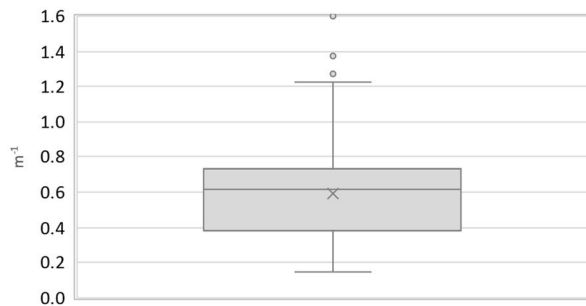


Region:	Liguria					Archetype code: RES_APPBLOCK_ 1971-1980_E_LIG		
Building category:	Residential buildings – Apartments in multi-family block							
Period of construction:	1971-1980							
Climatic zone:	E	Number of records:			763			
Description: <u>External walls</u> : no data available <u>Roof slabs</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	0.59	0.24	0.38	0.61	0.73
	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	0.03	0.09	0.10	0.11
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{fi;up}$	W/(m ² ·K)	1.41	0.64	0.98	1.56	1.80
	External walls type	-						
	U-value of the wall	U_{wl}	W/(m ² ·K)	1.20	0.39	1.05	1.18	1.35
	Slab on ground floor type	-						
	U-value of the floor	$U_{fi;lw}$	W/(m ² ·K)	1.50	0.37	1.39	1.53	1.67
	Windows type	-						
	U-value of the windows	U_W	W/(m ² ·K)	4.11	1.19	3.13	4.30	5.00
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%						
	Air exchange rate *	n	h ⁻¹	0.30	0.00	0.30	0.30	0.30
THERMAL SYSTEMS	Heating system type	Unknown 94%; Autonomous: 6%						
	Heating generator	Traditional boiler: 42%; Unknown 35%; Condensing boiler: 15%; Fireplace: 6%; Heat exchanger of district heating/cooling: 2%						
	Daily operating time of the heating system *	t_H	h	14	0	14	14	14
	Energy carrier	Natural gas: 37%; Unknown: 35%; Electricity and natural gas: 16%; Electricity and solid biomass: 5%; LPG: 2%; Gas Oil: 2%; District heating: 1%; Solid biomass: 1%; Electricity: 1%						
	Heating emission sub-system	Radiators: 62%; Unknown: 35%; Air Ducts: 2%; Radiant panels: 1%						
	Cooling system type	Unknown: 99%; Heat pump air-air: 1%						
	Daily operating time of the cooling system *	t_C	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	-						
	DHW generator	Unknown: 65%; Electric boiler: 13%; Condensing boiler: 12%; Natural gas boiler: 5%; Electric heat pump: 4%; Other: 1%						
	* These values were not available in the considered sources, and are thus derived from UNI EN Standards							

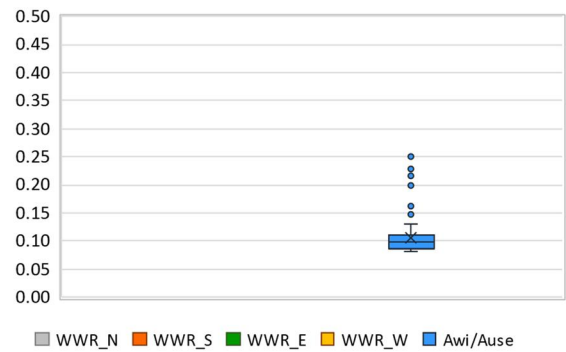
Region:	Liguria	Archetype code: RES_APPBLOCK_ 1971-1980_E_LIG
Building category:	Residential buildings – Apartments in multi-family block	
Period of construction:	1971-1980	
Climatic zone:	E	
Number of records:		763

