UN Global Platform

Mark Craddock

#UNGlobalPlatform
@mcraddock
@UNBigData

Seminar Sessions

- Mon, 09:00 - What is the UN Global Platform and how does it work? (Mark, Gavin & Joe)
- Mon, 13:30 - Mapping the Urban Forest on the Global Platform (Joe)
- Mon, 15:30 - AIS Demo (Gavin)
- Thur, 11:00 - High-Level Panel discussion on Working Together: the UN Global Platform (Mark)

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Vision: A global collaboration to harness the power of data for better lives

Global Platform

- Trusted **Data**
- Trusted **Methods**
- Trusted **Learning**
- Trusted **Partners**

- AI Ready

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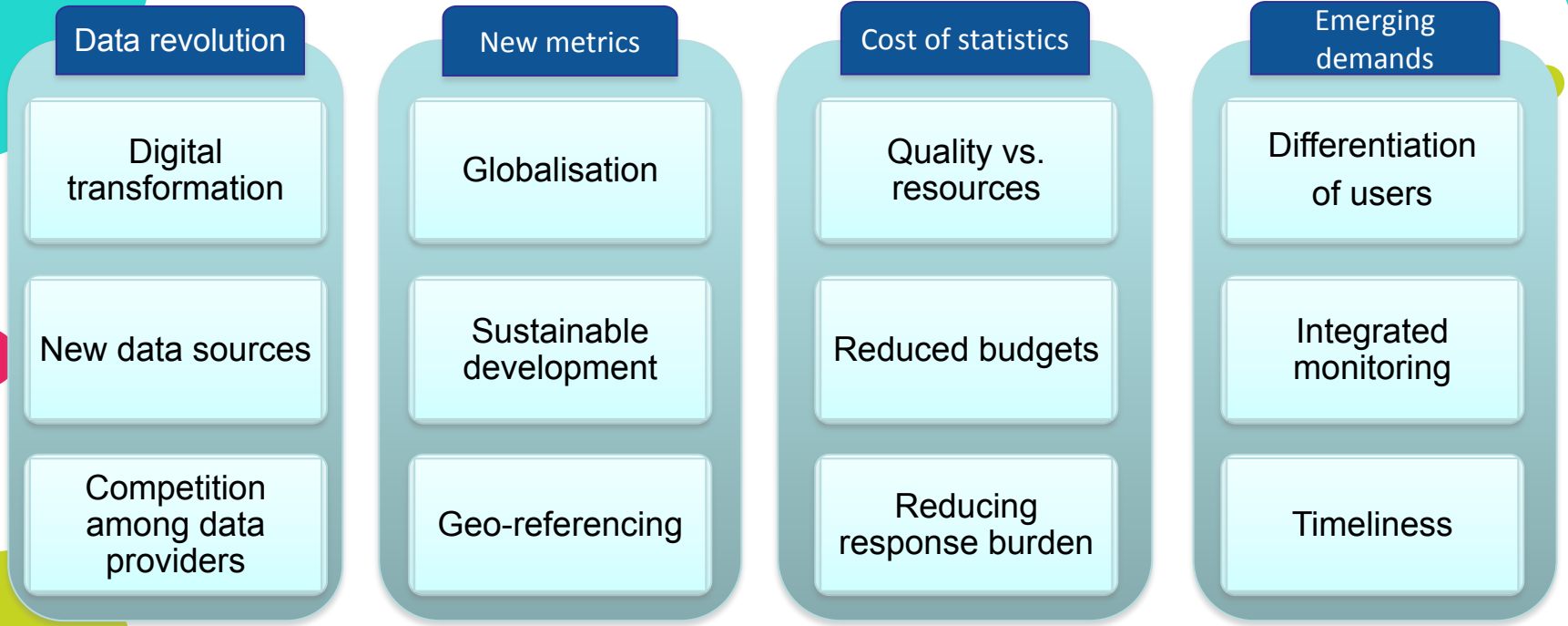
Drivers of innovation and modernisation



