

# ENSAFE – Business Plan UK Appendix

Lead Partner: ICE Creates  
Authors: Simon Platt  
Contributors: Joyce de Laat, Paul Martin, Lorenzo Lasagne  
Date: 18-02-2018  
Revision: V1.1  
Dissemination Level: PUBLIC



*Project Acronym:* ENSAFE  
*Project full title:* Elderly-oriented, Network-based Services Aimed at independent liFE  
*AAL project number:* AAL 2014-1-112  
*With support of:*



## Content

<b>1</b>	<b>Introduction .....</b>	<b>3</b>
<b>1.1</b>	<b>Background.....</b>	<b>3</b>
<b>2</b>	<b>Demand Analysis .....</b>	<b>Fout! Bladwijzer niet gedefinieerd.</b>
<b>2.1</b>	<b>Market Drivers .....</b>	<b>4</b>
<b>2.1.1</b>	<b>Political &amp; Legal Factors.....</b>	<b>4</b>
<b>2.1.2</b>	<b>Economic Factors .....</b>	<b>6</b>
<b>2.1.3</b>	<b>Social Factors .....</b>	<b>6</b>
<b>2.1.4</b>	<b>Technological Factors .....</b>	<b>7</b>
<b>2.2</b>	<b>Market Structure.....</b>	<b>7</b>
<b>2.3</b>	<b>Competitor Products &amp; Services.....</b>	<b>9</b>

## 1 Introduction

This document provides detail for elements of the business model for ENSAFE in the UK, it acts as an appendix to the main business plan document. Specifically, this document contains Market Analysis for the UK.

### 1.1 Background

Assistive technology (AT) is a range of services and products that empower people to become more independent.

Within the UK (United Kingdom), assistive technologies, are mostly provided by the NHS (National Health Service) and offer new opportunities for digitally enabled products and services to support people with their health, wellbeing and social care needs. The Foundation for Assistive Technology developed the following definition for AT, which is still widely used today:

*“Assistive technology is any product or service designed to enable independence for disabled and older people”<sup>1</sup>*

This broad definition covers a wide range of products and services, many of which are often referred to under the umbrella terms: telecare, telehealth or eHealth. This includes personal alarms, tablet-based systems and monitors and sensors. As science and technology advances, the breadth of technologies covered by this definition continues to expand. The types of products or services used by people in the UK, will vary depending on their individual needs. Those who would benefit the most from AT include people with disabilities, dementia, learning difficulties, and older people<sup>2</sup>.

New developments in assistive technology that target older people, is particularly important in relation to the growing and aging UK population<sup>3</sup>. In 2016, the population of the UK was 65.6 million and is projected to reach 74 million by 2039. While it is growing, improvements in healthcare and lifestyle means the population is getting older. In 2016, 18% of people were aged 65 and over and 2.4% were aged 85 and over. This increases the demand for health and social care services that support people as they age.

Assistive technology can make an important contribution to the demands of an ageing population, by giving elderly people greater independence, thereby promoting health and wellbeing as they age. Products and services such as personal alarms, fall detectors and activity monitors, can help support individuals in residential settings and at home. The benefits are widespread, as AT gives reassurance to family and friends and can reduce the need for hospital or emergency provision.

---

<sup>1</sup> Kings Fund (2016) A digital NHS? [link here](#)

<sup>2</sup> WHO (2016) Assistive Technology [link here](#)

<sup>3</sup> ONS (2017) ‘Overview of the UK Population’. [Link here](#)

## 2 Market Analysis

The following sections outlines the results for the UK Market Analysis.

