AI and RPA in the Spanish Administration of Justice

Directorate-General of Digital Transformation of the Administration of Justice (DGTDAJ)

Ministry of Presidency, Justice and Parliamentary Relations

February 2024

Comisión Europea

GOBIERNO DE ESPAÑA
MINISTERIO DE LA PRESIDENCIA, JUSTICIA Y RELACIONES CON LAS CORTES
SECRETARÍA DE ESTADO DE JUSTICIA
SECRETARÍA GENERAL PARA LA INNOVACIÓN Y CALIDAD DEL SERVICIO PÚBLICO DE JUSTICIA
DIRECCIÓN GENERAL DE TRANSFORMACIÓN DIGITAL DE LA ADMINISTRACIÓN DE JUSTICIA
JUSTICIA 2030

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ARTIFICIAL INTELLIGENCE

The Ministry is already using AI for various purposes, such as textualisations or advanced prospection studies to find non-linear relationships. ***We want to continue to develop new niches of tailored utility for the Administration of Justice****, such as automatic document classification, entity extraction and relational information maps.*

Faced with this, we must work to articulate it:

- ***Promoting the AI service*** *to receive challenges and petitions.*
- ***Agile training of neural networks*** *for the established objectives, choosing the necessary techniques and infrastructure.*
- *Training for technology staff.*
- ***Promote the roll-out*** *of known AI techniques.*
- ***Addressing ethical issues*** *in the use of AI.*

"Automation and artificial intelligence reduce the time needed to perform tasks that are impossible for humans today".

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AI INITIATIVES



- Similarity Analysis
- Easy reading
- Textualisation of Recordings
- Legal Dictation System/ Forensic Dictation System
- Justice Folder
- Document Classifier
- Document Anonymiser
- Integration of the Delfos smart search engine with Fortuny

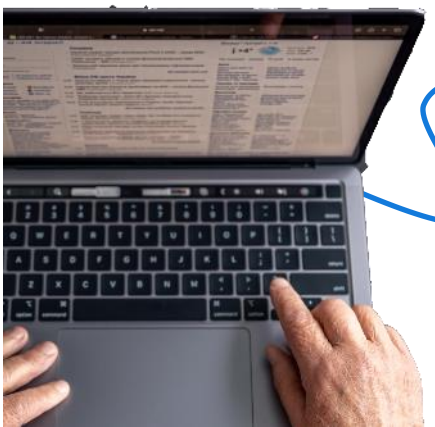
Textualisation of Recordings

Performs **automated processing of video/audio files** to extract the relevant text from recorded oral interventions at trials, hearings and inquests.

✓ Estimated **time savings of 60%** , with a **hit rate** of over **80%**.

Implementation and next steps

- Working on a version of Textualisation Statistics 2.0 that includes, among other functionalities:
  - ✓ Development in v1.0.1.4.
  - ✓ Openness to the TTAACC.
  - ✓ New KO typologies reported by Etiqmedia 2.0.
- Version 2.1 in development:
  - ✓ Solution of incidents in temporary audios when the service is down due to lack of space on the processing disks.
  - ✓ Application for the automation of configuration files in each environment, architecture and SW version.
  - ✓ Knowledge transfer in procedural products.



More than **1,600,000** textualisations

More than **504,000** reduction of search hours

635 equivalent work officials

**Data from May 2020 to November 2023*

02. AI initiatives

Legal and Forensic Dictation Systems

It enables specialised **transcriptions** of legal texts and medical reports.

Fast

Precise

LEGAL DICTATION

Activated in all the municipalities of the Ministry's territory, as well as in the Supreme Court and the National Court of Appeals.

FORENSIC DICTATION

The solution was installed and commissioned in 2022.

Implementation and next steps

- **Technological and functional improvements** are in progress according to the user's requirements.

Document anonymizer

It allows for the **recognition of nominal entities** that identify the information related to specially **protected** subjects and proceeds to their anonymisation.

Implementation and next steps

- Adding a **specific anonymization** for the Nationality and Civil Registry teams is planned.
- In **operation 3 AI services accessible** from the desktops of all MJU officials, as well as those transferred territories that wish to do so, by entering the corresponding web address.
- Advancing these services through **new functional improvements**, the latest of which were made in December 2023.

More **accurate and agile**

Similarity analysis

60 -70

anonymized documents per day



02. AI initiatives

Document Classifier



It allows the **self-cataloguing** of the documentation received in the judicial offices based on the documentary standards established by the CGPJ.

