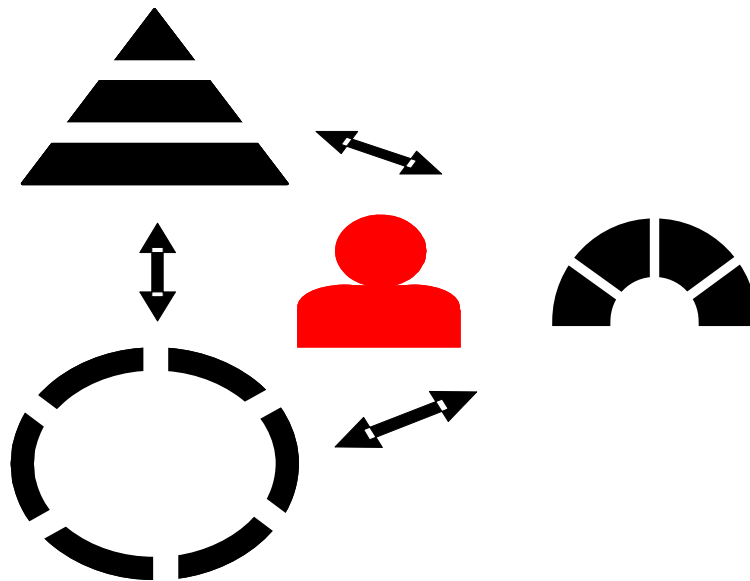


An IASS Sub project

# Customer touch-points

*Understanding and improving customer interaction with product based service offerings by using design methods in service development.*



*Industrializing After Sales Services, IASS, is a research and development project equally financed by participating companies and VINNOVA, performed by the Marketing Technology Centre, MTC, Linköping University School of Management, and the Swedish Industrial Design Foundation, SVID.*

***Participating companies are AGA/Linde Gas, BT Industries, TeliaSonera, ITT/Flygt, Metso, Electrolux laundry Systems, Volvo Bus Corporations and Saab Aerospacesystems.***

*The aim of the project is to identify how to increase companies' ability to develop and produce after sales services in an industrialized way.*

***“We know as much about service today as  
the iron man knew about iron in the iron age”***

Evert Gummesson. Professor Stockholm University

*This report summarizes the work within one of four IASS sub projects, aimed at testing and presenting new tools for developing services, starting with the customer perspective.*

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## 1. Service Development

- *Product based companies increasingly offer services and solutions.*
- *Suppliers of product related services need to develop new ways to systematically understand their customers' processes and how they create value.*
- *It is important to learn how customers perceive the increased interaction with the supplier via all the different representations of the service i.e. the contact points.*
- *Investments in Research and Development to improve services and service operations is still limited..*

Many production based companies invest more in development of new service offerings and increase efforts to improve existing services. Why one may ask? More sophisticated customer demands, **tougher competition, lower margins and more extensive use of information and communication technology are all reasons why the “business as usual” of improving product features or production effectiveness are not enough to keep customers loyal and maintain sales and revenues.** The potential growth in sales is another reason to extend the market offer beyond products.

In some industries traditional product sales have been bundled with services or even transformed into solutions where company products are not sold but rented in combination with specific services and operating guarantees, so-called Functional Sales. In most industries this development has been rather slow. This is particularly true for **companies that have built their historic success by focusing on their own production processes and traditional forms of product sales.**

This illustrates the fact that there are several challenges to be mastered in order to succeed in making both the service production system more effective and to develop new services that are profitable and relevant to the customers' business. These challenges are strongly related to the interaction with - and the understanding of – the customers' business processes and how the market is segmented. Skills and tools of front-line employees have become much more important. So has the demand for clarity and effectiveness of the communication that make customers aware of services offered, their value in the customer process and how the different services are best utilized.

When expanding a product based offer to include also supporting services it is important to pay extra attention to **how customers perceive the increased interaction** that comes with the services. When offering a service, in particular a service related to machinery or equipment used in central processes, the supplier have to enter a closer relationship with the customer. This relationship needs to build on relevance, trust and respect to become effective.

In a recent report<sup>1</sup>, based on interviews with some 40 Swedish CEOs, the trend that companies want to offer more services and solutions is clear. The CEOs further state that this trend makes it increasingly important that customers perceive the products and services, as well as the solutions they create, to share the characteristics of the brand they carry or represent. This actually applies to all the different “touch-points” that customers regard as representations of the solutions or services offered and the company behind them.

**Many product based suppliers need to develop new ways to systematically understand their customers** in order to develop a useful segmentation that allows for effective communication about and delivery of service offerings.

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<sup>1</sup> *Upplevelsers roll för näringslivet* by IVA, Vinnova and Svid 2005  
[http://www.iva.se/upload/Verksamhet/Projekt/Upplevelsers/Upplevelsers\\_roll\\_för\\_näringslivet.pdf](http://www.iva.se/upload/Verksamhet/Projekt/Upplevelsers/Upplevelsers_roll_för_näringslivet.pdf)

A report *From Services to Solutions*<sup>2</sup> issued by *The Corporate Strategy Board* points out that;

*“Unwary practitioners face two principal dangers: An inadequate structure for sustaining profitability and an insufficient understanding of the real and often latent customer needs that the solutions offering is meant to address”.*

The challenge of creating and acting on “customer insight” is also highlighted by the *Monitor Group* in the report *The Industrial Services Strategies*<sup>3</sup>;

*“Two questions are central to developing a successful and sustainable service strategy:*

- ***Where will we play?*** *Finding the answer to this question will help to continuously set the right focus for your business. This includes making decisions about which customers to serve and which range of products and services to offer.*
- ***How will we win?*** *Answering this question requires turning customer insight into unique and value creating solutions for them and developing your offers in close accordance with their evolving needs.*

*The answers to these two questions then drive the alignment of companies’ capabilities and resources, e.g. to what extent automation capabilities are required to be able to deliver the chosen offering.”*

The German Professor *Birgit Mager*, active in Service Design research since ten years, states;

*“Annually, the German manufacturing industry invests on average per employee approximately 2000 Euro in research and development. In the service sector the investments amount to approximately 65 Euro per employee and year! Therefore, poor functionality and formlessness are not unusual in this sector; endless waits, broken appointments, unfriendliness, unreliability as well as the torture of formalities that seem absurd, determine the everyday service from the customer’s point of view. And the suppliers of service moan about the customer’s lack of price willingness, about unreliable loading factors and unmotivated service employees. In order to change these conditions, new focal points have been created in research and development since the mid-90s. “*

The problems above are reasons for the partners of the IASS project to take upon them the challenge to find and develop new approaches based on Design and Brand Management methods. The objective was to increase the companies’ knowledge about customers and customer interaction that can support and make “industrialization of industrial services” more effective.

The IASS sub project Customer touch-points<sup>4</sup> is based on questions like;

- How can the traditional product business map and develop the interaction with their customers?
- How can a company identify which points of contact need to be improved or created for successful sales and supply of value adding services?
- Is it possible for designers to generate and visualize insights about customers’ needs and their perception of the company and its offers to allow both the different internal departments - and also the customers themselves - to engage in the development of future business more based on services instead of products?

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<sup>2</sup> *From Services to Solutions: Building the Capabilities for Customer-Oriented Strategies, 2001*

<sup>3</sup> *Industrial Services Strategies, The quest for faster growth and higher margins, 2004*  
[http://www.monitor.com/binary-data/MONITOR\\_ARTICLES/object/199.PDF](http://www.monitor.com/binary-data/MONITOR_ARTICLES/object/199.PDF)

<sup>4</sup> *This subproject was made possible by the support of SVID, the Swedish Industrial Design Foundation. SVID’s engagement is linked to the programme “Design som Utvecklingskraft” supported by the Ministry of Industry and Finance. It is one of 7 projects focusing on developing and testing design methods for service development.*

## 2.Industrial Design

- *In the product area industrial design and construction are interwoven in the development process.*
- *The Design process can be applied not only to physical forms but also to environments, services and processes.*
- *Design brings tested skills, methods and processes to the service development process*
- *Design Management is similar to Brand Management in that respect that it is about coordinating the form of all the customer contact points into a coherent and relevant set of experiences.*

The interest in shape, form and aesthetic expression of products is as old as man made the first tools. It has been included in craftsmen's general skills to make effective and desirable objects since the first weapons, pots etc. The iterative way of making and testing models has also been a natural way for man to develop new solutions.

With the start of the industrial production of objects the combined skills of one master craftsman was divided into many specialized areas of expertise. The need and interest for how products appeared and was perceived from an aesthetic and ergonomic perspective by the user was often less important than technical qualities and cost.

However, for some consumer product companies the need to differentiate their products by the way they looked was so important that they appointed skilled individuals, the first Industrial designers, to be responsible for “styling” the products. This means Industrial design profession has a relatively short history. **As late as during the 40s the first Industrial designers started to educate themselves about how to practice industrial design, sometimes based on a technical engineering or architect education.** Among the first Industrial designers are famous examples such as *Raymond Loewe* in Chicago, and even earlier *Peter Behrens* in Germany.

In the text book *Product Development – effective methods for engineering and industrial design*<sup>5</sup>, *Johannesson, Persson and Pettersson* state;

*“Industrial Design was originally considered as an application of appearance factor such as colour and decor. Somewhat later the area of responsibility became larger and ended up being about the shaping of the interface between the product and the user, which at the time comprised of covers, instruments and levers.*

*Today, knowledge of design is used for the early ideas of the product, containing structure, function, and primary construction and shaping the product. This means that the designer often makes an initial contribution in the product development and later on does more detailed work with the design, all the way to the final “design”. This also means that the designer work in a best case scenario is integrated into the product development process – design and construction are interwoven.”*

In Sweden, the design work started to consider e.g. ergonomic and ecological factors relatively early on. **Today Industrial Design is characterized both by its perspective and its methods.**

Based on the history of Industrial Design one can argue that today it is one important tool among others that all strive to make the development process more effective and successful. SVID list that to “the development process the designer adds:

- **Creativity**  
The ability to generate ideas and make use of other people's ideas
- **Vision**  
The ability to express his/her own and other people's proposals

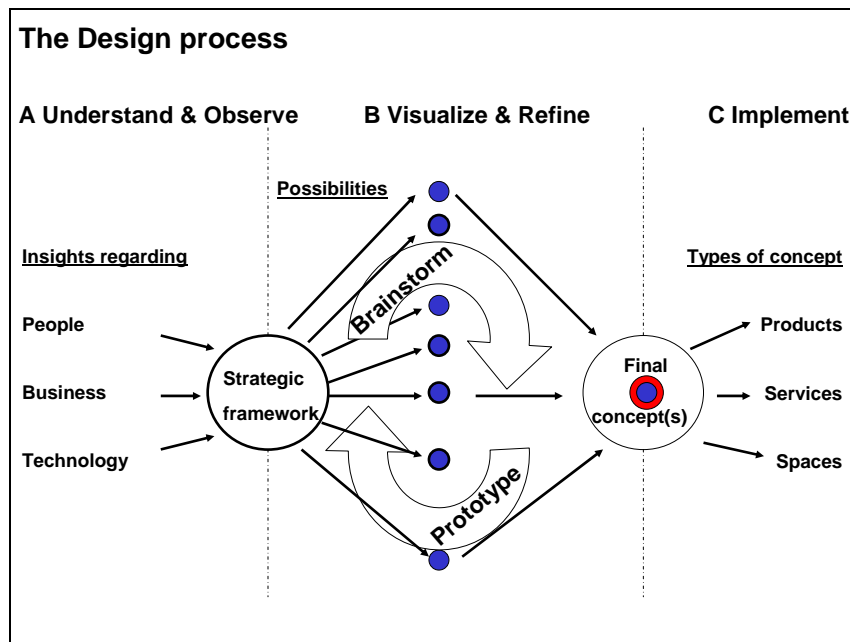
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<sup>5</sup> *Johannesson, Persson, Pettersson: Produktutveckling - effektiva metoder för konstruktion och design, 2004, Liber, ISBN 91-47-05225-2*

- **Customer focus**  
The ability to create and coordinate the customer's identity and requirements
- **User focus**  
The ability to define and adapt to the user's circumstances and needs
- **A sense of aesthetics**  
Knowledge of form, colour and design trends
- **A holistic view**  
An ability to see the project in its full context
- **Coordination**  
The ability to synchronise contributing specialists and external formal requirements”

## The design process

The design process is a model for how design can support product development projects. It is one part of the company's entire development process. The design process is today used to explain how design methods are used in many different areas and can involve processes, messages, goods, services and/or environments.



Above is an illustration of a traditional design process, divided into three stages that involve feed back loops and iterations that are not visualized. <sup>6</sup>

In many instances it is critical that the design process considers the brand that will be used. Research has confirmed that companies with a strong image and brand are more solid in recessions, less price sensitive, and can handle competition and direct product copying more effectively. **A strong brand can not easily be imitated or copied!** That is why it is utterly important how the company acts in each and every customer touch-point, and that all company activities and messages are reflections of the values that define the image and brand. **At customer touch-points the brand comes through and is realized.** This is also where the brand can easily be destroyed. It is in the touch-points where the opportunities lie to build long term profitable customer relationships.

<sup>6</sup> Alan South of IDEO presentation at Design av tjänster: Seminar arranged by SVID in Stockholm, May 17,2004

An increasing number of companies use Design Management, DM, to achieve maximum benefit from different investments in areas where customers get impressions and information about the company including the product or service provided. DM can be defined as applying systematic management of product, environment and communication design. In a similar way many companies use a systematic way of communicating their brand and its values across all contact points between the customer and the company. The effort together with the definition of the values of the brand is Brand Management, BM. Clearly, the two concepts are closely interlinked but should be considered separately.

*“DM and BM have many similarities, especially the objectives of visualizing and materializing companies’ strategies. ... It is reasonable to see BM as the overriding concept guiding design activities and decisions made in design.”* However; *“DM is to combine a functional and an experiential emotional approach, while BM is more focused on emotional values. DM therefore does not have the same risk for de-coupling, while BM seems to be more and more de-coupled from the products as such and thereby also from both consumer situation and production situation. In the best situation the integration between brand and design will be a dynamic process and fruitful for innovations.”*<sup>7</sup>

In a presentation at Future Design Days in Stockholm 2005 Ignacio Germade, who heads Motorola’s UK and Singapore design centres, discussed the benefit of using Design for innovation. He stated that one clear benefit of using Design is that by knowing the intended target group of a product and the brand values the design process can be used to build a branded offering from the inside out, complete with a story of why the product is developed and shaped in a certain way. This is more effective than to apply branding to an already developed product. That would be like “just adding icing to the cake as opposed to making the cake with the consumer in mind from the very beginning”.

