DGNB Certification for Sustainable Buildings

Dr. Christine Lemaitre | November 5th 2019
… to keep global warming below 2°C above pre-industrial levels and to make efforts to limit the temperature rise to 1.5°C above pre-industrial levels ...
Buildings are part of the solution

More than 30% of global CO₂-emissions

30% of global resource use

40% of global energy demand

Up to 18% increase in productivity through natural air conditioning or a combination of natural and mechanical air conditioning

66% drop in performance from noise

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Our goals

Buildings that are known to be good and districts that are pleasant to live in for architectural environments with a future.

Transformation of the construction and property market, promoting a sensible understanding of quality as a foundation for responsible and sustainable action.
What do we need?
Simply better buildings
Sensitising the general public

Translating sustainability into practice

Pooling and sharing knowledge

1,200 members

Non-profit association

Europe's biggest network for sustainable building

Founded 2007

4,999 awards in 24 countries worldwide

Central knowledge platform for sustainable building

3,786 qualified experts in 40 countries

Training and CPD platform – DGNB Academy

Certification system for sustainable buildings and districts

Global benchmark for sustainability

Translating sustainability into practice
Sustainability = quality + future viability
The DNA of the DGNB system

**Life cycle assessment**
All certifications take the entire life cycle of a building project into account

**Holistic**
Equal emphasis on three core sustainability factors: environmental, economical and sociocultural

**Emphasis on performance**
The DGNB System assesses the overall performance of a development and not just individual measures
The DGNB System – holistic approach

- Environmental quality 22.5%
- Economic quality 22.5%
- Sociocultural and functional quality 22.5%
- Technical quality 15%
- Process quality 12.5%
- Site quality 5%
Planning
DGNB precertification for new buildings
DGNB precertification for sustainable districts
DGNB certification for sustainable districts
(planning/infrastructure)

Construction
DGNB certification for new buildings
DGNB certification for building interiors
DGNB certification for sustainable districts

Existing buildings | renovations
DGNB certification for existing buildings
DGNB certification for renovations
DGNB certification for building interiors

Use
DGNB certification for buildings in use (recertification)

More than a system
DGNB quality during the entire life cycle
More than a system
DGNB quality applicable to all types of building use
Key topics in new DGNB System

- People: the main focus
- The circular economy
- Design quality and Baukultur
- Sustainable development goals (SDGs)
- EU conformity
- Innovation
New features

How will implementing this criterion contribute towards achieving national and international sustainability goals?

Name of indicators plus any other specific information to note for evaluation purposes

How it appears for interpolation

Bonuses for overfulfilment

Use-specific evaluation

How it appears when points can be added

How it appears when there are different options to choose from (either/or)

Innovation area

Sustainable Development Goals (SDGs)

Circular Economy

Innovation
SDGs as a core topic of the DGNB system

- **Motivation and Goal**
  - Stimulate the sector’s contributions to UN’s high-level 2030 sustainability goals
  - Provide **2030 benchmarks** for today’s building practitioners

- **Approach in Version 2018**
  - **Linking** the DGNB criteria to 14 SDGs
  - Detailed analysis of the **SDG targets** for each DGNB criteria
  - Incentive “**Agenda 2030 Boni**” for truly future-oriented performance
Carbon footprint and operational emissions

The life cycle performance of a building improves in line with higher energy efficiency requirements. The challenge is to reduce emissions linked to construction and the use of resources.
DGNB Buildings in Use

- The climate action certification -
Predicted total emissions from the building according to individual climate protection roadmap.

Annual planning values

Emission limit values

Building-specific initial value
Measured or calculated annual CO₂ emissions

Status
Carbon-neutral by 2050

Status
Carbon-neutral building

Target value for all buildings
2050 ≤ 0 kg CO₂ emissions
DGNB System for Buildings In-Use 2019

- Transformation and management tool for resilient and sustainable building operation. The recurring process of the system establishes a real estate strategy with long-term vision combining efficiency, climate action and well-being

- Applicable to all building types
- Internationally applicable
- First awards at Expo Real 2019
The evaluation of a building’s operation according to the DGNB standard is unique to the building. Following principles are essential:

- Continuous improvement process
- Collecting comprehensive data for decision making
- Compiling relevant operational data
- Integrating all stakeholders
- Impact analysis
- Identifying effective measures through holistic processes
- Analysing risks and opportunities
- Conducting scenario analysis to evaluate transitional paths
- Lowest overall costs

Active real estate management for carbon-neutral building operation
Climate Positive
An excellence award of the DGNB German Sustainable Building Council
AKTIV-STADTHAUS SPEICHERSTRASSE
Frankfurt
GESCHOSSWOHNUNGSBAU

Eigentümer | ABG FRANKFURT HOLDING GmbH
Architekt | HHS Planer + Architekten AG
Energiekonzept & CO₂-Bilanzierung | EGS-plan Ingenieurgesellschaft mbH
SCHMUTTERTAL GYMNASIUM DIEDORF
Diedorf
WEITERFÜHRENDE SCHULE

Eigentümer | Landkreis Augsburg
Architekt | Kaufmann / Nagler Architekten ARGE "Diedorf"
Energiekonzept & CO₂-Bilanzierung | Ip5 Ingenieurpartnerschaft
RATHAUS FREIBURG
Freiburg
RATHAUS / VERWALTUNGSGEBÄUDE

Eigentümer | Stadt Freiburg
Architekt | ingenhoven architects GmbH
Energiekonzept & CO₂-Bilanzierung | Drees & Sommer SE
SCHOOL OF DESIGN AND ENVIRONMENT - SDE4

Singapore
EDUCATION

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<td>TRANSSOLAR Energietechnik GmbH</td>
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DGNB Key Topics 2020

1. Zero Carbon Buildings and Cities
2. Circular Economy
3. Digitalization

Activ-House, Frankfurt

Nest House, Dübendorf, Switzerland
Shape the future with the DGNB!

Join us in making sustainability the new normal!
Your contact at the DGNB

Thanks for your time

Dr Christine Lemaitre

The German Sustainable Building Council – DGNB e.V.
Chief Executive Officer (CEO)
Tel: +49 (0) 711 722322-31
Email: c.lemaitre@dgnb.de