
Welcome to

**A business model for sustainable
geospatial information financing**

Tuesday 25th October 2022

Facilitator:
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Two part training

eLearning & Webinar

Business models for sustainable geospatial information financing

October 25th, 2022
4 – 5.30 PM EAT
(GMT +3)

CC-BY



Government and revenue



Jobs



Knowledge Economy



Disaster Response



Enabled citizen



Smart urban planning



Resource management



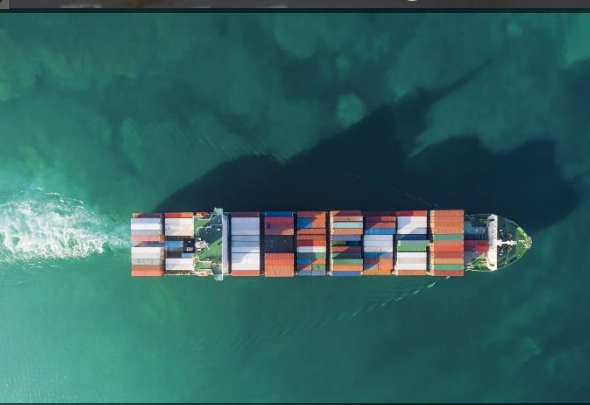
Emergency Services



SDG delivery/measurement



Water and health

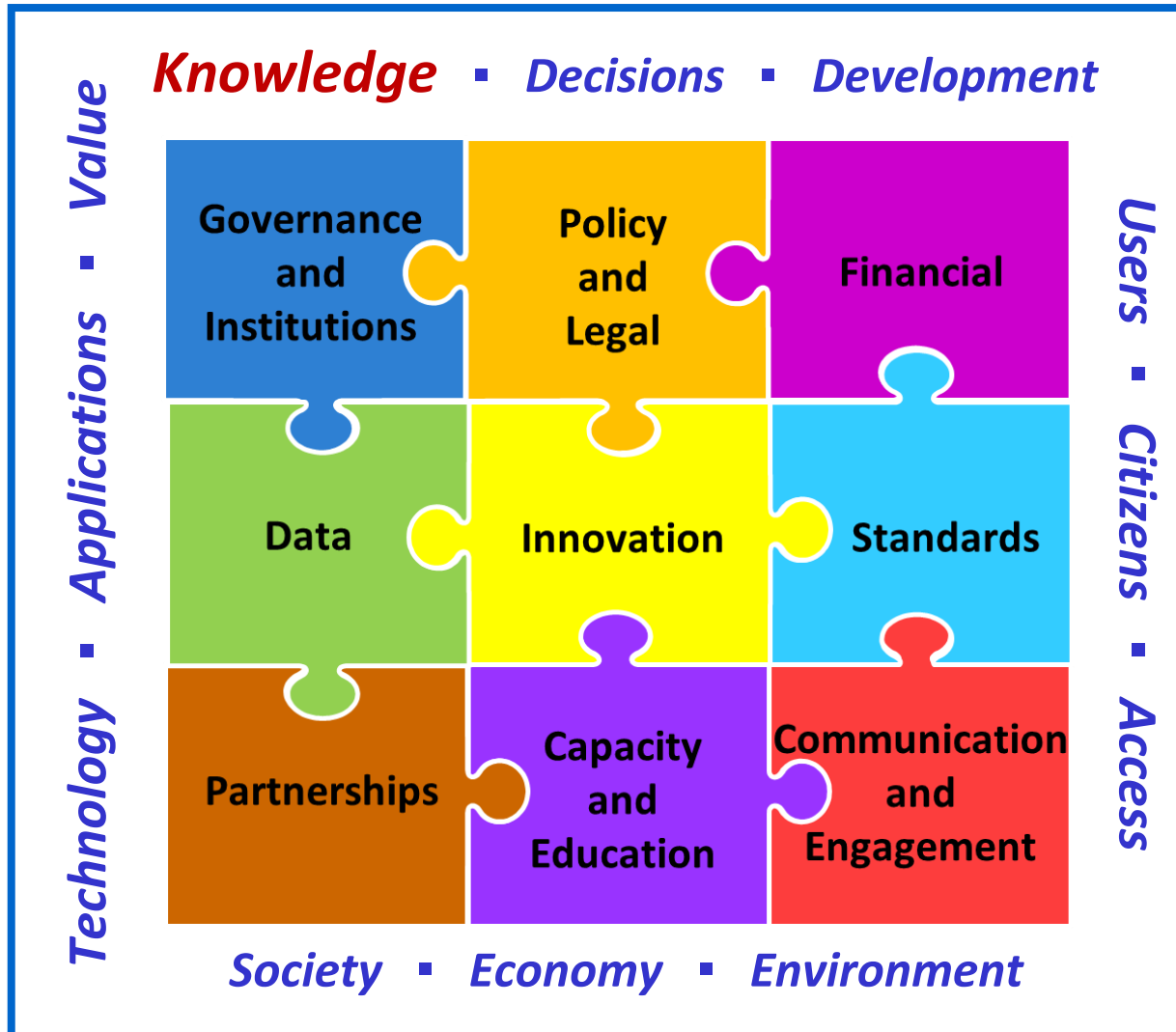


Trade

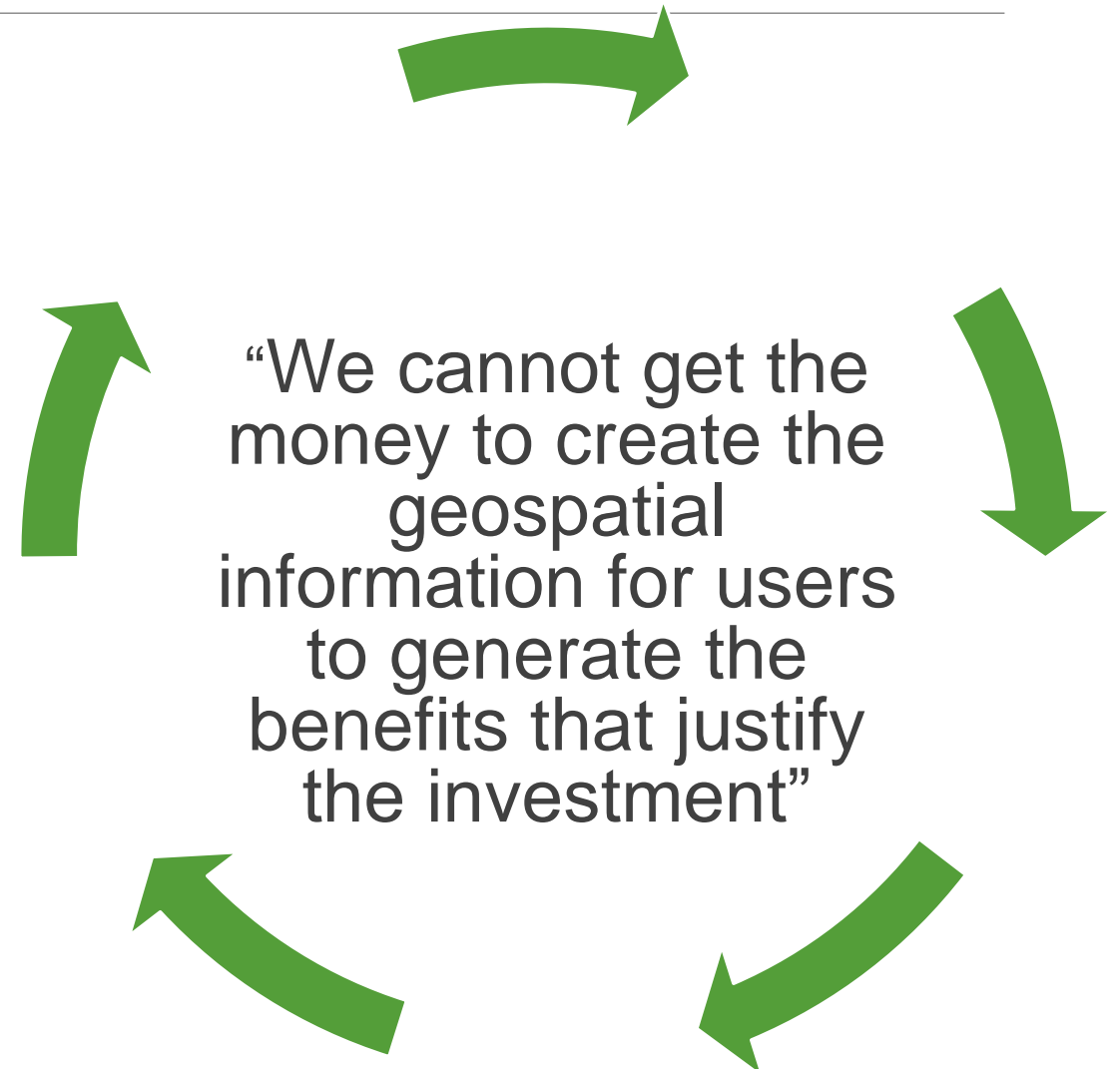


Resource security

The UN Integrated GI Framework Pathways



