

UN Global Platform

Gavin Phillips - UN Programme Manager



Sharing algorithms, methods,
data and learning using the
UN Global Platform for
Official Statistics

#UNGlobalPlatform
@UNBigData



Vision:

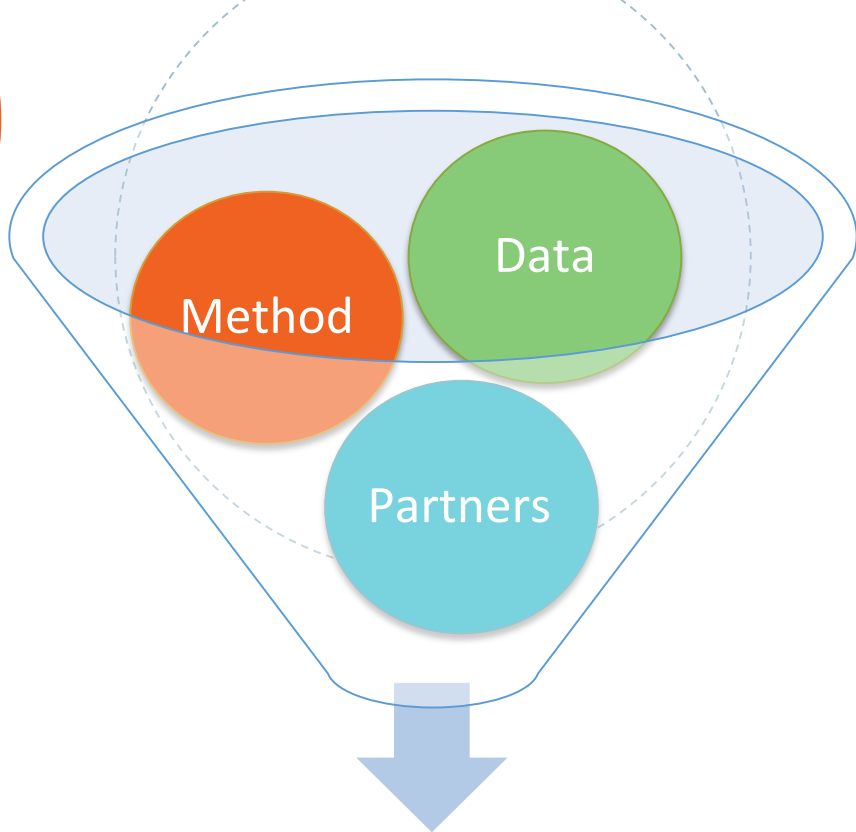
- A global collaboration to harness the power of data for better lives



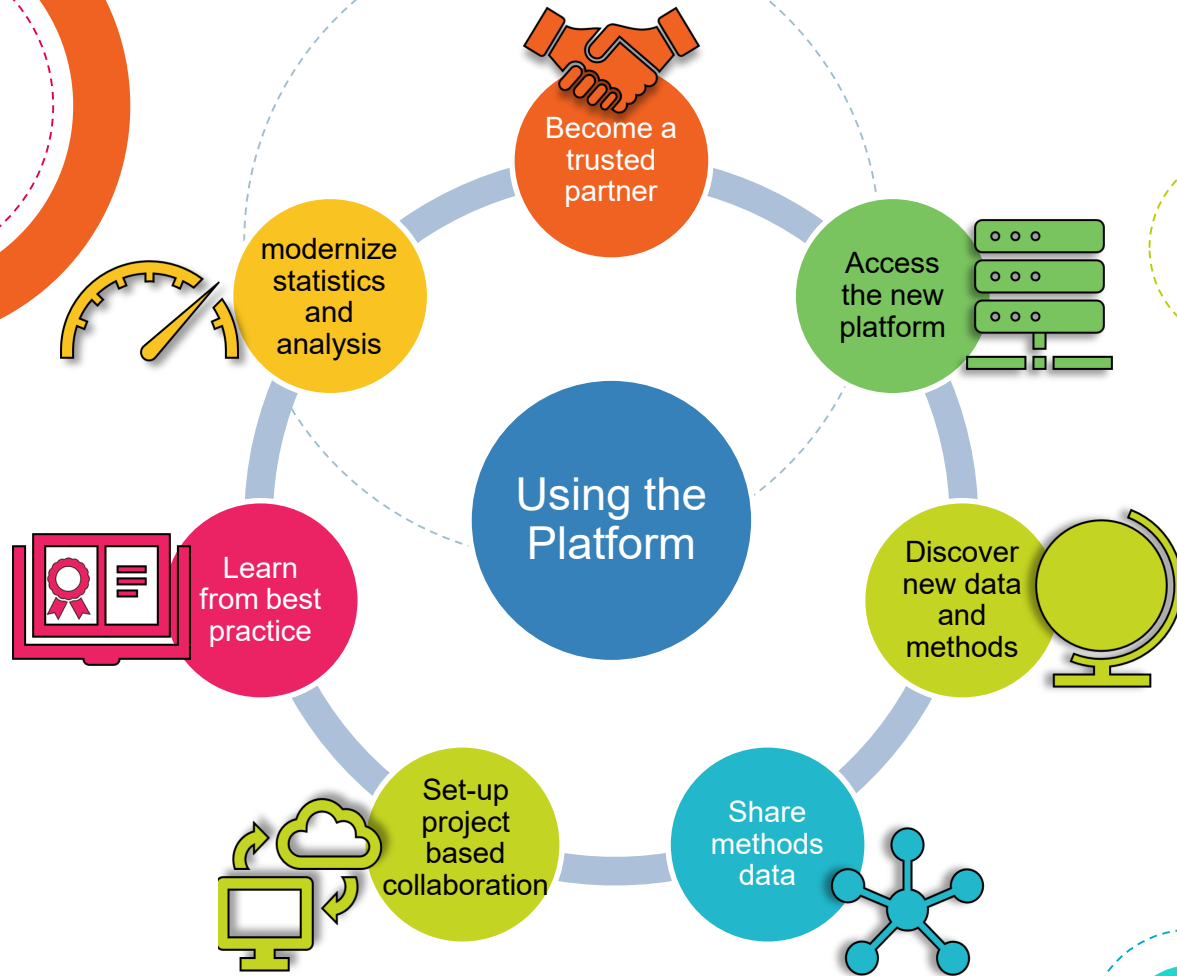


Global Platform

- © Trusted Partners
- © Trusted Data
- © Trusted Methods
- © Trusted Learning



Data Collaborative



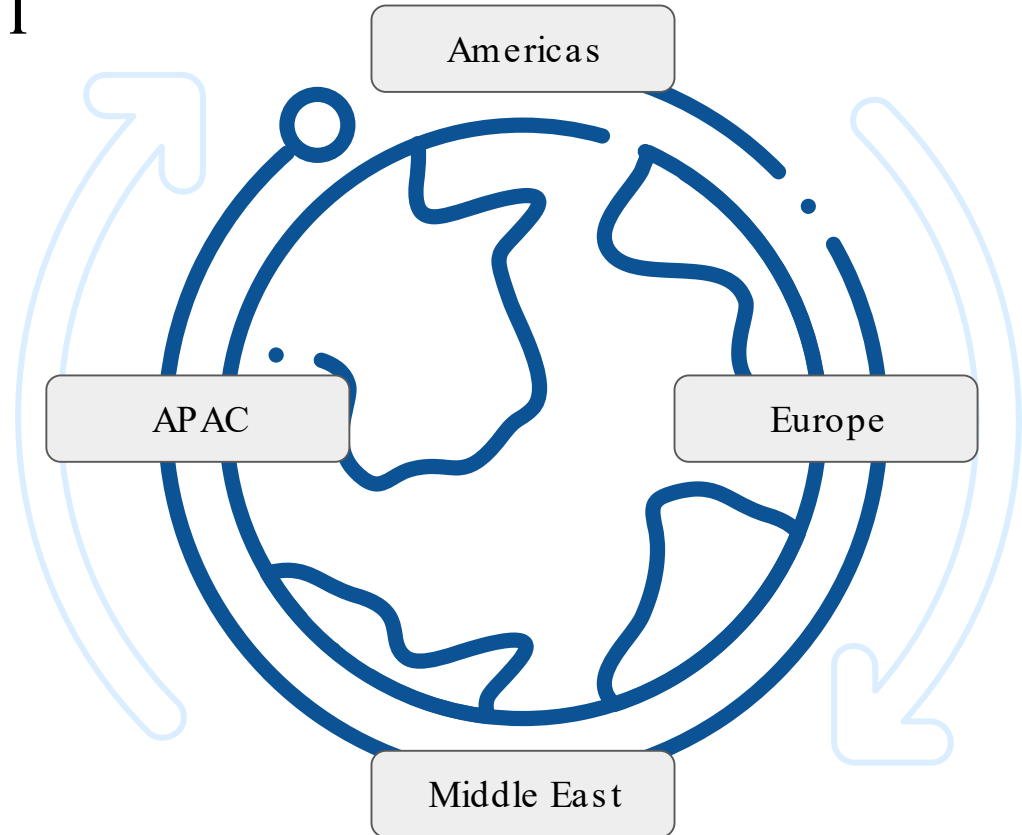
			UNSC	UNSD	Co-Chairs	Bureau	NSOs	GWG Members	Technical Director UN Global Platform	Technical Delivery Board	UN Global Platform Programme Manager	Lead Service Designer	Marketing / Comms	UN Global Platform Business Support Officer	Data Collaborative Task Team Leaders	Team Members	
			Ronald Janse n	Ronald Janse n	Heather	Various	Various	Various	Mark Craddock	Various	Gavin Phillips	Various	TBA	Jane Harris	Various	Various	
UN Global Platform for Data, Applications and Services for Statistics	Global Platform	Platform Services	Strategy Architecture	C	D	D	I	I	I	AR	C	C	C	C	S	C	CS
		Platform Services	Design	C	D	D	I	I	I	A	C	C	R	C	S	CS	CS
		Platform Services	Delivery	C	D	D	I	I	I	A	C	R	C	C	S	CS	CS
		Platform Services	Global Datasets	C	D	D	I	I	I	AR	C	C	C	C	S	CS	CS
		Platform Services	Finance	C	D	D	I	I	I	A	C	R	R	C	S	I	S
		Platform Services	Marketing / Comms	I	D	D	I	I	I	A	C	C	C	R	S	C	S
		Cloud Credits	Allocation	C	D	D	A	I	I	R	C	S	S	C	S	I	S
	Task Teams					Niels											
		Task Team	Training	C	D	D	I	I	I	C	C	C	C	I	I	AR	CS
		Task Team	Handbooks	C	D	D	I	I	I	C	C	C	C	I	I	AR	CS
		Task Team	Methods	C	D	D	I	I	I	C	C	C	C	I	I	AR	CS
		Task Team	Algorithms	C	D	D	I	I	I	C	C	C	C	I	I	AR	CS
Task Team		Data	C	D	D	I	I	I	C	C	C	C	I	I	AR	CS	

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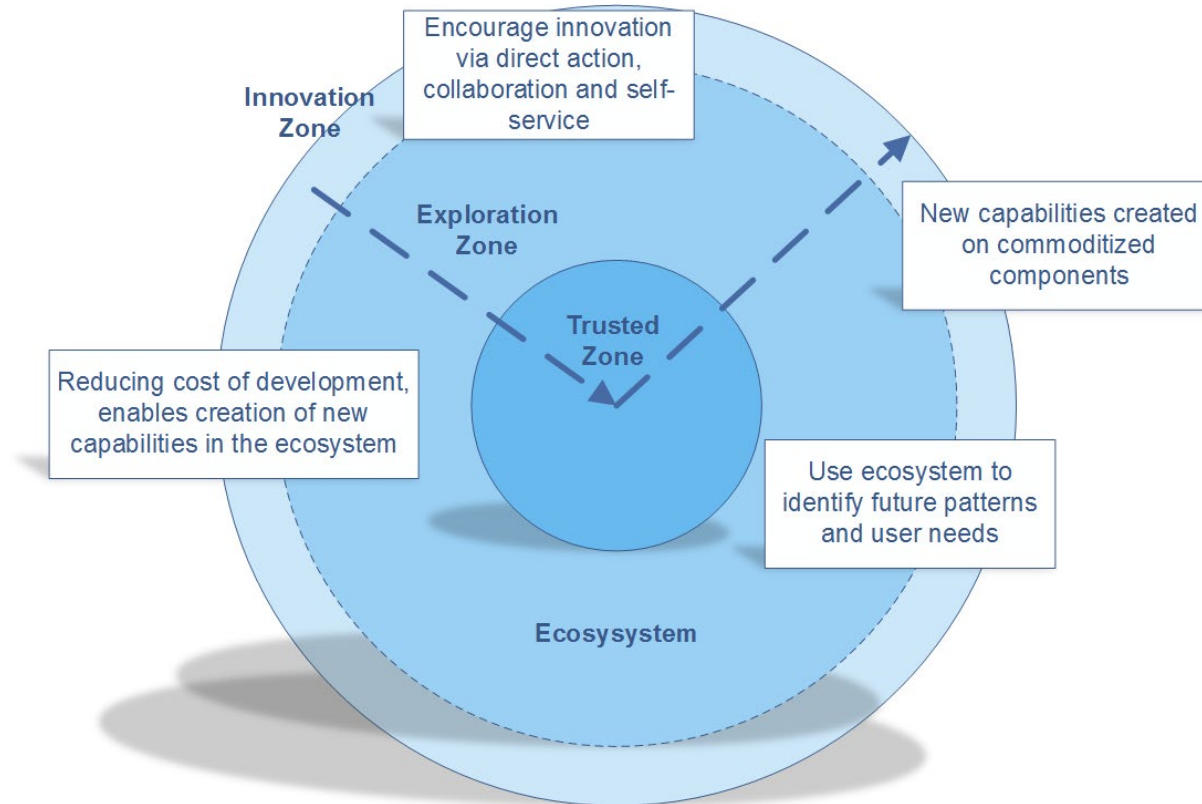
Global Support Model

- **24/7** 'follow the sun' global support model
- **Americas**
 - UNSD - New York
- **Europe**
 - ONS - UK
- **Middle East**
 - Dubai
- **APAC**
 - UNESCAP - Bangkok





Strategy





Strategy Examples

● AIS Data

- Global live feed of ship movements
- Commoditized, build new services, algorithms, methods, services
- 40,000,000 + AIS records per day

