Justice based on data

**General Directorate for Digital Transformation
of the Administration of Justice**

INDEX

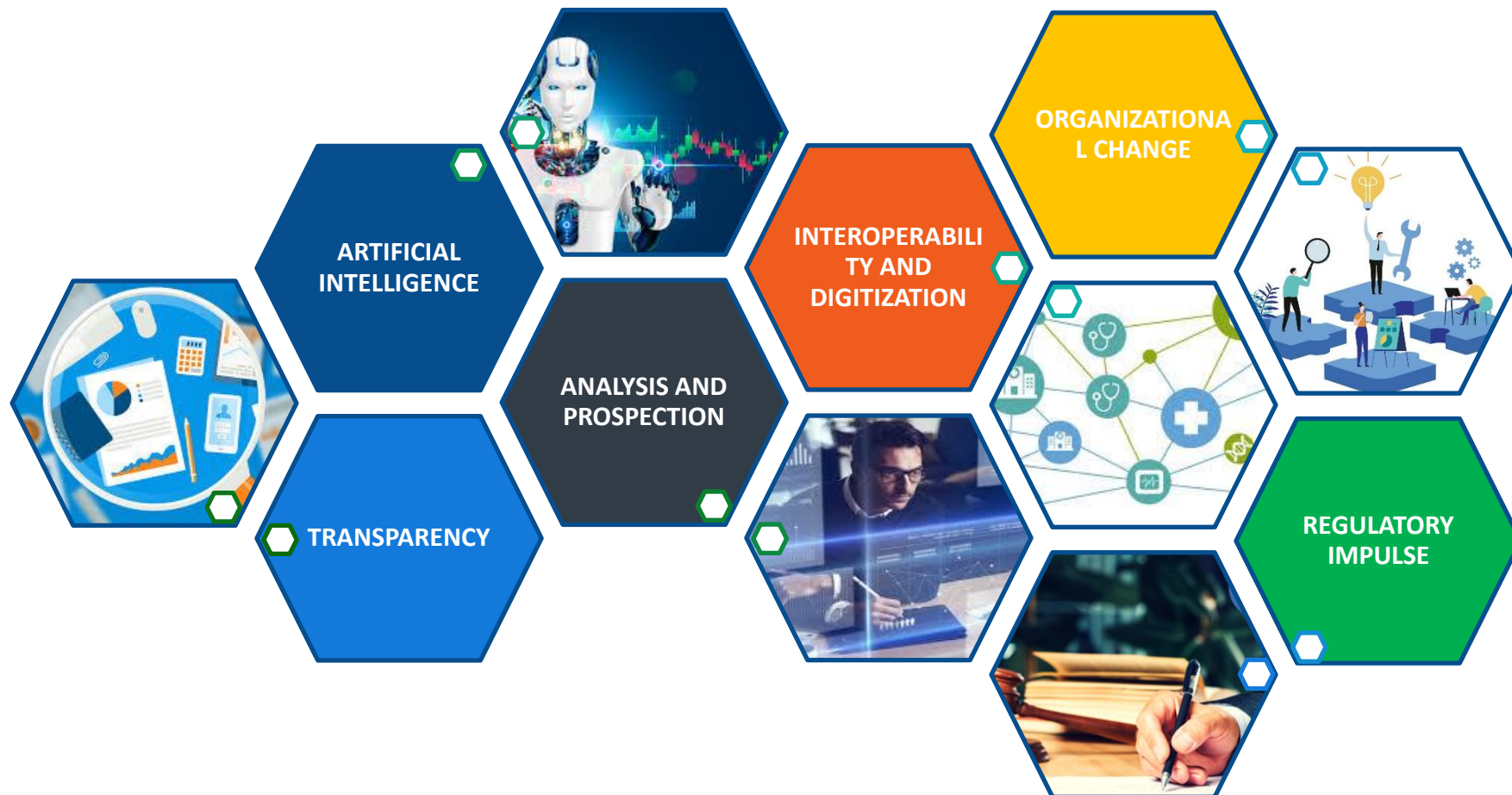GOBIERNO DE ESPAÑA MINISTERIO DE JUSTICIA DIRECCIÓN GENERAL DE TRANSFORMACIÓN DIGITAL DE LA ADMINISTRACIÓN DE JUSTICIA AGENDA 2030
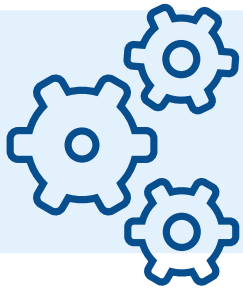
Related concepts

Related concepts

TRANSPARENCY

*Justice in Data, and more precisely, the Data Office Group has the mission of **promoting both the internal and external transparency**, through an active advertising of the relevant information activity for the citizens, the professionals and the public employees, with special focus on the directors.*

*"**What cannot be measured cannot be improved**"*

"What is not advertised can be manipulated"

Related concepts

TRANSPARENCY

We must work on the following areas according to this principles:

- **Justice Data Portals**
- **Managing reports**
- **Interadministrative cooperation**
- **Training** *and meetings with functional units to promote transparency*

ACCESIBILITY	HIGHEST UPDATING	QUALITY OF THE INFORMATION	DATA PROTECTION
*Using a **familiar language** and making **compatible with a wide range of devices**, as well as the use of graphics and choropletic maps that facilitate its comprehension and allow to extract data in reusable formats.*	***Reaching the highest frequency without affecting the processing systems**, to give service every specific minute if needed.*	*The indicators will be **validated by the functional managers and the Office**.*	***The information will not be divulged when that could involve a risk** in its shape or content considering the RGPD.*

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DIRECCIÓN GENERAL DE TRANSFORMACIÓN DIGITAL DE LA ADMINISTRACIÓN DE JUSTICIA
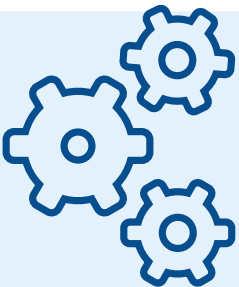
AGENDA 2030

Related concepts

ANALYSIS AND PROSPECTION

*The huge data set that the Ministry of Justice possess offers **an enormous data processing capacity** that allows us to interrelate data and provide with highly valued information that can be used to obtain quality indicators **to make better decisions and ellaborate new policies with new criteria**.*

*"**Data is not information, information is not knowledge**"*
*"We must have the tools that allow us to analyse the information to **implement public policies with high quality**"*

Related concepts

ANALYSIS AND PROSPECTION

Given so, we must work in order to articulate:

- *Simple **consultation** tools for managers*
- *Simple **useful** tools for the COEs* Operators*
- *Simple tools for the **interrelation** of information*
- *Simple tools for the **publication** of control panels and traditional reports*
- ***Complex tools** for the interrelation of information*
- *Have the Service of georeferenced data science **thematic studies***

(*) Excelence Centers

Related concepts

ARTIFICIAL INTELLIGENCE

*The Ministry already uses IA for different purposes, such as textualization or advanced prospecting studies to find non-linear interrelationships. We want to **continue advancing in new personalized utility niches for the Justice Administracion**, such as the automatic classification of documentation, extraction of entities and relational information maps.*
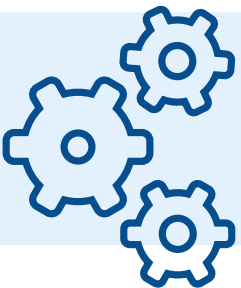
*"The automation and Artificial Intelligence will **reduce the time to perform tasks** that today are impossible for humans to do"*

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Related concepts

ARTIFICIAL INTELLIGENCE

Given so, we must work in order to articulate:

- **Promote the IA service** *to recieve challenges and petitions*
- **Agile training of neural networks** *for the stablished objectives, by choosing the necessary techniques and infraestructure*
- **Training for the technology staff**
- *Promote the* **release of the known IA techniques**
- **Addressing the ethical issues** *of using AI*

Related concepts

INTEROPERABILITY AND DIGITIZATION

The Ministry aims to **advance on the development of digitization transforming itself around the data**, what is a general trend among all administrations. For this trend to become effective, **the services must intercommunicate and interoperate**, both between the internal services themselves and those of other administrative and judicial actors from the rest of the territory.
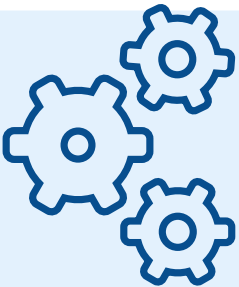
*"**Digitization has arrived to stay**, and the main trends are robotics, data analysis and Artificial Intelligence. **The power becomes multiplied with the interoperability between them**"*

