EUROPEAN AGEING NETWORK

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Position Paper

New technologies and AI in European elderly care:

A call for human-centered innovation based on European values

Summary

European elderly care is at a defining crossroads. Driven by demographic shifts, chronic staff shortages, escalating care costs, and growing demands for personalised, dignified support, the current system is no longer sustainable. At the same time, rapid advances in Artificial Intelligence (AI) and digital technologies present both unprecedented opportunities and complex ethical challenges. This discussion note outlines a vision for a European digital transformation in elderly care - one that embraces innovation while firmly rooting it in human rights, individual autonomy, and community-based support.

Rather than allowing technology to dictate the future of care, the European Ageing Network proposes a proactive, value-based approach in which new technologies and AI act as a supportive tool – not a substitute – for human connection. EAN explores how new technologies, AI companions, predictive analytics, and digital ecosystems can enhance well-being, autonomy, and safety, especially when guided by the principles of Positive Health. However, we emphasise that these tools must be designed and governed according to European values: ethics, privacy, inclusivity, and the primacy of the individual.

This note compares global models – European, US, and Chinese – to highlight the strategic choices the European Union must make. While the US emphasises market efficiency and China focuses on scale and state coordination, the EU has the opportunity to develop new technologies and their employment, and to lead with dignity, transparency, and democratic oversight.

To ensure this, EAN calls for:

- Structural reforms and sustainable financing to enable predictive, preventive, and person-centered care;
- Investment in digital skills and ethical leadership among caregivers and management;
- Strong regulatory alignment with the EU AI Act and GDPR, with federated data governance models;
- A European AI and elderly care model that seizes technological opportunities while reinforcing – not eroding – fundamental rights.

Ultimately, EAN proposes anchoring this transformation in a renewed interpretation of the European Charter of Fundamental Rights, ensuring that emerging technologies and AI systems support – not replace – dignity, autonomy, and well-being for all older people. The time to act is now. The European Union must lead with foresight, responsibility, and a steadfast commitment to putting people before technology.

Prague, 30 October 2025

Position Paper

Introduction

European elderly care is currently at a turning point. Demographic trends, increasing staff shortages, rising (health)care costs, and a growing demand for person-centered care on the one hand and technological innovations call for a fundamental reform.

There is a need for a powerful vision of this transition, which places people, not technology, at the center, with artificial intelligence and technology serving as an enhancing factor. This document translates these insights into the context of European elderly care, focusing on digital companions, social networks, individual autonomy, ethics, and the structural impact of these developments and compares European models against US and Chinese ones – to underline the fundamental differences and principles for a proper EU model.

The paradigm shift in health and elderly care

In its Long-term care vision 2030 the European Ageing Network (EAN) called for a paradigm shift – a fundamental change in the assumptions behind the EU health and elderly care systems. Health and care must evolve from a reactive, medically centered model to a proactive, person-centered model in which health and well-being is central (cf. EAN's statement "Less medical, more social"). Key aspects of this shift include:

- From illness and treatment to health and prevention
- From provider as authority to citizen as partner
- From standardised care to personalised support
- From fragmentation to integrated networks and ecosystems

Putting people before technology: A human-centered digital transformation in elderly care

As European providers of elderly care, we stand at a critical juncture:

- our societies are ageing
- our care systems are under pressure
- technological advancements are accelerating
- the EU is depending on other power bloc's technology and AI models while there is a need for a proper, on own values based European model

Embracing Positive Health as a foundation for elderly care innovation

A crucial element in re-thinking elderly care in the EU is the integration of the concept of Positive Health, which expands the definition of health beyond the absence of disease. Positive Health emphasises individuals' ability to adapt, maintain autonomy, and find meaning and purpose in life – even in the presence of chronic conditions. This broader, person-centered approach aligns closely with the European vision of dignity-driven, preventive, and integrated care systems. In this context, new technologies and AI can play a supportive role by helping to monitor and enhance various dimensions of well-being – physical, emotional, social, and existential. Predictive technologies should not only identify clinical risks but also promote resilience, social participation, and personalised life goals. Embedding Positive Health in both care design and technological and AI development ensures that it serves holistic well-being rather than just biomedical efficiency. It is a call to reframe elderly care around what people value most: connection, autonomy, and purpose.

AI Companions: Balancing innovation and human connection in elderly care

Among the most visible and debated applications of AI in elderly care are AI companions: digital assistants or avatars designed to provide cognitive support, social interaction, and daily monitoring for older adults. These tools hold considerable promise: they can help alleviate loneliness, offer reminders for medication or appointments, and even detect early signs of cognitive or emotional decline. For overburdened care systems, AI companions offer scalable support and continuity of contact in both home and institutional settings.

