



Unified Migration Data Analytical System (UMAS)

Secretariat of the State Commission on Migration Issues
Public Service Development Agency
Ministry of Justice of Georgia

Bangkok, Thailand
5-8 February, 2019



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ANALYTICAL SYSTEM

Briefly about UMAS, Georgia's migration management and data sources



Main talking points:

1. System workflow and architecture;
2. ETL, data quality assessment;
3. Person identification;
4. Business application;
5. Coordination.



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Progress from 2014 to present

Project
concept
developed

Legal
framework
adjusted

Project
team
staffed

Data
sources
secured

System
trial
version

New data
sources
added

Test
analytical
reports

*Operation
in real
settings*

Developm
ent of
business
processes

Team
staffing
ongoing



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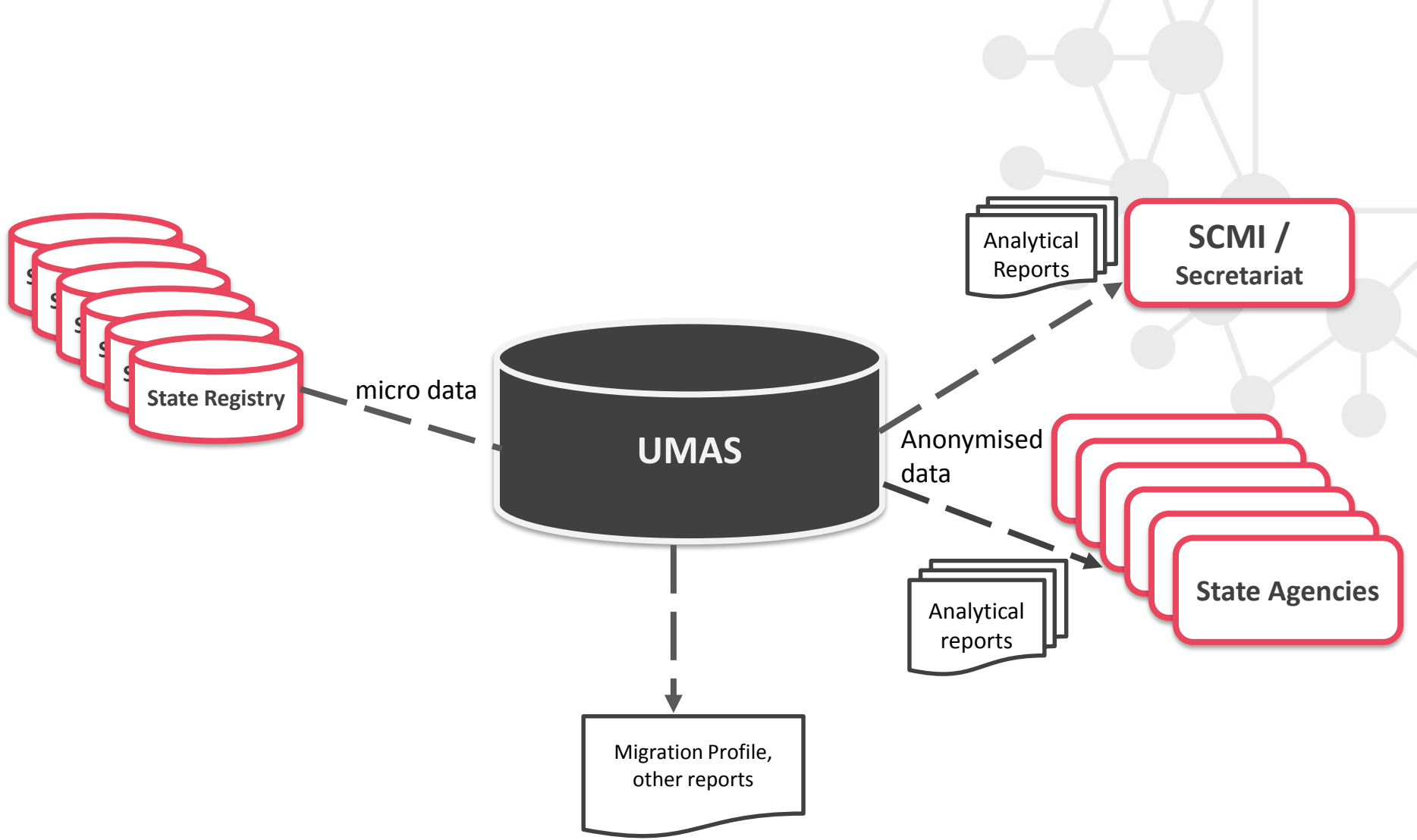


