

H2020 ICT 2014-2015

ICT 22- Multimodal and Natural Computer Interaction

- .a R&I Action: interactive information retrieval systems
- .b R&I Actions : assisting people with disabilities
- .c Innovation Actions: Innovative multimodal interfaces



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ICT 22- Multimodal and Natural Computer Interaction

- .a R&I Action: interactive information retrieval systems ->(15/1)
- .b R&I Actions : assisting people with disabilities -> (6/2)
- .c Innovation Actions: Innovative multimodal interfaces -> **NOW**

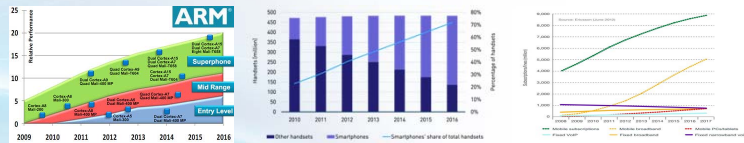


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Rationale

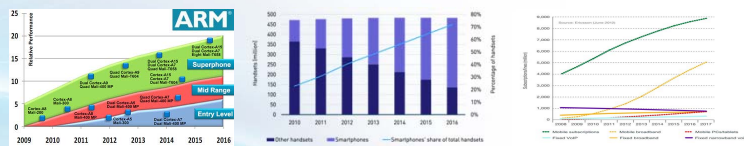
- systems and devices are becoming more and more powerful



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Rationale

- systems and devices are becoming more and more powerful



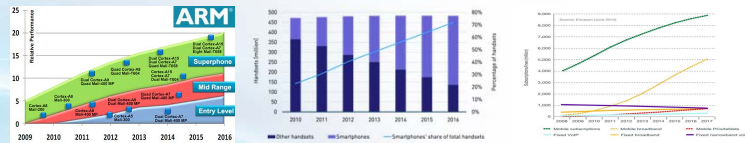
- the human-computer interface is lagging behind



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Rationale

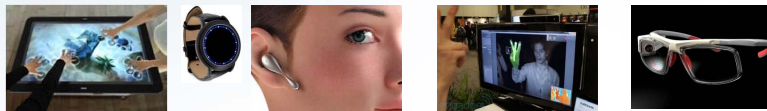
- systems and devices are becoming more and more powerful



- the human-computer interface is lagging behind



- But the world is changing



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Multidisciplinary

...Leveraging on multidisciplinary expertise combining knowledge from both the technological and human sciences...

Communication technologies, design, language/speech processing, hardware specialist, creative industries,...

Objective

...new technologies need to offer interactions which are closer to the communication patterns of human beings and allow a simple, intuitive and hence more "natural" communication with the system....

- achieve transparency and invisibility of technology
- effortless, effective human-machine collaboration
- easy use of complex and powerful systems, easy access to information
- pleasant, enjoyable, entertaining



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Innovation projects on multimodal interfaces (7,5 MEUR)

Small project proposals are expected (2-4 M€ funding)

Target:

- more *efficient* and natural ways of interacting with computers
- *improve users' experience.*

How ?

- Create non-intrusive interaction with humans where real and virtual content is blended.

Starting From

- one or multiple smart devices and sensors
(*scene analysis, voice recognition, human position, gestures and body language detection,...*)



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Requirement:

- Built with a user centric approach
- cost effective
- address clear market needs
- be validated (*in domains such as those of the creative industries fields*)



Expected Impact for this topic:

- Enable better uses of ICT technologies within the creative industries by providing **directly usable solutions** addressing their specific needs.
- Provide a **large spill over of the knowledge** acquired to a maximum of 10 European industries.
- Improve the competitive position of the European industries through the provision of **cost effective, innovative and high-value products and services**.



Multimodal & Natural
human-computer interaction

ICT 22 – Innovation action (c)

Definition of Innovation Action

http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-d-ia_en.pdf

Description: Action primarily consisting of activities directly aiming at producing plans and arrangements or designs for new, altered or improved products, processes or services. For this purpose they may include prototyping, testing, demonstrating, piloting, large-scale product validation and market replication.

A '**demonstration or pilot**' aims to validate the technical and economic viability of a new or improved technology, product, process, service or solution in an operational (or near to operational) environment, whether industrial or otherwise, involving where appropriate a larger scale prototype or demonstrator.

A '**market replication**' aims to support the first application/deployment in the market of an innovation that has already been demonstrated but not yet applied/deployed in the market due to market failures/barriers to uptake. 'Market replication' does not cover multiple applications in the market of an innovation³ that has already been applied successfully once in the market.

'**First**' means new at least to Europe or new at least to the application sector in question. Often such projects involve a validation of technical and economic performance at system level in real life operating conditions provided by the market.

Projects may include **limited research and development** activities.



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Thank you



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<http://ec.europa.eu/dgs/connect/en/content/dg-connect>



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