

# Annexes

## Criticalities for lift SMEs in the application of standards *EN 81-20* and *EN 81-50*





Small Business Standards (SBS) is the association representing and defending Small and Medium-sized Enterprises (SMEs) interests in the standardisation system at the European and international levels. Its 22 members are national and European sectoral and interprofessional associations representing around 20 million SMEs in Europe.

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EFESME, the European Federation for Elevator Small and Medium-sized Enterprises, is the European SMEs voice in the lift industry, representing and defending at EU level the interests of SMEs operating in the lift business.

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# Annex I – Questionnaire: Critical issues in the application of EN 81-20 & EN 81-50

EFESME and SBS - Small Business Standards, with the support of their technical experts, developed this questionnaire to understand the critical issues encountered by European SMEs in our sector when implementing EN 81 series standards in their daily work.

EFESME and SBS want to know in more detail what the needs of European SMEs are regarding the understanding and implementation of the main standards governing the lift sector, to support them both in the CEN standards technical committees and with the European Commission.

The results of this questionnaire will be collected in a report that will be published online at the end of the year and sent to the European Commission as part of the activities carried out by SBS and EFESME.

Completion time: 6 minutes

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**\* Select from the following options the one that best describes your company with regard to the number of employees:**

From 0 to 9

From 10 to 49

From 50 to 249

**\* Where is your company based?**

**\* Within your company, who follows the technical/regulatory aspects?**

*This question refers to the next four points.*

Is there a technical department or a dedicated person within the company  
YES / NO

There is no real technical department; it is the owner who follows them directly  
YES / NO

We rely on external consultants/design offices  
[1 = very little / 5 = very much]

We rely on suppliers  
[1= very little / 5 = very much]

**\* What is your standard channel for regulatory updates?**

*This question refers to the next three points.*

Via courses organised by the national SME association

[1 = very little / 5 = very much]

Through courses organised by others (suppliers, other associations, etc.)

[1 = very little / 5 = very much]

We do not do any; we rely on a design studio/consultants as needed

[1 = very little / 5 = very much]

**\* Within your company, what is the level of knowledge of the main standards EN 81-20 and EN 81-50?**

[1 = very poor / 5 = very high]

**\* What is the level of knowledge and/or use of the various sections of EN 81-20 and EN 81-50 within your company?**

*You will find the various sections listed in the next eight questions.*

The sections relating to installation (requirements for travel space, machinery spaces, machinery, cab, doors, electrical installation, etc.).

[1 = very poor / 5 = very high]

The sections on the manufacture of electrical/electronic components (e.g. switchgear, electrical fault protection, PESSRAL or SIL Rated Circuit, etc.).

[1 = very poor / 5 = very high]

The sections on the manufacture of safety components

[1 = very poor / 5 = very high]

The type examination sections for the certification of safety components

[1 = very poor / 5 = very high]

The final test sections for CE certification of the installation

[1 = very poor / 5 = very high]

Calculation sections (EN 81-50)

[1 = very poor / 5 = very high]

The sections on the documentation to be attached to the installation

[1 = very poor / 5 = very high]

Annex ZA

[1 = very poor / 5 = very high]

**\* Within your company, how is the level of knowledge of the complementary standards?**

*You will find the various standards listed in the next eight questions.*

EN 81-21

[1 = very poor / 5 = very high]

EN 81-28

[1 = very poor / 5 = very high]

EN 81-41

[1 = very poor / 5 = very high]

EN 81-70

[1 = very poor / 5 = very high]

EN 81-71

[1 = very poor / 5 = very high]

EN 81-72

[1 = very poor / 5 = very high]

EN 81-73

[1 = very poor / 5 = very high]

EN 13015

[1 = very poor / 5 = very high]

**\* Normative references of the standards (e.g. EN 101305 series, EN 12385-5 series, IEC 60947 series, HD 60364 series).**

Within the EN 81-20 and EN 81-50 standards, several standards external to our sector are referred to in the questions above.

**With reference to the external standards and with your company in mind:**

*You will find the various options listed in the next three questions.*

How familiar are those relating to installation (e.g.: guides, ropes, etc.)?

[1 = very little / 5 = very much]

How familiar are the external standards relating to the electrical/electronic part (e.g. relays, low-voltage electrical installations, low-voltage switchgear and control gear)?

[1 = very little / 5 = very much]

How many external standards are available for consultation (after purchase or via a subscription)?

