2009

Spanish Association
of Consulting Firms

Consultancy in Spain

Key figures for the industry 2009

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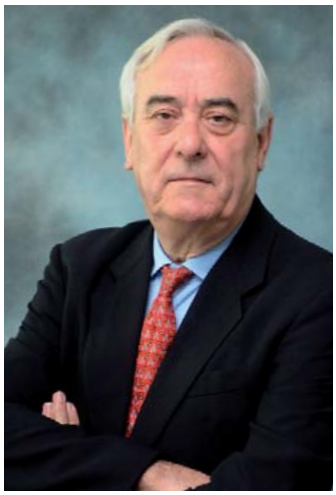


Ricardo Penalva

Chairman of the Spanish Association of Consulting Firms (AEC)

The assessment made by Spanish consultancy firms' of the industry's performance in 2009 is not a particularly optimistic one. The industry, which had been enjoying two-figure growth rates in recent years, grew by just 0.7% last year. Placed against the performance of other sectors of the Spanish economy, this might seem like an enviable result, but a closer look is needed to understand the consulting industry's true year's-end position.

Over recent years, many Spanish firms have implemented a strategy of internationalisation, either by creating overseas subsidiaries or by competing for projects on the international market. This strategy has brought both additional revenue and profits, which go a long way to explaining the industry's overall 0.7% net growth.

Turnover in the industry essentially means human capital; more than any other industry, therefore, we need to hire more qualified personnel for every million euro invoiced. This need can be a positive differentiation feature, especially in periods of growth. However, it has its negative side when business is shrinking, with many firms sacrificing trading margins to avoid letting staff go. Nonetheless, however undesirable, lay-offs have sometimes proved unavoidable. This is the first time we have seen a net loss in employment since we began publishing this *Consultancy in Spain* report. At the end of 2009, there were 113,000 people working in the industry, of whom 73% were university graduates.

Despite the problems, continuing training remains one of the pillars of our business and last year we invested €450 per employee in this area, well ahead of the national average.

Although the spectacular growth of recent years has slowed somewhat, outsourcing now accounts for 39% of total turnover. This is a highly significant figure, given that we are competing in the field on

global markets, requiring us to optimise processes and migrate part of production abroad in order to protect jobs in Spain.

One of the most important problems we face at home is the low mobility rate of the Spanish workforce. The industry has responded well to this added difficulty, however, and over the last year an increasing number of new software factories has been created throughout the country. Indeed, in many provinces the industry is the largest employer of qualified personnel. There are now software and application maintenance factories in every one of the country's seventeen autonomous regions, working in conjunction with our companies' factories in India and Latin America.

Once again, the predictions for 2010 are not optimistic with growth forecast at just 1.6%. Excluding the international effect, this means that for the second time in six years, the Spanish consultancy industry is facing practically zero growth.

Nonetheless, we are optimistic about the near future. We have seen that when our firms compete on international markets, many technologically advanced countries and leading economic powers value the quality and competitiveness of the technological projects large Spanish companies and government bodies can offer, in many of which Spanish consultancy firms have collaborated. Likewise, when we compete internationally for large outsourcing projects against some of the world's leading companies, our tenders are often successful. This is why we feel we have good grounds for optimism about the future.

Consultancy in Spain in 2009

1. Introduction

As in previous years, this report containing key figures from the Spanish consulting industry is published by the Spanish Association of Consulting Firms (AEC). The analysis focuses on the earnings of Spanish consulting firms, classified on the basis of two different criteria: the type of service performed by the consulting firms and the industries from which its clients come. As well as sales figures, the report also contains relevant information on the number of professionals hired by the industry and the amount invested by firms in continued training.

The information used in this report was obtained from a survey of leading firms in the industry. The reference period is financial year 2009. However, the year's results are also set in the context of AEC's records for the six years from 2004. Indeed, this is one of the virtues of the report, since it includes consistent information from periods of economic expansion and recession, thus enabling a serious and rigorous analysis of the role of the consulting industry in the Spanish economy.

The report draws a number of conclusions. In summary, these are as follows:

- Turnover for the industry remained unchanged in 2009, contrasting with the growth of previous years. The industry enjoyed only a very slight increase in sales during 2009: 0.7% up on the previous

year. This rate is higher than the Spanish economy as a whole, which shrank by an estimated 3.4% in the same period.

- For 2010 it is estimated that the industry will once again see a slight increase (1.6%) in sales, ahead of forecast growth for the Spanish economy.

- The industry has created more jobs and invested more in human resources than the Spanish average, confirming its role as a leading player on the quality employment market, especially among university graduates with good curriculums vitae and professionals looking to consolidate their careers.

- In the last six years, outsourcing was the most prosperous line of business for the industry, accounting for 39% of all income in Spain. If the trend continues, this type of service will shortly become the main source of income for Spanish consulting firms.

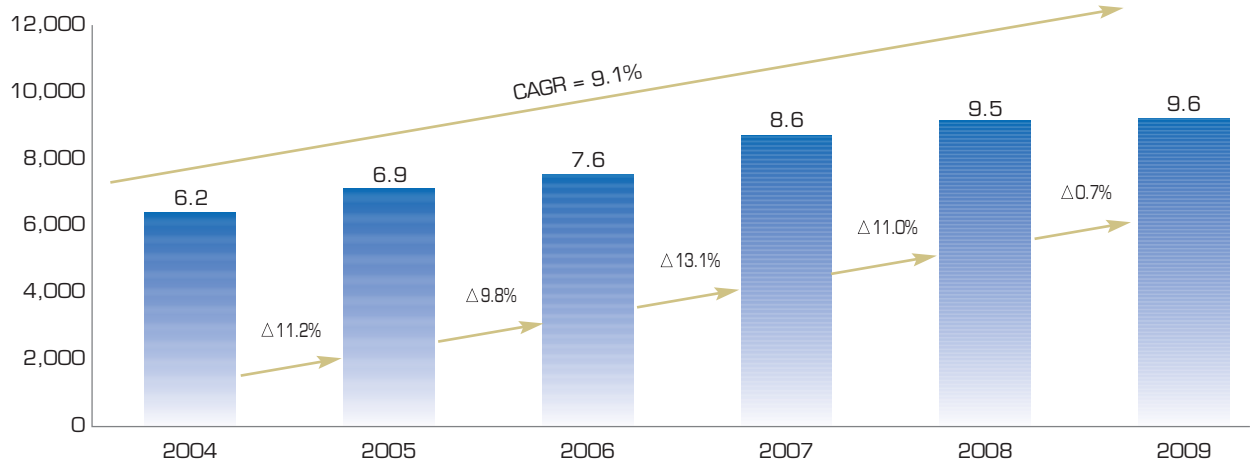
- The leading clients for consultancy services in Spain are in the financial and telecommunications industries and in the public sector. The survey for 2009 included a new category for the defence industry, the fourth-largest client for consultancy firms, which accounts for 10% of total turnover.

