



EFCA **SECTOR REVIEW 2022**

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 arise in master planning, preliminary studies, design, procurement, technical assistance, project, contract and construction management, environmental engineering, and quantity surveying.

They play a key role in enabling the construction value chain to maximise its impact during the complete life-cycle of the built environment's infrastructure that must be built, 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 life-cycle of the assets that make up the built environment.

The Sector Review survey identifies the top 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.

Recent changes in the accessibility of financial reports have led to a more accurate identification of the top firms. So the top list for 2022, which reports wherever possible 2021 data, has been extended to 150 firms. These 150 top firms are ranked in the table starting on page 5 according to the turnover in Europe for engineering services for construction. The 100 Europe-based top firms ranked by global turnover are listed on page 9.

The survey also considered the global turnover by market sector as a percentage of the total global turnover. This sector breakdown – anonymised as global statistics – is based on the *Engineering News - Record* scheme whereby categories are combined as follows:

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

Broadly based, wide-scale built environment activities such as urban planning and community development are included in Buildings.

Glossary

Rank

Companies and groups with operations based in Europe are ranked according to the turnover for engineering services for the construction of built environment assets (as opposed to activities related to manufacturing products).

Name

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

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, in other words total income which is often similar to gross revenue for firms supplying engineering services. Thus in many cases, gross revenue or gross sales is reported as turnover. Occasionally net revenue (gross revenue less sub-consultant, sub-contract and other direct expenses) is reported, but this is not indicated in lists. Networks and partnerships are normally excluded.

The turnover reported is the total amount of the company or consolidated group turnover earned globally and inside Europe for construction-related activity at the end of the fiscal year that covers all or most of 2021, regardless of the location of projects. If the fiscal year mainly covers 2020, this is noted in lists.

Firms are included if the turnover for engineering services for construction in Europe is more than one half ($\pm 10\%$) of the global turnover. Turnover is given in Euro (Eurostat end-of-quarter exchange rates are used).

Headcount

The “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 2021. Headcounts do not take into account the location of projects and part-time staff. In some cases, the average headcount or the number of full-time equivalent staff is reported, but this is not indicated.

Countries

The number of countries, both globally and in Europe, refers to the countries in which a company or group currently has a legally established operating entity.

CEO

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

The top firms

The turnover in 2021 of engineering services for construction and the built environment earned in Europe by the top 150 firms operating in Europe was €31 billion. Ranked by the turnover (see page 5), the 10 top firms based in Europe were **Sweco**, **Rambøll**, **Mott MacDonald**, **Arcadis**, **Afry**, **Arup**, **Cowi**, **Norconsult**, **Artelia**, and **Fugro**.

Ranked by global turnover, the first six of the top 10 firms for engineering services together with **Fugro**, **Egis**, **Turner & Townsend**, and **Cowi** made up the 10 top firms with headquarters based in Europe. The total global turnover for these 10 firms was 44% of the total global turnover of €89 billion for the 150 firms.

The top 100 firms with headquarters based in Europe and ranked by global turnover (see page 9) had a total global turnover of €35 billion.

An adjusted global presence

Global turnover increased in 2021 relative to 2020 for 86% of the top 150 firms for which accurate data are available. The average change in the turnover was a positive 6.9% compared with 1.6% in 2021, possibly reflecting significant organic growth in some regions alongside growth by acquisition. For example, reported organic growth in 2021 was 10.9% for Arcadis's net revenue, 3% for Sweco's net sales, 8.5% for Afry's infrastructure division (37% of net sales), 12.9% for Rejlers' revenue, and 8.9% for WSP's net revenue outside the Americas (of which 27% was earned in Europe).

For the top 150 firms, slightly less than one half (48%) of the 610000 staff members were based outside Europe. The percentage was somewhat larger (54% of 580000 staff) for the 125 top firms that were listed in the *EFCA Sector Review 2021*.

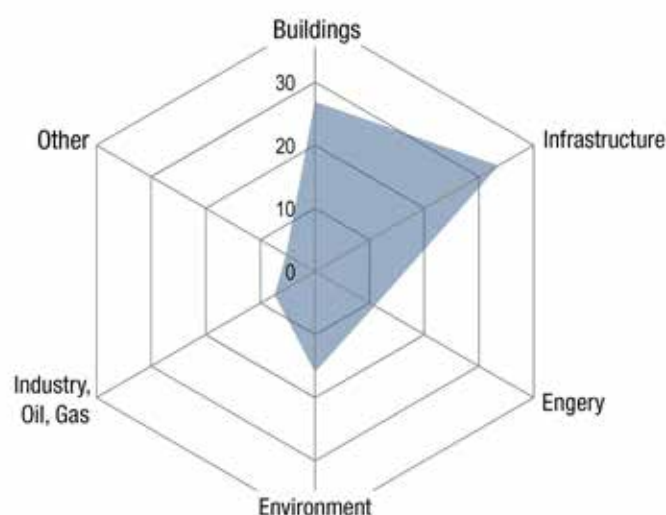
Staff attrition during the COVID-19 pandemic was matched by strong organic growth and accelerated recruitment. The net result was that the top 150 firms' year-on-year headcount increased by 6.1% in 2021.

In global terms, another important difference between the list of 150 firms for 2021 and the list of 125 firms for 2020 was the global presence. There were permanent locations in 12 countries per firm in 2021 as opposed to locations in 9 countries per firm in 2020. This significant increase suggests that the closing stages of the pandemic brought about an increased need to establish a local presence.

For the top 150 firms operating in Europe in 2021, the average global turnover per staff member of €145000 was 7.4% higher than for the top 125 firms in 2020. The average turnover in Europe per staff member of €122000 was essentially the same as for 2020 (€123000).

Engineering services in Europe

The turnover of the top 150 firms for engineering services for construction in Europe was €31 billion. For accurate comparisons it is preferable to consider the firms in the top 150 that had most (at least 90%) of their global turnover in Europe. For these firms, the average turnover for engineering



Global turnover by market sector, as a percentage of the total global turnover, for the top 150 engineering services firms.

services for construction in Europe per staff member of €115000 was the same as for the equivalent firms in the 2020 list of 125 firms. For the same firms, the average total turnover per staff member was €124000 (€115000 in 2020) globally and €117000 (€123000 in 2020) in Europe. The difference between 2020 and 2021 suggests that overall activity expanded more rapidly in Europe than elsewhere.

The global turnover in 2021 by market sector, as a percentage of the total global turnover, for the top 150 engineering services firms operating in Europe is given in the figure above. The breakdown is as follows:

Buildings:	26.9%	Infrastructure:	33.6%
Energy:	10.9%	Environment:	15.9%
Industry & Oil & Gas:	7.4%	Other:	5.3%

For the same firms, the sector breakdown for construction in Europe was similar to the global breakdown because most firms had most of their activity in Europe.

Market developments

The impact of the COVID-19 pandemic continued to be felt in 2021, especially in market sectors such as energy where decisions have tended historically to take longer to finalise than in other sectors. The impact was compounded by supply chain disruptions, high levels of sickness absences, adjustment to return to office working, and an increased need to subcontract out digital services.

