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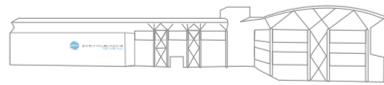


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Our missions

The French Polar Institute, IPEV, provides human, logistical, technical and financial resources and also the legal framework necessary for developing French scientific research in the polar and subpolar regions.



These regions' isolation and extreme climates make it imperative for operators to have highly specific technical knowledge and skills. The Institute brings together specialist professionals in polar logistics, turning to good use its knowledge of harsh environments and special range of skills to coordinate, support and run an annual 60 to 80 science and technology programmes in the higher latitudes of the globe, both North and South.

At the IPEV's headquarters in Brest, permanent teams about 50 strong, two-thirds of whom are made available on secondment by the CNRS, manage the resources necessary for organizing scientific expeditions.

In the Antarctic and the subantarctic islands, around 200 seasonal or winter staff are deployed over the various bases. They provide the support for over 200 research scientists in their fieldwork operations.

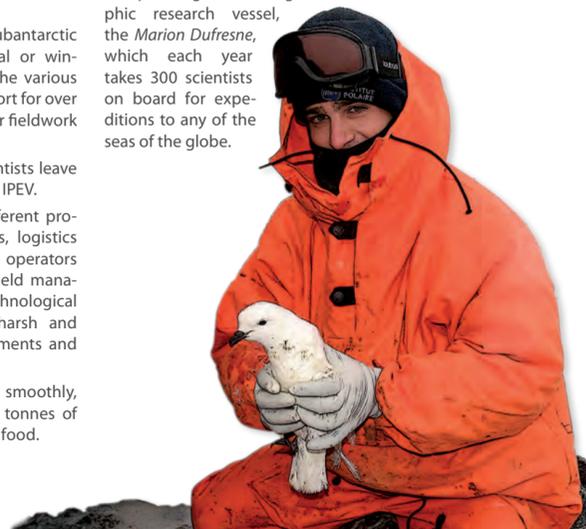
For the Arctic, 100 or so scientists leave each year with the support of IPEV. Personnel from 30 or so different professions, including engineers, logistics specialists, instrumentation operators or managers and scientific field managers, develop advanced technological field systems adapted to harsh and sometimes extreme environments and climates.

To keep these bases running smoothly, IPEV conveys each year 300 tonnes of goods including 30 tonnes of food.

With its *savoir-faire* and the scientific platforms deployed, IPEV is helping to bring to the fore the vital importance of the poles and enhancing the general public's awareness of the special issues inherent to these regions.

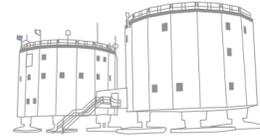
On the international scale, the Institute contributes to consultations and collaborates on scientific, logistical and environmental questions associated with such organizations as the *European Polar Board*, the *Council of Managers of National Antarctic Programmes* and the *Antarctic Treaty Consultative Meeting*.

IPEV is also responsible for operating Europe's largest oceanographic research vessel, the *Marion Dufresne*, which each year takes 300 scientists on board for expeditions to any of the seas of the globe.



IPEV's resources

The development of French research in the polar regions is built on a system of principal platforms and infrastructure facilities.



Stations and bases

The research stations and bases act as operational platforms with instrumentation kept continuously updated and adapted for conducting long-term research.

In the South, the Antarctic

> Terre Adélie, in the coastal zone

- Dumont d'Urville* Station and the Cap Prud'homme annex base
- 66°40'S - 140°01'E
- 20 m altitude
- 1st wintering in 1952
- 25 to 35 winter personnel and up to 100 staff in summer

> Dome C, on the continental plateau

- Concordia Station, jointly operated by French and Italian scientists
- 16°06'S - 123°23'E
- 3 200 m altitude
- 1st wintering in 2005
- 13 to 15 winter personnel and 50 to 70 staff in summer

*The functional management of the Dumont d'Urville Station and the implementation of the research programmes are taken in charge by the IPEV. At Concordia, these responsibilities are shared with the Italian *Programma Nazionale di Ricerca in Antartide*.

The TAAF (*Terres australes et antarctiques françaises*), a French Overseas local authority embracing the subantarctic islands, îles Eparses and Terre Adélie. At Dumont d'Urville Station, TAAF guard the sovereignty and responsibility for telecommunications and medicine.

Southern Indian Ocean, the French subantarctic islands

> Amsterdam Island

- Martin de Viviers Base
- 37°50'S - 77°32'E
- 881 m altitude (Mont de la Dives)
- 1st wintering in 1950
- About 25 winter personnel and up to 50 staff in summer

> Possession Island, Crozet Archipelago

- Alfred Faure Base
- 46°25'S - 51°51'E
- 934 m altitude (Pic du Mascarin)
- 1st wintering in 1962
- About 25 winter personnel and up to 50 staff in summer

> Kerguelen Islands

- Port-aux-Français Base
- 48°27' - 50°00'S, 60°27' - 70°35'E
- 1 800 m altitude (Mont Ross)
- 1st wintering in 1949
- About 50 winter personnel and up to 100 staff in summer



The French subantarctic islands are located on the edges of the Indian and Southern Oceans. They and the permanent research bases installed on them are managed by the TAAF administration. The IPEV has the responsibility for the scientific programmes implementation into operation. The 5 stations are distributed from the 37th parallel South (Ile Amsterdam) and as far as the 75th parallel South (Concordia Station). France is therefore the only country to have scientific research stations along such an extensive latitude gradient in the Southern Ocean and in the Antarctic.

In the North, the Arctic

> Spitzbergen, Svalbard

- AWIPEV Base at Ny-Ålesund, Franco-German operation in partnership with Alfred Wegener Institute for polar and marine research
- 79°N - 12°E



Calypso core drill

IPEV engineers have developed a giant core drill, the CALYPSO. Unique in the world, it is used on board the *Marion Dufresne*. It allows the raising of particularly long oceanic sediments (more than 60 m) - and from depths reaching 6 000 m.



Objective: Support scientific research



French scientific production is ranked 1st in the world for research on the subantarctic islands, 5th for the Antarctic and 10th for the Arctic. Each year, IPEV selects over 60 research programmes following recommendations of its Science and Technology Programmes Committee (*Conseil des Programmes Scientifiques et Technologiques*, CPST).

Why go to the poles?

- Research programmes in the polar and subpolar regions are usually multidisciplinary. They draw advantage from the unique scientific possibilities offered by the high latitudes of our two hemispheres:
- > Influence of the poles on ocean circulation and the Earth's climate
- > Presence of ice sheets or ice fields
- > Extreme or highly restricting living conditions
- > Extreme geographical isolation
- > Proximity to the magnetic poles
- > High sensitivity to global change

Research fields

- > Distribution of the fauna and flora and evolution of the biodiversity
- > Species' survival strategies and adaptation to extreme conditions
- > Living organisms' response to climate changes and human activities
- > Palaeoclimatic and palaeoenvironmental studies
- > Geophysics, geodynamics and geology
- > Atmospheric chemistry and dynamics, including ozone chemistry
- > Glaciology
- > Astronomy
- > Humans and societies
- > Oceanography

