



FEES

Federation of the European Ergonomics Societies

Vereinigung der europäischen ergonomischen Gesellschaften e.V.

Results of the Survey about Take up and Use of Ergonomic Standards 2011



Introduction

Strategic Advisory Group (SAG) of CEN/TC 122

(Head of the Group: Dr. Ringelberg – Netherlands)

- The SAG intended to give information about future developments regarding standardization



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- The SAG intended to give information about future developments regarding standardization
- The SAG decided to accomplish an inquiry to get more detailed information about the needs and wishes of the customers of standards
- For this purpose a questionnaire was developed. The questionnaire will be distributed throughout Europe (scientists, companies etc.)



Introduction

Second meeting of the SAG Group 24-25 February 2011, Delft

- It was decided, that the survey made by FEES will be send again to different stakeholders in the field of ergonomics in order to enlarge the sample size.
- The survey is still available on the website of FEES, www.fees-network.org. A reference to a hyperlink can be used to spread the survey via e-mail.
- The reason for the survey is mentioned in an invitation letter. This letter will be reviewed by a native English speaker and can thereafter be translated in other national languages to invite people to fill in the survey.



Introduction – Action plan

- | | | |
|-----|---|------------|
| 1. | Addition to survey | March 2011 |
| 2. | Send survey to parties concerned | 31.03.2011 |
| 3. | Data collection of survey | 15.08.2011 |
| 4. | Meeting of CEN/TC 122 SAG | 26.09.2011 |
| | - Presentation of results | |
| | - Recommendation for CEN/TC 122 | |
| | More focus on specific ergonomic guidance for C-standardizers and PPE groups | |
| 6. | Inform CEN | 01.12.2011 |
| 7. | Inform CEN/TC 122 | 25.04.2012 |
| 8. | Inform parties involved in the survey | May 2012 |
| 9. | Evaluation of one standard in practise | May 2012 |
| 10. | Ask standard buyers to give feedback | |



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Procedure and sample description

Application of the Questionnaire

- The SAG Questionnaire was available on the web site of FEES
- The answers were registered online

Sample Description

- 174 persons participated in the inquiry
- 163 persons use ergonomics standards



Sample description – User groups of ergonomics standards

| No of Persons | % | User Group of Ergonomics Standards |
|---------------|------|------------------------------------|
| 51 | 31.5 | Ergonomist in a company |
| 30 | 18.5 | Researcher |
| 24 | 14.8 | Expert in safety and health |
| 15 | 9.3 | Public authority |
| 12 | 7.4 | Designer |
| 11 | 6.8 | Standards Developer |
| 5 | 3.1 | Certification Bodies |

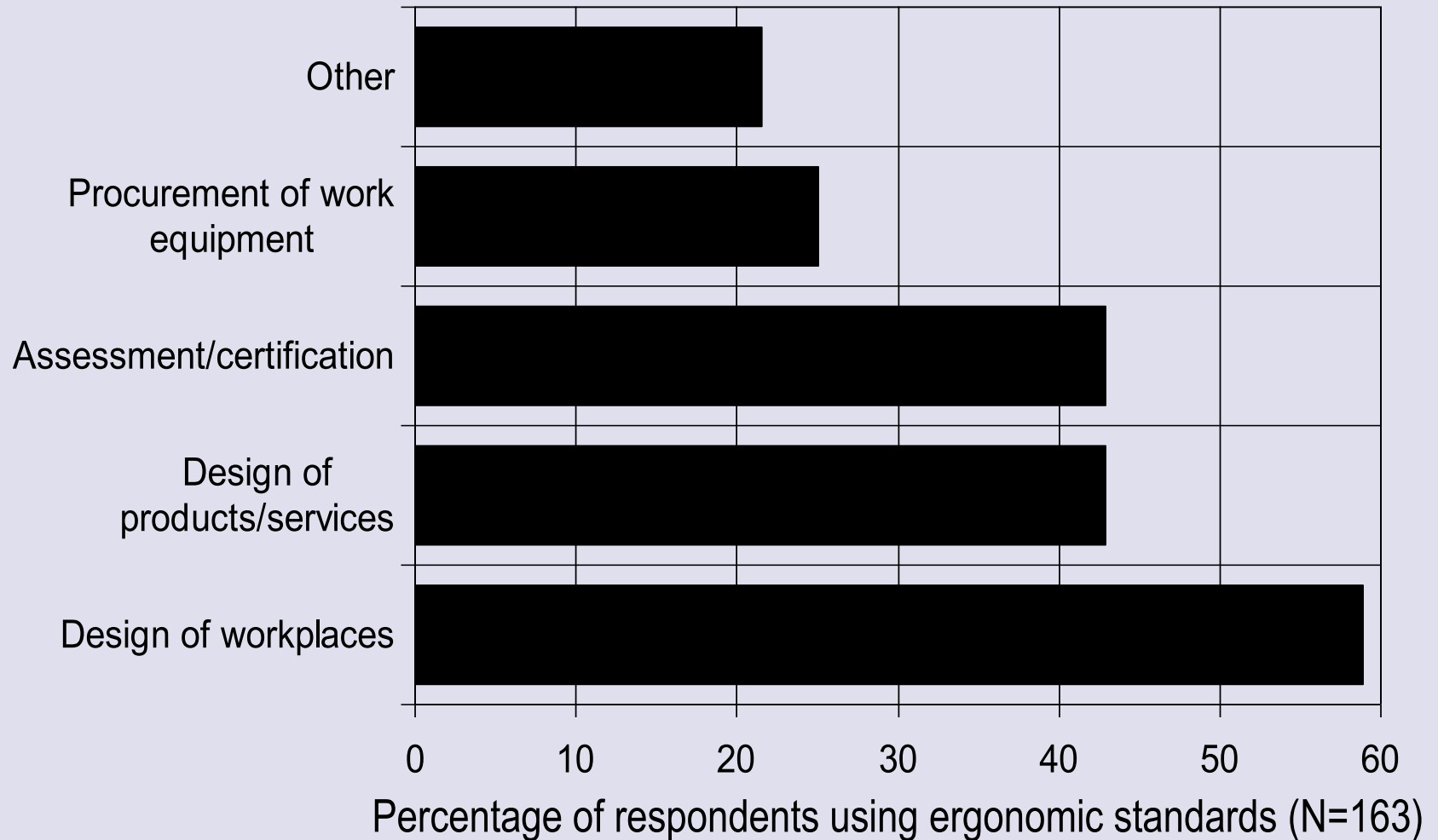


Sample description – User groups of ergonomics standards

| No of Persons | % | User Group of Ergonomics Standards |
|---------------|-----|------------------------------------|
| 4 | 2.5 | Medical Doctor |
| 3 | 1.9 | Project Manager |
| 3 | 1.9 | Manager |
| 1 | 0.6 | Workers Representative |
| 1 | 0.6 | Consumer/User |
| 1 | 0.6 | Consumer/User Representative |
| 1 | 0.6 | Employer |



For what purpose do you use ergonomic standards?



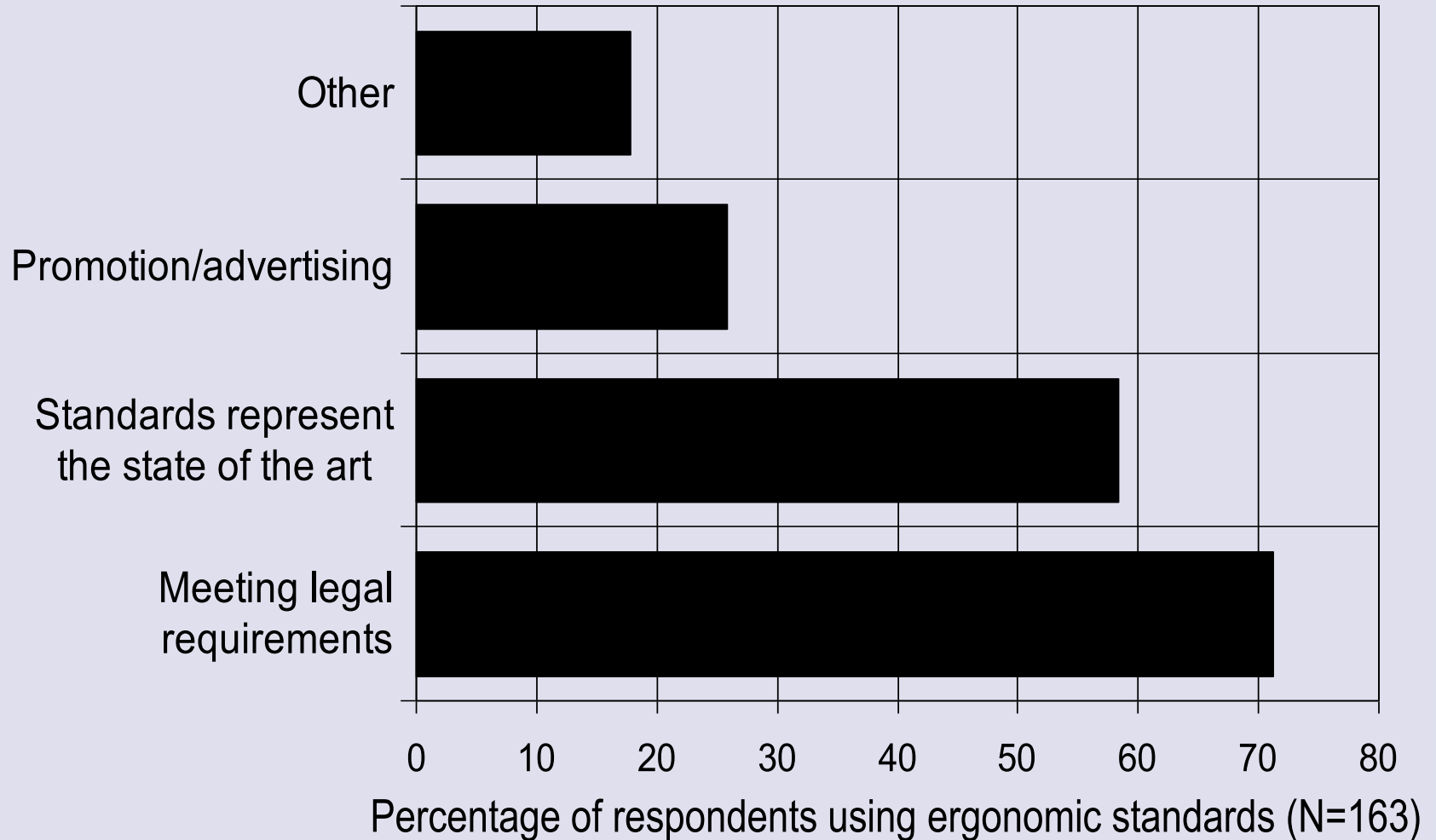


Other purposes

- Assessment of system safety
- Ergonomic (risk) assessment
- Establishing acceptable workload
- Workplace evaluation
- Supervision with respect to occupational medicine
- Education, instruction, end user training
- Convincing the client of the need of ergonomics
- Supplier assessment
- Demonstrating the state of the art
- Development of new standards
- Application of standards in other areas of standardization



Why do you use ergonomics standards?





Other reasons

Other reasons are

- Health related prevention
- A standard is a meaningful reference for the client
- Compliance with a standard assures we get the right product
- Credibility of the method
- Neutral test of products
- Achieving best human performance



How do you get copies of ergonomic standards?

- Austrian Standards Institute - ASI
- German Institute for Standardization - DIN
- British Standards Institution - BSI
- Italian standards association - UNI
- Nederlands Normalisatie-instituut - NEN
- INRS - Institut National de Recherche et de Sécurité
- AFNOR - International services delivery network
- Research with NORA
- Access participant X35
- Member of CEN/TC 122 and ISO 159
- Member of SIS TK 380 Ergonomics



How do you get copies of ergonomic standards?

- Purchase (via internet)
- Subscription
- Asking people who belong to standards committees
- University license
- Department of standardization in the company
- Internet
- Beuth publisher



How could this process be improved?

- Getting standards at no charge
- Free access promoted by governments
- Lowering prices of standards
- FEES membership should include access to standards in their heavy fees
- A kind of membership and the possibility to get the standards for free every time they are being updated
- Access to standards should be available to each Eur Erg by the web
- An international portal which has all of the standards and can be bought by a minimum charge
- Compilation of several standards and publishing them as a handbook



How could this process be improved?

- Favouring accesses by the web
- Internet links to standards
- Possibility to browse descriptions
- Better online availability
- Better search facilities
- Better key words
- Improved general views
- E-mails on new standards
- Electronic copies of standards
- Systematic information about standards
- Information by ergonomic-magazines
- Interlibrary loan



How do you keep yourself informed about ergonomic standards activities?

- It is hard to get information about new standards
- Hearing about new standards by chance
- National ergonomics societies
- Swedish work and environment authority
- Collaboration in standards committees
- Asking colleagues
- Regular analysis of published standards
- Browsing through the NEN-shop
- CEN/ISO livelink
- Newsletter of the national organizations for work safety and health
- KAN newsletter
- ASI-Newsletter



How do you keep yourself informed about ergonomic standards activities?

- The Ergonomist
- AFNOR
- EUROGIP
- CYS
- HZN
- Institut National de Recherche et de Sécurité
- Internet
- Ergoweb
- IEA conferences
- Ergonomics journals
- Lectures, ergonomics literature
- Seminars and training courses



How could the information source that you use be improved?

- Better online availability
- A good website with abstracts what to expect if you buy a standard
- A HFE website that continually updates persons what standards are available, when they are being created and when they are being revised
- An internet list on the IEHF website
- Short bulletin/web resource about international activity in ergonomics standardization
- Newsletters from relevant standardization bodies or incorporation of news about ergonomics standard updates in newsletters of Ergonomics Societies



How could the information source that you use be improved?

- Cross-links to related standards from other groups and related publications from unofficial developers keeping into account other experiences (aeronautics)
- Internet lists for professionals
- Direct contact to ergonomics professionals
- Newsletter twice a year, newsletter from FEES
- New bulletin
- Mailing
- Getting them from EHSS in Sweden
- Serving out the standard to all parties which are concerned
- Coordination through FEES
- User guide



Internet-links pointing to ergonomic standards

Would you agree that Internet-Links, pointing to ergonomics standards, should be placed on Web pages of related organizations (professional or scientific organization) ?

- Yes 93.2%
- No 6.1%



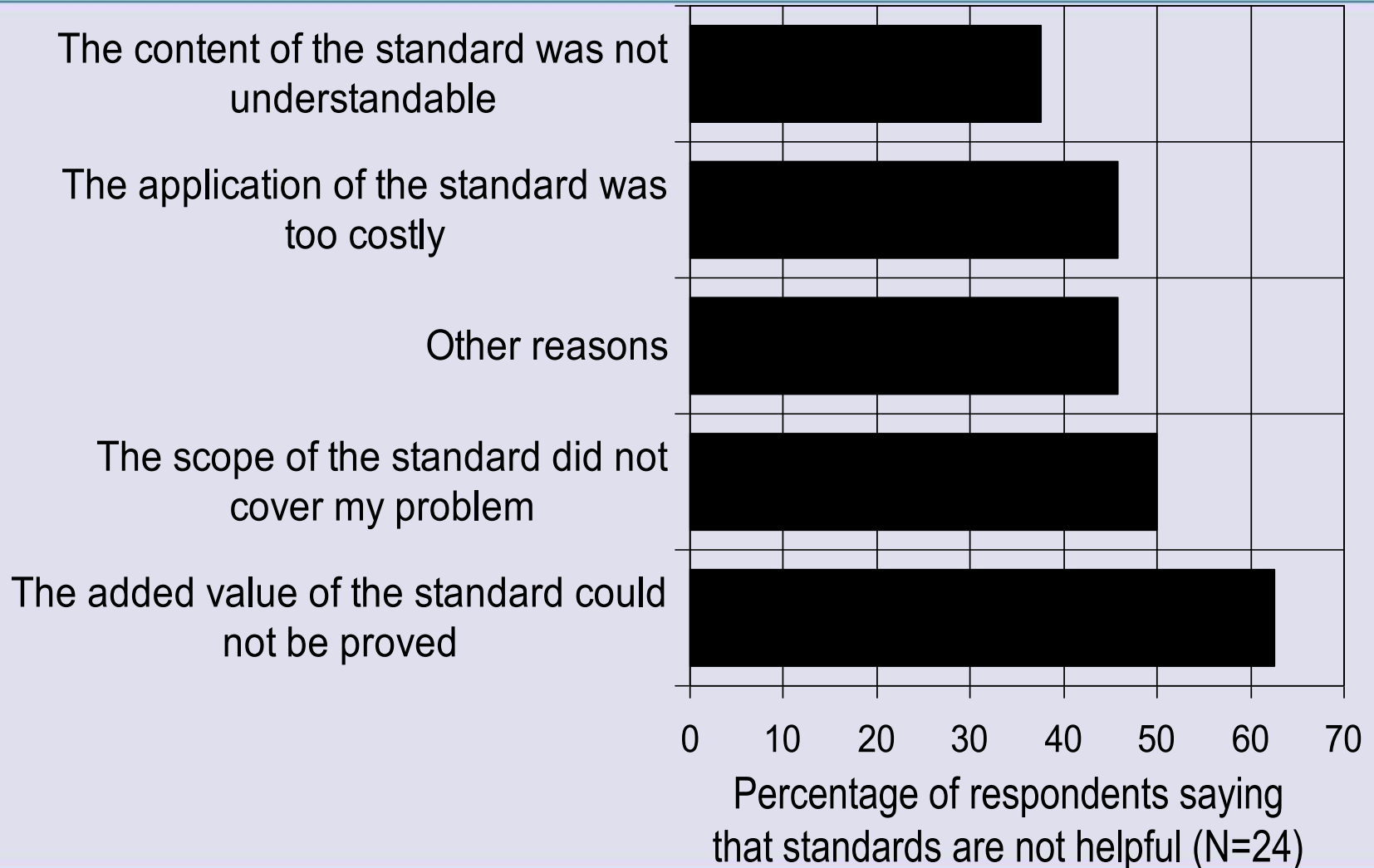
Do ergonomics standards help you to solve technical/business issues?

Do ergonomics standards help you to solve specific technical or business issues ?

- Yes 84.7%
- No 14.7%



If no, why not?



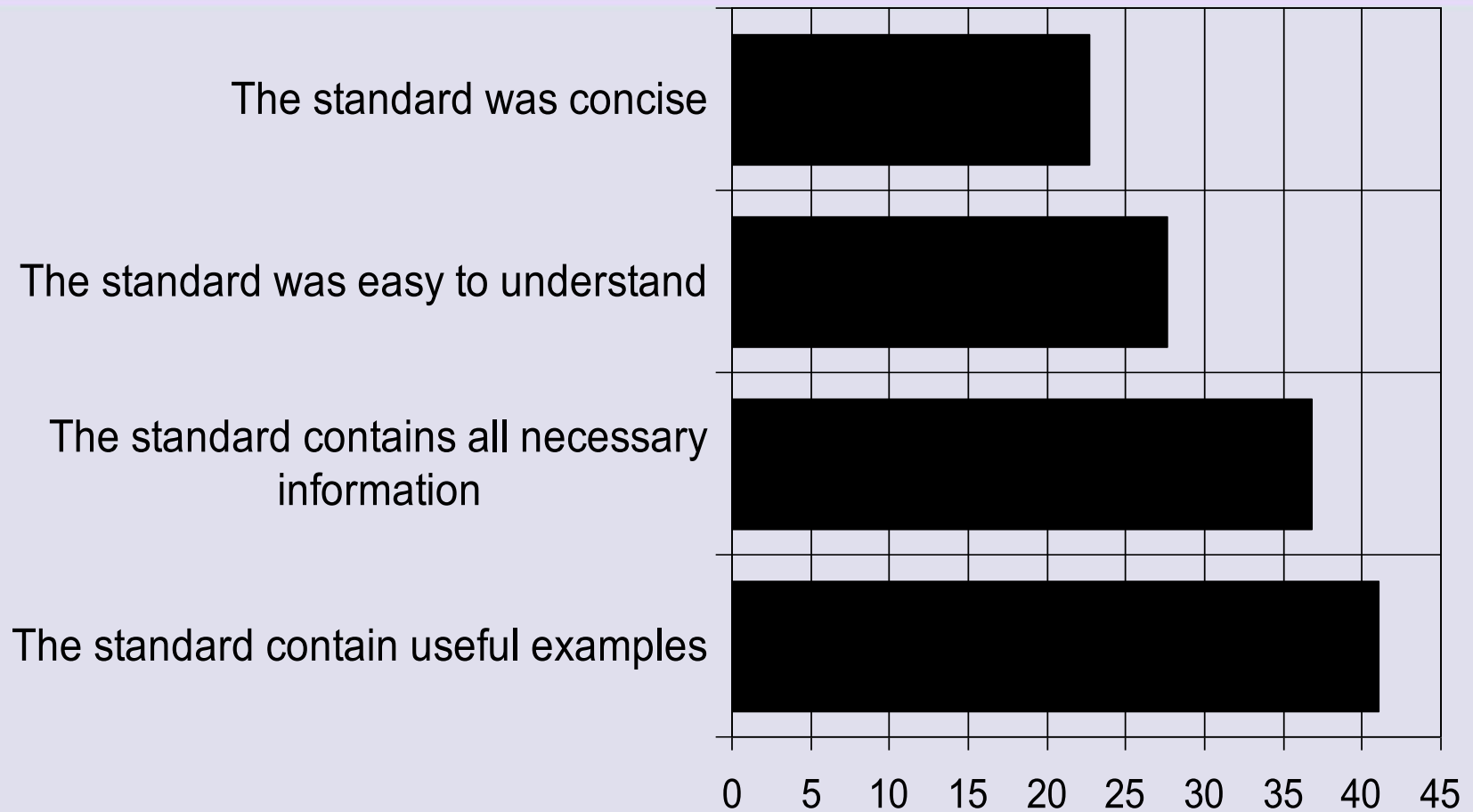


The application of the standard was not possible for other reason

- The standards seem to be not up-to-date and out-dated
- The standards are partly removed from reality and they are partly incomprehensible
- The standard offered no real solution
- The content is not always useful for practical application
- The standard offered only generalized thoughts
- Standards were either too specific to a certain situation or too general to add something of value
- The scientific background of standards is often lacking



Which of the following statement applies?



Percentage of respondents using ergonomic standards (N=163)



Training courses

Training courses for the application of selected standards would be desirable ?

- Yes 54.0%
- No 45.4%



If yes, training courses for which ergonomic standard?

- **DIN 33402**
Ergonomics - Body dimensions of people
- **ISO 7250**
Basic human body measurements for technological design
- **DIN EN ISO 924**
Ergonomic requirements for office work with visual display terminals (VDTs)
- **EN 894**
Safety of machinery - Ergonomics requirements for the design of displays and control actuators
- **ISO 9355**
Ergonomic requirements for the design of displays and control actuators



If yes, training courses for which ergonomic standard?

- **DIN IEC 60601**
Medical electrical equipment
- **DIN EN ISO 10075**
Ergonomic principles related to mental workload
- **DIN EN 614**
Safety of machinery - Ergonomic design principles
- **DIN 33 xxx**
all ergonomics standards
- Anthropometric data
- Workplaces for vehicle drivers
- Acoustic noise, lighting, climate



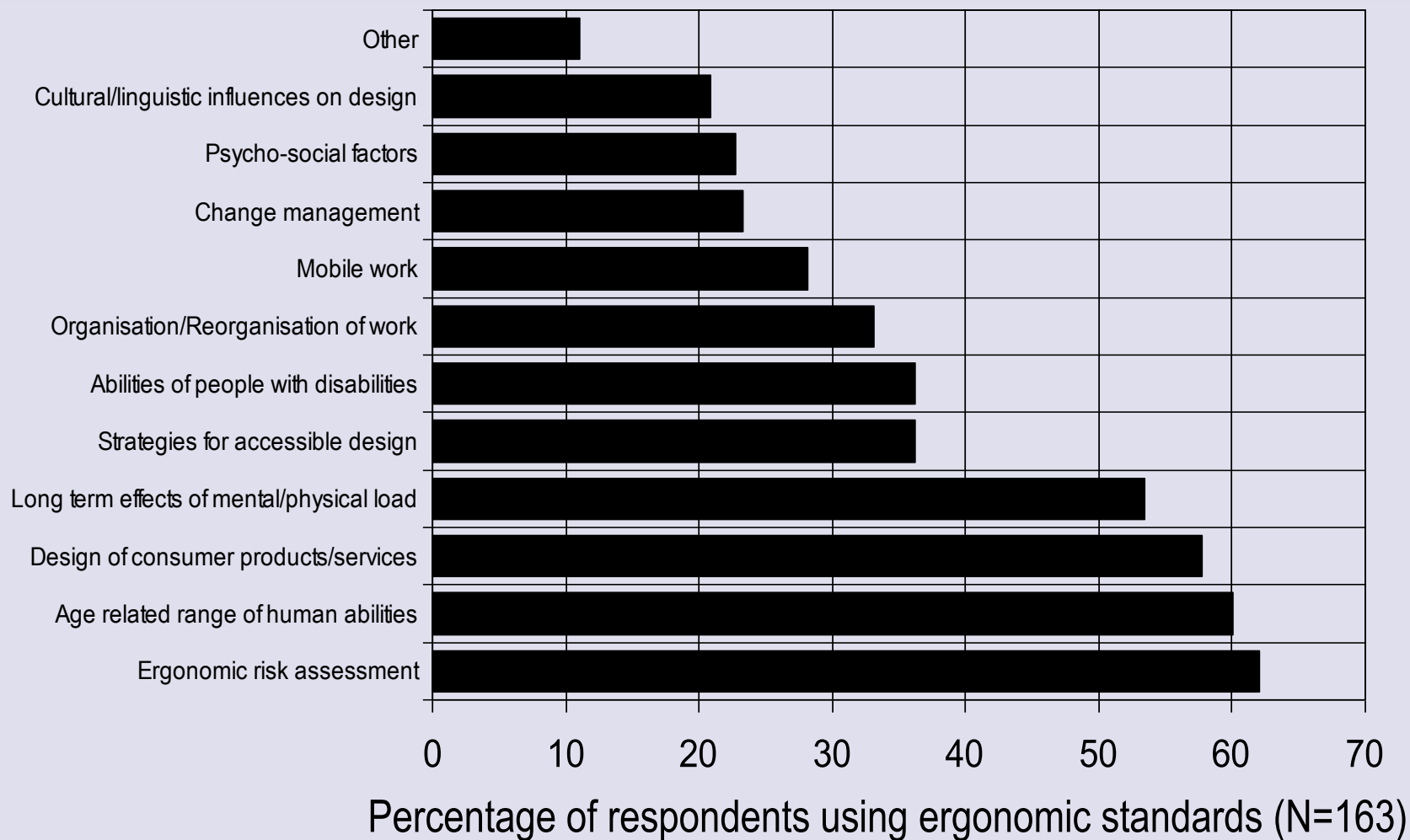
E-learning on ergonomics standards

E-learning on ergonomics standards to teach ergonomics in engineering schools would be desirable ?

- Yes 74.2%
- No 24.5%



Topics for future ergonomics standardization





Other topics for future ergonomics standardization

- A generic standard that applies to all workstation design
- Design of indicators and actuators for complex dynamic systems
- Safety-related assessment and evaluation
- Risk assessment for design
- Cognitive/mental load
- Mental workload: referring to mental straining work-situations like control rooms
- User behavior and personal control aspects
- Software-Ergonomics
- Ergonomics of knowledge work
- Gender issues
- Human Error

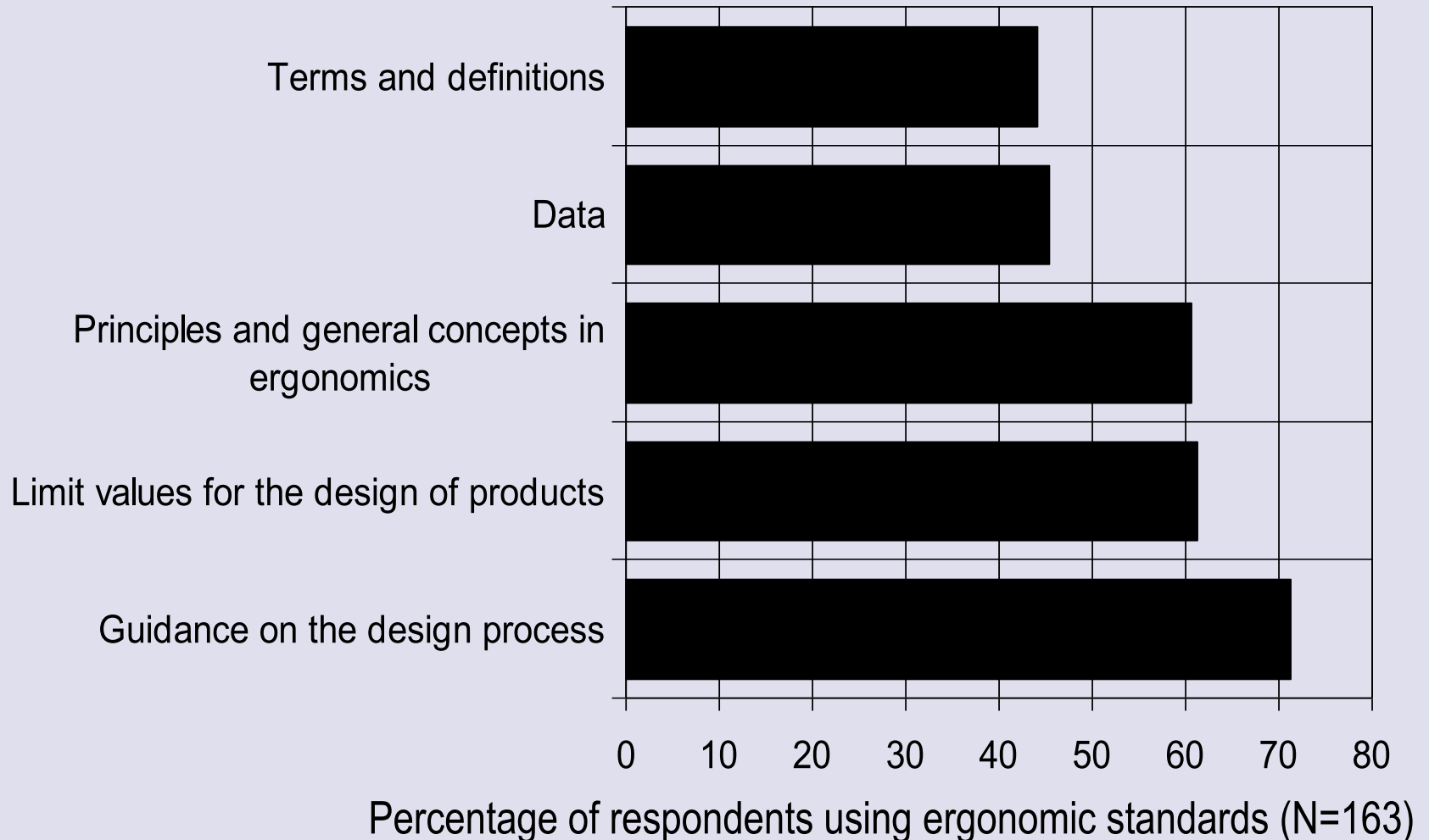


Other topics for future ergonomics standardization

- Industrial ergonomics
- Ergonomics process
- Services multisupport
- Usability of cross-linked systems
- Production ergonomics requirements
- Management of Ergonomics
- Color coding of sugar and milk sachets for coffee/tea
- Color coding of chocolate candy wrappings
- Ergonomics in health care facility planning
- Ergonomics and innovative design for HC
- Integration of various physical aspects
- How to handle or transfer guidelines and standards for different populations



What type of content should be in the focus of future standardization?





Thank you for your attention !