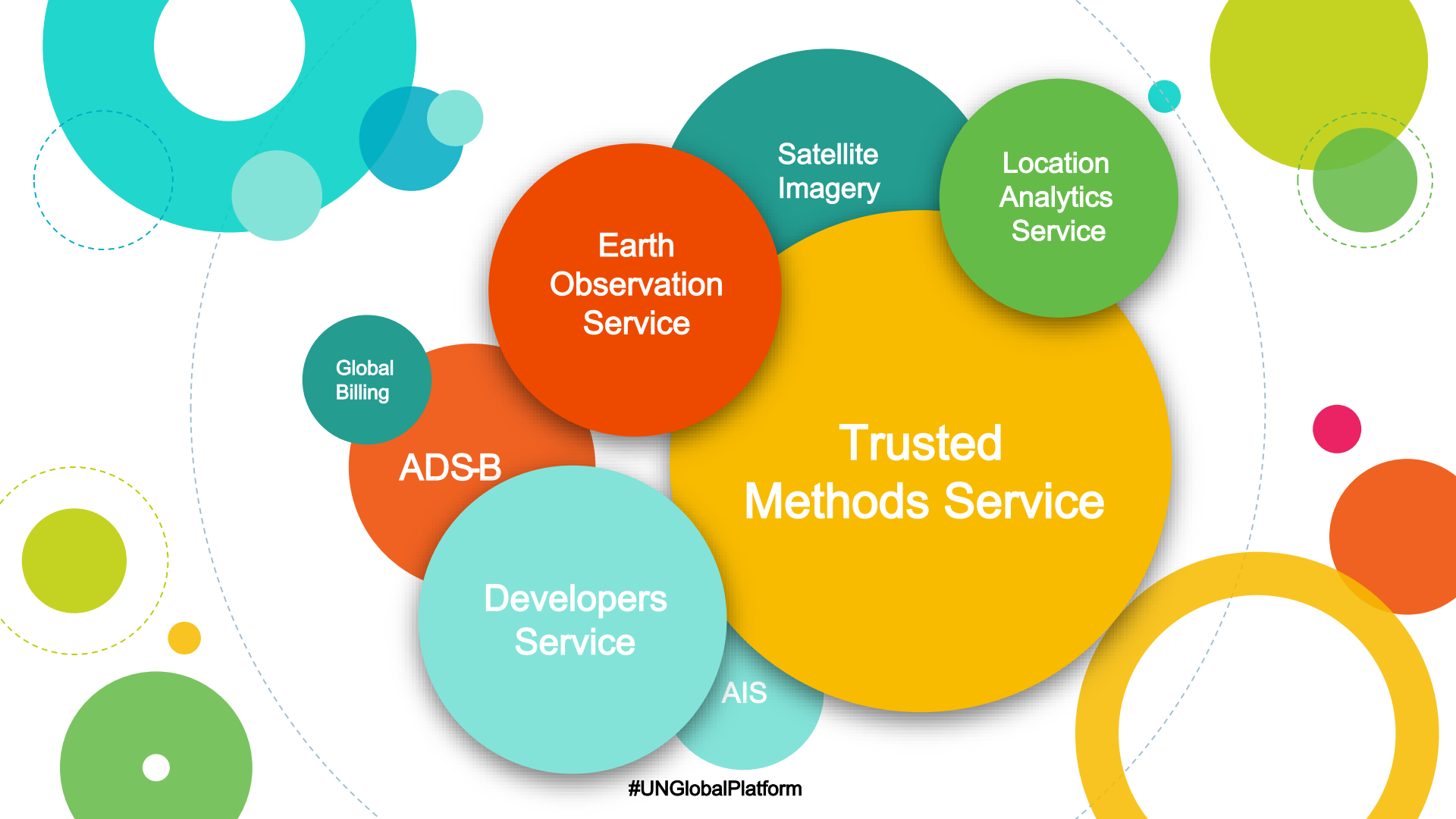
● ADB-S Data

- Global live feed and archive (since 2016) of flights
- Commoditized, build new services, algorithms, methods, services
- Partnered with the world's largest source of unfiltered flight data - 14 billion historical position reports and 100 billion records growing 3 million records per second

The background features a white canvas with several large, colorful circles in teal, lime green, orange, and pink. Some of these circles have smaller circles inside them, creating a nested effect. Dashed lines in light blue and yellow connect some of the circles, forming a network-like structure. The text is centered in a bold, black, sans-serif font.

UN Global Platform Services

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Methods as a Service

Platform



methods.officialstatistics.org

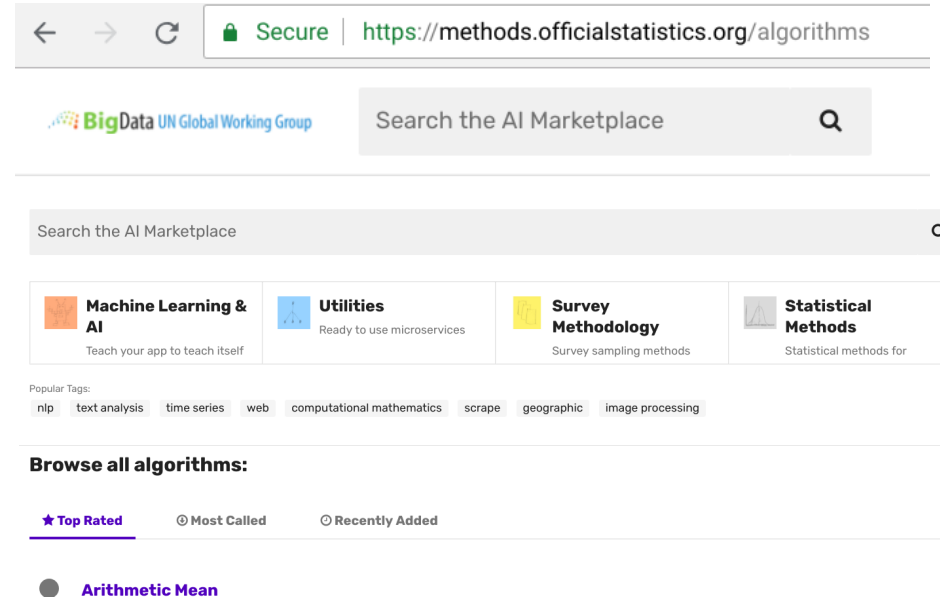
Training available – contact:



methods@officialstatistics.org

• Outcomes

- Publish & reuse documented methods

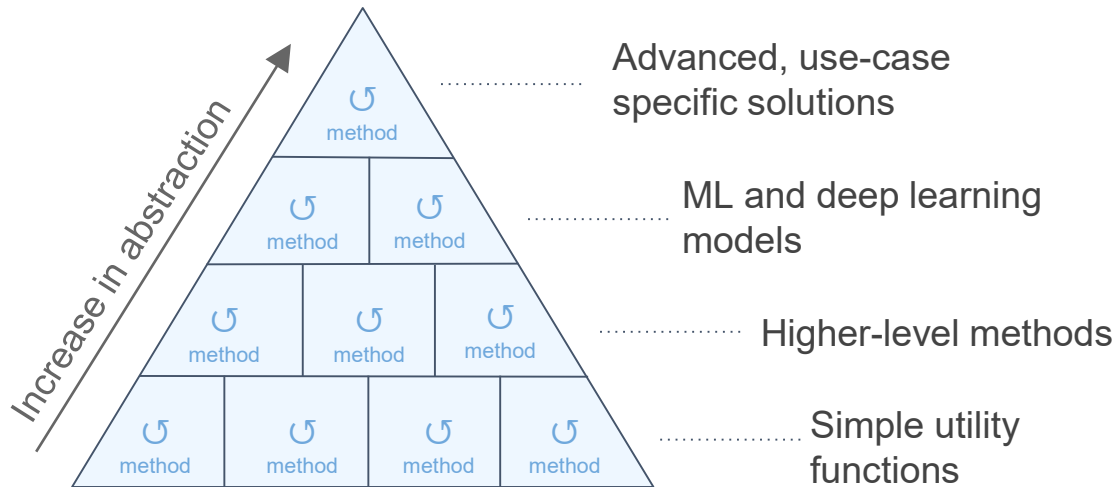


The screenshot shows the web interface of the 'Methods as a Service' platform. At the top, there is a browser address bar showing the URL 'https://methods.officialstatistics.org/algorithms'. Below the address bar is a search bar with the text 'Search the AI Marketplace'. The main content area features four categories: 'Machine Learning & AI' (Teach your app to teach itself), 'Utilities' (Ready to use microservices), 'Survey Methodology' (Survey sampling methods), and 'Statistical Methods' (Statistical methods for...). Below these categories are 'Popular Tags' including nlp, text analysis, time series, web, computational mathematics, scrape, geographic, and image processing. At the bottom, there is a section titled 'Browse all algorithms:' with three tabs: '★ Top Rated' (selected), '⌚ Most Called', and '⌚ Recently Added'. Under the 'Top Rated' tab, the first algorithm listed is 'Arithmetic Mean'.



Methods Library

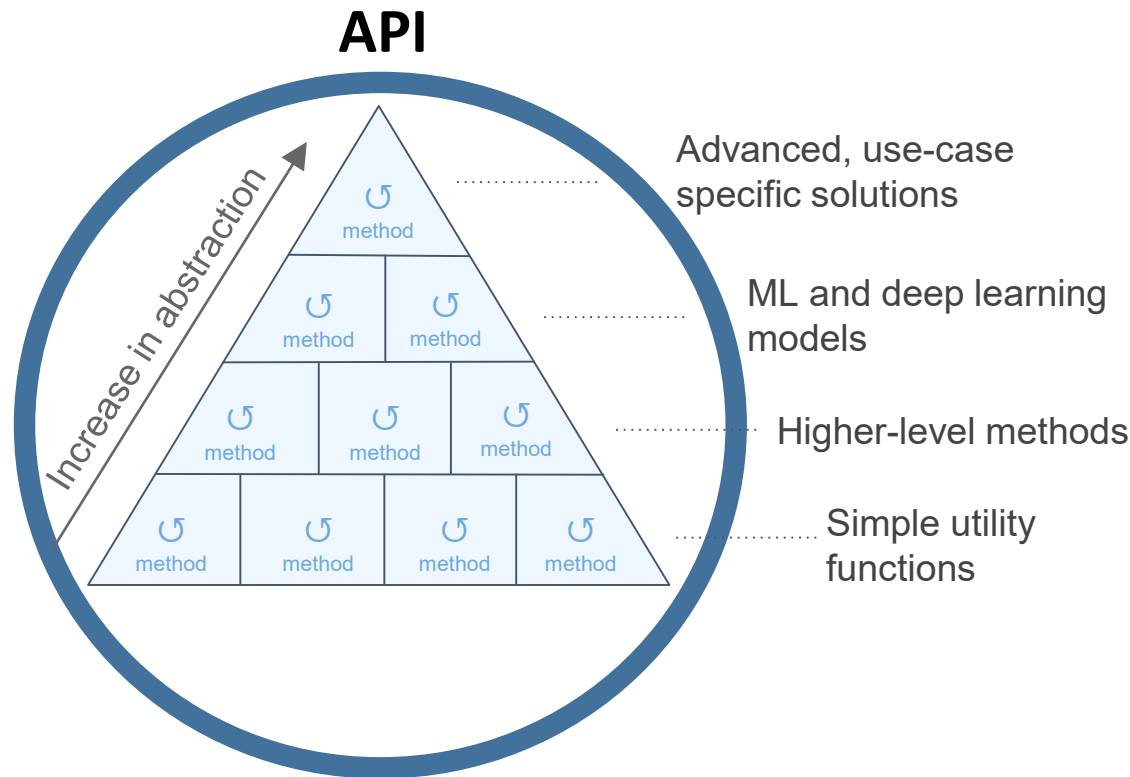
- Easy to use
- Easy to find
- Easy to compose
 - Building blocks
- Add to workflow





