

The Israeli Chemical Industry

Privatization from ownership by government and the union.

**Changed from employment orientation
to marketing and profit orientation**

Expansion, mainly by buying small companies abroad.

Heavy burden of environment problems.

Decreased research and development.

Very few new products or plants





A chemical plant at the Haifa Bay 1950



Chemicals, Minerals, Refinery

[back](#)

by Sales Volume

Rank 2013	Company	Sales		Exports/Overseas Sales			Net Profit		Equity		Employees		Parent Company	Main Rank 2013
		NIS Millions	Growth (%)	NIS Millions	Change (%)	% of Total Sales	NIS Millions	Change (%)	NIS Millions	No.	Sales per Employee NIS (000)			
1	ORL \$	37298.7	9.0	13811.7	-13.2	37.0	-765.2	-2.1	3019.2	1524	24474.2	-	2	
2	ICL \$	25727.5	1.7	23975.2	0.1	93.2	5014.7	19.5	12600.6	12280	2095.1	Israel Corporation	4	
3	M.A. Industries \$ 	10929.6	13.5	10527.0	13.7	96.3	472.2	4.3	4957.9	4508	2424.5	-	10	
4	Gadiv Petrochemical Industries	3287.8	8.3	2984.2	10.5	90.8	-	-	530.5	120	27398.0	Oil Refineries	•	
5	Haifa Chemicals 	2500.0	25.0	2400.0	29.7	96.0	-	-	-	700	3571.4	Trans Resources Inc.	27	
6	Sano \$ 	1466.9	4.1	152.5	5.0	10.4	81.9	5.6	678.0	1685	870.5	-	53	
7	Dor Chemicals ~	720.0	-	-	-	-	-	-	-	400	1800.0	-	95	
8	Phibro Israel	455.6	15.6	289.1	28.1	63.4	-	-	277.6	291	1565.7	Phibro Animal Health Corp.	134	
9	Avner Oil Exploration \$	405.0	-31.9	-	-	-	38.1	9.4	965.9	11	36822.1	-	145	
10	Delek Drilling \$	378.8	-25.3	-	-	-	56.5	14.9	1001.3	11	34434.5	Delek Energy Systems	152	
11	Tadiran Batteries 	356.4	1.1	269.5	6.8	75.6	-	-	270.6	440	810.0	Saft Sweden, AB	160	
12	HBO	350.9	-4.8	-	-	-	-	-	-	52	6747.8	Oil Refineries	•	
13	Gadot Biochemical Industries \$	343.2	4.7	328.8	5.7	95.8	-83.2	-24.2	-197.2	181	1896.4	-	168	
14	Sharon Laboratories ~	318.0	-	-	-	-	-	-	-	290	1096.6	-	177	
15	Naphtha \$	222.6	13.4	207.3	18.3	93.1	2.6	1.2	642.1	216	1030.6	J.O.E.L. Jerusalem Oil Exploration	229	
16	Luxembourg Industries	200.0	25.0	150.0	37.9	75.0	-	-	-	170	1176.5	Luxembourg Pamol	239	
17	Maxima \$	182.8	12.6	-	-	-	11.0	6.0	183.0	174	1050.5	-	250	
18	Sigma - Aldrich Israel	166.0	-2.9	107.1	-4.6	64.5	-	-	200.3	210	790.5	Sigma - Aldrich Co.	266	
19	Amgal Chemicals	164.0	10.8	-	-	-	-	-	-	104	1576.9	Depotchem (1989)	268	

Israeli Chemical companies 1992-2012

\$ millions

Company	1992		1999		2000		2001		2002		2003		2004		2005		2006		2007		2008		2009		2010		2011		2012	
	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P
Rotem	323		770		930																									
Bromine	332		502	78	560																									
Dead Sea	558		494	119	498																									
Israel Chem.		1875	25	2009	100	1859	-42	1981	92	2271	103	2715	251	2986	422	3258	374	3669	495	6904	1994	4554	770	5692	1028	7068	1519	6672	1300	
Gadiv	93		107		178						301	10	367	14	427	12	469	26	487	8	362	27	434	23	787	39				
Carmel Olefins	128		257		271	8	258	1	270	9	314	17	360	7	477	54	446	21	685	13	950	-77	828		637	65	1222	6		
Oil Refineries	827	1991	63	3089	63	2537	-5	2556	-27	3111	49	2978	151	4307	334	4877	187	5234	142	8258	-109	5144	349	5249	-10	9564	0	9130	-198	
Machteshim	284	853	9	856	50	888	38	891	61	1172	103	1540	166	1741	205	1779	84	2065	156	2536	367	2215	33	2362	-132	2691	121	2834	123	
Haifa Chem.	178	274		272												512						670								
Tambour	109	149	9	125	6								118	10	137	8	159	7				185	9	208	8	235				
Teva	321	1282	117	1750	148	2077	278	2519	410	3276	691	4799	618	5250	1072	8408	546	9408	1952	11085	615	13899	2004	16121	3331	18312	2759	20317	1963	
Taro				104	10	150	26	212	45	315	61	284	11	297	5.7		313	21	342	51			493	64	506	183	506	89		
Frutarom		72	2	79	4	93	4	101	6	139	8	197	22	243	34	287	37	368	24	473	37	425	33	451	44	518	42	618	52	
Gadot Bio												76	19	83	10	87	8	117	0.1	149	-4	139	7	138	-7					

S=Sales P=Profits

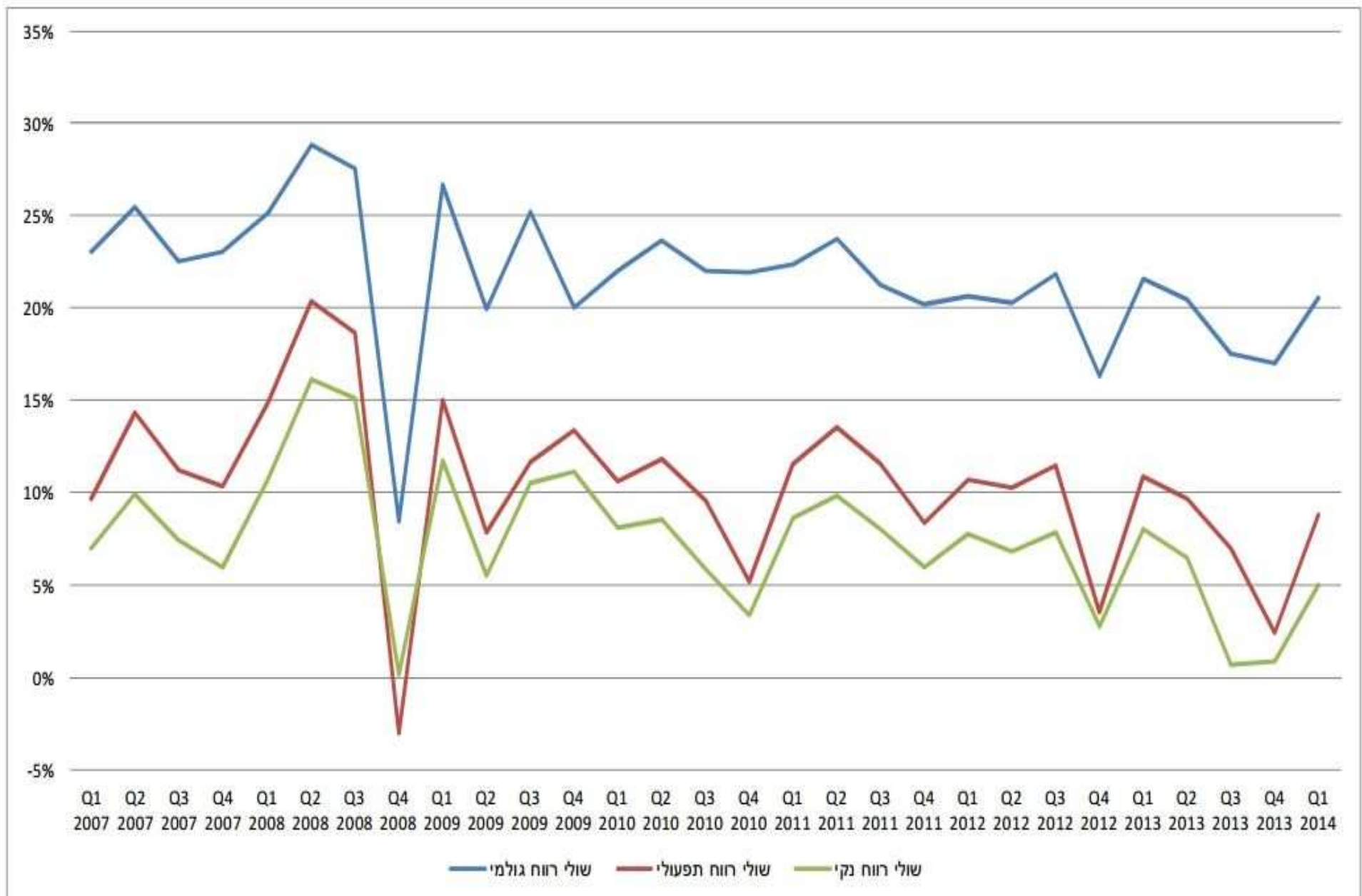
Israeli Chemical companies 1992-2014

\$ millions

Company	1992		1999		2000		2001		2002		2003		2004		2005		2006		2007		2008		2009		2010		2011		2012		2013		2014		
	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	
Rotem	323	770			930																														
Bromine	332	502	78	560																															
Dead Sea	558	494	119	498																															
Israel Chem.	1875	25	2009	100	1859	-42	1981	92	2271	103	2715	251	2986	422	3258	374	3669	495	6904	1994	4554	770	5692	1028	7068	1519	6672	1300	6272	1101	6110	454			
Gadiy	93	107		178							301	10	367	14	427	12	469	26	487	8	362	27	434	23	787	39	803	3	783	29					
Carmel Olefins	128	257		271	8	258	1	270	9	314	17	360	7	477	54	446	21	685	13	950	-77	828	637	65	1222	6	1087	-38	1069	31	1094				
Oil Refineries	827	1991	63	3089	63	2537	-5	2556	-27	3111	49	2978	151	4307	334	4877	187	5234	142	8258	-109	5144	349	5249	-10	9564	0	9130	-198	9995	44	9328	-63		
Machteshim	284	853	9	856	50	888	38	891	61	1172	103	1540	166	1741	205	1779	84	2065	156	2536	367	2215	33	2362	-132	2691	121	2834	123	3076	127	3221	1025		
Haifa Chem.	178	274		272												512																			
Tambour	109	149	9	125	6											118	10	137	8	159	7														
Teva	321	1282	117	1750	148	2077	278	2519	410	3276	691	4799	618	5250	1072	8408	546	9408	1952	11085	615	13899	2004	16121	3331	18312	2759	20317	1963	20314	1269	20272	3055		
Taro				104	10	150	26	212	45	315	61	284	11	297	5.7			313	21	342	51			493	64	506	183	506	89	670	267	759	361		
Frutarom		72	2	79	4	93	4	101	6	139	8	197	22	243	34	287	37	368	24	473	37	425	33	451	44	518	42	618	52	673	87	820	119		
Gadot Bio																																			