However, their use also raises complex challenges. There is a fine ethical line between companionship and substitution, between empowering older adults and increasing their dependence on impersonal technologies. Concerns around privacy, emotional authenticity, and digital consent must be addressed, especially for vulnerable individuals. A European approach must ensure that AI and AI companions are embedded within broader, human-centered care networks and remain clearly positioned as supplementary, not substitutive, to human relationships. This requires transparent governance, inclusive design, and the continuous involvement of caregivers, families, and older people themselves in development and deployment. Done rightly, AI companions can be part of a future where digital tools enhance autonomy, connection, and safety, without eroding dignity, trust, or the essence of human care.

CALL #1

EAN calls on the European Union and Member States to ensure supportive regulatory frameworks, sustainable funding mechanisms, and inclusive public dialogue on the future of digital elderly care. We must act with foresight, responsibility, and commitment to human dignity.

EAN affirms its support for a new model of elderly care rooted in the principles of technology serving people, not the other way around. EAN calls upon European institutions, Member States, funders/insurers, and technology providers to align with the following core commitments:

1. Autonomy and sovereignty for older people
Every older person must have the right and ability to control their own health data, choose their digital support systems, and make informed decisions, with or without AI assistance.

2. Ethics, privacy, and trust by design
AI and digital tools in elderly care must be developed and deployed transparently, ethically, and securely. Federated learning and data minimization should be standard to protect privacy while enabling valuable insights.

3. Technology as a companion, not a replacement
EAN supports the responsible use of digital companions and predictive tools, not to replace human contact, but to enhance daily living, prevent crises, and support emotional well-being.

4. Integrated, community-based care ecosystems
Digital tools must help bridge gaps between formal and informal caregivers, enabling collaborative, neighborhood-anchored care networks that promote prevention, social inclusion and reduce isolation.

5. A digital mindset for all
We commit to training both caregivers, their management and older adults in digital literacy, building confidence and agency in navigating new technologies.

6. A shift from treatment to prediction and prevention
Digital innovation should prioritise independent living, health promotion, early detection or prediction, and preventive action – strengthening individual resilience and reducing long-term costs.

7. Preserving humanity in care
Technology should alleviate administrative burdens, not increase them, allowing caregivers to focus on what matters most: well-being, support, human connection, empathy, and personal guidance.

The role of AI in predictive and preventive elderly care

Artificial intelligence is a key driver in shifting from reactive to predictive and preventive care, particularly in the context of elderly care. AI can analyse large volumes of health, behavioral, and environmental data to identify early warning signs, forecast health risks, and suggest timely interventions, helping to prevent crises before they occur. This includes fall prediction, early detection of cognitive decline, and personalised health monitoring based on individual patterns. Moreover, AI-powered tools can support care professionals with real-time decision support, reduce administrative burden, and enable personalized care plans that evolve dynamically. For policymakers and funders, AI offers insights to design risk-based, population-wide preventive strategies and optimise resource allocation. However, for this potential to be realised in a European context, AI must be developed and deployed in alignment with European values, ensuring transparency, data privacy, ethical oversight, and inclusion. When integrated responsibly, AI becomes a powerful catalyst for more proactive, efficient, and human-centered elderly care systems across the European Union.

Accelerating the shift to predictive and preventive elderly care

The transition from reactive treatment to predictive and preventive care is not a vision for the future. It is an urgent necessity in an ageing European society. This transformation requires a fundamental redesign of our care systems and bold political leadership. EAN calls on governments and European institutions to urgently facilitate the structural reforms needed to enable these new care models. This includes the development of sustainable financing mechanisms that actively reward, rather than hinder, preventive interventions and digital support. In addition, EAN urges the allocation of targeted incentives and transitional funding to empower care providers, technology developers, and local care networks to accelerate this paradigm shift. Only through strong and coherent policy-centered on health rather than illness—can we harness technology to deliver dignified, human-centered elderly care across Europe.

CALL # 2

The European Union must lead with responsible innovation that prioritises dignity, trust, and equity for older people. EAN calls on European Union Member States:

- to urgently facilitate the structural reforms needed to enable these new care models
- to uphold strict ethical and privacy standards in all AI applications in elderly care
- Promote federated learning and decentralized data control to safeguard personal sovereignty
- to invest in community-based, inclusive care ecosystems, where digital tools strengthen – not fragment – social cohesion
- to develop sustainable financing mechanisms that actively reward—rather than hinder—preventive interventions and digital support. In addition, we urge the allocation of targeted incentives and transitional funding to empower care providers, technology developers, and local care networks to accelerate this paradigm shift
- to ensure human judgment and empathy remain central in care delivery, even as AI becomes more predictive.

