

INSTITUTE FOR
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Beyond the Project Lifetime – Long-Term Pathways of Innovation in the AAL Programme

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Impact Assessment**

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Introduction: From Success Story to Legacy

When the Active Assisted Living (AAL) Programme began highlighting Success Stories, its aim was not only to celebrate individual project achievements but also to demonstrate how public funding in the ageing and care technology domain could yield lasting social and economic value. Fifteen years later, the question has evolved: *what remains?*

This report therefore looks beyond short-term results and explores the long-term trajectories of seven former Success Stories – ROSETTA, 2PCS, Mylife, AALuis, iWalkActive, FEARLESS and IronHand. Each case combines interview-based evidence and desk research to understand how the projects matured, which obstacles they faced, and what lessons they offer for the future of European innovation in active and assisted living.¹

From early prototypes to mature ecosystems

The selected projects span the diversity of the AAL Programme: from data-driven home monitoring (ROSETTA) and wearable communication systems (2PCS) to cognitive support (Mylife) and robotic assistance (IronHand). Together they illustrate how AAL has gradually shifted from technological experimentation to market orientation.

Several projects, such as ROSETTA and 2PCS, have grown into companies serving care organisations across Europe. Others, like IronHand and FEARLESS, have evolved into certified medical or safety products used at scale. Projects that did not reach commercialization – AALuis or iWalkActive – produced valuable knowledge capital that continues to shape usability research and next-generation design.

The importance of time and persistence

One of the insights from all case studies is that impact unfolds slowly. Nearly every successful outcome required five to ten years after project completion to reach maturity. The FEARLESS and IronHand trajectories, for instance, show that the path from prototype to marketable product involved multiple iterations, new funding sources and continuous learning. This long maturation phase challenges the common three-year funding cycle and underscores the need for patient public and private investment.

At the same time, persistence at the organisational level proved decisive. Projects that maintained a stable core team and continuity of partnerships were far more likely to sustain results. In contrast, projects that dissolved immediately after the funding period – such as AALuis or iWalkActive – retained scientific relevance but lost momentum for exploitation.

Partnerships that create continuity

Every case confirms that trusted partnerships are the backbone of sustainability. End-user organisations and care providers were not only testing grounds but often became launching customers, as in the case of ROSETTA and FEARLESS. Long-term collaboration between research and industry – exemplified by Roessingh R&D and Bioservo in IronHand – enabled continuous product evolution and clinical validation.

Equally, many projects demonstrate the catalytic effect of the AAL network itself: participation in AAL Forums, matchmaking events and cross-national consortia helped small and medium enterprises expand beyond their domestic markets. The personal and institutional trust built during these collaborations often persisted for a decade or more.

¹ Notably, while these stories offer valuable insights into the evolution of early AAL projects, additional success stories identified in the 2023 and 2025 editions of the impact assessment further enrich our understanding of how recent innovations have fared in similar contexts.

Learning from the past

Not every AAL Success Story resulted in a profitable product – and that in itself provides valuable evidence. Projects such as AALuis and iWalkActive show that even technically sound innovations can fail without the right market alignment. High production costs, lack of reimbursement schemes, and missing industrial partners were recurring barriers. Yet these cases also enriched the overall knowledge base by clarifying where structural constraints in European health and care systems limit adoption.

The early AAL Success Stories analysed in this report originated at a time when digital solutions for ageing were still a relatively new field. Many of these projects initially focused on supporting older adults to live independently at home. In hindsight, it becomes clear that this specific application context proved difficult to sustain: most solutions ultimately found their viable use cases within professional health and care settings rather than private households.

Importantly, this shift should not be interpreted as a failure of the AAL approach. As demonstrated by the AAL legacy analysis and the larger number of success stories identified in the 2023 and 2025 impact assessments, these early experiences directly informed later programme design. Subsequent calls increasingly featured more market-oriented consortia, a stronger role for SMEs as lead partners, and a clearer integration of professional and institutional users. At the same time, the broader digital landscape has evolved significantly, creating more favourable conditions for adoption and scaling. In this sense, the trajectories described in this report reflect a learning process that shaped – and continues to shape – the AAL Programme's long-term impact.

By tracing how early AAL projects evolved, adapted, or inspired follow-ups, this report connects individual achievements to a collective narrative – one that understands impact as cumulative, relational, and built over time.

Case Studies: Creating Impact

2PCS – From Wearable Safety to Wireless Infrastructure: How One AAL Project Found Its Market Niche



2PCS began as an AAL-funded project to develop a wearable device for emergency communication and positioning, supporting the autonomy and safety of older adults. What started as a multifunctional security watch evolved into a robust wireless nurse call system now used in care facilities across Europe. With a consistent team, stable business model, and sustained partnerships, the project is a clear example of long-term impact. 2PCS shows how early public funding – combined with strategic adaptation – can enable lasting innovation in the care sector.

The 2PCS project aimed to develop a wearable device that combined emergency communication with indoor and outdoor locating, enhancing safety and autonomy for older adults. It addressed the needs of care-dependent individuals and professional caregivers by enabling real-time alerts, positioning, and two-way communication. The core technology – a watch-like device and indoor tracking infrastructure – was market-ready at project's end, with only minor adaptations for serial production. Over 2,500 units were produced, and the original firmware is still in use. 2PCS was selected as an AAL Success Story for its strong user focus, technical maturity, and successful market transition. It laid the groundwork for a sustainable product line within institutional care settings.

Sustained Outcomes

The original 2PCS technology served as the foundation for a commercially available product, and its core components – firmware, printed circuit board (PCB) design, and communication protocols – are still in use today. While the initial wearable device had limited uptake, it led to the development of a more streamlined version with fewer features and longer battery life, which proved more viable in early markets. Over time, the team pivoted toward a wireless nurse call system based on the same platform, which has become the company's main product and is now deployed in 40–50 care settings per year. Key institutional partnerships, including long-standing ties with casing and hardware suppliers, supported the product's evolution. The 2PCS team also retained its core technical staff and founding partners, enabling continuity and sustained innovation.

Being featured as an AAL Success Story validated the project's strong focus on technical reliability and user needs, and helped boost its visibility within the European care technology community. It also reinforced the project team's decision to transition from research to entrepreneurship, resulting in the foundation of a company in 2016. Participation in the AAL Forum and programme-wide dissemination activities helped 2PCS build international partnerships, particularly in Switzerland, Germany and the Netherlands. The recognition and credibility associated with the AAL brand were instrumental in attracting early pilot customers in a risk-averse market. The project's story continues to serve as a reference point for well-executed transitions from prototype to product.

Barriers and Challenges

One major barrier was the lack of willingness to pay for advanced safety and localisation features in the care sector, especially in German-speaking countries. Although the technology was ready, public and private care providers lacked funding mechanisms to adopt such innovations. The team realised that selling optional add-ons was not sustainable and instead pivoted toward the mandatory nurse call system market, where demand is regulated and procurement more structured. Another challenge was the long time-to-market: it took nearly four years after project completion to begin sales, due to product casing delays and certification needs. Entering the market as a new player also meant overcoming customer scepticism and proving long-term viability in a conservative industry.

