



© DGNB

Making sustainability the “New Normal”

DGNB German Sustainable Building Council



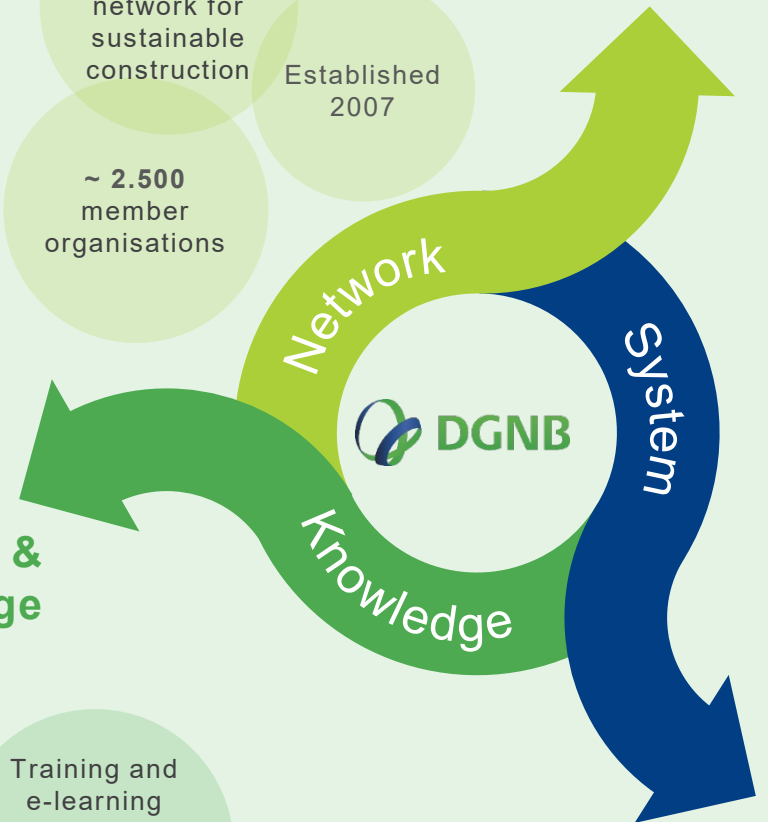


Collaboration and public awareness

Europeans largest network for sustainable construction

Established 2007

~ 2.500 member organisations



Consolidate & spread knowledge

Central knowledge platform for sustainable building

Training and e-learning platform

> 10.000 qualified Experts in > 40 countries

DGNB Academy

Make sustainability measurable

Certification system for sustainable buildings

> 10.000 Certificates in > 30 countries worldwide

What is DGNB?

DGNB is a global and the EU's largest **professional network**, **certification system** and **knowledge provider** making sustainability the "New Normal" in construction.



Current DGNB System 2020 Available in Chinese

Why use DGNB for certification?

DGNB is a true second generation certification system.



Holistic Optimization

DGNB is the only system recognizing environmental, ecological and socio-functional aspects equally, resulting in balanced, value-adding building performance.



Performance-based Optimization

DGNB focuses on performance results, not on specific measures. Instead of a binary checklist. It provides a high-resolution evaluation matrix to map individual KPIs.



Life-Cycle and CO₂ focused

Life-cycle carbon and cost balances have been in the DGNB's system DNA from the start, offering multiple proven and tested tools to realize ambitious targets in leading industry discussions.





DGNB is a toolbox for performance optimization

DGNB is developed primarily as a holistic and efficient performance optimization toolbox, providing clear guidelines, processes and metrics from project management to design, construction and operation.

Project Development

Requirements Planning | Targets | CO2 Roadmap

Performance Optimization

Holistic Life-Cycle Perspective | Variant Evaluations
CO2 and Regenerative Energy | Water Management |
Thermal, Acoustic and Visual Workplace Comfort |
Operation and Investment Cost Optimization |
Technical Systems Efficiency and User Control | Health
and Wellbeing | Social Areas | Inclusion

Construction Quality Control

Materials Management | Construction Quality
Control | Performance Tests (optional)

Commissioning

Real-life Optimization | Monitoring

Operation

BIM Documentation | User Guides | FM Guides |
FM Sustainability Management | Reporting

Replication

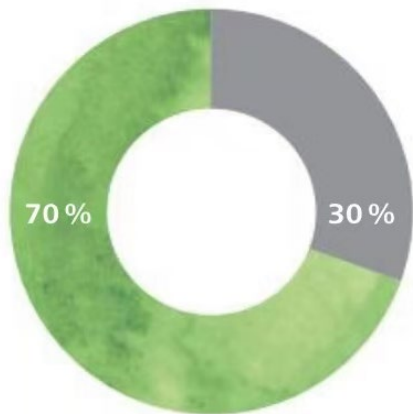
Project as follow-up blueprint

DGNB Ecological Benefits

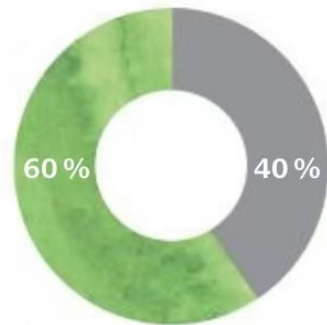
benefits?