The need for a specific approach of new technologies and AI by the European Union

As new technologies and artificial intelligence increasingly shape the future of healthcare and elderly care, global powers have adopted distinct approaches grounded in their unique cultural, political, and ethical foundations. The European Union, United States and China each present sharply contrasting models that reflect deeper philosophical commitments, whether prioritising human dignity, market efficiency, or national strategy. This comparative analysis explores how these core values influence the deployment of AI in elderly care, ethical and regulatory frameworks, governance structures, and data use. Understanding these differences is essential to navigating the global landscape of AI in health and ageing, where technology's role in care is as much a reflection of societal values as it is a matter of innovation.

1. Core philosophy and values

European Union :

- Human-centered, autonomy-driven model
- Technology as a servant of dignity and personal agency
- Strong emphasis on ethics, privacy, and trust
- Balance between innovation and social cohesion

United States:

- Innovation – and market-driven model
- Focus on consumer choice and private sector-led solutions
- Strong individual rights rhetoric but less regulated data privacy environment (compared to EU GDPR)
- AI seen as a competitive advantage and cost-reduction tool in health and care delivery

China:

- State-centered and efficiency-driven model
- Emphasis on collective well-being and social stability
- Rapid scaling of AI and smart care infrastructure with less emphasis on individual consent
- Data is viewed as a national strategic asset; public-private partnerships dominate innovation

2. Role of Technology in elderly care

European Union:

- Technology is an enhancer, not a replacement for human care
- Preference for federated learning to protect data
- Nudging and predictive tools must respect freedom of choice
- Emphasis on local, community-based care networks

United States:

- Widespread adoption of AI for efficiency, remote monitoring, and cost reduction (e.g., Medicare Advantage programs)
- Use of wearables, voice assistants, telehealth platforms by tech giants (Amazon, Google, Apple)
- Private data often used for personalized marketing and care optimization
- Digital tools can replace some human interaction (e.g., elderly care robots, AI triage

China:

- Extensive use of smart elderly care cities, facial recognition, health scoring, and centralized monitoring
- AI used to predict, track, and intervene in health behaviors at scale
- State-driven integration of medical, social, and familial data
- Technology often embedded in community services and surveillance systems

3. Ethical and Regulatory Frameworks

European Union:

- Strong regulatory frameworks (e.g., GDPR, AI Act)
- Emphasis on consent, transparency, and ethics-by-design
- AI applications must undergo ethical review and maintain human oversight

United States:

- Regulation is fragmented (HIPAA, state-level laws, sectoral rules)
- Ethics largely left to corporate responsibility and professional standards
- Less comprehensive oversight of AI in healthcare, though growing calls for it (e.g., NIH and FDA guidance)

China:

- Emerging regulations (e.g., Personal Information Protection Law, AI guidelines), but state surveillance and data access remain central
- Ethical concerns are subordinated to social harmony, public health, and technological leadership
- Rapid piloting often precedes ethical review

4. Funding and governance

European Union:

- Strong public funding with strong local and national co-ordination
- Focus on inclusive access and social justice
- Pilots and scaling must be co-designed with communities and caregivers

United States:

- Mixed public-private system with strong venture capital influence
- Medicare/Medicaid support digital health only under certain models
- Innovation often led by startups and health tech giants

China:

- State-driven funding and direction, often in partnership with large tech firms (e.g., Alibaba Health, Tencent)
- Government sets strategic goals for AI and elderly care integration
- Smart elderly care included in national aging strategies and 5-year plans

Dimension	European Union	United States	China
Core Values	Autonomy, dignity, ethics	Innovation, efficiency, choice	Harmony, efficiency, scale
Tech Role	Enhancer of human care	Market tool, partial substitute	Integrated control + care
Privacy & Ethics	High regulatory standards	Corporate-led, emerging laws	State-prioritized, evolving
Governance	Public, decentralized	Private-sector driven	Centralized state + tech
Citizen Involvement	Co-design and agency	Consumer participation	Limited, top-down

The core differences between US, Chinese, and to be developed European AI models stem from technological, political, ethical, and regulatory environments. Here's a breakdown of the most significant differences across those regions:

United States – Tech-driven and market-first

1. Market orientation
- Driven by private companies: OpenAI, Google DeepMind (formerly UK but now mostly US-led), Meta, Anthropic, etc.
- Focus on innovation, speed, and market dominance.

2. Data use
- Relatively permissive data policies compared to Europe; companies often train models on large, open-source or scraped datasets.
- Often skates the edge of „fair use" interpretations in training.

3. Regulation
- Light-touch regulation (so far): Focus on self-regulation, voluntary commitments (e.g., White House AI Safety Pledge), though this is beginning to change (e.g., AI Executive Order in 2023).

4. Model development
- Cutting-edge, large-scale foundation models (e.g., GPT-4, Gemini, Claude).
- Focus on general-purpose AI (AGI path) and multimodal capabilities.