2. Turnover and employment in the consultancy industry

In contrast to the growth rates of over 10% to which we had become accustomed in recent years, sales of consultancy services grew by a mere 0.7% in 2009, to €9.6 billion. However, these results need to be viewed in the economic context of recession in Spain, where GDP declined by 3.4% in the year.

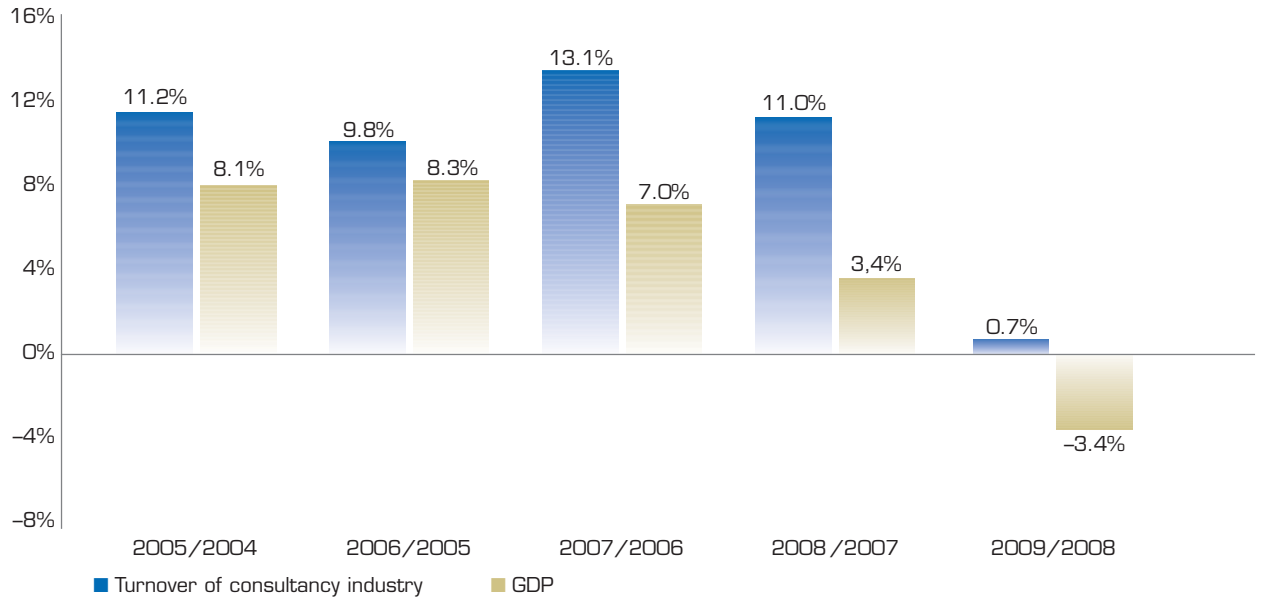
Against this backdrop, the industry's performance reflects its capacity to endure adverse financial conditions. During the year, consulting firms once again managed to outstrip overall national growth rates, confirming a trend that has been systematically maintained since reliable records became available. In the six years

Figure 1. **Turnover of consultancy industry in Spain (€billion)**



CAGR: cumulative annual growth rate.
Source: AEC.

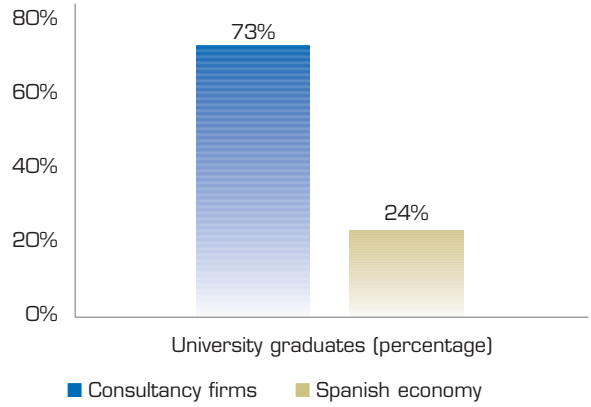
Figure 2. **Turnover of consultancy industry and GDP, 2004-2009**
(annual growth rates)



Sources: for industry turnover, AEC; for GDP at market prices, INE *(Contabilidad Nacional de España,* 2004-2008, and *Contabilidad Nacional Trimestral de España,* 2009).

from 2004 to 2009, Spanish GDP, in current euros, grew at a rate of 4.6% per year. Sales of consultancy firms grew nearly twice as fast over the same period, at a yearly rate of around 9.1%, clear evidence of the dynamism of this modern industry that generates added value and employment.

Figure 3. **Proportion of university graduates in consultancy firms and on the Spanish job market**



Sources: for companies in the industry, AEC; for the Spanish economy, INE *(Encuesta de Población Activa,* 2009).

