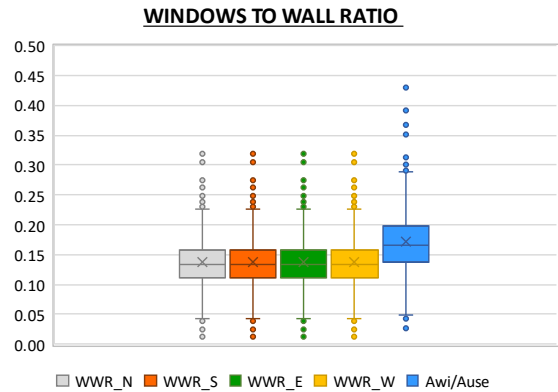
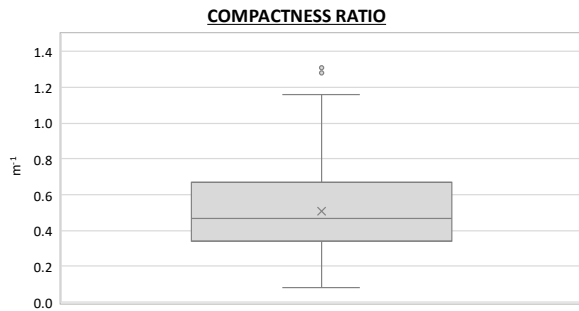


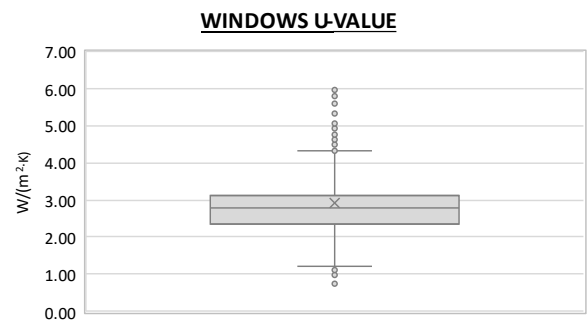
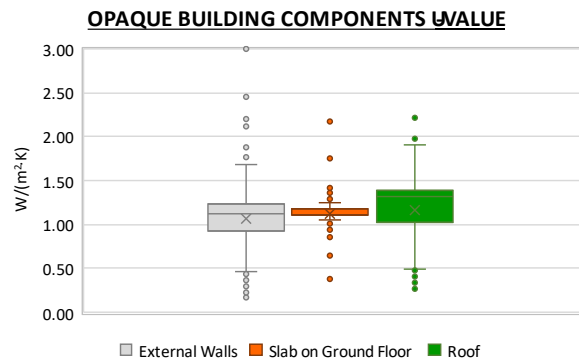
Region:	Aosta Valley (Aosta, Quart, Saint-Christophe, and Sarre)						Archetype code: RES_APPBLOCK_1972-1981_E_VAL	
Building category:	Residential buildings - Apartments (in multifamily blocks)							
Period of construction:	1972 - 1981							
Climatic zone:	E	Number of records:		1184				
Description (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 (cod. SOL04).							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	-	-	-	-	-
	Heated gross volume	$V_{H,g}$	m ³	-	-	-	-	-
	Heated net volume	$V_{H,n}$	m ³	-	-	-	-	-
	Compactness ratio	$A_{\text{env}}/V_{H,g}$	m ⁻¹	0.51	0.20	0.34	0.47	0.67
	WWR – North orientation	WWR_N	-	0.14	0.04	0.11	0.13	0.16
	WWR – South orientation	WWR_S	-	0.14	0.04	0.11	0.13	0.16
	WWR – East orientation	WWR_E	-	0.14	0.04	0.11	0.13	0.16
	WWR – West orientation	WWR_W	-	0.14	0.04	0.11	0.13	0.16
	Window to useful floor area ratio	A_{wi}/A_{use}	-	0.17	0.05	0.14	0.17	0.20
ENVELOPE	Roof type	-						
	U-value of the roof **	$U_{f,up}$	W/(m ² ·K)	1.16	0.39	1.03	1.32	1.39
	External walls type	Hollow brick masonry: 83%; Solid Brick masonry: 14%; Concrete wall: 2%; Unknown: 1%						
	U-value of the wall	U_{wl}	W/(m ² ·K)	1.06	0.30	0.93	1.13	1.24
	Slab on ground floor type	-						
	U-value of the floor **	$U_{f,lw}$	W/(m ² ·K)	1.12	0.21	1.11	1.11	1.18
	Windows type	Double glazing, wooden frame: 40%; Double glazing, PVC frame: 37%; Single glazing, wooden frame: 21%; Triple glazing, wooden frame: 1%; Triple glazing, PVC frame: 1%						
	U-value of the windows	U_W	W/(m ² ·K)	2.93	1.12	2.35	2.80	3.14
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	Natural: 100%						
THERMAL SYSTEMS	Air exchange rate *	n	h ⁻¹	0.30	0.00	0.30	0.30	0.30
	Heating system type	Centralized: 83%; Autonomous: 17%						
	Heating generator	Boiler (unknown type): 58%; Traditional Boiler: 16%; Condensing Boiler: 14%; Heat exchanger of district heating/cooling: 10%; Fireplace: 1%; Air-source heat pump: 1%						
	Daily operating time of the heating system *	t_H	h	14.0	0.0	14.0	14.0	14.0
	Energy carrier	Natural Gas: 63%; Gas Oil: 29%; District heating: 4%; LPG: 2%; Solid biomass: 2%						
	Heating emission sub-system	-						
	Cooling system type	Absent: 98%; Air-cooled chiller: 2%						
	Daily operating time of the cooling system *	t_C	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	Centralized, coupled with heating: 45%; Autonomous, detached from heating: 40%; Autonomous, coupled with heating: 14%; Centralized, detached from heating: 1%						
DHW generator	Unknown: 67%; Natural gas boiler: 25%; Electric boiler: 6%; Electric Heat Pump: 2%							
* These values are derived from UNI EN ISO Standards; ** U-values of the upper and lower slabs face unconditioned spaces (i.e., attic, basement, etc.)								