Sustained growth until 2024

Fortunately, investment in construction was relatively unaffected. A useful proxy for this investment is the Gross Fixed Capital Formation (GFCF) for construction taken from national accounts. The construction GFCF for Europe (comprising the European Union Member States, Bosnia, Iceland, Norway, Serbia, Switzerland, Turkey, and the UK) recovered rapidly following a relatively small decrease during the pandemic to the extent that investment increased by

11.5% in 2021 (see figure). This increase helps explain why year-on-year turnover grew in 2021 for many (86%) of the top 150 firms for which accurate data is available (116 in total). In 2020, only 54% of the 100 firms for which data was available increased their turnover (by 1.6% on average).

Despite macroeconomic and geopolitical developments (the war in Ukraine; higher interest rates and energy prices; inflation; supply and labour shortages) forecasts of a deteriorating demand in Europe for construction made in mid-2022 based on indicators such as construction output and producer prices have not materialised.

Consequently, organic growth continued in the third quarter of 2022 (9% for SWECO's net sales; 8.5% for Afry's infrastructure division; 13.1% for Rejlers; 8.9% for WSP's net revenue outside the Americas).

Megatrends versus the short term

Underlying megatrends support continued growth. They include extreme weather and climate change, increased urbanisation, digitalisation, an increased emphasis on sustainability, resilience, decarbonisation, energy efficiency, and natural resource stewardship (integrated water management; nature-based solutions; circular economy) and an underlying and stable long-term demand for transport infrastructure. Renovation of energy infrastructure and addressing the infrastructure maintenance deficit is also needed.

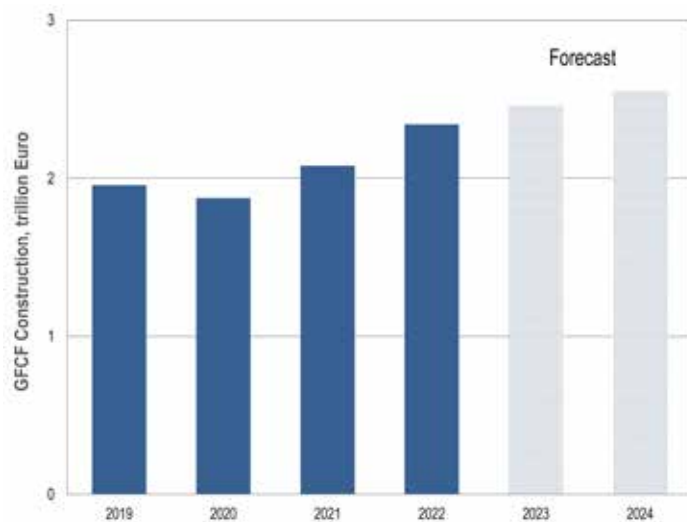
In the immediate future, the demand for infrastructure construction and renovation in Europe is supported by Europe-wide transport and energy transmission programmes, an accelerated transition to energy security and low-carbon energy production, the introduction of stricter energy efficiency and material regulations, and the renovation of existing infrastructure and buildings.

This demand is offset by the poor prospects for new-build residential and commercial construction which means that construction sector growth will be weak in 2023. As illustrated in the figure, the year-on-year growth of construction GFCF in Europe at current prices is expected to decrease (to 4 - 5% in 2023 and 2024). This estimate aligns with GlobalData's forecast year-on-year growth of 7% for infrastructure construction output in 2023. Given that order books and backlogs remain at an historically high level, several international groups are therefore targeting an organic growth in turnover in 2023 of at least 5%.

Public infrastructure investment increased

In the European Union (EU), alongside the *Multiannual Financial Framework* (MFF) budget for 2021-27 (approximately €1200 billion in current prices) there is the Next Generation EU (NGEU) temporary recovery programme (approximately €810 billion) created to meet the issues of the COVID-19 crisis. Most NGEU funds will be spent through the *Recovery and Resilience Facility* (RRF; approximately €670 billion). Important components of the MMF are the 40.4% for Cohesion and the 31.9% assigned to new and reinforced policies such as the *Connecting Europe Facility* for high-performance, cross-border transport infrastructure.

Overall, one third of investment from the MMF and the



The total investment (GFCF) in construction in Europe (see text for the countries). Current prices; forecasts for 2023 and 2024 are based on the EU AMECO database.

Sources: Eurostat, AMECO and national accounts.

NGEU recovery plan will be used to support the *European Green Deal* that aims for net zero emissions of greenhouse gases by 2050 with economic growth decoupled from resource use. Public investment will be boosted substantially, not only by MFF/Cohesion and NGEU/RRF funds but also via temporary relaxation of the EU *Stability and Growth Pact* fiscal rules.

Detailed Green Deal regulation is starting to be introduced by means of carbon tariffs, expanded emissions trading, technical criteria for buildings, the *Circular Economy Action Plan*, and the *EU Taxonomy* for sustainable investments. Several groups in the top 150 list reported in 2021 the percentage of their activity that is taxonomy-eligible in preparation for disclosure of taxonomy-aligned activity starting in 2023.

Preliminary taxonomy reports prepared for 2021 indicate that foremost among the many considerations was the basis for determining the eligibility of engineering services for construction. The level of detail that should be reported was also a concern in view of auditability requirements and an increasing need to demonstrate accountability and thus transparency with regard to sustainability matters.

For overseas development, the EU has established the *Global Gateway* to mobilise up to €300 billion in public funding with one half for the *Global Gateway Plan for Africa*. Details for the selected projects are currently being finalised by the European Commission.

Given the importance globally of Europe's engineering services firms, it is unclear how larger firms will position themselves with respect to the USA's \$1200 billion *Infrastructure Investment and Jobs Act*. Funding across the environment, sustainable infrastructure and renewable energy sectors is starting to translate into project awards.

The USA's subsequent \$750 billion *Inflation Reduction Act* is for investment in energy security and climate change mitigation and adaptation. Opportunities for engineering services firms based in Europe may be limited because the act links domestic production to subsidies and tax incentives designed to crowd in private investment.

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

No.	Name	HQ	Turnover, €m			Headcount		Countries		Web domain	CEO
			Services	Europe	Gobal	Europe	Global	Europe	Global		
1	Sweco	Sweden	2126	2126	2126	19129	19129	16	17	swecogroup.com	Åsa Bergman
2	WSP	Canada	1945	1945	7142	15500	55300	14	40	wsp.com	Alexandre L'Heureux
3	Rambøll	Denmark	1395	1395	1911	12495	16685	18	33	ramboll.com	Jens-Peter Saul
4	SNC-Lavalin	Canada	1362	1792	5121	12100	30990	15	43	snclavalin.com	Ian L. Edwards
5	Jacobs	USA	1314	2712	12517	12700	55000	11	35	jacobs.com	Steven J. Demetriou
6	Mott MacDonald	UK	1043	1236	2072	9387	17080	15	31	mottmac.com	James Harris
7	Arcadis	Netherlands	934	1460	3378	10600	29236	12	30	arcadis.com	Peter Oosterveer
8	Afry	Sweden	912	1824	1931	15000	17019	21	51	afry.com	Jonas Gustavsson
9	Arup	UK	906	906	2015	7500	14922	10	34	arup.com	Alan Belfield
10	Cowi	Denmark	796	883	883	5980	6810	9	20	cowi.com	Jens Christoffersen
11	Norconsult	Norway	705	705	731	5045	5100	7	14	norconsult.com	Egil Hogna
12	Aecom	USA	662	940	11522	9250	52000	26	72	aecom.com	Troy Rudd
13	Artelia	France	595	660	745	4862	6116	15	42	arteliagroup.com	Benoît Clocheret
14	Fugro	Netherlands	590	590	1462	3130	9149	16	67	fugro.com	Mark R.F. Heine
15	Egis	France	560	709	1214	8910	16200	12	60	egis-group.com	Laurent Germain
16	Tractebel Engie	Belgium	513	513	579	3300	4800	5	29	tractebel-engie.com	Denis Lohest
17	Turner & Townsend	UK	469	469	1045	4300	8481	13	46	turntown.com	Vincent Clancy
18	Systra	France	451	451	763	3309	8249	10	30	systra.com	Pierre Verzat
19	Royal HaskoningDHV	Netherlands	433	461	624	3936	5212	5	19	royalhaskoningdhv.com	Erik Oostwegel
20	RPS	UK	413	413	667	3400	4946	4	10	rpsgroup.com	John Matheson Douglas
21	PM	Ireland	400	400	474	3000	3650	8	12	pmgroup-global.com	David Murphy
22	Drees & Sommer	Germany	384	526	531	4400	4500	15	19	www.dreso.com	Steffen Szeidl
23	Multiconsult	Norway	363	363	399	3199	3200	5	6	multiconsult.no	Grethe Bergly
24	Antea	Netherlands	320	320	449	2300	3250	5	11	anteagroup.com	Tanja Lenzion
25	RSK	UK	318	334	411	3000	3744	13	36	rsk.co.uk	Alan Ryder
26	Setec	France	310	310	349	2620	3380	9	20	setec.fr	Michel Kahan
27	Ineco	Spain	304	304	336	3661	3779	4	16	ineco.com	Sergio Vázquez Torrón
28	Rejlers	Sweden	263	277	283	2400	2464	3	4	rejlers.se	Viktor Svensson
29	Italferr	Italy	254	254	269	2125	2125	4	13	italferr.it	Andrea Nardinocchi
30	Ingérop	France	243	256	273	2020	2182	10	26	ingerop.com	Yves Metz
31	DPS [a]	Ireland	240	260	304	1950	2850	5	9	dpsgroupglobal.com	Frank Keogh
32	Tetra Tech	USA	237	237	2775	2200	21000	5	23	tetratecheurope.com	Dan L. Batrack
33	Stantec	Canada	222	222	3180	2357	25000	8	22	stantec.com	Gord Johnston
34	Tyréns	Sweden	219	274	277	3000	3000	6	6	tyrens.se	Johan Dozzi
35	NIRAS	Denmark	211	334	339	2440	2530	13	30	niras.com	Tina Hørbye Christensen
36	Ginger	France	208	208	210	2000	2200	4	4	groupeginger.com	Philippe Margarit
37	Dar	UAE	205	205	2093	1900	18600	11	60	dargroup.com	Talal Shair
38	Bilfinger Tebodin	Netherlands	204	204	204	1600	1600	8	8	tebodin.bilfinger.com	Wim van den Brink
39	ILF	Austria	183	203	252	1800	2500	12	30	ilf.com	Klaus Lässer
40	Sitowise	Finland	179	179	179	2034	2034	2	2	sitowise.com	Heikki Haasmaa
41	Asplan Viak	Norway	160	160	160	1178	1178	2	2	asplanviak.no	Elisabeth Tørstad
42	ATP	Austria	156	156	156	1000	1000	5	5	atp.ag	Christoph M. Achammer
43	Idom	Spain	150	150	337	3000	3800	7	21	idom.com	Ignacio Rey Gómez
44	Gruner	Switzerland	148	148	148	1104	1104	6	7	gruner.ch	Olivier Aebi
45	Wayss & Freytag	Germany	147	147	147	1074	1074	1	1	wf-ib.de	Michael Blaschko
46	Tauw	Netherlands	143	143	143	1242	1242	6	6	tauw.com	Ralph van Roessel
47	Amstein + Walthert	Switzerland	142	142	142	1118	1118	2	2	amstein-walthert.ch	Christian Appert
48	Fichtner	Germany	139	150	249	1600	1881	13	32	www.fichtner.de	Andreas Weidler
49	Iv	Netherlands	133	133	133	910	910	1	3	iv-groep.nl	Rob van de Waal
50	Waterman	UK	132	132	150	1480	1530	2	3	watermangroup.com	Nick Taylor
51	Vulcain Engineering	France	130	185	206	2000	2186	7	13	www.vulcain-eng.com	Alban Guilloteau
52	Rina Consulting	Italy	129	129	129	1200	1200	6	19	rina.org	Alberto Cavaggioni
53	Sudop	Czech	121	201	201	2000	2000	1	1	sudop-group.cz	Pavel Havlíček
54	Schüßler-Plan	Germany	120	120	120	973	973	2	2	schuessler-plan.de	Norbert Schüssler
55	Movares	Netherlands	119	119	119	930	930	1	1	movares.nl	Sander Eijgenraam
56	Gopa	Germany	118	118	223	480	794	10	28	gopa-group.org	Martin Güldner
57	TPF	Belgium	116	116	244	1745	4297	10	44	tpf.eu	Thomas Spitaels
58	Witteveen + Bos	Netherlands	112	112	160	1307	1421	4	11	witteveenbos.com	Wouter Bijman
59	Ekium	France	110	115	130	1200	1347	7	12	ekium.eu	Philippe Lanoir
60	CSD	Switzerland	106	106	106	900	900	6	6	csd.ch	Jean-Pascal Gendre
61	Granlund	Finland	102	102	109	1200	1222	3	5	granlundgroup.com	Pekka Metsi

