



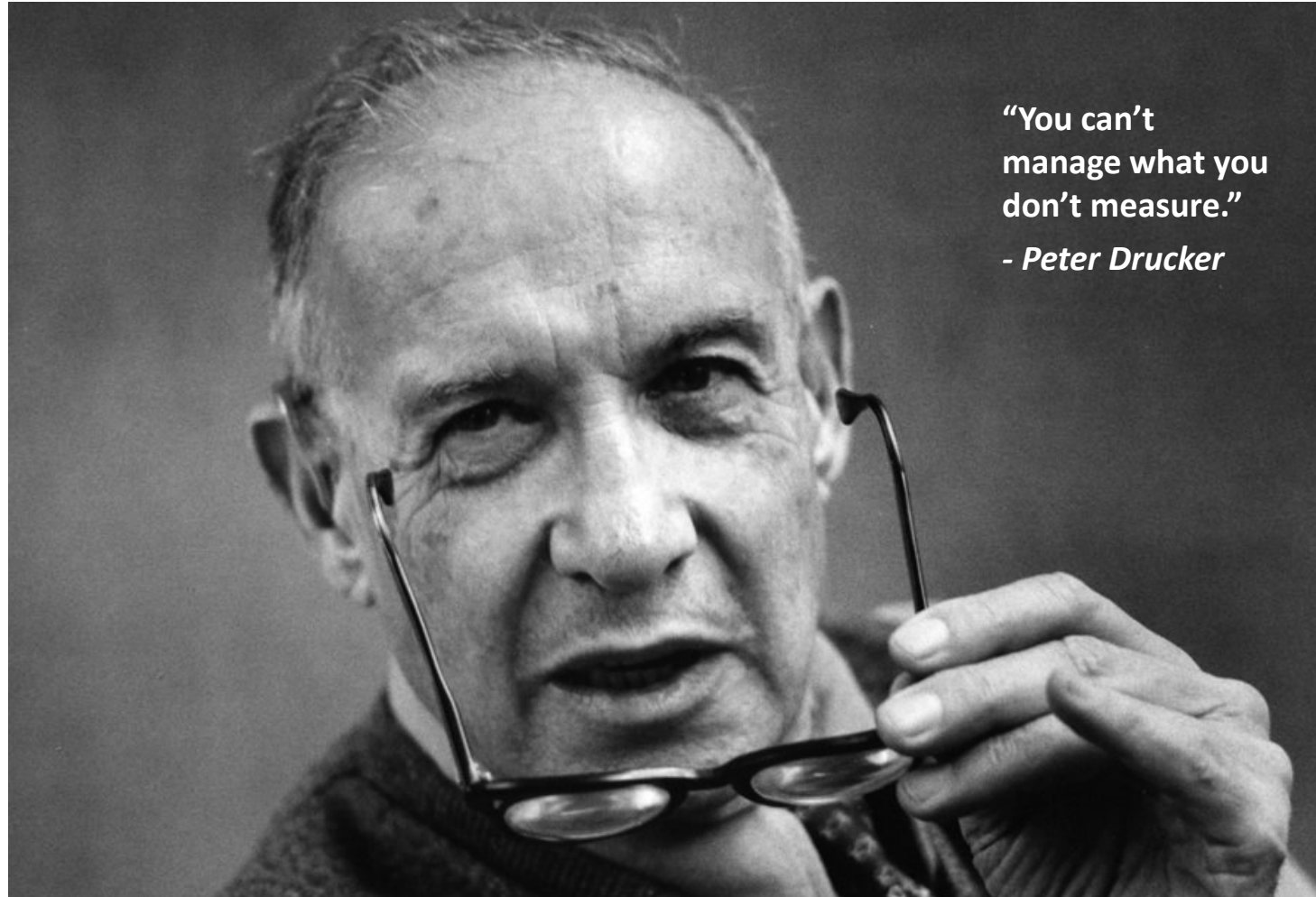
**Experience in applying Integrated Geospatial Information Framework
(IGIF)
in Georgia, Kyrgyzstan, Moldova and Ukraine**

