

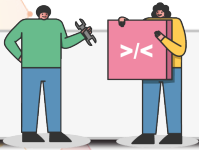
# We are the UPRA's IT Office, an extraordinary team



- We work to make the benefits of technology accessible to everyone.
- We explore new ways to make sector data increasingly simple to use, reliable, and timely.
- We aim to captivate with data and information, especially targeting the young population and women.
- Our philosophy is to share everything, from tools to methods, analysis, and best practices.

## Would you like to learn how our IT Office works?

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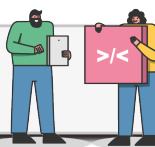
We lead the design of enterprise architecture and information governance at UPRA.

2



We generate and manage the information required for UPRA to produce its products.

3



We analyze the information (statistical/spatial).

4



We implement efficient solutions through information systems.

5



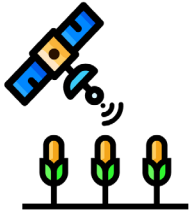
We promote the use and adoption of our products.

6



We guarantee the technological infrastructure that supports UPRA's activities.

# Products and services of the IT Office



Projects with emerging technologies

GITHUB Repository

Administrative Efficiency System (SEA)



Unified National System of Rural and Agricultural Information (SNUIRA)

Maps gallery

Sectoral strategic information



SNUIRA data laboratory

Agricultural Frontier

Agronet





## 1. We lead the design of enterprise architecture and information governance at UPRA



### Superpowers



**Confidence:** The director trusts the team's recommendations on strategic issues for UPRA.

**Collaboration:** We make a great team with the Planning Department.

**Monitoring:** We closely follow each project and how every peso is spent.

### Star products



PETIC and Digital Transformation

IT Adoption Guidelines

Projects with Emerging Technologies: We advance initiatives that incorporate the use of Artificial Intelligence, Blockchain, among others.

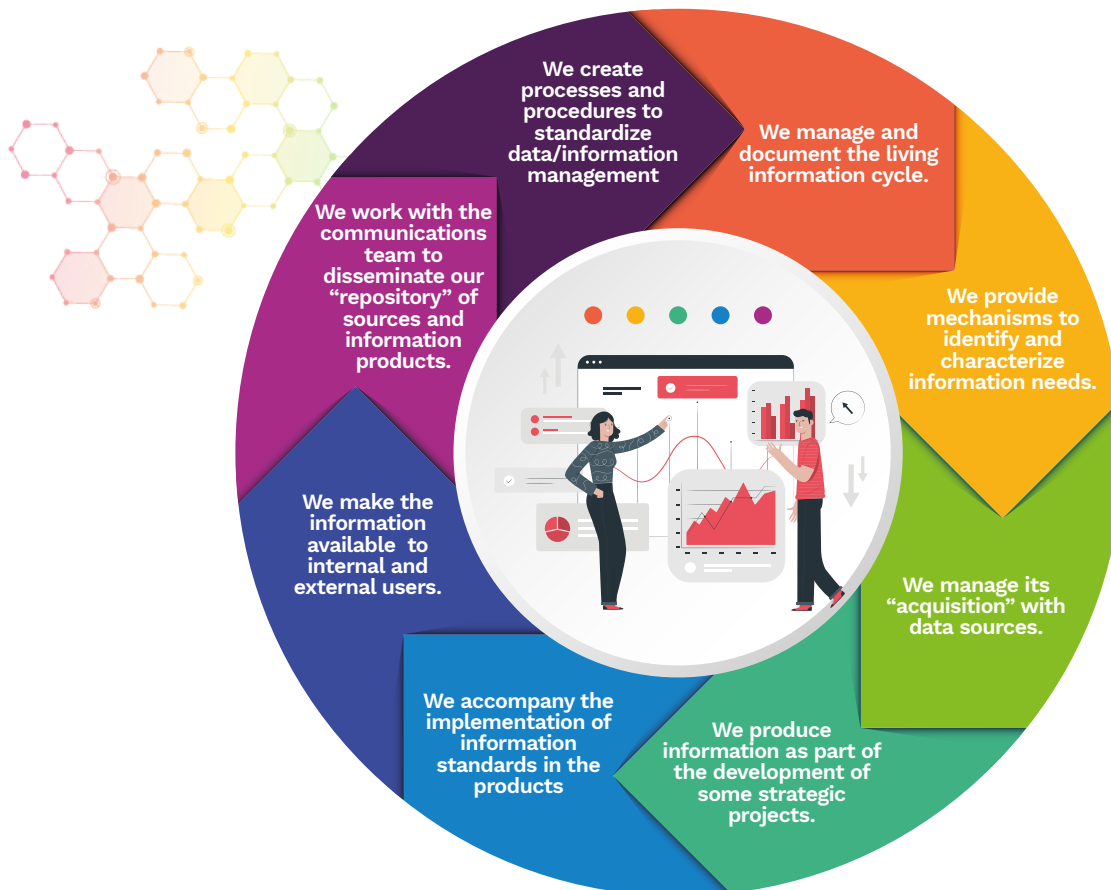
Architecture is no longer an IT issue: In UPRA, it is the other departments, especially Planning, who are more attentive to enterprise architecture.

Unified National System of Rural and Agricultural Information (SNUIRA): The strategy that will allow mapping and standardizing strategic sector data.

SNUIRA Data Laboratory: The application of data science to the analysis of the land market and other strategic topics for the sector.



## 2. We generate and manage the information required for UPRA to produce its products



### Superpowers



**Traceability:** We know who needs data, how they need it, and what the result will be.

**Interoperability:** We make data exchange a reality through the strict application of standards and smooth communication with other entities.

**Articulation:** We make information the meeting point for all UPRA initiatives.

### Star products



**Agricultural Municipal Assessments:** Since 2021, UPRA has been leading the production of the most widely used information in the sector.

**Production Costs:** Information on cost structures and the development of exercises applied to prioritized products and regions.

**Dashboards:** A tool for accessing strategic information from the EVA through graphs, consolidated data, trends, at the departmental and municipal levels.

**Agricultural Inputs:** The purpose is to construct and estimate a monthly indicator that measures the average variation in prices of the most commonly used fertilizers and pesticides in agricultural activities.

**Information Component in SIGRA:** Support, guidance, and management of information required for SIGRA.



## 3. We analyze the information (statistical/spatial)



### Superpowers



**Experience:** We have an experienced, interdisciplinary, coordinated, and constantly updated workgroup capable of facing any challenge.

**Effectiveness and efficiency:** Our products are delivered on time and under the best quality standards.

**Coordination:** Ensures that our information products are always aligned with the technical requirements of the entity's thematic groups.

**Data visualization:** We manage to present data in an accessible way for decision-making.

**Experimentation:** We like to explore, test, try, and never become outdated.

**Commitment:** Our team can turn the entity's promises into realities. Our collective decisions and collaborative workflows always lead to better performance.

### Star products



GitHub Repository: We make available to the public a set of geoprocessing tools and models aimed at optimizing processes. **We generate!**

Map Gallery: Strategic information products for decision-making in the planning of the Colombian countryside. Some of them include isochrone maps, agricultural frontier.

Innovation and Best Practices: We explore, identify, and implement different solution alternatives to improve the internal processes of the group and the information products generated.

