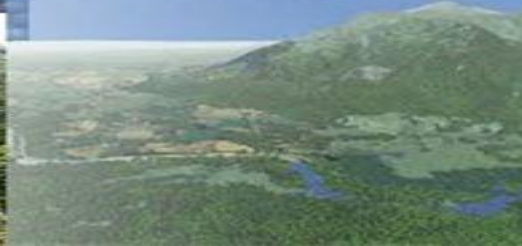




4th High Level Forum

Addis Ababa, Ethiopia, from 20-22 April 2016



ADDRESSING THE DATA AND INFORMATION NEEDS FOR GOOD GOVERNANCE, SHARING EXPERIENCES FROM COTE D'IVOIRE

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General Secretary of the National Committee of Remote Sensing and Geographic Information



UN-GGIM

United Nations Secretariat
Global Geospatial Information Management

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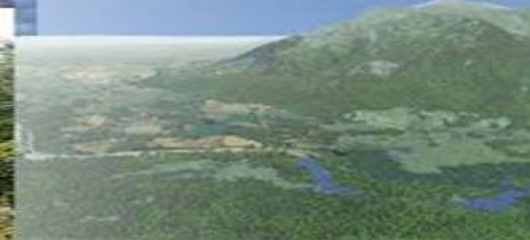
United Nations
Economic Commission
for Africa





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1. NEEDS FOR GEOSPATIAL DATA COLLECTION AND MANAGEMENT

2. GEOSPATIAL DATA DRIVEN APPLICATIONS

1. SIG CARTE SCOLAIRE
2. E-COMMUNE
3. RURAL LAND DELIMITATION
4. PERSPECTIVE 2030: Smart cities



3. QUESTIONS



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- **Geospatial information is used by governments to plan and organize development. It's also used to address issues of governance and poverty reduction. New geospatial technologies and the web, offer the opportunity to make the geospatial data available to everybody at a lower cost.**
- **This goal is achieved through the implementation of a smart Spatial Data Infrastructures (SDI). SDI delivers services and data that help solving many specific issues such as road planning, environment, security matters and financial resources mobilization for local government.**
- **In 2012, the Government of Cote d'Ivoire, asked CNTIG to coordinate the implementation of the National Geospatial Data Infrastructure (SDI) and demonstrate how geomatics can be useful for the national economy**
- **In Cote d'Ivoire, we began then , building our National Geospatial Data Infrastructure (SDI), by a "bottom-up" approach. Thus, we addressed governance and business issues by developing specific applications based on the SDI**
- **The actors see their interests more easily and agreed to the initiative.**

