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LEADING-EDGE TECHNOLOGY IN INEGI'S GEOGRAPHIC WORK

GEOSPATIAL WORLD FORUM 2024

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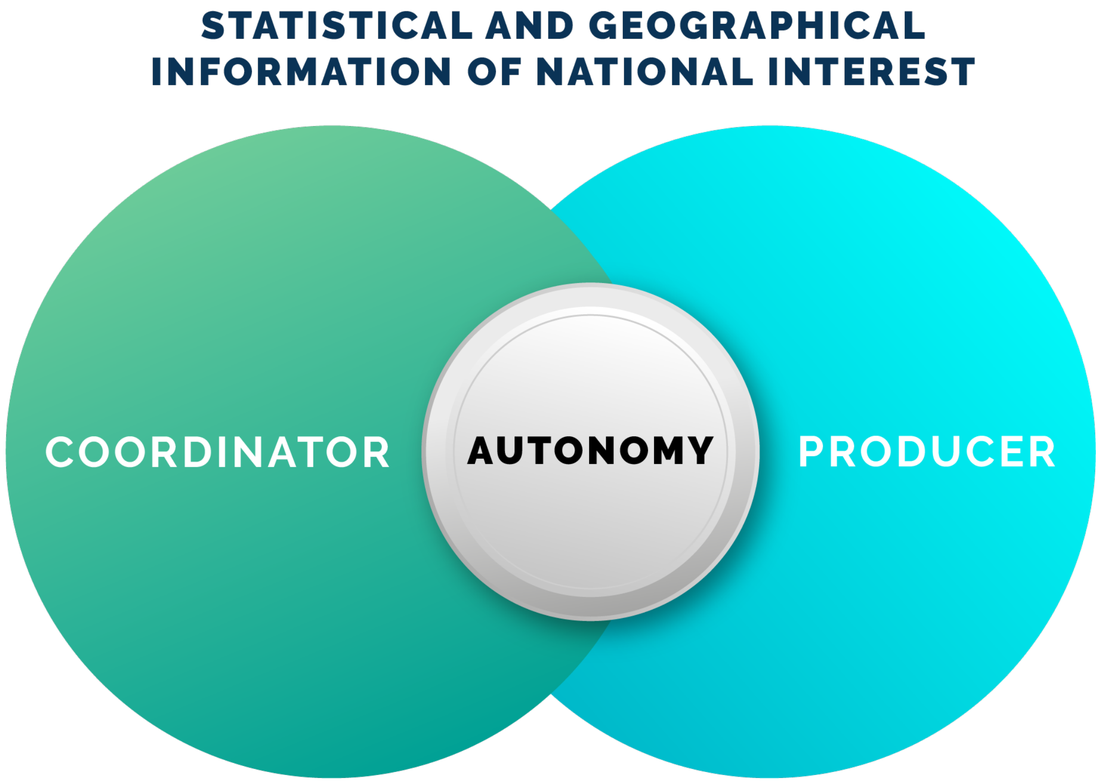
THE NATIONAL INSTITUTE OF STATISTICS AND GEOGRAPHY (INEGI)

Key Elements

- Statistical and Geospatial Information within the same institution, since1983
- Constitutional-level autonomy, since 2008
- Coordination of the National System of Statistical and Geographic Information (SNIEG)



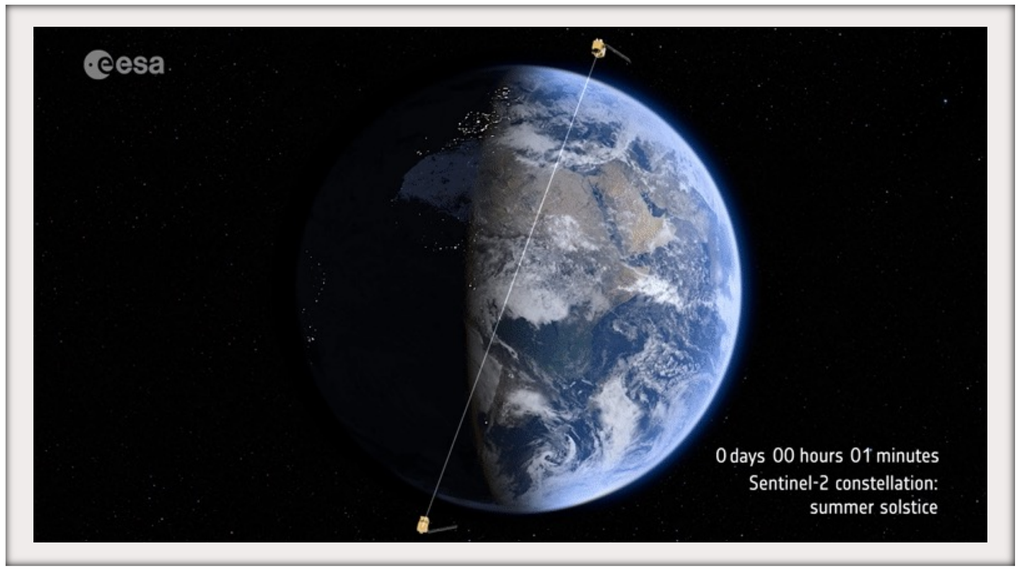
BIG DATA AND MACHINE LEARNING AT INEGI

The Mexico Geospatial Data Cube (CDGM)

Having Landsat (35 years) y Sentinel 2 (4 years) images.

Open Data Cube implementation

- “One pixel at time”
- Analysis ready data (ARD)
- Massive processing and analysis



OPEN DATA CUBE

Australian Government
Geoscience Australia

CEOS

USGS
science for a changing world

NASA

INEGI

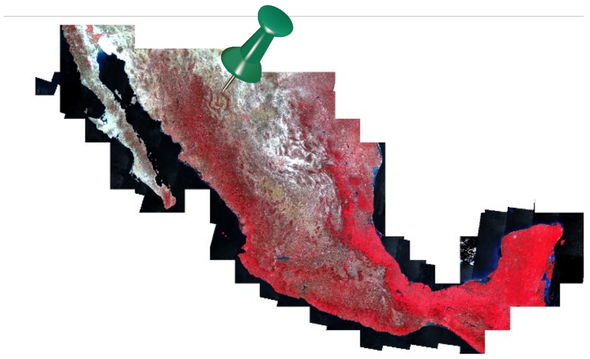
PRODUCTS

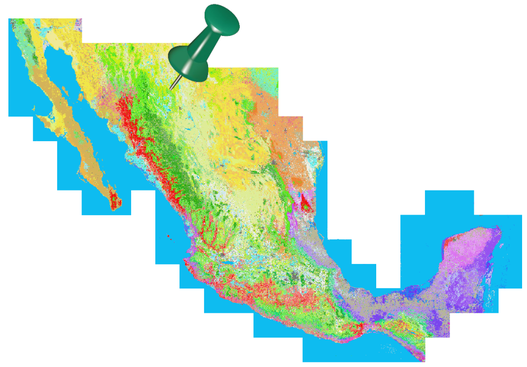
Geo-median image.

NEW METHODOLOGY FOR VEGETATION AND LAND USE MAPPING

- Need for updated and detailed geospatial data about the spatial extent and condition of the vegetation.
- Leverage:
  - Specialized knowledge of the vegetation (people).
  - Available satellite imagery and other geoespatial ancillary layers (DEM, Climate, etc).
  - Modern tools for AI and geospatial data processing.
- Now in experimental phase, promissing results.

OPEN DATA CUBE + PYTHON + TensorFlow Keras





Thank you!

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