efca
European Engineering Consultancies

EFCA SECTOR REVIEW 2023

EFCA Sector Review survey

Engineering services for construction – the professional services needed for constructing the built environment – guide, manage and support the construction value chain.

These services, which typically arise throughout the project cycle, include planning, preliminary studies, design, procurement, technical assistance, environmental engineering, quantity surveying, project supervision, and project, contract and construction management.

The services play a key role in enabling the construction value chain to maximise its impact during the complete lifecycle of the built environment's infrastructure that must be constructed, renovated and maintained in order to address the interlinked climate and energy crises while ensuring a safe, inclusive and sustainable future.

The *EFCA Sector Review* aims to highlight the importance of engineering services for construction and the role they play in Europe. It does so by surveying the businesses that supply these services at every stage of the extended lifecycle of the assets that make up the built environment.

The *EFCA Sector Review Survey* identifies the companies and groups operating in Europe whose turnover earned in Europe for engineering services for construction and the built environment exceeds at least one half of their total global turnover.

Changes in the accessibility of financial reports enable a progressively more accurate assessment of firms. So rankings for 2023, based wherever possible on 2022 data, can be used to make comparisons with the rankings for 2021 that were reviewed in 2022. The 150 top firms operating in Europe are ranked in the table starting on page 4 according to the turnover in Europe for engineering services for construction; the 100 Europe-based top firms are ranked on page 7 by global turnover.

The survey also considered the turnover for construction in Europe by market sector. This sector breakdown – anonymised as Europe-wide statistics – is based on the *Engineering News - Record* scheme such that categories are combined as follows:

Buildings	general building
	manufacturing
Infrastructure	transportation
	telecommunications
Energy	power
Environment	water supply
	sewerage
	solid waste disposal
	hazardous waste
Industry and Oil & Gas	oil and gas
	industrial process plant

Place-making activities such as urban planning and community development are included in Buildings.

Glossary

Rankings

The main ranking is for companies and groups with operations in Europe. They are ranked according to the turnover in Europe for engineering services for the construction of built environment assets (as opposed to activities related to manufacturing products). The companies and groups in the main ranking that are based in Europe are also ranked separately according to their total global turnover for all activities.

Name

The name under which a company or group trades. Entries in rankings are based on both estimates and full or part responses to the *EFCA Sector Review* survey.

Global HQ

"Global HQ" corresponds to the country in which a company or group has its legally established headquarters. Europe is defined as including the EU Member States, the European Free Trade Association countries and the EU Candidate Countries.

Turnover

"Turnover" refers to gross turnover. Occasionally net revenue (gross revenue less sub-consultant, subcontract and other direct expenses) is reported, but this is not indicated in rankings. Networks and partnerships are normally excluded.

The turnovers reported are the company or consolidated group turnover earned globally and inside Europe at the end of the fiscal year that covers all or most of 2022, regardless of the location of projects. If the fiscal year mainly covers 2021 this is noted in rankings.

Firms are included in the main ranking if the turnover for engineering services for construction in Europe is more than one half (±5%) of the global turnover. Turnovers are given in Euro (Eurostat end-of-quarter exchange rates at the end of the fiscal year are used).

Headcount

"Headcount – Global" and "Headcount – Europe" are the number of permanent employees globally and based inside Europe at the end of the fiscal year that covered all or most of 2022. Headcounts do not take into account the location of projects and part-time staff. In some cases, the annual average headcount or the number of full-time equivalent staff is reported, but this is not indicated in rankings.

Locations

"Locations" corresponds to the number of countries, globally and in Europe, in which a company or group had a legally established operating entity at the end of the fiscal year that covered all or most of 2022.

CEO

The name of the person currently acting as a company or group's Chief Executive Officer, or the equivalent.

The top 150 firms

The *EFCA Sector Review* for 2023 considers firms based wherever possible on data that cover all or most of 2022. Ranked by the turnover earned in Europe for engineering services for construction and the built environment (page 4), the 10 top firms operating in Europe remained largely the same as those for 2022 review based on 2021 data except that the USA's Aecom replaced Denmark's Cowi. For firms both operating and based in Europe, the 10 top firms were Sweco, Rambøll, Afry, Arup, Arcadis, Mott Macdonald, Cowi, Norconsult, Fugro, and Artelia.

Activity outside Europe drives growth

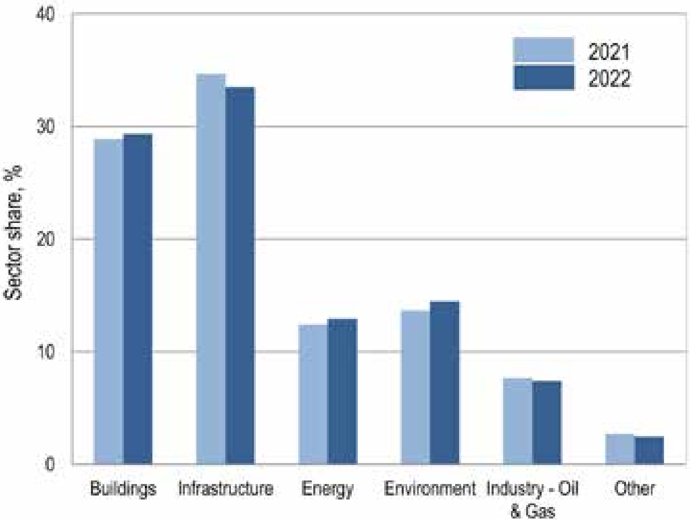
As indicated in the table opposite, the total turnover earned in 2022 for engineering services for construction by the top 150 firms (€36.9 billion) increased year-on-year by 16%. Most firms (86%) enjoyed an increase in turnover.

This pattern remained similar for the turnover earned globally, inside and outside Europe and for construction in Europe. The total global turnover was €103.3 billion with a year-on-year increase that was close to 16%.

The average turnover per staff member in Europe was €123400 and €147000 globally while year-on-year growth rates were 3.0% and 5.1%, respectively. These data highlight the top 150 firms' capacity to generate business outside Europe where both the turnover and turnover per staff member were higher than in Europe (€61.2 billion with year-on-year growth of 17.4%; €169200 per staff member with year-on-year growth of 6.6%).

Uniform growth

As in 2021, the first six of the top 10 firms ranked by the turnover in Europe for engineering services for construction and based in Europe also made up the first six of the 10 top firms based in Europe when ranked by global turnover (page 7). The top 10 firms' share (56%) of the top 150 firms' global turnover of €103.3 billion in 2022 was the same as in 2021. For the 139 of the top 150 firms that were based in Europe, the year-on-year increase of the global turnover in 2022 for each successive quartile was 17%, 15%, 11%, and 11%, starting with the top ranked firm. In other words, of the top 150 firms that were based in Europe, larger firms tended to enjoy a larger share of the increased global turnover.



Sector shares by turnover for construction in Europe in 2022 for the top 150 firms.

Metric	2022	y/y, %
Turnover, € billion		
engineering services for construction in Europe	*36.9*	*16.0*
construction in Europe	*37.8*	*13.5*
Europe	*42.1*	*13.7*
outside Europe	*61.2*	*17.4*
global	*103.3*	*15.8*
Headcount		
Europe	*341370*	*10.4*
outside Europe	*351519*	*10.1*
global (organic share of y/y growth: 62.2%)	*702889*	*10.2*
Turnover per staff member, €		
Europe	*123400*	*3.0*
outside Europe	*169200*	*6.6*
global	*147000*	*5.1*
Average number of permanent locations		
Europe	*5.1*	*-3.1*
outside Europe	*7.4*	*3.0*
global	*12.5*	*0.4*
Average headcount per location		
Europe	*447*	*13.8*
outside Europe	*327*	*6.9*
global	*376*	*9.8*
Note: y/y is the year-on-year increase.		

