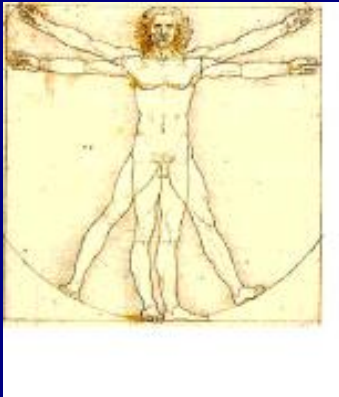


# Addressing privacy issues in Id- Management EC projects



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ISO/IEC JTC1 SC37 “Biometrics” WG6 on  
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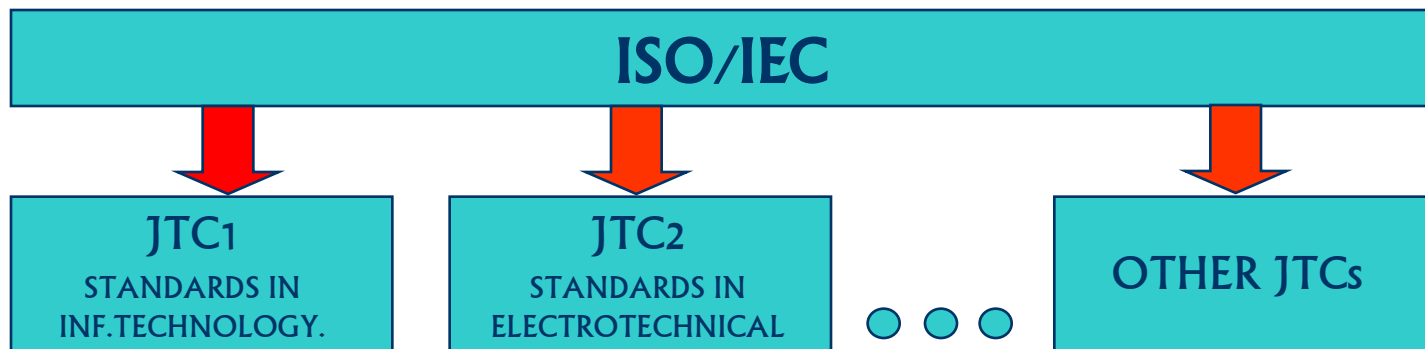
# Structure of the presentation

- General Information on ISO
  - *The SC 37 “Biometrics” WG on cross-jurisdictional issues of biometrics*
- Cross-jurisdictional aspects of biometrics
- Consideration on the PRISE project
- Privacy issues in two EC funded projects on Biometrics
  - 3D Face
  - BioHealth
- Conclusions

# ISO



# ISO / IEC JTC s (Joint Technical Committees)



## SOME JTC1 SUBCOMMITTEES AND WORKING GROUPS

....

