



The voice of blind and partially sighted people in Europe

Accessibility of Lifts: Why the European standard EN 81-70:2018 fails to meet the legal requirements

(February 2019)

Introduction

This paper is a response to an invitation from Unit C.3 (Advanced Engineering and Manufacturing Systems) of the European Commission's DG Internal Market, Industry, Entrepreneurship and SMEs to submit a position paper on our concerns regarding the harmonized European standard EN 81-70:2018 "Safety rules for the construction and installation of lifts - Particular applications for passenger and goods passenger lift - Part 70: Accessibility to lifts for persons including persons with disability" which should provide presumption of conformity with the Lifts Directive (Directive 2014/33/EU on harmonisation of laws relating to lifts and safety components for lifts).

We argue that **EN 81-70:2018**:

- **Does not provide sufficient guidance for the implementation of lifts to be used by the widest possible range of users (including blind and partially sighted persons) and to meet the requirements of the UN Convention on the Rights of Persons with Disabilities (CRPD), and fails to respect:**
 - o **Recital (20) of the Lifts Directive** according to which relevant harmonised standards should also take into account the CRPD, and
 - o **Article 1.6 of Annex I to the Directive**, setting out the essential health and safety requirements, which states: "The controls of lifts intended for use by unaccompanied disabled persons must be designed and located accordingly. The function of the controls must be clearly indicated".
- **Does not seriously take into account the views of societal stakeholders, namely the advice provided by user/consumer organisations representing blind and partially sighted persons, despite the Commission Implementing Decision of 21.9.2016 on a standardisation request to the European Committee for Standardisation as regards lifts and safety**

components for lifts in support of Directive 2014/33/EU which states that "The requested harmonised standards for lifts and safety components for lifts, while ensuring a high level of protection of health and safety of persons, shall be elaborated and consulted in an inclusive process."

We ask the Commission to consider these shortcomings and, if it nevertheless decides to proceed with the publication in the Official Journal, to do so with a restrictive notice to show that certain clauses of the standard do not provide a presumption of conformity with the legislation.

Furthermore, **we invite the European Parliament** to make use of its powers of Formal Objection according to article 11 of Regulation 1025/2012 on European Standardisation and ask the European Commission to publish with restriction the reference to EN 81-70 in the Official Journal of the European Union.

Incidentally, we take this opportunity to argue that **it would be appropriate to include the lifts accessibility requirements of EN 81-70 in the lifts safety requirements of EN 81-20 in the next version/revision.**

Inappropriate technical guidance

Preliminary remarks

The safety and accessibility to lifts is a key element of accessibility of the built environment, and it concerns many persons, including elderly persons in an ageing society, whose autonomous mobility is challenged by a combination of several impairments (motoric, sensoric, cognitive).

While it is broadly understood and accepted that certain specific requirements such as access without steps, a minimum door width or enough space inside the lift car are necessary requirements, it is not yet widely accepted that, for example, the usability of control devices is just as necessary to ensure the accessibility of the whole lift. Therefore, people with visual impairment often experience serious difficulties in autonomously using lifts.

Most accessibility problems faced by visually impaired persons when trying to autonomously use a lift, are due to missing perceptibility of various kinds of information (e.g. Where is the lift? Where is a button?)

What happens, if I press a button? Where does the lift take me? How can I select the desired floor? What have I selected? Where has the lift taken me?). This type of information is important for all lift users, otherwise it would not be provided at all. However, there seems to be a lack of awareness that this information is essential for blind or partially sighted users.

The current version of EN 81-70 published in 2018 unfortunately reflects this missing awareness. We consider it as inadequate to provide guidance for a uniform implementation of the Lifts Directive in the respect of the principle of Universal Design, so as to include blind and partially sighted persons as users in compliance with the Lifts Directive and CRPD and related regulations at national level. We explain why in the four points below. This list of concerns is not exhaustive, but only addresses the four most alarming issues

Essential Universal Design requirements downgraded to loose recommendations

Some requirements, which are essential for all users, have been put into an informative Annex D with recommendations to achieve a higher level of accessibility and usability. Amongst others, this affects:

- the marking of glass doors and walls,
- the avoidance of materials causing optical confusion and
- the provision of information in Braille.

According to the EN itself, this Annex is considered to be applied for buildings, where “passengers with higher degree and/or combinations of disabilities should be able to use the lift”. It is absolutely reasonable and usual in accessibility standards to provide guidance for “more than average”. But in this case, the measures recommended to achieve an increased level of accessibility are in fact minimum requirements for accessibility following a Universal Design approach – not optional equipment for facilities used mainly by persons with severe impairments due to their specific function.

Not including these basic accessibility requirements in the main text of the standard means that many persons with and without impairment are potentially excluded from the safe use of lifts, which are considered to be accessible.

