

GEOSPATIAL KNOWLEDGE INFRASTRUCTURE SUPPORTING NATIONAL DEVELOPMENT

14TH OCTOBER 2022

2nd United Nations World Geospatial Information Congress

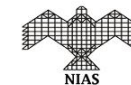
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User Industry Focus



Energy Transition



Construction & Infrastructure



Autonomous Driving



Land Administration



Logistics & Supply Chain



Cities

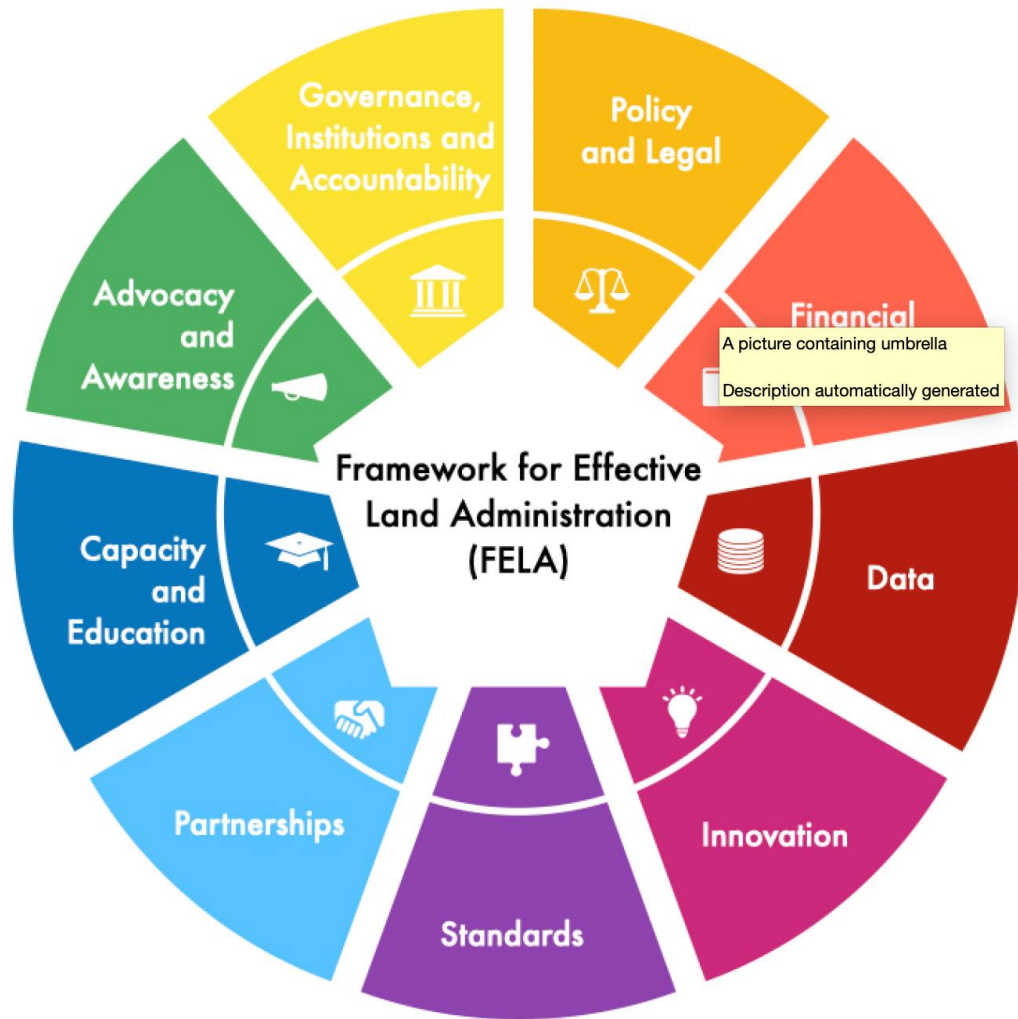


Public Safety & Security

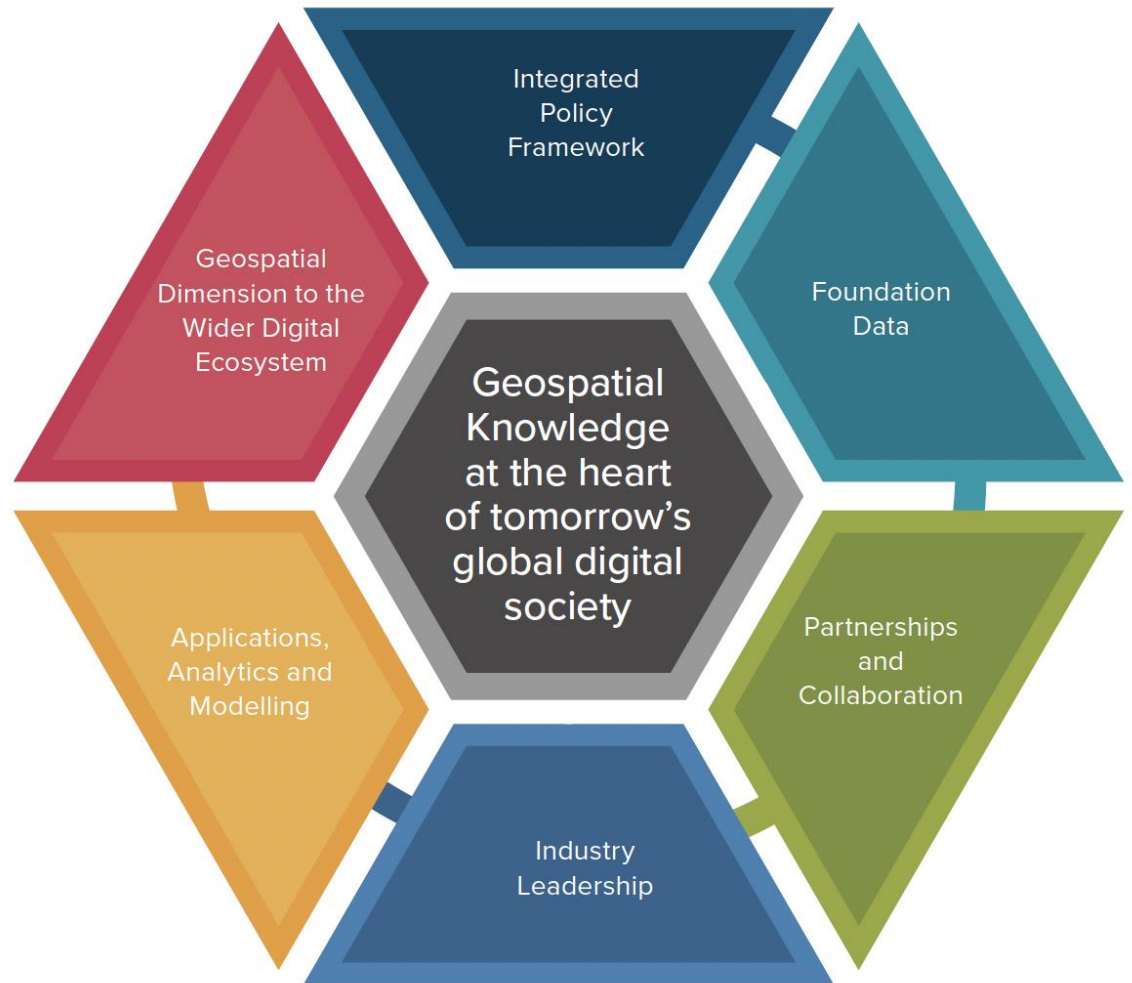


Agriculture

FELA and GKI



The overarching goal of FELA is to support global policy coherence in land administration – with a view to guiding policy development and policy operationalization in Member States with respect to the IGIF for the land sector.



GKI focuses to a large extent on industry and wider government digital policy makers

Drone Mapping of Land Parcels to Establish Clear Ownership of Property²³

Project Details:

SVAMITVA (Survey of Villages and Mapping with Improvised Technology in Village Areas) scheme is a reformative step towards establishment of clear ownership of property in rural inhabited (Abadi) areas, by providing 'Record of Rights' to village household owners with issuance of legal ownership cards (property cards/title deeds) to the property owners.



Challenges:

Lack of accurate land records hindered rural planning, led to property related disputes, and prevented village households from using their property as a financial asset for taking loans and other financial benefits.

