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RACE networkRFID

FP7 Thematic Network
ICT-PSP: a European concerted effort on RFID

D2.1 – market analysis consumption report

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PU	Public	PU
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

:Preface

RACE Network work package 2:

“Summary Report RFID Market Analysis“

This document is a summarization of existing market analyses and additional information. A lot of reports have already been prepared, but only a few valuable studies are available for free. This task does not include to collect new data. The information has been compiled by more than 20 compared reports.

Procedure:

- Collection and analysis of all available reports
- Check usability and comparability
- Working out the draft
- Coordination and consultation with the network
- Include the feedback

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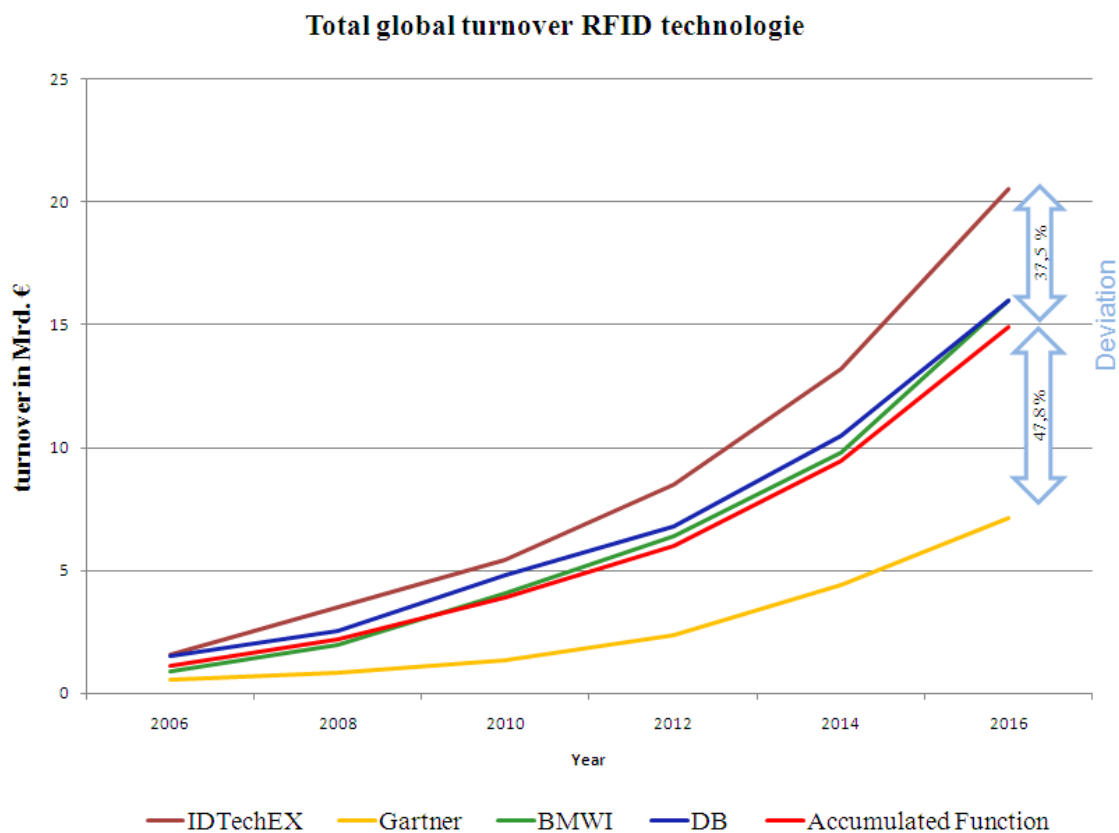
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1. INTRODUCTION

This report aims to roll out a market analysis for the near future and clarify the context of the current state of the art regarding technology and market conditions. The market analysis is the result of research and interpretation of expert reports. A comparison of several forecasts done by renowned institutes provides a general and objective global growth prognosis.

2. TOTAL GLOBAL TURNOVER

The global RFID market development is positive and beneficial at all. Several forecasts and case studies prognosticate a rapid increase of the turnover with RFID products in the next years.