How often have we heard



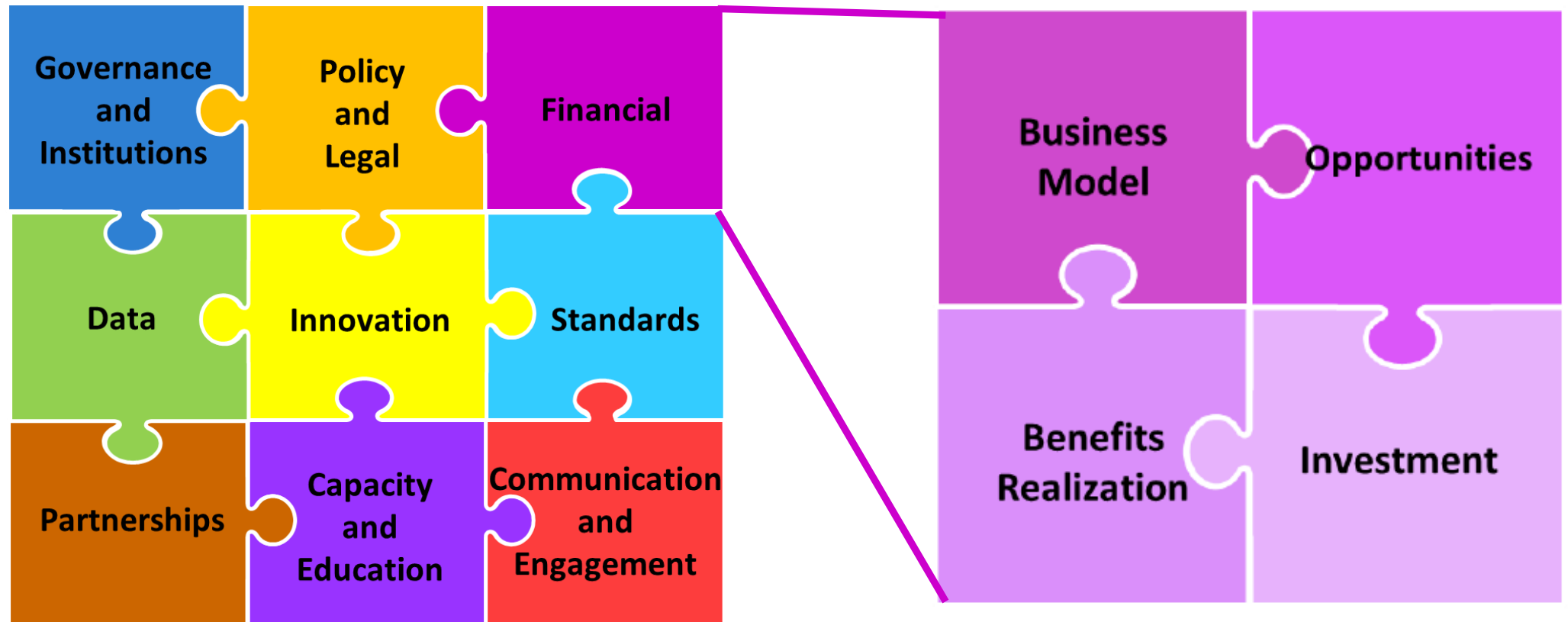
How often have we heard

- Need a plan – IGIF based country-level action plan
- Need strong governance
- Need excellent stakeholder engagement and communication
- Need a business case based on quantifiable national socio–economic impacts
- Need business models to ensure sustainable delivery



