The EWED project

Extreme Wildfire Events Data hub for improved decision-making

EWED aims to generate new knowledge and understanding on extreme fire behaviour, and to enhance the capacity to manage extreme events. It's a joint work between fire services and academia taking place in the following four stages.

About wildfires with extreme behaviour

Propagate fast, burn intensely and have a complex behaviour, making them extremely difficult to control.

Are due to great and complex interactions between the fire and the atmosphere.

A lot to understand about them yet.

Their frequency is increasing globally.

❶ Data collection

Fire services collect data during wildfires and prescribed fires with high intensity across the world, to analyse the interaction between fire and the atmosphere during pyroconvection phenomena. This involves measurements of fire behaviour and the vertical atmospheric profile through radiosondes.

Radiosonde

Data receiver

Fire analyst

Decision-maker

Interdisciplinary work between meteorologists, physicists, computer scientists and firefighters

❷ Data processing and analysis

Scientists and practitioners analyse the data to study the fire-atmosphere interaction and develop new computer models and simulations to predict extreme fire behaviour.

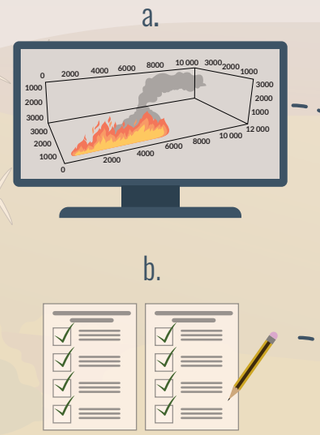
❸ Project results

a. Wildfire Data Portal

Novel open-access tool to access the data collected and the models and simulations generated. Users can download the resources and upload new fire cases.

b. Guidelines and training

On how the knowledge generated by EWED can be used by fire practitioners around Europe, to improve the preparation and response to extreme fire behaviour.



❹ Aid for decision-making

During wildfires, improvement of the safety and effectiveness (preparedness) of the response. Key in the case of EWEs, as it allows to predict their behaviour.

EWED

Partners:

PAU COSTA FOUNDATION · bombers · WAGENINGEN UNIVERSITY & RESEARCH · NIPV Nederlands Instituut Publieke Veiligheid · GRENLAND BRANN OG REDNING IKS *På jobb for et tryggere nærmiljø*

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EWED website: