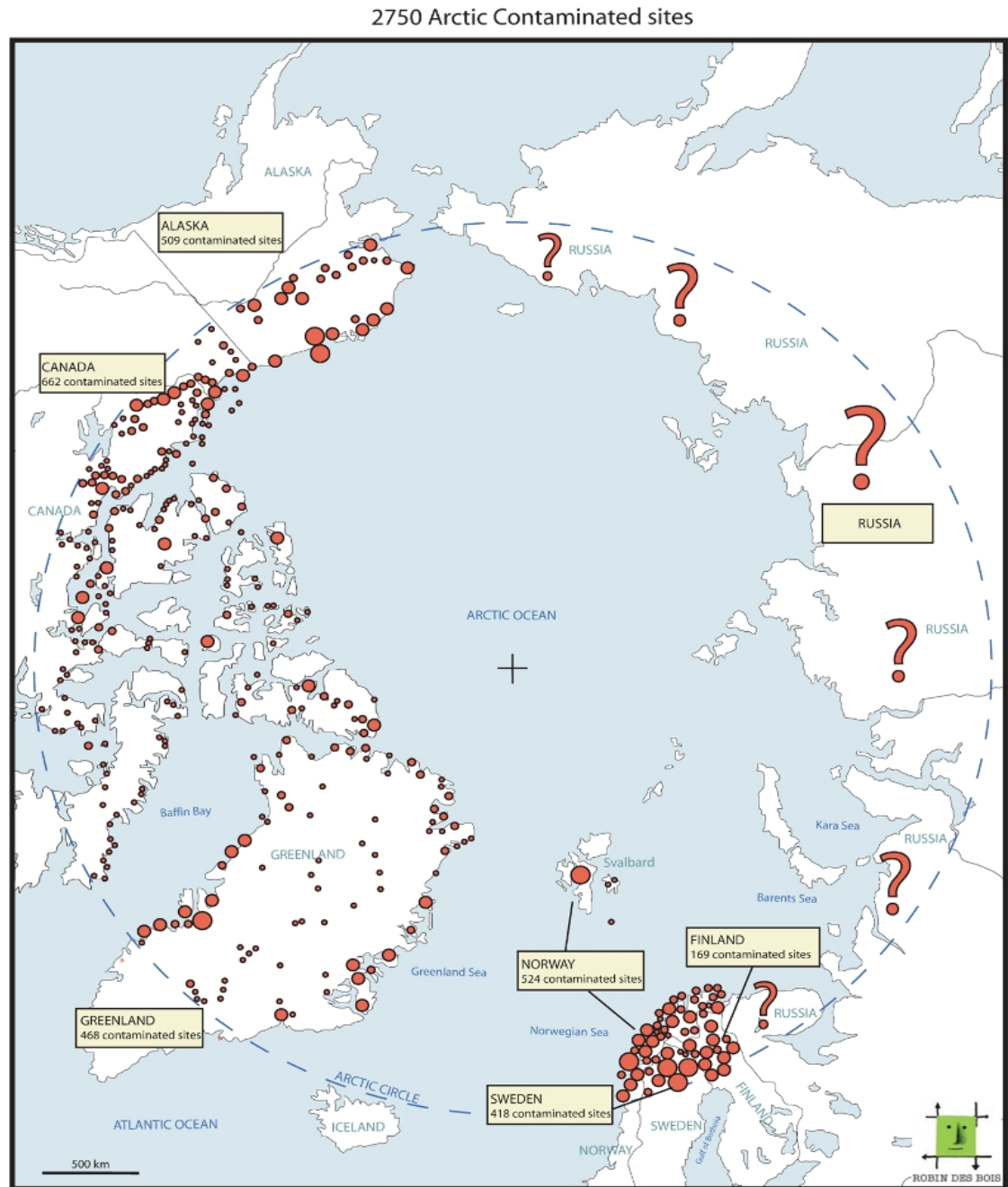


2,750 Contaminated Sites in the Arctic

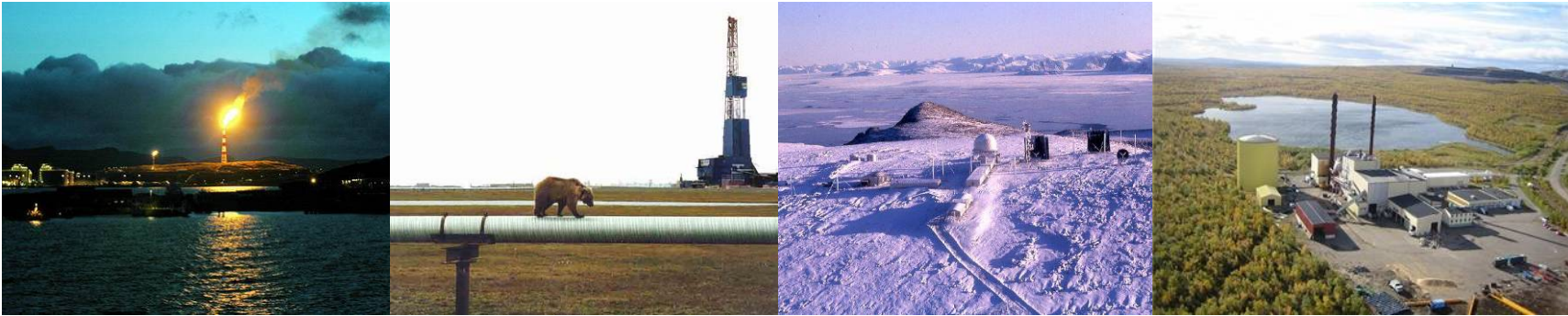
Founded in 1985, Robin des Bois is an international association working for the protection of Man and the environment.

Robin des Bois believes that the subject of contaminated sites in the Arctic is of paramount importance and our study's aim was to **improve knowledge and transparency** on pollution in the Arctic region.

The Arctic plays a regulating role in the World's climate.



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- The Arctic is highly polluted from ongoing and historical activities.
- The Arctic Ocean **guarantees the survival of protected species such as the polar bear the blue whale and the narwhal.**
