

4

CHAPTER 4

The FTF view on innovation

4

The FTF view on innovation



Having examined the dimensions of innovation and its impact on productivity and competitiveness, and conducted an analysis by regions, we now need to take this diagnosis further. With the help of the FTF experts, we will now propose measures that will help turn the weaknesses identified in the Spanish case into strengths and opportunities that will allow innovation to be turned into a strategic tool that will place the country among global leaders.

The experts' opinions have essentially been obtained from two sources:

- Two **working symposia** attended by all members of the forum. At the symposia, world experts gave a number of presentations. This was followed by an opinions phase, where each member had a chance to set out their vision, in groups and individually.
- These symposia were complemented with **questionnaires** to ascertain the joint opinion of the members of the forum on aspects that have the most influence in the area of innovation and on its importance on the world's economic panorama.

The results obtained, backed by an up-to-date bibliography, are set out in this chapter. The conclusions have been organised into the following sections: identification of weaknesses for Spain and proposed measures, efficiency in managing investment in RDI, legal framework and role of the public sector in innovation and recommendations in the business area for encouraging innovation, with particular emphasis on the types of innovation on which Spain should focus.

These conclusions are completed with a reflection by the experts on whether innovation is an option or a necessity for Spain.

4.1. Identification of weaknesses and proposed measures

Having identified the factors that can influence innovation, the experts have diagnosed each one in the particular case of Spain. The results are shown in Illustration 15.

Notes

A large area of dotted lines provided for taking notes.

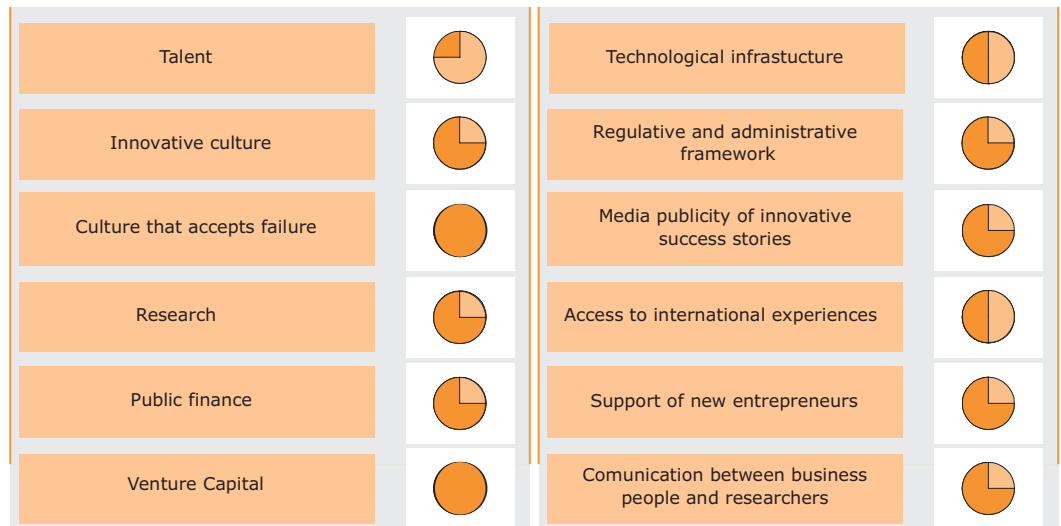


Illustration 15: Diagnosis of different factors influencing innovation in Spain.
 Source: Drawn from conclusions within the Future Trends Forum.

This analysis shows that Spain has talent -the raw material exists- but the right legal and administrative framework has not been established to create an environment that will favour entrepreneurial and innovating processes. Combined with a lack of innovating culture and an aversion to risk and fear of failure, the result is that as a country, Spain has little capacity for innovation²⁹.

As this publication has shown, in order to encourage and achieve suitable levels of innovation, there has to be a balance between all the various factors directly or indirectly involved.

Proposals related to innovating culture

Given the current situation in Spain with a lack of **innovating culture**, the **Fundación de la Innovación Bankinter** wants to help transform society, making it less reluctant to accept risk and failure.

