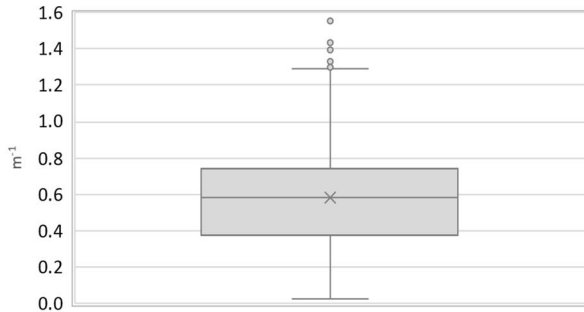


Region:		Liguria					Archetype code: RES_APPBLOCK_ -1950_C_LIG	
Building category:		Residential buildings – Apartments in multi-family block						
Period of construction:		-1950						
Climatic zone:		C	Number of records:		5644			
Description: <u>External walls</u> : no data available <u>Roof slabs</u> : no data available							Data sources: EPC databases (100%)	
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Q2 (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	0.58	0.24	0.38	0.58	0.74
	WWR – North orientation	WWR_N	-	-	-	-	-	-
	WWR – South orientation	WWR_S	-	-	-	-	-	-
	WWR – East orientation	WWR_E	-	-	-	-	-	-
	WWR – West orientation	WWR_W	-	-	-	-	-	-
	Window to useful floor area ratio	A_{wi}/A_{use}	-	0.11	0.04	0.09	0.10	0.12
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{\text{fl;up}}$	W/(m ² ·K)	1.49	0.79	0.91	1.60	1.85
	External walls type	-						
	U-value of the wall	U_{wl}	W/(m ² ·K)	1.75	0.65	1.27	1.77	2.28
	Slab on ground floor type	-						
	U-value of the floor	$U_{\text{fl;lw}}$	W/(m ² ·K)	1.69	0.60	1.41	1.60	1.97
	Windows type	-						
	U-value of the windows	U_W	W/(m ² ·K)	3.88	1.22	2.97	4.02	4.90
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: 99%; Mechanical: 1%						
THERMAL SYSTEMS	Air exchange rate *	n	h ⁻¹	0.30	0.00	0.30	0.30	0.30
	Heating system type	Unknown: 96%; Autonomous: 4%						
	Heating generator	Unknown: 46%; Traditional boiler: 35%; Condensing boiler: 9%; Air-source heat pump: 8%; Fireplace: 2%						
	Daily operating time of the heating system *	t_H	h	10	0	10	10	10
	Energy carrier	Unknown: 48%; Natural gas: 31%; Electricity and natural gas: 10%; Electricity: 8%; LPG: 1%; Electricity and solid biomass: 1%; Gas Oil: 1%						
	Heating emission sub-system	Unknown: 46%; Radiators: 44%; Air Ducts: 3%; Fan-coil: 3%; Convectors: 2%; Radiant panels: 2%						
	Cooling system type	Unknown: 88%; Heat pump air-air: 11%; Heat pump air-water: 1%						
	Daily operating time of the cooling system *	t_C	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	-						
	DHW generator	Unknown:73%; Electric boiler: 13%; Condensing boiler: 10%; Electric heat pump: 2%; Natural gas boiler: 2%						
* These values were not available in the considered sources, and are thus derived from UNI EN Standards								

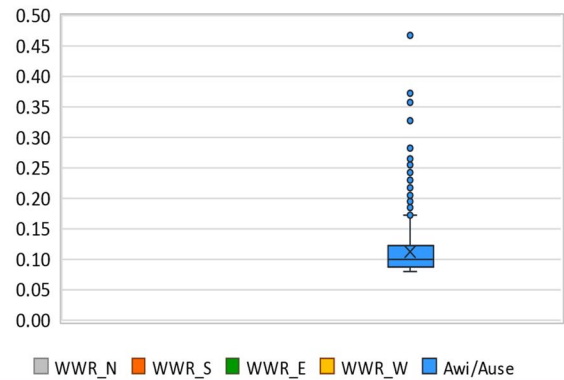
Region:	Liguria	Archetype code: RES_APPBLOCK_ -1950_C_LIG
Building category:	Residential buildings – Apartments in multi-family block	
Period of construction:	-1950	
Climatic zone:	C	
Number of records: 5644		

Numerical variables – GEOMETRY

COMPACTNESS RATIO

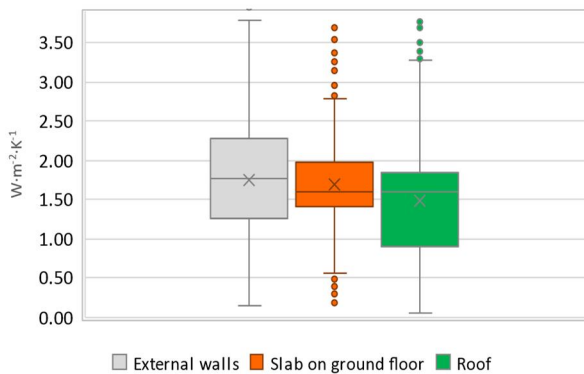


WINDOWS TO WALL RATIO

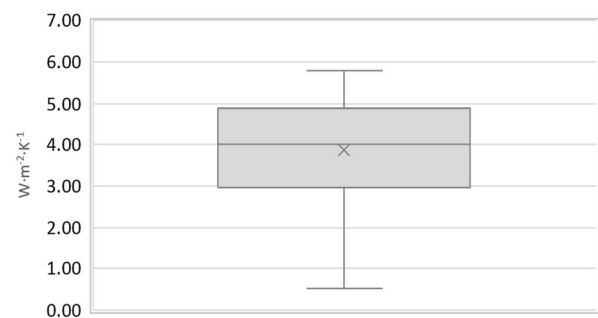


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



WINDOWS U-VALUE



Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE (Standard Values)

