Talking Interoperability

In Focus | Turkey

Digital Convergence
USP2030

Digital Convergence
USP2030

Agenda

12:00–12:15	**Welcome**
12:15–13:00	**Presentation of ISAS**
13:00–13:30	**Discussion**
13:30–13:55	**Audience Q&A**
13:55–14:00	**Closing remarks**

Digital Convergence
USP2030

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

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 based on globally agreed standards and guidelines
- …reduce time and costs of developing solutions at the country/program level
- …enable programs and countries to mix and match different components from various vendors or develop them in-house, as standards-based modules are inherently interoperable
- …ensure that systems are future-proof by design, regardless of current levels of policy and information systems maturity

Digital Convergence
USP2030

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 nitty-gritty 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

Introductions

Presenters

Ercan Dansuk

Senior Social Protection Specialist, General Directorate of Social Assistance, Ministry of Family and Social Services, Turkey

Ali Saip Demiröz

Head of Social Assistance Applications, General Directorate of Information Technologies, Ministry of Family and Social Services, Turkey

Discussants

Rajiv Chawla

Chief Knowledge Officer and Advisor, National Farmers' Welfare Implementation Society & Former Additional Chief Secretary, Government of Karnataka

Ubah Thomas Ubah

Social Protection Specialist & Co-Lead for CORE-MIS, World Bank Group

Moderator

Madhumitha Hebbar

Independent Consultant, Digital Social Protection

Digital Convergence
USP2030

Ercan Dansuk

Senior Social Protection Specialist, General Directorate of Social Assistance, Ministry of Family and Social Services, Turkey

Digital Convergence
USP2030

Ali Saip Demiröz

Head of Social Assistance Applications, General Directorate of Information Technologies, Ministry of Family and Social Services, Turkey

Digital Convergence
USP2030

Rajiv Chawla

Chief Knowledge Officer and Advisor, National Farmers' Welfare Implementation Society & Former Additional Chief Secretary, Government of Karnataka

Digital Convergence
USP2030

Ubah Thomas Ubah

Social Protection Specialist & Co-Lead for CORE-MIS, World Bank Group

Digital Convergence
USP2030

Madhumitha Hebbar

Independent Consultant, Digital Social Protection

Digital Convergence
USP2030

SOCIAL ASSISTANCE SYSTEM OF TURKEY

«INTEGRATED SOCIAL ASSISTANCE INFORMATION SYSTEM (ISAIS)»

Ali DEMIROZ – Head of Social Assistance Applications
Ercan DANSUK - Senior Social Protection Specialist

18 May 2022

Digital Convergence
USP2030

Contents

- Selected Socio-economic Indicators for Turkey
- Social Protection in Turkey
- Integrated Social Assistance System (ISAIS)
- Technical Aspects of Integrated Social Assistance
- Information System (ISAIS)
- Operational Processes in ISAIS
- Interoperability
- Challenges and Lessons Learned

Digital Convergence
USP2030

SELECTED SOCIO-ECONOMIC INDICATORS for TURKEY (2021)

Digital Convergence
USP2030

Selected Economic Indicators of Turkey 2021

Population

84.680.273

GDP Growth

%11

GDP current prices

$802 billion

GDP per capita

$9.536

$28.069 (ppp)

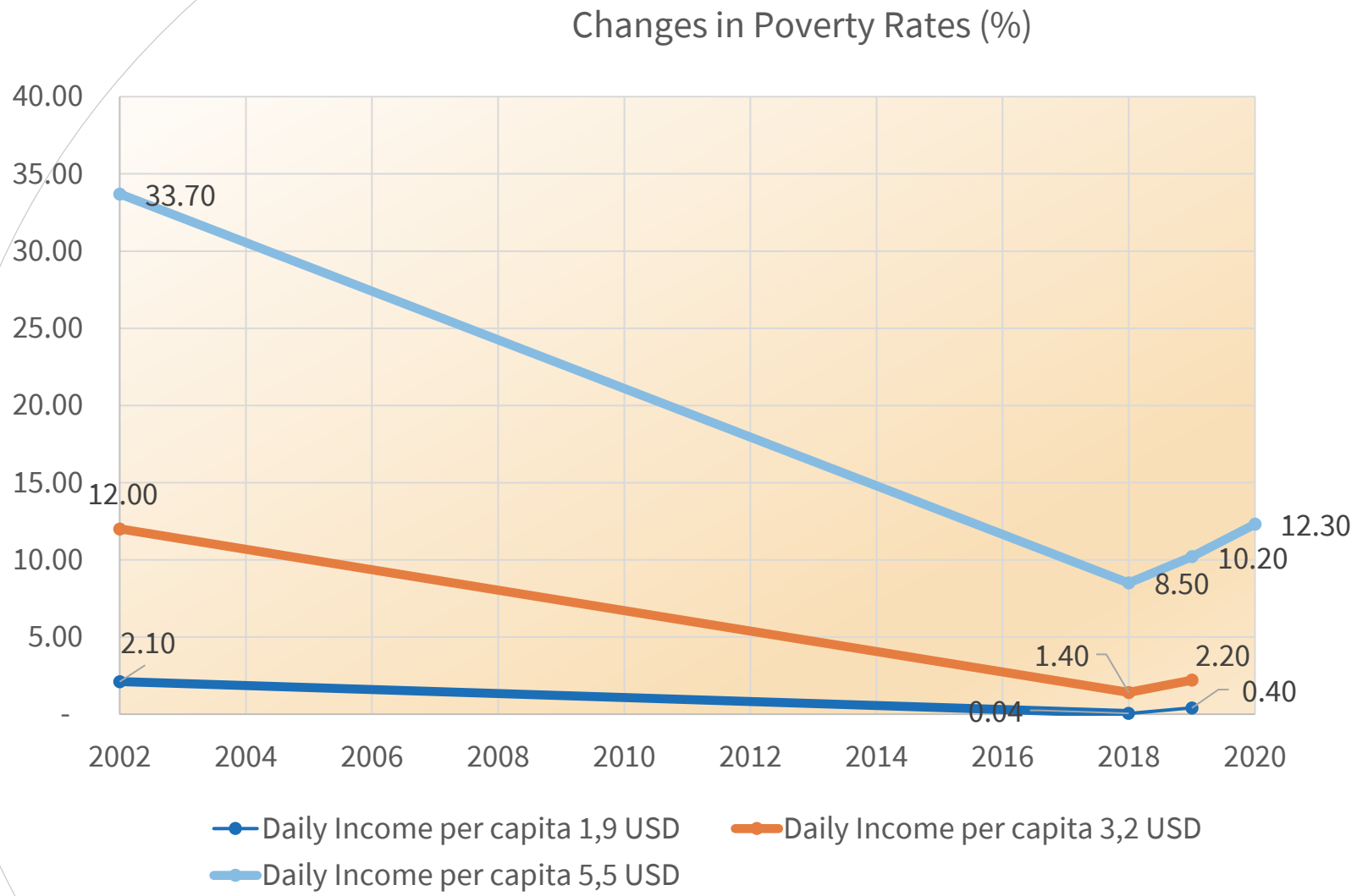
GINI Coefficient

0,41

Source : Strategy and Budget Department of Turkish Presidency, Annual Program, 2022

