

Health Procurement Thematic Innovation Ecosystem



Ramon Maspons

Chief Health Innovation Strategist

Ministry of Health, Government of Catalonia & Chief Innovation Officer, AQuAS



Andy Bleaden

Communities Director

ECHAlliance



Neus Colet

Public Procurement DG

Generalitat de Catalunya



Patricia Ripoll

President

Fundación Visible



Rossana Alessandrello

Value Based Procurement Director

Ministry of Health, Government of Catalonia & Chief Innovation Officer, AQuAS



Joan Escudero

Digital Health Director

Evidenze Group



Jonathan Gómez-Raja

Chief Scientific Officer

FundeSalud



Maddalena Illario

Coordinatore UOS Rocerca e Sviluppo

University of Naples Federico II



Gordana Raicevic

Scientific Coordinator

Sciensano



Caterina Sampol

Value based procurement manager

Hospital de la Santa Creu i Sant Pau



Laura Sampietro

Deputy Director of Innovation

Hospital Clínic Barcelona



Oscar Zanutto

FABER Fabbrica Europa Coordinator

ISRAA



George Valiotis

Executive Director

European Health Management Association (EHMA)



Marta Aurora Rubiera

Stroke Neurologist

Hospital Vall d'Hebron



22-23 November 2023



AQUAs Auditorium, Barcelona, Spain



How can we involve patients in Value Based Health Procurement

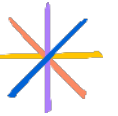
Patricia Ripoll,
President

Fundación

VISIBLE

How can we involve patients?

PATIENT MEDICAL HISTORY



Family background



Mother
Episodic migraine



Age: 7 - 45
Gender: Female
Allergies: Ceftriaxone
Location: Barcelona

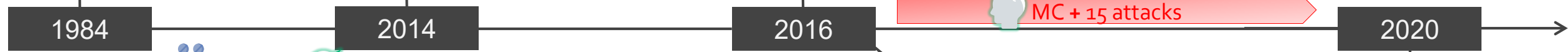
Recognized disability 36%



First severe attack of **migraine** .
7 years.

Paresthesias in EID, right hemiparesis, right hemiface swelling , ESD, legD .
MIGRAINE with AURA

MIGRAINE with HYPOESTHETIC AURA COMPLEX D.
Vertigo. Motor deficit.
Subsequent headache that lasts 3 months.



ME - 8 attacks

MC + 15 attacks

ibuprofen. – Ergotamine and Caffeine – Naproxen – Diclofenac - ...

Tox. Botulinum Dose Max. - Topiramate 100mg .
Zolmitriptan 5mg. Diazepam 5mg. – Amitriptyline –
Dexketoprofen 25mg. Injectable dexketoprofen.
Sumatriptan 6mg Injection.

Scheduled for CGRP Monoclonal Antibodies

MamaTieneMigraña



#hagamosVISIBLEloINVISIBLE



Aula Clínic **CLÍNICA Hospital Universitat**

Patricia Ripoll

Ha realitzat el curs:

Avaluació de l'experiència de pacients: primers passos
(Hores lectives: 27,5 h)

Hospital Clínic de Barcelona, del 29 de Març al 24 de Maig 2022
Data d'especificació: Barcelona, 26 de Maig de 2022

Organització i Coordinació:
Programa d'Atenció a la Cronicitat i Evaluació de l'Experiència del Pacient,
Hospital Clínic de Barcelona

Dr. Joan Escarabill
Director del Curs

Prof. Francesca Pons
Directora de Docència

*Activitat acreditada pel Consell Català de Formació Continuada de les Professions Sanitàries/Comissió de Formació Continuada del Sistema Nacional de Salut 4,3 credits. Registre: 05031859-MD



AUTOGESTIÓN DE LA MIGRAÑA

salusplay

ALIMENTACIÓN

- No es un desencadenante
- Exceso o falta de café en cerebro acostumbrado
- Rutina y adaptación al cambio

CONVIENE CON MIGRAÑA



Catalan Society of Neurology
Award 2022 -
Dissemination

SOCIAL HEALTH Awards

Revolutionary Researcher

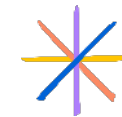


4 Jornada Virtual de iniciativas
las mejores intervenciones de
alfabetización en salud

Escuela Andaluza de Salud Pública
28 de abril de 2022

Initiatives finalist
EASP Literacy 2022

Make patients and disease visible in:



NOVARTIS



LIVING LAB
by ferrer



#Humanos
EN LA OF./CINA



#Humanos
EN LA OF./CINA



Startup
Community



betevé



X PATIENT
BARCELONA
CONGRESS



N I U S



FFPACIENTE
ANTE TODO PERSONAS

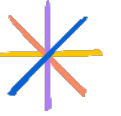
esadealumni

Mobile Week



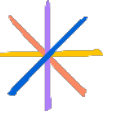
FUNDACIÓN
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We Have All Been the Villain at Some Point in Stories

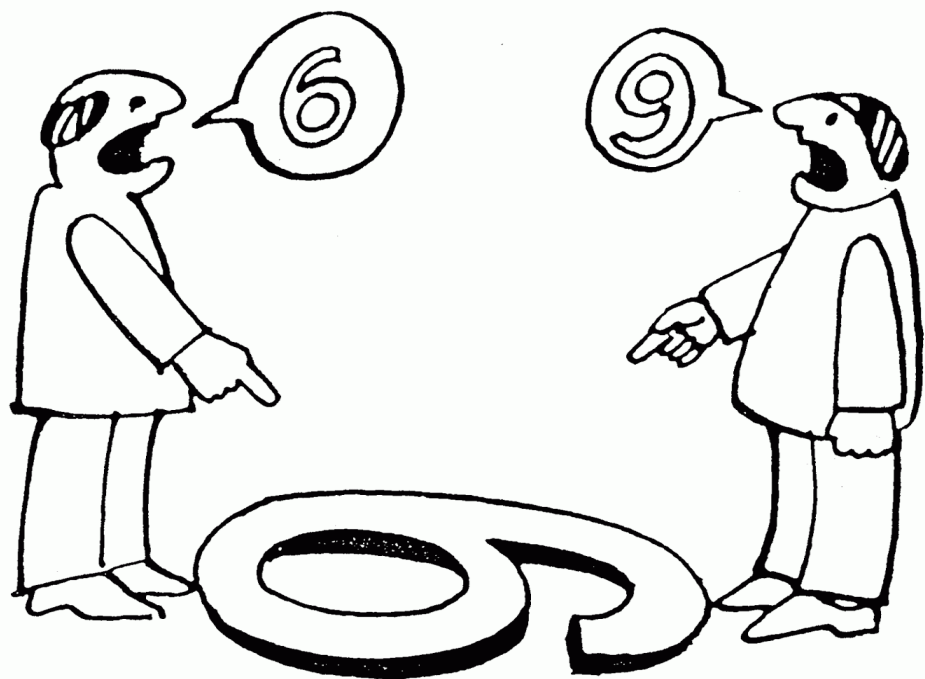




POORLY TOLD STORIES



It's all about perspective



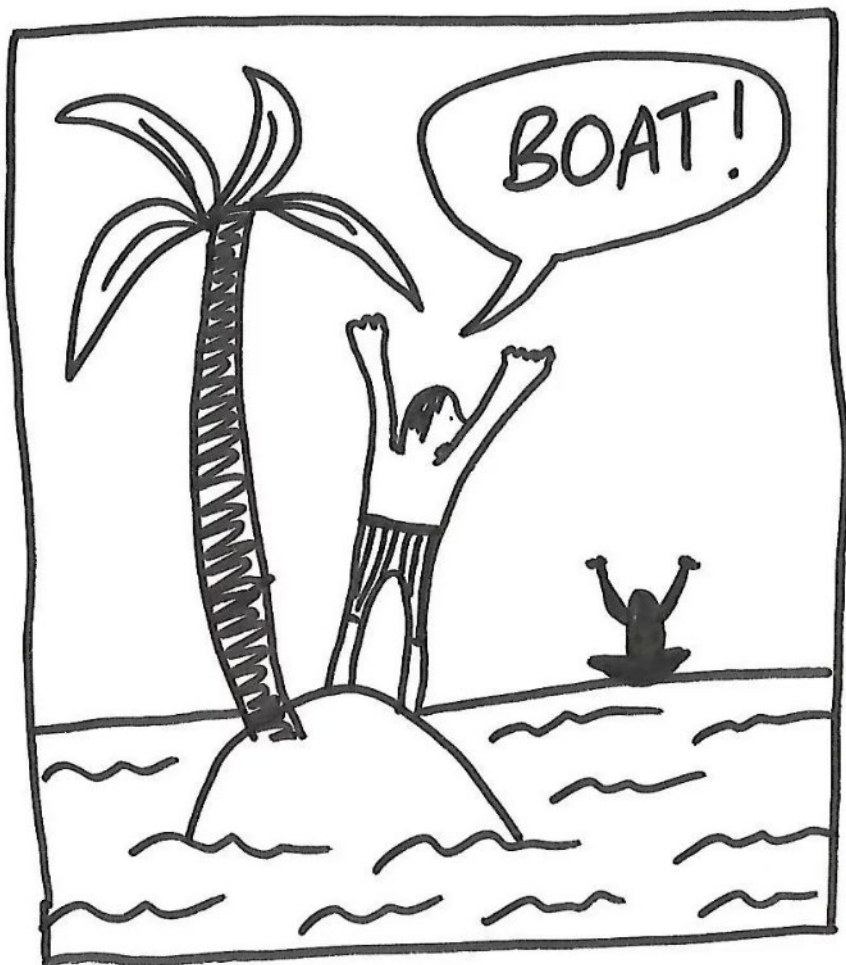
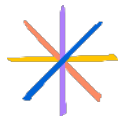
LIFE IS...

HOW YOU SEE IT

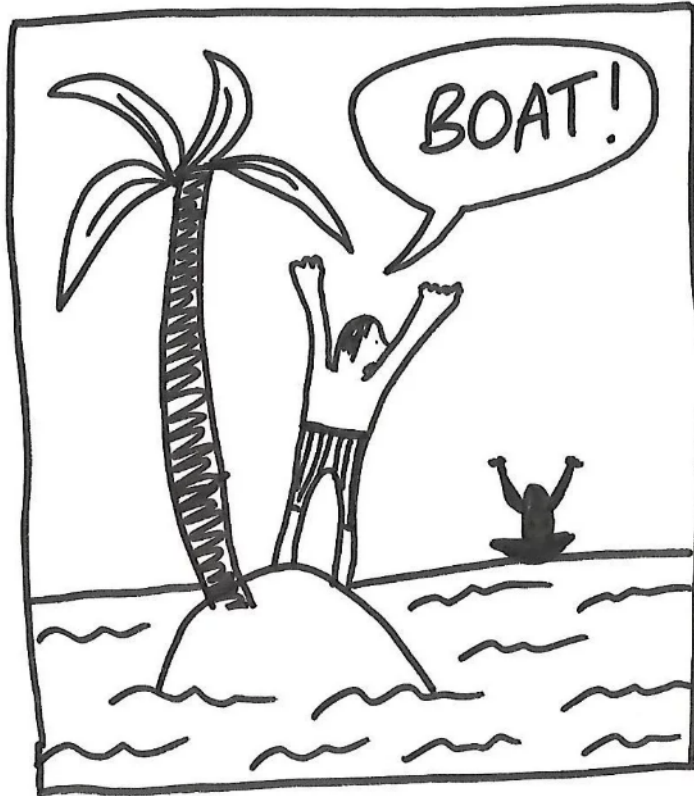
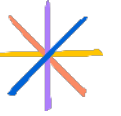
A STONE ON
THE ROAD!

A BRIDGE!

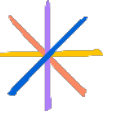




Each person speaks
from their **own reality**



When you **understand** this
life makes much **more sense**



patients

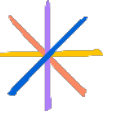
professionals

Needs and realities

“Always remember that you
are unique,
exactly the same
as the others

Margaret Mead





EXPECTATIONS MANAGEMENT

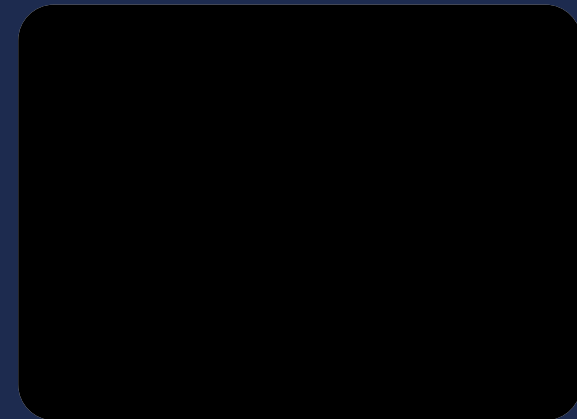
It is about starting, putting the **first piece of a puzzle**.

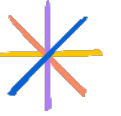


**ROME
WASN'T BUILT
IN A DAY**



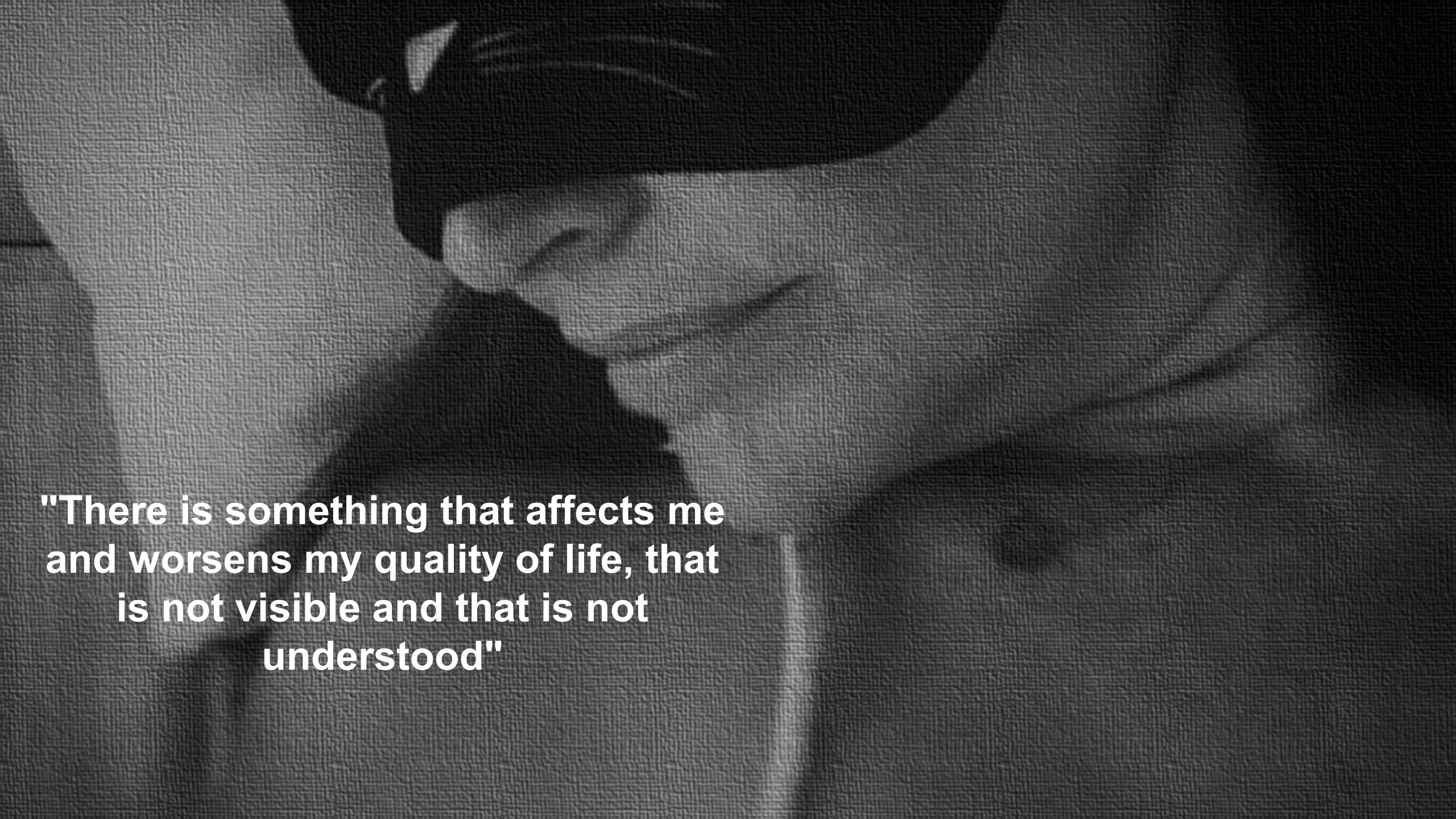
Better to see blurred than not to see





Fundación visible

www.fundacionvisible.org

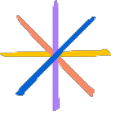


**"There is something that affects me
and worsens my quality of life, that
is not visible and that is not
understood"**

**What is not
understood,
DOES NOT EXIST**



Why Include the Patient?



1. Enhancing quality and relevance of services:

- Patient experiences and needs
- Personalization of care

2. Optimizing outcomes and system efficiency:

- Better health outcomes
- Reducing unnecessary costs

3. Increasing patient satisfaction and empowerment

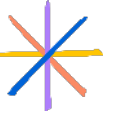
4. Improving evidence-based decision making:

1. Valuable feedback
2. Data for decision making

5. Promoting innovation and collaboration:

1. New perspectives and solutions
2. Collaboration among stakeholders

How can we involve patients?



Genuine will to involve

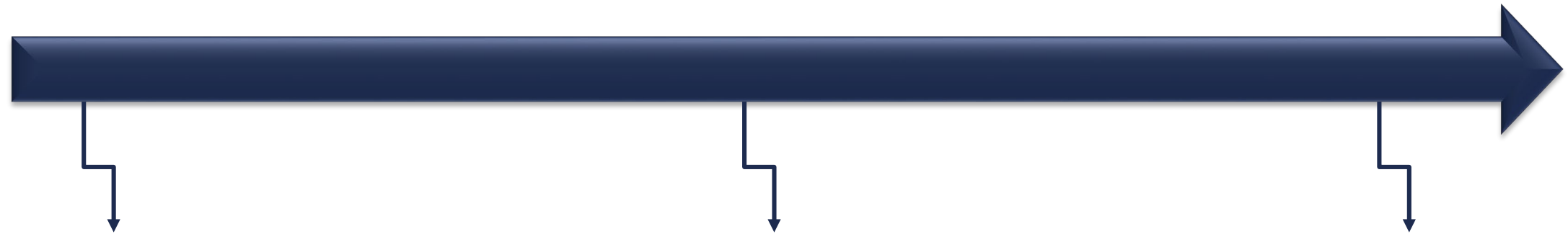
active partners in shaping the future (or present) of healthcare.

HOPE – THE FUTURE (oR present?)

**PASSIVE
PATIENT**

**THE PATIENT
VOICE**

**STAFF AND
PATIENTS WORKING
TOGETHER TO
REDESIGN**



“Done to”

“Done for”

“Done with”

Proyectos / Colaboraciones



MEDICOCENTRO

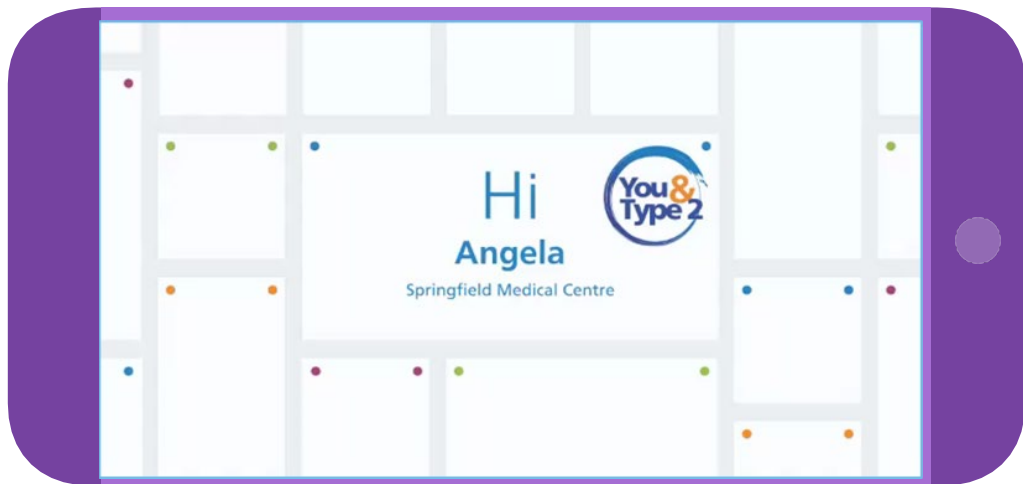


AQuAS

<https://decisioncompartides.gencat.cat/ca/colaboradores/>

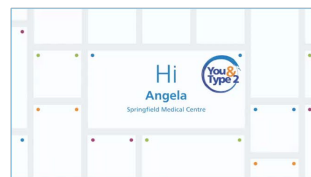


Personalised video already is in use within the NHS



<https://youtu.be/ZaYhyegS38k>

You & Type 2 Points of personalisation



Patient name and health care provider



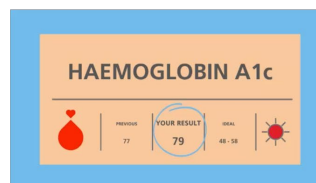
Appointment / diary reminders



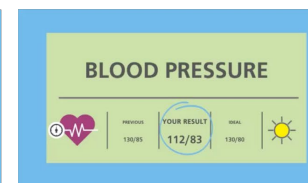
Health goals / motivations



Location specific content



Test results



Connection to GP practice

- ▶ Engagement with care planning process (Year of Care)
- ▶ Set health goals
- ▶ Download app
- ▶ Access support and information



“A facebook for the patients that maps real-time healthcare risks”

weRpatients is an open **community of patients, healthcare professionals, caretakers and caregivers**, where you can share and open discussion about preferred pathologies on weRpatients keeping your confidential identity through a nickname and avatar profile and be **up-to-date about real-time health environmental risks**.

Why weRpatients?

- (1) To **empower the patients** of the future building a community;
- (2) To **capacitate patients** to understand their health conditions and to be able to decide from a position of comprehension of self pathology.
- (3) To **optimize the patient journey** of the patient of the future by forecasting environmental healthcare risks.

Welcome To

weRpatients

An open access patients community that empowers patients of the XXI century

Download on the App Store

GET IT ON Google Play

European Union

Copernicus Europe's eyes on Earth

SUSTAINABLE DEVELOPMENT GOALS



CAPSBE

Consorci d'Atenció Primària de Salut
Barcelona Esquerra



Consensus on Educational Needs Implications for Healthcare Policies



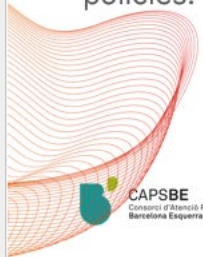
Patient-Centered Policies:
consider patients'
understanding and
preferences in healthcare
policies.



Improving Patient Literacy



Effective Communication
and Patient-Centered Care



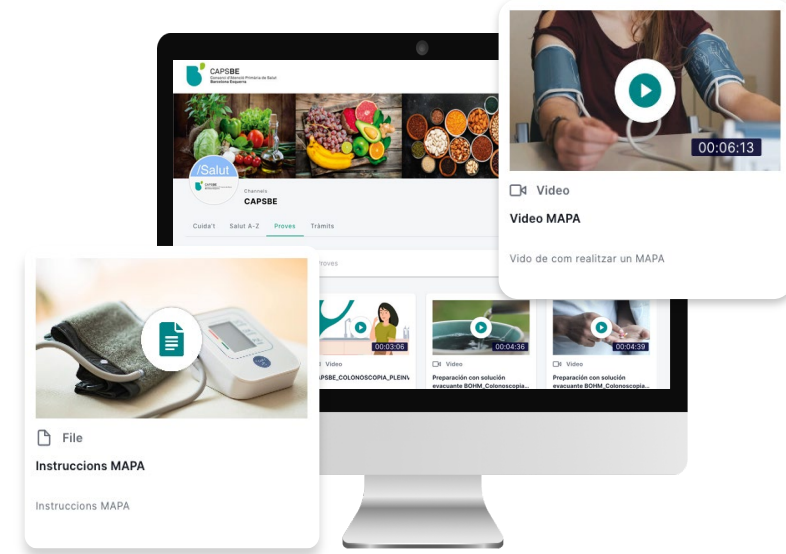
CAPSBE
Consorci d'Atenció Primària de Salut
Barcelona Esquerra

Institut Català
de la Salut

CLÍNICA
BARCELONA
Hospital Universitari

FUNDACIÓN
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CAP COMTE BORRELL
Consorci d'Atenció Primària de Salut
Barcelona Esquerra

Prescripció de vídeos i informació web de salut

Consulta informació sobre salut elaborada i
validada pels professionals del CAPSBE



Escalegi aquest
codi QR per accedir
al contingut

No oblidis contrastar la informació amb el seu
professional de referència abans de prendre
qualsevol decisió sobre la seva salut.



SAME WAY



“Done with”



Preferences, expectations, and goals

**Patient as an essential partner.
Expectations managed.**




TAKE HOME

MESSAGE

A photograph of a green bicycle leaning against a weathered wooden wall. To the left of the bicycle is a blue-painted wooden door with peeling paint. The wall is made of vertical wooden planks, some of which are missing or damaged, revealing the underlying structure. The bicycle is a classic style with a green frame, black tires, and a black seat. The scene is outdoors, with some green grass visible at the bottom.

Focus on the problem,

not the solution

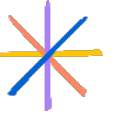


Listen to the patients,
they are your greatest resource.

actively listening

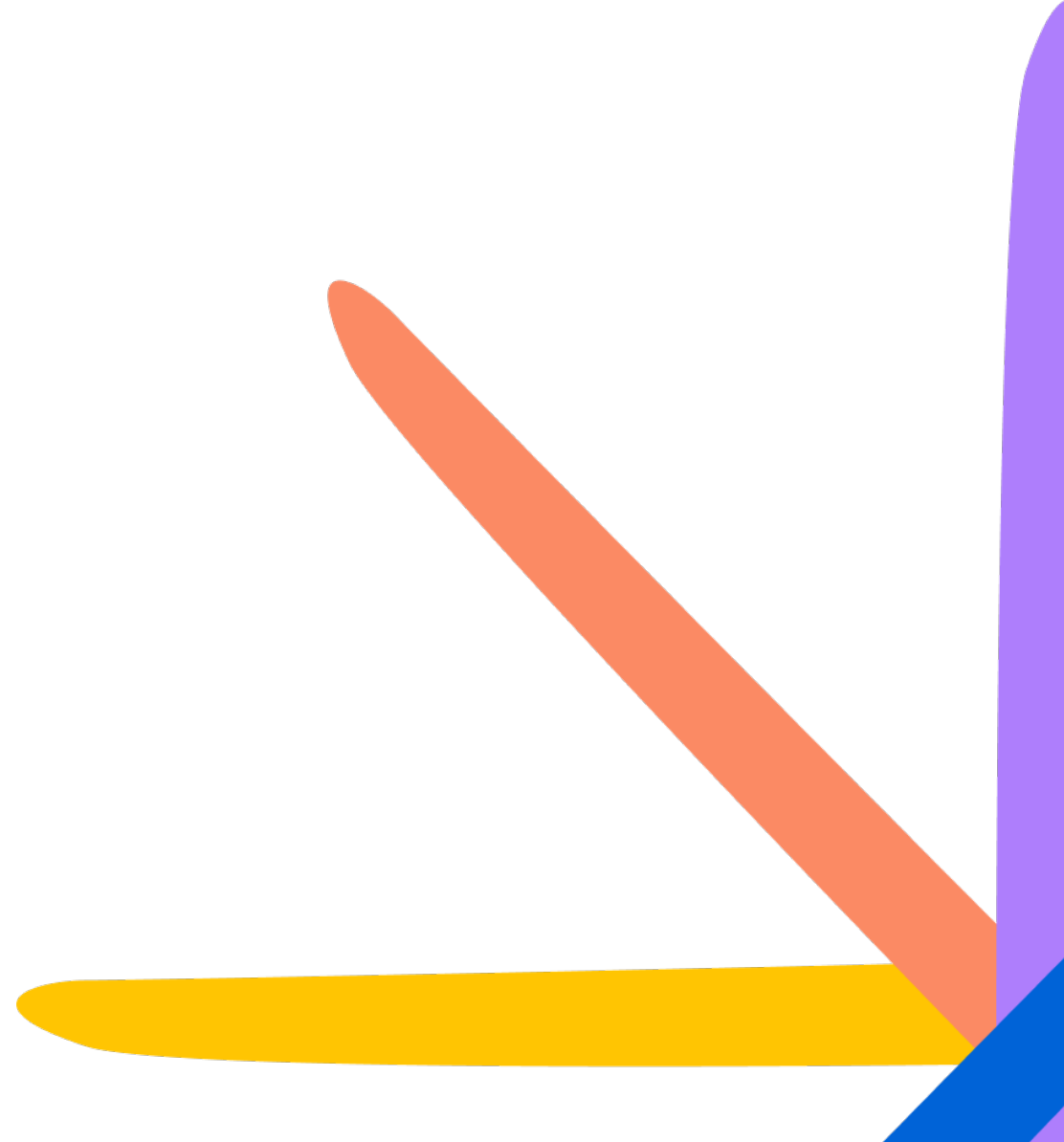


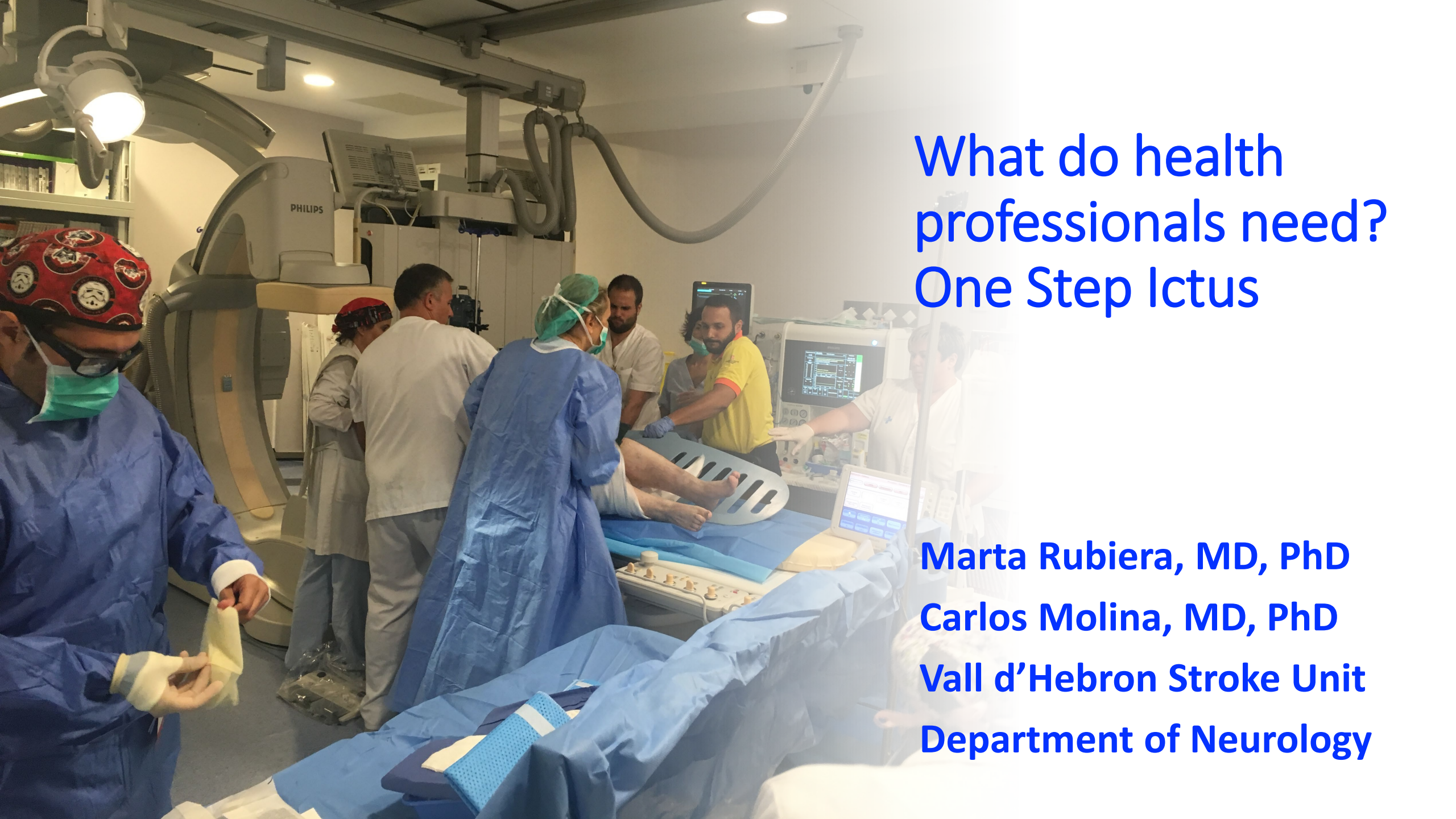
THE HUMAN BEING IS NOT A
RATIONAL BEING; IT IS AN
EMOTIONAL BEING THAT
REASONS.



Patricia Ripoll
T.- 619.750.430

patricia@fundacionvisible.org
www.fundacionvisible.org





What do health professionals need? One Step Ictus

Marta Rubiera, MD, PhD
Carlos Molina, MD, PhD
Vall d'Hebron Stroke Unit
Department of Neurology



What do health professionals need?

Special Communication | Clinician's Corner

March 14, 2007

How Physicians Can Change the Future of Health Care

Michael E. Porter, PhD, MBA; Elizabeth Olmsted Teisberg, PhD, MEngr, MS

» Author Affiliations

JAMA. 2007;297(10):1103-1111. doi:10.1001/jama.297.10.1103

Today's preoccupation with cost shifting and cost reduction undermines physicians and patients. Instead, health care reform must focus on **improving health and health care value** for patients. We propose a strategy for reform that is market based but physician led. **Physician leadership is essential.** Improving the value of health care is something only medical teams can do. The right kind of competition—**competition to improve results**—will drive dramatic improvement. With such positive-sum competition, patients will receive better care, physicians will be rewarded for excellence, and costs will be contained. Physicians can lead this change and return the practice of medicine to its appropriate focus: enabling health and effective care. Three principles should guide this change: (1) **the goal is value for patients,** (2) **medical practice should be organized around medical conditions and care cycles,** and (3) **results—risk-adjusted outcomes and costs—must be measured.** Following these principles, professional satisfaction will increase and current pressures on physicians will decrease. If physicians fail to lead these changes, they will inevitably face ever-increasing administrative control of medicine. Improving health and health care value for patients is the only real solution. Value-based competition on results provides a path for reform that recognizes the role of health professionals at the heart of the system.

JAMA. 2007;297:1103-1111

www.jama.com

What do health professionals need?

- Identify healthcare the problem
- Help on the search for a solution
- Monitor the results: define KPI
- IMPLEMENTATION – Process change management



In Each Minute During a Stroke...



... Are Destroyed



Without prompt treatment, a part of brain the size of a pea dies every **12 minutes** following a stroke.*

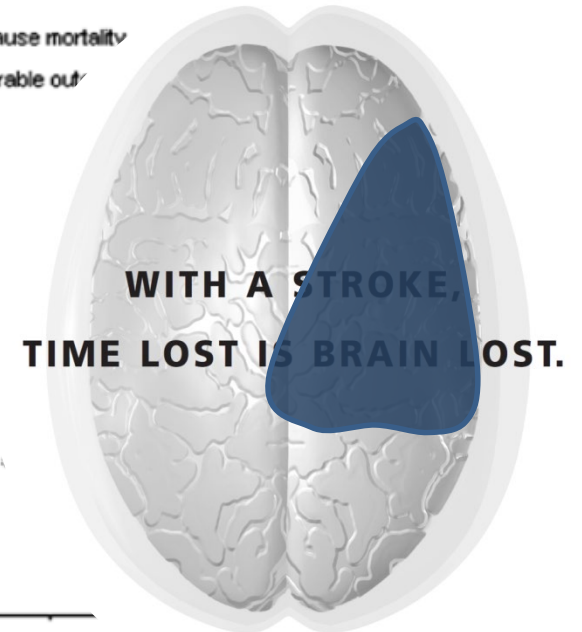
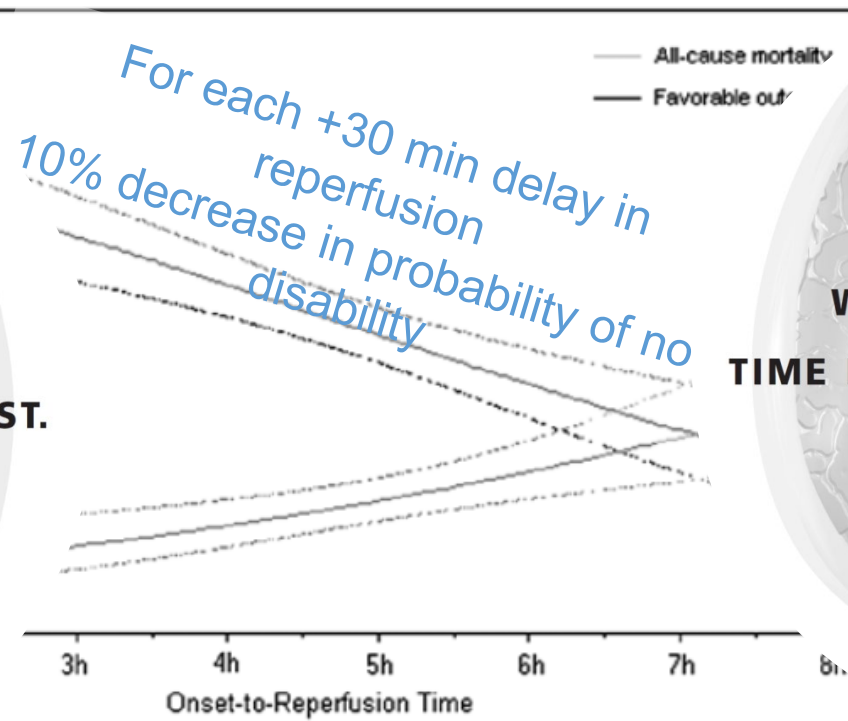
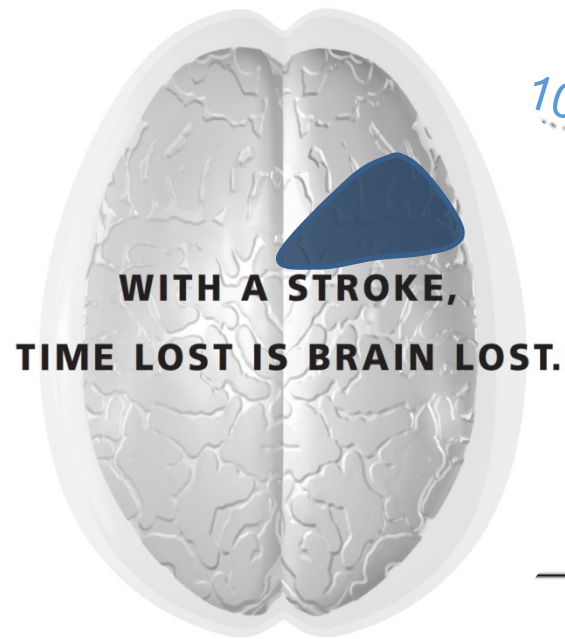
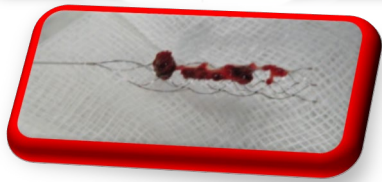
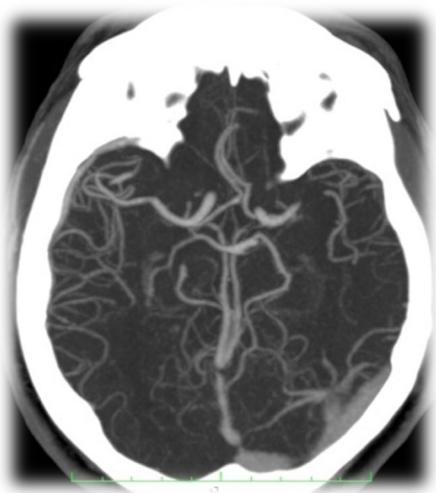
* J Saver. Time Is Brain—Quantified. Stroke. 2006;37:263-266

Impact of Onset-to-Reperfusion Time on Stroke Mortality

A Collaborative Pooled Analysis

Mikael Mazighi, MD, PhD; Saqib A. Chaudhry, MD; Marc Ribo, MD; Pooja Khatri, MD, MSc;
David Skoloudik, MD; Maxim Mokin, MD; Julien Labreuche, BST; Elena Meseguer, MD;
Sharon D. Yeatts, PhD; Adnan H. Siddiqui, MD; Joseph Broderick, MD; Carlos A. Molina, MD;
Adnan I. Qureshi, MD; Pierre Amarenco, MD

(*Circulation*. 2013;127:1980-1985.)



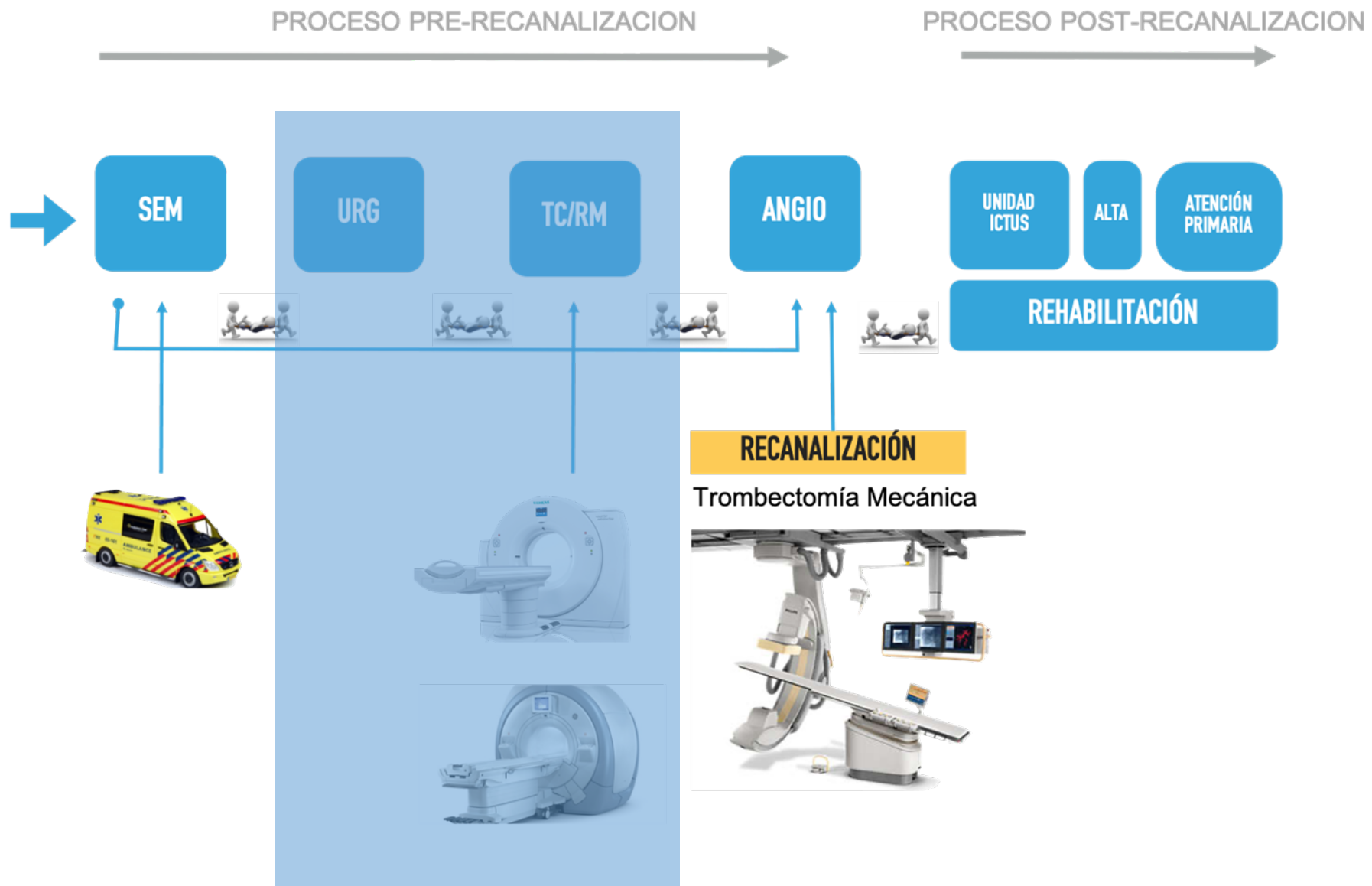


One-Step ICTUS

PO FEDER Catalunya 2014-2020
GO10-015225

OPTIMIZATION OF
EFFICIENCY AND SAFETY
IN COMPREHENSIVE
PATIENT CARE THROUGH
THE IMPLEMENTATION OF
DIRECT THROMBECTOMY AS
AN INNOVATOR CATALYST
OF THE ICTUS PROCESS





ORIGINAL RESEARCH

Direct transfer to angiosuite to reduce door-to-puncture time in thrombectomy for acute stroke

Marc Ribo,^{1,2} Sandra Boned,^{1,2} Marta Rubiera,^{1,2} Alejandro Tomasello,³ Pilar Coscojuela,³ David Hernández,³ Jorge Pagola,^{1,2} Jesús Juega,^{1,2} Noelia Rodríguez,^{1,2} Marian Muchada,^{1,2} David Rodríguez-Luna,^{1,2} Carlos A Molina^{1,2}

Door to groin: 60 vs 17 minutes

Original Contribution**Interfacility Transfer Directly to the Neuroangiography Suite in Acute Ischemic Stroke Patients Undergoing Thrombectomy**

Ashutosh P. Jadhav, MD, PhD; Cynthia L. Kenmuir, MD, PhD; Amin Aghaebrahim, MD; Kaustubh Limaye, MD; Lawrence R. Wechsler, MD; Maxim D. Hammer, MD; Matthew T. Starr, MD; Bradley J. Molyneaux, MD, PhD; Marcelo Rocha, MD, PhD; Francis X. Guyette, MD; Christian Martin-Gill, MD; Andrew F. Ducruet, MD; Bradley A. Gross, MD; Brian T. Jankowitz, MD; Tudor G. Jovin, MD

Door to groin: 81 vs 22 minutes

Flat-panel detector CT assessment in stroke to reduce times to intra-arterial treatment: A study of multiphase computed tomography angiography in the angiography suite to bypass conventional imaging

International Journal of Stroke
0(0) 1-10
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DOI: 10.1177/1747490120963655
journals.sagepub.com/home/ijst
SAGE

Mehdi Bouslama¹, Diogo C Haussen¹, Jonathan A Grossberg¹, Clara M Barreira¹, Imrasmah Martijn J van der Bom², Fred van Nijnatten², Thijs Grünhagen², Larry Moyer¹, Michael R Frankel¹ and Raul G Nogueira¹

Door to groin: 55 vs 33 minutes

One-Stop Management of Acute Stroke Patients Minimizing Door-to-Reperfusion Times

Marios-Nikos Psychogios, MD, PD; Daniel Behme, MD; Katharina Schregel, MD; Ioannis Tsogkas, MD; Ilko L. Maier, MD; Johanna Rosemarie Leyhe, MS; Antonia Zapf, PD; Julia Tran, MS; Mathias Bähr, MD; Jan Liman, MD, PD*; Michael Knauth, MD*

Door to groin: 54.5 vs 20.5 minutes

Original Contribution**Direct Transfer to Angio-Suite to Reduce Workflow Times and Increase Favorable Clinical Outcome A Case-Control Study**

Beatriz Mendez, MD; Manuel Requena, MD; Ana Aires, MD; Nuno Martins, MD; Sandra Boned, MD; Maria Rubiera, MD, PhD; Alejandro Tomasello, MD; Pilar Coscojuela, MD; Marián Muchada, MD, PhD; David Rodríguez-Luna, MD, PhD; Noelia Rodríguez-Villatoro, MD; Jesús Juega, MD; Jorge Pagola, MD, PhD; Carlos A. Molina, MD, PhD; Marc Ribó, MD, PhD

Door to groin: 70 vs 16 minutes

*Article***One-Stop Management of 230 Consecutive Acute Stroke Patients: Report of Procedural Times and Clinical Outcome**

Marios-Nikos Psychogios^{1,2,*}, Ilko L. Maier³, Ioannis Tsogkas¹, Amélie Carolina Hesse¹, Alex Brehm^{1,2}, Daniel Behme¹, Marlena Schnieder³, Katharina Schregel¹, Ismini Papageorgiou⁴, David S. Liebeskind⁵, Mayank Goyal⁶, Mathias Bähr³, Michael Knauth¹ and Jan Liman³

Door to groin: 60 vs 25 minutes

RCT: Direct to Angiography Suite Without Stopping for Computed Tomography Imaging in Acute Stroke

POPULATION

96 Men, 78 Women



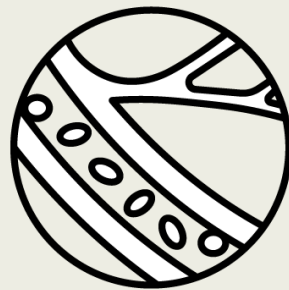
Adults with suspected large vessel occlusion (LVO) stroke within 6 h of symptom onset

Mean age, 73.4 y (range, 19-95 y)

Very selected patients

DESIGN

Patients with confirmed LVO, randomized and analyzed



74%

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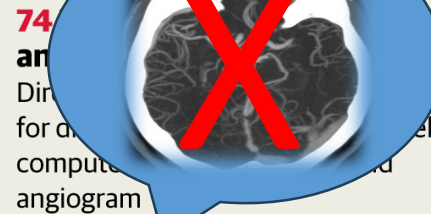
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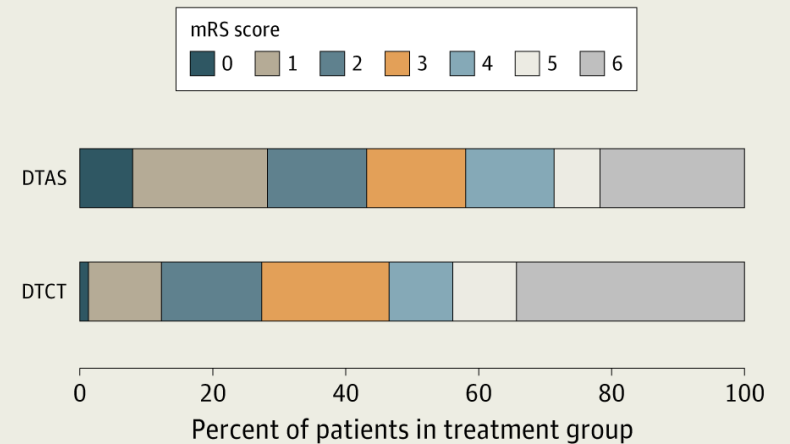


73 Direct transfer to CT scan (DTCT)

Direct transfer to CT scan for usual imaging protocols, including CT and CT angiography

FINDINGS

DTAS significantly improved functional independence for adults with acute ischemic stroke compared with DTCT for usual imaging protocols



Adjusted odds ratio for 1-point improvement of mRS score:

2.2 (95% CI, 1.22-4.08)

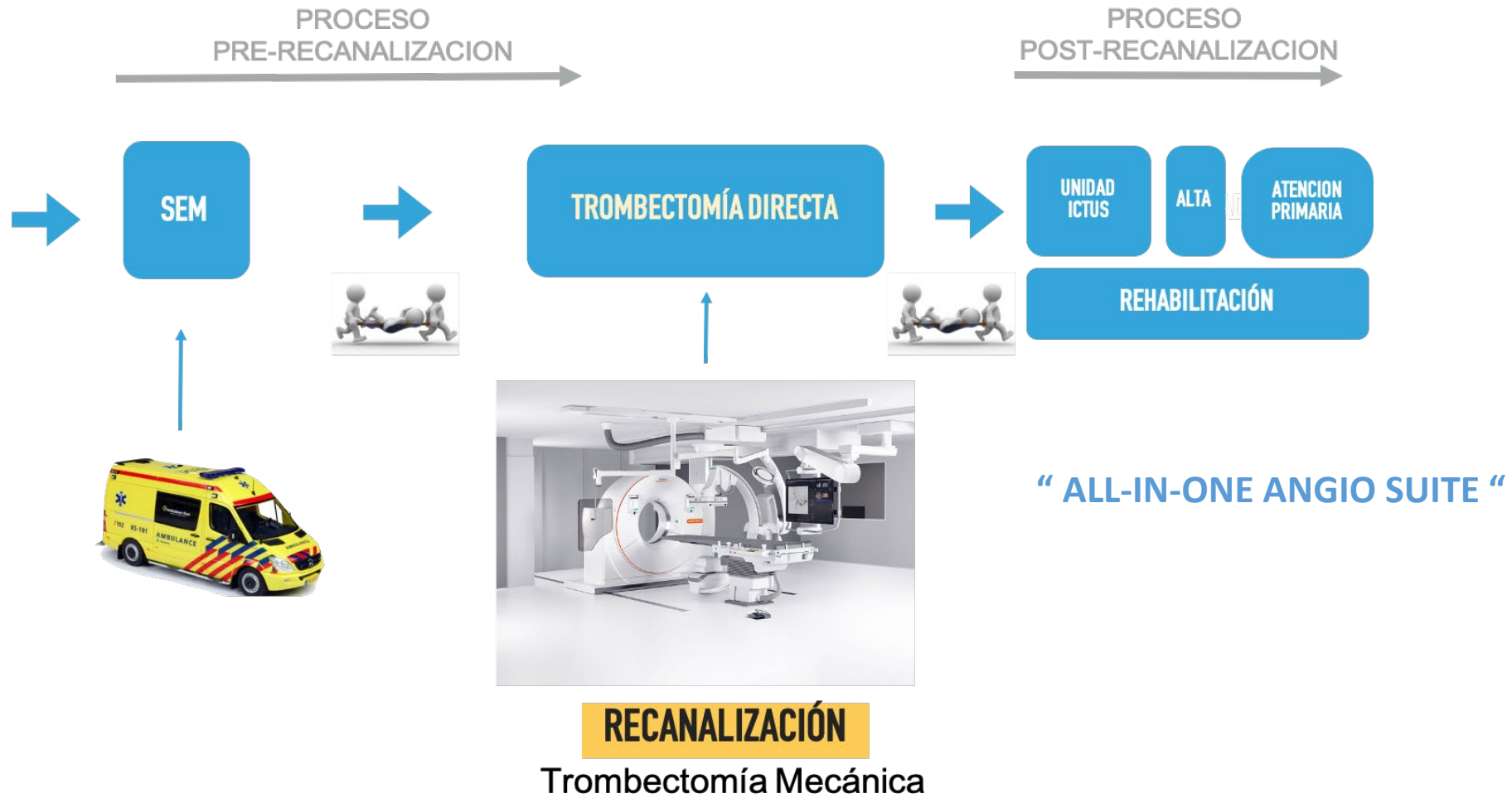
SETTINGS / LOCATIONS



1 Stroke center in Barcelona, Spain

PRIMARY OUTCOME

Functional independence, as measured by distribution of the 7-category modified Rankin Scale (mRS) score (range, 0 [no symptoms] to 6 [death]) at 90 d after stroke in patients with confirmed LVO



Siemens Healthineers proudly presents

Hospital Vall d'Hebron

ARTIS icono biplane

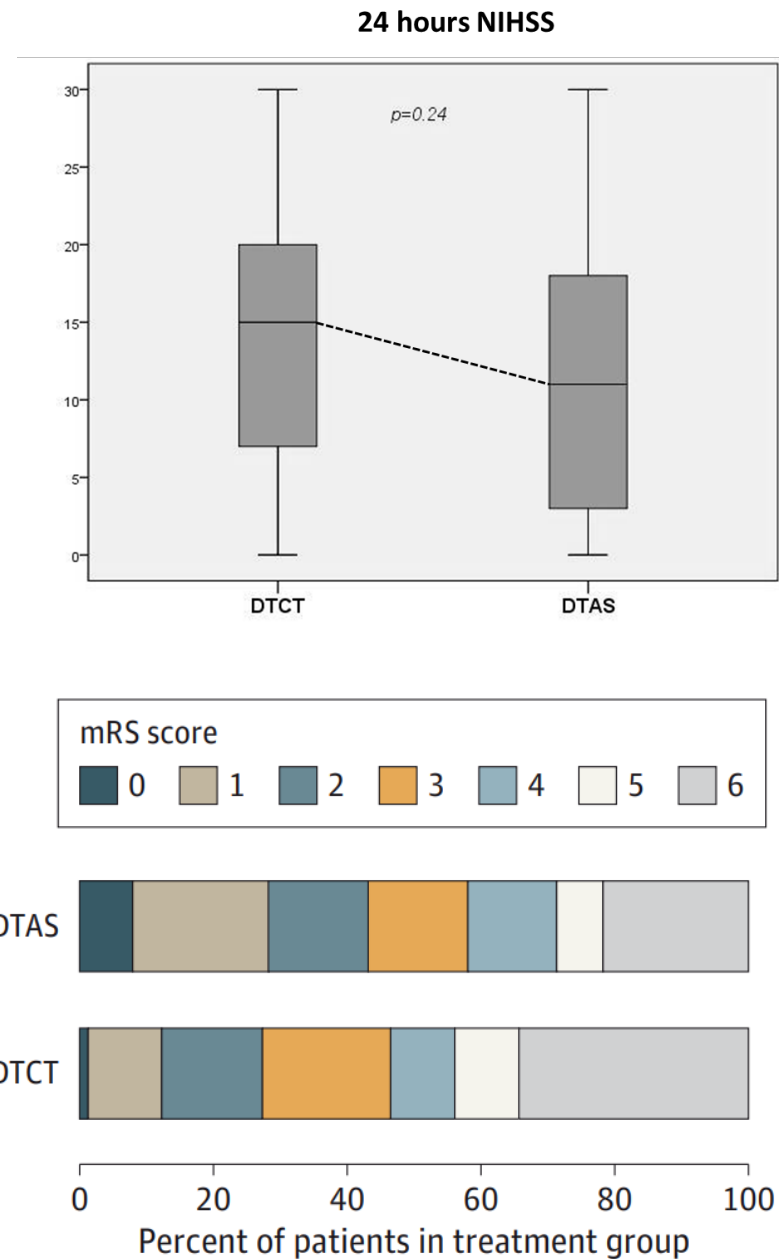
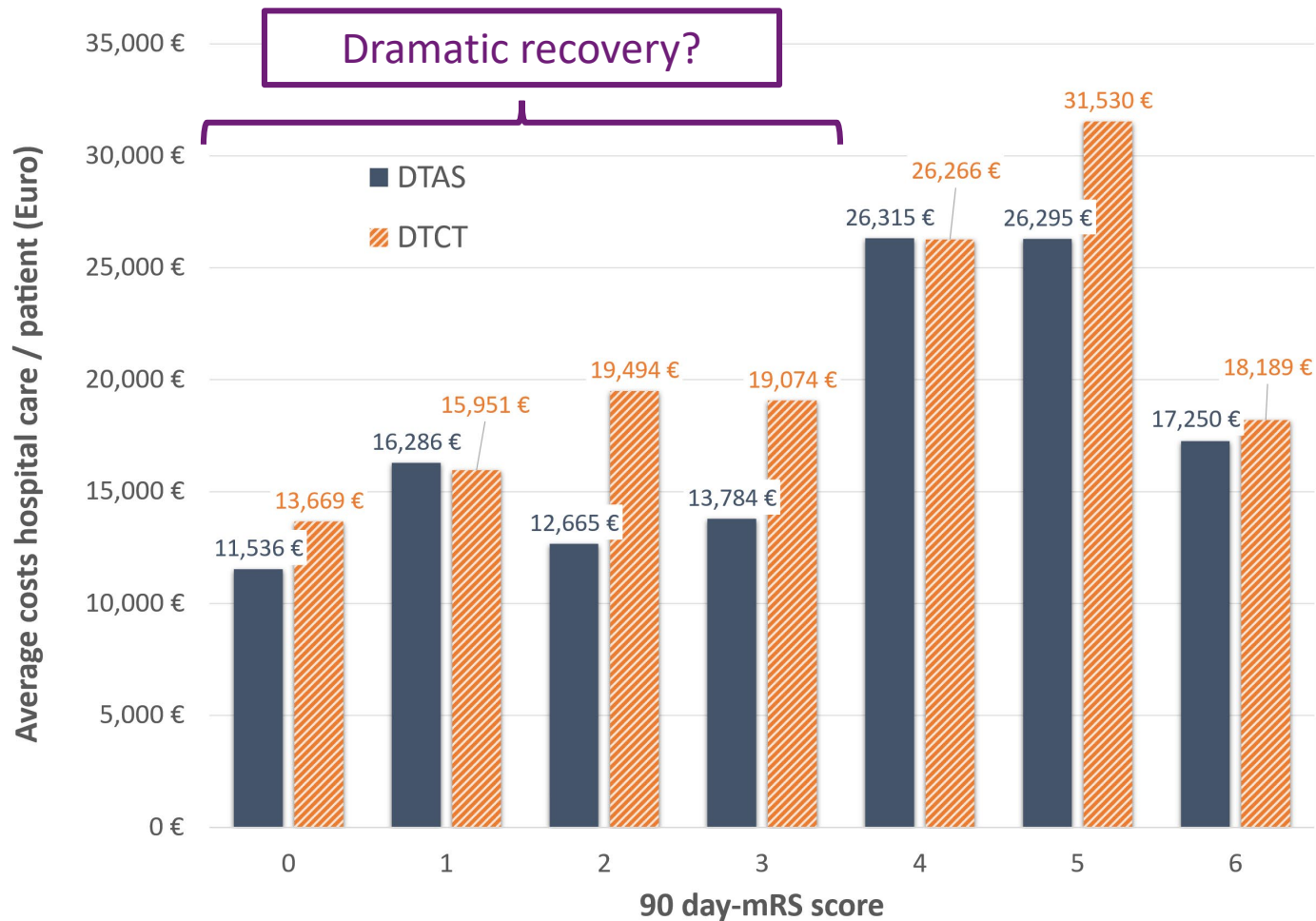
SOMATOM Edge Plus sliding gantry



PACIENTS OUTCOMES

VALUE TO PATIENTS: Rapid access to treatment reduces patient disability after stroke. It is estimated that 48% of patients achieve a dramatic recovery with direct-to-angio treatment, compared to 27% in the usual workflow.

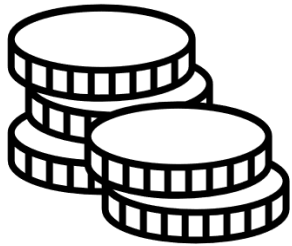
	HERMES Study	Usual workflow	Direct-to-Angio
Door-to-puncture time (minutes)	104	75	18
% door-to-puncture time <30'	0%	5%	78%
24 hours infarct volume (cc)	NA	47 cc	35-42cc
% Dramatic recovery	NA	27%	48%
% of absence of disability at 3 months	46%	45%	57-60%





Estimated lifetime: 10 years

2,848€ in hospital costs saved per patient



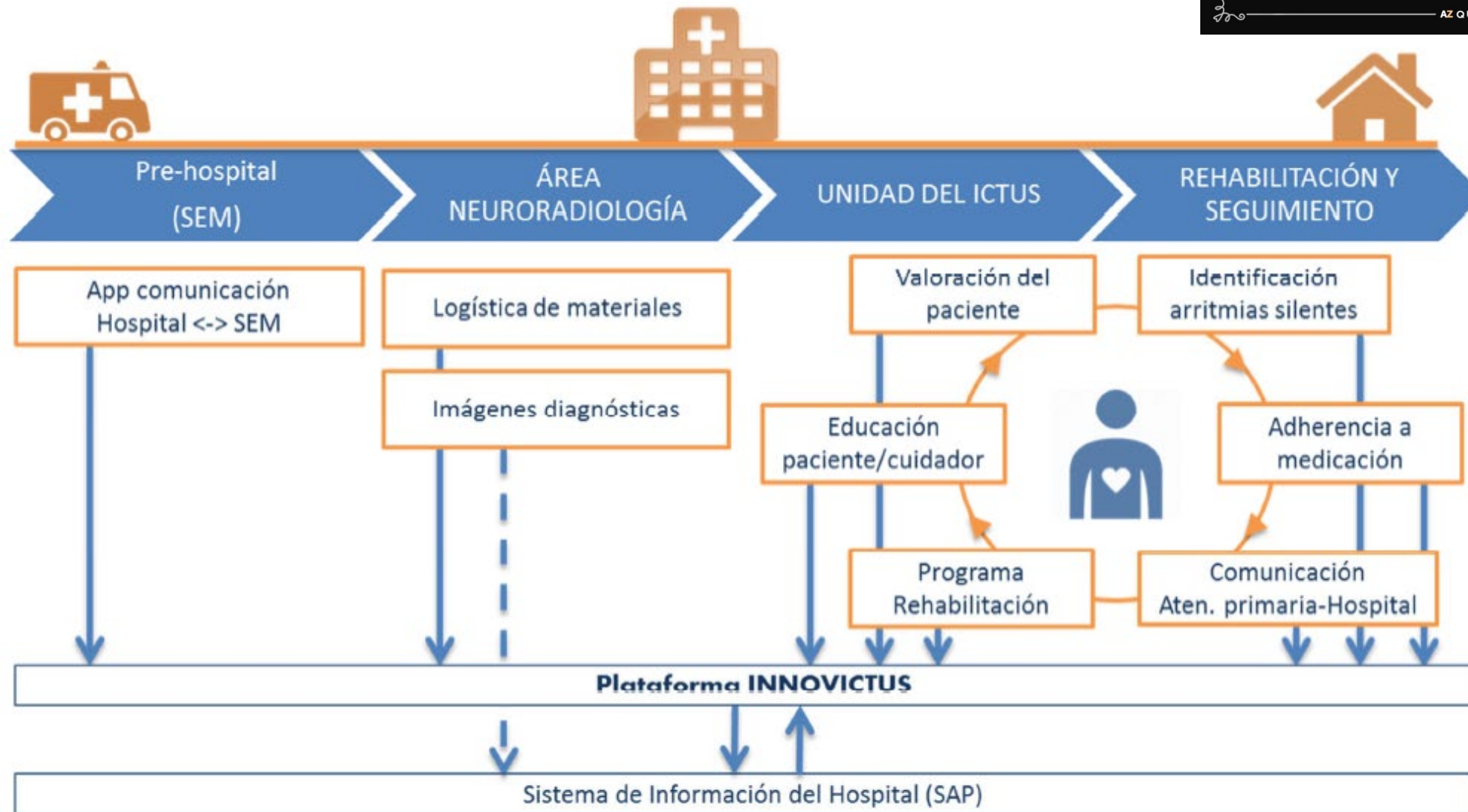
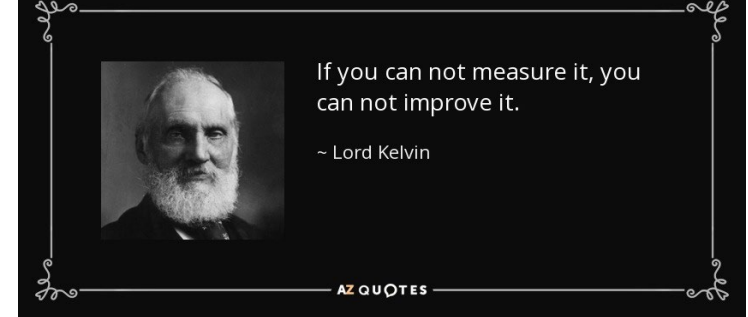
200 patients per year: 569.600€ per year

RETURN OF INVESTMENT: 3.5 YEARS



OPORTUNITY TO SAVE ABOUT: 3.7M€

SMARTSTROKE



SMARTSTROKE

Indicadores de Contrato Radar

No. Paciente Diagnóstico Ictus Año Mes Día

Tiempo Puerta Aguja Isq.

00:25

Tiempo Puerta Ingle

00:59

Tiempo Puerta P. en S. Anglio

00:45

Tiempo Puerta Unidad de Ictus

52:17

Tiempo Puerta Aguja Isq.



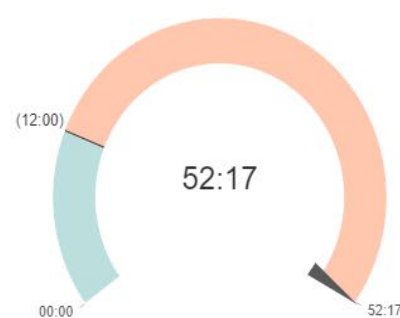
Tiempo Puerta Ingle



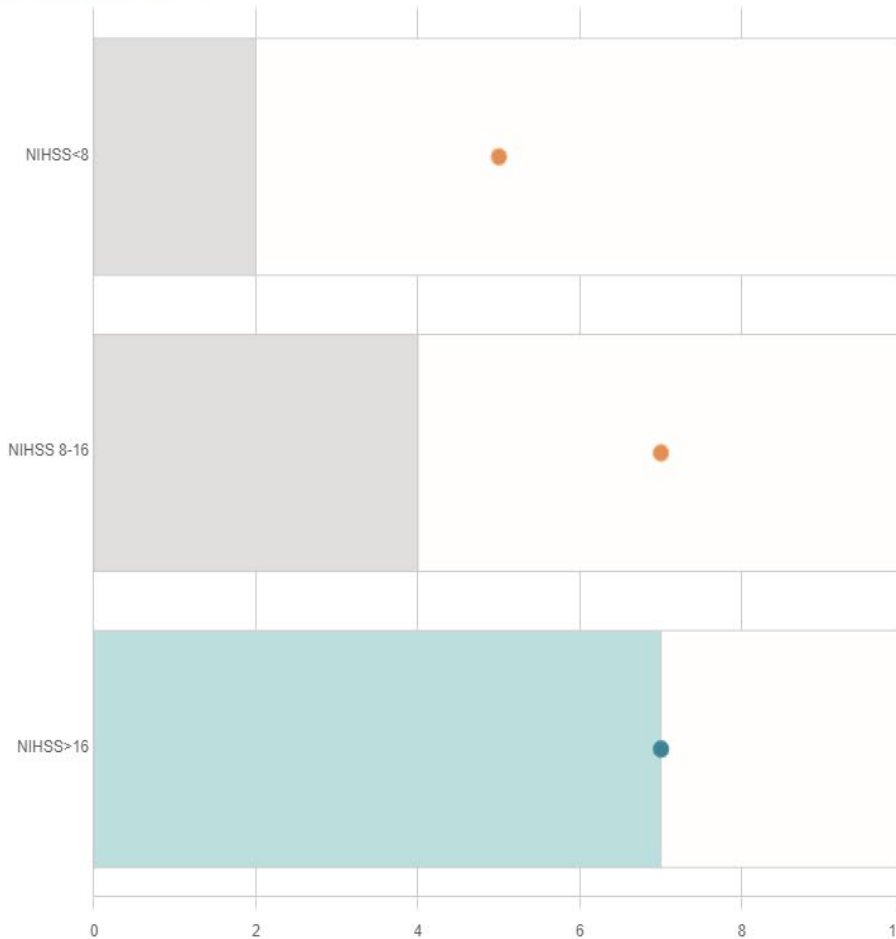
Tiempo Puerta P. en S. Anglio



Tiempo Puerta Unidad de Ictus



Estancia Media en Días



Estancia NIHSS < 8

5

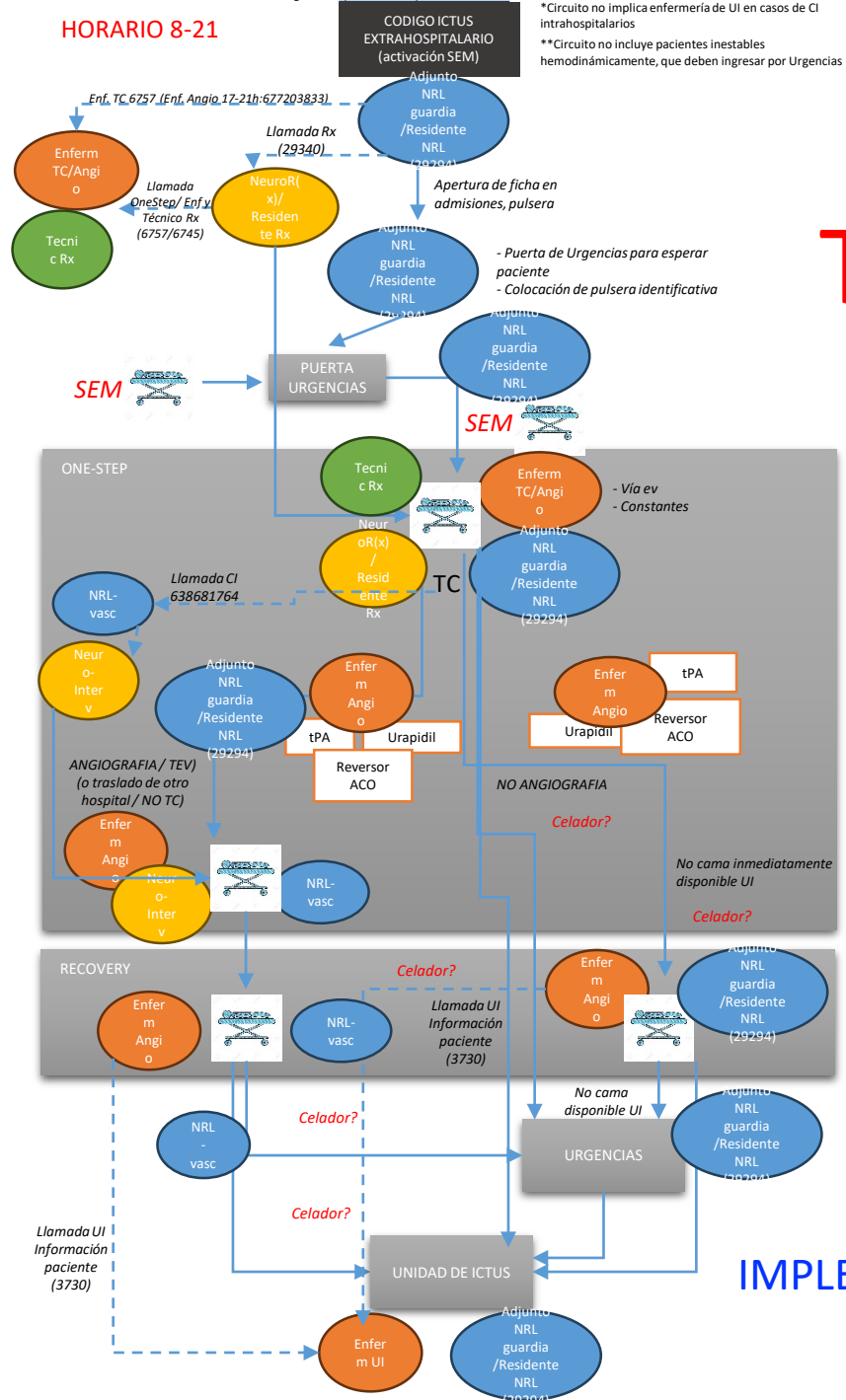
Estancia NIHSS 8 a 16

7

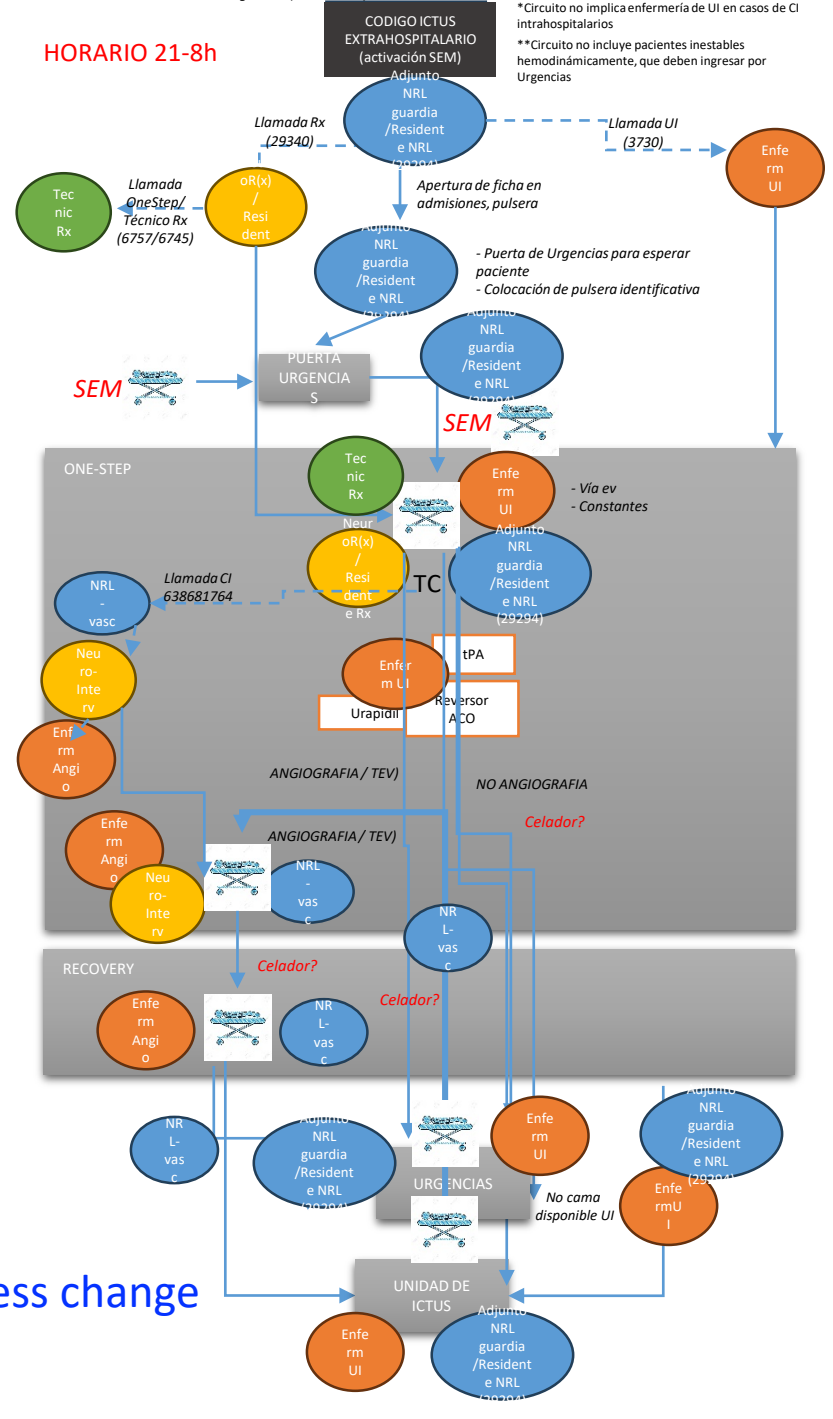
Estancia NIHSS > 16

7

HORARIO 8-21



HORARIO 21-8h



TEAM!!!

IMPLEMENTATION – Process change management



Vall

d'Hebron

Barcelona Hospital Campus



**ECHAlliance Health
Procurement Thematic
Innovation Ecosystem**

From regular health procurement
to value based health procurement

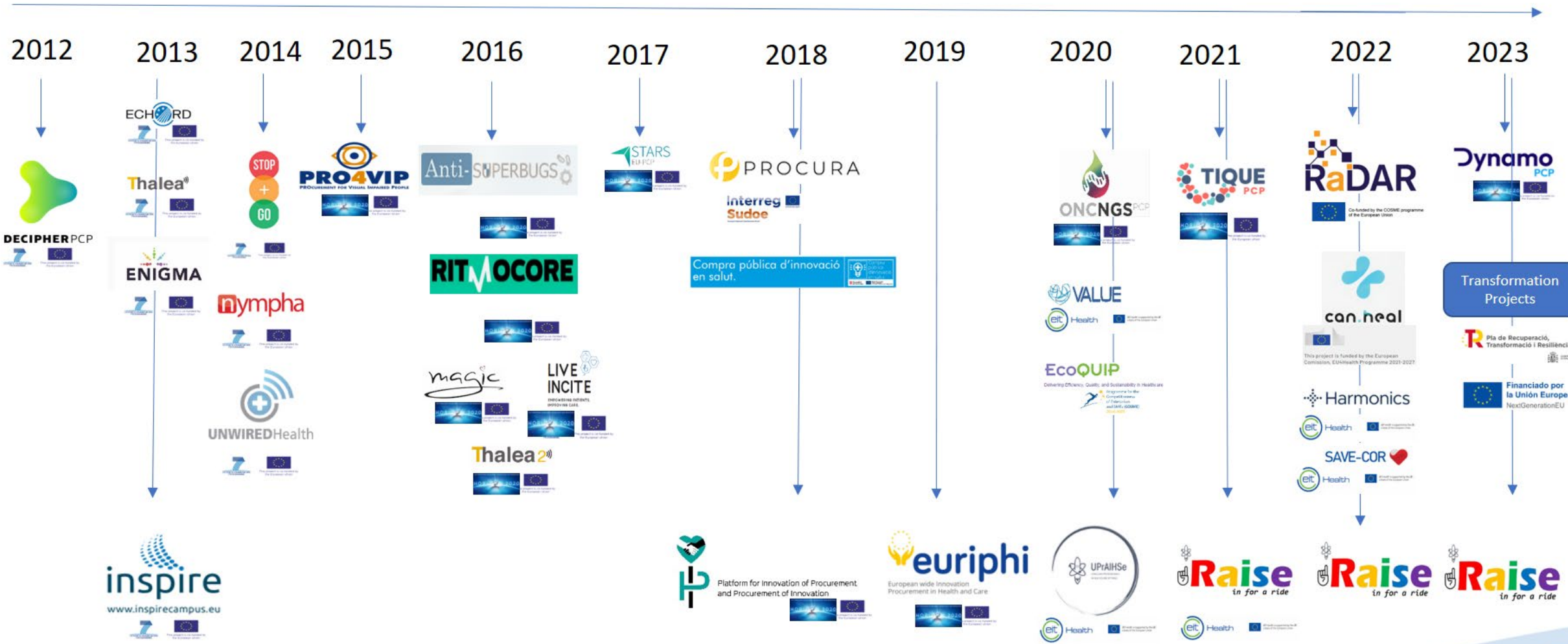
IN PERSON ONLY

    23 November  Barcelona,
Spain

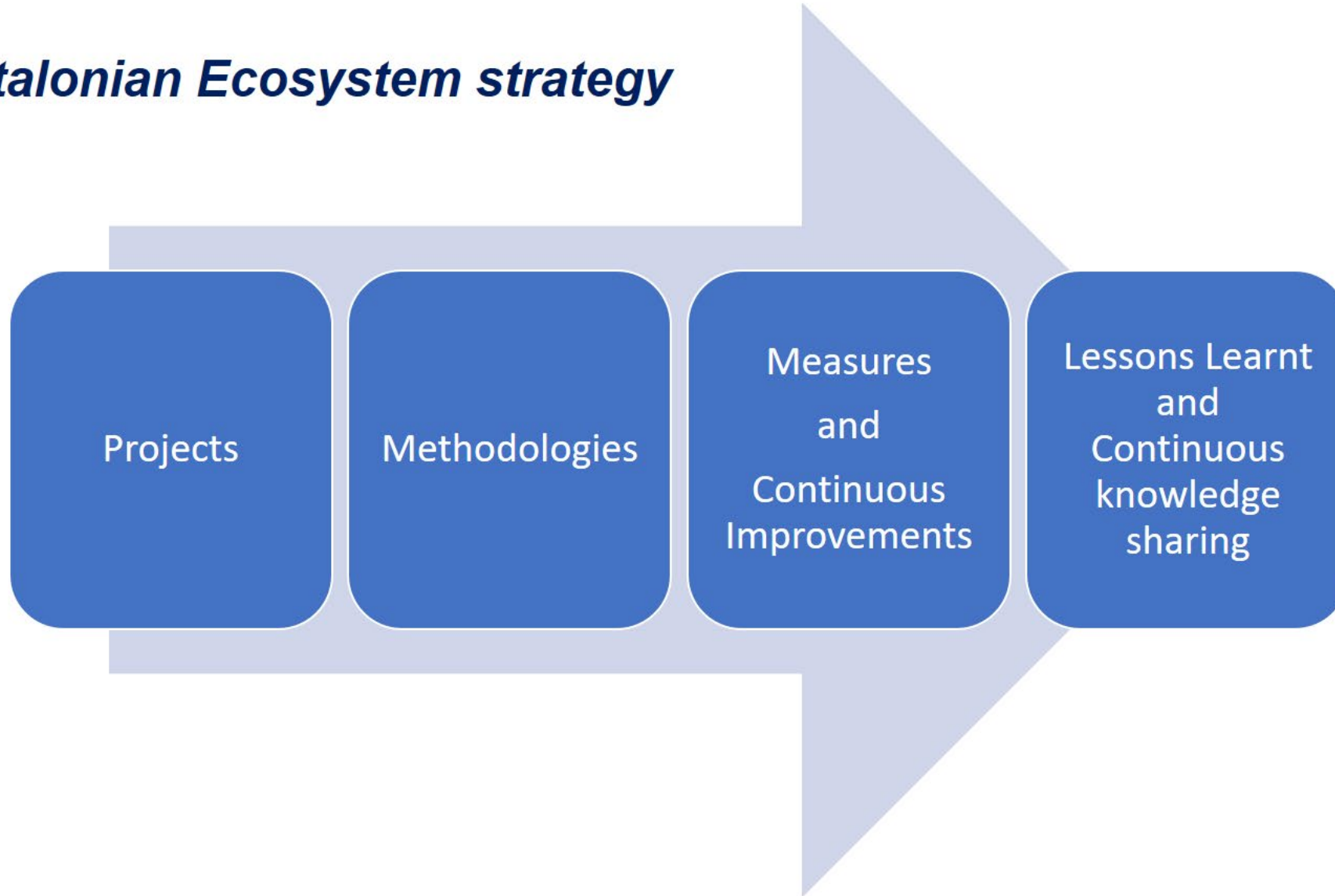
What do procurers need?

Rossana Alessandrello
ralessandrello@gencat.cat

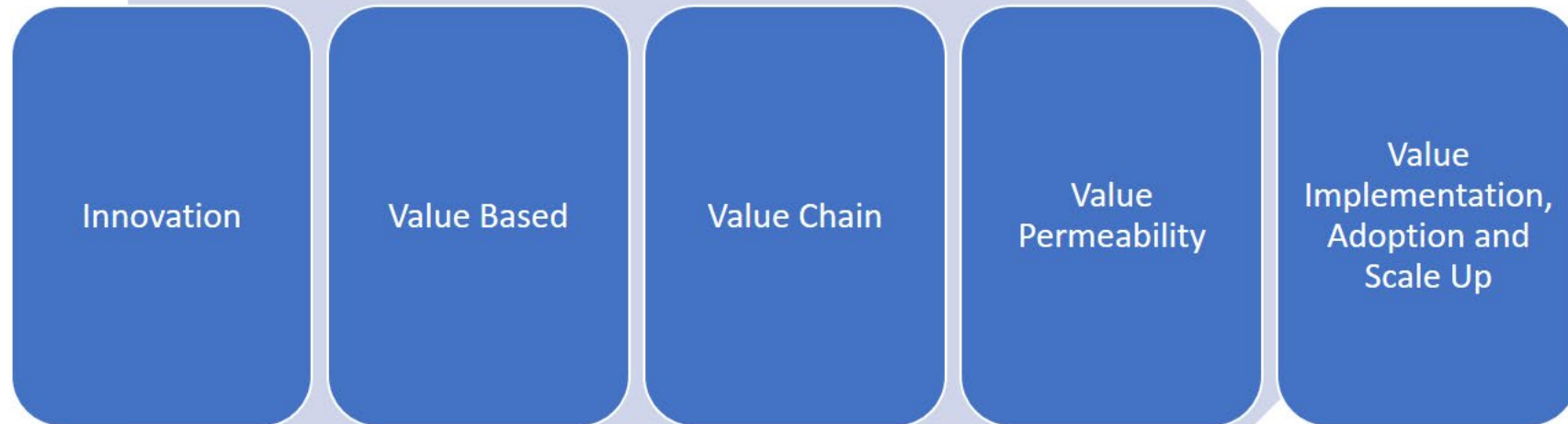
AQuAS and the Catalonian healthcare system journey towards the adoption of value-based innovations



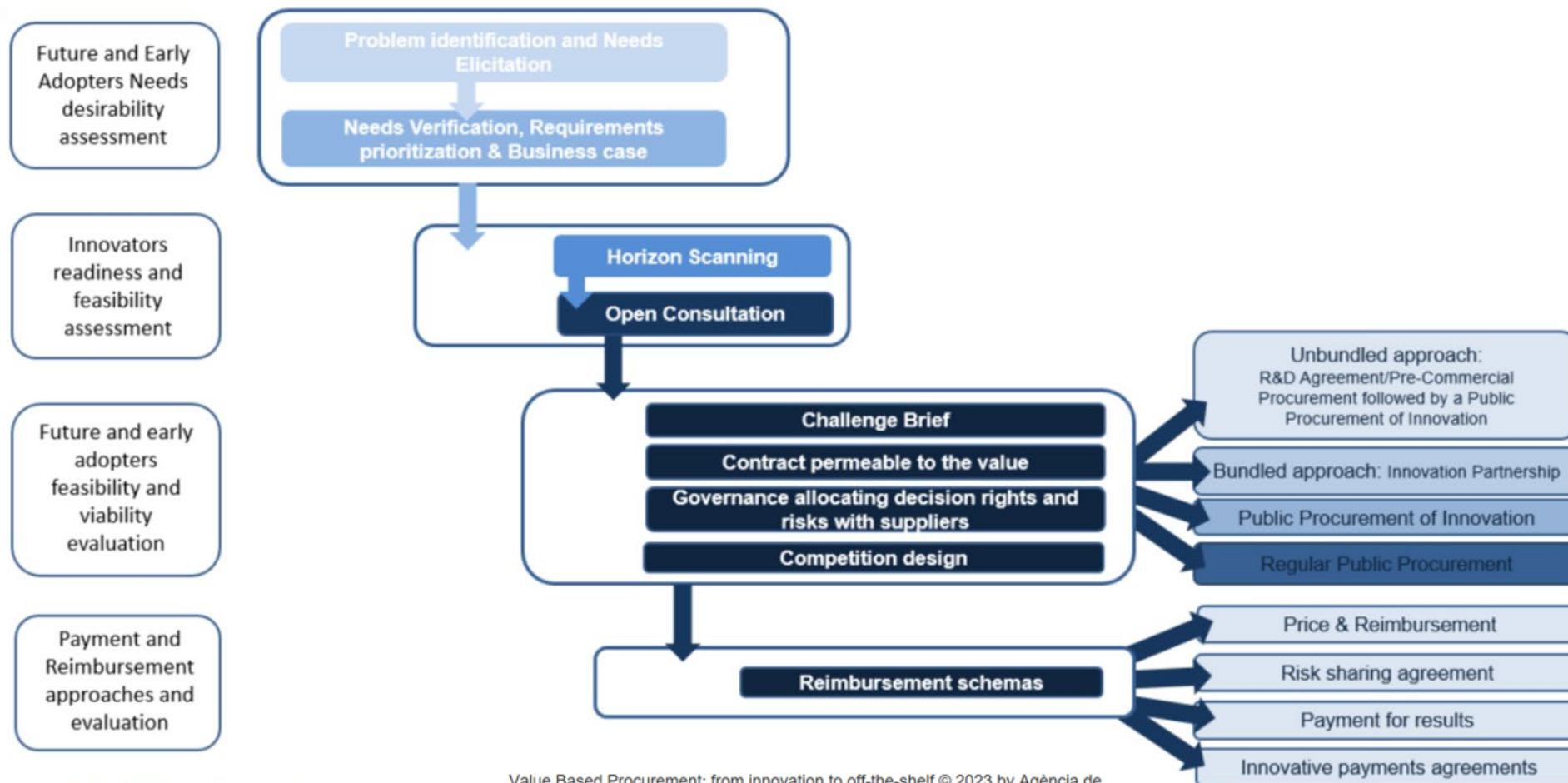
VBHC Catalanian Ecosystem strategy



VBHC Catalanian Ecosystem: methodologic journey

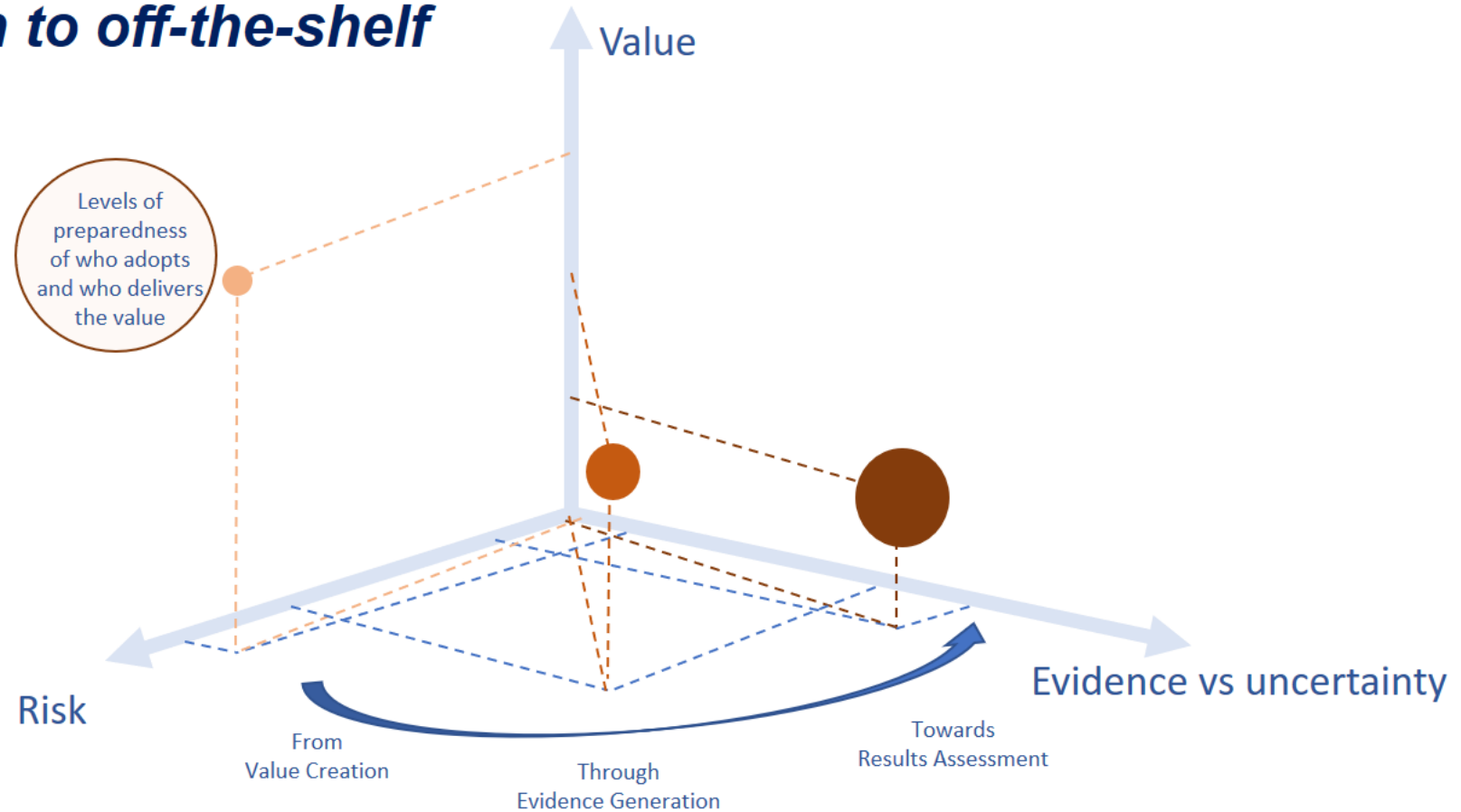


Value Based Procurement: from needs to adoption & scale up



Value Based Procurement: from innovation to off-the-shelf © 2023 by Agència de Qualitat i Avaluació Sanitàries de Catalunya is licensed under [CC BY-NC-SA 4.0](https://creativecommons.org/licenses/by-nc-sa/4.0/)

Value Based Procurement: from innovation to off-the-shelf





Authors

Rossana Alessandrello¹, Uxío Mels¹, Vicente Traver², Lucía Aparici², Manuel Traver², Kiersten Pilar Miller³, Irene Villegas⁴, John Lodge^{5,6}, Olman Elizondo¹, Ramon Maspons¹

1 Agència de Qualitat i Avaluació Sanitàries de Catalunya, *2* Universitat Politècnica de València, *3* Ospedale Bambino Gesù, *4* Servicio Murciano de Salud, *5* Walsall Healthcare NHS, *6* Hexitime

With acknowledgement

iRaise Education Programme:

iRaise Alumni representatives:

iRaise Industrial and Institutional Alliance - I3A:

Supported by:

How to cite this report: Alessandrello R., Mels U., Traver V., et al. (June 2022). White Paper: iRaise Education Programme - a practical case of industry alliance for education to boost high value care transformation through innovation adoption

For more information:
 - Education Manager: Vicente Traver (vtraver@itac.upv.es)
 - Scientific Manager: Rossana Alessandrello (ralessand@itac.upv.es)

2



25 teams trained
and
8 training



120 professionals trained
and
48 training



30 certified mentors



1 PPI completed
and
15 PPI running

III Premio
Amparo Poch
de Compra Pública de Innovación en
Salud
#AmparoPoch2023



Mejor iniciativa de compra pública de innovación en salud

Thank you!

