STIMULATE – Sustainable E² Mobility Services for Elderly People

D1.3 - STIMULATE Use cases and Scenarios

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1 Executive Summary

This report acts as a translation mechanism between the user requirement studies described in D1.2 and the functional specification of the STIMULATE platform (D1.4). It will take the definitions, situations and requirements elaborated in preceding reports and, translate them in realistic narratives. This will allow to describe users and their activities during routine search for travel options, as well their interaction with the STIMULATE platform. These narratives will represent the different perspectives of the users of the platform, and illustrate use cases and business scenarios.

Although these narratives already represent requirements and will steer the actual development of the platform, such narratives can be decomposed into activity lists, allowing for an easy assessment and evaluation. As a result, the outcomes of this deliverable will constitute an input for these associated work packages.

The deliverable has a straightforward structure: the introduction will cover the relationship with other deliverables and introduce the methodology used in describing the scenarios. The following section deals with the business case for STIMULATE and the STIMULATE platform. Section Three will introduce the narratives themselves; distinct scenarios which cover different aspects of reviewing travel options, negotiating options, using integrated travel itineraries and sharing travel options online.

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3   Focus of the Deliverable

"STIMULATE will develop a sustainable mobility service platform that addresses transportation and travel activities relevant, and personalized, to the needs and assistance support of the older person, enabling independence and participation in the self- serve society."

This deliverable is focused on synthesizing the user requirements described in the preceding deliverable (1.2) in such a way that it will steer the technical development of the STIMULATE platform and associated services. The deliverable will elaborate on the user requirements which were developed in close collaboration with stakeholders / potential end users of the STIMULATE platform.

Although the objectives of STIMULATE are quite easy to summarize, participation of end- users in the design- and deployment strategy is crucial for a successful adoption of the STIMULATE platform and services. To this end the consortium has adopted a user centric development strategy. This strategy can be summarized from the following ground rules:

- Firstly, an early focus on users and tasks: designers must understand who the users will be. This understanding is arrived at in part by directly involving and speaking to potential users and stakeholders.

- Secondly, adopt an Iterative design: users should be an intrinsic factor in design, test and redesign cycles. As such, the anticipated platform descriptions or developed platform functionalities will be tested in early evaluation activities. Thus, STIMULATE will be developed in a cycle of design, test and measure, and redesign, repeated as often as necessary.

This report aims to bridge the first and second ground-rules in the sense that it will elaborate on the user requirements stated in D1.2. And, translate them by means of scenarios into paper based activity lists and workflow patterns.

As such, the deliverable will identify the business case for STIMULATE on the basis of the input from the user requirements study. This will then be elaborated on user profiles and activity patterns, thereby creating scenarios on the usage of the STIMULATE system.

3.1   Method

Within STIMULATE, we are using a scenario-based approach to portray the experiences that users will be able to have with the STIMULATE platform, (mobile) applications and services. In this context, the word "scenario" is used to mean a narrative description of what the user does and experiences when using a computing/ mobile system[1].

Scenario-based techniques have been proposed in user-centred design research as effective ways to capture, analyse and communicate information about possible user needs and system functions[2]. The basic principle of this approach is that developing scenarios of use of the

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[1] Carroll 1995

[2] Carroll and Rosson 1992, Chin and Rosson 1998, Karasti 1997

technology can help bridge the gap between the description of the users' tasks and the design of new technology to accomplish these tasks.

Several methods have been proposed to carry out systematic development and utilisation of each scenario[3]. In STIMULATE the following stages were followed in describing the scenarios:

Stage 1) (End) user requirement gathering. These activities were carried out by triangulating desk-research, interviewing representative end-users and experts in the field. This input was synthesized in D1.2 User Requirements and listed a comprehensible set of requirements in the area of ethics, accessibility, data privacy and security and more.

Stage 2) Business case evaluations and context analysis as input for synthesizing functionalities. In two subsequent project meetings, the context of the STIMULATE platform was assessed with respect to:

    (i)   market scenarios,

    (ii) an analysis of competing and far from competing offers,

    (iii) the definition of 'integrated itineraries' and,

    (iv) crowd-sourced versus export sourced travel guides.

Stage 3) Iterative Scenario Building: In combining the input from the forgoing stages, scenarios could be defined which would reflect the given business cases, targeted end-users and offerings. The scenarios were iterated several times across all members of the consortium.

