

# International Interdisciplinary Network on Smart Healthy Age-Friendly Environments

**NET4**  
age-friendly

**SHAFE explained**  
18 February 2021

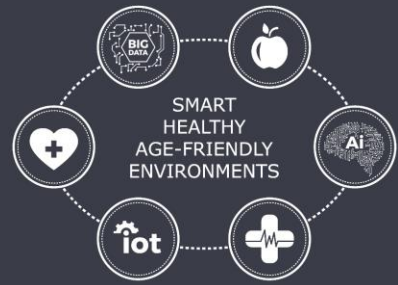
**Carina Dantas**  
*Action Chair*

**Willeke van Staalduinen**  
*Action Vice-Chair*

  
EUROPEAN COOPERATION  
IN SCIENCE & TECHNOLOGY



Funded by the Horizon 2020 Framework Programme  
of the European Union



STAKEHOLDERS NETWORK

**SHAFE**

If people should age at their own homes, how to align **technological** development with the **building** industry for smart environments in terms of **POLICY** and **FUNDING**, enhancing a **more efficient health care system** that may add **better quality** for less investment?

A new concept was created since 2017, based on the desire to implement **Smart Healthy Age-Friendly Environments (SHAFE)** across Europe, fostering happier and healthier people in all communities.

This idea took shape and became a solid movement. That is how SHAFE was born and further launched in 2018, by Cáritas Diocesana de Coimbra and AFEdeemy, in close cooperation with several European organisations.

#### COORDINATORS



#### MAIN PARTNERS



SHAFE began as a Thematic Network, approved by the European Commission, with the ambition to draw policy makers, organisations and citizens' attention to the need of better alignment between health, social care, built environments and ICT, both in policy and funding.

The conclusions of this extensive work in 2018, gathering over 160 organisations as partners, was delivered to the European Commission and Member States in a Joint Statement and a Framing Paper in December 2018.

After this, SHAFE evolved to a European **Stakeholders Network**, which is currently working to achieve better COOPERATION and IMPLEMENTATION, as the major challenges for this next period.

# ASSOCIATED PARTNERS

~170 ORGANISATIONS



# JOINT STATEMENT ON SMART HEALTHY AGE-FRIENDLY ENVIRONMENTS



**A SHARED VISION**



**NEEDS**



**FUNDING / CONDITIONS  
FOR IMPLEMENTATION**



**CITIZEN  
EMPOWERMENT**



**COOPERATION  
COMMUNICATION**



**RESEARCH FOR  
PREDICTION / PREVENTION**

# RECOMMENDATIONS TO CITIZENS



**WE EXPECT YOU TO  
PARTICIPATE**



+ HEALTH LITERACY



+ ADAPTED ENVIRONMENTS



+ PHYSICAL EXERCISE



+ ACTIVE CITIZENSHIP

**CITIZEN  
EMPOWERMENT**

WHAT'S MISSING?

COOPERATION

and

IMPLEMENTATION



**TASK FORCE SHAFE?**

**POSITION PAPER 2020**

# THE POSITION PAPER

The pandemic has uncovered the major opportunities and benefits of turning digital. However, citizens across different age groups also need personal human contact; they need to meet, to talk to each other, to hug and to love.

**Digitalization cannot replace this human need but can be a powerful vehicle to support people.**

**The scenario during 2021 is an opportunity for the digital revolution to be well thought and implemented, if all the adequate challenges are well considered and tackled.**

The Smart Healthy Age-Friendly Environments Network will thus focus on the:

- **NARRATIVE**
- **DEBATE**
- **DISCLOSURE**
- **KNOWLEDGE TRANSLATION** of smart digital solutions

These solutions will aim to **optimize the physical and social environments of individuals in a concerted manner, bringing together also the domains of health and social care.**

The position paper provides indicators to measure progress and success on the realization of SHAFE.

# THE CHALLENGE

## SHARED RESPONSIBILITY ON COMMON GOOD

To live and participate in society as inhabitant, worker or volunteer, it is necessary that working and living environments are usable, accessible and reachable. No matter if someone walks, drives, uses a walker or wheelchair, or is having hearing or vision problems.

With the ongoing digitization of society, new opportunities arise to foster these living and working environments. Also, digital solutions could assist to better prevent from non-communicable diseases, and to promote independent living, work till older age, favoring more health and wellbeing.

