Doing better business in health and social care

a guide for SMEs

CURA-B

CURA-B aims to better link **SMEs** to **health and social care providers** and help local agencies, firms and care providers develop models suitable to effective, integrated **health care** provision.

Content

Introduction

"Necessity is the mother of invention. Europe, faced with declining healthcare budgets and a rapidly aging population, urgently needs radical changes to keep its healthcare system affordable. New technologies, innovative approaches and business models are developing in an ever-faster manner."
www.cura-b.eu

Why this manual and who is it for?

This business manual was developed to help SMEs deliver better business in the healthcare sector.

It is a resource for those currently active or seeking to do business in the world of health. It illustrates how new business models could reduce existing barriers and describes how to develop successful solutions for the procurement, development and deployment of innovative AT-led (Assistive Technology) service solutions (referred to as telehealth, telemedicine or telecare).

The role of CURA-B

As healthcare systems experience increasing pressure from the market, CURA-B exists to help industry secure a better understanding of the health and social care systems in the four countries involved in the project. It aims to better link them to health and social care providers and help local agencies, firms and care providers develop models suitable to effective, integrated health care provision.
For more information visit: www.cura-b.eu

Assistive Technology

With Assistive Technology instrumental to the empowerment of patients, it is vital for SMEs designing education, rehabilitation or social participation products/services to keep innovating.

The existing business model is time-intensive and highly bureaucratic, demanding resources unavailable to many SMEs. This has led to a measurable lack of motivation/innovation.

Radical changes are needed to keep Europe's healthcare system efficient and affordable in an age of declining healthcare budgets and a rapidly ageing population.

Delivering better business for SMEs

Companies need to work unrestricted by red tape and complex business processes. The advice here is intended to provide alternative business models to stimulate health economies locally and deliver better business for SMEs.

The objective of this Business Manual is to enable SMEs get their products to market more quickly, to delivery better, cheaper products to providers and improved care to patients.

It is informed by three years of extensive stakeholder research and nine pilot projects conducted by CURA-B.

Chapter 1 – Mapping the context

Overview of the four systems of healthcare and financial structuring in Belgium, France, the Netherlands and the UK.

Chapter 2 – Understanding the challenges

Findings from research with SMEs and providers to understand challenges in health and social care business.

Chapter 3 – Bridging the gap

Insights from stakeholder workshops on how to bridge the gap and introduction to the CURA-B pilots.

Chapter 4 – Bringing new approaches into practice

Learnings from pilots and new business models 'innovation ecosystems'.

Chapter 1 **Mapping** the context

1.1 Mapping the context

Overview of the four systems of healthcare and financial structuring in Belgium, France, the Netherlands and the UK.

1.1.1 Exploring innovation for health in the UK

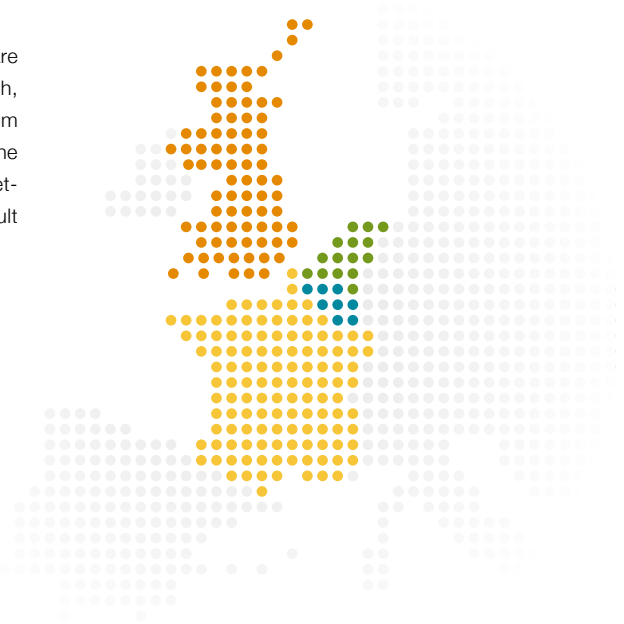
Mapping the context

An overview of the health and social care system in England.

Includes information about telehealth/telecare and public infrastructure organisations that can help small and medium sized businesses to expand and grow.

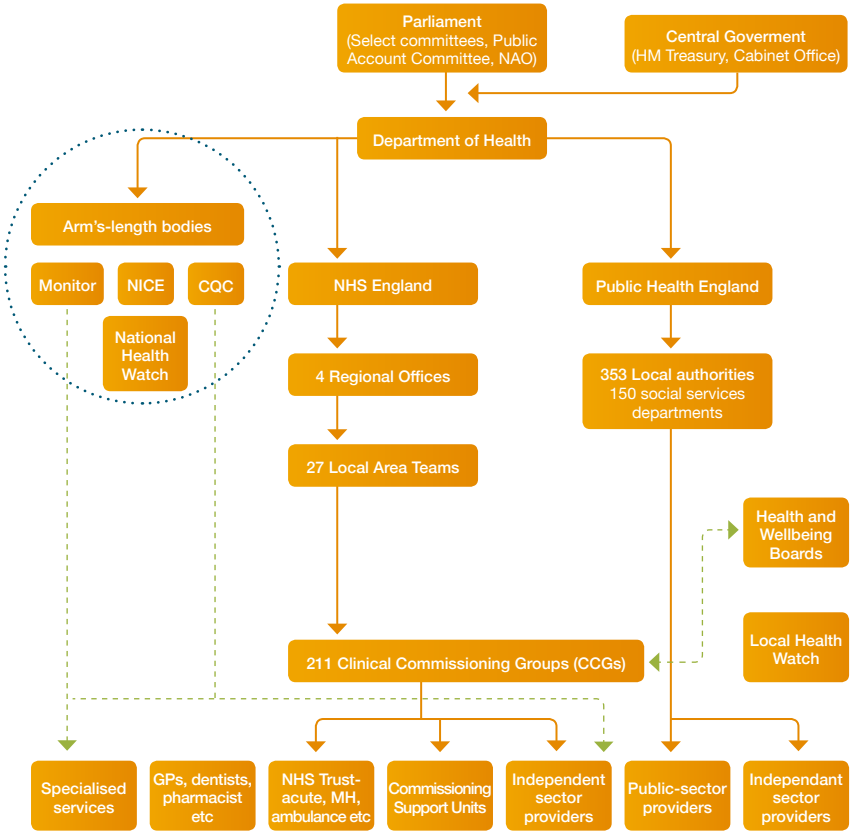
1.1.2 Organisational structure

Responsibility for publicly funded health care rests with the Secretary of State for Health, who is accountable to the United Kingdom Parliament. The Department of Health is the central government body responsible for setting policy on the NHS, public health, adult social care and other related areas.[1]



1 www.dh.gov.uk

Overview of the health care system in England, 2013



Notes: Contractual or managerial relationships shown by continuous lines; Regulatory role shown by dotted lines; MH: Mental Health

The Department of Health works through the NHS, local authorities as well as other government departments and the private and voluntary sectors, recognising that education, employment, economic status, transport, environment and housing all impact public health. The NHS is governed by a constitution which sets out a series of rights for patients.[2]

2 www.nhs.uk/choiceintheNHS/Rightsandpledges/NHSConstitution/Pages/Overview.aspx

From April 2013, NHS England has taken on many of the functions of the former primary care trusts (PCTs) with regard to the commissioning of primary care health services, as well as some nationally-based functions previously undertaken by the Department of Health.[3]

Locally, clinical commissioning groups (CCGs) – made up of doctors and other professionals – buy services for patients, while local councils have a new role in promoting public health. Health and wellbeing boards bring together local organisations to work in partnership and Healthwatch provides a powerful voice for patients and local communities.

1.1.3 Financial structuring

Health services in England are largely free at the point of use. Established in 1948, the NHS provides preventive medicine, primary care and hospital services to all those "ordinarily resident" in England.

Over 12% of the population is covered by private medical insurance, which mainly provides access to acute elective healthcare in the private sector.

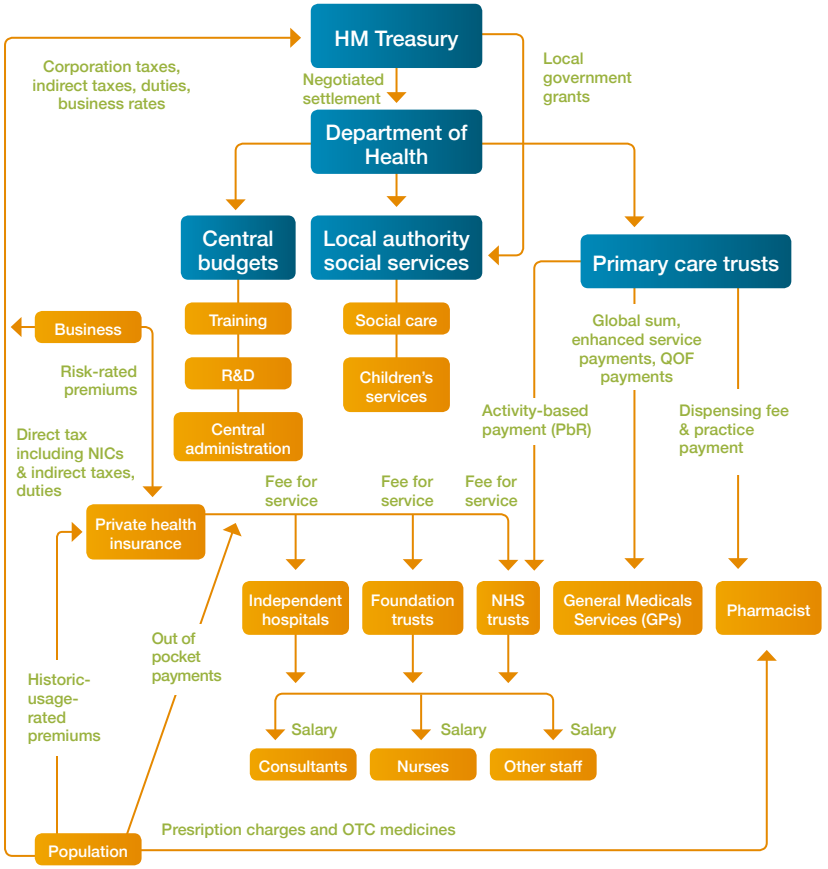
The mental health system in England is a mix of primary care and community-based services supported by specialist inpatient care.

The following diagramme gives an overview of funding across the health systems in the UK.[4]

3 www.england.nhs.uk

4 Primary care trusts were abolished in March 2013 and replaced with Clinical Commissioning Groups.

Financial flows in the English health care system, 2010



Primary care trusts were abolished in March 2013 and replaced with Clinical Commissioning Groups.

1.1.4 Healthcare provision

NHS-funded primary care is also provided by a number of other organisations:
The private sector has an increasing involvement in the delivery of NHS care, as well as providing some privately funded care. Besides doctors, key staff involved in the delivery of primary care include practice nurses, district nurses, midwives, health visitors, and other health care professionals.

Hospital care

Secondary and tertiary care are provided mainly in hospital settings by specialist doctors and health professionals. Most of this care is paid for by the public sector although there is also a sizeable private sector.

Intermediate care

In many places intermediate care is provided as a joint service between the NHS and local authorities providing an integrated health and care service aimed at keeping people living independently in the community and helping them to successfully return home after hospital.

Social care

The statutory responsibility of 152 councils with adult social services responsibilities. The organisation of long-term care has shifted over time from residential (or institutional) care to care provided in the community. The provision of care has shifted from the public sector to private - and voluntary-sector organisations.

Help to live at home

Social Care is provided to help people retain independence and manage personal care when they get older, or have a long term disability.

Residential and nursing care homes

Residential (personal) care or nursing care is provided in residential care homes, nursing care homes, or dual purpose homes that provide both – mostly by the independent sector - either voluntary or private organisations.

Sheltered and very sheltered housing

Sheltered housing and very sheltered housing are usually run by housing associations, with rent and service charges paid by the residents, although some of these may be rebated for the less well off.

1.1.5 Future issues in social care and health

Demographics - England has an ageing population and it is projected that 22.2% of people will be aged 65 years and over by 2031.[5]

Growth of long term conditions - more people living longer with long term conditions such as diabetes and dementia.

Family carers - support for family carers is critical. New technologies have an important part to play providing carers with the tools needed to carry out their caring roles.

