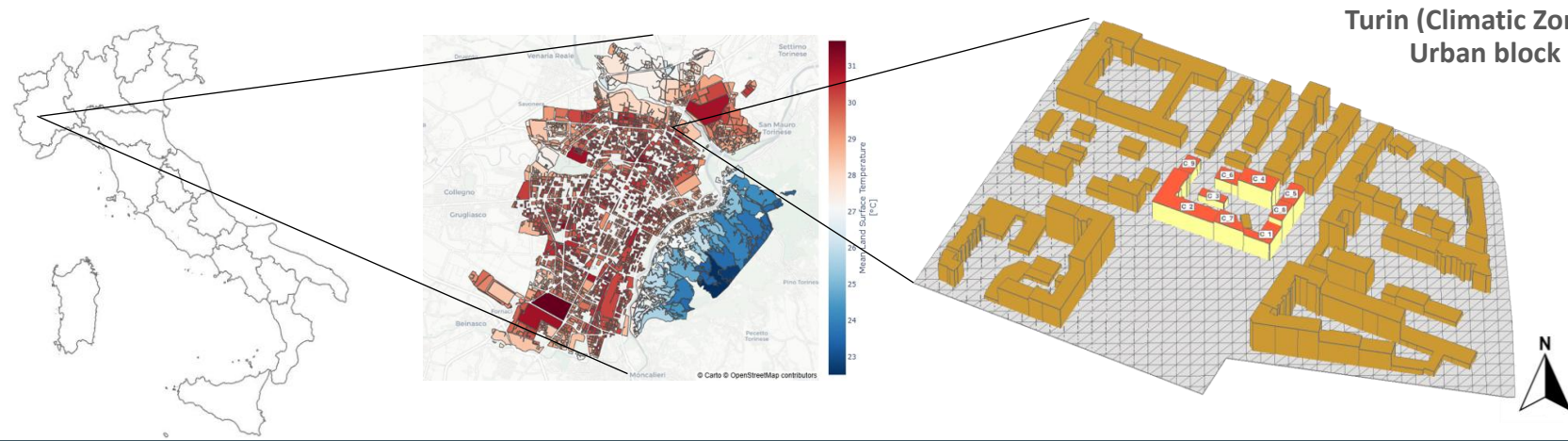


URBAN DATA



Turin (Climatic Zone E)  
Urban block C

Main Urban Metrics for Block C		
		Unit
No. of assessed buildings in the block	9	-
Surface Coverage	0.323	-
Average Building Height	17.4	m
Compactness Ratio median	0.316	m <sup>-1</sup>
Green Ratio	0.070	-



BUILDING DATA

Building data for Urban block C

Bldg. code	Constr. period	A <sub>n</sub> [m <sup>2</sup> ]	A <sub>env</sub> [m <sup>2</sup> ]	V [m <sup>3</sup> ]	WWR [-]	A <sub>env</sub> ·V <sup>-1</sup> [m <sup>-1</sup> ]	U <sub>op</sub> <sup>*</sup> [W·m <sup>-2</sup> ·K <sup>-1</sup> ]	U <sub>wi</sub> <sup>*</sup> [W·m <sup>-2</sup> ·K <sup>-1</sup> ]
C_1	1901-20	1440	1819	5328	16 %	0.341	1.45	3.10
C_2		5310	4854	17081				
C_3		278	682	1027				
C_4	1946-60	2103	2197	7149	13 %	0.307	1.30	3.12
C_5		1373	1584	5013				
C_6		678	1043	2645				
C_7		1355	1521	4854				
C_8		1312	1327	4593				
C_9	1961-75	681	1063	2589	10 %	0.411	1.25	3.16

\*Values were derived from URBEM database (<https://www.urbem.polimi.it/databasedifici/>)