Methods as a Service

- Access via APIs
 - Methods as a Service
- Documentation



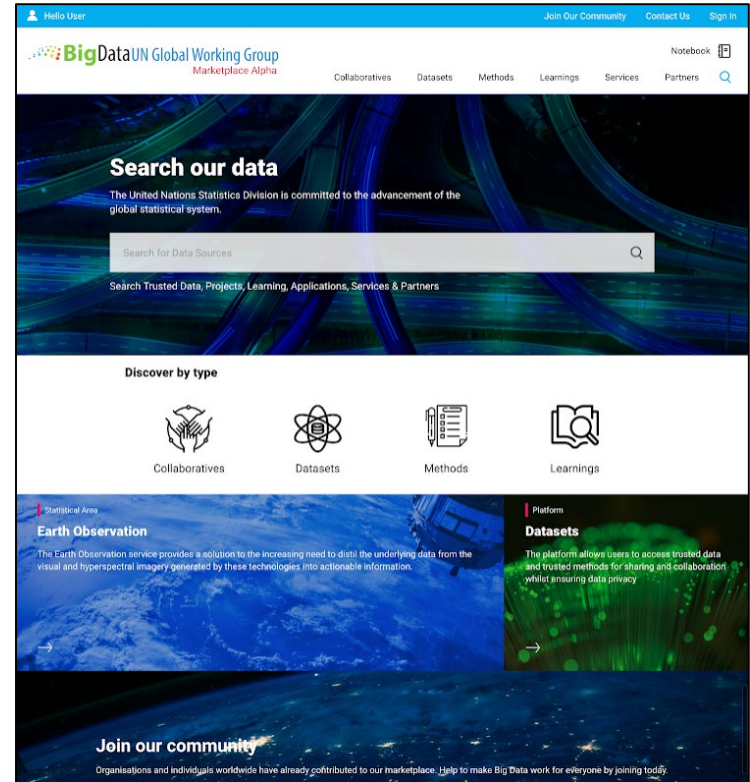


Marketplace

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



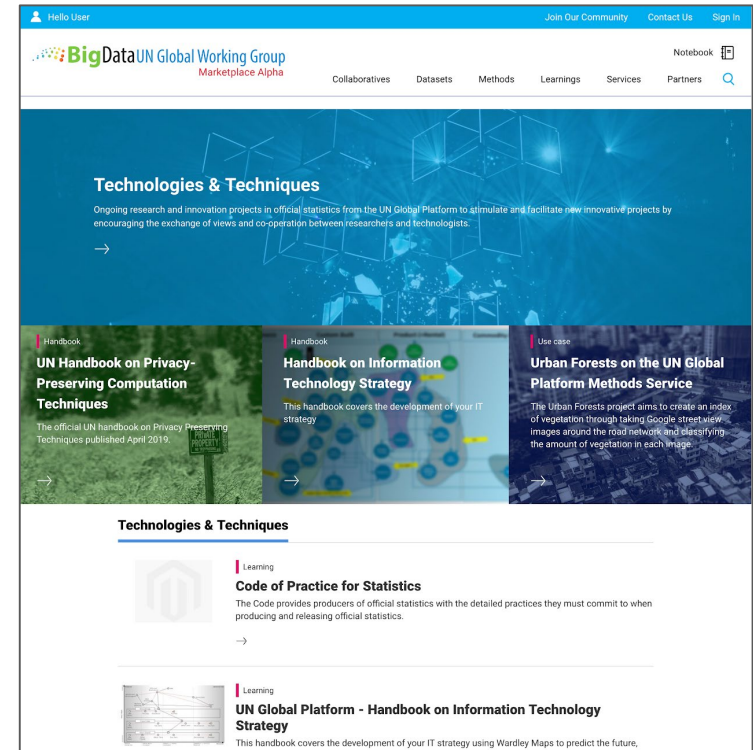
marketplace.officialstatistics.org





Marketplace

- Technologies and Techniques - Handbooks
- Information Technology Strategy
- Privacy-Preserving Computation Techniques

