Talking Interoperability

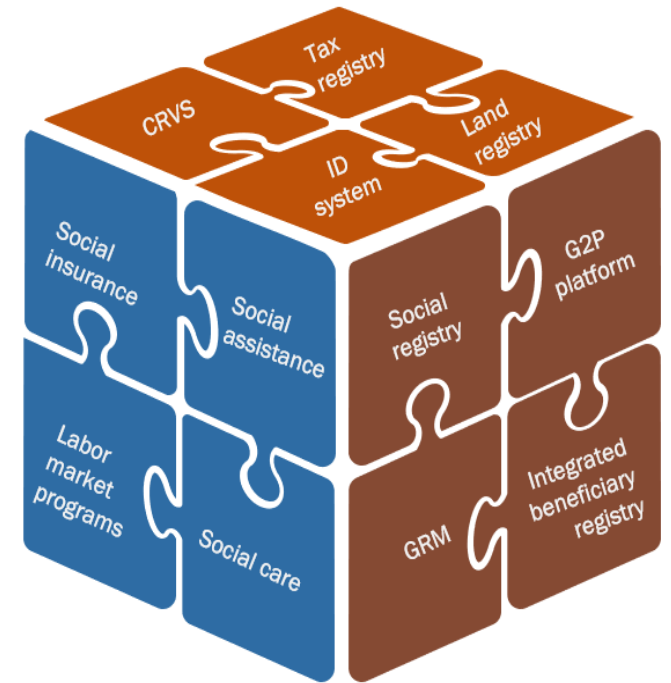In Focus | North Macedonia

Wanza Mwathani

Advisor for Digital Social Protection
GIZ

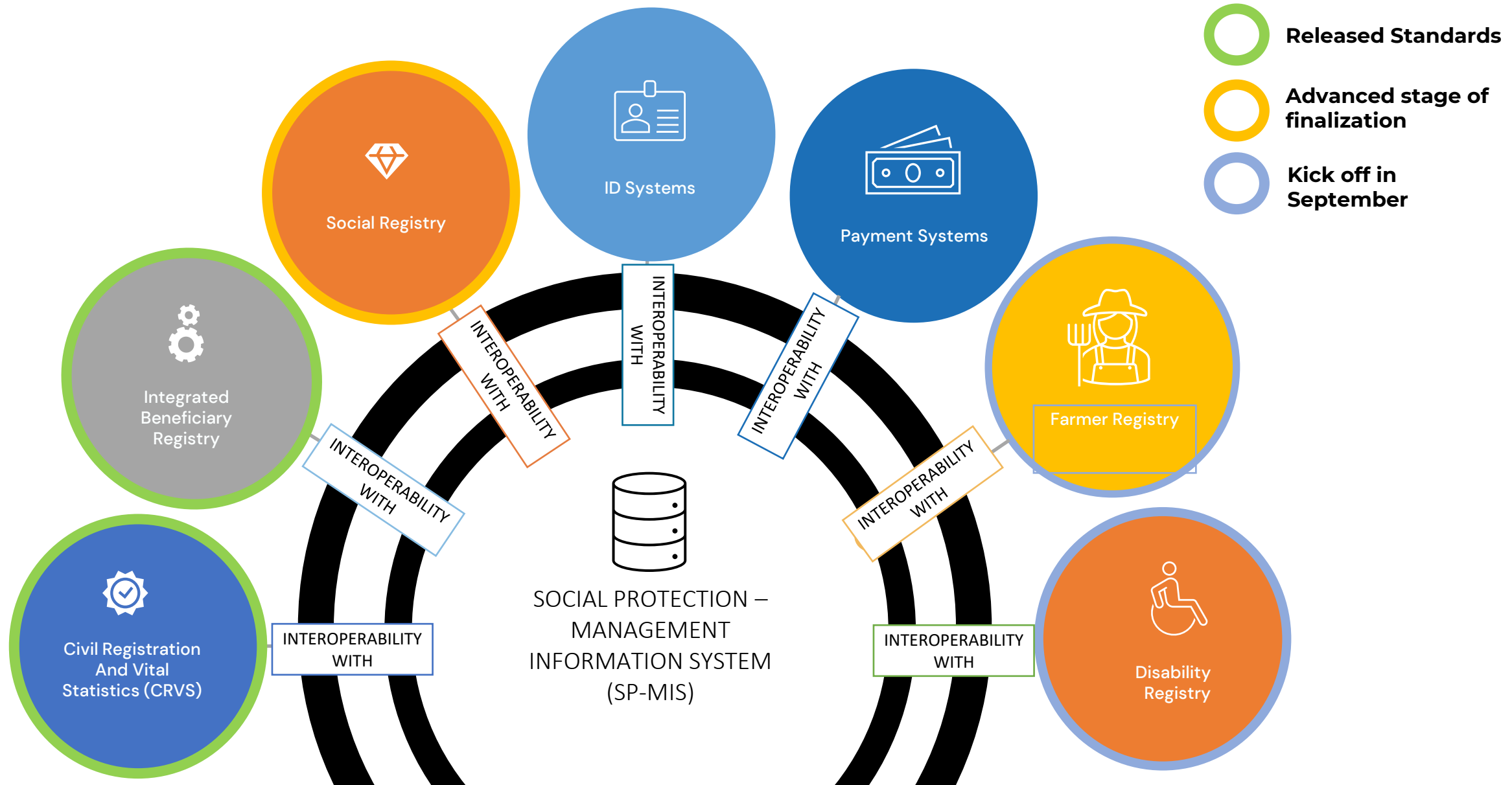# The Digital Convergence Initiative (DCI)

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

Standards for Interoperability

Released Standards

Advanced stage of finalization

Kick off in September

Social Registry

ID Systems

Payment Systems

Integrated Beneficiary Registry

Farmer Registry

Civil Registration And Vital Statistics (CRVS)

Disability Registry

INTEROPERABILITY WITH

SOCIAL PROTECTION – MANAGEMENT INFORMATION SYSTEM (SP-MIS)

