

ICT 23- Interfaces for accessibility

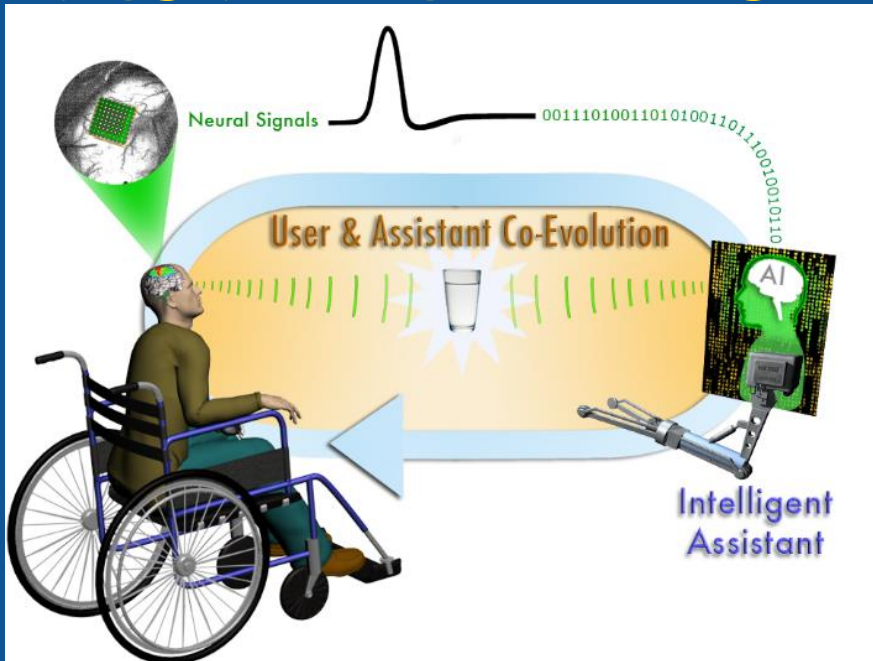


Assistive Technologies



European
Commission

BCI: Brain Computer Interfaces



A mind-machine interface - a direct communication between the brain and an external device.



Assisting, augmenting, repairing human cognitive or sensory-motor functions.



TOBI : Tools for Brain-Computer Interaction

<http://www.tobi-project.org/demos>

<https://www.youtube.com/watch?v=d8PnOcsgtKs>



eInclusion:

Improve digital access for people with disabilities

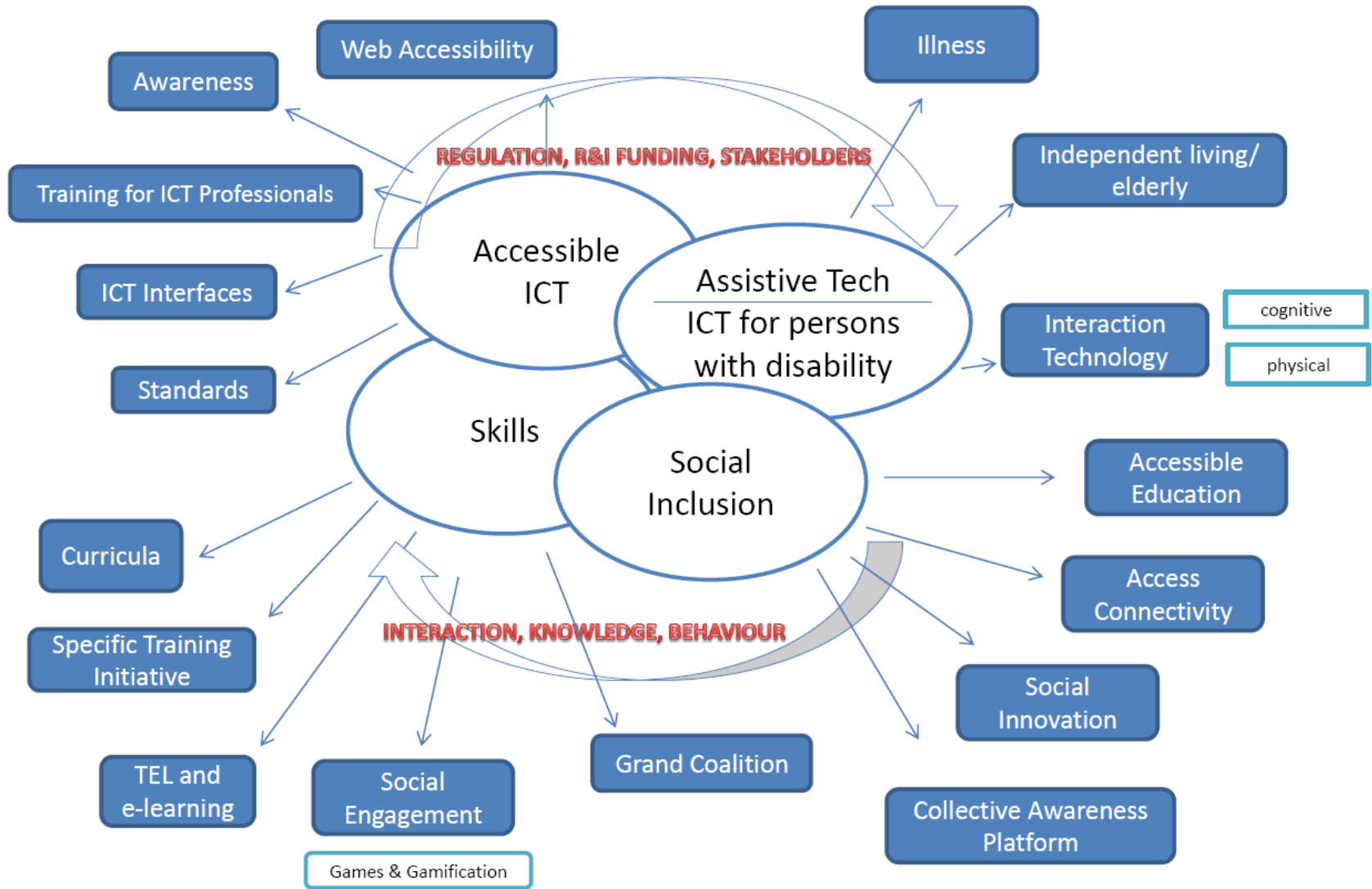


Mobile Assistance for Social Inclusion & Empowerment of Immigrants with
Persuasive Learning Technologies & Social Network Services



Digital inclusion in the EÜ: Policy, research and innovation

European Commission



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Challenge

- **Lack of accessible and usable systems.** - In particular those with **neurological conditions and disorders as well as cognitive disabilities.** -
- **More effective solutions,** designed with people with disabilities and their carers, are needed **to mediate communication experiences or for more natural interactions,** including with their environment.
- Technologies aiming at **enhancing cognitive accessibility**
- Furthermore, improving the **capacity to decode and use brain signals** will help to accelerate the development of solutions for people with communication disorders.

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R&I (Budget: 10 MEUR)

- a) **Development of intelligent, affordable and personalised interfaces and affective computing for people with cognitive disabilities.**
Focus user's abilities and be able to detect behaviours and recognise patterns, emotions and intentions in real life environments.
Mix of expertise is required and due attention will be paid to the diversity of users and users' needs (e.g. age, gender, socio-economic status).
- b) **Develop and test solutions, models and algorithms to improve (and act upon) information extraction from brain and neural signals, including through advances on state of the art electrodes and implantable devices**

€2 Million

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Innovation Action (Budget: 2 MEUR)

Develop and demonstrate **decision support tools** for the assessment of **compliance to web sites accessibility standards and guidelines**.

Research should focus **primarily on quality and accuracy of automatic support** to assessments, detecting accessibility hurdles and assisting developers in repairing accessibility barriers.

Solutions shall enable **fast processing of dynamic content and large volumes of web pages/content and data**, and more effective hybrid combination of automatic /expert reviews

€2 Million



Thank you

**DG CONNECT
Unit G4 Skills, Youth,
Inclusion
LUXEMBOURG**