The experts were asked to suggest the measures they thought most suitable for encouraging such a culture. These measures, listed below, were very closely related to the other factors.

Any cultural change must come about through education; in this area, the following recommendations were made:

29. According to the 2006 Global Innovation Scoreboard produced by the European Trend Chart on Innovation, Spain ranks 27th in global innovation.



- Develop actions geared towards improving education and familiarising society with this concept. Innovation should be put on the curricula at all levels of education.
- Teach schools to innovate and to view failure as a learning experience.
- Explain in universities (where future innovators are educated) that being an entrepreneur and creating a company is a career option for graduates. This can be encouraged by the university through the creation of business incubators to support innovative market-oriented ideas.
- Encourage multidisciplinary research in the university and a greater inter-relation between university and industry.
- Insist on the importance of risk-taking in the business area at higher education levels.
- Introduce more practical and multidisciplinary syllabuses that promote research and experimentation, and give the universities greater autonomy, while at the same time demanding better results from them.
- Establish bridges between business schools and technical schools and include a greater level of business contents on the syllabuses of technical degree courses.
- Establish entities that will support graduates wanting to set up their own companies.
- Promote and professionalise technology transfer from universities and research centres to the private sector.

Most innovations are made by new companies; Encouraging **entrepreneurship** can therefore be an efficient way of promoting innovation. Here, the experts made the following recommendations:

- Develop actions geared towards encouraging people to try new things (create a company, participate in a start-up, train in new skills, etc.). The message should be: "The world is changing and host of new opportunities are opening up for you. The key concepts are observation, learning, hard work and risk-taking".
- Establish entities that will support graduates wanting to set up their own company.
- Open up the Spanish market through good technological infrastructures, tax incentives, etc. to successful international entrepreneurs with an interest in assuming risks, in order to encourage Spanish entrepreneurs to imitate them.

- Facilitate accessibility to public and private funding.
- Promote the figure of the business angel and technological incubators (addressed in greater detail in the previous chapter).

Other measures for encouraging an **innovative culture** in our society might include:

- Actions to **demystify the concept of "failure"** on two fronts: first, in the immediate setting (friends, family, society, etc.) and, secondly, among banks (or any credit institution), so that they recognise and value people who take risks. It is important to encourage an awareness of the possibilities for learning and acquiring extensive experience through failures.
- **Favour** the establishment of **alliances** and collaboration schemes with other entrepreneurs from countries with a more innovating tradition, in industries such as biotechnology and genetics, telecommunications, etc.
- **Facilitate agreements** by government with global institutions that will allow companies to be alert to opportunities that might arise beyond the immediate timescale.
- Design innovation competitions open to any individual or company on certain pre-selected themes.
- Promote **tax benefits** for marketing R&D activities.

Social and material **recognition** can be an effective tool for reinforcing and encouraging certain positive attitudes. Applied to the area of innovation, recognition of the best innovative projects and their promoters can arouse interest in innovation among other professionals or individuals in society. In this area the experts had the following recommendations to make:

- Give **media coverage** (in the press, articles in magazines and on television) to stories of business success and coverage for entrepreneurs who have been successful after initial failures. In the US, for example, some companies setting up in California actually prefer to hire people who have already been involved in a business failure, because of the experience they can draw from it.
- Set up national programmes of **awards and incentives** for the most innovative projects.
- Provide **social recognition** for stories of enterprise and successful innovators.

The purpose of all of these measures should be to create a culture of innovation in the society, company, etc. and no to impose templates for innovation. In general, people are more interested in something when they are given the tools to do it themselves than they have a particular way of doing it thrust upon them.

Independently of the measures proposed by each of the experts, they all agree that a change in culture is a long and complex process which must be tackled at all levels in society, beginning with education.

Some experts suggest that a more innovating and entrepreneurial culture in Spain might come as a result of immigration (which currently accounts for 10% of the population).