“We cannot get the money to create the geospatial information for users to generate the benefits that justify the investment”

The UN Integrated GI Framework Pathway 3



Your Team

Facilitator

John Kedar, John Kedar Geospatial Initiatives Ltd, UK

Panelists

Andre Nonguierma, UN ECA, Addis Ababa

Dr Tulu Besha Bedada, Director General, Geospatial Information
Institute

Maroale (Mimi) Chauke, Director - National Spatial Information
Framework, South Africa

Andrew Coote, ConsultingWhere, London

Derek Clarke, World Geospatial Industry Council, South Africa

Course Design

Nigel Edmead, enuma/nation, UK

Webinar Format

- Welcome and Introduction – John Kedar (10 Mins)
- E-learning course – how to use it – Nigel Edmead (10 Mins)
- Key Concepts for Geospatial Information Infrastructure Business Model development – Andy Coote (20 Mins)
- Panel – Business Models for Sustainable Funding of Geospatial Information Infrastructures (45 Mins)
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Includes questions from attendees
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Capacity development and education

“An evolving curriculum for GIS Professionals”

*Nigel Edmead,
Principal, enumeration*

The skills challenge for GI professionals

- GI is pervasive but we get stuck on the technology.
- Instead of creating learning for tools we should be thinking bigger.

*“GIS people are excellent at creating products for GIS people. To de-silo GIS or geospatial (or whatever it is that we are), we should be thinking about how to **communicate** with those outside our sector. In doing this, we might break the unwritten rules of our guild. But we might also open markets that are both desperate for better data products and willing to pay for them”*

Will Cadell, Is The GIS Market Vertically Challenged? Forbes, 2019

*“Look, spatial has never been special. Realizing that will actually make you a better person in the new world economy. Look around you, people are using location without the need of GIS. **Don’t be niche, think bigger**”*

James Fee, Spatial Has Never Been Special, 2012.

Addressing the skills gap

GIS Professional Development

Our online classes can be taken individually for professional development. For many students, starting with one class is a great way to try online learning with Penn State before committing to a Degree or Certificate program. Classes available for professional development include:

Geospatial Industry Applications

- GEOG 571 [Intelligence Analysis, Cultural Geography, and Homeland Security](#)
- GEOG 591 [GIS for Analysis of Health](#)
- GEOG 850 [Location Intelligence for Business](#)
- GEOG 858 (formerly 588) [Spatial Data Science for Emergency Management](#)
- GEOG 864 [Professionalism in Geographic Science and Technology](#)

Mapping and Geolocation

- GEOG 486 [Cartography and Visualization](#)
- GEOG 861 [The Earth is Round and Maps are Flat: Working with Spatial Reference Systems in GIS](#)
- GEOG 862 [GPS and GNSS for Geospatial Professionals](#)

Geospatial Software Development

- GEOG 485 [GIS Programming and Automation](#)
- GEOG 489 [GIS Application Development](#)
- GEOG 863 [Web Application Development for the Geospatial Professional](#)
- GEOG 865 [Cloud and Server GIS](#)
- GEOG 868 [Spatial Database Management for the Geospatial Professional](#)

Cost Benefit Analysis

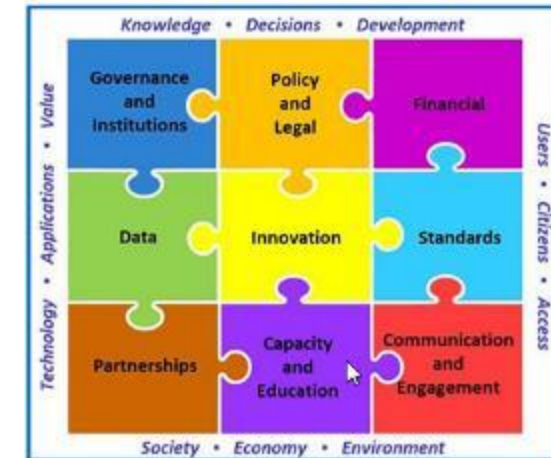


To make sure decision makers are willing to invest in geospatial you need to be able to build a cost benefit analysis that quantifies costs and benefits.