Personalisation - the drive within Social Care is to provide people with funding to purchase services themselves. Greater choice could mean they purchase items and support outside traditional care services.

Cost - financial pressure means local authorities and health commissioners will be looking for more cost effective ways of providing services, integrating current provision and a wider range of providers to gain better efficiency/value for money.

Health and care reforms - The UK health system has undergone a substantial reorganisation in the last two years and both funding and commissioning streams have changed significantly with much more emphasis on clinically led commissioning and improving the quality of services.

One of the key aspects of the reform which will support the use of greater assistive technology is the move towards integrated services across health and care, with improved outcomes for customers at the heart of service delivery.

1.1.6 Assistive Technology in the UK

The health and care sectors would like to see greater use of technology to support patients and customers to live in their own homes as long as possible. Accommodation providers are also considering how they can best use technology to improve the quality of life of their residents.

In some cases care organisations will provide technology as part of their service for customers. However it is anticipated that the range of devices available through the retail sector will grow considerably so people can choose equipment to improve their quality of life, or to link with carers and relatives.

5 Office of National Statistics www.statistics.gov.uk/hub/health-social-care/index.html

Financing telehealth

NHS healthcare in the UK is free at the point of delivery and for the patient this would include assistive technology, but there are a number of different elements of the NHS which might be responsible for the funding of telehealth:

- hospitals for patients getting hospital care
- community health organisations for short term telehealth to support rehabilitation or other therapies
- GPs to support people living with long term conditions.

Commissioning and provider arrangements will differ in each area. In some cases customers will fund their own telehealth, for example blood pressure devices which can be bought over the counter in retail outlets.

Financing telecare

There is a mixed economy for financing telecare. Authorities usually supply information to help people to work out what it is they need and then provide them with information about where they can get the right equipment.

Many people purchase their own telecare. Others will have a needs assessment by the local authority social care department and then receive equipment directly, or be given a budget to purchase telecare themselves. Help is means tested with capital and income limits for the customer.

Key national projects in telecare and telehealth

3millionlives

The Department of Health believes that at least three million people with long term conditions and/or social care needs could benefit from the use of telehealth and telecare services. Implemented effectively as part of a whole system redesign of care, they can alleviate pressure on long term NHS costs and improve quality of life through better self-care. See more at: **www.3millionlives.co.uk**

Delivering Assisted Living Lifestyles at Scale (DALLAS)

The DALLAS programme was initiated in June 2011 and is aiming to ensure large scale roll out of the use of telecare and telehealth in the UK.
www.innovateuk.org/content/competition/dallas-delivering-assisted-living-lifestyles-at-sc.ashx

1.1.7 List of Key Contacts

Organisation	Roles & Responsibilities
East of England NHS Collaborative Procurement Hub www.eoecph.nhs.uk	The regional Procurement Hub provides member NHS organisations in the East of England with strategic purchasing support, procurement and supply chain expertise and commercial skills.
Finance East www.financeeast.com	As fund manager for the East of England Regional Growth Loan Scheme, Finance East offers loan finance to established SMEs seeking to implement growth strategies.
Health Enterprise East www.hee.co.uk	Leading NHS Innovation Hub, providing innovation management services to over 35 NHS organisations. Operating within the NHS, HEE also provides consultancy services to technology based companies looking to access the UK market.
National Institute for Health and Clinical Excellence (NICE) www.nice.org.uk	Independent organisation responsible for providing national guidance on promoting good health and preventing and treating ill health. NICE offers advice to pharmaceutical companies and medical device manufacturers on products that may be assessed using their technology appraisal process.
Suffolk Chamber of Commerce www.suffolkchamber.co.uk	Largest independent private forum in the county, Suffolk Chamber is in a privileged position to support and represent local business interests.
Technology Strategy Board www.innovateuk.org	The Technology Strategy Board (TSB) are the UK's innovation agency. Offers support and funding to help business develop new products and services – and bring them closer to market.
Telecare Services Association www.telecare.org.uk	Telecare Services Association (TSA) is the industry body for telecare and telehealth, and the largest industry specific network in Europe.
UKTI ukti.gov.uk	UK Trade & Investment (UKTI) is a British government department working with businesses based in the United Kingdom to ensure their success in international markets, and encourage the best overseas companies to look to the UK as their global partner of choice.

1.2 Exploring innovation for health in France

Mapping the context

An overview of the health and social care system in France.

Includes information about telehealth for ageing populations and funding for innovation to help small and medium sized businesses to expand and grow.

1.2.1 Organisational structure

Health care in France is characterised by a national programme of social health insurance (SHI), managed almost entirely by the state and publicly financed through employee and employer payroll contributions and taxes.

Faced with increasing health care costs, the government has introduced a number of reforms in the past two decades that have tried to control SHI expense and improve efficiency and quality, whilst also decreasing health disparities between regions and socio-economic groups.

Jurisdiction in terms of health policy and regulation of the health care system is divided among:

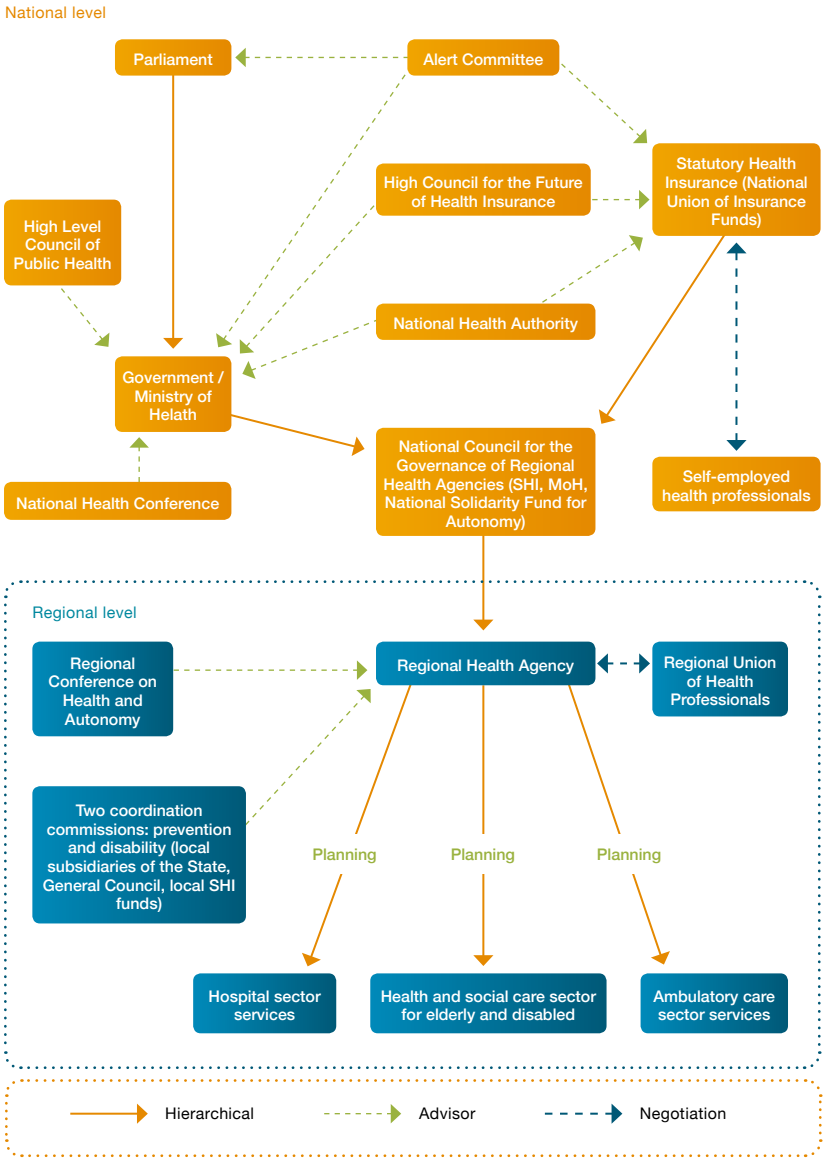
- The State: parliament, the government and various ministries
- The SHI
- To a lesser extent, local communities, particularly at the regional level

The delivery of care is shared among private, fee-for-service physicians, private profit-making hospitals, private non-profit-making hospitals and public hospitals.

Acute care hospitals, excluding psychiatric hospitals, are financed by a Diagnosis-Related Group (DRG)-based prospective payment system.

Figure 1.10 - Organisation of the Health System in France, 2010

Source: France Health system review, Health Systems in Transition, Vol. 12 No. 6 2010, WHO



The Administration of Healthcare (Health and Social Affairs) is represented at the regional level by the ARSs. Within their remit, they have the full organisation of health care planning, delivery and finance, together with the public health programs at the regional level.

The Ministry of Health controls a large part of the regulation of health care expenditures on the basis of the overall framework established by the parliament.

1.2.2 Financial structuring

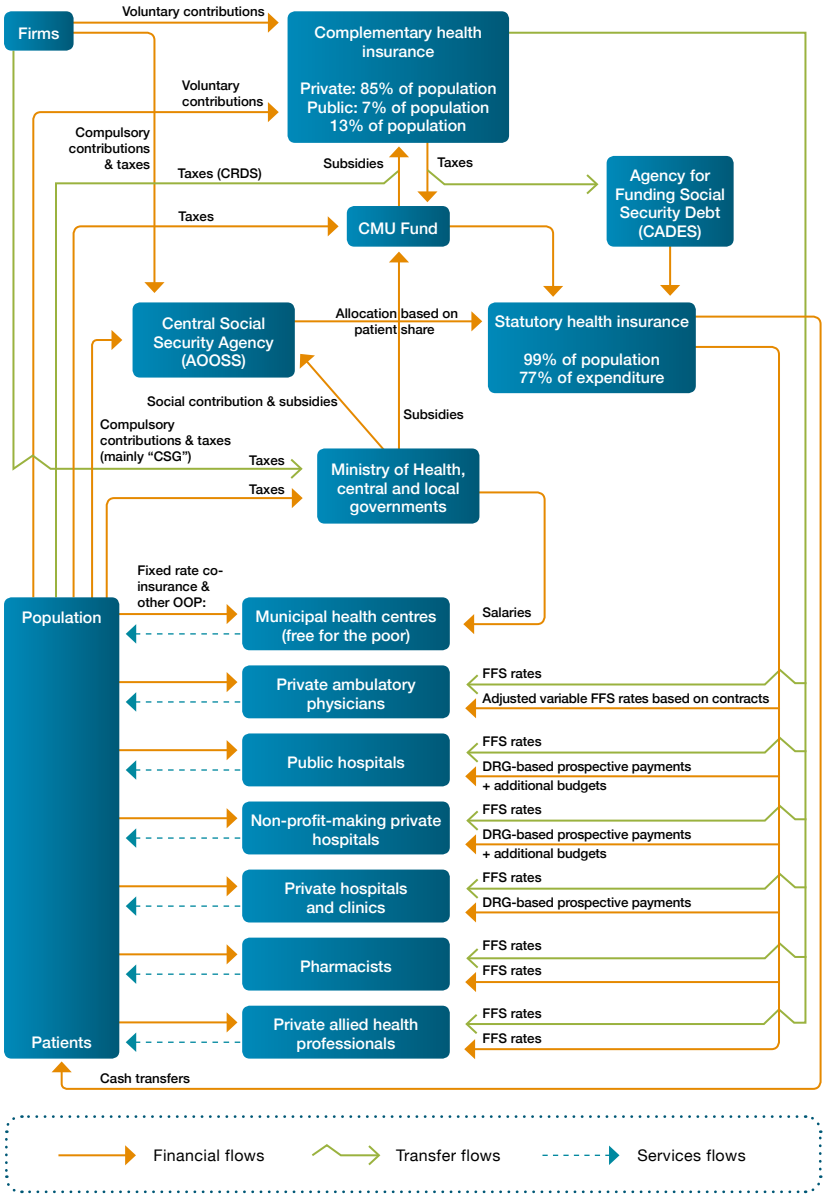
The public health insurance program in France operates under the law of "couverture maladie universelle", guaranteeing financial protection against life's contingencies for everyone.

Reimbursement is regulated through uniform rates. Financing is supported by employers and employee contributions. The working population has 20% of their gross salary deducted at source to fund the social security system.

