

The safe exposure to sun

HAPPY SUN

- Calculates the intensity of local solar ultraviolet (UV) radiation
- Determines the skin sensitivity to UV radiation
- Calculates the sun exposure time at the required place
- Works in real time
- Works on the Internet or on the mobile phone via SMS

It also offers:

- Useful information on the risks and benefits of sun exposure
- The UV map of the territory
- The daily UV radiation graph of the selected locality



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European Space Agency



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The satellite based service for solar photoprotection of tourists

Il servizio satellitare di fotoprotezione solare per il turismo



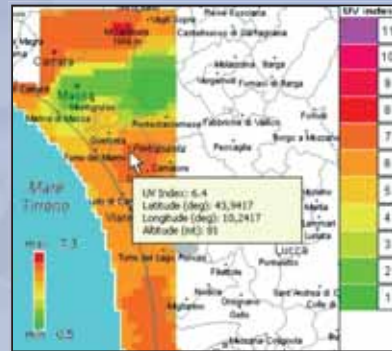
www.happysun.it

What is it

Flyby s.r.l. is a company specialized in information technology services in the fields of environment and health. Flyby provides an innovative service that helps the tourists in preventing solar erythema due to an excessive exposure to solar UV radiation. The service called **HappySun**, suggests the safest exposure time and the protective factor of the sunscreen to adopt. The information is provided to the final user on the Internet and via SMS on the mobile phone.

After three years of experimentation, **HappySun** has been officially released in Summer 2005 along some selected Italian beaches in Tuscany, Sicily and Friuli Venezia Giulia.

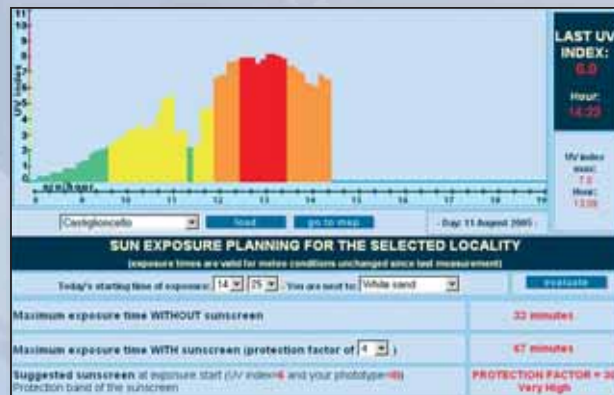
The **HappySun** service has been clinically tested in field experimental campaigns, in collaboration with Italian national research institutes, like the Dermatology Clinic of Federico II University of Naples and the Biophysics Institute of the National Research Council.



How it works

HappySun calculates the UV Index (a parameter assessing the intensity of solar UV radiation) exploiting data coming from some satellites of the European Space Agency (ESA). **HappySun** also determines the user phototype and his/her skin sensitivity to UV by means of a friendly on-line questionnaire. Once the user has specified the place and time of the planned exposure and the SPF (the sunscreen protective factor, in case he/she wants to adopt it), **HappySun** calculates the personal safe exposure time and also suggests the SPF that is more adequate for that skin.

UV Index, exposure time and protective factor are provided in real time on the Internet, with also UV graphs and UV maps, or via SMS on the user mobile phone. The most important international standards in the field of UV protection are applied: UV Index according to World Meteorological Organization (WMO), sunscreen Sun Protection Factor (SPF) according to COLIPA, etc..



The user feedback



The user feedback to the new **HappySun** service was very positive in all touristic areas where the service was active in Summer 2005.

The customized websites of the institutions that were offering the service received thousands of accesses, thus showing the high interest of the tourists in the damages that may derive from an incorrect exposure to sun. Not only sunburns may be easily avoided by following **HappySun** indications, but also a safe tanning may develop according to each own skin capability.

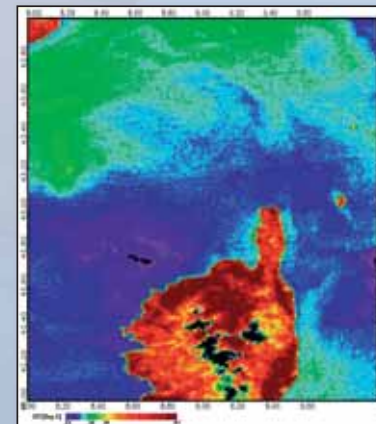
Very appreciated was the service via SMS that allowed the tourists to get the same Internet info on their handy phones, directly in the place where they were planning to enjoy the healthy effects of the sun exposure, in total relax.

Additional service portfolio for tourism

A service portfolio for tourism is available on the web and on the handy phone and is continuously enriched thanks to the exploitation of Earth Observation satellites.

The portfolio currently answers to the sea tourism needs related to:

- sea water sports (diving, snorkeling, sailing, surfing, waterskiing)
- open door solar radiation photoprotection
- open-door thalassotherapy / phototherapy
- coastal exploration
- fishing



Examples of services deliverable by both web interface and mobile phone interface (SMS or MMS) are:

- sea surface water temperature
- coastal land temperature (e.g. sand temperature)
- coastal water transparency

The information can be made available in a geographical information system (GIS) having a friendly and intuitive interface or may include data of interest for the customer or may be integrated into existing customer services already active on the web or on the mobile phone (SMS, MMS). Typical customers are: touristic villages, touristic shoreline structures, touristic consortia, touristic agencies, Hotels and Resorts, etc.