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Implementing IGIF

Why?: NSDI, Policy and Decision Making



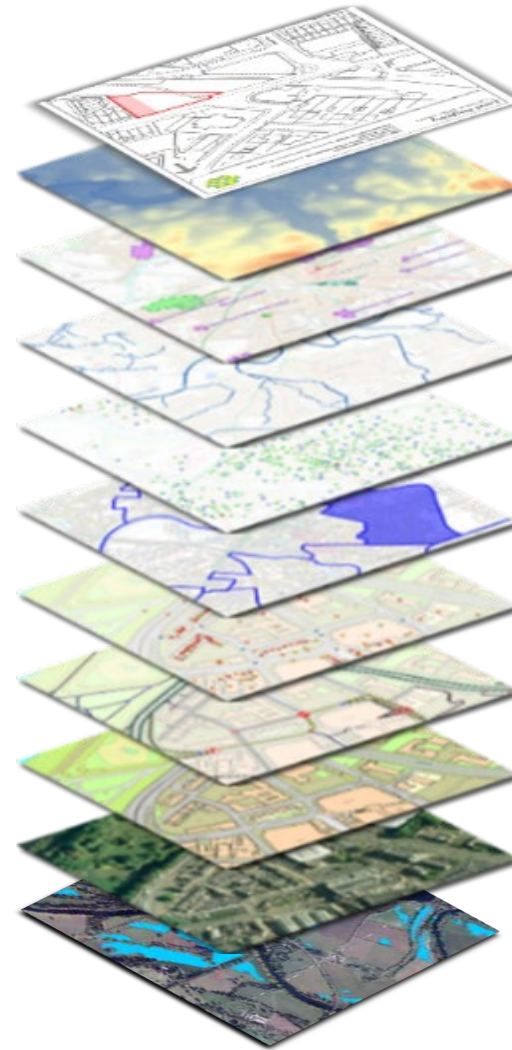
**“You can’t
manage what you
don’t measure.”**
- Peter Drucker

Source: <https://www.thefamouspeople.com/profiles/peter-drucker-132.php>

National Spatial Data Infrastructure



- Global Geodetic Framework
- Geographical Names
- Addresses
- Functional Areas
- Buildings and Settlements
- Land Parcels
- Transport Networks
- Elevation/Depth
- Population Distribution
- Land Cover and Land Use
- Geology and Soils
- Physical Infrastructure
- Imagery
- Water
- Utilities networks*



Scope: covers Land and Marine domains

Not ALL spatial data

Requires: consistency in approach from top of highest mountain to bottom of deepest ocean.