Health Procurement Thematic Innovation Ecosystem



Barcelona, 23 November 2023

We are Evidenze

Ensuring that knowledge in health reaches practice and improves the lives of patients is the great challenge of all of us who are part of the industry. That is why Evidenze units are at the service of our clients' visions. This is how we have designed integrated services that provide solutions in all phases of a product's life cycle.



Clinical Research



Digital Health & Consulting



Medical Education



Communication

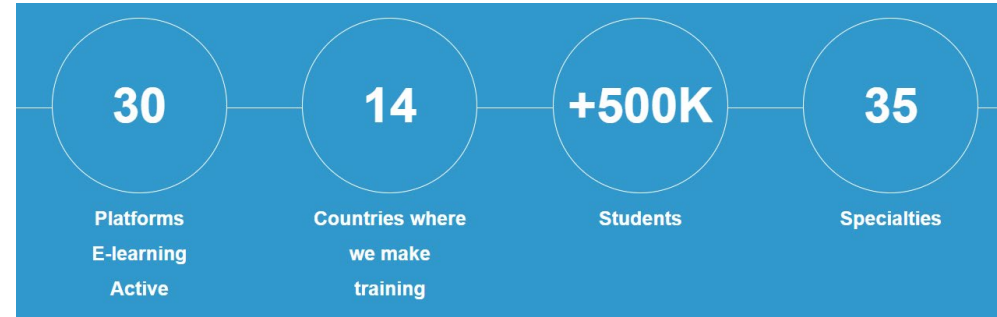
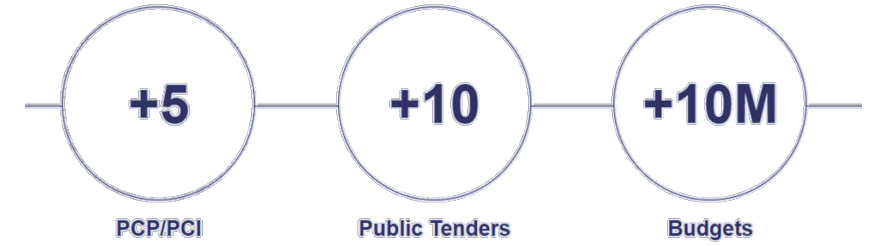


Patient Support



Scientific Events

Evidenze Group



Digital Health: +15 years on R+D+i Projects/tenders in Spain and Europe



Thalea

Enable Intensive Care Units to improve the care for acutely live-threatened patients by telemedicine and telemonitoring.

Nympha

Implementation of mobile ehealth services for supporting physicians and patients in the treatment of **bipolar disorder** through continuous patients monitoring.

Relief

Assist chronic patients to self-manage their pain. Chronic patients can continue independent living at home even if they have physical disabilities.

Nightingale
Smart monitoring, safer care

Design wearable technology that can continuously monitor patients' vital signs, including blood results and other clinical data, as well as ensuring early warning of actual deterioration in and out of hospital.

Feeding care

Innovative and comprehensive solution for the management of neonatal nutrition and support for the lacto-dietary unit of Hospital Parc Taulí.

STARS
EU-PCP

Resilient support tool for patients, planned for surgery, with the aim of reducing stress during the entire care path.

Defence and Security Accelerator

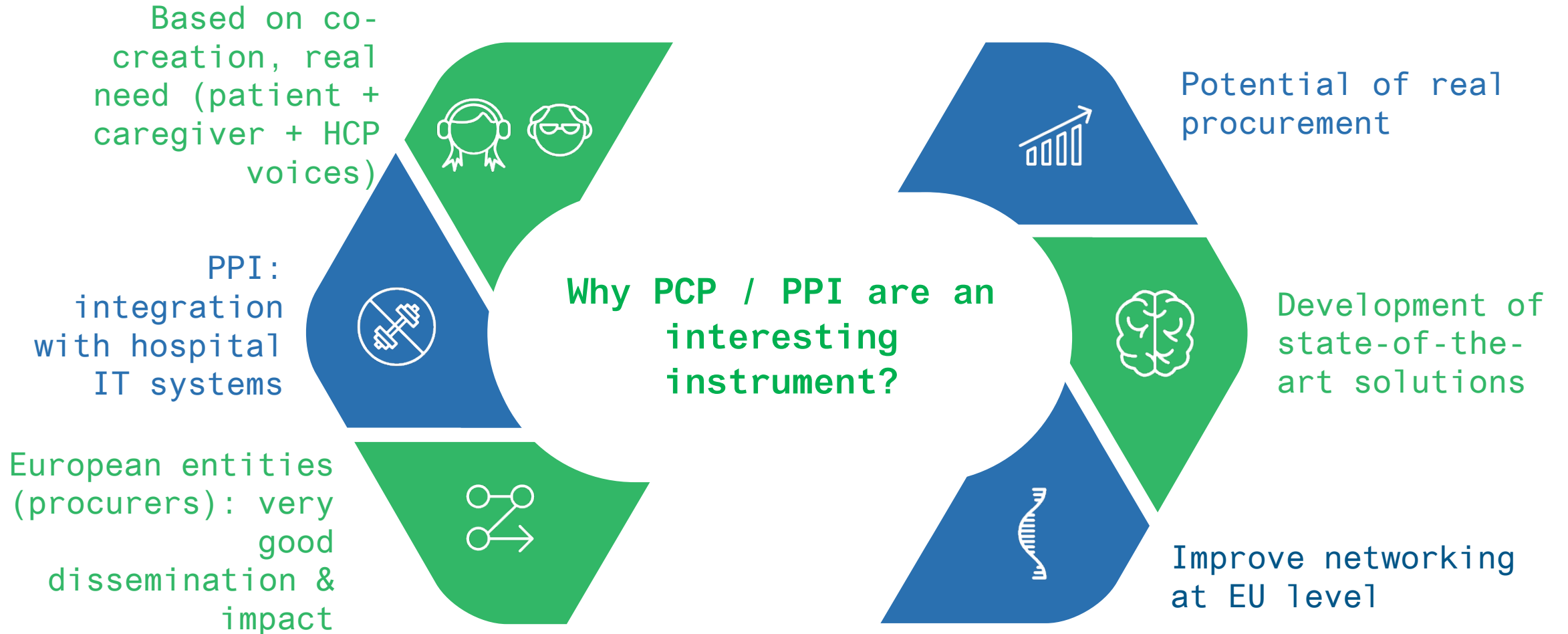
Real time analysis for soldiers in the battle field of bacteria infection.

Anti-SUPERBUGS

Detecting micro-organisms that may determine the incurrence of hospital-acquired infections and control the diffusion of infections within healthcare providers.

eCare
Digital solutions for frailty prevention in old adults

Encourage elderly people to live independently, detecting and preventing loneliness and isolation, promoting healthy habits and exercise to prevent and manage fragility.



Success story: PCP eCARE (SOFI)



SOFI project, platform resulting from the European tender PCP eCARE (www.ecare-pcp.eu)

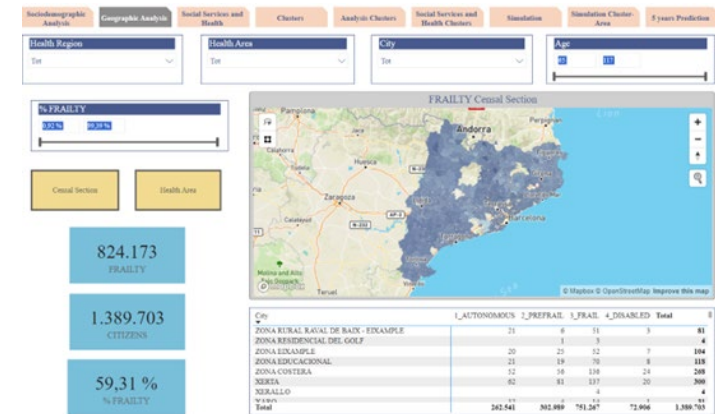
SOFI is a social and health integration project where emphasis is placed on the concept of social innovation

SOFI is a digital solution to detect, prevent and manage the frailty of the elderly

Patient centric approach: design thinking sessions: elderly people, primary care doctors and social managers



SOFI elements: dashboard, app, wearable (4G)



Socio-demographic and health monitoring and analysis dashboard

Success story: PCP eCARE (SOFI)

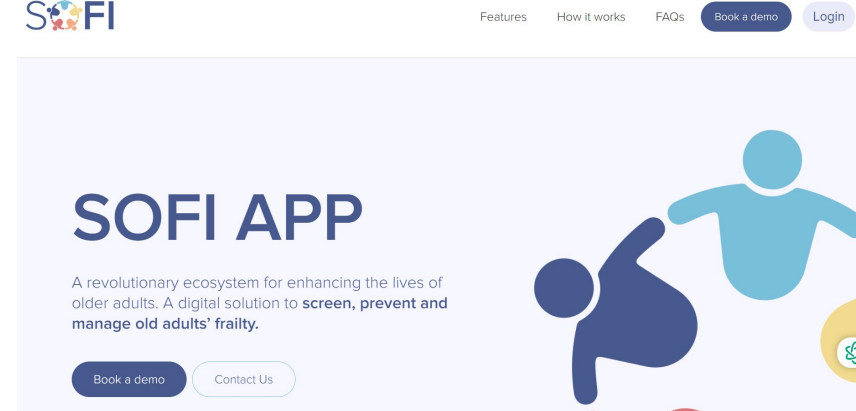
Project promotion: vimeo.com/865937468



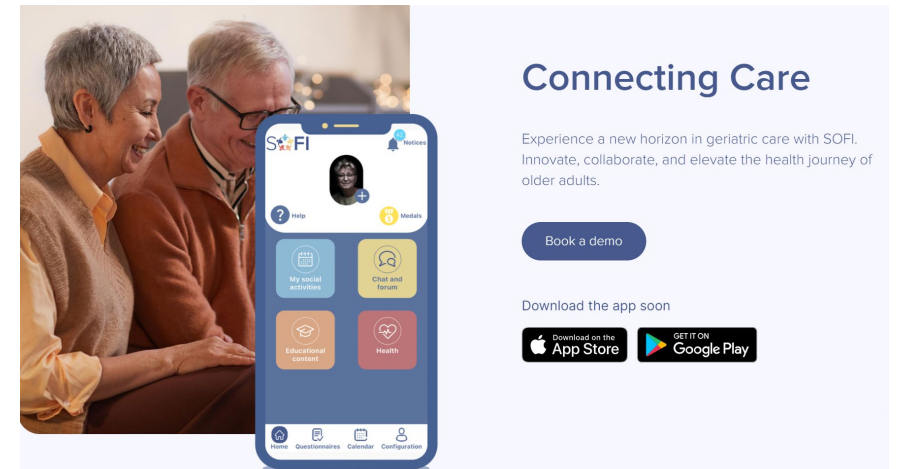
SOFI is a revolutionary solution for enhancing the lives of older adults.



Commercial website: www.sofi-app.com



It is a community.



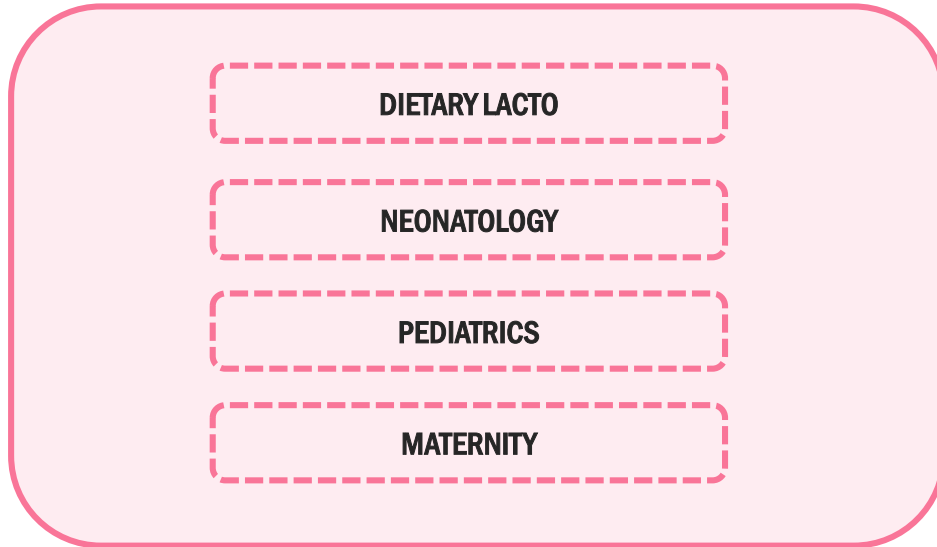
Success story: PPI FeedingCare



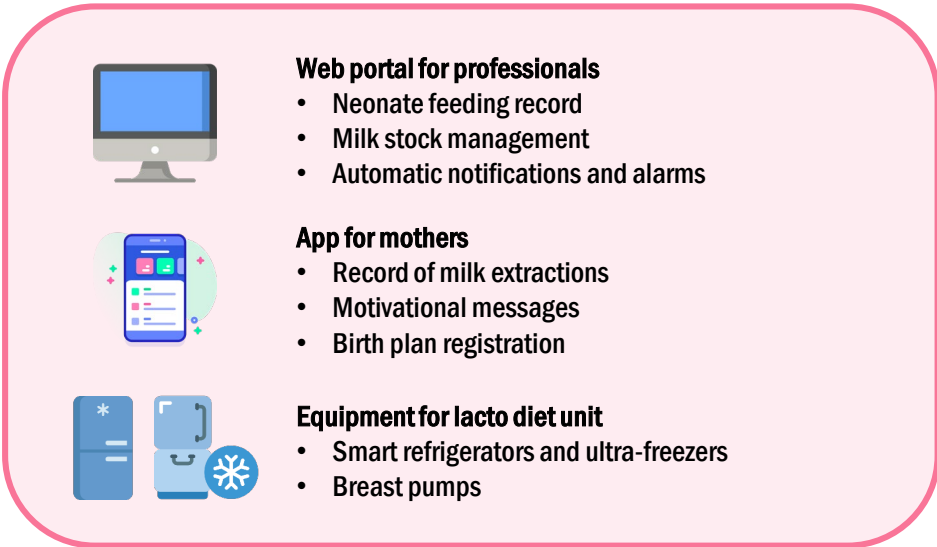
Innovative and comprehensive solution for the management of **neonatal nutrition** and support for the lacto-dietary unit of **Hospital Parc Taulí**.



INVOLVED CLINICAL UNITS



FEEDING CARE SOLUTION



Success story: PPI FeedingCare

Real co-creation with all stakeholders (web&app)

Turn-key solution integrated into daily process at the Neonatology unit (change management)

Digitalization: improvement in process security

Real integration with IT systems of the hospital

Potential commercialization to other hospitals (Spain & EU)

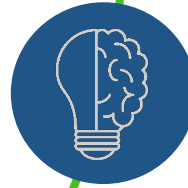
Impact on Evidenze thanks to PCP / PPI



Improve company market position on innovation and real IT integration with hospitals (PPI only)



Retention and attraction of talent (Staff)



EU knowledge on health systems; Increase networking of partners



Add-value to investors: Evidenze grows from 35 employees to close 400 in 3 years (M&A process)

Death valley: from innovation project to real procurement



**Focus on real need/demand:
from Bike to Golf to Ferrari**



**Training on improving trust of HCP to
tech/AI**



**Commercial trigger: CE & MD
Certification + clinical evidence
(clinical trial)**



**From day-1 on each innovation project
define biz model / communication
strategy / change Management**



**Improve knowledge of ethical
committees on data Management**



Reimbursement model: DIGA?

We are Evidenze

Ensuring that knowledge in health reaches practice and improves the lives of patients is the great challenge of all of us who are part of the industry. That is why Evidenze units are at the service of our clients' visions. This is how we have designed integrated services that provide solutions in all phases of a product's life cycle.



Clinical
Research



Digital Health &
consulting



Medical
Education



Comm-
unication



Patient
Support



Scientific
Events



CRANE

Comprehensive Treatment of Chronic Patients in Rural Areas

Jonathan Gómez-Raja, PhD

Chief Scientific Officer

FUNDESALUD, Dept. of Health and Social Services

Government of Extremadura

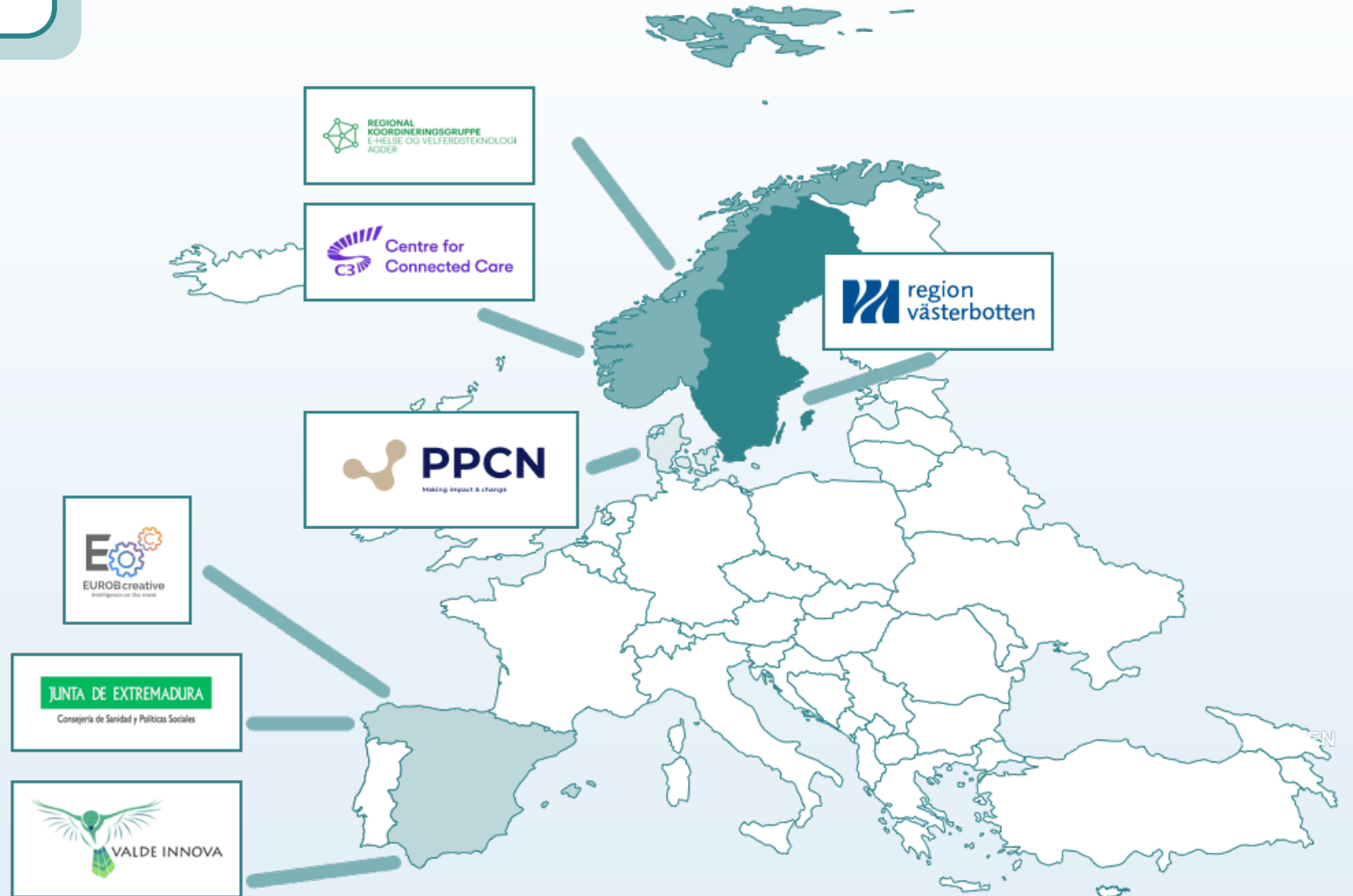


Funded by
the European Union

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 965277

Consortium

- 7 partners
- 4 European countries
- 3 rural regions
- High levels of people over 65
- Common and urgent need for health and care **innovation**



Extremadura



JUNTA DE EXTREMADURA

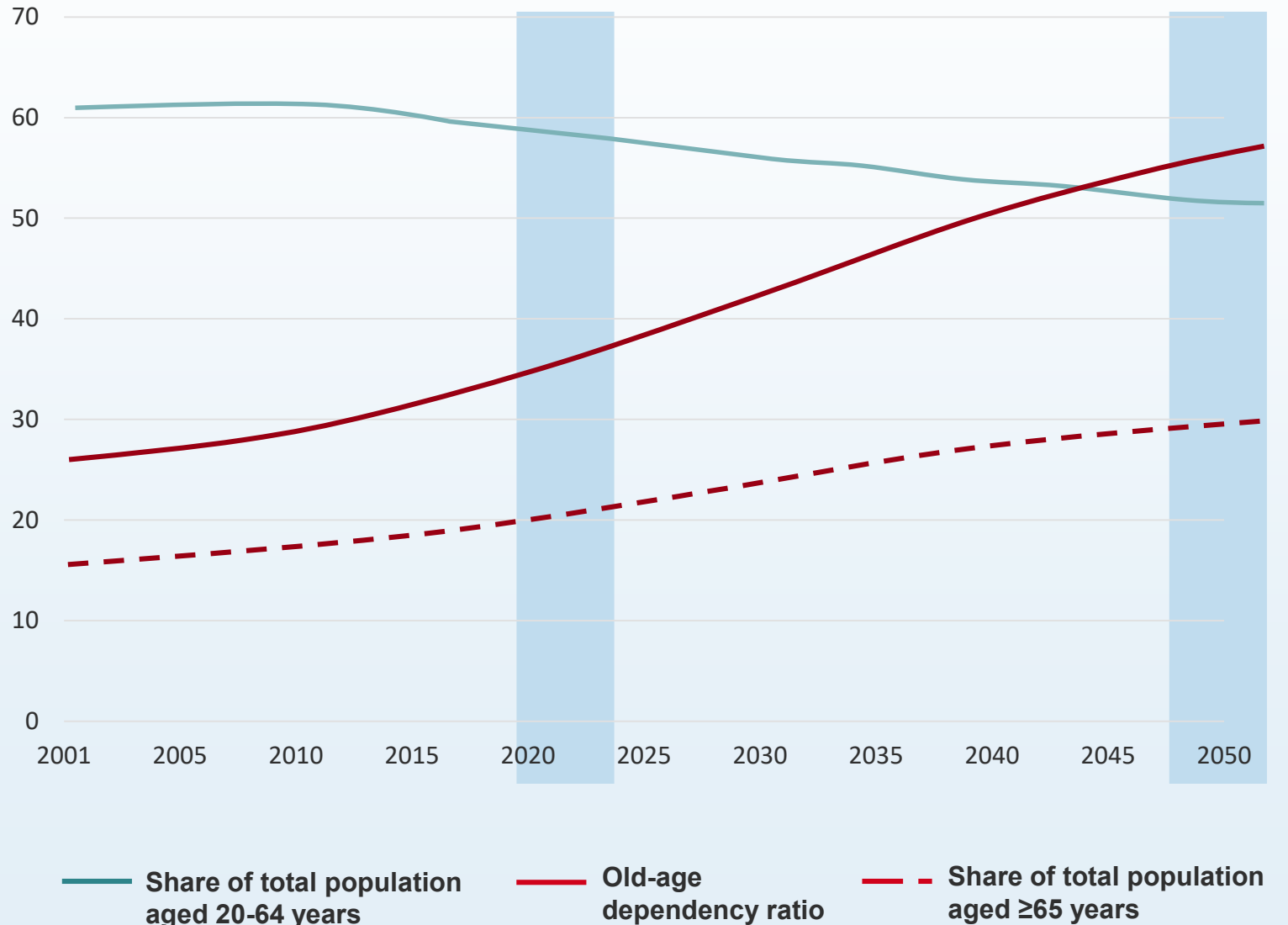


Problem

The European population is ageing fast

By 2050, **30%** of the population will be aged 65 years or older compared to **20%** in 2020

Population structure indicators, EU-27, 2001-2050



In many rural areas in Europe, only 20% of the patients can be guaranteed the full attention by social service and primary care entities

→ 70-80% of the patients with chronic diseases shall move to self-monitoring and self-care.