S=Sales P=Profits

תרשים 8: שולי הרווחיות בענף הכימיה



A few selected

Chemical companies

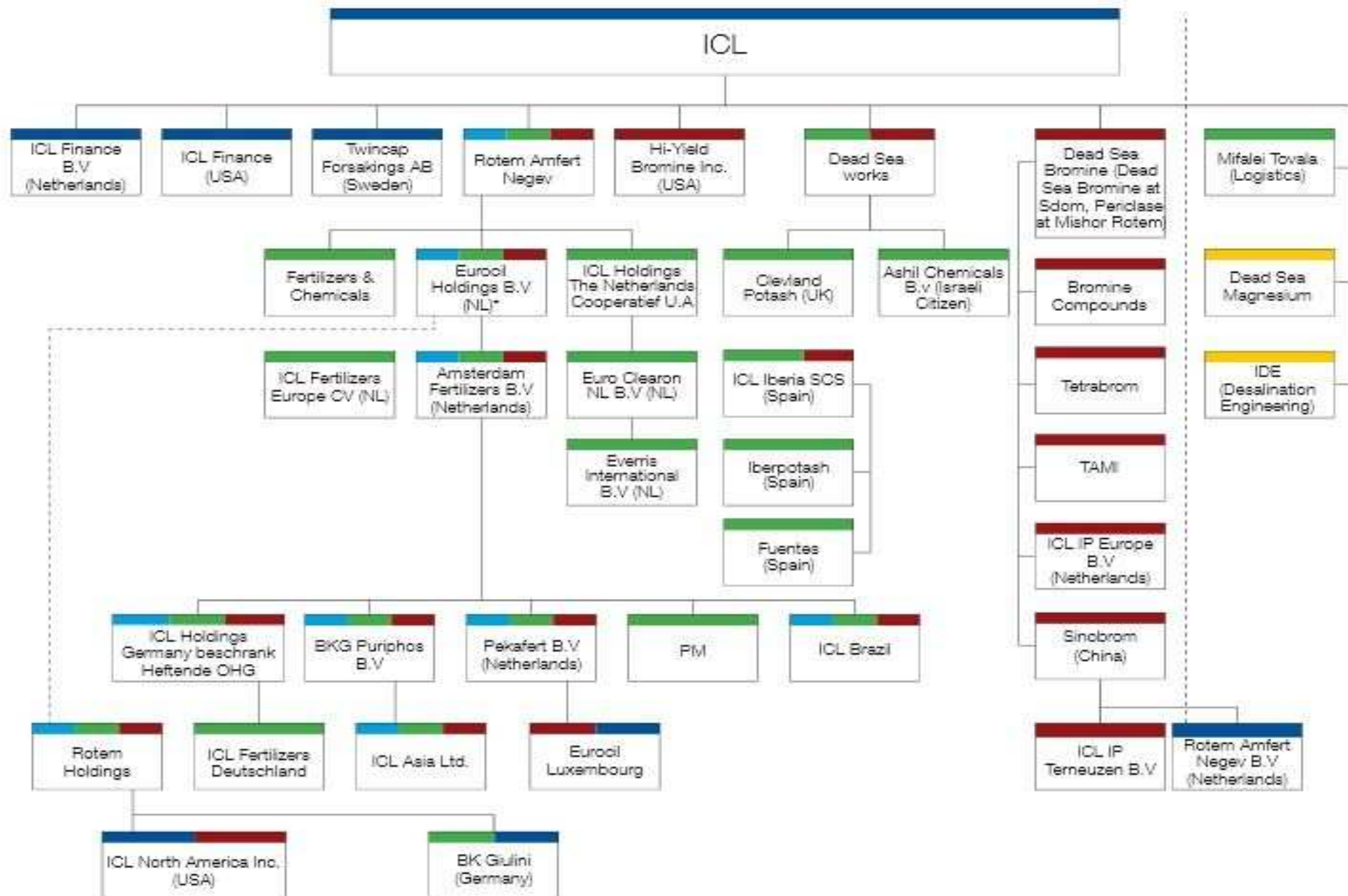
Israel Chemicals

Corporate Structure

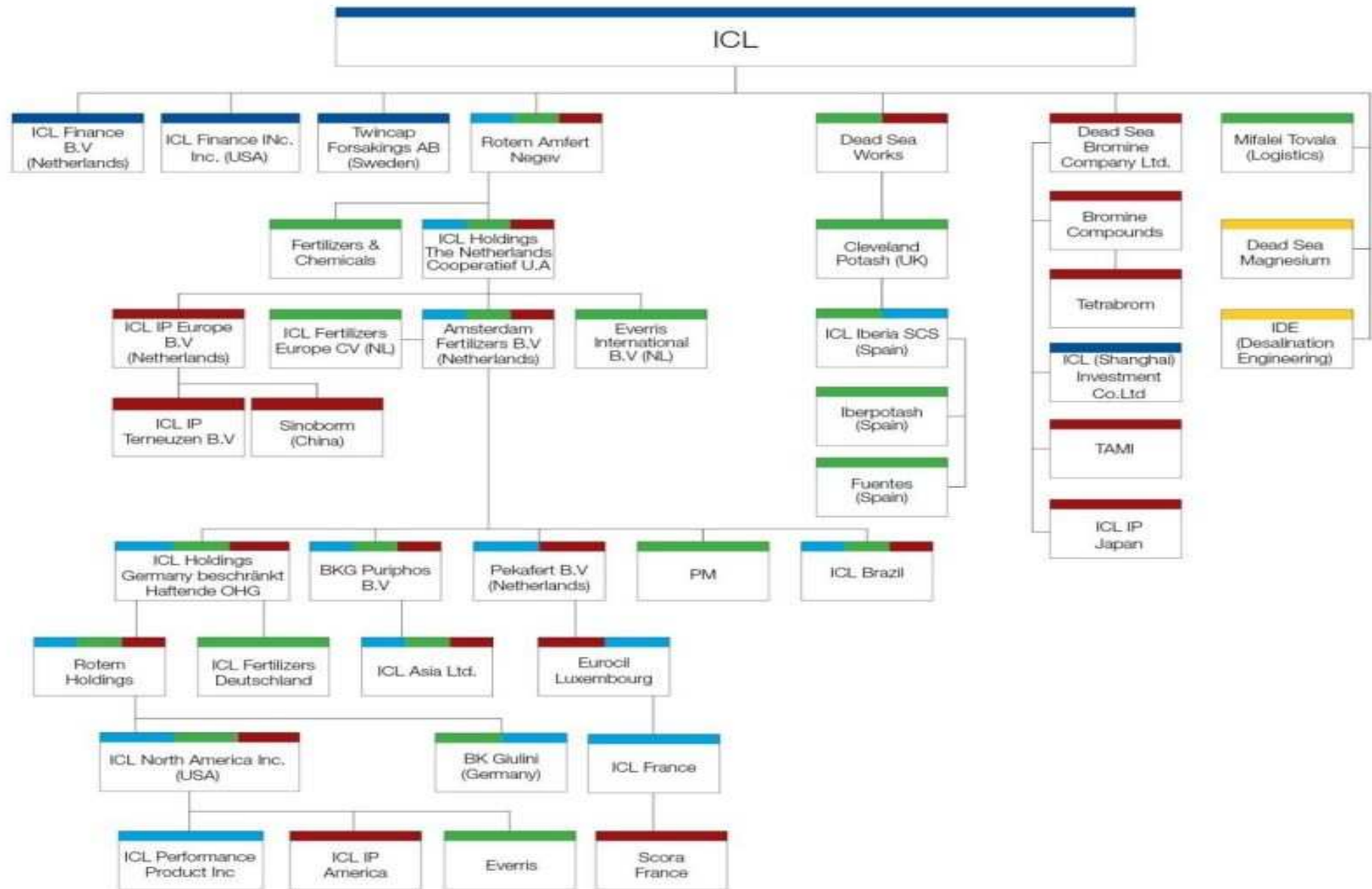
The following chart describes the principal business units of the ICL Group as of the date of this Report¹:

ICL Fertilizers	ICL Industrial Products	ICL Performance Products	ICL Metallurgy
<ul style="list-style-type: none">• Potash• Phosphate rock• Phosphoric acid (fertilizer grade)• Phosphate and compound fertilizers• Specialty fertilizers• Animal feed additives	<ul style="list-style-type: none">• Flame retardants• Brominated inorganic products• Agricultural chemicals• Water treatment biocides• Magnesia products• Chlorine-based products	<ul style="list-style-type: none">• Phosphoric acid (food grade)• Phosphate salts• Food additives• Food hygiene products• Performance products based on Alumina & other chemicals	<ul style="list-style-type: none">• Pure magnesium• Magnesium alloys

