



## Deliverable 4.3

# Dissemination Report

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## 1. Introduction

The CO-TRAIN Communication and Dissemination Plan (Deliverable 4.1) has outlined the dissemination strategy for the AAL-project CO-TRAIN. Two versions of the communication and dissemination plan have been delivered throughout the CO-TRAIN project.

The initial version contains the strategy and approach the CO-TRAIN consortium has chosen for the dissemination of project milestones and results. The yearly updated versions have not changed the initial strategy. These versions have updated the plan regarding the use of additional instruments and the envisaged actions taken by the consortium partners. Moreover, the updates have tracked past and ongoing activities for dissemination – both joint and individual -- in order to monitor their progress. The listing of these actions can be found in the Annexes of the respective version of D4.1. The content from the yearly updates (tracking dissemination results) are reused and consolidated in this document, where applicable.

| <b>D 4.1. Communication and dissemination plan - Versions</b> | <b>Date of delivery</b> |
|---|-------------------------|
| v1.0  | 2017-06-26              |
| v1.1  | 2019-01-30              |

*Table 1: Versions D4.1*

The present document provides the final overview of the dissemination activities in the course of the project. It is meant to fulfill two objectives:

1. To give a complete overview about the dissemination activities that have taken place in the course of the CO-TRAIN project.
2. To evaluate the dissemination achievements based on the goals set in D4.1, the communication and dissemination plan.

The CO-TRAIN consortium has developed several innovations and joint knowledge that will be exploited, subject to IP-arrangements, after the official end of the project's financing period. It is expected that there will be additional individual strategies for the exploitation of project results by the different partners owning parts of the technology, where partners integrate their knowledge gained into their private portfolios. The present deliverable considers individual and joint dissemination activities that are planned for the post-project-period. Yet, the present document cannot account for activities where individual partners exploit project results under different labels or behind other products and services of their own company (e.g. where CO-TRAIN developments enrich established product lines).

The strategy described in the communication and dissemination plan has not changed during the project. The consortium members have taken both joint and individual action and focused on different types of audiences/stakeholders in different phases of the project. For a review of the strategy, please consult D4.1 (latest version v1.1).

The document is intended for reporting and internal monitoring purposes. It can be used to assess the success of the project partner's ambitions regarding the dissemination of project results. Results can also be used for future marketing activities for CO-TRAIN, e.g. to make public the product's degree of popularity and the involvement of different stakeholders in different phases.

## 2. Communication and marketing instruments

### Overview instruments

The following table provides an overview to the dissemination instruments created for the purpose of disseminating project ideas and results.

| Consortium Partner         | Instrument/ Activity                           | Date                      | Scope/ Content   | Comments  |
|----------------------------|--|---------------------------|--|---|
| TERZ et al.                | Poster   | 2018                      | Project pitch, Information   | Used in various events  |
| AIT, TERZ                  | Flyer for potential primary users              | 2018 / 2019               | Benefits for private individuals to participate in study                                   | Recruitment   |
| TERZ                       | Flyer for potential secondary / tertiary users | Jan. 2019                 | Benefits for institutions to participate in study and later to stay interested in CO-TRAIN | Recruitment, exploitation, business partnership                 |
| All dissemination partners | Presentation slides                            | 2017 - 2019               |  | Used in general information and business development activities |
| All dissemination partners | Websites                                       | From start of the project |  |   |
| MOV                        | Factsheet                                      | 2018                      | Factsheet for Messe Integra  |   |
| MAS, TERZ, DeW             | Recruitment letters / ads                      | Starting May 2018         | Project and study information for private households                                       | Recruitment, general info                                       |
| TERZ                       | App-Manual                                     | Jan. 2019                 | Instructions on features   | Public on website   |
| MOV                        | Animated Cartoon                               | Nov. 2018                 | Benefits, USP  | Public on website   |

Table 2: Overview: Communication and marketing instruments

## Logo & Brand design

A logo for CO-TRAIN has been created at the project start. Different logos (some of them in different colour schemes) had been developed and presented to the consortium. The following logo was chosen by vote.



*Figure 1: CO-TRAIN Logo*

The logo integrates the project name with the training aspect by presenting two stylized persons who are exercising. The CO-TRAIN logo ensures a unique recognition value for the project.

## Templates

Project templates have been developed in MS-Word and MS-Powerpoint, helping to create public and private deliverables on the basis of the CO-TRAIN corporate design. They include the project logo and logos of the funding organizations, the Commission and the AAL programme.

The following templates are available:

- Deliverables template (see below)
- ppt-template (see below)

- Working documents template



Figure 2: Templates

## Fact Sheets

Fact sheets provide basic information and can be seen as predecessors of the flyers (see next page) that are more specific / target group oriented

### CO-TRAIN moves the elderly with memory impairment

With support of the European AAL-programme and ....partners... CO-Train was developed:

An ICT-solution for elderly with memory impairment. CO-TRAIN stimulates elderly with memory impairment to be more active. In this way it is prevented that the older person finds himself in a vicious circle where memory impairment leads to less movement, which worsens the memory impairment. CO-TRAIN is a system that consists of two components: partly long-distance-physical therapy and partly selfcare.

Social technology is the future. The European AAL-programme supports this vision by enabling the development of ICT-solutions like CO-TRAIN. AAL stands for Active and Assisted Living (<http://www.aal-europe.eu>). Europe wants to realise market-oriented ICT-solutions that help the elderly to live at home independently, as long and as comfortable as possible. Relieving the informal caregiver plays an important role here.

#### The CO-TRAIN elements

CO-TRAIN is an application that stimulates and helps older people with memory impairment to exercise more. CO-TRAIN targets the 'frail elderly': people that do not only suffer from memory impairment but also often suffer from other physical and psychological conditions. They have, for example, a higher risk of getting depressed, as well as falling and becoming immobile, that unwillingly leads to social isolation. To break this vicious cycle we developed a coaching system (application) that moves this frail group in a motivating fashion. The system contains:

- A sensor belt with software that forwards movements to the physical therapist
- A personalisable exercise programme, supported by the physical therapist
- A smartphone app with training instructions via video clips
- A reward system with gamification elements like: trophies, stars and happy sendable post cards
- Extra video clips with Tai Chi relaxation exercises
- For the physical therapist: an online coaching portal

The older person uses the app to execute his or her exercise plan; it contains exercise videos on three levels. When starting an exercise, the client puts on the sensor-belt in order to monitor the movements. The more compliant the client is with the exercise, the higher the score will be. The score is shown in the form of stars and trophies. Due to this gaming element, combined with the personal goals, the older person is more motivated to keep on exercising and moving. The physical therapist uses the web portal to monitor the progress. Based on this, he or she will decide whether or not a 'physical' appointment will add value to the client's therapy. This saves traveling time and healthcare related costs. Through the web portal, the physical therapist is able to encourage the client with e-cards and personal messages.