62	BG Consulting Engineers	Switzerland	100	100	100	700	700	5	6	bg-21.com	Pierre Epars
63	PE Teknik & Arkitektur	Sweden	99	99	99	825	825	2	2	pe.se	Helena Hed
64	Buro Happold	UK	97	97	221	810	1791	4	12	burohappold.com	James Bruce
65	Suez Consulting	France	93	93	127	800	1200	15	24	suez.com	Bruno Hervet
66	Typsa	Spain	92	92	267	1494	3126	6	21	typsa.com	Pablo Bueno Tomás
67	Sina	Italy	89	89	89	270	270	1	1	sinaing.it	Alberto Pernigotti
68	Ridge	UK	88	88	88	593	593	1	1	ridge.co.uk	Adrian O'Hickey
69	Obermeyer [a]	Germany	87	87	103	1120	1200	1	0	obermeyer-group.com	Jens Ulrich
70	HPC	Germany	87	87	87	782	782	9	9	hpc.ag	Arno Bartels
71	Géotec	France	83	83	89	730	840	3	6	geotec.fr	Olivier Barnoud
72	AINS	Finland	83	86	87	891	891	2	2	ains.fi	Jyrki Keinänen
73	Emch + Berger	Switzerland	82	106	106	780	780	3	3	emchberger.ch	Mirko Feller
74	Proger	Italy	80	105	130	800	1000	3	7	proger.it	Marco Lombardi
75	Structor	Sweden	78	78	78	518	518	2	2	structor.se	Monica Granberg
76	Rapp	Switzerland	76	76	76	430	430	2	2	rapp.ch	Daniel Scheifele
77	Black & Veatch	USA	74	177	2825	650	10400	4	22	bv.com	Mario Azar
78	SLR	UK	71	71	260	710	1885	4	13	slrconsulting.com	Neil Penhall
79	Edeis	France	70	123	123	800	850	1	1	edeis.com	Rémi Cunin
80	Pick Everard	UK	70	70	70	600	600	1	1	pickeverard.co.uk	Duncan Green
81	Parlym	France	69	80	120	800	900	3	6	parlym.com	Johann Charrier
82	Holinger	Switzerland	69	69	69	596	596	3	4	holinger.com	Peter Rudin
83	Tecne	Italy	68	85	94	650	650	1	1	autostrade.it/it/tecne	Stefano Susani
84	Bengt Dahlgren	Sweden	68	68	68	578	578	1	1	bengtdahlgren.se	Erik Bolander
85	Eptisa	Spain	65	65	105	740	1023	13	32	eptisa.com	Yiran Mei
86	Hydrock	UK	65	65	65	555	555	1	3	hydrock.com	Brian McConnell
87	Fondasol [a]	France	64	64	75	710	770	2	5	groupefondasol.com	Olivier Sorin
88	ABO	Netherlands	64	64	64	430	430	3	3	abo-group.eu	Frank De Palmaer
89	Raksystems	Finland	64	64	64	605	605	2	2	raksystems.com	Marko Malmivaara
90	Lombardi	Switzerland	63	63	71	550	700	5	12	lombardi.group	Michele Fumagalli
91	Basler & Hofmann	Switzerland	63	66	68	670	700	4	5	baslerhofmann.ch	Dominik Courtin
92	Zetcon [a]	Germany	62	62	62	450	450	1	1	zetcon.de	Caspar Tillmann
93	Oosterhoff	Netherlands	61	61	61	550	550	3	3	oosterhoffgroup.eu	Gerard Doos
94	Fairhurst	UK	60	60	60	580	580	1	1	fairhurst.co.uk	Bob McCracken
95	CDM Smith	USA	58	70	1400	741	5400	5	23	cdmsmith.com	Timothy B. Wall
96	Geoterra	Switzerland	58	58	58	540	540	1	1	geoterra-gruppe.ch	Eugenio Peduzzi
97	Pell Frischmann	UK	57	57	57	500	507	1	1	pellfrischmann.com	Iain Bisset
98	M & P	Germany	56	62	62	320	320	3	5	mp-gruppe.de	Andrew Germer
99	Cundall	UK	55	55	79	700	858	5	11	cundall.com	Carole O'Neil
100	Aas-Jakobsen [a]	Norway	55	55	55	340	340	1	1	aas-jakobsen.com	Trond Hagen
101	Aveco de Bondt	Netherlands	55	55	55	500	500	1	1	avecodebondt.nl	Gerald Paalman
102	Vössing	Germany	53	53	53	694	694	2	4	voessing.de	Rudolf Vienenkötter
103	Alterea	France	51	51	51	420	420	1	1	alterea.fr	Cyril Villemain
104	Inros Lackner [a]	Germany	50	50	67	450	498	2	17	inros-lackner.de	Uwe Lemcke
105	Infraneo	France	50	50	50	450	450	4	4	infraneo.com	Bruce Xiste
106	Kempen Krause	Germany	50	50	50	340	340	1	1	kempenkrause.de	Hans-Jürgen Krause
107	WGM	UK	50	50	50	333	333	1	1	wgmengineering.co.uk	Ian Mathieson
108	Efla	Iceland	49	49	49	381	381	8	8	efla.is	Sæmundur Sæmundsson
109	JBA Consulting	UK	46	46	47	592	592	1	1	jbaconsulting.com	Marc Pinnell
110	Hill International	USA	45	45	333	400	3200	15	36	hillintl.com	Raouf S. Ghali
111	Dorsch	Germany	45	45	225	3000	3400	1	15	dorsch.com	Olaf Hoffmann
112	Pini	Switzerland	45	50	70	550	800	8	20	pini.group	Andrea Galli
113	Werner Sobek	Germany	45	45	50	300	400	5	8	wernersobek.com	Stephen Hagenmayer
114	Vahanen	Finland	45	45	45	500	500	4	4	vahanen.com	Risto Rätty
115	IM Engineering - IUB	Switzerland	44	44	44	300	300	3	3	engineering-group.ch	Bernhard Matter
116	Tony Gee	UK	43	43	50	280	366	1	8	tonygee.com	Neil Farmer
117	EnviDan	Denmark	43	43	43	245	245	3	3	envidan.com	Ole Fritz Adeler
118	Schroeder & Associés	Luxembourg	43	43	43	360	360	1	1	schroeder.lu	Thierry Flies
119	VK	Belgium	43	43	43	400	400	3	4	vkgroup.be	Paul Corbeel
120	Assmann	Germany	42	42	42	465	465	1	1	assmann.info	Peter Warnecke
121	Bjerkning	Sweden	42	42	42	396	396	1	1	bjerkning.se	Anders Wårefors
122	PGMM	Germany	42	42	42	380	380	1	1	pgmm.com	Christopher Gingelmaier
123	Solwers	Finland	41	45	45	571	571	2	2	solwers.fi	Stefan Nyström
124	Deerns	Netherlands	40	40	54	380	500	6	9	deerns.com	Tjerk van der Meer
125	Mitta	Finland	40	50	50	450	450	2	2	mitta.fi	Aki Puska

126	PBR [a]	Germany	40	40	49	500	546	1	1	pbr.de	Jörg Rasehorn
127	Projex	France	40	40	40	360	380	1	2	groupe-projex.fr	Eric Noel
128	Sofren	France	39	56	56	616	616	4	6	sofregroup.com	Fabrice Girard
129	HDR	USA	38	38	2540	380	11100	2	9	hdrinc.com	Eric L. Keen
130	INP	Germany	38	38	50	420	500	6	12	inp-e.com	Georg Jester
131	Verkís	Iceland	38	40	41	318	318	4	4	verkis.is	Jóna Guðmundsdóttir
132	Bernard	Austria	38	38	40	380	400	2	7	bernard-gruppe.com	Maria Bernard-Schwarz
133	Hydrogéotechnique	France	38	38	38	285	285	1	2	hydrogeotechnique.com	Jean-Baptiste Gress
134	Mannvit	Iceland	38	38	38	300	300	3	4	mannvit.com	Örn Guðmundsson
135	ELU Konsult	Sweden	37	37	37	230	230	1	1	elu.se	Mattias Grauers
136	Keran	France	36	43	52	560	564	1	4	groupe-keran.com	Yves Gillet
137	Wardell Armstrong	UK	36	36	38	410	414	2	3	wardell-armstrong.com	Keith Mitchell
138	Curtins	UK	36	36	36	229	339	1	2	curtins.com	Rob Melling
139	OTE Ingénierie	France	36	36	36	218	218	1	1	ote-ingenierie.com	Patrick Lullin
140	B + S	Switzerland	35	35	35	300	300	1	1	bs-ing.ch	Cäsar Graf
141	FCP	Austria	35	35	35	368	368	12	13	fcp.at	Wolf-Dietrich Denk
142	Peutz	Netherlands	35	35	35	310	310	6	6	peutzgroup.com	Ferry Koopmans
143	Vinnergi	Sweden	35	35	35	312	312	1	1	vinnergi.se	Pierre Wallgren
144	Barton Willmore	UK	34	34	34	289	289	1	1	bartonwillmore.co.uk	Stephen Toole
145	Enereco	Italy	34	34	34	253	253	2	5	enereco.com	Franco Iacucci
146	Forsen	Sweden	34	34	34	197	197	1	1	forsen.com	Annika Hofsten Selin
147	WTM [a]	Germany	33	33	33	260	260	2	2	wtm-engineers.de	Ulrich Jäppelt
148	ZWP	Germany	33	33	33	384	384	1	1	zwp.de	Mirjam Borowietz
149	Manens-Tifs	Italy	32	32	52	280	430	2	3	manens-tifs.it	Giorgio Finotti
150	InfraEngineering	Italy	32	32	32	83	83	1	1	infraengineering.it	Lino Bergonzi

Notes: “Services” are engineering services for construction; [a] indicates data for 2020.

