

# Innovation as Entrepreneurial Drives in the Romanian Automotive Industry

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**Abstract**—The study examines the synergy between innovation and entrepreneurship by means of a qualitative research on actors in the automotive industry in the Romanian southern region, Muntenia. The region is of particular interest because most of the industry suppliers are located there, as well as because it gathers the full range of key actors involved in the innovation process. The research design aims (1) to reflect entrepreneurs' approach to and perception on innovation; (2) to underline forces driving or stifling innovation in the automotive industry; and (3) to evaluate the awareness of the existing knowledge database and the communication channels through which it is transferred within and between innovation networks. Empirical evidence results from triangulation of three data collection methods: statistical data and other publicly available materials; semi - structured interviews, and experiential visits. The conclusions emphasize the convergent opinion of the entrepreneurs about the vital role of innovation in their investment plans.

**Index Terms**—Automotive industry, entrepreneurship, innovation, Romania.

## I. INTRODUCTION

Entrepreneurship and innovation have been promoted by business schools' curricula, policy makers, and global organizations as pillars of most global, national, and regional policies to foster economic growth and competitiveness. The interest in this area is not recent, but the shift towards a knowledge-based economy, as well as the financial downturn has renewed attention to the link between entrepreneurship and innovation. Strategic economic policies of the European Union (e.g. Lisbon Strategy or Europe 2020), have placed improving regional innovation capacity as top priority for the EU members and National Reform Programs were designed to answer this goal. At the same time, investigating innovation at company level is a relevant and important inquiry as it reveals a unique set of processes and resources involved that may explain innovation as a critical factor in their performance [1]. Furthermore, as in [2], innovation is the single most important factor in predicting firm growth.

The article focuses on the synergy between innovation and entrepreneurship in the automotive industry in the Romanian southern region, Muntenia. The automotive industry

represents a significant sector of Romania's economy: it has reached the highest level of competitiveness according to the Romanian Cluster Association and the National Prognosis Commission [3], a turnover of about 16.86 billion Euro in 2013 (ca. 11% of GDP), with an increase of about 26% over the previous year, and represents 24% of national exports (ACAROM). To capitalize on this favourable trend, the industry has to address two immediate challenges. First, a better integration within national and global value chains has become a prerequisite for innovation and better products. The automotive industry is research intensive, with several of its breakthroughs, for example in the fields of safety, new materials, hybrids and electric cars etc., representing the effort of inter- and intra-industry linkages, affecting a country's overall innovative environment. Second, cost competition is not *passé* it will continue to play a crucial role for the industry's future growth as many new competitors from developing countries have developed the ability to compete globally. Building business networks and clusters could ease cooperation between universities or research institutes and firms through common research projects and so facilitate cost innovations in a way that takes better advantage of the local resources of regional economies.

With innovation as entrepreneurial driver on the one hand, and the competitive issues of the automotive industry on the other hand, serving as organizing themes, this paper is structured as follows. Section I outlines the theoretical framework and makes a review of the literature on the relationship between entrepreneurship, innovation, and regional development. Section II presents the research methodology, Section III presents the main findings of the interviews as applied to the competitive environment of the automotive industry in the Muntenia region. The last section concludes with recommendations.

## II. LITERATURE REVIEW

Without empirical support, entrepreneurship and innovation are apparently vague concepts that have been given multiple meanings. Due probably to the widely known definition of entrepreneurship given by Schumpeter [4], who defines entrepreneurs as individuals that carry out new combinations (i.e. innovations), in some cases they are even perceived as overlapping concepts. As a result, there is little consensus among scholars concerning terms and definitions clearly distinguishing between innovative and entrepreneurial activities [5], [6].

Reference [4] shows that entrepreneurs are the principal actors of innovation and claimed that entrepreneurs' innovations are the key forces for economic development. In

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Schumpeter's perspective, the entrepreneur is a "disruptor" in the sense of rolling out or improving products, production methods, expansion markets, organisation or management processes within a company.

The literature on entrepreneurship points out a variety of roles the entrepreneur plays in the innovation process in both static and dynamic contexts, with the entrepreneur perceived as either the sole or main source of innovation or simply one source among others. Still, rather than being mutually exclusive, these roles can be seen as different aspects of a multi-faceted process. For instance, [7] defines the role of the entrepreneur as the "opportunity identifier", the one in charge with the discovery and early exploitation of previously unexploited opportunities. Reference [8] shows that the entrepreneur is the "risk taker". Entrepreneurs anticipate where new profit opportunities are to be found and take risks when they launch new solutions to the market and deal with the uncertainty whether solutions will be profitable or not. The role of the "resource shifter" is emphasised by [9] who has focused on how entrepreneurs relocate resources as to improve the company's productivity level, endowing existing resources with new wealth-creating capacity.

