Virtual Coaching Activities for Rehabilitation in Elderly

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Deliverable

D9.2 Project Website

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1 EXECUTIVE SUMMARY

The objective of Deliverable 9.2, Project website, is to report on the establishment of an efficient and effective dissemination and communication tool for the *vCare* project. The website represents one of the main instruments for dissemination which will ensure the successful spread of project results and non-confidential information to the widest possible audience including stakeholders and end-users. The *vCare* website contains basic information on the project, its partners and their role in the project. A news area informs about the latest developments in relation to project progress and relevant events. Furthermore, users will find all scientific publications related to the *vCare* project. Further, *vCare's* clinical trials are presented; user stories are provided. An enquiry form is installed to enable all stakeholders to contact the *vCare* team. A regularly newsletter will be provided through the *vCare* website to inform about the latest progress.

The design of the website reflects the main principles of usability, clarity, and simplicity to provide the general public, stakeholders, and interested end users with easy access to information on the *vCare* project. It was designed according to the *vCare* corporate design principles (as provided by Deliverable D9.1) and is also easy to use with tablets and smartphones. The *vCare* website was initially launched on 23.02.2018 and is available at https://vcare-project.eu.

This deliverable D9.2 describes the initial state of the *vCare* website. The website will be updated on a regular basis. Due to its important role, the website will exist for years after the end of the project.

2 CONCEPT OF THE vCARE WEBSITE

2.1 OBJECTIVES

The overall objective of **vCare** is to support **The Recovery of an Active and Independent Life at Home (MO 1[1])** for patients recovering from impairments/disabilities. This shall be realised by a **Smart Virtual Coaching System (MO 2)**, providing rehabilitation guidance and guaranteeing the continuity of care in the home environment and daily life.

In order to promote these project goals, the vCare website has been set up. It serves as a source of information for stakeholders and a repository for deliverables, presentations and other documents in compliance with the project's publicity obligations. The vCare website will also include social media in order to attract public interest.

2.2 IMPLEMENTATION

A subcontractor ("*September Werbeagentur*") was in charge to initially set-up the website. This is done as a one-time project performance. Further website services will be self-operated by the project partners. An open-source content management system was configured according to the design guidelines of the vCare project, allowing independent editorial maintenance via the website backend at any time and without additional costs. The website is hosted via the services of *Campusspeicher[2]* company. To minimise setup and programming costs, the website is built on a standard content management system (*WordPress*).

The vCare website was designed using a modern layout (structured menu and one-page design for home site). It implements the vCare Corporate Image specifications (see D9.1 Project Branding) including colour scheme, logos and font.

The menu structure has one navigation level below the top-level. The vCare website is illustrated by large pictures with project reference (active aging, care, rehabilitation, digitalisation and support) or imparting impressions of events (gallery, etc.). The User Interface will be responsive regarding different page/display sizes or resolutions or devices to attract a maximum of stakeholders.

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[1] See the Main Objectives of the project as outlined in the project proposal/DoA.
[2] See: https://www.campusspeicher.de/webhosting

3 CONTENT DESCRIPTION

3.1 MAIN PAGE ("HOME")

The main page is designed to provide a short overview on the vCare project goals. It will also show the latest news of the project (including integration of the social media channels via *Linked-in*, *Facebook*, *Twitter*, etc. for sharing of news).

