Justice based on data

General Directorate for Digital Transformation
of the Administration of Justice

GOBIERNO DE ESPAÑA
MINISTERIO DE JUSTICIA
JUSTICIA 2030

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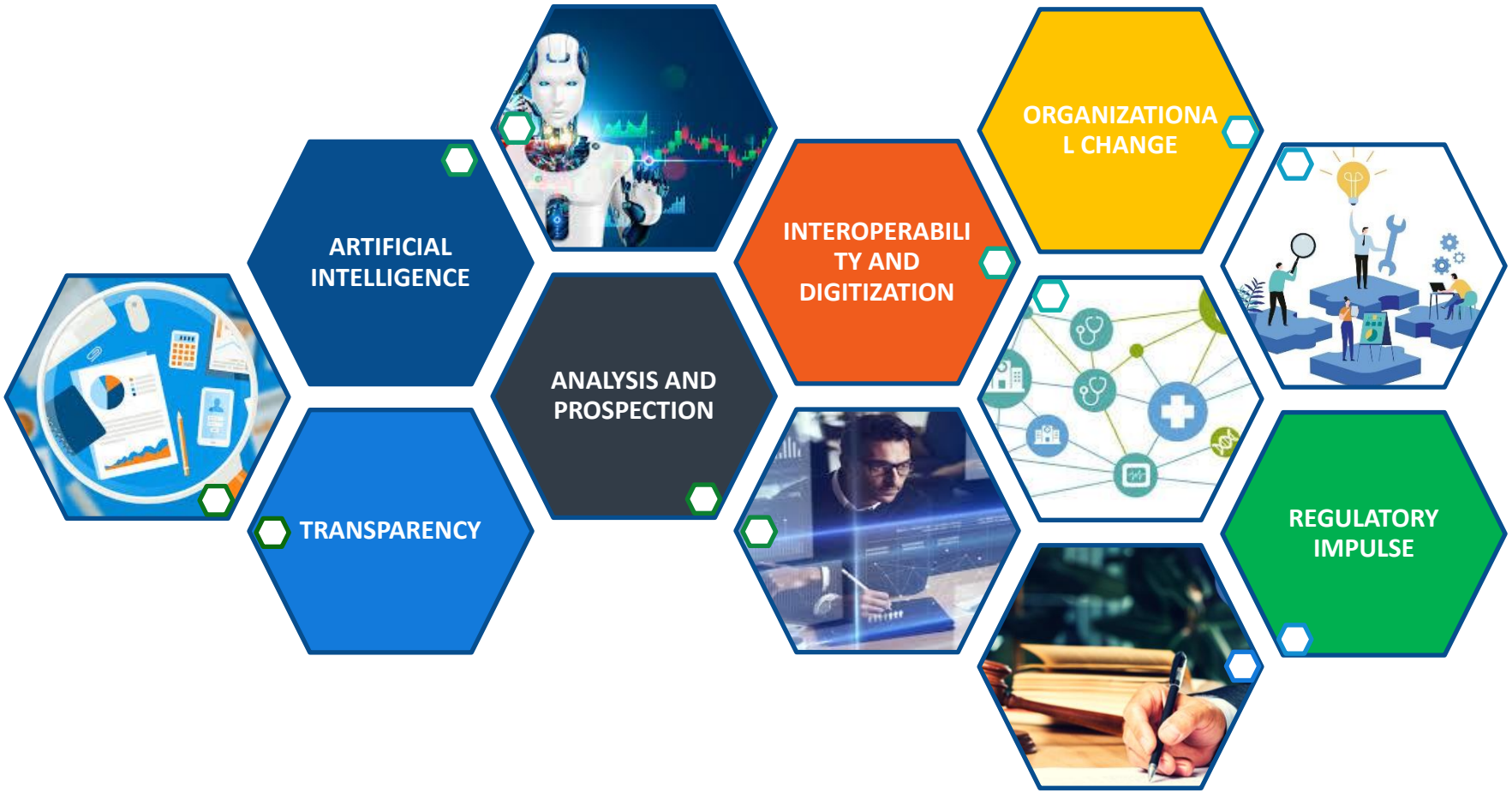
Related concepts



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

*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.*

HIGHEST UPDATING

***Reaching the highest frequency without affecting the processing systems,** to give service every specific minute if needed.*

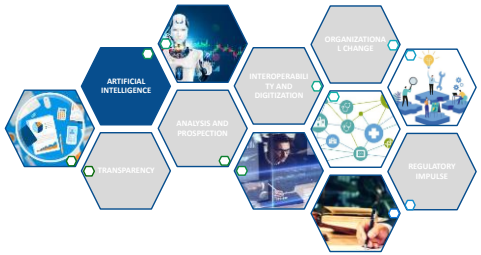
QUALITY OF THE INFORMATION

*The indicators will be **validated by the functional managers and the Office**.*

DATA PROTECTION

***The information will not be divulged when that could involve a risk** in its shape or content considering the RGPD.*

Related concepts

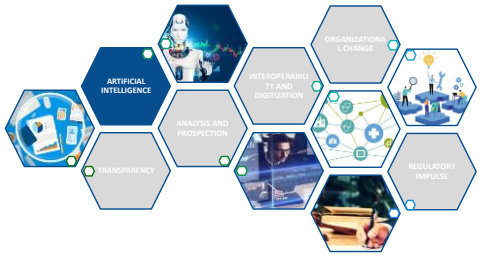


ANALYSIS AND PROSPECTION

*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"*

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

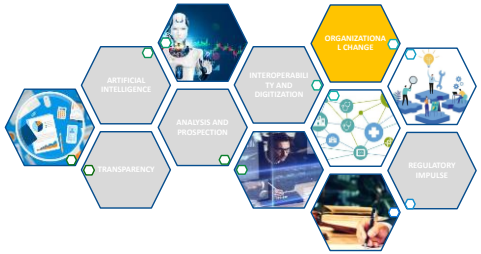
INTEROPERABILITY AND DIGITIZATION



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

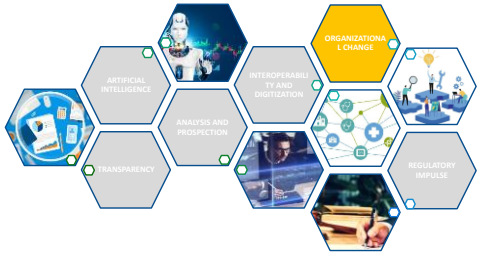


ORGANIZATIONAL CHANGE

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:

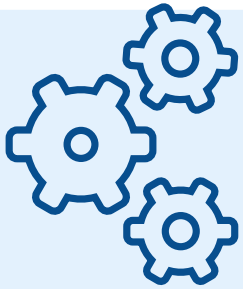
- ***Create an organizational framework** that enables these goals: comittees, subgroups, petition management, etc*
- ***Territorial cogovernance***
- *A process model that allows to incorporate the procedures and quality of the products that the office generates*
- ***Common policies** for the use of 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

The world is changing, and data is acquiring great importance and repercussions in our society. From the MJU we have adapted and have carried out initiatives that enhance our role as an enabler and engine of change for the transformation of justice. Some of them are:



*Approval of the **Data Manifesto**...*

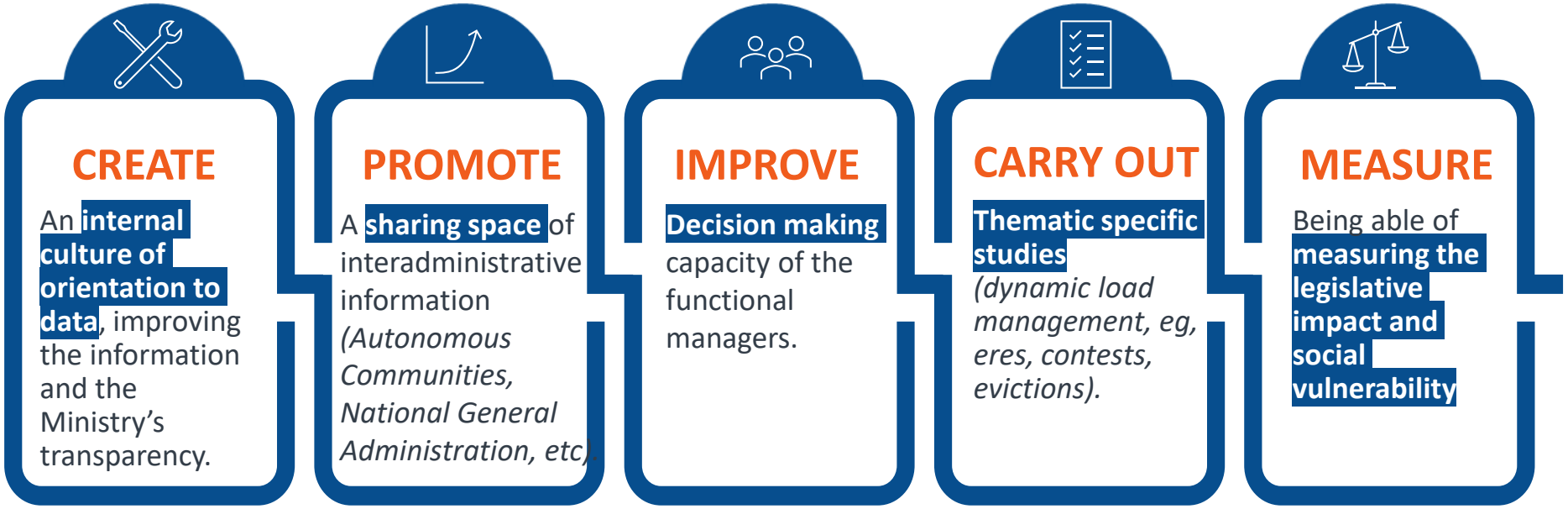
Carried out in co-governance by the MJU, the CCAA, the CGPJ and FGE. Whose main objective is to improve the efficiency of Justice through data processing and design public policies in the field of Justice.

...positioning the role of data as a **PUBLIC GOOD**

In addition, initiatives have been launched such as:

Dashboards, advanced analytical studies of gender violence, evictions or other issues, the Artificial Intelligence Laboratory, Data Office, Data Laboratory and Information Portals.

