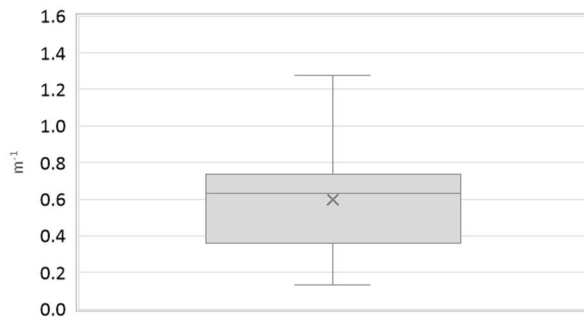


Region:	Liguria					Archetype code: RES_APPBLOCK_ 1951-1960_E_LIG		
Building category:	Residential buildings – Apartments in multi-family block							
Period of construction:	1951-1960							
Climatic zone:	E	Number of records:		623				
Description: External walls: no data available Roof slabs: no data 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 <sup>2</sup>	-	-	-	-	-
	Heated gross floor area	$A_{H,g}$	m <sup>2</sup>	-	-	-	-	-
	Heated net floor area	$A_{H;n}$	m <sup>2</sup>	-	-	-	-	-
	Heated gross volume	$V_{H,g}$	m <sup>3</sup>	-	-	-	-	-
	Heated net volume	$V_{H;n}$	m <sup>3</sup>	-	-	-	-	-
	Compactness ratio	$A_{\text{env}}/V_{H,g}$	m <sup>-1</sup>	0.60	0.44	0.36	0.63	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	$A_{wi}/A_{\text{use}}$	-	0.10	0.02	0.09	0.10	0.11
	ENVELOPE	Roof type	-					
U-value of the roof		$U_{fi;up}$	W/(m <sup>2</sup> ·K)	1.53	0.79	0.52	1.64	1.82
External walls type		-						
U-value of the wall		$U_{wl}$	W/(m <sup>2</sup> ·K)	1.22	0.48	1.06	1.50	1.42
Slab on ground floor type		-						
U-value of the floor		$U_{fi;lw}$	W/(m <sup>2</sup> ·K)	1.66	0.47	1.46	1.63	1.78
Windows type		-						
U-value of the windows		$U_W$	W/(m <sup>2</sup> ·K)	4.03	1.18	3.25	4.11	4.99
Shading system type		-						
GAINS and VENTILATION	Occupancy density *	$O_C$	person/m <sup>2</sup>	UNI EN 16798-1 - Table A.19				
	Lighting power density *	$W_L$	W/m <sup>2</sup>	UNI EN 16798-1 - A.8.3				
	Equipment power density *	$W_A$	W/m <sup>2</sup>	UNI EN 16798-1 - A.8.3				
	Type of ventilation	Natural: 100%						
	Air exchange rate *	$n$	h <sup>-1</sup>	0.30	0.00	0.30	0.30	0.30
THERMAL SYSTEMS	Heating system type	Unknown: 94%; Autonomous: 6%						
	Heating generator	Traditional boiler: 43%; Unknown: 36%; Condensing boiler: 15%; Fireplace: 5%; Heat exchanger of district heating/cooling: 1%						
	Daily operating time of the heating system *	$t_H$	h	14	0	14	14	14
	Energy carrier	Unknown: 37%; Natural gas: 33%; Electricity and natural gas: 23; Electricity and solid biomass: 4%; Gas Oil: 1%; LPG: 1%; Solid biomass: 1%						
	Heating emission sub-system	Radiators: 64%; Unknown: 35%; Air Ducts: 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: 68%; Electric boiler: 13%; Condensing boiler: 12%; Natural gas boiler: 4%; Electric heat pump: 2%; Solar thermal: 1%						
	* These values were not available in the considered sources, and are thus derived from UNI EN Standards							