There is an implicit basic benefit package represented by the procedures and technologies listed on the SHI schedule. SHI covers, on average, 75% of this basic benefit package expenditure, but private complementary coverage can be purchased to top up the SHI coverage up to 100%.

To the side of the health care sector, the "third sector" (in addition to the health sector and to the social sector), provides care and services to elderly and disabled people.

Figure 1.11 - Financial flows in the health care system, 2008 (excluding long-term care and prevention) **Source: France Health system review, Health Systems in Transition, Vol. 12 No. 6 2010, WHO**



Source: OECD 2002 (data updated by IRDES in 2006 (Allonier et al. 2006) DREE in 2007 (Fenina et al. 2007) and URC Eco in 2008).

1.2.3 Healthcare provision

The Care Institutions

The State sees that the whole population has access to care; it dictates the types of care that are reimbursed, and to what degree, and what is the role of the different participating entities.

Hospital system

Public hospitals account for 65% of hospital beds, with the remainder in non-profit hospitals and for-profit, surgery based hospitals and offices that provide elective fee-for-service procedures.

Home-based care

In 2010 in France, 270 institutions of home-based hospitalisation are constituted. More than 100 000 patients for approximately 4 million days were concerned that year by this organization.

Institutions-based care for disabled adults

About 3.2 million people are registered as disabled in France, of whom 1.8 million are affected by a severe disability that limits their functional autonomy. Around 200 000 disabled adults are accommodated in 4 800 dedicated facilities.

The State sees that the **whole population** has acces to healthcare.

1.2.4 Future issues in social care and health

Demographics

As a result of decreasing rates of fertility and increasing life expectancy, the French population is ageing.

Meeting the forecasted needs of ageing baby boomers without building excessive capacity and ensuring equity of access is a growing challenge.

Life expectancy at birth in France is increasing steadily, by three months per year for men and by two months per year for women.

Growth of long term conditions

The main causes of death in France are cancer (29% of deaths), cardiovascular diseases (28.8%), accidents (7.4%) and diseases of the respiratory system (6.4%). Social and geographical inequalities in health remain substantial. (Sources: CépIDc 2008; INSEE 2008)

Lifestyle factors affecting health status

Tobacco and alcohol, respectively, are the first and second most common causes of avoidable mortality.

Socioeconomic health inequalities

France has long reported health inequalities across socioeconomic groups that are wider than in most other European countries (HCSP 2002). The French trends in improving health status, reflected for instance by the increase in life expectancy and the decrease in infant mortality, have not been equally beneficial across socioeconomic groups, with the greatest improvement being observed among the most well-off.

Institutions-based care for disabled adults

About 3.2 million people are registered as disabled in France, of whom 1.8 million are affected by a severe disability that limits their functional autonomy. Specific committees for children and for adults at the department level evaluate the rate of incapacity and determine the right to certain benefits.[6]

Containing the price of care and financing long term care

In the short term, it is unlikely that economic evaluation will directly influence coverage decisions. Rather, cost-effectiveness will be used to enlighten decision-makers and clinicians on the broader benefits of a given treatment.

6 Source: France Health system review, Health Systems in Transition, Vol. 12 No. 6 2010, WHO

Demographic projections show a 1% growth per year until 2040 in the number of frail people with neurodegenerative diseases (such as Alzheimer's and Parkinson's diseases) or with functional loss of autonomy (Gisserot, Grass 2007). Expenditure on long-term health and social services of various kinds to meet these needs is estimated at around €16 billion in 2005 (0.94% of GDP) (Centre d'analyse stratégique 2006).

1.2.5 Assistive Technology in France

There is a need for medico-social care providers and private industry to offer product solutions to care providers in the form of Assistive Technology, i.e. any device or system that can:

Improve the independence, life-style and care provision for both patient and carer

- Increase choice of care pathways
- Reduce risk of harm
- Reduce the potential of further care episodes by prevention and early intervention
- Allow health and social care professionals to monitor the condition and well-being of an individual
- Provide health and social care professionals with data that will assist in the delivery of care and the development of future care pathways

However, new technologies are struggling to enter the market as they face a number of barriers, resulting in a lack of industry engagement, for instance:

- Medical technologies need to fit a very specific category or pre-existing list
- Complex care system and multiple stakeholders can make innovation difficult
- Varying charging principles and practices across municipalities, such as reimbursement of service costs

When it comes to telecare, i.e. services that go beyond simple push button alarms, end user costs seem again to vary quite a lot across the country as service provision tends to build of the given social alarm infrastructure.

In relation to telehealth there seems to be no common funding/reimbursement model for mainstream service provision. Evidence currently available suggests that trials and pilot implementations seem to be funded by the main players involved such as public hospitals and regional authorities.

If telehealth is to become mainstream, reimbursement will need to fit within the overall framework operating in the French healthcare system. The main funding is through the public health insurance system and providers are reimbursed on a fee-per-service basis.

In the field of smart homes for better independent living, beyond funding of trials and pilot activities, there seems to be no general funding/reimbursement practice in relation to mainstream implementations.

Funding sources for the assistive technologies

Various funding sources exist for assistive technologies. Technologies for autonomy assimilated to medical devices and included in the List of Reimbursed Products and Services are supported in part by the National Health Insurance (see list below).

Technologies groups for the autonomy included in the LPPR:

- Devices labelled "material aid to life" which includes a much of the Instrumental Aids to Daily Living (AIVQ: Aides Instrumentales à la Vie Quotidienne) modular device for standing, walking sticks and crutches, walkers, traction devices, wheelchairs, adjustable seats, lift patients, ...
- Beds for medical
- Electronic correction of deafness
- Devices for pressure ulcer prevention mattresses and cushions pressure relief.

The total amount of assistive technologies is capped at € 3960 for a period of 3 years (however, this ceiling can be increased by the tariff of the material if it is at least € 3000, less the support social security).

1.2.6 List of Key Contacts

Organisation	Roles & Responsibilities
Agence Régionale de Santé **www.ars.nordpasdecalais.sante.fr**	The ARS gather at the regional level of state resources and health insurance. More largely, they include: - the ex-directions regional and departmental health affairs and social (Direction Régionale des Affaires Sanitaires et Sociales; DRASS Direction Départementales des Affaires Sociales; DDASS), - Regional Hospital Agency (Agence Régionale de l'Hospitalisation; ARH), - Regional Public Health Group (Groupements Régionaux de Santé Publique GRSP), - the Regional Unions of health insurance (Unions Régionales des Caisses d'Assurance Maladie URCAM), - regional missions health (Missions Régionales de Santé; MRS), - the Hospital Insurance component disease.
Banque Publique d'Investissement **www.bpifrance.fr**	Bpifrance is a public group that supports public policies implemented at central, local and regional government level by providing corporate finance and helping companies to grow. Bpifrance was created on 31 December 2012 by a law bearing its name and will take over the businesses of three existing structures (Oséo, SIF and CDC Entreprises) over the course of 2013. It will partner French firms at all stages of their development, both on the domestic and export markets. Bpifrance comprises three entities: a holding company (bpifrance), 50%-owned by the French government and 50%-owned by Caisse des Dépôts; a financing arm (bpifrance financement), providing loans for innovation, co-financing with banks and loan guarantees; and an investment arm (bpifrance investissement) that invests in equity or quasi-equity. French regional governments are partners in bpifrance thanks to their representation on its governing bodies and consequently, this new bank will be a potent vector for local and regional development.

Organisation	Roles & Responsibilities
Eurasanté **www.eurasante.com**	Eurasante is the economic development agency focusing on biotech, nutrition and healthcare activities in Northern France. Eurasante assists French and foreign companies interested in developing their activities or setting-up a business in Northern France. We provide many services such as access to public aids, find offices, administrative formalities, recruitment assistance , market studies… Eurasante also promotes the Eurasante Bio-business Park, which already hosts 7 hospitals, 4 universities, 7 specialized school and more than 130 companies. It benefits from an exceptional location in the heart of Europe (near to Paris, London, Brussels…).
Chambre Régionale de Commerce et d'Industrie – Nord – Pas de Calais **www.nordpasdecalais.cci.fr**	The Regional Chamber of Commerce is in a privileged position to support and represent local business interests.
Pôle de compétitivité "Nutrition, santé, longévité » **www.pole-nsl.org**	The NHL Cluster exists to foster ambitious, joint research projects in the Nord-Pas de Calais region, with a view to making the region's industries more competitive. The Nutrition Health Longevity Cluster was certified as a Competitiveness Cluster by the French Government in July 2005 and aims to become one of the top three innovators in Europe in the field of health and nutrition, by fostering collaboration on innovative research projects in the fields of cardiovascular and metabolic diseases, age-related neurodegenerative diseases and nutrition. As a hub for new medical, scientific and industrial strategies, NHL Cluster has become a key player in forging links between private and public research players in its specialist fields.

Organisation	Roles & Responsibilities
Clubster Santé **www.clubstersante.com**	Clubster Santé is the network of firms specialized in health in the North of France region. This association, created in 1995, now counts more than 160 companies in its network. The missions of Clubster Santé are the following ones: - To develop the competitiveness of our members - To innovate in order to better match with the market's needs - To tackle the difficult markets to access because of their size and/or place Clubster Santé reaches its goals thanks to: - Information: fitted tools to increase and update our companies' knowledge of the market - Meetings: key meetings to boost our members' business within the optimal conditions - Collaboration: concrete progress of collaborative projects to face the market's evolutions
Haute Autorité de Santé **www.has-sante.fr**	The National Health Authority (HAS) was set up by the French Government in August 2004 in order to bring together under a single roof a number of activities designed to improve the quality of patient care and to guarantee equity within the health care system. HAS activities are diverse. They range from the assessment of drugs, medical devices and procedures to publication of guidelines and accreditation of health care organizations and certification of doctors.

1.3 Exploring innovation for health in the Netherlands

Mapping the context

An overview of the health and social care system in the Netherlands. Includes information about funding for innovation to help small and medium sized businesses to expand and grow.

1.3.1 Organisational structure

Healthcare in the Netherlands is achieved through an insurance market that aims to be patient focused and competitive.

Following the introduction of a comprehensive reform package in 2006, Dutch medical care is divided into three 'compartments':

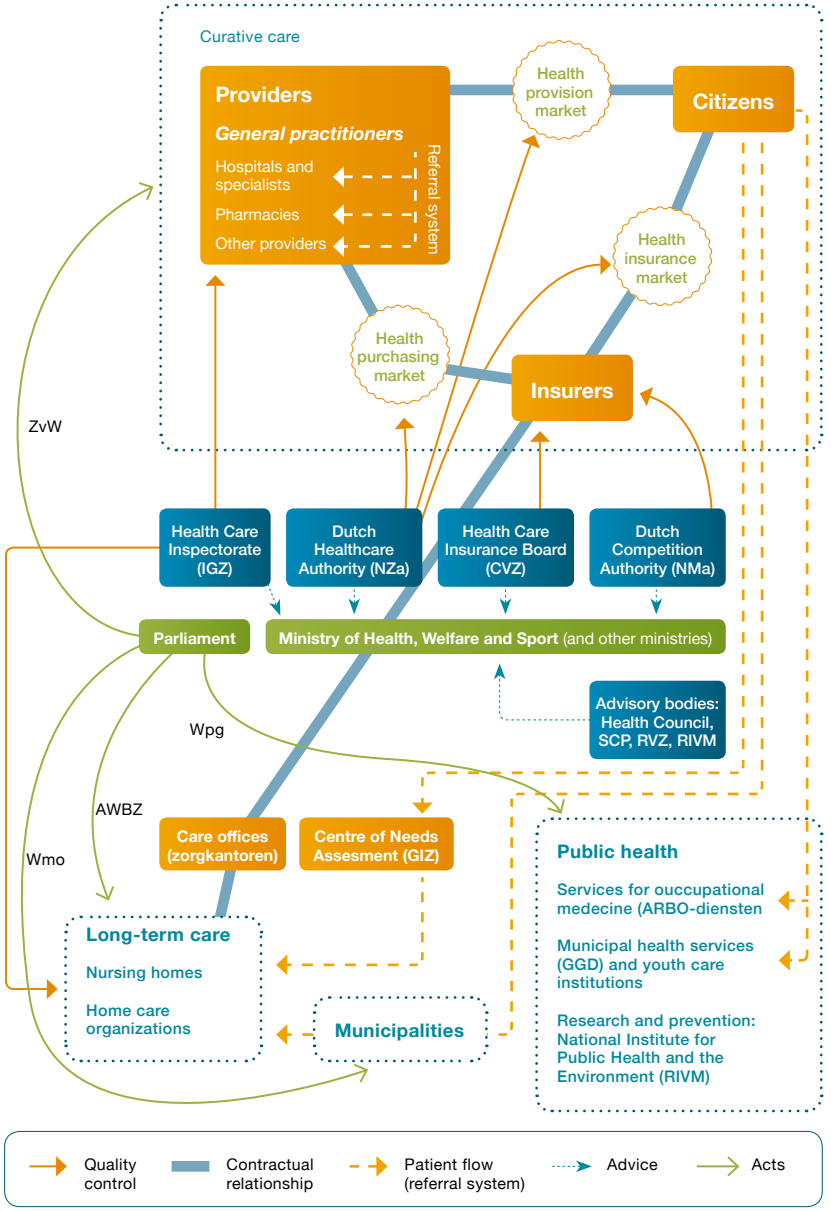
- Long-term care for chronic conditions
- Basic and essential medical care from GP visits to short-term hospital stays and procedures or specialist appointments
- Supplementary care e.g. dental work, physiotherapy, cosmetic procedures