In summary, Design is no longer just a tool for the development of physical products, graphics, furnishing and uniforms etc, but also about developing offerings based on physical products combined with traditional services as well as IT-based enablers. Further, **it is a tool for coordinating all parts of the offering** so that the contact points between the customer and the representation of the solution - provided both by the supplier and its partners - are seen as relevant, understandable and representative for the brand of the offering.

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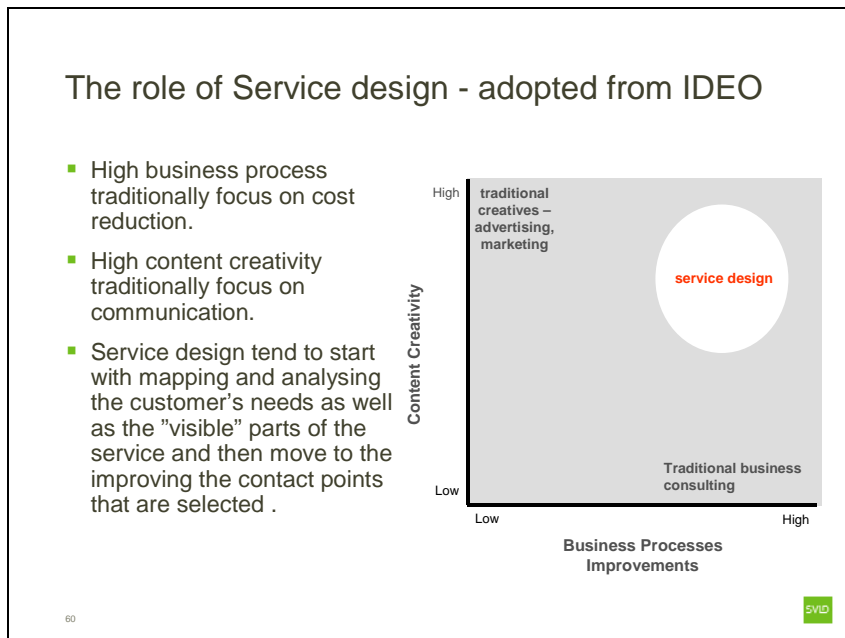
<sup>7</sup> *The relationship between the discourses of brand management and design management, U Johansson and L Svengren, unpublished*

### 3. Service Design

- Service designers experiment with the same tools as being used by product designers.
- Two main challenge for service design are the complexity of the customer interaction and the segmentation.
- Service design focus on understanding the customer value of the service and the way the customers interact with and perceive the service via its touch-points.
- Service design solutions need to be highly adaptable over time.

Companies, consultants and researchers are experimenting with applying tools and skills that have been developed and used in product design and other areas such as market research and branding. Service Design is not a new term, however it has mainly been used to represent a perspective that either focuses on the production of services and improving business process to save costs. **With the large scale introduction of ICT (Information Communication Technology) it became possible to industrialize also information management and service production as with industrialization of products**, and it was soon also clear that **it might be worth while considering interaction between the two.**

Service Design as it is now used is related primarily to improving the practical relevance and interaction between the service offer and the user and often consider the branding of the offer. Customers/non-customers experience of services are analyzed to understand needs and coherence as well as making visible, improve and clarify the value of the services provided so it is worth paying for. Additionally, implementation of improved, clarified range of services may bring changes in the delivery organization, for the same reason that development of renewed products may lead to changes in production. Service Design is thus related to but different from typical efforts of the production focused *Traditional business consulting* and customer focused *Creative consulting*, as illustrated below.



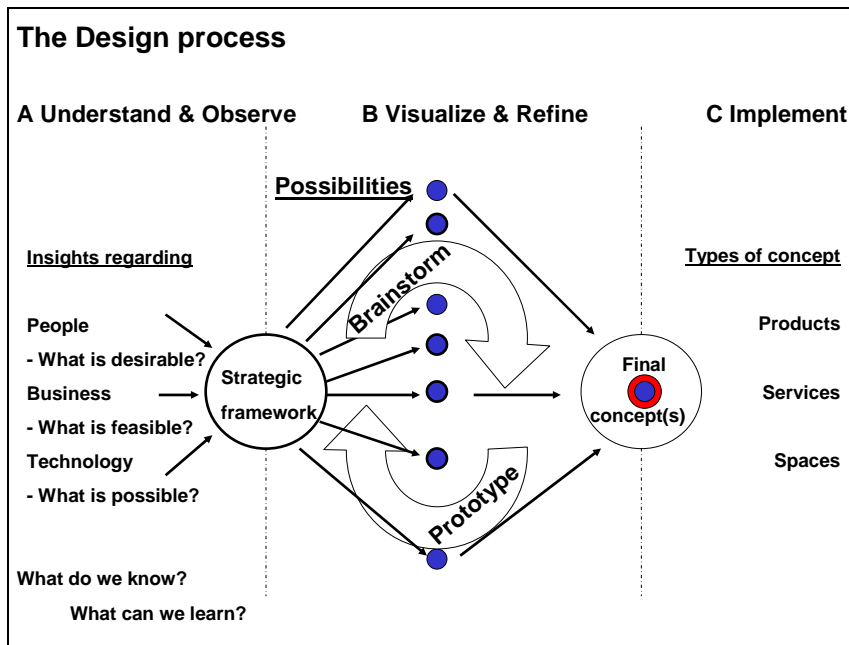
In order to understand what is different when applying it on services as opposed to physical products it is useful to define what service companies do; **“Service companies deliver an experience via multiple touch-points which evolve over time”<sup>8</sup>. However, the touch-points are not all equally important and are appreciated differently by different categories of customers.**

This reflects the fact that for many services **there are different levels of interaction** between the user and the supplier. The service can typically be a component of a process or a solution mainly managed by the user, or a part made up by several components, and finally the service can be a complete solution where the supplier manages and guarantees a complete process. The last category of relationship needs to build on relevance, trust and respect to become effective.

**The complexity of many touch-points and different levels of interaction often result in more advanced segmentation models when it comes to services.** However, it is the combination of interactions that constitute the image of a service, in a much stronger way than for a product, where the tangible qualities typically are more important. To understand the brand strategy and have an in depth knowledge about all touch-points is more important when designing services.

Below is a discussion how the design process presented above can be applied to service design.

### Understand and observe the company and the customer



The first stage is very much about about creating insights about people -the customers and the staff providing the support to the customer – and the general business conditions in the market and for the company as well as the state of the art regarding technology that can be used for providing the service. By collecting what is known a common ground can be formed.

What a company need most to learn is often related to the users and customers, as discussed in the first section. It is a matter of mapping and understanding customers’ interaction with the company when utilizing its services. This can be rather complex since customers’ perception of a service and the company behind the service is related to a set of touch-points. An often used method is **“The customer journey”<sup>9</sup>** whereby a potential customer’s journey from learning about a supplier all the way via all touch-points are mapped, recorded with photos, video recordings etc, and evaluated. The

<sup>8</sup> Ibid  
<sup>9</sup>Design management, Wolf Olins, 1985

model is also used when working with brand communication, but focus in those cases is more on the perceived image of the company rather than on perception of the utility or the value of the service.

