

Talking Interoperability

In Focus | Azerbaijan



Ongietorri
 Akwaba
 Dobrodošli
 Üdvözlet
 Welkomma
 Yokoso
 Accogliere
 Nau Mai
 Bem-vindo
 Willkommen
 Haere Mai
 Salve
 Degemer
Welcome
 Tervetuloa
 Acchoje
 Vitejte
 Bonavinuta
 Huan Ying
 Bi xêr hatî
 Nayak
 Chào mừng
 Vitajte
 Benvignùo
 Fáiite
 Swagata
 Benvenuto
 Welkom
 Bienvéni
 Bun venit
 Aloha
 Velkomin
 Namaste
 Witaj
Bienvenue



Moderator



Liyuan Xiao

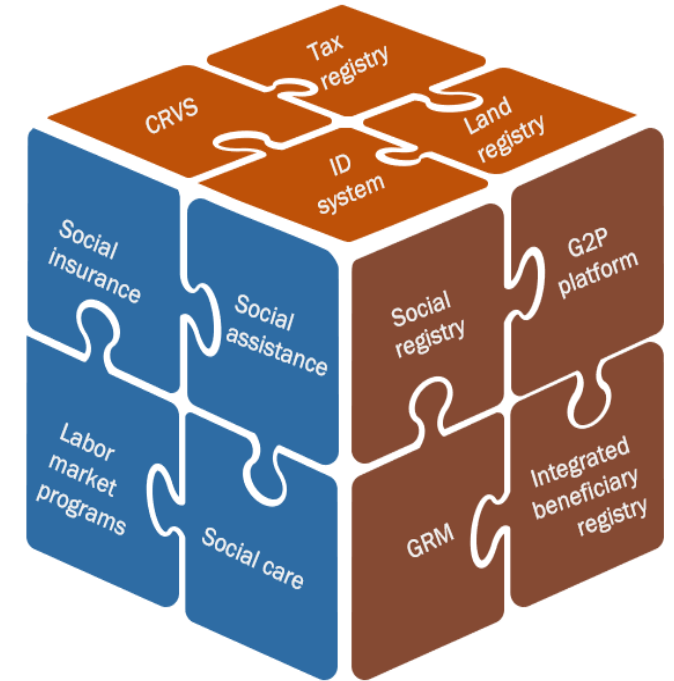
Digital Social Protection Specialist
Universal Social Protection Department, ILO

The Digital Convergence Initiative (DCI)

A joint effort by USP2030 members and non-members, governments, development partners and private sector towards creating a harmonized and interoperable digital ecosystem for social protection

Building consensus-based standards for interoperability to

- **foster an ecosystem for innovation** by ICT solution providers to build products that are interoperable, easy to use, integrate, maintain and scale
- **reduce time and costs** of developing solutions at the country/program level
- enable programs and countries to **mix and match different components** from different suppliers
- **ensure that systems are future-proof by design**, regardless of current levels of policy and information systems maturity



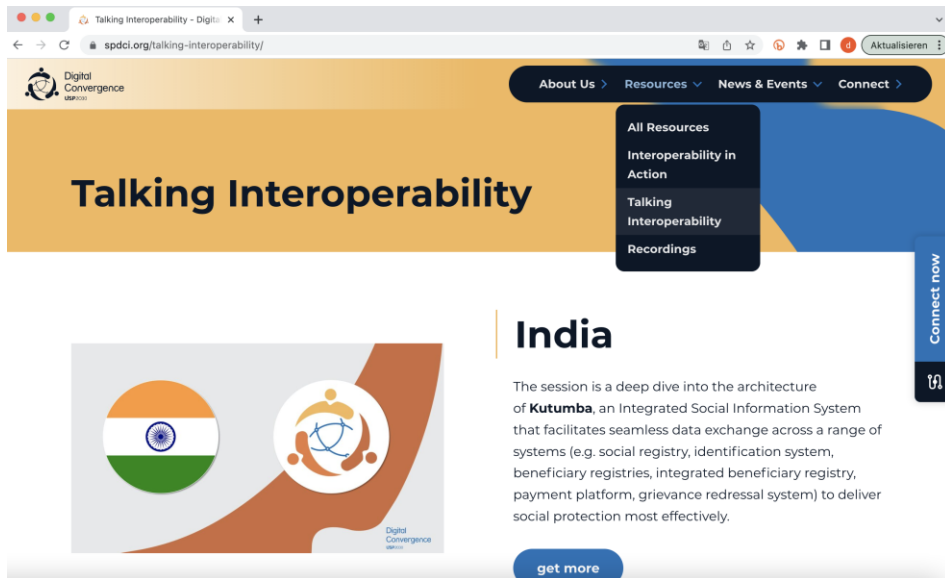
Talking interoperability

A dialogue series by the DCI to facilitate in-depth technical conversations around integrated and interoperable SP information systems across countries

Deep dive into one country-level system per session to...

- share the technical nuts and bolts of how agencies have designed their social protection information systems for interoperability
- understand how agencies have tackled the major challenges to interoperability.
- brainstorm potential solutions to remaining bottlenecks

Recordings of past sessions available



The screenshot shows the homepage of the Talking Interoperability website. The header includes the Digital Convergence Initiative logo and navigation links for 'About Us', 'Resources', 'News & Events', and 'Connect'. A large orange banner features the title 'Talking Interoperability'. A dropdown menu is open over the 'Resources' link, showing options for 'All Resources', 'Interoperability in Action', 'Talking Interoperability', and 'Recordings'. Below the banner, there is a section for 'India' with a graphic of the Indian flag and a hand holding a globe. The text describes a session on the architecture of 'Kutumba', an Integrated Social Information System. A 'get more' button is located at the bottom of the India section.

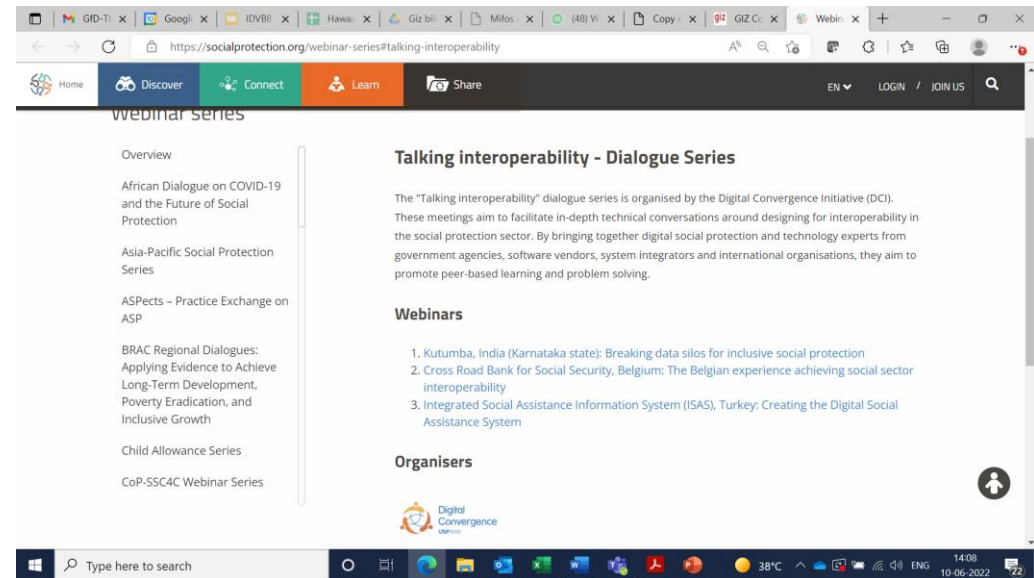
Talking Interoperability

India

The session is a deep dive into the architecture of **Kutumba**, an Integrated Social Information System that facilitates seamless data exchange across a range of systems (e.g. social registry, identification system, beneficiary registries, integrated beneficiary registry, payment platform, grievance redressal system) to deliver social protection most effectively.

[get more](#)

[Past Events – Talking Interoperability](#)



The screenshot shows the 'Talking interoperability - Dialogue Series' page on socialprotection.org. The page has a dark header with navigation links for 'Home', 'Discover', 'Connect', 'Learn', and 'Share'. The main content area is titled 'webinar series' and includes an 'Overview' section with a list of series: African Dialogue on COVID-19 and the Future of Social Protection, Asia-Pacific Social Protection Series, ASPECTS – Practice Exchange on ASP, BRAC Regional Dialogues: Applying Evidence to Achieve Long-Term Development, Poverty Eradication, and Inclusive Growth, Child Allowance Series, and CoP-SSC4C Webinar Series. The 'Talking interoperability - Dialogue Series' section provides a description of the series and lists three webinars: 1. Kutumba, India (Karnataka state): Breaking data silos for inclusive social protection, 2. Cross Road Bank for Social Security, Belgium: The Belgian experience achieving social sector interoperability, and 3. Integrated Social Assistance Information System (ISAS), Turkey: Creating the Digital Social Assistance System. The 'Organisers' section features the Digital Convergence Initiative logo.

Talking interoperability - Dialogue Series

The "Talking interoperability" dialogue series is organised by the Digital Convergence Initiative (DCI). These meetings aim to facilitate in-depth technical conversations around designing for interoperability in the social protection sector. By bringing together digital social protection and technology experts from government agencies, software vendors, system integrators and international organisations, they aim to promote peer-based learning and problem solving.

Webinars

1. Kutumba, India (Karnataka state): Breaking data silos for inclusive social protection
2. Cross Road Bank for Social Security, Belgium: The Belgian experience achieving social sector interoperability
3. Integrated Social Assistance Information System (ISAS), Turkey: Creating the Digital Social Assistance System

Organisers

Digital Convergence Initiative

[Webinar Series - sp.org](#)

Introductions

Presenters



Sabina Huseynova

Advisor to the Director

DOST Digital Innovations
Center, Ministry of Labour
and Social Protection of
Population

Azerbaijan



Orkhan Salahov

Deputy Director

DOST Digital Innovations
Center, Ministry of Labour
and Social Protection of
Population

Azerbaijan

Discussants



Andrea Martin

Social Protection
Consultant

World Bank



Jeremi Joslin

Executive Director

OpenSPP

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Case of Azerbaijan: Shaping the Future of Social Digital Solutions

