Region:	Tuscany			**Archetype code:** RES_APPBLOCK_ 1941-1950_D_TUS
Building category:	Entire multi-family block			
Period of construction:	1941-1950			
Climatic zone:	D	**Number of records:**	23	

Description (the codes associated with walls and slabs refer to the structures described in UNI/TR 11552:2014):

External walls: plaster (2 cm) - mixed brick and stone (40 cm) - plaster (2 cm) (cod. MCO01).
Roof slabs: slab with brick reinforced beams and hollow brick tiles (6 cm) (cod. -)

Data sources:
Visual inspection (39%)
National database (15%)
Standards (15%)
Others (31%) #

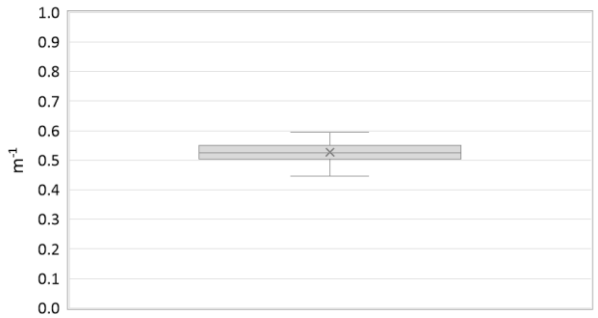
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
BUILDING GEOMETRY	Number of floors	n_f	-	3.30	0.55	3.00	3.00	3.50
	Gross height	H_g	m	11.21	1.80	10.20	10.20	11.90
	Footprint area	$A_{footprint}$	m^2	314.57	114.86	207.55	301.40	361.20
	Heated gross floor area	$A_{H;g}$	m^2	999.98	478.05	656.37	896.40	1100.16
	Heated net floor area	$A_{H;n}$	m^2	852.18	410.37	560.47	765.44	939.43
	Heated gross volume	$V_{H;g}$	m^3	3390.01	1606.69	2231.66	3047.76	3740.54
	Heated net volume	$V_{H;n}$	m^3	2559.01	1228.55	1681.42	2296.31	2818.28
	Compactness ratio	$A_{env}/V_{H;g}$	m^{-1}	0.53	0.04	0.50	0.52	0.55
	WWR – North orientation	WWR_N	-	0.08	0.08	0.00	0.03	0.13
	WWR – South orientation	WWR_S	-	0.09	0.06	0.03	0.11	0.13
	WWR – East orientation	WWR_E	-	0.10	0.07	0.00	0.12	0.16
	WWR – West orientation	WWR_W	-	0.10	0.08	0.00	0.12	0.16
	Window to useful floor area ratio	A_{wi}/A_{use}	-	0.14	0.02	0.12	0.13	0.15
ENVELOPE	Roof type	Reinforced brick-concrete slab: 100%.						
	U-value of the roof	$U_{fl;up}$	W/(m²·K)	2.11	0.24	2.20	2.20	2.20
	External walls type	Masonry with local stones: 87%; Solid brick masonry: 9%; Hollow brick masonry: 4%						
	U-value of the wall	U_{wl}	W/(m²·K)	1.40	0.26	1.42	1.50	1.50
	Slab on ground floor type	Ventilated crawl space: 61%; Reinforced brick-concrete slab: 39%.						
	U-value of the floor	$U_{fl;lw}$	W/(m²·K)	1.47	0.13	1.30	1.58	1.58
	Windows type	Unknown: 100%						
	U-value of the windows	U_W	W/(m²·K)	-	-	-	-	-
	Shading system type	Roller blinds: 52%; Shutter: 48%						
GAINS and VENTILATION	Occupancy density *	O_C	person/m²	UNI EN 16798-1 - Table A.19				
	Lighting power density *	W_L	W/m²	UNI EN 16798-1 - A.8.3				
	Equipment power density *	W_A	W/m²	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: 100%						
	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	Absent: 55%; Unknown: 30%; Air-cooled chiller: 15%.						
	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: 100%.						
	DHW generator	Natural gas boiler: 100%.						