In comparison with other IT products the current turnover of RFID products is relatively low, the mobile phone sector for example has got a global turnover of approximately 600 Mrd. € in

2009. RFID products just achieve approximately 3.5 Mrd €, but the forecasts¹ promise an above average growth.

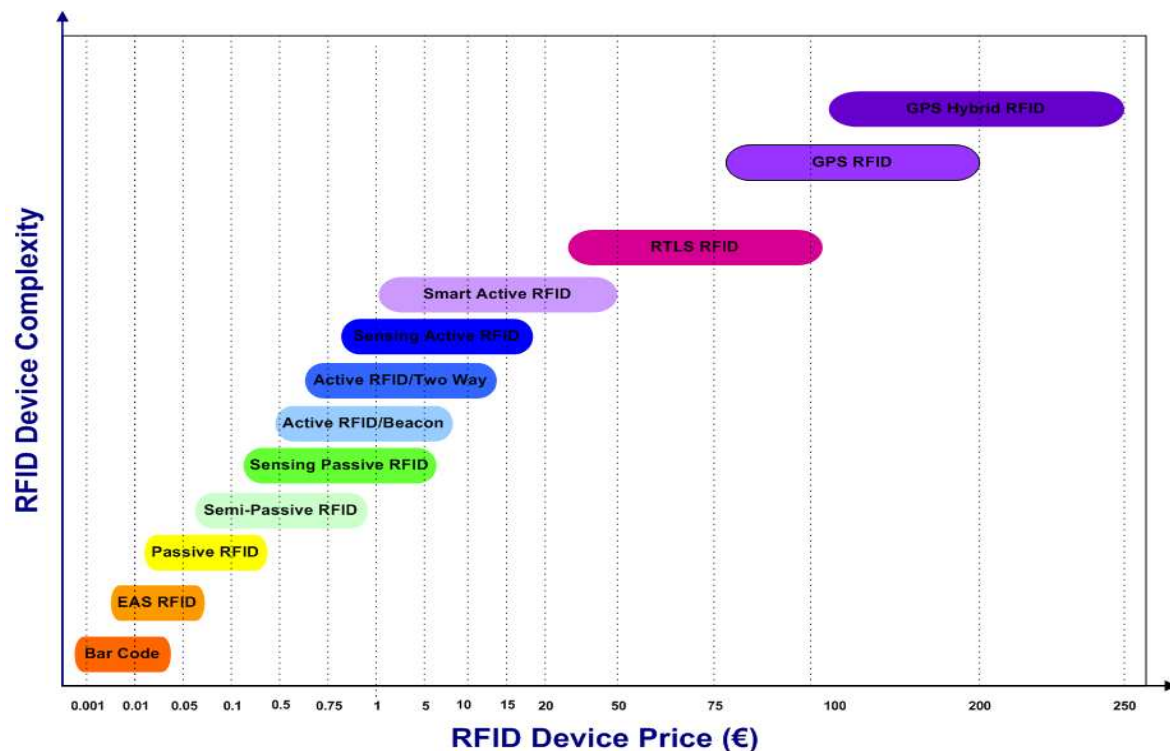
In order to give a real statement, we compared independent market forecasts with each other and developed an average turnover function. This approach function has the same run of the curve as the other forecasts.

The shape of all those curves runs exponential with a yearly growth rate of 19% to 25 %. We would expect that the turnover rises up from an amount of 3.5 Mrd. € in 2009 to 15.5 Mrd. € until 2016.

3. PRICE TREND OF RFID TAGS

The price of RFID devices depends on the frequency and the complexity. Furthermore the cost for barcode labeling is lower than labeling with RFID tags and understandably active RFID devices are more expensive than passive ones.

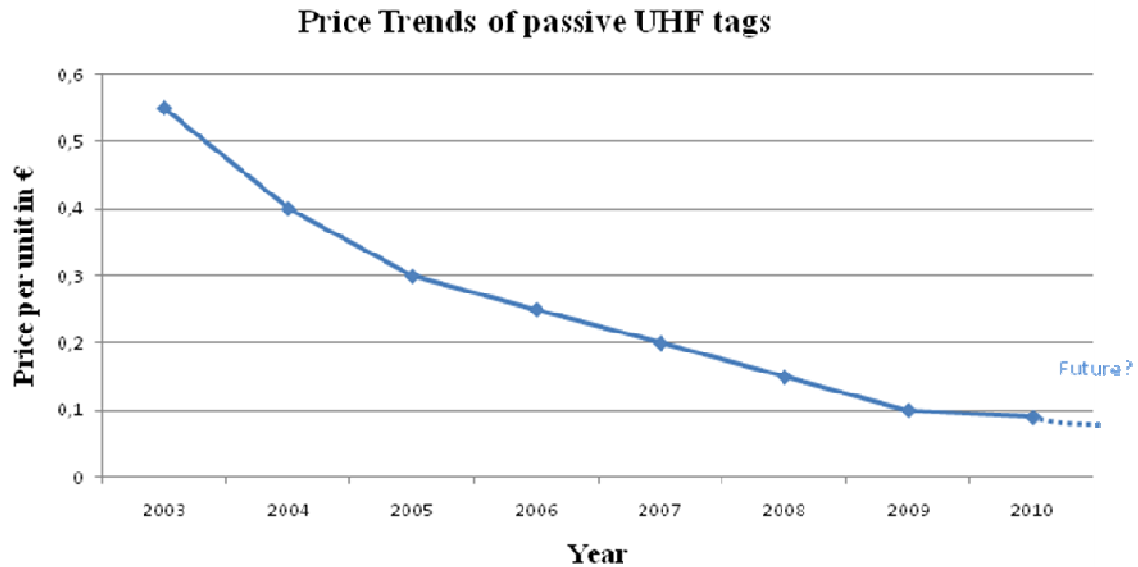
The following diagram² gives a basic overview about the prices of the different RFID devices.