Business developments

Capturing headlines in 2021-22 was the acquisition of the UK’s **RPS** (5000 staff) by the USA’s **Tetra Tech**, of Canada’s **Golder** (7000 staff) and Wood’s UK-based environmental and infrastructure business (5000 staff) by Canada’s **WSP**, and of Canada’s **IBI** (3500 staff) and Ireland’s **DPS** (2850 staff) by **Arcadis** based in The Netherlands. These acquisitions follow Canada’s **Stantec** acquiring Australia’s **Cardno** (2750 staff), except for its development cooperation business (480 staff) which was acquired by the USA’s **DT Global** along with the UK’s **IMC Worldwide** (90 staff). The most significant merger was between **Hill International** (3200 staff) and the USA’s **Global Infrastructure Solutions Inc. (GISI)** construction management group (12500 staff). The merger mirrored the USA’s **CBRE** real-estate services group (100000 staff) acquiring a majority interest in the UK’s **Turner & Townsend** (6800 staff) in 2021. **GISI** also purchased the Far East business of **Arcadis** (500 staff).

Multidisciplinary features

Acquisitions during the 2021-22 period involving other major groups included **Tetra Tech** acquiring UK’s **Hoare Lee** (900 staff), Germany’s **Dorsch** gaining full control of Germany’s **Krebs + Kiefer** (800 staff) and **WSP** acquiring Switzerland’s **BG Consulting Engineers** (700 staff) having acquired the Swiss project management firm **B + P Baurealisation** (100 staff). **WSP** also acquired the UK’s multidisciplinary **Capita REI** (750 staff) and the real-estate advisory **GL Hearn** (250 staff).

In aiming to double its global footprint, France’s **Egis** acquired the Australia-based **Calibre Group’s** multidisciplinary built environment division (400 staff) as well as the multidisciplinary firms **WME** (550 staff) and **U + A** (180 staff) based in the UAE. Other multidisciplinary

acquisitions included Sweden’s **Afry** acquiring Finland’s **Vahanen** (500 staff), the UK’s **RSK** acquiring **WGM** (365 staff), **Stantec** acquiring the UK’s **Barton Willmore** (300 staff), Norway’s **Multiconsult** acquiring **Erichsen & Horgen** (235 staff) and the smaller **Roar Jørgensen** (38 staff) based in Norway, Spain’s **Ayasa** acquiring Ireland’s **ByrneLooby Partners** (225 staff), and the UK’s **SLR** acquiring the USA’s **Milone & Macbroom** (185 staff). Finally, Switzerland’s **Pini** acquired Italy’s multi-disciplinary firm **INEA** (140 staff), Portugal’s **JLCM** (structural engineering; 20 staff) as well as Italy’s **Geodata** (underground engineering; 250 staff) and **SEPI** (road and rail engineering; 70 staff).

Manufacturing facilities stand out

The acquisition of **DPS** by **Arcadis** stood out because **DPS** is heavily engaged in designing high-technology industrial manufacturing facilities. The acquisition was replicated by other acquisitions by groups notably **Afry** of Norway’s **ITE Østerhus** (industrial engineering; 22 staff), Norway’s **Rejlers** of **JETS Consulting** (process industry services; 16 staff) and Sweden’s **Sweco** of Belgium’s high-end solutions supplier **RK-Tec Engineering** (70 staff). Similarly, industrial process engineering firms were acquired by Finland’s **AINS** (**AX Consulting**; 60 staff), by France’s **Artelia** via its Danish subsidiary **MOE (LBP Engineering; Denmark; 50 staff)**, by France’s **Ekium** (**CPQ; Spain; 110 staff**), and by **Vulcain** (**Nipromec; Finland; 95 staff**) and the group’s Swiss subsidiary **Consultys** (**Cheme Engineering; Canada; 60 staff**).

Group acquisitions reflect trends

For the groups based in Scandinavia, **Afry** completed two further acquisitions involving engineering services for construction in the 2021-22 period, namely **Numerola** (for wind power digital solutions; 10 staff) and Denmark’s **Insuco** (railway engineering; 11 staff).

AINS on the other hand acquired Finland's AW Architects (60 staff) as well as two Finnish building services' specialists – Airlon (23 staff) and GHS (14 staff) – and specialists for building lighting (Licon-AT; 20 staff), wood construction (JM-Rakenne; 20 staff), renovation (Buildnet; 9 staff), and life-cycle accounting (NL-Rakennuslaskenta; 30 staff). To reinforce the group's national offering **AINS** acquired the infrastructure engineering firm Plaana (30 staff) and its subsidiary Ponvia (20 staff).

Rejlers acquired two Finnish building design specialists – Arsatek (12 staff) and ClimaConsult (14 staff) – that were complemented by the acquisition of Sweden's mechanical engineer Helenius Ingenjörbyrå (70 staff) and community security specialist Infralog (10 staff). Other acquisitions focussed on infrastructure. They included: Finland's SRT (25 staff) for structural engineering; the digital wind power monitoring services part of Finland's Loiste Energia; Sweden's Hydroterra (8 staff) for hydroelectric power; Norway's Omega Holtan (30 staff) for electrical engineering; Kantech (7 staff) for project management.

Sweco made 15 additional acquisitions involving engineering services for construction and the built environment. As for other Scandinavian groups, the group acquired two architecture firms – Norway's Arcasa (70 staff) and Finland's Linja (60 staff) – as well as two sustainable building designers – Finland's Optoplan and Belgium's Boydens Engineering (each with 150 staff) – and two relatively small acoustics specialists also based in Belgium. There were two acquisitions for urban planning – The Netherlands Stedelijke (50 staff) and Belgium's BUUR (65 staff) – and an acquisition for transport engineering, namely Sweden's Trafik Rådgivning (53 staff). As is now often the case, **Sweco** consolidated its sustainability consulting business by acquiring Gaia Consulting (60 staff) and strengthened related environmental services by acquiring Belgium's AB Experts (60 staff).

Aside from what might be considered to be fairly routine acquisitions in project management (Norway's Stema with 86 staff and Sweden's Dayspring with 37 staff) and electrical engineering (Belgium Vitech with 60 staff), **Sweco** acquired Swedish Net Engineering (28 staff) to expand its buildings' security business.

