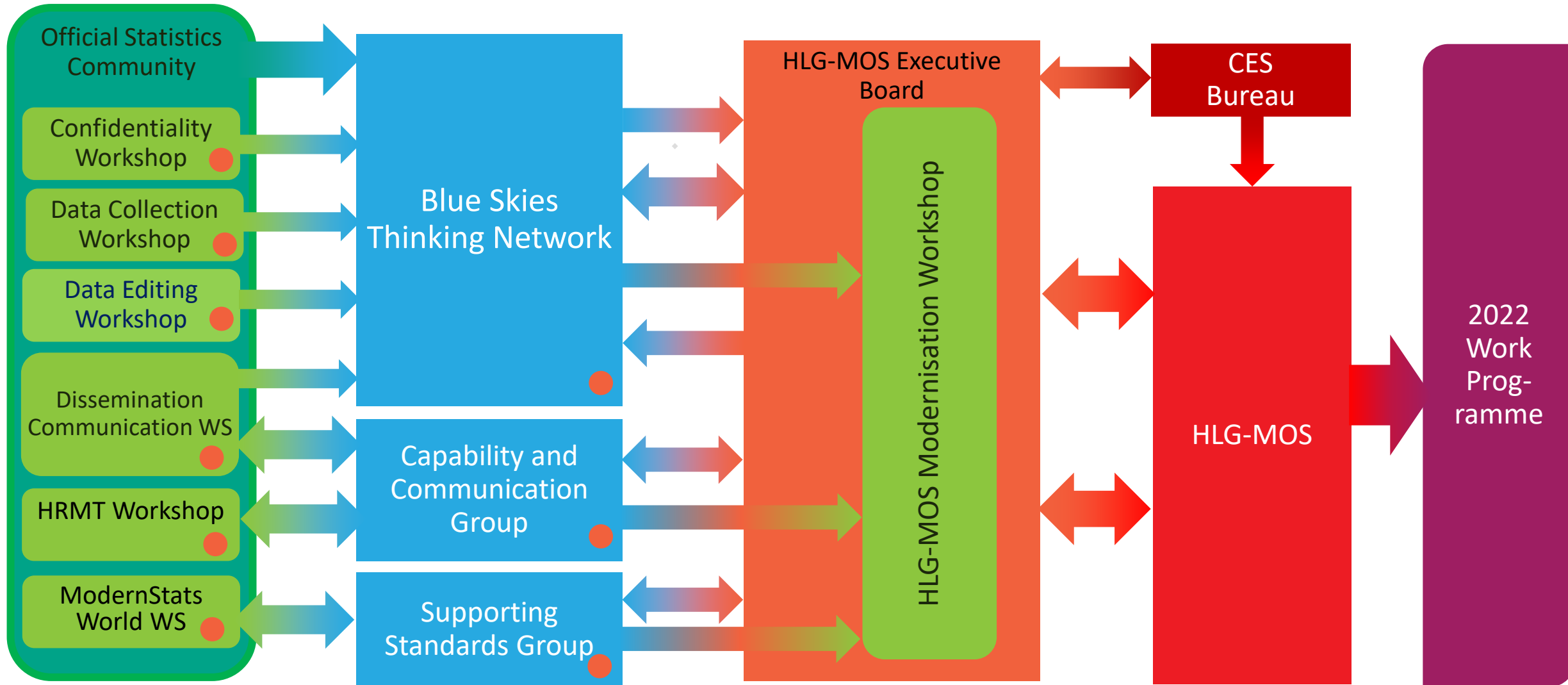
# Some other outputs

- Machine Learning for Official Statistics [link](#)
- Common Statistical Data Architecture 1.0 ([CSDA](#))
- Data Integration Guidelines [link](#)
- Common Metadata Framework [link](#)
- Linked Open Metadata [link](#)
- Strategic Communications Framework [link](#)
- Guidelines on Risk Management [link](#)
- Guidelines for Managers [link](#)
- Big Data Inventory [link](#)
- Investment Catalogue [link](#)
- CSPA Catalogue [link](#)

