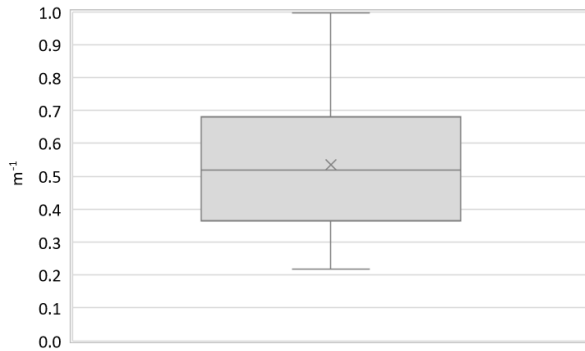


Region:		Calabria					Archetype code: RES_APPBLOCK_ 1961-1970_D_CAL	
Building category:		Residential buildings – Apartments (in multifamily blocks)						
Period of construction:		1961-1970						
Climatic zone:		D	Number of records:		140			
Description (the codes associated with walls and slabs refer to the structures described in UNI/TR 11552:2014): External walls: double layer of hollow bricks (12 cm + 12 cm) with uninsulated air gap (cod. MCV01). Roof slabs: no data available							Data sources: Survey data (45%) EPC databases (17%) Expert assumptions (11%) Others (27%) #	
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
BUILDING GEOMETRY	Number of floors	n_f	-	2.36	1.94	1.00	1.50	3.00
	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	0.53	0.19	0.36	0.52	0.68
	WWR – North orientation	WWR_N	-	0.16	0.09	0.10	0.17	0.21
	WWR – South orientation	WWR_S	-	0.18	0.10	0.10	0.16	0.23
	WWR – East orientation	WWR_E	-	0.19	0.14	0.10	0.16	0.23
	WWR – West orientation	WWR_W	-	0.18	0.12	0.11	0.18	0.24
	Window to useful floor area ratio	A_{wi}/A_{use}	-	0.14	0.05	0.10	0.14	0.17
	ENVELOPE	Roof type	-					
U-value of the roof		$U_{f,up}$	W/(m ² ·K)	1.23	0.67	0.58	1.21	1.72
External walls type		Hollow brick masonry: 49%, Concrete wall: 27%, Solid brick masonry: 13%, Masonry with local stones: 4%, Unknown: 7%						
U-value of the wall		U_{wl}	W/(m ² ·K)	0.88	0.45	0.50	0.88	1.10
Slab on ground floor type		-						
U-value of the floor		$U_{f,lw}$	W/(m ² ·K)	1.16	0.49	0.68	1.26	1.42
Windows type		Double glazing, wooden frame: 31%, Double glazing, PVC frame: 20%, Single glazing, wooden frame: 16%, Double glazing, aluminum frame, no thermal break: 16%, Double glazing, aluminum frame with thermal break: 11%, Single glazing, aluminum frame: 5%, Triple glazing, aluminum frame with thermal break: 1%,						
U-value of the windows		U_W	W/(m ² ·K)	3.28	1.06	2.80	2.90	3.70
Shading system type		Shutter: 45%, Roller blinds: 40%, No shading: 6%, Curtains: 5%, Unknown: 5%						
GAINS and VENTILATION	Occupancy density	O_C	person/m ²	0.039	0.014	0.027	0.044	0.050
	Lighting power density	W_L	W/m ²	5.00	3.21	2.24	4.09	8.71
	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	Autonomous: 97%, Centralized: 3%						
	Heating generator	Traditional Boiler: 60%, Fireplace: 26%, Condensing Boiler: 10%, Air-source heat pump: 2%, Unknown: 2%						
	Daily operating time of the heating system	t_H	h	7.17	3.67	5.00	6.00	10.00
	Energy carrier	Natural Gas: 54%, Solid biomass: 26%, LPG: 7%, Electricity: 11%, Unknown: 2%						
	Heating emission sub-system	Radiators: 85%, Fan coil: 8%, Unknown: 7%						
	Cooling system type	Absent: 75%, Air-cooled chiller: 24%, Water-cooled chiller: 1%						
	Daily operating time of the cooling system *	t_C	h	8.00	0.00	8.00	8.00	8.00
	Cooling emission sub-system	Fan coil: 100%						
	DHW system type	Autonomous, coupled with heating: 56%, Autonomous, detached from heating: 44%						
	DHW generator	Natural gas boiler: 56%, Electric boiler: 44%						
# Standards (11%), Measured data (10%), Municipal database (6%).								
* These values were not available in the considered sources, and are thus derived from UNI EN Standards								