In order to separate different levels of benefits it is important to map both functional and emotional perceptions of different touch-points and to relate the current views to what the brand values of the company and service are intended to be. **This implies a need to make user-studies broader and to focus the research on empathic rather than mainly quantitative methods.**

*(The) "insights come from empathic research, not market research. Look to research people for empathic insights, not markets for market insights. This is an important point. The two research methods are very different; design research is a divergent process, whereas market research is a convergent process. Both are good, both are powerful, but it is important to use the right process at the right time.*

*With market research, you can study 100 average people to learn one thing, and you would be pretty sure that the thing is right. This approach is highly convergent. With empathic research, you might very closely observe 10 people at the extremes of the user profile. From this you will gain 100 insights. All of them will be interesting, some will be true and all of them will inspire the design process. This approach is highly divergent.*

*Market research and focus groups are related, and useful for building a framework. Market research at a macro level engages with whole segments of a market; focus groups do the same at a micro level. These methods need some support. Both market research and focus groups are often criticised as 'enemies of innovation'. This just isn't fair. Market research is an important tool for managers to understand a market. There are excellent companies doing valuable and insightful work. Similarly with focus groups – they are a good way of getting feedback.*

*The issue is that they are not design tools – and their bad reputation stems from managers attempting to use them as prescriptive design tools. As a result, we all have a pet focus group horror story about the great design that was rejected.*

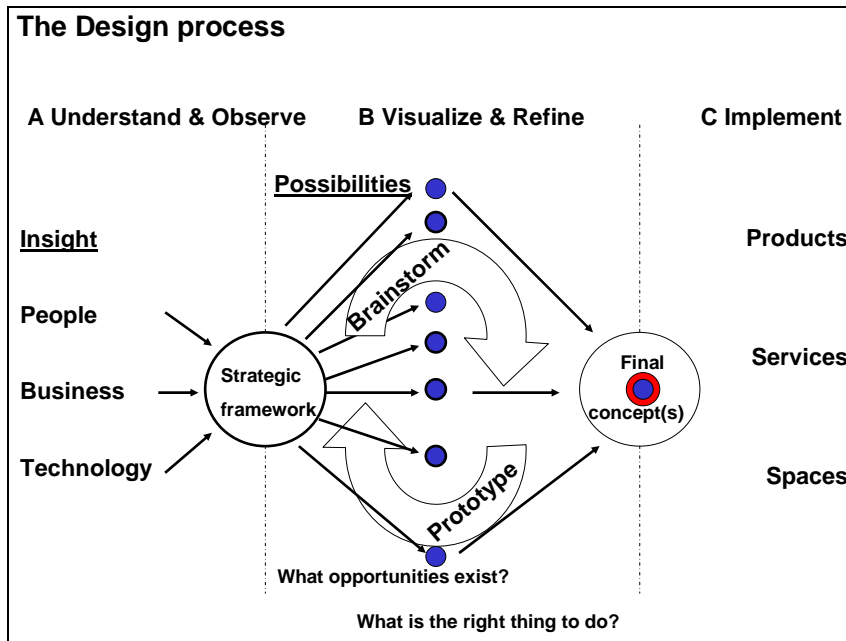
*The main reason why market research and focus groups are not design tools is that they are only able to address explicit user needs, and the insights and inspiration for design has to come from uncovering latent user needs."<sup>10</sup>*

When the touch-points are mapped and the customer/user perceptions are analyzed different improvements can be generated. These options need to be related and prioritized according to the cost for realizing and implementing them.

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<sup>10</sup> *Empathic Research Can Help Uncover Latent Passenger Needs* by Alan South, IDEO in Aircraft Interiors International, March 2004

## Visualize and refine ideas



When developing, testing and evaluating proposals for new or modified services in the second stage it is important to **visualize the environment** and the situation when a service will be used. This requires methods for communication that are visual and not only in a written format. This allows for the company to experience the services rather than to have them just logically understood. Tools to be used could be scenarios, personas, role play or mock ups supported with slide shows or movies.

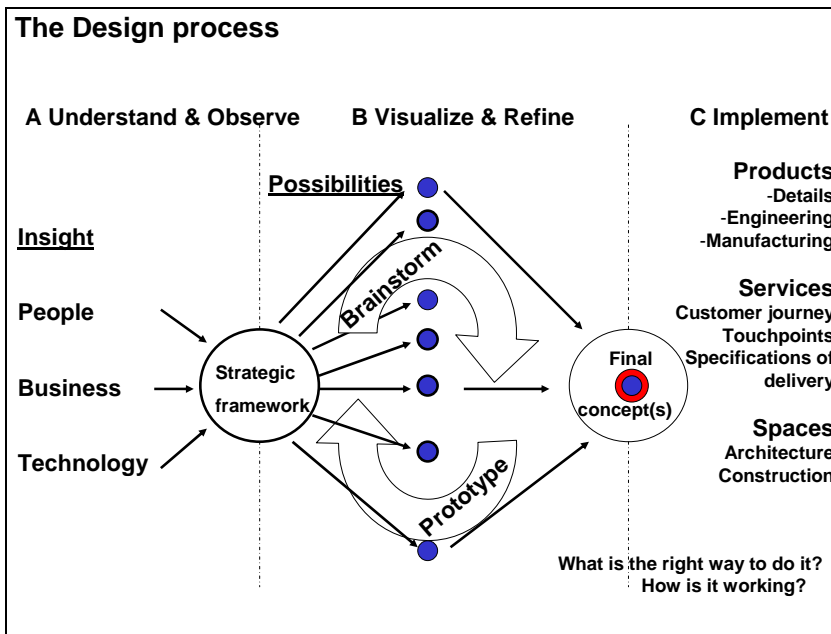
## Implement proposals

In the third stage a Service Blueprint is produced. It is a description of a service detailed enough to make it possible to implement and maintain it in a consistent way<sup>11</sup>. **To implement a chosen service concept, a company can start with what the service provider wants to show to the customer, "on stage", at different touch-points.** This can include graphics, user interfaces, web pages, call centre scripts, printed material, uniforms, reception areas, invoices and reports, which are all part of a service delivery process.

Role play or other ways of rehearsals are preferred techniques when training staff to act in a desired way during service delivery. In order to secure that the touch-points are supported from within the provider organization or by partners it is also important to define the supporting processes and information flows during the production and delivery process of the service. Some people consider Service Design as defining what goes on "on stage" i.e. the customer interaction or the parts of the service that the customer experience. Thus, the development of the production and delivery process that enables the service and experience that takes place "behind the scene" is then considered to be Service Engineering<sup>12</sup>.

<sup>11</sup> G L Shostack, 'Designing Services That Deliver', *Harvard Business Review*, Jan-Feb 1984, pp 133-139

<sup>12</sup> Birgit Mager, Professor of Service Design at KISD in Cologne Germany.



Because it is often difficult to communicate services' value it is in many cases important to include ways to inform users about when a service has been delivered and about the value it brings. One way to do this is to brand the service and to create "service envy", which is about creating symbolic values to be communicated to its users and others. For example, a gold card or gold sticker from a freight company intends to show to both the delivery person and the customer the providing company's attention to details and ambition to perform in a reliable way.

The implementation is often a joint effort between a brand owner - that develops the service concept and organizes the supporting infrastructure - and agents that deal with the actual customers, as illustrated below. The agents do not need to be separate companies and can e.g. be local branch offices that meet and sell to the client. Typically the definition and communication of the offer and the related brand offer via media is the responsibility of a central company.

The fact that the service is delivered via touch-points that evolve over time makes it important to develop open ended solutions that allow for gradual improvements and change. Economies of scale becomes less important and the model for how the service creates values becomes more important as it helps coordinating the individual components of the service that the user/buyer "touch" in one way or another, but also to guide the efforts to build and improve what is done "behind the scene".