### 2.1 Market Drivers

Desk research and insight gathered from potential partners across the UK provides us with a strong foundation to build the ENSAFE as a service offer. This PEST analysis is summarised below:

Political	Economic
<ul style="list-style-type: none"> <li>• Policy changes</li> <li>• Political forces</li> <li>• Accreditations</li> <li>• Personalisation</li> <li>• Normalisation</li> <li>• Integration</li> <li>• Early intervention</li> <li>• Increased regulation</li> <li>• Scandals (Winterbourne)</li> <li>• The move from residential models to community models</li> </ul>	<ul style="list-style-type: none"> <li>• Budgetary pressures</li> <li>• Supporting people funding cuts</li> <li>• The macro and micro economy</li> <li>• Wage cost inflation</li> <li>• European funding</li> <li>• Cuts in mental health services</li> </ul>
Social	Technological
<ul style="list-style-type: none"> <li>• Population demographics</li> <li>• Staff</li> <li>• Customer knowledge</li> <li>• Increasing co-morbidities</li> <li>• Entrepreneurs</li> <li>• Collaborative design</li> </ul>	<ul style="list-style-type: none"> <li>• Advances in technology</li> <li>• Big data</li> <li>• The ‘internet of things’</li> <li>• Inter-operability</li> </ul>

#### 2.1.1 Political & Legal Factors

Funded by UK taxpayers, the UK Government allocates most funding for health and care services through the National Health Service (NHS) via the Department of Health (DoH) and national body ‘NHS England’. As such, all care is provided as ‘Free at the point of delivery’ to any citizen that needs it. In 2018, the NHS turns 70 years old. A growing and ageing population mean that pressures on the

service are greater than ever before. The NHS Five Year Forward View<sup>4</sup> is the national policy document that outlines why the NHS should change. It described the triple aim of better health, better care, and better value for people in the UK.

The Next Steps on the NHS Five Year Forward View<sup>5</sup> concentrates on how this vision will be achieved moving forward. Amongst other enablers, this Plan aims to enable sustainable change by harnessing technology and innovation. The Department of Health will do this by building on the recommendations of the Watcher Review<sup>6</sup>, which has highlighted the value of technology for promoting self-care, and as a result, can reduce the cost and demand for acute care. This means AT is recognised in policy, as an important contribution for helping people manage their health needs independently.

Political and Priorities and Policies	Implications for ENSAFE
<b>Improving health – closing the health and wellbeing gap</b>	
Mental health & dementia - early intervention, shorten waits for treatment and expand crisis services.	<p>ENSAFE sensors and digital data sources will help to support patients at home.</p> <p>Earlier detection facilitates earlier intervention and integrated support (digital and face-to-face).</p> <p><a href="https://www.alzheimers.org.uk/technologycharter">https://www.alzheimers.org.uk/technologycharter</a></p>
Learning disabilities - increasing the number of people living in homes in the community rather than an NHS setting.	<p>ENSAFE sensors and digital data sources will help to support patients at home.</p> <p>Earlier detection facilitates earlier intervention and integrated support (digital and face to face).</p> <p>“The Business Case for Enhancing the Lives of People with Learning Difficulties through the use of Personal Care and Support Technologies” 2015 (Doughty K, Barnard S, and Longley-Cook R)</p>
Diabetes and obesity - targeting people at high risk with help to modify their diet, control their weight and become more physically active.	<p>The ENSAFE GoLivePhone, when integrated with self care and self management platforms, provides an additional opportunity for patients to make lifestyle improvements that will help them to live better and reduce their dependence upon clinical expertise and improve comorbidities that can make existing conditions escalate more quickly.</p>

<sup>4</sup> NHS five year forward (2014) [link here](#)

<sup>5</sup> Next steps for the NHS five year forward view (2017) [link here](#)

<sup>6</sup> Watcher Review (2016) [link here](#)

<b>Transforming care - closing the care and quality gap</b>	
Support doctors to harness digital technology and increase use of pharmacists.	The ENSAFE service offer provides additional assistance and data to help inform clinical decisions around individual cases.
<b>Controlling costs and enabling change – closing the finance and efficiency gap</b>	
Making better use of technology, further developing leadership and supporting scientific research and innovation.	The ENSAFE service offer provides health and care services the opportunity to reduce reliance upon more expensive resources, thereby supporting improved efficiencies and return on investment to the government and the tax payer.
We will empower patients and engage communities, increase patient choice and develop more personalised services	The ENSAFE service offer provides the opportunity for individual patients and their families to take ownership of their health by using technology to help them and their carers stay healthier for longer.

