



Interoperability in Action: Workshop #7

Social Protection Information System Interacting with Integrated
Beneficiary Registry



Veronika Wodsak
Social Protection Policy Specialist
International Labour Organization (ILO)
Steering Group member - DCI

Agenda

12:00–12:05

Welcome

12:05–12:20

Context Setting and Global Perspective

12:20–12:40

Interoperability of SP-MIS and Integrated Beneficiary Registry (Presentation and Demonstration)

12:40–13:25

Lightning talks from Countries and Solution Providers

13:25–13:50

Open Discussion

13:50–14:00

Closing Remarks

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

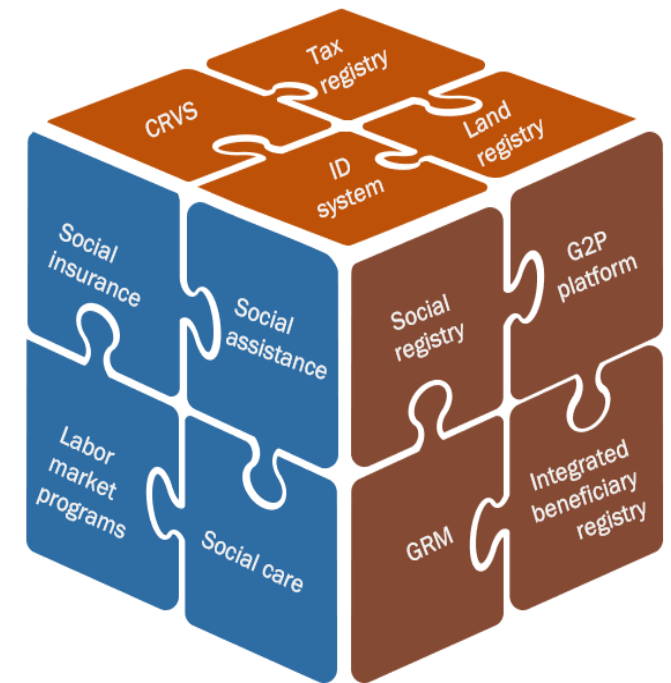


The Digital Convergence Initiative (DCI)

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



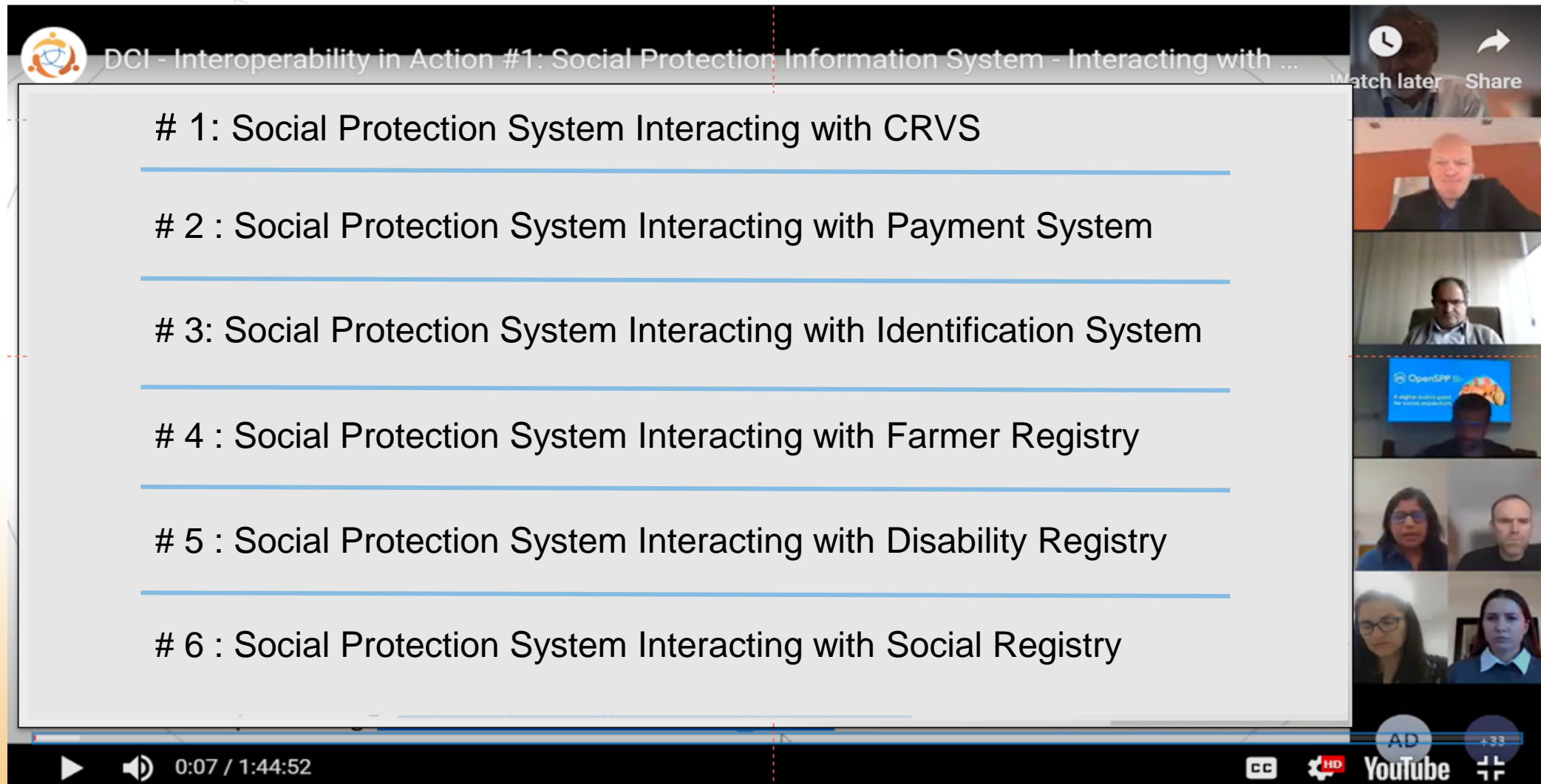
Interoperability in Action - Workshops

Workshops series by DCI to demonstrate live interoperability of SP-MIS with other systems for effective and efficient delivery of Social Protection (SP) programs.

Deep dive into one interface showcasing SP system interaction with other systems (like payment, CRVS, ID, Farmer Registry, Disability Registry, Social Registry)

- Share the understanding of process workflow, data elements, and technical APIs that are required for interoperability.
- Create awareness on the benefits of interoperability through use-cases
- Demonstrate live the interoperability using digital public goods for some use cases
- Hear from the stakeholders and subject matter experts on the topic

Interoperability in Action – Past Workshops



DCI - Interoperability in Action #1: Social Protection Information System - Interacting with ...

Watch later Share

- # 1: Social Protection System Interacting with CRVS
- # 2 : Social Protection System Interacting with Payment System
- # 3: Social Protection System Interacting with Identification System
- # 4 : Social Protection System Interacting with Farmer Registry
- # 5 : Social Protection System Interacting with Disability Registry
- # 6 : Social Protection System Interacting with Social Registry

0:07 / 1:44:52

CC HD YouTube

AD +33

The screenshot shows a YouTube video player interface. The main content area displays a list of six workshop topics, each preceded by a hash symbol and a number. To the right of the list is a vertical column of seven video thumbnails showing participants. The bottom of the player shows a progress bar, a play button, a volume icon, and a timestamp of 0:07 / 1:44:52. On the far right of the bottom bar are icons for Creative Commons (CC), HD video quality, the YouTube logo, and a full-screen icon.

Past Workshop recording: <https://spdci.org/past-events/>

Steering Committee

Digital Convergence Initiative



International
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Organization



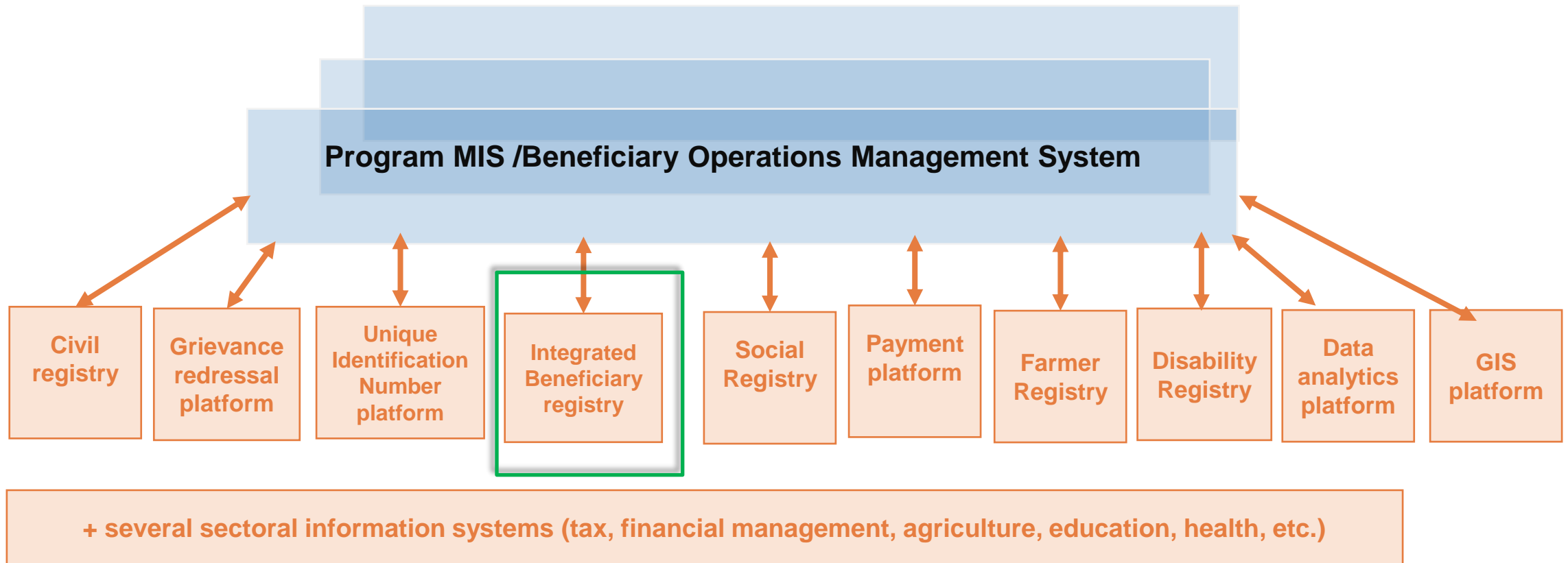
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Systems at Play for SP Program Delivery