Although the vital role entrepreneurship plays in fostering innovation and economic growth has been proven [10], [11], little concern can be found in the literature on stressing the linkages between innovation and entrepreneurship [6]. However, several efforts in that direction are worth to be mentioned (e.g. [12]-14]). An investigation on the relationship between entrepreneurship, innovation, and quality performance in small and medium-size enterprises has found significant direct relationship. Innovation is directly related to performance and mediates in the entrepreneurship-performance link [15]. A similar conclusion is reached in another study: "entrepreneurship and innovation are positively related to each other, are complementary processes, and a combination of the two is vital to organisational success and sustainability of a company in today's dynamic and changing environment" [16]. Reference [17] shows that innovation and entrepreneurship can be seen as both a process and its end-result. In other words, "the end of an innovation is the starting point for entrepreneurship" [18].

On the other hand, [19] argues that the presence of innovation per se is not enough to rate a firm as entrepreneurial. Only firms that use innovation as a mechanism to redefine or rejuvenate themselves, their positions within markets and industries, or the competitive area in which they compete should be classified like entrepreneurial. He considers innovation a tool of the entrepreneurship rather than its main feature.

Attempting to place the two concepts in a territorial context – for example, at which level, national or regional, is it more appropriate to spur innovation and encourage entrepreneurship? – adds more complex issues to the debate. During the last years, regions have been the centre of attention of the literature on innovation policy. Studies carried out show that regions play an increasingly important role in the promotion of economic growth based on innovation and that regional factors can influence the innovative capacity of firms. The European Commission has embraced the idea that

innovation can be more effectively addressed at regional level [20]. The geographic and institutional proximity between stakeholders involved in generating innovation and new knowledge provides solid ground for facilitating their interaction and support agglomeration effects. Entrepreneurs' and regional decision makers' capacity to turn knowledge, skills and competencies into sustainable competitive advantage is crucial to a region's economic performance.

For the particular context of Romania, most studies have focused on investigating research, development, and innovation (RDI) capacities, regional and national innovation policies, or on evaluating innovation performance. Romania is performing well below the EU average for almost all indicators. According to the Innovation Union Scoreboard (2014), Romania falls into the category of countries having modest performances in terms of innovation, though with a growth performance (1.9%) above the EU's. Romania remains the most innovative country in its performance group with relatively good scores related to economic effects of innovation, innovators and human resources, while the weak points are registered in terms of R&D expenditures in the business sector, open, excellent and effective research systems, finance and support, linkages and entrepreneurship. [21].

Although Romania's largest RDI expenditures in 2010 were made by a company in the automotive industry, i.e. Renault - Dacia [22], to our knowledge there has been no study with a systemic approach to the topic of entrepreneurship and innovation in the Romanian automotive industry, the less so to placing this inquiry in a regional context. This analysis attempts to contribute to this debate by revealing the perception among stakeholders in the region of Muntenia, where currently the core of the national industry is located.

### III. RESEARCH METHODOLOGY

#### A. Research Objectives

The study proposes a qualitative research focused on actors of the automobile industry in the Romanian southern region, Muntenia. The region is of particular interest because most of the Romanian automotive industry suppliers are located there and also because it gathers the full range of key actors involved in the innovation process: an assembler (Renault-Dacia plant in Mioveni), national, international and local suppliers, two out of the three institutionalized clusters in the automotive industry (i.e. Pol Auto Muntenia and Sprint Acarom), universities with technical specialization, and research institutes.

The research was designed (1) to reflect entrepreneurs' approach to and perception on innovation, (2) to underline forces driving or stifling innovation, and (3) to evaluate the awareness of the existing knowledge database and the communication channels through which it is transferred within and between innovation networks. Based on authors' previous research on the Muntenia region and on the existing literature, the following *working hypotheses* have been formulated to orient the research:

- Most innovations at industry level are incremental

- Companies focus more on process innovation rather than other types of innovation
- Entrepreneurs manifest a high interest for RDI activities
- The presence of an OEM in the region fosters innovation
- Entrepreneurs are the key players in the process of innovation

#### B. Data Collection and Analysis

Data collection was based on the triangulation of three data collection methods: statistical data and other publicly available materials, semi - structured interviews, and experiential visits.

