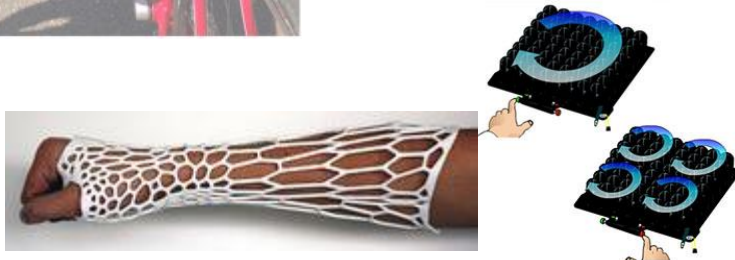
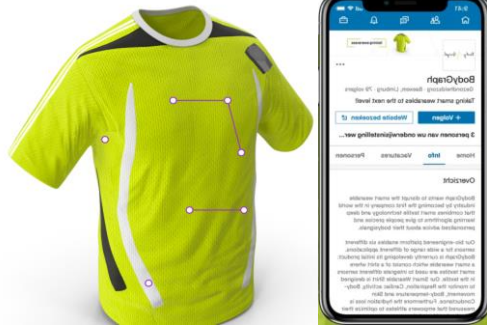


Concepts behind the i²-CoRT project

Innovation and implementation acceleration
of complex rehabilitation technology

Use of technology in rehabilitation



Context

Companies often contact rehabilitation centres to ask for help to

- develop their technological products,
- test them,
- buy them or
- prescribe them to clients.

Formal and informal contacts



Problems (1)

- Many initiatives and potential innovations concerning rehabilitation technology (RT) **do not mature** and **are not implemented** in rehabilitation, due to numerous causes.
- Consequently, **time, efforts, ideas and resources** may be **wasted**.
- RT is **potentially harmful** for patients if **used wrongly** or at the **wrong time** during treatment.

Problems (2)

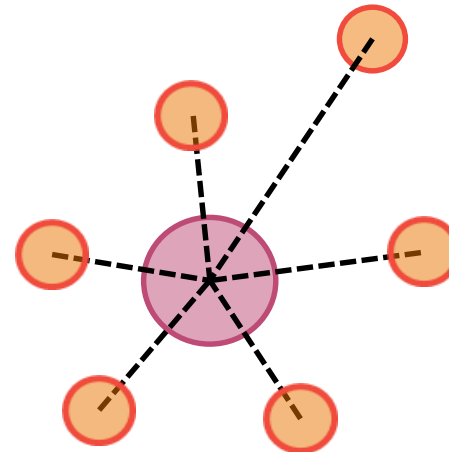
- Technology development often is **too fast** for RT devices to be tested in Randomized Clinical Trials (**RCTs**) and Cost-Effectiveness Analyses (**CEAs**).
- New approaches and study designs are needed to **evaluate the merger of treatment concepts and technology concepts**.

