



# Business Innovation Observatory



## Design for Innovation

### Service design as a means to advance business models

*Case study 13*

*The views expressed in this report, as well as the information included in it, do not necessarily reflect the opinion or position of the European Commission and in no way commit the institution.*

# **Design for Innovation**

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Business Innovation Observatory  
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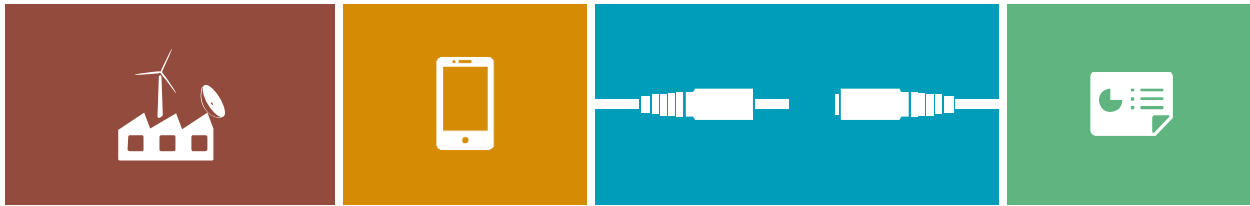
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# 1. Executive summary

Service design is the activity of organising and planning people, infrastructure, communication and material components of a service in order to improve its quality and the interaction between service providers and customers. It is a creative, viable, and user-centred design process that is used by organisations to create value for their customers or users and serves as a competitive advantage for the service provider. Service design has only started to be adopted by the private market in the last few years. Based on fruitful examples, we have illustrated the impact that service design can have on the way a company conducts its business, as well as to explore the drivers and obstacles related to the use of service design by European companies (and particularly SMEs), its scalability potential, and the role of policy makers.

The socio-economic relevance of service design as a means to advance business models is directly related to the role of the service sector in the European Union. This sector has been a key engine of economic and job growth. Over two-thirds of those employed in Europe now work in the service sector and between 60 and 70% of the annual gross value added figure achieved by the majority of European states can be attributed to services. However, although the value of the service sector continues to grow and customers' expectations of value for money in the service industry keep rising, good services are still the exception rather than the rule. It becomes clear that further economic progress and increased quality of life will be determined by the quality of services.

Although there are no official metrics measuring the use of service design, the potential for using service design is large. The discipline has been adopted by the private and public service sector, as well as the manufacturing sector, the latter in order to make their business more service oriented. Several studies show that customer satisfaction in relation to service delivery is low, and there lies the potential for service companies to design services that are able to attract and retain customers.

Service design offers numerous benefits at the level of the organisation and of the users of the service. It can lead to

improvement of idea generation, service improvement, and improved risk management. In the longer run, service design can lead to greater customer satisfaction, higher customer loyalty, decreased time-to-market, and improved innovation practices, processes and capabilities.

The use of service design will continue in the next few years as most economic growth currently comes from the service sector. In particular, the liberalisation and deregulation of services in many markets, increased efforts with respect to globalisation and internationalisation of many European service companies, and the increased use of innovative information and communications technology - all these will favour the positive development of the service sector further. The use of service design is hampered by a number of factors. Most organisations have not embedded service-design processes. Service design is often an ad-hoc process. Another important obstacle is formed by the fact that it is hard to value and finance intangible service assets, making it harder to obtain finance for service-design projects. Further, it requires a combination of skills from employees that are not offered yet in one educational curriculum.

In order to scale up service design, there is a need to facilitate globalisation and trade of design services. Another important driver for up scaling is the availability of ICT infrastructure and equipment on the client side, which also enables co-design, an important feature of service design.

Policy makers are recommended to take different actions to stimulate further use and uptake of service design. Firstly, they can help build a strong design sector that can offer strategic service design services to the public and private sector. Also, policy makers should stimulate schools and higher education institutions to offer courses or even bachelors, masters and MBAs that focus on service design as a specialisation. Further, there is a need to build an innovation system around the service industry, academia, research institutions, and governments. Further adoption can also be achieved through the use of service design in public sector institutions, having them lead by example.



## 2. Understanding the trend of service design

### 2.1. Defining service design

**Service design** is the activity of planning and organising people, infrastructure, communication, and material components of a service in order to improve its quality and the interaction between service providers and customers. It is a creative, viable and user-centred design process that is used by organisations to create value for their customers or users and serves as a competitive advantage for the service provider.

*“Mobile behaviors and user expectations for an engaging digital experience are changing. People now desire a more intuitive and meaningful interaction from both brands and their services. That’s why we put them at the center of what we do” – Fjord*

This trend has evolved from a mix of established design disciplines as well as business strategy, and borrows the best methods and tools from product, interaction, and communications design to create a process that works across multiple touch points and platforms. From a designer’s viewpoint, service design is the process of inventing or improving experiences that happen across multiple touch points over time. From a business viewpoint, service design is a set of tools and strategies for defining and designing the way a business operates.

The scope of this report is **service design as a means to advance business models**. This relates to the transformative power of service design which is understood as the process through which services disrupt traditional channels to market, business processes and models, to significantly enhance customer experience in a way that impacts upon the value chain as a whole. In this way, service design is shaping emerging sectors, industries and markets and contributes to structural change and industrial modernisation.

Service design is sometimes easiest to grasp when **contrasted with product design**. Product designers create tangible things such as bikes, cars, coffee machines, MP3 players, and laptops. Service designers create intangible experiences, such as the series of interactions that you have as you book a flight, pay a bill, get a driver’s license, or visit a doctor. Service designers also design the behind-the-scenes activities that enable those experiences to be delivered as planned.<sup>1</sup>

### 2.2. A short history

In the early 1990s, service design has been established as an academic discipline. In 1991, service design was first introduced as a design discipline by Prof. Dr. Michael Erlhoff from Köln International School of Design (KISD). In 2000, Engine Service Design, the first service design consultancy, opened for business in London.<sup>2</sup> Since then the promotion and use of service design has taken off in academia as well as in the private and the public sector.

Today, we understand service design to be a creative process used by designers, often working within innovative areas of a business. However this is a fairly recent development as the practice began life in the management literature of the late 1970’s early 1980’s, with examples of common service design tools such as blueprinting being used in the services industry (see figure 1 on page 4).<sup>3</sup>

It is only during the past decade that designers have taken these tools as their own, combined them with user-centric design methods, and developed a new area and market for service design. This mix of disciplines proved to be powerful for businesses and organisations that operate across multiple platforms and deliver services across a large number of touch points.

However developments over the past decade have pushed ideas of service to the forefront of a number of fields – in contemporary businesses, public service and third sector organisations, and among professional service firms in technology and design.

This new interest in service design may also be explained by the number of new technologies emerging during this period, resulting in products that perform multiple functions, integrate electronics, and connect to wireless networks. This convergence between technology and product application meant that several product and interaction design agencies found they were talking to their clients more about the service they were offering rather than the individual touch point they were designing.



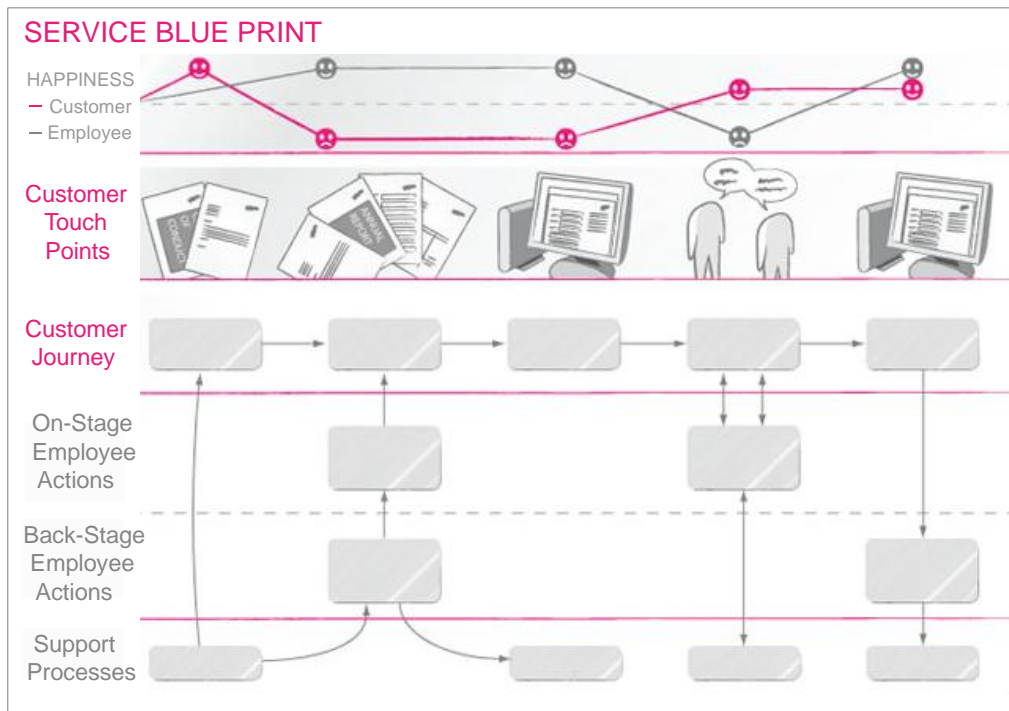
### 2.3. Service design methodology

Although service design methodology is not uniform and needs to be tailored to the specific service and sector, the following steps can be distinguished in the design process. The process starts with a search for customer insights, for instance through customer mapping or customer journey mapping. In the second step service designers draft new service concepts together with experts and/or clients. In the following steps designers develop service prototypes and

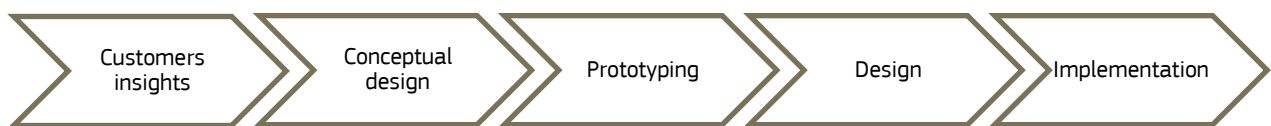
start drafting service blueprints and matching business models which will be affected by the service design. The final step is the implementation of the design.

Within this scheme there are more than 250 tools and practices to be used by practitioners.<sup>4</sup> The use of these tools depends upon the industry and the type of service. Also, in the past few years there are quite some consultancy firms that specialise in service design for organisations in the public and the private sector.

**Figure 1: Service blue print template for assessing and designing new services<sup>5</sup>**



**Figure 2: Steps in the service design methodology**



## 3. Socio-economic relevance

### 3.1. The services sector has been a key engine of economic growth and jobs

We live in a service economy. The last thirty years have completely changed the face of the global, product-oriented

economy. The shift towards the provision of services is undeniable. The service sector comprises 60-75% of GDP in most EU member countries<sup>6</sup> and almost all business start-ups being founded and all jobs created are in the tertiary sector.<sup>7</sup>

At the aggregate as well as at the sectorial level, growth in output (i.e. gross value added) is the sum of two



components: growth in employment and growth in output per employee (also referred to here as labour productivity, although this is a slight simplification since output per employee is also affected by the average number of hours worked by each employee).

