# Spain's Justice journey to the cloud: strategy and example use cases

Alejandro Fernández Muñoz

Ministry of the Presidency, Justice and Parliamentary Relations of Spain

**eu-LISA Industry Rountable**

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## THE MOST ADVANCED TECHNOLOGICAL SOLUTIONS
## FOR A MODERN, PEOPLE-CENTRED AND EFFICIENT JUSTICE SYSTEM

▶ + **25,000** internal users

*Judicial Bodies, Public Prosecutor's Office, Civil Registries, Institutes of Legal Medicine and Forensic Sciences and Territorial Management. To civil servants and external users of the Ministry of the Presidency, Justice and Relations with the Courts.*

▶ + **300,000** external users

*Law Enforcement Authorities, Lawyers, Attorneys, Social Graduates, Penitentiary Institutions, Public and Private Hospitals, other Public Administrations and the Autonomous Communities with transferred Justice powers, as well as Citizens.*

**+**than **70** solutions and **20** services

**+**than **10** AI iniciatives in progress

**+**than **25** RPA iniciatives in progress
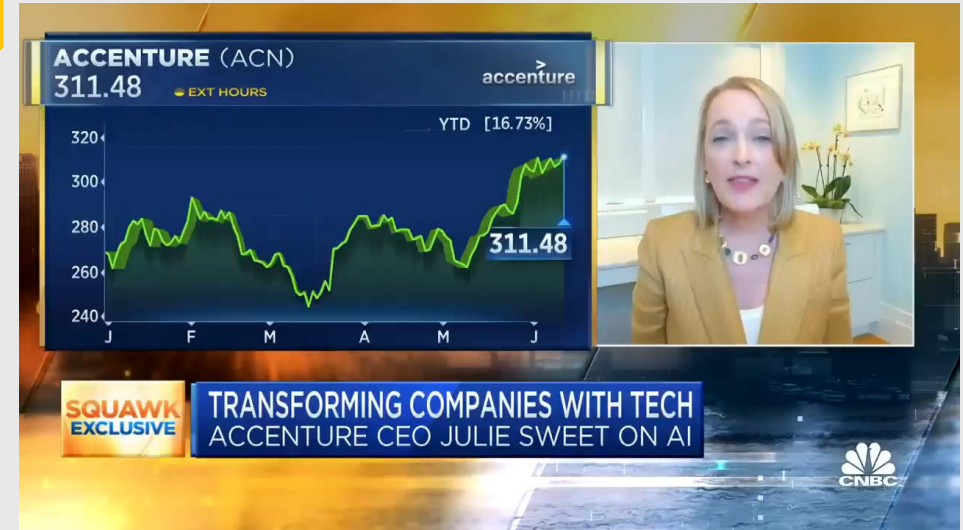


*Julie Sweet, global CEO of Accenture, interviewed on American TV (CNBC) about AI. She highlights one single project and it is the case of the Spanish Ministry of Justice (Delfos). LINK.*

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**Spain Digital Agenda 2026** is the roadmap for the country's digital transformation, an ambitious strategy to fully harness **new technologies** and achieve more intense and sustained **economic growth**, rich in quality employment, with higher productivity, and contributing to **social and territorial cohesion**, bringing prosperity and well-being to all **citizens** across the territory.

| Infrastructure and Technologies | Economy | Citizens |
|---|---|---|
| **Digital Connectivity** **Boosting 5G** **Cybersecurity** **Data Economy and AI** | **Digitalization of the Public Sector** (among other ones) | **Digital Skills** **Digital Rights** |

# GOAL

To achieve **more secure, efficient, and reliable technological infrastructures** for the provision of digital public services while safeguarding the country's strategic **autonomy, security, and control over data**

