



Third edition of the AAL Programme impact assessment

Final summary report
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1 / Impact of the AAL calls and support actions

This section first outlines the **objectives and activities** of the AAL Programme, and - based on this - the effects (outputs, outcomes, impact) that can be expected of the AAL Programme based on these objectives. Next, it demonstrates the actual **progress towards these objectives**.

The framework and evidence presented here, were developed in the context of the three editions of an impact assessment study of the AAL Programme (2019, 2020 and the first half of 2021)¹. Data were collected through **online surveys among participants of the AAL Programme**^{2,3}. In total, surveys were sent out more than 2.000 times to project partners of AAL1 and AAL2 (around 800 in 2019; 1,100 in 2020 and 280 in 2021).

The **2021 survey** targeted all 282 participants from 38 projects finished by the end of 2019. A **response rate of 34.7%** was achieved and **all projects were covered** by at least one response in the sample. This high response rate and coverage of all projects strongly increases the reliability of the results presented in this section.

1.1. Activities and objectives of the AAL Programme

The **AAL Association** was founded in 2007 by 14 member-organisations to support and finance research and development of technologies and services for older adults. As the European population is steadily becoming older, more challenges arise on how to ensure quality of life for both older adults and caretakers, the impact on the labour market or how to support an emerging AgeTech sector/silver economy. Therefore, the AAL Association tries to formulate a common approach across different Member States and partners to convert these challenges into opportunities and to stimulate innovation.

The AAL Association implements **the AAL Programme** since 2008. This programme is currently co-funded by national and regional public funding agencies of 18 European countries, Canada, Taiwan and Horizon2020. The programme focuses on funding projects in which ICT-based solutions for active and healthy ageing are being developed.

¹ Please refer to Annex 1 for an elaborated description of the impact assessment framework and how it was updated in the 2021 edition.

² Although end-user organisations and researcher organisations are not a priori excluded from the survey, the questionnaire takes an explicit supply-side focus to assess impacts in terms of bringing solutions to the market, their commercialisation and uptake as well as networking effects. Demand-side effects are thus not explicitly covered in the scope of this study.

³ Please refer to Annex 2 for more information on the survey methodology.



Main activities are the collaborative projects and AAL support activities, which are complemented by national activities. The national activities are not managed by the AAL Association, but do play an important complementary and leveraging role for several outcomes of the AAL projects (e.g. launch, upscaling, adoption and broadening of the solutions).

Collaborative R&I projects	AAL Support Activities	National activities
<p>In the projects, industry, researchers and end-users from different Member States cooperate to bring solutions.</p> <p>Since 2008, more than 300 projects that aim for end-user involvement and a market introduction within 2 to 3 years, have been funded in the framework of the programme.</p>	<p>Support Activities target participants and help them in different phases and dimensions of the project.</p> <p>The main Support Actions are the AAL Forum, AAL2Business, AAL Market Observatory and Smart Aging Prize.</p>	<p>In addition, the AAL Programme connects different activities at national level which contribute to the realisation of its objectives, e.g. national programme calls, national policies, events, workshops, support mechanisms, etc.</p>

The **AAL Management Unit implements and manages** the programme and support activities. For projects, **funding** comes from Member States and Horizon 2020 sources. Eligibility of the proposals is checked at national level, while the evaluation of the proposals is done at central level, along with the monitoring and reporting.

The **main objectives** of the AAL Programme reflect the importance of its **three main target groups**:

- ▶ Better quality of life for **older people and their networks**
- ▶ Increased efficiency and sustainability of **support and care systems**
- ▶ Strengthening the **industrial base** in Europe

The detailed intervention logic, including the intermediary outputs and outcomes, is presented and explained in Annex 1.

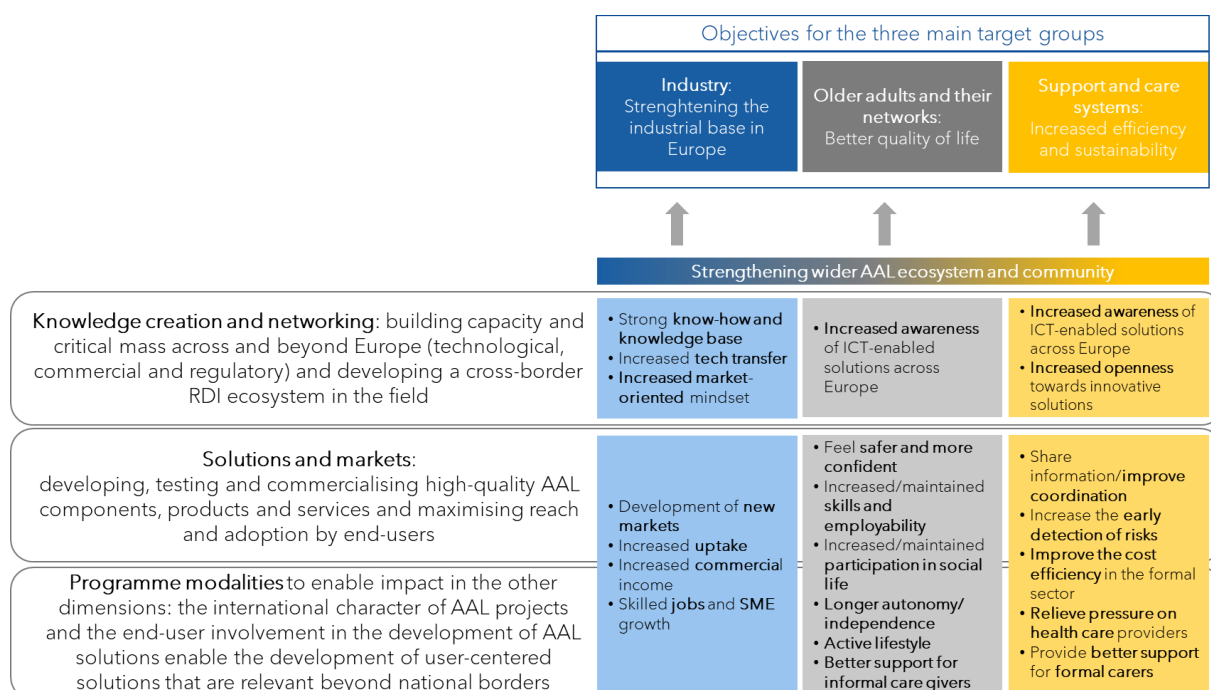
Figure 1 visualises the way the AAL Programme aims to reach its objectives for each target group. It distinguishes between **three different dimensions** through which impacts are expected to be realised:

- ▶ Supporting and increasing **knowledge creation and networking** across and beyond Europe

The detailed intervention logic, including the intermediary outputs and outcomes, is presented and explained in Annex 1.



Figure 1: Dimensions through which impacts are expected



The **Support Actions** implemented by the AAL Association are also expected to support the realisation of these impacts, for instance:

- ▶ **AAL Forum:** knowledge sharing, networking, strengthening the ecosystem
- ▶ **AAL2Business:** understanding exploitation and business modelling processes, facilitating commercialisation, IPR, business modelling, launch and deployment, developing insights in the investor's point of view, supporting user-involvement in development and testing of AAL products and services, etc.
- ▶ **AAL Market Observatory:** market intelligence and bridge to investors
- ▶ **Smart Aging Prize:** new ideas, visibility and awareness raising

This impact framework is used in the next sections to assess the extent to which the AAL Programme has managed to realise progress towards its objectives and create impact for older adults, the support and care systems and the industrial base in Europe.



1.2. AAL contributes to strengthening the industrial base in Europe

The development and adoption of AAL solutions, and their integration in the care system, allows to develop **new markets** and increase the **uptake of these solutions**, thus leading to an **increased commercial income, skilled jobs and SME growth**.

Based on the AAL impact assessment, a positive impact is observed of the AAL Programme on commercialisation and development of new markets. The Programme also contributed to increasing commercial income. Moreover, the AAL Programme has accelerated development and was an essential factor to bring solutions to the market.

Contribution to commercialisation:

- ▶ **61%** the surveyed AAL projects **have led to at least one solution or component** being brought to the market.
- ▶ According to **68%** of respondents, the AAL programme has **accelerated** to a moderate or great extent **the development of solutions**.
- ▶ Without the AAL programme, **8 of the 13** launched products/services (**3 of the 10** launched components) **would not have been brought to the market**.
- ▶ **56%** of respondents acknowledge that the AAL programme has contributed to **reducing barriers** related to bringing their product to market, e.g. by giving testing opportunities, improving user-acceptance, strengthening the ecosystem, supporting business plan development and the dissemination and exploitation of the project results (each factor mentioned once by a respondent).

Contribution to development of new markets:

- ▶ **79%** of the respondents agree with the fact that their learning in the context of an AAL project is **relevant to bringing AAL solutions to markets in other regions, countries, and across the EU**. For respondents who have also had the experience of launching a product, service or product range, this share is 100% (13 out of 13).

Contribution to commercial income:

- ▶ **4 of the 13** launched AAL products/services and **4 of the 10** components **would have generated 10-50% lower revenues without support** of the AAL programme.

Comparing results over time, there are indications of learnings and growth of the AAL ecosystem from AAL1 to AAL2.

In the 2019/2020 impact assessments, which focused mainly on AAL1 projects (Calls 2008 – 2013), an upper estimate of 28% of AAL projects in the surveys resulted in at least one AAL solution on the market.

This share of AAL supported projects, which report to have effectively commercialised a product, service or component, has thus **more than doubled** in the 2021 survey (cf. supra, 61%), focusing on AAL2 projects.

This increase can be explained by the following elements:



- ▶ The AAL2 projects, included in the 2021 IA, have been able to benefit from the **learnings** from the AAL1 projects as well as the establishment and **growth of the AAL ecosystem** over the years. This is confirmed by the fact that 38 of the 91 respondents (42%) in the current IA already participated in an AAL1 project, allowing them to build further on their AAL1 project learnings and networks.
- ▶ The development of existing and new **Support Actions** in AAL2, which further supported the commercialisation of AAL products, services or components by spreading and strengthening knowledge on (among others) business or commercialisation strategies across the AAL network(s).

