Preliminary findings
EMN-OECD Inform
Digitalisation and Artificial Intelligence

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EMN-OECD Inform on Digitalisation and AI

- It builds on trends identified in the EMN-OECD series on migration management informs on Covid 19

- It is part of series of Informs on Innovation in Migration in the context of the New Pact on Migration and Asylum

- Inform is prepared on the basis of contribution of 24 MS, GE and OECD

- The inform aims to explore the role of new digital technologies in the management of migration and asylum

- The Inform will be launched during a roundtable event that will take place on 10th February 2022 in Brussels (Hybrid event)

Definitions

- **Digitalisation**: the process of moving to digital operations, referring to the use of digital technologies to change a business model and provide value-producing opportunities.

- **Blockchain technology**: a structure that stores transactional records, (the block), of the public in several databases (the chain), in a network connected through peer-to-peer nodes -> storage is referred as the "digital ledger".

- **Artificial intelligence** (AI): systems that display intelligent behaviour by analysing their environment and taking actions – with some degree of autonomy – to achieve specific goals.

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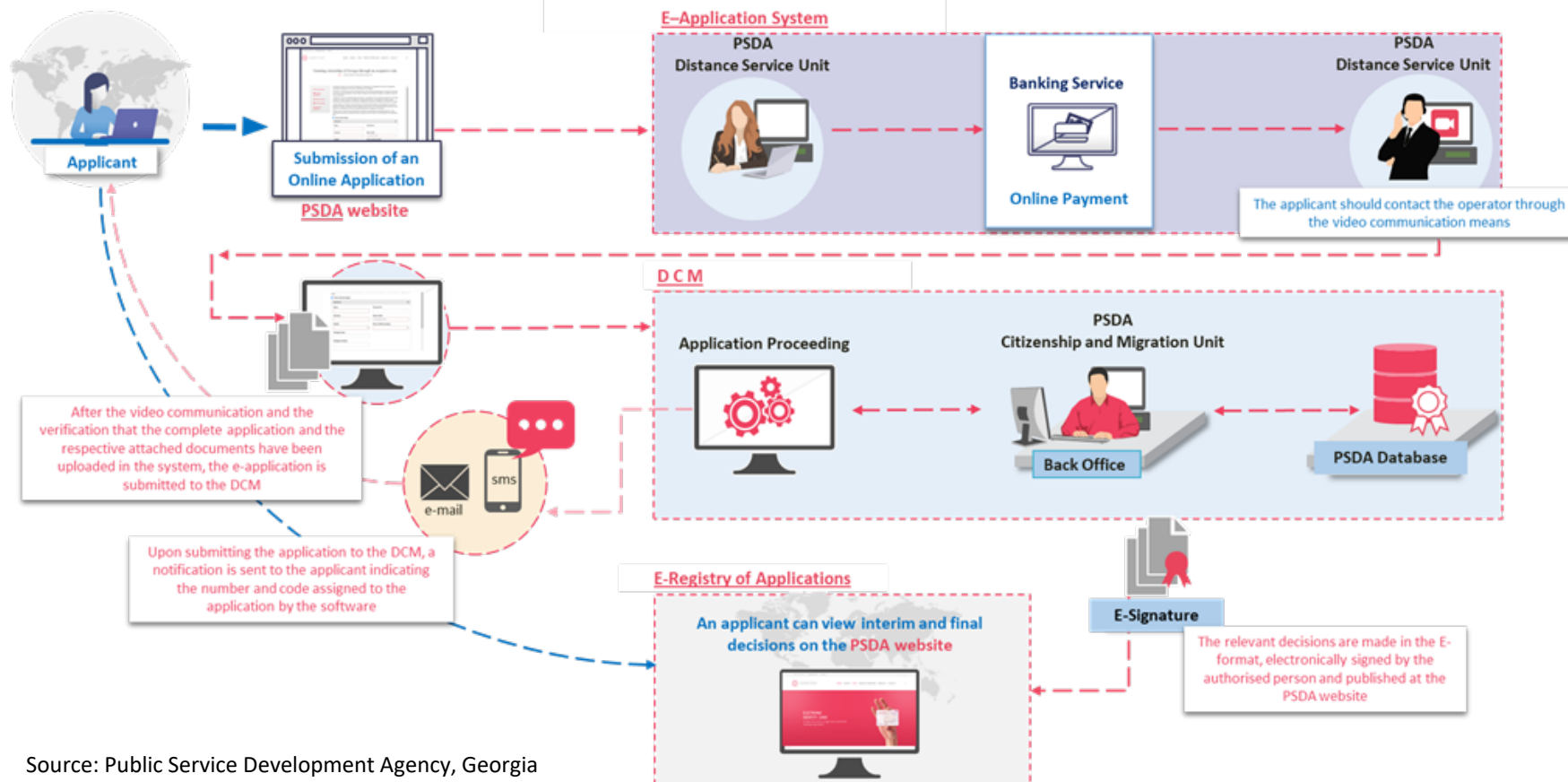
Digitalisation – Preliminary findings (1/2)