### HYBRID CLOUD

### SaaS SERVICE CATALOG



**State cloud**

**Clouds of other Public Administrations**

**Public clouds**

**Data centre consolidation**
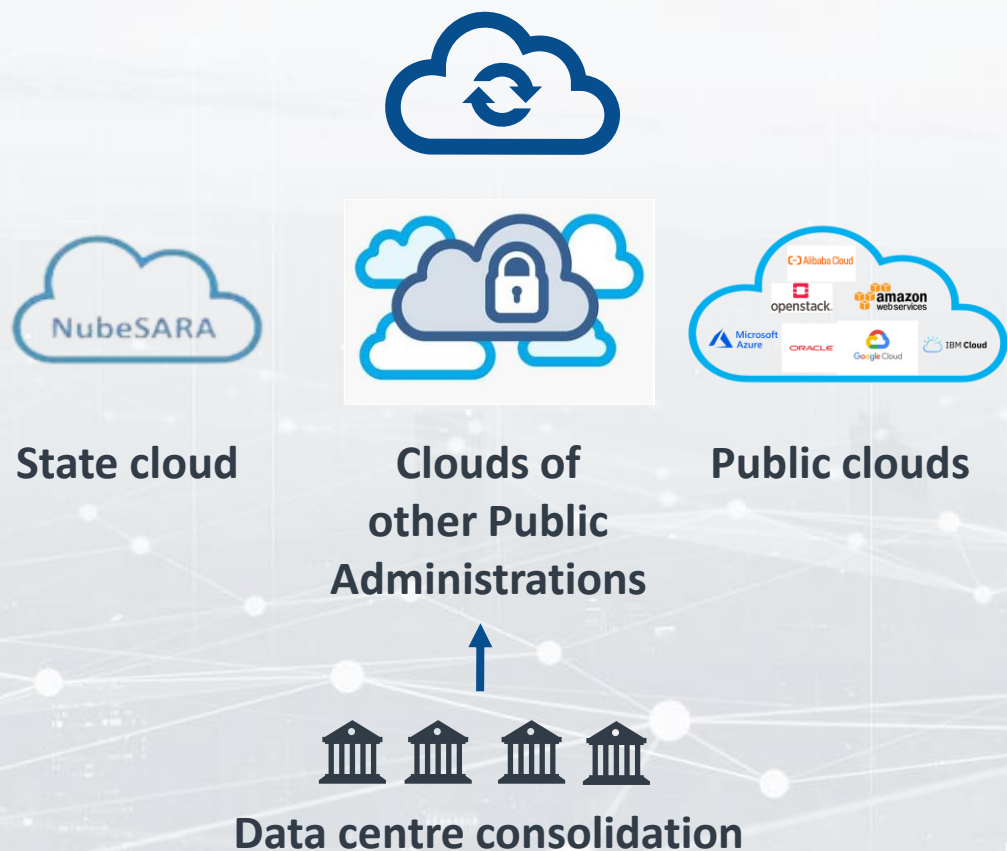
**SECURE CLOUD**

**DATA SOVEREIGNTY**

## STRATEGIC PRINCIPLE FOR NEW DEPLOYMENTS

**CLOUD LAST**

Only go to the Cloud for new applications that require exclusive Cloud capabilities

**TOWARDS ON-PREM**

**Find the best solution for new apps, but if you are indifferent, choose on-prem**

**TOWARDS CLOUD**

Find the best solution for new apps, but if you are indifferent, choose Cloud

**CLOUD FIRST**

Use Cloud services for all new applications, except in cases with compelling reasons

## STRATEGIC PRINCIPLE FOR MIGRATION

**LIMIT MIGRATION**

**Migrate only what is necessary, due to the need for Cloud capabilities**

**PREFERABLY NO MIGRATION**

Migrate only in business cases that do not involve technological challenges

**MIGRATION PREFERRED**

Migrate over time prioritising according to opportunity and need

**MIGRATE EVERYTHING**

Migrate everything that is technically possible

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## ON PREMISE / PRIVATE CLOUD

### TYPE 1

**IT on-demand in data centres**

**VMware, CaaS**

### TYPE 2

On-premise HW or virtual machines with an integrated Cloud provider Operating System (OS)

AWS Outpost, Azure Stack, Google Anthos

## HYBRID MULTICLOUD

### TYPE 1

Use of integrated infrastructure resources located in both a Private and Public Cloud.

VMware+AWS, VMware+Azure, VMware+GCP

*Traditional approach*

### TYPE 3

A single Cloud Operating System or a coherent stack across public and private clouds (at the IaaS or PaaS level).

