

Strengthening Geospatial Information at the Subregional and Regional Levels

Challenges and opportunities

SESION IV- 3

Panama City, Panama
1-5 December 2025



Enhancing Geospatial Information Management arrangements Accelerating the Implementation of the SDGs

Sub-regional Workshop on UN-IGIF for the Central America and neighbouring Latin American countries

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Introduction



1. ICDE

Context of the NSDI and Governance Framework (Resolution 899 of 2023)

2. Reference Framework and Strategic Drivers

International Reference Framework – IGIF
National Reference Framework: IDEC–SEN–ICDE, SAT



3. Status of Geospatial Information Management

SWOT analysis developed based on the ECLAC Workshop, the Regional Workshop, and the National Demand Survey

4. Strategic Framework of the NSDI

Action Plan 2024- 2027



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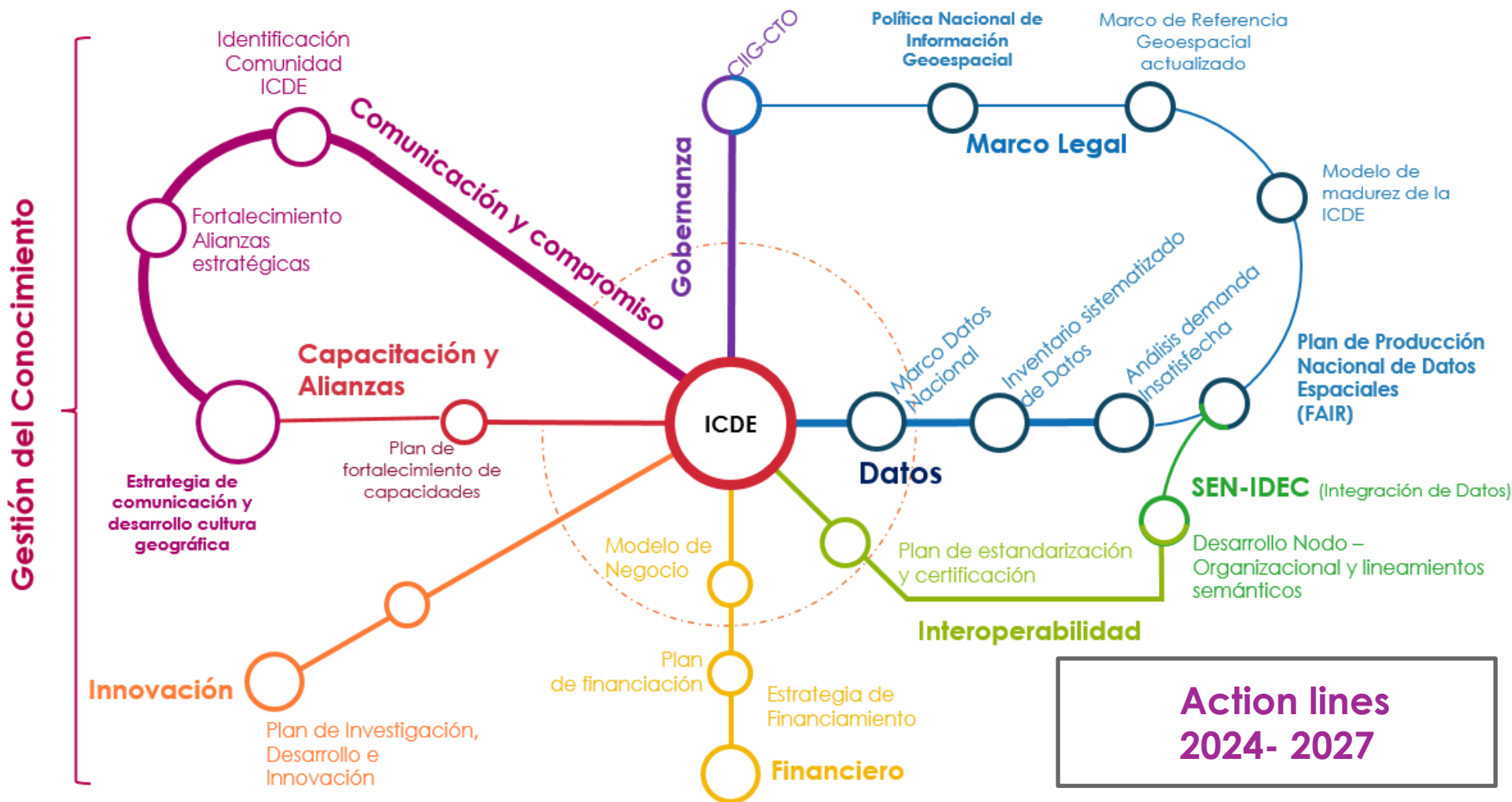
1. ICDE Governance Context and Model



