



Ergonomics in Design for All/ Newsletter

Dear Members and Friends of the International Ergonomics Association (IEA),
Ergonomics in Design for All Technical Committee,
I hope that you and your loved are well, and that you are not suffering too much from the arrangements that have had to be made for the corona virus. It is a challenging time.
A number of scientific events this year are being postponed or cancelled, but we need to look forward.

**Welcome to our fourth year and thirteenth newsletter:
have a look at it, and mark your diaries!**

With very best wishes, I wish you good luck with your work,

Isabella T. Steffan
IEA Ergonomics in Design for All TC
Chairperson

CONGRESSES AND CONFERENCES

THE NEXT IEA TRIENNIAL CONGRESS

IEA2021—21st triennial congress, June 13-18, 2021, Vancouver, Canada

For more information, see iea2021.org

Call for participation in special sessions

We have the opportunity to submit proposals for special sessions at the congress. **Would you like to participate?**

If so, please send an expression of interest email to Isabella Steffan: info@studiosteffan.it

adding a title, a short description of one of the following topics you would like to present, **by 30 May 2020**:

- Robotics and Design for All
- Accessibility and usability for all, indoor visual environments (a joint session with the IEA Technical Committee: Visual Ergonomics). Relevant visual ergonomics topics could include, but are not limited to, visual contrast, lighting and colour.
- The challenges of designing and maintaining universally usable safe pedestrian environments (a joint session with the IEA Technical Committee: Slips Trips and Falls)

THE 24TH REHABILITATION INTERNATIONAL WORLD CONGRESS (RIWC 2020)

September 7-9 2021, Aarhus (Denmark)

For more information, see riworldcongress2020.com

The global uncertainty connected to the corona situation means that The Rehabilitation International 24th World Congress planned for September 2020, has now been postponed for one year.

The congress is organized by the non-profit NGO Rehabilitation International Denmark, in collaboration with the Municipality of Aarhus, the Central Denmark Region and the Marselisborg Center. Other partners include Aarhus University, VisitAarhus and CareWare, under the patronage of Her Royal Highness Crown Princess Mary.

Aims: The aim of the congress is to be a global platform, motor and stone for rehabilitation to continue moving societies, to further develop rehabilitation in a direction that ensures optimal frameworks, conditions and opportunities for everyone. The congress program will reflect five different perspectives on rehabilitation: Individual, Scientific, Society, Professional Practice, and Policy perspectives.

Key note Speakers: Gerold Stucki, Matilde Leonardi, William Levack, Mark R. Luborsky, Alarcos Cieza, David Lindeman.

IAPRI MEXICO 2020, JUNE 15th -18th 2020, ONLINE

For more information, see iaprimexico2020.org

The 22nd IAPRI World Packaging Online Conference – Industry 4.0, will be organised by Universidad de Monterrey (Mexico), Division of Art, Architecture, and Design, and the Industrial Design Program. For the first time, the IAPRI World Conference will be held in a digital format. The Online Conference will consist of pre-recorded presentation videos from authors, keynote speakers, and sponsors. Where we can all learn from experts all over the world while staying at home.

Aims: to concentrate the state of the art on packaging research.

Topics: Ergonomics and human factors; Environmental factors; Consumer research and marketing; Easy opening; Packaging legislation, regulation, and standards; Packaging machinery & processes; Sustainability, recycling, and renewable materials; Testing analysis and quality control, etc.

IMPORTANT DATES

Abstract submission deadline: June 15, 2020

Registration: May 15 until November 30 of 2020.

Once you register, you will receive your username and password through email. The content will be available on the official IAPRI 2020 website up to May 2021.

FOCUS

AN INNOVATIVE STANDARD ON DESIGN FOR ACCESSIBILITY

By **Isabella T.Steffan** Ergonomics in Design for All, Milano, *Italy*

The **EN 17161:2019 standard** 'Design for All - Accessibility following a Design for All approach in products, goods and services - Extending the range of users' is a European process Standard about using a Universal Design (Design for All) approach at all levels in organisations to continuously improve and manage the accessibility and usability of the products and services they provide.

Organisations can really benefit from "Extending their range of users" by providing mainstream products and services that are easy to "access, understand and use".

The standard specifies requirements and recommendations that enables an organisation to extend its range of users by: identifying diverse user needs, characteristics, capabilities, and preferences; by directly or indirectly involving users, and by using knowledge about accessibility in its procedures and processes.