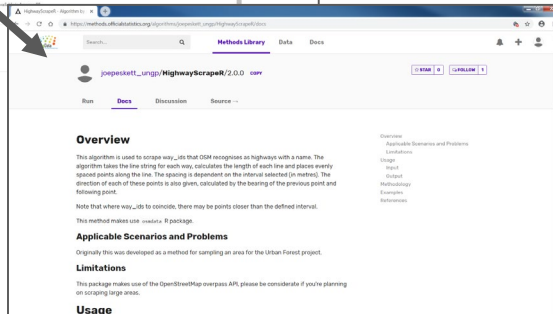
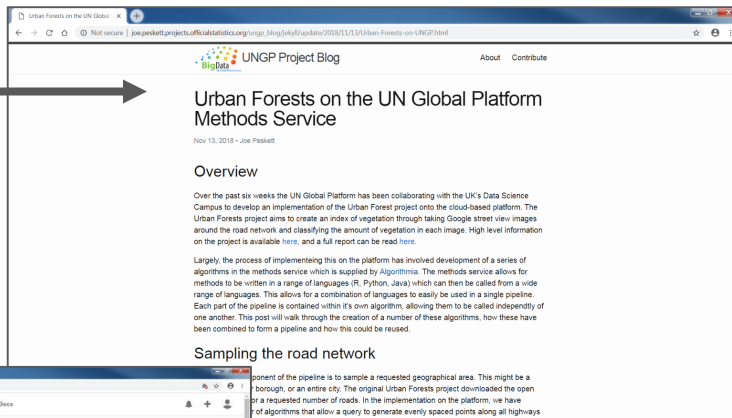
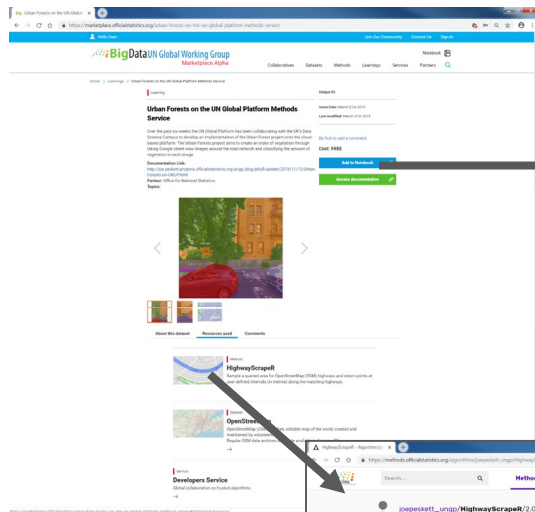


<https://marketplace.officialstatistics.org/technologies-and-techniques>

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<https://marketplace.officialstatistics.org/>



<https://methods.officialstatistics.org/>

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Privacy-Preserving Computation Techniques

- Fully Homomorphic Encryption (FHE), Multi-Party Computation (MPC), Differential Privacy
- Access to new sources of (sensitive data)
- Help share data globally - we are currently looking for use cases



<https://marketplace.officialstatistics.org/privacy-preserving-techniques-handbook>

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Learning

UN Privacy Preserving Techniques Handbook

In this UN handbook, we define specific goals for privacy-preserving computation for public good in two salient use cases: giving NSOs access to new sources of (sensitive) Big Data; and enabling Big Data Collaborations Across Multiple NSOs.

Documentation Link:

<https://docs.google.com/document/d/1GYu6UJI81JR8LgooXVDsYk1s6FIM-Sb0vo3oLHglFhY/edit>

Partner: The GWG Task Team on Privacy Preservation Techniques



About this dataset

Comments

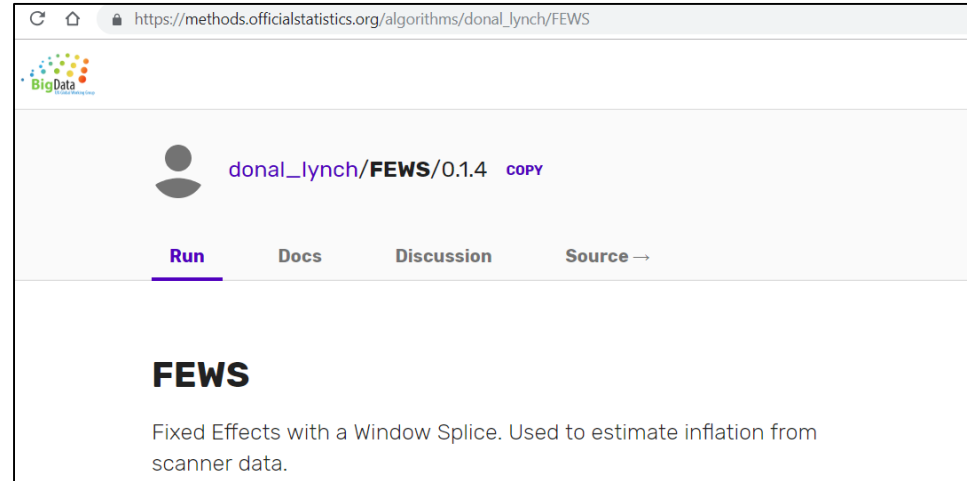


Use Case: Pricing Scanner Task Team

Initial focus on the use of scanner data from retailers to aid the calculation of price indices.