Similarity analysis



It allows locating the same entity (same person) in different parts of the document, and recognising them as the same, despite significant differences in their literals.

Easy Reading

Proof of concept of this tool that allows the introduction of any legal element in easy reading format.

- ✓ For people with functional diversity who have some comprehension difficulties.
- ✓ Standardised rules are applied to make documents **accessible to everyone.**

Implementation and next steps

- In the development of model tests, the summaries of disability sentences are adapted to easy-to-read language in order to train the designed algorithm.
- The legal team continues with the training of the models and is in the process of defining concepts, including pictograms and revising the summaries.
  - ✓ The first adaptation of the summaries of disability decisions has been completed.

Integration of the Delfos intelligent search engine with Fortuny

Delfos is an AI-driven search engine that performs natural language queries by a predictive text engine. In addition, it automatically filters the results obtained and offers suggested queries.

✓**It provides document summaries** and will allow legal professionals to consult their own documents, **saving time for professionals.**

Implementation and next steps

- Work has begun on integrating the Intelligent Justice search engine with the case management system of the Fortuny Public Prosecutor's Office. An implementation plan for the integration with Horus is expected to be available.
- Development of a standalone front-end to allow the search engine to be used autonomously.

02. AI initiatives

Justice Folder

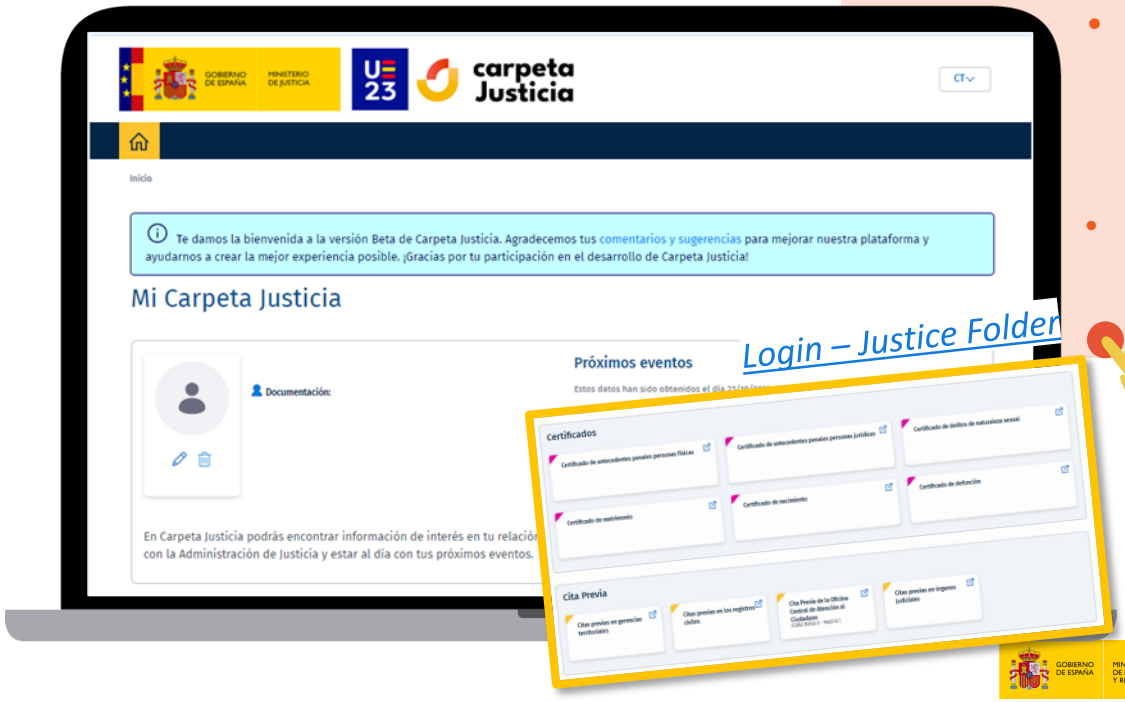
It allows interested parties to know **the judicial notifications** and any other information of the judicial files to which they are party to.