- **The Arctic ecosystem is home to native populations whose diets and cultures are ocean based.**



Through direct contact with **American, Canadian, Finnish, Swedish, Norwegian, Danish and local Greenland authorities,**

Robin des Bois was able to compile regroup and edit over **2,750 polluted sites situated North of the Arctic Circle.**

Each Country's definition of a contaminated site is distinctly different.



Kaktovik, Alaska (Collinson Point)

Robin des Bois regrouped these sites under **Types of Activities and Categories of pollution.**

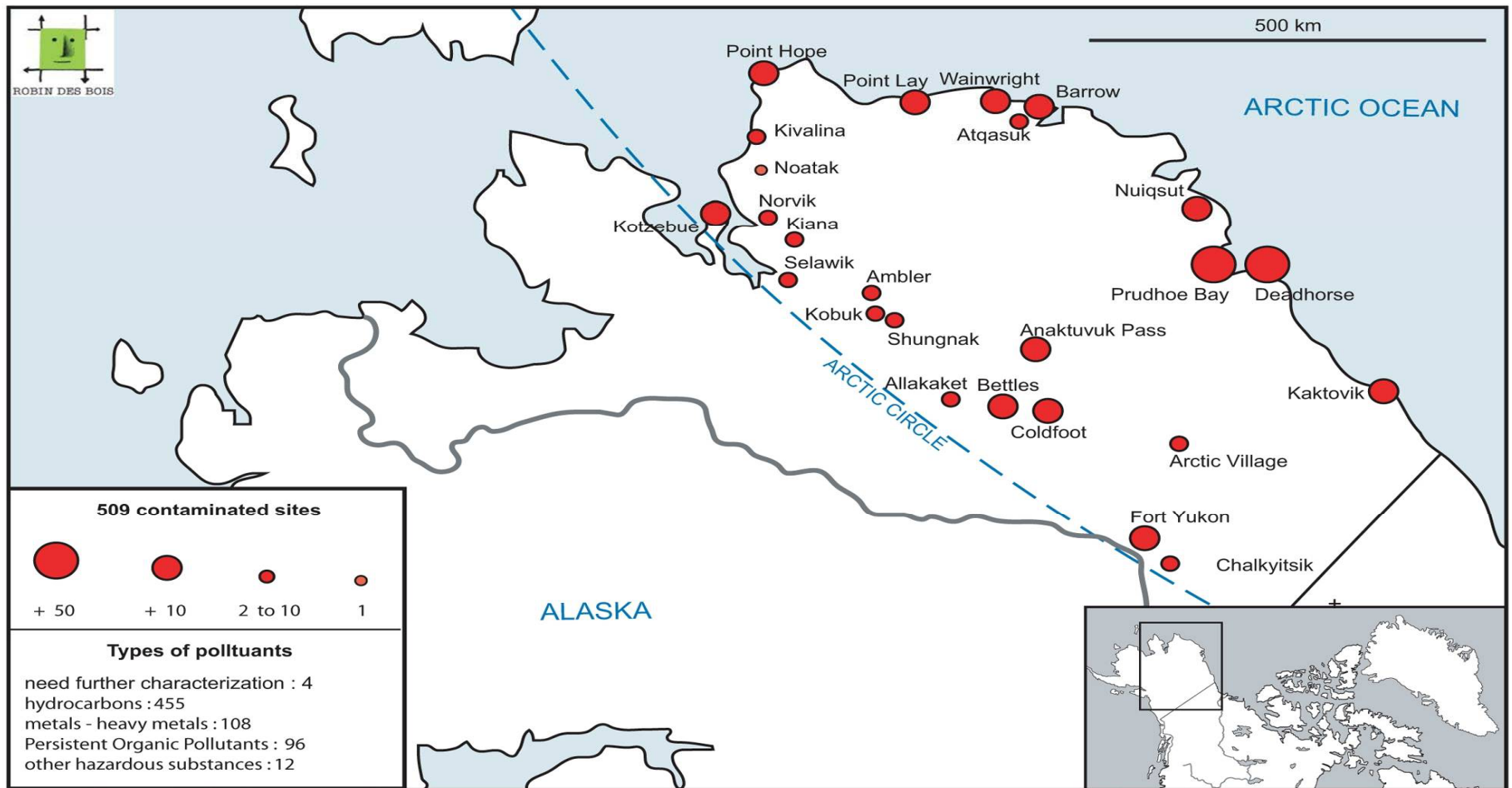
Robin des Bois listed the sites by regional and municipal denominations.