Measured data (13%), Local database (8%), Other (6%), Standards (4%).
* These values were not available in the considered sources, and are thus derived from UNI EN Standards

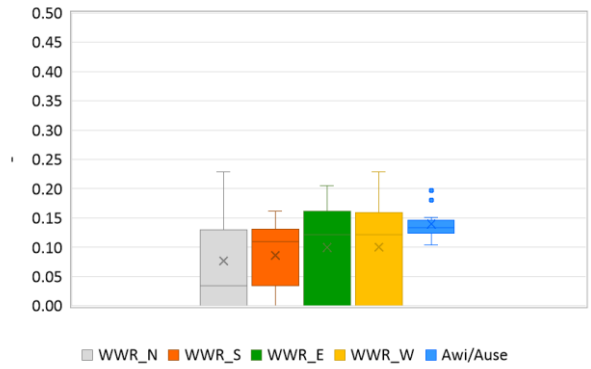
Region:	Tuscany			**Archetype code:**
Building category:	Entire multi-family block			RES_APPBLOCK_ 1941-1950_D_TUS
Period of construction:	1941-1950			
Climatic zone:	D	**Number of records:**	23	

Numerical variables – GEOMETRY

COMPACTNESS RATIO

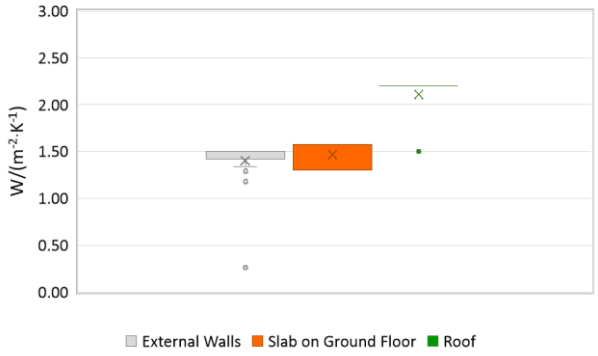


WINDOWS TO WALL RATIO



Numerical variables – ENVELOPE

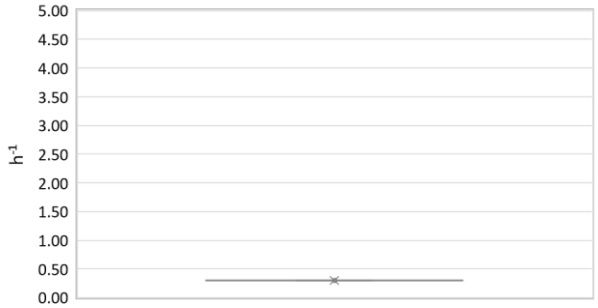
