

United Nations Committee of Experts on Business and Trade Statistics

Pivot Post Covid
An evidence based approach to tackle the uncertain



El futuro
es de todos

Gobierno
de Colombia

18th of June 2020

DANE produces and disseminates official statistical information that describes the country's economic, social, and environmental reality. It has:

108 Statistical operations

To guarantee the integrity of the statistical process

86

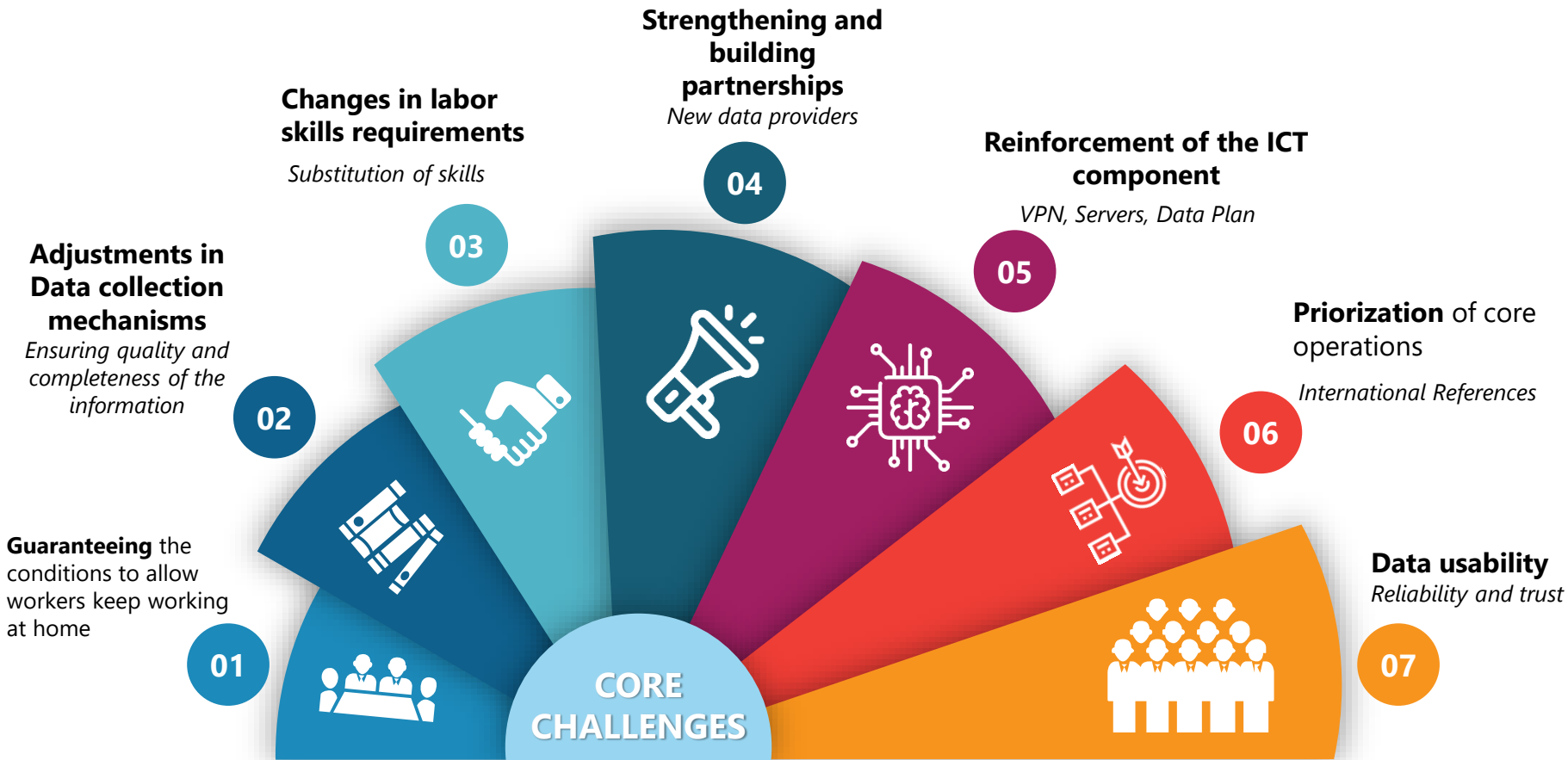
22

Without operational or methodological adjustments With adjustments

With the COVID-19 crisis, DANE has sought to measure potential negative impacts of the pandemic.