Figure 1: vCare start page

The main page, being the first page seen by someone arriving accidentally, should also stimulate curiosity and interest. The main page also leads to the mission statement of the vCare project.
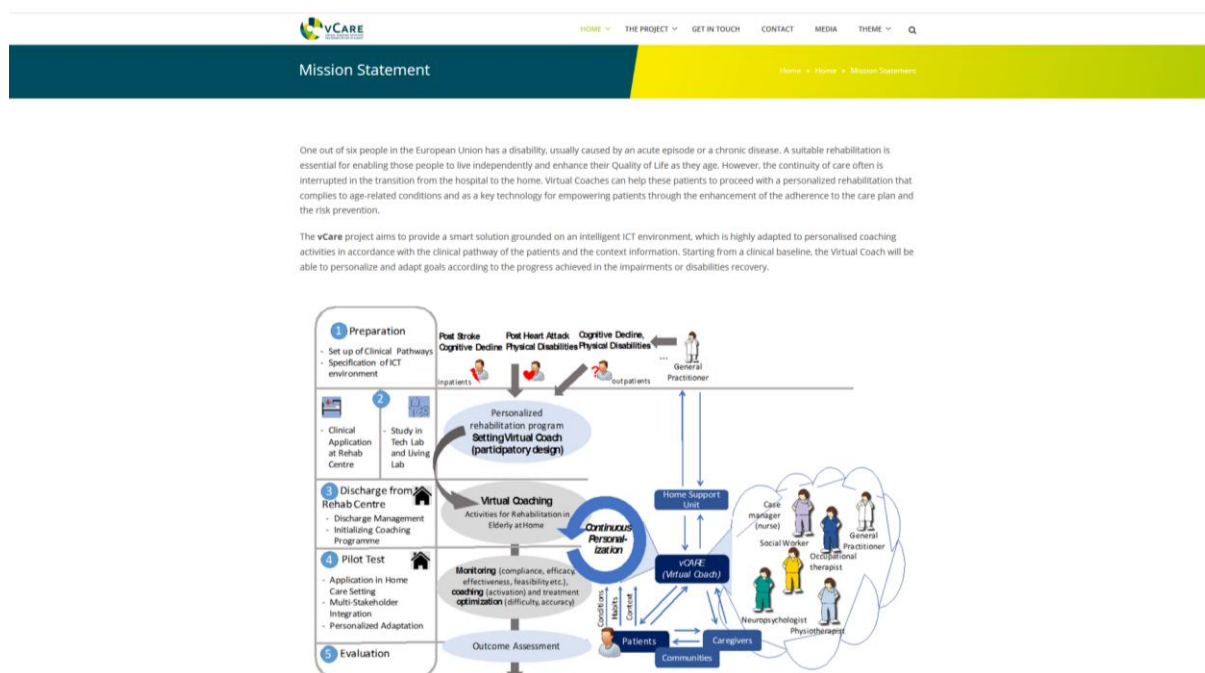
Figure 2: vCare Mission Statement

In order to attract further attention, user stories will be included during project implementation.

3.2 PROJECT AREA ("PROJECT")

Under the project area detailed information on vCare objectives are given.
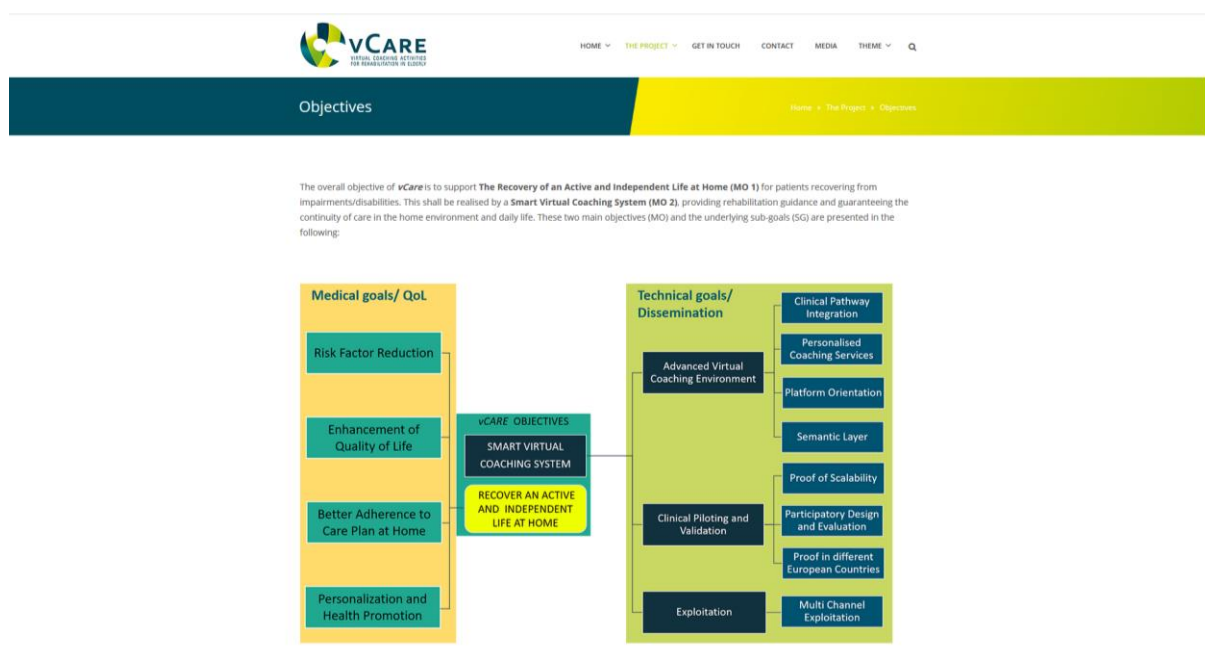
SG1.1: Enhancement of Quality of Life (QoL)