Communication



To make sure decision makers cater for geospatial in their decision-making process you need to be able to present your business case effectively



1. Less of this (Penn State, Dept of Geog)...

2. and more of this...

3. gets us to to an IGIF



Objective: To develop a curriculum that supports UN-GGIM's IGIF activities focusing on the ***business skills*** GI professionals need to effectively promote the adoption and use of geospatial information and systems.

Learning Approach

To draw on the latest trends in learning technology and content to build series of virtual courses for GI professionals.

- ☒ Blended learning
- ☒ Flipped learning
- ☒ Micro learning
- ☒ Social and collaborative learning

Self paced eLearning - a prerequisite learning activity:

- Approximately 30 mins long
- Includes recaps and quizzes, tracked via an LMS.
- Includes **resources** section as **pre-reads**.

Webinar - an expert panel discussion:

- Delivered 2 weeks after the launch eLearning course.
- 1 – 1 ½ hours long.
- Presentations by experts are followed by Q&A/round table discussion with **peers**.
- Offers the opportunity for attendees to learn more, bring questions triggered by the eLearning and speak to specific topics of interest.

“Really appreciated the course ahead of the webinar, and it was well structured and easy to follow. Well done.”

“I feel the course served its purpose well - intro level but with enough content available via resources. The resources and extra content provided was very worthwhile and provided great value in itself.”

Available Courses

1

Influencing Decision Makers

As a geospatial professional it can be difficult to make the case for geospatial systems and technology. In this course we explain how to plan, prepare and execute an effective communications strategy to ensure decision makers cater for geospatial in their decision-making process.

2

Socioeconomic Benefits of Geospatial

This course has been designed to help you build a business case that justifies investment in geospatial information and systems enabling an organization to effectively leverage the power of geography. In this course you will learn how to prepare a business case for investment in geospatial information and systems.

Geospatial enablement requires an institutional infrastructure that promotes sharing and collaboration. One of the most common challenges in developing national geospatial infrastructure is not technology but that institutional arrangements are not in place, and one of the main obstacles relates to data sharing. This course looks at governance and policy using the IGIF framework as a guide, to provide practical guidance on potential solutions.


4

Business models for sustainable geospatial information financing

The IGIF provides a guide for the development of a spatial data infrastructure (SDI) demonstrating how investment in geospatial information and systems can deliver tangible socio-economic benefits, but that investment needs to be funded. This course has been designed to help you identify the financing options available to ensure the funding of SDIs is sustainable over the long-term.

Home / **Course catalog**

Search courses



UN-GGIM Africa

Business models for sustainable geo

The Integrated Geospatial Information Framework data Infrastructure (SDI) demonstrating how intangible socio-economic benefits,...


★★★★★

You have this course

1 to 1 of 1

☰ A business model for sustainable NSDIs

RESOURCES



A business model options for sustainability financing national spatial data infrastructures

|| ————— ↺ 🔊 < PREV NEXT >

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(LMS)