Partnerships & Networks

Long-term success was made possible by sustained partnerships with several original project participants. Two key institutions – the University of Innsbruck and the European Academy Bozen – became co-founders of the company and remain involved today. The core development team from the project is still intact, providing rare continuity in hardware, software, and business development. External partners, such as Odenwälder Kunststoffwerke GmbH (casing supplier) and Kontron (PCB manufacturer), played a crucial role by offering both technical reliability and flexibility in payment terms during the early growth phase. 2PCS also maintains a close relationship with Austrian system integrator FAWO, and has nurtured informal ties with Dutch and Swiss partners first encountered through the AAL ecosystem. These networks were essential for market access and credibility.

The business model developed during the 2PCS project proved remarkably robust, remaining largely unchanged since the project's end. Even pricing structures defined in the original AAL business planning have been maintained. Initial success came through a simplified version of the original product, but the company later secured additional funding and strategically repositioned itself in the nurse call system market, which offers more stable demand. Today, 2PCS operates without loans or external investors, sustained entirely by revenue and

“The 2PCS project is probably the only one where we wouldn't change a thing. The constellation of partners, the business model, and the technology all aligned perfectly with what we needed – then and now. Even today, we operate with the same technical core and pricing structure we developed during the project.”

Felix Piazzolo, project coordinator 2PCS,
CEO at 2PCS Solutions GmbH

founder equity. By aligning with safety standards (DIN VDE 0834-1), 2PCS positioned itself as the only fully wireless provider pursuing formal certification – offering a clear competitive advantage.

Looking ahead, the company is now actively seeking sales partners and system integrators outside the German-speaking markets to expand its international reach. With a proven technology base, a strong position in regulated safety systems, and extensive experience in large-scale institutional deployments, 2PCS is well-prepared for cross-border collaboration. The team welcomes opportunities to connect with distributors, integrators, and care technology providers interested in bringing fully wireless nurse call solutions to new European markets and beyond.

Reflections: What Remains?

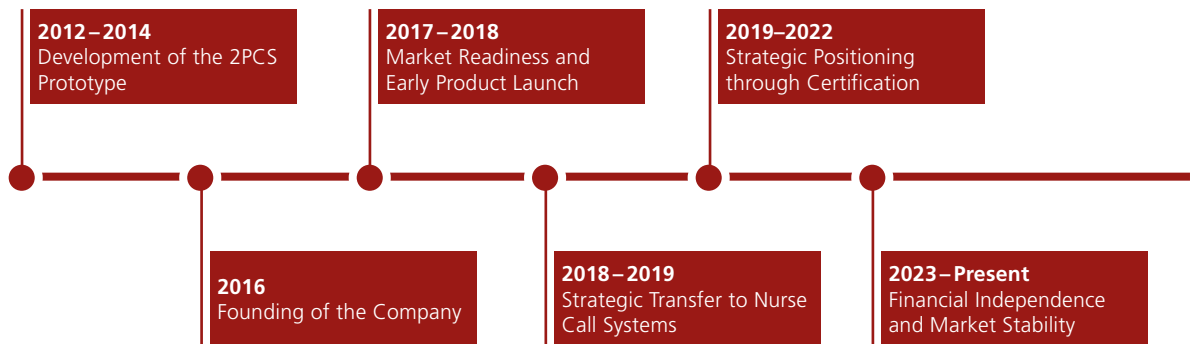
Looking back, the 2PCS team sees the project as one of the few where they wouldn't change a thing. The consortium composition, technical scope, and strategic direction were all well aligned with long-term goals. While a stronger early focus on nurse call systems might have accelerated success, such a direction likely wouldn't have qualified for AAL funding at the time due to lower perceived innovation. The team credits the AAL programme – not only for funding, but also for its business support services and networking platforms, which helped build key relationships across Europe. The experience

shaped how the company approaches both product development and partnerships to this day.

2PCS is a rare example of an AAL project that successfully transitioned from prototype to market while staying true to its original vision. Its core technology remains in use today, powering a new generation of certifiable, wireless nurse call systems used across Austria, Germany, and Switzerland. The project's real legacy lies in its stra-

tegic adaptability – pivoting from wearable safety tech to infrastructure solutions that meet concrete regulatory needs. With a stable company, consistent development team, and growing market share, 2PCS demonstrates how deep user insight, strong partnerships, and timing can turn early public funding into lasting innovation. Its story is a model for sustained impact in the ageing and care tech sector.

Milestones



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AALuis – The Invisible Innovation: How a Research Prototype Influenced Modern Accessibility Research

AALuis (Ambient Assisted Living user interfaces) set out to simplify how older adults interact with assistive technologies by developing flexible, device-independent user interfaces. The project tackled one of the biggest challenges of early AAL systems: fragmented, non-interoperable platforms. By enabling automatic adaptation of interfaces across TVs, tablets, and mobile devices, AALuis contributed important early impulses to what is now seen as modern accessibility design. While it never reached the market, it became a methodological and technical milestone in the AAL domain, influencing later research on usability and cross-device interaction in care technology. Its influence continues in follow-up projects that still draw on the architecture and insights first developed under AALuis.

AALuis (Ambient Assisted Living user interfaces) aimed to create a flexible, adaptive interface framework that could make AAL services accessible across different devices and user contexts. The project addressed the challenge of fragmented technology ecosystems, where applications had to be designed separately for TVs, tablets, and mobile phones. AALuis sought to build middleware that could automatically adapt content and interaction modes to user preferences, abilities, and devices. The target group included older adults and people with limited digital skills, who needed consistent and simple interaction with assistive services. At the time, this concept was highly innovative and technically complex, laying the groundwork for later developments in cross-platform usability and accessibility. The project was featured as an AAL Success Story for demonstrating the feasibility of universal AAL interfaces and advancing research collaboration in the field.



Sustained Outcomes

AALuis became a reference point for subsequent research and development projects within the participating organisations, particularly at AIT Austrian Institute of Technology. The project's middleware concept – allowing automatic adaptation of user interfaces across devices – continued to influence later AAL and ICT research. While direct commercialisation did not occur, several research follow-ups built on its results, extending the ideas into new domains such as digital health and smart home integration. One partner later applied AALuis concepts in a commercial setting for shared housing and elderly care environments, showing indirect market relevance. For AIT and its network, AALuis served as a “lighthouse project”, providing technical, methodological, and conceptual foundations for future innovation in adaptive interfaces and user-centred AAL design.

Being featured as an AAL Success Story helped establish AALuis as a benchmark for interface design and usability research in the AAL community. It showcased the project's technical sophistication and its potential to simplify interaction with digital services for older adults. Although the technology itself was not commercialised, AALuis significantly influenced how later projects approached user in-

“AALuis was ahead of its time. The idea of adaptive user interfaces across devices is everywhere now – but back then, it was pioneering work that set the stage for later AAL research.”

Dr Christopher C. Mayer,
project coordinator AALuis, Senior Scientist AIT

terface standardisation and accessibility. Within AIT, it became a model case for integrating academic research with applied usability testing, leading to new funding opportunities and partnerships. Its recognition within the AAL programme strengthened its visibility across Europe and reinforced its scientific and methodological legacy, even without a direct market product.

Barriers and Challenges

The main barrier to long-term impact was the technical complexity of AALuis’s middleware approach. At the time, cross-device adaptation required extensive custom development, and the hardware and software ecosystems were not yet mature enough to support seamless integration. Additionally, limited exploitation capacity among partners meant there was no clear market driver after the project ended. The project also suffered from delays in technical development, leaving insufficient time for large-scale trials and evidence of effectiveness. This lack of demonstrable user impact hindered further funding and adoption. In retrospect, the project’s timeframe and resource model were too short to move from a strong research concept to a sustainable, real-world solution.