Related concepts

INTEROPERABILITY AND DIGITIZATION

*Given so, we must work in order to articulate:*

- ***Modify the processes*** *to be able to measure them and extract useful information*
- ***Semantic interoperability****: enabling communication between systems, using common codes, inventories and data schemas. Cogovernance*
- ***Improve the quality of the application data****, incorporating new ones or modifying the existing ones*
- ***Develop new applications*** *that allow us to improve operation*
- ***Explore and investigate new techniques*** *with possible applicability: RPA, AI and others*
- ***Training, sharing, reusing the digitization and interoperability culture***

Related concepts

ORGANIZATIONAL CHANGE

*A modern organization is recognised for the efficient and unified use of information. **The Ministry does not just aim to provide a technical response**, but has also enabled the creation of a **working group** that identifies the main **functions and services** that this unit must have and offer, **in a personalized approach given the needs of the organization, taking into account the joint governance model with the Autonomous Communities.***
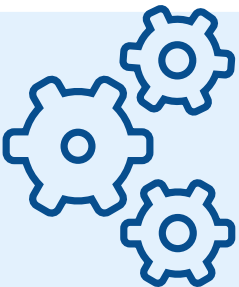
*BOE: "In order to provide a **coordinated technical response** it is important to have a **specific and specialized body within the State Secretary for the Digitization and Artificial Intelligence**"*

Related concepts

ORGANIZATIONAL CHANGE

Given so, we must work in order to articulate:

- *Create an organizational framework that enables these goals: comittees, subgroups, petition management, etc*
- *Territorial cogovernance*
- *A process model that allows to incorporate the procedures and quality of the products that the office generates*
- *Common policies for the use of techniques and interpretation of the information*
- *Encourage the ellaboration of descriptive documentation, studies and analysis, as well as suggestions for regulations or conformity declarations, behaviour, etc*
- *Generate new services such as training and internal and external communication*

Related concepts

REGULATORY IMPULSE

*The working group clearly distinguishes between the use of data for the statistical function, and the use of data for analytics and prospecting. In the current regulatory framework, **the exchange of structured, non-personal data is limited to the statistical function**.*
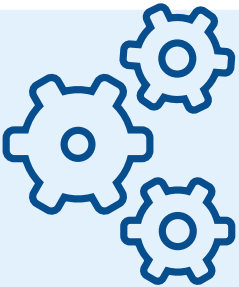
*"**There is no regulation whatsoever for the exchange of non-personal data beyond the statistical function** or voluntariness in the application of the RISP regulations: this is exceeded in the administration by new analytical techniques"*

Related concepts

REGULATORY IMPULSE
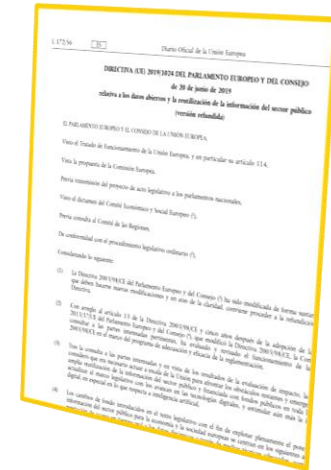
Given so, we must work in order to articulate:

- **Finalize the manifesto that will guide the spirit of the office**, *considering data as a public good*
- **Study regulatory alternatives** *that enable the sharing of information and data*
- **Establish alliances** *with those ultimately responsible in this field of action (SEDIA)*
- *Think of agile and fast alternatives for the* **sharing of non-personal data**
- **Offer and receive quality legal and technical guarantees** *to data providers, establishing objectives, custodians, advertising conditions, reusing, authorship, eligible techniques...*

¡Nueva Directiva Europea de Reutilización!

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Objectives

CREATE

An **internal culture of orientation to data**, improving the information and the Ministry's transparency.

PROMOTE

A **sharing space** of interadministrative information *(Autonomous Communities, National General Administration, etc).*

IMPROVE

Decision making capacity of the functional managers.

CARRY OUT

Thematic specific studies *(dynamic load management, eg, eres, contests, evictions).*

MEASURE

Being able of **measuring the legislative impact and social vulnerability**

*Carry out all the necessary actions to improve data-based decision-making for the application of **quality public policies** in each Justice unit*

4 DEVELOPMENT LEVELS / MATURITY OF EACH UNIT:

WITHOUT DATA OR AUTOMATIC REPORTS – JUST AD HOC INFORMATION

ANALYTICAL CONTROL PANELS / ADVANCED ANALITICS

| 1 LEVEL | 2 LEVEL | 3 LEVEL | 4 LEVEL |

CONTROL PANEL / REPORTING

PROSPECTION AND ARTIFICIAL INTELLIGENCE

GOBIERNO DE ESPAÑA — MINISTERIO DE JUSTICIA — DIRECCIÓN GENERAL DE TRANSFORMACIÓN DIGITAL DE LA ADMINISTRACIÓN DE JUSTICIA — AGENDA 2030

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DATA GOVERNANCE

Working group: justicia.dato@mjusticia.es

- **Finalize the manifesto that will guide the spirit of the office**, considering data as **a public good**
- **Study regulatory alternatives** that enable the sharing of information and data
- **Establish alliances** with those ultimately responsible in this field of action (SEDIA)
- Think of agile and fast alternatives for the **sharing of non-personal data**
- **Offer and receive quality legal and technical guarantees** to data providers, establishing objectives, custodians, advertising conditions, reusing, authorship, eligible techniques...

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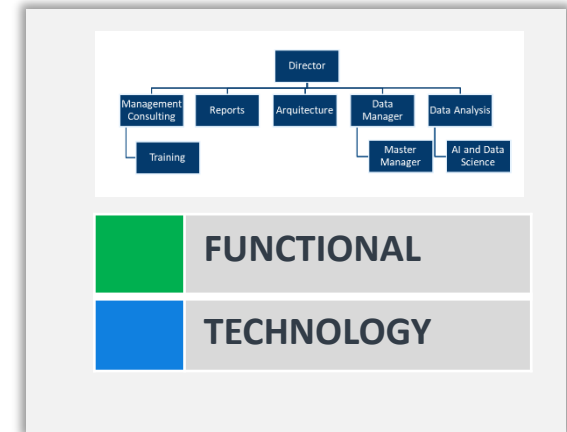
DATA GOVERNANCE

Management

- ICT Management
- Secretary-Coordinator and Relationship Manager
- Reports Coordinator
- Demand Management
- IT-Dashboard/Reporting:
- IT-Data Lab
- Thematic Prospecting
- IT-Artificial Intelligence
- IT-Architecture and Data Masters
- Compliance (Data Protection/Other)
- Advertising
- Data Quality
- *Communication*
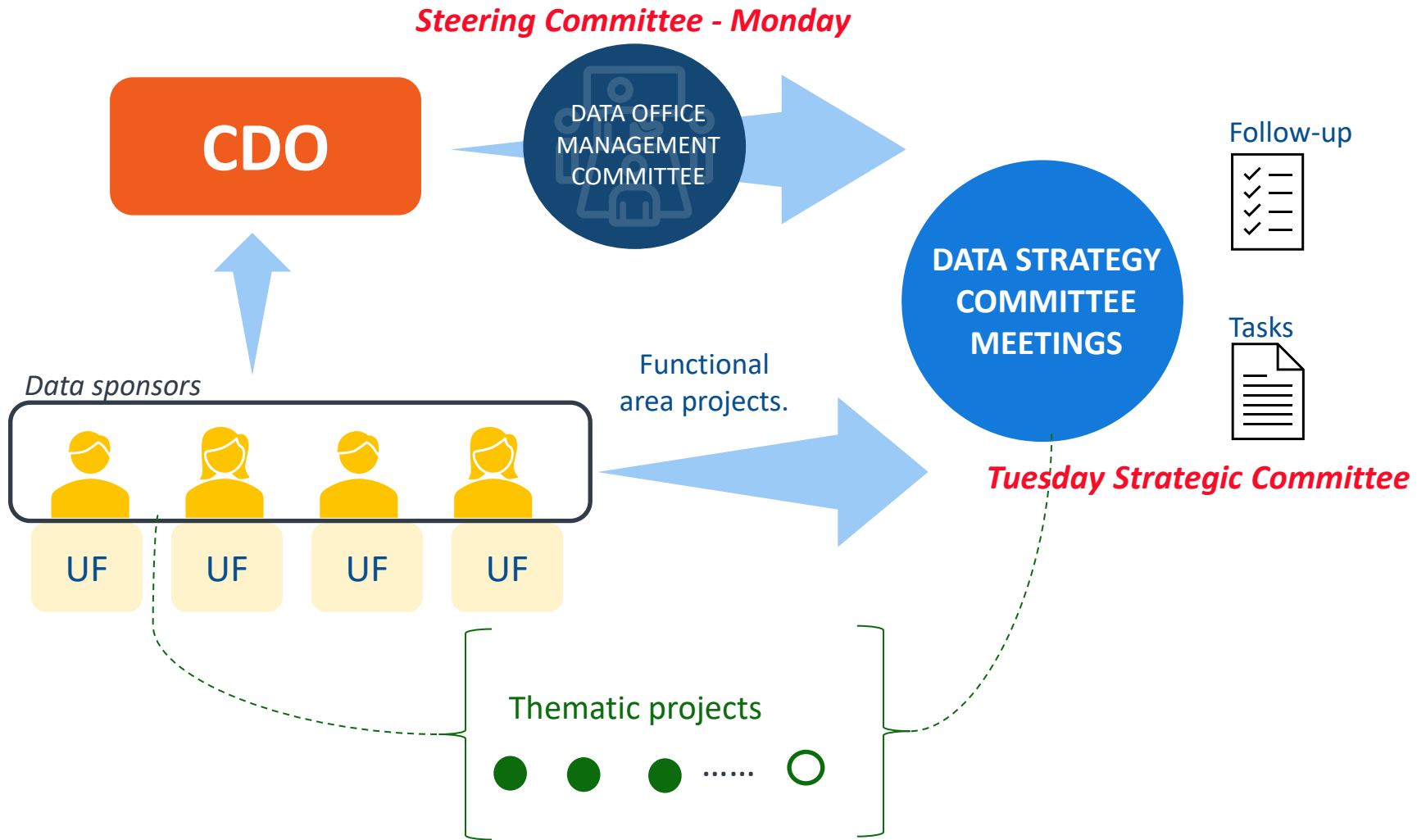- *Training*

FUNCTIONAL

TECHNOLOGY

Data Office Coordination Reunions : Weekly
Data Strategy Meetings: Weekly
Extended Data Committee Meetings: National Technical Committee for Electronic Judicial Administration + GTData

Steering Committee - Monday

CDO

DATA OFFICE MANAGEMENT COMMITTEE

Follow-up

DATA STRATEGY COMMITTEE MEETINGS

Tasks

Data sponsors

UF UF UF UF

Functional area projects.

Tuesday Strategic Committee

Thematic projects

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CDO

DATA OFFICE MANAGEMENT COMMITTEE

MEETINGS OF CTEAJE DATA OFFICE

Follow-up

Tasks

"Thematic or Excellence Centers":

- MINISTRY OF JUSTICE + Murcia – Newsletters and Minerva – Quality
- MINISTRY OF JUSTICE + Cataluña – Evictions
- MINISTRY OF JUSTICE – Personal Statistics

INFORMATION PORTAL

Allows inter-administrative collaboration.

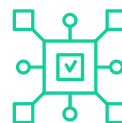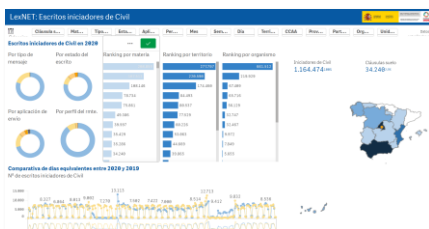*How it helps Justice?* By sharing information about the state of Justice that improves decision making.
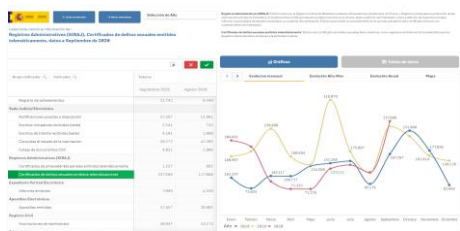
ADVANCED DASHBOARDS

It allows interactive, geospatial visualization and semi-complex predictions.

How it helps?
Providing managers with quality information to improve tactical and operational decision making.

DATA LABORATORY

It enables predictive modeling, socio-economic analysis, advanced analytics, clustering and deduction.

How it helps Justice?
Providing complex information with analysis and human AI to implement public policies that reduce structural litigation, improve social and economic indicators or provide more resources.
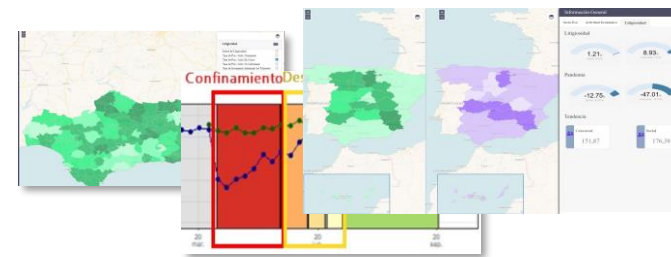
ARTIFICIAL INTELLIGENCE LABORATORY

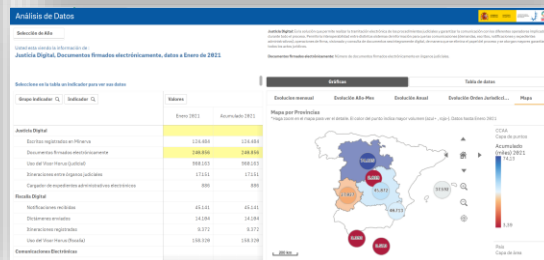Textualization, Automation...

How it helps?
The use of "pure" AI techniques helps to obtain better data that support previous initiatives, automate processes and enable other techniques.

Justice Based on Data

Portals for active advertising and territorial co-governance

https://datos.justicia.es/inicio

https://qlik.justicia.es
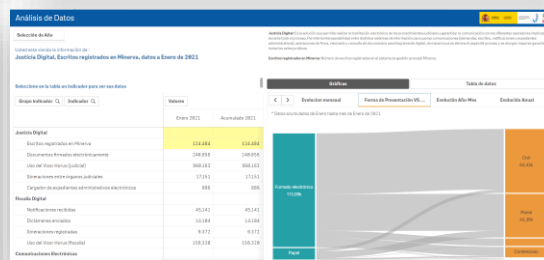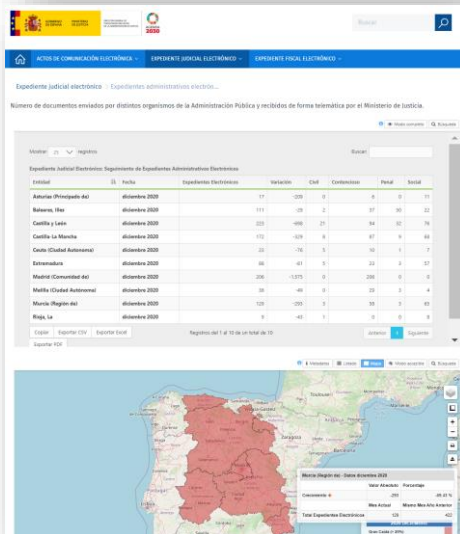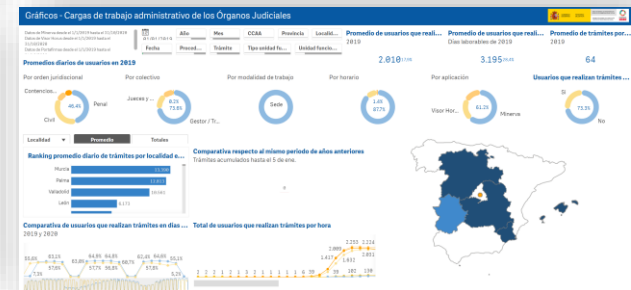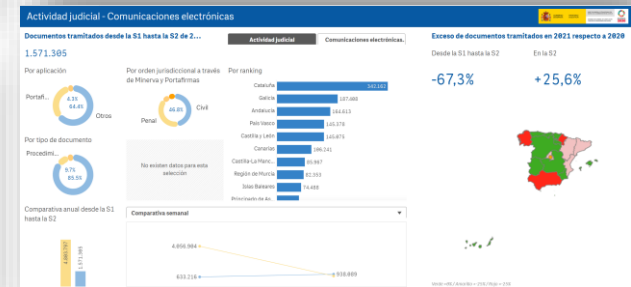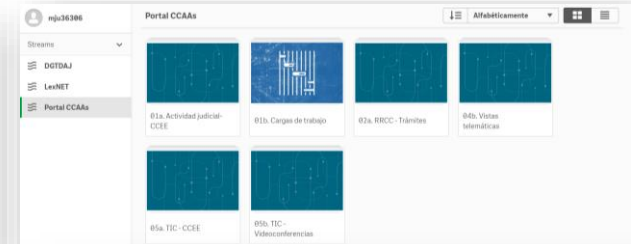
Autonomous cooperative space (dozens of indicators)

01a. Judicial activity-Electronic Communications

01b. Workloads

01c. Gender violence (PRE) 016 Calls and Litigation

02a. Civil Registries

04b. Telematic Judicial Views

05a. TIC – Electronic Communications

05b. TIC – Videoconferences

CMQLIK detailed inventory

Current IT Services Scheme for Data-driven Justice

Data Justice Lake

Productive environments

Data Warehouse

Partial anonymized replication

Analytics Tool

Control Panel

JUISE

IT Support

"SandBox"

"Consult"

Available | Partially accessible | Not Available
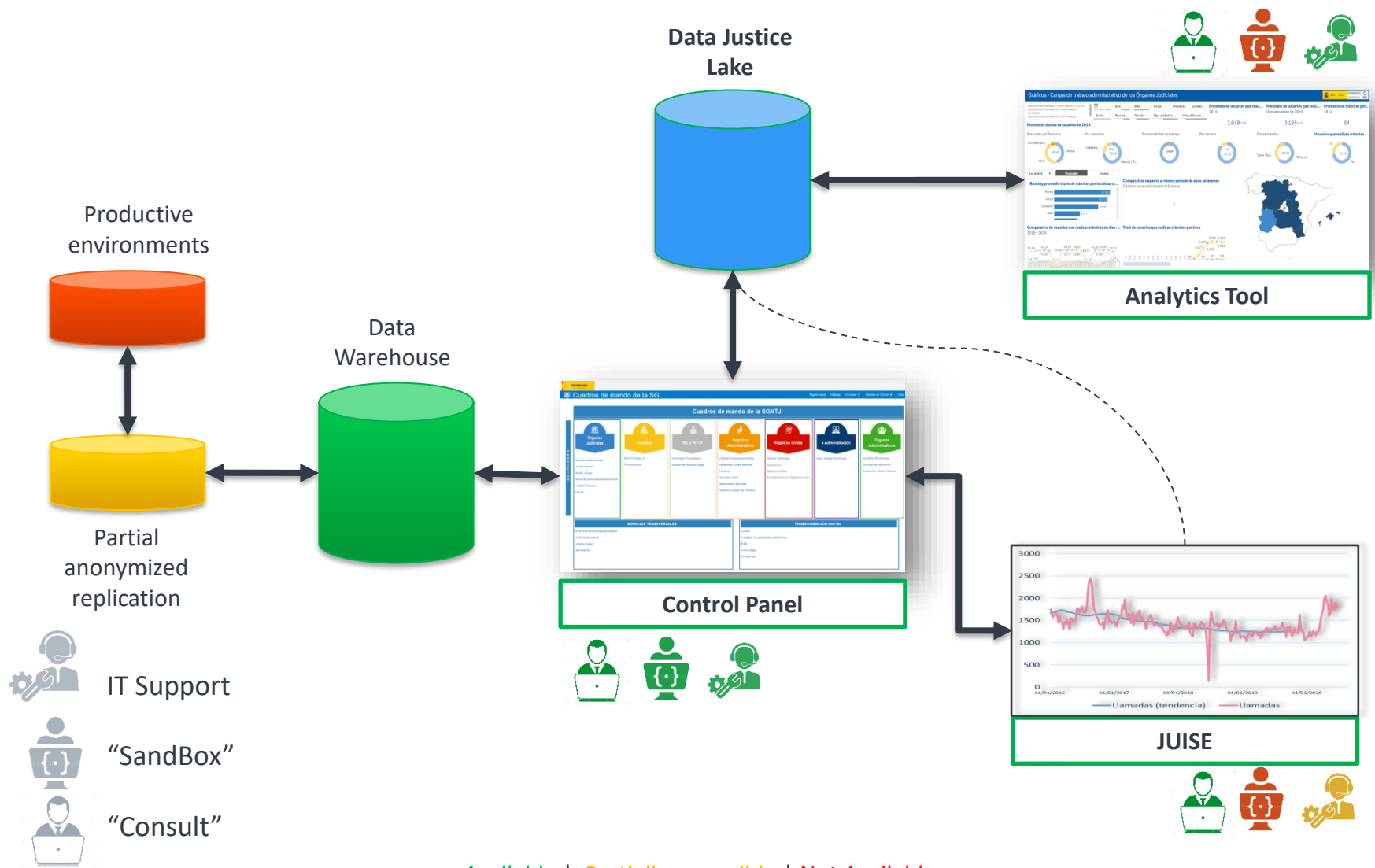
IT Services for Data-Driven Justice **Work** Scenario

Data Justice Lake

AAPP

Productive environments

Data Warehouse

Full anonymized replication

Analytics Tool

Control Panel

JUISE

IT Support

"SandBox"

"Consult"

Available | Partially accessible | Not Available
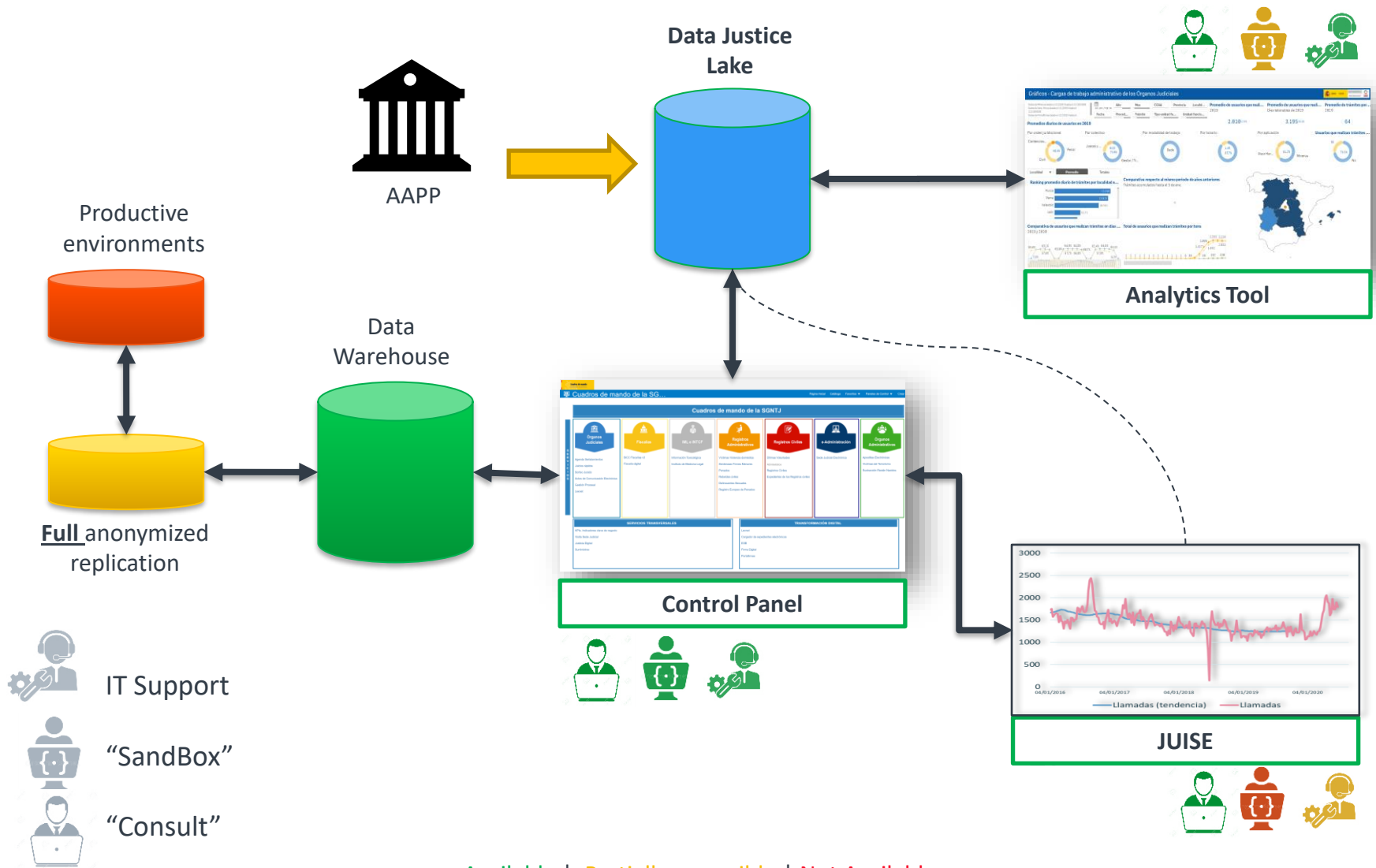
Future Scenario of IT Services for Data-Driven Justice

Productive environments

Full anonymized replication

Data Warehouse

AAPP

Data Justice Lake

Analytics Tool

"Real-time" data

Control Panel

JUISE

IT Support

"SandBox"

"Consult"

Available | Partially accessible | Not Available
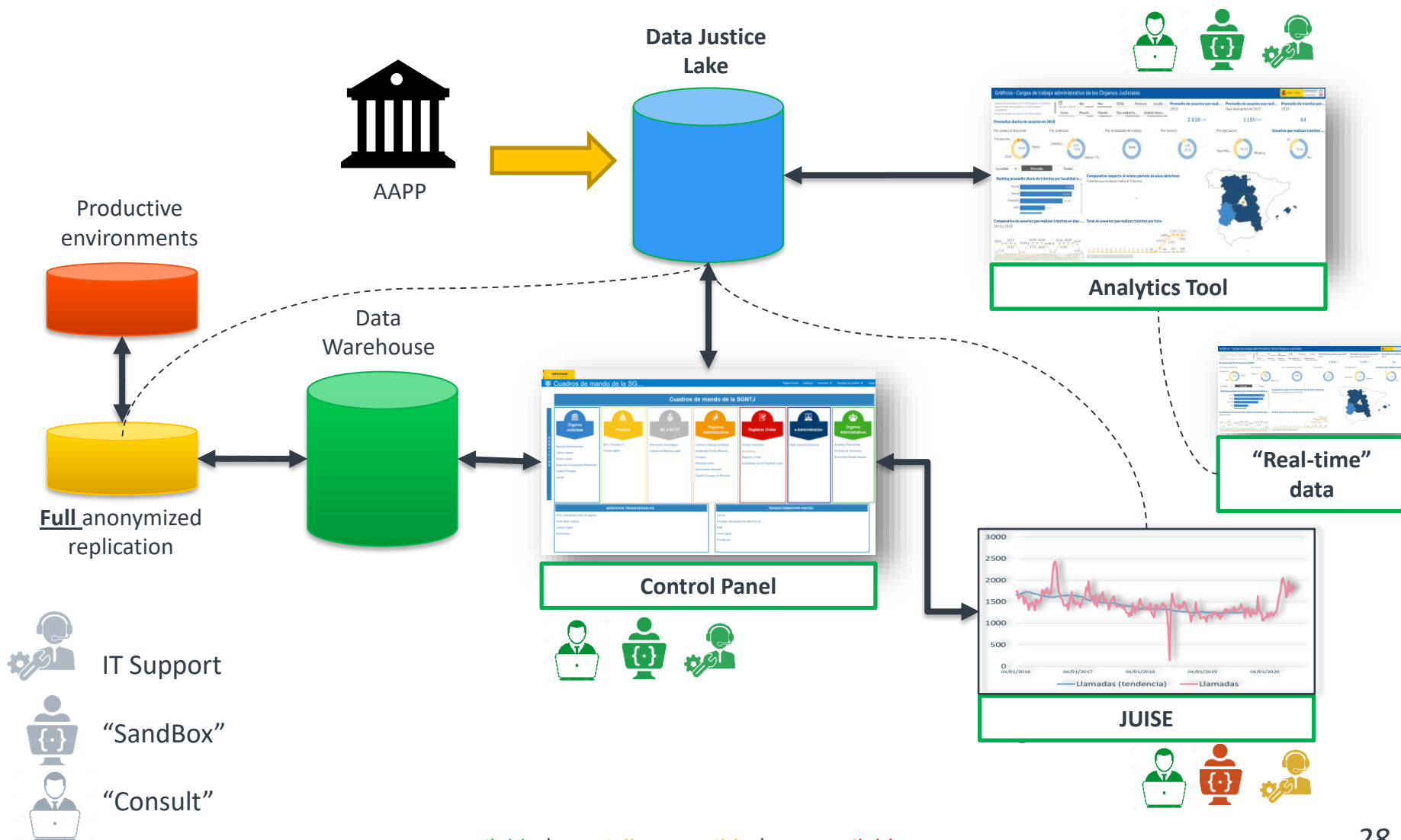
Control Panel: relevant initiatives

➢ **General Council of the Judiciary Statistical Bulletins**

➢ **Quality, Automation**

➢ **Progress in "zero" meetings**

  ➢ **Training, information**

➢ **CoE Murcia: Removable instructions to all Spain**

  ➢ **Quality**

➢ **DMD: Monthly Management Dossier**

  ➢ **Training, information, Involvement**

5BAF65B6.pdf

Some Advanced Analytics initiatives and Data Lab

| JUDICIAL DEPOSIT AND CONSIGNMENT ACCOUNT | STUDY ON THE IMPACT OF GENDER VIOLENCE DERIVED FROM COVID AND ITS SOCIO-ECONOMIC ANALYSIS | STUDY AND PROSPECTIVE IN LITIGATION OF INSOLVENCY MATERIAL DERIVED FROM COVID AND ITS SOCIO-ECONOMIC ANALYSIS | (IN PROCESS) EVICTIONS IMPACT STUDY |

Estudio sobre el impacto de la crisis COVID-19 en la litigiosidad en materia concursal

Ámbitos concursal

Madrid, 1 de Diciembre de 2020

minsait

High-level description of the stages – Gender violence

Data sources

016 Calls

SIRAJ Data (normal and BDE)

BDGC

Socio-economic indicators

Time series models

Study of the behavior of the series without considering external factors. Isolation of trend, seasonality and noise effects.

Regression models

Study of the historical relationship between initiated cases and calls to 016 during the pandemic.

Ratio issues and calls

Definition of behavioral areas according to the ratio issues and calls to 016.

Socio-economic study

Results are cross-referenced with socioeconomic information in search of patterns that relate judicial behavior to the characteristics of the population in the area.

52 provinces at a national level

Areas where to complaint

Madrid stands out as the province with the highest rate of calls to 016, but on the other hand it is one of the provinces with the lowest number of complaints per 100,000 inhabitants.

Compensated zones

Reinforce 016 calls and complaints.

High attention areas

Special attention to areas where there is a low rate of 016 usage and hardly any complaint.

Areas to reinforce 016

*The Basque Country and Cataluña have their own victim assistance telephone numbers. In this area there is a very low rate of calls to 016 compared to the number of judicial cases.

