

Blue Skies Thinking Network: Activities 2021 and Proposals 2022

11th Annual Workshop of the High-Level Group for the
Modernisation of Official Statistics

15-16 November 2021



Blue Skies Thinking Network



The Blue Skies Thinking Network is **the “ideas factory” for the statistical modernisation community**. The network provides a research and innovation platform where members can share ideas and look for partners to **explore how new innovations to our production process can benefit statistical organisations**.

The objective of the Blue Skies Thinking Network is to **generate and evaluate proposals for HLG-MOS activities** and where needed, to do short time boxed follow-up studies. The network will be an umbrella structure for a core group and short-term task teams to investigate new ideas and opportunities through short evaluation projects supported by the HLG-MOS Executive Board. **Any idea that is in line with the HLG-MOS Strategic Framework can be considered**. To allow for new innovations, space will also be given to out-of-the-box thinking.

Blue Skies Thinking Network



BSTN Core Team

- Monthly (online) meetings to supervise ongoing activities and discuss new ideas
- Some to be carried out by BSTN and associates, some by others

2021: seven activities under BSTN umbrella

- Proposed and endorsed at HLG-MOS Workshop 2020
- Different approaches
- Not all of them did materialize

Six activity proposals for 2022

- Partly subject to further elaboration

Activities 2021



- 1) The power of network data: feasibility studies (Daniel Elazar, ABS)
- 2) COVID-19 hotspot joint biosecurity centre platform (Eric Deeben, ONS)
- 3) User research for official statistics (Eric Anvar, OECD)
- 4) Rapid survey system (Branko Josipović, SORS)
- 5) From experimentation to implementation in official statistics (Kate Burnett, StatsCan)
- 6) Microdata for understanding falling response rates (Gary Dunnet, StatsNZ)
- 7) Facebook-based COVID survey (Barteld Braaksma, StatsNL)

See two-pager with pitches

Activity proposals for 2021



- 1) The power of network data: feasibility studies (Daniel Elazar, ABS)
- 2) COVID-19 hotspot joint biosecurity centre platform (Eric Deeben, ONS)
- 3) User research for official statistics (Eric Anvar, OECD)
- 4) Rapid survey system (Branko Josipović, SORS)
- 5) From experimentation to implementation in official statistics (Kate Burnett, StatsCan)
- 6) Microdata for understanding falling response rates (Gary Dunnet, StatsNZ)
- 7) Facebook-based COVID survey (Barteld Braaksma, StatsNL)

See two-pager with pitches

Supply Chain Network Disruption Model

- ▶ Aim: To reconstruct (B2B supply chain) networks to better understand real-world phenomena and articulate the risks of cascading effects (disruptions) in said networks
- ▶ Received input from noted academics on the ABS Methodological Advisory Committee
- ▶ First prototype expected in March 2022
- ▶ Model relies on some data of business-to-business connections
 - So far, most data sources are 2-5 years away from being viable
 - Credit risk companies and survey data seem most promising
- ▶ Exploring collaborations with stats offices (CBS & ONS) and universities (UoM & UQ)

