“Developing criteria for guiding SMEs aimed at incorporating the Design for All concept into corporate practices”

A study commissioned by the German Federal Ministry for Economic Affairs and Energy (Project N° 56/12)

Summary of the Final Report

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15.05.2014

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Preface

In November 2012, the German Ministry for Economic Affairs and Technology (today's German Ministry for Economic Affairs and Energy) commissioned a research project, entitled "Developing criteria for guiding SMEs aimed at incorporating the Design for All concept into corporate practices" from a consortium comprising the consultancy offices *NeumannConsult* and *grauwert*, the *Institute for Innovation Marketing at the Technical University of Hamburg-Harburg* and *Design for All – Deutschland e.V.* (EDAD).

The following summary[1] encompasses this study's most important results and its conclusions.

1. Introduction and purpose of the study

1.1 The situation at the outset and the reason for the study

One of the greatest challenges for SMEs that need to maintain a competitive edge in Germany can be found in demographic trends in an increasingly aged and diversified society. Firms would be well advised to align their products and services to suit the needs and requirements of the increasing numbers of older and disabled customers, as well as of people coming from different cultural backgrounds. These markets offer plentiful space for innovative products and services and corresponding investment inducements.

For those firms, the *Design for All* concept constitutes a sustainable basis for developing attractive everyday products and services with great market potential.
Products inspired by *Design for All* really stand out, because they are particularly easy and comfortable to use and for their good aesthetic quality. This makes these products attractive for an extensive target group and a support that enables all users to live independently.

The topic of *Design for All* was also taken up in the UN Convention on the Rights of People with Disabilities, ratified by Germany in March 2009, and in the National Action Plan adopted by the Federal Government on 15 June 2011 for implementing the UN Convention. In its National Action Plan, the Federal Government undertakes to enact suitable measures to put *Design for All* into practice:

> "The Federal Government is therefore committed to a **"Design for All"** that takes the broad diversity of human abilities, skills, needs and preferences into account" (BMAS 2011, p. 17, bold in the original).

Several important preparatory projects have already been commisioned for the Federal Government in this context. In 2009, the Federal Ministry for Economic Affairs and Technology (BMWi) commissioned the preparation of a report on the topic of "Impulses for economic growth and employment for orienting businesses and economic policy towards the Design for All concept" (cf. IDZ/SIBIS 2009). This study showed that firms that base their product development on the *Design for All* concept can benefit from successful business. The study's authors also proposed the development of guideline criteria, so as to ensure a greater certainty of planning for concerns that want to adopt this concept.

[1] Thanks to Pete Kercher for translating this summary into English.

This recommendation was taken up by the Federal Government in its National Action Plan and also constitutes the basis for this study: “The BMWi will therefore partner with firms and with associations of people with disabilities to ensue that guideline criteria are developed for the “Design for all” concept” (BMAS 2011, p. 173).

1.2 Objectives and methodology

This study is based on the objective that greater attention should be paid to the *Design for All* concept by those who produce the objects we use in our everyday lives, in the interest of benefitting everyone, especially older and disabled people (cf. BMAS 2011, p. 78).

The aim was to illustrate ways and means for providing small and medium-sized enterprises with an attractive access to the topic of *Design for All*, so that they can learn how to recognise the opportunities for innovation, competitive advantages and so market opportunities that come with the concept and integrate them into their entrepreneurial strategies.

This raised the following basic questions to guide the research:

- How should *Design for All* criteria be defined, so that they include all the concept’s relevant dimensions on the one hand, while on the other being easy to understand and are formulated in the kind of language that makes things happen?
- What success factors encourage a successful and sustainable implementation of the *Design for All* concept in enterprises’ respective development processes?
- What tools are available for the systematic implementation and realisation of *Design for All* in entrepreneurial practices?

This led to the following **work packages**:

- Identifying and selecting the **industrial sectors to be studied**
- Deriving and discussing **guideline criteria**
- Identifying and investigating the **success factors** of implementation in entrepreneurial practice
- Identifying and investigating **tools** for systematic implementation in entrepreneurial practice
- Developing a **practitioner guideline** with case studies.

