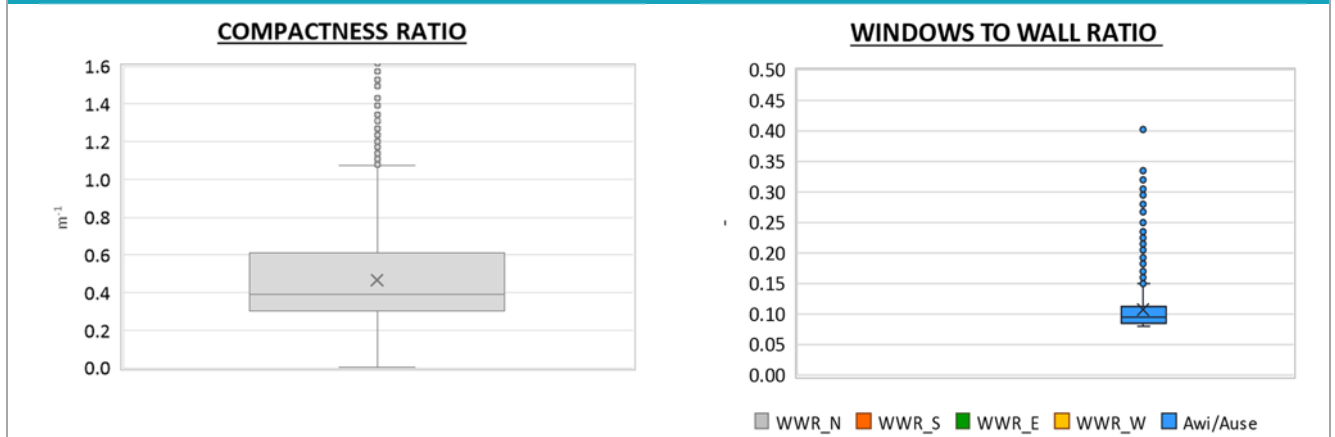


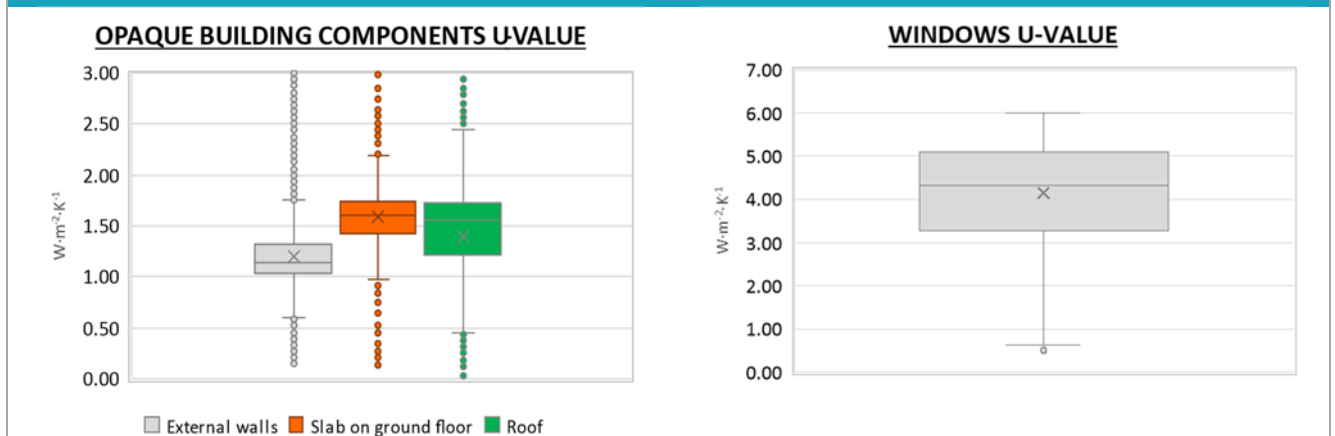
Region:		Liguria					Archetype code: RES_APPBLOCK_ 1951-1960_D_LIG	
Building category:		Residential buildings – Apartments in multi-family block						
Period of construction:		1951-1960						
Climatic zone:		D	Number of records:		16083			
Description: <u>External walls</u> : no data available <u>Roof 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	0.47	0.55	0.30	0.39	0.61
	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	0.11
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{fi;up}$	W/(m ² ·K)	1.40	0.56	1.21	1.56	1.72
	External walls type	-						
	U-value of the wall	U_{wl}	W/(m ² ·K)	1.20	0.39	1.03	1.14	1.32
	Slab on ground floor type	-						
	U-value of the floor	$U_{fi;lw}$	W/(m ² ·K)	1.60	0.46	1.42	1.61	1.74
	Windows type	-						
	U-value of the windows	U_W	W/(m ² ·K)	4.15	1.19	3.29	4.32	5.09
	Shading system type	-						
GAINS and VENTILATION	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%						
	Air exchange rate *	n	h ⁻¹	0.30	0.00	0.30	0.30	0.30
THERMAL SYSTEMS	Heating system type	Unknown: 97%; Autonomous: 3%						
	Heating generator	Traditional boiler: 42%; Unknown: 36%; Condensing boiler: 20%; Air-source heat pump: 2%						
	Daily operating time of the heating system *	t_H	h	12	0	12	12	12
	Energy carrier	Natural gas: 42%; Unknown: 36%; Electricity and natural gas: 19%; Electricity: 2%; Gas Oil: 1%						
	Heating emission sub-system	Radiators: 60%; Unknown: 36%; Radiant panels: 2%; Air Ducts: 1%; Fan-coil: 1%						
	Cooling system type	Unknown: 94%; Heat pump air-air: 6%						
	Daily operating time of the cooling system *	t_C	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	-						
	DHW generator	Unknown: 60%; Natural gas boiler: 16%; Electric boiler: 10%; Condensing boiler: 10%; Electric heat pump: 4%						
* These values were not available in the considered sources, and are thus derived from UNI EN Standards								