The design of a product and its development process are usually parts of a management system: accessibility according to a Design for All approach can be added, for example, to what has already been described in EN ISO 9001 on the quality management of services and products supplied by companies as well as the continuous improvement of company performance (with reference to the usability concept i.e. effectiveness, efficiency, satisfaction)

The "Plan-Do-Check-Act" - PDCA is one of the tools available to companies in order to manage their processes through continuous improvement in their production, by dividing the phases in 4 key points in order to intervene effectively in each single process (Fig.1).

A committed leadership and the supply of adequate resources are necessary to achieve the right results, as illustrated in EN 17161: 2018, **clauses 4 to 10** (Fig.2).



Fig. 1 - Layout of the "Plan-Do-Check-Act" methodology– PDCA. The PDCA cycle is a way to achieve continuous improvement in business, development and production processes. In the same way that a circle has no beginning or end, so is the constant and uninterrupted PDCA approach.

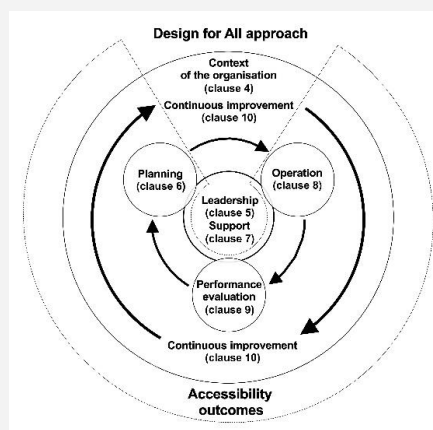


Fig. 2 – Layout of the Design for All approach in the processes of design, development and supply of products, goods and services, in EN 17161: 2018, **Clauses 4 to 10**.

The requirements set out shall apply to all relevant parts of each organisation, regardless of the type, size or products/ services, provided.

The various paragraphs define the requirements in accordance with the organisational planning and process management, such as:

- Understanding the context of the organisation, the needs and expectations of interested parties, including people with disabilities, integration of the Design for All approach within a consolidated scheme of systems and processes (clause 4);
- Definition of the commitment, policy and responsibility of the organisation, in support of the Design for All approach and the achievement of accessibility results (clause 5);
- Definition of the objectives of the Design for All approach, and how to achieve them (clause 6);
- Identifying the resources, skills and information necessary to implement the Design for All approach and ongoing monitoring of the processes activated and the accessibility results achieved (clause 7);
- Identifying the operational processes relating to the satisfaction of the different needs, abilities and preferences of the reference users, also potential ones, including people with disabilities, with reference to the context of use. Development of products and services along the entire end-to-end supply chain, in accordance with the Design for All approach, with reference to paragraph 8 of CEN-CENELEC Guide 6: 2014, and the involvement of all actors since the very beginning of the process (clause 8);
- Identifying the processes to monitor, measure, analyse and evaluate the effectiveness and accuracy of the Design for All approach and the accessibility results achieved (clause 9);
- Identifying the opportunities, procedures and activities necessary for the continuous improvement of the Design for All approach (clause 10).

In particular, **clause 4** deals with the context of organisations and the Design for All approach.

The Design for All approach focuses on accessibility and usability from the beginning of the process and in all phases of the life of products and services, including interoperability through the end-to-end supply chain i.e. the sequence of information, processes and activities that allow a user to discover, acquire, use, maintain and dispose of a product, good or service, including after-sales support and warranty fulfilment. For example, to make a train journey, a user gets information on train timetables and facilities (presale), buys a ticket, accesses the departure and destination stations and facilities, gets on the train, uses and leaves the train and may request support or complaints services (after-sales). It is important to clarify that applying a Design for All approach does not mean proposing a "one size fits all" for everyone. Each design process and its result are unique.

Further details can be found in the annexes.

Ergonomics and Design for All are evolving. In the last years, from a mainly corrective action, placed at the end of the design phase and separated from it, we have moved on to proactive and design interventions, based on the ability to understand and interpret the needs and expectations of individuals and to translate these needs in design solutions, placed in all phases of training and process development.

The research areas of ergonomics can provide cognitive and operational tools for the design, verification and use of more or less technological products, environments and services, which are of real help, for as many people as possible, i.e. "for All".

This standard could be an opportunity for ergonomists, who will be able to make their skills available to support the Design for All approach.

To learn more:

cencenelec.eu/standards/topics/accessibility/pages/designforall.aspx

Promoting Ergonomics in Design for All is a core activity of our EinDfA TC.
You can find information about objectives, domains of interest, members of the TC here:

<https://iea.cc/member/ergonomics-in-design-for-all-eindfa/>

13/2020 - If you no longer wish to receive these emails, contact us for unsubscribe: info@studiosteffan.it