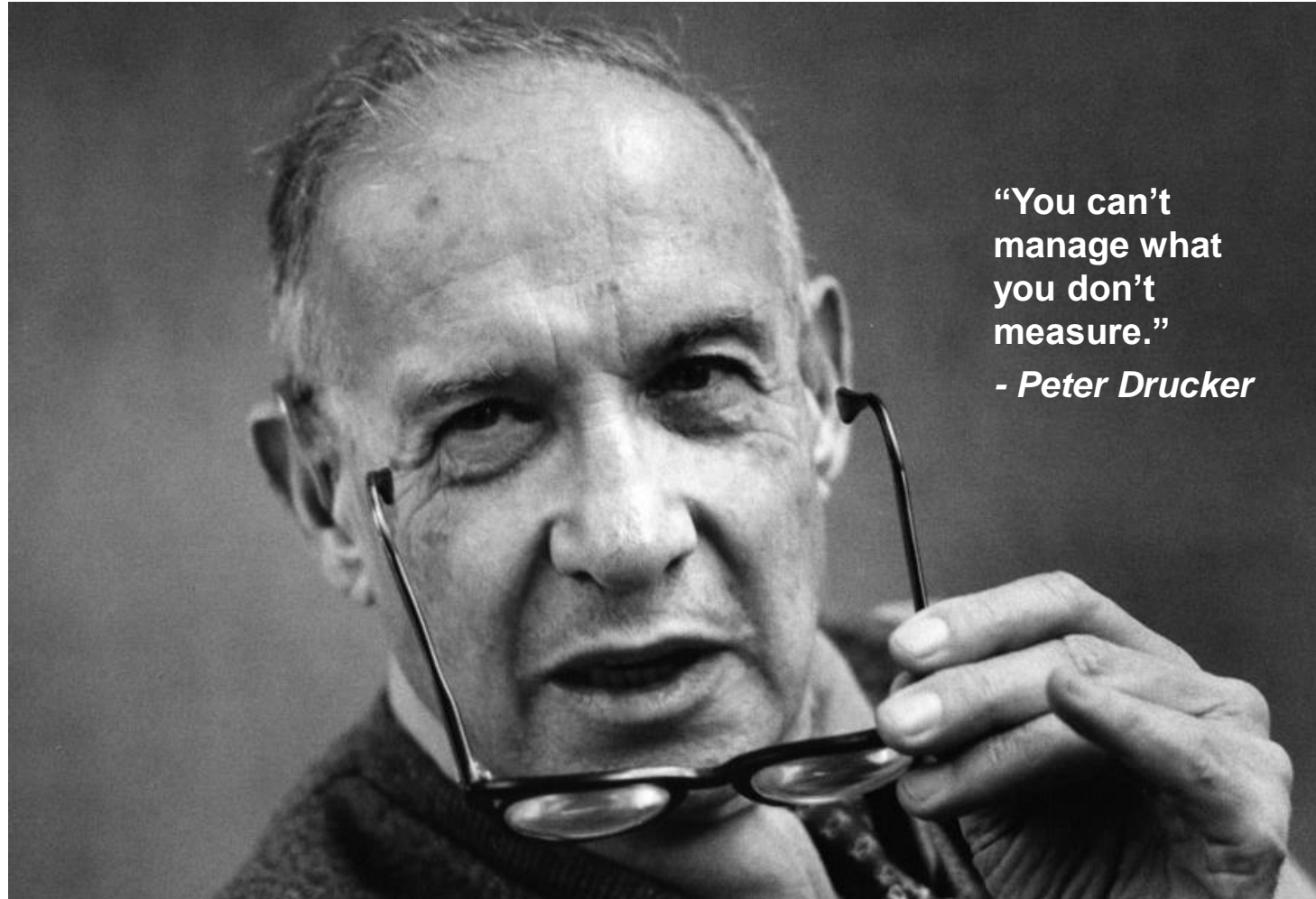

The socio-economic benefits of geospatial information and systems

Andrew Coote
Principal Consultant
ConsultingWhere



Why: Policy and Decision Making



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