Azure+Stack, AWS+Outpost

*Native approach*

### TYPE 2

**Loosely coupled with common FinOps and some governance, but fully operated in parallel without strong deadlock**

**Different combinations**

*Common approach*

### TYPE 4

**Use of a managed platform installed in multiple Clouds that allows full portability of workloads**

**CaaS (Kubernetes, Anthos, etc.)**

*High mobility requirement of workloads*

## SaaS

### SaaS Priority

**SaaS as the first option in those cases in which it is offered, when the service is not a core solution and its cost is similar**

**IT on-demand that offers globally available and managed resources as services**

**O365, ServiceNow, Piwik PRO, Acumbamail…**

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OFFICIAL USE    TLP: GREEN

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A Cloud Centre of Excellence (CCoE) facilitates the transition to the cloud through solving of questions and addressing challenges related to shifting to the cloud, providing an expert point of advice, governance and control.

## SITUATION & CHALLENGE

### Technology Adoption

- What should be my Cloud strategy?
- How do specific technologies work?
- What applications/workloads should I move to the Cloud and how?

### Operating Model

- What is the impact on my current (IT) organisation? Dependencies?
- How long does the transition last?
- How can I manage and operate the Cloud environment?
- How should I start?

### Talent & Training

- What competencies/skills do I need?
- Do I need to certify my staff?
- How can I train my employees and IT departments?
- What skills should my suppliers have?

### Cloud Optimisation

- What is my Cloud cost strategy? Is it focused on costs? New features?
- How can I control my spending in the Cloud?
- How do I forecast my future costs?
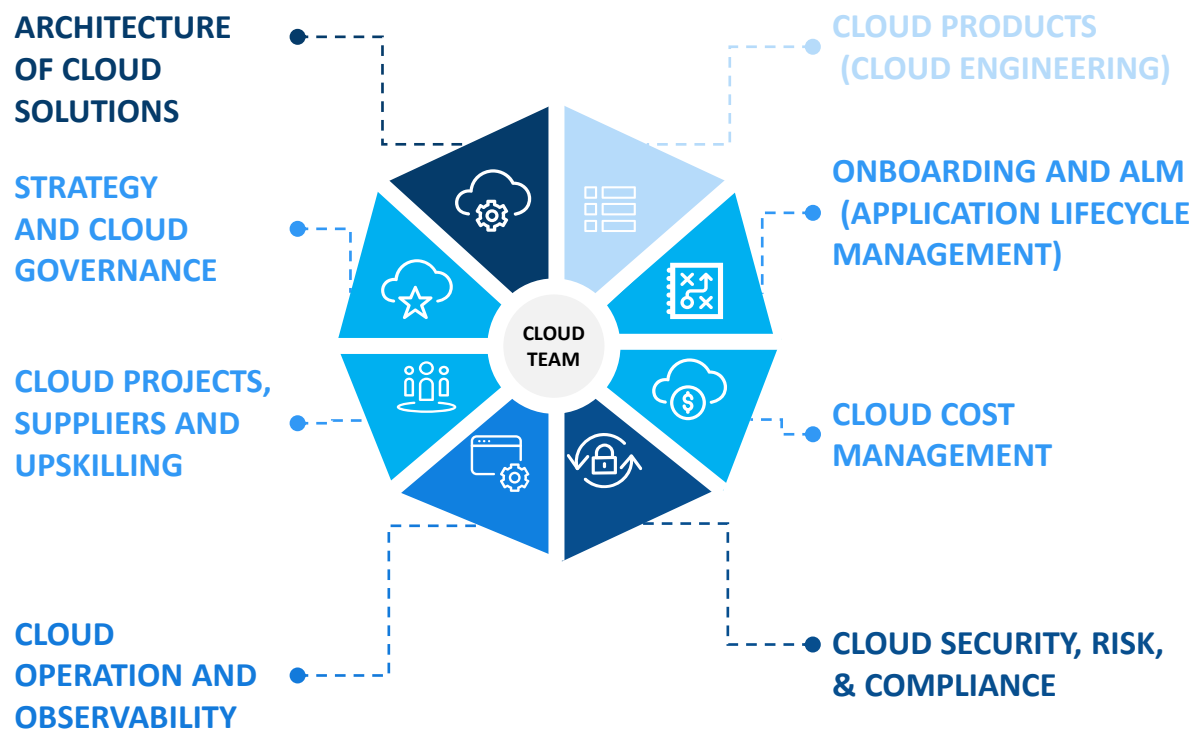- How can I optimize my costs?