Visit: <https://enumanation.talentlms.com/catalog>



Thank you

nigel.edmead@enumanation.com

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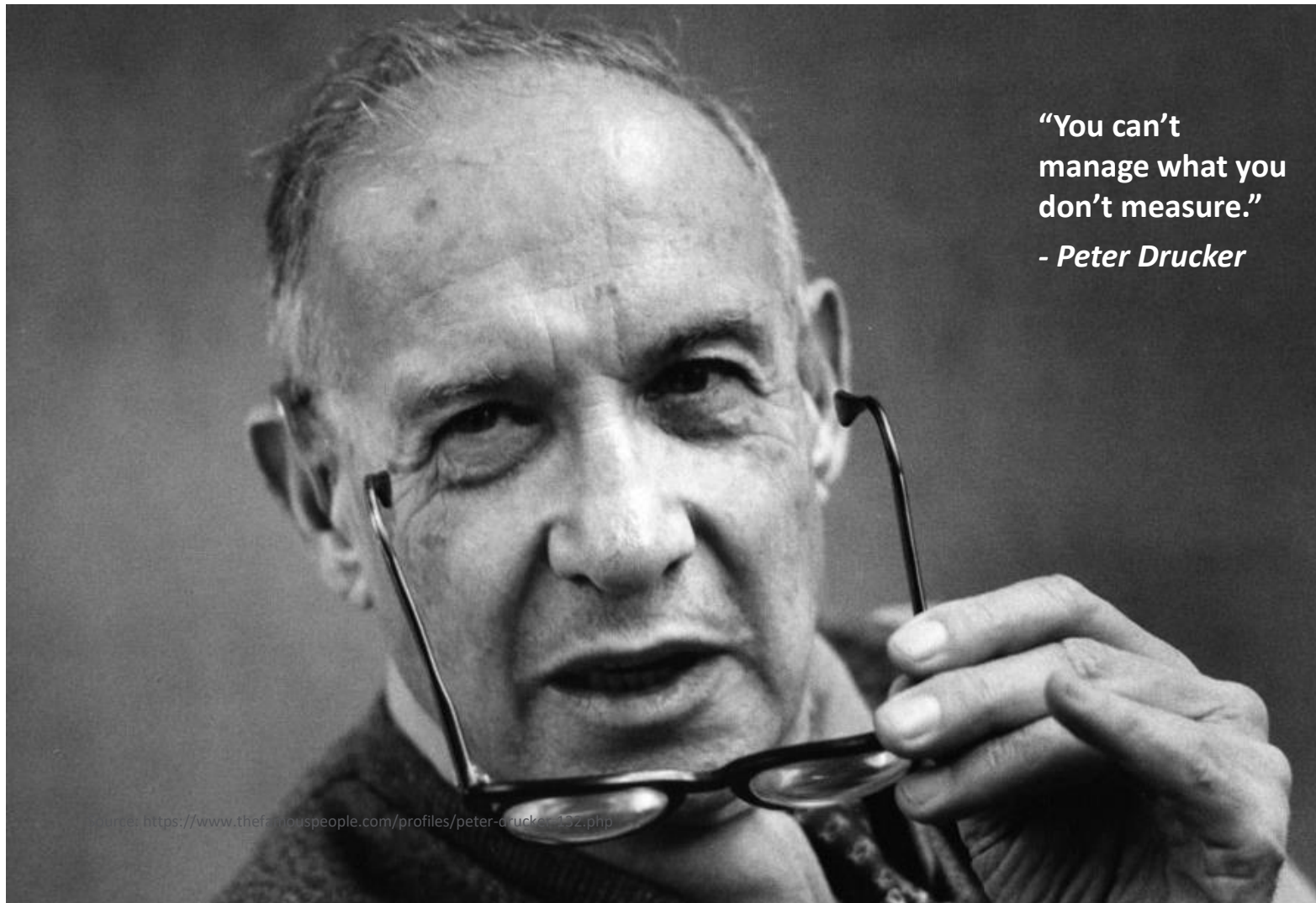
A satellite map of the African continent, showing various geographical features like the Sahara Desert, the Nile River, and the Great Lakes. The map is centered on the continent, with the surrounding oceans visible in dark blue.