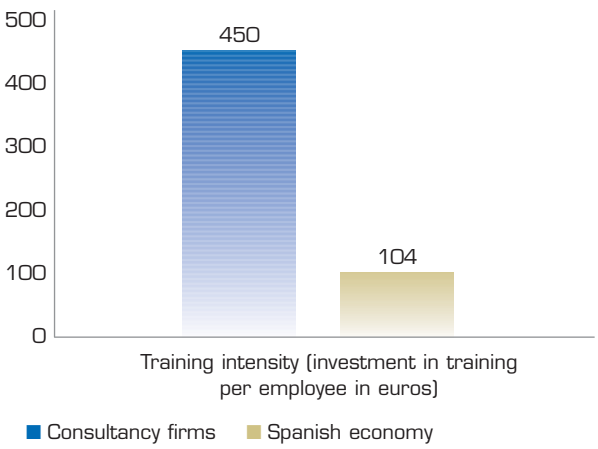
These figures tally with the hypothesis that at times of sustained growth, consulting firms contribute to the prosperity of the most dynamic companies on national and international markets. Nonetheless, they also show that at times of uncertainty and recession, consultancy services do not lose their value, albeit they are likely to be reoriented towards reorganisation, optimisation of operating processes, outsourcing and, in general, towards recovering the efficiency that enables companies to ride out the storm and prepare for new phases of economic reactivation.

Its competitive capacity and dynamic nature has made the consulting industry a valuable source of quality employment for the Spanish economy and for Spanish society as a whole. By the end of 2009, it employed a total of 113,200 people. This represents net job

creation of 34,840 jobs over a period of six years (2004 - 2009) clearly reflecting the industry's capacity to create employment. Employment in consulting firms rose by an average 7.6% per year during the period, as opposed to a rise of just 1% per year in the number of salaried persons signed up to the Spanish Social Security, according to data from the Ministry for Employment and Immigration.

By the nature of its work, the industry recruits its staff mostly from the most highly qualified segment of the national labour market. Seventy-three percent of employees in consultancy firms have a university degree, as compared to 24% of the Spanish workforce as a whole, according to the National Workforce Survey. These figures confirm that consulting is an attractive career choice for the brightest university leavers, especially in view of the industry's interest in continued training for employees, in which firms invested €51 million during 2009, four and a half times more per employee than the Spanish average.

Figure 4. **Training intensity of university graduates in consultancy firms and on the Spanish job market**



Sources: for companies in the industry, AEC; for the Spanish economy, INE *(Encuesta Anual del Coste Laboral)*.

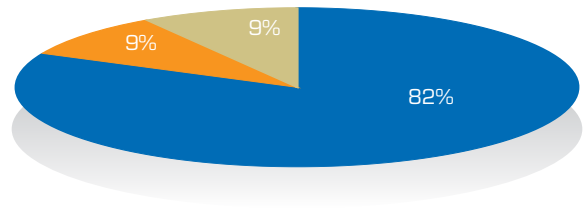
At times of uncertainty and recession, consultancy services do not lose their value, albeit they are likely to be reoriented towards reorganisation, optimisation of operating processes, outsourcing and, in general, towards recovering the efficiency

3. Distribution of revenue by markets

Most of the business of Spanish consultants comes from sales of services to Spanish companies, accounting for 82% of the industry's earnings in 2009. Sales to companies elsewhere in the EU accounted for 9%, the same proportion as clients in other countries.

This distribution of industry earnings has remained practically unchanged in recent years.

Figure 5. **Distribution of industry earnings by geographical markets (2009)**

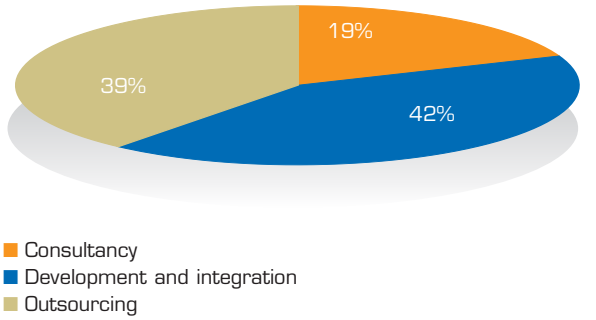


Source: AEC.

4. Distribution of revenue by services

The proportionate contribution of different services to overall earnings also remained largely unaltered. Similarly to previous years, 42% of the revenue of Spanish consulting firms in 2009 came from the sale of development and integration services, with 39% deriving from outsourcing services—the type of service that has seen the greatest increase in earnings since 2004. Finally, consultancy services constitute 19% of the industry's business.

Figure 6. **Distribution of industry earnings by type of service (2009)**



Source: AEC.

Looking back over the figures for the last six years, it is clear that the most dynamic part of the industry's turnover is related to outsourcing services: not only is revenue from outsourcing services rising faster than all other business (Figure 7), it has also become the largest contributor to growth in total earnings. If the trend seen in recent years continues, outsourcing is likely to become the leading source of income for Spanish consultancy firms.

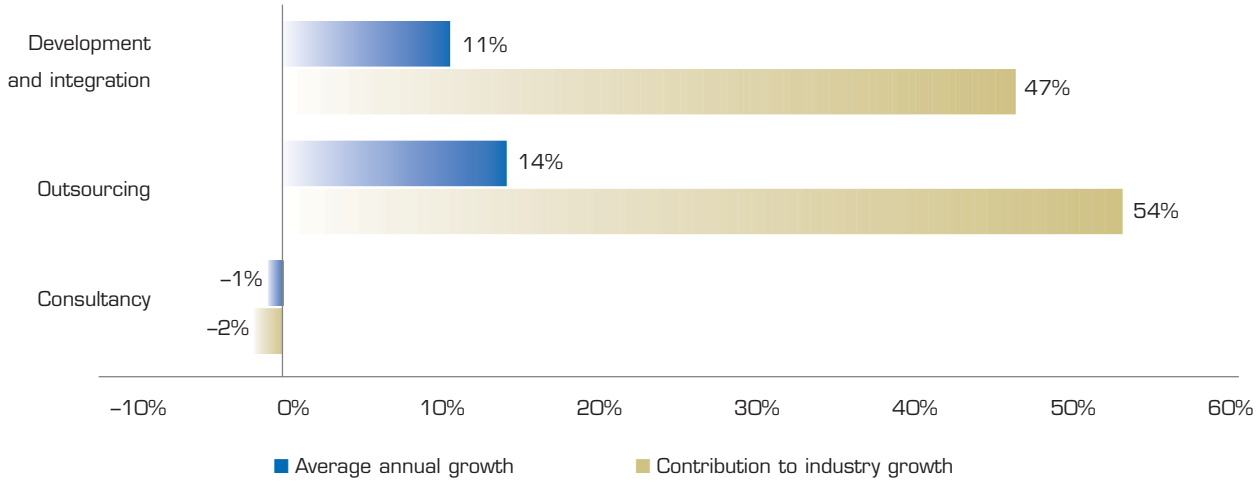
Development and integration of applications

