



We unveil the ICIS Top 100 Chemical Companies listing, sponsored by DKSH, which showcases the best performers within the global chemical industry. Most companies recovered strongly last year, with many achieving double-digit sales and profit growth. Overall, Top 100 2010 sales returned to the stellar days of 2008 – before the shock downturn hit that year. Germany's BASF once again leads the pack, far ahead of its nearest rival, US group Dow Chemical.

TOP 100 ROARS BACK

30 The world's largest chemical companies grew strongly in 2010, achieving stellar sales, margin and profit rises as they capitalised on the global economic growth.

FULL RECOVERY IN 2010

36 Our analysis shows that the Top 100 recorded year-on-year sales growth of 23.9%, producing \$1.23 trillion in sales.

AGCHEMS OUTPERFORM

39 Fertilizer companies were the real winners in 2010 as surging profit margins were fueled by strong emerging market demand.

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ICIS TOP 100 ANALYSIS



From strength to strength

Fueled by strong recovery in mature markets, continued growth in developing countries and pricing power, the global chemical sector pulled out of the downturn strongly in 2010

NIGEL DAVIS LONDON

nies moved from strength to strength in 2010, achieving considerable sales, margin and profit growth as they built on an improving global economy.

he world's leading chemical compa-

The ICIS Top 100 listing of the world's major players in chemicals highlights the significant gains made by most.

The ICIS analysis covers the leading producers of chemicals, including public companies and the chemical units of the integrated oil majors.

This is an impressive group of producers that together generated a total of \$1.23 trillion (€932bn at December 31, 2010 exchange rates) of sales in 2010, up by more than 20% compared with the previous year.

The sales gains - driven by strong emerging market growth and the expanding developed world economies - helped to drive profits higher. Together, the companies were able to more than double net profits.

BASF COMES OUT ON TOP

The annual league table shows that Germany's BASF remains the world's largest chemical producer by sales, with 2010 sales of \$84.65bn.

US-based Dow Chemical closely beat the chemical business of ExxonMobil, also of the US, to claim the second place slot with \$53.6bn. The top five chemical companies produced sales of \$282bn in 2010, and the top 10 sales of \$466bn. The Top 10 – of those that declared the data - earned some 42% of the net profit total of the Top 100.

An exceptional year by any standard, 2010 delivered more than most chemical companies dared to hope for at the start. Still in recovery mode, the sector produced returns well above expectations.

Nervousness around mid-year was soon swept away as companies continued to deliver strong results on the back of growing demand and higher prices.

The ICIS Top 100 Chemical Companies listing illustrates the renewed strength and vigor common across the sector.

The major chemical companies are involved in a diverse range of businesses, producing commodity, specialty and fine chemicals as well as related services. Their products are the raw materials of industrial growth and underpin consumer demand.

Benefiting from the fiscal stimulus packages introduced by governments worldwide to kickstart the global economy, chemical makers were among the first to demonstrate clear signs of recovery from the 2008–2009 slump.

Running into 2010, they were able to capitalize on booming emerging markets demand, particularly in China.

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THE ICIS Top 100 Chemical

Companies highlights businesses that have successfully dealt with the challenges of the global market. Our sponsor, DKSH, gives a view on how it can help chemical companies to grow their business in new markets.

DKSH Business Unit Performance Materials, a leading specialty chemicals distributor, is honored to be the sponsor for the ICIS Top 100 Chemical Companies.

As an industry, chemical distribution will see continued growth, especially since outsourcing of key activities by chemical producers will continue to increase, a trend that opens new opportunities. Another visible trend is that producers want to strengthen their global reach, further expanding their business to fast-growing markets, especially Asia.

We have been at home in Asia for nearly 150 years, reliably safeguarding the interest of our business partners. Because of our long history in the region, we are deeply rooted in many communities throughout Asia and have established a unique network of business and personal relationships.

Thanks to our one-stop shop approach, multinational clients such as chemical companies we represent in the market receive a complete service package for the whole of Asia that extends across all the industries we serve.

The single-source concept allows our business partners to save significant amounts of time and transaction costs. Clients appreciate our unparalleled geographical spread covering the whole of Asia (and Western Europe), as well as our application- and service-driven business model which enables us to work and think like a specialty chemicals company.

Our specialists act in the market on behalf of key clients as if they were their employees. They are sup-



ported by a Key Client Management Team providing one point of contact while still leveraging our entire network and resources to work for our clients' best business interest. Our unique client reports and market research coupled with our strong financial background makes us a reliable long-term partner.

As part of the DKSH Group, Business Unit Performance Materials offers a broad range of tailor-made services and countless opportunities for producers to expand their markets. As a trusted specialty chemicals distributor and provider of Market Expansion Services, Performance Materials sources, develops, markets and distributes a wide range of specialty chemicals and food ingredients to business partners in the specialty chemicals, food and beverage, pharmaceutical, and personal care industries.

With 69 offices in 24 countries and over 1,000 specialized staff, Business Unit Performance Materials generated a transaction value of around Swiss Francs 749m (\$947m, €661m) in 2010. ■ Visit us at: dksh.com/ chemicaldistribution and youtube.com/user/DKSHGroup

Developed world growth was less robust but proved vitally important.

The ICIS Top 100 Chemical Companies produced a 22.1% increase over 2009 in sales in local currencies in 2010 (a 24% increase when converted at year-end exchange rates into US dollars). Operating profits were 2.3 times higher in local currencies and operating margins up 1.8 times. Net profits were 1.7 times ahead.

This level of performance was recognized by investors. The Dow Jones Global Chemicals Index improved by 24.3% over the course of the year, while the S&P 500 index managed a gain of only 9.8%. The ICIS listing illustrates the sharp rise in sales values seen by most chemical companies. Suppliers of commodities fared better than specialty makers as they benefited from the return of industrial activity in the major global economies.

