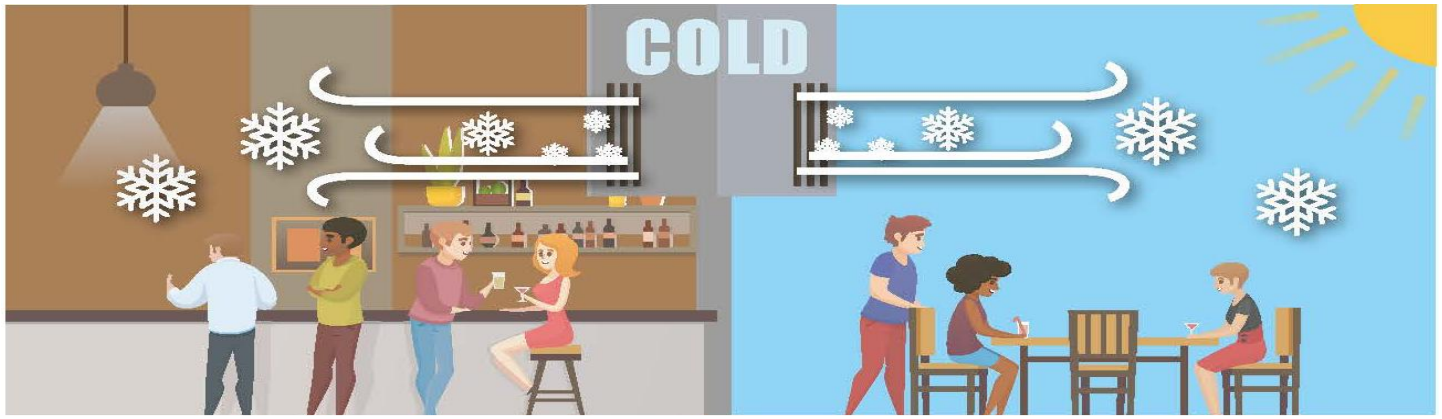
Cooling Energy Demand

SOCLIMPACT

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 776661.

Climate change may impose welfare reductions to the European islands' societies by affecting thermal comfort. Cooling Degree Days (**CDD**) are a measure of how much (in degrees), and for how long (in days), outdoor air temperature is higher than 18°C or 65° Farenheit. The CDD is used as a measure of the energy needed to cool buildings. The increase in CDD and the energy demand (**GWh/year**) for cooling are estimated for the islands, under different scenarios of global climate change.



Low emissions scenario RCP2.6

Ref (1986-2005)	*(2046-2065)*	*(2081-2100)*
92.43 **CDD**	159.85 **CDD**	149.72 **CDD**
34.57 **GWh/year**	77.08 **GWh/year**	68.34 **GWh/year**
		↑ 98%

High emissions scenario RCP8.5

Ref (1986-2005)	*(2046-2065)*	*(2081-2100)*
92.43 **CDD**	238.74 **CDD**	457.56 **CDD**
34.57 **GWh/year**	131.49 **GWh/year**	295.01 **GWh/year**
		↑ 753%