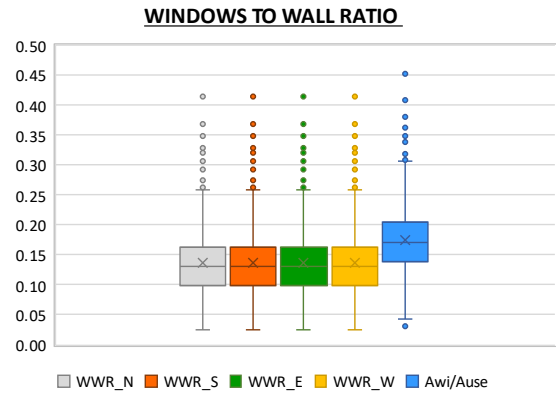
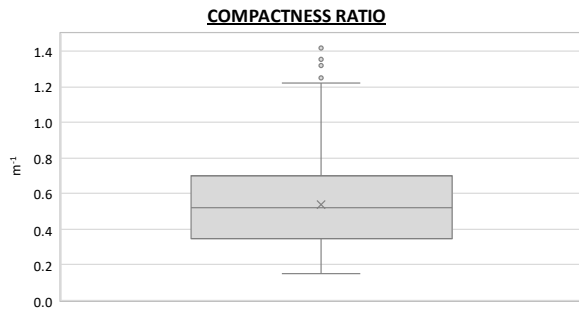


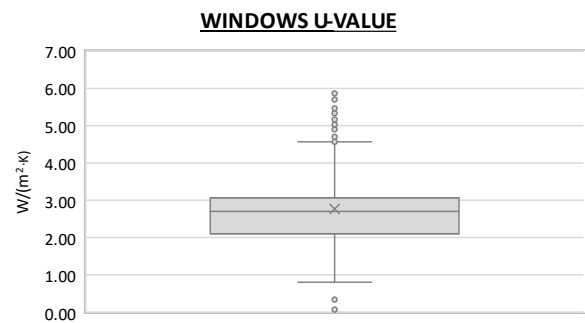
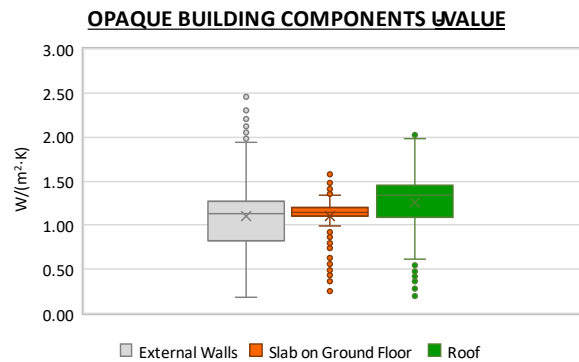
Region:	Aosta Valley (Aosta, Quart, Saint-Christophe, and Sarre)						Archetype code: RES_APPBLOCK_1946-1961_E_VAL	
Building category:	Residential buildings - Apartments (in multifamily blocks)							
Period of construction:	1946 - 1961							
Climatic zone:	E	Number of records:		1613				
Description (the codes associated with walls and slabs refer to the structures described in UNI/TR 11552:2014): External walls: hollow brick masonry with air gap (cod. MCV01) or solid brick masonry (cod. MLP01). Roof slabs: concrete floor slab (cod. SOL06).							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	0.54	0.23	0.35	0.52	0.70
	WWR – North orientation	WWR_N	-	0.14	0.05	0.10	0.13	0.16
	WWR – South orientation	WWR_S	-	0.14	0.05	0.10	0.13	0.16
	WWR – East orientation	WWR_E	-	0.14	0.05	0.10	0.13	0.16
	WWR – West orientation	WWR_W	-	0.14	0.05	0.10	0.13	0.16
	Window to useful floor area ratio	A_{wi}/A_{use}	-	0.17	0.05	0.14	0.17	0.21
	ENVELOPE	Roof type	-					
U-value of the roof **		$U_{fi,up}$	W/(m ² ·K)	1.25	0.39	1.09	1.34	1.45
External walls type		Hollow brick masonry: 63%; Solid Brick masonry: 31%; Masonry with local stones: 4%; Concrete wall: 2%						
U-value of the wall		U_{wl}	W/(m ² ·K)	1.10	0.40	0.82	1.13	1.27
Slab on ground floor type		-						
U-value of the floor **		$U_{fi,lw}$	W/(m ² ·K)	1.10	0.25	1.10	1.15	1.20
Windows type		Double glazing, wooden frame: 46%; Double glazing, PVC frame: 32%; Single glazing, wooden frame: 21%; Triple glazing, PVC frame: 1%						
U-value of the windows		U_W	W/(m ² ·K)	2.78	1.03	2.09	2.69	3.08
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: 63%; Autonomous: 37%						
	Heating generator	Boiler (unknown type): 48%; Traditional Boiler: 19%; Heat exchanger of district heating/cooling: 16%; Condensing Boiler: 14%; Fireplace: 2%; Unknown: 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: 61%; Gas Oil: 20%; District heating: 13%; LPG: 3%; Solid biomass: 3%						
	Heating emission sub-system	-						
	Cooling system type	Absent: 99%; Air-cooled chiller: 1%						
	Daily operating time of the cooling system *	t_C	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	Autonomous, detached from heating: 59%; Autonomous, coupled with heating: 28%; Centralized, coupled with heating: 11%; Centralized, detached from heating: 2%						
	DHW generator	Unknown: 59%; Electric boiler: 21%; Natural gas boiler: 20%						
* 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.)								