UNITED NATIONS SUSTAINABLE DEVELOPMENT SUMMIT 2015
25 - 27 SEPTEMBER

2030 AGENDA
FOR SUSTAINABLE DEVELOPMENT

SUSTAINABLE DEVELOPMENT GOALS

Agenda 2030

Transforming Our World: the 2030 Agenda for Sustainable Development

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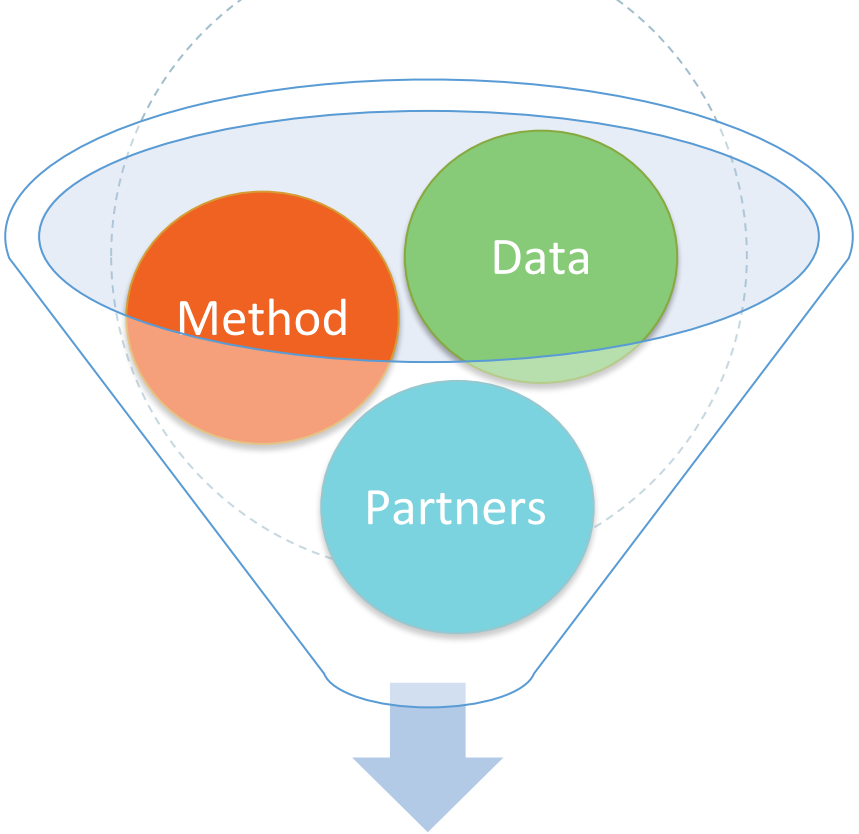
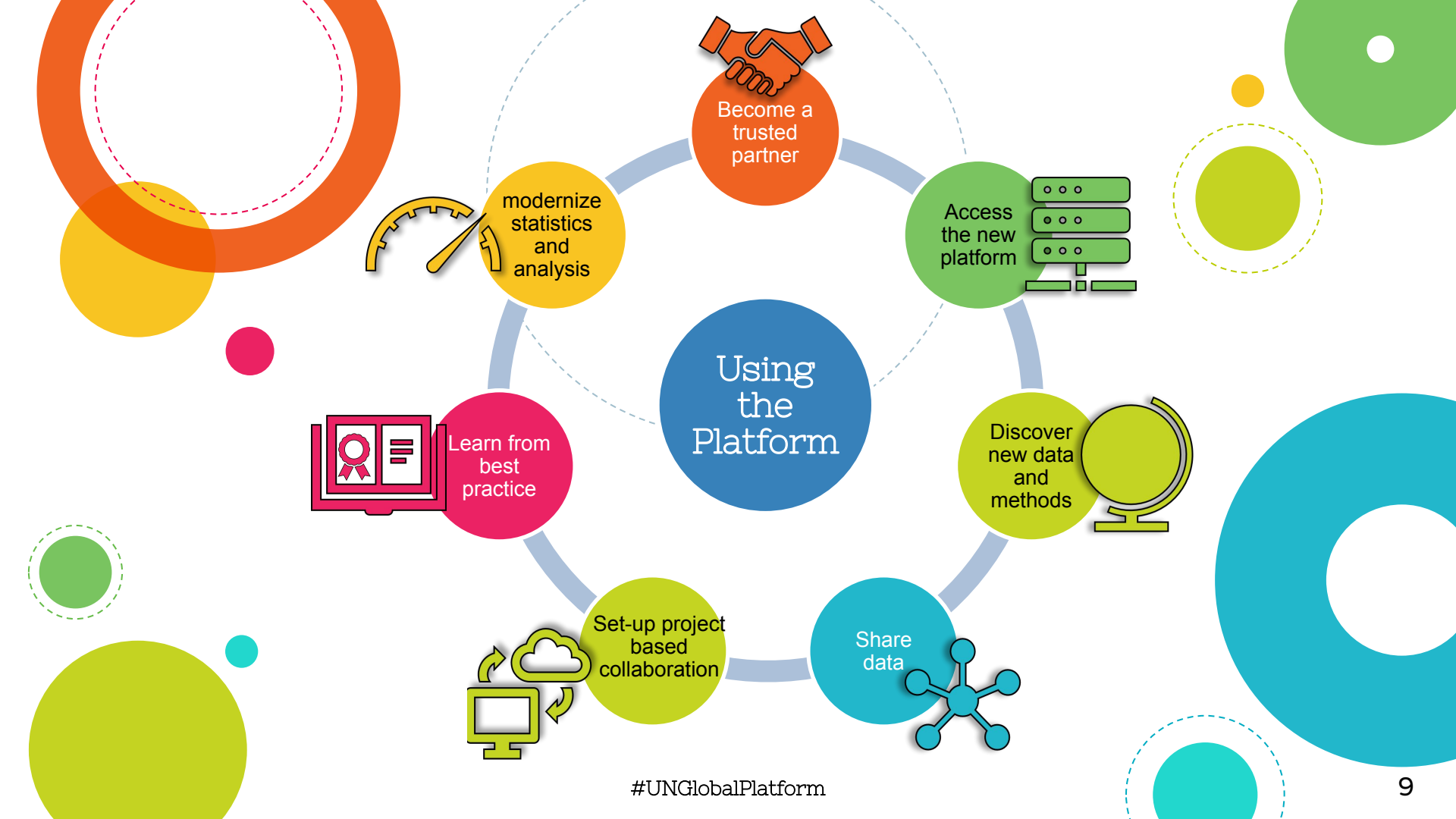
UN GWG (Big) Data Membership

Australia; Bangladesh; Brazil; Cameroon; **Canada**; China; Colombia; **Denmark**; Egypt; Germany; Indonesia; Ireland; Italy; **Mexico**; Morocco; **Poland**; **Netherlands**; Oman; Pakistan; Philippines; Republic of Korea; Saudi Arabia; Switzerland; **United Arab Emirates**; **United Kingdom**; United Republic of Tanzania; United States of America

United Nations Statistics Division, United Nations Economic Commission for Africa , Nations Economic and Social Commission for Asia and the Pacific, United Nations Economic Commission for Europe, United Nations Statistical Institute for Asia and the Pacific, United Nations Global Pulse, International Telecommunication Union, Universal Postal Union, African Development Bank; CARICOM, GCCSTAT, Eurostat/European Commission, International Monetary Fund, OECD, World Bank



Data Collaborative


Become a trusted partner
Access the new platform
Discover new data and methods
Share data
Set-up project based collaboration
Learn from best practice
modernize statistics and analysis
Using the Platform

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AI/ML Ready

AI/ML Ready

- Earth Observation Service (Joe)
  - Train Machine Learning Models
  - Analyse Satellite Imagery
- Methods Service (Joe/Joni)
  - Deploy and manage machine learning models
  - API enable machine learning models

AI/ML Ready

- Location Analytics Service (Mark, Gavin)
  - ML / Pattern of Life

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Online Community

Online Community

- Sharing / Collaboration
- 215+ people in 14 timezones
- 4,235 messages over the last 30 days
- Algorithms, Data, Services, Methods, AIS, ADS-B, Cloud Vendors, Privacy Task Team, Task Teams

- Join (*http://bit.ly/join-ungp-slack*)