The applications development and integration business can be divided in two sub-services: development of applications as such and deployment and integration services. The former accounts for 77% of revenue in this category and the latter 23%.

Outsourcing

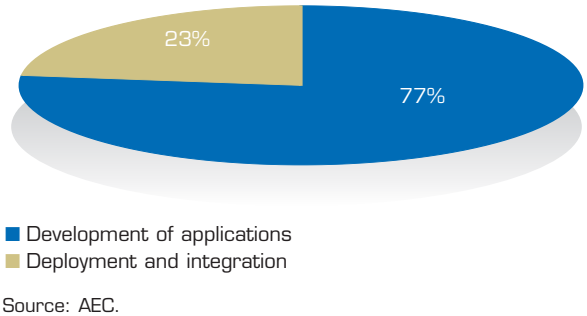
Sales from outsourcing services are distributed more evenly. Forty-nine percent of income in this area came from application management services. This was followed by IT outsourcing (34%) and outsourcing of business processes (17%).

Figure 7. **Average annual growth rate and contribution of top services to industry growth (2004-2009)**



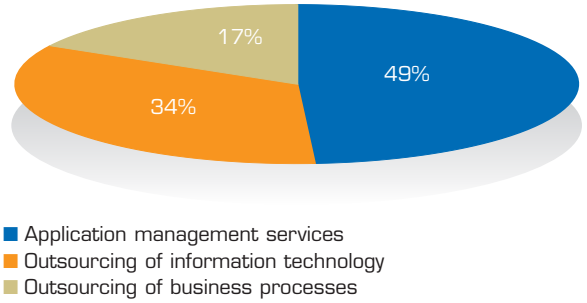
Source: AEC.

Figure 8. **Distribution of industry earnings in development and integration services (2009)**



Source: AEC.

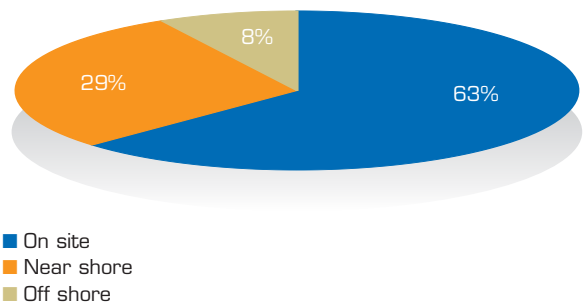
Figure 9. **Distribution of industry earnings by outsourcing services (2009)**



Source: AEC.

Most outsourcing services offered by Spanish consultancy firms are performed on-site, accounting for 63% of total revenue in the area. Nonetheless, the proportion of nearshore services rose over the year to 29%. The share of revenue from offshore services was also up over the year—from 5% to 8%.

Figure 10. **Distribution of earnings by type of outsourcing (2009)**

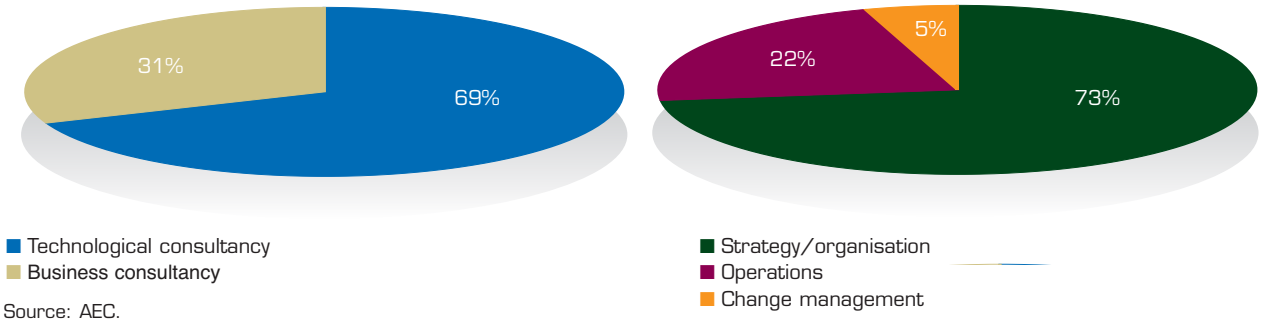


Source: AEC.

Consultancy

The only area of business in which firms earned less in 2009 than in 2004 was in

Figure 11. **Distribution of industry earnings by consultancy service (2009)**



Source: AEC.

conventional consultancy services. Nonetheless, this line of business continues to account for 19% of total sales in the industry. Within this category, the lion's share is taken by technological consultancy, which accounts for 69% of sales. The remaining 31% corresponds to business consultancy, a proportion that has fallen in recent years.

Most business consultancy was related to organisational design and strategic formulation. In these areas, 73% of earnings came from business consultancy, with operations improvement accounting for 22% and change management 5%. As a result of the economic crisis, clients are now prioritising increased efficiency. This has led to greater demand for consulting services linked to the development of operations and organisational optimisation, at the expense of change management.