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
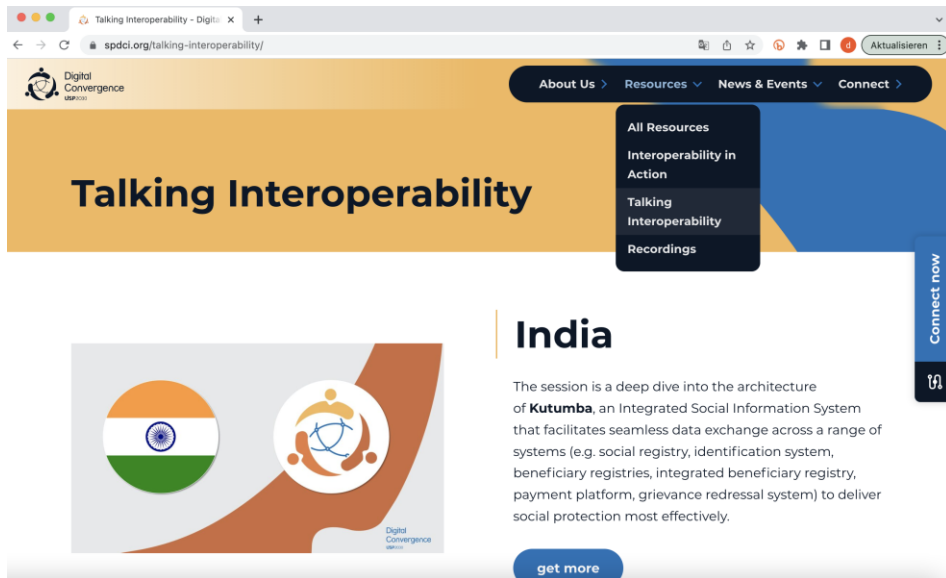
Past Events – Talking Interoperability
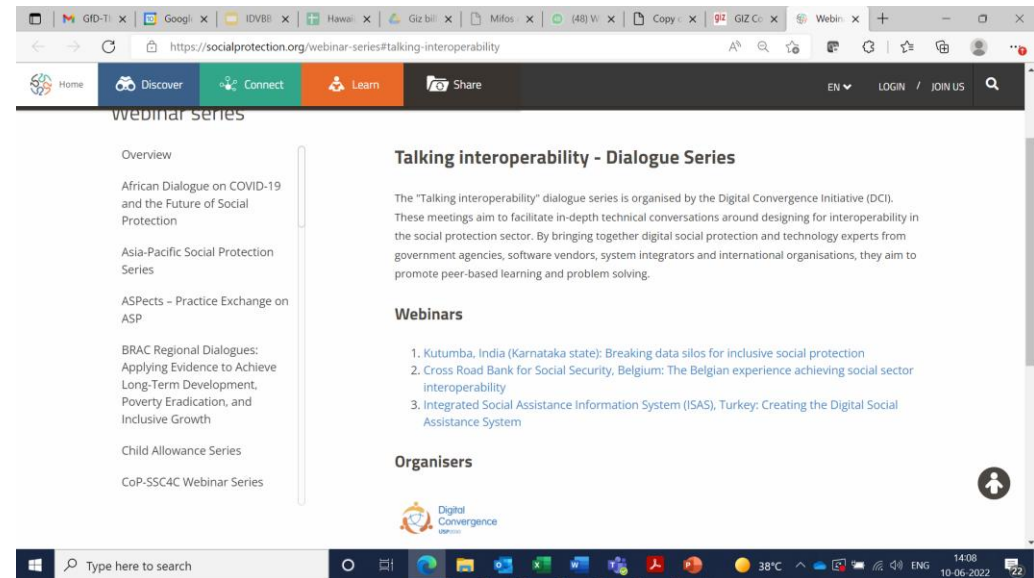
Webinar Series - sp.org

Moderator

Sarang Chaudhary

Advisor for Digital Social Protection
GIZ

Agenda

12:00–12:15	**Introductions**
12:15–13:00	**Presentation**
13:00–13:30	**Discussion**
13:30–14:00	**Q&A and Closing**

Housekeeping rules

- Ask your questions in the Q&A box

- Share any comments or resources in the chat

To: Everyone ⌄

Your text can be seen by panelists and other attendees

- Simultaneous interpretation is available
Select the language in the interpretation icon on control bar
(English, French, Spanish, Portuguese available)

- Session will be recorded

Digital Convergence
USP2030

Introductions

Presenters

Elizabeta Kunovska

Project Manager

Sanja Andovska

Procurement Manager and
Assistant Project Manager

Anica Gjurovska

IT Manager

Natasa Tasevska Stojanovska

Social Protection
Delivery System Coordinator

Social Services Improvement Project,

Ministry of Social Policy, Demographics and Youth of the Republic of North Macedonia

Discussants

Ambrish Shahi

Senior Social Protection Specialist,
The World Bank

Joe Zaarour

Digital Social Protection Advisor,
World Food Programme

SWIS – Social Welfare Information System, Republic of North Macedonia

Context setting

Poverty and social protection context in the Republic of North Macedonia (RNM)

- **Population:** 1.836.713 individuals and 598.632 households

- **Human capital index:** 0.56

- **Poverty level:** decreased form 41 % in 2009 to 19% in 2019 (395.000 individuals live in poverty)

- **Unemployment rate** 13.01 %

Information systems landscape in RNM
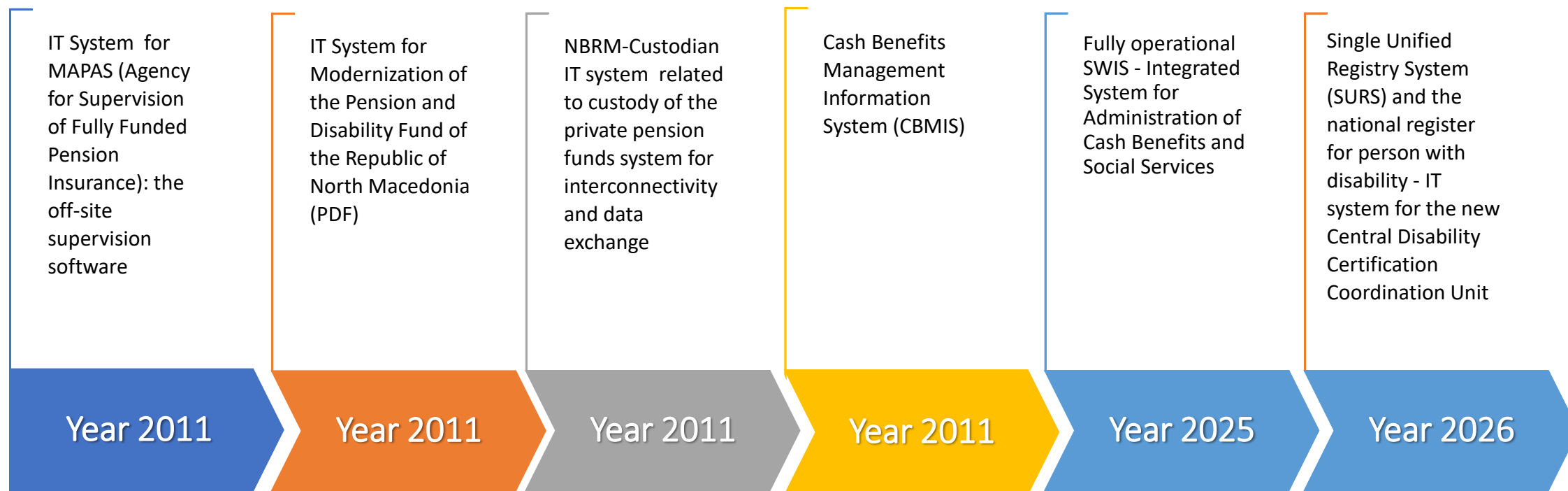
Common digital infrastructure