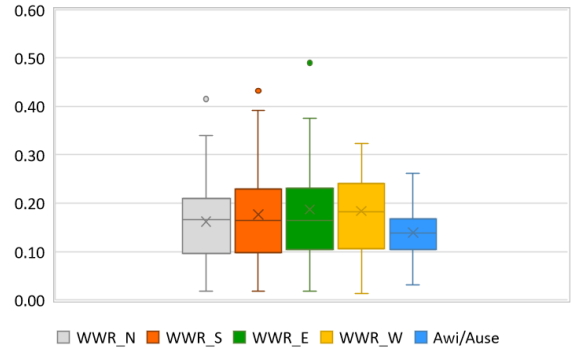
Region:	Calabria	Archetype code: RES_APPBLOCK_ 1961-1970_D_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1961-1970	
Climatic zone:	D	
Number of records:		140

Numerical variables – GEOMETRY

COMPACTNESS RATIO

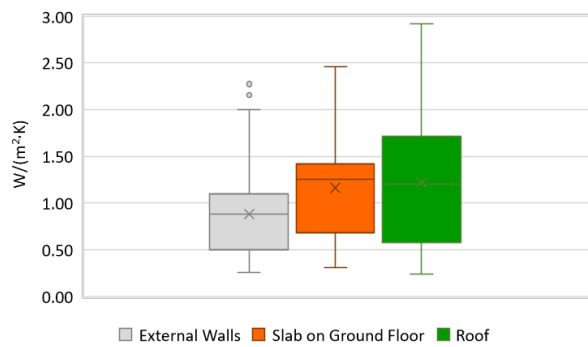


WINDOWS TO WALL RATIO

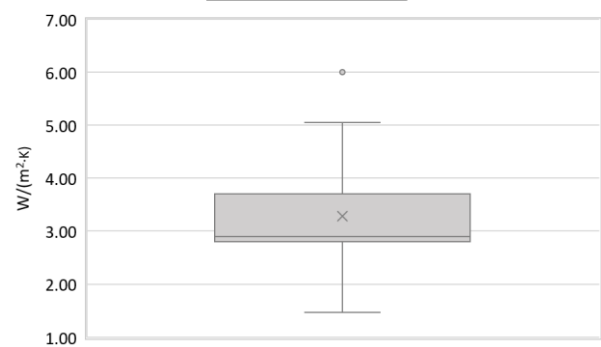


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



WINDOWS U-VALUE

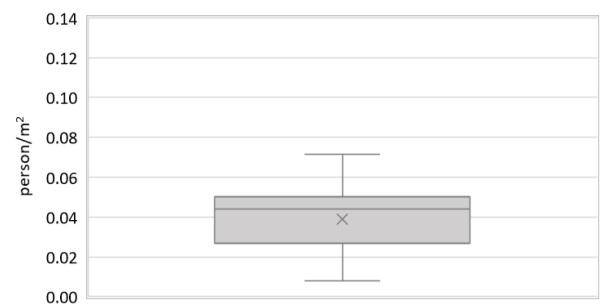


Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

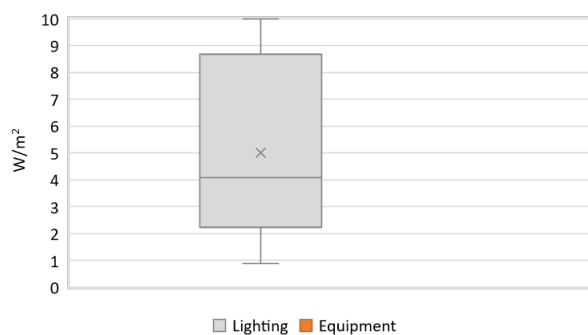
AIR EXCHANGE RATE



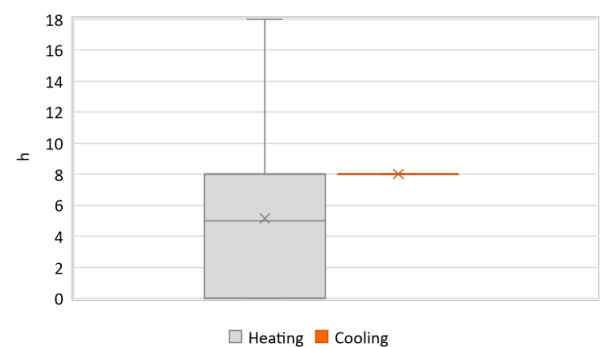
OCCUPANCY DENSITY



INTERNAL GAINS POWER DENSITY



DAILY OPERATING TIME

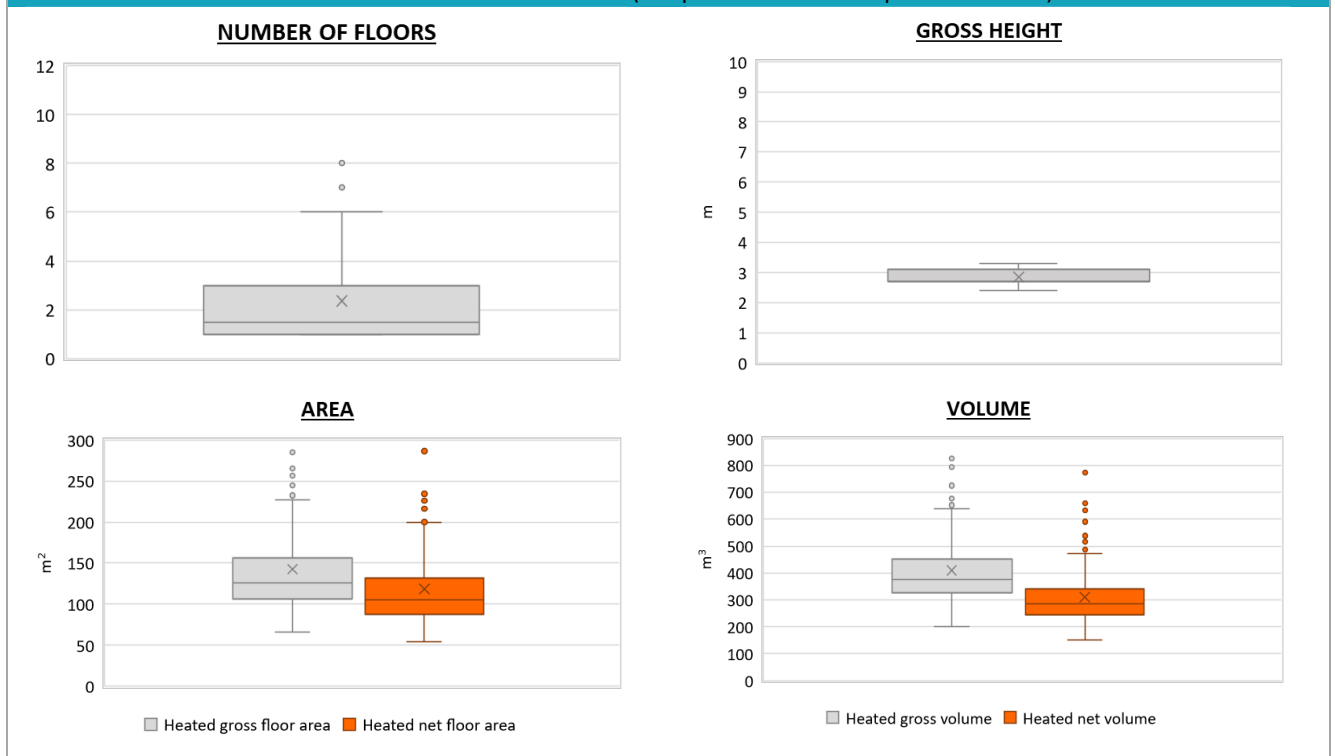


Region:	Calabria			Archetype code: RES_APPBLOCK_ 1961-1970_D_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)			
Period of construction:	1961-1970			
Climatic zone:	D	Number of records:	140	