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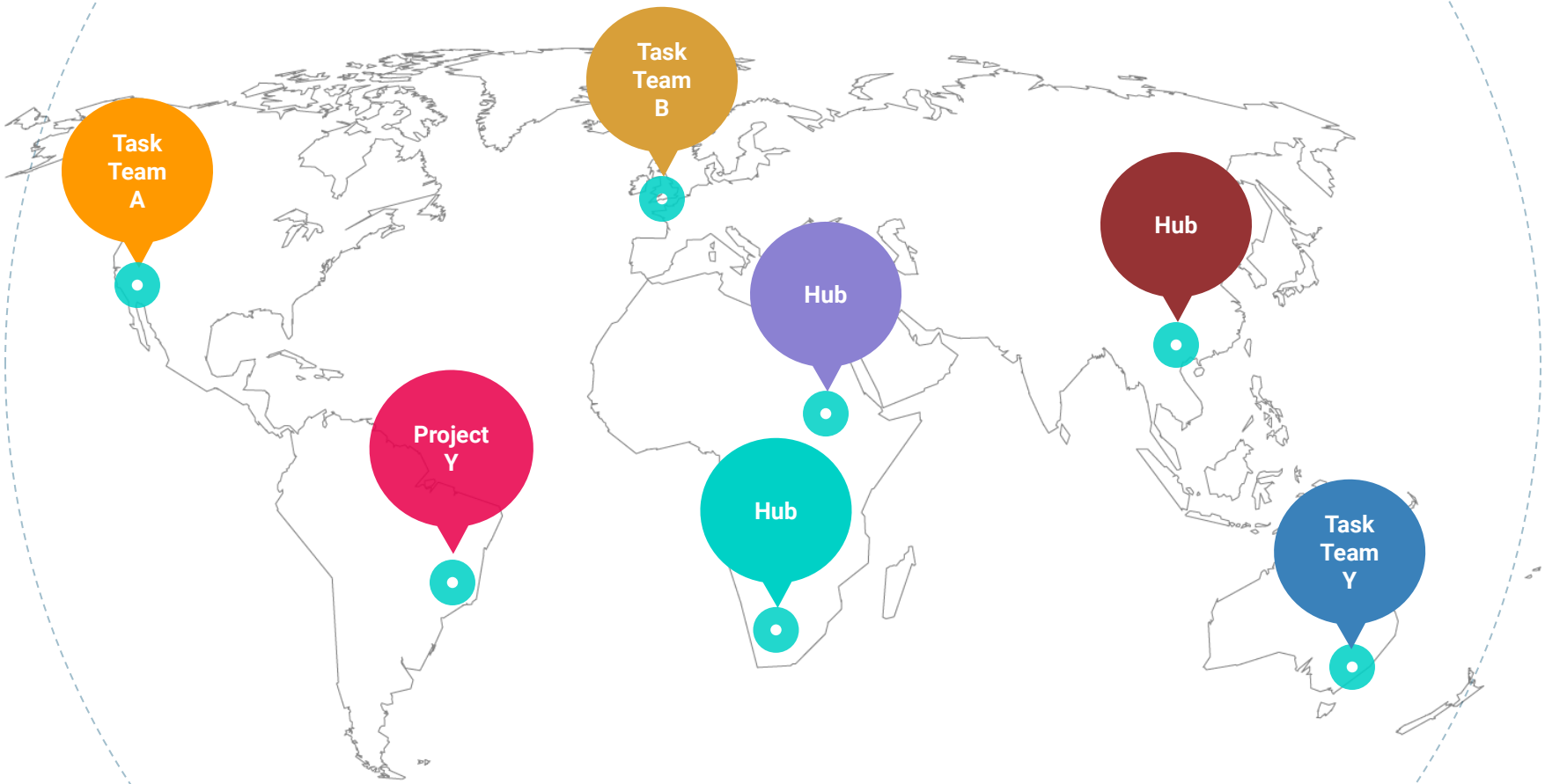
Global Billing

Global Billing



Global Billing

- Consolidate Billing Globally
  - Alibaba, Amazon, Azure, Microsoft, Service Partners
- Leverage Discounts
- Manage Credits
- Allocate Budgets
  - Per Task Team
  - Per Partner
  - Per Program

Technology Strategy Handbook

Technology Strategy Handbook

- Mapping the Technology Landscape
  - Cloud
  - Machine Learning
  - Big Data
  - Serverless
  - IoT
  - Privacy Preserving Techniques

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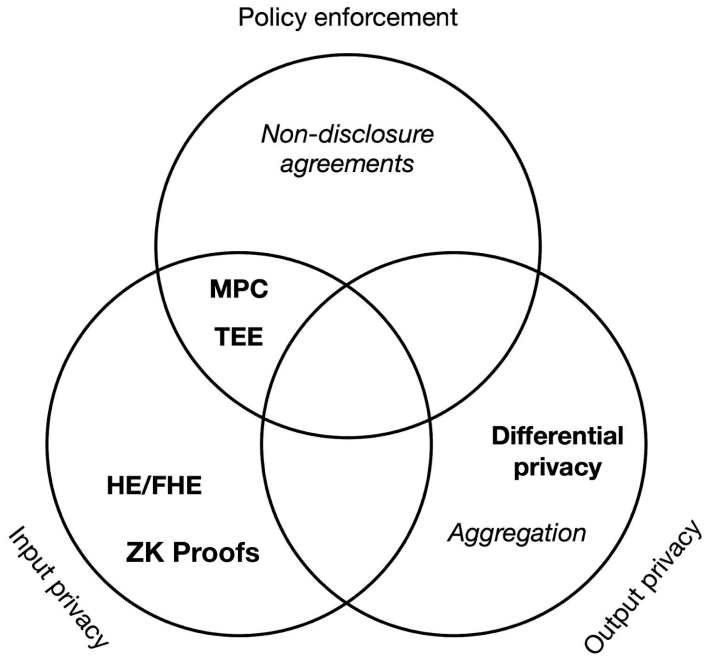
Privacy Preserving Techniques Handbook

Cryptographic Techniques

- Multi-party Computation
- Fully Homomorphic Encryption
- Zero Knowledge Proofs
- Trusted Execution Environments
- Differential Privacy