SC 17 - CARDS AND PERSONAL IDENTIFICATION

SC 27 - IT SECURITY TECHNIQUES

SC 31 - AUTOMATIC IDENTIFICATION AND DATA CAPTURE  
TECHNIQUES

SC 32 - DATA MANAGEMENT AND INTERCHANGE

SC 35 - USER INTERFACES

SC 37 - BIOMETRICS

# ISO / IEC JTC1 SC37

## ISO/JTC1 SUBCOMMITTEE 37 Working Groups

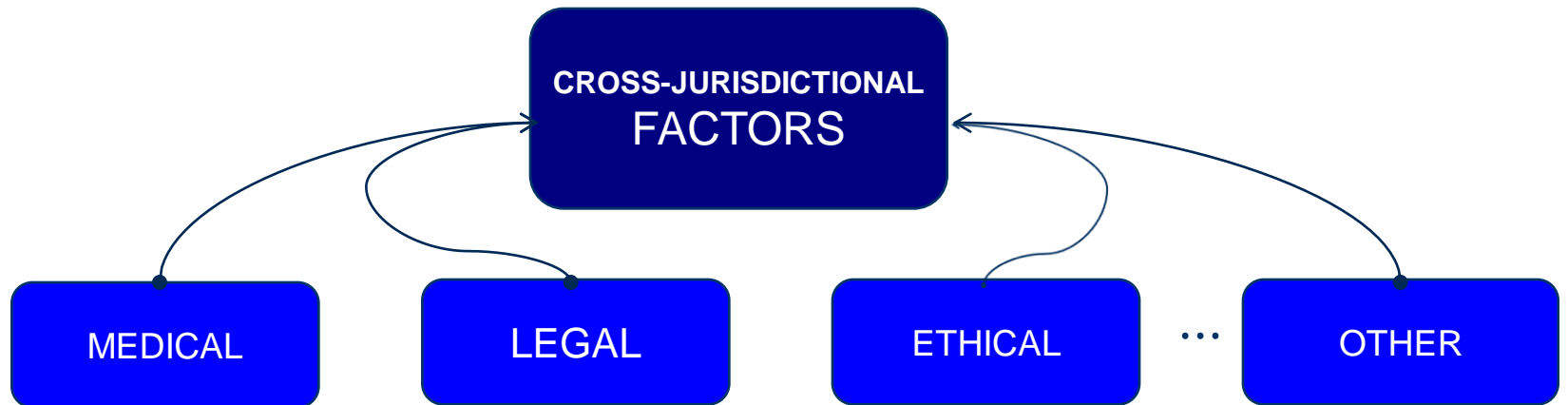
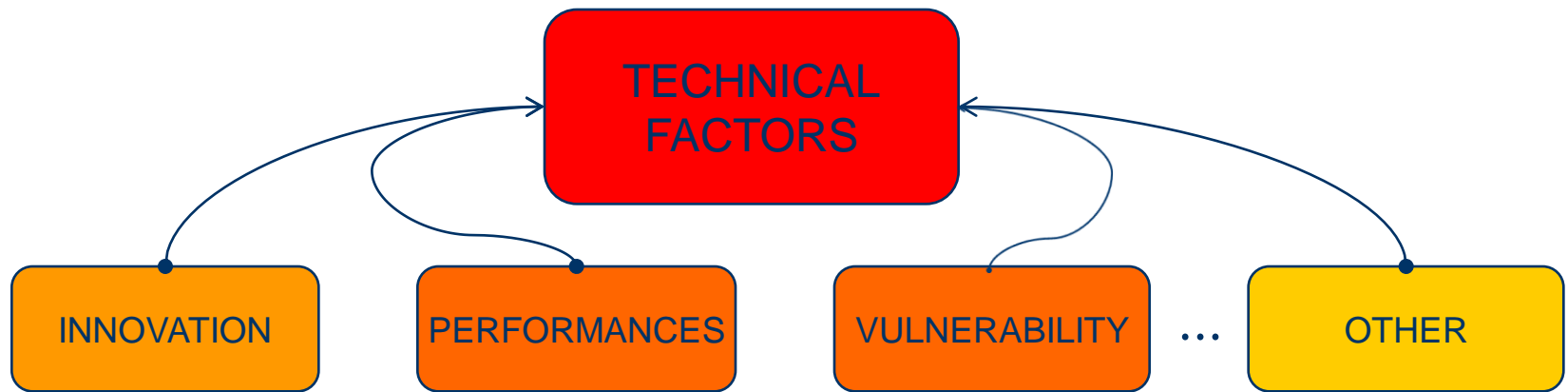
- WG 1 - WORKING GROUP ON HARMONIZED BIOMETRIC VOCABULARY AND DEFINITIONS (CANADA)
- WG 2 - WORKING GROUP ON BIOMETRIC TECHNICAL INTERFACES (KOREA)
- WG 3 – WORKING GROUP ON BIOMETRIC DATA INTERCHANGE FORMATS (GERMANY)
- WG 4 - WORKING GROUP ON PROFILES FOR BIOMETRIC APPLICATIONS (US)
- WG 5 - WORKING GROUP ON BIOMETRIC TESTING & REPORTING (U.K.)
- **WG 6 – WORKING GROUP ON CROSS-JURISDICTIONAL AND SOCIETAL ASPECTS OF BIOMETRICS (ITALY)**

