

**Deloitte.**

# European Powers of Construction 2007

*Surveying the landscape*

Analysis of key players and markets  
in construction



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# Contents

Introduction	2
Leaders of the pack: The top 100 construction companies across Europe	4
Meet the senior executives	10
Expert view from Deloitte	14
Challenges surrounding entry into new markets	14
The US infrastructure market: An opportunity for European construction companies?	16
Natural selection in the construction industry: The evolving role of cash and working capital management	19
A review of M&A activity in the UK construction sector	21
Major construction projects: Improving governance and managing risks	23
Fifty shades of green: Challenges for the construction industry in delivering sustainable heat and power	26
Country profiles	28
European construction and infrastructure group contacts	69

# Introduction

Deloitte's European Construction and Infrastructure Group is pleased to present their fifth annual publication of European Powers of Construction (EPoC). This report identifies the 100 largest construction companies across Europe, and provides economic and industry insights into the European marketplace.

The data for this publication has been collated using public sources such as annual reports; economic figures from the Federation de l'Industrie Europeenne de la Construction (FIEC), Overseas Economic Cooperation Foundation (OECF), Eurostat; national economic and construction institutes; and various websites. Alongside our analysis of this data, we provide commentary from Deloitte industry specialists throughout Europe.

## Leaders of the pack

Consistent with last year, France leads the pack with four of the top ten European construction companies and the UK continues to dominate the top 100.

Eighty-three companies reported revenue growth, with Spain's Ferrovial Group reporting the largest relative increase in construction revenue at €4.0bn. Average net income in 2006 was 5.1% – up from 3.7% in 2005. Although the major international companies have improved their net income relative to others in the sector, companies with average revenues of €2-5bn achieved higher net profit margins.

## Meet the senior executives

A key feature of EPoC is the inclusion of interviews with senior industry executives across Europe. We spoke to Angel Garcia Altozano, Corporate General Manager at ACS Group in Spain; Dr Burkhard Lohr, Chief Financial Officer (CFO) and Member of the Executive Board at HOCHTIEF in Germany; and Dr Hans Peter Haselsteiner, Chief Executive Officer (CEO) at STRABAG in Austria. We hope you find these interviews of interest and would like to thank all of the executives for providing us with their valuable industry insights.

## Expert view from Deloitte

As in previous years, our 2007 EPoC publication contains a number of articles on selected industry themes and trends.

## Entry into new markets

The largest companies are characterised by their international operations and expansion into new markets. Enlargement of the European Union (EU) to encompass many of the former Communist economies of Central and Eastern Europe (CEE) and associated growth in development has led to many opportunities. Growth in the CEE construction market is expected to continue over the coming years, particularly for mid-sized contractors. Alongside the considerable opportunities for European construction companies, this also gives rise to a number of challenges which need to be addressed in order to implement successful strategies. In this article, we identify and discuss four important areas which should be considered and embedded into any strategic decision to invest in new international markets.

## The US infrastructure market

There are significant opportunities for European construction companies to break into the US market – where a number of larger companies have already established a presence.

We see that there is increasing attention being paid to transportation methods in the US – not only to manage increasing congestion, but also to address the need for repairs to the ageing highway system. As the cost of such initiatives continues to escalate, traditional funding for this type of project is becoming less feasible and is being replaced increasingly by Public Private Partnership (PPP) funding, albeit at a slower rate than across Europe. European construction companies are potentially well positioned to benefit, with their greater experience of PPP work.

In this article, we examine US market developments and initiatives in the pipeline, as well as identifying some of the key differences to the European markets.

## UK merger and acquisition (M&A) activity

Deloitte's 2007 survey of UK CFO's and Group Finance Directors identified that after capital spending, M&A emerged as the top priority for cash in the coming year. In this article, we provide a review of the key UK M&A industry activities over the past year to the end of July 2007, prior to the global and equity market volatility triggered by issues in the US sub-prime mortgage market.

There has been sustained activity in the contracting, house building and building products sub-sectors, driven mainly by stable market conditions, continued momentum within the leveraged finance market, and challenging business growth targets. Activity has been underpinned by increases in construction orders, predicted growth in the infrastructure market, and sharp rises in new public housing activity.

Looking ahead, industry optimism is strong despite expectations of more modest construction growth next year. Five interest rate hikes are anticipated to slow consumer-driven construction sectors such as new private housing, and repair and maintenance activity, as well as increasing caution among real estate investors. However, the construction products industry is overwhelmingly positive about output growth during the year ahead.

## Working capital management

This year has seen further examples of companies in the construction industry failing or recording significant adjustments to their balance sheet positions; an important development as contractors operate in a competitive environment where analyst expectations are high and judgements are critical to the reported results. Building on last year's risk management theme, this article looks at the increasing importance of effective cash and working capital management, in addition to traditional measures such as revenue and profit.

### **Improving governance**

Robust governance has always been critical to project success, but in the wake of recent turbulence in the credit markets it seems likely that lending criteria will tighten, and that funders will seek greater assurance that arrangements are in place to keep projects on track with the risks being managed.

### **Challenges in delivering sustainable heat and power**

The topic of sustainability remains near the top of the corporate agenda with ever increasing scrutiny of the way in which clients and their suppliers – from across the sector – attempt to address this dynamic and often imprecisely articulated subject. We look at the challenges faced by the construction industry in the delivery of sustainable heat and power, and some of the issues influencing the development and implementation of technical solutions.

### **Country profiles**

In this section of EPoC 2007 we present key data on market statistics, trends, top construction companies, the PFI/PPP market, and M&A activity on a country-by-country basis. This year, we have expanded our coverage with the addition of profiles on Greece and Turkey. We hope that you will find the profiles a valuable and readily accessible source of information.

### **Finally...**

We hope this publication provides you with an overview of the interesting industry trends and analysis for the past year. Please contact me, or one of our industry practitioners across Europe, if you wish to discuss any of the topics discussed in this publication; we value your comments and suggestions.

**Jack Kelly**  
Partner  
Deloitte, London

# Leaders of the pack: The top 10 across Europe

2006 Ranking	Company name	Country	FY end	Latest year financials		
				Sales (€m)	Net income (€m)	Cons. revenue (€m)
1	VINCI*	France	Dec 06	25,634.3	1,270.4	22,310.0
2	BOUYGUES*	France	Dec 06	26,408.0	1,246.0	18,970.0
3	HOCHTIEF AG*	Germany	Dec 06	15,508.0	89.1	15,508.0
4	Skanska AB	Sweden	Dec 06	13,564.0	392.5	13,564.0
5	Grupo Ferrovial S.A.**	Spain	Dec 06	12,354.6	1,425.7	12,351.6
6	Eiffage	France	Dec 06	10,704.0	377.0	10,704.0
7	STRABAG	Austria	Dec 06	9,430.6	191.4	9,430.6
8	Koninklijke BAM Groep nv	The Netherlands	Dec 06	8,646.1	137.0	8,646.1
9	Bilfinger Berger AG	Germany	Dec 06	7,508.7	92.1	7,508.7
10	Technip	France	Dec 06	6,926.5	200.1	6,926.5
11	A.C.S Activ. de Construc. y Servicios	Spain	Dec 06	14,067.2	1,250.1	6,750.3
12	Balfour Beatty Plc#	UK	Dec 06	6,581.6	133.5	6,442.8
13	NCC AB	Sweden	Dec 06	6,034.1	184.2	6,034.1
14	Taylor Woodrow Plc	UK	Dec 06	5,239.6	424.6	5,239.6
15	Amec Group Plc*	UK	Dec 06	4,736.7	319.9	4,736.7
16	George Wimpey Plc	UK	Dec 06	4,615.0	319.6	4,615.0
17	Persimmon plc	UK	Dec 06	4,608.6	581.4	4,608.6
18	Carillion plc	UK	Dec 06	4,495.7	85.4	4,495.7
19	Koninklijke Volker Wessels Stevin N.V.	The Netherlands	Dec 06	4,488.4	110.2	4,488.4
20	FCC©	Spain	Dec 06	9,480.9	535.5	4,395.3
21	Reconneille Sarl	France	Dec 06	3,604.3	189.8	3,604.3
22	Acciona Group	Spain	Dec 06	6,272.4	1,370.1	3,557.0
23	Barratt Developments Plc	UK	Jun 06	3,552.8	401.8	3,552.8
24	Sacyr Vallehermoso, S.A.#	Spain	Dec 06	4,684.7	542.2	3,540.8
25	YIT Corporation	Finland	Dec 06	3,284.4	171.0	3,284.4
26	Laing O'Rourke PLC.	UK	Mar 06	3,278.4	33.8	3,278.4
27	Obrascon Huarte Lain S.A.	Spain	Dec 06	3,278.2	105.1	3,194.2
28	Enka Insaat ve Sanayi A.S.	Turkey	Dec 06	3,188.9	325.3	3,188.9
29	Peab AB	Sweden	Dec 06	3,274.4	113.1	2,996.0
30	Heijmans N.V.	The Netherlands	Dec 06	2,942.1	82.5	2,942.1
31	Kier Group plc	UK	Jun 06	2,605.6	62.7	2,605.6
32	Impregilo S.p.A.	Italy	Dec 06	2,506.5	141.5	2,446.5
33	Morgan Sindall plc	UK	Dec 06	2,195.6	50.5	2,195.6
34	Wilson Bowden	UK	Dec 06	1,952.2	225.4	1,952.2
35	Fayat	France	Sep 06	1,921.1	92.5	1,921.1
36	Porr Group	Austria	Dec 06	1,921.0	26.4	1,921.0
37	Snamprogetti SpA	Italy	Dec 06	1,902.2	52.8	1,902.2
38	Nexity	France	Dec 06	1,854.9	170.2	1,854.9
39	Newarthill Ltd.	UK	Oct 06	1,835.4	59.2	1,835.4
40	Bellway plc	UK	Jul 06	1,812.0	227.5	1,812.0

**Note:**

\* The company has restated the figures for 2005. # Construction revenue of 2005 has been changed due to our better understanding. ^ The database reports different figure for 2005.  
Source: OneSource, Amadeus, Company website, Company Annual Reports, Mint Global, EPOC 2006.

# 0 construction companies

FY end	Previous year financials			Present in
	Sales (€m)	Net income (€m)	Cons. revenue (€m)	
Dec 05	21,038.1	871.2	19,488.2	France, UK, Germany, Central & Eastern Europe, Belgium, Spain, Other European Countries, North America, Slovakia, Czech Republic, Africa, Asia
Dec 05	23,983.0	832.0	16,796.0	France, Hungary, Poland, Thailand, Morocco, Singapore, Spain, UK, Switzerland, China, Gabon, Hungary, Scotland, South Africa, Cyprus, Croatia, Denmark, US, Poland, Germany, Belgium, Middle East, Canada, Asia Pacific
Dec 05	13,653.2	67.7	13,653.2	Germany, Other Europe, Americas, Asia, Australia, Africa, Austria, Poland, Czech Republic, Poland, Russia, Hungary
Dec 05	13,371.1	417.9	13,371.1	Sweden, Norway, Denmark, Finland, Poland, Czech Republic, UK, US, Latin America, Estonia, Slovakia
Dec 05	8,320.6	415.9	8,319.3	America, Estonia, Slovakia, Spain, UK, US, Canada, Poland, Chile, Portugal, The Netherlands, Russia, Ireland, Germany, Andorra, Greece
Dec 05	8,497.0	302.0	8,327.0	France, Belgium, Spain, Poland, Germany, Portugal, Italy, Luxemburg
Dec 05	6,955.8	49.9	6,955.8	Austria, Germany, Czech Republic, Hungary, Poland, Slovakia, Croatia, Russia, Switzerland, Benelux, Europe, Middle East, America, Asia, Africa
Dec 05	7,424.9	153.3	7,424.9	The Netherlands, UK, Ireland, Belgium, Germany, US
Dec 05	6,205.9	66.5	6,205.9	Germany, Europe, America, Asia, Africa, Australia
Dec 05	5,376.1	93.3	5,376.1	France, Europe, Americas, Asia-Pacific, Middle East, Russia, Central Asia, Africa
Dec 05	12,113.9	608.7	5,724.8	Spain, US, Poland, Europe
Dec 05	5,587.0	154.0	5,478.8	UK, Europe, North America
Dec 05	5,333.7	126.7	5,333.7	Sweden, Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Norway, Poland, Russia, Singapore, Swaziland, Tanzania, Zambia
Dec 05	5,083.3	417.7	5,083.3	UK, North America, Canada, Spain
Dec 05	4,157.7	5.8	4,157.7	UK, Europe, Americas, Rest of World
Dec 05	4,390.8	369.6	4,390.8	UK, US
Dec 05	3,341.8	504.1	3,341.8	UK
Dec 05	2,962.0	57.5	2,960.8	UK, Canada, Dubai, Oman
Dec 05	4,157.3	67.1	4,157.3	The Netherlands, UK, Europe, North America
Dec 05	7,089.8	421.4	3,346.7	Spain, Europe, US, Latin America
Dec 05	2.9	0.1	2.9	France
Dec 05	4,852.7	324.4	3,153.0	France, Europe, Africa, Asia
Jun 05	3,628.2	411.9	3,628.2	UK, US
Dec 05	4,177.0	413.1	3,266.9	Spain, Portugal, Chile, Italy, Costa Rica,
Dec 05	3,023.8	155.5	3,023.8	Finland, Scandinavia, Russia,
Mar 05	2,773.9	17.4	2,773.9	UK, Spain, Europe, Asia, Australia, North America
Dec 06	2,442.7	102.3	2,442.7	Spain, Europe, Brazil, Chile, US, Mexico, Turkey
Dec 05	2,411.0	261.0	2,411.0	Turkey
Dec 05	2,748.5	92.3	2,407.6	Sweden, Norway, Finland
Dec 05	2,835.3	87.1	2,835.3	The Netherlands, Belgium, UK, Germany
Jun 05	2,296.9	53.4	2,296.9	UK, Rest of World
Dec 05	2,443.0	-358.2	2,318.5	Italy, Venezuela, Iceland, Greece, Greece, Dominican Republic, Switzerland, America, Ecuador, Africa
Dec 05	1,896.7	43.3	1,896.7	UK
Dec 05	1,799.5	219.5	1,799.5	UK
Sep 05	1,636.0	53.0	1,636.0	France
Dec 05	1,828.2	32.0	1,828.2	Austria, Germany, Poland, Czech Republic, Slovakia, Hungary, Croatia
Dec 05	2,089.5	20.5	2,089.5	Italy, Europe, North America, Central America, South America, Africa, Asia
Dec 05	1,577.8	151.7	1,577.8	France, Europe
Oct 05	1,589.5	22.1	1,589.5	UK
Jul 05	1,715.8	217.2	1,715.8	UK

©2005 Sales figure for 2005 has been changed as the total revenue has been taken as Sales in EPoC 2006. Sales exclude share of revenue from joint ventures and associates.

**European Powers of Construction 2007**  
Analysis of key players and markets in construction

2006 Ranking	Company name	Country	FY end	Latest year financials		
				Sales (€m)	Net income (€m)	Cons. revenue (€m)
41	Lemminkainen Oyj	Finland	Dec 06	1,795.9	65.8	1,795.9
42	Bovis Lend Lease Ltd.	UK	Jun 06	1,659.3	-53.4	1,659.3
43	TBI Holdings N.V.	The Netherlands	Dec 06	1,658.2	35.8	1,658.2
44	Societe des Autoroutes Paris-Rhin-Rhone	France	Dec 06	1,670.2	263.1	1,652.0
45	Alfred McAlpine PLC*	UK	Dec 06	1,647.5	24.6	1,647.5
46	Ed Zublin	Germany	Dec 06	1,626.0	7.0	1,626.0
47	Veidekke ASA	Norway	Dec 06	2,042.9	88.0	1,618.2
48	The Miller Group Ltd*	UK	Dec 06	1,601.6	94.7	1,601.6
49	Constructora San Jose Sa	Spain	Dec 06	1,555.0	NA	1,555.0
50	Van Oord NV	The Netherlands	Dec 06	1,516.0	88.7	1,516.0
51	Grupo Isolux Corsan SA	Spain	NA	NA	NA	NA
52	Implenia AG	Switzerland	Dec 06	1,489.3	3.4	1,489.3
53	Mt Højgaard A/S	Denmark	Dec 06	1,485.8	3.8	1,485.8
54	Koninklijke Boskalis Westminster NV	The Netherlands	Dec 06	1,353.6	117.1	1,353.6
55	The Berkeley Group Holdings plc	UK	Apr 07	1,346.6	198.7	1,346.6
56	John Sisk & Son (Holdings) Ltd.	Ireland	NA	NA	NA	NA
57	Ballast Nedam N.V.	The Netherlands	Dec 06	1,310.0	44.0	1,310.0
58	JM Ab	Sweden	Dec 06	1,302.9	169.3	1,302.9
59	Kaufman & Broad S.A.*	France	Nov 06	1,282.8	84.2	1,282.8
60	Besix Group	Belgium	Dec 06	1,275.8	40.6	1,275.8
61	Wates Group Ltd.	UK	Dec 06	1,265.1	53.0	1,265.1
62	Galliford Try plc	UK	Jun 06	1,244.2	37.0	1,244.2
63	Jan de Nul	Belgium	Dec 06	1,191.0	192.0	1,191.0
64	Redrow plc	UK	Jun 06	1,125.3	122.9	1,125.3
65	Dura Vermeer Groep N.V.	The Netherlands	Dec 06	1,116.8	23.4	1,116.8
66	Costain Group Plc	UK	Dec 06	1,097.8	-79.2	1,097.8
67	Mota-Engil	Portugal	Dec 06	1,308.2	32.2	1,092.4
68	DEME	Belgium	2006	1,077.0	50.0	1,077.0
69	Shepherd Building Group Ltd.	UK	Jun 06	1,028.5	44.5	1,028.5
70	Astaldi S.p.A.	Italy	Dec 06	1,021.1	30.1	1,021.1
71	Bowmer And Kirkland Ltd.	UK	Aug 06	1,014.9	27.0	1,014.9
72	Crest Nicholson Ltd.	UK	Oct 06	1,011.3	84.3	1,011.3
73	Grupo Comsa	Spain	Dec 06	1,044.0	NA	967.0
74	Strukton Groep N.V.	The Netherlands	Dec 06	948.9	31.0	948.9
75	Spie Batignolles	France	NA	NA	NA	NA
76	Gladedale Holdings Ltd.	UK	Dec 06	944.3	94.8	944.3
77	Kaefer Isoliertechnik Gmbh & Co	Germany	Dec 06	940.0	NA	940.0
78	ISG	UK	Jun 06	918.3	7.4	918.3
79	ROK Plc	UK	Dec 06	1,002.7	20.8	907.9
80	Metrostav as	Czech Republic	Dec 06	903.5	48.0	903.5
81	Bovis Homes Group plc	UK	Dec 06	876.1	139.4	876.1
82	Interserve*#	UK	Dec 06	2,066.0	-2.3	845.0
83	Bloor Holdings Ltd.	UK	Jun 06	830.9	41.4	830.9
84	Corsan-Corviam Construcccion Sa	Spain	NA	NA	NA	NA
85	Budimex S.A.^	Poland	Dec 06	781.6	1.0	781.6
86	E. Pihl & Son	Denmark	Dec 06	774.6	14.8	774.6
87	Swietelsky Baugesellschaft	Austria	NA	NA	NA	NA
88	Max Bögl Bauunternehmung GmbH & Co.	Germany	Dec 06	680.00	NA	680.00
89	Societa italiana per condotte dacqua^	Italy	Dec 06	724.4	7.0	662.3
90	Koop Holding Europe	The Netherlands	Dec 06	661.0	NA	661.0
91	AF Gruppen ASA	Norway	Dec 06	659.2	16.7	659.2
92	Polimex – Mostostal Siedlce S.A.	Poland	Dec 06	637.8	16.1	637.8
93	Hellenic Technodomiki TEB S.A.	Greece	Dec 06	717.6	47.5	610.6
94	John Laing PLC	UK	Dec 06	598.0	33.4	598.0
95	Aldesa Construcciones Sa	Spain	NA	NA	NA	NA
96	Van Wijnen Holding NV	The Netherlands	Dec 06	569.2	14.2	569.2
97	Goldbeck^	Germany	Mar 06	562.0	9.4	562.0
98	Renew Holdings Plc	UK	Sep 06	530.3	8.8	530.3
99	Willmott Dixon Ltd.	UK	Dec 06	526.9	74.6	526.9
100	Grupo Soares da Costa SGPS S.A.	Portugal	Dec 06	562.3	5.8	515.8

FY end	Previous year financials			Present in
	Sales (€m)	Net income (€m)	Cons. revenue (€m)	
Dec 05	1,609.7	43.7	1,609.7	Finland, Europe, Asia, Africa, America
Jun 05	1,519.0	-25.1	1,519.0	UK
Dec 05	1,836.5	26.1	1,836.5	The Netherlands
Dec 05	1,570.9	194.8	1,552.1	France
Dec 05	1,567.6	38.7	1,567.6	UK
Dec 05	1,105.5	28.0	1,105.5	Germany, Europe, Portugal, France, Denmark, Sweden, Poland, Austria, Hungary, Romania, Bulgaria, Croatia, Switzerland, Russia, China, Qatar, UAE, China, Malaysia, Singapore
Dec 05	1,821.1	69.7	1,548.1	Norway, Denmark, Sweden, Africa
Dec 05	1,175.0	80.6	1,175.0	UK
Dec 05	1,142.0	44.0	1,142.0	Spain, Portugal, France, Germany, US, Argentina, Peru, Panama, Uruguay, Morocco, Cabo Verde
Dec 05	1,002.3	41.9	1,002.3	The Netherlands, Belgium, France, Germany, UK
Dec 05	1,500.0	12.0	1,500.0	Spain
Dec 05	878.8	16.3	878.8	Switzerland
Dec 05	1,131.2	12.6	1,131.2	Denmark, Sweden, UK, US, Portugal
Dec 05	1,155.7	62.7	1,155.7	The Netherlands, Europe, Australia, Asia, Middle East, Africa, North America, South America
Apr 06	1,344.1	296.0	1,344.1	UK
Dec 05	1,319.5	39.8	1,319.5	Ireland
Dec 05	1,206.0	20.0	1,206.0	The Netherlands, UK, Europe, Middle East, SouthEast Asia,
Dec 05	1,065.2	105.2	1,065.2	Sweden, Norway, Belgium, Denmark
Nov 05	1,048.7	61.5	1,048.7	France
Dec 05	1,014.0	36.2	1,014.0	Belgium, Middle East, UK, Africa, The Netherlands
Dec 05	980.7	11.4	980.7	UK
Jun 05	1,049.2	27.8	1,049.2	UK, US
Dec 05	795.0	96.0	795.0	Belgium
Jun 05	1,139.6	140.9	1,139.6	UK
Dec 05	1,046.0	29.0	1,046.0	The Netherlands
Dec 05	991.4	34.5	991.4	UK, Spain, Other countries
Dec 05	1,381.0	30.4	1,137.0	Portugal, Poland, Hungary, Czech Republic, Romania, Slovakia, Africa, North America, South America
2005	845.0	41.0	845.0	Belgium
Jun 05	940.4	36.1	940.4	UK
Dec 05	968.9	31.9	968.9	Italy, Venezuela, Bolivia, US, Central America and Caribbean, Algeria, Morocco, Congo, Tanzania, Romania, Turkey, Denmark, Croatia, Saudi Arabia and Qatar
Aug 05	915.5	26.2	915.5	UK
Oct 05	1,017.7	78.5	1,017.7	UK
Dec 05	863.6	25.0	734.8	Spain, Italy, Portugal, Australia, Ireland, Chile, Argentina, Poland
Dec 05	824.2	36.8	824.2	The Netherlands
Dec 05	948.0	19.0	948.0	France
Dec 05	694.3	63.7	694.3	UK
Dec 05	705.0	NA	705.0	Germany
Jun 05	509.6	4.1	509.6	UK, Europe, Asia
Dec 05	811.6	17.1	742.5	UK
Dec 05	832.0	37.0	832.0	Czech Republic
Dec 05	762.0	119.1	762.0	UK
Dec 05	1,773.0	31.7	789.6	UK, Europe, Middle East, Africa, Australia, Far East, Americas
Jun 05	797.3	88.9	797.3	UK
Dec 05	822.7	11.5	822.7	Spain
Dec 05	672.1	0.5	672.1	Poland
Dec 05	542.4	11.5	542.4	Denmark, Faeroer Islands, Greenland
Mar 05	765.0	8.9	765.0	Austria
Dec 05	600.1	15.6	600.1	Germany
Dec 05	771.1	10.7	726.4	Italy
Dec 05	787.1	NA	787.1	The Netherlands
Dec 05	509.5	11.0	509.5	Norway, Sweden
Dec 05	467.0	10.7	NA	Poland
Dec 05	581.8	61	493.8	Greece
Dec 05	596.5	31.2	596.5	UK, Europe, America
Dec 05	595.0	26.5	595.0	Spain
Dec 05	576.0	12.0	576.0	The Netherlands
Mar 05	484.1	6.9	484.1	Germany
Sep 05	661.7	3.0	661.7	UK
Dec 05	603.6	10.5	603.6	UK
Dec 05	501.0	6.8	501.0	Portugal

### The top ten

VINCI, Bouygues, HOCHTIEF and Skanska continued to rank as the top four European construction companies in 2006. France's VINCI retained its position as the largest in terms of construction revenue, and consistent with 2006 has continued to extend its lead over Bouygues. Technip is a new entrant and displaces Spain's ACS Group. Other than Germany, which has two organisations listed, no other country has more than one company in the top ten. Although there is no UK presence in the top ten, the combined revenues of the recently merged Taylor Wimpey organisation would rank it seventh.

### Top 100 entrants per country

	Number of companies in top 100		Average construction revenue per company (€m)
	2006	2005	
UK	33	36	2,072
The Netherlands	11	11	2,292
France	10	9	7,017
Spain	11	9	3,566
Italy	4	6	1,508
Germany	6	5	4,471
Austria	3	5	4,039
Sweden	4	4	5,974
Finland	2	3	2,540
Belgium	3	3	1,181
Poland	2	2	710
Denmark	2	3	1,130
Norway	2	2	1,139

The UK has maintained its strength in terms of presence in the top 100. The acquisition of Westbury by Persimmon, along with Jarvis and MJ Gleeson slipping out of the top 100 listing, have contributed to the reduction from 36 to 33 entrants.

Despite the UK's dominance of the top 100, in terms of the number of companies listed, the ten French companies represent 25.0% of total revenue compared to UK companies which represent 21.9%. The key reason for this is the sheer size of the two leading French companies, VINCI and Bouygues, and the relative fragmentation of the UK market.

Average construction revenue is dependent on the characteristics of the industry in each country relative to the presence of large international contractors. Smaller countries, such as Austria and Sweden, have high average construction revenue given the presence of major organisations such as STRABAG and Skanska. Markets in Denmark, Norway and Belgium are relatively small, and their companies lack the international presence of other European competitors.

### Changes in revenue

Of the top 100 companies, 83 reported revenue growth. Spain's Ferrovial Group reported the largest relative increase in construction revenue at €4.0bn, followed by VINCI which added €2.8bn. All of the companies in the top ten reported revenue growth above 12%, except Skanska which showed the smallest increase at €193m (1.4%). Carillion reported a 51.8% increase following its first full year's trading after acquiring Mowlem.