Product development is often about long planning and testing before a big launch and then the development process ends and is replaced by minor corrections. Service development usually needs to continue after the launch and specifications can be altered at a much lower cost. As services often are of a highly repetitive nature the relative cost of customer acquisition is usually higher, making it important that customers stay on as long as possible, mainly to generate profit enough to motivate acquisition costs but also to generate scale effects in the marketing and delivery process. These facts put a pressure on service development to continuously upgrade and improve the service offering's value and the enablers behind or at the touch-points in order to retain customers. This means continuous review of the segmentation and the messages regarding functional and emotional benefits of the service and its brand.

## 4. Model for customer driven service development

- *Contact specification is a Blue print for actual behavior in customer touch-points.*
- *The contact specification summarizes customer value due to behavior at certain points of interaction over time with the supplier company.*
- *The model supports development of the services, service organization, communication and value based pricing.*
- *The model is a starting point for develop Service Design*

As discussed previously is it important for service providing companies to develop contact specifications for customer touch-points, but doing that is far from enough. **It is the actual behavior at these contact-points that decides how the customer perceives the company and its services.** In that respect the contact specification only defines the sought after image of the service company while the repeated service delivery at customer touch-points builds the company brand.

The model was developed as a tool for to adress a number of the challenges identified in the initial discussions within the IASS sub project team. The companies stated that they wanted to become even better at;

- *understanding customer needs and actual business situation*
- *investigating and evaluating customer touch-points with the company*
- *systematizing and makin the touch-points more effective*
- *approaching customers with the corporate message*
- *developing services and service packages from a customer perspective*
- *selling services*

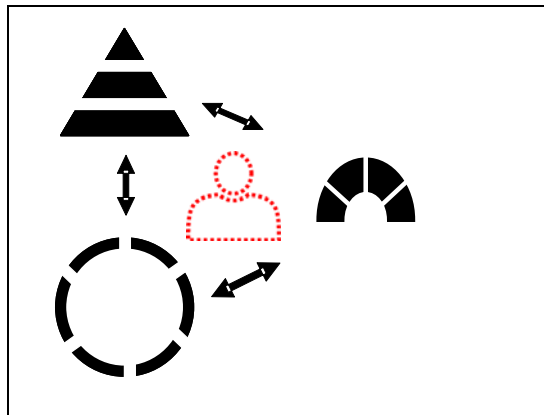
The customer driven touch-point specification model, presented below, is part of how to identify the attraction and unique characteristics of a service, a total solution or a brand. Considering the three stages (Understand & Observe, Visualize & Refine, Implement) that constitute the service design process, the model focus on the first and the last stage and is valid for a specific customer as well as for clusters or segments of customers.

The model consists of four parts focusing on the customer:

1. Customer segmentation
2. Customer journey over a certain time span
3. Customer value bridge
4. Conclusive contact specification

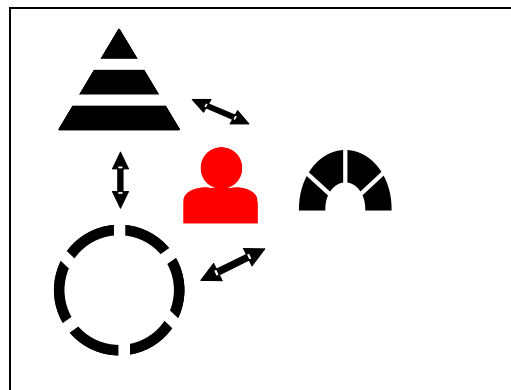
When working with the model you start from the current situation, with the goal to improve your knowledge about your customer.

As model A below shows a company and its service offers are often regarded as **diffuse** from the customer's perceptive. It can mean that the customer does not appreciate or understand the benefits of the services you offer. For your company it is important to make the service offer clear and understandable to the customer.



Model A

By working with the model the knowledge about your customer will improve and your company will improve from the customer's perspective to be a **distinct company** as shown in model B. The customer will have a clear picture of the company and what it stands for. The service offer you present will be clear and tailored to your customer's needs



Model B

## Customer segmentation

Most companies define customers in segments. The variables are often size of various kinds, geographical location or type of products offered. In the customer driven contact specification model we suggest segmentation based on the type of contact a customer prefers with the company. The segmentation should be **based on the needs of the customer**. For example, certain customers require 24-hour delivery whilst to another group of customer immediate updating on performance is crucial. Perhaps their different needs are more similar than those of customers of the same size or with the same location.

The intent with this kind of segmentation is to be able to categorize and adjust the contact interfaces to match customers' specific needs as well as to estimate growth potentials of the specific segment. Consequently, in order to carry out segmentation based on customer needs it is important to have a thorough understanding of the specifics of these needs and about how the service offering might bring the improvements.

There should be a focus on segments to which the service brings the highest value for the customer as well as the supplier, and for which the customer is prepared to pay fully! If this "homework" is done and if the value is defined from a customer perspective, **new kinds of segments will crystallize based on other dimensions than geography, size, product etc**



## Customer journey

A viable technique to appreciate the customer touch-points is to review contacts from the customer's highly personal impressions; during the sales process, when agreeing to contractual agreements, throughout series of deliveries and in the account management contacts. **Here the customer's true perception of the company will be evident.**

It is crucial to take the stand in the customer's life cycle planning and **understand where the company service can make the difference.** Questions to be answered are; How can we create value for our customer? How can we make our customer's production process more effective and secure?

The customer will most likely be able to articulate the answers. In order to correctly evaluate the answers it is important to also have knowledge about the customer's business and production process.

One way to gain such knowledge is to evaluate and document all contacts from the first meeting with a new customer all the way to a fully emerged relationship. Who or which units handle the contacts? How are they carried out? How are they documented? Additional critical questions might include; How was the relationship started? How were contracts set up? Which applications were developed? What are the costs? Which additional service gets involved? How should evaluations be made? How does the billing work? How well does the customer service work? Which are the follow-up actions?

This is a routine that can be implanted into the company and evaluated from time to time. **In order to answer the questions you have to bring together different internal units.** These follow-up meetings should have but one focus – the customer. You might also ask yourself if you are organized in the best possible way to meet customer needs.

Defining contacts specifications should be done in several consecutive steps and documented. In the first step the customer journey document could be based on the assumptions or predictions from company people managing the contacts. Their hypotheses could be further developed with interviews with customer company employees and through on-site studies of customer behaviour, with the obvious goal to learn as much as possible about the customer company.

To investigate and increase knowledge about the "customer journey" is a way to understand the importance of the offer to the customer and how the offer should be designed to support customer activities and to create offers in a certain order. **Based on that platform customer touch-points can be adjusted to reach the goals set up for different segments.**



## Value bridge

In order to define the service offerings you want to present to various segments, based on customer needs, you have to decide on the preferred bridge for the specific segment. Probably it will differ as different segments have different needs. **One way of thinking is to divide the offerings in four basic categories; 1) Product attributes, 2) Product benefits, 3) Customer benefits, and 4) Emotional benefits.** In this way the offerings and benefits are looked upon from a several relevant interacting customer perspectives.

Below is example of how different steps on the value bridge might look for customers' to AGA Gas, one of IASS partner companies:

- 1) Product attributes    Production and delivery of industrial and specialty gases.
- 2) Product benefits    Gas as an important part of customer's production process, e.g modified atmosphere gas for packaging of food.
- 3) Customer benefit    Application know how of food processes, e.g. increase freezing capacity of comparable freezer models.