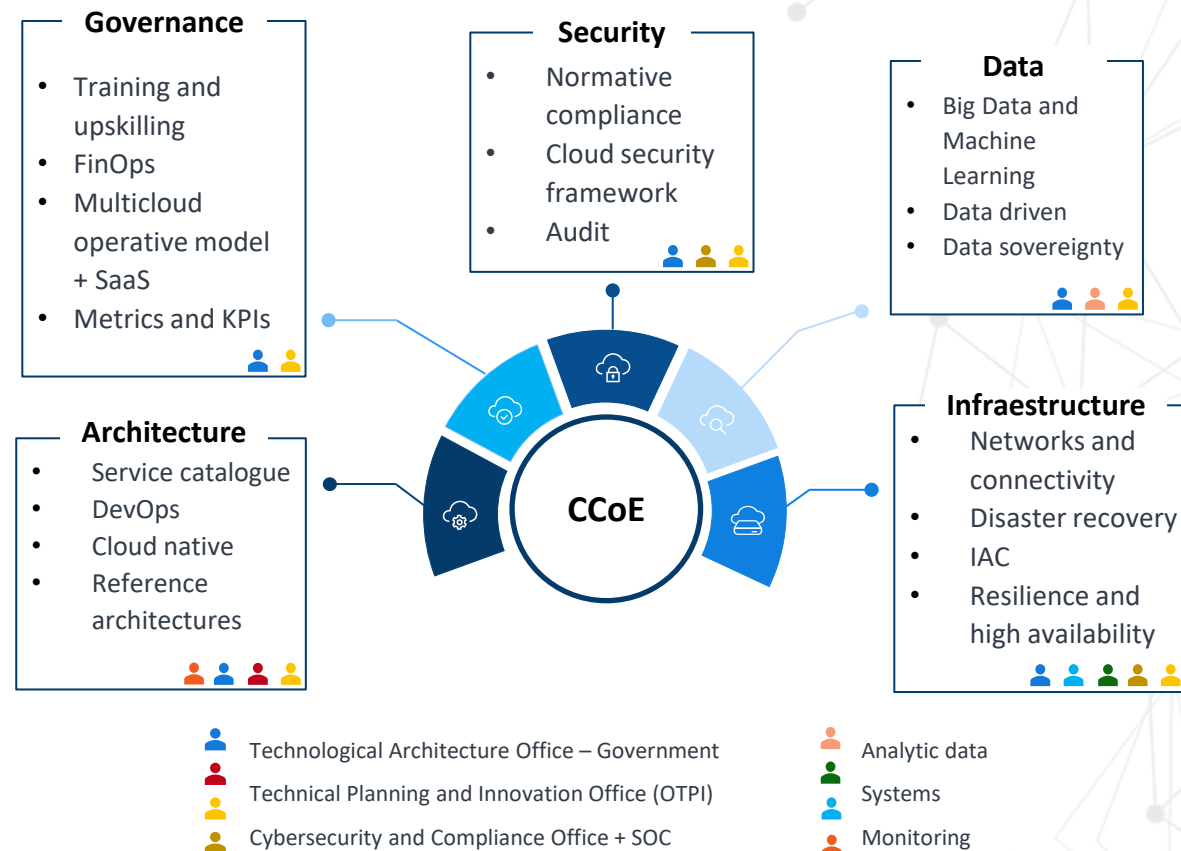### SOLUTION
### CLOUD CENTRE OF EXCELLENCE

A CCoE allows you to answer all these questions within your organisation, through specialized cloud professionals

The CCoE becomes the **driver of cloud adoption**

# Main functions of the CCoE

ARCHITECTURE OF CLOUD SOLUTIONS

STRATEGY AND CLOUD GOVERNANCE

CLOUD PROJECTS, SUPPLIERS AND UPSKILLING

CLOUD OPERATION AND OBSERVABILITY

CLOUD TEAM

CLOUD PRODUCTS (CLOUD ENGINEERING)

ONBOARDING AND ALM (APPLICATION LIFECYCLE MANAGEMENT)