Source: UN GGIM Foundation Data Themes

National Spatial Data Infrastructure



Transport



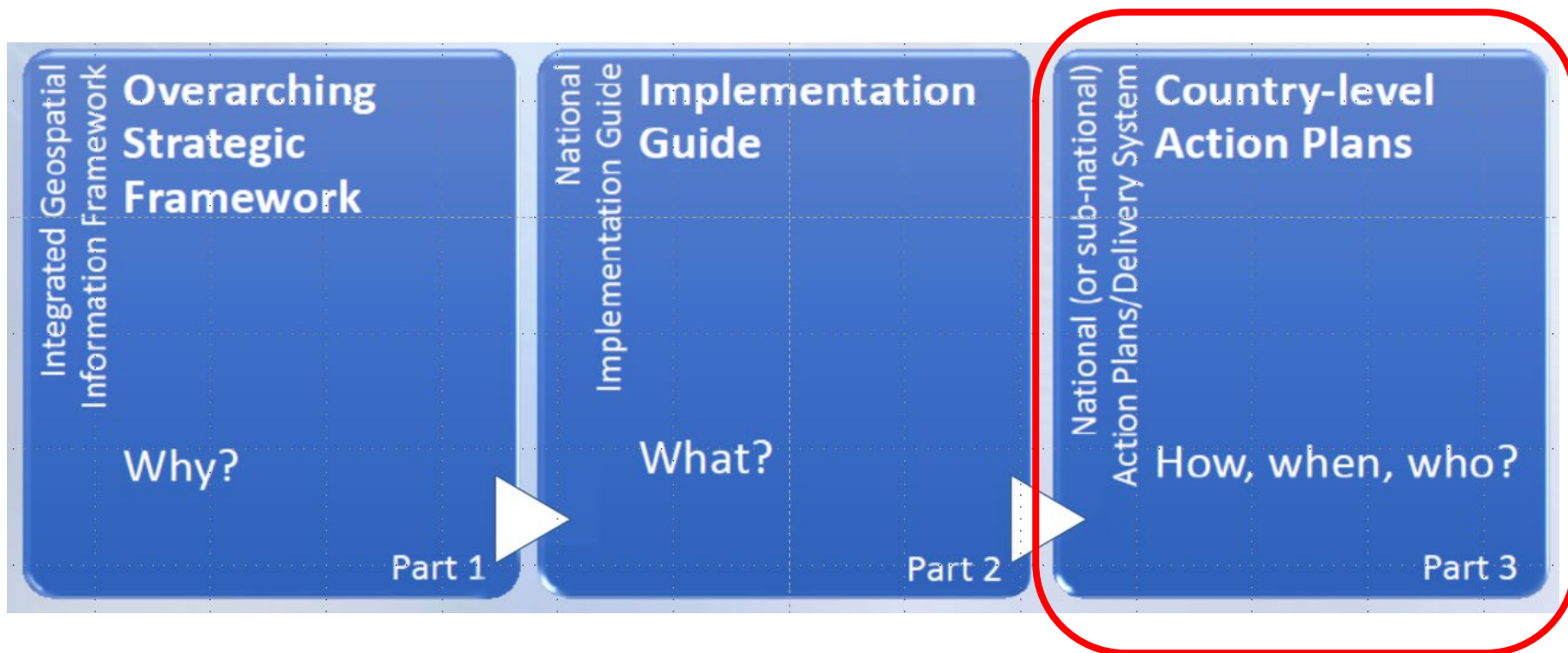
Energy



Data: National Information Infrastructure



Introduction to the IGIF

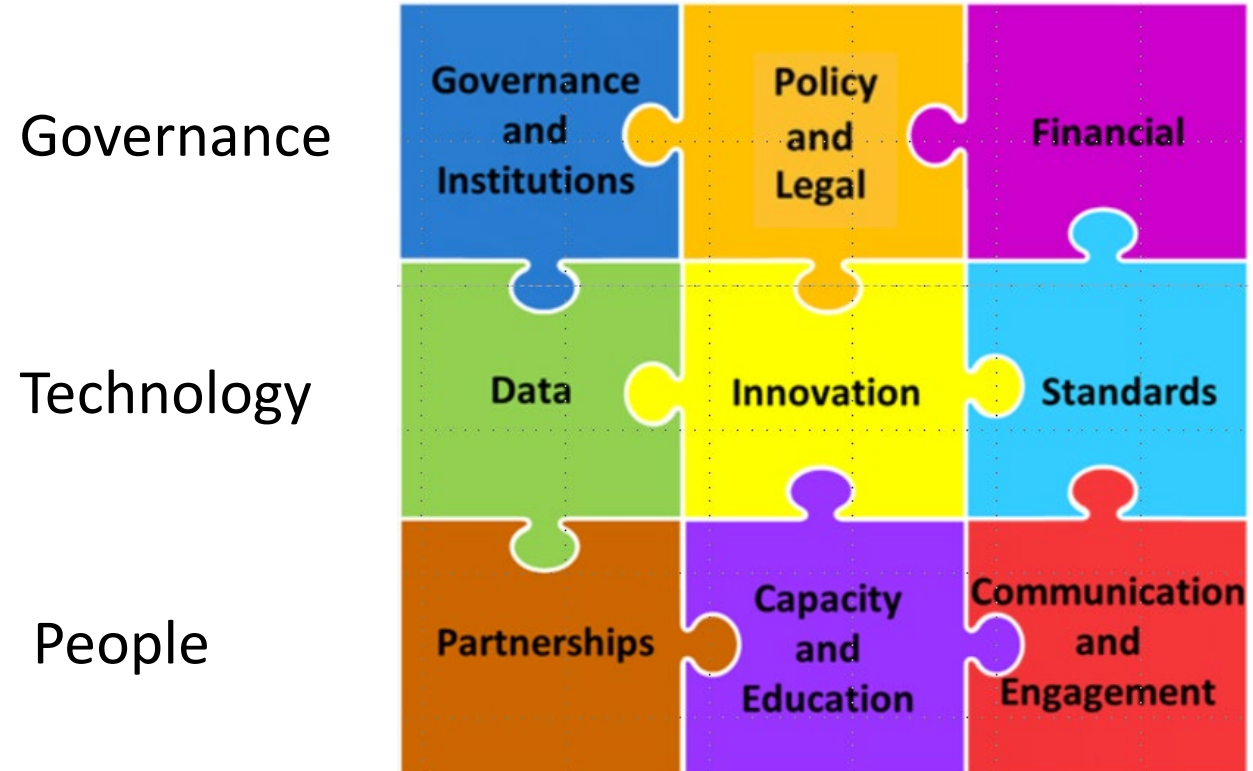


The Framework is an enabler for coordinating, developing, and promoting the effective sharing of geospatial information. *Ref <https://ggim.un.org/IGIF/>*



Strategic Pathways

Perspectives for evaluating current maturity and future priorities



The pathways are inter-dependent.



