

Talking Interoperability

In Focus | Brazil



Digital
Convergence
USP2030

Welcome

Welkommen
Willkommen
Bem-vindo
Yokoso
Accogliere
Nau Mai
Toivottaa
Degemer
Akwaba
Ongietorri
Dobrodošli
Üdvözlet
Wellkomma
Benvido
Haere Mai
Salve
Tervetuloa
Acchoje
Hosgeldiniz
Nayak
Bi xêr hatî
Chào mừng
Vitajte
Fáilte
Swagata
Benvenuto
Welkom
Velkomin
Namaste
Witaj
Bun venit
Aloha
Bienvenue
Huan Ying
Vítejte
Swaagat
Bonavinuta



Digital
Convergence
USP2030

Agenda

12:00–12:15

Welcome

12:15–13:00

Presentation

13:00–13:30

Discussion

13:30–13:55

Audience Q&A

13:55–14:00

Closing remarks



Digital
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Housekeeping rules

- Ask your questions in the Q&A box
- Share any comments or resources in the chat
- Simultaneous interpretation is available
Select the language in the interpretation icon on control bar
- Session will be recorded



To: Everyone ▼



Your text can be seen by panelists and other attendees



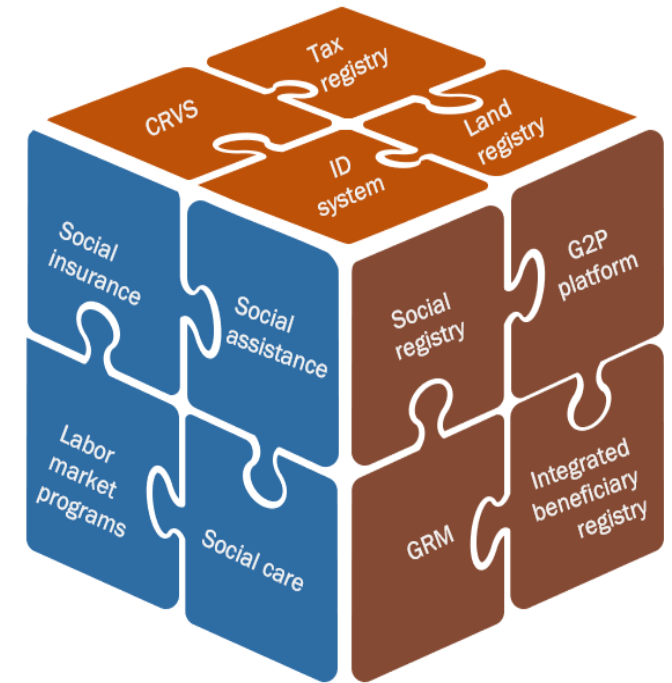
Digital
Convergence
USP2030

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



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Talking interoperability

A monthly 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



**Digital
Convergence**
USP2030

Recordings of past sessions available

The image displays two overlapping browser windows. The left window shows the 'Digital Convergence USP2030' website with a 'Past events' section listing several sessions, including 'Dialogue series: Session 3 - Turkey' and 'Applying the Principles for Digital Development in social protection'. The right window shows the 'socialprotection.org/webinar-series#talking-interoperability' page, which features a 'Talking interoperability - Dialogue Series' section describing the initiative's goal to facilitate technical conversations around interoperability in social protection. It also lists three specific webinars and identifies the organizers as the Digital Convergence Initiative (DCI).

Past events

- [Dialogue series: Session 3 - Turkey](#)
- [Dialogue series: Session 2 - Belgium](#)
- [Dialogue series: Session 1 - Karnataka State, India - Kutumba](#)
- [Applying the Principles for Digital Development in social protection](#)
- [Open source solution workshop](#)

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 USP2030

[Past Events – digital convergence initiative \(sp-convergence.org\)](https://sp-convergence.org/archive-past-events/)

<https://socialprotection.org/webinar-series#talking-interoperability>

Introductions

Presenter



Gustavo Canuto

President Dataprev

Discussants



Philippe George Leite

Senior Social Protection
Economist, World Bank



Verónica Achá Alvarez

Department Lead on
Analysis of Social
Information, Ministry of
Social Development and
Family

Moderator



Rodrigo Assumpção

Social Protection
Management Information
Systems Specialist,
International Labour
Organization



**Digital
Convergence**
USP2030



Gustavo Canuto

President Dataprev



Digital
Convergence
USP2030



Verónica Achá Alvarez

Department Lead on Analysis of Social Information, Ministry of
Social Development and Family



**Digital
Convergence**
USP2030



Philippe George Leite

Senior Social Protection Economist, World Bank



Digital
Convergence
USP2030



Rodrigo Assumpção

Social Protection Management Information Systems
Specialist, International Labour Organization



Digital
Convergence
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Brazilian Emergency Benefit (Covid-19 pandemic)

GUSTAVO CANUTO
CEO

DATAPREV

*A fully state-owned company
specially focused on providing ICT
solutions for the improvement of
Brazilian social policies*



Brazil Context

Country

27 states
5,570 municipalities

Population

215,353,763
inhabitants
(IBGE projection 2022)

Poor population

62.9 million - 29.6% of
the population in 2021
(FGV Social - PNADC/IBGE)