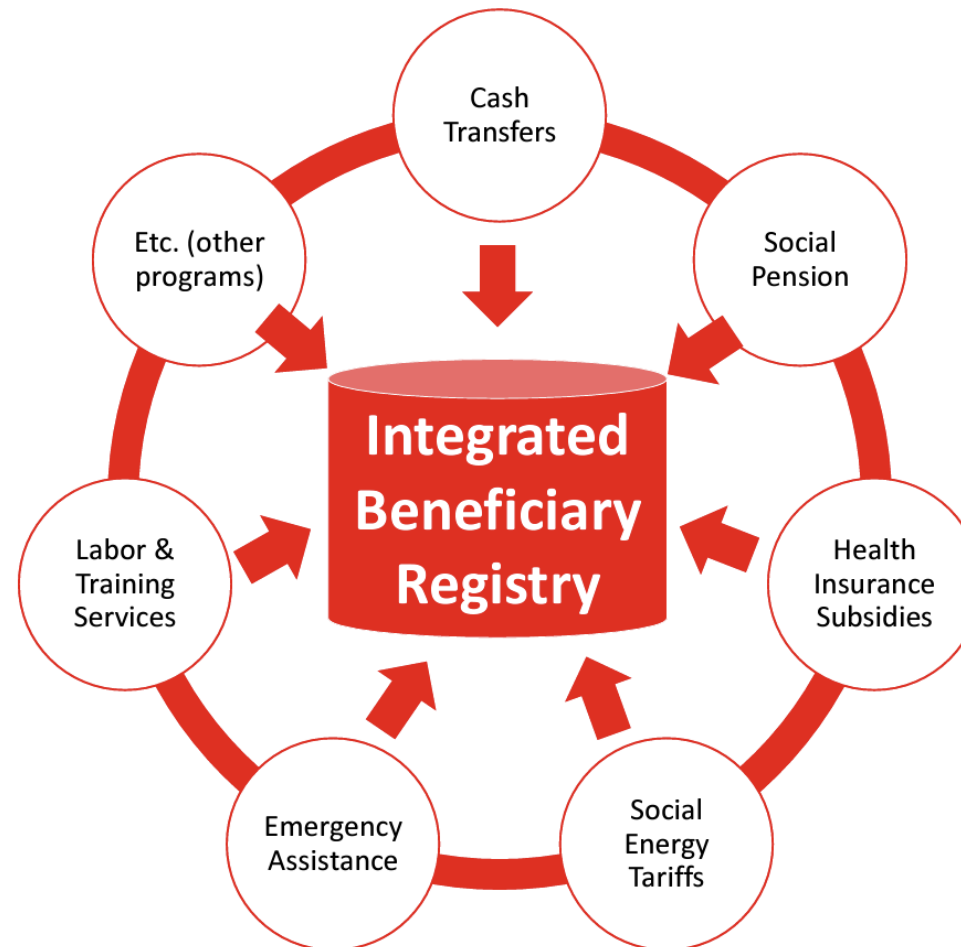
Context Setting and Global Perspective



Valentina Barca
Social Protection Expert
Independent Expert

Integrated Beneficiary Registry function

Integrated Beneficiary Registries are warehouses of information on beneficiaries from multiple programs, across the lifecycle



Integrated Beneficiary Registries can improve efficiency and effectiveness



PRIMARY ROLE as a back-office tool for social, planning, and finance agencies

- For coordination across the social protection system & pillars
- For monitoring who receives what benefit from which programs.. supporting broader analytics, budgeting and planning: e.g. ‘real’ coverage
- For identifying complementary bundles of benefits and services, analyzing and tracking the “supply” of programs
- For identifying unintended duplications across programs, or gaps

...for program administrators

IF MAINTAINED IN REAL TIME:

- By providing them information about what “other” benefits and services their client populations are receiving
- By facilitating intermediation and referrals

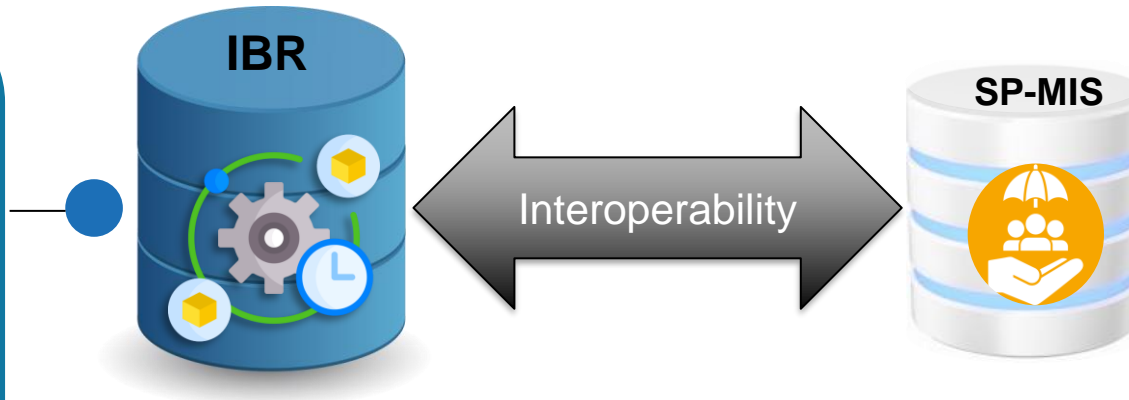
...for people

IF MAINTAINED IN REAL TIME:

- By allowing citizens to check their benefit status and service referrals

Integrated Beneficiary Registry and Social Protection-MIS

- **Demographic Information**
 - ID, age, sex, family members, etc.
- **Contact Information**
 - Address, phone number, and email (if available)
- **Household Composition**
 - Information about beneficiary's household - , relationship with beneficiary, household member details like age, gender, and educational status.
- **Program Enrollment**
 - Details of programs in which beneficiaries are / were enrolled.
- **Benefit History**
 - Assistance received, payment history, duration of participation.
- **Socioeconomic Data**
 - Poverty score



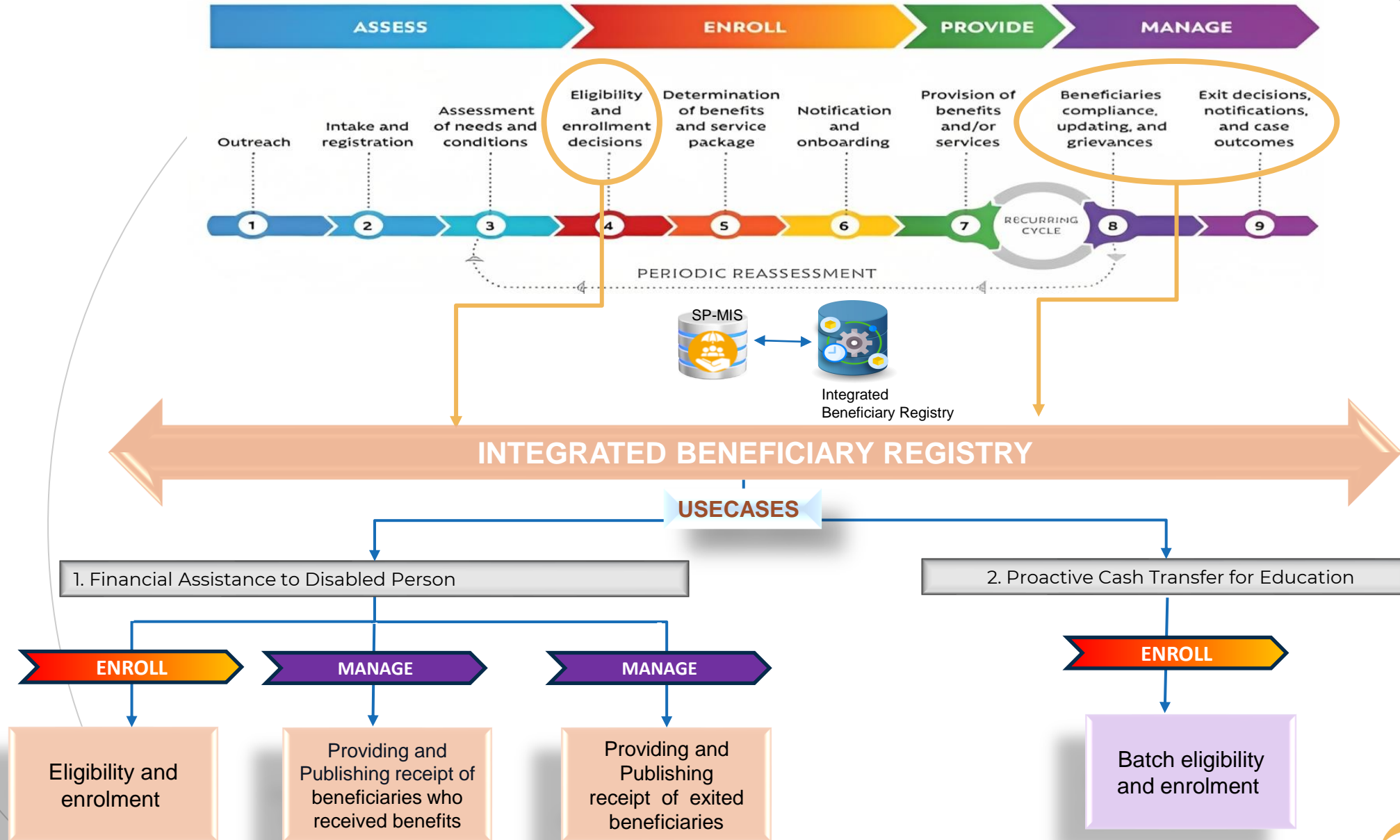
ULTIMATELY:

- Can support eligibility determination if any 'rules' apply
- Enhanced Monitoring and Evaluation and near real-time verification/validation
- Better resource allocation and data-driven policy design
- Increased efficiency and effectiveness of program delivery, including via facilitation of integrated operations (payments, grievances, etc)



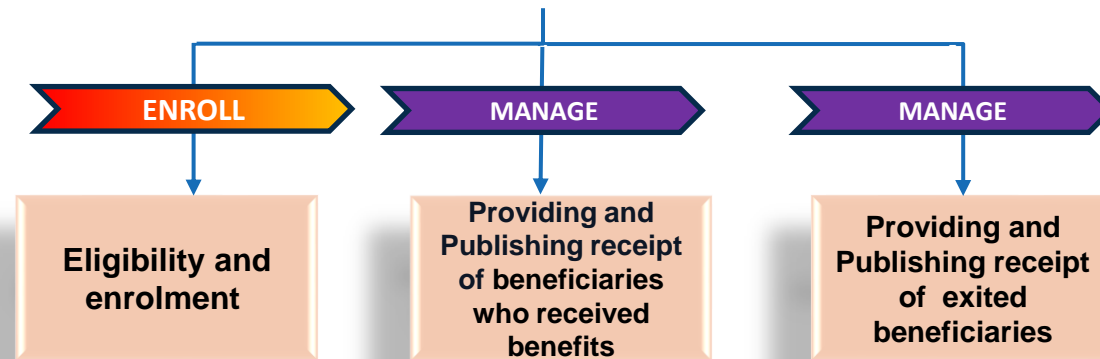
Rob Worthington
Senior Business Analyst
Kwantu