Solutions:

To provide an integrated property validation solution for rural India. Scheme developed for mapping the land parcels in rural inhabited areas using Drone technology and Continuously Operating Reference Station (CORS). The maps developed as part of the scheme will aid in panchayat level planning, direct benefit transfers, accurate land records for property rights, etc.

Benefits

The scheme will help in streamlining planning and revenue collection in rural areas and ensuring clarity on property rights. The scheme will also enable creation of better-quality Gram Panchayat Development Plans (GPDPs), using the maps created under this program. The project had an initial deadline of mapping 100,000 villages by December 2020, but due to the large scale of the project, this exercise will require significant outsourcing of survey exercise to private entities. The project showcases how collaborations are crucial between the government and geospatial industry for the collection of foundation data, in order to meet the evolving needs and demands of the stakeholders.

Evolving Role of Private Sector in Land Administration

The World Bank's Global Land and Geospatial Unit undertook an assessment of the viability of various models of PPP arrangements in land administration, by conducting global consultations with government and private sector representatives to discuss the evolving role of private sector in land administration

Context: The World Bank has provided more than \$1.5 billion in grants, credit and loans to more than 50 countries to support the implementation of programs to enhance land administration systems. Almost all these programs are being implemented by the public sector; The private sector engaged through service contracts or long-term contracts for providing technical services such as field surveys, mapping, aerial photography, establishment of geodetic networks, development of land information systems, etc., and paid against outputs/performance indicators

Evolving Role of Private Sector in Land Administration

KEY TAKEAWAYS

Private sector participation may not fit every country and function of land administration; Successful modernization of land administration systems through public sector reform is not uncommon

Governments interested in attracting private sector partnership; concerns raised about data ownership, the cost of services for citizens, the fate of government employees, and what happens after contracts end; could easily be addressed by a clear, detailed, and transparent contract and competitive bidding processes

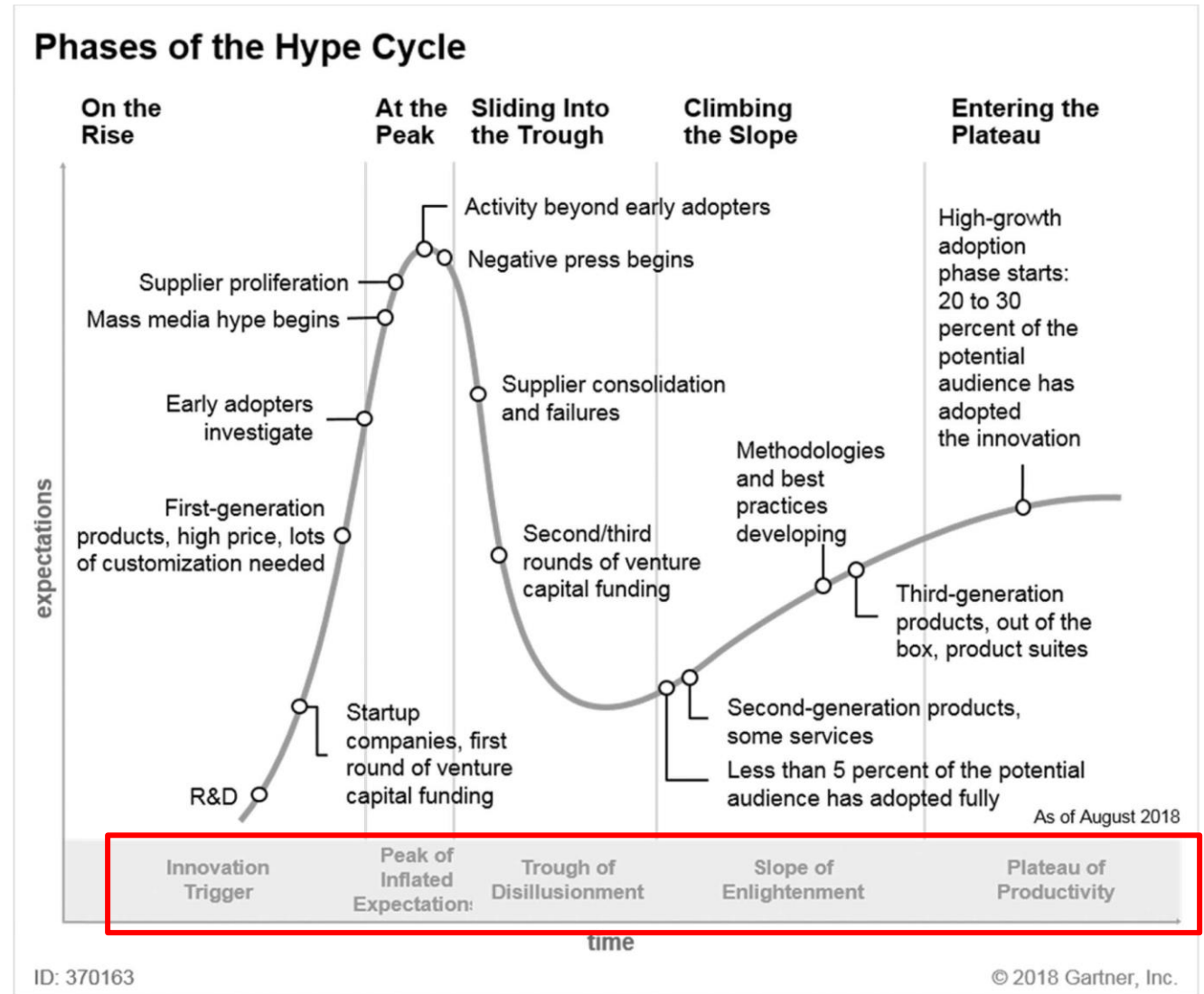
Functions attracting the most interest from both governments and the private sector are IT solutions— governments might lack in-house skills to develop and maintain sophisticated solutions and adequate budget to maintain and upgrade them. The private sector has the know-how and ability to attract highly skilled IT professional