- ✓ Agile and easy to operate
- ✓ Secure identification system
- ✓ In real time
- ✓ By user request

It currently has more than **88,000 users.**

Implementation and next steps

- Working on the Justice Folder 1.0 version, which responds to the need for availability and centralisation of information on the services offered by the Administration.
- Planned integration with Horus 5.3.
- Work has begun on the Justice Folder 1.2 version of the portal, including all requests for functionalities required by other applications.
  - New CDCJ-related functionalities for professionals are coming soon:
    - *Consultation of movements of the file accounts*
    - *Consultation of BOE fees payable at auctions*
    - *Search for courts.*
  - New version with Artificial Intelligence solutions:
    - *Summary service*
    - *Document anonymisation*



Login – Justice Folder

carpeta Justicia

Te damos la bienvenida a la versión Beta de Carpeta Justicia. Agradecemos tus comentarios y sugerencias para mejorar nuestra plataforma y ayudarnos a crear la mejor experiencia posible. ¡Gracias por tu participación en el desarrollo de Carpeta Justicia!

Mi Carpeta Justicia

PRUEBAS EIDAS CERTIFICADO

Documentación: 99999999R

Próximos eventos

Estos datos han sido obtenidos el día 22/11/2023 13:30:43. Actualizar datos

Apoderamiento
Identificador: 15736
Apoderado: ANA DOMINGUEZ DE LA TORRE
Fecha de expiración: 12/04/2024 00:00

Apoderamiento
Identificador: 15717
Apoderado: ANA DOMINGUEZ DE LA TORRE
Fecha de expiración: 12/04/2024 00:00

Apoderamiento
Identificador: 15716

Apoderamiento
Identificador: 8974

El calendario de Carpeta Justicia recoge información de los servicios de

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03. AI challenges and processes



CHALLENGES

Access to data, finding trained personnel, duration of training, lack of experience in legal linguistic models, absence of culture, user resistance.

Necessary contribution from the EU?

Training campaigns, training of judicial powers, infrastructures and synthetic data generation systems, etc.

Have safeguards been established to guarantee respect for fundamental rights in relation to digitalised procedures?

AI-based actions are not carried out to make decisions, much less jurisdictional decisions, but rather they automate tasks like an assistant, reactively or proactively, and always under human validation. Personality profiling is not carried out, nor are other analytical techniques (AI or not) used to establish risks, or patterns associated with people.

PROCESSES

What type of participation from interested third parties, such as judicial authorities or lawyers, has been needed in the development of these initiatives/projects?

The Judiciary, AJU lawyers, court users and CGAE lawyers, have been needed to test the different results of the AI systems: being probabilistic, a validation of a minimum of quality is needed.

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04. Introduction to RPA in Justice

In the task of working to put the most innovative technology at the service of Justice, initiatives are being carried out that incorporate robotisation technology and **whose main objective is to improve the social sphere by focusing the resources of justice on the needs of citizens.**

To this end, initiatives are **being oriented** to :

ARTIFICIAL INTELLIGENCE

DATA-DRIVEN JUSTICE

What are we achieving?

Thanks to **robotisation and automation:**

- **Increased efficiency,** *cancelling more than 500,000 criminal records.*
- **Increased agility,** *advancing the work of 19 months.*
- **Adapting to people,** *improving the lives of tens of thousands of citizens.*
- **Less time invested,** *saving over 359,000 hours.*

*A pilot project has been launched in Murcia **for the intelligent automation of use cases for the transmission of information** between the Procedural Management systems and the Judicial Deposits and Consignments Accounts System.*



For more information watch the video here: Robotisation and Artificial Intelligence in Justice - YouTube

During 2022, **the cases in which a robot could be applied were expanded**, such as in **the processed concessions of nationality by residence and by Sephardic heritage** and the **cancellation of criminal records**, managing **almost 2,800,000 files.**

In 2022, **the cancellation of sentences was carried out based on the regulations**, producing the cancellation of **87,400 sentences belonging to 73,500 people.**

Since March 2021, with the implementation of robotisation, up to October 2023, more than **500,000 criminal records** have been cancelled.