Information system	Status	Responsible institution	Percentage of population covered (if available)
Common identification system - National registry	`Live`	Ministry of Information Society	100%
Social protection information systems - CBMIS - Liricus - Kindergardens MK	`Live`	Ministry of Social Protection, Demographics and Youth	73%
Integrated beneficiary registry SWIS	`Live`	Ministry of Social Protection, Demographics and Youth	n/a
Civil registration system	`Live`	Ministry of interior	100%

Information systems landscape in RNM

Other sectoral or programmatic registries

Information system	Status	Responsible institution	Percentage of population covered (if available)
Tax information system	Live	Public Revenue Office, Ministry of Finance	100%
Social insurance MIS for the formal sector	Under development	Ministry of Social Protection, Demographics and Youth	100%
Disability registry	Under development	Ministry of Social Protection, Demographics and Youth	10-15%
Land registry and cadastre	Live	Cadaster Agency	70%
Employment status	Live	Employment Agency, Ministry for Labour and Economics	80%
Pensioners	Live	Pension and Disability Insurance Fund, Ministry of Social Protection, Demographics and Youth	80%

How the systems have evolved

Year 2011	Year 2011	Year 2011	Year 2011	Year 2025	Year 2026
IT System for MAPAS (Agency for Supervision of Fully Funded Pension Insurance): the off-site supervision software	IT System for Modernization of the Pension and Disability Fund of the Republic of North Macedonia (PDF)	NBRM-Custodian IT system related to custody of the private pension funds system for interconnectivity and data exchange	Cash Benefits Management Information System (CBMIS)	Fully operational SWIS - Integrated System for Administration of Cash Benefits and Social Services	Single Unified Registry System (SURS) and the national register for person with disability - IT system for the new Central Disability Certification Coordination Unit

Basis for development of the IT Systems

- All these IT systems are big systems, that exchange real time data with other institutions and are being used by the state institutions.
- The development of the systems was followed by deep reform of the systems and accompanied with procurement of hardware.

Basis for development of the IT Systems

- *Reform of the systems that the developed IT systems support:*

✓The software's development for PDF, MAPAS, NBRM followed the pension and social reform conducted in 2007

✓The development of the CBMIS followed the reform of the Macedonian social protection system in 2008

✓The development of SWIS followed the reform of the Macedonian social protection system in 2019

The SWIS system will improve and enhance the functionalities of the current CBMIS

- *The benefits of this CBMIS software were numerous:*

  ➢ ***Improved targeting***. The number of Social Financial Allowance (SFA) beneficiaries has decreased significantly.

  ➢ ***Improved control, reduction of the possible abuses, reduction of the applicant's cost and their time spent*** on obtaining documents as a result of an electronic data exchange (the beneficiaries apply for benefits only with their ID).

  ➢ ***Decreased effort and time spent on the social benefits administration***.

  ➢ The software solution enabled complete automatization and consolidation of the ***financial management system***. The direct payment to the beneficiaries' accounts resulted with savings on bank provisions and postal costs

Introducing the SWIS – Social Welfare Information System

Rationale for introduction of the SWIS

In 2011, the Ministry of Labour and Social Policy introduced the Cash Benefits Management Information System (CBMIS) for administration of cash benefits. **The use of the application showed the need to modernize and change the processes** to make solutions and decisions for obtaining the rights faster and simpler. The automation of the processes was according to the perceptions of the end users of the system**. It was highly needed to integrate the cash benefits with social services and public authorization within one application.**

In order to track all the information about all the exercised rights, services and public authorizations in a household, in more detail and for each member in the household, **it was necessary to introduce the household as a basic element of the application** where all members will be displayed as a whole.

In order to exercise rights and pay cash benefits and social services compensation, it **is necessary to use real data in real time recorded in competent institutions**. That is why it was necessary to recognized all the institutions that holds data relevant for obtaining rights and to establish an electronic connection with them, in order to timely and accurately exchange the data.

Social protection system: 17 cash benefits programs,   8 types of social services, distributed in 26 sub-types and 13 types of public authorisations.

Main social protection programmes

Cash benefit	Beneficiaries	Responsible institution	Households / individuals
Guaranteed Minimum Income	Poor /Household	Centres for Social Work	34.095 households with 97033 individuals (active)
Child Allowance	Poor /Family	Centres for Social Work	19.248 families with 40.256 children (active)
Educational Allowance	Poor /Children in primary and secondary education	Centres for Social Work	27.344 children(active)
Social security for the elderly	Poor elder individuals or couple	Centres for Social Work	18.875 individuals (active)
TOTAL	**909.855 individuals with 381.795 households**		

SWIS supports provision of all cash benefits, social services, and public authorizations

To integrate business processes within the framework of MSPDY, ISW, CSWs, and social service providers:

- Enhancing the digitization of all professional activities, encompassing the exercise of rights (Guaranteed Minimum Income, Assistance and Care from another person, Social Security for Elderly, Child Allowance, Parental Allowance, Educational Allowance, Special Allowance....), Social Services (counseling, home care services, community-based services, day care centers for people with disabilities and for elderly, temporary residence, family care replacement, house halfway, foster care, accommodation in an institution, personal assistance...) and Public Authorizations (marriage and family relations, relations with parents and children, family violence, adoption, protection measures, educational measures, Special procedural measures for child victims and child witnesses....) according to the respected Laws. This involves licensing professionals and service providers, as well as overseeing and inspecting professional work.

Ensuring savings of time and resources through simplification and automation of processes, driven by:

- Increased number of data exchange institutions

- Increased volume of data exchanged

- Increased control criteria in the exercise and payment of rights and social services

Specific objectives of the new information system

- **Improved transparency and control:** To ensure that the access and processing of data is according to the work position and the duties of employees - record of every entered data and every change made, with information about who has made the change, when and what has been changed.