Integrated Geospatial Information Framework

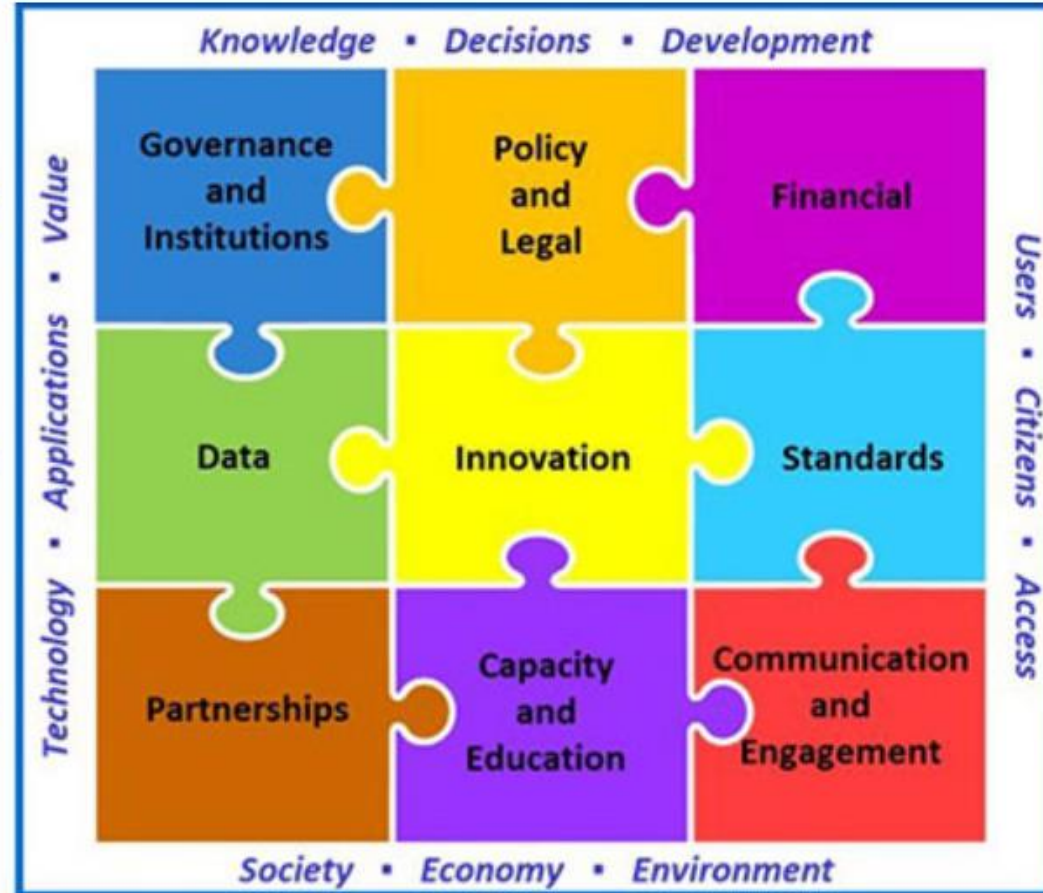


The Integrated Geospatial Information Framework provides a basis and guide for developing, integrating and strengthening geospatial information management.