Starting with the aggregate picture, the services sector dominates the EU economy in both level and growth terms.

*“80% of companies believe they deliver a superior customer experience, but only 8% of their clients agree” –*  
**Bain & co**

The services sector accounts for around two-thirds of total value added and for four-fifths of real value added growth in the decade to 2005. The services sector also accounts for as much as three-

quarters of cross-country differences in economic growth across individual EU countries. With a few exceptions, such as Sweden, Finland and Ireland, high-growth countries have mostly expanded on account of their services sectors, not manufacturing<sup>8</sup>.

In terms of employment growth, the dominance of services is even more striking. With few exceptions, manufacturing employment has contracted. It should be noted here that the EU as a whole experienced relatively favourable conditions for employment growth during this period, Germany being an exception caused in part by the contraction in construction. Spain, Luxembourg and Ireland saw particularly strong employment growth in the services sector, augmented in the case of Ireland and Spain by rising employment in the construction sector.<sup>9</sup>

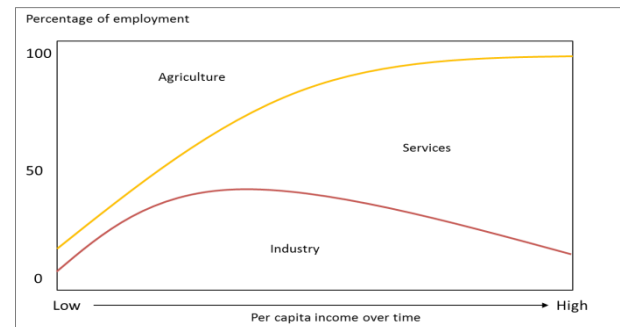
What is more, services play an increasingly important role in manufacturing companies. Technological developments have blurred the boundaries between product and service. Nowadays services are satisfying our needs, not long ago met by products, as a contemporary consumer expects a continuous relationship with the product and brand, even beyond the point of sale. Services have become a differentiator of good products and now serve as our guide through the material world.

### 3.2. The market potential for service design

‘Better service design provides the key to market success, and more importantly, to growth’.<sup>10</sup> Service design is not just another management trend. Most companies assume they are consistently giving customers what they want. Usually, they are kidding themselves. A 2005 Bain & Company survey amongst 362 firms indicated that 80% of firms believed they delivered a “superior experience” to their customers. But when customers were asked about their own perceptions, a very different story emerged. They said that only 8% of companies were really delivering.<sup>11</sup> It addresses a real problem of underperforming by the biggest sector of the economy in the European Union. This simple but essential statistic paints quite a picture in terms of market potential

for the use of service design. This ‘delivery gap’ can be filled with the benefit of the customer, the service provider and the economy as a whole, taking into account the size of the service sector.

**Figure 3: The development of the service sector relative to agriculture and industry**



However, although the value of the service sector continues to grow and customers’ expectations of value for money from services keep rising, good services are still the exception rather than the rule. It is clear that further economic progress and increased quality of life will be determined by the quality of service.

To give more insight into the market potential of service design it is also interesting to take a further look at the key service industries in terms of employment and turnover. Based on a research for the EPISIS project the following service sectors are sorted on their relative importance in terms of employment and turnover<sup>12</sup>:

1. Transport and storage
2. Real estate, renting and business activities
3. Information and communication-related services
4. Financial intermediation
5. Professional, scientific and technical services
6. Knowledge-based services
7. Hotels, restaurants, travel and tourism
8. Administrative and support services.

The authors of the report point out that the outcome of their research is rather surprisingly when compared to the list of most innovative service sectors. The first three sectors are not mentioned in this list, indicating that there may still be a large potential for renewing services in these industries.

### 3.3. The relevance of service design within the European Union for public and private sectors

International studies suggest that organisations which value the service design process often carry out innovations that allow them to be more successful in competition; moreover companies who combine their strategy with service design, experience greater demand for their services<sup>13</sup>. This relevance of service design has been recognised by the



European Commission as part of the policy 'Innovation Union'. It has broadened the definition of innovation beyond traditional R&D and technology to include service innovation, social innovation and user-centred innovation:

The European Commission has recognised service design is a key driver of service innovation, social innovation and user-

*Europe must also develop its own distinctive approach to innovation which builds on its strengths and capitalises on its values by pursuing a broad concept of innovation, both research-driven innovation and innovation in business models, design, branding and services that add value for users and where Europe has unique talents<sup>14</sup>*

centred innovation. As this message cascades to national, regional and local levels there will need to be expertise in place for service designers to engage with the public sector and small companies to help them develop new, more user-orientated services.

Countries such as Australia, New Zealand, South Korea and Singapore are all adopting design-

led innovation to solve public, private sector and societal challenges. The EU is not lagging behind. A number of European countries have a strong track-record in advancing service design for public sector renewal but now there is a need to increase the use of these practices among those for whom these methods are new. In other words, there is a need to scale up the trend. The main drivers and obstacles for scalability are described in the sections below.

Service design and design thinking can also be applied in the public sector at a number of different levels. Cuts in public services have forced service providers having to think differently about how services are delivered. New ideas and models for delivery are required to address this

issue and service design can provide a clear path to innovative solutions.

In the Design for Public Good report, for example, the Sharing Experience Europe ('SEE') partners propose the Public Sector Design Ladder<sup>15</sup> as a diagnostic tool for public sector bodies to work out their level of design use and define a roadmap for progress<sup>16</sup>.

