Recommendation 4:

Biometrics

Faster and transparent access to public sector services
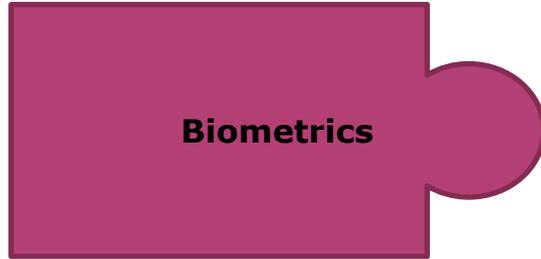
Using '*biometrics*' to meet the societal need '*Faster and transparent access to public sector services*

Status quo:

Biometric methods are used in many different areas of applications. The solutions and systems available on the market are able to serve a broad range regarding performance, security, usability and standard conformance.

Many EU countries already use biometric identity cards (e.g. Bulgaria, Finland, France, Germany, Luxembourg, Netherlands) or biometric visa programs. Some EU countries use biometric ID cards for social security systems, requesting car licence plates or conducting tax declarations.

Recommended actions:

Technical challenges:

- Identifying the best feature representation scheme for a given biometric trait
- Designing robust matcher for a given representation scheme
- Handling poor quality biometric samples
- Improving the distinctiveness of biometric traits
- Improving the persistence of biometric traits
- Unconstrained biometric sensing environment
- System security and user privacy

Non-technical challenges:

- *Infrastructure:* Provide for the necessary infrastructure/hardware (sensor, processor, storage)
- *Change of processes:* Adapt the public processes to the usage of biometric systems
- *Cyber security:* Deal with cyber security and data protection issues

Faster and transparent access to public sector services:
The societal demand for a trustworthy public sector resonates until today. This need also includes issues such as better quality public services – fairness and customer service standards in public service provision . Informants mentioned establishing trust in governance, voicing their opinions, accessing timely and accurate information, unlinking public sector and politics as some of the key needs under this header. One informant expressed his opinion as: "A clear point of authority to be established (often have to roam offices because it is not clear the authority for a particular task)."

Biometrics:
Biometrics as a characteristic is a measurable biological and behavioural characteristic that can be used for automated recognition and as a process it encompasses automated methods of recognizing an individual based on measurable biological and behavioural characteristics. Biometric identifiers are often categorized as physiological and behavioural characteristics, where the former are related to the shape of the body (fingerprint, palm veins, face recognition, DNA, palm print, hand geometry, iris recognition, retina, odour/scent, etc.), while the latter are related to the pattern of behaviour of a person (e.g. typing rhythm, gait, voice, etc.).
Biometrics authentication (or realistic authentication) is used in computer science as a form of identification and access control. Biometric authentication methods use biometric characteristics or traits to verify users' claimed identities when users access endpoint devices, networks, networked applications or Web applications.*

* Mordor Intelligence Global Next Generation Biometric Market - By Type, By Technology, End User Industry, Vendors and Geography Market Shares, Forecasts and Trends (2015-2020). https://www.mordorintelligence.com/industry-reports/next-generation-biometric-market-industry?gclid=CjwKEAiAgavBBRCA7ZbggrLSkUcSJACWDexAp3Ow-UWL-2Del_XtWHDGul5wOyEYtVPH7AkzfVeKqBoCVcTw_wcB. Accessed 20 July 2017.
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