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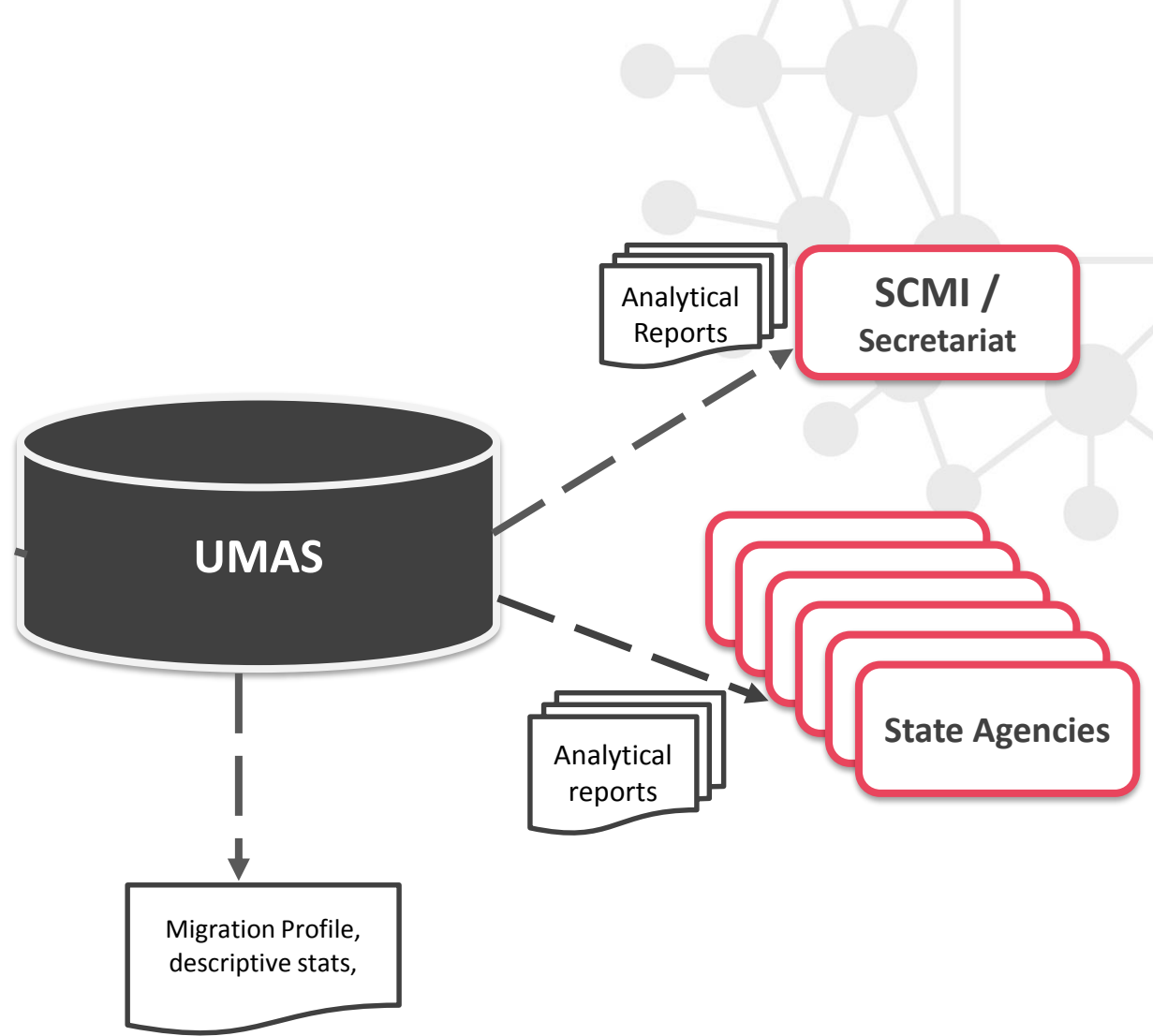


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- Ministry of Internal Affairs;
- State Security Service of Georgia;
- **Public Service Development Agency;**
- National Agency of Public Registry;
- Ministry of Finance;
- Ministry of Foreign Affairs;
- Ministry of Education and Science.



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1. System workflow and architecture



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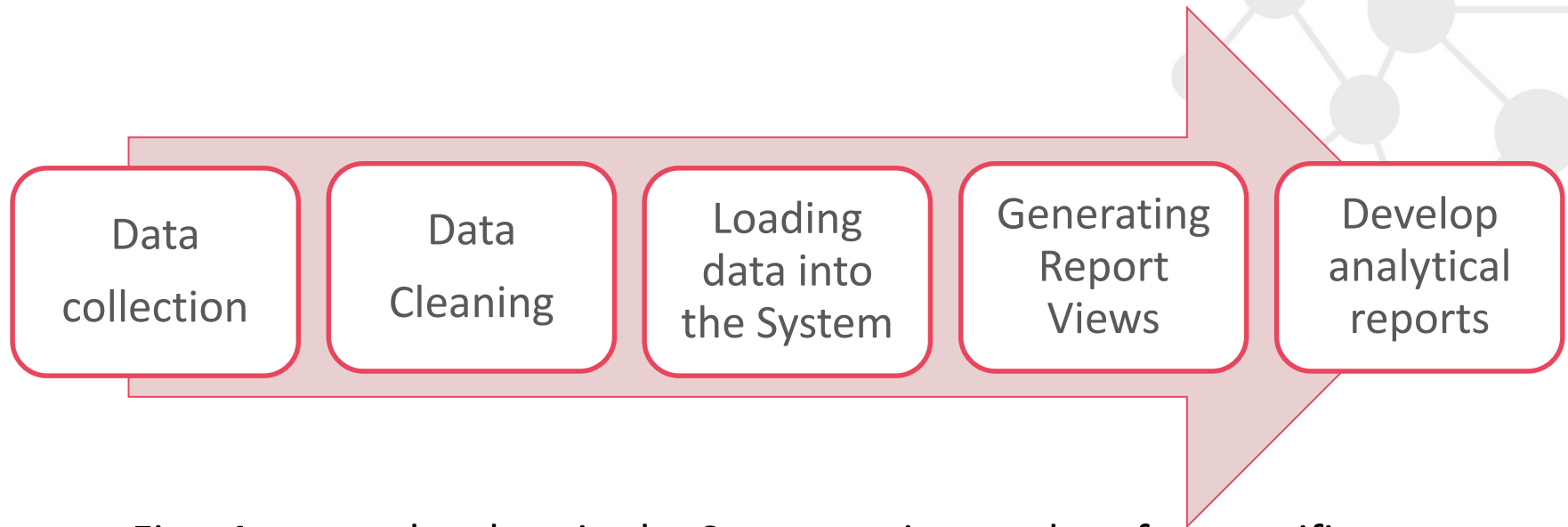


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Simplified workflow



- First 4 steps take place in the System, using ready soft + specific scripts;
- 5th step is implemented outside the system (BI tool).