Policy makers and clinicians increasingly recognize that people and patients can safeguard their QoL by making healthy lifestyle choices and being actively engaged in their health care. Due to the complexity of the clinical evaluation, the evidence regarding the relationship between QoL and patient engagement is quite weak, especially within European ICT-projects. Thus, the project **vCare** aims to enhance the QoL and provide a reliable statement of its development.

SG1.2: Risk Factor Reduction

The potential for relapse or a decline of health status closely depends on the development of the risk factors of the patient (e.g. blood pressure, weight, physical and cognitive activity, social life etc.). The rehabilitation supported by a virtual coach should facilitate the reduction of risk factors.

SG1.3: Better Adherence to Care Plan

The virtual coaching solution should support the adherence to the individual rehabilitation program. Thereby, it becomes an essential supplement for the direct contact to the clinical specialists.

SG1.4: Personalization and Health Promotion

The personalisation should help to foster the patient's health promotion. Especially in the case of non-chronic diseases, an adequate health promotion can lead to a long-term behavioural change of habits, which decreases the economic effects and the probability of a relapse.

SG2.1.1: Clinical Pathway Integration

The system will serve an integration of clinical pathways, as they allow a patient-specific adjustment of the rehabilitation program to the patient's needs and progression in the recovery.

SSG2.1.2: Personalized Coaching Services

The coaching environment will provide various coaching services (in terms of the type of application and interaction). These services will be configurable in order to personalise the intensity, content and requests, enabling an optimal engagement of the patient.

SG2.1.3: Platform Orientation

The coaching environment will provide various coaching services (in terms of the type of application and interaction). Coaching services have to be configurable to personalize the intensity, content, and requests for an optimal engagement of the patient.

SG2.1.4: Semantic Layer

The open environment platform design requires an approach that allows integrating information from different sources such as cognitive and physical data of the patient, information about his/her environment or of the progress within the clinical pathway. Semantic technologies provide the ability to identify and interpret all information in the rehabilitation context and thus can be used.

SG2.2.1: Proof of Scalability

The scalability of the vCare needs to be proofed in different European Countries and technical infrastructures.

SG2.2.2: Participatory Design and Evaluation

The acceptance of a virtual coaching solution is crucial for the patient's motivation, leading to his/her participation. Hence, the patient (and his/her medical care givers) as main recipient of such a system will consequently be included in each development phase.
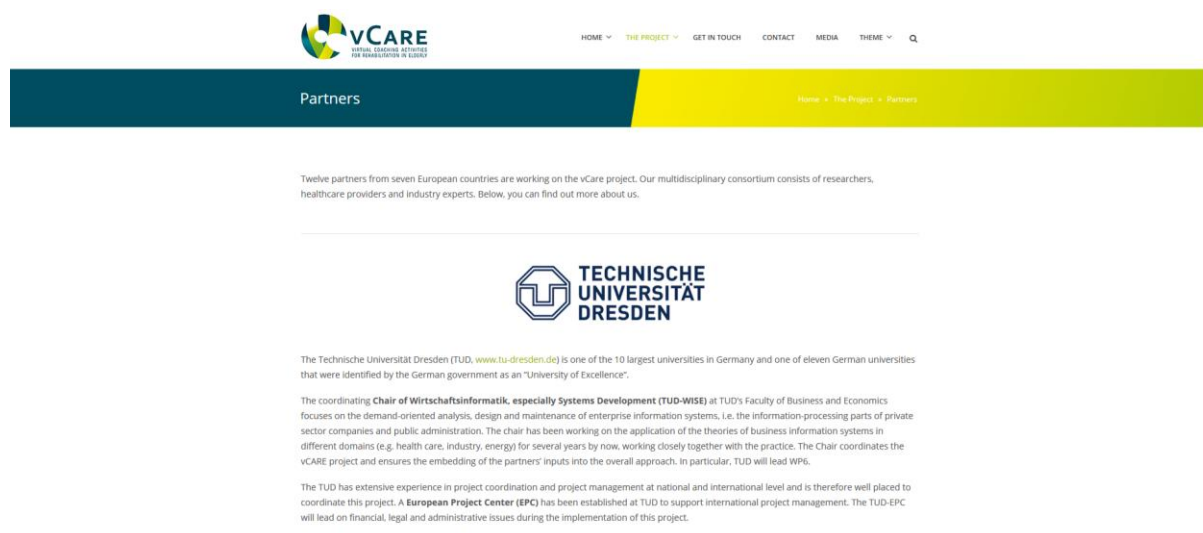
SG2.2.3: Proof in Different European Countries

vCare requires being used in different national systems and ICT infrastructures and for different diseases and rehabilitation settings. Thus, a multi-site and multi-setting approach is applied.

SG2.3: Multi-Channel Exploitation

To reach a broad audience and different markets for the project results, the vCare consortium aims to follow a multi-channel exploitation, where the market and scientific exploitation are linked closely to each other.

Figure 3: vCare Objectives

The partner section provides short information on all twelve project partners.

Casa di Cura Privata del Policlinico SPA (CCP, www.ccppdezza.it/en/) is a fully integrated multi-specialty private clinical centre aiming at providing both inpatient and outpatient services mainly directed to neurological patients. CCP is constituted in a Department of Neurorehabilitation Sciences and offers chronic neurological patients the highest comprehensive standards of care in a comfortable living environment. The main objective of clinical interventions pertains to the rehabilitation of patients with different types of brain-lesions, for instance those lesions due to acute events such as cerebral stroke or traumatic brain injury. An increasing number of admissions also concerns chronic patients with neurodegenerative diseases, such as Parkinson's disease or Amyotrophic Lateral Sclerosis. CCP meets all the conditions and facilities where clinical investigations on innovative technologies could be performed, in terms of rehabilitation spaces, infrastructures and laboratories, that all together support the concept of "living lab". It will support the project using all requested technologies. The pilot will be guested in the Neurorehabilitation Sciences Department.

