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From KIT to EU level: KITTEN and RF2.0 for sustainable operations at large research infrastructures

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Recently, the societal challenges in a view to transition into a carbon-neutral economy, and to minimize the burden on our environment especially in terms of material and energy usage from large research infrastructures as accelerator facilities have enormously increased.

This work presents an overview of the KITTEN (KIT Test center for Energy efficiency and Network stability at large research infrastructures) efforts on implementing and operating research facilities sustainably. At KITTEN, scientists from the KARA accelerator and the Energy Lab (one of Europe's largest infrastructures for renewable energies) collaborate to investigate energy efficient operations.

The Horizon Europe Research Facility 2.0 (RF2.0), a project towards a more energy efficient path, is also introduced. Through the RF2.0, the transfer of the KITTEN comprehensive approach on solving the energy management problem to other European facilities has been made possible.

Summary

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