Volumes were pushed somewhat higher in Europe and North America, but grew particularly strongly in emerging markets. Emerging market demand had buoyed some companies, helping them to survive the extremely difficult late 2008 to early 2009 period.

By 2010, however, chemical market demand had moved past recovery mode into a period of strong growth. Linked closely to the price of oil-based feedstocks and the cost of energy, chemical prices rose sharply over the year. The ICIS Petrochemical Index (IPEX), which is based on a basket of prices of the key olefins, aromatics and polymers, rose by 14.5% in 2010. Prices for key building block petrochemicals were pushed higher as developing world demand surged, particularly in Asia. Prices of other commodity chemicals also rose sharply as global markets tightened.

A RECORD YEAR

For some producers, 2010 was a record year. BASF hit new highs as it took advantage of a stronger than expected economic recovery. ExxonMobil's chemical unit's earnings hit a new record on much stronger margins and improved volumes.

An exceptional year by any standard, 2010 delivered more than most chemical companies dared to hope for at the start

Companies upstream in particular were able to lift sales and earnings on the back of higher prices as they passed on higher feedstock and energy costs. The price of oil and feedstock naphtha increased markedly over the course of the year. The Brent crude basket futures price climbed by 17.3%, while naphtha rose in Europe to \$853/tonne from \$727/tonne and in Northeast Asia to \$886/ tonne from \$742/tonne. Ethane prices in the US moved to 64 cents/gal as natural gas prices fell to \$4.287/MMBtu from \$5.637/MMBtu.

Petrochemical and commodities players registered the greatest increases in sales in 2010, with Canada's fertilizer producer PotashCorp, Malaysia's oil company PETRO-NAS, Brazilian petrochemical firm Braskem, South Korean producer Honam Petrochemical, Canada's plastics and chemicals producer NOVA Chemicals, US-based fertilizer manufacturer CF Industries and China's petroleum and petrochemical specialist Sinopec registering gains of more than 50%.

Sinopec's growth in chemicals was clearly driven by strong stimulus-led demand in China. That demand underpinned growth for many firms in the sector, particularly those supplying plastics and chemical intermediates to China markets. China's polyolefins imports, for instance, rose by 53% between 2008 and 2010, or by 6.3m tonnes.

Many chemical companies benefited from strong emerging market growth. For the largest companies, sales increases of 25%-plus (for Saudi Arabian chemical giant SABIC, Anglo-Dutch major Shell, ExxonMobil's chemical unit, Switzerland-headquartered INEOS, BASF and Japan's Mitsubishi Chemical, translated into significant profit gains.