The socio-economic relevance of service design for advancing business models in the public as well as the private sector with regard to service delivery **lies at the heart of national economies and economic policy**. It is therefore imperative to unravel the success factors, drivers and obstacles behind this trend. In order to better understand and assess the market and the socio economic relevance as well as the applications of the service design concept, four different companies in different sectors were selected that have demonstrated commercial success through using service design in order to advance (part of) their business models (Table 1).

These firms offer a newly designed service to their customers. The new design affected their core business and changed their business model to stay ahead of competition and become more competitive. By showcasing their services we will demonstrate how this novel business innovation can lead to successful business development and growth. Some of the companies featured in this case study do not yet generate sky high revenues, but their number of staff has increased as their business grew. Remarkably enough, in all the cases the companies have teamed up with specialist service design companies that guided them through the design of new services.

**Table 1: Company case studies**

Company	Location	Business innovation	Success signals
Point (Verifone)	Sweden	A payment-as-a-service solution with flexible combinations of hardware and software tailored to fit the payment experience needed to support business.	Fjord and Point have demonstrated how design can improve the payment experience for users, letting consumers focus on filling their shopping bags.
Aerpuertos de Portugal (ANA)	Portugal	Design of a passenger Services Strategy, with a suite of value-add services that is helping ANA develop a meaningful and profitable relationship with passengers and build the ANA brand	The annual Airport Service Quality Award (ASQ) for Best Improvement in Europe went to Faro Airport <sup>17</sup>
Dispop	United States	Designing new type of services allowing to run own ad campaign through the ad design website	Dispop launched the new platform in September and has reported that in October already the company has run campaigns for more than 150 customers, with 20 or 30 new sign-ups every day.





Expressen	Sweden	Expressen, a Swedish national tabloid newspaper, did a redesign of their mobile experience in order to truly reflect Expressen's brand proposition, "story telling that moves you", to the reader, and delivered a world-class news service to their mobile readers.	The new mobile experience launched in October 2013 and the feedback was overwhelmingly positive. The number of unique visits has risen from 900,000 to almost 1.5 million.
General Motors	United States	General Motors is an American multinational corporation headquartered in Detroit, Michigan that designs, manufactures, markets and distributes vehicles and vehicle parts and sells financial services. In the 1990s they developed subscription-based communications, in-vehicle security, hands free calling, turn-by-turn navigation, and remote diagnostics services.	The On Star services are provided via the On Star subsidiary, which has been steadily developing new services.

### 3.4. The benefits of service design for advancing business models

The benefits of the service design application stem from its primary characteristic which is truly reflecting the users' perspective by involving them in the development process. This approach gives multifaceted benefits at each stage of service life-cycle (see Table 2). The following table provides a concise overview of the benefits of a service design approach.

Bringing together the multi-disciplinary expertise of designers, researchers, developers and users, as the 'experts of their experience', can create competitive, desirable, flawlessly running services, that directly translate to the increased customer satisfaction and the organisations being more efficient and effective. That is why service design is an accessible way for small companies to compete on service and for public authorities to develop services that better correspond to citizens' needs. Service design enables both the user and the provider to have greater ownership of the service.

**Table 2: Benefits of a service design approach**

Benefits for the service design project	Benefits for the service's customers or users	Benefits for the organisations involved
<b>Improving idea generation:</b>		
<ul style="list-style-type: none"> <li>Better ideas, e.g. from customers or users, with high originality and user value</li> <li>Better knowledge about customers' or users' needs, e.g. changing existing views or validating ideas or concepts</li> <li>Better idea generation e.g. by bringing together customers, users and employees</li> </ul>		<ul style="list-style-type: none"> <li>Improved creativity</li> <li>Improved focus on customers or users and e.g. better dissemination of findings about customers' or users' needs</li> <li>Better cooperation between different people or organisations and across disciplines</li> </ul>
<b>Improving the service:</b>		
<ul style="list-style-type: none"> <li>Higher quality of service definition</li> <li>More successful innovations, e.g. reduced product failure risk</li> </ul>	<ul style="list-style-type: none"> <li>Better fit between service and customers' or users' needs and better service experience</li> <li>Higher quality of service</li> <li>More differentiated service</li> </ul>	
<b>Improving risk management:</b>		
<ul style="list-style-type: none"> <li>Better decision making, e.g. quality and speed</li> <li>Lower development cost</li> <li>Reduced development time or time-to-market</li> <li>Continuous improvement</li> </ul>		



### Improving longer-term effects:

- Higher satisfaction of customers or users
- Higher loyalty of customers or users
- Educating users
- More successful innovations, e.g. rapid diffusion
- Improved innovation practices, processes and capabilities
- More support and enthusiasm for innovation and change
- Better relations between service provider and customers
- Better public relations

Source: Adapted from Steen et al. (2011)<sup>18</sup>

The case studies of service design projects with Expressen (Sweden), Dispop (USA), Point (Sweden) and ANA (Portugal) demonstrate the scope of activities to which service design processes can be applied. Each case study demonstrates how a deeper understanding of user needs has resulted in a transformation in service delivery and their business models.

**Problem 1 - A payment-as-a-service solution with flexible combinations of hardware and software tailored to fit the payment experience needed to support business.** - Payment is an obvious, crucial component of a transaction, but it can be the least enjoyable part of the shopping experience. And this isn't just an effect of buyer's remorse or impulse buying. The electronic payment space is being transformed by technological advancements and new disruptive competitors working to make mobile payments more alluring. But the key to reaching consumers is creating an engaging experience that is more user friendly and has a more appealing look and feel.

Point, a VeriFone Company and a leading European provider of electronic payment solutions, understood this challenge and wanted to redefine its offering. The company partnered with Fjord to improve the payment experience and make it accessible to users with a diverse group of needs.

*Innovative solution 1* – Fjord designed clear visuals that guided the user through the transaction process, making it easier for the service to perform correctly. The service also has the ability to use a touchscreen or manual buttons depending on the device. Also, it doesn't matter if customers choose to pay with a card or with their own phone; they'll have a consistent and simplified user experience with the device.

By taking a service-design-led approach, the reimagined Point offering now provides end-users with a streamlined, merchant-branded payment experience, ensuring a responsive payment process. Together Fjord and Point focused on improving user experience and in the process elevated Point's offering in a competitive marketplace. The first step was to map out a full contextual analysis of user activity. They did this by mirroring all the possible conditions and the range of environments that payments could take place. This helped Fjord to identify the current payment

irritations so that the new solution could eradicate them. Some main issues the Fjord team discovered seemed like small frustrations, but added up to rough user experiences: hard to read displays, sticky tape over the card sweeper, and users having difficulty correcting a mistyped amount. To remedy these complaints, Fjord designed clear visuals that guided the user through the transaction process, making it easier for the service to perform correctly. The service also has the ability to use a touchscreen or manual buttons depending on the device. Also, it doesn't matter if the customer chooses to pay with a card or with their phone, they'll have a consistent and simplified user experience with the device.

Fjord and Point have demonstrated how design can improve the payment experience for millions of users, letting consumers focus on filling their shopping bags.

*Point is a Swedish based VeriFone Company and a leading European provider of electronic payment-as-a-service solution for simplifying payments*



**Problem 2 - Design of a passenger Services Strategy for eight major airports** - ANA (Aeroportos de Portugal) is the state-owned company which operates Portugal's eight major airports. ANA had become specialists in operations and infrastructure to meet the needs of the airlines, their primary customers. With rapidly changing economic conditions, increased competition, rising fuel prices and the millions of passengers using their airports, ANA realised they needed to alter their perspective. To be truly world class they had to increase their offer for passengers and visitors and provide distinct and memorable customer services and initiate a shift in focus from infrastructure to service provider.

*Innovative solution 2* – ANA asked Engine Service Design, a UK based service design consultancy, to help build a service brand and a strategy for implementation across their airports. Engine Service Design created a new role for the airport to play in passengers' experiences and outlined a sustainable customer service strategy. The new vision was



realised in a series of workstreams that developed services and propositions to meet a range of customer needs, from business travellers to families, groups and connecting passengers.

As of 2012, ANA have rolled out a number of the concepts and services that were developed with Engine Service Design.

**Family services:**

- Baby changing facilities
- Family 'living room' spaces
- Strollers provided after luggage check
- ANA mascot & children's entertainer
- A children's play area with seating and food preparation areas.

**Airport facilities and technology:**

- ANA 'PODs' – lounge spaces to meet a range of customer needs
- ANA mobile & iPad app - to monitor flight status and more.
- During this first wave of roll out in 2012, across the group:
- Customer satisfaction has risen by 14%
- Passenger numbers have increased by 6% (notably, by 13% in Porto where main changes have been focused)
- ACI Certification of Service Quality has improved for 4 airports, with their certification being set at "Good".

*ANA (Aerpuertos de Portugal) is the state-owned company that operates Portugal's eight major airports and employs around 1300 people.*



**Problem 3 - Defining a tabloid news experience -**

Expressen is a nationwide evening tabloid newspaper in Sweden. Its symbol (a wasp) and brand DNA on which it thrives, was not adequately reflected through their mobile news experience.

*Innovative solution 3* – Expressen teamed up with a service design company to conduct an extensive redesign of their mobile experience in order to truly reflect Expressen's brand proposition, "story telling that moves you", to the reader, and deliver a world-class news service to their mobile readers.

To do so, they extensively modernised the look, feel and interactivity of the service whilst retaining a genuine tabloid feel, including innovative features such as 'latest news' (which contains everything since a user last visited) and 'my news', a timeline that connects related content, such as a story that evolves over time – aiming to bring readers back several times a day for their news fix.

Expressen readers get the latest news stories and videos within a world-class news service which feels like a tabloid news experience. There are also innovative features such as latest news' which contains everything since you last visited and 'my news', a timeline that connects related content, such as a story that evolves over time – aiming to bring readers back several times a day for their news fix.

The interaction between the print and the digital worlds was a key success factor in bringing the tabloid news experience to life.

The new mobile experience launched in October 2013 and the feedback was overwhelmingly positive. The number of unique visits has risen from 900,000 to almost 1.5 million.

*Expressen is a nationwide evening tabloid newspaper in Sweden. Expressen was founded in 1944; its symbol is a wasp and slogans "it stings" or "Expressen to your rescue", always on the reader's side.*





**Problem 4 - Designing new type of services allowing to run own ad campaign through the ad design website** - Dispop, the startup that allows businesses to crowdsource the design of their ads, has relaunched its platform with a big addition – the ability to actually run ad campaigns.

*Innovative solution 4* – Dispop is a platform for targeting new customers and targeting lost customers on the web and Facebook, through banner ads. Its web platform allows clients to launch banner campaigns in a few steps

Dispop allows advertisers to submit a brief that goes out to a network of designers. Pricing starts at EUR150 for 15 designs from which the advertiser can choose 5 to A/B test. The top-level package gives the advertiser over 100 designs from which they can test an unlimited number of ads. In a contest format, the designers of the top three performing banners earn a percentage based on the package the advertiser chose. The designers' contest winnings are included in the cost of the package price. A dashboard allows advertisers to see and select design submissions and monitor campaign testing results.

With the new Dispop service, advertisers will still be able to crowdsource their designs, but they can also run their ad campaigns from the same platform, setting a budget, targeting a specific audience, and tracking their results.

