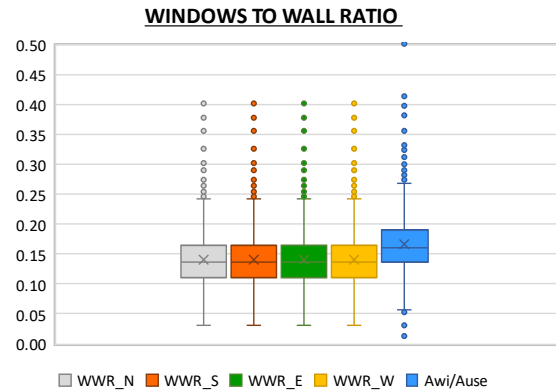
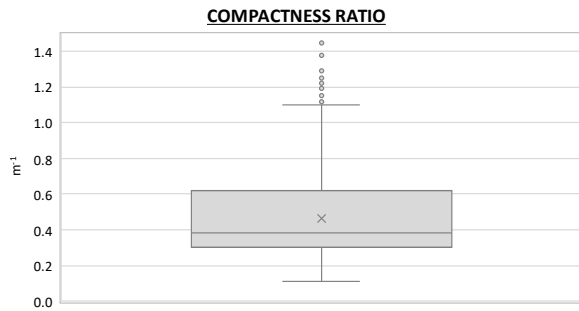


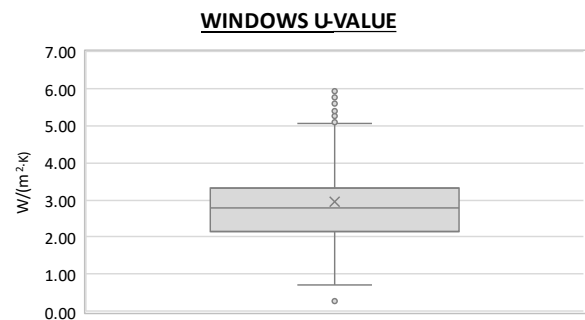
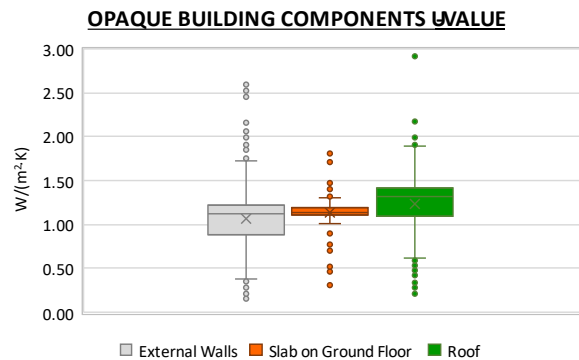
Region:	Aosta Valley (Aosta, Quart, Saint-Christophe, and Sarre)						Archetype code: RES_APPBLOCK_1962-1971_E_VAL	
Building category:	Residential buildings - Apartments (in multifamily blocks)							
Period of construction:	1962 - 1971							
Climatic zone:	E	Number of records:		2152				
Description (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). 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	0.46	0.21	0.30	0.38	0.62
	WWR – North orientation	WWR_N	-	0.14	0.04	0.11	0.14	0.16
	WWR – South orientation	WWR_S	-	0.14	0.04	0.11	0.14	0.16
	WWR – East orientation	WWR_E	-	0.14	0.04	0.11	0.14	0.16
	WWR – West orientation	WWR_W	-	0.14	0.04	0.11	0.14	0.16
	Window to useful floor area ratio	A_{wi}/A_{use}	-	0.17	0.05	0.14	0.16	0.19
	ENVELOPE	Roof type	-					
U-value of the roof **		$U_{fi,up}$	W/(m ² ·K)	1.24	0.43	1.10	1.32	1.42
External walls type		Hollow brick masonry: 82%; Solid Brick masonry: 13%; Masonry with local stones: 3%; Unknown: 1%; Concrete wall: 1%						
U-value of the wall		U_{wl}	W/(m ² ·K)	1.07	0.31	0.89	1.12	1.23
Slab on ground floor type		-						
U-value of the floor **		$U_{fi,lw}$	W/(m ² ·K)	1.13	0.21	1.11	1.14	1.19
Windows type		Double glazing, wooden frame: 40%; Single glazing, wooden frame: 29%; Double glazing, PVC frame: 29%; Triple glazing, PVC frame: 2%						
U-value of the windows		U_W	W/(m ² ·K)	2.96	1.16	2.16	2.77	3.32
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: 86%; Autonomous: 14%						
	Heating generator	Boiler (unknown type): 53%; Heat exchanger of district heating/cooling: 16%; Condensing Boiler: 16%; Traditional Boiler: 13%; 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: 57%; Gas Oil: 27%; District heating: 12%; LPG: 2%; Solid biomass: 2%						
	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: 61%; Centralized, coupled with heating: 26%; Autonomous, coupled with heating: 11%; Centralized, detached from heating: 2%						
DHW generator	Unknown: 63%; Electric boiler: 21%; Natural gas boiler: 15%; Electric Heat Pump: 1%							
* 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_1962- 1971_E_VAL
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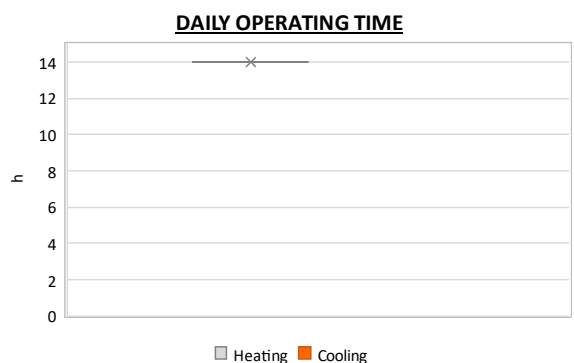
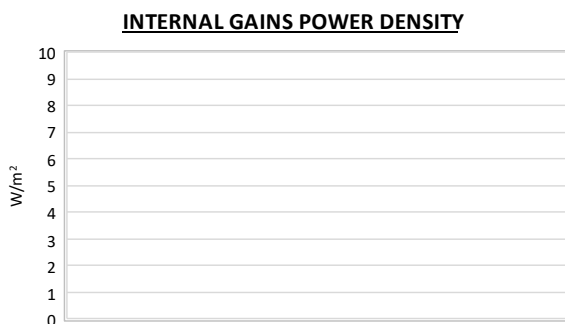
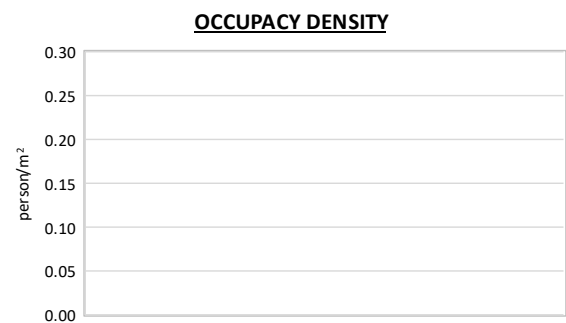
Numerical variables – GEOMETRY