Objectives



*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

1 LEVEL

CONTROL PANEL / REPORTING

2 LEVEL





ANALYTICAL CONTROL PANELS / ADVANCED ANALITICS

3 LEVEL

PROSPECTION AND ARTIFICIAL INTELLIGENCE

4 LEVEL

INDEX

01 Introduction, concepts and goals

02 **Subprojects and featured activities**

03 Derived projects

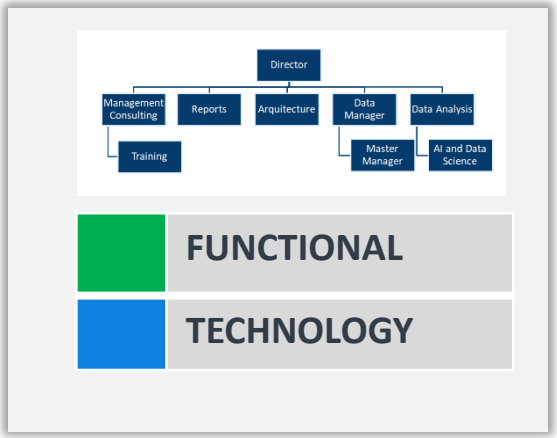
04 Discussion

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...*

DATA GOVERNANCE

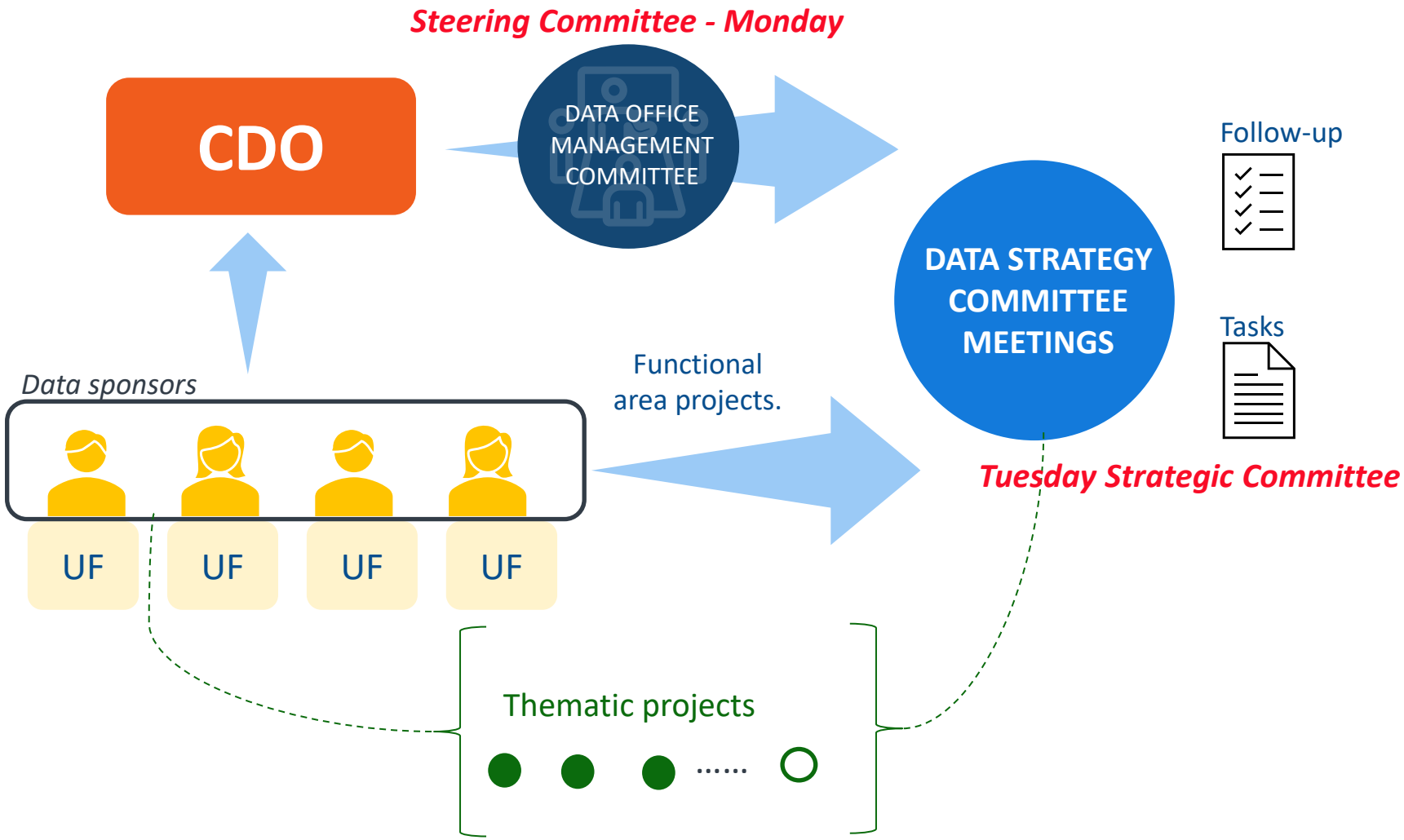


Management

- 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*

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

02. SUBPROJECTS AND FEATURED ACTIVITIES



CDO

DATA OFFICE MANAGEMENT COMMITTEE

MEETINGS OF CTEAJE DATA OFFICE

Follow-up

Tasks



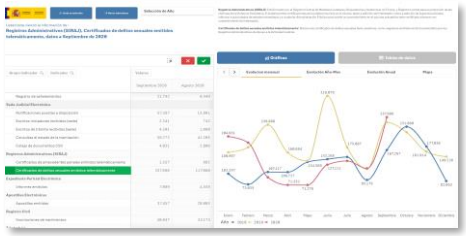
"Thematic or Excellence Centers":

- 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.



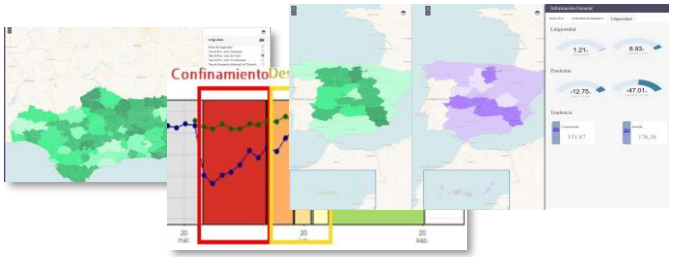
Justice Based on Data

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.

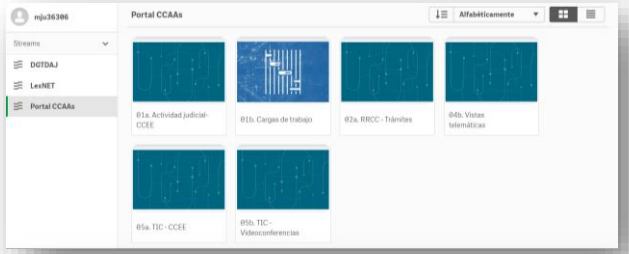
Portals for active advertising and territorial co-governance

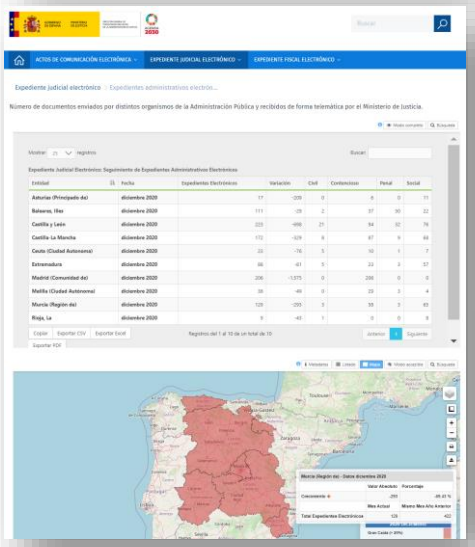
https://datos.justicia.es/inicio

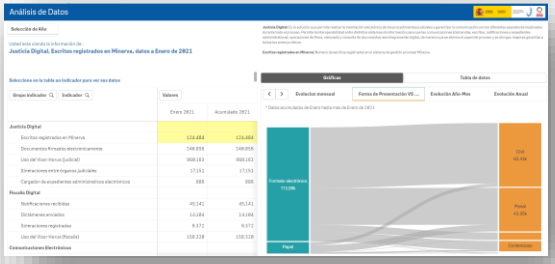
https://qlik.justicia.es

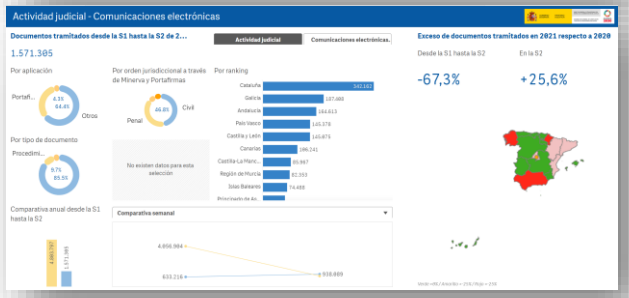


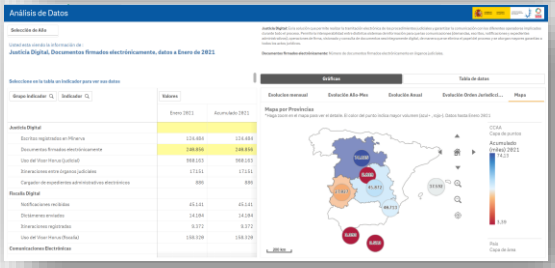


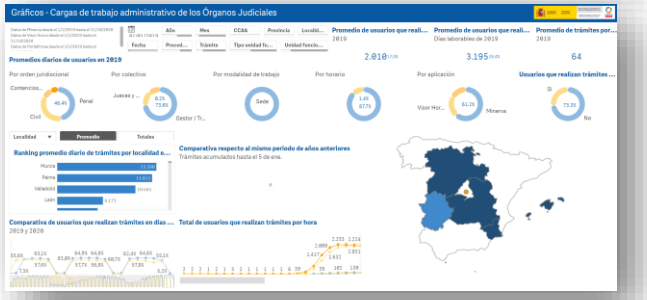












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Autonomous cooperative space (dozens of indicators)