Stage 4) Extraction of activity lists from scenarios as a structured method to acquire functional specifications. The last stage was performed to provide a bridge between the user requirements and the functional specifications. As such, the developed scenarios were analysed and transformed into activity lists. The latter can be synthesized further to define concept level system specifications. Therefore, the deliverable will conclude with ordered lists of activities that will feed a concept level specification of the STIMULATE platform and associated services.

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[3] Carroll 2000

4 From user requirements to business cases

Deliverable D1.2 has focused on the end-user requirements with respect to the STIMUALTE platform and associated services. Since these user requirements are the starting point for any user profiling and scenario building exercise, the abbreviated outcomes of the requirement synthesis have been matched to the perceived benefits of the end-users of platform.

4.1 The end-user: the ageing/ impaired client

The service model offered to end-users can be characterized as highly personalized while planning travelling, and assisted while on-the-go. While not excluding any customers, STIMULATE will highly benefit from a segmentation strategy aiming at elderly people in need of extra assistance while travelling. As such the offerings of STIMULATE will match this disposition by offering the following benefits:

Simplicity: accessible and intuitive interfaces will bring together optimized travel packages catering for special needs and impairments. STIMULATE will be accessible by means of web-, mobile and 2nd screen technology (tablets)

Personal: Users can personalize their offerings by optimizing an online profile reflecting interests, needs and impairments. Human intervention and help will be part of the interaction patterns associated with STIMULATE, especially in the context of reservation and confirmation of bookings

Assistance on-the-go: STIMULATE will extend their services during travelling itself by means of offering a unique and adaptive integrated Itinerary, reassuring travelers with integrated hotel, transport and activity guides, scheduled and adaptive route information and help and service options as part of a mobile STIMULATE web-app.

Credibility: STIMULATE will offer after-service assessment options on the form of reviews, allowing travellers to assess the accessibility of activities, thereby improving offerings. Furthermore STIMULATE will harmonize after service regulation across all business participants.

4.2 The primary user: the business client

The governing business models for the STIMULATE project build upon the traditional, direct approaches that mimic high service models provided by specialist tour operators and tourist agencies. Just as the tourist agency knows about their customers and will customize offerings from specialist tour operators, STIMULATE will act as a tourist-service broker, allowing offerings from specialist tour operators and organisations for elderly people to be found by elderly travellers.

As such the STIMULATE platform brings together elderly and impaired travellers looking for optimized offerings and specialist service providers on the other end of the chain. This business model, built upon the creation of a central STIMULATE service broker must ensure it can cater for the needs of their primary customer: the tourist service provider, since it will be these users that will populate the platform with suitable offerings and will offer credibility and reliability in the execution of services.

Since STIMULATE will depend highly on businesses delivering offerings, the requirements of the business users should be part of any scenario descriptions.

As part of this report, the long standing experiences of Cybercultus in the travel market were shared across the consortium as a means of identifying the potential business benefits of the STIMULATE platform:

Simplicity: Communicating specialized travel services to a potential large and growing public; maintaining a high level of service provisioning by means of automated services

Low cost of ownership: using the Software-as-a-service paradigm to ensure low cost of ownership; bringing together a critical mass of specialist tourist offerings thereby acting as a virtual networked tour operator. The open architecture and specification will promote adoption while reassuring participants against vendor lock-in.

Reach: Advertising high service, safe and customized travel packages, thereby opening up a growing niche market of ageing and impaired travellers in demand of special attention and high quality touristic offerings.

Credibility: By targeting a well specified niche group in the context of a high quality platform and on-trip services, the individual offerings will gain credibility, which is an important asset for the end-user community.

Competitive advantage: The online market is dominated by travel-aggregators; platforms which aggregate flight information (cheaptickets.com) or hotel offerings (booking.com) but offer low service with respect to after-service, specialized options, accessibility e.g. STIMULATE will provide small specialized tourist agencies the chance to act as a high service online tour operator.

By stressing the needs of -and benefits for these tourist service providers, the STIMULATE consortium will ensure sustainable exploitation scenario's providing fees associated with advertising/inclusion in the STIMULATE network, and directly connected with travel services that are purchased by the end-users as a commission. As a part of the user centred approach to the development of the STIMULATE platform the options for working with existing service providers will already be explored, along with the potential for a new service provider to be created as a direct outcome of the project.