Dispop launched the new platform in September and has reported that in October already the company has run campaigns for more than 150 customers, with 20 or 30 new sign-ups every day.

*Dispop is a self-serve online design platform, to streamline the process of ad design, delivery and optimization*



**Problem 5 - Designing subscription-based diagnostics and communication services on manufactured cars** – General Motors is a vehicle manufacturer that teamed up with telecom and data system providers to design and develop a way to provide customers with advanced diagnostics and communication services with their vehicles.

*Innovative solution 5* – Beginning in 1995, the development OnStar was a cooperative effort between GM, Electronic Data Systems and the Hughes Electronics Corporation, combining vehicle design, systems development, communications and satellite technology and automotive electronics. It resulted in a technological platform that allows for the delivery of new service that turned out to become widely popular to a vast number of car owners. Subscription based services now include vehicle diagnostics, directions, automatic collision notification to response centres, and anti-crime services such as stolen vehicle tracking and stolen vehicle slow down.

*OnStar Corporation is a subsidiary of General Motors that provides subscription-based communications, in-vehicle security, hands free calling, turn-by-turn navigation throughout the United States, Canada and China*



## 4. Drivers and obstacles related to the use of service design

There are a number of drivers encouraging and obstacles hampering the use of service design for European companies. These drivers and obstacles impact both the companies developing service design solutions and the use of these solutions by users in a range of different target sectors. Further detail on such drivers, as well as obstacles, are provided in this section.

### 4.1. Drivers for using service design

The biggest driver of the demand for service design is derived from the **growth of the service economy**.

Mirroring the macroeconomic shift towards services, global rankings of leading firms, such as the Fortune 500, contain more service companies than in previous decades. In some cases, manufacturing or product-oriented firms have transformed themselves into predominantly service-providing companies. One prominent example is the acquisition of Point by VeriFone, which now considers itself primarily a payment-as-a-service company. The production of physical goods has become secondary to firms that instead focus on the provision of “business solutions”.



This transformation of manufacturing firms into service providers is part of a shift in the comparative advantage of advanced economies. As China and other lower cost producers move up the value added ladder in manufacturing, straight goods production has fallen under intense cost pressure. Many manufactured goods, for instance consumer electronics, have become commoditised. High income countries have lost competitiveness in such manufacturing. They have been able to stay competitive in part by shifting towards business solutions rather than the sale of products, as the price elasticity of demand for business solutions is lower than for hardware.

This shift has been accompanied by a shift towards subscription pricing. Rather than receiving a single payment for a piece of manufactured equipment, many manufacturers are now receiving a revenue stream for ongoing contracts, which include a non-negligible service component. The management literature refers to this as the “servitisation of products”.

**Technological change** is another big driver for organisations to adopt and use service design in order to advance their business models. Technology developments including cloud computing, digital convergence, and the continued broadening of access to broadband and mobile networks are leading to changes for all organisations by enabling more frequent connections between customers and organisations, and between customers and others. The types and amount of data, including data from the “internet of things”, creates opportunities to relate to end users and customers in new ways. The Expressen case illustrates that the increased use of high speed mobile internet changes the way news is produced and consumed. Readers no longer have to wait for the evening paper, but want to be updated on the latest news every minute of the day through their mobile app; otherwise they will switch to other news sites.

A third driver for the use of service design by companies is the development that **boundaries of organisations are redefined as they open up to design and co-production**.

*Service design is becoming more prevalent within organisations and the public sector, especially in the UK. It has moved beyond 'ad hoc', to becoming more sort after as businesses seek to engage more imaginative and customer centred approaches to help them define, design, develop and deliver differentiation” – The Engine Group*

Engaging with users, customers, stakeholders, regulators, citizens and many others reinforces how many actors play roles in co-creating value in service. Powerful customers drive what firms offer. Organisations are opening up to end users, customers and others, and vice versa as both become co-creators of value in service contexts. This trend requires organisational change including the development of new competencies. This is producing opportunities for firms who are delivering technology to B2B clients who are ahead in understanding the transition from

customer-centred product organisations to delivering services that are co-created. An excellent example of a company that is profiting from this driver is Dispop.

## 4.2. Obstacles to using service design

The use of service design can be much greater if new **service development and delivery is formalised in organisations**. Few firms use, and develop, methods to elicit ideas for new services, and select among them subsequently<sup>19</sup>. The nature of services is, given their characteristics, such that it is difficult to define moments that offer a ‘natural’ occasion for review. Service design is often an ad-hoc process that is not embedded in the organisational structure. Even when service design is more formalized, the final stage of testing a new service is often done by simply bringing it to the market.

*“Working in close collaboration with the team at Point, we were able to take the latest payment technologies and transform them into a service that empowers merchants and users to have a trusted relationship, making the payment experience as enjoyable and simple as possible” – Fjord*

The company cases and academic literature show that firms providing services fare better when they (a) are innovative, and (b) organize their innovation process and prevent it from being ad hoc process. An external party with knowledge on formalization of service design can be very valuable, as illustrated by these cases.

Another important obstacle is formed by the fact that it is **hard to value and finance intangible service assets**. Most services invest little in traditional R&D, while they generally spend on training, technology and intangible assets, like design, organisational change and marketing. These kinds of expenditures are generally not very well reflected in business statements and therefore limit the capacity of service companies to access to private finance or government support.

Also, a possible show-stopper is a **perceived lack of intellectual property protection of service designs**. Services are generally perceived as difficult to protect, in particular for non-technology-intensive services and for their intangible assets.

