Implementing sustainable sourcing in construction: Results of a current analysis of the Austrian market

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Impressions
Research Questions

- What’s the situation of sustainable procurement and sourcing of construction works in Austria?

- What are the main requirements, to facilitate sustainable sourcing in the construction and building sector?

- How can data-information management tools like building information modelling support sustainable sourcing in construction industry?
Methodology

- **Literature review**
  Wall, J. Hofstadler, C. (2016)

- **Explorative studies**

- **Major research project – UNAB**
  Sustainable Design process & Integrated Facades

- **Online questionnaire**
  Wall (2017) Life-cycle-orientated modelling of planning, awarding and tendering processes of construction works
### Structure of the survey

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<tr>
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<th>Structure of the survey</th>
<th>N° of questions</th>
<th>Clients and design experts</th>
<th>Research</th>
<th>Legal experts</th>
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<tbody>
<tr>
<td>1</td>
<td>General questions</td>
<td>5</td>
<td>5/5</td>
<td>2/5</td>
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</tr>
<tr>
<td>2</td>
<td>Notions and Concepts</td>
<td>3</td>
<td>3/3</td>
<td>3/3</td>
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</tr>
<tr>
<td>3</td>
<td>Design process</td>
<td>9</td>
<td>9/9</td>
<td>8/9</td>
<td>1/9</td>
</tr>
<tr>
<td>4</td>
<td>Tendering and awarding</td>
<td>8</td>
<td>8/8</td>
<td>8/8</td>
<td>8/8</td>
</tr>
<tr>
<td>5</td>
<td>Implementation (BIM)</td>
<td>8</td>
<td>8/8</td>
<td>2/8</td>
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**Total**

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General information

- **Survey period:**
  - April – May 2017

- **320 questionnaires sent**

- **96 responded [n = 96]**
Results (1)

Implementing sustainability aspects
Results (2)

Benefits of using BIM

- Integrated planning processes: 18 mentions
- Object-based data management: 17 mentions
- Operation and documentation: 12 mentions
- Simulations: 11 mentions
- Interfaces: 6 mentions
- Optimization: 5 mentions
- No value added: 11 mentions
- Indifferent: 18 mentions

Benefits ≈ 71%
Take away message (1)

- Information flow (interaction of planning and sourcing)

![Diagram showing the process of information flow across different phases of construction: PPH 1 (Project preparation), PPH 2 (Design), PPH 3 (Preparation for construction), PPH 4 (Construction), PPH 5 (Commissioning). The diagram illustrates the need for data and information, with the highest information density occurring during construction.Operational data and usage knowledge are shown to be important during this phase.](Illustration: Wall 2017)
Take away message (2)

- Process-thinking and design
  - Information flows
  - Definition of interfaces
  - Process guidance and supervision

- Process support using data information management tools
  - Visualization
  - Clash detections
  - Work and design schedule
  - Supporting life cycle information management
Contact info

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