Digital Convergence USP2030

Changes in Poverty Rates (ppp) 2002 -2020 via Poverty Threshold Method

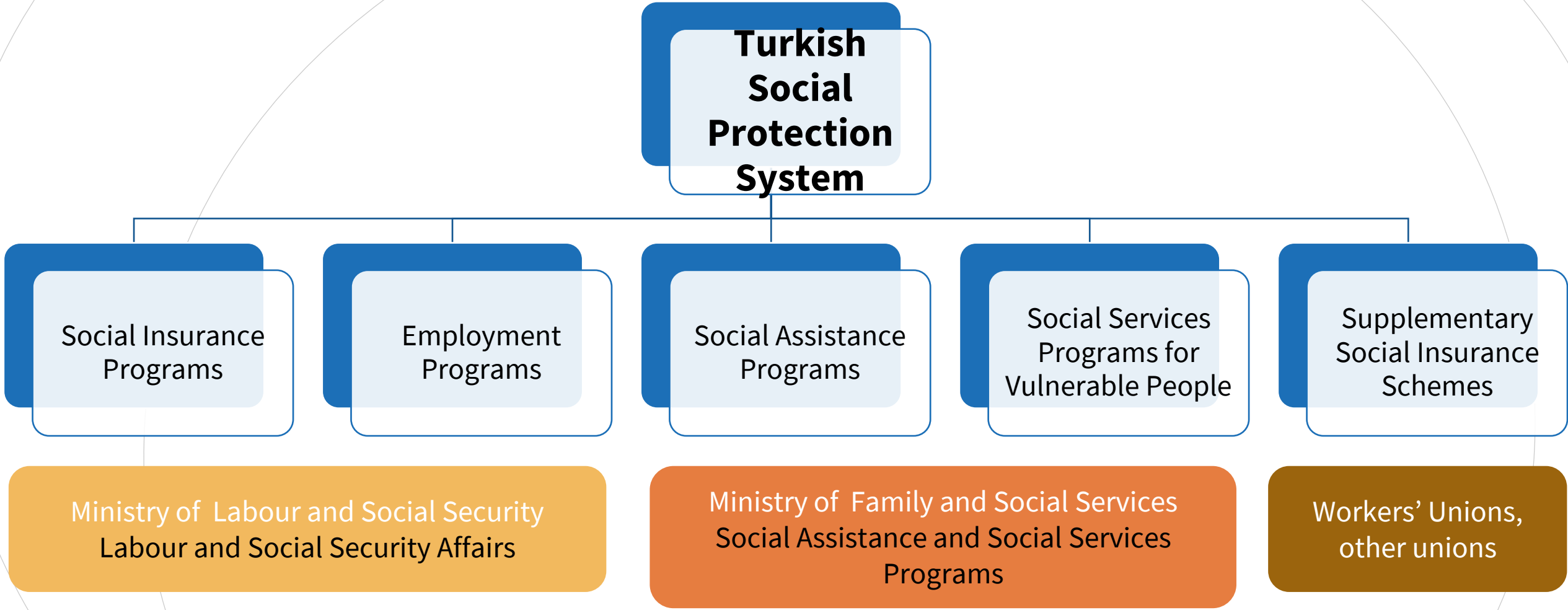


Source : World Bank, April, 2022
* Poverty rates for 2019 and 2020 are estimated values by World Bank.

Digital Convergence
USP2030

SOCIAL PROTECTION IN TURKEY

Digital Convergence
USP2030



Digital Convergence
USP2030

INTEGRATED SOCIAL ASSISTANCE INFORMATION SYSTEM (ISAIS)

Digital Convergence
USP2030

ISAIS

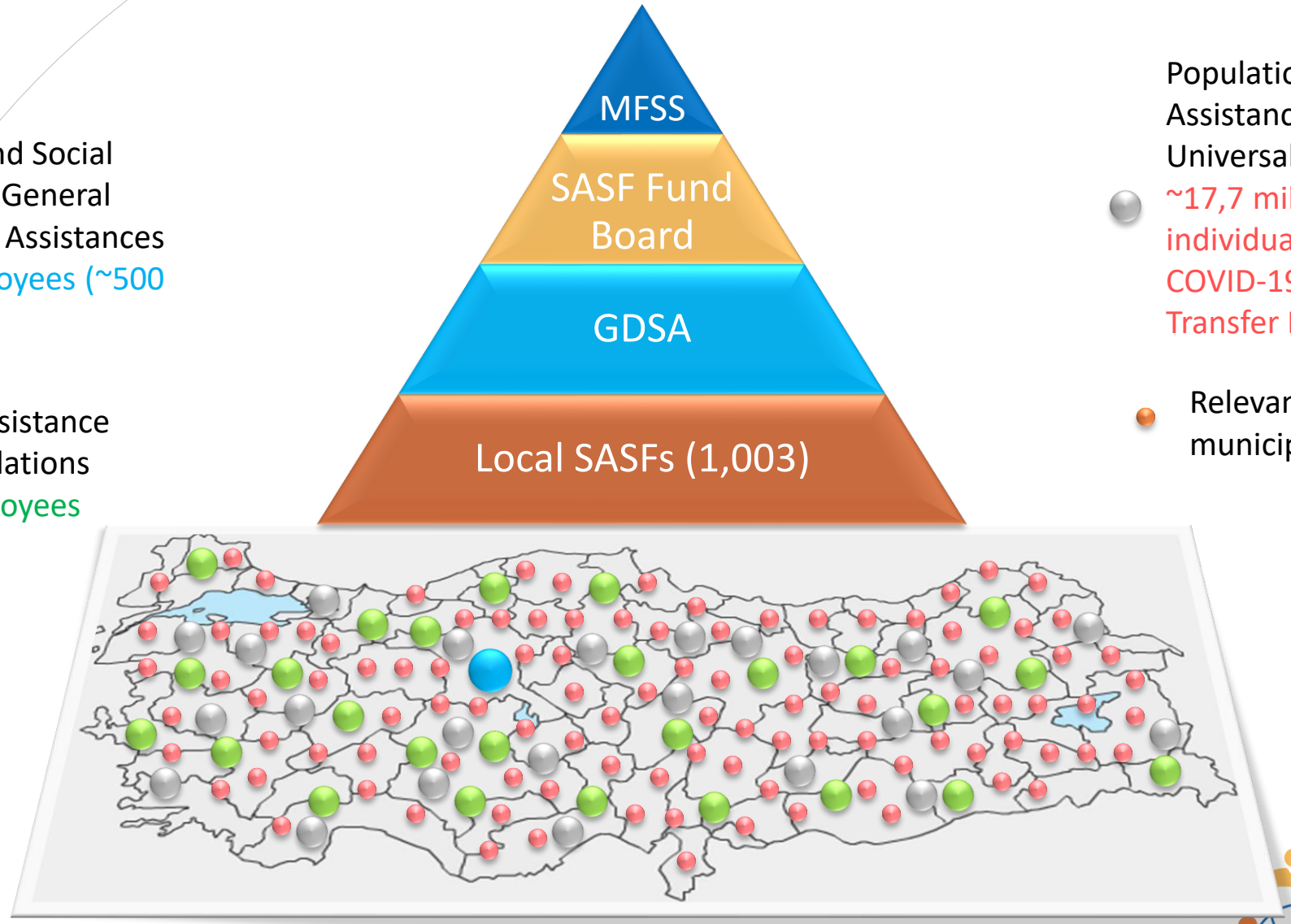
- **The Integrated Social Assistance Information System (ISAIS)** is an e-Government system that electronically facilitates all steps related to the management of social assistance, established in 2010 through the integration of data coming from 28 different public institutions and 120 web-based services in one easily-accessible online portal.