5. Distribution of revenue by industries

As Figure 12 shows, consulting services draw their clients from a wide range of industries. The largest client sector is the financial industry, which has traditionally worked in partnership with consultants. In 2009 it accounted for 23% of the industry's sales revenue. Next in importance comes the telecommunications industry, accounting for 15% of sales. Closely following it in third place, at 14%, is government, where demand has increased in recent years as a result of efforts to modernise public services. Fourth comes the defence industry, for which individual figures have only become available this year. The inclusion of this industry has altered the longitudinal analysis of the data, i.e. trends over time in the distribution of revenue by industries.

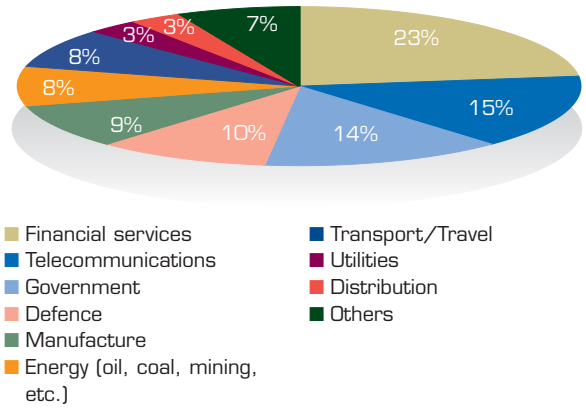
We can draw the following conclusions from the available data:

- The three leading client industries for consultancy services (financial services, telecommunications and government) have always accounted for over half of the industry's revenue. Their strategic importance as trading partners of consulting firms and the stability of their demand for this type of service are beyond all doubt.

- In 2009, itemised figures on revenue from the defence industry (the fourth-largest client) became available for the first time. According to sales forecasts for 2010 (see next section), this industry will account for an important part of demand for consultancy services.

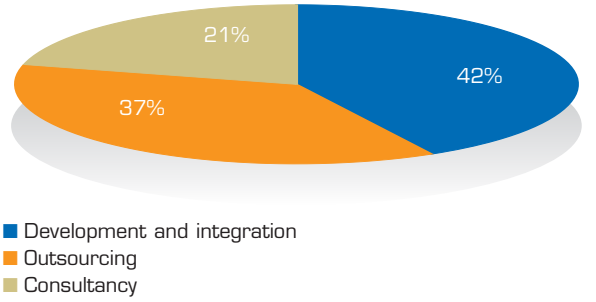
- Among the leading client industries, demand has grown fastest in two areas: energy and finance. Together, these two

Figure 12. **Distribution of industry earnings by sector (2009)**



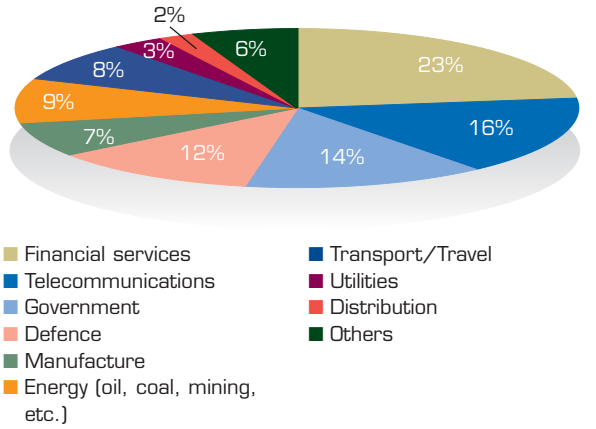
Source: AEC.

Figure 13. **Distribution of industry earnings by services according to 2010 forecasts**



Source: AEC.

Figure 14. **Distribution of industry earnings by sector according to 2010 forecasts**



Source: AEC.

industries account for over 40% of the increase in sales between 2004 and 2009. The area of government, which grew apace with other sources of revenue, represents an important proportion (14%) of the increase in sales of consulting services.

6. Growth forecasts

Despite the current difficulties of the Spanish economy, business in the consultancy industry is forecast to increase by around 1.6% in 2010, to reach turnover of €9.7 billion.

The forecast increase is concentrated in conventional consultancy services, while growth in development and integration and outsourcing will be more moderate than in recent years.

As for the demand from the different economic sectors, forecasts indicate that the greatest "pull" effect will come from telecommunications, defence and financial services, confirming the trends of recent years.

Forecasts suggest there will be no substantial change in the distribution of sales by type of service or client industry. In the former case, 42% of earnings will come from development and integration, exactly the same as in 2009. As in previous years, the largest client industry is set to be the financial services sector, accounting for 23% of total sales of the Spanish consultancy industry.

Sustainability and sustainable development: a new culture

Adolfo Castilla
Professor of Applied Economics and CEO of Tendencias 21

"When the wind blows, some build walls, others build windmills." This old Chinese proverb, which has been used extensively lately in presentations and lectures, will be very familiar to businesspeople at times of crisis like the present. Threats and opportunities come hand in hand and we need to know how to tell them apart; how to face up to the former and how to capitalise on the latter.

The term *crisis* not only has connotations of something serious, of a decisive moment; it also denotes the idea of a climax, a turning point, a mutation and a dramatic change. And the entire world—and developed nations in particular—is now inexorably heading towards this dramatic change. The situation we are now going through goes far further than just financial problems and property bubbles; it is related to the very survival of our economic system, the viability of our development model and the possibility of maintaining our lifestyle.

However optimistic we may be, a whole series of recent trends have been identified as being negative for the future of the planet and its inhabitants, for reasons related to environment on which we depend and its deterioration. This panorama is all the more complicated for developed countries, for such simple reasons as the entry of powerful and aggressive countries onto world markets and a shift in global power and domination towards new latitudes.

In other words, today's developed countries can no longer continue to depend on a model of growth that will exhaust our natural resources, damage the environment and cause irreversible climate change (with unforeseeable consequences); nor will they be allowed to do so by those other countries that will compete strongly for our own and other markets, and which will claim their fair share of remaining natural resources.

