Lyhne Design

Innovative lighting design that makes a difference

Smart City lighting – Copenhagen

Sustainable, solar powered lighting

Bespoke lighting – Køge city square

Biological lighting – Innovation project with Copenhagen & Aarhus
Public procurement for SMEs

- SMEs are often agile & flexible
- Can I manage on my own?
  - Competencies
  - Resources
- Assess tender material carefully
- Set a strong team
  - Use your network
  - Form a consortium
  - Align roles and responsibilities
  - Allocate dedicated resources
What can you achieve?

- Development of innovative products is a big investment and involves a high risk
- With a public innovation project you can achieve
  - A potential customer
  - Customer carries part of the development & cost
  - Knowledge from professional staff & experts
  - Valuable testing with end user
  - Products can be developed to meet the end user’s needs
  - Improves the probability of success
Innovation partnership - Copenhagen & Aarhus Municipalities

- **Tender/contract**
- **Innovation collaboration**
- **Frame agreement**

- **Milestone payments upon approval of phase deliverables**
- **Testing & development with end users in 2 nursing homes**
- **3rd party documentation of tests and results**
- **Potential procurement under frame agreements with up to 10 Danish municipalities**
Motivation to engage

- Market dialogue with the municipalities in November 2018 gave inspiration

OBJECTIVE

Ensure the right amount and quality of light and thereby strengthen the circadian rhythm, energy and physical and psychological wellbeing for both elderly and staff

Solution

- Mobile
- Nice design for the home
- Biologically efficient
- Easy to use
Motivation to engage

- Lyhne Design started the development of a mobile fixture with biological light (Human Centric Lighting)
- In 2019 Belid Lighting AB was on-boarded as manufacturer
- In 2021 a network connection drew our attention to the innovation tender
- The product did not exist in the market
- Our product met the requirements in the tender
- We submitted a project proposal as a consortium
Organisation

After award of contract

- Establish project team
- Clarification of expectations
- Project planning
- Onboarding of sub-suppliers

Alignment

Performance
- Excellent Team work
- Project control
Organisation
User testing

- Design sprint
- Individual interviews
- Focus group interviews
- Design tests

- Functional tests
- Usability tests
- Light measurements in laboratory
- Light measurements on site

<table>
<thead>
<tr>
<th>Fase 5.2</th>
<th>Fase 5.3</th>
<th>Fase 5.4</th>
<th>Fase 5.5</th>
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<tbody>
<tr>
<td>1 nursing home</td>
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<td>2 nursing homes</td>
<td>2 nursing homes</td>
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<tr>
<td>1 resident</td>
<td>10 residents</td>
<td>26 residents</td>
<td>37 residents</td>
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<tr>
<td>Common areas – 2 floors</td>
<td>Common areas – 6 floors</td>
<td>Common areas – 6 floors</td>
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<tr>
<td>6 prototypes</td>
<td>75 prototypes</td>
<td>215 prototypes</td>
<td>285 prototypes</td>
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Improvement

IDEATE → PROTOTYPE → TEST

Evaluation
Documentation
HELHEDSLOØSNING

Bolde: Flexible helhedsøsning med biologisk lys omfatter en bred udvalg af produkter med forskellige egenskaber som er flyttbare og har en højt design, der gør det muligt at kombinerer dem og anvende dem både i boligen og i forskellige rom.
Lessons learned

▪ It takes hard work and dedication

▪ Tender material should have clear definitions of deliverables & documentation
  ▪ Enables supplier to assess competencies and resources needed
  ▪ We were surprised by the amount of documentation
  ▪ Our organisation was too small

▪ Allocate more time for alignment of expectations in the start-up phase
  ▪ Ensure a good start & common understanding

▪ Good planning and project control is key to success
  ▪ Meet deadlines & deliver as promised
  ▪ Builds trust & common understanding

▪ User testing on site was a challenge
  ▪ Allocate more time for minor design sprints before user testing on site
  ▪ Test phases were too short
  ▪ Longer test phases - less stress on the organisation & innovation process
  ▪ Allocate time for development between each test phase