- Through the development of ISAIS, Turkey standardized, integrated, and converted its previously paper-based social assistance procedures into an electronic system.

Digital Convergence
USP2030

Governance Structure and Institutional Arrangements

- Ministry of Family and Social Services (MFSS) and General Directorate of Social Assistances (GDSA) ~2,000 employees (~500 ISAIS end-users)
- 1,003 local Social Assistance and Solidarity Foundations (SASFs) ~8.700 employees (ISAIS end-users)



- Population coverage for Social Assistance Programs and Universal Health Coverage ~17,7 million HHs (57,5 Million individuals) with the addition of COVID-19 Emergency Cash Transfer Beneficiaries
- Relevant public entities, municipalities, and NGOs

Source: Ministry of Family and Social Policies, Social Assistance Statistical Bulletin (2016)

Digital Convergence
USP2030

Chronology for Social Assistance Programs in ISAIS

1976 - 2002

- Disabled and Elderly Salaries
- Food Assistance
- Education Materials Assistance
- Health Assistance

2003 - 2004

- Public Soup-Kitchens
- Heating Assistance
- CCT for Education
- Launch Assistance
- Transportation, Accomodation anf Fodd Assistance for students
- CCT for Health (Health, Pregnancy, Puerperium and Birth)
- Disabled people's Need Assistance
- Free Course Books
- Social Support Project for Rural people)

2005 - 2006

- Free Transportation for Disabled Students
- Salaries for Elderlies' Relatives
- Home Care Salaries
- Accomodation Assistance

2007 - 2008

- Disaster and Emergency Assistances
- Support for Employment Projects
- Assistance for Income-generated Projects
- Social Services Projects

2009 - 2011

- Disabled and Elderly Care Projects (VEFA Projects)
- Social House Dwelling Projects)
- Dormitory Constructions
- Assistance for Silicosis Patients

2012 - 2013

- Regular Cash Assistance Program for Widoved Women
- Universal Health Insurance Premium Payments for Poor People
- Assistance for Job Referral and Starting Job
- Assistances
- Assistance Program for Needy Family Whose Men in Compulsory Military Services
- ADEM-SODAM Projects

2014 - 2015

- Patient Share Assistances
- Needy Children of Men in Compulsory Military Services
- Orphan and Fatherless Assistances
- Terror Loss Assistance
- Birth Assistance

2016 - 2017

- Social Cohesion Assistances
- Accomodation Projects for Homeless People
- CCT for Education for Foreign Children

2018 - 2019

- Multiple-birth Assistance
- Chronical Ilness Assistances
- Uninterruptible power supply Electricity Bill Debt Assistance
- Electricity Bill Assistsance

2020 - 2021

- Social Support Prgram for Epidemiz (Phase I, II, IIII
- Campaign of Biz Bize Yeteriz Türkiyem
- Social Support Prgram for Curfew
- Complementary Social Cohesion Assistance