Cryptographic Techniques

- UN Privacy Preserving Techniques Handbook

- Proof of Concepts for 62nd ISI World Statistics Congress
  - Health Statistics
  - Trade Statistics
  - Synthetic Data

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Business Case/Model

Business Case/Model

- Business Model
- Business Case
- Funding Model
- Operations Model
- Programs & Partnerships

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Programs & Partnerships

Platform Partners

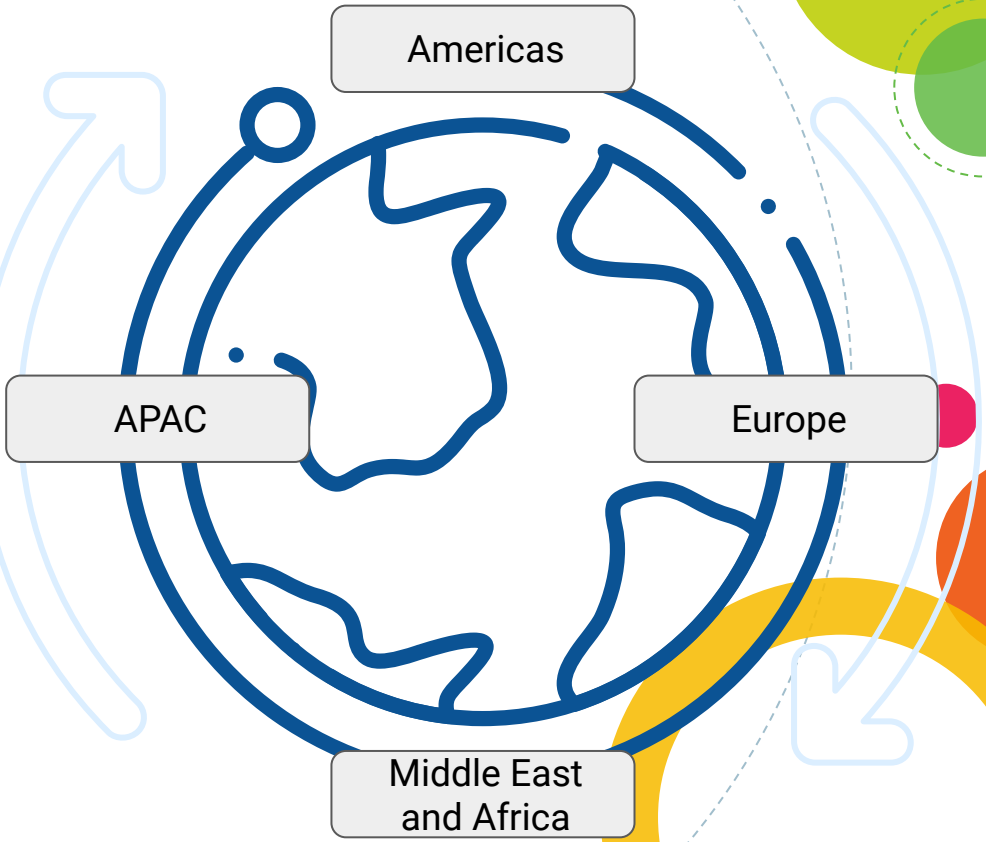
- Provide Core Platform Services
- Provide Services within the Platform
- Joint Marketing
- Conferences

Hubs

- Official Partners
- Research
- Global Support
- Program Based
- Specialists
  - AI / ML
  - Environment
  - Mobile

Global Support Model

- **24/7** ‘follow the sun’ global support model



Hub/Partner Framework

- Policies
- Principles
- Data Ethics
- Data Policy Framework
- Technical Standards

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Gavin Phillips

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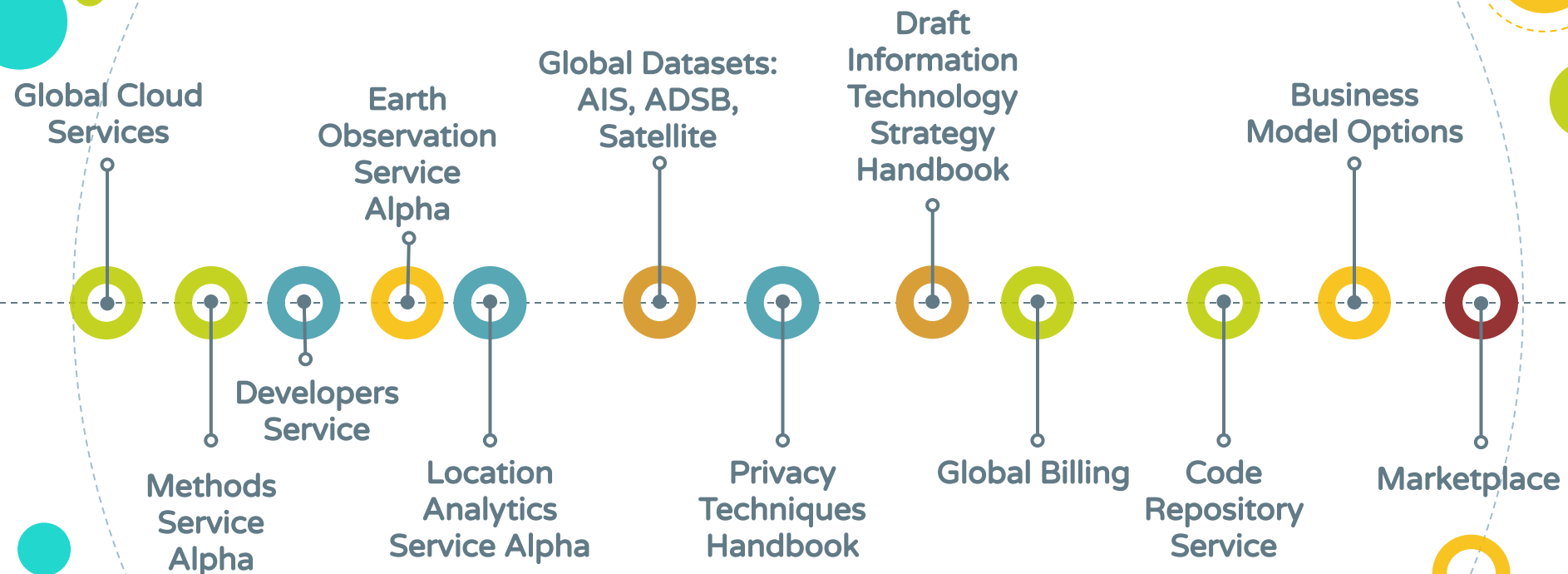
Achievements – March '19