In agreement with the Ministry, the study chose five industries that produce articles of everyday use as stipulated in the objectives:

1. **Health** (including healthcare and medical technology)
2. **Sanitary** (e.g. products for the bathroom)
3. **Domestic appliances** (large and small electrical appliances)
4. **Furniture** (kitchen, bedroom and living room furniture, including commercial and service)
5. **Hardware and plastic products** (household hardware, garden equipment etc.)

Within these industries, a total of 19 firms were investigated, including two firms from abroad (Austria and Spain) that were chosen for purposes of comparison.

In addition, two expert workshops (one of these was a constituent part of the contract) and 43 qualitative expert interviews were conducted. These resulted in a comprehensive analysis of domestic and international publications, academic literature and online sources focusing on the issue.

A guideline developed in the framework of the study is not included in this summary. It offers a very pragmatic, descriptive presentation of the thinking behind *Design for All* in the form of a guide for practitioners, suitably illustrating the most important factors of knowledge encountered in the study in a short, creative format. The Success stories of selected SMEs provide further good arguments for introducing *Design for All* in business concerns.

2. Main results of the study

The aim here is to present the main results of the study: A comprehensive description of the results, complete with all references, can be found in the final report of the research project (full version).

2.1 The guideline criteria for Design for All

The empirical investigations conducted in the course of this study indicate that the *Design for All* criteria adopted to date are hard for actors in the business world to understand. What is missing is a simple “low-threshold” access.

Representatives of SMEs are the most vocal in pointing out that excessively exhaustive or theoretical criteria can be unnecessarily complex – especially when they have no direct bearing on their own industry or their own products. Meanwhile, everyday business practice often ends up glossing over issues that call for a longer and better-researched engagement.

For the representatives of business concerns, it is important to avoid thinking too much in terms of laws and standards when developing new criteria, as this could ultimately be perceived as just adding yet more regulations. If they are to win entrepreneurs over to the issue of *Design for All*, these criteria should be formulated to be far more descriptive, motivating and easily understandable.

The question here was therefore not just one of criteria that take all the dimensions of *Design for All* into consideration and lead to good solutions: but the dimension of the application of the set of criteria to be developed was of equal importance. This entails that demonstrable examples have to be selected and presented, of a kind that can convince SME readers and fire their enthusiasm.

The first step was to analyse available documentation for the purpose of researching and drawing up criteria originally inspired by the *Design for All* concept or other related concepts (e.g. Universal Design or Inclusive Design).

The sets of criteria that have been drawn up in the area of the *Design for All* concept have so far focused primarily on publications in Europe, primarily in Spain, Italy, Luxembourg and Germany (cf. inter alia Aragall et al. 2003, EIDD 2004, IDZ/SIBIS 2009, Accolla 2009, Neumann et al. 2009, RKW Kompetenzzentrum 2010 and ZVSHK 2012).

One central set of criteria that has been widely disseminated and much quoted is the one known as the Seven Principles of Universal Design, drawn up by the Center for Universal Design (NC State University 1997). This approach has a very functional focus, aimed primarily at products and architecture.

A comparison between the respective criteria of *Design for All* and of Universal Design shows that the *Design for All* concept encompasses all the principles of Universal Design with its dimension of “user-friendliness” and “adaptability” (cf. Chapter 2.1). In addition to this, *Design for All* also considers two further fields, focusing on the creative process (the development process, including user orientation and involvement) and on a market orientation (styling and sales).

The set of criteria now being presented has been formulated in terms of five guideline criteria, i.e. sources of motivation, so that corporate decision-makers can grasp their potential as a stimulus for practical execution. To achieve this, an incisive language has been chosen, of a kind that is easily understood in business practice. The aim is to ensure that the criteria can be applied directly in every process of innovation undertaken by firms.