Formal jobs

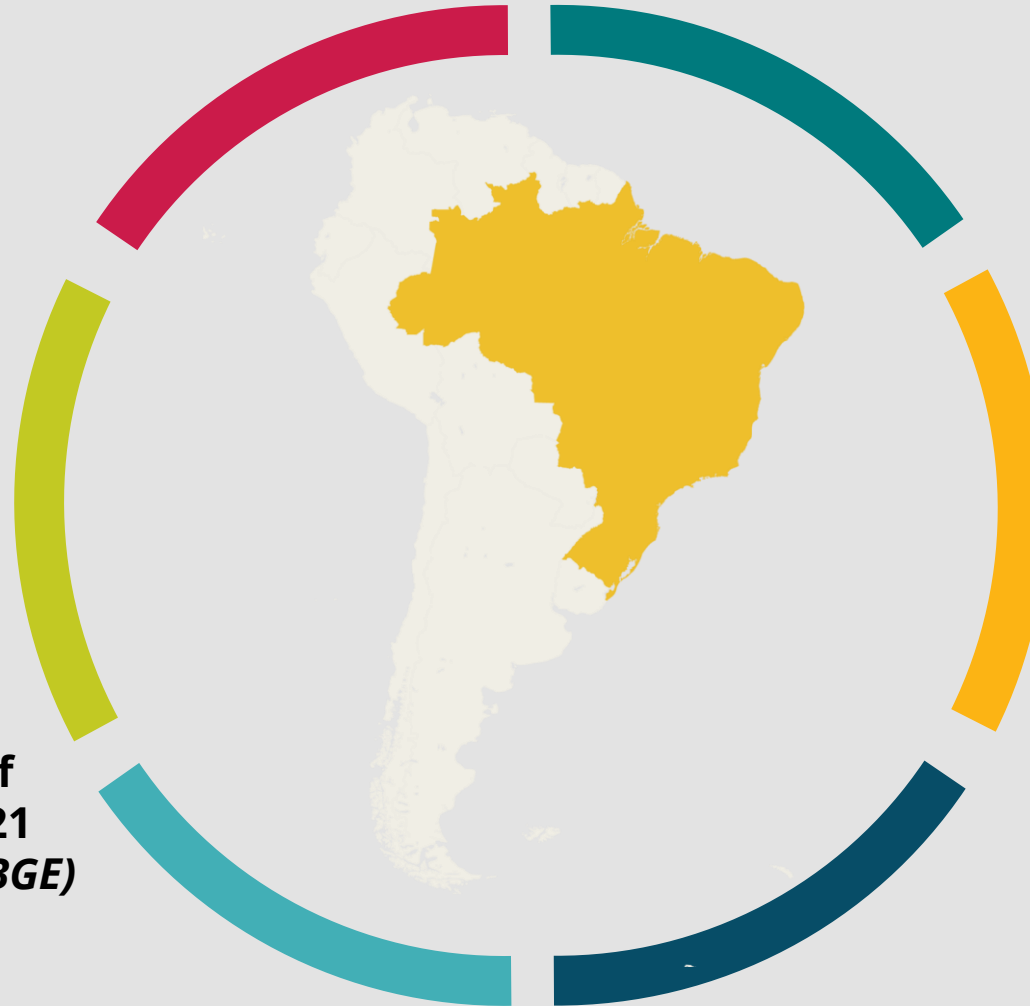
42,531,653
(CAGED 2022)

GDP

US\$ 1,608,981 millions (2021)
US\$ 7,518 per capita (2020)

Households

72.4 million households
(PNAD Continua 2019/IBGE)



Emergency Benefit Challenges



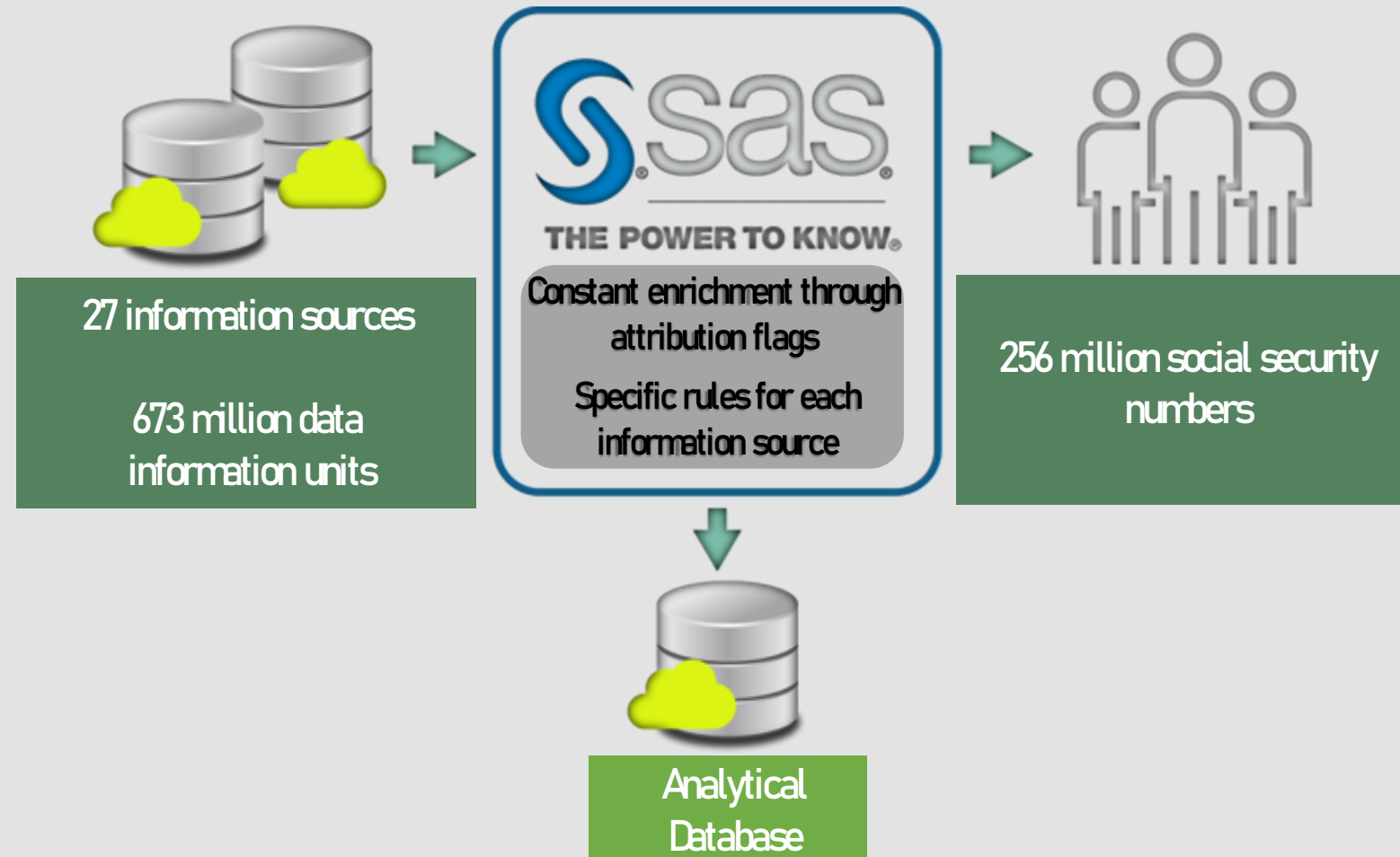
- **UNPRECEDENTED** world-wide crises
- **NO TIME** for traditional software development methods
- **Need to identify MULTIPLE SCENARIOS**
- **Need to specify PROCESSING RULES** for all identified scenarios
- **Need to work with DIFFERENT DATABASES** with diverse origins, layouts and updates frequencies
- **Use of MODERN DATA ANALYTICS TOOL**
- **Need to ensure DATA PRIVACY & DATA PROTECTION**

