

Engineering the Maltese information society, (Times of Malta)

by Martin Debattista, iTech, Times of Malta , 21 st June 2007

The role of engineers in building the Maltese information society and knowledge economy is being recognised..

The term "information society" has long come of age, defining the moment in history when computers became the drivers of our lifestyles. How many of us would give due credit to the role of the engineer in creating the information society and the so-called 'knowledge economy our country is striving to compete in?

This was the theme of the 16th annual engineering conference of the Malta Chamber of Engineers which focused on the role of the engineer in creating our information and communication technology-dependent world.

"What is important to realise is that the knowledge economy is not just ICT. It is also about creating knowledge and using knowledge to improve the quality of life," according to Robert Ghirlando, Dean of the Faculty of Engineering at the University of Malta . "ICT is important because it is a very powerful tool that greatly improves our capacity for creating, storing and generally dealing with knowledge. But knowledge is also about research, development and innovation."

Prof. Ing. Ghirlando told-i-Tech engineers have more sophisticated tools to work with.

"When I was a student, I was using a slide-rule for most of my calculations. Today's students are all using laptops."

He puts engineers in a privileged and responsible position.

"Engineers are the professionals responsible for building much of the infrastructure necessary to maintain the knowledge economy, whether it is the engineer at the power station generating the electricity that powers the economy, or the engineer maintaining the communications system. But engineers also create knowledge with their designs, research and development. Clearly the environment and energy are two areas that are providing some very interesting challenges to engineers."

Speaking of power stations, one of the speakers during the conference was Sean Barbara, ICT department manager at Enemalta Corporation, who spoke about a vital piece of engineering in our lives: Production of electricity.

He explained how Enemalta intends to enter into a strategic partnership with a number of solution providers to invest in an automated metre infrastructure solution integrated with a customer relationship management ICT system.

The "old" electricity metres present a host of problems that effect Enemalta's way of doing business, one of them being accessibility. In fact 35 per cent of premises are found closed on the first visit and around 15 per cent of metres remain unread throughout the year.

"Our solution envisages connecting the current water metres with the smart meter to enable transmitting both water and electricity readings," he explained. "Data concentrators will be housed in our 1,200 substations around the island. Transmission of data from concentrator to a centralised system could be done through a secure ADSL connection."

These smart metres can store a large registry of readings as well as other data such as outage data and can be remotely switched off and on without any on-site intervention. Defaulters can see their electricity supply reduced but not cut off completely. More important, these metres make it possible to apply different tariffs throughout the year or even throughout the day, rates which better reflect the cost to provide the electricity consumed during a particular period and which should influence general energy habit use, possibly smoothing out demand peaks and shifting consumption to non-peak hours.

While Enemalta is exploiting ICT to get on a more solid commercial footing and provide a better service, Malta is regarded as being in a good position to export its own local ICT knowledge internationally.

" Malta has two competitive advantages: the quality of its ICT resources and a lower labour cost compared with other EU countries," according to Reuben Portanier, the chief officer for strategy and business development at Datatrak Solutions. "These two comparative advantages are not enough though. I believe that Maltese ICT enterprises need to identify specialised niches in which they can flourish and grow and that will initially not be overcrowded in terms of competitors."

Mr Portanier says that apart from Datatrak Solutions there are companies registering international success in security solutions, hosting services of online betting companies, retail solutions, e-business systems, specialised call centre services and mobile solutions, amongst others.

"However, I believe that as a local ICT industry, we have more potential that can be exploited. There is no particular magic formula. Datatrak's success on the international front is based on four prongs. The first is to be aware of your strengths and cultivate those strengths in order to achieve a competitive edge. The second is to study the market and identify a niche which fits in with the corporate strengths. The third is to be creative and invest in innovation in order to be one or two steps ahead of competition. And lastly to have a corporate ethos of perseverance and believing in ones capabilities."

The local ICT industry is being credited with bringing massive changes in the local ICT infrastructure in recent years.

"The key challenges were multiple and significant. Credit has to go to those operators who kept faith in the potential of the local and international market and upgraded accordingly," insists Colin Camilleri, chief technical officer at the Malta Communications Authority (MCA). "Examples of these challenges include obtaining the necessary investment, taking a "go/no go" decision in the face of rapidly changing technologies, adapting to evolving legal and regulatory environments and coping with added competition."

Prof. Ing. Camilleri explained how this new infrastructure has changed the lifestyle of Maltese citizens, in some areas beyond recognition, with cheaper fixed-line and mobile phone communication, more pervasive and mobile internet access, and an impressive take up of cable and terrestrial digital TV.

"All this, and more, led to driving Malta to become ever more successful in terms of achieving an information, or better knowledge, society," adds Prof. Ing. Camilleri.

He revealed that in the next few months the country should expect developments, especially in the wireless sector. A third mobile operator could be launched, broadband wireless internet should begin to come on stream, and digital radio should also put in an appearance. Unfortunately, lack of usable UHF spectrum is holding the country back from trying out new video technologies such as HDTV and mobile TV.

The full presentations of the conference can be downloaded from

<http://www.coe.org.mt>