STRUCTURE OF ICL'S MATERIAL HOLDINGS

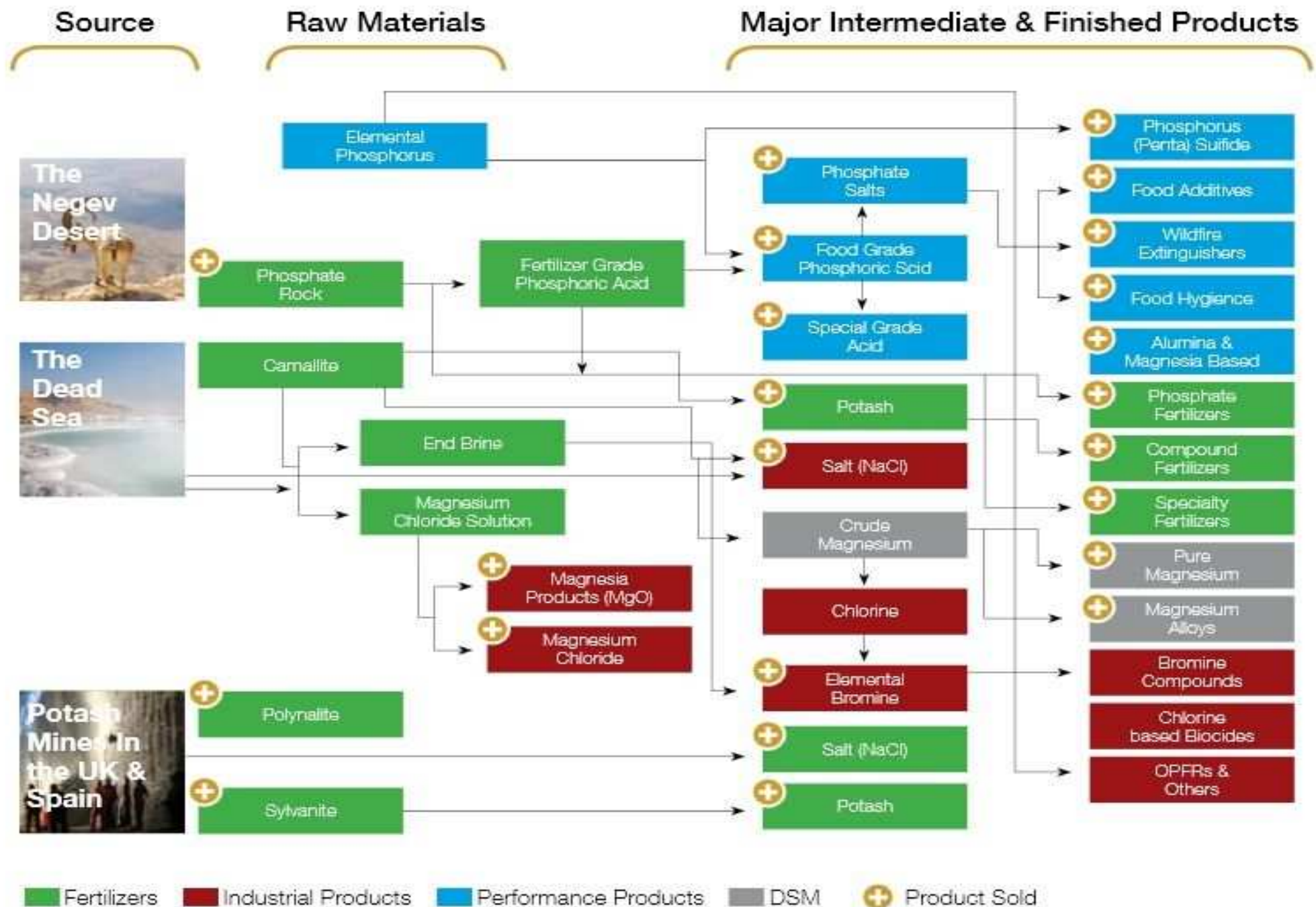


C. ORGANIZATIONAL STRUCTURE



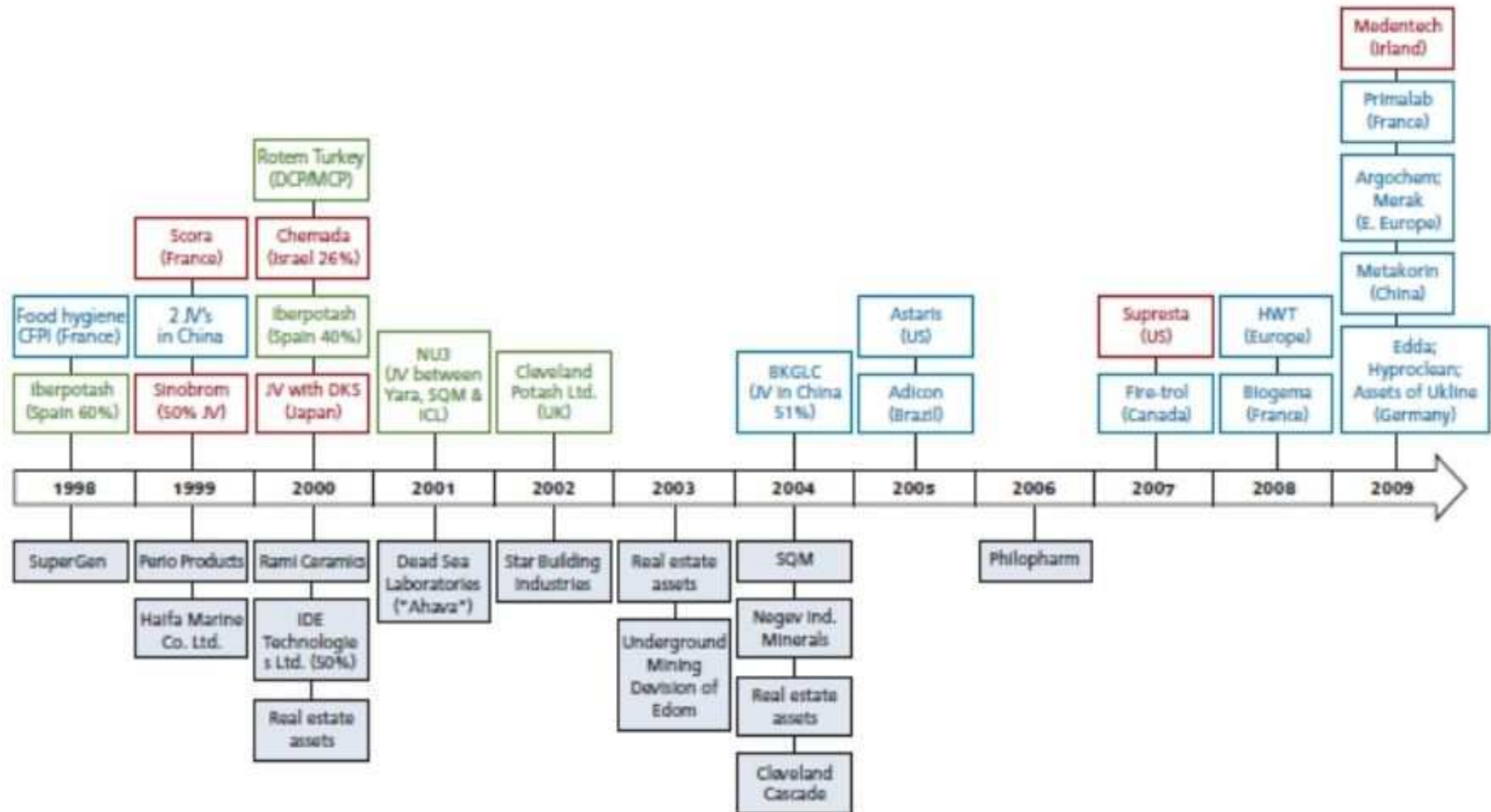
- ICL Fertilizers
- ICL Industrial Products
- ICL Performance Products
- Others
- Finance and Services

THE INTEGRATION OF ICL'S NUMEROUS PRODUCTION PROCESSES:



Focus on the core business

Acquisitions and JV's ~ *\$ 1.2 billion worth



Divestment - \$265 millions worth

* Including liability due to Buy-back of Company shares in 2000-1999 in the amount of \$250M

North America 19%

Europe 34%

Israel 5%

Asia 30%

ROW 2%

South America 10%

Sales 2011

- Manufacturing Plant
- Sales Office
- ▲ Distribution Center



נכון למועד דוח זה בעלי העניין בחברה מכח אחזקת מניות הינם:

השם	% החזקה	% החזקה בדילול מלא ⁵
החברה לישראל בע"מ ⁶	52.18	51.76
Potash Corporation of Saskatchewan	10.05	9.97

2013 (\$ thousands)

	ICL Fertilizers				ICL-IP	ICL-PP	Other	Unattributable setoffs	Consolidated
	Potash	Phosphate	Setoffs	Total					
Revenue:									
Revenues from external sources	1,797,360	1,584,420	-	3,381,780	1,277,432	1,496,601	115,729	-	6,271,542
Revenues from sales to other segments	229,237	169,815	(125,567)	273,485	19,253	78,095	38,980	(409,813)	-
Total revenues	<u>2,026,597</u>	<u>1,754,235</u>	<u>(125,567)</u>	<u>3,655,265</u>	<u>1,296,685</u>	<u>1,574,696</u>	<u>154,709</u>	<u>(409,813)</u>	<u>6,271,542</u>
Breakdown of revenues	32.3 %	28.0 %	(2.0) %	58.3 %	20.7 %	25.0 %	2.5 %	(6.5) %	100.0 %
Costs:									
Expenses representing revenue of other Company segments	41,753	197,552	(126,802)	112,503	105,439	141,067	50,666	(409,675)	-
Other costs	<u>1,244,502</u>	<u>1,477,189</u>	<u>-</u>	<u>2,721,691</u>	<u>1,076,721</u>	<u>1,237,832</u>	<u>120,617</u>	<u>13,315</u>	<u>5,170,176</u>
Total costs	<u>1,286,255</u>	<u>1,674,741</u>	<u>(126,802)</u>	<u>2,834,194</u>	<u>1,182,160</u>	<u>1,378,899</u>	<u>171,283</u>	<u>(396,360)</u>	<u>5,170,176</u>
Operating profit	<u>740,342</u>	<u>79,494</u>	<u>1,235</u>	<u>821,071</u>	<u>114,525</u>	<u>195,797</u>	<u>(16,574)</u>	<u>(13,453)</u>	<u>1,101,366</u>
Breakdown of operating profit	<u>67.2 %</u>	<u>7.2 %</u>	<u>0.1 %</u>	<u>74.5 %</u>	<u>10.4 %</u>	<u>17.8 %</u>	<u>(1.5) %</u>	<u>(1.2) %</u>	<u>100.0 %</u>
Fixed operating costs	<u>750,958</u>	<u>470,420</u>	<u>(13,929)</u>	<u>1,207,449</u>	<u>553,095</u>	<u>526,553</u>	<u>64,821</u>	<u>(24,111)</u>	<u>2,327,807</u>
Variable operating costs	<u>535,297</u>	<u>1,204,321</u>	<u>(112,873)</u>	<u>1,626,745</u>	<u>629,065</u>	<u>852,346</u>	<u>106,462</u>	<u>(372,249)</u>	<u>2,842,369</u>
Total assets at December 31, 2013	<u>2,712,374</u>	<u>1,660,265</u>	<u>(77,795)</u>	<u>4,294,844</u>	<u>1,775,407</u>	<u>1,202,911</u>	<u>94,665</u>	<u>605,658</u>	<u>7,973,485</u>
Minority interest in revenue from external sources	-	6,172	-	6,172	4,818	10,458	-	-	21,448