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THE ICIS TOP 100

Rank	Company		Sales		Operati	ng profit	Net p	profit	Total a	issets	Rð	kD	Capital s	pending	; Emplo	yees
2010		\$m	% Ch		A	*	A	A		0/		0/		0/		0/
			Reporting currency	; in \$	\$m 2010	\$m 2009	\$m 2010	\$m 2009	Śm	% Change	Śm	% Change	\$m	% Change	Numbers	% Change
1	BASF ^a	84,651	26.0	16.5	10,286	5,270	6,039		78,714	15.8	1,977	6.7	3,377	1.6	109,140	4.2
2	Dow Chemical	53.674	19.6	19.6	2,802	469	1,970	336	69,588	5.4	1,660	11.3	2,130	26.6	49.505	-5.2
3	ExxonMobil ^b	53.636	30.9	30.9	3.392	2.408	4.913	2.309	26,235	8.6	_,		2,215	-29.6	,	
4	Sinopec ^b	48,725	50.2	55.3	2,281	2,025	.,010	2,000	19,130	-0.8			1,956	-48.8	65,623	-4.9
	LyondellBasell	,			,				,							
5	Industries °	41,151	33.5	33.5	2,944	317	10,151	-2,865	25,494	-8.2	154	6.2	692	-11.2	14,000	-5.8
6	SABIC	40,525	47.4	47.4	10,105	5,014	5,741	2,420	84,688	7.0	174	23.2	4,293	-32.9	33,000	0.0
7	Shell ^b	39,629	43.8	43.8			1,511	316					809	-59.3		
8	Mitsubishi Chemical ^{d/x}	38,241	25.9	40.9	2,735	716	1,009	138	39,778	-1.8	1,580	-4.4	1,423	-1.0	53,882	0.0
9	INEOS Ø	34,561	37.2	26.8	1,528	838	-32	-937	17,925						13,682	
10	DuPont	31,505	20.7	20.7	3,711	2,184	3,031	1,755	40,410	5.8	1,651	19.8	1,508	15.3	60,000	3.4
11	Total ^b	24,480	25.4	16.0	1,278	357	1,209	390							41,658	-6.7
12	Bayer ^e	23,983	20.5	11.4	1,152	525			33,868	7.5	1,308	9.8	1,347	-8.0	55,200	-0.9
13	Sumitomo Chemical ^d	23,939	22.3	36.9	1,062	555	295	159	28,587	-0.7	1,668	17.7	1,215	-15.8	29,382	5.6
14	AkzoNobel	19,402	12.4	3.9	1,616	1,225	999	408	26,631	6.4	443	2.1	708	4.1	55,590	1.6
15	Braskem ^f	19,004	60.1	60.1	1,937	846	1,138	240	19,072	43.2			1,053	56.4	6,799	48.8
16	Toray ^d	18,593	13.2	26.7	1,209	433	699	-153	18,929	0.7	563	0.9	669	2.3	38,740	2.1
17	Air Liquide	17,876	12.6	4.1	2,987	2,808	1,861	1,763	29,870	9.3	311	7.8	2,303	20.7	43,600	3.1
18	Linde ^g	17,054	14.8	6.1	3,877	3,418	1,332	847	35,635	10.3	125	5.6	1,580	8.0	48,430	1.5
19	Evonik Industries ^{b/h}	17,053	29.0	19.2									798	19.9	31,061	2.5
20	Mitsui Chemicals ^d	16,806	15.2	29.0	490	-102	300	-302	15,646	4.6	460	-6.2	544	-8.2	12,892	-0.6
21	Johnson Matthey ^d	15,153	27.4	35.2	556	389	277	235	4,935	12.5	167	19.7	182	4.3	9,742	8.9
22	LG Chem	15,053	23.0	27.9	2,230	1,594	1,761	1,190	5,184	-38.5			1,181	40.2	13,000	30.0
23	SK Energy ⁱ	14,279	26.8	31.8	346	536										
24	Reliance Industries ^{d/i}	14,058	12.9	27.6	2,121	1,699			10,160	-0.2			122	6.9		
25	Asahi Kasei d/j	12,955	15.3	29.0	959	305							632	-24.0		
26	Shin-Etsu ^d	12,779	15.4	29.2	1,802	1,265	1,209	905	21,545	0.8	451	11.2	1,589	12.0	19,770	16.6
27	Merck KGaA	12,313	19.9	10.9	1,476	930	838	525	29,671	34.0	1,851	3.9	525	-15.2	40,562	22.7
28	DSM	11,994	15.1	6.4	1,063	767	672	483	13,889	9.0	429	6.2	551	-9.0	21,911	-3.6
29	Syngenta	11,641	5.9	5.9	1,793	1,819	1,397	1,408	17,285	7.2	1,032	8.4	396	-39.3	26,000	4.0
30	PPG Industries ^k	11,297	8.8	8.8	1,341	990										
31	Yara International	11,227	6.4	7.9	1,282	215	1,499	641	11,243	6.2	18	15.9	531	-27.5	7,348	-3.7
32	Chevron Phillips Chemical	11,204	33.3	33.3	1,501	707	1,388	615	8,016	8.1	41	7.9	186	13.4	4,600	-4.2
33	Sekisui Chemical ^d	11.055	6.6	19.3	596	388	285	125	9,542	0.4	298	2.8	256	-42.7	19,770	0.0
34	Honam Petrochemical	10,727	59.3	59.3	1,093	775	774	698	7,562	33.9	19	35.7	1,654	908.5	1,557	1.1
35	Agrium	10,520	15.2	15.2	1,103	580	714	366	12,717	30.0			441	40.9	14,150	26.9
36	Praxair	10.116	13.0	13.0	2.082	1.575	1.195	1,254	15.274	6.7	79	6.8	1.388	2.7	26,261	0.4
37	Mosaic'	9,938	47.0	47.0	2,664	1,271	2,515	827	15,787	24.2	_		1,263	38.7	,	
38		9,850	6.5	19.2	586	145	304	-385	9,196	-7.5	380	-5.7	307		17,542	-6.6
39	NPC (Iran) d/w	9,810	36.4	36.4	736	382	553	166	22,554	-8.2	3	-72.1	907	-47.3	18,187	33.2
40	Formosa Chemicals & Fibre (Taiwan)™	9,719	41.7	41.7			1,729	919	12,969	22.0					4,906	-0.5
41	Henkel (Adhesive segment) "	9,683	17.4	8.5							306	2.2	159	-37.8	23,927	-0.9
42	LANXESS	9,436	40.8	30.2	804	214	502	57	7,509	11.8	154	14.9	664	82.2	14,648	2.2
43	Solvay °	9,422	-16.2	-22.5	404	1,238	2,355	740	18,573	11.7	180	-2.2	713	-5.1	16,785	-11.6
44	DIC d	9,407	2.8	15.0	449	300	190	27	8,498	-6.1			241	-10.5		
45	Huntsman	9,049	19.6	19.6	410	13	27	114	8,714	1.0	151	4.1	236	24.9	13,000	18.2
46	Air Products	9,026	9.3	9.3	1,389	846	1,029	631	13,506	3.7	115	-0.9	1,134	-8.3	18,300	-3.2
47	BP q	8,900	30.9	30.9												
48	Sasol	8,572	-13.2	-11.9	721	-290							439	-1.4	11,936	-4.8
49	Borealis	8,308	33.0	23.0	463	34	439	53	7,461	16.9	111	6.3	129	-68.5	5,075	-2.7
50	Tosoh ^d	8,265	8.9	21.8	405	141	121	74	8,766	-1.9			335	-4.6	11,089	0.0