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Climatic zone:	E	
Number of records:		1184

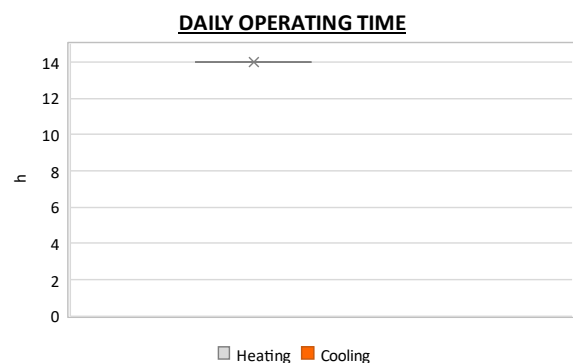
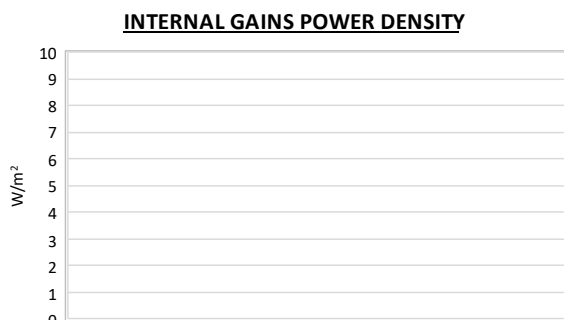
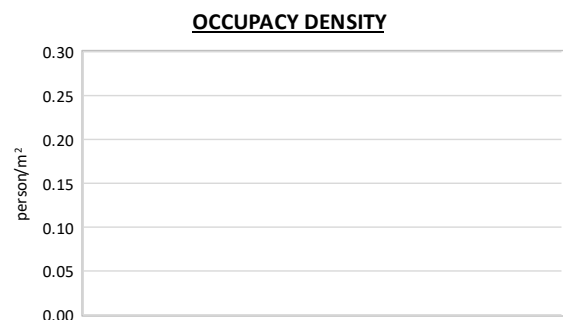
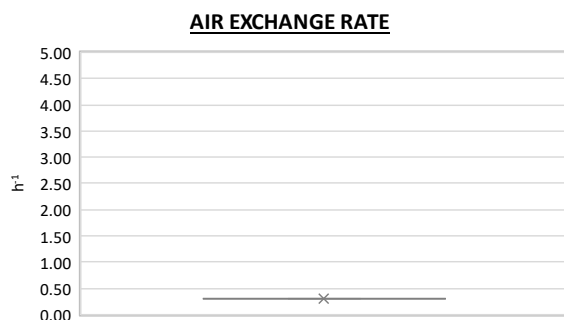
Numerical variables – GEOMETRY