Partnerships & Networks

AALuis brought together research institutions, technology developers, and care organisations across several European countries. The collaboration between AIT (Austria) and various end-user organisations created a productive environment for co-design and testing, even though the technology was highly research-driven. After the project ended, AIT maintained ongoing cooperation

with care partners in other initiatives, applying lessons learned about usability and user involvement. One German project participant later continued to develop parts of the concept commercially for use in elderly and shared housing environments, illustrating limited but tangible continuity. The consortium’s experiences also shaped later AAL project structures, highlighting the need for stronger links between research organisations and market-oriented partners to sustain innovation beyond the funding period.

AALuis explored several business model concepts during the project, but none reached implementation. The project’s middleware architecture was envisioned as an enabler for third-party services, potentially allowing companies to integrate AALuis to make their products accessible across devices. However, the consortium lacked an industrial leader or exploitation partner to drive this vision beyond the research stage. Changes in partner composition and differing priorities further limited continuity. While the academic and technical results were disseminated widely, the absence of a clear commercial pathway or ownership model meant that AALuis remained primarily a research output. Nevertheless, its conceptual model – universal interface adaptability – continues to inform design frameworks and accessibility standards in subsequent projects.

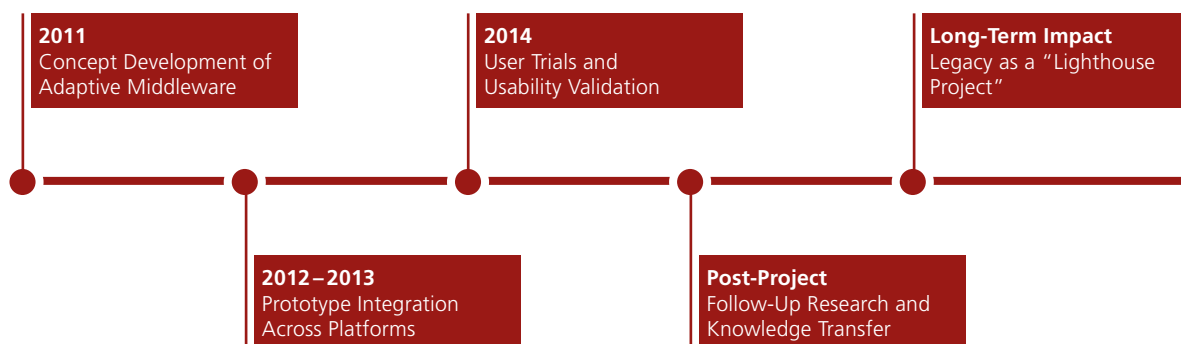
Reflections: What Remains?

Looking back, the project coordinator noted that shorter development cycles and longer evaluation phases would have strengthened AALuis’s real-world impact. The project focused heavily on technical design but lacked time to demonstrate measurable user benefits. With today’s knowledge, the team would have aimed for a clearer product vision, stronger engagement with industry partners, and a business case supported by evidence of user outcomes. The three-year AAL timeframe proved too limited for a project of such technical depth. Future initiatives should balance innovation with market readiness and extended field testing, ensuring that prototypes mature into validated solutions. Despite its challenges, AALuis provided valuable methodological insights and set a foundation for usability-driven AAL research.

AALuis demonstrated the technical and conceptual potential of adaptive user interfaces long before such features became standard in mainstream technology. Although the project did not lead to direct market products, it shaped a generation of follow-up research and usability methodologies within the AAL community. The concept of seamless, device-independent interaction

influenced how future projects approached accessibility and system integration. For AIT, AALuis served as a lighthouse project, strengthening its role in human-centred design and interface innovation. Its legacy lies in the knowledge and design principles it established – principles that continue to underpin today’s assistive and connected technologies.

Milestones



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FEARLESS – Seven Years to Impact: How Persistence Turned a Research Prototype Into a Scalable Solution



FEARLESS was an early AAL project that tackled one of the most pressing concerns for older adults living independently: the fear of falling. By developing a contactless, privacy-preserving fall detection system, the project not only advanced technical innovation but also laid the foundation for long-term business success. Today, its legacy continues in a widely adopted commercial solution and a more innovation-ready care sector across Europe.

FEARLESS aimed to support older adults living alone by reducing their fear of falling and increasing their sense of safety at home. The project addressed both physical and emotional needs by detecting critical situations like falls or prolonged inactivity without requiring users to wear devices or install cameras. Its core technology was a contactless, ambient sensor system using room-based processing to interpret behavioural patterns. At the time, this non-intrusive approach was innovative and aligned closely with the dignity and autonomy of the target group. FEARLESS was recognised as an AAL Success Story in 2015/2016 for its strong user involvement and early real-world piloting. It was seen as a breakthrough in combining psychological reassurance with technical safety in ageing-in-place solutions.

Sustained Outcomes

FEARLESS laid the foundation for project leader's – cogvis – current commercial products, with fall detection remaining a core feature. Although hardware limitations delayed initial rollout, the project marked a starting point for both technological development and market understanding. The system has since evolved into an AI-powered solution, now deployed in over 10,000 care facility/hospital rooms across Europe. Partnerships established during the project – particularly with care organisations – continued and provided essential real-world data for further development. Moreover, the project helped shift the care sector's mindset, increasing openness to digital innovation and preparing providers to participate more actively in tech-driven R&D.

Being featured as an AAL Success Story gave FEARLESS recognition for its early and large-scale end-user involvement, which was rare at the time. The project stood out by integrating care organisations not only as test sites but as active partners in shaping the solution. This visibility reinforced its orientation towards real-world applicability rather than academic output, supporting its long-term strategic direction. Perhaps most importantly, the project helped legitimize R&D participation within the care sector, paving the way for ongoing collaboration and innovation readiness across the field.

Barriers and Challenges

One key barrier was the limited viability of the private home market, where FEARLESS initially focused. High product costs and the need for extensive user support made broad consumer adoption unfeasible. Even today, similar solutions struggle to sustain themselves in that segment. The transition to institutional care settings was more promising, but required long development cycles, patient investment, and ongoing technical support. Additionally, the digital maturity of care organisations at the time was low, making adoption slow and resource-intensive – a challenge still relevant today. These realities were underestimated, both during and after the project.

Partnerships and Networks

Key partnerships formed during FEARLESS – particularly with care providers and end-user organisations – continued well beyond the project's end and were critical for iterative product development. These partners enabled long-term access to real-life environments and data, which later became essential for training AI models. The project also contributed to a broader shift: care organisations became increasingly willing and able to engage in R&D activities. What had once been unusual – provider participation in tech development – has now become standard practice, in part due to groundwork laid by FEARLESS and similar projects.

FEARLESS led to the development of a commercially available product that is now used in over 10,000 rooms across nearly 300 institutions in Europe and has achieved the broadest adoption among competitors in the fall detection space. The product has expanded into new markets such as hospitals, offering additional features like fall prevention, bed behaviour monitoring and delirium detection. Despite long sales cycles, especially in healthcare, the solution has proven resilient. The company's survival in a competitive field – where many others failed – speaks to the lasting business relevance of the original AAL-funded innovation.