Historically, the main contributors are **scientific and military bases, the oil and gas sector, and the mining and steel industries.**

Main Categories of pollutants are asbestos, heavy metals, mining tailings, hydrocarbons, Persistent Organic Pollutants (POPs) such as PCBs.

When possible we included whether the sites are under examination, **had undergone some cleanup or are under institutional controls.**

509 Arctic Contaminated Sites : Alaska



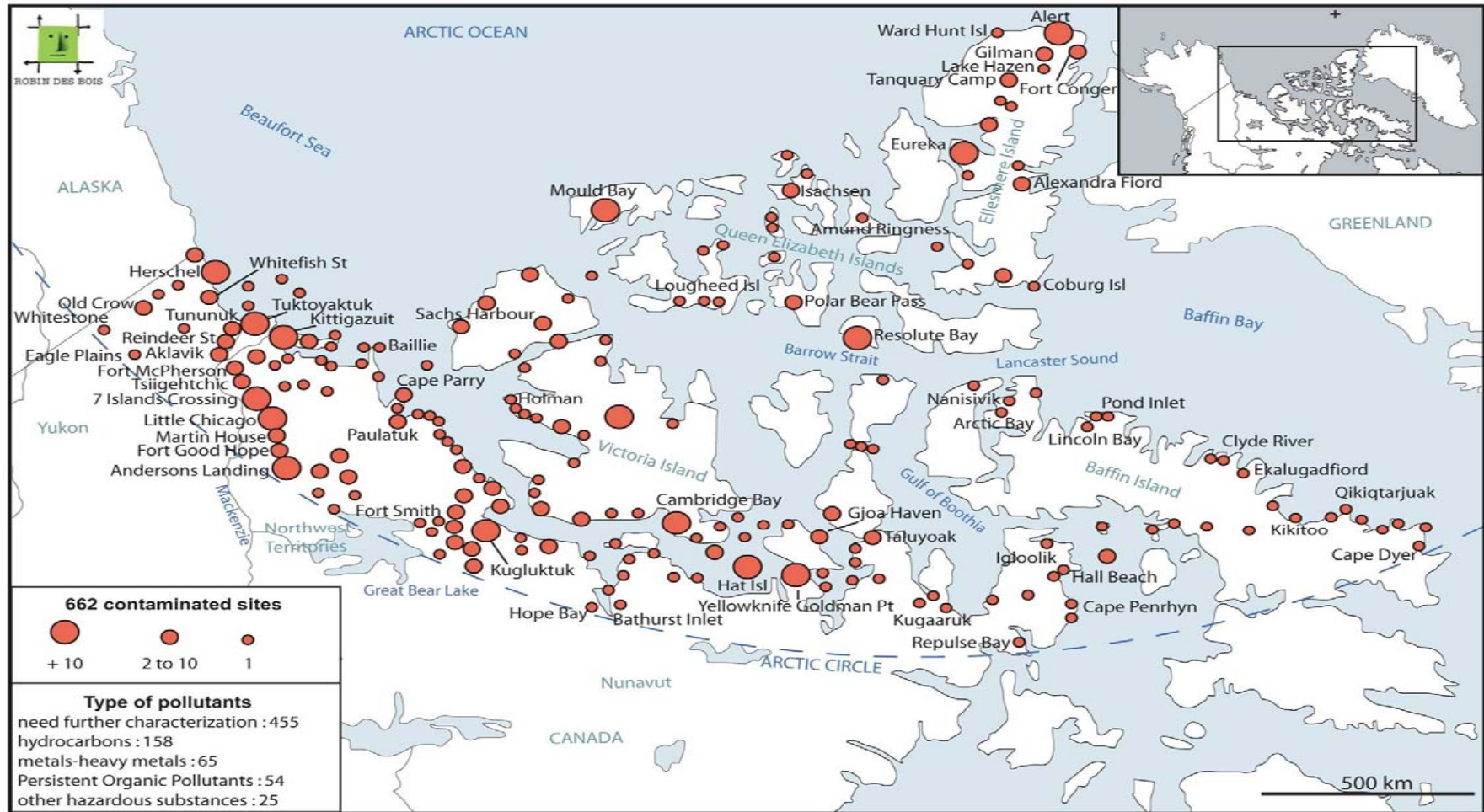
Contaminated Sites Program by the Alaskan Department of Environmental Conservation (ADEC), provided the information used in our inventory.

