



# Empowering patients by professional STress Avoidance and Recovery Services

Ine Vandewauw, PhD (Maastricht University, coordinator)

# Overview

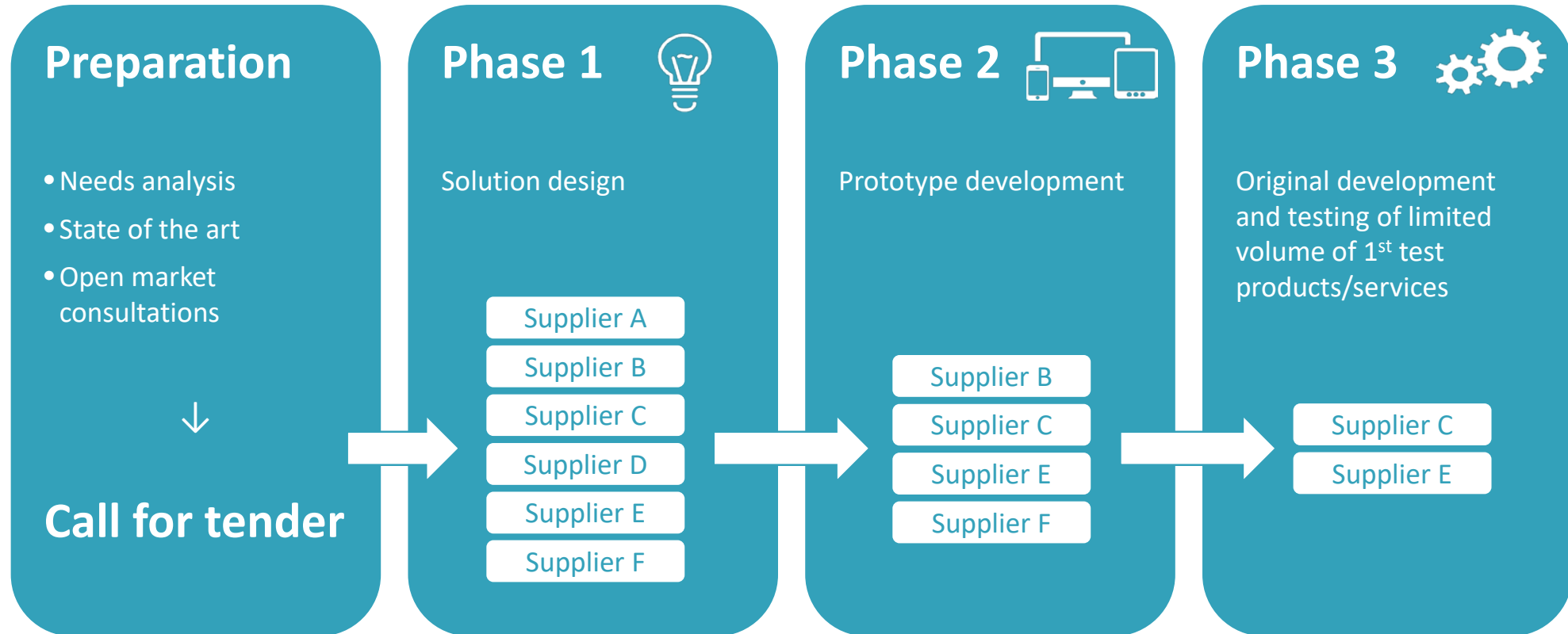
- Pre-commercial procurement
- Mission statement and consortium
- Background
- Need and direct benefit
- Experience of procurers
- Questions



# Pre-commercial procurement (PCP)

- Challenge industry to develop innovative solutions for public sector needs
- Compare alternative solution approaches and filter out the best solutions
- Does not cover large scale commercialisation (PPI)

# PCP process





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# Horizon 2020 call

## **eHealth innovation in empowering the patient**

- empowering hospitalized patients, outpatients and their families/carers to support a continuum of care across a range of services supported by ICT
- enhance the ICT skills and increase adherence of patients and care givers
- increase the role and the responsibility of the patient
- support self-management of health

# Mission statement

Five leading European hospitals challenge the European industry to design and develop a resilient support tool to be applied in the field of patients planned for surgery, with the aim of reducing stress during the entire care path.

The available budget for the development of this innovative solution is 4.7 million euro of which 3.26 million (including VAT) will flow to the industry.