“The project helped prepare the entire care sector for digital innovation. At the time, care organisations had little experience with technology development. FEARLESS opened the door and showed them that they could be active partners in shaping future solutions.”

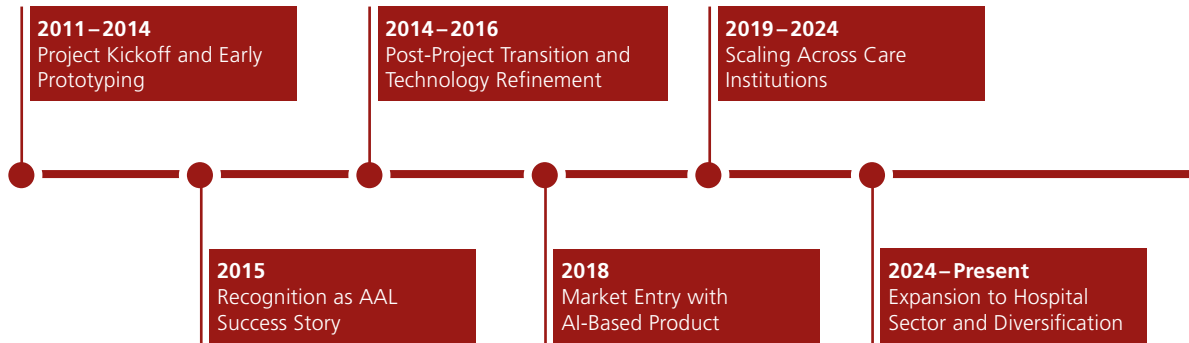
Michael Brandstötter, founder and partner,
cogvis software and consulting GmbH

Reflections: What Remains?

With today's knowledge, the project team would have broadened its market focus earlier to include institutional care, rather than targeting private homes alone. While the project's emphasis on end-user involvement and cross-sector partnerships was highly effective, the long path to market readiness was underestimated. It became clear that bringing such a product to full maturity takes not just years – but patient capital and extended commitment beyond the project lifecycle. More streamlined reporting between national and EU funders and stronger alignment with long-term business realities would have improved efficiency. Most importantly, expectations around time-to-impact in healthcare innovation need to be recalibrated – seven years proved a realistic timeline from prototype to viable business.

FEARLESS marked the beginning of a long-term innovation trajectory that transformed a prototype into a widely adopted fall prevention system in institutional care. It helped catalyse a shift in the sector by involving care organisations as active development partners – an approach that has become a standard in AAL projects. Its legacy lives on in both the technology still in use and the culture of collaboration it fostered. While commercial success took years to materialise, the project played a foundational role in shaping a viable business and advancing digital care innovation. FEARLESS demonstrates how early public investment can create lasting systemic impact – if given enough time and support.

Milestones



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IronHand project – From Prototype to Patient Care: The Soft Robotic Glove That Became a Global Medical Device

The IronHand project set out to empower people with reduced hand function through a soft robotic glove that supports grip strength in daily life and rehabilitation. Combining advanced robotics, sensor technology, and clinical research, the project bridged the gap between assistive and therapeutic use. Its outcomes went far beyond the project period: the technology evolved into a commercial medical device, and the partnership continues to drive innovation today. The IronHand project is a model of how European R&D collaboration can create real-world health impact, transforming scientific insight into an accessible, life-improving product.

The IronHand project set out to develop a soft robotic glove that could assist older adults and individuals with reduced hand function in daily activities, rehabilitation, and work-related tasks. The goal was to create a wearable, lightweight, and user-friendly device that would provide both grip assistance and hand-strength training through natural movement support. Combining sensor technology, robotics, and human-centred design, the IronHand project aimed to bridge the gap between assistive and therapeutic use, helping users maintain independence and prevent functional decline. The target group included people recovering from stroke, those with age-related weakness, and workers facing grip fatigue. The project's innovation lay in its soft-robotic design, which made the glove comfortable enough for everyday use – an important step forward in wearable rehabilitation technology. The IronHand project was recognised as an AAL Success Story for turning advanced research into a real-world, market-ready assistive product.

Sustained Outcomes

The IronHand project achieved long-term impact through both scientific advancement and market success. The project's core technology evolved into a commercial product – first developed and refined by the Swedish company Bioservo AB, which continued improving the glove after the project's completion. Today, the system exists as the Carbonhand®, a certified medical device now



available in multiple European countries and with approval of the Food and Drug Administration (FDA) in the United States. Beyond product development, the research partner (Roessingh Research and Development, currently the research and innovation department of Roessingh Center for Rehabilitation) continued the collaboration with Bioservo AB and built on the project's results to secure new EU-funded projects, continuing to explore the glove's real-life impact and its therapeutic potential. Research findings revealed not only assistive benefits but also unexpected rehabilitative effects, showing improved hand function among users. The continuous collaboration between research and industry partners ensured that the project's innovations remained active in both science and practice, setting a benchmark for sustained AAL impact.

Being highlighted as an AAL Success Story helped position the IronHand project as a model of how collaborative research can translate into tangible, life-improving technology. The recognition reinforced the project's credibility and visibility – especially for Bioservo AB, which continued the product's development, and for Roessingh Research and Development, which used the project as a foundation for further studies. The team maintained a

“It’s rewarding to see something you helped develop actually changing people’s lives. The glove we tested years ago is now on the market, helping patients and professionals every day.”

Dr Gerdienke Prange, Project Coordinator, Senior Researcher at Roessingh Research & Development

long-term partnership, leading to successive projects such as iHand (Horizon 2020) and FutureGlove (Eurostars) that deepened understanding of the glove’s assistive and rehabilitative effects. The AAL project thus served as a launchpad for international collaboration, continued innovation, and market adoption. The legacy of the IronHand project lies not only in the product that emerged, but also in demonstrating how multidisciplinary cooperation can deliver lasting results across research, industry, and healthcare.

Barriers and Challenges

Despite its success, the IronHand project faced several challenges common to health technology innovation. A major barrier for implementation of the resulting product was the complex and fragmented reimbursement landscape, which slowed market uptake despite strong clinical validation. In some countries, the glove fit neatly into existing reimbursement categories – while in others, it was seen as a “new type” of assistive device without clear classification. The process of achieving national approvals and health insurance coverage proved long and resource intensive. On the research side, maintaining tight alignment between technical development and user testing required careful coordination across partners and timelines. External factors such as supply-chain delays also disrupted progress in later studies. Nevertheless, the consortium overcame these hurdles through open communication and iterative testing, allowing the technology to evolve from prototype to certified product despite regulatory and logistical constraints.

Partnerships and Networks

Strong, long-term partnerships were central to IronHand’s success. The close collaboration between Roessingh Research and Development (Netherlands) and Bioservo Technologies AB (Sweden) proved particularly effective, combining clinical research expertise with advanced engineering and product development. Their partnership continued well beyond the project’s end, enabling multiple follow-up activities and product iterations.

