



Contract Number 235542

RACE networkRFID

FP7 Thematic Network

ICT-PSP: a European concerted effort on RFID

D6.2 – Report identifying SME Barriers and Needs

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Organisation name of lead contractor for this deliverable: RFID Nordic

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Dissemination Level		
PU	Public	PU

Introduction

The following report presents the results of the survey carried out in Greece with actual and potential users of RFID technology and applications. These findings are a concrete illustration of current barriers and needs within this surveyed community.

At the time of submission of this deliverable, similar surveys are being conducted in several other European countries, in particular Germany, Ireland, Sweden and France. A second version of D6.2 will be submitted with the results of these other national surveys and a compilation of all results obtained.

Should more European countries be surveyed in the time frame of the RACE network RFID project, a third version may be produced towards the end of the network's EC-funded period.

The following call to actual and prospective RFID users to complete this survey has been relayed to most European member states via the RACE consortium members:

What is the current status of RFID adoption in Europe? Do your competitors invest in RFID technology? What benefits or barriers do they see?

If you want to find answers to these questions, you can participate in the following research conducted by the 'RFID in Europe' Network, an EU-sponsored Thematic Network (www.race-networkrfid.org). Just click on the link below and complete the questionnaire. This is expected to take 5-7 minutes of your time and at the end you will be able to see a summary of all responses.

<https://spreadsheets.google.com/viewform?formkey=dE1OT2pRVUpra1NrWFQtRTVXS0g3ZWc6MA>

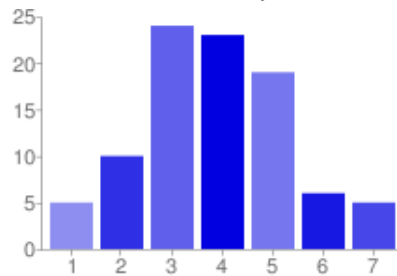
The results of this survey will be presented at the 'RFID in Europe' Conference, 29-30 March, 2011, Prague. Register now and attend the most prominent RFID event in Europe!

Report for the RFID survey in Greece.

This study was conducted in the course of the RACE Network RFID project ([www http://www.race-networkrfid.org](http://www.race-networkrfid.org)) by the Research Center: ELTRUN/SCORE of the Athens University of Economics and Business (<http://www.eltrun.gr>) and had the aim to monitor the interest and perceptions of the European organizations in Greece regarding RFID technology. Anonymity for anyone answering the questionnaire was preserved and all the answers were considered confidential. 98 respondents answered the questions that follow by indicating the degree to which they agree or disagree with each statement.

1. The following questions examine how familiar you are with RFID technology.

A. How familiar are you with RFID technology?



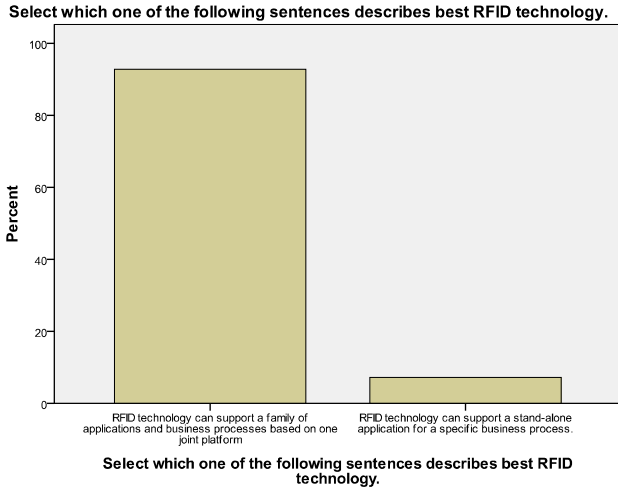
I don't know anything about RFID technology.

I am an expert in RFID technology.

1	I don't know anything about RFID technology.	5	5%
2		10	11%
3		24	25%
4		23	24%
5		19	20%
6		6	6%
7	I am an expert in RFID technology.	5	5%

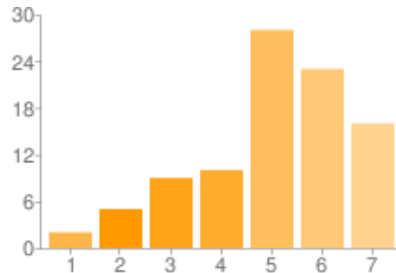
B. Select which one of the following sentences describes best RFID technology.

Sentences		Frequency	Valid Percent
Valid	RFID technology can support a family of applications and business processes based on one joint platform	90	92,8
	RFID technology can support a stand-alone application for a specific business process.	7	7,2
	Total	97	100,0
Missing	System	1	
Total		98	



2. The following questions examine the investment interest and perceived value of RFID technology.

A. Will RFID technology add value to your company?

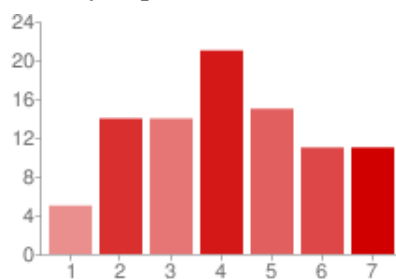


RFID technology will fail to add value to my firm

RFID technology will succeed in adding value to my firm.

1	RFID technology will fail to add value to my firm	2	2%
2		5	5%
3		9	9%
4		10	11%
5		28	29%
6		23	24%
7	RFID technology will succeed in adding value to my firm.	16	17%

B. Do you plan to invest in RFID technology?



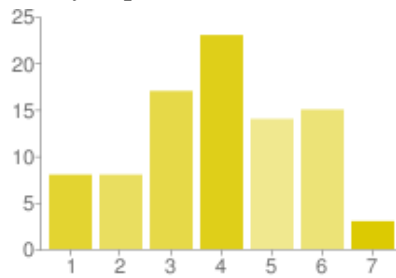
Lean toward not investing

Lean toward investing

1	Lean toward not investing in RFID.	5	5%
2		14	15%
3		14	15%
4		21	22%
5		15	16%
6		11	12%
7	Lean toward investing in RFID.	11	12%

investing in RFID.

