





## The Future of Integrated Care

Enhancing the value of care to people How innovations meet end users' needs in integrated care contexts

## The CONNECARE Experience

Eloisa VARGIU

eurecat

With the collaboration of







- In 2015 the European Commission funded 5 projects under the H2020 call SC1-PHC25
- The aim of the call was to develop innovative solutions to improve and advance home-based integrated care for people suffering from chronic conditions, including co-morbidities
- The solutions progressed by the 5 funded proposals (Polycare; CONNECARE; ICT4LIFE; CaregiversPro-MMD; ProACT) address this call to advance digital integrated care increasing citizen's independence and quality of life, allowing them to remain in their own homes, supported by families, care-givers and health professionals

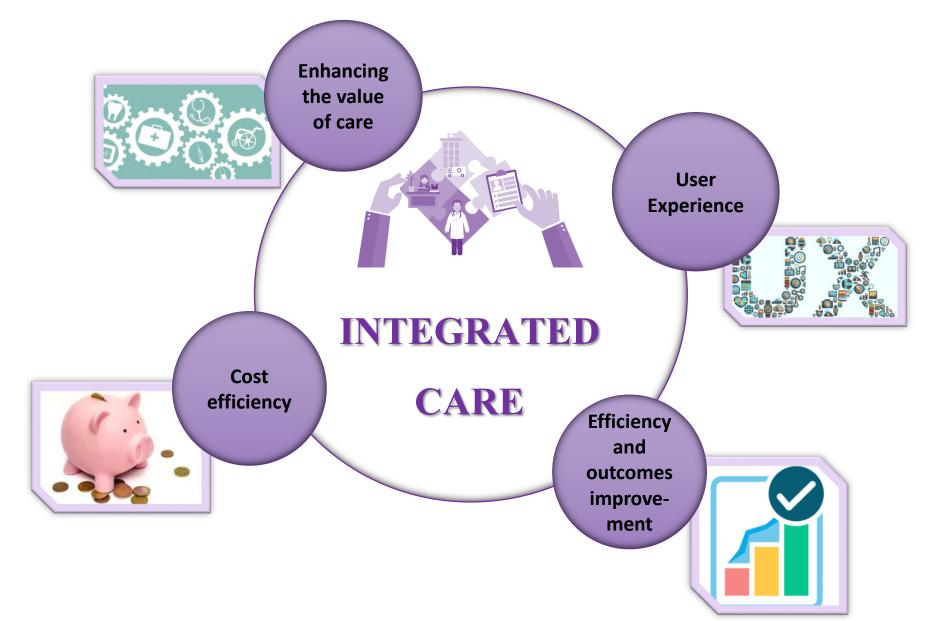






### **Four Dimensions**









## ENHANCING THE VALUE OF CARE TO PEOPLE







## **Enhancing the Value of Care to People**





## WHO

Chronic Patients

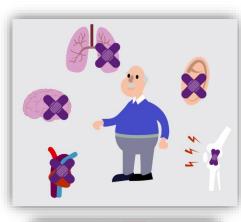
## WHAT

- Organizational
- Care and social services
- Technological paradigm shift



## HOW

• Patient-centered co-design process



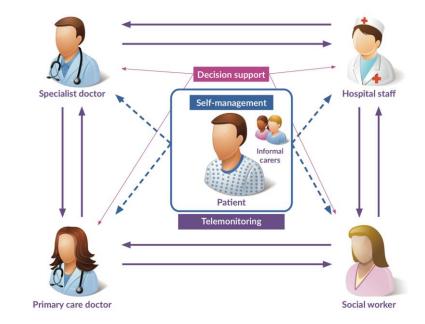








#### SMART ADAPTIVE CASE MANAGEMENT



- □ Based on the concept of 4P medicine
  - Predictive
  - Personalized
  - Preventive
  - Participatory



Engaging patients with a 360° approach
Self-management for patient empowering

- Collaborative and adaptive support to professional staff
- Support for decision making

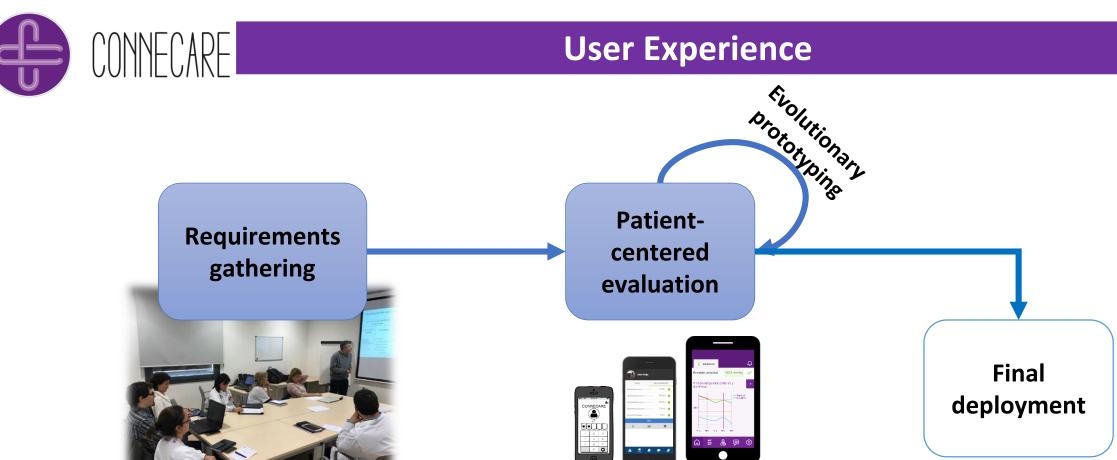




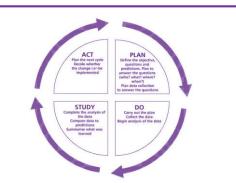
# **USER EXPERIENCE**



• 7 •



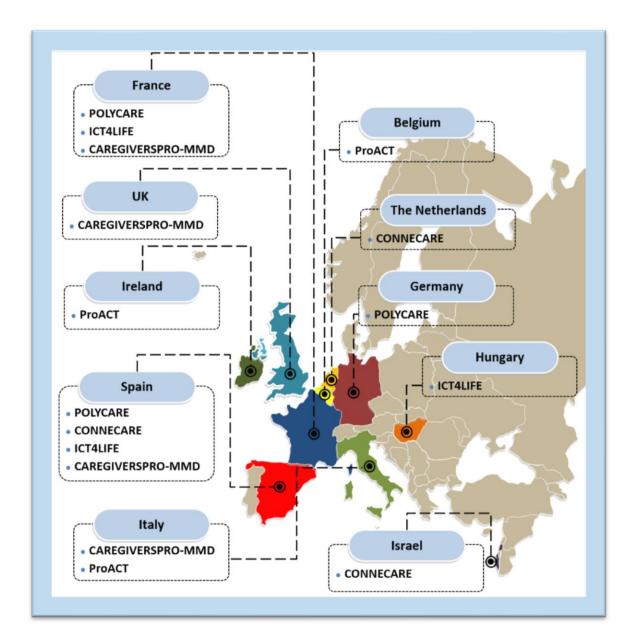
Co-diseño con pacientes y profesionales





### **User Experience**









#### Smart Adaptive Case Manager (SACM)

<u>Summary</u>	Process	Data	Team	Notifications 8	Messages	Notes		
Estat del pacient				Diagnosis			Barreres	
Charlson		37		•		Compliment farmàcia	0	
HAD Ansietat		11						
HAD Depressió		14	CERVELL		- (3)	Dificultat tractament	3	
Pfeiffer		5				Capacitat	1	
Barthel		30	PULMÓ	•••	-67	d'autocura		
Not available at current stage						PANCREAS	Habitatge Social	1
Not available at current stage			FETGE		61	Capacitat	1	
Not available at current stage			RONVÓ			Cuidador	1	
Hb (gr/dl)		4	VASOS SANGUINIS DE LA CAMA	9				
Prot (gr/dl)		4	PGD(RKP)		37			
ASA de tip	ASA de tipus:		ш	Pròtesi Genoll Dret Diagnòstic de la cirurgia		Charlson		
WOMAC D.		9	PRESERVAT DANY I	LEU/MODER DAN	Y SEVER			
WOMAC R. 4		4						
WOMAC C. 32		32						
S-LANSS 14								
EQND repòs 6		6						
EQND moviment		7						

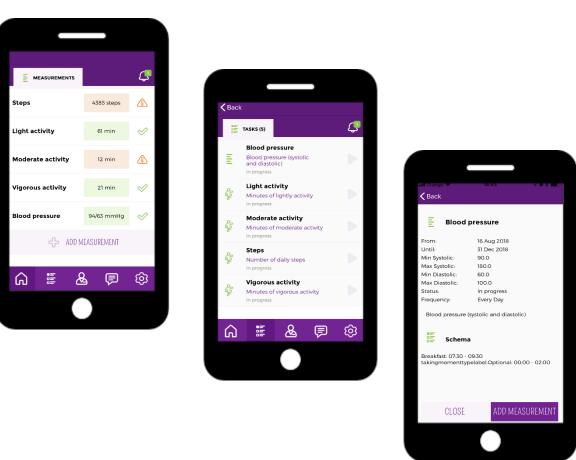
- In total, 92 professionals are involved in the studies in the 3 sites
- Results after 3 month of studies show a successful involvement of a wide range of professionals from both hospital and primary care settings
- The overall system is working smoothly without any issue and professionals like it



### **User Experience – Patients in CONNECARE**



- In total, 37 patients have been recruited in the studies in the 3 sites
- Adherence is good
- Improved self-Management of their conditions
- Technology and Usability issues
  - Elderly people use old smartphones
  - Internet connection at home
  - Need of interaction to measure the vital signs



#### Self-Management System (SMS)





## EFFICIENCY AND OUTOCOMES IMPROVEMENT







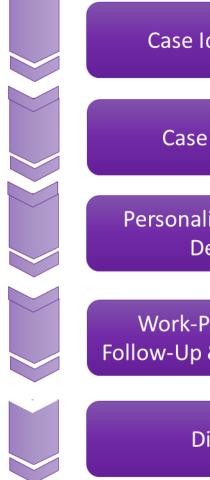
## **Organizational Shift**

- Making health and social care systems interoperable
- Promoting collaboration among care settings
- Moving from institutional reactive care to a home-based preventive model









### Case Identification

**Case Evaluation** 

Personalized Work-Plan Definition

Work-Plan Execution Follow-Up & Event Handling

Discharge

## **Care and Social Service Shift**

- Health risk prediction
  - operational population-based tools
  - a patient-based five-dimension scoring strategy













## **COST EFFICIENCY**





### **Cost Efficiency**



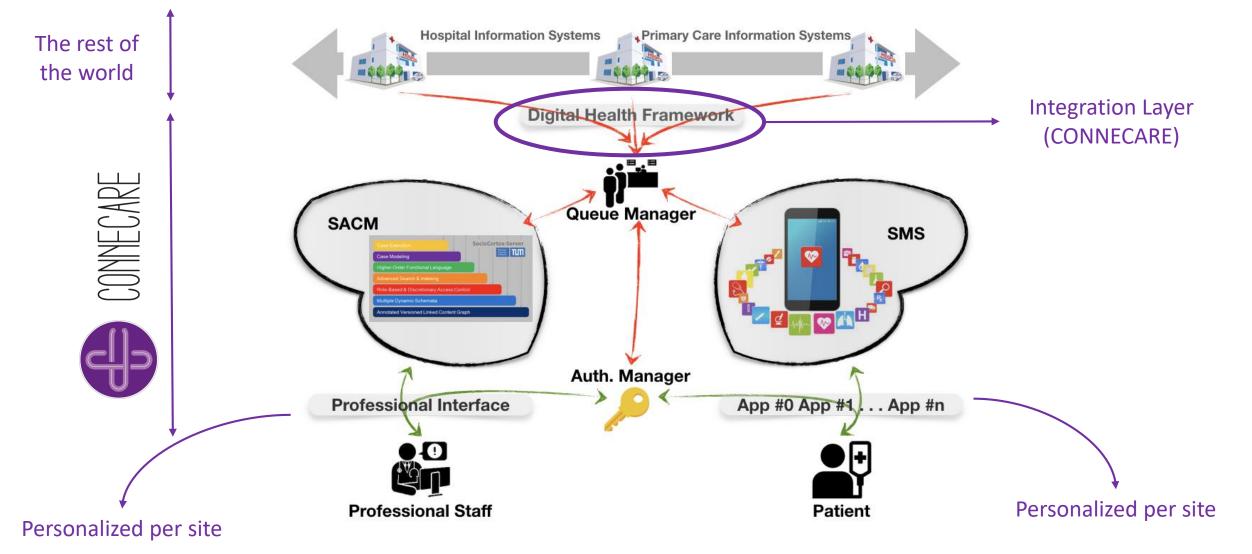
The **flexibility** of the integrated models will consequently help to improve real practice deployment of integrated care in those sites and will be able to bring practical insight to the **potential of transferability** of new methods and technologies to other regions in **Europe and beyond** 





### **Cost Efficiency**









## Conclusion











**CAREGIVERS**PRC

- Some 70% of hospital beds in Europe are occupied by people with chronic long term conditions
- Integrated Care aims to reduce costs and improve patient outcomes by improving the integration of long term care for those chronically sick with more than one long term condition
- CONNECARE co-designs with professionals and patients, develops, implements, and evaluates a novel smart-adaptive integrated care system



## Thanks Bedankt תודה Gràcies Grazie Danke

Eloisa Vargiu Manager of Integrated Continuous Care research line a EURECAT-Centro Tecnológico de Catalunya Barcelona Area, Spain | Research

eloisa.vargiu@eurecat.org





This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 689802