- EU Member States, Georgia and non-EU OECD countries have increased their use of digital technology in the migration and asylum sphere in recent years.
  - Introduction began in 2007 but there is an increase trend since 2012
  - increased focus to deal with significant challenges including increased and changing migration flows (2015) and exceptional circumstances (e.g. Covid-19 pandemic)
- Digital technology is used across different functions in countries' migration and asylum systems.
  - enhance customer service and to move towards paperless working;
  - for language identification and assessment; and
  - identity and fraud detection (e.g. Morphing-attack technology).
- Level of use varies from country to country
  - online appointment systems and customer service
  - portals for lodging and tracking applications for asylum, residence permits, or naturalisation application
  - use of Artificial Intelligence across different functions (e.g. chatbot, language identification software)
  - blockchain technology
- Covid-19 pandemic impacted on the use of technology by immigration services.
  - e-administration -> need to continue to provide services when on-site services were restricted or no longer possible (through using or optimising pre-existing IT tools or introducing new systems)
- Most EU Member States and Georgia reported the use of online systems to process residence permit and citizenship applications.

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Digitalisation – Preliminary findings (2/2)

- Some non- EU OECD countries (Australia, Canada, New Zealand and Chile) are advanced in digitalisation of their migration management systems.
  - In other non-EU OECD countries, the situation is more mixed
  - USA experience -> digitisation process can be slow and costly in its initial stages
- Some EU Member States and Georgia mentioned as reasons for using digitalisation
  - enhancing the overall customer experience; and
  - greater efficiency
- OECD highlights that online visa systems are the norm in most non-EU OECD countries.

