

Lify air

Change the lives of pollen allergy sufferers

H2020 SOCIETAL CHALLENGES: Health, demographic change and wellbeing

PRODUCTIVE SECTOR: : Biomedicine and Health Care

PROBLEM DESCRIPTION

30% of the French population is concerned by pollen allergy, against only 3% in 1970, and the allergic population will pass the 50% mark in 2050. Taking treatment in advance significantly reduces allergic reactions. It is therefore crucial to provide pollen risk forecasts as early as possible

CHALLENGES AND GOALS

- Pollenic risk forecasting.
- Multi-sources data fusion

MATHEMATICAL AND COMPUTATIONAL METHODS

Lify Air designs and deploys optical sensors to measure the concentration of pollen in the air. The objective is to provide forecasts for allergy sufferers. Lify Air, Irisa and IRMAR collaboration has led to the development of statistical models for multivariate time series to combine meteorological information and optic signals for forecasting the pollen risks of about 20 species.



The lify Air interface for pollen allergy prevention for more than 20 different pollens in France and Belgium

Results and Benefits

Statistical models have been developed to combine historical pollen data, meteorology information and low level optic signals from the Lify Air sensors. Thanks to the models, Lify Air currently provide real time risk and will soon provide forecasted risk, 3 days in advance, for about 20 pollens. Risk indices are delivered via a personalized interface.



Space time statistical models for real time pollen risk forecast.

Specific pollen risk forecast at your location allows the reduction of allergic symptoms and side costs.



IRMAR & Irisa



Lify Air, Orléans, France