Axis labels:
- X: Average judicial "structural" issues over 100 thousand inhabitants
- Y: Average 016 "structural" calls over 100 thousand inhabitants

The **less litigious Judicial Districts** have higher values of family burdens, smaller dwellings and are in poorer areas.
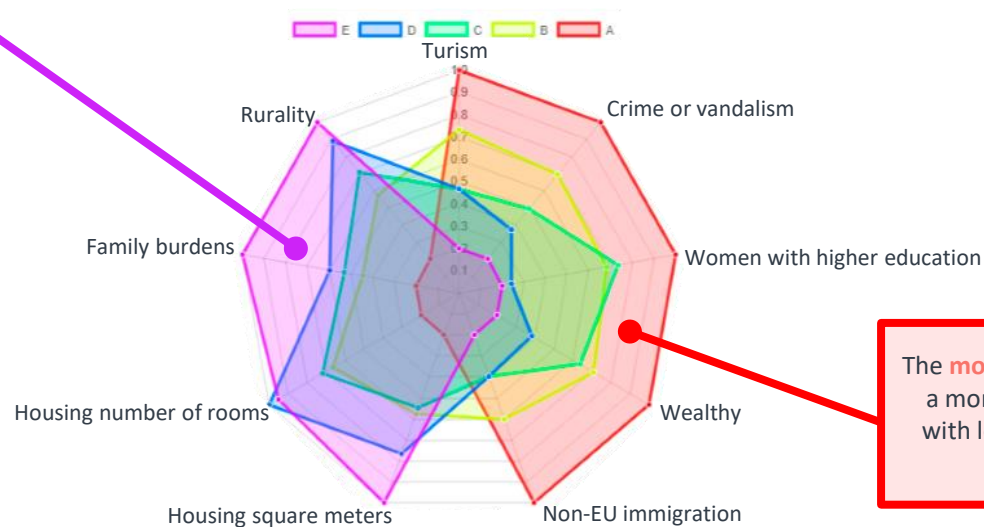
The **most litigious Judicial Districts** have a more educated female population with lower family burdens and are in wealthier areas.

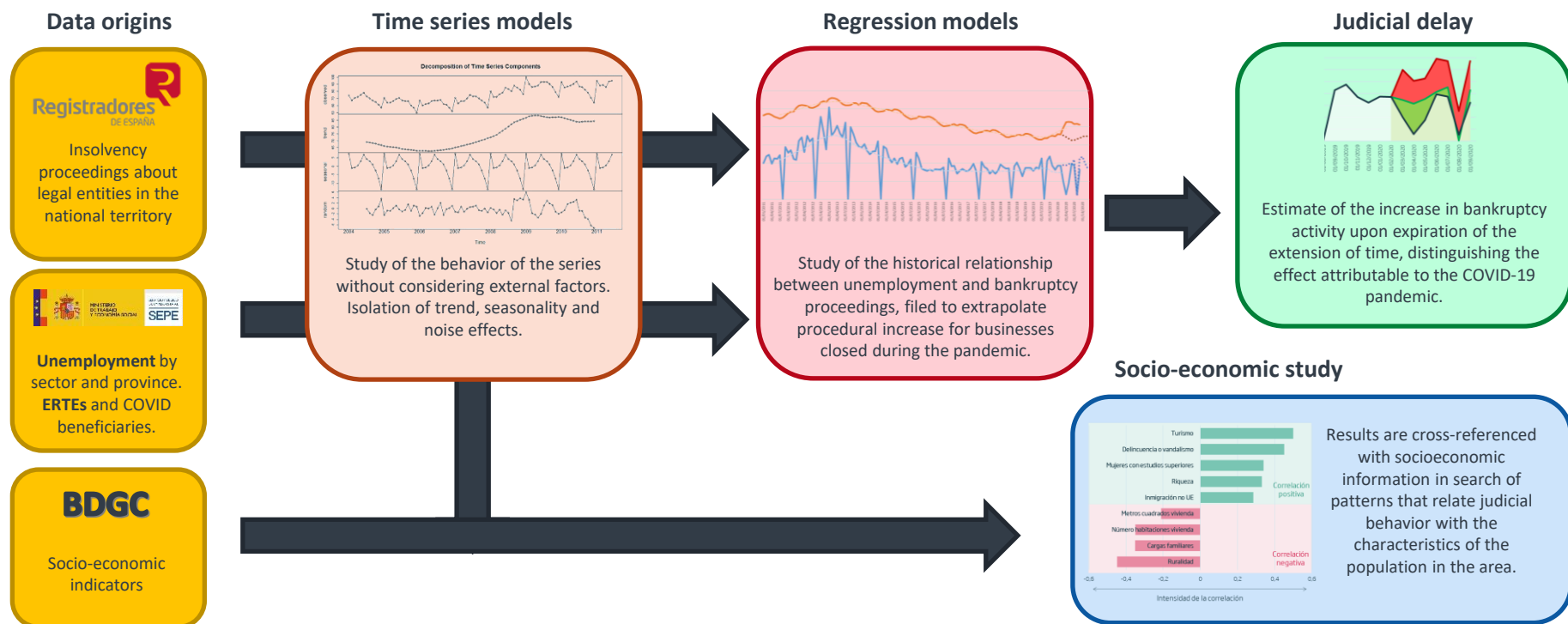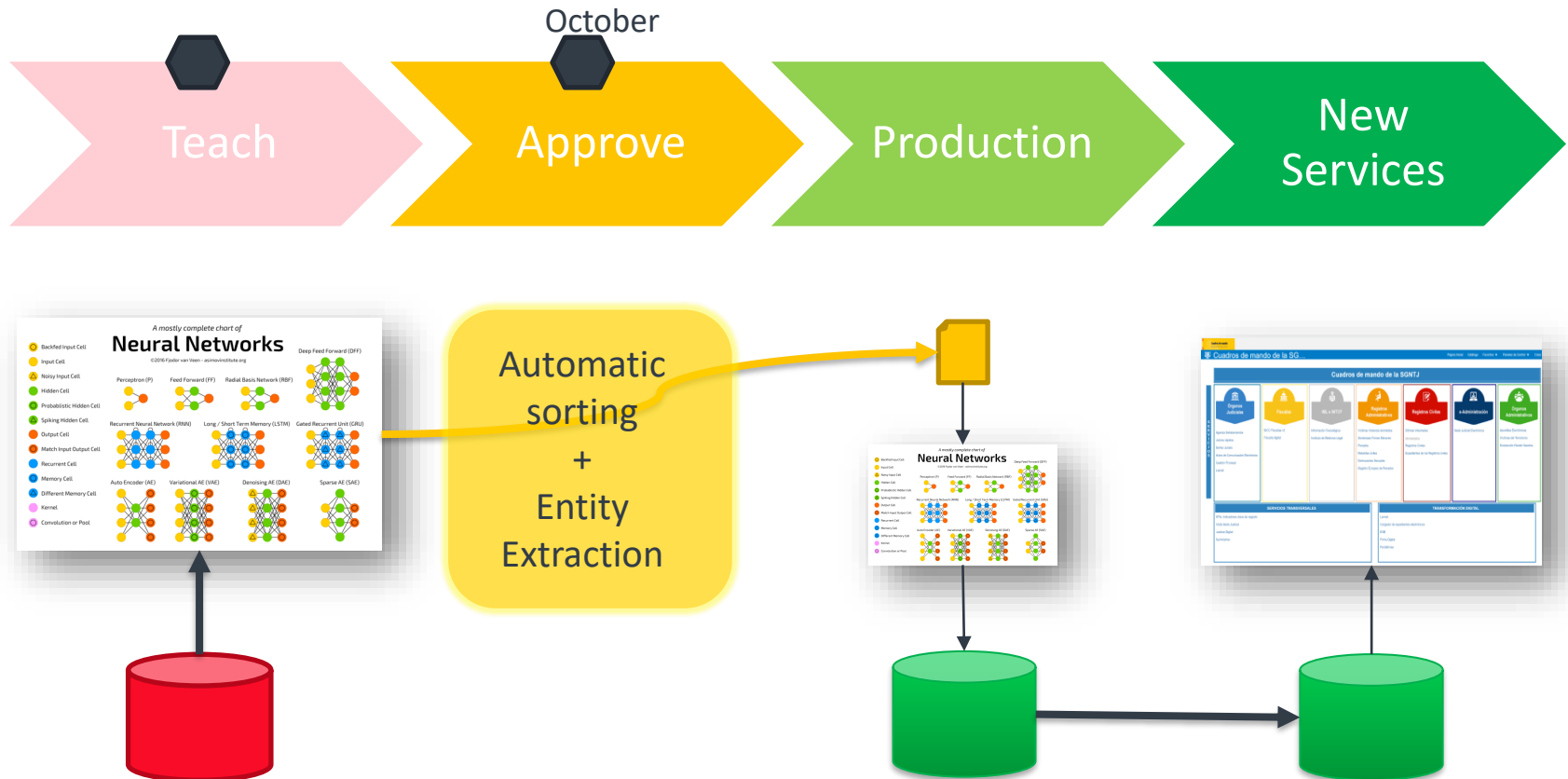| Data sources	Subgroup	Volumetry	Geographical scope	Time Scale
SIRAJ	Denounced	1.418.647	National at a judicial district level	Enero 2011 – Febrero 2021
	Victims	1.363.790	National at a judicial district level	Enero 2011 – Febrero 2021
	Judicial sentence	3.174.550	National at a judicial district level	Enero 2011 – Febrero 2021
	Crimes	1.721.220	National at a judicial district level	Enero 2011 – Febrero 2021
016 Calls	Calls	2.251.900	National at a provincial level	Enero 2011 – Febrero 2021
Judicial staff	Judges / 100m/hab	5.255	National to judicial unit	Marzo 2021