At the same time, the IronHand project was very much a collective effort. Three end-user organisations – Nationaal Ouderenfonds (NL), the municipality of Eskilstuna (SE), and terzStiftung (CH) – played an essential role in kickstarting these developments. Drawing on their extensive networks, they recruited large numbers of participants for usability, feasibility, and effect testing and provided critical feedback that helped shape the technology into what it is today. The project also benefited from the involvement of Hocoma, one of the leading companies in the rehabilitation technology market. Hocoma focused on developing software that connected the glove to additional gaming exercises – an element that was later continued by the company independently.

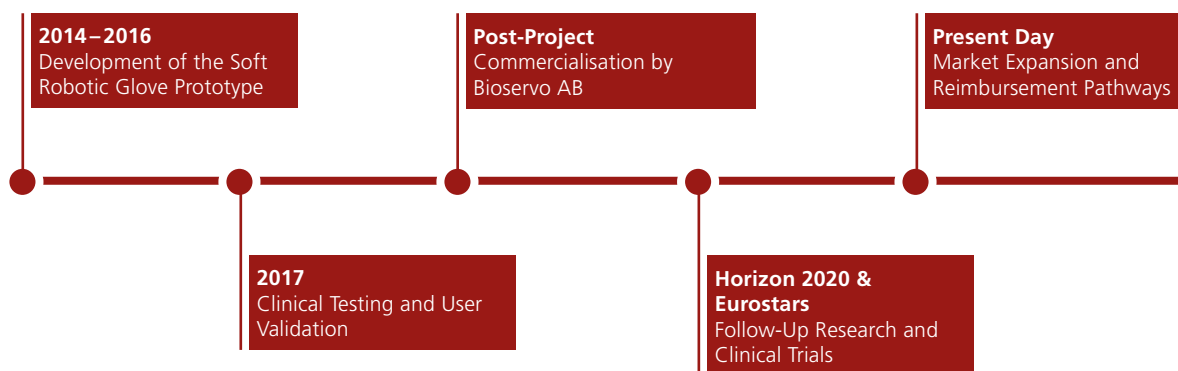
The IronHand project successfully evolved into a commercially viable medical device, with Bioservo AB taking the lead in bringing the product to market. The company transitioned the prototype into the Carbonhand®, a CE-marked and FDA-approved system that now operates under a clear business model combining direct sales and partnerships with distributors. The glove’s dual function – as both an assistive and rehabilitative device – opened access to multiple market segments, including rehabilitation clinics, occupational health providers, and private users. However, achieving reimbursement across healthcare systems remains a major strategic challenge and focus area for the company. Research partners, meanwhile, continue to generate scientific validation and clinical data, supporting the business case through evidence-based studies. This ongoing synergy between commercial and academic actors has been key to the project’s sustained success and market growth.

Reflections: What Remains?

Looking back, the project coordinator Dr Gerdienke Prange described the IronHand project as a model example of effective collaboration and research translation. With today's knowledge, she would have focused even more precisely on selecting the optimal user groups for testing, to gather the most relevant data for clinical validation and reimbursement. Otherwise, the project's structure – linking iterative technical development with ongoing user feedback – was considered exemplary. The team highlighted the importance of synchronising development and user studies to maintain momentum and alignment across partners. A key lesson learned was that even the best product requires long-term funding and regulatory planning to reach full adoption. In hindsight, the IronHand project proved that success in AAL depends not only on innovation but also on persistence and coordination across science, care, and business.

The IronHand project stands out as one of the most successful examples of an AAL project leading to both a commercial product and continuing scientific innovation. Its soft robotic glove technology has evolved into the Carbonhand®, now a CE-marked and FDA-approved medical device that is actively used in rehabilitation and assistive care across Europe and beyond. The project also generated a lasting research legacy, inspiring multiple EU-funded follow-ups and advancing knowledge in wearable robotics and motor rehabilitation. Its impact extends beyond the product itself – showing how continuous collaboration between research institutes, end-user(s)/organisations, clinicians, and industry can turn cutting-edge prototypes into meaningful tools for daily life. More than a decade later, the IronHand project remains a reference point for translational success within the AAL community.

Milestones



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iWalkActive – A User-Approved, Technically Sound E-Rollator – And Why It Never Reached the Market



iWalkActive set out to modernise mobility aids by combining a traditional rollator with an electric drive system and intelligent navigation features. The goal was to support older adults with limited mobility in maintaining independence, confidence, and freedom of movement. While the project delivered a technically successful and user-validated e-rollator prototype, the path to market was hindered by production costs and structural barriers in healthcare procurement. The project became a valuable case for learning where innovation meets system constraints – and where promising ideas risk stalling without the right commercial conditions.

The iWalkActive project aimed to modernise the traditional rollator by equipping it with an electric drive system, similar to an e-bike, to support older adults with limited mobility. The goal was to offer users greater independence, safety, and ease of use, especially when navigating slopes or longer distances. The target group consisted of seniors and individuals with mobility impairments who needed a walking aid that could adapt to their physical limitations without compromising on dig-

nity or usability. The e-rollator prototype featured an intuitive user interface – users could push it like a normal rollator, with the motor responding automatically to their movement. In parallel, the project also explored indoor and outdoor navigation features, although this part proved to be less promising. iWalkActive was highlighted by AAL as a Success Story for its user-driven design, positive user feedback, and strong technical feasibility.

Sustained Outcomes

While the full iWalkActive solution – including the motorised e-rollator and navigation system – did not reach the market, some elements have endured. The Swedish company Trionic, one of the core partners, continues to produce and sell rollators based on the mechanical platform used in the project. The e-drive prototype received enthusiastic feedback from test users and demonstrated strong technical performance and intuitive usability. However, commercialisation was hindered by the high costs of industrialisation, particularly the tooling investment needed for serial production. As a result, the e-drive rollator was never mass-produced. Still, the project contributed to the ongoing evolution of assistive mobility devices, and its learnings remain relevant for future innovation in the field.

iWalkActive was recognised as a Success Story for its innovative approach to mobility support and its ability to deliver a highly functional, user-validated prototype. The project stood out for its intuitive user interface, which allowed older adults to operate the motorised rollator naturally – without complex controls. This recognition helped underline the relevance of the concept and may have inspired other actors in the assistive tech market. However, the commercial impact remained limited, as no full product emerged from the project. The success story thus lives on more as a technical and user-experience benchmark, rather than a market-driven transformation.

Barriers and Challenges

The most significant barrier was the cost of industrialisation – bringing the e-rollator to market would have required several hundred thousand euros in tooling and manufacturing investments, which the small partner companies could not afford. In addition, the market was not ready to pay for such an advanced product: while the prototype was well-received, its estimated retail price (€3,500–4,000) was comparable to an expensive e-bike, whereas traditional rollators often cost less than €200 and are expected to be reimbursed by insurance. There was also no clear reimbursement pathway for an electric rollator, limiting demand from care organisations. Similar attempts by other companies in the same period also failed, suggesting structural issues in market readiness and financing models. The technically ambitious navigation module further complicated the product and may have diluted focus from the core value proposition.

Partnerships and Networks

The iWalkActive project was built on strong collaboration between industrial and research partners, particularly Trionic (Sweden) and Trikon Solutions AG (now Antrimon Group AG), a Swiss supplier of drive components, who jointly developed the e-rollator prototype. The partnership was technically successful and remained functional throughout the project. However, sustaining the product after the project required continued joint investment, and the small size of both companies made this financially unfeasible. While Trionic continued developing and selling non-motorised rollators, the Swiss partner was ready to proceed – but could not do so independently. Other consortium members contributed to features like navigation but did not remain active in follow-up efforts. In short, the project had a technically aligned partnership but lacked a financially capable industrial partner to carry the product beyond the prototype stage.

