Evaluation ENERBUILD-Tool
Polo Scolastico Ovada Lotto II

1 Basic information about the building

Name of the building	Polo Scolastico Ovada Lotto II
Address of the building	Via Voltri
Owner/investor	Provincia di Alessandria
Year of construction	2012 probably
Building type	Massive construction
Building method	Concrete framework and brick wall
Number of buildings	1
Number of levels above earth	3
Number of levels underground	0
Kind of the public use	Educational use: high school
Effective area for public use in m² (net)	2253
Additional private uses	--
Effective area for private use in m² (net)	--
Total effective area in m²	2253
Source of energy for heating	Electric energy
Heating system	Heat pump
Water heating system	Heat pump + solar collectors
Date of the building evaluation	20 July 2011

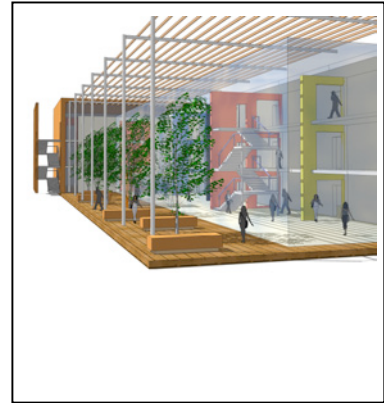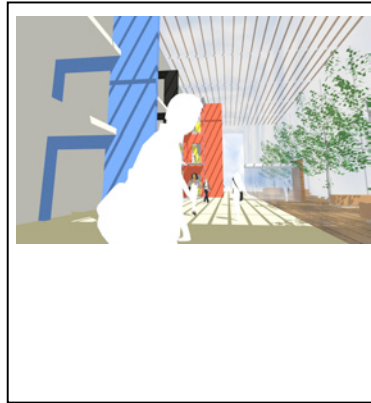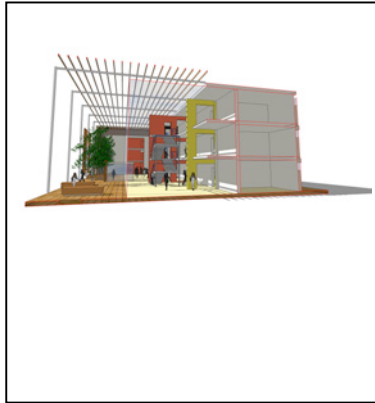## 2 Execution of the building evaluation with the ENERBBUILD tool

Responsible Organisation: **Environment Park S.p.A.**
Contact person: **Arch. Stefano Dotta / Arch. Chiara Bianco**
Telephone: **+39 011/2257262**   Email: stefano.dotta@envipark.com / chiara.bianco@envipark.com

3 Results

Nr.		Title	Must criteria (M)	max. points	evaluated points
A		**Quality of location and facilities**		max. 100	87,5
A	1	Access to public transport network		50	50
A	2	Ecological quality of site		50	37,5
B		**Process and planning quality**		max. 200	170
B	1	Decision making and determination of goals		25	25
B	2	Formulation of verifiable objectives for energetic and ecological measures	M	20	20
B	3	Standardized calculation of the economic efficiency	M	40	40
B	4	Product-management - Use of low-emission products		60	20
B	5	Planning support for energetic optimization		60	40
B	6	Information for users		25	25
C		**Energy & Utilities (Passive house)**		max. 350	97,5
C	1	Specific heating demand (PHPP)	M	100	10
C	2	Specific cooling demand (PHPP)	M	100	60
C	3	Primary energy demand (PHPP)	M	125	0
C	4	CO_2-emissions (PHPP)		50	27,5
D		**Health and Comfort**		max. 250	75
D	1	Thermal comfort in summer		150	0
D	2	Ventilation - non energetic aspects		50	25
D	3	Daylight optimized (+ lightening optimized)		50	50
E		**Building materials and construction**		max. 200	172
E	1	$OI3_{TGH-lc}$ ecological index of the thermal building envelope (respectively OI3 of the total mass of the building)		200	172
Sum				max. 1000	602

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4 Conclusions from the building evaluation with the ENERBUILD-Tool

a) Generally
ENERBUILD-Tool has been one interesting trans-national system for knowing many energy technicians and experts from other Countries, and also from different Italian Areas, and so for comparing the level of designing and working in Provincia di Alessandria.

b) About the planning process
ENERBUILD-Tool use has not been simple for Provincia di Alessandria, because technicians are involved in calculations with PHPP which has not known in our design and working studios.
In particular we have noticed strong differences between common Italian evaluations and C2, C3, C4 and E1 values provided by ENERBUILD Tool.

c) About the building itself
Provincia di Alessandria has been involved in ENERBUILD-Tool / WP6 for 7 samples, 3 of which are about new pubblic buildings. For these 3 buildings the planning process required by ENERBUILD-Tool is similar to that one used in common administration process in Italy.

d) About the evaluation process
ENERBUILD Tool can't be generally used in our regions, with particular references to materials and ecological index catalogue by IBO BOOK which provides only for Austrian or German areas.
In particular LCA – Life Circle Assessment-, about which OI3 is evaluated, is only based over Austrian data basis.

5 Suggestions for improvement of the ENERBUILD-Tool

ENERBUILD-Tool could be an additional tool, not unique, in evaluating public building – offices, schools, gymnasiums – towards local tools.
ENERBUILD-Tool / Version 1.7 – 25 November 2010 – has already been studied for transnational uses, in each case with all limits before explained.

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