China – State-guided and censored innovation

1. Government-led strategy
- Strong state direction and oversight: AI is part of China's national strategy („Next Generation Artificial Intelligence Development Plan").
- Companies like Baidu, Alibaba, Tencent, and iFLYTEK are closely aligned with state objectives.

2. Content censorship
- Tight content controls: AI models must align with Chinese political and social values.
- Censorship is embedded at the dataset and model response levels.

3. Data
- Access to massive domestic datasets, but limited access to global open data due to restrictions (e.g., firewall).
- Broad state access to data for surveillance and national security purposes.

4. Regulation
- Early and proactive regulation: Rules for recommendation algorithms (2021), deepfakes (2022), and generative AI (2023).
- Models must be reviewed before public release.

CALL #3

EAN calls for a European approach, essential for ethical and inclusive AI in elderly care. In the face of rapidly advancing new technologies and artificial intelligence, EAN firmly advocates for a European approach to AI development and deployment, one that centers ethics, transparency, and human dignity. Unlike the profit-driven or state-controlled models seen in the United States and China, Europe offers a distinct path rooted in democratic values, strong regulatory safeguards, and respect for fundamental rights. The EU's landmark AI Act sets a global precedent for responsible innovation, ensuring that technology enhances human care. With its risk-based regulation, commitment to data privacy under GDPR, and focus on open, explainable systems, the European Union is uniquely positioned to lead the development of AI that serves the public good, particularly in the sensitive domain of elderly care. EAN calls on policymakers, researchers, and care providers to reject one-size-fits-all or commercially biased models and to champion an alternative rooted in solidarity, trust, and long-term social well-being.

EAN calls for an alternative modelling with the following core elements:
1. Ethics and human rights focus
- Strong emphasis on AI safety, transparency, and human rights.
- Influenced by GDPR and precautionary principles.

2. Regulation
- The EU AI Act (2024) is the most comprehensive AI regulation globally.
  - Risk-based classification of AI systems.
  - Strict rules for high-risk applications (e.g., facial recognition, healthcare).
  - Requirements for transparency, data governance, and human oversight.

3. Development landscape
- Slower pace compared to US and China; fewer tech giants.
- More public-private research (e.g., Hugging Face in France, Aleph Alpha in Germany).
- Focus on open science and transparency (many European models are open source).

4. Data privacy
- Strict data use limits under GDPR.
- Limits training data access, particularly for large foundation models.

Feature	European Union	China	US
Primary drivers	Ethics, public interest	State policy, control	Private sector, innovation
Regulation style	Heavy and rights-based	Proactive and restrictive	Light-touch (so far)
Data policy	GDPR-compliant, privacy-heavy	Censored, domestic-focus	Flexible, commercial-use data
AI use restrictions	Risk-based bans and controls	Politically enforced	Minimal
Model characteristics	Transparent, explainable	Aligned with political goals	General-purpose, multimodal
Open Source?	Common (e.g., Mistral, BLOOM)	Rare	Mixed (e.g., Meta vs. OpenAI)

Building competence for human-centered innovation

A sustainable and ethically grounded transformation in European elderly care requires a major investment in the skills and competencies of both healthcare professionals and care management. As AI and digital technologies reshape care delivery, the success of this transition hinges on a well-trained, adaptable workforce that can integrate technological tools without compromising human connection or dignity. A European approach must emphasise continuous, interdisciplinary training rooted in core values—ethics, autonomy, trust, and community-based care. This includes equipping managers with leadership skills in digital strategy, data governance, and change management, while empowering frontline caregivers with digital literacy and tools for proactive, person-centered support. Cross-border learning networks, EU-supported certifications, and public-private educational partnerships can foster a shared standard of excellence and innovation in elderly care. By aligning training initiatives with Europe's human-centered model, we ensure that technology enhances—not replaces—the empathy, expertise, and social cohesion at the heart of quality care.

Towards a European human rights-based framework for Positive Health and AI

Integrating the concept of Positive Health into elderly care also invites a broader reflection on the European Charter of Fundamental Rights. As digital technologies and AI increasingly influence health, autonomy, and personal agency, there is a growing need to articulate how fundamental rights apply in this new context. The right to human dignity, privacy, health, and personal data protection must be reinterpreted and potentially expanded to safeguard older individuals' autonomy in the age of predictive systems and digital companions. A European addendum or interpretive framework to the Charter could clarify citizens' rights in relation to AI in health and care, ensuring that technological innovation reinforces—not replaces—human values. Such a move would not only solidify Europe's leadership in ethical, human-centered digital development but also offer a principled counterbalance to more commercially or state-driven models emerging globally. Aligning Positive Health with fundamental rights could thus anchor elderly care transformation in a robust legal and ethical foundation.