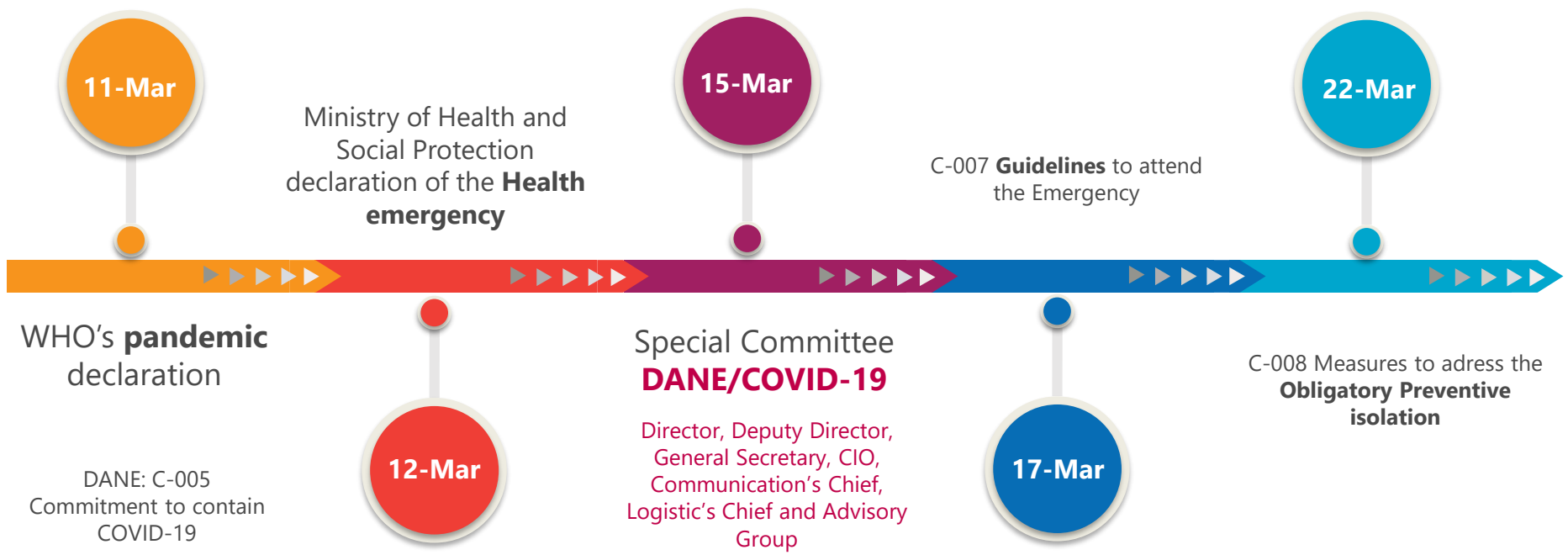
- two new surveys to monitor the impacts that COVID-19 may have on consumers, households and business

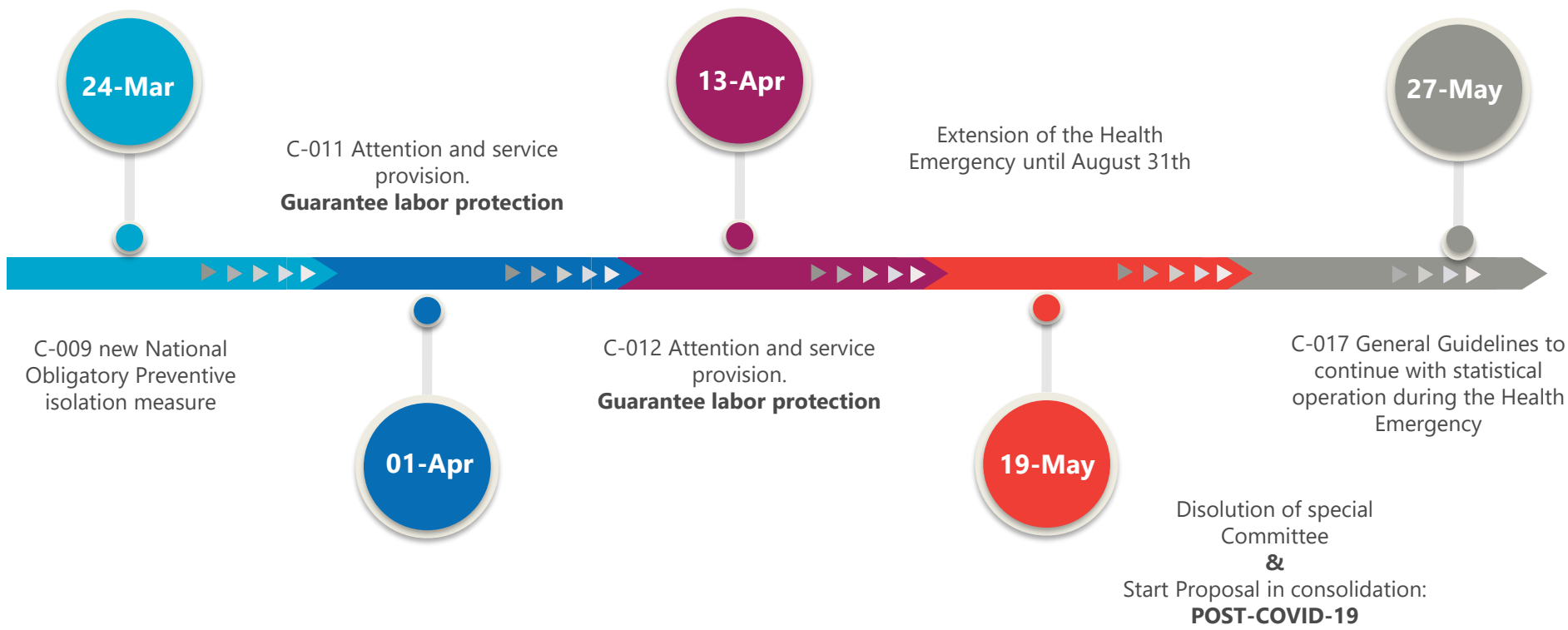






DANE's COVID-19 Timeline







86 undisturbed operations

Geostatistical data production

Statistical planning and regulation

Statistical quality assessments

Implementation of the Statistical System

Multipurpose Cadastre and public policies



- Strengthening of biosafety protocols
- Strengthening of telephone directories
- Alternative collection methods
- Intensified monitoring of strategic operations
- Awareness of information sources
- Virtualization of the DANE Central operation, of training processes
- Identification of new needs
- New statistical models
- Identification of new sources
- Seasonal adjustment
- Survey modification
- Follow of the OIT new requirements



1. Timeliness:

Good data in almost real time (GPD for example)

2. Accuracy:

non complete information (e.g missing values) can represent a huge challenge in the accuracy of the estimations and data publication

3. Coherence:

Models and estimations must guarantee coherence and validation with external data

4. Comprehensiveness:

The level of disaggregation and the detail of data could be affected if there are not good statistical practices in place

5. Reasonably detailed*:

Following SNA 2008 for production and estimation of national accounts, the accuracy at the most disaggregated levels may vary.



- CPI: prices of non-motorized radio units to the staff's home
- Price web scraping and scanner-data for major supermarkets



Household Survey:

- Questionnaire cutout
- Transition to CATI
- Labor data missing value analysis
- New answer options created
- New COVID related questions
- Committees to adapt the survey to be more inclusive (before COVID)
- Pilot of the new survey in parallel with the already established

New data sources:

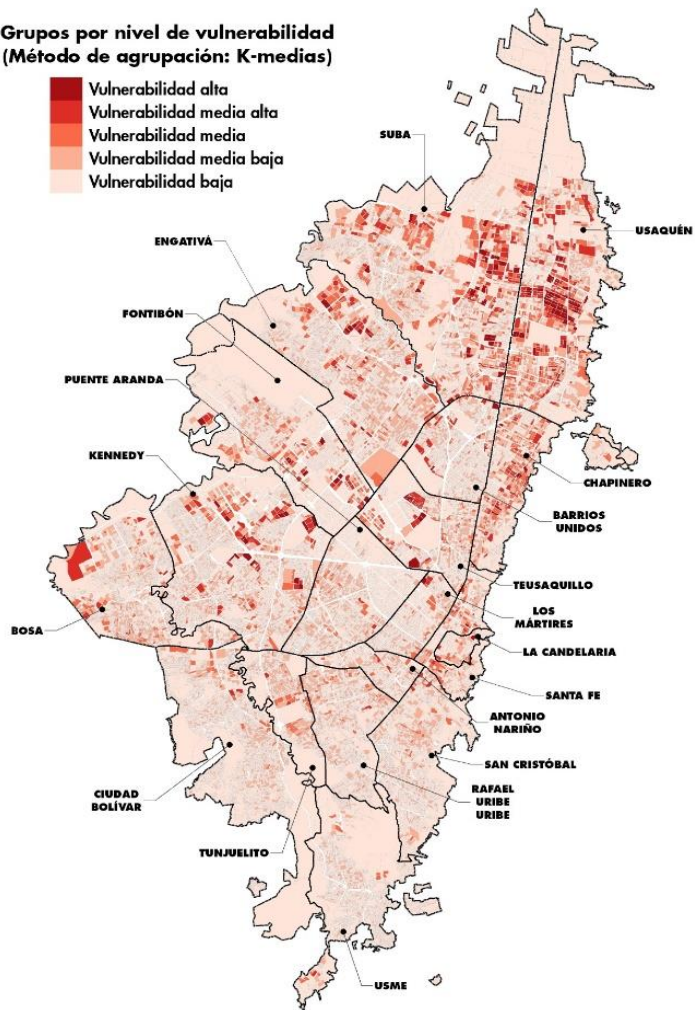
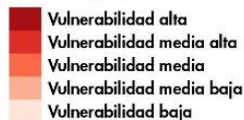
- Public Utilities data
- Mobile operators information
- Stock market data
- LEED registry to infer FORMAL employment dynamics



- Test for coincident Profile and Dynamic Common Factors
- NARX models (VEC and Johansen Correlation Test)
- Treatment outlier at the end of the series (March 2020 modelled as outlier)



Grupos por nivel de vulnerabilidad (Método de agrupación: K-medias)



Our new COVID-related tools

Experimental statistical models:

- Early estimation of strategic data with 4 days of lag
- An initial inventory of models that help to estimate missing values in the conjunctural series.
- Statistical models to calibrate indicators

New questionnaires:

- Implementation of a flash survey to collect data regarding the pulse of the economy to keep key stakeholders informed (industry, businesses, service enterprises, and national authorities). regarding the impact of the crisis on business and employment as well as analysis on the economic behavior under the measures adopted by the National Government.

Per Block Vulnerability index:

- Geographically identifying the most vulnerable population against COVID

New questions:

Adding questions related to the COVID in the Colombian household survey

Social Pulse Survey (sentiment analysis)

Social Pulse: measuring consumer's and households' assessment of their current economic situation and their expectations.

Within the current crisis DANE, in partnership with UNICEF, will launch a new statistical operation (July 2020), which aims to measure consumer's and households' assessment of their current economic situation or their expectations of future economic prospects.