Proposals in the area of venture capital

Another of the factors on which the FTF experts believe Spain should focus to improve its level of innovation is **venture capital** (though some experts believe seed capital to be even more decisive). Their recommendations are as follows:

- Create a suitable framework (including, among other measures, the elimination of administrative barriers) that will favour the creation of technology companies to attract venture capital into Spain.
- Introduce tax incentives for venture capital funds and direct foreign investment setting up in Spain.
- Establish a "fund of funds"³⁰ to attract greater private investments in technology industries (such as biotechnology and IT).

Although the venture capital industry in Spain is still very small, the outlook are quite healthy, given that foreign investors view new hi-tech companies in Spain (in the biotech and IT industries, for example) as being a good destination for their investment. One initiative set up in Spain to attract new investment is NEOTEC Capital Riesgo, a programme launched by the CDTI in collaboration with the European Investment Fund, which agreed to invest in seed capital and start-ups jointly with two important European funds which had never previously invested in Spain.

Closely related to all these measures is the role of the government, which we will examine in greater detail later. The government is responsible for implementing the policies that are required to establish then right legal and administrative framework to encourage innovation.

30. In order to address the problem of a lack of private investment in Spain for technology companies (especially in the €0.1m - €2m bracket), a "fund of funds" has been created under the CENIT programme, coordinated by the CDTI.

4.2. Legal framework and role of the public sector

In a constantly changing universe, where, as Heraclitus of Ephesus (550-475 BC) put it, "change is the only constant", governments must be qualified to introduce laws, with a vision for the future, that are capable of keeping pace with rapid technological change. The values of anticipation and flexibility, then, are not confined to business strategies; they also need to be applied to the legal and administrative frameworks that govern the sphere of action (ecosystem).

The experts consulted by the FTF highlight the importance of creating an innovation-friendly ecosystem that will facilitate investment and dissemination.

Among of the crucial players in encouraging this ecosystem are the public authorities, because of the role they play in creating and managing a **favourable legal framework** for innovation, particularly one that will have a social and strategic impact for society. Governments must participate in creating this environment, and be willing to intervene as little as possible on the market and continuously to promote free competition.

In the specific case of Europe, governments need to play a more active role in encouraging innovation in order to create an effective and competitive European single market, where all the legal and fiscal barriers to innovative companies are eliminated.

Local protectionism which seeks to support less efficient players does not contribute to the long term creation of wealth. A particular effort needs to be made in encouraging innovation in less developed regions, investing in them until they develop a sustainable economy.

The creation of such an ecosystem requires the private sector to participate, to identify the areas of greatest innovation potential and those where greatest competitive advantage can be gained, and the for appropriate **tax reforms** to be oriented towards these areas.

In Spain, the government should lend its support to the country's existing competitive advantages, such as talent, natural resources and cultural advantages.

Throughout this book, we have seen that innovation must spring from society and we therefore need to allocate sufficient resources to creating a quality **education system** that will encourage entrepreneurship and a business spirit, risk-taking and a desire for innovation at all levels as a necessary value for society and the individual.

Aid to universities and development centres must concentrate on **encouraging research in universities** and eliminating barriers to competition.

4.3. Efficiency in managing R&D investment

In Chapter 3, we saw that R&D expenditure is one of the factors that influences innovation; according to the FTF experts, it is the main input for innovation in multinationals. Nonetheless, if this investment is to be translated into innovation and thus into an improvement in productivity and competitiveness, it must be effectively oriented and managed.

In order to ensure efficiency in managing RDI investment, our experts say, it needs as far as possible to be linked to private interests. Clearly there are improvements that need to be made in R&D in terms of the public good and the dissemination of information, but what is really prized at the end of the day is the monetary value on the market. We therefore need to keep sight of two goals: it is necessary to make investment in research, but it must be oriented towards market trends in order to achieve greater involvement of the private sector.

Investment must be targeted at sectors and industries which have a clear impact on productivity (the industrial sector), where Spain has a clear competitive advantage or on where there are pressing problems. Not all areas of innovation clearly meet these two requirements. We first need to identify which of them match these two characteristics. Mechanisms for controlling investment expenditure need to be established, especially when the funding comes from subsidies or is subject to tax incentives, to ensure that the ultimate aim of the investment is applied R&D, i.e. the application of the knowledge generated in research in a process, product or service.