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Rank	Company		Sales		Operatii	ng profit	Net p	profit	Total a	assets	R	&D	Capital s	spending	Emplo	oyees
2010		\$m	% Char Reporting		\$m	\$m	\$m	\$m		%		%		%		%
			currency	in \$	2010	2009	2010	2009	\$m	Change	\$m	Change	\$m		Numbers	
51	Polimeri Europa (ENI) ⁱ	8,139	46.1	35.1	-114	-967	-113	-487	4,077	19.1			333	73.1	5,972	-1.6
52	Arkema	7,826	32.9	22.9	644	-99	460	-247	6,385	22.1	184	2.2	417	4.7	13,903	0.7
53	Sherwin-Williams	7,776	9.6	9.6	749	695	463	436	5,169	19.6	40	-1.2	125	37.1	32,000	9.5
54	Momentive Performance Materials Holdings ^p	7,406	26.9	26.9	533	15			8,777	164.7	131	9.2	140	81.8	11,000	
55	Rhodia	6,926	29.6	19.9	798	229	343	-189	6,800	20.3	109	12.3	310	40.1	14,000	2.9
56	Formosa Plastics m	6,675	36.2	36.2			1,758	922	11,722	20.7					5,033	0.9
57	Clariant	6,650	7.7	4.3	342	-19	168	-198	5,530	-2.8	126	-10.0	209	65.9	16,200	-7.6
58	K+S	6,618	39.7	29.2	969	347	595	138	7,387	6.8	21	-17.1	266	13.2	15,241	0.2
59	PotashCorp	6,539	64.4	64.4	2,548	1,181	1,806	981	15,619	20.9			1,978	12.1	5,400	5.1
60	Wacker Chemie	6,293	27.7	18.0	1,064	221	650	-101	7,291	21.1	219	0.7	818	-19.9	16,314	4.5
61	Dow Corning	5,997	17.8	17.8			866	598	12,648	16.9					9,000	0.0
62	Celanese	5,918	16.5	16.5	503	290	377	498	8,281	-1.6	70	0.0	201	14.2	7,250	-2.0
63	Eastman Chemical	5,842	32.9	32.9	862	345	438	136	5,986	8.5	152	22.6	243	-21.6	10,000	0.0
64 CE	Taiyo Nippon Sanso d	5,840	11.6	24.9	428	297	154	170	7,459	0.1	6.4	10.4	22.4	2.0	11.005	2.0
65 66	ICL Origo &	5,692	25.0	25.0	1,346	938	1,025	770	6,388	8.1	64 27	19.1	334	-3.6	11,035	3.9
66 67	Orica ^s Ashland ^{s/t}	5,602 5,593	-10.2 10.0	-1.8 10.0	900 511	736 338	1,271	478	6,737 6,549	-5.0 0.5	37	14.2	508 175	47.5 21.5	14,000	-7.5
68	Kaneka ^d	5,593	10.0	23.1	256	338 189	140	91	6,549 5,496	0.5 5.1			319	10.4		
00		5,460	10.0	23.1	250	109	140	91	5,490	5.1			219	10.4		
69	Mitsubishi Gas Chemical ^d	5,447	17.3	31.3	281	44	438	80	6,968	7.0	198	1.2	427	28.4	4,979	1.2
70	Lubrizol	5,418	18.1	18.1	1,110	859	732	501	4,967	4.1	226	6.5	176	25.7	6,896	2.5
71	Styron ^z	4,967	44.0	44.0	181	153	57	64	2,676	58.2			9	-63.2		
72	ALPEK (Grupo Alfa)	4,957	13.7	20.4	387	322	203	142	3,217	-2.4					4,076	1.9
73	Cementhai Chemicals	4,811	42.7	58.7	271	417	754	376	5,503	-0.5			100	00.0		
74	Honeywell "	4,726	14.0	14.0	749	605			4,938	6.0			188	22.9		
75	PKN Orlen ^{b/i}	4,608	4.2	1.6	165	-68	250	0.44	4,492	8.5	25	2.0	592	-25.8	0.445	2.2
76 77	NOVA Chemicals Showa Denko ^{b/i}	4,576 4,392	54.8 9.7	54.8 22.8	590 102	-112 91	259	-241	5,670 4,363	1.3 1.4	35 43	2.9 3.4	126 336	40.0 148.2	2,445	-2.2
78	Kuraray ^d	4,392	9.1	22.0	641	329	347	176	4,303	2.7	43 18	-3.2	226	-13.6	6,544	-1.3
79	Denki Kagaku Kogyo (Denka) ^D	4,322	10.5	23.7	297	234	173	113	4,859	0.5	10	-5.2	220	-13.0	0,044	-1.5
80	Daicel Chemical Industries ^d	4,271	10.4	23.6	395	225	203	119	4,964	-4.0	145	5.8	138	-36.1	1,948	-1.2
81	Airgas ^d	4,252	9.7	9.7	468	400	250	196	4,936	9.8			256	1.3	14,000	0.0
82	Nalco	4,252	9.7 13.4	9.7 13.4	578	400	196	61	4,930	9.0 5.2	80	8.1	156	53.2	12.400	7.0
83	JSR ^d	4,114	9.8	22.9	472	218	333	147	4,717	4.6	208	-6.0	161	-29.9	5,259	0.9
84	Occidental Chemical ^b	4,016	24.5	24.5	438	389	000	141	4,111	4.0	200	0.0	237	15.6	0,200	0.0
85	CF Industries ^v	3,965	52.0	52.0	896	680	349	366	8.759	251.1			258	9.5	2,400	60.0
86	Givaudan	3,959	7.1	3.8	519	443	318	192	6,466	-2.3	314	3.1	112	26.3	8,618	1.4
87	PETRONAS	3,868	60.2	72.7					-,						-,	
88	Nippon Shokubai ^d	3,482		32.1	360	150	255	117	3,977	5.9	126	4.6	185	-36.3	3,576	4.3
89	PTT Chemical	3.440		31.8	479	356	343	204	5,601	4.8			224	-61.3	-,	
90	CEPSA ⁱ	3,427	47.7	29.5	177	87			-,				39	-5.9		
91	RPM '	3,382		-0.9	345	320	189	180	3,515	17.0	41	-1.0	40	71.6	9,000	0.0
92	PEMEX i	3,348	-17.3	-12.8				-1,536		3.0					.,	
93	Ube ^{b/d}	3,299		35.7	347	85										
94	Indorama Ventures	3,292		35.8	371	245	352	145	2,600	5.0	2	0.0	81	-36.1	4,083	17.5
95	Zeon ^d	3,265	19.7	34.0	426	101	221	54	3,509	3.4			472	19.0		
96	Hanwha Chemical	3,241	19.6	24.3	434	353	357	295	4,843	12.5						
97	Valspar	3,227	12.1	12.1	376	281	222	150	3,868	10.2	100	9.7	68	16.9	10,180	15.8
98	Tessenderlo Group	3,217	15.9	7.2	78	-74	27	-239	2,248	7.6	18	-3.6	155	4.2	8,262	-0.7
99	EuroChem	3,210	32.9	32.0	854	354	656	367	4,906	16.1			670	9.8	19,614	-2.1
100	Rockwood Holdings	3,192	15.3	15.3	358	198	239	21	4,724	-1.3	49	12.3	180	19.0	9,600	1.1
	-															

