

ISSMGE TC222 Geotechnical BIM and Digital Twins Online Workshop

National Geotech Databases & Asset Registers

Thursday May 30th | 10:00 (Paris) | 16:00 (Hong Kong) | 4:00 (New York)

Duration : 2 hours

with talks from:

Grzegorz Ryżyński (Polish Geological Institute), Dongri Song (Institute of Mountain Hazards and Environment),
Rob van der Krogt (TNO – Geological Survey of the Netherlands), Ben Gislón (ARUP)



INSTITUTE OF MOUNTAIN HAZARDS AND ENVIRONMENT,
CHINESE ACADEMY OF SCIENCES



ARUP

Welcome to the 4th ISSMGE TC222 online Workshop!

• Agenda

• For Q&A



- **10h00:** Welcome
- **10h05:** Introduction about ISSMGE TC222 (5min)
- **10h10:** Introduction about national geotech database and asset registers (5min)



- **10h15:** PGI presentation – Grzegorz Ryżyński (20min + 5 for Q&A)



- **10h40:** IMHE presentation – Dongri Song (20min + 5 for Q&A)



- **11h05:** TNO presentation – Rob van der Krogt (20min + 5 for Q&A)

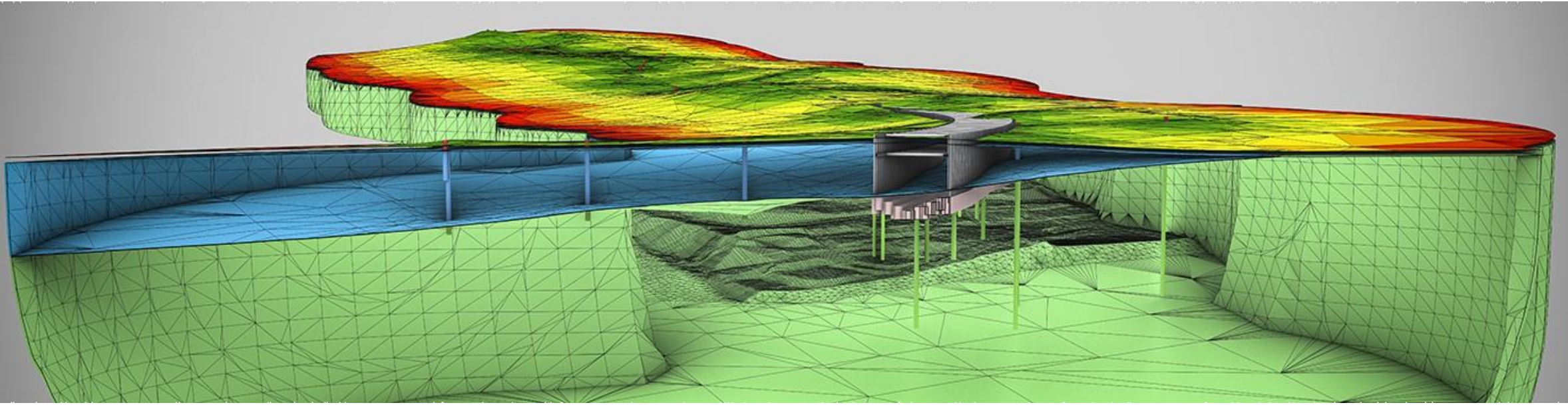


- **11h30:** NUAR presentation – Ben Gilson (20min + 5 for Q&A)
- **11h55:** Wrap-up (5min)



<https://app.sli.do/event/2yLLoo78nZqNj8rEwt5PsG>

Or go to <https://www.slido.com/>
Code: #1453 290



Introducing ISSMGE TC222

Magnus Rømoen (Chair, NGI) & Mickaël Beaufils (Vice-Chair, BRGM)

ISSMGE



- International Society for Soil Mechanics and Geotechnical Engineering
- 90 members societies / national bodies and around 20,000 individual members
- 37 Technical Committees: 7 about Fundamentals (TC1xx), 21 about Applications (TC2xx), 9 about Impact on Society (TC3xx)
- TC222 : BIM & Digital Twins for Geotechnics

TC222 Council



Chair

Magnus
Rømoen

-

NGI



Vice-chair

Mickaël
Beaufils

-

BRGM



Secretary

Mats
Kahlström

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NGI



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- <https://www.issmge.org/committees/technical-committees/applications/geotechnical-bim-and-dt>