Processing Challenges



- Multiple information sources with **DIFFERENT DATA QUALITIES**
- Need to update **ANALYTICAL DATABASE** on monthly basis to guarantee performance
- Need to provide **FULL TIME MONITORING SERVICE** to ensure data privacy and data protection
- Need to generate **STATISTIC SAMPLES OF THE RESULTS** for faster validation by Ministry of Citizenship
- Need to use the Central Bank format for **PAYROLL**
- Need to **DEVELOP NEW MODULES** for concession, consultation and contestation during the execution period
- Need to **PREVENT EXTERNAL FRAUD**
- Need to **CONTINUOUSLY IMPROVE MECHANISMS** for eligibility conditions

Analytical Process Development



27 Databases Analysed

Unemployment Compensation Fund (FGTS) Contribution and Social Security Information Form
Origin: Caixa Econômica Federal

Update: monthly



CNIS GFIP

CNIS Workers with Intermittent Link
Origin: INSS

Update: monthly



CNIS Intermittent Link

Politically Exposed Basis
Origin: Ministry of Economy

Update: eventual



Politically Exposed

Brazilians Living Abroad Basis
Origin: Ministry of Citizenship

Update: eventual



Brazilians Living Abroad

Defence Basis
Origin: Ministry of Citizenship

Update: eventual



Defence (Military)

Prisoners Basis of São Paulo State (Closed Prison Regime)
Origin: Ministry of Citizenship

Update: eventual



Prisoners of São Paulo State

National Prison Department Basis (Open-Closed Regime)
Origin: Ministry of Citizenship

Update: eventual



DEPEN / MJ – Prisoners

Taxable Profits Basis
Origin: Serpro

Update: eventual



IRPF 2018 (Individuals Income Tax) (RFB – Brazilian Revenue Federal Office)

Emergence Benefit – BEm
Origin: Brazilian Secretariat of Labor

Update: weekly



BEm

List of Public Governments Employees Cities and States
Origin: CGU – Controller General of the Union

Update: eventual



Public Employess Cities and States

Microentrepreneurs Individual Basis
Origin: Serpro

Update: eventual



MEI

System for the Digital Registry of Tax, Pension and Labor Obligations (eSocial)
Origin: Serpro

Update: online



CNIS eSocial

Annual Registry of Social Information
Origin: Serpro

Update: annual



RAIS

Integrated System of People Management
Origin: SGD / Serpro

Update: eventual



SIAPE

From CNIS: 8
(Inside Dataprev)

External bases: 19



Elected Candidates Mandates (Terms) (TSE)



Update: eventual

Elected Candidates and Alternates Weekly (Cities, States, Country)
Origin: Public Basis

Single Registry of Social Programs



Update: eventual

Information Set About Brazilian Families Under Poverty and Extreme Poverty Situation
Origin: Ministry of Citizenship

Bolsa Familia Program (Assistance to Families)



Update: eventual

Payroll of Benefited People of Bolsa Familia Program
Origin: Ministry of Citizenship

Pension and Assistance Benefits



Update: monthly

Assistance and Pension Benefits (LOAS)
Origin: Dataprev

Unemployment Insurance



Update: weekly

Information Basis of Received Installments by Citizens Registered under Unemployment Insurance Program – Competency and Values
Origin: Dataprev

CNIS GPS



Update: 2nd Friday (monthly)

Social Security Guide (GPS), Collection Form of Individual Taxpayer
Origin: Banks