Numerical variables – ENVELOPE



Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE



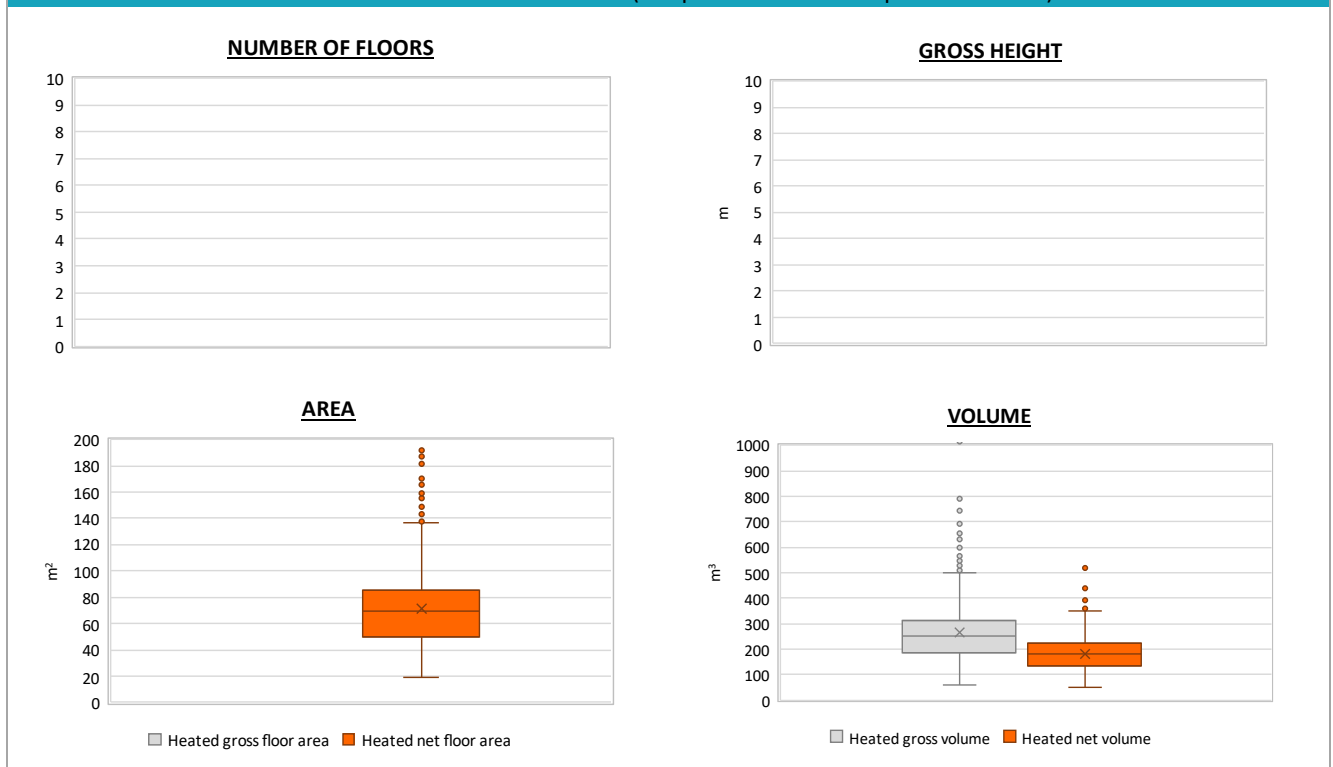
The data can be used for analysis, modeling, and research purposes, as long as it remains unaltered in its original form. Users are free to publish results based on the data, provided they credit the original source.

