

Synthesis of administrative data and big data technologies for improved migration statistics

Public Service Development Agency
Ministry of Justice of Georgia

International Forum on Migration Statistics
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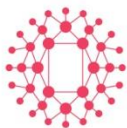


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3 benefits of data integration:

1. Filling in the data gaps.
2. Improvement of data quality at the data source agencies.
3. Capacity building across data source agencies and UMAS users.



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About Unified Migration Analytical System (UMAS)

- [at the 1st stage] 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.
- Primarily 'B2B' system, focusing on the needs of main data source agencies and other state agencies involved in migration management.
- Intended as business intelligence tool, improvements in migration statistics is a side-effect (GeoStat is going to be one of the UMAS users).



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Filling in the data gaps

Test report under development – “Immigration Patterns”

- “Immigration Patterns” is one of the many test reports to be prepared throughout 2018.
- Report is internal as it is very preliminary and the results need to be double/triple-checked before publishing.
- In general, big part of UMAS reports is intended for consumption by UMAS users (state agencies). Some of the major ‘new statistics’ will be incorporated in the Migration Profiles.
- Combines administrative data of the three sources:
 - entry-exits,
 - visas,
 - residence permits and naturalization.

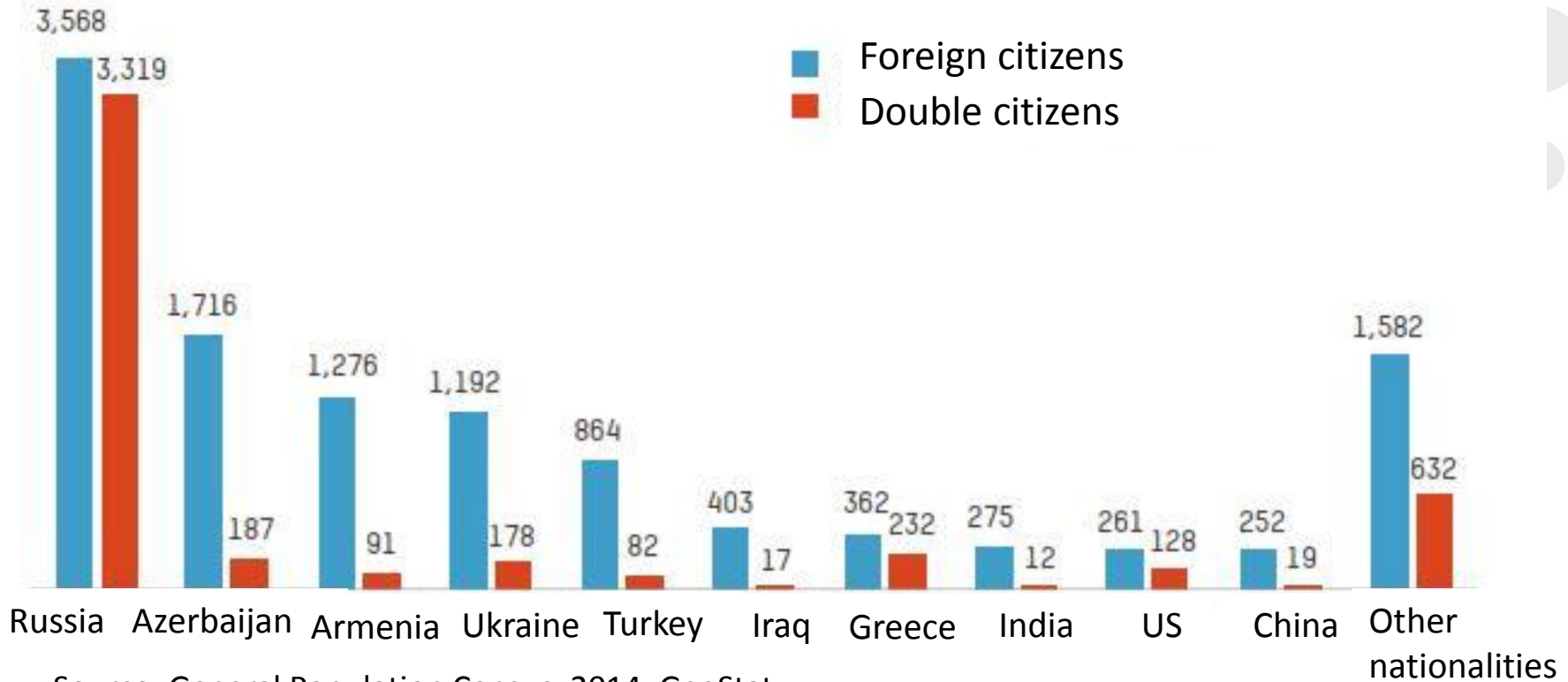


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Immigrants in Georgia by citizenship



Source: General Population Census, 2014, GeoStat
2017 Migration Profile of Georgia

