

Indran Ratnathicam, *Harvard University*

“ It is difficult to find qualified people because the supply is too low. Expanding school capacity and upgrading the knowledge base will help our industry greatly.”

—*CEO of technology company, Norway*

“ The next step for Norwegian IT is to improve the collaboration between companies and create clusters that can gain greater international recognition.”

—*IT product manager, Norway*

Along with its Nordic peers, Norway forms part of the most Networked Ready region in the world; the nation ranks fifth overall in this year's Index. Though Norway shares many characteristics with other Scandinavian countries, such as its well developed communications infrastructure, the nation has striking differences as well. For example, the growing information technology industry plays a less significant role in Norway's diverse economy than it does in those of its neighbors.

The telecommunications industry has been deregulated since 1998, a condition of joining the European Economic Area. Internet and mobile penetration in Norway are among the highest in the world, the result of the nation's technology-friendly culture and publicly and privately funded modern infrastructure. Despite slow initial development of broadband, recent estimates suggest that at least one-third of all Norwegians will have broadband access by the end of 2005¹ (Ranking in Availability of Broadband: 26). Meanwhile, the government aims to connect all local authority administrations, hospitals, schools, and libraries by the end of 2002.

In June 2000, the Norwegian government launched a national ICT program, dubbed eNorge, designed to promote ICT and Internet use (Ranking in ICT as Government Priority: 30). In the promotion of a Networked Society, eNorge looks to support Norwegian cultural content and services. For example, eNorge has backed projects that incorporate the Sami language and its unique characters into software as well as others that develop digital teaching aids. In addition, eNorge has supported public access by working with local schools to make their ICT facilities open to the public during evening hours.

Commercial use of ICTs is beginning to catch up with the sophistication of the network. The majority of Norwegian businesses boast websites, but companies have been less enthusiastic about moving their transactions online. In Norway's large oil and oilfield services industry, the dominant companies have also been world leaders in introducing e-marketplaces. However, across the multibillion-dollar industry, more than 60 percent of all companies, mostly medium and small enterprises, had yet to integrate their sales and purchasing into an e-marketplace by the first half of 2001.² Concerns about security and lack of an ICT strategy are often cited as obstacles to ICT use, which prompted incorporation within eNorge of a program to implement national security and commerce standards. Additionally, the government is planning a public procurement portal for 2003 that should encourage vendors to go online. The domestic ICT industry is growing quickly, but Norway maintains a significant deficit of ICT hardware and services in its trade balance.

Norway is having trouble meeting the demand for ICT-skilled workers. Fewer university students are studying ICT-related courses, and the universities are facing challenges attracting qualified instructors—the student to teacher ratio is far higher in Norway than in neighboring Sweden³ (Ranking in Quality of IT Education: 17).

Norway's National Center for Telemedicine is at the forefront of telemedicine research globally, with ties to universities throughout the northern hemisphere. Using rural Norway as a local proving ground, the Center has pioneered new models of centralized specialization and remote diagnosis with high-resolution digital imaging and collaborative online tools.

Key Facts

Population	4,485,000
Rural population (% of total population) 1999	14.30 %
GDP per capita (PPP)	US\$29,500
Global Competitiveness Index Ranking, 2001–2002	6
UNDP Human Development Index Ranking, 2001 (adjusted to GTR sample)	1
Main telephone lines per 100 inhabitants	72.90
Telephone faults per 100 main telephone lines	39.50
Internet hosts per 10,000 inhabitants	1009.31
Personal computers per 100 inhabitants	49.05
Piracy rate	35.00 %
Percent of PCs connected to Internet	20.58 %
Internet users per host	4.86
Internet users per 100 inhabitants	49.05
Cell phone subscribers per 100 inhabitants	70.25
Average monthly cost for 20 hours of Internet access	US\$10.81

RANK

Networked Readiness Index 5

Network Use component index 4

Enabling Factors component index 7

■ Network Access 7

Information Infrastructure 5

Hardware, Software, and Support 9

■ Network Policy 13

Business and Economic Environment 14

ICT Policy 11

■ Networked Society 6

Networked Learning 12

ICT Opportunities 5

Social Capital 2

■ Networked Economy 9

e-Commerce 14

e-Government 12

General Infrastructure 2