01a. Judicial activity-Electronic Communications

01b. Workloads

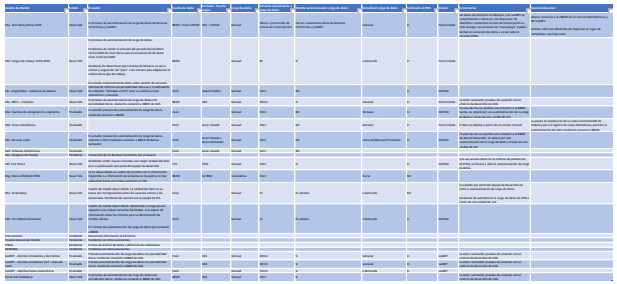
01c. Gender violence (PRE) 016 Calls and Litigation

02a. Civil Registries

04b. Telematic Judicial Views

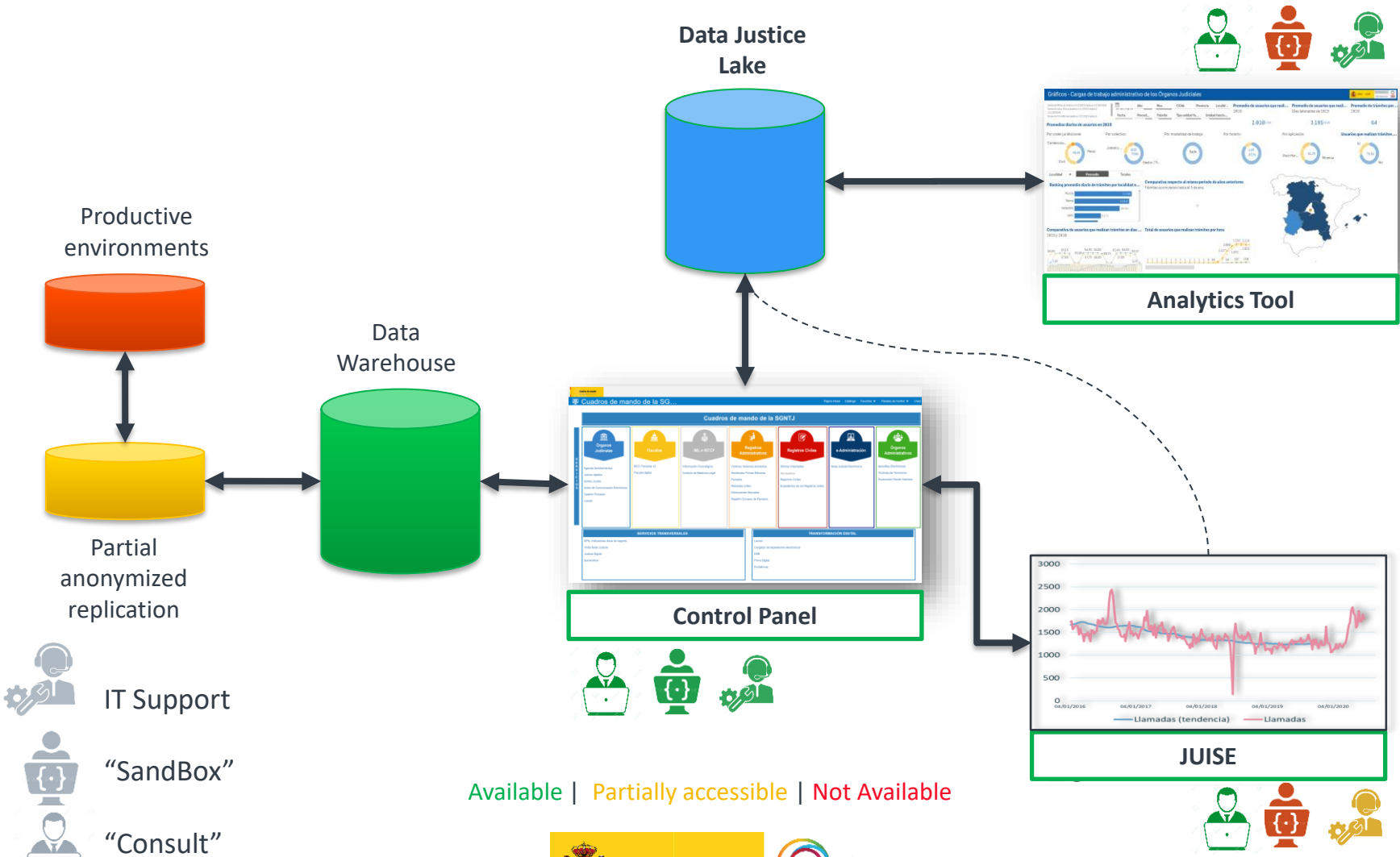
05a. TIC – Electronic Communications

05b. TIC – Videoconferences

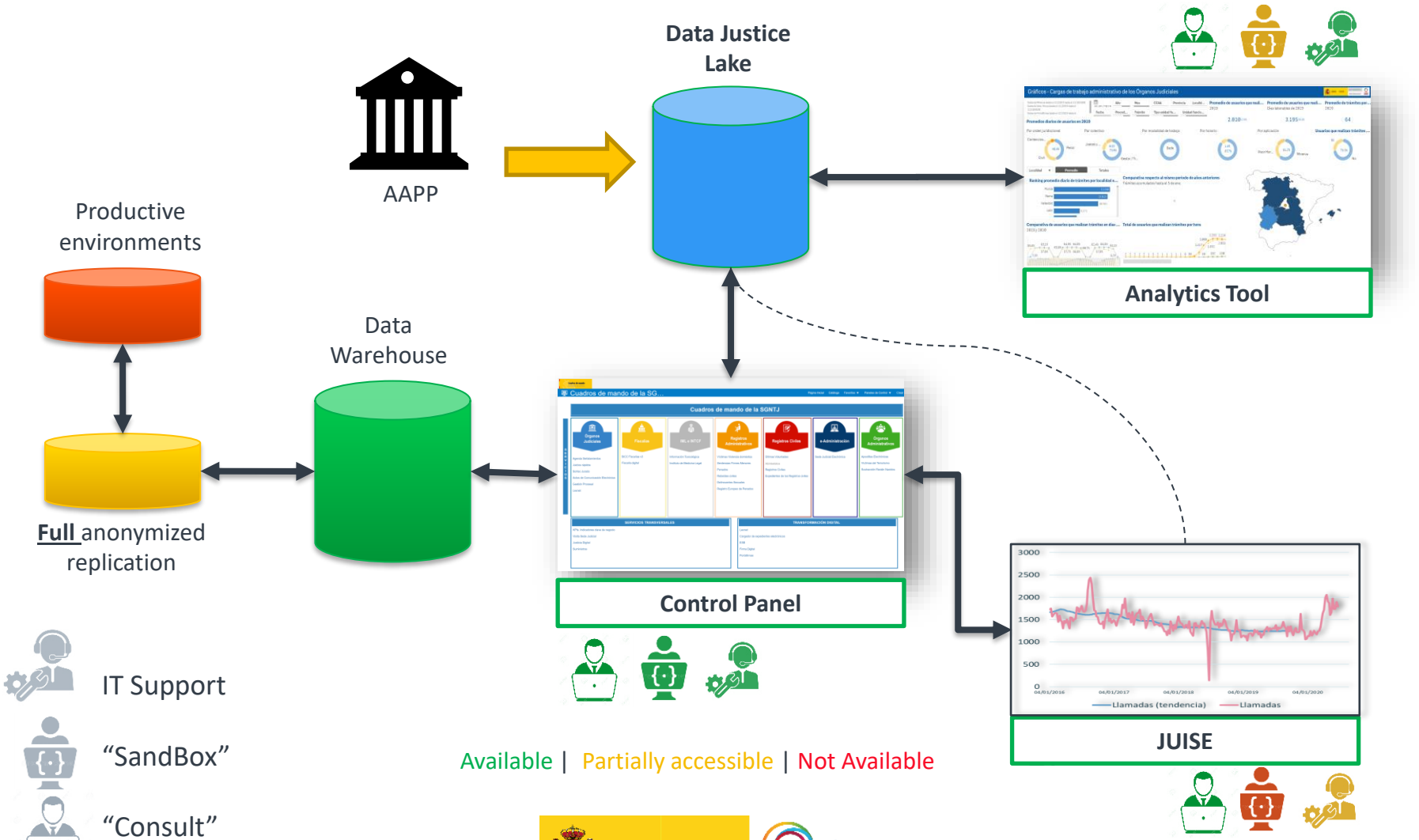


CMQLIK detailed inventory

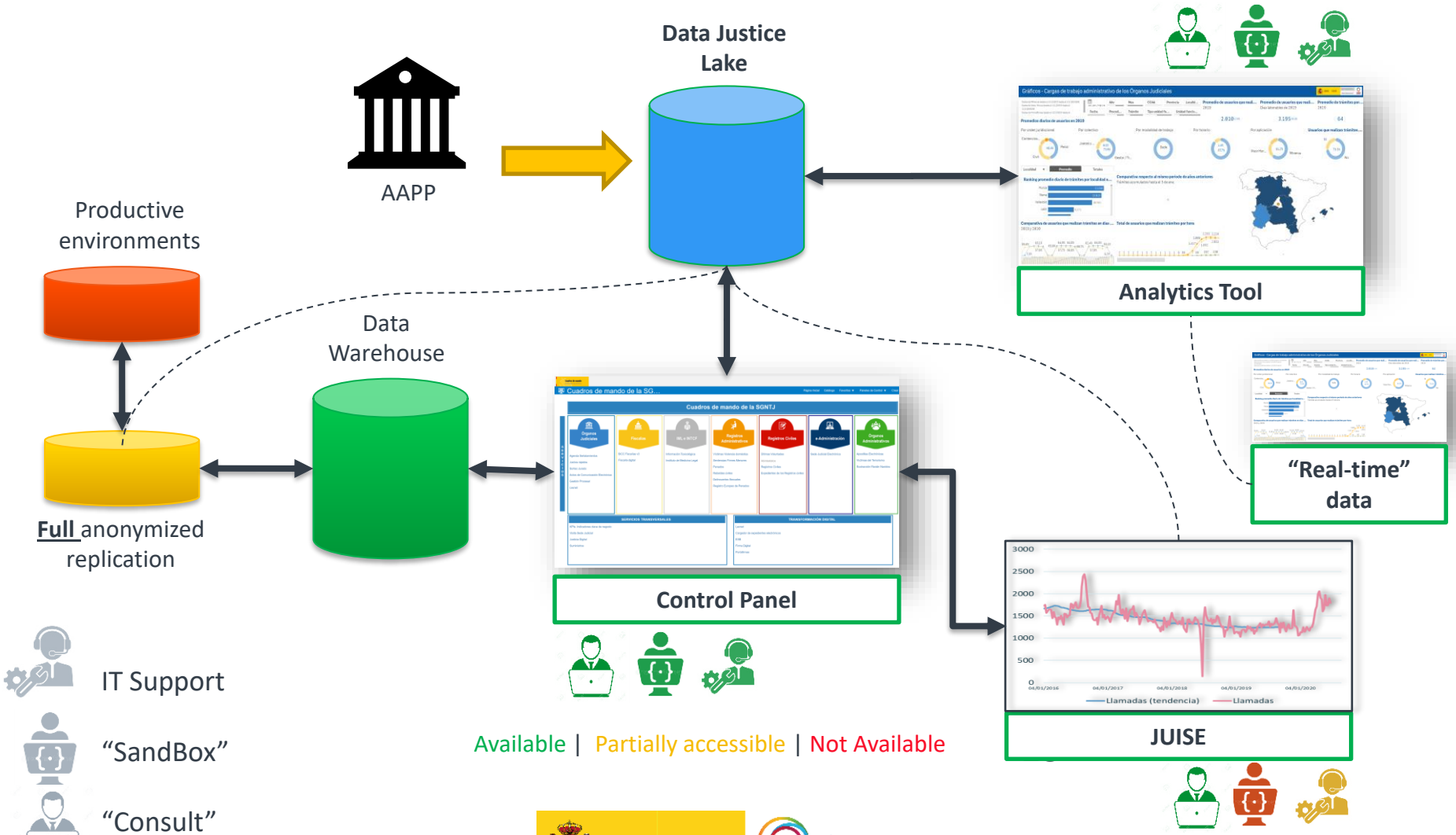
Current IT Services Scheme for Data-driven Justice



IT Services for Data-Driven Justice **Work** Scenario



Future Scenario of IT Services for Data-Driven Justice



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



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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





High-level description of the stages – Gender violence

Data sources

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016 Calls

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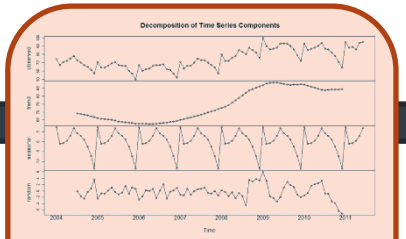
SIRAJ Data (normal and BDE)

BDGC

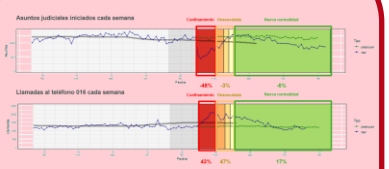
Socio-economic indicators

Time series models



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

Regression models



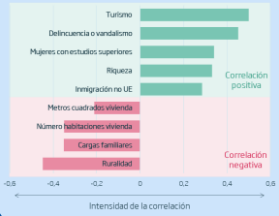
Study of the historical relationship between initiated cases and calls to 016 during the pandemic.