To conclude, we can list some of the indicators the experts feel that can offer a vision of the efficiency of investment:

- Look at the way in which activity in direct foreign investment increases or decreases.
- Look at the relationship that exists between the number of researchers and the GDP in each region.
- Look at the increase or decrease in the number of engineers and scientists as a percentage of the population.
- See whether intellectual property activity has increased.

The relationship between R&D and innovation can be reinforced and the purpose of a good R&D investment policy must therefore be to create new opportunities in order to maintain economic growth and social wellbeing.

4.4. In the business area

Companies are the launch pad of innovation and depend on innovation for their long term survival. We have already talked about the need for the companies to "recycle", that is, to innovate constantly and avoid getting stuck in the status quo, because no competitive advantage lasts for ever. Innovation must be present in all companies, regardless of the industry they belong to, and it is essential for this purpose for the leaders and professionals in these industries to understand the importance of innovation as a differentiated element with a huge impact on the competitiveness of their organisation.

In this chapter we are going to pay special attention to Spain and we will see how it is possible, according to the FTF experts, to encourage innovation within the company, which is the role of the leaders in this field and what types of innovation Spanish companies need to focus on.

4.4.1. Encouraging innovation within the company

As we have seen, using a diagnosis of innovation in Spain, the FTF experts have identified a series of weaknesses which must be addressed in order to achieve better levels of innovation and thus higher productivity and competitiveness in our companies.

One of the aspects most undervalued has been an innovative culture, when this is actually one of the most important factors in the world's most innovative countries, such as the US and Israel.

Innovative culture

One of the keys to encouraging innovation is the existence of an "innovating and entrepreneurial culture" within the company and at all levels of the organisation, given that innovation is a multidisciplinary team work.

In order to create an innovating culture within an organisation, one essential factor that needs to be taken into account is human capital. Consequently, if an innovating culture is to be encouraged in the organisation, the first thing that needs to be done is to involve all members of the organisation, whatever their functions or their level of responsibility.

The first step in achieving this is to create, within the organisation, an **infrastructure** that will enable management to be receptive to suggestions from employees. Support for innovation must start from the top and be visible to everyone. Promoting **multidisciplinary work and team work**, in other words, interaction between employees so that they exchange ideas, is another important factor in creating an environment that will foster creativity, problem-solving and the conception of original ideas that can lead to new innovations.

In order for ideas to flow, it is necessary to promote active participation and collaboration among all employees. One way of doing this is to **reward the most innovative ones for their participation and contribution** with prizes and incentive schemes (not just with money: the FTF experts argue that innovation is more sensitive to **social recognition** than to cash prizes). The idea must be to create a culture that recognises and values good ideas. Similarly, it is important to reward not only participation, but also initiative and risk.

Once all the ideas have been compiled, they need to be studied and those which, a priori, should be taken into consideration need to be identified. The next step in the innovation process is to **channel creative contributions** in order to turn them into useful ideas.

Indeed, professionals must be capable of discovering opportunities for improvement with a view to seeking efficiency and the creation of sustainable competitive advantages. This requires, on the one hand, a broad knowledge of the market and the needs of consumers and customers, a key factor in orienting innovation towards the creation of wealth through new products and services or through an improvement in existing ones, and, at the same time, the capacity to move quickly from idea to production. It is therefore essential **to invest in the customer's knowledge and to create an organisational framework that will make it easy to adopt innovative policies.**

The FTF experts also mention the importance of other factors in creating an innovating culture in the company, including searching out and developing talent and, of course, the essential role of company leaders.

4.4.2. Skills of an innovation leader

There are opposing views on the need for companies to have a chief innovation officer.

Some believe that such a figure would only create more red tape in the company and shackle the flow of ideas at all levels of the organisation and even from the outside. They feel that innovation should be a process that affects all areas of the organisation, and should not be limited to one particular department of innovation.

Others see the CIO as being important as an innovation developer, who works with all company managers to create an innovation-friendly culture and climate. In addition, the CIO should always be alert to the market, looking for trends and technologies that the organisation could take on board to create more wealth. Likewise, the CIO would establish processes for innovation.