SISOBI



Update: daily

Register of Deaths Computer-based System
Origin: Registry Offices

SIRC



Update: daily

National System of Civil Registry of Information
Origin: Registry Offices

Judiciary



Update: eventual

Judiciary for Retired Servants interns required
Origin: Ministry of Citizenship

CNPQ



Update: eventual

CNPQ scholarship holders
Origin: CNPQ

CAPES



Update: eventual

CAPES scholarship holders
Origin: CAPES

FNDE



Update: eventual

FNDE scholarship holders
Origin: FNDE

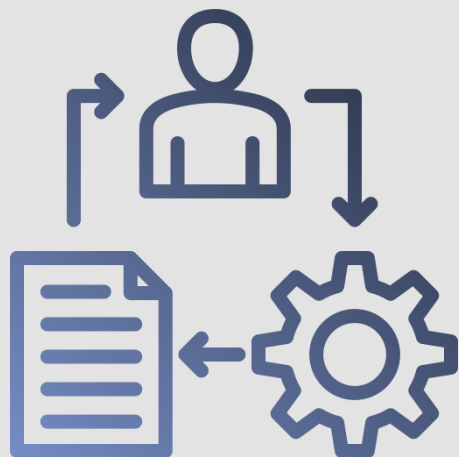
MEC



Update: eventual

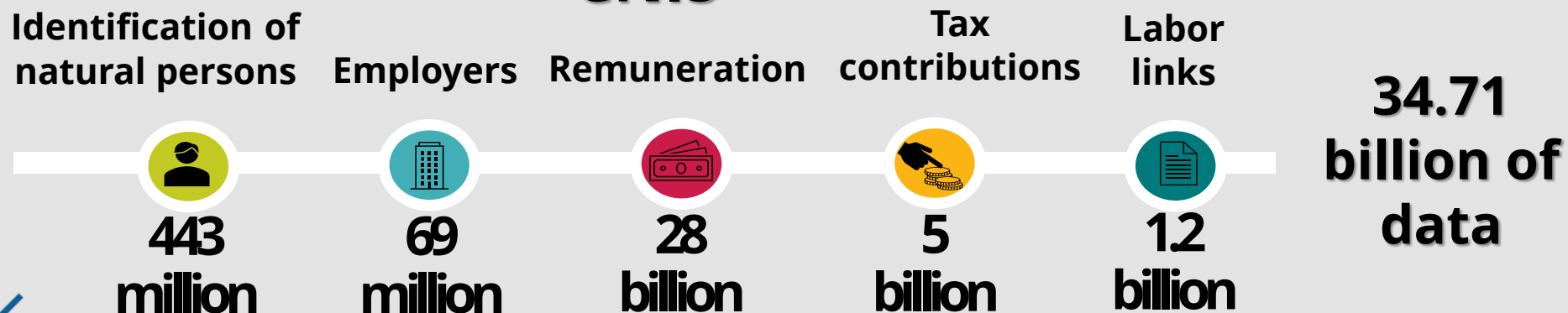
MEC scholarship holders
Origin: MEC

Public Databases Analysed

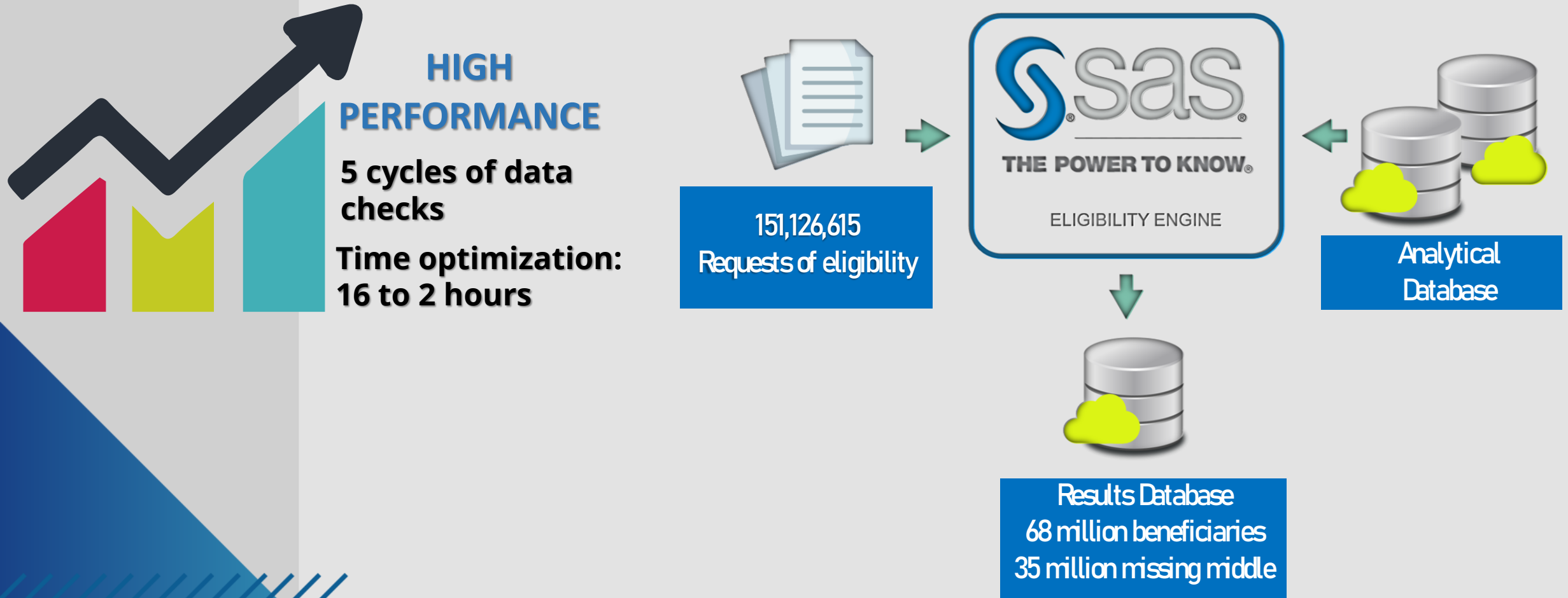


- Requests made through CAIXA Bank app and/or portal: 36.4 million
- Verification – Beneficiaries of the Bolsa Família Assistance Program, part of the Federal Government Cadastro Único (Single Registry Database): 24.9 million
- Missing middle: 35 million

CNIS



Eligibility Engine



Complete Process for Citizens

1

2

3

4

5

6



CNIS: National Register of Social Information

CAIXA: Brazilian public bank

Ministério da Cidadania (Citizenship Ministry): Public policy manager



Why we achieved our goal

Dedicated Workforce

Engagement and social awareness of public employees

Experience

Experience of 48 years on managing social and welfare benefits

Information

National Registry of Social Information and Cadastro Único

Technology

Data Analytics
Big Data
AI | Blockchain

Infrastructure

3 data centers with international certification
TIER III Operational Gold

Relationship

State-owned company with strong relationship with all government agencies and ministries



Achieved Results



Payments: 68 million
Reach: 118 million
(56% of Brazil's population)



First payment:
11.9 million
beneficiaries
Only 6 days after the
law was published



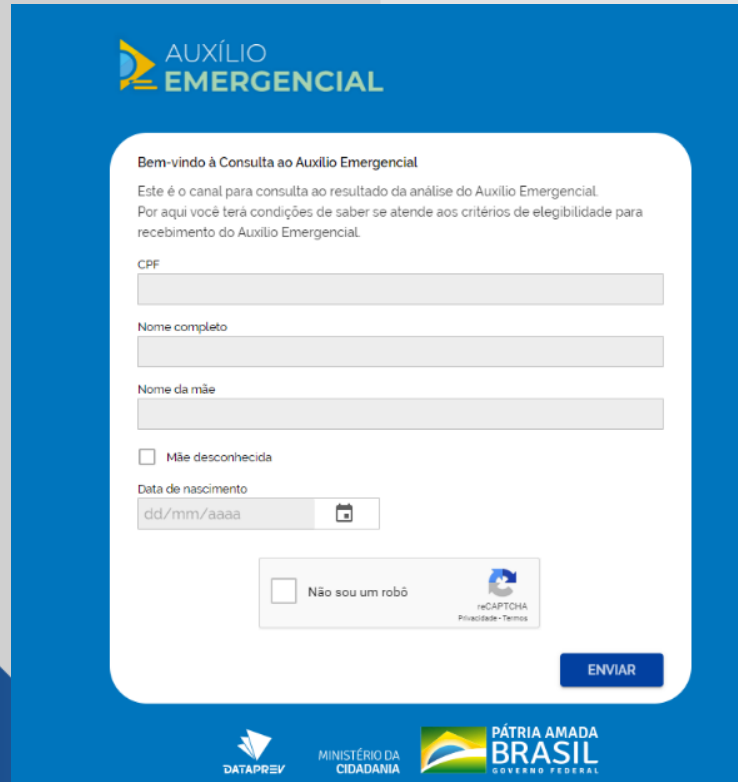
Program value:
US\$ 42 billion
BRL\$ 235 billion
(3.2% of Brazilian GDP)



Processing:
+ 151 million
requirements
(99% processed in the first 3 months)

Citizen Interface

TRANSPARENCY OF THE PROCESS



AUXÍLIO EMERGENCIAL

Bem-vindo à Consulta ao Auxílio Emergencial

Este é o canal para consulta ao resultado da análise do Auxílio Emergencial. Por aqui você terá condições de saber se atende aos critérios de elegibilidade para recebimento do Auxílio Emergencial.