OPAQUE BUIDING COMPONENTS U-VALUE



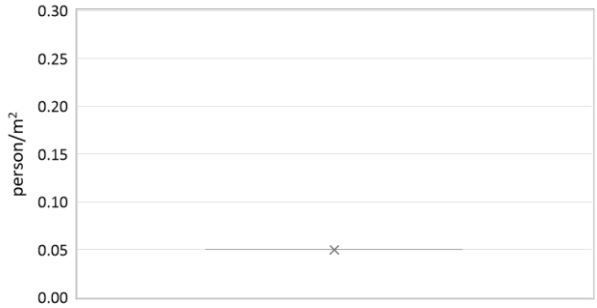
WINDOWS U-VALUE

Numerical variables – GAINS. VENTILATION and SYSTEMS USAGE

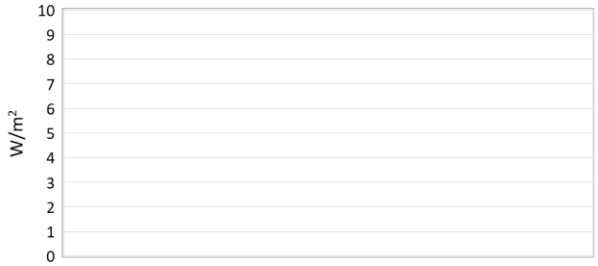
AIR EXCHANGE RATE



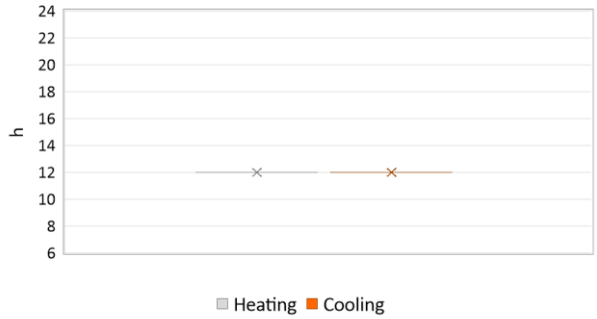
OCCUPANCY DENSITY



INTERNAL GAINS POWER DENSITY



DAILY OPERATING TIME

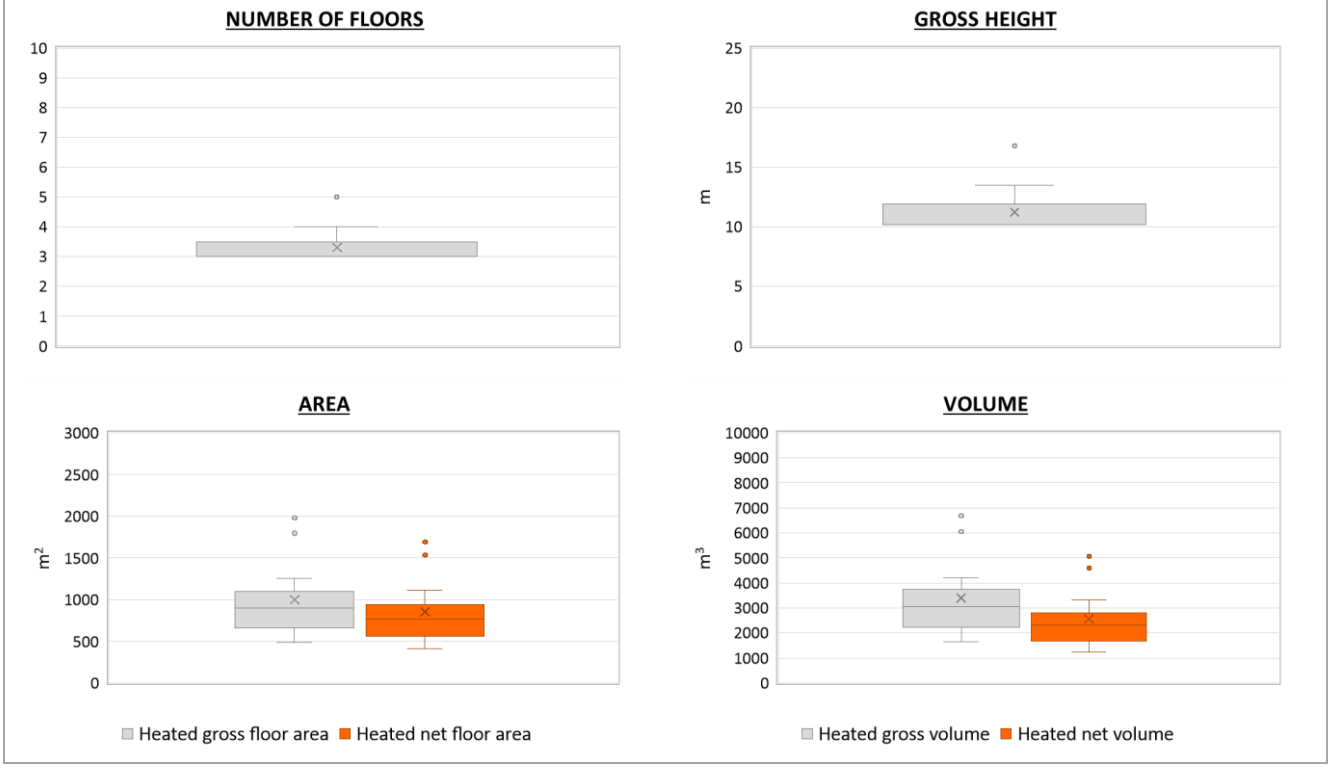


Region:	Tuscany			**Archetype code:**
Building category:	Entire multi-family block			RES_APPBLOCK_ 1941-1950_D_TUS
Period of construction:	1941-1950			
Climatic zone:	D	**Number of records:**	23	