- 4) Emotional benefit Values and factors that are recognized by the customer, e.g. sustainability, availability of products, applications, and services, long-lasting relationships or creating customer value by being the most available gas company.

For every customer segment a value bridge should be developed, **based upon customer needs and company strategy plan**. By having different value bridges based on each segment's specific needs the company can systematically define and design customer touch- points.

**Working with the value bridge also brings detailed knowledge about the value the service brings to customers which makes it possible to develop a value based pricing strategy.**



### Contact specification

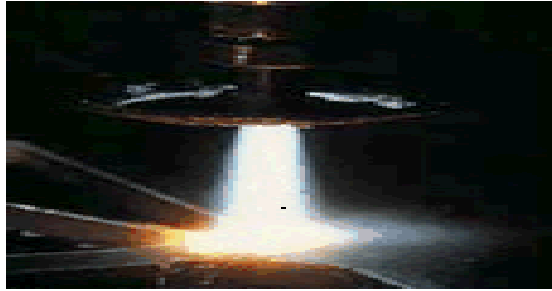
The results from Customer segmentation, Customer journey and Value bridge must be evaluated based on the set criteria for a Contact specification. **A Contact specification should describe how different contacts with the customer should be carried out and what kind of offerings will be presented.** The customer gets in touch with different company units and contact people, and in order to strengthen the relationship it is important that the customer have a clear picture of the company, its offerings in the various steps of the customer journey and the value they bring.

This is the phase where answers to questions about the Contact Specification appear. **How well coordinated and efficient is the company in the contact interfaces with the customer?**

Different customer segments often have different needs and should be treated differently by the company. Either you are clear in the contacts with the customers, or you are fuzzy and unclear! Are the customer's contact interfaces with the company in agreement with company core values? Are they mediated in a good way? Does the customer always get a consistent feedback when in contact with the company? Does the contact with the customer run smoothly? Could it be improved? Could the company facilitate more for the customer? Does the customer always feel well treated? Does the company know what the customer wants? Are misunderstandings avoided?

The contact specification will give input to how to develop and present the service. Based on the contact specifications the service offerings can be developed. **So far there has been an emphasis on observing and understanding the customer. The next step is to design the services, refine ideas and visualize service offerings.** The final stage is implementing the service offerings with the goal to become a distinct company, where the customer appreciate your service and is willing to pay for it.

## 5. Rethinking service touch-points - Case AGA



### Background

The global industrial gas companies have been undergoing nearly the same journey over the last decade, from development of gas production technology, product storage and supply, to various gas related applications. The use of industrial gas is growing and used in almost every industry: in medical services, steel industries, manufacturing industries, food production, chemical and petrochemical industries, in research and science, to mention a few. AGA has a deep knowledge about usage of gas in these industries production processes and is offering gas, hardware and services.

AGA began various initiatives in the mid 90's to design and market services. Early 2005 a reorganization was initiated at AGA intended to lead to a more holistic service approach. By developing industrial services in a more focused manner AGA intends to shift from selling products and applications to become a "full service provider".

### Target and frame

AGA is continuously extending its service applications to respond to increased complexity on the market. But creating more complex sets of offerings might lead to a highly fragmented business difficult to handle. To manage that complexity successfully is one of AGAs major challenges. AGA is therefore aiming for increased simplicity in customer relations, offerings and supply.

The target set up by AGA for participating in the IAAS subproject Customer touch-points was to **meet this challenge and to find answers to some main questions:**

- Is it possible to develop a generic service design model?
- How to take the "voice of the customer" into account?
- Does the customer acknowledge the added value created?
- How are we able to standardize and modularize the service offers?
- How to steer the sales organisation to increase sales of services?

While the target was formulated in general terms AGA designed a framework for the work. The development of a generic service design model was based on a review of two of AGA's service offers, Technical service (maintenance & repair) and ACCURA<sup>®</sup> gas management. The review was carried out from the customer point of view, interviewing three different industrial gas user

#### **AGA, a principal gas supplier in northern Europe**

*AGA is the principal supplier of industrial and medical gases in the northern part of Europe. In Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway, and Sweden the company offers products that covers a vast range of applications in industry, medicine, environmental protection and research and development.*

*Since year 2000 AGA is a part of the German Linde Group, an international technology group with a leading market position in each business segment Gas & Engineering respectively Material Handling. With approx 41,400 employees, Linde achieved sales 9.421 billion euro in the fiscal 2004. Linde Gas has 1.5 million customers in 50 countries.*

## Method

A project team was formed as an interdisciplinary group representing the disciplines design, branding, market communication, marketing and sales. **The project wanted to focus on design and especially service design.** Olle Lundberg of Lundberg Design and Jan Tallroth of Ogilvy Brand Management were therefor invited to the project team. They were asked to develop and test a generally applicable model for service design based on studies of how customers of AGA perceive interactions with the company.

Based on extensive experience of studying customer behaviour and attitudes they started by going through different models and tools they had used successfully in the past. The main challenge for AGA and the other companies in the IASS project was assumed to be the understanding and internal communication about customers' experiences of services and the company. The proposed model became a sort of a checklist by which customers were analyzed so that the future way of defining how the company wanted to interact with them could be defined, see model in chapter 4.

Considering the short time for the task the way to test the model and to generate suggestions for improvements they travelled to three customers' sites together with AGA's servicemen. The aim was to have meetings with the customers representing different sizes of organizations. Customer representatives were interviewed following a standardized questionnaire called Functional Analysis which is a typical tool for industrial designers to map thoughts about all contacts from the first meeting to final signing of a service contract to renewal of the same. An alternative method could have been to make AGAs servicemen collect evidence and data by the use of disposable cameras, video recorders etc, but in this case the follow up and analysis of such material would have been much too time consuming. In advertising and brand projects Ogilvy often combines visits to spots where customers meet the company, with focus group discussions and quantitative research.

**The largest potential for improvements in interactions turned out to be in the middle sized customer segment, where there are many different customers that would benefit from closer support.**

To further test the model, interviews were made with users of Accura, the web based tool for Gas management. These interviews revealed both AGA's relative strengths as a gas provider, strongly supported by Accura, but also potential areas of improvement, of which some could be fixed directly. These areas included; additional training of the customers' staff, service development and administrative improvements.

## Conclusions

**As a new service organization was formed in sales and marketing** the methodology described above was used to anchor and discuss the service concept on all organizational levels. As for top management it is important to describe the change management, to sales managers it is more relevant to discuss the impact of key performance indicators (KPI) to understand how sales competence and methodology can create business opportunities in the service area.

**A noticeable side effect of the project was the outcome of internal meetings between sales persons and technical service personnel.** For the quality of the MRO-service<sup>6</sup> communication between the parties turned out important and routines are worked on to establish them.

The customer touch-point model and customers' opinions about ACCURA<sup>®</sup> cylinder management has been presented in a cross-functional kick-off meeting internally to develop the next version of the extranet services, which will be one crucial source for the service development. The presentation turned out fruitful. It **supported the process of discussing customers' viewpoints** instead of digging into IT technology aspects. Further more, some very valuable feedback information was gained to be used instantly for the extranet service development **which will lead to improved quality and added value of that service.** On top of that, the physical order-to-delivery process has been taken into account and AGA will now take measures to streamline the process connecting the extranet service and the physical delivery.

<sup>6</sup> MRO = Maintenance, Repair, Overhaul

The market management and communications units at AGA went through some specific branding aspects that might bring some new approaches. Even if the different service brands like ACCURA® cylinder management are significant, AGA's brand and how the customer perceives it is the major factor in the marketing of services.