Governance →

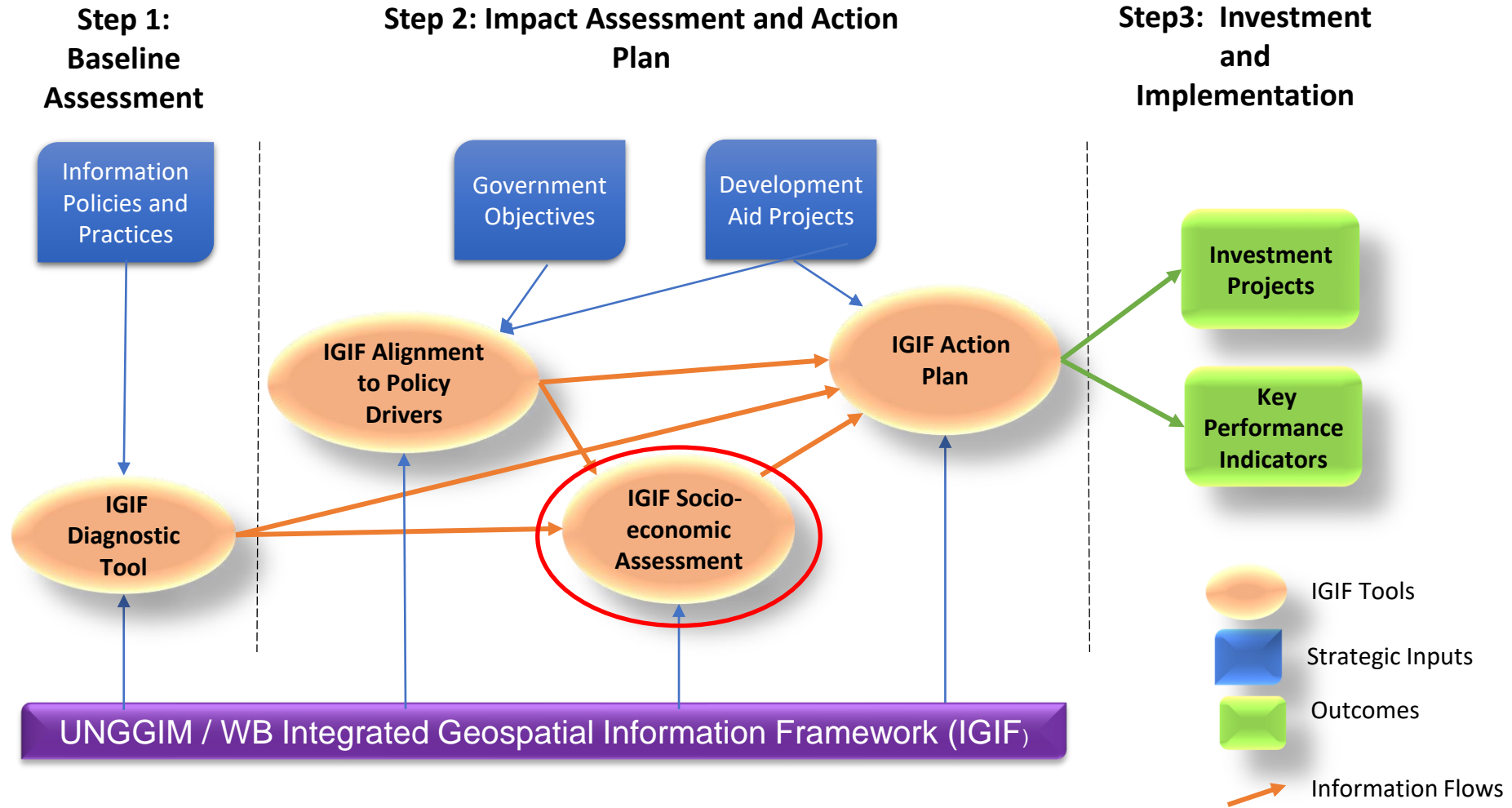
Technology →

People →



Anchored by 9 Strategic Pathways, the Framework is a mechanism for articulating and demonstrating national leadership in geospatial information, and the capacity to take positive steps.

How: World Bank IGIF Methodology



Six Step Approach

Step 1: Establish Scope and Priorities

Step 2: Develop Engagement Plan

Step 3: Collate Base Socio-Economic Evidence

Step 4: Analysis

- Identification of costs
- Identification of benefits
- Quantification of most significant benefits