# However, single digital solutions are not the panacea to all issues:

## **CITIZENS** need to improve:

- digital skills
- health literacy
- engagement and democratic participation
- less inequalities on access

## **ENVIRONMENTS** have as major challenges:

- house retrofitting
- digital infrastructures
- public spaces and transport
- climate neutral solutions (in the area of environments)

## and, finally, **HEALTH AND CARE** need:

- reliable and accessible big data
- integrated and person-centered solutions (new pathways)
- implementation guidelines and long-term funding solutions/business models

**We acknowledge that all these challenges are interconnected and that a global approach is needed!**

A faint, light gray map of Europe is visible in the background, centered behind the text. The map shows the outlines of the major landmasses of Europe, including the British Isles, Scandinavia, and the Mediterranean region.

**This was already the path used to conceive and deliver the**

**JOINT STATEMENT ON SHAFE**

**SMART HEALTHY AGE-FRIENDLY ENVIRONMENTS, in 2018.**

## MAIN GOALS

By 2022, the Stakeholders Network on SHAFE aims to achieve mainly **COORDINATION** and **IMPLEMENTATION**, specifically the following higher-level goals:

- Promote **training of formal and informal caregivers** (communities) on SHAFE, creating a toolkit and implementing training actions in multiple countries;
- Raise awareness on the need to coordinate Health and social care, building infrastructure and environment conditions in order to move aging and wellbeing towards home care and prevention – to a **Health and Wellbeing value-based approach**;
- Jointly develop **sustainable business cases** with governments, insurance companies and investors to foster future investments on smart healthy environments;
- **Modernise education** of urban planners, architects and ICT-developers in general to focus on PEOPLE and PLACES and focus research on lifelong learning, evidence-based design, smart healthy environments and empowerment;
- **Support public authorities and health and social care providers on implementing SHAFE**, especially regarding building or restructuring the built environment to include ICT solutions with integrated health and care provision.

## How to scale-up and implement SHAFE?

### 7 POLITICAL MEASURES TO IMPLEMENT IN REGIONS / MS

#### **Policy makers**

What financial incentives can you approve to foster the implementation of SHAFE?

#### **Insurance companies**

What measures can be included in insurance packages that foster SHAFE?

#### **Citizens**

What commitment is fair to ask on taking the lead on healthy habits and digital&health literacy?

#### **Financers**

What measures do you need to invest or develop SHAFE?

#### **Health & care providers**

What measures are lacking to implement SHAFE and what can you contribute?

#### **Researchers/Academia**

what can you bring on lifelong learning/digital skills and research for prevention?

#### **Building industry**

What can you bring and what you need to integrate smart built environments?



---

**SHAFE** BEING IMPLEMENTED

NET4Age-Friendly aims to establish an **international and interdisciplinary network of researchers and stakeholders** from all sectors.

Its main goal is to foster **awareness and support the creation and implementation of smart, healthy indoor and outdoor environments** for present and future generations.

**NET4**  
age-friendly



  
EUROPEAN COOPERATION  
IN SCIENCE & TECHNOLOGY



Funded by the Horizon 2020 Framework Programme  
of the European Union

Public authorities,  
standards  
organisations

Academics and  
scientists

Citizens

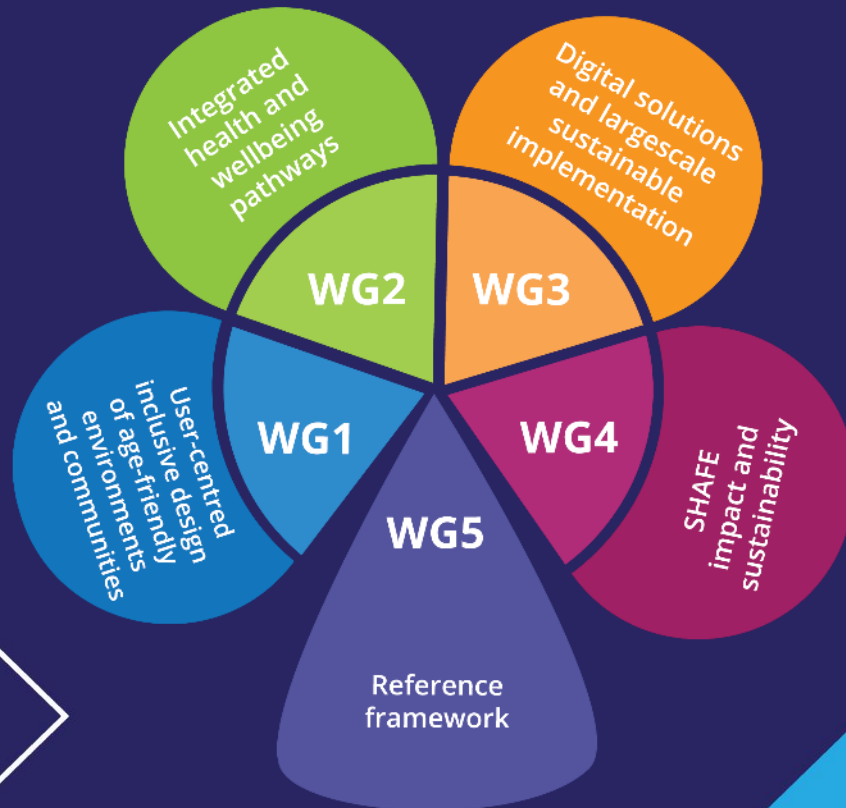
Businesses, caregivers,  
and non-governmental  
organisations