In a number of meetings with sales managers the existing segmentation and "new ways of segmentation" were discussed. The questions were about whether to apply a complexity difficult to deal with or if it still would support the actual market approach. To conclude, the existing segmentation was not changed but for service marketing and sales purposes the new view was added. **The new view is very much based on customers' business models and how AGA is able to support them.**

Customers' involvement and new segmentation is also leading to service development in that respect that **AGA will be able to identify new needs.** For example, a company needs welding gases for maintenance work during weekends. They need a lot clearer feedback about the delivery and AGA is communicating in "real-time" if the order fulfilment is not matching customer's needs.

**Another result is that the model will be implemented as a generic process into AGA's quality system for service design.**

Additionally, **the customer touch-point model is presented at almost every meeting to visualize how to market and sell AGA services.** Even if the description might be complex, by visualizing the model some main messages get through more easily:

- **By adding another perspective in customer segmentation, e.g. besides the industry and customer size, one can add segments of customers that need a traceability for industrial and/or medical gases.**
- **Like in most industrial companies, product sales is dominating and it is a challenge to get the company sales resources focused on service sales. By carrying out the Customer journey a new tool is provided to guide how to sell services (and communicate a message) in a customer life cycle and which steps to take. For example: it turns out that customer safety training leads to spare part sales, which leads to service agreements.**
- **Using the model brings a clear indication about which value level to communicate in offers and what kind of customers should be addressed.**

## 6. New services from the customer perspective - Case TeliaSonera



### Background

TeliaSonera joined the IASS project due to the new strategic direction within the Group, with an even stronger focus on developing innovative and easy-to-use services. The focus on developing methods to enhance the **contacts with the customers in the aftermarket** situation was especially interesting. Another reason was the demand to **shorten the process from an initial service concept to launch** in the market and reach break-even.

The focus of the IASS project to develop methods to achieve higher service values to existing customers was also interesting, in particular since TeliaSonera already has a high penetration on existing markets. One hypothesis discussed was if the matured telecom market could be seen as an aftermarket, because every customer already has some kind of telecom solution.

**Additionally, customers and company decision makers have matured and now possess knowledge about how to use telecommunications to enhance productivity, thus demanding higher levels of service performance.** One specific requirement was the ability to communicate with a person or device almost regardless of where the person and device are positioned geographically.

This is a result of increased coverage and improved performance of both fixed and wireless networks. In parallel, decrease in price and accelerated performance of laptops, PDAs and Smart phones have developed rapidly. A third and very important component is that in spite of growing technical complexity Information Communication Technology, ICT, has become relatively easy to use by the average person.

Depending on the customer's business, focus is generally on person-to-person applications or machine-to-machine applications. **An interesting new development is that fierce competition between companies seems to accelerate investments and usage of new ICT applications.** Evidently, companies have realized how ICT applications might contribute to company performance.

To TeliaSonera simplicity and service are the most important tools for creating long-term growth and value for customers and shareholders.

#### **TeliaSonera, the leading telecommunications company in the Nordic and Baltic region**

TeliaSonera also holds strong positions within mobile communications in Russia, Eurasia and Turkey. TeliaSonera offers reliable, innovative and easy-to-use services for transferring and packaging voice, images, data, information, transactions and entertainment. We also offer wholesale international carrier services in Europe and across the Atlantic. At year-end 2004, TeliaSonera had 26 million customers and an additional 37 million customers in associated companies. Net sales totalled SEK 81,937 million and operating income totalled SEK 18,793 million in 2004.

## Target and frame

The objective for TeliaSonera to participate in the IASS sub project Customer touch-points was to **explore customers' interaction with suppliers**, fully in line with the overall objective to find more effective methods to increase the value of services and to gain additional income from the increased value.

## Method

The method applied and the process was according to the jointly explored and modified customer touch-point model.



### Customer segmentation.

From a TeliaSonera perspective, AGA is a member of the segment large customers. Within this segment there are as we discussed earlier different needs.



### The Customer Journey.

TeliaSonera got the opportunity to participate in workshops with teams of AGA technicians and management. **The objective of the workshops was to make an analysis of AGA's customer touch-points**. During this work TeliaSonera got a better understanding of the business situation of AGA. The insight was on a practical level, for example AGA's need to cope with new challenges, both in the service business in general and in services for the metallurgical FERRONOVA<sup>®</sup> process in particular. **One finding was that the Information Communication Technology, ICT, could solve many of the existing obstacles and also create new values to AGA's customers.** It was also noticed that there was awareness within AGA that modern mobile communication could be an important part of the solution. The effect of a solution supported with mobile communication and Information Communication Technology, ICT, could both be a **deliverance of a higher customer value and an enabler of higher internal efficiency.**



### The value bridge.

To evaluate if the initial ideas were viable and might bring value to AGA, TeliaSonera proposed a mutual workshop at the TeliaSonera Vision Centre. After an initial analysis, intended to prepare the workshop, TeliaSonera pointed out to AGA the business advantages that could be the outcome of a more efficient use of their expertise by using ICT tools, as well as the possibility to develop new business models. **Based on the analysis and a dialogue with the AGA representatives, TeliaSonera developed a presentation highlighting opportunities of modern telecommunications.** TeliaSonera also included in the presentation **information tailored to special requests and ideas from AGA.** These requests had a technical focus on real-time video streaming, mobile communications, and voice control and data collection via voice recognition. During the presentation, solutions of this kind were also visualized.

The last part of the presentation was a workshop consisting of two blocks. The first block included an open discussion around reflections from the attending AGA representatives based on the workshop. The second block focused on the problems specified by AGA during the first part of the workshop. At the end of the workshop **TeliaSonera and AGA jointly decided to bring the concept one step further by making a prototype of the solution in a project form.**

The goal was mainly to test the quality of the telecommunications part, in a real-life environment. The test was carried out during AGA's work with facilitating support and know-how to one customer. The test verified that the technical solution worked.

### Conclusions from a value-bridge perspective

- 1) Product attributes: IT and communication function delivery and product development and business model definition.
- 2) Product benefits: IT and mobile communication will be an important part both to enhance the internal efficiency and to deliver new and higher customer value. AGA had decided to expand their service business to the metallurgical industry, FERRONOVA® process support and the new solution could accelerate the implementation and solve some competence problems, due to many new employees. This solution should ease the problem with the competence in the expanding phase and with the growing complexity in the service business. **The proposed solution would give AGA an opportunity to deliver a higher customer value to their customers.**
- 3) Customer benefit: The efficiency in the service process and the precision in the communication process to the customer will be enhanced. New IT and communication based services could be developed, based upon tested solution, which will give **AGA competitive advantages for demanding customers.**
- 4) Emotional benefit: The increasing precision, both in the delivery process and in the information process will strengthen one of the explicit values, according to those in the customer organization, who are responsible for the function of the gas process systems. **This value is to feel safe, from explosions and other hazards and the trust in secure process operation.**



### Contact Specification

Based upon the detailed knowledge from the work, **AGA and TeliaSonera will develop a Customer Individual plan, with a new contact specification.**

### Conclusions

**The proposed solutions have been evaluated in a product development process, and will probably be accepted as a new product to be provided from TeliaSonera.** The solution AGA demanded required a mobile solution with wireless connections at different locations. Experiences from within TeliaSonera prove that this kind of solution must be analyzed from at least two perspectives, the traditional overall company perspective complemented with the user perspective. **When it comes to mobile solutions, experiences are that the user perspective is very important.**

From the users perspective the Unlicensed Mobile Access (UMA) will make it easier to use existing W-LAN and 2/3G networks with the same communication device. The UMA standard is planned to support 2G, 3G, and WLAN cross traffic, for example in homes and at offices.

