

# SHAFE Strategy Blueprint

A Holistic Approach for Sustainable  
and Age-Friendly Ecosystems

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## INTENDED USE

### Target DH innovation

Digitally-enabled solutions in support of sustainable and age-friendly ecosystems.

### Target audience

Social entrepreneurs who are looking for new intergenerational approaches to address health inequalities

Researchers who are interested to have an interdisciplinary perspective to address research gaps

Policy makers looking for an approach to foster innovation ecosystems facilitating the green and digital transitions

Innovators that develop environmental sensors to integrate in the built environment for different kind of detections

Architects, urban planners and designers, as well as investors in the built environment/construction industry to consider retrofitting and/or new buildings according to SHAFE principles

Habitat sector investors/industry interested in new interior design approaches and furniture according to SHAFE principles

Innovators that develop digital technologies, including AI tools and systems for use in healthcare.

Health and care provider, professionals and managers that are interested in integrated care approaches and pathways

Persons that assess AI systems or procure AI systems in healthcare may also find this blueprint useful to check supplied documentation on the suitability of the data used by an AI developer.

### Objectives of this blueprint

This blueprint outlines strategies to enhance the implementation of Smart Healthy Age-Friendly Environments (SHAFE). It addresses challenges such as limited policy integration, awareness gaps, and inadequate business models, offering a framework that promotes innovation, cross-sector partnerships, and sustainable investment in SHAFE solutions.

### Further reading

Main SHAFE initiatives:

- <https://shafe.eu/>
- <https://www.net4age.eu/>
- <https://sireneproject.eu/>

# BLUEPRINT

## 1

### Challenges

Despite the growing importance of creating environments that support the health and well-being of populations as they age, there are significant challenges that hinder their widespread adoption and success. They include:

**Siloed Policies:** Existing policies are often limited to health, care, and social welfare, with minimal integration between sectors.

**Low Awareness of SHAFE:** Limited understanding and promotion of SHAFE (Smart Healthy Age-Friendly Environments) at both public and policy levels.

**Lack of Business & Funding Models:** Lack of comprehensive business and funding models tailored for SHAFE implemented at the country level.

**Private Investment Shortfall:** Insufficient promotion of private investment and public-private funding partnerships in SHAFE initiatives.

**Regulatory Gaps:** Lack of validation bodies to ensure the safety, effectiveness, and user-friendliness of digital health tools and SHAFE environments.

## 2

### Aspirations (Vision Statement)

SHAFE policies align with frameworks such as the **United Nations Sustainable Development Goals (SDGs)**, focusing on sustainable environments, health equity, and well-being, with the main goals:

**To foster the development of SHAFE ecosystems** that empower people of all ages to live healthier, more connected, and independent lives through innovative policies, integrated services, and sustainable funding models.

**Establish SHAFE as a new interdisciplinary field** that bridges health, social care, technology, and built environment to address the growing demands of an ageing population.

## 3

### Focus Areas

Key domains essential for advancing Smart Healthy Age-Friendly Environments (SHAFE). These areas prioritize a multidisciplinary

**Policy Innovation** centered on developing integrated frameworks that bridge health, social care, information and communication technology (ICT), and urban planning, creating a cohesive and supportive environment for healthy living.

**Regulatory frameworks** that ensure the validation and safety of emerging health technologies, promoting the efficacy of digital health tools.

**Business models** that prioritize sustainability and innovation, incorporating nature-based solutions, assistive technologies, and social enterprises. *Nature-based solutions* focus on integrating green and blue spaces into urban settings

approach, combining policy and business innovation, education, and cultural shifts to create sustainable and inclusive health and social care ecosystems. More specifically:

to promote physical and mental well-being. *Assistive technologies* enhance independent living and social inclusion. *Social business models* combine profitability with social impact, addressing societal, environmental, or community challenges through market-driven solutions.

**Education and Training** to promote interdisciplinary learning through specialized programs, such as Master's or MBA degrees in SHAFE, that blend health, care, architecture, and social sciences. This educational approach fosters transversal skills essential for creating holistic care solutions.

**Increased R&D Funding** to encourage investment in research and development to drive innovation in health and social care, supporting new technologies and fostering competitive grant opportunities, challenges, and competitions that stimulate the creation of cutting-edge care models.

**Cultural Shift** to build well-being literacy and encouraging practices that support the objectives of SHAFE, fostering a societal mindset focused on health, inclusivity, and sustainability.

## 4

### Guiding Principles

In developing Smart Healthy Age-Friendly Environments (SHAFE), a set of guiding principles is essential to ensure that these initiatives meet the complex needs of aging populations while fostering innovation and inclusivity. These principles include:

**Person-Centered Design:** Prioritizing the unique needs of citizens in all SHAFE initiatives, ensuring healthy, accessible, adaptive, flexible and empowering living environments.

**Interdisciplinary Collaboration:** Encouraging cooperation across sectors—healthcare, technology, architecture, and social care—to develop sustainable, age-friendly solutions.

**Public-Private Partnerships:** Fostering investment partnerships between government and private sector entities to fund SHAFE projects.

**Continuous Learning & Innovation:** Promoting the development of specialized skill sets and support lifelong learning to keep pace with SHAFE-related innovations.

**Sustainability & Scalability:** Implementing solutions that are sustainable, scalable, and adaptable to diverse local, regional, and national contexts.

## 5

### Activities

The following activities outline a comprehensive

**Risk Assessment:**

- Perform a maturity assessment of the local SHAFE innovation ecosystem.
- Identify weak areas (SWOT analysis), rank these areas for further action
- Plan risk mitigation measures to based on areas importance and feasibility.

approach to fostering the development of a Smart Healthy Age-Friendly Environments (SHAFE) ecosystem.

**Data Flow Management:**

- Identify and collect data necessary to implement SHAFE across prioritized policy areas such as environment, social welfare, and health.
- Examine the availability of these data elements per data source, *considering the possible requirement to utilise NLP to complement the structured and coded data.*
- Plan collaborative approaches to collect data (surveys, etc.) that may not be already available

**Good Practice Identification:**

- Identify, analyze, and adapt transferable good practices in areas such as education, funding, housing, and health.
- Collaborate with EU and national policymakers to integrate SHAFE into health, urban planning, and social policies.
- Advocate for innovation incentives such as tax breaks and prioritize SHAFE technologies in public procurement.

**Stakeholder engagement:**

- Identify and engage local key stakeholders to create an active SHAFE ecosystem.
- Support iterative implementation of good practices and continuous improvement through collaborative efforts.

**6 Outcomes**

**Comprehensive Business Models:** New business models for SHAFE, covering assistive technologies, nature-based solutions, and social enterprises, fostering sustainable and innovative ecosystems.

**New Job Creation:** Creation of specialized roles like digital health specialists, SHAFE housing specialis, community health workers, data analysts, and patient advocates.

**Educational Advances:** Development of interdisciplinary academic programs (e.g., MA/MBA in SHAFE) to equip professionals with the skills needed to advance SHAFE ecosystems.

**Sustainable and Inclusive Urban Planning:** Cities and regions adopting inclusive urban planning and housing policies that foster age-friendly designs and healthier living spaces.

**Robust Data Systems:** Efficient data collection, analysis, and sharing mechanisms to inform evidence-based policies and practices in SHAFE implementation.

**Increased Awareness and Policy Integration:** A rise in SHAFE awareness and integration into national and EU policies, contributing to cohesive age-friendly environments.