

POLISH SYNCHROTRON – THE PRESENT STATUS

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The current status, timetable of actions for the next four years and the plans for the future development of the recently granted Polish Synchrotron source located in Kraków will be presented. The layout and basic design parameters of the planned machine are going to be discussed.

The Polish synchrotron radiation source installation will contain:

- Electron injection system including electron source and 400-700 eV linear accelerator
- 96 m circumference, 1.5 GeV, 500 mA storage ring with 12 bending magnets separated by 3.5 m long straight sections
- 1 undulator based experimental beamline with a multi-grating monochromator and VUV - Soft X-ray electron spectroscopy end-station.

Innovative design concepts have been applied to the linear accelerator and the storage ring, based on the new linac design and integrated bending magnets technology

developed by the accelerator team at MAX-lab in Lund (Sweden). Critical energy of the storage ring is calculated at ~1 keV. Insertion devices, including superconducting wigglers will allow for shifting the critical energy up by few keV enabling crystallography and material science research to be performed. At the low energy region the THz operation of the source is foreseen.

Although the granted project includes only one experimental beamline it is assumed that the search for funds for the range of new beamlines and endstations will start immediately. These can be either bending magnet, undulator or wiggler (superconducting) based facilities.

The synchrotron building complex, apart of the synchrotron components will also accommodate all the necessary auxiliary facilities *e.g.* workshops, preparatory laboratories, staff and administration offices.

The Centre with the budget of 143 740 000 PLN is scheduled to be commissioned in September 2014.

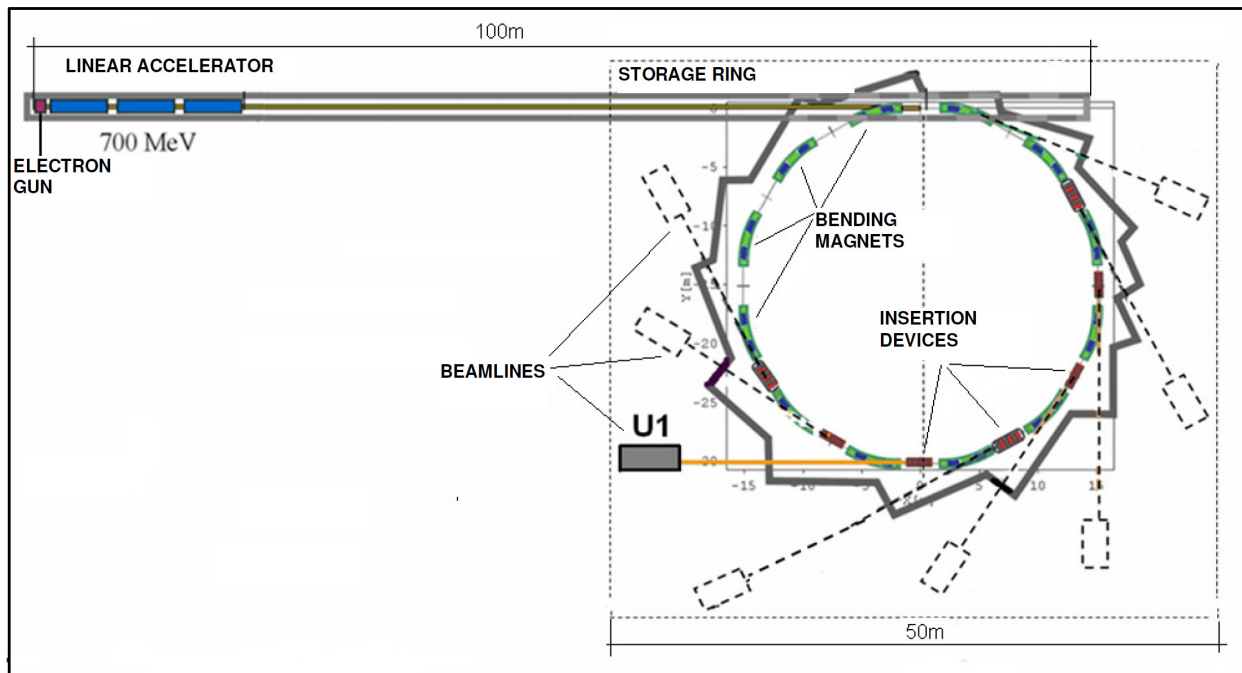


Figure 1. The layout of the Polish Synchrotron.