Step 5: Construct Financial Model

Step 6: Report

Guideline available on application from World Bank team

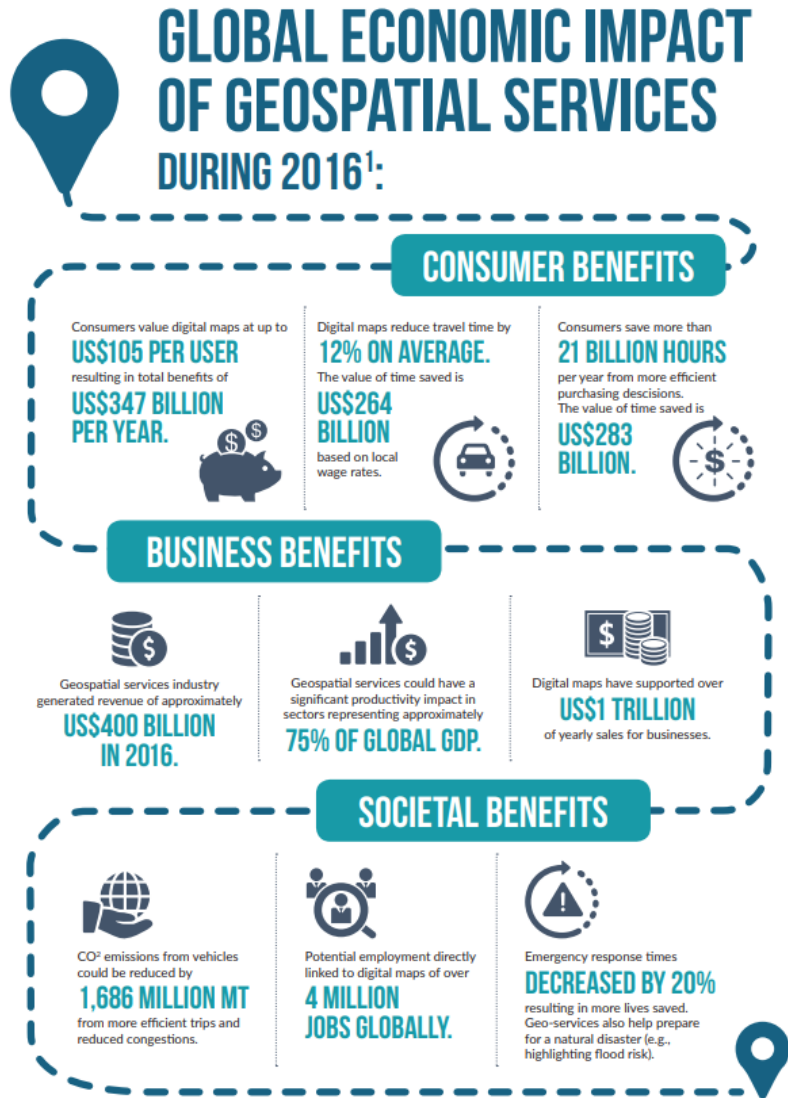
- it is based on IGIF Finance Strategic Pathway: Appendix 3.7



Use Case Inventory

- Geospatial Alignment to Policy Drivers (GAPD) identifies use cases
 - Lists a subset use cases across 14 different sectors
 - These are chosen for being generally applicability and offer significant “value add” from NSDI strengthening.
 - Each use case includes one or more examples of quantified benefits
- The prioritization of entries is designed to identify where investigation effort is best focused
 - High value add
 - High potential for successful engagement with relevant stakeholders

Existing Geo-economic Studies



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

Interviews: Qualitative Benefits

- The Scenario
 - Explain (in broad terms) the features of the target NSDI, for example:
 - Improved data sharing
 - Higher quality data
 - Better educated workforce
 - Set out the period of implementation and operation (5years)
- Explore potential key use cases for stakeholder
 - These should have been identified in advance
 - Ask them to describe where the most significant benefits might be realised (small savings on large volume processes or big savings on lower volume processes)
- Enquire if there are other social / political benefits
 - Although these might not be quantifiable, they may well help strengthen the strategic component of your business case