C. If you plan to invest in RFID technology, when do you consider to do so?

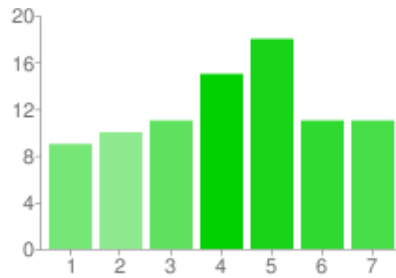


1 - In the near future	8	8%
2	8	8%
3	17	18%
4	23	24%
5	14	15%
6	15	16%
7 - After many years	3	3%

In the near future After many years

Based on your answer on the previous question 2C, please indicate the degree you agree or disagree with the three following statements. My company will invest in RFID technology in the near future in order to:

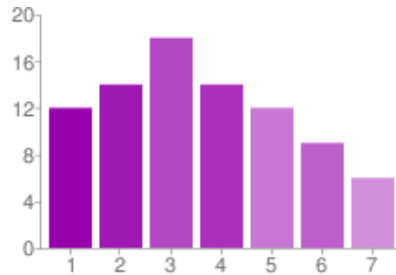
gain first-mover advantages



1 - Strongly disagree	9	9%
2	10	11%
3	11	12%
4	15	16%
5	18	19%
6	11	12%
7 - Strongly agree	11	12%

Strongly disagree Strongly agree

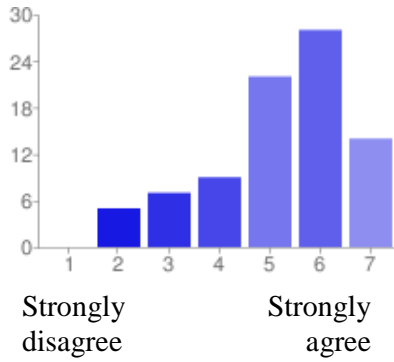
respond to the high competition in the industry



1 - Strongly disagree	12	13%
2	14	15%
3	18	19%
4	14	15%
5	12	13%
6	9	9%
7 - Strongly agree	6	6%

Strongly disagree Strongly agree

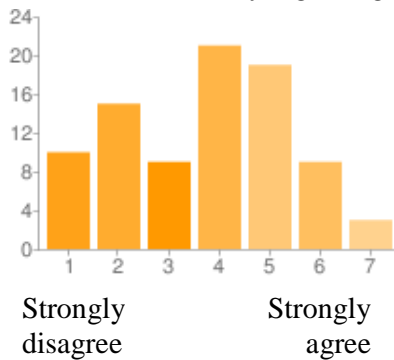
unlock future IT project opportunities which are based on this initial investment



1 - Strongly disagree	0	0%
2	5	5%
3	7	7%
4	9	9%
5	22	23%
6	28	29%
7 - Strongly agree	14	15%

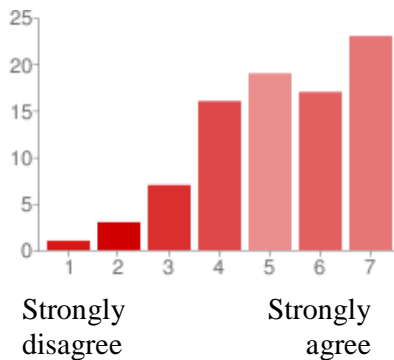
Based on your answer in the previous question 2C, please indicate the degree you agree or disagree with the following three statements. My company would delay investment in RFID technology in order to:

wait until uncertainty regarding this technology is decreased



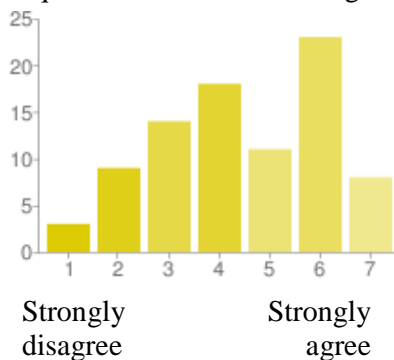
1 - Strongly disagree	10	11%
2	15	16%
3	9	9%
4	21	22%
5	19	20%
6	9	9%
7 - Strongly agree	3	3%

wait for RFID cost reduction



1 - Strongly disagree	1	1%
2	3	3%
3	7	7%
4	16	17%
5	19	20%
6	17	18%
7 - Strongly agree	23	24%

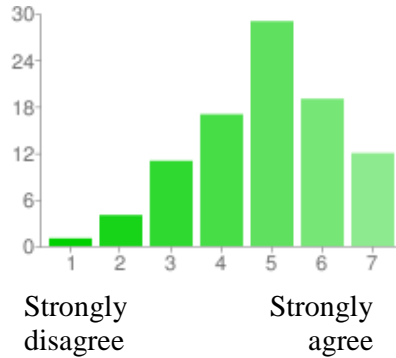
acquire more information regarding RFID technology



1 - Strongly disagree	3	3%
2	9	9%
3	14	15%
4	18	19%
5	11	12%
6	23	24%
7 - Strongly agree	8	8%

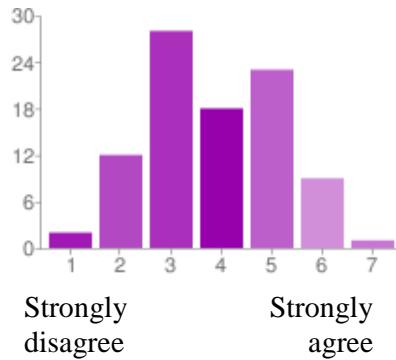
3. Please indicate the degree you agree or disagree with the following statements regarding the impact of RFID and your organization’s capabilities to adopt RFID technology:

RFID will produce fundamental changes in the activities of my organization



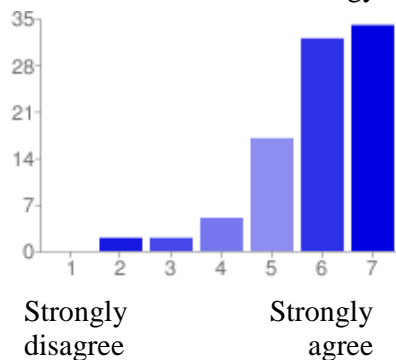
1 - Strongly disagree	1	1%
2	4	4%
3	11	12%
4	17	18%
5	29	31%
6	19	20%
7 - Strongly agree	12	13%

For my company the burden of the required organizational learning and technical knowledge for the adoption of RFID will be low



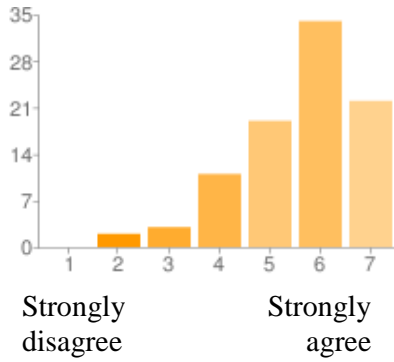
1 - Strongly disagree	2	2%
2	12	13%
3	28	29%
4	18	19%
5	23	24%
6	9	9%
7 - Strongly agree	1	1%

The value of RFID technology will increase as more companies adopt it.



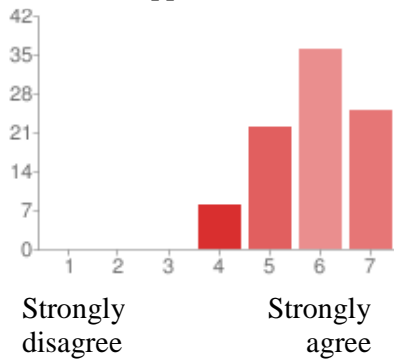
1 - Strongly disagree	0	0%
2	2	2%
3	2	2%
4	5	5%
5	17	18%
6	32	34%
7 - Strongly agree	34	36%

RFID technology is likely to achieve a dominant position and offer substantial performance over other competing automatic identification technologies (such as barcode technology, smart card technology etc.)



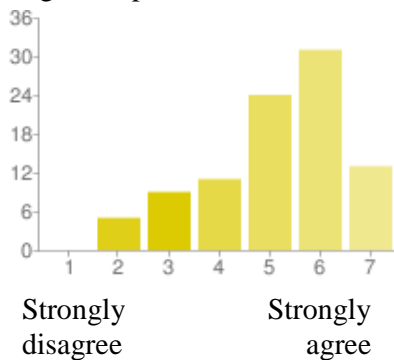
1 - Strongly disagree	0	0%
2	2	2%
3	3	3%
4	11	12%
5	19	20%
6	34	36%
7 - Strongly agree	22	23%

RFID technology can support a wide array of possible implementation configurations, associated applications and differently organised business processes.



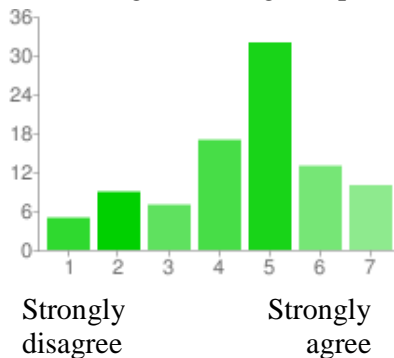
1 - Strongly disagree	0	0%
2	0	0%
3	0	0%
4	8	8%
5	22	23%
6	36	38%
7 - Strongly agree	25	26%

The implementation of this technology can be divided (in stages). Each stage of the implementation can result in a positive payoff, even if no further implementation stages are pursued



1 - Strongly disagree	0	0%
2	5	5%
3	9	9%
4	11	12%
5	24	25%
6	31	33%
7 - Strongly agree	13	14%

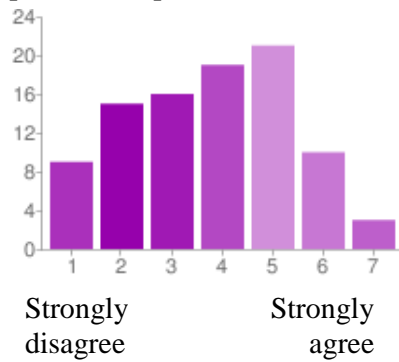
RFID has got a strategic importance for my firm



1 - Strongly disagree	5	5%
2	9	9%
3	7	7%
4	17	18%
5	32	34%
6	13	14%
7 - Strongly agree	10	11%

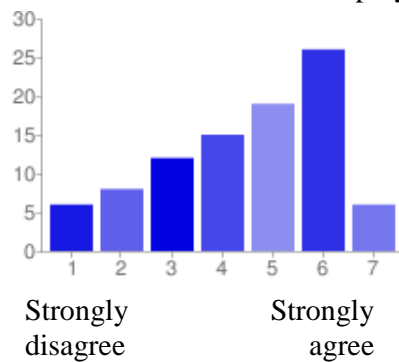
The expected improvements that RFID can offer to my firm's strategically important

products or processes will resist rapid duplication by competitors



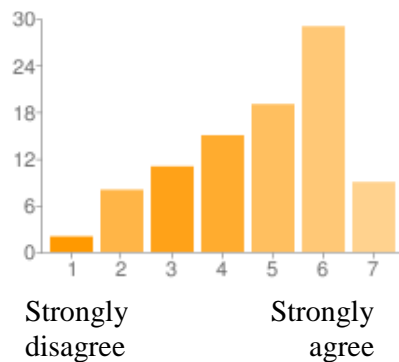
1 - Strongly disagree	9	9%
2	15	16%
3	16	17%
4	19	20%
5	21	22%
6	10	11%
7 - Strongly agree	3	3%

My company possesses resources (human, technical, organizational) which can contribute to the effective deployment of RFID



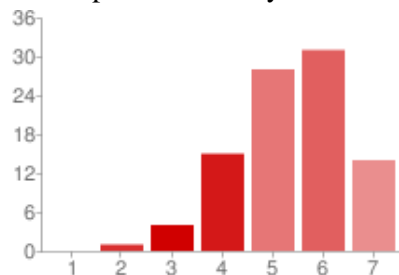
1 - Strongly disagree	6	6%
2	8	8%
3	12	13%
4	15	16%
5	19	20%
6	26	27%
7 - Strongly agree	6	6%

My organization possesses the knowledge, skills, routines and incentives (eg. capable and technologically up-to-date staff, high degree of skills and diversity of knowledge) which can result in an effective organizational learning surrounding the application of RFID



1 - Strongly disagree	2	2%
2	8	8%
3	11	12%
4	15	16%
5	19	20%
6	29	31%
7 - Strongly agree	9	9%

Through the investment in RFID my firm both will expand its knowledge and skills and improve its ability to utilize them in future domains.



1 - Strongly disagree	0	0%
2	1	1%
3	4	4%
4	15	16%
5	28	29%
6	31	33%
7	13	14%

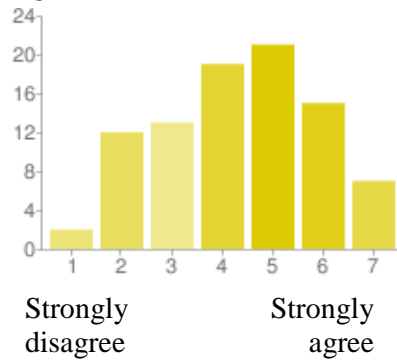
Strongly disagree

Strongly agree

7 - Strongly agree 14 15%

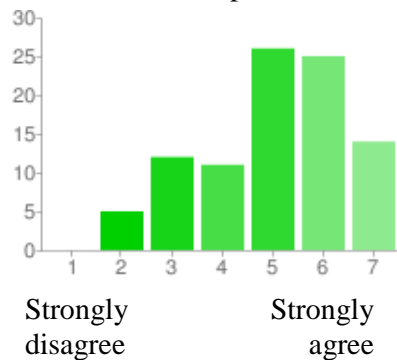
4. Please indicate the degree you agree or disagree with the following statements regarding the expected barriers associated with RFID technology adoption.

The cost of training and organization of staff for this technology for my company is high.



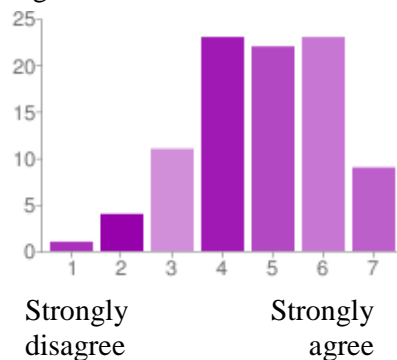
1 - Strongly disagree	2	2%
2	12	13%
3	13	14%
4	19	20%
5	21	22%
6	15	16%
7 - Strongly agree	7	7%

The cost of the RFID infrastructure (physical infrastructure, human capital infrastructure, adoption of new business practices) for my company is high.



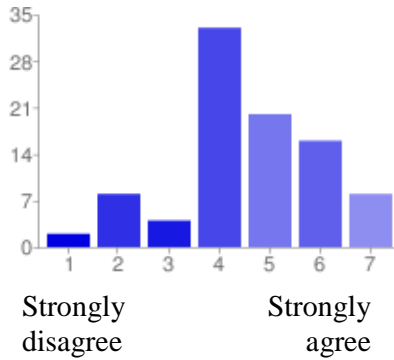
1 - Strongly disagree	0	0%
2	5	5%
3	12	13%
4	11	12%
5	26	27%
6	25	26%
7 - Strongly agree	14	15%

The cost of parallel technologies that may be needed to support this technology is high



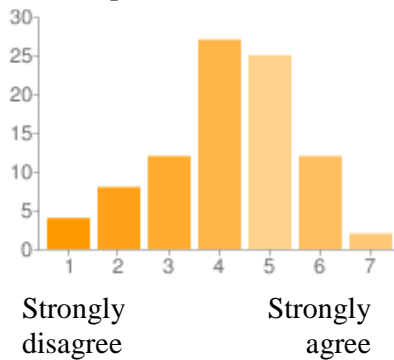
1 - Strongly disagree	1	1%
2	4	4%
3	11	12%
4	23	24%
5	22	23%
6	23	24%
7 - Strongly agree	9	9%

There is a lack of the establishment of standards regarding the RFID implementation (e.g. agreed protocols on the type of tags used, the frequency and the read rate of tags)



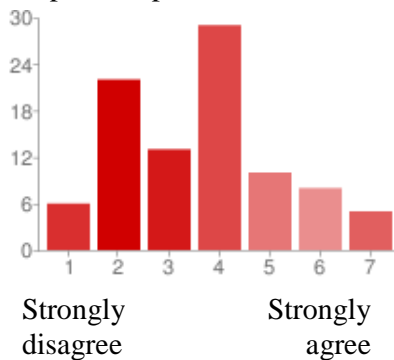
1 - Strongly disagree	2	2%
2	8	8%
3	4	4%
4	33	35%
5	20	21%
6	16	17%
7 - Strongly agree	8	8%

The fact that RFID technology can be implemented in several different configurations increases the uncertainty of this investment regarding which of these configurations are the optimal.