*Ms. Sabina Huseynova
Mr. Orkhan Salahov*



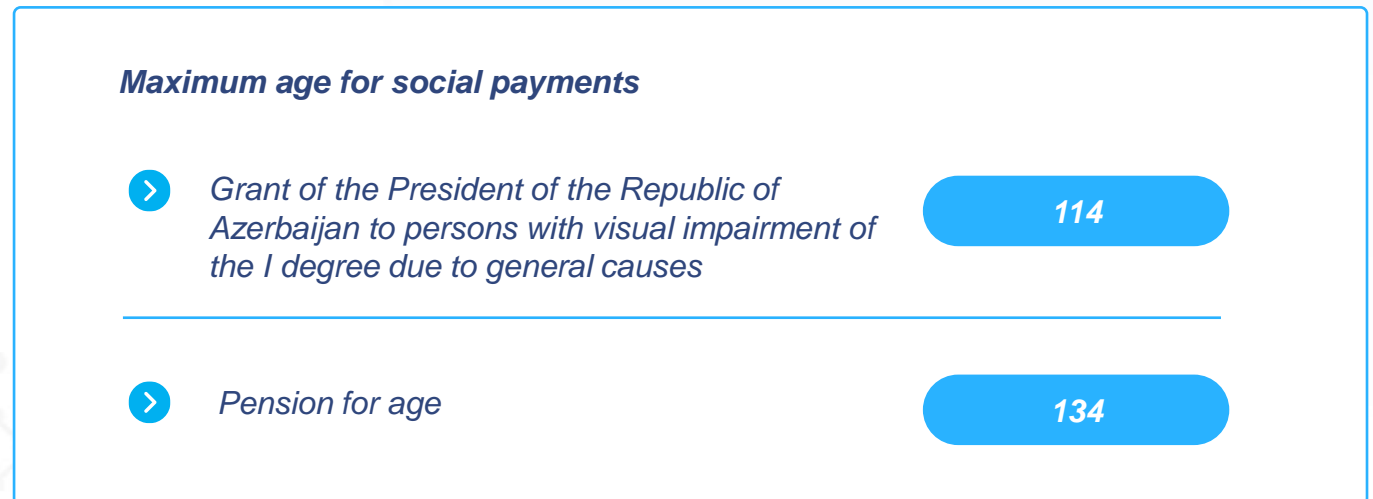
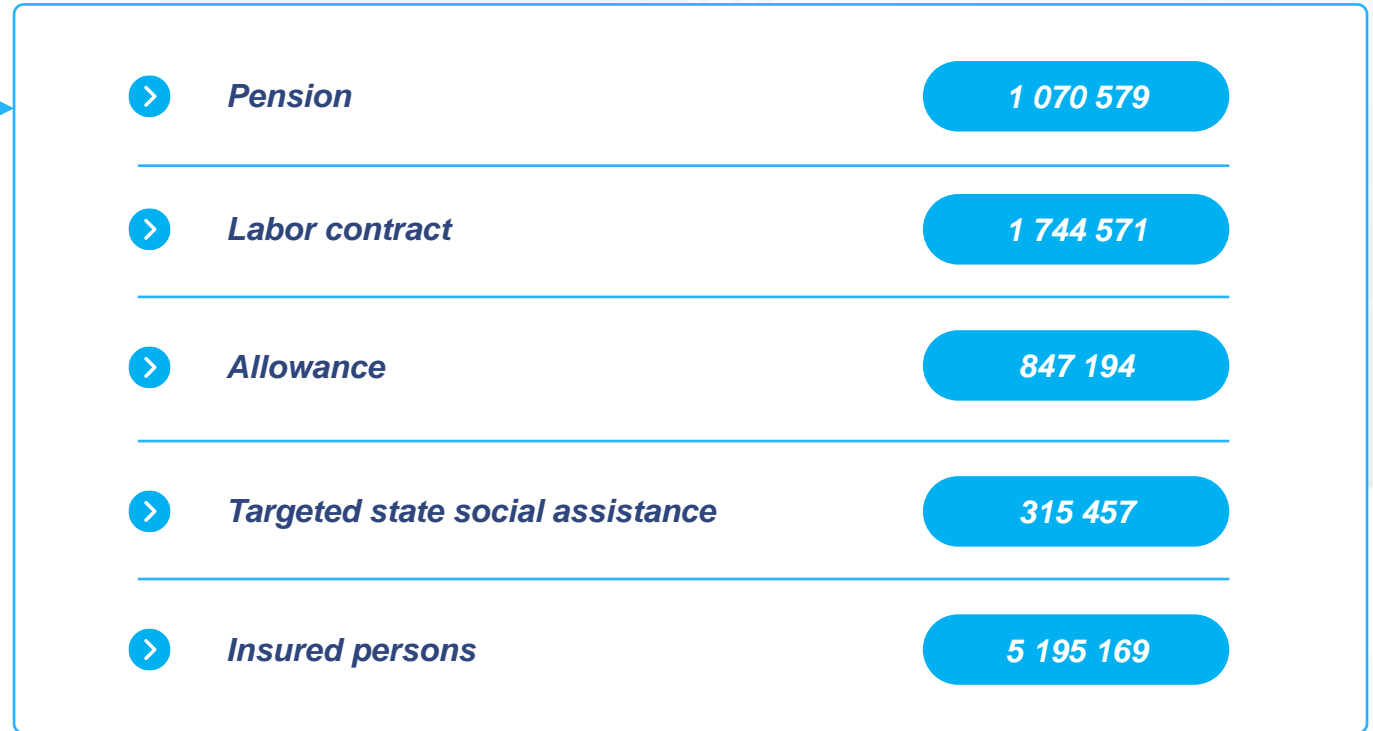
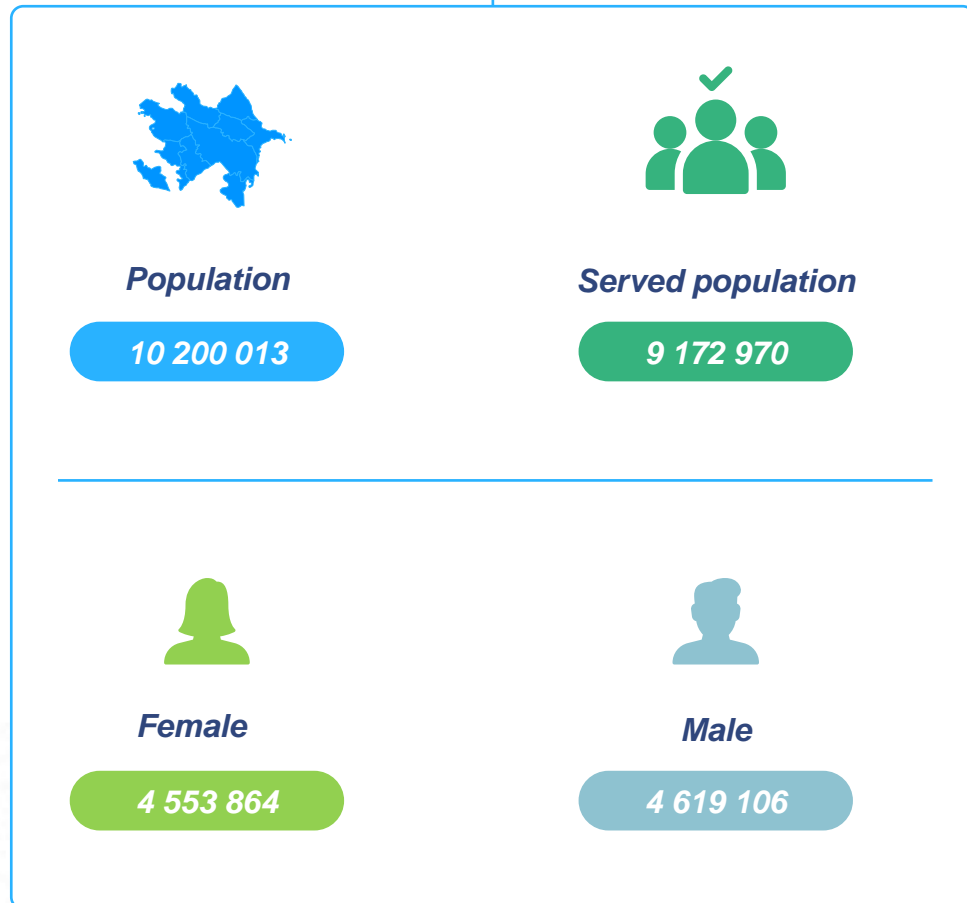


Content

- I. Context & Digitalization Timeline***
- II. DOST Digital Innovations Center***
- III. CEIS***
- IV. Proactive Mechanism***
- V. Unified Social Registry***
- VI. Technical Architecture***
- VII. Future Plans***



Social Protection Context



Social Protection Context

Newborns
Lump-sum birth benefit
Childcare allowance until age 3



Unemployed
Unemployment insurance payment
Benefits due to temporary loss of working capacity



Disability, rehabilitation,
Disability benefits
Rehabilitation



Families & Social Assistance
Targeted state social assistance
Adoption



Employed
Labor contracts
Insurance



Pensioners
Pensions
Allowances



Death
Funeral allowance
Survivor's pension




Social System Digitalization Timeline

 Initial Digitalization


2003-2013

 Expansion & Integration

2014-2017

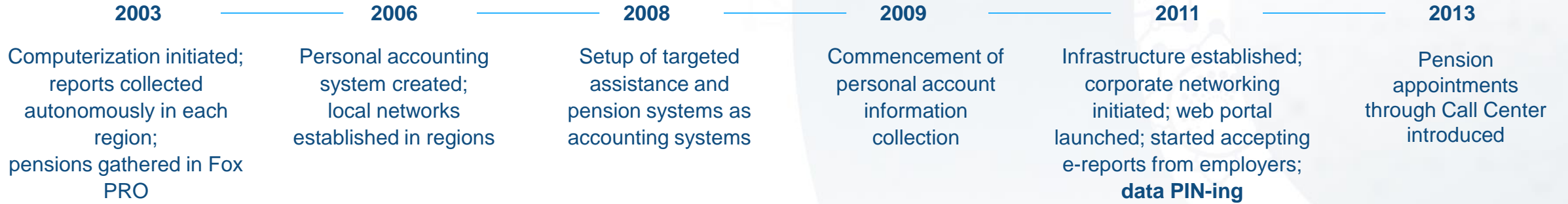
 Advanced Digital Transformation

2018-2023

 Data-driven Proactive Approach

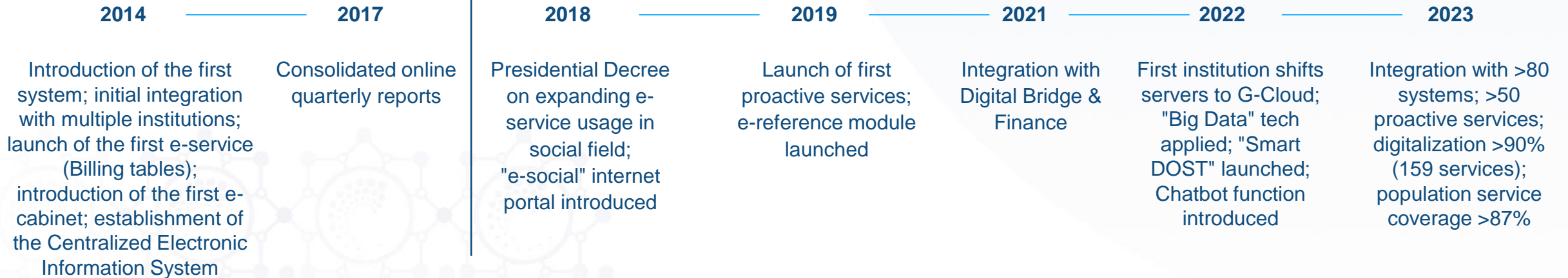
2024

Initial Digitalization



Expansion & Integration Phase

Advanced Digital Transformation





Till 2019

Old generation ID cards



From 2019

New generation ID cards



From 2024

Digital ID



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***DOST Digital Innovations
Center***





Decree No. 258 of the President of the Republic of Azerbaijan, dated September 5, 2018, titled «On Expanding the Application of E-services in the Fields of Labor, Employment, Social Protection, and Social Security»



The DOST Digital Innovations Center was established by the Decision of the Supervisory Board of the DOST Agency, dated December 17, 2021



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Centralization of IT management



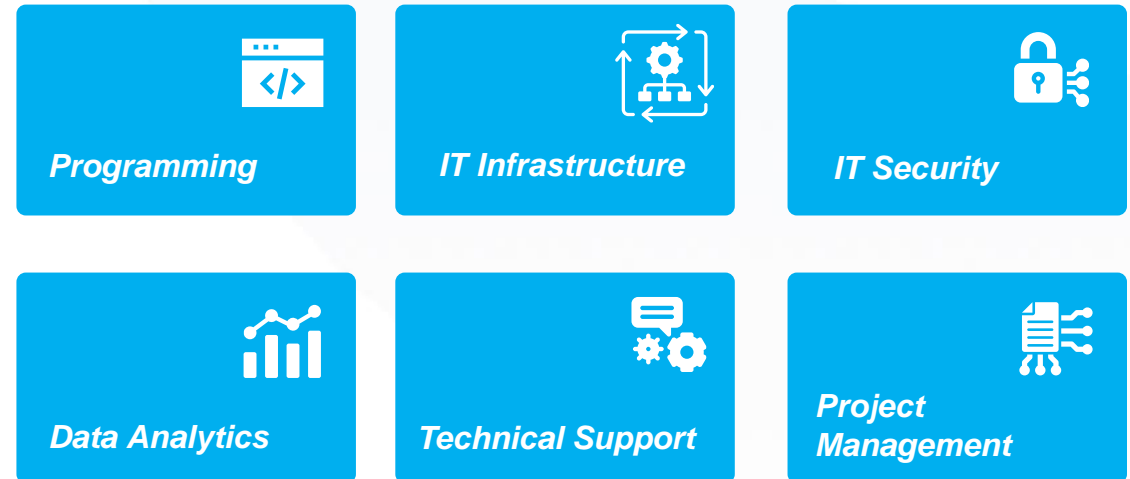
Before

(IT departments in each institution)



After

(centralization in one institution)



DOST Digital Innovations Center

Technical Support

Infrastructure

Cloud Management
DevOps
Network Management
Backup Management
Infrastructure Design
Infrastructure Monitoring
Inventory Management
Corporate Email

Database Management
Mobile Device Management
Call Center Management
System Administration
Endpoint Management
Solution Development
Identity Management
ERP Support

Information Security

Endpoint Protection
Malware Protection
Network Security
Source Code Analysis
Incident Management
CCTV
Database Security
Log Management

Antivirus Protection
Email Security
Application Security
Identity Security
Secure Access
DLP
Vulnerability Management
WEB Protection



Software Development

Enterprise Development
Mobile Development
Web Development
UI/UX Design
Queue Operation
Application Servers

