

EGU2020-4587

<https://doi.org/10.5194/egusphere-egu2020-4587>

EGU General Assembly 2020

© Author(s) 2021. This work is distributed under the Creative Commons Attribution 4.0 License.



Create weather ecosystems to make weather and climate services more efficient in developing countries

pascal Venzac, christine David, and morgane Lovat

WeatherForce, France (morgane.lovat@weatherforce.org)

Create weather ecosystems to make weather and climate services more efficient in developing countries

Pascal Venzac, Christine David, Morgane Lovat

WeatherForce – France

Over the last decade, extreme events are more and more frequent and/or intensive. 85% of the world's population is affected by these events. But, 75% of the most vulnerable countries has no or little reliable, accurate and effective weather information. Effective forecasts and early warnings could however make the difference between life and death in those countries. Weather data are crucial for local populations and governments who can exploit it to optimize their economic development and prevent major social and health crises.

By international agreement, National Meteorology and Hydrology Services (NMHS) are the government's authoritative source of weather, climate and water information. But, some NMHS in developing countries have difficulties to deploy and maintain operational infrastructure like rain gauge recorder for example. In addition, rain gauges provide only local information, measuring rainfall level in the specific geographic location.

WeatherForce was created in August 2016, by two experts from Météo-France Group (French National Meteorological Service) to help meet the challenges of national weather services in developing countries.

WeatherForce works in close partnerships with NMHS to strengthen their fundamental role and implement weather ecosystems for local development with a sustainable business model.

The WeatherForce platform, first weather collaborative platform is designed to help:

- **public institutions** that need accurate weather data or predictive indicators to help them make informed decisions to protect local populations and infrastructures.
- **universities or research institutes** that need a platform to easily access data to code, modify and share their algorithms.
- **startups incubators** that look for reliable data to create innovative applications to help local

populations cope with climate change

- **private companies** that need custom weather services to improve their performance.

Our platform aggregates global data (satellite images, global forecasts, etc.) transposed into a local geographic context (IoT sensors, local stations, field expertise). It is opened to local research and innovation ecosystems to offer them access to its qualified data and develop new weather indicators contributing to the creation of a meteorological common.

WeatherForce aims to increase local sustainability by making weather data available to all through a weather ecosystem.

Regarding the business model, it is based on revenue sharing, the NMHS receives a commission payment in relation to the revenue generated. WeatherForce sells services to private companies (agribusiness...) and shares the part dedicated with NMHS. The contribution from NMHS is based on the local expertise and data. We do not ask the NMHS to pay a subscription fee for the platform.

To summarize, we create through Public Partner Engagement (PPE) weather ecosystems that promote dialogue between private actors and public authorities; collaboration for better policies, new business opportunities and sustainable business model.

The WeatherForce solution connects local actors to each other but also to the rest of the world thanks to our open-source platform designed to allow collaborations between other weather ecosystems worldwide.