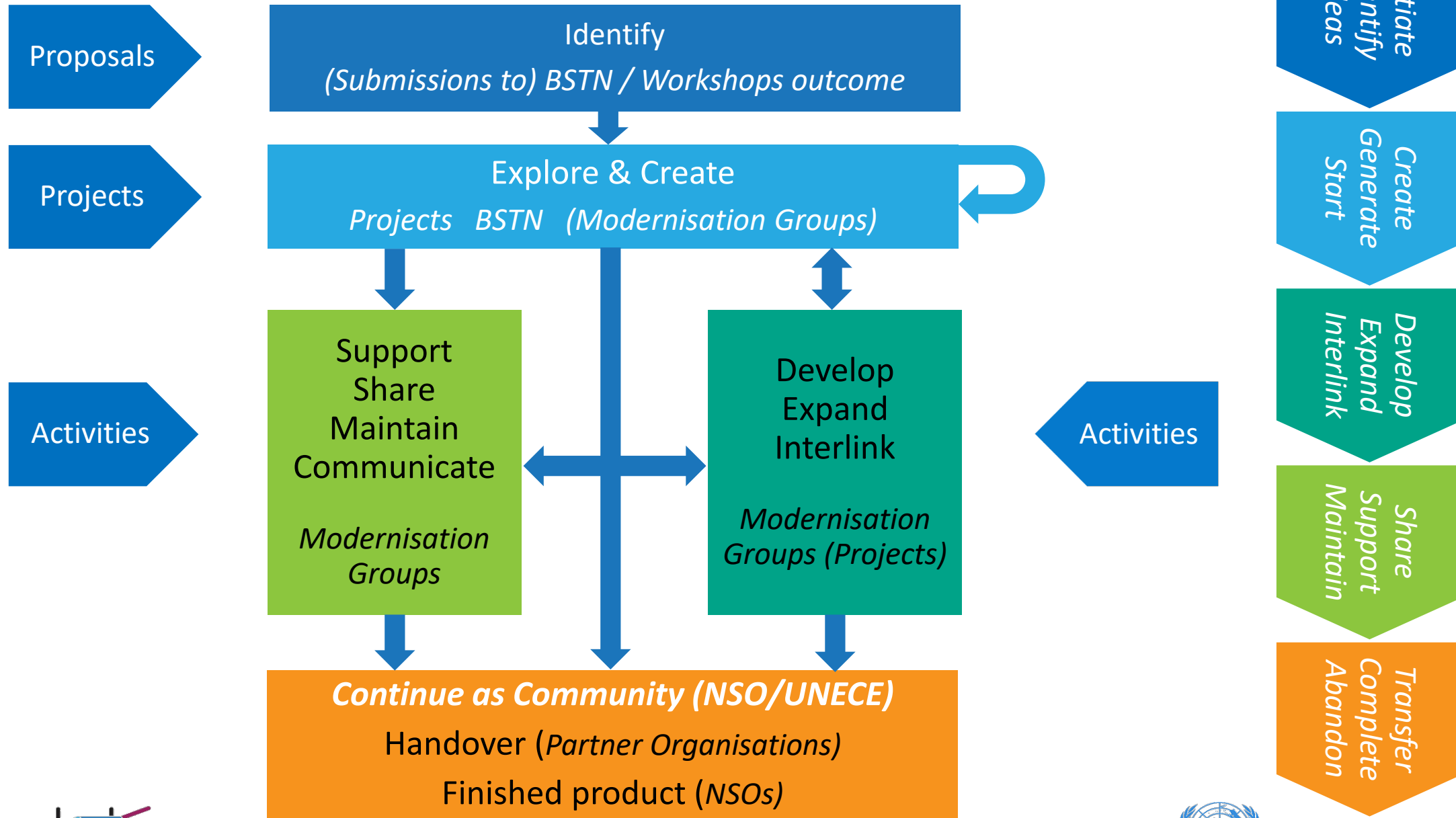
# 2021 HLG-MOS Structure



# HLG-MOS Innovation Pipeline

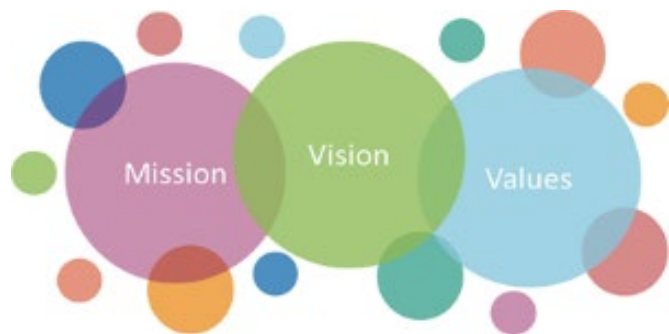


# ModernStats Fundamentals and Pillars



# Why are we here today and tomorrow?

Share and showcase our work  
Celebrate our accomplishment  
Get feedback on results