**MANAGEMENT COMMITTEE**  
**124 MEMBERS**

**FULL NETWORK**  
**+270 researchers**

Establishment of local or regional ecosystems to work on  
**health & wellbeing in an age-friendly digital world.**

With citizens, public authorities, businesses, NGOs and researchers.  
They will be supported by 5 **Working Groups**.



# Hands-on SHAFE

Erasmus+ project to develop online trainings for volunteers and entrepreneurs to implement SHAFE (2019-2022)



**NET4**  
age-friendly

In the following slides:  
SHAFE good practices/examples

 **cost**  
EUROPEAN COOPERATION  
IN SCIENCE & TECHNOLOGY



Funded by the Horizon 2020 Framework Programme  
of the European Union

# SMART environments

Digital or ICT applications are everywhere. For example: smartphones, internet and WIFI at home, streaming services, and digital watches. The devices and software need to be user-friendly designed, safe to use, supportive to citizens and offer reliable data handling.



## Smartphones

Phones with iOS or Android provide many functionalities such as internet, data, social media, games.



## Smart home technology

WIFI, home sensors, internet: comfort, health advice and monitoring, independent living support



## Outdoor smart technology

Wearables, smart lighting, transport support orientation and an active lifestyle

## Special tablets for older adults

---

Tablets with large buttons and an easy-to-use interface are especially designed for seniors.

For example: Acorn: a standalone tablet with integrated mobile data SIM to connect to internet; or

Grandpad: a tablet with large buttons and intuitive interface. Easy to use for communication

([www.grandpad.net](http://www.grandpad.net)) or

Senior Tablet is a tablet for connection with caregivers  
([www.mymemorylane.com](http://www.mymemorylane.com))



## E-Connection with doctor

---

The Beter Dichtbij app (Better near) can be freely downloaded in the App store or Google play. The doctor or nurse invites the user to use Beter Dichtbij. With the app, people can send a photo or a file to their doctor. Also you can consult the doctor while you are at home (Thuisarts.nl).

[www.beterdichtbij.nl](http://www.beterdichtbij.nl)



## Smartphone for seniors

---

An affordable smartphone (EUR 90) with special age-friendly application that allow users with visual impairments or hand trembling to use the phone without problems.

<https://www.maxcom.pl/pl/smartfony/384-maxcom-smart-ms553-fs-lte-5908235974200.html>

Another nice example comes from Ireland:

<https://www.emporiatelecom.ie/products/overview/>



## Wearables

---

Wristwatches but also apps on the smartphone to measure steps, report activity, monitor vital functions, or sends an alarm, can support active and healthy ageing. Because they provide information on one's progress of walking, health and so on.

It can help to do a little better next time (go from 1000 steps, to 2000 steps and further) or it reassures because one sees the heartbeat is okay and if needed, help is near.



## WhatsApp Neighbourhood watch

---

Neighbours in a street and volunteers in neighbourhoods or larger communities create a WhatsApp group. Sometimes also the local police officer participates in the group. The group warns each other in case of emergencies, suspicious people or vehicles etc.



## Social robots

---

Tessa is a social robot for people at a certain phase of dementia. It is an agenda, supports day structure, suggest activities and provides reminders

([www.tinybots.nl/particulieren/home](http://www.tinybots.nl/particulieren/home))

Many other examples exist.



# HEALTHY environments

Healthy environments support people to remain active and prevent from certain diseases. Healthy environments are safe and inviting, promote physical activity and participation in society.



## Healthy lifestyle

Food, physical activity, moderate use of alcohol and tobacco, relaxation, good mental health support wellbeing and health



## Medicines and therapies

Pharmaceutical treatment, physical activity therapy, music therapy, rehabilitation trainings support to recover or live with a disease or impairment



## Caretaking

Taking care of people who struggle with chronic diseases or impairments, such as dementia, Parkinson's disease, mobility problems, mental problems

## Walking, running, being outdoors

---

Being outdoors for a walk, run or just sitting in a park is good for health. Physical activity supports the fitness of the body. Walking outdoors is good for mental health and self-esteem.

