onesait census
democracy

Introduction to Onesait Democracy Census

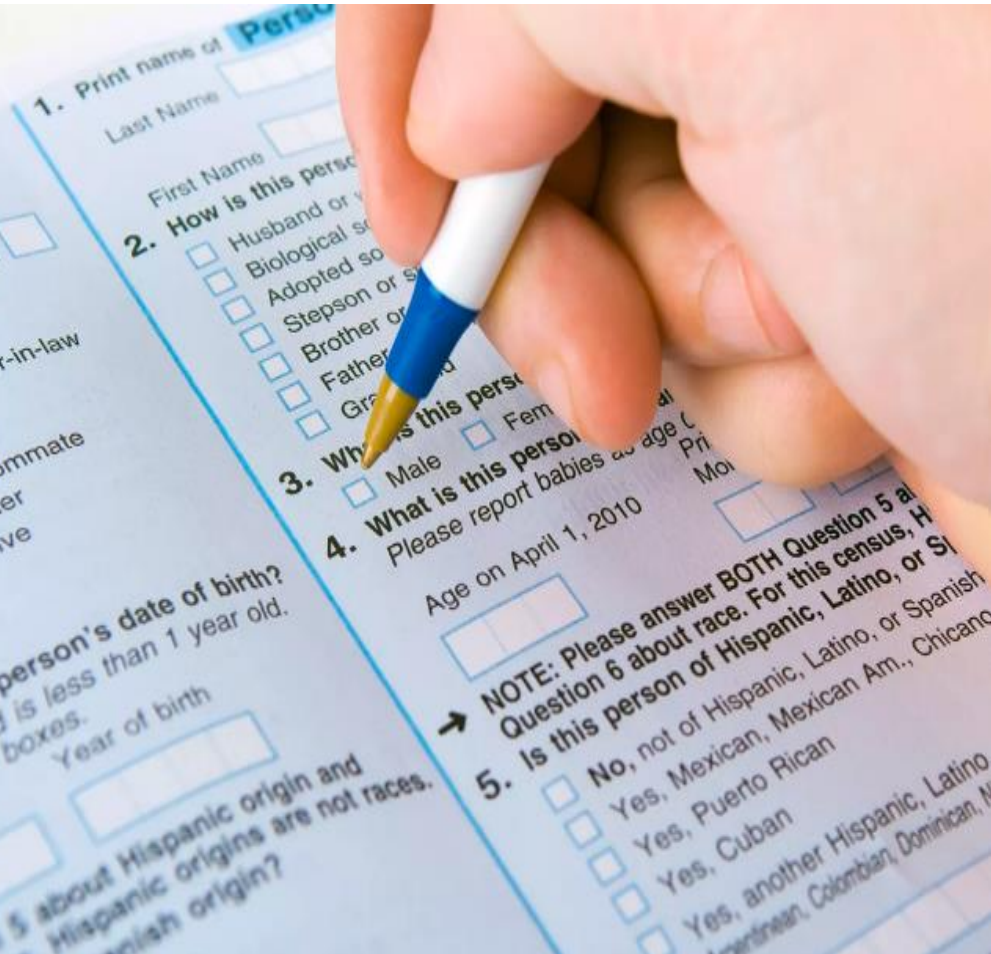Welcome to the Future of Statistics

April 2020

The context

01

The fundamentals

The fundamental motivation to create a tool like this one:

- There will be no Universal/commom statistics without common techniques, methodologies and tools.

  Comparable surveys (temporal and geographical), comparable indicators, comparable results, etc..

- Without comparable statistics there will be not efficient economical or technical cooperation possible.

- Reducing costs (maybe sharing infrastructure costs) is basic in a new/modern state.

- Quick implementation of capacity buildings (technological and human) thanks to easy to use tools in an Census specialized platform.

- Real benefits for population and autorithies in medium/long term with less investment

The new wave of data science and digital transformation is changing the way censuses are conducted and is transforming traditional statistics
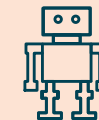
Demands and challenges of the environment

The need to optimise costs

New Technological challenges: IoT, Big Data

Artificial Intelligence

New sources and quality of data

Rapid changes in Population. Crises

Universal access to Statistics

minsait

Our response to these challenges:
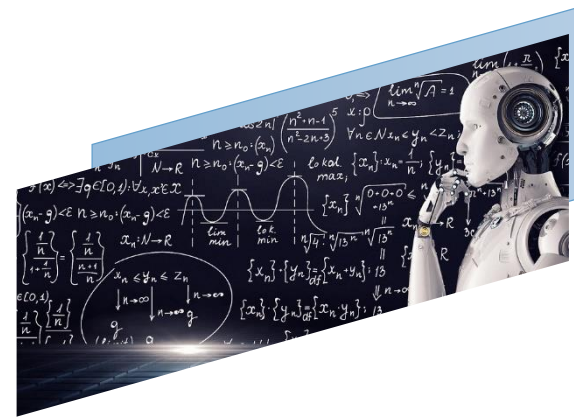# updating of data sources, processes and technologies

Data governance

- Legal compliance

- Security management

- Master Data management

Standardisation of data from multiple sources and types

- Internal data architecture

- Data standards (UN)

- Satellite images

Artificial intelligence

- Machine Learning and Deep Learning

- Planning and Optimisation of processes:

- Natural Language Processing

- Advanced BI

Cutting-edge technology for all

- On cloud /on premise

- Interoperability in access to data and technologies
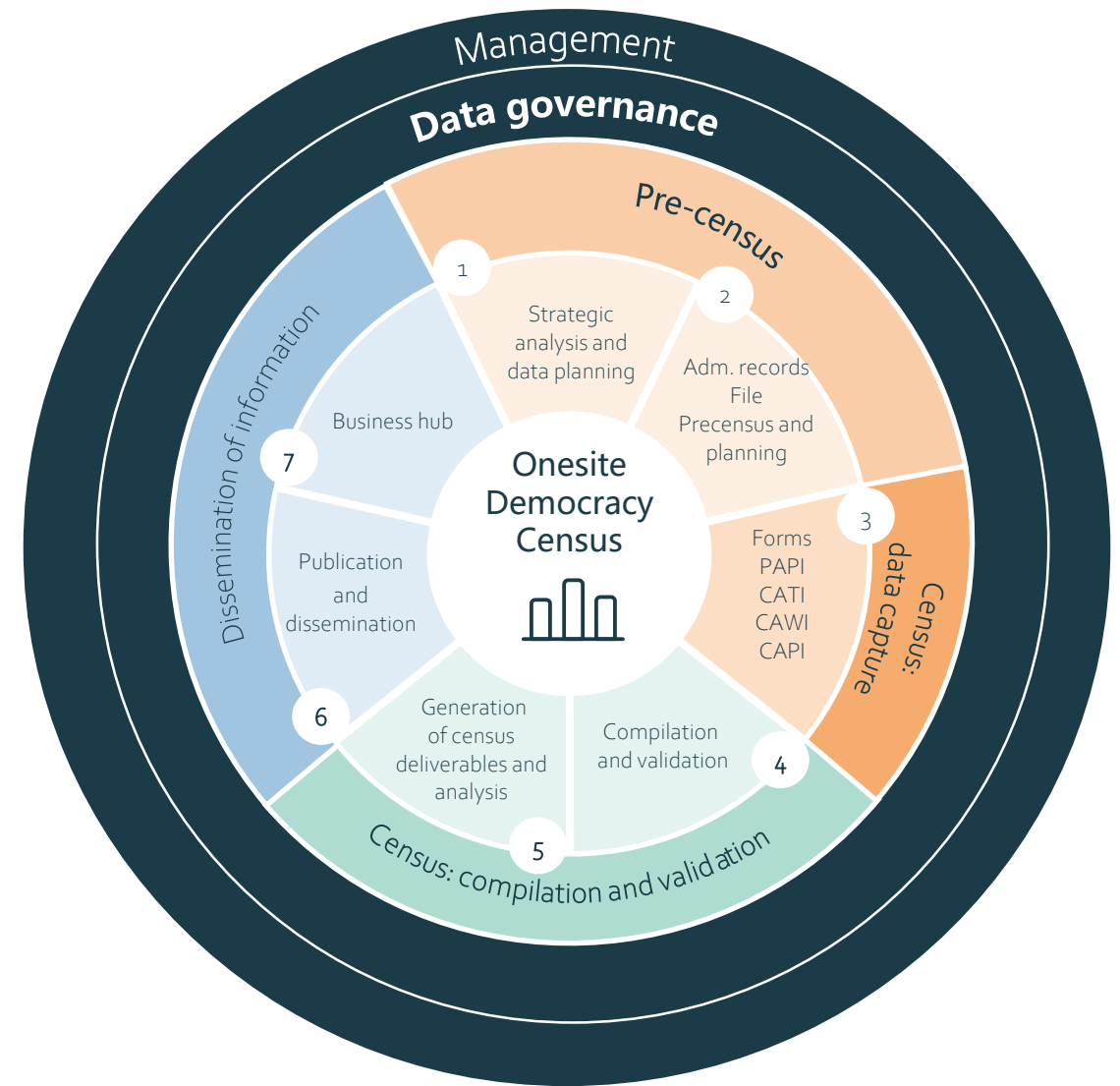
The value proposition