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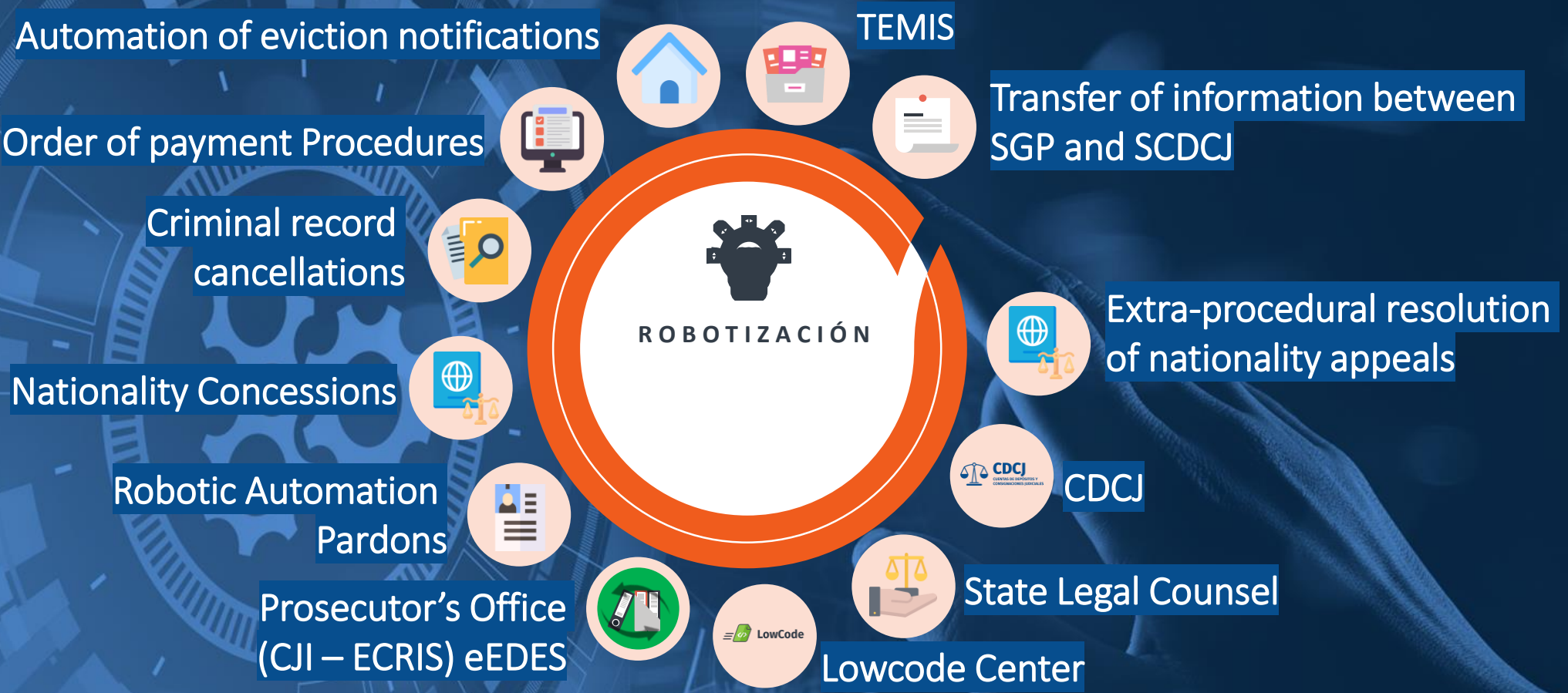
RPA INITIATIVES



05. RPA initiatives

Cancellation of criminal records

It expedites the necessary steps for citizens to be in possession of a negative criminal record certificate.

- ✓ Effective savings of **more than 42,000 working hours.**

Implementation and next steps

- **2021** In total **244,141 cases** were cancelled during the year.
- **2022** Cancellation of **172,536 ex-officio cases.**
- **2023** Cancellation of **68,979 cases.**

Grants of nationality

Robots execute tasks to confirm that the **information recorded in the system** corresponds to the existing documentation.

- ✓ Providing precision by following the established steps in an **agile and automatic way.**

5 robotised procedures work in parallel *(residence permits, Sephardic permits, refusals, checks with DG Police, uploading of information from the Cervantes Institute)* which have carried out almost **2,700,000 robotised procedures**.

Implementation and next steps

- **3,000 grant proposals per month**.
- **450,000 grant proposals** thanks to the automation of Spanish nationality by residence files.
- From August to September 2023, more than **TWO MILLION robotic procedures have been carried out on nationality application files**, **more than 290,000 grants of nationality by residence** and nearly **30,000 of Sephardic nationality**.
- This represents an estimated saving of **330,000 hours.**

**Data from July 2020 to November 2023*

05. RPA initiatives

Robotic Automation of Pardon Procedures

Automation of part of the administrative process required for the **granting of a pardon.**

Saving **73 processing** days for the **staff responsible.**

Robotisation for the transmission of information between the Procedural Management Systems and the CDCJ System.