Some companies have already decided to create the post of the CIO, who is in charge of **encouraging and managing innovation within the organisation**. The initiative clearly demonstrates that these companies are making a determined commitment to innovation, and that they have understood its importance within the company. However, the FTF experts believe responsibility for innovation cannot be delegated to a single person, but instead has to be distributed amongst all management levels of the company.

Given that the post of the CIO is one that has arisen in the last five years (though this varies by region) and despite the fact that some companies have already taken the step towards creating it, many others are still wondering what characteristics a good innovation manager should have and what role he or she should play in the organisation.

First of all, this figure must have a **broad knowledge**, both of the company and of the industry in which it operates (competitors, customers, technologies, products, etc.) and of the market in general, as well as **diversified and multidisciplinary experience**. He or she must know how to compile, identify and exploit the ideas that will allow the company to develop new or improved businesses, anticipate customers' needs and establish bridges between these and the business, through the **technological possibilities** that exist inside or outside the organisation.

They must be **leaders** and by this we are not referring to their position in the hierarchy, but to the fact that they should have the skills to manage work teams, with a vision for the future, great credibility and a capacity to unite the efforts of an entire team, with a high level of dedication and enthusiasm, to achieve certain common objectives.

Another of the key skills is a capacity to **attract the best innovating talents** on the market. Recognising existing talent in different areas of the company and favouring communication between complementary ideas encourages creativity and innovation of the professionals at any level.

As the concept of innovation itself implies, the CIO must be a **creative** person, **approachable, open to new ideas, unafraid of change** and eager to **take on new challenges**.

He or she must also be a **good communicator**, capable of "selling" and institutionalising the concept of innovation, as well as its importance within the organisation, so that it is interiorised at all levels and not restricted to an innovation department; if this were to happen, the possibilities of failure of any project of this kind would probably be quite high.

It is also essential that such individuals should have the skills to **manage innovation projects**, which-as we have seen-are characterised by greater uncertainty and risk, medium and long term targets, shared resources, etc.

Notes

4.4.3. Types of innovation with greatest added value for Spain

According to the FTF experts and returning to Doblin's types of innovation³¹, Spanish companies should focus on innovations in the **brand, business model, service** and **customer experience**, since these are the ones where the country can hope to be the most successful.

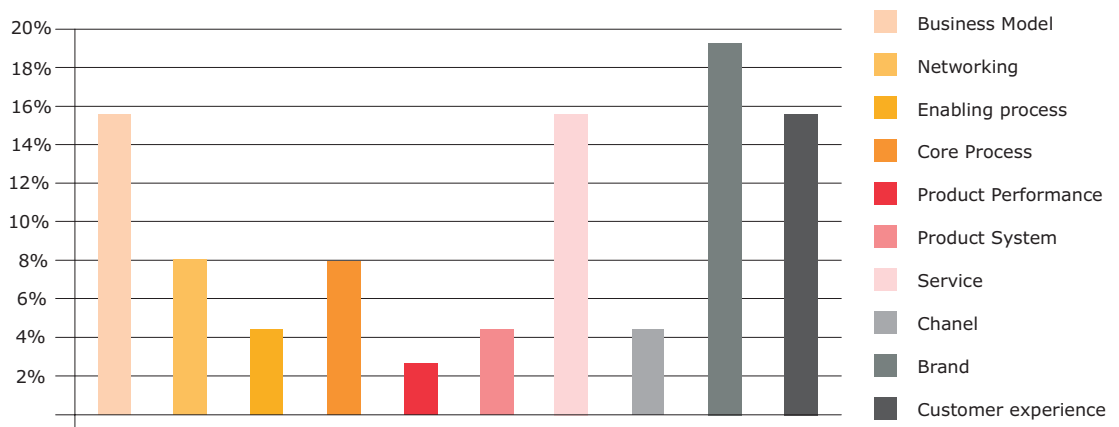


Illustration 16: Types of innovation with greatest added value for Spain.
 Source: Drawn from conclusions within the Future Trends Forum.

Innovation has to affect different phases of development, the first of which is product innovation, before focusing on other types of innovation.