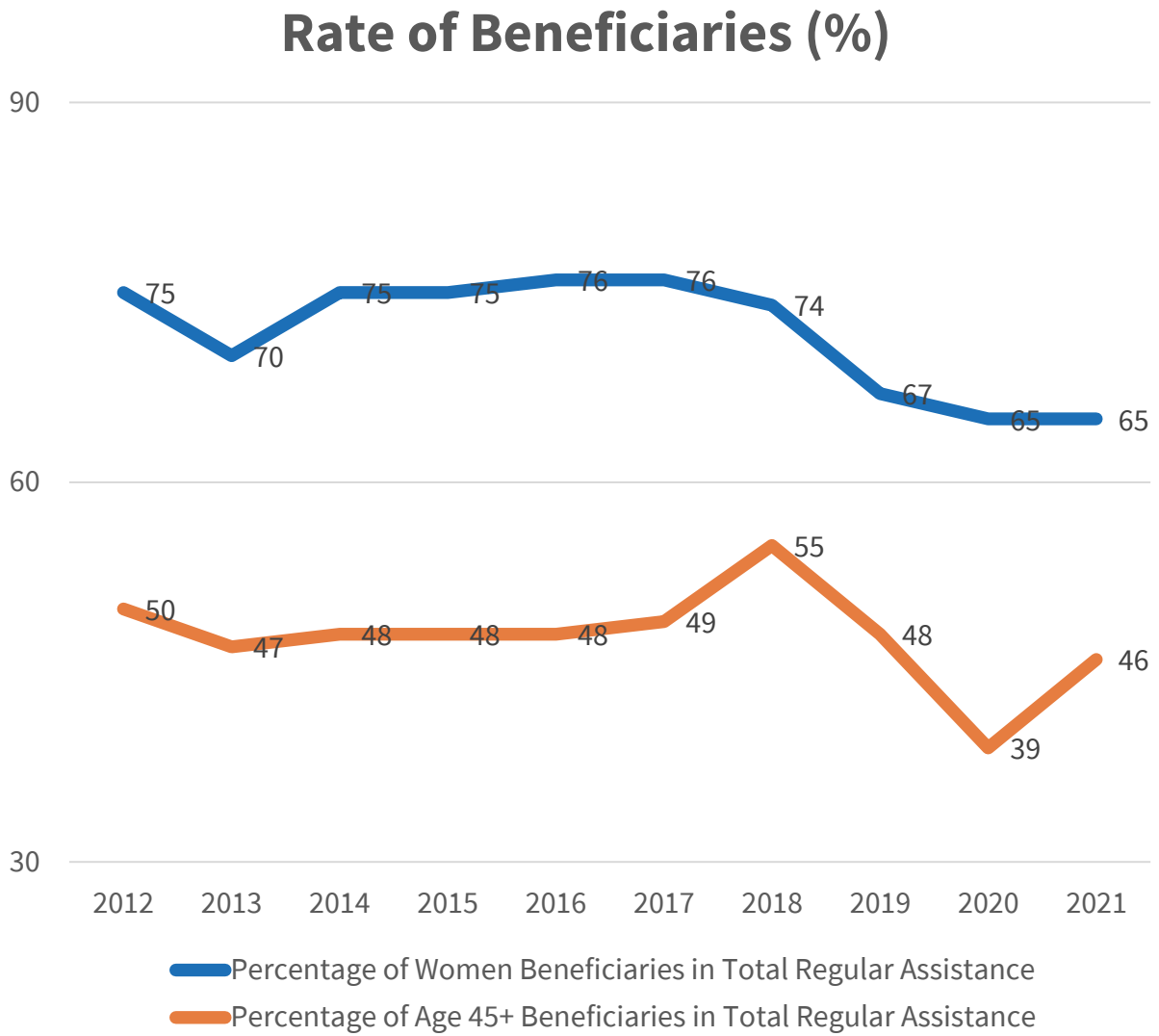
2022

- Heatting (Natural Gas) Assistance
- Death Assistance
- Family Support for Basic Needs
- Pre-School Assistance
- Electricity Bill Support for Chronical Patients

Digital Convergence
USP2030

Basic Features of Social Assistance Programs

- Rate of households registered in ISAIS is 53% (covers poor people, vulnerable people and people at poverty risk)
- Rate of households benefited from regular social assistance is 14%
- Main (regular) programs are UHI for poor people (9 M), CCT (3M students/children), and Elderly, Disabled Assistance (1,5M) and Homecare assistance (0,5 M).
- These programs is about 60% of total social asisstance expenditure.
- All social assistance programs are based on «positive discrimination» for **women** and **children**.
- Approximately 77% of social assistance beneficiaries have unable to work for disability etc. reasons



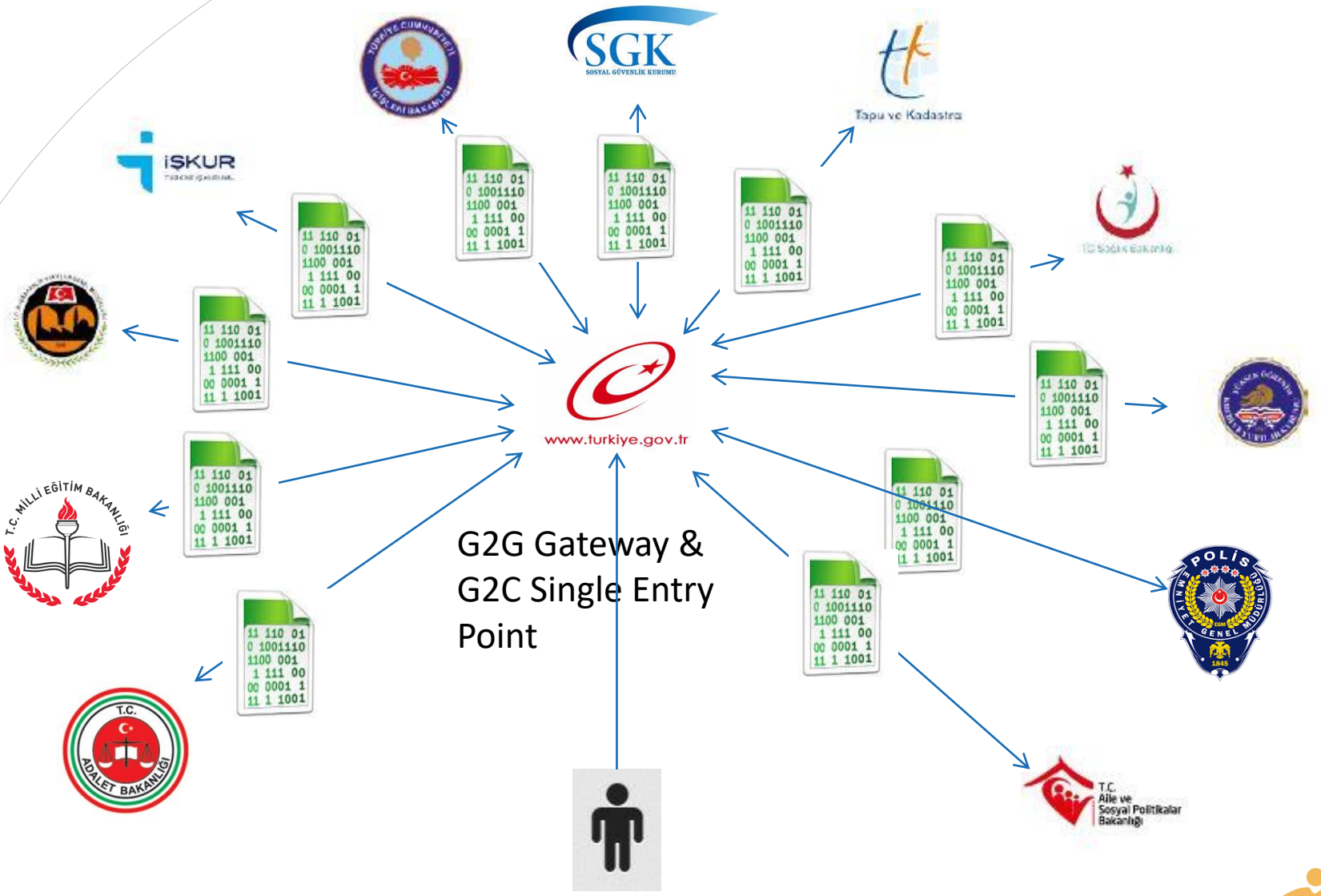
Basic Characteristics of ISAIS

- Right-based approach
- Based on strong legal codes and administrative circulars
- Strong and functional software program
- Highly qualified human resources to run ISAIS
- Builds on lesson learned

