

## KAN recommendations for DIN standards committees

An outcome of KAN Study 53: The contribution of OSH-related standardization to implementation of the UN Convention on the Rights of Persons with Disabilities – Feasibility study

One purpose of **product standards** is to create a basis for products that are safe and conducive to good health. From the perspective of inclusion, i.e. the avoidance of special systems for persons with disabilities, this objective is not always met. In the area of machine safety, for example, the generic EN ISO 12100 standard, Safety of machinery – General principles for design – Risk assessment and risk reduction (2011), requires a product's range of application to be stated, as a part of which consideration is to be given to user groups with impaired abilities. However, product standards frequently fail to address these user groups, and often lack information on the range of application.

**The aim** of this document is to raise awareness on standards committees for aspects of inclusion. Better incorporation of aspects of inclusion into standards would enable more strategies to be found for satisfying product safety requirements. This in turn would extend the range of application of products and work equipment, thereby enabling them also to be used by persons of impaired ability without endangering safety or health.

The table below shows **modules** that can assist in the incorporation of aspects of inclusion into product standards.

Module
Make the content of the following documents known on product standards committees: <a href="#">DIN Technical Report 131</a> , Guidelines for standards developers to address the needs of older persons and persons with disabilities; CEN/CENELEC Guide 6 (2003)/ <a href="#">ISO/IEC Guide 71</a> , Guide for addressing accessibility in Standards (2014); and examine possible implementation of the main principles during the development and revision of standards.
Make the content of the following documents known on product standards committees: <a href="#">DIN Technical Report 124</a> , Products in Design for All, (2002) and <a href="#">DIN SPEC 33421</a> , Ergonomics data and guidelines for the application of ISO/IEC Guide 71 to products and services to address the needs of older persons and persons with disabilities (2014); and examine possible implementation of the main principles during the development and revision of standards.
<b>Examine and evaluate</b> the content of the standards against the following <b>criteria/abilities</b> (results of this KAN study): <ul style="list-style-type: none"><li>• Sensory (sight, hearing, touch, taste/smell, sense of balance)</li><li>• Physical (dexterity, manipulation, mobility, force, voice)</li><li>• Cognitive (intellect/memory; language/literacy)</li><li>• Allergies</li><li>• Other (e.g. body dimensions)</li></ul>

**Model documentation** for the purpose of examination, and information on evaluation with reference to the example of a two-hand control device for a press (requirements profile of human abilities) from the results of KAN Study 53

Subject of standardization under consideration <b>Two-hand control device to EN 574</b>							
Human characteristics and abilities		Requirements concerning the characteristics and abilities (*)					
Group	Characteristic/ability	0	1	2	3	4	5
Sensory	Sight		X				
	Hearing	X					
	Touch		X				
	Taste/smell	X					
	Sense of balance	X					
Physical	Dexterity		X				
	Manipulation				X		
	Mobility	X					
	Force		X				
	Voice	X					
Cognitive	Intellect/memory		X				
	Language/literacy	X					
Allergies	Contact, foods, breathing air	X					
Other, e.g. body dimensions	Particular remarks						
(*) Scale of requirements concerning human characteristics and abilities: 0 - none 1 - very low 2 - low 3 - average 4 - high 5 - very high							

In order for a press safeguarded by a two-hand control to be used, the pushbuttons of the control must be recognizable as such, reachable, and operable.

### Measures following examination and evaluation

- A provision in the product standard that in his user information, the manufacturer must state the particular human abilities required in order for the product to be used without danger to safety or health.
- A clear provision in the product standard that aspects of inclusion have been examined, for example by inclusion of a sentence such as: *'Principles and recommendations for the incorporation of inclusion aspects were considered during the development of this standard and, where possible and beneficial, were also incorporated.'*