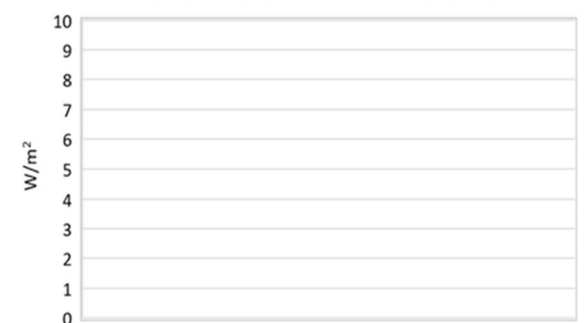
AIR EXCHANGE RATE



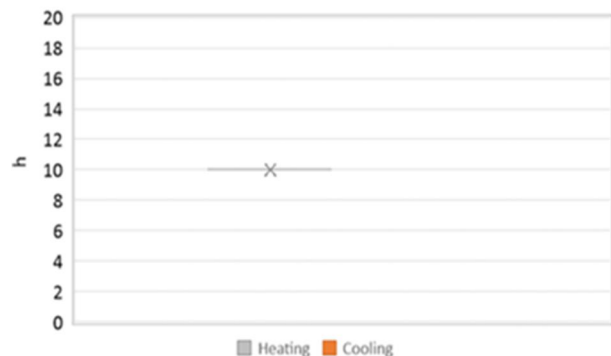
OCCUPANCY DENSITY



INTERNAL GAINS POWER DENSITY



DAILY OPERATING TIME

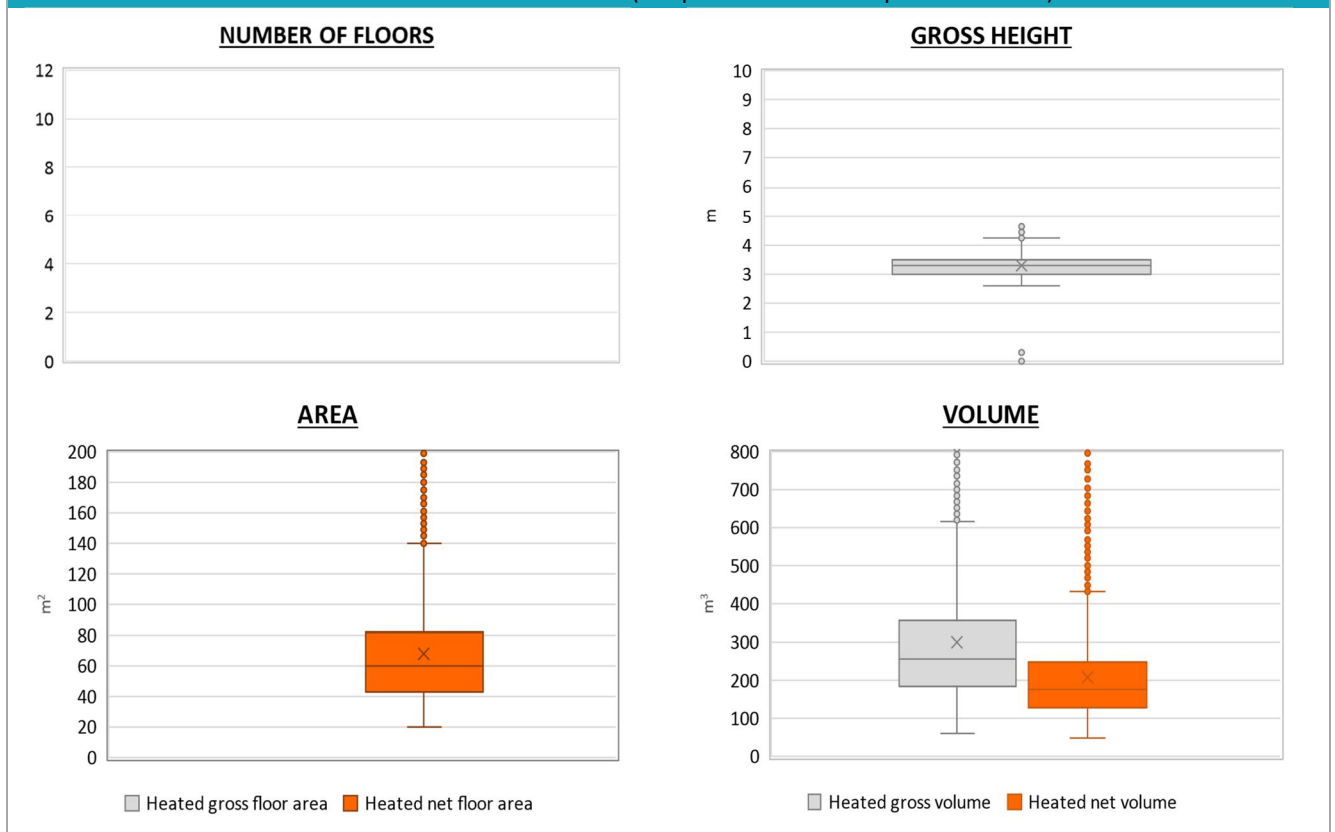


Region:	Liguria	Archetype code: RES_APPBLOCK_ -1950_C_LIG
Building category:	Residential buildings – Apartments in multi-family block	
Period of construction:	-1950	
Climatic zone:	C	
Number of records:		5644