Hydrocarbons **account for 455 of the 509 total sites.**

Mining sites make up a small number of the sites but can take up a significant area of land.

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662 Arctic Contaminated Sites : Canada

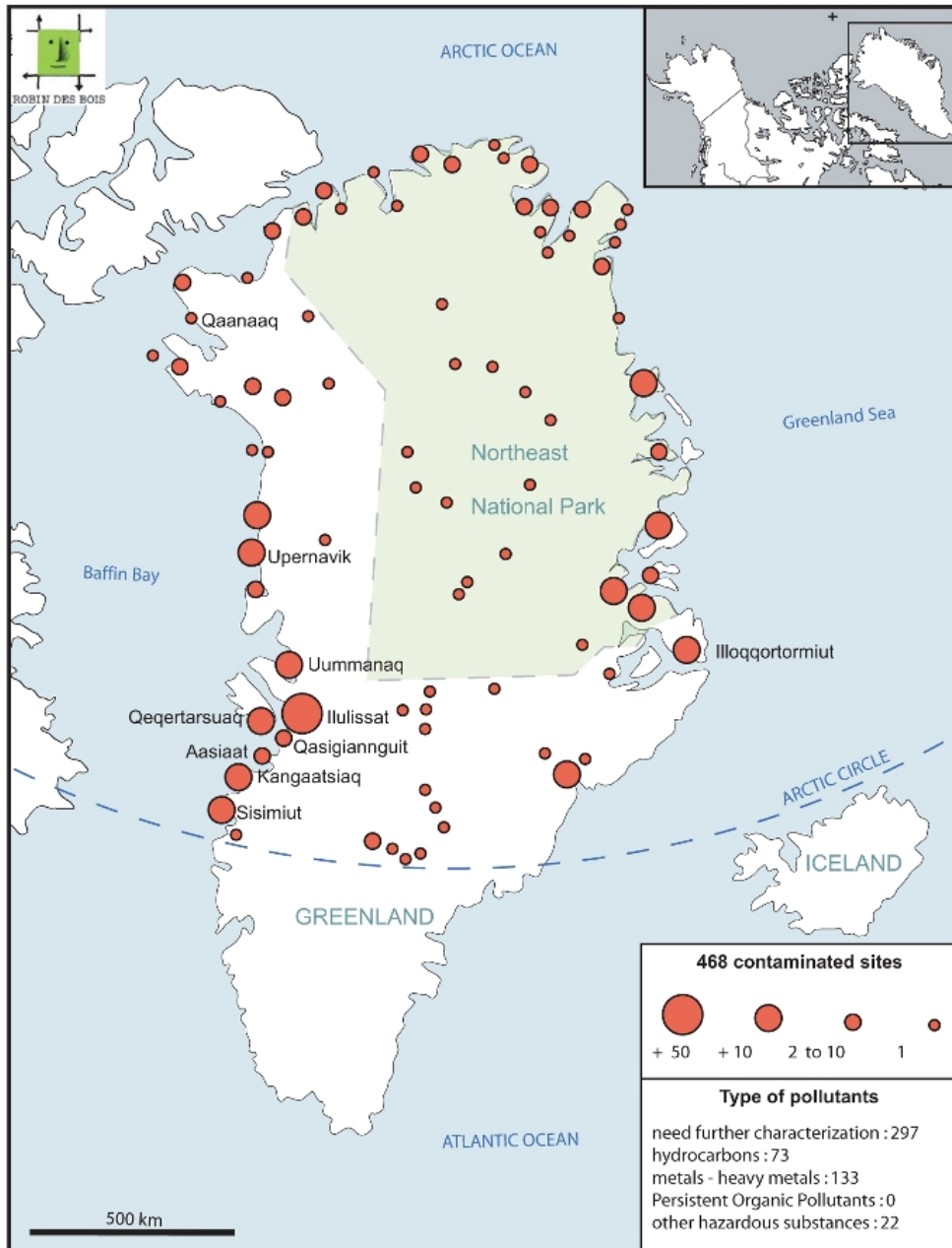


Robin des Bois used the Canadian Federal Contaminated Sites Inventory (FCSI) to complete the inventory.

The Canadian doctrine on pollution is pioneering. In 1916, the bilateral treaty called the **Migratory Birds Act** made it illegal to dispose of hydrocarbons or other hazardous substances in Canadian territories in order to protect migratory birds.

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468 Arctic Contaminated Sites : Greenland



