BRAINS 4 BUILDINGS (B4B)

B4B is a multi-year, multi-stakeholder project aimed at developing methods to leverage big data from smart meters, building management systems and Internet of Things (IoT) solutions in existing non-residential buildings with the aim to (1) reduce energy consumption, (2) increase comfort, (3) respond flexible to user behavior and (4) local energy supply and demand, and (5) save on installation maintenance costs. We want to achieve this through the development of faster and more efficient Machine Learning (ML) and Artificial Intelligence (AI) models and algorithms.

B4B: Key figures

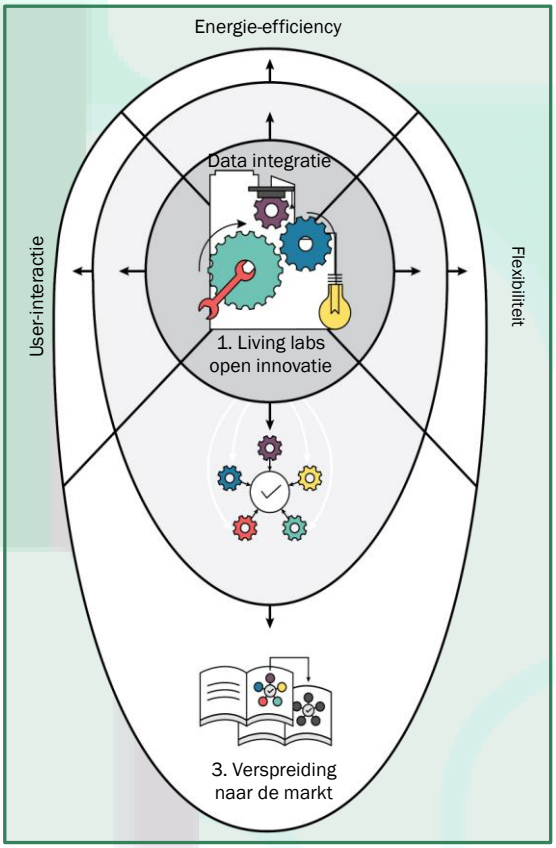
- 39 partners
- Coördination TU Delft
- 5 work packages
- Living labs, validation & use cases
- 6,7 million subsidy
- Starting: May 1, 2021
- Duration: 4 year

B4B ambition: offering (future) solutions for the most important challenges of building management

- Energy waste due to improper operation and defective components
- Energy wasted due to mismatch with user preferences
- Integration of building in renewable E-infrastructure (smart grids)
- Data integration for multiple platforms

B4B: results

- Validated integrated prototypes of software plug-ins for (1) smart monitoring and control of buildings and installations, resulting in 20-30% less energy consumption and lower maintenance costs, and (2) increasing controllable energy flexibility in buildings, applied to multi-resource buildings.
- Validated prototypes of data-driven and user-centric interfaces that contribute to user comfort, health and well-being.
- Standardized Smart Readiness Indicator (SRI) and quick-scan.
- Methods, guidelines and standards for data integration for smart building infrastructure, with associated open data platform
- Learning community to share/exchange knowledge about self-learning software for smart buildings and the link with smart grids



Approach: open innovation

Collaboration around 3 circles:

- Living lab for open innovation (circle 1)
- Validation & use cases (circle 2)
- Potential users & market parties (circle 3).

Learning community "Smart Buildings"

- Organizing knowledge transfer, exchanging experiences and building a network with stakeholders in the value chain: knowledge institutions, installation companies, energy consultancies, platform/interface developers, building owners and managers, technology suppliers, industry associations and other subject matter experts.

Project partners

More information

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