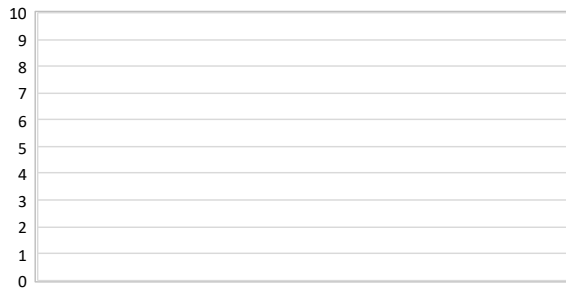


Region:	Aosta Valley (Aosta, Quart, Saint-Christophe, and Sarre)						Archetype code: OFF_1946-1981_E_VAL	
Building category:	Non-residential buildings - Offices							
Period of construction:	1946-1981							
Climatic zone:	E	Number of records:				12		
Description (the codes associated with walls and slabs refer to the structures described in UNI/TR 11552:2014): External walls: hollow brick masonry with thermal insulation (cod. MCV02). Roof slabs: reinforced concrete floor slab for non-walkable flat roof (cod. COP01) or for pitched roof (cod. CIN04).							Data sources: EPC databases (100%)	
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
BUILDING GEOMETRY	Number of floors	n_f	-	-	-	-	-	-
	Gross height	H_g	m	-	-	-	-	-
	Footprint area	$A_{\text{footprint}}$	m ²	-	-	-	-	-
	Heated gross floor area	$A_{H,g}$	m ²	-	-	-	-	-
	Heated net floor area	$A_{H;n}$	m ²	1941.5	3123.3	70.7	1048.6	1939.9
	Heated gross volume	$V_{H,g}$	m ³	9189.0	14748.9	247.7	4689.9	8724.0
	Heated net volume	$V_{H;n}$	m ³	5719.3	9371.8	156.1	272.4	5105.6
	Compactness ratio	$A_{\text{env}}/V_{H,g}$	m ⁻¹	0.49	0.31	0.35	0.37	0.46
	WWR – North orientation	WWR_N	-	0.19	0.15	0.07	0.15	0.29
	WWR – South orientation	WWR_S	-	0.19	0.15	0.07	0.15	0.29
	WWR – East orientation	WWR_E	-	0.19	0.15	0.07	0.15	0.29
	WWR – West orientation	WWR_W	-	0.19	0.15	0.07	0.15	0.29
	Window to useful floor area ratio	A_{wi}/A_{use}	-	0.19	0.08	0.13	0.17	0.23
ENVELOPE	Roof type	-						
	U-value of the roof **	$U_{\text{fi},\text{up}}$	W/(m ² ·K)	0.76	0.26	0.51	0.70	1.03
	External walls type	Hollow brick masonry: 85%; Concrete wall: 15%						
	U-value of the wall	U_{wl}	W/(m ² ·K)	0.73	0.29	0.56	0.85	0.93
	Slab on ground floor type	-						
	U-value of the floor **	$U_{\text{fi},\text{lw}}$	W/(m ² ·K)	1.36	0.00	1.36	1.36	1.36
	Windows type	Double glazing, wooden frame: 57%; Double glazing, PVC frame: 43%						
	U-value of the windows	U_W	W/(m ² ·K)	2.61	1.11	2.00	2.52	2.86
GAINS and VENTILATION	Shading system type	-						
	Occupancy density *	O_C	person/m ²	UNI EN 16798-1 - Table A.19				
	Lighting power density *	W_L	W/m ²	UNI EN 16798-1 - A.8.3				
	Equipment power density *	W_A	W/m ²	UNI EN 16798-1 - A.8.3				
	Type of ventilation	-						
THERMAL SYSTEMS	Air exchange rate *	n	h ⁻¹	-	-	-	-	-
	Heating system type	Autonomous: 100%						
	Heating generator	Boiler (unknown type): 69%; Heat exchanger of district heating/cooling: 31%						
	Daily operating time of the heating system *	t_H	h	14.0	0.0	14.0	14.0	14.0
	Energy carrier	Natural Gas: 69%; District heating: 16%; Gas Oil: 15%						
	Heating emission sub-system	-						
	Cooling system type	Absent: 62%; Air-cooled chiller: 31%; Water-cooled chiller: 8%						
	Daily operating time of the cooling system *	t_C	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	Autonomous, detached from heating: 69%; Centralized, coupled with heating: 31%						
	DHW generator	Unknown: 83%; Electric boiler: 17%						
* These values are derived from UNI EN ISO Standards; ** U-values of the upper slab face the external environment, and the lower slab is in contact with the ground								