- On LinkedIn:

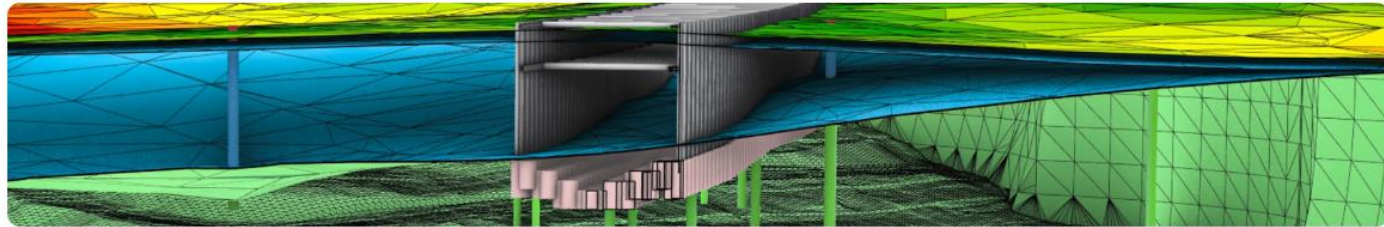
- <https://www.linkedin.com/company/issmge-tc-222/>



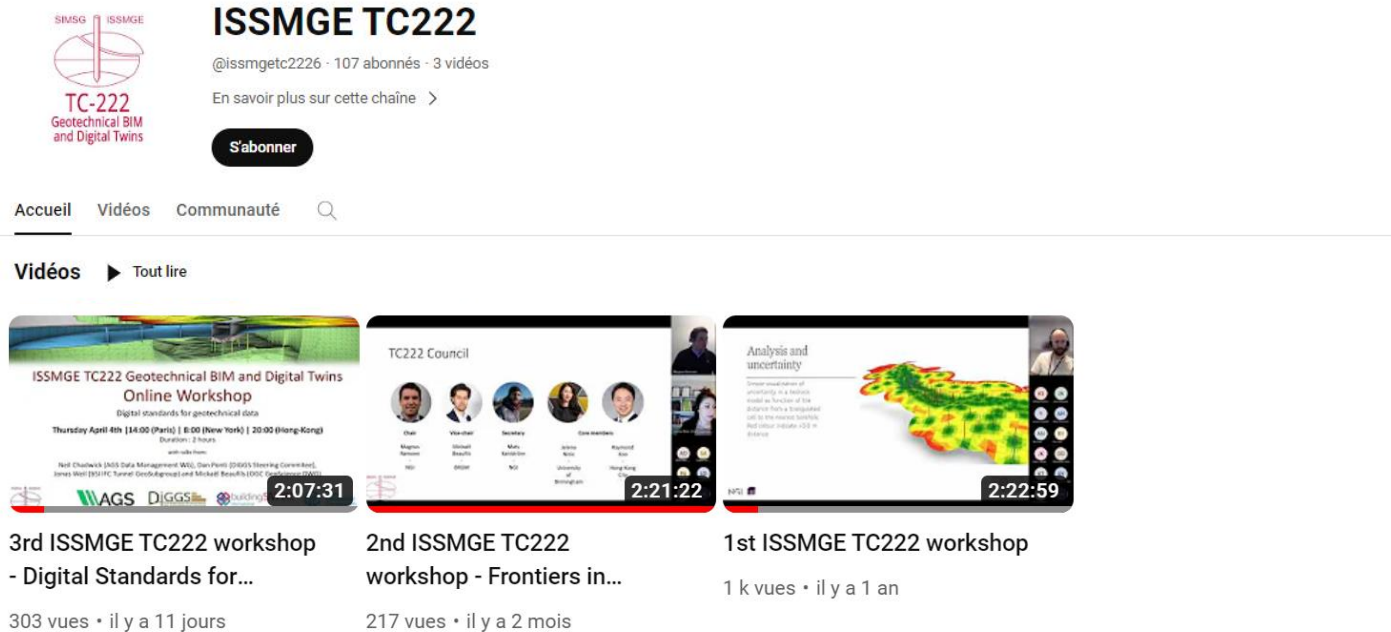
- On Youtube:

- <https://www.youtube.com/channel/UC7eMKzvagK7DN3MnIvK7yCQ>

Previous workshops recordings are available!