1. NEEDS FOR GEOSPATIAL DATA COLLECTION AND MANAGEMENT

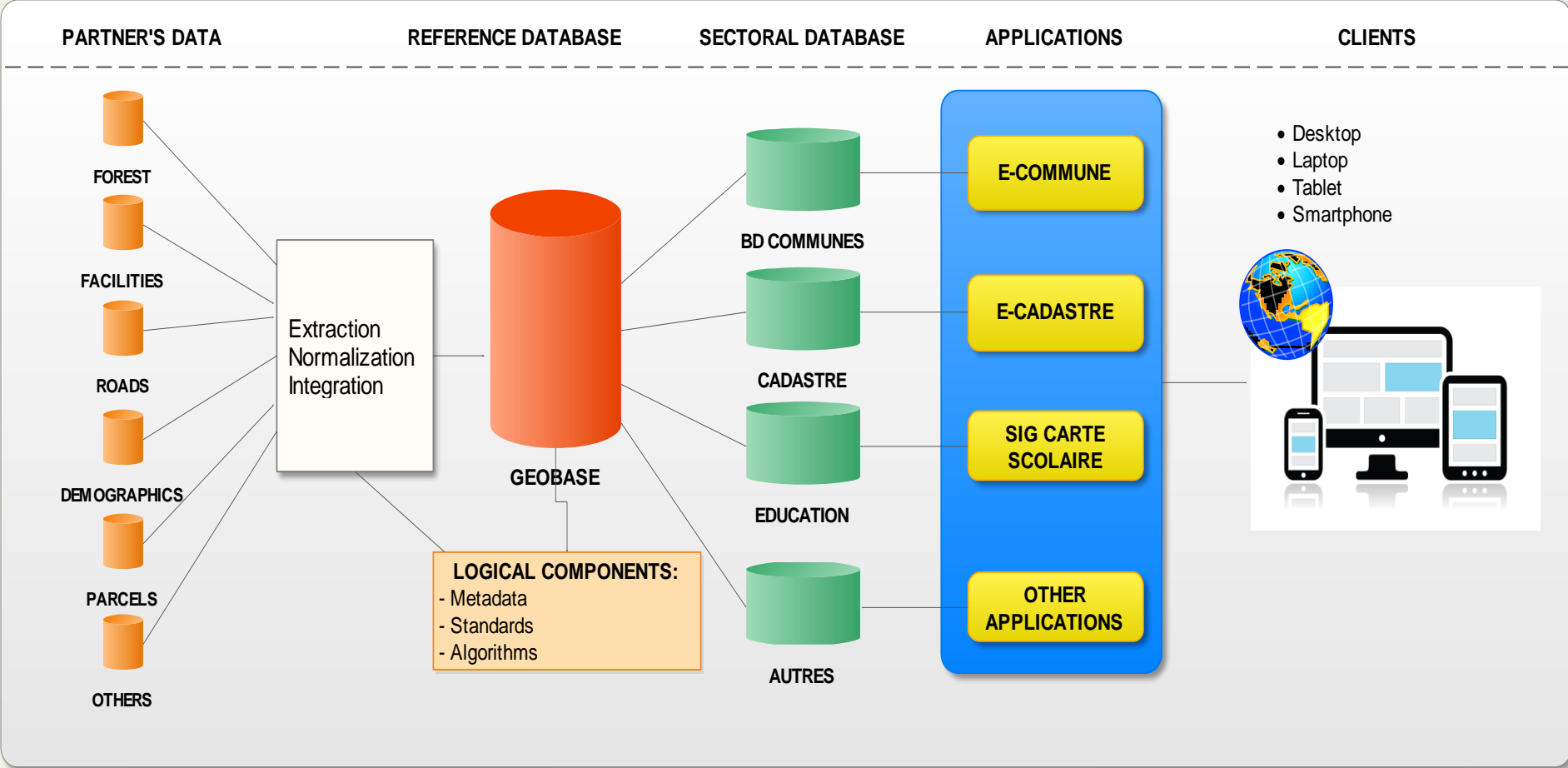
In order to coordinate the implementation of the National Geospatial Data Infrastructure (NSDI), we used following approach:

- Initiated standards and norms for geospatial information
- Created several working groups that aim to allow the geo-spatial communities members to collaborate and work together and attend practical seminars: standardization, Climate change, buried Networks, etc.
- Mobilize various actors around win-win projects;
- Engage the private sector and strong public actors with innovative solutions that address their problems: Ministry of National Education, Ministry of the economy(Cadaster,)Local Government, etc.



1. NEEDS FOR GEOSPATIAL DATA COLLECTION AND MANAGEMENT

INDG'S Architecture

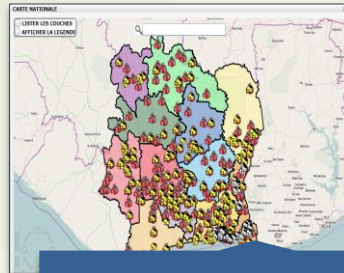


INDG is gradually built from databases of partners that supply the National Geobase. Smart datasets are then generated to power applications developed for specific needs: cadaster, municipalities, education, geomarketing, ...

2. GEOSPATIAL DATA DRIVEN APPLICATIONS



The data collected are powering a wide range of web mapping applications that help in the decision making process and help address issues of governance. I will introduce you to three majors projects : *e-commune*, *SIG Carte Scolaire* and the *Rural Land*.



SIG CARTE SCOLAIRE



E-COMMUNE



RURAL LAND

- **SIG Carte Scolaire** enables the Government to assess the educational needs at the local level, and proposes scenarios to address, in a horizon of 3 to 5 years.
- **e-commune** helps municipalities to mobilize their own resources and plan local development.
- We developed an innovative approach for rural land delimitation and administration, using drones and ICT tools.