The survey core is the **Consumer Confidence** module, which will be applied each month. Nonetheless, the survey includes additional modules to respond to the current needs that have arisen from the COVID-19 crisis.

Survey modules:

1

Consumer confidence

3

Home-care support

2

Subjective well-being

4

State aid policies

5

Children and teenager's well-being

Business Pulse Survey (expectations and institutional framework)

Corporate Pulse: monitoring perceptions of businessmen.

Launching of a business survey in order to capture information on the current business situation and the way businessmen are adapting to the new circumstances.

Survey modules:

1

State of company operations

3

Adjustment mechanisms implemented

2

Negative impacts on company operations

4

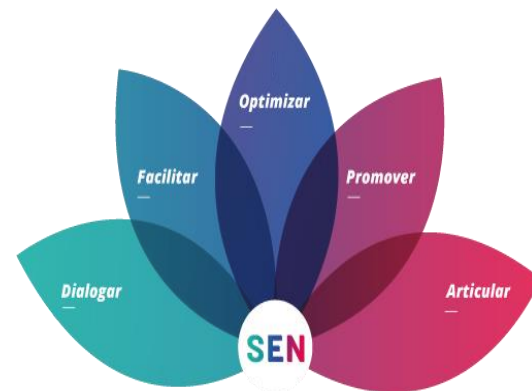
Expectations about economic behavior

5

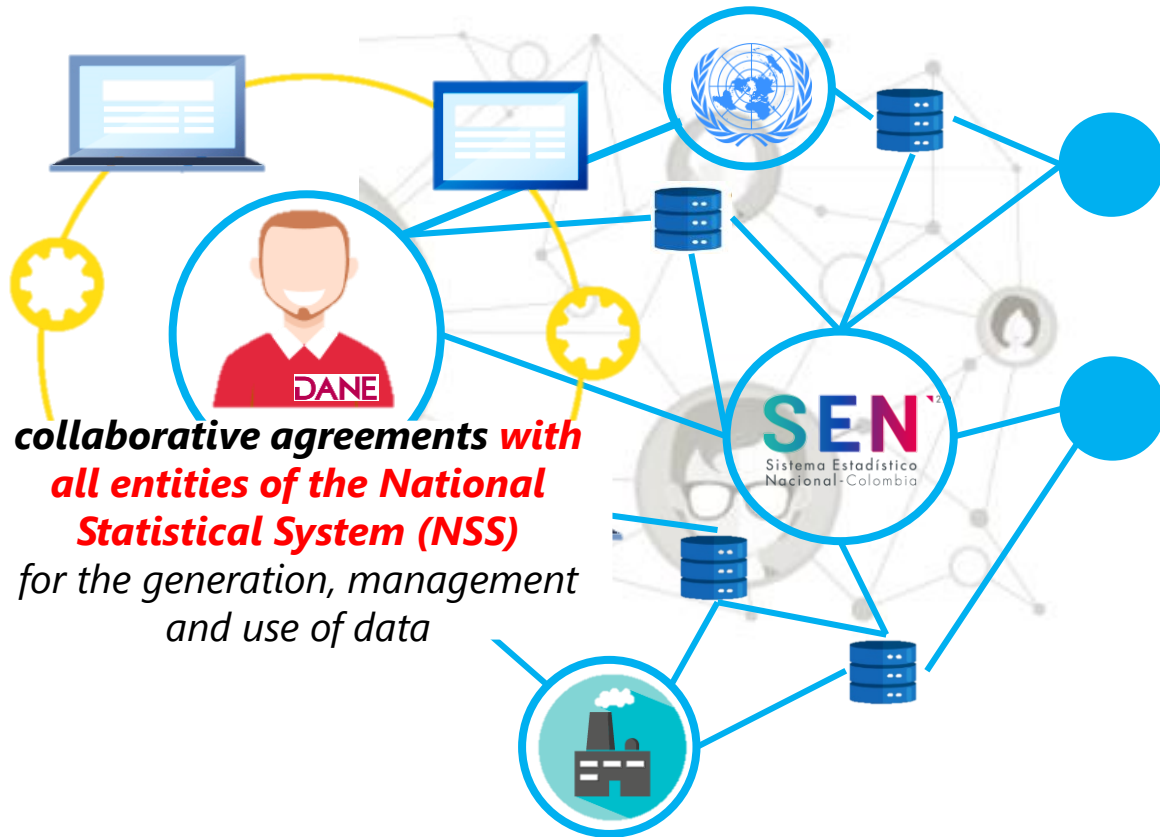
Perceptions on state aid policies for enterprises