Implementation of the IGIF: using the World Bank / FAO Methodology

Consistent Methodology

Step 1: Baseline Assessment

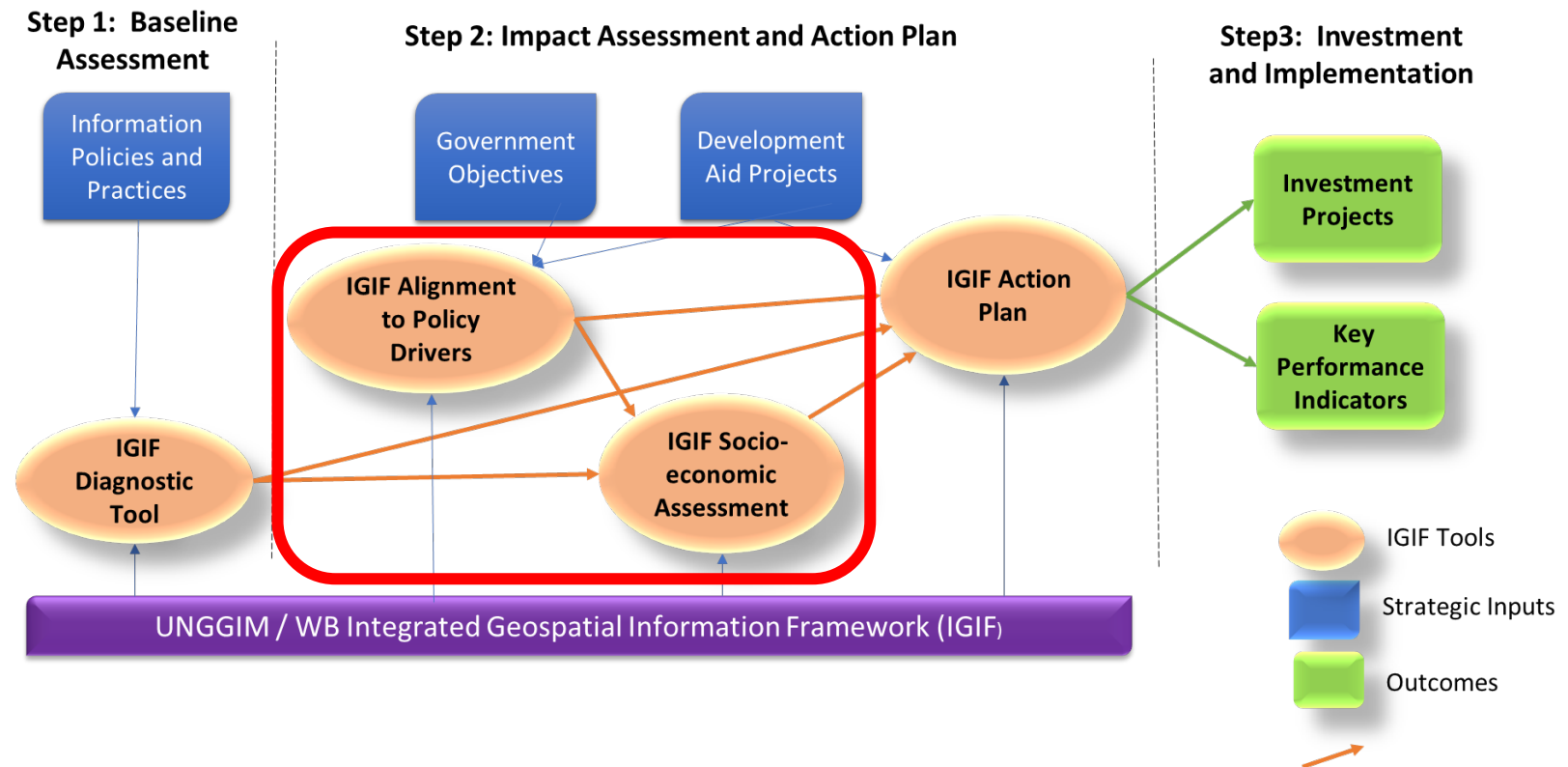
- Diagnostic Tool (DT)
- Baseline report

Step 2: Action Plan

- Geospatial alignment to policy and business drivers
- Socio-economic impact assessment
- Action Plan

Step 3: Implementation

- Investment projects
- Key performance indicators (KPI)
- Risk Management



Common Constraints (1)



Governance

- Lack of access / visibility at a political level
- Consequent lack of understanding of the value of geospatial leads to lack of investment

Legal and Policy

- NSDI legislation is often in place BUT not implemented.
- Committees formed but have not met and working groups to make practical progress are not resourced.