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BUBBLING UNDER

Rank 2010	Company	A	Sales	Sales % Change		Operating profit		Net profit		Total assets		&D	Capital spending		Employees	
		\$m	% Ch Reporting currency	<u>ا</u>	\$m 2010	\$m 2009	\$m 2010	\$m 2009	\$m	% Change	\$m	% Change	\$m	% Change	Numbers	% Change
101	Westlake Chemical	3,172	36.4	36.4	378	107	221	53	2,954	20.8			81	-18.5	1,873	2.5
102	Asahi Glass	3,141	11.3	24.6	184	-83			3,030	0.0			181	-15.0		
103	FMC	3,116	10.2	10.2	387	335	173	229	3,320	5.9	101	8.3	142	-11.7	4,900	2.1
104	Mexichem	2,955	19.0	25.5	506	301	285	231	4,062	13.6			177	-10.4		
105	Cabot ^s	2,893	29.0	29.0	248	-55	154	-77	2,886	7.8	70	-1.4	108	1.9	3,900	-1.3
106	Lonza	2,869	-0.4	10.7	400	230	312	156	5,115	-3.4	106	-3.9	305	-43.6	8,280	-1.3
107	Kemira	2,864	9.7	1.4	207	157	857	123	3,371	-9.7	55	12.4	100	-6.8	4,935	-41.9
108	Georgia Gulf	2,818	41.6	41.6	114	-1	43	131	1,666	3.8			46	51.8	3,932	12.7
109	Chemtura	2,760	20.0	20.0	38	-32	-586	-293	2,913	-6.6	42	20.0	124	121.4	3,500	-20.5
110	Cytec Industries	2,748	13.1	13.1	234	16	172	-3	3,674	3.2	73	-3.3	116	-34.1	6,000	3.4
111	W.R. Grace	2,675	-5.3	-5.3	326	229	207	71	4,272	7.6	60	-14.0	113	20.4	6,000	1.7
112	Tasnee ⁱ	2,630	103.2	103.2	284	108			5,021	8.9			220	-13.2		
113	IFF	2,623	12.8	12.8	408	338	264	196	2,873	8.6	219	18.4	106	59.1	5,514	2.5
114	PolyOne	2,622	27.2	27.2	174	80	163	50	1,672	18.1	34	11.9	40	24.6	4,000	2.6
115	IRPC Public Company ^b	2,579	22.4	36.1	128	152										
116	Tata Chemical ^d	2,469	16.0	31.2	314	274	145	119	2,607	14.3	14	-12.2	72	76.4	4,645	-0.2
117	Albemarle	2,363	17.8	17.8	415	186	324	178	3,068	10.7	58	-4.9	75	-25.3	4,020	1.8
118	Makhteshim-Agan Industries	2,362	6.7	6.7	643	120	-132	33	3,719	-1.1	23	6.4	99	42.5		
119	Petrochemical Industries Co.	2,207	35.5	41.8	700	289	640	285	3,914	8.7			28	-67.4		
120	Ferro	2,102	26.8	26.8	24	-44	6	-43	1,434	-6.0	27	-3.5	45	3.2	5,034	-3.4
121	Industries Qatar ^y	2,087	33.3	33.4												
122	Symrise	2,083	15.4	6.7	324	234	177	121	2,729	8.6	143	12.7	76	46.2	4,954	-6.3
123	Altana	2,035	29.9	20.1	305	77	201	15	2,576	13.8	109	16.1	98	36.7	4,937	3.1
124	Solutia	1,950	20.5	20.5	331	242	78	-113	3,537	8.3	18	28.6	66	50.0	3,300	-2.9
125	Fuchs Petrolub	1,933	23.8	14.5	320	249	226	173	1,185	19.9	33	13.1	43	8.0	3,584	2.8
126	тик	1,758	37.6	25.8	4	-40	-5	-48	1,014	-0.4			42	13.8	1,140	-2.3
127	Sud-Chemie	1,623	14.2	5.6	185	138	93	49	1,730	13.8	80	8.4	104	30.4	6,392	2.8
128	Croda	1,564	21.1	18.7	310	166	204	38	1,532	-0.2	33	-0.5	64	2.5	3,200	-7.5
129	Adeka ^d	1,534	16.2	30.0	146	72										
130	Arch Chemicals	1,377	10.7	10.7	94	70	71	47	1,238	2.3	20	7.5	29	7.3	2,504	-18.6

FOOTNOTES

- ^a Financial results include the effects of the acquisition of the Cognis group
- ^b Chemical segment figures only. Includes intersegment revenues, e.g. revenue for sales to other divisions of by-products. For ExxonMobil, intersegment revenue was \$18.1bn in 2010 and \$14.1bn in 2009. Also for ExxonMobil the operating profit figure was calculated by adding the earnings after income tax for the US and non-US with the income taxes for the US and non-US. Operating profit in 2010 was \$3.4bn and \$2.4bn in 2009. For Shell in 2010, intersegment chemical figures include trading and intersegment sales of \$4.3bn and \$3.0bn in 2009. For Sinopec = external sales

with inter segment sales. Ube figs = Chemicals & Plastics + Specialty Chemicals & Products. For Evonik in 2010, external sales = \notin 12.9bn and \notin 10.0bn in 2009 and internal sales in 2010 = \notin 79m and \notin 90m in 2009.