**Exercising as a source of happiness**  
 Exercising is not a necessary evil, but potentially a source of fun and even happiness. That's why the developers of CO-TRAIN wanted to add a little bit of playfulness in the application. The Ministry of Happiness, Wellbeing and Fun helped them with this. It helped with the graphical design of some happy looking post cards and video clips with relaxing Tai Chi exercises.

CO-TRAIN is not only aimed at improving the quality of life of people with memory problems. I also aims to reduce the burden on informal caregivers and to increase the joy of providing care. Especially the partner-informal carer stands very close to all professional care that is given to his/her partner. Same goes for the physical therapy: the informal caregiver makes sure that the exercises are performed and tries to keep their partner to keep being physically active. CO-TRAIN takes over part of this job. For example by giving the physical therapist more insights into the therapy adherence of his client in a direct online manner. And through coaching and motivating elements, that stimulate daily activity. The video clips are a pleasurable form of instruction; the informal caregiver can even, if he or she likes to, do the exercises together with his/her partner. Fun is the starting point here - not the responsibility for physical therapy.

#### CO-creation with end-users

CO-TRAIN is developed, together with the end-users. The healthcare-organization De Wever (Brabant -NL), the Swiss Terz and the Austrian MAS have direct access to clients with some form of dementia and their informal caregivers. Movisie coordinates the involvement of these potential users in the development of CO-TRAIN. For example: so-called walking-interviews were performed; in this way the developers do not only get an idea of what the users are feeling about their needs and desired functionalities. It also gives a direct idea about the physical capabilities and limitations of this group of frail elderly and their informal caregivers. It appeared that comorbidity shouldn't be underestimated with frail elderly, even though the memory problems are mild, the ability to perform exercises can be restrained by heart and vascular disease, diabetes or arthritis. The challenge is to keep the system and the training programme both simple and challenging enough.

#### Test and study phase

Prototypes of CO-TRAIN are tested by the end-users multiple times, in the three participating countries. Both clients and informal caregivers have provided feedback on the app's functionality, the portal and the sensor belt. Based on this information, modifications were implemented. From September the field trials will start. In this pilot study the effectiveness of CO-TRAIN is examined on a larger scale in the 'normal' home-situation. In three countries (Austria, Switzerland and the Netherlands), 60 clients will participate (20 per country). The participants are between 65-90 years old, with a diagnosis of frailty and mild to moderate cognitive impairment. Also the main responsible informal caregiver is involved. Elderly with severe neuropsychiatric disorders or physical diseases and/or conditions are not allowed to participate in the field trials. The study should provide information about the effectiveness and user friendliness of the CO-TRAIN system compared to conventional physical therapy (consultation and exercises on paper). Results are expected in February 2019.

#### More information?

Contact Anita Peters ([a.peters@movisie.nl](mailto:a.peters@movisie.nl)) or Sten Gelissen ([s.gelissen@movisie.nl](mailto:s.gelissen@movisie.nl)).

Figure 3: FactSheet



### Flyer

Project flyers were created and used primarily for the recruitment for the pilots, highlighting the benefits for the study participants as well as what they can do for (other) elderly by participating. In addition to this we wanted to win some institutions not only for participating in the study but also for establishing a partnership, hopefully leading into business or any other support in a later stage.