APPLIED STRATEGIES

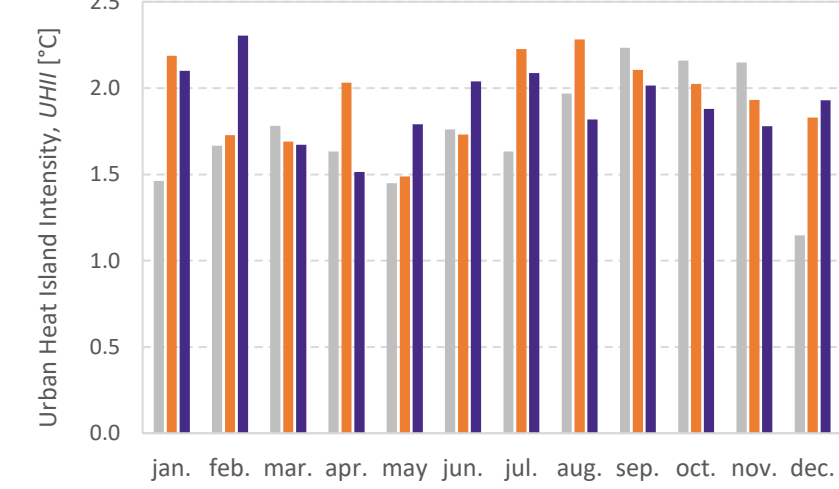
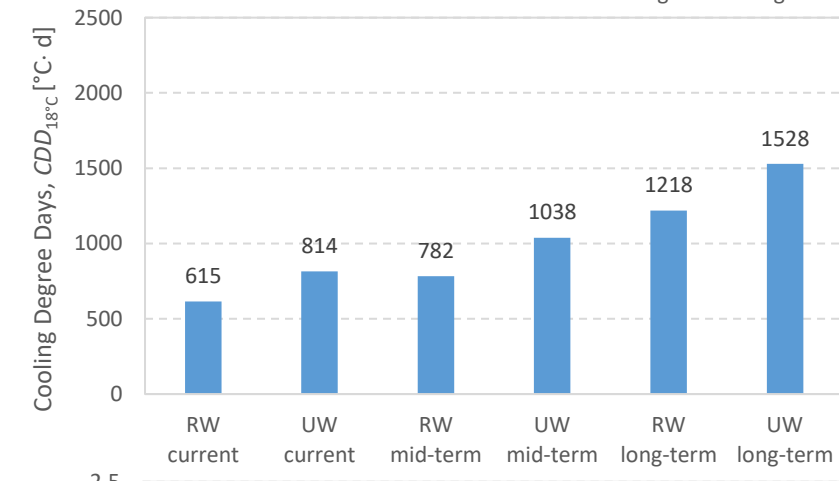
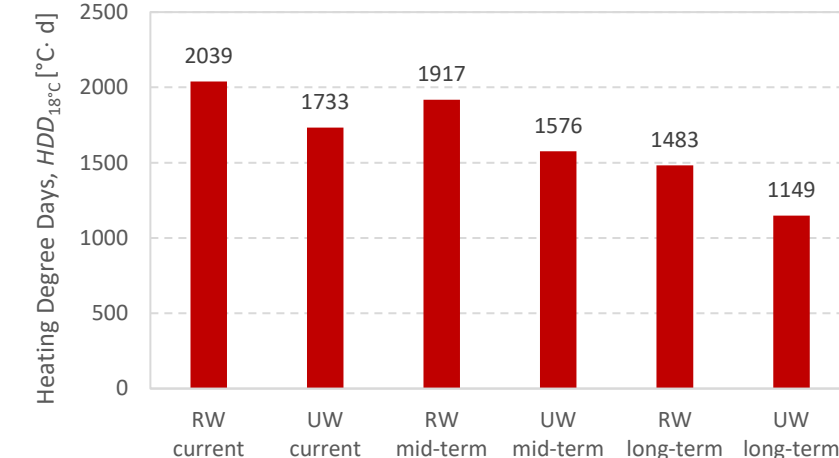
Climate Resilient Strategies (CRS)	Urban scale			Building scale		
	Code	Description	Parameter	Code	Description	Parameter
CRS	CRS1	Street tree cover	Coverage percentage = 20 %	CRS3	Cool roofs	Shortwave Reflectance = 0.75
	CRS2	Reflective pavements	Shortwave Reflectance = 0.70	CRS4	Cool façades	Shortwave Reflectance = 0.75
				CRS5	Glazing technologies	Glazing U-value = 1.40 W·m <sup>-2</sup> ·K <sup>-1</sup> Glazing g-value = 0.35
			CRS6	Natural ventilation	A 50 % window opening fraction, enabled when: $\theta_{a,ij} > \theta_{t,sett} + 1$ and $\theta_{a,ij} > \theta_{a,ext} + 1$ .	
			CRS7	Thermal insulation	$U_{wi} = 0.26 \text{ W}\cdot\text{m}^{-2}\cdot\text{K}^{-1}$ $U_{fl,up} = 0.22 \text{ W}\cdot\text{m}^{-2}\cdot\text{K}^{-1}$ $U_{fl,dw} = 0.26 \text{ W}\cdot\text{m}^{-2}\cdot\text{K}^{-1}$	