Out of the two main approaches to collect data on innovations proposed by [23], this research is based on the “subject approach that starts from the innovative behavior and activities of the firm as a whole exploring the factors influencing the innovative behavior of the firm and the scope of various innovation activities”.

Interviewees were chosen with the intention to capture information from three perspectives: business sector, academia, and consultants. Identifying companies with particular significance for the regional development and university employees responsible for RDI activities provides a stronger basis for substantiation of findings. Thus, interviews were conducted with 11 representatives of the entrepreneurial environment from the main categories in the automotive industry (car assembler, major suppliers, local suppliers), 4 researchers from three local universities and from a research institute, and with a representative of the association of automotive manufacturers from Romania (ACAROM). The interviewing guide was piloted with a sector expert with an international career in senior managerial positions within large industrial groups including Renault, Nissan and Elf Aquitaine, Mr. Jean-Jacques Le-Goff. Companies were identified by following three routes: an a priori investigation of the relevance of the companies based on their turnover and number of employees; suggestions from the association of automotive manufacturers from Romania (ACAROM), as a “highly knowledgeable informant that views the innovation phenomena from diverse perspectives” [24], and companies members of the 'Auto Muntenia Competitiveness Pole'.

After establishing contact with the stakeholders, we sent an interview guideline written both in English and Romanian to allow for increased familiarity with the topic. The interview guide included a series of semi-structured open-ended questions designed to elicit responses that would describe networks between academia, suppliers, competitors and support institutions; to shed light on current technological development and business strategies; to reveal the innovation culture and its relevance to business success and entrepreneurial dynamics. The interviews were held on the site and were informal and conversational. The sessions were recorded and we took written notes to record any relevant non-verbal communication. Immediately following the interview, we met and reflected on our own perception of the session.

Experiential visits took place at Renault's *Titu Technical Center*, the head office of *Microelectronica* Bucharest, and

*the Automobile Engineering Research Center* from Pitesti. Experiential research validates the meaning, views, perspectives, experiences and/or practices expressed in data. Experiential visits are used to probe the meanings of situations and to report to readers the complexity of the phenomenon [25]. According to the Oasis School of Human Relations, experiential research is “a new research paradigm that breaks down the traditional distinction between the role of the researcher and the role of the subject”. While in the traditional paradigm only the researcher manages and draws conclusions from the research, in the case of experiential research participants' interpretations are prioritized and focused on, rather than being used as a basis for analyzing something else [26]. Presuming that how activities work is situational represents one of the epistemological strengths of the experiential research.

### IV. RESULTS AND DISCUSSION

#### A. Overview

Development and innovation in the Romanian automotive industry was based until recently almost exclusively on documentations for products designed and made by foreign companies that invested in the automotive industry, as well as on technological know-how imported with modern equipment for new businesses created by these companies in Romania. Although car producers tend to keep upstream activities in the home country, in recent years, RDI activities have been outsourced by major investors to local subsidiaries in Romania. Following Renault's decision to outsource some of its RDI activities, many foreign suppliers have also established RDI and production activities in Romania in order to meet the OEM's demand (e.g. Continental, Draexlmaier, INA Schaeffler etc). Still, compared with other East European countries, the regional automotive industry consists of a limited number of players. There are also companies with indigenous capital that have developed their own new competitive products that have successfully penetrated global value chains in the automotive industry (e.g. Topoloveni Auto Parts, Componente Auto Pitesti, Ronera Rubber Pitesti etc). These companies demonstrate that there is local potential on design and product development that corroborated with the existing communication channels through which innovation is transferred within and between innovation networks, can represent good premises for Romania to become an important player in the European automotive industry.

Muntenia region ranks second in terms of national RDI resources: it accounts for 9.3% of RDI average expenditure in 2007-2010 (Eurostat), 6.1% of RDI units (INS 2009), and 9.6% of the Romania's RDI employees (Eurostat). This context makes our analysis relevant at national scale as well. The main insights offered by regional stakeholders during interviews are presented in the following sections.

#### B. Innovation Culture and Its Relevance to Business Success

The section depicts entrepreneurs' attitude towards innovation, ways of promoting innovation culture in the company, and the capacity for innovation at firm level.

Opinions on innovation were convergent towards

emphasizing the need for innovation at the current stage of the region and of the industry. The general message is that innovation represents a mandatory investment and that companies that do not keep up with the major trends are out of the market in no time. Furthermore, according to business representatives, in less than four years there will be no company on the market without a clear RDI strategy, innovating either on its own or in partnerships. In other words, stakeholders (both entrepreneurs and academia) in the industry are very much aware of the role innovation has gained in driving competitive advantages.

Entrepreneurs were asked to compare costs and benefits of innovation at the current stage of development of their organization and of the Romanian automotive market in general, and to describe their perception about investments in this area. Though costs are considered high and the positive impact is perceptible on the long run, benefits weigh more in entrepreneurs' vision. The economic benefits of innovation are mainly related to cost reduction and efficiency improvement leading to an increase of competitiveness, gaining customers and suppliers' confidence, hence a portfolio diversification of both clients and markets.

The innovation concept seems to be familiar among entrepreneurs and regional structures representatives, but a clearer picture of the way innovation is really approached can be obtained by evaluating the amount of resources organizations invest in RDI activities. The critical question is to what extent firms are internally active in RD and innovative activities and a relevant indicator can be the percentage of the turnover / total sales dedicated to RDI spending. Companies have no clear strategy or budget concerning RDI spending, only two of the interviewed managers being able to mention a percentage assigned to innovation. The absence of committed resources suggests that companies are characterized by non-systematic patterns of engagement and speaks for itself about the maturity of Romanian companies in approaching innovation.

According to industry representatives, human resources are a governing resource in RDI processes and technical qualifications are the ones that make the difference in the automotive industry. From their point of view, the know-how is the most durable investment that can lead to sustainability and continuous improvement.

As for the role the entrepreneur has in the innovation process, in the investigated regional innovation environment innovation is considered a team work. The entrepreneur is perceived as the *initiator* or the *mentor*, but much accent is placed on finding the right way to key up the personnel. The manners of stimulating employees to be creative and innovative are quite similar among companies in the region: financial incentives are the most commonly used in an attempt to promote an innovation culture, followed by hierarchical accession possibilities, and the Kaizen methodology. There is also the alternative of training courses and participation at international meetings in the industry. Still, a key factor seems to be the personal example of the entrepreneur and the group's appreciation.

As for types of innovation suitable to an organization's profile, innovation is assimilated generally to process innovation. The acquisition of new equipments and machines

is often perceived as innovation and maintaining a top level of used technologies represents a key factor in preserving market competitiveness.

### C. Barriers to Innovation

In general, interviews data indicate that there are several structural, financial, and institutional factors that generate an unfavourable environment for innovation in the region. The main barriers and synthesised in Table I.

TABLE I: MAJOR OBSTACLES TO INNOVATION

Structural	Access to qualified personnel
	Poor technology infrastructure
	Limited demand of R&D from industries and other users
Financial	Low international visibility of the R&D activity from Romania
	Lack of funding
Institutional	The high cost of licensing and / or acquisition of new technologies
	Embryonic business support services
Institutional	R&D policy instability
	Low institutional performance and bureaucracy
Institutional	Legislative framework

Source: Interviews' data

Entrepreneurs seem to be seriously concerned about the human resources in the region. A key obstacle for innovation seems to be the lack of suitably qualified personnel, both scientific and managerial. There is a hard time in finding specialists and this is mainly an effect of one of the three situations: the educational system is not providing graduates with the needed skills in the production and research field; top students that could bring value added decide to emigrate or are "hunted" by foreign companies (e.g. Jaguar has been taking some of Renault' young engineers); and, last but not least, young specialists opt for better paid public positions.

Most of the opinions stress that it takes too much time for universities to present a research offer, it involves lots of people, and results are provided in too longer a time and are sometimes out of date compared to the needs companies have. There are also some slight differences in the way that universities and industry work and in the way they manage intellectual property rights. In addition, the technological infrastructure has not received any significant investment in the last years, being currently not fit for purpose. All these factors lead to meagre demand for public research and a low rate of collaboration between research organizations and firms.

Business support services in the region are still at an incipient phase and there is a lack of networks that may ensure the communication channels through which innovation is transferred or assets involved in the regional innovation processes are connected.

The access to finance from European funds is limited in the case of large companies and for the ones that have at least one foreign shareholder. Although multinational enterprises (MNEs) play a catalyst role for knowledge-based start-ups and technology clusters, large foreign companies stress the fact that although there is an interest to invest in RDI activities,

funding possibilities are scarce and small and medium enterprises (SMEs) are somehow privileged. On the other hand, companies that have applied for European funds have been discouraged by bureaucracy and by delayed payments and are now quite prone to doubt about future collaboration with the public sector.