Article 8 of the Data Protection Directive (95/46/EC) qualifies health data as a special category of data to which a higher level of data protection applies. Within the context of the likely functionality contained within the ENSAFE product suite, and its application to support additional care by professionals, it is expected that data collected via ENSAFE as a service would be considered as ‘health data’ and ‘processing health data’, and therefore would be subject to the higher level of data protection.

It is therefore expected that Article 8 would apply and our business model will ensure that explicit and unambiguous permissions have been granted by the end user (or their nominee, such as a carer). This consent will therefore be applied when registering a user onto the ENSAFE system.

*“The data controller must clearly inform users whether the data is protected by any medical secrecy rules, or not. Further information must be made available whether the data will be combined with other data stored on the device or collected from other sources, and clear examples of the consequences of such combination of data, what the purposes are of further processing and to what third parties the data may be transferred. Such information must be made available in a clear and easily accessible manner before users decide on installing apps or buying devices (also before downloading the app).” <https://chino.io/compliance-resources>*

### 2.1.2 Economic Factors

Within the UK, the provision of assisted living technologies is predominantly through the NHS and local authority social services, following an assessment of individual need and application of eligibility criteria. Reductions in public funding and cuts to local adult care budgets (31% in real terms over the last 5 years<sup>7</sup>), means many people are not eligible for such services through statutory health and

<sup>7</sup> Adult Social Services (2017) ‘New Models of Care Supported by Assistive Technology’. [Link here](#)

social services. This means the market sector will need to expand to meet rising levels of need and demand which may otherwise overwhelm public services.

However, the Government is actively supporting the uptake and spread of AT by funding several research and development projects. For instance, in 2015/16, an NHS England initiative awarded a total of £1.1million to small businesses to develop assistive technology, including those that aim to address the health and social challenges of older people<sup>8</sup>. This means there is potential for future UK government-funding to support the development of ENSAFE products and services.

### 2.1.3 Social Factors

In the UK, 12.6 million adults lack basic digital skills, including being able to access and use the Internet<sup>9</sup>. This means 23% of the adult population are ‘digital excluded’, who are often already socially disadvantaged in terms of education, income and health. Low levels of digital literacy are also particularly high amongst older and disabled people, which include the target audience for ENSAFE products. In other words, these social factors are a key barrier to implementing AT, as those who would benefit the most, are often less likely to have the skills to engage with and benefit from available products and services.

To ensure that people of all ages and backgrounds have the digital skills to access digital technology, the *NHS five year forward view* has committed to taking steps to support ‘digital inclusion’<sup>10</sup>. It is recognised that digital capabilities are improving, however many people aged 50 - 70 years old still lack an awareness of AT and the role it can play in supporting and maintaining independent living<sup>11</sup>.

In addition, ENSAFE partners carried out a potential user survey with 336 citizens across participating countries in late 2015. 60% reported that they needed some kind of support with medication, decision-making, their health or falls, 50% wanted emotional support and 44% expressed a desire to be supported with their health from technology. 38% expressed an interest in using technology to support their health at home.