Numerical variables – GEOMETRY

COMPACTNESS RATIO

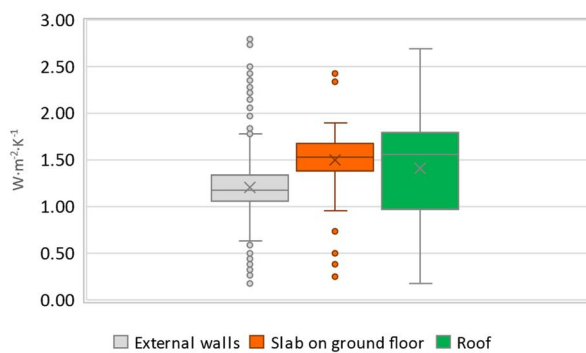


WINDOWS TO WALL RATIO

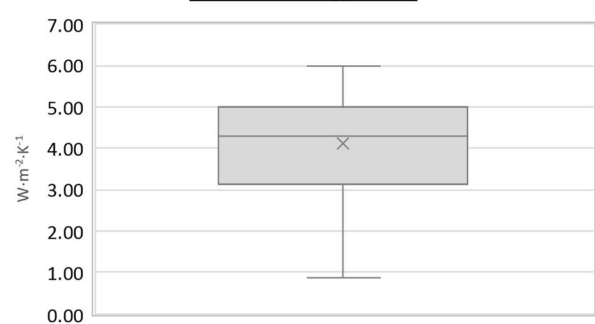


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE

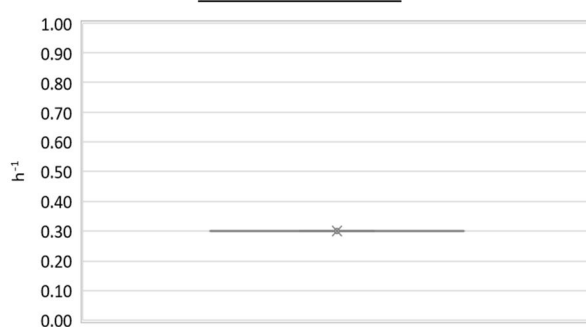


WINDOWS U-VALUE



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_ 1971-1980_E_LIG
Building category:	Residential buildings – Apartments in multi-family block	
Period of construction:	1971-1980	
Climatic zone:	E	
Number of records:		763

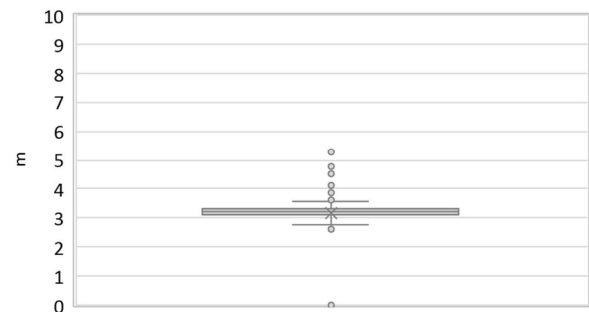
ADDITIONAL DATA								
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
GEOMETRY: apartments	Inter-storey height	H_n	m	3.2	0.2	3.1	3.2	3.3
	Heated gross floor area	$A_{H,g}$	m ²	-	-	-	-	-
	Heated net floor area	$A_{H,n}$	m ²	80.2	43.3	58.6	74.7	91.1
	Heated gross volume	$V_{H,g}$	m ³	309.8	182.3	223.9	288.3	346.5
	Heated net volume	$V_{H,n}$	m ³	233.1	153.6	168.0	217.3	259.2
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	22.1	7.6	21.3	24.0	24.3
	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	-	-	-	-	-
	Temperature of DHW	θ_w	°C	-	-	-	-	-
	DHW system power *	$P_{W,gen}$	kW	17.8	10.5	2.5	23.7	24.0
* These values refer to the apartment scale								

