

# Unified Migration Data Analytical System

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

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National Migration Network Conference: *Role of the  
Information and Communication technologies in  
migration processes*

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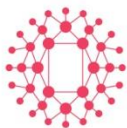
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# Unified Migration Data Analytical System

1. Why?
2. How?
3. Who?
4. and, When?



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# 1. Why UMAS?

because migration-related data was/is *dispersed* in several line ministries and registries, is often *not comparable*, published in *different formats* and according to *different timetables*. Hence, various gaps and quality issues arise.

- It was decided that modern technology allowing collection, storage and processing of large volumes of data had to be used to address these challenges.
- At its 1st stage of development, UMAS combines immigration-related administrative data stored at different line ministries and state agencies involved in migration management in Georgia and makes it available and suitable for migration trend analysis, risk analysis, and forecasting.



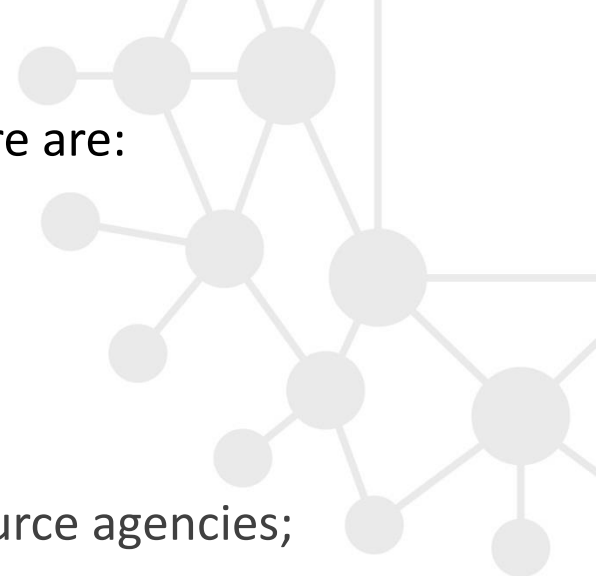
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Expected benefits in the short- and medium-term future are:

1. “enriched” migration data;
2. Ability to dig deeper in the datasets;
3. Timely access to needed data;
4. Improved data quality in UMAS and at the data source agencies;
5. Capacity building across data source agencies/UMAS users.

What we often need to stress is that it is an analytical system not for administrative or operative purposes.



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## 2. How does UMAS function?

- UMAS is a complex system with different modules for regular data updates, data cleaning, integration of different sources, depersonalization of the data, and production of the reports.
- Despite the complexity however, the system is scalable (due to its architecture and the use of the Big Data technology) and can be easily applied to other fields.
- Big Data technology (Hadoop ecosystem) is famous for scalability, high performance and reliability, flexibility and low cost.



