



HIGH PROFILE

HIGH-throughput PROduction of Functlonal 3D imagEs of the brain

PROJECT description

Introducing end-to-end neuro-imaging - Innovation based on leveraging cross-domain building blocks
Acquisition, Image processing & Visualisation in the workflow on cross-domain imaging platform on commodity multi-core hardware

RELEVANCE to call

Industrial Priority 3.1.2: Seamless connectivity and middleware

ASP2: Healthcare systems

image diagnostic platforms for the central nervous system

- > A reference architecture
- > Interoperability
- > New sensors and actuators compliant to interoperability standards

ASP5: Computing environments for embedded systems

Component based cross domain image processing

MARKET innovation

- > Significant contribution to diagnosis and therapy of illnesses of central nervous system and brain
- > Exploit high-performance digital signal processors and computing and content management platforms based on commodity hardware
- > Make the data available when and where required – prepare for the cloud
- > Visualise on commodity devices: laptops & tablets

TECHNICAL innovation

Image acquisition

- Context adaptive image capturing from multiple sources
- Increasing resolution & frame rate up to real time

Image processing:

- > Extracting the most relevant, and accurate information out of the image data
- > Imaging chain cross domain software building blocks
- > low latency large data processing on multicore COTS

Visualisation of key information from images

- > Fast and easy access to 2D, 3D & 4D imagery within clinical workflow
- > Large data distribution with short latency

Topics of attention in the project:

- > Cross domain embedded technologies for very fast image processing
- > Compensation for patient movement and sharper images
- > Workflows for different imaging modalities
- > Visualisation and application of the data in a clinical workflow



PROJECT COORDINATOR

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START

April 2011

INSTITUTION

Philips Healthcare

DURATION

36 months

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TOTAL INVESTMENT

€ 17.12 M

WEBSITE

www.highprofile-project.eu

PARTICIPATING ORGANISATIONS

17

NUMBER OF COUNTRIES

5



THE NETHERLANDS

PHILIPS



AnyWi



FINLAND



AUSTRIA



BELGIUM



ITALY