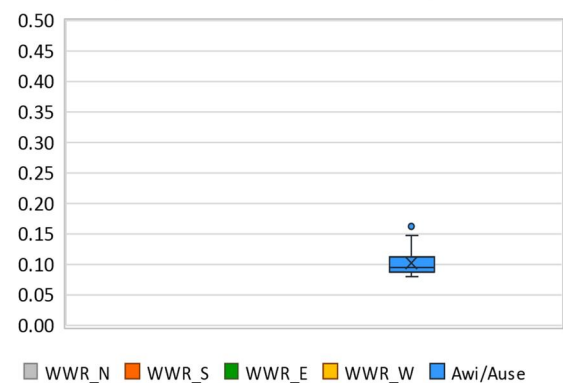
<b>Region:</b>	Liguria	<b>Archetype code:</b> RES_APPBLOCK_ 1951-1960_E_LIG
<b>Building category:</b>	Residential buildings – Apartments in multi-family block	
<b>Period of construction:</b>	1951-1960	
<b>Climatic zone:</b>	E	
<b>Number of records:</b> 623		

### Numerical variables – GEOMETRY

**COMPACTNESS RATIO**

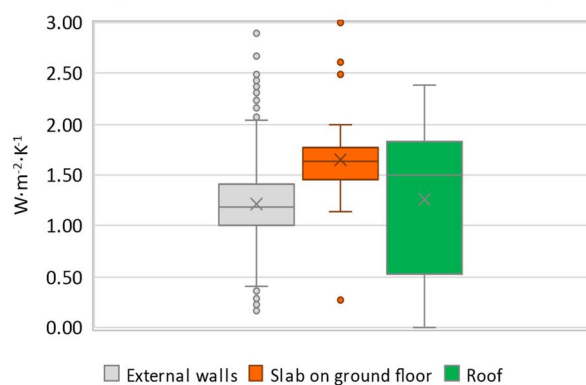


**WINDOWS TO WALL RATIO**

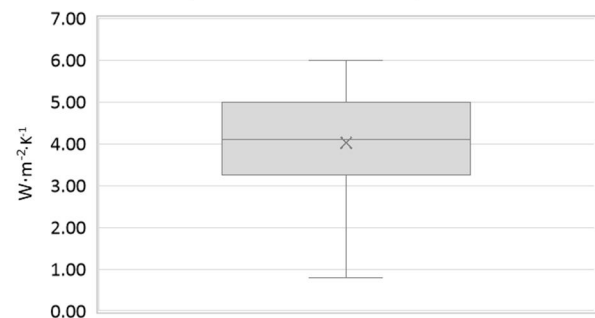


### Numerical variables – ENVELOPE

**OPAQUE BUILDING COMPONENTS U-VALUE**

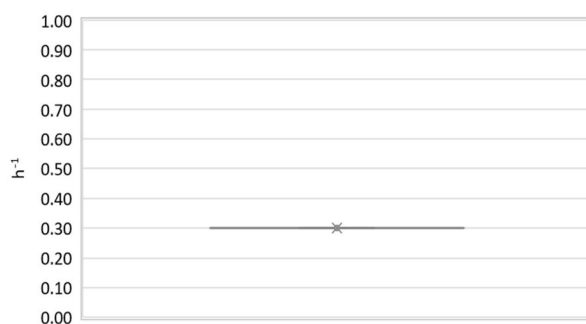


**WINDOWS U-VALUE**



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

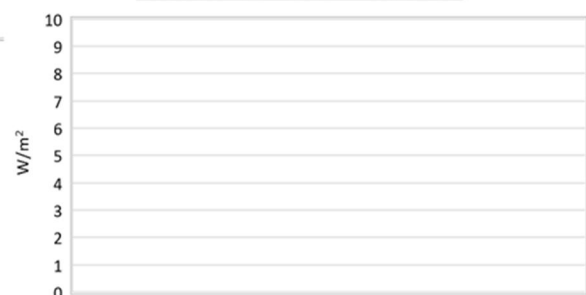
**AIR EXCHANGE RATE**



**OCCUPANCY DENSITY**



**INTERNAL GAINS POWER DENSITY**



**DAILY OPERATING TIME**



Region:	Liguria	Archetype code: RES_APPBLOCK_ 1951-1960_E_LIG
Building category:	Residential buildings – Apartments in multi-family block	
Period of construction:	1951-1960	
Climatic zone:	E	
Number of records:		623

