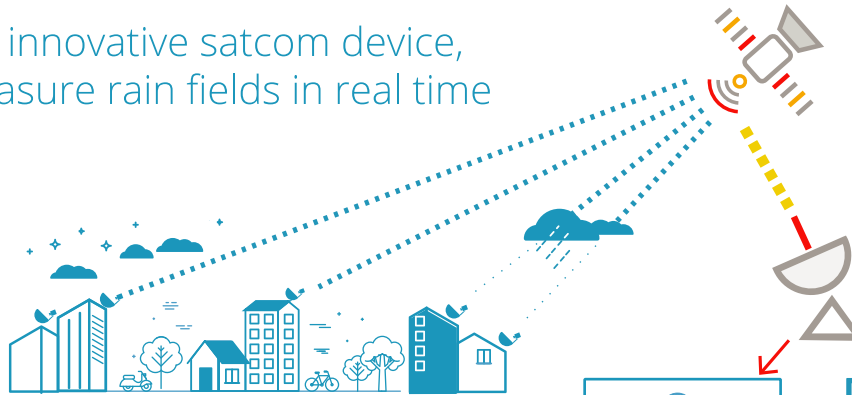


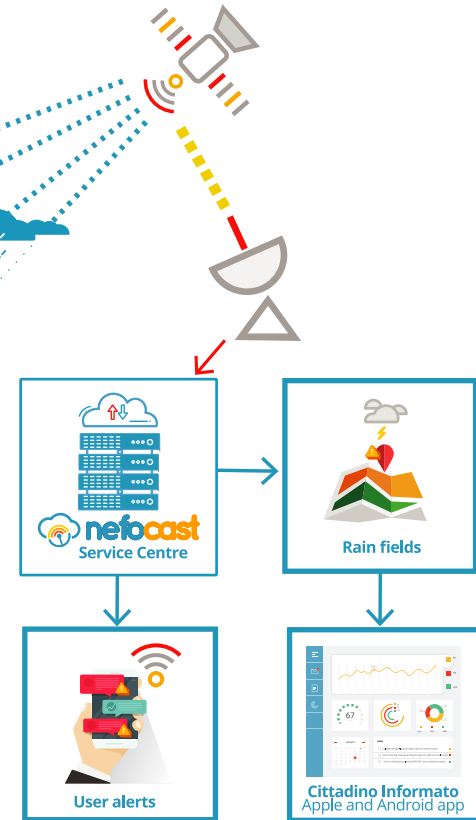
INNOVATIVE TECHNOLOGIES FOR RAINFALL MEASUREMENT

Nefocast uses an innovative satcom device, SmartLNB, to measure rain fields in real time



Objectives

- Define a prediction algorithm, which transforms the signal power attenuation obtained by the SmartLNB into a calculation of rain intensity
- Develop a data center which forecasts rain fields based on the attenuation maps obtained by a population of SmartLNBs
- Run an experimental campaign using a set of SmartLNBs placed within the experimentation area
- Verify experimental results and refine the inversion algorithm
- Integrate the technological platform with public use applications in order to real-time notification of adverse weather conditions.

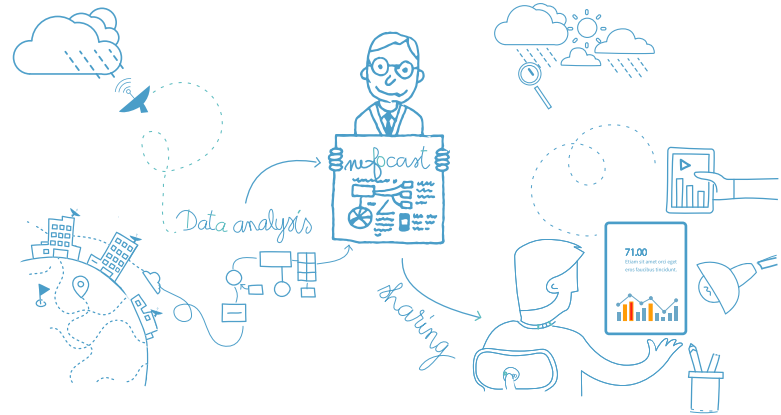




Experimental campaign

During the project, a measurement campaign will validate the model and the algorithms implemented. Some schools in the Tuscany Region will take part by hosting the SmartLNBS on their roofs.

Each school will contribute to the collection of precious data. Students will access data using the public use application on their smartphones. They will also have the opportunity to have discussions with the project researchers and take part in seminars on meteorology and satellite communication



Strengths:

- Accuracy, frequency and detail of the information collected
- Availability of all the information in one single platform
- Easily expandable and low cost measurement network
- Possibility to have a high number of professional users of the same platform

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