[1 = very few / 5 = very many]

**\* Within your company, what is the level of knowledge of the Lift Directive 2014/33/EU?**

[1 = very poor / 5 = very high]

**\* What is the level of knowledge and/or use of the various sections of the Lift Directive 2014/33/EU?**

*You will find the various sections listed in the next four questions.*

The sections relating to EHSRs in Annex I

[1 = very poor / 5 = very high]

The sections relating to the obligations of the installer

[1 = very poor / 5 = very high]

The sections relating to the procedures for certifying a model

[1 = very poor / 5 = very high]

The sections relating to the procedures for CE certification of the lift

[1 = very poor / 5 = very high]

**\* Inside your company, what is the level of knowledge of the Machinery Directive 2006/42/EC?**

[1 = very poor / 5 = very high]

**\* What is the level of knowledge and/or use of the various sections of the Machinery Directive 2006/42/EC?**

*You will find the various sections listed in the next three questions.*

The sections relating to the EHSRs of Annex I (for the part relating to lifts and lifting platforms)

[1 = very poor / 5 = very high]

The sections relating to the manufacturer's obligations

[1 = very poor / 5 = very high]

The sections relating to the procedures for certifying a model  
[1 = very poor / 5 = very high]

\* The Lift Directive 2014/33/EU requires that the installer must provide - at the time of commissioning - **all the instructions necessary** for maintenance, inspection, repair, periodic checks, rescue operations and the use of any special equipment (such as special tools or software) necessary for maintenance or rescue operations.

**On systems undergoing maintenance, have you found the lack or inadequacy of instructions for maintenance operations and emergency operations, such as to prevent the adequate execution of these activities?**

*You will find the various options listed in the next six questions.*

Lack of instructions at the systems installed following the harmonised standards:  
[1 = little lack / 5 = strong lack]

Adequacy of instructions at systems installed following harmonised standards  
[no answer = don't know / 1 = very inadequate / 5 = very adequate]

Lack of instructions at a model installation  
[1 = little lack / 5 = strong lack]

Adequacy of instructions on model installations  
[no answer = don't know / 1 = very inadequate / 5 = very adequate]

Lack of instructions for using special tools or software  
[1= little lack / 5 = strong lack]

Adequacy of instructions for the use of special tools or software  
[no answer = don't know / 1 = very inadequate / 5 = very adequate]

\* **Do you think that, at present, the standards adequately specify the requirements for writing maintenance instructions?**

Are the instructions sufficiently adequate and detailed?  
[no answer = don't know / 1 = very inadequate / 5 = very adequate]

Are the requirements indicated in the standards too general and not adequately detailed (each installer can decide the details of the activities to include in the instructions)?  
[no answer = don't know / 1 = very inadequate / 5 = very adequate]

**\* Do you think that, at present, the standards adequately specify the requirements for completing the instructions relating to the use of special tools and software?**

Are the instructions sufficiently adequate and detailed?

[no answer = don't know / 1 = very inadequate / 5 = very adequate]

Are the requirements indicated in the standards too general and not adequately detailed (each installer can decide the details of the activities to include in the instructions)?

[no answer = don't know / 1 = very inadequate / 5 = very adequate]

\* The Lift Directive 2014/33/EU requires that when **special tools or software** are necessary for maintenance or rescue operations, these special devices are supplied with the lift at the time of commissioning and are always available on the system for all his life.

**On the systems under maintenance, have you found the lack of special tools, the lack of accessibility to the software, diagnostics and configurable parameters, such as to not allow the adequate execution of maintenance or emergency manoeuvre activities?**

There is a lack of special tools and/or accessibility to the expected software:

[no answer = don't know / 1 = very little / 5 = very much]

There is a lack of accessibility to diagnostics and configurable parameters:

[no answer = don't know / 1 = very little / 5 = very much]

**\* Do you believe that, at present, the standards adequately specify the necessary requirements so that the special tools and software are available for the entire life of the system and accessibility to diagnostics and configurable parameters is guaranteed?**

*You will find the various options listed in the next three questions.*

Regarding the special tools and software available on the system, the requirements in the standards are:

[no answer = don't know / 1 = very inadequate / 5 = very adequate]

Regarding accessibility to diagnostics and configurable parameters, the requirements in the standards are:

[no answer = don't know / 1 = very inadequate / 5 = very adequate]

The requirements indicated in the standards do not prevent *foreseeable misuse* (e.g. the technician can forget to place the long emergency key on the system and forget it in his pocket)

[no answer = don't know / 1 = very false / 5 = very true]



\* The Lift Directive 2014/33/EU requires the system to be equipped with a remote emergency device.

**On systems undergoing maintenance, have you encountered - when the company in charge of maintenance changes - inaccessibility and/or blocking issues in these devices, such that you have to replace them?**

On some types of systems (specify later) it is necessary to replace the remote assistance device because it cannot be reset.

[no answer = don't know / 1 = very false / 5 = very true]

If this type of problem is encountered, please specify on what type of system

\* This questionnaire involves the registration and processing of personal data (such as the size of your company, your origin and any good practices you have developed). Such data will be processed in accordance with Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data (GDPR). Personal data will be processed exclusively for evaluation purposes in the context of this questionnaire, the results of which will be anonymous.