5   From use cases to user scenarios

In this section we illustrate the business – and use cases elaborated in the preceding section into narratives. These narratives illustrate the activities associated with interacting with the STIMULATE platform. The scenario will involve a step by step description of how an end-user searching for trip offerings may use STIMULATESTIMULATE as an integrated itinerary. Alternatively, as in the case of the primary user, the narrative will be one of a specialist conducting a search for business offering that area relevant clients with special needs.. In the following sections, four very illustrative scenarios are given which illustrate pre-trip search, on-trip assistance, post-trip feedback and the whole workflow associated with posting a travel package and bringing all information into one coherent and adaptive offering. As such, the first scenarios are written as illustrations of the usage of STIMULATE by the business user:

5.1   Business user

Business users are at the core of the STIMULATE platform since they bring information about accommodations, activities and transportation options to the platform. Moreover, they act as an interface between the clients and providers of touristic services. Seen as a broker platform STIMULATE allows tourist agencies to bring together their expertise in an *optimized, personalized* and *niche* offering, thereby differentiating themselves from mass oriented travel providers like *booking.com* and *cheaptickets.com.* STIMULATE is based on specialist information and services not readily available online and allowing them to crowd source these offerings in a very personal experience.

Although the core of STIMULATE is based on manually submitted information, the platform itself will hold unique characteristics. These include its guided profiling interfaces for group and touristic users, the myriad of channels (phone, 2nd screen, and computer) and communication options available.

The following two 'professional' scenarios will illustrate STIMULATE in two ways:

- a business user perspective, wherein business users interact with the platform to allow clients to select and order travel packages online.

- a scenario covering a travel agent using STIMULATE as a tour operator platform

5.1.1   Scenario 1: The Virtual Tour Operator

Mr Fish is 45 years old and he is working in a small travel organization in Vienna with his two colleagues. In the past they started working with two retirement homes that wanted to organise day trips for their clients. The first daytrips were a great success, although they required quite some time to organise. Especially finding restaurants that could cater for the dietary needs of 50 persons was quite challenging, Mr Fish remembers from these first activities.

From these early steps in organising these specialist packages, he and his co-workers built up quite a lot of expertise in organising day trips and short breaks for groups of elderly and partially impaired clients. In the last five years alone, they accumulated contacts with more than twenty restaurants, over twelve hotels and numerous activity organisers in the greater Vienna region.

At his latest visit to the yearly Austrian Tourist fair, he came across the STIMULATE organisation and platform. He learned quickly that this platform was meant to 'crowd source' these specialized travel options from all over Europe, thereby turning the SME participants into a virtual tour operator. Since then he took on a small license, which allows him to document travel options in the Vienna region. In return the platform forwards any booking requests to his travel agency, thereby giving his office a nice return on investment.

Although it took some time to document all travel-options they had collected over the years, the platform was helpful in making the transfer of their expert knowledge as easy as possible (po1): any travel option belonging to a category (transport, activity, accommodation etc.) was optimized to hold suitable information. Furthermore each of these options could be customized to match a client- or 'fit' profile. As such, some accommodations could be included for visually impaired clients, or being marked as very suitable for wheelchairs. Furthermore procedural information, such as reservation ID's, billing- and contact information could be shared with the platform, although only under the login of the company to ensure no bypass reservations (po2).

In normal day-to-day work, three to five bookings a week are relayed through the STIMULATE platform, by means of email notifications, which directly allows access to the requested travel options, contact information of the clients(Oc2 and Oc3). Accommodation options which are known by the Amadeus reservation and booking system can be automatically checked and conformed (Co1), other options like restaurant and activity packages can be confirmed after contact with the provider (Co3).

Since STIMULATE is clearly targeted as a high service and specialist tour operator, the platform allows a myriad of communication options: live chat, notification text messages, and generated email messages which can be used to communicate with client (Co4). In some cases, clients prefer telephone or Skype conversations because of visual impairments and a clear need for direct communication.

One of the most appreciated aspects of the STIMULATE offering is the 'Integrated Itinerary'; this functionality packs all travel related information in a highly accessible and intelligent format. The itinerary can be downloaded on a smartphone (Id1) and from there behave intelligently on date and place information. Furthermore information about travel insurances, emergency options nearby and interactive updates in case of delays are all available from such a device, laptop or 2nd screen technology like tablets. As part of the offering integrated helper functionality is integrated which directly links the customer to the emergency phone number of the travel organisation (He1; He2)? Although it only occurs occasionally, that his help is required, it gives his clients a secure feeling.

