

INTELLIGENT CONTROLS IN BUILDINGS
ENVIRONMENTAL CONTROL SYSTEMS
THE EUROPEAN MARKET 2005 – 2010



FOR OPERATORS – SUPPLIERS AND
SPECIFIERS OF ENVIRONMENTAL
CONTROL SYSTEMS WORKING
TOWARDS AN INTELLIGENT
AND INTEGRATED FUTURE



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Introduction

This study is part of a series of multi-client reports on the world's market for Intelligent Controls in non-domestic buildings (IBC(e)¹). "The European Market 2005 to 2010" is our ninth edition on the environmental systems business and, based on data from manufacturers representing more than 80% of sales to the market, is the most detailed and accurate report published on this subject. Support from all the major manufacturers and suppliers over the last twenty years has enabled us to develop a series of robust models that takes account of inputs from all distribution channels and trends numerous market segmentations plus product and system cost structure over the last decade.

This 730 page report benefits from comparisons with our similar studies carried out in different regions of the world and related technical infrastructures in buildings. It is split into two volumes, where volume I comprises the executive summary, comparing findings such as supplier shares and market segmentations across all countries, and volume II provides the detailed analyses using the same format for each of the EU(7)² countries. Data on the past, present and future market for IBC(e) is clearly presented in both quantitative and qualitative terms, so that strategies can be developed to fully exploit opportunities on a pan-European basis.

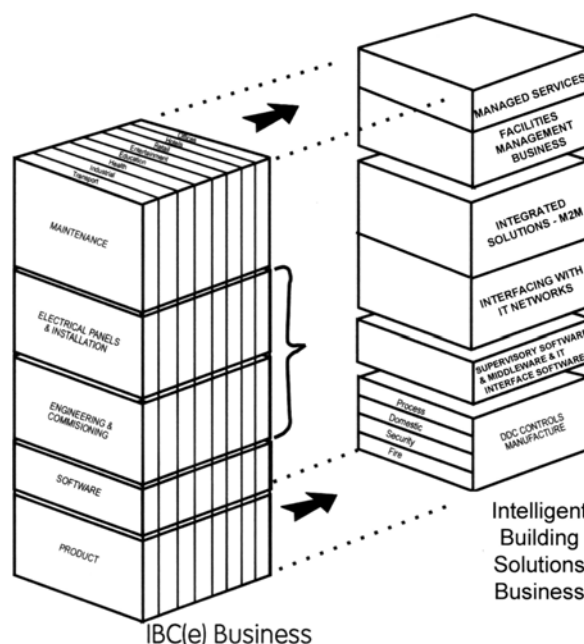
The Dynamics of this Business

This is not an easy time for all those in the supply chain for sales over the last four years have stagnated in value terms and one of the main drivers construction output has fallen in many country markets. This has given rise to severe pressure on prices and cost per point has fallen by more than 50% in some countries in the last four years. In addition IBC(e) manufacturers have had to compete with a much more professional controls contractor business and they have lost market share in most country markets, whilst the average contract size has fallen. In addition there has been a general trend for third parties to de-link product purchases and buy directly from the manufacturer, rather than take a total package from the IBC(e) manufacturer.

The old vertical model, providing cradle to grave services without "interference" from the outside world has almost completely disappeared. Focus and specialisation has brought about the development of horizontal structures shown here in the diagram, where the individual components become separate businesses. The major global suppliers still have the option to provide comprehensive capabilities but even here they will need to carefully target particular vertical markets if they are to deliver total business solutions integrated with the enterprise business in the building.

After some years of a relatively stable techno-commercial environment that has gradually become less dynamic and attractive, a metamorphosis is now under way which is

moving the thrust of the business away from control to value added services. This is being created by the convergence with IT-Networks, and enabled by web services and XML. This technology is just about in place and will present an enormous opportunity for the early adopters. For web technology infrastructures will revolutionise the way we manage and service buildings and equipment. This will eventually become a mammoth growth area for total solution suppliers but it will require changes to the business model



