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AWAKE from Run 2a to Run 2b

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AWAKE is the first proof-of-concept proton-driven plasma wakefield acceleration experiment. AWAKE's first phase concluded in 2018, with controlled acceleration of electrons to energies of 2 GeV in a 10-m long plasma cell. AWAKE's second phase operates since 2021. It has been divided into four stages (Run 2a, Run 2b, Run 2c and Run 2d) to prove step by step good that the required electron beam parameters can be obtained reliably and consistently. The transition from Run 2a to Run 2b, which is scheduled for the first semester of 2023, includes the decommissioning of the current vapor source as well as the installation of a new 10-meter-long step density plasma source. After summarising the motivation for the AWAKE Run 2 programme, this paper will describe the preparation works for such an installation, the challenges linked to the infrastructure and the implementation of scheduling tools for the coordination of the facility.

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Footnotes

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Yes

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