- **Data accuracy**: Provide access to social services providers to maintain up-to-date data on the beneficiaries to whom they provide the service.

- **Faster and improved communication** with the beneficiaries via e-mail and SMS - delivery of decisions, notices, and confirmations - if the client has a signed consent for electronic communication.

- **Improve targeting** and educe the possibility of abuse with automatic control without human factor.

- **User centric**: Develop a cutting-edge application, using modern tools, that is **user-friendly**, intuitive, and simple to modify and maintain.

- **Improve data collection and analysis:** Provide a quality database for analysis according to which policies will be implemented based on the needs of beneficiaries.

Overview of the SWIS

- Launch year 2025
- Number of households covered 381.795
- Number of individuals covered 909.855
- Database size 1TB

Social protection business processes supported

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

Technology stack

UI
- Angular (OSS)
- Google (proprietary)

Backend
- Net.6 (OSS)
- Microsoft (proprietary)

Data
- SQL Server 2002 (OSS)
- Microsoft (proprietary)

SWIS used by all social protection actors

- Employees in the Centres for Social Work (CSW)
- Employees in the MSPDY departments
- Employees in the Institute for Social Activities (ISA)
- All licensed social services providers (SSP)
- Professional workers licensing committee
- Social services providers licensing committee
- Social Inspection
- Baliffs Chamber
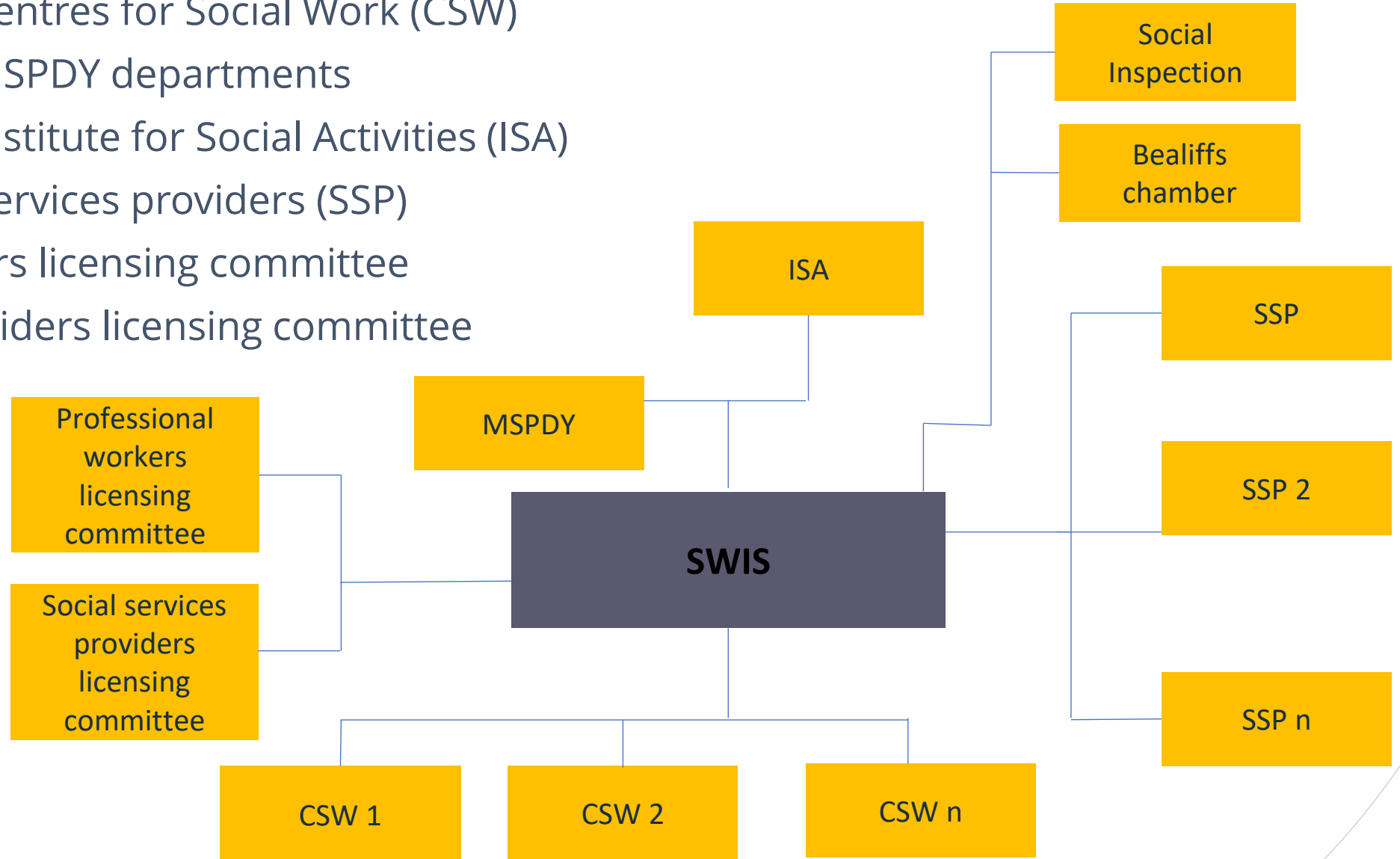
Integrated management information system key features

- On-demand applications to access all benefits and services through Centres for Social Work
- SWIS supports intake, assessment of eligibility, enrolment, cash management and payment
- Reassessments carried-out monthly before payment
- 70% of population registered in the SWIS
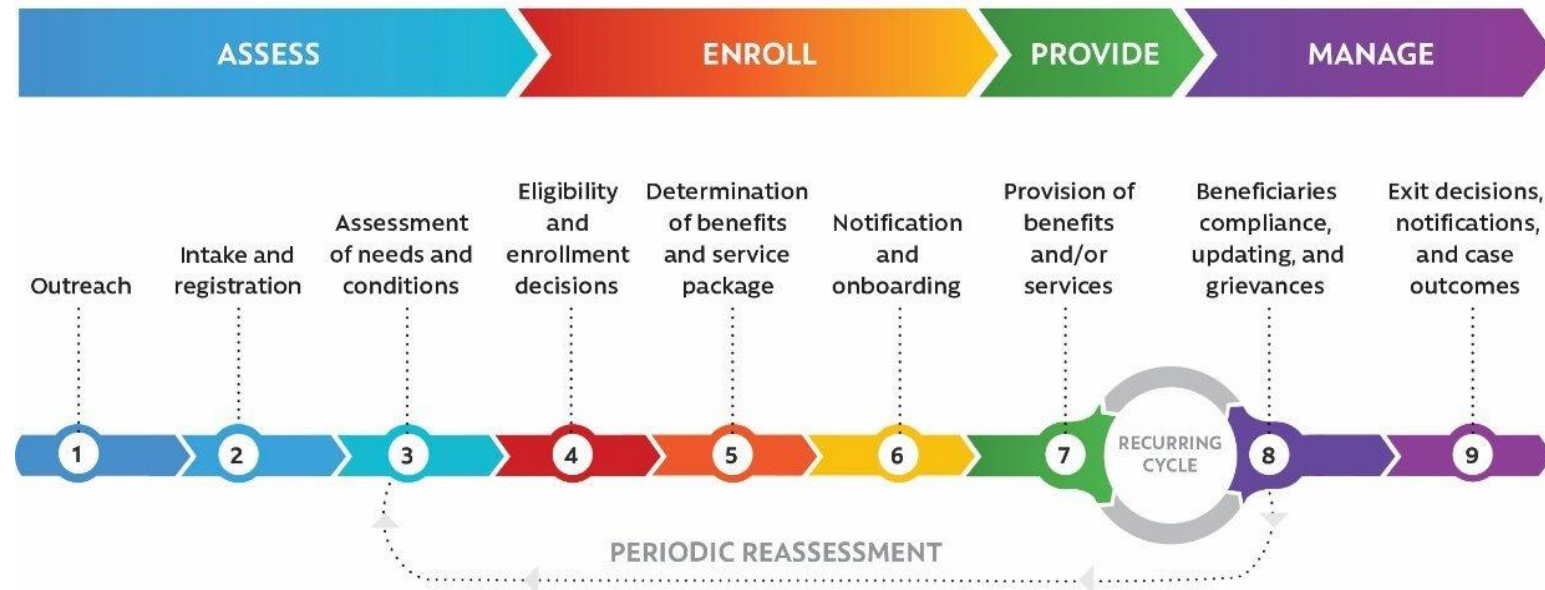
SWIS is composed by many modules

1. Archiving module - CSW.

2. Module for administration of social and child protection cash benefits - CSW.

3. Module for administration of social services and public authorisations - CSW.

4. Module for first and second instance appeal procedure - MSPDY.

5. Module for licensing of professionals and licensing of service providers - Commissions under ISA and MSPDY.

6. Module for oversight of professional work - ISA.

7. Module for inspection of professional work – MSPDY (Department for Inspection).

8. Module for social service providers - SSP.

9. Modules for the payment of cash benefits and social service compensation - MSPDY.

10. Statistical module – CSW, ISA, MSPDY.

The SWIS application is set up on a newly procured and installed hardware infrastructure
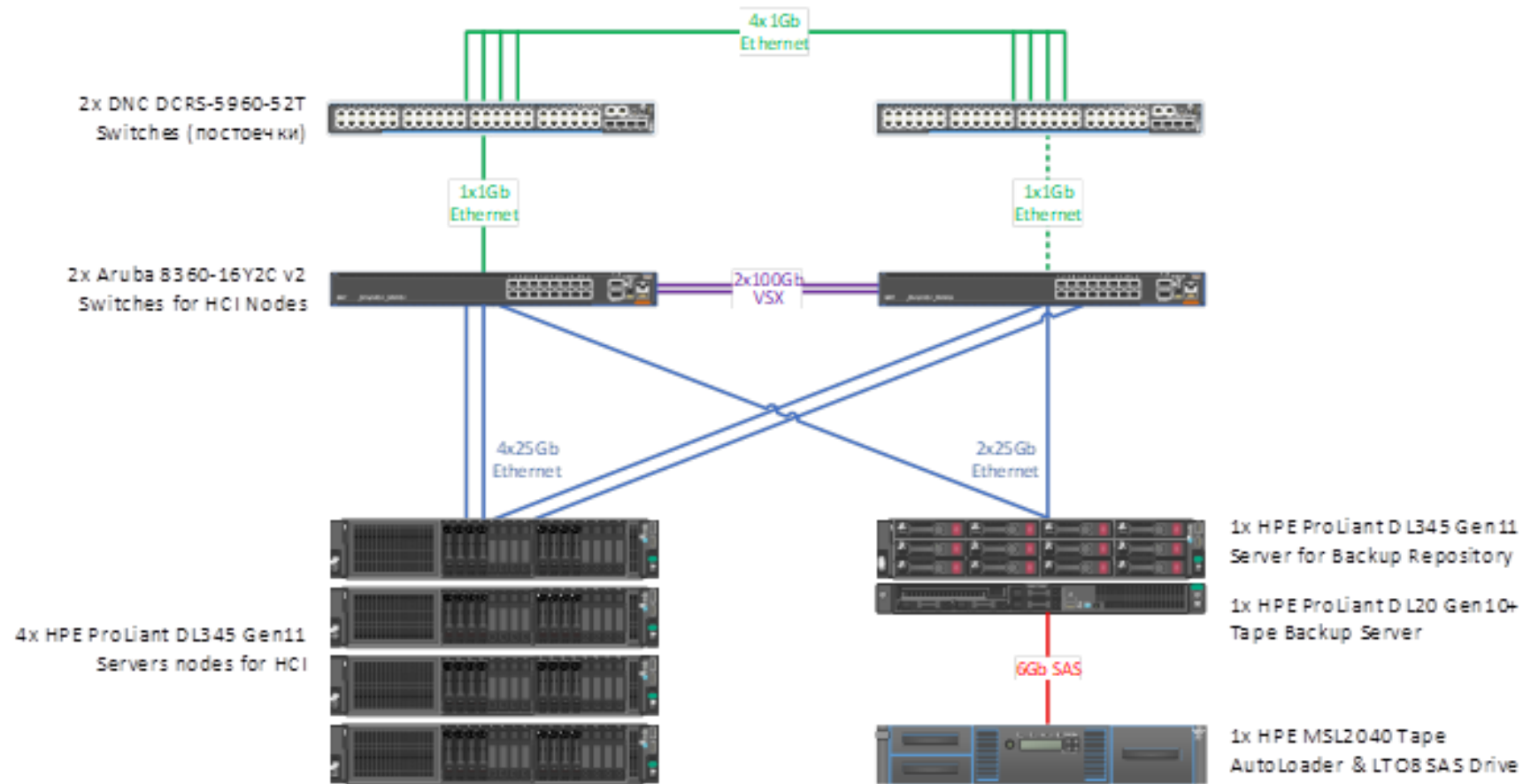
Interoperability capabilities