Region:	Liguria	Archetype code: RES_APPBLOCK_ 1951-1960_D_LIG
Building category:	Residential buildings – Apartments in multi-family block	
Period of construction:	1951-1960	
Climatic zone:	D	
Number of records:		16083

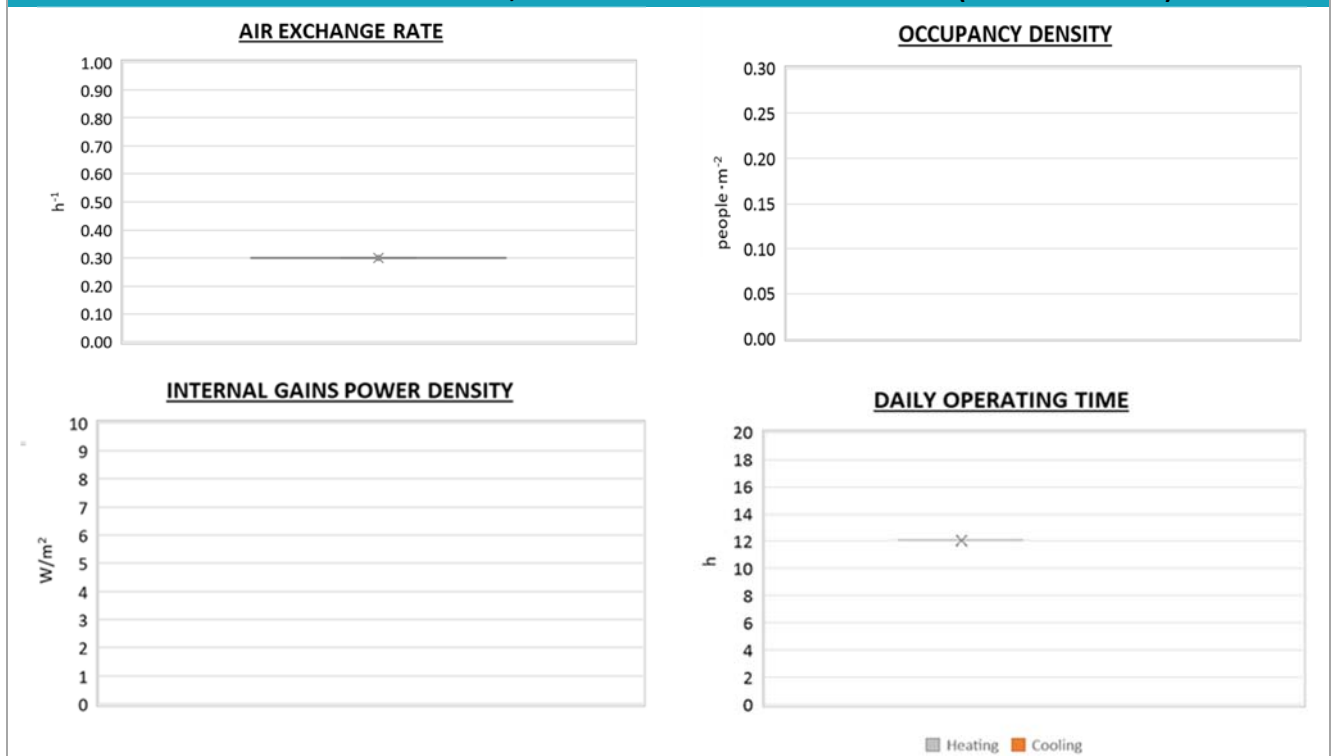
Numerical variables – GEOMETRY



Numerical variables – ENVELOPE