2.1 SIG CARTE SCOLAIRE

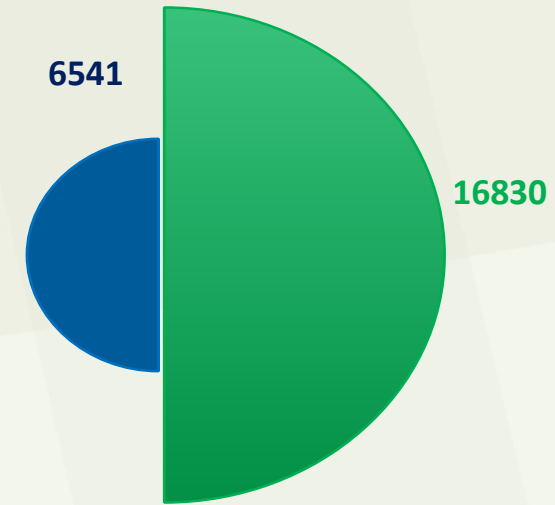
- With financial support from the World Bank, the CNTIG developed the SIG Carte Scolaire, on behalf of the Ministry of Education. This application allows the Department of Education to plan the educational needs locally, in 3 steps:

1. **An annual diagnosis** of educational provision;
2. **A projection of potential demand** for education taking into account the objectives of national policy such as compulsory school;
3. **The formulation of the school network reorganization proposals.**



The results are:

- A database regularly updated: about 6541 localized on about 16000 schools, in 2 years



- Better understanding of educational needs and best decision making practices.
- Reliable school statistics are available at any moment.
- Capacity building through training of 22 officials of the Ministry, especially those in charge of Strategy, Planning and Statistics.

2.2 E-COMMUNE

In the Project **e-commune**, we have designed and developed methodologies and a solution, for taxpayers' identification and geolocalization. It helps municipalities to mobilize their own resources and plan local development.

E-commune is a secured webmapping application, designed according to the needs of different users: elected officials, managers, technical workers and citizen.

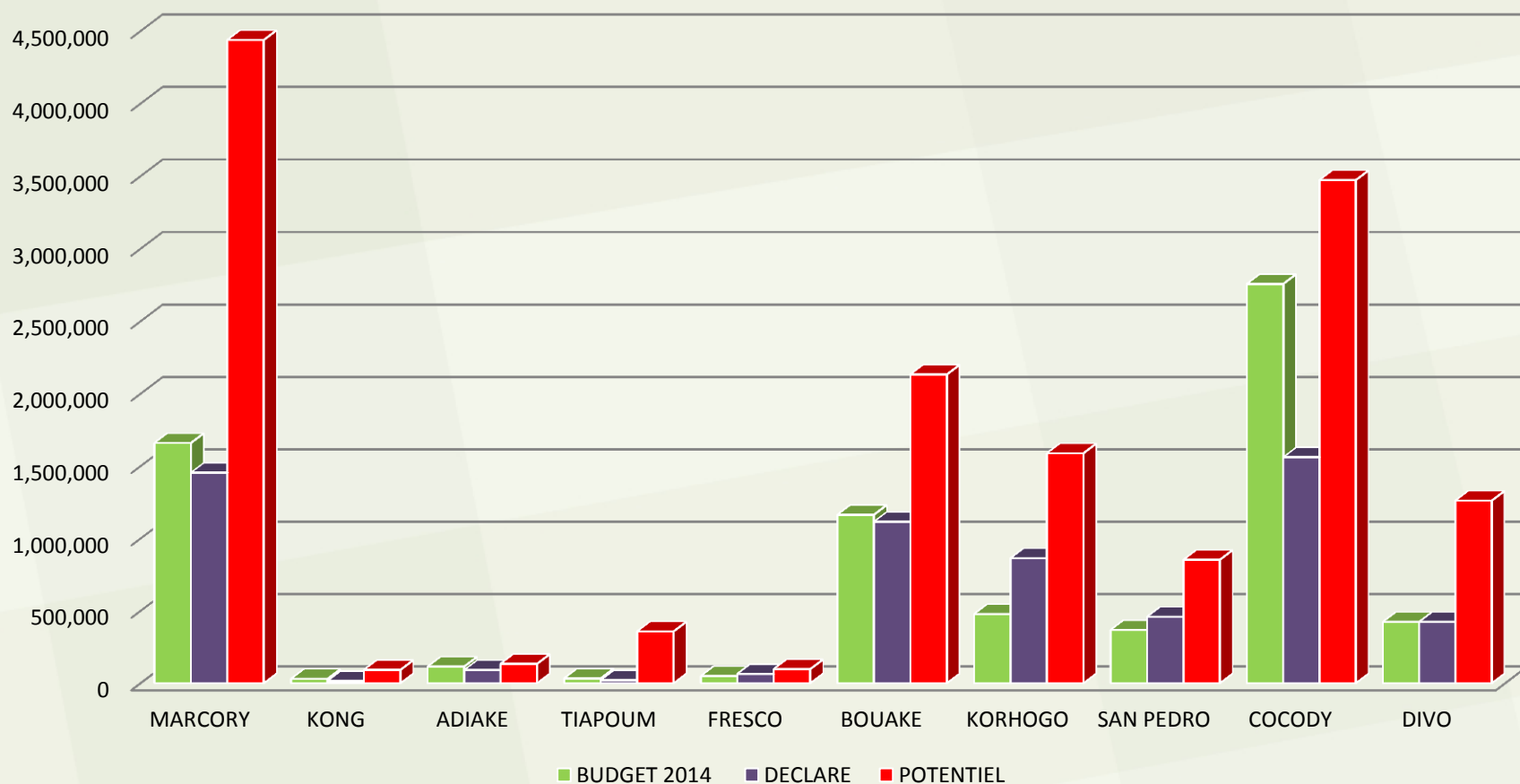
Five modules are available:

1. Local development and planning
2. Cadastre
3. Maps
4. Security
5. Elections

The screenshot displays the E-COMMUNE web application interface. At the top left is the logo for E-COMMUNE, 'Système de gestion des collectivités locales'. The main content area features a large image of Marcory at night with the text 'MARCORY' overlaid. Below this, there are two featured sections: 'CENTRE COMMERCIAL' showing two women with a large fish, and 'HÔTELS' showing a modern building. A navigation bar at the bottom contains icons for: DASHBOARD (Tableau de bord), COMMUNICATION (Information publique), DEVELOPEMENT (Projets de développement), RESSOURCES (TAXES, Mobilisation des ressources), CADASTRE SIMPLIFIE (Cartes et données géographiques), SECURITE (Surveillance du territoire), ELECTION (Analyse des votes), and ADMINISTRATION (Gestion des configurations). The top right corner has 'Déconnexion' and 'A propos' links.

2.2 E-COMMUNE: RESULTS

The methodology for collecting and structuring data, coupled with e-commune, allow Ivorian towns significantly increase their own resources, as shown in the following graph:



Comparison between budgeted resources and potential (USD)

2.3. RURAL LAND'S DELIMITATION IN COTE D'IVOIRE

CNTIG has forged strong partnerships with Global Service, an the Italian Group expert in UAVs mapping systems, and the Order of Surveyors in Cote d'Ivoire.



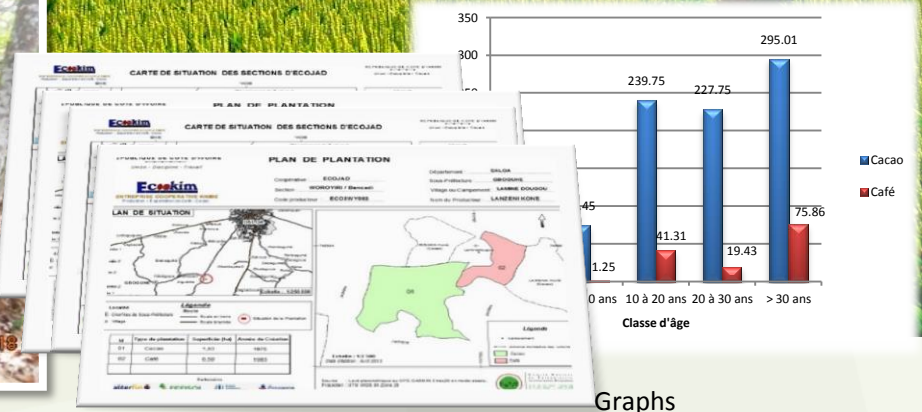
Our delimitation approach, using drones and NICT has been tested with the planters of coffee and cocoa.