Region:	Aosta Valley (Aosta, Quart, Saint-Christophe, and Sarre)			Archetype code: RES_APPBLOCK_1972-1981_E_VAL
Building category:	Residential buildings - Apartments (in multifamily blocks)			
Period of construction:	1972 - 1981			
Climatic zone:	E	Number of records:	1184	

ADDITIONAL DATA								
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
GEOMETRY: apartments	Inter-storey height	H_n	m	2.7	0.1	2.7	2.7	2.7
	Heated gross floor area	$A_{H,g}$	m ²	-	-	-	-	-
	Heated net floor area	$A_{H,n}$	m ²	71.0	31.1	50.0	69.0	84.9
	Heated gross volume	$V_{H,g}$	m ³	266.0	145.9	186.6	252.4	314.2
	Heated net volume	$V_{H,n}$	m ³	181.8	64.4	134.2	182.0	224.0
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	22.4	7.8	18.0	24.0	28.0
	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	7.0	7.4	2.9	3.6	8.1
	Temperature of DHW	ϑ_W	°C	40.0	0.0	40.0	40.0	40.0
	DHW system power *	$P_{W,gen}$	kW	9.1	10.8	1.2	2.0	20.0

* These values refer to the apartment scale

Additional data: GEOMETRY (the plots refer to the apartment scale)



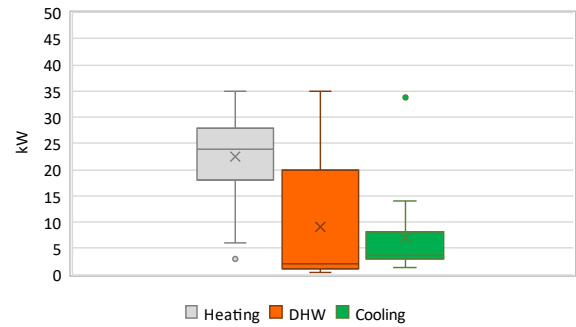
Region:	Aosta Valley (Aosta, Quart, Saint-Christophe, and Sarre)	Archetype code: RES_APPBLOCK_1972-1981_E_VAL
Building category:	Residential buildings - Apartments (in multifamily blocks)	
Period of construction:	1972 - 1981	
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Additional data: other numerical variables that are not included in the archetype

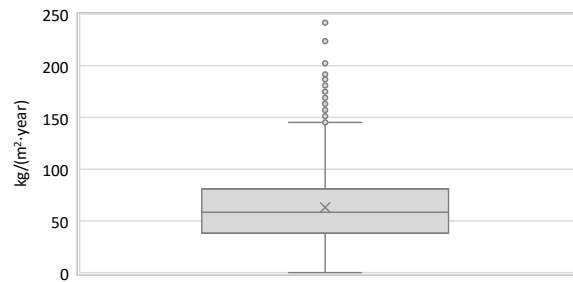
DHW SUPPLY TEMPERATURE



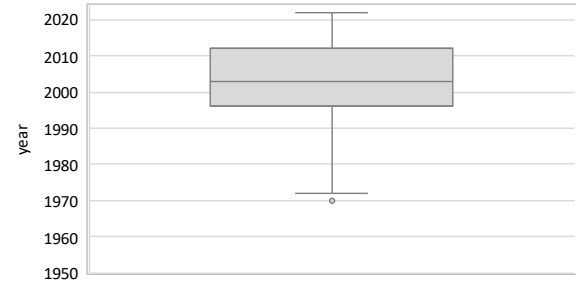
SYSTEM POWER



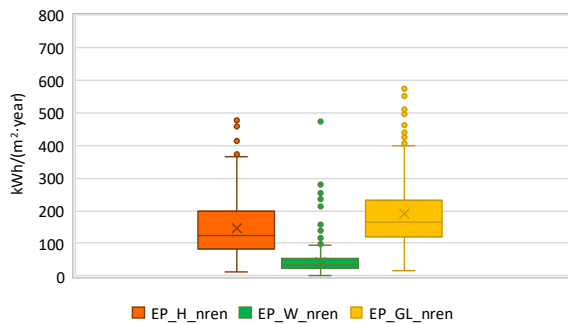
CO₂ EMISSION



HEATING SYSTEM INSTALLATION YEAR



NON-RENEWABLE PRIMARY ENERGY USE



RENEWABLE PRIMARY ENERGY USE

