



ROSLA: an entry door for Innovations into the Telerehabilitation Market

In the past decade, the use of technology for remote assessment and intervention in rehabilitation has grown exponentially, paving the way for the development of telerehabilitation.

ROSLA (Remote Rehabilitation Service for Remote Areas) is about to unlock the telerehabilitation market through the development of the ROSIA Innovation Ecosystem incorporating the current market of disruptive solutions for home rehabilitation, enabling clinicians to prescribe certified solutions, and facilitating SMEs and researchers to access the Health Care System. ROSIA will create a catalogue of technology-based products and solutions enabled by technological advancements as part of a new and comprehensive service delivery for patients across Europe.

ROSLA Project Details

ROSLA is a development project funded by the European Commission under the Horizon 2020 research and innovation programme. It is a Pre-Commercial Procurement (PCP) project, consisting of 12 partners across five countries (Ireland, Spain, Portugal, Netherlands and Denmark).

ROSLA has a planned duration of 54 months, from January 2021 until August 2025 incorporating progress reviews by the European Commission.

Overview

Acquired Brain Injury, Spinal Cord Injury, Stroke, heart attack, COVID-19 or hip-replacement have a dramatic impact on a person's health and well-being.

These are generally life-changing events, requiring a comprehensive rehabilitation process designed to enable individuals to be as independent as they possibly can and participate in their personal, family and community life. However, rehabilitation is a long and challenging process and demands significant clinical resources.

What is the Issue?

Healthcare systems across Europe face the combined challenge of an ongoing increase in demand for rehabilitation services but with limited resources.

The situation is more pronounced in isolated areas, where distances to access healthcare are longer and can negatively influence patient experience and rehabilitation outcomes.





Reorganising rehabilitation services must be a priority, given its potential to create lasting improvements to the health of those living with chronic conditions and reduce disability, thereby reducing the burden on health services.

Development of an ICT Innovation Ecosystem for telerehabilitation can integrate technology from third parties, with the potential to remotely address the need for; interaction with clinicians, evaluation, exercises definition, exercises performance, adherence and motivation, for a broad range of pathologies.

ROSIA PATHOLOGIES:

CHRONIC SPINAL CORD INJURY

ACQUIRED BRAIN INJURY

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

ARTHROPLASTY

CARDIOVASCULAR DISEASE

HIP FRACTURE

COVID-19

How ROSIA can be part of the solution

ROSIA aims to pave the way for an extensive deployment of the self-care model for long-term conditions and disabilities by generating a flexible and scalable value-based model of care, organised around rehabilitation at home and self-management.

This model is **comprehensive in its use of technology** including:

- disruptive solutions at home
- data driven interventions
- an open platform for third party solutions that integrates timely and effective communication.

ROSIA is ready to develop a model that complements the use of existing healthcare resources and build a public-private partnership. This model will guide the design and purchase of **a technology-enabled all-in-one service** which is sufficiently flexible to adapt to various European healthcare systems.

Objectives

This system will enable clinicians to prescribe certified solutions from the ROSIA catalogue of technology-based products and solutions, enabled by technological advancements (telerehabilitation) and disruptive technologies (virtual-augmented reality, depth cameras, sensors, IoT, or artificial intelligence) as part of a new, comprehensive service delivery for patients across Europe. This will also facilitate SMEs and researchers to access the health care system.

The ROSIA Innovation Ecosystem

This Innovation Ecosystem will be based on:

- **ROSIA Catalogue:** A menu of certified 3rd party solutions.
- **ROSIA Developers:** The development of an architecture to define interoperable APIs, will allow building solutions based on existing modules. This will aid existing research projects in becoming market solutions. Cooperation with any other related initiatives will be prioritised in order to aggregate demand.
- **ROSIA Open Platform:** An open platform to host devices, communicate them, and manage data sharing.

ROSIA Model aims to enable the development at scale of the paradigm shift to move from hospital-based rehabilitation to:

- telerehabilitation under follow-up of clinicians
- Self-management of rehabilitation at home

The PCP Process

New technologies and solutions are sought by using a Pre-Commercial Procurement (PCP) process. PCP is a method of procuring research and development services with the purpose of developing a new digital health and care product or solution. PCP enables:

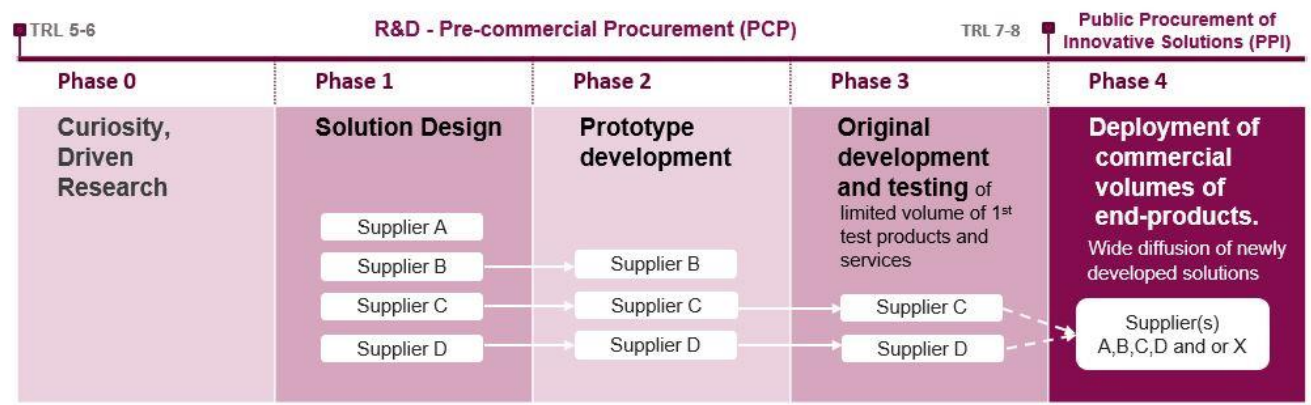
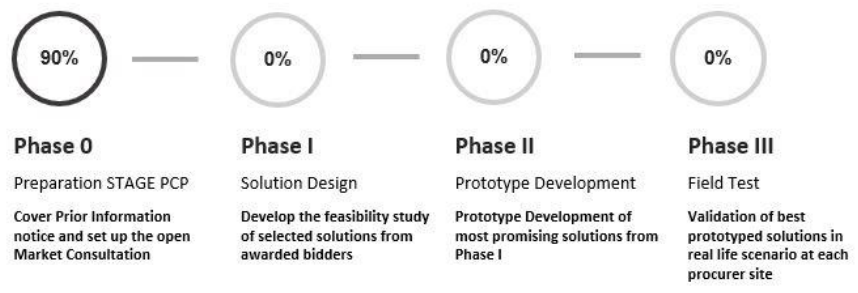
- procurement of research and development when solutions are not available within the market
- opportunities for enterprises to participate in meaningful research and development
- development of new technologies to be taken to the market

The PCP Process is managed in several phases.



ROSIA is a PCP: What is it and how is it performed?

ROSIA Process & PCP Process



Phase One : Solution Design

This phase is a feasibility study of the selected technologies and proposals, which aims to verify the technical, economic and organizational feasibility of each company’s offer. Successful tenderers are expected to demonstrate the feasibility of their idea through simulations and models.

Duration: 3 months - up to 5 suppliers. **Budget** per supplier €20,000

Phase Two : Prototype Development

The purpose is to take the most promising ideas that have been shown to be feasible in Phase One and develop them into well-defined prototypes. The aim is to verify to what extent the prototype’s main features meet the functional and performance requirements.

Duration: 8 months - up to 3 suppliers. **Budget** per supplier €300,000.

Phase Three : Original Development and Testing

The Phase 3 aims to verify and compare the full feature set and performance of solutions by field testing in real-life conditions of the targeted public service.

Duration: 18 months - up to 2 suppliers. **Budget** per supplier €1,450,000.

After ROSIA

This phase deals with the commercialisation of the product or service and therefore falls out of scope of the ROSIA project. At Phase 4 it remains for the public body to decide whether to do a commercial procurement, and for companies to commercialise their innovations.

ROSIA Procurers and Test Sites

ROSIA buyers' group represents three different European healthcare systems: the **National Rehabilitation Hospital, Ireland**; **SALUD**, a regional authority from **Aragon, Spain**; and **Coimbra Univ. Hospital** from **Portugal**. Validation will take place in two shires or localities per country.

These public procurers plan to acquire, through the Public Procurement of Innovation instrument (PPI), the design of the future's tele-rehabilitation services for remote areas.

A European project funded through the Horizon 2020 program, the EU's key funding programme for research and innovation.

Topic: SC1-DTH-14-2020 - Pre-commercial Procurement for Digital Health and Care Solutions

Grant agreement ID: 101017606.

Commenced: 1st January 2021

Completion: 30th June 2025

Duration: 54 months

Total budget: €4,968,784.63

NRH Total Budget: €1,170,000

Lead procurer: IACS.

Calls for Tender 2022

As part of ROSIA's 'Open Tender' process contracts will be awarded to industry partners to advance a comprehensive, integrated solution(s) for European care providers; identifying innovative technologies validated in real life and patient engagement exercises.

The 'Open Tender' will be launching in spring 2022.

Activity	Target Dates 2022
Call for Tenders	31 March – 30 June
Tender Evaluation Phase	1 July – 29 September
Award of contracts	29 September
Phase 1 of PCP begins	20 October



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