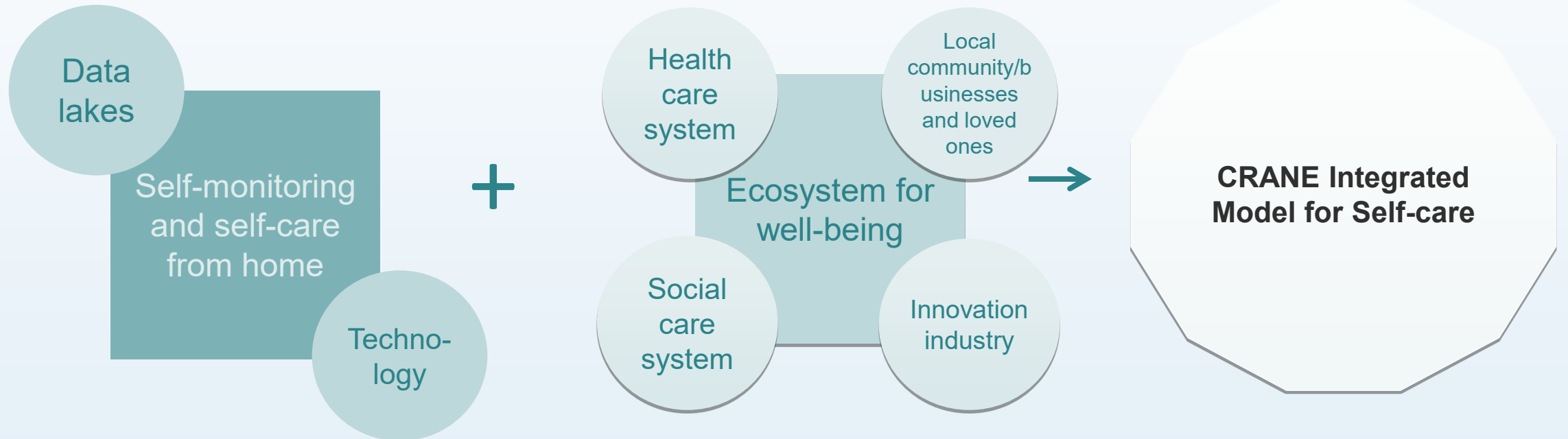


**Additionally, more than
30% of Europeans over
65 lives alone**



Solution

CRANE model for **SELF-CARE** is based in two pillars



CRANE

Building blocks

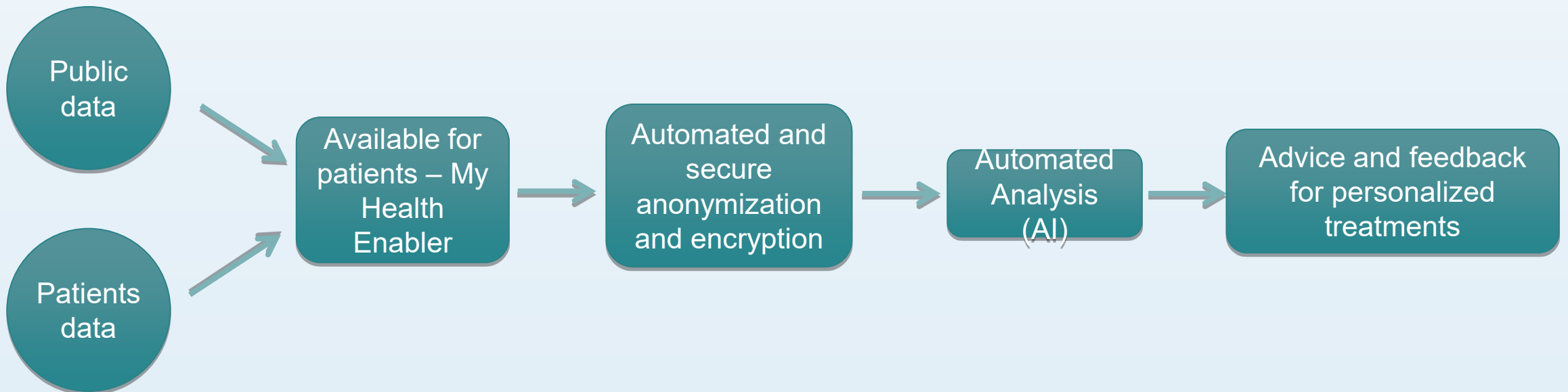


How to do it

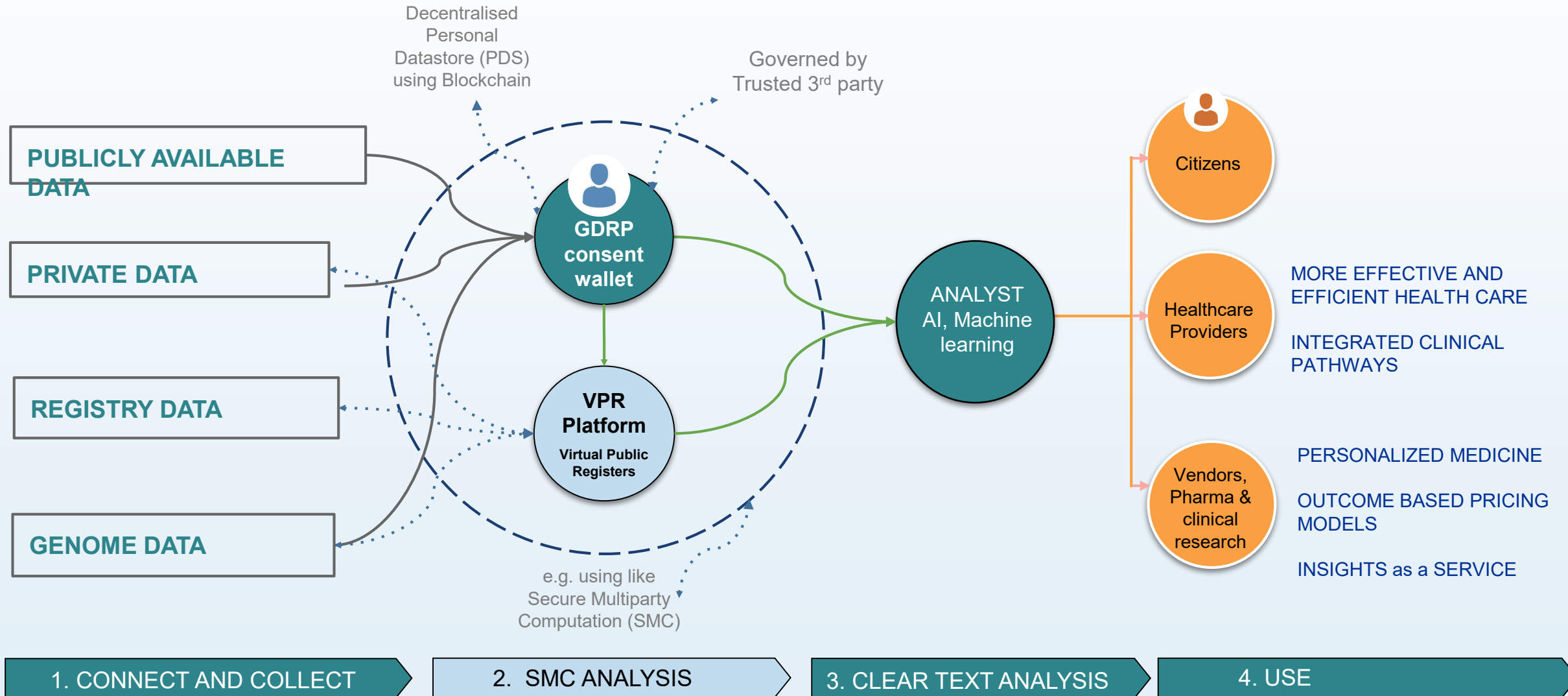


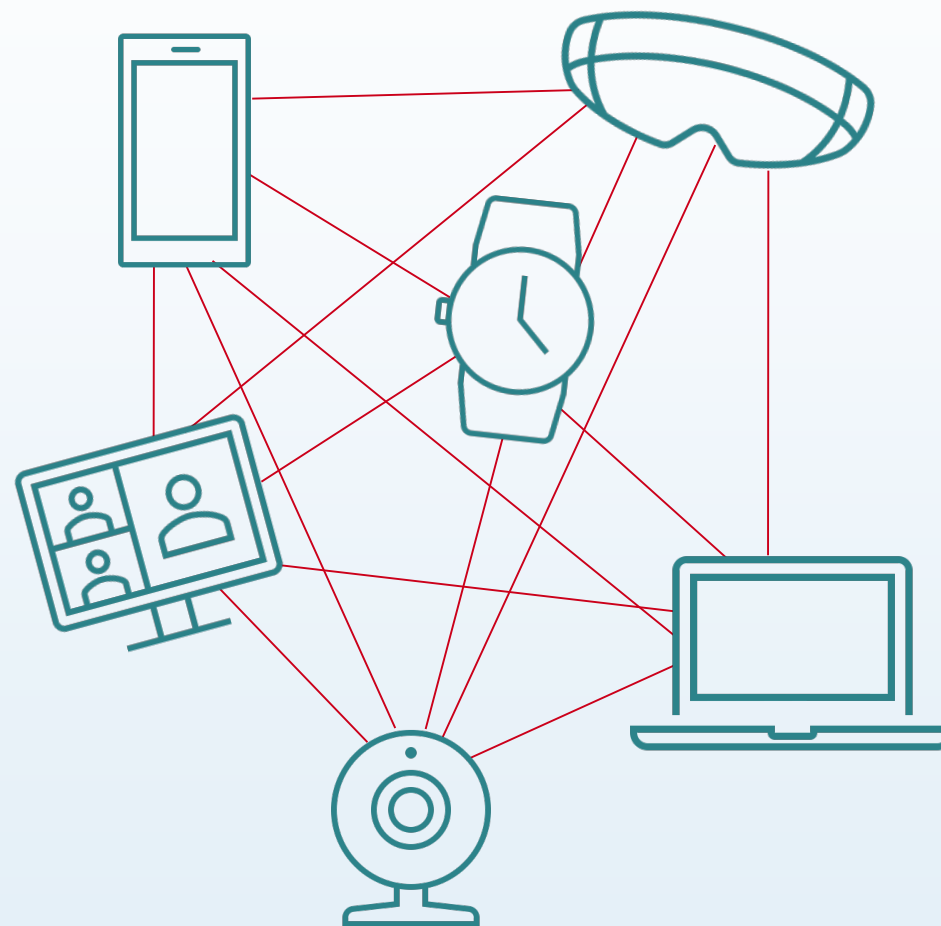
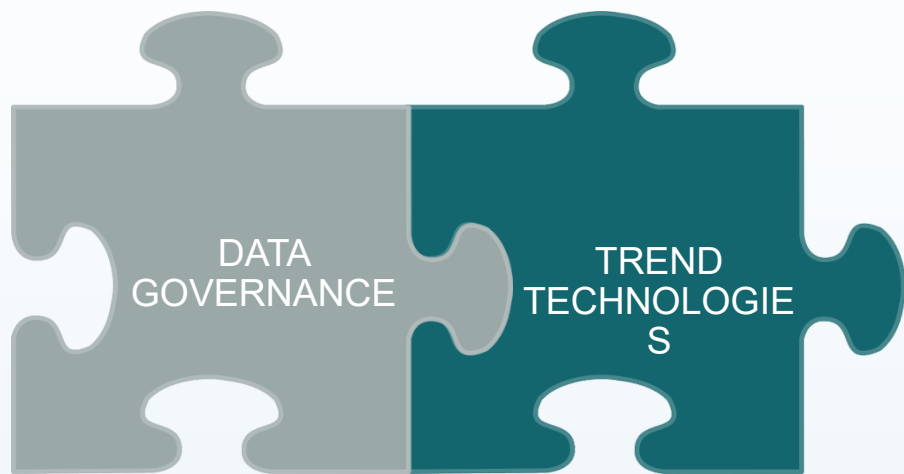
1

Using public and private data **consent provided** by patients for their own benefit



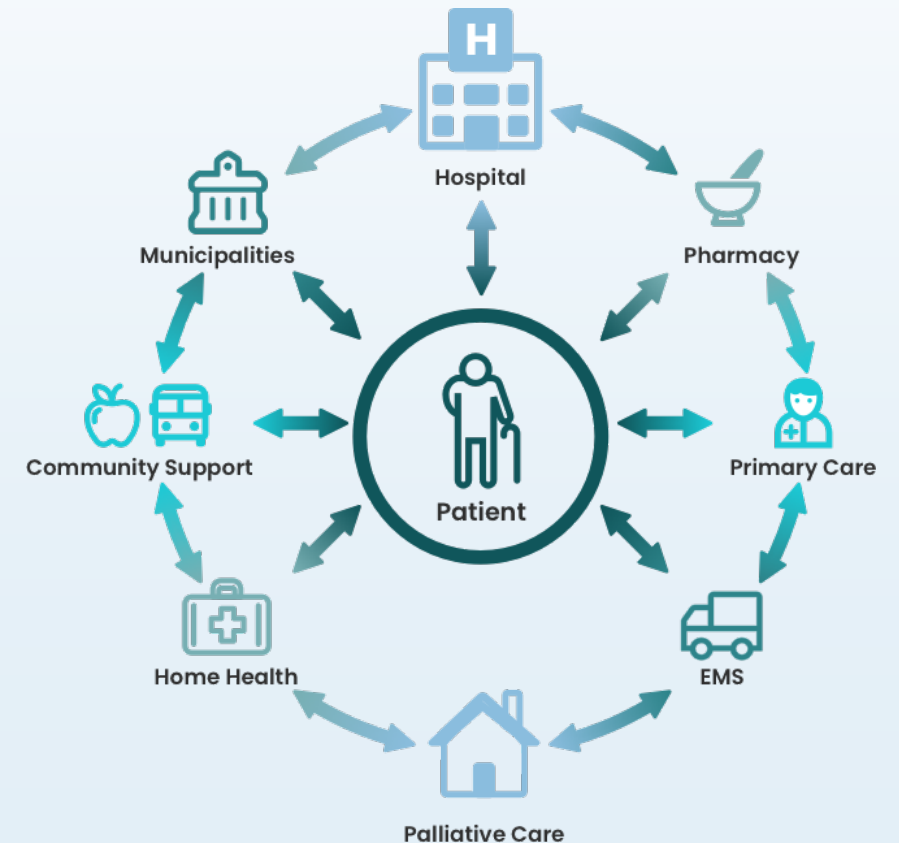
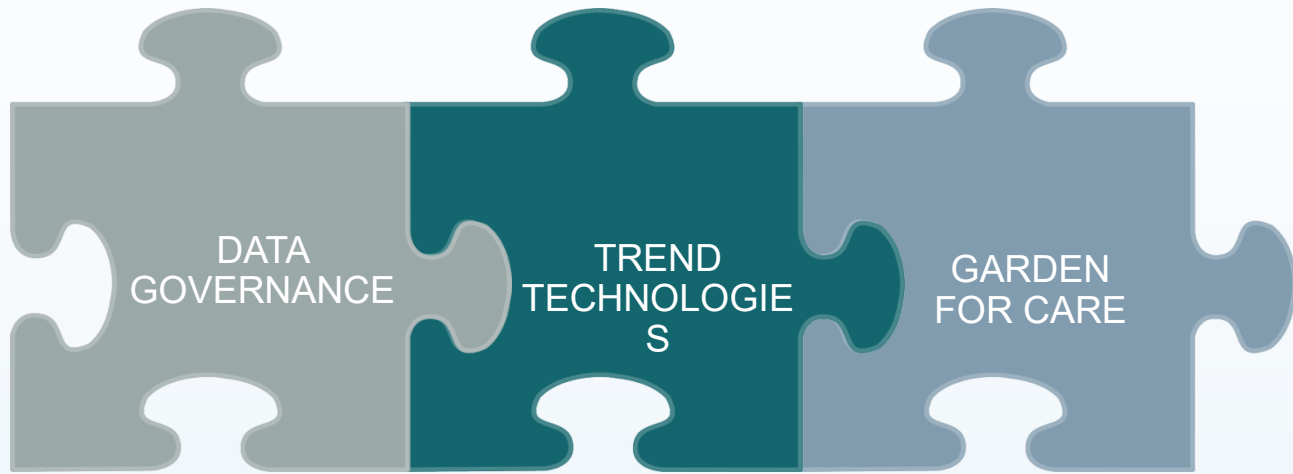
CRANE eco-system concept for a secure public-private virtual data lake platform





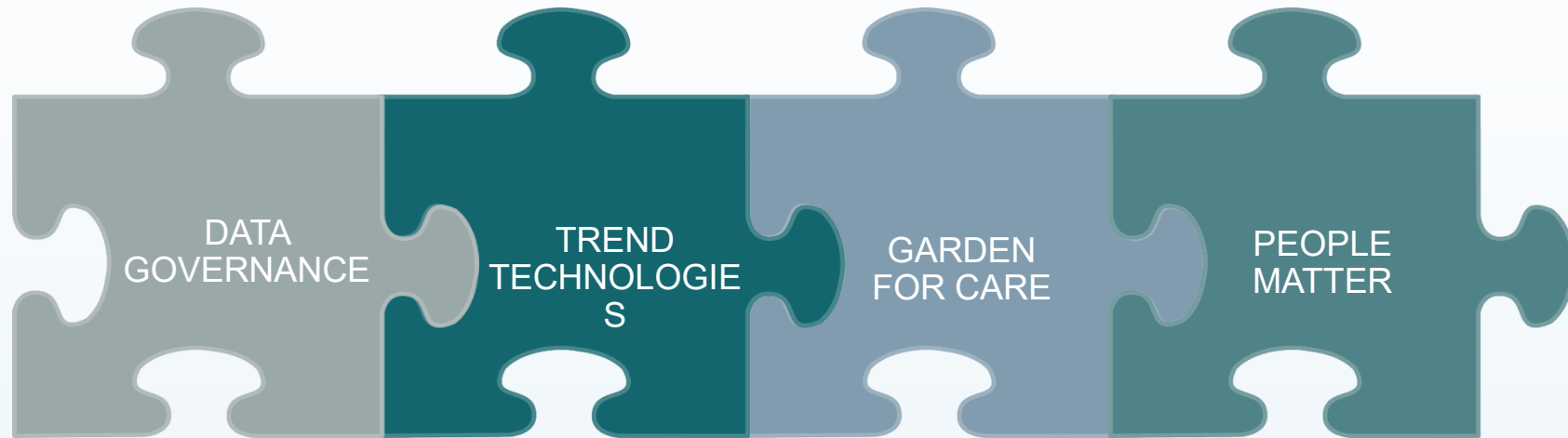
2

Applying the latest technology ensuring interoperability and long term durability



3

Supporting patients health and self-care through their garden of care – having social relationships and people around



4

People Matter, empowering patients to get in control of their own health through motivation e.g. psychological profiling





5

Through a value-based model provide measurable indicators and evidences of value and effectiveness to help the innovators to deliver self-care services that are accepted, cost and clinical efficient.

Target patients



**Cardiovascular diseases
(CVDs)**



**Chronic obstructive
pulmonary disease (COPD)**

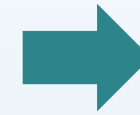
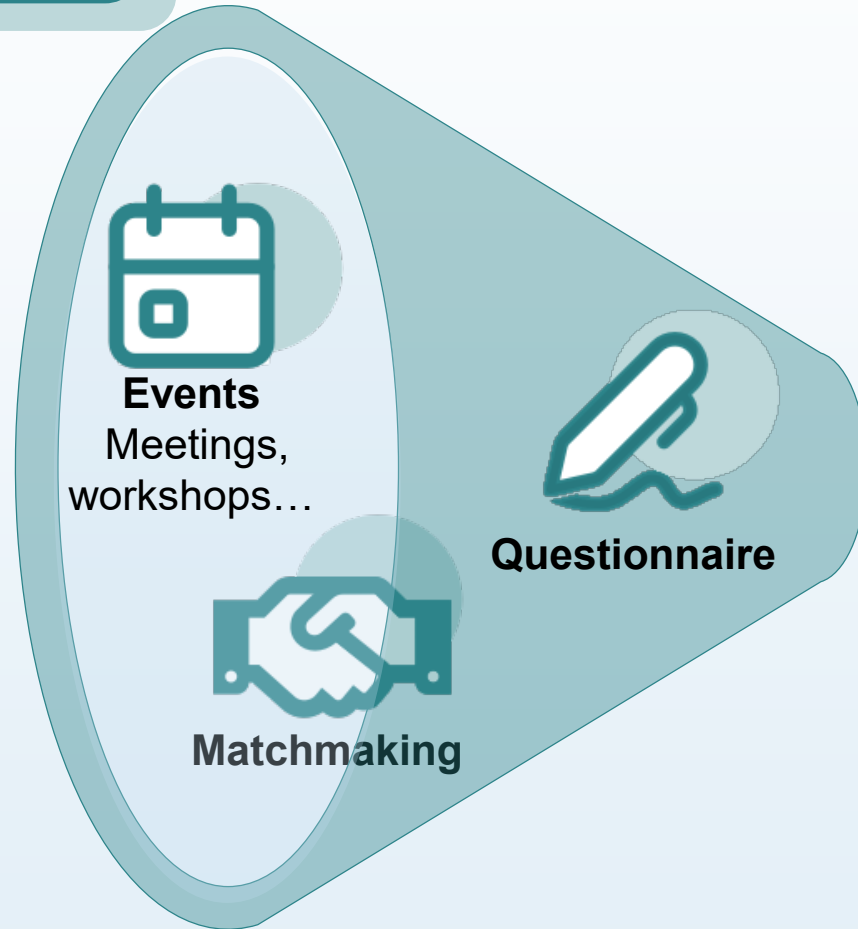
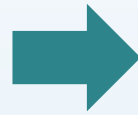


Diabetes

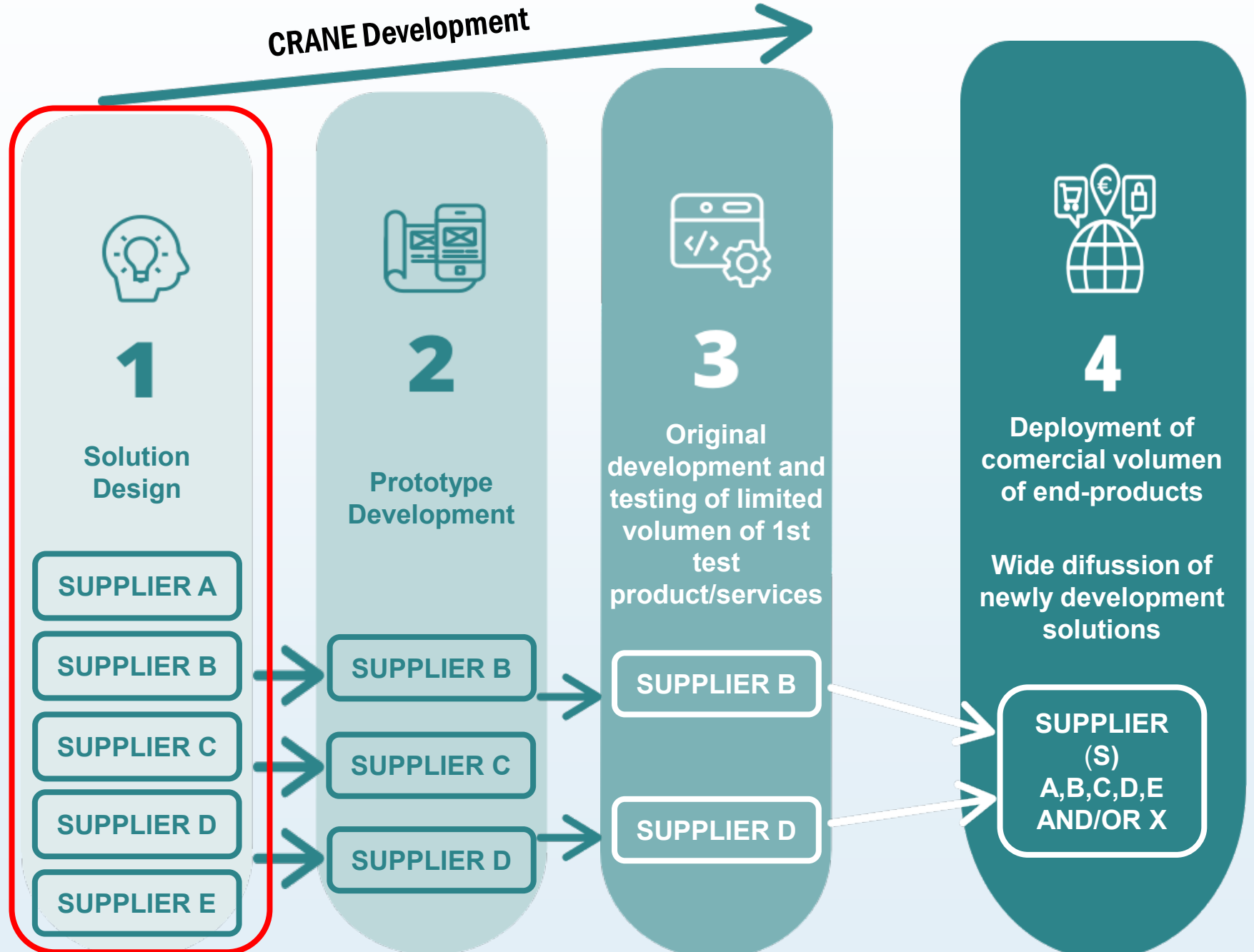
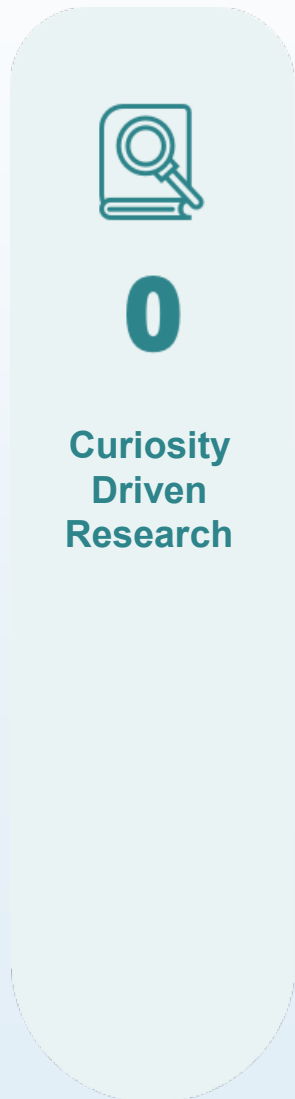
OMC Overview



**INDUSTRY
STAKEHOLDERS**



Phases



Patient's voice



1

Solution
Design

SUPPLIER A

SUPPLIER B

SUPPLIER C

SUPPLIER D

SUPPLIER E



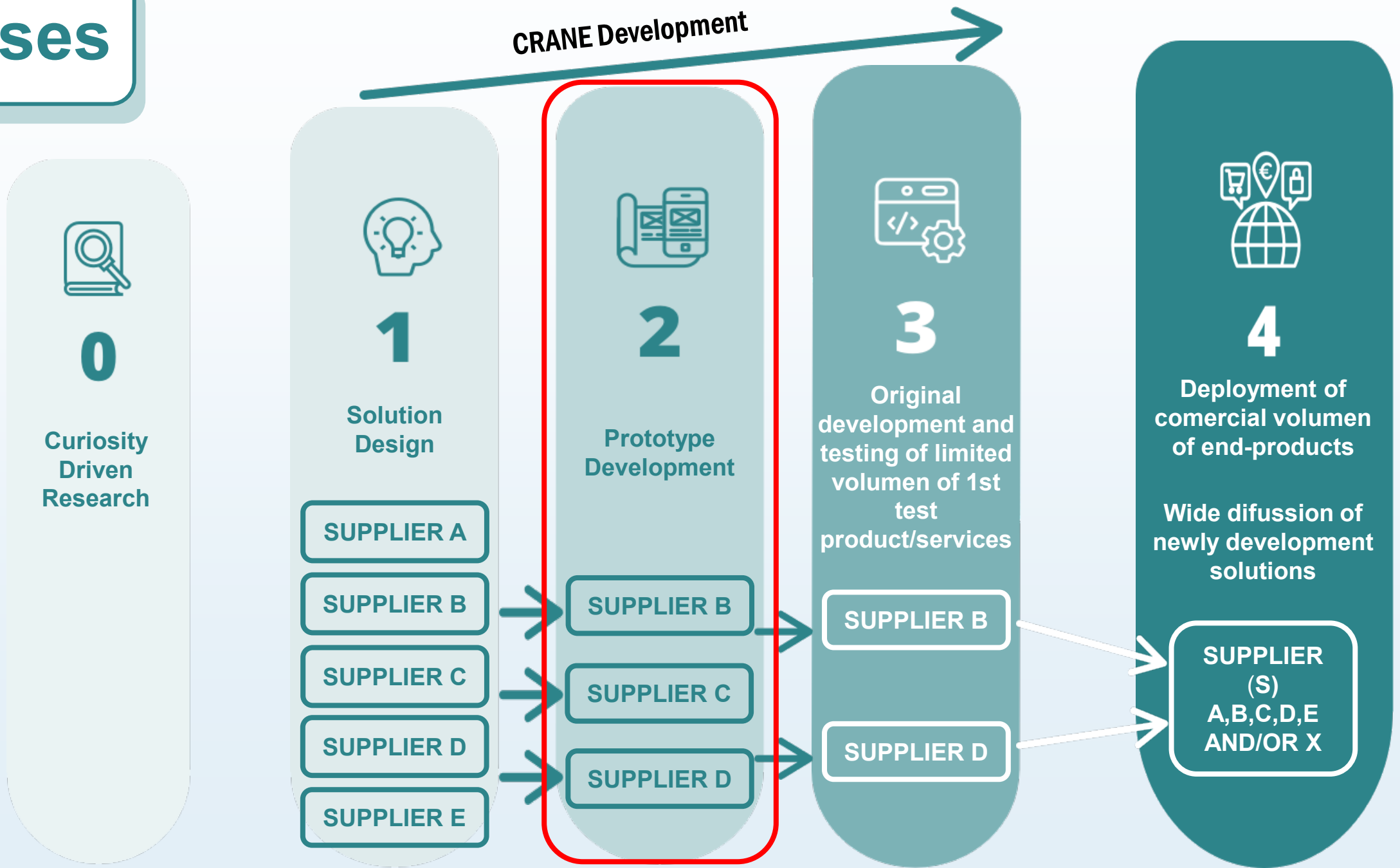
Nov-Dec 2021

Norway

Spain

Sweden

Phases



Patient's voice



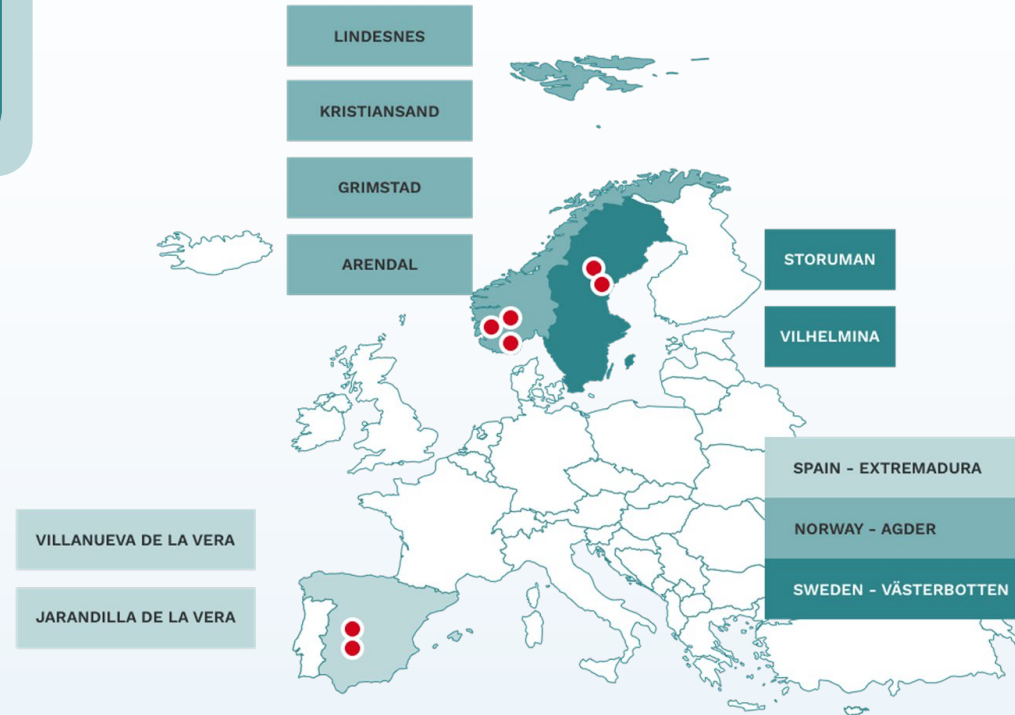
2

Prototype Development

SUPPLIER B

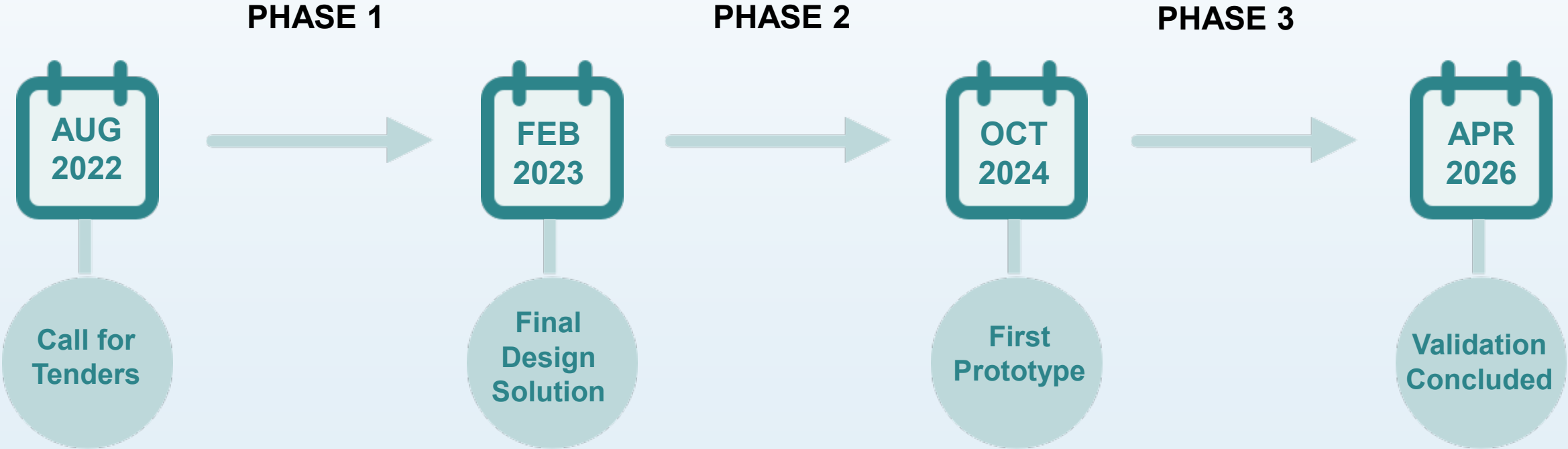
SUPPLIER C

SUPPLIER D



	Co-creation session 1 (November 2023)	Co-creation session 2 (February 2024)	Co-creation session 3 (April 2024)
Norway	Patients + CRANE Suppliers B, C and D	Patients + CRANE Suppliers B, C and D	Patients + CRANE Suppliers B, C and D
Spain	Patients + CRANE Suppliers B, C and D	Patients + CRANE Suppliers B, C and D	Patients + CRANE Suppliers B, C and D
Sweden	Patients + CRANE Suppliers B, C and D	Patients + CRANE Suppliers B, C and D	Patients + CRANE Suppliers B, C and D

PCP Timeline Plan





CRANE



Working together to improve chronic patient's wellbeing!

FIND US on our website <http://crane-pcp.eu/> and stay tuned following our Twitter [@crane_pcp](https://twitter.com/crane_pcp)

Jonathan Gómez-Raja, PhD

Chief Scientific Officer

FUNDESALUD, Government of Extremadura

jonathan.gomez@fundesalud.es

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 965277



Delivering Efficiency, Quality and Sustainability in Healthcare



The EcoQUIP+ Project

Improving the sustainability of healthcare through innovation procurement

Thursday 23 November 2023



Co-funded
by the COSME programme
of the European Union

www.ecoquip.eu/

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Acknowledgements
Gaynor Whyles – Jera Consulting
And our hospital partners



George Valiotis
Executive Director
European Health Management Association



Cesar Honorato
Design and Communications
European Health Management Association

EcoQUIP+

Delivering Efficiency, Quality and Sustainability in Healthcare

www.ecoquip.eu/

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This project has received funding from the European Union COSME Programme under grant agreement no 857790

EcoQUIP+: Improving the sustainability of healthcare through innovation procurement

EcoQUIP+ builds on its highly successful predecessor EcoQUIP, to create direct interventions in the procurement processes of individual hospitals and enables the aggregation of demand.

Goal: Implementing six leader-led innovation procurement projects, each of which addresses a particular healthcare challenge.

Six leader-led innovation procurement projects



Transformation of the Out-patient Journey

University Hospital of Bologna Policlinico Sant'Orsola



Personalised Surgical Process for Joint Replacements

Parc Tauli University Hospital, Barcelona



Smart Emergency Call & Response Solution

Vilnius University Hospital, Santaros Klinikos, Lithuania



Zero-Waste Operating Theatres

University Hospitals Bristol and Weston NHS Foundation Trust, UK



Ward Renovation

Sucha Beskidzka Hospital, Poland



Sustainable Waste Management

University Hospitals Bristol and Weston NHS Foundation Trust, UK

Patient Experience

We need to improve the overall outpatient experience by ensuring that our patients visits are as smooth and stress free as possible and that it is tailored to their individual needs.

Daniela Pedrini, Director of Technical Services

Having an effective emergency call system is crucial in an emergency department. Every day we are working in a front line, where each second is important for patients and where the highest level of focus is required. A more effective solution is essential.

Assoc. prof. PhD MD Andrius Klimašauskas, Head of the Centre of Emergency



Delivering Efficiency, Quality and Sustainability in Healthcare

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Patient Experience

It is essential for the surgical outcome that the surgeon has all the possible options at their disposal in order to select the best possible fit for the patient during the operation.

Alex Berenguer, MD, PhD Orthopedic Hand Surgeon,
Hospital Universitari Parc Taulí Sabadell

We need to make a change that will improve the organization of staff work and the stay of patients in the ward. We have identified critical areas, the improvement of which would greatly contribute to increasing the perceived comfort of work and stay.

Management of the Sucha Beskidzka Hospital



Delivering Efficiency, Quality and Sustainability in Healthcare

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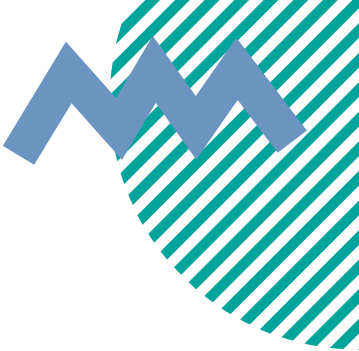
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Sign up for updates



Join EcoQUIP+ Collaborative Buyers Forum to exchange knowledge with other procurement experts!



The screenshot shows the Facebook group page for 'EcoQUIP+ Collaborative Buyers Forum'. The group has 77 members and is a private group. The page features a header with the EcoQUIP+ logo and tagline 'Eng Efficiency, Quality and Sustainability in Healthcare'. Below the header is a 'Start a post in this group' section with options for Photo, Video, and Poll. The main content area shows a post from EcoQUIP Plus (Project Manager at EcoQUIP+) sharing a newsletter link: <https://lnkd.in/ejabgA9S>. Below this is a post from the European Commission titled 'The Public Procurement Gazette' with a 1-minute read time. The right sidebar includes an 'About this group' section describing the forum as a platform for procurement buyers in the health sector, and an 'Admins' section listing EcoQUIP Plus (Owner), Anett Ruszanov (Manager, Director of Policy and Programmes at EHMA), and Federica Margheri (Manager, COO at EHMA - President at Project 668).



Delivering Efficiency, Quality and Sustainability in Healthcare

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THANK YOU!



EcoQUIP+

Delivering Efficiency, Quality and Sustainability in Healthcare



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Key Messages from Practitioners

Barcelona
23 November 2023

Maddalena Illario, MD, PhD
Department of Public Health
EDAN
Federico II University & Hospital



Co-funded by the COSME programme
of the European Union



RADAR

- A cross-border action to improve rapid detection of multi drug resistant microorganisms (MDROs) and the smart management and control of antimicrobial resistance (AMR)
- A cross-border Buyers Group will act as early adopter of innovative solutions that will address its common needs related to one of the most important challenges that are currently present in the political agenda in EU and worldwide.



resah

Central Purchasing
Body in France



Salut/ICO
Institut Català d'Oncologia

Reference Oncology
Centre in Catalonia



Osakidetza

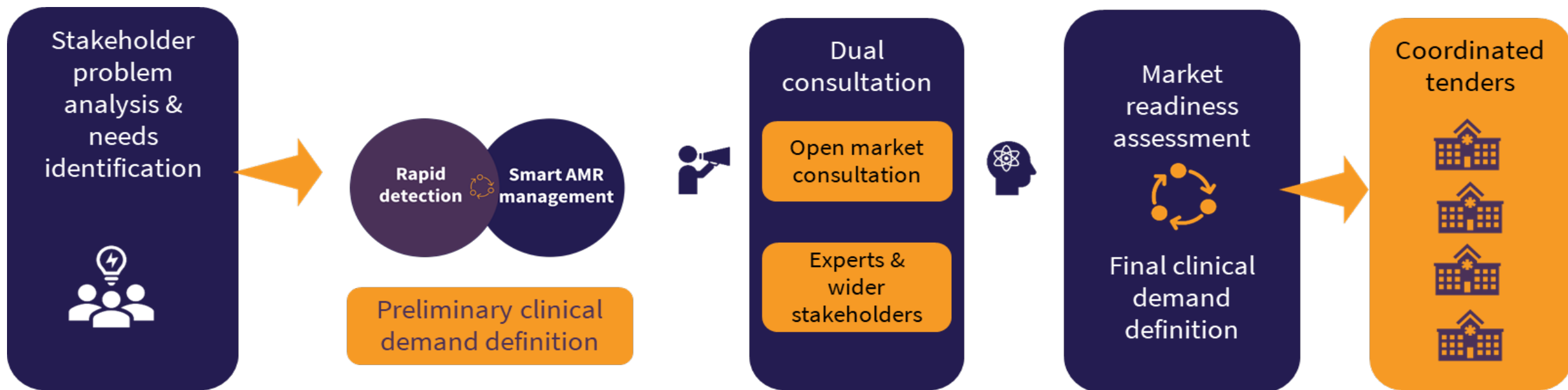
Basque Country Health
Service



UNIVERSITÀ DEGLI STUDI DI NAPOLI
FEDERICO II

Department of Public
Health

RaDAR PPI Collaborative Procurement Model



Expected impact

Adopted innovative solutions will enable AMR stewardship and improvement of patient care through the implementation of an effective information flow that will support decision making by including automatic alerts, easy access to epidemiological data as well as procedural guidelines.

Addressing the complexity of AMR

INVOLVED HOSPITAL PROFESSIONALS

Hospital clinicians:

- *Geriatricians*
- *Infectivologists*
- *Critical care-ICU*
- *Endocrinologists*
- *Surgeons*

- *Hospital nurses*
- *Infection control nurses*

- *Clinical Microbiologists*
- *Laboratory technicians*
- *Pharmacy*
- *Clinical management & surveillance*

- *Data experts engineers*
- *DPO*
- *Clinical Engineering*
- *Informatics*



UNINA Team



Maria Triassi



Maddalena Illario



Mariarosaria Catania



Ivan Gentile



Maria Vargas



Giulio Viceconte



Daniela Femminella



Francesca Pennino



Emma Montella



Vincenzo De Luca



Lorenzo Mercurio



Antonio Rinaldi



Antonietta Perrone



Guglielmo Toscano



Raffaele Tremante



Renato Polverino



Serena Pierro



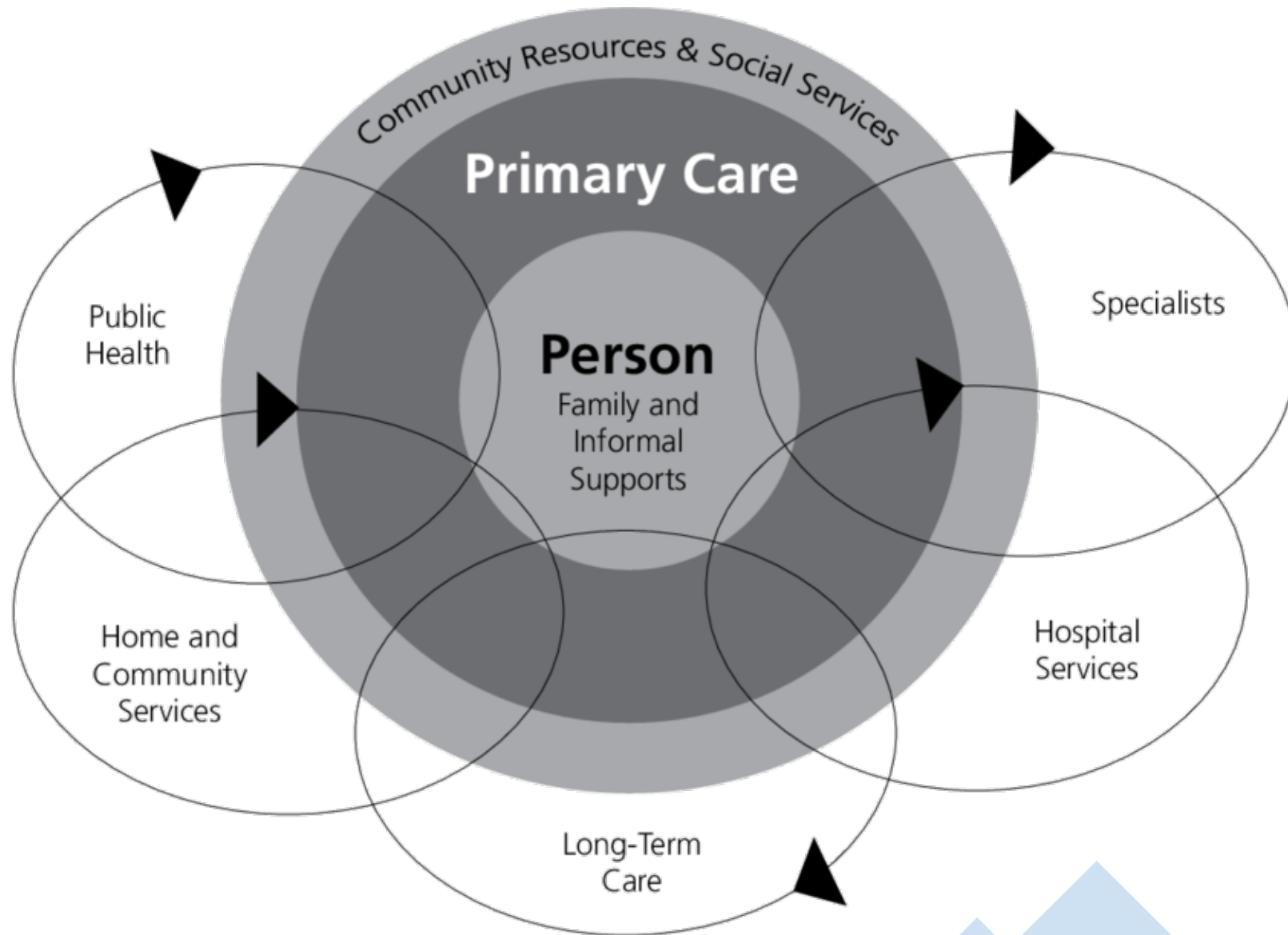
Giulia Ialongo

The pillars of AMR

Overuse/misuse of antibiotics

Spread of resistance through
mobile genetic elements and
resistant genes

Tackling AMR in an integrated HCS



Tackling AMR in ecosystems: Hot spots & drivers of AMR

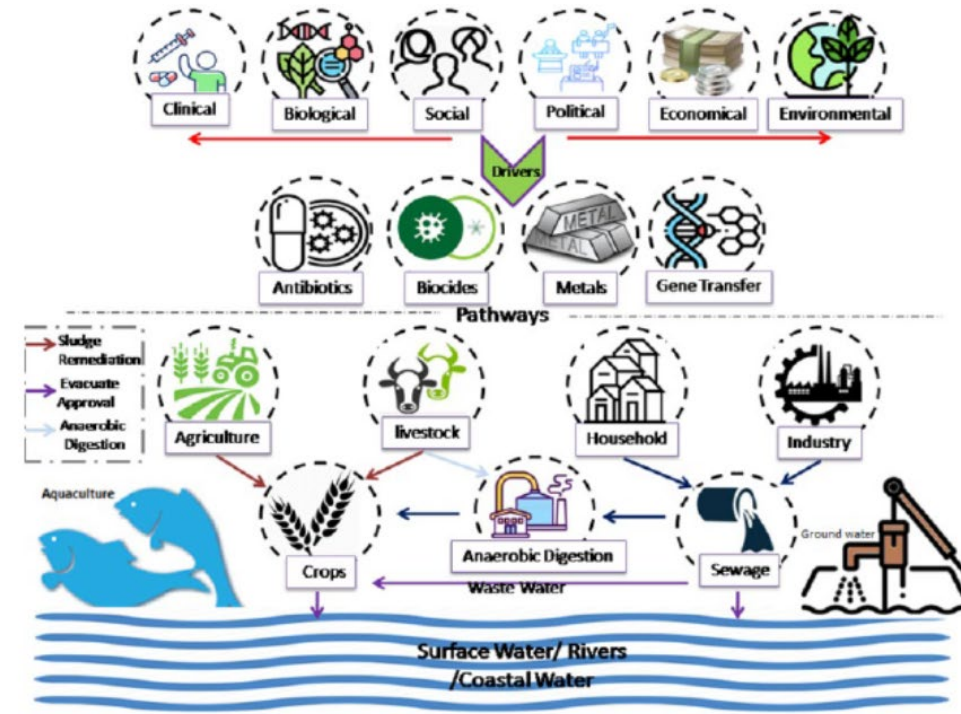
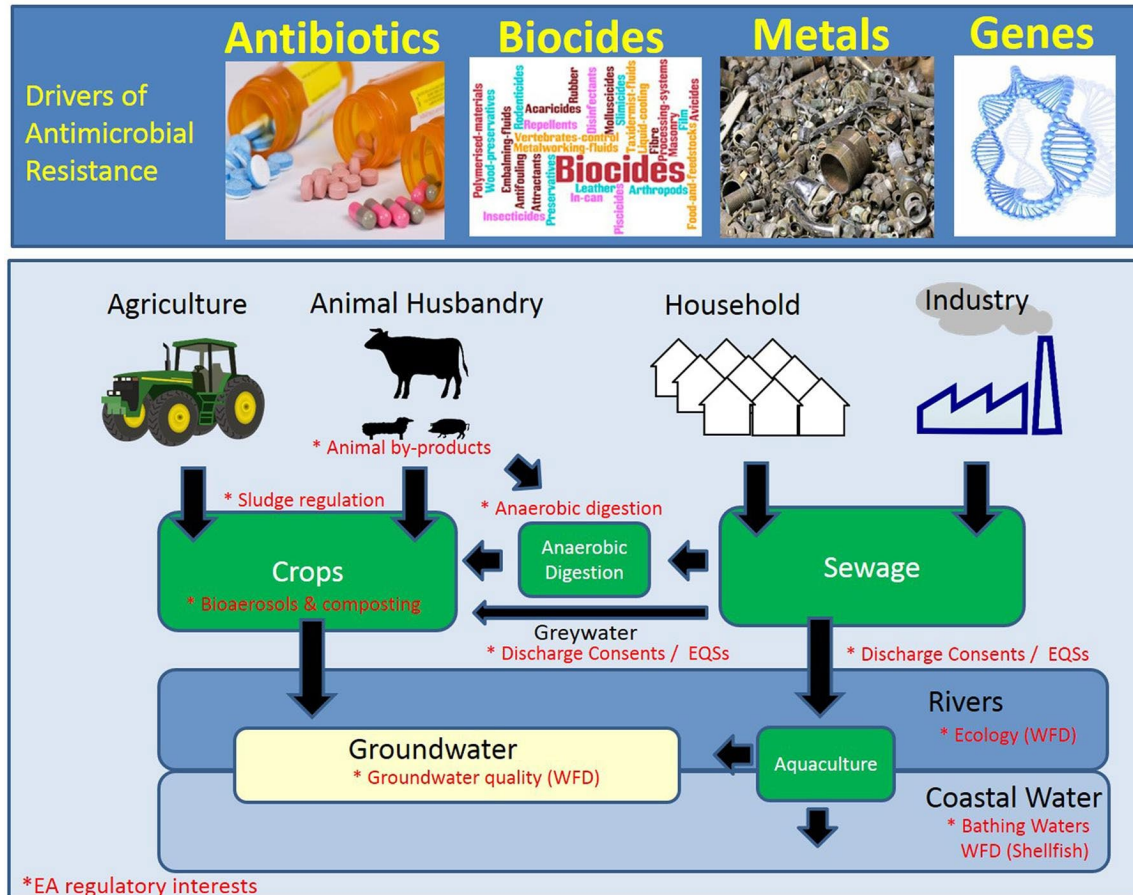


Figure 2. AMR is a global problem that impacts not only people but also animals and ecosystems, both domestic and nondomestic. It is fueled by clinical, biological, social, political, economic, and environmental factors. The presence of AMR bacteria in the environment is a consequence of all of these drivers.

Common factors hindering effective measures to contrast AMR

- Inadequate number of trained medical staff such as infectious disease physicians and clinical pharmacists
- Inadequate implementation of standards at diagnostic labs
- Availability of antibiotics over the counter, patients self medication, poor public awareness about the use of antibiotics

Hospital-based antimicrobial stewardship programs

- They are one of the effective approaches to tackle AMR
- Different professionals may have different views which could affect their effectiveness
- Key healthcare professionals involved:

Physicians

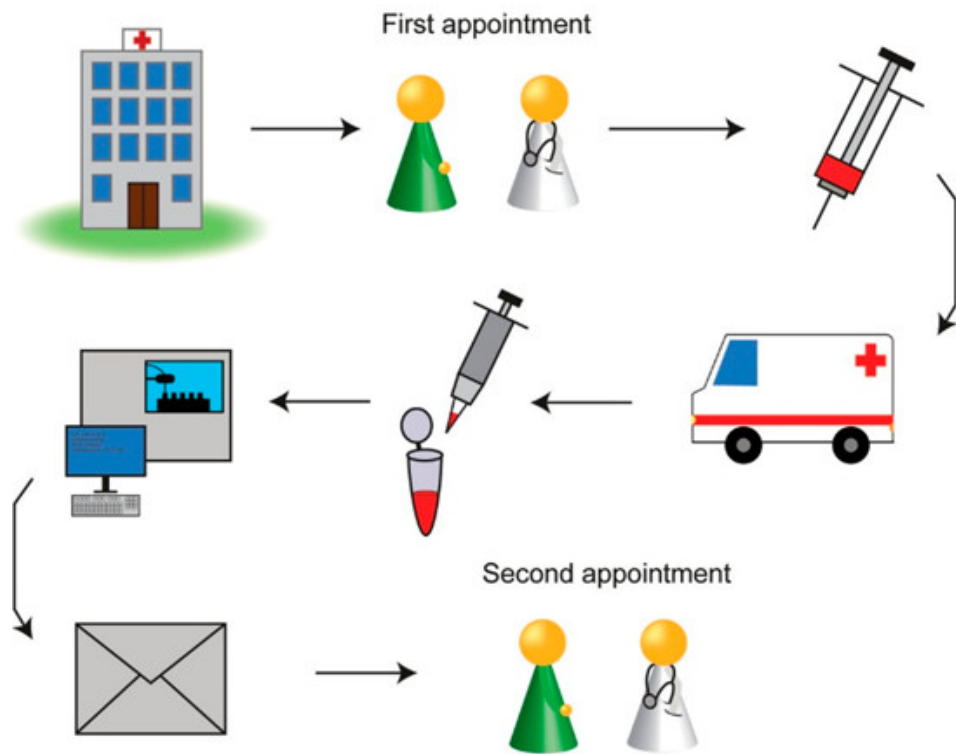
Nurses

Pharmacists

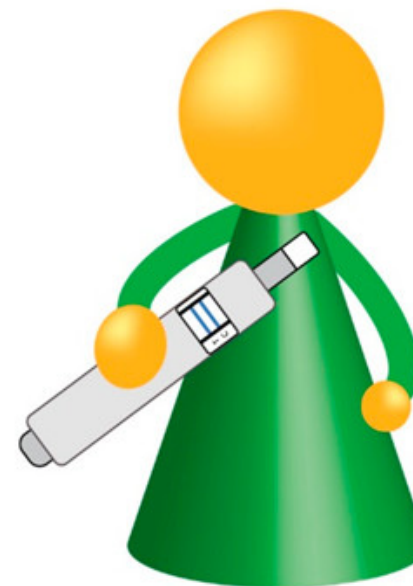
Point-of-care diagnostics



Normal Test Procedure



Point-of-Care-Testing POCT



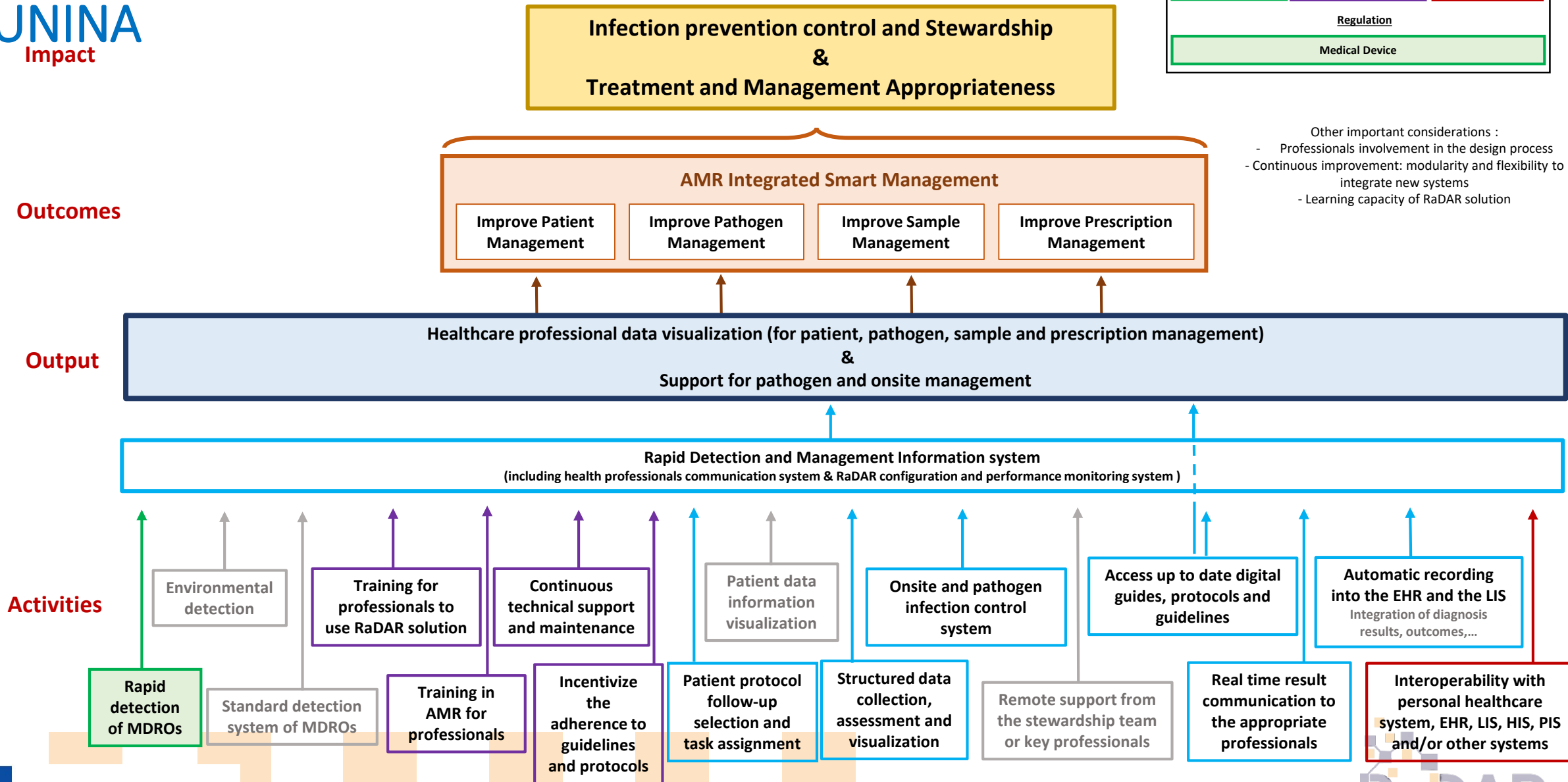
Difference between the conventional test procedure vs POCT.

Adapted from Miesler, T.; Wimschneider, C.; Brem, A.; Meinel, L. ACS Biomater. Sci. Eng. 2020, 6 (5), 2709–2725 (ref (14)).

Theory of change: RaDAR processes overview at UNINA

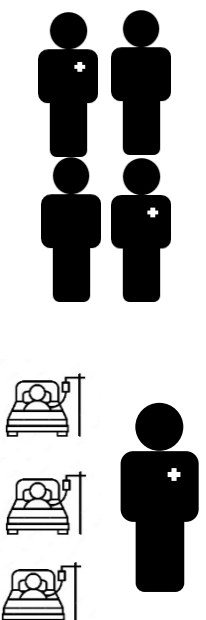
UNINA
Impact

Theory of change



RaDAR solution

collect, retrieve by interoperating (His), store, process and visualize



Hospital
Maxillofacial surgery, Infectious disease, endocrinology, neonatal and adult ICU and geriatry

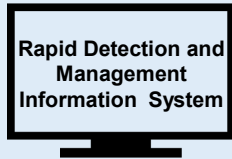
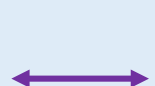
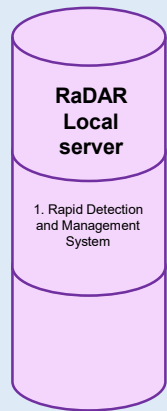
Digital guidelines and protocols

- Configuration tools and back-end management
- Training for professionals in AMR
- Training for professionals to use RaDAR
- Technical support and maintenance

Rapid MDRO detection System
(PoC and/or enviromental)

Sends diagnostic / screening outcome to server

RaDAR solution: Receives info from the document management platform



- Real time result communication
- Incentivize the adherence to guidelines and protocols
 - Structured data collection and visualization
- Assessment of RaDAR user access, support and maintenance and training
- RaDAR configuration and performance monitoring system

Users with access:

- Near to patient healthcare professionals
- Microbiology team professionals
- Pharmacy team professionals
- Stewardship team - Onsite management
- Financial management team



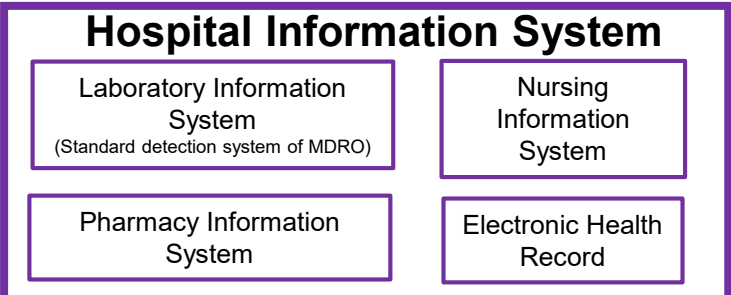
Interoperable engine



Interoperable engine

RaDAR solution: Receives info from the HIS

RaDAR solution: Push XML, CSV, PDF for visualization + push relevant data



Object of the Contract (UNINA)

This information is an indication of a potential future procurement activity and is subject to change until the publication of the RfT



Co-funded by the COSME programme of the European Union



Hospital health professionals views

- Dedicated IT softwares and other applications to rationalize the use of antimicrobials
- Establishment of an integrated and connected ASP team
- Regular hospital-wide audit and timely feedback on antibiotic use
- Limitation & monitoring of the prescription of certain antibiotics

Imperative

- Readily accessible microbiological data
- Regular and updated/targeted education sessions (possibly coherent with audit results)

Focusing on key data collection

- Information on **patient diagnosis** for **antimicrobial consumption** data.
- **Microbiological data** on admission for treatment of community acquired infections.
- Indication, prescription and other relevant and updated information on the **appropriateness of use for antibiotics**
- Link to tailored antibiotic **stewardship** activities
- **Patient-level data** include the date and type of admission and discharge from hospital, primary and secondary diagnosis and procedures (**ICD-9**), Diagnoses Related Group (**DRG**) and reimbursement per hospital stay (interoperability with hospital discharge records)
- **Align reporting** towards mandatory regional/national health dataflows

Strengthen communication

Conferences, workshops and stakeholders meetings
across sectors and disciplines



Thank you

Prof. Maddalena Illario. MD PhD
Department of Public Health
EDAN Unit for Innovative approaches to NCD
Federico II University & Hospital
RSCN

Illario@unina.it



Co-funded by the COSME programme
of the European Union



PCP: Next-Generation-Sequencing in Healthcare applications (acronym: oncNGS)

Gordana Raicevic Toungouz, PhD
Sciensano, Belgium



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 874467

23 November 2023, Barcelona





CANCER in EUROPE

- Cancer is one of the main public health challenges in Europe and the second leading cause of mortality, with nearly **3 million new cases** and **1.3 million deaths** in 2020.
- Cancer is in contrast to cardiovascular disease a NCD with still increasing incidence as reduction of the impact of risk factors is, although strong, not sufficient to match the effect of **ageing populations** on cancer incidence
- Every year, cancer changes the lives of patients, those around them, and affects society at large with an **economic impact of the disease around €100 billion** annually in Europe.
- There have been considerable investments in developing cancer **control guidelines** and **recommendations**, building on the outcomes of joint efforts between the European Commission (EC) and the Member States.
- Early this year, the **EU Beating Cancer Plan** and the **Mission on Cancer** were launched, a holistic strategy to reduce the cancer burden while envisioning new partnerships with civil society and across sectors.





oncNGS PCP goal

- **Goal:** Aim to develop integrated solution for testing, analysing, reporting and storage of Next-Generation-Sequencing medical data within routine healthcare diagnostics
- **Budget:** € 12 221 843,75 (90% EC contribution)
- **Reference:** <https://cordis.europa.eu/project/id/874467>
- **oncNGS website:** <http://oncngs.eu/>

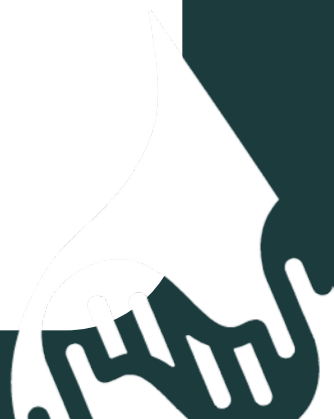




oncNGS PCP challenge

The challenge consists of providing:

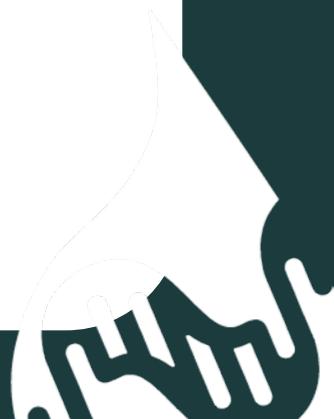
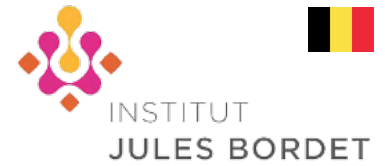
1. efficient molecular DNA/RNA profiling of tumour-derived material in liquid biopsies by means of
2. pan-cancer tumour marker analysis kit including NGS analysis integrated with
3. an ICT decision support system including test interpretation and reporting.





This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 874467

oncNGS consortium: Buyers





This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 874467

oncNGS consortium: Supporting Entities




Agència de Qualitat i Avaluació Sanitàries de Catalunya




IBSAI
Instituto de Investigación Biomédica de Salamanca



Belgian Cancer Registry



ONCNGS^{PCP}
SUPPORTING ENTITIES




VHIO
VALL D'HEBRON Institute of Oncology



De Clercq&partners
INTELLECTUAL PROPERTY

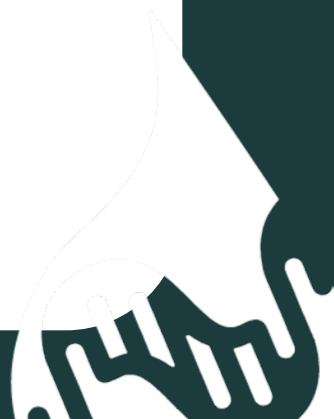
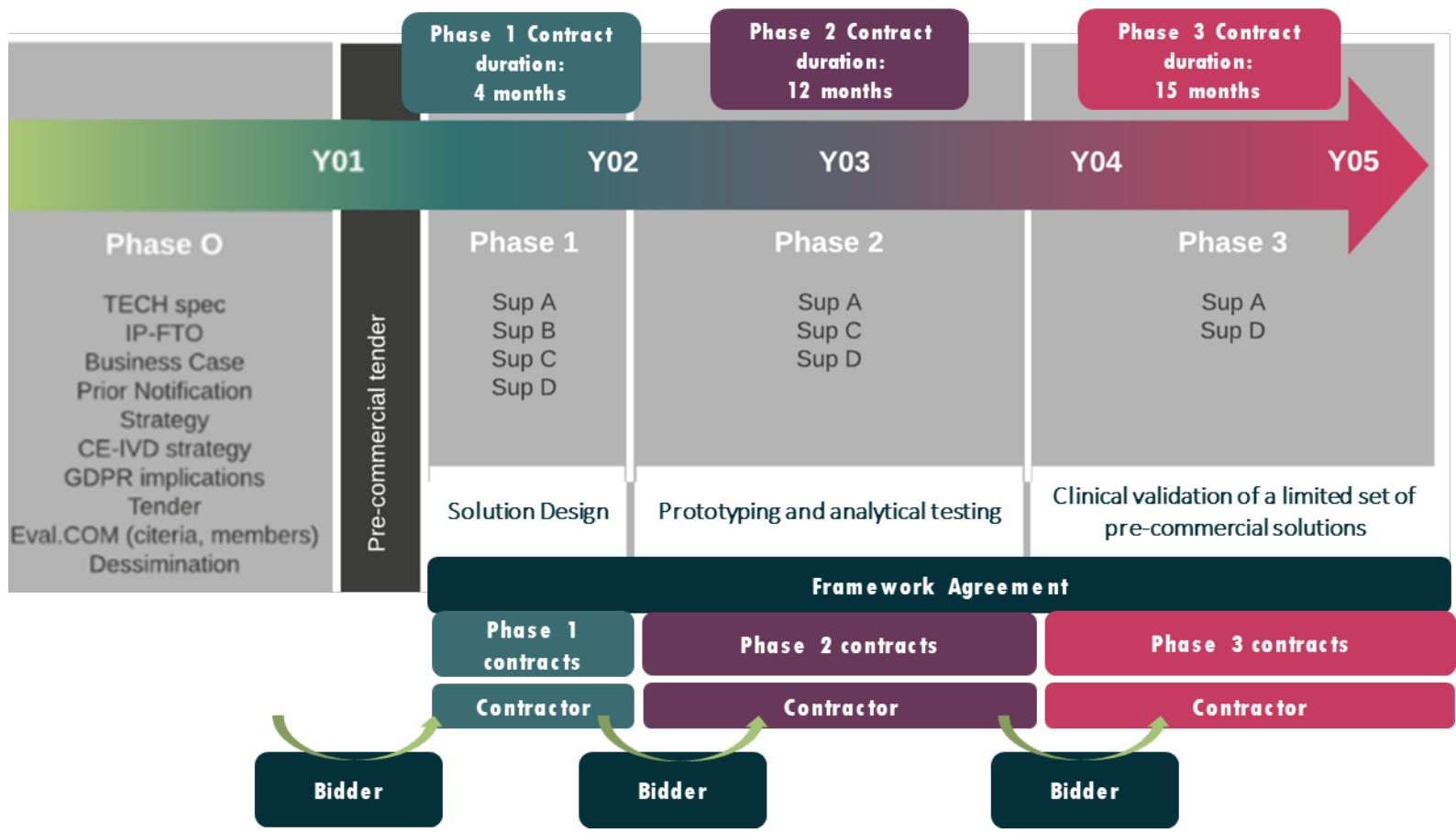



INSTITUT NATIONAL DU CANCER





oncNGS PCP: from unmet need to proof of concept

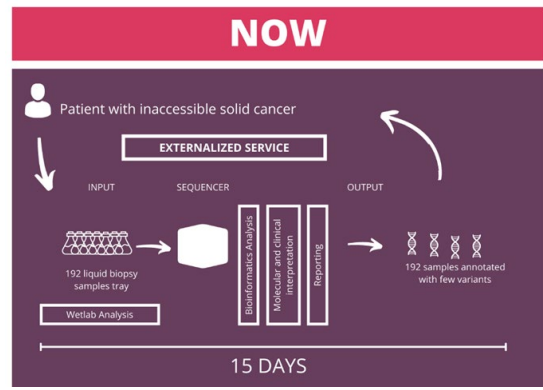




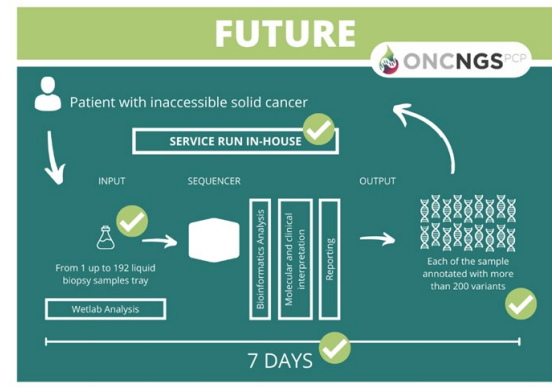
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 874467

oncNGS PCP: from unmet need to proof of concept

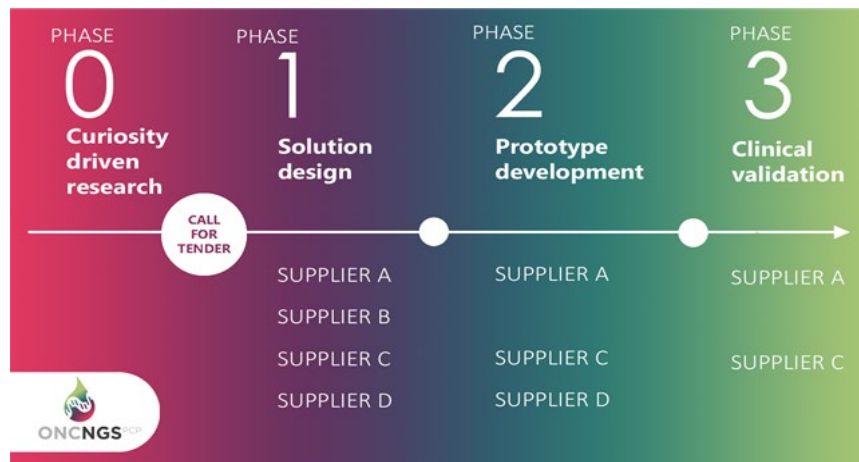
UNMET
NEED



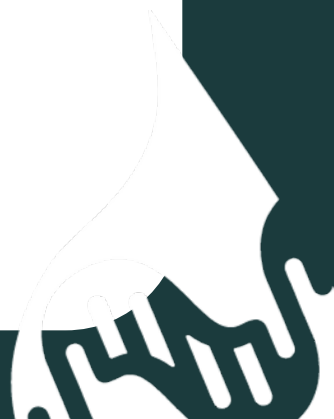
2020-2026



ONCNGS
SOLUTION



BYERS ∞ ECONOMIC OPERATORS





Deployment of oncNGS

What could/should oncNGS lead to?

- Develop **common guidelines** on implementing the oncNGS solution in oncology practice (ISO-standardization, harmonization, formalization,...)
- Develop common protocols for **data-sharing**
- Launch **cross-border purchase** procedures
- Develop tools for interactive e-Consults (**molecular tumor boards**)
- Organize joint cross-country **multi-centric clinical trials** applying oncNGS device(s)
- Develop **patient-matching** tool applying oncNGS data (s)





oncNGS market in Belgium

Belgium population: 11 million

Cancer incidence: about 70.000 cases per year

OncNGS field of application: see RIZIV-INAMI NGS convention notes (Nl/Fr)

Current NGS testing consumption in all cancers/year: 12.000 tests

Reimbursement fee: 350 euro

Scope for liquid biopsies: not agreed to date

Expected: 5-10.000 tests/year

Extrapolated for oncNGS countries (200 million): about 100-200.000 tests/year





Main highlights

- Large and very committed group of buyers from different countries
 - Buyers (as some of Europe's leading research hospitals), are in a good position to identify truly unmet needs for which no efficient market solutions exist and to influence the most beneficial development of solutions
 - Cross-border collaboration – crystalizing the EHDS
- Procurement object is closer to the research field than the clinical practice
 - Bringing research results faster to the patient
- Opportunity to better aggregate demand and drive the innovation process from the very beginning, which increases the likelihood of successful adoption in the future
- Opening a route-to-the market for new market players
- Hopefully the results will support to get the liquid biopsy in routine care, and in a more standardized and affordable way, opening new and better care for cancer patients





Patients' voice in health procurement

- Patients involvement in research was restricted to participating in clinical studies and trials as research subjects
- Today, it is widely recognized that the patients can and should be much more involved in all aspects of research, including agenda setting, study design, communication, and ethics
 - Patients are in a unique position to contribute to the quality of health care since they are the only ones who experience the whole episode of care from primary care in communities through hospital care to rehabilitation and follow up in general practice
- It is the patient who should help in defining what is desirable and undesirable and reporting what is accessible, convenient, comfortable and timely.

Patient advocate shall be invited by the OncNGS consortium to be actively involved in the current and the next PCP phases.



THANK YOU!

Contact:

Marc Van Den Bulcke: Marc.VanDenBulcke@sciensano.be

Gordana Raicevic Tougouz: Gordana.RaicevicTougouz@sciensano.be





InnovaTive care services,
to deliver Quick rEsponses for individuals
with
advanced heart failure and complex care
needs through integrated care



Co-funded from the European Union's Horizon 2020 research and innovation programme (GA 965356)

Caterina Sampol - Project Coordinator
csampol@santpau.cat



SANT PAU
Campus Salut
Barcelona



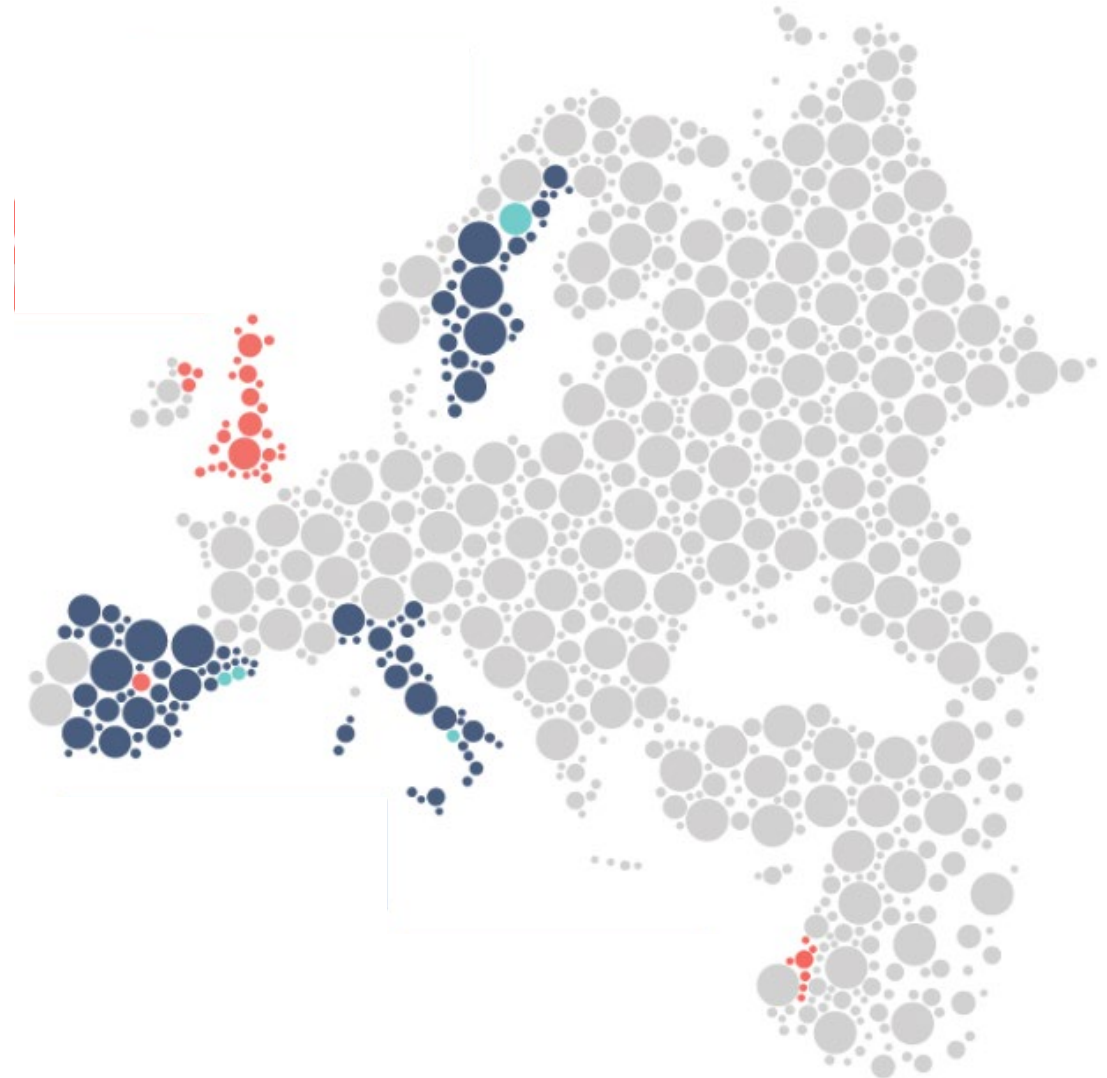
Hospital de
la Santa Creu i
Sant Pau



3 Procurers



5 Supporting organizations



Looking for flexible solutions to suit the characteristics of each procurer in Europe

3 different contexts



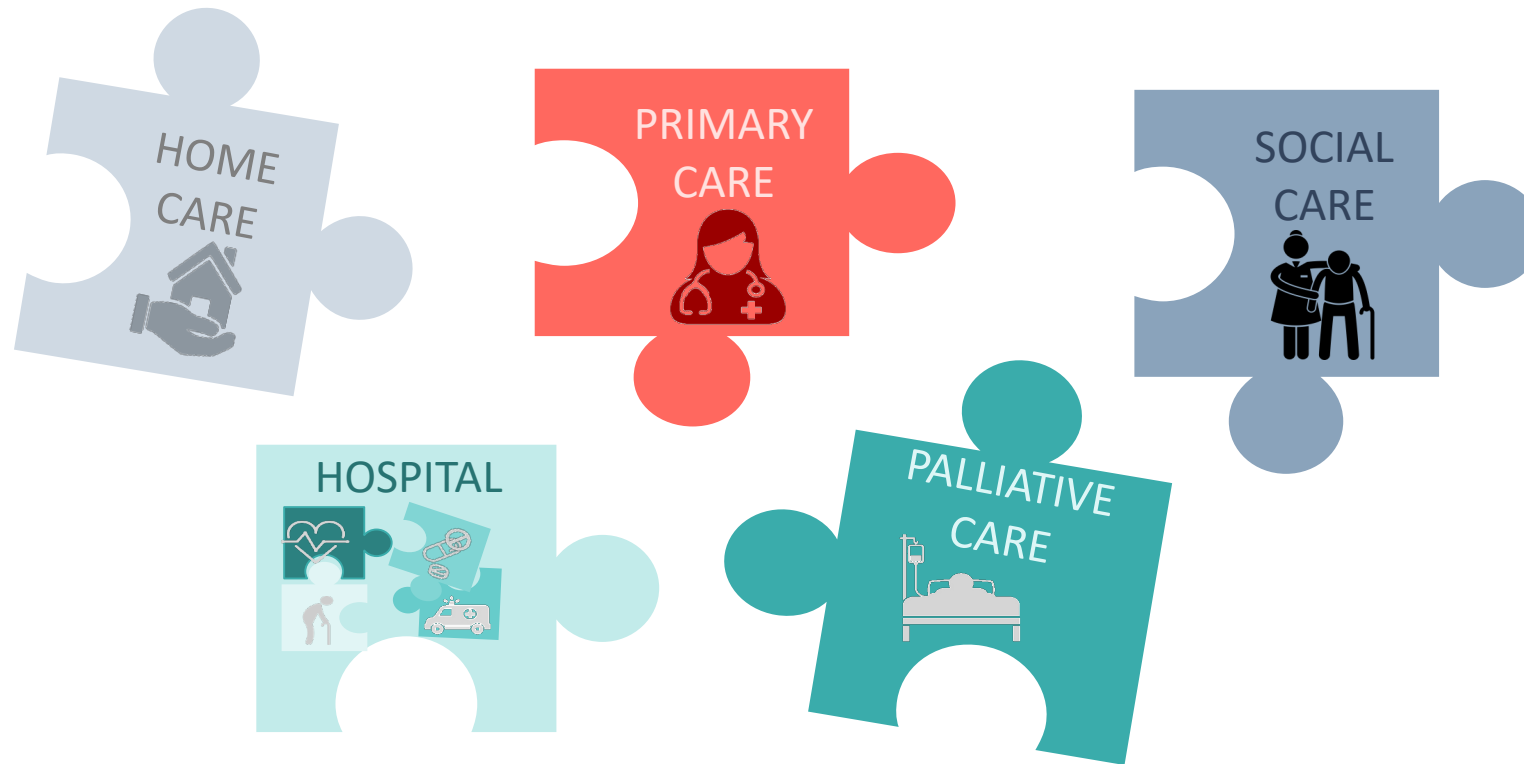
Hospital de
la Santa Creu i
Sant Pau



<p>Local context</p>	<p>High complexity hospital Hospital & healthcare centres nearby High density urban community Lack of community support</p>	<p>Hospital & healthcare centres at medium distance Low density rural community Integrated network with local community support</p>	<p>Hospital & healthcare centres far away Very low dense rural community Risk of social isolation</p>
<p>Reimbursement model</p>	<p>Universal coverage, funded by national taxes and delivery at regional level</p>	<p>Universal coverage, funded by national taxes and delivery at regional level</p>	<p>Universal coverage, funded by national taxes and regional delivery, in some cases, local councils ...</p>
<p>Reimbursement model</p>	<p>Specialised care not integrated with Primary Care nor with Social Care</p>	<p>Specialised care integrated with Primary Care and Social Care</p>	<p>Specialised care integrated with Primary Care but not with Social Care</p>

TIQUE's Unmet Needs

To improve quality and efficiency
in the management of advanced heart failure patients through the provision of **personalized** care **at all times**, in a **timely manner**, in the **best setting** and in accordance with **the patient's wishes**





TIQUE's challenge

The TIQUE Buyers Group of healthcare providers have identified a common unmet need for the **transformation of health and care services** for patients.

Solutions to implement **integrated care** approaches **supported by digital tools** to deliver treatment to patients with **advanced heart failure** who may have co-existing chronic conditions, frail or at risk of becoming frail.

The increasing burden of Advanced Heart Failure

More than

15m

people in Europe are estimated to be living with heart failure

Heart failure is a major cause of hospitalisations and contributes to almost

2m admissions a year in Europe

Heart failure healthcare cost over

€15bn

in 2012 in the 11 countries in this project combined

Hospital admissions for heart failure have been projected to rise by

50%

between 2010 and 2035

Best-practice care models have the potential to reduce heart failure hospitalisations and costs by up to

30%

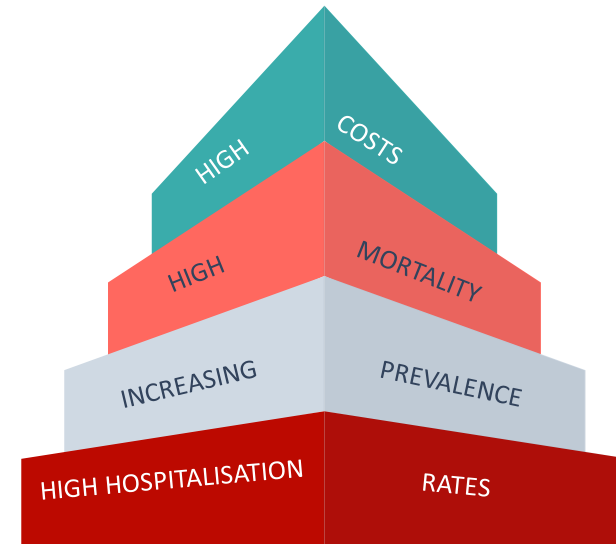
> 50% of Health expenditure in the last 6 months of life

The risk of death is about 35% the first year

50% mortality at 5 years of 1st admission for all stages

62 Million people living with heart failure in the world

It is the most common diagnosis in hospitalized patients over age 65

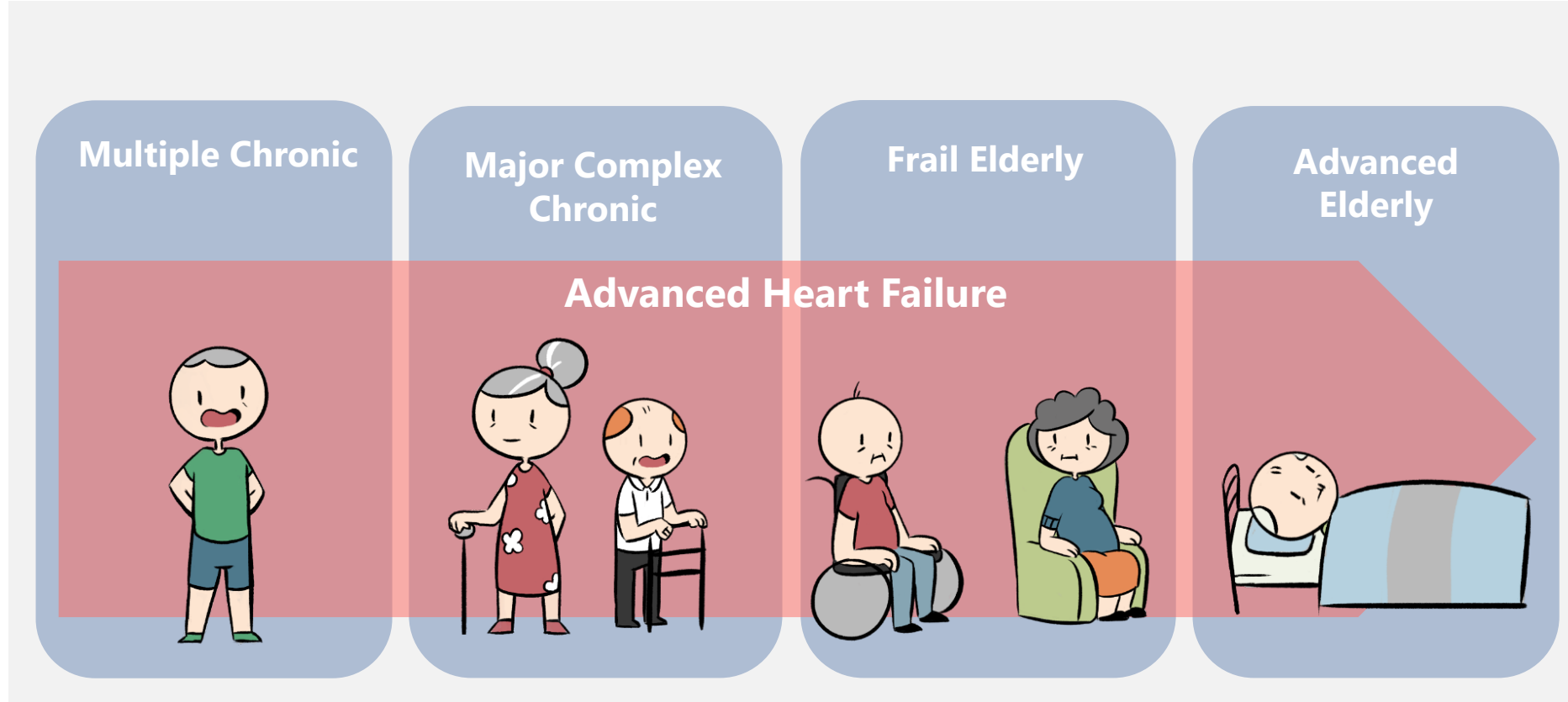




TIQUE's scope

Target patients

Advance Heart Failure patients are mostly frail or pre-frail & often with co-existing conditions



A complex syndrome with constantly evolving symptoms and needs.

Right care, right time, right place

Virtual Care Centre

Holistic
integrated
health and care
teams & care
plan

Patient remote
monitoring &
empowerment
Personalised
care plan

Predict and prevent exacerbations
Monitor and enable care plan adherence
A common platform
Enabling value based healthcare

Integrated systems

Technology and services

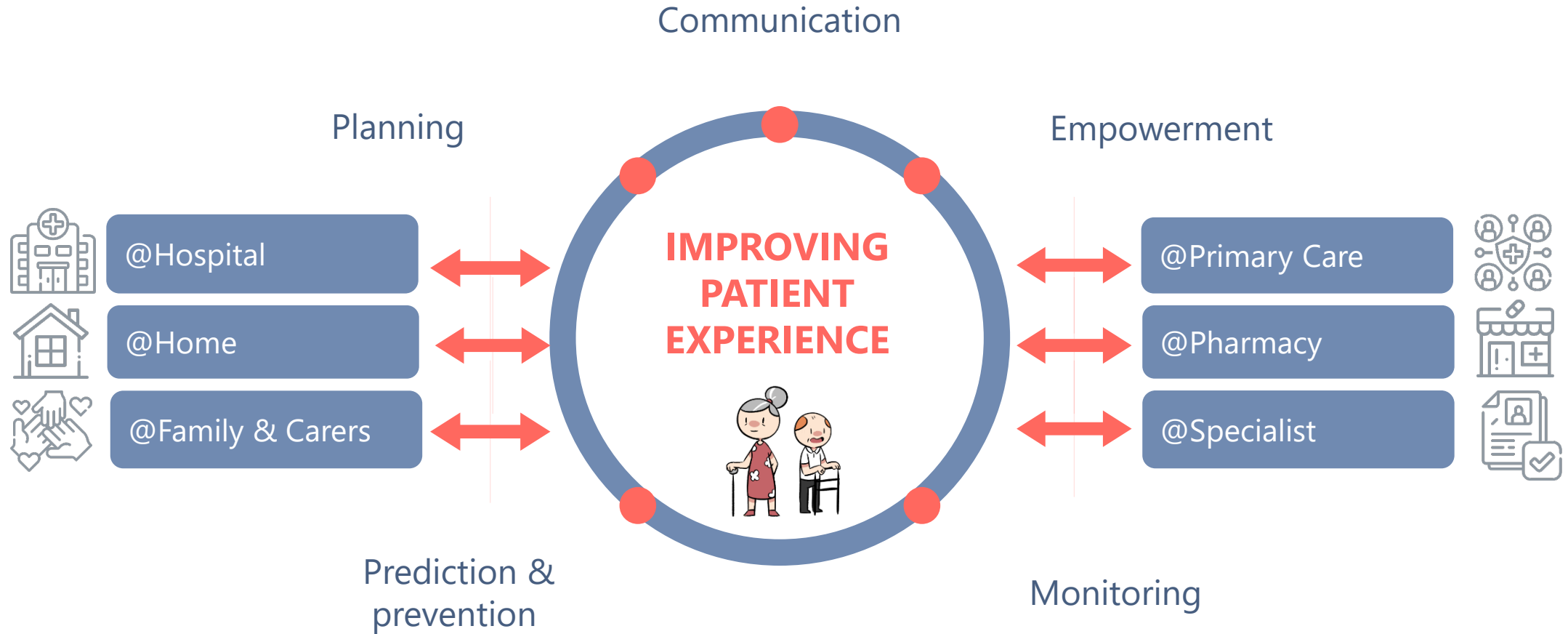
Maximise the quality of life,
functional capacity, and
psychosocial health of Advanced
Heart Failure patients

&

Make efficient and effective use
of healthcare resources

Flexible & future ready

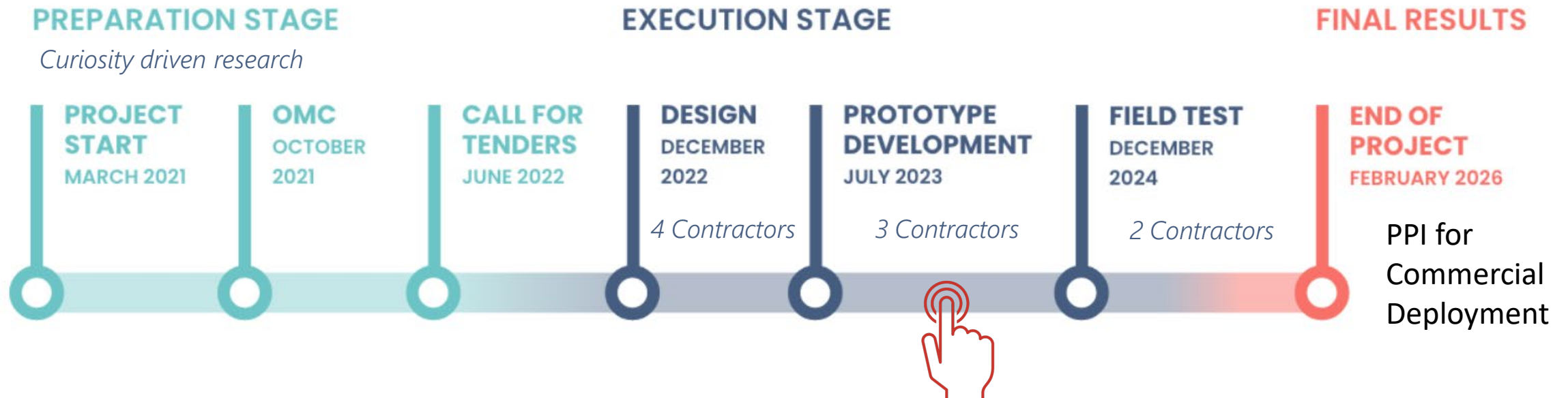
The TIQUE Solutions



To provide **personalized** care at **all times**, in a **timely** manner, in the **best setting** and in accordance with the **patient's wishes**.



Calendar



We are now evaluating
the Interim Prototypes!

Promising solutions are being developed !



You are welcomed to join the TIQUE Consortium and create a group of interest for the future Public Procurement of Innovation (PPI) of TIQUE Solutions !



<https://www.tiquepcp.eu/>



info@tiquepcp.eu




@TIQUEPCP



tiquepcp

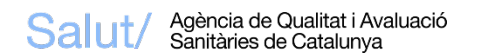




TIQUE PCP



This project has received funding from the European Union's Horizon 2020 research and innovation programme under **Grant Agreement N° 965356**



MITMEVA: Innovating in the management of patients with Aortic Valve Stenosis through VBP

Laura Sampietro-Colom, MD MScPH, PhD

*Deputy Director, Innovation&Research Directorate
Head Assessment of Innovations and New Technologies Unit
Clinic Barcelona University Hospital (Spain)*

TEAM: Dr Marta Sitges, Dr Bárbara Vidal (cardiologists),
Mr Josep Banque (procurement),
Sra Carla Fernandez, Ismail Abbas (assessment innovations)

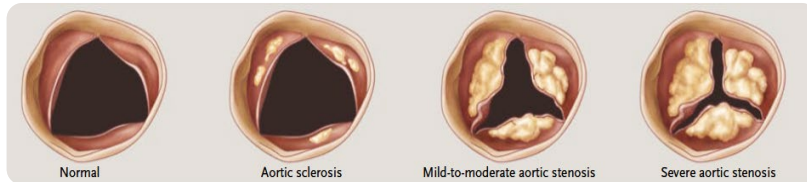


Why to push for VBP of Innovation at Hospital Level ?

- 1 Health Systems and Hospitals still functioning as in XX Century
- 2 Futuristic (and new) Technologies are very different from the past
- 3 Need for a new way to organize health care and develop payment systems that facilitate the introduction of high value Innovative Technologies

Why Aortic Valve Stenosis ?

1 High prevalence and increasing



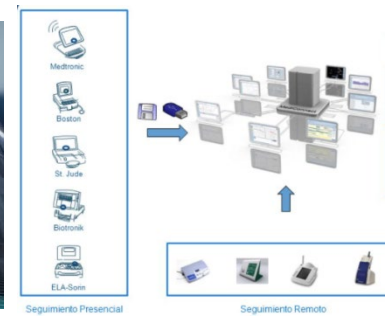
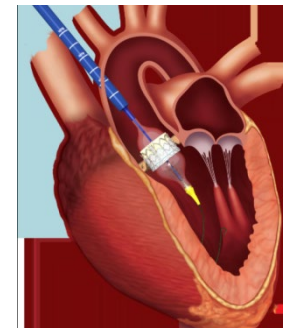
3,4% of >75 y.o.
Aortic Valve Stenosis



2 Unknown disease & Lack of patient-centered care: no coordination among care levels, late diagnosis and treatment, variability (access, practice)



3 Innovations available, but difficulty in entering health care



The Opportunity!