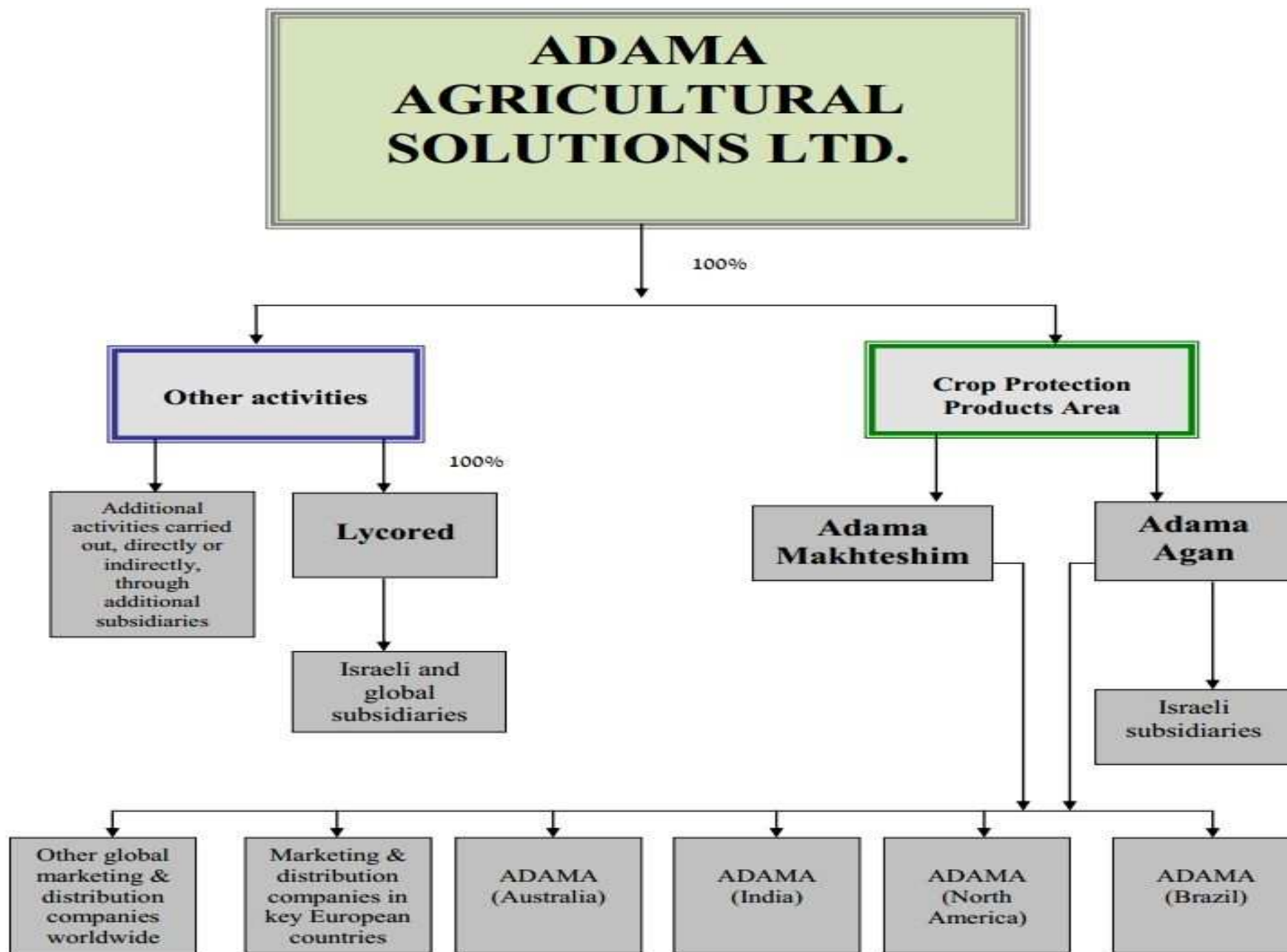
R&D in Israel Chemicals

C Research and development expenses

	Year ended December 31	
	2008	2007
	US\$ thousands	US\$ thousands
Amount of expenses	58,128	39,279
Less – grants and participations, see Note 24(A)(5)	811	999
	<u>57,317</u>	<u>38,730</u>

Machteshim – Agan → Adama

1.3. Hereunder is the Company's main operational structure, as of the reporting date¹:





Airport City, Israel, March 9, 2014 – ADAMA Agricultural Solutions Ltd. (formerly Makhteshim Agan Industries, “ADAMA” or “the Company”), a leading global provider of crop protection solutions, today reported its financial results for the fourth quarter and full year ended December 31, 2013.

FINANCIAL HIGHLIGHTS

<i>In millions of US\$</i>	Q4 2013	Q4 2012	Change	FY2013	FY2012	Change
Sales*	655.7	579.5	13.1%	3,076.4	2,834.5	8.5%
Gross profit	186.0	158.7	17.2%	968.1	899.6	7.6%
Gross margin	28.4%	27.4%	NA	31.5%	31.7%	NA
Operating profit	11.1	3.0	265.5%	309.0	281.6	9.7%
Profit (loss) before tax	(28.2)	(26.6)	6.1%	171.6	161.7	6.1%
Net income (loss)	(29.1)	(21.9)	32.7%	127.2	122.5	3.9%
EBITDA	51.5	41.0	25.5%	466.0	429.9	8.4%

* *In constant currency terms, sales grew by 14.2% and 10.0% in the fourth quarter and the full year, respectively.*

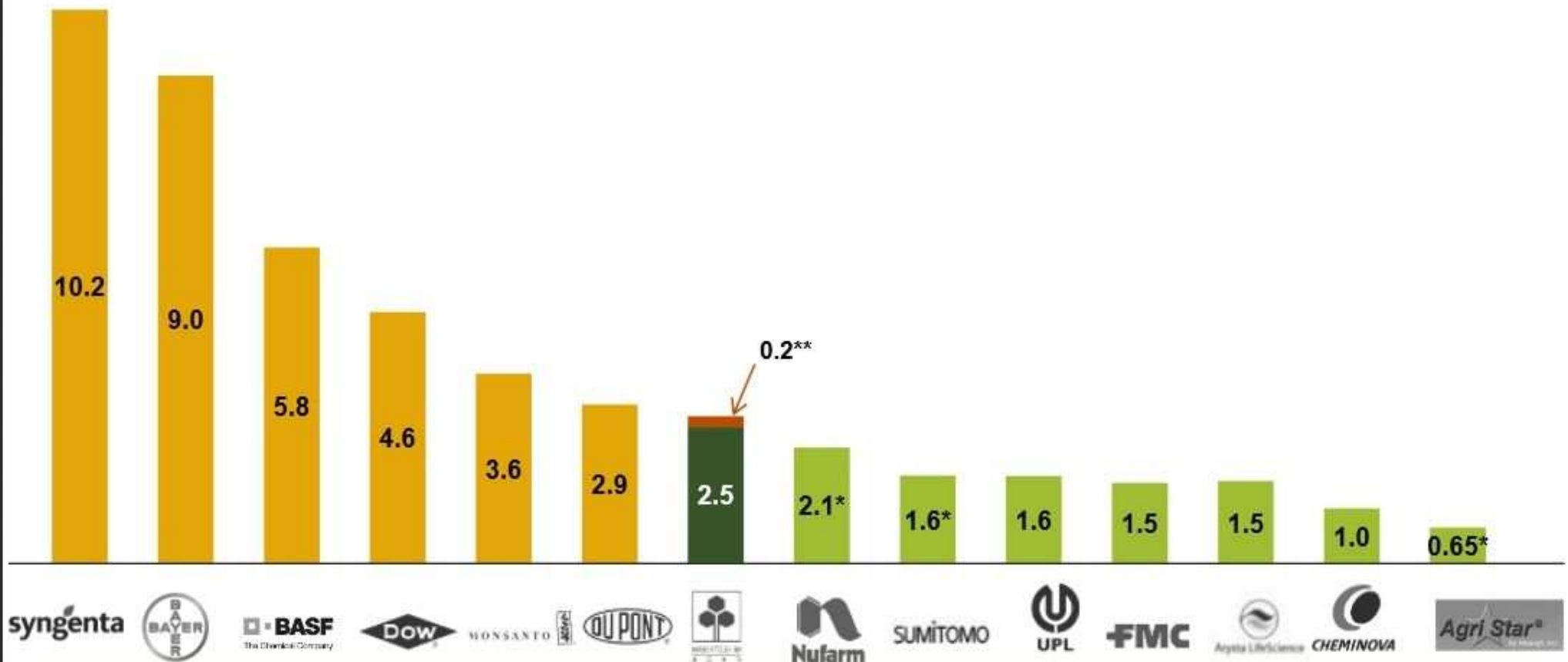


The seventh largest company in the overall industry...



2011 Agrochemical sales, \$ billion

- Large Scale RBC
- Off patent



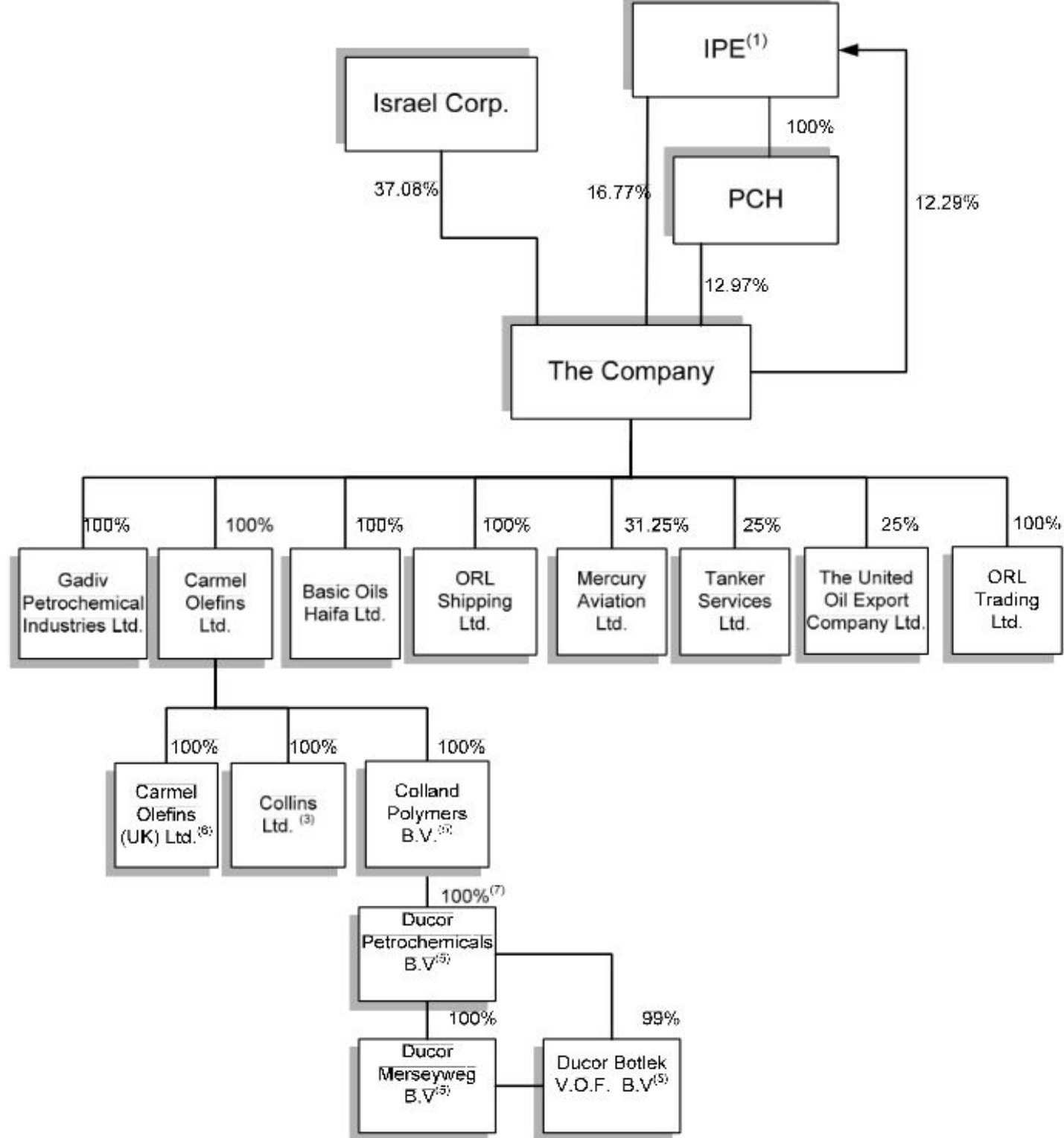
*2010 results, ** Non-Agro Sales

Source: MAI Analysis

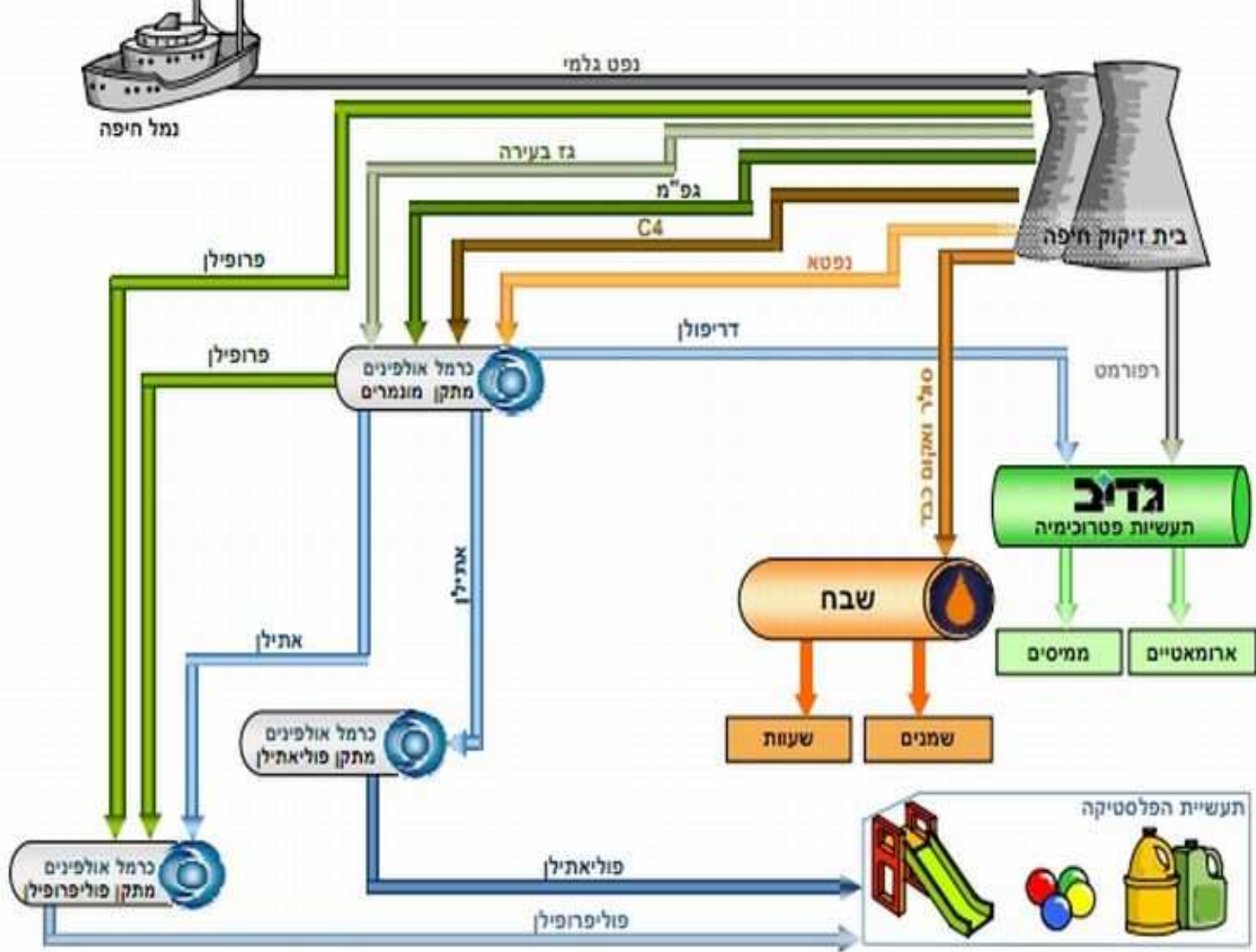
Consolidated Statements of Income for the year ended December 31

	Note	2014 \$ thousands	2013 \$ thousands	2012 \$ thousands
Revenues	22	3,221,298	3,076,355	2,834,503
Cost of sales	23	2,195,993	2,108,282	1,934,916
Gross profit		1,025,305	968,073	899,587
Other income		(4,711)	(12,815)	(3,897)
Selling and marketing expenses	24	570,581	522,050	487,073
General and administrative expenses	25	111,933	114,485	101,520
Research and development expenses	26	33,554	33,667	30,128
Other expenses		2,947	1,697	3,172
		714,304	659,084	617,996
Operating income		311,001	308,989	281,591
Financing expenses		252,693	273,176	232,261
Financing income		(128,724)	(132,611)	(122,010)
Financing expenses, net	27	123,969	140,565	110,251
Share of income (losses) of equity-accounted investee companies		5,885	3,197	(9,603)
Profit before taxes on income		192,917	171,621	161,737
Income taxes	17	46,902	44,550	39,164
Profit for the year		146,015	127,071	122,573
Attributable to:				
The owners of the Company		146,405	127,248	122,463
Holder of non-controlling interests		(390)	(177)	110
Profit for the year		146,015	127,071	122,573

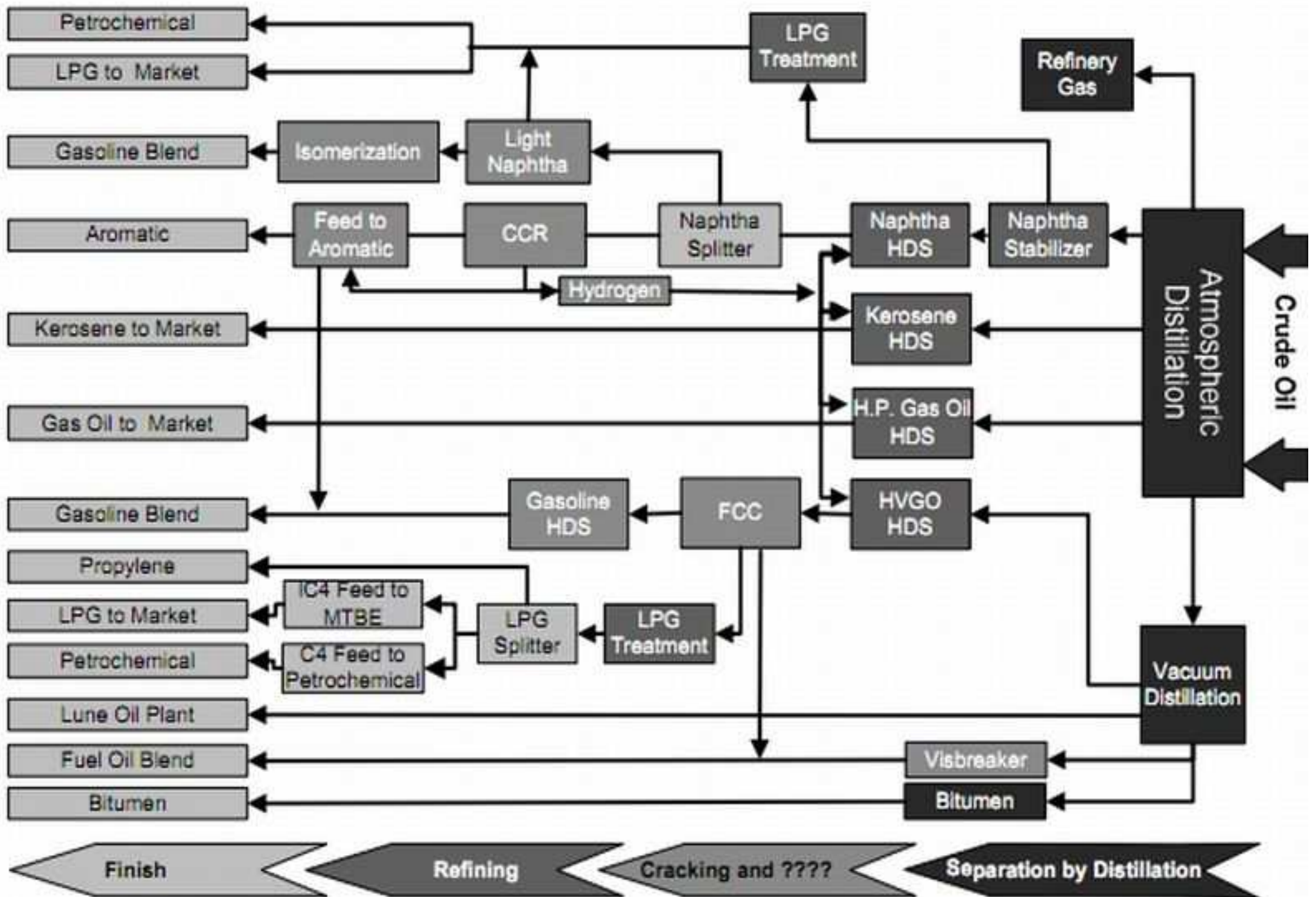
Bazan



(1) IPE is a publicly traded company and Carmel Olefins Ltd. is a reporting company as the term is



The following is a flow chart of the production process:



1.5 Financial information concerning the Company's areas of activity

The following is a summary of the Company's consolidated financial data, in USD millions:

	Fuels		Trade		Petrochemical						Adjustments		Total	
					Polymers		Aromatics		Oils and Waxes					
	2013	2012	2013	2012	2013	2012	2013	2012	2013	2012	2013	2012	2013	2012
Revenues														
Revenues from external parties	8,054	7,696	23	--	1,069	1,087	783	803	66	86	--	--	9,995	9,672
Intersectional sales	1,158	1,434	--	--	1	2	38	49	3	5	(1,200)	(1,490)	--	--
	9,212	9,130	23	--	1,070	1,089	821	852	69	91	(1,200)	(1,490)	9,995	9,672
Costs for Area of Activity – Other														
Variable	8,860	8,822	19	9	465	382	61	35	20	22	--	--	9,425	9,270
Fixed	258	250	--	--	157	155	35	32	13	10	--	--	463	447
	9,118	9,072	19	9	622	537	96	67	33	32	--	--	9,888	9,717
Costs for Area of Activity – Inter-segment Costs														
Variable	38	50	8	--	417	592	696	782	42	66	(1,201)	(1,488)	--	2
Fixed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other	--	--	--	--	--	(2)	--	--	--	--	--	2	--	--
	38	50	8	--	417	590	696	782	42	66	(1,201)	(1,486)	--	2
Profit (loss) from ordinary activity in segment	56	8	(4)	(9)	31	(38)	29	3	(6)	(7)	1	(4)	107	(47)
Other expenses	--	--	--	--	--	--	--	--	--	--	(63)	(44)	(63)	(44)
Profit (loss) from ordinary activity attributed to shareholders of parent company	56	8	(4)	(9)	31	(38)	29	3	(6)	(7)	(62)	(48)	44	(91)
Operating profit margin	0.6%	0.1% ⁽¹⁾	-17.4%	--	2.9%	3.5% -	3.5%	0.4%	-8.7%	7.7% -	--	3.2%	0.4 %	0.9% -
Total assets attributed to area of activity	3,836	4,226 ⁽²⁾	12	20	1,082	1,200	328	372	55	59	(785)	(929)	4,528	4,948
Total liabilities attributed to area of activity	3,052	3,417 ⁽²⁾	24	28	810	891	177	230	17	14	(337)	(441)	3,743	4,139

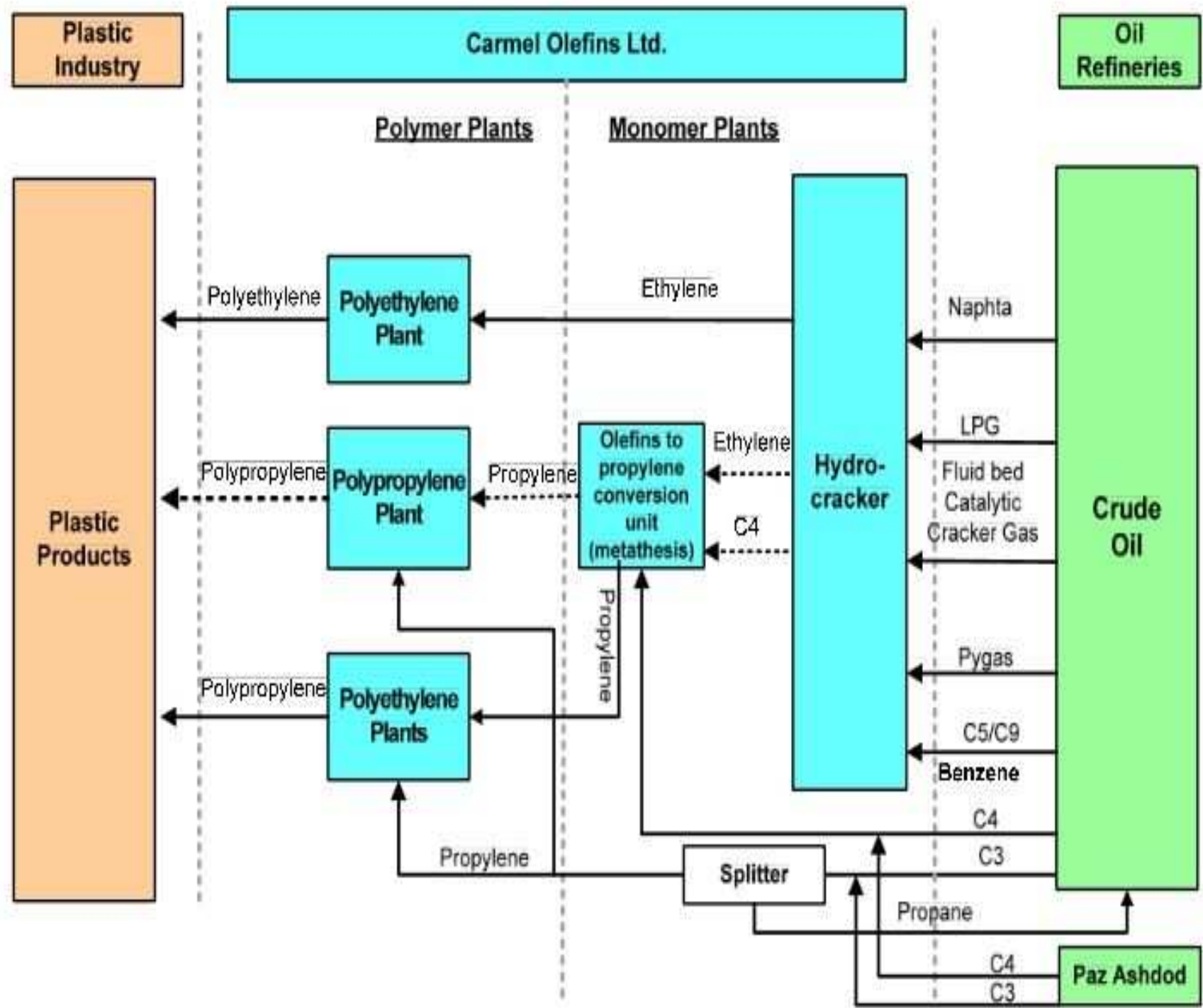
1.5 Financial information concerning the Company's areas of activity

The following is a summary of the Company's consolidated financial data, in USD millions:

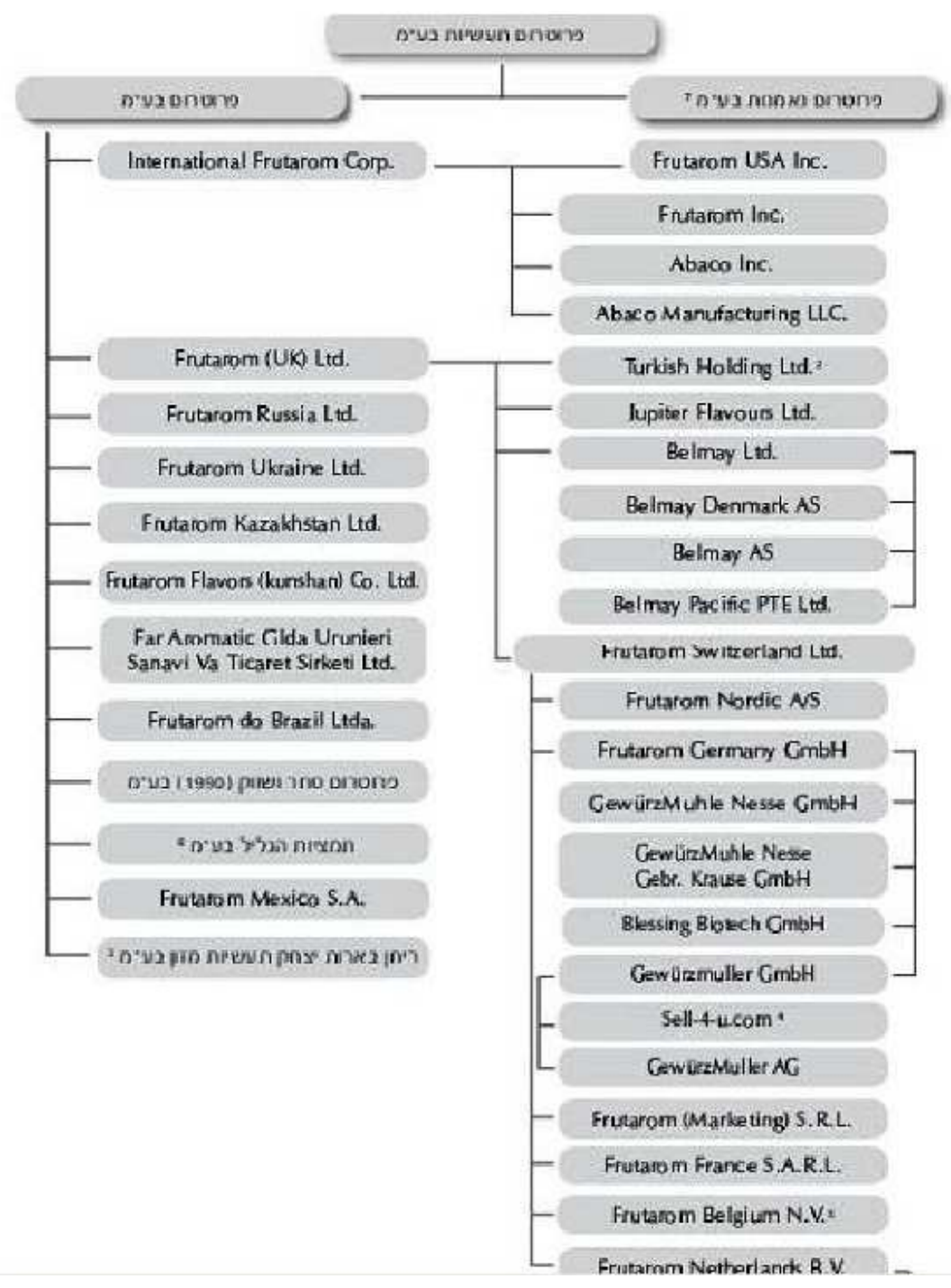
	Fuels		Trade		Petrochemical						Adjustments		Total	
					Polymers		Aromatics		Oils and Waxes					
	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013
Revenues														
Revenues from external parties	7,532	8,054	--	23	1,092	1,069	624	783	80	66	--	--	9,328	9,995
Intersectional sales	1,026	1,158	--	--	2	1	31	38	2	3	(1,061)	(1,200)	--	--
	8,558	9,212	--	23	1,094	1,070	655	821	82	69	1,061	1,200	9,328	9,995
Costs for Area of Activity – Other														
Variable	8,325	8,860	(35)	19	445	465	64	61	26	20	--	--	8,825	9,425
Fixed	236	258	--	--	153	157	36	35	10	13	--	--	435	463
	8,561	9,118	(35)	19	598	622	100	96	36	33	--	--	9,260	9,888
Costs for Area of Activity – Inter-segment Costs														
Variable	33	38	30	8	401	417	560	696	42	42	(1,066)	(1,201)	--	--
Profit (loss) from ordinary activity in segment	(36)	56	5	(4)	95	31	(5)	29	4	(6)	5	1	67	107
Other expenses	--	--	--	--	--	--	--	--	--	--	(31)	(63)	(31)	(63)
Other Revenues	--	--	--	--	--	--	--	--	--	--	26	--	26	--
Profit (loss) from ordinary activity attributed to shareholders of parent company	(36)	56	5	(4)	95	31	(5)	29	4	(6)	0	(62)	63	44
Operating profit (loss) margin	-%0.4⁽¹⁾	(1)%0.6	0	%17.4	%8.7	%2.9	-%0.8	%3.5	%4.9	-%8.7	--	--	%0.7	%0.4
Total assets attributed to area of activity	3,248	3,836	25	12	942	1,082	273	328	53	55	(779)	(785)	3,762	4,528
Total liabilities attributed to area of activity	2,594	3,052	34	24	645	810	126	177	11	17	(302)	(337)	3,109	3,743