1 - Strongly disagree	4	4%
2	8	8%
3	12	13%
4	27	28%
5	25	26%
6	12	13%
7 - Strongly agree	2	2%

It is difficult to anticipate the full cost and benefit of the RFID technology adoption/implementation.

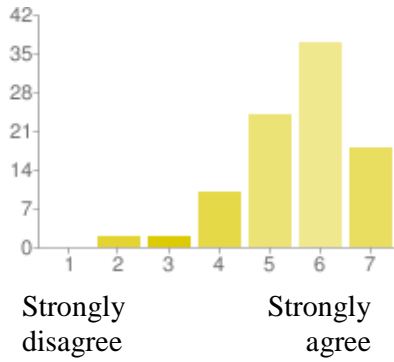


1 - Strongly disagree	6	6%
2	22	23%
3	13	14%
4	29	31%
5	10	11%
6	8	8%
7 - Strongly agree	5	5%

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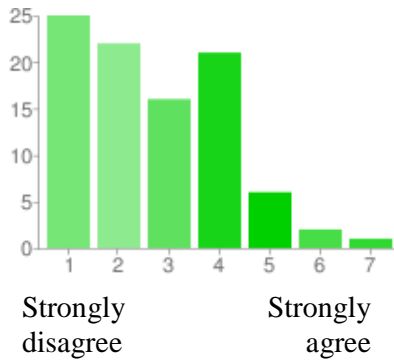
5. Please indicate the degree you agree or disagree with the following statements regarding the adoption of RFID technology:

The potential long-run market demand for this technology is enormous



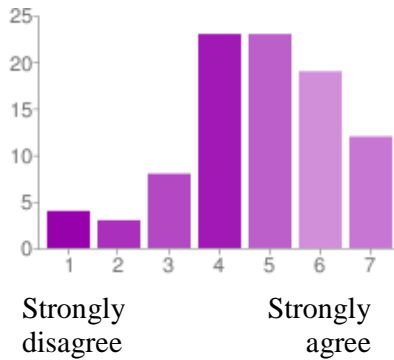
1 - Strongly disagree	0	0%
2	2	2%
3	2	2%
4	10	11%
5	24	25%
6	37	39%
7 - Strongly agree	18	19%

My company's competitors already utilize RFID technology



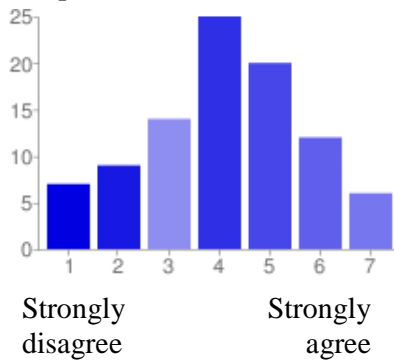
1 - Strongly disagree	25	26%
2	22	23%
3	16	17%
4	21	22%
5	6	6%
6	2	2%
7 - Strongly agree	1	1%

The competition in my company's industry is high



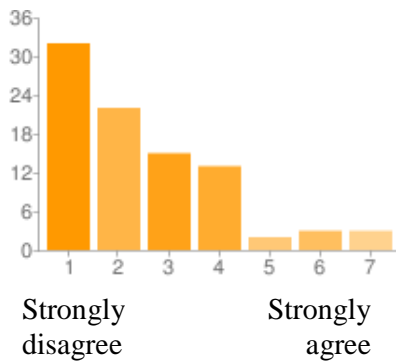
1 - Strongly disagree	4	4%
2	3	3%
3	8	8%
4	23	24%
5	23	24%
6	19	20%
7 - Strongly agree	12	13%

My company is likely to adopt RFID technology in order to maintain its competitiveness in the market



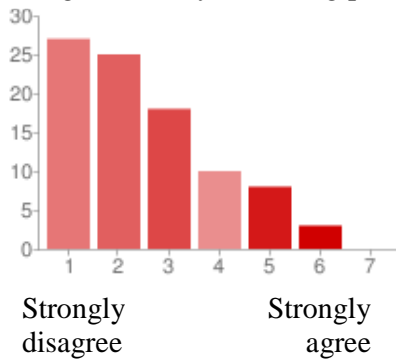
1 - Strongly disagree	7	7%
2	9	9%
3	14	15%
4	25	26%
5	20	21%
6	12	13%
7 - Strongly agree	6	6%

My company's business partners already exploit RFID technology



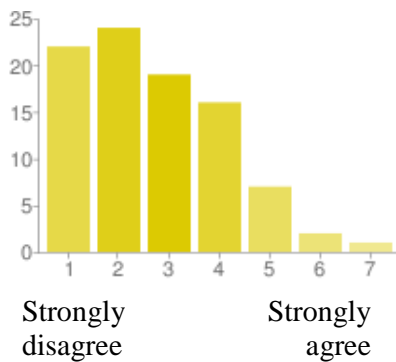
1 - Strongly disagree	32	34%
2	22	23%
3	15	16%
4	13	14%
5	2	2%
6	3	3%
7 - Strongly agree	3	3%

My company is likely to adopt RFID technology in order to respond to the pressure brought about by its trading partners



1 - Strongly disagree	27	28%
2	25	26%
3	18	19%
4	10	11%
5	8	8%
6	3	3%
7 - Strongly agree	0	0%

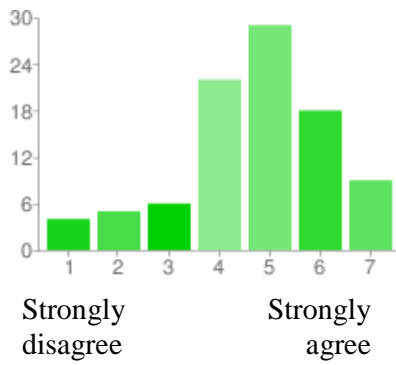
My company's business partners are ready to adopt RFID when my firm is ready to do so



1 - Strongly disagree	22	23%
2	24	25%
3	19	20%
4	16	17%
5	7	7%
6	2	2%
7 - Strongly agree	1	1%

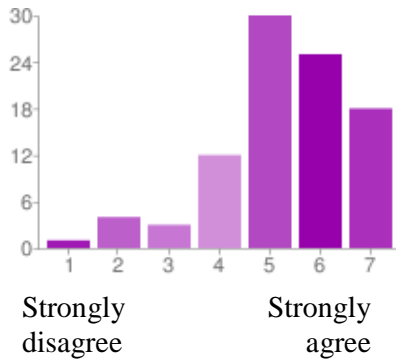
6. Can your company gain any benefits from RFID implementation? RFID is likely to help my company improve:

compliance and relationships with its business partners



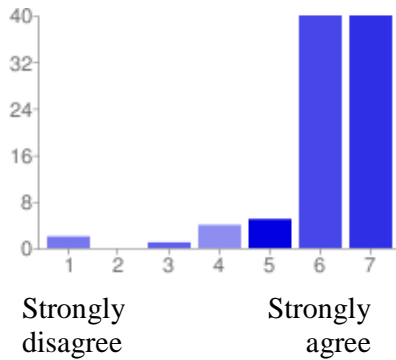
1 - Strongly disagree	4	4%
2	5	5%
3	6	6%
4	22	23%
5	29	31%
6	18	19%
7 - Strongly agree	9	9%

integration of its supply chain



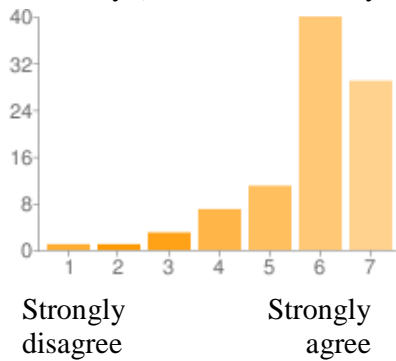
1 - Strongly disagree	1	1%
2	4	4%
3	3	3%
4	12	13%
5	30	32%
6	25	26%
7 - Strongly agree	18	19%

inventory visibility/ monitoring



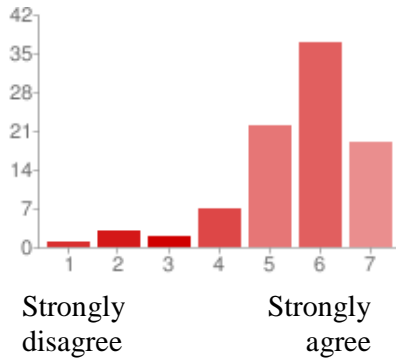
1 - Strongly disagree	2	2%
2	0	0%
3	1	1%
4	4	4%
5	5	5%
6	40	42%
7 - Strongly agree	40	42%

efficiency (ex. Labor efficiency in shipping and receiving)



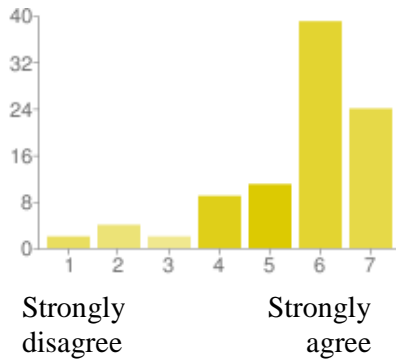
1 - Strongly disagree	1	1%
2	1	1%
3	3	3%
4	7	7%
5	11	12%
6	40	42%
7 - Strongly agree	29	31%

business process automation



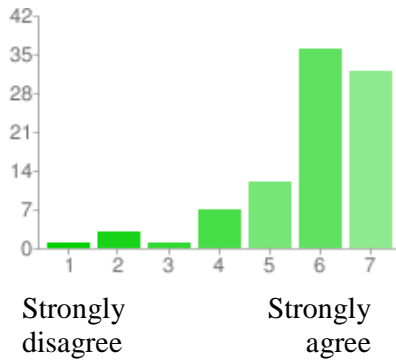
1 - Strongly disagree	1	1%
2	3	3%
3	2	2%
4	7	7%
5	22	23%
6	37	39%
7 - Strongly agree	19	20%

asset tracking



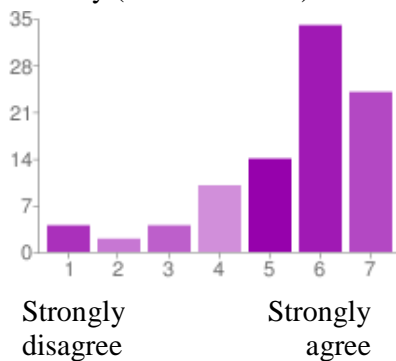
1 - Strongly disagree	2	2%
2	4	4%
3	2	2%
4	9	9%
5	11	12%
6	39	41%
7 - Strongly agree	24	25%

Inventory management (reduction of Out-Of-Stock and Stock inconsistencies)



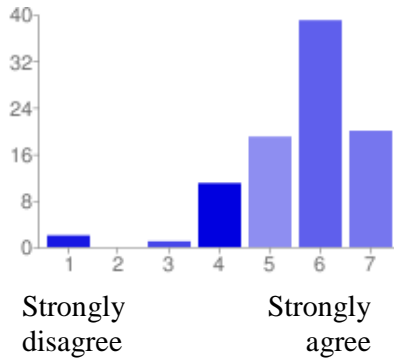
1 - Strongly disagree	1	1%
2	3	3%
3	1	1%
4	7	7%
5	12	13%
6	36	38%
7 - Strongly agree	32	34%

Security (theft reduction)



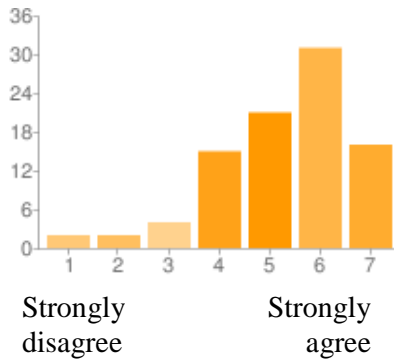
1 - Strongly disagree	4	4%
2	2	2%
3	4	4%
4	10	11%
5	14	15%
6	34	36%
7 - Strongly agree	24	25%

errors reduction during the business process execution



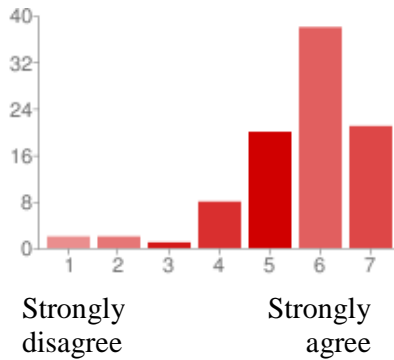
1 - Strongly disagree	2	2%
2	0	0%
3	1	1%
4	11	12%
5	19	20%
6	39	41%
7 - Strongly agree	20	21%

ability to compete



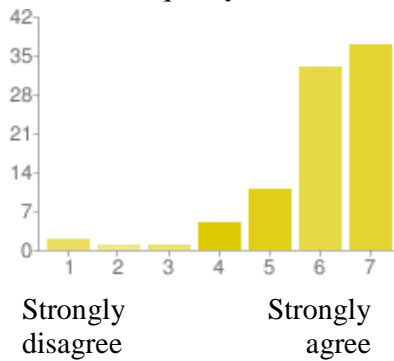
1 - Strongly disagree	2	2%
2	2	2%
3	4	4%
4	15	16%
5	21	22%
6	31	33%
7 - Strongly agree	16	17%

customer service



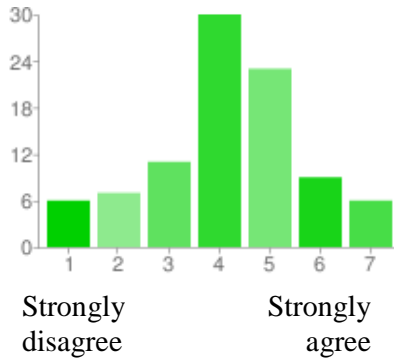
1 - Strongly disagree	2	2%
2	2	2%
3	1	1%
4	8	8%
5	20	21%
6	38	40%
7 - Strongly agree	21	22%

information quality



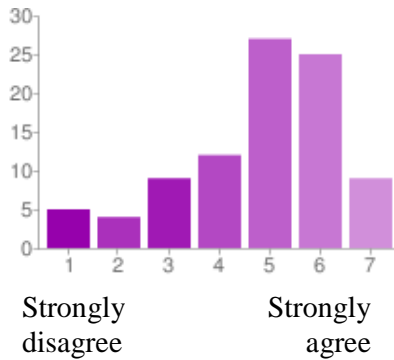
1 - Strongly disagree	2	2%
2	1	1%
3	1	1%
4	5	5%
5	11	12%
6	33	35%
7 - Strongly agree	37	39%

cash flow



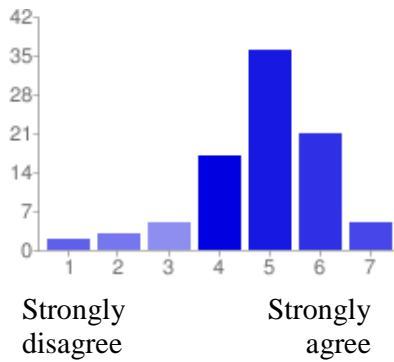
1 - Strongly disagree	6	6%
2	7	7%
3	11	12%
4	30	32%
5	23	24%
6	9	9%
7 - Strongly agree	6	6%

cost reduction



1 - Strongly disagree	5	5%
2	4	4%
3	9	9%
4	12	13%
5	27	28%
6	25	26%
7 - Strongly agree	9	9%

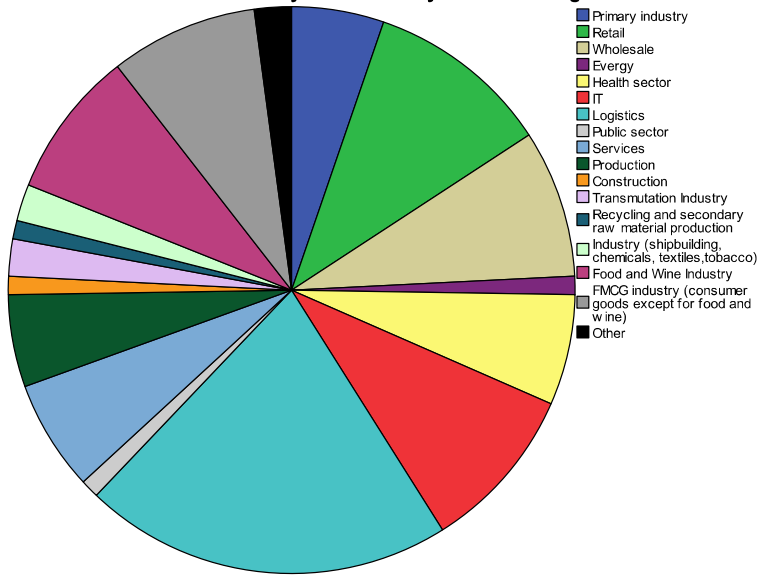
its managerial flexibility (i.e. the ability to utilise different RFID project configurations or decide whether or not to proceed to future RFID projects that an initial investment in RFID can result in)



1 - Strongly disagree	2	2%
2	3	3%
3	5	5%
4	17	18%
5	36	38%
6	21	22%
7 - Strongly agree	5	5%

7. Demographics

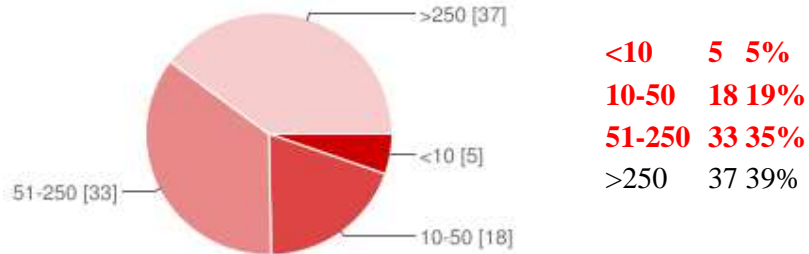
In what industry /sector does your firm belong to?



	Industry	Frequency	Valid Percent
Valid	Primary industry	5	5,3
	Retail	10	10,5
	Wholesale	8	8,4
	Evergy	1	1,1
	Health sector	6	6,3
	IT	9	9,5
	Logistics	20	21,1
	Public sector	1	1,1
	Services	6	6,3
	Production	5	5,3
	Construction	1	1,1
	Transmutation Industry	2	2,1
	Recycling and secondary raw material production	1	1,1
	Industry (shipbuilding, chemicals, textiles,tobacco)	2	2,1
	Food and Wine Industry	8	8,4
	FMCG industry (consumer goods except for food and wine)	8	8,4
	Other	2	2,1
	Total	95	100,0
Missing	System	3	
Total		98	

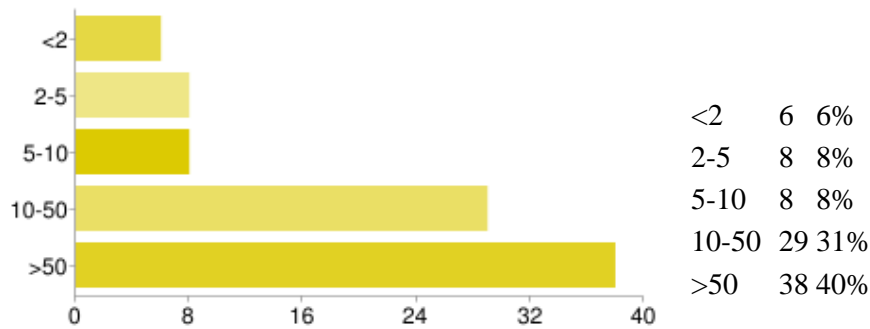
The majority of the answers were given by Logistics companies.

What is the number of employees working in your company?

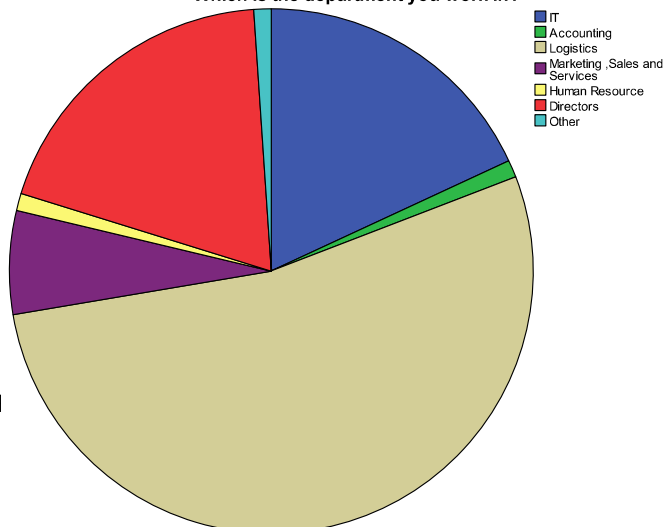


The majority of the respondents (59%) were from SMEs.

What is the average annual turnover (in million euros) of your company?



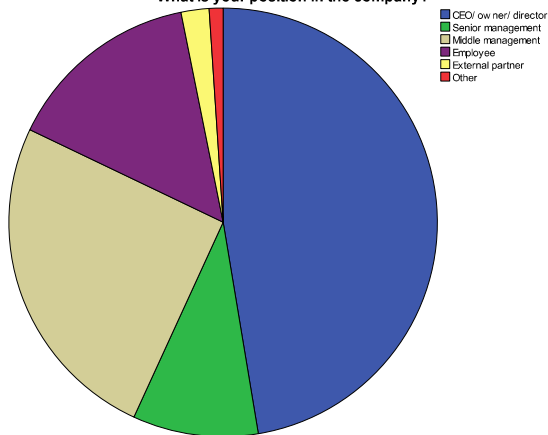
Which is the department you work in?



Which is the department you work in?

		Frequency	Valid Percent
Valid	IT	17	18,1
	Accounting	1	1,1
	Logistics	50	53,2
	Marketing ,Sales and Services	6	6,4
	Human Resource	1	1,1
	Directors	18	19,1
	Other	1	1,1
	Total	94	100,0
Missing	System	4	
Total		98	

What is your position in the company?



What is your position in the company?

		Frequency	Valid Percent
Valid	CEO/ owner/ director	45	47,4
	Senior management	9	9,5
	Middle management	24	25,3
	Employee	14	14,7
	External partner	2	2,1
	Other	1	1,1
	Total	95	100,0
Missing	System	3	
Total		98	

The majority of the answers were given by Directors.