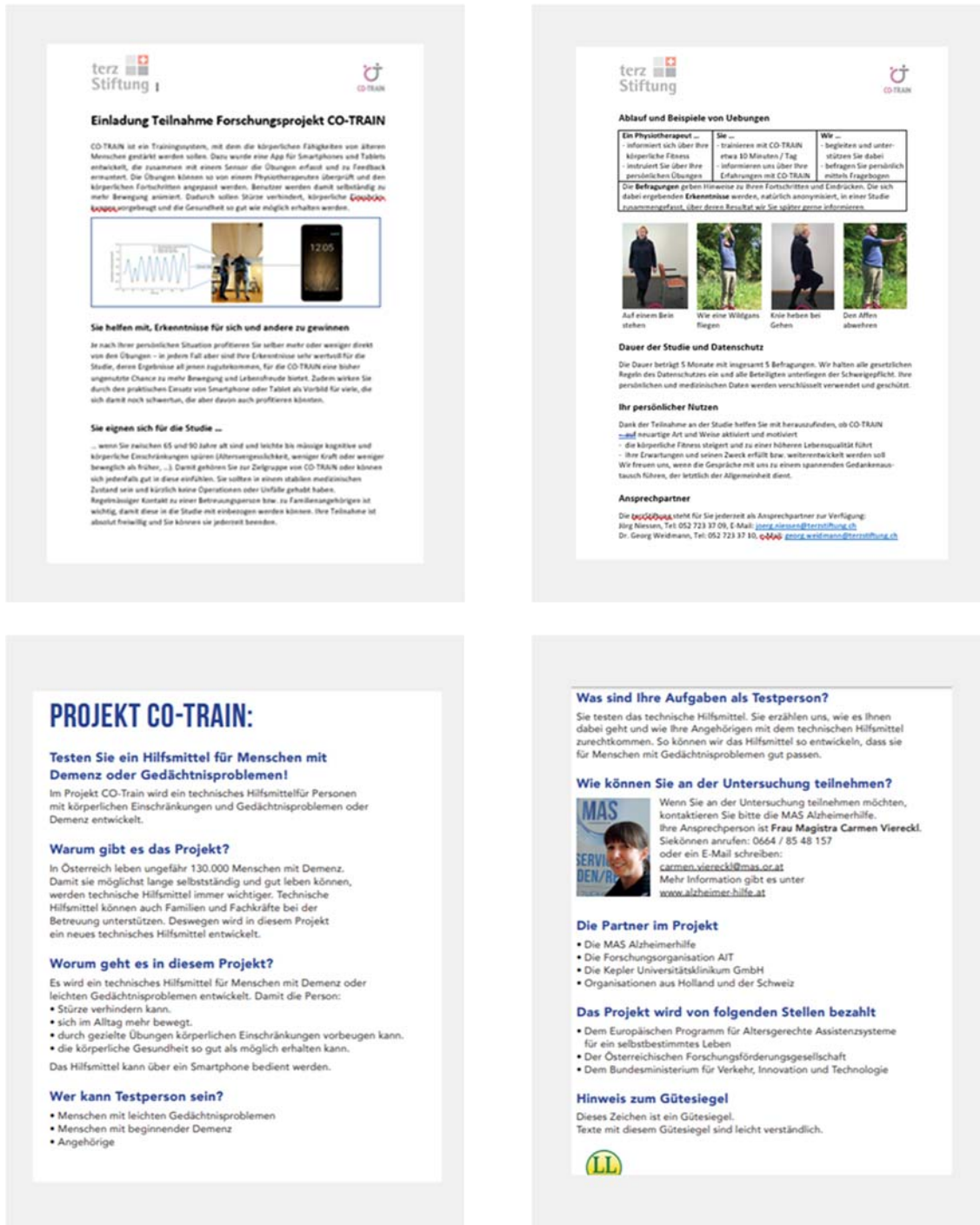


Figure 4: Flyer examples

### Poster

Project posters have been created for public awareness raising and information at fairs and conferences.

**CO-TRAIN**

Dementia coupled with phenotypic criteria like low grip strength, low energy, slowed walking speed, low physical activity and/or unintentional weight loss lead to the diagnosis of frailty.

Frailty leads to reduced competences in many activities of daily living, independence, as well as secondary health problems and threats, e.g. falls, depression and isolation. Frailty in PaD was suggested to promote faster physical decline. Cognitive deficits hinder the mobility and thereby the opportunities for any kind of physical activity which fosters further cognitive decline.

The goal of CO-TRAIN is to interrupt this vicious circle in order to promote an active and meaningful life and provide the opportunity to stay at home for longer. PaD should perceive, gain or even re-gain the self-confidence to leave the house, to communicate and to do exercises and thus stay socially integrated and live well in the community.

CO-TRAIN addresses persons with dementia showing signs of frailty as well as formal and informal caregivers such as spouses, relatives and friends. Increased independence through higher levels of mobility of PaD reduces the time needed for care. Frailty, tertiary end-users will also profit from a broad use of CO-TRAIN as it will help to decrease healthcare costs and effort by means of remote coaching.

**CO-TRAIN IS ALL ABOUT SOCIAL INCLUSION AND QUALITY OF LIFE THROUGH TAILORED PHYSICAL EXERCISES.**

A modern co-design process involves primary, secondary, and tertiary end-users in the development of the CO-TRAIN system. Despite common cognitive characteristics and requirements from a medical and/or custodial point of view, end-user requirements are highly context specific. Especially, the strive for independence and control over their daily life, volatile emotions and caregiver relationships as well as the rejection of stigmatizing (design) features turn co-designing into a sensitive balancing act between simplification and acknowledgement of complex needs, which is pertinent more than ever in the case of the present primary target group.

|                             |  |                              |                      |   |
|-----------------------------|--|------------------------------|----------------------|---|
| Need for physical training. | Need for self-control and self-decision. | Need for tailored solutions. | Need for motivation. | Need for professional instruction and feedback. |
|-----------------------------|--|------------------------------|----------------------|---|

In an integrated fashion CO-TRAIN is bringing technologies and services together to serve the population of frail elderly persons with dementia even better. CO-TRAIN is based on successful services and state-of-the-art technology. The exercises will be constantly adapted to the stage-specific needs of the patient. Thereby CO-TRAIN clearly differentiates from commercial fitness apps for healthy adults. The special needs of PaD and frailty are addressed, as well as social aspects.

The CO-TRAIN training program addresses specific motor deficits of PaD and frailty by means of physiotherapeutic exercises for mobility, balance and muscle strength. The web-based coaching portal for the physiotherapist enables specific individual training schedules.

**Find us:** [www.cotrain.eu](http://www.cotrain.eu)

**CO-TRAIN**

Dementia ⇒ Frailty ⇒ Impaired daily life (reduced independence, secondary health problems & threats)

Frailty in persons with dementia was suggested to interact within a vicious circle, promoting faster physical and cognitive decline.

The goal of CO-TRAIN is to interrupt this vicious circle in order to promote an active and meaningful life and provide the opportunity to stay at home for longer. PaD should perceive, gain or even re-gain the self-confidence to leave the house, to communicate and to do exercises and thus stay socially integrated and live well within the community.

CO-TRAIN addresses three target groups: PaD showing signs of frailty, informal care givers like spouses, relatives and friends as well as formal care givers like nursing services. Any step to increasing independence through higher levels of mobility of PaD reduces the time needed for care. Frailty, tertiary end-users will also profit from a broad use of CO-TRAIN. It will help to decrease healthcare costs and effort by means of remote coaching.

**CO-TRAIN IS ALL ABOUT SOCIAL INCLUSION AND QUALITY OF LIFE THROUGH TAILORED PHYSICAL EXERCISES.**

A modern co-design process involves primary, secondary, and tertiary end-users in the development of the CO-TRAIN system. Despite common cognitive characteristics and requirements from a medical and/or custodial point of view, end-user requirements are highly context specific. Especially, the strive for independence and control over their daily life, volatile emotions and caregiver relationships as well as the rejection of stigmatizing (design) features turn co-designing into a sensitive balancing act between simplification and acknowledgement of complex needs, which is pertinent more than ever in the case of the present primary target group.

|                             |  |                      |   |                             |
|-----------------------------|--|----------------------|---|-----------------------------|
| Need for physical training. | Need for self-control and self-decision. | Need for motivation. | Need for professional instruction & feedback. | Need for tailored solution. |
|-----------------------------|--|----------------------|---|-----------------------------|

In an integrated fashion CO-TRAIN is bringing technologies and services together to serve the population of frail elderly persons with dementia even better. CO-TRAIN is based on successful services and state-of-the-art technology. The exercises will be constantly adapted to the stage-specific needs of the patient. Thereby CO-TRAIN clearly differentiates from commercial fitness apps for healthy adults. The special needs of PaD and frailty are addressed, as well as social aspects.

The training program addresses specific motor deficits of PaD and frailty by means of physiotherapeutic exercises for mobility, balance and muscle strength. The web-based coaching portal for the physiotherapist enables specific individual training schedules.

**Find us:** [www.cotrain.eu](http://www.cotrain.eu)

Figure 5: Poster examples

Posters were used at different fairs and conferences to present the CO-TRAIN project, such as the consumer fair “die50plus” in Weinfelden, Switzerland, (editions of 2018, 2019).

## Hand Dynamometer



Figure 6: Dynamometer

Initially, the hand dynamometer was used as part of the scientific study, requested by the study protocol. However, we recognized soon that many people who saw the dynamometer were eager to use it and compare their results with others. As a consequence, we offered the dynamometer whenever we executed dissemination activities, e.g. at fairs. This attracted many more people to our stand than with posters only and it was a perfect starting point to talk about the benefits of CO-TRAIN.

## Presentations

Powerpoint-Slides were created by the disseminating partners on their own initiative for the purpose of showing content at specific fairs or events. The presentations therefore may carry the corporate design of the partners or make reference to the specific events where they were shown.

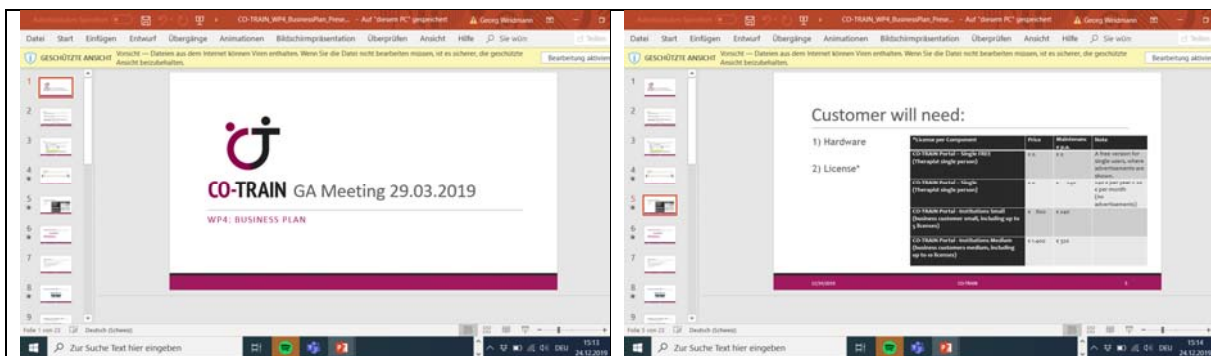


Figure 7: Sample Slides

## Website

The project website is accessible via [www.cotrain.eu](http://www.cotrain.eu) and was set up after kick-off in 2017 in line with the objectives set out in D4.1.

The website was used as the main dissemination channel for the CO-TRAIN project throughout the awareness and information phases. Early in the process, an animated video showed some highlights (left), while later a more sophisticated video cartoon was introduced to raise appetite for CO-TRAIN (right and bottom):

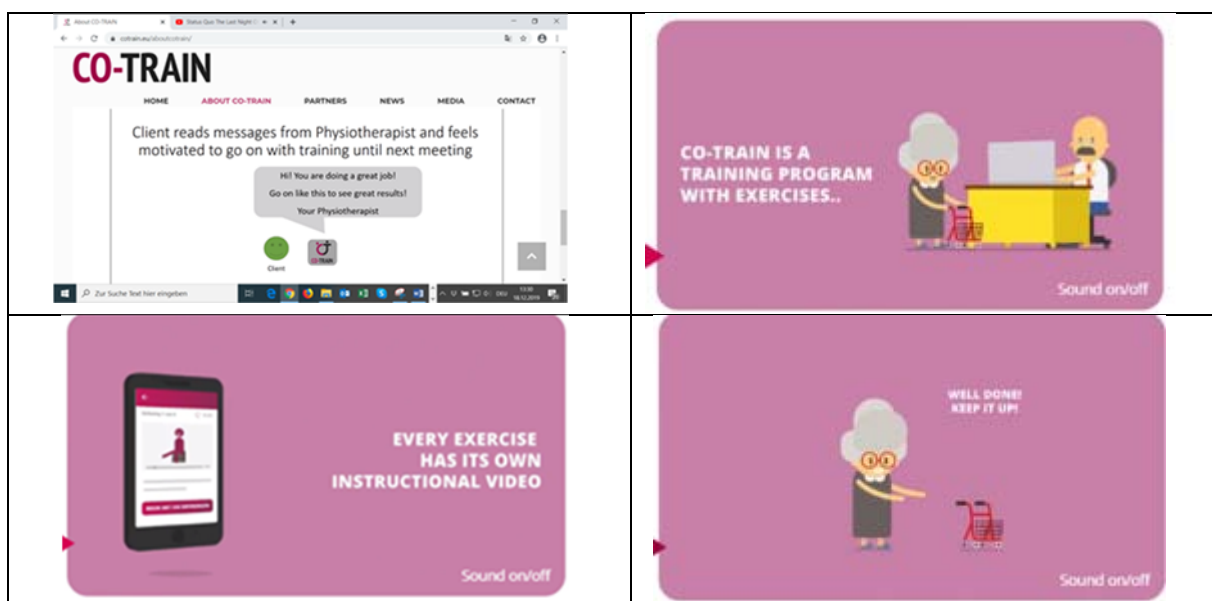


Figure 8: Screenshot Website -> animated video / cartoon

Besides project-specific website of CO-TRAIN, all project partners were invited to develop subpages and articles for their own websites. These should additionally provide more partner-specific information on CO-TRAIN.