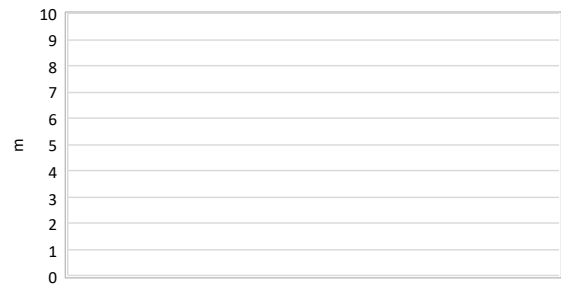
Region:	Aosta Valley (Aosta, Quart, Saint-Christophe, and Sarre)			Archetype code: OFF_1946-1981_E_VAL
Building category:	Non-residential buildings - Offices			
Period of construction:	1946-1981			
Climatic zone:	E	Number of records:	12	

Numerical variables – GEOMETRY

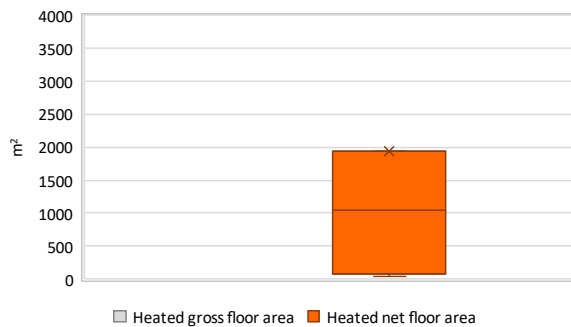
NUMBER OF FLOORS



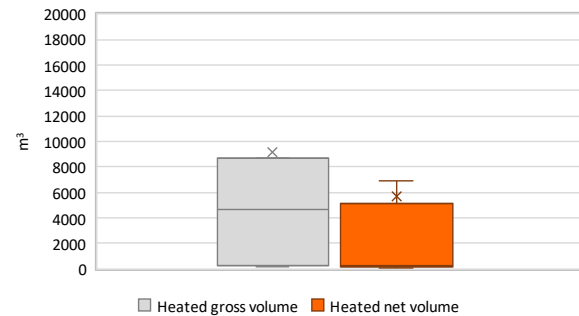
GROSS HEIGHT



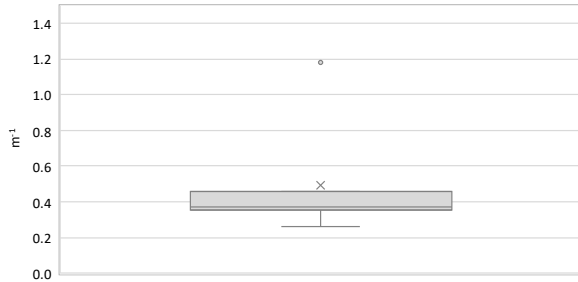
AREA