Automation of the operation of the Judicial Deposit and Consignment Accounts (CDCJ) to free up **the work of the LAJs** based on the automation of, so far, *8 use cases identified and implemented.*

Estimated savings of more than **100,000** hours per year in the MJU area.

More than **4,000** automated operations per day.

Implementation and next steps

- Use cases implemented in: Cáceres, Badajoz, Guadalajara, León, Murcia, Palencia, Balearic Islands. In addition, a pilot has been carried out in the Principality of Asturias. It is expected to be gradually extended to the rest of the MJU territories.

Since its launch in April 2023, more than **375,000** automated operations have been carried out.



05. RPA initiatives

State Legal Counsel

Automation of part of the administrative process necessary for the registration and processing of **LEXNET** files **in REGES.**

Implementation and next steps

The robot has been in production **since March 2023.**

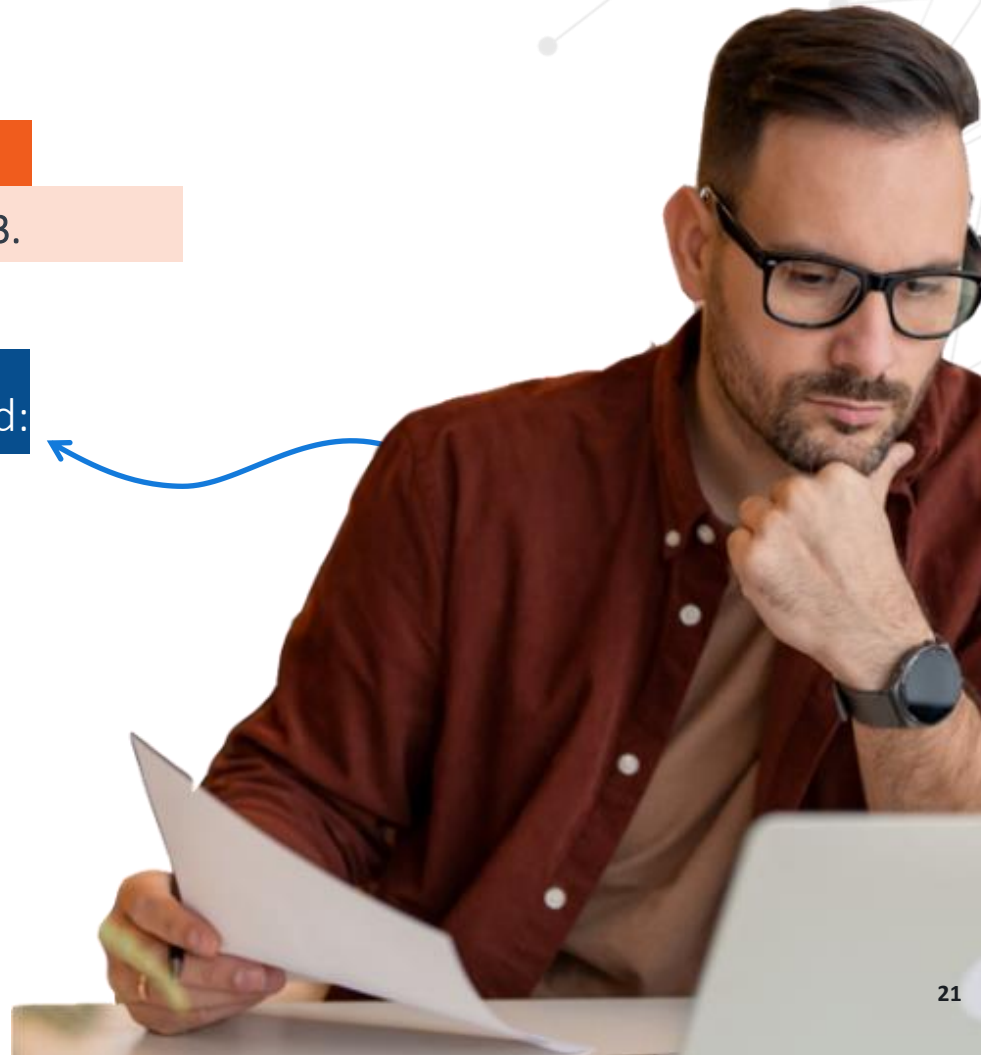
The process volume exceeds

100 notifications per day

Saving **8** hours a day,
Equal to a working day

56,934 procedures saved:

- **113,868** sheets of paper
- **6,642** hours
- **96,313** €
- **1.7** Tn of CO2
- **0.7** m3 of storage



**Data from March to October 2023*

Monitoring Procedures

The registration, distribution and processing of monitoring procedures are automated through the application of robotisation in the SGP Minerva.