Stiftung FZI Forschungszentrum Informatik am Karlsruher Institut für Technnologie (FZI, https://www.fzi.de/) is a non-profit research and technology transfer centre comprising 14 R&D teams – each of them directed by a professor also holding a chair for computer science, electrical or mechanical engineering, or business, administration at the Karlsruher Institute for Technology (KIT) – Germany's oldest and one of its most successful technical universities. FZI helps its partners and customers in applying novel information technologies to realize new and better products, services and business processes. FZI is a member of the World Wide Web Consortium (W3C), a member of NESSI, it participates in the IBM Centre for Advanced Studies (CAS) program, it establishes together with Microsoft a .NET-based centre for Innovative Software Concepts, and it won several contracts from the European HPMT Programme to act as a Marie-Curie Training Centre. The main role of FZI in the Personalized Virtual Coach will be the leading of the WP 4 and the participation in other technical WPs. The focus of FZI lies in the conceptualization and development of holistic artificial and semantic monitoring and reasoning framework for personalized clinical pathways.

Austrian Institute of Technology GmbH (AIT, http://www.ait.ac.at/) is Austria's largest non-university research organisation and aims significantly contribute to solve major challenges of the society related to mobility, energy, health, environment, safety and security. The business unit Biomedical Systems deals with intelligent technologies for smart homes, health support and ambient assisted living (AAL) for many years. The research focus is on human behavior recognition, AAL middleware platforms and services as well as responsive context-aware user interaction, but also applications in health care and medicine. "Biomedical Systems" has worked on sensor based modelling and service platforms already in a couple of national and international co-funded research projects mainly for older adults using of-the-shelf sensor technology. As a technical partner with the Biomedical Systems business unit, AIT will significantly contribute to this project in terms of intelligent user interaction, middle ware technologies and human behavior recognition.

TSB Real Time Location Systems SL (MYS, www.mysphera.com) is a fast-growing global company based in Valencia, Spain, spin-off of TSB Group, dedicated to develop and commercialize our location & workflow systems that are tailored to the needs of acute care hospitals, which we have successfully proven in several installations – world-wide and is already leading the Spanish market. Our vision is to empower Clinicians, Patients, and Healthcare Management worldwide with smart sensor-driven on-demand actionable information and data analytics to improve patient care outcomes while increasing efficient management of resources in hospitals, senior living, and patient homes. MYS's solution gives hospitals flexibility and speed, so they can analyse and react using real-time information, creating improved operational efficiency in their organization and safe hard money. Our goal is for them to realize a swift time-tobenefit and maximize their ROI. To reach this we are using our innovative real-time location platform SPHERAONE and our best-in-class software MYHOSPITAL. R&D Department will collaborate in the project with the Production Department who is in charge of the material acquisitions and hardware production.

Servicio Vasco de Salud Osakidetza (OSA, http://www.osakidetza.euskadi.eus) is the public healthcare service of the Basque Country (north of Spain). OSA was created by the Health Department of the Basque Government. All the public hospitals and primary care centers of the Basque Region are under this organization. Hospital Universitario Cruces (HUC, http://www.hospitalcruces.com) was created in 1955 and has three main tasks: health assistance, teaching and research. Movement Disorders and Autonomic Disorders Unit at HUC is highly focused on phenotypic characterization of genetic variants of Lewy body diseases and surgery therapy (Deep Brain Stimulation). OSA will be mainly involved in the Economic evaluation about the set-up of the Virtual Coach Platform to measure the effectiveness in terms of quality of life (QoL) for the patients in comparison with the usual clinical practice.

Milan based **Imaginary SRL** (IMA, www.i-imaginary.it) are one of the longest established and most respected European Serious Games companies (SME). Since its formation in 2004, imaginary has built an enviable reputation for its multi-disciplinary specialisation in the rapidly growing serious games and gamification market place. IMA will be responsible for the game based coaching services for all the three test beds within WP5 and for their exchange of information with the virtual coach. In order to design the services IMA will collaborate with WP1 to define user requirements as well as evaluation activities. IMA will also strongly support dissemination and exploitation activities.