Other fast growing Scandinavian groups were Finland's **Granlund**, **Raksystems**, **Sitowise**, and **Solwers** and Norway's **Norconsult**. **Granlund** acquired the building engineering firm J.J. Markkanen (130 staff) together with a quantity surveyor (VA Optimate; 14 staff), a scheduling specialist (Lean 4D; 4 staff) and a structural engineer (Imatra Juva; 5 staff), all based in Finland. The four remaining acquisitions were electrical design specialists for buildings. **Raksystems'** six acquisitions on the other hand focussed on building inspection: Finland's EcoReal (energy services; 60 staff) and Sweden's Aquademica (leak detection; 30 staff); Monomeet (moisture measurement; 10 staff); Byggkonsultgruppen and Independia (building inspection; each with 10 staff).

All 14 acquisitions by **Sitowise** were also in Scandinavia. Six involved specialist suppliers of digital services for a variety of sectors, notably climate, buildings and security, with Finland's Bitcomp (60 staff) for forestry. Except for a part of VRT Finland's underwater inspection business, the

remaining acquisitions were for building services (Sweden's VVS-Kompetens with 20 staff and E60 Elkonsult with 10 staff; Finland's Livair with 5 staff) and building design (Finland's structural engineer Jorma Jääskeläinen with 13 staff and renovation specialist Rakennuttajakaari with 45 staff). The acquisition by **Sitowise** of Convia (23 staff) and Mavacon (13 staff) aimed to strengthen infrastructure engineering in Sweden.

Solwers also strengthened infrastructure engineering in Sweden by acquiring the electrical engineer ELE Engineering (77 staff), Falk with 23 staff for construction management and Establish Schening (12 staff) for logistics planning. Other acquisitions were architecture firms based in Finland (Lukkaroinen, 77 staff; Sabelström, 8 staff), the building services specialist LVI Meskanen (9 staff) and the building performance specialist Inmeco (16 staff).

Finally, **Norconsult** acquired four architecture firms, the largest being Denmark's Rubow Arkitekter (100 staff). Its main strategic acquisition for a new business area in the buildings sector was Denmark's Jord & Miljø and its sister company Jord & Teknik with 55 staff in total and specialising in environmental surveys. The group's other acquisitions aimed to consolidate its position as a multidisciplinary market leader in Scandinavia. They were for project management (Norway's Pecom with 10 staff and NOCA Teknik with 3 staff), planning (Norway's Areal og Eiendom with 22 staff; Sweden's KVM Forum with 12 staff and Bothnia VVS with 5 staff), transport engineering (Sweden's Projektengagemang and Norway's **PE** rail businesses, each with 18 staff) and structural engineering (Norway's Djerving with 24 staff).

Significant group activity outside Scandinavia

Groups outside Scandinavia that expanded significantly through acquisition were France's **Egis** and **Vulcain** and the UK's **SLR** and **RSK**. Prior to its multidisciplinary acquisitions (WME, U + A and Calibre's built environment business), **Egis** had acquired the Kuwait-based project management firm Projacs International (600 staff) in aiming for 2500 staff based in the Middle East. There followed the acquisition of Colombia's Payc (350) for construction management, reflecting the strategy to grow in Latin America. Other acquisitions outside Europe included New Zealand's Lautrec Façade Design (10 staff), Australia's Indec (infrastructure engineering; 80 staff) and Sunland (130 staff), a Hong Kong based building services engineering firm. Other acquisitions by **Egis** focussing on building design were the UK's Weston Williamson + Partners (140 staff), the USA's SB Architects (80 staff) via its China-based 10 Design and France's AG Concept (20 staff) that specialises in industrial buildings.

Following taking control of CPMS TOPCO, a UK project management specialist for rail infrastructure, **Egis** acquired AD Ingé (26 staff) and Kern (40 staff) to strengthen project management in France in areas such as deconstruction. **Vulcain** strengthened nuclear and renewable energy engineering by acquiring the UK's Insite Technical Services (100 staff) and taking control of Germany's Windsy (20 staff). Finally, as with many groups, developing digital services for both buildings and infrastructure was a strategic priority (the **Egis** acquisitions were France's MT3 and OpenEnergy, each with 10 staff).

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

No.	Name	HQ	Turnover, €m	Headcount
1	Arcadis	Netherlands	3378	10600
2	Sweco	Sweden	2126	19129
3	Mott MacDonald	UK	2072	9387
4	Arup	UK	2015	7500
5	Afry	Sweden	1931	15000
6	Rambøll	Denmark	1911	12495
7	Fugro	Netherlands	1462	3130
8	Egis [a]	France	1214	8910
9	Turner & Townsend	UK	1045	4300
10	Cowi	Denmark	883	5980
11	Systra	France	763	3309
12	Artelia	France	745	4862
13	Norconsult	Norway	731	5045
14	RPS	UK	667	3400
15	Royal HaskoningDHV	Netherlands	624	3936
16	Tractebel Engie	Belgium	579	3300
17	Drees & Sommer	Germany	531	4400
18	PM	Ireland	474	3000
19	Antea	Netherlands	449	2300
20	RSK	UK	411	3000
21	Multiconsult	Norway	399	3199
22	Setec	France	349	2620
23	NIRAS	Denmark	339	2440
24	Idom	Spain	337	3000
25	Ineco	Spain	336	3661
26	DPS	Ireland	304	1950
27	Rejlers	Sweden	283	2400
28	Tyréns	Sweden	277	3000
29	Ingérop	France	273	2020
30	Italferr	Italy	269	2125
31	Typsa	Spain	267	1494
32	SLR	UK	260	710
33	ILF	Austria	252	1800
34	Fichtner	Germany	249	1600
35	TPF	Belgium	244	1745
36	Dorsch	Germany	225	3000
37	Gopa	Germany	223	480
38	Buro Happold	UK	221	810
39	Ginger	France	210	2000
40	Vulcain Engineering	France	206	2000
41	Bilfinger Tebodin	Netherlands	204	1600
42	Sudop	Czech	201	2000
43	Sitowise	Finland	179	2034
44	Witteveen + Bos	Netherlands	160	1307
45	Asplan Viak	Norway	160	1178
46	ATP	Austria	156	1000
47	Waterman	UK	150	1480
48	Gruener	Switzerland	148	1104
49	Wayss & Freytag	Germany	147	1074
50	Tauw	Netherlands	143	1242

No.	Name	HQ	Turnover, €m	Headcount
51	Amstein + Walthert	Switzerland	142	1118
52	Iv	Netherlands	133	910
53	Ekium	France	130	1200
54	Proger	Italy	130	800
55	Rina Consulting	Italy	129	1200
56	Suez Consulting	France	127	800
57	Edeis	France	123	800
58	Schübler-Plan	Germany	120	973
59	Parlym	France	120	800
60	Movares	Netherlands	119	930
61	Granlund	Finland	109	1200
62	CSD	Switzerland	106	900
63	Emch + Berger	Switzerland	106	780
64	Epitsa	Spain	105	740
65	Obermeyer [a]	Germany	103	1120
66	BG Consulting Engineers	Switzerland	100	700
67	PE Teknik & Arkitektur	Sweden	99	825
68	Tecne	Italy	94	650
69	Géotec	France	89	730
70	Sina	Italy	89	270
71	Ridge	UK	88	593
72	AINS	Finland	87	891
73	HPC	Germany	87	782
74	Cundall	UK	79	700
75	Structor	Sweden	78	518
76	Rapp	Switzerland	76	430
77	Fondasol [a]	France	75	710
78	Lombardi	Switzerland	71	550
79	Pick Everard	UK	70	600
80	Pini	Switzerland	70	550
81	Holinger	Switzerland	69	596
82	Basler & Hofmann	Switzerland	68	670
83	Bengt Dahlgren	Sweden	68	578
84	Inros Lackner [a]	Germany	67	450
85	Hydrock	UK	65	555
86	Raksystems	Finland	64	605
87	ABO	Netherlands	64	430
88	Zetcon [a]	Germany	62	450
89	M&P	Germany	62	320
90	Oosterhoff	Netherlands	61	550
91	Fairhurst	UK	60	580
92	Geoterra Group	Switzerland	58	540
93	Pell Frischmann	UK	57	500
94	Sofren	France	56	616
95	Aveco de Bondt	Netherlands	55	500
96	Aas-Jakobsen [a]	Norway	55	340
97	Deerns	Netherlands	54	380
98	Vössing	Germany	53	694
99	Keran	France	52	560
100	Manens-Tifs	Italy	52	280

Notes: “engineering services” are for construction; “turnover” and “headcount” are the global turnover and headcount.

As noted earlier, both **RSK** and **SLR** each made a major multidisciplinary acquisition. The other acquisitions by **SLR** were Australia's 360 Environmental (60 staff), New Zealand's 4Sight and the UK's Clearlead Consulting (15 staff) for sustainability consulting and the UK's RCS Global (100 staff) and Corporate Citizenship (65 staff) and Spain's Finch & Beak (16 staff) to strengthen sustainability reporting. **SLR** also acquired two UK-based planning specialists: Vectos Group (150 staff) for transport; Optimised Environments (50 staff) for landscapes.

In the case of **RSK**, the group's other 22 acquisitions were less focussed. Aside from finalising the acquisition of the USA's **Black & Veatch** water business in the UK and Asia (1200 staff) **RSK** also acquired ADEV Environment (France; sustainability; 20 staff) and Inis Environmental Consultants (Ireland; ecology assessment; 26 staff), Stephenson Halliday (UK; landscape planning; 30 staff), the site investigation specialists Leap Environmental based in the UK and GeoExperts based in Germany, the UK's hydrology modelling specialists Envireau Water and Richard Allitt Associates and the UK's Carbon Zero Consulting (ground source thermal engineering).

Other **RSK** acquisitions were for the buildings sector – Ireland's Smith + Kennedy Architects (20 staff) and the façade engineer FR Consultants (30 staff) – and for infrastructure: UK's Travis Baker (structural engineering; 40 staff), Milner Associates (structural engineering; 10 staff); SCP (transport planning; 45 staff); SkyVision International (pipeline inspection). Also included were three UK-based surveyors – CS2 (60 staff), Centara Consulting (60 staff) and Waldrams (10 staff) – and four firms supplying project management services. Aside from the UK's Fellows, three were in Australia (Western Project Services and SJA, each with 30 staff, and Projence with 20 staff).

Links to services and architecture dominate

The transition to high-performance buildings remained a feature of acquisitions involving engineering services. It was not limited to acquisitions made by major groups. The transition was most visible in the building services sector. Sweden's **Bengt Dahlgren** took control of Sweden's WS Plan (20 staff), Norway's **Asplan Viak** acquired Norway's Structor Bergen (20 staff) and Belgium's **VK** acquired Luxembourg's EKOPlan (12 staff). Acquisitions by France's **Ingérop** were more specialised (IVLS; acoustics; 25 staff) and GLL; electrical engineering; 42 staff).

Strengthening the integration of engineering services with architecture that was highlighted by group acquisitions also remained widespread elsewhere. Norway's **Asplan Viak** acquired Norway's Stein Hamre (18 staff), **Cowi** acquired Sweden's KUB Arkitekter (28 staff), **WSP** acquired Spain's BOD (45 staff) and the UK's **Buro Happold** acquired the UK's specialist architect Abell Nepp (laboratories; 20 staff) as well as three specialist building designers: Vangardia (UK; 20 staff) for audio-visual design, Brightspot (USA; 15 staff) for higher education facilities and Crowd Dynamics (UK; 20 staff) for crowd modelling. Targeting health-care facilities, Belgium's **VK** acquired the UK's AD Architects (20 staff) but also moved towards industrial buildings by acquiring the logistics specialist DENC (The Netherlands; 60 staff) and Van Looy Group (Belgium; 40 staff). Similarly, in the UK **Hydrock** acquired the structural engineers 3E (30 staff) and Complete Design Partnership (15 staff) and the

logistics specialist KTA (20 staff) while Germany's Bollinger + Grohmann acquired Germany's industrial building specialist Greiner (30 staff).

In the case of mergers, Italy's **Manens-Tifs** merged with Steam (150 staff), Germany's SBP with Fischer + Friedrich (50 staff) and Denmark's **OJ** with SlothMøller (35 staff) and the fire safety designer Hundsbaek & Henriksen (60 staff).

Sustainable buildings and project management

Acquisition activity in 2021-22 demonstrated continued interest in urban planning. In addition to the acquisition of KVM Forum and Bothnia VVS by **Multiconsult** and the acquisition of Stedelijke and BUUR by **Sweco**, The Netherlands' **Witteveen + Bos** acquired the UAE's NLME (20 staff), **Buro Happold** acquired the USA's Paladino (30 staff), Switzerland's BKW acquired Germany's Collignon (23 staff) and Arnold & Gladisch (53 staff) and in France the Socotec testing, inspection and certification group acquired Urbycom (20 staff).

There was also interest in project and construction management and planning, not only by **Rejlers**, **RSK**, **Solwers**, and **WSP** for mainly residential and commercial property development but also by France's **Parlym** for industry (it acquired Asymtote Pm with 160 staff), by The Netherlands-based **Royal HaskoningDHV** which acquired Districon (60 staff) for logistics planning, and by France's **Setec**, which acquired Germany's Noecon (20 staff) via its industrial project management subsidiary Eocen.

Multidisciplinary firms also strengthened project management. Germany's **Drees & Sommer** acquired the UK's construction consultants AA Projects (200 staff); **Obermeyer** acquired the Czech Republic's Casua (70 staff) in order to implement digital methods; UK's **Ridge** acquired the UK's Projex Building Solutions (36 staff); the Lebanon-based **Dar** group's UK subsidiary Currie & Brown acquired Germany's Alba (75 staff). The acquisition of Australia's JukesTodd (170 staff) by **Turner & Townsend** was the exception as it focussed on the resource sector.

Bolt-on digital infrastructure solutions

Engineering services' acquisition activity over the 2021-22 period was relatively restrained for infrastructure, which is made up of service facilities in the Infrastructure, Energy, and Oil & Gas and Industry sectors and the Water and Waste Treatment parts of the Environment sector.