“From a technical point of view, the project was a success. The e-rollator worked intuitively and was very well received by users during testing. We solved the core engineering challenges – but the difficulty came in scaling production and finding a market willing to pay.”

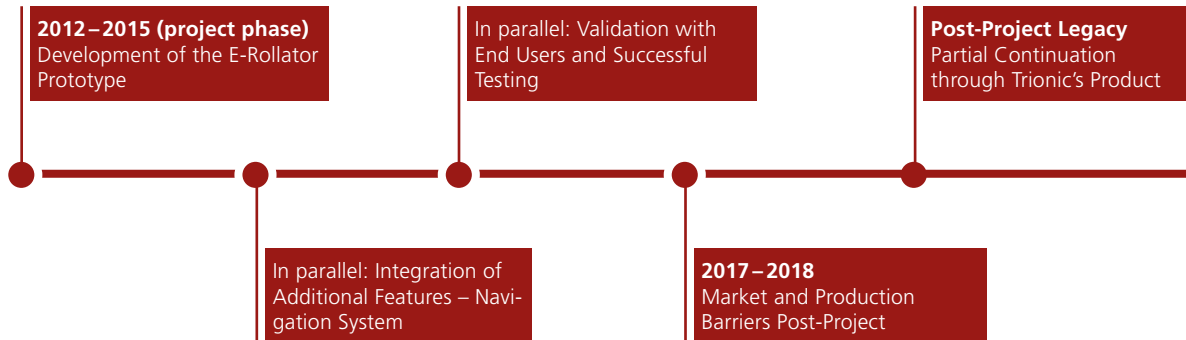
Prof. Andreas Rumsch,
project coordinator iWalkActive,
Lucerne School of Engineering and Architecture

Reflections: What Remains?

Looking back, project coordinator Andreas Rumsch expressed that the project would have benefited from a sharper focus on the mechanical and drive components, rather than trying to integrate complex indoor/outdoor navigation features. While both were interesting innovations, they addressed different use cases and could have been developed as separate products. The team also learned that positive user feedback and technical success do not guarantee market adoption – especially in the absence of reimbursement pathways and scalable manufacturing strategies. Future projects should consider market and pricing realities from the start and ensure that promising prototypes are supported by partners with the financial and organisational capacity to scale.

iWalkActive demonstrated how assistive mobility solutions can be radically improved through smart technology and user-driven design. Its e-rollator prototype was technically sound, highly intuitive, and well-received by users. However, the project revealed critical gaps between technical feasibility, user acceptance, and market viability. While the full solution did not reach the market, partner company Trionic continues to sell rollators that benefited from the mechanical improvements made during the project. The project’s true legacy lies in its lessons about pricing, production scalability, and system-level barriers, offering valuable insight for future innovation in ageing and mobility technologies.

Milestones



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Mylife – From Cognitive Support to Lifelong Assistance: The Evolution of Memas

Mylife began as an AAL-funded project to support people with mild cognitive impairment using a personalised digital assistant. The project resulted in Memas, a flexible platform designed to help users structure their daily routines and remain independent. Over time, Memas evolved into a toolset tailored to different profiles of cognitive impairment, ranging from memory-related challenges to broader intellectual disabilities, and has also been applied in rehabilitation contexts. Despite facing typical barriers of scale, funding, and technical obsolescence, the concept has endured – thanks to persistent development, national alignment, and a strong user focus. Mylife shows how even small projects can build technology that lasts.



Mylife was designed to support older adults with mild cognitive impairment (MCI) by offering a personalised digital assistant to help them structure daily activities and maintain autonomy. The system provided cognitive support through reminders, multimedia prompts, and calendar functions – tailored for both users and their caregivers. Developed with strong end-user involvement in Norway, Germany and the UK, it aimed to promote well-being and reduce caregiver stress. The technology evolved into what is now known as Memas, which remains in use today across several user groups. Mylife was selected as an AAL Success Story for successfully transitioning from a prototype into a working product, showing potential for commercial and social impact. The original concept laid the foundation for a versatile platform now used not only for early dementia, but also for people with intellectual disabilities and rehabilitation needs.

Sustained Outcomes

The core concept of Mylife evolved into Memas, a living technology platform that continues to be developed and deployed in new contexts. While the original product went dormant for a time, it was later revitalised and modernised – rebuilt as a web-based application. Memas

now exists in three distinct forms: Memas Memory (for people with mild cognitive impairment), Memas Structure & Mastering (for individuals with intellectual disability), and Memas Rehabilitation (for post-hospital recovery and rehabilitation support). The platform has been used in several follow-up projects, including the ongoing TransCare project (funded by the THCS initiative), and continues to adapt to the needs of different user groups. Although technologies have changed, the core vision of supporting independence through personalised, structured digital assistance has endured and expanded well beyond the original target group.

Being recognised as an AAL Success Story validated the Mylife project's transition from research to real-world product. The project stood out for not just producing a working prototype, but also for launching a commercial entity – Mylifeproducts AS – to own and manage the technology. Although the original Memas system eventually needed a full technological overhaul, the concept's continued evolution and application in new user groups reinforced its long-term value. The success story label helped signal that Mylife was more than a pilot – it was a viable approach to digital support for vulnerable populations. Today, Memas stands as a rare example of an

“What really mattered was access to end users. Our partners in Norway, Germany and the UK brought us into real environments with real people. Without that, Memas would have remained just an idea.”

Riitta Hellman, PhD,
project co-ordinator Mylife, Karde AS

AAL project that sustained both concept and company over more than a decade.

Barriers and Challenges

One of the main barriers was the limited financial capacity of the small companies involved, especially within the AAL programme’s 50% co-financing model. The costs of developing a fully functional, market-ready product placed significant pressure on the team. After initial success, technical obsolescence became a further challenge, as the original Memas platform aged and had to be rebuilt on a modern, web-based foundation. Recruiting and retaining end users for long-term testing was also difficult, particularly in achieving meaningful longitudinal insights. Additionally, the team lacked the resources to engage major market players or expand internationally – especially in complex markets like Germany. Despite these barriers, the core idea endured, thanks to national support schemes in Norway and persistent internal commitment.

Partnerships & Networks

Strong relationships with end-user organisations were central to Mylife’s development and sustainability. In Norway, partners like Forget-me-not AS and Sissel Bjørneby’s Sole Proprietorship provided direct access to older adults and caregivers, ensuring real-world relevance. In the UK, Housing21 and the Dementia Services Centre played a similar role, supporting extensive trials and user testing. The project also benefited from its German end-user partner Berlin Institute for Social Research,

who contributed valuable insights and participant access. On the technical side, Tellu AS was essential in creating the original Memas technology, and the collaboration continues today with joint work on a smart Memas Rehabilitation solution in the TransCare project. These partnerships enabled deep co-creation and were critical in shaping both the concept and its later adaptations. However, the project lacked connections to larger assistive-tech companies, which might have helped scale and sustain Memas beyond the consortium.