It is no surprise that the construction industry is closely aligned to the economic climate, resulting in many companies pursuing strategies to secure more predictable cash flow and diversifying from their core construction businesses. This has contributed to continued acquisition and consolidation activity in the sector, such as Balfour Beatty's investment in Exeter and Devon International Airport.

### Net income in 2006

Income % in 2006	No. of companies	Average net income % in 2006
All	89	5.11%
Major international players (construction revenues > €10bn)	6	4.61%
Second tier (construction revenues €5-10bn)	8	4.06%
Third tier (construction revenues €2-5bn)	19	7.19%
Fourth tier (construction revenues < €2bn)	56	4.73%
UK all	33	5.58%
UK house builders	15	9.56%

Average net income in 2006 was 5.1% – up from 3.7% in 2005. These figures are derived from each company's entire revenue as in some cases construction revenue forms only part of a company's business. The 2006 average net income includes Acciona results (within the second tier), which reported a net income of 21.8%. Excluding Acciona and UK house builders results from the third tier would give an average net income of 4.9%. This begins to suggest that strategies adopted by the larger companies – particularly with respect to diversification – are coming to fruition. Closer analysis shows this to be the case for Ferrovial Group and ACS Group, with the remainder of organisations in this category trading at between 1-5%.

The house building sector has traditionally achieved much higher margins than the general contracting market. For example, the higher income percentages of the house builders drive up the overall UK average, as well as the average for the top 100 tiers in which those house builders are classified. Aside from the housing sector, most of the higher income companies are infrastructure operators such as Société des Autoroutes Paris-Rhin-Rhone, and specialists such as Jan de Nul.

Given the international nature of many of the larger companies, and the relatively small sample sizes for most countries, it is difficult to draw meaningful conclusions from countrywide income percentage analysis. The larger companies are more comparable with companies of a similar size and scope of activity, than with other companies from within their own country.

# Meet the senior executives

We are delighted to present three interviews with senior executives of major European companies in this year's EPoC.

First, Angel Garcia Altozano, Corporate General Manager at ACS Group; second Dr Burkhard Lohr, CFO and Member of the Executive Board at HOCHTIEF; and third Dr Hans Peter Haselsteiner, CEO at STRABAG.

We would like to thank all three interviewees for their time and valuable contributions to this publication.



## Angel Garcia Altozano, Corporate General Manager, ACS Group

**ACS Group is one of the most diversified construction conglomerates. After the integration of Unión Fenosa (Spanish energy company), only 33% of its €20bn sales will come from construction activities. The rest of its revenues come from energy (30%), industrial services (24%) and services and concessions (13%). What are the strategic objectives of this diversification and why did the Group decide to focus on these activities?**

As you know, ACS Group is a company with strong technical skills in the areas of civil and industrial engineering. We have extensive experience in applying this know-how very efficiently at an operating level.

Our objective is to pursue profitable growth by applying our skills in the promotion, development and operation of major infrastructures in those markets where they are required and can be financed.

We have recently incorporated the energy business into our activities given our historical involvement with the industry and its positive dynamics, as well as the opportunity provided by their exiting historical shareholders.

**ACS Group is the result of the integration of several construction companies (Ocisa, Construcciones Padrós, Auxini, Ginés Navarro, and Dragados) over the past decade. What have been the main implications of these integrations, and what has this change represented from the Group's management point of view?**

Integrating companies is a recurrent theme in our corporate history. Each integration has its specific difficulties, however in general, the main challenge comes from identifying and maintaining best practices, selecting the most qualified professionals to manage the different businesses regardless of their corporate origin, and above all making sure that client services are not affected during the integration process.

**What does the acquisition of a stake in HOCHTIEF represent for ACS Group and what are your long-term plans in connection with it?**

The acquisition of HOCHTIEF represents a good opportunity for ACS Group. We have been partners with HOCHTIEF in several infrastructure projects in the past and regard them highly for their technical capability.

It is worth mentioning that in the past ten years many of the most prestigious construction groups in Germany have disappeared due to several construction market crises. Nevertheless, HOCHTIEF was able to survive thanks to its decisive internationalisation and diversification processes. It invested in the US and Australia, in the very successful construction companies Turner and Leighton, as well as focusing on transportation concessions, airport business, facilities management etc.

Germany is still a very difficult construction market, but we hope that both companies will develop significant activity together with high growth potential for both of them.

**Can we expect further ACS Group acquisitions outside of Spain? If so, what are the target industries (services, construction, energy) and countries?**

It is difficult to anticipate these movements. Nevertheless, in general, we are constantly looking for growth opportunities for our existing business in markets where the need for new infrastructure (transportation, energy, city equipment) is growing and the local markets are able to finance them. To pursue sustainable growth, especially given our existing size, international markets will represent an increasing opportunity.

**ACS Group has several non-controlling but relevant stakes in listed companies (HOCHTIEF 25%, Abertis 25%, Iberdrola 12%, and Fenosa 40%). How strategic are each of these stakes and what are the ways of obtaining shareholder value from them in the long-term?**

ACS Group is an operating group and as such our aim is to create value by managing the different companies in the businesses where we are present.

Investments in minority stakes in listed companies are always made with a strategic objective in mind. Unión Fenosa started as a minority stake and is now fully consolidated within ACS Group. Abertis was created as a joint company between the existing concessions business of La Caixa and ACS Group to pursue worldwide operations of major infrastructure on a concession basis. It is clear that our infrastructure development activity provides an engine for Abertis growth. We have mentioned the importance of our investment in HOCHTIEF, and we believe this will provide a valuable contribution to the Group. Finally, our stake in Iberdrola was made because of the quality of the company and its potential role in the consolidation of the industry.

**Which European markets are most interesting for ACS Group and how do you view the European construction industry?**

We have a very strong commitment to the European market, where the demand for new infrastructure is growing. Apart from Spain, we are also present in France, the UK, Ireland, Italy, Germany, Greece and Portugal. Last year, we also started activity in Poland and the Czech Republic. Eastern Europe is developing a new generation of infrastructure and will provide significant opportunities.



## Dr Burkhard Lohr, CFO and Member of the Executive Board, HOCHTIEF

### What are HOCHTIEF's key activities?

Our most important goal is achieving stable earnings and cash flow; all of our activities derive from that. For example, this is a major focus in our concession business where we operate airports, roads, and public buildings worldwide over periods of up to 30 years or more. Over the years, we have established a portfolio worth billions and earn good rates of return.

As far as regions are concerned, our key activities focus on the large booming markets – particularly in the Asia Pacific region. Our subsidiary, Leighton, is by far the largest construction company in Australia, and it is also active in Asia. In Europe, we focus on the CEE markets and have very successful companies/branches there.

### HOCHTIEF describes itself as the world's most international provider of construction services. How would you describe HOCHTIEF's business model and what sets it apart from its competitors?

With a foreign share of some 85%, we are indeed the most international company in the industry. This stems from the fact that we became independent of our domestic market very early on and gained entry to new growth markets. This strategy has paid off in recent years; today HOCHTIEF is not only the market leader in Australia but also the number one general builder in the largest construction market in the world – the US. With our subsidiary, Turner, we are the only company that is represented throughout the US. We are also very well-positioned in Europe and Asia.

As regards content, we cover the whole value chain of real estate, facility, and infrastructure projects. We provide the full range of services from planning and financing, through to construction and operation. With this approach, we create synergies for our customers that would not arise if contract services were awarded individually. For example, the high-rise project WestendDuo in Frankfurt am Main was planned and developed by HOCHTIEF Projektentwicklung, built by HOCHTIEF Construction and has been operated since then by HOCHTIEF Facility Management. As a result of the close cooperation across companies and fields of professional expertise, we have developed innovative ideas and realised considerable savings.

At HOCHTIEF, all parts of the group interlock and generate advantages for our customers, the group, and our shareholders.

### Which regional markets and activities in Europe do you view as being the key growth areas?

The CEE states currently have the strongest growth potential. In particular, Russia, Poland, the Czech Republic, Hungary, Romania, Bulgaria, and the Ukraine combine exorbitant growth rates with relevant market size; this makes them interesting for us. Russia is of particular importance; its considerable income from raw materials is cleverly invested in national infrastructure and we consider it to have the strongest potential for the construction industry in Europe.

### How is HOCHTIEF preparing for these developments?

HOCHTIEF is well positioned in all of the countries mentioned. In Russia, Poland, the Czech Republic, and Hungary we have set up companies. In Romania, Bulgaria, and the Ukraine we have set up branches and initial projects. We have been operating in Russia for a long time, and a Russian investor has recently established a strategic investment with us.

### Do you think that the recovery in the construction industry in Germany is sustainable?

I firmly believe that building volume will remain at least at the current level – after a continuous decline for the past 12 years. However, we can only talk about a recovery in the construction industry when we achieve adequate conditions once more. Prices are not yet recovering. In addition, contracts which pass all the risks to the general contractor are still common, and the public authorities tend to grant contracts to the cheapest, but not the best, provider. These are hindering positive development.

### Recently there have been a number of mergers in the industry; HOCHTIEF has also seen some changes to its shareholder structure. What do you think of these transactions and how far will this consolidation process in the construction industry go? Is there a critical size that a successful construction company must achieve?

I am convinced that size is not one of the success factors in construction. Construction companies are always the sum of their projects – if a company's projects are successful, so is the business. This is true in principle for any size business.

Size is not one of the key factors in current industry acquisitions. The investments are being driven by two other motives. First, the businesses in South West Europe – particularly in Spain and France – are being confronted by a downturn in the economy of their home markets, along with a high proportion of domestic sales. This means they are having to gain access to new markets to compensate for the decline in domestic construction volumes. Second, the participation of Russian investors is aimed at securing expertise for the development of the infrastructure in their own country. We consider the fact that they turned to HOCHTIEF to be a sign of appreciation of our expertise.

### What role does HOCHTIEF want to play?

As far as we are concerned, acquisitions are only used to help us move forward and strengthen our earnings further – one of our key areas of investment focus is the concession business. HOCHTIEF recently acquired Budapest Airport for example.

### What are your wishes regarding European politics?

It is my wish that all market participants in Europe enjoy the same market conditions. There are countries in which the entire European competition is present, whereas in other countries this is not the case. As a result, we do not currently have the same competitive conditions everywhere. This is, however, imperative if we are to create a uniform European market.



## Dr Hans Peter Haselsteiner, CEO, STRABAG

### Who are STRABAG?

STRABAG's history dates back to 1835. During the past ten years, this small, regional Austrian-German company has grown to become a major player in Europe. The last important acquisition was undertaken in 2005 when STRABAG bought Zublin and Dywidag, two brands with world-leading technology in civil engineering.

Today STRABAG is the market leader in Germany, Austria and CEE. With an output volume of over €11bn and a workforce of over 60,000, it is among the top enterprises within the European construction industry. Its presence at over 500 locations in over 30 countries is testament to its international business model – which covers all sectors of the construction industry from building construction and civil engineering, to road construction, tunnelling, and services. STRABAG was the first to take on the opportunities in CEE.

### STRABAG has a new shareholder, the Russian industrialist Oleg Deripaska. What does this mean for your market chances in Russia?

We have been present in Russia, mainly as building constructors in Moscow and St Petersburg, since 1991 and we stayed there during the economic crisis in the mid-1990s. Our long-term strategy has been rewarded by the Russians. At present, we have an order backlog of €1.5bn in this region; in 2008 we will generate an output volume of around €600m and we are expecting this to almost double by 2009. Even before Mr Deripaska joined STRABAG, we had achieved a leading position and an excellent reputation within the Russian market. We now hope to benefit from the position of our new shareholder and his industrial conglomerate; we see Russia as Europe's most promising growth market.

### How did you manage the dynamic growth from the last decade?

STRABAG is known for a decentralised management approach. All of our local management usually comes from the region itself. Only in the early years – when we are developing a market and integrating it into our management and control structure – do we rely on experienced management personnel from home markets. On an ongoing basis, we have strong central service units based at head office that serve the whole group. These central units include financial reporting, accounting, human resources, technical equipment, and research and development. Through this centralised approach, we enhance our business performance and achieve substantial economies of scale. Also, sophisticated processes and clear evaluation criteria are an effective filter against loss-making projects.

Therefore, our operational units can concentrate on the most important issue – producing high class work for our customers. Furthermore, our management pyramid is flat; we are therefore able to fulfil our management needs within our own organisation.

### Will STRABAG in Russia only act as a construction company, or do you expect the group to operate as a concessionaire as well?

According to our general group strategy, we are open to various opportunities in the Russian market. Aside from our core business, we are establishing a cement production network and a sufficient raw materials base, and we want to play a major part in the PPP segment. Russia needs enormous investments in its public infrastructure – including its roads, railways, airports, ports, and public utility buildings. For example, there is not yet a motorway to connect Moscow with St Petersburg. It seems pretty clear that, although profiting from the current commodities boom, public finances cannot be the only source of finance, so there will be a huge demand for private investment in Russia.

### What are the key success factors for the CEE and Russia?

The saying 'the first one never comes late' has been our principle for over 30 years. We were the first ones to embrace the opportunities in CEE. When we signed our first joint venture in Poland, it was still under martial law. Competitors have waited and some of them even called me crazy, but we succeeded. The decision-makers in these markets now remember who believed in their economies, even before the boom.

### What further growth opportunities do you see for STRABAG?

Increasing gross domestic product and personal income are having a strong positive impact on investments in infrastructure and private construction activity. In addition, funds of €177bn for infrastructure investments are expected from the EU Cohesion Fund until 2013. On top of that, the use of PPP models is growing dynamically – especially in CEE. Macroeconomic data shows that CEE grows, on average, five times faster than Western Europe.

### What are your expectations for the European construction market and what are the key issues facing the industry?

The key to success will be achieving strong positions in those markets where demand is forecasted to remain strong. Second will be to attract the best people – especially in the technical professions. Finally, our business is becoming more capital intense and market consolidation is the logical outcome. Either you are small and local, or you are big and multinational.

# Expert view from Deloitte

## Challenges surrounding entry into new markets

The economies in CEE still have a lot of catching up to do, which – as in recent times – will be reflected in huge demand for building work over the next few years. Although the large international contractors have mostly developed the markets for themselves, CEE still offers good opportunities for expansion, particularly for middle market construction companies.

If the move cross-border is to be a success, it is of paramount importance that some basic rules are followed – otherwise doing business can suddenly become very expensive and not only in the booming CEE markets. Obviously, knowledge and the right approach to the peculiarities of each target market are essential strategic success factors for conducting business abroad. The most important challenges can be divided into four main areas which, in part, overlap:

### Setting up an appropriate business structure

One widespread way to gain access to new markets is to set up a joint venture with a local business partner from the target country. Above all, this can be advantageous with regard to market penetration. The local partner is networked and has the necessary links/access to the local contract awarding parties, as well as to sub-suppliers and construction materials. It is often the case that the parties complement each other; one party focuses on the provision of personnel, while the other focuses primarily on construction technology and know-how. In some of the non-EU countries it is essential to have a local partner because only they can make certain building applications or obtain trade licences for example.

One of the prerequisites for at least a medium-term relationship in a joint venture, is a basis of trust that is able to withstand strain. Both parties must be in a position to appreciate cultural differences and should ensure that their partners are competent and carry the authority to make decisions. Valuable insights can be gained from visits to the construction sites of potential partners and meetings with second and third tier management. It is also advisable to obtain an independent assessment of the creditworthiness of any potential partner. It can be helpful to carry out a one-off project together as a test before embarking on a long-term relationship. A decision based on sound information that has taken time to gather will always prove better in the end than a swift, but flawed, decision.

Irrespective of whether new markets are accessed with a joint venture partner or alone, the question always arises: what form should the company's presence take in the target country? It is not as important whether a subsidiary is founded or a branch set up; what is crucial is the people who are going to represent the company. Two basic requirements must be met: an adequate network in the target country, and absolute loyalty to the home company. This can, for example, be ensured by appointing two executive managers with equal rights – a local manager and a representative of the home company. Some companies have had good experiences in hiring employees from the target country, training them, gaining their loyalty, and then sending them to the target country. In any case, close connections must be ensured via regular personal contact, training, and suitable reporting and control systems.

### Appreciation of cultural peculiarities

Probably the biggest challenge is handling the cultural differences stemming from language, history, religion, geography and climate.

It is a serious mistake to force one's own culture on to others, even if in most cases it is unintentional. You should not for example, assume that the foreign party knows or understands your own cultural background in negotiations. The aim should be to prepare for and conduct the meeting in accordance with the peculiarities of the target country. While in some countries it is the custom to conduct meetings in a direct and formal style; in other countries a more informal and context-sensitive manner is usual. For example, in some countries it is necessary to conduct a lot of small talk as a sign of politeness, while in other countries this is very unusual. There are also substantial differences in the manner in which criticisms or problems are dealt with. The use of non-verbal clear signals varies from country to country, as does the definition of punctuality.

It is notable that many companies preparing for entry into new markets do not pay much or any attention to cultural differences. However the negative effects on the outcome can be immense. Therefore, thorough preparation for any cross-border move – possibly with assistance from advisers – is absolutely essential in this respect.

### **Knowledge of the country's technical features and supplying the right products**

The national, and to some extent regional, specialities in technical construction work should not be underestimated. For instance, there are major differences in national industrial standards – from formats to materials, and planning to construction processes. More significant than the official standards are those that have developed from custom or practical necessity. In some places for example, the full range of construction materials may not be available.

Such circumstances must be taken into account, particularly in detailed construction plans. Great professional care is required in all meetings, negotiations and stages of work. All details should be scrutinised to achieve the greatest possible agreement, otherwise there is the danger – albeit unintentional from all sides – that misunderstandings are recognised too late and costs incurred.

Different patterns of demand have arisen from varying regional practices which must be taken into account when supplying products. For instance in Germany, planning work is almost exclusively supplied in extensive packages that correspond to the fee structure for architects and engineers. In contrast, most countries in CEE tend to purchase numerous units of work on a building project, which are each much smaller in scope. Quality requirements can differ as well; as a result those who include quality standards that are too high – in relation to demand – in their tenders are not able to offer competitive prices.

### **Management of legal conditions**

Finally, in any cross-border expansion one must look into the whole range of legal and economic conditions. Tax law and company law are both of note, partly as they affect each other. It is important to use advisers that have a presence in the home country and the target country since double tax treaties can give rise to tax interdependencies.

There are national and EU investment promotion programmes in many countries, the uptake of which can significantly improve the economic returns of an entry into a new market. It is important to understand exactly what is being promoted and the requirements for approval.

The possibilities and limitations of financing cross-border expansion must be addressed. Banks that are well represented in both markets can offer helpful advice, however, it must be taken into account that they essentially have their own business interests at heart.

Many of the points covered here may seem obvious, however, in numerous cases disregard of these basic rules has led to bad results or even failed entries into new markets. A long-term strategic plan – including consideration of these rules – should be prepared. At the beginning of this process, an honest self-assessment is required; it is also essential to make use of advisers who can provide the necessary know-how in both the home country and the investment country.

# The US infrastructure market: An opportunity for European construction companies?

## Introduction

There are significant opportunities for European construction companies to break into the US market – where a number of larger companies have already established a presence. The system of highways, bridges, public transportation and railways on which the US depends has largely been built over the past 60 years. Consequently, the system is old and much of it needs to be rebuilt or replaced. Furthermore, across all modes of transportation there needs to be more capacity – as well as investment in maintenance – in order to keep pace with the growing and more transient US population.

The US highway system is the primary mode of transportation and includes nearly 4m miles of roads. According to the American Association of State Highway and Transportation Officials (AASHTO) the 47,000 mile interstate highway system, which represents about 1% of total US road miles, is essentially wearing out and in need of significant improvements to meet current operational standards. Other modes of transportation include public transport, rail, and shipping. In the past decade focus has moved to alternative means of transportation in order to alleviate congestion and the need for highway repairs, however the highway system still has the greatest spending needs. AASHTO estimates that improving the highway system will cost €123.4bn in 2007, whereas the public transport system will cost €24.9bn. By some estimates, it will require €1.3tn of investment to bring the entire transportation system up to standard. Meanwhile, certain regions in the US are experiencing dramatic population growth which, layered atop a crumbling infrastructure, leads to debilitating congestion and an associated effect on the economy and quality of life.

Many of the sources of traditional infrastructure funding are not as reliable as they once were. The Federal Highway Trust Fund (FHTF), the source of most major US highway investment, is predicted to dip into the red as early as 2010. Neither fuel taxes – the primary source of revenue for both the FHTF and states' own initiatives – nor toll rates have kept pace with inflation and they are not seen as politically feasible given the record high fuel prices. In addition, increasing material and construction costs have led to a crisis that some refer to as the 'perfect storm' of transportation finance.

To address this situation, the use of PPPs is becoming increasingly popular. Departments of transportation across the country, with the blessing of the Federal Government, have sought out closer relationships with private investors, financiers, constructors and asset managers. They have done this to reduce the cost and time required to increase capacity and improve the operational efficiency of existing assets, while acquiring large sums of capital to channel into additional infrastructure investment or pay old, higher interest debts.

The US financial sector has begun to seize upon the opportunities inherent in this developing infrastructure delivery model. As pension funds and other large institutional investors seek ways to cope with the higher rates of return required to match inflation and the increasing demands of the retiring baby boomer generation, they seek out infrastructure investments because of strong cash flow and characteristics reminiscent of high-return municipal debt. US institutions were not the first to jump at this market, however, as overseas competition has increased dramatically, a number of foreign players have already broken into the US market in search of an advantage. Australia's Macquarie Infrastructure Group is the leading financier of US PPP transactions, and Spain's Cintra Concesiones de Infraestructuras is the leading manager of privatised highway assets.

## Key differences between the US and European markets

While the opportunities for international and domestic investors are great, fundamental differences exist between the US and European markets which help explain the nervousness with which the US has embraced PPPs. The principal among these is the federal structure of the US, which devolves most regulatory responsibility to the states and local governments. In turn, each has their own regulations with regard to tolling, private participation in public infrastructure, foreign ownership and taxation. Looking at the US market is like looking at the whole of Europe and having to deal with the individual regulations of 50 different European countries.

Another principal difference is the existence of the FHTF. Unlike most European countries, the US has a dedicated stream of funding for highway projects. Though it is currently under funded and is expected to go bankrupt, a sudden shift of policy such as increasing the federal fuel tax could restore the viability of the fund and relieve some of the budget pressure that is causing states to take PPPs more seriously.

A third major difference is the existence of the municipal bond market. The US has a long tradition of using capital markets to fund municipal – state or local – infrastructure development. The depth and liquidity of this market is unparalleled with €1.4tn outstanding municipal debt at present, and has historically been more than enough to satisfy needs. While many investors that traditionally favour this sector are beginning to demand greater returns than municipal securities offer, it will take a wholesale change of culture to abandon this easy and comfortable source of funding.

**Market developments**

US infrastructure needs are simply too great to be resolved by traditional methods. This means that, despite any setbacks the US market is currently experiencing, PPPs will likely continue to play a very important role in delivering and managing infrastructure for many years to come. The strong population growth in some regions means that many states' departments of transportation are not only looking for more innovative ways to finance improvements, but also to leverage the capacity and expertise of the private sector. For example, in Florida the demand for PPPs is driven by capacity constraints as much as by financial necessity.

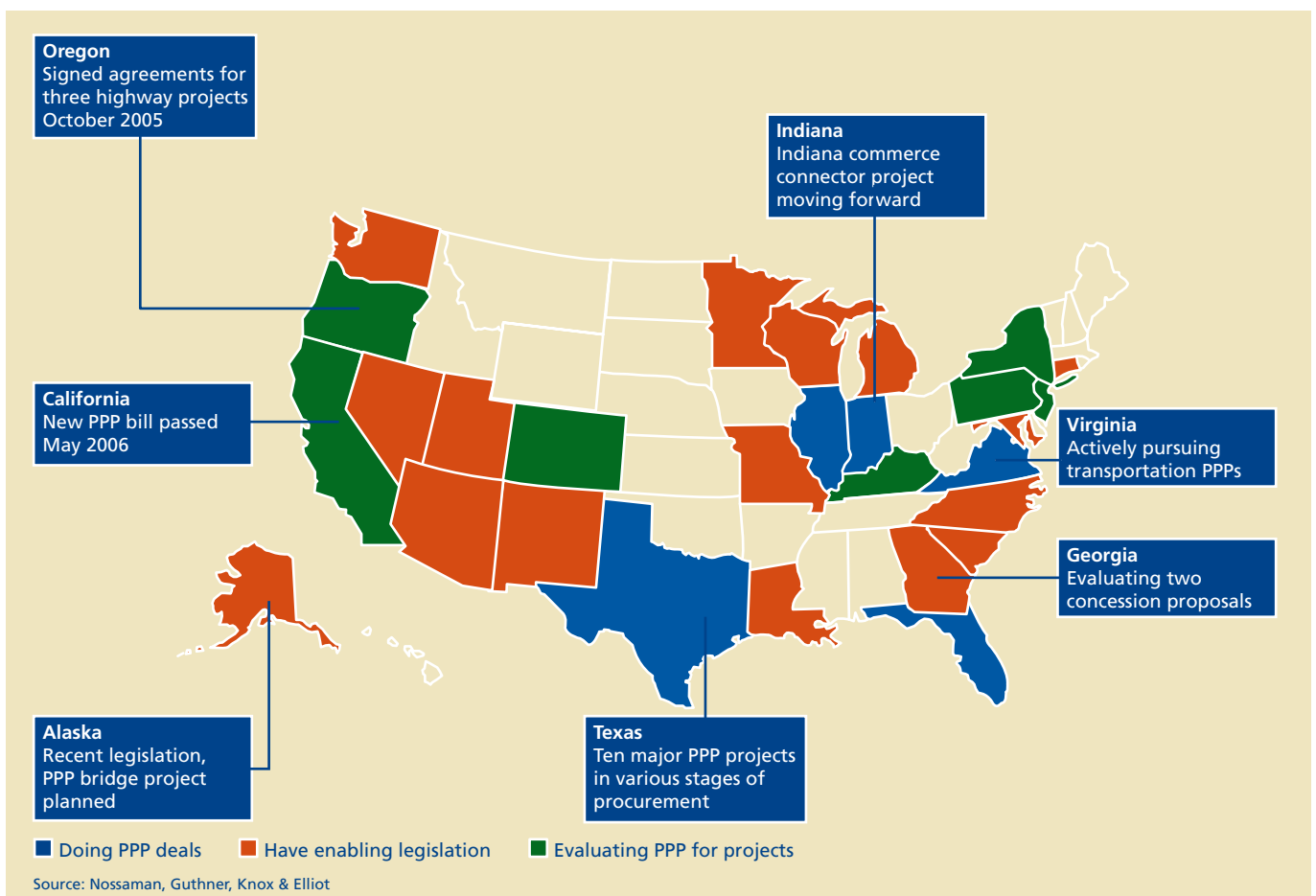
The past year has seen several high profile asset monetisations – known as brownfield transactions – come to a close, including the nearly €4bn Indiana Toll Road (ITR) concession, and the world's largest parking facility – the €396.8m Chicago Downtown Public Parking transaction. It has also seen the opening of one of the largest greenfield PPP developments – California's €500m SR 125 South Bay Expressway.