CLOUD COST MANAGEMENT

CLOUD SECURITY, RISK, & COMPLIANCE

# CCoE relationship with the main dimensions

**Governance**
- Training and upskilling
- FinOps
- Multicloud operative model + SaaS
- Metrics and KPIs

**Security**
- Normative compliance
- Cloud security framework
- Audit

**Data**
- Big Data and Machine Learning
- Data driven
- Data sovereignty

**Architecture**
- Service catalogue
- DevOps
- Cloud native
- Reference architectures

CCoE

**Infraestructure**
- Networks and connectivity
- Disaster recovery
- IAC
- Resilience and high availability

Technological Architecture Office – Government

Technical Planning and Innovation Office (OTPI)

Cybersecurity and Compliance Office + SOC

Analytic data

Systems

Monitoring

All product centres using cloud are involved

The CCoE **defines and develops the main Cloud initiatives** that serve as reference in our cloud adoption process to ensure alignment with business goals and good cloud practices



**Placement model**



**Training plan**



**Launching strategy**



**Landing Zone**

UPCOMING LINES

*Application Analysis, Storage, Process Review and ITSM…*

**Other initiatives**

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## WHAT IS A LANDING ZONE?

**A secure, multi-account environment that automates the set-up of an environment, rooted on an initial security baseline, to support running secure and scalable workloads.**

**SCALABLE & RESILIENT**

Ready to support highly available and scalable workloads

Configurable to support evolving business requirements

**ADAPTABLE & FLEXIBLE**

**SECURE & COMPLIANT**

Meets the Ministry's security and auditing requirements

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Our Landing Zone allows us to deploy applications following several Cloud best practices:

🌐 **Regions, High Availability and DR**

**Networking and Communications**

🛡 **Security**

**Account structure**

⚙ **Automation**

🏷 **Naming and Tagging**

## Networking - SaaS Connection Hub
## MoJ CLOUD to ONPREM

**Single point of access to cloud environments through a secured and backuped connection between our on-premise data centers and our cloud provider**

**Traffic inspection and securing at a single point**

**Administration and application of security policies are simplified**

**Routing is enabled more easily with a simpler design and more effective management**

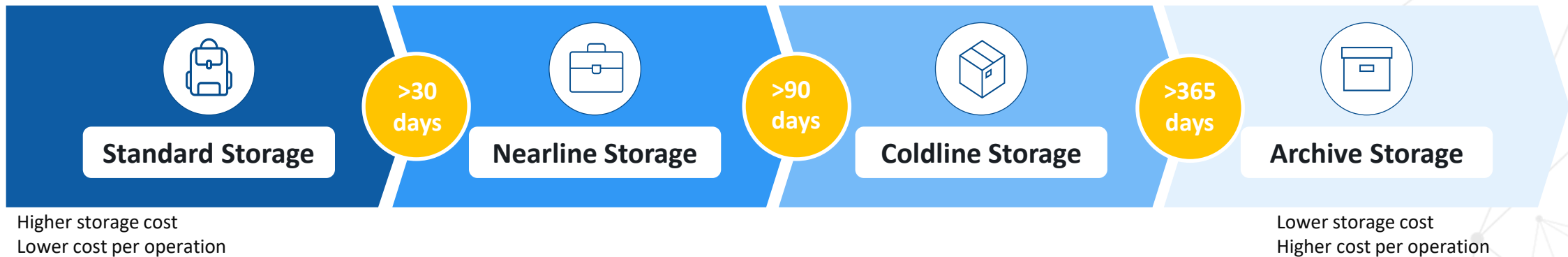**Centralizing certain functions allows for cost grouping and reduction**

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**The use of cold storage capabilities with buckets allows for better management of long-term storage, enabling the archiving of massive amounts of information without the need for investment or planning under a flexible model**

