



## **MY MOBILE AND SMART HEALTHCARE ASSISTANT#**

Deliverable 1.3  
Exploitation plan and roadmap



Title	2 (13)
My Mobile and Smart Healthcare Assistant (MoSHCA)	2015-12-09
Confidentiality Level: CO (Confidential)	V 1

## Change History

Version	Date	Description	Affected Sections
0.1	20-07-2015	First Template	all
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COPD	Radboud University Nijmegen
Diabetes	Actimage
General Health and Medical Coach	Planet Media
Epilepsy	CLB/SI
Hypertension	Acroem
Mobility	Evalan
Pregnancy	Radboud University Nijmegen
Premature babies	Answare Tech



Title	3 (13)
My Mobile and Smart Healthcare Assistant (MoSHCA)	2015-12-09
Confidentiality Level: CO (Confidential)	V 1

## Table of Contents

<b>1</b>	<b>INTRODUCTION .....</b>	<b>4</b>
<b>2</b>	<b>COPD.....</b>	<b>5</b>
2.1	STRATEGIC ROADMAP .....	5
2.2	ROADMAP PLANNING .....	6
<b>3</b>	<b>EPILEPSY.....</b>	<b>7</b>
3.3	STRATEGIC ROADMAP .....	7
3.4	ROADMAP PLANNING .....	7
<b>4</b>	<b>GENERAL HEALTH .....</b>	<b>8</b>
4.5	STRATEGIC ROADMAP .....	8
4.6	ROADMAP PLANNING .....	8
<b>5</b>	<b>HYPERTENSION.....</b>	<b>9</b>
5.7	STRATEGIC ROADMAP .....	9
5.8	ROADMAP PLANNING .....	9
<b>6</b>	<b>MOBILITY REHABILITATION .....</b>	<b>11</b>
6.9	STRATEGIC ROADMAP .....	11
6.10	ROADMAP PLANNING .....	11
<b>7</b>	<b>PREGNANCY .....</b>	<b>12</b>
7.11	STRATEGIC ROADMAP .....	12
7.12	ROADMAP PLANNING .....	12
<b>8</b>	<b>PREMATURE BABIES .....</b>	<b>13</b>
8.13	STRATEGIC ROADMAP .....	13
8.14	ROADMAP PLANNING .....	13



Title	4 (13)
My Mobile and Smart Healthcare Assistant (MoSHCA)	2015-12-09
Confidentiality Level: CO (Confidential)	V 1

## 1 Introduction

This deliverable 1.3 contains the roadmap for each use case. The roadmap describes all planned strategic activities during a period of three years initiating from the moment of product launch.

This documents strongly relates to D7.5, in which the details of the exploitation activities are elaborated. D7.5 includes a value chain analysis, exploitation channels, marketing / sales strategy, operation plan, financial plan and revenue forecasts. As this deliverable D1.3 includes the strategic roadmap for each use case, it acts as a common thread to D7.5.



Title	5 (13)
My Mobile and Smart Healthcare Assistant (MoSHCA)	2015-12-09
Confidentiality Level: CO (Confidential)	V 1

## 2 COPD

### 2.1 Strategic roadmap

COPD patients suffering from severe to very severe COPD represent a total available global market of more than 5 million patients who can benefit from our solution today. With an estimate growth rate of COPD of almost 40% in prevalence until 2025 we expect this market to grow to 7 million patients in 2025.

eHealth solutions supporting self management of patients can prevent up to 50% of all acute exacerbations and improve quality of life, reduce the number of care interactions and hospital admissions and can create huge costs savings of approx. 150 Million Euro in the Netherlands, 5 Billion in Europe and 15 Billion globally.

Year 2012	Total available market in number of patients Gold III and IV	Hospitalization Related costs in MEuro	Savings potential in MEuro
The Netherlands	<b>75,000</b>	<b>300</b>	<b>150</b>
Europe	<b>1,770,000</b>	<b>10,000</b>	<b>5,000</b>
Global	<b>5,300,000</b>	<b>30,000</b>	<b>15,000</b>

Investigation in the state-of-the-art of the market learns that there are currently no competitors for our proposed autonomous solution offering individual risk assessment with direct feedback to the patient. Many local operating companies have activities in the home-motoring area. Most of them focus on eHealth monitoring solutions, decision-making based on the gathered patient information is still done remotely by caregivers, and collected patient information is not automatically interpreted. None of the commercially offered devices have the ability to assess risk levels and provide direct feedback to the patient as we intend to do with this solution.

Radboud University intends to commercialize the smart care assistant with the company Apps4Air, whose objective is to participate in future and growing high volume e-health markets by developing, licensing and providing self-management tools for co-morbidity and empowerment of patients. Radboud University continues to play a very important role in basic research and exploring new application areas for the platform technology.