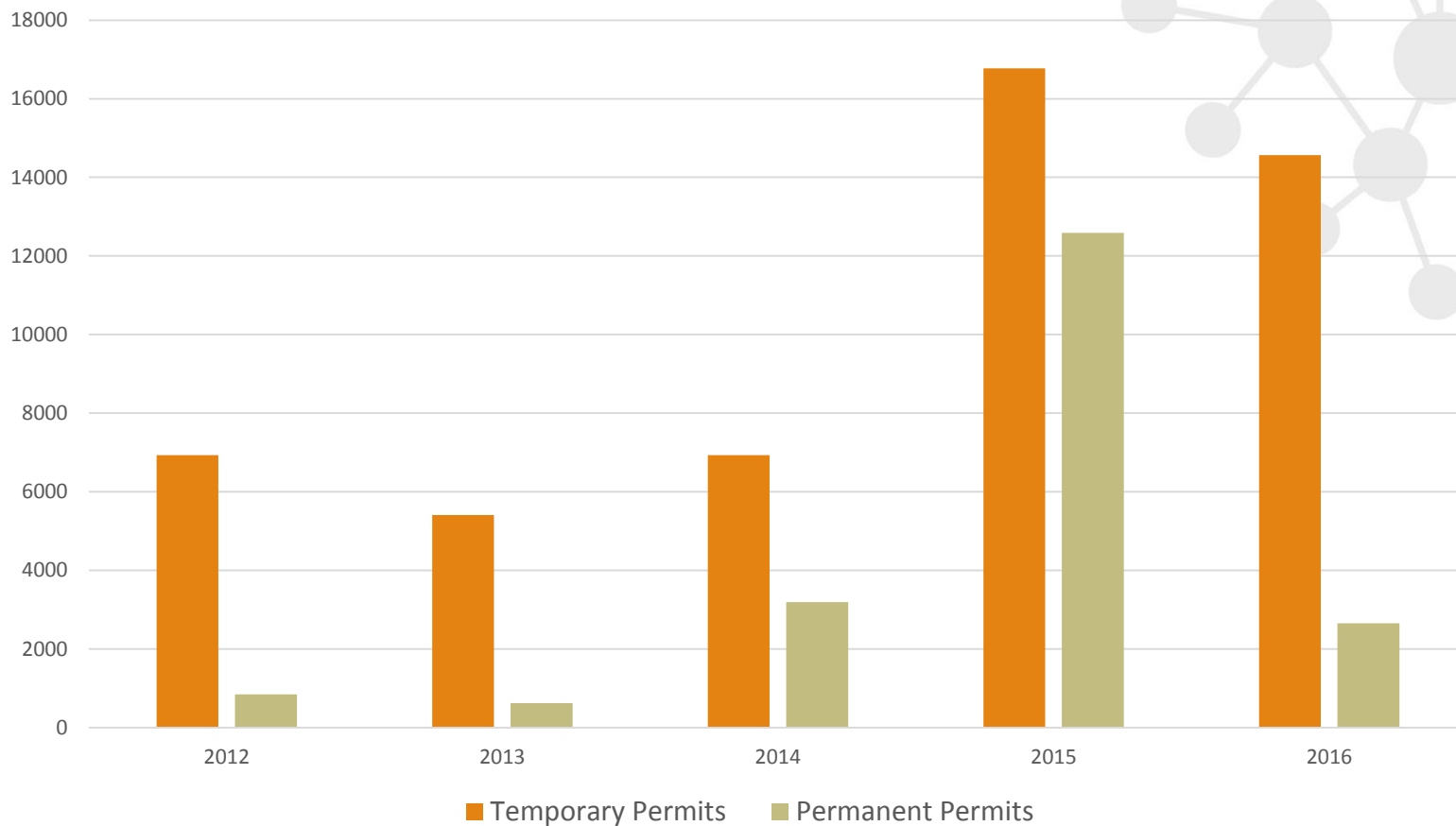


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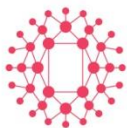


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Residence permits, 2012-2016