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Global Datasets

3

Global Big Datasets

100,000,000,000+

ADS-B Records

40,000,000+

AIS Records / Day

Automatic Identification System (AIS)

- 40 Million Records / Day
- Ship Position / Movement
- 3 Months Trial

- Analysis via
  - Methods Service
  - Location (Stealth) Service
  - Jupyter Notebooks
  - APIs

Automatic Dependent Surveillance (ADS-B)

- 3 Million Records / Second
- Aircraft Position / Movement
- 100 Billion Records

- Analysis via
  - Methods Service
  - Location (Stealth) Service
  - Jupyter Notebooks
  - APIs

Satellite Imagery

- Open Data
  - Landsat
  - Sentinel
- Commercial
  - Planet (Trial)
  - AirBus (Trial)
    - 1.5m Resolution
    - 0.5m Cities

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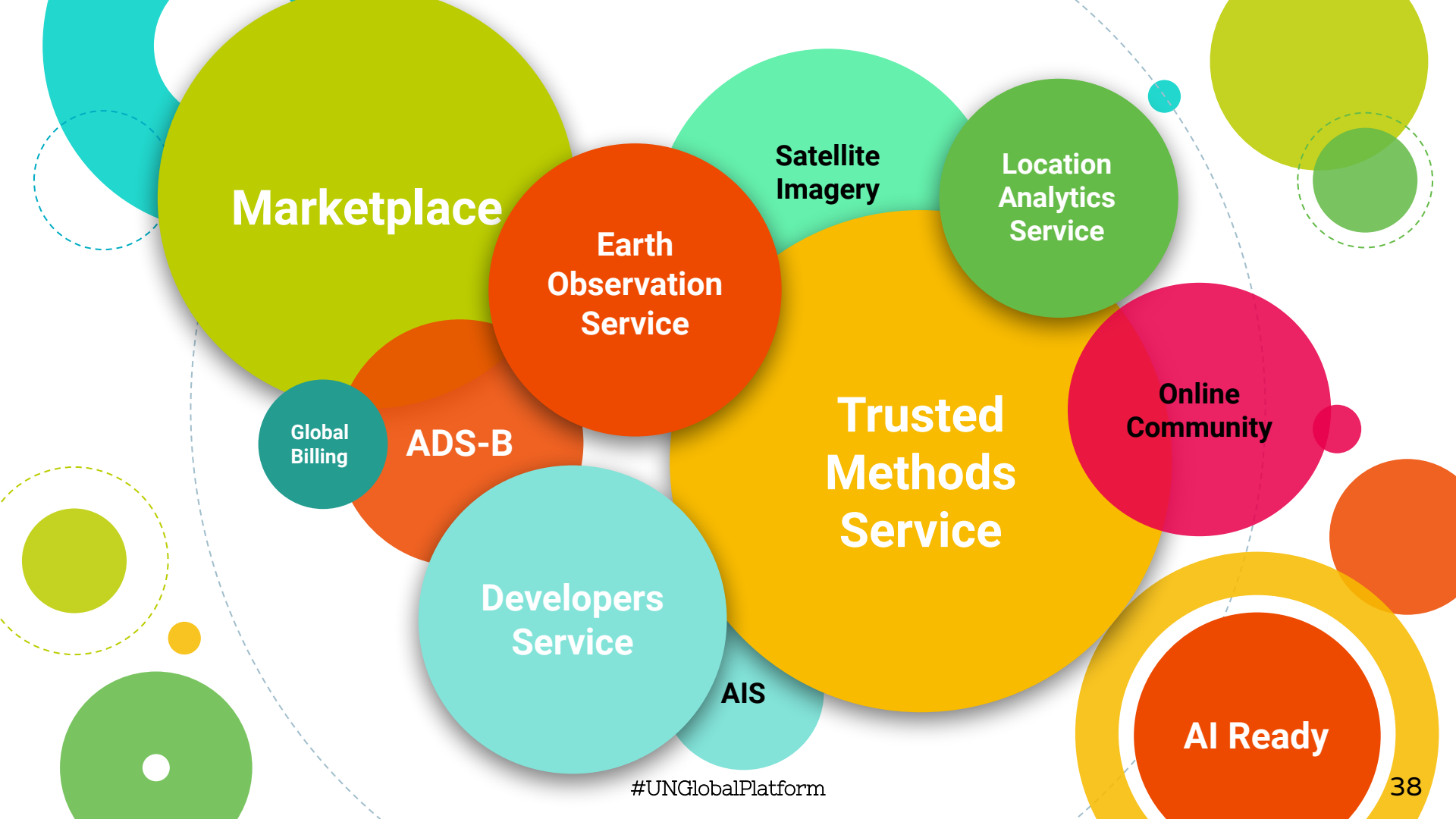
UN Global Platform Services


Marketplace
Earth Observation Service
Satellite Imagery
Location Analytics Service
Global Billing
ADS-B
Trusted Methods Service
Online Community
Developers Service
AIS
AI Ready

UN Global Platform – Update

- Trusted Methods Library/Service
  - https://methods.officialstatistics.org
- Earth Observation Service
  - https://eo.officialstatistics.org
- Location Analytics Service
  - https://location.officialstatistics.org
- Marketplace
  - https://marketplace.officialstatistics.org/

UN Global Platform – Update

- Jupyter Service
  - https://jupyter.officialstatistics.org
- Operations Service
  - https://operations.officialstatistics.org
- Helpdesk Service
  - support@officialstatistics.zendesk.com