A reference to the recent past and a general diagnosis of the present

In order to understand what is happening, it may be helpful to step back for a moment into the recent past. A good starting point is the foundation of the Club of Rome in the late 1960s. The group is particularly relevant because it was the first institution, in what might be called "our age", to consider some of the great issues facing mankind. In 1968 thirty-five academics, scientists, researchers and politicians from 30 countries met in Rome to discuss the changes that were taking place in the planet as a result of human action. The club was set up two years later under Swiss legislation and in 1972 it released its first major report, *The Limits to Growth.* The report had a major impact throughout the world and led to—or at least lent weight to—environmentalism, the Zero Growth theory, alternative technologies and many other movements of recent years.

It is worthwhile recalling the list of great problems identified at the first meeting of experts in Rome (see Figure 1).

Surprising though it might seem, the same list could have been drawn up today. The former problems persist, though some of the terminology might have to be updated.

The list shown in Figure 2 is the result of a recent survey carried out by the author.

There are two possible explanations: either the last forty years have served for nothing and we are in the same position now as we were in 1968; or else humankind and its societies simply accumulate problems without solving any of them, even the oldest ones. In either case, one could argue that one of the major features of our time is the inability of societies to address problems creatively and this inability is correlative to that of developing visionary, imaginative and anticipatory leadership capable of overcoming, resolving or dissolving these problems. The lack of such leadership—individual and collective—in our societies and the fact that we do nothing to promote its wider emergence by way of educational measures and incentives may help explain (better than any other independent variable) the disheartening panorama now faced by the human race.

Figure 1. **Major global issues in 1968**

- Deterioration of the environment.
- Crisis of institutions.
- Bureaucratisation.
- Alienation of youth.
- Violence.
- Educational irrelevance.
- Unabridged gap between poor and industrialised countries.
- Uncontrolled urban spread.
- Insecurity of employment.
- Loss of satisfaction in work.
- Questioning of the values of society.
- Indifference of law and order.
- Inflation and monetary disruption.

Figure 2. **Major global issues in 2009 (forty years later)**

- Overpopulation and unchecked population growth.
- Continued hunger in the world.
- Increasing migration and population displacements.
- Climate change.
- Prevalence and possible changes in the *modus operandi* of terrorist actions.
- Increased power and globalisation of organised crime, with subsequent delegitimization of democratic states.
- Growth in anti-system, counterculture and alternative groups.
- Appearance of new emerging (economic and military) powers.
- Threat of new cold wars.
- Increase and diversification in large and small armed conflicts with state and non-state players.
- Scarcity and unequal distribution of natural resources, mainly energy.
- Nuclear proliferation.
- Possible slowdown in globalisation with an increase in protectionism. Consequences for markets, economic freedom and spread of poverty in the world.
- New totalitarianism, populism and in some nations growing doubts over democracy as a form of government.
- New strength of ethnic and identity factors.
- Possible increase in xenophobia, tribalism and nationalism.
- Change in perceived relevance of the nation state.
- Possible disintegration and collapse of some nations.
- Advance towards a multi-polar world with shared world dominance.
- Concern over scientific advances and technological revolutions.
- Aging and inversion of population pyramid in more developed countries.

Towards a new civilization based on the idea of "sustainability"

Many authors and scholars are now discussing more insistently than ever before the need for a new culture that could lead to a new civilization. We know little of the significance of this proposal nor how it should be set in motion, but there is a concept—the basis, perhaps, of a new philosophy of life—that is attracting widespread attention. This is "sustainability", a fairly new term, initially coined in the context of ecological and environmental issues and since extended to other dimensions of our societies, such economic and social areas.

Today, everyone is calling for *sustainable agriculture, sustainable urbanisation, sustainable architecture, sustainable industry* and *sustainable business.* In many countries, it even enjoys the backing of law. In Spain, for example, a Sustainability Act was recently enacted. Though rather imprecise, rushed and somewhat untimely, it is nonetheless now law and has to be adhered to.

As for the concept of sustainability itself, its meaning, its history and its implications, there is plenty of information on the subject which we shall not reproduce in full here. The word *sustainability*, first used in English, includes the meanings of duration, maintenance, support and stability. In

Spanish, the *Diccionario de la Lengua Española* defines *sostenible* as describing processes that can maintain themselves without external help or the decline in existing resources.

Initially, as we have said, the idea of sustainability arose in relation with the environmental area and was used to describe biological processes that remain diverse and productive over time without creating negative spillover effects. Over the years, the idea has been applied to all types of areas related to life on earth, be they wetlands, large and small forests, farmland, cycles regulating availability of water, oxygen, nitrogen, carbon, etc. and in relationship to other elements needed for the life of organic and inorganic systems and their survival over time. It is associated with the maintenance of natural ecosystems that have existed for thousands of years, and which in recent times have been affected by humans and their activities of all types, especially technological.

A major change in the use of the term came in the 1980s, when it began to be used in relationship with sustainability of human life on the planet. The UN's Brundtland Commission added a further definition in 1987: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

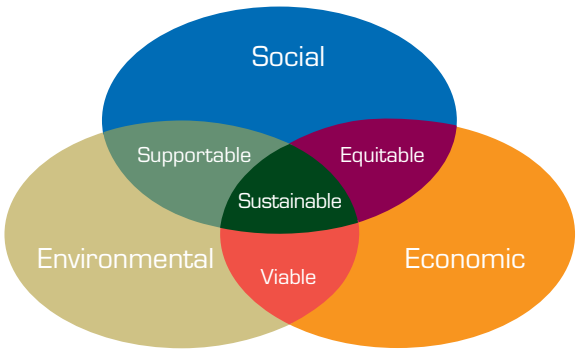
A global meeting of the UN held from 14 to 16 September 2005 in New York (actually a continuation of the global meeting on the Millennium Goals held in 2000) set out the three pillars of sustainability: environmental, economic and social. It also produced the Venn diagram shown in Figure 3.