The demand for wireless services is expected to increase but not burst during the next five years. The driving force behind this development is continued price drop on both services and user devices due to competition. Additionally, device development will influence wireless services, as described in the report; Roadmap Wireless Systems 2005 to 2010 (Wireless KTH 2005 06 10):

*"There are two trends that will have the biggest effect on the development of wireless systems; the introduction of low-cost multimode terminals, especially those integrating WLAN with 2G and 3G cellular standards, and devices increased storage capabilities, in the range of several Gigabytes, which will enable new services based on downloading when it is cheap and off-line usage at the convenience of the user."*

The new opportunities that come with easy-to-use, affordable mobile services seem to help with solving a number of problems in basically all industries. **The discussions in the TeliaSonera-AGA**

**workgroups made it clear that competition is tough in most industries and new opportunities from ICT will become increasingly interesting to review.**

It was also clear that most companies already aim at utilizing ICT to enhance competitiveness. And “new applications” through which users can be accessed despite location etc, will bring **new dimensions to development of services. For example, AGA is focusing on making competence and advice available in real time situations** when requested by the customer. Instead of experts travelling to customer sites, AGA makes their experts available via remote access. By using mobile ICT solutions the experts become more effective and contribute to the creation of new viable business models.

## 7. Conclusions

- *Customer touch-points is a model for service design and development of business from a service perspective*
- *Service development is very much an iterative process.*
- *The service development might turn out to have implications on the organization.*
- *Customer segmentation will most likely be altered.*

From the two cases presented above and discussions among the participating companies several conclusions can be made.

**Understanding the company and its customers is very much an iterative work, with a focus on understanding the customer's both functional and emotional perception of a service and the values the perception relate to.** To achieve the understanding you have to "come out of your box" to really see and feel what the customer need; you have to "live your customer".

Working with **Customer segmentation from the perspective of customers' needs will clearly have an impact on the organization.** Perhaps it is not fruitful to alter the segmentation all together. In the AGA case the company decided to use the new segmentation in service marketing for sales purposes where this new segmentation was added. In doing so you will become a more distinct and clear company.

Customer journey represents the customers' interactions with the service providing company. For that purpose **Customer journey becomes a powerful tool in order to understand how customers interact with your company.** In particular services handled and managed by the user company demand a full understanding and interpretation of the service in comparison to other, competing, services and products. It is also essential to point out that the lesser the service supplier interacts in daily life with the customer, the more important it is to study and understand the customer. In many situations technology based, non-human electronic devices handle the touch-points. Which reduces the direct customer-supplier interaction for many services. These circumstances require an even more focus on the customer.

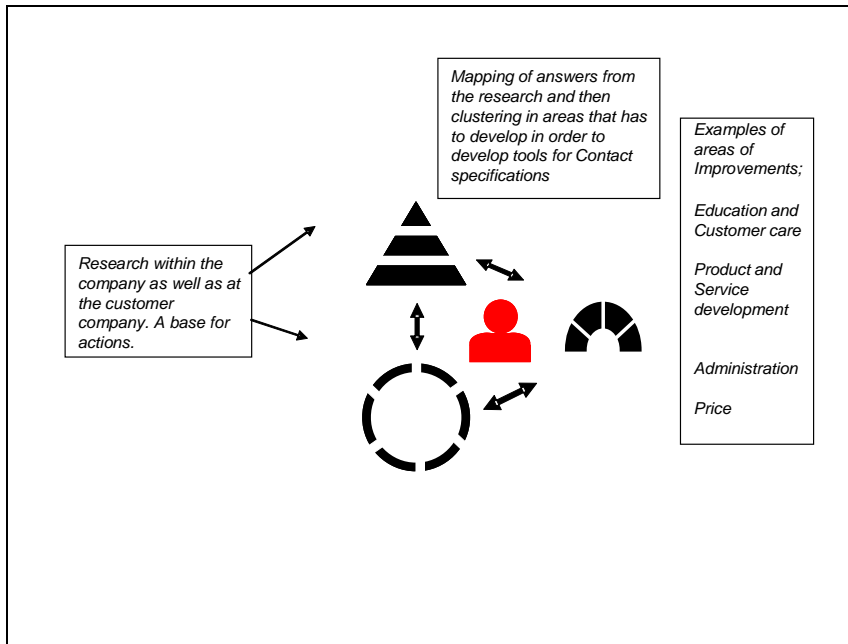
When working with the **Value bridge is it important to be distinct and clear about your attributes and benefits.** The trick is not to add all you can find, but to offer the right solutions to the right customer, not overvalue or undervalue. It is important to develop a pricing strategy that is "fair" from a customer perspective and makes the customer willing to pay.

Considering the three stages (Understand & Observe, Visualize & Refine, and Implement) which constitute the service design process, Customer segmentation, Customer journey and Value bridge are guiding tools during the first and the last stages. During the first stage the model is used for mapping the current situation. It is followed by a stage where new ideas and concepts are created. After deciding which of the concepts to proceed with, the model supports the detailed implementation by supporting the definition of how the contact specification should be carried out in order to support the company to be perceived a distinct company for each of the targeted segments.

**This work will most likely have an impact on the service delivery organization when aiming to become more customer oriented.**

What the customer will realize is how you design your offerings or, as we call it, make your service design. What the customer will notice is for instance; How he is dealt with in different touch-points with your company; If there is a difference in the contacts with different departments; How well your service offering fits his business model and brings value to his process.

The customer will also appreciate if you, by knowing the customer, can suggest solutions that the customer might not be aware of or did not know was possible. This you can only do if you know your customer's business and know what you can deliver that "makes the difference".



A **Contact specification** should be established for each new customer, with the purpose to create long term, profitable relationships and to strengthen the brand based on understanding customer's needs, activities and business. **The way to do that is to develop a basic Contact specification for different segments and to make adjustments to fit each specific customer.**

**As pointed out above, working with Service Design has an impact on the whole organization and involves employees with different tasks.** From the customer perspective it could mean added value to have only one or a few contacts into the selling company and to know that the company is well aware of customers' business and challenges and can add value to that business. If this is the case it will become more difficult for customers to change suppliers.

**When working with Service Design visualization is a powerful tool,** it can give input to the customer journey, the value bridge as well as to the designing of services. Visualization could be carried out in several ways as pointed out in the AGA case (collect data by use of disposable cameras, video recorders, sketches, simulations, models etc).

**Working with Service Design from a customer perspective as suggested above means challenging the dominant production oriented way of service development.** There are some dominant obstacles that have to be overcome. If the culture of the company is dominantly product oriented and you want to implement a service oriented view, the way to do that is to look at the reward system. What is important and what gets management attention? What is the dominant culture? Other questions to ask is if the staff that meet the customer have the right training and skills for the task.

**Paying attention to the customer and customer's needs also awake increasing demands from the customer.** In order to be a service oriented company it is important not to disappoint the customer, which otherwise might put you in a much worse situation.

Before you launch a new service you must have done your homework and be totally convinced that you can and will deliver.

Industrialization of services, service effectiveness and pricing strategies are all important factors in the process of service delivery and can minimize the risk factors. Read more about this in other chapters presenting findings from the IASS, Industrializing After Sales Services, project.

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