

Ciclo di webinar sull'invecchiamento attivo

03/10/2024 WEBINAR 1

Politiche e strumenti della UE per promuovere l'invecchiamento attivo

Il progetto «NESTORE»: verso le DTx per invecchiare in salute e benessere

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Attività di informazione su **Un'Europa per la salute** è realizzata in partenariato con i centri: ED Roma Innovazione, ED Siena, ED Trapani Sicilia, ED Chieti, ED Provincia di Verona, ED Venezia Veneto, ED Emilia-Romagna, ED Molise



**EUROPE
DIRECT**



Where we started...EU focus and research opportunity

Society Silverization

A not-reversible process?

Strong impact on:

- People
- Welfare systems
- Economy

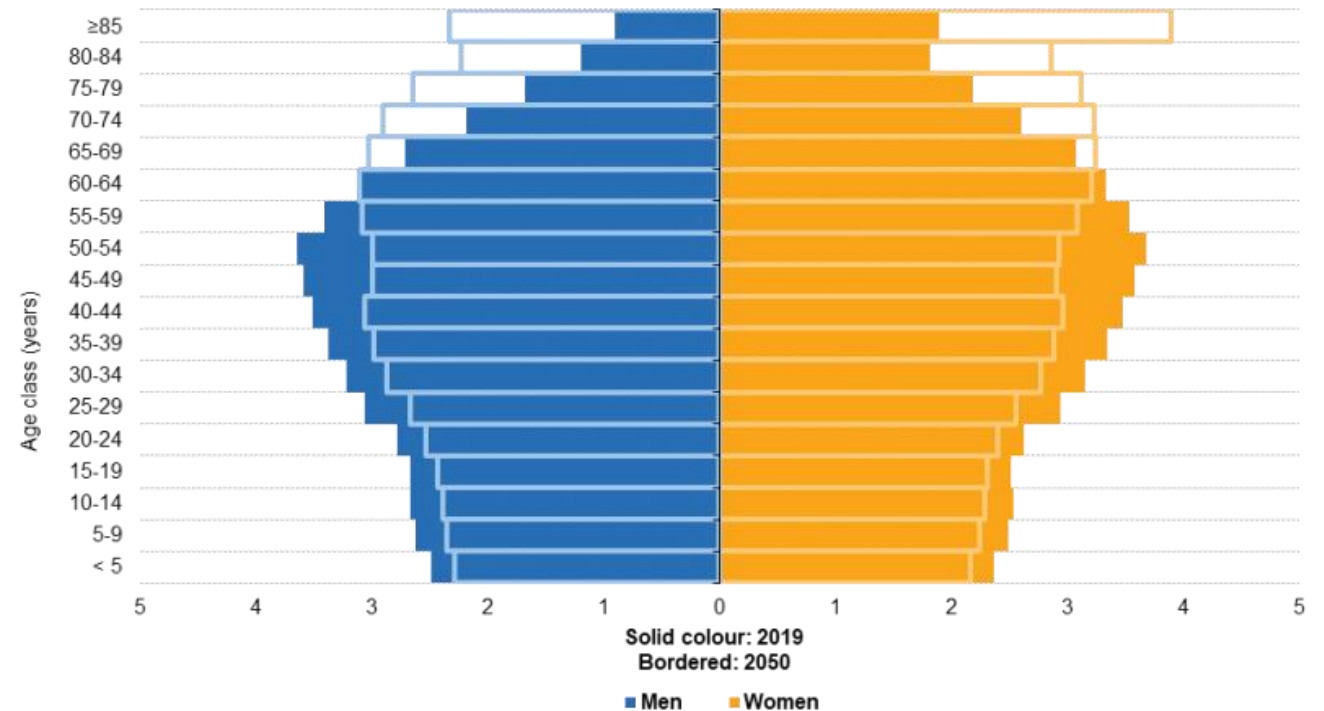
Wellbeing of Europe is the wellbeing of European citizens

(The Economy of wellbeing, EU report, 2019.)

Wellbeing and healthcare:

a challenge for economic growth and societal quality of life

Population pyramids, EU-27, 2019 and 2050
(% share of total population)



Note: all data as of 1 January. 2019: estimates and provisional. 2050: population according to the 2019 projections, baseline variant (EUROPOP2019).