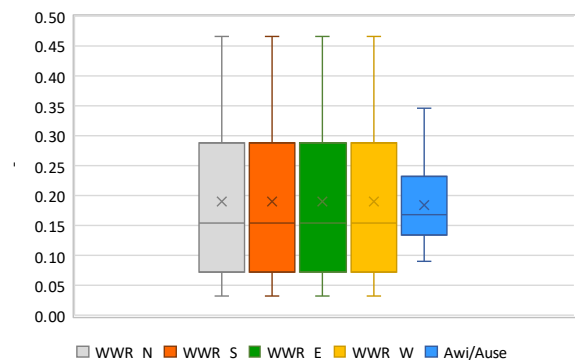
VOLUME



COMPACTNESS RATIO



WINDOWS TO WALL RATIO

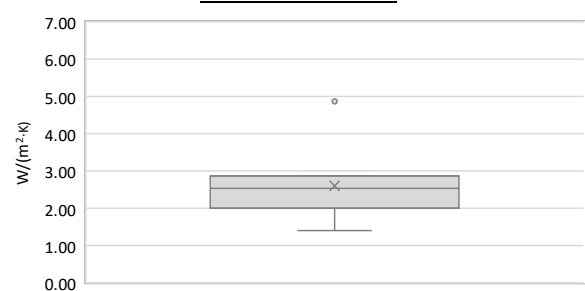


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE

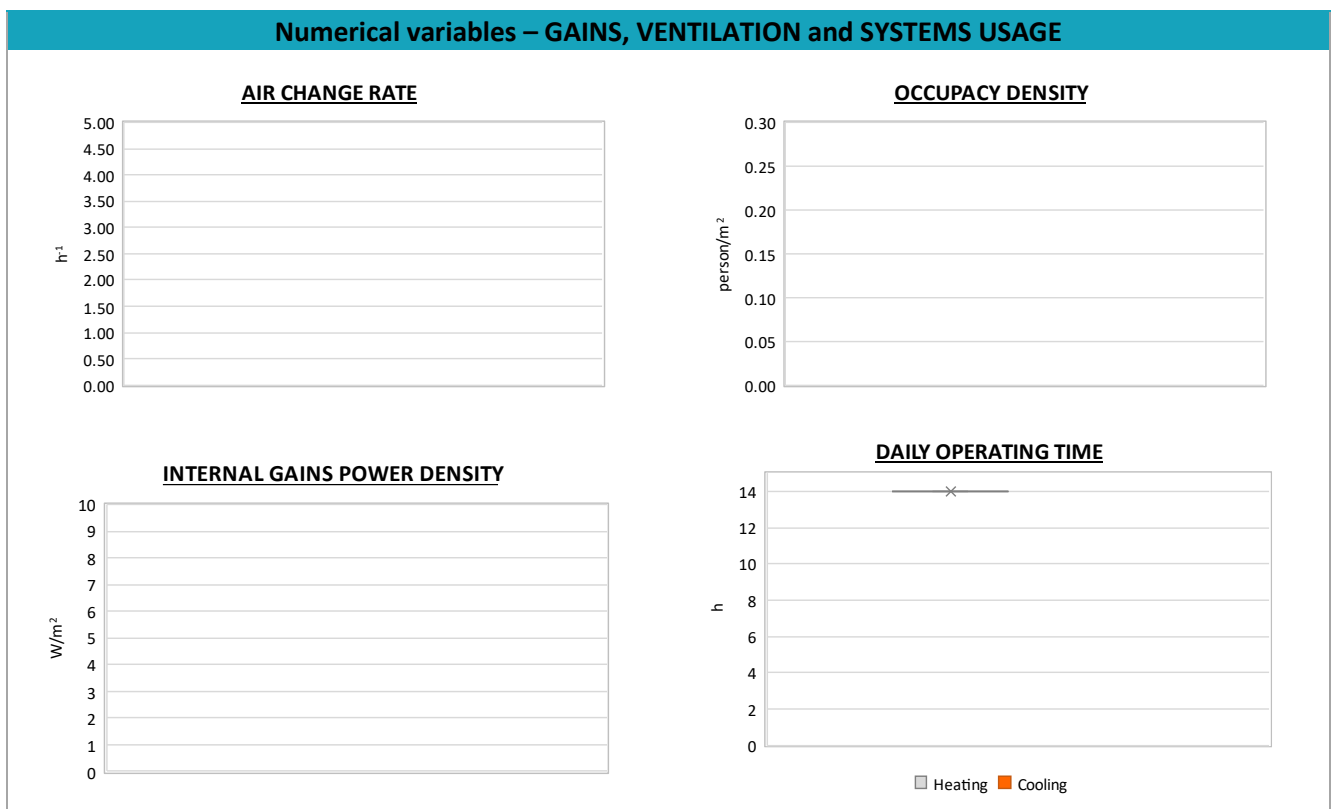


WINDOWS U-VALUE



Region:	Aosta Valley (Aosta, Quart, Saint-Christophe, and Sarre)			Archetype code: OFF_1946-1981_E_VAL
Building category:	Non-residential buildings - Offices			
Period of construction:	1946-1981			
Climatic zone:	E	Number of records:	12	