The five guideline criteria of *Design for All* are:

1) **User-friendliness**
   Products must be designed so they can be used simply and safely.
2) **Adaptability**
   Products must be developed so that different users can adapt them to their individual requirements.
3) **User orientation**
   Users and their perspectives must be included in the development process at an early stage.
4) **Aesthetical quality**
   Products can only appeal to everyone if they are attractive.
5) **Market orientation**
   Products must be positioned across a broad spectrum, so as to make the most of their full market potential.

These five criteria are illustrated in the full version of the criteria (see appendix) with the aid of concrete practical examples, complete with images, in order to cater for the request for tangible examples expressed primarily by corporate decision-makers. These examples also show that *Design for All* breaks no new ground, either theoretically or empirically, but has already been introduced successfully by several SMEs.

In the interest of making this set of criteria even more accessible for businesses, it is accompanied by an introduction that clarifies the objectives of the *Design for All* concept.

2.2 Success factors in Design for All

What success factors favour a successful and sustainable implementation of the *Design for All* concept in firms' respective development processes?

The concept of success factors is based on the approach adopted by entrepreneurs who already make provision at the beginning of the development process for including those factors that improve the chances that the product, tool or procedure being developed will be successful.

Both domestic and international sources in the field of *Design for All*, Universal Design, Inclusive Design, the German-language *Barrierefrei* (or "barrier-free") approach and Accessibility were drawn on for the purposes of the study. The success factors thus identified were matched against the results of selected empirical studies from the "diffusion research" (cf. Rogers 2003).

In this way, the focus was first on outlining those success factors that were identified particularly often and to especially marked effect in the context of the *Design for All* concept (cf. Aragall/Neumann/Sagramola 2008 and 2013, Neumann et al. 2008, IDZ/SIBIS 2009; Aragall/Montana 2012).

A review was subsequently held, with the help of the expert workshop and the expert discussions, so as to ensure that the success factors are truly transferable to corporate practice. This enabled the following seven success factors to be identified, which were found to enjoy particularly high approval rates among both business representatives and other experts.

The seven Success factors in *Design for All* are:

1. **Commitment of the Decision-Makers**
   Making the issue one for the boss to decide
2. **Coordination and continuity**
   Somebody has to take care of the issue in the long term
3. **Networking and participation**
   Using networks to achieve more together
4. **Strategic planning**
   Adopting a farsighted, inclusive approach to thinking about *Design for All*
5. **Knowledge management and qualification**
   Acquiring, expanding and using skills
6. **Marketing and communication**
   Appealing to customers' emotional side and enthusiasm
7. **Optimisation of resources**
   Keeping an eye on the return on investment

The results of this study show that a major effect can be achieved by giving consideration to these seven success factors, especially when they are combined together. Isolated activities on the other hand lead to no major success when implementing *Design for All.*

The fundamental premise for this is the vital issue of **bringing the decision-maker on board**. In the absence of this clear commitment, which includes a serious engagement with *Design for All*, the other success factors cannot take hold.

Many activities can really only start once this commitment has been achieved. The firm must align with the *Design for All* concept if it is to experience the approach to the full. This does not mean that the decision-maker has to do everything personally. A responsible person or **"caretaker"** can provide back-up in many areas and pursue the issue with the necessary continuity.

Networking is recommended as an efficient way of building up the necessary skills in the firm and finding new partners and customers in its economic surroundings. It offers the chance to exchange experiences about the issue of *Design for All* outside the confines of the individual business. Thereby, firms can learn from one another about how to adapt their processes successfully and sustainably and work together to develop new visions that promote the topic within a given industry.

Lastly, every business has to find its own way in the field of **strategic planning**. Successful approaches vary considerably, according to the industry and product in question, yet they all share one point: Businesses should not try to redesign their entire product portfolio overnight. They are far better advised to test new product properties step by step and make a documentary record of their success. It is important that processes are established regularly and sustainably.