Below is a brief overview of each compartment of the Dutch Health Insurance system:

- A compulsory Social Health Insurance scheme for long term care. This scheme is intended to provide the insured with chronic and continuous care. This is regulated in the Exceptional Medical Expenses Act (AWBZ). The care in this compartment is provided after a needs assessment and the provision of care is organized via care offices (zorgkantoren). Care offices operate independently, but are closely allied to health insurers.
- A SHI system covering the whole population for "basic health insurance" Basic health insurance covers essential curative care tested against the criteria of demonstrable efficacy, cost-effectiveness and the need for collective financing. The scheme is regulated by the Health Insurance Act (Zvw).
- Complementary voluntary health insurance (VHI), which may cover health services that are not covered under the AWBZ and Zvw schemes.

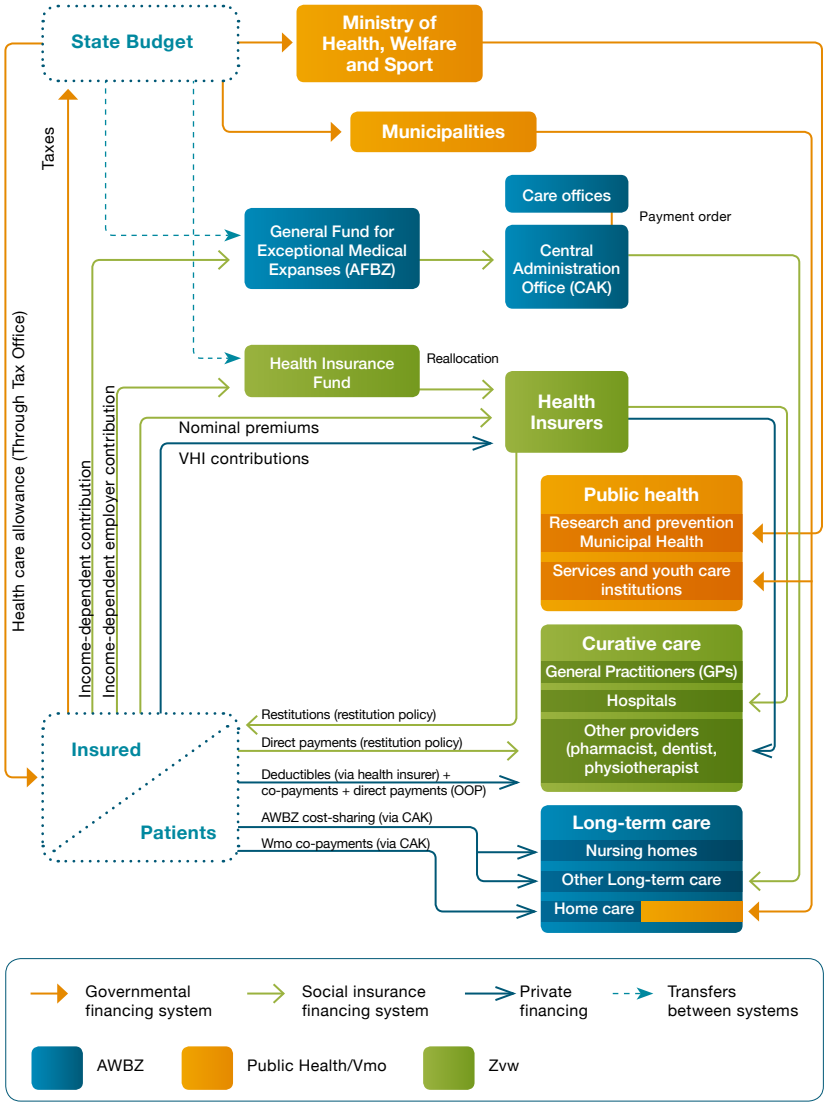
Organisational Overview of the Dutch Health care System

Figure 1.3 (Mistiaen, Kroezen, Triemstra, & Francke, 2011)



1.3.2 Financial structuring

Figure 1.4 (Mistiaen, Kroezen, Triemstra, & Francke, 2011)



1.3.3 Healthcare provision

General

In 2009 there were 93 hospital organisations, with altogether 141 hospitals locations and 52 outpatient clinics.

In addition to general hospitals, there are independent treatment centres (ZBC's) that provide selective non acute treatments, covered by basic health insurance, for admissions shorter than 24 hours. In 2009, in the Netherlands there were 198 of these.

Independent treatment centres are paid according to the DBC-system. Many hospitals are mainly financed via the old financial budget system (A-segment). This is stimulating the increase of ZBC's.

All these institutes are called 'Medical Specialist Health care Institutions'.

Financial

Hospitals have been paid through Diagnosis Treatment Combinations (DBC's) since 2005. The DBC system was inspired by the concept of DRG's (diagnosis-related groups), but it constitutes a newly developed classification system. The DBC system forces hospitals to provide an overview of the total costs of each treatment from the first consultation until final follow-up check after treatment.

These tariffs include the costs of medical specialist care, nursing care, and the use of medical equipment and diagnostic procedures. In 2011 the Dutch government launched a plan to make the prices of 75 % of the care products negotiable.

Health care institutions get rewarded if they are able to purchase for a lower price than calculated in the tariffs/ DBC's. An increasing number of institutions are purchasing goods together to get a better price.

Private Clinics

Private clinics are similar to independent treatment centre, but the health insurer doesn't pay for treatments in private clinics.

Insurance providers

In the Netherlands all Insurance providers are private institutions. Health insurers are responsible for purchasing and remunerating all curative health services that are covered by basic health insurance.

General

The long-term care sector consists of nursing homes and residential homes. In 2007 there were 324 nursing homes, 960 residential homes and 210 institutions combining both types. In 2007, in total, 169,000 clients resided in one of these institutions.

Financial

In nursing homes the most functions are paid from taxes under the Exceptional Medical Expenses Act (AWBZ). Users of long term care also pay a small amount out of pocket.

Long term care sector (private)

A stay in a private residential or nursing home is mainly at the own expense of the client. It is possible to pay for some part of the service via the personal budget.

Sheltered housing

Refers to houses near or attached to a residential home where people live independently, but can use the facilities of the residential homes.

Home care for elderly

Home care is carried out under the Social Support Act (WMO). This Act forms the legal basis for various forms of care such as domestic aid and assistance to promote independent participation in society.

For nursing care at home, an income-dependent cost-sharing system with out-of-pocket ceilings exists.

1.3.4 Future issues in social care and health

Ageing population

The increasing life expectancy in the Netherlands has not only led to a growing number of people aged 65 or over, but also to an increasing number of people suffering from one or more chronic diseases like Diabetes, COPD, Depression and Dementia.

These two trends put a higher stress on the healthcare system, causing higher spending and a stronger need to arrange healthcare in different ways and to innovate the process itself.

There exists a great opportunity to find new methods and to implement new services and products in order to make healthcare more personalised and efficient.

1.3.5 Assistive Technology in the Netherlands

There is a growing market for Assistive Technology products and services in the area of care (both elderly and chronically diseased). However, the rules and funding process of the current system largely determine the success of these implementations.

There are different public funds and institutions who aim to stimulate innovation in health care. Below some examples:

ZonMW

Government ministries, the Netherlands Organization for Scientific Research (NWO) and other organizations commission ZonMw to find solutions to certain problems or to boost work in particular areas. Commissioning bodies are the Ministry of Health, Welfare and Sport (VWS) and NWO.

ZonMw's chief priority is scientific research and health care. It focuses particularly on the patient perspective and on diversity in the selection of project proposals for grants.

National Program care for Elderly (Nationaal Programma Ouderenzorg)

The National Program care for Elderly (Nationaal Programma Ouderenzorg) aims to improve care for the elderly population suited to individual needs. This quality improvement results in more independence and less requirement for unnecessary care and treatment.

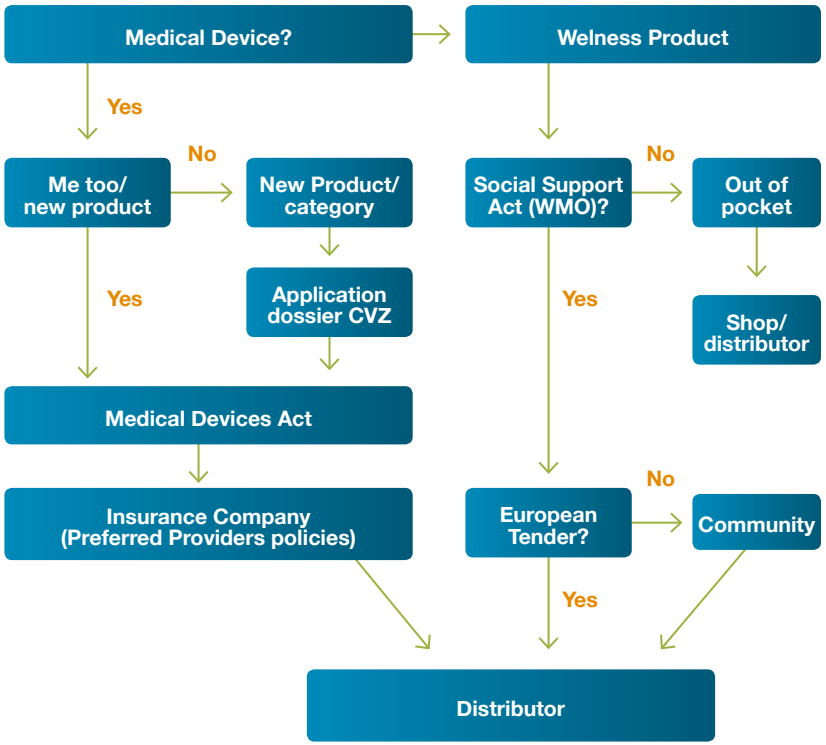
The health ministry (Ministerie van VWS) subsidises this program with more than 80 million euros. ZonMw (previous paragraph) manages this program.

Example process towards reimbursement

Figures based on a model developed by Seijgraaf Consultancy.

Out patient

Figure 1.6 (Seijgraaf, Out Patient)



1.3.6 List of key contacts

Several organisations play vital roles in innovations in Dutch Healthcare.

National organisations

Ministerie van VWS www.rijksoverheid.nl/ministeries/vws	Dutch Ministry of Healthcare, Welfare and Sports
Agentschap NL www.agentschapnl.nl/	Innovation agency of Dutch Ministry of Economic Affairs. Has also specific healthcare innovation programmes and vouchers.
Syntens www.syntens.nl	Syntens raises awareness amongst SME's of their options to innovate and assists them to take concrete steps that lead to tangible results.
ZonMW www.zonmw.nl	Public organization for funding and stimulating research, development and implementation of healthcare innovation.
Zorg voor Innoveren www.zorgvoorinnoveren.nl/	Network organization, initiated by Ministry of Healthcare, CvZ (cf. below), NZA and ZonMW.
College van Zorgverzekeringen (CvZ) www.cvz.nl	The tasks of the Health care Insurance Board (CVZ) include providing advice and implementing the Dutch statutory health insurance.
Innovatiefonds Zorgverzekeraars www.rvvz.nl	Fund, established by largest healthcare insurance providers, for investing in innovative projects in healthcare.