Main user of the system – workflow
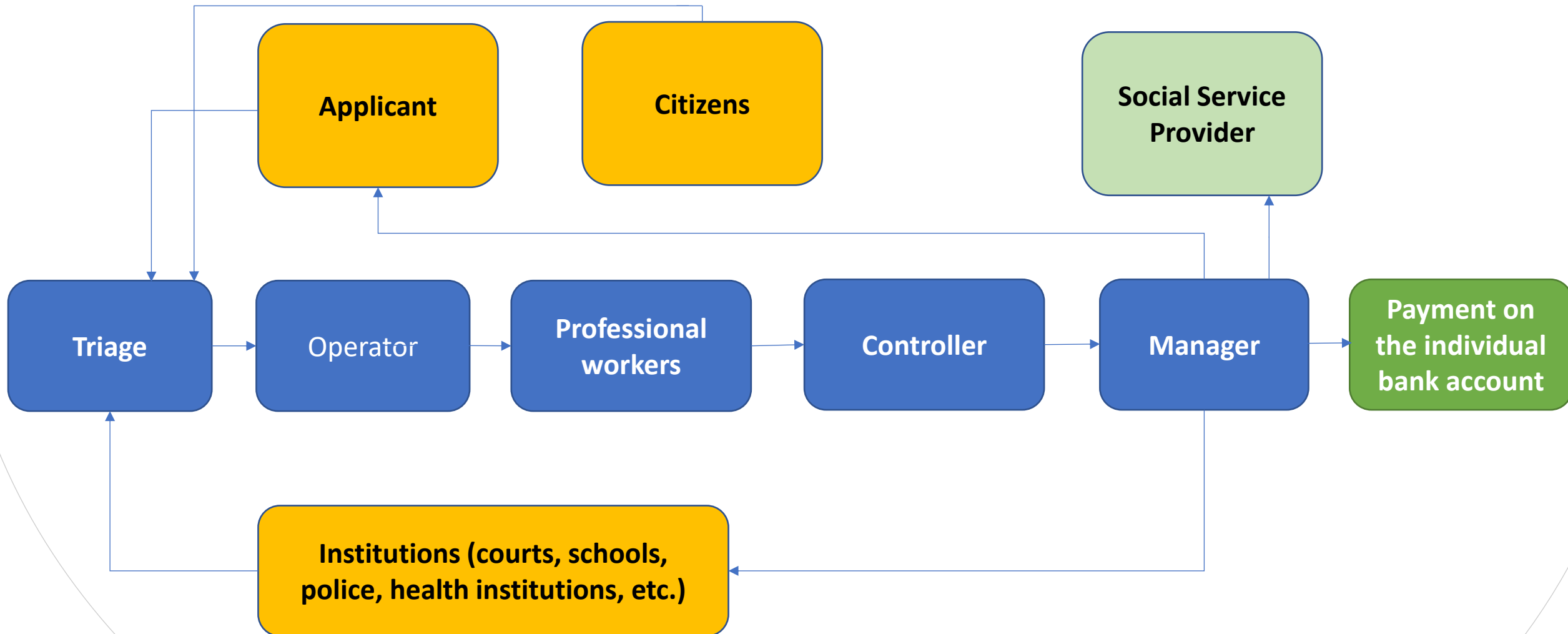
Process of application

Applicants can apply just with their ID card

- All personal data is obtained in real time by web services from the Ministry of Interior
- The health status of the applicant is obtained in real time by web service from Ministry of Health
- The income of the individual or family members is obtained by web service from the Revenue office
- The information regarding ownership of property is obtain by web service from the Cadaster office
- The employment status is obtained by web service from the Employment agency
- The information regarding pension are obtained by web service from the Pension disability fund
- All the information required from the court are also obtained by web service in real time
- The educational status is obtained by the Ministry of Education

Data exchange with institutions using national interoperability platform

- Data exchange is done through established web services on the National interoperability platform managed by Ministry of Information Society and Administration.

- The platform works on the principle that for a given unique identification number of a person claiming the right to social protection, the institutions retrieve the recorded data in their systems in **real time**. For the needs of the SWIS system, already developed services for data exchange with some institutions were improved and some of them developed for the first time.

- Assessment of eligibility for all benefits, services supported by data exchange with institutions using national interoperability platform.

All data assessing eligibility is through real time data exchange with:

- Ministry of Interior
- Ministry of Education
- Ministry of Health
- Public Revenues Office
- Supreme Court
- Pension and Disability Insurance Fund
- Civil Registry Office
- Veterans and War Disabled Persons Administration

Case Management

The administration of cash benefits and social service compensation and public authorisations is carried out according to the **Case Management method**.