Version Control Management
BPM Systems
Esign
Reporting
Support Tools
Caching

Project Management

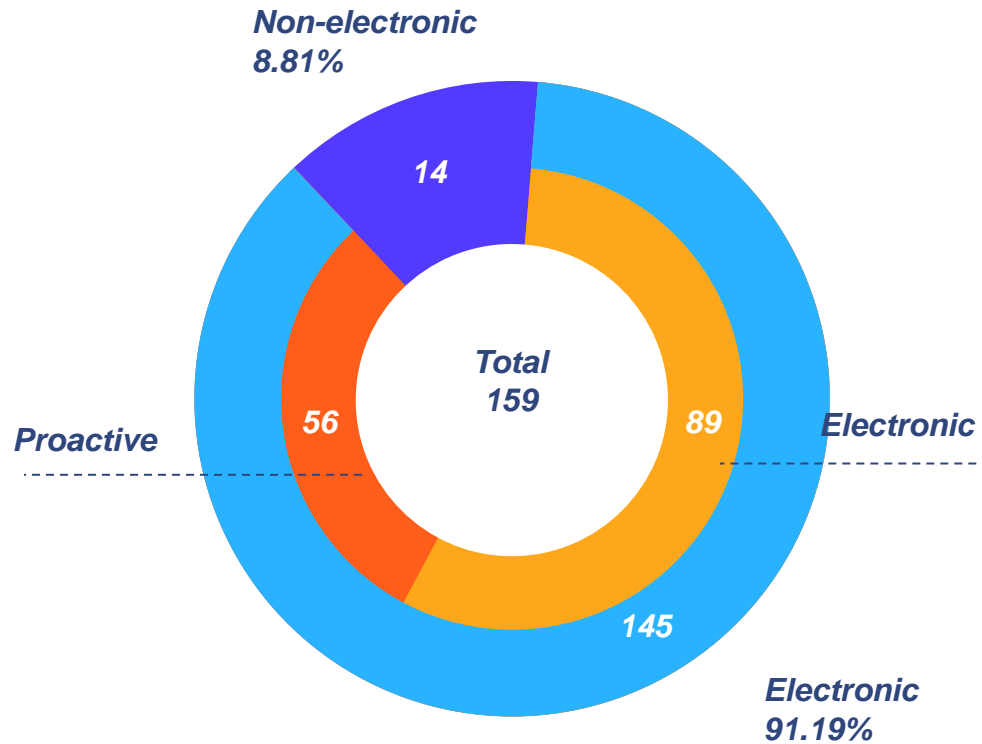
Project Management
Product Management
Project Application & Testing
Business Analysis

Data Analytics

Data Analysis
Data Visualization
Data Governance
Data Cleanup
Risk Analysis
Strategy Development

Strategy Implementation Oversight
Report Generation
Report Automation

Digitalization level of the services



E-appeal to our TOP 5 services (2024)

> Applications for the state targeted social assistance	679 329
> Submission of the bill of payments for benefits due to temporary loss of working capacity	512 965
> Providing information on the last examination at the Medical-Social Expert Commission	505 371
> Submission of the bill of payments for pregnancy and childbirth benefits	255 877
> Registration of employment contract notices and notification to the employer	181 257

e-appeal general statistics – 383 464 291



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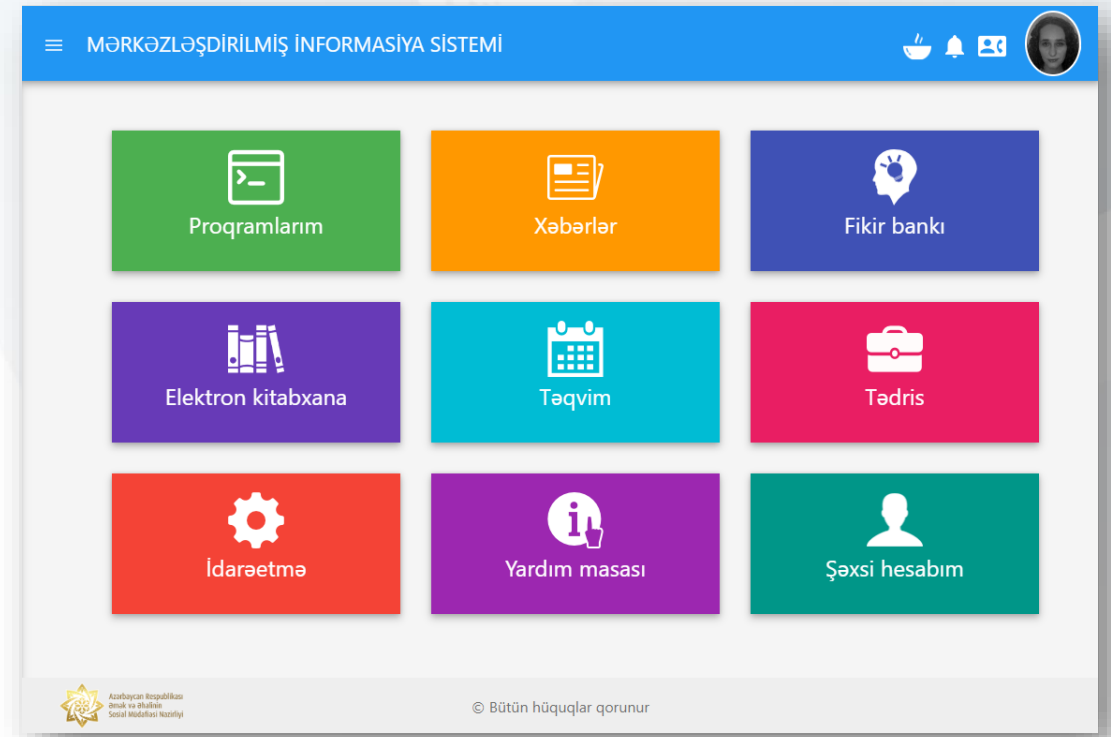
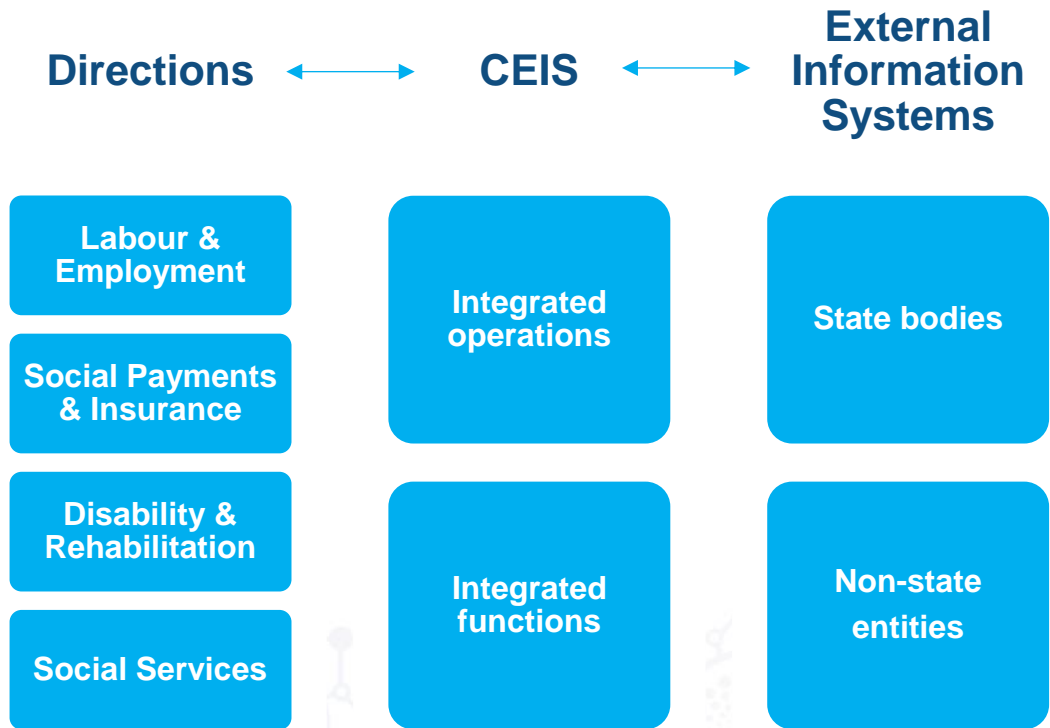


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Centralized Electronic Information System (CEIS)



Centralized Electronic Information System (CEIS)



Centralized Electronic Information System (CEIS)



Centralized repository for electronic information related to social services

Established in 2014

Single-window approach

19 subsystems

4 registers

Subsystems





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Proactive social payments mechanism



Factors

Lack of awareness of rights



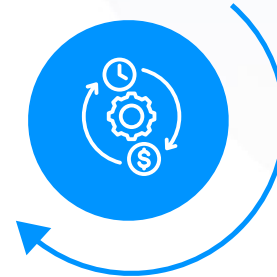
Excessive documentation requirements



Delays in addressing citizen appeals



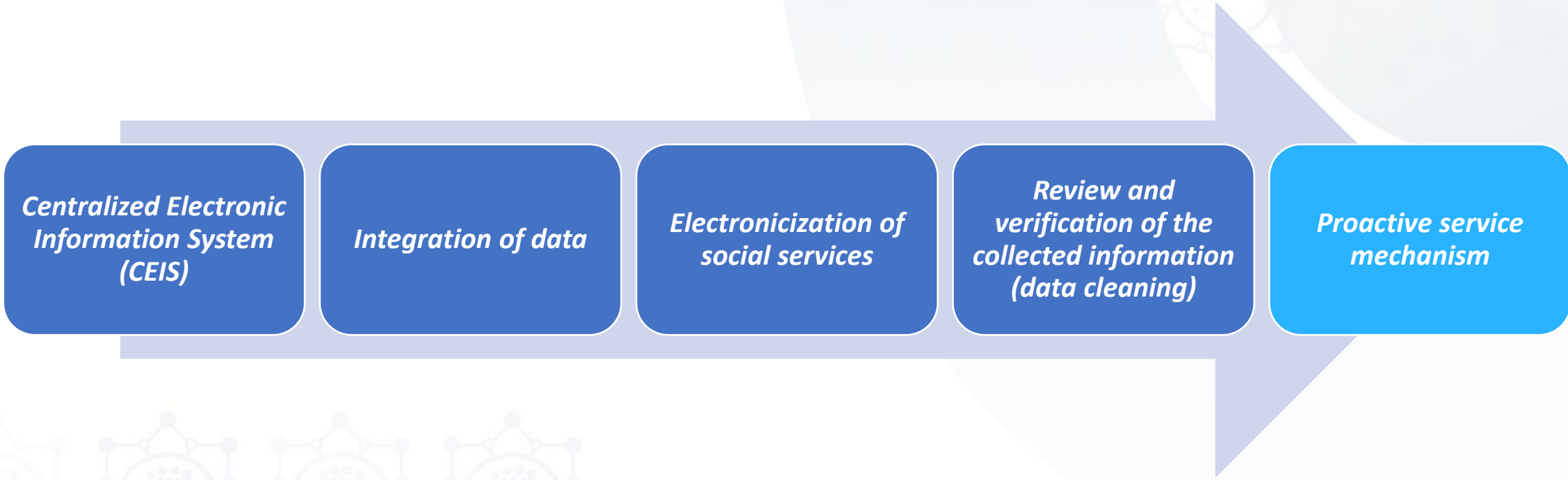
Time & cost burden



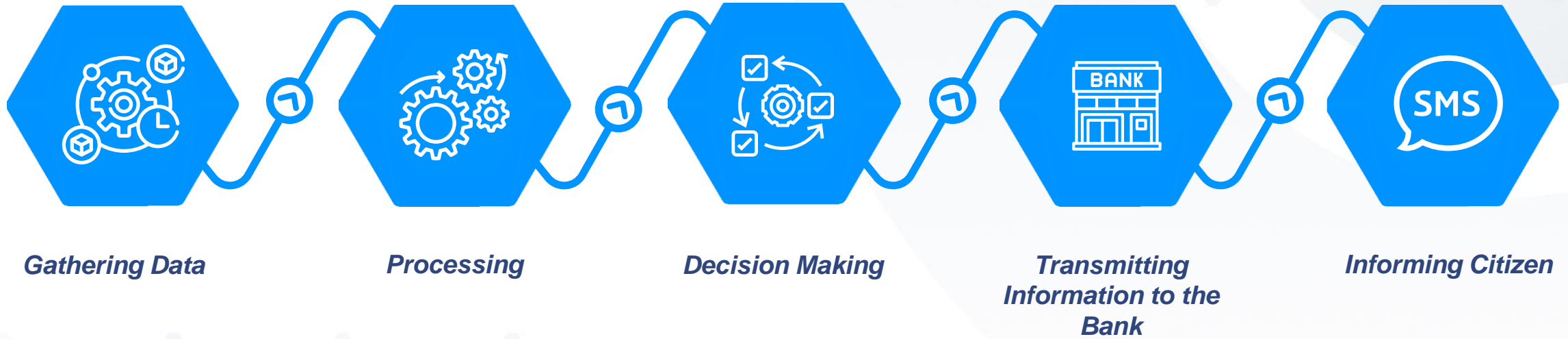
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Scheme





