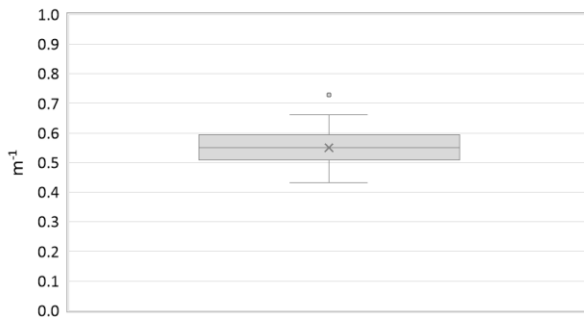


Region:	Tuscany						Archetype code: RES_APPBLOCK_ 1971-1980_D_TUS	
Building category:	Entire multi-family block							
Period of construction:	1971-1980							
Climatic zone:	D	Number of records:				43		
Description (the codes associated with walls and slabs refer to the structures described in UNI/TR 11552:2014): External walls: plaster (2 cm) - double layer of hollow bricks (8 cm + 12 cm) with air gap - plaster (2 cm) (cod. MCV01) Roof slabs: reinforced brick-concrete slab (20-22 cm) - uninsulated concrete screed (-)							Data sources: Visual inspection (39%) National database (15%) Standards (15%) Others (31%) #	
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
BUILDING GEOMETRY	Number of floors	n_f	-	3.43	0.97	3.00	3.00	4.00
	Gross height	H_g	m	11.36	3.24	9.45	10.20	13.50
	Footprint area	$A_{\text{footprint}}$	m ²	383.97	166.23	233.60	377.30	465.55
	Heated gross floor area	$A_{H,g}$	m ²	1252.92	608.83	733.80	1207.20	1734.00
	Heated net floor area	$A_{H,n}$	m ²	1108.15	538.48	649.01	1067.71	1533.64
	Heated gross volume	$V_{H,g}$	m ³	4138.25	2007.58	2454.50	4003.84	5731.05
	Heated net volume	$V_{H,n}$	m ³	3229.56	1571.89	1927.50	3203.12	4429.00
	Compactness ratio	$A_{\text{env}}/V_{H,g}$	m ⁻¹	0.55	0.06	0.51	0.55	0.59
	WWR – North orientation	WWR_N	-	0.09	0.08	0.03	0.10	0.13
	WWR – South orientation	WWR_S	-	0.11	0.10	0.01	0.11	0.19
	WWR – East orientation	WWR_E	-	0.14	0.09	0.06	0.15	0.22
	WWR – West orientation	WWR_W	-	0.12	0.07	0.06	0.15	0.18
	Window to useful floor area ratio	A_{wi}/A_{use}	-	0.17	0.02	0.16	0.17	0.18
ENVELOPE	Roof type	Reinforced brick-concrete slab: 100%.						
	U-value of the roof	$U_{fi,up}$	W/(m ² ·K)	1.52	0.04	1.50	1.50	1.50
	External walls type	Hollow brick masonry, low insulation: 96%; Hollow brick masonry: 2%; Hollow brick masonry, high insulation: 2%.						
	U-value of the wall	U_{wi}	W/(m ² ·K)	1.10	0.14	1.10	1.10	1.17
	Slab on ground floor type	Reinforced brick-concrete slab: 95%; Ventilated crawl space: 5%						
	U-value of the floor	$U_{fi,lw}$	W/(m ² ·K)	1.52	0.11	1.58	1.58	1.58
	Windows type	Unknown: 100%						
	U-value of the windows	U_W	W/(m ² ·K)	-	-	-	-	-
GAINS and VENTILATION	Shading system type	Roller blinds: 100%.						
	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	Autonomous: 79%; Centralized: 21%.						
	Heating generator	Boiler (unknown type): 100%.						
	Daily operating time of the heating system *	t_H	h	12.00	0.00	12.00	12.00	12.00
	Energy carrier	Natural gas: 100%.						
	Heating emission sub-system	Unknown: 100%						
	Cooling system type	Unknown: 65%; Air-cooled chiller: 18%; Absent: 17%.						
	Daily operating time of the cooling system	t_C	h	12.00	0.00	12.00	12.00	12.00
	Cooling emission sub-system	Multisplit: 100%						
	DHW system type	Autonomous, coupled with heating: 79%; Autonomous, detached from heating: 21%.						
	DHW generator	Natural gas boiler: 88%; Electric boiler: 6%; Unknown: 6%.						
# Measured data (13%), Local database (8%), Other (6%), Standards (4%).								
* These values are derived from UNI EN ISO Standards								