- Construction of the sum of predecessor and successor components after emergence from bank-ruptcy, April 30, 2010
- d Financial year-end March 31, 2011
 Net sales includes intersegment sales, data excludes HealthCare division (2010 sales €17.0bn; 2009
- sales €16.2bn) ^f Quattor in the period from January to
- March and Unipar Comercial and Polibutenos in the period from January

to April are not part of Braskem's consolidated results, since they were

- acquired in April and May, respectively ^g Linde Gas & Engineering sales, oper-
- ating profit and employee figures only ^h Excludes real estate and energy business areas
- ¹ Petrochemical figures only. For SK Energy, the sales revenue figure includes intersegment sales, for 2010 won (W) 3.536tm and for 2009, W2.946tm ¹ Asahi Kasei excludes homes and
- health-care segments ^k Excludes optical and glass segments ^I Financial year-end June 30, 2010,
- Sasol turnover figures from the chemical cluster (polymers, solvents, olefins and surfactants)

^m Net profit is pre-tax

- ⁿ Adhesive Technologies segment only
- Solvay completed the sale of its pharmaceutical business to Abbott Laboratories and financial reporting includes the New Business Development business segment
- P The 2010 and 2009 pro-forma figures for Momentive Performance Materials Holding include both Momentive Specialty Chemicals and Momentive Performance Materials (collectively Momentive), formed in October 2010. Please refer to SEC filings
- ^q ICIS estimated revenue excluding equity-accounted joint ventures in China, Malaysia and Germany. 2010 and 2009 revenue inclusive of equity-

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Mitsubishi Chemical and most of the Japanese companies in the Top 100 listing operate in a fiscal year that ends on March 31. Data are shown for the most recent full-year period.

Companies moved from loss to profit in 2010 as margins improved. Only two firms, Italy's petrochemical business Polimeri Europa and Mexico's oil and petrochemical firm PEMEX, reported an operating loss (earnings before interest and tax – EBIT) for the year.

Momentive Performance Materials Holding and chemical company Huntsman, both of the US, made the most significant percentage gains in profits at this level. BASF, SABIC, Germany's gases and engineering group Linde, US-based chemical company DuPont and ExxonMobil's chemical business generated the most EBIT in 2010.

US-based specialty business Rockwood, Germany-based specialty chemical companies LANXESS and Wacker Chemie, Austria-headquartered polyolefins business Borealis, Mitsubishi Chemical and Japanese ink producer DIC showed the strongest gains in net profits.

The top earners in the industry were Netherlands-based polyolefins producer Lyondell-Basell, which booked a net profit of \$10.15bn following its 2009 loss of \$2.87bn and its emergence from Chapter 11 bankruptcy protection in the US in April, as well as BASF, SABIC, ExxonMobil's chemical unit, DuPont, US-based phosphate producer Mosaic and Belgian chemical company Solvay (which booked a gain on the sale of its pharmaceuticals business).

COST CONTROL AND CAPITAL DISCIPLINE

Firms benefited from higher prices and stronger volumes through the year. But they also continued to manage costs and spending aggressively.

Some of the largest companies in the industry had the lowest selling, general and admin-



istrative costs as a percentage of sales in 2010 – BASF and LyondellBasell.

Employee numbers have been contained since the 2008–2009 slump, with most companies still cutting back in 2010. Those changes can be seen in the ICIS Top 100 table.

Sales and profit per employee data for the sector show how well some players performed last year. Traditionally, the chemical firms of oil majors tend to have the lowest number of employees associated with their businesses, given that they share personnel with their parent.

They also tend to have the highest sales and profit per employee ratios. Nevertheless, some of the big producers, such as INEOS and LyondellBasell, have strong employee ratios given their focus on cost efficiency.

The ICIS data show that many companies took the opportunity of high cash flows to reduce debt in 2010, although net debt levels for some rose as they sought new mergers and acquisitions (M&A) opportunities. The capital spending numbers give some indication of this renewed interest in M&A, as well as higher spending on property, plant and equipment, which rose by a healthy 11.9%.

Encouragingly, research spending increased by 5.3% as producers continued to pump more money into innovation. Research and development (R&D) to sales ratios varied widely across the industry as expected given the diverse product portfolios across the sector.

The R&D to sales ratio in 2010 was the highest for Germany-based chemical and pharmaceutical firm Merck KGaA, Switzerland-based agribusiness Syngenta and flavorings manufacturer Givaudan, as well as Japanese chemical giant Sumitomo Chemical, while seven companies had a spending rate of more than 5%. ■

Download the complete ICIS Top 100 listing in pdf format at icis.com/Top100Chem



For more details on the ICIS Top 100 data sheet please contact datateam@icis.com

accounted joint ventures are \$14.0bn and \$9.5bn, respectively

^r Financial year-end May 31, 2011

- ^s Financial year-end September 30, 2010
- ^t Ashland excludes distribution business
- <sup>
 •</sup> Specialty Materials figures used
- Financial results include the effects of the acquisition of Terra Industries
- Net sales. The total of NPC and its associated companies in 2010 is \$18bn
- * Financial results include the effects of the acquisition of Mitsubishi Rayon
- ^y Petrochemical and fertilizer figures only
- ² Plans to rename to Trinseo in late 2011. Finances are based on the sum of predecessor and successor components
- ^Ø Comparative figures for 2009 do not include INEOS Industries Holdings

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Exchange rate

Key financial year end exchange rates used for 2010 data (2009 in parentheses): €/\$ 1.325 (1.433), \$/Yen 82.81 (92.68) based on March 31 year-end

Reasons for company exclusions

PetroChina Does not segment chemicals from refining business Repsol No longer discloses chemical

segment figures

INEOS Styrenics Equity accounted JV of INEOS and NOVA Chemicals. In 2010, INEOS Styrenics had \$3.1bn revenue Koch Does not segment chemical data OMV Includes petrochemical operations in its refining and marketing segment Shanghai Petrochemical Majority-owned by Sinopec

Samsung Total Sales equity accounted in Total and Samsung figures

ChemChina Accounts not made public.SamEstimated 2010 sales weredateCNY136.5bn (\$20.7bn), 2009 salesinto d

