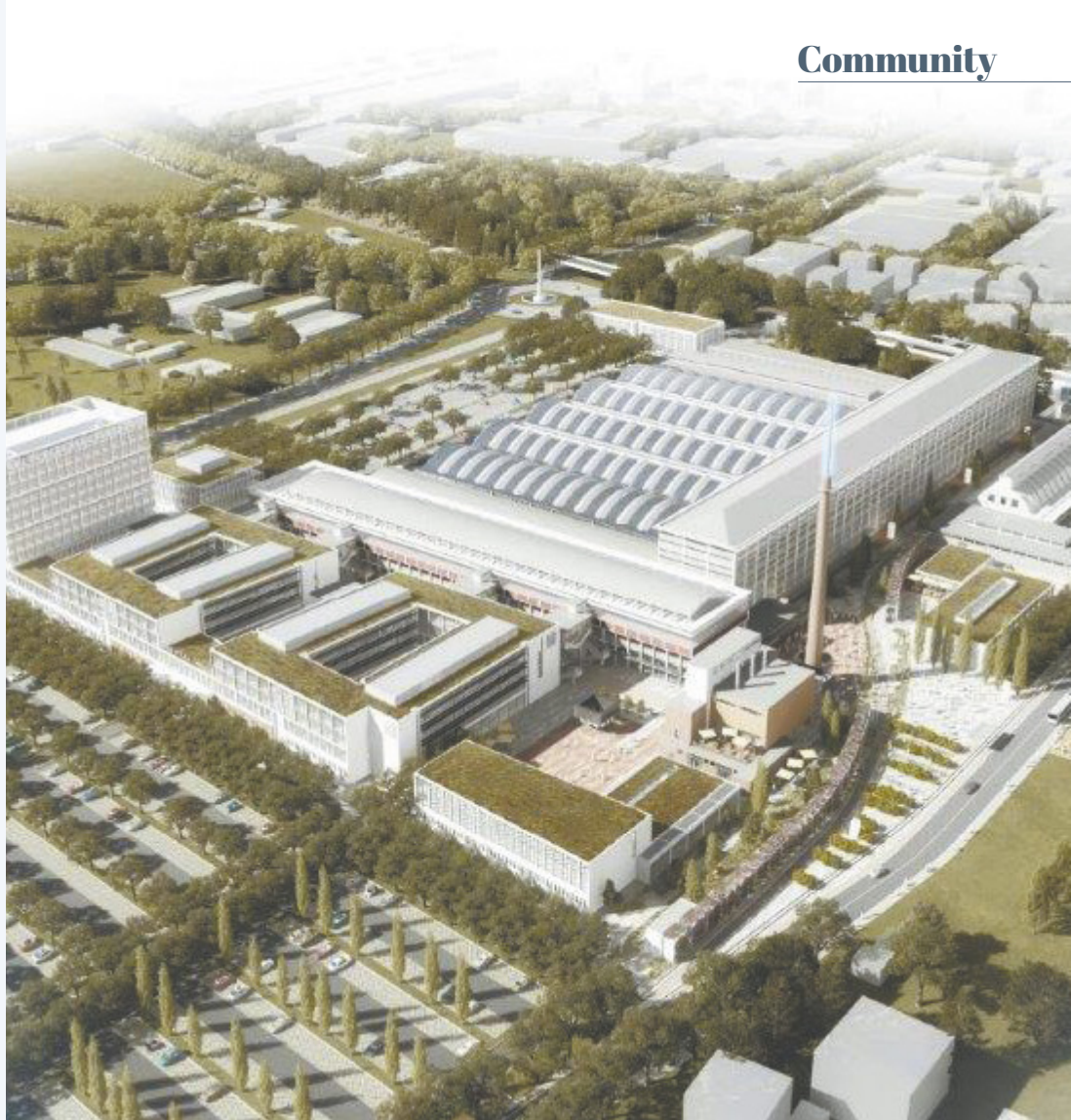




# European Centre for Medium-Range Weather Forecasts opens data centre in Bologna

The European Centre for Medium-Range Weather Forecasts (ECMWF), the most prestigious institute in the world in its sector, will be opening a new data centre in the Italian city of Bologna to support its headquarters in Reading (UK). The aim is to tackle the current meteorology needs and to anticipate its requirements for the next 30 years.

**Words:** Maddalena Vario, GARR



“We can say that Bologna ticked all the boxes!”, explains Hilda Carr, Head of Communications at ECMWF. “We launched an international call for proposals and in the final selection we looked at environmental impact, space and geographic location. Also, we took into consideration the relevant opportunities for synergies and technical and scientific collaborations that can be achieved in Bologna between ECMWF and the different institutes and research centres and institutes located in the city area. Bologna can be considered the Italian capital of Big Data and offers many opportunities for knowledge sharing. ECMWF headquarters’ current structure in Reading lacks the optimal characteristics for the

expansion required by its 2025 strategy. To achieve this goal, it is necessary to increase ten-fold the computing capacity in the new data centre: this requires both additional technologies and processors and as a consequence, significant infrastructure expansion. Therefore, the projects of seven European sites to host and build the new data centre were evaluated: Exeter (UK), Slough (UK), Luxembourg, Espoo (Finland), Akureyri (Iceland), Reading (UK) and Bologna (Italy).”

The data centre will be located at the Tecnopolo which is a former tobacco factory: an area of 9,000m<sup>2</sup> has been allocated with the opportunity of a further expansion of 6,000m<sup>2</sup>.

## Network at 100 Gbps

The highly energy-efficient facility will be connected to the GARR network at 100 Gbps, via two different PoPs that will guarantee network continuity.

In relation to the network requirements, ECMWF Deputy Director of Forecasts Umberto Modigliani explains, “we give high priority to speed and reliability because we receive millions of data every day from all over the world. We are talking about several dozen Terabytes that need to be processed several times a day to produce our forecasts. At the same time, we distribute in real time quantities of data in the order of 20-30 Terabytes per day and in the near future all this data will be distributed all over the world from the Bologna data center, thanks to the reliability and high speed of the GARR and GÉANT networks.”