CPF:

Nome completo:




Nome da mãe:

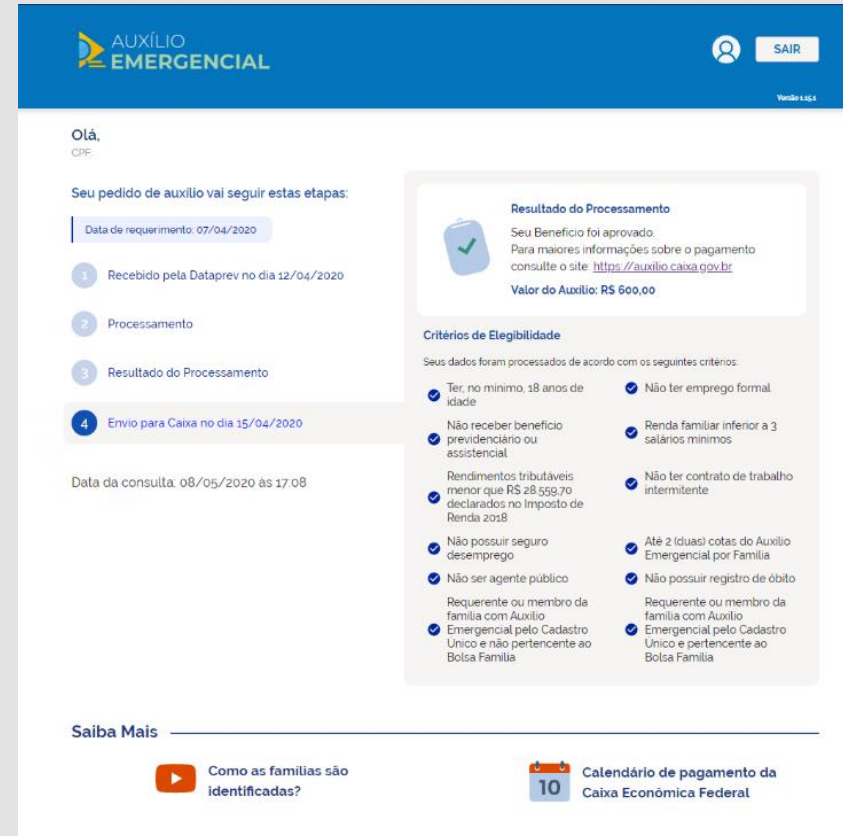
☐ Mãe desconhecida

Data de nascimento:

☐ Não sou um robô 

ENVIAR



AUXÍLIO EMERGENCIAL

Olá, CPF:

Seu pedido de auxílio vai seguir estas etapas:

Data de requerimento: 07/04/2020

- 1 Recebido pela Dataprev no dia 12/04/2020
- 2 Processamento
- 3 Resultado do Processamento
- 4 Envio para Caixa no dia 15/04/2020

Data da consulta: 08/05/2020 às 17:08

Resultado do Processamento

Seu Benefício foi aprovado. Para maiores informações sobre o pagamento consulte o site: <https://auxilio.caixa.gov.br>


Valor do Auxílio: R\$ 600,00


Críticos de Elegibilidade

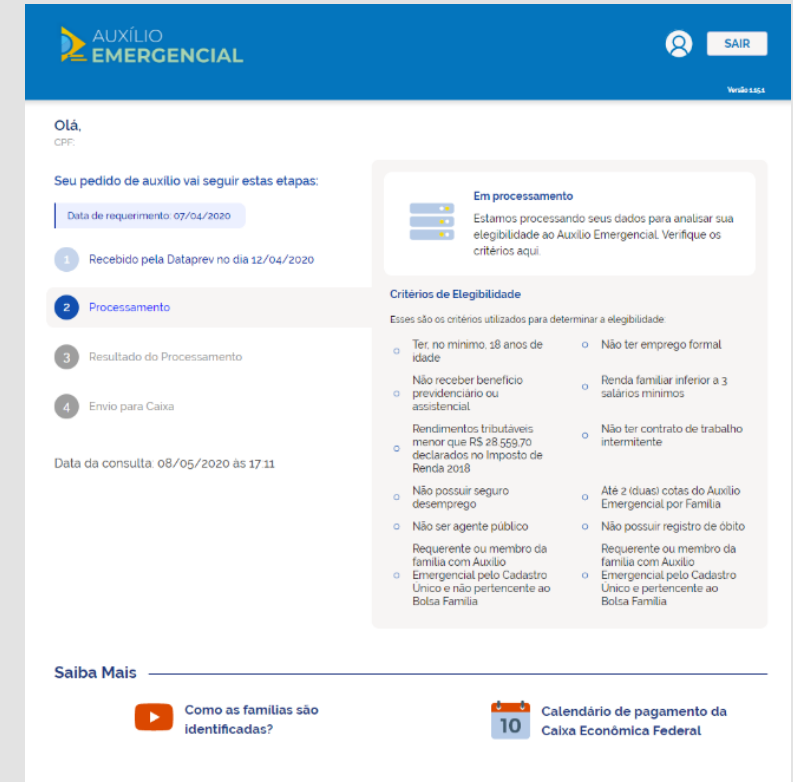
Seus dados foram processados de acordo com os seguintes critérios:

- Ter, no mínimo, 18 anos de idade
- Não ter emprego formal
- Não receber benefício previdenciário ou assistencial
- Renda familiar inferior a 3 salários mínimos
- Rendimentos tributáveis menor que R\$ 28.559,70 declarados no Imposto de Renda 2018
- Não ter contrato de trabalho intermitente
- Não possuir seguro desemprego
- Até 2 (duas) cotas do Auxílio Emergencial por Família
- Não ser agente público
- Não possuir registro de óbito
- Requerente ou membro da família com Auxílio Emergencial pelo Cadastro Único e não pertencente ao Bolsa Família
- Requerente ou membro da família com Auxílio Emergencial pelo Cadastro Único e não pertencente ao Bolsa Família

Saiba Mais

 Como as famílias são identificadas?

