



Future Geospatial Information Ecosystem

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Future Geospatial Information Ecosystem
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Background

Decisions 13/104 on “The future geospatial information ecosystem”

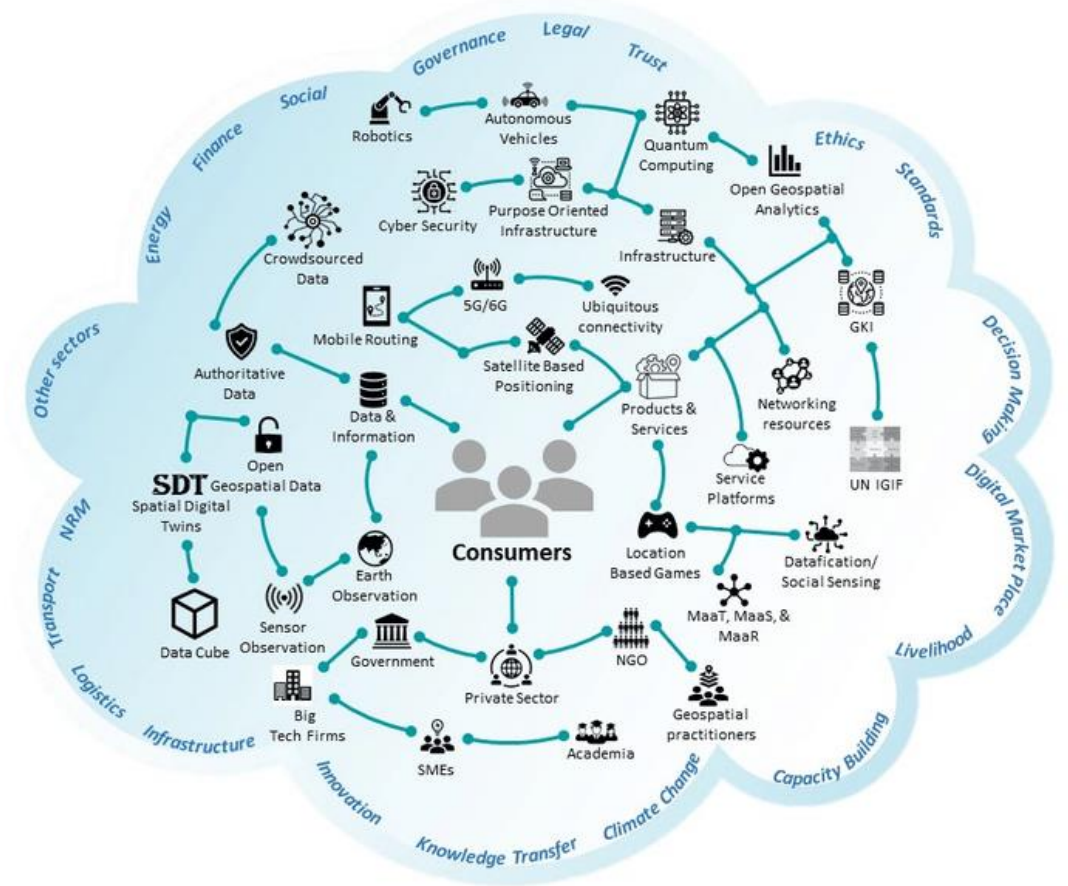
(c) Agreed that the definition and development of future geospatial ecosystems was an opportune activity for the Committee of Experts to undertake but that it required further scoping and consensus to identify and describe what the foundations of future geospatial ecosystems would encompass within the purview of the Committee, and in that regard suggested that further structure and detailed work on defining the Committee’s understanding could take place and progress into general principles, and that the further work on the concept should emphasize that geospatial information is an integrated component in different digital ecosystems and in many cases is not an ecosystem in itself;

(d) Supported the proposals to progress with option 2a set out in the report, namely to entrust the Bureau, supported by a writing team, with developing a position paper on determining the scope and an outline on the fundamental elements and principles of the future geospatial information ecosystem for the consideration of the Committee of Experts at its fourteenth session, and welcomed the multiple offers by Member States to support the Bureau;

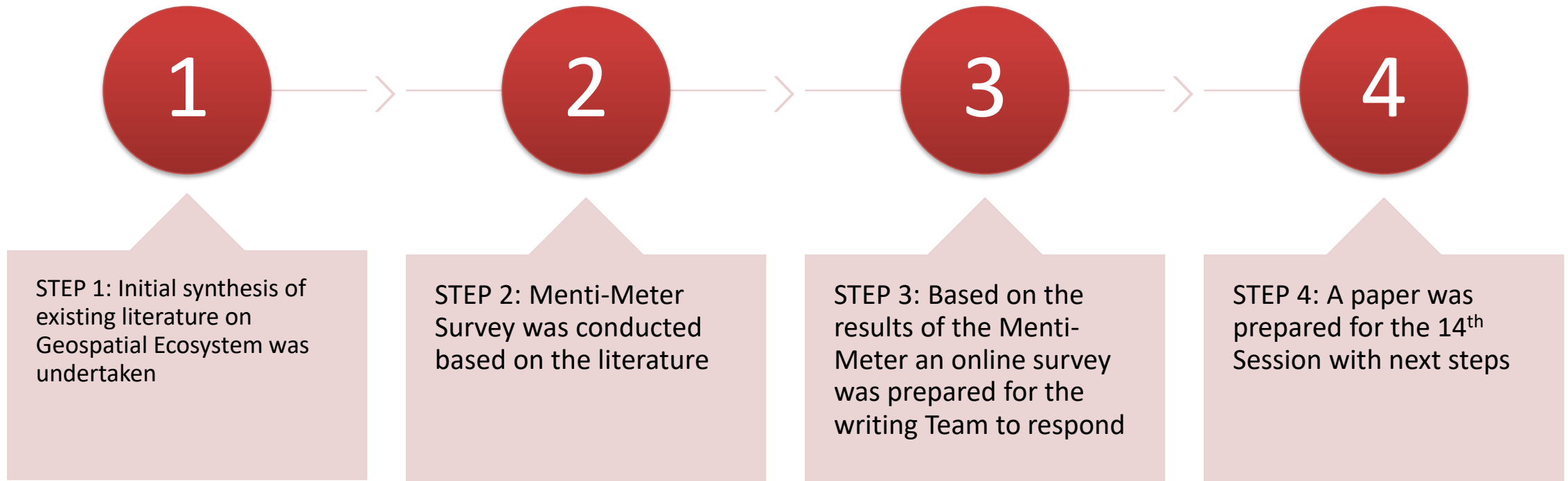


The Future Geospatial Information Ecosystem

- The Geospatial Ecosystem integrates traditional geospatial infrastructures with a confluence of emerging concepts, technology and actors, creating a multifaceted ecosystem for geospatial data exchange and utilization, including:
- Spatial Data Infrastructures (SDIs): The foundational layer that facilitates access to geospatial data, governed by standardized policies and technologies.
- System of Systems (SoS): A collaborative assembly of independent interoperable systems enhancing capabilities for applications like smart cities and intelligent transport systems.
- IGIF: A framework for developing Action Plans for countries to participate in and nurture the Future geospatial information ecosystem.
- Communities and synergies including the public, private, academic geospatial societies, UN agencies, and civil society sectors.



Writing Team Process





(a) **Purpose-driven:** Delivers value, benefits and insights for decision-making processes leading to positive social, economic, and environmental to address national development priorities, accelerate the implementation of the Sustainable Development Goals (SDGs) and prepare for future global development agendas.

(b) **Transformative:** Embraces innovative approaches, technologies and the power of data to drive significant improvements and advancements in geospatial information capacities that harness bridge the geospatial digital divide.

(c) **Agile:** Adapts dynamically to the continuously evolving and expanding nature of the wider digital ecosystem by incorporating new ideas, concepts, and elements as the technologies and role of the geospatial information ecosystem changes within the broader digital landscape.

(d) **Interoperable:** Promotes the development and use of independent yet interoperable systems that enable seamless data exchanges and compatibility across different platforms, applications, and jurisdictions. Interoperability is a key principle of the future geospatial ecosystem in enabling effective collaboration and maximizing the use and potential of geospatial information, as identified in previous report of the Committee of Experts (see [E-C.20-2023-8-Add_1, paragraph 14](#))

(e) **Sustainable:** Develops practices, capacities and systems that ensure efficient resources investments and sustainable efficiency gains.





(f) **Automated:** Leveraging automation to enhance efficiency, accuracy, and scalability in geospatial information management systems of systems approach, building on SDIs

(g) **Inclusive:** Foster an environment that values and incorporates diverse perspectives and stakeholders and ensures the universal and equitable access to geospatial information that empowers communities

(h) **Reliable:** Promotes authoritative sources and reliable data, services, knowledge, insights and foresight, and a safer and secure ecosystem for public good.

(i) **Collaborative:** Encourages cooperation and partnership among various entities to facilitate the development and availability of geospatial services, knowledge and insights for the benefits of the community, fostering participatory approach and user feedback.

(j) **Integrated:** Prioritizes interconnectivity and integration weaving together the multifaced of different systems and ecosystems and facilitating the mutual benefits and interlinkages for the benefits of all users, actors, and reciprocity of services.



Fundamental elements

- **Governance:** Inclusivity, and Collaborative direction setting
- **Policy and legal:** Ethical data and AI, and Data governance
- **Financial:** Sustainable funding models, and Innovative investments
- **Data:** Open data access, and Data integration and management
- **Innovation:** Emerging technologies integration, and Technology adaptation
- **Standards:** Interoperable protocols, and FAIR data principles
- **Partnerships:** Multi-stakeholder collaboration, and public-private partnership
- **Education and capacity:** Professional trainings, and skill development
- **Communication and awareness:** Strategic communication, and Stakeholder engagement

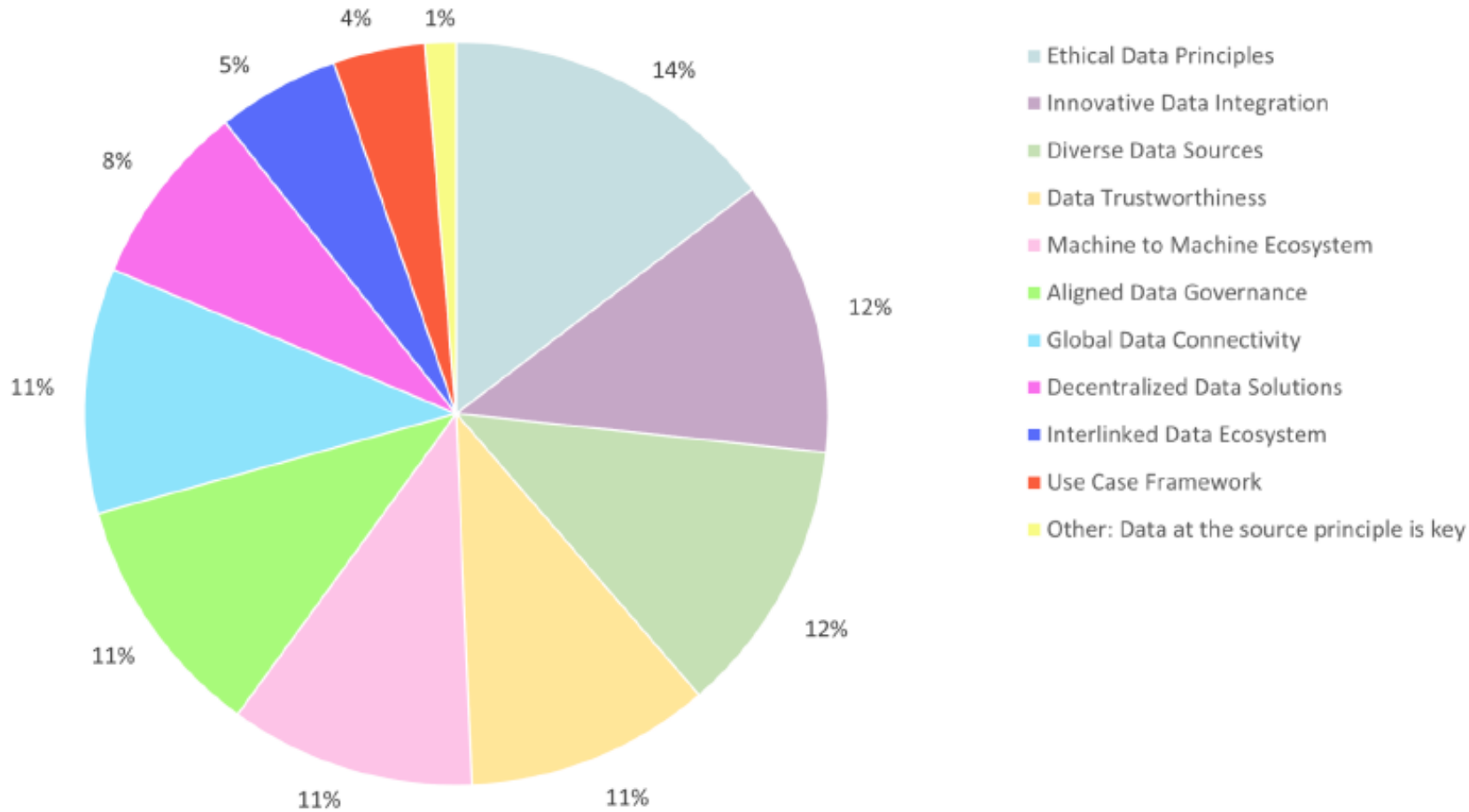


Key words :
depicting
the Future
Geospatial
Information
Ecosystem



Survey-Future of Geospatial Ecosystem

Data Perspective

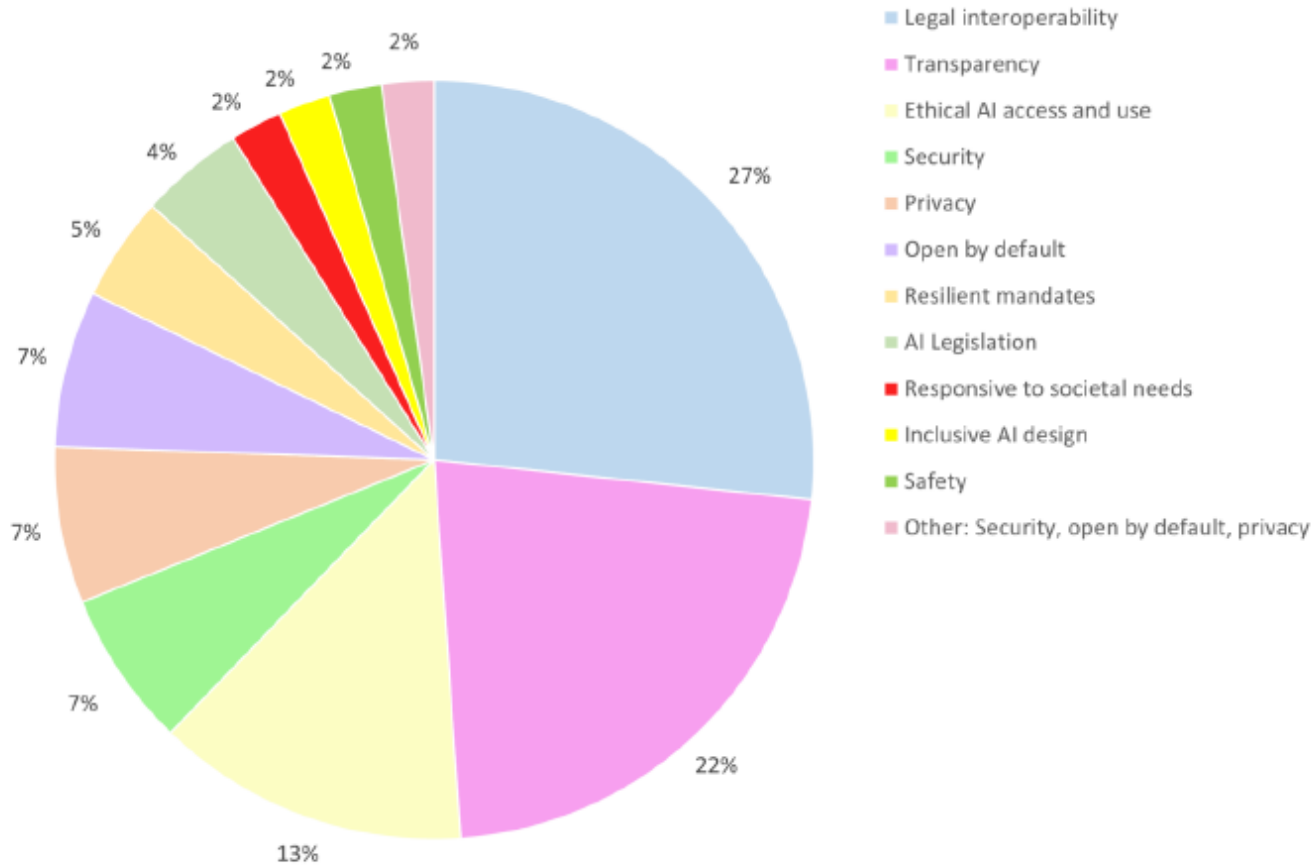


Ethical, Data Trustworthiness, Data Governance, Interlinking and connectivity of data ecosystem are reflected in the survey. These attributes to the Authoritative data of IGIF Pathway from an Ecosystem



Survey-Future of Geospatial Ecosystem

Legal and Policy Perspective



Legal interoperability and Transparency are the key elements to support the delivery of the future geospatial ecosystem.



Next steps

Foster dialogue on the future of Geospatial Ecosystem: utilise the Mexico High Level Forum to collect more inputs via dialogue with UN Ecosystem

Mapping the wider digital ecosystem via a survey: widen the survey to outside of geospatial community as part of wider digital ecosystem

