

design and technology with information technology, as well as the identification of IT as a "core skill" in nationally recognized qualifications. In 1996, a new educational software company was established in Britain, linking Apple Computer and Acorn, the leading provider of hardware to the U.K. education sector. This was established specifically to provide IT solutions for the U.K. educational market. Another market innovation is the offer made by America Online (AOL) of free accounts, giving participating schools unlimited access to all AOL content and the Internet. The online provider plans a large educational area on its U.K. service, with national curriculum materials and content authored by a British company. U.K. PC manufacturer RM, which has a strong school market, hosts an extensive series of Internet home pages for schools.

It is estimated that there were about 1.5 million U.K. Internet users at the end of September 1995 and that the U.K. generates one third of all non-U.S. Internet revenues. Usage is expected to grow to 7.7 million by the end of the decade. The market for Internet and Intranet software and services is expected to grow rapidly – at compound annual growth rates of 36 and 70 percent, respectively – over the next five years.

In 1991, the United Kingdom was the first country in the world to allow cable-television operators to offer telephony services. There are over 100 cable-TV franchises throughout the U.K., and over 92 percent offer telephony services. By April 1996, 1.6 million lines had been installed, double the number installed during the previous year. In fact, more homes now have a cable telephone than have cable television. There is continuing consolidation in the U.K. cable-TV market, and five companies now control over half of all homes connected. Cable companies are actively looking at new revenue streams such as the Internet, multimedia, and video-on-demand to stimulate further growth.

In addition to cable telephony, there are about 150 other public telecommunications operators, which provide a variety of services from high-speed broadband fibre in limited geographic areas to wireless services in the local loop.

In July 1996, the government allowed full international telecoms services, including

international simple resale, to be competitively offered, subject to licensing and certain conditions. This made Britain the first country in Europe to take this step, which was designed to maintain its competitive position as the leading destination for inward telecoms investment. By the end of July 1996, about 50 companies had applied for an international licence. One of the fastest-growing (30–40 percent per annum) areas of telecoms investment has been in call centres, with over 5,000 being established by mid-1996, including 60 serving international markets (e.g., Delta Airlines).

In June 1996, the U.K. issued two licenses for Tetra, a new advanced, European-wide standard for digital trunked mobile radio. One of these licences was awarded to a consortium controlled by Telesystem International Wireless of Montreal. Each licensee is expected to spend several hundred million dollars in building its infrastructure, with comparable sums being spent on end-user equipment and systems.

Radio communications have been identified by the government as a key "information society" technology, contributing over \$20 billion a year to U.K. GDP. In order to protect this valuable resource (and encourage the use of spectrum-efficient digital technology), the government announced plans in mid-1996 to introduce spectrum pricing; at present licences are priced to recover administrative costs only.

## Local Capability and Competition

Local capability within the sector and subsectors varies, but with significant penetration by U.S. imports in most cases. There is a substantial assembly and sub-assembly industry in the U.K., mainly overseas-owned, with over one third of Europe's PCs being manufactured in Scotland. The telecoms equipment manufacturing and service sectors are largely foreign-controlled.

The Lucky Goldstar Group of South Korea announced the largest inward investment in Europe in July 1996, to build 64 & 256 M-bit memory chips and computer monitor/TV components in South Wales. Canadian companies Nortel, Mitel, and Newbridge all have substantial manufacturing plants in South Wales.