Numerical variables – ENVELOPE



Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

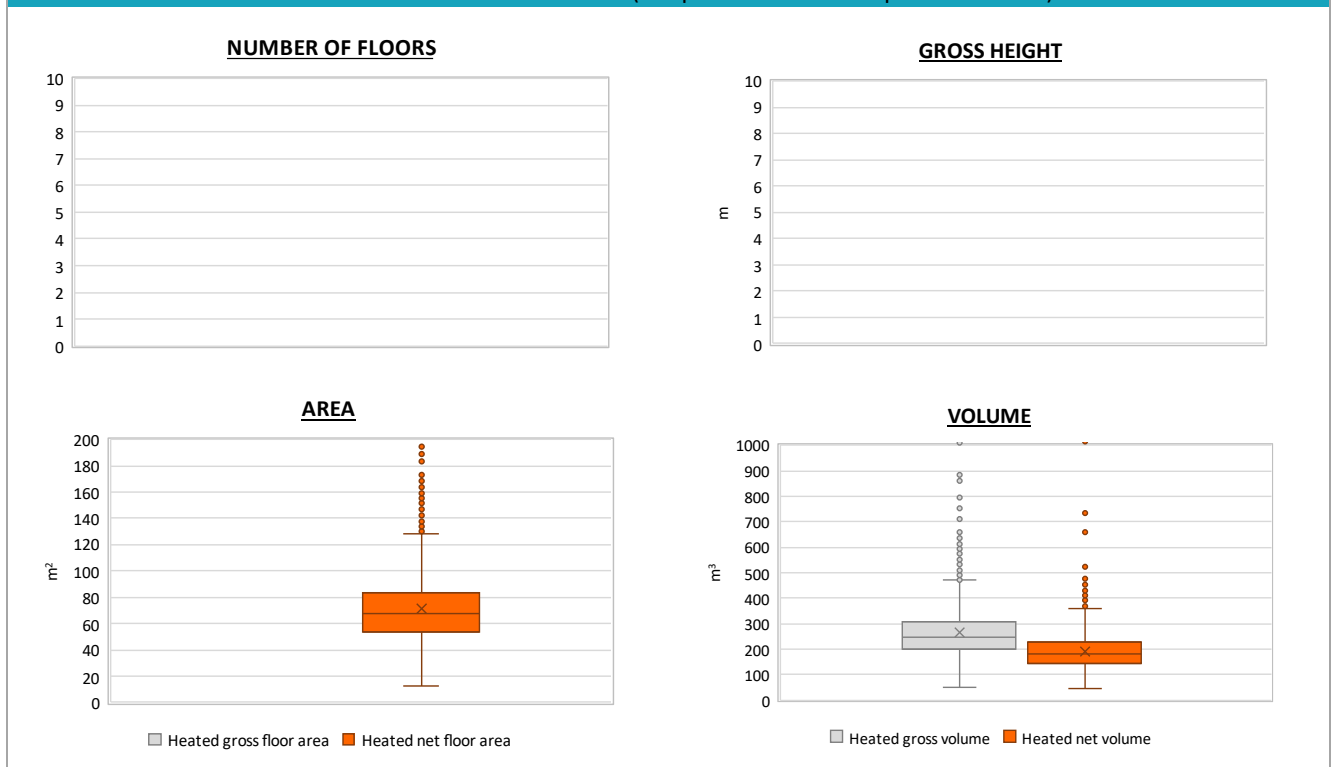


Region:	Aosta Valley (Aosta, Quart, Saint-Christophe, and Sarre)			Archetype code: RES_APPBLOCK_1962-1971_E_VAL
Building category:	Residential buildings - Apartments (in multifamily blocks)			
Period of construction:	1962 - 1971			
Climatic zone:	E	Number of records:	2152	

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	0.2	2.7	2.7	2.8
	Heated gross floor area	$A_{H,g}$	m ²	-	-	-	-	-
	Heated net floor area	$A_{H,n}$	m ²	71.2	27.8	53.8	67.4	83.9
	Heated gross volume	$V_{H,g}$	m ³	264.0	106.6	199.8	247.5	308.1
	Heated net volume	$V_{H,n}$	m ³	191.8	80.7	142.0	179.1	230.2
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	22.7	7.6	21.0	24.0	27.9
	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	6.6	5.4	3.2	4.8	7.7
