

# GOOD PRACTICE SUSTAINABLE BUILDINGS

## NEW KINDERGARTEN BIZAU

### CATEGORY: PROJECTS BUILDINGS

<p><b>Region / local area considered:</b></p> <p>Vorarlberg</p>	<p><b>Good practice submitted by</b></p> <p>Sabine Erber</p>
<p><b>1) Short description of the action/strategy/project</b></p> <p><i>Neubau Kindergarten Bizau</i></p> <p><i>The new kindergarten building integrates naturally into the existing built environment and creates convincing outside spaces with very close ties to the surrounding village and mountains. The building itself is designed as a structural timber construction.</i></p> <p><i>In terms of energy engineering the new building is of a Passivhaus (passive house) design. The use of ecological, sturdy building materials guarantees a long service life, contributing positively to sustainability.</i></p>	
<p><b>2) Content/background/targets</b></p> <p><i>The community of Bezau needed a Kindergarten with 2 groups and a playing group. The existing old building was too small. In an architectural competition the architect Bernardo Bader won the first prize. The community wished a cooperation with the service package. There was a good teamwork between architect, building service engineer and service package.</i></p> <p><i>Does the action fit into a broader (regional/national) strategy?</i></p> <p><i>The action fits in the context that communities take responsibility for best practice examples. The building is a best practice in terms of urbanism, new buildings in rural context and energy efficiency.</i></p>	
<p><b>3) Detailed project/program description</b></p> <p>What are the main objectives and concrete targets? Mention quantified objectives if any.</p> <p><i>The main objectives are fixed in the ecological program.</i></p> <p>What long term and indirect benefits are expected from implementing this building project?</p> <p><i>Good example for adaption of a new public building in an old village. Example for energy efficient building with good fitting form and function.</i></p> <p>Who (what structure / organization) is implementing the strategy/building project/instrument?</p> <p><i>The architect worked for the first time with the service package. His design for the competition was optimized to energetic and ecological targets.</i></p> <p>What is/are the target group(s) the action/strategy/project is directed towards?</p> <p><i>Best practice example for energy efficient and well designed public buildings in small mountain</i></p>	

*villages*

Since when has the strategy/building project/instrument been implemented? Until when will it be running?

*The building was finished in 2009.*

How is the strategy/building project/instrument implemented? Through what steps / methods?

*There was a planning team with architect, building service engineer, building engineer and electric engineer. The building physics were performed by Spektrum. All 3 partners of the service package were involved.*

Does the building project offers any service packages or tools? If so, please describe.

*All modules of the service package have been performed.*

Please describe who the strategy/building project/instrument has been organized. (e.g. Who has been involved in developing the strategy/building project/instrument and in implementing the strategy/building project/instrument?)

*Coordinator for planning was the architect, coordinator optimization was Umweltverband.*

Have you encountered difficulties in involving actors/stakeholders?

*No*

#### **4) Funding/financing/costs**

What is the total cost (in Euros, if possible)? *The total building cost were 1 Mil. €, 1.967 €/m<sup>2</sup>*

For financial instruments: what is the total founding that is available?

The amount of funding was 218.000 €, 109.000€ per group. This funding was not influenced by the building quality.

How is the strategy/building project/instrument financed? Who is involved (public, private bodies, users, etc.)?

*The building was financed by the community and the funding of the county.*

Is the strategy/building project/instrument financially self-sustainable (returns on investments, etc.)?

If so, how? Calculation method?

*There were no economic calculations, because the community decided to construct in passive house standard.*

What are the human resources dedicated to this strategy/building project/instrument?

*Normal planning team and service package*

#### **5) Main results**

Quantified results?

*PHPP: 10 kWh/(m<sup>2</sup>a) Energy pass: 10 kWh/(m<sup>2</sup>a), Air quality: >300 ppm, Air tideness: >0,6*

Which indicators were used?

*Heating demand,*

Other results?

*Holzbaupreis, Bauherrenpreis*

#### **6) Analysis – lessons learnt and success factors**

Has the strategy/building project/instrument been evaluated? What are the main results (avoided cost, pollution or GHG emissions avoided, creation of jobs, etc.)?

*Good night cooling concept, (Text: "planned cooling" attached.)*

Have the targets been met or are they in the process of being met?

*The targets of the ecological program were met.*

What difficulties have you encountered? And how were these overcome?

*There was one critical room in the calculation of day light. The movement room could eventually be too dark. The fear was unreasonable.*

What are the drivers and success factors that can facilitate the implementation of the action strategy/project/instrument?

*Good and open minded architect, engaged major, ambitious community*

Should another local government be interested in "importing" this initiative, what would be your recommendations? What would be key requirements to maximize chances of success?

*Ambitious aims fixed in a program, regular checks*

What makes this strategy/building project/instrument innovative? In which way(s)?

*Combination of good architecture and ecological aims.*

What makes this strategy/building project/instrument transferable? In which way(s)?

*Every community could find a young ambitious architect in a competition and define energy and ecological aims.*

What is the main strength / quality of this initiative?

*The building convinces architects who think high energy efficiency is not corresponding with good architecture.*

## **7) Time frame**

Start 2008, finished in 2009

## **8) Contact project owner**

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