Digitalisation – residence permit and citizenship applications (Georgia)
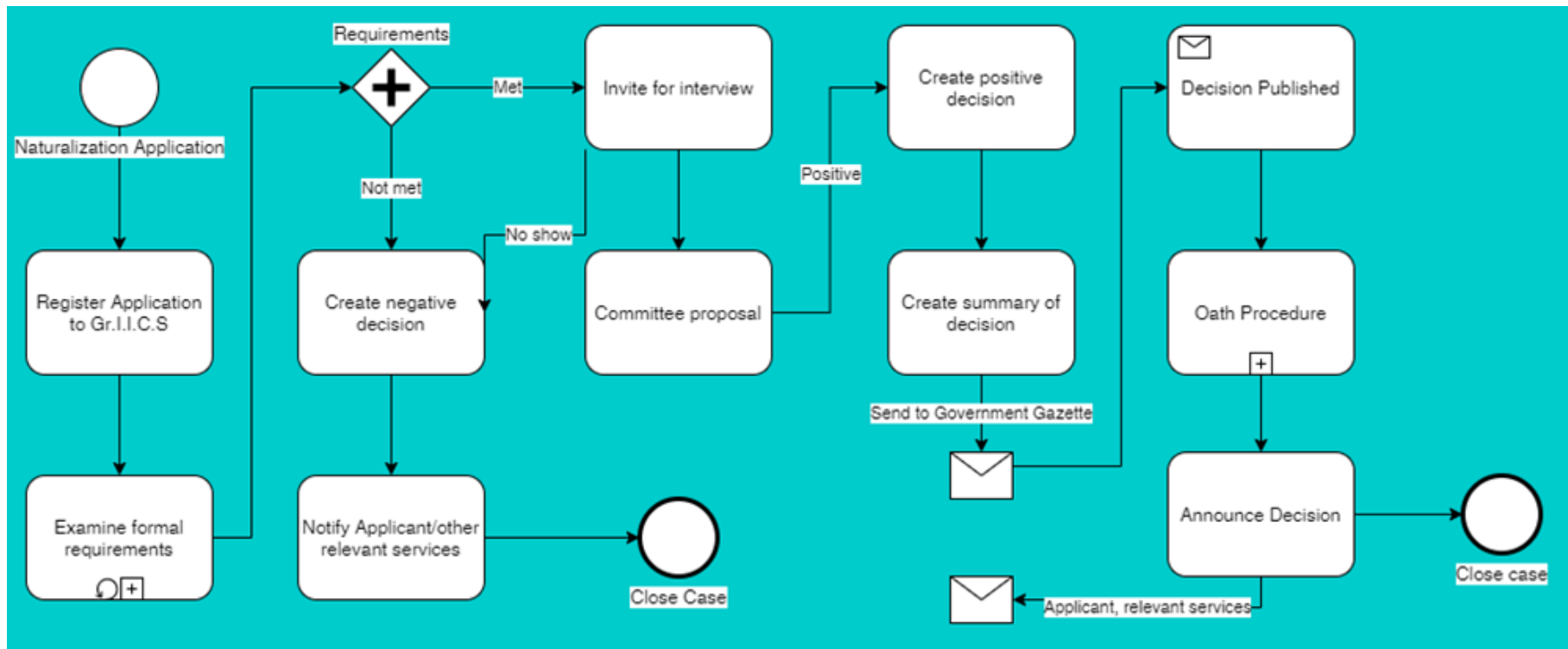
Distance Services Unit – Public Service Development Agency (PSDA)

Source: Public Service Development Agency, Georgia

Digitalisation – Citizenship application (Greece)

Integrated Informational Citizenship System (Gr.I.I.C.S)

Source: Ministry of Interior, Greece

Blockchain – Preliminary findings

- Three EU Member States use blockchain technology in migration management
  - enable exchanges of highly sensitive information,
  - to connect different services and systems, and
  - to improve information flows between authorities involved in migration management.
- Examples:
  - EE -> blockchain is used as part of the countrywide system of e-governance and e-identity
  - DE -> BAMF is piloting a blockchain infrastructure (FLORA) to manage national protection and Dublin procedures
    - Since 2021 it is being piloted in real operation at the Centre for Arrival Decision and Repatriation (AnkER) facility in Dresden
    - It supports the coordination and exchange of process data across organisational workflows but does not replace any existing systems -> improve information flows between authorities involved