Ratio issues and calls



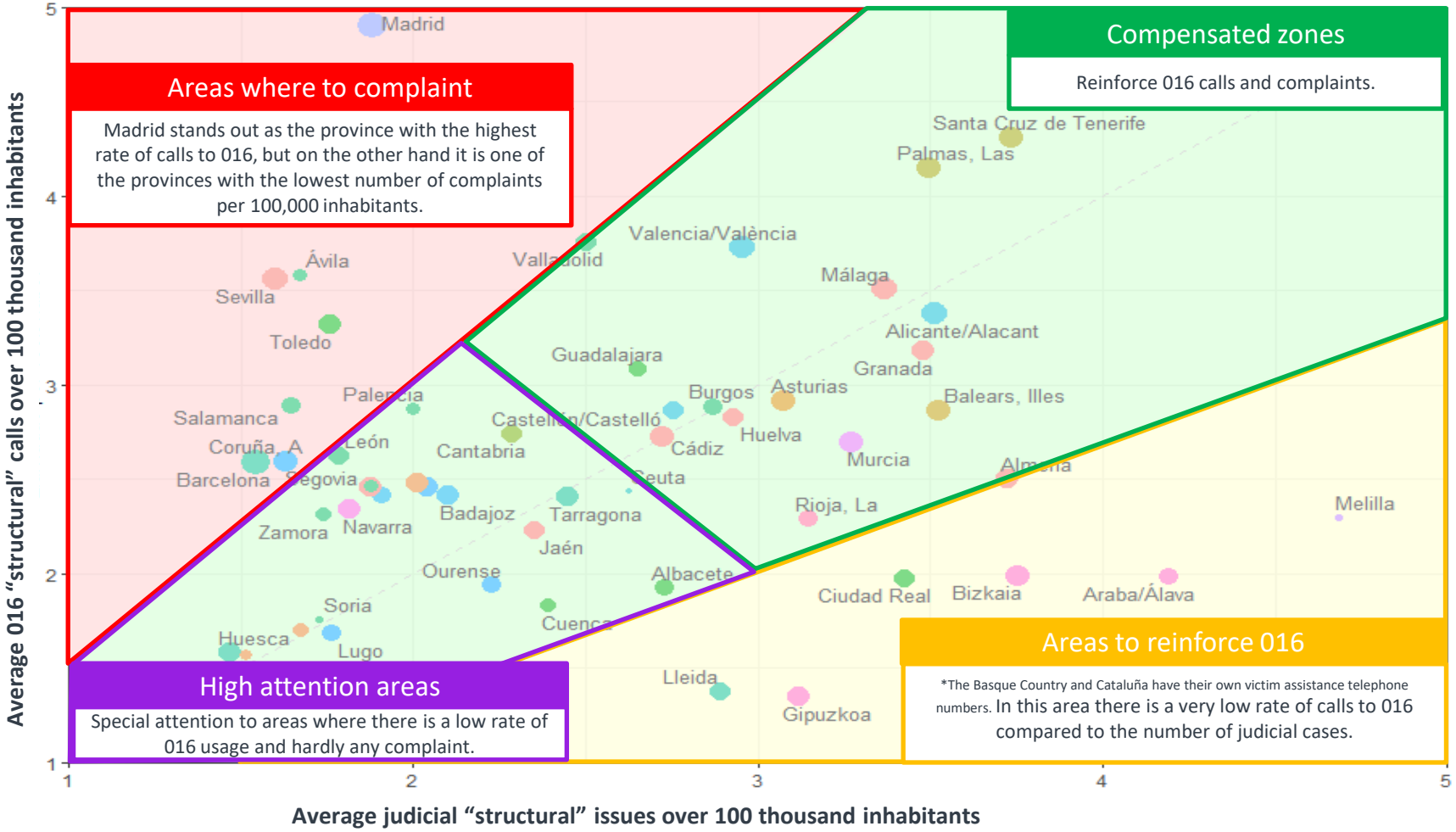
Definition of behavioral areas according to the ratio issues and calls to 016.

Socio-economic study

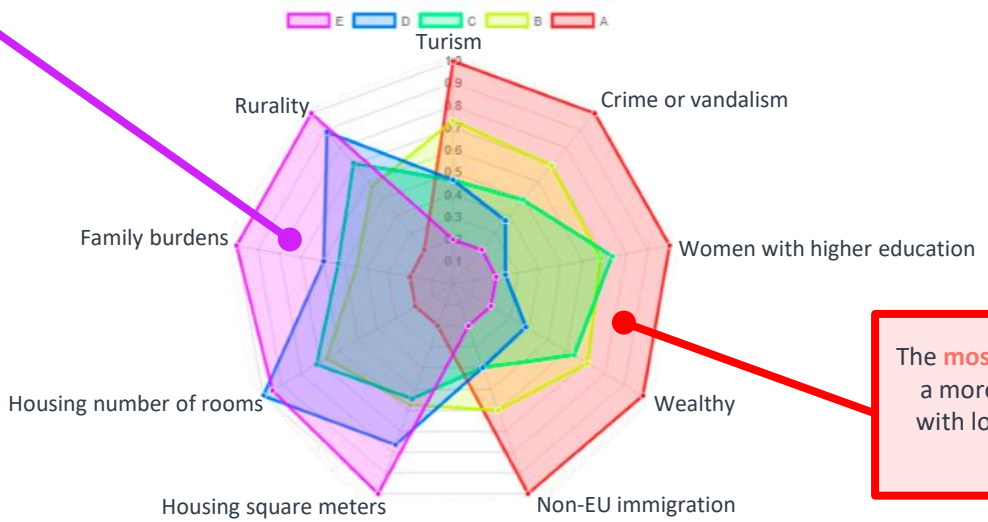


Results are cross-referenced with socioeconomic information in search of patterns that relate judicial behavior to the characteristics of the population in the area.

52 provinces at a national level



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.