Regional organisations

In most Dutch regions there are platforms dedicated to innovations in healthcare. Some are initiated by development agencies, others established by networks of healthcare providers, universities and public organisations.

Organisation	Region	Website
HealthValley	Oost-Nederland	**www.healthvalley.nl**
Brainport Health Innovation	Eindhoven	**www.brainporthealthinnovation.nl**
Medical Delta	Zuid-Holland	**www.medicaldelta.nl**
N.V. Economische Impuls Zeeland (IZ –Zeeland)	Zeeland	**www.impulszeeland.nl**
Zorg Innovatie Forum	Groningen	**www.zorginnovatieforum.nl**
Brabantse Ontwikkelings-maatschappij (BOM)	Brabant	**www.bom.nl**

Demographic change puts a **higher strain** on the healthcare system.

1.4 Exploring innovation for health in Belgium

Mapping the context

An overview of the health and social care system in Belgium

1.4.1 Organisational structure

Belgium is a federal state with three levels of government: federal government, federated entities (three regions and three communities) and local government (provinces and municipalities). Health care is the responsibility of both the federal authorities and the federated entities.

Healthcare is divided into three echelons. Home doctors form the largest part of the first echelon. Being referenced by a member of the first echelon is mandatory for access to the second and third echelon.

Note that considering the Belgian partners of CURA-B are situated in Flanders, this section is set up from the Flemish point of view.

First echelon

- Individual caregivers: general practitioner, nurses in home care, midwives, physiotherapists, occupational therapists, pharmacists, dentists etc.
- Integrated Service for Home Care (GDT): the government seeks to stimulate exchange of information and cooperation between caregivers and support for the patient in the care process through the GDT.

Second echelon

- Caregivers that can be consulted after a referral.
- General hospitals

Third echelon

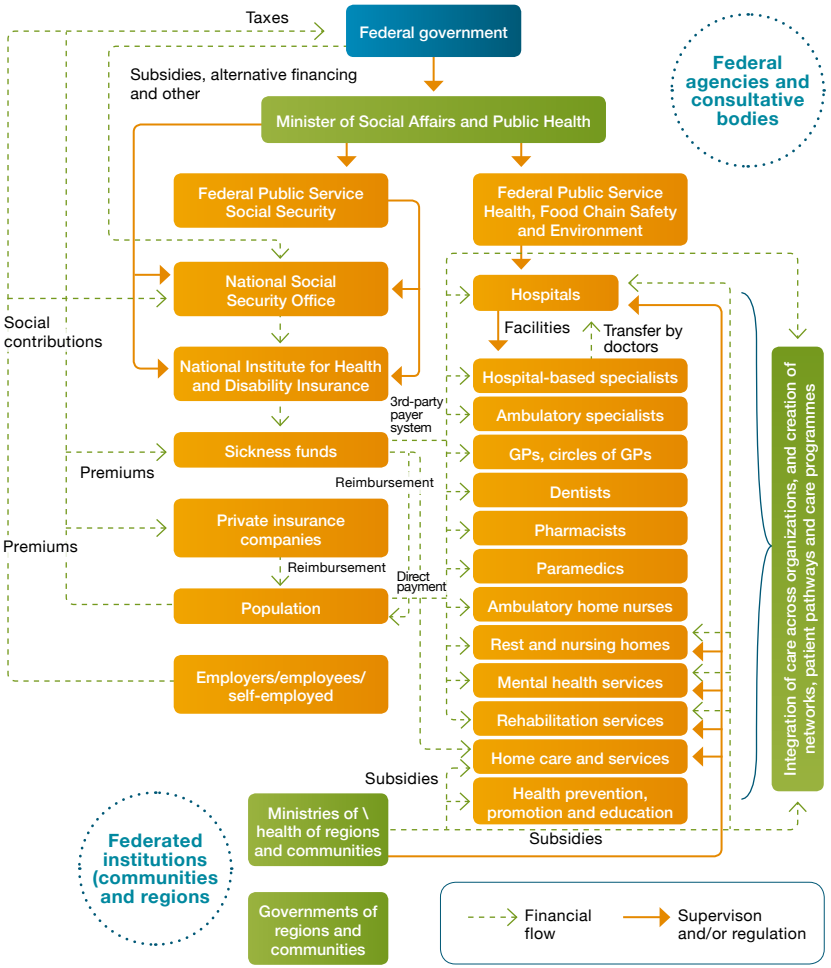
- Specialised and intramural care facilities such as psychiatric hospitals.

Nought echelon

- People that care for someone on a non-professional basis. Includes family members, volunteers and self-help groups.

Health System Overview

Figure 1.10 (Gerkens & Merkur, Belgium: 2010)



Source: Adapted from Corens 2007

1.4.2 Financial structure

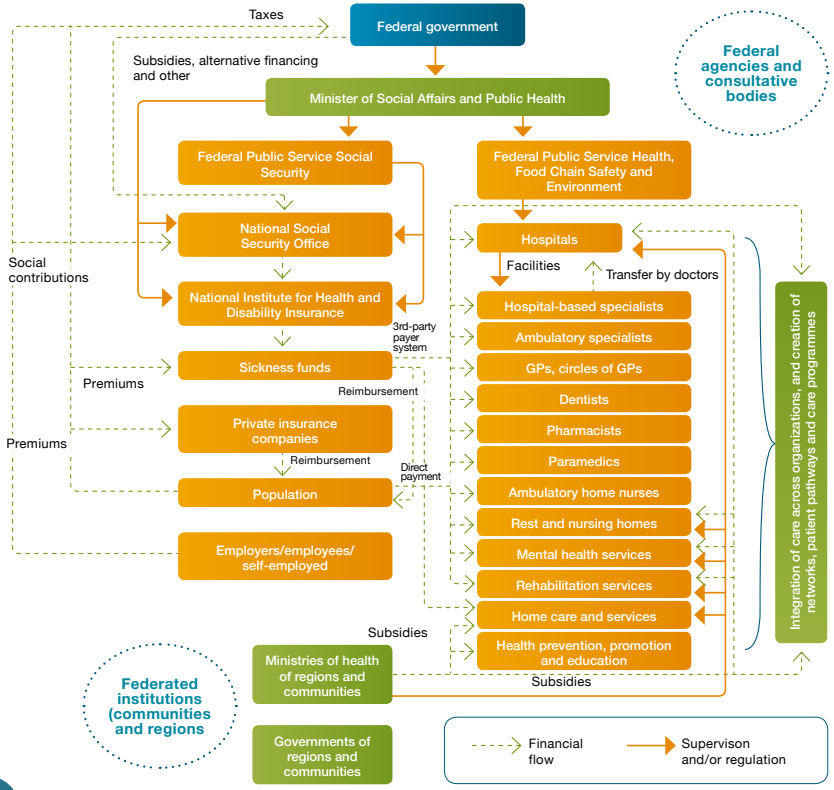
Healthcare in the Netherlands is financed by a dual system. Long-term treatments, especially those that involve semi-permanent hospitalisation, and also disability costs such as wheelchairs, are covered by a state-controlled mandatory insurance.

For all regular (short-term) medical treatment, there is a system of obligatory health insurance, with private health insurance companies. These insurance companies are obliged to provide a package with a defined set of insured treatments.

Other sources of health care payment are taxes, out of pocket payments, additional optional health insurance packages and a range of other sources. Affordability is guaranteed through a system of income-related allowances and individual and employer-paid income-related premiums.

Financial overview of the Belgian Health Care System

Figure 1.11 (Gerkens & Merkur, 2011)



Organisation of compulsory health insurance

The compulsory system of health insurance has a very broad benefits package that covers almost the entire population (>99%). The nationally established fee schedule describes more than 8000 services that are covered by compulsory health insurance. If a service is not listed on the fee, reimbursement is not possible.

1.4.3 Healthcare provision

Hospitals

There are two categories: general hospitals and psychiatric hospitals. In 2010, there was a total of 209 hospitals, of which 141 general hospitals and 68 psychiatric hospitals. In 2010 there were a total of 70.156 beds. The general hospitals accounted for 54.622 beds and psychiatric hospitals for 15.535 beds.

Financing

There is general a budget of € 7.793 billion per year for health care institutions (on the federal level): € 6.546 billion for general hospitals and € 1.247 billion for psychiatric hospitals (Federal Public Service Health Food Chain Safety and Environment, 2014).
Regional authorities are permitted to enact own rules concerning hospital financing and they can subsidize 60% of the hospitals' capital investments.

Health care professionals

Price agreements (for physicians and dentists) and conventions (for other health care professionals) are established within the NIHDI (National Institute for Health and Disability Insurance) between sickness funds and the representative organizations of health professionals. Thus, tariffs and fees for services, provided by health professionals within the context of compulsory health insurance, are fixed.

Homecare

Home care services are financed by both the NIHDI and the federated authorities. The NIHDI finances medical acts, such as nursing and physiotherapy, while the communities and regions finance other services such as family aid, delivery of meals, etc.
In both cases the reimbursement level depends on the person dependency level as well as on their resources.

Care for the elderly

In Belgium, several authorities are responsible for elderly care. An interministerial work group was formed specifically to work out a coherent policy to ensure care and guidance of the elderly is met with respect for each authorities' proper responsibilities.
Currently, there are 87.759 beds programmed in residential elderly care. A Belgian home care facility receives its resources through subsidies and a day rate paid by the resident.

Care for people with disabilities

The Flemish Agency for Disabled Persons (VAPH) aims to promote participation, integration and equal opportunities for the disabled in all areas of social life. Their ultimate goal is to help these people lead a better and more independent life, by subsidising facilities, services and disabled people.

In case a person has specific or exceptional needs, one should apply with the Special Assistance Committee (BBC).

Information about aids and adaptations is provided by the centre of knowledge for aids (Kenniscentrum Hulpmiddelen – KOC), which is part of the VAPH (2010c).

1.4.4 Future issues in social care and health

Ageing population

A move towards more home based elderly care represents a real challenge. In Belgium the people of age 65 and older, of age 85 and older increase from an index 100 in 2010 towards respectively an index 180 and 319 in 2060.

Chronic disease

The main causes of death in Belgium are comparable to those in the rest of Europe: cardiovascular diseases (33%) and tumours (27%). One in four adults (27.2%) say they have at least one chronic disease. Almost one in five (17.5%) of the population have functional limitations.

Multimorbitidy

Increase in people having several illness at the same time. This is called multimorbidity due to greying of the population. (2012, Belgian Health Care Knowledge Centre.

1.4.5 Assistive Technology in Belgium

Economic policies are largely the responsibilities of the regions. For that reason, most policies to promote the use of technologies for home care are decided by the regions.

Generally, promotion of technologies use in home care is still largely a bottom-up process with little intervention from public and regulation by the state.

Most regulation comes through the public financing of pilot projects (smart homes, telemedicine, etc.).

One example initiative in Flanders, “Proeftuin Zorginnovatieruimte Vlaanderen”3, supports the creation of an innovation arena through a narrow collaboration between researchers, healthcare providers and industry to facilitate the creation of new process of care of new products for elderly care.

www.iwt.be/evenementen/infosessie-proeftuin-zorginnovatieruimte-vlaanderen-2012-2013

1.4.6 Financing Innovations

The sixth state reform will provide the federated authorities with more autonomy (responsibilities) and involve the transfer of some of the health related competencies from federal to federate entities (regions and communities).

As a result of this transfer, regulation, organisation and financing of home care for older person are distributed as follows:

- Financing of health care (i.e. nursing, medical, physio etc.) services is done by the National Institute for Health and Disability Insurance (NIHDI). This remains the competency of federal entities
- Financing of nursing homes will be done through federated entities (region or communities)
- Organisation of the coordination of care and cooperation between provider organisations will be the responsibility of federated entities (regions or communities)
- Support to the development of primary care will be the responsibility of federated entities
- Social care at home is almost entirely the responsibility of federated entities (regions or communities).

In 2013, the Flemish government approved a new financing system for people with a disability that seeks to empower them in their choice of care. Support budgets will be provided by VAPH.

In 2013, the Flemish Minister of Innovation, initiated several platforms for innovation in elderly care spread out in Flanders. A budget of € 10 million is available to generate crucial solutions for more affordable and accessible home and neighbourhood care/support and increased autonomy of the elderly.