### 2.1.4 Technological Factors

Digital technology does have the potential to improve the efficiency and co-ordination of care, if it is designed and built with the user’s needs and abilities in mind<sup>12</sup>. However, as new developments in AT continue to expand, both in scale and complexity, so do concerns relating to privacy, ethics and data

---

<sup>8</sup> Department of Health (2016) ‘Research and development work relating to assistive technology 2015-16’. [Link here](#)

<sup>9</sup> Tinder Foundation (2016) [link here](#)

<sup>10</sup> Kings Fund (2016) ‘A digital NHS?’. [link here](#)

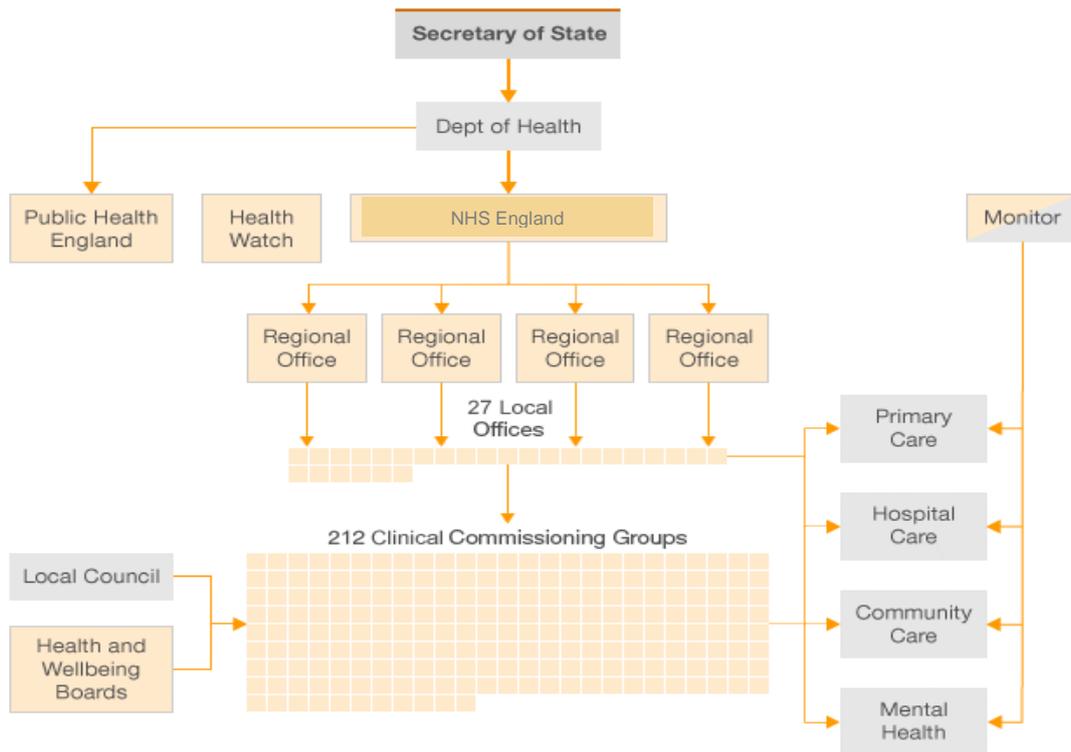
<sup>11</sup> Ward, et al. (2017) ‘Developing the assistive technology consumer market for people aged 50–70’. [Link here](#)

<sup>12</sup> Nuffield Trust (2016) ‘Patient engagement and health information technology’. [Link here](#)

security. This is particularly paramount, in relation to frail and elderly people and those with dementia. In this regard, it is vital that ENSAFE products and services can ensure the privacy of personal data in the design and implementation of AT, in line with the UK Data Protection Act, 1988.

## 2.2 Market Structure

The diagram below outlines the market structure for health and care as a result of national reform in 2012.



This structure offers us the opportunity to develop a proof of concept within a number of health and care settings to test and valid our business model.

It is expected therefore that we will work in partnership with the following organisations to test and reflect on the optimum route to market for ENSAFE and a Service in the UK:

- Wirral Council (older people’s parliament)
- Cheshire Council (Wellbeing)
- Liverpool Council (Riverside)

### 2.3 Competitor Products & Services

In the UK, the market sector is represented by the British Healthcare Trades Association (BHTA), which oversees public service expenditure, such as the provision of healthcare and assistive technology equipment and services. Currently, the sector does not target direct consumer sales, rather companies will sell to public service providers. For ENSAFE products and services, the route to the UK market is complex. Methods vary across local authorities (social services and housing), regional local authorities, NHS Trusts, CCGs, regional NHS and other external bodies. There is also variation in where the equipment is provided; in hospital, clinics, or in the case of ENSAFE, in residential care or the person's own home<sup>13</sup>.