As a consequence of these high service offerings, clients regard the whole travel experience as an accessible and secure way of opening up the possibilities of travel for impaired or elderly travellers. This notion is underpinned by the remarks and feedback people can leave at the STIMULATE webpage (Fe1). Most travellers communicate very positive feedback about the package (Fe2), the service of the tour operator, the integrated itinerary (Fe3) and the transparency of the offering. As such, Mr. Fish hopes that the STIMULATE organisation will attract more travel organisers so that more destinations can be unlocked for these clients.

5.1.2   Scenario 2: The Travel Agency

Miss Nicosia is working in a chain travel firm which has become part of the TUI Europe group last year. As a result, most of the reservations and packages booked by clients nowadays run through the TUI based travel reservation system. This system is optimized in checking availability of flights and accommodations and associated fares, but for detailed information on accommodations and activities, even big travel organizations like TUI depend on the information Tour operators provide.

In her years with the company, she learned to match the clients personalities to the specific offerings of such operators. Each traveller, whether adventure seeking, backpacker, comfort traveller or culture absorber, she is able to match to a specific tour operator profile. The only group, with which she always had more trouble matching, was in case of elderly people. In their interests and economic options they are quite similar to other types of clients, but in their more special needs it was always very difficult to get optimized packages, always resulting in the same destinations, where miss Nicosia just assumed the food would be all right and medical facilities were comparable to the northwest region of France.

Last year however, the range of operators was extended to include STIMULATE offerings, which meant she could also cater for the needs and wishes of elderly people who wanted the reassurance of a safe, accessible and comfortable holiday in less obvious locations, like the Mediterranean, countries from Eastern Europe or even Morocco and Egypt.

Last week a couple wanted to travel to Tuscany, but they seemed not to be very mobile, so instead of giving them the usual brochures, she fired up her web browser to investigate what offerings STIMULATE would have. Since this tour operator targets elderly people they have a large assortment of fully arranged cultural packages (Se1). With the couple she inspected three packages covering the Tuscan region, slightly distinct in the amount of activities on offer. Furthermore one of the packages was full board, so everything was catered for local transport, handicraft and museum visits, breakfast, lunch and dinner organized (Se2, Se3).

The couple clearly appreciated the level of comfort given by such a package and wanted to customize the offer somewhat more by adding some additional trips (Pa2) to the country side and extending the package with three days on Lake Chuisi Pa1). Although Miss Nicosia could not immediately check if these activities would be available, leaving a message by means of the platform would give a response within few hours (C3).

Miss Nicosia always appreciates the way how STIMULATE lets her customize the travel options precisely to the needs of the elderly; as such it always gives her the feeling that she is able to give much more elaborate service to her clients than with the off-the-shelf tour operators. STIMULATE for instance allows you to enter dietary constraints (Se3) and lets you pick alternative restaurants or hotels accordingly (Pa3, 4). Furthermore she can select on the base of accessibility options and impairments. In this way she always is able to find an optimal travel option (Se5).

The STIMULATE website allows a configured package to be stored as an option and shared with potential clients (Id2). As such Miss Nicosia can print the summary of the options chosen (even in big print!) and forward the URL of the customized package by means of email (Id1).

Just an hour after the couple has left the office, Miss Nicosia gets an email that the configured package is fully available and a discount on the rooms will be included in the itinerary overview (Co2).

The following day the couple calls to confirm the package (Oc3) on the base of the details they looked up that evening with the help of their grandson (C05, Co6). They were very pleased by the service provided and the attention to detail in selecting their hotels, activities and even meals! As such they said they would recommend the service to all their friends!

5.2 End-user Scenarios

Whether mediated by a travel agency or not, end-users are expected to engage with the STIMULATE platform prior to-, during and after their travel. As such the scenarios will illustrate these particular stages:

Pre-trip information gathering: At this stage end-users are searching for travel options for themselves or other people, matching their needs and preferences to available options and allowing them to select and fine-tune an offering. Pre-trip activities also extend in the area of communication to the broker and the actual ordering online. Since STIMULATE targets elderly and to some extent impaired clients, profiling is key to the workings of the STIMULATE platform. As such, the client needs, preferences, economic capacity, fitness and needs for special care will help users to filter down to the most optimal offerings.