# ISO/IEC JTC1 SC 37 “Biometrics”

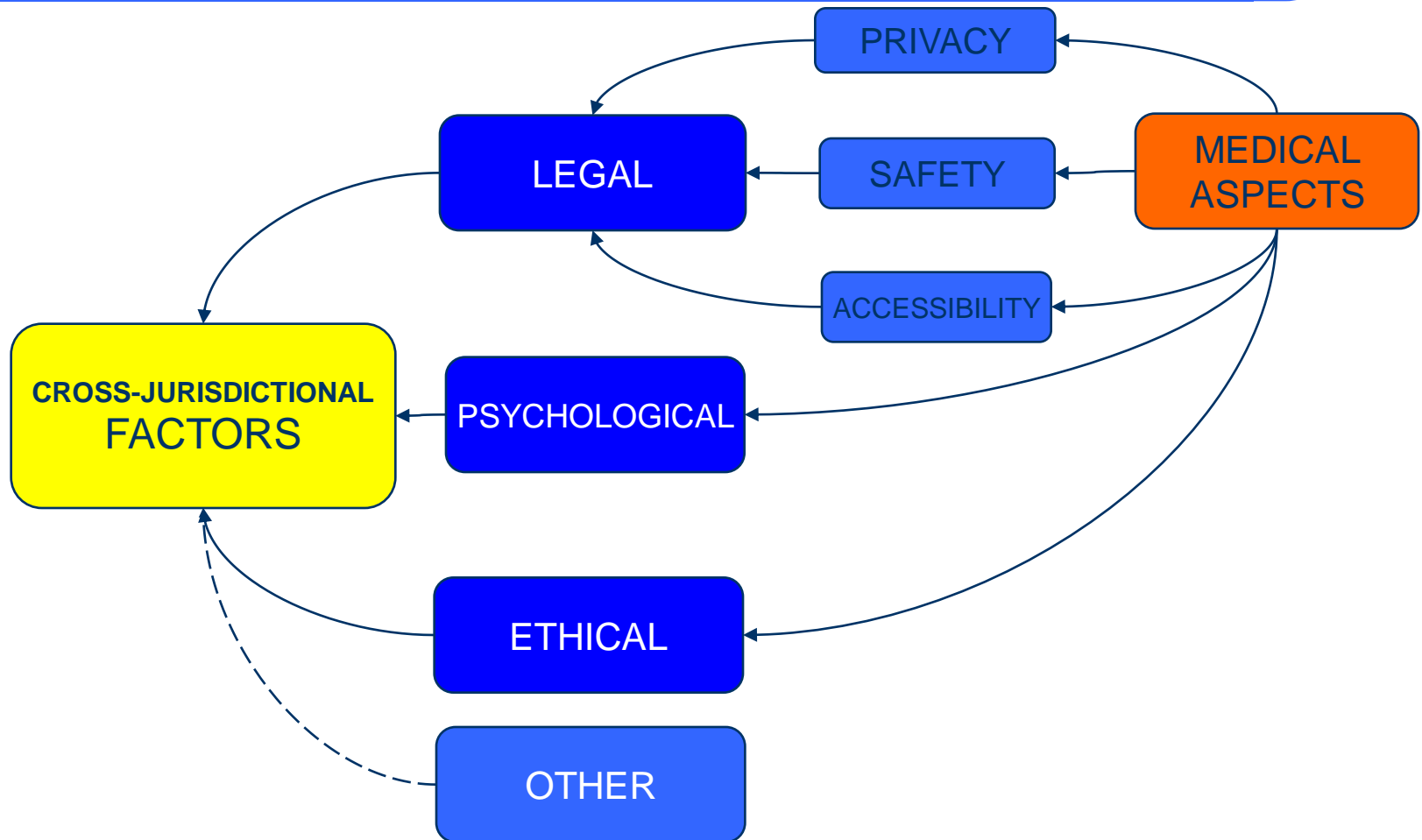
## *WG 6 – Terms of reference*

- Standardization in the field of cross-jurisdictional and societal aspects in the application of ISO/IEC biometrics standards. Within this context, the terms of reference includes the support of design and implementation of biometric technologies with respect to:
  - *accessibility*
  - *health and safety*
  - *support of legal requirements and acknowledgement of cross-jurisdictional and societal considerations pertaining to personal information*
- Specification and assessment of government policy are excluded from the scope of WG6