Finance

- Little meaningful progress possible without investment – the added value needs to be presented in monetary terms using standard economic approaches.

Data

- Becoming less of an inhibitor with reducing costs of satellite imagery and drone to create 3D digital twins but programs must be sustainable i.e. data maintained
- Fit for Purpose – very rigid specifications lead to over-emphasis on accuracy.

Common Constraints (2)



Innovation

- Lies at the heart of “bridging the digital divide”
- Poor connection between national innovation initiatives and geospatial community

Standards

- Data specifications for fundamental content are not developed and act as a block to practical data sharing

Partnerships

- Too much infighting between Government departments
- Lack of incentives to leverage skills in private sector

Capacity

- Good educational establishments and structures
- BUT lose too many staff to better opportunities overseas

Communications

- Lack of strategies and skilled resources to develop and socialise the value proposition

Country Specifics

Georgia

Upper Middle-Income Country

Population 3.7m

EU integration high on political agenda

GDP US\$ 4,700 per capita (EU average 34,900)

6% contraction of economy during 2020

Economy: Agriculture, Mining

Good telecoms infrastructure

Georgia NSDI

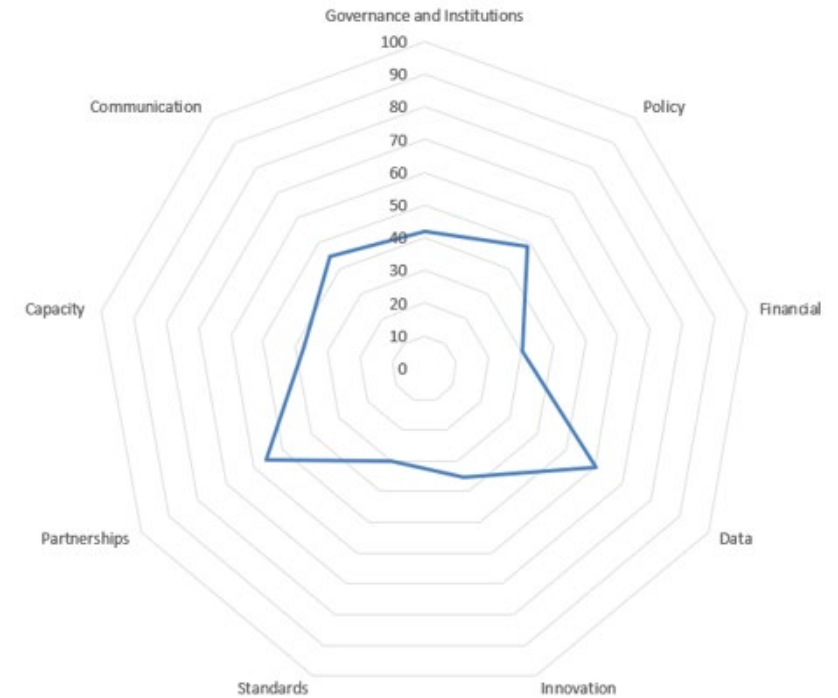


Strengths

- NSDI Law and Regulations in place
- Good coverage of basemaps
- E-Government - Addressing Services

Weaknesses

- Lack of momentum
- Little discretionary finance for initiatives
- Overlapping mandates
- Little private sector engagement
- Alignment to policy drivers not obvious



Moldova

Lower Middle-Income Country

Population 3.5m

EU integration drives policy agenda

GDP US\$ 4,500 per capita (EU average 34,900)

Economy: Agriculture and Food Processing represents 40% of GDP

Foreign remittance from 1 million Moldovans working overseas is 15% of GDP.