- Individualized, strategic roadmap for CO₂-neutrality
- Cheapest way to reduce CO₂ emission and energy demand
- Worldwide recognized standard

DGNB-certified projects
in 2009



DGNB-certified projects
in 2015



Zero energy



- CO₂e in construction
- CO₂e of energy consumption in regular operation



DGNB Economic Benefits

benefits?

- Added construction costs 0-5% if optimization starts early
- Quick and considerable operation cost savings
- Future-proof quality reflected in long-term asset value protection



Gain in value / rent
(according owner)



Operation Cost
Savings



Amortization of
Investment



DGNB Strategic Benefits

benefits?

- Healthy, user friendly and comfortable (work) environment
- Adaptability and flexibility for future change
- Showcase for political and competitive communication
- Highly attractive to ESG-reporting EU companies

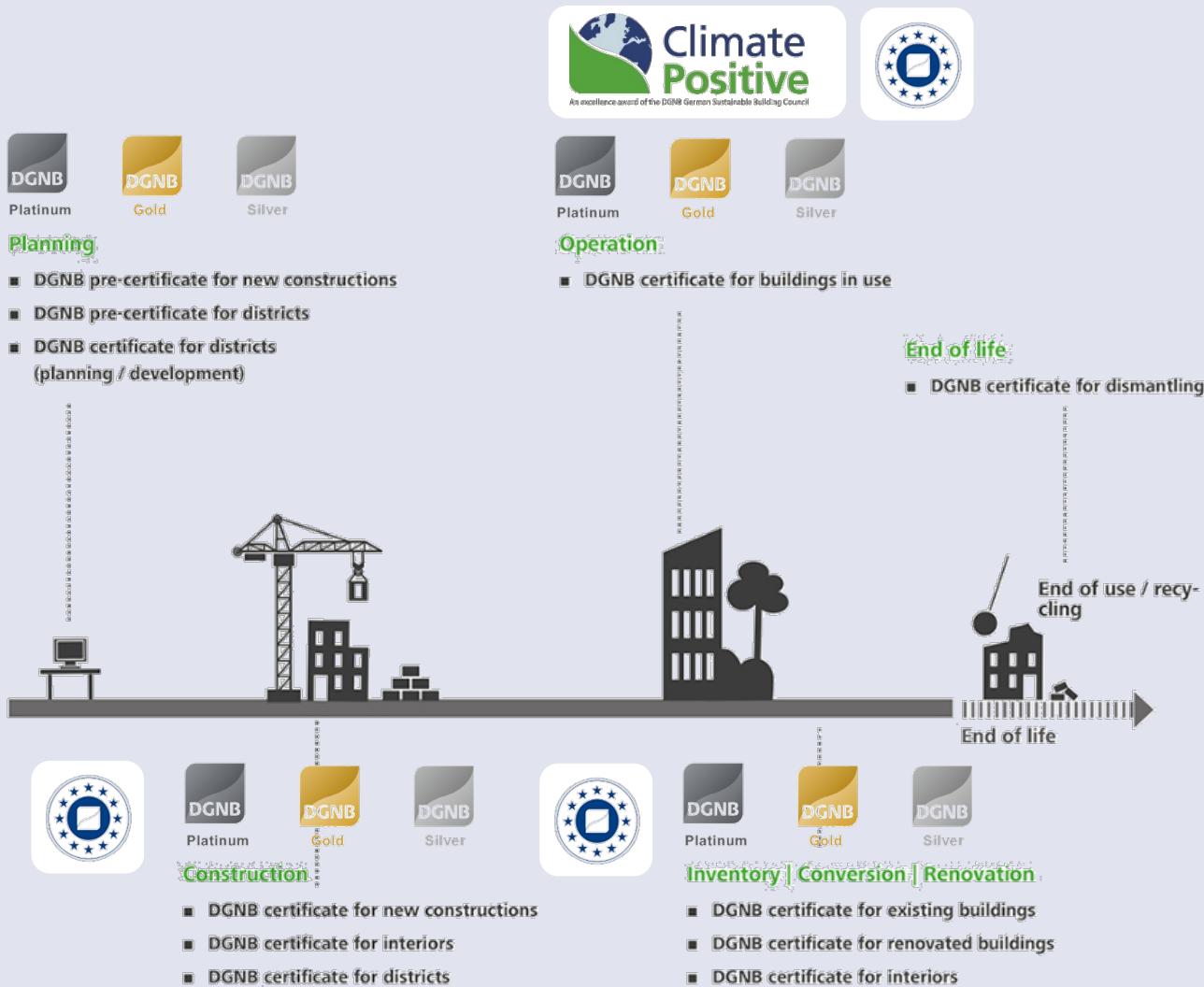


DGNB Carbon Neutral



DGNB ESG-Verification





DGNB's certification eco-system

DGNB provides integrated certification schemes for planning, operating and renovating new and existing buildings.

Certification

DGNB provides “Silver, Gold and Platinum” labels as well as zero-carbon and ESG verifications

“Big Picture” Performance Balances

DGNB schemes can provide a complete, data-driven account of an entire company’s site or regional assets to identify highest and most suitable optimization potentials across multiple buildings and locations


Replication


DGNB schemes provide easy solutions for replicating projects or certifying multiple similar buildings with considerable reduction in effort.





> 10.000 DGNB Certifications worldwide

- Target: Certified Sustainability + Individual Added Value
- Flexible Benchmarks
- Individual Decarbonization Roadmap
- Comprehensive Data + Documentation for Future Action

 **Gold**

 **Silver**

 **Platinum**

 **DGNB**
Deutsche Gesellschaft für Nachhaltiges Bauen
德國可持續建築委員會





> 40 DGNB certified projects in China



DGNB's ESG-Verification

DGNB offers an add-on ESG-Verification for the building's conformity with the EU taxonomy with related documentation of:

Substantial Contribution

to climate change mitigation / adaption or circular economy

DNSH (do-no-significant-harm) Contributions

to water management, circular economy, pollution prevention and ecosystem protection



Conform to EU taxonomy
verified by DGNB

ESG-Verification Schemes

- New Construction
- Renovation
- Acquisition and Ownership (Operation)



DGNB ESG-Verification Benefits

ESG Reporting is directly relevant to >50.000 companies within the EU.

Third Party Verification

Offering third party DGNB ESG-Verification for fixed assets in local Industry and Office Parks is a high value proposition, especially to attract investment from EU companies.

The Right Information

DGNB has developed closely in line with EU taxonomy, assessing and evaluating the right type of information at the requested level of detail and granularity relevant for ESG reporting.


Future Proof Investments

CO2 Footprint, circularity, future adaptability and resilience are key concepts of sustainability and value stability – holistically reflected within the DGNB system.



The image shows two overlapping certificates from DGNB. The top certificate is titled "ESG-VERIFIKATION ZUR EU-TAXONOMIE" and "Ergebnisse im Detail". It lists requirements for minimum requirements, climate risk, and adaptation to climate change. The bottom certificate is also titled "ESG-VERIFIKATION ZUR EU-TAXONOMIE" and "Unabhängige Prüfung der DGNB". It provides project information including the project name "Upholsterer Inn", the taxonomy category "Innovativ und grün", and the project number "2015/1274". It also states the project location as "München" and "München". The bottom certificate includes a green circle indicating that the project meets the requirements of the EU Taxonomy (Version 10.0). It also features the DGNB logo and the text "EU-Taxonomie-konform verifiziert durch DGNB".



  **The Twist | Eschborn**
DGNB Gold + ESG Verification



> 150 DGNB ESG-Verifications

- Target: Conformity with EU-Taxonomy
- Fixed Benchmarks
- Efficient Link-up with DGNB Certification



Conform to EU taxonomy
verified by DGNB



  **Edge Grand Central | Berlin**
DGNB Platinum + ESG Verification



  **Eclipse | Düsseldorf**
DGNB Platinum + ESG Verification + DGNB Diamond Award



DGNB Certification Milestones



DGNB Pre-Assessment

DGNB System
Certification Target
KPIs

DGNB Auditor

- Sustainable Requirements Planning
- Strategic Optimization Variants
- Summary Report for Decision-Making



DGNB Project Registration

DGNB GmbH



DGNB Project Auditing (Part 1)

Design PM / QM

DGNB Auditor

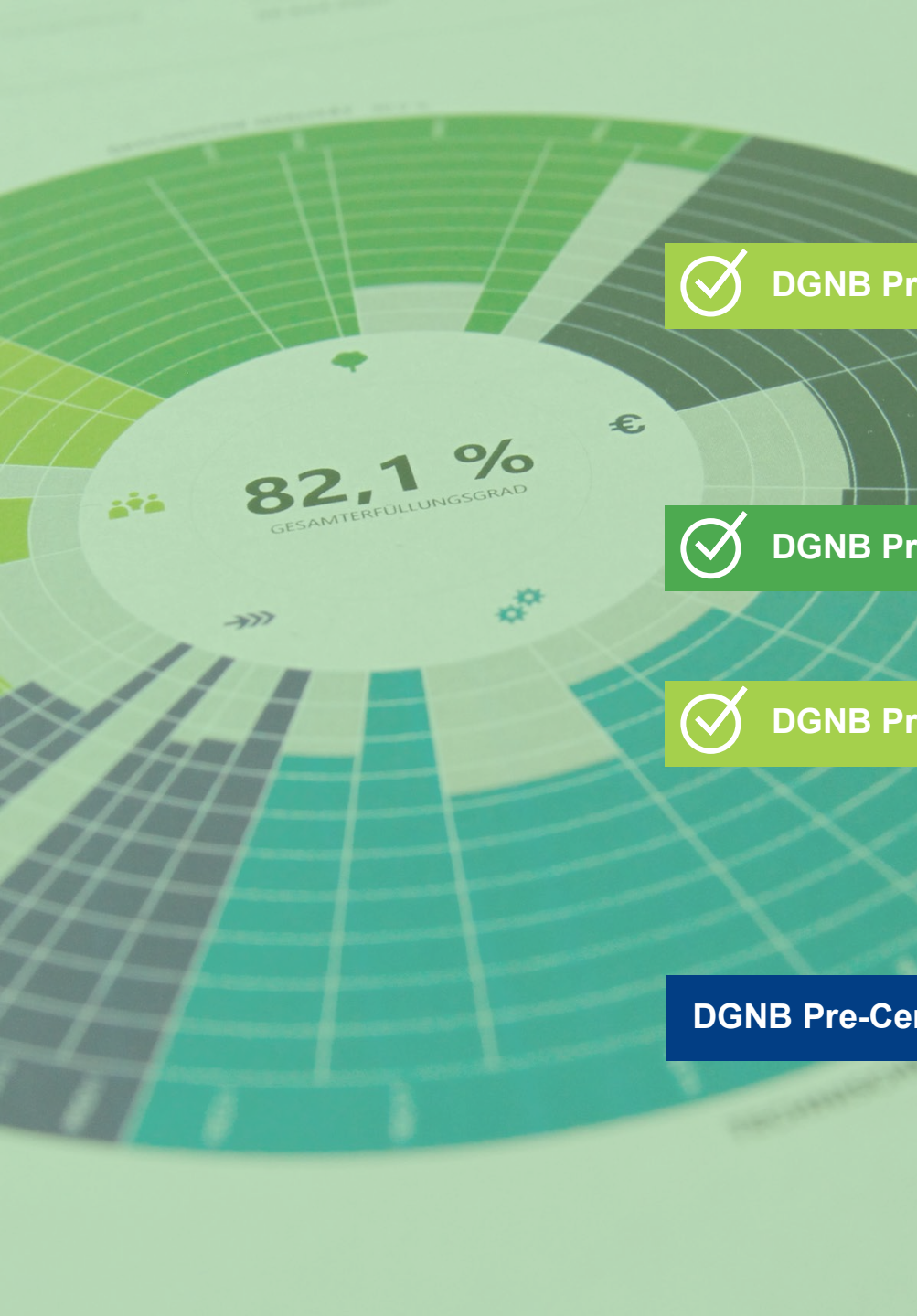
- DGNB-specific Stakeholder Management
- Technical Advise and Calculations
- Documentation + Submission
in planning / design phase

DGNB Pre-Certificate

Conformity Check
of Design

DGNB GmbH

Formal DGNB Certificate Planning Stage
(valid until construction finished)



DGNB Certification Milestones



DGNB Pre-Assessment

Construction QM

DGNB Certificate (+ ESG Verification)

Conformity Check
of Construction

Follow-up DGNB Certifications (optional)

DGNB Auditor

- DGNB-specific Stakeholder Management
- Technical Advise and Calculations
- Supervision of on-site Testing
- Documentation + Submission
in construction phase

DGNB GmbH

Formal DGNB Certificate (no validity limit),
including optional ESG-Verification

Owner / DGNB Auditor / DGNB GmbH

- Ensemble certification for multiple buildings
- Portfolio certification
- DGNB certification of building operation
- DGNB Climate Positive for CO2-neutral buildings



What are DGNB workflow benefits?



DGNB's mission is the development of FUTURE-PROOF buildings, meeting climate targets and providing individual added value.

Creating measurable, day-to-day benefits

... from tailored workspace quality to operational flexibility and future adaptability

Toolbox for tailored implementation of individual KPIs

... from passive design, materiality and layout to regenerative technical components and facilitation of efficient operation

Reliable parametric data for efficient decision-making

... from political communication to reporting and stakeholder management





What are DGNB certification benefits?

Certified DGNB projects typically display the following benefits:

High CO₂ emission and energy demand reduction
(Including tailor-made, strategic CO₂-neutral Roadmap)

Low operating costs and life-cycle cost
(Typical added upfront investment <5%)

Healthy, user friendly and comfortable work environment
(Thermal, acoustic, visual comfort, TVOCs, Indoor Air Quality etc.)

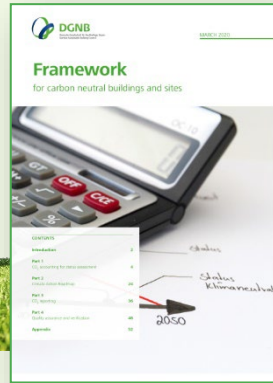
Adaptability and flexibility for future change
(Zonal, structural and technical building concept)

Showcase for political communication
(Quantified and qualified performance data linking up with the “big topics” of carbon neutrality, circular economy and ESG)

DGNB
Innovation



Carbon Neutrality

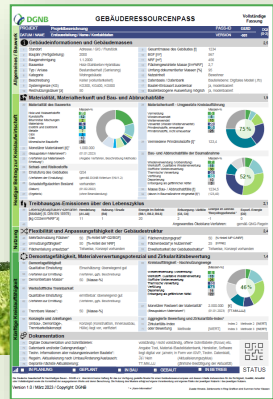


DGNB New System Components

DGNB is built on a long term perspective and continuous innovation.

DGNB “Climate Positive” CO2 Neutrality Roadmaps
Cheapest way of achieving carbon zero (operation or life cycle) by simply synergistically refocusing measures and investment today and tomorrow

Circular Economy



“Building Resource Passport” (BRP)

Established in EU in 2023, the BRP represents today’s buildings as tomorrow’s resources – from carbon to materials and spatial adaptability

Biodiversity



DGNB Biodiversity Certificate

The brand-new “Biodiversity” DGNB system focuses on integrated vegetation as contributions to our increasingly volatile natural ecosystems.

DGNB is a 2nd Generation Certification System

DGNB provides a systematically balanced, holistic and calibrated approach to Sustainability Certification.

DGNB balances of environmental, economic and socio-cultural criteria

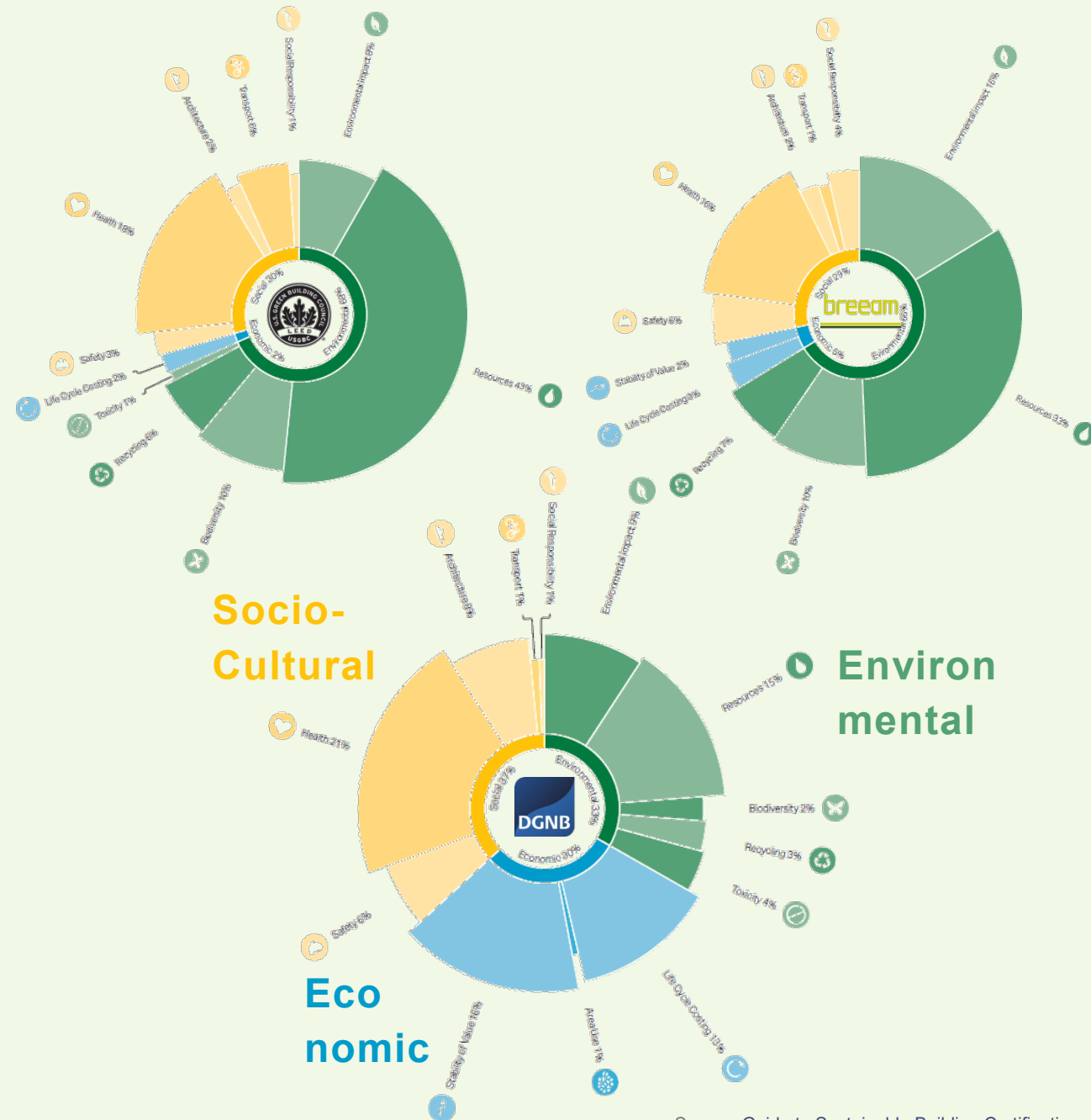
(Each aspect reflected equally in final scoring, including a life-cycle cost assessment including operation)