On-spot information is given by means of the STIMULATE itinerary. This adaptive mobile application will greatly reduce stress and optimize the information flow to the traveller. The STIMULATE integrated itinerary will:

- visualise information about time and place in a sensible order (temporal, logistic, spatial flows) to establish a coherent and consolidated itinerary. In doing so, it provides the alternative for the complete mess of information sheets, tickets, timetables, addresses and vouchers which tend to disrupt the travelling experience.

- Move from itinerary as a static and fragmented collection to a dynamic and coherent service, which allows location based services and adaptivity as a result of time- and location input onto the itinerary.

- The itinerary management system collates all the necessary information and brings it together in one place. The information is presented and visualised in optimized ways, according to both the requirements (eg visual impairment) and preferences of the elderly user

- The integrated dynamic itinerary will be smartphone based, since it can benefit from the form factor and hardware sensors (time/location) needed. STIMULATE will also provide a static alternative which can be printed out. Although having lost the dynamic nature, the static version will have its integrated approach to providing travel information optimized to the end-user.

- The itinerary is dynamic and can be updated on-the-fly with relevant information (eg changes in flight times) options and alternatives provided by intermediaries, family, friends, careers, transport providers, accommodation providers etc.

- Where obstructions or problems are encountered, alternatives can be forwarded to the end-user and direct communication options are provided so that choices can easily be made.

- The adaptive itineraries can be dynamically amended whenever necessary as a result of obstructions or problems. As such, problem-solving guidance is embedded in the system.

Post-trip: The STIMULATE platform will offer two types of services. The first one is the ability to enrich your itinerary after your trip and save and share it with other people. As such the itinerary can be transformed into a travel diary. Furthermore, the STIMULATE platform allows their clients to give feedback on every aspect of the travel package. Although feedback seems trivial in other cases, feedback in this specific niche is a key in providing optimized care and opportunities to elderly and impaired people.

The following scenarios will illustrate parts of the STIMULATE travel experience. The first two scenarios will focus on making travel arrangements, while the third one will focus more on the on-spot and post trip experiences with the STIMULATE travel platform.

5.2.1   Scenario 3. The volunteer travel organiser

Mrs Jansen from Nijmegen, although herself an elderly woman, has always been active as a volunteer of the 'Zonnebloem' or 'Sunflower' foundation, which give impaired and older people weekly visits, and organise short holidays. As a neighbourhood volunteer, she is very active in paying elderly people visits and helping them out in shopping for groceries. At least once a year, she spends a week with a group of 10 to 15 elderly and partly impaired people on holiday. Mrs Jansen is always on the lookout for nice activities and places to stay and came across the STIMULATE website searching for nice activities in the area of Cologne, just across the border.

In searching for accommodations, it was immediately apparent that this was a very distinct travel site, catering for her specialist needs: although she started her search in a normal way(Se2) (by entering the region of Cologne, Germany) she could immediately filter accommodations suited for people with a reduced mobility or accompanied, as well as optimized rooms(Se3). Furthermore, full board and dietary options were available right from the menu while even more details were available in the accommodation overview.

As part of the personalisation section of the site, STIMULATE gave her the option to optimize a personal or group profile (Pro2). Dedicated to organising a spring holiday to Cologne, Mrs Jannsen decided to make a group profile and was guided through a series of questions about the average age of the group, mobility and general fitness of the group, activity preferences (outdoor, cultural, sightseeing, shopping etc.) food preferences, economic options and preferred length of the visit (Pro2).

After deciding on the general profile of the group and most of the activity preferences, the STIMULATE platform returned a series of packages including accommodation, selected activities and transport options, each one marked for appropriateness to the profile in green, yellow and green. (Se5) Each item in the package was date-ordered and given a short description. In selecting an 'alternative' option, any accommodation, or activity could be changed for another option or entirely deleted from the package offered (Se6).

After choosing some alternative activities for the group and making sure about the various transportation options, she submitted the selections on her profile and left a message to the organising travel organisation about some more details of the city tour by bus and availability options (Oc1).

The next day already, she got an answer back from the travel organiser, reassuring availability and some further information about the trip (CO4). In replying to the email she took an option on the short holiday (Oc2), while waiting for her colleague volunteers to get enthusiastic about the prospect of traveling to Cologne that spring.

5.2.2   Scenario 4: Travel selection

Mr Humeyer is 82 years old and started having severe difficulties with walking 3 years ago.