General aim of i²-CoRT

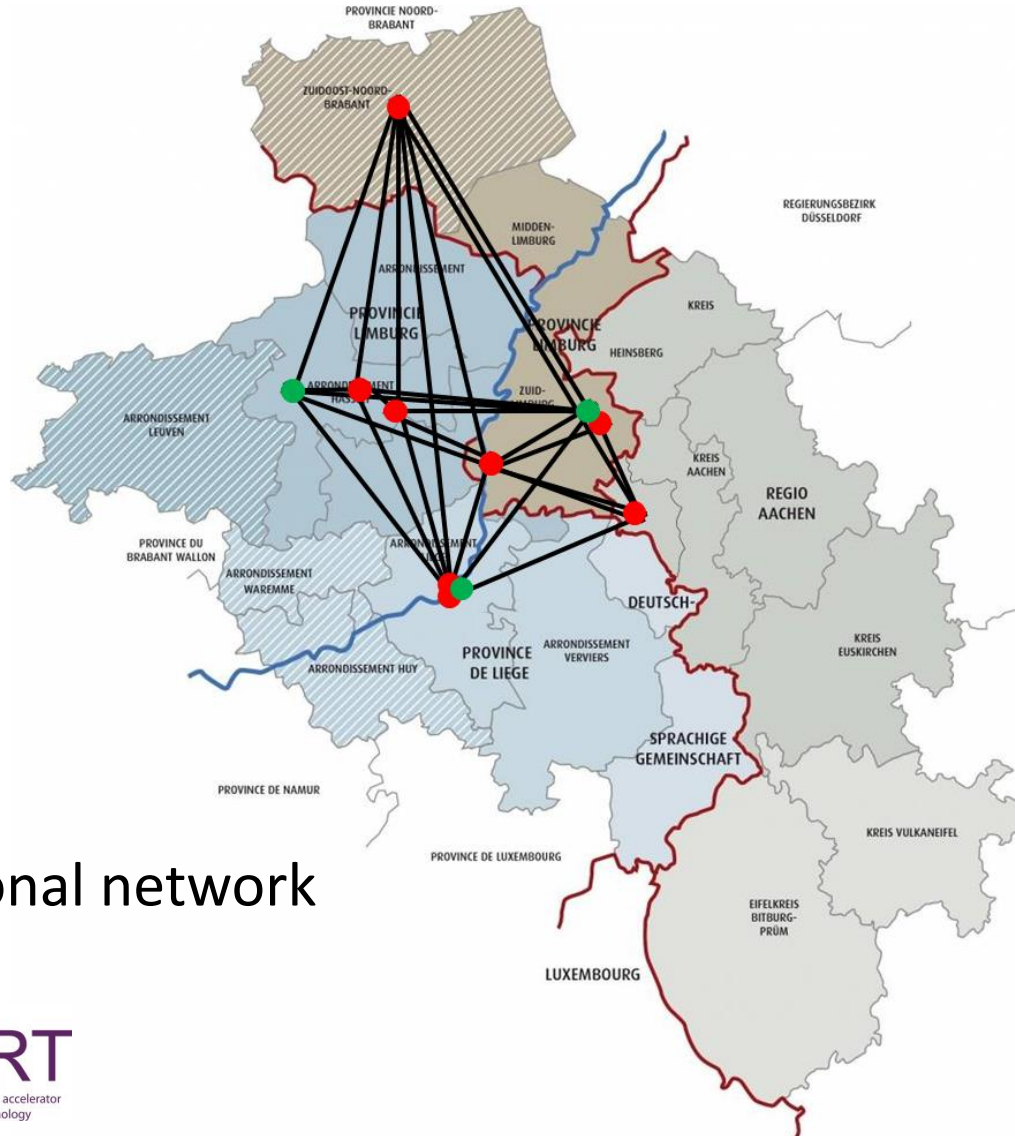
i²-CoRT brings together state-of-the-art knowledge & experience of

- rehabilitation centres,
- knowledge centres,
- (SME) businesses,
- healthcare sector organizations and
- patients (organizations)

in order to promote and accelerate rehabilitation technology innovation and implementation through **collaboration** and **co-creation**.



Interreg Euregio Meuse-Rhine



Euregional network

Interreg
Euregio Meuse-Rhine
European Regional Development Fund



Ministerium für Wirtschaft, Energie,
Industrie, Mittelstand und Handwerk
des Landes Nordrhein-Westfalen



provincie limburg



ACTiCON members
(companies)

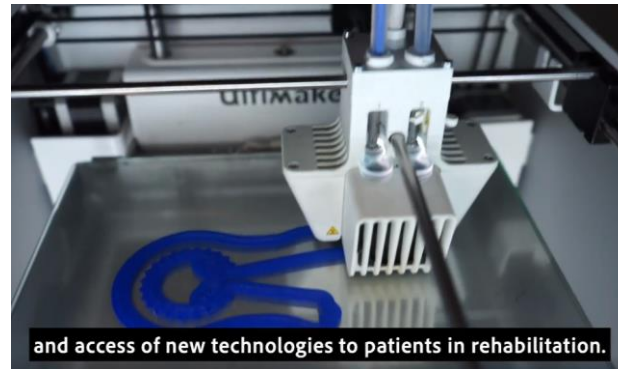
Specific aims (1)

- Development of **infrastructures**: 3 clinical test centres for complex rehabilitation technology in Hoensbroek (NL), Herk-de-Stad (B) and Esneux/Liège (B)

Jessa, HdS



CHU, Esneux



Adelante, Hb



Specific aims (2a)

- New rehabilitation technology products and services
 - ‘remote handling’ based **training concepts**, systematically manipulating **proprioception** (=‘sense-of-movement’) during arm-hand training in stroke patients
 - development of **sensor-based technology** for identification and assessment of **arm-hand skill performance**