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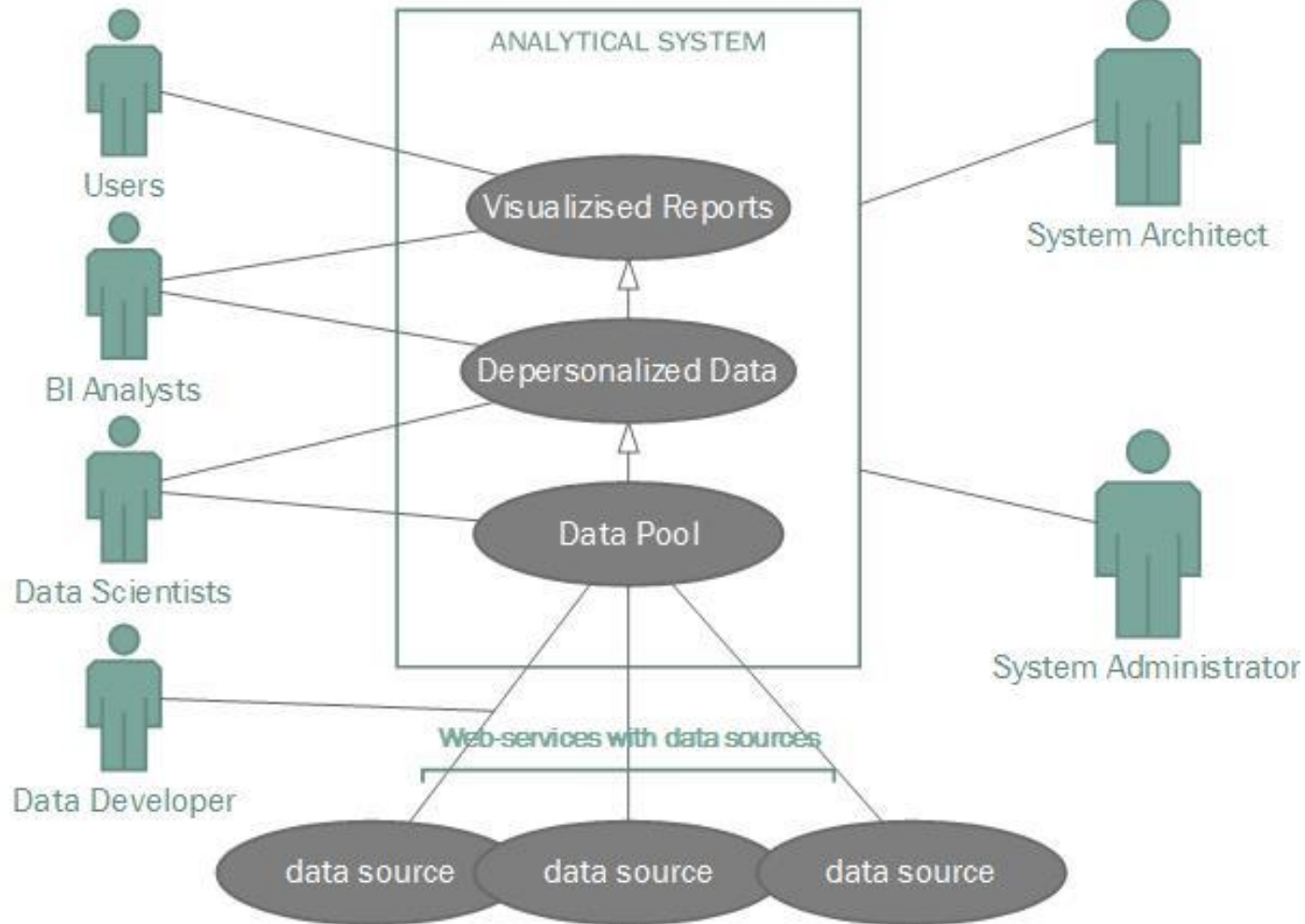


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# UMAS use case diagram:



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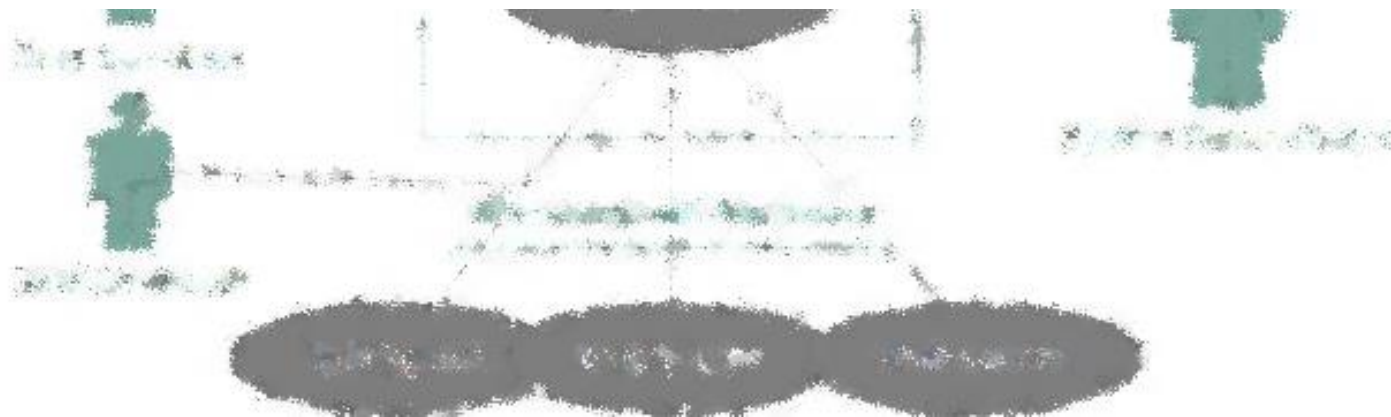