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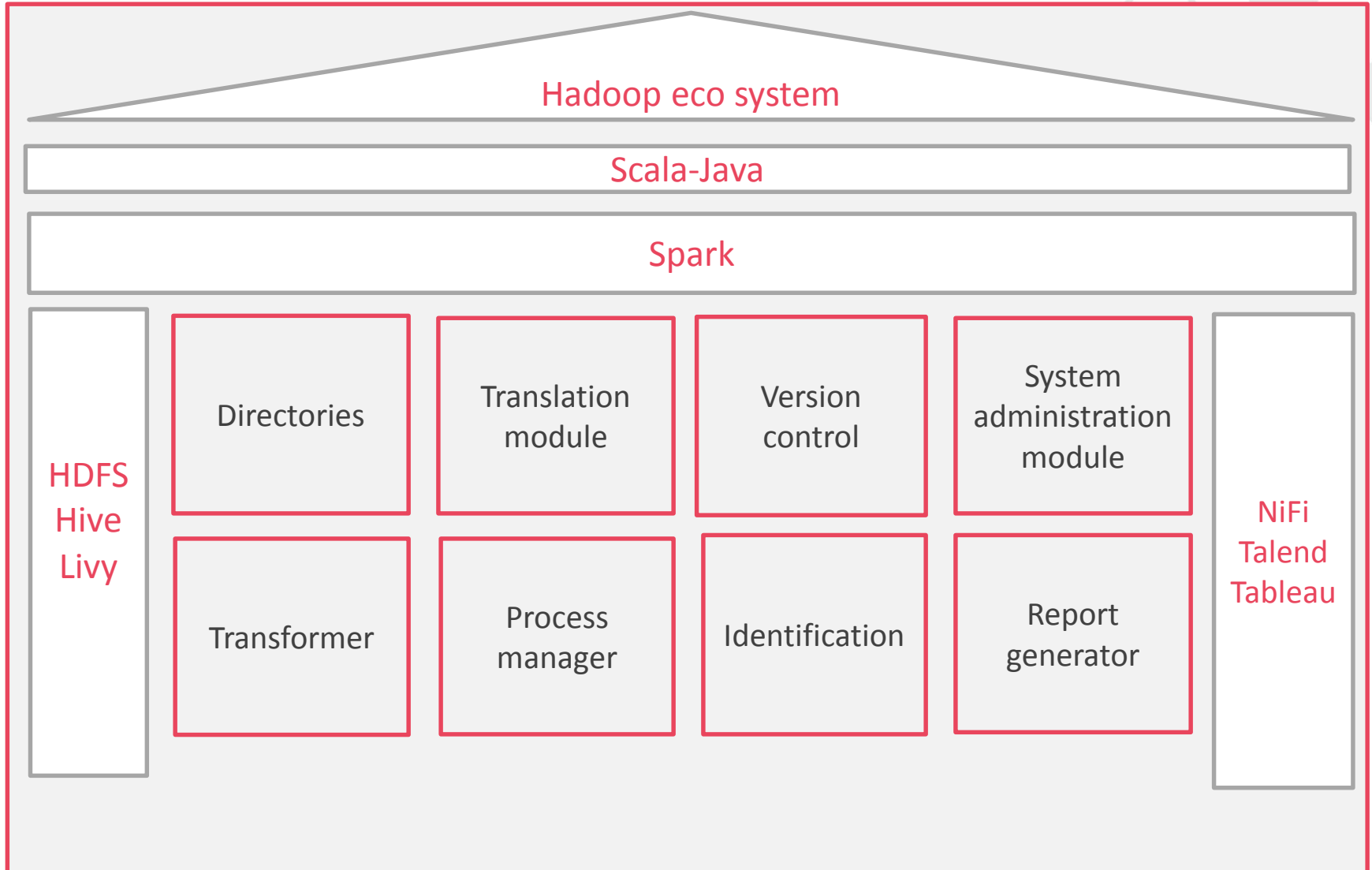


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Components of the System





2. Data cleaning and quality assessments



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Data Cleaning throughout ETL

- Deleting additional symbols;
- Cleaning from duplicates;
- Deleting incorrect entries;
- Systematizing date formats;
- Systematize coding;
- Correcting entries where possible after analyzing the relevant business processes.

!! *Cleaning, analyzing and correcting data points typically used for person identification is of particular importance.*



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Data Cleaning throughout ETL

A **data passport** is prepared for each data source:

- Every data point is analysed separately;
- abnormalities studied and cross-checked with the business process;
- recommendations and questions noted if relevant.

Data quality assessment needed to understand and interpret the results and to work with the data sources in the future where possible.