1



European Union



Internal Market, Industry, Entrepreneurship and SMEs

Home Single market and standards Industry Entrepreneurship and SMEs Access to SMEs

European Commission > Internal Market, Industry, Entrepreneurship and SMEs > Single market and standards

Innovation procurement

Accounting for over 14% of GDP, EU public procurement could create a huge market for innovative products and services, but its potential in this area remains underutilised. The European Commission aims to improve public procurement practices, promote the demand of innovative goods, services and works in Europe, and foster the uptake of innovation in the EU. This will allow the integration of public demand into the innovation ecosystem and foster economic recovery.

2



Servei Català de la Salut



Presentació de candidatures

RESOLUCIÓ DE LA SALUT

SERVEI CATALÀ DE LA SALUT

RESOLUCIÓ SLT/1913/2017, de 2 d'agost, per la qual s'obre i es fa pública la convocatòria per a l'any 2017 de la línia d'ajuts als projectes de compra pública d'innovació impulsats per entitats titulars de centres pertanyents al sistema sanitari integral d'utilització pública de Catalunya (ref. BDNS 358200).

Mitjançant l'Ordre SLT/184/2017, de 27 de juliol, s'han aprovat les bases reguladores aplicables a les convocatòries de subvencions destinades a promoure la compra pública d'innovació impulsada per les entitats encarregades de la prestació assistencial pública desenvolupada en centres pertanyents al sistema sanitari integral d'utilització pública de Catalunya (SIS-CAT). Aquestes bases parteixen del plantejament d'estimular la implantació de la compra pública d'innovació en el sector de la salut sota una perspectiva d'escalabilitat i, simultàniament, en la línia de garantir que els projectes seleccionats s'emmarquin de forma adequada en el Pla de salut de Catalunya 2016-2020, en l'Estratègia de recerca i innovació per a l'especialització intel·ligent de Catalunya (RIS3CAT), el Programa de compra pública d'innovació (CPI) i el Programa operatiu del Fons europeu de desenvolupament regional Catalunya 2014-2020 (PO FEDER Catalunya 2014-2020).

3



Mandatory to Assess Results & Scalability



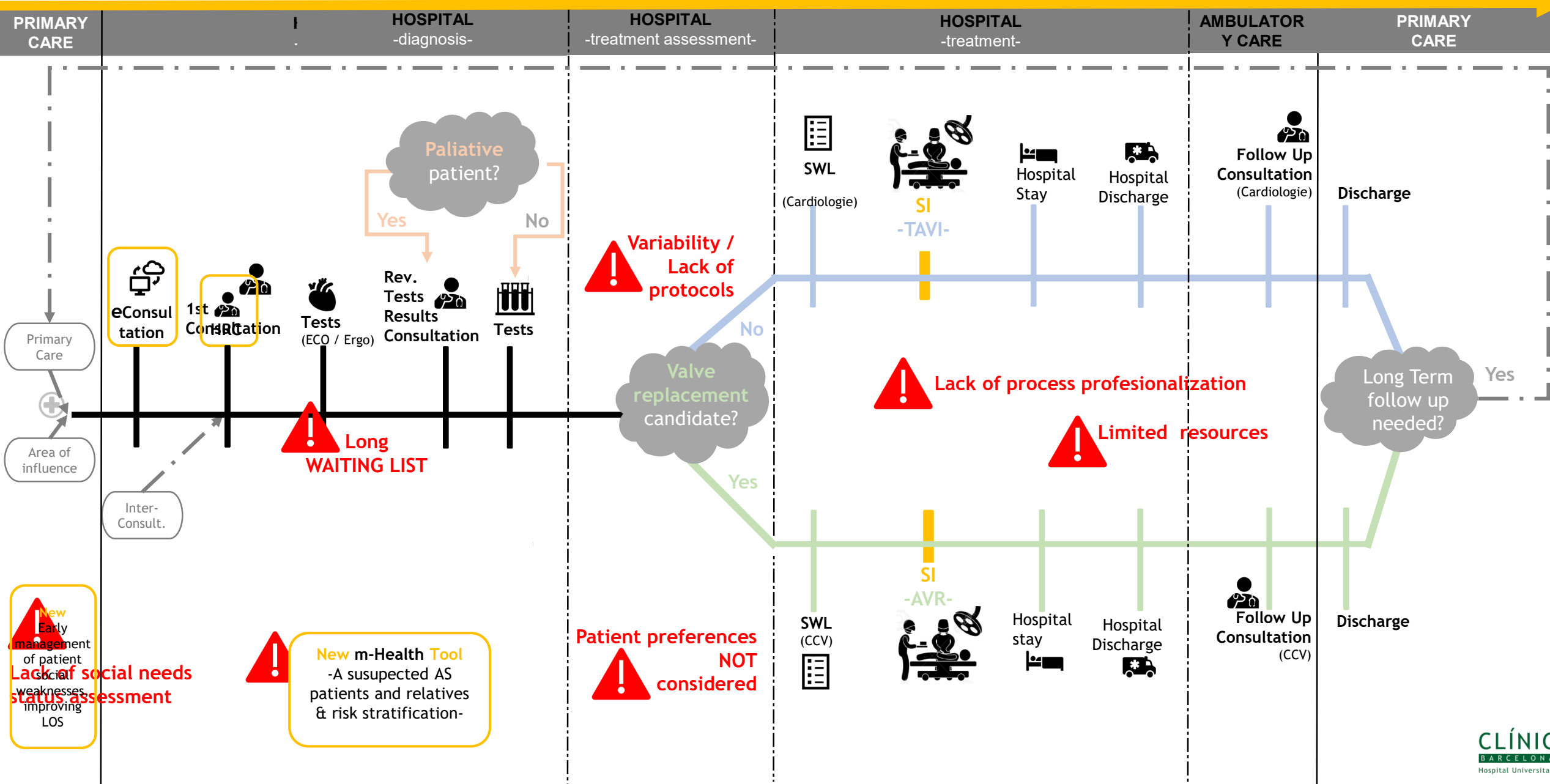
What we did? : MITMEVA

1

Pain Points

Including the patient

Main solution components



What we did? : MITMEVA (Integrated Care from end-to-end)



A patient centered approach to manage patients with aortic valve stenosis including innovative technologies

2 Service Solution Description

1. Referral process optimized
2. Education for Citizen/GPs
3. One entrance window (echography, social analysis)
4. Multidisciplinary Assessment with patient participation
5. Pre-surgical patient habilitation/education program
6. Digital support system for surgery planning

7. Risk-sharing with valve prosthesis
8. Post valve treatment rehabilitation (innovation)
9. Education for valve patients (compliance and follow-up) (innovation)
10. Process Manager (intra-hospital, pre-peri, follow-up)
11. Support measures for palliative patients
12. Monitoring and analysis of KPI (CEA)
13. Scalability new model to other centers in Catalonia & New payment system

3 Open Market Consultation

The screenshot shows the 'Contractació Pública' portal. The main heading is '2019-160 Servei d'abordatge integral, transversal i multidisciplinari de la gestió clínica de pacients amb Estenosi Valvular Aòrtica (EAO) de l'entorn de la població de Barcelona Esquerra, per a l'Hospital Clínic de Barcelona (HCB)'. The page includes a navigation menu on the left with options like 'Presentació', 'Licitació electrònica', 'Perfils de contractant', 'Perfil del licitador', 'Bústia d'innovació', 'Portal de Contractació de Catalunya', 'Junta Consultiva de Contractació', and 'Tribunal Català de Contractes del Sector Públic'. A central section provides details: 'Òrgan de contractació: Consorci Hospital Clínic de Barcelona (HCB)', 'Codi d'expedient: 2019-160', 'Tipus de tramitació: Ordinari', 'Tipus de contracte: Serveis', 'Subtipus de contracte: Altres serveis', 'Procediment d'adjudicació: Obert', and 'Compra pública d'innovació: Sí'. A progress bar at the bottom indicates the current stage is 'Anunci de licitació'.

What we did? : MITMEVA



A patient centered approach to manage patients with aortic valve stenosis including innovative technologies

4

Tender

- ❖ **Batch 1.** Services addressed to optimize the **diagnostic process**, and the treatment preparation and **planning** of the clinical management of AoS patients.

Amount: 634,038,00 € (VAT not included)

1. Education measures for citizens
2. Program to optimize the patient reference process
3. Support system to plan the trans aortic valve implantation
4. Provisioning and management of material (valves, catheters, pacemakers etc)

- ❖ **Batch 2.** Services addressed to optimize the diagnostic assessment, treatment, pre and post rehabilitation of AoS patient and follow up and collection of KPI for clinical and health technology assessment.

Amount: 789,462,00 € (VAT not included)

1. Logistic audiovisual support for the Heart Valve Team
2. Digital support for pre and post rehabilitation
3. Education program for AoS patients with valves
4. Follow-up of KPIs and data collection
5. Provisioning and management of material (valves, catheters, pacemakers etc)

What type of innovation does MITMEVA provide?



❖ Innovation through the patient journey:

- Education (primary care and patients)
- Innovative techs: virtual consultation, Ecocardiography (one-window), TAVIs, pre-hab & post-reha apps
- Organization: **one-window shop** & valve heart team building (Consensus criteria – referral, treatment, check list)

❖ Innovation in payment: Outcomes based payment

- Risk –sharing (pace-makers and leaks)
 - Based on data from scientific literature (pacemakers, leaks after surgery ...) and clinical experience
 - Depending on level of risk of valve: different % of risk sharing
- KPI (5% of total amount yearly)

What type of innovation does MITMEVA provide?



❖ Proving the Value of Innovation:

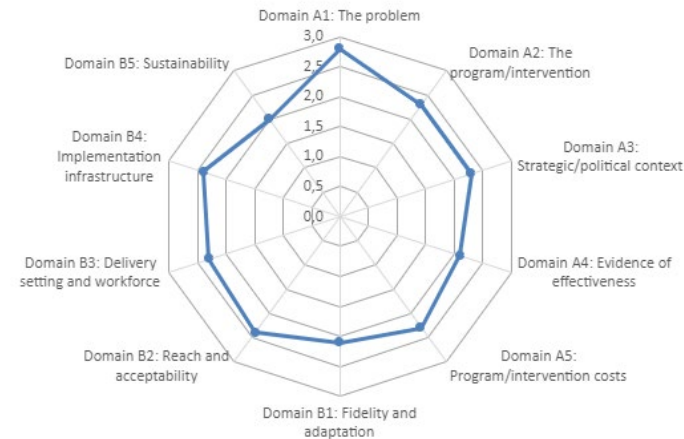
1 Assessment of clinical benefits, costs, organizational

- QALY increased ($p=0,02$)
- Time Reduction between diagnosis and treatment decision ($p=0,03$)
- Decrease in perioperative complications ($p=0,004$)
- Decrease in LOS ($p=0,01$)
- Decrease in LOS at ICU ($p=0,01$)
- 50% Decrease in cost per patient



2 Scalability to other centers

ISAT (Intervention Scalability Assessment Tool)



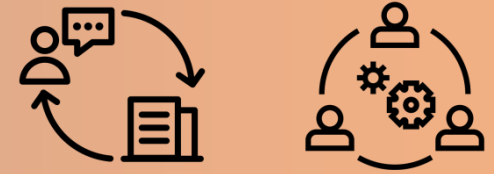
Patient and Citizen Engagement / Involvement.

ENGAGEMENT



Patient / Citizen

INVOLVEMENT



Lessons Learnt



- ❖ Willingness of Health Authorities and Hospital directors to go for VBP-PPI
- ❖ Need of enthusiastic clinicians and hospital procurers
- ❖ Need to map the process of care (gaps and bottle necks)
- ❖ Need to work in multidisciplinary teams
- ❖ Starting the conversation with companies early in the process
- ❖ Learning curve for companies and hospital
 - ❖ to obtain data for assessment
 - ❖ coordination and implementation of activities (Waves during & post pandemic)



Dynamo PCP



Solution Requirements Overview

Oscar Zanutto – Institute for Elderly Care and Sheltered Homes

www.israa.it

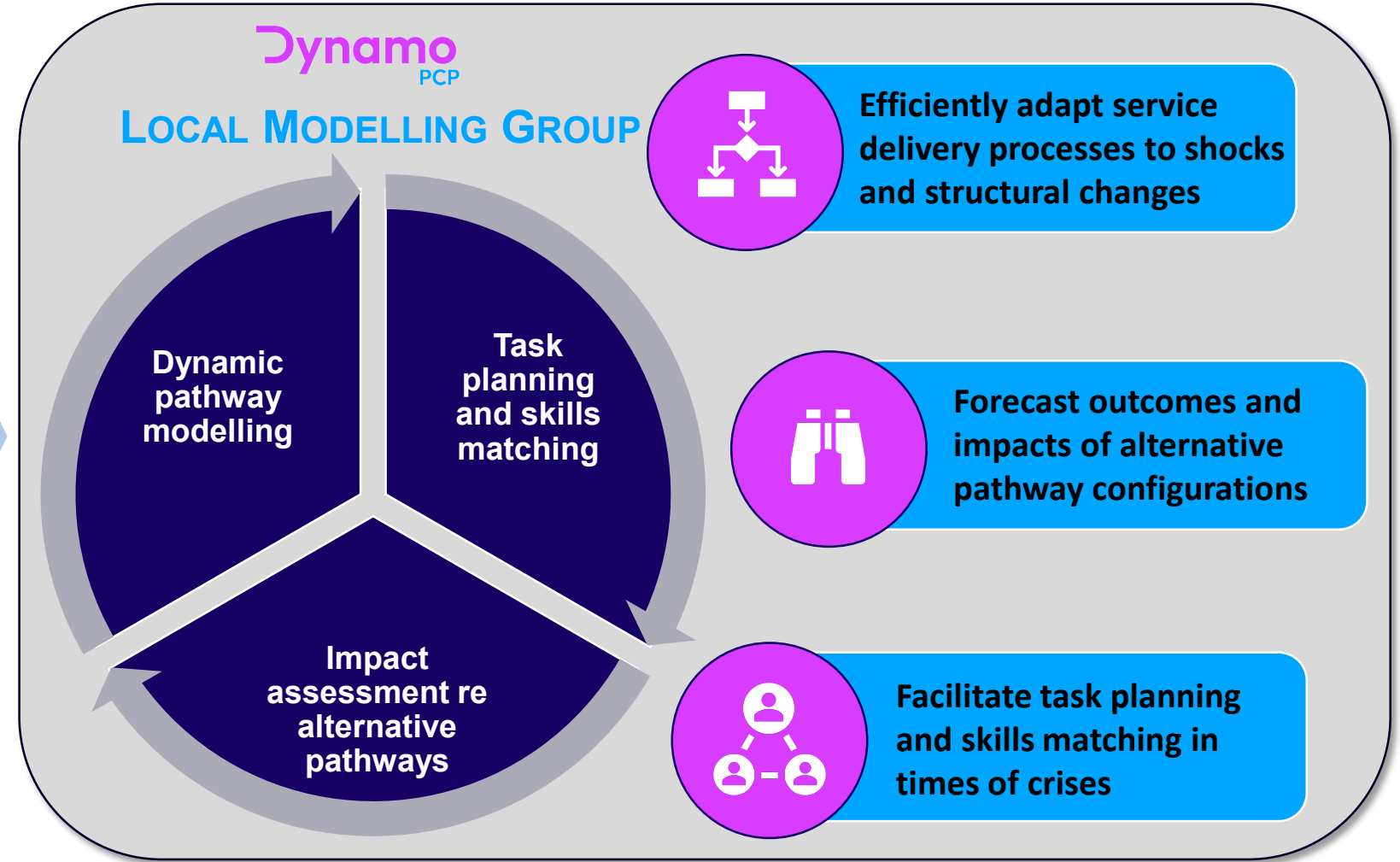
faber@israa.it



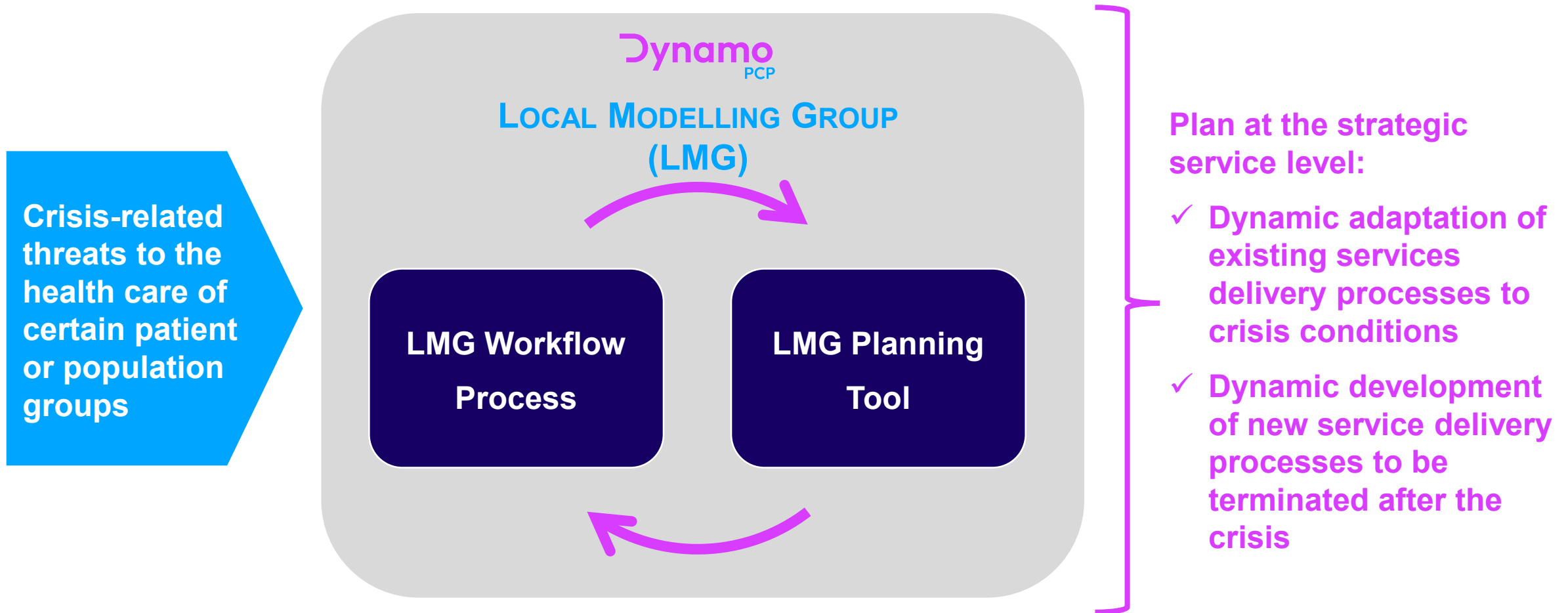
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Crises in Health Care

- Propagated epidemic
- High service demand by migrants / refugees
- Increasing anti-microbial resistance
- Heat wave
- Staff layoffs (e.g. caused by structural staff shrinkage)
- Energy poverty inducing respiratory illness
- Cyber attack
- Etc.



Two-pronged innovation approach



Generic LMG workflow process

LMG Setup

- ✓ Convene LMG
- ✓ Set up collaboration environment and processes
- ✓ Users access
- ✓ DYNAMO
- ✓ Train staff in using DYNAMO

Service Pathway Planning

- ✓ Define affected groups on total population level
- ✓ Separate sub-groups affected re their health and care needs from others not thus affected
- ✓ Define possible pathways for affected sub-groups
- ✓ Identify changes in population sub-groups and confounders over time that need to be taken into account
- ✓ Identify and interface of data sources required for each pathway step.

Pathway Impact Modelling

- ✓ Specify calculation model for each pathway step, defining what needs to be calculated based on what types of data (output variables).
- ✓ Ingest one-off / static model data sets according to data specification and calculation model.
- ✓ Run first pathway model
- ✓ Check results and adapt model to achieve desired outcome of pathway overall
- ✓ Run model variants (sensitivity analysis)
- ✓ Check results and adapt model to achieve desired outcome of pathway variants

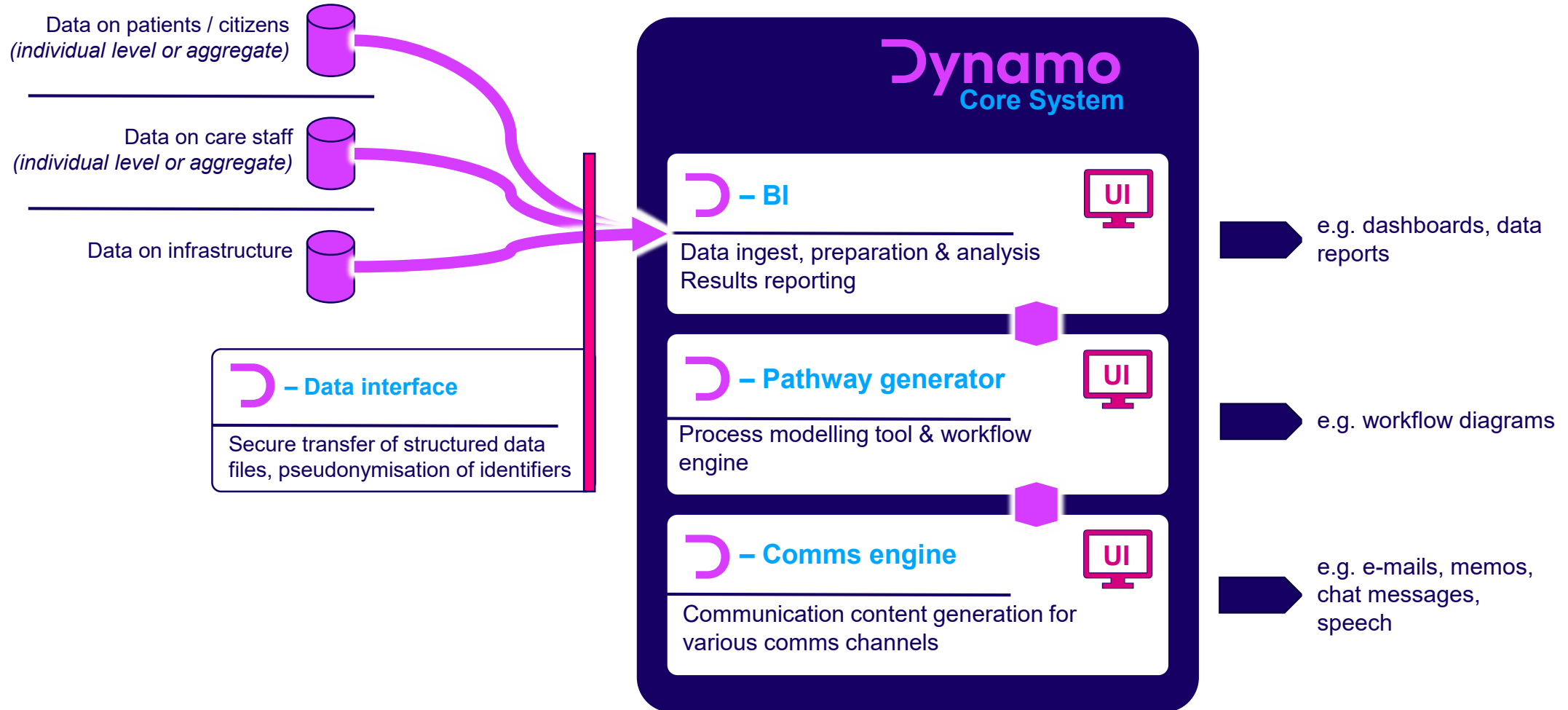
Pathway Operation

- ✓ Instantiate scenario for test or operation period
- ✓ Feed real-life data into the model
- ✓ Monitor outcome variables and variants over time, & adapt pathway based on outcomes
- ✓ Define overall target achievement and end

Pathway Sharing

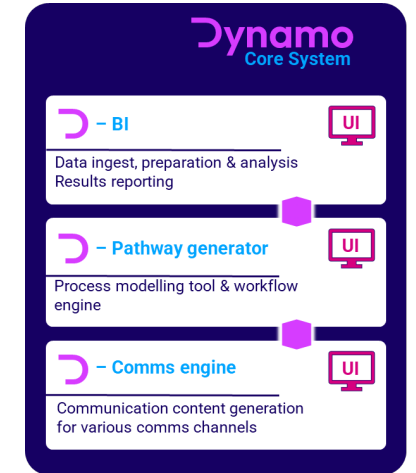
- ✓ Export pathway (incl. pathway, pathway steps, calculation models and test results) in open formats
- ✓ Save data from pathway modelling as public use file
- ✓ Import pathways for own planning, modelling and testing

Technology centred view



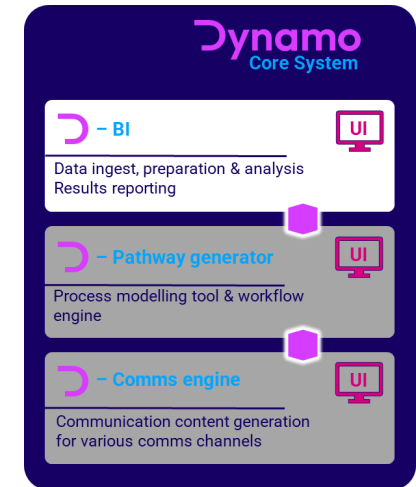
Selected core system requirements

- ✓ Interface between all system components, allowing for seamless flow of data between them
- ✓ Central database to handle all data exchange, backup, and data archiving
- ✓ Logging function for all system components
- ✓ Support different user roles & role-based user access control mechanism
- ✓ Graphical user interfaces for different devices, available in all procurers' languages
- ✓ Offline outputs (printouts) from all system components to be usable in settings where online access to the system is not possible
- ✓ System snapshots that can be re-deployed locally and run when online access of the system will not be possible
- ✓ Dashboard displaying outputs from all system components (such as metrics from BI, state of different workflows, state of the communication engine etc.)
- ✓ Support both operation as an on-premise installation and as a software-as-a-service (SAAS) solution or a combination of both.



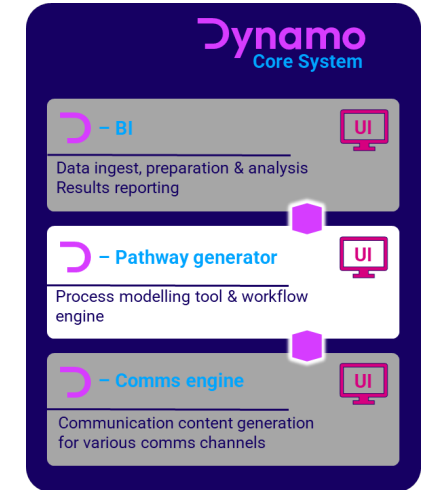
Selected business intelligence (BI) requirements

- ✓ Support a data workflow from data ingest, cleaning and plausibility checking, to analytics and results reporting
- ✓ Handling data in all usual formats, including semantically structured data, manual data entry, optical character recognition (OCR) of typed, handwritten or printed text scanned from documents and spreadsheet
- ✓ Scalable from small to very large (high volume) datasets throughout the workflow
- ✓ Support descriptive and statistical analysis, including multivariate statistics, machine learning and artificial intelligence
- ✓ Support usual reporting formats from tables to different types of graphs and figures, interactive formats etc.
- ✓ Support scripting pre-defined work steps in a data workflow to make them usable by staff that is not specifically qualified in data analytics
- ✓ Interfacing (ODBC) with existing databases, including those hosted off-premises
- ✓ Mechanism for weighting different data sources, e.g. in relation to assumed veracity or trustability
- ✓ Handle job descriptions for skills matching



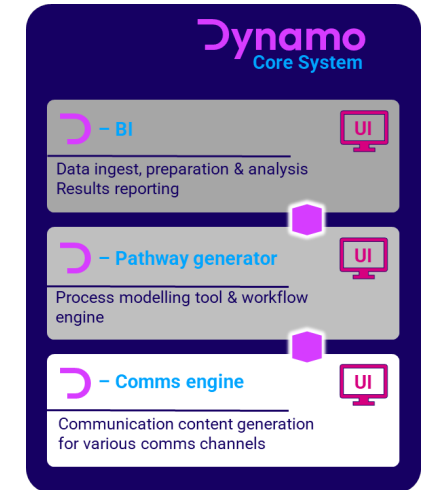
Selected pathway generator requirements

- ✓ Support the definition of workflows based on relevant standards (e.g., BPMN, UML©, ISO 5807:198528)
- ✓ support monitoring of processes, decision making and forecasting of outcomes aligned with the workflows, according to predefined criteria, rules or more complex algorithms for predictions using machine learning techniques.
- ✓ Mapping complex dependencies between different data points or performance metrics (e.g., number of people to be served depending on available build infrastructure and healthcare staff with specific skills levels)
- ✓ Provide a functionality to export and store workflows defined within the system in standardised formats for future use



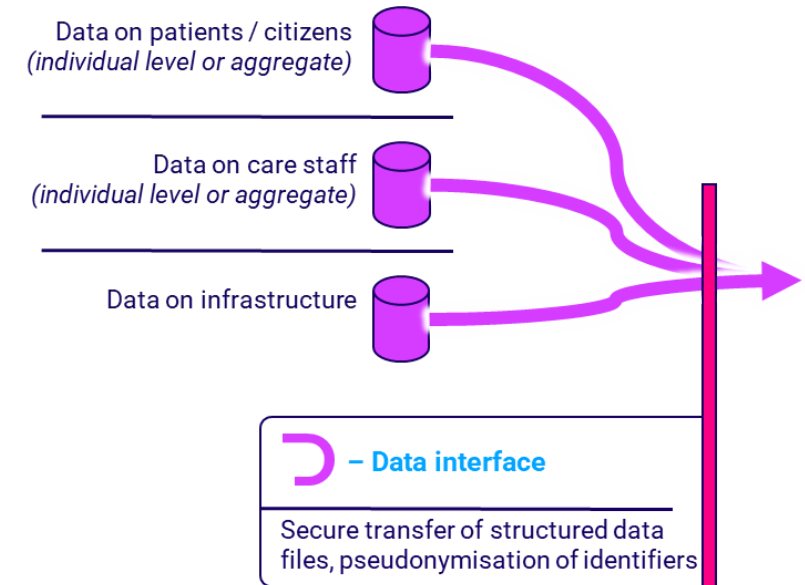
Selected comms engine requirements

- ✓ Generate natural language messages for different formats (audio, text, graphics) to communicate with different stakeholders)
- ✓ Capable of appending documents (from files or generated by other system components) to messages
- ✓ Send generated messages (and possible appended files) via the different channels
- ✓ Support a workflow for checking and approving messages by human users before sending if required
- ✓ Capable of importing contact information (names, addresses, phone numbers etc.) to send messages



Selected data interface requirements

- ✓ Safe off-site storage to allow external parties to upload data files, password-protected
- ✓ Functionality to import data from off-site storage or local file system into core system database
- ✓ Capable of interfacing (ODBC) with off-premises databases
- ✓ Pseudonymize structure data items in a dataset using common keys and algorithms
- ✓ Future capability to interface with existing data systems (such as Electronic Health Records) using established standards



Service level requirements

Modular service offering:

- ✓ Installation
- ✓ Technical maintenance
- ✓ System administration
- ✓ Data analytics support: defining and scripting data ingest, cleaning, analytics and results reporting in collaboration with staff from the procurer for pre-defined scenarios.
- ✓ User training (including training in the use of standard workflow formats)





Contact:
Oscar Zanutto – ISRAA (Italy)
faber@israa.it

<https://dynamo-pcp.eu/contact/>

THANK YOU



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Next steps

Patients Voice workshops

- intro to VBPs/PPIs
- plan interactions with

patients/carers

- Opportunity of collaboration: unmet needs/PPIs

definitions

Professional Voice workshops

- intro to VBPs/PPIs
- plan interactions with

patients/carers

- Opportunity of collaboration: unmet needs/PPIs definitions

Buyers' Voice:

- intro to VBPs/PPIs
- Business Case workshops
- Change management and implementation workshops
- Opportunity of collaboration: unmet needs/PPIs definitions

Payors' Voice:

- intro to VBP
- Adoption workshops
- scale up workshops

Suppliers' Voice:

- intro to VBP
- Open market consultation
- Business Model workshop