Case management
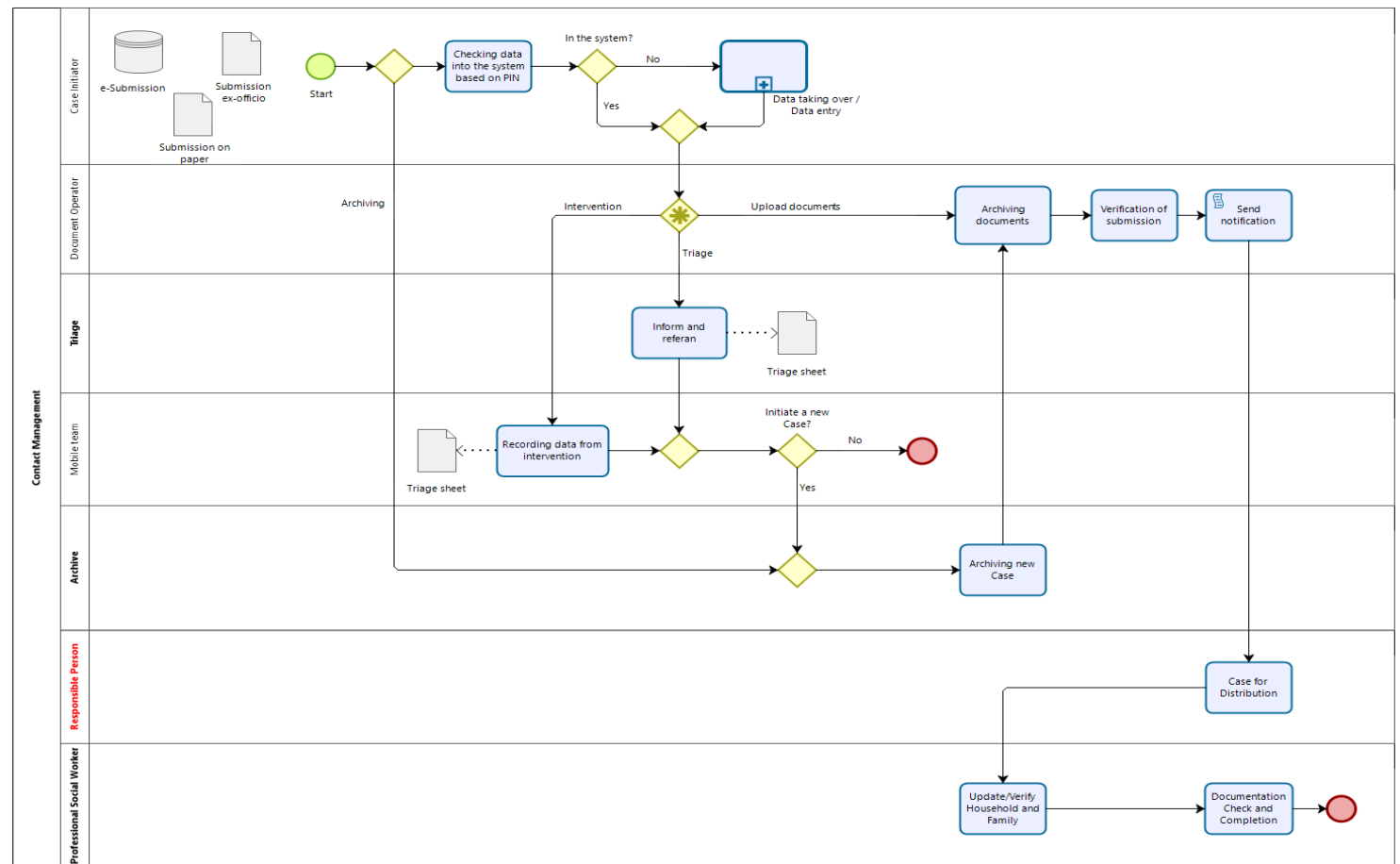
User profiles

USER PROFILES - each user of the application logs in with their own username and password, whereby

- Each user of the application has their own profile with a history of the center in which they work, roles assigned to them in a certain period, an official e-mail address and a picture of their handwritten signature (Fig.1).
- Each user can perform only those activities that are enabled for their assigned part/role.
- **Each user can perform only those duties that are enabled for their assigned part/role**.
- **Each user can perform only those duties for persons that have claims he is responsible for**.
- All documents resulting from their work are signed with their registered handwritten signature.
- The user at any moment has an overview of the condition/status of the items s/he is in charge of (Fig. 2).
- The system works based on the notifications for undertaken activities. Notifications for each employee arrive at the official email address registered for the user.

Figure 1. User profiles in SWIS
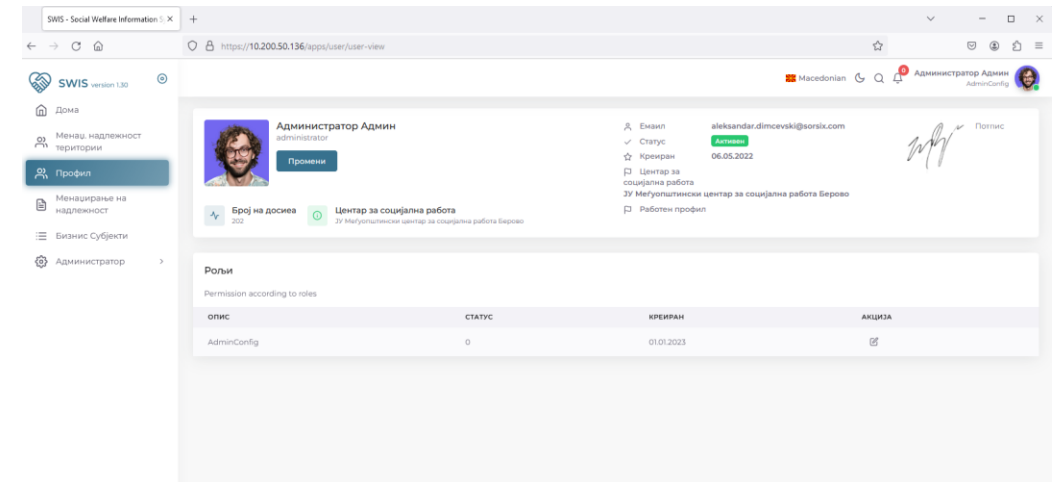
Figure 2. Overview of work activities
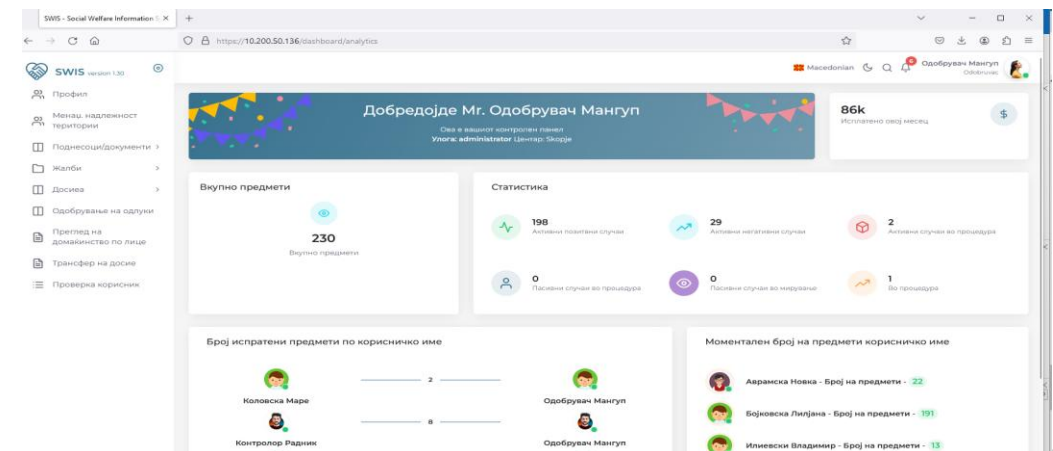
Basic Entity - Household

A basic element of the Case Management method of work is:

HOUSEHOLD – where the data for all members is administered and monitored. The view of the household brings information about:

- Unique <u>number</u> of household (generated by the system)
- Competent CSW and one competent professional worker for the household
- Number and persons members of household. For each member:
  - personal data (UPIN, first and last name, address)
  - history of used cash benefits (information on social status, material status, health status...according to law)
  - history of social benefits received, public authorizations and procedures under other laws
- For the first time through the members of the household, a unique record is provided for all utilized rights, services and public authorizations in the household

Registered household in SWIS

Cash benefits received in the household

Registered household members with status

Decision-making progress

- The movement of the task in the process is digitally signed by each participant in the process.