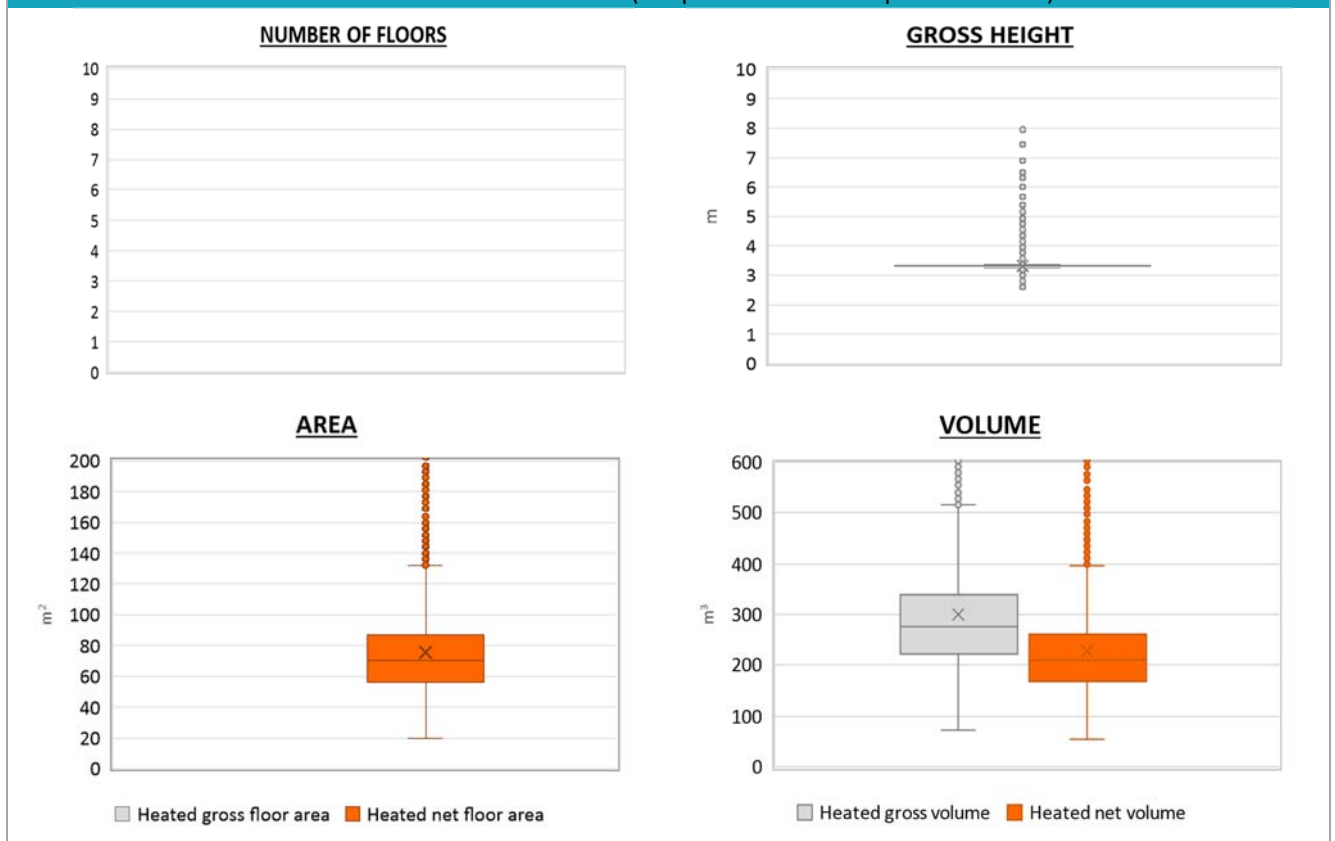
Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE (Standard Values)



Region:	Liguria	Archetype code: RES_APPBLOCK_ 1951-1960_D_LIG
Building category:	Residential buildings – Apartments in multi-family block	
Period of construction:	1951-1960	
Climatic zone:	D	
Number of records:		16083