Scenario	Scale	Coverage	Time horizon
Sc.1	Urban	+20% green areas (CRS1) → 100% of ground surfaces (CRS2)	Current + Mid + Long
Sc.2	Urban + Building	CRS3–CRS7 applied to 43% worst-performing buildings (EPBD)	Current + Mid
Sc.3	Urban + Building	CRS3–CRS7 applied to 100% of buildings	Mid + Long

CLIMATIC DATA

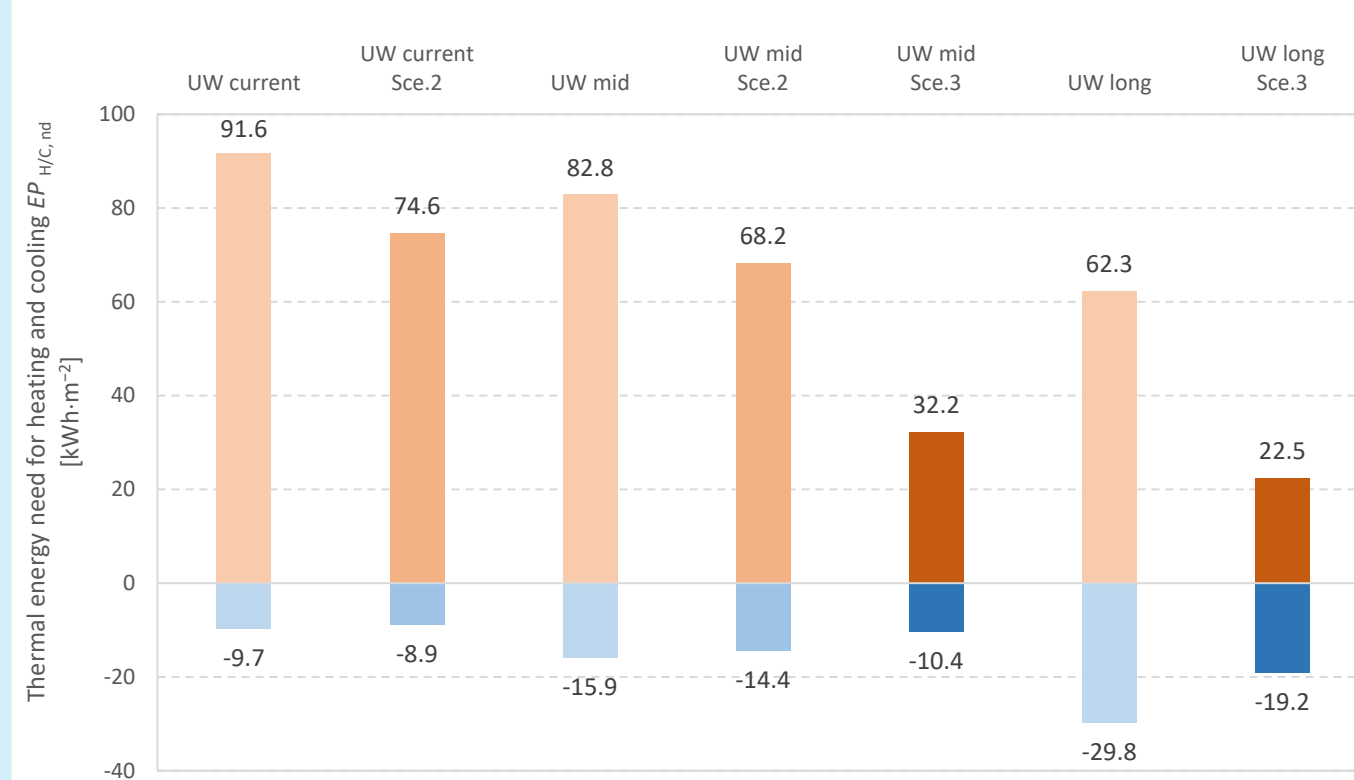
Turin - Urban block C



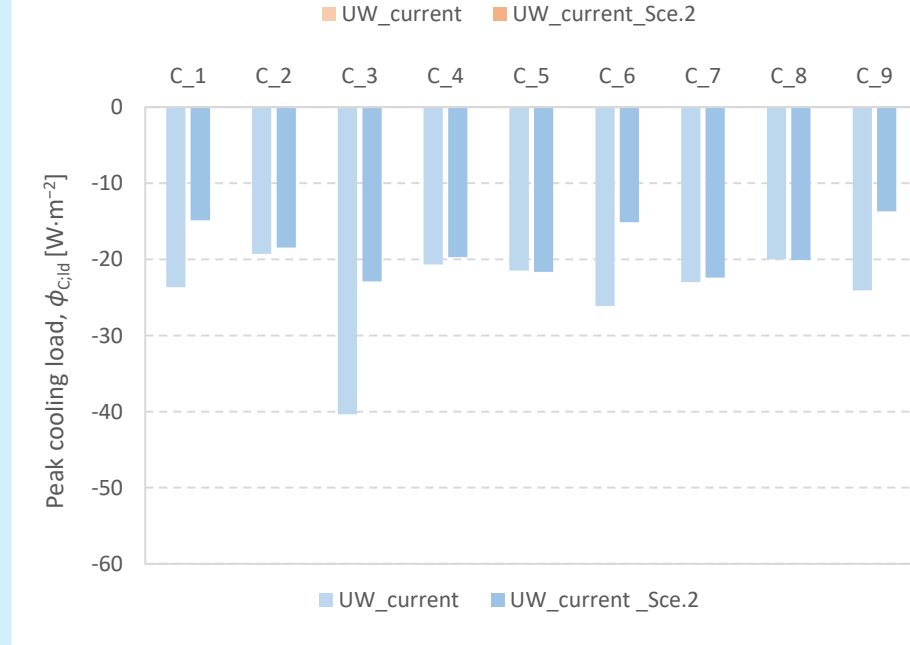
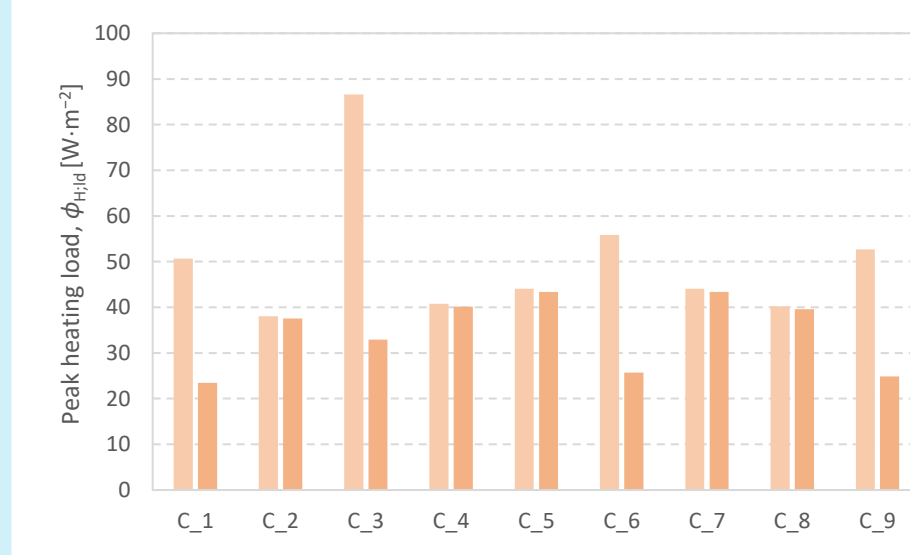
Legend:  
 - RW: Rural Weather data  
 - UW: Urban Weather data  
 - Current: 2001-2020  
 - Mid-term: 2041-2060  
 - Long-term: 2081-2100