DOST

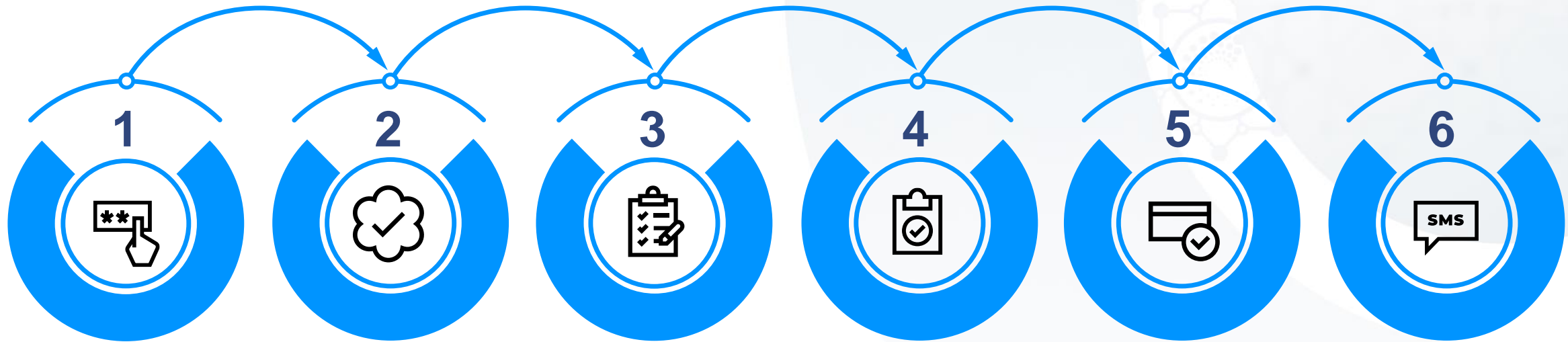
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Congratulations on reaching retirement age! We are pleased to inform you that your pension has been calculated, and you can obtain your retirement card from the Nasimi branch of the ABB



Retirement Age Pension Appointment



*Verification of
personal information
based on PIN*

*Verification of an
individual's vital
status information*

*Verification of pension
capital*

*Initiation of pension
assignment if the
required pension
capital is present*

Order of a plastic card

SMS notification

Stage 1

Ministry of Internal Affairs

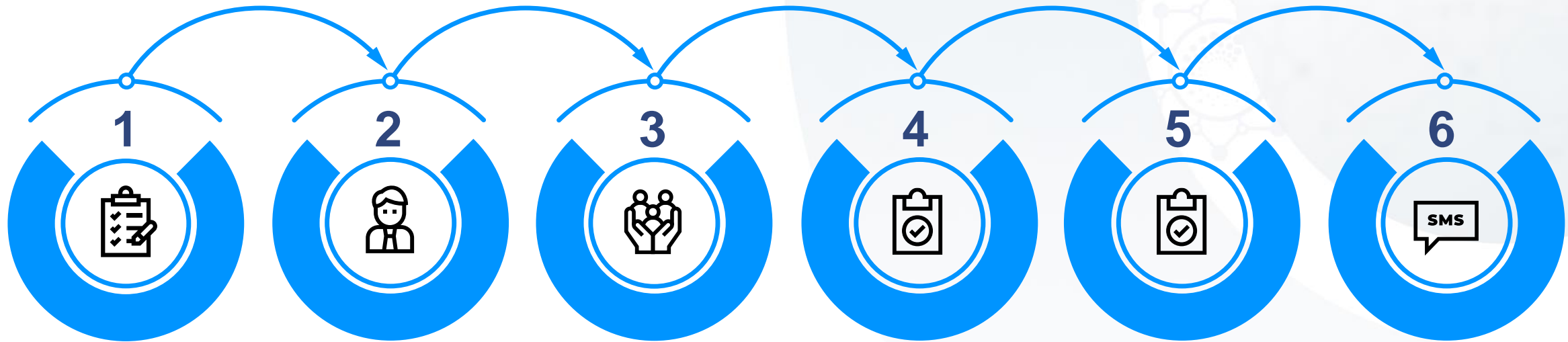
Stage 2

Ministry of Justice

Stages 3-6

*Ministry of Labour and Social
Protection of Population
State Tax Service*

Lump-sum childbirth allowance



Initial registration data is collected

Relevant information is transmitted to the Ministry's CEIS

Verification of details regarding the child's parents, including their vital status

Verification of whether the child's parents are taxpayers or employed

Upon meeting all requirements, the benefit is processed and appointed

SMS notification is sent to one of the parents, providing information about the payment amount and the corresponding bank branch's collection time

Stages 1 & 3

Ministry of Justice

Stage 2

Ministry of Labour and Social Protection of Population

Stages 4-6

Ministry of Labour and Social Protection of Population

State Tax Service

Proactive service indicators

2023

01.01.2023 - 31.12.2023

Generally

01.01.2019 - 31.12.2023

Pension	31 598	98 482
Allowance	206 034	734 273
SSN	219 686	780 603

2023

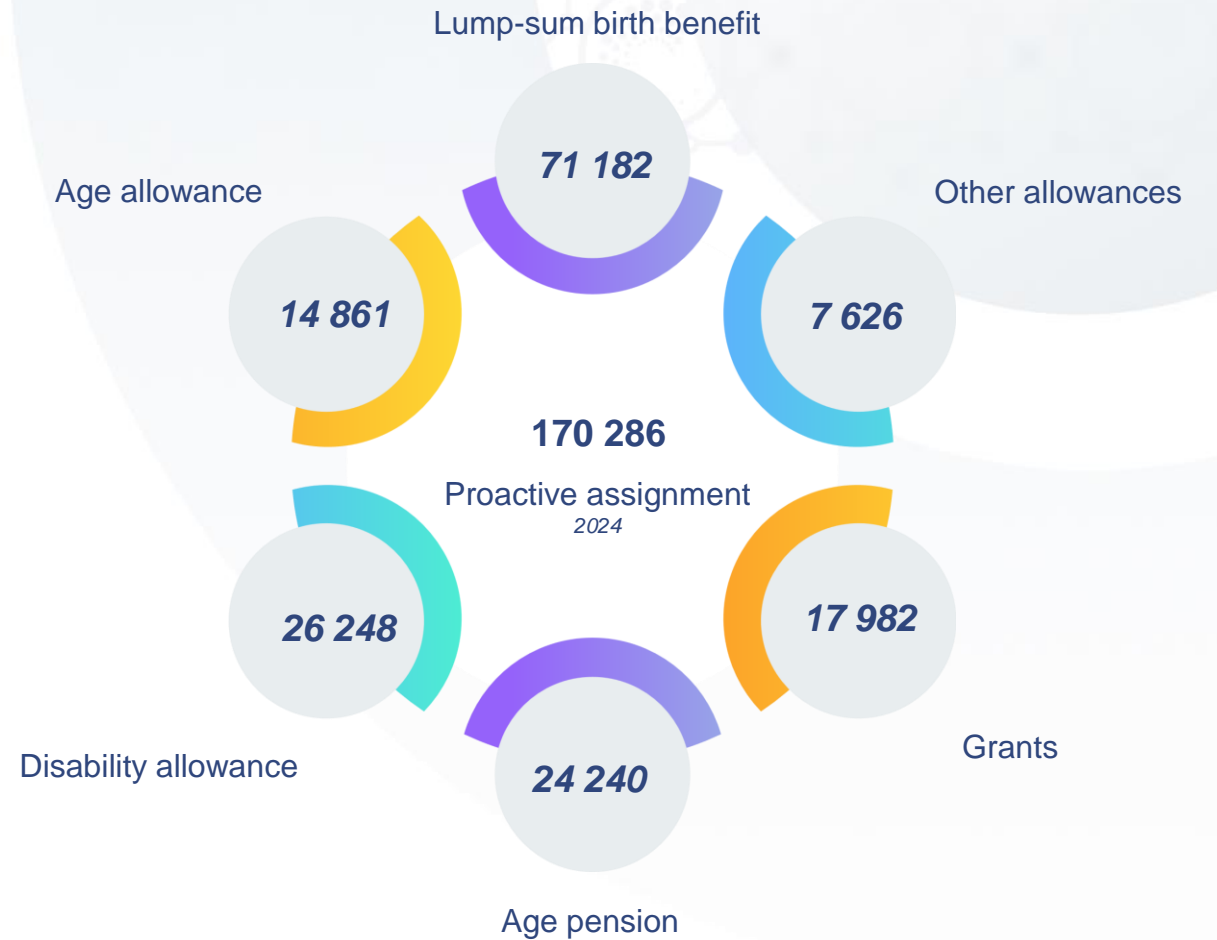
01.01.2023 - 31.12.2023

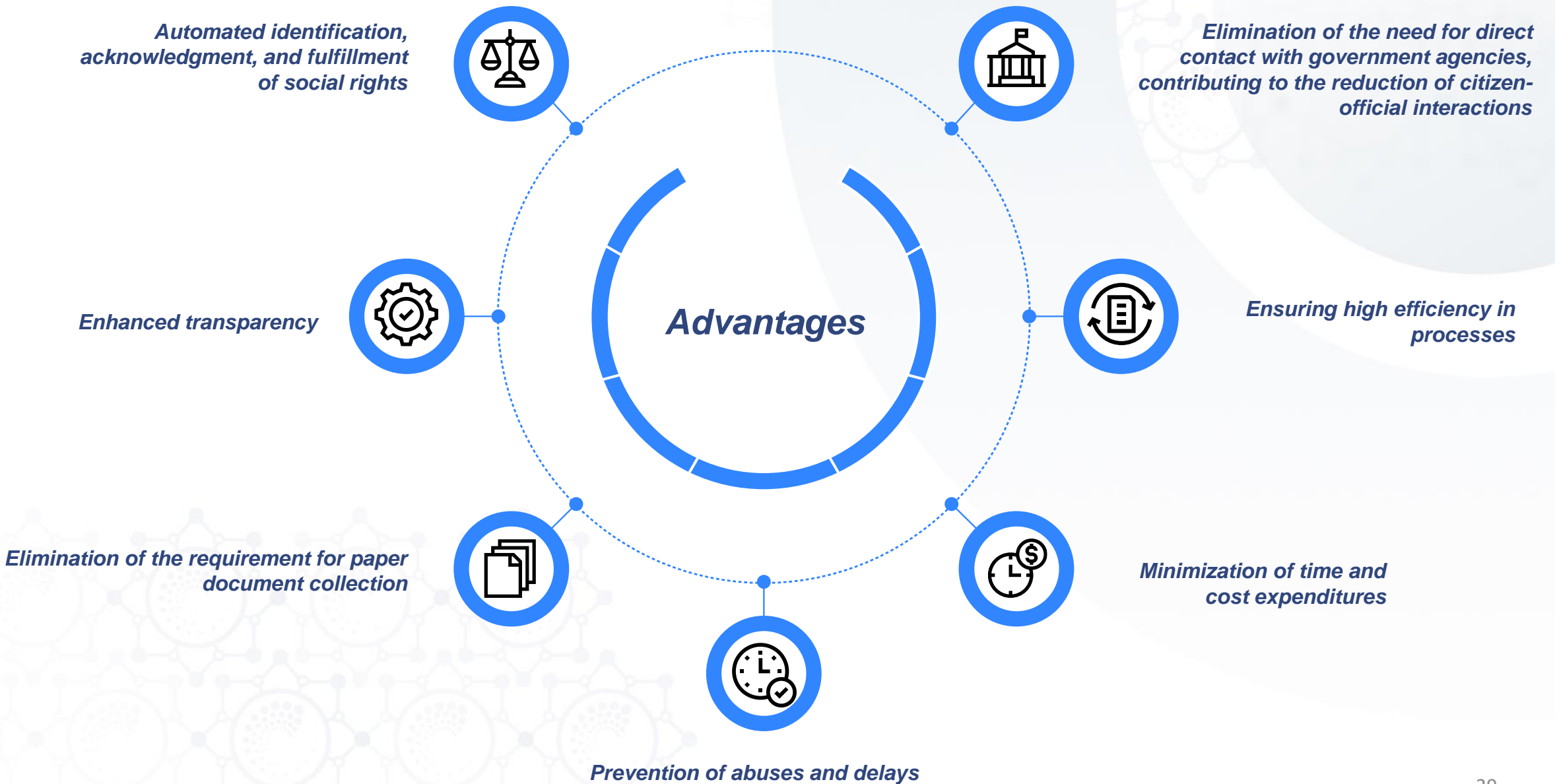
Generally

01.01.2019 - 31.12.2023

MAX request within a period	3 908	25 414
AVG request within a period	1 640	889

Most proactively assigned service types







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Social Protection of Population
of the Republic of Azerbaijan