Source: Public Service Development Agency, Ministry of Justice
2017 Migration Profile of Georgia



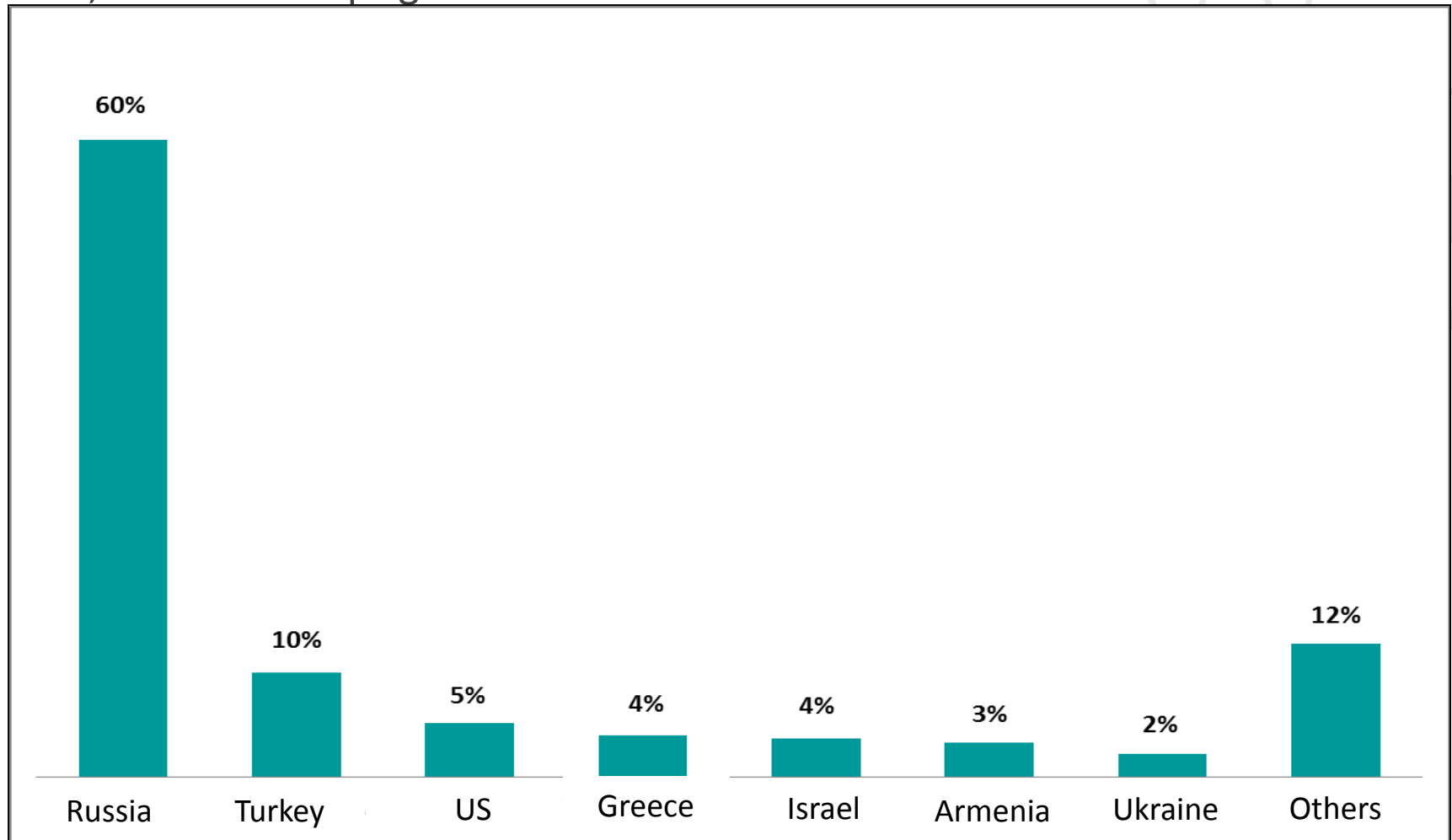
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Georgian citizenship, 2012-2016

