YOUR OPINION

PART 1
We want to know your opinion...

Important that we receive it back!

- Please keep it with you during breaks
- Please give it back when leaving the conference!
- We have registered the number of each unit on the registration list
How does it work?
(questions with a single answer)

✓ Read question and corresponding answers.
✓ Each answer is identified by a number.
✓ Choose the most suitable answer.
✓ Simply press the corresponding number in your voting unit.

How many stars are there in the EU flag?

1. 10 stars
   - 2 (1.7%)
2. 12 stars
   - 48 (40.3%)
3. 15 stars
   - 16 (13.4%)
4. 20 stars
   - 8 (6.7%)
5. 25 stars
   - 10 (8.4%)
6. 28 stars
   - 35 (29.4%)
7. 30 stars
   - 0 (0.0%)
How many stars are there in the EU flag?

The European flag symbolises both the European Union and, more broadly, the identity and unity of Europe.

It features a circle of 12 gold stars on a blue background. They stand for the ideals of unity, solidarity and harmony among the peoples of Europe.

The number of stars has nothing to do with the number of member countries, though the circle is a symbol of unity.

[europa.eu]

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**How does it work?**

*(questions with multiple possible answers)*

- Read question and corresponding answers.
- Each answer is identified by a number.
- Choose the most suitable answers.
- Press the corresponding numbers in your voting unit, followed by ‘send’.
Which EU institutions decide on the adoption of a European Directive?

Ordinary legislative procedure

Most EU laws are adopted using the ordinary legislative procedure, in which the European Parliament (directly elected) and the Council of the EU (representatives of the 28 EU countries) have equal say. The Commission submits a legislative proposal to the Parliament and Council, who must agree on the text in order for it to become EU law.

[ec.europa.eu]
Let’s go!

What is your professional activity?

1. Architect 4 (3.4%)
2. Consultant 17 (14.4%)
3. Contractor 8 (6.8%)
4. Industry 33 (28.0%)
5. Research 39 (33.1%)
6. Government 13 (11.0%)
7. Student 4 (3.4%)
How do you assess your knowledge about BIM?

1. Expert level – practitioner
   - 11 (8.9%)
2. Expert level – more theoretical
   - 14 (11.3%)
3. Good knowledge
   - 39 (31.5%)
4. Limited knowledge
   - 58 (46.8%)
5. What is ‘BIM’????
   - 2 (1.6%)

How do you assess your knowledge about the regulatory assessment of the energy performance of buildings?

1. Expert level – practitioner
   - 17 (13.4%)
2. Expert level – more theoretical
   - 29 (22.8%)
3. Good knowledge
   - 43 (33.9%)
4. Limited knowledge
   - 32 (25.2%)
5. What is ‘energy performance assessment’????
   - 6 (4.7%)
What are your expectations on connections between BIM and energy performance assessment of buildings around 2023...2028?

1. Crucial connections
2. Major connections
3. Moderate connection
4. No or nearly no connections
5. No opinion

1. Time and cost savings
2. Better construction quality
3. Shorter construction times
4. Better environmental performances
5. Enhanced collaboration and teamwork
6. Fewer design errors
7. No advantages
8. Other opinion
The next 3 questions have the same structure...

How would you rate the importance of the following factors to improve the energy performance of buildings in the EU:

1. Design and construction skills
2. Digital design tools and BIM
3. Technology innovation

How would you rate the importance of Design and construction skills to improve the energy performance of buildings in the EU?

<table>
<thead>
<tr>
<th>Rating</th>
<th>Votes</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high</td>
<td>61</td>
<td>46.2%</td>
</tr>
<tr>
<td>High</td>
<td>56</td>
<td>42.4%</td>
</tr>
<tr>
<td>Medium</td>
<td>11</td>
<td>8.3%</td>
</tr>
<tr>
<td>Limited</td>
<td>4</td>
<td>3.0%</td>
</tr>
<tr>
<td>No opinion</td>
<td>0</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Vote Now
This is an introductory slide, not a voting slide
Arnold Janssens, 17/06/2018
How would you rate the importance of **Digital design tools and BIM** to improve the energy performance of buildings in the EU?

1. Very high
   
   ![Bar chart showing 39 votes (28%) for Very high]

2. High
   
   ![Bar chart showing 56 votes (40%) for High]

3. Medium
   
   ![Bar chart showing 35 votes (25%) for Medium]

4. Limited
   
   ![Bar chart showing 10 votes (7%) for Limited]

5. No opinion
   
   ![Bar chart showing 0 votes (0%) for No opinion]

How would you rate the importance of **Technology innovation** to improve the energy performance of buildings in the EU?