 10 Calendário de pagamento da Caixa Econômica Federal



AUXÍLIO EMERGENCIAL

Olá, CPF:

Seu pedido de auxílio vai seguir estas etapas:

Data de requerimento: 07/04/2020

- 1 Recebido pela Dataprev no dia 12/04/2020
- 2 Processamento
- 3 Resultado do Processamento
- 4 Envio para Caixa

Data da consulta: 08/05/2020 às 17:11

Em processamento


Estamos processando seus dados para analisar sua elegibilidade ao Auxílio Emergencial. Verifique os critérios aqui.


Críticos de Elegibilidade

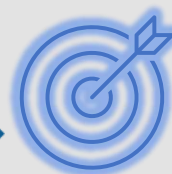
Esses são os critérios utilizados para determinar a elegibilidade:

- Ter, no mínimo, 18 anos de idade
- Não ter emprego formal
- Não receber benefício previdenciário ou assistencial
- Renda familiar inferior a 3 salários mínimos
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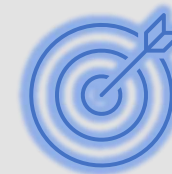
Saiba Mais

 Como as famílias são identificadas?

 10 Calendário de pagamento da Caixa Econômica Federal

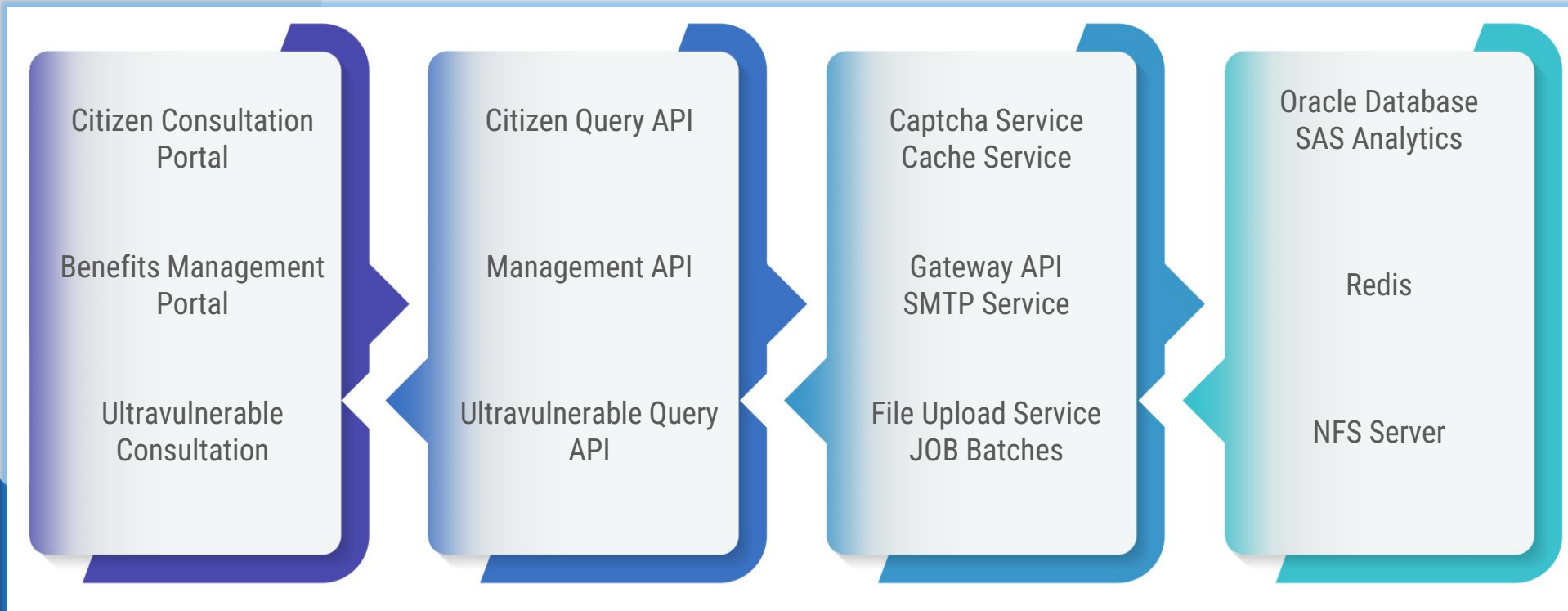


Development of **18 technological modules** on the consultation portal



Different interfaces for policy managers, control and inspection institutions and citizens

Architecture



TECHNOLOGY

UI

JS/HTML/CSS (React)

BACKEND

Java (Spring Boot)

DATA STORAGE

RDBMS (Oracle)
Cache (Redis)
File System (NFS)
Data Lake (SAS)