Source: Eurostat (online data codes: demo_pjangroup and proj_19np)



The Ageing Society: needs and challenges

Wellbeing of Europe is the wellbeing of European citizens

Active Healthy Ageing

Strategy for wellbeing and inclusion

“Active and Healthy Ageing (AHA) is the process of *optimizing opportunities for health, participation and security* in order to *enhance quality of life as people age*. ...

'Health' refers to *physical, mental* and *social* wellbeing.

'Active' refers to continuing participation in social, economic, cultural, spiritual and civic affairs, not just the simple ability to be physically active or to participate in the labour”. (WHO)



Basic and Applied Research

SC1-PM-15-2017 call
 Personalised coaching for well-being and care of people as they age



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NESTORE Vision of Health and Wellbeing

well-being assesses the positive aspects of a person's life, such as positive emotions and life satisfaction.

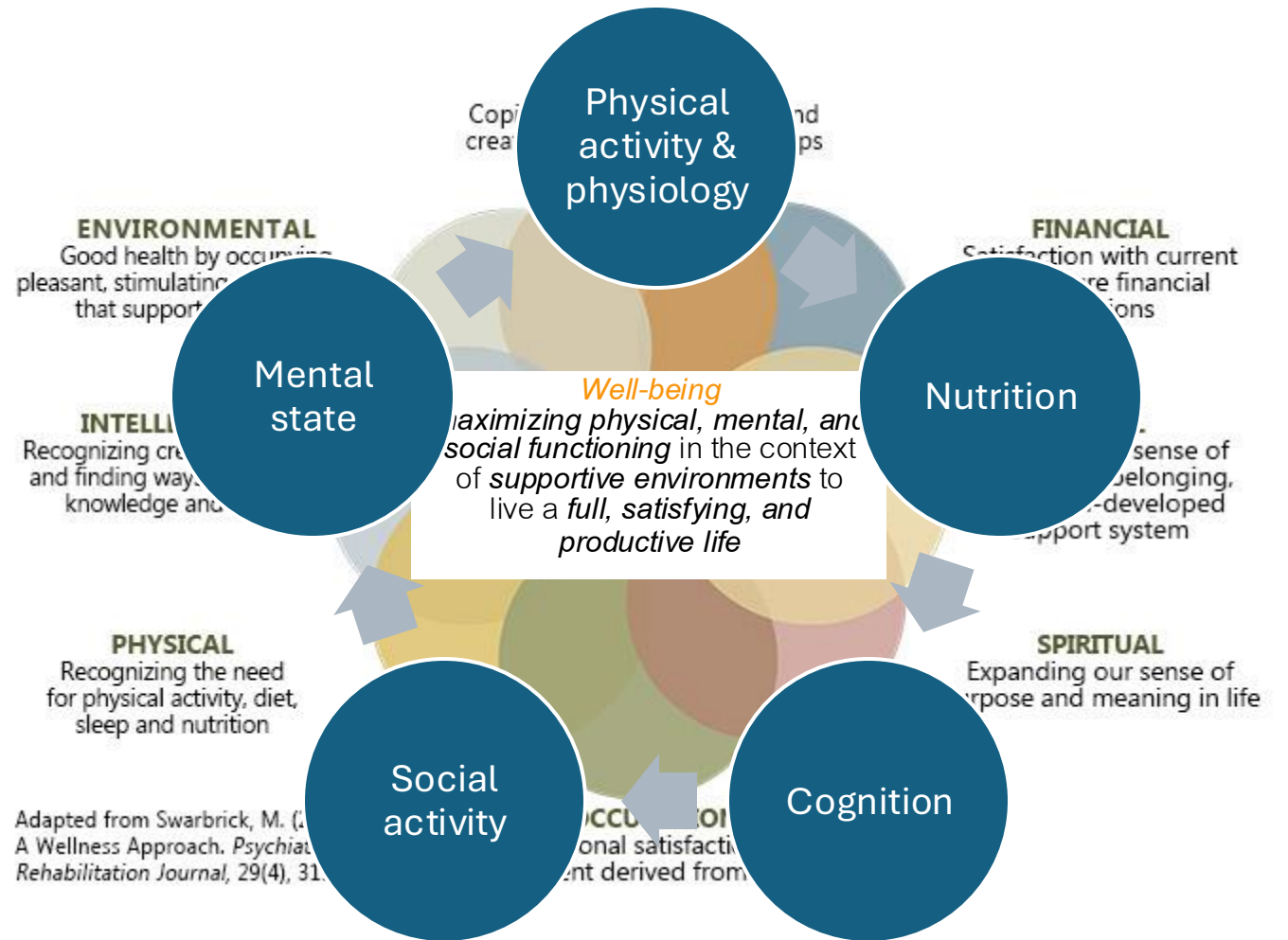
Multifaceted, Multidisciplinary,
 Multifactorial, Pluriexpert, Contextualized



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Adapted from Swarbrick, M. (2007).
 A Wellness Approach. *Psychiatric
 Rehabilitation Journal*, 29(4), 31.



