



Exemplary in energy Setting a good example

Technical implementation of measure no. 1:
Energy-efficient new and converted buildings

Europaallee in Zurich up to the DGNB standard



Three buildings are under construction in sector H of Zurich's new Europaallee district that have been planned to meet the standards of the DGNB Gold Certificate, which has been adapted to Switzerland. They are scheduled for completion by 2016. Thus all aspects of sustainability – economic, ecological and social – are taken into account to the highest extent in this construction project.

SBB has been awarded a DGNB gold pre-certificate for the Europaallee sector H project. "Pre-certificate" means that the project was assessed on the basis of the fundamentals of the plan and simulations – that is, in the planning phase. Gold indicates that the building complies in overall terms with at least 80% of the DGNB criteria, thus conferring the highest DGNB award on the project. If a lower percentage of the criteria is fulfilled, the DGNB certificate is awarded in bronze or silver.

Professional support helpful

SBB opted for the DGNB standard in the planning stage of Europaallee sector H, because this standard comprehensively covers all three aspects of sustainability – economic, ecological and social. The DGNB criteria were already taken into account in the competitive tender phase. Ernst Basler + Partner advised SBB, as the building owner, and Basler & Hofmann, as the planners, on matters concerning the DGNB pre-certification.

Three buildings in Europaallee sector H meet the highest standards in terms of sustainability

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The potential for sustainability has been tapped on Europaallee sector H

According to the overall project manager of sector H, support for the planners is necessary because comprehensive sustainability labels such as the DGNB standard are not yet very well known in the world of planners. Although the building owners are not required to invest too much time and effort for DGNB pre-certification, professional support is helpful.

The DGNB Gold objective was defined early on by SBB Real Estate. Therefore the aspects that needed to be taken into consideration for DGNB were implemented without any difficulty in the planning stage. In addition, further ambitious sustainability objectives – which went hand-in-hand with and promoted the DGNB label – were set for the project. What was demanding, on the other hand, was the need to compile the information necessary for the DGNB certification at a relatively early stage of the project.

Benefits for letting

The possibilities of sustainability were explored for sector H during the planning phase. But now some measures are to be dropped during the implementation phase. Be it for technical reasons (for example, the planned photovoltaic installation would have led to dazzle effects) or because certain measures are uneconomical in the long term. If the

completed sector H is certified, “only” the second-highest (silver) label will be gained, according to SBB. However, it has not yet been decided whether SBB will have the superstructure certified. This depends very much on the marketing requirements. SBB Real Estate has had some very good experiences with the DGNB certificate when letting premises in Europaallee.

SBB Real Estate definitely recommends using the DGNB system in project development. At SBB Real Estate it has proved to be a very useful system for tapping the potential in terms of sustainability and for identifying weaknesses. SBB Real Estate recommends setting the objective of the DGNB standard as early as possible.

DGNB assesses holistically

DGNB is the German acronym for “German Sustainable Building Council”. The DGNB certification system was developed by it and adapted to the Swiss context by the Swiss Society for Sustainable Real Estate (SGNI). The purpose of the DGNB system is to assess and optimize properties and sites holistically over their whole life cycle. The following types of certificate are awarded:

- pre-certificate (for planned buildings);
- a new-building certificate (for buildings that are at least 80% completed);
- certificates for condition and operation.

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The system is not a conventional building standard with set requirements or measures and considers far more aspects than, for example, Minergie-P-Eco. Accordingly, not only ecological aspects, but also all areas of sustainability are taken into account: the areas comprise ecology, economics, socio-cultural and functional aspects such as technology, processes and location. For new buildings, the first four areas are taken into account in the assessment with an equal weighting. Weighted criteria with target values are defined for each of the subject areas. The auditor makes his/her assessment based on the extent to which a criterion has been fulfilled. The actual level of compliance for the six areas is calculated from the combination of the points assessed and the weighting of each criterion. The [criteria](#) are explained on the SGNI website.

Target values of the 2000-watt society

For the criteria, the legal minimum requirements form the lower limit; meeting them is a prerequisite for a certificate to be award-

ed. The target values in the area of energy and CO₂ relate to the SIA values for the 2000-watt society. Also in the other areas that are assessed, the DGNB certifications rely as much as possible on proven Swiss measurement and calculation methods and refer primarily to SIA.

Agreement on objectives incorporated in planning

The building owner's expectations and goals are clarified in an agreement on objectives, so that they can already be incorporated into the strategic planning and the general conditions of the competitive tender procedures. The building is subsequently assessed on the basis of the fundamentals of the plan and the simulations. If the result of the audit for the desired quality level (for example, gold or silver) is not in line with the building owner's expectations, the auditor, together with the architect and the team of planners, looks for new solutions. The [detailed procedure](#) is described on the SGNI website (see figure below).

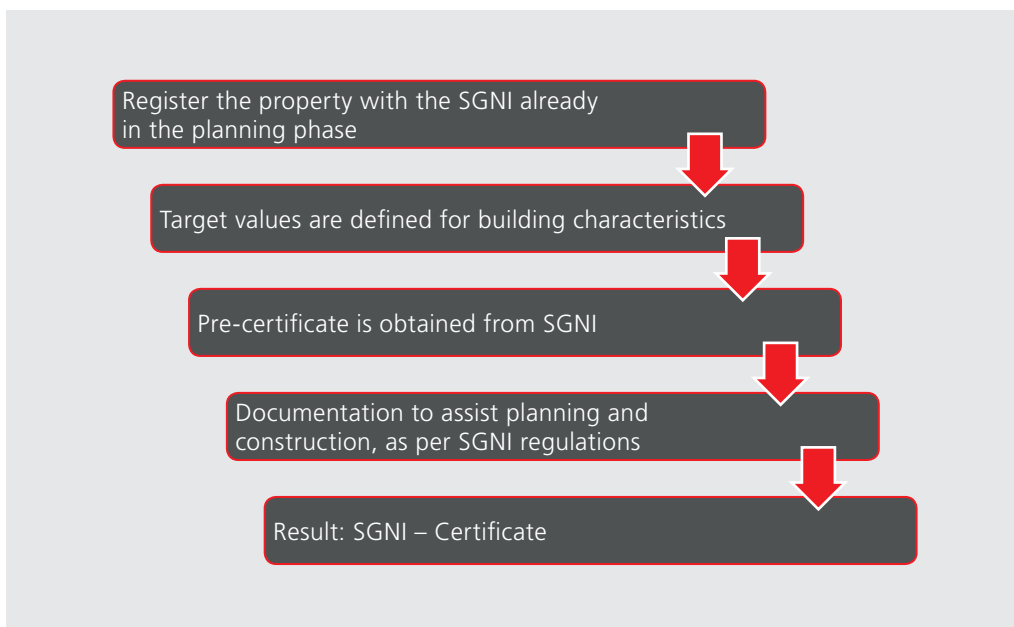


Figure 1: Flow of the DGNB certification process

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The certification fees include the handling of the certification process by SGNI as the certification body. In addition, there are the variable, project-related fees for the professional services of the auditor, the specialist planners and the measurement specialists. The [certification fees](#) are available on the SGNI website.

Construction costs are rising by 0 to 4%

The additional expenditure on construction costs depends on the initial situation (for example, what is already taken into account in the early planning phases, sustainability of the project) and on the desired quality level (for example, silver or gold). Based on a cross-section, according to SGNI, the additional expenditure on construction costs ranges between 0 and 4%. The overall project manager for sector H anticipates no additional costs for quality level bronze, but from 0.5% to 2% for gold, depending on the project.

Implement the measures yourself.

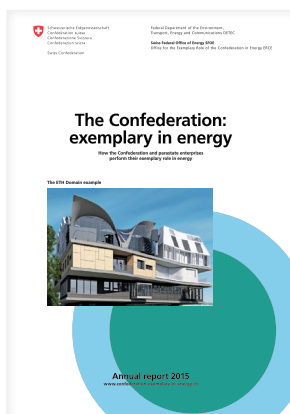
- The DGNB system is currently applicable in Switzerland to the following types of use: office and administrative buildings, residential buildings, commercial buildings, hotel buildings, laboratory buildings, healthcare buildings/hospitals, educational buildings (from 2016) and industrial buildings (from 2016). The standard can also be applied to mixed-use buildings and is also available as an international version for new urban districts or mixed-use urban sites.
- For further information on DGNB certification in Switzerland, please contact the Swiss Society for Sustainable Real Estate SGNI.

Weitere Informationen

- DGNB [website](#)
- Europaallee [website](#)

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Exemplary in energy

The annual reports form the core of the reporting by the Exemplary in energy initiative. They present the 39 joint measures and summarize the actors' actions plans, which also contain their specific measures. Furthermore they enable all the measures to be monitored. You will find the reports on www.exemplary-in-energy.ch.

Contact

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