

Secrets of a shed that is a model of development

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When production, innovation and respect for the environment come together, great things can result. And the **Novello S.r.l. project** is one such thing. We could say that this small packaging company, in Albizzate, is building a shed for processing wood, but in fact, this is a new model of development, an example of excellence that may be unequalled, not only in this province, but throughout Europe. And it is here, in the heart of Varese province, which has been badly struck by the economic crisis.

The project is ambitious, and it is almost complete, there is just the last, albeit most difficult, step to go. It entails building a shed that will provide the energy required by the production, in a way that is entirely self-sufficient and clean, and at zero cost. This project combines all of the conditions that production of the future should have: efficiency, **zero impact on the environment**, self-sufficiency, and preservation of resources.

It sounds like a dream, but one that has already, in part, been realised in Oggiona Santo Stefano, on the outskirts of Cavaria, where the enormous wooden pillars of the shed can be seen.

It is a covered structure made entirely of wood, **17,500 m²**, which should support the same area of solar panels for the production of energy, at a total cost of around **€20 million** Not exactly small change.

To build the shed, Novello turned to Holzbau S.p.A., a company based in Bressanone, which,



since 1974, has been synonymous with laminated wood buildings in Italy, and operates in the bio-construction sector (incidentally, this company was involved in the construction of the Varese ice rink, the first large building in Italy to be made entirely of wood). **Moreno Novello** (photo) says, “We could have chosen various types of construction; a compromise would have been a hybrid structure, with concrete pillars and covered with wood. Instead, we opted for a complete wood solution, and the building we have created is an example of excellence for the whole of Europe. On the energy front, we first tried to understand where there was waste, and where we could save; we carried out a study of the behaviour of the shed, and our objective is a 0% requirement for heating and cooling. In private building terminology, this is a “passive house”, and it is achieved using wood that does not let heat enter in the summer, or escape in the winter. What we want to do is transfer this principle from a house to an industrial building.”

Novello did not give all of the construction work to Holzbau, but, in agreement with the company, kept a part of it for themselves as part of their plans to develop a new business. “We’re going to make the cover panels for the shed,” Novello explained. “We have already bought the machines to produce them (see photo on the left); these are already inside the shed, and are already working to manufacture the panels. These are made of wood and recycled paper, and they’ll have an extremely high energy performance.” Put simply, this means that the shed is building itself inside, and the journey that materials will have to make will be from the inside to the outside.



The heart of the project, then, will be the supply of energy, which will be guaranteed by a solar system on the roof that can produce one megawatts, “enough for our production and also to be sold to the energy system.” However, the

highlight of the work will not only be the energy technology, but also a commendable education project that includes a programme of guided visits for students and businessmen who want to learn more about this type of company.

So is it all plain sailing? Can we proudly say that such a remarkable project is going on in our province without difficulty, with everybody's approval? We would like say yes, but this is not the case.

"The long and exhausting bureaucratic procedures have been joined by a terrible economic crisis, and so, a lot of promised funds have not reached us, and now the project is at risk." Novello are a little afraid to describe all of the ups and downs they suffered before the building work started.

"Our country's financial system is unwilling to take risks, even for such an innovative project. We have personally financed most of this work, but there is now a chance that we will see the most important part, the energy production by solar panels, go to waste. If we can't find €4 million quickly, we'll have give up this essential building."

However, the project has, in the meantime, attracted the attention of specialists from beyond the Alps, a great, albeit bitter, comfort. The Holzbau engineer who is supervising the work has been invited by a German professor to hold a conference to illustrate the project, in Germany, the leading country for this type of construction. "We are proud," says Novello, "because these projects will be illustrated to the German people in German, but the writing on the slides won't be in German, or English, but Italian."

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