Many environmentalists argued that economic development could never be compatible with environmental sustainability and the idea was added that the economy was a sub-system of human society, in turn a sub-system of the biosphere. The three should be united and should mutually sustain each other.

The fact is that we all have quite a clear idea of what sustainability is and of the need to do something to tackle problems such as:

- An increase in world population to 9 or 10 billion people, forecast for the middle of this century.
- The exhaustion of oil and other fossil energy sources.
- The "Hubbert peak", the point of maximum oil production. The date of this turning point has been postponed several times, but it cannot be far off.
- A threefold increase in water consumption while global population world has only doubled in size.
- Exhaustion of the world's aquifers, especially in Saudi Arabia, which is reliant on fossil reserves for 75% of its water; in United States, where there is over-exploitation of the Ogallala aquifer, which extends beneath several Great Plains states and which is due to run dry by 2020; and in China, where the water table has fallen three to four metres, lakes, wells and small rivers have dried

Figure 3. **Venn diagram**



up, the Yellow River is running dry and 80% of rivers no longer contain any fish.

- The concentration of CO_2 in the inner atmosphere at 400 parts per million air molecules, whereas for thousands of years it had remained at between 200 and 280 parts per million.

- A forecast average increase in global temperatures of between 1.4 ºC and 5.8 ºC by the end of century and between 1 ºC and 4 ºC by around 2050.

- A rise in sea levels of three metres above current levels.

- Development of large countries such as China and India and an increase in per capita income—to which they are entitled but which would require three planets to satisfy.

We all understand what sustainability is and we all share in the culture of sustainability—including, naturally enough, politicians and rulers. However, few people know how we can achieve a sustainable world, and that includes politicians and rulers. We know very little about what needs to be done, as the failure of the Kyoto, Rio and Copenhagen talks on climate change clearly show.

Sustainability means imagination, study and action

For a time, people trusted humankind and human technology to get us out of our present and future problems. Many would have endorsed the epithet "Technology got us here and technology will get us out of here" (attributed to Gianni Agnelli, the late great head of Fiat), but few today would agree.

Radical scientific solutions

Despair is setting in, albeit new and surprising voices are speaking about technological revolutions capable of solving all the problems of humankind and its host planet. Ray Kurzweil, one of the most prominent, argues in his books—particularly in the latest, *Singularity is Near*—that new technological revolutions and, in particular, the "NBIC Convergence" will lead us to a *brave new world* utterly different to our present one.

We shall overcome disease, increase life expectancy, raise productivity to previously unseen rates, resolve the problem of food production once and for all, end world hunger, make shortages of natural resources a thing of the past and make climate change a bad dream from which we will have awoken. Artificial intelligence will form part of the solution and mankind will soon be entering a post-human age which can only prove beneficial.

It is a vision that is perhaps too extreme to be trusted, but it is nonetheless a positive development that we are not losing our interest and our determination to take action over ourselves and our world in order to resolve all its problems.

Specific actions

Other authors, such as Per Sandberg, managing director of The Business Role, from the World Business Council for Sustainable Development, a coalition of two hundred global companies from all industries and regions that are committed to the three aforementioned pillars of sustainability, believe in action that is also dramatic, but more conventional and traditional than Kurzweil's model.

At a talk in Madrid on 1 March this year, Sandberg said running businesses along traditional lines is no longer an option. Gone too are the policies of action, innovation, consumption and finance we have known till now.

Figure 4. **List of opportunities**

Sectors	Annual value in 2050*	Forecast percentage of world GDP in 2050
Energy	2.0 (1.0-3.0)	1.0 (0.5-1.5)
Forests	0.2 (0.1-0.3)	0.1 (0.05-0.15)
Agriculture and food	1.2 (0.6-1.8)	0.6 (0.3-0.9)
Water	0.2 (0.1-0.3)	0.1 (0.05-0.15)
Metals	0.5 (0.2-0.7)	0.2 (0.1-0.3)
Total natural resources	**4.1 (2.0-6.1)**	**2.0 (1.0-3.0)**
Health and education	2.1 (0.8-3.5)	1.0 (0.5-1.5)
General total	**6.2 (2.8-9.6)**	**3.0 (1.5-4.5)**

* Trillion US dollars at constant 2008 rates. Average values with ranges given in brackets.

He discussed many of the environmental problems we have examined here and talked about what they would mean for large and small companies. Consequences include fluctuations in prices and unavailability of raw materials, increase in capital costs, trends in market conditions, changes in consumer behaviour and an increase in complexity and risk.

He spoke of the vast opportunities sustainability offers and the endless list of work in the area of studies, definition and approach that will be needed to bring us to a more sustainable world and help migrate to true sustainable development. Studying his proposals, which are targeted at companies of all types, one gets the impression that consultancy in general, and sustainability-specialist consultancy in particular, will see a vast range opportunities for work in coming years.

Sandberg repeated a sentence originally published in the *Harvard Business Review* of September 2009, "[…] sustainability is now the key driver for innovation. In the future only companies that make sustainability a goal will achieve competitive advantages," and he presented lists of opportunities and a several tables, one of the most important of which is reproduced in Figure 4.

Areas of activity

Per Sandberg and other authors have gone to great lengths to try to identify the areas where there is most to be done, as Figure 5 shows.

These lists may show the possibilities for action that exist today, but they are largely insignificant compared to the magnitude of the task involved in giving birth to a whole new world. As we have said, what is at stake is the construction of a new culture, a new society and, probably, a new civilization. All this work remains to be done. This, then, is the moment of truth for institutions devoted to studying, analysing, planning and orienting management and actions.

A new social culture is coming, one that stresses talent, analysis, strategy, actions and, of course, values and moral principles

As we have seen in the previous section, there are of course a great range of different areas for action. In our society, it is traditionally consultancy firms that study situations, analyse problems and propose solutions through general strategies and specific actions, in the area of government, business, society or the economy as a whole.