✓ This procedure, in addition to significantly speeding up the processing of such cases, will **contribute to the homogenisation of this procedure in all judicial bodies.**



Launched in the **Judicial district of Murcia**

the automatic registration and distribution of monitoring procedures

Implementation and next steps

- By the end of the year, this project will be implemented in some locations, **reducing the workload in the locations and facilitating the work of the employees.**



05. RPA initiatives

Automatisation of eviction notifications

Notifications of evictions to social services are automated when judicial proceedings are initiated so that they can send the corresponding **vulnerability reports on people at risk of eviction** and at the same time initiate palliative procedures.

Implementation and next steps

- Work is in the final stage and will be launched in pilot mode in Albacete and Cuenca. This project will be carried out within the CTEAJE.

Temis: Administration resources - Notifications

Automatic processing of sendings of communications and notifications on the TEMIS processing platform.

Implementation and next steps

- It is estimated that about 20 notifications are made per day and the estimated time spent is 4 minutes per operation.



Out-of-court settlement of nationality appeals

The objective is to check whether the **judicial appeals filed before the National High Court (Audiencia Nacional) for the denial of Spanish nationality** can be filed in cases where nationality has already been granted through administrative channels, and to file the aforementioned appeal in the SGP Minerva.

Implementation and next steps: ongoing.

Prosecutor's office - Electronic Evidence Exchange System (EES) (CJI-ECRIS)- eEDES

Since March, the **automation of part of the administrative process has been operational, which is necessary to incorporate into the judicial procedural systems the international legal cooperation** (CJI)–ECRIS, **international European orders received through the eEDES application.**

✓ Robotisation is incorporated for uploading information from the eEDES portal.



Implementation and next steps

- It is estimated that around 100 EIOs will be received each year, with an estimated time of 15 minutes per EIO.

Automation Centre of Excellence

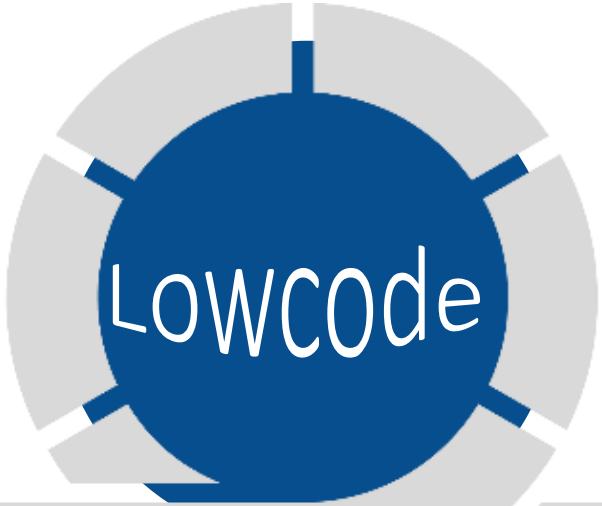
It will allow to **promote the development and implementation of new projects** to reduce the Time To Market (TTM) and provide public justice services in record time using Lowcode and RPA technology.



✓It allows to automate processes in all areas of the Administration of Justice.



✓Ensures continuous progress and further optimization of automation initiatives.



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06. RPA challenges and processes



CHALLENGES

Lack of knowledge of officials, distrust, extreme caution, technical problems, especially in relation to connectivity to the systems.

Necessary contribution from the EU?

Training campaigns, training of judicial powers, infrastructures and synthetic data generation systems, etc.

Have safeguards been established to guarantee respect for fundamental rights in relation to digitalised procedures?

No robotic decisions of a judicial nature have been made.

PROCESSES

What type of participation from interested third parties, such as judicial authorities or lawyers, has been needed in the development of these initiatives/projects?

In general, in RPA, there are responsible administrative authorities, as well as judicial authorities or those responsible for judicial processes.

Questions and answers



Thank you for your attention

Directorate-General of Digital Transformation of the Administration of Justice.

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