More immediacy / accessibility of data
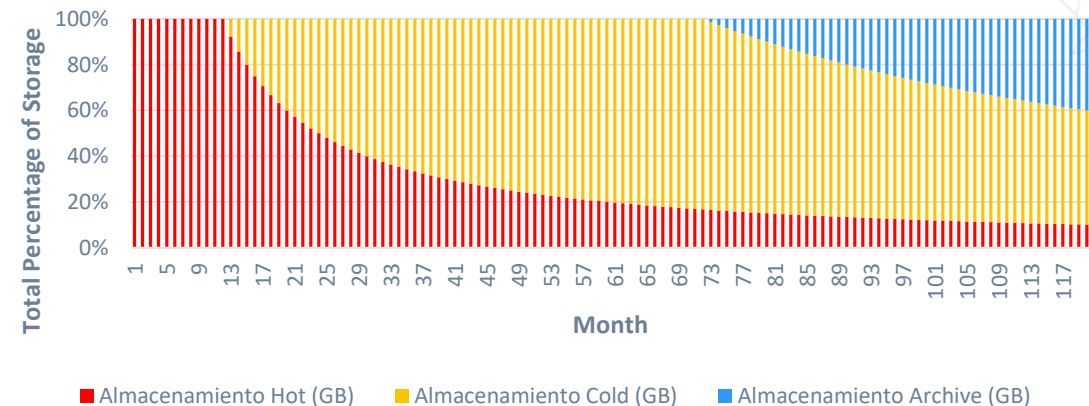Short-term storage

Less immediacy / accessibility of data
Long-term storage

| Standard Storage | >30 days | Nearline Storage | >90 days | Coldline Storage | >365 days | Archive Storage |

Higher storage cost
Lower cost per operation

Lower storage cost
Higher cost per operation

**Applying long-term file storage strategies**

**Reduces long-term storage costs**

**Reduces costs and eliminates infrastructure obsolescence dependencies**

**High availability and resilience**

**Security through encryption**

**Storage Space Evolution (GB)**

Total Percentage of Storage

100%
80%
60%
40%
20%
0%

Month

■ Almacenamiento Hot (GB)    ■ Almacenamiento Cold (GB)    ■ Almacenamiento Archive (GB)

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Allows **obtaining information about what users think about our products and services on social media websites, such as X.** Instead of manually filtering X data, you can create a near real-time alert system that consumes X data and classifies tweets using a pre-trained ML model.

## 360º MONITORING

**TECHNICAL**

Communications, malfunctioning HW

**USER EXPERIENCE**

Response times

**BUSINESS**

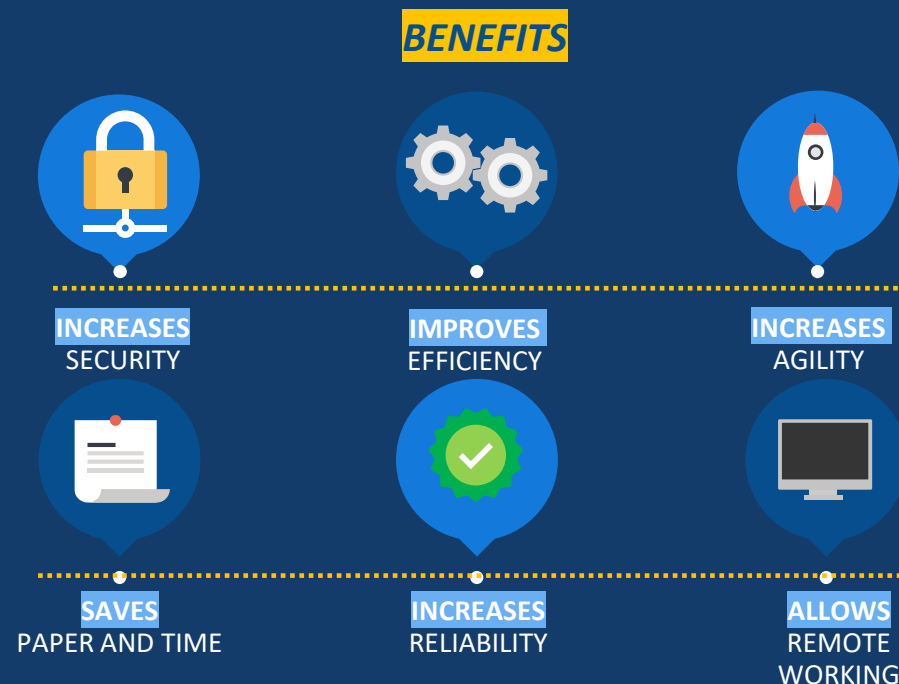Use monitoring as a measure of potential problems not being reported