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 *COP*	$\eta_{H;gen}$ or $COP_{H;gen}$	-	This value has to be retrieved from suitable datasheets				
	Total heating power *	$P_{H;gen}$	kW	-	-	-	-	-
	Cooling efficiency or *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	-	-	-	-	-
	* These values refer to the apartment scale							

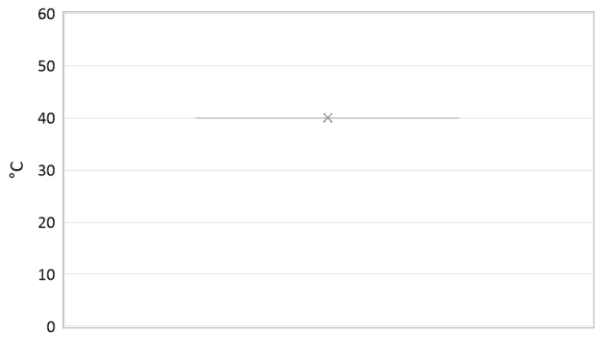
Additional data: GEOMETRY (the plots refer to the building scale)



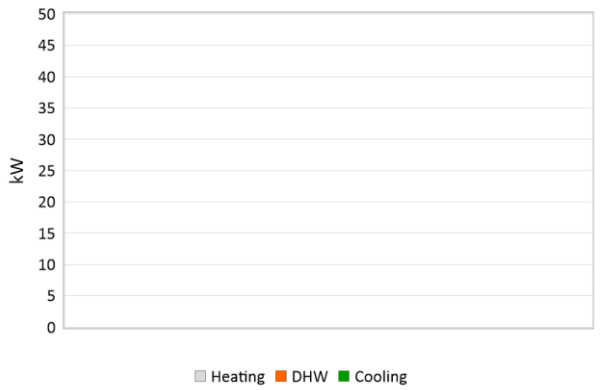
Region:	Tuscany			**Archetype code:**
Building category:	Entire multi-family block			RES_APPBLOCK_ 1941-1950_D_TUS
Period of construction:	1941-1950			
Climatic zone:	D	**Number of records:**	23	

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

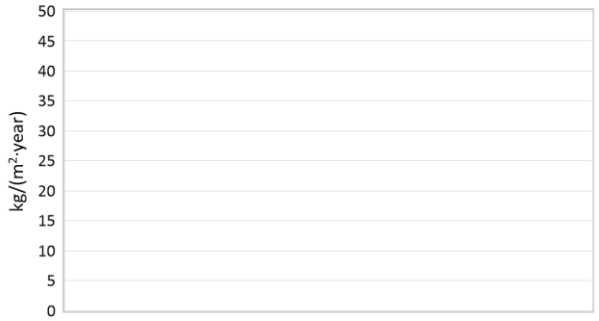
DHW SUPPLY TEMPERATURE



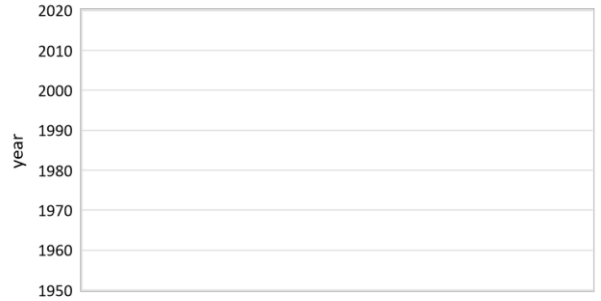
SYSTEM POWER



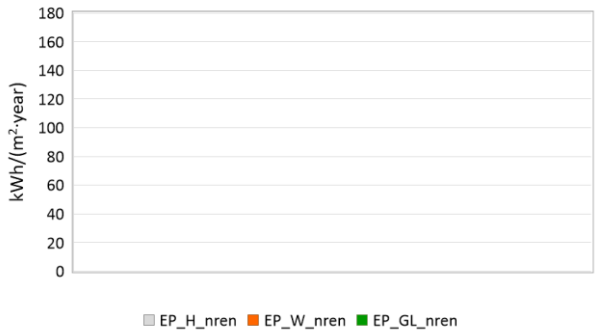
CO_2 EMISSION



HEATING SYSTEM INSTALLATION YEAR



NON-RENWABLE PRIMARY ENERGY USE



RENWABLE PRIMARY ENERGY USE