

CHERRIES

RESPONSIBLE HEALTHCARE ECOSYSTEMS

PROGRESS challenge

Murcia, March 4th 2021





CHERRIES Murcia | Open Call for Solutions

Early detection of progression in Multiple Sclerosis

PROGRESS

Submit your solution by 15 April 2021



This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA no 872873.



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RESPONSIBLE HEALTHCARE ECOSYSTEMS

PROGRESS challenge (Murcia, Spain)



- The **objective** of the challenge is to achieve the **early detection of the progression in Multiple Sclerosis (MS)** applying sensors to patients using the Internet of Things (IoT) beyond the **current face to face consultations** with neurologists and nurses every 6 or 12 months.
- The **need** is to **shorten the delay of detection** of MS progressions, which is estimated in 3 years.

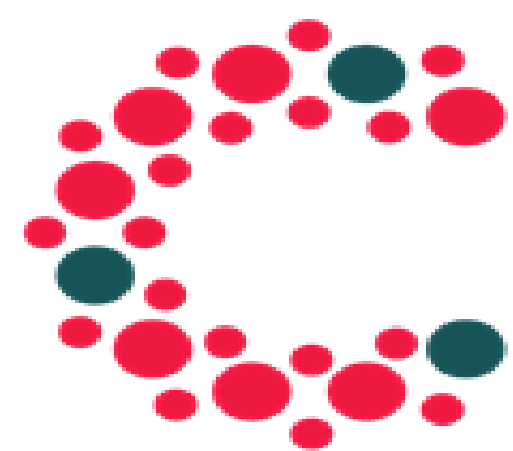
PROGRESS challenge (Murcia, Spain)



The **methodology** of the challenge is a **prospective study** with at least **30 patients during 5 months**.

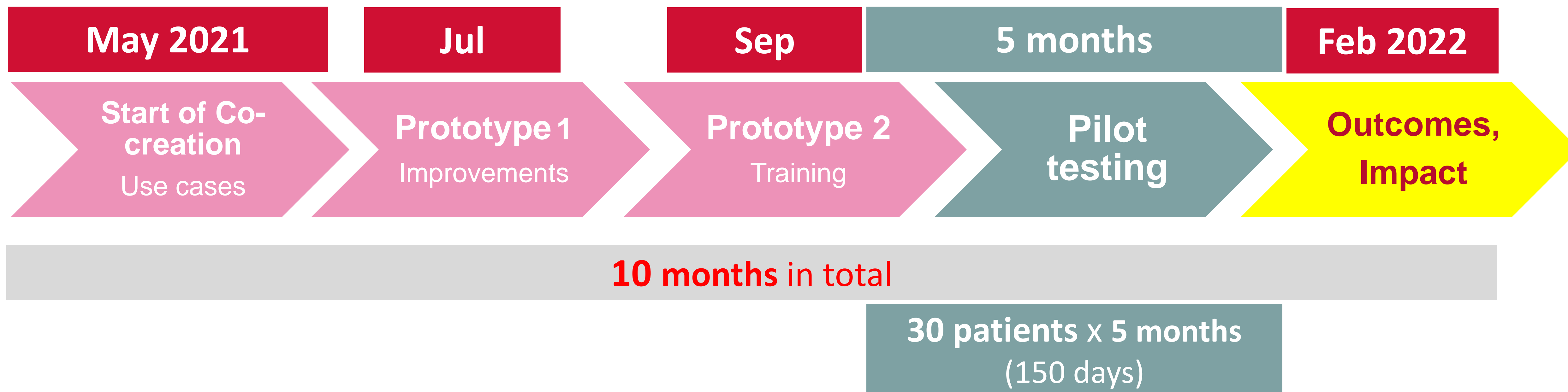
The **challenge team** is composed by:

- ☐ Local association of **patients** of MS (EMACC)
- ☐ Department of **Neurology** (Hospital of Cartagena)
- ☐ Department of **Biomedical Engineering** (Polytechnic University of Cartagena)



Co-creation timeline

(May 2021 – Feb 2022)



The solution will have to **record** the data of the 30 patients **continuously and simultaneously** during the 150 days



What about the requirements?