Incorporating bolt-on digital solutions was important, although acquisitions within Europe were fairly small. The exception was BKW which acquired Switzerland's UMB (500 staff) to strengthen digital services across the entire group. The six acquisitions by **Sitowise** of digital specialists also stood out. Aside from Bitcomp (60 staff) for forestry and Sweden's Infracontrol (29 staff) for traffic solutions, the remainder were based in Finland. These were Benviroc and MSDI for climate services, Sweetlakes (12 staff) for security services and Enco (10 staff) for property management. As has been mentioned, **Egis** acquired MT3 (transport ticketing) and OpenEnergy (energy performance). Furthermore, **VK** acquired The Netherlands' flow modelling specialist One Simulations (10 staff), **Afry** acquired Finland's Numerola (10 staff) for wind power modelling, **Cowi** acquired Denmark's FLUX Automated Design (18 staff) to automate infrastructure design, **Norconsult** acquired Norway's decision support

specialist Pure Logic (5 staff), **Arcadis** took control in the Netherlands of HydroLogic's HydroNet platform for digital water solutions (10 staff), and **Royal HaskoningDHV** acquired Singapore's Hydroinformatics Institute (25 staff).

Acquiring Building Information Management (BIM) expertise was the motivation in some cases. For example, Switzerland's **Amberg** acquired India's Infocon Services (47 staff), Germany's **Drees & Sommer** acquired Austria's Die Werkbank IT (60 staff) and in Finland, **Fimpec** acquired Byggnadsekonomi (10 staff).

Rounding out infrastructure engineering

Several mergers and acquisitions served to round out capabilities and strengthen regional footprints for infrastructure engineering. **Arcadis** acquired Germany's Giftge Consult (60 staff) to strengthen energy transmission capabilities, as did Iceland's **Efla**, which acquired France's Hecla (10 staff) and BKW, which acquired Germany's Cteam Anlagentechnik (90 staff). **Valbek** based in the Czech Republic merged with Prodex and is now Valbek-EU (transport engineering; 370 staff). The Swiss firms HSK Ingenieur (30 staff) and M. Wiesendanger (20 staff) merged with Switzerland's **Geoterra** which then acquired MWV Bauingenieure (structural engineering; 93 staff) and UBM (high-rise design; 20 staff) to strengthen its buildings capability while acquiring Studer Partner (20 staff) and Schulthess + Dolder (26 staff) to strengthen civil engineering. Germany's **Schüßler-Plan** (920 staff) and Switzerland's RUBI Bahntechnik (20 staff) created Schüßler-Plan Infratec to focus on managing infrastructure equipment. The acquisition of France's Sofsid (200 staff) by **Ekium** reflected realignment in the oil and gas sector.

The 2020-22 period also saw the acquisition of Tactix (150 staff) by Spain's **Sener** to offer transport solutions in Australia and the acquisition of Brazil's EBEL by **Pini** as a base to provide engineering services for infrastructure in Latin America. **Cowi** acquired the USA's marine infrastructure specialist Bittner-Shen (10 staff) and the bridge structural engineer Finley (35 staff) while **Setec** acquired France's movable bridges specialist ISM (20 staff).

The acquisition by **Gruner** of Zeltner Ingenieure (12 staff) and Basler & Hofmann West (80 staff) aimed to rationalise national activities, as did the acquisition of Germany's Seecon Ingenieure (100 staff) by Germany's **M & P** and of Van der Laar (30 staff) by The Netherlands' **Oosterhoff**. The multidisciplinary firm PUDIS based in the Czech Republic acquired the **Royal HaskoningDHV** traffic engineering business and BAM based in The Netherlands sold Germany's tunnel engineering specialist **Wayss & Freytag** (1114 staff) to the German contractor Zech. Socotec's acquisition of Spain's multidisciplinary **BAC** (340 staff) and Germany's structural engineer Pfeifer Interplan (70 staff) helped complete Socotec's European coverage.

There was also a major restructuring of firms tied into Italy's autoroute operators. Following Atlantia's sale of the autoroute concessionaire ASPI, Atlantia's subsidiary **Spesa Engineering** divested activities to the Autostrade per l'Italia Group's new firm called **Tecne** in late 2020 and in 2021 divested ADR Ingegneria (80 staff), the engineering firm of Aeroporti di Roma. **Tecne** subsequently formed Tecne Systra-SWS Advanced Tunneling with **Systra-SWS** as well as Tecne Speri Bridge Designers with Studio Speri.

Systra-SWS itself was the result of a merger in 2021 between Systra's Italian subsidiary Systra Sotecni and SWS Engineering (230 staff). In the case of the autoroute operator ASTM which is controlled by Gavio, its subsidiary **Sina** which specialises in transport engineering agreed to acquire Italy's Ativa Engineering (30 staff).

Environmental services mainly geotechnical

Iceland's **Mitta**, which is a leading partner in Norway's recently expanded €40 million framework to develop radioactive waste management solutions, strengthened its capacity by acquiring the **AINS** nuclear waste business (22 staff) and Sweden's rock mechanics specialist Clay Technology (40 staff). **Egis** took a strategic step in acquiring control of the UK's radioactive waste management specialist Galson Sciences (20 staff).

The Netherlands' **ABO** acquired several geotechnical businesses: France's GEO + Environnement and SEGED, each with 25 staff; Colsen's soil engineering business and Geo-Supporting, each with about 10 staff and based in The Netherlands. Meanwhile, further rationalisation took place with **Fugro** selling its geotechnical services business Seabed Geosolutions (80 staff) to the specialist geophysical services provider PXGEO. Moreover, **Arcadis** sold its environmental consultancy in the Czech Republic and Slovakia to the Czech Republic's environmental consultancy Grinity and its environmental restoration business in France to France's depollution expert DI Environment. In Switzerland, **Arcadis** also organised its environmental services business with 30 staff to become independent and **Basler & Hofmann** acquired the sustainability planning specialist Intep (10 staff).

To reinforce activity across the construction value chain, France's **Ginger** acquired the environmental engineer Conseils & Environnement (20 staff), the environmental surveyor Environnement - Investigations (20 staff) and the geotechnical engineer Sogéo Expert (26 staff), all based in France. Acquisitions elsewhere were Tunisia's foundation engineer Hydrosol Fondations (180 staff), Germany's road assessment specialist Schniering (42 staff), and the Land Site Characterisation business of **Fugro** (20 staff). Similarly, France's geotechnical engineer **Fondasol** acquired the structural engineer Prodétis (30 staff) and the structural engineer **Infraneo** (240 staff) merged with the geotechnical engineer Esiris (160 staff) and acquired Germany's anti-corrosion specialist Martin (50 staff).

Water infrastructure continues to consolidate

With **Fugro** reporting water infrastructure capital expenditure growing at 7%, acquisitions in water featured strongly during the 2021-22 period. Mentioned earlier was the acquisition of the **Black & Veatch** water business by **RSK** as well as acquisitions related to integrated digital services for water management. More generally, in Denmark, **EnviDan** acquired Arealtek (21 staff) and VA-ingenjorema (47 staff); in Switzerland, **CSD** merged with Kappeler (50 staff), **Holinger** merged with IBG and Swisswater (40 staff) and acquired IWP (62 staff) and Mauler (35 staff), and BKW acquired Dr. Blasy - Dr. Øverland Ingenieure (65 staff); in Austria, **Weber** acquired PFI (100 staff) and Unger (170 staff).