Operations Service

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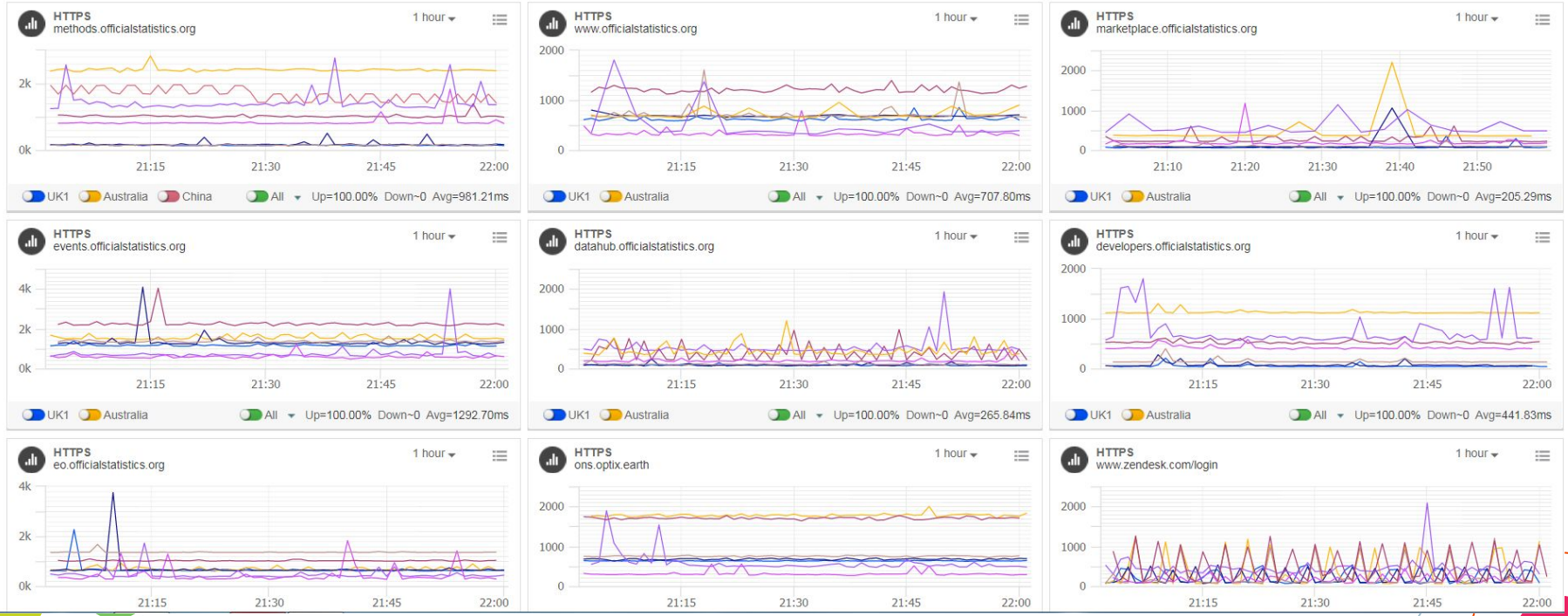
Powered by monitis