Still, a passionate traveller, he prefers travelling around Europe, especially during theatre festival season. An inexperienced internet-user, he was introduced to STIMULATE just recently in the seniors club meeting three weeks ago. The meeting was organised around a workshop in working with a tablet. Although not very experienced in working with computers he decided to give it a go, because they said it was very easy to use and great for contacting your grandchildren, surfing the web and ordering eating and travel!

As part of the workshop, all elderly people could borrow the tablet for a two weeks period at home. Mr Humeyer greatly enjoyed the experience. One of the first things he did was order one for him online. Especially in the evening, while watching television, Mr Humeyer likes to use 'his second screen' to find associated information to the program he is watching (mostly nature and travel documentaries and recordings of classical concerts.

While watching a Thursday travel documentary program, he decided to activate his tablet to access the STIMULATE web app as advertised in the program. He browsed to the URL and was asked if he wanted to install the app, which he allowed (Id1). Curiously he immediately started looking at travel options in his vicinity (Se2) and was quite surprised to learn that there were quite some options, also including nature walks for less mobile people.

Intrigued by the amount of optimization offered by this organisation, Mr Humeyer was interested to see if he could go to Salzburg festival. After entering the city name immediately two packages were displayed (Se2): a group offering and an individual offering. The packages could be filtered down to match his specific characteristics and preferences (Se3). As such he was offered optimized full board accommodation with optional help in the morning, a complete theatre program with included wheelchair transportation and two special dinner arrangements in accessible restaurants! (Pa5)

Few month later, he is in Salzburg with his tablet under his arm and help out of the train on the platform by personnel of the Austrian railway already ordered by STIMULATE and mentioned as part

of the itinerary (Lu2). If there would have been a problem (i.e. there would have been no one to help him) the itinerary would provide by means of the helpme function as part of the activity description a direct telephone call to the agency responsible (He2).

Mr Humeyer was very impressed so far with the itinerary: it behaves like a sort of shopping list, where the list automatically hides the activities already done (from home to the station, on the train etc.)(Lu3) or you can mark the activity done (Lu4)

According to the itinerary he now needs to wheel down the station where a Taxi will take him to his hotel. The entry on this activity list, names the transporters name and even predicts it will take him a five minutes to the hotel (Ro1). As with all entries, also this entry has the HelpMe function, this time communicating back to the travel organisation (He3).

The STIMULATE itinerary even lists all passport and check-inn information to allow Mr Humeyer to only bother about the wheeling to his room and a short nap, before dinner. Just before he falls asleep, he thinks, I wish my whole life could have been an optimized itinerary….

5.2.3   Scenario 5: On spot travel information

Mr. and Ms. Cosy enjoy travelling. A few years ago Mr. Cosy had a stroke and he is still in danger to have one in the future. Since that time the couple has been somewhat more careful about the way they travel and the precautions to take. In this way they also came across the STIMULATE organisation and platform. They were enquiring about some safe travel options in the hospital and there they were given a leaflet.

Although not directly being impaired, they liked the STIMULATE accommodations and activities enough to book a trip to Sicily with them. As part of their trip details, was the option to download and install the STIMULATE itinerary on both their smartphones. After inspection they felt already very secure and protected against eventualities, since each activity had a Help function, but there was also a big Global helpMe function, listed buttons for calling the national alarm number, the insurance emergency helpline, furthermore local travel care and family numbers. The list was ordered to give immediate access to help in emergency or at least troubling situations.

Furthermore the buttons would give an overview of all relevant information needed to respond: for example exact location, your own telephone number, you ID and insurance number etc. All information needed for contacting a potential care giver was already available in the application.

While on their trips in the countryside and in Palermo, they enormously enjoy the STIMULATE itinerary on their Iphones: They could easily plan their trip to the botanical gardens by foot, and because of their profile settings, the app already understood that the shortest route (Ro4) was called for! They got alternative routes when they got lost after coffee drinking and were alerted by the app that they were already 500 meters too far from the main entrance. (Ro5)

Furthermore they enjoyed the 'diary' feature of the STIMULATE web-app which allowed you to take photographs (Lu6) and annotate (Lu5) them as part of your itinerary. As such the itinerary doubles as a sort on travel diary which can be shared with family and be visited only by means of the STIMULATE website (Fe4) and social media like facebook and twitter…

Although their holiday was great for nine days, the tenth day an accident happened. Mr. Cosy had a further stroke and was in very bad shape when he had the seizure. Mrs Cosy who had the

Itinerary already open (they were heading to the museum of Palermo) gave here immediate access to the emergency number; after pressing the button, immediately the Italian 112 was called, and she could explain (luckily in English) what happened and the exact location they were.