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3. Person identification



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Data needed for person identification

Varies across the data sources:

- Name in English
- Last name in English
- Name in Georgian
- Last name in Georgian
- Date of birth
- Identity number
- Passport number
- Citizenship
- Passport issue date
- Place of birth
- Tax identity number



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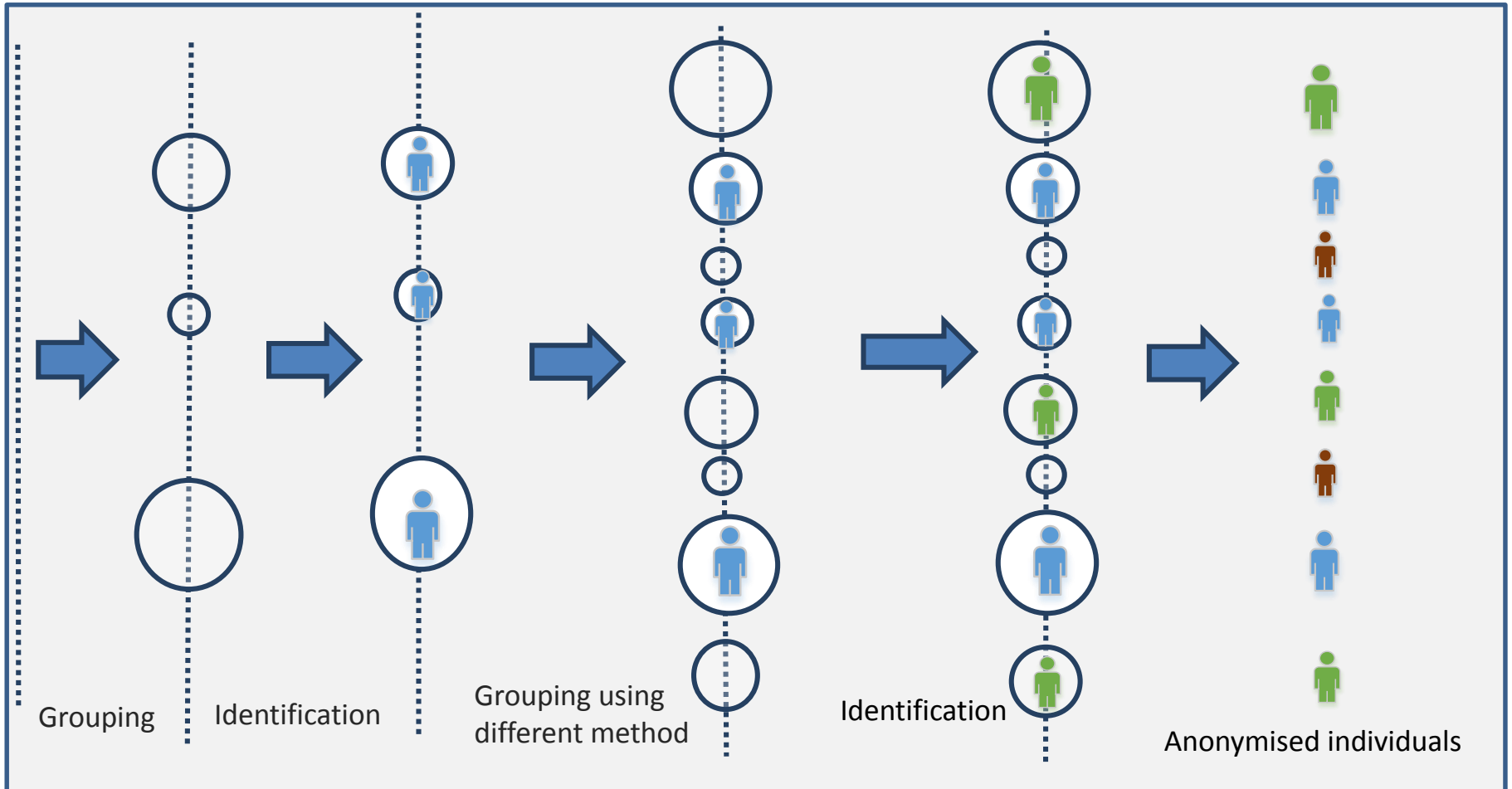
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Person identification process