It is cheap and easy and can be done everywhere.



## Fitness training

---

Physical exercises support your body muscles, bones and brain. Also it can help with weight loss.

<https://www.landessportbund-hessen.de/geschaeftsfelder/sportentwicklung/gesundheitssport/>



## Meeting other people

---

In Ireland, a men's shed is a place where men can share their feelings in an incidental way, and in a secure, respectful and friendly atmosphere, while working on practical projects such as gardening, repair and refurbishment or community activities.

In The Hague, in every neighbourhood there are places to meet for a cup of coffee or talks.



## Network for people with dementia

---

Dementia is a disease that mainly affects older people. The main symptoms are that it steals memories, decreases the ability to speak, decreases the ability to recognize people and people lose the knowledge of place and time.

There is no effective treatment to dementia yet. Some dementia networks:

[www.bensheim.de/leben-in-bensheim/demographie/demenz-und-pflege.html](http://www.bensheim.de/leben-in-bensheim/demographie/demenz-und-pflege.html)

<https://www.malibracia.org.pl/nasze-projekty/przystanek-alzheimer/>

National Alzheimer's Societies



## Medicines and therapies

---

In case someone is ill or has an impairment (permanent or temporary), medicines and therapies may be necessary. Such as pills described by the doctor. Surgery or therapy from a psychologist or physical activist.

In Kassel (Germany) they developed an online Stutter therapy (combination Health and ICT):

[www.kasseler-stottertherapie.de/](http://www.kasseler-stottertherapie.de/)



## Rehabilitation innovation kit

---

ReHab is a multidimensional kit of innovative technologies and traditional materials to promote cognitive stimulation and functional rehabilitation, whether individual and collectively, at home, through remote interaction.

[www.caritascoimbra.pt/project/rehab/](http://www.caritascoimbra.pt/project/rehab/)



# BUILT environments

Built environments that are accessible, user-friendly and inclusive support individuals to live, to work, to recreate and relax, to love and promotes their wellbeing



## Housing

Apartments and houses where people live support wellbeing and health



## Outdoor spaces and buildings

Public buildings, streets, pathways, motorways belong to outdoor spaces support social inclusion and health



## Mobility

Trains, buses, cars, bicycles are means of transport that are accessible and user-friendly

## Age-friendly housing

---

Accessible age-friendly housing equipped with supportive digital solutions is being realised everywhere across Europe.

Some examples with more information:

- [www.wijenizi.nl](http://www.wijenizi.nl)
- <https://zdrowie.pap.pl/senior/mieszkanie-przyjazne-dla-seniora>



## Mobile age-friendly housing advice

---

In Hanau (Germany) a mobile housing advice is available. This informs the citizens about the possibilities independent living and community support.

[www.hanau.de/vielfalt-leben/familie-und-kinder/mobilewohnbberatung/index.html](http://www.hanau.de/vielfalt-leben/familie-und-kinder/mobilewohnbberatung/index.html)

[www.serviceportal-zuhause-im-alter.de/praxisbeispiele/weitere-projekte/sonstige-projekte/mobile-wohnbberatung-hanau.html](http://www.serviceportal-zuhause-im-alter.de/praxisbeispiele/weitere-projekte/sonstige-projekte/mobile-wohnbberatung-hanau.html)



## Dementia-friendly walkable shopping route

---

To support the orientation of people with dementia, a dementia-friendly route was created in Rotterdam (Blokke om). Two routes marked with yellow or green can be followed. Extra benches, sidewalk entries and exit ramps are available.

<https://www.biind.nl/content/dementievriendelijke-wandelroute-in-rotterdam>



## Outdoor safety and maintenance

---

Safe and well-maintained outdoor places and buildings are explored and reported by older people and others. For example: the maintenance of sidewalks, traffic lights, street crossings.

[www.mobility-scouts.eu/wp-content/uploads/2018/05/Toolkit.pdf](http://www.mobility-scouts.eu/wp-content/uploads/2018/05/Toolkit.pdf)

<https://civity.nl/en/products-solutions/smart-reporting/>



## Sustainable energy housing

---

Compared to younger people, older people have more difficulty to keep warm themselves and must turn on the heaters. To reduce the usage of fossil fuels and to save costs, people are informed and encouraged to use other non-fossil fuel heating and electricity, such as solar panels on the roof of the house or wind energy.



# NET4

age-friendly



Carina Dantas  
carinadantas@shine2.eu



Willeke van Staalduinen  
willeke@afedemy.eu

## Thank You!