1. Very high
   
   ![Bar chart showing 50 votes (36.5%) for Very high]

2. High
   
   ![Bar chart showing 54 votes (39.4%) for High]

3. Medium
   
   ![Bar chart showing 25 votes (18.2%) for Medium]

4. Limited
   
   ![Bar chart showing 8 votes (5.8%) for Limited]

5. No opinion
   
   ![Bar chart showing 0 votes (0.0%) for No opinion]
Thank you!

PART 2
For which of the following projects do you believe that BIM will be used on a large scale in 2023...2028?

Vote for up to 4 choices

1. New non-residential buildings
   62 (68.1%)
2. New multifamily buildings
   51 (56.0%)
3. New individual housing
   16 (17.6%)
4. Existing non-residential buildings
   44 (48.4%)
5. Existing multifamily buildings
   22 (24.2%)
6. Existing individual housing
   1 (1.1%)
7. All of the above
   22 (24.2%)

What are your expectations on connections between BIM and energy performance assessment of buildings around 2023...2028?

1. Crucial connections
   41 (39%)
2. Major connections
   47 (44%)
3. Moderate connection
   18 (17%)
4. No or nearly no connections
   0 (0%)
5. No opinion
   0 (0%)
What are your expectations on connections between BIM and energy performance assessment of buildings around 2023...2028?

<table>
<thead>
<tr>
<th>Expectation</th>
<th>1st Vote</th>
<th>2nd Vote</th>
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<tbody>
<tr>
<td>Crucial connections</td>
<td>43 (33%)</td>
<td>41 (39%)</td>
</tr>
<tr>
<td>Major connections</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate connection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No or nearly no connections</td>
<td>3 (2%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>No opinion</td>
<td>3 (2%)</td>
<td>0 (0%)</td>
</tr>
</tbody>
</table>

What are in your view the main potential advantages of connections between BIM and energy performance assessment?

Vote for up to 4 choices

<table>
<thead>
<tr>
<th>Advantage</th>
<th>1st Vote</th>
<th>2nd Vote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time and cost savings</td>
<td>57 (59.4%)</td>
<td></td>
</tr>
<tr>
<td>Fewer errors in energy performance certificates</td>
<td>55 (57.3%)</td>
<td></td>
</tr>
<tr>
<td>More accurate energy modelling</td>
<td>58 (60.4%)</td>
<td></td>
</tr>
<tr>
<td>Better compliance to requirements</td>
<td>50 (52.1%)</td>
<td></td>
</tr>
<tr>
<td>Better quality of the works</td>
<td>48 (50.0%)</td>
<td></td>
</tr>
<tr>
<td>No need for qualified experts</td>
<td>3 (3.1%)</td>
<td></td>
</tr>
<tr>
<td>No advantages</td>
<td>0 (0.0%)</td>
<td></td>
</tr>
<tr>
<td>Other opinion</td>
<td>2 (2.1%)</td>
<td></td>
</tr>
</tbody>
</table>
Do you believe the use of BIM could lead to increased convergence of energy performance calculation methods?

1. Yes, it could even lead to common methods and software tools in EU
   - 23 (22%)
2. Yes, but methods and software tools would probably remain different in EU countries
   - 38 (37%)
3. Yes, to some extent
   - 27 (26%)
4. Probably not
   - 12 (12%)
5. Not at all
   - 2 (2%)
6. No opinion
   - 1 (1%)

Do you see an interest in having a link between BIM and energy performance calculation methods?

1. Yes, it would be beneficial to integrate BIM with energy performance calculation software
   - 39 (39%)
2. Yes, and it would be beneficial that the authorities allow software editors to implement this link in various commercial software tools
   - 57 (56%)
3. No, there is no interest
   - 3 (3%)
4. No opinion
   - 2 (2%)
Do you think that an increased use of digital design tools and BIM could improve the energy performance of buildings?

1. Yes certainly
2. Yes probably
3. Difficult to say
4. Certainly not
5. No opinion

<table>
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<tbody>
<tr>
<td>Yes certainly</td>
<td>53</td>
<td>48.2%</td>
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<tr>
<td>Yes probably</td>
<td>37</td>
<td>33.6%</td>
</tr>
<tr>
<td>Difficult to say</td>
<td>16</td>
<td>14.5%</td>
</tr>
<tr>
<td>Certainly not</td>
<td>3</td>
<td>2.7%</td>
</tr>
<tr>
<td>No opinion</td>
<td>1</td>
<td>0.9%</td>
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