

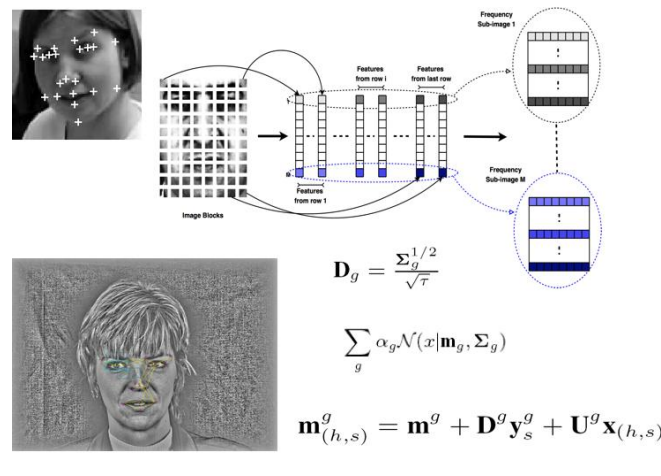
Mobile Biometry (MOBIO)

- **MOBIO is a EU project** (www.mobioproject.org)
 - Funded under FP7 for 3 years (2008–2010)
 - Coordinated at Idiap by [Sébastien Marcel](#) (PI)
- **Concept:** To provide anywhere anytime an **identity management** solution to any service (PIN code replacement, **e-commerce**, **e-banking**, ...) from a **mobile phone**
- **Goal:** Research on multiple aspects of biometric person recognition from portable devices (mobile phones) using built-in sensors (mics + camera)
- **Challenges**
 - Adverse capture conditions: background noise and illumination
 - Cooperation of the subject: face pose, occlusion, clean speech
 - Limited resources: reduced memory, processing resources
- **Community of Interest (CoI):**
an instrument or companies willing to join !



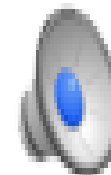
Biometric Person Recognition

- **Research activities at Idiap and in MOBIO**
 - Face detection and localisation
 - Robust-to-illumination face recognition
 - Robust-to-noise speaker recognition
 - Model adaptation to reduce the degradation of biometric systems over time
 - Scalability to study the degradation of a system while its complexity is reduced



- **Resources**
 - Software libraries and SDKs developed at Idiap
 - Torchvision (torch3vision.idiap.ch),
 - FaceOnIt (www.faceonit.ch)
 - A/V databases: mobile databases, ...

- **Projects:** MOBIO, BBfor2, Replay, GMface, BioSign, LogiFace



Future Direction: Spoofing Attacks

- **Conventional biometrics are vulnerable to attacks:**
 - Indirect attacks (intruders, hackers, ...)
 - Direct attacks (gummy fingers, photo attack, ...) also called **spoofing**



- **Spoofing** is a major problem and a real challenge
- There is a need for efficient, reliable and scalable solutions for detecting and circumventing spoofing attacks