This approach also supports long-term **knowledge transfer**. Meanwhile, firms also need to focus on providing their employees with **qualifications** in relevant fields, so that *Design for All* becomes a stable feature in the future and firms can use processes, training programmes and networks organised on a long-term basis to build up important skills. If they succeed in generating this knowledge transfer and learning from other actors in the industry, they will be able to position products in the market successfully.

When **communicating** with the outside world, there must never be any mention of supposed deficits among users: the message must be a clear one about added values and positive emotions. *Design for All* can and must be addressed explicitly in professional circles, so as to facilitate an efficient exchange in this context. When speaking with customers, it is better to avoid using the expression.

When the advantages of *Design for All* are communicated in a way that succeeds in addressing and convincing users, there will be more and more cases that show that *Design for All* also generates economically successful products.
This is important, as in the absence of benchmark values from the past, business concerns have difficulty in optimising their personnel and financial **resources**.

2.3 Tools for disseminating the *Design for All* concept

What tools are available for implementing *Design for All* systematically in corporate practice?

When we talk about "tools", we mean measures and means that contribute to anchoring the *Design for All* concept in corporate practice. These tools support the success factors identified above (cf. Chapter 2.2). A success factor without its respective tool will generate no effect. Tools that are developed without reference to any success factors are generally not targeted.

The study results identified ten areas in need of the development of tools that could be particularly relevant to implementing *Design for All* in business concerns.

The ten areas of tools in *Design for All* are:

1. Initial, continuous and further training
2. Events and trade fairs
3. Publications
4. Competitions and awards
5. Calls for tenders and promotion programmes
6. Norms and standards
7. Laws and regulations
8. Certificates and quality labels
9. Networks and working groups
10. External consultants

Some of these tools were considered to be particularly efficient by the business representatives and other experts. These include integrating *Design for All* **in basic, advanced and further training** programmes that touch on this issue. The effect is to raise employee awareness of the issue at an early stage, so that they can then promote it actively in the firm.

It makes sense to communicate about the topic, especially in **trade fairs** specific to individual industries and other relevant, high-quality trail-blazer fairs, as they offer a chance to reach out to a large audience, as long as the spotlight is not focused exclusively on *Design for All*. It makes far more sense to tackle the issue from other standpoints that open the door for integrating it.

Publications must be easy to understand and address the practicalities of doing business. The technical publications that address experts in the field of *Design for All* seldom reach firms, while industry-specific publications, on the other hand, have great potential. A great many firms can be reached if trends are successfully set in such publications and an awareness of *Design for All* is generated in industry.

The same can be said for **competitions and awards**: firms are interested in awards when it is clear that the trend in question is of significance to the industry. Meanwhile, little notice is given to awards that focus exclusively on *Design for All*.

Although **calls for tenders and promotion programmes** have so far played a very minor role, they can contribute to building up targeted skills in SMEs, e.g. by promoting training courses or small-scale development projects.

Norms and standards should be framed in more accessible terms: they should be formulated to be more easily understandable and attractive and be available more cheaply or free of charge.

New **regulations and laws** do not seem to promise very much, on the other hand. Entrepreneurs tend to perceive them as restrictions on their freedom, as they already work in a field governed by a rigid structure of norms.

The same applies to **certificates and quality labels**: as there is already a large range of these and their added value is not clearly defined for consumers, an additional quality label for *Design for All* is not expected to be very successful.

Networking, working groups and external consultants seems to make a lot of sense, however. There are already successful examples where networking has contributed to establishing *Design for All* as an issue with firms. This development deserves to be continued and supported.

3. Conclusions

The *Design for All* concept has so far only had a negligible meaning for the everyday business of small and medium-sized enterprises. The main difficulties encountered are that the topic is still relatively young and very complex. At the same time, some solutions that are connected with *Design for All* are still seen as unattractive and stigmatising.

The aim of this study was therefore to find a way of implementing *Design for All* in corporate practice that business operatives will find to be especially attractive and understandable.