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

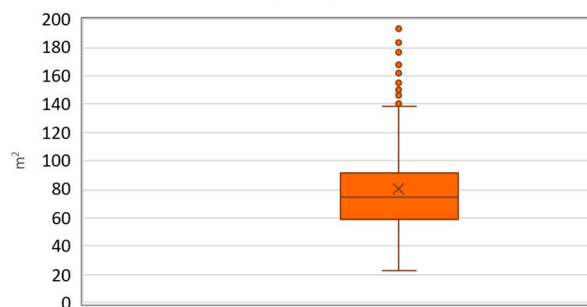
NUMBER OF FLOORS



GROSS HEIGHT

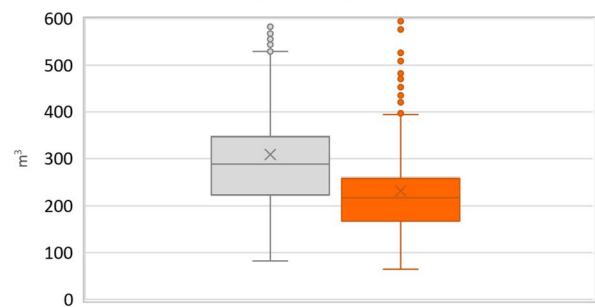


AREA



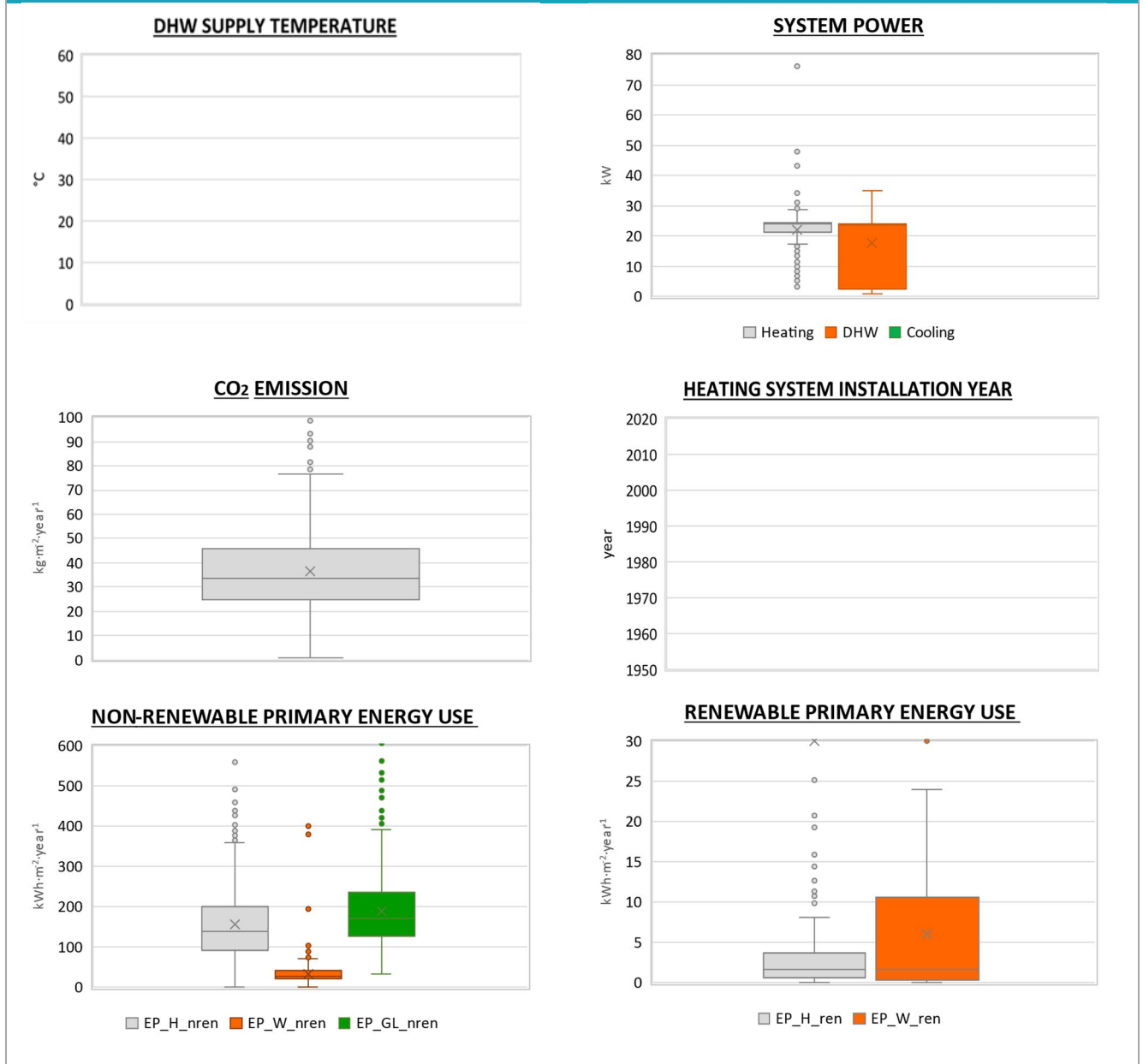
Heated gross floor area Heated net floor area

VOLUME



Heated gross volume Heated net volume

Region:	Liguria	Archetype code: RES_APPBLOCK_ 1971-1980_E_LIG
Building category:	Residential buildings – Apartments in multi-family block	
Period of construction:	1971-1980	
Climatic zone:	E	
Number of records:		763

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


NOTE: Sample size of the analysed data.

Compactness ratio: 762; Window to useful floor area ratio: 79; U-value of the roof: 126; U-value of the wall: 657; U-value of the floor: 58; U-value of the windows: 763; Inter-storey height: 754; Heated net floor area: 754; Heated gross volume: 753; Heated net volume: 754; Total heating power: 281; DHW system power: 487; CO₂ Emission: 735; EP_H_nren: 760; EP_W_nren: 738; EP_GL_nren: 759; EP_H_ren: 559; EP_W_ren: 483