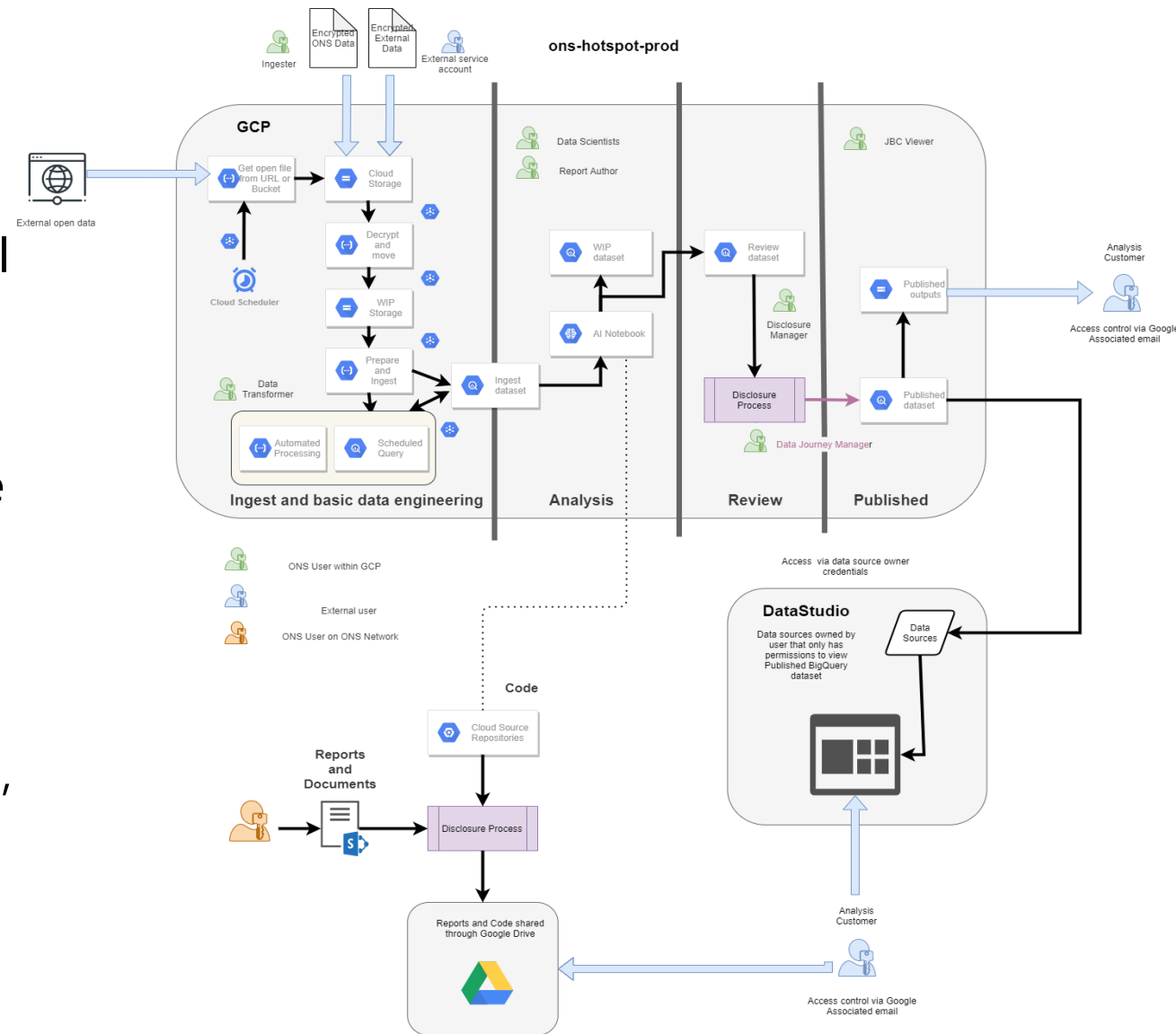
Joint Biosecurity Centre (UK)

In Collaboration with JBC:

- Built a Secure, collaborative Google Cloud Platform
 - Support Secure Research Service overflow
 - Learning for Integrated Data Service
- Developing
 - Early warning model – pharma data, waste water
 - Risk model – work place, mobility, travel type, other socio-demographic indicators
 - Novel approach to incidence – flight paths

COVID-19 Hotspot Joint Biosecurity Centre Platform (JBC)

- The JBC was created in helping to break the chains of COVID-19 transmission through expert analysis and insight, enabling evidence-based decisions at a national and local level.
- ONS Data Science Campus and Digital Service Technology build a Flexible analytical single platform for all data and analysts to work in one place, assured for data security but flexible enough to adapt to changing needs, build in Google cloud for scalability.
- Cloud native tools for data management and modelling, outputs are managed and controlled, access is authenticated.
- Data processing in Big Query, Python, R or a combination of them all; use the latest, most powerful libraries and modules (including geography and NLP).



