



Enhancing Environmental HPC Applications: The EnCompAS approach

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Many HPC applications in geoscience are of very high scientific quality and highly optimized for supercomputers. However, some of these codes lack the uptake by other adjacent scientific communities or industry due to deficiencies in usability, quality, and availability. Since enhancing software by, e.g., adding a graphical user interface, respecting data standards, setting up a support structure, or writing an extensive documentation is not of direct and immediate scientific relevance, most developers are not willing to invest any additional effort in these issues. Furthermore, if scientists, who are not directly involved in the development of some scientific software, could make benefit from additional features or interfaces, respective requests are often turned down due to the lack of time and resources. On the other hand, such enhancements are crucial for the sustainability of the scientific assets as well as the widespread or even worldwide distribution of European environmental software.

Closely collaborating with environmental scientists the national supercomputing and eScience centres in Helsinki, Amsterdam, and Munich have identified that an enhancement of HPC and data analysis software must be provided as a service to the scientists developing such software. Therefore, first steps have been taken to establish respective services at these centres. In this talk we will present the already existing and envisioned service portfolio, some first success stories, and the approach to harmonize the current status aiming to turn this local effort into a pan-European service offering for environmental science.