

## Communications technology

# IF YOU BUILD IT, THEY WILL COME

One of Luxembourg's strengths has been its ability to anticipate changes in communications technology. A conference at the end of January will examine future trends in the area of ICT-related services.

Duncan Roberts (text), Olivier Minaire/Wide (photo)

"ICT and telecommunications are constantly evolving, which means we constantly need to monitor the regulatory environment, and put ourselves in a position to anticipate, at least to a certain extent, market developments," says Minister for Communications **Jean-Louis Schiltz**. With technological developments accelerating at unprecedented speeds, it is becoming more and more difficult to predict what the future will hold five years down the line, never mind in ten years. But Luxembourg's record in the communications field demonstrates an ability to learn and adapt quickly. After all, in the 1930s the Grand Duchy was one of the first countries to allow a private company, Compagnie Luxembourgeoise de Radiodiffusion, to have broadcast rights at a time when most radio stations were publicly owned. Almost half a century later, when it became clear that the commercial advantage enjoyed by Radio Luxembourg in various European markets would be lost, the Grand Duchy reacted by spearheading the revolution in private television across borders – permitted by European directive – with the launch of **RTL** in Germany (the channel celebrated its 25<sup>th</sup> anniversary at the beginning of January). The latter move emanated from a recognition that Luxembourg is at the centre of the European single market, and is thus well-placed to take advantage of any developments – as long as it continues its policy of forging ahead and making things happen, as it did in the mid-1980s with the establishment under the dynamic stewardship of then prime minister Pierre Werner of **SES** (Société Européenne des Satellites), which pioneered direct-to-home satellite broadcasting and, with Astra, now has a globally established brand name. Indeed, the only failure of any significance of successive governments' attempts to position Luxembourg at the forefront of technological revolutions was the still-birth of **Europe Online** in the mid-1990s.

The technologies may have changed, but the commitment of the current government to developing Luxembourg as a centre for information and communications technology, and for e-commerce,

remains. "We must continue our efforts in line with the last few years. I believe connectivity to be key to sustainable success in the ICT sector. We must therefore further develop our infrastructure," Schiltz explains. The recent laying down of some 200 kilometres of fibre optic cable by **Luxconnect** is part of that strategy. Luxconnect was established by the government as a private company in 2006 to respond to increasing demand for connectivity. As well as establishing and managing national and international fibre networks, the company is charged with building and operating Internet related data centres – the first of which, a Tier 4, five-star power house, will open in Bettembourg later this year.

## R&D PRIORITIES

Of course, much of what has been achieved in ICT over the past two decades has been inexorably linked with the growth of the financial services sector. It has been this development in back office systems, coupled with engineering expertise from the broadcast and satellite media sector, that has created the sort of convergence of technologies that has allowed Luxembourg to take such a lead. But Schiltz is aware of the importance of continuing to advance in the field of Research and Development, which is one of the pillars of the broader efforts of the government to diversify the economy. "The government has recently integrated information security and high performance telecommunication networks as new R&D priorities. The idea is to foster a powerful R&D competence pool that could be quite interesting for the ICT industry," he says. "In the same vein, we continue to listen to the needs and concerns of companies that are established in Luxembourg. This helps us understand their future strategies and adapt to the latest technical developments."

The minister has been in California this month to visit potential investors in Luxembourg and discuss the possibility of companies establishing their European headquarters in the Grand Duchy. "The establishment of flagship companies like **RTL** and **SES**, and more recently **Skype**, **PayPal**, **Amazon**, **iTunes**, **Vodafone**, **eBay** and others have been instrumental for the development of Luxembourg as

## Conference

### FUTURE TRENDS OF THE INTERNET

**Luxembourg for ICT** is organising the conference at the **Centre culturel de rencontre Neumünster Abbey** (CCRN) on Wednesday 28 January under the patronage of **Viviane Reding**, Luxembourg's member of the European Commission responsible for Information Society and Media. The conference includes presentations from, among others, **Josh Silverman**, President of **Skype**, **Thomas Engel**, Professor for Computer Networks and Telecommunications at the **University of Luxembourg**, **Tadao Saito**, CTO **Toyota-InfoTechnology Center**. The event will also see the formal presentation of the **Luxembourg IPv6 Forum**, which held its first meeting on 16 January. This new body has been created to support a smooth transition to IPv6 by consulting and advising all stakeholders with recommendations and roadmaps. Its mission is to advocate IPv6 by improving technology, market, and deployment user and industry awareness of IPv6. **Latif Ladid**, President of IPv6 Forum and Chair of the **European IPv6 Task Force** will also make two presentations at the conference. ●

an ICT hub. Their presence generates a greater visibility of Luxembourg, thus putting Luxembourg on the map," he says. "I believe that first-class communication networks and data centres make Luxembourg a data vault and thus the ideal place for additional content and data management activities." Another area that Schiltz sees as promising for future development relates to intellectual property rights or similar assets like domain names based on the new legislation that has created an attractive framework for IP portfolio management in Luxembourg. Again, the government has shown a keen sense of anticipation and awareness of trends – the attitude seems to be that of "if you build it, they will come."

#### ATTRACTING SKILLS

But with success come new challenges. Despite the fact that Luxembourg has one of the highest proportions of IT specialists in the world among its professional population – the share of ICT-related jobs, whether directly or indirectly, in the total economy is 33% according to the OECD – Schiltz recognises the continued need to attract experts in the ICT and data management sector. "Luxembourg itself has generated, so to speak, a lot of highly skilled professionals over a long period of time. The growth of Luxembourg's dynamic financial sector has led to the development of a sophisticated services sector, inside of which we find many ICT specialists."

Nevertheless, the government acted pro-actively in October last year by introducing new legislation to facilitate the delivery of work permits and residence permits, especially for high-qualified workers, researchers or workers temporarily assigned to an entity of a company group based on an agreement between intra-group entities. "Thus, it is easier for companies to assign their workers, regardless of their nationality, to Luxembourg. This is good news as it enables us to attract those highly skilled workers to Luxembourg which are not, for the time being, present on the local market." The minister stresses, however, that more globally the government should continue to develop the country's global attractiveness for expatriates, by offering, for instance, first-class international education and good airline connections.



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Jean-Louis Schiltz (Minister for Communications)

It is this continued investment in infrastructure, regulation, and the development of future technologies that the minister sees as essential, so that Luxembourg will emerge from the crisis in an even stronger position than before. The ICT for Luxembourg conference will address more specific technologies and developments such as Radio Frequency Identification (RFID) tags, the key technology of the Internet of Things and the new Internet protocol IPv6.

The Internet of Things, for example, may be pure science-fiction to many lay people but Schiltz has no doubt that it is the next step in the evolution of the Internet. "The fact that interconnected objects will be able to communicate among themselves will make for a true revolution. The advent of a ubiquitous information society will be an important challenge for everyone: consumers, the industry, but also those that bear political

responsibility," says the minister. Indeed, while Schiltz acknowledges that the Internet of Things will help make life easier and safer and allow the development of new services, for instance in healthcare, transport, retail commerce or energy efficiency, he is also aware of the privacy risks.

"We have to find a fair balance between the promotion of a new technology and the protection of citizens and networks," he explains. "Innovative approaches will be required. Hence the importance of anticipating the upcoming evolution in time to prepare the right technical, financial and political decisions. The conference of the 28 January will be a major step towards that goal." ●



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