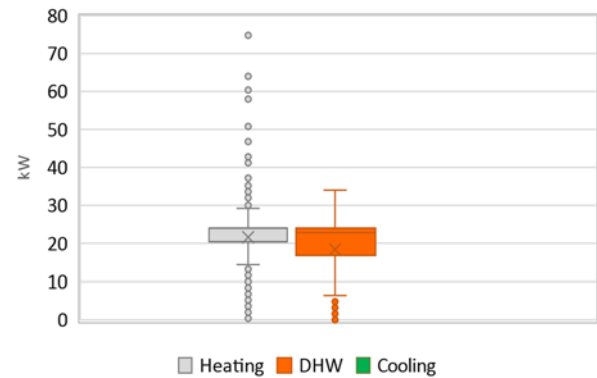
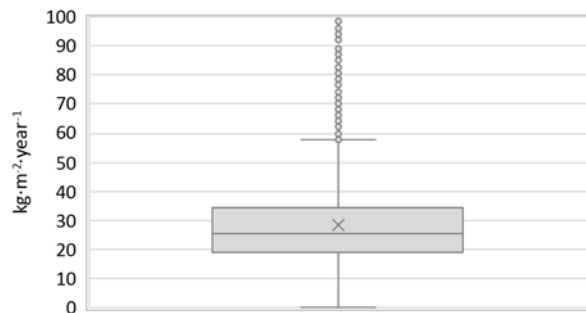
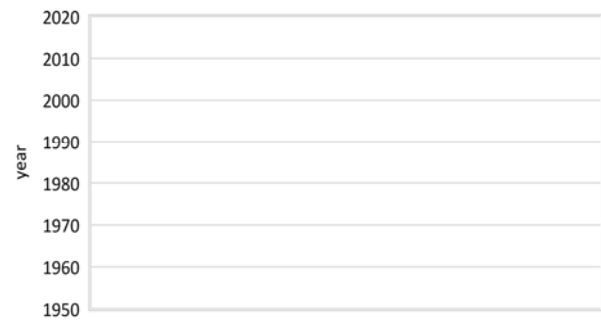
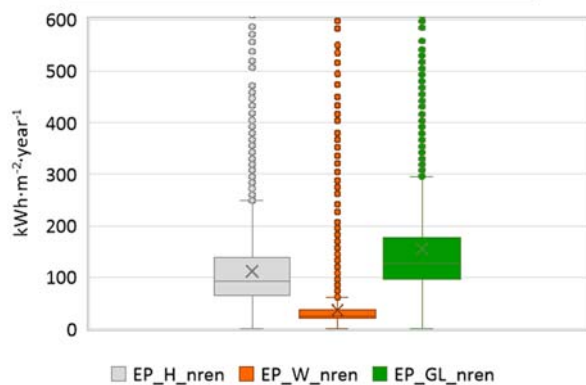
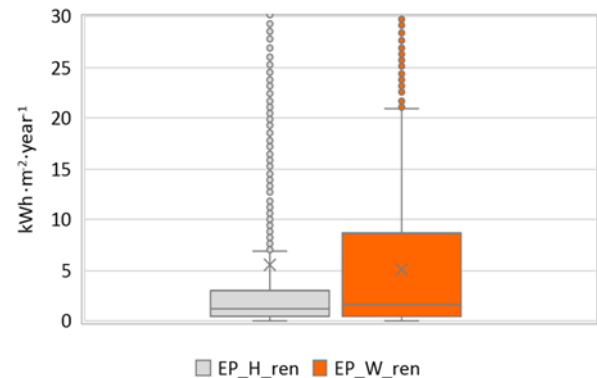
ADDITIONAL DATA								
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
GEOMETRY: apartments	Inter-storey height	H_n	m	3.3	0.2	3.3	3.3	3.3
	Heated gross floor area	$A_{H,g}$	m ²	-	-	-	-	-
	Heated net floor area	$A_{H,n}$	m ²	75.5	35.6	56.2	70.2	86.6
	Heated gross volume	$V_{H,g}$	m ³	301.2	157.8	222.0	277.0	340.3
	Heated net volume	$V_{H,n}$	m ³	229.3	121.0	169.3	210.9	260.8
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	7.8	20.2	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	18.3	9.1	17.0	23.0	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_ 1951-1960_D_LIG
Building category:	Residential buildings – Apartments in multi-family block	
Period of construction:	1951-1960	
Climatic zone:	D	
Number of records:		16083

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


NOTE: Sample size of the analysed data.

Compactness ratio: 16083; Window to useful floor area ratio: 1477; U-value of the roof: 2087; U-value of the wall: 13754; U-value of the floor: 677; U-value of the windows: 16083; Inter-storey height: 16083; Heated net floor area: 16083; Heated gross volume: 16082; Heated net volume: 16083; Total heating power: 4480; DHW system power: 10888; CO₂ Emission: 15903; EP_H_nren: 16043; EP_W_nren: 15547; EP_GL_nren: 15999; EP_H_ren: 12879; EP_W_ren: 9610