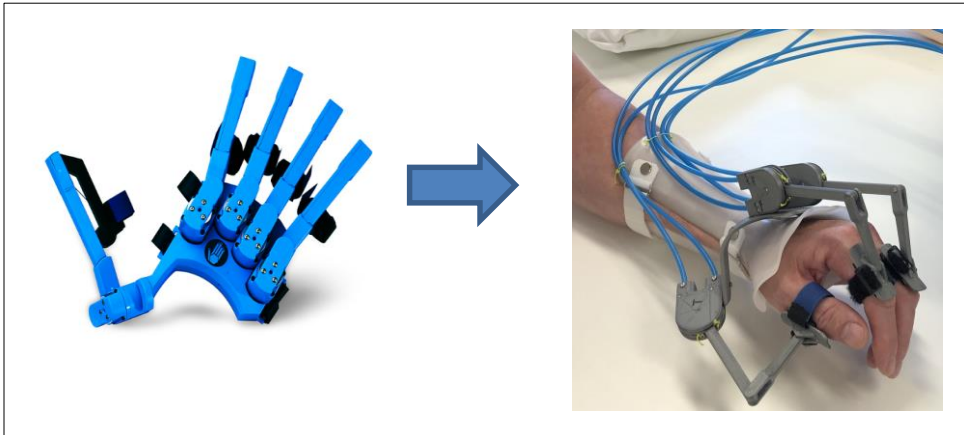
Specific aims (2b)

- New rehabilitation technology products and services
 - **Sensor technology** and applications to **prevent sitting and seating problems** in wheelchair-bound people
 - **Technical aids** and concepts to **assist training** of complex (bimanual task oriented) skills and **measurement of functional arm-hand strength**



Specific aims (2c)

- New rehabilitation technology products and services
 - innovative hand / wrist orthosis (splint) actively supporting the opening and closing of the fingers in e.g. stroke patients with a low functional hand
 - 3D printed (temporary) hand orthoses



Specific aims (3)

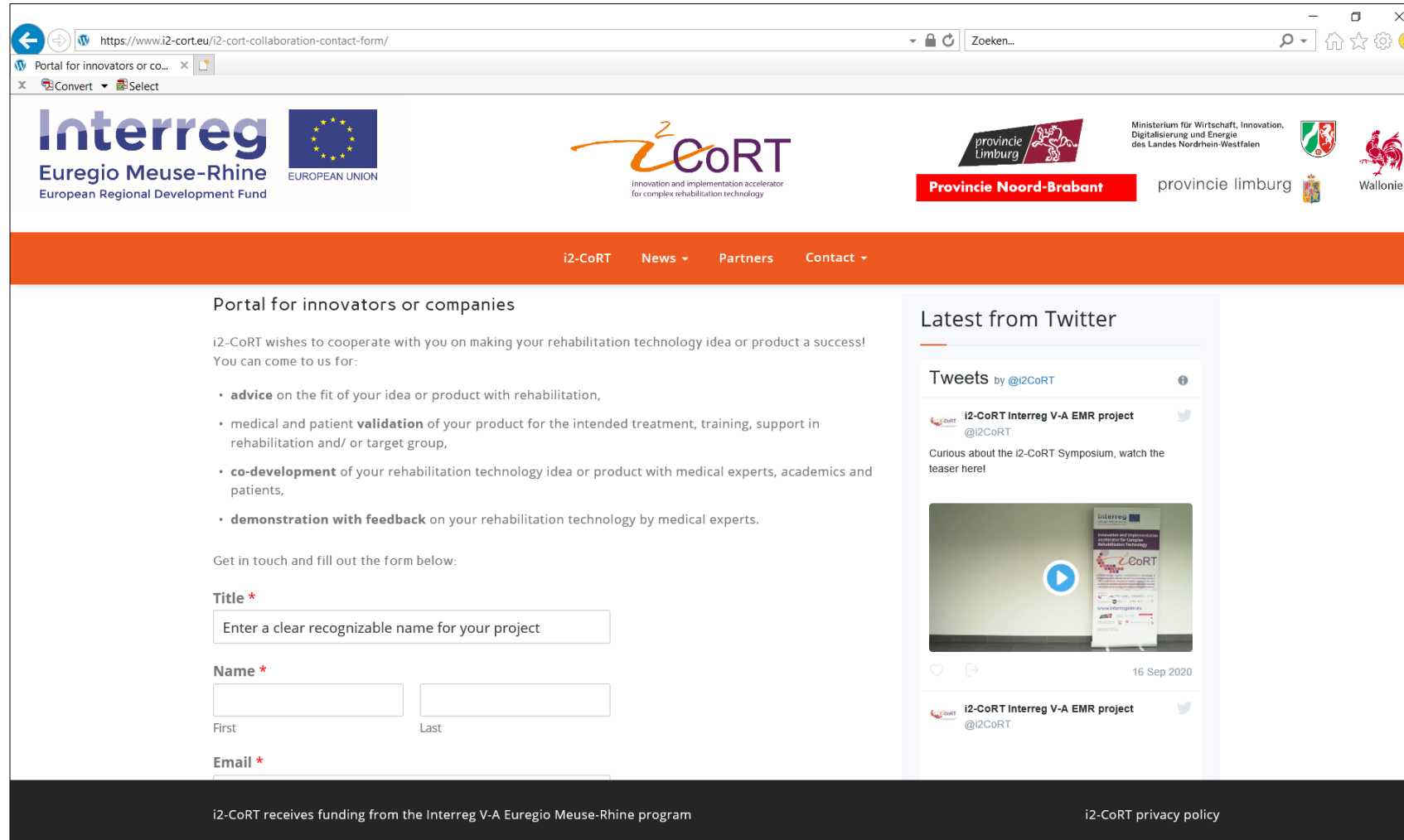
- Development of **knowledge axis on RT** with (eu)regional partners
- Growth of economic **business activities** in collaboration between (SME-)companies and health care facilities
- **Cross-border, Euregional comparison**