02

Onesite Democracy Census (ODC) is the "core" technology for Statistical Institutions covering all phases of a census cycle

It consists of a core standardised-data architecture (Census Foundation) and 8 independent technology modules.

It includes two innovative Data Governance and Management wrap-around layers.

Management

Data governance

Pre-census

1 Strategic analysis and data planning

2 Adm. records File Precensus and planning

Dissemination of information

7 Business hub

Onesite Democracy Census

3 Forms PAPI CATI CAWI CAPI

Census: data capture

Publication and dissemination

6 Generation of census deliverables and analysis

5 Compilation and validation

4

Census: compilation and validation

minsait

OD Census is a tool designed to reduce costs, increase performance and quality, and maximise return on investment

Simplicity
ONE solution

- Cost reduction
- We avoid multiple software licenses, maintenance
- Minimal training
- Easy roll-out and implementation

Optimisation
Artificial Intelligence

- Redesign and optimization of key processes
- Aimed at reducing resources and personnel costs
- Quality reviews of data

Stability
Long term

- Data governance: Key
- Reusable master data that can be shared with other institutions
- Avoidance of data redundancy

Wealth for the country
Business hub

- Investment recovery
- Based on data apification
- Promotion of new business models

Onesait Census can adapt to any type of census task

Designed for different census processes

- Population and housing censuses
- Building census
- Electoral census
- Agricultural census
- Establishment census
- Mining census
- Civil Registration and Vital Statistics
- Health census
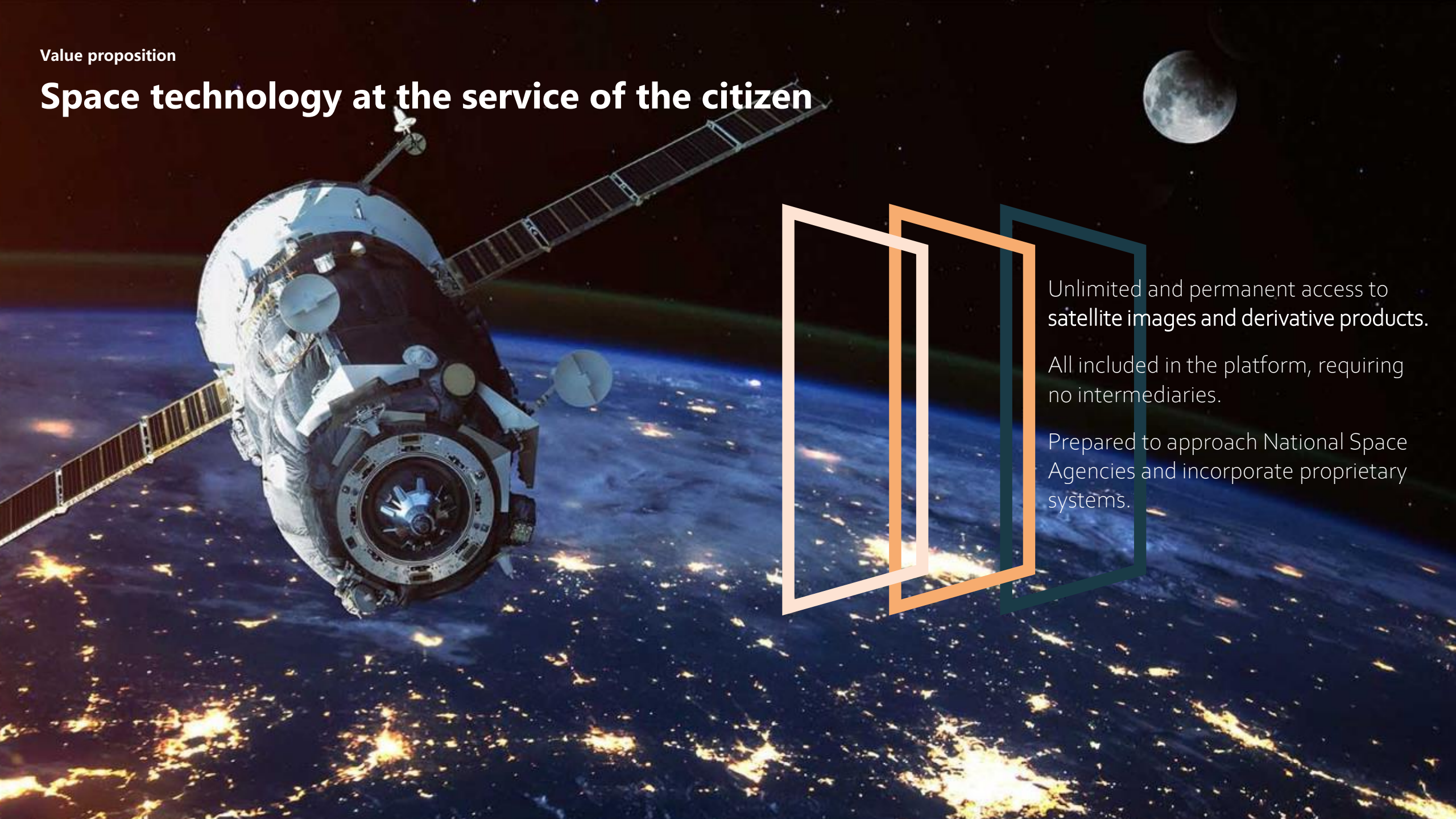- Other censuses (according to surveyed variables)