ADDITIONAL DATA								
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
THERMAL SYSTEMS	Heating efficiency or <i>COP</i>	$\eta_{H,gen}$ or $COP_{H,gen}$	-	This value has to be retrieved from suitable datasheets				
	Total heating power	$P_{H,gen}$	kW	-	-	-	-	-
	Cooling efficiency or <i>EER</i>	$\eta_{C,gen}$ or $EER_{C,gen}$	-	This value has to be retrieved from suitable datasheets				
	Total cooling power	$P_{C,gen}$	kW	18.3	13.3	14.5	26.0	26.0
	Temperature of DHW	ϑ_W	°C	40.0	0.0	40.0	40.0	40.0
	DHW system power	$P_{W,gen}$	kW	59.7	87.3	6.7	18.6	71.6
* This value refers to the building scale								



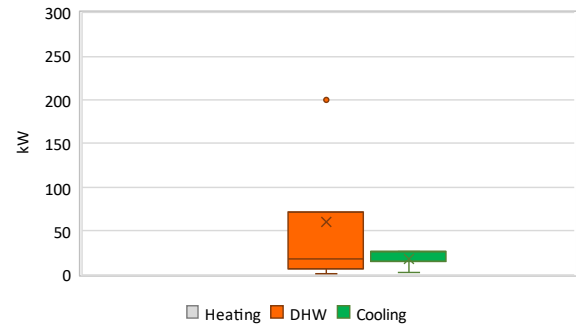
Region:	Aosta Valley (Aosta, Quart, Saint-Christophe, and Sarre)			Archetype code: OFF_1946-1981_E_VAL
Building category:	Non-residential buildings - Offices			
Period of construction:	1946-1981			
Climatic zone:	E	Number of records:	12	

Additional data: other numerical variables that are not included in the archetype

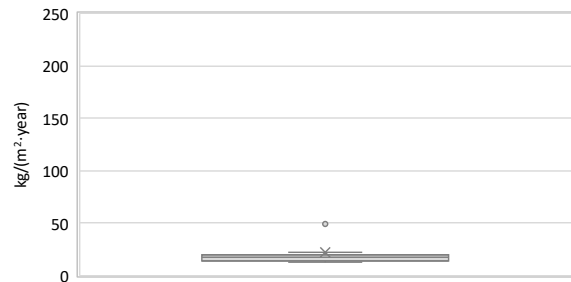
DHW SUPPLY TEMPERATURE



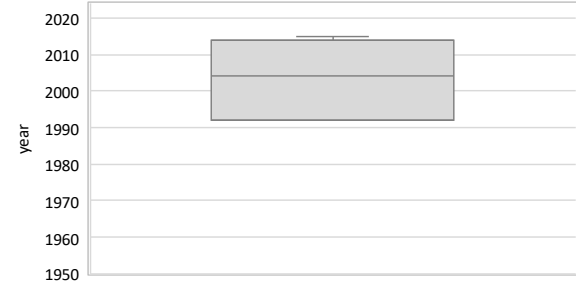
SYSTEM POWER



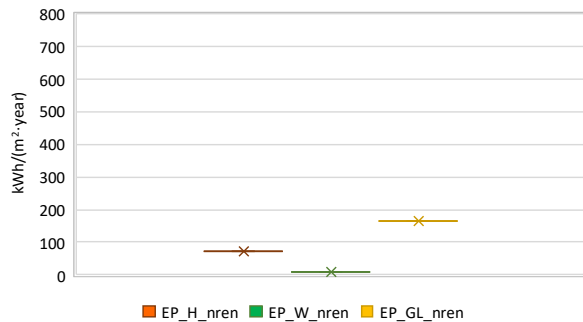
CO₂ EMISSION



HEATING SYSTEM INSTALLATION YEAR



NON-RENEWABLE PRIMARY ENERGY USE



RENEWABLE PRIMARY ENERGY USE