Insufficient contrast requirements for symbols on buttons and missing minimum requirements for lighting

EN 81-70:2018 table 2 requires a contrast of only 30 points LRV difference for symbols on buttons on lifts. Moreover, it does not contain a requirement for minimum lighting in order to ensure the perceptibility of contrasting elements in general.

It has often been argued, that in relation to the former version of the standard, this was an improvement, because it was the first time that the contrast is defined through a minimum value in this standard. We disagree with this argument. In fact, the former version of EN 81-70 did require contrast for various elements. Since it did not contain minimum contrast values, they had to be applied according to the approved state of the art as defined in accessibility standards. In these standards, the contrast requirement for text information such as a number on a button in a lift car exceeds an LRV difference of 30 points by far (e.g. LRV difference ≥ 60 points in the international standard ISO 21542(2011) "Building Construction - Accessibility and usability of the built environment" and the European standard EN 16584-1(2016) "Railway Applications - Design for PRM Use - General Requirements - Part 1: Contrast").

Furthermore, lift manufacturers argue, that these contrast requirements would not apply to information on buttons in lifts due to their "logical order/arrangement". In other words, they claim, that information on buttons in lifts would not need to be sufficiently visible because it was easy to guess a button's function anyway. Apart from the fact, that the arrangement of buttons in lifts is not at all simple and self-explanatory in most cases (there is no international standard), the necessity of written information indicating their function has actually never been questioned. Given that it is essential for all users to safely and efficiently operate a lift, markings and buttons need to be as perceptible/visible as any other signs and written information in public buildings.

Lifts manufacturers also say that 60 LRV would restrict the use of certain colours and materials such as glass and would not be accepted by customers. In our opinion, aesthetics and commercial considerations cannot be used to determine what the state of the art is and thus prevail on accessibility and safety obligations.

We are aware of the study on contrast requirements in lifts, which is about to be conducted due to ANEC's appeal against the publication of EN 81-70:2018, which we supported. However, as long as EN 81-70 has

not been revised in relation to this issue, we cannot agree with it to be applied for the implementation of accessible lifts. Moreover, we are concerned that further delaying of the study would lead to an adoption of an ISO standard largely based on the current requirements under EN 81-70:2018, thus making it more difficult to improve it at EU level – not to mention the negative impact at world level.

Incomplete requirements for tactile information

EN 81-70 does not contain the requirement for tactile information for certain key situations, such as marking of lift doors to identify a required lift. Braille and raised numbers letters and symbols are only mentioned as a possible option to achieve a higher level of accessibility and usability (see above).

As we have already pointed out above, essential text information in lifts is no less essential for visually impaired users. In fact, it is even more important for them in order to access and operate a lift.

Raised numbers, letters and simple symbols allow users with impaired or no vision to identify the function of a button, their location in a building, the designation of a lift etc. This kind of tactile information is very useful for example for persons, who know the characters and therefore are able to recognize them by touch as they get to rely more and more on haptic perception due to vision loss. However, for those who are able to read Braille, it is much easier and faster to read. Last but not least, Braille is therefore explicitly mentioned in the CRPD,

Note: Tactile information is no alternative for sufficiently visible information, because partially sighted persons are not used to read tactile characters. Both formats are necessary to make text information accessible. The height, the properties of raised numbers, letters and simple symbols and braille and the positioning of these elements have to fulfil the minimum requirements of recognized standards, for example DIN 32986, ISO 21542 und ISO 17049.

Poorly conceived guidance and insufficient restrictions for touchscreen elements

The adoption of requirements for operating elements with touchscreen in lifts has been a substantial part of the revision of EN 81-70. It was urged by lift manufacturers due to their progressing implementation in practice. For public use, touchscreens are extremely problematic for blind and partially sighted persons. EN 81-70 does not succeed in presenting

solutions to comply with accessibility requirements. Therefore, a lift with touchscreen elements implemented according to EN 81-70 cannot be considered accessible.

In an earlier statement, the EBU admitted, that due to the fact, that systems with touchscreens were already on the market and their implementation could not really be stopped anymore, it would make sense to at least set some minimal requirements to support their uniformity in order to make them more user friendly.

Therefore, we agreed upon the adoption of suitable minimal requirements for touchscreen elements in EN 81-70 under certain conditions regarding the framework to be defined by these requirements. Unfortunately, some essential issues have not been treated elaborately enough or have even been ignored:

- The area of application has not at all been restricted and the standard does not contain any statement whatsoever, that touchscreen elements are problematic in relation to accessibility and may not be the first choice.
- The “accessibility button” is predestined to cause confusion due to its misleading marking (international symbol for Provision for the Disabled instead of e.g. a loudspeaker symbol) and its equipment with additional features.
- There is no solution provided for the problem, that blind people might activate something by touching the touchscreen while searching for the “accessibility button”.
- The requirements defined for the quality of the audio output via loudspeakers are too loose (speech transmission index, adjustment of rate of speaking, minimal and maximal volume in a defined distance, direction of sound radiation).
- The structure of the menu navigation as well as its operation by pressing the “accessibility button” has not been detailed enough to ensure a maximum of uniformity (which is crucial for usability/accessibility in this case) regarding the operation irrespective of the manufacturer.