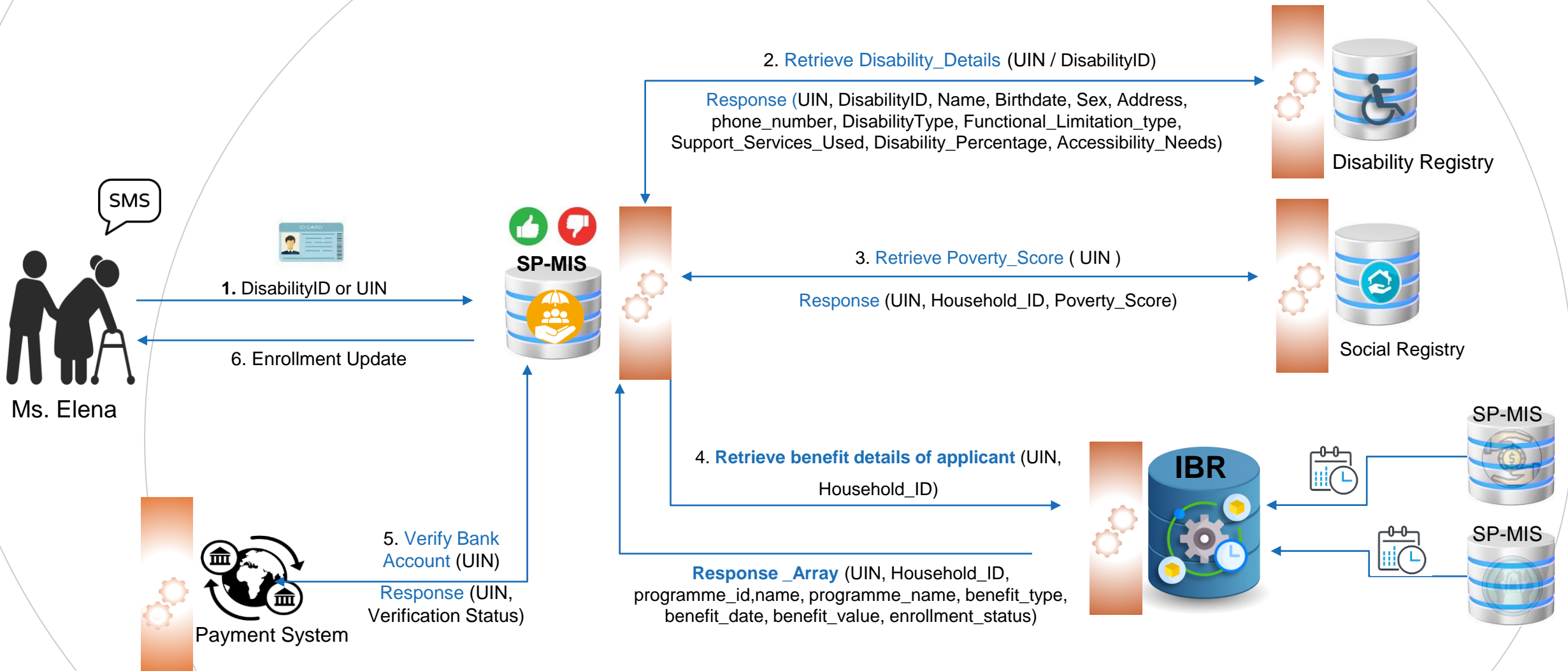
SP-MIS interaction with Integrated Beneficiary Registry according to SP Delivery Chain

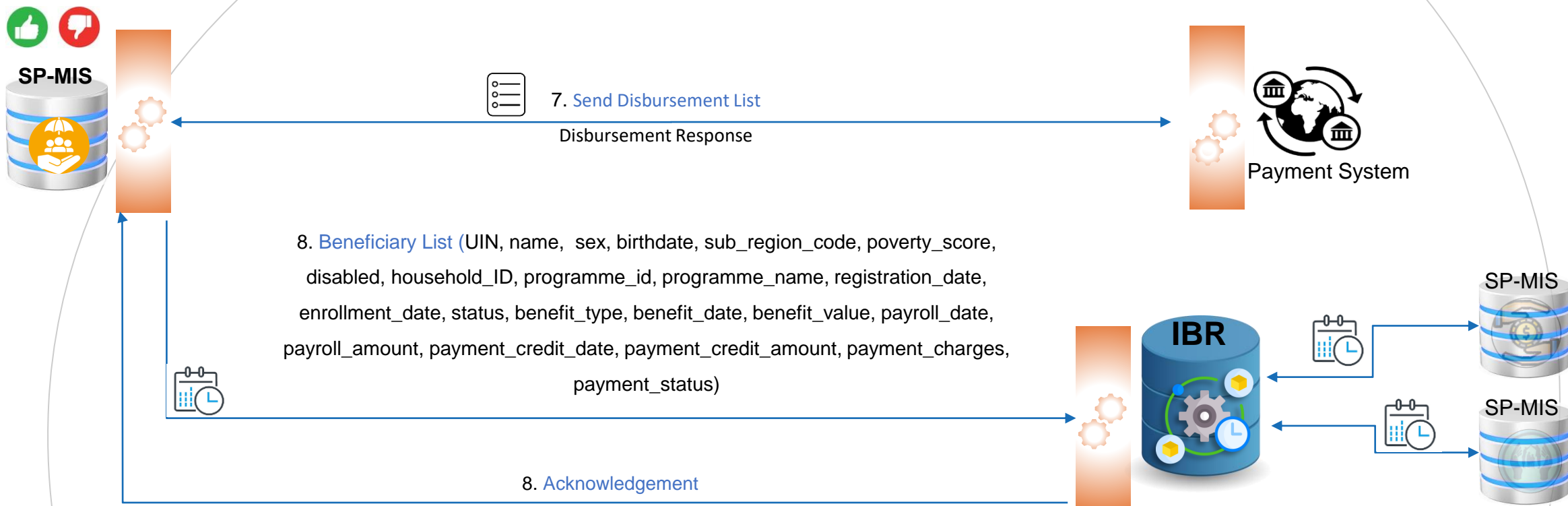


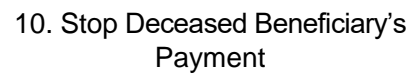
1

Financial Assistance to Disabled Person









Interoperability in Action: The Team



Komal Malhotra



Krishan Bhardwaj



Dhananjay Chauhan



Rajdeep Randhava



Apoorva Sharma



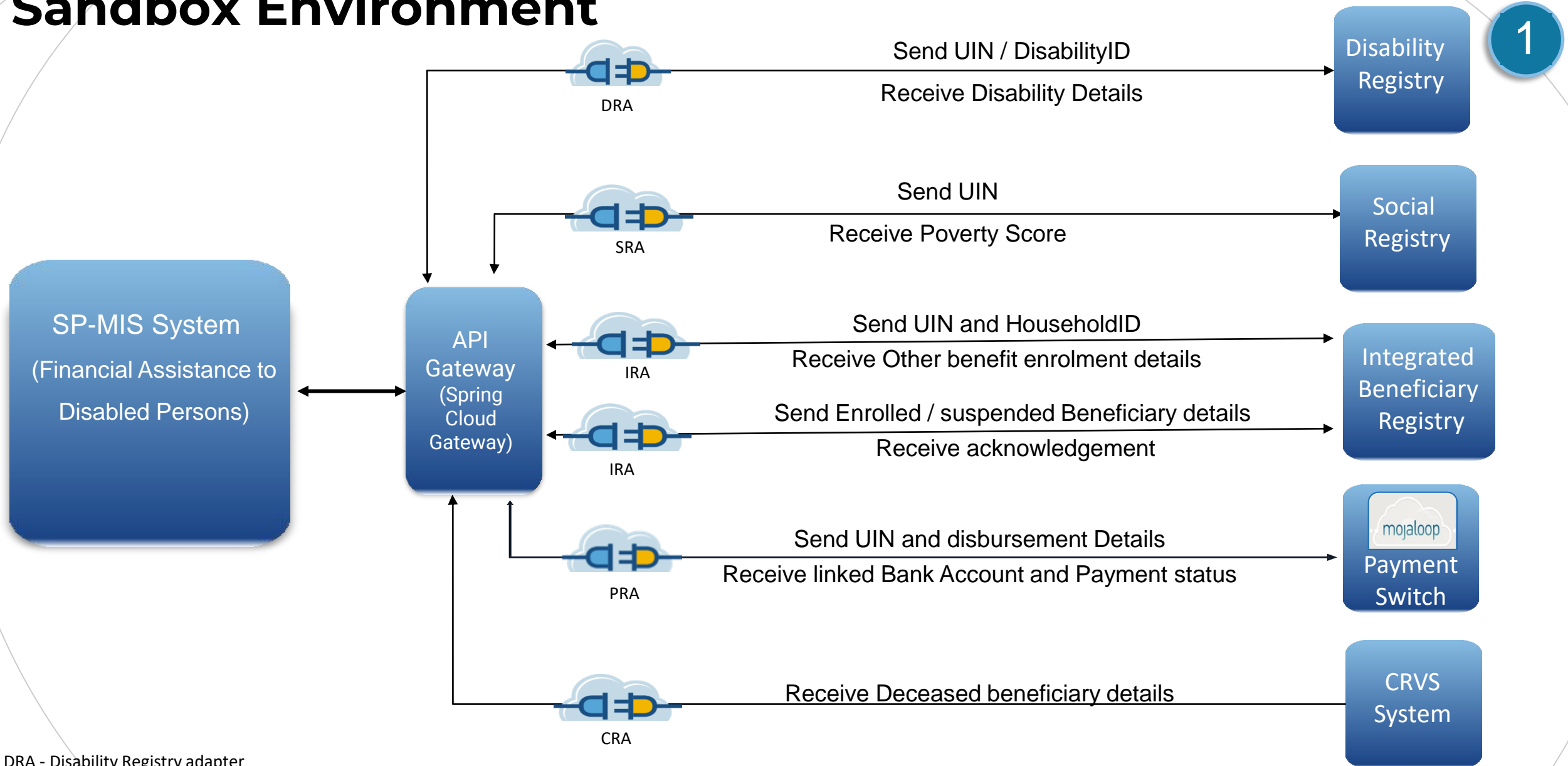
Shiffali Singla



Aditya Bhardwaj

Sandbox Environment

Sandbox Environment



DRA - Disability Registry adapter

SRA - Social Registry adapter

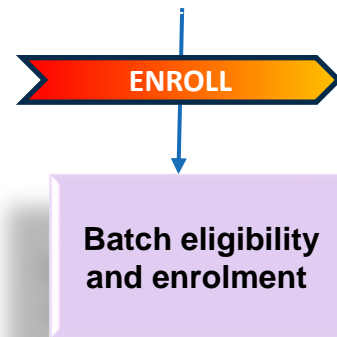
IRA - Integrated Beneficiary Registry adapter

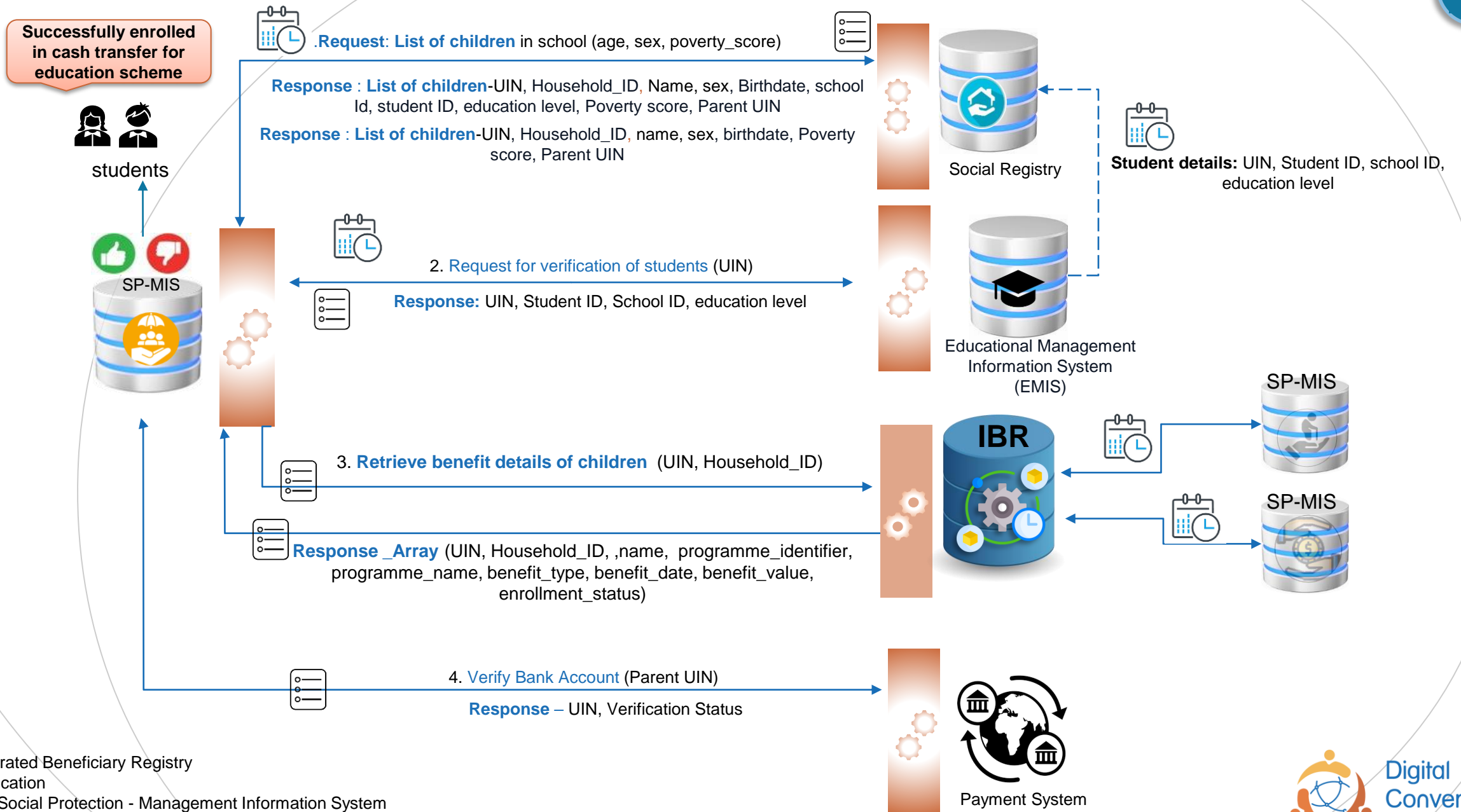
PRA - Payment Gateway Adapter

CRA - CRVS System Adapter

Demonstration

2 Proactive Cash Transfer for Education





Standards

Data Standards, Code Directories and APIs

Sample Data Standards and Code Directories

Name	Cardinality	Type	Code Directory
Identifier	0..*	Data Object	
Programme ID	0..*	Data Object	
Programme Name	0..*	String	
Enrolment date	0..*	Data Object	
Suspension date	0..*	Data Object	
Benefit type	0..1	Codable concept	Code Directory
Benefit Value	0..1	String	
Benefit date	0..1	Data Object	
Status	0..*	Codable concept	
..... More to the list			

Benefit type(Code Directory)

Status(Code Directory)

Benefit Type(Code Directory)	
Code	Values
1	Cash
2	Voucher
3	Referred to training
4	Received training
5	Received grant
6	Social insurance
7	Work opportunity
.....More to the list	

Status (Code Directory)	
Code	Values
1	Active
2	Suspended
3	Graduated
4	Potential

Integrated Beneficiary Registry – Search beneficiary

URL	{host}/search	Method	POST
Headers	Authorization: Bearer (JWT Access Token)	Content-Type	application/json

Request

```
{
  "signature": "Request signature",
  "headers": {
    // Request headers
  },
  "message": {
    "transaction_id": "123456789020211216223812"
    "identifiers": [
      {
        "type": "UIN",
        "value": "345678912"
      },
      {
        "type": "HOUSEHOLD_ID",
        "value": "789101112"
      }
    ]
  }
}
```

Request Parameters

Response

```
{
  "status": "success",
  "return_message": "Data retrieved successfully",
  "correlation_id": "123456789020211216223812",
  "total_count": 1,
  "message": [{
    "transaction_id": "123456789020211216223812",
    "total_count": 1,
    "message": [ {
      "identifiers": [
        {"type": "UIN", "value": "345678912" },
        {"type": "HOUSEHOLD_ID", "value": "987654321"} ],
      "name": {"sur_name": "Doe", "given_name": "Elena", "prefix":
        "Ms."}
      "programme_name": "Financial Assistance to Disabled Person ",
      "programme_identifier": "PWSD-CT",
      "benefit_type": "PWSD-CASH",
      "benefit_date": "2023-06-25",
      "benefit_value": "500",
      "enrollment_status": "active"
    }
  ]
}
```

Integrated Beneficiary Registry – Publish receipts of beneficiaries

URL	{host}/publishReceiptsBeneficiary	Method	POST
Headers	Authorization: Bearer (JWT Access Token)	Content-Type	application/json

Request

```
{
  "transaction_id": "123456789020211216223812",
  "total_count": 1,
  "message": [ {
    "identifiers": [ {
      "type": "UIN",
      "value": "345678912"
    }, {
      "type": "HOUSEHOLD_ID",
      "value": "HI1011212"
    } ],
    "name": { "sur_name": "Doe", "given_name": "Elena", "prefix": "Ms." },
    "sex": "female",
    "birth_date": "1946-07-19",
    "poverty_score": "40%",
    "disabled": "",
    "programme_name": "Financial Assistance to Disabled Person",
    "programme_identifier": "PWSD-CT",
    "payment_credit_date": "2023-06-25",
    "registration_date": "2023-06-25",
    "enrollment_date": "2023-06-25",
    "payroll_date": "2023-06-25",
    "payroll_amount": "200",
    "payment_credit_amount": "500",
    "payment_charges": "10",
    "payment_status": "success",
    :
    :
    :
  } ]
}
```

Request Parameters

Response

```
{
  "status": "success",
  "return_message": "Data received",
  "correlation_id": "123456789020211216223812"
}
```



Integrated Beneficiary Registry – Discontinuation of beneficiary

URL	{host}/discontinuedBeneficiary	Method	POST
Headers	Authorization: Bearer (JWT Access Token)	Content-Type	application/json

Request

```
{
  "signature": "Request signature",
  "headers": { // Request headers },
  "message": {
    "transaction_id": "123456789020211216223812",
    "data": [
      {
        "identifiers": [
          {
            "type": "UIN",
            "value": "345678912"
          },
          {
            "type": "HOUSEHOLD_ID",
            "value": "HI1011212"
          }
        ],
        "name": { "sur_name": "Doe", "given_name": "Elena", "prefix": "Ms." },
        "programme_name": " Financial Assistance to Disabled Person ",
        "programme_identifer": "PWSD-CT",
        "benefit_type": "PWSD-CASH",
        "date_last_benefit_received": "2023-06-25",
        "enrollment_status": "suspended",
        "date_suspended": "2023-06-25"
      }
    ]
  }
}
```

Request Parameters

Response

```
{
  "status": "success",
  "return_message": "Data received",
  "correlation_id": "123456789020211216223812"
}
```

Country Inputs: Kenya



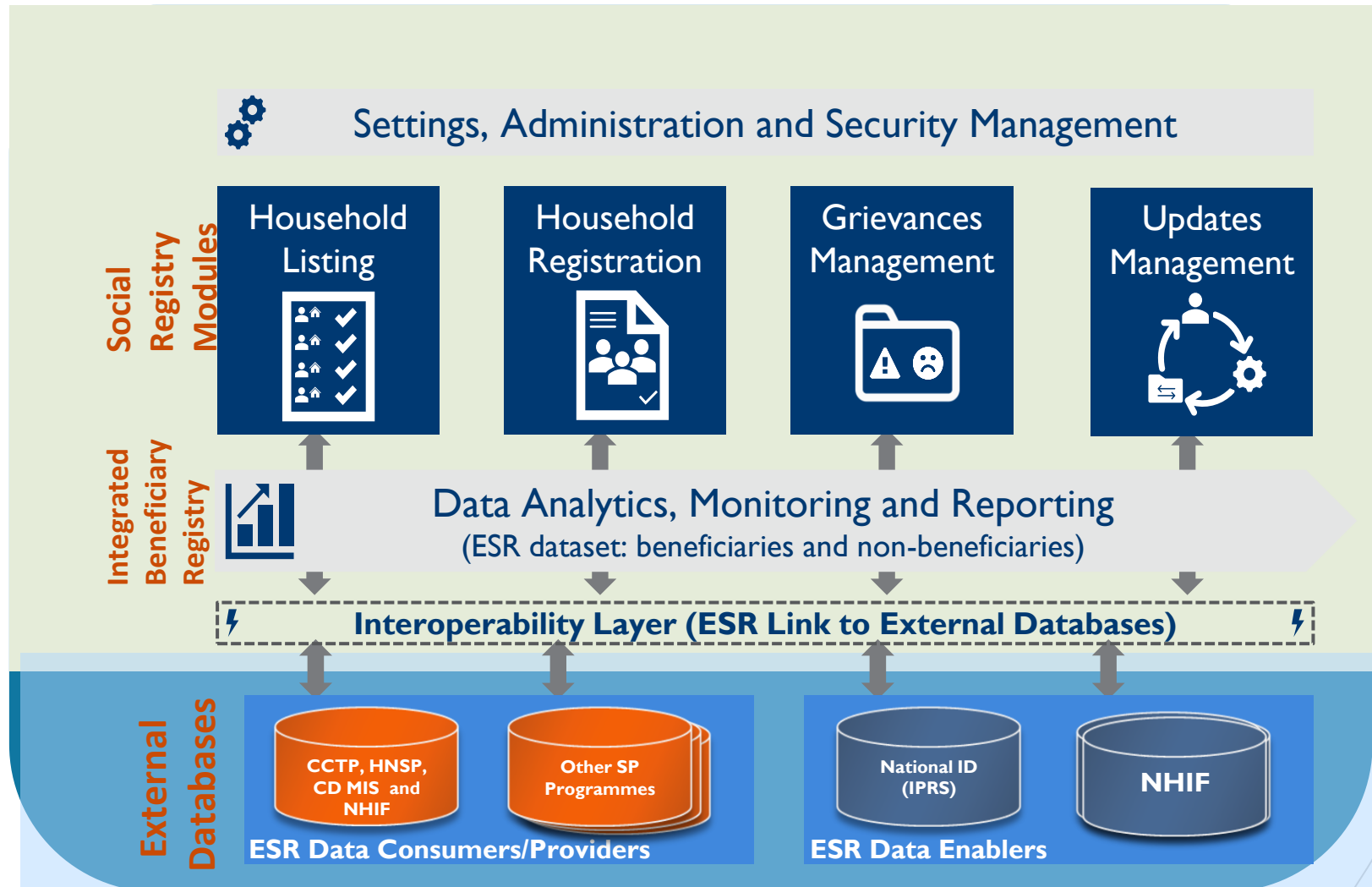


Meme Shadrack

Principal Information Communication Technology Officer
National social protection secretariat
Kenya

Overview of Integrated Beneficiary Registry (IBR) in Kenya

- Single registry (IBR) was Launched in Kenya, year 2016.
- Covering 9 programmes Namely; OPCT, OVC, PWSD, HSNP, NICHE, EIP, NHIF, UCB, WFP.
- IBR has covered 1.3 million households (11 % of Households population in Kenya)
- Database size of 338.4 GB
- Enhanced Single Registry (ESR) comprises of Social registry and Integrated beneficiary registry



Programmes in **IBR**

1. **OPCT-** Older persons cash transfer programme is a pension plan for the older persons of age 70 and above who are not in other pension schemes.
2. **OVC-CT-** Orphans and Vulnerable cash transfer – for very needy and parentless children
3. **PWSD** – Persons with severe disability – For the persons who need twenty four hour care.
4. **HSNP** –Hunger safety net Programme – Cash transfer for households who are in arid and semi-arid areas.
5. **NICHE-** Nutrition improvement through cash and Health education – A pilot complimentary programme to support under two years children nutrition and health education to those receiving cash transfer.
6. **UCB-** Universal Child benefit – A more inclusive child benefit programme.
7. **EIP-** Economic inclusion programme - Programme to provide capital and business mentorship for the most vulnerable.
8. **NHIF-** National health insurance fund – Health insurance cover by Kenya government.
9. **WFP** – World food Programme – A UN programme target the food poverty.