European Health Telematics Association (EHTEL, www.ehtel.eu) is the leading forum for decision makers and doers in Europe, engaged in supporting the transformation of the health care practice in Europe through eHealth. The association brings together under one roof a wide range of constituencies crucial for the betterment of health and social care with health IT. They include: National and regional health authorities and systems, Hospitals and other health institutions, Public and private insurance providers, Health professionals, Health managers and executives, Patients, Citizens and consumers, Industry, and Researchers and academics. EHTEL provides a platform for information, representation, networking and cooperation to its 60+ corporate members. With EHTELconnect (www.ehtelconnect.eu), the association draw on the expertise of EHTEL's highly experienced and multi-stakeholder membership to offer expert advice and educational services tailored to the needs of individuals and organisations working in the field of digital healthcare. EHTEL will also lead WP9 "Communication and Expoitation" within the v-CARE project.

Universitatea de Medicina si farmacie 'Carol Davila' din Bucuresti (UMFCD, www.umf.ro) from Bucharest, founded over 150 years ago, is the largest and most important medical academic institution in Romania. The University grants access to high-tech diagnostic and research Platforms, being an active partner in various Projects / Grants (FP6, FP7, Erasmus and National Projects). The Cardiology Department within the University gathers important authorities in the field of cardiology in Romania. UMFCD will be involved in the experimentation site preparation and clinical testing of the cardiovascular rehabilitation Use Case solution. It will assist in collecting the specific medical and technical requirements. Furthermore, it will have extensive activity in dissemination and popularization of the solution trough organising thematic workshops, participating at national and international conferences with presentations and publishing scientific articles.

Figure 4: vCare partner descriptions

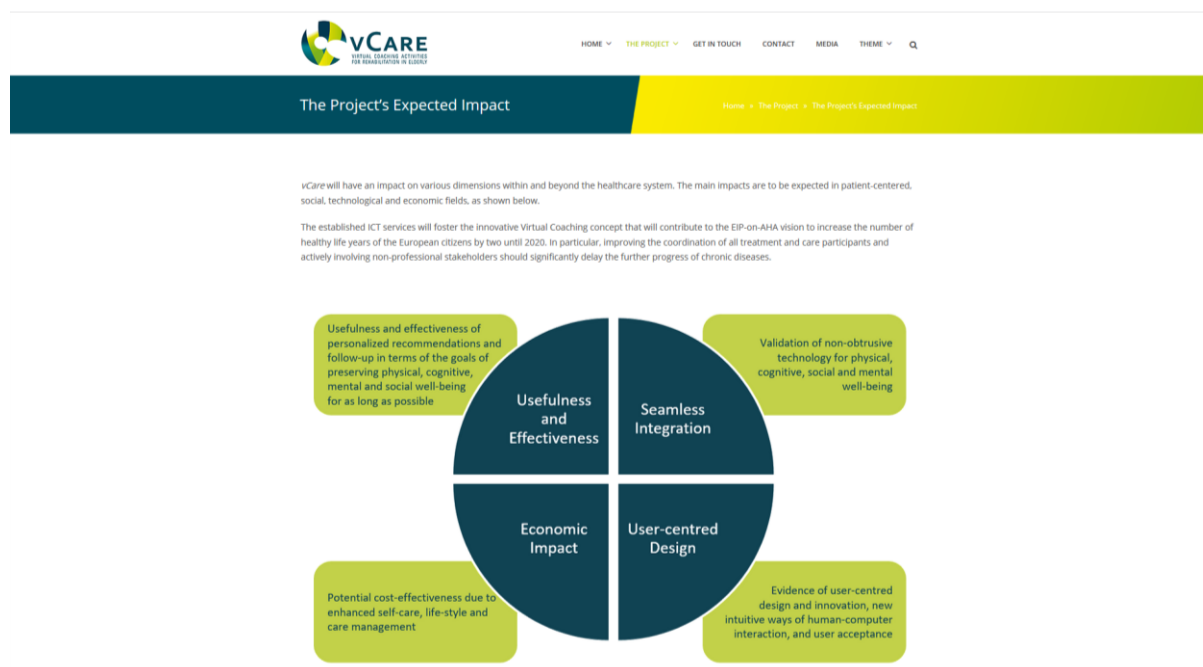A dedicated impact section informs about the expected impact of the vCare project.