Identify and Prioritize future work  
Drive new developments  
Set our 2022 work programme



Involve the community  
Induce collaboration and participation  
Engage in an open discussion



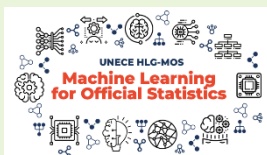


# ModernStats 2021

# Network & Projects 2021

## Machine Learning Community

- Pilots from Idea to Valid Solution
  - Coding and classification; Imputation; Imagery analysis; Modelling for estimation; Transferring knowledge and experience; Route optimisation
- Valid solution to production
- Data ethics and governance
- Quality of training data
- Quality framework for algorithms



## Synthetic Data Guide Project

- Use cases for Synthetic Data
- Recommended methods and techniques
- Disclosure risk measures
- Utility Measures
- Experiments
- *Hackathon/challenge*
- Webinar



## Input Privacy-Preservation Project

- Generalized use cases
- Private set intersection
- Private machine learning
- Multi-party privacy preserving Machine Learning (tested)
- Test coverage of 3<sup>rd</sup> party data under limited trust
- External consultation
- Webinar

# Modernisation Groups 2021

## Blue Skies Thinking Network

- Network data
- Experiments to Implementation
- Facebook surveys
- Hotspot Joint Biosecurity Centre
- Rapid survey system
- Identifying and evaluation new topics
- Evaluation submitted proposals
- Project proposals



## Capabilities and Communication

- Future of work and workplace and skills
  - Employer, Employee and Manager toolkits
- Ethical Leadership, Ethics management and Data Ethics
  - Surveys
- Crisis communication and brand management
- *2021 DissComm, 2022 HRMT workshop*



## Supporting Standards

- Linking GSBPM & GSIM
- Core Ontology for Official Statistics
- Updating GSIM
- GSBPM Task
- GSBPM for Geospatial Information
- CSPA
- *ModernStats World Workshop 2022*



# Expert Meetings, Workshops, Webinars and Sprints 2021

- Expert Meeting on Statistical Data Collection, 27-30 September 2021, online
- Expert Meeting on Dissemination and Communication of Statistics, 11-14 October 2021, online ~~Lisbon Portugal~~
- HLG-MOS workshop on the Modernisation of Official Statistics, 15-16 November 2021, online
- Synthetic Data Webinar, 17 November 2021
- Input Privacy-Preservation Webinar, 18 November 2021
- Machine Learning Community Webinar, 19 November 2021
- Expert meeting on Statistical Data Confidentiality, 1-3 December 2021, Poznan, Poland
- Several Sprints (GSBPM-GSIM, BSTN, Future of Work)

# Highlights of Output produced in 2021

- Synthetic Data for NSO Guide
- Generalized Use Cases of various Input Privacy Preservation techniques were defined and tested
- Future Work Toolkits for blended working
- Ethics Survey report
- Crisis Communication and Brand Management Guide
- Geospatial view of GSBPM
- Linking GSBPM and GSIM
- ModernStats Model Governance Guide
- Project Proposals 2022

# Community Involvement 2021

**4 Steering Committees**  
35 members  
14 org.

**4 Expert Meetings/  
Workshops & 3  
Webinars**  
800 participants (est.)  
80 organisations (est.)

**Exec Board  
&  
3 Groups,**  
134 members  
32 org.

**ML  
Community**  
43 members  
20 org. & 248  
participants

**3 Sprints**  
30 part.  
22 org.

**2 Projects**  
43 members  
27 org.

**1000+ Participants**

**250+ Members**

**100+ Organisations**

# ModernStats 2022

# Proposals 2022

- Project proposals
  - Extension Input Privacy-Preservation Techniques
  - Meta-Academy for the Modernization of Official Statistics
  - Statistical Data Governance Framework to Achieve Data Interoperability
- Activity proposals & BSTN topics
  - Supporting Standards group: GSIM revision, GSBPM Tasks
  - Capability and Communication group: reaching youth, job of the future
  - Blue Skies Thinking Network topics: digital twins, nowcasting, data virtualisation
- New Modernisation Group: Applying Data Science and Modern Methods



# Get Involved! Join the Force!



Consult  
Contribute  
Collaborate



# Questions