High-level description of the analysis stages carried out:

Data origins

Registradores DE ESPAÑA

Insolvency proceedings about legal entities in the national territory

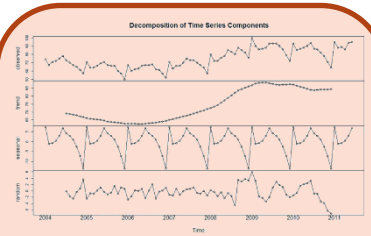
MINISTERIO DE TRABAJO Y ECONOMÍA SOCIAL · SEPE

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

BDGC

Socio-economic indicators

Time series models



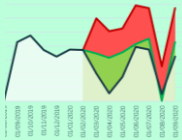
Study of the behavior of the series without considering external factors. Isolation of trend, seasonality and noise effects.

Regression models



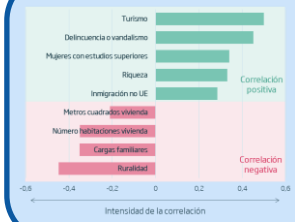
Study of the historical relationship between unemployment and bankruptcy proceedings, filed to extrapolate procedural increase for businesses closed during the pandemic.

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.

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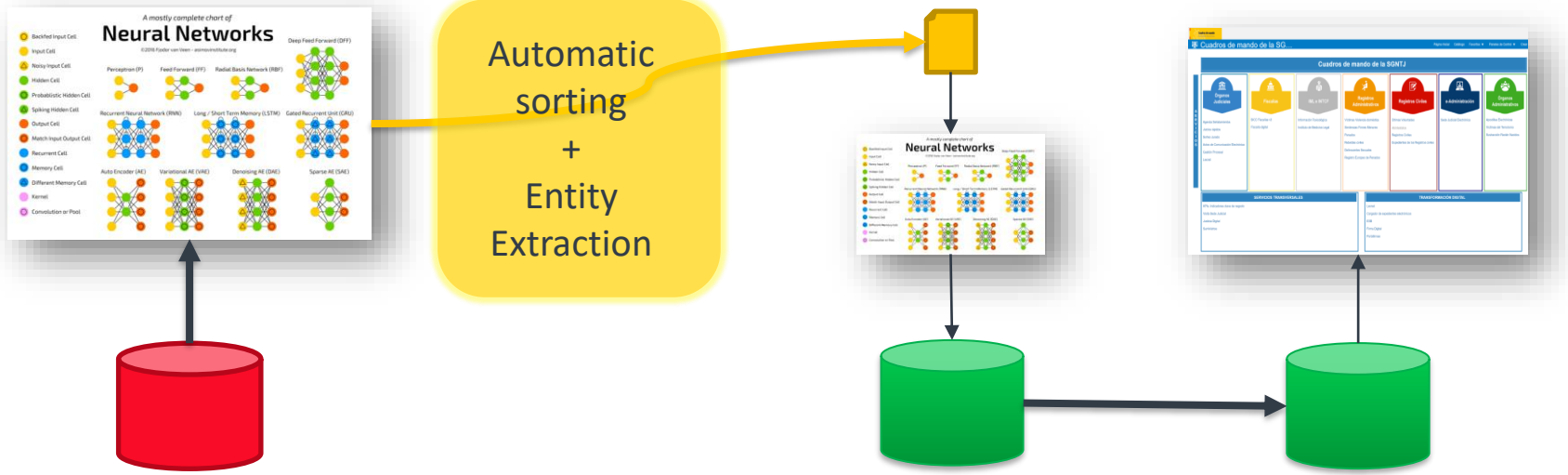
Artificial Intelligence Initiatives

October

Teach → Approve → Production → New Services



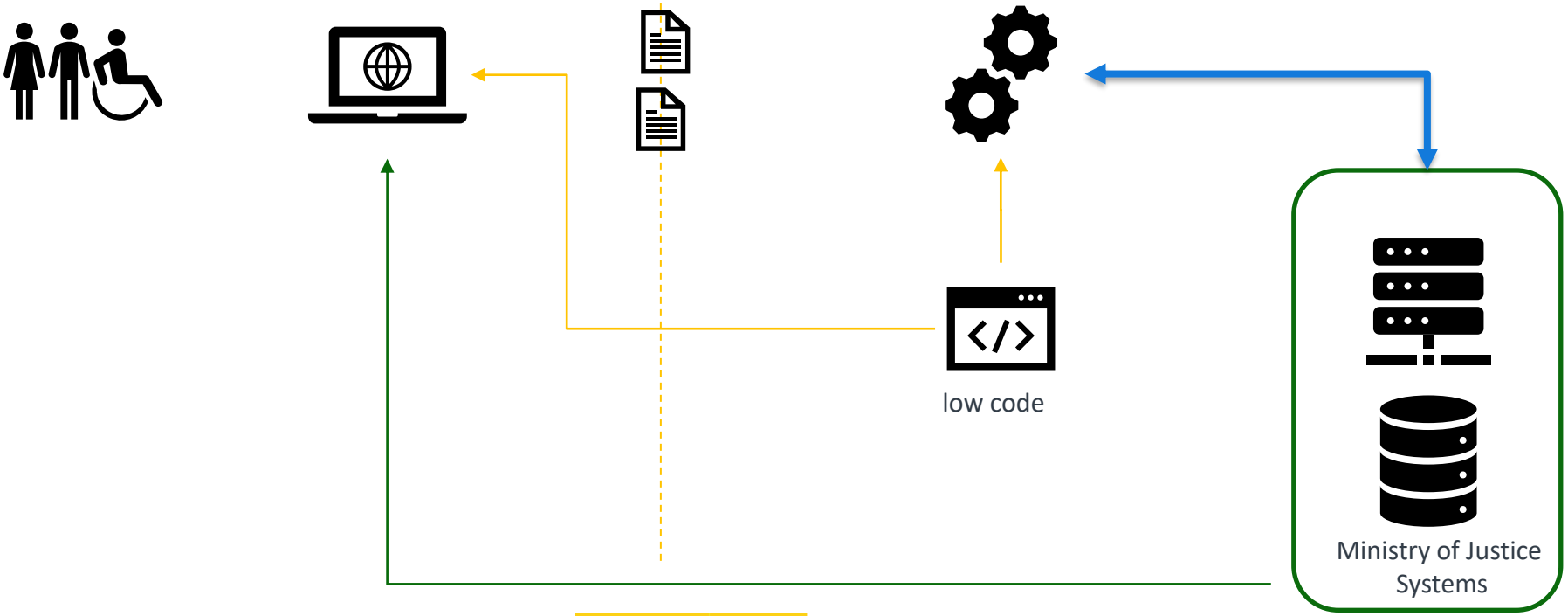
Simple RPA has been applied in SIRAJ, and the applicability of "Intelligent" RPA in other areas it´s under study.