31,590 citizenships granted in 2012-2016



Source: Public Service Development Agency, Ministry of Justice

2017 Migration Profile of Georgia

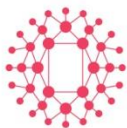
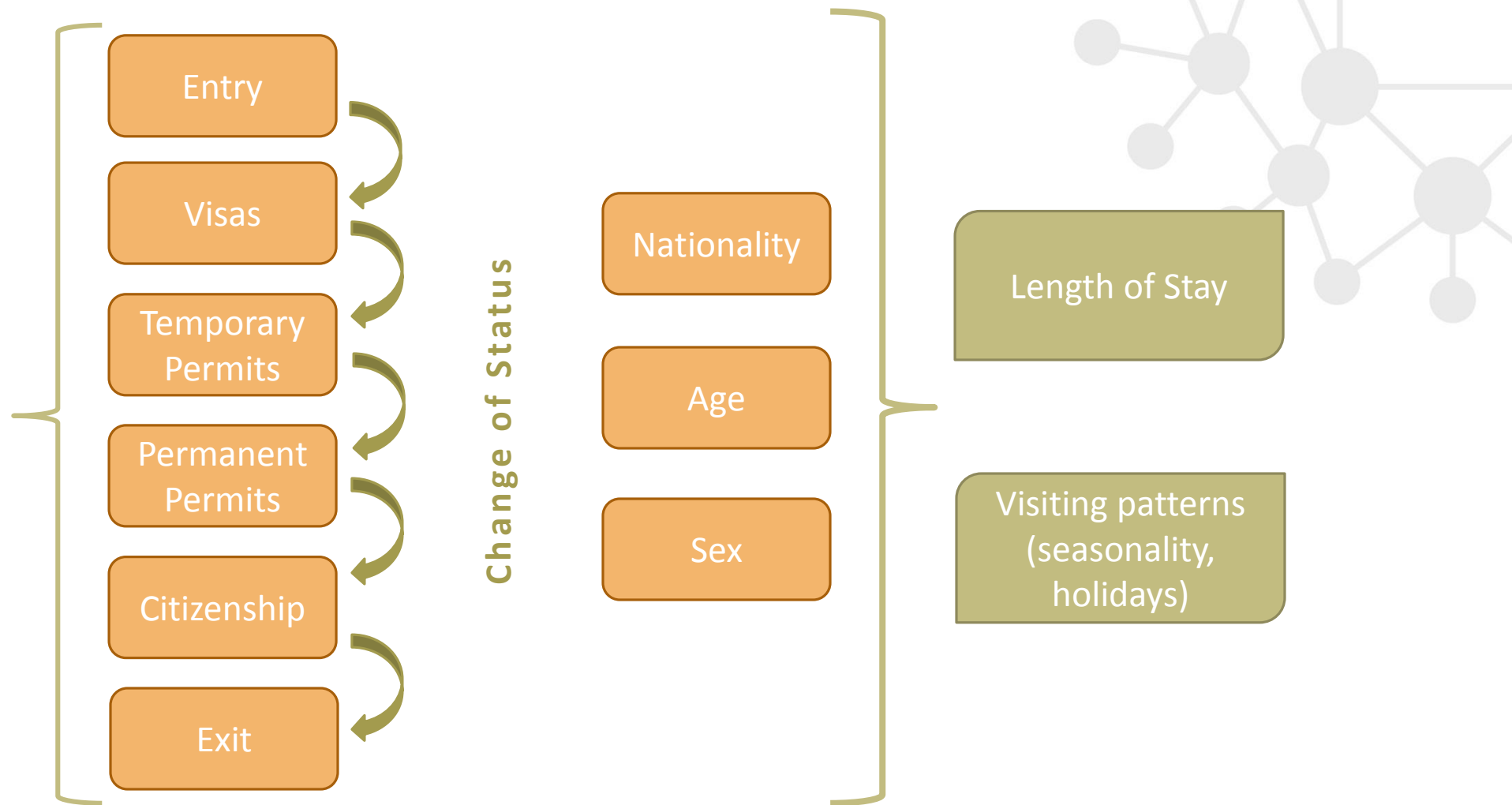


