EU regulatory environment for RFID

Despite the considerable commercial activity around RFID in Europe, understanding and awareness among legislators and public officials may be surprisingly low. Even Viviane Reding, the EU Commissioner with responsibility for the Information and Media Directorate General, admitted in March at CeBIT (the world's largest computer expo) that the year before she'd had little idea of what RFID was.

Following a year-long public consultation on RFID, Reding announced a watching brief on the technology, taking a currently hands-off approach to regulation and saying that she was setting up a stakeholder group to examine issues, particularly around personal data and privacy, and make recommendations for action. Although she insisted that the market had to be left to grow without interference from the Commission, she was equally forthright in offering facilitating support for spectrum management and particularly for supporting the development of global standards.

EC activity around RFID has been growing over the past year. Projects in different areas have been set up, funded though the Framework Programme 6 and now gathered together under the title "Cluster of European RFID Projects" (CERP). The EC has delivered its policy objective and understanding in a paper to the European Parliament, RFID in Europe: steps towards a policy framework. There's been a detailed online consultation, to which EPCglobal responded in detail. The German federal government hosted a conference in late June under its Council presidency, intending to get politicians and others who continue to be ignorant about RFID rapidly up to speed on what the technology means for European economic and social progress.

BRIDGE (Building Radio frequency IDentification for the Global Environment) is one of the important FP6-funded projects and is scheduled to run for three years from July 2006. It covers research, development and deployment and takes no prisoners in aiming, as one of its documents has it, "to catalyse the massive adoption of this new technology by European industry".

European deployment of RFID lags behind world average growth and some commentators have seen inconsistent standards as having an effect. For instance, Europe alone has a mandatory protocol called Listen Before Talk (LBT) intended to avoid interference between RFID readers and other Short-range Radio Devices (SRDs) such as door openers.

"The problem is that LBT effectively limits the number of readers in a given space", explains Marisa Jimenez, "And that in turn affects trials and pilots. In principle, there is no guarantee that a reader finds an open channel if it needs one. For time-critical applications, this is not appropriate and in turn affects the usability of the technology . However, the industry and ETSI, the relevant European standards institute, have developed an alternative which eliminates the need for LBT on four channels that are used by the readers, the other 11 being used by the RFID tags. This works well but, as it involves an update in the spectrum management rules, will take time to resolve because so many people are involved – other users, telecom regulators, national legislators, EU legislators."

Reding recognises the importance of spectrum management and made a formal decision in late 2006 requiring UHF spectrum harmonisation by May 2007, effectively requiring member states to ensure availability. "Businesses don't restrict themselves to one country", Jimenez points out, "so there has to be a level playing field for Europe as a whole. At least the European Commission understands that proper spectrum management is crucial to growth, that it's a Europe-wide matter and ultimately an international one."

The objective of the BRIDGE project is to research, develop and implement tools to enable the deployment of EPCglobal applications in Europe. It consists of 15 work packages covering all areas of the subject from hardware, security and network requirements, to business case analysis and pilot trials in seven different sectors (pharmaceuticals, textile, reusable assets, manufacturing, etc). The project will also deliver training material (WP12) and adoption tools (WP13), these two areas being led by GS1.

Curiously the EC policy framework document already cited, although it speaks glowingly of the economic potential of RFID – "a new motor of growth and jobs" – and acknowledges the many potential social benefits, says almost nothing on the need for training and for disseminating advice and information. The March BRIDGE newsletter, however, explains that one reason many companies are not yet ready to implement RFID is that there simply aren't enough trained people.

"BRIDGE is certainly looking at producing training materials at different levels and for different sectors and including material for small and medium enterprises", says Jimenez, "There's also been discussions with unions to consider RFID in work contexts. The ILO published a report last year on the impact of technologies in the retail sector which was very positive and underlined the need to develop good training and, hence, skilled workers able to benefit from shifting work roles and responsibilities."

EPCglobal is also seeking to persuade governments to play their parts. "We all should work with governments in developing training", says Jimenez, "So that it's not just companies alone, but companies, unions and governments."

A study conducted by LogicaCMG on behalf of GS1 suggests that passive tag RFID is poised for significant growth in Europe but with high-value item-tagging remaining the largest opportunity. "RFID is developing very differently from the way most people envisioned a few years ago", it adds, suggesting that the next five years may well show equal divergence.

As Jimenez remarks, "A well-developed, robust and properly managed RFID industry benefits not just European businesses but also European citizens in areas such as food safety, stock availability and others we're beginning to recognise. Our ambition is to have in Europe the most friendly regulatory or policy framework for the development and rollout of RFID technology."