Figure 5. **Per Sandberg and others: areas of major activity**

a) Activities in construction and transformation of today's cities, infrastructures and lifestyles:

- Cities:
  - Space management and construction.
  - Urban design and planning.
  - Smart ecological domestic installations and appliances.
  - Mobility inside and outside cities.
  - Food.
  - Forests, parks and protected spaces.
  - Nature preservation and restoration.
- Infrastructures:
  - General transport infrastructures.
  - Improvements in efficiency, energy and others.
  - Optimum management of use of land, water and other scarce resources.
  - Recycling.
  - Intelligent refuse and waste management.
  - Smart water supply systems.
  - General infrastructures for energy.
  - Smart and renewable energy systems.
  - Reduction in carbon emissions.
  - Efficient water distribution systems.
  - Eco-homes.
- Lifestyles:
  - Renewal of markets and consumer direction.
  - Health and education.
  - Consumer education and eco-marketing.
  - Sustainable lifestyles and new products for same.
  - Smart products.
  - *Prosumers* and others.
  - Collaboration, cooperation and distribution.

b) Increase in global biocapacity and improvement in ecosystem management:

- Conservation and recovery of forests and natural spaces.
- End to deforestation and soil erosion, combined with a reduction in the effects of desertification.
- Biodiversity conservation of very different habitats.
- Restoration of degraded or abandoned spaces and towns.

c) Helping business, government and the general public to move towards sustainability:

- General studies on investment, financing and consumption in a sustainable society.
- Advice on policies and actions.
- Education for sustainability.
- Creation of consortia and coalitions for change towards a new society.
- Use of the information society and Information and Communication Technologies (ICTs) to achieve a sustainable world.

Their role is to introduce, publicise and apply all types of new ideas and to come up with solutions to current and future problems. They are intermediaries between theoretical ideas, academic knowledge, techniques and innovations on the one hand and their application with precise objectives on the other. It is they bring intelligence to our institutions and help them establish goals, to orient themselves towards achieving them with specific action strategies and, finally to attain them with specific measures. Their work, always so important and so necessary, is all the more relevant at times of change such as the present. They should help us all enter this new emerging "sustainable" society.

Many consultancy firms are already doing precisely that, and have been for some time; as we have said, the industry is always at the forefront in identifying new problems and their solutions. Consultancy firms have been working for some time in the field of sustainability and associated areas, as evidenced by the projects many of them have been involved in.

This is not the place for a lengthy discussion of this work, but a quick look at some of the projects undertaken by firms specialising in climate change shows that they have long been working on areas such as:

- Proper use of coal and other fossil fuels and reduction of their negative impacts.
- Reduction in CO_2 emissions and search for solutions; these include burial at geologically suitable sites.
- Adaptation to climate change.
- Introduction and use of clean technologies.
- Minimisation of costs and maximization of profits on existing assets in certain companies in a world with strong constraints related to the use of coal and climate change.
- Search for new business opportunities and changes to be introduced in a world running short of coal, with strong environmental constraints and based on renewable energy.
- Education for sustainability and climate change.
- Creation of new organisational structures, new capacities and new management criteria for a sustainable world.
- Creation of emission trading schemes and offsetting funds.
- Etc.

Talent is an essential factor in all of these actions, and it is no secret that the consulting industry firms boast one of the highest concentrations of talent in our societies. Not only is talent guaranteed by the rigorous processes used for recruiting young professionals; the most qualified graduates actually seek work at consultancy firms, where they know they can greatly advance their education through intense training and the profound experience they acquire.

Last but by no means least; we should also remember that a new culture means above all a set of values and principles on which the culture is founded. The new world we are speaking about, the new society and the possible new civilization towards which we are headed, will undoubtedly require imagination, creativity and talent, but they also need solid values, particularly with regard to accountability and personal and professional ethics. In recent years, many young people in developed societies seem to have lost sight of the virtues of hard work,

personal accountability, the will to learn and advance and a desire to contribute to building a better world. In some cases, wealthy societies may have contributed to forming these attitudes among some of their members, but the world towards which we are headed requires us to return to the salutary principles of old: personal effort, commitment to work and the company, concern for others and an interest in social order and progress.

A sustainable and at the same time competitive world is, by definition, a world with limitations, constraints and regulations. It is also one in which we must not to lose our capacity for initiative and entrepreneurship. It is world in which we all have to be more aware and more responsible, but one which is full of challenges and opportunities. It will continue to be possible to do great things, with the sole proviso that we will have to pay attention to more aspects and dimensions than were heretofore taken into account in decision-making processes.

Sustainability is to a great extent a new opportunity for humankind. It can and must be seen as a unique opportunity for recovering great traditional values and extending personal accountability, social responsibility, ethics and public and private morals.

Conclusions

Ideas related to sustainability and sustainable development will bring about a profound change in people's attitudes. In the near future a new culture will develop in the world (indeed, it is already being created, and at great speed), which in turn is likely to lead to the emergence of a new civilization on this planet. In this context, sustainability holds out the possibility of a powerful global revolution.

There is no reason to think that humankind cannot transform itself once again, as it has so many times throughout history. The most recent change, beginning with the Industrial Revolution just two centuries ago, was spectacular. Man has achieved such surprising advances in that short period of time that we should be encouraged to try it again.

To achieve the sustainable world announced by the three pillars of sustainable environment, society and economy, we need great efforts of imagination, creativity, inventiveness and innovation, as well as studies and action plans of all kinds. The aim is to reinvent our societies and our world. It all lies ahead of us: a bright future for study companies and institutions in general and for consultancy firms in particular.

As we have said, these firms, creators and spreaders of ideas, inventors of solutions and triggers for action, are destined to play a leading role in the new world towards which we are headed. For this purpose they must continue to accumulate and increase the talent that exists in our societies and they must also disseminate unashamedly the ethical and moral values that will give meaning to our development.

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