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Data sources	Indicators	Volumetry	Geographical scope	Time scale
BDGC	Turism	36.319	National at a census tract level	Synthetic indicators calculated based on the last available definitive Register (2020), 2011 Census, National Statistics Institute and National Employment Public Service data for different years depending on their publication. The date of the indicators is stipulated according to the date of the last Definitive Continuous Register (INE).
	Crime or vandalism			
	Women with higher education			
	Wealthy			
	Non-EU immigration			
	Housing square meters			
	Housing number of rooms			
	Family burdens			
	Rurality			

High-level description of the analysis stages carried out:

Data origins

Insolvency proceedings about legal entities in the national territory

Unemployment by sector and province. **ERTEs** and COVID beneficiaries.

BDGC

Socio-economic indicators

Time series models

Study of the behavior of the series without considering external factors. Isolation of trend, seasonality and noise effects.

Regression models

Study of the historical relationship between unemployment and bankruptcy proceedings, filed to extrapolate procedural increase for businesses closed during the pandemic.

Judicial delay

Estimate of the increase in bankruptcy activity upon expiration of the extension of time, distinguishing the effect attributable to the COVID-19 pandemic.

Socio-economic study

Results are cross-referenced with socioeconomic information in search of patterns that relate judicial behavior with the characteristics of the population in the area.

Artificial Intelligence Initiatives

Simple RPA has been applied in SIRAJ, and the applicability of "Intelligent" RPA in other areas it´s under study.

Initiatives for the interoperability and digitalization

- **Sending via SIR**: Data collection from shared resources (DIR3) for automated sending to the official registry of the destination administration.

- **Automated SIR + Loader**: Possibility of attaching a technical file with metadata on the location of the requested file, for its automatic localization and immediate sending to the justice systems (loader).

- **Paperless Office International** : Certified digitization of incoming documentation and document classification, which will allow obtaining incoming data, and quick location of documentation. Statistics and linkage with other information silos related to countries or individuals.

- **Access-Forms:** Standardization mode of entry or exchange of messages, on the move: reinforcement plans, covid, teleworking requests, free legal assistance, justification of free justice actions.

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Initiatives for the interoperability and digitalization

- **Start of the UX-Designer Developments + BPM- Automatics:** Generator of accessible, simple, step-by-step forms for agreed data models, based on which and with processing to perform automated actions. Drag&drop strategy for process elaboration.

low code

Ministry of Justice Systems
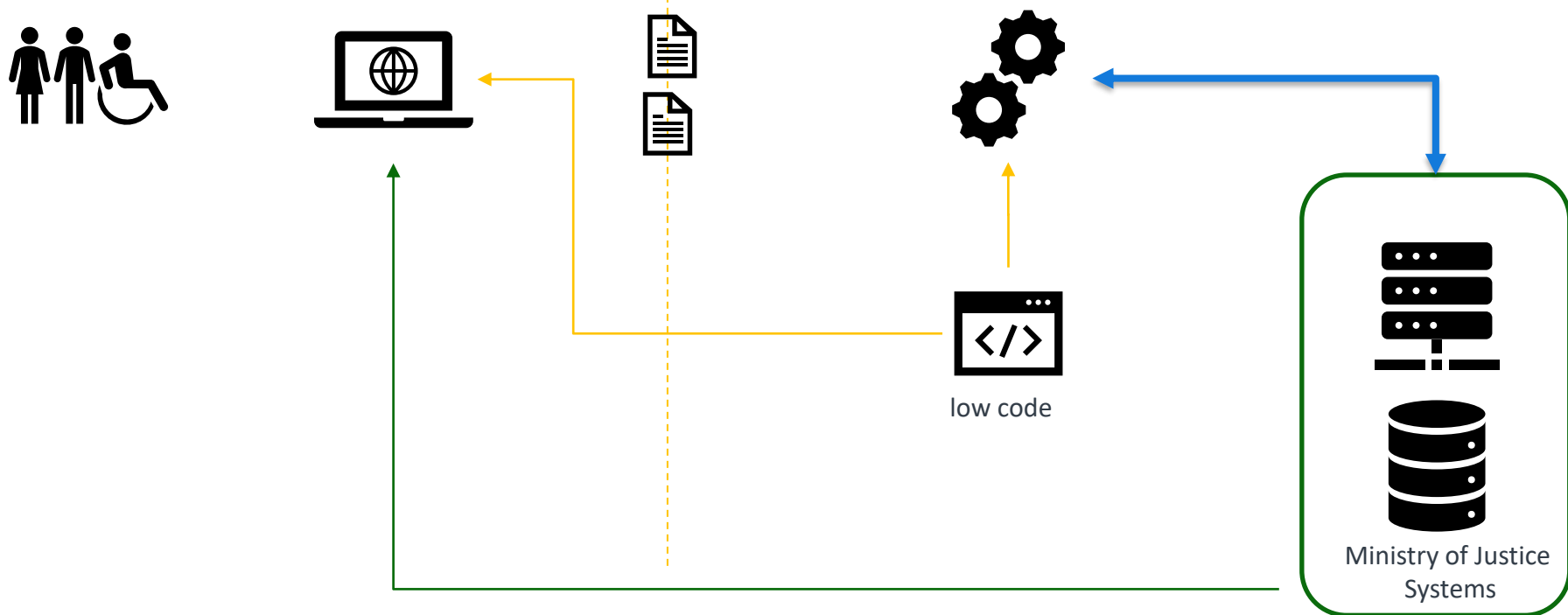
Organizational initiatives

- **Demand Management**

- **Organizational improvement consulting**

- Information sharing **repository**

- Information source **data sheets**

  - Executive data
  - Technical Data
  - Detailed information

- **National Statistical Commission**
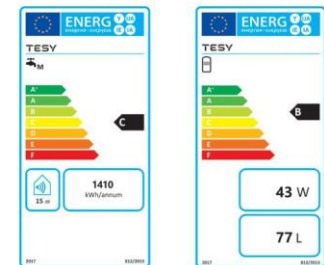
- **Pending:** training and communication service
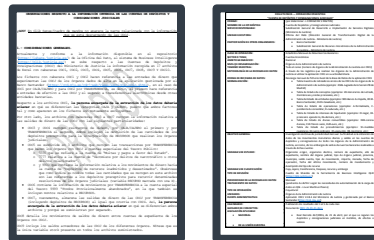
Regulatory initiatives