# Some technical and and cross-jurisdictional factors of Biometrics



# Interconnections among some cross-jurisdictional factors of biometrics



# Three different levels of international consensus for some issues of biometrics

PRIVACY

MEDIUM - LOW  
(COUNTRIES MAY  
ADOPT DIFFERENT  
APPROACHES)

ACCESSIBILITY

HIGH

SAFETY

VERY HIGH

# In analyzing privacy issues in biometrics it could be wise to identify two domains

**Governmental  
Applications**

Could be sustained by a  
higher compliance with  
“proportionality” principles

**Commercial  
Applications**

Could be characterized by a  
lower compliance with  
“proportionality” principles

## Some considerations

- Many experts agree on a future sensible increase of automatic screening of documents (e.g. in airports)
- Even if not very effective (errors in the bi-dimensional domain of face recognition are still a problem), the new procedures will provide very interesting data about the acceptance of the biometric systems
- Accessibility will become always more a fundamental point

## **2D /Three-dimensional face recognition**

- **2D face recognition will probably evidence some limits of the technology**
- **3D face recognition represents one of the possible answers**
- **The EC in 2006 funded the 3DFace project with the aim of exploring the improvements offered 3D face recognition**



## 3D Face

- 2D face recognition technology that, as we have seen, will be probably used always more extensively for biometric-enabled border control, has known drawbacks
- The biometric performance of 2D systems is not satisfactory by far, in particular because it is extremely sensitive to:
  - *Pose variation*
  - *Illumination changes*
  - *Sensor condition*
  - *Other disturbance factors*
- Even more serious, 2D face recognition systems do not currently provide reliable mechanisms for liveness detection and for protection against spoofing and identity hiding attacks.



## 3D Face

- The project pays a great importance to fundamental human rights
- Items analyzed so far:
  - *Safety Aspects*
  - *Relations with Data Protection Commissions*
  - *Biometrics for children*
  - *Export of biometric data*
- Furthermore a website for addressing cross-jurisdictional issues has been created (for now, only accessible to 3DFace members)

# The BioHealth Project

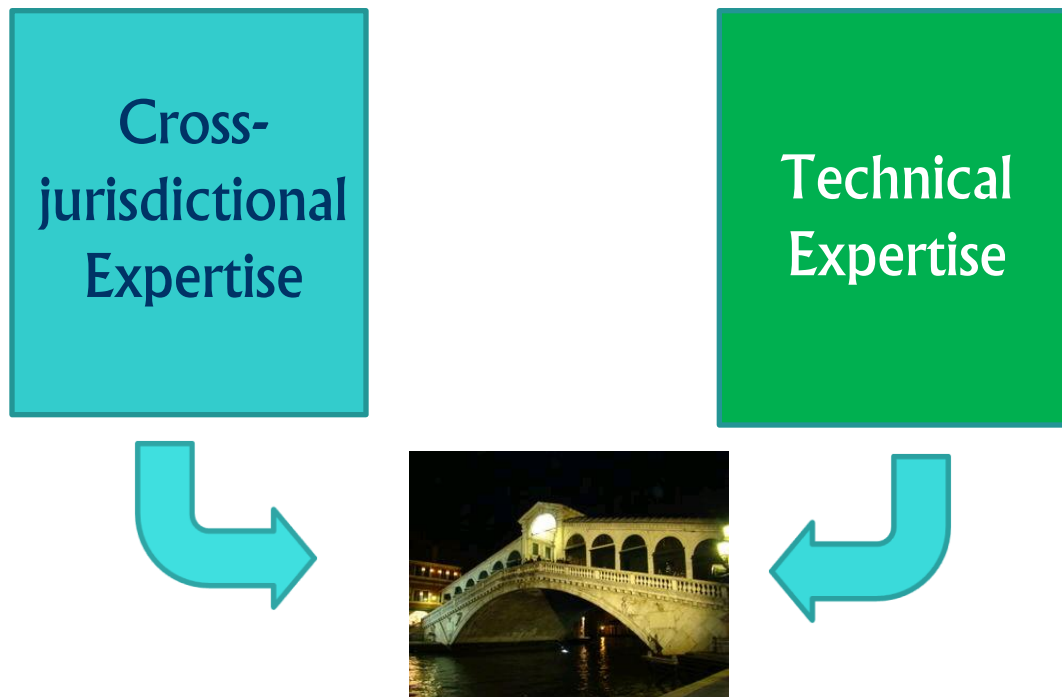
- The BioHealth project has focused on standards in ID-Management with particular reference to e-Health
- The project has collected many standards in a repository which will be made publically available
- A description of the activity carried out by ISO and CEN in this area is the focus of the BioHealth project
- [www.bio-health.eu](http://www.bio-health.eu)