Intelligent Controls in Buildings



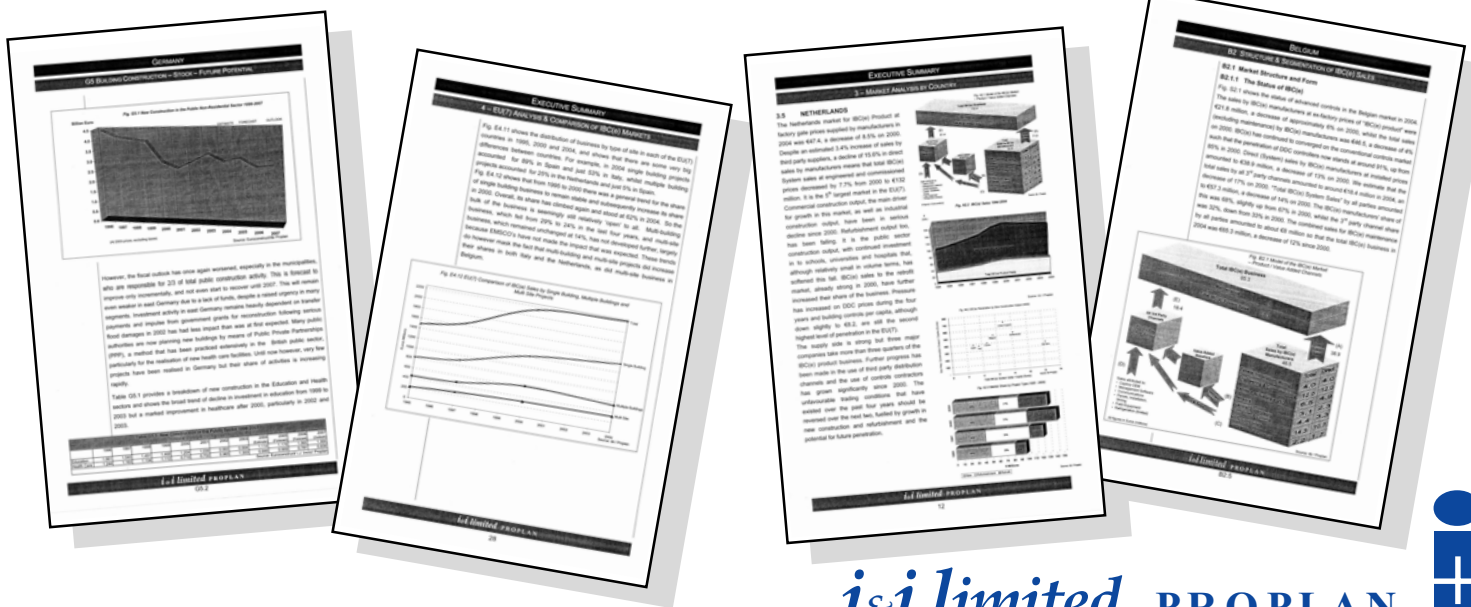


What is in this Study?

- W**ithin its 730 pages and over 350 charts and tables this study tells you:
- The sales by Product (factory gate prices) and Systems (installed prices) for direct and indirect channels, to 2004, with forecast to 2010.
The level of penetration of system sales in each country and the price per point over the last 5 years.
 - The market size by type of project, new construction, refurbishment and retrofit and demand to 2010.
 - The market size by contract value (4 segments).
 - The market size by single, multiple & multi-site projects.
 - The market size by type of hardware (9 products), including web enabled devices and those using a common communication protocol.
 - The market size by type/end use of building (16 categories).
 - The geographic distribution of sales in all 7 countries.
 - The distribution channels and the volume of business that they handle, comparing trends in "product" and "system sales".
 - Sales and market share bands for all established suppliers, by DDC product, and total system sales.
 - Profiles of established suppliers provided in a standard format allowing comparisons to be made.
 - An analysis of the major demand forces & buying motives.

- A detailed analysis of the channels of distribution, emerging trends, changes in contractual procedures and the impact that they are having on the business.
- Technology and particularly the convergence with IT will be the crux of structural change in the next ten years, is reviewed under the headings:
 - Overview of Current & Emerging Technologies
 - Product Development - Web Services & XML
 - Product & Communication Standards
- Assesses the IBC(e) suppliers' influence on the Integrated Building Solutions business, measuring the incidence of integration in thirteen different building types.
- It explains why the recent developments in communication initiatives and convergence with IT and the Enterprise Network will bring down the road blocks that have for so long held back progress in delivering total solutions that increase the performance and value in buildings.

Eureka! – by specifying systems that are based on Web Services and XML, building owners and operators will be freed from the dubious task of either buying systems from one supplier to guarantee interoperability or the obligation to chose between incompatible controls technologies. Instead "best of the breed" policy can be pursued safe in the knowledge that it will work together, interoperating with other manufacturers web embedded, web enabled products across all technical infrastructures and at the same time easily adapting to change and an unpredictable future.





EU(7) Overview

Belgium – is the smallest market in the EU(7) and is dominated by three manufacturers. Sales have declined by 14% over the last five years. This market is very dependent upon new construction and the commercial sector and its fortunes are forecast to reverse with modest growth over the next two years.

France – this, the third largest market, managed a 2% growth over the last 4 years. The sluggish demand results from stagnation and decline in new construction and refurbishment output in all sectors with an upturn only just beginning in the last two years. One IBC(e) manufacturer dominates the business, but third party channels have strengthened the routes to market over the last four years.

Germany – by far the largest market in the EU(7), is dominated by the major global suppliers and is the most developed market. Sales have decline by 4% since 2000 as commercial and to a lesser extent industrial construction output, have been in serious decline for the last five years.