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# UMAS use case diagram:



- 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 side-effect.



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# 3. Who are benefiting from UMAS?

- System owners;
- Data sources;
- Users.



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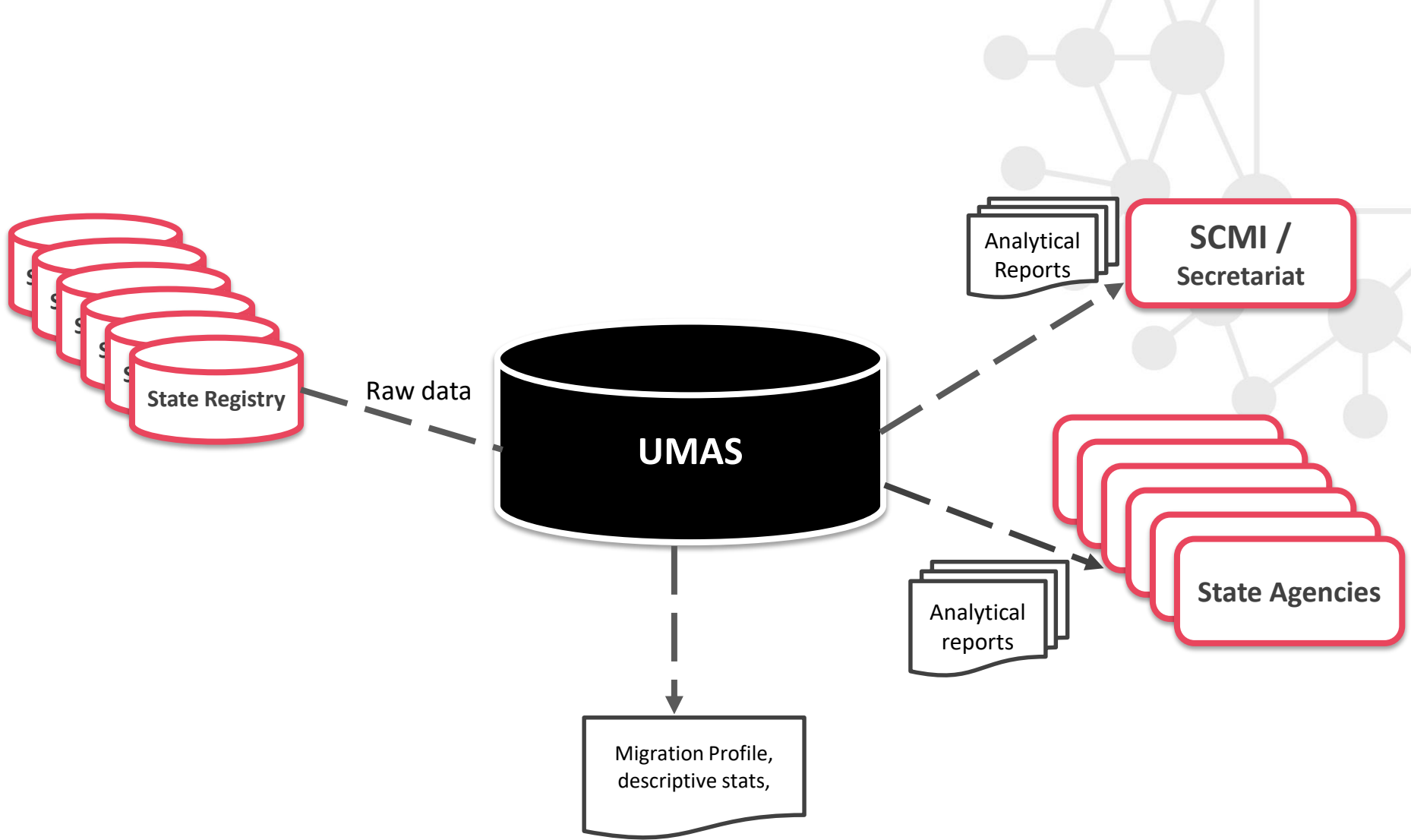