- (1) In the fuels sector, profitability is determined through profit from refining, as specified in section 0 of this Chapter. The gross profit margin, calculated in relation to turnover (revenues from this area of operations), is affected principally by the prices of the crude oil products, and an increase or decrease in these prices does not necessarily indicate an increase or decrease in the profitability they entail for the Company. For a detailed analysis of the factors and trends that affect the refining

...the following is a flow chart of the production process.

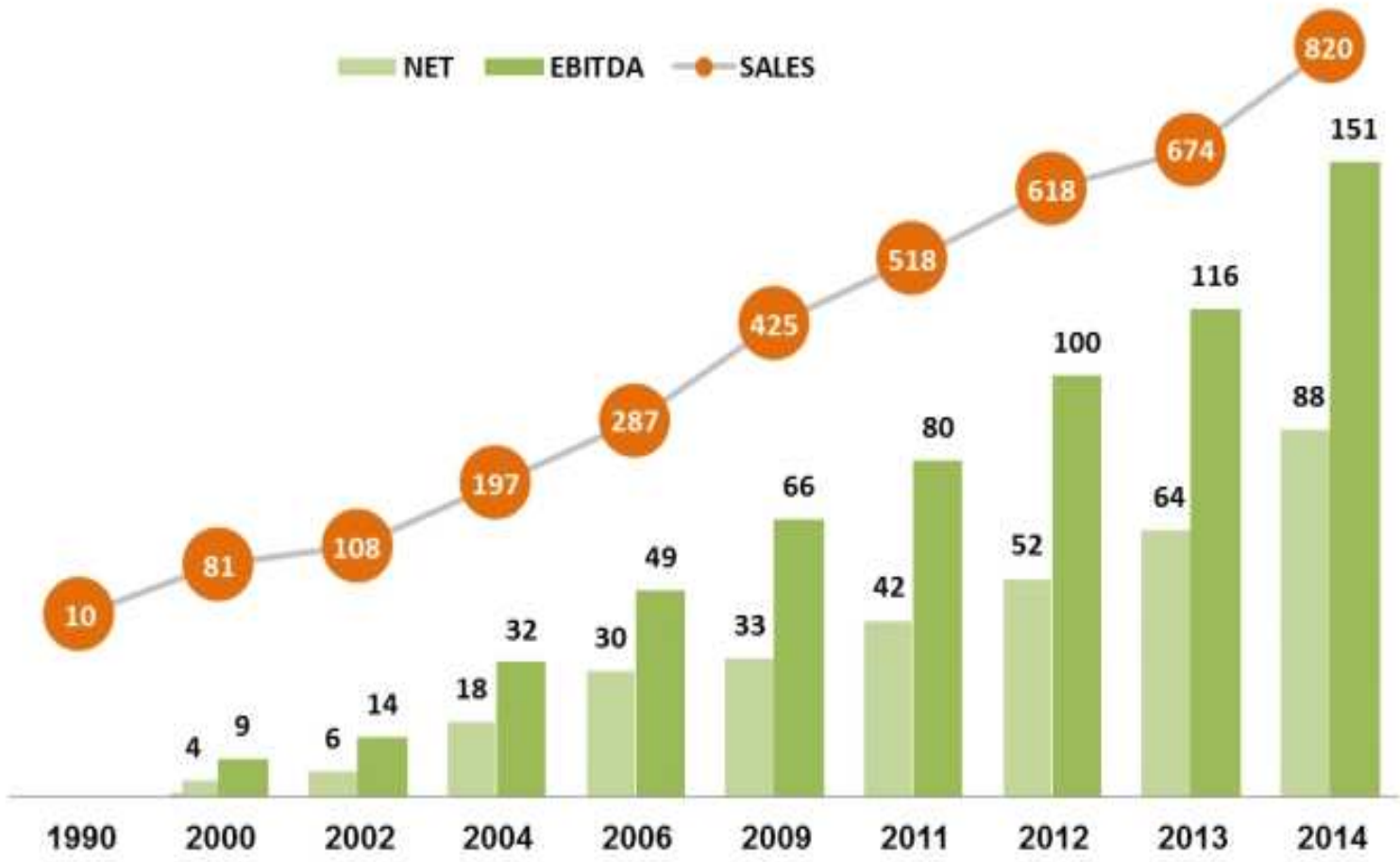


Frutarom