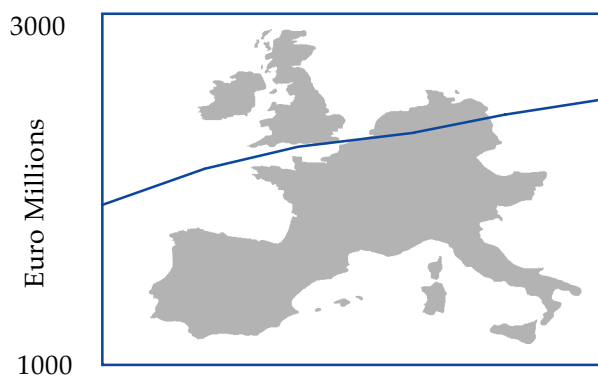
Italy – is the fourth largest market but has fewer suppliers than any other EU(7) country. The market has grown by approximately 2% per annum since 2000, but it will do well to maintain this over the next 2/3 years for construction output is forecast to decline in most sectors.

Netherlands – this is the fifth largest market and has a strong supply side that is dominated by three major companies. Sales have declined by almost 8% since 2000 as a result of a reduction in construction output.

However, fuelled by growth in new construction and refurbishment, growth during the next three years should average 4%.

Spain – Spain is the sixth largest market and it experienced a 38% growth in system sales since 2000. It is the fastest growing market in the EU(7) and it is set to overtake the Netherlands by 2006. The supply structure is relatively strong with all the international suppliers present but three companies dominate the business.

UK - this, the second largest market in the EU(7) is the most competitive. Higher than average growth of 12% over the last 4 years has been driven by new construction output in the public sector. The prospects for growth over the next 2/3 years look good whilst the supply structure is strong and has the most developed and efficient distribution channels in Europe.



Demand for IBC(e) 2000 - 2010

Intelligent Controls in Buildings

Why *i&i* -PROPLAN?

We are a specialist consultancy that focuses on analysing the market for intelligent controls in buildings. We have achieved our status of being the number one source for market intelligence by retaining the support for 20 years, of the world's major suppliers to this business. Our studies are built upon their valuable data which they have entrusted, as well as information gathered in face-to-face interviews with end users and other players in the supply chain. Our integrity and honesty have given us this privileged and unique position - to deliver insightful analysis based on accurate quantitative data. Our first multi-client projects started 20 years ago and most of the original team are still managing and directing projects today. But more importantly, we can chart the progress and developments in the market, over two decades in some cases, which provides us with much more capability to determine trends in technology and market segments. Forecasting the future and identifying gaps and opportunities in the market is therefore based on a firm

foundation. We ensure that we get accurate quantitative data, appropriately segmented, in the way that clients want it. This makes for hard work and is time consuming, but only then can we be assured that we can back up our conclusions with hard facts.

All our reports under the series "Intelligent Controls in Buildings" are built upon the same analysis tools and models and this allows us to compare, on a global basis, for example, environmental (HVAC) controls, fire detection, lighting and security systems and more importantly, review their integration and the new business of providing total building solutions.



We support all our studies, on occasions with a brief presentation, and you will always have direct contact with the staff that researched and wrote the study. Before making a decision to buy please call us to find out how we conducted the research, learning about our methodology and procedure for carrying out the study and the assistance and cooperation we had from our founder members.



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i&i limited - Building Intelligence & Innovation

i&i limited is one of Europe's leading research and consultancy companies specialising in intelligent buildings. We provides a comprehensive range of professional services encompassing marketing intelligence, technology intelligence and user intelligence to suppliers, managers, government and industry. The marketing intelligence division established in 1980 has analysed the markets and technology for building controls and services in 40 different countries throughout the world. Over 100 assignments have been completed in marketing strategy, product planning, market assessment and evaluation and company/product image.

We research the following markets on a global basis under our branded title "Intelligent Controls in Buildings":

- Environmental (HVAC) Control Systems - IBC(e)
- Fire Detection Systems - IBC(f)
- Lighting Control Systems - IBC(l)
- Security Systems - IBC(s)
- Intelligent & Integrated Infrastructures in Buildings
Such as Retail - Hotels - Health

We can supply tailored, single-client studies on the above subjects across global markets using our models & benchmarking techniques. These can be structured by a wide range of segmentations e.g. type of building, type of project, type of product . In addition, we can produce reports on a range of supporting topics including:

- Communication Elements & Computer Hardware
- Communication Standards
- Engineering and Commissioning
- Maintenance
- Sensors and Field Elements
- Supervisory Software
- Wireless Systems

Intelligent Controls in Buildings



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- which are the same for each EU(7) country in this 730 page study



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Definitions

¹ **IBC(e):** Intelligent Building Controls - environmental controls: - Computerised / microprocessor products and systems that control/monitor environmental plant such as heating, ventilation, air conditioning in non-domestic buildings, comprising a central user interface, communications network and data acquisition/direct digital controllers (DDC)

² **EU(7):** Belgium, France, Germany, Italy, Netherlands, Spain, United Kingdom

³ **IBMS/IBS:** Integrated Building Management System: Control systems that integrate two or more different building services under one contract, whilst Intelligent Building Solutions (IBS) also link to the business enterprise providing holistic solutions