Footprint in Europe increased

For the top 150 firms in 2022, just under one half (48.5%) of their 702889 staff members were based in Europe where the year-on-year increase in headcount was the highest (10.4%). Globally, the top 150 top firms had on average permanent locations in 12.5 countries per firm in 2022 and 376 staff per location. The average number of locations per firm decreased in Europe year-on-year by 3.1% but increased elsewhere. A significant outcome was that the average number of staff at each location increased year-on-year in Europe by 13.8%, suggesting that firms focused resources in Europe.

Environment and energy grew the most

The breakdown by sector of the turnover in 2022 for construction in Europe for the top 150 firms is given in the figure. Infrastructure remained the largest sector with Buildings: 29.7%; Infrastructure: 33.5%; Energy: 12.9%; Environment: 14.5%; Industry & Oil & Gas: 7.4%; Other: 2.5%. However, Environment and Energy had the largest year-on-year growth (19.9% and 17.3%, respectively).

Market developments

Europe's industry in general and its construction sector in particular were challenged in 2022 by impacts arising from a broad range of issues and events. These impacts were reinforced by acceleration of the European Union's (EU) green transition and the transition of the global energy system. Overall, demand-side investment in infrastructure, sustainability, resilience, and energy went hand in hand

The top 150 engineering services firms operating in Europe ranked by engineering services turnover in Europe

No.	Name	Global HQ	Turnover, € miillion			Headcount		Locations		Web domain	CEO
			Europe		Gobal	Europe	Global	Europe	Global		
			Services	Total							
1	Sweco	Sweden	2185	2185	2185	20297	20297	13	15	swecogroup.com	Åsa Bergman
2	Jacobs Solutions	USA	2004	3579	15309	15600	60000	11	35	jacobs.com	Bob Pragada
3	Rambøll	Denmark	1741	1741	2283	13513	18302	16	28	ramboll.com	Jens-Peter Saul
4	WSP	Canada	1731	1731	8264	15800	66200	14	40	wsp.com	Alexandre L'Heureux
5	AtkinsRéalis	Canada	1682	1753	5228	13200	33880	15	43	atkinsrealis.com	Ian L. Edwards
6	Afry	Sweden	1366	1952	2118	16900	18687	21	51	afry.com	Jonas Gustavsson
7	Arup	UK	1132	1132	2461	7700	18837	10	34	arup.com	Alan Belfield
8	Arcadis	Netherlands	1090	1450	4029	12500	35617	10	22	arcadis.com	Alan Brookes
9	Aecom	USA	1085	1085	13488	9250	50000	18	45	aecom.com	John M. Dionisio
10	Mott MacDonald	UK	1022	1196	2310	9800	18200	12	48	mottmac.com	James Harris
11	Cowi	Denmark	887	985	985	6350	7501	10	19	cowi.com	Jens Højgaard Christoffersen
12	Norconsult	Norway	729	819	834	5550	5600	5	9	norconsult.com	Egil Hogna
13	Fugro	Netherlands	720	720	1766	3200	9851	19	59	fugro.com	Mark R.F. Heine
14	Artelia	France	647	718	833	5700	7300	15	42	arteliagroup.com	Benoît Clocheret
15	Egis	France	617	834	1490	7250	16000	13	56	egis-group.com	Laurent Germain
16	Turner & Townsend	UK	573	573	1394	5195	10731	13	45	turnerandtownsend.com	Vincent Clancy
17	Tractebel	Belgium	540	540	605	3350	5000	10	39	tractebel-engie.com	Philippe Van Troeye
18	Systra	France	536	536	902	4060	8900	7	27	systra.com	Pierre Verzat
19	PM	Ireland	490	700	612	3000	3650	6	10	pmgroup-global.com	David Murphy
20	Royal HaskoningDHV	Netherlands	484	504	699	3960	6251	5	24	royalhaskoningdhv.com	Marije Hulshof
21	Drees & Sommer	Germany	474	650	704	4500	5104	15	19	www.dreso.com	Steffen Szeidl
22	RSK	UK	463	772	941	5000	7785	14	40	rsk.co.uk	Alan Ryder
23	Multiconsult	Norway	457	457	463	3350	3353	5	10	multiconsult.no	Grethe Bergly
24	RPS	UK	442	442	756	3200	5225	4	10	rpsgroup.com	Dan L. Batrack
25	Assystem	France	423	423	494	4796	6401	4	10	assystem.com	Dominique Louis
26	Antea	Netherlands	370	370	497	2550	3400	5	11	anteagroup.com	Yde van Hijum
27	Setec	France	350	350	434	2800	3500	6	20	setec.fr	Michel Kahan
28	Niras	Denmark	329	444	464	2500	2597	15	34	niras.com	Carsten Toft Boesen
29	Tetra Tech	USA	318	318	3595	2200	21000	6	26	tetratech.com	Dan L. Batrack
30	Italferr	Italy	317	317	336	2500	2633	4	13	italferr.it	Andrea Nardinocchi
31	Stantec	Canada	312	312	3932	2980	26770	8	19	stantec.com	Gord Johnston
32	Ineco	Spain	302	335	362	4400	4545	5	17	ineco.com	Sergio Vázquez Torrón
33	Ayesa	Spain	300	545	649	8640	10261	8	23	ayesa.com	José Luis Manzanares
34	Ingérop	France	290	290	316	2400	2600	10	31	ingerop.com	Yves Metz
35	Rejlers	Sweden	285	309	316	2770	2773	3	4	rejlers.se	Viktor Svensson
36	Rina Consulting	Italy	255	255	435	1598	2907	4	18	rina.org	Alberto Cavaggioni
37	Tragsatec	Spain	235	471	471	9926	9926	1	1	tragsa.es	Juan Pablo González Mata
38	Tyréns	Sweden	222	277	283	2482	2482	6	6	tyrens.se	Johan Dozzi
39	Ekium	France	210	210	252	2400	2500	7	11	ekium.eu	Philippe Lanoir
40	Ginger	France	208	208	210	2000	2200	4	15	groupeginger.com	Philippe Margarit
41	Sitowise	Finland	204	204	204	2232	2232	2	2	sitowise.com	Heikki Haasmaa
42	Sidara	UAE	183	183	2283	1900	18600	4	60	sidaracollaborative.com	Talal Shair
43	Bilfinger Tebodin	Netherlands	178	178	210	1200	1600	9	9	tebodin.bilfinger.com	Kevin Pieterse
44	Sudop	Czechia	166	207	207	2000	2000	2	2	sudop-group.cz	Pavel Havlícek
45	Asplan Viak	Norway	164	164	164	1228	1228	2	2	asplanviak.no	Elisabeth Heggelund Tørstad
46	Vulcain Engineering	France	162	270	300	2500	2800	6	12	www.vulcain-eng.com	Alban Guilloteau
47	Fichtner	Germany	161	174	292	1700	2011	12	31	www.fichtner.de	Andreas Weidler
48	ILF	Austria	159	159	262	1550	2600	14	31	ilf.com	Klaus Lässer
49	TPF	Belgium	157	157	281	1896	4990	9	26	tpf.eu	Thomas Spitaels
50	ATP	Austria	156	156	156	1200	1200	7	7	atp.ag	Christoph M. Achammer
51	Idom	Spain	150	150	369	3300	5125	7	20	idom.com	Luis Rodríguez Llopis
52	Witteveen+Bos	Netherlands	150	150	166	1322	1427	4	10	witteveenbos.com	Wouter Bijman
53	Amstein+Walthert	Switzerland	147	147	147	1100	1100	2	2	amstein-walthert.ch	Christian Appert
54	Kardham	France	140	140	140	500	500	4	4	kardham.com	Jean-François Couëc
55	Dorsch	Germany	133	140	270	1700	3200	1	15	dorsch.com	Olaf Hoffmann
56	Gruner	Switzerland	132	132	148	1083	1083	6	6	gruner.ch	Olivier Aebi
57	Granlund	Finland	129	129	129	1358	1358	3	5	granlundgroup.com	Pekka Metsi
58	Tauw	Netherlands	129	147	147	1273	1273	6	6	tauw.com	Henrike Branderhorst
59	Schüßler-Plan	Germany	125	125	125	1000	950	2	2	schuessler-plan.de	Christina Zimmermann
60	CSD	Switzerland	122	122	122	1000	1000	6	6	csd.ch	Agostino Clericetti

61	ACEA Engineering	Italy	118	118	118	456	456	1	5	gruppo.acea.it	Tommaso Sabato
62	AINS	Finland	118	118	118	1277	1277	2	2	ains.fi	Kari Kauniskangas
63	Iv	Netherlands	116	129	129	920	969	1	2	iv-groep.nl	Maarten van de Waal
64	Typsa	Spain	116	116	325	1607	3317	6	21	typsa.com	Pablo Bueno Tomás
65	Tecne	Italy	113	113	126	836	836	1	1	autostrade.it	Gian Paolo Melis
66	Movares	Netherlands	111	111	111	850	850	1	1	movares.nl	Robert Claasen
67	Obermeyer	Germany	110	110	152	1200	1400	5	8	obermeyer-group.com	Stefan Zimmermann
68	Proger	Italy	110	110	127	600	800	4	10	proger.it	Marco Lombardi
69	BG Consulting Eng.	Switzerland	109	109	109	750	750	4	5	bg-21.com	Pierre Epars
70	Arep	France	105	105	119	680	840	2	6	arep.fr	Raphaël Ménard
72	Ridge	UK	105	105	105	776	776	1	1	ridge.co.uk	Adrian O'Hickey
73	SLR Consulting	UK	101	101	343	1000	2531	6	14	slrconsulting.com	Bradley Andrews
74	Suez Consulting*	France	100	100	140	800	1200	16	53	suez.com	Bruno Hervet
75	Buro Happold	UK	98	98	334	1500	2393	5	11	burohappold.com	Oliver Plunkett
76	Emch+Berger Group	Switzerland	95	119	117	800	800	3	3	emchberger.ch	Mirko Feller
77	Géotec	France	93	93	100	790	900	3	6	geotec.fr	Frédéric Barnoud
78	Sina	Italy	90	91	91	296	296	1	1	sinaing.it	Marco Garozzo
79	HPC	Germany	89	89	89	788	788	6	6	hpc.ag	Arno Bartels
80	HDR	USA	85	85	2978	650	12000	2	9	hdrinc.com	John Henderson
81	OTE	France	84	84	84	320	320	1	1	ote-ingenierie.com	Patrick Lullin
82	PE Teknik & Arkitektur	Sweden	84	84	84	828	828	1	1	pe.se	Liselotte Haglind
83	AGN	Germany	82	82	82	800	800	1	1	agn.de	Stefan Nixdorf
84	Basler & Hofmann	Switzerland	82	86	86	670	700	4	5	baslerhofmann.ch	Dominik Courtin
85	Fondasol	France	82	82	95	730	850	2	5	groupefondasol.com	Olivier Sorin
86	Geoterra	Switzerland	81	81	81	600	600	1	1	geoterra-gruppe.ch	Eugenio Peduzzi
87	CDM Smith	USA	80	80	1236	723	5400	4	21	cdmsmith.com	Timothy B. Wall
88	Hydrock	UK	79	79	79	789	789	1	3	hydrock.com	Brian McConnell
89	Pick Everard	UK	79	79	79	600	600	1	1	pickeverard.co.uk	Duncan Green
90	Vössing	Germany	78	78	78	700	700	2	3	voessing.de	Rudolf Vienenkötter
91	Zetcon	Germany	75	75	75	645	645	1	1	zetcon.de	Caspar Tillmann
92	Rapp	Switzerland	74	74	74	425	425	2	2	rapp.ch	Daniel Scheifele
93	Holinger	Switzerland	73	73	77	610	610	3	3	holinger.com	Andreas Borer
94	Structor	Sweden	72	72	72	520	520	2	2	structor.se	Monica Granberg
95	ABO	Belgium	71	71	71	480	480	3	3	abo-group.eu	Frank De Palmenaer
96	Waterman	UK	71	136	143	1200	1240	2	3	watermangroup.com	Nicholas Taylor
97	Aas-Jakobsen	Norway	70	70	70	250	250	1	1	aas-jakobsen.com	Trond Hagen
98	Eptisa	Spain	70	70	105	800	1000	13	32	eptisa.com	Mauricio Gómez Villarino
99	Sener	Spain	69	150	370	1939	2867	5	18	sener.es	Jorge Sendagorta Cudós
100	Bengt Dahlgren	Sweden	68	69	69	557	557	1	1	bengtdahlgren.se	Erik Bolander
101	Cundall	UK	66	66	89	630	992	5	14	cundall.com	Carole O'Neil
102	JBA	UK	66	66	69	810	846	2	9	jbaconsulting.com	Jeremy Benn
103	Oosterhoff	Netherlands	65	65	65	550	600	3	3	oosterhoffgroup.eu	Gerard Doos
104	Parlym	France	64	100	150	880	1000	3	6	parlym.com	Johann Charrier
105	Altyn	France	62	65	65	556	556	1	1	altyn-groupe.com	Alban Lapierre
106	Envidan	Denmark	61	61	66	326	326	3	3	envidan.com	Ole Fritz Adeler
107	Pell Frischmann	UK	60	60	60	578	578	1	1	pellfrischmann.com	Iain Bisset
108	Solwers	Finland	60	63	63	582	582	2	2	solwers.fi	Stefan Nyström
109	Hill International	USA	59	59	392	500	3200	16	42	hillintl.com	Raouf S. Ghali
110	Inros Lackner	Germany	58	58	70	600	700	2	17	inros-lackner.de	Ingo Aschmann
111	Krean	Spain	58	58	61	400	400	1	5	krean.com	Luis Anduaga
112	VK	Belgium	58	58	58	540	540	3	4	vkgroup.be	Paul Corbeel
113	Fairhurst	UK	56	56	56	550	550	1	1	fairhurst.co.uk	Bob McCracken
114	Lombardi	Switzerland	56	56	86	600	800	4	10	lombardi.group	Michele Fumagalli
115	Aveco de Bondt	Netherlands	55	55	55	500	500	3	3	avecodebondt.nl	Gerald Paalman
116	Efla	Iceland	54	61	61	400	400	7	7	efla-engineers.com	Sæmundur Sæmundsson
117	M&P	Germany	54	60	63	350	350	3	3	mp-gruppe.de	Olaf Clausen
118	Deerns	Netherlands	53	53	64	420	500	6	9	deerns.com	Tjerk van der Meer
119	Schroeder & Associés	Luxembourg	53	53	53	420	420	1	1	schroeder.lu	Thierry Flies
120	Bernard	Austria	52	52	58	430	450	2	6	bernard-gruppe.com	Maria Bernard-Schwarz
120	Keran	France	52	52	63	640	650	2	8	groupe-keran.com	Denis Pourlier-Cucherat
121	Bjerking	Sweden	51	51	51	431	431	1	1	bjerking.se	Anders Wärefors
122	Edeis	France	50	101	101	850	850	3	3	edeis.com	Jean-Luc Schnoebelen
123	Hitzler Ingenieure	Germany	50	50	50	450	450	2	2	hitzler-ingenieure.de	Christoph Hitzler
124	PBR	Germany	50	50	50	500	500	1	2	pbr.de	Jörg Rasehorn
125	Sofren	France	50	55	58	650	650	2	2	sofrengroup.com	Fabrice Girard