- Partners include: home care organisations, local service centres, residential elderly care, family caregivers, companies, knowledge centres, nurses and doctors etc.

1.4.7 List of key contacts

Federal institutions	
Federal Public Service of Health, Food Chain Safety and Environment	**www.health.belgium.be/**
National Institute for Health and Disability (INAMI - RIZIV)	**www.riziv.be**
Belgian Health Care Knowledge Center	**kce.fgov.be**
Ministry of Welfare, Public Health and Family (Flanders)	**www.vlaanderen.be/nl/gezin-welzijn-en-gezondheid** **www4wvg.vlaanderen.be/wvg/**
Flemish Agency of Care and Health (Flanders)	**www.zorg-en-gezondheid.be**
Flanders' Care (Flanders)	**www.flanderscare.be**
Directorate-General of Health (French speaking community)	**www.sante.cfwb.be/**
Department of cultural and social affairs (German speaking community)	**www.dgregierung.be/**

Sources

Memorandum concerning the financial aspects of the application of Article 107.(s.d.).
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Draft proposal for individual funding for disabled people (2013).
Downloaded from jovandeurzen.be on 15/01/2014
vlaamsesels.be consulted on 15/01/2014
Green Paper on State Reform. (2013). Downloaded from zorg-en-gezondheid.be on 15/01/2014
Rest Home funding. (2012). PowerPoint presentation by W. Baeckelandt
Introduction macro funding mechanisms (financial management). (2012).
PowerPoint presentation by K. Eeckloo.

Chapter 2
Understanding the challenges

2.1 Understanding the challenges

This Chapter provides an overview of research conducted across SMEs and care providers in Zeeland, West Flanders, the Nord-Pas-de-Calais and the East of England in 2011 and 2012.

Research objective

The research objective was to identify specific gaps and challenges in the current business model, seen from the perspective of both SMEs and providers.

Advice for SMEs and care providers

These insights were used to inform the nine CURA-B pilot projects discussed in the next Chapter and from which the final recommendations for SMEs are based.

This Chapter finishes with advice for SMEs and providers, and best practice ideas for entering the care market.

The survey data available in full at **www.cura-b.eu** (March 2014)

Most providers have no formal policy on IPR or **innovation** in general.

2.2 Methodology

Survey of SMEs

The first piece of research identified the main obstacles to innovation and product marketing encountered by SMEs.

The survey included 22 questions and received 175 responses. Of 175 SMEs, 123 are active in the field of Assistive Technology (AT) but only 107 SMEs (out of 123) returned analysable data.

In-depth SME interviews

In-depth interviews with 48 SMEs looking at experiences with users and care providers to determine key barriers to market entry and success.

SME turnover ranged from €2k to €34m. The interviews were conducted face to face using a semi-structured template of 14 questions, followed by a general summary on key issues.

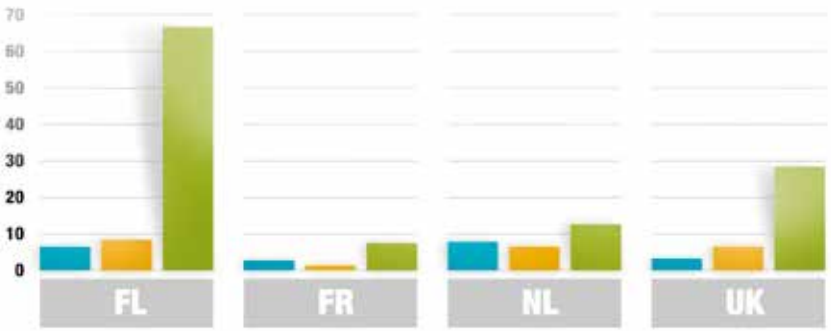
Interviews with care providers

The third piece of research comprised interviews with 54 care providers ranging in size from 1 to 20,000 persons and from £100k to €304m turnover. Interviews focused on experience of working with SMEs, approach to collaborating locally and attitudes towards innovation.

2.3 SME insights

Overview of SME profiles

Percentage of SMEs in the four regions active in AT



SMEs not involved in AT and not interested

SMEs not involved in AT but interested

SMEs active in AT

What do SMEs sell?

Across the four regions by percentage.

Aids for personal medical treatment (e.g. glucose meter)

Aids for training in skills (e.g. Braille reader)

Product: Orthotics and prostheses

Aids for personal care and protection (e.g. absorbent pads)

Aids for personal mobility (e.g. wheelchair)

Aids for housekeeping (e.g. adapted cutlery)

Furnishing and adaptation to homes and other premises (e.g. shower seat)

Aids for communication, information (e.g. magnifying glasses)

Aids handling products and goods (e.g. anti-slippery mats)

Aids for equipment for environmental improvement, tools and machines (e.g. working post)

Aids for recreation (e.g. home trainer)

SME main customers

Four region comparison of SMEs main group of customers:

Companies

Government and/or health organisations

End users

Other

How do SMEs find customers

	West Flanders	Nord-Pas-de-Calais	Zeeland	East of England
1. Public procurement announcements				
	●			●
2. Traditional direct sales process:				
Direct sales force	●	●		●
Place products free into schools, hospitals	●			
Direct information of the market through word of mouth and networking	●	●	●	●
Symposia and seminars	●		●	●

How do SMEs get information on end user needs?

	West Flanders	Nord-Pas-de-Calais	Zeeland	East of England
Formal methods to gather end user needs	●	●	●	● (Minority)
Informal - No formal method				●
Would like to get closer to users			●	●

Formal methods - Round table discussions, shadowing nurses and practitioners, prototyping, end user testing, AGILE methodologies, pilot cases, customer contacts to clinicians or managers and formal on site research.

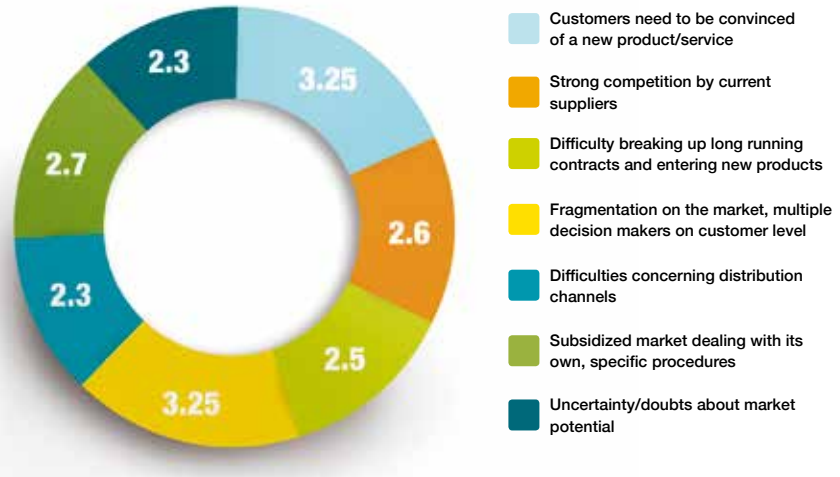
Informal methods - networking, attending seminars and symposiums.

How do the SMEs sell?

	West Flanders	Nord-Pas-de-Calais	Zeeland	East of England
Public Sales: tender driven selling	●			●
Private Sales: Direct prospecting and sales visits	●	●	●	
e-trade		●		

What are the obstacles SMEs face when selling?

Main obstacles across the four regions by percentage.



The pie chart is a reflection of the answers from SMEs in response to a Likert scale (1=not at all; 2=slightly; 3=somewhat; 4=very; 5=extremely).

- SMEs also have difficulty with the public procurement process, describing it as 'cumbersome and slow', with a 'them and us' attitude. Specifications are often narrowly defined and designed to reach the lowest common denominator on price. Some believe commissioners decide beforehand who they want to work with, hence responding to tenders can be viewed as a waste of time and expense.

Fragmentation of the market

Nord-Pas-de-Calais
The healthcare system is complex. Especially when it comes to reimbursement. SMEs must create and implement business models to fit the environment, as well as demonstrate the effectiveness and benefits of their products.

Zeeland
System fragmented and unclear, also conservative and risk-averse. Zeeland SMEs note a lack of entrepreneurship within healthcare providers, which impacts investment in innovative projects. Difficulties in getting closer to decision makers and end users, and a lack of participation and consultation with SMEs.

East of England
Lack of standardisation around procurement processes. Getting closer to decision makers can be difficult.

Flanders
- SMEs have much more influence on the contents of a tender. SMEs are usually notified of new procurements well in advance
- The official publication of a tender can be influenced on three levels:
  - The inclusion of the technical product specifications (via 'study bureaus')
  - Functionalities/technical specifications via the technical directors of care institutions
  - Price setting via equipment installers/electricians.
- Success is dependent on good personal contacts and so lobbying is vital

Overview of obstacles to innovation for SMEs
From the large SME survey there are a variety of obstacles to innovation for SMEs:
- The two biggest obstacles are: a lack of internal resources and difficulty in accessing external resources (together 24%)
- Innovation has a high cost and resulting high level of financial risk (together 22%)
- SMEs find it difficult to find qualified staff (8%)
- There is a lack of information on new technologies and the market for them (together 15%)
- It is difficult to find partners in innovation (9%).
- Attitude of providers towards innovation and general lack of formal innovation policy on behalf of SMEs and providers.
- Post development, nearly half of all SMEs across all regions did not have IP or an IP policy.

2.4 Provider insights

Provider attitudes to innovation and new AT
From the four regions, 54 providers were interviewed about their experience working with SMEs.

Most had worked with SME's apart from the UK which had little experience.

How do providers work with SMEs?
All regions expressed a positive approach to the local economy and to externalisation to patient and care groups, even though 40% felt that AT projects had not been successful.

No organisations is restricted by the size of company they are able to work with.

Providers' approach to innovative products and services
The majority of providers have no formal policy on IPR or on innovation in general. Most providers deal with innovation case by case with consideration given to the commercial benefits and business case.

West Flanders
Care providers are not always satisfied with the information and advice they receive concerning deployment, commissioning and after-sales service. The requisite user/staff training for the offered AT and budgets are often a problem.

Small and medium organisations
When offering residential care, they are not always open to projects in the area of AT or telecare. Smaller organisations often don't have an innovation policy and innovation is mostly problem driven. When a problem is detected, solutions are sought and innovation is handled as part of the quality handbook.

Many providers of residential elderly-care are working with **housing corporations**, to build apartments where elderly people are free to acquire the **healthcare services** they need.

Larger organisations
They have more man-power to handle new projects and see innovation as a strategic option. Sometimes they detect a lack of innovative proposals from the workforce.

Nord-Pas-de-Calais
Most of the providers interviewed have been or are currently involved in innovative projects. These providers deal with ICT for health. (Sharing medical information and social networking)

Some associations are ready and willing to collaborate with SMEs early in the process of innovation.

They are also willing to be involved downstream in the innovation process to test products in their facilities.

Zeeland
Priorities of the providers are affected by the Dutch healthcare system and the demand for services, which enable the elderly to remain at home as long as possible.

This challenges traditional providers of residential elderly-care to separate living and care services. Many are working with housing corporations, to build apartments where elderly people are free to acquire the healthcare services they need. This so-called 'extramuralisation' means a shift towards a more demand-based offering of care-services and puts stress upon services used to interacting with the patient.

Most providers are aware of the need for change and implementation of smart services for more efficient communication. Social media and e-health, for example, allow online scheduling and even online appointments/treatments, domotics and screen to screen services.

There are also opportunities in non-medical services with smaller providers trying to innovate by strengthening the personal touch in healthcare with IT playing a less prominent role.

East of England
Nearly all providers emphasised that AT is a small part of their business and not always appropriate. Very few have AT specialists. There is so far a poor penetration of AT in retailing.

What are the main obstacles to providers adopting AT

West Flanders

Lack of knowledge, insufficient staff, funding, and concerns about after sales service.

Organisations are challenged by governmental policy to develop new projects answering project calls. Rigid government legislation however can itself present a barrier.

Knowledge about projects in AT is usually quite limited. Information can be found through events and reading professional literature.

Care providers often exchange experiences with partner organisations through organisational groups and networking events.

Nord-Pas-de-Calais

The main barrier to innovation for care providers is a lack of funds. The main barrier for collaborating with SMEs is lack of time and staff.