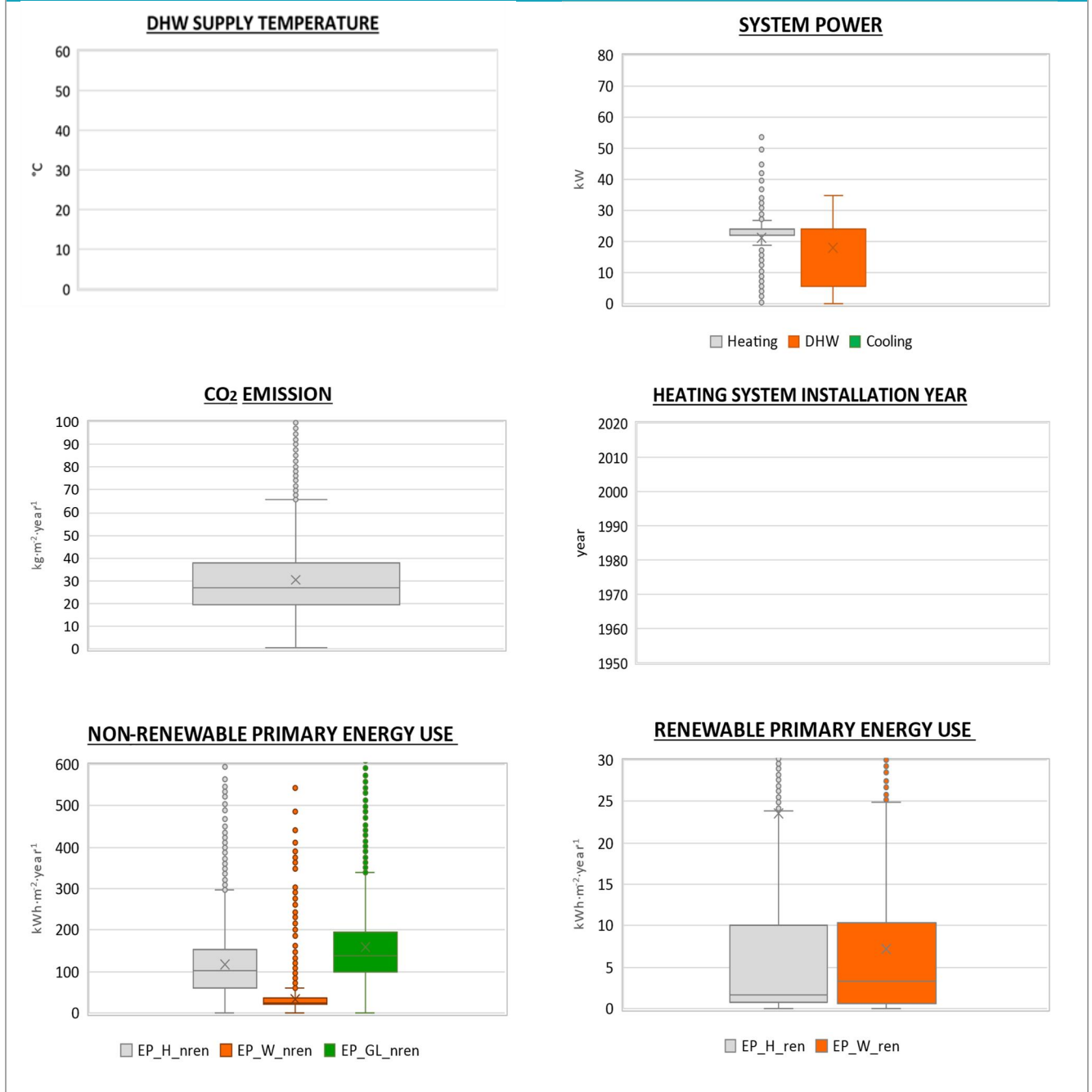
ADDITIONAL DATA								
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
GEOMETRY: apartments	Inter-storey height	H_n	m	3.3	0.4	3.0	3.3	3.5
	Heated gross floor area	$A_{H,g}$	m ²	-	-	-	-	-
	Heated net floor area	$A_{H,n}$	m ²	68.4	38.9	43.3	59.7	82.0
	Heated gross volume	$V_{H,g}$	m ³	298.5	182.9	184.0	257.6	357.2
	Heated net volume	$V_{H,n}$	m ³	207.3	130.0	126.3	176.8	249.3
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	21.4	7.1	22.0	24.0	24.0
	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	-	-	-	-	-
	Temperature of DHW	θ_w	°C	-	-	-	-	-
	DHW system power *	$P_{W,gen}$	kW	18.0	10.2	5.5	24.0	24.0

* These values refer to the apartment scale

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



Region:	Liguria	Archetype code: RES_APPBLOCK_ -1950_C_LIG
Building category:	Residential buildings – Apartments in multi-family block	
Period of construction:	-1950	
Climatic zone:	C	
Number of records: 5644		

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


NOTE: Sample size of the analysed data.

Compactness ratio: 5582; Window to useful floor area ratio: 852; U-value of the roof: 1329; U-value of the wall: 4951; U-value of the floor: 473; U-value of the windows: 5390; Inter-storey height: 5636; Heated net floor area: 5636; Heated gross volume: 5586; Heated net volume: 5586; Total heating power: 2257; DHW system power: 3620; CO₂ Emission: 5495; EP_H_nren: 5598; EP_W_nren: 5178; EP_GL_nren: 5597; EP_H_ren: 3241; EP_W_ren: 2805