The InDemand project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No763735

PROGRESS compulsory requirements



- Automated patient data recording **service**:

Delivery, training, repair, replacement, collection, maintenance and support of the devices, ensuring their availability.

Components:

- ✓ DIGITAL ACTIGRAPH
- ✓ DOMESTIC GATEWAY
- ✓ CLOUD APPLICATION
- ✓ CLOUD STORAGE
- ✓ INFORMATION ACCESS AND **VIEWING MODULES**
(clinical, therapeutic, patients)
- ✓ **MANAGEMENT AND MAINTENANCE MODULE:**

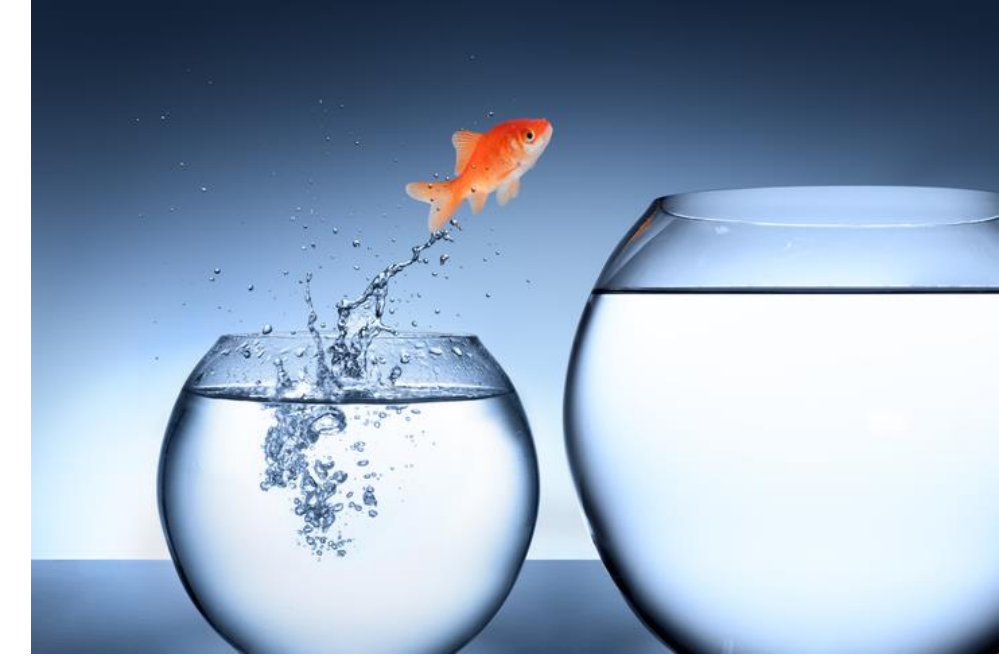


PROGRESS optional requirements



- Presentation of the **walking data by sections**. (+10 points)
- **Distance to home** by geolocation. (+20 points)
- Location of patients within the **different rooms of the home**. (+20)
- Wrist movements **distinguishing walking and static** periods. (+20)
- Presentation of **heart rate** data depending on the activity. (+10 points)
- **Labelling of sleep periods** depending on depth and/or quality. (+10)
- **Internal memory of the device** in days of recording. (+20 points)
- Among **others...**

PROGRESS Business opportunity



Target population:

- **1,500 patients** in Region of Murcia and **45,000** in Spain.
- It would be **applicable to any progressive degenerative neurological disease** (Parkinson >2,5 MS prevalence)

Offer of cooperation from the challenger group:

- ✓ Advice on **business model**.
- ✓ In case of success of the pilot experience, the SMS is **committed to managing a purchase for the subsequent expansion at the whole SMS**.
- ✓ **Dissemination of results** with the support of clinicians and patient associations.
- ✓ Collaboration with a **study of cost saving** as well as with its **publication & dissemination**.

SMS co-creation



experience

Any questions?



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