

IEA SHC Task 50

Beleuchtungs-lösungen für die Gebäudesanierung

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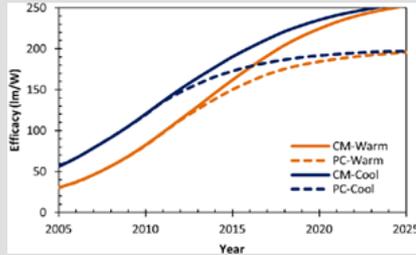
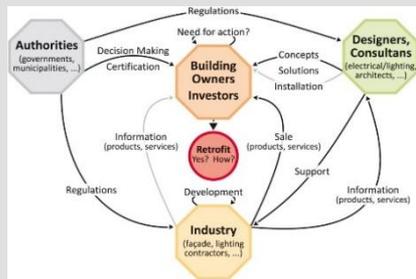
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Subtask A



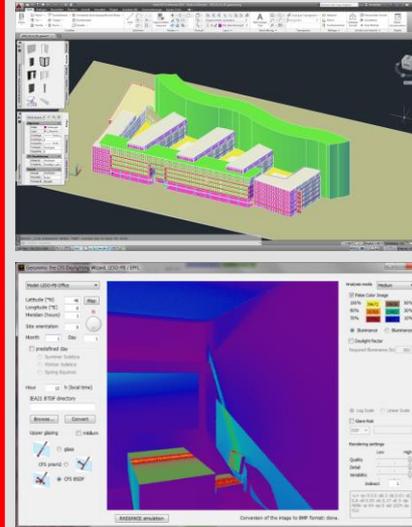
Markt und Politiken

Subtask B

Intervention type		
Upgrade of existing situation	Use new components in existing situation	Redesign

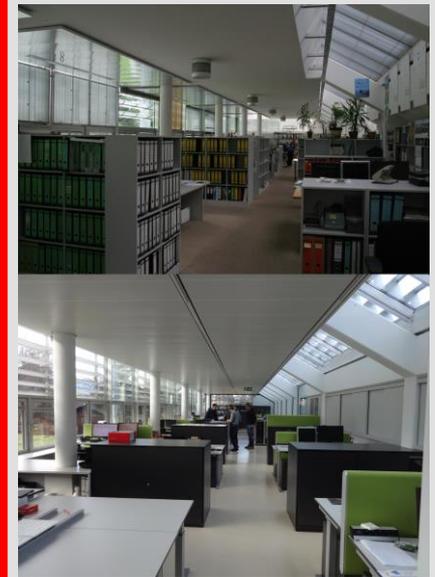
Lösungen für Tageslicht und Kunstlicht

Subtask C



Methoden und Tools

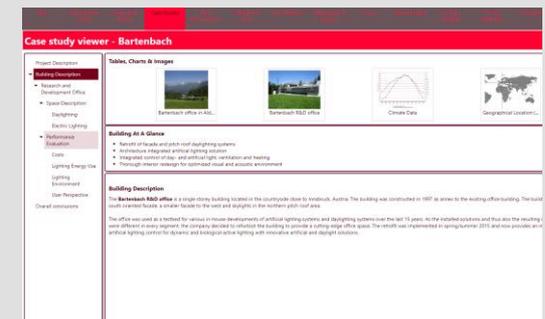
Subtask D



Fallbeispiele



Joint Working Group:
 “Lighting Retrofit Advisor”
www.lightingretrofitadviser.com



Der Nutzer im Fokus



- **Bewertung von Technologien** in Hinblick auf Nutzerzufriedenheit und Komfort
- **Metriken** zur Bewertung
- **Analyse der Fallstudien** inkl. Befragung

Start Low Hanging Fruits Technology Viewer **Case Studies** IAG / Recommend... Collection of Tools List of Metrics Publications & Reports Survey Benchmarking Portfolio Analysis On-site Optimizer CES-Express Disclaimer

Case study viewer - Bartenbach

< Back

Project Description

- ▼ Building Description
- ▼ Research and Development Office
- ▼ Space Description
 - Daylighting
 - Electric Lighting
- ▼ Performance Evaluation
 - Costs
 - Lighting Energy Use
 - Lighting Environment
 - User Perspective**
- Overall conclusions

Tables, Charts & Images

Representative view for ...

Representative view for ...

General user satisfication...

Semantic differential sh...

Satisfaction with Differ...

General Appraisal of Ro...

Glare Experience

User Perspective at a Glance

- High general user satisfaction with retrofitted space
- Lighting aspects (daylight, electric light, view), control and operation and overall impression rated very positive
- General open-plan office issues are seen neutrally (noise, privacy, temperature)

Description of User Perspective

The user survey shows a **high general satisfaction** with the retrofitted office space. Almost all users are satisfied with the daylight conditions, the electric lighting conditions, the window size, the size of the space, the view and the overall room impression. Aspects as noise level, odour/smell, ventilation, temperature and privacy are rated as neutral to slightly positive. For an open-plan office this is also what is expected as silence and privacy are hard to achieve and single users also have different preferences e.g. concerning temperature. Also the answers to specific questions (glare, control, ease of operation, brightness) draw a picture of highly pleased lighting environment.

The positive user feedback is even more valuable as the participants of the survey were the Bartenbach R&D employees. As they are all lighting experts their assessment is assumed to be quite critical.

Ergebnisse

- **Dokumente** zur Information und Unterstützung bei der Sanierung von Beleuchtungsanlagen, u.a.
 - **Source Book** “Daylighting and electric lighting retrofit solutions”
 - **Kriterienkatalog** zur Bewertung von Technologien
 - **Stand der Technik** in Methoden und Tools für Beleuchtungssanierungen
 - **Monitoringprotokoll** für Beleuchtungslösungen in Gebäuden

verfügbar unter task50.iea-shc.org/publications

- **Lighting Retrofit Advisor**



Ausblick



Neuer Task in Vorbereitung:

Ganzheitliche Lösungen für Tages- und Kunstlicht

Anforderungen aus Sicht des Benutzers

Integration und Optimierung von Tages- und Kunstlicht

Planungsunterstützung für Anwender

Labor- und Feldstudien

Bewertungstool und VR Entscheidungshilfe