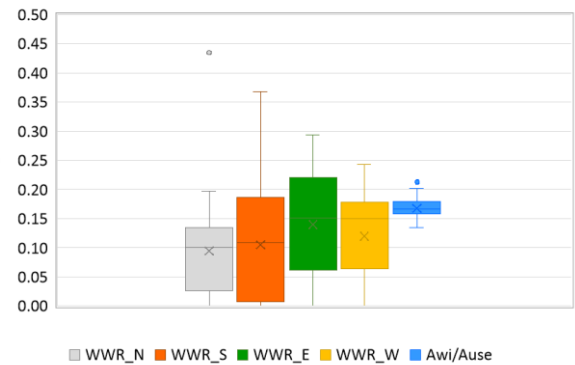
Region:	Tuscany	Archetype code: RES_APPBLOCK_ 1971-1980_D_TUS
Building category:	Entire multi-family block	
Period of construction:	1971-1980	
Climatic zone:	D	
Number of records:		43

Numerical variables – GEOMETRY

COMPACTNESS RATIO

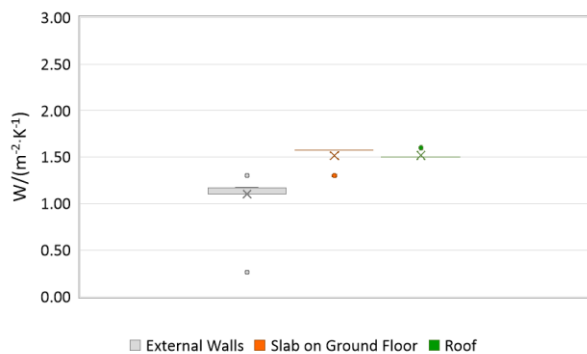


WINDOWS TO WALL RATIO



Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE

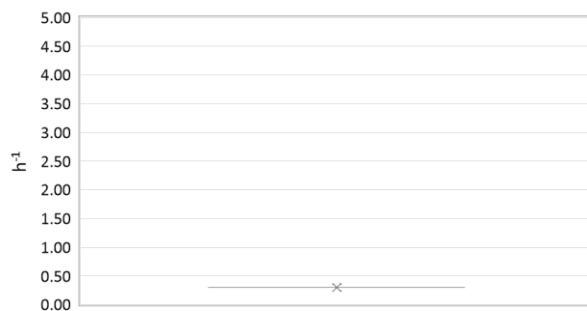


WINDOWS U-VALUE

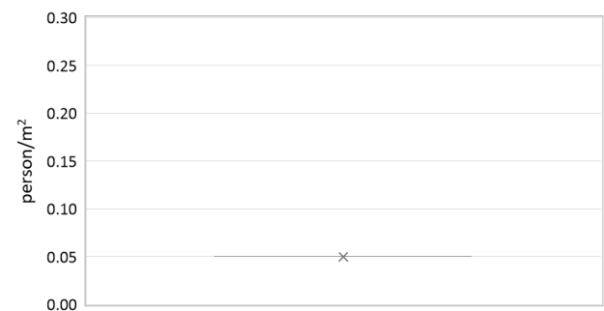