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.

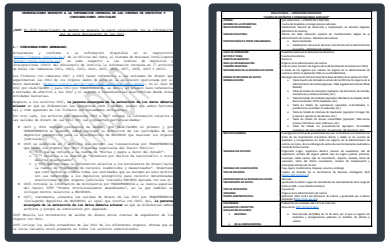
Initiatives for the interoperability and digitalization

- **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.



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)**



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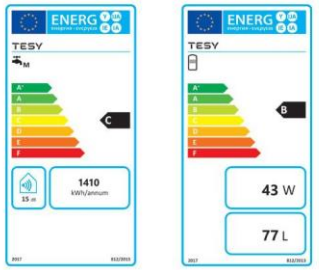

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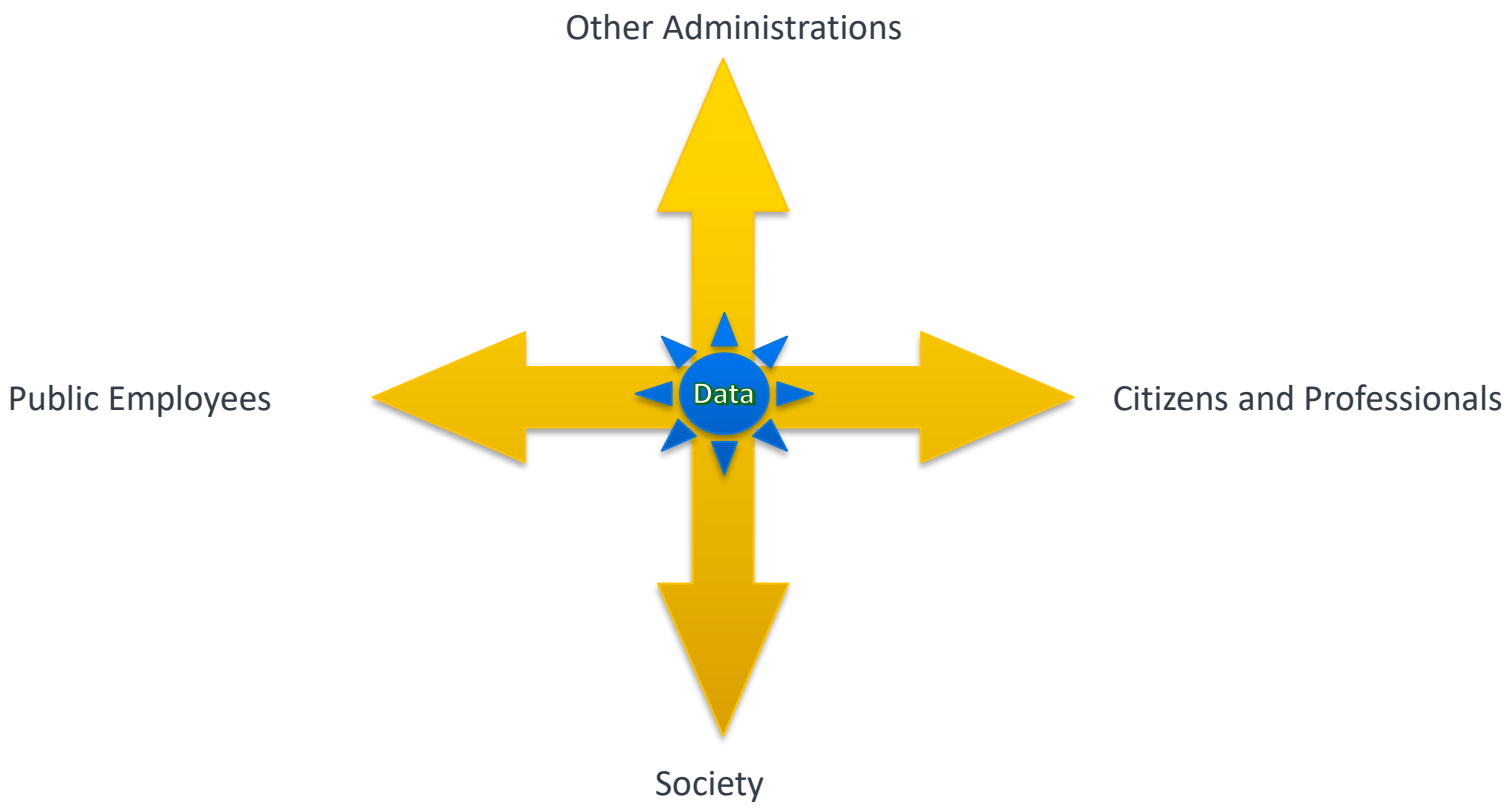
A data strategy must serve all involved actors:

- Citizen, Professional, and 360º Employee.



A data strategy must serve all involved actors:

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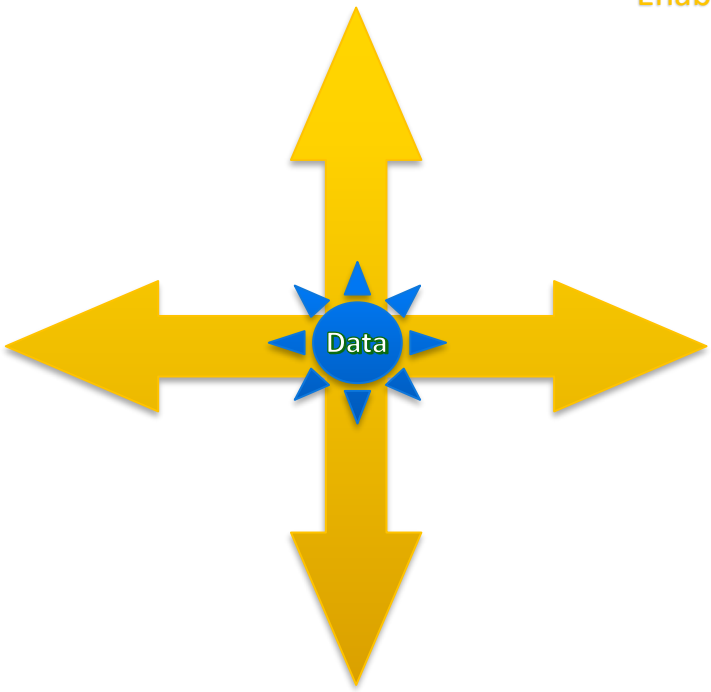
Other Administrations

Inter-administrative procedures
Data exchange
Enabling legislation



Data Office
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04. DISCUSSION



Thank you for your attention

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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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MINISTERIO DE JUSTICIA
JUSTICIA 2030