	Temperature of DHW	ϑ_W	°C	40.0	0.0	40.0	40.0	40.0
	DHW system power *	$P_{W,gen}$	kW	6.6	9.8	1.2	1.5	3.0

* These values refer to the apartment scale

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



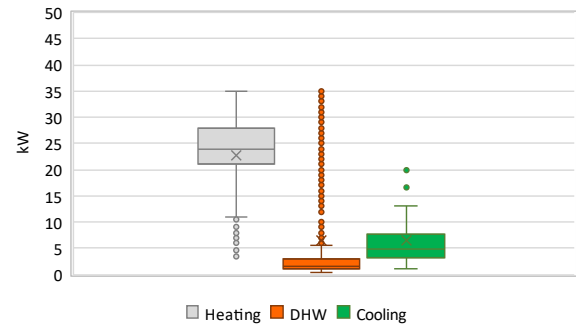
Region:	Aosta Valley (Aosta, Quart, Saint-Christophe, and Sarre)	Archetype code: RES_APPBLOCK_1962- 1971_E_VAL
Building category:	Residential buildings - Apartments (in multifamily blocks)	
Period of construction:	1962 - 1971	
Climatic zone:	E	
Number of records:		2152

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

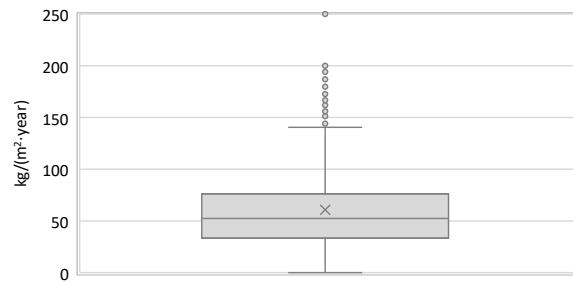
DHW SUPPLY TEMPERATURE



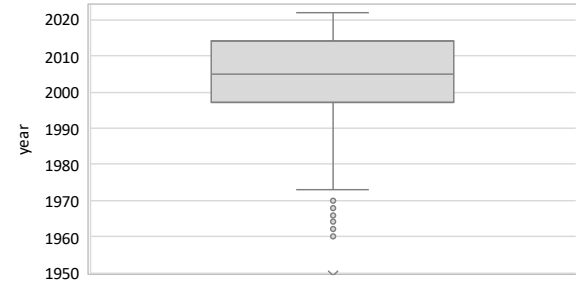
SYSTEM POWER



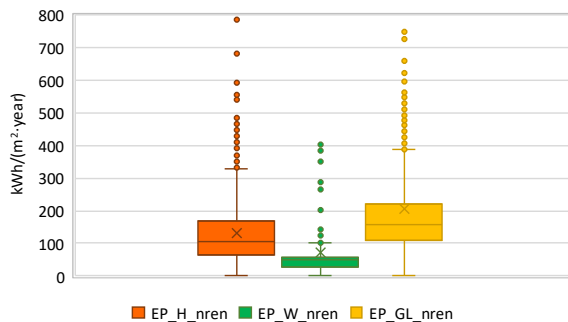
CO₂ EMISSION



HEATING SYSTEM INSTALLATION YEAR



NON-RENEWABLE PRIMARY ENERGY USE



RENEWABLE PRIMARY ENERGY USE