Zeeland

Main barriers are financial regulations and overcoming them in order to take risks and invest in technology. There is a reluctance due to many projects having failed for financial reasons. They must communicate the technology benefits clearly, focusing on social innovation. They must get trust and 'buy-in' from nurses and then educate employees to use the instruments.

East of England

SMEs perceived to have insufficient contact with the market, leading to the following problems:

- Seeking a market for a product and not designing for the market.
- Inappropriate presentation of the product. (issues of labelling, over/under packaging, instructions)
- Poor grasp of pricing and ensuring a wholesaler's percentage.
- Little attention to training both end users and professionals in the appropriate use of their equipment.
- Not understanding the attractiveness of a data-collecting package with more complicated monitoring/medicating products.
- Need for after-sales service.

2.5 Advice from providers to SMEs

How can SMEs be more successful?

Engage with users and providers and listen to their suggestions in the development process to deliver products adapted to the user's needs. Also:

- Products should have added value for staff and end users.
- Keep products simple to use.
- Contact the right people and collaborate with the key stakeholders.
- Be price/cost sensitive and quantify savings and benefits to providers. At the same time attempt to develop products and services that would be compatible with existing equipment.
- Deliver good after sales service.

West Flanders

Future projects will focus on consolidating quality and market share in the care sector. Expansion plans towards ambulant and home care are being seen in the residential care organisations.

Future plans on AT are automated pharmacy logistics, mobile patient care files, care registration (for benchmarking) and detection and/or prevention of wandering.

Directors of care institutions in general receive too little independent advice with regards to approaching health and residential care in the future. They receive advice which is mainly building oriented, technical and ICT functionalities are rarely included. SMEs could take more responsibility in showing how their products and services could improve functionality, wellbeing and how their solutions can be implemented.

Care providers advise SMEs to provide full information to care providers about the offered AT. This includes all costs including purchasing and total costs of ownership. Also any necessary implementation effort needed e.g. for customisation and staff training.

Nord-Pas-de-Calais
Care providers expect SMEs to show evidence of real effectiveness (tested products or pilot cases) and a high benefit / cost ratio

Care providers expect innovative products to:
- Fit their specific needs
- Provide measurable benefits for end user (comfort, easy to use, effectiveness ...)
- Allow employees to work in better conditions and more effectively
- Save time and money
- Differentiate themselves by offering innovative services or better care

Zeeland
Price and quality more important drivers than dealing with and promoting the regional economy

Providers feel that many technological solutions (e.g. for domotics and tele-health) are too technology focused and not demand focused.

Most providers are willing to speak with SMEs on their constraints and explain what they are expecting. A significant number of providers explicitly mention the innovative character of connecting the offer of care to the demand of the client.

Potential topics worth exploring for joint activities:
- Well-being for the elderly.
- Intramural wandering detection for elderly persons suffering from dementia.
- Control systems for access control and registration of patients
- Night surveillance systems.
- Ageing independently at home.
- Social media in care for elderly and informal carers.
- Serious games for prevention and education purposes (e.g. diabetes in children / dementia).

East of England
Care provider and health provider activity is controlled to a large degree by commissioners of services.

An understanding of how commissioners in local government and the NHS trusts work, would help overcome this barrier

2.6 Advice from SMEs to providers

More than one hundred SMEs active in the care market believe providers and end users need to be convinced of a new product or service.

It was felt strongly that end users must somehow be consulted within the innovation and sales processes. SMEs need early involvement and better communication with providers.

West Flanders
When the sales process takes places by means of procurement, several SMEs recommend more openness in the tendering process. The cheapest product is often considered the most adequate. Younger physicians are easier to convince of the benefits of new technology.

Nord-Pas-de-Calais
SMEs need to find a better way to communicate with healthcare system stakeholders and end users. They need to meet the end users and the customers (buyers) for a better understanding of their needs. Get them involved in the products/services development.

Zeeland
SMEs lack a strong network in this field to develop together with people involved in the care processes rather than technical managers. This requires involvement of many organisations and a high level of collaboration.

If this is not accomplished, there is a high risk of not finding a viable business case or developing a product which does not meet the needs of end users or healthcare providers.

For example, an SME in the field of installation, asking to be involved in an earlier stage in the process of building.

East of England
Where possible have more dialogue with commissioners (purchasers/providers) earlier in the process. (i.e. pre-tender)

2.7 Towards a new innovation 'eco-system'?

This first tranche of CURA-B research points towards a distinct need to re-evaluate the innovation process as a whole.

SMEs in all regions are unified in their frustration with the current model. Small businesses play a pivotal role in developing novel technology. However, the current system for procurement, development and deployment of innovative AT-led service solutions is not working efficiently.

The general conclusion is that a re-conceptualisation of the innovation 'Eco-system' is needed. Key suggestions:

- SMEs lack a strong network in this field. They need more open collaboration between stakeholders in the design and procurement processes.
- Earlier involvement is required to develop better solutions for end users.
  - i.e. building assistive technology courses into basic training of nurses, occupation therapists and opticians, for better understanding of AT benefits early on.
- Formation of a 'Think Tank' and/ or 'Best Practice' centre to reinvent and make more equitable the collaboration between stakeholders.
  - The 'centre' would make negotiating entry to the system more user-friendly and facilitate collaboration between SMEs.
- System integrators as independent advisors could bridge the gap between both worlds to provide neutral, trustworthy advice to directors of care institutions.
- Rethinking how to stimulate and finance innovation and development of AT and reimbursement of stakeholders.
  - i.e. transfer of IP to government to encourage initial investment and facilitate collaboration. Incentives to innovate with providers or commissioners could include a '12 month exclusivity period' before the new service designed by the company had to be opened up to competitive tender

2.8 Further information

For further information about the survey, please contact:

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Chapter 3
Bridging
the gap

3.1 Bridging the gap

In the previous chapter we discovered how SMEs are prevented from gaining full access to the assistive technologies market. This chapter addresses how to bridge this gap.

In order to motivate SMEs to enter the healthcare market, companies must be able to overcome the challenges and uncertainties of technology development as well as to understand end user needs and the environment. A series of workshops organised by CURA-B brought stakeholders together to try to find answers to these challenges.

The suggestions from these workshops were used to inform nine pilot studies, introduced here. Based on these practical examples, it is hoped SMEs will be better equipped to deal with existing barriers, to widen their knowledge of the innovation landscape and extend their networks.

Companies must be able to overcome the **challenges** and uncertainties of technology development, as well as to **understand** end user needs and the environment.

3.2 Stakeholder Workshops

CURA-B stakeholder workshops were organised regionally to seek out new ways to optimise collaboration between: Care Providers, SMEs and local Knowledge centres (KCs).

Attendees

Excluding project partners, 141 participants attended across the four regions. As expected, SMEs and Providers made up the largest proportion of participants with 43% and 18.5% of participants respectively. Other noteworthy groups were commissioners (14%), end users (5.5%) and lead users (5%).

Workshops

Each region held 4 to 5 workshops. Example workshops include:

- Nord Pas de Calais - Value creating business models for the mature market
- East of England - Selling assistive technology
- West Flanders - Role of wellness rehabilitation & preventative healthcare
- Zeeland - Masterclass entrepreneurship in healthcare

For a full list of the stakeholder workshops please visit:
www.cura-be.eu/workshops (March 2014)

3.3 Stakeholder suggestions for SMEs

How can SMEs overcome the obstacles identified in earlier CURA-B research?

Customers need to be convinced of a new product or service:

- SMEs believe Assistive Technology (AT) is being improved and the technology slowly accepted. End-user education in AT and telecare is an essential enabler for accelerating uptake of telecare and will increase patient and clinician confidence in the systems.
- There is a need for increased accessibility to lower barriers for end users of non-medical services and service providers.
  - This could be helped by a quality control (QC) system among service providers (need for criteria) and an independent control body for Q-labelling.
- Informing and empowering the end-user together with intensive collaboration between care and technical suppliers is essential to developing the most designated device for the end-user.
- Stakeholders need full support from patient organisations, representative bodies, public insurances, social services and media/publicity to inform the care sector and end-user about the benefits of telecare.

There is fragmentation on the market and multiple decision makers:

- There is a need for a comprehensive business plan and well-defined marketing strategy to inform end-users about potential telecare benefits.
- There is an urgent need to identify the best channels for reaching: end-users, medical experts, marketers, healthcare systems experts and the media.
- There is a need for regionally bound anchoring points
- There is a need for a communication hub centralising: communication for SMEs and service/care clients, answering the needs of end users, dispatching function, creation of a 'System Integrator' and user experience exchange for quality control

To address fragmentation of the market SMEs need:

- network of good contacts in world of providers
- forum where all stakeholder can discuss needs
- involvement throughout the life-cycle of the procurement/ development
- raft of solutions to give users choice
- better knowledge of elderly needs, i.e. food and nutrition
- information about and numbers of elderly and dependents
- help to build a business model
- support to reach all parts of the market that would benefit from assistive technologies and help to develop relevant business models

The market is subsidised and has its own procedures:

- Need for redistribution of healthcare system budgets: more funding for alternative telecare services is vital and efficient distribution of medical service costs for a lower 'care bill'
- Tailored, person-centred care is important to empower patients and reduce overconsumption of technical medical care
- Helpful to conduct and present new and existing evidence-based pilots to show benefits of telecare; commissioners need real-world examples for informed decision making
- A bottom-up approach needed to develop expert solutions fast. Providers would like: a low threshold for new services and products, more exchange of information around needs of products and services and further cooperation.

In order to overcome the challenges in the tender process rules SMEs need:

- better insight in the structure and financial aspect of healthcare
- a one-time pre-qualification process
- detailed specifications
- a commitment to purchase should a solution meet or exceed the specification
- better knowledge of the potential markets
- to efficiently produce useful, persuasive case studies

The workshops help to build a **community** committed to finding new ways of **working together**.

Value of workshops

Many SMEs admit 'fragmentation of the market' prevents them from knowing who to contact when seeking a joint partnership with a healthcare provider. The workshops addressed this key challenge, bringing SMEs and providers into one collaborative environment with a common aim.

In this way, SMEs gain access to the decision makers - not only the 'gatekeepers' - but the directors of organisations who have strategic influence. Workshops provide a significant step in overcoming regulatory hurdles and breaking down the 'them and us' culture many SMEs describe.

By offering stakeholders a forum to join the dots between the people who have something to offer and those that need it; the workshops help to build a community committed to finding new ways of working together.

In addition to connecting people who don't usually meet, the workshops facilitate exchange of knowledge and inspiration. Many of the ideas developed in the stakeholder workshops went on to become pilot projects.

3.4 Defining your business idea

The optimal use of telecare and telemedicine continues to be hampered by the lack of viable business models. Therefore the value of a product or service is only realised when companies develop and commercialise it through an effective model.

SMEs must innovate their business models

The traditional innovation process is almost impossible for SMEs to accomplish alone. Compared to larger or more established companies, SMEs do not have the capabilities to represent the different competencies needed for each stage of the development process. Also, short term demands get in the way of long term planning.

The business model plays a primary role in success, not just the technology, therefore SMEs must innovate their business models accordingly.

The Business Model Canvas

The Business Model Canvas is a structured and easy to use visual tool for understanding how your business will operate and create and capture value for stakeholders.

Used by leading industry innovators around the world, this simple framework can help you express even the most complex business model on a single page.

The Business Model Canvas

Download the template and watch a video:
http://www.businessmodelgeneration.com/canvas

The Business Model Canvas can help SMEs working in Assistive Technology to innovate and articulate new or existing business models more effectively.

However early stage social enterprises often have difficulty communicating both a solid business idea and a social value proposition. The Social Lean Canvas (socialleancanvas.com) is a tool derived from the Lean Canvas (leancanvas.com), itself derived from the BMC and includes importantly 'Purpose' and 'Social benefit'.

For this reason the CURA-B project mainly used the Business Model Canvas template, borrowing two critical areas from the Social Lean Canvas: defining a clear and strong purpose and a clear social benefit.

Clear purpose and social benefit

The clear purpose and social benefit help to bind the partners together at a time when it is not readily apparent how good ideas with good purpose will get to the market and provide monetary benefits.