STORAGE CAPACITY

Database ~ 10 TB

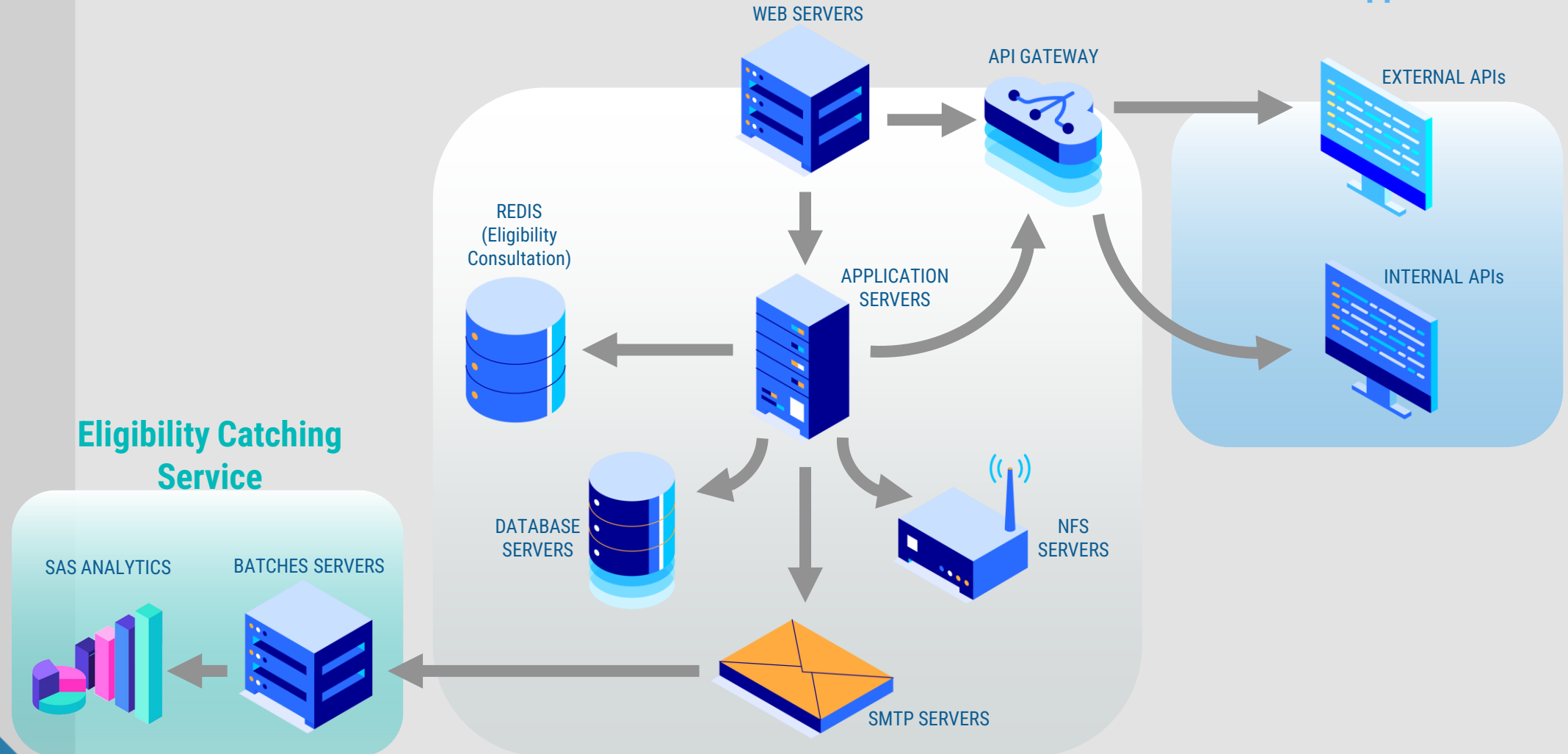
File System ~ 500 GB

Cache Size ~ 512 GB

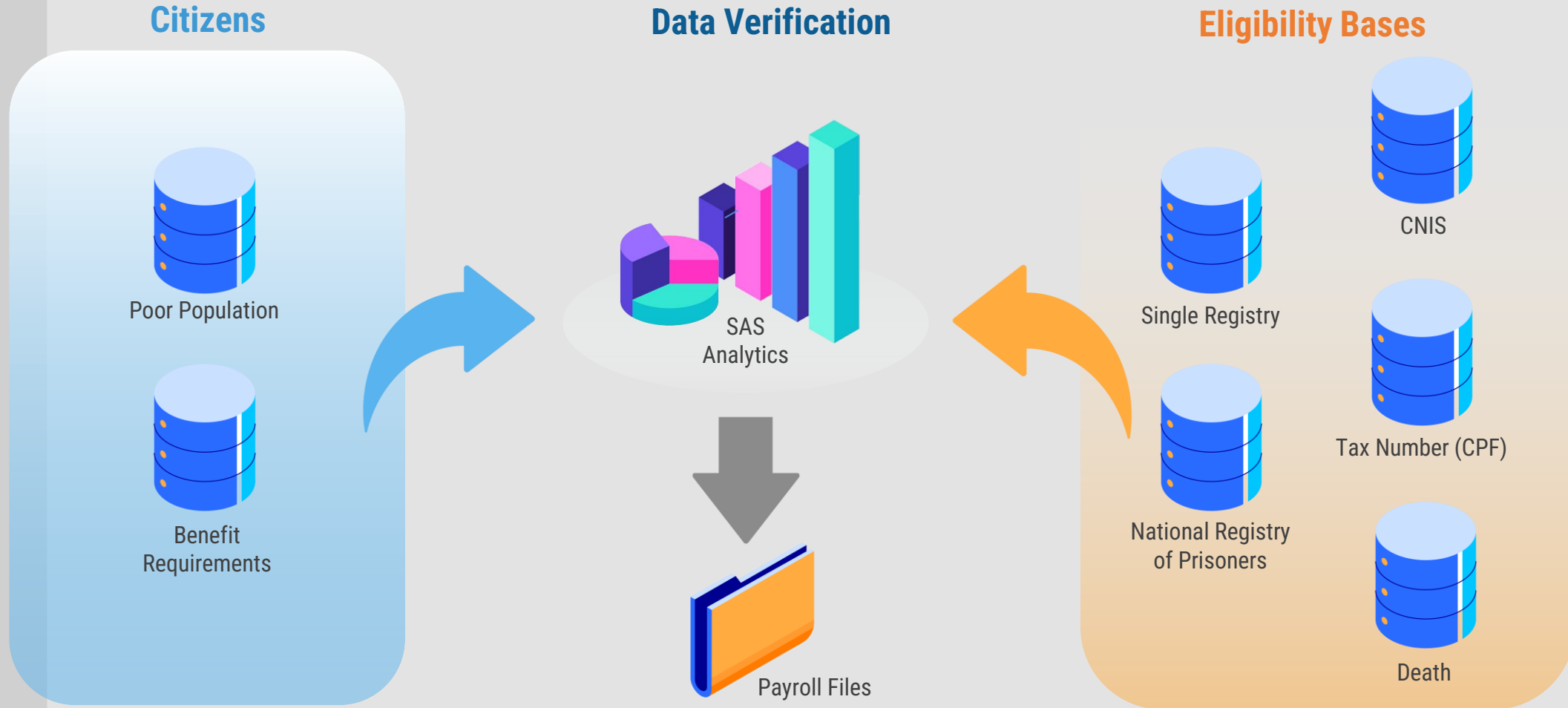
Architecture

Consultation and Management Portals

Partner Applications



Architecture



Lessons Learned - Constant Evolution

With specialized technology, Dataprev contributes to social public policies providing:



Ease of use
People centered

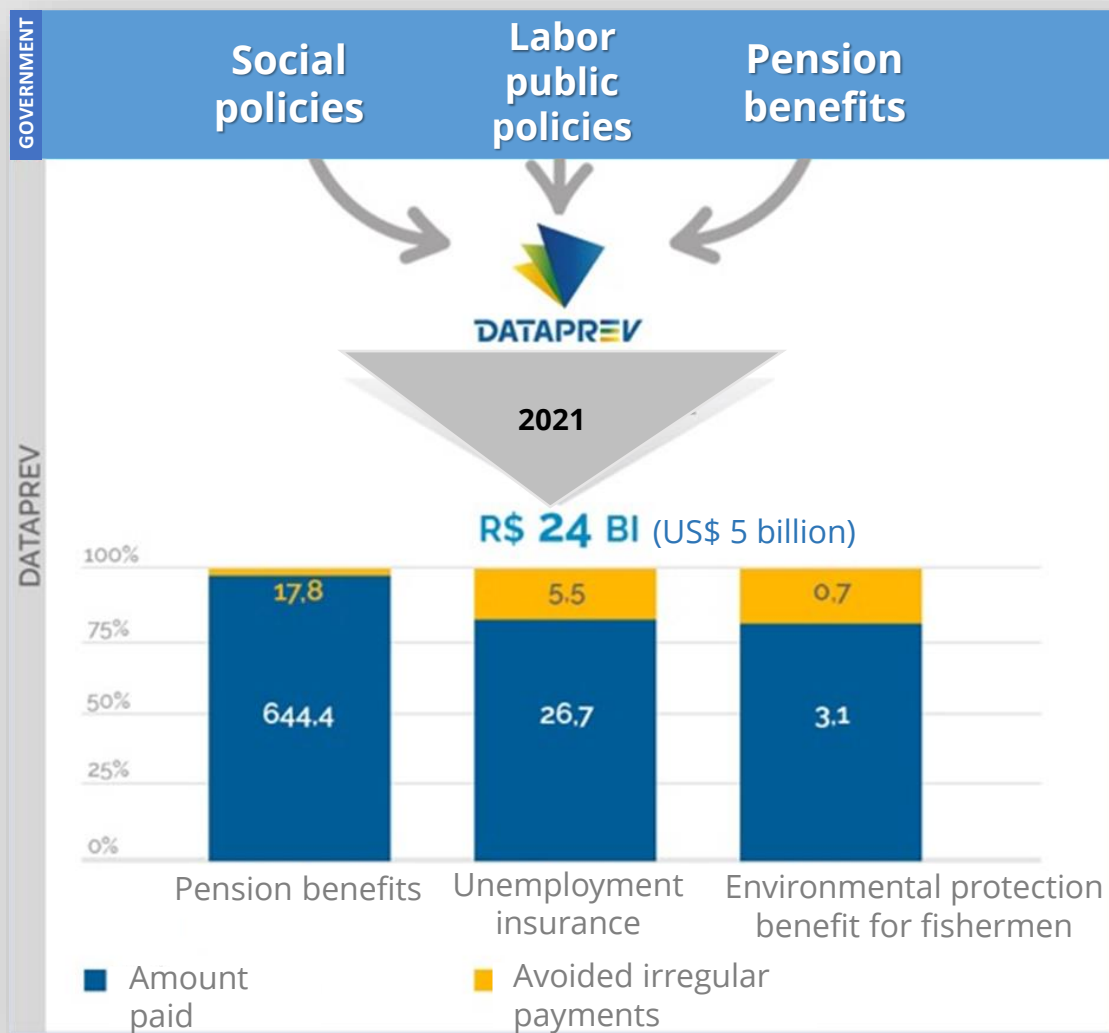


Speed
Faster response



Precision
High focus on concession

Evolution





Easier



Faster



Level of automatic requirements processed

2020	2021	2022
8%	28%	+40%

Growth
2020 – 2022

5x

August 2022

Highest number of requests dispatched in a month

550 thousand

More than 130 thousands dispatched automatically

Initial recognition queue INSS Reset until 2023



Attendance
+ **faster and efficient**



Servers dedicated to more complex cases



Savings with **reduced face-to-face service**

** Dataprev is a partner of the Ministry of Labor and Social Security and the National Institute of Social Security (INSS) and aims to eliminate the Social Security queue with technological solutions and accumulated experience.*



Easier



Faster

My INSS

39,4 million
visits monthly

112

digital services

X

1,8 million face-
to-face visits
monthly

1,586
physical
agencies



Period: January to
September 2022

Digital Workbook

52,8 million
visits monthly

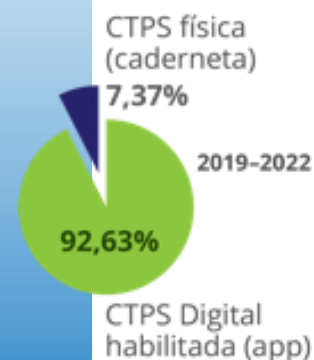
25

digital services

15.7 million
Digital CTPS
enabled

2,804
physical
documents

X



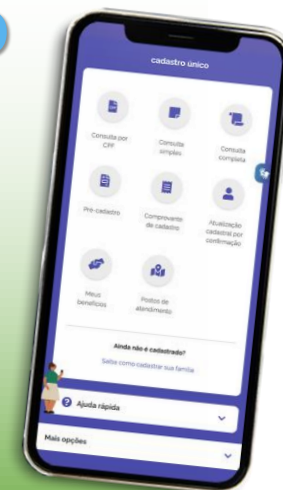
Period: January to
September 2022

Cadastro Único

2 million
visits
monthly

10 digital
services

6 million
downloads



Period:
March to
September
2022



Thank you!

Thank you

Make sure to answer our survey which will appear on your browser, and join us for the next sessions!

+ know more and
become a member of



socialprotection.org