# Consortium

Laurea-ammattikorkeakoulu Oy

Zenit Zentrum für Innovation und Technik in NRW - GmbH

Universiteit Maastricht (C)

Academisch Ziekenhuis Maastricht (P)

Agència de Qualitat i Avaluació Sanitàries de Catalunya

Hospital Sant Joan De Déu (P)

Fundació Parc Taulí (P)

Servicio Andaluz De Salud (P)

Bedin Sara (independent expert on innovation procurement)

Istituto Nazionale di Riposo e Cura per Anziani INRCA (P)

Ethniko Kai Kapodistriako Panepistimio Athinon

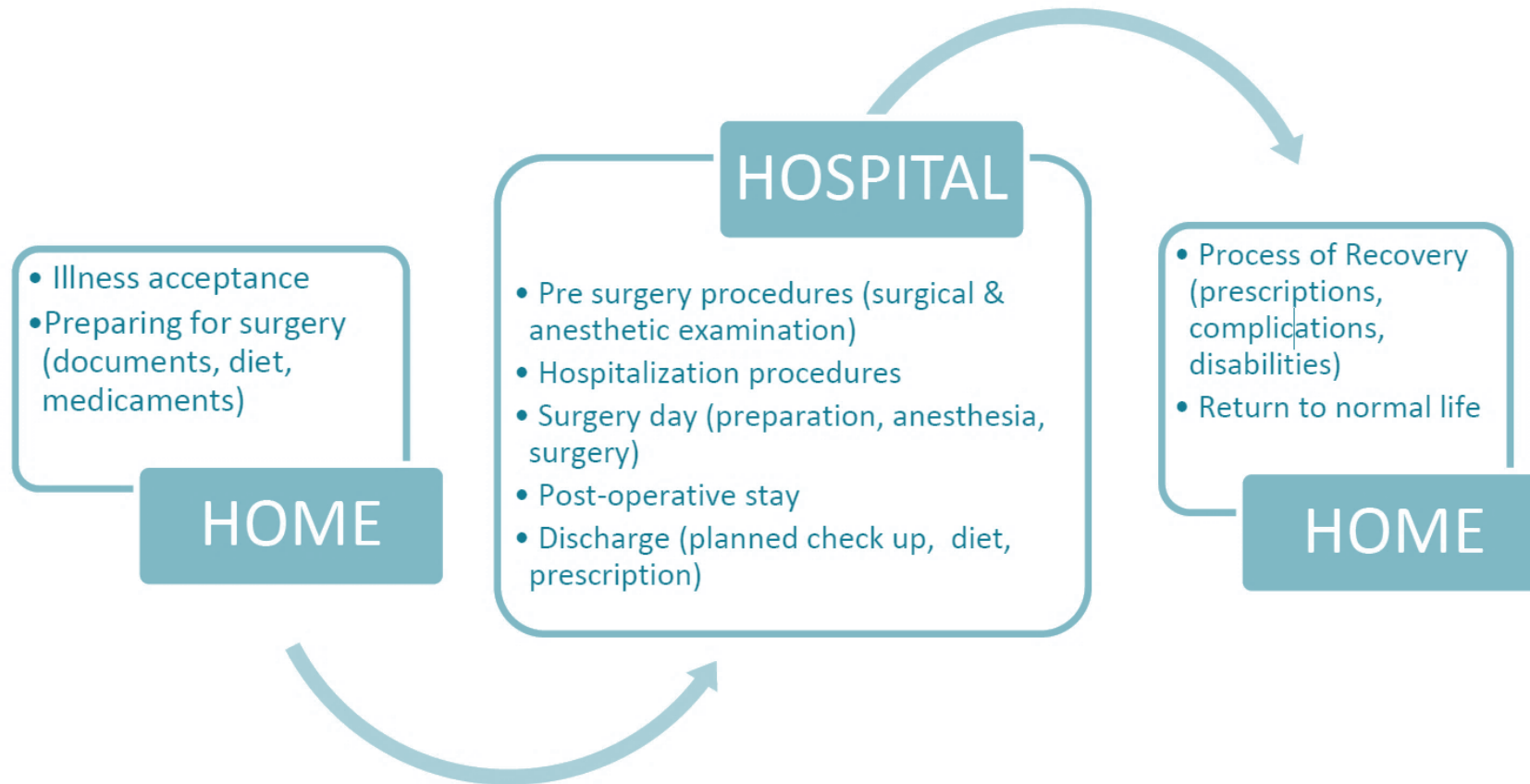




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# Key processes of the surgical journey



# Stress during the patient journey



## Pre-clinical

I am so nervous.  
Will everything be ok?  
How long will I be in the hospital?  
Will I have pain?  
When will I be operated?