4. Business application



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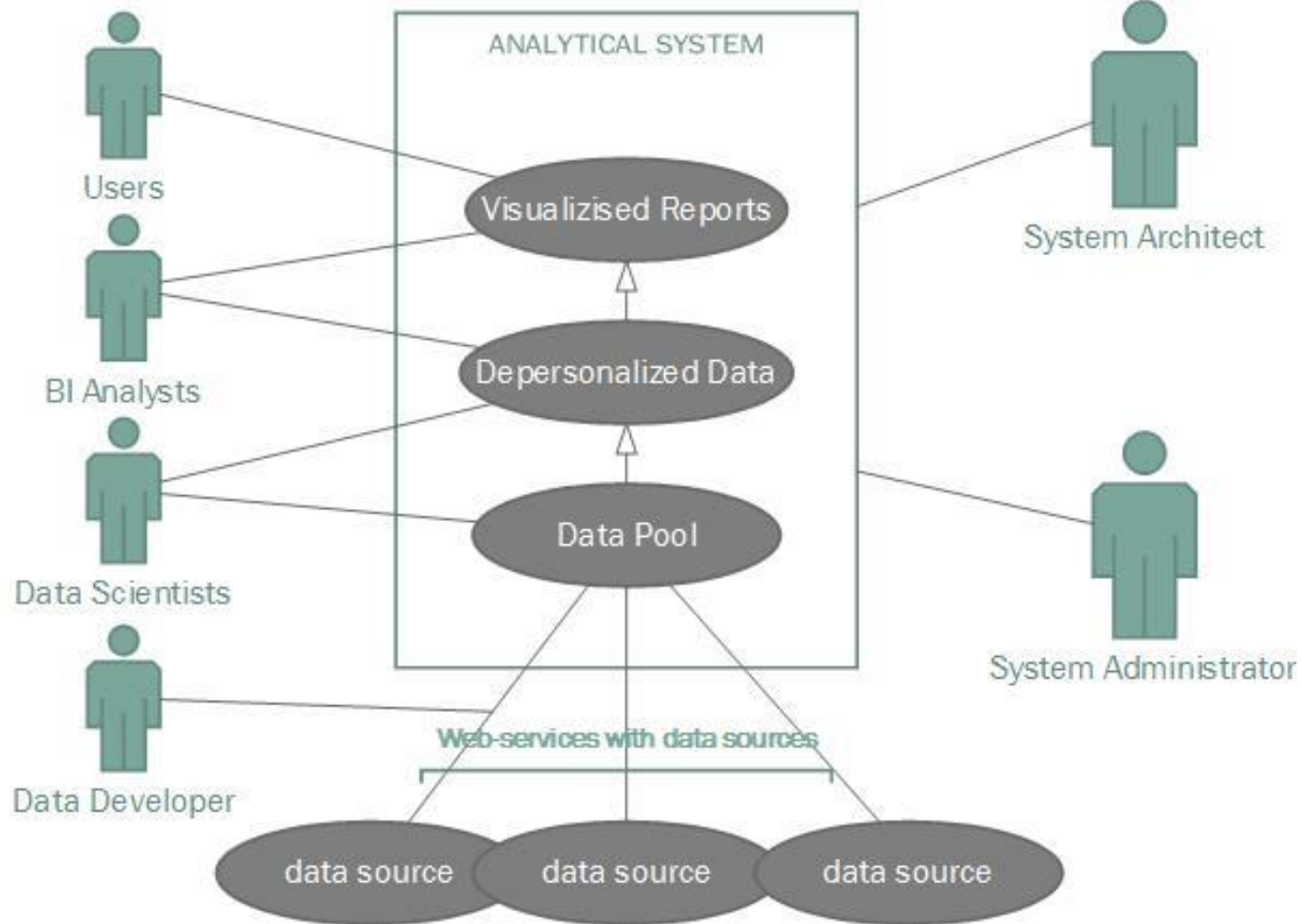


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Access to different layers of the System



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Application



- UMAS is Primarily a 'B2B' system, focusing on the needs of the state agencies involved in migration management.
- the System is intended as a business intelligence tool, improvement and production of the migration statistics is not the primary goal, but rather a positive by-product.
- It is an analytical system and cannot be used for administrative of operative purposes.
- Users can apply using special request form and receive a report with access to anonymous individual data.



