Having moved from Dublin to Eindhoven in 1984, Terry started his Philips career at the Nat.Lab., where he worked on novel display systems, TV picture quality improvement and cost-performance trade-offs at system level of flat thin TVs. He went to Taiwan (where the pace of innovation and closeness to the market could be 'felt') in early 1997 and since then, he has spent much time in the 'sister' labs. This has helped to broaden not only his technological background but also his insights into Philips (and particularly Philips Research) from a global perspective. He is currently based in the UK and on October 1, 2002 he was appointed programme manager of Connectivity Solutions.

Terry Doyle
Programme Manager Connectivity Solutions

What is the main purpose/challenge of the programme?

The purpose is to deliver innovative connectivity solutions that will strengthen the current businesses and improve the top-line growth of Philips. The main technical challenge in the programme is to provide simple, seamless, reliable and secure solutions that enable people to easily connect to, share and use information, personal content, entertainment and services anywhere anytime.

The programme focuses on (mainly) wireless *solutions* which means that from the beginning, the overall system has to be considered from antenna, through RF, baseband, and IC implementation issues to software and optimum trade-offs made with respect to cost, time-to-market, technology, applications and consumer use. In this respect, the connectivity programme has to work closely with the other programmes in order to derive the best customer-oriented solution. The programme aims to develop a leading position in selected standards, from low power, low bit-rates to high-throughput standards for AV streaming and from short range (e.g. tags) to long distances (e.g. cellular).

Although the main customer today is Semiconductors, the programme also focuses on creating product differentiating software and novel business opportunities for Lighting, Consumer Electronics and Medical Systems. In short, we focus on the connected home, the connected hospital, the connected car but more specifically the connected consumer.

How do you see your role?

The Connectivity Solutions programme was established in January 2003 in order to manage and focus the connectivity-related activities in Research in a more coherent way. My main role is to redefine the portfolio to be more market-driven and focused on growth opportunities, in addition to realigning our portfolio with that of the business roadmaps. I want to increase the exposure to the 'customer of the customer' to better understand the key market drivers. As an example, besides the CRE customer event, we have invited KPN Mobile to give their market perspective during our recent Connectivity Day and will also discuss vision and trends with HP and Vodafone. At the same time, I believe that we have to move forward from business rationales

With Programme Management, we are now in the driving seat!

to proactive business exploitation scenarios and bring a more market and *solution* orientation to an organization that is still capability-driven. Finally, since Connectivity Solutions is the most international programme with groups in all laboratories, I see a key challenge in building a strong motivated team that can effectively take tough programme decisions in order to deliver the top-line growth opportunities.
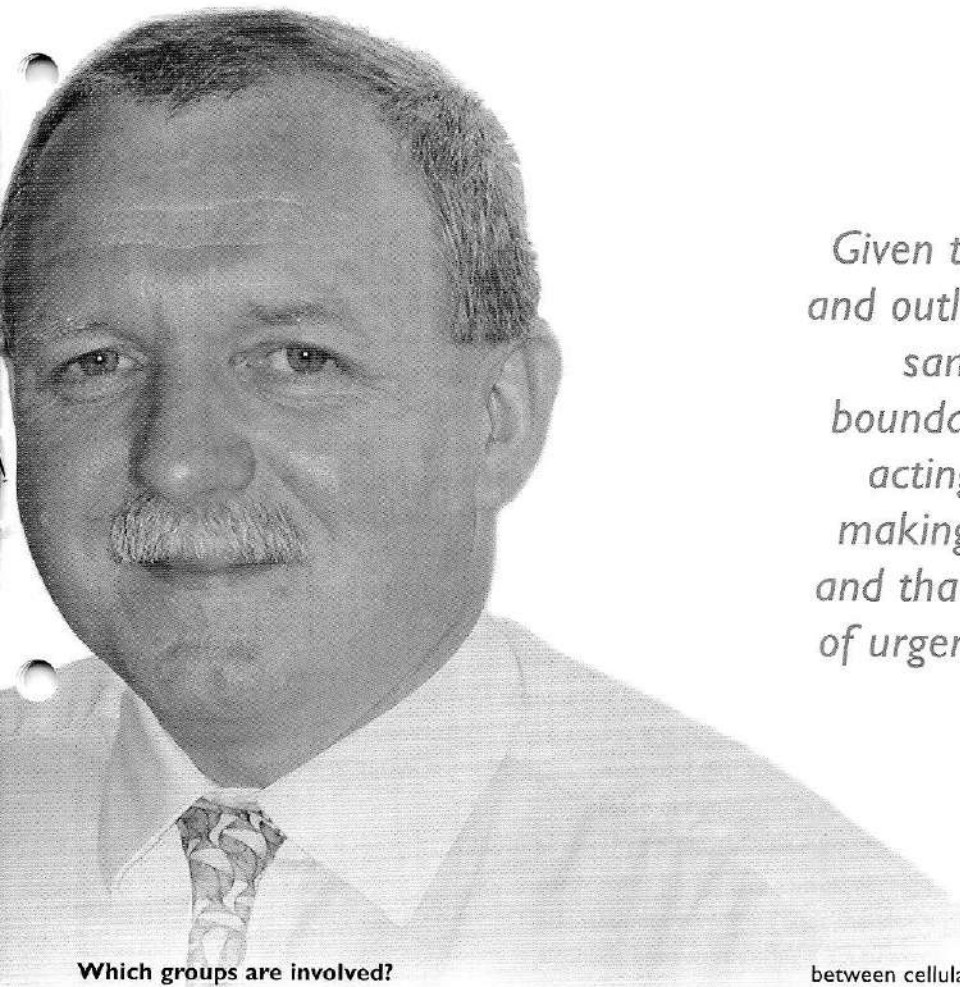
Given the current market dynamics and outlook, we all need to row in the same direction, work across boundaries, at an increased tempo, acting rather than reacting and making choices for future growth - and that requires an increased sense of urgency in the whole of Research.

Which groups are involved?

As I mentioned, groups in all the labs are involved in the connectivity programme. The key groups are those of Neil Bird (PRL – cellular, low power, positioning), Tobias Helbig (PFA – Ease of use, self-configuring networks, Automotive), Yonggang Du (PREA – cellular, local standards) and Narciso Tan (PRB - WLAN, Agile radio).

At the Nat.Lab, the situation is somewhat different as there is no 'connectivity' group but diverse groups like those of Pieter Hooijmans, Leo Warmerdam, Jean-Paul Linnartz, Albert van der Werf and Jaap van der Heijden. They contribute from RF and mixed-signal through baseband algorithms and processor architectures to interoperability issues. These groups also provide key input from the other programmes to which they belong – ICDPM, IS and EPST. There is also significant interaction with the Healthcare and L-DMS programmes (mainly via the groups in Aachen).

Can you give examples of important projects?

Currently we are examining our portfolio and aligning our roadmaps with our internal customers, so I would rather indicate a few key growth areas of the portfolio. In the area of WLAN/PAN, we focus on robust high-throughput solutions for AV streaming and data transfer e.g. MIMO & UWB. Reliable secure ease of use will be a key differentiator in the market place for home wireless AV streaming solutions and the use of tags will be crucial here. Given the upsurge in 'hotspots', and the introduction of (portable) DTV, the convergence between cellular, broadcast and local-area networks will accelerate, driving the need for low-cost, low-power multimode solutions. We also work in the area of the 'connected car', particularly to develop connectivity solutions for accident free driving.

What is for you the advantage of programme management?

Programme management has helped to change the mindset of research management towards risk-taking, value creation and top-line growth opportunities (but there is still work to do here!). The most recent and significant change – making programme management the management axis for Philips Research - is changing the responsiveness and awareness of many in Research towards market driven value creation and drives the management of the programme portfolio so that we spend our time on doing the right things effectively. The international character of the Connectivity programme on the one hand has broadened our view on the global market and competition and on the other has created a team that shares this information in a way that encourages cross-lab collaboration to deliver solutions for the identified growth opportunities.