Numerical variables – GAINS. VENTILATION and SYSTEMS USAGE

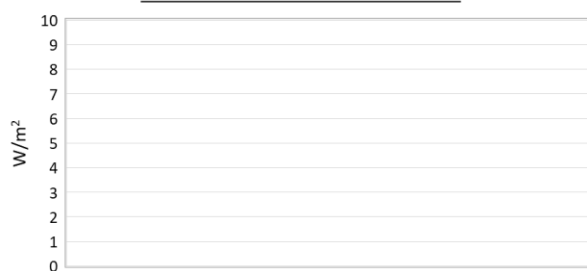
AIR EXCHANGE RATE



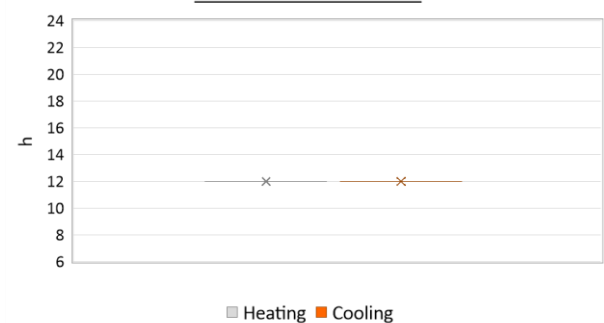
OCCUPANCY DENSITY



INTERNAL GAINS POWER DENSITY



DAILY OPERATING TIME

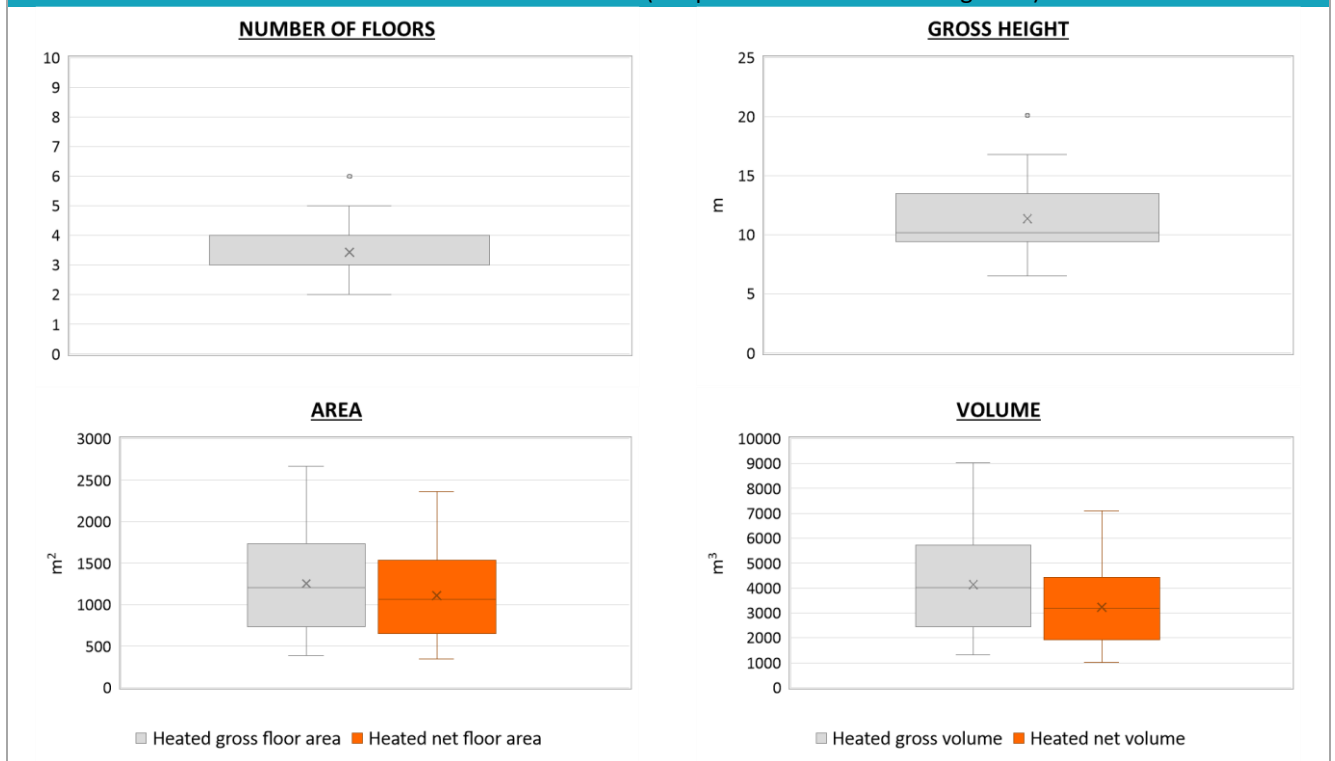


Region:	Tuscany			Archetype code: RES_APPBLOCK_ 1971-1980_D_TUS
Building category:	Entire multi-family block			
Period of construction:	1971-1980			
Climatic zone:	D	Number of records:	43	

