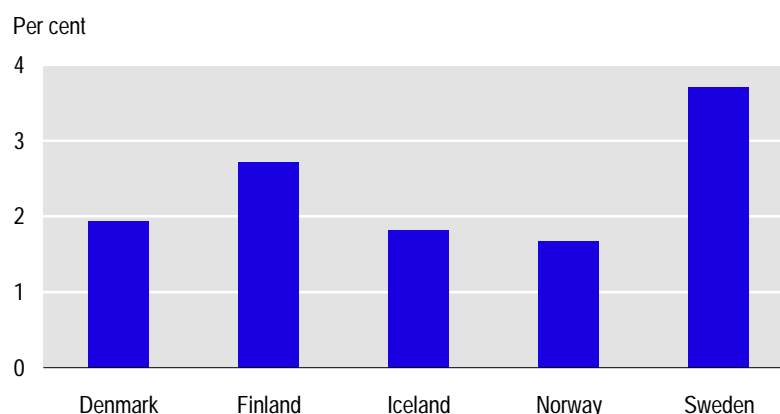


4. Research and Development

Enterprises are becoming increasingly aware of the role of technological expertise and the effective utilisation of new knowledge as preconditions for success in global competition. This expertise and the possession of highly skilled employees have been found to have a positive impact on productivity. Investment in research and development is also a key target area in government science and technology policies.

Nordic countries are approaching the top international level in terms of R&D investments. Research intensity, i.e. R&D expenditure as a proportion of Gross Domestic Product (GDP)¹⁸ is illustrated in figure 4.1.

Figure 4.1 R&D expenditure as proportion of GDP



Although the figures in Sweden and in Finland are high, absolute R&D investments are still quite small compared with those in the USA and Japan, for example. Sweden has invested high amounts in monetary terms on R&D for a longer period, so the growth rate during 1995-1997 was only 2.3%. The growth rate in the other countries was remarkably high in Iceland, 12.7%, being in Finland 10.8%, in Denmark 6.4% but in Norway only 1.9%.¹⁹

Around one third of the total business sector expenditure on R&D in the OECD countries comes from the ICT sector. The statistics are based on the common definition of the ICT sector. Still, it has not been possible to have a fully consistent set of ICT data for each country.

¹⁸ OECD: Main Science and Technology Indicators, No 1, 2000..

¹⁹ Analyseinstitut for Forskning: Nordisk FoU-statistik for 1997 og statsbudgetanalyse 1999. Århus, 2000.

Table 4.1 Research and development in the ICT sector, 1997.

	R&D in ICT	R&D in ICT	R&D in the total business sector	Share of ICT R&D in the total business sector
	mill.nat. currency	mill. PPP ²⁰	USD	percent
Denmark	2 810	329	1 558	21.1
Finland	5 808	962	1 887	51.1
Iceland	854	11	49	21.8
Norway	3 021	324	1 111	29.2
Sweden	13 971	1 427	5 123	27.9
Total OECD		116 384	335 988	34.6

Source: Measuring the ICT sector, OECD 2000.

Sweden alone invests in research and development in total business sector more than the other Nordic countries together, although the amount for R&D in ICT does not exceed the other countries' total and the share of R&D in ICT is lower than the OECD average. The share of R&D in ICT in the total business sector in Finland is the largest for any other OECD country.

²⁰ Purchasing Power Parities