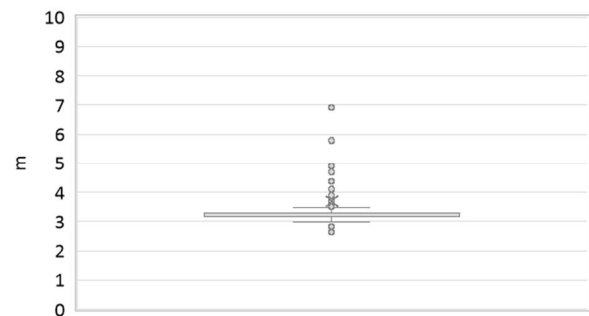
ADDITIONAL DATA								
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
GEOMETRY: apartments	Inter-storey height	$H_n$	m	3.7	10.7	3.2	3.3	3.3
	Heated gross floor area	$A_{H,g}$	m <sup>2</sup>	-	-	-	-	-
	Heated net floor area	$A_{H,n}$	m <sup>2</sup>	77.1	43.7	59.7	73.5	86.9
	Heated gross volume	$V_{H,g}$	m <sup>3</sup>	311.2	235.7	231.7	289.5	343.0
	Heated net volume	$V_{H,n}$	m <sup>3</sup>	255.7	606.6	174.6	217.7	258.0
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	22.5	7.1	21.7	24.0	24.1
	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	$\theta_w$	°C	-	-	-	-	-
	DHW system power *	$P_{W,gen}$	kW	19.0	9.6	18.0	24.0	24.0
* These values refer to the apartment scale								