Spain should not stop investing in product innovation, but should exploit this capacity more in other areas. First of all, we need to find strengths and make a commitment to them.

The FTF experts consider that **brand** is the first type of innovation Spain should focus on, since it could represent a fast way of disseminating successful products at a national and international level. Although Spain is a world leader in a number of sectors and industries (such as the auto and tourism industries), it lacks international visibility.

It needs to invest in its brand and work with internationally registered brands in industries such as construction, real estate, financial services, tourism, energy, health, transport and others.

In terms of the **business model**, another type of innovation FTF experts consider most suited to Spain, companies such as Zara are an example of Spanish creativity in businesses, and the power of design and branding, demonstrating that innovation is related not only to technology, but also to the introduction of new

31. Doblin:
<http://www.doblin.com/IdeasIndexFlashFS.htm>.

business models and processes, and that it can be found in any industry. Other highly successful business models could be developed by Spanish companies if they focus on innovative efforts in that area of the innovation "map".

This applies not only to large companies. Thanks to globalisation and advances in technology (telecommunications, IT, etc.), SMEs also have the chance to develop business models that will enable them to build a win-win relationship with local players in developing and developed economies.

According to the FTF experts, **services** could be one of the Spanish economy's strengths in the future. Due to its lack of entrepreneurs, Spain probably has more successful opportunities in this area of innovation. Moreover, Spain is mainly a services economy and the proposal of a "complete service" from companies of products and services (covering construction, project financing, facilities management, etc.) is one of the factors of their success.

The most valuable innovation is the one that can't easily be copied. In this sense, **customer's experience** is governed by very local factors and, as a result, it is probably the innovation that creates most value. Spain has the advantage of customer experience, thanks to its climate, its music, etc. This experience must be its primary objective, a suggestion which is backed by the experience and successes achieved in the restaurant, architecture, hotel and other industries.

4.4.4. What industries should investment focus on in Spain?

By fostering the industries in which Spain is most competitive we can contribute to creating the ecosystem we have referred to elsewhere in this book. In this way, by internally selling successful cases and encouraging an innovative and entrepreneurial culture, we can improve current rates of competitiveness and innovation.

Illustration 17 shows the industries in which the experts believe there is the most potential for business innovation in Spain and, therefore, the ones which investment to increase innovation rates and thus competitiveness should focus on.