The **Data Stewardship** in a Post COVID scenario includes taking into consideration different elements to contribute to statistical production of the National Statistical System (SEN)

- **Collaborative and governance instances:** contribution from the information producers to make better decisions and improve the quality of statistical production: Data Management Committee
- **Formal initiatives for COVID monitoring:** joint work between information producers and those responsible for the implementation of public policy (national and local) in order to continue providing relevant information for decision-making
- **Importance of institutional capacities:** Data Stewardship requires a conscious exercise in capacity development (technical, regulatory, etc.) for all members of the Statistical System.
- **Ethical considerations:** the use of information in collaborative contexts, requires to take into consideration the ethical questions associated with the use and transfer of information.



How does Colombia understand data stewardship?



collaborative agreements with all entities of the National Statistical System (NSS) for the generation, management and use of data

*in a **safe and ethical** environment*

*Which contributes to **public policy** and responds to **structural and current** problems of Colombian society*

How does DANE support the government in utilizing data?

1

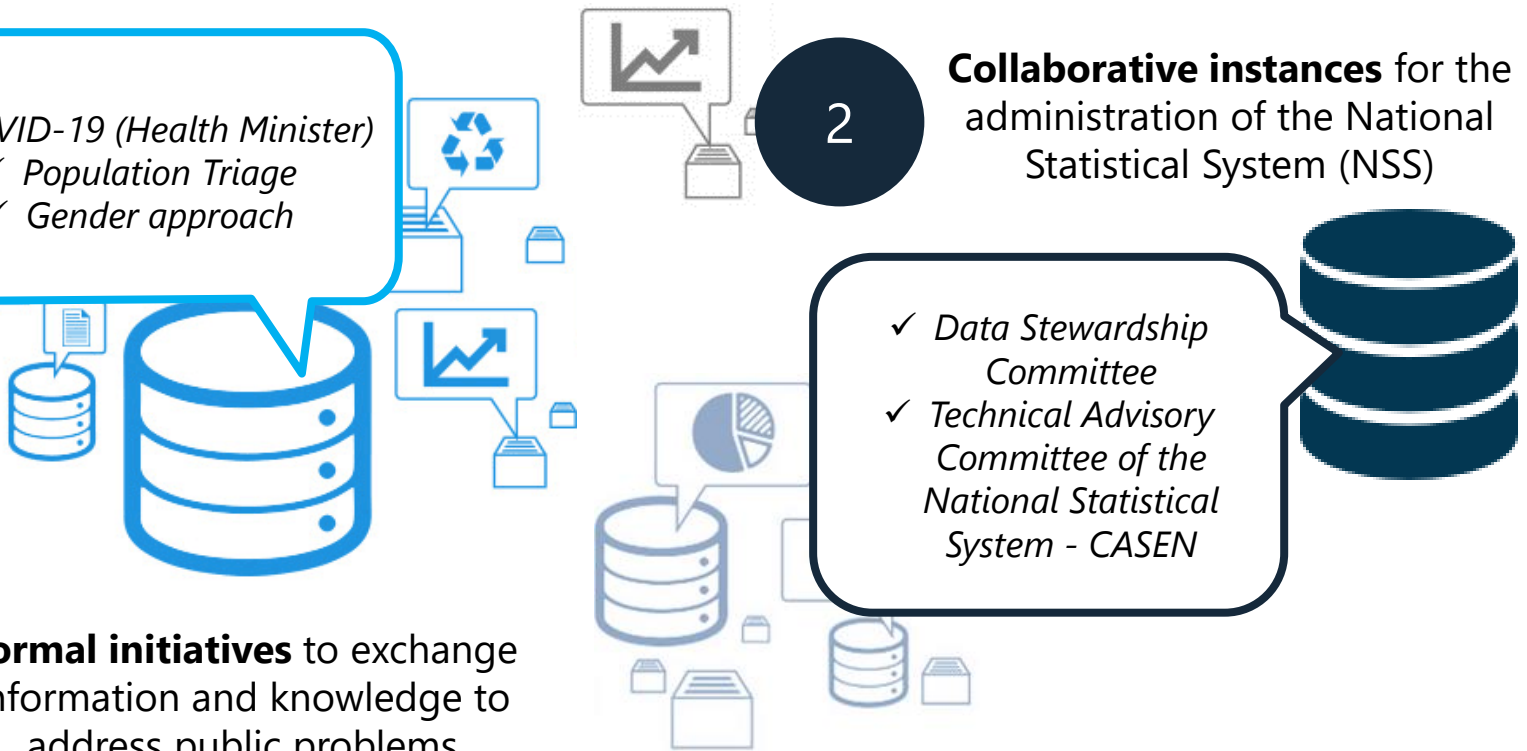
Formal initiatives to exchange information and knowledge to address public problems