## Project Partner's Websites

[CareCenter Subpage](#)

[MAS Subpage](#)

[MOV Subpage](#)

[TERZ special report](#)

[DeWe Subpage](#)

Below please find two examples:

|                     |  |
|---------------------|--|
| <a href="#">CCS</a> | <p><b>CO-TRAIN:</b></p> <p>Ziel dieses Forschungsprojektes ist die Entwicklung eines Coaching Systems, welches sich an die spezifischen Anforderungen älterer Menschen mit Demenz und Gebrechlichkeit richtet.</p> <p><b>CO-TRAIN News:</b></p> <p>Juni 2019: <a href="https://www.carecenter.at/news/co-train-die-trainingsapp">https://www.carecenter.at/news/co-train-die-trainingsapp</a></p> <p>Februar 2019: <a href="https://www.carecenter.at/news/forschungsprojekt-co-train-feldtest-gestartet">https://www.carecenter.at/news/forschungsprojekt-co-train-feldtest-gestartet</a></p> <p>November 2018: <a href="#">@CareCenterAT</a> presenting <a href="#">#cotrain</a>: <a href="https://pic.twitter.com/Qpdkv9292Z">pic.twitter.com/Qpdkv9292Z</a></p> <p>April 2018: <a href="http://www.carecenter.at/news/forschungsprojekt-co-train-mid-term-review">http://www.carecenter.at/news/forschungsprojekt-co-train-mid-term-review</a></p> <p>März 2017: <a href="http://www.carecenter.at/news/internationales-forschungsprojekt-co-train-gestartet">http://www.carecenter.at/news/internationales-forschungsprojekt-co-train-gestartet</a></p> |
|---------------------|--|

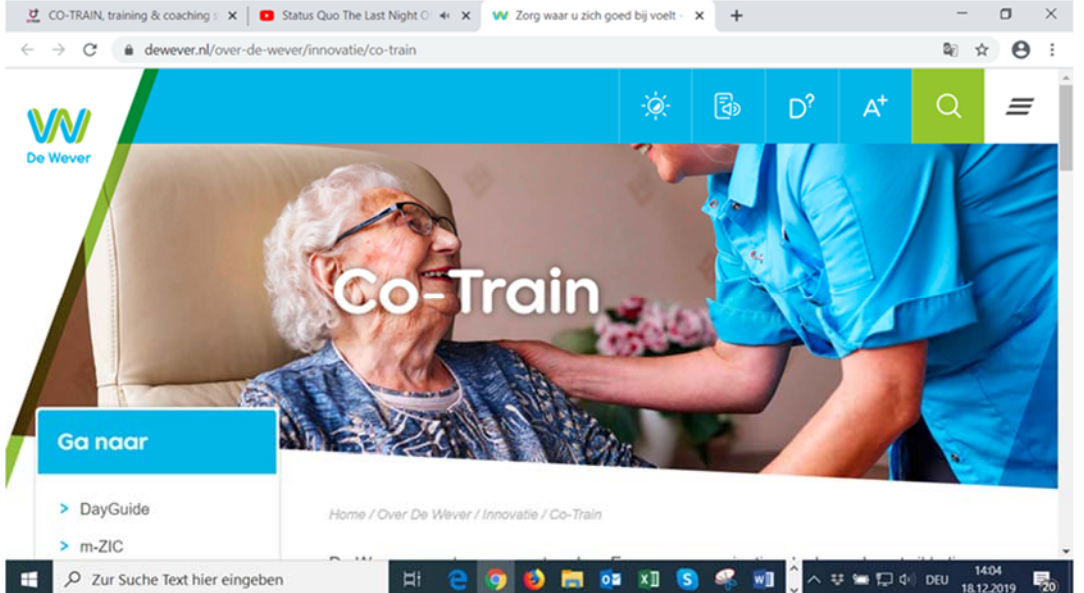
|                     |   |
|---------------------|---|
| <a href="#">DEW</a> |  |
|---------------------|---|

Figure 9: Examples of partners' websites

## Twitter

The twitter account “[https://twitter.com/cotrain\\_aal](https://twitter.com/cotrain_aal)” / “[@cotrain\\_aal](https://twitter.com/cotrain_aal)” was used by the consortium to post news and milestones. The use of twitter was meant for the extension of reach through networks both of the consortium and of individual consortium partners.



Figure 10: Screenshots Twitter

The count of activities by December 18, 2019, was the following: 15 Tweets/posts, 12 Followers

## Facebook

Only few consortium partners used Facebook; below see an example of [CSS](#):

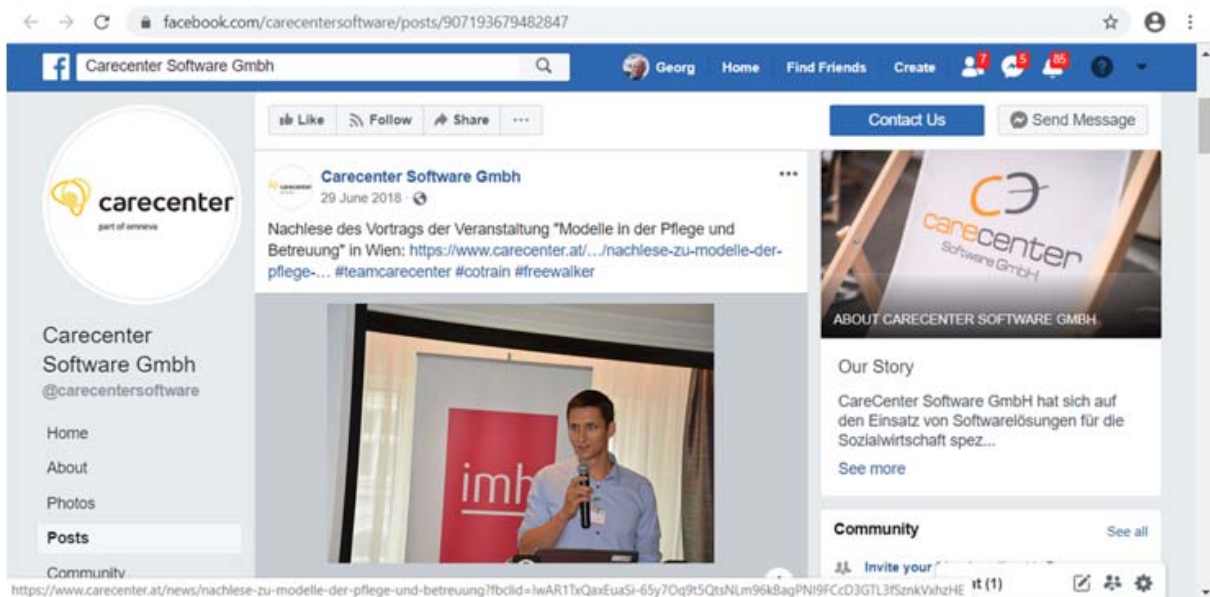


Figure 11: Screenshot Facebook

Is Facebook the right strategic medium to invest more resources in a later stage of dissemination / exploitation (same considerations for TWITTER)? Who needs to be interested in CO-TRAIN? PU, SU, TU? Who finally pays for CO-TRAIN? The answer of the strategic value of social media depends from the answers you are giving here (→ Business Plan).