The success factors, guideline criteria and tools identified in the framework of the study help anchor *Design for All* in business dealings. All seven of the success factors listed above favour the implementation of *Design for All* in corporate practices. The decision-maker's commitment and the co-ordination and communication of all activities within the firm are certainly significant preconditions for ensuring that the topic has a chance of becoming part of the firm's working corporate culture.

The best way to anchor the *Design for All* concept successfully in corporate practice is to use tools that make relatively modest demands on the firm's organisation, resources or prior knowledge. These include offers for basic, continuous and further training and events, such as industry meetings and leadership seminars. The latter are particularly suitable for raising awareness among decision makers and activating them. Competitions and awards about *Design for All* are also good ways of activating people and providing positive internal feedback, at the same time as publicising a firm's activities among its business peers and end users.

When promoting user involvement in SMEs, it is important to use low-threshold methods that offer firms simple approaches for adopting a user orientation. For this purpose, social networks on the Internet are just as plausible as "customer panels" run by an external moderator. External technical consultants can accompany or train firms in implementing *Design for All*, whether on an occasional basis, with respect to specific projects, or as permanent "caretakers". Firms gain from their cross-sectorial experience and specialised knowledge.

The results of this study also indicate that it would make sense to embark on stronger networking and a more intensive exchange of experience for promoting the implementation of *Design for All* in entrepreneurial practice, both within industries and also across the borders between different sectors. It is important to keep the process of discussing, convincing and inspiring firms on an accessible level, as this is the only way that business representatives will discover the topic's potential and take part in their first activities.

Building a network of practitioners in *Design for All* is a good way of supporting networking and exchanges between SMEs. As far as possible, these networks and events should be supported by confederations of industry and chambers of commerce. Online networks dealing with specific issues could be used to attract actors from entrepreneurial practice into the experience of exchanging information and making new discoveries.

By way of focusing and channelling more far-reaching interests, an Internet portal could also be built up at federal level, presenting and networking the results and examples of practice from this study and further activities.

A further useful tool for promoting the *Design for All* concept would be a "road-show" covering the entire country and organised in close collaboration with industrial federations and chambers of commerce, which would also enlist the aid of practical examples and products to raise awareness and help convince decision-makers. The advantage of a road-show as compared to other tools is that SMEs can be addressed directly in their place or work, or at least in their regions, so they do not need to budget for any major expenses or distances. The personal presence of experts in *Design for All,* of other entrepreneurs from the region and of industry representatives is usually found to be very convincing.

When combined with the guideline criteria and success factors identified in the framework of this study, the tools listed here have the potential to enable above all small and medium-sized enterprises to start on the gradual process of taking *Design for All* into account in their development processes. The aim is to make long-term conversions and forge sustainable new alignments. That is how success stories are written that have the potential to be heard well beyond the confines of one's individual business.

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Appendix

Guideline Criteria for *Design for All*

Preface

Using a product can become a real challenge and sometimes quite impossible for the elderly or people with a disability. This phenomenon affects a steadily increasing number of customers: there are already nearly ten million people with a disability living in Germany today, while the over-65s number a total of 18 million.

Special solutions offer no attractive response to this. Why should everyday products not also be designed to be supportive, comfortable and appealing? This would mean that some people's specific requirements could convert into positive added values for a great many other customers and so go even one step further than what consumers demand. Quite small alterations are often all that is necessary.

The tangible method for getting it right comes from the ***Design for All*** **concept** with its **five criteria:**

1. **User-friendliness**
   Products must be designed so they can be used simply and safely.
2. **Adaptability**
   Products must be developed so that different users can adapt them to their individual requirements.
3. **User orientation**
   Users and their perspectives must be included in the development process at an early stage.
4. **Aesthetical quality**
   Products can only appeal to everyone if they are attractive.
5. **Market orientation**
   Products must be positioned across a broad spectrum, so as to make the most of their full market potential.

These criteria will now be explained in concrete terms. In addition, practical examples from established firms illustrate how *Design for All* breaks no new ground, either theoretically or empirically, but has already been introduced successfully in many places.

1. User-friendliness

Products must be designed so they can be used simply and safely.

For a product to be usable easily and in comfort by as large a range of users as possible, it must call for no disproportionately great physical efforts or complex movements.

The strength, motor functions, sensory perception, intellectual capacity, experience and cultural background of as many users as possible must be taken into consideration in the product development process.
In order to ensure that information is communicated well, more than one sense should always be addressed (the “two-senses principle”). The difficulties that might arise from using the product can be avoided by ensuring that the sequence of operations is simple and easy to understand and incorporates a high tolerance for errors.
Design for All solutions may not breach valid norms and standards.

Things to look out for:

1. Calls for negligible strength
2. Avoids complex movements
3. The “two-senses principle”
4. Plenty of visual contrast in the styling
5. Intuitive usability
6. High tolerance for errors

Four practical examples:

Fig. 1: Easily removed plug

Fig. 2: DECT phone uses the 2-senses principle

Fig. 3: 2-way peeler

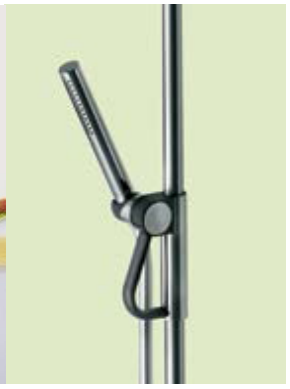

Fig. 4: Shower bar with an easily adjustable holder

Fig. 1: Easily removed plug

As it has a moveable front surface, this plus can be pulled out effortlessly. (Photo: Schulte)

Fig. 2: DECT phone using the 2-senses principle

The numbers on the keys are large, tactile and rear-lit, providing haptic and acoustic feedback for all senses. (Photo: Gigaset)

Fig. 3: 2-way peeler

Shaped to be easily usable by both right-handers and left-handers. (Photo: Ritter)

Fig. 4: Shower bar with an easily adjustable holder

Not only easy to use but stable enough to provide support. The design reveals nothing about it.

(Photo: FSB)

2. Adaptability

Products must be developed so that different users can adapt them to their individual requirements.

The possibility to adjust products individually enables many different people to use them. Adjustable seat heights and adaptable on-screen font sizes can make an enormous difference to user comfort: in the case of individual impairments, the adjustability can convert an unusable product into a usable one.
Suitable interfaces should be provided for using individual aids (spectacles, hearing aids etc.).

Things to look out for:

1. Adjustability (height, size, contrast, strength, sensitivity etc.)
2. Interfaces for using individual aids

Four practical examples:

Fig. 5: Spades with adjustable length

Fig. 6: Stapler with lever effect

Fig. 7: Height-adjustable WC

Fig. 8: Smartphone with voice control

Fig. 5: Spades with adjustable length

This spade's shaft can easily be adjusted to the user's body size. An easily arranged added value that becomes a positive unique selling point. (Photo: Fiskars)

Fig. 6: Stapler with lever effect

A fold-out lever enables this stapler to provide the extra energy needed to deal with thick blocks of sheets or a low level of strength in the hands. (Photo: Novus Dahle)

Fig. 7: Height-adjustable WC

The wall system enables the WC's height to be adjusted very simply (Photo: Viega)

Fig. 8: Smartphone with voice control

Voice input and output functions enable this phone to be used without having to look at the display. (Photo: Apple)

3. User orientation

Users and their perspectives must be included in the development process at an early stage.

Firms that know the needs of their potential users and include them in their product development in good time save on costly planning errors. This benefits not only their customers (positive use experience), but also the firms themselves (e.g. through leaner processes, less customer service calls and additional innovative ideas).
The focus should not be on the end user alone: other people who will also use the product include sales, cleaning and customer service staff, as well as the end user's relatives and frequent visitors.
A variety of methods, such as surveys, observation, product tests with customers, simulations and the use of norms and checklists can be used to discover what customers really want. Associations of consumers, seniors and people with disabilities can also provide further information.

Things to look out for:

1. User tests
2. Surveys and observations
3. Using the persona method
4. Checklists and norms

Four practical examples:

Fig. 9: Simulation suit

Fig. 10: User tests

Fig. 11: Participatory design

Fig. 12: Checklists and Norms

Fig. 9: Simulation suit

This enables developers to build on personal experience to reproduce different users' perspectives and get inspiration for new solutions. (Photo: adit)

Fig. 10: User tests

User tests enable different user groups to provide important feedback and highlight new challenges. (Photo: Stihl)

Fig. 11: Participatory design

Working in close proximity with customers pays, especially in craftsmanship, enabling solutions to be developed not just for, but with the customer. (Photo: Schillings)

Fig. 12: Checklists and norms

These enable significant basic design tenets to be taken into account from the standpoint of users. (Photo: Interreg-project "Wohnen im Wandel")

4. Aesthetical quality

Products can only appeal to everyone if they are attractive.

A significant element in making a decision to buy a product consists of its ability to use our emotions to stimulate our attention and our desire to own it, for example. An attractive design makes all the difference to products that are destined to become an integral and positive part of their users' surroundings.

Any support functions should be conveyed and come across not as stigmatising special solutions, but as attractive added values.

Things to look out for:

1. Attractive styling
2. Communicating added values – avoiding stigmas

Four practical examples:

Fig. 13: Hot-water bottle

Fig. 14: Modular sofa system

Fig. 15: Cordless hands-free device with door opener

Fig. 16: Wine label with Braille

Fig. 13: Hot-water bottle

As it is filled when flat, it is safer to handle. Its colourful styling is very appealing. (Photo: Authentics)

Fig. 14: Modular sofa system

In this sofa, various elements and the seat's height, depth and hardness can be set individually to suit the user's needs, all with a result that caters for the brand's demanding taste in design. (Photo: COR Sitzmöbel)

Fig. 15: Cordless hands-free device with door opener

Built into an attractive DECT phone, this video interphone can be used to open the entrance door from any room in the house. (Photo: Siedle)

Fig. 16: Wine label with Braille

This wine label with added Braille shows that it is quite possible to create added value and also win design prizes. (Photo: Pieroth Gutsweine)

5. Market orientation

Products must be positioned across a broad spectrum, so as to make the most of their full market potential.

The requirements of *Design for All* should never be allowed to come across to customers or firms as an excuse for raising the price. Customers are only prepared to pay for positive added values that surprise and convince them. It is ultimately a product's added values that convince markets and make people ready to pay.
Every product has to compete against other products from the same class of goods: added values enable it to measure up to them and set itself apart. The product's price, communications and marketing must be made to measure for the target groups in question. The use made by product developers of the scope for design provided in technical stipulations (such as norms) should ensure that new markets are opened up for the firm, because the products can be deployed across a broader spectrum.

Things to look out for:

1. Find and communicate added value for All
2. Better products: go beyond what customers expect
3. Never talk about impairments, not even when the product solves them
4. Make full use of the scope for design provided in technical norms

Four practical examples:

Fig. 17: WC with built-in shower head

Fig. 18: Smoke alarm with route illumination

Fig. 19: Shower fitting with push-button control

Fig. 20: Salad spinner usable with one hand

Fig. 17: WC with built-in shower head

The potential for high-tech innovation from the Far East is growing, if it is designed to suit the European market's taste. (Photo: Duravit)

Fig. 18: Smoke alarm with route illumination

The built-in light not only warns users with poor or no hearing, it also supports and reassures many other customers. (Photo: Bosch)

Fig. 19: Shower fitting with push-button control

This fitting puts the focus on ease of control by just pushing a button. Customers with limited fine motor ability are not the only ones to benefit from this product. (Photo: Hansgrohe)

Fig. 20: Salad spinner usable with one hand

You only need use one hand to dry your salad with this spinner. That appeals to plenty of users for all sorts of reasons. (Photo: OXO)