Region:	Aosta Valley (Aosta, Quart, Saint-Christophe, and Sarre)	Archetype code: RES_APPBLOCK_1946-1961_E_VAL
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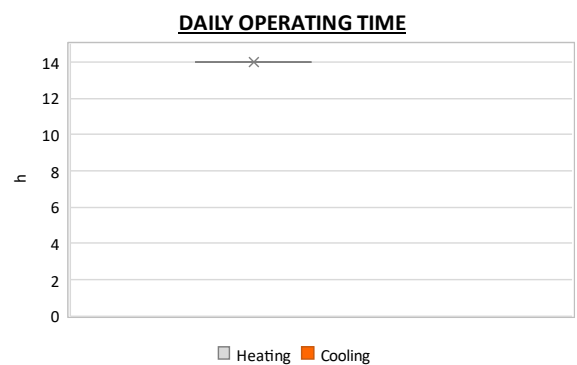
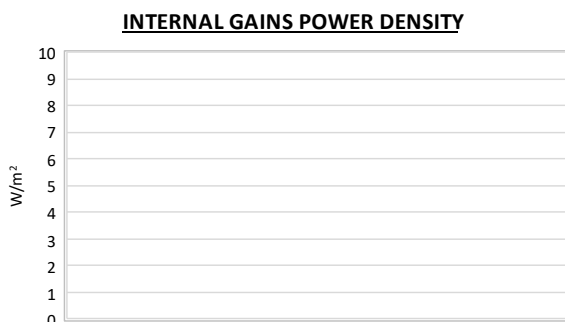
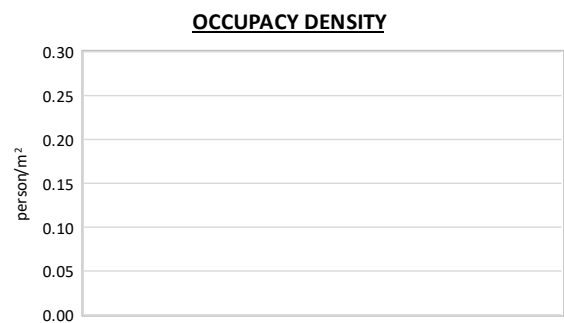
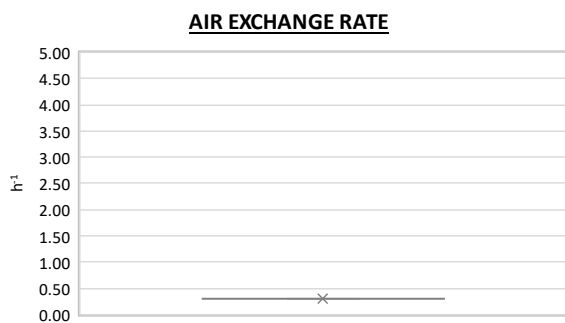
Numerical variables – GEOMETRY



Numerical variables – ENVELOPE



Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

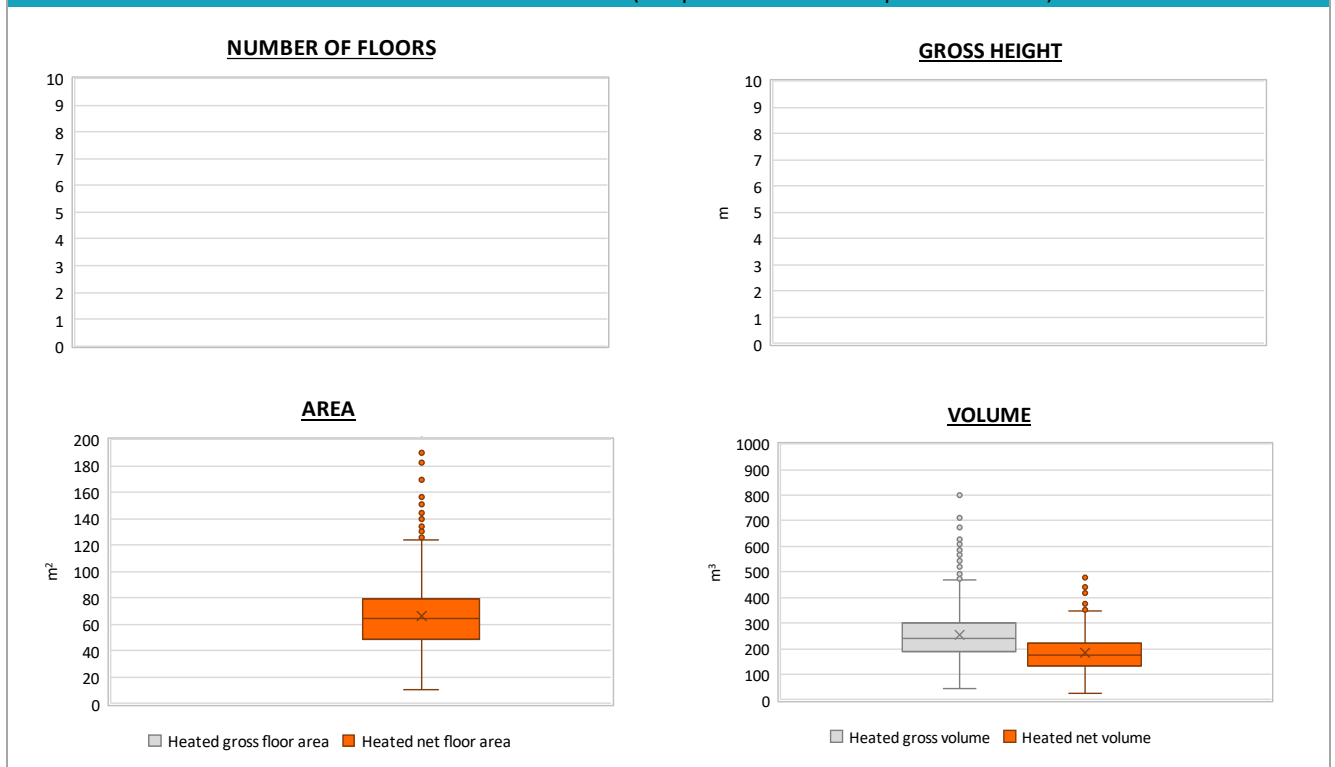


Region:	Aosta Valley (Aosta, Quart, Saint-Christophe, and Sarre)			Archetype code: RES_APPBLOCK_1946-1961_E_VAL
Building category:	Residential buildings - Apartments (in multifamily blocks)			
Period of construction:	1946 - 1961			
Climatic zone:	E	Number of records:	1613	