# A... Vision



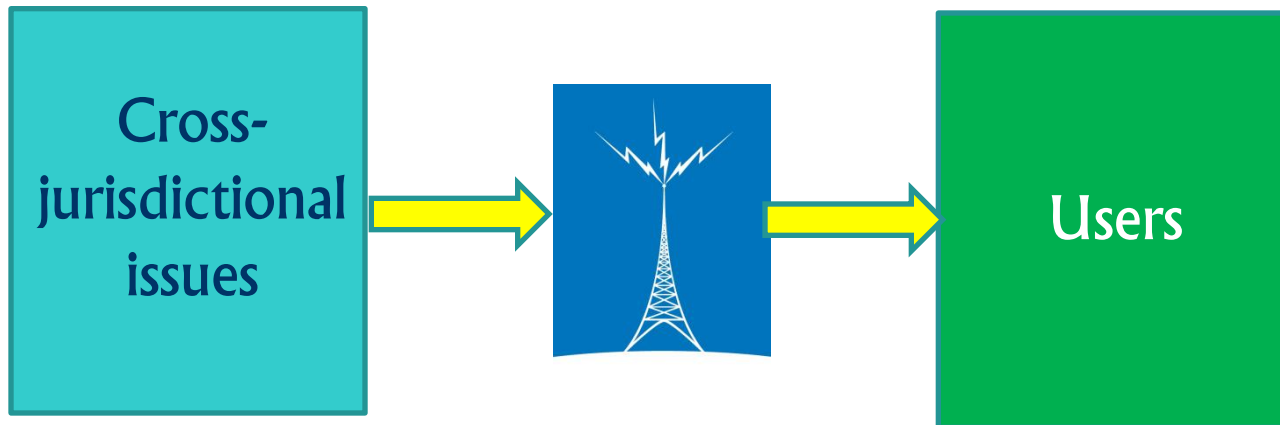
# Need #1. The interdisciplinary collaboration in biometrics should be increased

Experts agree that biometrics, probably more than other advanced technologies, need a strong interdisciplinary collaboration, e.g.