CNY122.6bn China Blue Star Chem Majority-owned by ChemChina

Formosa Plastic USA Not segmented in Formosa reports

Formosa Petrochemical Company does not segment chemicals from its

refining business

Nan Ya Plastics Sales a mixture of chemicals and processed items Yeochon NCC Results included with Hanwha and Daelim Daelim Below Top 100 in sales as Yeo-chon NCC accounted as equity company Samsung The company does not consolidate various chemical company interests into one area PTT Group Results included as IRPC and PTTCH businesses SIBUR In the midst of restructuring, which includes an exit from noncore business activities. After completion of this process, accounts are expected to be made public, but the company has decided not to publish the current accounts Flint Group Accounts not made public

ICIS TOP 100 ANALYSIS

\$1.23 trillion sliced and diced

The ICIS Top 100 Chemical Companies made a sharp recovery in 2010. The analysis highlights important trends in sales, profitability and spending patterns

REGAN HARTNELL LONDON

he chemical industry emerged in 2010 from the financial crisis, stimulated by global government spending and fueled by emerging economies. The ICIS Top 100 Chemical Companies have once again joined the trillion dollar club, and sales were on par with the record levels of the 2008 boom.

The sharp V-shaped recovery experienced by the global economy since the bottom in the first quarter of 2009 flowed through to the chemical industry in 2010. Sales of the ICIS In 2010, the ICIS Top 100 chemical producers recorded year-on-year sales growth of 23.9%, producing \$1.23 trillion worth of sales

Top 100 in 2010 almost recovered to the prerecession level of \$1.24 trillion, seen in 2008.

In 2010, the ICIS Top 100 chemical producers recorded year-on-year sales growth of 23.9%, producing some \$1.23 trillion-worth

of sales. This represents 38.7% of the \$3.2 trillion of global chemical sales (excluding pharmaceuticals), according to data from the American Chemistry Council.

The Top 10 giants, led by Germany's BASF, have increased their market share of Top 100 sales revenue to 37.7%, representing a 2.1 percentage point increase on 2009 numbers.

Since the turn of the millennium, the ICIS Top 100 chemical producers have grown at an impressive average annual growth rate of 8.6%.

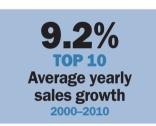
Sales of the Top 10 have grown at a slightly faster average rate of 9.2%. The sheer size of

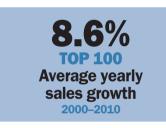
BOTTOM 50

Average yearly

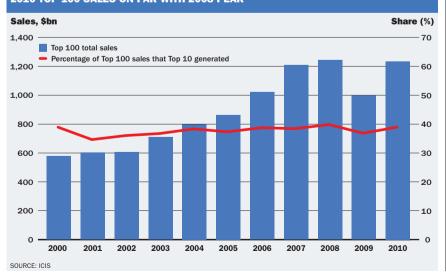
sales growth

2000-2010

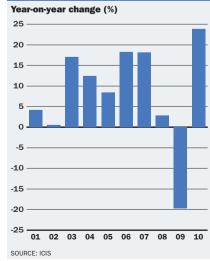




2010 TOP 100 SALES ON PAR WITH 2008 PEAK



2010 SALES RECOVER FROM 2009



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their balance sheets gives them financial flexibility to partake in organic growth via the development of world-class assets, as well as the ability to acquire high-growth, smaller companies through mergers and acquisitions (M&A).

The Top 100's bottom 50 companies have experienced a 9.8% average growth rate, as smaller, more nimble players are able to align their business models more easily with the higher growth sectors.

The ICIS Petrochemical Index (IPEX) is a 36-item basket that covers the main olefins, aromatics and polymers over Europe, Asia and the US. Using the IPEX as a proxy for chemical prices, it can be seen that since 2000, the IPEX coincides well with sales growth of the Top 100 companies.

The IPEX leading indicator predicts a bumper year for 2011 chemical sales, albeit with the assumption that the global economy manages to struggle on and avoid the repeat of the late 2008–2009 financial crisis.

GERMANS, SWISS LEAD IN R&D

Germany's Merck KGaA, with its life sciences and advanced materials focus, once again led the ranks in research and development (R&D), spending 15% of sales in this area. Switzerland-based agrochemical major Syngenta came in second as it strives to develop technology to feed a hungry world, with almost 9% of sales invested in R&D.

Noticeably, it can be seen that R&D plays a significant role in the business models of some specialty chemical companies, as they strive to gain a competitive advantage by producing solutions for high-level applications.

For declared data, companies in the ICIS Top 100 have spent a total of \$20.6bn on R&D activities, with average growth of 4.6% in reporting currencies, above 2009 levels. In absolute terms, BASF was the biggest spender, with almost \$2bn in R&D investment.

For declared data in 2010, ICIS Top 100 chemical companies spent almost \$57bn on capital expenditures, slightly more than the levels of depreciation and amortization recorded over the same period.

Leading the data was Canada's PotashCorp, as it invested 30.3% of sales in developing new and existing fertilizer assets, focused on sending increased volumes to emerging economies. Other fertilizer companies, Russia's EuroChem and US-based Mosaic, also joined Potash Corp in the Top 12.

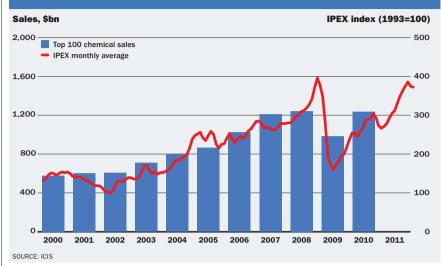
Industrial gases players took three of the top 12 spots.

In absolute terms, Saudi Arabia's SABIC, with \$4.3bn, and BASF, with \$3.4bn, topped the list in capital spending.