Do you give your consent?

YES / NO

⇒ The questionnaire is available online in four languages [HERE](#).

## Annex II - Table

Below are the numerical results obtained from the data collection completed through the questionnaire (Annex I).

| #   | Answer score range                | 1  | 2  | 3  | 4  | 5  | Null | Tot answer | Score | Refer. score |
|-----|-----------------------------------|----|----|----|----|----|------|------------|-------|--------------|
| 3.1 | [Yes / No]                        | 52 | 18 |    |    |    | 2    | 72         |       |              |
| 3.2 | [Yes / No]                        | 32 | 34 |    |    |    | 6    | 72         |       |              |
| 3.3 | [1 = very little / 5 = very much] | 21 | 12 | 19 | 12 | 5  | 3    | 69         | 175   | 207          |
| 3.4 | [1 = very little / 5 = very much] | 13 | 9  | 16 | 20 | 11 | 3    | 69         | 214   | 207          |
| 4.1 | [1 = very little / 5 = very much] | 17 | 9  | 11 | 16 | 15 | 4    | 68         | 207   | 204          |
| 4.2 | [1 = very little / 5 = very much] | 12 | 15 | 18 | 16 | 9  | 2    | 70         | 205   | 210          |
| 4.3 | [1 = very little / 5 = very much] | 45 | 11 | 4  | 2  | 3  | 7    | 65         | 102   | 195          |
| 5   | [1 = very poor / 5 = very high]   | 1  | 4  | 25 | 31 | 11 | 0    | 72         | 263   | 216          |
| 6.1 | [1 = very poor / 5 = very high]   | 1  | 6  | 17 | 30 | 17 | 1    | 71         | 269   | 213          |
| 6.2 | [1 = very poor / 5 = very high]   | 9  | 20 | 16 | 18 | 9  | 0    | 72         | 214   | 216          |
| 6.3 | [1 = very poor / 5 = very high]   | 9  | 16 | 20 | 16 | 10 | 1    | 71         | 215   | 213          |
| 6.4 | [1 = very poor / 5 = very high]   | 10 | 20 | 19 | 10 | 11 | 2    | 70         | 202   | 210          |
| 6.5 | [1 = very poor / 5 = very high]   | 5  | 13 | 13 | 21 | 18 | 2    | 70         | 244   | 210          |
| 6.6 | [1 = very poor / 5 = very high]   | 14 | 14 | 19 | 14 | 11 | 0    | 72         | 210   | 216          |
| 6.7 | [1 = very poor / 5 = very high]   | 1  | 9  | 12 | 22 | 27 | 1    | 71         | 278   | 213          |

|      |                                   |    |    |    |    |    |   |    |     |     |
|------|-----------------------------------|----|----|----|----|----|---|----|-----|-----|
| 6.8  | [1 = very poor / 5 = very high]   | 19 | 16 | 16 | 11 | 7  | 3 | 69 | 178 | 207 |
| 7.1  | [1 = very poor / 5 = very high]   | 4  | 11 | 25 | 19 | 12 | 1 | 71 | 237 | 213 |
| 7.2  | [1 = very poor / 5 = very high]   | 2  | 12 | 24 | 19 | 15 | 0 | 72 | 249 | 216 |
| 7.3  | [1 = very poor / 5 = very high]   | 7  | 17 | 18 | 20 | 9  | 1 | 71 | 220 | 213 |
| 7.4  | [1 = very poor / 5 = very high]   | 5  | 15 | 21 | 20 | 10 | 1 | 71 | 228 | 213 |
| 7.5  | [1 = very poor / 5 = very high]   | 9  | 22 | 22 | 12 | 7  | 0 | 72 | 202 | 216 |
| 7.6  | [1 = very poor / 5 = very high]   | 12 | 19 | 21 | 12 | 8  | 0 | 72 | 201 | 216 |
| 7.7  | [1 = very poor / 5 = very high]   | 14 | 20 | 20 | 10 | 8  | 0 | 72 | 194 | 216 |
| 7.8  | [1 = very poor / 5 = very high]   | 15 | 17 | 22 | 13 | 5  | 0 | 72 | 192 | 216 |
| 8.1  | [1 = very little / 5 = very much] | 12 | 15 | 26 | 13 | 6  | 0 | 72 | 202 | 216 |
| 8.2  | [1 = very little / 5 = very much] | 16 | 21 | 17 | 10 | 7  | 1 | 71 | 184 | 213 |
| 8.3  | [1 = very little / 5 = very much] | 18 | 16 | 15 | 11 | 10 | 2 | 70 | 189 | 210 |
| 9    | [1 = very poor / 5 = very high]   | 5  | 8  | 19 | 26 | 14 | 0 | 72 | 252 | 216 |
| 10.1 | [1 = very poor / 5 = very high]   | 14 | 15 | 18 | 15 | 10 | 0 | 72 | 208 | 216 |
| 10.2 | [1 = very poor / 5 = very high]   | 4  | 4  | 21 | 29 | 13 | 1 | 71 | 256 | 213 |
| 10.3 | [1 = very poor / 5 = very high]   | 10 | 16 | 19 | 16 | 11 | 0 | 72 | 218 | 216 |
| 10.4 | [1 = very poor / 5 = very high]   | 6  | 8  | 19 | 28 | 11 | 0 | 72 | 246 | 216 |