**SOCIAL MEDIA**

*The Digital Immediation Virtual Desktop (EVID)*
*facilitates the management of procedures by videoconference with a schedule, shared documentation, recording and electronic evidence.*

**BENEFITS**

✓ **100% in the cloud, can be configured for all kinds of remote procedures**

✓ **In a secure and certified environment, backed by blockchain**

✓ **Integration with Judicial Electronic File and the Justice Folder**

**INCREASES** SECURITY

**IMPROVES** EFFICIENCY

**INCREASES** AGILITY

**SAVES** PAPER AND TIME

**INCREASES** RELIABILITY

**ALLOWS** REMOTE WORKING

# EVID: disability

*The core element of the system is an accessible device that allows people with disabilities to participate in trials from their assistance centres, ensuring accessible Justice*



*EVID*

👆 *Click here to watch the video*

*It is an **evolution of the classic handset phone** with the addition of a tablet-sized screen.*

## Consolidated text of the Bankruptcy Law (amended by Law 16/2022)

Addition a **special procedure for micro-companies,** applicable to debtors who ae natural or legal persons who carry out a business or professional activity and who meet the following characteristics.

1º To have employed an average of **less than 10 workers during the year prior to the application.**

2º Have **an annual turnover of less than 700,000 euros** or liabilities of **less than 350,000 euros** according to the last accounts closed in the financial year prior to the submission of the application.
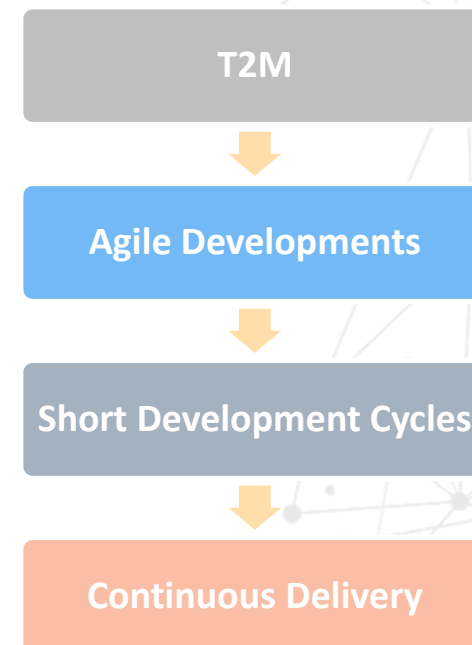
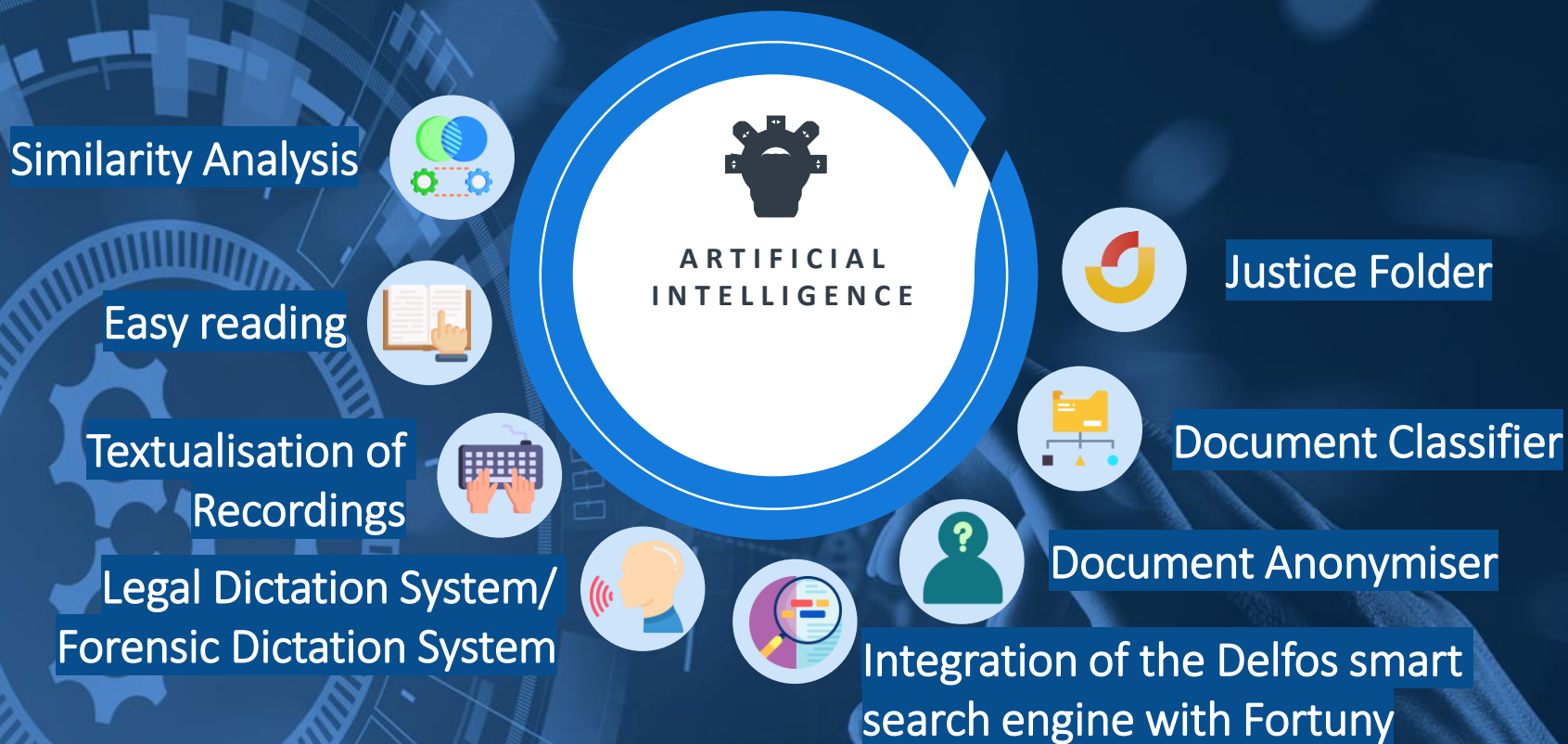### Servicio Electrónico de Microempresas