- Output documents are digitally signed and have a QR code. Only those documents that will be digitally signed and with a QR code are valid, which means that all documents must come from the system.

Output document with a QR code digitally signed by all participants in the decision-making process

JU Inter-municipal Center for Social Work PI CSW Berovo, deciding ex officio the case of xxx with UPIN 209985487000 from the VASIL CHAKALAROV-SKOPJE-KARPOS number 1/1 for the right to guaranteed minimum assistance, based on Article 261 paragraph 1, and in connection with Article 40 of the Law on Social Protection ("Official Gazette of RNM" number 104/19,146/19, 275/19, 302/20 and 311/20) adopted the following

DECISION
for termination of the right to guaranteed minimum assistance
1. The right to guaranteed minimum assistance for xxx UPIN 209985487000 VASIL CHAKALAROV- SKOPJE- KARPOS number 1/1 exercised with decision number <ArchiveNoTerminatediD> of <DateDocumentProdolzuvanje> year of this center.
2. The household of the holder cannot exercise it, that is, loses the right to guaranteed minimum assistance in the next twelve months.
3.This decision shall apply from January 24, 2024
4. The appeal shall not postpone the execution of the decision.

Rationale
With the aforementioned decision adopted by this center, the holder's household was able to qualify for the right to guaranteed minimum assistance.
The right to guaranteed minimum assistance ceases to be extended for the following reasons:
Based on the given rationale, and in accordance with Article 40 of the Law on Social Protection and the provisions of the Rulebook on exercising the right to guaranteed minimum assistance, determining the state of income, property and property rights of the household, determining the holder of the right, the form on the request, and the necessary documentation ("Official Gazette of RNM" number 104/19,146/19, 275/19,302/20 and 311/20), a decision was made as in the dispositive/body of decision.
According to Article 261 paragraph 5 of the Law on Social Protection, the submitted appeal does shall not postpone the execution of the decision.
Decided in PI CSW PI CSW Berovo, February 16, 2024 under number 0801-197/2024REFERENCE TO
LEGAL REMEDY: an appeal can be filed against this decision within 15 days from the day of receipt of the decision by the State Commission for Decision-Making in Administrative Procedure and Procedure for Labor Relations in the Second Instance.
Authorized official
Signature
Director Approver
Procedure managed by
Signature

Payments of social benefits and social services

- **All benefits are disbursed to the individual bank accounts of the rights holders monthly, with payments occurring simultaneously each month through SWIS.**

- **All service payments are processed through SWIS to the respective service providers on a monthly cycle, with payments being disbursed simultaneously across all providers.**

This system ensures streamlined financial transactions, enabling consistent and timely compensation for rights and services. Each payment cycle is executed in a standardized manner, enhancing operational efficiency and minimizing administrative overhead. The centralization of payments through SWIS fosters greater transparency, security, and predictability in financial dealings between beneficiaries and service providers.

Challenges and way forward

Key challenges during development of the software and how they were overcome

Challenge	Solution
The data exchange in real time Upgrading of the existing system	Provision of funds for upgrading of the existing system and signed agreements with relevant institutions
Ensuring support, involvement, and commitment from key stakeholders and decision-makers.	Clear communication regarding the support needed by each stakeholder, early process involvement, personalized approach, consultations and collaboration, achieving visible results, resource allocation, continuous engagement, recognition, and appreciation.

Key challenges to interoperability and how they were overcome

Challenge	Solution
Unifying the operations of future system users who previously followed different procedures prior to the system's implementation	Organizing additional **training programs** and workshops for all users of the new system. Developing unified **Standard Operating Procedures** (SOPs) for all users to ensure consistency in processes and principles. Providing **ongoing support** through mentors or consultants who can assist users in adapting to the new system.
Acceptance of the system by end-users	**Involve end-users early in** the system design and development process. Provide detailed and **accessible training sessions** for end-users. **Communicate the benefits and advantages** of the new system clearly to the end-users. Ensure **continuous support** is available. **Use their input** to adjust, improve the system. **Building Trust**

Future roadmap for extending the system's interoperability capabilities

- To have a team to maintain the developed web services for data exchange within institutions, as they are the basis for the normal and efficient functioning of the system

- After establishing and stabilizing the system, develop web services to enable the electronic submission of output documents directly to relevant institutions, such as courts, police, healthcare facilities, schools, and others.

Key Benefits and Improvements

- **Enhanced Targeting**: Improved precision in identifying and reaching beneficiaries of cash benefits.

- **Faster Case Resolution**: Significant reduction in the time required to resolve cases.

- **Streamlined Access**: Simplified application process with the use of an ID card, eliminating the need for additional documentation.

- **Data Security**: Strengthened safeguards to minimize misuse and abuse of data.

- **Improved Efficiency for Professionals**: Enables professionals to dedicate more time to clients by reducing administrative burdens.

- **Rapid Crisis Response**: Faster and more accurate situation assessments, ensuring prompt action in life-threatening scenarios.

Key Benefits and Improvements

- **Simplified Monitoring and Evaluation**: Easier tracking and evaluation of processes and outcomes.
- **Categorized Databases**: Development of comprehensive databases segmented by beneficiary categories and risk types.
- **Efficient Data Management**: Quick and straightforward data collection, processing, and analysis.
- **Policy Development**: Creation of tailored policies that address the individual needs of at-risk persons.
- **Support for Sustainability**: Alignment with the green agenda by eliminating paper usage in administration and enabling electronic submission of all output documents, subject to beneficiary consent.

Thank you

Discussion & Audience Q&A

Next Talking Interoperability Event

March 18, 2025
12 - 14 GMT

Case
to be confirmed

Registration via sp.org
(https://www.socialprotection.org)

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.
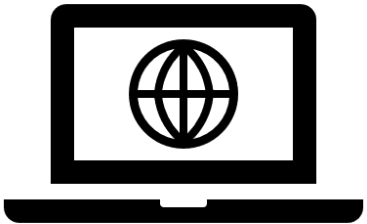
- **Join the Standard Committees**

Connect with the DCI

E-Mail

contact@spdci.org

Website & Social Media Channels

https://spdci.org

digital-convergence-initiative

@sp_convergence

@sp_convergence

https://spdci.slack.com