Interviews: Quantified Benefits

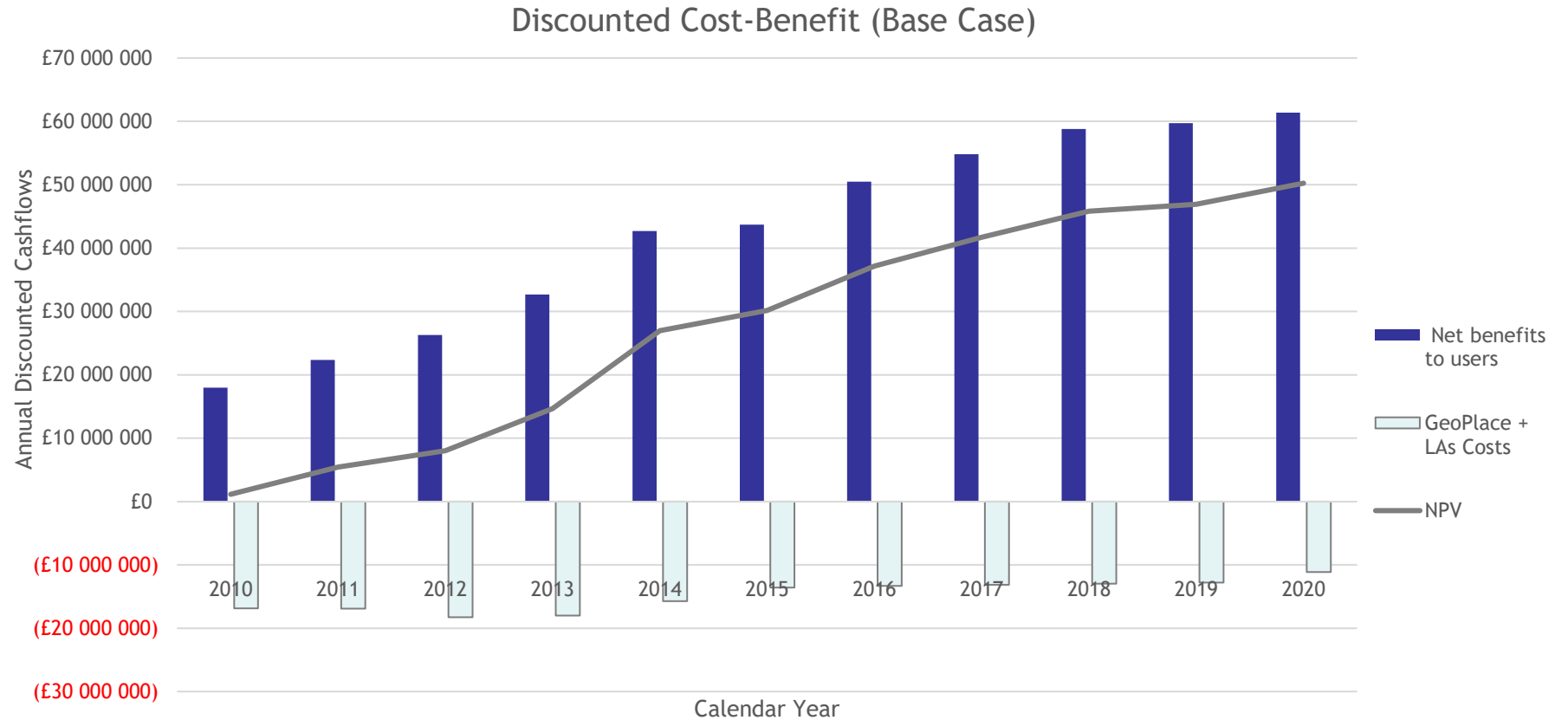
- Identify parts of the qualitative benefit “story” that might be expressed financially, examples include:
 - Productivity improvements (savings of staff effort and/or time, increased crop yields)
 - Reductions in costs (equipment, fuel, sub-contractors, office space)
 - Quicker Response (reduced property, crop and livestock damage)
 - Health and Safety improvements (e.g. reduced deaths or injuries)
 - Growth in revenues (improved tax collection, product sales)
 - Conformance (avoiding fines from failure to meet regulatory requirements)
 - Increased Asset values (land and property, increased life time by preventative maintenance)
 - Lower cost of capital (access to lower interest rates and quicker loan repayment)
- Closing the engagement
 - keep open the option of follow-up

Constructing the Financial Model

Adopt standard conventions and processes from Accounting and Economics

Addressing Example:

- 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>

Key Takeaways



A standards-based, repeatable approach to assessing the Socio-economic impacts of geospatial is now available.



The best business cases combine qualitative and quantitative (financial) benefits.



There is a growing body of evidence of proven quantified benefits for different use cases across many economic sectors



The World Bank methodology is focused on providing outputs suitable for presentation for local and international funding