Once in the hospital, the emergency tab made it easier for here, to first call her daughter, and then deal with the insurance company and the travel organisation, by forwarding all relevant information which she had left in the hotel otherwise. As such she could inform the insurance and could give the Italian doctor some information about his past.

Luckily after five days in hospital Mr. Cosy got the prognosis that his neurological problems were already lessened, that he could be repatriated in a weeks' time, back to home. Following the affairs from their hometown the travel agency had updated the itinerary with all relevant information and schedule provided by the insurance company.

Although, being very basic in nature Mrs Cosy realized how instrumental STIMULATE had been in these first hours where information is crucial and all help is needed in particular order. As such she wrote a lengthy response on the STIMULATE site, how their app had helped her to save her husband.

6   From Scenarios to activity lists

The scenarios have listed in a narrative way the activities associated with searching for travel options, getting information on the go and allowing travel agencies to populate the STIMULATE platform. In the following section, activity lists are built from the references in the scenarios. As such, they bring together required functionalities to the STIMULATE platform to enable end-users to interact meaningfully with STIMULATE and its associated services.

6.1   Populating STIMULATE

Code	Name	Description
Po1	New, edit, delete Package	Ingestion or edit of a package as a series of related accommodations, activity and transport options
Po2	New, edit, delete item	Ingestion of a new accommodation, activity or transport option with all relevant information, metadata, timetable aspects and impairment profile
Po3	Add regional (help) information	Ingestion of regional information about weather, touristic sites etc. Furthermore information about emergency options can be included in this activity

6.2   Communicating by means of STIMULATE

Code	Name	Description
Co1	Auto check availability	Amadeus check of availability of accommodation and transport
Co2	Update availability order	Update availability of activity, accommodation or transport in a given order
Co3	Contact supplier	Contact supplier by means of contact details
Co4	Contact Client	Contact client by means chosen (text, telephone , email)
Co5	Update order	Update the package to reflect changes in availability, tariffs, discounts etc.
Co6	Update itinerary	Update an itinerary with new information as a result of changes in

		the package, help functions etc.

6.3 Ordering and confirmation

Code	Name	Description
Oc1	Request for information	Request for information about a package or activity initiated by the Client by means of the STIMULATE platform
Oc2	Reservation	Reservation made on the basis of package characteristics. Reservations contain details on dates, accommodations, activities, transport options and persons involved in a trip
Oc3	Booking confirmation	Confirmation of a reservation in a booking
Oc4	Billing and billing update	Getting payment details on an ordered booking

6.4 Pre-trip search, filter and selection

Code	Name	Description
Se1	Package/ Region browsing	Browsing advertised packages from the STIMULATE platforms website
Se2	Package/ Region search	Searching for packages in a specific region or city
Se3	Package Filter on economic, fitness and type options	Filter travel options on the basis of preferences, economic options, and aspects of general fitness, impairments or other attributes
Se4	Package filtering on profile	Filtering a package and its activities on detailed profile information.
Se5	Activity filtering on profile	Filtering activities (or activities as part of proposed package) according to profile attributes
Se6	Alternative filtering on profile	Requesting alternatives to activities filtered according to profile

6.5   Package adjustment and ordering

Code	Name	Description
Pa1	Package adjustment time/ date	Adjustment of package details according to dates and length of stay
Pa2	Adding, editing deleting activities	Adding, deleting activities to a specific package or deleting the specifics of an activity
Pa3	Adding, editing deleting accommodations	Adding, deleting or editing the specifics on accommodation characteristics
Pa4	Adding, edit, delete transport options	Adding, editing, deleting transport options as part of a package proposal
Pa5	Saving a package	Saving a package as part of making reservations and as a prerequisite to ordering a package

6.6   Pre-trip profile building

Code	Name	Description
Pro1	Creating, editing account	Creating a personal account as a means of identification
Pro2	Creating and editing group profile	Creating a guided profile of a group, by answering questions about economics, mobility, preferences, amount of persons, travel preferences and impairment information
Pro3	Creating and editing personal profile	Creating a guided personal profile by answering questions about economics, mobility, preferences, amount of persons, travel preferences and impairment information