Sustainable Business Models for Strengthening Spatial Data Infrastructures

Andrew Coote
ConsultingWhere

UN GGIM Africa
25 October 2022

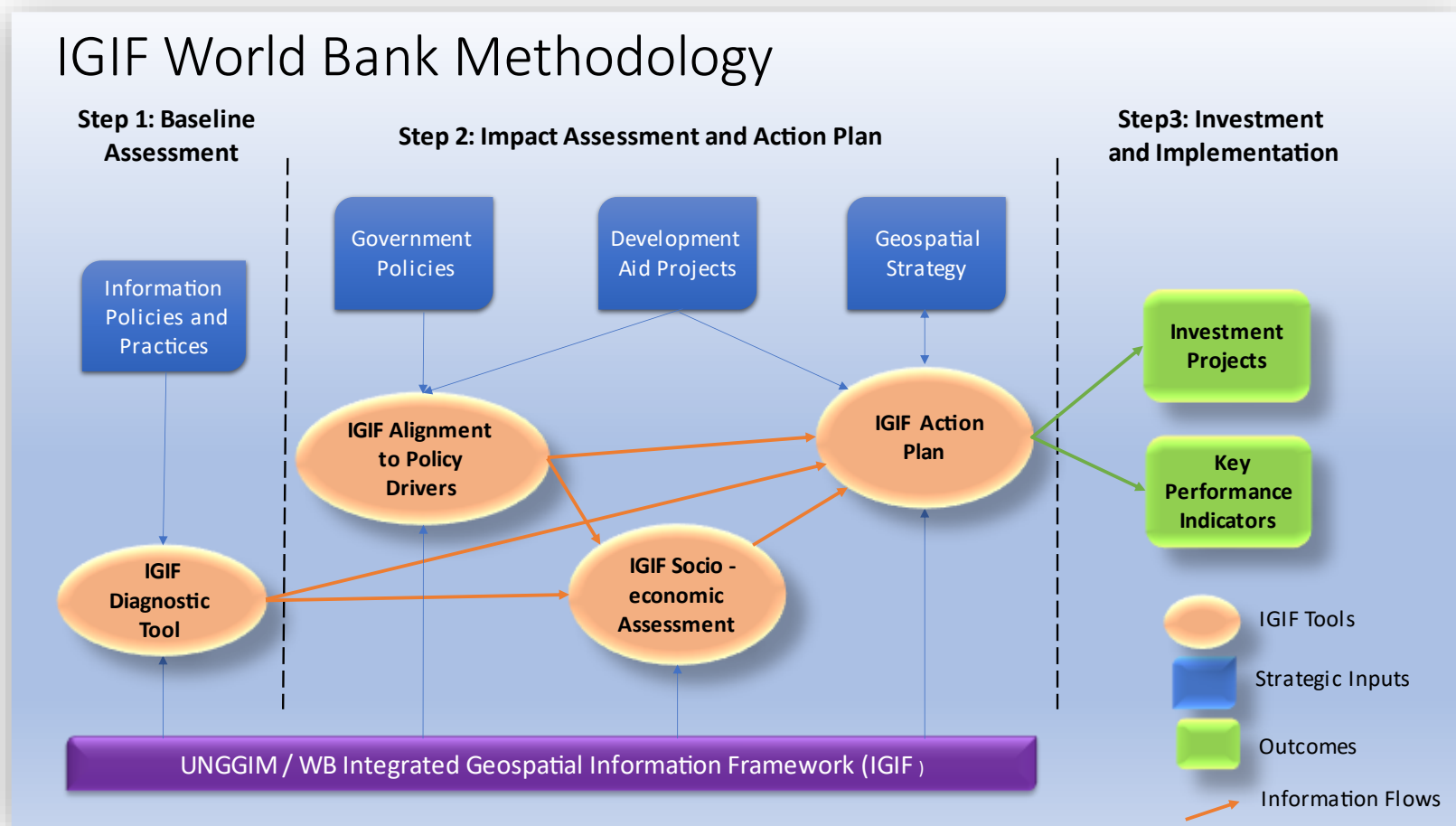
NSDI, Policy and Decision Making



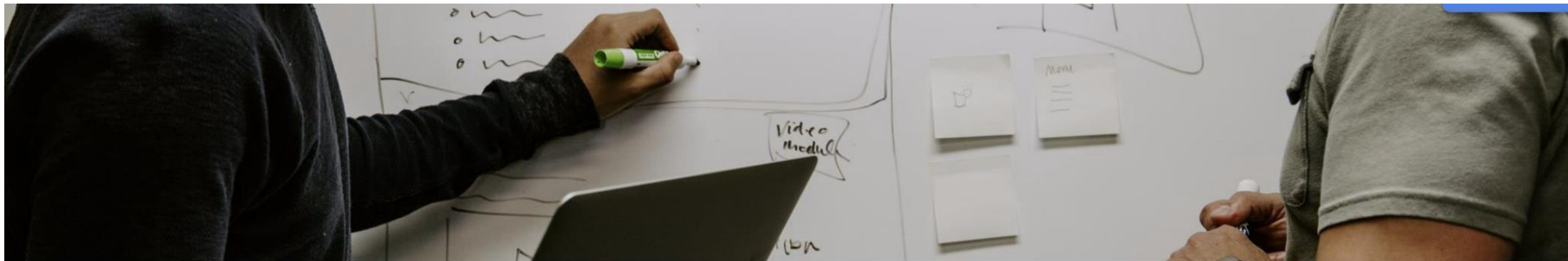
World Bank IGIF Implementation Methodology