Digital Convergence
USP2030

Technical Aspects of Integrated Social Assistance Information System (ISAIS)

Digital Convergence
USP2030



Digital Convergence
USP2030

Information Systems Landscape in Türkiye

Common digital infrastructure

Information system	Status (see legend below)	Responsible institution	Percentage of population covered (if available)
Common identification system	Live	Ministry of Internal Affairs	100%
Social registry	Live	Social Security Institution (SGK)	100%
Common payments platform	Live	PTT	100%
Grievance redressal platform	Live	Chairmanship of Communication	100%

Live | Under development | Not available

Information System Landscape in Türkiye

Other sectoral/programmatic registries

Information system	Status (see legend below)	Responsible institution	Percentage of population covered (if available)
Tax information system	Live	Income Administration	100%
Social insurance MIS (formal sector)	Live	Social Security Institution	100%
Disability registry	Live	Ministry of Health	100%
Land registry	Live	Land Registry Administration	100%

Live	Under development	Not available

Overview of ISAIS

- Launched at 2010
- 7 TB size

SP business processes supported

Initial registration	Eligibility check	Enrolment
Grievance redressal	Payment	Data management (updates)
Case management	Monitoring and evaluation	

Technology stack

- UI
  - Legacy :Flex
  - Developing :React
- Backend
  - Java/Springboot
- Data
  - Oracle Database

System Architecture

Web Application

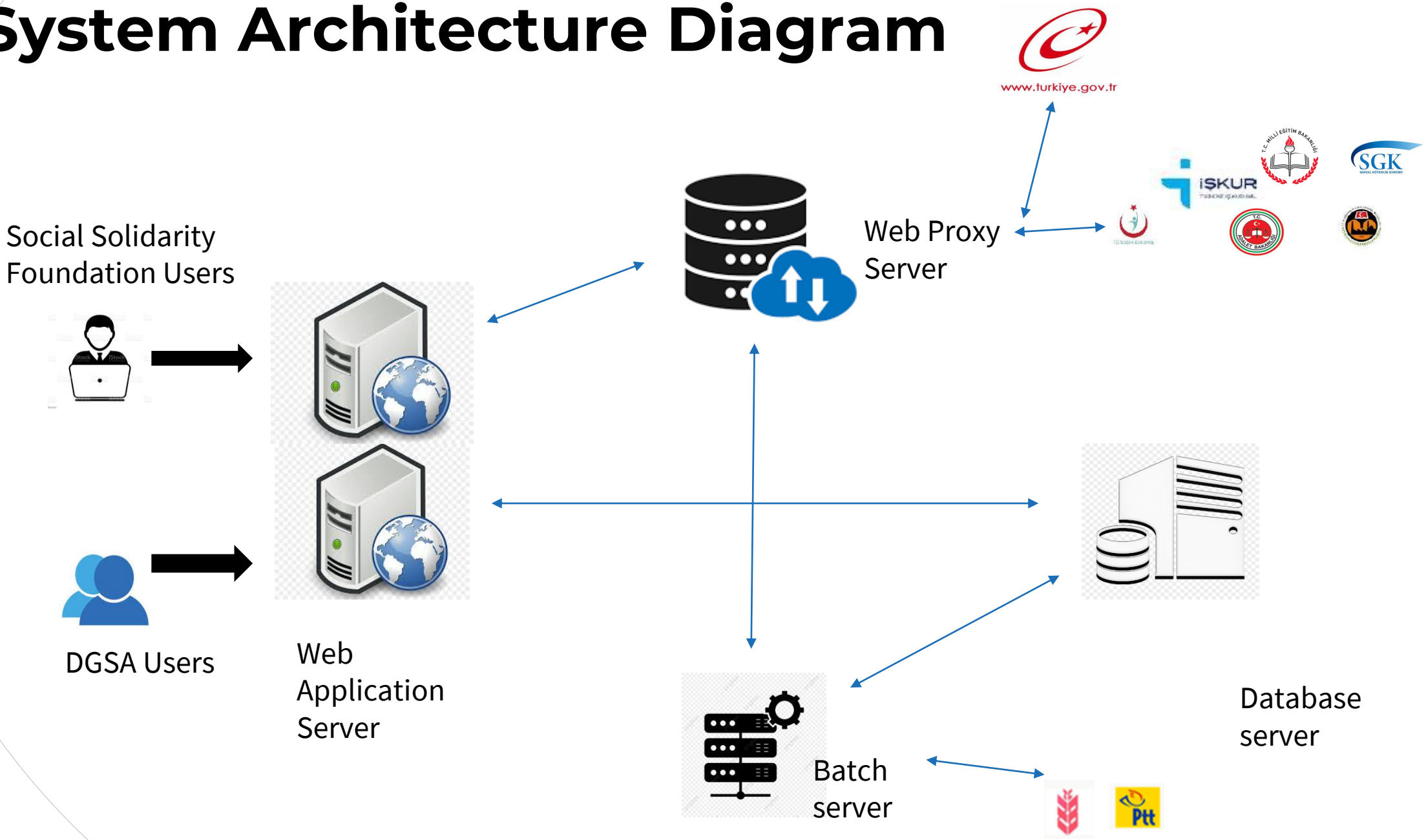
- Provides Modules for Daily Operations
- Access to Other Institutions Data
- Used by SASF&DGSA

Batch Processes

- Central Investigations
- Payment Pre-Controls
- Prepare Payment Lists
- Update /Prepare Statistical Data

Single Database Combining All Data

System Architecture Diagram

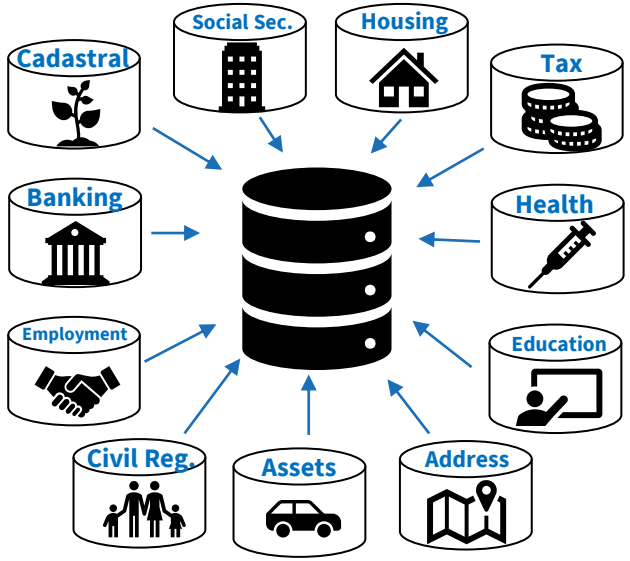


What is ISAIS?

Assess → **Enroll** → **Provide/Monitor**

Assess

Administrative Data



Streamlined flow of information between agencies and programs to create and update beneficiary profiles (real-time data collection from administrative sources)

Data from Field Visits

HH visits (data collection by physical interaction)

Linked with 28 Public Entities with over 120+ webservices

HH visits by ~5,000 social asst. workers in 1,003 SASFs

Enroll

Administrative Data
+
Data from Field Visits

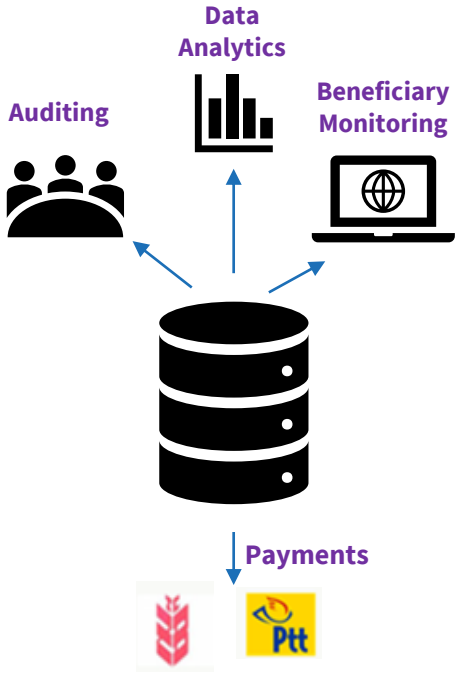
Hybrid-Means Testing for UHI

Proxy-Means Testing for SP

Board of Trustees Decision (on eligibility and benefits package)

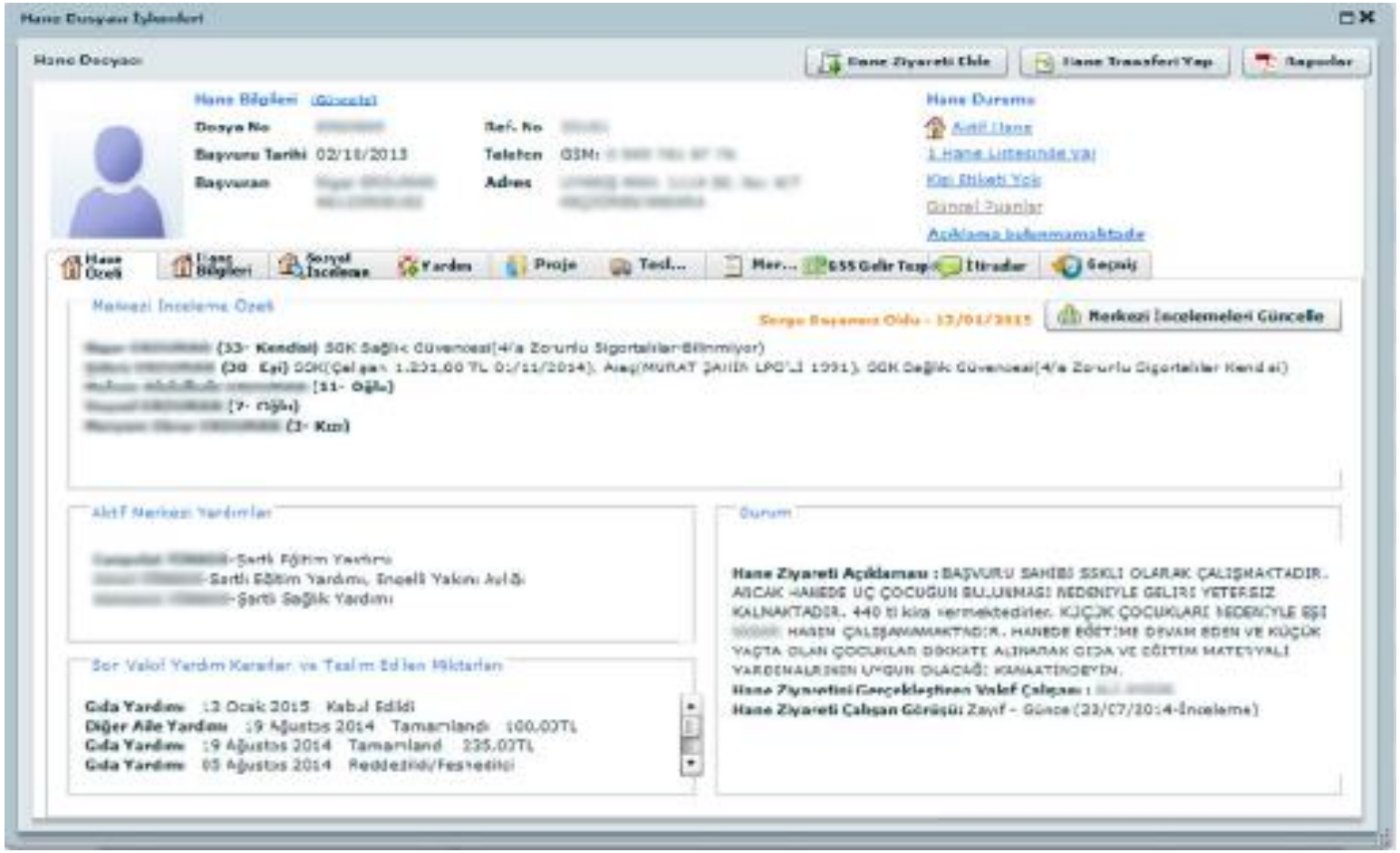
"Dynamic & Integrated" gateway for multiple (50+) SP programs

Provide/Monitor



Provision of Services & Benefits (payments, service delivery, beneficiary monitoring, auditing, reporting, etc.)