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	2.8	0.2	2.7	2.7	2.8
	Heated gross floor area	$A_{H,g}$	m ²	-	-	-	-	-
	Heated net floor area	$A_{H,n}$	m ²	66.2	25.0	48.4	64.3	79.3
	Heated gross volume	$V_{H,g}$	m ³	252.6	94.7	187.8	242.5	301.3
	Heated net volume	$V_{H,n}$	m ³	182.9	67.9	133.3	175.9	220.1
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	23.3	6.8	22.0	24.0	26.3
	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	5.7	3.6	3.4	4.3	6.0
	Temperature of DHW	ϑ_w	°C	40.0	0.0	40.0	40.0	40.0
	DHW system power *	$P_{W,gen}$	kW	10.7	11.6	1.2	1.5	24.0

* These values refer to the apartment scale

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



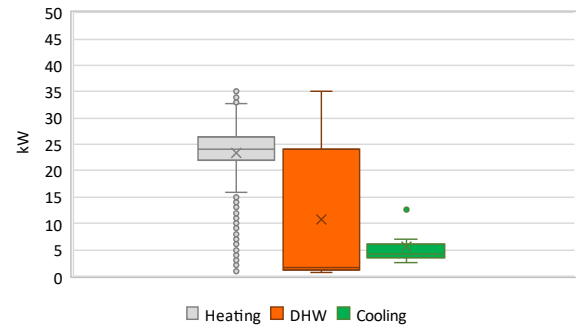
Region:	Aosta Valley (Aosta, Quart, Saint-Christophe, and Sarre)	Archetype code: RES_APPBLOCK_1946-1961_E_VAL
Building category:	Residential buildings - Apartments (in multifamily blocks)	
Period of construction:	1946 - 1961	
Climatic zone:	E	
Number of records:		1613

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

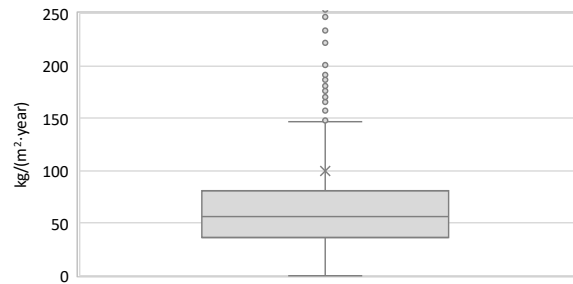
DHW SUPPLY TEMPERATURE



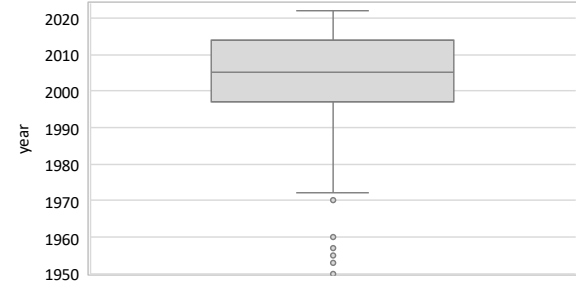
SYSTEM POWER



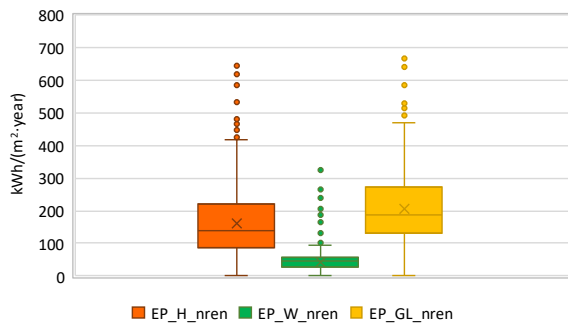
CO₂ EMISSION



HEATING SYSTEM INSTALLATION YEAR



NON-RENEWABLE PRIMARY ENERGY USE



RENEWABLE PRIMARY ENERGY USE