While it would seem that all the signs are good, recently the media has carried a significant amount of negative press on the conversion of public to private toll roads, especially in Texas where the state legislature has passed a moratorium with a veto-proof margin. Similarly, Indiana's lease of ITR has generated a firestorm of public protest such that the Governor has been forced to backtrack on other plans for PPPs including greenfield capacity improvements.

Consequently, and despite the large assets that are being considered for monetisation, the brownfield motorway market currently has a very high political risk profile. PPPs are frequently the object of intense local level politics which, given the prominence of local politics in the US system, can easily unravel a deal if not carried out with absolute transparency. The practice of converting existing assets into private concessions is also receiving federal scrutiny. A member of the House Transportation Commission commented that the Federal Government was surprised by the brownfield developments; they passed the enabling legislation not to embrace asset conversion but to facilitate greenfield capacity.

While the greenfield market continues to hold the greatest long-term potential given the enormous capacity needs throughout the US, it will be slower to develop and to yield returns. A typical greenfield project can take ten years from the initial request for proposals (RFP) to the first toll being paid.

As mentioned, states are becoming more active in pursuing PPPs for their capital asset needs. Below is a graphical representation of the states that have PPP-enabling legislation or are involved in/planning PPPs.



**Overview of the PPP pipeline**

A large number of states in addition to the early leaders (Virginia, Texas, Illinois and Indiana) have begun to advance plans for leasing/concession assets or using PPP to construct additional infrastructure capacity.

The largest potential transactions involve Pennsylvania and New Jersey. Governors of both major North-Eastern states have launched requests for quotations (RFQs) for advisers to recommend strategies for the monetisation of state assets, including toll roads. New Jersey kicked off the process in the third quarter of 2006, appointing investment bank UBS in September.

The table below provides a summary of the current PPP pipeline in the US for transportation infrastructure. It is not an exhaustive list, but rather provides summary details on projects for which information is readily available.

US transportation PPP pipeline	
Status	No. of projects
In tender	20
Pre-approval	43
In finance	1
On hold	5
Cancelled	2

**Key recommendations**

Based on our observations, a number of recommendations can be made for European construction companies seeking to access the great potential of the US infrastructure market. While the political climate is somewhat volatile and certain US financial institutions have received criticism for fanning anti-foreign sentiment for their own benefit, there are several steps that a prudent investor can take to mitigate these risks. The main steps are as follows:

- Establish a US domicile for any construction activity or fund investing in US assets to avert issues surrounding foreign ownership. Local politics matter and, as seen in Texas, they have the ability to undermine any potential transaction. Also, some states have very rigid laws regarding foreign ownership of assets.
- Pursue projects that are accomplished transparently. As Texas and Indiana are showing, even the perception that deals are being done behind the scenes away from public scrutiny is enough to set the PPP process back significantly. This can entail major costs to investors in terms of opportunity cost or excessive delays. Some states, such as Florida, have made very thorough efforts to publicise and document their PPP initiatives, greatly enhancing their credibility among the sceptical public.

- Focus on states with strong legislation. Some states have legislation – such as the back-end legislative approvals in California’s AB1467 – that makes investing in those markets particularly risky. It is advisable to focus on the states that have embedded authority and entrenched processes. While other states entering the PPP market may afford significant opportunities, they should be closely evaluated in terms of legislative/political risk factors and will also likely command a higher risk premium on investment.
- For greenfield projects, it may be advisable to align with dominant regional construction firms in high growth/high potential regions. Currently, the value for money calculations done by project sponsors in evaluating bids may not always be entirely quantitatively driven. It is likely that they will factor in some sort of local preference for employment/economic growth-generating projects.
- As the greenfield projects may take time to see returns, it is advisable to complement them in the short-term with safer, short-term brownfield investments. Investments in brownfield projects can yield results much quicker than greenfield projects. Therefore, European construction companies with a concession division interested in brownfield projects are more likely to take early advantage of the US market than companies focusing on pure construction activity.

## Natural selection in the construction industry: The evolving role of cash and working capital management

If you were to list the top three reasons that people choose to work in the construction industry, would being an effective administrator be one of them? Indeed, would this figure in the top ten reasons? Probably not. While the construction industry is not unique in this respect, the consequences due to a lack of focus in this area are becoming more and more evident – especially when it comes to the critical areas of cash flow management and working capital management.

A number of high profile failures caused, in part at least, by poor cash management are forcing companies to reconsider the importance of their support functions. An excessive concentration on project out-turn profitability to the detriment of due attention to cash management, has led to insolvency in some instances. In fact, it is difficult to think of an industry whose characteristics and cultures are less aligned with those required for effective cash management, than the construction industry (see the table on page 20). From organisation and structure down to process and people, the industry has not been dealt a good hand in this respect. The situation has not been helped by the fact that, until recently, the industry has been insulated from its shortcomings by a lack of overseas competition, and the tendency for people to move within the industry rather than between the construction sector and other sectors.

The industry is slowly changing, so what is driving the move towards a greater focus on cash management? The major reasons are as follows:

- Changes in the structure of the industry. Over the past ten years, there has been a shift towards increasingly large and complex organisations delivering increasingly large and complex construction contracts. A key element of the project management required to deliver these projects on time and on budget is an effective, robust cash and working capital process.
- Changes in the buying group. Construction and infrastructure projects are becoming more complex and stakeholders are demanding a more professional buying organisation – the UK's Office of Government Commerce and ProCure21 are examples of this. The need on the part of the buying group for transparency is becoming more onerous and is only likely to increase in the future.
- Changes in the supplier group. The suppliers of building materials and equipment have consolidated over the past few years with suppliers becoming part of larger, often international, groups. The increased involvement of private equity (PE) has increased the focus on cash, and like more professional buying groups this can only become a greater factor in the relationship between suppliers and their customers.

Although the characteristics in the table on page 20 apply throughout the industry, it is true to say that the impact they have on cash and working capital will vary between industry sub-sectors. Working capital in house building, for example, is very different from that in infrastructure projects. We would expect to see low receivables and a high land bank in house building; while in infrastructure projects it is more likely that receivables will be high and the majority of inventory is related to specific ongoing contracts.

Indeed, it is in large infrastructure and construction projects that there is the greatest opportunity to improve cash and working capital management, as well as the greatest risks if this area is poorly managed. The heightened use of PPP and fixed price contracts has increased the visibility and potential risks and rewards associated with poor working capital management. The nature of the financing structure of the PPP project is such, that the forecasting of cash and working capital management is one of the key elements in ensuring that a project has worthwhile overall returns.

While a review of the overall benefits and challenges of PPP are outside the scope of this article, our experience is that successful firms have used PPP projects as a catalyst to address the underlying issues associated with cash and working capital management discussed above. Conversely, projects with poor returns have not taken this opportunity and manage one or more of the following seven areas poorly:

- Establishing clear and unambiguous rules with regard to the management of variations and claims during the bidding process. While the focus at this stage may be on emphasising the partnership aspect of the relationship, the reality is that there will be unforeseen costs associated with variations, and all parties need to be comfortable with the timely management of these at a contractual level.
- Ensuring that the natural tension in terms of cash flow between the design, construction, and facilities management phases are understood and taken into account. Putting in hardwood window frames may improve the cash generated in the facilities management stage, but is the cash flow implication of this fully reflected in the construction phase?
- Understanding the limits of the partnership. While the contractor is often keen to accommodate requests for change, this should be done in the context of a business relationship. A get things done attitude should not get ahead of the need to properly document costs, to enable a claim for the variation to be paid in a short period without adversely impacting working capital.
- When variation orders are required, ensuring that support documentation, paperwork, and sign-offs are in order. We have seen a number of instances where the party with the best paperwork is the one that wins a dispute. While the framework for claims management should be set at the contract stage, firms still need to ensure that they comply with this framework.

Organisation structure	Systems	Process and policy	People	Strategy
<ul style="list-style-type: none"> <li>Large number of companies and subsidiaries.</li> <li>Growth through acquisition.</li> <li>Regional organisation with local fiefdoms.</li> </ul>	<ul style="list-style-type: none"> <li>A number of legacy systems.</li> <li>Poorly integrated systems between businesses and head office.</li> <li>Large number of patches and work rounds.</li> </ul>	<ul style="list-style-type: none"> <li>Inconsistent policies across the organisation.</li> <li>Poor and inconsistent implementation of key policies.</li> </ul>	<ul style="list-style-type: none"> <li>High employee churn.</li> <li>Weakness of HR function.</li> <li>Limited experience outside sector.</li> </ul>	<ul style="list-style-type: none"> <li>Poorly communicated strategy.</li> <li>Inconsistency in implementation of strategy at group and business levels.</li> <li>Speed in reacting to changes in core and new markets.</li> </ul>

- Continuing to pursue claims if they are disputed in the first instance. On a number of occasions there have been claims that would have been paid had they been pursued within a reasonable timeframe.
- Back-to-back contracts. There have been instances where back-to-back contracts have been used with sub-contractors to help minimise working capital for the main contractor. However, on occasion there have been a number of instances where sub-contractors that are working across numerous projects have required payment on all projects before continuing work. This can easily lead to a potentially profitable project being adversely impacted by a dispute on a separate project.
- Cost to complete. Our experience is that those projects that are managed most effectively from a working capital perspective are those where the project manager is able to produce regular and robust cost to complete estimates.

The objective of the above is the efficient management of cash and working capital, however, there is a clear link to profit. If, for example, during the construction phase the cash flow is not as forecast and sub-contract work needs to be rescheduled. The sub-contractor may well charge additional and unforeseen mobilisation and rework costs.

While in the past the construction industry has focussed on growth and profit, and therefore not placed a huge emphasis on cash and working capital management, developments within the industry and customer and supplier bases mean that this is changing. Some companies are adapting to this faster and more effectively than others – the ones who adapt quickest are likely to see results on the profit and loss statement, as well as on the balance sheet.

## A review of M&A activity in the UK construction sector

There has been sustained M&A activity over the past year (to the end of July 2007) within the UK contracting, house building and building products sub-sectors. Driven mainly by stable market conditions, continued momentum within the leveraged finance market, and challenging business growth targets activity has been underpinned by:

- Increases in construction orders.
- Forecasted growth in the infrastructure market.
- Sharp rises in public new housing activity.
- Strong construction material price inflation.
- Continued momentum within the PE market.

The global credit and equity markets suffered significant volatility and falls during August 2007 triggered by issues in the US sub-prime mortgage market. This article reports only on the year prior to this market shock.

### Industry background

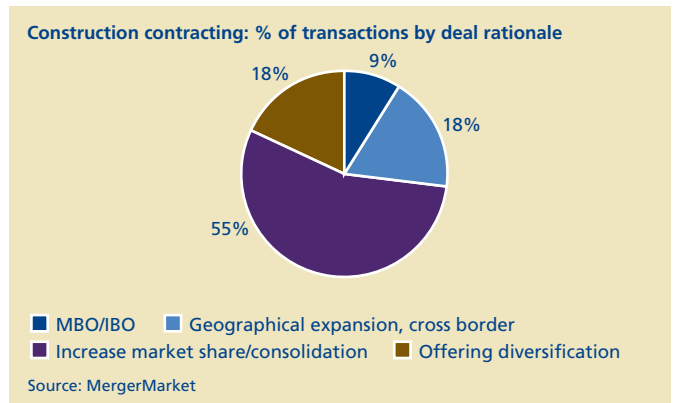
Overall, there has been a continued acceleration of industry growth during 2007. The rise in activity has boosted construction products sales volumes, with larger firms in particular reporting a marked turnaround in their fortunes. Encouragingly, despite the rise in output, concerns over capacity constraints appear to be easing, while contractors report fewer difficulties in recruiting skilled labour.

Strong activity in the commercial and public new housing sectors is again the principal driver of industry growth, with larger building firms the main beneficiaries of the increase in workload.

Looking ahead, industry optimism is strong despite expectations of more modest construction growth next year. Five interest rate hikes are anticipated to slow consumer driven construction sectors such as private new housing, as well as slowing repair and maintenance activity and increasing caution among real estate investors. However, the construction products industry is overwhelmingly positive about output growth during the third quarter and the year ahead. In particular, larger firms are expecting a marked rise in sales volumes in response to an anticipated upturn in infrastructure activity. Building contractors are also positive, with the majority of firms expecting activity to increase over the coming year.

### Construction contracting

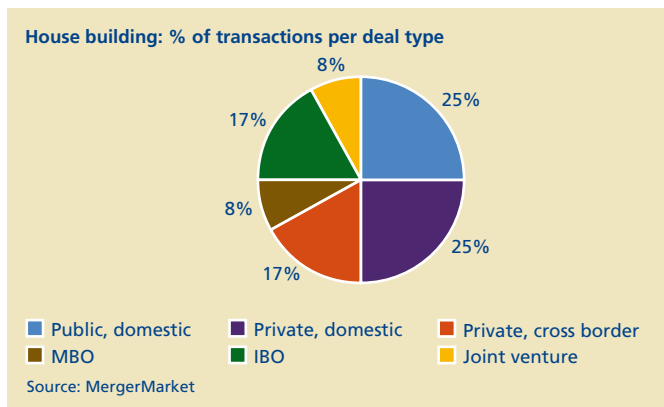
Acquisitions within the construction contracting sub-sector were predominantly executed by high turnover contractors targeting consolidation within existing operational geographies or expansion of operations into new markets. More than 50% of transactions targeted domestic consolidation, while around 20% of transactions targeted offered diversification.



For example, Rok completed three acquisitions that enabled the company to extend operations into the Midlands, UK and within existing operational geographies. Similarly, Balfour Beatty's acquisition of Birse Group was in line with its strategy to expand its regional presence in the UK civil engineering and building sectors. An example of cross-border activity was the acquisition of the Hammersmith Embankment joint venture regeneration scheme by the Macquire Goodman Group – the Australia-based industrial property group. Such transactions targeted core UK contracting companies as part of a strategy to expand operations in the UK. The deal type was predominantly private domestic, with only one institutional buy-out (IBO) completed – the acquisition of John Laing, a UK-based developer and operator of infrastructure projects, by PE company Henderson Infrastructure. This level of leveraged finance activity, in comparison to other sub-sectors, may be a reflection of the nature of M&A opportunities in the contracting sub-sector. This is in terms of the complexity and nature of the contracting business, the level of committed share capital required, the length of exit realisation periods, and the level of investment returns as a percentage of capital invested.

**House building**

The house building sub-sector was dominated by large-scale transactions with around 30% involving considerations over €340m. Transaction activity demonstrated a pattern of consolidation between major house builders as companies competed for market share. Driving this activity was the necessity for house builders to acquire future land banks due to significant land and planning constraints. However, a contrasting view is given by the Royal Town Planning Institute, which identified the five largest house builders as having more than three years’ supply of land, and citing site infrastructure constraints and labour shortages as the main drivers suppressing supply.

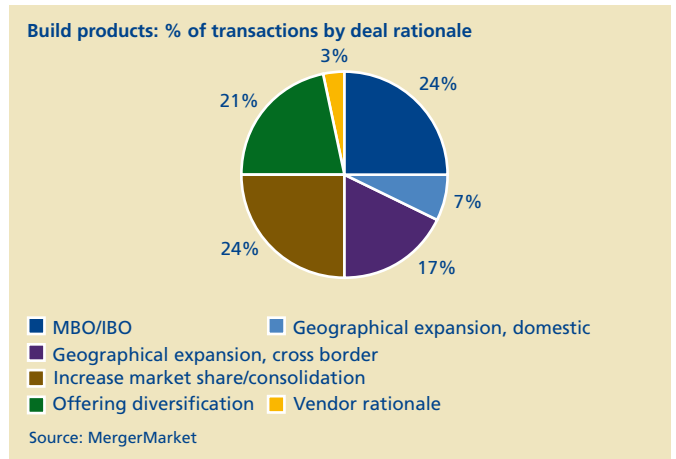


The percentage of transactions by deal type illustrates a relative split of activity between public and private domestic transactions and IBOs. The IBO transactions were completed by Castle Bidco and Mother Bidco, both newly incorporated PE companies set up for the purpose of acquiring Crest Nicholson and McCarthy and Stone respectively. The potential profitability of such house builders and the predicted continued housing shortages have made them attractive propositions for PE firms. Retirement and social housing sectors have also been targeted owing to demographics and growth in demand for social housing and regeneration projects.

Around 70% of transactions were executed as a means of increasing market share and consolidating operations. An example of this is the acquisition of George Wimpey by Taylor Woodrow. The rationale for the deal was anticipated synergies and economies of scale, achieved through the rationalisation of corporate costs and improving the collective procurement process.

**Building products**

A high level of transactivity was carried out within the building products sub-sector. The volume of transactions seems to be indicative of a healthy market and rising construction material price inflation due to strong demand and growth in construction orders. The high level of bid activity for manufacturing companies may continue to be fuelled by the prospect of increased demand as a consequence of the 2012 Olympic Games and related infrastructure works.



The competitive nature of the sector and company growth prospects has provided opportunities for PE firms and internal management to acquire robust businesses with positive earning potential. Around 25% of transactions were equity backed management buy-outs (MBO). Examples of deal drivers cited by management and PE firms, were the ability to invest in new products, increase production, and expand the business organically through further acquisition.

Around 20% of transactions targeted cross-border expansion – primarily with UK companies as targets and non-domestic companies as bidders. This is indicative of the strong domestic market giving rise to a number of acquisition opportunities within the UK building products sector. The non-domestic bidder companies included Bilfinger Berger (the German construction and industrial services company), HeidelbergCement (the German building material producer), Sandvik (the Swedish manufacturer of cemented carbide products), and Wienerberger (the Austria-based manufacturer of construction materials).

The industry seems to be going through a period of consolidation with a number of bidders responding to this trend and targeting a consolidation process to maintain their position. There were also some examples of manufacturing companies acquiring service-based companies to provide a more integrated supply chain solution.

**Construction**

The construction sector as a whole has seen a high level of activity, driven by a pattern of company consolidation and leveraged finance investment. This has been underpinned by stable economic conditions and a short-term market outlook of steady growth. Activity may encourage companies to take stock of business performance, profitability, and future strategy, as well as assessing their vulnerability to bids, and analysing opportunities for acquisitions or divestments.

Deloitte has carried out a review of M&A activity over the past year to the end of July 2007 within the UK construction sector, covering the construction contracting, house building and building products sub-sectors. The purpose of the review was to provide a summary of transaction activity involving UK construction companies (as either the target or bidder) and carry out further analysis of activity in terms of deal type, deal rationale, and levels of consideration paid across each sub-sector.

For the purpose of the analysis, transactions involving UK companies as both bidder and target were classified as domestic, while transactions involving a non-UK company as either target or bidder were classified as cross-border (including bids by UK companies with non-UK parent companies).

## Major construction projects: Improving governance and managing risks

### Effective management of complex construction projects is a critical challenge for project owners

On the heels of a recommendation from the American Society of Civil Engineers for a €1.3tr investment in US infrastructure over the next five years, there is no question that major construction projects will be a focus for public and private sectors for quite some time. With both sectors already struggling to recruit and retain talented and experienced personnel, project owners are looking for effective ways to meet demand and simultaneously manage risks to the satisfaction of their stakeholders.

### Identifying common project risks

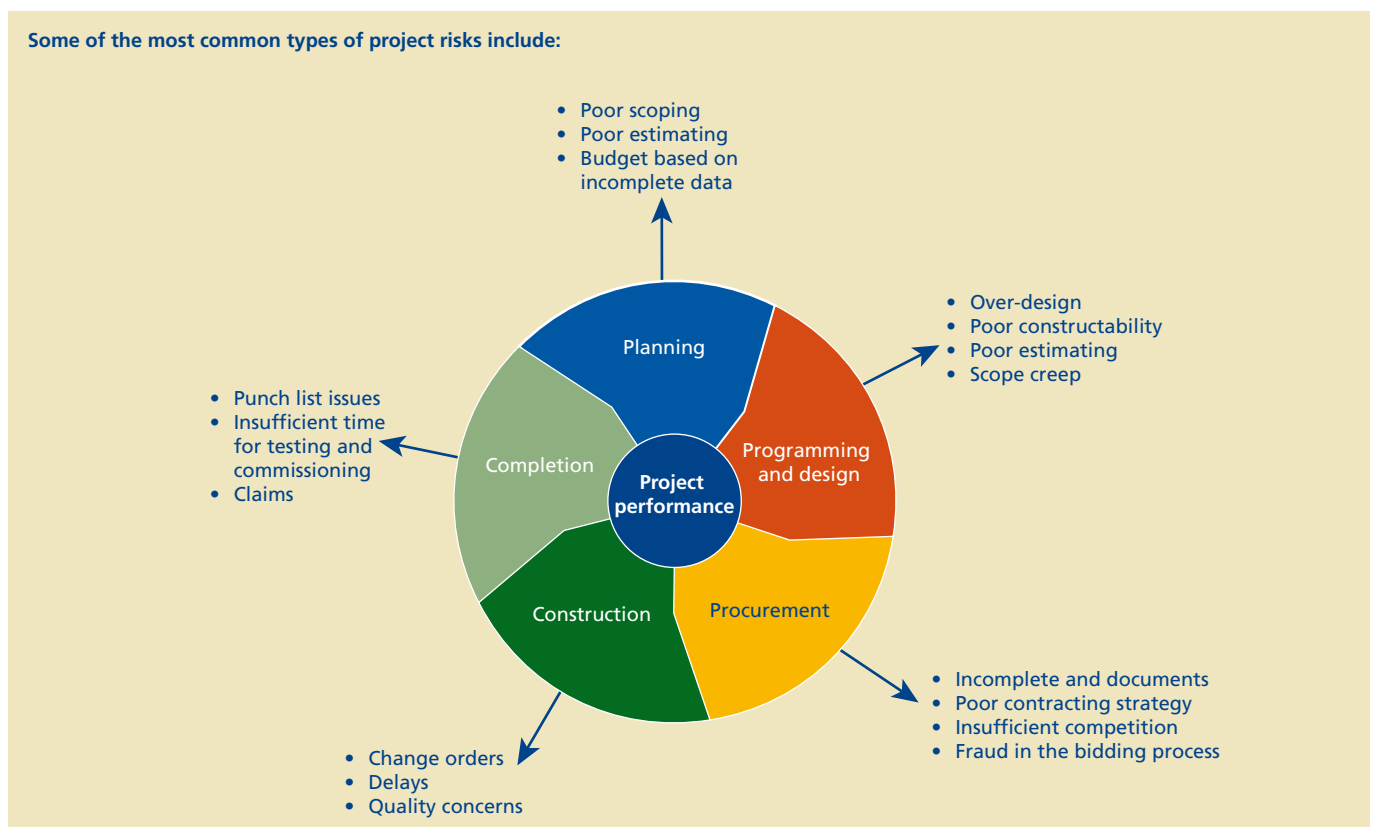
One of the first key issues companies have to address is whether they have the right scope, is it adequate for the user's needs and is the cost estimate appropriate for the scope that has been defined? Essentially, this is a decision to build within budget. This is a critical phase of any programme because the next move is programming and design, which is where companies really have to commit to the plan.

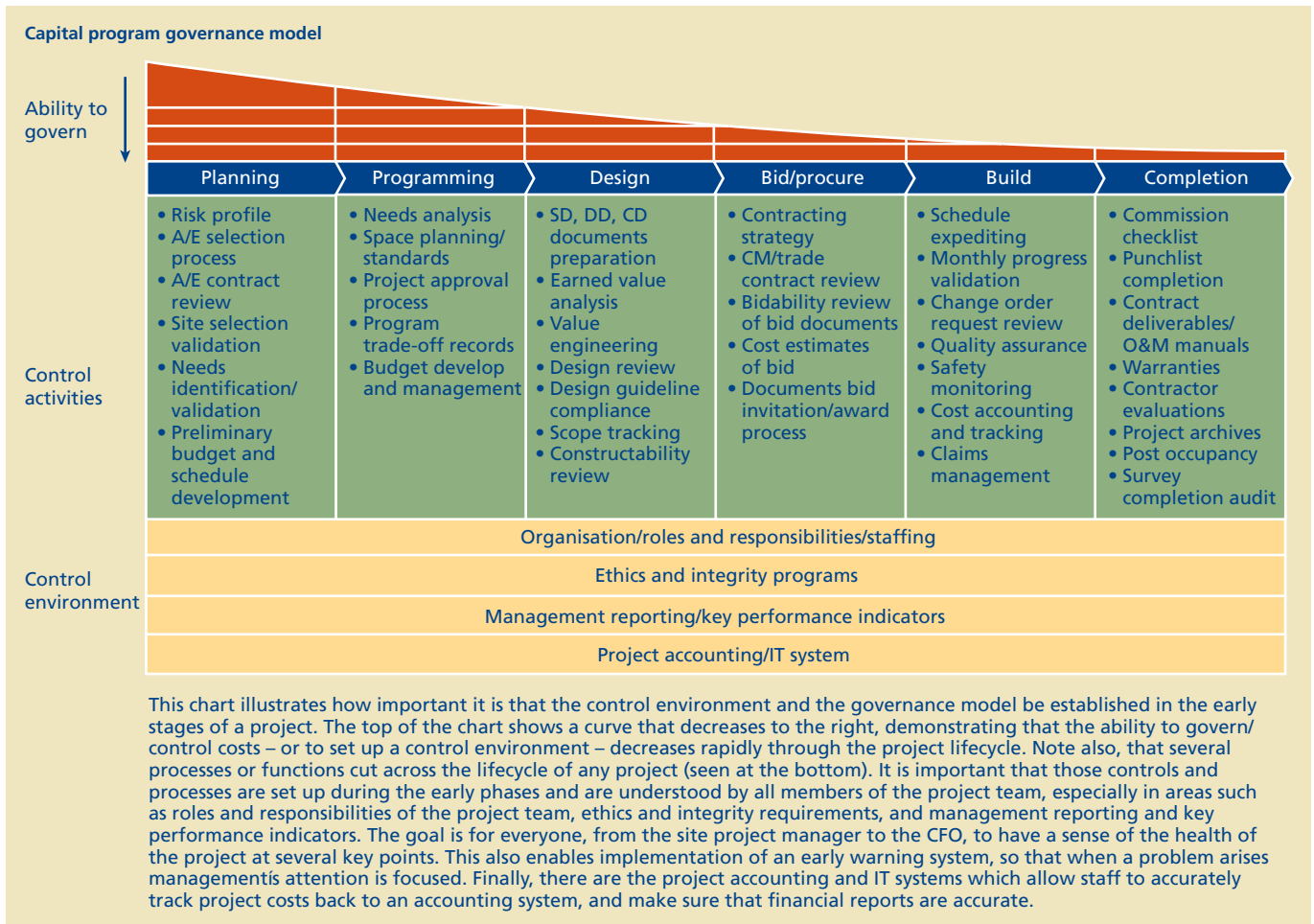
Under the programming and design phase, we typically see a conceptual or schematic design, but there are a series of issues that

can affect this part of the process. One major challenge is scope creep, as more and more stakeholders get involved and make decisions. This can be particularly true in public sector projects where the numbers of concerned constituencies are broader and can contribute significantly to budget risk – because of a lack of definition of user requirements or poor controls on scope.

The whole contracting strategy is at the centre of the procurement phase. Insufficient bidding competition, unclear building objectives, and fraudulent business practices are important areas of concern.

The next phase, construction, is generally the most risky phase of the project lifecycle because once contracts have been signed, companies no longer have the ability to make many changes to the plan without compensating the contractor. The key here is to have a robust and rigorous process for managing change orders, enforcing the contract, and dealing with delays. Obviously, the more that is known about delays and risks at an early stage, the more can be done to help mitigate the impact.





Finally, during the completion phase the primary issues revolve around snagging list items, testing, and commissioning.

Taking in many of the lessons inherent in the accompanying project risks chart, some of the key steps to achieving project success include accurate scope, carefully defined user needs, a realistic budget and contingency, as well as management of scope creep, change orders, and scheduling changes throughout the lifecycle of the project.

**What is involved in project governance?**

Project governance is defined as an internal control framework established to help safeguard the interests of the owner, and mitigate risks throughout the capital project lifecycle. In designing a governance framework, the following should be addressed:

- Accountability and transparency.
- Realistic, achievable, and measurable goals.
- Organisational structure.
- Capital project policies and procedures.
- Technology-enabled project management and controls.
- Active owner involvement.

Some of the main reasons for implementing a project governance framework include: helping project owners effectively manage requirements that come with institutional lending requirements; reputational risks associated with taxpayers’ and other stakeholders’ perceptions and interests; and cost/schedule performance related to a project’s budget and expected return on investment.

A well-governed project will acknowledge and follow a few guidelines that characterise leading practices. Recognition of risks at an early stage is critical. Having a model with strong controls around costs, scheduling, and key performance indicators can help you organise and manage the process more efficiently and effectively. In addition, having the right project staff and/or using strategic sourcing whenever needed and possible are key. However, the ability to hire and retain the best people is increasingly difficult. It is in fact the number one concern among many public project owners. Finally, a well governed project will feature a formal monitoring process that starts at the management or site level and goes all the way up to the board level, so that everyone along the way has the information they need to assess project alignment with plans and ongoing progress.

The capital program governance model on page 24, illustrates how important it is that the control environment and the governance model be established in the early stages of a project. The top of the chart shows a curve that decreases to the right, demonstrating that the ability to govern/control costs – or to set up a control environment – decreases rapidly through the project lifecycle. Note also, that several processes or functions cut across the lifecycle of any project (seen at the bottom). It is important that those controls and processes are set up during the early phases and are understood by all members of the project team, especially in areas such as roles and responsibilities of the project team, ethics and integrity requirements, and management reporting and key performance indicators. The goal is for everyone, from the site project manager to the CFO, to have a sense of the health of the project at several key points. This also enables implementation of an early warning system, so that when a problem arises, management's attention is focused. Finally, there are the project accounting and IT systems which allow staff to accurately track project costs back to an accounting system and make sure that financial reports are accurate.

### Leading practices

There are five critical phases of a project that can be employed to identify governance issues and address the risks:

- Planning. Start with getting the budget right. The struggle most project owners have is that budgets tend to get established with incomplete information. A number has to be put on a project – sometimes five years or more out – and there are few details on which to develop sound budget projections. In public sector projects there is also the potential for political complications. We suggest a multi-phased funding approach in which design, for example, can be broken out and predicted with more accuracy early on. Other pieces then come together in subsequent phases as scope is developed. We also believe it is important to have clear accountability in this phase to include the thoughts of those who need to be involved in project planning during the original scope determinations.
- Programming and design. One of the biggest challenges here is managing the outsourcing of design and engineering services. There needs to be tight control and management of outside engineers and architects so that their schedules, deliverables, and expectations are clear. We see a lot of new web-based project collaboration and management tools that can help enhance communication among the parties involved in the project – including project teams that are often in far-flung parts of the world. Also in this phase it is important to confirm the owner's requirements to avoid any dramatic alterations to the plans progress during the construction phase. One approach is to stick to the discipline of freezing the design once everyone has signed off on the scope of work. A critical success factor here might be arranging for stakeholder participation in the design review process – including those who will occupy the new space and those who will operate and maintain it.
- Procurement. This is the bidding and award phase in which organisations need to ensure there is an open, competitive and fair process, and that there is a reasonable amount of bidding around the project. As the level of construction activity in general increases, we are finding a lot of public agencies getting fewer and fewer bids which is having the effect of increasing the cost of construction. It is also important to leverage strategic sourcing. For example, a big owner of a major capital programme can try to leverage capital spend by developing strategic alliances with contractors and engineering firms; this may also lead to enhanced service from those firms, as well as an improved price.
- Construction. This is where most of the money is spent and the risk here is in change orders, delays and disputes. Therefore, we like to see timely updates on the schedule and progress, and key performance indicators so that anyone on the project – whether a project manager or a CFO – can monitor progress. It is also important to track requests for information – usually a leading indicator of cost growth or schedule delays. Due diligence on change orders is also highly recommended as we often find that bids were low to get the project, and then contractors try to increase their costs through change orders during construction. A sound due diligence process generally includes an evaluation as to whether the scope of a change order was actually part of the initial scope, and whether the pricing is fair since there is no longer a competitive bidding environment.
- Completion. Completion often drags on and can tax the system of both the contractor and the owner. In particular, it can be difficult to get the contractor's attention to complete the last 5% of a project. We recommend a partial release of retention at substantial completion, due diligence around making sure the contractor finishes the project, and a check list with an inspection at the end. Some owners also conduct project audits prior to final payment to ensure costs are documented and compliant with the contract. The time to do this is in the completion phase while people are still on the project and documentation does not disappear. Let it be known early on that the audit will be conducted while controls and processes are in place to record details.

### Key lessons

Effective governance and risk management is critical to the success of any major construction project. In particular, the right organisational culture is important because it can help foster a sense of accountability and an ownership mindset. It is best to communicate bad news early because understanding and addressing any challenges and issues at the earliest possible time generally leads to more efficient and effective project management and issue resolution. Tools that can help include key performance indicators which track and monitor budgets and schedules helping keep scope intact. Resource skill sets are also very important, as is involving the right people in review processes. Finally, there are tools such as accounting and IT systems, and project management techniques that can add more dimension and depth to project management capabilities and deliver a more effective governance process.

## Fifty shades of green: Challenges for the construction industry in delivering sustainable heat and power

While governments and energy companies across the EU grapple with the issue of procuring and delivering the most appropriate energy supply mix and sourcing it in a robust manner, the construction sector is also forced to participate in this dynamic arena. The construction industry is being tasked with the creation of facilities that are capable of delivering heat and power, in a sustainable manner, in the face of commercial and technical constraints. This unique challenge is further complicated by the intricacies of property development and ownership in both the residential and commercial sectors.

Delivering sustainable heat and power is a complex issue that is an integral part of the overall climate change agenda now facing the industry. The profligate use of fossil fuels to heat and power homes, offices, factories, and other places for work, rest, and play is now under serious scrutiny. This comes as the issue of climate change becomes ever more prominent on the political agenda at a macroeconomic level, and is reinforced by events such as the 2007 UK summer floods.

To address the issue of climate change, the EU has introduced legislation in the form of the Directive on the Energy Performance of Buildings. The obligations associated with this in relation to new build and refurbishment activity, have found their way into the member states through local legislation and standards such as Building Regulations Part L in the UK. This places a focus on the way that the facility is constructed and operated, and requires that occupiers in the UK provide Energy Performance Certificates that show how the building itself performs.

In addition to the EU directive, the bar has been raised further in some locations through the adoption of a more rigorous town planning framework and the so-called Merton Rule, which states that all new developments must obtain at least 10% of their power from renewable sources. For example, all new planning applications for commercial development within the Mayor of London's remit must address this rule. This is proving a challenging target for a range of reasons, and questions are being raised within the industry as to whether this is the most robust approach in delivering sustainability.

The requirements for corporate and individual social responsibility have also driven demand for the incorporation of sustainable heat and power sources at new and refurbished facilities. These are beginning to translate into market expectations, shareholder and stakeholder requirements, and ultimately into technical briefs as both corporate and individual customers demand greener houses, offices or factories.

While this trend for sustainable sources of heat and power is slowly gathering momentum, the pattern of demand from customers and resultant applications are somewhat inconsistent. This has arisen as a result of the inherent complexity and fragmented nature of the industry, together with the division of responsibility for capital and operating costs in many instances. The situation is compounded by the emergence of new technologies and their commercial viability.

### Slow on the uptake

An overview of the marketplace provides further evidence of some factors that have influenced the inconsistent adoption of sustainable approaches to heat and power, as well as how various industry participants have catalysed or hindered the process and take up.

Design standards and good industry practice are slowly changing to reflect the growing realisation that closely controlled internal environments may be neither carbon efficient, nor beneficial for occupiers. Newer design models setting out a more flexible approach to the internal environment, with a greater reliance on natural ventilation where appropriate – such as non-city centre locations – are beginning to have a positive impact on the heat and power requirements for new build and refurbished facilities.

Technological developments and an increased supplier base have helped promote a wider range of solutions that are available to designers and specifiers – including contractors – with the ever-increasing popularity of design and construct forms of procurement. These include technical solutions such as micro-combined heat and power (CHP) units that are suitable for residential applications, the commoditisation of photo-voltaic cells for high street purchase, and the wider adoption of solar water heating.

A relaxation of planning restrictions has also opened up opportunities for the adoption of technologies to deliver sustainable heat and power, although site specific factors remain that impact on their effectiveness, marketability and use – such as reliance on sources of wind power or solar energy and the space to store fuels. Such factors will continue to inhibit the wholesale adoption of these technologies unless alternative solutions are developed. This may include a shift in focus away from local micro-generation and the development and implementation of management arrangements – such as regular deliveries of bio-fuel in city centre locations – in order to make use of alternative technologies feasible.

Corporate occupiers that lease real estate have tended to be either slow or ambivalent in specifying the incorporation of such technologies within their accommodation brief and this – combined with the split in responsibilities for capital and running costs – has had an influence on the built product. Much of the impetus for structural change has fallen to the construction industry public sector clients putting policy into practice and leading by example. Changes are under way in public sector capital programmes – such as the Workplace 2010 programme for the Northern Ireland Civil Service – where UK Government policy is being translated into firm requirements for sustainable heat and power. This public sector occupier is seeking its potential PFI provider to take a whole life approach to asset management and renewal by transferring specified power consumption risk to the private sector, setting targets for energy consumption reduction and incentivising the PFI provider to develop and implement appropriate technical solutions that are also commercially viable. This latter point is often perceived as being in conflict with the sustainability agenda, and careful analysis will be necessary to find the optimal solutions that deliver value for money.

Residential developers have taken some steps to adopt sustainable heat and power sources, particularly in pilot schemes for green communities where there is an aggregation of demand and the opportunity to showcase some available solutions. This aggregation improves the economics of incorporating technology such as CHP plants that may be fed using biomass, and can sit comfortably within schemes with critical mass and appropriate spatial flexibility to accommodate fuel storage, or even on site production. However, it has proven difficult to make the link between the investment in sustainable power sources, and a commensurate improvement in selling price per plot; this has been a particular drag factor in the adoption of such solutions on a widespread basis. Future changes in legislation are anticipated to address this over the next five to ten years, with the UK Government's Code for Sustainable Homes and its stated target that all new residential developments will be carbon neutral by 2016. Developments in this area need to be carefully monitored given the recent introduction of home information packs – which incorporate an Energy Performance Certificate – and the controversy that this has brought.

#### **Positive action required**

In the absence of voluntary action, further legislative intervention at both EU and country levels is almost inevitable to address the failure of the construction industry and its customers to adopt more sustainable sources of heat and power. This will lead to further changes in building codes and standards across the EU to tackle climate change and help allay concerns of energy security. Such changes could have a number of impacts, including:

- A shift in public perception that will change the way the market assesses and measures systems, components, and assets. This has already happened in other industries, such as automotive, and construction will inevitably follow suit. The creation of a robust dataset will take time but will invariably take place.
- The creation of a pool of facilities, products or materials that are considered sub-optimal or even redundant, depending upon the scale and rate of change that takes place in terms of legislative or technological change. This could even include real estate assets that need capital investment to make them marketable.
- Economies of scale that will bring a wider range of technologies and materials into the industry marketplace, perhaps with fiscal incentives to stimulate their use.
- Greater emphasis on the reduction of heat and power creation, resulting in the adoption of more flexible standards for occupier comfort such as the adaptive comfort model [as developed by the UK Chartered Institute of Building Services Engineers]. This model permits internal temperatures to fluctuate on a wider basis than might currently be the case for technical briefs, thereby reducing the need for heating and cooling.
- A change in demand for traditional sources of energy, both in terms of overall quantum, fuel mix and the annual profile of demand.

# Country profiles

## Austria

### Austrian market statistics

Austria	2006	2005
GDP at market prices (€bn)	256.4	245.1
Real GDP growth	3.2%	2%
Total volume construction industry (€bn)	29.4	28.7
As % of GDP	11.5%	11.7%
Employees in construction industry	240,409	235,588
As % of working population	7.3%	7.4%
Companies active in construction industry	N/A	N/A

Note(s): Construction volume for 2006 is an estimated figure from Euroconstruct, as quoted in the 61st Euroconstruct Conference press release.

### Trends

Global business conditions have been favourable, and this has had a positive effect on the Austrian economy as a whole. Real GDP growth increased by 3.2% during 2006, and construction volume as a percentage of GDP stood at 11.5% for the year.

Construction output during 2006 increased strongly in response to high levels of capacity utilisation, robust cyclical demand, and rising employment demand in the sector. The dramatic increase in construction activity was primarily due to the private sector – up by 15% in 2006 – which accounts for two thirds of construction output. Public sector construction has also seen positive developments, with above average growth in projects relating to roads, bridges, and rail infrastructure construction.

In Austria, housing completions for 2006 stood at 43,000. In recent years, residential construction has picked up but demand for new house building is expected to fall steadily due to possible labour shortages, higher interest rates, and more modest price rises in the property market compared to the previous five years.

In 2007, the Austrian construction industry is expected to increase by 3%. The main driver for this growth is civil engineering, due to heavy spending on road construction and modernisation, and upgrading the railway network. A substantial increase in funding for the development of Austria's transport network was announced in the 2007-08 budget. The Government presented a new infrastructure plan which predicts a total investment of €11bn on road and rail projects and improvements to Austria's waterways by 2010. About €4.5bn will be allocated to expanding the road system, while €6bn will be spent on the rail network. Austria has an extensive transport network that provides good access to major European industrial centres and ports, but the country has an urgent need to upgrade transport links to its Eastern neighbours.

### Top construction companies

The country's construction sector – which comprises 20,000 firms – used to be larger than in most European countries. This is due to government policy over the past few decades, framed with a view to stimulating aggregate demand both directly through public sector investment and indirectly through subsidised loans for construction.

No.	Company name	FY end	Construction revenue (€m)	Net income (€m)
1	STRABAG SE	Dec 06	9,430.6	224
2	Alpine Mayreder Group	Dec 06	1,954.8	3.2
3	Porr Group	Dec 06	1,921	32.6
4	Swietelsky Bau GmbH	Mar 06	1,113.7	N/A
5	Habau Group	Mar 06	441.1	6.3

Note(s): For companies that do not report construction revenue separately, sales and construction revenue are assumed to be the same.

### PFI/PPP and concessions

Austria's largest PPP road project – the PPP-Ostregion – has been granted to the Bonaventura consortium of Austria's Alpine Mayreder, Germany's HOCHTIEF and France's Egis. Bonaventura offered €945m towards the project. This concession includes the financing and construction of a 51km motorway, and its subsequent operation and maintenance for 30 years.

### M&A activity

Buyer	Seller	Unit sold	Deal size (€m)	% sought
Formento de Construcciones y Contratas SA	Pappas Family, Otto Mierl	Alpine Holding GmbH	480.6	80.7%
Finanz Industrie Management AG/STRABAG SE	Karl Hold, Marianne Hold, Erich Heiserer, Richard Koch	Storf Hoch -und Tiefbau GmbH	N/A	100%
Hans Bodner Bau GmbH & Co. KG	Victor Berger Privatstiftung	Berger & Brunner Bau-Gedellschaft mbH	N/A	100%

Please note that the use of N/A throughout the country profiles stands for information not available.

## Belgium

### Belgian market statistics

Belgium	2006	2005
GDP (€bn)	314.2	299.1
GDP growth	3%	1.4%
Total volume of construction industry (€bn)	28.4	26.7
As % of GDP	9%	8.9%
Employees in construction industry	199,000	191,000
As % of working population	4.06%	3.93%
Companies active in construction market	N/A	N/A

Note(s): GDP at market price and growth mention is Real GDP growth rate.

### Trends

The construction industry grew by 7% in 2006 amounting to a total volume of €28.4bn. The industry is growing faster than the overall economy, and constitutes about 9% of total GDP. This growth was driven by strong activity within the new residential sector which increased by 13% in 2006. The permits issued for new construction stand at roughly 60,000 units per year and this strong demand will assure continued growth in the residential sector over the coming years.

New non-residential construction saw an increase of 8% in 2006 continuing a strong recovery that started in 2004. Growth is being driven by an increase in business spending and low interest rates. The civil engineering sector experienced an upswing because of the municipal elections period, and achieved estimated growth of 8.8% during the year. The sector was also helped by an increase in public sector investment, partly as a result of a long-term rail investment programme (2003-12) getting under way, however, it could experience a decline in growth of around 10% in the post-electoral period.

The growth in construction activity has contributed 9,000 jobs to the economy, and took total employment in the sector to almost 0.2m.

### Top construction companies

No.	Company name	FY end	Total revenue (€m)	Net income (€m)
1	BESIX Group	Dec 06	1,276	41
2	Compagnie d'Entreprises CFE	Dec 06	1,164	41
3	Jan De Nul NV	Dec 06	1,191	192
4	STRABAG Belgium	Dec 05	339	-6

### PFI/PPP and concessions

In Belgium, each state has its own rules and regulations for PPP/PFI initiatives and they can develop projects in the areas over which they have responsibility. This results in separate federal, Flemish, Walloon, and Brussels-Capital PPP markets all evolving at different speeds and with different priorities. To date, the Flemish region has taken the lead. In all the regions, the areas likely to see the most development over the next few years will be transport, environment – with a particular focus on water – social housing, and urban regeneration.

Current major PPP activities include:

- The construction of a railway link connecting Brussels international airport with the high speed railway network, known as the Diabolo project. The total value of this project amounts to €280.3m and construction is due to finish in December 2010.
- The implementation of the Masterplan for Mobility – a traffic infrastructure plan for the Antwerp region including road, water, and public transportation infrastructure. The total value of the project is estimated at €3.5bn and its key component is the design, construction, financing, operation and maintenance of the Oosterweelverbinding – a road tunnel under the river Scheldt.
- The municipality of Maasmechelen, Eastern Belgium is investing €98m in its city centre by 2011. The consortium companies for this project include STRABAG, Democo Group, and Van Roey.
- An investment of €500m is planned by Belgian railway operator SNCB/NMBS for the construction of direct connections from Brussels airport to Antwerp, Mechelen, Leuven, and Liege. SNCB/NMBS expects to double its passengers by 2030.
- Several major PPP projects are also being planned for schools and road infrastructure.

### M&A activity

Belgian construction and real estate group Besix (50% owned by Egypt's Orascom Construction Industries) acquired Socogetra and Cobelba for an estimated €31.7m. Both Socogetra and Cobelba are Belgium-based and active in road construction and civil engineering, with a combined workforce of 600 people.

## Bulgaria

### Bulgarian market statistics

Bulgaria	2006	2005
GDP at market prices (€bn)	25.1	21.4
Real GDP growth	6.1%	6.2%
Total volume of construction industry (€bn)	3.1	2.7
As % of GDP	12.4%	12.8%
Employees in construction industry	140,600	139,000
As % of working population	5%	5%
Companies active in construction market	11,000	10,600

Note(s): Wherever required, annual average exchange rate used for 2006 and 2005 BGN1.96 = €1.

### Trends

The Bulgarian economy is growing strongly, with a high GDP growth rate and a strong inflow of foreign direct investment (FDI). The GDP growth rate remained the same in 2006 as the previous year, at a high level of more than 6%. The construction sector's performance has been well above that of the economy over the past few years. The construction sector grew more than 13% in 2006, generating a total volume of over €3bn. The booming construction sector has been growing at a stable rate of around 14% for the past three years.

The construction of new residential buildings grew by 12% in 2006, lower than the strong growth of 23% in 2005. The growth in residential construction is driven by robust foreign demand, growing income, and easier conditions for financing such deals. Most residential growth took place in the capital and on the coast (mainly Burgas and Varna). In 2006 the Government adopted a programme to improve the housing situation of the Roma population, including plans for the construction of 30,000 new homes and the renovation of 47,000 homes by 2015.

Entry into the EU as of 2007 is expected to ensure strong growth for the building sector, particularly in the commercial, offices, industrial, and logistics sub-sectors. The country received a record FDI of €400m in 2006, more than double the previous year's figure of €172.8m. FDI in the construction sector now accounts for 10% of the overall FDI in the Bulgarian economy, which has hit a record high of €4bn.

The civil engineering sector grew strongly by over 10% in 2006, and in particular the sub-sectors road, rail, energy, and waterworks. Major projects in 2006 included air transport projects such as the new passenger transport terminal and runway and sea transport projects such as the new cargo terminal at Burgas. Infrastructure works are expected to grow as the National Development Plan for 2007-13 is implemented. This plan includes the construction of some 800km of motorways, development of the fourth and ninth European transport corridors, extension of the subway network in Sofia, and modernisation of the water supply and waste water collection. It is to be financed by government funding, EU sources and PPP.

The construction sector is expected to remain buoyant in the near future. Outlook in the industry continues to be very positive. According to permits issued in 2006, the number of dwellings expected to be constructed in the near future amounts to 53,049, almost four times the number of completed homes in 2006 (13,266). However, construction prices are expected to rise in 2007 due to a lack of skilled workers and high costs – resulting from increases in prices for materials and electricity.

### Top construction companies

No.	Company	FY end	Total revenue (€m)	Net income (€m)
1	Glavbolgarstroy JSC	Dec 05	105	2.2
2	Trace Group	Dec 06	60	2.7
3	STRABAG (INGSTROY SOFIA)	Dec 05	45	5.2
4	Galchev Engineering Group JSC	Dec 05	32	0.7
5	Enemona JSC	Dec 06	27	2.3

Note(s): Annual average exchange rate used for 2006 and 2005 BGN1.96 = €1.

### PFI/PPP and concessions

Concessions are the form most used for the development of PPP projects in Bulgaria. There are two main types of concession: the utilisation law which includes the right to use public property or resources, and the permit concession which allows use of public services that are otherwise exclusively reserved for the state/municipalities.

In 2006, Parliament passed a controversial new concession law. One of the major issues raised was the provision of partial funding for investments by the Bulgarian state. The Government is aiming to develop state concessions based on the privatisation of public infrastructure such as toll roads, airports, and ports. Major PPP projects planned include the finalisation of the Trakia motorway, ports on the Black Sea and the Danube, and the Varna and Burgas airports.

### M&A activity

Seller	Unit sold	Buyer	Deal size (€m)	% sought
Patishta & Saorazhenia EAD	N/A	Elatsite-Med JSC	14.8	100%
Zavodski Strezhi-Kozloduy AD	N/A	Risk Engineering Ltd	0.63	49.58%

Note(s): Exchange rate used USD1.26 = €1.

## Croatia

### Croatian market statistics

Croatia	2006	2005
GDP at market prices (€bn)	34.5	31.5
Real GDP growth	4.8%	4.3%
Construction volume of finished construction works (€bn)	3.8	3.3
As % of GDP	11%	10.5%
Employees in construction industry	130,375	120,290
As % of working population	9%	8%
Companies active in construction industry	9,185	8,088

Note(s): Exchange rates used for 2006 HRK7.33 = €1 and for 2005 HRK7.41 = €1.

### Trends

The Croatian economy continued growing at a rate of less than 5% real GDP growth, while unemployment and current account deficits continued to be too high during 2006. However, the construction industry benefited from investments and growing domestic demand. For 2006 the value of finished construction works reached €3.8bn, and construction growth more than doubled overall economic growth in the country.

Construction permits	2002	2003	2004	2005	2006
Total value of permits (€m)	3,145	3,960	2,915	3,319	3,645
Building construction	11,387	14,129	14,985	15,999	19,272
Residential	7,147	7,583	7,633	9,184	11,077
Non-residential	4,240	6,546	7,351	6,814	8,195
Civil engineering	11,915	15,806	6,878	8,558	7,410
Transport	9,962	13,326	3,751	5,093	5,082
Telecom, oil, transmission	1,703	2,223	2,526	2,508	2,003
Industrial	138	141	413	728	271
Other	109	115	187	227	52

Although the total number of construction permits slipped in 2006 to 13,575 – down 1.8% from 2005 – the value of permits kept growing in 2006.

The number of completed dwellings in 2006 increased by 57% to 7,151. This was due to higher private demand as a result of growing real income and stronger domestic credit. Housing loans granted doubled year-on-year. It is also notable that during the past few years, the average floor space of new residential units has kept growing, and the quality and utilities of new homes are improving gradually. Prices for new homes in the capital did not increase in 2006, while for the rest of the country – and particularly the coastal resorts – prices continued to rise.

The non-residential construction sector saw strong growth in 2006 – particularly in office construction and commercial buildings – as investors are attracted by the growing domestic market. Hotel construction by the coast also continues to grow, while developing more slowly in the rest of the country. The industrial and storage sub-sector saw growth rates of over 10% in 2006.

More than 55% of total construction works in 2006 continued to be in the civil engineering sector. Motorway construction projects have been the focus in this area for the past few years. The Transport Development Strategy of the Republic of Croatia includes plans for 1,365km of motorways by 2013. In 2006 1,068.5km of the country's motorways were built; 43km more than in 2005. Motorway construction was mostly financed by loans and toll revenues.

Other major investment areas for the next few years will be railway construction (in the fifth European transport corridor), ports (mainly the Rijeka harbour), airports (the new passenger terminal in Zagreb) and public utilities (water and sewage).

### Top construction companies

Construction companies in Croatia are still relatively small with poor financial resources, they often try to collaborate on projects. There are ongoing discussions among industry representatives about possible mergers in order to allow Croatian companies to bid for major construction contracts in Croatia and internationally.

### Top companies

No.	Company name	FY end	Construction revenue (€m)	Net income (€m)
1	Konstruktor inženjering dd	Dec 06	245	3
2	Dalekovod	Dec 06	204	11
3	Viadukt dd	Dec 06	192	0.3
4	STRABAG doo	Dec 06	191	N/A
5	Tehnika dd	Dec 06	174	8

Note(s): Exchange rates used for 2006 HRK7.33 = €1 and for 2005 HRK7.41 = €1. For companies that do not report construction revenue separately, sales and construction revenue are assumed to be the same.

### PFI/PPP and concessions

To enable local authorities to build infrastructure projects faster and more cost effectively, Croatia needs to improve its legislation on PPP deals. Last year, the Government approved a strategic framework for the country's development from 2006-13, in which the use of PPP schemes was underlined as a model for infrastructure construction projects. The Croatian Trade and Investment Promotion Agency will also play an important role in further developing the use of PPP in Croatia.

It is estimated, that compared to those financed in the traditional way – where local authorities take out loans – projects developed under these partnership deals are 17-20% cheaper, and the quality of building is also higher.

The most expensive section of the €372m motorway linking Zagreb with the Slovenian border – which was financed by Austrian construction company STRABAG and the Government – has been opened. This section of road was one of the most demanding, as it connects Croatia with Central and Western Europe through Slovenia, Austria, and the German state of Bavaria.

**M&A activity**

Buyer	Seller	Unit sold	Deal size (€m)	% sought
Cubus Lux PLC	Plava Vala doo	N/A	7.5	100%
STRABAG AG	Kamen-Ingrad Niskogradnja doo	N/A	N/A	51%
Colas SA (Bouygues Group)	Cesta Varađin	N/A	22	70%
Konel	GP Dubrovnik	N/A	N/A	N/A
STRABAG SE	Cestar doo	N/A	N/A	75%

Note(s): Exchange rate used HRK7.33 = €1.

## Czech Republic

### Czech Republic market statistics

Czech Republic	2006	2005
GDP at market prices (€bn)	113	98
Real GDP growth	6.1%	6.1%
Total volume construction industry (€bn)	17	14
As % of GDP	15%	14%
Employees in construction industry	436,300	458,500
As % of working population	9%	9%
Construction companies	N/A	18,532

Note(s): Exchange rate used for 2006 CZK28.34 = €1 and for 2005 CZK29.78 = €1.

### Trends

Fairly healthy economic growth continued in 2006, with real GDP rising 6.1%. Domestic demand continued to provide the main source of growth for the economy due to strong real wage growth, declining unemployment, and an increase in purchasing power due to continued appreciation of the Czech Crown. However, a key issue facing the Czech Republic in 2006 was the unclear political environment that followed the elections and implied delays in the political decision-making process.

During the year construction output increased 6.6%, slightly more than the overall Czech economy and much faster than the 4% growth recorded by the construction sector in 2005. Also during 2006, an amendment of the construction law was passed which aims to reduce administrative burdens.

Overall construction activity in the residential sector grew strongly in 2006 – over 15%. Although the number of residential units completed during the year was 30,187 – down 8% from 2005 – the number of houses started was 43,700 – 8% higher than 2005. In Prague, residential sale prices for newly-constructed units increased by more than 10% on average. As the purchasing power of the population increased and the volume of mortgage loans continued to rise, demand for housing continued to be strong. It is estimated that in the next ten years, the number of completed dwellings needs to increase by nearly 500,000 units.

Non-residential construction also showed growth of more than 10% in 2006, supported by strong in-flows of FDI. The most important sub-sectors in non-residential construction are industrial and commercial, both of which performed very well during the year. The highest growth in the non-residential construction sector was for storage buildings.

The civil engineering sector recorded a decline of nearly 1% in 2006, due largely to delays caused by ecological movements and administrative problems connected with access to EU funds. The transport infrastructure sub-sector increased by 3%, but the energy and waterworks sub-sectors experienced a large decline of more than 10%. The main road investments planned are situated above the Brno-Ostrava-Karlovy-Vary axis. By 2010, a further 930km of motorway and 1,160km of motorways are to be constructed.

The financing will come largely from the State and electronic tolls. Investments in railway infrastructure will be used in the modernisation of key corridors for high-speed trains, refurbishment of railway stations in large cities, and maintenance of the very dense railway network.

Building permits	2002	2003	2004	2005	2006
Residential buildings	45,961	51,948	51,464	47,974	49,777
New construction	12,957	16,465	16,820	16,614	18,448
Renewals and enhancement	33,004	35,483	34,644	31,360	31,329
Non-residential buildings	29,003	28,390	29,439	25,668	24,503
New construction	11,909	11,526	12,142	10,100	9,336
Renewals and enhancement	17,094	16,864	17,297	15,568	15,167
Environmental area	36,187	36,427	36,065	33,691	25,779
Other construction	30,517	32,574	36,654	35,608	35,332
Total building permits	140,822	149,339	153,622	142,941	135,391

In 2006 135,391 permits were issued by planning and building control authorities – down 5.3% from 2005. This decrease is due mainly to the 30% decrease in permits granted in the environmental works construction area.

Prospects for the construction sector over the next few years remain quite positive, but growth will probably be at a slightly slower rate.

### Top construction companies

No.	Company name	FY end	Construction revenue (€m)	Net income (€m)
1	Skanska CZ as	Dec 06	1,286	29
2	Metrostav as	Dec 06	904	48
3	STRABAG as	Dec 06	791	N/A
4	Stavby silnic a zeleznic as	Dec 06	690	23
5	OHL ZS as	Dec 06	327	21

Note(s): Exchange rate used for 2006 CZK28.34 = €1 and for 2005 CZK29.78 = €1. For companies that do not report construction revenue separately, sales and construction revenue are assumed to be the same.

### PFI/PPP and concessions

The Concession Act, which regulates public tenders for PPPs and concessions, came into force in June 2006. It sets out procedures for selection of concessionaire/supplier and regulatory mechanisms, and therefore strengthens legal security and transparency, preparing the ground for PPP projects.

In 2006, there was a lot of PPP activity. In several sectors PPP projects were at a preparatory stage: the transport sector (the D3 motorway section Tabor-Bosilec), the judiciary sector (the court houses in Karlovy Vary, Usti and Labem, and a prison), the hospital sector (the county hospital in Pardubice and Central Army hospital in Prague), and brownfields (sports-cultural centre Ponava in Brno).

**M&A activity**

Buyer	Seller	Unit sold	Deal size (€m)	% sought
Geofin as	Ostravsko Karvinske Doly as	VOKD as	N/A	100%
Colas SA	Cermak a Hrachovec as	N/A	N/A	100%
Aqualia (FCC)	Severomoravske vodovody a kanalizace, Ostrava	N/A	248	N/A
STRABAG	MiTTaG sro, Brno	N/A	N/A	100%
STRABAG	Prezipp Chrudim sro	N/A	N/A	50%
Bouygues Batiment International	VCES as	N/A	N/A	51%

## Denmark

### Danish market statistics

Denmark	2006	2005
GDP (€bn)	219	208
GDP growth	3.2%	3.1%
Total volume of construction industry (€bn)	25.1	24.7
As % of GDP	11.45%	11.89%
Employees in construction industry	162,700	149,800
As % of working population	5.86%	5.41%
Companies active in construction market	N/A	N/A

Note(s): GDP at market price and growth mention is Real GDP growth rate.  
Exchange rate used for 2006 and 2005 DKK1 = €0.13.

### Trends

The Danish economy has grown at a steady rate of about 3% for the past couple of years. The construction industry – after showing negative growth in the earlier years of the decade – is now recovering and growing at a steady pace. The share of gross value added by the construction sector to the total GDP has stabilised at around 11%, and the sector generated €25.1bn in 2006 – up around 2% from the previous year.

In 2006 home building construction and maintenance activity was very high – with the majority relating to new buildings – this was helped by low interest rates. The prospects for 2007 are very favourable due to a large backlog of orders and continued strong demand, but rising house prices is dampening the growth of the home building sector in the coming years.

The number of apprentices in the Danish construction sector increased 21% in 2006. Carpentry is most popular, and one in five employees in carpentry and masonry are apprentices. Despite this, lack of manpower is still a concern within the industry and could limit construction activity growth in 2007. This will partially be alleviated, however, through the use of Polish and German workers.

### Top construction companies

No.	Company name	FY end	Total revenues (€m)	Net income (€m)
1	MT Hojgaard	Dec 06	1485.8	4.96
2	E Pihl & Son	Dec 06	774.6	14.8
3	NCC Construction Danmark	Dec 06	513.8	-14.7
4	Per Aarsleff	Sep 06	506.9	12.4
5	Skanska Danmark	Dec 06	446.12	13.68

### PFI/PPP and concessions

Neither PPP nor PFI are widespread in Denmark, however, the Government has started promoting their use. In the 2005 budget review, they acknowledged that there should be a greater focus on PPP in order to increase productivity.

### M&A activity

Seller	Unit sold	Buyer	Buyer country	Deal size (€m)	% sought
M2 A/S	N/A	Keops A/S	Denmark	8.264	65

In October 2007, Skanska announced that the construction part of Skanska Denmark is for sale – since Skanska Denmark was not able to fulfil the overall goal of being among the market leaders.

Note(s): Exchange rate used for 2005 USD1 = €0.80.

## Finland

### Finnish market statistics

Finland	2006	2005
GDP at market prices (€bn)	167.9	157.2
Real GDP growth	5.5%	3%
Total volume construction industry (€bn)	24.2	22.3
As % of GDP	14.4%	14.2%
Employees in construction industry	162,000	158,000
As % of working population	6.6%	6.6%
Companies active in construction industry	N/A	N/A

### Trends

Finland's GDP increased 6.8% to €167.9bn, and real GDP increased 5.5% in 2006. Construction volume grew 8.5% and the contribution of construction volume to Finland's GDP improved from 14.2% in 2005 to 14.4% in 2006. The percentage of the working population who are employed in the construction sector remained at 6.6%, despite the number of employees in the construction industry increasing from 158,000 to 162,000 during 2006. Of the total construction volume (€24.2bn), building construction constitutes 81%, with 19% coming from civil engineering.

Economic slowdown at the beginning of the 1990s led to prices of owner-occupied houses falling, and a decrease in the construction of such housing. In the late 1990s – after the economy recovered – demand for housing started to rise as people started to invest in owner-occupied housing. Low interest rates kept the housing market buoyant and owner-occupancy became more popular than renting.

New housing demand has been concentrated in only a few growth areas where new jobs are being created. YIT Corporation is of the opinion that demand for new homes will remain at a good annual level of over 30,000. Office construction is expected to be active, especially in the Greater Helsinki area. Construction of commercial premises is expected to be brisk.

In the next few years the outlook for the construction industry remains favourable, as economic growth is increasing investment. In 2007, construction is expected to grow by around 2.5%.

Investments by foreign retail chains in Finland are encouraging competition and maintaining levels of construction activity. Foreign property investors have been buying property, especially commercial buildings, throughout the country.

Completed dwellings	2001	2002	2003	2004	2005	2006
Total dwellings	30,592	27,171	28,101	30,662	34,177	33,683
Detached houses	10,654	10,335	10,807	12,798	15,393	15,991
Attached houses	4,588	3,793	4,303	4,651	5,453	5,426
Blocks of flats	14,901	12,539	12,557	12,949	12,908	11,943

Note(s): The figures for 2006 are preliminary data.

The number of completed dwellings fell by 1.4% in 2006 to 33,683. This fall comes after an upward trend from 2003 to 2005.

### Top construction companies

No.	Company name	FY end	Construction revenue (€m)	Net income (€m)
1	YIT Corporation	Dec 06	3,284.4	171
2	Lemminkainen Oyj	Dec 06	1,795.9	65.8
3	Skanska Oy	Dec 05	1,140	20
4	Ncc Rakennus Oy	Dec 05	777.7	22.5
5	Tieliikelaitos	Dec 06	485.4	8.2
6	SRV Yhtiöt Oyj	Dec 06	479.5	14.5

Note(s): For companies that do not report construction revenue separately, sales and construction revenue are assumed to be the same.

### PFI/PPP and concessions

Espoo's technical committee proposed that the new underground railway – to be built between Espoo and Helsinki – could be financed under PPP.

Electricity producers are planning to make significant investments in the near future to repair and expand the grid and PPP is being considered, even though there is not much experience of using PPPs for grid construction. According to Finnish Fortum, a PPP system could save about 5% in construction and maintenance costs.

### M&A activity

Buyer	Seller	Unit sold	Deal size (€m)	% sought
Tieliikelaitos	Maansiirto Veli Hyrylainen Oy	N/A	N/A	100%
Hartela	Rakennus-Forum Oy	N/A	N/A	100%
Royal Boskalis Westminster NV	Wasa Dredging Oy	N/A	N/A	100%
Luja-Yhtiöt Oy	Kotkan Maansiirto	N/A	N/A	100%

## France

### French market statistics

France	2006	2005
GDP (€bn)	1,793	1,716
GDP growth	2.2%	1.7%
Total volume of construction industry (€bn)	151	143
As % of GDP	8.42%	8.33%
Employees in construction industry	1,535,600	1,473,700
As % of working population	6.16%	5.91%
Companies active in construction industry	N/A	N/A

Note(s): GDP at market price and growth mention is Real GDP growth rate.

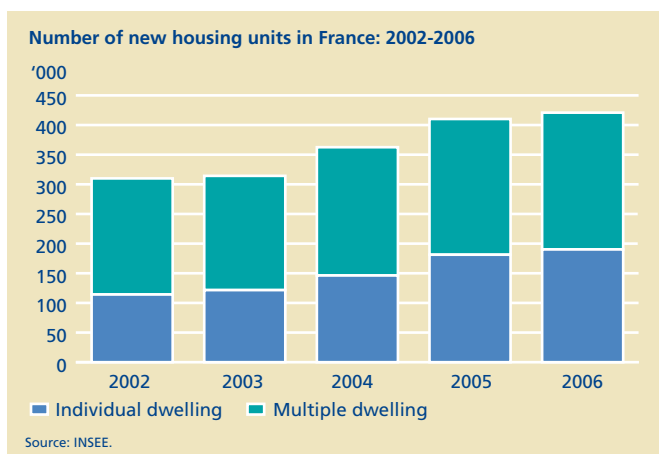
### Trends

The French construction market remained buoyant in 2006, growing almost 6% to €151bn and accounting for almost 8% of the country's total GDP. The construction sector also created 62,000 new jobs in 2006 compared to 58,000 in 2005, the tenth consecutive year for which it has, increased the number of jobs created.

In 2006, 421,000 new housing units were started in France – the best performance for 25 years. This came after a very good year in 2005, in which 410,000 new housing units were started. However, growth did decelerate for the residential housing sector in 2006 when it grew by just 2.6%, in comparison to the strong growth rates of 13.1% and 15.3% achieved in 2005 and 2004 respectively.

Within this overall trend, individual homes and multi-dwelling homes have shown differing levels of growth. The number of new individual homes started grew slightly at 0.8%; while the growth rate for new multi-dwelling homes was higher at 4.9%.

Despite rising property prices, the housing sector is booming as it is helped by moderate interest rates and an increase in the average duration of a housing loan.



The surface area for non-residential buildings demonstrated a strong growth rate of 5.7% in 2006, after a flat growth rate of 0.1% in 2005. The civil engineering sector also grew strongly in 2006 as new start-ups ordered by the Government increased by 13.6% - compared to a negative growth rate -2.5% in 2005. Strong growth was observed particularly in healthcare (22.4%) and education (6.3%) as construction of hospitals, schools and other culture-related buildings increased.

### Top construction companies

Two of Europe's largest construction companies, VINCI and Bouygues, are French. Naturally, they are the most important players in the French market. However, there are also many smaller companies in the market that compete effectively on a local or regional basis:

No.	Company name	FY end	Total revenue (€m)	Construction revenues (€m)	Net income (€m)
1	VINCI	Dec 06	25,634	21,506	1,270
2	Bouygues	Dec 06	26,408	18,970	1,246
3	Colas (Bouygues)	Dec 06	10,717	10,717	402
4	VINCI Construction	Dec 06	10,617	10,617	342
5	Eiffage	Dec 06	10,745	9,255	377
6	Eurovia (VINCI)	Dec 06	7,235	7,235	202
7	Bouygues Construction (Bouygues) VINCI Construction	Dec 06	6,923	6,923	211
8	France Eiffage Travaux	Dec 06	5,166	5,166	170
9	Publicis	Dec 06	3,635	3,635	119
10	Eiffage Construction	Dec 06	3,370	3,370	175
11	Fayat	Dec 06	1,912	1,912	92
12	Spie Batignolles VINCI Construction	Dec 06	1,120	840	24
13	Grands Projects	Dec 06	778	778	40

### PFI/PPP and concessions

In France, transport is one of the major sectors that looks set to flourish since the passing of PPP legislation in 2004. The Government appears keen to see many of its transport infrastructure projects – including roads, rail, and even canals – built and operated under PPPs.

In road building, major projects coming up include the A88 project linking Caen and Sées (worth €100m) and the A4/A86 project which is designed to improve traffic circulation around the East of Paris. In January 2006, rail network operator Réseau Ferré de France was authorised to carry out projects under PPP. The major projects expected in the rail sector are the €4.5bn High Speed Line South Europe Atlantic (LGV SEA) between Tours and Bordeaux, the €1bn GSM-R sol-train radio modernisation, and the €1.2bn Nîmes-to-Montpellier rail bypass (CNM). The state-owned canal operator, Voies Navigables de France, issued a tender in late 2006 calling for a financial adviser for the 130km Seine Nord project, worth up to €4bn.

**European Powers of Construction 2007**  
 Analysis of key players and markets in construction

In the healthcare sector, the major project on the agenda is the €330m design, build, finance, and management of the 1,000-bed Southern Ile de France Hospital. The other three major projects coming up in this area are the €200m Saint-Nazaire Hospital, the €120m Bourgoin-Jallieu project, and the €100m Caen Hospital.

Many major foreign banks and financial institutions have started taking an active interest in the French construction market, as they feel returns on equity of 10-14% are possible on some PPP projects.

**M&A activity**

Seller	Unit sold	Buyer	Deal size (€m)	% sought
French government	ASF	VINCI	5,933	50.37%
French government	APRR	Eiffage/Mig-Macquarie Infrastructure Group	4,841	70.2%
French government	SANEF	Consortium HIT (including ABERTIS)	4,030	75.7%
Lafarge	Lafarge Roofing	PAI Partners	2,400	100%
	Effiage	Sacyr y Vallehermoso	1,780	30.33%
AMEC	AMEC Spie	PAI Partners	1,040	100%

Note(s): Exchange rate used USD1.26 = €1.

## Germany

### German market statistics

Germany	2006	2005
GDP at market prices (€bn)	2,307	2,241
Real GDP growth	2.7%	0.9%
Total volume construction industry (€bn)	142.2	139.4
As % of GDP	6.4%	6.2%
Employees in construction industry	2,237,000	2,214,000
As % of working population	5.7%	5.7%
Companies active in construction industry	N/A	N/A

Note(s): Construction volume for 2006 has been calculated by taking the average growth for each quarter of 2006.

### Trends

2006 brought a long-awaited turnaround in the German construction market. The revival of demand was apparent in all construction sectors, although commercial construction drove the upsurge. Investment in replacement and expansion gained importance once again, against a backdrop of positive economic developments overall.

Even though the US and UK are nearing the end of their property booms, Germany is gaining momentum. The second quarter of 2006 has seen a 4.6% increase in construction activity – the largest in a decade, according to the Federal Statistical Office. Construction volume increased by 5.6% in 2006 and real GDP grew by 2.7% – not seen since 2000 – good news for the construction industry. The construction recession from 2000-05 cut an average of 0.6 percentage points off GDP growth p.a.

According to the IFO, spending on construction has slumped 22% in the past decade, declining on average 2% each year. This has caused hundreds of thousands of job losses. The recovery is led by commercial construction as export-driven growth spills into the domestic economy.

In residential construction, the abolition of certain tax benefits for home-ownership had a positive effect, as did certain bring forward effects from the increase in value added tax effective from 1 January 2007.

The civil engineering sector recovered from its downward slide in 2006 – growing 1.2%. Above all, the expectation that the revenue from road tolls for trucks would be invested in modernising and expanding infrastructure, gave rise to a positive forecast for the coming years. The sector is anticipated to show a slow growth rate of 1.7% in 2007. The non-residential sector also recovered in 2006, showing an increase of 6.2% after a 4.2% decline in 2005.

In public sector construction, slight growth was seen as a result of the improved revenue situation of the Federal Government, states and municipalities. In addition, increased company profits are pushing up tax revenue, fuelling public sector spending on construction.

### Building permits

After a consistent decline in the number of permits for building/construction work from 2002-05, we have seen a marginal improvement during 2006 to 247,830 – an increase of 2.3% from 2005.

Permits	2002	2003	2004	2005	2006
Building/construction work	278,340	298,787	271,944	242,102	247,830
Construction of new buildings	195,389	212,334	188,449	169,024	171,485

Permits for construction of new buildings also showed an improvement in 2006 rising to 171,485 – an increase of 1.4% from 2005. Even though the total permits granted for building construction – including those for work on existing buildings – has shown an improvement in 2006, these permits showed a negative trend in the later months of the year – contrary to the upward trend in the later months of 2005. This negative trend has spilled over to 2007, with first quarter permits showing negative growth compared to the corresponding quarter of 2006.

Period	Total permits granted (including work on existing buildings)		Permits granted for new buildings	
	Number	Change over previous year (%)	Number	Change over previous year (%)
Mar 07	15,194	-41%	10,186	-45.9%
Feb 07	12,811	-45.2%	8,570	-51%
Jan 07	13,252	-47.8%	8,566	-56.5%
Dec 06	15,638	-34.3%	10,596	-41.8%
Nov 06	15,968	-18.5%	10,608	-25.2%
Oct 06	17,629	-5%	11,619	-10.5%
Sep 06	18,496	-7.7%	12,189	-12.3%
Aug 06	20,641	-2.2%	13,853	-2.2%
Jul 06	20,809	5.2%	13,635	4.3%
Jun 06	20,517	-1.5%	13,147	-3%
May 06	22,514	17.5%	14,991	18.1%
Apr 06	21,097	7%	14,800	11%
Mar 06	25,734	27.2%	18,829	30.4%
Feb 06	23,376	22.8%	17,505	28.2%
Jan 06	25,411	25.5%	19,713	32.8%

### Top construction companies

No.	Company name	FY end	Total revenue (€m)	Construction revenues (€m)	Net income (€m)
1	HOCHTIEF AG	Dec 06	15,508	15,508	89
2	Bilfinger Berger AG	Dec 06	7,509	7,509	92
3	STRABAG AG	Dec 06	1,666	1,666	113
4	VINCI Deutschland GmbH	Dec 06	1,662	1,662	7
5	Ed. Züblin Ag	Dec 06	1,626	1,626	7
6	Kaefer Isoliertechnik GmbH & Co KG	Dec 06	940	940	N/A
7	Bauer AG	Dec 06	835	467	35
8	Max Bögl Bauunternehmung GmbH & Co KG	Dec 06	680	680	N/A
9	BAM Deutschland AG	Dec 06	680	680	N/A
10	Lindner Holding KgaA	Dec 06	594	594	21
11	Goldbeck GmbH	Mar 06	562	562	9
12	Wolff & Müller GmbH & Co KG	Dec 05	528	528	6
13	Köster AG	Dec 05	495	495	10
14	Leonhard Weiss GmbH & Co Bauunternehmung	Dec 05	477	477	17

### M&A activity

Target	Unit sold	Buyer	Deal size (€m)	% sought
Bauunternehmung E Heitkamp GmbH	Heitkamp -Deilmann -Haniel GmbH/Intl Berg-und Tunnelbau Bus	HDH GmbH/Intl Berg -und Tunnelbau Bus/Helmig	70.7	51%
SUEZ SA	Tractebel Gas Engineering GmbH	Tractebel Gas Engineering GmbH/Private Investor Group	18.4	75%
Oevermann GmbH & Co KG	Oevermann GmbH & Co KG/Road Construction Operations	Heijmans NV	14.9	100%

Note(s): Exchange rate used USD1.26 = €1.

### PFI/PPP and concessions

As well as gaining significance internationally, PPPs are increasingly gaining importance within Germany. The market for toll roads should see sustained growth over the coming years, with €3-4bn of investment in toll projects expected by 2009.

In 2006, the volume of new PPP projects in Germany rose almost four-fold to €1.4bn. Schools, administrative buildings, and hospitals alone are expected to produce a PPP contract volume of €20-30bn by 2010.

The Government is planning to bring the proportion of PPP projects in public investments in line with other industrialised nations, increasing it from around 5% at present, to 15%. A guideline for economic feasibility studies for PPP projects was passed in September 2006 for this purpose.

### Other significant matters

In October 2006, Parliament passed a law to expedite the planning process for infrastructure projects. The new law limits legal action for environmental compatibility tests and the public's involvement in approval processes, thereby ensuring that the planning process is much shorter. This means that various road, rail and airport projects will get under way more quickly in future. A similar law in East Germany has been having positive effects on new infrastructure projects for several years now, and the new law extends these improved conditions to the whole of Germany.

## Greece



### Greek market statistics

Greece	2006	2005
GDP at market prices (€bn)	245.9	228.2
Real GDP growth	4.3%	3.7%
Total volume construction industry (€bn)	N/A	17.1
As % of GDP	N/A	7.5%
Employees in construction industry	368,500	367,300
As % of working population	8.3%	8.4%
Companies active in construction industry	N/A	N/A

### Trends

Greece's GDP has improved from €228.2bn in 2005 to €245.9bn in 2006, with real GDP growth of 4.3%. The number of employees in the construction industry also increased marginally to 368,500 during 2006.

New house construction has remained strong proving one of the main drivers for the recent high rate of private investment. New permits by volume have dropped 19.3% to 84m cu metres. Housing loan growth has dropped to the still high level of 25.8%, down from 33.5% in 2005 – the slowest growth rate since 2000.

According to Greek newspaper *Kathimerini*, 25% of prospective new home buyers have decided to rent due to the steep rise in mortgage repayments prompted by the European Central Bank's 1.75% points increase in its base rate since the third quarter of 2005.

The National Bank of Greece's study on the housing market stated that during 2000-05 house prices increased by an average of 11% p.a. The rate of growth in house prices has decelerated to around 5% and they forecast that the rate of increase will slow to 2.5% for 2007 and 2008.

Projects worth circa €3bn should be awarded up to 2008, on top of the BOOT projects already tendered, according to the Ministry of Public Works. These include infrastructure projects such as the extension of the Athens metro system and the Athens ring road.

The Government is seeking to generate investment through joint ventures between the private and the public sector – for example, through the development of concession agreements for running publicly-owned facilities such as ports and construction infrastructure through PPP. In March 2007, the Government approved €2.5bn in PPP projects for infrastructure such as fire stations, court buildings and schools.

The increasing Government preference for BOOT projects due to fiscal strain, favours large contractors who have experience in project management, strong execution capabilities, good fund raising capacity and strong balance sheets. Large construction groups are likely to strengthen their positions, while small contractors – with their stretched balance sheets – will find it difficult to compete and secure additional bank guarantees.

### Top construction companies

Company name	FY end	Sales (€m)	Construction revenue (€m)	Net income (€m)
Hellenic Technodomiki TEB SA	Dec 06	717.6	610.6	47.5
J&P – Avax SA	Dec 06	360.3	348.4	19.5
GEK Group of Companies	Dec 06	336.5	223.9	20.3
TERNA*	Dec 06	312.1	254.4	17.6
Pantechniki SA	Dec 06	180.3	178.2	8.3
Michaniki SA	Dec 06	166.7	100.2	25.3
AEGEK SA	Dec 06	195.2	188.9	-33.3

\*a subsidiary of GEK Group.  
Source: Published and Audited Consolidated Financial Statements as of 31.12.2006.

### PFI/PPP and concessions

Initially, Greece was wary of allowing the private sector into the public sector's domain. However, a PPP law was then enacted in 2005, and a taskforce was created to implement PPP projects in Greece.

Under the new PPP law, projects once approved by a taskforce will be implemented directly without needing to be individually approved by Parliament. It is expected that this will usher in a market-friendly regulatory environment, which will support private investment, and establish Greece as a major player in the PPP market.

Under the new law, a first batch of construction projects amounting to 27 schools in Athens and surrounding Attica region, has been approved at a cost of €150m. The Government is also using PPP for the redevelopment of certain facilities used during the Athens Olympic Games in 2004, including the Olympic village.

The projects currently being promoted included six contracts for the construction of trans-urban or urban motorways in Greece, concerning the following road sections:

Large-scale projects implemented through concessions		
Name	Length of concession project (km)	Estimated budget (€bn)
Thessaloniki Underwater Artery (Tunnel)	6.5	0.5
Corinth-Tripoli-Kalamata & Lefktro-Sparta	205	1
PATHE/Maliakos – Kleidi	230	1.2
Motorway of Central Greece (E65)	233	1.6
Eleusina-Corinth-Patra-Pyrgos-Tsako	372	2.8
Ionian Motorway (Antirrio-Ioannina)	379	1.2
<b>Total</b>	<b>1,425.5</b>	<b>8.3</b>

### M&A activity

Buyer	Seller	Deal size (€m)	% sought
J&P-Avax SA	Athena Technical SA	45.2	55%
Ter SA	Attikat SA	22.7	21.4%
Elliniki Technodomiki Tev SA	Pantechniki SA	241.5	90%
Sfakianakis SA	Athoniki Techniki SA	16.6	49.9%
Elliniki Technodomiki Tev SA	Aktor SA	129.6	30%

Source: Greek Press, Companies' website.

## Hungary

### Hungarian market statistics

Hungary	2006	2005
GDP at market prices (€bn)	95	88
Real GDP growth	3.9%	4.2%
Total volume of construction industry (€bn)	11	10
As % of GDP	11%	12%
Employees in construction industry	322,000	315,000
As % of working population	8%	8%
Companies active in construction industry	N/A	N/A

Note(s): Exchange rate used for 2006 HUF264.27 = €1 and for 2005 HUF248.05 = €1.

### Trends

Following an unsustainable government budget deficit that reached almost 10% in mid-2006, the Government initiated structural reforms and a fiscal adjustment package that has strongly impacted the local economy and the construction sector. The GDP still grew by nearly 4% in 2006, but over the next few years the new measures will have a deeper effect and the economy is forecast to slow down before returning to healthier growth.

The construction sector's output declined by nearly 2% in 2006, mainly due to a large reduction in government investment and support programmes. Construction prices also increased further, growing significantly above the overall inflation rate.

The residential sector suffered a significant decline in 2006 – 7%, mainly due to a decrease in new construction. The number of dwellings completed in Hungary during the year was almost 34,000 units – down from 41,000 in 2005. The number of building permits issued in 2006 was also lower at 44,800 – down 13% from 2005. Foreign developers – mainly Irish, British, and Spanish – are increasingly interested in medium-sized cities outside the capital.

The non-residential construction sector was the only sector that saw growth in the Hungarian construction industry in 2006. FDI into Hungary fell only slightly – around €5bn – compared with the previous year. Foreign firms kept investing – particularly in outsourcing, building up industrial capacity, research and development, and logistics centres. In addition, the retail sector has continued to develop.

In 2006, the decline in the civil engineering sector – 3.6% – was due mainly to the Government's fiscal adjustment plans and cuts in motorway investment, however, 177km of motorway network was completed during the year. Even though a further decline in public investment is expected in 2007, motorway construction will grow faster with the support of EU funding over the next few years. Other areas of future growth are expected to be investments in the railway sub-sector (fourth and fifth European corridors) and the N4 metro line in Budapest.

### Top construction companies

No.	Company name	FY end	Total revenues (€m)	Net income (€m)
1	STRABAG Epito kft	Dec 06	806	N/A
2	Vegyepszer	Dec 06	367	20
3	HÍDÉPÍTŐ Zrt	Dec 06	337	8
4	Swietelsky csoport	Dec 05	285	5
5	Debreceni Magas-, Mély- Útépitő Zrt	Dec 05	252	12

Note(s): Exchange rate used for 2006 HUF264.27 = €1 and for 2005 HUF248.05 = €1.

### PFI/PPP and concessions

Hungary is one of the most advanced PPP markets in CEE, particularly in the road infrastructure area. Some of the large motorway projects financed under PPP schemes, like the M5, have been completed. The M6 motorway from Érdi Tető to Dunaújváros – the first real PPP infrastructure project in Hungary – was finished in 2006. Concessions company M6 Dun Autópálya Koncessziós Zrt was founded in 2004 by Bilfinger Berger, Porr Infrastruktur, and Swietelsky International Baugesellschaft. The €482m project includes the construction, operation, and maintenance of the motorway until 2026. In the next few years, the section of motorway from Dunaújváros to Pécs is also expected to be built using PPP. Government has also considered introducing shares from the state-owned motorway companies to the stock exchange, so that they can be accounted off-budget and make motorway construction a more genuine PPP. The construction of student hostels and education infrastructure using PPP financing also got under way in 2006 under a plan that includes the development, construction, and renovation of some 80 educational institutes.

In 2007, Government is expected to create a uniform financial procedure (Public Finance Law).

### M&A activity

Buyer	Seller	Unit sold	Deal size (€m)	% sought
Colas	T-road Kft	N/A	N/A	N/A
Bouygues	Sigma-Coop	N/A	100%	N/A

## Ireland

### Irish market statistics

Ireland	2006	2005
GDP (€bn)	175.8	161.2
GDP growth	6%	5.5%
Total volume of construction industry (€bn)	33.3	31.5
As % of GDP	18.9%	19.5%
Employees in construction industry	262,700	225,900
As % of working population	12.46%	12.3%
Companies active in construction industry	N/A	N/A

### Trends

Ireland's economy has been growing strongly and consistently for the past decade. In fact, Ireland has become Europe's big economic success story. The annual GDP growth has frequently topped 6%, turning it into one of the continent's richest countries. One of the most positive developments being that Ireland have also managed to turn the budget around, converting a €629m deficit in the first eight months of 2005 into a €201m surplus over the same period last year.

In conjunction with the economy, the output of Ireland's construction sector has risen rapidly over the past decade, with strong demand underpinned by both rapid economic growth and the country's demographic profile. This thriving sector grew by 6% in 2006 – amounting to €33.3bn – and construction now accounts for almost 19% of the country's total GDP, the highest of all EU countries. In 2006, the construction sector also added 37,000 new jobs to the economy.

The major driver for the construction sector remains residential construction. In 2007, it is expected that any softening of demand in the residential sector will be compensated for by increased activity in the infrastructure and public sectors. The spending on public infrastructure will be getting a further boost from Government's favourable policies. It has published the National Development Plan for 2007-13 this year, setting out over €183bn of expenditure over the period including more than €50bn of capital projects – indicating continued strong investment in infrastructure.

Another notable trend, is that many Irish businesses chose to unlock the underlying value of their property assets. Liam Carroll's acquisition of a 22% stake in Greencore, demonstrates the trend that builders are interested in buying companies that have huge land banks.

### Top construction companies

No.	Company name	FY end	Total revenues (€m)	Net income (€m)
1	John Sisk & Son Ltd	Dec 05	1319.5	39.8
2	McInerney Holdings PLC	Dec 06	630.1	48.6
3	Ascon Contractors Ltd	Dec 06	371	N/A
4	Patrick Elliot & Company Ltd	Dec 05	250	N/A
5	Abbey PLC	Dec 06	204.5	35.9
6	Bowen Construction	Dec 06	213.5	3.9
7	G&T Crampton (Holdings) Ltd	Dec 05	197.8	-0.2

### PFI/PPP and concessions

Despite a strong rise in economic growth over recent years, Ireland still has a huge infrastructure backlog – particularly in the areas of transport, energy and waste. Also, the fact that Ireland has Europe's fastest growing population could put more strain on existing infrastructure – particularly in respect of education, healthcare, and justice facilities. The Government is aware of this fact and is strongly supporting a PPP programme to accelerate growth in infrastructure development. In 2003, the Government set up the National Development Finance Agency (NDFA) to scrutinise the programme and give it stronger leadership. Subsequent legislation has allocated responsibility to the NDFA for the procurement of all future healthcare, education and justice PPP projects.

Despite of all this effort, Ireland's PPP programme has primarily been restricted to road projects utilising toll income, however, in the past year a number of projects have been started in the rail, justice, education, housing and healthcare sectors. In addition, more than €12bn worth of projects have been identified in the new National Development Plan to be procured using PPP in the period up to 2013. The continuing infrastructure gap, the increased NDFA role, the general acceptance of PPP as a delivery model, and the availability of central PPP guidance all point to a strong PPP and infrastructure market in the medium-term.

The major projects recently signed or under procurement include the €100m Criminal Courts Complex, the €400m National Conference Centre, the €400m+ Thornton Hall Prison Project, the €400m Dublin Waste to Energy Project, the €500m M50 motorway upgrade project, and a number of local authority-led housing and waste projects. In addition, the delayed €5bn Dublin Metro has just commenced procurement utilising PPP with expressions of interest currently being evaluated. The PPP route for financing projects in the education sector is expected to show strong growth after an announcement by the Education Minister that the Government plans to spend €555m on school partnerships, and PPP bids for the first group of school projects currently being evaluated.

### M&A activity

There has been limited activity over the past two years. The only notable deals have been French group Saint Gobain's €109m acquisition of the JP Corry Group, and Kingspan's €87m acquisition of the Xtratherm Group.

## Italy

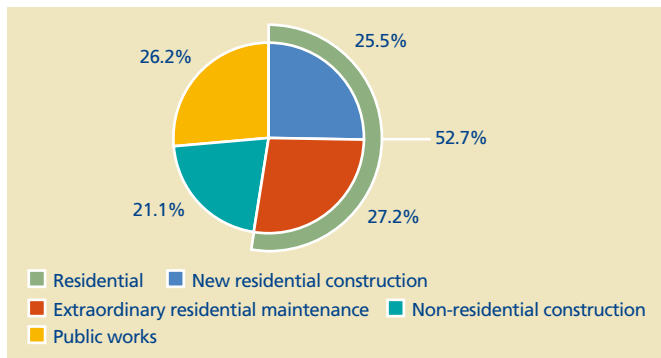
### Italian market statistics

Italy	2006	2005
GDP at market prices (€bn)	1,477	1,423
Real GDP growth	1.9%	0.2%
Total volume of construction industry (€bn)	139	137
As % of GDP	9.4%	9.6%
Employees in construction industry	1,949,347	1,913,000
As % of working population	8.5%	8.5%
Companies active in construction industry	N/A	N/A

Note(s): Construction volume for 2006 was arrived at using the EIU country report which notes that construction expanded 1.8%. Also, due to the non-availability of information for employees in the construction industry, the overall rise in employment figures from the EIU country report was also used.

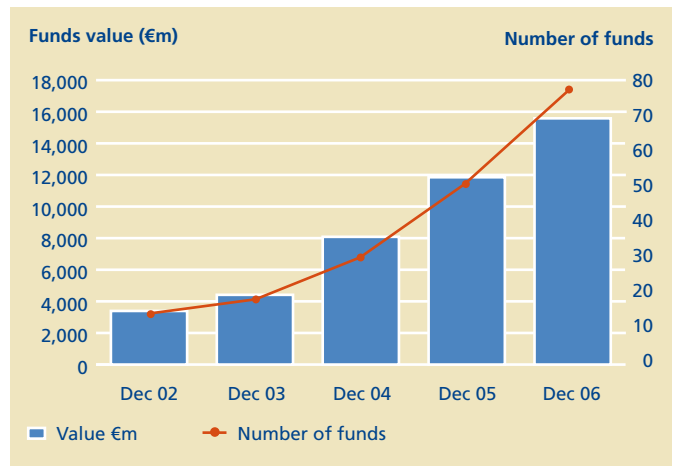
### Trends

The construction sector remained one of the more dynamic sectors in the Italian economy, growing 6.5% to €146bn in 2006. Between 1998 and 2006, investment in the sector grew by more than 25.5% – compared to a GDP growth of 11.3%. The breakdown by sub-sector can be seen in the diagram below:



As shown in the diagram, the residential sub-sector – new construction and maintenance – accounts for nearly 53% of the total investment in construction activity at around €77bn.

A major feature of the Italian construction market is the continued growth of real estate funds, which in 2006 increased to 78 and reached around €15.6bn in terms of value of funds invested. As of December 2006, of the 78 funds 52 were reserved for specialist investors and 26 were funds open to the retail market. Of the Italian real estate fund market, the total asset allocation is broken up into: 58% devoted to offices, 15% for commercial property, and the remaining 27% to residential, tourist and industrial buildings. The diagram in the next column shows the growth in funds since 2002.



### PFI/PPP and concessions

The PFI/PPP market in Italy continued to grow in 2006, reflecting the public administration's need to continue delivering services in the face of diminishing resources. The following table shows a breakdown of initiatives from 2006, in terms of value and progress of projects.

Projects 2006	Number	Total value (€m)	Average project value (€m)
Project finance – request for proposals	418	8,347	19.97
Project finance – invitation to negotiate	126	3,709	29.44
Design build and operate projects	165	1,954	11.84
Other concessions	272	3,774	13.87
Other procurement methods	27	295	10.94
<b>Total</b>	<b>1,008</b>	<b>18,079</b>	<b>86.06</b>

Source: Infopieffe.

Note(s): The data refers to projects for which a value is assigned. Requests for proposals represent the requests from the public administration inviting proposals for potential interested parties. Invitations to negotiate represent a second phase in which selected parties are invited to make specific detailed proposals and then to enter into negotiations. Design build and operate projects are orientated towards large infrastructure projects. Other represents other types of projects that are more service-orientated projects eg, the outsourcing of the provision of water services in Sicily.

From a total of 1,008 projects, local authorities were linked to 84% of these (850) and the remaining 16% (158) were linked to other entities such as regional and healthcare authorities. In terms of value, however, the local authority-sponsored projects only account for 32% (€5.9bn) of the total project value in comparison with 68% (€12.4 bn) for projects sponsored by other entities.

The major projects under way in Italy include Mestre hospital, Pedemontana Lombarda motorway, Cremona-Mantua toll motorway, and the Venice flood protection scheme.

### **Mestre hospital**

The Mestre hospital project marks the beginning of the use of PPP-style projects in the healthcare sector. This deal is worth €230m and is sponsored by a Special Purpose Vehicle compiled of major Italian contractors Astaldi (leader), Mantovani, Gemmo, Cofathec Progetti, Aps Sinergia, Mattioli, and Studio Altieri. The project started in February 2004 and is scheduled to finish by the end of 2007.

Though part of a wider PPP healthcare programme under way in Italy, Mestre is the first local scheme to follow a model in which the private sector takes on non-clinical service performance risk. It is expected that Mestre hospital, as a pathfinder project, should clear the way for other similar hospital deals to follow.

### **Pedemontana motorway**

In Italy, the most active PPP sector by far is the transport sector. The National Transport Plan indicates that much of the planned investment, about €30bn, will come from PPPs. Among the projects to be undertaken is the €4.5bn Pedemontana Lombarda motorway that will relieve traffic congestion around Milan.

### **Cremona-Mantua toll motorway**

Cintra has been appointed the preferred bidder for the Cremona-Mantua toll motorway project. The selection of a Spanish company to design, build, finance and operate the 60km Cremona-Mantua toll road in Northern Italy – value €943.8m – is notable in that it is the first time a non-Italian sponsor has been awarded a major PPP contract. Another notable aspect of the deal, is that this is the first Italian road concession to be awarded by the regional administration Infrastruttura Lombarde - instead of ANAS (Azienda Nazionale Autonoma delle Strade), the national roads body. The project is scheduled to finish in 2011.

### **Venice flood protection scheme**

Another Government backed project is the Venice flood protection scheme, known as Mose. The Government has defined the problem of safeguarding Venice and its lagoon, as being of 'primary national interest' and it has committed to proceeding with the project. Consorzio Venezia Nuova, the organisation created to realise the €4.3bn project, has received three tranches of financing for the construction work to date – totalling €1.58bn. The project is scheduled to finish in 2011.

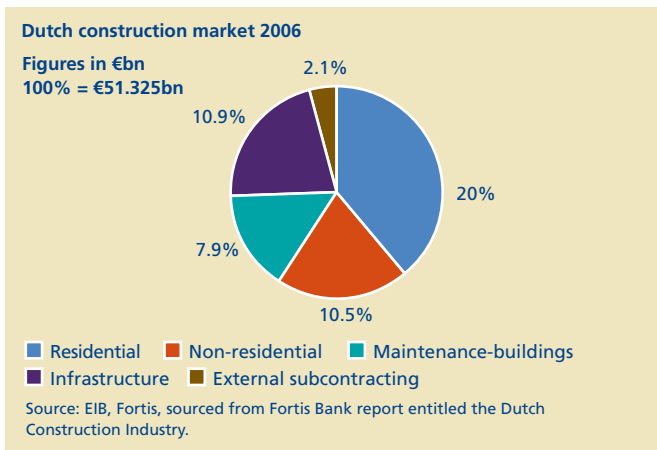
## The Netherlands

### Dutch market statistics

The Netherlands	2006	2005
GDP at market prices (€bn)	527.9	505.6
Real GDP growth	2.9%	1.5%
Total volume construction industry (€bn)	51.3	49.7
As % of GDP	9.7%	9.8%
Employees in construction Industry	N/A	367,000
As % of working population	N/A	5%
Companies active in construction industry	N/A	74,054

### Trends

The Netherlands' GDP was €527.9bn in 2006 and it achieved a real GDP growth of 2.9%. The Dutch construction market reached €51.3bn in 2006 from €49.7bn in 2005. The residential sector comprises 39% – the largest sector in the Dutch construction market.



In 2006, the new residential sub-sector remains the most important growth driver with 9.5%. The Economic Institute for the Construction Industry (EIB) is seeing a further recovery of the non-residential construction market which started in 2006. A much stronger improvement than expected, was seen in the infrastructure sector.

The EIB is optimistic for the overall construction industry. For 2007 and 2008 it is expecting growth of 4.5% and 3% respectively, which is above the economic growth forecast. For the period 2009-12, it forecasts growth of 1.5%.

Residential housing	2002	2003	2004	2005	2006
Building permits issued	67,183	72,454	76,180	83,273	96,447
Owner occupied	54,024	56,606	58,880	64,636	72,530
Rented	13,159	15,848	17,300	18,637	23,917
Houses built	66,704	59,629	65,314	67,016	72,382
Owner occupied	54,050	46,655	51,174	50,116	52,166
Rented	12,654	12,974	14,140	16,900	20,216
Permits – government and housing corporations	14,056	18,220	20,870	22,600	22,978

In 2006, 96,447 residential building permits were issued – an increase of 16% from 2005. This is the highest number of residential permits issued in nearly a decade. Houses completed during 2006, increased by 6% to 72,382; while residential building permits issued for government and housing corporation projects rose marginally to 22,978. Among the residential building permits granted during 2006, about 60% were issued to project developers, 22% to corporations, and the remainder were issued to private developers.

Nearly 5,400 more houses were completed in 2006 than the previous year, and newly-finished flats increased by 4,500. The number of newly-completed single family houses remained unchanged. The province of North Brabant has recorded the largest relative increase in finished houses at 34%.

About 80,000 dwellings became available on the housing market in 2006. The increase, apart from newly built houses, included property split into smaller units or made fit for habitation. On the other hand, about 22,000 dwellings were withdrawn from housing stock. The net increase in dwellings was 58,000 in 2005, and by the end of 2006 there were almost 7m houses in The Netherlands.

By 2010, the Government intends to accelerate housing construction and has targeted 420,000 new homes. It aims to reduce housing shortages to 1.5%, this is based on the assumption that 80,000 houses will be demolished.

Policy for traffic and transportation in The Netherlands over the long-term is defined by The Dutch Mobility Policy Document (September 2005). This envisages investment being focused on key infrastructure and overdue maintenance work. The majority of projects are expected to be initiated in 2007/2008. The Government is looking for private participation and over the next ten years it plans to expand the road network by 10%.

### Top construction companies

No.	Company name	FY end	Construction revenue (€m)	Net income (€m)
1	Koninklijke BAM Groep NV	Dec 06	8,646.1	137
2	Koninklijke Volker Wessels Stevin NV	Dec 06	4,488.4	113.3
3	Heijmans NV	Dec 06	2,942.1	82.5
4	TBI Holdings BV	Dec 06	1,658.2	35.8
5	Koninklijke Boskalis Westminster NV	Dec 06	1,353.6	117.1
6	Ballast Nedam NV	Dec 06	1,310	44
7	Dura Vermeer Group NV	Dec 06	1,116.8	23.4
8	Van Oord NV	Dec 05	1,002.3	41.9
9	Strukton Group	Dec 06	948.9	31
10	Koop Group NV*	N/A	787	N/A
11	Van Wijnen Holding NV	Dec 06	569.2	14.2
12	Aan de Stegge Verenigde Bedrijven BV*	N/A	400	N/A
13	Janssen de Jong Group BVJoh Mourik & Co Holding BV	Dec 06	463,131.18	18,817.4
14	Joh Mourik & Co Holding BVHurks Bouwgroep BV*	Dec 06	311,825.6	1,744
15	Hurks Bouwgroep BV*	N/A	256	4

\*These companies and their figures were taken from EPoC 2006 as the latest figures are not available.

Note(s): For companies that do not report construction revenue separately, sales and construction revenue are assumed to be the same.

### M&A activity

Buyer	Seller	Unit sold	Deal size (€m)	% sought
Heijmans NV	N/A	Burgers Ergon BV	71.9	100%
Heijmans NV	N/A	Herrewijnen Heiwerken BV	N/A	100%
Heijmans NV	N/A	Bouwfonds Langewold BV	17.6	100%
Heijmans NV	N/A	Oevermann Gmbh&Co	14.5	100%
Heijmans NV	N/A	Norwegian Sandstone Export	N/A	100%
Heijmans NV	N/A	Denne Construction Ltd	N/A	100%
Van Wijnen Holding	Bimo Bouw BV	N/A	N/A	100%
Van Wijnen Holding	CTJ Van Vliet BV	N/A	N/A	100%
Van Wijnen Holding	Bouwbedrijf Timmers BV	N/A	N/A	100%
Ballast Nedam NV	N/A	Gebr. Van Leeuwen Harmelen BV	N/A	100%
Strukton Group	N/A	Reef Infra BV	5	100%
Strukton Group	N/A	Stork WorkSphere	80	100%
Strukton Group	N/A	Jernbaneservice	2.6	100%
Vervat Groep	Koop Group NV	Koop GWW BV	N/A	100%

Note(s): Exchange rate used USD1.26 = €1.

### PFI/PPP and concessions

The final phase of the Dutch high speed rail project – a €2.9bn PPP – was delivered within time and budget by December 2006.

The Safire consortium – which is a joint venture between Dutch construction giant Strukton Group and ABN Amro Bank – has been made preferred partner by The Netherlands for a PPP to renovate the Ministry of Finance building. This 25 year contract is the second PPP deal that includes the design, build, finance, and operation of the building.

A consortium led by Fluor, completed the construction of the country's PPP contract for road infrastructure. The contract is for 18 years and covers design, build, finance and maintenance. This essential infrastructure between Rosmalen and Geffen will relieve traffic bottlenecks by turning an existing four-lane main road into a state motorway.

## Norway

### Norwegian market statistics

Norway	2006	2005
GDP at market prices (€bn)	266.8	242
Real GDP growth	2.9%	2.7%
Total volume construction industry (€bn)	28.7	26.3
As % of GDP	10.8%	10.9%
Employees in construction industry	N/A	159,000
As % of working population	N/A	6.9%
Companies active in construction industry	N/A	N/A

Note: Exchange rate used for 2006 NKR8.05 = €1.

### Trends

The construction industry in Norway has seen a dramatic improvement since 2004, with construction volume growing 9% to €28.7bn in 2006 and real GDP growth of 2.9%. However, during 2006 construction volume as a percentage of GDP decreased marginally to 10.8%.

The construction industry is mature. Home building can show strong growth if booming house prices drive demand for homes, while the non-residential sector is considered calm. Regulation is complex and stringent, lessening the incentive to enter the market. Despite the presence of some large players, the Norwegian construction industry is also quite fragmented.

In the first half of the 1990s, low interest rates brought the industry out of the late 1980s recession, and spurred growth in both business and household demand. In 1998, the industry benefited from the construction of a new hospital in Oslo, and the new Gardermoen airport with dedicated railway line. 2001 then saw a high level of activity in the public sector before an economic slowdown in late 2002, which led to fewer new housing starts in early 2003. A sharp fall in interest rates in late 2003 and early 2005 then fuelled the housing boom that continues today; the pace of construction investment is likely to slow down due to the onset of higher interest rates.

Dwellings	2002	2003	2004	2005	2006
Buildings completed	21,744	21,405	23,609	29,544	28,554
Building work started	22,980	23,177	29,999	31,608	33,314
Buildings under construction	26,986	28,084	33,482	33,971	37,525

The number of houses started each year has shown a continuous increase since 2002, reaching 33,314 dwellings in 2006 – an increase of 5% from 2005. Dwellings under construction have also increased by 10% in 2006, however, completed dwellings saw a marginal decline to 28,554.

The building and construction industry has seen the highest employment growth in 2006, owing to the property and investment boom.

### Top construction companies

Company name	FY end	Sales (€m)	Construction revenue (€m)	Net income (€m)
Veidekke ASA	Dec 06	2,042.9	1,618.2	88
Skanska Norge AS	Dec 05	973.8	973.8	36.2
AF Gruppen ASA	Dec 06	659.2	659.2	16.7
NCC Construction AS	Dec 05	496.5	496.5	12.4
Backe AS	Dec 05	235.1	235.1	7.6
Reinertsen Anlegg AS	Dec 05	146.5	146.5	0.9

Note(s): For companies that do not report construction revenue separately, sales and construction revenue are assumed to be the same.

### M&A activity

Buyer	Seller	Unit sold	Deal size (€m)	% sought
AF Gruppen ASA	Energi & Miljøteknikk AS/Holst & Bra AS	N/A	N/A	100%

## Poland

### Polish market statistics

Poland	2006	2005
GDP at market prices (€bn)	271	243
Real GDP growth	6.1%	3.6%
Total volume construction industry (€bn)	27	24
As % of GDP	10%	10%
Employees in construction industry	653,000	623,000
As % of working population	5%	5%
Companies active in construction industry	N/A	N/A

Note(s): Exchange rate used for 2006 Z13.90 = €1 and for 2005 Z14.03 = €1.

### Trends

During 2006, the Polish economy showed rapid growth of over 6%. The Government put off fiscal reforms, unemployment kept on falling – still high at 14% – and wage growth rose fast. Real growth in construction volume approximately doubled the overall GDP growth achieved over the year, while the levels of construction costs were notably higher than inflation.

More than 115,000 houses were completed in 2006 – an increase of 1.1% from 2005. Demand for new housing continued to be strong, due to favourable labour market conditions and increased use of mortgages. House prices showed strong rises in all of the main Polish cities: Warsaw, Cracow, Lodz, Wroclaw, Tricity (Gdansk, Gdynia and Sopot), and Poznan. The volume of construction permits for dwellings issued in 2006 was 168,000 and overall, the prospects for the coming years are for strong growth in the residential sector.

The non-residential sector grew nearly 10% in 2006, particularly in the industrial and storage sub-sectors, which benefited from strong FDI of more than €11bn. In addition, the commercial and office buildings sub-sector grew considerably, although at a slower rate.

Civil engineering recorded the most dynamic growth among the construction sectors in 2006 at almost 20%. The fastest growing sub-sector was road construction; this is where the Government is targeting most of its investment effort, and it is supported by a much higher inflow of financial support from the EU Cohesion Fund. The railway sub-sector also made good progress, growing more than 20% in 2006. For the next few years, very strong growth in road, rail and airport infrastructure projects is expected.

The main problems facing the Polish construction industry include building material and labour shortages. We are seeing building material shortages due to a sharp rise in construction activity; the large-scale emigration of Polish construction workers in 2004-06 means that skilled workers are in short supply. Concerns have been raised that these shortages might mean the country's construction industry is not able to cope with the large EU-funded infrastructure projects due to start in a few years' time.

Nevertheless, the overall prospects for the construction industry in Poland are very positive with growth rates of more than 10% predicted for the next three to five years. Most of this growth is expected to be in the infrastructure sector, as Poland gets closer to Western European infrastructure standards.

### Top construction companies<sup>1</sup>

No.	Company name	FY end	Construction revenue (€m)	Net income (€m)
1	Budimex SA	Dec 06	781	1
2	Skanska Exbud	Dec 06	745	29
3	Polimex–Mostostal Siedlce SA	Dec 06	637	19
4	STRABAG SP Zoo	Dec 06	551	N/A
5	Mostostal Warszawa SA	Dec 06	305	5

Note(s): Exchange rate used for 2006 PLN3.90 = €1.

### PFI/PPP and concessions

PPP in Poland is regulated by a 2005 law, which is supplemented by three decrees issued in June 2006. The Government is aiming to reduce internal bureaucracy and it is estimated that the legislation could result in savings of 10% on infrastructure spending. The legislation is also targeted at encouraging small and medium-sized enterprises to participate in PPPs.

To date there are very few examples of completed PPP projects in Poland, however, two noteworthy projects in Poznań and Kraków are based on the build-operate-transfer model where private partners have built car parks and will operate and charge fees – for 39 and 70 years respectively – before ownership is transferred back to the municipalities. Another project currently under way is Aqua Park in Wrocław.

Key problems facing PPPs in Poland continued to be a lack of public awareness and the reluctance of the private sector to do business with the public sector. This is partly due to the fact that there have been very limited sources of information on PPPs until recently; Poland's Ministry of Infrastructure has now set up several working groups within which new large-scale initiatives are to be discussed and approved.

Areas which offer interesting opportunities for PPP projects over the next few years are roads, rail, sewage disposal, hospitals and prisons.

## M&A activity

Buyer	Seller	Unit sold	Deal size (€m)	% sought
Polimex-Mostostal Siedlce SA	Energomontaz Polnoc	N/A	150.6	85%
Acciona SA	Mostostal Warszawa SA	N/A	48.8	50%
Polimex-Mostostal Siedlce SA	Torpol Sp zoo	N/A	6.2	100%
Walls A/S	Cityland Park Sp zoo	N/A	0.2	49%
Grupo Ferrovial SA	Land-Pro	N/A	N/A	100%
CRH PLC	Pater Firm Bruk Company	N/A	N/A	100%
Skanska	Jedynka Projekt Poznańskie Przedsiębiorstwo Projektowe SA	N/A	N/A	95%
STRABAG	Augustowskie Przedsiębiorstwo Drogowe SA	N/A	N/A	100%

Note(s): Exchange rate used for 2006 Zl3.9 = €1.

## Portugal

### Portuguese construction statistics

Portugal	2006	2005
GDP at market price (€bn)	155	149
Real GDP growth	1.3%	0.5%
Total volume of construction industry (€bn)	25.19	26.03
As % of GDP	16.25%	17.47%
Employees in construction industry	560,100	544,800
As % of working population	10%	9.76%
Companies active in construction industry	>92,927	>92,927

Note(s): Exchange rate used for 2006 Z13.9 = €1.

### Trends

The economy has grown sluggishly over the past few years; although the GDP growth rate in 2006 was 1.3% – compared to 0.5% in 2005 – it was still lower than the EU average for the seventh year running. In 2006, the economy was also negatively affected by a rate increase from the European Central Bank, impacting corporate investment capacity, household consumption, and state spending. The construction industry has been adversely affected by the slow economic growth, and as a result the confidence indicator for the industry deteriorated to the lowest level for three years. The construction sector output in 2006 was €25bn – a decline of around 3% from 2005. However, the sector continues to be an important employer in the Portuguese economy, accounting for almost 10% of the labour force last year.

The number of building permits issued in 2006 decreased for the sixth year running – down 4% with only 48,352 permits being approved. This led to a 17.6% decrease of work completed in 2005.

An improvement in the construction sector is unlikely before 2008 as the Government has postponed major public works like the construction of the new international airport. However, with an expected GDP growth of 1.8% the sector may see a small improvement in 2007.

### Top construction companies

No.	Company name	FY end	Construction revenue (€m)	Net income (€m)
1	Mota-Engil	Dec 06	1,308	32.2
2	Teixeira Duarte	Dec 06	755.8	114.2
3	Somague-Engenharia	Dec 06	661.7	2.4
4	Soares da Costa	Dec 06	562	5.8
5	OPCA	Dec 06	220.7	4.5

### PFI/PPP and concessions

In 2006, according to an estimate from Parública – the public company responsible for the management of public participations and the preparation and negotiation of PPPs - investment in existing partnerships reached €1bn, about 0.7% of the 2006 GDP.

In the healthcare sector, a second hospital is about to be constructed in Portugal using PPP. Hospital de Cascais is expected to attract €400m in investment, and a public tender has been started in which a consortium including: Hospitais Privados de Portugal, Portuguese bank Caixa Geral de Depósitos. Construction company Teixeira Duarte is well positioned. The first Portuguese PPP scheme for the construction of a hospital in Loures, however, is expected to invite tenders again.

In September 2006, the construction of the Hospital do Algarve was also announced and is expected to open by 2012. This represents an investment of €170-200m and should provide an answer to the issues facing healthcare in the region. The priority, however, remains the new hospital in Lisbon – Hospital de Todos-os-Santos – which according to a series of studies is most urgently needed.

In transport concession, a Portuguese subsidiary of Spain's Cintra Group won a 30 year contract worth €408m to build and operate an 87.5km toll road. In another motorway concession project, the Lusolisboa consortium led by Portuguese construction company Mota-Engil, has been granted a 30 year license to construct, operate, and maintain a new 24.6km stretch of motorway.

Brisa and Mota-Engil are included in the shortlist for the construction of a new 122km motorway to be built around Oporto by 2010, a 30 year concession valued at €700m. The consortia shortlisted Brisa, Mota-Engil, Soares da Costa, Somague, and Dragados who were also considered for the construction of the Túnel do Marão. The project includes the concession and construction of two motorways, and the maintenance of a third measuring 30km and valued at about €350m.

Also in transport a concession, an important investment has been approved concerning the €300m development of the Metro do Mondego – a suburban railway connecting Coimbra to Lousã. This project is expected to attract private investments, and a French public transport operator has already shown interest.

Another PPP project has recently been announced relating to the creation, financing, construction, and exploration of a Logistics Platform worth €500m. A consortium comprising Mota-Engil, BES and Bento Pedroso Construções has shown interest in the project.

For PFI, there has been a public tender for the award of capacity for selling wind-powered electricity through the national distribution system.

In the energy sector, a public tender held up to March 2006 for the attribution of licenses for wind energy exploration.

There are still four consortiums in dispute: EDP, Galp, Iberdrola, and Unión Fenosa/Enel. These projects are expected to generate investments of around €1.6bn and a key aim for the Government is to increase production of renewable energy, by up to 3,750 megawatts, by 2010. Investments of about €8bn are expected by 2012, 90% of which will be financed by private investors.

Also in the energy sector, BESI (the investment bank of Banco Espírito Santo) won Deal of the Year 2006 for a renewable energy project finance deal. The bank led the restructuring and assembly of finance for Enersis' (Babcock & Brown Group) wind and water project portfolios in a €985.5m operation.

Regarding water supply and sanitation, from 2006-13 the Government plans to invest €5bn in finishing the necessary infrastructure to assure connection of 90% of the population to the water supply system and 85% to the sewer system. The project has been named Plano Estrategico de Abastecimento de Agua e Saneamento de Aguas Residuais (PAASAR2) and is expected to be financed with the help of EU funds.

#### **M&A activity**

Portuguese civil construction and engineering company OPCA is on an acquisition spree in order to double its turnover in 2007 compared to 2005. OPCA's biggest deal for 2006 was the acquisition of a 70% stake in Sarrion – a Spanish construction company – for more than €100m.

In other deals, OPCA bought 50% of the Portuguese railway contractor Promorail from local builder Edifer for an estimated €9m, and it also bought Pavicentro – a Portuguese building products maker.

In another major deal, Portuguese construction company Mota-Engil acquired port operator Tertir for €19.4m.

## Romania

### Romanian market statistics

Romania	2006	2004
GDP at market prices (€bn)	97	78
Real GDP growth	7.7%	4.1%
Total volume of construction industry (€bn)	8.7	7.3
As % of GDP	9%	9.4%
Employees in construction industry	N/A	426,000
As % of working population	N/A	5%
Companies active in construction industry	N/A	30,000

Note(s): Exchange rate used for 2006 LE13.53 = €1 and for 2005 LE13.63 = €1.

### Trends

The Romanian construction industry increased by 19.4% to €8.7bn in 2006 whereas, real GDP growth increased 7.7%. Inflation declined considerably but was still at 5%. Growth prospects remain positive – with investments expected to remain the fastest-growing component – following the strong stimulus arising from FDIs and the larger number of programmes co-financed by the EU.

Value of new orders in construction				Change in 2006 (%)
€m	2004	2005	2006	
Residential buildings	279	872	1,091	25.1%
Non-residential buildings	769	1,208	1,708	41.4%
Civil engineering	1,981	3,179	4,753	49.5%
Total	3,029	5,259	7,552	43.6%

Source: National Institute of Statistics, taken from IntelliNews report, ISI Emerging Markets.

According to the National Institute of Statistics the total value of new construction orders increased 40% in 2006. Of these, the largest increase seen was in civil engineering (45%).

In 2006, the number of houses in progress increased 9% with 38,178 completed (up 16% from 2005 figures). Nevertheless, the volume of new residential construction is still very low, compared with the estimated shortage of housing in the country (1m homes). In 2006, house prices continued to increase across the country, especially in the larger towns.

The commercial market has risen dramatically in recent years. The country is seeing increasing interest and activity among developers keen to enter the market. With a population of over 21m, it is now the second most populous country in CEE. The large target market and low saturation of the commercial property market, are factors behind the increase in construction. In 2006, bank branch openings were also a major source of growth in the commercial sub-sector, and office building construction grew significantly as Bucharest has become a major centre for IT outsourcing.

Romanian infrastructure is poor compared to other EU member states in the region. The length of motorways in 2006 was just 600km. The Government embarked upon a massive €12bn programme of motorway construction in 2004, involving building more than 1,000km of motorway by 2013. Expenditure of €2.6bn has been planned for 2004-07. Romania's National Development Plan for 2007-13 expects strong financial support from the EU, mainly from the Convergence Programme and the Cohesion Fund.

Major infrastructure projects planned include building a motorway from the Transylvanian city of Brasov to Arad in Western Romania to increase trade with Western Europe, and rail upgrades from the Black Sea port of Constanta to Curtici, near the border with Hungary.

Additionally, to meet EU environmental regulations, the authorities will be required to invest in large scale infrastructure projects for the renewal of water and sewage systems, especially in rural areas. Romania is estimated to need investment of at least €15.9bn to solve its environmental problems.

The construction industry is seeing labour shortages, as the country's construction workers seek better paid employment within Europe. This is expected to put considerable strain on the industry in future, as construction momentum is likely to continue over the next decade. Some estimates indicate demand for an additional 600,000-700,000 workers, which could even come from other countries such as China or Pakistan.

An increase in construction activity is expected over the next decade, in both the private and public sectors, due to consumer demand for shopping malls, housing (as new mortgage instruments are expanded), and investment growth in infrastructure such as motorways and power generation.

According to the National Forecast Commission, the construction industry is likely to grow 17% in 2007 – slightly lower than the 19.4% growth seen in 2006. As the industry becomes more mature, the growth rate is likely to decrease slowly, but the National Forecast Commission expects construction to be the most dynamic sector until 2011, with growth rates almost double that of the economy.

### Top construction companies

No.	Company name	FY end	Total revenue (€m)	Net income (€m)
1	Hidroconstructia SA	Dec 06	237	9
2	TMUCB SA	Dec 05	49	N/A
3	ENERGOCONSTRUCTIA SA	Dec 05	45	N/A
4	Arcom SA	Dec 05	37	N/A
5	IMPACT SA	Dec 06	33	5

Note(s): Exchange rate used for 2006 LE13.53 = €1 and USD1.26 = €1.

### PFI/PPP and concessions

In Romania, use of PPP is in its infancy. One of the beneficiaries of PPP is the public healthcare system. Local authorities in Timisoara have initiated a PPP, covering various needs of the Municipal Hospital estimated to be worth €59m. Also, the Government is aiming to encourage use of PPP projects to finance student accommodation.

The country aligned its public acquisition legislation with EU regulations in June 2006 – particularly the Government Emergency Ordinance No. 34/2006 – which regulates the award of procurement and concession agreements for public works and services.

### M&A activity

Buyer	Seller	Unit sold	Deal size (€m)	% sought
Grupo PRASA	Silva Group	N/A	N/A	N/A
Vinci (Eurovia)	Viarom Construct SRL	N/A	N/A	80%

Note(s): Exchange rate used LE13.53 = €1 and USD1.26 = €1.

## Russia

### Russian market statistics

Russia	2006	2005
GDP at market prices (€bn)	754.4	633.3
Real GDP growth	6.7%	6.4%
Total volume of construction industry (€bn)	62.5	30.6
As % of GDP	8.29%	4.8%
Employees in construction industry	N/A	4,899,000
As % of working population	N/A	7.3%
Companies active in construction industry	130,000	N/A

Note(s): Exchange rate used for 2006 RB35.5 = €1 and USD1.26 = €1 and for 2005 RB34.14 = €1.

### Trends

The Russian economy has been growing at an average annual rate of 7% since the financial crisis in 1998. Construction volume in the industry reached about €62.5bn in 2006, contributing 8.29% towards GDP. There are more than 130,000 organisations and enterprises in the Russian construction industry and, of these, small businesses – less than 50 employees – constitute about 90%.

In 2006, about 45m m<sup>2</sup> of residential buildings were constructed. More than 170,000 new homes were completed in the first half of 2006 – up 12% from 2005. The national affordable housing project, which started in 2006 – coupled with the accelerating mortgage boom – are likely to increase demand for new housing in the future, and the Russian mortgage market is likely to reach €12bn by 2010.

Transport infrastructure and housing utilities are in need of urgent upgrading/repair, but the Government is short of funds and lacks the legal framework to attract money to public services. The Government hopes for a better housing system, with large-scale new housing construction. To provide affordable housing, it aims to finance a 30% increase in housing construction. €2.8bn has been allocated as part of this, in state guarantees to the Agency for Mortgage Credits and Direct Expenses – up from €563m.

Large projects in the infrastructure sector focused on the construction and modernisation of terminals for ports, airports, and railway stations, as well as the development of new rail networks and motorways. President Vladimir Putin's medium and long-term initiatives include investing €2.8bn in infrastructure development. This would be used for the reconstruction of major transport corridors, motorway construction, investment in internal waterways, and development of ports. Also on the agenda, is establishing a €7bn fund for moving residents out of dilapidated housing and repairing housing stock in the next four to five years.

Business Monitor International predicts average annual construction growth of about 9% for 2007-11. The country's anticipated entry into the World Trade Organisation and improved credit ratings are expected to offset any deceleration in Russian growth. Also, the key driving force for the construction industry will be the Government's ambitious plans for improving the country's infrastructure.

### Top construction companies

No.	Company name	FY end	Total revenue (€m)	Net income (€m)
1	Gazpromstroyengineering	Dec 05	1,554	4
2	Transstroy Corporation	Dec 05	743.7	35
3	Globalstroy-engineering	Dec 05	690	26
4	Stroytransgaz	Dec 05	578	1
5	DSK-1	Dec 05	532	8
6	Lengazspetsstroj	Dec 05	496.8	17.2
7	LGSS	Dec 05	479	17
8	Mosstroymekhanizaciya-5	Dec 05	350.6	7.6

Note(s): Exchange rate used for 2005 RB34.14 = €1.

### PFI/PPP and concessions

PPP projects in Russia have grown in popularity since the mid-1990s, and the Government announced in 2005 a €2bn special purpose budgetary investment fund, to be used to fund infrastructure projects under PPP.

The first PPP projects in Russia were for wastewater treatment facilities. Energy projects are now gaining momentum, and a private investor started constructing Tereshkovo energy power station in July 2005, which will subsequently be transferred to the city of Moscow.

Transportation infrastructure projects are a dynamic area. The rapidly growing need and the country's huge territory are being reflected in the newly-adopted national economic development doctrine. Several PPP projects have been announced by the Russian Ministry of Transport, including the Western high-speed ring road around St Petersburg and the Central Ring motorway in Moscow.

Russia has unveiled an ambitious plan to build the world's longest tunnel under the Bering Strait, as part of a transport corridor linking Europe and the US via Siberia and Alaska. This is a 106km long tunnel which would be built at a cost of €51.5bn; a PPP would fund and run this project.

**M&A activity**

Buyer	Seller	Unit sold	Deal size (€m)	% Sought
Kapital-Invest ZAO	Government of Russia	Spetspromzhilstroj OAO	7.38	65%
Government of Russia	Ust-Luga OAO	N/A	5.56	9%
Zelenyj mys OAO	Government of Russia	Mospromradiostroy SPK OAO	1.43	65%
Permdorstroy OAO/Panteleev Sergey	Permdorstroy OAO	N/A	0.48	15%
Story-7 OOO	Tsentrdomstroy OA	N/A	0.14	26%
Mostekstil OAO/Lukashenko Ivan	Mostekstil OAO	N/A	0.1	50%
Neftegazmontazh OAO/Melkonyan Stepan	Neftegazmontazh OAO	N/A	0.03	20%

## Slovak Republic

### Slovakian market statistics

Slovak Republic	2006	2005
GDP at market prices (€bn)	47	38
Real GDP growth	8.3%	6%
Total volume construction industry (€bn)	4	3
As % of GDP	9%	8%
Employees in construction industry	226,100	209,800
As % of working population	10%	9.5%
Companies active in construction industry	N/A	N/A

Note(s): Exchange rate used for 2006 SK34.57 = €1 and for 2005 SK37.85 = €1.

### Trends

In 2006 the Slovakian construction industry reflected the country's strong economy, experiencing a construction boom – growing 15%. Economic growth of 8.3%, relatively low inflation at 4.5%, unemployment stood at 13%, and household consumption was up, while the Slovak crown strengthened. The newly-elected Government confirmed that there will be no major changes in economic policy and remained committed to the introduction of the Euro in 2009.

Residential construction experienced strong growth of just over 17%. 14,400 houses were completed, while 20,600 were started. Most of the activity was in Bratislava, as well as other cities which are benefiting from large amounts of foreign investment such as Zilina, Trnava, and Nitra. Slovakia is estimated to need a further 250,000 new houses and apartments, and this long-term shortage will be the main driving force to the development of the sector.

Non-residential construction also saw strong growth of more than 17%. This was largely due to the strong flow of FDI into the country, mainly in the form of greenfield investment. The office sub-sector performed best through 2006 growing over 21%.

Civil engineering experienced the strongest growth in the road sector. At the end of 2006, Slovakia had 349km of motorways and 136km of motorways the Government has plans to build a further 704km of motorways and 833km of speedways.

Investments in railway construction, were directed mainly at the reconstruction and modernisation of railways in Western Slovakia and stations in East Slovakia (Presov and Poprad), as well as track electrification in Central Slovakia. Further investments have been made in the Paris-Viena-Bratislava railway corridor and the connection to Bratislava airport. There are also plans to invest €5.3bn, up to 2015, in waterworks.

As per the Public Works Priorities Development Programme, submitted by the Ministry of Construction and Regional Development, priority public works projects worth €9.7bn are planned for 2007-09. Out of these projects, 299 (worth €6.2bn) will be co-financed by EU funds. The projects relate to water management, motorway construction, education, justice, improving the environment, culture, and state administration.

The construction industry is facing a shortage of qualified workers. At the end of 2006, the anti-monopoly office ruled that a cartel agreement existed among six construction companies (including the top four in Slovakia) regarding the construction of the under-Tatra motorway. As a result, the six companies were fined and banned from participating in public tenders in Slovakia and the EU for five years (the companies went to court to resolve the case and request the ability to operate further, this case is currently being appealed).

Apart from this, the outlook for the Slovakian construction industry is quite positive. With the need for additional housing, further inflows of greenfield FDI and EU funds for infrastructure projects are likely to be driving forces going forward. The civil engineering and residential sectors are expected to be the most dynamic.

### Top construction companies

No.	Company name	FY end	Total revenue (€m)	Net income (€m)
1	Doprastav as	Dec 06	370	13
2	STRABAG (including ZIPP BRATISLAVA spol sro)	Dec 06	300	N/A
3	Inzinierske stavby as	Dec 06	205	N/A
4	Skanska SK as	Dec 06	157	N/A
5	Vahostav – SK as	Dec 06	135	N/A

Note(s): As the latest figures are not available, the figure reported in EPoC 2006 has been repeated. Exchange rate used for 2006 SK34.57 = €1 and CZK28.34 = €1.

### PFI/PPP and concessions

In Slovakia, PPP is a fairly a new concept. The basic legislative framework for procurement via the awarding of concession contracts to the private sector has been in place since 1996, however, PPP did not gain much recognition until after 2000.

Slovakian legislation still lacks specific regulation for PPP projects, but several public law regulations may apply to PPP – such as the Public Procurement Act, laws governing the administration of property owned by the state, and the Electronic Tolling System act. Nevertheless, the implementation of complex PPP projects may require several additional legal amendments.

Through PPP, the Government is planning to develop up to eight sections of the D1 motorway from Bratislava to the Polish border. The eight sections will be tendered in five different lots of around €400m each.

The Government has plans to introduce an electronic toll project to be operational by 2007 and was considering a PPP arrangement. It also supported plans to construct the so-called starter flats using a PPP model.

The newly-elected Government is not as keen on PPP as the previous one, although it did not exclude it as a possibility for financing highway construction.

### M&A activity

Buyer	Seller	Unit sold	Deal size (€m)	% sought
Skanska AB	Stamart Martin sro	N/A	N/A	100%
Doprastav	Priemysel kameÄa	N/A	N/A	100%

## Spain

### Spanish market statistics

Spain	2006	2005
GDP at market prices (€bn)	976	905
Real GDP growth	3.9%	3.5%
Total volume construction industry (€bn)	185.2	174.7
As % of GDP	19%	19.3%
Employees in construction industry	2,542,900	2,357,200
As % of working population	12.9%	15%
Companies active in construction industry	N/A	225,000

Note(s): There is a change in the construction volume reported in EPoC 2006 (taken from a Datamonitor report) and the current document (figure taken from ACS' Annual Report).

### Trends

Spain's construction industry volume increased 6% to €185.2bn in 2006. However, the percentage of construction volume to GDP decreased from 19.3% in 2005 to 19% in 2006. With a 6% increase in construction activity, real GDP grew by 3.9%; and a 5.5% upturn in gross fixed capital formation, Spain recorded higher than average growth compared to other EU countries.

Spain holds third position in the EU construction market, with 15.2% of the total – behind Germany (18.3%) and France (15.7%).

Investment in infrastructure by the central administration			
	2006 (€m)	2007 (€m)	Change
Roads	3,500	4,186	19.6%
Railways	5,777	5,570	-3.6%
Ports and maritime safety	1,414	1,289	-8.8%
Airports and airline safety	1,798	2,058	14.5%
Hydraulic works	3,219	3,521	9.4%
Environmental actions	N/A	436	N/A
Other	499	367	-26.5%
<b>Total</b>	<b>16,233</b>	<b>17,427</b>	<b>7.4%</b>

Source: Spanish Ministry of Economy and Finance, taken from ACS Annual Report 2006.

Spain's central administration has forecast a 7.4% increase in infrastructure investment, including a noteworthy 19.6% increase in road development (worth €4,186m.)

The construction industry accounts for a higher proportion of the GDP than in most other European countries. This is due to a high level of investment in infrastructure, and strong demand for second homes and tourist-related buildings.

The Strategic Plan for Infrastructure and Transport (PEIT) aims to improve Spanish infrastructure in the period 2005-20. Planned investment amounts to about €250bn, which accounts for an annual average of €15.5bn and represents about 1.5% of GDP. Of the proposed investment, 60% will be charged to general state budgets, 20% will be contributed by public entities such as AENA, ADIF, SEITT and Ports of Spain, and the remaining 20% will come from PPPs. The planned areas of focus are railways, roads, air, and marine transport and ports. In 2006, more than €16bn of the overall budget was spent, underlining the Government's commitment to improving infrastructure.

Residential building is the construction industry's biggest sub-sector and in 2006 it rose 8.5%. The strong, sustained growth of the Spanish economy (including more than a decade of the GDP growing at above 3%), demographic factors (baby boomers entering the real estate market), social factors (immigration, decrease in the number of inhabitants per home), and low interest rates have spurred the property market in recent years. Applications for 864,000 permits were received in 2006 – a third of all new units in Europe – and 585,000 homes were completed in 2006.

Non-residential building accounted for 16%, rising 1% in 2006. Building, refurbishment, and maintenance constituted 24%, an increase of 4% in 2006. Civils increased 7.5% and made up 24% of the total construction industry in 2006.

For 2007, forecasts are encouraging even though this would be moderate in comparison to the 2006 figures. Civil engineering is expected to grow at 5%. In the long-term, the residential market boom is expected to end, dipping to an annual demand in the range of 400,000-500,000 homes.

As the country is entering a period of electoral activity, and government finances are in excellent shape, public works seem likely to increase. However, historically, electoral years show a decline in the Government's bidding activity. The value of public construction tenders increased by 31.2% in 2006 – which should translate into higher activity in the near future.

### Top construction companies

A small number of construction giants dominate the Spanish construction sector. Most of the large groups have been actively diversifying in recent years to reduce their exposure to the booming – but cyclical – property market.

Company name	FY end	Sales (€m)	Construction revenue (€m)	Net income (€m)
Gruppo Ferrovial	Dec 06	12,355	12,355	1,426
ACS Actividades de Construcción y Servicios	Dec 06	14,067	6,776	1,250
Fomento de Construcciones y Contratas	Dec 06	9,481	4,395	536
Grupo Acciona	Dec 06	6,272	3,557	1,370
Grupo Obrascón Huarte Lain	Dec 06	3,278	3,194	105
Grupo Sacyr Vallehermoso	Dec 06	4,685	3,038	542
Grupo Isolux-Corsan*	Dec 06	1,500	823	12
Grupo San José Sa	Dec 06	1,311	1,112	57
Grupo Comsa*	Dec 05	863	863	25
Grupo Aldesa	Dec 06	697	654	30

\*These companies and their figures have been taken from EPoC 2006.  
Note(s): For companies that do not report construction revenue separately, sales and construction revenue are assumed to be the same.

There are a large number of active construction companies in Spain (about 160,000 in 2006), making the domestic construction market very fragmented. In fact, companies with ten or fewer employees represent about 80% of total production in 2006.

### PFI/PPP and concessions

Spanish local administrations, and particularly municipalities and regional governments, started showing increasing interest in using the PPP model in 2006. The most important investments have been focused on roads, hospitals, prisons, and rail (underground and tram).

Investment under PEIT for the period 2005-20 is to be €250bn, with about 40% coming under PPP arrangements. Spain's budgetary goals and tighter controls on public spending, along with the Government's ambitious infrastructure plan, should increase the opportunities for PPP.

Ferrovial-Agroman won a prison partnership project worth €94m in North-East Spain during 2006. The contract to design, build, finance, operate, and maintain the 750-inmate prison in Manresa will last for 30 years, with Ferrovial investing €70m and receiving an annual payment of €6m.

### M&A activity

Top construction companies like ACS Group, Ferrovial Group, FCC, Acciona, and Sacyr have more than tripled their debt to fund big acquisitions of companies in Spain and the rest of Europe. The main aim of these acquisitions is to increase diversification, both in terms of businesses and markets:

ACS Group:

- During 2006 ACS acquired 5% of the energy company Unión Fenosa for circa €800m. As of 31 December 2006 ACS Group holds 40.5% of Unión Fenosa shares, so its 2006 purchases effectively gave it control of this subsidiary.
- Also in the last quarter of 2006 ACS Group acquired 10% of Iberdrola, another energy company, for ?3,297m.
- In March 2007, ACS Group acquired 25% of German constructor HOCHTIEF for circa €1,200m.

Ferrovial Group:

- In June 2006, a consortium led (circa 62%) by Ferrovial Group acquired BAA for €16,900m.

Acciona:

- During 2006, Acciona acquired 20.3% of Spanish energy company Endesa for €7,303m. Then in 2007, Acciona reached an agreement with Italian company Enel to control Endesa through a joint venture that has now launched an offer for 100% of Endesa's shares.

FCC:

- FCC invested about €4,000m in acquisitions in 2006, most notably including Spanish cement group Corporación Uniland (€1,100m), Austrian constructor Alpine (€480m), UK company Waste Recycling Group (€1,960m), Austrian waste management company ASA (€230m) and Czech water company Svmak (€170m).

Sacyr:

- Sacyr has made significant investments in 2006 also. It currently owns 33% of French company Eiffage, acquired between 2005 (3%) and 2006 (30%) for a total of €1,868m, and 20% of Repsol YPF SA, acquired in 2006 for €6,526m.

In addition, medium-sized groups like Aldesa, Comsa, and Sando are making important investments (mainly focused on the domestic market) and their revenues are likely to amount to €1,000m or more in 2007-2008.

**European Powers of Construction 2007**  
 Analysis of key players and markets in construction

Buyer	Seller	Unit sold	Deal size (€m)	% sought
Grupo Inmocaral SA	Acciona	Stake in FCC	1,623.5	15.1%
Obrascon Huarte Lain SA/Private Group	Obrascon Huarte Lain SA	N/A	682.6	49%
Sacyr y Vallehermoso SA	Itinere Infraestructuras SA	N/A	112.9	8.6%
Levantina Edificaciones & Obras Publicas SA	Urbem SA	N/A	94.6	35.9%
Ortiz Servicios Construcciones y Proyectos SA	Contratas y Ferroviarios SA	N/A	30.5	100%

Note(s): Exchange rate used USD1.26 = €1.

## Sweden

### Swedish market statistics

Sweden	2006	2005
GDP at market prices (€bn)	305.8	286.8
GDP growth	4.5%	2.9%
Total volume of construction industry (€bn)	22.21	20.8
As % of GDP	7.26%	7.25%
Employees in construction industry	N/A	256,534
As % of working population	N/A	6.01%
Companies active in construction industry	N/A	N/A

Note(s): GDP at market price. Wherever required, annual average exchange rate used SKR9.26 = €1 and for 2005 SKR9.31 = €1.

### Trends

2006 was one of the best years Sweden's construction industry has ever had. Total building investments rose by 10%, the fastest growth for more than 50 years. Almost all of the construction sectors – namely residential housing, public works, industry, and commercial premises – witnessed good growth owing to the strong investment climate.

The economy's overall growth fuelled an improvement in public finances and household incomes, both of which have had a positive effect on the construction market. The other major driver for the market is the presence of several major civil engineering projects.

Going forward, the construction market is likely to witness good growth in 2007 but it also faces some major challenges. Increasingly scarce resources and the risk of falling house prices could become major issues.

The residential sector was a driving force behind the industry's growth during 2006. Statistics suggest that the construction sector enjoyed a 14% rise in investment due to rapid growth in both new and refurbished buildings. Construction work started on around 36,000 dwellings in 2006, of which 13,000 were self-contained homes.

Demand for housing is also expected to increase due to reductions in certain taxes – such as property tax, job allowance, and tenant association charges. The Swedish Construction Federation has estimated that housing investments will increase by 5% in 2007.

The non-residential construction and civil engineering sector enjoyed good growth and estimates suggest that it generated €6.2bn of revenue in 2006. The retail sector could become a major growth driver in Sweden as a number of shopping malls are being renovated and extended throughout the country. In addition, increasing employment and continuing strength in the retail sector could support local building projects.

In 2007, civil works are expected to be driven by public infrastructure initiatives such as road investments, which is likely to provide a good market for larger construction activities.

### Top construction companies

The construction market in Sweden is dominated by Skanska, which is also Europe's third largest construction company.

No.	Company name	FY end	Total revenues (€m)	Net income (€m)
1	Skanska	Dec 06	13,564	392.5
2	NCC AB	Dec 06	6,034.1	184.2
3	Peab AB	Dec 06	3,274.4	113
4	JM AB	Dec 06	1,302.9	169.3
5	Vagverket Production*	Dec 05	854	N/A

\* Taken from EPoC 2006, revenues not available for 2006.  
Note(s): Where required, annual average exchange rate used SKR9.26 = €1.

### M&A activity

Buyer	Seller	Unit sold	Deal size (€m)	% sought
Markteknik AB	Peab AB	N/A	N/A	100%
Nybyggarna i Nerike AB	Peab AB	N/A	N/A	100%
SBS Entreprenad AB	Veidekke ASA	N/A	N/A	100%
Dahl & Brandfelt Bygg	Ittur Industrier AB	N/A	N/A	100%
Almqvist Bygg B	Peab AB	N/A	N/A	100%

### PFI/PPP and concessions

The change in Sweden's Government is viewed as a positive indicator for the growth of PPP, as well as recognition of the need to expand the transportation infrastructure using such arrangements. The new Government has plans to support private ownership in the construction of motorways, bridges, tunnels, and railways.

In addition, Skanska and NCC – the leading construction players – have invested funds in international build, operate, transfer, and PPP projects. In a deal worth €1.6bn, the Ostlänken rail track project is to be implemented via a PPP model. Alstom and Skanska have also expressed their interest in being the private partners to collaborate with the National Rail Administration, Banverket.

## Turkey

### Turkish market statistics

Turkey	2006	2005
GDP at market prices (€bn)	322	272
GDP growth	6.1%	7.4%
Total volume of construction industry (€bn)	14.29	11.97
As % of GDP	4.44%	4.4%
Employees in construction industry	1,097,000	975,000
As % of working population	5%	4.7%
Companies active in construction industry	N/A	N/A

Note(s): Exchange rate used for 2005 YTL1.79 = €1.

### Trends

The Turkish economy continued to flourish in 2006 with a high GDP growth rate of 6.1%, making it one of the fastest growing economies in Europe. One of the main drivers for the vibrant economy is the high level of growth in the construction sector.

The construction sector's volume in 2006 reached €14.29bn – a strong growth of 19.4% from 2005. However, the level of growth was not consistent across the construction sub-sectors, as the public and private sectors showed diverse growth during the year. While the private sector building construction activities showed record year-on-year growth of 26.4% in 2006, the overall construction activities in the public sector decreased 4.4% in 2006 after showing a remarkable growth of 31.6% in 2005.

The number of workers employed in construction increased to 1.1m in January 2007 – up 12.5% from January 2006. However, the number of building permits issued in 2006 decreased 5.4% – compared to 2005 – as only 108,109 permits were approved.

A positive development in the construction market during 2006 was the adoption of long-awaited mortgage law by Parliament. The mortgage system is expected to foster financial markets, enhance the efficiency of the financial system, and strengthen the investment climate.

The construction sector is expected to remain buoyant in 2007 however, one possible threat could be political developments arising from the presidential and general elections due to be held this year.

### Top construction companies

No.	Company name	FY End	Construction revenue (€m)	Net Income (€m)
1	Enka Insaat ve Sanayi AS	Dec 06	3,188.9	325.3
2	Gama Holding	Dec 05	316.4	N/A
3	Ihlas Holding AS	Dec 06	27.8	-14.9
4	Borova Yapi Endustrisi AS	N/A	N/A	N/A

### PFI/PPP and concessions

There is no significant PPP activity taking place in the Turkish market at present.

### M&A activity

No significant M&A took place in the market during 2006.

## United Kingdom (UK)

### UK market statistics

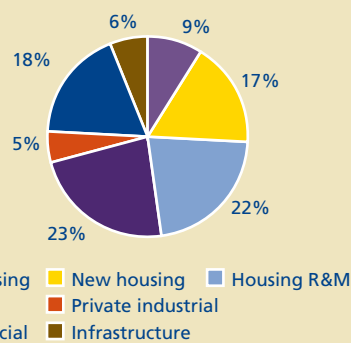
UK	2006	2005
GDP (€bn)	1,806.5	1,748.2
GDP growth	2.7%	1.9%
Total volume of construction industry (€bn)	118	116
As % of GDP	6.64%	6.75%
Employees in construction industry	2,230,000	2,150,000
As % of working population	7.1%	6.9%
Companies active in construction market	~250,000	~250,000

Note(s): GDP at market price and growth is real GDP growth rate. Annual average exchange rate used for 2006 £1 = €1.470 and for 2005 £1 = €1.456.

### Trends

The UK construction sector accounted for almost 7% of the UK GDP in 2006, and the Construction Products Association (CPA) forecasts construction output to grow at an average of 3% over the next three years. This is in comparison to the GDP growth forecast, which stands at 1.5%.

Market segmentation: UK construction industry by value 2005



Source: Construction Products Association, Winter 2006-07.

The UK house building sector (including new buildings and repair and maintenance) generated total revenues of around €47bn in 2006 about 40% of the total construction industry value. For the coming years, the growth of the house building sector is expected to be underpinned by a steady economy, changing demographics, and rising demand for new houses. The combined revenue for the non-housing and infrastructure sectors was roughly €73bn in 2006, representing an increase of 2.8% from the previous year and a compound annual growth rate of 2.2% for the five year period from 2002-06.

Permanent dwellings (Number)	2002	2003	2004	2005	2006
Started	195,519	195,569	212,332	225,783	235,360
Completed	175,341	184,026	190,425	206,779	213,717

Source: Economist Intelligence Unit, UK country profile 2007.

The growth rates in the number of houses started and completed declined in 2006 to 4.24% and 3.36% respectively – down from 6.33% and 8.59% in 2005.

The UK construction industry overall has performed consistently over the past few years, as demonstrated by output which has remained between 6.7% and 6.9% of GDP since 2005. However, due to inflationary pressures and rising interest rates, growth in the house building sector is expected to slow further in the near future. The Government is also expected to introduce new house building legislation in an effort to tackle climate change and create more affordable housing. This could have implications in terms of design, construction cost, and price inflation, with higher standards of insulation, soundproofing, and energy-saving being set.

The main driver for construction output continues to be the Government's commitment to improvements in transport infrastructure, healthcare, education, and social housing. The Olympics also will be staged in London in 2012 and a multi-billion pound programme of construction and infrastructure-related works will further contribute to total output.

### Top construction companies

The UK construction industry is extremely fragmented. Most of the companies in the industry are small and domestically-owned, with localised operations.

No.	Company name	FY End	Construction revenue (€m)	Net Income (€m)
1	Balfour Beatty plc	Dec 06	6,442.8	133.5
2	Taylor Woodrow plc	Dec 06	5,239.6	424.6
3	Amec plc	Dec 06	4,736.7	319.9
4	George Wimpey plc	Dec 06	4,615	319.6
5	Persimmon plc	Dec 06	4,608.6	581.4
6	Carillion plc	Dec 06	4,495.7	85.4
7	Barratt Development plc	Jun 06	3,552.8	401.8
8	Laing O'Rourke plc	Mar 06	3,278.3	33.8
9	Kier Group plc	Jun 06	2,605.6	62.7
10	Morgan Sindall plc	Dec 06	2,195.6	50.5
11	Wilson Bowden	Dec 06	1,952.2	225.4
12	Newarthill	Oct 06	1,835.4	59.2

### **PFI/PPP and concessions**

The UK is considered to be one of the most highly developed PFI/PPP markets in Europe, as the market accounts for almost 10% of total UK public sector investment. It is estimated that the Government has spent nearly €147bn so far on the development of public services via the PFI route. The UK has seen significant PFI activity in the transport, healthcare, and education sectors, unlike other European nations where PFI/PPP activity is mainly concentrated on the transport sector.

In the wake of criticism that PFI contractors are making excessive profits from refinancing deals, and charging significant amounts for maintenance work, the Government commissioned a review of the healthcare PFI scheme at the beginning of 2006, which has caused delays to many on going projects. However, the Government looks set to continue its commitment to developing healthcare facilities through the PFI route.

The Government has also introduced the Building Schools for the Future (BSF) initiative. BSF is the biggest single government investment in improving school buildings for over 50 years. The aim is to rebuild or renew every secondary school in England over a 10-15 year period. Bristol is the first council in the country to sign up for it and, as part of this deal, the city will see four schools rebuilt using €221m of credit and €14m of public sector funding.

There is a strong investment appetite for PFI deals in the UK, as new public and private PFI funds are set up which has resulted in a flurry of activity in the secondary PFI market. The sizes of deals are shaping the market because only the bigger construction companies tend to be involved.

The Government maintains that the bulk of PFI projects have been a success and that it will continue to use PFI as the preferred procurement approach for delivering and funding infrastructure projects. Future projects that are expected to be delivered through PFI/PPP include €5.2bn of work for the Olympic Games, the €3.5bn East London Stratford City development, €1.5bn of retail regeneration schemes in Stevenage, Bracknell, and Croydon, and the €7.5bn widening of the London orbital M25 motorway which is expected to be the UK's largest-ever PFI deal outside the defence sector.

### **M&A activity**

This market activity is against a backdrop of continued increases in construction orders, predicted growth in the infrastructure market following four consecutive years of decline to 2006, sharp rises in public new housing activity and strong construction material price inflation.

In particular, activity in the construction contracting sector has been driven by the acquisitions of mid-market rivals by high turnover contractors targeting market consolidation and geographical expansion. The house building sector has seen the consolidation of larger companies, with some PE-funded transactions targeting growth housing markets fashioned by demographics (such as retirement homes). The building products sub-sector has been driven largely by PE-backed leveraged MBOs targeting potential market growth and investment returns.

The highlights of recent activity in the house building sector were the takeover of Wilson Bowden by Barratt Developments for €3.5bn, and the merger of Taylor Woodrow and George Wimpey – displacing Persimmon's position as the largest house builder. Persimmon itself grew through last year's €945m purchase of Westbury.

At the same time, the Government PPP/PFI initiatives proved lucrative for many institutional investors and PE funds. An example is the acquisition of John Laing – the UK's market leader in infrastructure projects – through PFI by fund manager Henderson for €1.3bn. Analysts in the construction industry are estimating that contractors with infrastructure assets – especially in the PFI sector – could be possible targets for takeovers in the near future.

Considering the fragmented nature of the UK construction industry, market analysts are expecting further consolidation, particularly in response to an anticipated cooling of the housing market, and a need to grow in order to compete and tender for high value public sector projects such as the Olympics and the M25 widening programme.

## Ukraine

### Ukrainian market statistics

UK	2006	2005
GDP at market prices (€bn)	84.1	66.5
Real GDP growth	7.4%	2.6%
Total volume of construction industry (€bn)	6	5.4
As % of GDP	7.1%	8.1%
Employees in construction industry	N/A	657,900
As % of working population	N/A	3.5%
Companies active in construction market	N/A	35,521

Note(s): Exchange rate used for 2006 HRN6.336 = €1 and for 2005 HRN6.390 = €1.

### Trends

After a sluggish year in 2005, the Ukrainian economy got back on track in 2006. The GDP grew by a strong 7.4% in 2006, compared to a low growth rate of 2.6% in 2005.

The construction sector also picked up during 2006, with volume growing 9.8%. This turnaround was mainly due to increased investment and the rising prices of construction materials and services. However, the housing sector was still in trouble, in 2006 construction activity fell 2% compared to the previous year.

Construction legislation in Ukraine needs to improve. There is no unified codification of state construction regulations, and construction norms are not updated in terms of technology, expertise, and materials. In 2006, Parliament's construction committee proposed a new Construction Norms Act. The Government also introduced some changes in December 2006 – in order to boost the construction sector – including the creation of the Ministry of Construction, Architecture, and Housing Management. Its responsibilities include developing state housing policy, urban architecture, and regional development.

The residential sector was the slowest growing sector in 2006, with 8.6m m<sup>2</sup> of residential buildings constructed – a rise of 10.4% from 2005. The Government plans to double residential construction by 2012 – reaching 17.3m m<sup>2</sup>. The state budget for 2006 allocated more than €20m for financing the State Youth Housing Fund; while state banks were expected to provide around €80m for housing loan programmes, because 53,000 young families and individuals were waiting for state housing. According to the Social Dwellings Programme, from 2006-15 more than 41m m<sup>2</sup> of such housing is to be built, including hostels and homes for the disabled. This scheme's implementation will require about €15.5bn.

2006 saw huge growth in property prices across many of Ukraine's bigger cities. The largest surge was in Odessa and Kiev. The current purchasing power of the population does not match mass constructions, and therefore, this is the least dynamic construction sector in the country. Developers are targeting the higher end markets.

The non-residential construction sector showed a 10% growth in 2006. The most important sub-sectors – industrial, commercial, and office building – benefited from the inflow of FDI into Ukraine, which targeted Kiev, as well as other major cities such as Donetsk, Dnipropetrovsk, Lviv, Odessa, and Kharhiv.

The civil engineering sector grew more than 11%, the highest growth in 2006. Among the most dynamic sub-sectors were roads, ports, airports, public utilities, and energy. The Government plans to invest €0.17bn in the Kiev-Gluhov motorway (to Russia), €31.6ml in the Kiev-Kharkov motorway, €142m in the Kiev-Lvov motorway, and €39.5m in the last 70km of the Lvov-Uzhgorod motorway. This system of motorways is a part of the pan-European transport corridors. In December 2006, the European Bank for Reconstruction and Development (EBRD) provided Ukraine with €200m towards the completion of the Kiev-Chop motorway to European standards. The Kiev-Lvov motorway forms part of the third corridor (Kiev-Lviv-Krakow-Berlin), while the Lvov-Uzhgorod motorway forms part of the fifth corridor (Lviv-Chop-Budapest) and links Ukraine with Western Europe.

The outlook for the Ukraine's construction industry over the next few years is for strong growth of around 10%, mainly in the civil engineering and non-residential sectors.

### Top construction companies

No.	Company name	FY End	Construction revenue (€m)	Net Income (€m)
1	Kyivmetrobud	Dec 05	120	3
2	Mostobud VAT	Dec 06	107	1
3	Interbudmontazh	Dec 05	85	0.2
4	Poznyakyzhylybud	Dec 05	71	5
5	TMM Kharkiv	Dec 06	61	N/A

Note(s): Exchange rate used for 2006 HRN6.336 = €1 and for 2005 HRN6.390 = €1. Exchange rate used for 2006 zUSD1.2 = €1 and for 2005 USD1.25 = €1. Data for Kyivmiskbud was not available.

### PFI/PPP and concessions

Ukraine is in the process of setting up a legal framework for PPP projects. For that purpose, it has received extensive technical advice for the development of concession legislation and a PPP strategy.

In the healthcare sector, the construction of a medical centre in Kiev by Ukrainian construction company Metrika under a PPP arrangement is under way. The project is estimated to cost €87m and is scheduled to be completed in 2008.

In the transport sector, the State Automobile Road Service (Ukravtodor) forecast that it would start using PPPs by 2010. Among other major developments, Ukraine and Hungary agreed on the construction of cross-border roads as part of pan-European transport fifth corridor - roads that they plan to build under PPP.

In December 2006, the EBRD gave Ukraine a loan of €200m to be passed on to Ukravtodor. The funds are intended to finance the repair of the final 427km stretch of the M06 motorway connecting Ukraine's capital Kiev with the EU through Hungary, Slovakia, and Poland.

### M&A activity

No significant M&A took place in 2006.

# References

Amadeus

Australian Trade Commission

Austrian Institute of Economic Research

Bratislava

Bulgaria National Statistical Institute

Bulgarian Construction News, access via

[www.Bulgarianconstruction.com](http://www.Bulgarianconstruction.com)

Central Statistical Office, Poland

Central Statistics Organisation (CSO)

Company annual reports

- YIT Corporation
- STRABAG Annual Report 2006
- HOCHTIEF Annual Report, 2006
- Bilfinger Berger Annual Report, 2006
- Heijmans Annual Report, 2006
- ACS Annual Report, 2006
- FCC Annual Report, 2006
- Mota-Engil Annual Report, 2006

Construction in Portugal article

Confederation of Finnish Construction Industries

Construction News

Construction Poland

Construction products association

Croatian Bureau of Statistics

Croatian Chamber of Commerce

Czech Construction Industry 2006 published by Ministry of Industry and Trade of the Czech Republic

Czech Statistical Office

- Permits granted
- Construction in the year 2006

Datamonitor

Department for Transport and Industry

Economist Intelligence Unit

Euroconstruct

European Cement Activity Association Report

European Powers of Construction 2006

European Cement Activity Association Report

European Public Finance

European Public Finance and Infrastructure Finance

Factiva

Federal Statistical Office, Germany

Greek National Statistic Service

Helvea – Report on Swiss Construction Suppliers, June 2007

Housing Fund of Finland

HSBC report: Construction & Engineering, Greece

IntelliNews Reports

International Herald Tribune

ISI Emerging Markets

M&A International Inc Report: Opportunities in the Russian construction industry, 2007

Major construction companies' websites

Marketresearch.com Report: Russian Infrastructure Q1 2007, by Business Monitor International

Mergerstat

Mint Global

NISEE (National Institute for Statistics and Economic Studies)

Office for National Statistics, Labour Force Surveys, Q1 2006 and Q1 2007

OneSource

PMR publication on the Romanian Construction Market

PMR publications on Russian Construction Industry

Press release from the 61st Euroconstruct Conference

Portugal Construction Statistics Report 2006

Property in Slovakia, a market overview

Report Buyer.com

Slovak Republic Statistics Office

- Employment
- Statistics Finland
- Completed dwellings

Statistics Netherlands

Statistics Norway

Thomson Research

- Dutch Construction Industry reportm, Fortis Bank

Turkish construction companies' annual reports

2005-2020 strategic plan for infrastructure and transport

# European construction and infrastructure group contacts

Country	Name	Telephone	Email
Austria	Marieluise Krimmel	+43 (1) 537 000	mkrimmel@deloitte.com
	Bruno Moritz	+43 (1) 537 000	bmoritz@deloitte.com
	Nikolaus Schaffer	+43 (1) 537 000	nschaffer@deloitte.com
Belgium	Alexandre Bulla	+32 (2) 639 49 48	abulla@deloitte.com
	Bernard de Lantsheere	+32 (2) 639 49 41	bdelantsheere@deloitte.com
	Jean-Paul Loozen	+32 (2) 639 49 40	jloozen@deloitte.com
	Rik Neckebroeck	+32 (2) 800 20 22	rneckebroeck@deloitte.com
Central Europe	Petr Kymlicka	+420 (246) 042 480	pkymlicka@deloittece.com
Denmark	Lars Anderson	+45 (36) 10 25 30	larshandersen@deloitte.dk
Finland	Jorma Tuominen	+358 (207) 555 345	jorma.tuominen@deloitte.fi
France	Thierry Benoit	+33 (1) 4088 2874	tbenoit@deloitte.fr
	Marc de Villartay	+33 (1) 5561 2716	mdevillartay@deloitte.fr
Germany	Franz Klinger	+49 (89) 29036 8362	fklinger@deloitte.de
	Michael Mueller	+49 (89) 29036 8428	mmueller@deloitte.de
	Herbert Reiss	+49 (91) 1230 7414	hreiss@deloitte.de
Greece	Alexis Damalas	+30 (210) 678 1100	adamalas@deloitte.gr
	Michael Hadjipavlou	+30 (210) 678 1100	mhadjipavlou@deloitte.gr
Ireland	Padraic Whelan	+353 1 4172848	pwhelan@deloitte.ie
Italy	Kevin O'Connor	+39 (02) 833 25072	keviocconnor@deloitte.it
	Elena Vistarini	+39 (02) 833 25122	evistarini@deloitte.it
The Netherlands	Jef Holland	+31 (65) 151 6311	jholland@deloitte.nl
	Paul Meulenberg	+31 (65) 331 9411	pmeulenberg@deloitte.nl
	Luuk van der Pal	+31 (65) 585 3485	lvanderpal@deloitte.com
	Rin-Sjoerd Zijlstra	+31 (61) 509 2627	rzijlstra@deloitte.nl
Norway	Aase-Aamdal Lundgaard	+47 (23) 279 282	alundgaard@deloitte.no
	Thorvald Nyquist	+47 (23) 279 663	tnyquist@deloitte.no
Portugal	Jorge Marrao	+351 (210) 422 503	jmarrao@deloitte.pt
	Catarina Zagalo	+351 (210) 423 040	czagalo@deloitte.pt
Russia	Graham Povey	+7 495 787 0600	gpovey@deloitte.ru
	Chris Weston	+7 495 787 0600	chweston@deloitte.ru
Spain	Miguel Laserna	+34 (915) 145 000	mlaserna@deloitte.es
	Javier Parada Pardo	+34 (915) 145 000	japarada@deloitte.es
Sweden	Andreas Adolphsson	+46 (8) 506 72103	aadolphsson@deloitte.se
Turkey	Hakan Dunbar	+90 (212) 366 6127	hdunbar@deloitte.com
UK	Jack Kelly	+44 (20) 7007 0826	jackkelly@deloitte.co.uk
	Makhan Chahal	+44 (20) 7007 0626	mchahal@deloitte.co.uk
	Nigel Shilton	+44 (20) 7007 7934	nshilton@deloitte.co.uk
	Chris Watts	+44 (20) 7007 7939	chriswatts@deloitte.co.uk

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