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## Project Fact Sheet

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## At a glance :

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Medical University of  
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University Hospital  
Heidelberg (DE);  
Catalan Agency for Health  
Information, Assessment  
and Quality (ES)

**Duration**  
11/2012-04/2015

**Funding scheme:** SA

**Total Cost:** € 1.593 m

**EC Contribution:** € 1.425 m

**GA number:** 318068

## Objectives

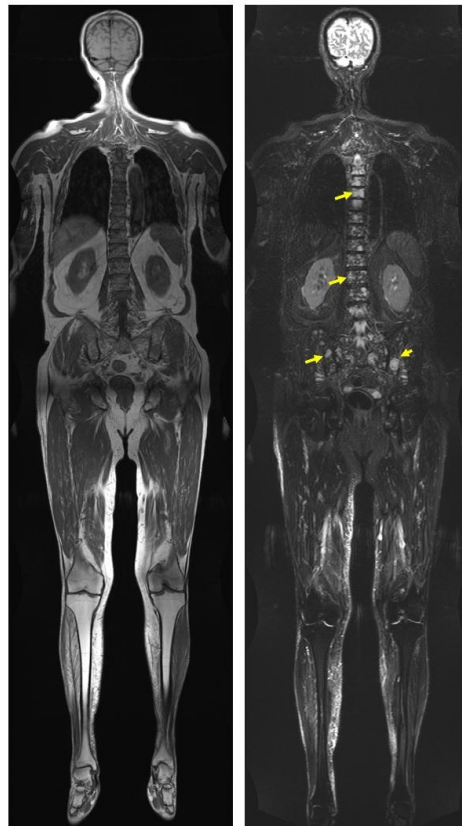
VISCERAL will define and execute a **targeted competition framework** to speed up progress towards:

- **Automated anatomy identification and pathology identification** in 3D (MRI, CT) and 4D (MRI with a time component) radiology images.
- **Similar case retrieval** for these images and the reports associated with them.

The following objectives will be met in carrying out the VISCERAL project:

- Create an **evaluation infrastructure** and software to allow the competitions to be carried out efficiently and effectively, but that also allows continuous evaluation to take place beyond the competitions;
- Innovate through the use of a **cloud infrastructure** for the evaluation of algorithms on huge amounts of data;
- Run **two competitions** and two workshops at which competition results will be discussed;

- Fuse a large number of automated competition entries to create a very **large silver corpus**;
- Create a small but sufficiently large **gold corpus** by manual annotation of the radiology images (used to evaluate the quality of the evaluation by the silver corpus);
- **Release the radiology data and the silver and gold corpora** as research collections at the end of the project.



## Competitions

### Competition 1: Identification, localization and segmentation

The competition tasks will be organ identification and the segmentation of bones, inner organ and relevant substructures.

**Competition Dates:** August to November 2013

### Competition 2: Retrieval

The competition task will be the retrieval of similar cases based on both visual information and radiology reports.

**Competition Dates:** May to August 2014

## How the competitions will be organised

**Training phase:** The participants each have their own computing instance in the cloud (provided by VISCERAL), linked to a small dataset of the same structure as the large one. Software for carrying out the competition objectives is placed into the instances by the participants. The large data set is kept separate.

**Testing phase:** On the competition submission deadline, the organiser takes over the instances from the participants, links them to the large data set, executes the software on the large dataset and evaluates the results.