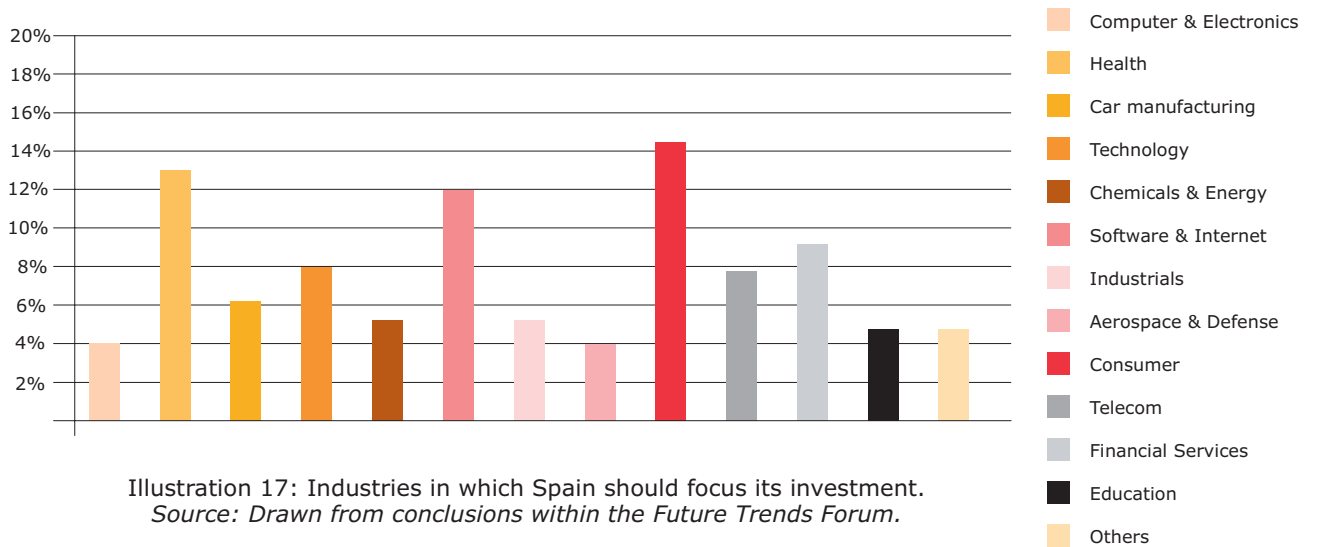


Illustration 17: Industries in which Spain should focus its investment.
 Source: Drawn from conclusions within the Future Trends Forum.

As this illustration shows, the industries in which the experts feel we should concentrate our efforts in order to obtain competitive advantages are the consumer goods industry, the health industry, and software and the Internet, without ignoring others such as financial services and telecommunications.

The combination of cost, talent and a favourable climate gives Spain an opportunity in the health industry. Another important field which should be stressed more by investment is software and the Internet, because of its low initial cost and the creativity it requires, aspects which the experts feel Spanish culture is strong in. The Spanish financial system also deserves special mention. Here, some Spanish institutions are positioning themselves as the most competitive in the world with a sophisticated and complex system.

As well as the industries listed in Illustration 17, others with particular relevance for Spain include architecture, hotels and tourism.

In the area of leisure and construction of infrastructures, Spain has competitive clusters which could act as suitable areas for investing our limited resources, instead of trying to generate innovation in industries where we do not initially possess competitive advantages.

To make this sector analysis, we should not forget the globalisation context, and should avoid focusing exclusively on domestic markets and should extend our study to the possibilities of opening up towards new markets, such as perhaps the Asian market (currently in expansion).

Using this approach, the experts say that Spain must also increase its international visibility, through the sale and reinforcement of the "Spain" brand, to position itself as an innovating country with quality products, such as Zara and Mango, two world famous examples from the textile industry, or Ferrán Adriá, with his innovations in the catering industry.

In short, it is not a question of concentrating investment in the most innovative industries; rather, each country has to know its strengths and the industries in which it can be most competitive, and focus its efforts on those areas. There are companies with very good results generating wealth and employment in sectors generally considered to be less innovative. The challenge, in these cases, will be to encourage innovation in these industries.

4.5. Innovation: option or necessity?

In conclusion, the rapid development of markets and globalisation mean that innovation has ceased to be an option and **is now a necessity**. The company of the future must necessarily be an innovative company constantly developing in the search for new competitive advantages, promoted by a growing competition and continuous sophistication of demand.

The future is for those that are capable of innovating and which have the capacity to create and apply knowledge. Companies need to obtain competitive advantages through differentiation, and innovation is what makes it possible to differentiate products and services from the competition.

On this basis, the FTF experts believe that in the case of Spain, innovation is clearly also a **necessity...**

- ...from the moment in which the country's **competitiveness** continues to decline and **globalisation** puts increasing pressure on companies to make improvements in terms of competitiveness;
- ...from the moment in which **customers become increasingly demanding** and competition is constantly increasing. It is necessary to innovate in order to prevent losing or even to increase the market share;
- ...from the moment in which the **lifespan of a product becomes ever shorter** and yet costs continue to climb. Things that used to work on the market no longer do. In other words, an improvement in profits can only come from the creation of value through a catalogue of products and services;
- ...unless Spain wants to find itself relegated to the third group of countries whose main assets are labour, on which terms it could not compete;

Notes

■ ...from the moment in which some competitors, especially emerging economies, start focusing on imitation, thus bringing about a **drop in prices and trading margins**. Therefore, if the company does not offer something differential, the sustainability of the business project is in danger.

In conclusion, not properly taking on board the challenge of innovation would mean condemning the company to stagnation or even decline. There is no place for the status quo. Innovate or die; the process needs to involve not only the business sector, but society as a whole, since it involves an improvement in the social and economic conditions of the population at large.