Rapid Survey System (Serbia)

- To assess economic indicators for a month in advance in areas such as:-
 - Industrial production
 - Retail trade
 - Construction works
- Fully automated accessible – phone, tablet, computer or by QR code
- Online application made in asp.net and using MVC classes
- Developed application to send large number of questionnaires by email
- Developed a highly important component is a tool for monitoring the flow of the survey in real-time

From experimentation to implementation in official statistics

Goal: identify common issues that block the transition from R&D to production

- **Spring 2021: initial discussions on approach**
 - **Limited survey among BSTN members and associates**
- **15 April 2021: virtual workshop to identify main/common roadblocks**
 - **Culture and IT (open source technologies)**
- **12 July 2021: invited paper session at World Statistics Conference (CA, NL, NZ, UK)**
 - **Very good turnout, we all face similar problems**
 - **Follow-up considered at Q2022**
- **Key reflection: topic too big to handle, progress step-by-step**
 - **Led to Meta Academy project proposal**



Activity Proposals for 2022

Activity proposals for 2022

- 1) Community on metadata and data virtualization (soapbox)
- 2) Digital twins (confirmed)
- 3) Follow-up JBC/RSS/... (confirmed)
- 4) Microdata for understanding falling response rates (postponed from 2021)
- 5) Mobile survey data collection for climate change (TBD)
- 6) Nowcasting (TBD)

See document

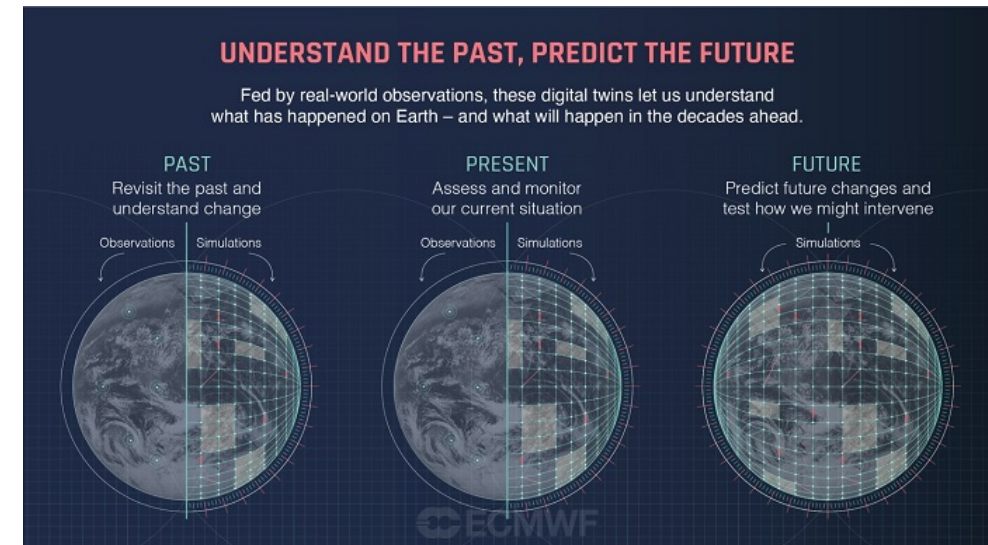


Digital Twins

- Digital (often 3D) copy of a real object
 - Human body
 - City
 - The world
- Can be used for understanding reality
 - Predicting policy effects
 - Scenario analysis
- Focus often on physical environment
 - But in the end it is about human behaviour!
 - Clear role for our social and economic data



Destination Earth



Activity proposal available

Collaboration proposal ONS- SORS- OECD

- Exploring to work on joint use case the develop:
 - Cloud base platform open software based architecture
 - Open access to survey data
 - Methods, tools and governance framework
- Progress in 2021 and next steps
 - Scope initial idea
 - Limited progress due to resource constraints
 - Meet with Brank/SORS and Eric/OECD 23/11 to discuss plans for 2022 and start on ToR.
 - Plan workshop 2022

That's it for now-
but innovation never stops 😊



Very impressive my dear
colleague-
but does it also work in theory?