Not truly elaborated in an inclusive process

During the development of EN 81-70:2018, input provided by advocacy groups of persons with disabilities at the national and European levels, including the EBU, has mostly been neglected or ignored – see

campaigning history below – and, without a will to find a consensus, the assumed needs of the market have been put over the needs of users.

Many of the problematic requirements and solutions seem to have been adopted in EN 81-70 in order to define them as approved elements of accessible lifts, only because they are already being widely implemented in practice.

This clearly conflicts with the legal requirements of the Lifts Directive and the political requirements of the CRPD, since solutions that present major obstacles for persons with reduced or no vision are put forward and consequently legitimised as solutions for accessibility.

Merging the standards for Safety and Accessibility

Sadly enough, EN 81-70 is being ignored anyway in many cases and only the requirements of EN 81-20 “Safety rules for the construction and installation of lifts. Lifts for the transport of persons and goods. Passenger and goods passenger lifts” are achieved. Therefore, the EBU strongly recommends to **include accessibility and usability requirements for lifts in EN 81-20** in order to ensure the implementation of accessible lifts for all people with disabilities in the entire publicly accessible built environment.

Campaigning history

When the standard where requirements for accessibility of lifts are set on a European level (EN 81-70:2003) started to be reviewed and because it was concerned that the revised requirements might not be sufficient in relation to users with visual impairment, EBU campaigned extensively with its partners ANEC and EDF on this topic.

As early as in 2015, a comprehensive EBU statement responding to the draft of EN 81-70 was prepared and made available to national standardisation organisations for public enquiry. This statement was used for advocacy activities among the mirror committees on a national level of CEN/TC 10/WG 7 (the committee responsible for the revision of EN 81-70), who had a vote in the public enquiry. As participants of CEN/TC 10/WG 7 having a vote, ANEC representatives supported the EBU position by referring to it in their statement.

In September 2016, EBU was made aware of CEN/TC 10/WG 7's intention to reduce requirements for contrast of signage on operating elements (e.g. buttons) in lifts in the standard. We drafted a statement responding to a ballot of the CEN/TC 10 secretariat among national standardisation bodies on the issue and explained why the intended reduction was unacceptable. EBU members also approached the national mirror committees and ANEC supported the position. Special emphasis was put on the violation of provisions of the UN Convention on the Rights of Persons with Disabilities.

In the ballot of November 2016 the majority of CEN/TC (10 members) voted for the reduction of contrast requirements. Due to EBU's and ANEC's objection a second ballot was circulated to confirm the results and launch the Formal Vote. EBU members intensified their efforts to convince the national mirror committees to vote against the reduction of contrast requirements. The number of objections increased but they were not enough to avoid the adoption of the intended reduction of contrast requirements in the draft and the launch the Formal Vote.

ANEC and EBU kept pressure on the issue, namely by reaching out to the national Technical Board members of the European Committee for Standardisation (CEN) in all countries in a meeting in early December 2016. But CEN/TC 10/WG 7 could not be convinced to retract their decision to reduce the requirements for contrast of signage on operating elements (e.g. buttons) in lifts. Despite advocacy activities in the first months of 2017 to convince national mirror committees to reject it, EN 81-70 was eventually approved in the Formal Vote of June 2017.

EBU supported ANEC's appeal in October against the ratification of EN 81-70 by approaching CEN national Technical Board members and writing a joint letter signed by AGE Platform Europe and EDF to responsible authorities at CEN and CENELEC (European Committee for Electrotechnical Standardisation).

In December 2017 a conciliation panel to deal with ANEC's appeal in October resulted in the decision that EN 81-70 would be finalised without further delay, but at the same time a 'New Work Item' for its revision would be created to take into account the results of a study, to be conducted as soon as an independent research organisation has been identified for this purpose. There has been no progress on this so far.

We hoped that a revision of the European Lifts Directive would provide another opportunity for influencing legislation, but we learned in

December 2018 that, based on the final report on the evaluation of the Lifts Directive, the Commission finds no reason to revise the directive.

We feel it necessary to alert the Commission and the European Parliament before the Commission decides to proceed with the publication of the revised standard in the Official Journal.

About the European Blind Union

The European Blind Union (EBU) is a non-governmental, non-profit making European organisation founded in 1984. It is one of the six regional bodies of the World Blind Union, and it promotes the interests of blind and partially sighted people in Europe. It currently operates within a network of 41 national members including organisations from 26 European Union member states, candidate countries and other countries in geographical Europe.

Our Interest Representative Register ID is 42378755934-87.

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