

ICT4Rehab has
the clinical support
of CIRICU

ICT4Rehab Project

<http://www.ict4rehab.org>

The ICT4Rehab project is aiming to develop a technological platform to answer current clinical needs such as:

- Patient data management and data extraction,
- Patient data comparison and data exchange,
- Data standardization and visualisation,
- Clinical knowledge extraction.

The focus of the project is on
Upper Motor Neuro Syndrome (UMNS)

The ICT4Rehab project is an academic project funded by the **Brussels Institute for Research and Innovation** (INNOVIRIS).



The Research partners are located at the Université Libre de Bruxelles (ULB) and Vrije Universiteit Brussel (VUB).

The ICT4Rehab project is currently looking for supplementary Clinical Expert groups (clinical testing, motivational aspects, etc). If you are interested, please, contact Prof. S. Van Sint Jan (project coordinator): sintjans@ulb.ac.be.



Vrije Universiteit Brussel



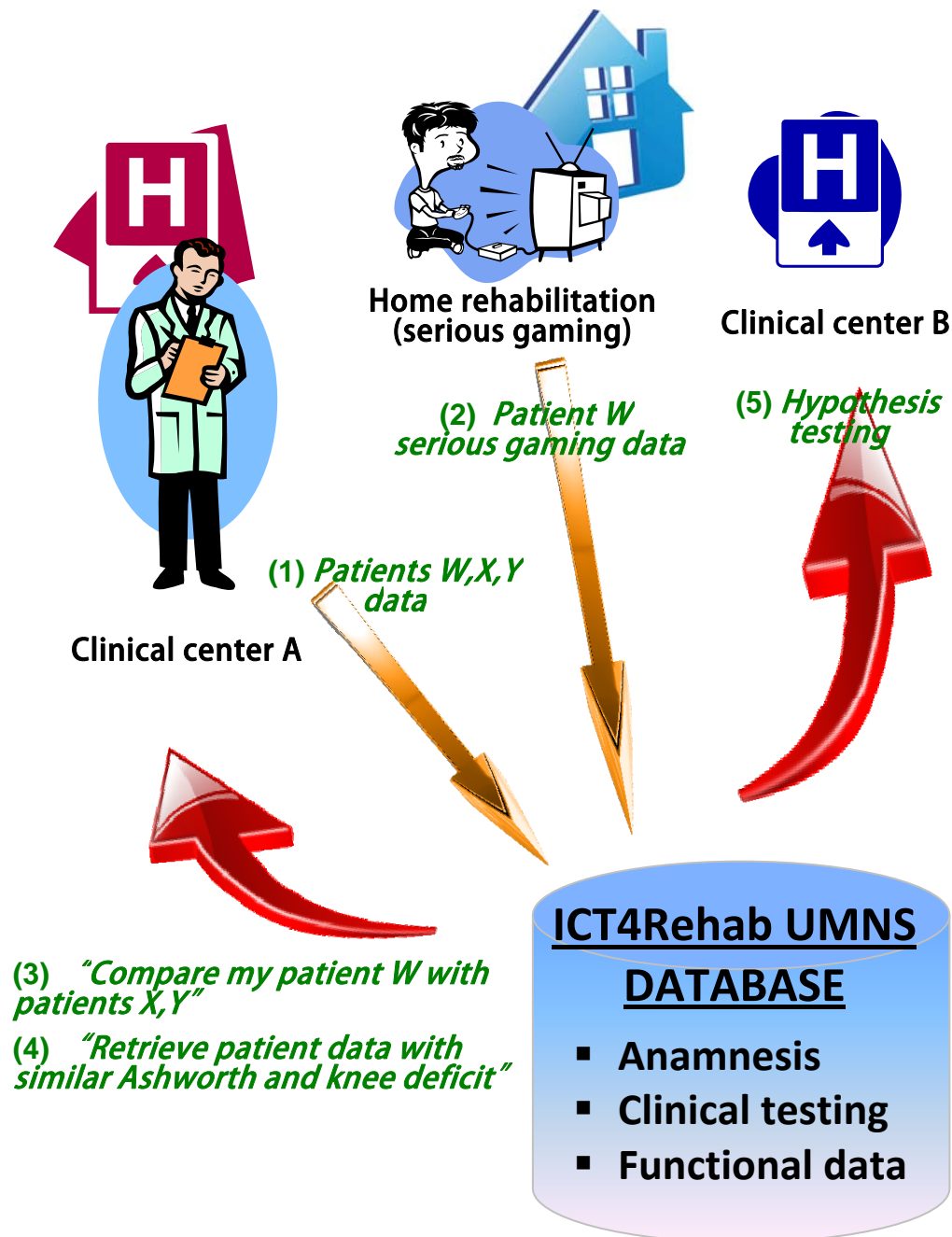
ICT4Rehab Goals

Today clinical UMNS management is facing several problems related to patient data comparison and management between clinical centres. Moreover an interactive personalized system for controlled patient exercises is foreseen to generate 3D camera images and accelerometer data. The **ICT4Rehab** project develops a technological platform that allows clinicians from different locations to (*also see scheme on next page*):

- **(1)** Store UMNS-related data in a common database; this will ensure data homogenisation and format standardization;
- **(2)** Propose to patients home rehabilitation schemes based on serious gaming;
- Perform clinically-meaningful data analysis such as:
 - **(3)** Compare a particular patient to populations (healthy or patient) found in the database;
 - **(4)** Retrieve from the database data similar to one of their patients;
 - **(5)** Perform hypothesis testing using a selection of clinically-collected parameters;
- Download clinical reports or relevant data for further processing.

The project is open to any clinical users/centres that wish to participate by bringing their clinical experience and by testing the developed technologies during the successive development stages.

The ICT4Rehab project is strongly committed to respect National legislation and clinical ethical aspects related to patient data exchange and protection of patients' identity.



ICT4Rehab Partnership

Research

- **Laboratory of Anatomy, Biomechanics and Organogenesis** (LABO, Faculty of Medicine, ULB):
 - Scientific and clinical coordination
 - Biomechanical and rehabilitation aspects
 - Clinical scenario for serious gaming
- **Department of Electronics and Informatics** (Faculty of Engineering, VUB):
 - Serious gaming for rehabilitation
 - Technological integration
- **Web and Information Technologies Lab** (Faculty of Applied Sciences, ULB):
 - Database development and management
- **Machine Learning Group** (Faculty of Sciences, ULB):
 - Knowledge extraction, data mining

Clinical User Group

- CIRICU

Industrial User Group

- Biomedical Systems
- Optrima s.a.
- Softkinetic s.a.

Funding agency



Project details

- Start: 1st February 2011
- End: 31st of January 2014
- Budget: 1.5 million €