The World Bank Group has established an IGIF Implementation Methodology and corresponding analytical toolkit to support the use of the IGIF:

- **Incrementally strengthen geospatial information management** - customized to specific countries and priorities
- **Link to financing:** based on analytics, using standard WBG infrastructure model



The diagram shows the analytical tools (in orange), key inputs (in blue), the IGIF in purple, outcomes (in green). Arrows show the different types of information flows.



What is a business model?

A definition

A business model describes how an organization creates and delivers value.

What it used for

In simple terms, this can be thought of as how an organization balances income and expenditure.

Why is it needed

A government initiative such as building a National Spatial Data Infrastructure (NSDI) needs a sustainable business model in the same manner as a commercial organization.

Types of business model

A business model is a framework for how an organization will create value. Business models answer fundamental questions about the problem to be solved, how the business will solve it, and the growth opportunity. Here are some well known organizations and their business models:



Freemium model

A basic product is provided for free but you charged for additional services or features (Duolingo).



Licensing model

Technology or innovations are monetized by selling a license (Esri).



Open Source model

Your product is free and is largely created by crowd sourcing either data (Open Street Map) or software (Quantum GIS).



Subscription model

Customers pay a recurring fee to access your product or service (Netflix).



Advertising model

Searching is free (the user does not pay) rather companies pay to get themselves to the top of the listings (Google).

Funding options

There are several means by which your spatial data infrastructure organization can be funded. Note that these funding options are not mutually exclusive:



1. Government funding (GOV)

The default mechanism is to draw funding from the Government department responsible.



2. Cost Sharing (CS)

The costs of creating and managing geospatial data are shared proportionally across stakeholders.



3. Value Added Services (VAS)

Funding is provided by NSDI data suppliers using their data to generate revenue to fund an increasing proportion of their costs.



4. Donors (DON)

Funding can also be sought from donors such as the UN, International Finance Institutions (IFIs), Bilateral Aid Agencies and Foundations.

Funding options (cont...)

Continuing the list of funding options, you can also consider:



5. Partnerships

Collaboration among different organizations involving the pooling of resources (financial and non-financial) to efficiently implement a project.



7. Privatization

The geospatial organization could be moved into the private sector generating its own revenue from its services.



6. Full cost recovery

All costs received through charging for products and services.

While there are several funding approaches ultimately you are likely to settle on a **Hybrid Business** model which adopts a mix of the options described.

Investment Plan Funding: Hybrid Business Model

Action Ref	Title	Total Investment (US\$)	Funding Source	Explanation
4.1	Quality Improvement of fundamental datasets	xxx	SDI Coordinating Body	Activity to be financed using on-going budget through coordinating agency for NSDI
4.2	Formalize Geospatial Data Supply Chains	xxx	Donor	Capacity development activity funded by donor with skills transfer focus
4.4	Data Acquisition Program (remaining datasets)	xxx	Cost Sharing	Demand-led and financed by cost sharing between interested stakeholders
4.5.3	Integrated Address Management – Data Matching	xxx	Value Added Services	Key opportunity for value added services proposition using expertise in address management.

Key Takeaways



The IGIF Action Plan only gets you to the Starting Line.



The World Bank methodology for developing an IGIF Action Plan delivery, has worked well in many countries



Action Plan Implementation needs **sustainable finance** to make it happen



Understanding business models is crucial to realistic financial plans



The Return on Investment provides the economic evidence necessary for presentation to local and international decision makers on strategy and funding

Thank You

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