The organization will be structured in such a way that almost all costs are flexible in the first years of execution. Moreover the technology and product development will be put out under contract to our suppliers: specialized companies, technical universities and academic hospitals. All will be contracted on output and not on effort.



Title	6 (13)
My Mobile and Smart Healthcare Assistant (MoSHCA)	2015-12-09
Confidentiality Level: CO (Confidential)	V 1

## 2.2 Roadmap planning

First we would like to target the Dutch market as our home market. The Dutch COPD patient is predominantly cared for in a very traditional way, as in most developed countries around the world. Patients visit their doctors periodically for routine check-ups, evaluating their well being and health over the last period, they way COPD is effecting their lives and how they cope. Therapy is adjusted based on the findings and on a medical examination.

Approximately 75,000 patients suffer from exacerbations regularly and this total available market is expected to grow over the next years. Companies like Sananet and Curavista are active in the Dutch market for mHealth, primarily for Chronic Heart Failure and Diabetes. With the market leader for mHealth solutions for COPD Sananet we would like to offer our solution to the Dutch market.

The next large European market to target is the UK market with an estimated 842,100 people has a diagnosis of COPD, of which 200,000 are suffering from high risk COPD. The Whole System Demonstrator program, launched by the UK Department of Health in May 2008 and concluded in 2011, demonstrated the value of telehealth and telecare solutions. The UK market is open for eHealth solutions, the value of eHealth is accepted and has been endorsed by the government.

Based on the Dutch market only with a market penetration of 7% in 18 month after product introduction we expect to break even with an installed base of 5,000 patients and based on an annual support fee of 150 Euro per year per patient.

Y-Q	Markets	Product version	Product expansion (optional)
2016 Q3	The Netherlands	V1.0	Initial release
2017 Q1	United Kingdom	V2.0	First foreign market
2017 Q3	USA, Global	V3.0	



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Confidentiality Level: CO (Confidential)	V 1

### 3 Epilepsy

#### 3.3 Strategic roadmap

The overall strategic roadmap for the epilepsy use case can be described as follows:

- Launch product in the home market during the first year, allowing efficient gathering of market feedback
- Launch product onto foreign markets from the second year onwards to expand potential sales
- The initial version (v1.0) shall include recognition of epileptic seizures via microphone input only.
- The second major release (v2.0) is planned to be launched in Y1 Q3 and adds an accelerometer as an input device, which increases the accuracy of alerts.

#### 3.4 Roadmap planning

The epilepsy use case shall implement a “waterfall” strategy initially, when the Dutch market is entered before any foreign market is being touched. This allows v1.0 to become optimized and expanded by adding an accelerometer input in v2.0.

From the second year onwards, a “sprinkler” strategy is used to enter foreign markets, starting with Europe.

From the third year onwards, the epilepsy app shall be launched in markets outside Europe as well, starting with Korea.

Y-Q	Markets	Product version	Product expansion (optional)
Y1 Q1-Q2	The Netherlands	V1.0	Initial version: mic only
Y1 Q3-Q4	The Netherlands	V2.0	Adds accelerometer as input
Y2 Q1-Q2	+ France, Spain, Belgium Germany	V2.0	
Y2 Q3-Q4	+ UK, Portugal, Italy	V2.0	
Y3 Q1-Q2	+ Korea, Japan, and other global markets	V2.0	
Y3 Q3-Q4	+ other global markets	V2.0	



Title	8 (13)
My Mobile and Smart Healthcare Assistant (MoSHCA)	2015-12-09
Confidentiality Level: CO (Confidential)	V 1

## 4 General Health

### 4.5 Strategic roadmap

The commercialization strategy for the general health app will focus on the market of gyms and fitness and wellness centers: there are currently around 4600 gyms in Spain and more than 6.4 million people practicing sports frequently.

The overall strategic roadmap for the general health use case will consist on:

- Product launch in Spain in the third quarter of 2016 with the initial version (v1.0) of the product.
- During the second quarter of 2017 an improved version will be released and launched to Mexico. This version will provide a deeper and more detailed database for food intake registration (v2.0) and will include customization apis for gyms in order to easily adapt the app to the specific sensors and exercise routines of the different centers.
- An improved version of v2.0 will be later launched to the markets in EU and Latin America using the sprinkler strategy.

### 4.6 Roadmap planning

Two strategies will be applied in order to launch the general health product to the market. At first stage, the "waterfall" strategy will be followed to enter the home markets in Spain (2016) and Mexico (2017), where the other headquarters of the company are based. After that, the second stage will apply the "sprinkler" strategy in order to extend the launch of the product from Spain to Europe, and from Mexico to the rest of Latin America.