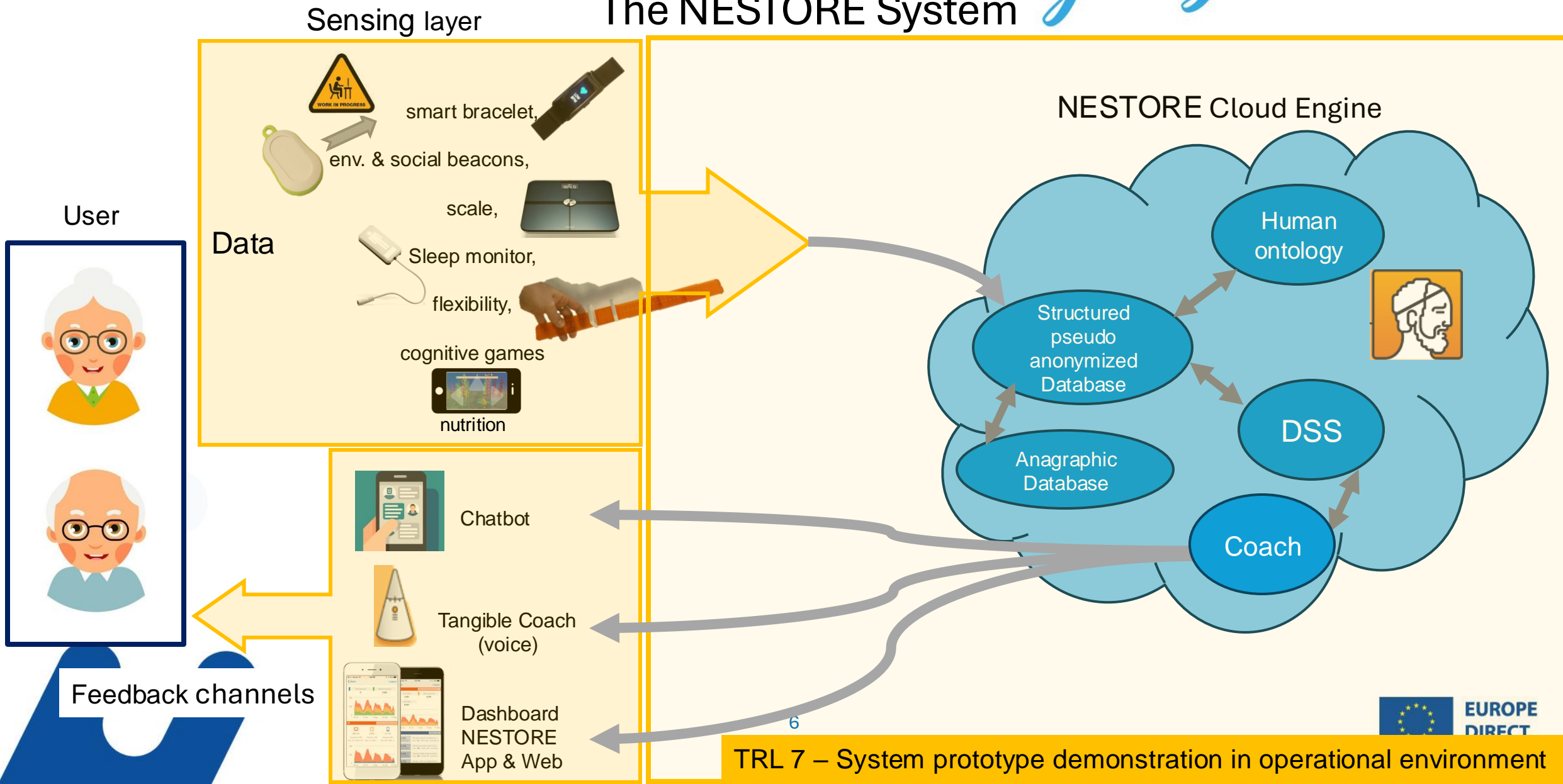
NESTORE Vision of Health and Wellbeing

- *NESTORE leveraged on mobile, wearables & environmental sensors, tangible and conversational agents, DSS in a... Modular Complexity!*
- The system validation with respect to *usability, acceptability* and *effectiveness* involved:
 - **3 pilot sites:** Barcelona (Spain), Rotterdam (The Netherlands), Monza (Italy)
 - **60 intervention users and 30 controls with.... 70% coverage despite COVID**
- Exploitation exploration within the consortium and outside among stakeholders for the co-production of wellness.