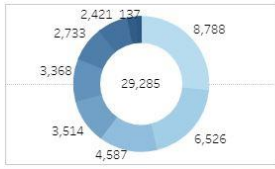
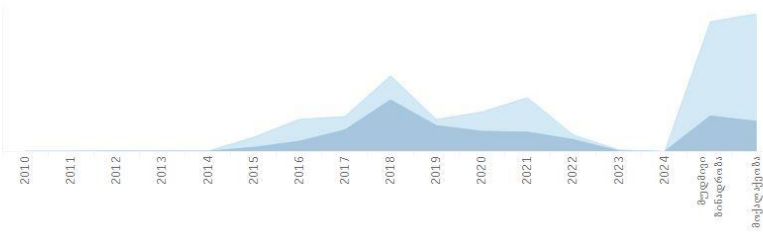
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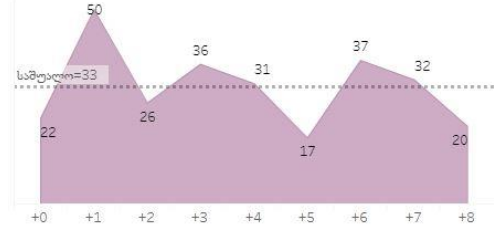
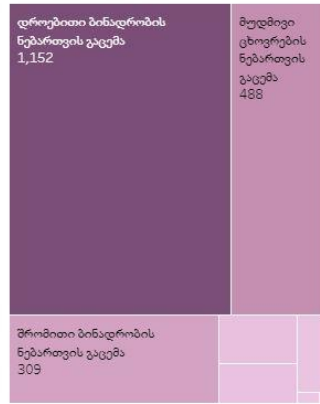
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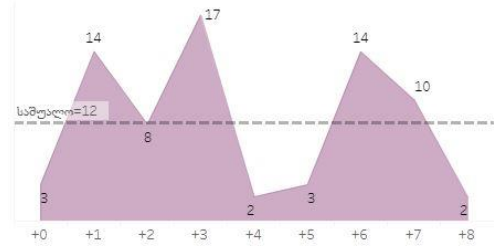
29 285 უცხო ქვეყნის მოქალაქემ მიიღო ბინადრობის წესდართვა

8 958 უცხო ქვეყნის მოქალაქეს მიენიჭა მოქალაქეობა

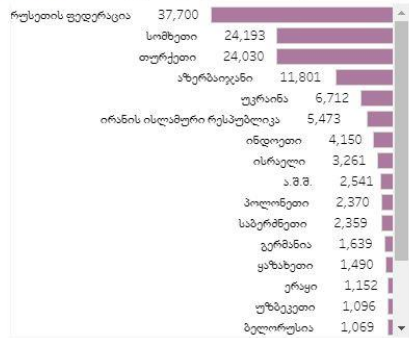
საქართველოს მოქალაქეობის საგანგებო წესით მიენიჭება	საქართველოს მოქალაქეობის მიღება	საქართველოს მოქალაქეობის გამარტივებული წესით მიენიჭება	საქართველოს მოქალაქეობის აღდგენის წესით მიენიჭება	საქართველოს მოქალაქეობის ჩვეულებრივი წესით მიენიჭება
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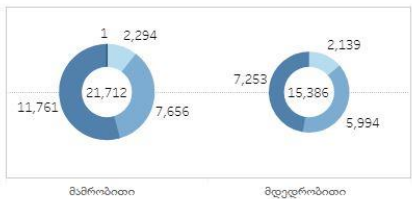
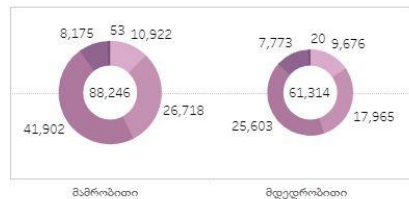
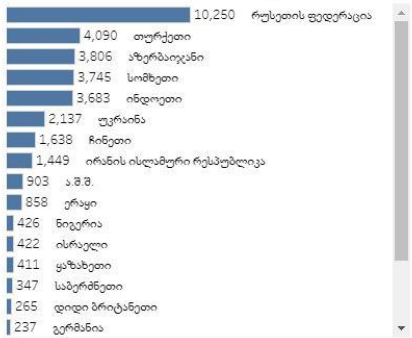
მოქალაქეობის მიენიჭებაზე შეტანილი განაცხადები (2010 წელს დროებითი ბინადრობის მიღებიდან მუდამდებე წელს) მოქალაქეობის მიენიჭება