Interoperability between SP-MIS and IBR

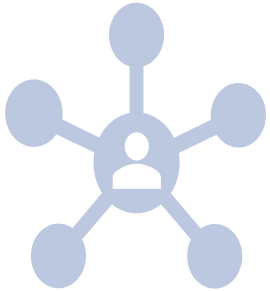
- 1. Data elements exchanged includes:** Geographical information, Household Characteristics and Household Demographics.
- 2. Data standards:** Json data format during transfer, Data security standards, data governance standards etc.
- 3. API calls:** API calls with request header, API methods and query parameters.
- 4. Data Transfer Mechanism:** Data transfer from Programmes to IBR is through a Batch process whenever there is a payment cycle and a real-time transfer for case update. The data transferred includes; Payment data, Enrollment data and case update data.



Key challenges in terms of interoperability



Data security and privacy when sharing data with social protection implementers without a robust system that can support interoperability.



Data sharing arrangements with programme implementers where some social protection implementers are not willing to share the Social protection interventions data with Enhanced single registry.

Country Inputs: Türkiye





Ercan Dansuk

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



Ali Saip Demiröz

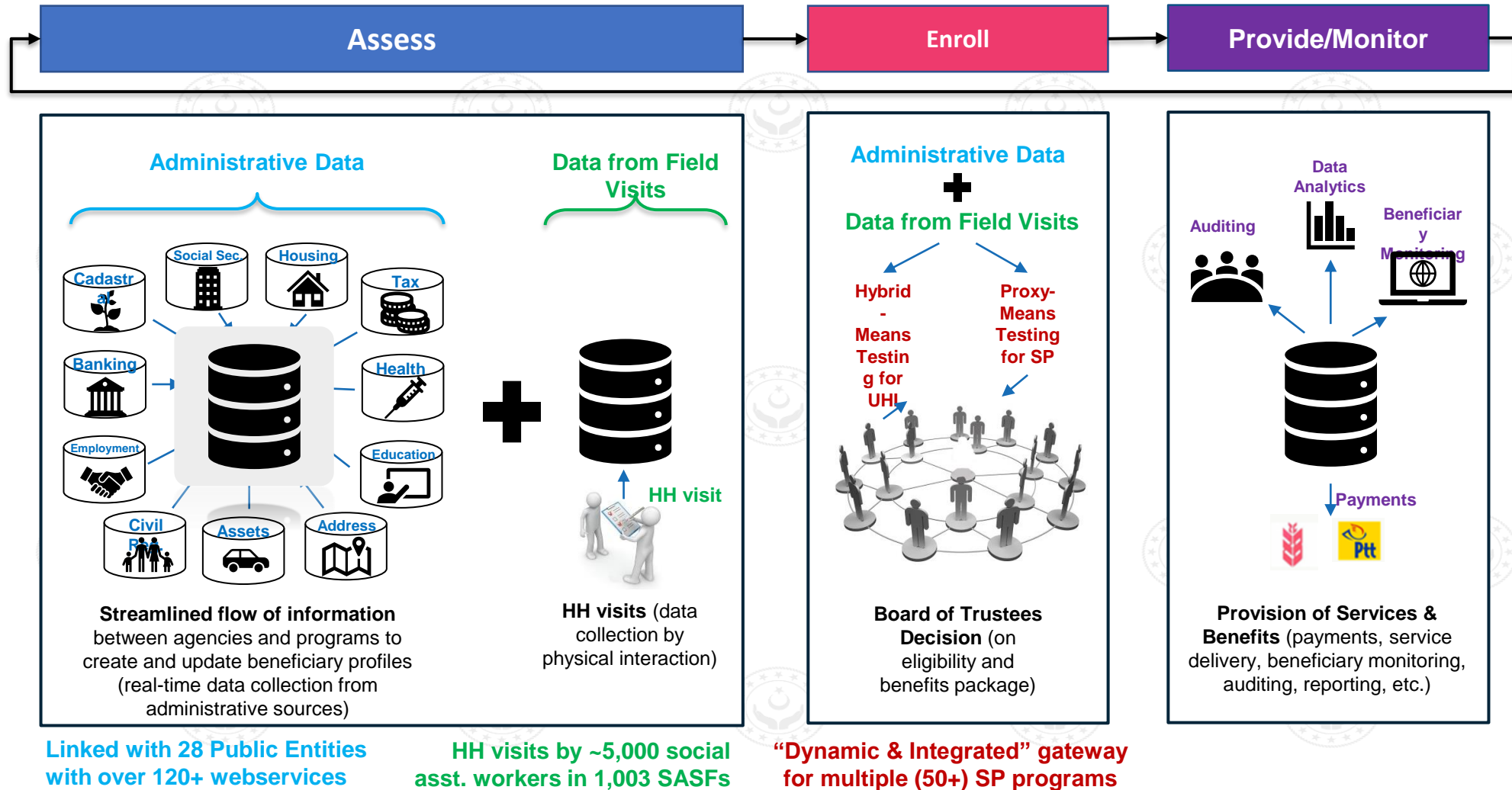
Head of Social Assistance Applications,
General Directorate of Information
Technologies
Ministry of Family and Social Services,
Türkiye



INTEROPERABILITY IN INTEGRATED SOCIAL ASSISTANCE SYSTEM (ISAS)

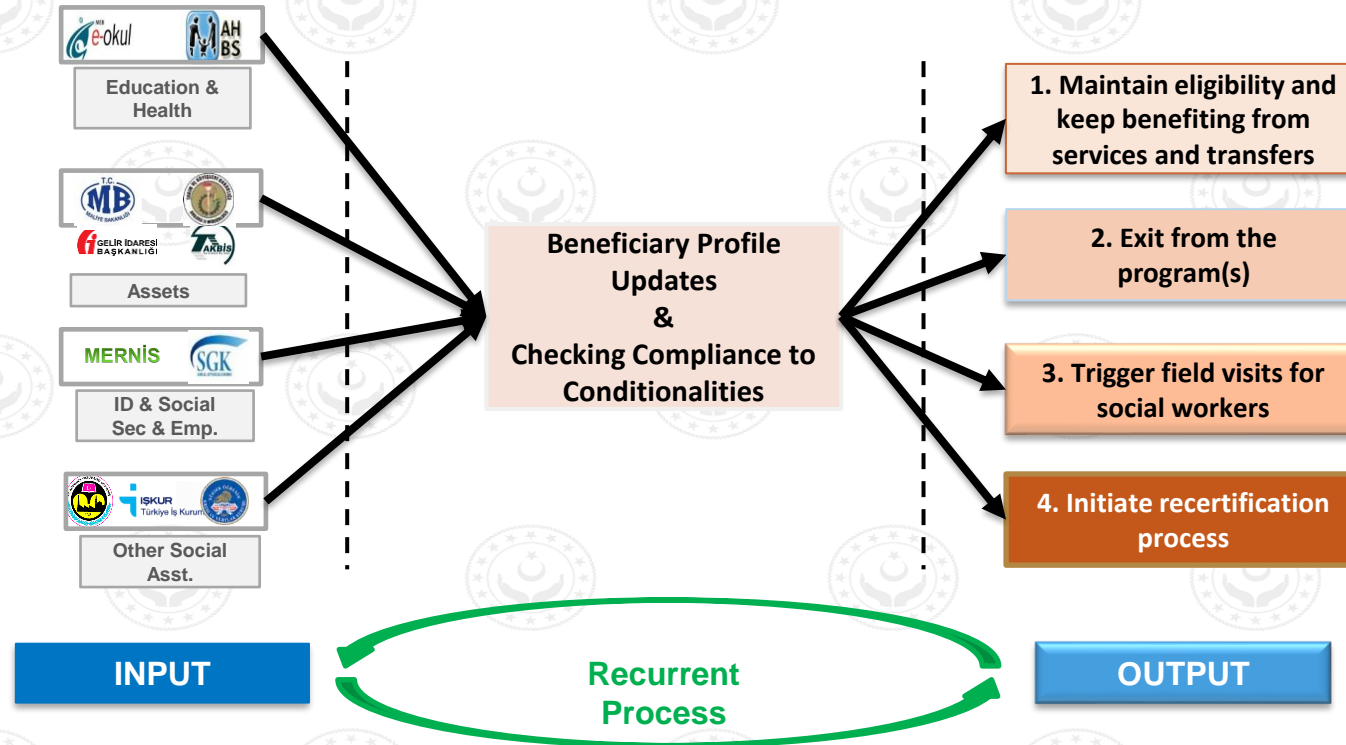


INTEROPERABILITY in ISAS





Beneficiary Monitoring & Management





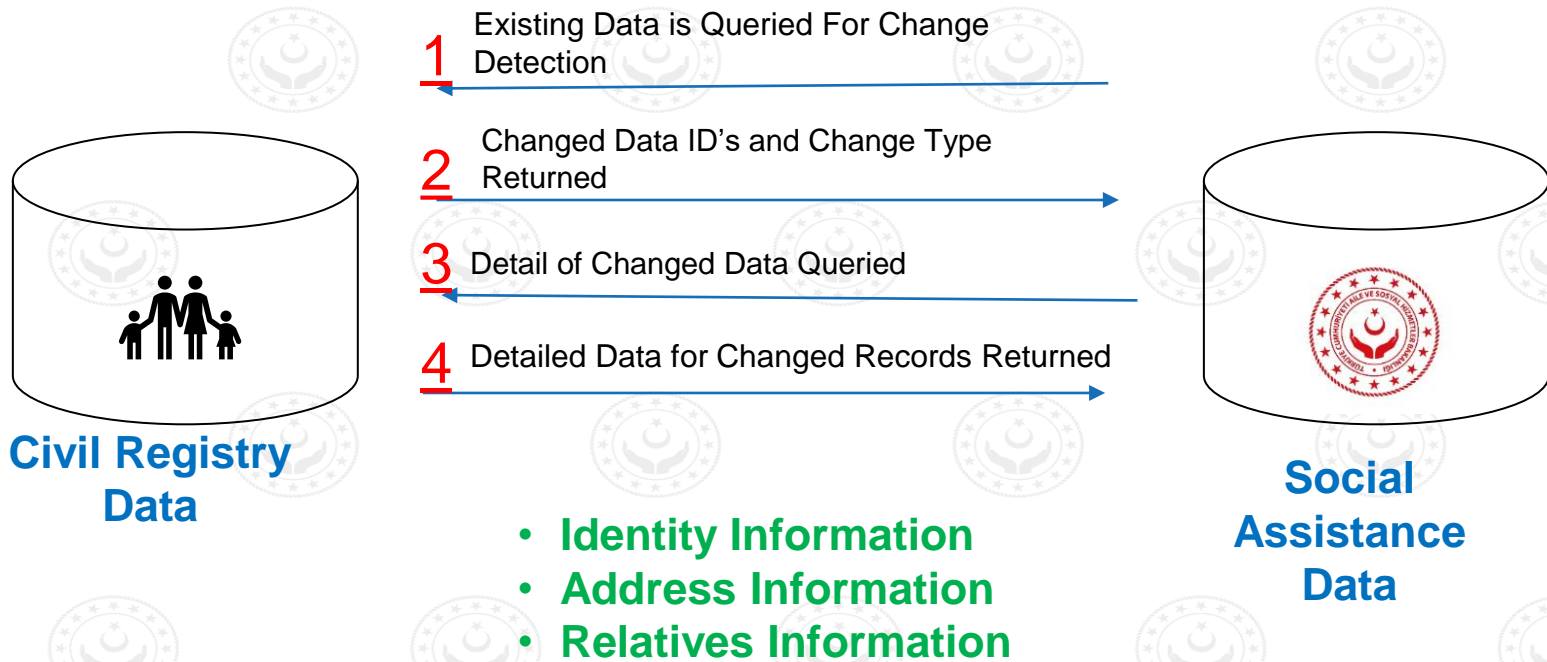
IDENTITY INFORMATION

- **Identity Number**
- **Name, Surname**
- **Date of Birth & Death**
- **Relatives (Father, Mother, Siblings, Children)**
- **Marriage Status**



