

Green Hospital: Bringing Life Cycle Innovation into the Healthcare Sector

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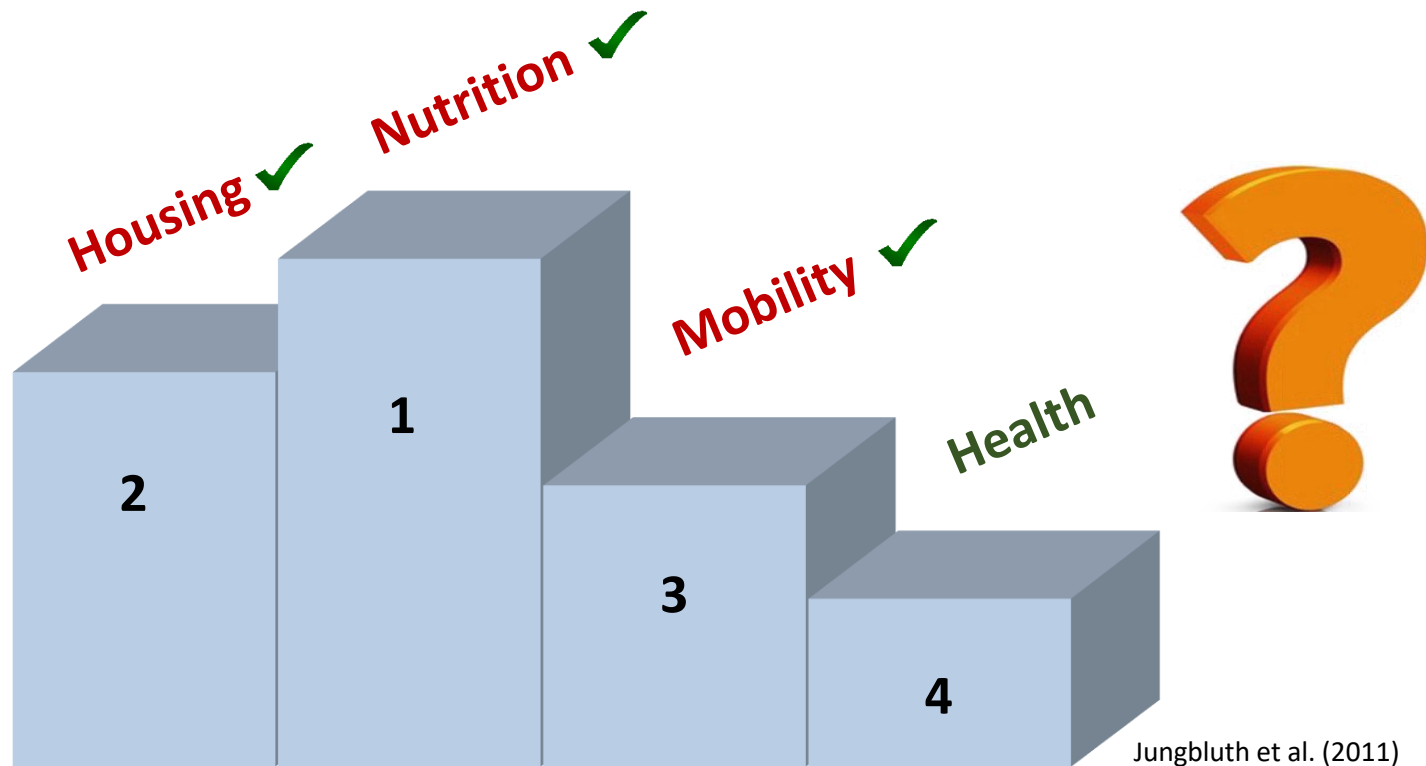
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Project Background



Jungbluth et al. (2011)

Goals

- Develop comprehensive knowledge on **resource consumption and efficiency** in Swiss hospitals
- Analyse **life cycle environmental impacts** in the **health sector** and **hospitals**
- Identify environmental **best practices** and investigate the currently **realisable options**
- Test **hands-on applications** for environmentally **optimised processes**



Partners & Perspectives



Environmental analysis

Two-step analysis

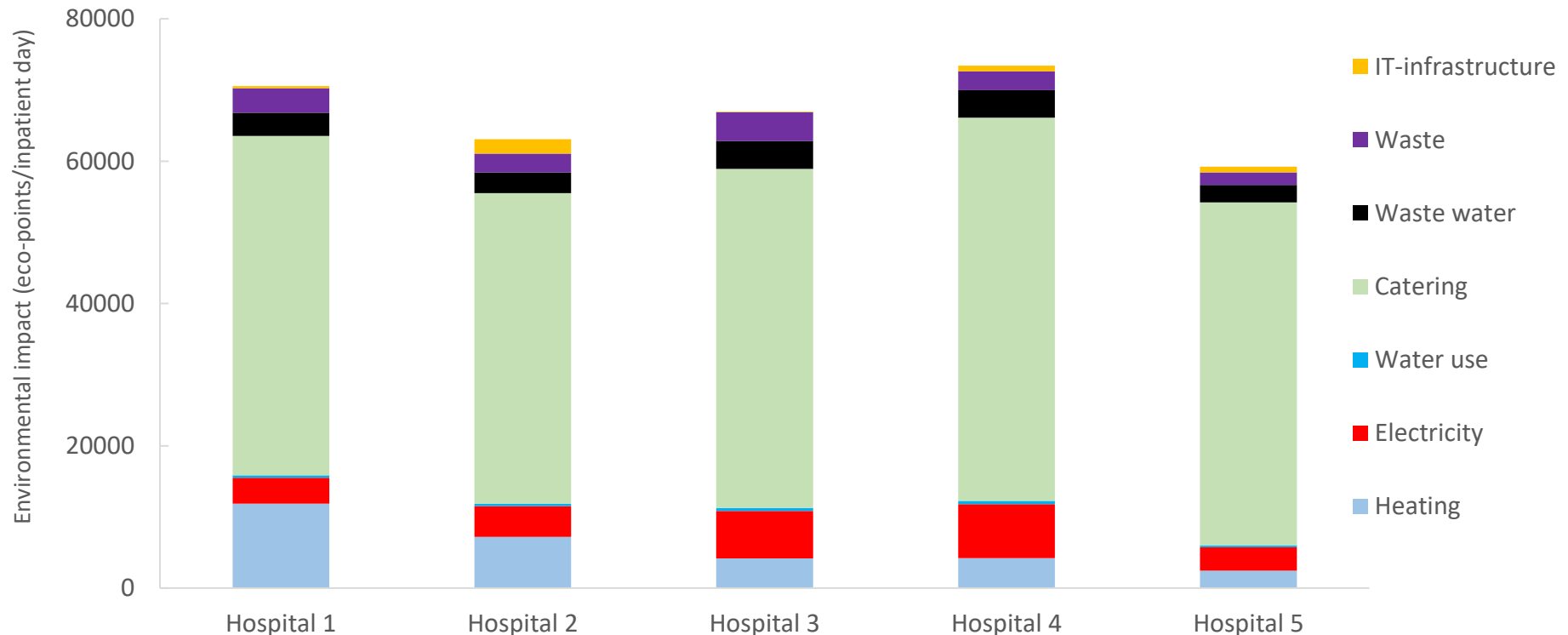
- Basic data from most relevant areas
- Detailed analysis of five key areas

Three impact assessment methods

- Global warming potential (IPCC, 2011, 100a)
- Ecological scarcity method (Frischknecht et al., 2013)
- ILCD Midpoints (Hauschild et al., 2012)

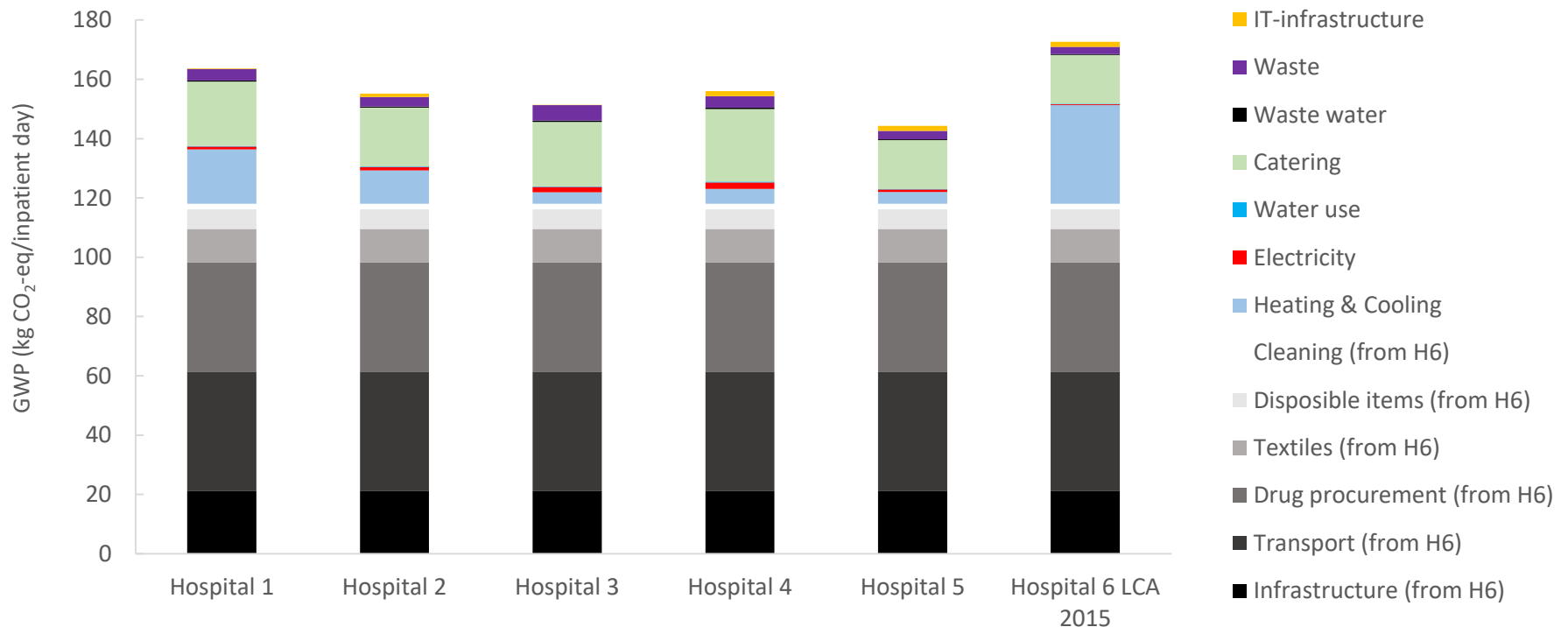
Preliminary Results

Total environmental impact per inpatient day according to the Ecological Scarcity Method



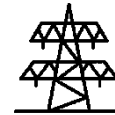
Preliminary Results

Global Warming Potential (IPCC 2013, 100a) per inpatient day



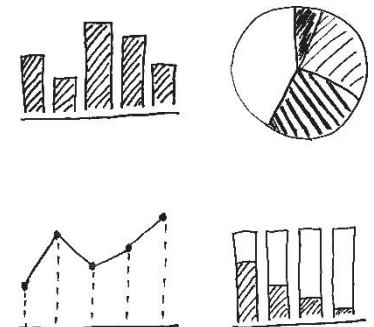
Preliminary Results

- Identification of five key areas:
 - Catering (including food waste)
 - Heating, cooling & electricity
 - Transport & mobility
 - Waste & waste water
 - Medicine, pharmaceutical products, laundering, household & office supplies



Next Steps

- Data collection:
 - Workshop with partner hospitals
 - Questionnaire to all Swiss acute-care hospitals
- Data analysis & extrapolation:
 - Potential analysis
 - LCA
 - Extrapolation of LCA results to all Swiss hospitals
 - Econometric analysis



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Sustainable Economy
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