Variable mobile uptake

Moldova NSDI

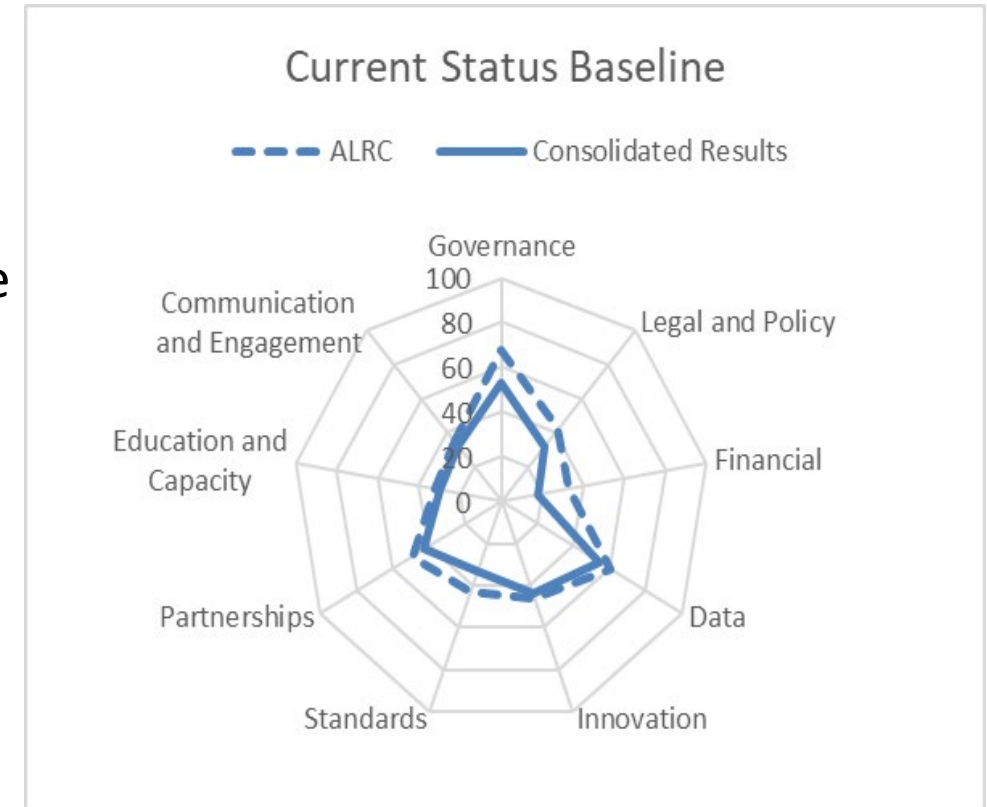


Strengths

- Good operational-level Support across Government
- NSDI law in place
- Much good quality data exists, covering many of the main fundamental data themes
- Committed and enthusiastic coordination group

Weaknesses

- Lack of political engagement
- Little internal financial support
- Overlapping donor initiatives
- Effective data sharing is still limited
- No communications strategy



Ukraine

- Lower Middle-Income Country
- Population 43.5m
- Integration with EU high on Government Agenda alongside anti-corruption drive
- 7% of land area under foreign occupation (including Crimea)
- GDP US\$ 3,600 per capita (EU average 34,900)
- Economy: Agriculture, Manufacturing, Coal mining
- Telecommunication network good

