

## ICT4Life Final Conference

Exploitation : a strategic approach based on iterative testing for real market.

Isabella Notarangelo

(HOPE)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 690090.





### Reporting the **elements** supporting the **strategic approach** to launch ICT4Life platform into **real market**.



Freepik image.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 690090.





- ICT4Life system provides tailored and personalised services to end-users;
- ICT4Life system development process is based on co-design of its components.

Real feedback shaped the technology to better respond to **end-users' needs**.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 690090.

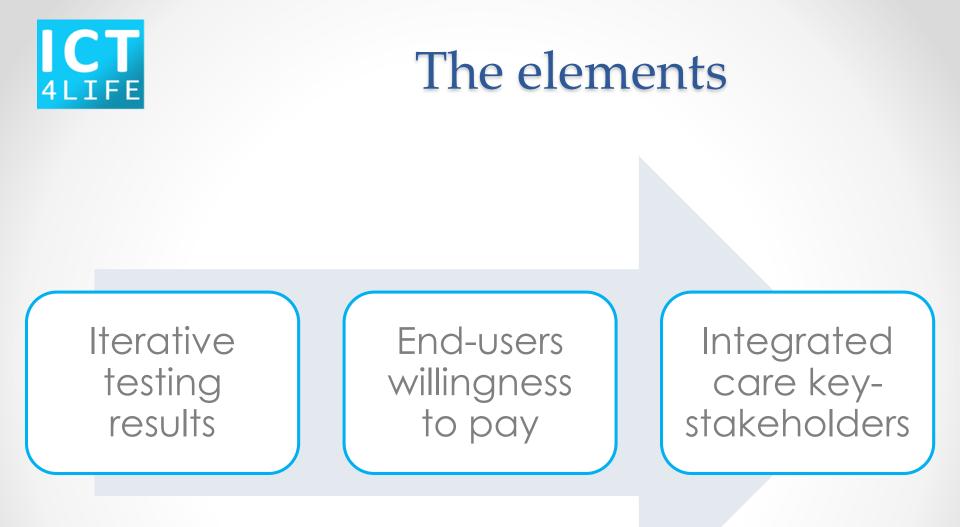




- The success of the system improves when users are involved, even when problems and challenges still have to be addressed;
- Testing results are a source of information for developing a market-research, aimed at supporting strategic decision.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 690090.





This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 690090.



### The dimensions

End-users feedback addressed three **dimensions**:

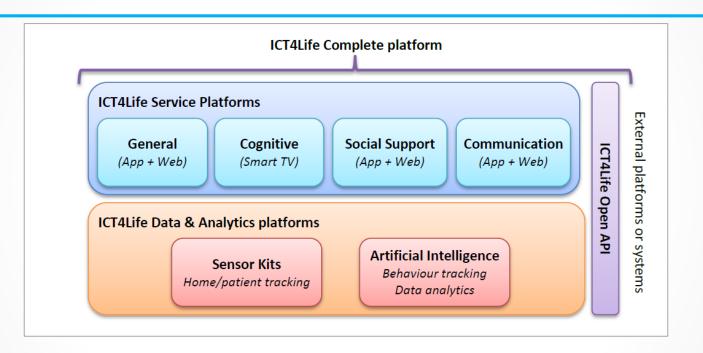
- Acceptance
- Capability & Usability
- Satisfaction.

The combination of the feedback obtained on each dimension support the **understanding of the preferences** of the users and of the **aspects of the platform that need to be improved**.



## The dimensions & the platform

Acceptance - Capability & Usability - Satisfaction



The dimensions have been explored in relation to **any module** of the platform, to which are associated **one or more** components.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 690090.



## Further aspects

Crucial for the assessment of acceptance, capability & usability and satisfaction:

- Gender;
- o Age;
- Country;
- o Disease;
- Stage of disease;
- Previous use of ICT tools.

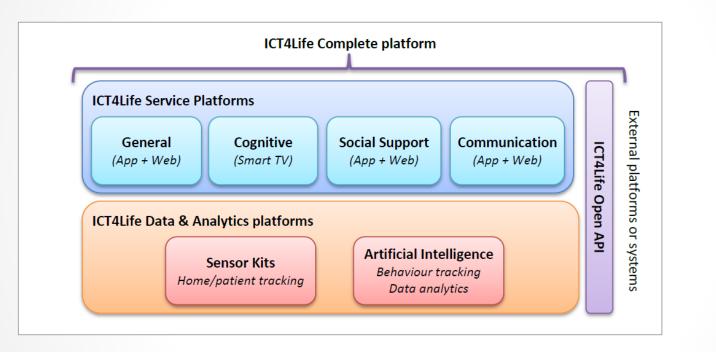


 or – correlation between the three dimensions and the abovementioned aspects!



# The dimensions, the platform & the users

Acceptance - Capability & Usability - Satisfaction



#### Patients – Caregivers – Health Professionals



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 690090.



## Results (1/4)

**3 tables** ranking end-users' feedback on each dimension (Acceptance, Usability & Capability, Satisfaction) for every component of the ICT4Life platform.

#### Rank:





This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement  $N^{\circ}$  690090.





#### Acceptance

- Probability to improve individual performances through the use of the technology;
- Degree to which the person hopes the use of the system requires no effort.

ICT4Life Platform		ICT4Life Users			
		Patients	Carers	Health Professionals	
General	Арр	Х	X		
General	Web				
Cognitive	Smart TV	x	x		
	<b>A</b>	V			
Social Support	Арр	Х	Х	Y	
	Web			X	
Communication	Арр	Х	Х		
Communication	Web			X	
Sensors kit	Home	Х	Х		
	Other settings				
Artificial intelligence	Behaviour tracking	Х			
	Data analytics				







#### **Capability & Usability**

- Capability: facility on a computer for performing a specified task;
- Usability: degree to which a software can be used by consumers to achieve quantified objectives with effectiveness, efficiency and satisfaction.

ICT4Life Platform		ICT4Life Users			
		Patients	Carers	Health Professionals	
General	App Web	Х	X		
Cognitive	Smart TV	х	x		
Social Support	App Web	Х	X	X	
Communication	App Web	Х	Х	X	
Sensors kit	Home Other settings	Х	X		
Artificial intelligence	Behaviour tracking Data analytics	Х			







#### Satisfaction

- The act of achieving a need or a wish;
- Measure the "feeling" of the end-users about the platform.

ICT4Life Platform		ICT4Life UsersPatientsCarersHealth Profession		
General	App Web	Х	X	
Cognitive	Smart TV	х	X	
Social Support	App Web	Х	X	X
Communication	App Web	Х	X	X
Sensors kit	Home Other settings	Х	X	
Artificial intelligence	Behaviour tracking Data analytics	Х	X	



## End-users' willingness to pay

Testing showed that end-users are rather happy with the platform functionalities, despite some components need further developments.

### BUT

Would they pay to use the platform?

#### A survey:

## **182 feedback** collected from end-users through an open question.

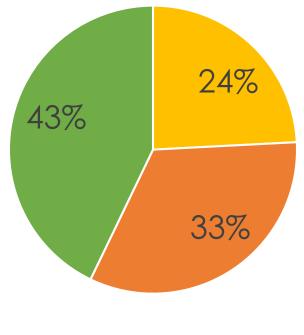


This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 690090.





How much would you personally pay for receiving the ICT4Life services for the complete ICT4Life system?



No I don't know/It depends Yes



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 690090.



### Besides the end-users

Iterative testing results are **similar** in the countries where it has run (France, Hungary and Spain).

#### End-users have the same needs no matter where they live.

#### HOWEVER

They are part of **territorial** and **complex ecosystems** changing from country to country in terms of:

- Governance;
- Funding systems;
- Provision of care models.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 690090.



### Territorial key-stakeholders

## Each National Health Service has its own **key-stakeholders**.

### One size fits all? NO!



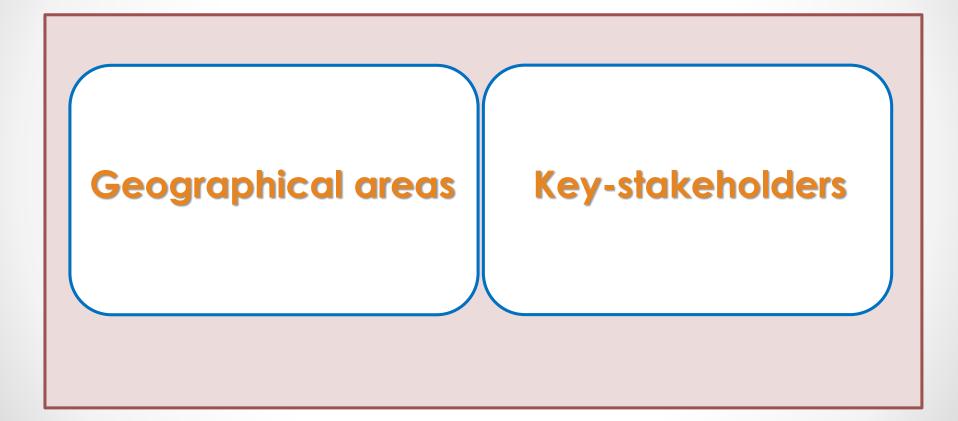
Diversity increases complexity and exploitation strategy has to be shaped accordingly to be effective.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 690090.









This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 690090.



## Geographical areas and Exploitation (1/2)

Pilot sites	Further geographical areas
Hungary ( <b>Baranya County)</b>	Good maturity level of integrated care in terms of:
France (Paris Region) Spain (Autonomous Community of Madrid)	<ul> <li>Governance;</li> <li>Stakeholder engagement;</li> <li>Organisational change;</li> <li>Patient focus / empowerment;</li> <li>Financing and incentives;</li> <li>ICT infrastructures and solutions.</li> </ul>
	Scirocco Methodology.





## Geographical areas and Exploitation (2/2)

Location	Country	
Basque Country	Spain	
Belgium	Belgium	
Norrbotten	Sweden	
Northern Ireland	UK	
Pardubice	Czech Republic	
Puglia	Italy	
Saxony	Germany	
Scotland	UK	
Skåne	Sweden	
Southern Denmark	Denmark	
Trikala	Greece	
Valencia	Spain	
Veneto	Italy	
Walcheren	The Netherlands	

Targeted and tailored exploitation strategy per geographical area depending on the main stakeholders!



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 690090.



## Key-stakeholders and Exploitation

Location	Country
Basque Country	Spain
Belgium	Belgium
Norrbotten	Sweden
Northern Ireland	UK
Pardubice	Czech Republic
Puglia	Italy
Saxony	Germany
Scotland	UK
Skåne	Sweden
Southern Denmark	Denmark
Trikala	Greece
Valencia	Spain
Veneto	Italy
Walcheren	The Netherlands

Czech Republic, Italy, Spain and UK: Regions.

Denmark: Regions and municipalities.

Sweden: Regions and counties.

Greece: Central State.

The Netherlands and Germany: *Providers, insurances.* 



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 690090.

#### ICT 4LIFE

## Key-stakeholders and value

ICT4Life Platform	Health/Social Professionals	Social Providers	Health Providers	Public Authorities	Research
Complete Platform	Integrated information; Supported treatment; Cooperation; Reduced interventions.	Home hospitalisation improvement; Better population health; Client Loyalty; Patient QoL; Supported treatment; Cooperation.	Cost-Effective care; Client loyalty; Home hospitalisation improvement; Patient QoL; Supported treatment; Cooperation.	Cost-effective care; Better population health; Home hospitalisation improvement; Integrated information; Supported treatment; Cooperation.	Further data.
General	Supported treatment; Patient follow up.	Supported treatment; Client loyalty.	Supported treatment; Client loyalty.	Supported treatment.	Further data.
Cognitive	NO	Leisure; Cognitive training.	NO	NO	Further cognitive research.
Social Support	Rehabilitation exercises	Patient QoL Social service support Rehabilitation exercises Client loyalty	Patient QoL; Rehabilitation exercises; Client loyalty.	Patient QoL; Social service support; Rehabilitation exercises.	NO
Communication	Cooperation; Communication; Specialised blogs.	Cooperation; Communication; Specialised blogs.	Cooperation; Communication; Specialised blogs.	Cooperation; Communication; Specialised blogs.	NO
Sensor Kit	NO	NO	Patient status control.	Patient status control.	Further research.
Artificial Intelligence	NO	NO	NO	NO	Research improvement.
Open API	NO	NO	NO	NO	Research Improvement.





Approach

#### ICT4Life Exploitation strategy finds its premises in **endusers' feedback**.

 It targets the stakeholders in charge of providing and funding healthcare services;

✓ It addresses the platform and its components on the base of the added value provided to stakeholders.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 690090.



## Why strategic?

- It starts from a reliable market analysis to shape its services;
- It is addressed to stakeholders who provide and fund the healthcare service...
- ...after having proved which is the added value for them.





## THANK YOU FOR YOUR ATTENTION!

Isabella Notarangelo

(HOPE)

eco@hope.be



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 690090.