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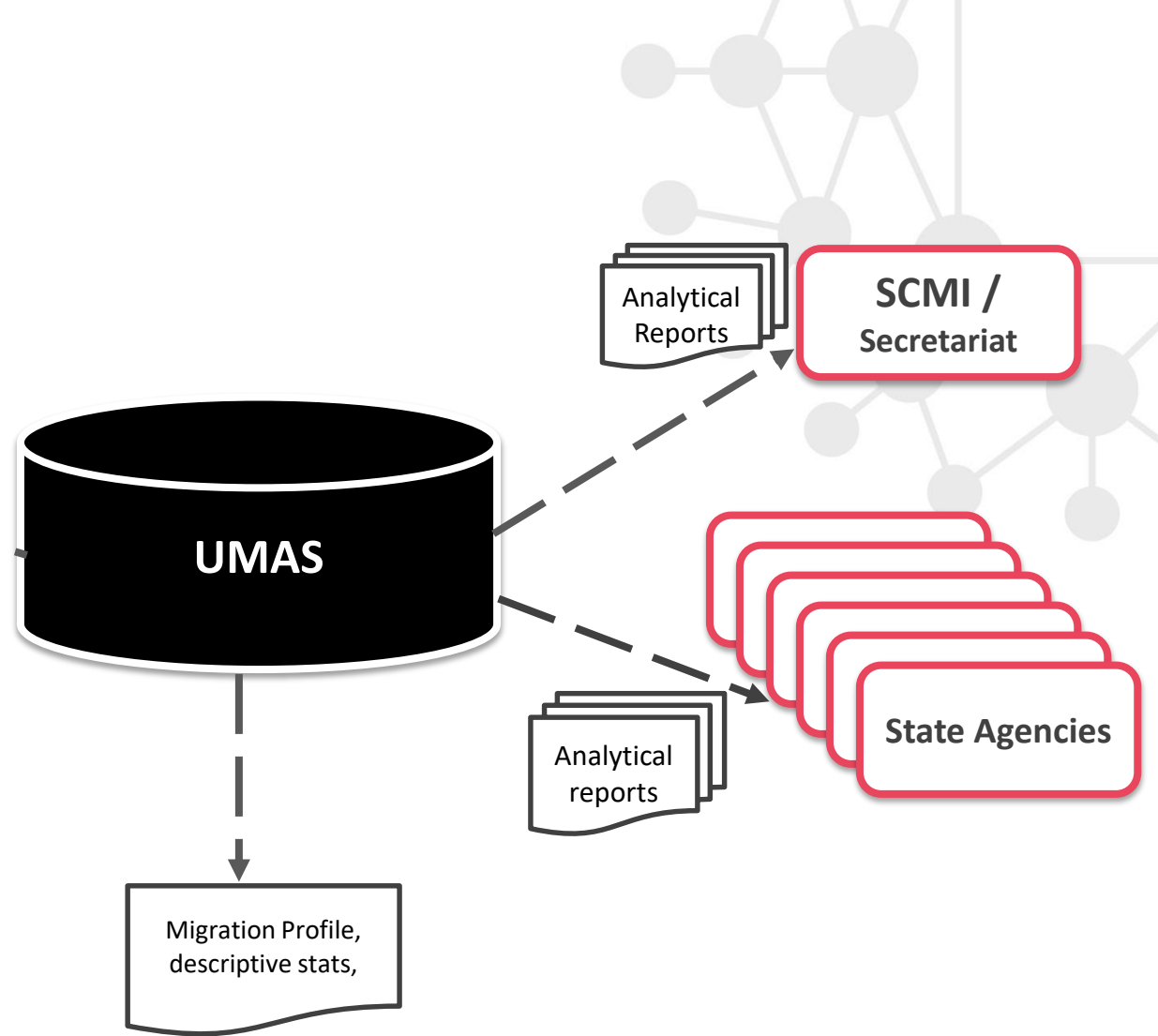


