



Guidelines and legislation

The regulatory side of RFID

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and

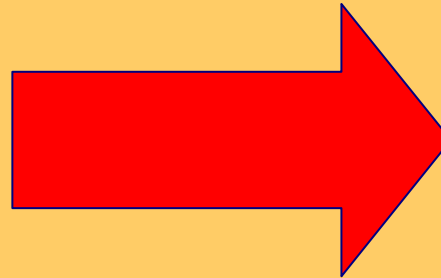
Véronique Corduant
Deutsche Post World Net

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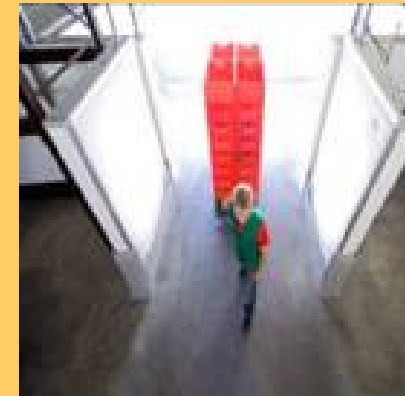


Implementing an RFID system

Prerequisites/ Requirements



System implementation



Pictures: METRO AG



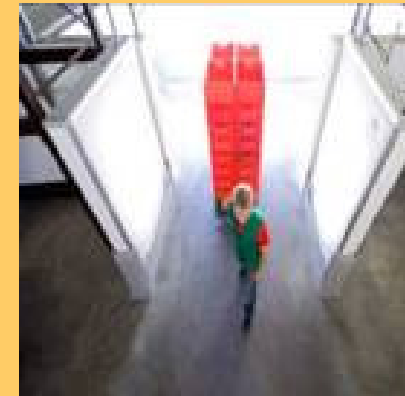
Implementing an RFID system

Prerequisites/ requirements

- Technical aspects
- Applicable European and national legislation
- Existing Self-Regulations
- Information for stakeholders (e.g. workers, consumers)

Guidelines

System implementation



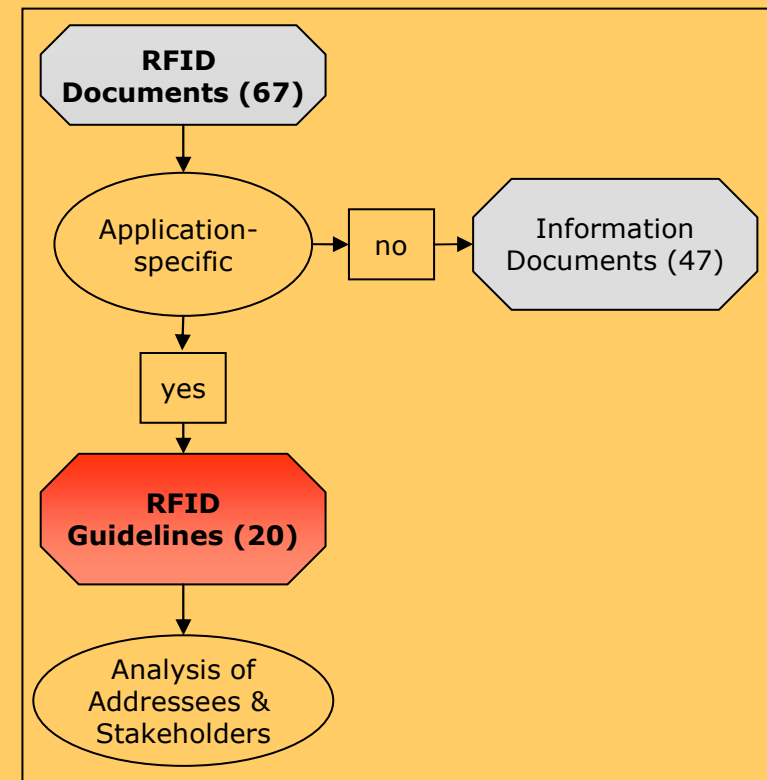
Pictures: METRO Group



Approach to analyse RFID implementation guidelines

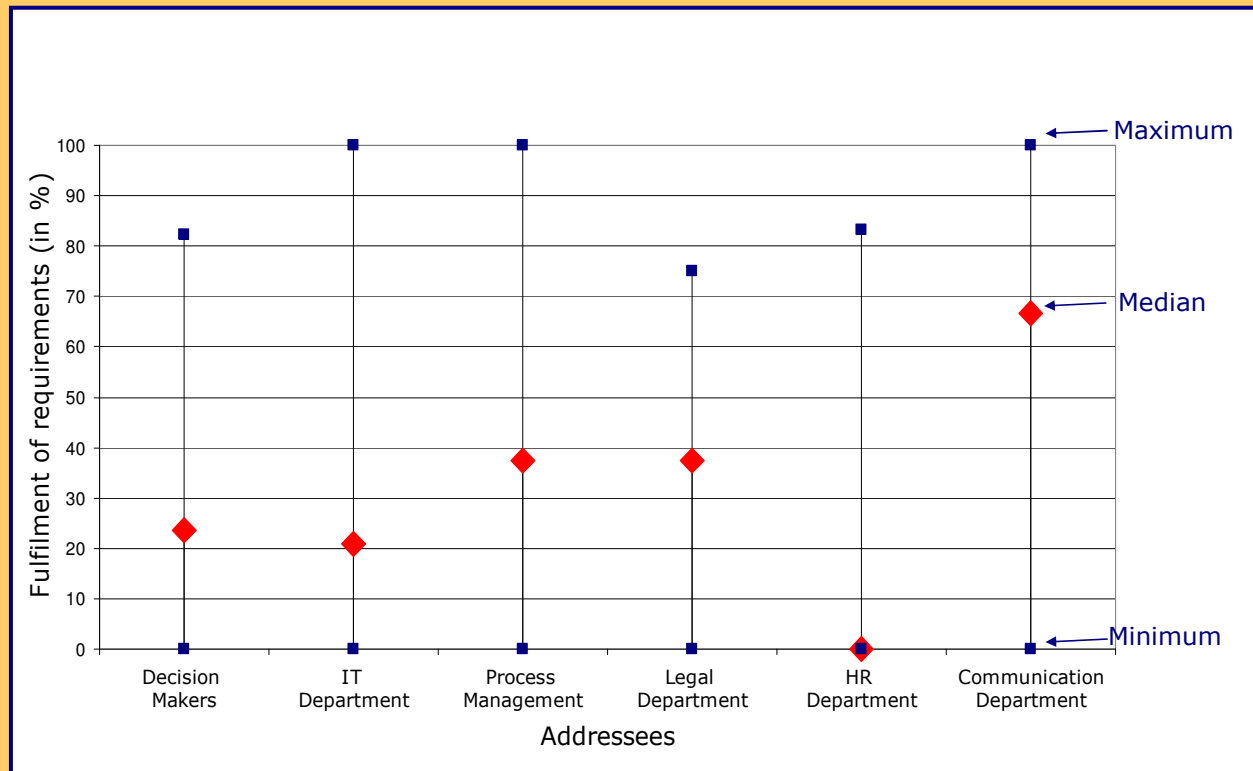
Guidelines:

- application-specific documents
- guidance for implementing/using RFID
- addressing specific concerns of
 - decision makers
 - IT department
 - Process management
 - Legal department
 - Human Resources
 - Communication department
- consider possibly affected stakeholders





Results: analysis of fulfilment of requirements of different addressees





RFID implementation guidelines should be

- **application-specific**
 - multitude of RFID applications
 - resulting challenges are vast
 - no “one-size-fits-all” solution
- **addressee-specific**
 - different addressees have different information needs, e.g. IT department, Human Resources
 - when drafting guidelines these fields of interest have to be considered



RFID Implementation Checklist

- Lists relevant topics for different addressees
- Allows to elaborate application-specific guidelines
- Balance between sufficient guidance and the necessary flexibility

Next steps:

- Regular updates due to technological progress
- Ongoing dialogue to integrate relevant stakeholders
- Handing over of the RFID Implementation Checklist to AIM Europe RFID Expert Group

The RFID Implementation Checklist	
Addressee of Guideline	Specific Requirements
Decision Makers	• New business opportunities
	• Organizational fit
	• Case studies as a benchmark
	• Data for calculating a business case
	• Cost-benefit analysis
	• Time frame
	• Resources needed for implementation
	• Risk assessment
	• Measurability of economic success
	• Non-monetary positive effects
	• Legal aspects
	• Overview of current RFID technology
	• IT security
IT Department	• Technology requirements
	• Alternate technologies
	• Outlook, future developments, roadmap
	• Data sharing systems
	• Standards
	• Data storage
	• Tag technology
	• IT security
	• Reliability
	• HW/SW architecture
	• Networking
	• Frequency restrictions & international interoperability
	• Interferences
• Interfaces	
• Co-existence or migration from classical Auto ID to RFID	
• Deactivation	
Process Management	• Process descriptions of other use cases
	• Attachment of tags to items
	• Awareness of technical properties of different RFID techniques
	• Co-existence or migration from classical Auto ID to RFID
	• Environmental conditions
	• Standards
	• Known fields for potential improvements of processes
• Outlook, future developments, roadmap	
Legal Department	• Defining legislative process concerning data protection
	• Legislative and self-regulative compliance
	• Guidance when written consent for data collection is necessary
	• Explaining legitimate purpose for data collection
HR Department	• Overview of current RFID technology
	• Scope and purpose of data collection
	• Health issues
	• Compliance with employee rights
	• Influence on employment
	• Training for employees
	• Information for stakeholders
Communication Department	• Communicating security measures to generate trust
	• Strategic communication campaign



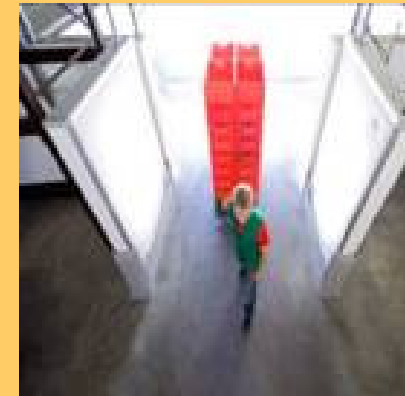
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Picture: METRO AG



Regulatory framework – points of discussion

- **Privacy & data security**
 - Generally no personal data on tags
 - Some of the applications may, however, enable a link to personal data and could cause the risk of disclosure of private information to unwanted parties.
- **Intellectual Property Rights**
 - Patent and copyright essential to innovations
 - Balance inventor's interest vs. interests of the public and corporate users to employ standard solutions without high fees
- **Health and environment**
 - Future development of RFID applications raises questions of tag recycling and radio waves impact
- **RFID governance**
 - Future development of RFID requires:
 - Ethical and secure data storage
 - Interoperable and non-discriminatory processes



Topics

Overview of the robust regulatory framework

Privacy & data security

- **Data protection** (Directive 95/46/EC)
- **Privacy Enhancing Technologies (PETs)** (Communication (2007)228 final)
- **Data protection and RFID** (Working document of the ARTICLE 29 Data Protection Working Party)

Intellectual Property Rights

- **EU Copyright** (Directive 2001/29/EC) and **Community Patent** (Proposal for a Regulation COM/2000/0412)
- **Legal Protection of Databases** (Directive 96/9/EC)
- **IPR Enforcement** (Directive 2004/48/EC)

Health and environment

- **Limitation of exposure of the general public to electromagnetic fields** (Council Recommendation 1999/519/EC)
- **Waste electrical and electronic equipment (WEEE)** (Directive 2002/96/EC)

RFID governance

No specific legislation applicable or necessary



Analysis of the privacy and security topics

Strengths

- As any other technology, application of Data Protection Directive and national data protection laws
- RFID tags do not generally contain personal data and RFID applications do not involve the processing of personal data

Weaknesses

- Different levels of implementation of EU legislation among the 27 Member States
- Legislation might not be sufficient to constitute the only source of trust for the general public (guidelines, self regulation?)
- Low knowledge of RFID technology and applications in the general public

Opportunities

- Compliance with the existing legal obligations mitigates privacy concerns
- Technical and organisational measures help to ensure data security and data protection
- Public use and public information of RFID could foster public acceptance

Threats

- Arising of new applications not covered by the existing legal framework
- Unlawful usage of the technology might foster fears
- Adoption of a specific regulation on RFID today hampering massive development
- Lack of interoperability between the different data security standards



Recommendations

- **Privacy & data security**

- Existing data protection legal framework sufficient for current RFID applications, no need for RFID-specific legislation
- Ensure compliance with existing legal requirements
- Privacy Impact Assessments and tag design with embedded privacy features (“privacy by design”)
- RFID applications guidelines
- Individuals should be able to agree on using RFID applications involving their personal data without imposing unbearable burdens upon RFID users
- Public information (about risks and benefits) on RFID technology and applications requires to foster public acceptance



Recommendations

- **Intellectual Property Rights**
 - Community Patent
 - Global platforms, international debates and private approaches regarding the IPRs management



Recommendations

- **Health and environment**
 - Applicable legislation covers existing and currently known future RFID applications
 - Studies necessary to assess the future impact of a massive RFID deployment
 - Close monitoring of technological progress to quickly react with legal amendments, if necessary
- **RFID governance**
 - Discussion within a wide scope, open for all ideas and requirements
 - All relevant stakeholders and use international forums
 - Further scientific research may be encouraged



Conclusions

- **The current European regulatory framework is sufficient** for existing and currently known future RFID applications
- Major task for industry and authorities today is to **ensure compliance with the existing regulatory framework**
 - Guidelines and checklists are a way forward (including technical and organisational recommended measures to ensure legal compliance)
- **Further research** and continuous monitoring to keep legislation up to date with technology development (e.g. environment and health fields, interoperable technical standards)
- Should action be necessary, options for **self-regulation should be given priority**
- **Dialogue** between industry, interested stakeholders and the authorities should continue in order to ensure the widespread development of RFID applications in Europe



Thank you.



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