



## PRESS RELEASE

### **Antarctica: The Oldest Ice on Its Way to Europe**

*The ice cores extracted in Antarctica as part of the Beyond EPICA - Oldest Ice project, funded by the European Commission and coordinated by the Institute of Polar Sciences of the National Research Council of Italy (Cnr), are currently en route to Europe aboard the research vessel Laura Bassi. These ice cores, extracted up to a depth of 2,800 meters, will be processed and analysed in the laboratories of the European research institutions involved in the project. They are expected to reveal crucial details about the Earth's climate and atmospheric history, dating back over 1.2 million years*

The ice cores, extracted at Little Dome C in Antarctica during the fourth drilling campaign of the international Beyond EPICA - Oldest Ice project, will soon reach the European continent aboard the research vessel Laura Bassi. The project is funded by the European Commission and coordinated by the Institute of Polar Sciences of the National Research Council of Italy (Cnr-Isp).

This historic drilling campaign was carried out by a team of scientists and logistical personnel from twelve research institutions across ten European countries. For three months, researchers and technicians worked at an altitude of 3,200 meters above sea level, with an average summer temperature of -35°C, achieving a historic milestone in climate science: the extraction of ice core samples up to a depth of 2,800 meters, where the Antarctic ice sheet meets the underlying bedrock.

The ice cores, stored in special containers that maintain a cold chain at -50°C, will first arrive in Italy, specifically in Ravenna, on April 16<sup>th</sup>. From there, they will continue to the Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research (AWI) in Bremerhaven, Germany, where they will be processed, i.e., cut into sections. The resulting samples will then be sent to various laboratories of the European research institutions involved in the project. Analyses are expected to begin in the autumn, with the research team hoping to obtain essential

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information to reconstruct the Earth's climatic history, including data on atmospheric temperatures and greenhouse gas concentrations dating back over 1.2 million years.

During the project meeting held these days in Venice, Carlo Barbante, professor at Ca' Foscari University of Venice, senior associate member of the Institute of Polar Sciences of the National Research Council of Italy (Cnr-Isp), and coordinator of Beyond EPICA, said: “A remarkable achievement was accomplished during the last drilling season. In the last few days, we planned the future analyses that will unveil the history of past climate over the last 1.2 million years—and possibly even further back. We look forward to receiving the samples soon.”

The activities of Beyond EPICA - Oldest Ice benefit from the synergy with research conducted under the National Research Program in Antarctica (PNRA), funded by the Italian Ministry of University and Research (Mur) and managed by the Cnr for scientific coordination, ENEA for logistical planning and organization of activities at Antarctic bases, and OGS for the technical and scientific management of the icebreaker *Laura Bassi*.

The Little Dome C camp was deployed and sustained thanks to the highly effective logistics provided by the French Polar Institute (IPEV) and the ENEA, utilizing both their expertise and the various means of transport at their disposal. These included aircraft for transporting personnel to Mario Zucchelli Station and onwards to Concordia Station, and the traverse between Dumont d'Urville and Concordia Stations for heavy cargo, as well as the provision of the French and Italian ships *L'Astrolabe* and *Laura Bassi*, respectively.

The Beyond EPICA (European Project for Ice Coring in Antarctica) - Oldest Ice project has been funded by the European Commission and supported by national partners and funding agencies in Belgium, Denmark, France, Germany, Italy, Norway, Sweden, Switzerland, the Netherlands, and the United Kingdom.

To learn more about Beyond EPICA - Oldest Ice project: <https://www.beyondepica.eu/en/>

### **Photos and Videos of the Field Campaigns:**

Download latest photos:  
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Beyond EPICA Field Seasons Gallery: <https://www.beyondepica.eu/en/gallery/field-seasons/>

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### **In brief**

**What:** Conclusion of the fourth Antarctic drilling campaign of the European Beyond EPICA - Oldest Ice project and transport of the extracted ice cores to Europe.

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