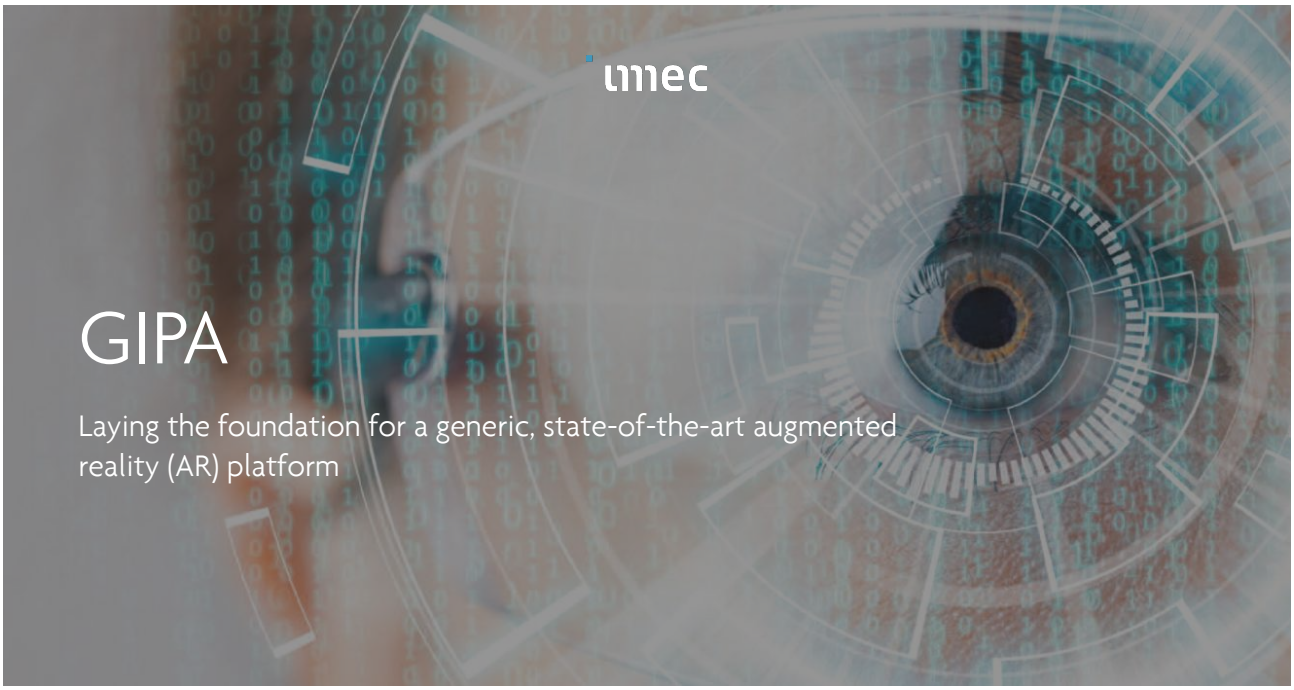

GIPA

Laying the foundation for a generic, state-of-the-art augmented reality (AR) platform

SMART INFOTAINMENT

Augmented reality (AR) holds great potential. It augments views of a physical, real-world environment with computer-generated input such as sound, video or graphics. Imagine for instance that your glasses project – upon your request, and right in front of your eyes – more info on a nice car that drives by...

Yet, the large-scale deployment of that type of apps is still a long way off. Today's AR technology first has to overcome some limitations, such as the absence of a generic platform that enables the rapid and easy creation of AR applications across industry sectors.

"The GIPA project rallied a number of partners who wanted to explore the opportunities of augmented reality to enhance and expand their product portfolios," says Filip Hautekeete (Neopica), GIPA's project lead. "Engineering company Grontmij and entertainment / game development studios Neopica and Visual Impact had obviously come across AR technology already – but important limitations were preventing them from building it into their products."

"Hence we set out on a journey to investigate AR technology updates that could help the consortium partners make progress in this domain," adds prof. dr. Peter Schelkens (iMinds - VUB), the project's research lead. "Our research ran along various tracks. For instance, instead of using cumbersome visual markers (such as stickers), we wanted to explore the potential of object recognition to directly deploy augmented reality components on top of video feeds. The use of 3D inputs was a second challenge, and another point of attention was our generic approach – creating technology for partners across a variety of industries."

The outcomes

- A novel approach that builds on 3D inputs for the creation of higher-quality AR apps
- A demonstrator that reveals how augmented reality will impact our lives in the years to come
- An instrument to measure Quality of Experience (QoE) of AR systems
- Lack of hardware is a showstopper, but GIPA learnings provide partners with longer-term head start

GIPA Leaflet

imec-icon_leaflet_GIPA

GIPA (Generic Interoperability Platform for Augmented Reality Applica-tions) is an imec.icon research project.

It ran from 01.01.2014 until 31.12.2015.

Project informatie

Industry

- Barco
- Grontmij
- Neopica
- Visual Impact

Research

- imec - IPI - UGent
- imec - Data Science Lab - UGent
- imec - ETRO - VUB
- imec - MICT - UGent
- MMLab - UGent

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