INTEROPERABILITY in ISAS

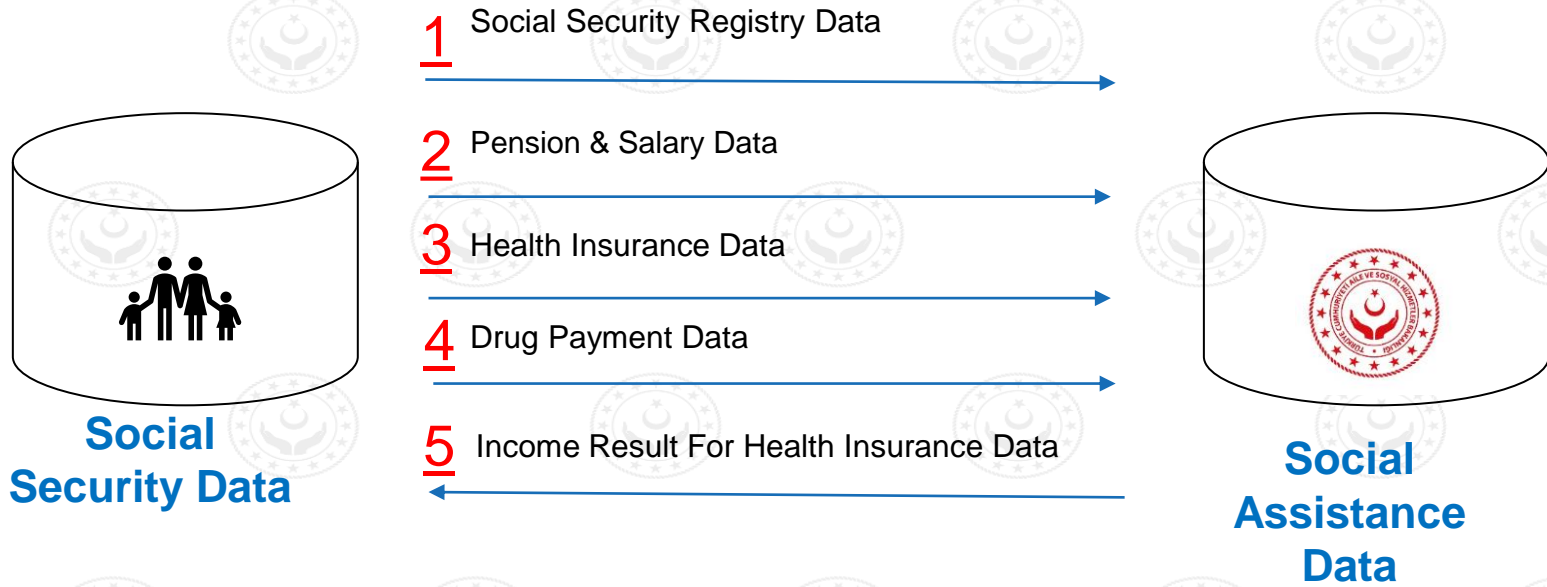
Civil Registration





INTEROPERABILITY in ISAS

Social Security



Country Inputs: Chile

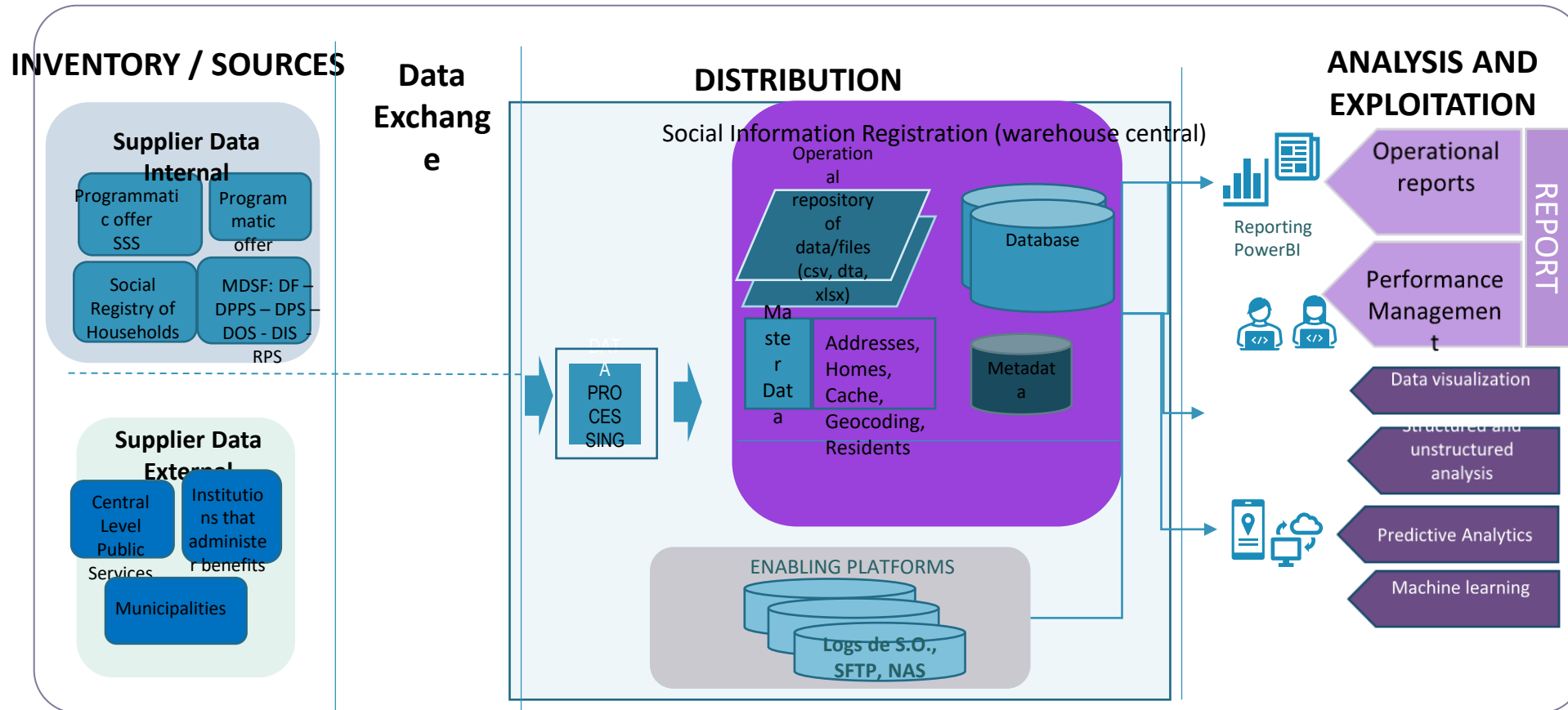




Verónica Achá-Alvarez

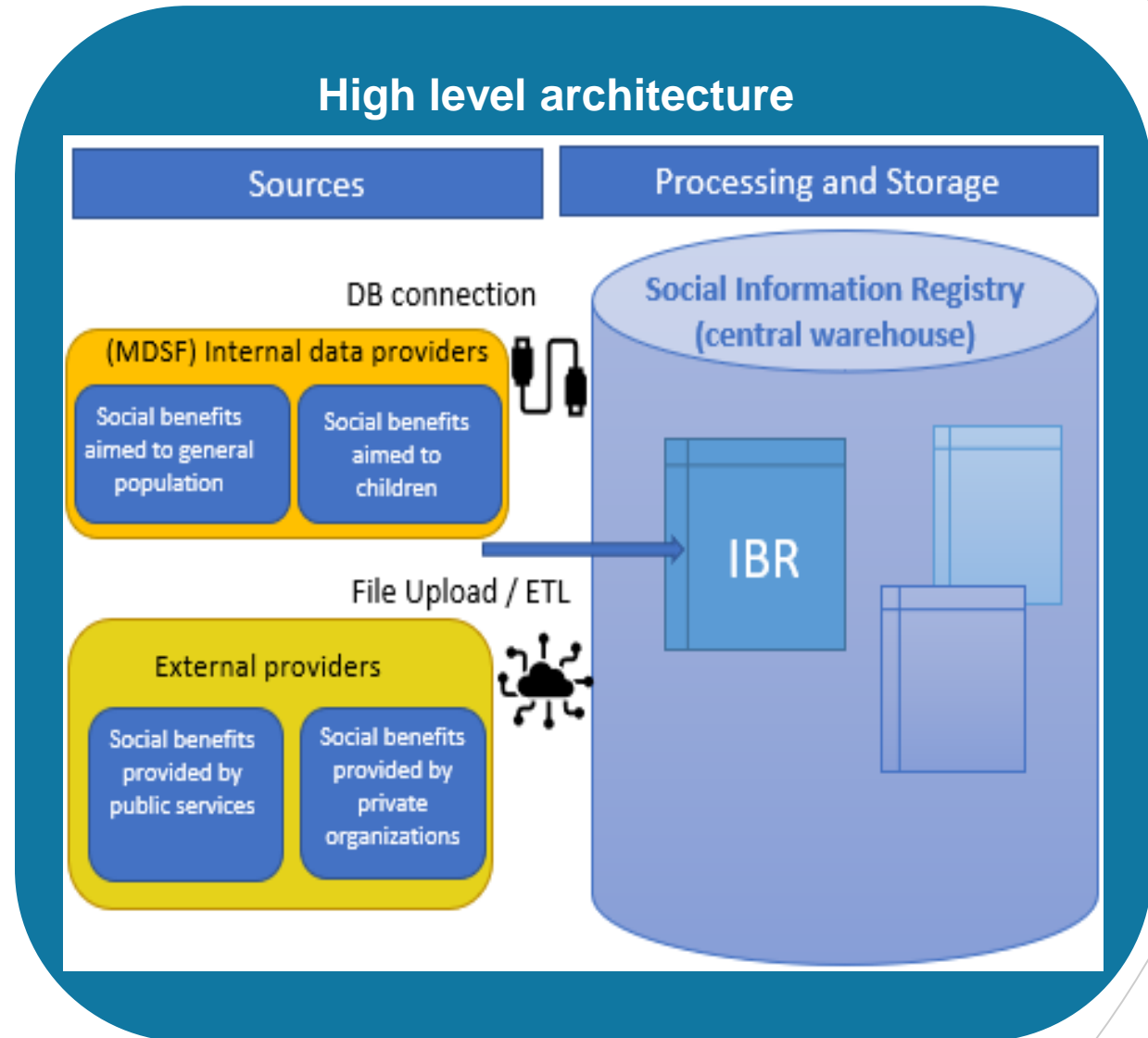
Head of Social Information Analysis Department
Ministry of Social Development and Family
Chile