Apparently, there are also some legislative issues Romania should solve in order to attract large companies in the industry to locate their RDI capacities in Romania. One of them is the Intellectual Property Rights law that is on hold. This delay makes large MNEs avoid Romania when it comes to research and development. Romania is perceived as having a hostile intellectual property environment on the grounds of some past episodes involving Dacia employees that have claimed and gained through the legal system the claim on several innovative improvements. It is expected that the new European law on innovation intellectual property protection will stimulate foreign investment in research and development in the automotive sector. At the same time, legislation concerning counterfeit products and the visible parts of the car should tighten up (around 33% of the Dacia car parts available on the market are counterfeit). Foreign companies also complain about the way fiscal laws are elaborated and applied, and the permanent uncertainty about the number and types of taxes companies must pay. At the same time, the fact that the tax deduction for RD investments is conditional on a share of 15% RD investment in total turnover and is related to the company profits, makes the instrument of little applicability.

#### *D. Stimulating Innovation*

Entrepreneurs state that competition represents the engine that pushes companies to innovate and keep up with the latest trends. A second factor highly related to competition is the OEMs demands and strategies. The final producer is the one setting trends and in the struggle to offer the best solutions companies seek for better materials, production methods or the latest technological equipments. The presence of foreign competitors in the region has also a positive impact on companies' preoccupation for innovative activities. Among factors stimulating innovation were also mentioned international fairs and conferences, presentation of "Best Ideas" to other factories in the group, continuous training, entrepreneurs' attitude and experience in the field.

Most of the automotive companies in the region have Renault as the main customer, and their innovation offer is mostly addressed to this OEM. This could be seen as both a stimulating and a hindering factor: having an OEM in the region is a good reason for companies to invest in innovation, but it can also slow them down since there is the certainty of the demand for their products. Dacia range is known as a low-cost class of automobiles and perhaps at first sight innovation in the case of a low-cost vehicle may seem somehow bizarre. Actually, it seems that this is quite the opposite: whereas in the case of premium class vehicles clients are willing to pay for the latest functionalities and improvements and spending money on innovation is not a problem, the real challenge in the low-cost segment is how to innovate and keep it cheap. The idea is also shared by the sector experts that stress the importance of employing local

workforce in the upstream activities in the case of low-cost cars. Thus, a delocalization of RDI capacities is a key factor in the success of low-cost cars.

Interviewees were asked to mention three of the most relevant entrepreneurship skills required for creating and running innovative projects in existing or in start-up firms. Risk assessment, self-confidence and the capacity to motivate others to achieve a common goal were on top of the list in entrepreneurs' vision. Some other qualities needed for an innovative entrepreneur are strategic thinking, the ability to make the best of personal networks and the ability to deal with challenges and insecurity. The founder's attitude and experience of assembling machinery piece by piece also has a great influence in gaining technical advantages. For example, there are managers that have modified out of date equipment to significantly improve its performance by adding extra functions and thus transforming it into a unique resource for the company.

To our surprise, all of the mentioned factors that foster innovation are external ones, i.e. industry and market driven reasons. None of the entrepreneurs mentioned intrinsically/inner reasons that would motivate them to design and develop new products or technologies. Still, entrepreneurship is somehow equivalent with the impulse to create and innovate, with the desire to implement innovation and with motivating others to actively participate in its implementation.

#### *E. Interactions and Networking in the Local Productive Environment*

This section provides information about the relationship that firms in the automotive industry in Muntenia region have developed with each other and the research and support base of the region.

In the case of the automotive industry, RDI rely on significant investment efforts and, more and more, on partnerships with stakeholders. The analysis of entrepreneurial behaviour in the automobile industry shows that in general the cooperation spirit among the firms in Muntenia is low. The majority of the sample companies have no type of cooperation with direct competitors or with up-stream and down-stream firms. Explaining this attitude, answers go from a certain mentality managers have towards cooperation to a lack of interest and vision regarding the benefits arising out of a partnership of this kind. There have been several attempts to gather industry representatives in common projects or at regional debates and most of them have had no success due to the resistance when it comes to cooperate. Companies willing nevertheless to cooperate manifest a higher interest for common projects with local companies rather than with distant partners. They also tend to engage in cooperation with competitors rather than upstream or downstream related firms. However, an example of good practice is being implemented in the region at Renault Tehnologie Roumanie' initiative. A competitiveness pole was created in February 2014 that includes regional companies, universities, and public authorities with the aim of strengthening cooperation on RDI activities between involved actors. Overall, entrepreneurs manifest a positive and optimistic perspective regarding the effects on companies'

activity as a result of this project and that cooperation at the regional level will generate external economies of scale and thus an increase in efficiency.