The project was to identify, define and map the planting of 320 coffee and cocoa producers, for a total area of 1,004 ha.

This project has received financial support from the European Investment Bank and AFD.

2.3. RURAL LAND'S DELIMITATION IN COTE D'IVOIRE

- This project helped to better target Community actions near its producers, such as training and technical frameworks and approaches for the certification of product quality.
- Moreover, each farmer has received the plan of his plots.



Awareness meeting in the villages

2.3. RURAL LAND'S DELIMITATION IN COTE D'IVOIRE

REPUBLIQUE DE COTE D'IVOIRE

Union - Discipline - Travail



ENTREPRISE COOPERATIVE KIMBE
Production - Exportation de Café - Cacao

PLAN DE PLANTATION

Coopérative : **ECOJAD**
Section : **WOROIYI / Bencadi**
Code producteur : **ECO3WY003**

Département : **DALOA**
Sous-Préfecture : **GBOGUHE**
Village ou Campement : **LAMINE DOUGOU**
Nom du Producteur : **LANZENI KONE**

PLAN DE SITUATION



Légende

Localité

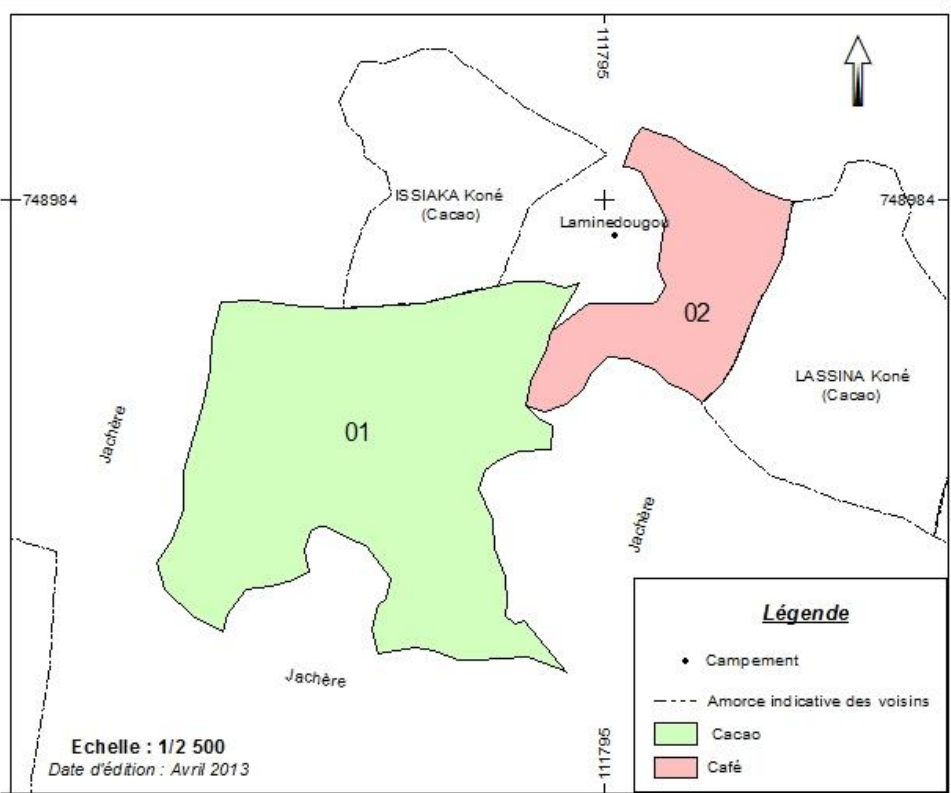
- Chef lieu de Sous-Préfecture
- Village

Route

- Route en terre
- Route bitumée

■ Situation de la Plantation

Id	Type de plantation	Superficie (ha)	Année de Création
01	Cacao	1,83	1978
02	Café	0,59	1983



Echelle : 1/2 500
Date d'édition : Avril 2013

Légende

- Campement
- - - Amorce indicative des voisins
- Cacao
- Café

Source : Levé planimétrique au GPS GARMIN Etrex20 en mode absolu.
Projection : UTM WGS 84 Zone 29



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2.4 PERSPECTIVE 2030: SMART CITY

We are now, in cote d'ivoire, building geospatial data driven applications (Sygeci, e-commune, e-invest, e-tourisme, e-habitat, e-transport, e-cadastre and e-sécurité etc) that create the foundation of smart cities in our country.