Moreover, service design is an interdisciplinary approach to the development of new services. It combines business strategy from a design perspective. This combination of skills is often not found in one employee and therefore needs to be developed in organisations through the formation of teams possessing these skills. Also, universities are already offering Bachelor and Master programs incorporating the different expertise and skills for mastering service design<sup>20</sup>. The first service design education was introduced in 1991 at





Köln International School of Design. Several other schools are now proposing service design as the main subject of master studies or as part of the academic curriculum in interaction design or industrial design<sup>21</sup>.

### 4.3. Scaling up the trend: drivers at the client side for further uptake

**Globalisation of services** is one of the biggest drivers for further uptake of service design. This driver is related to the growth of service economies. This growth enables service providers to profit from economies of scale opening up toward international trade, thus bringing to emergence of global-scale service companies. Global international trade treaties like GATS (General Agreement on Trade in Services) highlight that service activities will soon become the most interesting part of the world trade.

Moreover, an important driver for supply and demand side uptake pertains to the **availability of ICT-infrastructure and equipment on the client side** and the right mind-set for using the equipment, necessary for implementing and using the solutions. Also the availability of high speed broad band internet is crucial for client side uptake of service design.

Another driver for the uptake of service design is **a clear business case offering cost reductions of operational cost** of organisations adopting the new service design. According to Engine Service Design consulting, the service design firm behind the new design for ANA, potential clients need to be educated on the savings and other potential benefits they can realize through service design. They often provide their clients with a calculation of the benefits that could be realized by a newly designed service delivered. The cost saved by the company can then be put to use in hiring for example an additional worker for further expansion of the company.

A fourth identified driver consists into **inter-organisational networks promoting the use and dissemination of service design practices**. There are quite some academic literature and service design practices that need further

dissemination. An example of such a network is The Service Design Network (SDN), which was founded in 2004. SDN is an international group of universities, research centres and design studios working in the service design domain with the purpose to develop and strengthen the knowledge and expertise in the science and practice of innovation and improvement of services.

A fifth driver for further uptake of is the possibility of co-design with customers. Service design practice is inherently centered on customers and users. In order for users of service design to fully understand customers' needs and expectations, the users and end-customers have to be involved in the design of the service. A particularly relevant example is Dispop, which features the possibility for advertisers to have their banner designed by a community of web designers.

### 4.4. Scaling up the trend: barriers at the client side for further uptake

The most important barrier for market uptake of better service delivery are **fragmented European service markets** which are hampered by barriers to cross-border trade, regulations, cultural aspects and language differences. This leads to the need to tailor service designs to specific countries, thereby decreasing the possibility to apply service design in a more uniform way across member states<sup>22</sup>.

Secondly, the **lack of support for trade and internationalization** might hinder the further uptake: it is agreed that the opening up of international markets stimulates competitiveness and innovation in the service domain. GATS has provided a framework that governments can use to foster and liberalise trade in services.

Thirdly, a **lack of financing for high-growth innovative service businesses** creates obstacles to the internationalization of service businesses, including a lack of skills, linkages, networks and access to local expertise. A not yet optimized service innovation mindset among policymakers and the business and financing community hinders the capacity to take full advantage of the service innovation potential.



## 5. Policy recommendations for further use and uptake

To date, the service sector in Europe has not had the policy attention that has been given to other, more traditional sectors<sup>23</sup>. There is often still a very intense fixation on production, i.e. the producing sectors are the focus of the economy, politics, public attention, research and training. The opportunities offered by the service sector to tap into new areas of business and to create new jobs - in particular through the export of sophisticated services - have, in contrast, not been exploited often enough. However, in recent years many European countries have started to change their thinking in this respect and have taken up the challenge to play an active role in organizing the change towards a society orientated to services. During this process, it has become increasingly clear that services play a crucial role in furthering the development of Europe as a place to live and do business. The economic potential is vastly far from being fully exploited.

On the basis of the analysis performed above, policy recommendations for developing a business environment conducive to the uptake of service design are presented below.

**Build a strong design sector** that can offer strategic and service design to the public and private sector. This can be facilitated by sharing of learning and best practice – such as case studies or evaluation reports, online or through physical networks and events. Also on the European or national level governments might ensure design-led innovation projects are eligible for European or national funding streams focused on innovation and sectoral renewal. Moreover on a national level member states and cities should assess the strengths and weaknesses of their design sector and set targets for improvement.

The use of service design within companies depends amongst other upon the **available skill set** of its employees. Service design is highly multidisciplinary and requires creative as well as business skills. Policy makers should stimulate schools and higher education institutions to offer courses or even bachelors, masters and MBA's focusing on service design as a specialization.

Underperforming service industries with limited links to the research and innovation system create an obstacle for the renewal of service industries. Therefore there is a need to **build an innovation system around service industry, academia, research institutions and governments.**

The public sector plays an important role as largest service provider in all EU member states. Therefore one of the ways policy-makers can encourage the wider adoption of service design is for them to encourage public sector institutions to **lead by example**. Public sector institutions are generally perceived to face more difficulties in service delivery compared to private sector organisations. Therefore, successful change in such an environment can send an important message to the wider corporate world that it is possible to successfully use service design.

Service design takes place across many different industries, which means that there is no one common formula for successful service innovation policy development. A policy approach should take that into account and focus on a more **sector neutral approach** of policy instruments.

Typically the companies offering service design tools and solutions are small to medium sized. Supporting **entrepreneurship** leading to the creation of start-ups and SMEs that offer service design tools and solutions is desirable and conducive to the business environment of this trend. This could be achieved through the promotion of grants, guarantees on bank loans, the provision of seed capital or tax-credits for organisations involved in research and development.