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- Ministry of Internal Affairs;
- State Security Service of Georgia;
- **LEPL Public Service Development Agency;**
- LEPL National Agency of Public Registry;
- Ministry of Refugees and Accommodation;
- Ministry of Finance;
- Ministry of Foreign Affairs;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



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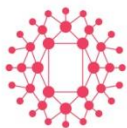
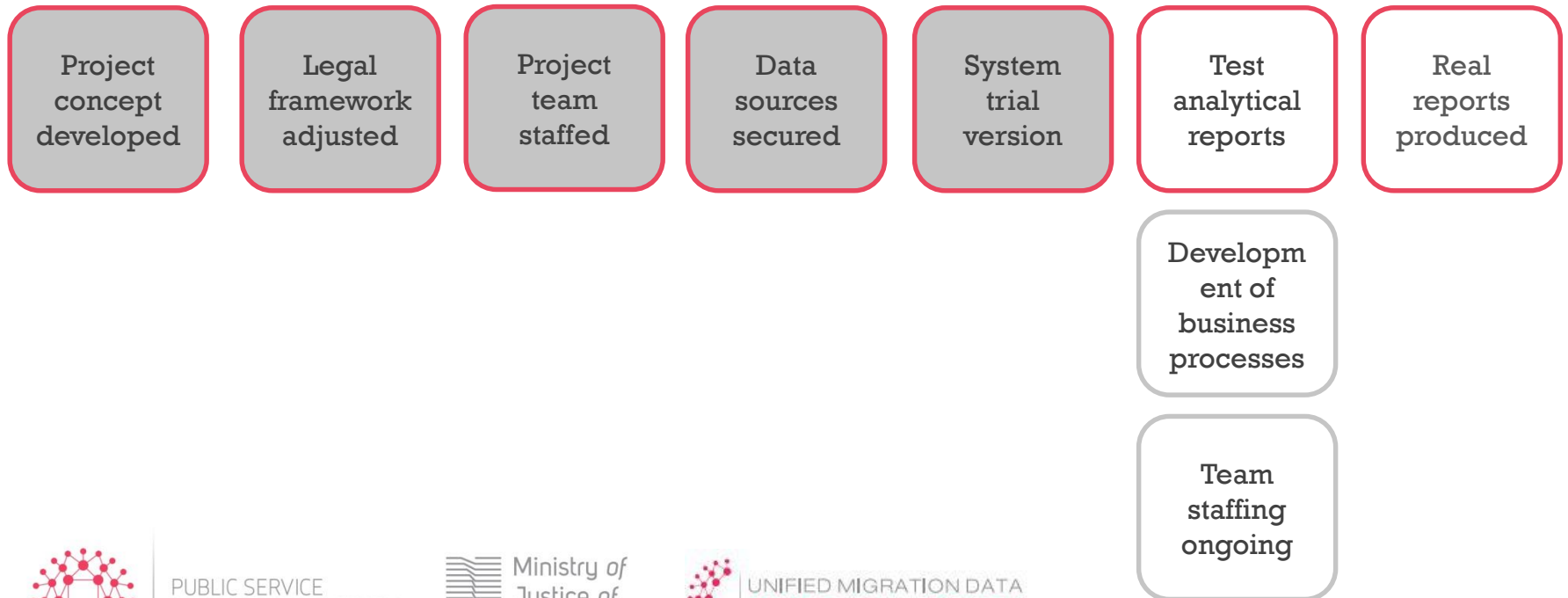
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# 4. When is UMAS going to be operational?

## Progress from 2014 to present



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