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Media release

Building work in Parco Ciani completed

During October the renaturalization work has finally taken place in Parco Ciani in Lugano. The construction of the pumping station and pipes to carry lake water to cool the supercomputers in the new CSCS building took six months longer than expected.

Big projects are often very demanding for all concerned: the "Free Cooling" project to bring lake water to the new CSCS (Swiss National Supercomputing Centre) building to cool the supercomputers will bring enormous benefits in terms of energy savings, as well as allowing AIL (Aziende Industriali di Lugano) to provide its customers with water and heat. However, in the carefully cultivated grounds of the Parco Ciani, a deep hole has been gaping for months, surrounded by construction machinery. Visitors to the park have been disturbed by the noise of the building work for the pumping station. So as not to disturb the perch spawning in the lake as well work had to stop for a month. Overall, the construction of the underground pumping station took longer than expected.

Grass will heal the wounds

CSCS is delighted that the grass will literally grow over the building site. "We are very pleased and grateful that the local population has been so patient for so long", says Ladina Gilly, who represents CSCS in all matters relating to the new building. Now that the area has been re-turfed, the only sign of this unusual building project is a metal hatch in the path, providing access to the pumping station for maintenance work. A new lawn has also already been sown in the area between the secondary school and the Cassarate stream.

Since computing centres use so much electricity, special attention was paid when the new building was being designed to energy and cost efficiency. That is why CSCS decided to invest in the use of a natural coolant source, Lake Lugano, to cool its supercomputer infrastructure. The pumping station for the system has been built underground in Parco Ciani, and from there the pipes stretch over 2.8 kilometres, right through the city, to the new building in Cornaredo. By approving the construction of the pipework for the lake water, the City of Lugano has also provided generous support to the cooling project for the CSCS supercomputers.

Patience pays off

The City of Lugano will also benefit from the pumping station in the Parco Ciani and the pipe to Cornaredo: the AIL industrial works contributed to the construction of the pipeline and has laid additional fibreglass cables and power lines in the trenches where the pipes were laid. It will also be possible for the AIL to pump water through the pipe to a reservoir that is yet to be built, to supply water to Cornaredo. Connecting pipes have been installed along the return pipe so that the AIL can use the warm water for heating purposes.

Investing in Ticino to secure Switzerland's role as a research centre

The CHF 83 million new building for CSCS is an important part of the national strategy for high-performance computing and networking (HPCN strategy). The City of Lugano and the Canton of Ticino supported the strategic decision made by the Swiss Federal Council and Parliament to encourage high-performance computing in Switzerland and secure a long-term future for Switzerland as a centre for research. The new building will allow the growing supercomputer infrastructure of CSCS to be operated sustainably and efficiently. The Canton of Ticino has contributed CHF 5 million to the project, while the City of Lugano granted a lease on the land for the new building in Cornaredo.

You can find more detailed information about the lake water cooling system in the enclosed fact sheet.

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