- https://www.youtube.com/channel/UC7eMKzva_gK7DN3MnIvK7yCQ



Interactive Technical Talk (Episode #17)

IITT Speakers - TC222 Geotechnical BIM and Digital Twins



Mickaël Beaufils
Data Engineer,
BRGM, France.
(Vice-chair of TC222,
Chair of OGC
GeoScienceDWG)

Digital standards
for FAIR
geotechnical data



Amanda Huang
Lecturer, Department of
Civil and Construction
Engineering, Swinburne
University of Technology,
Australia
(TC222 Member)

From BIM to Digital
Twin for Underground
Construction



Ashtarout Ammar
Assistant Professor,
Myers-Lawson School of
Construction, Virginia
Tech, USA

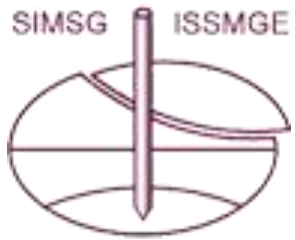
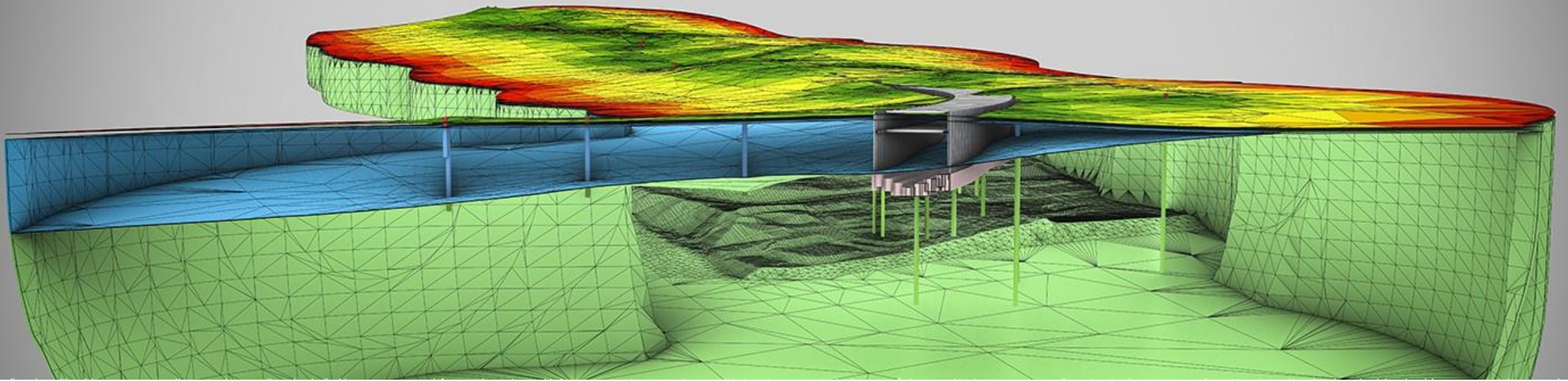
Digital Twins for
Transportation Asset
Data Management



Sankar V S
Director, Digital Services
Leader (East Asia – Arup)
(Co-Chair Hong Kong
Internet of Things
Alliance)

Citywide Digital Twin
enabled by Artificial
Intelligence

- <https://www.youtube.com/watch?v=MOhqj3TsXfo>



Introducing Workshop Topic

Magnus Rømoen (Chair, NGI) & Mickaël Beaufils (Vice-Chair, BRGM)

In the previous episode (TC222 Workshop #3)




**ISSMGE TC222 Geotechnical BIM and Digital Twins
Online Workshop**

Digital standards for geotechnical data

Thursday April 4th | 14:00 (Paris) | 8:00 (New York) | 20:00 (Hong-Kong)
Duration : 2 hours

with talks from:

Neil Chadwick (AGS Data Management WG), Dan Ponti (DIGGS Steering Committee),
Jonas Weil (bSI IFC Tunnel GeoSubgroup) and Mickaël Beaufils (OGC GeoScience DWG)



Magnus
Rømoen



Mickaël
Beaufils



Mats
Kahlström



Neil
Chadwick



Dan
Ponti



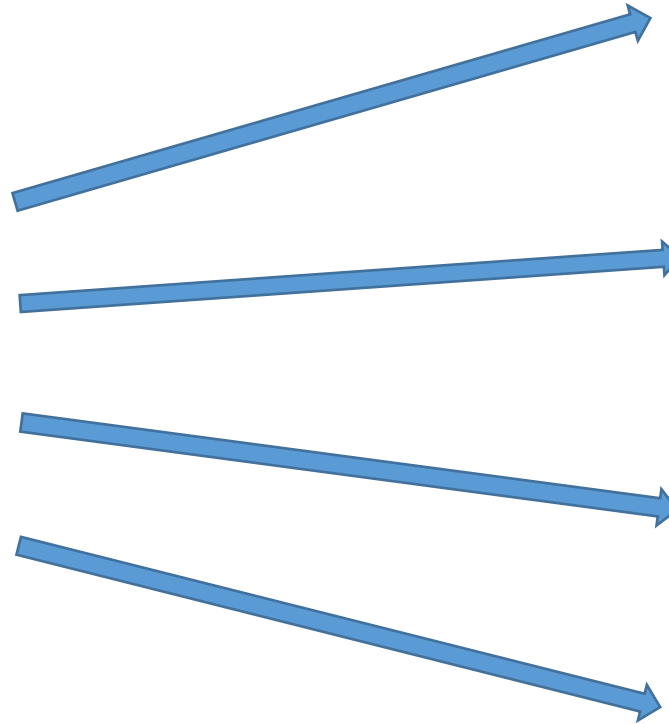
Jonas
Weil

- An overview of digital standards for geotechnical data and synergies between:
 - AGS
 - DIGGS
 - buildingSmart International (bSI)
 - Open Geospatial Consortium (OGC)
- Important ingredients for « big » databases and data exchange

National geotech databases and asset registers



National « database »



Project #1 « database »



Project #2 « database »



Project #3 « database »

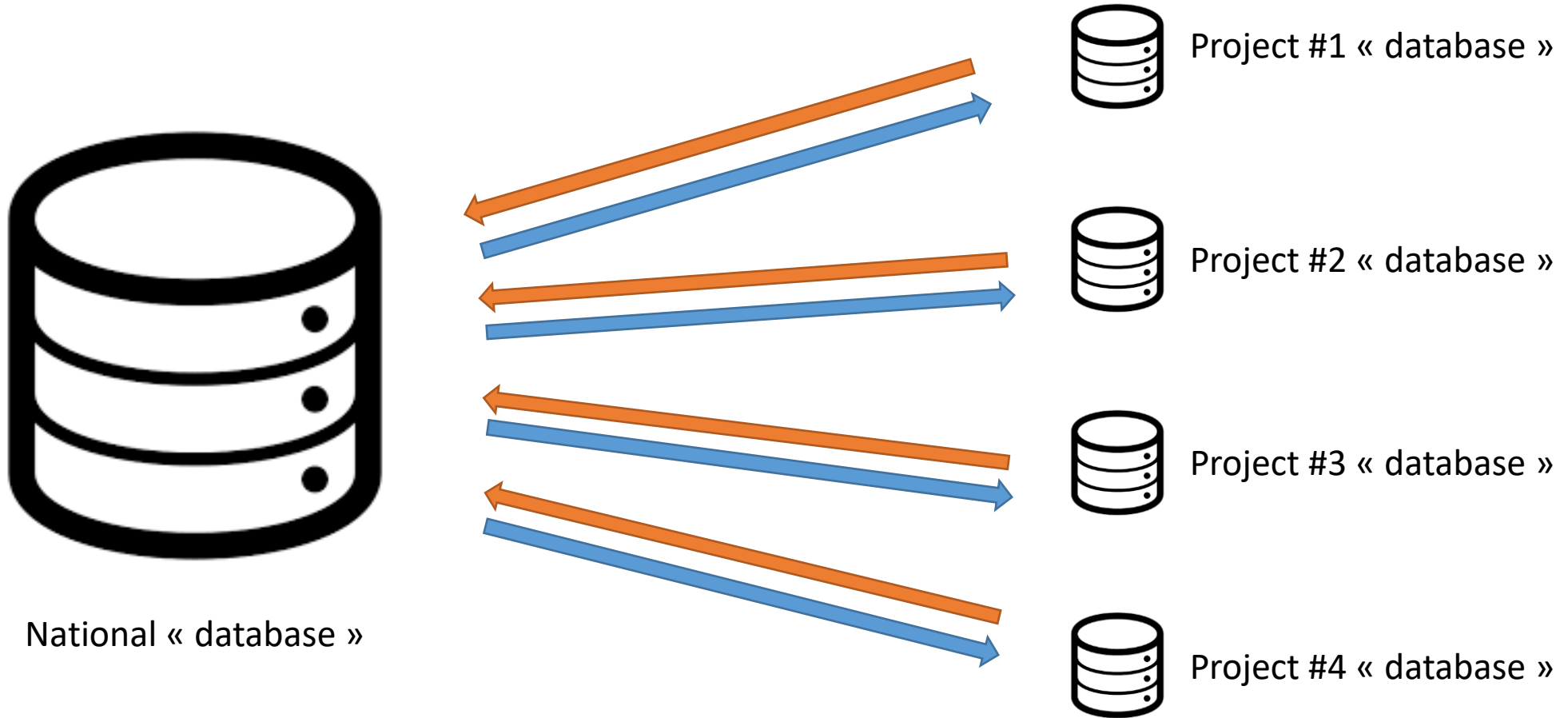


Project #4 « database »



Resources available for projects

National geotech databases and asset registers



Resources available for projects



Contributions from projects to build the national database / make it bigger

National geotech databases and asset registers



National geotech database
or asset registers

- Which services are offered?
- How is the national database filled?
- Governmental support: existing regulations in the country?
- Technical aspects: formats, technologies behind?

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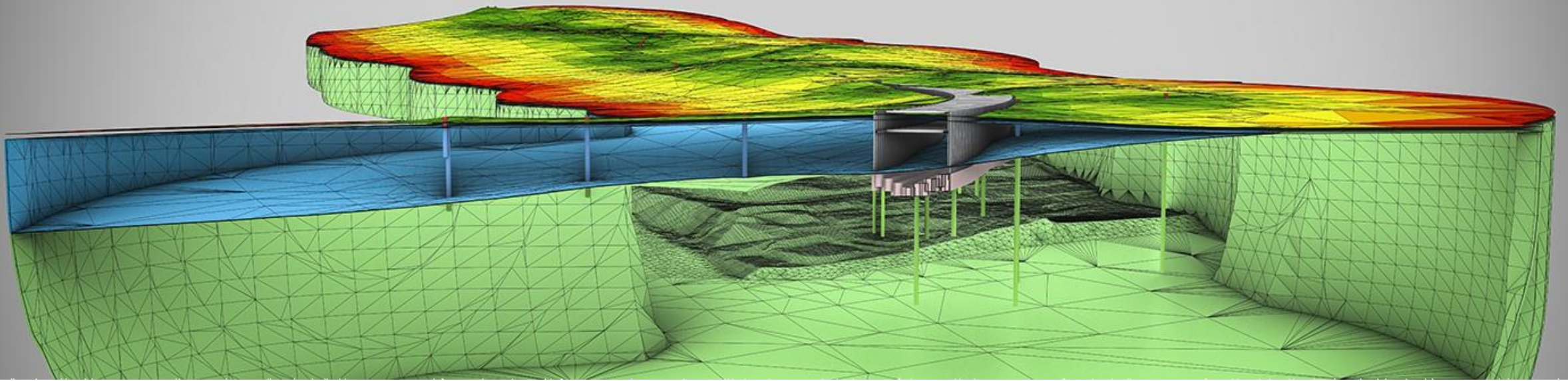


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Wrap-up

Magnus Rømoen (Chair, NGI) & Mickaël Beaufils (Vice-Chair, BRGM)

Conclusion & perspectives

- National geotech databases and asset registers
 - An overview of some practices in some countries
 - Data and services available
 - Organization of the data collection
 - Technical informations
 - Governance, regulations and governmental support
- To be continued with more examples...

Next event(s)

- ISSMGE TC222 5th Online Workshop
- Date: Tuesday June 25th, 10.00 – 12.00 CET (time to be confirmed)
- Topics:
 - National geotechnical database and assets registers – Episode II
- Would like to propose you / someone as speaker?
 - Contact us at <https://www.issmge.org/committees/technical-committees/applications/geotechnical-bim-and-dt>

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- On Youtube:

- <https://www.youtube.com/channel/UC7eMKzvagK7DN3MnIvK7yCQ>

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- Please get in touch with your national society
- <https://www.issmge.org/the-society/member-societies>