### 3. Conferences, Events, Seminars

As an example, terzStiftung participated in the 2019 edition of the consumer fair “die50plus” in Weinfelden, Switzerland, March 1-3, to present the latest AAL prototypes. CoTrain was featured to the 6600+ visitors at the demo booth. Potential future clients were able to set their individualized reminders and get informed about the co-creation history of the project as well as the ongoing validation study. “die50plus” is the biggest consumer fair in eastern Switzerland targeting the generation 50+ in areas like health, prevention and lifestyle.

-> *The link between co-creation and study was very useful to demonstrate (past) involvement of potential end-users and to motivate them to participate in the study.*

-> *The Dynamometer was an excellent eye-catcher to attract visitors and to distinguish from other booths with no activity offered.*

The table in the appendix lists the presence of the CO-TRAIN consortium members at conferences, events, seminars to represent the project.

### 4. Stakeholder Involvement

The following list shed lights on the direct dissemination of project results to specific stakeholders. Depending on the project phase and type of partner, stakeholders were approached with different ambitions.

| Target Stakeholder       | Remarks | Priority 1    | Priority 2 | Priority 3 |
|--------------------------|---------|---------------|------------|------------|
| PU low*                  |         | TER, MAS      |            |            |
| PU medium**              |         | DeW, MAS      | TER        |            |
| PU high***               |         | DeW, MAS      |            |            |
| Informal Carers (SU)     |         | TER           | DeW, MAS   |            |
| Formal Carers (SU)       |         | MOV           | DeW, MAS   | TER        |
| Care Institutions (TU)   |         | MOV           | TER        | TER        |
| Medical Doctors (TU)     |         | KEP           |            | TER        |
| Insurance Co. (TU)       |         |               | All        |            |
| Start-ups, Business (TU) |         | CCS, CRE, SYN | TER        |            |
| Academia                 |         | KEP           |            |            |
| Other AAL                |         | AIT           | All        |            |
| Public at large          |         | AIT           | CCS        | All        |

Table 3: Stakeholder Involvement

\* PU low = people with minor physical and cognitive impairment, with the lowest need for assistance, usually living in their private homes

\* PU medium = people with a low level of dementia but a significant need for assistance, living either in their private home or in a care institution home

\*\*\* PU high = people with a medium to higher level of dementia, usually living in a care institution environment (home, village) with usually a need for (at least part-time) professional assistance

While some activities were clearly focused based on the above priorities (and as shown in this report), it is quite uncertain how much impact we achieved. Some activities are

still ongoing, namely with medical doctors and academia, as well as with the business. The reactions of insurance companies cannot be reported right now, as we do not have them yet (they need more factual information, e.g. the study results).

This is a list of direct stakeholder involvement:

| Partner           | <u>Physiotherapists</u><br>(=primary clients) | <u>Frail people</u><br>(MCI, PwD, ...) | Other / CG   |
|-------------------|---|--|--|
| AIT               |   |  | 3 Developers   |
| <u>CareCenter</u> |   |  | 6 <u>Generalists</u>   |
| <u>Creagy</u>     |   |  | 5 IT <u>Specialists</u>  |
| KEP               | 1   |  | 3 <u>Medical Doctors</u> , 1 <u>Data Controller</u> , 1 <u>Bio-medical Analyst</u> |
| MAS               | 2   | 40                                     | 40   |
| MOV               |   |  |  |
| TERZ              | 6   | 30                                     | > 75 <u>Care Institutions</u><br>> 100 <u>Individuals</u>                          |
| <u>DeW</u>        | 2   | 20                                     | 40   |

## 5. Storytelling and Risk Mitigation

**Storytelling** is maybe – besides the results of the scientific study - the most powerful way to get attention: “The oldest person participating in the CO-TRAIN study!” is the headline of a nice story, picturing the handover of a small gift (within the limits of the AAL-regulations!) portraits a 90 years old lady who is not only interested in doing the exercises, but wants to contribute on behalf of other elderly people that might benefit from an improved CO-TRAIN system.



**Unsere älteste Teilnehmerin an der Studie Co-Train!**

Was haben wir verzweifelt Probanden gesucht, die an einer wissenschaftlichen Studie teilnehmen um herauszufinden, ob eine App für Smartphones ältere Menschen darin unterstützen kann, deren körperlichen Fähigkeiten zu stärken. Und dann haben wir Frau Jakob getroffen – ein Glücksfall für uns, denn sie ist motiviert, während fünf Monaten das Trainingssystem zu testen und dabei einem Physiotherapeuten Feedback zu geben, so dass dieser die Uebungen den körperlichen Fortschritten anpassen kann. Die Gottlieber Hüppen sind denn auch kein verspätetes Geschenk zum 90sten Geburtstag, sondern eine Anerkennung und ein Dank für den Einsatz von Frau Jakobs zugunsten anderer,



Figure 12: Storytelling

**Risk mitigation 1:** There are risks related to CO-TRAIN that can be managed in the course of dissemination activities. E.g. there is a risk that physiotherapists see CO-TRAIN as a competition to their business. And there is a risk that patients fear to lose the personal relation to their physiotherapist. The article below is dealing with these two issues as part of a general information on physical health, picturing two participants of the study doing additional exercises with a physiotherapist (who is also involved in the study), hence combining storytelling and risk mitigation.



21. Juni 2019 Physiotherapie und die Studie Co-Train: eine win-win Situation!

CO-TRAIN ist ein Trainingssystem, mit dem die körperlichen Fähigkeiten von älteren Menschen gestärkt werden sollen. Dazu wurde eine App für Smartphones entwickelt, die zusammen mit einem Sensor die ausgeführten Übungen erfasst. Die Übungen können so von einem Physiotherapeuten überprüft und den körperlichen Fortschritten angepasst werden. Damit werden die Benutzer in einer einfachen Form selbständig zu mehr Bewegung animiert, wodurch die Gesundheit gefördert und körperlichen Einschränkungen vorgebeugt werden soll, was beispielsweise auch Stürze verhindern könnte.

Der Physiotherapeut informiert sich zu Beginn über die individuelle körperliche Fitness der Studienteilnehmer, wählt passende Übungen aus und gibt praktische Instruktionen dazu. Dank des Feedbacks über die App können die weiteren Korrekturen online erfolgen, was Zeit und Kosten spart.

Es geht nicht darum, den persönlichen Kontakt zwischen Physiotherapeuten und

*Figure 13: Risk mitigation*

**Risk mitigation 2:** We anticipated a risk of potential end-users not accepting CO-TRAIN because the screen is too small or because they are afraid of technology / afraid of making mistakes while using a smartphone or tablet.

- CO-TRAIN works perfectly on tablets, so instead of focusing on smartphones we offered the use of tablets (what of course was also beneficial if you showed CO-TRAIN at public events).

- To reduce the fear of technology we offered a telephone help line (as indicated in the flyers shown in chapter 2), and we developed various step-by-step manuals with screenshots and detailed explanation, as shown on the next page. These were used for training of participants not familiar with technology (translated as needed).

**The value of manuals, tailored to the needs of elderly people who are not familiar with technology, should not be underestimate in business planning!** The same is true for any other support, support that can be very time consuming as we learned through the study. Technology not working (meaning that the primary users cannot make it work) is a show-stopper.



Here is an example of the TERZ manual that was translated / used in other countries as well:

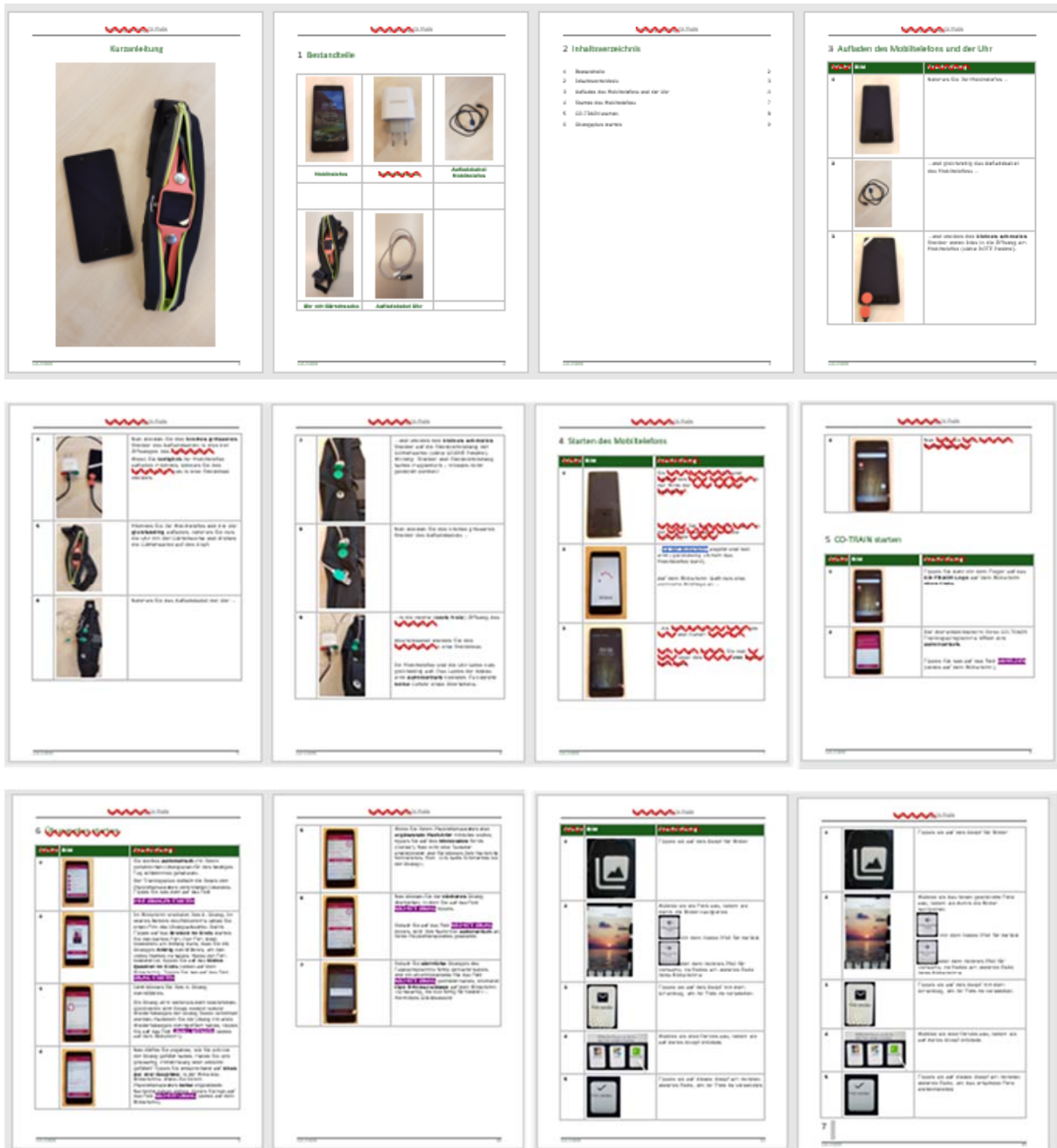


Figure 14: Manual

## 6. Scientific Publications

The third year of the project was mainly devoted to the running of a clinical study under the supervision of KEP. Due to the complexity of the study, the long inclusion period of five months per participant and the intense effort of recruitment with strict inclusion criteria, the lead time of the study will span shortly beyond the project time so that results are not fully analyzed by the time of writing the present report.

The paper on the pilots will be written after the receipt of remaining study data by 2020 and is foreseen for submission to academic publishing houses by KEP.

The papers / evaluation of study results shall also be published by AIT as open source documents so that results have public accessibility and are exploitable by the non-scientific consortium members as well.

## 7. Dissemination through user recruitment

A large share of dissemination work has taken place in the framework of the user recruitment activities. Both during the co-designing and the field test preparations, a large public has been contacted in order to find suitable test persons. Since for the final trial users had to be screening in accordance to strict inclusion and exclusion criteria, much more users had direct contact to and insights into the CO-TRAIN solution than the final number of included test persons would suggest.

Recruitment took place in the end-user organizations themselves and through public information such as recruitment on fairs, newsletters, websites, mailings, newspaper articles. Moreover, different organizations from the healthcare sector have been recruited with the purpose of ameliorating access to the potential population.

