# Climatology of UV radiation over Europe:

# Needs and approach

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# Needs ?

- Solar UV radiation causes different health risks (e.g. melanoma)
- Solar UV radiation is highly variable in Europe ( North Cape - Malta)
- Europeans like to travel, holiday in solar regions
- UV diseases may have long incubation time (decades)

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Long term changes and climatology of UV radiation over Europe

as basis for UV effects on humans

## Needs ?

- **Climatic change (ozone, cloudiness, …) during the last decades**

**>>>**

**Long term changes and climatology of UV radiation over Europe**

**as scientific result for climate research**

- **Solar UV effects on plants, animals, humans (e.g. Vitamin D)**

**>>>**

**Long term changes and climatology of UV radiation over Europe**

**as basic for analysis of a wide range of UV effects**

## Approach !

**UV irradiances for times and places with no UV measurements**

**>>> Modelling UV radiation**

**UV radiation models are available with high quality, but need**

**>>> Atmospheric parameters as input data**

**Ozone, cloudiness, aerosol, albedo for 50 years back,**

**with high spatial resolution**

**spectral UV radiation from models useful for different UV effects**

**>>> Collection of biological weighting spectra**

**Model results must be verified by measurements**

**>>> Quality check for UV instruments**

**European questions,**

**using European knowledge,**

**using data spread out over Europe**

**>>> COST Action 726:**

**Long term changes and climatology of**

**UV radiation over Europe**

**WG 1 - Data collection**

**WG 2 - UV modelling**

**WG 3 - Requirements for biological UV effects**

**WG 4 - Quality control**

## >>> COST 726 Final Seminar

Presentations by COST 726 members and external experts