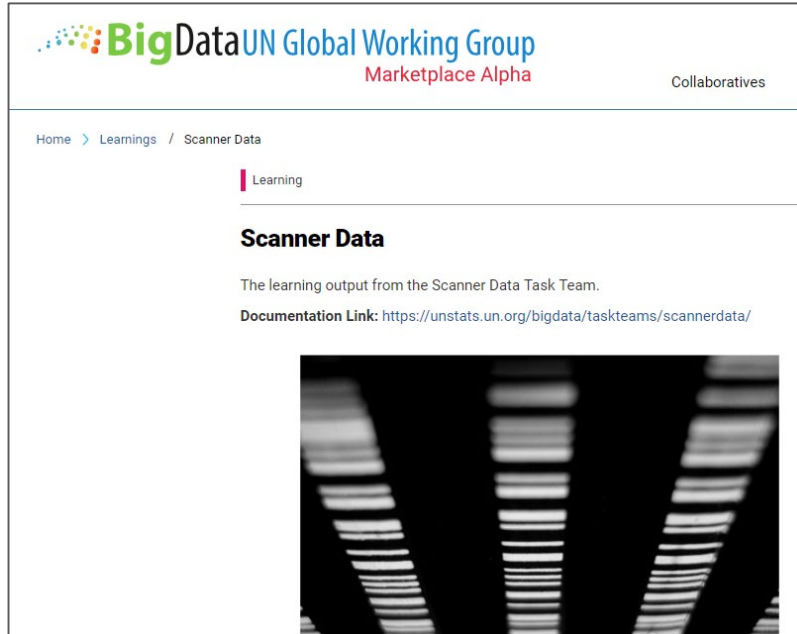
Increase the effective use of scanner data in official statistics:

- through lowering the barriers of entry for countries by providing a library of methods, guidance and training.
- via the sharing of experience, practice and learning between countries on the use of scanner data.
- and through supporting Public-Private collaboration in the acquisition and use of scanner data.



https://methods.officialstatistics.org/algorithms/donal_lynch/FEWS

Use Case: Pricing Scanner Task Team



The learning output from the Scanner Data Task Team is in the marketplace.

“Scanner data is a Big Data source being increasingly used in national statistical systems for the calculation of price indices as statistical offices explore ways to meet the expectation of society for enhanced products and improved, more efficient ways of working. Many of the price measurement issues and methods for scanner data from supermarket chains and other retailers apply also to other big data sources (for example, online prices obtained from webscraping).”



<https://marketplace.officialstatistics.org/scanner-data>

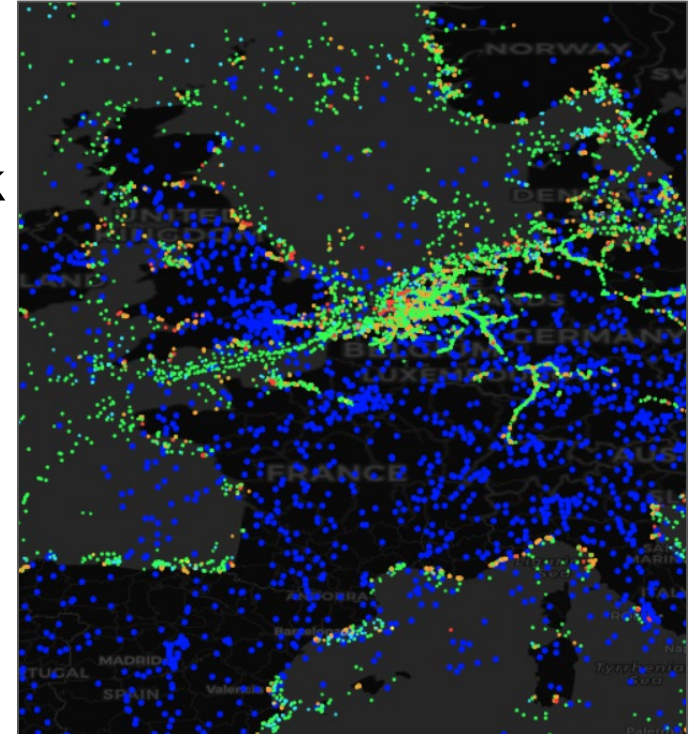
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Use Case: AIS data

UK Data Science Campus and Trade Task Team investigating use of AIS data.

Calculate the number of ships in port.

- create a set of indicators which allow early identification of large economic changes
- provide insight into economic activity, at a level of timeliness and granularity not possible for official economic statistics.



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Thank you



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