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Add-ons to the existing statistics



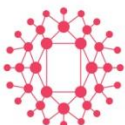
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Add-ons to the existing statistics

1. Change of status – when does it usually happen?
For which groups?
2. Average length of stay – for students, for work permit arrivals, for different nationality/age/gender groups.
3. Application to citizenship by the preferred routes to citizenship.
4. Average length of stay in Georgia before applying for citizenship by nationality, age groups, gender, immigration status.
5. Naturalization of former Georgian citizens – nature of their connection to homeland.

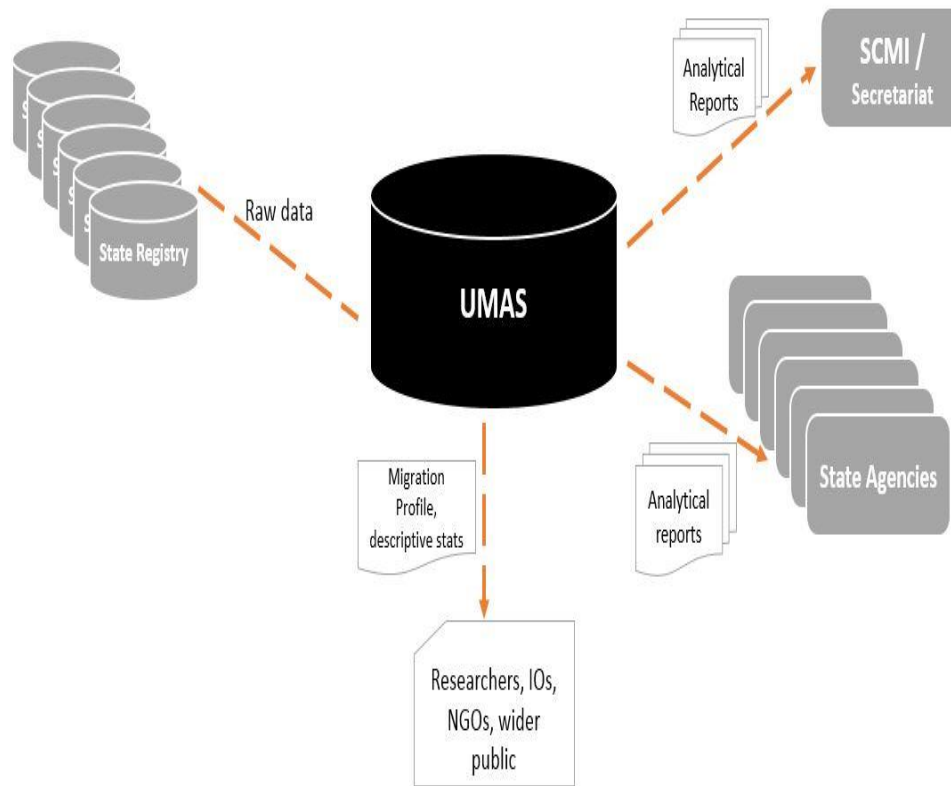


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UMAS data sources



State entities dealing with:

- Border management;
- Irregular migration;
- Visas;
- Residence Permits;
- Naturalization;
- Asylum;
- Real estate and business registry;
- Revenues;
- Primary, secondary and higher education;
- Labour and social services.

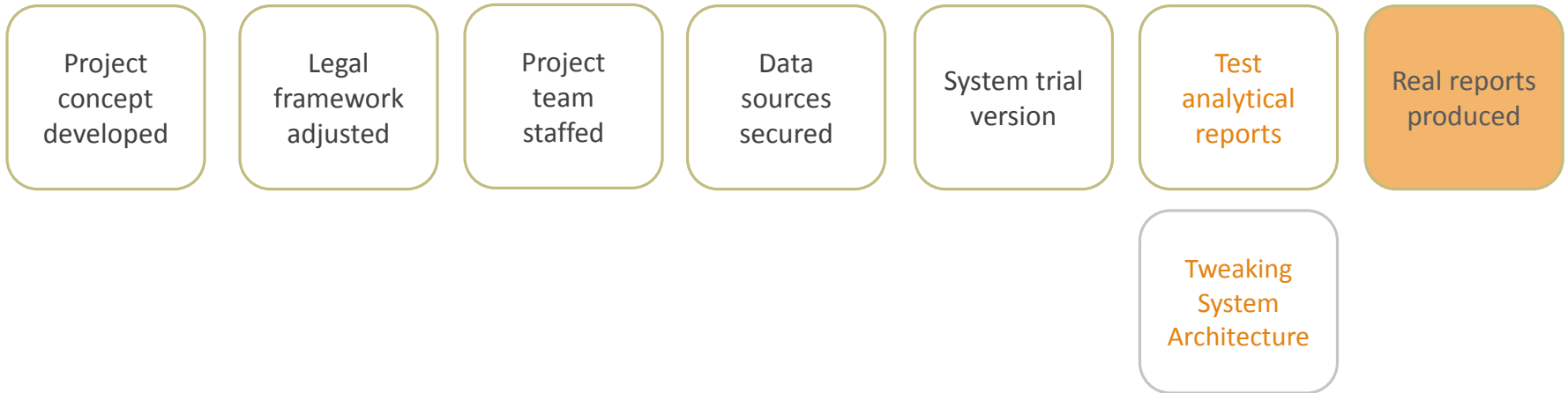


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Progress from 2014 to present



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Improvements in data quality

- Errors, missing data found at the data cleaning stage corrected if logically filled in.
- Data quality reports produced per data source.
- New data collected by the data source agencies.
[X data source agency started to collect and share Y data field after respective feedback and consultations by UMAS team.]
- Collected data stored/entered in the database in a different way for UMAS purposes.
[Z data source agency is restructuring its database to be able to share its data with UMAS via web-service.]



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Capacity building

- Analytical skills being developed at the UMAS user state agencies.
- Improvements in understanding migration data across state agencies involved in migration management. A logical continuation of the process started by the Migration Profile.
- Big data infrastructure introduced at Public Service Development Agency is preparing the ground for further extension of the system and/or future use of the big data for migration analysis.



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