Entrepreneurs were also asked to describe the cooperation relations with the science base of the region, the regional and local administration, and the business support organizations. In general, cooperation does not seem to be on the priority agenda of most firms. The collaboration with other firms happens especially in the light of the affiliation to a number of professional organizations such as ACAROM, UGIR 1903 and the local Chambers of Industry. Business support services in the region are still at an incipient phase and there is a lack of instruments that may create communication channels between assets involved in the regional innovation processes and facilitate the transfer of academic researchers' ideas into new products or services.

As for joint research contracts with the academia, these are not frequent. When concluded, they have a specific purpose and do not become permanent. Several reasons explain this situation: lack of modern laboratories in universities and research institutes, outdated research curricula, differences in matters of timing between the short cycle planning firms have and the longer timescales of academic research.

#### F. Innovation Perspectives

In the end of the interview, entrepreneurs were asked to make their suggestions for an effective improvement of the regional innovation framework from a list of available measures and to mention perspectives regarding RDI activities. The most popular suggestions supported by the majority of the interviewees are reflected in Table II.

TABLE II: MAIN RECOMMENDATIONS FOR INNOVATION IMPROVEMENTS

Structural	Adequate wage policy in the public research sector
	Increase R&D demand from the private and public sector
Financial	Introduction and use of new financial and non financial instruments
	Stimulation of participation in international RDI fairs
	Endowment of universities and research institutes' laboratories
Institutional	Regulation and standardization of RDI policies
	Better local support mechanisms and institutions

Source: Interviews' data

Recommendations are mainly related to a higher consistency in RDI policies along with a greater emphasis placed on industrial research, the facilitation of access to finance, a higher budgetary allocation for development, participation in RDI fairs and the endowment of universities and research institutes' laboratories. Other recommendations with significant support from the stakeholders include the provision of useful information, best practices transfer from abroad, better local support mechanisms, subsidies for innovative activities, and provision of tax incentives for RDI activities and clusters development.

As for future plans regarding RDI activities, the general state of mind is positive and optimistic from both company and regional perspective. The RDI component is intended to be developed, especially by accessing more structural funds

and by expanding product and customer portfolio.

Investigating innovation at company level is a relevant and important inquiry as it reveals a unique set of processes and resources involved that may explain innovation as a critical factor in their performance [1]. Furthermore, according to [2], innovation is the single most important factor in predicting firm growth.

#### V. CONCLUSION

The Romanian automotive sector proved an adequate research platform to weigh the prerequisites of innovation against the need to transform its virtues in entrepreneurial success due to a mix of strengths and vulnerabilities specific to a relatively mature market. The findings of this paper suggest that there is a series of three factors underlying the innovative performance at regional and industry level that affects the pace and direction of entrepreneurial creativity, namely the presence of an innovation friendly business environment, entrepreneurs' personality, as well as the external competitive environment.

First, most of the potential sources nurturing further innovative processes remain idle or at least are insufficiently taken advantage of in order to overcome an 'autarchic' entrepreneurial culture. Targeted policies, adequate investment incentives, or public campaigns are needed to turn bright ideas into drivers of competitive advantages. Priorities should include improvement of regional business support services, consolidation of communication networks, increased openness towards new ideas and cooperation with entities within and outside the region.

Despite widespread acknowledgment of the fact that innovation represents a required investment, companies are characterized by non-systematic patterns of engagement, they have no clear innovation strategy or budget forecasts concerning RDI spending. To their credit, the firms are clearly aware of several of the limiting factors, for example their weaknesses related to limited specific knowledge, lack of cooperation with the research base of the region and lack of inter-firm cooperation. At the same time, the presence of an OEM (*original equipment manufacturer – final producer*) in the region and its demand for innovative products fosters innovation and entrepreneurship and helps the Romanian automotive industry to keep up with international standards.

Second, a key factor in stimulating innovation seems to be the personal example of the entrepreneur, his attitude towards new ideas and experience in the field. In other words, entrepreneurs themselves are among the main actors of innovation and their attitude towards innovation is crucial, a finding which brings us back to the conundrum of the decisive determinant between innovation and entrepreneurship.

Third, the market research revealed that several external determinants, such as demand for innovative products, latest industrial trends, shortening of production and lifecycle of products, *environmental* and legal issues, and fierce global competition are key forces driving entrepreneurship at the regional and industry level. All this pressure determines a preoccupation for an internal adequate environment for innovation and a higher openness towards cooperation.

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