



# SME profiles and SME needs, problems and barriers in engaging in research and innovation activities

MAPEER SME partners collected the views and experiences of around 800 European SMEs concerning their participation in regional, national or EU research and innovation programmes. The SMEs were asked about their positive and negative experience, about problems they faced during the application or implementation of the funded projects as well as about their views and experiences related to general needs and barriers when it comes to RTD and innovation. Results and findings are based on the answers collected from a questionnaire and face-to-face interviews with SMEs, who participated in RTD support programmes and who did not as well as SMEs' representatives by 27 European Member States plus Bosnia Herzegovina. The survey produced 764 complete interviews with SMEs.

## Profiles of all surveyed SMEs

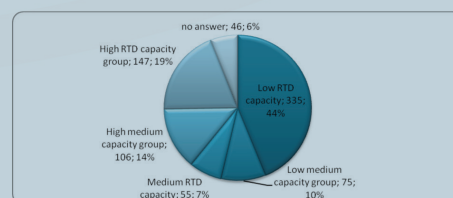
- o All companies corresponded to the EU criteria of an SME
- o Majority were RTD programme active  
(56% participated in at least one RTD programme in the last 5 years)
- o Majority were micro-sized SMEs  
(48% had less than 10 full-time employees and an annual turnover of less than 2 million Euros)
- o Majority (51%) of SMEs were 10-29 years old  
(55% of the RTD programme active and 45% of the RTD programme inactive SMEs)
- o Majority were from New Member States (42%)
- o Majority of answers were received from SMEs in manufacturing sector (41%) and ICT sector (32%)
- o Majority belonged to the low RTD capacity group<sup>1</sup> (44%)

## SME groups

In order to better assess and compare the differences and commonalities between the SMEs specific SME groups in form of RTD capacity groups have been set up based upon the share of full-time employees dedicated to RTD, the annual RTD income and expenditures, and the job positions created or sustained as a result of introducing new or substantially improved products or processes. For the EU level analysis only two RTD capacity groups were taken into consideration in order to undertake a deeper analysis.

### 1) Low RTD capacity group; 2) High RTD capacity group

These two RTD capacity groups were analysed taking different regions, sizes and RTD programme activities of SMEs into account.



<sup>1</sup>The surveyed SMEs were analysed in terms of their different RTD capacity throughout the EU-level Analysis Report. Five groups were identified: Low RTD capacity group, low medium RTD capacity group, medium RTD capacity group and high RTD capacity group. (see figure 1)

## Main problems faced during project participation

The main problems faced during participation in R&I programmes were related to the project itself but also to external problems. The major problem was 'complex reporting requirements' which was mostly marked by low as well as high R&D capacity firms coming from the new MS followed by those in Southern Europe. Indeed, in most of the new MS and Southern Europe countries the administrative requirements as well as the procedures until contract signatures for the programmes recorded were usually considered as time-consuming and complex.

The next major problems had to do with the guidance provided by the project officers during the project as well as at the exploitation phase. This was mainly marked by low as well as high R&D firms coming from Southern Europe. 'Low technical understanding of project officers' was also noted as a problem by low and high R&D firms in South Europe and high R&D firms in North Europe. This may reflect a possible drawback in terms of human resources available by programme managing authorities in the respective countries. From the external problems, inappropriate general economic conditions were marked by all types of SMEs (low as well high R&D capacity) from new MS as well as Southern and Northern Europe reflecting the problems caused by the recent financial crises.

## Main reasons for not participating in R&D programmes

The major reasons for not participating in R&D programmes reflect the main problems faced during participation as mentioned above. Thus, they are of financial and administrative nature. Financial barriers are more pronounced for firms from SE (inability to get loans, provide bank guarantees, unavailability of add sources and low funding rates) and also micro – sized low R&D capacity firms as also noted above.

In relation to administrative barriers, complex reporting is mostly marked by high R&D firms from NE and not transparent evaluation procedures for high R&D firms from NE and new MS. Long times (evaluation periods, time-to-funding, time-to-contract) is mostly noted by high R&D firms from SE. Long time to funding is also marked by high as well as low R&D firms from new MS who also marked bureaucratic application procedure. Bureaucratic application procedures were noted also by low R&D firms in all regions but less so in NE. Indeed most programmes in these countries (SE and new MS) suffer from complex administrative requirements and procedures as well as long time-to-contract and funding.

The reasons for not participating in EU programmes are relatively similar to those in national / regional programmes. However, the EU programmes present additional reasons of non-participation reflecting the limited ability especially of low R&D firms from SE to cover the special requirements of EU programmes in relation to project management and networks with potential partners. Naturally, the limited marketing of programmes is more marked for EU than national programmes.

## General barriers in undertaking research and innovation activities

The MaPEer study puts forth some additional elements in terms of general barriers that SME face in undertaking research and innovation activities. In line with the current literature the types of barriers that stand out are the financial barriers, marked the most by high R&D micro SMEs reflecting the importance of access to funds for micro high R&D firms as well as the overall shortage of for instance venture capital funds or seed capital in the national contexts. Programme-related barriers in relation to procedures and requirements were also marked. At the same time 'lack of access to information about programmes', 'lack of access to external knowledge', 'limited knowledge of the advantages of R&D and innovation', and 'lack of information on technologies and markets' were also noted by low R&D firms. This may reflect the lack of linkages between research and innovation as well as the limited demand for innovation in the local markets, and thus the limited acknowledgement of the related benefits.



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