Ukraine NSDI

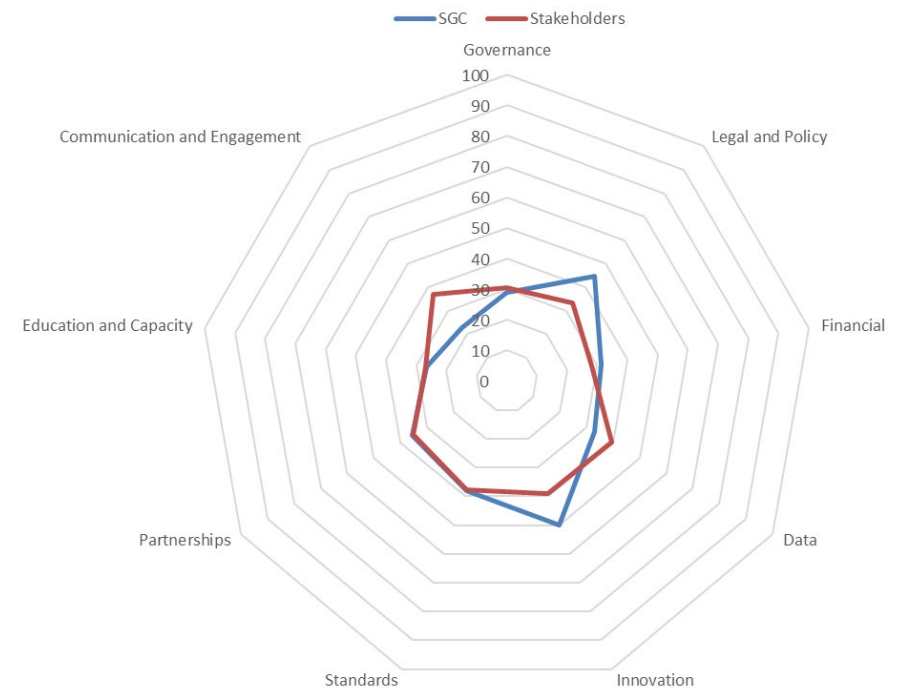


Strengths

- Strong visibility at highest political level (President and Prime Minister)
- Mature thinking on NSDI although very focused on land sector
- NSDI Act and Supporting regulation recently approved
- New 1:50k national base mapping (supported by Norway)

Weaknesses

- Overlapping mandates
- Data duplication
- Sub-optimal relationship with private sector
- Governance Structure not operational



Kyrgyzstan



Low Income

US\$ 5,100 per capita income

Progress hampered by political instability

Very limited awareness of NSDI concept at political level

Base mapping sponsored by Norwegian Foreign Ministry but no plan for sustainability

Human resource capacity limited

Introducing International Good Practice

Making the business case

- Cost-benefit analysis
- Articulating the Value Proposition
- Shared Financing

Fostering Collaboration

- What's in it for Me?
- Emphasis on no changes of data ownership

Advance integration of key registers

- Master Address database management

Data sharing

- Implementing profiles on OGC and INSPIRE standards

Federated Architecture

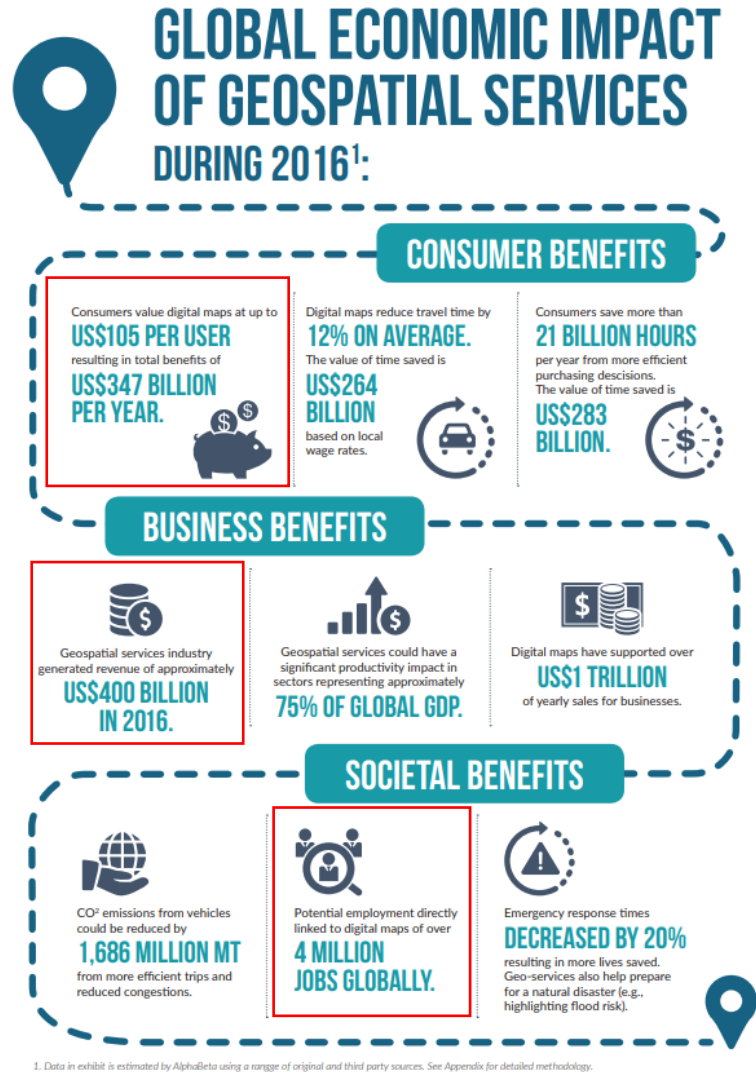
- Multiple geonodes, single national discovery geoportal