126	IM - IUB	Switzerland	48	48	48	322	322	3	3	engineering-group.ch	Bernhard Matter
127	Verkís	Iceland	47	50	51	362	362	6	7	verkis.is	Eigill Viðarsson
128	Lindschulte	Germany	46	46	46	450	450	1	1	lindschulte.de	Thomas Garritsen
129	Wardell Armstrong	UK	46	46	53	460	472	1	2	wardell-armstrong.com	Keith Mitchell
130	Amberg	Switzerland	45	45	50	240	400	9	10	amberggroup.com	Christoph Schaffer
131	Oteis	France	45	45	55	550	650	1	1	oteis.fr	Rafi Kouyoumdjian
132	Pini	Switzerland	45	50	70	550	800	7	19	pini.group	Andrea Galli
133	Surbana Jurong	Singapore	45	45	1415	410	16000	2	35	surbanajurong.com	Sean Chiao
134	Aquatec	Spain	44	44	44	434	434	1	1	agbar.es	Vicente Gómez Martínez
135	Mitta	Finland	44	55	55	487	487	3	3	mitta.fi	Aki Puska
136	Pegasus	UK	44	44	44	400	400	1	1	pegasusgroup.co.uk	Nicky Parsons
137	Weber Ingenieure	Germany	44	44	44	366	366	1	1	weber-ing.de	Jan Weber
138	Assmann	Germany	43	43	43	480	480	1	1	assmann.info	Martin Fecke
139	Infraneo	France	43	43	44	500	500	4	4	infraneo.com	Bruce Xiste
140	Vinnergi	Sweden	43	43	43	393	393	2	2	vinnergi.se	Pierre Wallgren
141	OJ	Denmark	42	42	42	325	325	1	1	ojas.dk	Brian Thyregaard Andreasen
142	PGMM	Germany	42	42	42	380	380	1	1	pgmm.com	Christoph Gingelmaier
143	Tony Gee	UK	42	42	51	310	387	1	8	tonygee.com	Neil Farmer
144	B+S	Switzerland	41	41	41	330	330	1	1	bs-ing.ch	Cäsar Graf
145	Werner Sobek	Germany	41	41	44	380	400	4	7	wernersobek.com	Roland Bechmann
146	DBA	Italy	40	83	85	770	770	7	8	dbagroup.it	Raffaele De Bettin
147	Hochtief Engineering	Germany	40	42	47	340	540	3	5	hochtief-engineering.de	Erol Erdem
148	Projex	France	40	40	40	400	400	1	2	groupe-projex.fr	Eric Noel
149	Assmann Group	Germany	39	39	39	250	250	1	1	assmanngruppe.com	Christian Cramer
150	Curtins	UK	39	39	39	367	367	1	2	curtins.com	Rob Melling

Notes: “Services” are engineering services for construction in Europe; * indicates data for 2021.

with the need for not only reliable energy solutions but also resource-efficient industrial solutions, modern transportation infrastructure, and climate-smart living environments.

Staffing challenges and ESG

Staff shortages dominated in 2022. The ability to network globally, especially in larger sectors such as transport and energy, to form versatile and high-performance organisations that attract and retain talent was perhaps the determining factor in meeting the increased demand for engineering services for construction. Being effective in this respect was a challenge since many firms sought organic growth (the headcount of some groups increased by 14% per annum).

Firms were also prompted to monitor the tangible impact of their operations on staff, and not only on projects and the organisation as a whole. This took place in the context of a widespread shift to constructively assess the full ESG (environmental, social and governance) and operational impacts on firms of their projects. Many firms aimed to avoid a dogmatic approach that refused in principle not to engage with certain types of projects. Instead, each project was assessed rigorously, especially those that need to balance complex and competing factors in sectors such as renewable energy that require scarce materials. In other cases the commitment was to design all new-build projects to be net-zero carbon in operation by 2030. Such initiatives were often linked to de-risking increasingly more complex projects and having climate neutrality as a company goal.

Tools to quantify the physical climate risks of infrastructure investment decisions and standards to certify effective carbon management systems often resulted from partnerships that opened up opportunities in many other areas. Partnerships reported by the top 150 firms addressed for example: co-development of digital services; dissemination of knowledge into engineering education; holistic real-estate solutions spanning engineering, finance and sustainability; professional mentoring of refugees; materials’ circularity to create building products; removal of harmful single-use plastics.

European Union considerations

More generally, the EU believed that in response to the USA’s $369 billion Inflation Reduction Act and other similar programmes, Europe required a structural answer to industries’ investment needs. A first step was finalisation of the EU Strategic Technologies for Europe Platform (STEP). STEP was included in a revised EU multiannual financial framework and announced under the Green Deal Industrial Plan that is part of the overriding European Green Deal strategy. A Sovereignty Seal project label is envisaged so as to crowd in investment and allow privileged and simplified access to EU funding. However, planned priorities and the impact of the various blended funding streams remain unclear, especially with regard to engineering services for construction.

Nonetheless, European Green Deal funding for engineering services for construction is becoming significant in several countries. This strategic €1824 billion investment aims to achieve climate neutrality by 2050, with the Fit for 55 plan to reduce greenhouse gas emissions by 55% by 2030 as a stepping stone. The EU’s seven-year Multiannual Financial Framework budget and Next Generation EU Recovery Plan that has the €724 billion Recovery and Resilience Facility (€192 billion and €163 billion funding for Italy and Spain, respectively) as its key instrument make up one third of Green Deal investment. Both were revised to cover increased funding costs owing to inflation.

Growth slowing

The increased demand for engineering services for construction was not only about increased capital investment. For example, new EU regulations will require the life-cycle assessment of new buildings while in the water sector, demand was driven by the need to deliver primarily for operating budgets to meet increasingly more stringent regulatory requirements. Whatever the driver, the demand is reflected by the investment in constructed assets, namely buildings and economic infrastructure (generally classified

The top 100 engineering services firms with headquarters in Europe ranked by global turnover

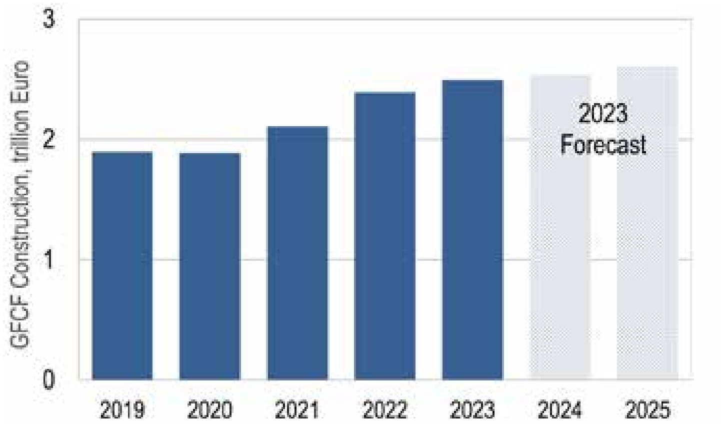
No.	Name	HQ	Turnover, €m	Headcount
1	Arcadis	Netherlands	4029	35617
2	Arup	UK	2461	18837
3	Mott MacDonald	UK	2310	18200
4	Rambøll	Denmark	2283	18302
5	Sweco	Sweden	2185	20297
6	Afry	Sweden	2118	18687
7	Fugro	Netherlands	1766	9851
8	Egis	France	1490	16000
9	Turner & Townsend	UK	1394	10731
10	Cowi	Denmark	985	7501
11	RSK	UK	941	7785
12	Systra	France	902	8900
13	Norconsult	Norway	834	5600
14	Artelia	France	833	7300
15	RPS	UK	756	5225
16	Drees & Sommer	Germany	704	5104
17	Royal HaskoningDHV	Netherlands	699	6251
18	Ayesa	Spain	649	10261
19	PM	Ireland	612	3650
20	Tractebel	Belgium	605	5000
21	Antea	Netherlands	497	3400
22	Assystem	France	494	6401
23	Tragsatec	Spain	471	9926
24	Niras	Denmark	464	2597
25	Multiconsult	Norway	463	3353
26	Rina Consulting	Italy	435	2907
27	Setec	France	434	3500
28	Sener	Spain	370	2867
29	Idom	Spain	369	5125
30	Ineco	Spain	362	4545
31	SLR Consulting	UK	343	2531
32	Italferr	Italy	336	2633
33	Buro Happold	UK	334	2393
34	Typsa	Spain	325	3317
35	Ingérop	France	316	2600
36	Rejlers	Sweden	316	2773
37	Vulcain Engineering	France	300	2800
38	Fichtner	Germany	292	2011
39	Tyréns	Sweden	283	2482
40	TPF	Belgium	281	4990
41	Dorsch	Germany	270	3200
42	ILF	Austria	262	2600
43	Ekium	France	252	2500
44	Ginger	France	210	2200
45	Bilfinger Tebodin	Netherlands	210	1600
46	Sudop	Czech Republic	207	2000
47	Sitowise	Finland	204	2232
48	Witteveen+Bos	Netherlands	166	1427
49	Asplan Viak	Norway	164	1228
50	ATP	Austria	156	1200
51	Obermeyer	Germany	152	1400
52	Parlym	France	150	1000
53	Gruner	Switzerland	148	1083
54	Amstein+Walthert	Switzerland	147	1100
55	Tauw	Netherlands	147	1273
56	Waterman	UK	143	1240
57	Kardham	France	140	500
58	Suez Consulting	France	140	1200
59	Granlund	Finland	129	1358
60	Iv	Netherlands	129	969
61	Proger	Italy	127	800
62	Tecne	Italy	126	836
63	Schüßler-Plan	Germany	125	950
64	CSD	Switzerland	122	1000
65	Arep	France	119	840
66	ACEA Engineering	Italy	118	456
67	AINS	Finland	118	1277
68	Emch+Berger Group	Switzerland	117	800
69	Movares	Netherlands	111	850
70	BG Consulting Eng.	Switzerland	109	750
71	Ridge	UK	105	776
72	Eptisa	Spain	105	1000
73	Edeis	France	101	850
74	Géotec	France	100	900
75	Fondasol	France	95	850
76	Sina	Italy	91	296
77	HPC	Germany	89	788
78	Cundall	UK	89	992
79	Basler & Hofmann	Switzerland	86	700
80	Lombardi	Switzerland	86	800
81	DBA	Italy	85	770
82	OTE	France	84	320
83	PE Teknik & Arkitektur	Sweden	84	828
84	AGN	Germany	82	800
85	Geoterra	Switzerland	81	600
86	Hydrock	UK	79	789
87	Pick Everard	UK	79	600
88	Vössing	Germany	78	700
89	Holinger	Switzerland	77	610
90	Zetcon	Germany	75	645
91	Rapp	Switzerland	74	425
92	Structor	Sweden	72	520
93	ABO	Belgium	71	480
94	Aas-Jakobsen	Norway	70	250
95	Inros Lackner	Germany	70	700
96	Pini	Switzerland	70	800
97	Bengt Dahlgren	Sweden	69	557
98	JBA	UK	69	846
99	Envidan	Denmark	66	326
100	Oosterhoff	Netherlands	65	600

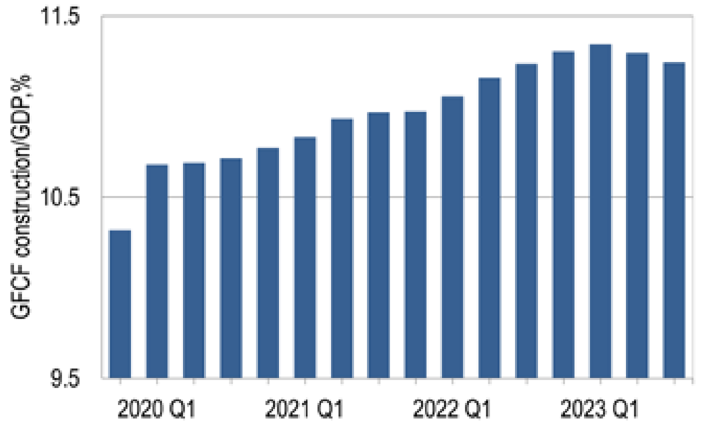
Notes: “engineering services” are for construction in Europe ; “turnover” & “headcount” are the global turnover & headcount.

in national accounts as “other structures”). Investment trends are monitored using Gross Fixed Capital Formation (GFCF) for construction as a percentage of GDP. The ratio for Europe (EU Member States, Bosnia, Iceland, Norway, Serbia, Switzerland, Turkey, and the UK) recovered rapidly following the pandemic to the extent that it increased year-on-year by 13.5% in 2022 (see upper figure). In terms of spending, IHS Markit forecast a 3.3% year-on-year growth in construction spending in Europe in 2022, with infrastructure spending growing 50% faster than for buildings.

The top 150 firms were able to increase their turnover for construction in Europe in 2022 at a rate (13.5%) that was the same as the growth rate for investment. The year-on-year increase in turnover was therefore much higher than the forecast for the average increase in spending. However, contrary to the forecast for spending, the 12.5% year-on-year growth of the top 150 firms’ turnover for infrastructure in the broadest sense (i.e., including Energy, Oil & Gas and Industry, Environment, and Water & Waste) was less than the year-on-year growth for buildings (14.8%).

Turning to 2023 and beyond, the GFCF/GDP ratio for construction investment in Europe is forecast to decrease to pre-pandemic levels of 4.3% in 2023 and 1.5% in 2024. Similarly, IHS Markit forecasts a decrease from 3.3% to 2.6% for the year-on-year growth of construction spending in Europe in 2023. The turnaround is also apparent in the 12-month rolling average for the GFCF to GDP investment ratio (see lower figure).





Upper: investment (GFCF) in construction in Europe (see text for the countries). Current prices; forecasts for 2023 and 2024 based on the EU AMECO database. Lower: GFCF construction/GDP ratio; 12-month rolling average. Sources: Eurostat, AMECO and national accounts.

Business developments

The convergence of investment to tackle megatrends including the energy transition and renovation in general, sustainability, resilience, urbanisation, and digitalisation calls for a strengthening of engineering services for construction for both buildings and infrastructure. Organic growth is often possible and increasingly sought. However, mergers and acquisitions combined with strategic divestment and restructuring are also required

Multidisciplinarity to the fore

The top 150 firms’ global headcount increased by 10.2% in 2022. Close to one third (37.8%) of this growth was inorganic growth resulting from mergers, acquisitions and divestments (inorganic growth amounted to headcount increases of 26533 in 2021, 24652 in 2022 and 30880 in 2023). The high level of inorganic growth suggested that mergers and acquisitions involving multidisciplinary groups were an important aspect. However, there were several major acquisitions during the two-year 2022-23 period that did not focus on multidisciplinarity. They included Canada’s WSP acquiring Wood’s environmental and infrastructure business (5500 staff) and the US-based Hill International (3200 staff) becoming a private company within the US-based GISI design and construction management business.

The acquisition by Holland’s Arcadis of Canada’s IBI (3500 staff) was among the most important multidisciplinary mergers and acquisitions. It was accompanied by the acquisition of Ireland’s manufacturing full-service provider DPS (2850 staff). Arcadis also disinvested in several countries in Asia and Europe. GISI for example acquired the Singapore and Hong Kong Arcadis business (500 staff).

Also significant from a multidisciplinary perspective were: the acquisition of the UK’s RPS (5000 staff) by the USA’s TechTetra; Canada’s WSP acquiring Switzerland’s BG Consulting Engineers (700 staff); Canada’s Stantec agreeing to acquire Germany’s Zetcon (800 staff) having acquired the UK’s consulting engineer and planner Barton Willmore (300 staff). Included among these global companies capable of providing engineering, design and construction support services to large, international industrial groups were France’s Sofresid Engineering (320 staff) and Fiva (300 staff) and Spain’s CPQ Ingenieros (110 staff) that were acquired by France’s Ekium. Finally, in Norway, Norconsult acquired the Danish multidisciplinary engineering firms LB Consult (50 staff) and Ingeniørværket (26 staff) and Multiconsult acquired the multidisciplinary Erichsen & Horgen (235 staff).

In the opposite direction, geographically speaking, France’s Artelia and Egis acquired respectively Canada’s multidisciplinary FNX-Innov (1100 staff) and McIntosh Perry (800 staff) and Italy’s Rina Consulting acquired the USA’s Patrick Engineering (340 staff). In Australia, Spain’s Typsa acquired EDG and Egis acquired Calibre’s built environment division, with both having some 400 staff. Elsewhere, Movares (850 staff) based in The Netherlands merged with the smaller Innovus group, Germany’s Dorsch merged with Egypt’s ECG (3000 staff), Sweden’s Afry acquired Finland’s Vahanen (500 staff), Sweden’s Sweco acquired Denmark’s OJ Radgivende Ingeniorer (325 staff), the UAE’s Sidara (formerly Dar) acquired Turkey’s Su-Yapi (480 staff), and France’s Egis acquired Colombia’s Payc (350 staff).

Somewhat smaller multidisciplinary acquisitions were the acquisition: in Iceland, of Mannvit (280 staff) by Denmark’s Cowi; in Norway, of Smidt & Ingebrigtsen (38 staff) by

Norway's Multiconsult; in Sweden, of Convia (23 staff) by Finland's Sitowise; in the UK, of Crouch Waterfall (50 staff) and 3E Consulting Engineers (30 staff) by France's Vulcain and the UK's Hydrock, respectively; in Ireland, of the multidisciplinary ByrneLooby Partners (225 staff), Barry & Partners (180 staff) and Jennings O'Donovan (100 staff) by Spain's Ayesa, Egis and the UK's RSK, respectively; in India, of HDP Consultants (32 staff) and Mace (50 staff) by RSK and Artelia, respectively.

Focused more towards multi-disciplinary architecture and engineering services for buildings, property and real estate during the two-year 2022-23 period were the acquisition by Egis of Saudi Arabia's Omrania (700 staff) and the UAE's WME (staff) and U+A (180 staff) having acquired Kuwait's Projax (600 staff) in 2021. Canada's WSP also completed the acquisition of Spain's BOD Arquitectura e Ingeniería (45 staff) together with the acquisition of Capita REI (750 staff) and GL Hearn (250 staff) which are UK-based advisers for owners and developers.

High-performance industrial buildings

Many of the top 150 firms also used mergers and acquisitions to help meet industry's increased demand for high-performance buildings. Such facilities featured strongly for Artelia in its acquisition of Denmark's LBP Engineering (50 staff) for pharmaceutics following the acquisition in 2021 of France's SDZ ProcessRéa (20 staff) for the design of logistics centres. In the UK, Hydrock acquired two logistics centre designers, namely KTA and Kelly Taylor, each with 20 staff. In Germany, to strengthen workplace design France's Kardham acquired POT Beratungsteam (20 staff) and Germany's Drees & Sommer acquired Sweden's GoToWork (21 staff). In the UK, Buro Happold acquired the laboratory designer Abell Nepp (20 staff). In France, Egis acquired the industrial building designer AG Concept (20 staff), Oteis acquired Icade (36 staff) for hospital design and Ingérop acquired Risk & Co's building security engineering business (20 staff) and Germany's industrial building designer RRI (15 staff). In Finland, Granlund acquired the hospital equipment planning specialist Projektivisio (5 staff). Moreover, Egis acquired the US-based hotel designer SB Architects (80 staff) and invested in advanced building design by acquiring the UK's WMEboom and Inhabit (25 staff in total). With data centres fore and centre, Rambøll acquired the US-based data-centre consultancy EYP (50 staff), Belgium's Tractebel acquired the UK's data-centre designer Red Group (160 staff) and Spain's Sener acquired control of Quark (70 staff).

Architecture continues to attract

The acquisition of architecture practices was fairly restrained outside Scandinavia. Austria's ATP acquired Poland's IMB Asymetria (40 staff) and Switzerland's Hemmi Fayet (30 staff), in the UK, RSK acquired ARA Architecture (10 staff) and in Germany, the USA's HDR divested most of its architecture business to the Telluride (150 staff) management buyout. Compare this with Sweden where Sweco acquired Norway's Arcasa Arkitekter (69 staff), Finland's Neva Architects (30 staff), The Netherlands' architecture practices Van Aken (50 staff) and JHK Architects (20 staff), and Belgium's VK Architects-Engineers (600 staff). Prior to being acquired VK had itself made several acquisitions including the UK's AD Architects (20 staff) and in the Benelux region the integrated designer Van Looy (40 staff), the logistics specialist DENC (60 staff), the building services engineers Betic (84 staff) and EKOplan (12 staff), and the buildings simulation specialist One Simulations (10 staff).

In Norway, the acquisition of the architecture group A-Lab (14 staff) by Multiconsult was accompanied by a series of acquisitions by Norway's Norconsult which transitioned to a publically listed company in late 2023, owing partly at least to changes in tax regulations. Norconsult acquired Moldskred (20 staff), merged with the structural engineer Djerving (24 staff) and acquired the architecture practices KJ-A (23 staff), JAF Arkitektkontor (16 staff) and AG Plan (4 staff).

An architecture practice was also acquired by Sweden's Rejlers during the 2022-23 period, namely Arsatek (12 staff) based in Finland where Solwers followed the same course by acquiring Sabelström (8 staff) and Arkman (5 staff). Finland's AINS also strengthened architecture, planning and building technology by merging with the architects AW2 (in 2021; 60 staff), B&M (30 staff) and Konkret (20 staff) and acquiring the building renovation specialists Buildnet (in 2021; 9 staff) and Frontago (5 staff).

Planning the renovation of buildings was the focus of the acquisition by France's Ingérop of Germany's Bau-Plan (15 staff). Including the sustainability dimension became a major specialised core competence in Finland for Sitowise with its acquisition of Rakennuttajakaari (45 staff). With renovation elsewhere sometimes focusing more on historic buildings, France's Oteis acquired the SGI Group's French subsidiary SGI Engineering (45 staff) to support the Oteis subsidiary IOA (37 staff) that had been acquired in 2021.

Interest in specialised engineering services for buildings was widespread. Sweco acquired the vibration engineer Venac (5 staff) and the fire consultancy OJ Brandrådgivning (16 staff) as well as Belgium's fire-safety designer FPC Risk (30 staff). Also in Sweden, PE Teknik & Arkitektur acquired the acoustics engineer Gärdhagen Akustik (10 staff). In the UK, RSK acquired the building façade and fire engineer FR Consultants (30 staff) and in France, Egis acquired the fire and safety engineer ODZ (20 staff).

Building services boom

The demand for building services inevitably increases when residential and non-residential construction grows: the 2022-23 period was no exception. In Italy, DBO acquired General Planning (80 staff) that specialises in integrating design and engineering; in Sweden, Bengt Dahlgren acquired VVS Plan (22 staff) and Granlund acquired ECO Konsult (23 staff); in Finland, AINS acquired GHS (14 staff) and Airlon (23 staff); in Finland, Asplan Viak acquired Structor Bergen (20 staff); in Austria, ATP took over the building services planning business (120 staff) of Germany's Obermeyer; in France, Ingérop acquired Germany's IBF (50 staff) to offer both engineering and planning.

Interest in integrated building services engineering prompted Finland's Sitowise to acquire the Swedish electrical engineer E60 Elkonsult (10 staff) and Sweden's Rejlers to acquire the Norwegian electrical engineer AJL (15 staff) and in 2021, the Swedish installation consultants Helenius (70 staff). Rejlers then expanded the activity into Norway by acquiring the electrical engineer Omega Holtan (30 staff) and into Finland by acquiring the building services designer ClimaConsult (14 staff). Finally, Sweco reinforced services related to building regulations by acquiring the UK's Ball & Berry (40 staff) and in France, Altyn (formerly Alterea) acquired the building performance specialist Aveltys (23 staff).

In Switzerland, the acquisitions by Geoterra of Schulthess+Dolder (26 staff), of Construktur (10 staff) and of the high-rise structural engineer UBM (20 staff) aimed to further strengthen structural engineering. In nearby Germany, Drees & Sommer acquired the structural engineer PM1 (120 staff); in Finland, Rejlers acquired SRT (25 staff) and AINS acquired J. Sund (13 staff). Finally, Cowi acquired the USA's structural engineer Finley (35 staff) and the UK's RSK acquired Milner Associates (10 staff).

Some acquisitions impacting the urban and buildings sector specifically aimed to leverage digital capabilities and innovation. Switzerland's Pini for example merged with Italy's engineering and architecture firm Inea (130 staff) to leverage BIM credentials as did Germany's Drees & Sommer in acquiring Austria's Die Werkbank IT (60 staff) and Holland's Oosterhof in acquiring Van de Laar (35 staff). Drees & Sommer also acquired Macom (80 staff) to digitalise engineering services for construction using modular approaches. In Denmark, Cowi acquired FLUX Automated Design (18 staff) that offers software solutions for automating the early stages of design and in France, Egis acquired SustainEcho (8 staff) to automate life-cycle carbon assessment. Closely related was the digitalisation of smart buildings with France's Kardham acquiring Tévolys (11 staff) and its building operating system. More strategic was the investment by the UK's SLR in climate risk analysis and adaptation assessment via a majority stake in New Zealand's CLIMsystems (20 staff). Sweco acquired Belgium's Futureproofed (128 staff) that develops carbon management tools. In adopting a similar approach, France's Oteis acquired Lab-ingénierie (10 staff) that simulates interactively low-energy building designs. In Holland, the acquisition by Oosterhoff of DataBuilt (20 staff) tackled future-proofing differently: building performance is optimised by analysing how occupants live. Last but not least, in France, Ginger acquired Recovering (10 staff) to identify recycling channels and develop materials' circularity engineering along the lines being pioneered in Switzerland by Nutec (5 staff) that was acquired by CSD.

Strengthening and expanding core competence

In Switzerland, Afry acquired the civil engineer G+K Winterthur (11 staff) while other Swiss firms had the same focus: Holinger acquired Mauler (35 staff); Geoterra acquired Edgar Kälin (20 staff); Pini acquired Italy's geo-engineer Geodata (250 staff) as well as the civil engineer EBEI (50 staff) in Brazil, JLCM (20 staff) in Portugal, Sepi (70 staff) in Italy, and the Swiss civil engineers ALP and SEGC, each with 10 staff. Spain's geo-engineer Tunnelconsult (53 staff) was acquired by Sidara, Systra acquired underground engineers in both Spain (Subterra; 100 staff) and Australia (Bamser; 80 staff) and in Finland, Solwers acquired the underground engineer Rockplan (100 staff).

Elsewhere in civil engineering: Egis acquired Ireland's Barry & Partners (180 staff) as well as Romania's Italrom (40 staff); in the USA, the subsidiary Boswell Engineering of Italy's Italconsult acquired the USA's Ferriero (25 staff); in the UK, Hydrock acquired Complete Design Partnership (15 staff) and RSK acquired Hollywood (20 staff) and Travis Baker (40 staff); in Finland, Sitowise acquired Infrasuunnittelu (17 staff) and Sweden's Mavacon (13 staff). Marine civil and structural engineering attracted attention in Denmark with NIRAS acquiring LICengineering (20 staff).

Rail transport infrastructure dominated

Infrastructure in the broadest sense includes not only telecommunications and civil works for transportation but also structures for utilities in the power, industry, oil and gas, and water and waste treatment sectors. In 2022, transport infrastructure, with sustainable rail systems lying at its heart, remained the top 150 firms' largest sub-sector, with acquisitions following suite. Systra undertook a strategic reinforcement of its transport business by acquiring the Swedish, Danish and Norwegian subsidiaries (770 staff) of Canada's AtkinsRéalis (formerly SNC-Lavalin). Expansion in Australia also led Spain's Sener to acquire the transportation engineer Tactix (200 staff). France's Assystem meanwhile acquired India's Larsen & Toubro transportation and energy engineer L&T (430 staff).

Focusing on rail transport, Systra acquired the rail engineer Rail Systems Australia (130 staff) and Egis acquired Australia's rail signalling and telecommunications engineer Omada (80 staff) as well as France's rail signalling inspector NordSignal (10 staff). Ingérop acquired the rail maintenance planner T&RS (12 staff) and Spain's rail systems specialist Leedeo Engineering (90 staff). In Germany, Rambøll agreed to acquire Germany's rail safety inspector TuMotus (27 staff) and Schüssler-Plan joined with RUBI Bahntechnik to create Schüssler-Plan Intec (48 staff) to offer monitoring services for rail infrastructure. More specialised was the acquisition of Thailand's maritime engineer SMV (100 staff) by Artelia and the acquisition by Ingérop of the Australia's structural engineer Aspec (40 staff) which specialises in bulk materials handling. Setec on the other hand consolidated in France by acquiring the bridge structural engineer ISM (20 staff).

More generally, Denmark's Rambøll strengthened strategic consultancy for transport by acquiring Germany's Civity (50 staff). In Sweden, Sweco acquired the traffic planning specialist Via Trafik (53 staff) and in the UK, Egis acquired the transport and urban planner Weston Williamson (150 staff). In the UK, the traffic planners Vectos (150 staff), Fore Consulting (20 staff) and Australia's SCP (45 staff) were acquired by SLR, Hydrock and RSK, respectively.

Surprisingly, acquisitions related to road transport were relatively few, the exceptions being Italy, where Spea acquired Tecne's road engineering business (650 staff) and The Netherlands, where ABO acquired the road and sewer engineer SWBO (10 staff). Also in The Netherlands, Royal HaskoningDHV divested its North American InterVISTAS subsidiary (100 staff) to focus on intermodal instead of air travel planning. The group also acquired Holland's Districon (80 staff) to strengthen supply chain planning.

Nuclear and renewable energy

Turning to infrastructure in the broadest sense, in Germany, the full-service renewable energy engineers BLS Energieplan (100 staff) and Windsy (15 staff) were acquired by Dorsch and Vulcain, respectively. The renewable energy consultancies Blix (20 staff) based in The Netherlands, New Energy Scout (10 staff) based in Switzerland and Hinicio (40 staff) based in Belgium were acquired by Afry, Switzerland's Basler & Hofmann and France's Vulcain, respectively. Ireland's renewable energy planner Ionic Consulting (42 staff) and the UK's Optimised Environments (50 staff) were acquired by Afry and the UK's SLR, respectively. The UK's Mott Macdonald focused more on renewable energy system development and policy by acquiring Australia's Engevity (10 staff). Vulcain also acquired Spain's energy and civil works engineer iPlan (285 staff) while marine renewable energy received some attention in France with Keran acquiring the energy system planner YS EMD (10 staff). In Denmark, NIRAS acquired AquaBiota (25 staff) to strengthen its environmental assessment of windfarm capability.

France's Assystem acquired India's nuclear safety specialist Relsafe PRA Consulting (20 staff) having divested activities involving some 550 staff in total to focus on engineering and project management for energy systems, notably nuclear energy. Egis adopted a slightly different approach by acquiring France's Atrix (173 staff) that specialises in safety and building services' engineering. Afry agreed to acquire Hungary's nuclear safety engineers SOM and TTSA (20 staff) while in the UK, Hydrock acquired the nuclear safety assessor 3T Safety Consultants (38 staff). Related to nuclear safety was the acquisition by Iceland's Mitta of the nuclear waste management business of Finland's AINS (22 staff).

Electricity transmission is a key element for the transition to renewable energy. Iceland's Efla acquired a majority stake in France's energy transmission specialist Hecla (10 staff), Arcadis acquired Germany's energy transmission and transport engineer Giftge Consult (60 staff), Sweco acquired Belgium's electricity system engineer Vitech (60 staff), and in Italy, DBA acquired the high-voltage transmission engineer C&G (30 staff).

Digitalisation impacted infrastructure

As was often the case for buildings and building services, several acquisitions impacting the infrastructure sector aimed to leverage digital capabilities. Afry acquired Finland's wind farm modelling specialist Numerola (10 staff) while in Finland, Rejlers acquired the wind farm consultancy Tuulipuistopalvelut (5 staff), the wind farm data security specialist Three Kings (3 staff) and Loiste Energia (10 staff) that develops wind farm monitoring systems.

In France, Assystem acquired Oreka Engineering (15 staff) to develop digital twins and immersive solutions for training in the nuclear energy sector. Similarly, Canada's AtkinsRéalis acquired the UK's FlexProcess (11 staff) in order to offer engineering simulation of nuclear infrastructure based on digital twins. The increasing importance of digital solutions for water management was once again demonstrated by Arcadis acquiring Holland's HydroLogic (10 staff), the owner of the HydroNet platform.

Water and the environment

In Germany, the specialist water management engineer Planungsgruppe Rheinhessen (14 staff) was acquired by Schüssler-Plan and the waste water engineer IAT Ingenieurberatung (15 staff) was acquired by Switzerland's Holinger. Denmark's Envidan acquired two water and waste-water engineers, namely Norway's VA Consult (40 staff) and Denmark's Bangsgaard & Paludan (10 staff).

Holland's environmental engineering group ABO acquired the groundwater management specialist Eau & Perspectives (10 staff) based in France. In Norway, Norconsult acquired the soil and environment specialist Franck Miljø (17 staff) and the Jord group (55 staff). In France, the ground and structural engineer Infraneo, formerly GSRI, acquired the geotechnics specialist Antémys (40 staff), Ginger acquired the site characterisation business (50 staff) of Holland's Fugro and DI Environment acquired the polluted sites restoration business (70 staff) of Arcadis. Similarly, Sweco acquired AB Soil Remediation Experts (60 staff) based in Belgium. In Germany, HPC acquired the ground engineer Geonovo (15 staff) that focuses on high-voltage electricity power lines.

Regarding environmental engineering: in Germany, M&P acquired ICP (80 staff) and Seecon (100 staff); in France, Holland's ABO acquired Seged (40 staff) and RSK acquired ADEV Environment (15 staff); in Spain, RSK acquired ABM that had an urban planner subsidiary (30 staff in total).

In Sweden, Sweco acquired the surveying business (110 staff) of the property data supplier Metria as well as the watercourse surveyor Medins (35 staff). Egis acquired France's shoreline monitoring specialist Casagec Engineering (10 staff). For more conventional surveying, Finland's Mitta acquired the Swedish surveyor Västkonsult (23 staff), Norconsult acquired Norway's Areal og Eiendom (22 staff), ABO acquired the Belgium-based surveyor Meet Het (20 staff), and in the UK, Turner & Townsend acquired the quantity survey Alinea (110 staff).

For sustainability and ESG consulting, the UK's SLR acquired Australia's 360 Environmental (60 staff) and New Zealand's 4Sight (140 staff) as well as the UK's ClearLead Consulting (15 staff) and Carnstone (45 staff). For more technically based environmental consultancy, SLR agreed to acquire Canada's Palmer Environmental (100 staff).

Planning and management

Several groups strengthened planning and project management and related areas such as construction and cost management. The merger in Finland of Fimpec and Byggnadsekonomi (15 staff) was accompanied by a series of acquisitions in Scandinavia. These included: the acquisition by Solwers of Sweden's North68 (20 staff); by Rejlers of Sweden's Karl Knudsen (23 staff); by Sweco of Norway's Stema (86 staff) and Sweden's Dayspring (40 staff); by Multiconsult of T-2 Prosjekt Vest (4 staff); by Afry of Norway's Xpro (40 staff); by Norconsult of the planning department (16 staff) of Norway's house builder Betonmast; by Vulcain of Denmark's AM Group (30 staff).

In Germany, the Sidara subsidiary Currie & Brown acquired Alba (75 staff), Artelia acquired ProjektPlan (150 staff) and PGMM acquired HPS Hain (20 staff) while Drees & Sommer acquired LV Baumanagement (40 staff). Elsewhere, Assystem acquired LogiKal (100 staff) that is based in the UK, where Drees & Sommer acquired AA Projects (230 staff) and RSK continued its expansion by acquiring Fellows (18 staff) and Australia's Projence (50 staff) and SJA (30 staff). Also in the UK, Turner & Townsend acquired Canada's Cavalieri & Associates (25 staff) and took over CRBE's US-based healthcare project management business (10 staff) and the CRBE subsidiary Heery (350 staff).

Development consulting has an important role to play with regard to sustainability and the energy transition. In the UK, RSK acquired the development consultancy ERS (19 staff) and in France, Ginger acquired Sofreco (120 staff) and GFA Consult (250 staff) agreed to acquire GWK Consult that is part of Belgium's Tractebel. For regional and urban planning in France, Ingérop acquired L'Atelier des Territoires (33 staff) and Keran acquired the data specialist Civiteo (5 staff). In Norway, Multiconsult acquired Helm (17 staff) that combines project management with community planning.

These acquisitions, and indeed all of the mergers and acquisitions that impacted buildings and infrastructure, demonstrate the breadth, depth and vitality of the leading firms that supply engineering services for construction and the built environment in Europe.

European Engineering Consultancies

EFCA Secretariat
Avenue des Arts 3/4/5, B-1210 Brussels
Phone: + 32 (0)2 209 07 70
email: efca@efca.be
http://www.efcanet.org