Paramount theme: co-creation

- SMEs/companies → ACTiCON
→ Portal → pitches
- Students: UM/TUe/Zuyd/... (Immersive learning)
- Therapists: PTs+OTs
- Nursing staff
- Physiatrists
- Psychologists
- Patients
- Researchers: many



i²-CoRT portal for companies



The screenshot shows a web browser window with the URL <https://www.i2-cort.eu/i2-cort-collaboration-contact-form/>. The page features a header with logos for Interreg Euregio Meuse-Rhine, the European Union, i2-CoRT, and various regional partners including Provincie Noord-Brabant, Provincie Limburg, and Wallonie. Below the header is an orange navigation bar with links for i2-CoRT, News, Partners, and Contact. The main content area is titled "Portal for innovators or companies" and includes a welcome message, a list of services (advice, validation, co-development, demonstration), and a contact form. The contact form has fields for Title, Name (First and Last), and Email. To the right of the contact form is a "Latest from Twitter" section showing tweets from @i2CoRT. The footer contains information about funding from the Interreg V-A Euregio Meuse-Rhine program and a link to the i2-CoRT privacy policy.

Portal for innovators or companies

i2-CoRT wishes to cooperate with you on making your rehabilitation technology idea or product a success!
You can come to us for:

- **advice** on the fit of your idea or product with rehabilitation,
- medical and patient **validation** of your product for the intended treatment, training, support in rehabilitation and/ or target group,
- **co-development** of your rehabilitation technology idea or product with medical experts, academics and patients,
- **demonstration with feedback** on your rehabilitation technology by medical experts.

Get in touch and fill out the form below:

Title *

Enter a clear recognizable name for your project

Name *

First Last

Email *

i2-CoRT receives funding from the Interreg V-A Euregio Meuse-Rhine program

i2-CoRT privacy policy

www.i2-CoRT.eu

Development of SOPs

- **Standard operation procedures (SOPs)** in test centres:
 - standardized and reliable testing of rehabilitation technology during RT development activities
 - active involvement of SMEs in co-developing and testing RT
 - rehabilitation certification of RT products
 - (supra-regional) implementation of RT
- Companies and partners want to know which processes and standards the test centres adhere to

Summary

- 3 test centres / infrastructures for RT innovation & implementation
- State-of-the-art, multidisciplinary expertise / knowledge
- Euregional network / knowledge axis on RT
- Cross border collaboration
- Active SME / company network
- Novel RT under development
- Loads of ideas for RT development
- Portal
- SOPs
- ...



Summary

“Only through multidisciplinary collaboration and co-creation can rehabilitation technology innovations be effectively created and implemented in rehabilitation to optimally serve patients’ needs.”

If you want to collaborate with the i2-CoRT network

Contact us through our website / portal

www.i2-CoRT.eu

or via email

i2-CoRT@adelante-zorggroep.nl

Thank you for your attention