## Clinical

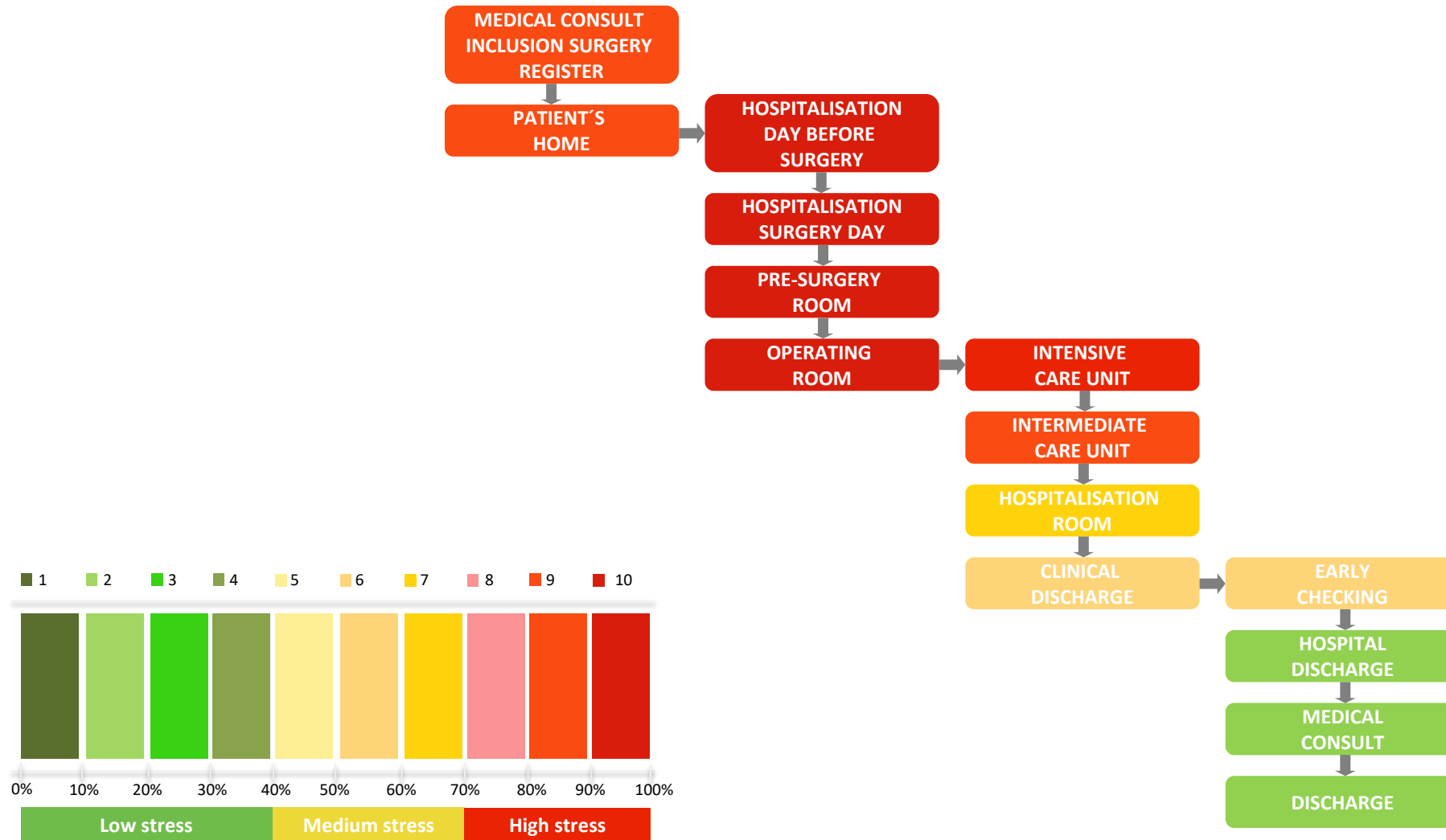
I am really stressed!  
Will I be in safe hands?  
Was the operation successful?  
Is this pain normal?  
I want to go home.



## Post-clinical

May I follow my daily routine?  
I can't do anything by myself.  
When will I get well?