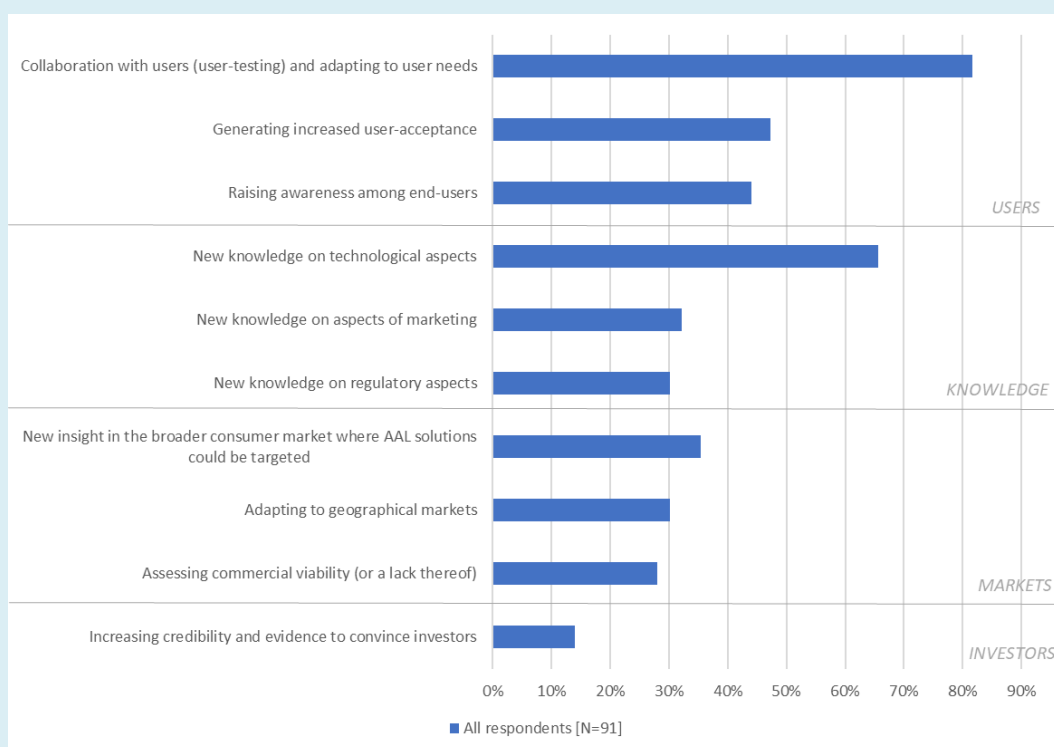
In this context, the observed increase in the share of projects with an AAL solution on the market is evidence of the importance of the **long-term stability** of the AAL programme, which clearly supports the AAL innovation cycles.

At the level of **knowledge base and networking**, the development of a critical mass and cross-border ecosystem in the short run, allows more generally to **strengthen the knowledge base** and to increase **technology transfer** at national level and across actors in Europe. The more interlinked the networks become, the easier knowledge is transferred within the network. The AAL Programme is expected to contribute to this process by encouraging partnerships and cooperation across Europe and between industry, research organisations and end-users.

The impact assessment provides evidence that the AAL Programme strongly contributes to the development of a knowledge base and network in the field of AAL, in particular regarding user-involvement in the development of solutions, markets and commercialisation as well as technological aspects. The AAL also allows participants to benefit from collaborations and networks established during the AAL projects.



- ▶ At the level of the organisation, acquiring **knowhow, knowledge and skills** is impacted positively by participation in an AAL project. Also gaining **new partners, social engagement and networking** have improved for a substantial share of the participants.
- ▶ **Very strong learnings** of participants in the AAL programme are related to **involvement of users** i.e. the collaboration with users, increased user-acceptance and awareness-raising among end-users. Participants who have launched a product or service, also have strong learning experiences regarding **markets and commercialisation**. New knowledge is acquired, mainly on **technological aspects**.



- ▶ Another strong result is that **more than two thirds** of participants say to currently **benefit from the collaboration and networks** established during their AAL project.
- ▶ The participants also agree strongly with the statements that the AAL programme is an **opportunity for mutual learning** (93%) or **broadens perspectives of national R&D** in the field (79%) and that learnings from participation are **relevant for broader market-orientation** (79%).

The **Support Actions** are expected to leverage certain impacts. By offering training and market insights, the Support Actions have an impact on enterprises and organisations' **knowhow and knowledge as well as their market-oriented mindset** (cf. understanding of the investor's point of view, capabilities in terms of market intelligence, business modelling, commercialisation and upscaling).

70% of the respondents in the 2021 impact assessment survey have participated in AAL Support Actions, mainly in the AAL2Business (33) and AAL Forum (56). A second, dedicated survey targeting AAL2Business participants (with 21 respondents) found that half of the respondents made use of this Support Action more than once in the period 2019-2021.

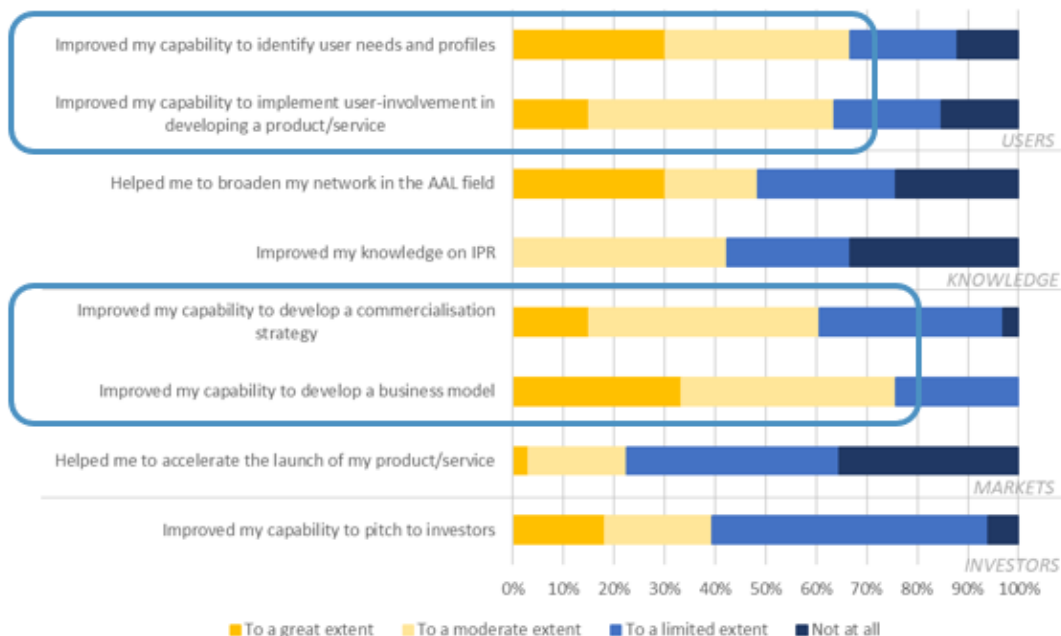
The AAL2Business and AAL Forum clearly strengthen the AAL-programme learnings and improve the capabilities of participants regarding commercialisation, user-involvement and networking.



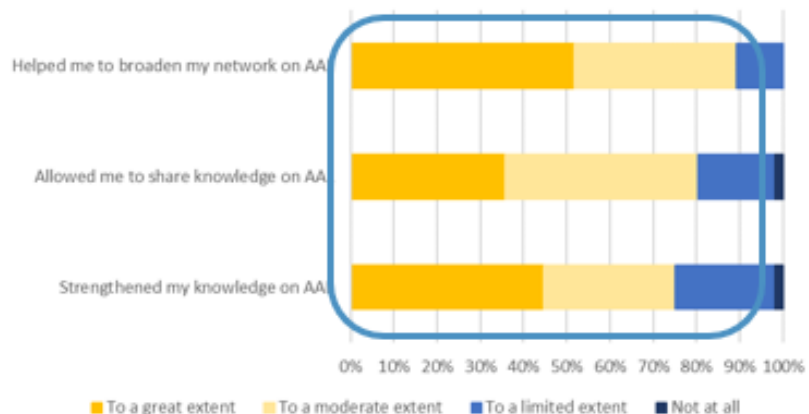
Contribution to development of AAL solutions:

- ▶ 60% of the participants in the AAL2 Business Support Action (N=33) see an improvement in their **capability to develop a commercialisation strategy** thanks to their participation. Furthermore, more than 70% of respondents agree that their participation has helped them to **improve in the development of a business model**.
- ▶ These results are **confirmed by the dedicated survey targeting AAL2Business participants**, where respondents specifically identified the increase in their business development knowledge, the identification of the value chain of their product/service and the identification of early adopters as important effects of their participation in AAL2Business on their business and market-related competences.
- ▶ 10 out of 21 respondents to this specific survey also stated that their use of the AAL2Business services resulted in an **improvement of the TRL of their product/service** (even though they are still far from the market; 7 respondents) **or that they reached TRL level 8/9** (3 respondents).

AAL2Business



AAL Forum



Contribution to development of knowledge and market-oriented mind-set:

- ▶ Whereas the AAL2Business Support Action focuses on **commercialisation and user-involvement**, the AAL Forum Support Action makes a strong contribution in terms of **networking**. Participation in the AAL Forum has helped to **broaden the AAL-network** of **89%** of the respondents having participated to the Support Action (N=56).
- ▶ **Three quarters** of the respondents confirm that the AAL Forum has enabled them to get to **know more about AAL** and **80%** of respondents stipulate that participating in AAL Forum has allowed them to **share knowledge on AAL**.

1.3. AAL contributes to better quality of life for older people and their networks

At the level of **markets and solutions**, the development of solutions in AAL-funded projects is expected to result in solutions that allow older adults to feel **safer and more confident**, to increase or maintain **their skills and employability** and their **participation in social life**, to remain **autonomous and independent** longer and to lead an **active lifestyle**.

Also **informal care givers** in the networks of the older adults are expected to be **better supported** through these solutions, which is an impact in itself, but also **contributes indirectly** to the realisation of the above impacts for the older adults (e.g. autonomy and independence).

- ▶ **More than 60%** of the 13 respondents with an AAL product/service on the market agree with the statement that “the majority of the older adults using their product/service **live independently in their own homes (9 out of 13) and remain in better mental condition (8 out of 13)** for at least 1 year longer”.
- ▶ **6 out of the 13 respondents** think that “the majority of the older adults using their product/service **succeed in independently interacting with their network** for at least 1 year longer”.

The survey data (indirectly) indicate that the AAL Programme has a positive impact on the older adults and their networks, in particular by enabling older adults to live longer in their own homes and to remain in better mental condition.

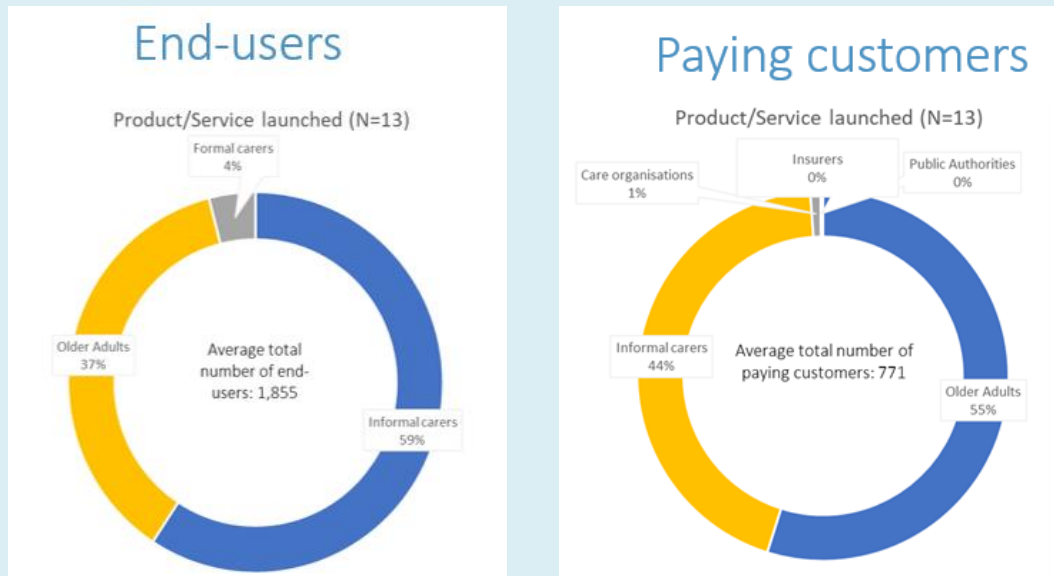
Adoption of these solutions and their integration in care systems are important outcomes in the medium run, which should result in a larger group of older adults across Europe having **access to these solutions**. The figures below summarise the reach of older adults (as end-users and paying customers) by launched AAL solutions, based on the survey of participants.

