

Can the photonics detect and prevent the pollution?

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Introduction:

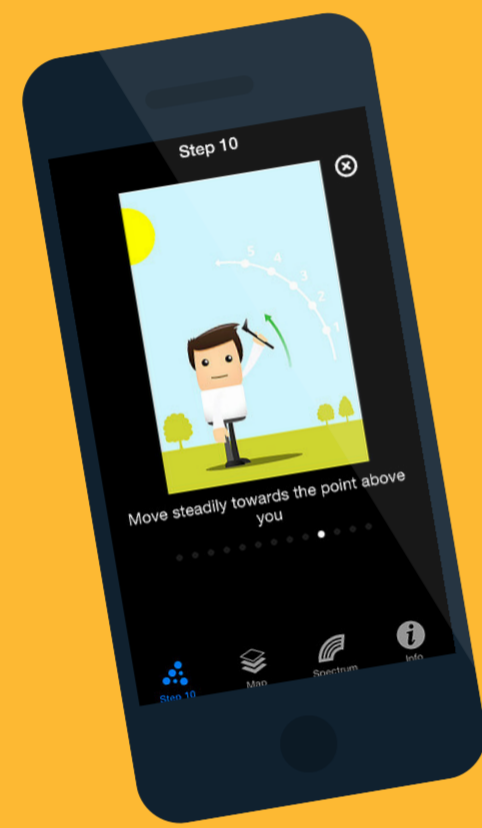
The air we breathe has a its own chemical composition. If it changes, we're talking about pollution. Our question is: Can we detect and prevent the pollution using photonics? We have designed different experiments and we have used iSPEX (spectrometer gaged for iPhones). We have done a pollution map using iSPEX, and we have related the air chemical composition with the plant growth. Finally, we have created an hipotesys. Why don't we use the gamma rays to change pollution particles?



Methods:

iSPEX

1. We had divided Olot in different zones.
2. Using iSPEX we have analyzed the air.
3. Using a mapping programme, we have created the map.



Plants growth:

1. We had captured Barcelona, Olot and Camprodon air in an hermetic pan.
2. Using sensors, we had measured temperature, UV rays and the plants growth.
3. We had compared the results.

Barcelona Camprodon Olot



Idea, how to prevent it?

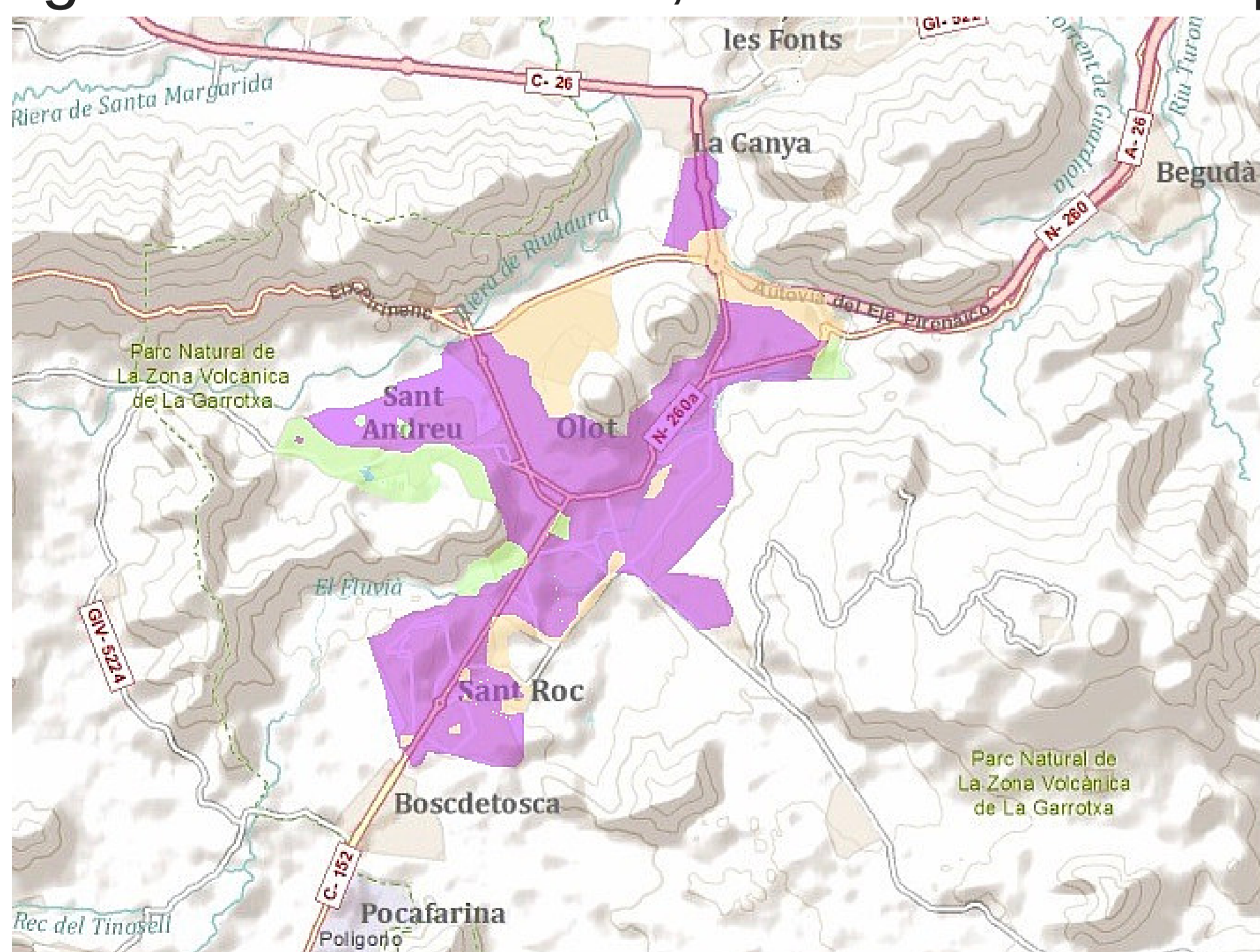
We have designed a network. Different power stations would lock on gamma rays. Gamma rays would be distribute (using optic fiber). Then, a machine situate in a chimney will change the particles (using gamma rays). This particles will change ther chemical composition thanks to the sun energy. *This is only a propose, it have different problems.