The Memas business model was primarily suited to the Norwegian market context, where public funding enables municipalities to offer assistive technologies free of charge under government framework contracts. While this created a feasible domestic pathway, scaling beyond Norway proved difficult. In countries like the UK and Germany, Mylife lacked the resources and market access to compete with established providers or navigate complex reimbursement systems. Private sales were possible in Norway due to high digital literacy and household income, but less viable elsewhere. Despite these constraints, Memas remains operational within Mylifeproducts AS, and the company continues to seek growth through project-based development and alignment with national procurement systems. The product’s flexibility and customisability have helped it remain relevant in diverse care contexts.

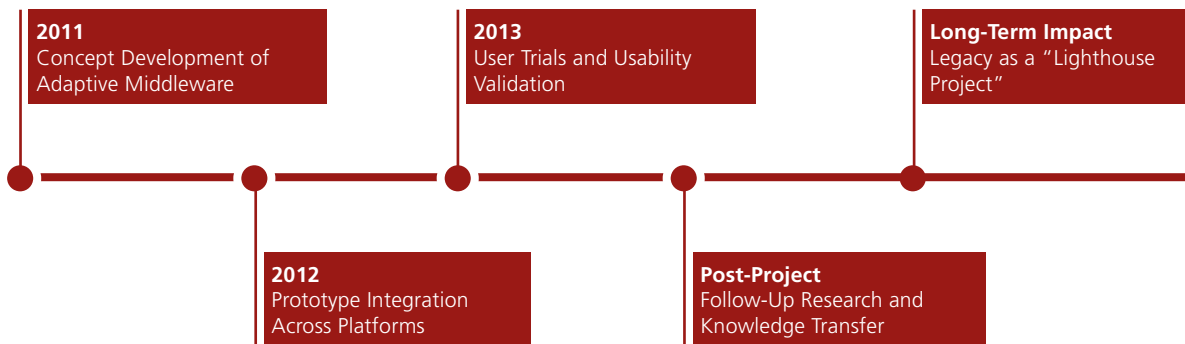
Reflections: What Remains?

Looking back, the project lead Riitta Hellman noted that involving larger assistive technology providers would have significantly strengthened Mylife’s scalability and long-term impact. While the project was strong on concept and user testing, its small-company foundation limited its ability to engage international markets or attract investment. With today’s knowledge, the team would have also placed greater emphasis on investment partnerships and market entry strategies, particularly for countries beyond Norway. The 50% co-financing model of AAL was a heavy burden for such a small team, and building more robust financing pathways – both public and private – would have helped secure continuity. Nonetheless, the concept’s continued relevance and evolution demonstrates that even modest beginnings can lead to long-lasting innovation.

Mylife succeeded in turning a research concept into a lasting, adaptable technology platform – Memas – which continues to evolve nearly 15 years later. While the original product had to be rebuilt and the market scope narrowed, the core vision of personalised digital support for people with cognitive or structural support needs remains intact. Memas now serves diverse groups, including those

with mild dementia, intellectual disabilities, and rehabilitation needs, and is still managed by the original project company in Norway. Though scaling internationally proved difficult, Mylife demonstrates how strong user involvement, national funding alignment, and persistent commitment can sustain innovation over time. Its story is one of resilience, reinvention, and quiet continuity.

Milestones



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products AS

ROSETTA – From Research to Revenue: The AAL Project That Launched a Lasting Company



ROSETTA was an early AAL project that brought together smart sensor networks, lifestyle monitoring, and user-friendly interfaces to support older adults living independently. Through real-world trials across Europe, the project generated valuable insights into what works – and what doesn't – in home-based care technology. Its core sensor platform evolved into the foundation of Sensara, a successful spin-off company that continues to serve the care market. ROSETTA demonstrates how technical innovation, paired with strategic learning and patient investment, can lead to sustained impact long after funding ends.

ROSETTA aimed to support older adults living independently by integrating smart sensor networks, lifestyle monitoring, and intuitive screen-based interfaces. The project targeted both early detection of emergencies and long-term behaviour changes by combining data from motion, appliance, and water sensors. The goal was to increase safety and comfort, while enabling care professionals and relatives to respond proactively. The target group included older adults living alone, as well as informal caregivers and professional care providers seeking

unobtrusive support solutions. ROSETTA stood out for its holistic, modular approach, allowing different technologies to be combined based on user needs. It was selected as an AAL Success Story for its strong user-centred design, technical integration, and impact on later commercialisation efforts.

Sustained Outcomes

The most enduring outcome of ROSETTA was the spin-off of the company Sensara, which used parts of the smart sensor technology developed during the project – especially the algorithms and monitoring systems created at project partner TNO. Sensara refined and simplified the original prototype, reducing the number of sensors and moving from in-home computers to a cloud-based system, making the solution scalable and cost-effective. While some components, like the smart screen interface and long-term lifestyle monitoring, were discontinued by other partners, the core sensor technology has been in commercial use since 2014. Several functionalities were retained or evolved within Sensara's offering, and user feedback from the ROSETTA trials helped determine which features were worth keeping. The company continues to serve both nursing homes and community-based care settings, proving the long-term viability and adaptability of the original project's outcomes.

Being featured as an AAL Success Story played an important role in building early credibility and visibility for the spin-off company Sensara. As a startup in the care tech sector, gaining trust from nursing homes and care providers was a major hurdle – especially with new technologies. The fact that the solution stemmed from a recognized European project with validated results and independent evaluations gave Sensara an edge in early business development. In addition, care institutions involved in ROSETTA became launching customers, having already tested and experienced the technology during the trials. The success story label signalled that the product was proven, tested, and backed by research, which helped bridge the gap between pilot and real-world adoption.

Barriers and challenges

A key barrier was the lack of structural funding for independent living technologies at the time, especially in the Netherlands. While the solution was technically validated and well-received, there was no clear reimbursement pathway for deploying it in private homes. In addition, the original ROSETTA system was too complex and expensive for scalable use – it required in-home computers, a large sensor set, and professional installation. Sensara overcame these barriers by reducing functionality to core features, simplifying installation, and moving to cloud infrastructure. This allowed them to lower costs and adapt to real-world market constraints. Still, the transition took several years and would not have been possible without patient private investors and a strategic pivot toward the nursing home sector, where funding was more accessible.

Partnerships & Networks

ROSETTA's most crucial partnerships were with the care institutions involved in the trials, some of which later became launching customers for Sensara. Their early exposure to the technology during the project enabled trust, familiarity, and faster adoption. In addition, partnerships with independent evaluation organisations proved valuable – these groups conducted third-party assessments of the system both during and after the project, lending credibility to Sensara's commercial offering. While the technical consortium partners contributed key innovations, only parts of their work continued post-project. The spin-off of Sensara from TNO ensured continuity of expertise, while new partnerships – particularly with hardware providers in China and Europe – enabled the company to scale production and reduce costs.

„ROSETTA helped us understand not just what users need – but what they'll actually use. The trials showed us which features matter and which don't. That allowed us to simplify the product and make it commercially viable.“

Irek Karkowski, project coordinator of ROSETTA, CTO at Sensara B.V.

Although the original ROSETTA business model was not ready for immediate implementation, it offered critical guidance that informed Sensara's market strategy. Insights from the project helped the team align their product with government and insurance policy frameworks, especially in the Netherlands. Sensara initially focused on the nursing home sector – where structural funding existed – and later expanded into community-based care as funding models evolved. The company was supported by private investors, which provided the financial buffer needed to bridge the gap between project end and market readiness. Over time, Sensara established a sustainable, subscription-based business model, offering monitoring services at a price point similar to consumer apps – helping ensure long-term viability.

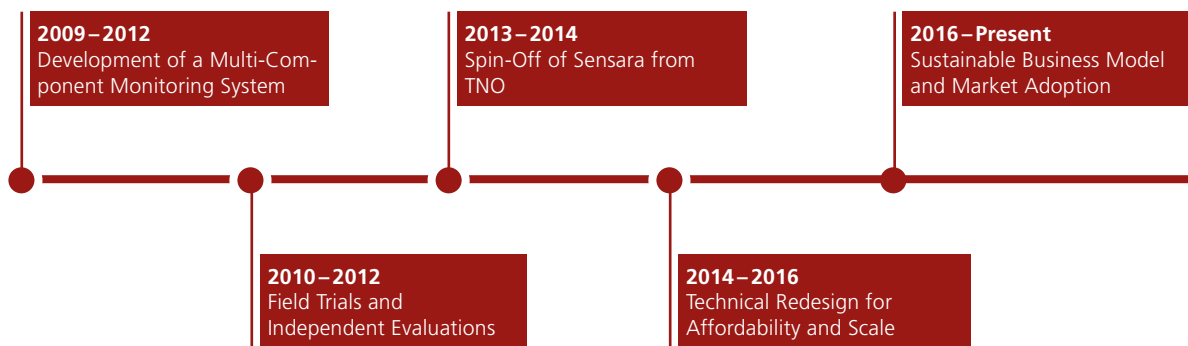
Reflections: What Remains?

With hindsight, the project lead would have focused more strategically on funding structures and reimbursement pathways from the outset. While the technological ambition and user-centered design were strong, commercialisation ultimately depended on aligning with the realities of healthcare financing. A more targeted focus on the nursing home market, where funding was already available, could have accelerated adoption and revenue. Additionally, some features – such as appliance usage monitoring – added complexity without clear market value. Future projects could benefit from a leaner feature set and earlier engagement with stakeholders like insurers and policymakers. Despite these challenges, the team succeeded in pivoting and scaling, in part due to patience, private investment, and strong project foundations.

ROSETTA laid the groundwork for one of the few AAL-funded technologies to reach sustainable commercial use. Its smart sensor platform, developed at TNO and refined through real-world trials, became the foundation for Sensara, a spin-off company that continues to operate successfully in the care technology market. While not all components of the original system were maintained, the

project provided key technical assets, market insights, and early customer relationships that proved critical for long-term impact. ROSETTA's story highlights the importance of iterative learning, strategic adaptation, and structural funding alignment. Its legacy is not just a product, but a functioning company serving real users – 13 years after the project ended.

Milestones



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Reflections: Making an Impact that Lasts

Across all seven case studies, a common thread emerges: achieving long-term impact in the ageing and care technology sector takes far more time than a typical three-year project cycle allows. Products and concepts matured slowly – often over a decade – through cycles of testing, redesign, and real-world validation. Projects such as IronHand, 2PCS, and FEARLESS illustrate that commercial and societal value grows only through persistent reinvestment and adaptive learning. Their success required additional national or EU funding, new partnerships, and patient capital that bridged the gap between research and market introduction.

This points to a broader policy lesson: short-term success indicators (deliverables, pilots, prototypes) do not capture the real innovation journey. Programmes supporting ageing and care technologies should explicitly plan for post-project continuity, whether through follow-up grants, acceleration schemes, or structured handover to national funding instruments.

Impact is multidimensional

The cases highlight that “impact” in AAL cannot be reduced to market revenues alone. It encompasses technological progress, user empowerment, organisational learning, and policy influence.

- **Technological impact** is seen in projects like AALuis, which shaped cross-platform usability standards, or IronHand, which advanced wearable robotics.
- **Social impact** is evident in Mylife and FEARLESS, which improved confidence, safety, and autonomy for older adults.
- **Organisational impact** can be traced in ROSETTA, which led to a sustainable spin-off company including a substantial business model.

Each of these dimensions reinforces the others. Even projects without commercial continuity often generated knowledge infrastructure – tools, methods, and user data – that benefitted subsequent initiatives. Recognising

this layered impact helps move beyond a binary view of “success” versus “failure” and values the ecosystem effects of AAL investments.

Partnerships as vehicles of resilience

The enduring partnerships across these case studies are a defining feature of their sustainability. Teams that remained connected after funding ended – such as AIT and its networks in AALuis, or Roessingh R&D and Bioservo in IronHand – demonstrated how trust-based collaboration enables iterative improvement, knowledge exchange, and follow-up funding. In contrast, projects where partnerships dissolved quickly often lost their capacity to exploit results.

Another crucial insight is the importance of involving end users as partners, not participants. Projects that embedded user organisations into design, testing, and decision-making – like FEARLESS, Mylife, and ROSETTA – created stronger ownership and smoother implementation pathways. This participatory model, now standard in many European programmes, can be traced directly to the practices pioneered within AAL.

Barriers that persist

Despite significant progress, the same systemic barriers appear across nearly all projects:

- **Fragmented funding and reimbursement systems**

Many promising solutions struggled because healthcare and social care systems offered no clear route to reimbursement. Without a viable business case, even validated products faced slow diffusion.

- **Limited industrial scalability**

Several consortia were dominated by small research-driven SMEs with little capacity to invest in post-project

production. The absence of strong industrial partners often constrained the leap from prototype to market.

- **Time constraints and evaluation depth**

Short project durations allowed for usability studies but rarely for effectiveness trials – the kind of evidence needed for policy adoption or reimbursement. As interviewees repeatedly emphasised, future programmes should extend the timeframe for testing and evidence generation.

- **Regulatory complexity**

For medical-grade devices, the transition to MDR compliance added years to the commercialisation path and demanded sustained investment that few SMEs could afford without continued public support.

Recognising these barriers does not diminish the achievements of AAL projects; rather, it underlines the structural adjustments required to translate innovation into routine practice.

A changing context for AAL

When the AAL projects of this portfolio were launched, the idea of digitally supported ageing was still experimental. Today, technologies such as AI, robotics, and sensor-based monitoring are integral to mainstream health and social care innovation. Yet the structural challenges – fragmented governance, unequal access, and financing gaps – remain. The next generation of initiatives can build on AAL's experience by combining technological excellence with systemic readiness: embedding solutions into procurement pathways, reimbursement systems, and long-term service infrastructures.

The cases show that successful innovation requires alignment between three layers:

- **Technical maturity** – proven, reliable systems.
- **Organisational adoption** – motivated care providers and trained staff.
- **Systemic integration** – supportive regulation and funding frameworks.

Without all three, even strong prototypes risk remaining isolated pilots.

Towards a next generation of impact

Taken together, these case studies reaffirm that the value of the AAL Programme lies not only in devices and services, but in its capacity to learn and evolve. It has built a pan-European community of practice around human-centred ageing innovation. The long-term success stories demonstrate that sustained collaboration, continuous evidence generation, and sustainable business models are key enablers of lasting impact.

As Europe now moves towards integrated care ecosystems and cross-sectoral digital health strategies, the lessons from AAL remain vital. To make impact last, innovation policy must recognise that ageing-related technologies are not quick wins – they are long-term societal investments.