Centre of Excellence

- To strengthen human capacity

Geo-economics

Global Geo-economic Impact



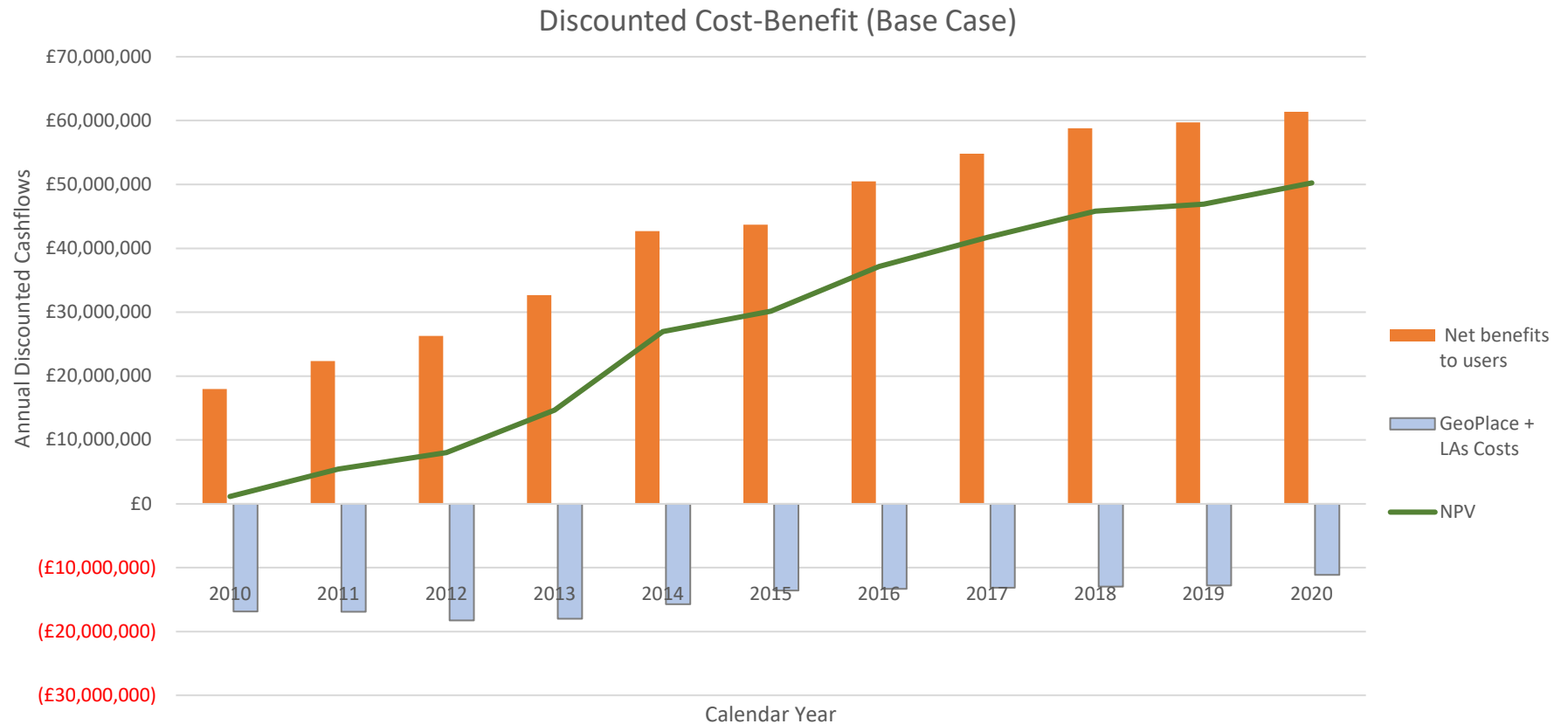
Source: https://www.alphabeta.com/wp-content/uploads/2017/09/GeoSpatial-Report_Sept-2017.pdf

Shared National Address Database (UK)



Socio-economic Impact using standard conventions and processes from Accounting and Economics

- Discounted Cashflow – models when over time costs and benefits occur.
- Benefits to Cost Ratio 4:1
- Net Present Value £50m (US\$69m) over 10 years



Source: Rol Street Addresses (UK) <https://www.geoplace.co.uk/case-studies/geoplace-identifies-4-1-roi>



Thank You

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