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Removal and installation plans for the SOLEIL II upgrade

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The SOLEIL synchrotron, which has been open to the scientific community since 2008, will benefit from an upgrade aimed at improving the brilliance, coherence, and flux of the X-ray beam delivered. This will make it possible to follow biological processes or the functioning of devices operating at sub-millisecond timescales at nanometric resolution, while sharply reducing the detection limit for trace elements. The accelerators (booster and storage ring) will be completely renewed, while the existing tunnels. In addition, six beamlines will be relocated to other places in the experiment hall. A 24-month “dark period” is planned to bring the SOLEIL II program to a successful conclusion. This article presents the strategic plans being developed for dismantling the current accelerators, installing the upgraded components of the new accelerators (girders, magnets, vacuum chambers, electrical and fluid servitudes), and move the six beamlines (radiation protection hutchs and equipments). Prioritizing a cost-effective and time-efficient approach, we began planning by focusing on optimizing spaces and equipment movements necessary for the upgrade process.

Footnotes

Funding Agency

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