



# **ANEC Policy Statement on Design for All**

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**European Association for the Co-ordination of Consumer Representation in Standardisation, AISBL**  
Av. de Tervueren 36, box 4 – B-1040 Brussels, Belgium - phone +32-2-743 24 70 - fax +32-2-706 54 30  
e-mail: [anec@anec.org](mailto:anec@anec.org) - internet: [www.anec.org](http://www.anec.org)

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## **ANEC in brief**

ANEC stands for 'European Association for the Coordination of Consumer Representation in Standardisation', in short the *European consumer voice in standardisation*. ANEC was established in 1995 as an international non-profit association under Belgian law to defend consumer interests in European standardisation and to counterbalance the industry view while aiming at a high level of protection. ANEC is funded by the European Commission and EFTA, and its Secretariat is based in Brussels.

Inclusion and Design for All is one of the priority areas for which ANEC maintains standing working groups. The others are: Child Safety, Domestic Appliances, the Environment, the Information Society, Services and Traffic Safety.

ANEC provides technical expertise based on a network of more than 200 consumer representatives across Europe. Our experts participate directly in the work of more than 60 Technical Committees and New Deliverables of the European Standards Bodies. We are a full member of ETSI, an associate member of CEN and an observer to CENELEC.

Standardisation is not only about product safety, conformity and harmonisation. It also addresses new areas such as the environment, services and e-commerce. Moreover, in the European Union (EU), the regulatory role of standardisation under the New Approach to Technical Harmonisation makes participation in the process even more important. Proper consumer participation at all levels is vital to ensure that the public interest is taken into account.

Unfortunately, consumer involvement in national standardisation leaves a lot to be desired. An ANEC study published in 2001 (ANEC2001/GA/014), points out that national arrangements for consumer representation are significantly developed in only eight of the 15 EU Member States and three EFTA countries.

Against this background, ANEC has been calling for a revision of the European standardisation system (ANEC2001/GA/007). For instance, consumers are asking for measures to protect stakeholders representing the public interest. These measures should include improved quality control and the establishment of a mechanism for conflict resolution within standards bodies.

## **The importance of Design for All**

The European Union is founded on the principles of liberty, democracy, respect for human rights and fundamental freedoms, and the rule of law (Art. 6 of the Treaty on European Union). This commitment is complemented by Art. 13 of the EC Treaty which enables the Member States to combat discrimination based on disability.

Non-discrimination is an important issue not only in the employment sector but also with respect to education, transport and access to services and products. In fact, it is a basic consumer right to have access to products and services, and discrimination exists if the elderly and disabled are barred from using mainstream consumer products and services.

Legislation is possible and has been passed against different kinds of discrimination based on disability. It is unlikely, however, that such legislation will cover manufactured products. ANEC members therefore see standardisation as an appropriate tool to encourage Design for All and as a challenge for standards developers.

Unfortunately, to date most standards for mainstream products and services do not take the needs of elderly and disabled consumers into account. The majority of people with disabilities have minor impairments. For example, far more people walk with difficulty than use wheelchairs; far more people use spectacles for reading than are blind or partially sighted. By addressing the needs of more severely disabled people, standards developers and manufacturers will simultaneously increase the usefulness of products for people with minor impairments. What is more, products and services that can be used by elderly people and the disabled are easier to use for everyone, since they are more comfortable and require less effort. Designers should not think they are designing for the disabled alone. They should be designing for as wide a range of users as possible, including themselves, and with a view to the future.

People also tend to consider Design for All as serving a minority of people and fail to realize that anyone can be disabled in one way or another at any time, as a result of a broken leg, for instance. Moreover, with age, we all tend to have more disabilities - in sight, hearing and mobility, to name the most obvious. Eurostat statistics show that over 77 million people - 20 per cent of the population in the European Union of Fifteen – are 60 years of age or more. Eurostat also predicts that most EU regions will see the number of older people double by 2030. Hence, there is an increasing market for products designed for all.

The Information Society offers high potential for addressing Design for All issues. Due to the enormous impact of the Information Society on the consumer<sup>1</sup>, it is vital that standards elaborated for Information Society products and services take the consumer view into account. ANEC, the European consumer voice in standardisation, consequently attaches particular importance to ICT, the Information Society and Design for All. One of our main objectives is to achieve standards that ensure adequate levels of safety, security of information and interoperability across borders as well as Design for All and accessibility.

Design for All means designing mainstream products and services so that as many people as possible can use them easily - whatever their age and ability. The concept recognises that ability is a continuum, and the usability of products should extend towards the ends of that continuum.

This does not mean that manufacturers are expected to design every product to be usable by every consumer - there will always be a minority of disabled people with severe impairments who need adaptations or specialised products. But when Design for All principles are adopted, fewer people will require specialised and expensive alternative equipment. In fact, ANEC is convinced that the incorporation of Design for All principles will reduce the need for adaptations and specialised products. Further, owing to the economies of scale, mainstream products and services are generally less costly than low volume specialised equipment.

Hence, there are a number of messages which all stakeholders involved in standardisation need to bear in mind:

- The excuse that it is people's specific characteristics that prevent them from using mainstream goods and services is not acceptable. Goods and services can and should be designed to meet the needs of a wide range of people, including those with disabilities. Product designs can be changed, but people's abilities or age cannot.
- Design for All is beneficial to everyone. Features that make a product accessible to older and disabled people generally make products and services easier for everyone to use. We all get older. And our needs change with age. Hearing, vision, mobility and strength impairments are common to the ageing process. Products designed for all continue to be usable and safe into our old age.
- Anyone can have special needs at any time in life - using things and getting around in the dark when the lights fail, using a product with one hand when the

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<sup>1</sup> *The consumer is a natural person or group of persons using products and/or systems for purposes not related to his or her trade, business or profession. The consumer is the end user of the products or systems and is usually the one paying for them. Consumers do not all fit into the same mould: they have a wide variety of needs and abilities, and different qualifications and requirements in using systems or products. Education, gender, cultural and ethnic background can influence their way of handling or operating products and systems. Industry has to take these different characteristics into account in designing products and systems and their user manuals, which should not be restricted to purely technical information.*

other is holding a child or otherwise busy, being slowed down with a broken leg. Well designed products are easy to use in all circumstances.

- Finally, products designed for all consumers will save money because mainstream goods are more competitively priced than specialised equipment. Where aids are supplied by social services, there is a public finance benefit, too. For the individual, greater use of mainstream products also reduces the need for technical aids to live independently.

### **The need to implement CEN/CENELEC Guide 6**

In 1999, the European Commission confirmed the importance of Inclusion and Design for All principles by launching Mandates 273 and 283. Mandate 273 concerns standardisation in the field of information and communication technologies (ICT) for older and disabled people. Mandate 283 relates to the safety and usability of products for older and disabled people. It requires the drafting of guidelines on addressing the needs of older and disabled people in product standards, the setting up of a mechanism to ensure that the guidance document is used and continuously improved, and the review of specific existing standards that might need to be amended in line with the published guidelines.

At international level, ISO COPOLCO has also initiated work on a guidance document. ISO and IEC have developed Guide 71 providing guidelines for standard-makers on addressing the needs of the disabled and elderly. To comply with Commission Mandate 283, the European standards bodies CEN and CENELEC decided to transform the ISO/IEC Guide 71 into a European deliverable, which is how CEN/CENELEC Guide 6 came about. It is important to note that ISO/IEC Guide 71 and CEN/CENELEC Guide 6 are identical documents.

ANEC was actively involved in drafting both EU Mandate 283 and ISO/IEC Guide 71. Drawing up the guidelines was a challenge and it is crucial to put them into practice. Against this background, it is the purpose of this ANEC policy statement to stress that products and services need to be available and accessible to consumers of all ages, irrespective of their abilities. The challenge today is to integrate the concept of Design for All in the standardisation process. Modern standards have to ensure safe access to products and services for as many consumers as possible. This requires commitment and implies a change of mindset, in particular in standards bodies.

Having said this, ANEC urges the European standards bodies to implement CEN/CENELEC Guide 6 in their technical work in all sectors. Guide 6 is a 30-page document explaining how to address the needs of older and disabled people in standards work. It outlines a process to be undertaken by technical committees and provides tables relating relevant clauses of standards to different factors of consideration to ensure that all abilities are addressed. The guide describes abilities and the practical implications of impairment and provides a list of sources of further information. Guide 6 does not establish quantitative values, which over time may

need to be developed. There are a number of important arguments why it is vital to implement CEN/CENELEC Guide 6 in all sectors:

- **Binding effect:** European standards committees are bound by the European Commission policy to address the needs of older people and people with disabilities in standardisation (Mandates 273 and 283). Mechanisms are being developed to ensure that the guidance materials available are used.
- **Demography:** As mentioned above, Europe has an increasingly ageing population, which is leading to more widespread levels of disability.
- **Easy use:** Design for All benefits all consumers.
- **Wider choice:** Older and disabled people will have a wider choice of accessible and usable products.
- **Independence:** Inclusive design leads to increased and prolonged independence for older people if mainstream products and services continue to meet their needs.
- **Innovation:** Adherence to Design for All principles does not have to be design restrictive. On the contrary, industry needs to develop innovative solutions to make their products and services accessible to and usable by more consumers.
- **Costs:** Inclusive design does not inevitably raise production costs if it is built in from the start of product conception - from the point at which manufacturers refer to the standards with which they must comply.
- **Growing market:** Design for All is beneficial to industry because there is clearly increasing demand for products designed for all.

## Conclusion

ANEC views standards as an appropriate instrument to address and foster Design for All in mainstream products and services. The crucial issue today is the implementation of CEN/CENELEC Guide 6. Accordingly, ANEC calls on all standards bodies to implement Guide 6 in every sector. This is the real challenge requiring a change of mindset. Implementation of Guide 6 will serve as a yardstick for measuring the extent to which modern standards meet the needs of European consumers and citizens.

## **Annex: Practical Principles of Design for All<sup>2</sup>**

The Centre for Universal Design at North Carolina State University (USA) has developed the following broad principles:

- Equitable use: the design must be useful and marketable to any group of users - avoiding segregation or stigmatisation of any users.
- Flexible in use: the design must accommodate a wide range of individual preferences and abilities.
- Simple and intuitive use: the design must be easy to use and understand, regardless of the user's experience, knowledge, skills or concentration level.
- Perceivable information: the design must communicate necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.
- Tolerance for error: the design must minimise hazards and the adverse consequences of accidental or unintended actions.
- Low physical effort: the design must be usable efficiently and comfortably and with minimum fatigue.
- Size and space for approach and use: appropriate size and space must be provided for approach, reach, manipulation and use, regardless of the user's body size, posture, or mobility.

## **Practical Product Principles**

### **Controls**

- Easy to reach: without the need to bend or stretch
- Large enough to grip easily: small fiddly controls put strain on the joints used in bending fingers and hands
- Non-slippery surface: the greater the friction of the surface, the less force is needed to retain the grip
- Protruding or raised rather than recessed: easier to locate by touch, and open space around a protruding control allows it to be operated by swollen and inflexible fingers, or the side of a very weak or painful hand; recessed controls provide limited space for fingers only, requiring a specific grip
- Requiring light pressure to operate: this decreases the pressure required from the user's fingers
- Controls requiring dual action, such as pushing and twisting, are to be avoided: they require continued pressure and twisting at the wrist, painful or impossible for some people

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<sup>2</sup> The following information is quoted from the ANEC report 'Design for All – Accessible Design - MEETING THE NEEDS OF OLDER PERSONS AND PEOPLE WITH DISABILITIES -GUIDELINES FOR PRODUCT DESIGN AND TESTING, Project carried out for ANEC by RICAbility (ANEC2000/SPEC/015).

- Well spaced rather than cramped or close together: provide enough space around each control for swollen fingers or a hand with tremor
- Different shapes and sizes, so different controls can be identified by touch
- Large clear labelling: strong colours that contrast with the background colour
- Tactile markings: need to be easy to locate and feel, to guide partially sighted and blind people
- Essential information should be provided in different modes: pictorial, tactile, lights and sounds

### **Stability**

- Must not tip over easily
- Effective anti-slip bases: particularly helpful for one-handed use

### **Accessories**

- Easy action to connect and disconnect: without the need for precision or strength
- Fiddly parts are best avoided: they are awkward to set up
- Separate storage as an alternative: to reduce the weight of a portable product

### **Cleaning**

- Unnecessary markings should be avoided: they trap dust and debris and make cleaning difficult
- Sharp edges are best avoided: uncomfortable or even painful to touch or grip

### **Portability**

- No heavier than necessary to lift
- Good holding places or carrying handle: well placed, comfortable, space for two hands
- Good balance and shape: so that it does not strain joints, nor swing into the person carrying it

### **Instructions**

- Clear, straightforward type face
- Clear, straightforward layout
- Large type size: 14 point where possible, not below 12 point, and good space between the lines
- Strong colour print on a light background
- Matt paper or with a slight sheen: glossy paper reflects light and makes reading more difficult
- Alternative formats: large print (14 point minimum), Braille and audio tape