KPIs

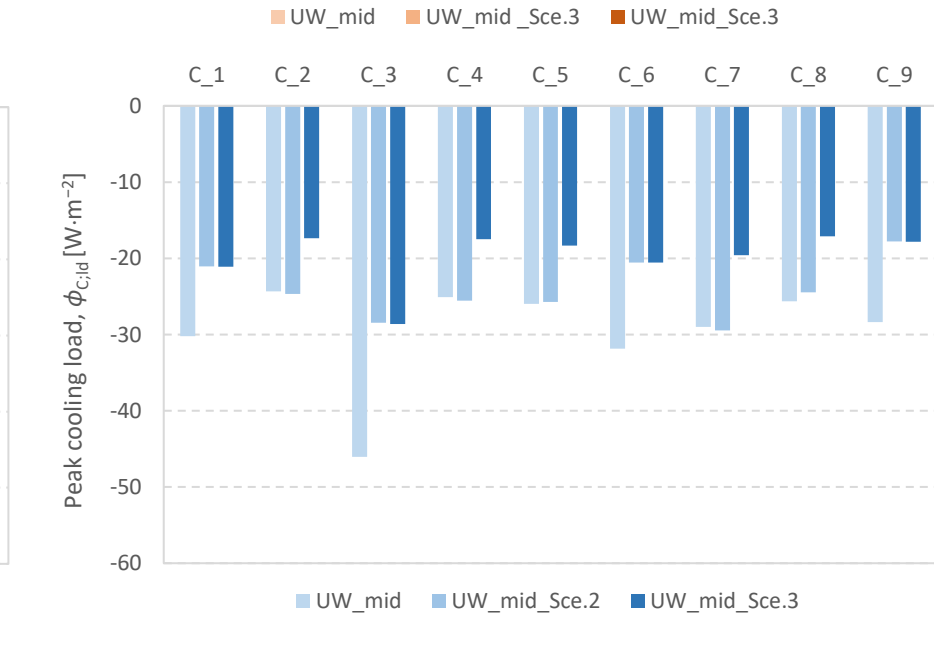
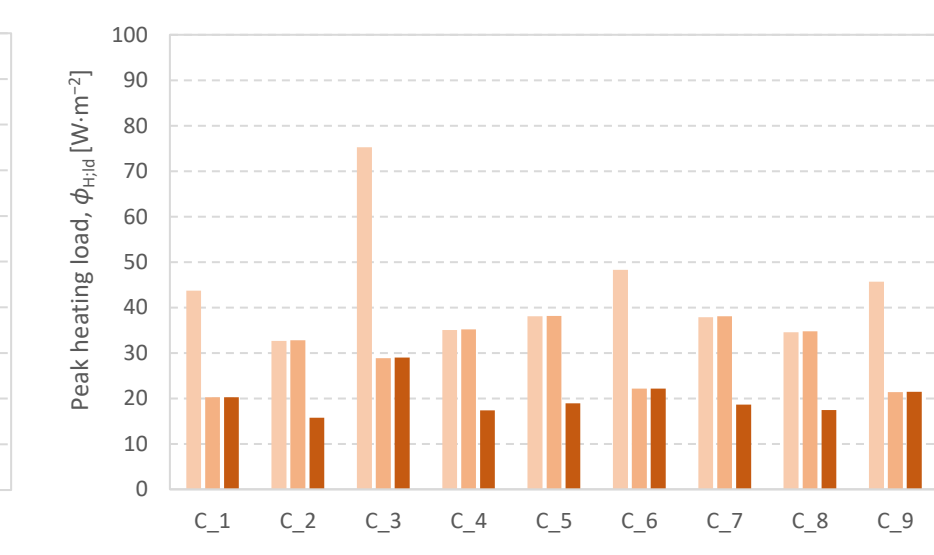
Turin - Urban block C



