Fruits of northern friendship

Nordic cooperation is a natural response to the small size of the countries in the region and their natural affinities. It should not be allowed to impede partnerships that are fruitful for research.

If the strongest advocates of Nordic cooperation had their way 'Norden' would be a familiar term. It describes a group of countries that have much in common in history and culture. The fact that Norden remains a word more suited to quiz shows than geography books does not mean that cooperation is non-existent in the Nordic area. In fact, it has been growing since the Second World War and has become institutionalized in a number of ways. In formal terms, cooperation has been marked by the establishment of the Nordic Council in 1953 and the Nordic Council of Ministers in 1971. Among the results are that Nordic nationals can readily work and settle in any Nordic country. For scientists there are also a variety of cooperative organizations and programmes. Are these beneficial for Nordic science?

While 'Scandinavia' usually refers to Sweden, Denmark and Norway, the Nordic region includes two other sovereign states and three territories with self-rule. Of the states, Sweden has the largest population (8.4 million) and Iceland the smallest (240,000). Denmark, Norway and Finland each have a population of between 4 and 5 million. The self-ruled Danish territories of Greenland and the Faeroes and the Finnish Åland Islands each have fewer than 50,000 inhabitants.

Current Nordic cooperation has been preceded by various historical combinations of political union, and a few of conflict, between the member states. In particular, Denmark, Sweden and Norway once formed the Kalmar Union (1397–1523). Thereafter Sweden was often at war with Denmark and Norway until 1660 when the present boundaries of the three countries were agreed. Norway and Sweden, were united under one monarch from 1814 to 1905 (which is why the Nobel Prize for Peace is even now awarded through the Norwegian parliament). Finland, freed from Russian rule in 1917, and Iceland, freed from Danish rule in 1944, are the youngest Nordic states.

Denmark, Iceland, Norway and Sweden were the founder members of the Nordic Council; Greenland was last to join in 1984. The council is the main forum for cooperation between the parliaments and governments of the Nordic countries in economic, legislative, social and cultural matters, including research. But the council, whose main meeting is an annual week-long session, can only make recommendations. By contrast, unanimous decision made by the Nordic Council of Ministers are binding on the governments, although in some cases subject to parliamentary approval. Meetings of the council are attended either by the ministers for Nordic cooperation or by the ministers responsible for a particular sector, such as culture and education.

Cultural cooperation within the region is based on the 1971 Nordic Cultural Agreement which includes the areas of education and research. In education there is still no general Nordic recognition of qualifications although many of the courses and qualifications offered by arts and science faculties in higher education are acceptable in any Nordic country.

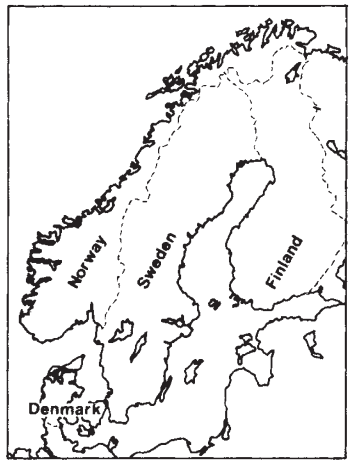
Cooperation in basic and applied research is enshrined in about 20 joint Nordic research establishments. Best known among those devoted to science are the Nordic Institute for Theoretical Atomic Physics in Copenhagen and the Nordic Volcanological Institute in Reykjavik. Funds for all joint ventures come from the Nordic Council of Ministers. A Research Policy Council, created in 1983, oversees developments and initiates new forms of cooperation. Nordforsk, the Nordic Council for Applied and Technical Research, awards substantial grants.

The inability of any of the individual Nordic countries to afford the heavy costs of some areas of research can be a prime reason for cooperation. One example is the proposed European Synchrotron Radiation Facility for which a Nordic consortium was formed to raise the price of buying into the project. For like it or not, no country of just a few million inhabitants, even such an exceptionally high spender on research and development in relationship to gross domestic product as Sweden, can mount an internationally competitive programme of research in more than a limited number of areas.

With 22 million inhabitants between them, the major Nordic countries could hope to compete in a larger number of areas were they fully to integrate their research programmes. But they do not. A traveller in the countries is likely to find lip service more prevalent than genuine enthusiasm for the idea of full-scale cooperation. This is as it should be. Care must be taken not to waste precious resources on the machinery of cooperation or on cooperative projects that are thought to be neither necessary nor desirable by those who are supposed to benefit from them. The partnerships that best suit research cannot be prescribed. They should be allowed to sprout and wither where and when is best for science, not for political ideals. Even if Nordic cooperation had to be constrained to allow more collaboration between individual sovereign states and countries elsewhere, the region would be likely to benefit just as much in the end. □

Geography, acknowledgements and currencies

For practical purposes, as here, a map of the Nordic countries can only include the major countries (and the Åland Islands which lie west of the southern tip of Finland) because Iceland, Greenland and the Faroes are inconveniently placed. That is little excuse, however, for not visiting them — particularly Iceland — before writing a survey of Nordic science. But it was not to be. As it was, Steven Dickman visited Denmark and would like to thank Peder Olesen Larsen, Mogens Dahl, Ove Nathan, Lauritz Holm-Nielsen and Bernard Jones; Peter Coles travelled to Finland, and is particularly grateful to Anne Ourila and Elisabeth Helander; Phillipa Lloyd thanks Richard Wright, Frank McGinley and Bjorg Svengaard for their help in Norway; and Peter Newmark, who visited Sweden, is grateful for the help of Henry Danielsson and Sune Bergström.



The values of the Nordic currencies are as follows: Danish kroner: £1 = DKr11.5; Finnish marrka: £1 = FIM7.3; Norwegian krone: £1 = NOK11.4; Swedish krona: £1 = SEK10.8. □