CONSTRUCTION OF A NEW SEAT
SUPREME AUDIT OFFICE (CZ)

Adam Gromnica, in procuram
New seat of SAU

- Lack of capacities of the original building – rental of offices
- 2004 – purchase of the land in the wider centre of Prague
- 2005 – tender for projects → studies.
- XII/2005 stand-by and II. 2006 decision on renting of a building.
- 2014 – expert evaluation Dept. of Economics and Management ČVUT → building the own seat is the most efficient solution.
Overview

- 2001 to 2015 SAU tested several options for the seat-solution:
  - 22 existing government structures
  - 45 commercial projects
- 2017 till 2019 projects have been prepared.
Project SAU

LOCALITY
- Former HOLEŠOVICE BREWERY
- Area: 31 913 m²
- Rebuilt: 1999-2009

SAU land
- 7 215m²
Project SAU

BALANCE
- Built-up area: 3 903 m²
- Gross Usable Area: 24 896 m²
- 410 Work-areas + reserves
- 123 + 20 parking lots

TECHNOLOGIES
- Ground drilling
- Readiness for
  electromobility
  photovoltaics
Project SAU

FUNCTION
SECTOR G /2PP-7NP/
- SAU PREMISSES (ADMINISTRATION)
- GASTRO, TECHNOLOGIES, PARKING
SECTOR H /1PP-6NP/
- SAU PREMISSES (ADMINISTRATION), CONFERENCE HALL
- PARLIAMENT LIBRARY, ARCHIVES OF THE PARLIAMENT (LESSER CHAMBER); PARLIAMENT ADMINISTRATION
- „KINDERGARTEN“, POLICE OFFICE

PARK AND GREEN SPACE
PARKING

Zdroj obrázku: M&P s.r.o.
Instruments used

- Shared data interface CDE
- Shared 3D BIModel
- Certified for quality of the building
- Sustainability
- Contract template – based on international standard
- Cooperation with Academia.
- FIDIC Yellow standard
- SBToolCZ
- LCC
Cost of operation

Costs of maintenance (incl. renewal of the technique) for 30 years – 2. award criterium

- podle projektové dokumentace a PENB byl pro Projekt v programu NKN (Národní kalkulační nástroj) vytvořen model budovy a po vložení údajů z nabídek dodavatelů byla vypočtena energetická náročnost budovy;
- Cost of energy and cost of maintenance of the technology

(Initial capital costs were covered by the Award Criterium No. 1)
Certification for the building
Certification for the building

- Environmentální kritéria
- Sociální kritéria
- Ekonomika a management

Lokalita

Zdroj obrázku: dr. Tencar, ČVUT
BIM model
Responsibilities of the Principal Architect

<table>
<thead>
<tr>
<th>No.</th>
<th>Task Description</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Souborné řešení stavby I. (umístění provozů KPS)</td>
</tr>
<tr>
<td>2</td>
<td>Souborné řešení stavby II. (varianty TZB, materiálové řešení fasád – LCC, precertifikace SBTool)</td>
</tr>
<tr>
<td>3</td>
<td>Projektová dokumentace ve stupni pro vydání stavebního povolení (DSP)</td>
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<td>4</td>
<td>Zajištění vydání stavebního povolení (SP)</td>
</tr>
<tr>
<td>5</td>
<td>Tendrová dokumentace pro výběr zhotovitele stavby, zadání způsobem D&amp;B (DVZ)</td>
</tr>
<tr>
<td>6</td>
<td>Autorský dozor (AD) po dobu realizace stavby</td>
</tr>
<tr>
<td>7</td>
<td>Dokumentace interiéru (koncept a tendrová dokumentace)</td>
</tr>
<tr>
<td>8</td>
<td>Certifikace kvality budovy SBToolCZ</td>
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</table>
Project Characteristics

1. The Client is a CA
2. A bid based on requirements concerning function and performance (D&B), BIModel is informative
3. In the tender for works the bidder does not submit schedule for works and dimensions
4. Lump-sum pricing
5. Awarding based on a bid price AND LCC
6. CA is responsible for the project documents up until the documents for construction permit
7. Maximum price
8. Sustainability - certification scheme SBToolCZ
10. HS Coordinator is dependent on the Client
TZB v BIM
Modeling of management of energy from the ground drilling

MWh
### E-construction logbook

**Date:** 02.11.2020

**Location:** VÝSTAVBA NEJIVYŠŠÍHO KONTROLNÍHO ÚŘADU

### Weather Data:

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<th>Time</th>
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<th>Wind Speed</th>
<th>Wind Direction</th>
<th>Humidity</th>
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### Personnel:

**Agentura Real Servis s.r.o.:**
- **Miloš Brancuzy:** Ostrava, 5.3
- **Miroslav Brouček:** Ostrava, 11.1

**DARSON Engineering s.r.o.:**
- **Mykhail Lendel:** Dělník, 1

**K4 a.s.:**
- **Pavel Hurt:** Koordinátor BOZP, 0.9

**Keller speciální zakládání, spol. s r.o.:**
- **Tomas Fikar:** Strojník, 11
- **Zdeněk Hudeček:** Dělník, 11.3
- **Roman Maníček:** Dělník, 11.6
- **Ivan Němec:** Vrtník, 1

**Nejvyšší kontrolní úřad - Investiční oddělení:**
- **Petr Neradil:** Objednatel, 0.4

**PM6 s.r.o.:**
- **Michal Hrabák:** Správce stavby, 3.7
- **Jaroslav Řůr:** Správce stavby, 0.4
Cooperation with CAS

ČAS č. 2/2021 – article on new seat construction.
Robotics on site

- October 2021 – using half-automated Hilti Jaibot
- Using digital model of the building when drilling for anchoring systems for wiring and pipes
- Over 600 holes a day
Further opportunities for social enterprises and for SPP being identified by SAU

- Management of documents
- Promotionals
- Maintenance of the green and public space
- Environmentally friendly structures for children
- Circular aspects in procurement
2021 Innovation Procurement of the Year

Recognising the outstanding innovation of the procurement and the public authority as a launch customer.

FINALISTS

SANTIAGO DE COMPOSTELA CITY COUNCIL SPAIN

Using innovation procurement to meet Santiago’s unique needs as a World Heritage City

Santiago de Compostella’s Smartiago project seeks to develop innovative solutions which will improve services to citizens, while respecting the complex and specific needs encountered as a World Heritage City. Three challenges in particular were identified: municipal solid waste (MSW) management and the need for intelligent solutions, last mile logistic services which reduce congestion and damage to paving, and ornamental lighting solutions which enhance the value of heritage while saving energy.

For each challenge, a Preliminary Market Consultation was carried out. In total, 63 responses were received to this consultation, from companies, technology centres and universities etc. Based on this, it was possible for the City to determine what was currently available on the market. It also provided justification for running the ornamental lighting procurement as a Pre Commercial Procurement (PCP).

All three procurements have expected sustainability results. For example, the PCP of intelligent ornamental lighting for heritage conservation is expected to reduce electricity costs by 80% annually, save maintenance costs of lighting by 20%, plus save 20% of the costs of maintaining and restoring historical facades, due to the development of biocidal LED lighting which inhibits the growth of microorganisms.

The main lesson is that heritage cities can benefit from closer collaboration with suppliers to develop new solutions that are viable in their context.

SUPREME AUDIT OFFICE CITY OF PRAGUE CZECH REPUBLIC

Building net-zero energy innovation through procurement in construction in the centre of Prague

The Supreme Audit Office (SAO) of the City of Prague decided to build its first permanent seat reusing a brownfield site. From the start, SAO was driven by the ambition to only build its own administrative building with the lowest life-cycle costs appropriate for modern administrative buildings, a longer service life of the public building could be assured and if the building could meet “net-zero energy consumption” requirements. Before the actual tendering phase, the project team consulted with academic experts and conducted market engagement. A taskforce across units was set up to make strategic decisions together. Pushing for innovation in the Czech procurement context, the tender documents include high requirements for the effective and economic operation of the building, including the use of Building Information Modelling (BIM) to evaluate life cycle costs and building performance.

Since the BIM requirement was quite innovative and it was not easy to meet the requirement of previous experience with BIM projects, the SAO required proof of experience with six individual segments of BIM. Overall three tenders were published for the Principal Architect, the Engineer and contractors. For each of them multiple bids were received and successfully awarded. Benefits already achieved in the construction process include for example the use of recycled concrete from the previous structures on site and using sand from the construction pit used for the construction itself.

Key lessons learned are that although using BIM may increase the price of the whole project, it increases transparency and efficiency of the Project Implementation process. In addition, SAO was able to leverage the contract management phase to identify, support and promote benefits for the environment and the society.
Further recognition

✓ „Best procurement“ Neplejtvák 2021
✓ 5 finalists – distinguished by the complexity of the project from the very beginning
✓ SPP Prize 2022
Finale of the project

- **2022**
  - User permit and takeover of the building – November 2022
  - Moving to the next building - 2.Q 2023

- **2023**
  - Hand-over of the current premises - September 2023
Main features of the entire project

- Complex approach (FIDIC, LCC, SBTool, BIM)
- Balance of the assignment
- Inovativeness
- Identifying opportunities for Social Enterprises
- Openness to changes
- Variety of teams

- The overall increase of the price < 2%
https://stavbastream.nku.cz/

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