Particularly important is that, although there is large variation between the different projects and solutions, the average number of end-users/paying customers reached per solution is relatively stable over time (2019-2020-2021). At the same time, the constitution of the target groups has also evolved towards a more balanced mix between older adults and informal carers among end-users and paying customers.



Launched AAL solutions have **reached** on average:

- ▶ 1,855 end-users in 1 year, of which **older adults make up 37%.**
- ▶ 771 paying customers, of which **older adults make up 55%.**



The AAL Programme **modality of user-centered development** that is at the heart of the AAL projects, ensures the relevance of the products and services for the users and facilitates the extent to which they can be commercialised across (and beyond) Europe. This modality is thus expected to further **leverage the uptake of products and services, and the extent to which impacts for the older adults and their networks are realised.**

User-involvement clearly has a central role in the development of AAL solutions and is a key modality of the AAL Programme. It thus has an important positive impact by improving the adoption and relevance of the developed solutions.

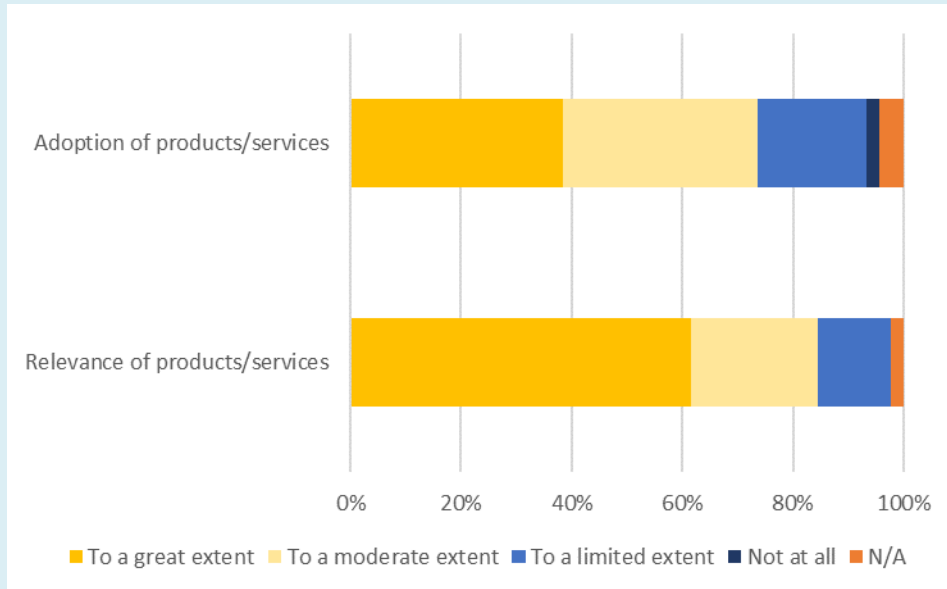
User-involvement has a central role in the AAL programme:

- ▶ Among the top **learnings** from developing solution(s) in the context of an AAL project are: **user-testing** and identifying user needs (82%), generating increased **user-acceptance** (47%) and raising **awareness among end-users** (44%).
- ▶ Participation in the **AAL2Business** Support Action further strengthens this by improving the participants' **capability to implement user-involvement** in developing a product or service (63%) or to **identify user needs and profiles** (66%).
- ▶ These results are consistent with the above-mentioned AAL2Business survey, where the identification of user needs and profiles as well as the improvement of the problem-solution fit of the AAL solutions were highlighted as important effects of participation in AAL2Business.



Impact on adoption and relevance:

- ▶ The involvement of end-users in the development phase has an important **impact on the adoption (agreed by 85% of 91 respondents) and relevance (75%)** of products/services. This indicates that the AAL programme modality of user-centered development further **leverages the uptake of AAL products and services**.



Finally, the above impacts, including those of the Support Actions, are expected to also have an influence on the ecosystem by leading to **increased awareness** of older adults and their informal care givers regarding AAL solutions.

From the survey, we find indirect but strong confirmation of the contribution of the AAL Programme to awareness-raising among older adults and their networks.

According to the **large majority of the respondents (91%)**, the **AAL programme helps to raise awareness among older adults and their networks**.

1.4. AAL contributes to increased efficiency and sustainability of support and care systems

The development of solutions in AAL-funded projects are expected to result in solutions that allow to increase the **early detection of risks**, improve the **cost efficiency** in the formal sector, **relieve pressure** on health care providers and provide **better support** for formal and informal carers.

The survey data provide indirect evidence that the AAL Programme has positive impacts on the formal and informal carers, in particular regarding the relevance and quality of care visits as well as unburdening the carers.



- ▶ **More than 60%** of the 13 respondents with an AAL product/service on the market think that their products/services make (formal and informal) **care visits more relevant thanks to automated risk detection tools (9 out of 13 respondents)**, that it makes **carers feel unburdened (8 out of 13 respondents)** with **more time for qualitative interaction with the older adult (8 out of 13 respondents)**.
- ▶ There are also indications of **cost-saving effects**: 7 out of 13 respondents believe that the majority of the (formal or informal) carers using their product/service feel they save at least 5% of costs overall thanks to better planning and coordination.

Like for the older adults and their networks, adoption and user-centered development support the **uptake** by carers.

Please refer to the graphs and conclusions above, which include also the carers as end-users and paying customers.

Launched AAL solutions have **reached** on average (see graphs above):

- ▶ 1,855 end-users in 1 year, of which formal and informal carers make up 63%.
- ▶ 771 paying customers, of which formal and informal carers make up 64%.

As mentioned above, data also show that the AAL programme modality of user-centered development further **leverages the uptake of AAL products and services**.

At the level of knowledge base and networking, the involvement of user-groups and the development of a cross-border ecosystem, are expected to lead to an **increased awareness, trust and openness as regards innovative solutions** in the market among the carers in the support and care systems. Also here, the Support Actions play a supporting role to realise these impacts.

From the survey, we find indirect but strong confirmation that the AAL Programme contributes to awareness-raising among formal carers.

86% of the respondents assesses that the AAL programme helps to raise awareness among formal carers.

1.5. EU added value lies in strengthening the wider AAL ecosystem and community

The focus of the AAL programme has widened over time towards the systemic dimension of implementing innovation, emphasising the need to ensure a resilient and sustainable ecosystem. The contribution of the AAL programme in terms of strengthening the wider AAL ecosystem and community is confirmed in the survey.

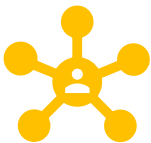
A number of the results outlined above, already point at the added value of the AAL Programme in terms of strengthening the wider AAL ecosystem and community.





Related to the international dimension of the AAL Programme, respondents report clear learning experiences from international cooperation e.g. regarding cultural differences and on how to bring AAL solutions to markets in other regions, countries and across the EU.

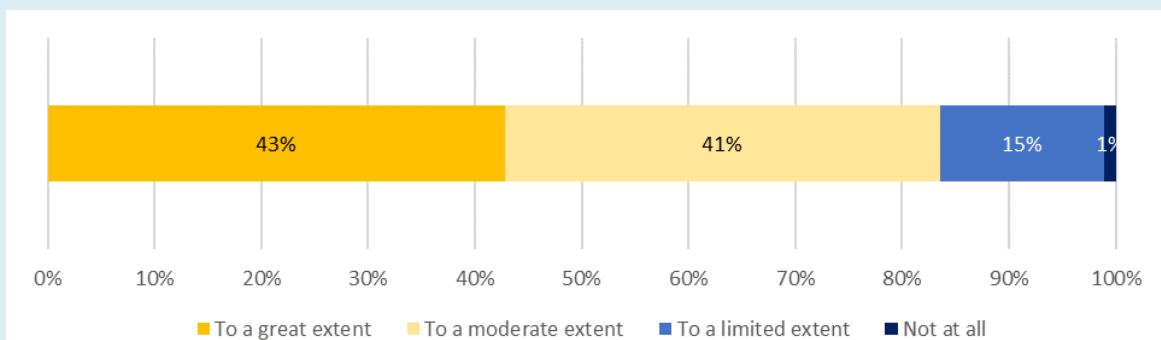
- ▶ Respondents who have launched a product/service have strong learning experiences in terms of insights in the broader consumer market where AAL solutions could be targeted and in adapting to geographical markets. Also **learnings regarding the cultural differences** in the European market were mentioned in an open field in the survey, as well as **learnings linked to collaboration with other European stakeholders**. Both aspects indicate an added value from the international dimension of the programme for its participants.
- ▶ **79%** of the respondents agree with the fact that their **learning in the context of an AAL project is relevant to bringing AAL solutions to markets in other regions, countries, and across the EU**. For respondents who have also had the experience of launching a product, service or product range, this share is 100% (13 out of 13). Further explanations by the respondents indicate that this is thanks to the collaboration between partners around Europe, access to larger networks, etc.
- ▶ At the level of the organisation, gaining **new partners** and **increasing social engagement and networks** are confirmed as impacts from participation in the AAL programme.
- ▶ More than two thirds of the participants say to currently **benefit from the collaboration and networks** established during their AAL project.
- ▶ The **AAL Forum Support Action** also makes a **strong contribution in terms of networking**. Participation in the AAL Forum has helped to broaden the AAL-network of 89% of the respondents having participated to the Support Action (N=56).



Finally, the survey provides direct evidence that the AAL Programme **strengthens the wider AAL ecosystem and community**. This impact is expected to result from the increased knowledge sharing and capacity building, the cooperation and coordination, and the better understanding across user or stakeholder groups and countries.

The majority of the participants confirm the contribution of the AAL Programme to strengthening the wider AAL ecosystem and community.

More than 80% of the participants state that the AAL programme contributes to strengthening the wider ecosystem and community in the AAL field (N=91).





2 / Lessons learnt for future innovation partnerships

2.1. Key learnings from AAL Programme outputs, outcomes and impact

The results of the impact assessment point at the need for long-term stability of the AAL Programme to further reinforce AAL innovation cycles. It also suggests that the AAL Programme has evolved from a solutions-centered focus towards a more systemic view, including a stronger focus on end-users involvement and business and ecosystem development.

The first part of this report demonstrated that important positive outputs, outcomes and impacts are generated through the AAL Programme and that **progress has been made in terms of learnings and development of the AAL ecosystem from AAL1 to AAL2**: the share of AAL supported projects, which report to have effectively commercialised a product, service or component, has more than doubled in the 2021 survey (cf. supra, 61%), focusing on AAL2 projects⁴. As a considerable share of the respondents had also participated in AAL1, they could thus build on their project learnings and networks for their AAL2 participation. Furthermore, the **development of existing and new Support Actions in AAL2** has also supported the commercialisation of AAL products, services or components by spreading and strengthening knowledge on (among others) business or commercialisation strategies across the AAL network(s).

However, the impact assessment is not only intended to identify the positive outcomes and impacts of the AAL Programme, it is equally important to apply this impact framework to identify **opportunities for further development**. Therefore, the following sections summarise the key learnings from the impact analysis for the future of AAL, based on an analysis of possible **gaps** that still exist between the AAL Programme objectives (described in section 1.1 and Annex 1) and its results. We focus on the extent to **which barriers are faced by participants** and how this hinders the realisation of the objectives of the AAL programme, **whether and how the AAL programme contributed to reducing barriers**, and finally on the identification of **which barriers still exist** and remain to be addressed within the AAL ecosystem. In this gap analysis, we need to take into account the scope and action range of the AAL Programme, as well as the evolution over time (as described above).

⁴ I.e. in comparison to the 2019/2020 impact assessments, which focused mainly on AAL1 projects.



BARRIERS FACED BY PARTICIPANTS

The main barriers for AAL Programme participants relate to solution development and commercialisation on the one hand, and to the level of market maturity and care and support systems on the other hand.

All respondents to the impact assessment survey (N=91) have identified the **challenges** they have encountered when bringing an AAL solution to market. The main barriers relate to:

- ▶ Insufficient levels of **product or technology maturity** by the end of the project
- ▶ Dependencies on **consortium partners** for components
- ▶ Absence of a (specific) **mature AAL market**
- ▶ A lack of (external) **funding** in order to bring solutions to market
- ▶ Difficulties in **developing a business plan** for commercialisation

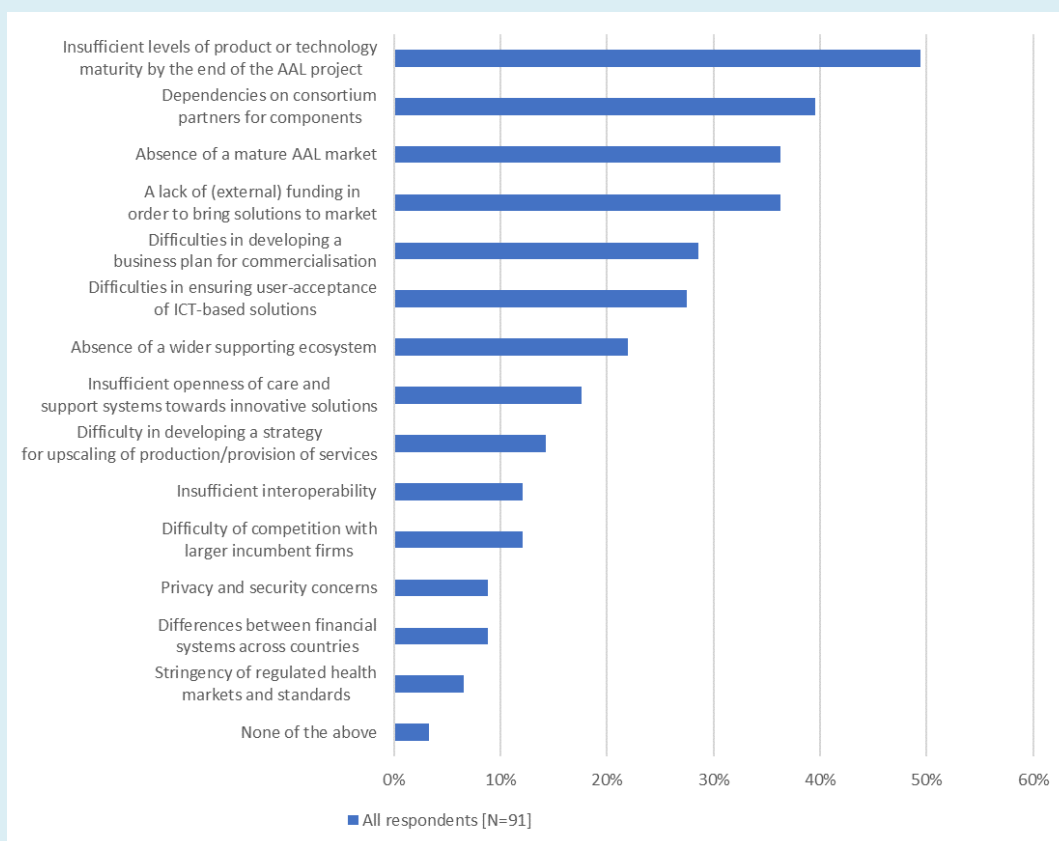
When looking only at the respondents who have launched a product, a service or a product range (N=13), the top 4 barriers remain important, but another barrier is faced considerably more often: **the insufficient openness of care and support systems towards innovative solutions** is the second most important barrier for this subgroup (7 out of 13). Also difficulties in ensuring user-acceptance of ICT-based solutions is more important for this subgroup (5 out of 13).

This pattern is more or less in line with the 2020 edition, although the results cannot be fully compared due to different question formats (open in 2020, closed options in 2021).

An important observation from this ranking of challenges, is that some of these main barriers focus on the more concrete **development and commercialisation processes**, others rather relate to the systemic elements of **market maturity and openness of care and support systems**.



- Share of respondents (N=91) having encountered **challenges when bringing an AAL solution to the market**:



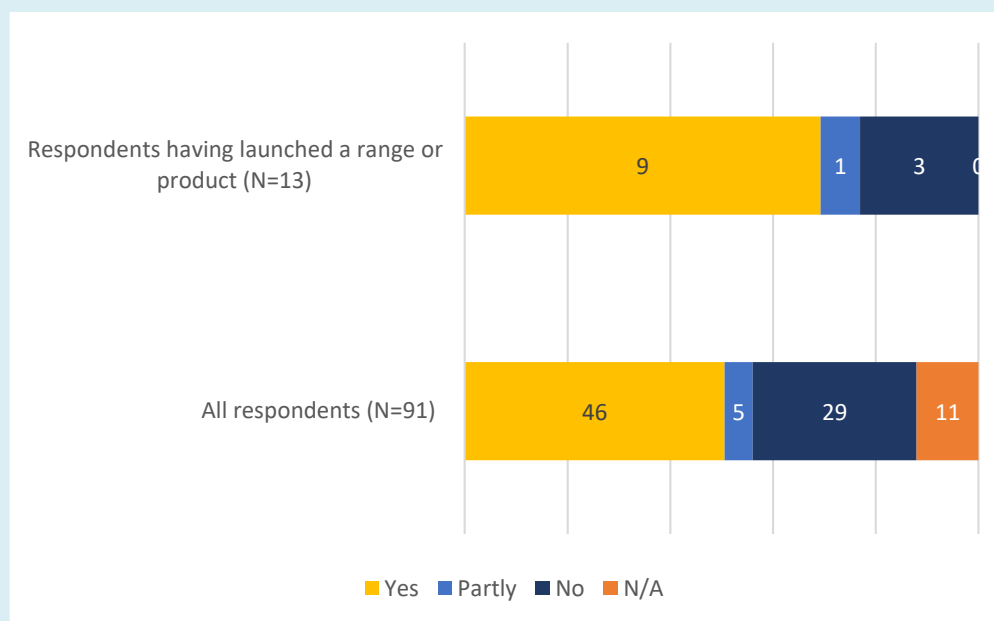
- Related to the identified challenge to find funding for bringing solutions to the market, a dedicated AAL2Business survey shows that only **4 out of 21 respondents** (participants to AAL2Business) indicate (to a moderate or large extent) to **have secured follow-on funding** to progress towards product launch after AAL funding finished.



CONTRIBUTION OF THE AAL PROGRAMME TO REDUCING BARRIERS

The AAL programme aims to help reduce the above-mentioned barriers, and according to respondents it has reached its goal in a considerable number of cases.

- 56% of respondents acknowledge that the AAL programme has helped to reduce any of the barriers to bring their AAL solution(s) to the market.



According to the respondents, the AAL programme mainly reduces barriers by providing testing opportunities (e.g. in a field trial), improving user-acceptance, supporting business plan development, strengthening the ecosystem, and dissemination and exploitation of the project results (each factor mentioned once by a respondent). The first elements relate to solution development and commercialisation, while the latter elements relate more to ecosystem development.

Several external factors were also mentioned in this context, where the AAL was not able to reduce these barriers: issues related to the COVID-19 pandemic, to the regulatory or legal frameworks, etc.

OPPORTUNITIES FOR FURTHER REDUCING BARRIERS AND FUTURE DEVELOPMENT

To further overcome these barriers, the participants refer to support by policy makers, further support for commercialisation and support in selecting partners in the consortium. They mentioned (amongst others) the following suggestions (with top ones mentioned more often – directly or indirectly):





In addition to the most often mentioned suggestions presented in the figure above, respondents also mentioned (among others) “helping to reduce the risk of product commercialisation”, “support within 24 months”, “support towards market entry: marketing, reimbursement in certain countries, network of deciders”, or “Support programme/advice in the last stages of the project, in order to scale up into the market”.

These specific elements can be seen as recommendations for finetuning or further developing support actions, including follow-up support after the end of the project to further encourage the next steps for bringing the solutions into the market and maximising uptake.

More generally, although progress was made, the identified system-level barriers show that **there is still a gap in terms of maturity of the AAL market and openness of the care and support systems towards innovative solutions. An important pathway for the future is therefore to strengthen the development and sustainability of the AAL system.** Whereas AAL1 focused mainly on technological development and testing, AAL2 moved towards a more market-oriented approach (cf. above). The results in this impact assessment already suggest indications of learnings and growth of the AAL ecosystem from AAL1 to AAL2. A next step could be to **work towards a more fully-developed and integrated AAL innovation ecosystem across Europe.** Further progress in this respect would allow to focus on innovations in the system itself, how it is organised and strengthened in the longer run, as well as to generate deeper co-creation and co-ownership within the entire system and to develop a stronger mindset for uptake of innovations. The strengths of the AAL programme in terms of improved collaboration and networking and user-centered development constitute an excellent basis for this.

2.2. Methodological progress and learnings for AAL impact assessment

The third edition of the AAL impact assessment implemented updates and refinements to the methodology, based on the learnings in previous editions. The main updates included:

- ▶ Refinement of the **intervention logic** and **indicator framework**;
- ▶ Update of the **survey questionnaire**;
- ▶ Fine-tuning of the **survey methodology**.

The updates of the intervention logic, indicator framework and survey questionnaire are described in more detail in Annex 1. The detailed survey methodology is presented in Annex 2.