General ecosystem of interactions associated with RIS (IBR)



Overview of Integrated Beneficiary Registry in Chile

- Launched in 2011
- Covers 236 programs from 33 institutions
- 18.353.519 individuals covered with at least one benefit (as 91,9% of population)
- Over a billion social benefits records (1.000 million) (1 TB)



Interoperability between Chilean SP-MIS and IBR



Data elements exchanged: 9 elements
(5 essential and 4 for validation purposes)

ID assigned to the benefit, National ID number for the beneficiary, Given names, Surnames, Date when the benefit was given, Type of benefits (in kind, in cash), Amount (if it was a cash transfer), Municipality code, Name of the institution



Upload a file on CSV format through a batch process



Frequency depends on the type of benefit and processing capacity of the institutions that delivers it

Examples of Schemes talking to IBR

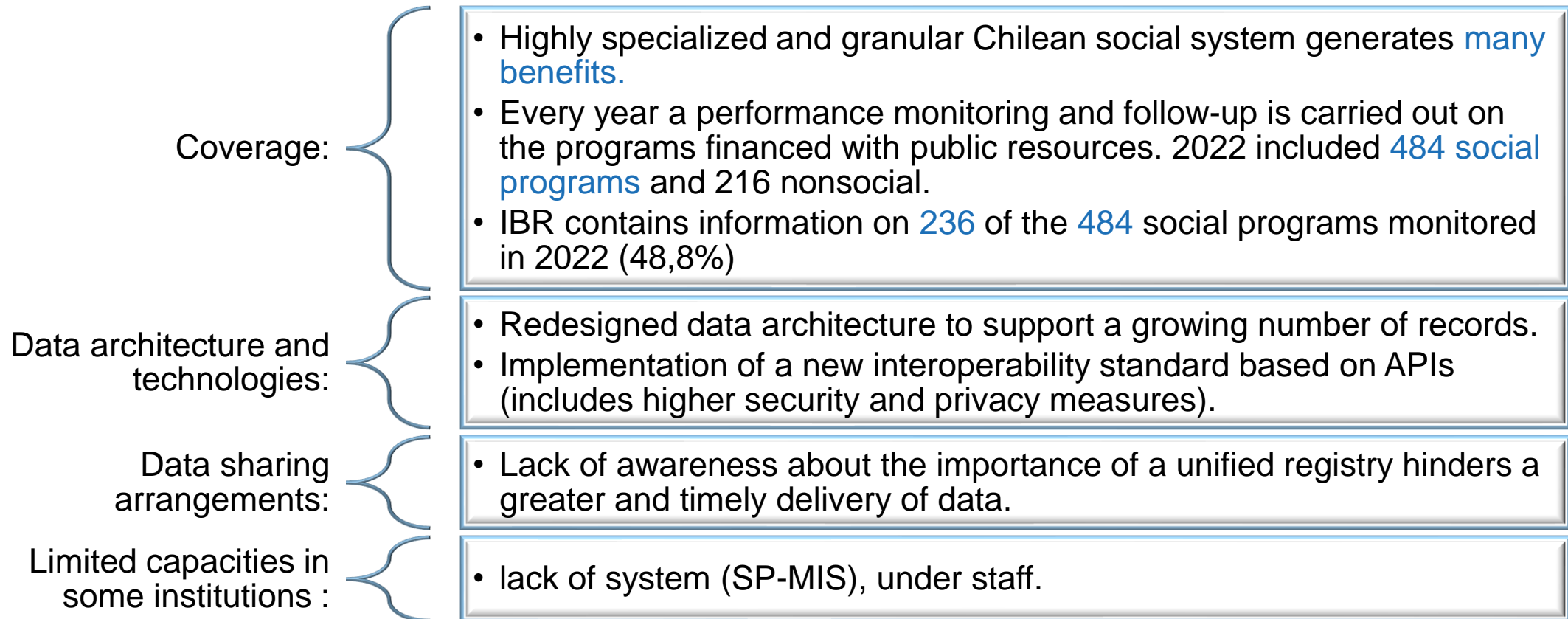
- Family subsidies
- Kindergartens and nursery rooms
- Old age or disability pensions
- Scholarships
- Home care
- Housing subsidies
- Court Sponsorship
- Training

Data uploading

Feedback on success / errors

IBR

Key challenges in terms of interoperability



Solution Provider: Development Pathways

DEVELOPMENT

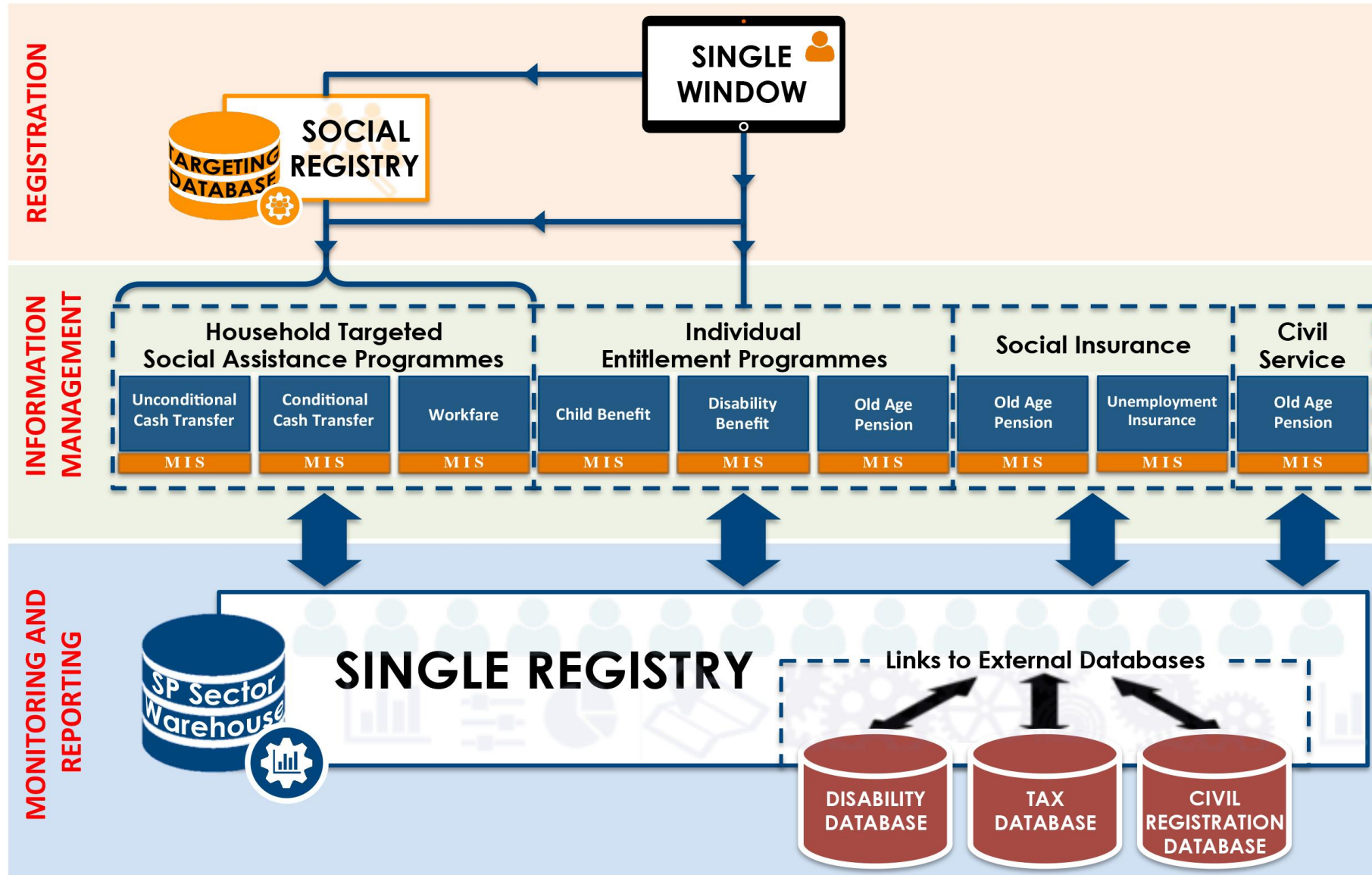


PATHWAYS



Richard Chirchir
Principal Digital Technology Specialist
Development Pathways

Conceptual Framework: Key elements, components and terms...

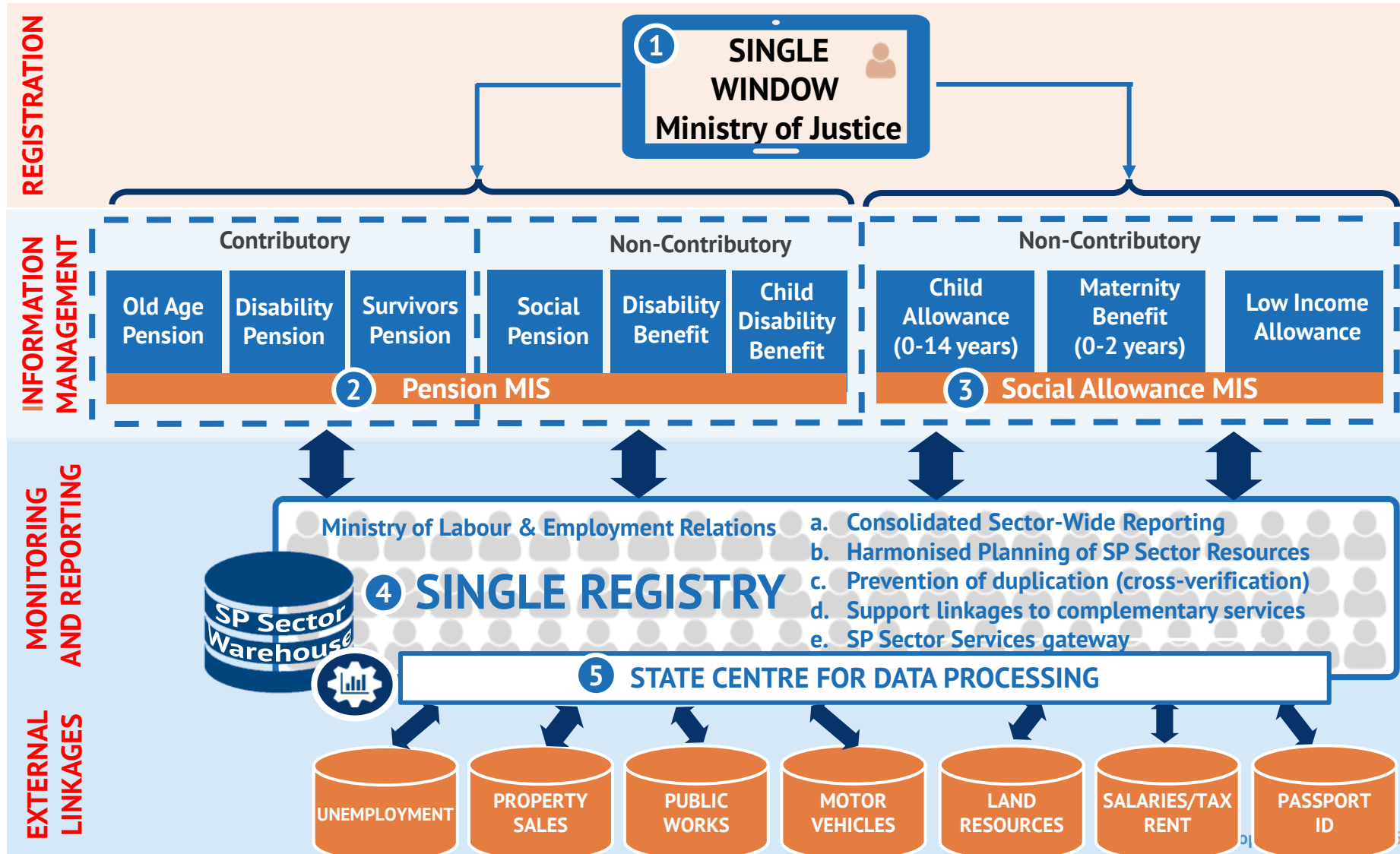


Single Registry is what has come to be recently referred to as an integrated beneficiary registry (IBR) in some literature. In some countries functionality can be broader than integrated monitoring and reporting.