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

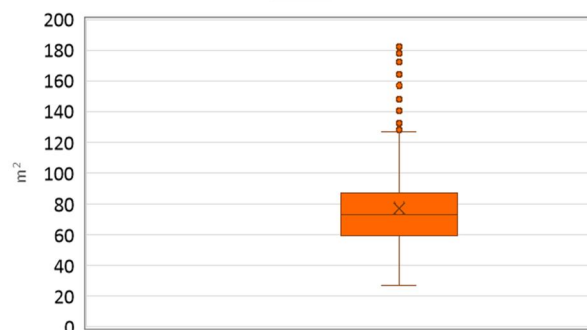
#### NUMBER OF FLOORS



#### GROSS HEIGHT

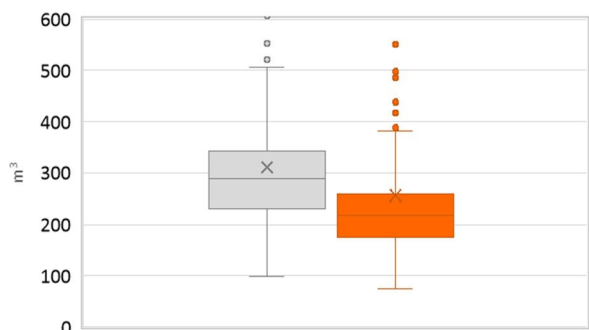


#### AREA



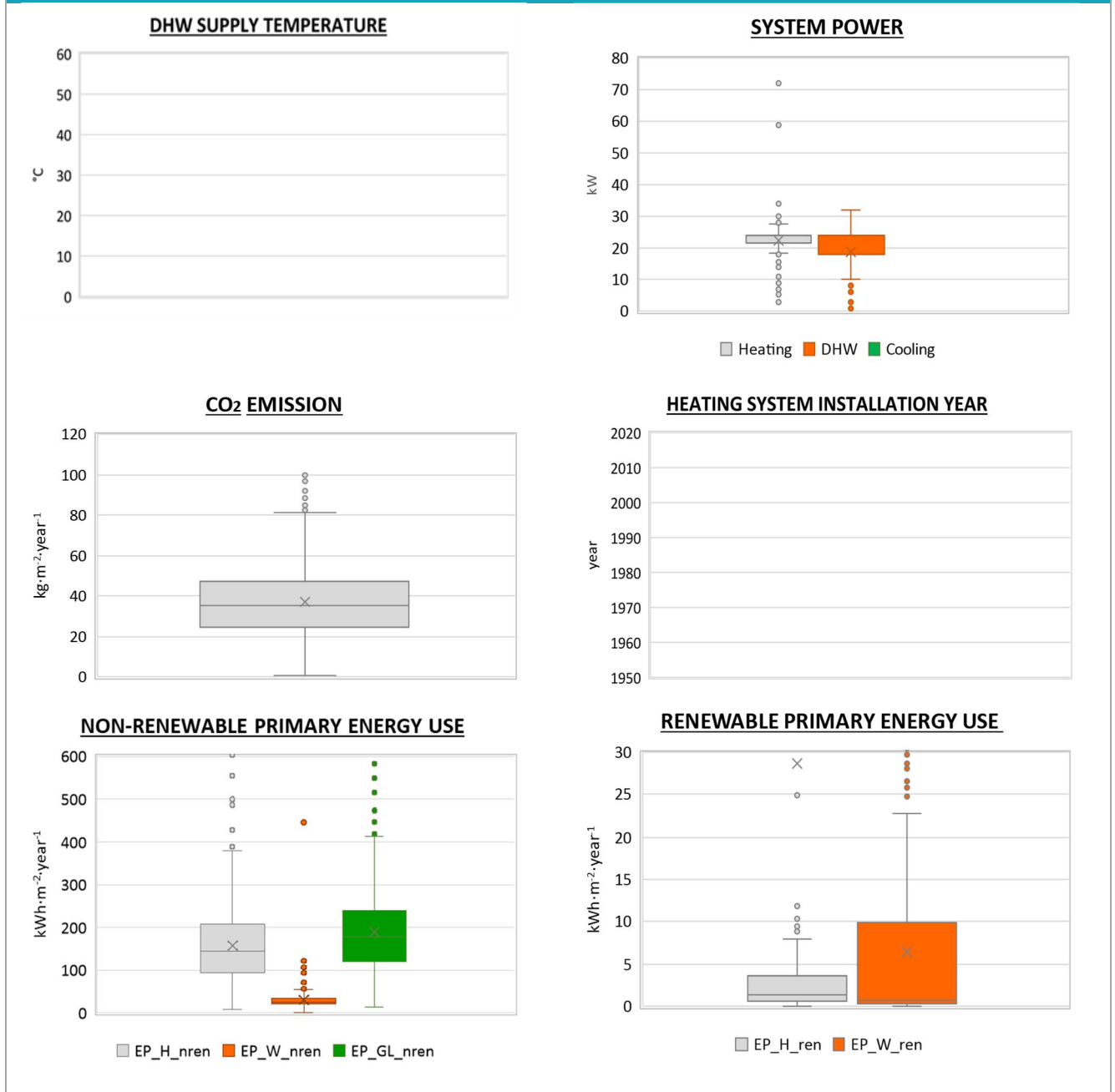
Heated gross floor area Heated net floor area

#### VOLUME



Heated gross volume Heated net volume

<b>Region:</b>	Liguria	<b>Archetype code:</b> RES_APPBLOCK_ 1951-1960_E_LIG
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<b>Number of records:</b>		623

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


NOTE: Sample size of the analysed data.

Compactness ratio: 623; Window to useful floor area ratio: 54; U-value of the roof: 33; U-value of the wall: 509; U-value of the floor: 32; U-value of the windows: 623; Inter-storey height: 623; Heated net floor area: 623; Heated gross volume: 623; Heated net volume: 623; Total heating power: 252; DHW system power: 437; CO<sub>2</sub> Emission: 606; EP\_H\_nren: 622; EP\_W\_nren: 608; EP\_GL\_nren: 622; EP\_H\_ren: 461; EP\_W\_ren: 371