6.7   Itinerary download and adjustment

Code	Name	Description
Id1	Adaptive Itinerary download or share	An ordered package Itinerary can be downloaded from a smartphone by accessing the clients URL in web browser, it will prompt to install on smartphone and tablet devices. It will be browser accessible from any workstation.
Id2	Saved Itinerary download and print	An integrated itinerary is saved as a PDF document / Ebook and transferrable and printable from any device

6.8   Itinerary use and update mechanism

Code	Name	Description
Iu1	Sort items by time	Giving an overview of items (transport, accomodation and activity) ordered by the time and place it needs to be consumed. As such it gives an ordered overview of the entire trip
Iu2	Inspect item details	Inspect the details of an activity, including all details associated with the activity.
Iu3	Auto-hide items	Auto-hide activities which are completed by time or place
Iu4	Mark-to-hide items	Mark to hide items which are completed or not interesting anymore to allow comprehension at all stages of the trip
Lu5	Annotate Items	Add text to itinerary items to generate an on-travel diary
Lu6	Add pictures to items	Add photographs (by photographing) or by filmstrip to visualize an itinerary item

6.9   Itinerary Route and alternative transport functions

Code	Name	Description
Ro1	Travel times on the basis of car and foot transport	Calculated estimated start and arrival times for car and foot transport

Ro2	Obstruction calculation	Suggestion of alternative routes in case of obstructions
Ro3	Public transport travel times	Public transport suggestion if available from a public API
Ro4	Suggesting routes	Route descriptions on foot or by car; using Google or Bing like interfaces
Ro5	Route deviation alert	Alert mechanism for signaling deviations

6.10 Itinerary HelpMe functions

Code	Name	Description
He1	Global emergency function	Gives access to emergency options ordered in emergency severity. Each option directly connects to the associated service provider and gives information needed to convey: location, place, names, insurance details etc.
He2	Activity based HelpMe	HelpMe function giving contact information about the provider in case something goes wrong
He3	Route optimized HelpMe	Route optimized help gives access to route optimizations when there are blocks, or alternative transport options in case of delays of transport.

6.11 Post trip feedback and annotation functions

Code	Name	Description
Fe1	Global feedback on STIMULATE	Allowing feedback being given to the global STIMULATE offerings and services by means of the STIMULATE website
Fe2	Feedback on package	Allowing feedback on the specific package by means of the itinerary and/ or website
Fe3	Feedback on Itinerary item	Feedback on a specific part of the itinerary as part of the options of the itinerary subsystem

Fe4	Annotate and share Itinerary items	Annotate and share itinerary items as part of a travel diary.

7 Conclusions

This deliverable has provided the methodology and actual contents to move STIMULATE from a description of objectives to a functional specification. Since scenarios often provide real life examples, and a narrative approach described functionalities, it proved easier and more informative to provide details discuss that usage of scenario rather than a mere listing of functionalities. As such the scenarios were described in close collaboration with other partners in the consortium (notably TU Wien) and end-user representatives who gave much valuable feedback to the scenarios concerned with on spot travel information. Moreover, the scenarios described and the activity lists extracted from them can provide further input to a functional specification and mock-up screen designs, illustrating the described functionalities in a realistic manner.

As a result, the deliverable has served its primary objective: to liaise between the general user requirements and a formal specification document.

8 Approval of Deliverable

1. <u>DISTRIBUTION OF THE DELIVERABLE</u>

   WORK PACKAGE TITLE:

   User requirements & Services specification

   DELIVERABLE NAME:

   STIMULATE Use cases and Scenarios

   DELIVERABLE DISTRIBUTED TO ALL PARTNERS VIA :

   X email

   X DMS: Document Management System (indicate location):

   http://quickr.tudor.lu/stimulate

   DELIVERABLE REVIEWED INTERNALLY BY (NAME/ORGANISATION):

   Estelle Ziegler, Ariane Girault/E-SENIORS

   Moussa Ouedraogo/TUDOR

2. <u>APPROVAL OF THE DELIVERABLE</u>

   ORGANIZATION NAME:

   REPRESENTATIVE NAME:

   DATE OF THE APPROVED REVIEW:

   ☐ APROVED

   ☐ NOT APROVED

       COMMENTS: