

SME QUESTIONNAIRE

D.T1.1.2 Definition of the transnational tool	Final version
for the anyalysis	06 08 2019







KEY

Black with no markings: Mandatory questions Blu: optional questions

For all recipients

1. Please state your company name (voluntary): ______

2. Please state your country of origin: ______

3. What is your company size?

employees	turnover / year	total balance / year	= company size
up to 9	up to 2 Mio€ / year	up to 2 Mio€ / year	= smallest company
up to 49	up to 10 Mio€ / year	up to 10 Mio€ / year	= small company
up to 249	up to 50 Mio€ / year	up to 43 Mio€ / year	= middle size company
more than 249	more than 50 Mio€ / year	more than 43 Mio€ / year	= large company

4. Please state what industrial sector your company, your suppliers and customers belong to

Industrial sector	NACE	your	your	your customers	
		company	suppliers	sector	% of your turnover
food products	10				
aerospace	303				
nautical industry, ships and boats	301				
automotive	29				
Textile, clothing, footwear, fashion	13				
wood and furniture	31				
publishing activities	58				
Plastics materials	22				
glass, ceramics, stone	23				
engineering and architectural activities	71				
electrical equipment	27				
construction of buildings / plants	41				
commerce & trade	46				
tourism / catering	79				
transport, logistics, warehousing, postal activities	49-53				
computer, electronic and optical products	26				
Computer porgramming, consultancy and related actvts.	62				
mining	08				
chemicals	20				
metal products, except machinery	25				
pharmaceutics	21				
medical devices	266				
machinery and equipment	28				
railway locomotives and rolling stock	302				
other transport equipment	30				
consumer goods	32				
civil engineering	42				





broadcasting activities	60		
financial service activities	64		
scientific research and development	72		
office administrative, office support and other business support	82		
public administration	84		
defence	8422		
education	85		
libraries, archives, museums and other cultural activities	91		
other (please state):			





5. How were your most important products and services developed (focus on the 3 most important products or services you offer on the market)? [Multiple answers allowed]

Thanks to R&D investments		With support of the R&D office		With support of the technical office		With support of suppliers/customers
Totally externally, with the support of partners of Universities/Research centers		With the support of design studios and engineering companies		With the support of foreign partners		Starting from a technology previously developed by a competitor
Thanks to an improvement of technologies existing on the market, implemented internally		Other (please state)		No development implemented		
you selected this an elopment?	swer	ightarrow to what extent are y	ou ir	volving your custor	ners	into your product 🛛 🗲
not at all		Input from sales is being used by engineering		Key account requirements are actively incorporated in the engineering of the products		Requirements of as many customers as possible are actively incorporated into the engineering and manufacturing of the products.
Customer requirements are systematically documented and integrated throughout the engineering, manufacturing and servicing steps of the products.		All customer requirements are continuously kept up-to-date to be used throughout all engineering, manufacturing and servicing processes in order to obtain the highest possible value solution for each individual customer.		by exploiting digital usage data generated by the customer		Co-creation techniques
the customer himself designs the product						



	7.	R&D	and	Technical	staff
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Total Staff in R&D office	
Staff in R&D office with University degree (BA as minimum)]
Staff in R&D office with PhD]
Total Staff in in technical office]
Staff in technical office with University degree (BA as minimum)]
Staff in technical office with PhD	

8. Did you participate in funded projects in research and innovation in the past?

No	Yes – EU	Yes – Country level	Yes – Regional level
Yes – Other (please state)			

9. Innovation eco system integration

	#	0	1-5	5-10	10-20	20-50	> 50
Involvements in public funded projects (European, national, regional,) in the last 5 years							
Ongoing number of cooperations with research labs, universities, cluster initiatives and associations	1						

10. What is the percentage of labor costs on the total expenses?

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11. What is the percentage of workers from external labor agencies or external contract on total staff?

.....

12. Your role

Are you rather end user or supplier of industry-4.0 products and services?

 \rightarrow End user: go to question n. 13

 \rightarrow Supplier: go to question n. 18





For End Users of Industry 4.0 technologies

13. Level of Adaption of Industry 4.0 Technologies:

To what extent are you currently using Industry-4.0 methods & technologies?

	no usage	few	good	very
method/technology	at all	usage	extent	intense use
1. autonomous robots				
2. simulation				
3. horizontal and vertical systems integration				
 4. industrial internet of things Sub-topics on: Connected shop floor: Shop floor entities are connected to enable data exchange. Transparent view on shop floor status: Real-time production data are used for optimisation and decision making. 				
5. Cyber Security Suptopics on: Secure digital infrastructure: Security information and event management systems safeguard a continuous & smooth manufacturing operation.				
6. cloud technologies				
7. additive manufacturing				
8. augmented reality				
9. big data and analytics				

14. What is your motivation for the digital transformation?

	I don't	I partly	I mostly	l fully
	agree	agree	agree	agree
1. Our business model changes				
2. We adapt existing products and services				
3. We offer new products and services				
4. New markets, new business areas evolve				
5. New customers occur				
 Materials usage: The company reduces material consumption through product and manufacturing optimisation. 				
7. Managing quality & robustness: Prevention and correction actions, product and service changes, transfer processes and manufacturing feasibility tests are all documented and feed into KPI's for new products, processes and services.				
8. We remove existing products and services from the market.				
 Internal innovation (internal renewal, change and adaption) is fostered. 				

15. Do you have a strategy for your digital transformation?

	l don't	I partly	I mostly	l fully
	agree	agree	agree	agree
1. Roadmap for Industry 4.0 realization available				
2. Central coordination of Industry 4.0 activities				
3. Financial resources to realize Industry 4.0 available				
4. Communication of Industry 4.0 activities ongoing				





5. Employee objectives to realize Industry 4.0 defined		
6. Risk assessment for Industry 4.0 available		
7. Willingness of managers to realize Industry 4.0		
8. Manager trainings for Industry 4.0 available		
 Mastering the digital transformation: The digital transformation is managed and forms a part of the company's DNA. 		
10. Rules, regulation and standards: The company actively deals with both existing as well as new rules, regulations and standards.		
11. Innovation strategy		
12. Industry-4.0 technology strategy		
13. Investment strategy including budget		
14. Other (please state):		
15. Can you state a total budget (in EUR per year)?		

16. Needs of Industry 4.0 Technologies:

To what extent are you **planning to use** Industry-4.0 methods & technologies and when?

	1. desired intensity of use			2. planned time of start of use				3. foreseen investment budget		
method/technology	no usage planned	few usage	good extent	very intense use	now	1-2 years	3-5 years	longer	in % of total investments	in €
1. autonomous robots										
2. simulation										
 horizontal and vertical systems integration 										
4. industrial internet of things										
5. cybersecurity										
6. cloud technologies										
7. additive manufacturing										
8. augmented reality										
9. big data and analytics										

17. Are your **employees prepared** for the digital transformation?

	l don't	I partly	I mostly	I fully
	agree	agree	agree	agree
1. Openness to new technologies				
2. Competence with modern ICT				
3. Awareness of non-IT-employees for meaning and value of digital data				
4. Awareness of non-IT-employees for cyber security				
5. Willingness to flexibilize work arrangements				
6. Autonomy of shop floor workers				
7. Willingness for interdisciplinary work				
8. Willingness for continuous training, education and qualification towards industry 4.0				
9. We know our employees' digital competences				

ightarrow If you are also a supplier of I4.0 technologies, go to question 18

ightarrow If you are not a supplier of I4.0 technologies, go to question 20





For Suppliers of Industry 4.0 technologies

18. To what extent are you currently offering Industry-4.0 products and / or services?

		2. type of offer				
method/technology	no offer at all	few offers	good extent	wide range of offers	discrete products	services
1. autonomous robots						
2. simulation						
3. horizontal and vertical systems integration						
4. industrial internet of things						
5. cybersecurity						
6. cloud technologies						
7. additive manufacturing						
8. augmented reality						
9. big data and analytics						

19. To what extent are you **planning to offer** Industry-4.0 products & services **and when**? Are you interested in industrial testbeds for your new I4.0 products & services?

	1. desired range of products, services			2. TRL*	3. planned time of launch				4. testbed	
method/technology	no offer planned	few offers	good extent	wide range of offers		now	1-2 years	3-5 years	longer	testbed welcome
1. autonomous robots										
2. simulation										
3. horizontal and vertical systems integrat	ion									
4. industrial internet of things										
5. cybersecurity										
6. cloud technologies										
7. additive manufacturing										
8. augmented reality										
9. big data and analytics										

*TRL (Technology Readiness Level) is an index used to assess the level of readiness of technology, according to this scale :1 (definition of basic principles); 2 (technology concept formulated); 3 (experimental testing of concept); 4 (technology validated in laboratory); 5 (technology validated in real space environment); 6 (technology demonstrated in real space environment); 7 (prototype of the system demonstrated in operative environment); 8 (system complete and qualified); 9 (system tested in operative environment).To this scale we have added value 10 to indicate technologies already in production.





For all recipients

20. You can use the space below, if you have additional comments on the survey or on Industry 4.0:

21. Contact person: _____

22. Email: ______