Summary of Beneficiary Household Profile



Source: Turkey's Integrated Social Assistance System (General Directorate of Social Assistances, 2016)

Digital Convergence
USP2030

Processes from Application to Payment in ISAIS

1

Application with only national identity number

2

Get the **socio-economic data** from institutions via **web services**

3

Presents all these information to **Board of Trustees** for **eligibility decision**

4

After decision Bütünleşik automatically prepares **payment list** for **eligible households**

5

Bütünleşik **send payment list** to the bank (or mostly PTT) for paying to the beneficiaries

Steps in the Payment Process

VakıfBank

Ptt

HALKBANK

1.Beneficiary Profile Updates & Compliance to conditionalities

2. Payment lists are prepared

3. Paymet lists are transmitted to payment authorities (public banks and Post office)

4. Withdrawal of the benefit

5. Payment reconcilation file transferred to ISAIS

Every Night

Request for cancellation of payments (If necessary)

1.Cash Card

2.Bank Office

3.ATM

4.Cash delivery at home

Digital Convergence
USP2030

Interoperability capabilities

Digital Convergence
USP2030

Before ISAIS;

Before ISAIS, the social assistance system was encumbered by:

- A lack of link across all SASFs
- Bureaucratic inefficiencies
- Lengthy processing times for the application (Approx. 15 – 20 days)
- Low quality of information

Fragmented SA programs

Almost fully paper-based process

Heavy workload on SASFs and other public entities

Source: Ministry of Family, Labor and Social Services, Social Assistance Statistical Bulletin (2016)

Digital Convergence
USP2030

T.C.
KAHRAMANMARAŞ İLİ
SOSYAL YARDIMLAŞMA ve DAYANIŞMA VAKFI BAŞKANLIĞI
TAHKİKAT FORMU

Belediye Gelir İşleri Müd., Bağ-Kur, O.S.K. Şube Müd.,
Akaü - Aslanbey V.D. Müd., I. - II. Tapu Sic. Müd.,
Hâlea Müdürlüğü Kahramanmaraş

26/8/200

[redacted]

Şevket AVAN
S.Y.D. Vakfı Müdürü

Emlak Kaydına Rastlanmamıştır.

Mahmut ÖZER
Yeşil Memur

Kaydına Rastlanmamıştır.

Aslanbey Vakfı Dairesi Müdürlüğü

Kaydına Rastlanmamıştır.

Trafik Tahsil Şube Müdürlüğü

26 AĞUSTOS

Bilgisayar Kontrolü Yapıldı.
Arşiv Kayıtlara Rastlanmamıştır.

The Central Civil Registration & Address System (MERNIS)

- Long tradition in civil registration.
- The first population census: 1904.
- Turkey started assigning unique IDs **to every individual** since 1990s.

- National Address Registration was launched in 2006.
- Unique address codes are assigned to each address
- Each ID was tagged with a unique address code
- All public entities were linked to MERNIS and National Address System

Key to Interoperability !!!

Digital Convergence
USP2030

Source: Ministry of Interior: Central Civil Registration System

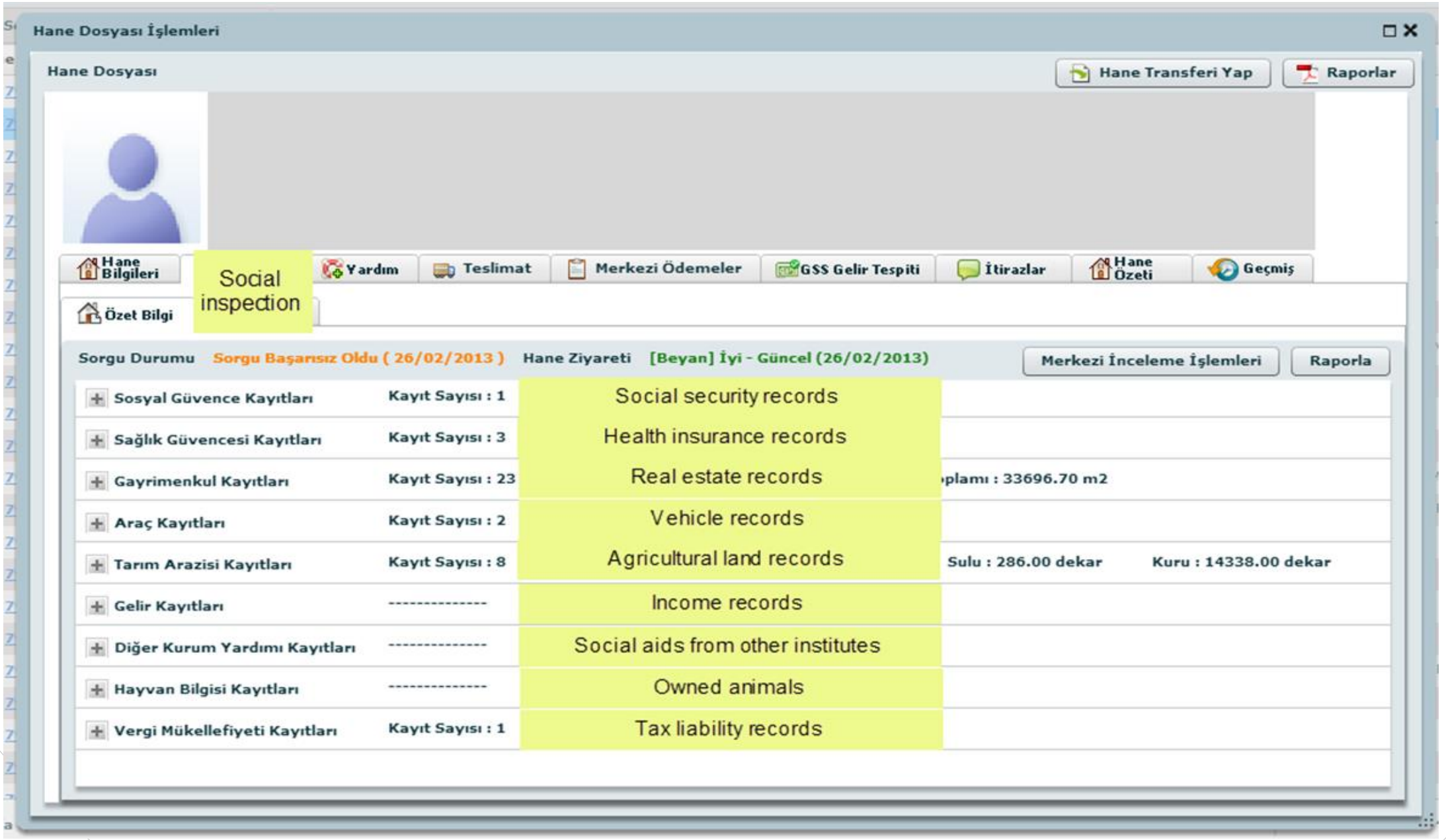
Beneficiary Profile Updates from Admin Sources