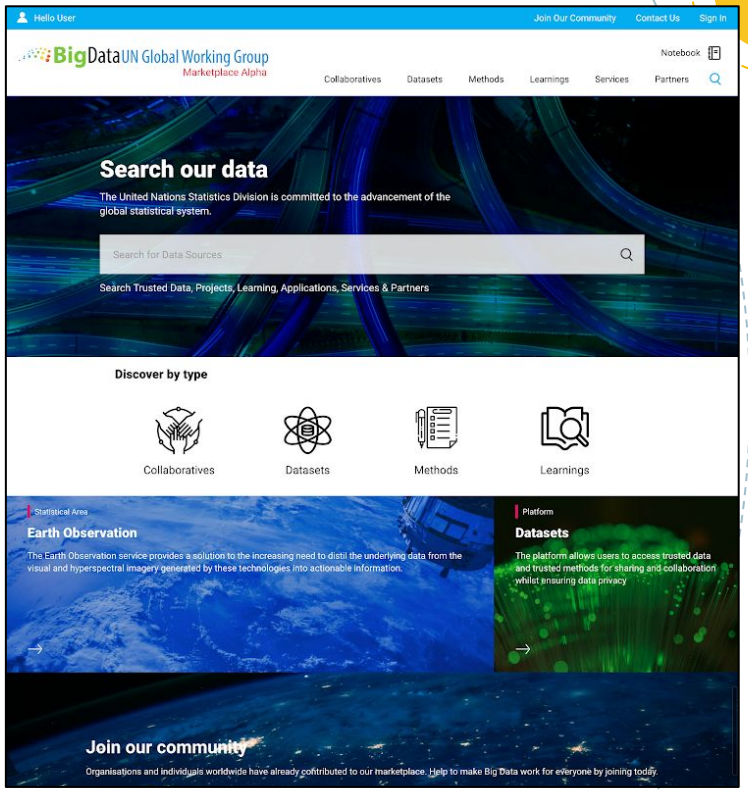
Web Performance



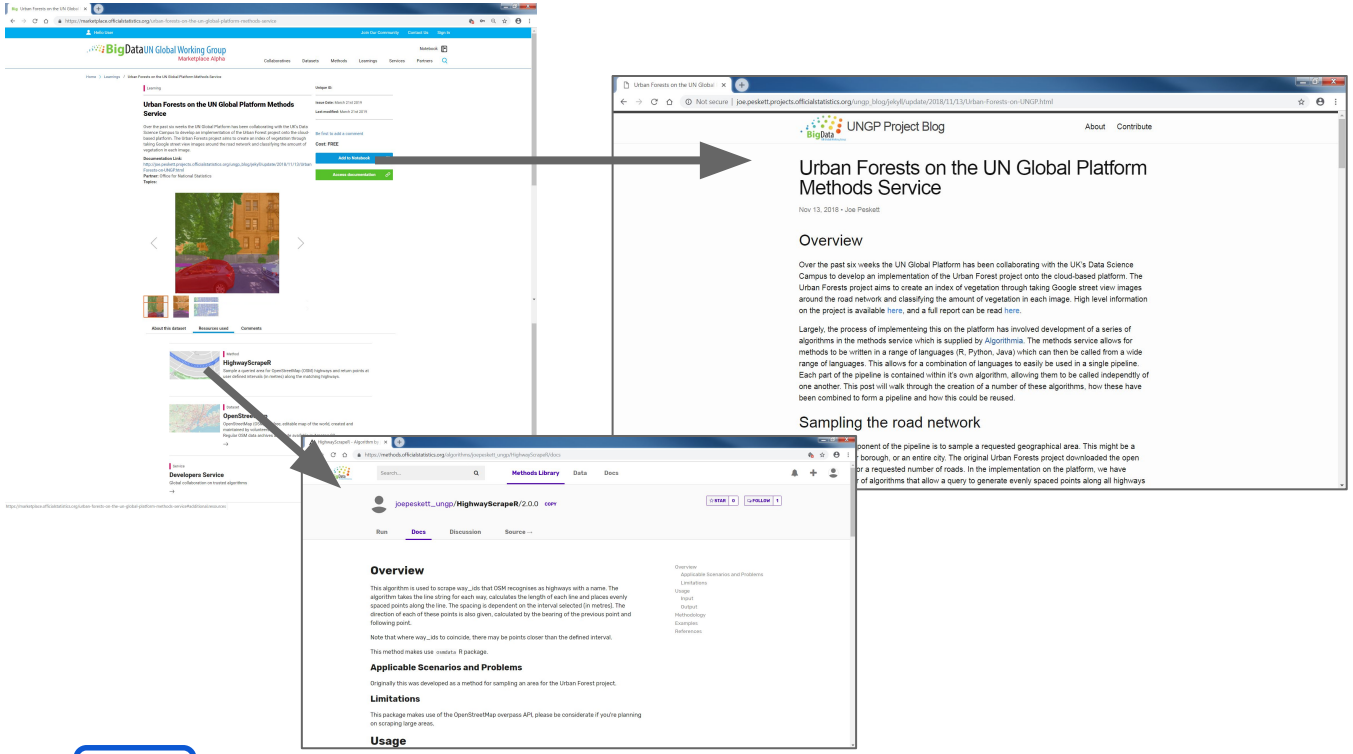
Marketplace

- Alpha Marketplace live
- One place to search for trusted data, applications, partners, methods & algorithms and services

marketplace.officialstatistics.org



https://marketplace.officialstatistics.org/



https://methods.officialstatistics.org/

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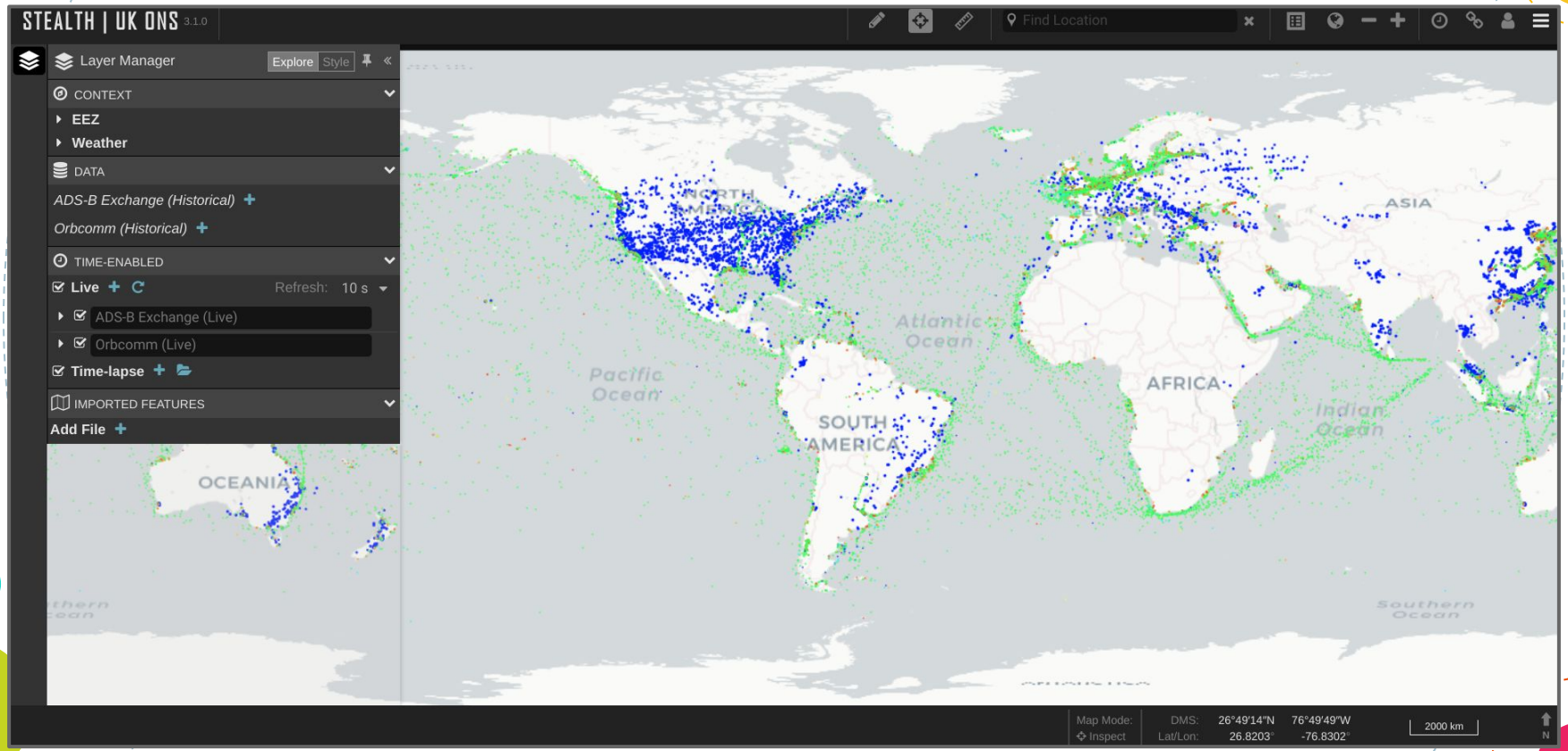
Demo Time

Location Analytics Service

- Visualise and Analyse Geospatial Data
- Visualise and Analyse Location Data
  - AIS
  - ADS-B
  - Mobile Phone
  - “Anything that moves”
- Real time data feeds