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	-	-	-	-	-
	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	-	-	-	-	-
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	-	-	-	-	-
	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	40.00	0.00	40.00	40.00	40.00
	DHW system power *	$P_{W,gen}$	kW	-	-	-	-	-

* These values refer to the apartment scale

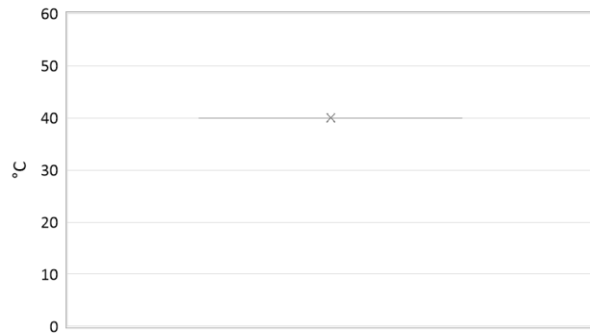
Additional data: GEOMETRY (the plots refer to the building scale)



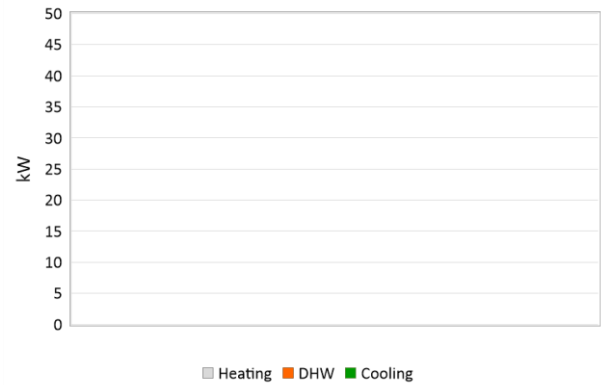
Region:	Tuscany	Archetype code: RES_APPBLOCK_ 1971-1980_D_TUS
Building category:	Entire multi-family block	
Period of construction:	1971-1980	
Climatic zone:	D	
Number of records:		43

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

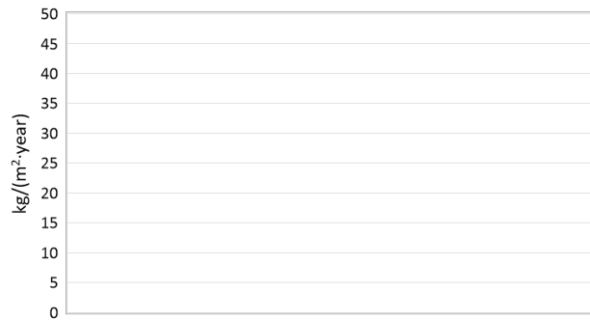
DHW SUPPLY TEMPERATURE



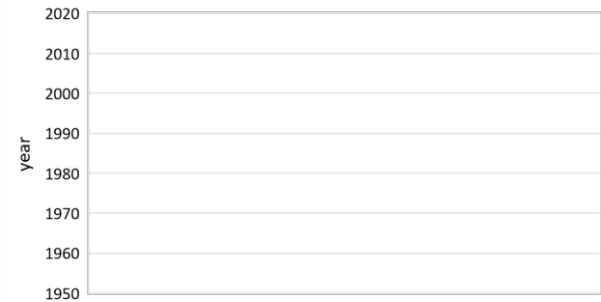
SYSTEM POWER



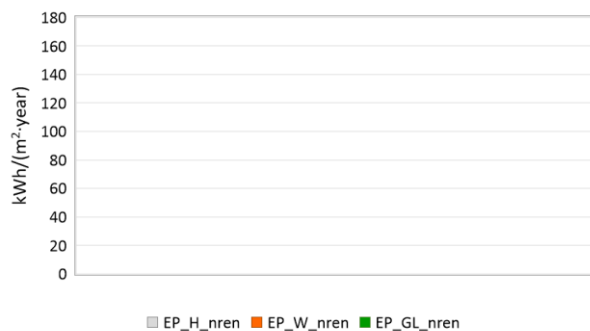
CO₂ EMISSION



HEATING SYSTEM INSTALLATION YEAR



NON-RENEWABLE PRIMARY ENERGY USE



RENEWABLE PRIMARY ENERGY USE