# Stress during the patient journey



With the courtesy of  
Ignacio Muñoz Carvajal MD, PhD  
Cardiovascular surgery unit  
Reina Sofia university hospital

# Stress during the patient journey



- Increased mortality
- Complications during hospital stay
- Increase in re-hospitalization
- Sedating drugs (delirium)
- Increased time wound healing
- Delay in return to daily routine
- Reduced quality of life

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# Need for information and education



- Illustrate patient journey with a description of hospital environment and surgical steps
- Describe preadmission instructions: what is expected from patients and caregivers
- Provide personalized reassuring info
- Provide reliable and validated info about peri-operative symptoms and pain management
- Provide personalized info about recovery

# Need for follow-up and monitoring



- Allow self-assessment of perceived stress through a Visual Analogue Scale
- Provide reassuring feedback and guidance to patients based on validated knowledge
- Provide information to clinicians about the patient's pain intensity
- Provide info to clinicians about complications and recovery time (after discharge)



# Need for communication



- Between patients and clinicians
- Between patients and caregivers
- To caregivers: follow up the situation and location of the patient during hospitalization
- To healthcare professionals: obtain patient info, identify and manage patient's stress

# Need for enabling autonomy



- Provide patients the opportunity to create a friendly and personalized environment, for instance related to light, noise, scent, etc. in the hospital facilities

# Direct benefits

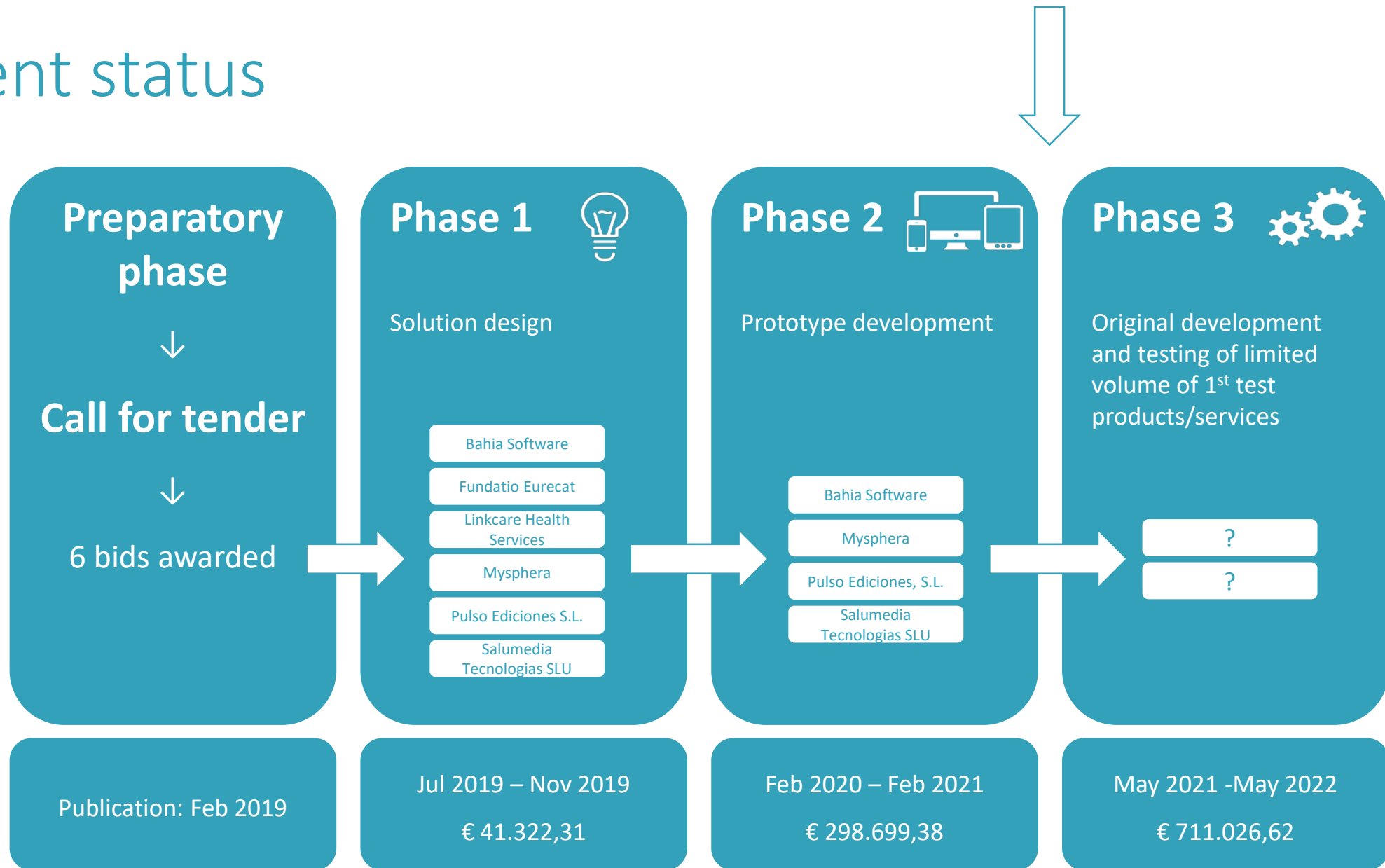
- ↓ cases of pre- and postoperative complications caused by stress
- ↓ drug consumption and medications during the complete patient journey
- ↓ time to return to daily routines
- ↑ communication between patients and healthcare professionals
- ↑ quality of life of patients and caregivers