¹ IDTechEx, Deutsche Bank Research, Gartner Inc. , Bundesministerium für Wirtschaft und Technik

² Ovidiu Vermesan, SINTEF ITC
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The price development of RFID tags is very promising and positive. At a very high purchase quantity it was possible to reach an average price of 60 cent (€) per basic structured UHF tag in 2003. Nowadays the average prices are considerably lower and those tags are priced at approximately 10 cent per piece.



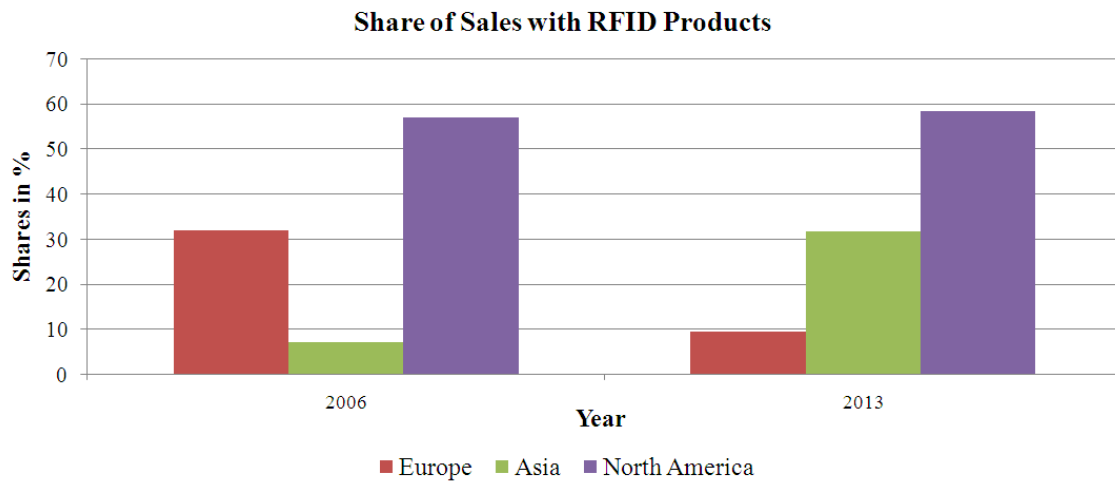
RFID tags consist among other materials of silicium and aluminum and are setting consequently a lower price limit, because of the cost of the raw materials.

However, the price per RFID tag could fall further³, if the tags can be produced out of polymers. But these so-called plastic tags are unfortunately not marketable and still in development. In the near future they will presumably replace the barcode technology as disposable product. Apart from the favourable price the advantages and benefits are the flexibility and printability of these tags.

³ IDTechEx
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4. GLOBAL MARKET SHARES

Today Europe is one of the leading countries in RFID technology. Furthermore, Europe must take attention to keep up with the competitors, especially Asia, in the next years. Indeed, the turnover of Europe and North America will increase further but Asia will experience a high growth of the turnover and will take over the leading position until 2016⁴.



Asia will increase their share of sales very fast until 2016. In 2006 the share of sales is 7% for Asia, 32% for Europe and 57% for North America. These values will change to 49 % for Asia, 19% for Europe and 25% for North America. This figure shows that Asia will dominate the RFID market in the next years.