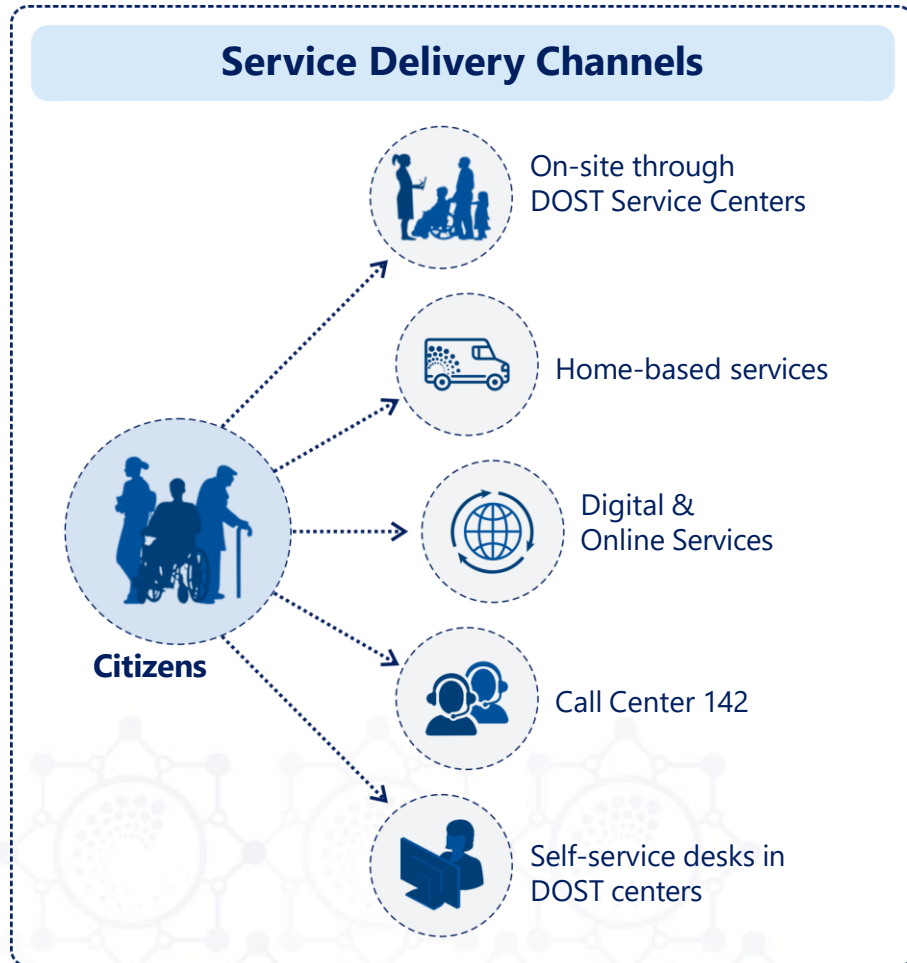


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Functional Architecture



Service Delivery Channels



Several service delivery channels are available, including both traditional methods (such as Citizen Reception and Call Centers) and digital options (e-platforms).



digital login

SİMA SİMA Rəqəmsal İmza ilə



Asan İmza ilə



SİMA Token (Elektron İmza) ilə



İdentifikasiya nömrəsi ilə



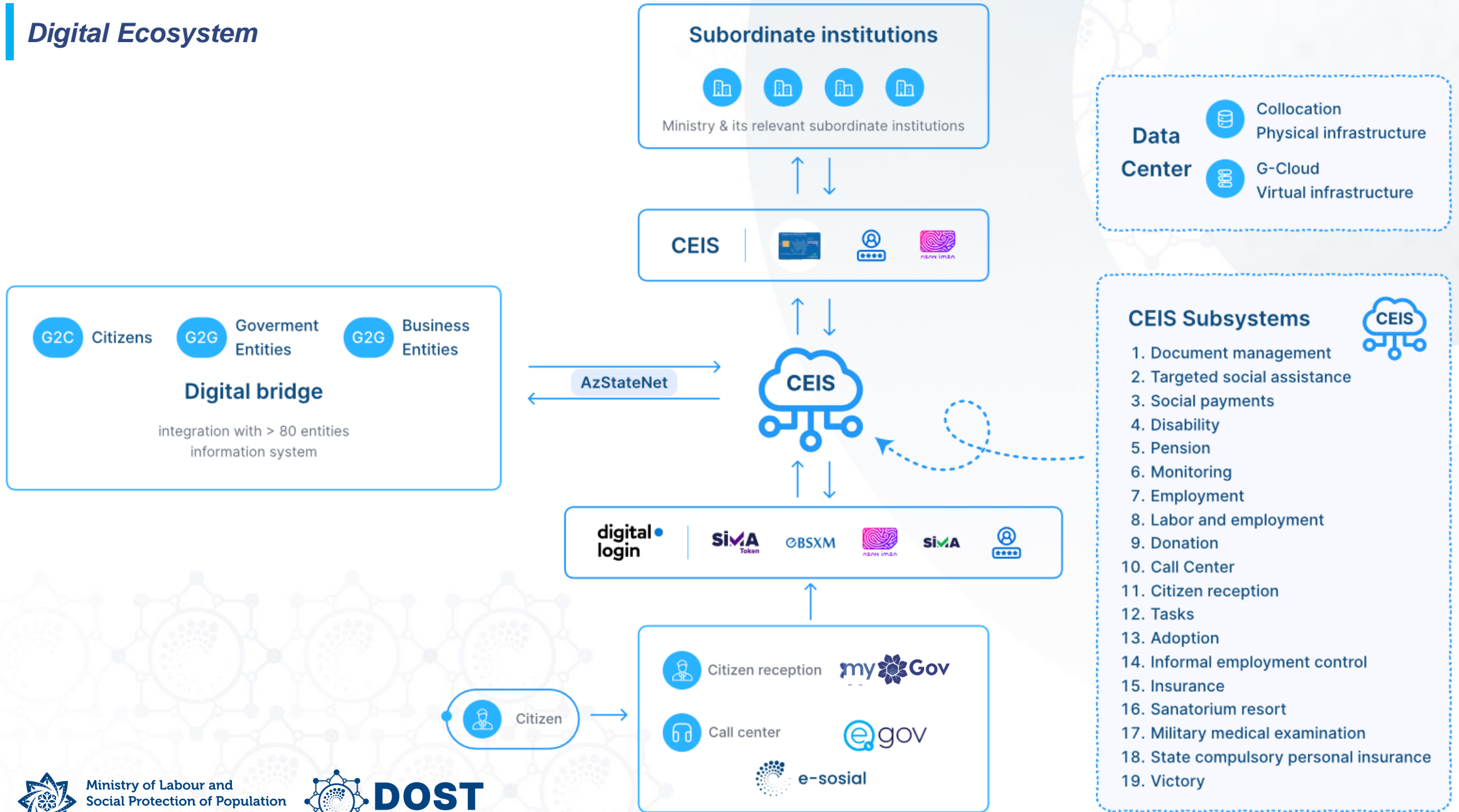
BSXM BSXM Elektron İmza ilə



SİMA Token



Digital Ecosystem

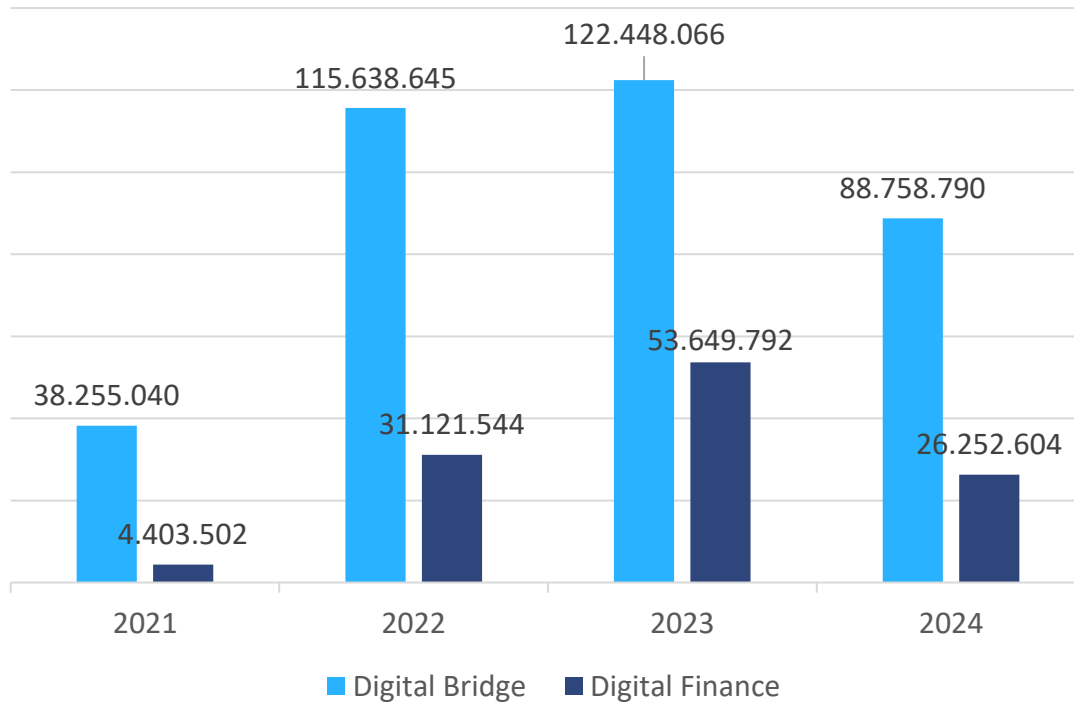


Integration with over 80 state bodies' and institutions' information systems

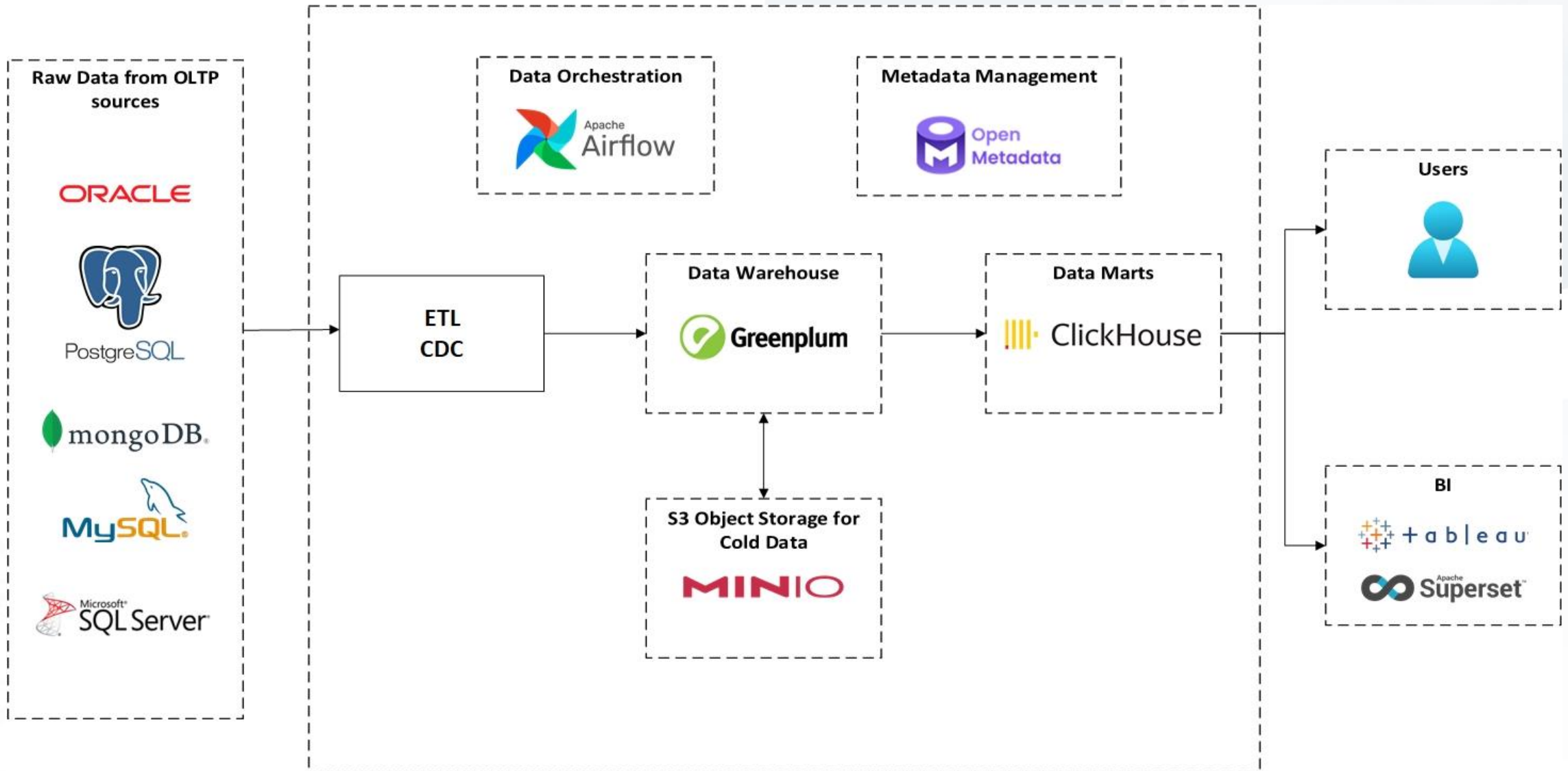
Examples

#	Institution	Receiving
1.	Ministry of Science & Education	<ul style="list-style-type: none">Information about diplomas
2.	State Tax Service	<ul style="list-style-type: none">Information about taxpayers
3.	State Examination Center	<ul style="list-style-type: none">Information about civil servants
4.	State Agency on Mandatory Health Insurance	<ul style="list-style-type: none">Details of health certificates (Form 86)
5.	Ministry of Justice	<ul style="list-style-type: none">Information about newborns
6.	Ministry of Internal Affairs	<ul style="list-style-type: none">Information about driver's license holders
7.	Ministry of Digital Development and Transport	<ul style="list-style-type: none">Information about mobile numbers
8.	State Migration Service	<ul style="list-style-type: none">Details of foreigners' certificates
9.	Ministry of Health	<ul style="list-style-type: none">Information about medical institutions
10.	State Service for Mobilization and Conscription	<ul style="list-style-type: none">Information about those in military service

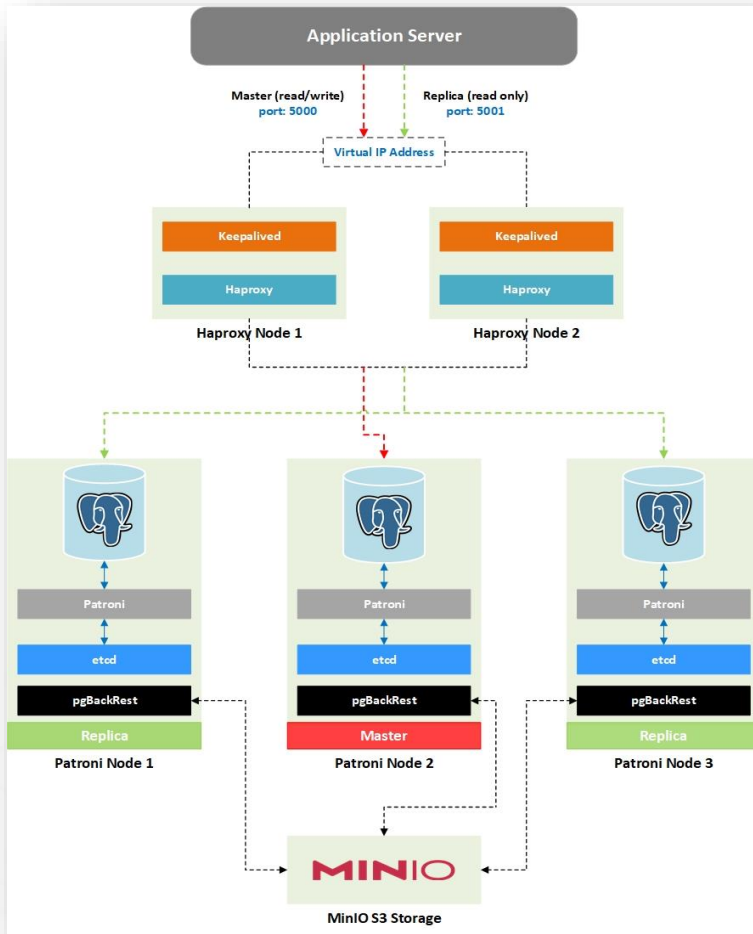
General Stats



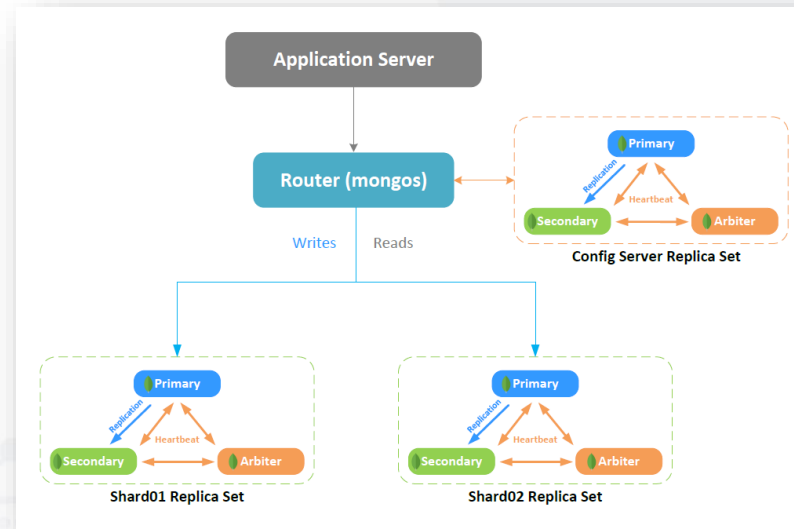
Current Data Warehouse Environment



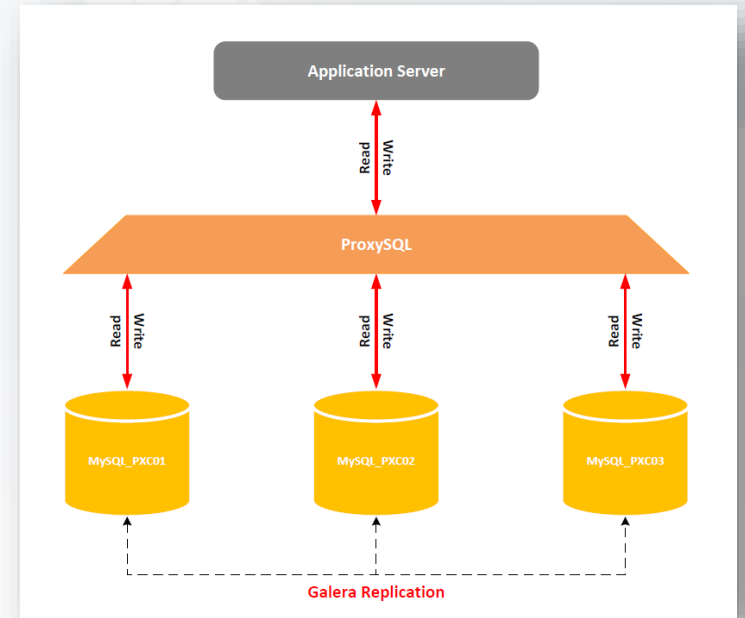
PostgreSQL HA Patroni



MongoDB HA Sharded



MySQL XtraDB



Analytics

Keeping reports and projects in the 'Analysis' subsystem up-to-date



Managing data for 733 projects



Automated report generation from the 'Analysis' subsystem



Addressing queries & generating reports/data



Maintaining database integrity through risky data detection



Correcting redundant & incorrect information (payment, destination)



Access Controls & Authentication

Backup & Disaster Recovery

Network Security Measures

Monitoring & Auditing



ISO certificate
Information Security Management System



219 565 759
Attacks thwarted



525
Blocked viruses



>1000
Employees trained



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Unified Social Registry





Users - 1 600 342

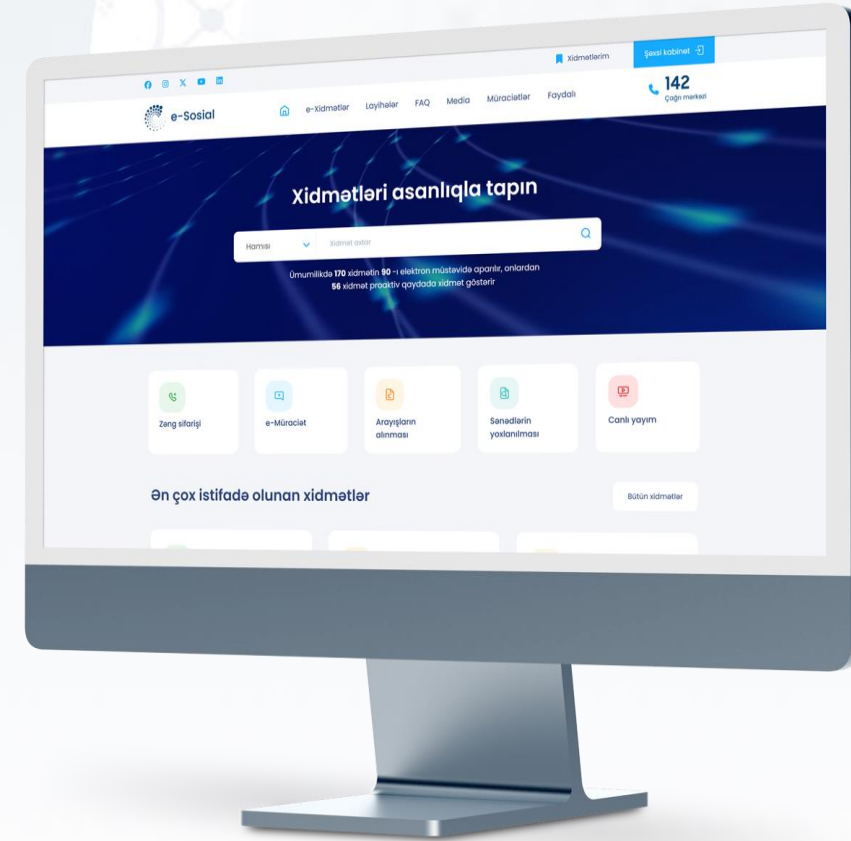
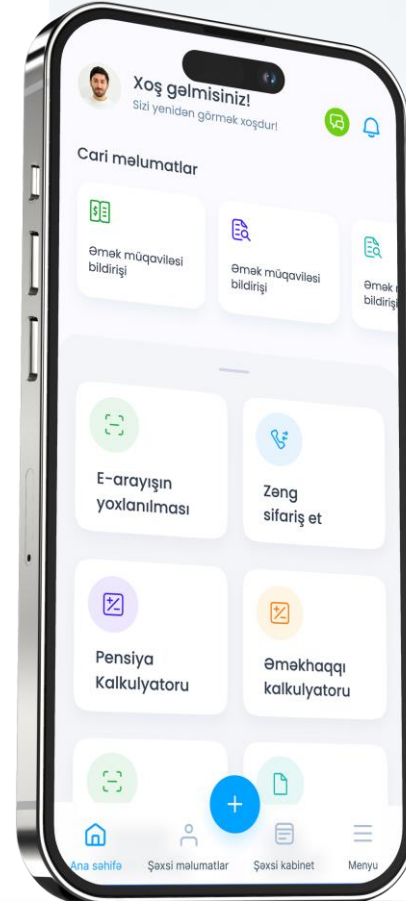


iOS users – 222K



Android users - 304K

- > Unified social registry
- > Pension capital monitoring
- > Applications tracking
- > Labor contracts notifications
- > E-references
- > Mobile app





Total
4 310 903

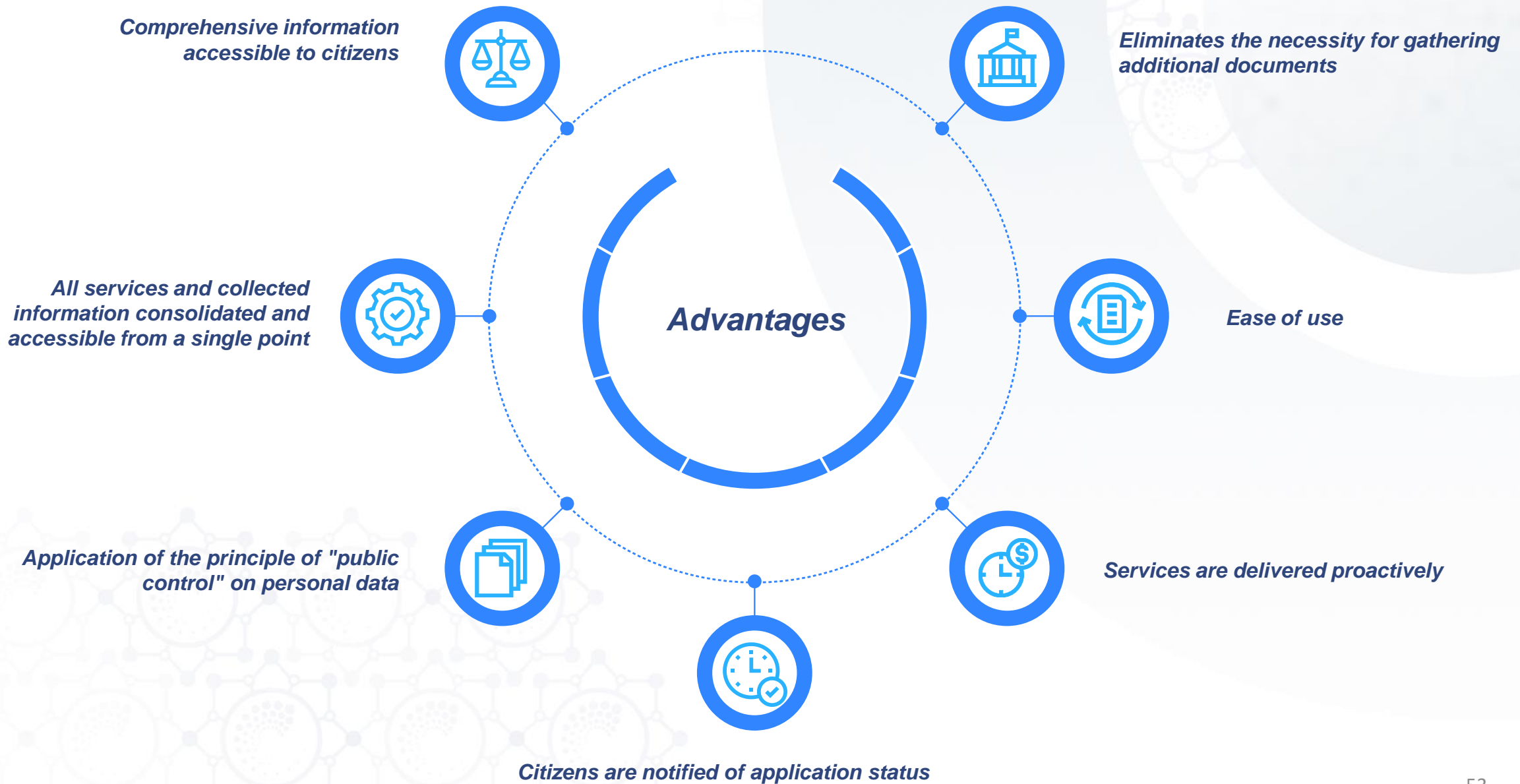
For 2024
249 001



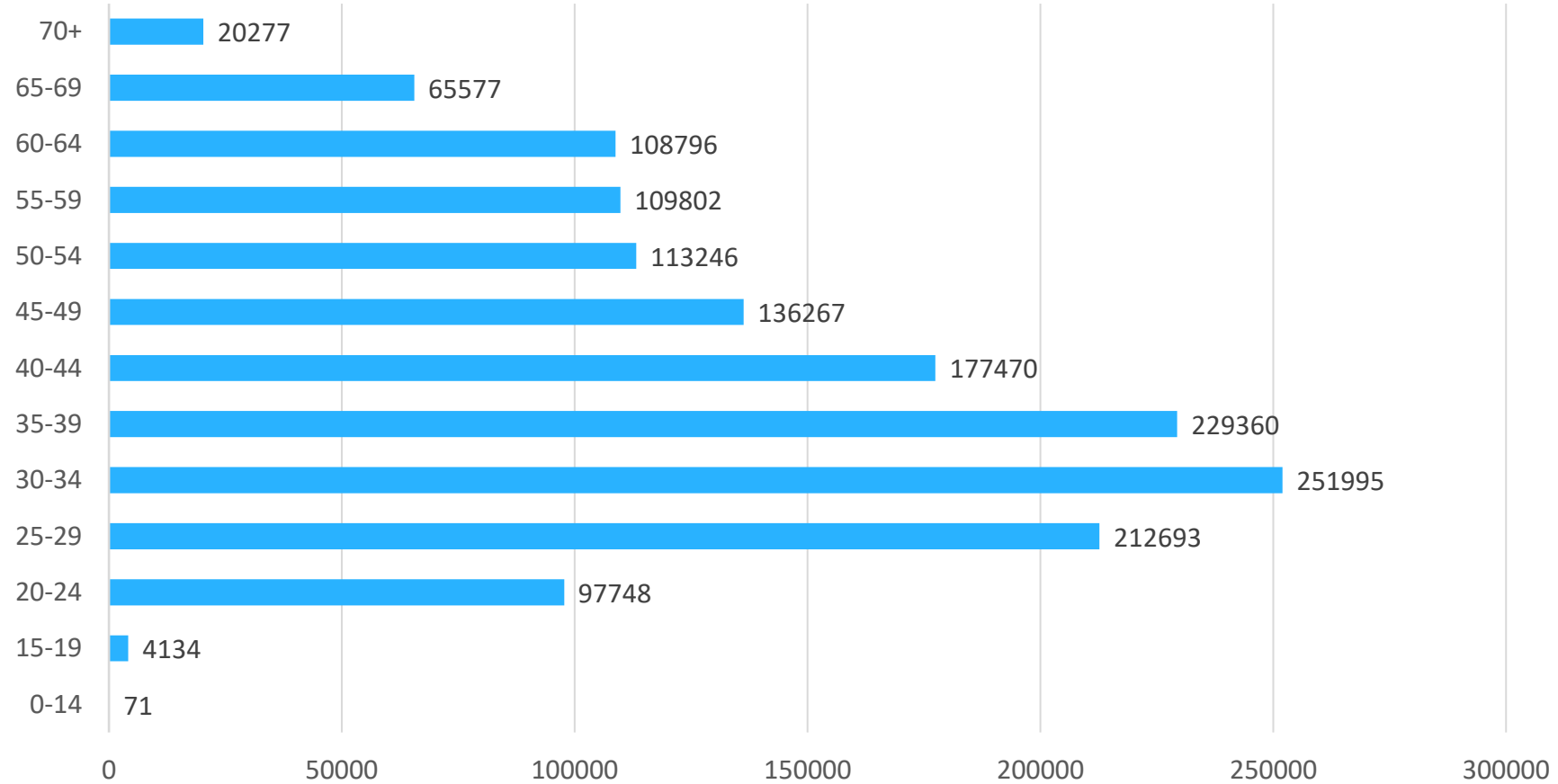
Top 5
e-references

- Disability
- Workplace
- Allowance & grants
- Employment
- Pension

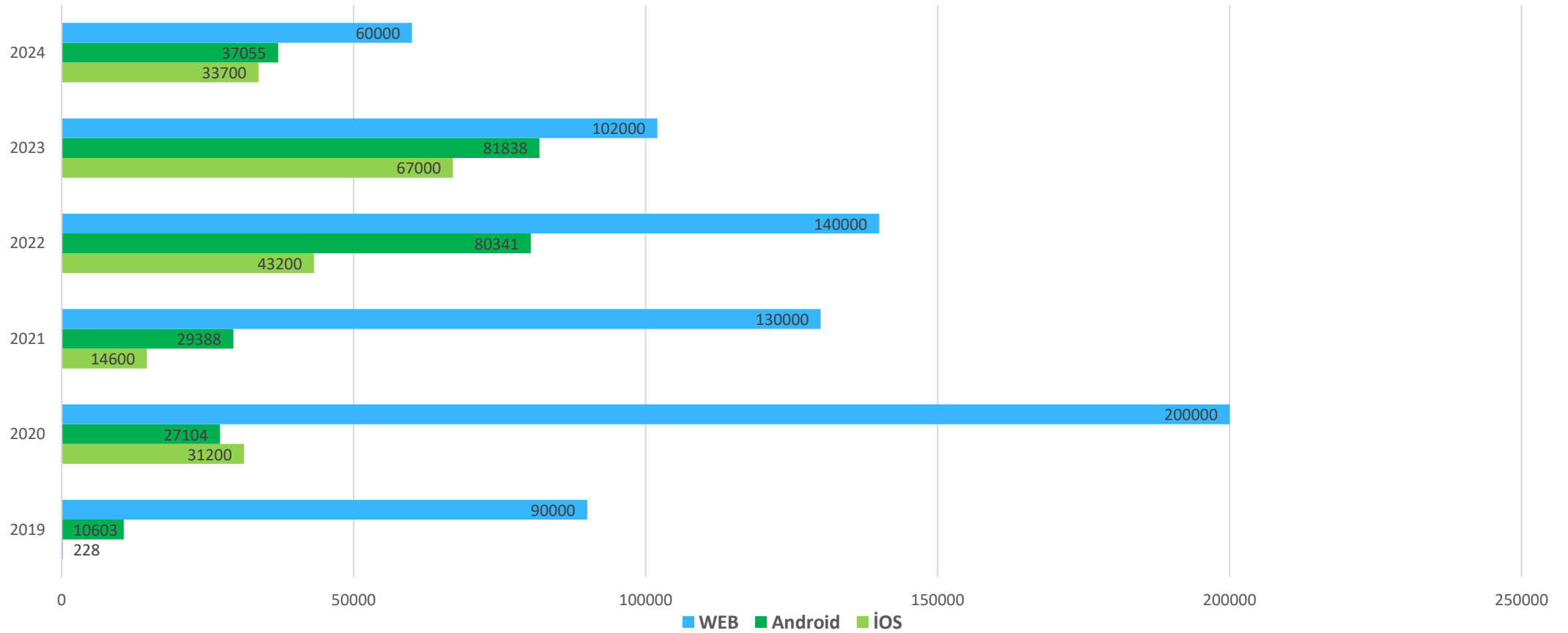




Distribution of users by age

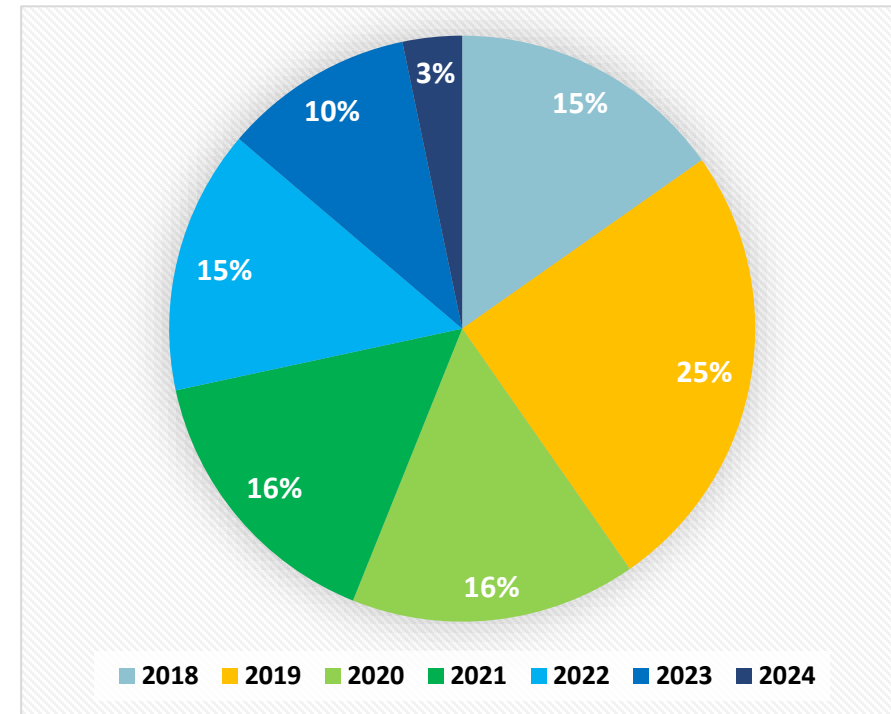
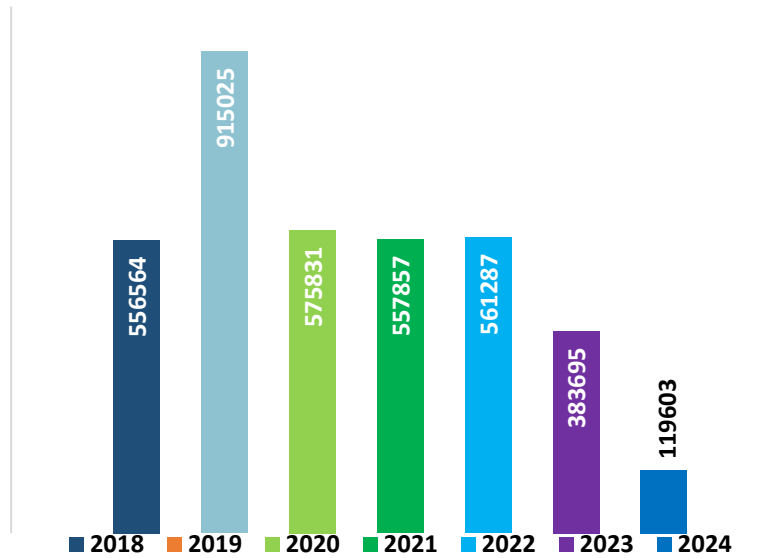


Users' views



E-references

The most requested type of e-reference is the "Workplace reference"



DOST: one-stop-shop model



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Smart DOST



Service Provision





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Issues addressed





Challenge	Solution
Fragmented Information Systems	CEIS
Coordination Difficulties	DOST Digital Innovations Center
Insufficient application of the principle of "public control" on personal data	"e-social" portal
Quality of services	"one-stop-shop" DOST Model