Private sector participation also envisaged in first registration; Many functions of first registration could be done by the private sector, such as management, surveying and mapping, collection of legal documents for citizens, and public announcements

Possible business model - bundle first registration with IT solutions under one long-term contract. Government subsidize first registration costs through their own financing or donor funding; private sector pay for the IT solutions and a small % of first registration costs, and recover the investment through a revenue-sharing arrangement on property transactions










Temporal Dimension to Geospatial Technology Adoption in Land Administration

- Framework for Effective Land Administration (FELA) and the Hype Cycle concept are integrated to understand the dynamics of the innovation process of UAVs for the land administration sector
- FELA supports responsible innovation for effective land administration; can help in describing the status-quo of land administration systems, but has limitations concerning the progress of technology diffusion
- Hype cycle published by Gartner - to advise firms on market potential and the (predicted) promises of emerging technologies
- By adding a temporal dimension to FELA, we are able to differentiate the importance of each pathway during the various stages



Temporal Dimension to Geospatial Technology Adoption in Land Administration

- Innovation is key on an early stage and reduce in importance later.
- Some pathways are rated with the same importance at the beginning and the end but have gone up (like legal) or down (like finance) in the middle steps.
- Standards and capacity appear most relevant towards the end of the Hype Cycle once more actors adopt UAV technology.
- Almost all pathways, except for innovation, could be equally relevant at the slope of enlightenment, the most crucial phase when it comes to the commercial launch of an innovation.

	<i>Innovation trigger</i>	<i>Peak of inflated expectations</i>	<i>Trough of disillusionment</i>	<i>Slope of enlightenment</i>	<i>Plateau of productivity</i>
 Governance, Institutions and Accountability	High	High	High	High	High
 Legal and Policy	Medium	High	High	High	Medium
 Finance	High	Medium	Medium	High	High
 Data	High	High	High	High	High
 Innovation	High	High	High	Medium	Low
 Standards	Low	Low	Medium	High	High
 Partnerships	Medium	Medium	High	High	Medium
 Capacity and Education	Low	Low	Medium	High	High
 Advocacy and Awareness	Medium	Medium	High	High	High

References

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Wael Zakout, Aanchal Anand
(<https://blogs.worldbank.org/ppps/private-sector-role-managing-land-administration-we-did-our-homework>)

THANK YOU