- Data Office **Manifesto**

- **Compliance** Service

- Analysis and service mode for the European Directive

- **Data Protection Analysis Service - DPD**

- **Cooperative framework:** agreements, terms of use, warranties, confidentiality agreements, re-use
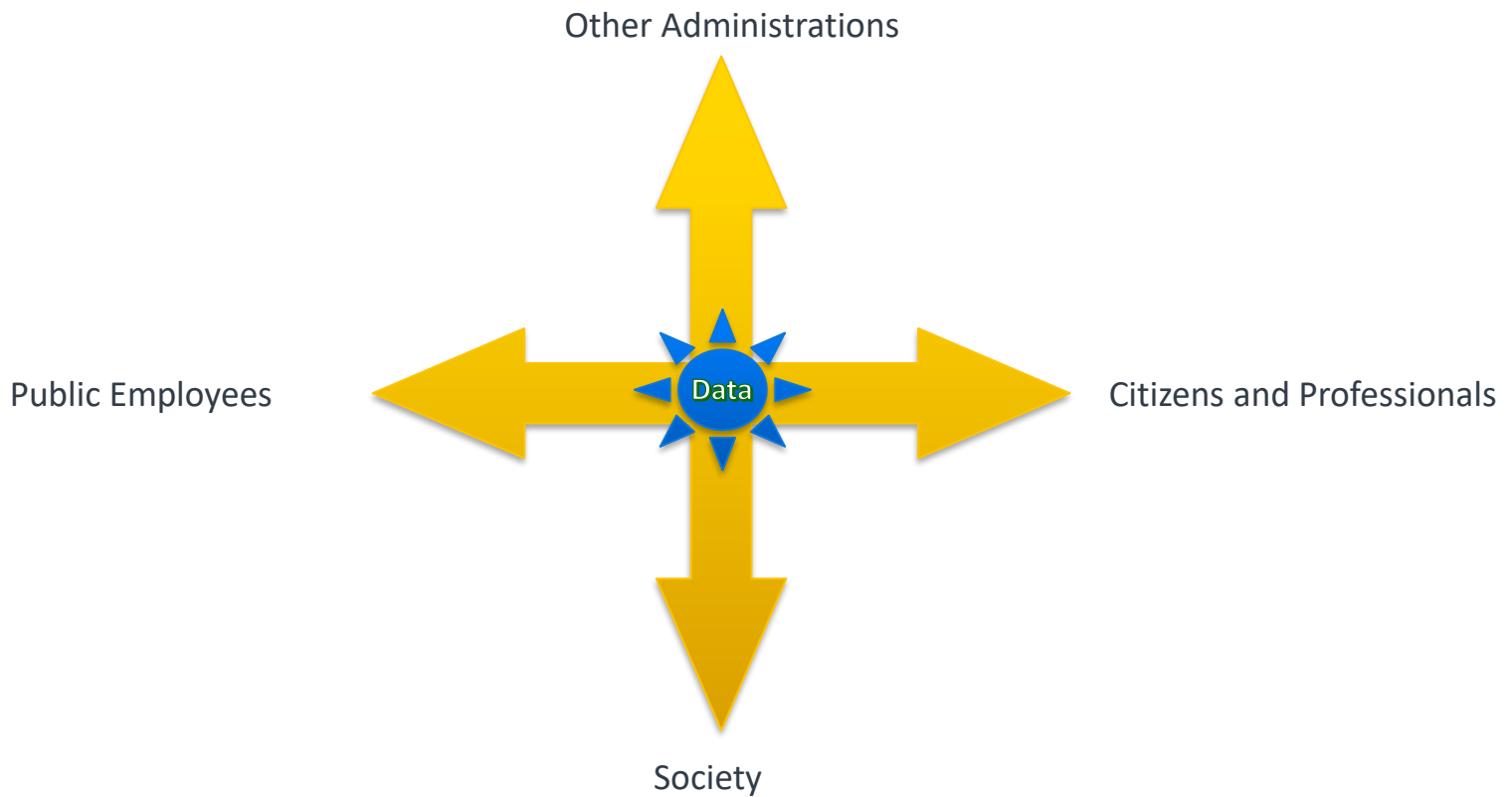
- **IA Terms of Use (ethics)**

https://ishare.justicia.es/

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A data strategy must serve all involved actors:

- Citizen, Professional, and 360º Employee.

Other Administrations

Public Employees   Data   Citizens and Professionals

Society

A data strategy must serve all involved actors:

- Citizen, Professional, and 360º Employee.

Inter-administrative procedures
Data exchange
Enabling legislation

Other Administrations

Data Office
DataLab
LEOS
Acceda – Internal procedures

Public Employees

Data

Citizens and Professionals

Appointments
Shift management
PITIA
EVID
ClaveJusticia
Acceda
Multichannel Support

Society
JUISE Laboratory

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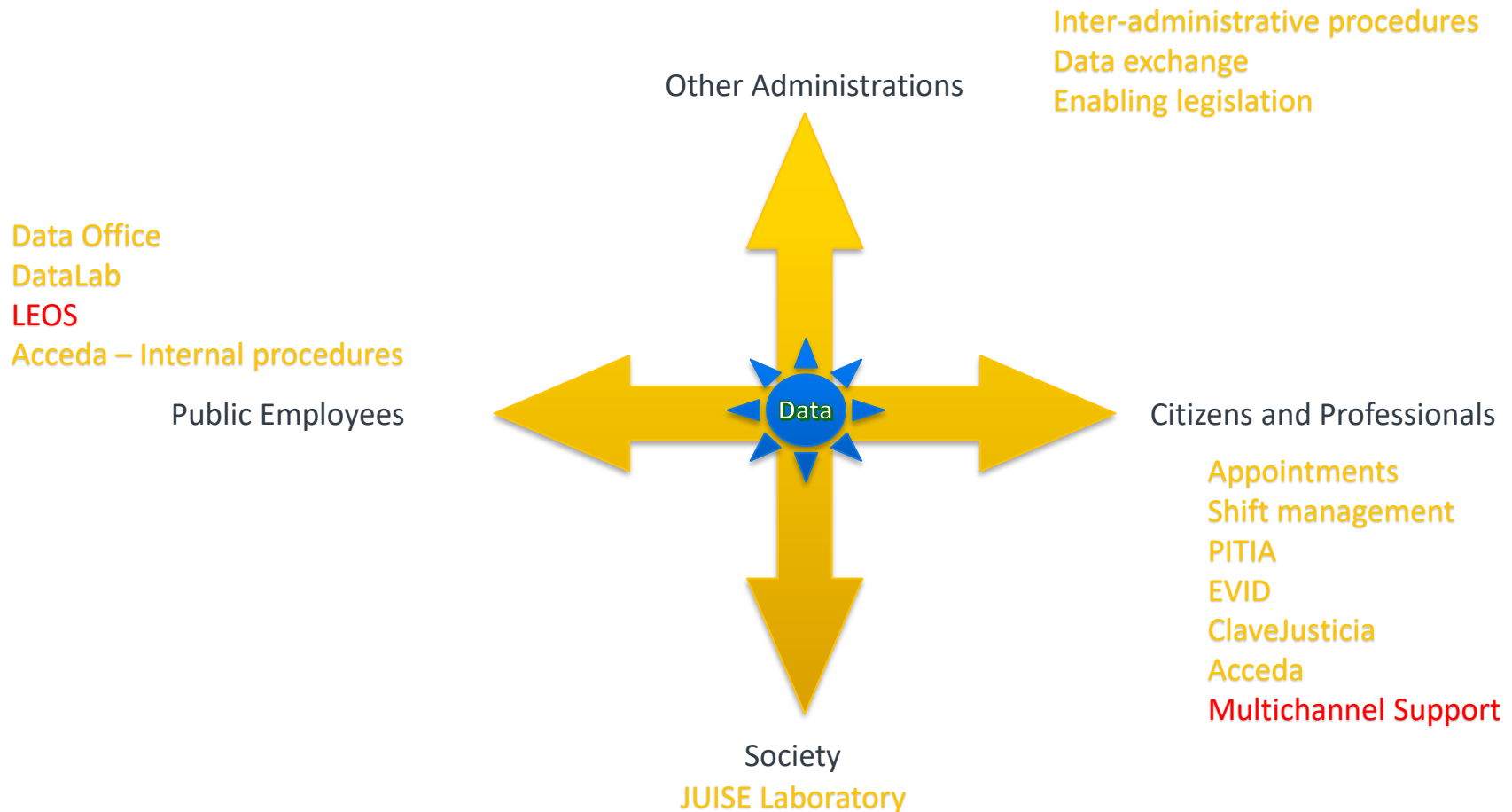
Thank you for your attention

Javier Hernández Díez
General Subdirectorate for Development and Implementation of Digital Services
General Directorate for Digital Transformation of the Administration of Justice
General Secretariat for Innovation and Quality of the Public Justice Service
Ministry of Justice

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DIRECCIÓN GENERAL DE TRANSFORMACIÓN DIGITAL DE LA ADMINISTRACIÓN DE JUSTICIA

AGENDA 2030