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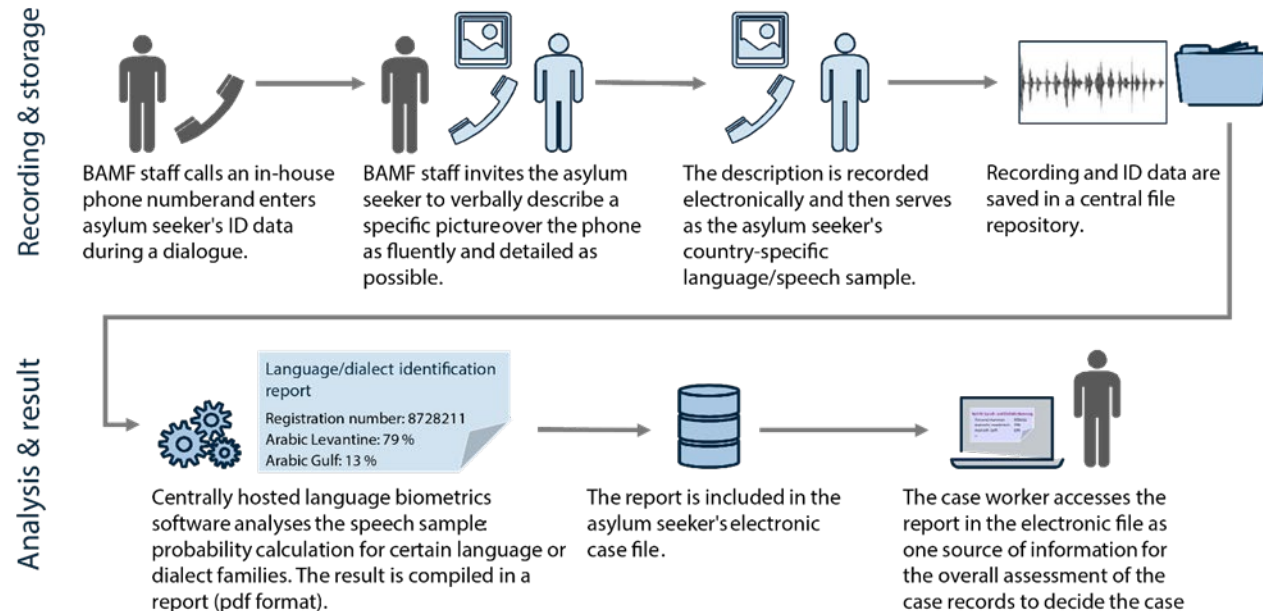
Artificial Intelligence – Preliminary findings

Six EU Member States confirmed the current use of AI technology for purposes ranging from language identification and assessment, identity and fraud detection, case management and interaction with clients.

- DE uses a language identification system (DIAS) which can recognise Arabic dialects to assist with the identification of an asylum applicant's country of origin

- LV -> AI-based automated speech recognition tool (Tilde) is being used in the citizenship procedure to verify knowledge and language proficiency.
  - Tool is used in the part of the citizenship test, where the applicant is required to perform the national anthem

- Chatbots (virtual assistants) are used in both EU countries and in non-EU OECD countries to enhance customer service and respond to migration queries online quicker

- AI is also used to detect document fraud, in facial recognition systems at the border and in other land border checks.
  - Morphing attacks, which manipulate facial images, thus allowing persons to cross borders unidentified, have been identified as a particular challenge

- Some EU Member States and Georgia plan to use AI in future developments (similar to the ones mentioned above)
  - Some EU Member States expressed interest in using it in migration forecasting (e.g. DE)

Language identification system

Language and dialect identification system (DIAS)

The Arabic dialect is indicated in a fast and reliable manner

Recording & storage

BAMF staff calls an in-house phone number and enters asylum seeker's ID data during a dialogue.

BAMF staff invites the asylum seeker to verbally describe a specific picture over the phone as fluently and detailed as possible.

The description is recorded electronically and then serves as the asylum seeker's country-specific language/speech sample.

Recording and ID data are saved in a central file repository.

Analysis & result

Language/dialect identification report

Registration number: 8728211
Arabic Levantine: 79 %
Arabic Gulf: 13 %

Centrally hosted language biometrics software analyses the speech sample: probability calculation for certain language or dialect families. The result is compiled in a report (pdf format).

The report is included in the asylum seeker's electronic case file.

The case worker accesses the report in the electronic file as one source of information for the overall assessment of the case records to decide the case

Source: Federal Office for Migration and Asylum (BAMF)

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Challenges – Preliminary findings

- **Fundamental Rights**
  - protection of personal data
    - Blockchain -> technology can pose challenges regarding the right of rectification or erasure of personal data
  - The Fundamental Rights Agency (FRA) has identified other risks such as to **equality** and **non-discrimination**, **access to justice** and to the right to **good administration**
- **Programming bias** -> which may unconsciously be included in the algorithms developed and lead to unequal treatment.
- **Other challenges**

  - 'Digital divide' society and the access to online services

    - migrants do not have access to technology, communications infrastructure is poor or digital literacy is low

  - Lack of trust by consumers in digital systems

  - Digital transformation may be resisted within government institutions

OECD considers that it is important to continuously monitor and evaluate the outcomes of digital solutions, build in correction mechanisms and maintain a high level of human control and awareness

Thank you for your attention!

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