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# Current status





# Experience of buyers

## Ignacio Muñoz Carvajal, MD, PhD

Head of cardiovascular surgery unit and cardiovascular diseases research group, Reina Sofia hospital, Cordoba, Spain

## Ing. Lorena Rossi

Biomedical engineer and project manager, Istituto Nazionale Riposo e Cura Anziani (INRCA), Ancona, Italy

## Andrea Vallejo, MD

Anaesthetist, hospital Parc Taulí, Sabadell, Spain

# Experience of buyers – INRCA

INRCA is the Italian leading research institute in the field of ageing

45% of people that undergo surgery is over 75 Years old

Innovation in anaesthesiologic techniques

Holistic approach to the patients

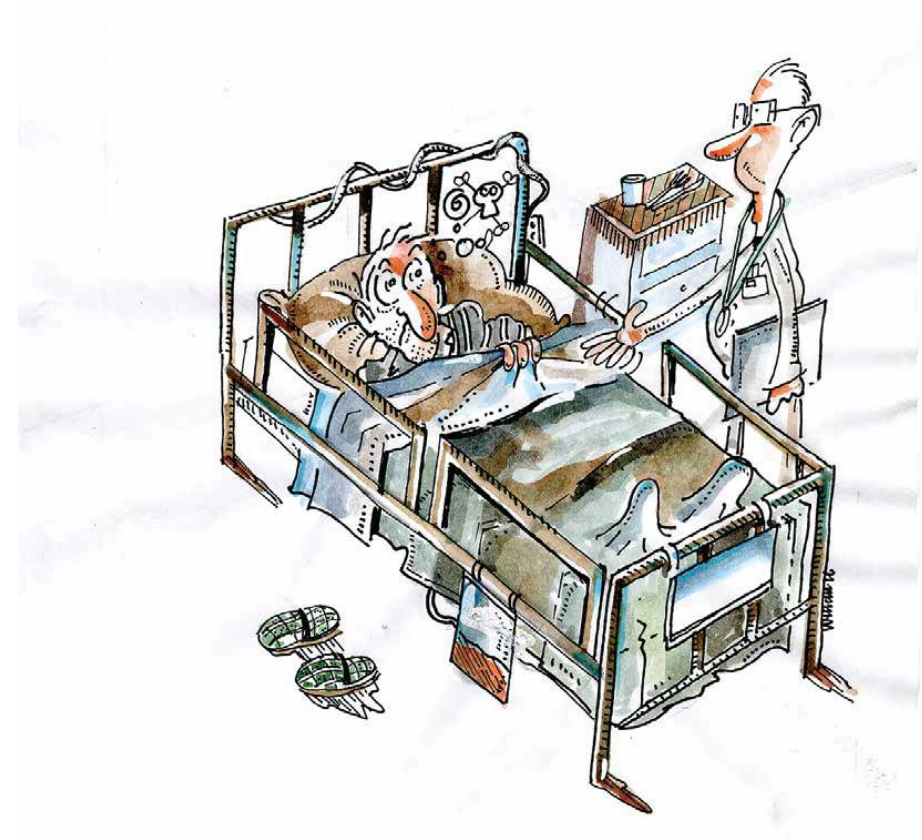




# Experience of buyers – INRCA

What we expect:

- The possibility to extend the support to the patient to the moment where are not in contact with hospital
- Authentic inclusive approach in the design of the solution
- Universal design approach





# Experience of buyers – INRCA

## Evaluation of the PCP instrument

- Build the solution with the contractors
- A way to share the risk between procurers and suppliers
- Collaboration between the partners group in the definition of the requirements
- Focus on the needs



# Questions?

[www.stars-pcp.eu](http://www.stars-pcp.eu); [info@stars-pcp.eu](mailto:info@stars-pcp.eu)



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