|      |  |    |    |    |    |    |    |    |     |     |
|------|--|----|----|----|----|----|----|----|-----|-----|
| 11   | [1 = very poor / 5 = very high]                                    | 3  | 12 | 21 | 28 | 6  | 2  | 70 | 232 | 210 |
| 12.1 | [1 = very poor / 5 = very high]                                    | 9  | 16 | 25 | 15 | 6  | 1  | 71 | 206 | 213 |
| 12.2 | [1 = very poor / 5 = very high]                                    | 11 | 16 | 22 | 14 | 6  | 3  | 69 | 195 | 207 |
| 12.3 | [1 = very poor / 5 = very high]                                    | 15 | 17 | 16 | 16 | 6  | 2  | 70 | 191 | 210 |
| 13.1 | [1 = little lack / 5 = strong lack]                                | 8  | 10 | 20 | 17 | 14 | 3  | 69 | 226 | 207 |
| 13.2 | [no answer = don't know / 1 = very inadequate / 5 = very adequate] | 9  | 20 | 25 | 7  | 3  | 8  | 64 | 167 | 192 |
| 13.3 | [1 = little lack / 5 = strong lack]                                | 15 | 10 | 18 | 10 | 12 | 7  | 65 | 189 | 195 |
| 13.4 | [no answer = don't know / 1 = very inadequate / 5 = very adequate] | 15 | 12 | 24 | 10 | 4  | 7  | 65 | 171 | 195 |
| 13.5 | [1 = little lack / 5 = strong lack]                                | 10 | 9  | 11 | 14 | 21 | 7  | 65 | 222 | 195 |
| 13.6 | [no answer = don't know / 1 = very inadequate / 5 = very adequate] | 17 | 14 | 16 | 7  | 10 | 8  | 64 | 171 | 192 |
| 14.1 | [no answer = don't know / 1 = very inadequate]                     | 8  | 11 | 32 | 8  | 1  | 12 | 60 | 163 | 180 |

|      |  |    |    |    |    |    |    |    |     |     |
|------|--|----|----|----|----|----|----|----|-----|-----|
|      | [no answer = don't know / 1 = very inadequate / 5 = very adequate] |    |    |    |    |    |    |    |     |     |
| 14.2 | [no answer = don't know / 1 = very inadequate / 5 = very adequate] | 11 | 16 | 29 | 4  | 1  | 11 | 61 | 151 | 183 |
| 15.1 | [no answer = don't know / 1 = very inadequate / 5 = very adequate] | 18 | 20 | 17 | 2  | 2  | 13 | 59 | 127 | 177 |
| 15.2 | [no answer = don't know / 1 = very inadequate / 5 = very adequate] | 15 | 12 | 23 | 3  | 1  | 18 | 54 | 125 | 162 |
| 16.1 | [no answer = don't know / 1 = very little / 5 = very much]         | 12 | 8  | 12 | 6  | 26 | 8  | 64 | 218 | 192 |
| 16.2 | [no answer = don't know / 1 = very little / 5 = very much]         | 11 | 7  | 12 | 9  | 22 | 11 | 61 | 207 | 183 |
| 17.1 | [no answer = don't know / 1 = very inadequate / 5 = very adequate] | 21 | 12 | 17 | 6  | 4  | 12 | 60 | 140 | 180 |
| 17.2 | [no answer = don't know / 1 = very inadequate / 5 = very adequate] | 18 | 18 | 16 | 5  | 2  | 13 | 59 | 132 | 177 |
| 17.3 | [no answer = don't know / 1 = very inadequate / 5 = very adequate] | 5  | 11 | 19 | 12 | 7  | 18 | 54 | 167 | 162 |

18.1

|  |   |   |    |    |    |    |    |     |     |  |
|--|---|---|----|----|----|----|----|-----|-----|--|
| know / 1 =<br>very false /<br>5 = very<br>true]                          |   |   |    |    |    |    |    |     |     |  |
| [no answer<br>= don't<br>know / 1 =<br>very false /<br>5 = very<br>true] | 7 | 7 | 12 | 11 | 25 | 10 | 62 | 226 | 186 |  |



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