## Public access / Access to Judicial Bodies

(access for debtors, creditors, insolvency administrators and public authorities is different from that for registry and distribution offices and judicial bodies).

**The new version of the service is particularly oriented to try to streamline processes as much as possible, to ensure that these processes are reflected in the SEM and that there is an updated view of the procedure.**

Promoting **transparency and the recovery** of debtors' special difficulties.

T2M

Agile Developments

Short Development Cycles

Continuous Delivery

**ARTIFICIAL INTELLIGENCE**

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

# Spain's Justice Landing Zone

**The objective is to lay the foundations of the Landing Zone on which to deploy the platform** based on AWS best practices:

### Regions, High Availability and DR

- Ensure availability of the environment with changes in the magnitude of workloads.
- Deploy accounts across multiple availability zones.
- Use auto-scaling groups to adapt to changes in loads.
- Use container services to facilitate scalability and availability.

### Networking and Communications

- Establish a dedicated and secure connection between on-prem servers and AWS services by reducing data traffic over the public network.
- Segment the private network to improve security and meet compliance requirements.
- Creation of a virtual network in the Cloud that includes security services, subnetting, connections...

### Security

- Manage Identity and Access Management (IAM) for all members of the organization involved.
- Define N-S, E-W security.
- Define policies for compliance requirements such as GDPR.
- Definition of Guardrails and Service Control policies to be applied on the platform to guarantee security requirements automatically.
- Review of compliance requirements.
- Approval of the use of the different tools required.

### Account structure

- Establish a multi-account infrastructure.
- Establish automation and orchestration mechanisms for the deployment and management of accounts reducing manual work.
- Establish an adequate basis for provisioning, managing and scaling resources.

### Automation

- Implement automations to obtain an efficient and manageable environment.
- Establish automation and orchestration mechanisms for the deployment and management of services within the environment reducing manual work.

### Naming and Tagging

- Creation of tag categories (technical, business, security, automation).
- Automation and homogenization of tag creation.
- Selection of mandatory and optional tags.

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