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	2.85	0.20	2.70	2.70	3.10
	Heated gross floor area	$A_{H,g}$	m ²	142.57	55.93	106.36	126.00	156.19
	Heated net floor area	$A_{H,n}$	m ²	118.35	48.23	87.19	105.20	132.10
	Heated gross volume	$V_{H,g}$	m ³	409.80	138.87	326.57	376.55	453.38
	Heated net volume	$V_{H,n}$	m ³	310.97	109.55	245.61	286.27	341.50
THERMAL SYSTEMS	Heating efficiency or COP	$\eta_{H,gen}$ or $COP_{H,gen}$	-	This value has to be retrieved from suitable datasheets				
	Total heating power *	$P_{H,gen}$	kW	22.71	8.03	23.00	24.00	27.00
	Cooling efficiency or EER	$\eta_{C,gen}$ 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	40.00	0.00	40.00	40.00	40.00
	DHW system power *	$P_{W,gen}$	kW	16.22	10.69	2.00	23.50	24.00

* These values refer to the apartment scale

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



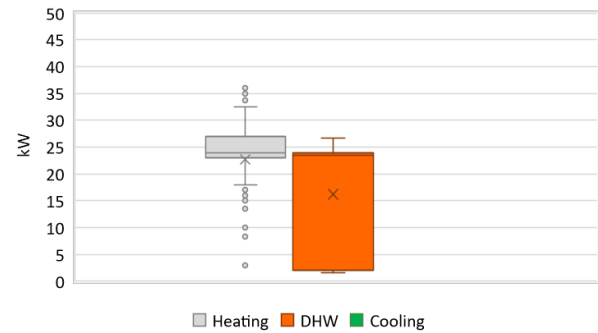
Region:	Calabria	Archetype code: RES_APPBLOCK_ 1961-1970_D_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1961-1970	
Climatic zone:	D	
Number of records:		140

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

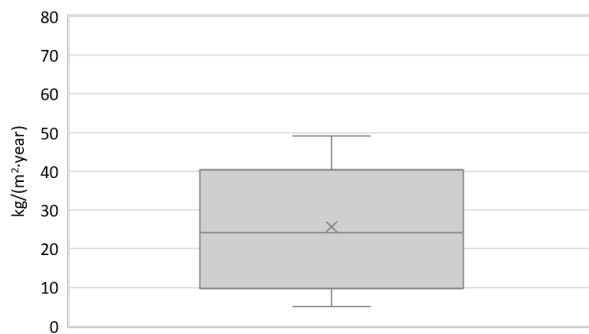
DHW SUPPLY TEMPERATURE



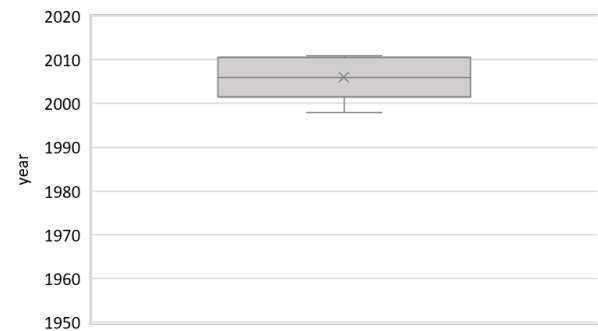
SYSTEM POWER



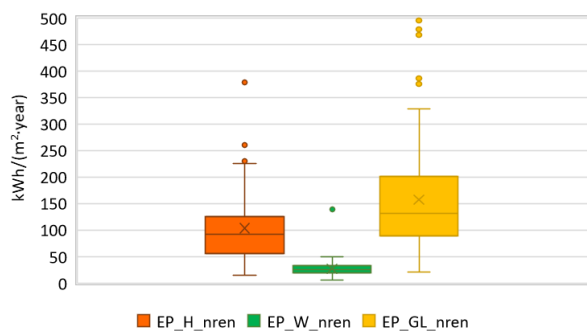
CO₂ EMISSION



HEATING SYSTEM INSTALLATION YEAR



NON-RENEWABLE PRIMARY ENERGY USE



RENEWABLE PRIMARY ENERGY USE