For know more:



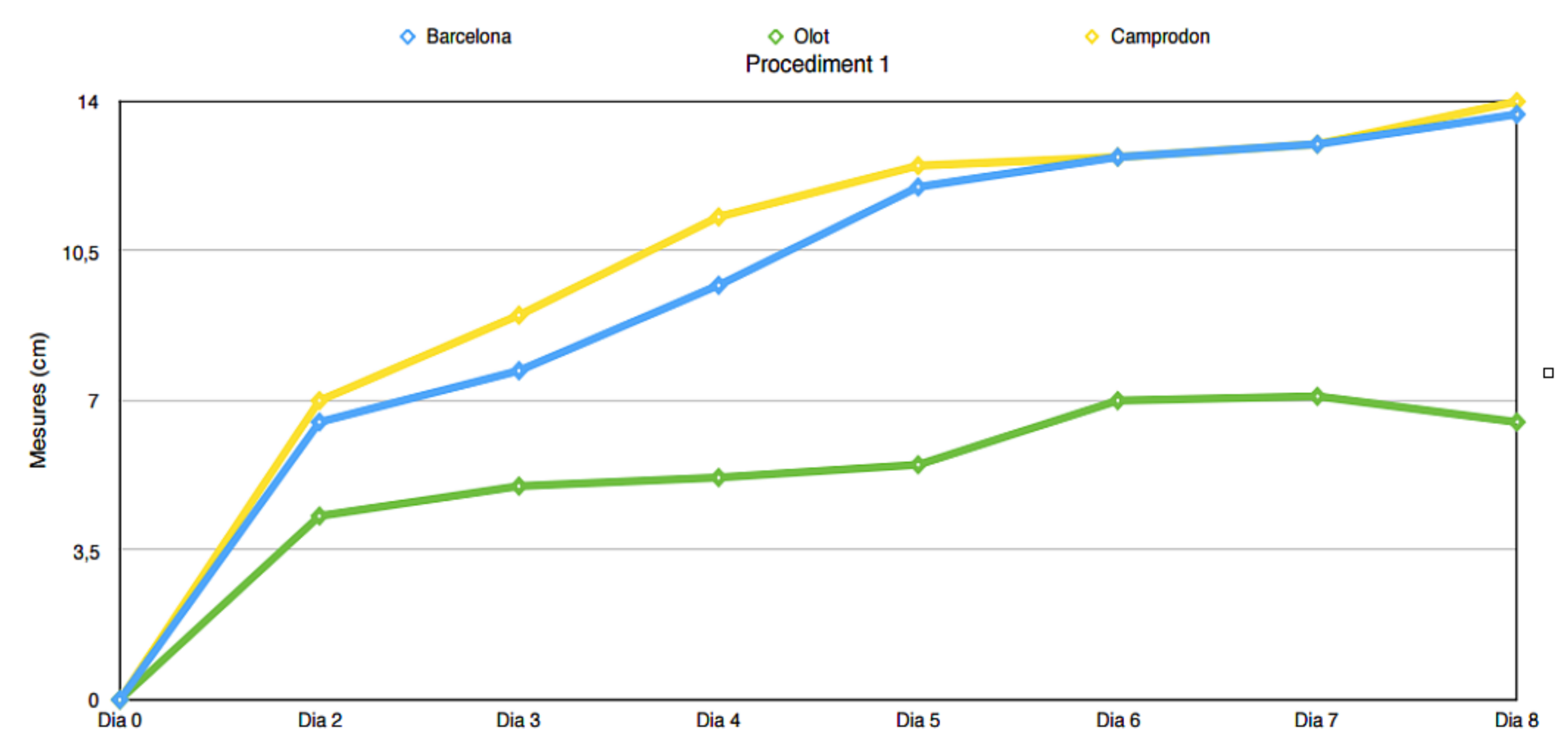
Results and experiments:

The particles changes the polarization and the directon of the light. Because of that, we can know the pollution.



We had done an Olot suspend particles map.

The chemical composition of the air changes the plant's growth. Different chemical compounds of the air makes the growth faster or slower.



Conclusions: Photonics would be useful to detect and prevent the pollution. Thanks to the polarization and direction of the light, nowadays we can detect pollution. Because of the photosynthesis, we can detect the pollution effects in plants. A captation and distributor system, with a particles accelerator and the sun energy, we could prevent it, changing pollutan particles to oxygen.