Figure 5: vCare Expected Impact

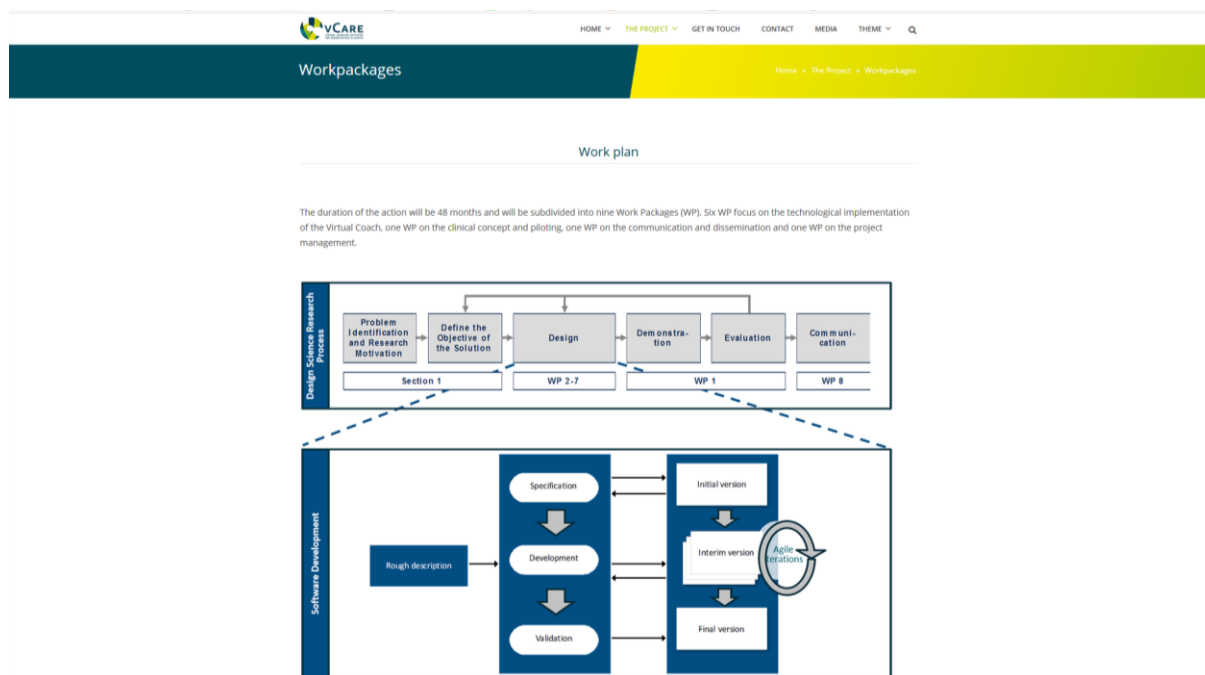Information on the work plan is given in the "work packages" section of the vCare website.

Figure 6: vCare Work Plan

Under the "Deliverables" section all public deliverables will be published.

Figure 7: Deliverables section of vCare website

3.3 AREA FOR EXPLOITATION ACTIVITIES ("GET IN TOUCH")

The following elements are foreseen to be included in the "Get in touch" section:

- Event overview and other event information (Events)
- Presentation of publications (Publications and Conferences)
- Registration for a newsletter incl. administration of the corresponding contact data

This section will be developed after M6.

3.4 CONTACT PAGE FOR INTERESTED PARTIES ("CONTACT")

The following elements are foreseen to be included in the "Contact" section:

- Contact form
- Newsletter registration

This section will be developed after M6.

3.5 AREA FOR MEDIA AND DEMOS ("MEDIA")

The following elements are foreseen to be included in the "Media" section:

- User stories (example scenarios)
- Videos

This section will be developed after M6.