Location Analytics Service



Demo Time

Methods as a Service

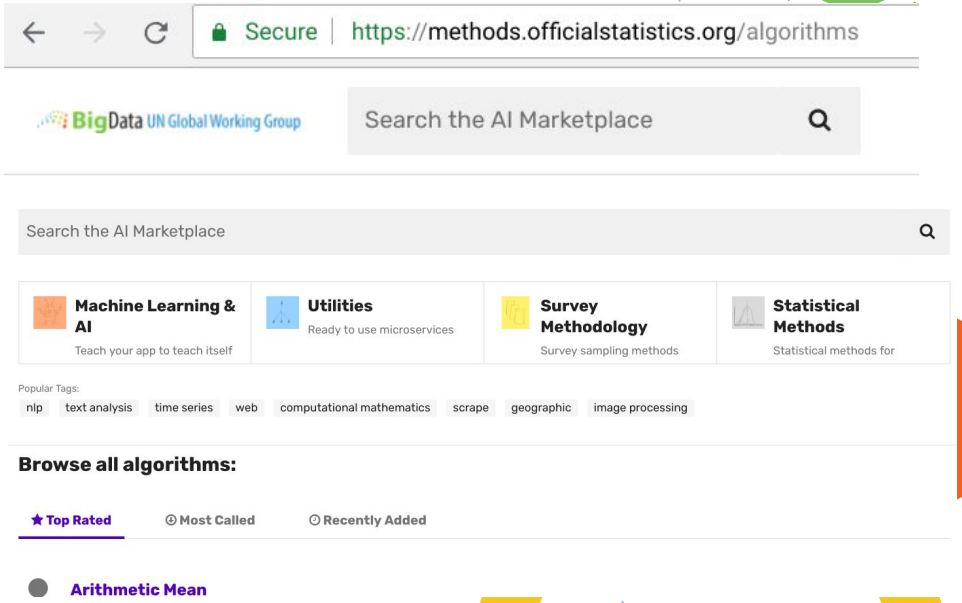
Platform

methods.officialstatistics.org

Training available – contact:

methods@officialstatistics.org

- Outcomes
  - Publish & reuse documented methods



Demo Time

Earth Observation Service

- Analyse Satellite Imagery
- Common Satellite Data
- Commercial Satellite Data
- Common Algorithms (NDVI, NDWI)
- Machine Learning

Earth Observation Service

- Users
- Teams
- Organisations
- Share/Publish
- Collaboration

Demo Time

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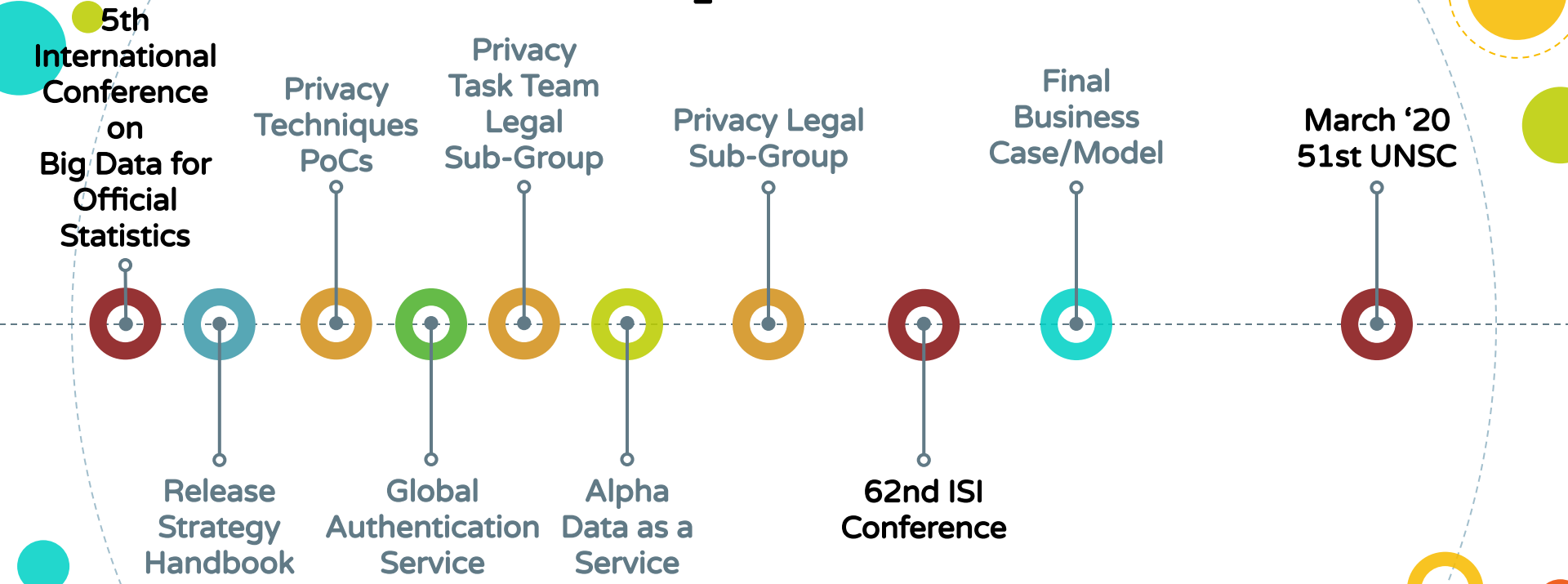
Roadmap

Roadmap – March '20



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How Can You Get Involved?

How Can You Get Involved?

- Task Teams
- Administration Tasks
- Technical Specialists
- Cloud Specialist Group
- Machine Learning Models

- Covered by an MOU

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Faster. Quality. Statistics

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Thanks!

Any questions?

You can find me at @mcraddock & contactus@officialstatistics.org

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Additional Information

Booth

- Mon, During Breaks - (Gavin, Joe)
- Tue, During Breaks - (Gavin, Joe)
- Wed, During Breaks - (Gavin, Joe)
- Thur, During Breaks - (Gavin, Joe)
- Fri, During Breaks - (Gavin, Joe)

Future Events

- 62nd ISI World Statistics Congress
  - UN Statistics Division (UNSD) Symposium on Data Science and Official Statistics jointly organized with UNESCAP and UN Global Working Group on Big Data for Official Statistics, 15 - 17 August 2019