Service designs are based on either technology or more business-like innovations based on for example research in the social sciences. **The softer, non-technological side of these innovations** should not be overlooked by policy makers and taken into account when providing grants or other forms of government support.



## 6. Appendix

### 6.1. Websites

Expressen	<a href="http://www.expressen.se">www.expressen.se</a>
Dispop	<a href="http://www.dispop.com">www.dispop.com</a>
Aeroportos de Portugal	<a href="http://www.ana.pt">www.ana.pt</a>
Engine Service Design (consultants)	<a href="http://www.enginegroup.co.uk">www.enginegroup.co.uk</a>
Point	<a href="http://www.point.se">www.point.se</a>

### 6.2. References

- <sup>1</sup> [http://blogs.forrester.com/kerry\\_bodine/13-10-01-service\\_design\\_the\\_most\\_important\\_design\\_discipline\\_youve\\_never\\_heard\\_of](http://blogs.forrester.com/kerry_bodine/13-10-01-service_design_the_most_important_design_discipline_youve_never_heard_of)
- <sup>2</sup> See [www.enginegroup.co.uk](http://www.enginegroup.co.uk) for more background information
- <sup>3</sup> Hygge 2010, on [http://www.marketingfacts.nl/berichten/20120203\\_het\\_belang\\_van\\_goede\\_n\\_gebruikerservaring\\_voor\\_marketing](http://www.marketingfacts.nl/berichten/20120203_het_belang_van_goede_n_gebruikerservaring_voor_marketing)
- <sup>4</sup> <http://www.service-design-network.org/service-design-250-essential-methods/>
- <sup>5</sup> Hygge 2010, on [http://www.marketingfacts.nl/berichten/20120203\\_het\\_belang\\_van\\_goede\\_n\\_gebruikerservaring\\_voor\\_marketing](http://www.marketingfacts.nl/berichten/20120203_het_belang_van_goede_n_gebruikerservaring_voor_marketing)
- <sup>6</sup> Eurostat (2012) „National Accounts - GDP - Statistics Explained”, [http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php?title=File:Gross\\_value\\_added\\_at\\_basic\\_prices\\_2001\\_and\\_2011\\_\(%25\\_share\\_of\\_total\\_gross\\_value\\_added\).png&filetimestamp=20121204110809](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Gross_value_added_at_basic_prices_2001_and_2011_(%25_share_of_total_gross_value_added).png&filetimestamp=20121204110809)
- <sup>7</sup> Mager B. (2008) „Service Design” in Erlhoff M., Marshall T. (eds.) (2008) „Design Ditionary - Perspectives on Design Terminology”, Birkhauser, Basel.
- <sup>8</sup> Uppenberg H. , Strauss K. (2010), Innovation and productivity growth in the EU services sector, EIB papers, available at: [http://www.eib.org/attachments/efs/efs\\_innovation\\_and\\_productivity\\_en.pdf](http://www.eib.org/attachments/efs/efs_innovation_and_productivity_en.pdf)
- <sup>9</sup> See note above
- <sup>10</sup> Shostack, G.L. (1984), “Designing Services that Deliver”, Harvard Business Review, Vol. 62, No. 1, January-February, p. 134
- <sup>11</sup> Allen et al. (2005), “Closing the delivery gap”, Bain & Company
- <sup>12</sup> EPISIS (2012), “Policy recommendations to support service innovation”, PRO INNO paper N° 20
- <sup>13</sup> <http://www.sdoor15.com/en/the-importance-of-service-design>
- <sup>14</sup> EC, COM(2010) 546
- <sup>15</sup> SEE Platform (2013) ‘Design for Public Good’, Design Council, Design Wales / PDR, Danish Design Centre and Aalto University: <http://www.seeplatform.eu/docs/Design%20For%20Public%20Good%20May%202013.pdf>
- <sup>16</sup> SEE, led by Design Wales at Cardiff Metropolitan University, is a network of eleven European partners sharing knowledge and experience on how design can be integrated into regional and national policies to boost innovation, entrepreneurship, sustainability and social and economic development. SEE is co-financed by the European Regional Development Fund (ERDF) through the INTERREG IVC programme.  
Design for Public Good is a collaboration between four members of the SEE Platform: Design Council (UK), Danish Design Centre, Design Wales and Aalto University, Finland.
- <sup>17</sup> <http://www.aci.aero/Airport-Service-Quality/ASQ-Awards/2012-Winners/Best-Improvement/Europe>
- <sup>18</sup> Steen M., Manschot M., De Koning N. (2011), “Benefits of Co-design in Service Design Projects”, International Journal of Design, Vol. 5, No. 2, p. 58





- <sup>19</sup> Dolfsma, W.A. (2004). The Process of New Service Development: issues of formalization and appropriability (No. ERS-2004-051-ORG). Retrieved from <http://hdl.handle.net/1765/1445>
- <sup>20</sup> Examples of Master programmes are: MA in Service Design, Royal College of Art, London, United Kingdom (<http://www.rca.ac.uk/schools/school-of-design/service-design>); MSc in Product Service System Design, Politecnico di Milano, Milan, Italy (<http://www.design.polimi.it/pssd/>); MA in Industrial and Service Design, Oslo School of Architecture and Design, Oslo, Norway (<http://aho.no/en/Studies/Studies-at-AHO/Master-of-industrial-design/>)
- <sup>21</sup> For an up to date list of higher education institutions offering Bachelor and Master programmes related to the field of service design: [http://en.wikipedia.org/wiki/Service\\_design](http://en.wikipedia.org/wiki/Service_design)
- <sup>22</sup> See note 9
- <sup>23</sup> Ganz W. (2005), "Research in the Service Sector", Fraunhofer Institut für Arbeitswirtschaft und Organisation Stuttgart