Y-Q	Markets	Product version	Product expansion (optional)
2016 Q3-Q4	Spain	V1.0	Initial version
2017 Q2-Q3	+Mexico	V2.0	Improved version. +wider database and customization apis
2018 Q3-Q4	+EU/Latin-America	V2.0	





Title	9 (13)
My Mobile and Smart Healthcare Assistant (MoSHCA)	2015-12-09
Confidentiality Level: CO (Confidential)	V 1

## 5 Hypertension

### 5.7 Strategic roadmap

The first version is on the Google play (<https://play.google.com/store/apps/details?id=com.moshca.alpha&hl=ko>) for local clients. This version can download freely, and included major features such as IEEE 11073 communication, back-end server connection and rule-based reasoning.

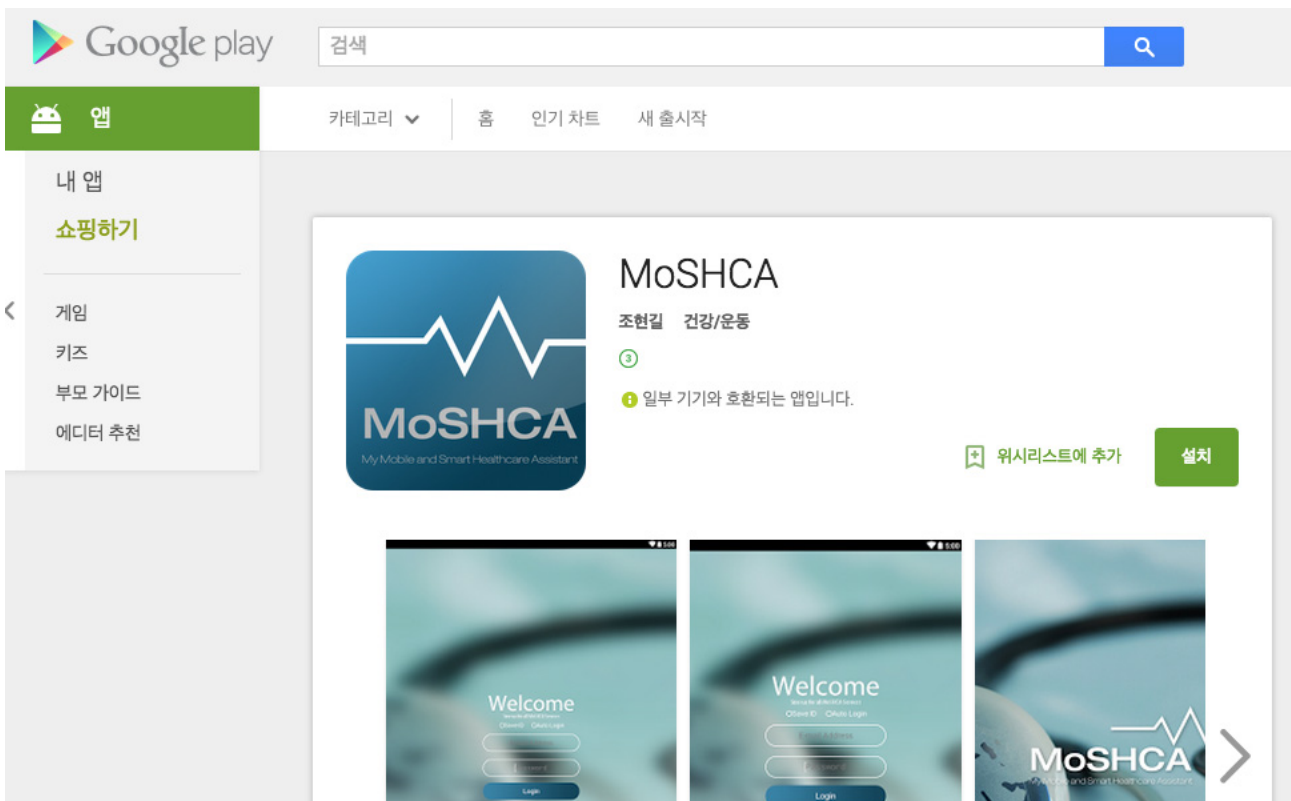


Figure 1. Hypertension management on the Google Play

The 2<sup>nd</sup> version is included automated data collection with exercise bands by BT communication and customized functions for intended clients.

The 3<sup>rd</sup> version is commercial application that supports data exchange with hospital systems. From this version, MoSHCA hypertension application enters B2B market and also, support English languages for the global market.

### 5.8 Roadmap planning

The market strategy of MoSHCA Hypertension application is Waterfall strategy, S. Korea is the first market of Hypertension, and we will expand to the Asia. The first hypertension version is for patients and free of charge, 2.0 version is commercial one for B2C market. Version 3.0 release in 2018, which is integrated with medical systems on hospitals.



Title	10 (13)
My Mobile and Smart Healthcare Assistant (MoSHCA)	2015-12-09
Confidentiality Level: CO (Confidential)	V 1

Y-Q	Markets	Product version	Product expansion (optional)
17 Q1-Q2	S. Korea	1.x version (B2C)	Add minor changes and bug fixes from 1.0
17 Q3-Q4	S. Korea	2.0 version (B2C)	Integrates exercise bands
18 Q3-Q4	S. Korea	3.0 version (B2B)	Integrates hospital systems
19 Q1-Q2	Asia	3.x version (Global)	Intended to global B2B



Title	11 (13)
My Mobile and Smart Healthcare Assistant (MoSHCA)	2015-12-09
Confidentiality Level: CO (Confidential)	V 1

## 6 Mobility Rehabilitation

### 6.9 Strategic roadmap

The overall strategic roadmap for the mobility use case can be described as follows:

- A basic product (v1.0) has been launched in the home market in Q3 2013, allowing efficient gathering of market feedback.
- The second major release (v2.0) is planned to be launched in Q4 2015 and adds extended functionalities. These include the feedback from the first users and possibilities to carry out exercises without health care supervision.
- In the third major release (v3.0), which is planned for Q4 2016 the intelligence of predicting the rehabilitation end date will be added to the system.
- The second and third major releases will be launched onto foreign markets from Q3 2016 onwards to expand potential sales.

### 6.10 Roadmap planning

The Mobility Rehabilitation use case shall implement a “waterfall” strategy initially, when the Dutch market is entered before any foreign market is being touched. This allows v1.0 to become optimized and expanded by adding (and optimizing) extended functionalities in v2.0 and v3.0.

From the fourth year onwards, a “sprinkler” strategy is used to enter foreign markets, starting with Europe.

Y-Q	Markets	Product version	Product expansion (optional)
Y1 Q3	The Netherlands	V1.0	Basic version
Y3 Q4	The Netherlands	V2.0	Carry out exercises without supervision
Y4 Q4	The Netherlands	V3.0	Intelligence of predicting the rehabilitation end date
Y4 Q2	+ Germany, Sweden, UK	V2.0 + V3.0	
Y4 Q3-Q4	+ other global markets	V2.0 + V3.0	



Title	12 (13)
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Confidentiality Level: CO (Confidential)	V 1

## 7 Pregnancy

### 7.11 Strategic roadmap

The products inspired by the pregnancy use case will be brought to market as follows:

- We first release the initial version (v1.0) in the domestic market, in order to adjust the product given market feedback. We release to a few hospitals, to have better access to recorded results.
- In the second version (v2.0) we improve the reasoning networks with the data collected from the initial release and expand to more hospitals.
- The third major release (v3.0) will include applicable innovations, as well as adjustments for the foreign market.

### 7.12 Roadmap planning

The spiral model will be used in order to continuously bring the latest research to market, while maintaining a high quality standard. The second version will be a reaction to possible shortcomings of the initial release. After this phase, we expand it with the latest applicable innovations in the field.

After obtaining a stable feature complete version, we will introduce the product to the international market.

Y-Q	Markets	Product version	Product expansion (optional)
2016 Q3	The Netherlands	V1.0	Initial release
2017 Q2	The Netherlands	V2.0	Improved reasoning
2017 Q4	UK, USA	V3.x	Technical innovations and foreign release



Title	13 (13)
My Mobile and Smart Healthcare Assistant (MoSHCA)	2015-12-09
Confidentiality Level: CO (Confidential)	V 1

## 8 Premature Babies

### 8.13 Strategic roadmap

The overall strategic roadmap for the premature babies use case can be described as follows:

- First basic product (v1.0) should be launched in the home market the first year (Q2 2016) in a hospital, allowing efficient gathering of market feedback.
- Launch the second version (v2.0) including feedbacks from the first users, to the second hospital. Those feedbacks have improved global and local reasoning algorithms and usability aspects not recognized in the first stages of the project. A wireless sensor's state of art can give the opportunity to detect new sensors to be connected with this product and obtain new information automatically. This new version can include these integrations.
- In the third major release (v3.0), which is planned for Y2 will be focused to new users and horizons so other languages should be available.

### 8.14 Roadmap planning

Waterfall strategy has been chosen to introduce the product sequentially in different markets. This allows V1.0 to be optimized and expanded to different properties. It will allow the company to take time to understand the market and make appropriate adjustments to its marketing mix in order to satisfy the specific needs of each market.

After the second year, a Sprinkler strategy is used to introduce the product simultaneously in multiple countries, starting with Europe. This kind of strategy requires vast resources to fully understand the market, and it is very important to take adequate steps to assure success.

Y-Q	Markets	Product version	Product expansion (optional)
Y1 Q2	Spain	V1.0	Basic version
Y1 Q4	Spain	V2.0	Version with implemented feedbacks. Add sensors connection
Y2 Q2	+ European market	V3.0	Add languages. Add insurance companies as new users
Y2 Q3-Q4	+ Latin America	V3.0	

