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When a suitcase says where it's flying to: Digital networking of everyday objects

In future your trip to the supermarket could look like this. You put some yoghurt, milk, muesli, fruit and sausage in your shopping bag and just go home with it. No queueing at the check-out, no hectic digging for your purse, no repacking of items from the trolley into the bags you have brought with you. How much your groceries cost will be shown on the display of your trolley and of course on your next credit card statement. That's it.

The technology for this scenario is basically there already. It is called RFID, short for Radio Frequency Identification. Thanks to RFID, organic low-fat milk can tell the computerised till, 'I am a litre of organic low-fat milk'. For this to happen, the price tag sends an identification code which the till can decipher. In the Alps, 'wireless' ski passes are already reducing waiting times at the ski-lifts. In Korea, this technology is even used on bus journeys. The ticket sends data to a receiver and the fare is deducted from the customer's account.

Wireless price tags are only one example of digital networking of everyday objects - basically the little brother of a technology called 'cooperating objects'. Experts predict huge growth potential for it. That's why the EU has been supporting a project since June 2008 which is supposed to drive research and development forward in this area. Computer scientist Professor Pedro José Marrón from Bonn is the head of 'Cooperating Objects Network of Excellence' (abbreviated as 'CONET'). Apart from 11 universities from ten European countries there are also leading technology companies on board, such as SAP, Boeing and Schneider Electric. The EU alone is funding this network of excellence with four million euros until 2012. The partners contribute a further six million themselves.

When Pedro José Marrón talks about the opportunities in cooperating objects, his eyes begin to shine. 'It's an extremely hot topic,' he says, 'for the logistics sector in particular'. This way, smart tags can ensure that cases really reach the right plane after check-in at the airport. Still, the data generated by cooperating objects can be abused for customer or movement profiles. 'Data protection is a big challenge,' Professor Marrón, who works for the University of Bonn and the Fraunhofer Institute of Intelligent Analysis and Information Systems (IAIS) in Sankt Augustin, confirms. 'The security of the technology is the key to it being accepted'.

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