

## Offshore renewable energy collaboration platform

- An on-going Swiss-funded project, *The Swiss Wind Energy Machine Learning Platform*, involves developing a new concept for a data platform, where:
  - Data-owners submit measurement data and simulation results, receiving in return access to algorithms, models and tools.
  - Research partners and companies develop algorithms, tools and models on the platform, receiving in return access to the data.
  - The data and algorithms are defined as private, selected access or open access, and federated analytics are applied to private data.
  - Continuous improvement of a technology can be implemented by inputting the results back into the database iteratively.
- Based on the concept of the Swiss Wind Energy Machine Learning Platform, we propose to contribute to this call by:
  - Developing a collaboration platform where data from various research partners and companies can be gathered, shared and fully exploited by algorithms and simulations developed by the consortium.
  - Keeping confidential data from companies private and still usable by all research partners via federated analytics.
  - Coupling the database with financial and logistics models to achieve LCOE reduction of the demonstration platform.
  - Using the results of the combined measurements, simulations and algorithms for continuous technology improvement.
  - Gathering data from various fields of research (oceanic , weather, structural, seakeeping, hydrodynamic, aerodynamic, grid, ...) to develop broad and global models.
  - Facilitating collaborations with other international projects, including the IEA Wind Tasks.
  - Bringing in other Swiss consortium members via The Swiss Wind Energy R&D Network, if desired.