# GitHub Repository

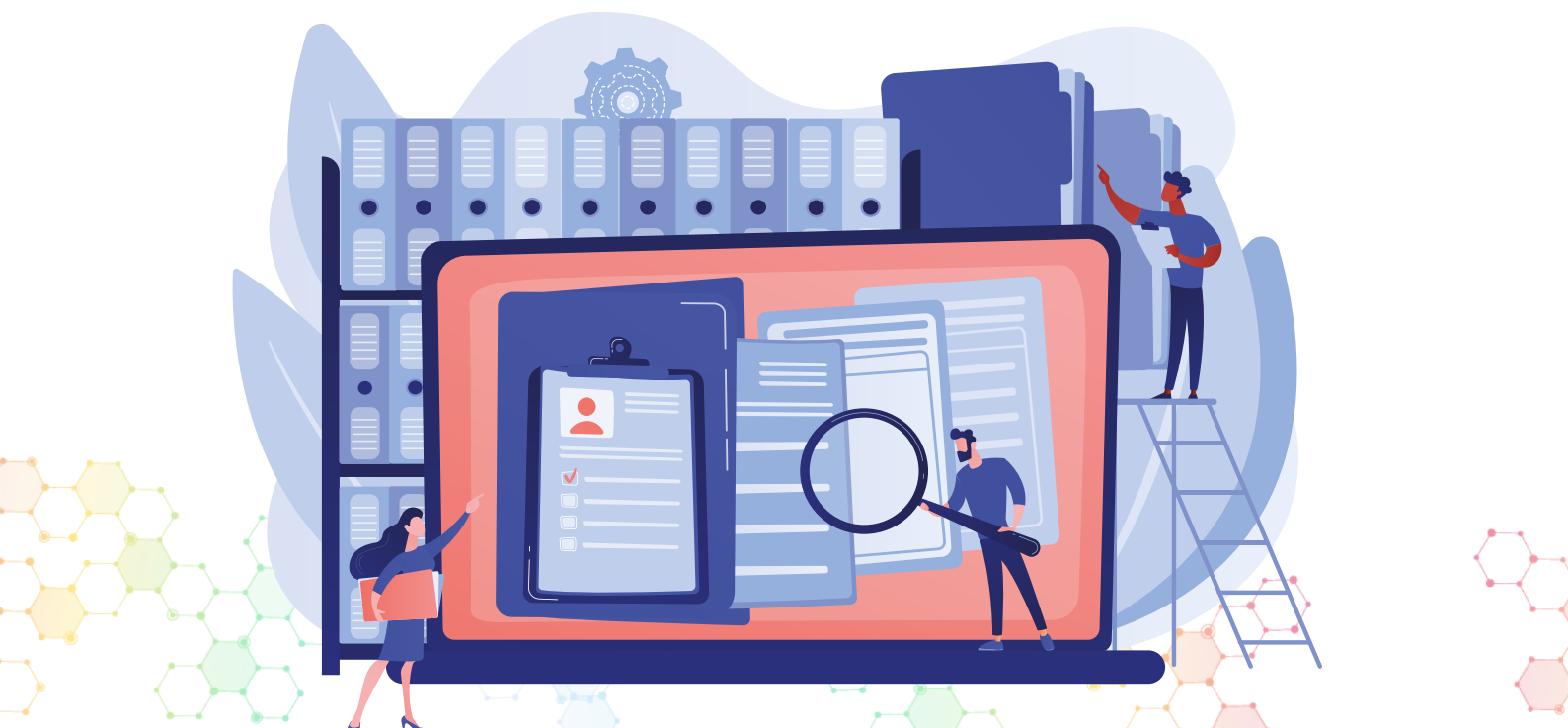


Our repository is the fulfilled dream of returning the investment in innovation to the Colombian citizens. It is also the desire to share experiences and knowledge with other companies, an invitation to improve our tools, services, and processes in a collaborative environment.

The idea of the GitHub repository for the analysis group was born from a proposal by Engineer Fernando Pineda in 2016, which, as usual, was immediately supported by the leader of the analysis group at that time, "Profe" Luz Mery Gómez Contreras; the Head of the TIC Office at the time, Daniel Mauricio Rozo Garzón, and the Director General, Felipe Fonseca Fino.

The grand presentation of this tool was during the geomatics week at IGAC in 2016; however, it was also showcased at ESRI User Conference spaces and at territorial events attended by UPRA that same year.

It was disruptive to see the director of an entity affiliated with the Ministry of Agriculture talking about GitHub, 64-bit processing, multiprocessing, and Python. These seemed like 2020 topics for a CEO of a technology company. At events, the audience went to the entity's booth and asked: What is UPRA? What is GitHub? What is Python? Fortunately, a map is worth more than a thousand words, and seeing them, people left happy, seeing how geography, agriculture, and technology would change the country's planning forever.





## 4. We implement efficient solutions through information systems



### Superpowers



**Listen:** With patience, we seek to understand the needs of our users.

**Simplicity:** Abstracting from the complex needs of our clients to generate simple and practical solutions.

**Creation:** Turning ideas into working applications.

### Star products



**Sipra:** It is a public access web system that supports decision-making. It enables the discovery and analysis of information as well as the construction of planning scenarios for the agricultural sector.

**Development of the platform for agricultural municipal evaluations:** We built the system that supports the collection, management, and monitoring of agricultural municipal evaluations.

**SEA:** Administrative efficiency system that automates and supports the processes of the entity, ensures their traceability, allows document management in accordance with established standards, and follows a paperless approach.

# Use and appropriation



## 5. We promote the use and appropriation of our products



### Superpowers



**Visual communication:** Conveying ideas and information clearly.

**Peripheral vision:** We help see beyond the obvious thanks to the multidisciplinary nature of the team.

**Strategic research:** Leveraging tools and methodologies for comprehensive support.

**User-centricity:** We are obsessive about understanding and involving users in the design of solutions.

### Star products



UX model and toolbox: To ensure that the user is always at the center of our products and services.

Pioneers of Innovation: The skills development program and team support at UPRA.

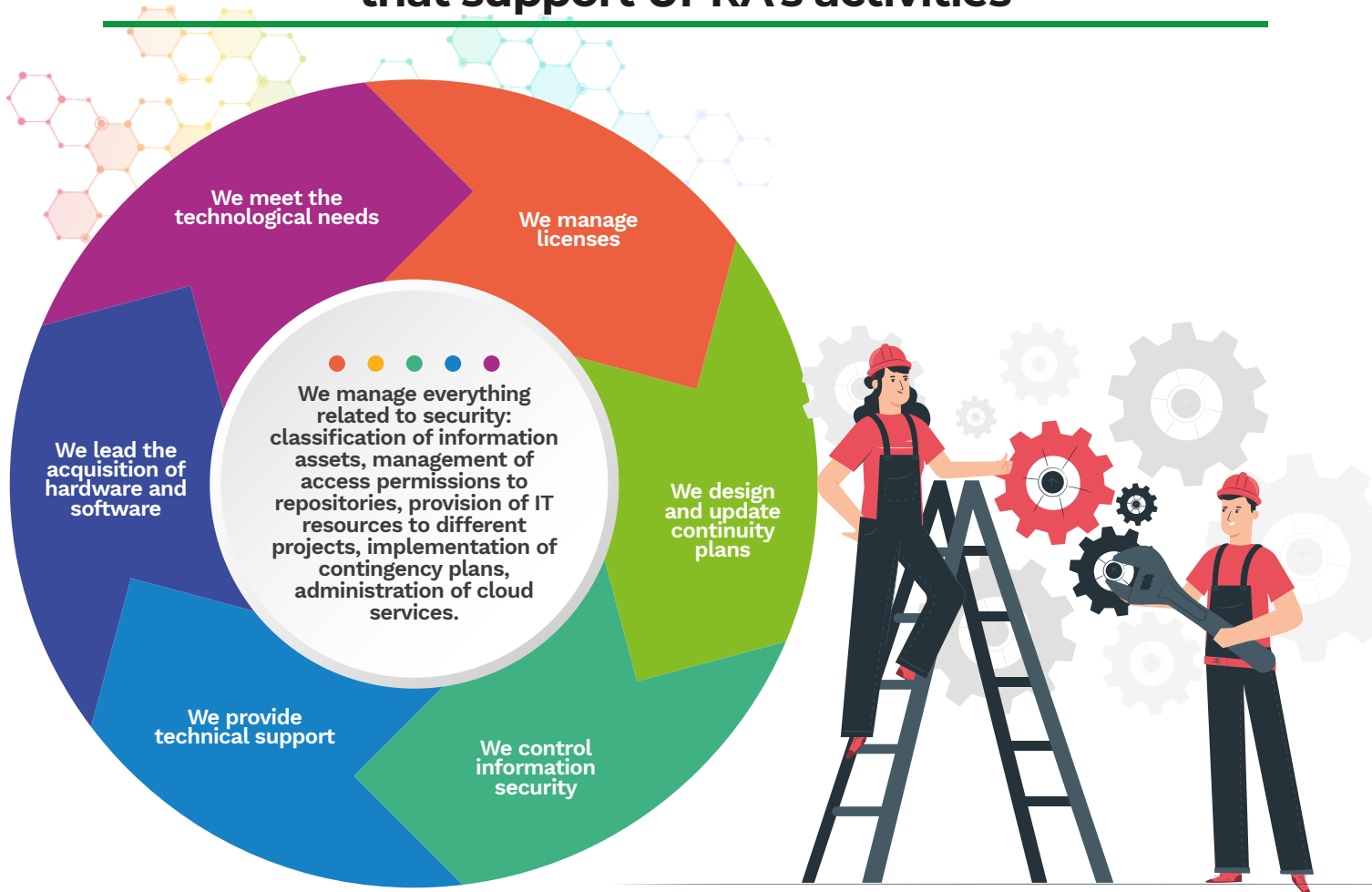
Value Encounters: Capacity-building spaces to share learnings.



# Technology Services



## 6. We guarantee the technological infrastructure that support UPRA's activities



### Superpowers



**Protection:** We are the equivalent of UPRA's immune system.

**Experimentation:** We test new tools and technologies that contribute to meeting UPRA's objectives.

### Star products



**Information security and privacy model:** It is an example of things well done.

**Resource optimization:** We have a model that guarantees the capacity that UPRA needs, when it needs it.

**Cloud services:** We take advantage of the possibilities offered by the public cloud in Azure and combine it with private cloud.