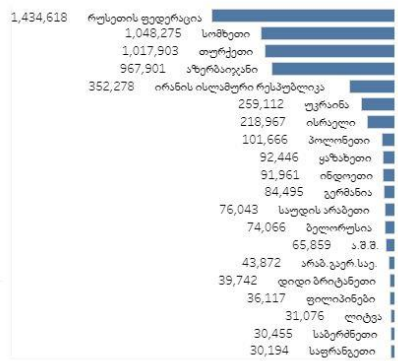
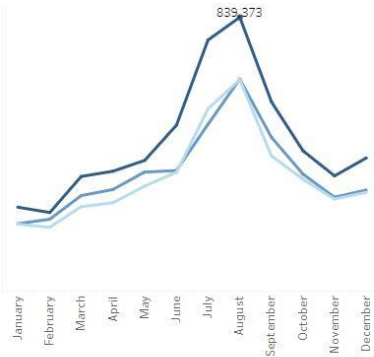
149 560 პირს არ მიიღია მოქალაქეობა ან ბინადრობა



37 098 პირმა მიიღო ბინადრობა ან მოქალაქეობა



2015-2017 წწ-ში შემოვიდა 6 662 928 უცხო ქვეყნის მოქალაქე



1 თვე და ნაკლები	1-6 თვე	6 თვე - 1 წელი	1 წელზე მეტი
6,020,888	342,563	112,799	186,658
90.36%	5.14%	1.69%	2.80%



5. Coordination



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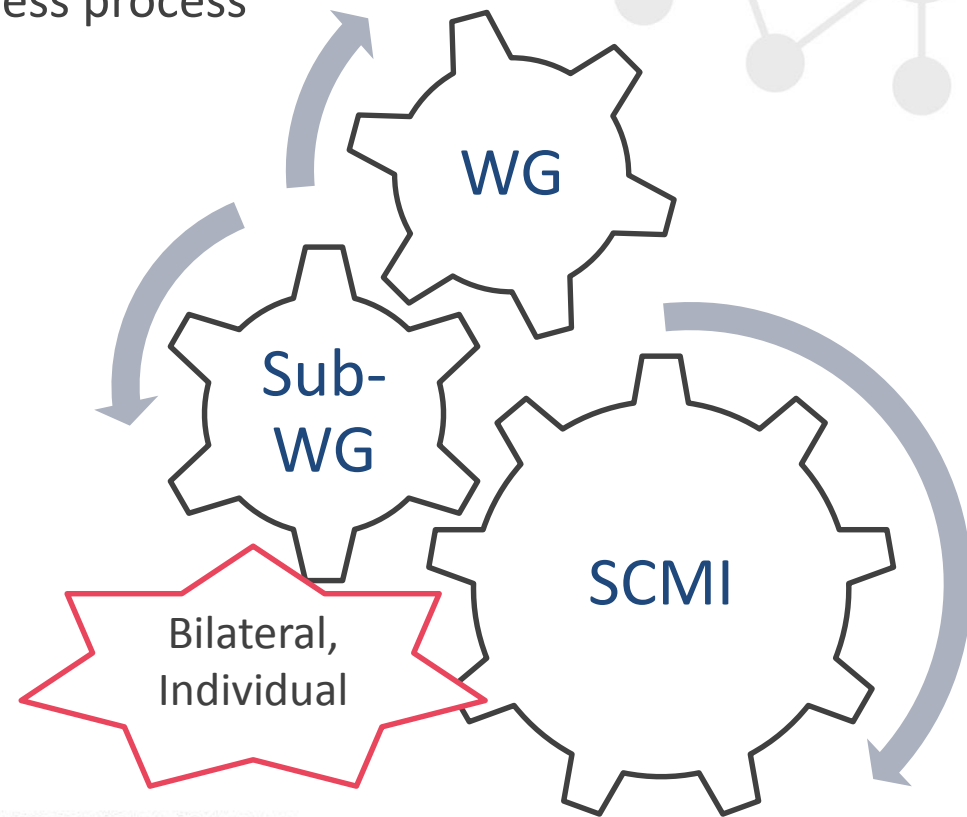
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Coordination on many levels is important because of:

1. Regular data exchange;
2. Report request and generation;
3. Understanding the details of business process behind data;
4. Interpretation of the results;
5. Maintain political support;



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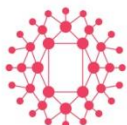
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