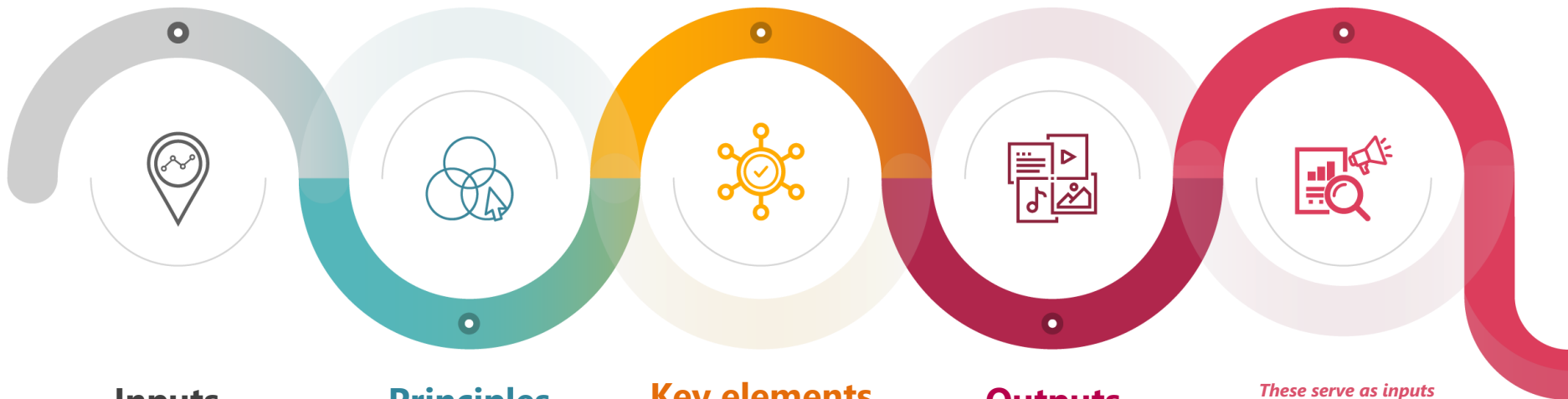
- ✓ COVID-19 (Health Minister)
- ✓ Population Triage
- ✓ Gender approach

2

Collaborative instances for the administration of the National Statistical System (NSS)

- ✓ Data Stewardship Committee
- ✓ Technical Advisory Committee of the National Statistical System - CASEN





Inputs

Geospatial

- Fundamental data.
- Supplementary data.
- New data sources.