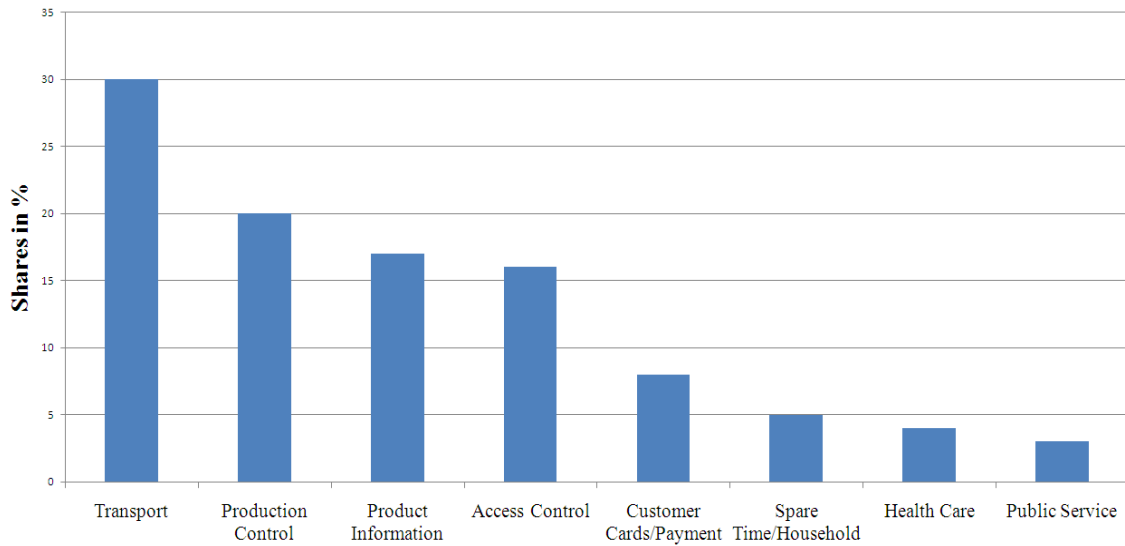
5. FIELDS OF APPLICATION

Today RFID technology can be used in many cases. The mainly usage is in the transport and production area. Moreover, RFID-Tags can be combined with other technology (e.g. GPS, GSM) in order to guarantee a perfect locating for e.g. goods all over the world. In the next years the fields ticketing, library, pharmacy (marking of medicaments) and protection of plagiarism will have the most growth of RFID-Products⁵.

⁴ Deutsche Bank Research

⁵ Bundesamt für Wirtschaft und Technik
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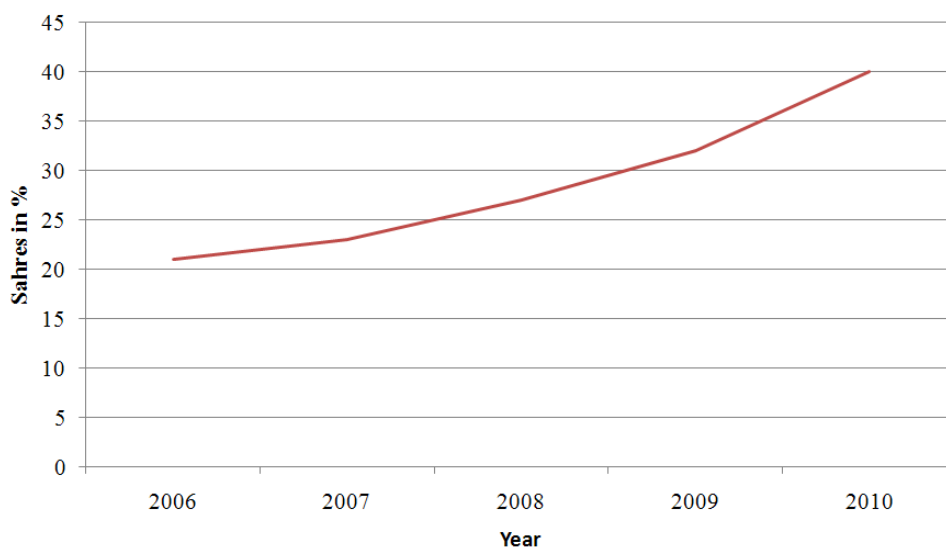
Fields of Application for RFID-Products



6. USAGE OF RFID IN COMPANIES

The demand for the usage of RFID-Products in companies will increase further in the next years. The number of companies which use RFID will double and rise from 20% in 2006 to 40% in 2010⁶. However, many companies want to introduce RFID-Products. But due to the fact of a lack of knowledge about the RFID technology and high investment costs, in times of depression understandable, many companies are afraid to introduce this technology.

Use of RFID-Products in Companies



⁶ Deutsche Bank Research
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7. PRIVACY AND DATE PROTECTION

The Commission of the European Communities wants to make sure, that privacy and data protection principles are implemented in applications supported by radio-frequency identification⁷.

Data protection is a very important issue when the data belongs to a certain person or contains personnel data, but in industry or enterprise processes tags save mostly almost exclusive a number and no personal information. Partners of RACE expressed the view, that the EU recommendation might complicate the implementation of RFID technology for companies and the whole RFID market in terms of administration.

⁷ EU Recommendation
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