View the full set of data on the ICIS Top 100 Chemical Companies at icis.com/Top100Chem

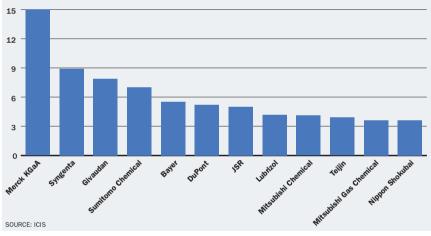
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ICIS TOP 100 SALES TRACK IPEX



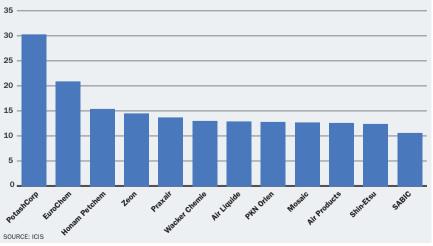
INVESTING TO STAY IN THE GAME

R&D expenditure as % of sales



AGRICULTURAL CHEMICALS TAKE LION'S SHARE OF CAPEX

Capital expenditure as % of sales





Atlantis, The Palm, Dubai

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- Keynote speaker: HRH Prince Faisal Bin Turki, Advisor, Ministry of Petroleum& Mineral Resources
- Welcome Address: Eng. Mohammed Al-Mady, Chairman, GPCA and CEO. SABIC
- Stephen Pryor, President, ExxonMobil Chemical Company 'Moving down the value chain - remaining competitive while improving sustainability performance'
- Jim Gallogly, CEO, Lyondell Basel 'Leveraging mega trends for superior growth in the chemicals industry
- Peter L Cella, CEO, ChevronPhillips 'Shale gas : A new feedstock reality'
- Tom Crotty, Director, Group, Ineos 'Unlocking value in cyclical commodities – a Western perspective'
- Hamad Rashid Al-Mohannadi, Deputy Chairman, Qatar Petroleum 'Leveraging natural resources to develop downstream industries'

'Upstream or downstream – A question of shareholder value creation • Dr Fahad Al Mubarak, Chairman & Managing Director, Morgan Stanley Saudi Arabia

• Hassan Ahmed, Head of Research, Alembic Global Advisors

- 'The role of the financial sector in fuelling the move down the chemical value chain'
- Peter Huntsman, CEO, Huntsman Corporation, 'The move to develop downstream industries in the Middle East'
- Luther C Kissam IV, CEO, Albemarle Corporation 'Forging partnerships in the Middle East to further Globalization -The Albemarle View
- Andrew Monro, Global Advisory Lead for Petrochemicals, KPMG 'Moving down the chemical value chain in the Middle East'

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Agchems outperform

Fertilizer companies emerged as winners in 2010 as surging profit margins were fueled by strong emerging markets demand. Canada's PotashCorp led the field

REGAN HARTNELL LONDON

t the earnings before interest and tax (EBIT) level of profit, there were two clear winners. Germany-based diversified chemical major BASF led with \$10.3bn in EBIT for 2010. Coming in a close second was Saudi Arabia-based petrochemical and polymer producer SABIC, which clearly demonstrates the efficiencies of leveraging its strong advantaged feedstock position. Both BASF and SABIC have more than doubled their 2009 levels of EBIT, in terms of their reporting currencies.

In absolute terms, the chemical divisions of oil majors have a strong presence in the Top 25, with specialty chemical and industrial gases companies also making several notable appearances.

New entrants to the leader board include

Netherlands-based LyondellBasell, US-based Dow Chemical, Japan's Mitsubishi Chemical, China's Sinopec, Switzerland-headquartered INEOS, US-based Chevron Phillips Chemical and US-based PPG Industries.

Departures include Malaysia's PETRONAS, Netherlands-based DSM, Germany's Evonik, Australia's Orica and US-based Lubrizol. In total, the Top 25 saw a 61% improvement in operating profits for 2010.

When comparing the profitability of chemical producers via an operating or EBIT margin, the top spots were clearly dominated by fertilizer players. This demonstrates the efficiencies achievable by exploiting top-tier mineral assets with simple, process-light business models and strong volume demand from developing economies.

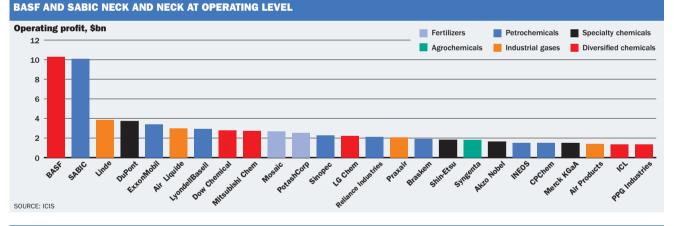
Canada's PotashCorp claimed the top spot with an operating margin of almost 40%, while Kuwait-based Petrochemical Industries Co. (PIC), with an operating margin of 31.7%, took the second spot.

Israel's Makhteshim-Agan Industries claimed the third spot with a margin of 27.2%, further highlighting profitability in the agricultural sector. Industrial gases players and specialty chemical producers also featured heavily in the Top 25 operating margins.

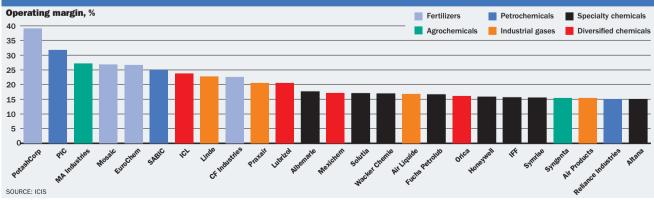
Industrial gases companies benefited from more stable and predictable feedstock and operating expenses, combined with robust demand from industrial consumers, especially in Asia. Top specialty chemical producers were better able to defend operating margins and pass on increased feedstock price levels to less elastic consumers.



Read the ICIS ebook, The New Normal, by editor John Richardson and contributor Paul Hodges. icis.com/NewNormalEbook







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