REFINEMENT OF THE INTERVENTION LOGIC AND INDICATOR FRAMEWORK

To address the need for a **more transparent and coherent intervention logic, explaining better the relations between activities, outputs, outcomes and impacts**, the framework was updated and refined. Three layers in the intervention logic were made more explicit to better structure the relation between outputs, outcomes and impacts:

- ▶ Focus on the three main **objectives** and **target groups**;
- ▶ Structure of the outputs and outcomes into three main **dimensions**;
- ▶ **Timeline** to specify the expected timing for outputs and outcomes.

The updated intervention logic improves insight in the outputs/outcomes/impacts that can be expected from the AAL Programme, as well as the understanding of how they contribute to the final objectives for the three target groups. It also considers more clearly the role of the modalities chosen for the AAL Programme.

Another element is the role of the **Support Actions** in this intervention logic. Whereas previous editions collected important KPIs for the different Support Actions, it was difficult to link this information to actual outcomes or impact or to identify the contribution of the Support Actions to the intervention logic of the AAL Programme. By including the contribution domains of the Support Actions in the updated intervention logic and consequently in the data collection process, the third edition clarified the role and contributions of the Support Actions in a more systematic manner.

Based on the above three points, impacts for the three target groups and in the three main dimensions were clearly defined and mapped in the updated intervention logic framework. Moreover, additional emerging medium-term outcome and medium to long-term impact indicators were specified.

UPDATE OF THE SURVEY QUESTIONNAIRE

The updates in the framework and indicators finally resulted in an updated questionnaire for the survey. The questionnaire was adapted to include all dimensions and new or refined indicators in a systematic manner to ensure that **information on all aspects of the intervention logic** could be collected. New questions were formulated to complement information on:

- ▶ **Timing** of (expected) launch of product/service or component (reference framework)
- ▶ Indirectly perceived **impact of AAL solutions on end users** (expected impacts based on the (social) claim of companies/solutions)
- ▶ Products/services that are **expected** to be launched (information on timing, expected outcomes and impacts)
- ▶ Contribution of the AAL Programme in **reducing barriers** to bring products/services to market (additionality)
- ▶ **Additionality** of the AAL Programme related to its **modalities**
- ▶ Participation in AAL **Support Actions** and effects of that participation (outcomes, impact and leverage effect)



FINE-TUNING OF THE SURVEY METHODOLOGY

Also the survey methodology was further finetuned with the aim of **improving the response rate and obtaining a good coverage across participants and projects**. Implementation of the survey questionnaire in a professional and user-friendly online tool improved the ease of replying for respondents. The online tool also allowed for continuous monitoring of the response rate. Automatic email reminders via the tool and targeted follow-up by email and telephone further improved the response rate. In the end, a response rate of nearly 35% was reached and all projects in the sample were covered by at least one response.

STRENGTHS AND LIMITATIONS OF THE RESULTING DATA

This good response rate and coverage strengthen the reliability and credibility of the results of the impact assessment. The **strengths** of the collected data include:

- ▶ Good coverage of projects and participants;
- ▶ Consistency with past editions to capture evolution over time, but refinements and additional questions to improve relevance;
- ▶ Systematic coverage and consideration of the key elements in the intervention logic and of the role of the Support Actions.

Nevertheless, the survey data have **limitations** that need to be taken into account in the interpretation of the results:

- ▶ Absolute numbers of observations can become small for specific subgroups and indicators for these subgroups need to be interpreted with caution;
- ▶ Although end-user organisations and researcher organisations are not a priori excluded from the survey, the questionnaire takes an explicit supply-side focus to assess impacts in terms of bringing solutions to the market, their commercialisation and uptake as well as networking effects.
 - Demand-side effects are thus not explicitly covered in the scope of this study.
 - Evidence on impacts with end-users was collected in an indirect manner, asking products/service developers/suppliers how they think that their solution makes an impact on end-users.

LEARNINGS FOR AAL IMPACT ASSESSMENT

The described steps for refinement of the framework and methodology have considerably improved the third edition of the AAL impact assessment. Still, also learnings for future impact assessment can be drawn from this experience. The main learnings are:

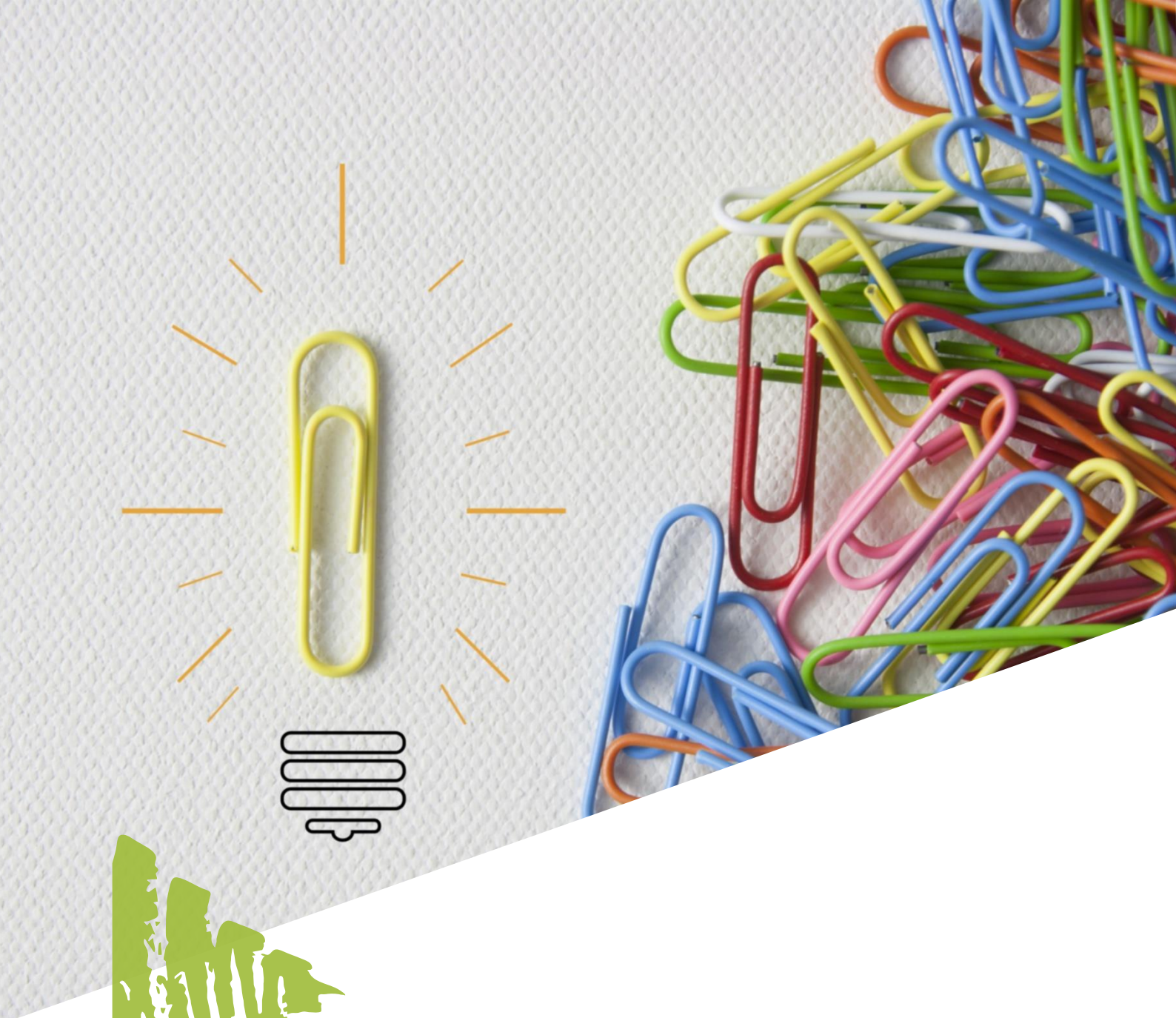
- ▶ **THE NEED TO COVER THE DEMAND-SIDE EFFECTS MORE EXPLICITLY TO COMPLEMENT THE SURVEY INFORMATION ON THE SUPPLY-SIDE.** This could be done via a separate, targeted survey of the end-users/organisations involved in the AAL projects. However, to capture insights from the broader group of paying customers and end-users that are not necessarily part of a project, but have implemented a solution, a case study approach (based on desk research and interviews) is more appropriate. This would allow to complement the supply-side survey information with more in-depth, specific and direct information on the value of the AAL solutions for paying customers or end-users, the impact it has in their work or life, and the barriers they faced to implement or use the solution. Either a large number of case studies can be implemented to obtain a more aggregate



assessment, or a lower number of elaborated case studies can be developed to tell specific stories and more concretely illustrate the mechanism(s) at play.

- **THE NEED TO CAPTURE EVOLVING INSIGHTS ON THE SYSTEM LEVEL.** To identify system needs and feed a more strategic discussion, interviews with the key stakeholders in the ecosystem are needed. This would allow to position the findings from the impact assessment in a broader context, to complement insights on the framework conditions, ecosystem development and future-oriented strategic considerations, and to thus identify further opportunities and learnings for AAL.





ANNEXES





A.1 / Impact assessment framework for the AAL Programme

The starting point of the impact assessment of the AAL Programme, is its intervention logic. What does the Programme aim to achieve? How does it work, which actions are taken? And which results are expected from this? By structuring the objectives and activities of the Programme as well as its expected results, a transparent framework for the impact assessment is built. The logic model clearly shows the factors that are relevant to measure when assessing the impact of the AAL Programme.

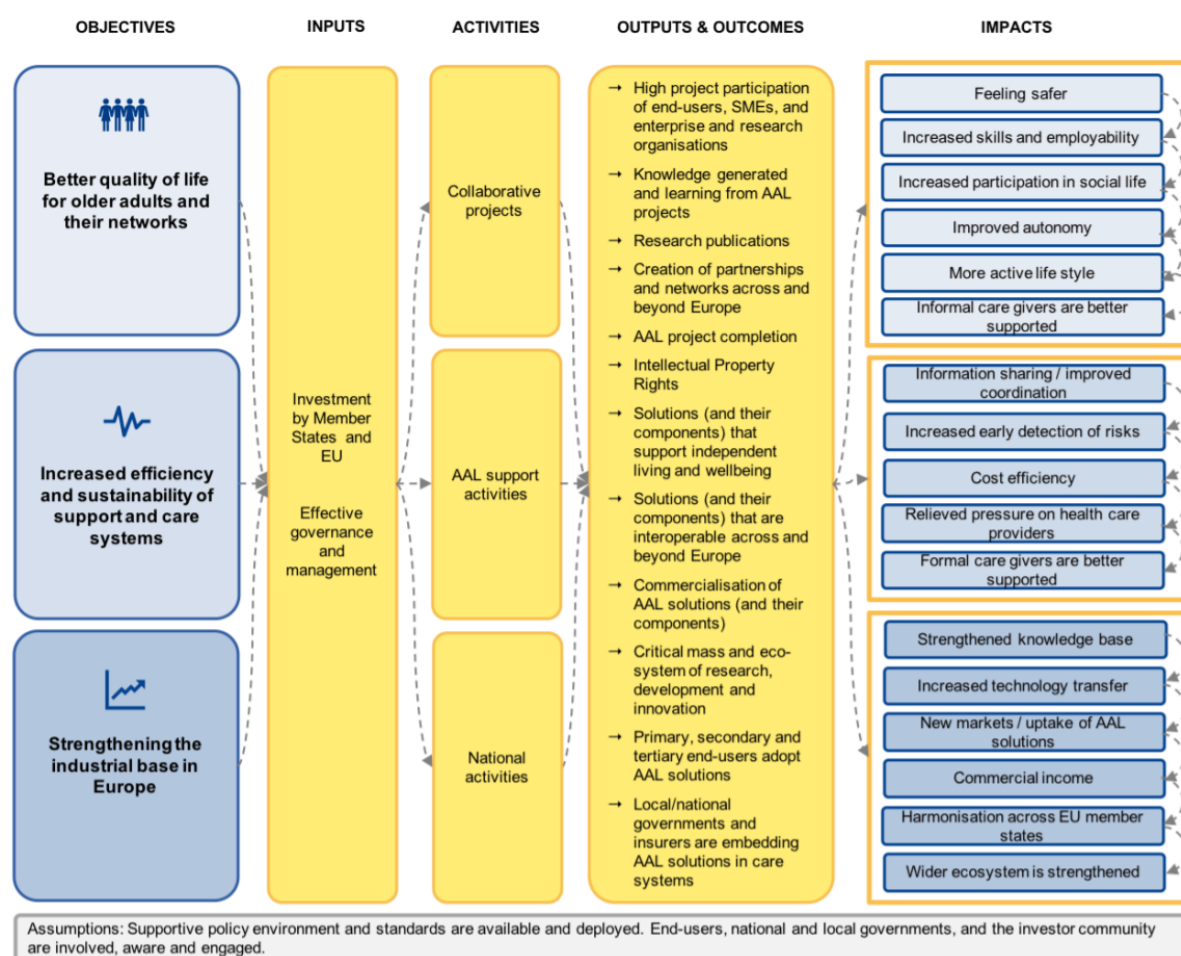
1.1 Update of the intervention logic

During the previous editions of the AAL impact assessment, an impact assessment framework, i.e. the logic model of the AAL Programme, was developed and implemented. This is presented in Figure 2.

The model links the overarching objectives to inputs, activities, outputs, outcomes and finally impacts of the programme. In brief, it reflects the following logic: the AAL Programme supports projects with a diverse scope and operating in diverse markets. Each project is expected to contribute to the intended impacts described in the below figure, yet not all projects contribute to all impact dimensions. Furthermore, the relationship between outputs, outcomes and impacts is not linear. Certain projects lead to integrated solutions, others rather to components for (a range of) solutions, and still others do not lead to functioning solutions or components. These projects do have an indirect impact on the community because they contribute to knowledge development, more advanced research and international cooperation.



Figure 2: Impact assessment framework for the AAL Programme in the previous editions



Source: 2020 AAL Impact Assessment, Final report

The logic model was used as basis for the third edition, although in an updated form. The intervention logic is the model that structures the relation between the outputs, outcomes and the realisation of impacts and that links this back to the programmes objectives. This relation between outputs, outcomes and impacts is not always direct or linear. It is helpful to cluster results per end-user group and dimension to make the logic narrative of how and at which level activities, outputs and outcomes are expected to lead to the realisation of impacts, more transparent. For this third edition, we have therefore applied a refinement that brings more depth to the existing model by making explicit:

- ▶ The **dimension** on which activities, outputs, outcomes and impacts act:
 - knowledge base & networking;
 - solutions & market;
 - AAL programme modalities & framework conditions;
- ▶ Their **timing**:
 - during the project;
 - at short term after the project (approx. 0-3 years after project completion);
 - at medium term (approx. 3-5 years after project completion);



- at long term (approx.+5 years after project completion);
- ▶ The impacted **target groups**:
 - the industry;
 - the older adults and their networks;
 - the support and care systems.

By making these three layers more explicit, the relation between outputs, outcomes and impact also becomes more transparent.

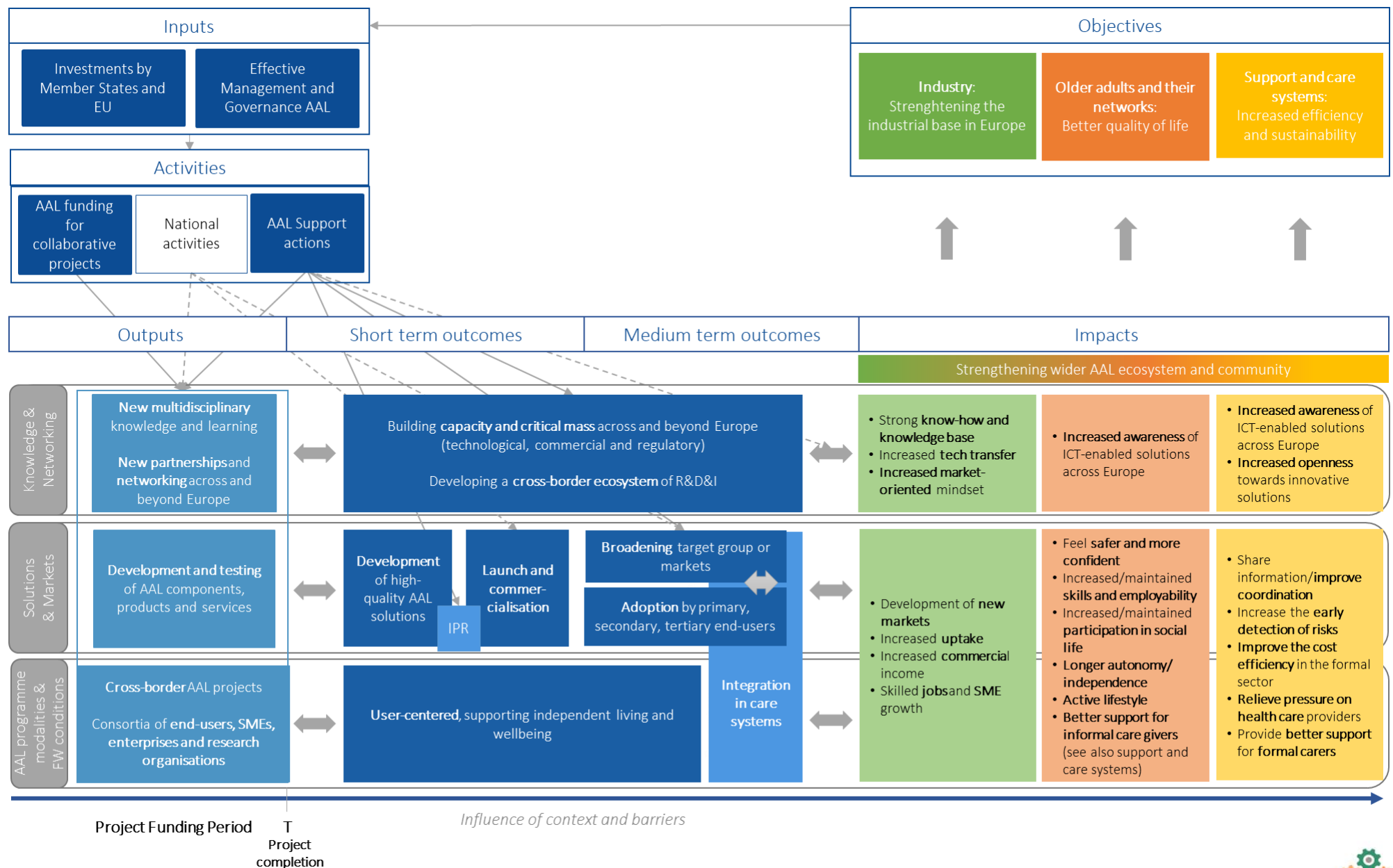
This refined logic model for the third edition of the impact assessment of the AAL Programme is presented in Figure 3. During this exercise, we identified a few missing elements:

- ▶ the impact on industry actors of developing a market-oriented mindset;
- ▶ the impact on support and care systems of increased openness towards innovative solutions;
- ▶ the impact on end-users in terms of increased awareness of ICT-enabled solutions;
- ▶ the role of the Support actions on capacity building of businesses in terms of market intelligence, business modelling, commercialisation, etc. as a leverage for the realisation of impacts in the AAL Programme.

The timeline defined in the previous editions for short term outcomes was 4-6 years. This has been revised to 3-5 years for (all) outcomes and +5 years for impacts. We have included this indicative time span in the structure above, yet it is important to be aware that this may differ across projects and solutions. To gain more insight on this, we have added a question in the questionnaire on (expected) timing of launch which allows to monitor this aspect ex-post.

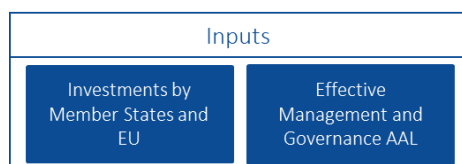


Figure 3: Updated impact assessment framework for the AAL Programme



In the following paragraphs, the different elements of this logic model (inputs, activities, outputs, outcomes and impacts) are explained, based on the description in the Final report of the 2020 AAL Impact Assessment, and further elaborated in line with the updated model.

INPUTS



In the AAL Programme, the AAL Management Unit **implements and manages** the programme and support activities. The **funding** of the projects in itself is implemented at national level. Projects partners can apply to their National Funding

Agency to ask for funding. Eligibility of the proposals is checked at national level, the evaluation of the proposals is done at central level.

ACTIVITIES



In the case of the AAL Programme, activities include the collaborative projects, AAL support activities and national activities.

Since 2008, more than 260 **projects** that aim for end-user involvement and a market introduction within 2 to 3 years, have been funded in the framework of the programme. In the projects, industry, researchers and end-users from different Member States cooperate to bring solutions.

Moreover, **AAL Support Activities** target participants and help them in different phases of the project. They each contribute to the realisation of outputs, outcome and impacts in the model:

- ▶ **AAL Forum:** knowledge sharing, networking, strengthening the ecosystem
- ▶ **AAL2Business:** supporting user-involvement in development and testing of AAL products and services, facilitating commercialisation, IPR, business modelling, launch and upscaling, developing insights in the investor's point of view, etc.
- ▶ **AAL Market Observatory:** market intelligence and bridge to investors
- ▶ **Smart Aging Prize:** reputation, visibility and awareness raising

In addition, the AAL Programme connects different **activities at national level** which contribute to the realisation of its objectives, e.g. national programme calls, national policies, events, workshops, support mechanisms, etc. As these are not managed by the AAL Association, but do play an important complementary and leveraging role, the national activities are included in an unfilled rectangle in the model. In addition, dashed arrows indicate their leverage on several outcome of the AAL projects (e.g. launch, upscaling, adoption and broadening of the solutions).

OUTPUTS AND OUTCOMES

In the logic model of the AAL Programme, outputs are defined as the project-level results that are expected to be generated during the project. Short-term outcomes are results stemming directly from

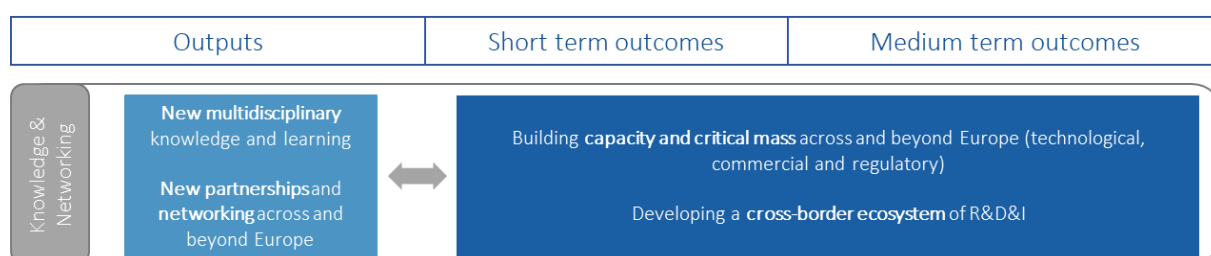


project completion and mid-term outcomes are results generated more indirectly from AAL project completion.

The realisation of short and medium term outcomes can depend on external factors of context and barriers, such as the availability of funding from internal or external investors, the regulatory framework, the business cycle, market developments, competition, sales and marketing efforts, etc.

In the updated logic model, **the outputs, outcomes and impacts identified in the previous editions of the impact assessment, are clustered according to their timing and the dimension on which they act:**

► **Knowledge base and networking:**

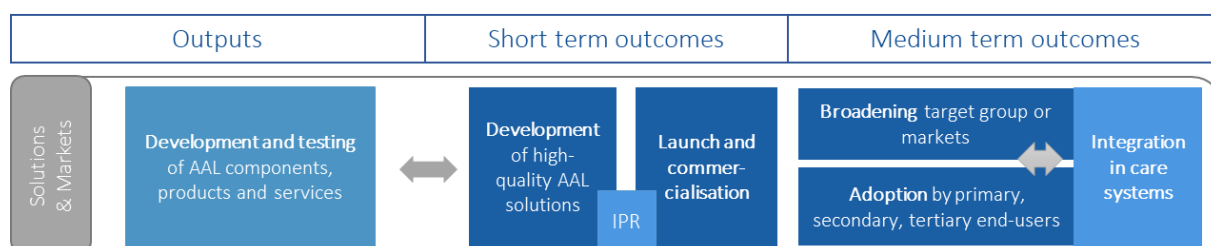


The enabling factors of **(multidisciplinary) knowledge creation and learning** during the project, will lead to the development of **capacity and critical mass** across and beyond Europe in the short and medium run.

At the same time, new **networking and partnerships** across Europe support the development of a **strong cross-border ecosystem** of R&D&I in the short and medium run.

The Support Actions contribute to these outcomes by enhancing knowledge-sharing and networking (AAL Forum), reputation and visibility (Smart Ageing Prize) and better understanding of the ecosystem in general and the investor's point of view more specifically (AAL2Business and AAL Market Observatory).

► **Solutions and markets:**



During the project funding period and shortly after, **components, products or services are developed and tested** as outputs of the projects. AAL solutions are further developed and their quality is further improved, with the aim of **bringing them to market**.

Development and testing will lead in the short run to outcomes in terms of **commercialisation** and **launch** in the market(s) and in the medium run to further **broadening** for new groups or markets, **adoption** of the solutions by the end-users and **integration in the care system** with local/national governments and insurers embedding AAL solution in their policies.



The Support Actions contribute to the development of solutions by supporting the involvement of end-users in the development of products or services. In addition, they facilitate enterprises to **bridge the innovation gap**, i.e. to move from the development of solutions to their launch and commercialisation. By offering training and market intelligence to participating (and other) enterprises, the Support Actions have an impact on organisations' **understanding of the investor's point of view**, and on their capabilities in terms of **regulatory conditions (IPR), market intelligence, business modelling, commercialisation and upscaling** (AAL2Business and AAL Market Observatory).

► **AAL Programme modalities & framework conditions:**



External framework conditions as well as the modalities specified for the projects within the AAL Programme can steer the realisation of certain outcomes or impacts. The AAL projects are collaborative in the sense that they bring together businesses, researchers and end-users. The projects involve participants from different EU Member or Associated States. In order to be eligible for AAL funding, the projects must in addition fulfil the following criteria:

- Time-to-market perspective of a maximum of two to three years after the end of the project
- Indicative total budget of €1-7 million, with max. €3.0 million AAL Programme funding
- Proactive end-user involvement throughout the life of the project
- Sound trial, testing and evaluation of added value performed during the project
- Defined market segment(s), use cases and target groups(s) for a viable business model

The modalities of the AAL Programme, in particular the **cross-border cooperation** on AAL projects and the **involvement of end-users, SMEs, enterprises and research organisations** lead to the development of solutions that are particularly **relevant and user-friendly**. User-centeredness of solutions will contribute to their **integration in care systems** in the medium term. The Support Actions **support the user-involvement** in the development and testing of products and services.



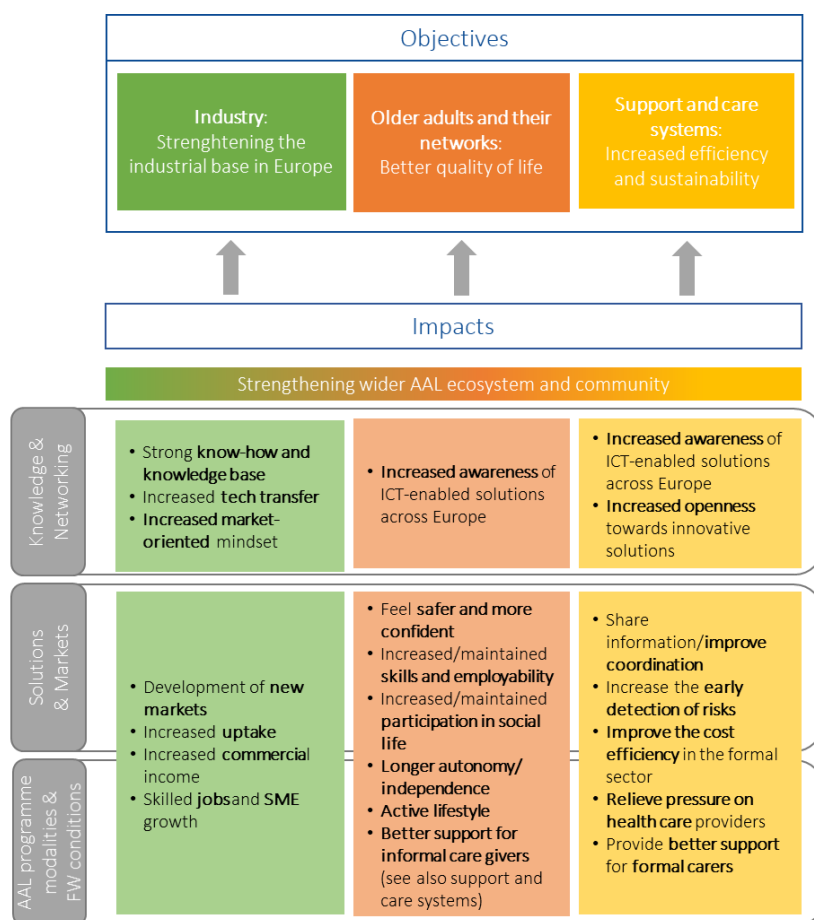
IMPACT

In the logic model of the AAL Programme, the three main impact dimensions of the AAL Programme are defined as:

- ▶ Better **quality of life** for older people and their networks
- ▶ Increased **efficiency and sustainability** of support and care system
- ▶ Strengthening the **industrial base** in Europe

These impacts reflect the three main objectives of the programme and the three main end-user groups (older adults and their networks, the support and care system and industry, respectively).

They include both direct and indirect results enabled by the Programme and take into account impacts of solutions incorporating components developed in the AAL Programme.



Even though the relation is not always direct or linear, activities, outputs and outcomes can be better linked to impacts by clustering them per end-user group and dimension. The logic narrative of how and at which level activities, outputs and outcomes are expected to lead to the realisation of impacts, becomes more transparent.

For the AAL Programme, this means the following:

- ▶ For **industry**, the following impacts are expected:
 - At the level of solutions and markets, the development and adoption of solutions, and their integration in the care system, allows to develop **new markets** and increase the **uptake of AAL solutions**, thus leading to an increased **commercial income, skilled jobs and SME growth**.
 - At the level of knowledge base and networking, the development of a critical mass and cross-border ecosystem in the short run, allows more generally to **strengthen the knowledge base** and to increase **technology transfer** at national level and across actors in Europe. The more interlinked the networks become, the easier knowledge is transferred within the network. The AAL Programme is expected to contribute to this process by encouraging partnerships and cooperation across Europe and between industry, research organisations and users.



- The **Support Actions** leverage some of these impacts: by offering training and market insights with participating (and other) enterprises, the Support Actions have an impact on enterprises and organisations’ **knowhow and knowledge and their market-oriented mindset** (cf. outcomes: understanding of the investor’s point of view, capabilities in terms of market intelligence, business modelling, commercialisation and upscaling).
- ▶ For older adults and their networks:
 - At the level of markets and solutions, the development of solutions in AAL-funded projects - following the objectives and modalities specified in the AAL Programme - will result in solutions that allow older adults to feel **safer and more confident**, to increase or maintain **their skills and employability** and their **participation in social life**, to remain **autonomous and independent** longer and to lead an **active lifestyle**.
 - Also **informal care givers** in the networks of the older adults are **better supported** through these solutions, which is an impact in itself, but also **contributes indirectly** to the realisation of the above impacts for the older adults (e.g. autonomy and independence).
 - Adoption of these solutions and their integration in care systems are important outcomes in the medium run that will result in a larger group of older adults across Europe having **access to these solutions**. These outcomes will therefore have an **influence on the scope and extent** to which the above impacts are realised.
 - The AAL Programme modality of user-centered development that is at the heart of the AAL projects, ensures the relevance of the products and services for the users and facilitates the extent to which they can be commercialised across (and beyond) Europe. This **modality** thus further **leverages the uptake of products and services, and by this the extent to which impacts for the older adults and their networks will be realised**.
 - Finally, the above impacts, including those of the Support Actions, will also have an influence on the ecosystem for as far as they lead to **increased awareness** of older adults and their informal care givers regarding AAL solutions.
- ▶ Similarly, for support and care systems:
 - The development of solutions in AAL-funded projects, following the objectives and modalities specified in the AAL Programme, will result in solutions that allow to increase **early detection of risks**, improve the **cost efficiency** in the formal sector, **relieve pressure** on health care providers and provide **better support** for formal and informal carers.
 - As described above, adoption and user-centered development, support the **uptake** and will have an influence on the scope and **extent to which the above impacts are realised**.
 - At the level of knowledge base and networking, the involvement of user-groups and the development of a cross-border ecosystem, is expected to lead to an **increased awareness, trust and openness as regards innovative solutions** in the market among the carers in the support and care systems. Also here, the Support Actions play a supporting role to realise these impacts.

One overarching impact, involving all three end-user groups, is the **strengthening of the wider AAL ecosystem and community**. This impact is expected to result from the increased knowledge sharing and capacity building, the cooperation and coordination, and the better understanding across user or stakeholder groups and countries.



1.2 Update of the indicator framework and questionnaire

(EMERGING) INDICATORS

To assess whether new indicators were needed to reflect the refined logic model, we have mapped the existing indicators on the model and identified potential gaps. We focused on indicators at outcome and impact level, which were collected via the survey. Indicators on outputs come from portfolio information (number of projects, project participants and consortia, funding).

To complete the indicator framework, we have added:

- ▶ Development of new or broader markets (impact for industry at the level of solutions and markets)
- ▶ Capacity building based on participation in SA (impact for industry at the level of knowledge base & networking)
- ▶ Contribution to reducing barriers for commercialisation (impact for industry at the level of AAL Programme modalities)
- ▶ Extent to which impacts on older adults, their networks, support and care systems is realised, as perceived by the project participants (indirect assessment of impact for older adults, their networks, support and care systems at the level of solutions)

It is important to point out that these proposed impact indicators reflect emerging impacts, and are not be quantifiable into hard KPIs. In the analysis and report we make a clear distinction between hard KPIs and soft KPIs for continued monitoring, and emerging indicators that give indications of relevant outcomes or impacts that are more difficult to quantify (e.g. due to the longer time needed to realise or the difficulty for respondents in a survey to quantify, monetarise, or directly attribute effects to their participation).

QUESTIONNAIRE

The implications of the refined logic model and other improvements were integrated in the survey questionnaire. In sum, we have formulated new questions to complement information on:

- ▶ Timing of (expected) launch of product/service or component (reference framework)
- ▶ Indirectly perceived impact of AAL solutions on end users (expected impacts based on the (social) claim of companies/solutions)
- ▶ Products/services that are expected to be launched (information on timing, expected outcomes and impacts)
- ▶ Contribution of the AAL Programme in reducing barriers to bring products/services to market (additionality)
- ▶ Additionality of the AAL Programme related to its modalities
- ▶ Participation in AAL Support Actions and effects of that participation (outcomes, impact and leverage effect)





A.2 / Survey methodology and responses

Two surveys have been implemented to gather information on the effects of the AAL programme as identified in the intervention logic: a full survey to collect information on new projects and solutions and a follow-on survey to respondents of the 2020 edition to collect updated information.

Both surveys were based on the previous edition's questionnaires to be able to compare indicators and show progress over the years⁵. Yet, refinements and additions were made to the questionnaire in line with the updated logic model, to capture all aspects of the updated logic model. The questionnaire was structured as shown in the box on the right, with the green box indicating the part that was repeated in the follow-on survey.

A close follow-up was ensured by IDEA Consult and the AAL Management Unit to reach a maximum of participants and, by this, increase the reliability of the analysis.

FULL SURVEY

The full survey was launched on the 9th of March 2021 and closed on the 26th of April 2021. It targeted all participants from projects finished by the end of 2019⁶: 282 participants involved in one of the 38 projects finished by December 2019 were invited to

Questionnaire: based on previous editions + complemented to better grasp impacts

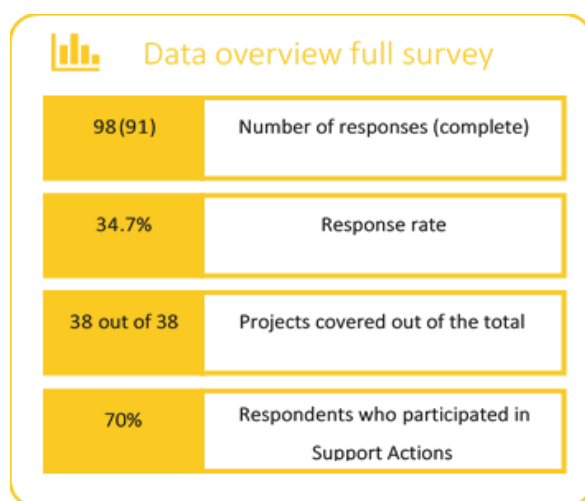
- ▷ Products/services/components:
 - ▷ Number
 - ▷ Characteristics
 - ▷ Impact on target groups
 - ▷ Impact on revenues
 - ▷ Number and type of end users/paying customers or in case of components: organisations or sectors
- ▷ Expected products/services:
 - ▷ Timing
 - ▷ Characteristics
 - ▷ Expected impact on revenues
 - ▷ Expected number of end users/paying customers
- ▷ Barriers, learnings and general outcomes/impacts of the programme
- ▷ Participation in and contribution of Support Actions

⁵ Although end-user organisations and researcher organisations are not a priori excluded from the survey, the questionnaire takes an explicit supply-side focus to assess impacts in terms of bringing solutions to the market, their commercialisation and uptake as well as networking effects. Demand-side effects are thus not explicitly covered in the scope of this study.

⁶ Although end-user organisations and researcher organisations are not a priori excluded from the survey, the questionnaire takes an explicit supply-side focus to assess impacts in terms of bringing solutions to the market, their commercialisation and uptake as well as networking effects. Demand-side effects are thus not explicitly covered in the scope of this study.



complete the full survey. This resulted in 91 complete responses and 7 partial responses. The survey thus obtained a high response rate of 34.7%.



All projects are covered in the responses: there was at least one complete response for each of the 38 projects. Table 1 shows the number of complete responses per project.

In addition, 70% of the respondents having entirely completed the questionnaire for their AAL programme participation, have also participated in AAL Support Actions. Table 2 shows the number of participants in each of the four Support Actions (AAL2 Business, AAL Market Observatory, AAL Forum and Smart ageing prize).

Table 1: Number of complete responses per project in the full survey

Acronym	#	Acronym	#	Acronym	#	Acronym	#
ActiveatHome	2	EnterTrain	3	KnK	2	SENIOR TV	4
BrainatHome	1	FairCare	3	MAESTRO	1	SmartBEAT	4
CAMI	1	Follow Me	2	MI Tale	1	SmartHeat	4
CiM	5	GAALaxy	3	MyLife MyWay	3	SOCIALCARE	2
CO TRAIN	3	Home4Dem	4	MyMate	5	STAGE	1
CoME	3	iCareCoops	1	NOAH	1	TSBank	1
CordonGris	3	INNOVCARE	4	OLA	3	USECARE	1
DayGuide	3	IntegrAAL	1	PALETTEV2	2	VUK	3
EDLAH2	1	iToilet	2	PersonAAL	1	zocAALo	3
ENSAFE	2	ActiveAdvice	2				

Source: IDEA Consult based on 2021 AAL Impact Assessment full survey



Table 2: Number of participants per Support Action

AAL2 Business	AAL Market observatory	AAL Forum	Smart ageing prize
33	2	56	12

Source: IDEA Consult based on survey data

Overall, many of the responses point at the launch or planned launch of a product, service or component based on the AAL project. 62% of respondents mention the launch or planned launch of a solution, either in the organisation (44%) or by a partner or spin-off (18%).

The projects targeted in the survey resulted from three calls: 2014, 2015 and 2016. More than half of the projects (20) were projects launched as part of the 2014 call, 16 projects were issued from the 2015 and another 2 projects were launched in the 2016 call.

Figure 4: Projects per call



Source: IDEA Consult based on survey data

FOLLOW-ON SURVEY

In parallel, the follow-on survey was implemented. It was launched on the 11th of March 2021 and closed equally on the 26th of April 2021. The follow-on survey targeted only respondents from the previous AAL Impact Assessment survey of 2020. The number of invited participants amounted to 26. 11 provided their updated responses. This corresponds to a high response rate of 44%. Furthermore, complete responses were provided for half of the projects for which there was a response in the 2020 Impact Assessment Survey. The detailed information on the number of responses per project is described in Table 3.

The follow-on survey shows that overall, the situation of most respondents (in terms of having launched or planning to launch a solution) has not changed, with one exception. One of the respondents reported to have launched one product or service in 2020 and this increased to two products or services launched in the 2021 survey.



Table 3: Number of complete responses per project in the follow-on survey

Acronym	#	Acronym	#	Acronym	#
ActGo-Gate	2	zocAALo	1	INCARE	
CARA	2	ASSAM		NACODEAL	
FEARLESS	1	TOPIC		PEARL	
HOPES	1	e-Stockings		U-TOPIA	
MedGUIDE	1	ASSISTANT		INSPIRATION	
Mylife	1	HELP ME BRUSH		EMOTION-AAL	
Sense Garden	1	CVN Network			
Toilet4me	1	ALADDIN			

Source: IDEA Consult based on 2021 AAL Impact Assessment follow-on survey





A.3 / List of solutions developed based on participation in the AAL programme

Examples of solutions brought to the market are:

- ▶ [RemeCare Heart Failure](#) (launched in 2021), a remote patient monitoring service for patients with chronic heart failure. Heart failure patients use RemeCare to improve their medication compliance, and to monitor their vital parameters and heart failure symptoms. The use of the app ensures that communication between healthcare providers and patients is improved.
- ▶ [123family.org](#) (launched in 2020), a videocall app suitable for people without digital skills and or with dementia.
- ▶ The [DomoCare](#) product range (launched between 2017 – 2021), a safety and care service platform for seniors living at home (alert systems for home and outside, systems for health monitoring, sleep assessment and combinations thereof).
- ▶ [Cariot Brush](#) (launched in 2020), a solution that helps remind users and their carers to brush their teeth. CARIOT BRUSH can identify residents that have not received the minimum oral care needed and remind nursing home caregivers to facilitate the missing toothbrushing actions via an interactive live info screen placed in the guard room of the nursing home.
- ▶ [Anne4Care](#) (launched in 2019), a virtual assistant supporting videocalling, medication and agenda planning and communication, radio and news selection and communication,...
- ▶ [Revita](#) (launched in 2018), a technological platform / monitoring app that brings the hospital and its professionals closer to the patient's home. Users can consult their diaries, obtain reminders, make video calls with professionals and manage their measurements.
- ▶ [James Telecare](#) (launched in 2018), an emergency call system, a watch, which ensures safety of older adults, health monitoring and social integration.
- ▶ [Palettev2](#) (launched in 2018), a contact platform for older adults to share interests, activities and visit events together (matching facility).
- ▶ [eLearning Content for "First Aid"](#) (launched in 2019), an online platform offering first aid courses.
- ▶ [Mememtum](#) (launched in 2019), an intelligent and adaptive monitoring for patients through a smartphone application. Mememtum contributes to the evaluation and tracking of older adults with neurological health issues.



- ▶ [zocAALo](#) (launched in 2019), a service of guiding and certifying the development of apps for older adults' users. It helps identify which application oriented towards older adults can be trusted. ZocAALo also helps developers when creating application for older people.
- ▶ E-Tec + (planned for 2022), an application to improve healthy life and digital literacy.

Solutions mentioned in the follow-on survey (brought to the market in the past):

- ▶ [Memas](#), a tablet which displays the time, day and calendar, and other features such as a photo album. Caregivers can set up the service on an administration website.
- ▶ [Air quality for toilets, and Speech based interaction for toilets](#) aim to offer supportive toilets to older adults when they are not at home.