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Country Example 1: Uzbekistan: Single Registry for Social Protection...

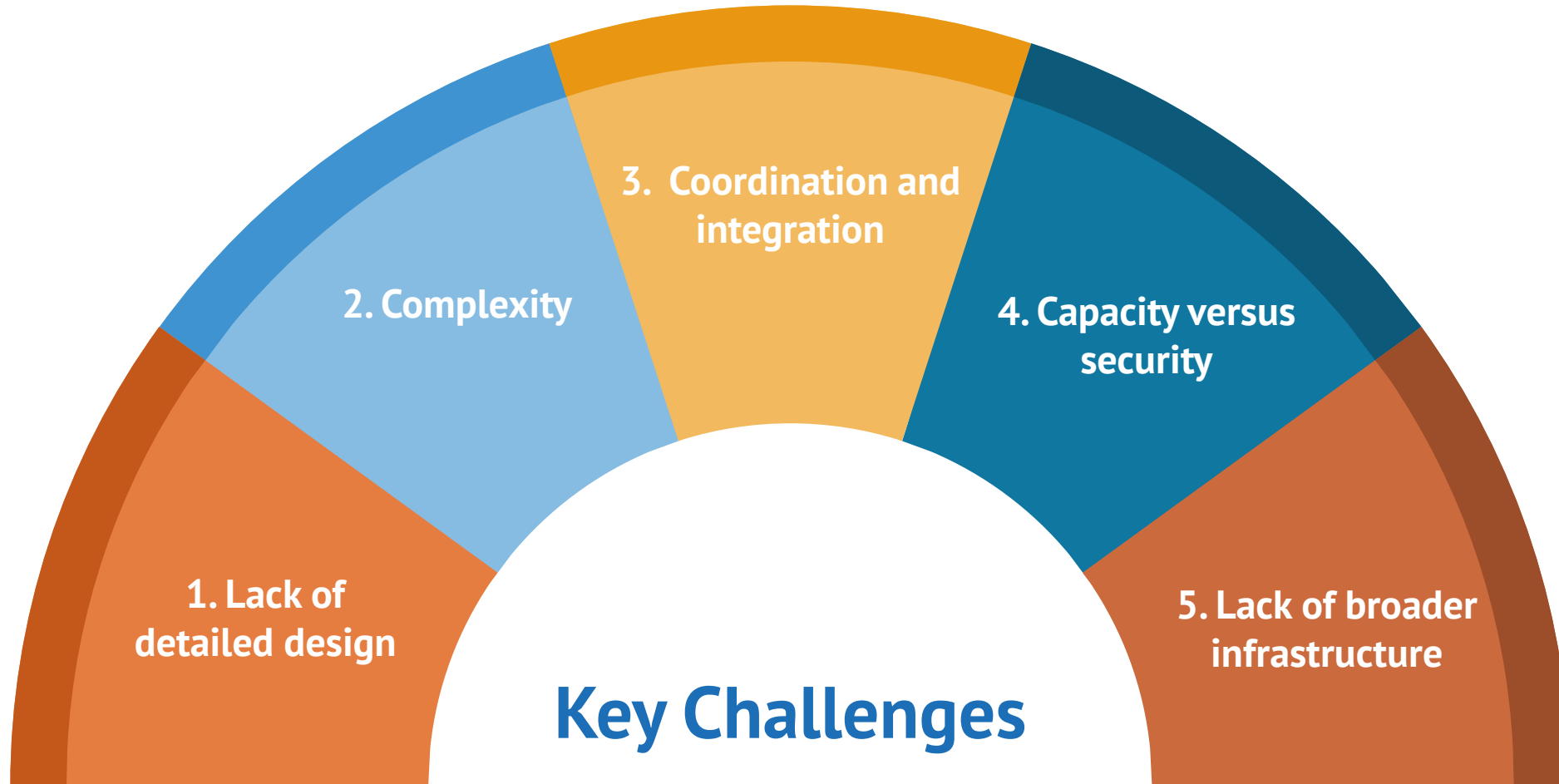


Uzbekistan's Single Registry links to more than 20 government databases for automated eligibility assessment!



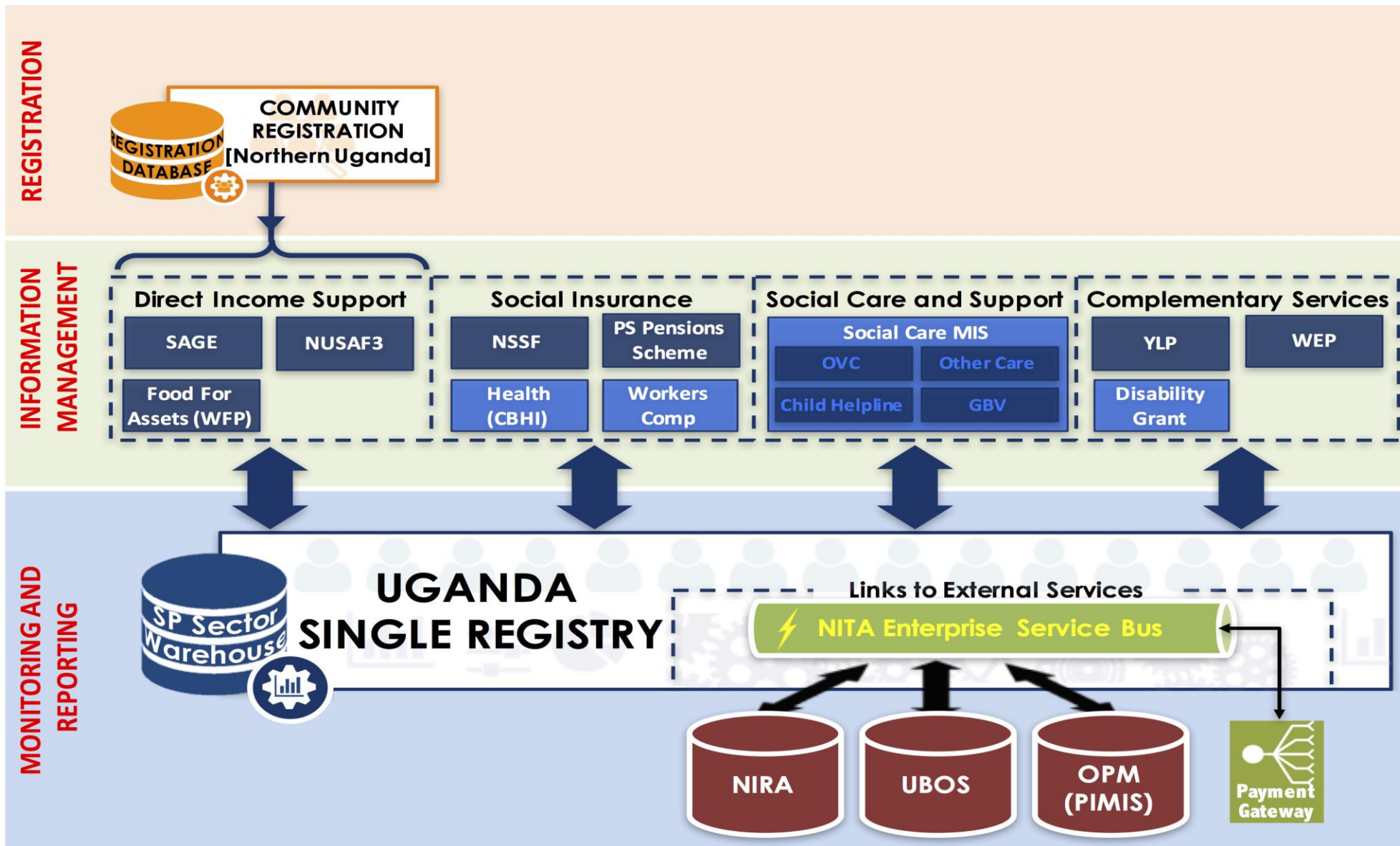
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What were the key Single Registry implementation challenges in Uzbekistan context?



Development Pathways 57

Country Example 2: Uganda: National Single Registry...



Launched in 2021
5 social protection programmes automatically linked using APIs
2 social protection programmes to be linked using batch files (NSSF and PSPS)

Example of inter-operability mechanism implementation using API methods for Uganda's National Single Registry...

- **Update_individual_beneficiaries:** update individual beneficiaries who have been enrolled to a SP programme.
- **Update_household_beneficiaries:** update household beneficiaries who have been enrolled onto a SP programme.
- **Update_group_beneficiaries:** update group beneficiaries. This method is applicable to programmes that maintain group beneficiaries e.g., UWEP, YLP, NUSAF3.
- **Update_payments:** update beneficiary payment records.
- **Update_Group_Disbursements:** update group disbursement data.
- **Update_Group_Recoveries:** update group recoveries data for the group loans.
- **Update_beneficiary_benefits:** update non-cash benefits e.g., services offered to beneficiaries.
- **Update_complaints:** update complaint details.
- **Update_exits:** update the details of beneficiaries who have been exited from the programme.
- **Geo_master_list:** get the geographical locations master list from the National Single Registry.
- **Get_beneficiary_programmes:** get the details of all the programmes that a beneficiary is benefiting from. This supports the programmes by cross checking if an applicant from a social protection is receiving more than one benefit or social protection complementary service.

Challenges of the Single Registry implementation in Uganda context...

- Need for strong **coordination** mechanisms
- **Data privacy** and **security** concerns among some stakeholders
- **Data sharing** arrangements
- **Data quality issues** and standards e.g., multiple geo-location master lists
- **Budgets** for building/enhancing/maintaining the SP MIS to link to the IBR.

Open Discussion

Closing Remarks



Mohamed Almenfi
Social Protection Analyst
World Bank

Way Forward

Talking Interoperability
Workshop

November 7, 2023, 12-14 GMT
(Country TBC)

Register via
<https://www.socialprotection.org>

Standards Committees

Interoperability with SP
system workstreams



- CRVS System
- Payment system
- Identification system
- Farmer Registry
- Disability Registry
- Social Registry
- Integrated Beneficiary Registry

Aug 7, 2023 – Aug 28, 2023

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 Convergence Initiative



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

Thank you