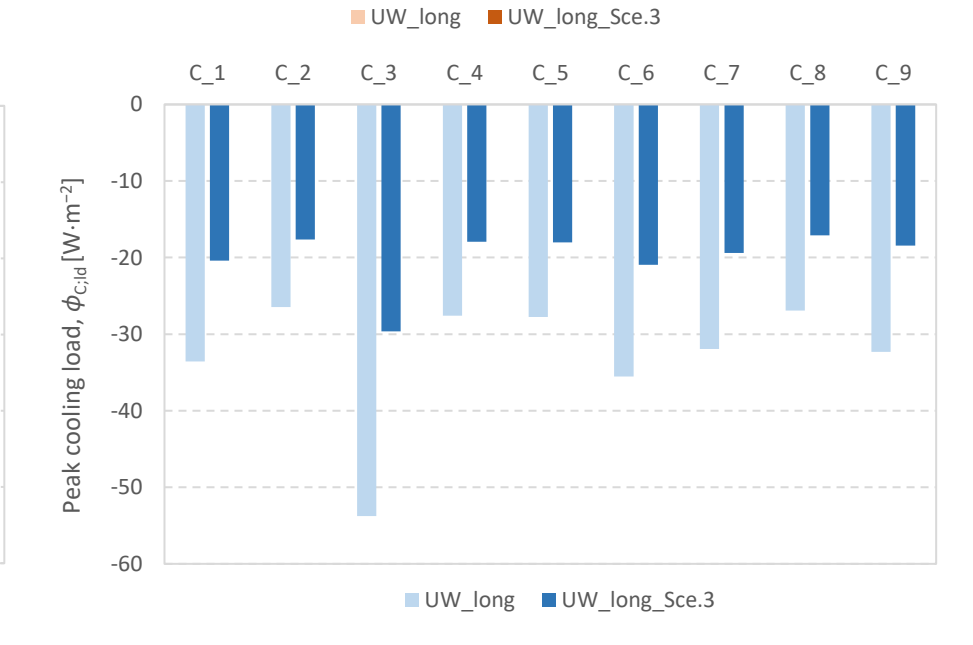
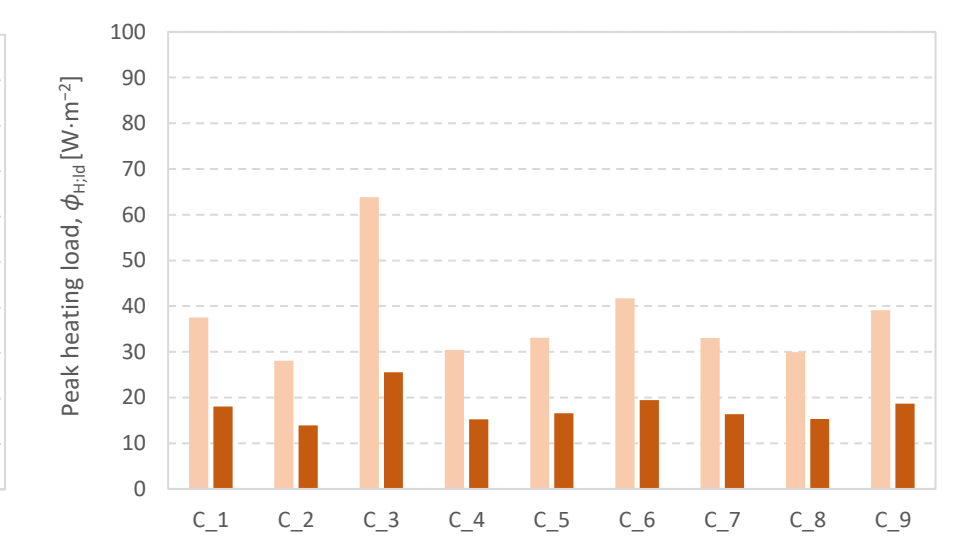
Turin - Urban block C – Current



Turin - Urban block C – Mid-term



Turin - Urban block C – Long-term



Turin - Urban block C