Updating

- Continuous reuse and update
- Data generation every 10 years
- Annual updating

minsait

Space technology at the service of the citizen

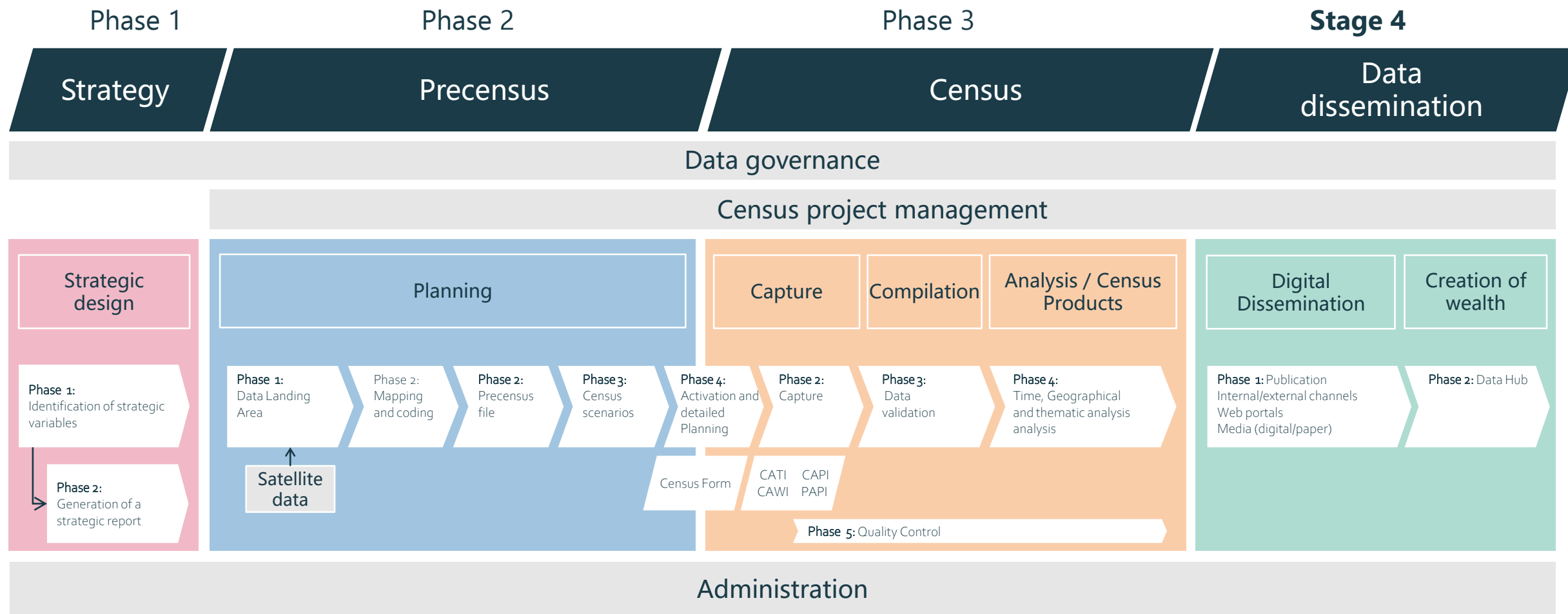Unlimited and permanent access to satellite images and derivative products.

All included in the platform, requiring no intermediaries.

Prepared to approach National Space Agencies and incorporate proprietary systems.

High-level functional architecture

Phase 1	Phase 2	Phase 3	**Stage 4**
Strategy	Precensus	Census	Data dissemination

Data governance

Census project management

Strategic design

Planning

Capture | **Compilation** | **Analysis / Census Products**

Digital Dissemination | **Creation of wealth**

Phase 1: Identification of strategic variables

Phase 2: Generation of a strategic report

Phase 1: Data Landing Area

Phase 2: Mapping and coding

Phase 2: Precensus file

Phase 3: Census scenarios

Phase 4: Activation and detailed Planning

Phase 2: Capture

Phase 3: Data validation

Phase 4: Time, Geographical and thematic analysis analysis

Phase 1: Publication Internal/external channels Web portals Media (digital/paper)

Phase 2: Data Hub

Satellite data

Census Form

CATI CAWI | CAPI PAPI

Phase 5: Quality Control

Administration

Legend: **Stages** | Modules | Phases

minsait

An Indra company

Use case

03

minsait

Census use cases
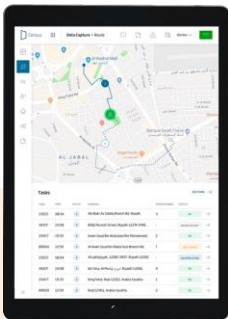
App for field data capture

Field work optimisation, using artificial intelligence (on the platform and an app) to manage the field work of each operator.
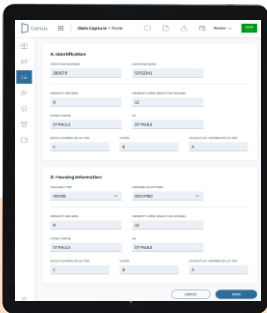
App for online forms

Mobile application that enables the user to conduct surveys and compile results in near real time. It includes constant interaction with users: gamification.
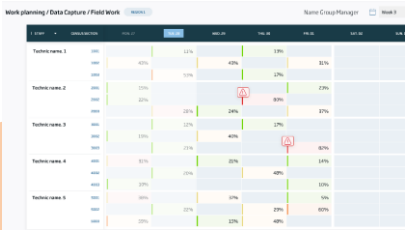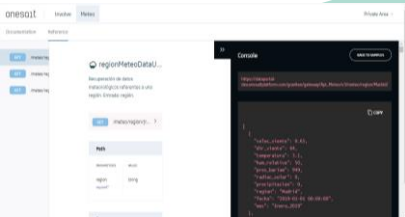

Technical monitoring of the census project

Our management tool allows monitoring the technical and economic status of the census project, as well as managing human and material resources.

Economic and technical monitoring of the project

Dashboard reporting the status of census works. The status of the project as a whole and the status of each of the census phases can be consulted.

Automatic building numbering

The satellite module provides access to an extensive archive of images on demand, and permits the extraction of inhabited areas and traces of buildings in any inhabited area in the world.

API services to enable new consumption and business model

Enabling census data via API allows web and mobile developments to be enabled, integrating applications, and generating new business models and use cases.

minsait

An Indra company

Generation of wealth

04

The Censuses are drivers of other Public Administration initiatives: They must be drivers of value within the Administration

That is why their quality, standardisation and availability are so important (in terms of quantity and ease of use)

Sphere	Use case	Description
City government	Distribution of Public Aid	Based on the census data we can optimise the distribution of the budget, detect imbalances, make projections and create simulation scenarios.
	Waste Management	Management of urban waste and the optimisation of its collection in the city
	Fraud detection and prevention	Use of satellite imaging to detect and fight urban fraud
	Civil protection	Calculation of the day-time/ night-time distribution of the population and their vulnerability to adverse climatic or anthropic events Civil protection against adverse phenomena: prevention and action
	Territorial planning	Natural resources related to safety and quality of life
Information for the citizen	National Data Infrastructures / Open Data Portal	Census data are often a fundamental part of supranational, national, regional and local data structures. They should be made available according to a set of standards and should be easily accessible by citizens.
	Smart cities	Census data are fundamental for almost any Smart City vertical application.

minsait

Apart from the use by Administrations, census data should be generators of wealth for the country: new businesses, startups, private investment, monetisation, research, etc.

New business models, new services and new technological strategies can benefit greatly from census data.

Sphere	Use case	Description
Banking and Insurance	Campaign design	Optimisation of the distribution of public subsidies for energy efficiency
	Fraud characterisation	Management of urban waste and the optimisation of its collection in the city
Real estate	Value of real estate assets	One of the factors involved in calculating the value of a property is the type of population in the property and of its surroundings and the future prospects.
In situ and eCommerce	Location of points of sale	Optimised design of public service infrastructures, calculation of demand and consumption, network management, etc.
	Adaptation of the offering	Customer characterisation, campaign design, demand/offer adjustment

minsait

¡Thanks!

Presentation:
Julia Pecci López
jpecci@minsait.com

Avda. de Bruselas 35
28108 Alcobendas,
Madrid Spain

T +34 91 480 50 00
F +34 91 480 50 80
www.minsait.com

minsait

An Indra company

minsait

Mark Making the way forward

An Indra company