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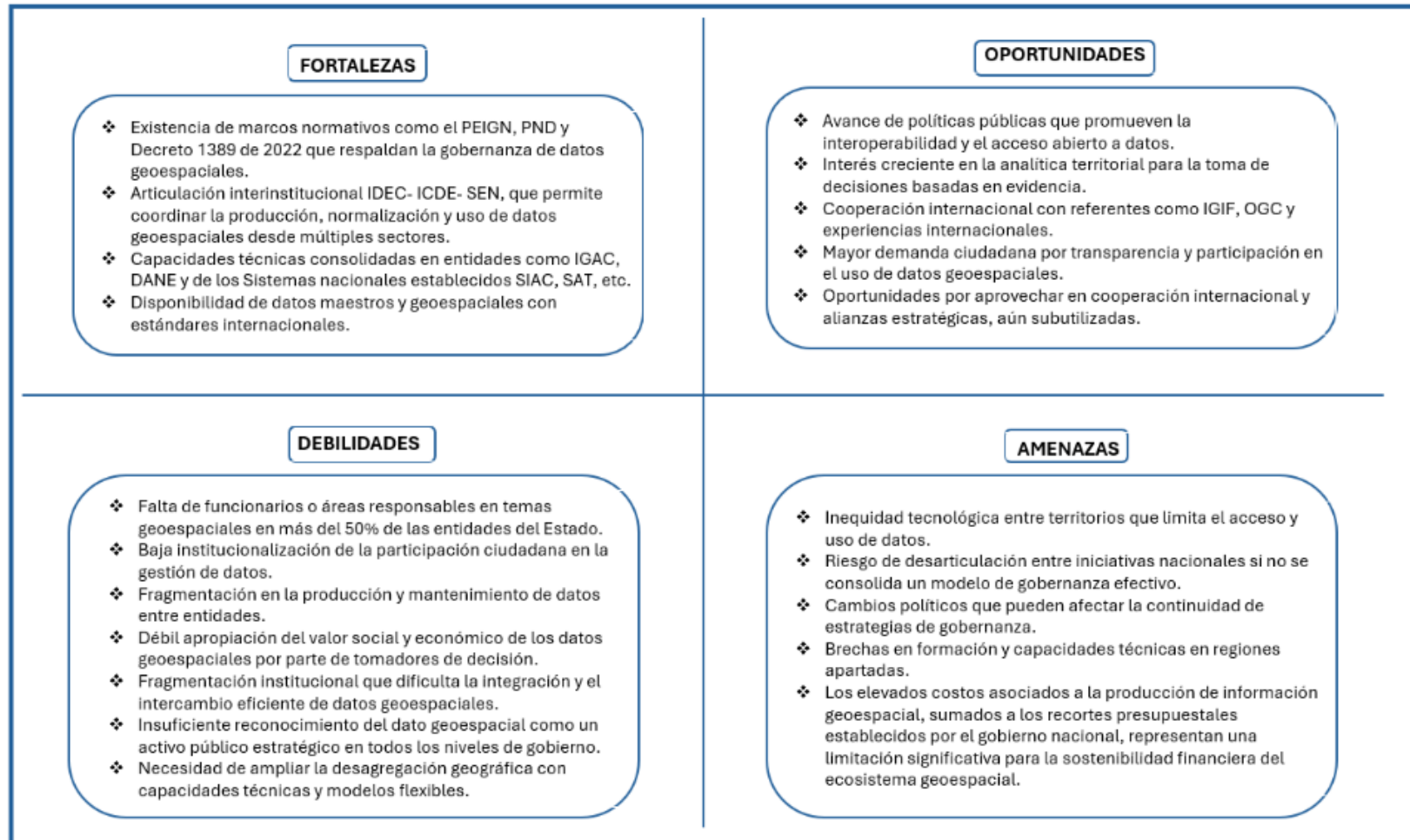
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2. International Reference Framework – IGIF



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3. SWOT analysis built in the workshop with ECLAC



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4. Action plan 2024 -2027

PLAN ESTRATEGICO DE INFORMACION GEOGRAFICA NACIONAL PEIGN

Gobierno de Colombia | icde | IGAC



- 1 Gobernanza e Instituciones**
Fortalecer la coordinación entre entidades públicas y privadas.
- 2 Políticas y Legislación**
Crear un marco normativo para la información geoespacial.
- 3 Modelo Financiero**
Establecer un plan financiero sostenible para el desarrollo de la ICDE.
- 4 Datos**
Optimizar la producción, mantenimiento y calidad de los datos geoespaciales.
- 5 Innovación**
Implementar tecnologías emergentes en la gestión de datos geoespaciales.
- 6 Estándares**
Asegurar la estandarización y calidad de los datos geoespaciales.
- 7 Cooperación y Coordinación**
Fomentar la colaboración intersectorial e internacional.
- 8 Educación y Desarrollo de Capacidades**
Capacitar a los profesionales en la gestión de información geoespacial.
- 9 Comunicación y Compromiso**
Garantizar una efectiva participación y comunicación

Resultados Esperados

- Implementación de un modelo de gobernanza de la ICDE.
- Publicación de la Política Nacional de Información Geoespacial.
- Desarrollo de un marco financiero a 10 años para la ICDE.
- Estrategias de innovación en datos geoespaciales.

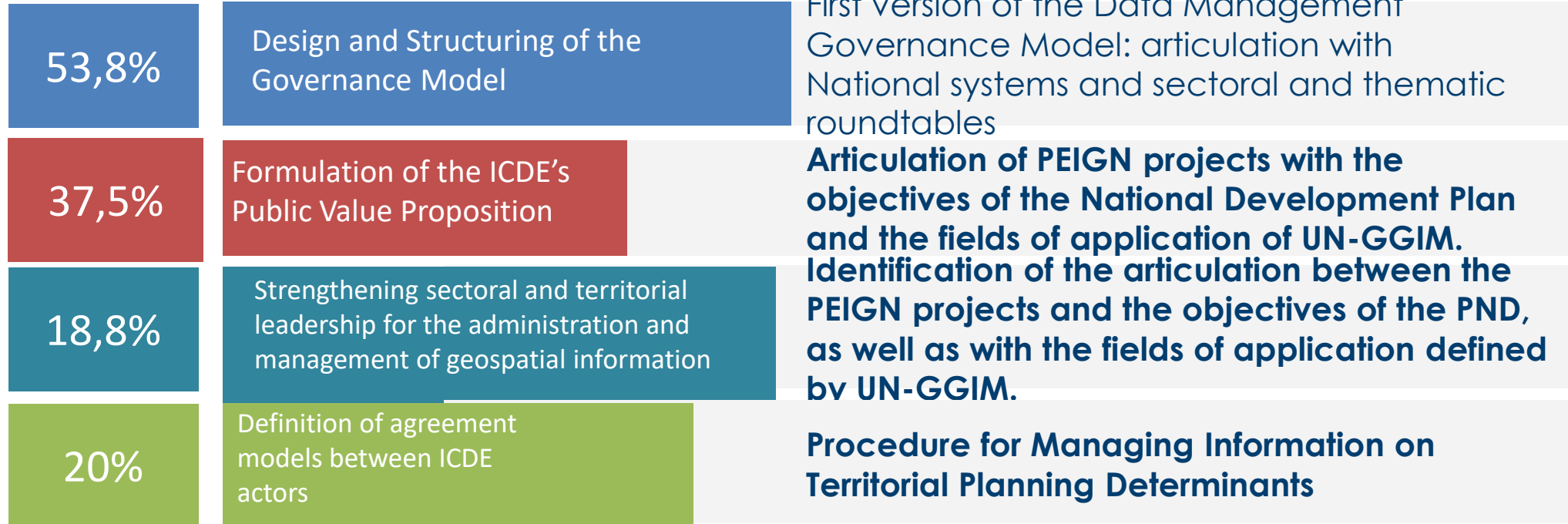


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Strategic Pathway 1: Governance and Institutions



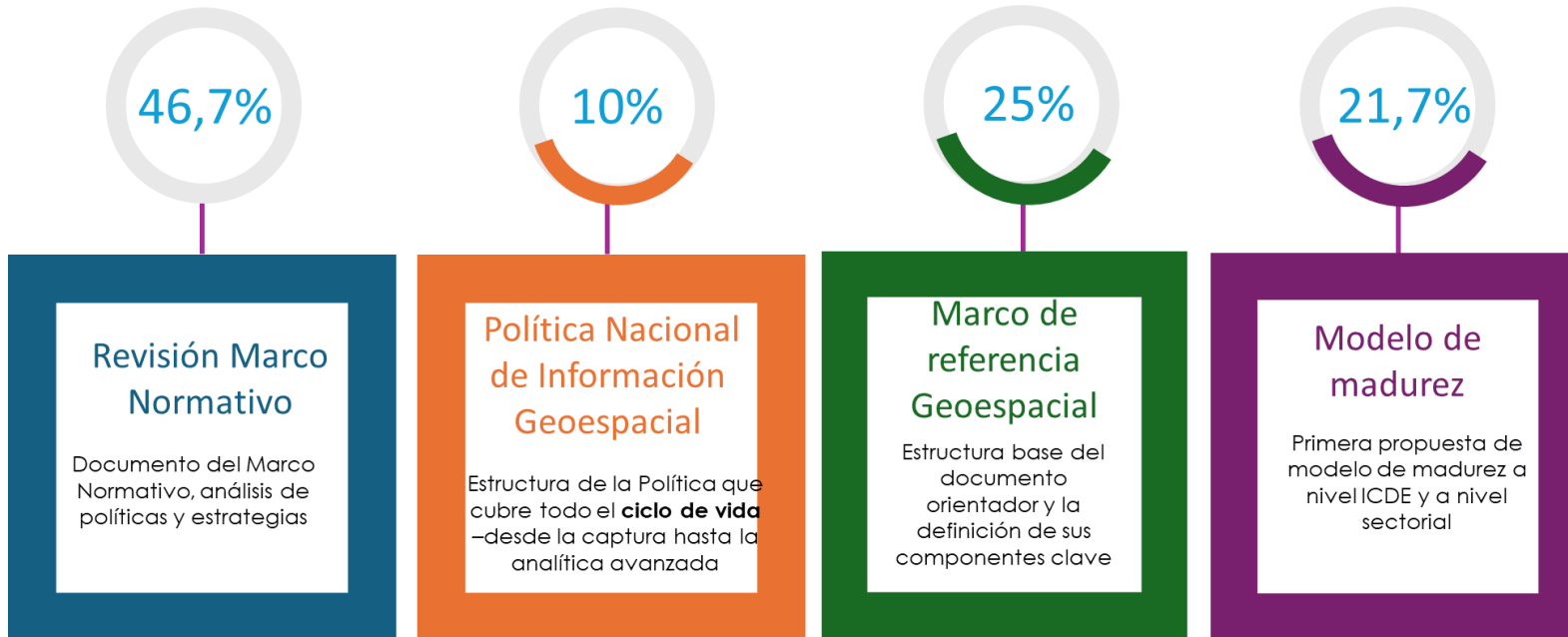
Challenges and opportunities: To effectively fulfill its strategic role as the national administrator of geospatial data, it is recommended to raise the organizational level of ICDE, with the power of both institutional and inter-institutional articulation.




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Strategic Pathway 2: Policies and Legislation



 **Challenges and opportunities:** A more robust and binding legal framework is needed for the ICDE, which currently operates under a resolution. In this regard, if the Data Protection Law, currently under consideration in Congress, is approved, the next step would be the issuance of an implementing decree.

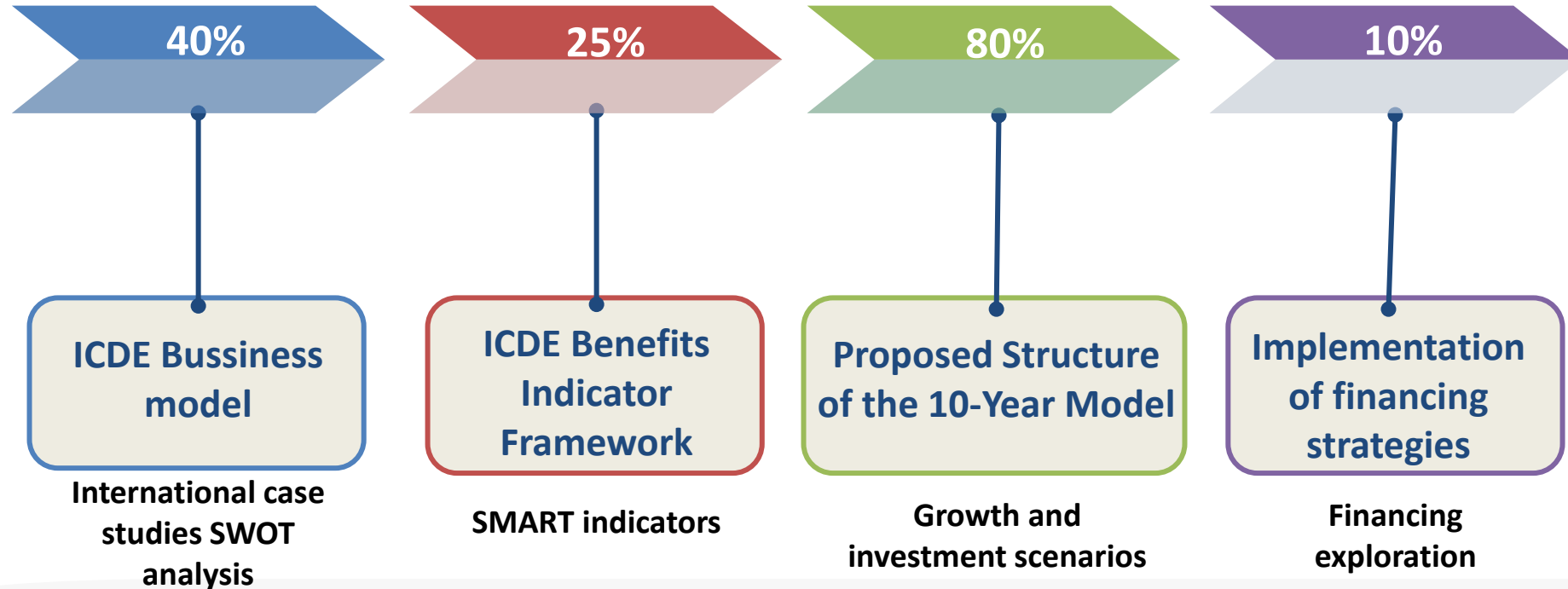


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Strategic Pathway 3: Financial Model



Challenges and opportunities: It is a priority to guarantee the financial sustainability of the ICDE by defining a long-term structural financing strategy that allows it to consolidate its technical, operational and technological capacity.

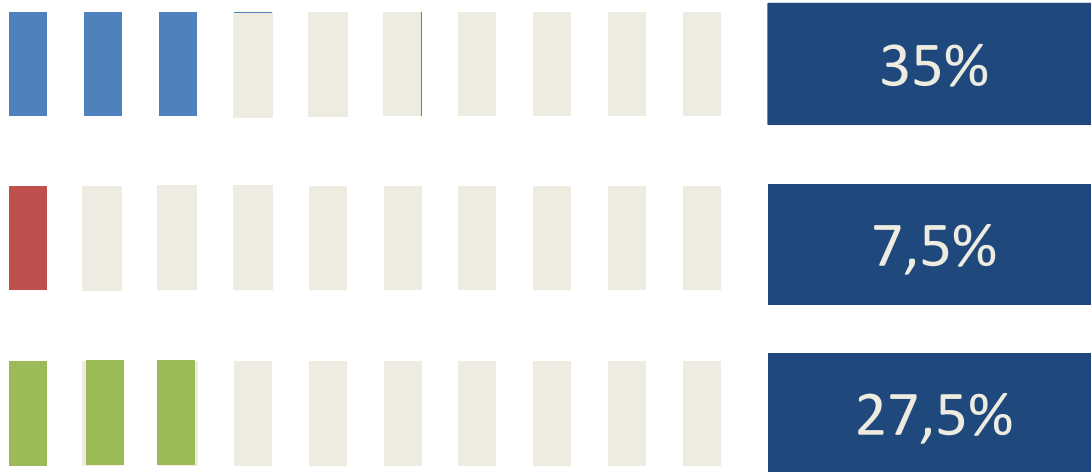


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Strategic Pathway 4: Data



Master Data and Work Order Production Plan

- Identification and progress in the adoption of 9 OTLs
- Working groups with 8 entities
- Gap analysis, applied to 11 entities

Use, Exchange, and Exploitation Strategy

- 102 technical working groups with 15 entities identifying open data and standards
- ICDE Portal Publication: 5291 open datasets
- 4 interoperable OTLs

Evaluation, Design, and Implementation of Geospatial Architecture

- Entity Characterization Artifact
- Geospatial Data Component Characterization Artifact
- Sectoral Data Strategy Formats - CND



Challenges and opportunities: It is key to harmonize the concepts between IDEC and ICDE, synthesizing definitions and promoting that IDEC master data integrate a geographic component, given its strategic value for territorial decision-making.



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Initial sector results - Quick wins

ICDE Geoservices

Visor de Geoservicios
Infraestructura Colombiana de Datos Espaciales

Buscador
Buscar por nombre, descripción...

Filtros temáticos

Conjuntos de datos disponibles

Temática: - Todo -

Entidad: - Todo -

Valoración: - Todo -

Tipo de servicio: - Todo -

Fecha de publicación está entre: [] y []

Aplicar Cancelar

OTLs
Un objeto territorial "es una porción de territorio en el cual existen condiciones homogéneas dentro de sus límites. Estas condiciones están normalmente definidas por ley y reflejan las

Entidades: 6
Conjuntos de datos: 14

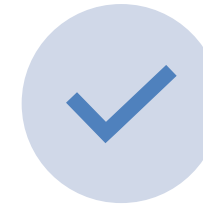
Aliviar
Describe la superficie de la Tierra, tanto en tierra como bajo un cuerpo de agua relativo a un dato vertical. Este tema contiene distancias verticales

Entidades: 2
Conjuntos de datos: 2

Transporte
Conjunto de rutas terrestres, férreas, fluviales y aéreas y su conectividad. Conocer la información de rutas de transporte terrestre, férreo, aéreo, fluvial,

Entidades: 1
Conjuntos de datos: 1

<https://www.icde.gov.co/visor-icde>



16 TEMÁTICAS



56 ENTIDADES



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Initial sector results - Quick wins

Geostatistical Data Center



<https://cdge.dane.gov.co/>



372 GEOSERVICIOS



27 CATÁLOGOS DE DATOS



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Challenges

- Regulatory fragmentation and regulatory gaps
- Weak intersectoral and territorial governance
- Tensions between open data and personal data protection
- Technical and institutional capacity gaps
- Financial and technical sustainability
- Insufficient participation and coordination
- Ethical and social challenges



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Opportunities

STRATEGIC PATHWAY 5: Adoption of emerging technologies applied to the geospatial domain.

STRATEGIC PATHWAY 6: Adoption and effective implementation of standards that ensure data interoperability.

STRATEGIC PATHWAY 7: Coordination with international cooperation projects and initiatives.

STRATEGIC PATHWAY 8: Implementation of permanent training and capacity-building programs.

STRATEGIC PATHWAY 9: Digital communication strategies and activities that promote the use of geospatial information.



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Shared opportunities in the region

- Adoption of the IGIF as a common regional framework.
- Exchange of methodologies, tools, and best practices.
- Regional and subregional pilot projects with shared benefits.
- Strengthening of professional networks and technical communities.



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Final message

- Geospatial challenges are common across the region and require collective solutions.
- Regional cooperation amplifies national efforts and accelerates progress.
- Colombia reaffirms its commitment to UN-GGIM: Americas and to building a more integrated, modern, and IGIF-aligned geospatial ecosystem.



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Thank you



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