Statistical

- Censuses.
- Surveys.
- Administrative Registers.
- **Big data and other sources.**

Principles

- Accessible & usable
- Statistical and geospatial interoperability
- Common geographies for dissemination of statistics
- Geocoded unit record data in a data management environment
- Used of fundamental geospatial infrastructure and geocoding

Key elements

- Standards and Good Practices.
- National Laws and Policy
- Technical Infrastructure
- **Institutional Collaboration**

Outputs

- Integration.
- Harmonized and standardise information.
- Interoperability and comparability.

These serve as inputs for:

- **Analysis.**
- **Diffusion.**
- **Decision making.**



Examples:

1. Vulnerability Geovisor



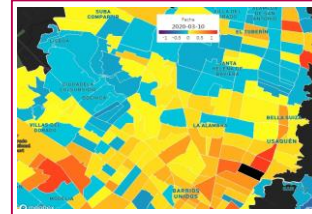
- Comorbidities.
- Adult population.
- Overcrowding.
- Population Density.
- Intergenerational risk.

2. Multidimensional poverty Index Geovisor



- Educational conditions.
- Conditions of childhood and youth.
- Labor conditions.
- Health.
- Housing conditions and public services.

3. Mobility Geovisor



The mobility value per block in a given day is understood as follows:

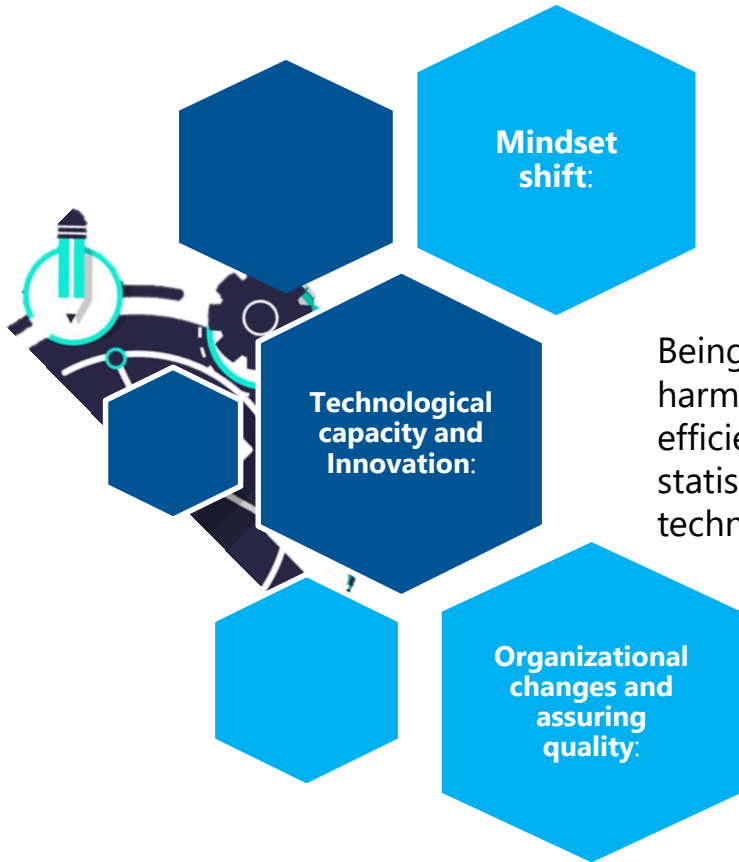
Value: 0
(March 2nd of 2020)

Negative values reflects **less mobility** than the mobility observed on March 2nd of 2020.

Positive values reflects **more mobility** than the mobility observed on March 2nd of 2020.



What are the challenges faced by Data Stewardship?



Transforming the way data is *perceived*, seeing it not only as information but as a social arrangement to serve the common good

Being able to have the *infrastructure* to receive, harmonize and dispose strategic information in a safe and efficient way, and to implement *new methodologies* in statistical processes, understanding the rapid technological change in societies.

To ensure that the functional units of the organization have processes and procedures that allow the *transfer of capabilities* among NSS members as well as the *quality assurance* in different data sources



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