DGNB holistically defines indicators

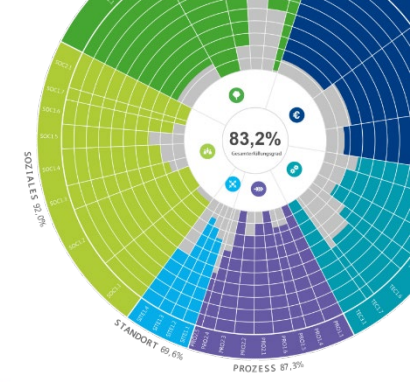
(Reflecting 100% of LEED and ca. 75% of WELL indicators within one combined system)

DGNB calibrates to individual priorities

(Providing a high-resolution evaluation matrix instead of a binary checklist approach)



Criteria for buildings – Version 2020 (international)



 **22.5%**
Environmental Quality

 **22.5%**
Economic Quality

 **22.5%**
Sociocultural Quality

 **15%**
Technical Quality

 **12.5%**
Process Quality

 **5%**
Site Quality

ENV1.1 Building LCA

ECO1.1 Life-Cycle Cost

SOC1.1 Thermal Comfort

TEC1.1 Fire Safety

PRO1.1 Comprehensive Brief

SITE1.1 Local Environment

ENV1.2 Local Env. Impact

ECO2.1 Flexibility / Adaptability

SOC1.2 Indoor Air Quality

TEC1.2 Sound Insulation

PRO1.4 Sustainability in Tender

SITE1.2 Influence on District

ENV1.3 Sustainable Resources

ECO2.2 Commercial Viability

SOC1.3 Acoustic Comfort

TEC1.3 Building Envelope

PRO1.5 Sustainable Management

SITE1.3 Transport Access

ENV2.2 Water Demand

SOC1.4 Visual Comfort

TEC1.4 Building Technology

PRO1.6 Design Procedure

SITE1.4 Access to Amenities

ENV2.3 Land Use

SOC1.5 User Control

TEC1.5 Ease of Cleaning

PRO2.1 Construction Site / Process

ENV2.4 Biodiversity

SOC1.6 Indoor / Outdoor

TEC1.6 Recovery / Recycling

PRO2.2 Quality Assurance

SOC1.7 Safety and Security

TEC1.7 Emissions Control

PRO2.3 Systematic Commissioning

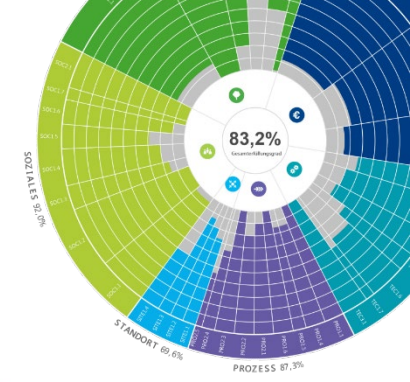
SOC2.1 Design for All

TEC3.1 Mobility Infrastructure

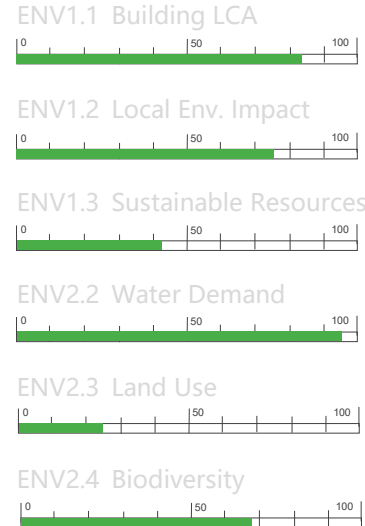
PRO2.4 User Communication

PRO2.5 FM-compliant Planning

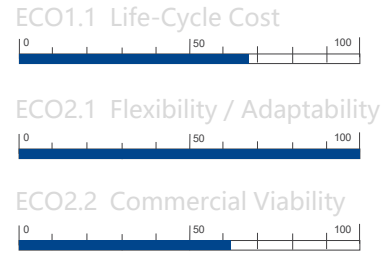
0 - 100 Points per indicator | 0 - 3.800 Points in total
High resolution mapping system of individual priorities and specific project KPIs



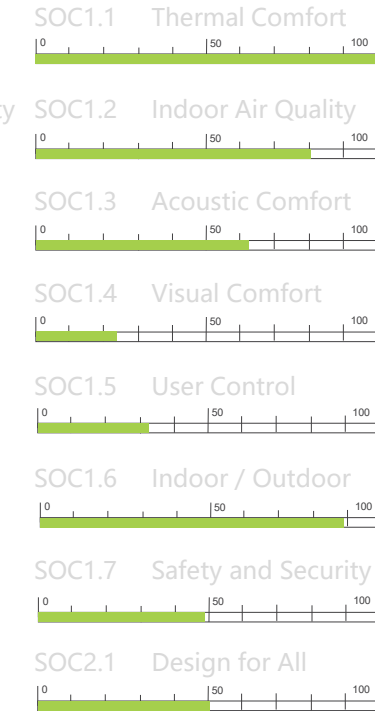
22.5%
Environmental Quality



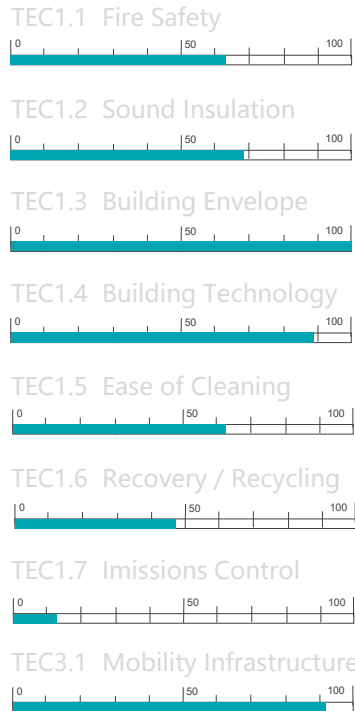
22.5%
Economic Quality



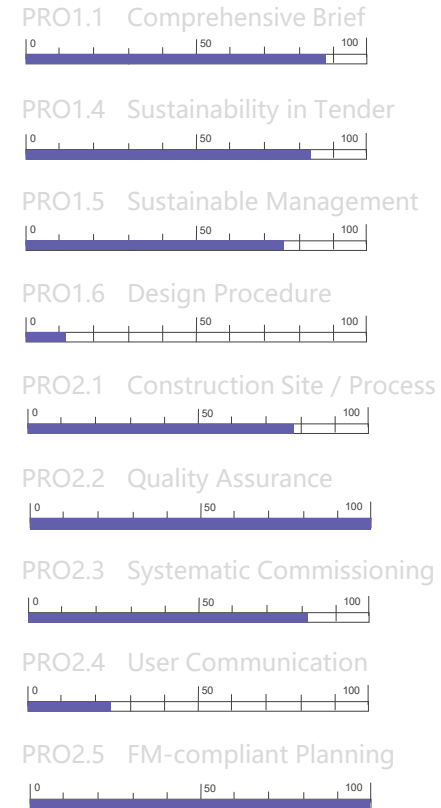
22.5%
Sociocultural Quality



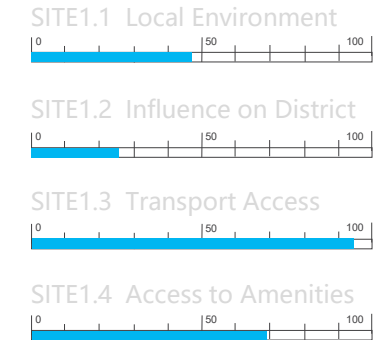
15%
Technical Quality

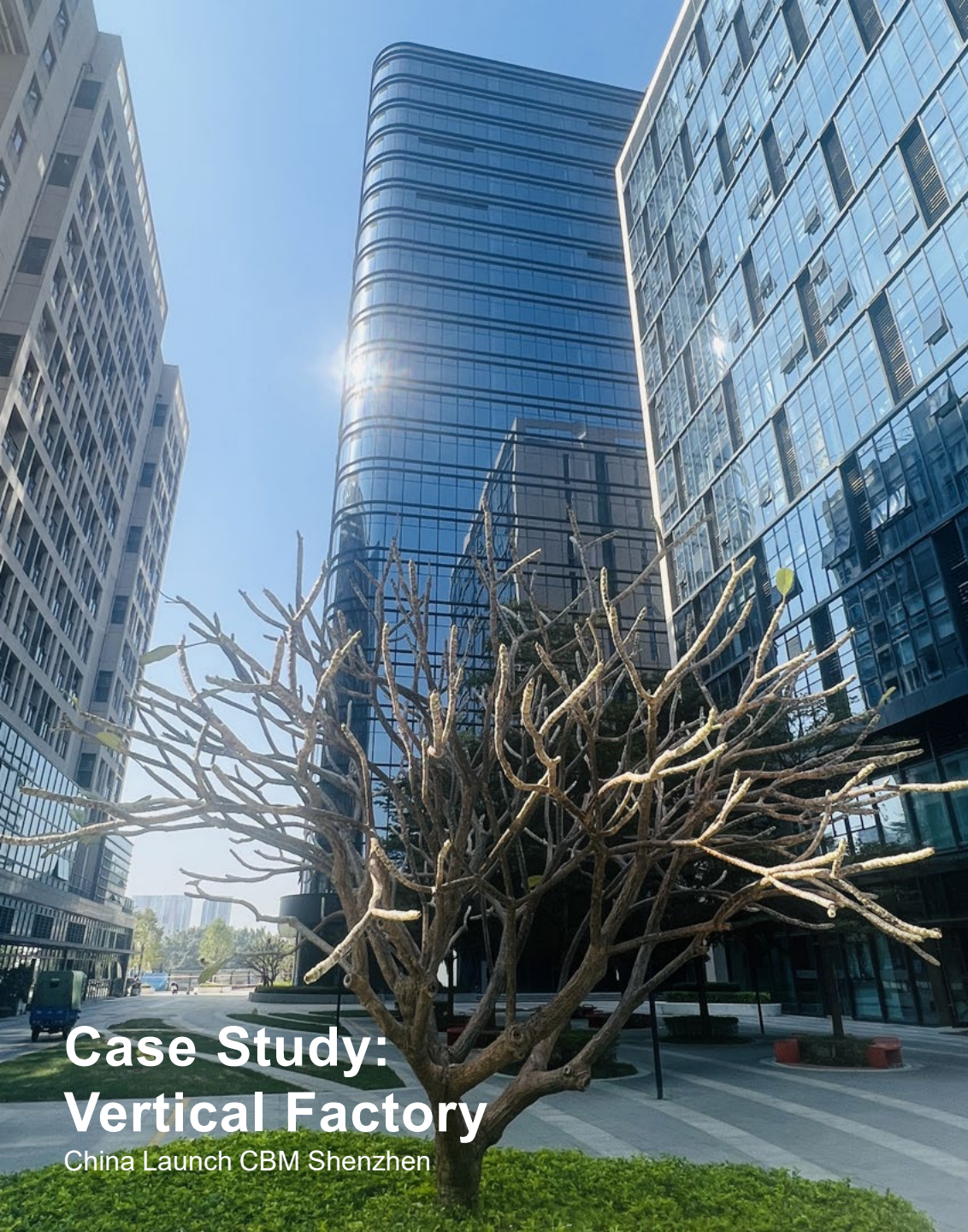


12.5%
Process Quality



5%
Site Quality





Case Study:
Vertical Factory
China Launch CBM Shenzhen

How does DGNB Flex work?

DGNB Flex provides maximum flexibility and system integration:

Mixed Use, Serial and Ensemble Certifications possible
(Including single buildings, clusters and entire districts)

Capitalize on full impact of synergistic strategies
(Shared facilities between buildings are actively encouraged)

Adaptive use and weighting of criteria and indicators
(Reflecting relevant KPIs as realistically as possible)

Replicability of tailored Certification System
(DGNB Flex schemes can be stand-alone or replicated)

DGNB Co-Creation





DGNB Co-Creation offers unique tailor-made Certification Standards

DGNB teams up with developers in strategic large scale projects to deliver individual certification systems.

Based on DGNB Eco-System methodology
(Holistic, life-cycle-oriented and performance focused)

Reflecting individual targets
(Individual system focus and comparative positioning – e.g. CO2 neutrality, efficient construction etc.)

Reflecting individual strategies and priorities
(Individual certification levels, pre-requisites, selection and weighting of indicators)

Integrated Certification Standard
(Individual eco-system components from district to building, from design to operation)



Energy Efficiency



Public Quality



Ecological Materials



Health and Wellbeing



Sustainable Operation



“DGNB Inside”: HafenCity Label Hamburg

4 sites (total of ca. 400ha) with tailored compulsory sustainability standard co-created with DGNB

DGNB “Umweltzeichen” HafenCity Label
(Exclusively exists for the HafenCity development)

Standards and Benchmarks
(Based on DGNB methodology, adjusted to HafenCity selection, weighting and priorities)

Building on existing Expertise
(Conformity checks follow DGNB established workflows)

Sustainability as holistic Pre-Requisite
(No certification levels, compulsory verification for construction and subsequent operation)

**DGNB Certification
ESG Verification
Workflow**



DGNB / ESG Certification Workflow Steps

Step 1: Vision Development

DGNB Project Registration

Individual, stakeholder-driven definition of:

- **Budget Constraints**
- **Individual KPIs**
- **Target Definitions**
- **Decision Milestones**



Step 2: Variant Evaluation

DGNB Auditing in Integrated Design

DGNB Pre-Certification

Optimization and comparison of strategic variants:

- **Alternate KPI Prioritization**
- **Alternate Certification Targets**
- **Synergistic Planning Solutions**

Comprehensive set of parameters:

- CO₂ Footprint / Energy Demand
- Operation / Investment Costs
- Comfort and Health
- Functional Quality
- Technical Adaptability



Step 3: Individual Roadmap

DGNB Auditing downstream Construction

Synergistic integration into individual roadmap:

- **Clear specifications**
- **Clear performance targets**
- **Adjusted to individual timeline**
- **Adjusted to individual budgeting**
- **Short / Medium / Long Term Certification milestones**



Step 4: Certification

DGNB Certificates

- **DGNB Certification**
- **ESG Verification**

Additional key benefits:

- Comprehensive Data Documentation for Future Use
- Possible Replication



- ... highly adaptable workflow
- ... balancing individual targets and constraints
- ... creating a customized implementation roadmap

BUILDING TODAY FOR TOMORROW



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