External Sources	Data
Ministry of Interior	Civil Registration (individual + family records), ID, name, gender, DOB, marital status, etc., and national addresses
Social Security Institution	Employment status, wage/salary information, short-term working allowance and job-loss compensation, social security contribution, etc.
Public Employment Services	Unemployment insurance and unemployment assistance
Turkish Revenue Administration	Registration to tax system and running a business; owning a motor vehicle
Directorate-General of Foundations	Other social benefits
Ministry of Education	Enrolment, attendance, and school success (e-school Information System)
Institution of Scholarship and Dormitories	Scholarships
Ministry of Health	Health records (follow-ups, vaccinations, growth records, etc. from Family Medicine Information System),Disability Report
Ministry of Defense	Information on soldiers and village guards
Ministry of Environmental and Urban Planning	Land registry, cadastral information, assets, etc.
Ministry of Agriculture and Rural Affairs	Information on plantation (type, etc.)
PTT Bank, Ziraat Bank	Payment administration and delivery (information loop back to ISAIS)

Data update can be triggered by system users at any time but usually it is done before each payment cycle of respective programs (In any case, a batch-job works to update the whole data base once in 45 days)

Digital Convergence
USP2030

Screenshot of the System's Interoperability Capabilities



Data Standards

- Every institution designs and keeps it own data and data structure.
- Currently main purpose is to standardize the data within organizational data
- Users that are entering data keeps track of formerly entered data manually.
- There is a project called as National Data Dictionary(NDD) currently aiming standardization conducted by related Presidential Department of Digital Transformation Office
- Standards are assumingly managed or will be managed by Admins of the NDD

Digital Convergence
USP2030

Defining and managing interoperability interfaces/API's

- Interfaces (services) are prepared in accordance with the requirements of other institutions
- Generally, interfaces (services) are published directly by the institution.
- Almost all integrations are implemented by SOAP/Rest services and rarely FTP integration
- Country level «Api Gateway - E-Governmet Gateway G2G services are used as a Proxy
- Kamunet secure network infrastucture is used commonly by almost all of the Institutions
- For communicating updates to API's mail lists have been constituted by the owner and sharer of the data.
- Official documents are sent to all stakeholders for notifying updates in advance of a sufficient time to adapt to changes.

Digital Convergence
USP2030

Data Security and Privacy

- Every single citizen should give explicit permission stating him/her personal information by ink signature or using a new brand E-Government Service.
- Organizational Data can not be accessed without strict prerequisites between government organizations and official writings that explicitly defines which data will be shared
- Identification and Authentication processes are handled by E-Government Access Control Protocols
- Data is accessed via ISAIS with an authorization mechanism.
- Data is preferably shared between Government Institutions over Kamunet (Government wide closed network infrastructure) & E-government Gateway
- Information sharing decisions are taken bey Data Sharing Council within DGSA

Digital Convergence
USP2030

Challenges and way forward

Digital Convergence
USP2030

Factors for Providing Success of ISAIS

1) A management approach that brought together an interdisciplinary perspective in the team, which involved experts on information technologies, statistics and social policies.

2) A democratic understanding which placed significant value to the opinions of the team members and encourage their critical engagement, which transformed the Project team to a productive and innovative team;

3) Horizontal organization at the Ministry, which encouraged both fast decision-making and facilitated implementation, which made it possible to avoid bureaucratic procedures.

4) With the financial and administrative support of the Government, servers were provided for institutions with insufficient infrastructure, including Ministry of Health, Land Registry Directorate, etc. Their databases were thus made easily accessible by the ISAIS.

Factors for Providing Success of ISAIS

5) The transformation of the human resources capacity of local foundations through increasing the requirements of staff qualifications and skill levels, including a comprehensive recruitment process, and provision of training to existing staff, amounting to a total of 9.000 foundation staff.

6) The adoption of national identity number in 2000, which significantly facilitated the establishment of databases across public institutions, and resulted in the establishment of MERNIS, providing key infrastructure for the functioning of ISAIS.

All these factors and the integrated data bases in the ISAIS is to enable poverty mapping, data reporting, supporting software, monitoring and inspection, and future poverty grading. The periodical retrieving of information from all these institutions facilitates obtaining up-to-date information on beneficiaries.

Challenges remaining in terms of Interoperability

Technical Problems

- Big Data/Syncronization
- Lack of Extensity in Technology Literacy of Related Personnel
- Data/Data Format modification related problems
- Lack of Data Dictionary Problem(Minimal)
- Interpretation and understanding of data

Challenges remaining in terms of Interoperability

Organizational Problems

- Evaluating real values from presented data
  - Determining exact cost cost of real estate (House or landing)
  - Determining exact cost of vehicles
  - Computing net salary from gross salary

Future Roadmap for Extending the System's Interoperability Capabilities

Interfaces to be added or modified

- Continuous Process in accordance with requirements

New data standards to be introduced

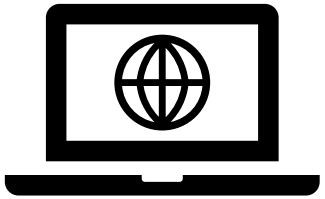
- REST is being more common rather than WSDL

New technical standards to be introduced

- TLS 1.2 is new trend for security

Lessons Learned

Created a standardization across all SP programs throughout the delivery



Increased performance in benefits & service delivery

Enabled monitoring and managing HHs (almost on real-time basis)

Reduced the time, cost, bureaucracy, paper-work, and the effort significantly

Easy access through e-government portal & fully automated payments

Digital Convergence
USP2030

Source: Turkey's Integrated Social Assistance System (General Directorate of Social Assistances, 2016)

COVID-19 Adaptations

Immediate Response

Government provided 1,000 TL to the 2.1 Million HHs who currently benefit from Regular type of SSN programs

COVID-19 Social Support Program

One-time benefit (1,000 TL) except for certain categories. Application is through Turkey's e-government Portal

Ineligible categories

- Contracted individuals who work in the public sector
- Civil servants
- Pensioners or any type of income from SSI
- Unemployment benefits and/or short-term employment benefit receivers from TEA

Application Process to COVID-19 Social Support Program

türkiye.gov.tr
DEVLETİN KISA YOLU
e-Devlet KAPISI

Log into the e-Government Portal → Click on COVID-19 Social Support Program → Fill in the Required Information (ID number, phone number, IBAN etc.) → System links the entered data to the ISAIS and uses the webservices to pull admin data → Individual becomes eligible if he/she does not fall in the ineligible categories

REPUBLIC OF TURKEY
MINISTRY OF FAMILY AND SOCIAL SERVICES

Thank you for your attention…

Ali DEMIROZ – Head of Social Assistance Applications
Ercan DANSUK - Senior Social Protection Specialist

Digital Convergence
USP2030

Thank you

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

+ know more and become a member of

socialprotection.org