The key questions used to analyse the pilots were:

1. **Core Purpose**: What is the core purpose? What problem are you solving here and what overarching purpose brings the partners together?
2. **Value Proposition**: What need or desire are you fulfilling for the customer and end user?
3. Customer Segments: Who are the customers? What are they like? What's on their mind? What needs? Wants?
4. **Channels / Customer Relationships**: How does the customer interact with you? How can the Value Proposition be delivered to the customer? How do you sell to the customer?
5. **Revenue Streams**: What are the possible revenue streams? Are there potential cost savings for the partners, users, customers? If this were a business, how would the business generate revenues?
6. **Key Partnerships**: What partners are most critical? Why? For what? If you have partners, how tightly do they map to the key activities? What roles do the partners play as representatives of the Triple Helix?
7. **Key Resources**: What key resources are needed, key competences, key talent in critical areas of expertise and accumulated intellectual property related to the offering?
8. **Key Activities**: What is needed to make the collaboration and co creation work? How will the partners work together to bring the idea to market? (This probably includes ongoing learning about users and new techniques to build better products).
9. **Cost Structure**: What are the key costs incurred? What key investments need to be made? Who will fund these costs and investments? Who will fund the costs of collaboration and of the facilitator?
10. **What is the social benefit** of this project, what are the longer term social benefits?

3.5 Introducing the CURA-B pilots

The workshops and research provided useful suggestions to put into practice across the nine CURA-B pilot studies. These were classified into three key areas identified as being critical to bridging the gap:

- **Business models**
  Helping SMES create better business models and business cases to enter the care market
  - Eurasante in Nord Pas de Calais with the 'Entrance project business modelling' and VIVES -RESOC in Brugge, POM in West Flanders with 'non-medical services in home-care'

- **Triple Helix collaboration**
  Facilitating Triple Helix collaboration by bringing SMEs, Care Providers and Knowledge Centres together to co-create solutions for end users.

- 'VIVES- RESOC MWV- POM' with 'lighting in a care home' in West Flanders, WSH with 'Diagnostic service for paediatric Diabetes' in east of England and Impuls with the Memory Test project and the Concept Homes project in Zeeland and SCC as a facilitator of SMEs entry to market via the Dragon's Den project also in the East of England

- **Network development**
  A need to create networks to provide a collaborative base, facilitated by a system integrator.

- Impuls in Zeeland with Sante Zeeland network, HEE in the East of England with the East of England AT network

For more information on the CURA-B pilots visit:
www.cura-b.eu/pilots
In Chapter 4 we will look at these new ways of working and explore how to put them to use for the development of a new innovation ecosystem.

Chapter 4
Bringing new approaches into practice

4.1 Bringing new approaches into practice

The purpose of this Chapter is to explore new approaches for SMEs looking to successfully enter the market, develop their products and services and sell to customers.

It describes new innovation ecosystems that will help re-shape relationships between industry, end users and the public sector, and explores learnings from the CURA-B pilots which have been shown to be a crucial factor in stimulating innovation in each region.

It is hoped these suggestions will help SMEs overcome some of the commonly experienced fears and take the steps needed to develop better business in health and social care.

4.2 A new innovation ‘ecosystem’

It is essential for SMEs with limited resources to leverage external help during the innovation process. As we know from Chapter 2, end user needs for example, are difficult to discover.

SMEs need a network of partners who have the required competencies or assets to help them develop and commercialise their product or service.

One of the main challenges of ‘Open Innovation’ is protecting information. A high level of trust is required when deciding what can be shared with partners in the process. One answer to this is Co-creation.

4.2.1 Co-creation

Co-creation is the practice of product or service development that is collaboratively executed by developers and customers together.

In the case of CURA-B it blurs the boundaries of the SME, the Knowledge Centre and the provider by ‘outsourcing’ some parts of the innovation process and value creation to the customer and to the Knowledge Centre.

Users and customers now enjoy access to the SME’s innovation process, and this access is reciprocated by the suppliers and users. Customers (and users) now share their own roadmaps with the SME giving the SME much better visibility into the customers’ future requirements.

4.2.2 The Triple Helix Concept

In CURA-B the parties to this co-creation come from the Care Providers sector, the SMEs and Knowledge Centres. The Triple Helix concept comprises three basic elements:

- A more prominent role for the Knowledge Centre in innovation, on a par with industry and government.
- Innovation is an outcome of interaction between the three institutional spheres, rather than a prescription from government.
- In addition to fulfilling their traditional functions, each sphere also ‘takes the role of the other’

“Institutions taking non-traditional roles are often viewed as a major potential source of innovation in innovation.”

For example, universities, once seen primarily as a source of human resources and knowledge, are now looked to for technology and for extending their teaching capabilities to shaping organisations in entrepreneurial and incubation programmes.

4.3 Learnings from CURA-B pilots

CURA-B created Triple Helix style co-creation projects in its nine pilots by inviting SMEs and providers to idea generation workshops to define end user needs and generate possible solutions.

Once defined by the Knowledge Centre, SMEs answer a call for solutions, then work alongside providers and Knowledge Centres to test the solution in live environments.

What are the determinants of successful co-creation through the Triple Helix?
CURA-B has learned that for the co-creation to work in the triple helix we need the following:

4.3.1 Need for a common purpose

Co-creation projects stand or fall on whether the people involved trust the relationships within them. So the co-creation community needs to meet purposefully and regularly to build confidence in each other.
This can take different forms:

- Large scale networks like the East of England Assistive Technology Network which holds monthly breakfast/brunch meetings for commissioners, heads of services, SMEs, Clinicians and academics to discuss and problem-solve as a joined-up group.
- Specific co-creation workshops with up to 20 members of stakeholder groups who come together to learn about the aims of CURA-B.

These groups can test out research and prototyping methods and generate new ideas collaboratively. The core purpose is disseminated and enhanced across as wide a range of people as possible, distributing the responsibility of engagement and idea generation.

4.3.2 Equal status and a shared culture

With trust a prerequisite, partners in the co-creation need to have equal status. Co-produced decisions are made by consensus, with no one person or organisation dictating terms to the others.

Partners need to commit time and effort into laying a foundation of trust and be open handed players, particularly the Care Providers.

Alongside this, one of the partners, probably the Knowledge Centre will need to act as a neutral and trusted facilitator or 'System Integrator'. In CURA-B this role has also been played by the regional development agencies for example POM and the RESOC organisations in west Flanders, Impuls in Zeeland and Eurasante in Nord-Pas de Calais.

There must be a core group of key influencers who attend every meeting, made up of clinical commissioners, directors of mental health and commissioners of mental health.

4.3.3 Need for transparency

It is beneficial if partners can share business models and develop a common canvas so that each partner can benefit. This can only be done by making all aspects of the Business Model Canvas transparent to the partners. A trusted, neutral and experienced facilitator is needed for this process to guide the partners through the BMC co creation process.

4.3.4 Co-creating at all stages

By applying co-creation to all stages of a project, partners recognise early on how they can benefit from and through their business models, and how a common sales and development process can work.

Sharing the benefit and risk in the start-up period is key to success. There needs to be mutual benefit, be it through exchange, value co-creation or other forms of compensation.

4.3.5 The value of networks

Successful co-creation requires companies to build networks with other organisations. However a lack of 'knowing who' is preventing some SMEs from even considering entering the market.

Even when those with strategic influence are identified, it has been almost impossible historically for SMEs to gain access, and this is also recognised as a challenge by providers themselves.

It is vital for SMEs to reach those in a position to advise on and then recommend the utility of a new product or service, however, current lack of a network makes interaction between the two groups virtually impossible.

Building stakeholder networks through events and ideation workshops allows SMEs to reach into the broader community of industry, academia and public sector.

Networks play an important role in stimulating a culture of knowledge exchange, and in building a community that believes and demonstrates what it has to offer its region.

The value of ideation

The 'ideation' workshops in the pilots attracted a higher rate of interest than the more specific workshop topics. This suggests that the value of the workshops is as much about stimulating inspiration in a dynamic setting as it is about seeking practical solutions to a particular topic.

In some of the pilots, partnerships were forged in the very first ideation workshops. Clearly, networks answer an urgent need and provide the first step in fostering innovation.

Co-creation projects stand or fall on whether the people involved **trust the relationships** within them.

4.3.6 Need for a system integrator

There is a critical need for a facilitator or 'System Integrator', to act as a single, respected and independent advisor to bridge the gap between both worlds and help people improve their connections.

A System Integrator will act on behalf of all institutional spheres as a neutral entity focused on knowledge sharing for growth and bringing people together who wouldn't usually meet.

The role will bring much needed transparent advice to directors of care institutions. It will connect SMEs with other organisations to catalyse innovation and co-understanding, and prepare them for negotiating the system. It will do this through events, networks and by acting as a crucial repository for ideas.

Defining the System Integrator

As a central access point the System Integrator will be critical in the reconceptualisation of the innovation ecosystem not only to create fresh routes for stakeholder partnerships, but as a keeper of best practice.

This central body must be fully committed to making the best use of the knowledge in the health and social care sectors by reinventing and improving the system. As such, the System Integrator needs clear definition and considerable consideration as to the best organisation to take on this pivotal role.

A strong understanding of funding and healthcare systems, industry issues and awareness of current societal and economic challenges while retaining a neutral position is key.

Communicating value

The System Integrator will also play an important role in helping stakeholders communicate value. As we have seen from the research, real-world examples incentivise SMEs to innovate by showing them, through the experience of others, that the challenges are surmountable and support is available.

Case studies developed by this respected source will also help demonstrate new ways of working and the benefits of telecare to providers.

4.4 Next steps

The health and social care market presents a number of unique challenges in taking technology from concept through to product sales in the market.

What is needed is a more coordinated view and greater awareness among SMEs of the services offered by support organisations in their region and of the resources available to them at each stage of development.

What to do next?

Do you have an existing product or service or an idea in development?

The first step is to contact your local county council and/or healthcare organisations and explain what you want to do.

Your regional development organisation can also put you in touch with the right partners for your sector.

Active participation is encouraged, to forge and strengthen networks. SMEs must join their regional networks and engage with their communities: talking to providers, and interacting with user groups.

You'll find details of organisations in your region in Chapter 1, with a list businesses that can help companies in Assistive Technology.

4.5 Glossary

Name	Description
AIVQ	Aides Instrumentales à la Vie Quotidienne (Instrumental Aids to Daily Living)
CCG	Clinical commissioning group
COPD	Chronic obstructive pulmonary disease
DALLAS	Delivering Assisted Living Lifestyles at Scale
DRG	Diagnosis related group
EoEAT Network	East of England Assistive Technology Network
GDT	Integrated Service for Home Care - Belgium
HEE	Health Enterprise East
MWV	Midden-West Vlaanderen
NIHDI	(National Institute for Health and Disability Insurance) Belgium
PCT	Primary Care Trusts
POM	West Flanders Development Agency
RESOC	Regional Economic and Social Concertation Committee
SCC	Suffolk County Council
SHI	Social Health Insurance
SME	Small and Medium Enterprise
VAPH	Flemish Agency for Disabled Persons
VIVES	VIVES University College
WSH	West Suffolk Hospital
ZBC	Independent treatment centres - Netherlands

4.6 CURA-B partners by region:

The Netherlands		
NV Economische Impuls Zeeland **Project leader**	**www.impulszeeland.nl**	arendroos@impulszeeland.nl miraweber@impulszeeland.nl

Belgium		
KATHO	**www.katho.be**	vincent.vergalle@katho.be
KHBO	**www.khbo.be**	michele.inghelbrecht@vives.be
POM West Flanders	**www.pomwvl.be**	inge.taillieu@west-vlaanderen.be ann.overmeire@west-vlaanderen.be
RESOC Brugge	**www.ersv.be**	resoc.brugge@west-vlaanderen.be serr.brugge@west-vlaanderen.be
RESOC Midden West-Vlaanderen	**www.ersv.be** **www.midwest.be**	inge.vromant@west-vlaanderen.be

France		
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United Kingdom		
Anglia Ruskin University	**www.anglia.ac.uk**	janet.palmer@anglia.ac.uk
Health Enterprise East	**www.hee.org.uk**	anne.blackwood@hee.org.uk
Suffolk County Council	**www.suffolk.gov.uk**	martin.owen@suffolk.gov.uk
West Suffolk Hospital NHS Trust	**www.wsh.nhs.uk**	colin.lainson@wsh.nhs.uk

Further information can be found on the CURA-B partners here:
www.cura-b.eu/partners

Colophon

‘Doing better business in health and social care - a guide for SMEs’ was developed in the CURA-B project.

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