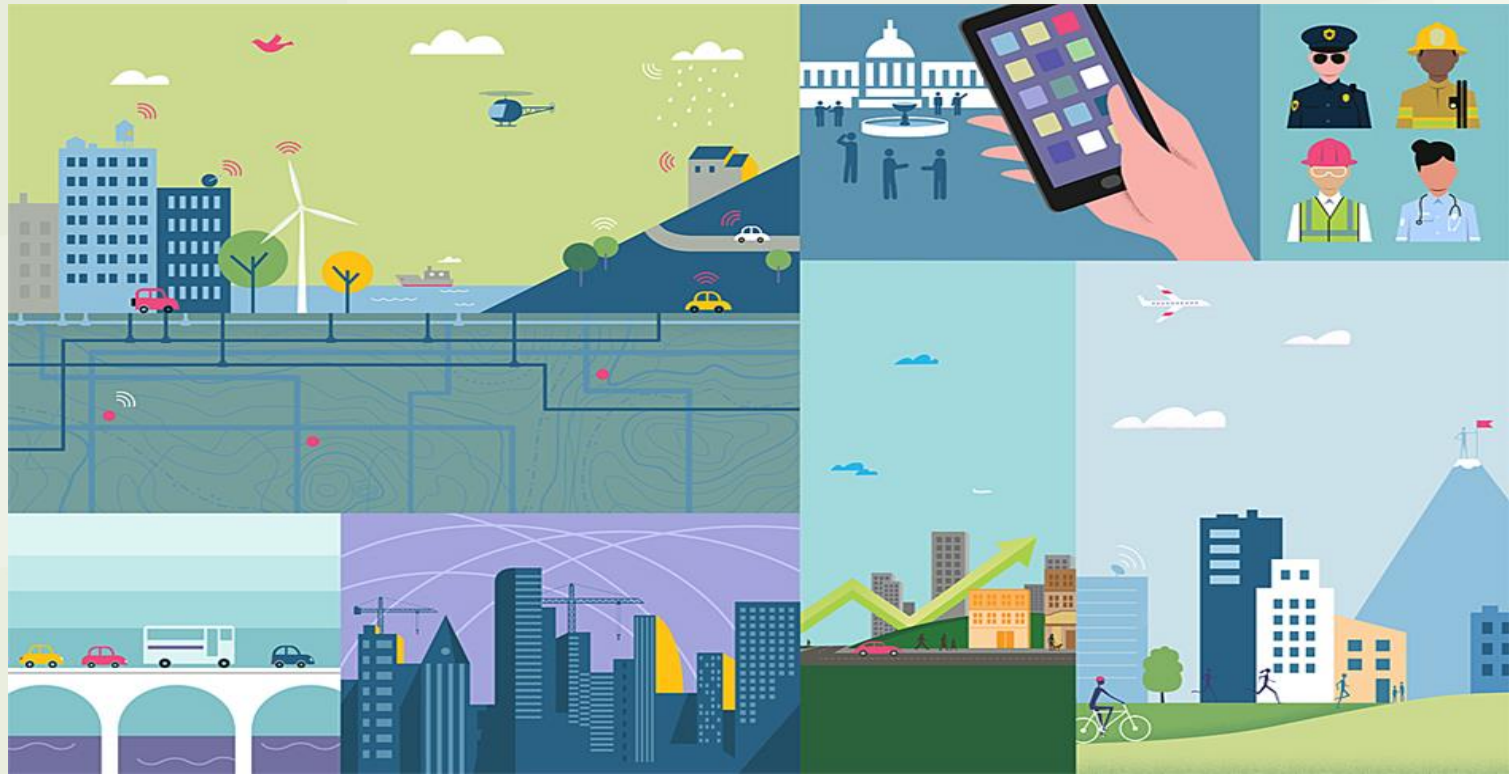


illustration of smart city (source : esri.com)



Fourth High Level Forum on
United Nations
Global Geospatial
Information Management



Comité National
de Télédétection
et d'Information Géographique

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3. QUESTIONS