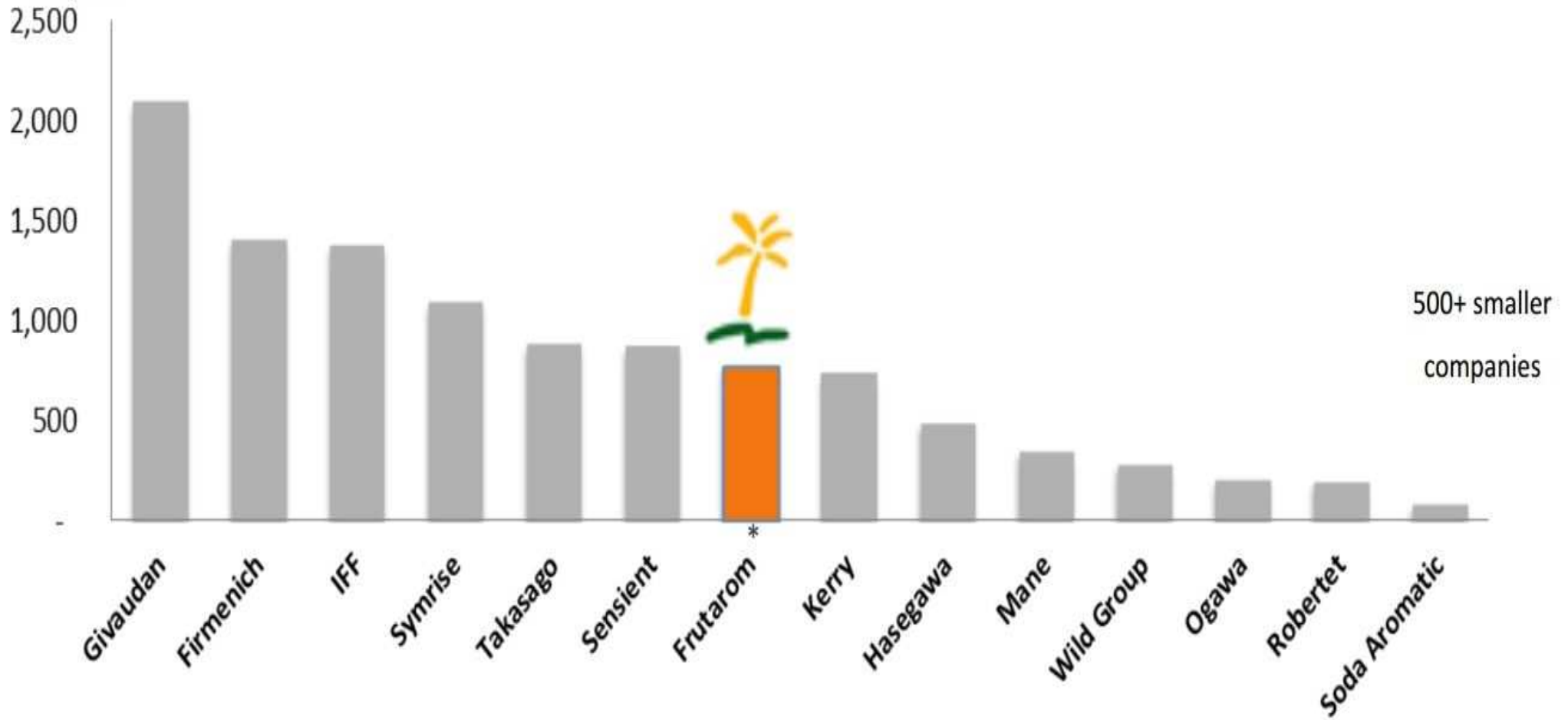
NET EBITDA SALES





Estimated Flavor Sales

US\$ M

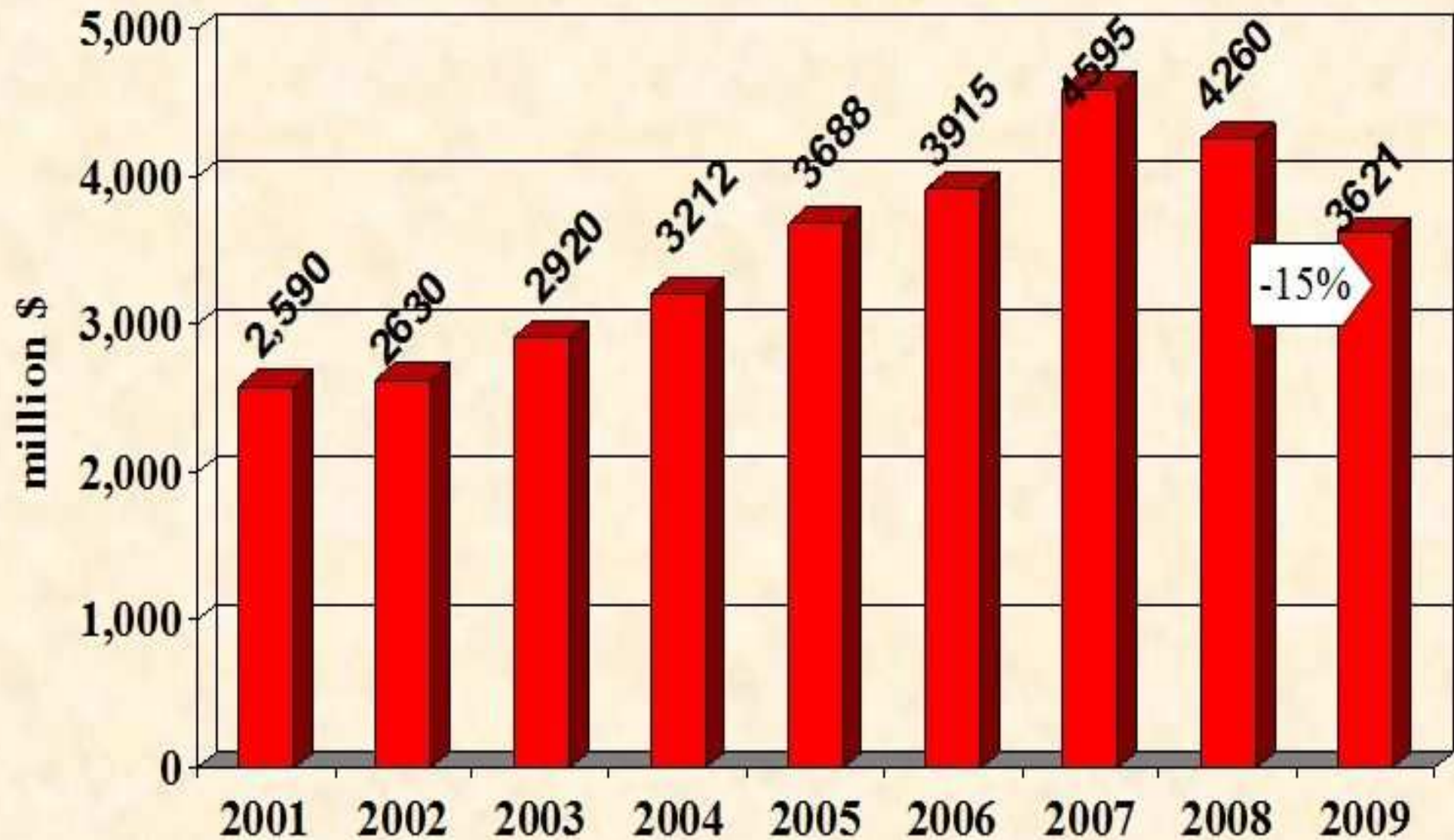


Source: Companies' Publications, Leffingwell & Associates, Reuters, Frutarom's estimations

* Sep 2013 including the acquisitions made in 2013 as if consolidated from 1 January 2013

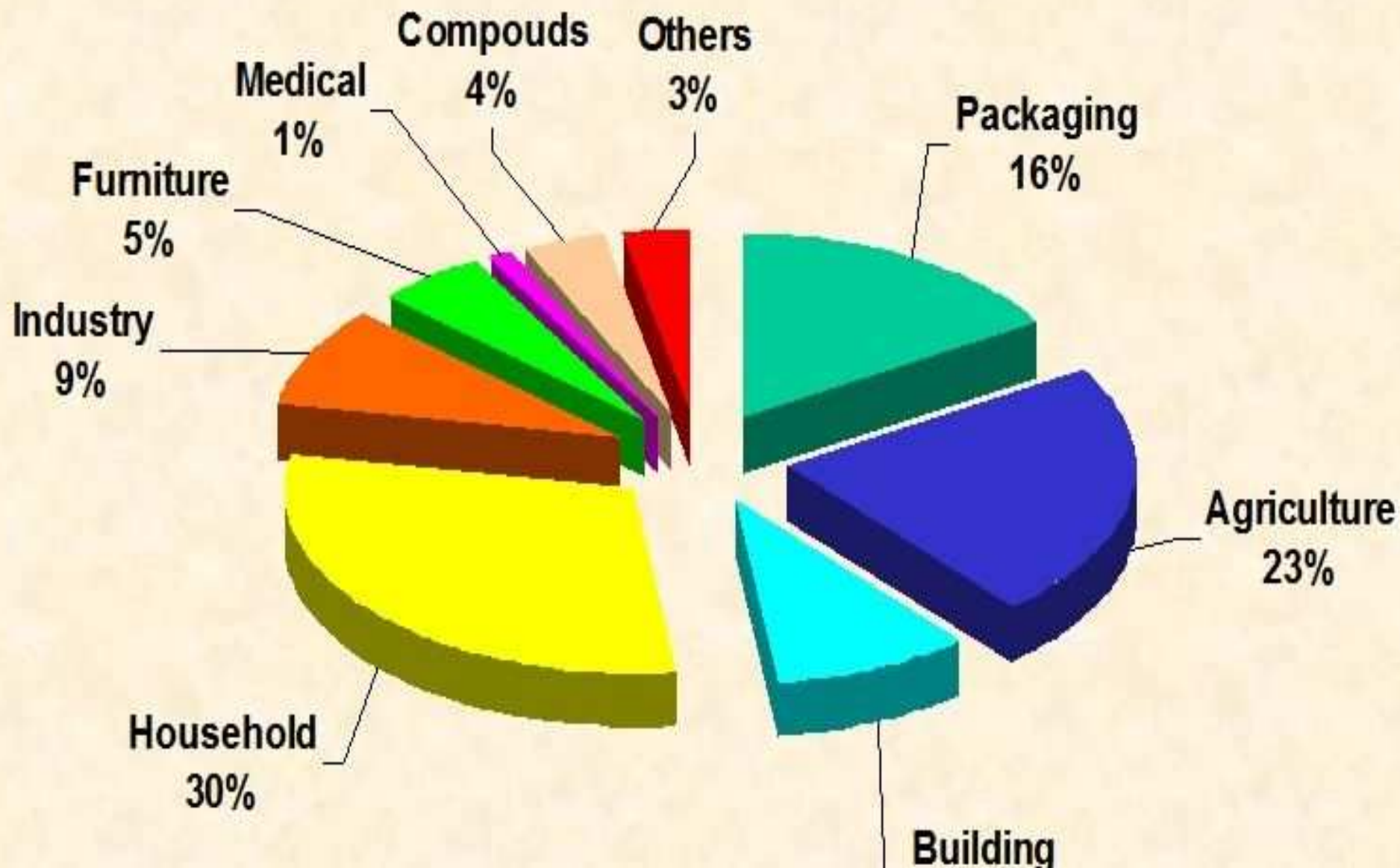
Plastics and Rubber

ISRAEL'S PLASTICS & RUBBER INDUSTRY TURNOVER (million \$)

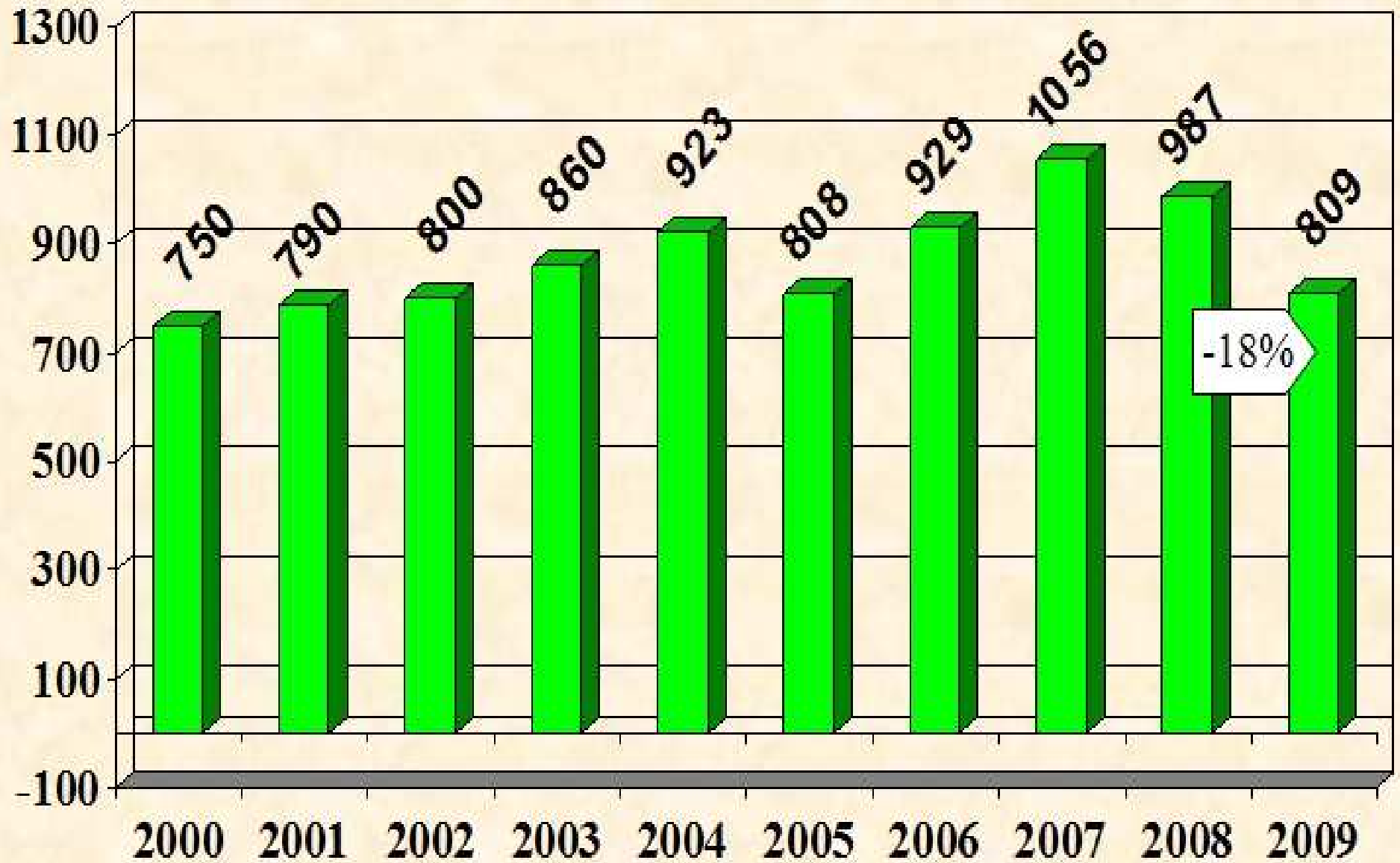


ISRAEL'S PLASTICS & RUBBER INDUSTRY

Breakdown of Sales - 2009 – 3,621m\$



RAW MATERIAL CONSUMPTION (thousand t)



Plastics

EXPORT (million \$)