Today, there is variety of healthcare technologies available to consumers. Health and fitness Apps are growing in popularity amongst all age groups and there are now 97,000 available on the Apple and Google Play stores as well as being built in to the latest smartphone technology. Individuals can use these Apps to track steps, movements, heart rate and other bodily functions, as well as set reminders and prompts. This can happen in real time as they are accessible via smartphones and wearable devices.

Additionally, many local authorities, private companies and charities offer simple telecare services in the form of an alarm system, with a special button to press if an elderly person needs help. Personal alarms are very popular, with more than 1.5 million people in the UK using this type of service, which is also known as community alarm, careline and lifeline<sup>14</sup>.

In view of the current market, it is arguably the case that ENSAFE is best positioned in the UK market as an assistive technology, designed specifically for elderly-people to meet higher-level health and social needs. Presenting itself as a more sophisticated technology than simple personal alarms and tracking apps/devices.

In this regard, key competitors that have been reviewed have been selected on the basis that they are:

- UK-based
- Elderly-orientated
- Compatible in residential/clinical settings and in the home.

The main competitors in the UK are as follows:

1. Textcare - <https://www.textcare.co.uk/domiciliary-homecare>
2. SenCit - <http://www.sendtech.co.uk/SeN-Cit/>
3. Canary Care - <https://www.canarycare.co.uk/>

This service works to distinguish patterns and alarm in event of emergency with a very competitive

---

<sup>13</sup> BHTA (2014) 'Manifesto for healthcare and assistive technology'. [Link here](#)

<sup>14</sup> Independent Living (2017) 'Telecare and community alarms'. [Link here](#)

price point of £42 per month (compared with <http://www.justchecking.co.uk/> at £90 per month) and is based on mobile phone technology.

However, unlike ENSAFE, it does not offer:

- Any IOT devices
- Machine learning in the system
- Connections to the user's smartphone
- Medicines reminders
- Prompt for better health behaviours
- Support navigation
- Support connections to family
- Integration with a falls sensor.

4. Independence Telecare - <http://www.independence-telecare.com/true-kare/>

Independence Telecare is a mobile phone based and integrates telehealth with a GPS locator. It also integrates with wearables and fall detectors and can screen nuisance calls. It also includes a diary system and a medication reminder function.

However, unlike ENSAFE, it does not offer:

- Any IOT devices
- Machine learning in the system
- Prompt for better health behaviours
- Support connections to family.

5. Docobo - <http://www.docobo.co.uk/telehealth-solutions/docobo-products.html>

This is a telehealth-based solution that is also backed by an app. It has some intelligent algorithms that commissioners like that support patient management at scale.

However, unlike ENSAFE, it does not offer:

- Any IOT devices
- Machine learning in the system

- Connection to the user's smart phone
- Prompts for better health behaviors
- Support navigation
- Support connections to family
- Integration with a falls sensor.

ENSAFE 3-4 is competing with a range of residential providers and digital support products that are provided predominantly as part of wider domiciliary care options in places such as residential and care homes.

6. Hft's virtual Smart House - <http://www.hftsmarthouse.org.uk/> uses sensors and data to help support citizens with disabilities to live more independently at home. This is a more complex and expensive version of the ENSAFE service and is less flexible. It also does not provide for wider healthy lifestyle or prevention factors.
7. 'Belong at home' is a domiciliary care option for frail and elderly citizens that uses sensors in the home to help monitor movement and therefore alert carers.  
<http://www.belong.org.uk/what-is-a-belong-village/belong-at-home-.v58fhzkrJ68>