The NESTORE System





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**AGEING WELL
WITH A COMPANION**

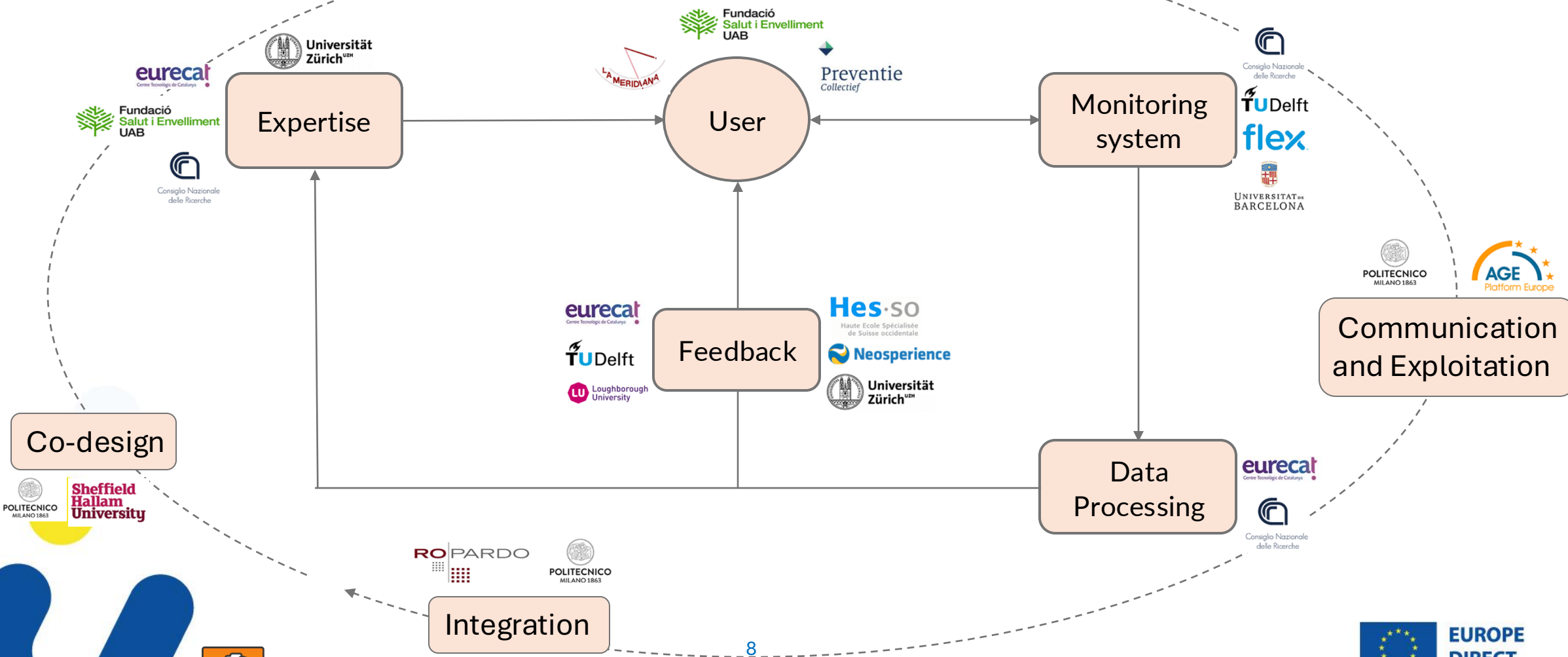
NESTORE is here.

VISIT OUR WEBSITE WWW.NESTORE-COACH.EU





Healthy Ageing Service



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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 769643





NESTORE story

A 42-months journey



NESTORE system is an innovative *multi-dimensional* (physical, cognitive, nutritional, psychological, social) *personalized coaching system* co-designed with silver users, *based on a data driven DSS* to support healthy ageing through *preventing* decline and *maintaining/improving wellbeing*.