The information was obtained from NunaGIS, a digital atlas displaying maps of Greenland by Asiaq from using data provided by the DMU (Danish National Environmental Research Institute).

Certain officials informed Robin des Bois of the presence of contaminated sites which are not yet listed in the official registry.

Greenland's inventory of polluted sites is not exhaustive, notably on the subject of contamination and radioactive risks concerning the Thule base (Robin des Bois will carryout a study on Radioactive sites at a later date).

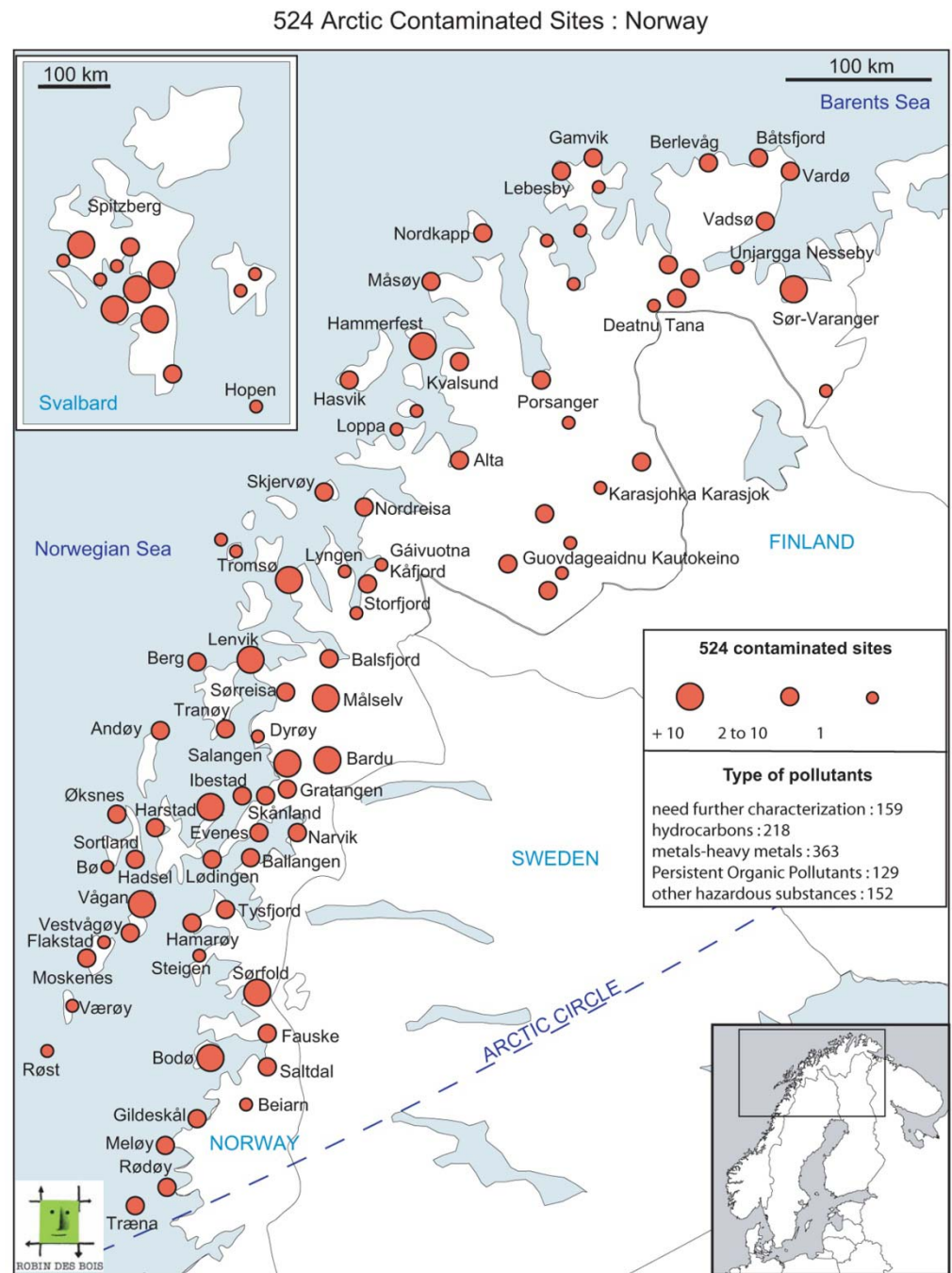
Airplane accidents, both military and civilian, account for 22 of the sites.

Specific information concerning contamination in Norway was obtained from The Norwegian Climate and Pollution Agency Klif (former SFT).

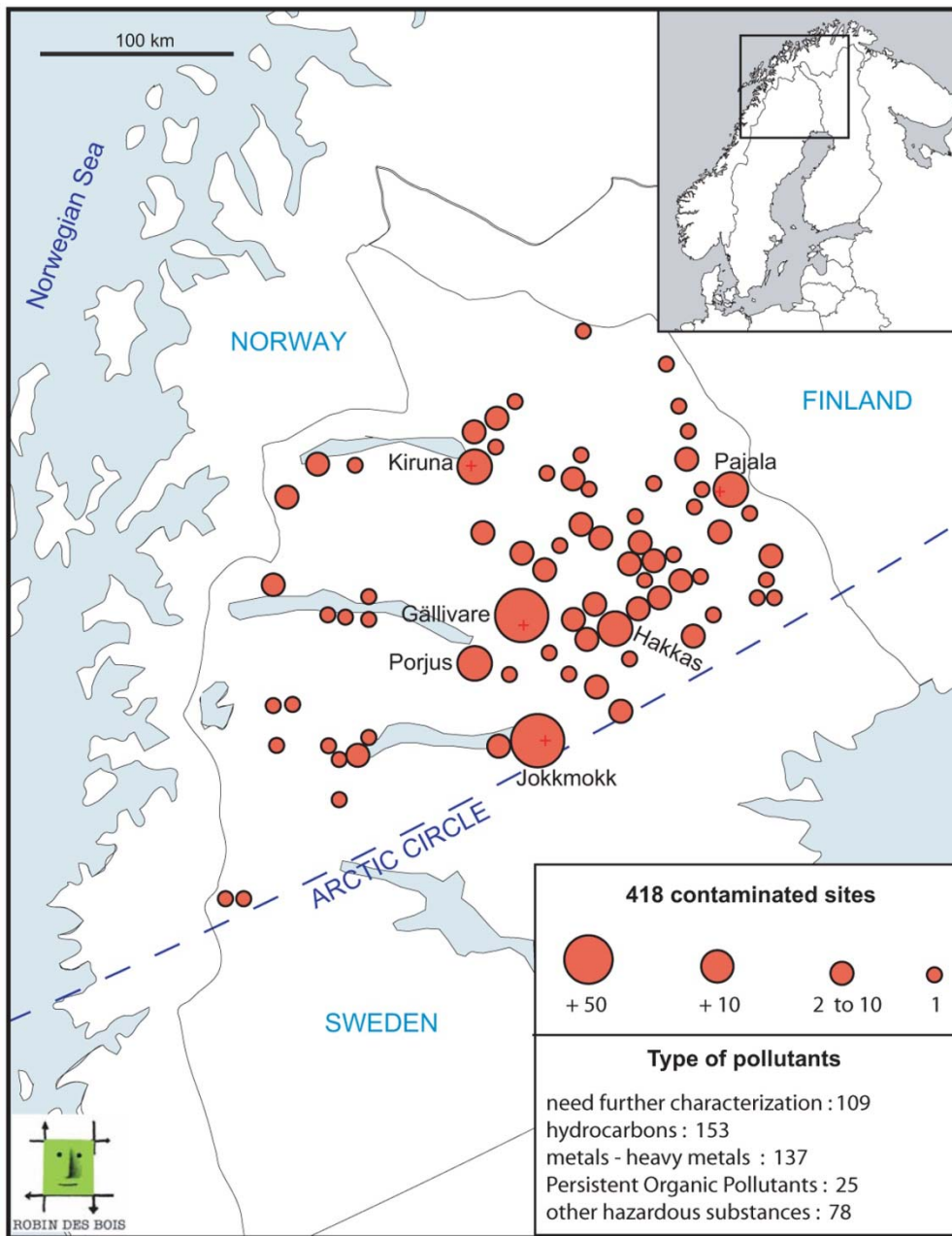
The largest polluters in Norway by activity are landfills and dumps. General landfills and more specialized dumps found next to mines and other industry related sites.

Landfills and Dumps account for 305 of the 524 total sites.

Ship Construction accounts for 41 sites polluted from antifouling paints that harm the environment.



418 Arctic Contaminated Sites : Sweden



Partly collected from the County Administrative Board of Norrbottens Environmental Protection Division.

Sweden informed Robin des Bois that they will produce a compiled **inventory on contaminated sites in Sweden in 2012.**

There is little information on the northern county of Kiruna as the Swedish authorities are currently taking a closer look at these sites.

The largest polluter is the oil and petroleum industry with **75 of the total 418 sites.**

The mining industry 69 sites. Mines cause heavy metal pollutions on land and in water.

169 Arctic Contaminated Sites : Finland



The majority of information concerning the Finnish contaminated sites database was forwarded to Robin des Bois from the Finnish Environment Institute (SYKE), Expert Services Department of the Environment Damage Division in Finland.

Landfills and dumps account for the greatest number of contaminated sites by activity. **Of 169 sites 112 sites are polluted by landfills and dumps including general landfills and industrial dumps.**

The oil and petrol industry accounts for 22 polluted sites. Including oil exploration, exploitation, transportation, and distribution.

Service stations and oil accidents are also considered in this distribution.

Not as easy to investigate **military or former military or classified sites.**



The DEW line was built during the cold war for protection against an “over the pole” attack. Now, the leftover sites are often abandoned.

They often include waste, PCBs from transformers, and abandoned infrastructure.





Red Dog Mine – Alaska

Difficult task to **harmonise foreign languages topography, topology, place names.**

Sometimes faced difficulties linked to geographical coordinates therefore **importance of having good and regular contact with local authorities and specialists.**

Information on polluted sites (when available :Russia did not reply to any of our requests for information) and their summaries reveal negligent and persistent practices in hostile and fragile environments.

The inventory is a first decisive step, but procedures for rehabilitating sites when existent lack specific scheduled actions.

Associations-NGOs should not only pursue specialized inquiry and investigations but also **interact with the public, regulatory bodies and other professionals.**

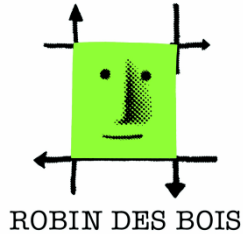
Robin des Bois participates in international conferences and task forces, such as OSPAR for the protection of the Northeast Atlantic,

International Whaling Commission (IWC) and in working groups e.g. remediation following natural disasters.



The only regional convention which is binding for the Arctic States is the 1973 Agreement on the Protection of the Polar Bears.

The Polar Bear Agreement demands positive actions from Arctic States which harbour polar bear populations and call for participation from neighbouring states.



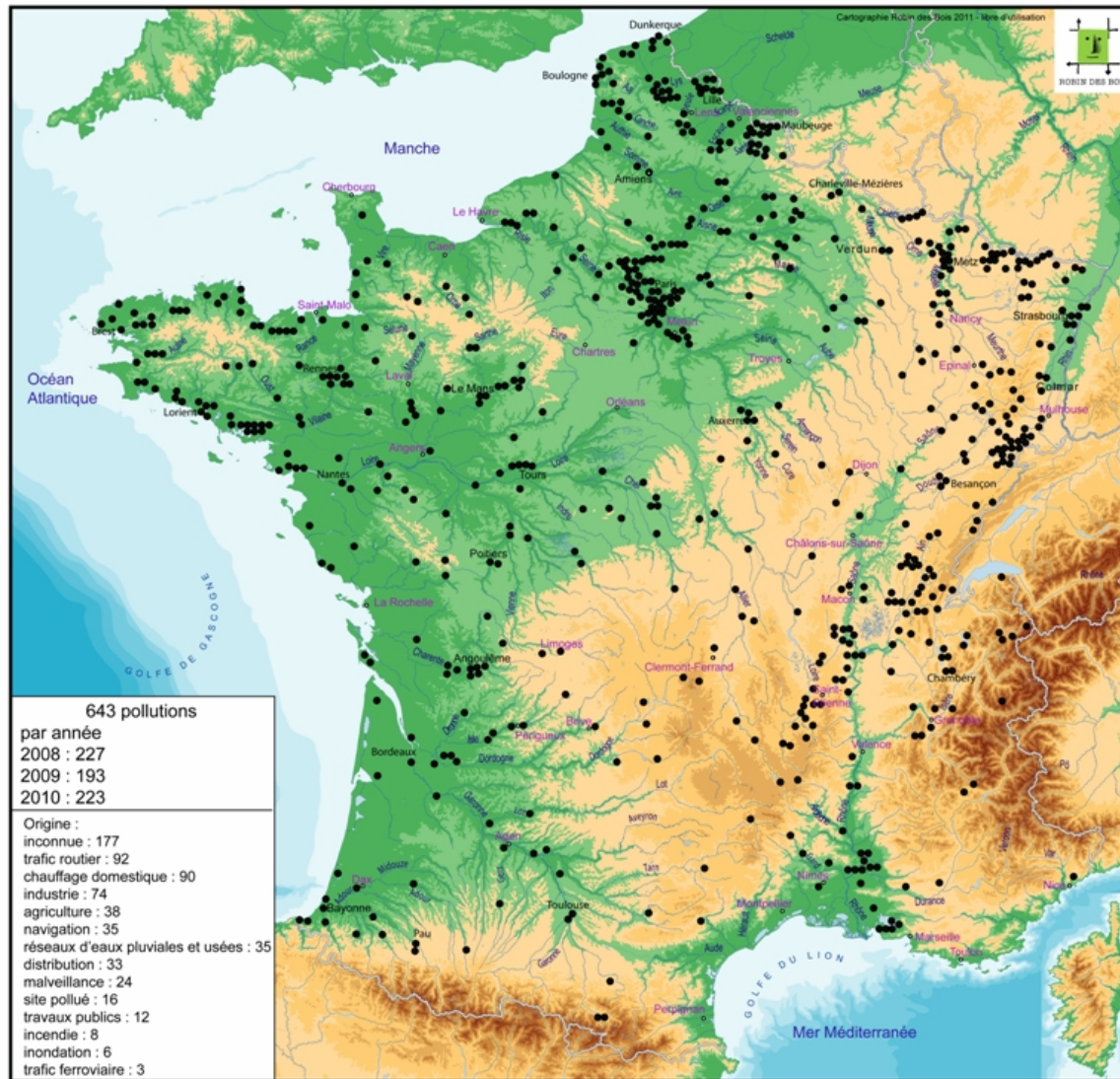
Scientists have demonstrated, that aquatic and atmospheric currents pollutions tend to concentrate in and above the **Arctic** Ocean, countries and food webs.

An international policy convergence is not developing fast enough considering the urgency of issues.

For this reason, following a proposal from Robin des Bois, France has committed to initiate an international agreement on environmental management of the Arctic.

Every nation and ultimately every stakeholder is responsible for problems in the Arctic, all those who contribute to the damage should play a role in the solution.

643 marées noires dans les eaux intérieures
janvier 2008 - décembre 2010



Robin des Bois' interest in polluted sites includes the history of industrial sites.

Effects on Man and the environment during and after the activities closing down.

It is in Robin des Bois' tradition to carry out generic inventories of polluted sites after having precisely documented (including image banks).

The first project was carried out in 1994 regrouping around 800 gas factories in France.

These actions were followed up with regulatory improvements and action plans to remediate the areas.

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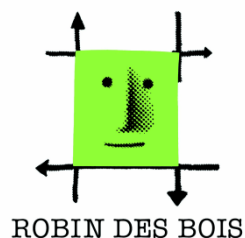
© Thierry Gosselin ArcticNet

Snowy owl (*Bubo scandiacus*)

To access further information on contaminated sites in the Arctic and photo credits please consult Polar Star N°2 on our internet site :

http://www.robindesbois.org/arctic/polar_star_2_EN.html

http://www.robindesbois.org/arctic/polar_star_2_FR.html



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