Due to a delay in getting the ethics committee approval (arrived by the end of January 2019), recruitment in Switzerland started later than in Austria and The Netherlands.

### Internal recruitment

Internal recruitment activities have taken place on a regular basis both throughout the co-designing phase and the field trials phase. The test person recruitment has led to intense relations to specific clients / stakeholders of the user organizations and thus regular effects on the awareness raising about CO-TRAIN. For example, the recruitment at TERZ took the following shape:

*Step 1: Searching the TERZ Database of so called "TERZ experts" for features of the CO-TRAIN target population.*

*Step 2: Contacting the persons via telephone*

*Step 3: Identifying a group of available persons*

*Step 4: Several phone calls to inform the persons about the project and keep their interest during the recruitment phase.*

This procedure worked very well for the co-design workshops (as the participants did not need to fulfill the later study's inclusion criteria). For the study, however, we had to find additional ways of recruitment.

The following table summarizes the internal measures taken for recruitment at TERZ as an example:

| Channel  | Number / Date                  | Indicative Coverage |
|--|--------------------------------|---------------------|
| Newsletter Recruitment                                     | Between Feb 2019 and June 2019 | 6 x 2000            |
| Recruitment e-mail to suitable households in TERZ database | Once                           | 1 x 2000            |
| TERZ Website   | Banner Start Page              | n/a                 |
| terzBulletin (print journal) with pre-announcement         |                                | 1500                |

Table 4: Internal recruitment Switzerland

## External recruitment: multipliers

The recruitment, moreover, has been much more complex as various multipliers needed to get involved to find suitable partners, e.g. care institutions, clinics, nursing homes with private apartments etc. These institutions had to be convinced through a number of interventions before they spread the word internally to find suitable end-users. Multipliers were equipped with dissemination material such as recruitment letters, presentations, project leaflets etc. so that they could reach their stakeholders more easily.

As a result, a large share of both professionals and private persons were reached in the course of the recruitment process. The following table illustrates the effort and dissemination effect of finding end-users by help of a nursing home. The example shows a reach to more than 100 contacts for finding end-users through a multiplier.

Example: Finding end users through help of a nursing home

| Step | Activity  | Contacts |
|------|---|----------|
| 1    | Motivating letter to CEO nursing home   | 1        |
| 3    | On-site meeting with CEO and head of care (-> often heads of care are "blockers" as they fear more work to be done with limited and already stressed resources) | 2        |
| 4    | Second presentation of CO-TRAIN with CEO and key care personnel   | 5        |

|    |   |       |
|----|---|-------|
| 5  | Internal recruitment in residence and advertisement to residents, family, external private stakeholders   | 100   |
| 6  | Presentation event for interested end-users (-> <i>this can result in a complete disaster, if a "leader" leaves the room - in most cases because of the use of technology in CO-TRAIN - and all others follow</i> ) | 10    |
| 7  | Follow up calls with key care personal, organization bilateral screenings for interested users  | 3     |
| 8  | Meetings with three interested test persons for screening   | 3     |
| 9  | Follow up with 3 suitable test persons for study start  | 1     |
| 10 | Organizing an interested physiotherapist (-> <i>what was more difficult than expected, as it seems that are fully booked already</i> )  | 2     |
|    | Total coverage (some people are the same)   | > 100 |

Table 5: Impact sample multipliers

Besides the dissemination effect we hoped to recruit suitable study participants, what was the case in the example above (3 people). Following the successful recognition by KEP all the tests and paperwork was done and all of them started with the exercises. *However, unfortunately, all 3 developed into dropouts for various reasons, while multimorbidity was the underlying factor in all 3 cases.*

Please find examples of multipliers in the appendix.

## External recruitment: PR and advertisements

In order to reach more suitable end-users, external advertisements and advertorials were issued in order to sensitize great audiences for the CO-TRAIN pilot study. As this is quite expensive, we had to focus on a few ads only.

Below please find the measures taken for recruitment at TERZ as an example:

| Channel   | Name                  | Date      | Print run | Publication                 |
|-----------|-----------------------|-----------|-----------|-----------------------------|
| Newspaper | Der Bote vom Untersee | Feb. 2019 | 4804      | Advertorial & Advertisement |
| Newspaper | Thurgauer Zeitung     | Feb. 2019 | 28905     | Advertisement               |

Table 6: PR/advertisement Switzerland

## 8. Final remarks

The present report illustrates the intensive effort by the consortium partners to satisfy the goals set out in the communication and dissemination plan. Whereas an impact study is beyond the scope of this paper, the findings show that a huge public of key stakeholders could be reached in the participating countries, at least to a certain degree. The four strategic goals set out in the dissemination plan (awareness raising, information, engagement and promotion) have been tackled both in the framework of individual strategies of the involved partners and under the shelter of joint activities.

*-> Looking back, however, we could have done more, or shifted the focus a bit. Pictures of people participating in AAL-internal events are nice, but do not have that much effect on potential end-users or business partners. Who reads a newsletter – or: how should a newsletter look like that it is carefully read? This is a challenge that most of the partners are facing, without having found a solution. Hence the number of posts in newsletters might be impressive, the impact is uncertain. The animated cartoon, on the other hand, is a good example of “something special” that gets attention, as it does not need to stay on a website but can be shown on a big screen on fairs etc. Additionally, storytelling might have been powerful, one attempt is documented in chapter 5.*

*Are there success stories that can be spread right now? Not in the sense of the results of the scientific study, of course, because it is not finished yet and it is uncertain whether or not any measurable effects are reported. However, individual comments might quite powerful (-> see appendix).*

*Were we successful in pointing out the USP of CO-TRAIN? This might be the biggest concern when thinking about further developing CO-TRAIN into an appreciated product in the market. Comparing the Value Proposition (Final Business Plan D4.5)*

Considering that most of the effort was put into the clinical study in year three of the project, the biggest impact can still be expected after the publishing in respective journals. KEP and AIT will take care that the pilot results will be exploited to a scientific community after the project end, whereas the business partners will integrate results into their commercial exploitation activities in this period. The end-user organizations will continue using the insights gained during the CO-TRAIN project and promote the benefits of assistance technologies in general to their end-user basis, in order to sensitize for the social opportunities innovations in this field provide.