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Results from NESTORE project

« Elderly people are the ultimate experts of their own lives »
(WHO)

Definition of a new perspective of **Silver-Centered Design**

&

Usability by Design

For

Technology – Services – Environments – Social events

Novel Assessment methodologies

Seniors could become a reliable and effective partner for taking an active role in all the phases of health management, not just and simply as end-users, i.e. people to take care of, a passive category.

Users and methodological perspective



From Personas to Persons



Peng et al., *Habit Formation in Wearable Activity Tracker Use Among Older Adults: Qualitative Study* JMIR Mhealth Uhealth 2021;9(1):e22488 doi: 10.2196/22488

Lally et al. 2010
«Avg of 66 days to form and assume habits»

This pandemic avoided to test these assumptions in our pilot
But **POSITIVE TRENDS**

Table 3. Summary of identified themes.

RQ ^a	Themes
RQ1: How did long-term users initiate the use of wearable activity trackers?	Meaningful initial start
RQ2: How did long-term users set goals?	Goal setting: start with a small goal and gradually increase
RQ3: What consistent contextual cues did long-term users use to form the habit of wearing wearable activity trackers?	Consistent cues: use time and locational cues to make it a routine
RQ4: How did long-term users engage in action planning and coping planning to support the continued use of wearable activity trackers?	<ul style="list-style-type: none"> Action planning: creative contextual cues Action planning: use reminders Coping planning: anticipate problems and have a plan to deal with it Coping planning: mindset for managing unfulfillment and lapses Coping planning: try to have fun and try something new

Promising pivotal role of the exploitation of personal interests as motivational triggers “pathways of interest”.



Results from NESTORE project *Scientific & methodological perspective*

frontiers
in Psychology

PERSPECTIVE
published: 31 October 2018
doi: 10.3389/fpsyg.2018.02066



A P5 Approach to m-Health: Design Suggestions for Advanced Mobile Health Technology

Alessandra Gorini^{1,2*}, Ketti Mazzocco^{1,2}, Stefano Triberti^{1,2}, Valeria Sebrini^{1,2},
Lucrezia Savioni^{1,2} and Gabriella Praveltoni^{1,2}

Making health habitual:
the psychology of ‘habit-formation’ and general practice
British Journal of General Practice, December 2012

From 4P Medicine concept (Preventive Predictive Personalized and Participatory)

To the new fifth P, the Psychocognitive factor.



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Results from NESTORE project

Scientific findings

Comprehensive Multidomain Human Model

Open Access Ontology Implementation

Multi-domain Coaching Strategies

Motivational messages

Food Recipes and Nutritional database

Multidomain dataset & trends (no signif. but...)

Technological findings

uAAL and new interoperability solutions

Complexity management (proprietary & third party devices)

DSS (simulator and active), Food recognizer, Wearable, Social & Environmental Beacons, Tangible, ...

70 kits completed and delivered

Tech. Mngmt of Lockdown

Innovative Smart Patch



Results from NESTORE project

Dissemination

45 scientific publications (... and others to come)
 1 book
 3 Pitches
 PM15 – cross collaboration
 FAS involvement
 120+ participants in the final event

Exploitation

Deep Market Analysis
 Exploitable Outputs analysis
 Positive ROI/SROI assessment -> partnership...
 Open to the new DTx Era...
 Open to Prevention as key health pillar



Research for Development



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Digital Health Technology for Better Aging

A multidisciplinary approach

Editors: **Andreoni**, Giuseppe, **Mambretti**, Cinzia (Eds.)

Knowledge and technology for the benefit of a healthy aging



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Conclusions

Users and technological perspective

In the EU, 87 percent of people aged 75 years and over have never been online (Eurostat, 2018), but..



NESTORE investigated the ***transition from native analogue society and digital native generation***

Technology for seniors is growing so quickly that by 2030, experts expect aging tech to be a USD 30 billion market.

This tech can help bridge the digital generation gap and allows for ***increased independence and a higher quality of life.***

Need for ICT infrastructures
Better interoperability
Secure data and privacy



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FOREVER
Young
INVECCHIAMENTO ATTIVO
#ForeverYoung #Iwantliveforever #Evergreen

GRAZIE PER L'ATTENZIONE



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Europea