Robust and effective digital infrastructure

Collaboration between different government bodies

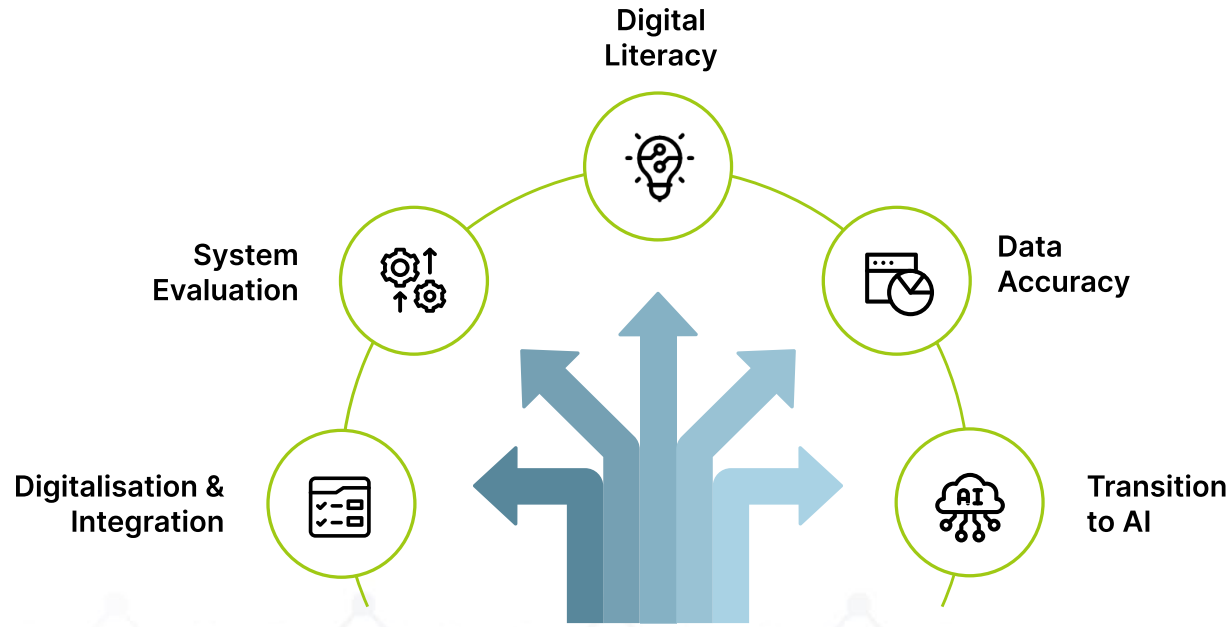
Compatible and up-to-date technological infrastructure



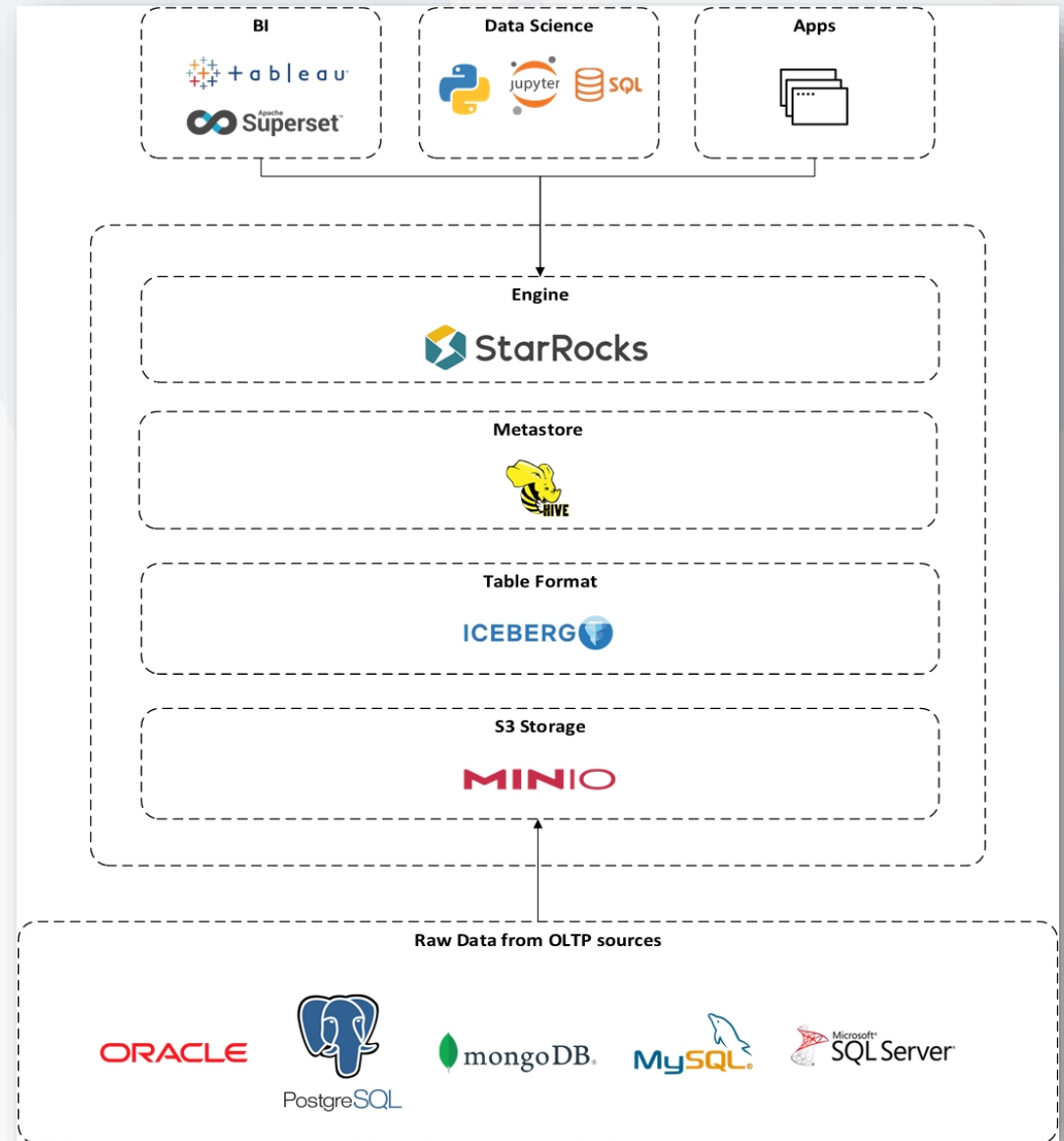
Impact



Future Roadmap



Planned Data Lakehouse Environment



2003-2024

Digitalization

Optimizing IT resources to enhance and develop support for information systems, while establishing a flexible technical support service

Implementing necessary measures to ensure the secure and reliable operation of information systems and databases

Ensuring database integrity by identifying and addressing risky information, and establishing a comprehensive reporting system

Enhancing existing projects and implementing new ones by ensuring the organization and stability of e-services

2025-2027

Data-driven proactive approach

Expanding the scope of proactive social services

Providing staff with training in data literacy to enable informed, data-driven decision-making

Integrating AI technologies into the social sector



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**Thank you for
your attention!**





**Discussion
&
Audience Q&A**

Closing



Anna Deniz

Advisor for Digital Social Protection
GIZ

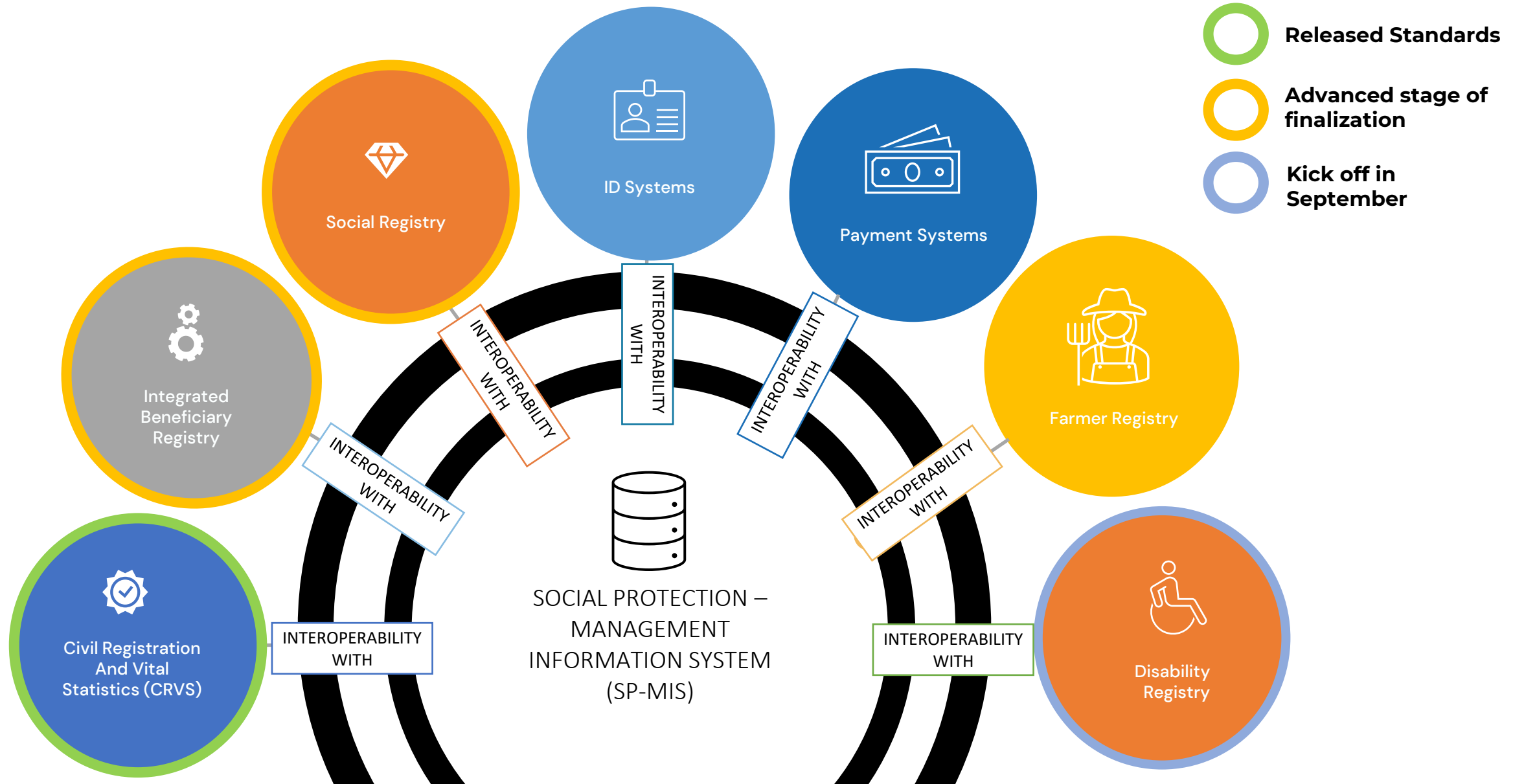
Next Talking Interoperability Event

December 10, 2024
14 - 16 CET

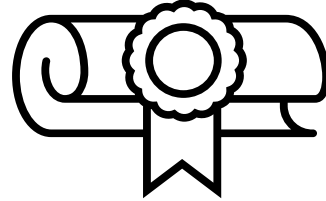
Case
to be confirmed

Registration via [sp.org](https://www.socialprotection.org)
(<https://www.socialprotection.org>)

Standards for Interoperability



DCI Standards



3 Main Parts

Description

Standards Documentation

Process (Workflows)

Use cases showcasing interoperability between Disability Registry and SP-MIS to efficiently exchange information and collaborate effectively.

Broader audience

Data Standards

Data Objects, attributes, and Code directories



<https://standards.spdci.org>

API Standards

A comprehensive guide that outlines the methods and protocols that the systems can use to communicate

More technical



<https://github.com/spdci>

* DCI Interoperability framework : Based on EU Interoperability framework

Support the Initiative

Your input matters

- **Contribute your expertise** to our workstreams
- **Support** the process of **consensus building and harmonization of standards.**
- **Spread awareness** about the initiative
- **Adopt the standards and other outputs** in your SP projects and share **feedback**



Forms of participation

- **Share existing materials**
- **Review** outputs
- **Join** group **discussions** and workshops
- **Submit your draft standards** to DCI for consensus building through DCI standards committee.
- **Join the Standard Committees**

Connect with the DCI

E-Mail



contact@spdci.org

Website & Social Media Channels



<https://spdci.org>



[digital-convergence-initiative](https://www.linkedin.com/company/digital-convergence-initiative)



[@sp_convergence](https://twitter.com/sp_convergence)



[@sp_convergence](https://www.instagram.com/sp_convergence)



<https://spdci.slack.com>

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know more and
become a member
by clicking here

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on your browser and join us for the next sessions!

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