

NEW EUROPEAN BAUHAUS

self-assessment method and tool

Technical Workshop

New European Bauhaus self-assessment method and tool for buildings and living spaces

Beauty assessment, KPI B.9

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2nd Day: 4 April 2025, 9:00 – 16:30



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Case study I - buildings and spaces with statutory protection

The evaluation of B.9 for projects with statutory protection, as in the example, depends on the scores of B.9.1 (historical fabric preservation) and B.9.2 (integrated heritage landscape conservation) indicators (i.e. B.9.3 indicator is omitted).

The hypothetical project focuses on the restoration and adaptive reuse of a statutory protected historic industrial building. The primary goal is to transform the building into a functional and vibrant space while preserving its historical significance. The existing industrial building holds great historical importance, representing an example of a crucial era in the city industrial development. To maintain its historical integrity, efforts are made to preserve original features, such as exposed brickwork, large factory windows, and industrial elements that reflect the history of the building.

However, the project also aims to modernise the building to meet current needs, creating a balance between preservation and adaptation. This involves introducing contemporary design elements while respecting the historical character of the structure. Surrounding the building, historic urban green areas and traditionally cultivated landscapes are integrated into the design of the renovation project. Additionally, sustainable land use practices are incorporated, including the use of native plants, water-efficient landscaping, and environmentally conscious maintenance practices. Specifically, the total area of the project site is equal to 5000 m², while the total floor area of the building is 1000 m² square meters.

Integrated heritage landscape conservation indicator evaluation

The **B.9.1 score** is evaluated through the following four metrics:

i. preserved patina

$$PP = \frac{650 \text{ m}^2}{1000 \text{ m}^2} \cdot 100 = 65 \%$$

ii. preserved original/historic structural elements

$$PSE = \frac{750 \text{ m}^2}{1000 \text{ m}^2} \cdot 100 = 75 \%$$

iii. preserved original/historic openings

$$PO = \frac{80}{100} \cdot 100 = 80 \%$$

iv. heritage value

Sub-metric	Score (points)
<i>Rate each sub-metric below according to a scale of points (0-5, where 0 corresponds to absence of feature, 1 to very weak, 2 to weak, 3 to moderate, 4 to strong, and 5 to very strong presence of features) and sum the three scores.</i>	
<i>Representativeness:</i> evaluate how the heritage site represents a particular period, style, or cultural aspect?	+ 5 (very strong)
<i>Ambient value:</i> evaluate the heritage site environmental and aesthetic qualities, consider its natural surroundings, landscape, and overall atmosphere.	+ 4 (strong)
<i>Aesthetic coherence:</i> evaluate the architectural significance, innovation, and craftsmanship of the buildings within the heritage site.	+ 5 (very strong)
Heritage value (HV) metric score = Σ sub-metric scores	HV = 14

$$HVA = \frac{14}{15} \cdot 100 = 93.3 \%$$

Historical fabric preservation indicator evaluation

The **B.9.2 score** is evaluated through the following two metrics:

i. Traditional cultivated landscape preservation and restoration

$$TLPR = \frac{2000 \text{ m}^2}{5000 \text{ m}^2} \cdot 100 = 40 \%$$

ii. Preserved or recovered original, historic green areas

$$PRGS = \frac{2500 \text{ m}^2}{5000 \text{ m}^2} \cdot 100 = 50 \%$$

B.9. KPI score - based on B.9.1 and B.9.2 calculation

i. B.9.1 evaluation

Metric	PP	PSE	PO	HV
Metric score	65 %	75 %	80 %	93.3 %
B.9.1 score	$= (0.25 \cdot 65 \% + 0.25 \cdot 75 \% + 0.25 \cdot 80 \% + 0.25 \cdot 93.3\%) \cdot 100 = 78.3$			
B.9.1 performance class	(Excellent) ¹			

¹ Transformation of the indicator score to an indicator performance class is indicative and not required by the self-assessment method to estimate KPI and dimension scores and performance classes.

ii. B.9.2 evaluation

Metric	TLPR	PRGA
Metric score	40 %	50 %
B.9.2 score	$= (0.5 \cdot 40 \% + 0.5 \cdot 50 \%) \cdot 100 = 45$	
B.9.2 performance class	(Acceptable) ¹	

¹ Transformation of the indicator score to an indicator performance class is indicative and not required by the self-assessment method to estimate KPI and dimension scores and performance classes.

B.9 (project statutory protected) overall evaluation

Indicator	B.9.1	B.9.2
Indicator score	78.3	45
B.9 score	$= 0.6 \cdot 78.3 + 0.4 \cdot 45 = 65$	
B.9 performance class	Good	
B.9 performance class score (PCS _{B9})	70	

Case study II - buildings without statutory protection but with historical significance

The evaluation of B.9 for cultural heritage projects without statutory protection depends on B.9.3 indicator (i.e. B.9.1 and B.9.2 are omitted).

The hypothetical project focuses on the restoration of a building within a historic urban context. The building is part of a planned city block that dates back to the early 20th century and is integral to the wider city centre. Although certain parts of the city block hold significant historical value, the building itself is not statutory protected. However, the tenants have decided to renovate the building, aiming to preserve its original elements and appearance as much as possible, acknowledging its intrinsic value to the urban fabric. Situated within the city block, the building has a total floor area of 2000 m².

Improving preservation of cultural and natural heritage in renovated buildings

indicator evaluation

The **B.9.3 score** is evaluated through the following five metrics:

i. Preserved original/historic structural elements

$$PSE = \frac{800 \text{ m}^2}{2000 \text{ m}^2} \cdot 100 = 40 \%$$

ii. Preserved original/historic openings

$$PO = \frac{35}{50} \cdot 100 = 70 \%$$

iii. Preserved or enhanced green areas

$$PEGS = \frac{300 \text{ m}^2}{500 \text{ m}^2} \cdot 100 = 60 \%$$

iv. *Interaction with immediate surrounding*

v. *Preserved key features of the building or space*

Improving preservation of cultural and natural heritage in renovated buildings indicator evaluation

The **B.9.3 score** is evaluated through the following five metrics:

iv. Interaction with immediate surrounding

Sub-metric	Score (points)
<i>Rate each sub-metric below according to a scale of points (0-5, where 0 corresponds to absence of feature, 1 to very weak, 2 to weak, 3 to moderate, 4 to strong, and 5 to very strong presence of feature) and sum the two scores.</i>	
<i>Historical context sensitivity:</i> evaluate whether and how the renovation respects and responds to the historical context of the surrounding area, including preservation of architectural heritage and cultural significance?	+ 4 (strong)
<i>Conservation planning:</i> evaluate whether and how the renovation aligns with established conservation plans or heritage management strategies for the area, ensuring that interventions are guided by principles of heritage conservation and sustainable development?	+ 5 (very strong)
Integration with immediate surroundings (IIS) metric score = Σ sub-metric scores	IIS = 9

$$IIS = \frac{9}{10} \cdot 100 = 90 \%$$

v. Preserved key features of the building or space

Sub-metric	Score (points)
<i>Rate each sub-metric below according to a scale of points (0-5, where 0 corresponds to absence of feature, 1 to very weak, 2 to weak, 3 to moderate, 4 to strong, and 5 to very strong presence of feature) and sum the two scores.</i>	
<i>Social value:</i> evaluate the social value that the building or space holds within its community; its role in local history, cultural identity, community memory, or social cohesion.	+ 4 (strong)
<i>Historic and cultural relevance:</i> evaluate the degree to which the building or space remains culturally relevant to the community, consider whether it continues to serve its original purpose or has been adapted to meet contemporary needs while retaining its historical identity.	+ 4 (strong)
Preserved key feature of building or space (PKF) metric score = Σ sub-metric scores	PKF = 8

$$PKF = \frac{8}{10} \cdot 100 = 80 \%$$

B.9. KPI score - based on B.9.3 calculation

i. B.9.3 evaluation and B.9 (non-statutory protection) evaluation

Indicator	B.9.3
Indicator score	$= (0.2 \cdot 40 \% + 0.2 \cdot 70 \% + 0.2 \cdot 60 \% + 0.2 \cdot 90 \% + 0.2 \cdot 80 \%) \cdot 100 = 68$
Indicator performance class	(Good) ¹
B.9 score	$= 1 \cdot 68 = 68$
B.9 performance class	Good
B.9 performance class score (PCS _{B.10})	70

¹ Transformation of the indicator score to an indicator performance class is indicative and not required by the self-assessment method to estimate KPI and dimension scores and performance classes.

Thank you



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