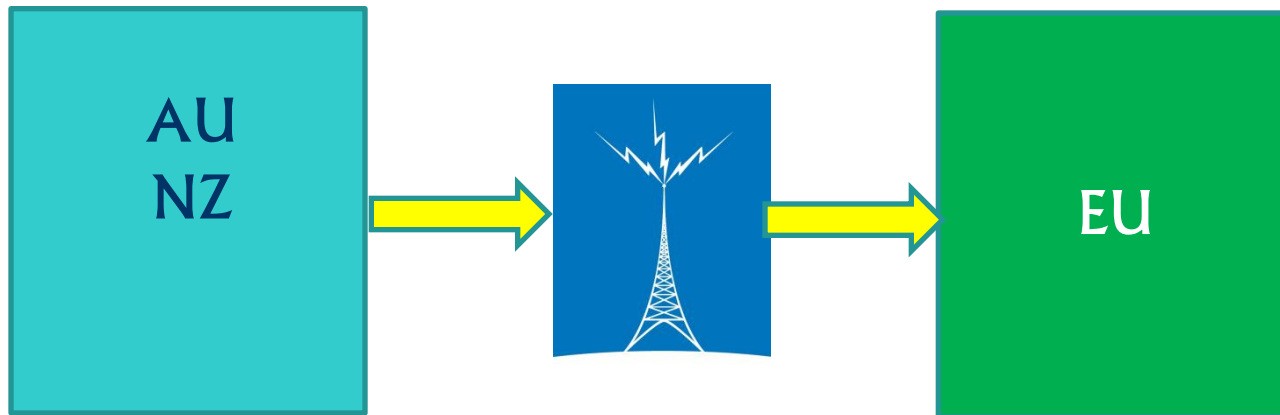
## Need #2. The communication between the experts of cross-jurisdictional issues and users should be increased

- Sometimes the information on cross-jurisdictional issues (such as privacy) concerning new technologies (such as biometrics) is not broadcasted in a satisfactory way to users

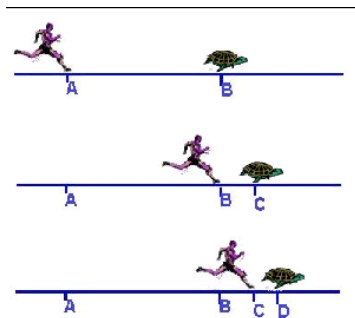


## Need #3. The knowledge of extra EU approaches to biometrics and cross-jurisdictional issues should be increased

- Many countries such as Australia or New Zealand have interesting approaches to cross-jurisdictional issues of biometrics which should be broadcasted also in EU



## Need #4: synchronization between cross-jurisdictional and technical issues should be increased



- Privacy and new technologies seem like Achilles and turtle
- When Achilles (privacy assessment) reaches the turtle (new technology) , the turtle is a step ahead
- Synchronization between privacy and new technologies should be improved
- This implies a good knowledge of privacy and technical issues coupled with an excellent collaborations between the experts

**Starting from these needs Why we do not think to a EU centralized “Identity Management Human Factors” competence center ?**



# A EU Competence Center

## Possible tasks (1/2)

- Collects privacy codes at an international level
- Collects recommendations
  - E.g. Art. 29
  - Iso, CEN
  - ...
- Supports both public and private organizations in understanding and applying the privacy related, ethical, social and legal issues connected to id management
- Maintains a website containing all the documents

## **EU Competence Center**

### **Possible tasks (2/2)**

- Promotes the diffusion of international standards pertaining to privacy related, social, ethical and legal issues in Identity Management
- Propose New Work Items to the International Standards Organizations
- Mantain contacts with non EU contries in the area of the ID-Management cross-jurisdictional issues
- ...

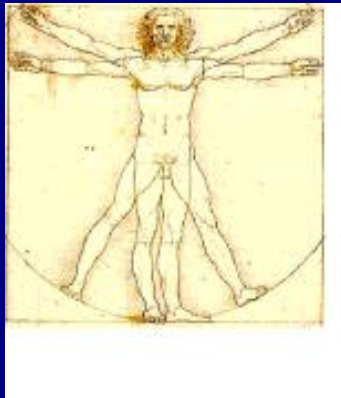
## Conclusions (1/2)

- The PRISE project has been particularly important in gathering heterogeneous experts in discussing some complex aspects of new technologies
- In analysing the possible threats for privacy arising from the massive use of new technologies a separation between government and commercial applications should be made
- In general terms, government applications, may be considered, in some way, to better satisfy the “proportionality” principle from a privacy point of view

## Conclusions (2/2)

- For governmental applications concerning biometrics some actions should be anyway carried out:
  - *Increase transparency*
    - e.g. on medical aspects
  - *Increase public consultations*
  - *Increase consideration of accessibility issues*
- A EU centralized “Identity Management Human Factors” competence center or working group could represent a pilot initiative in finding the way to harmonize new technologies with cross-jurisdictional issues

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