

AUGUST 2013



## Akkok Group Companies

### CHEMICALS

AKSA, AK-KİM, DOWAKSA

### ENERGY

AKENERJİ, SEDAŞ, EGEMER

### TEXTILES

AK-TOPS, AKSA EGYPT

### REAL ESTATE DEVELOPMENT

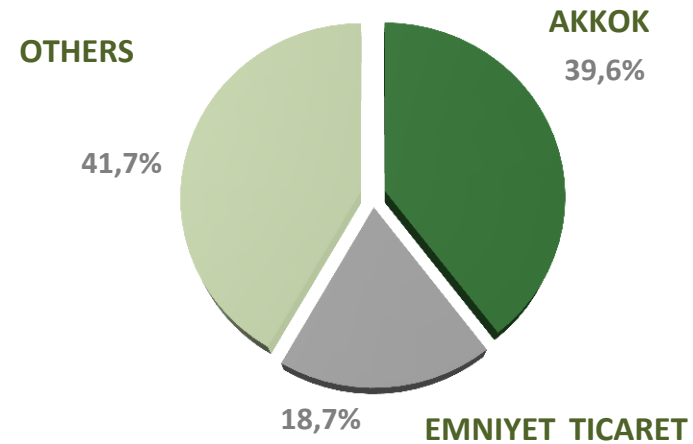
AKMERKEZ, AK TURİZM, AKİŞ, SAF GYO

### OTHER SERVICES

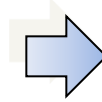
AK-PA, DİNKAL, AKPORT, AKTEK,  
AKMERKEZ LOKANTACILIK (Paper Moon)



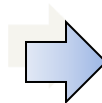
AKKOK (Million US\$)	2007	2008	2009	2010	2011	2012
Net Sales	1.337	1.514	2.166	2.675	2.900	3.142
Export	346	326	332	417	458	393



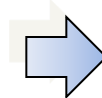
# Main Strategies



- Operational excellence
  - Increasing Productivity
  - Cost Reduction
  - Reliable Quality and Service
- CRM
- Sustainable Profitability



- Producing high quality and reliable energy with cost effectiveness



- Development capabilities in terms of operational excellence
- Identifying of new business areas

# STRATEGIC BUSINESS UNITS of AKSA



## STANDARD ACRYLIC FIBER BUSINESS UNIT

- Largest acrylic fiber producer under one single roof in the world;
- 14 % global market share;
- Turkey's sole local producer with around 70% local market share.



## TECHNICAL FIBERS BUSINESS UNIT

- High value-added products / Develop fibers for technical end-use areas;
- 50% global market share in outdoor fibers



## ENERGY BUSINESS UNIT

- 100 Mwe capacity dual gas power generation plant;
- 42,5 Mwe natural gas

# FIBERS



## WHAT IS ACRYLIC FIBER?

Acrylic fibre is a synthetic fibre that highly resembles wool,



Wool (natural fiber)



Acrylic Fiber (synthetic fiber)

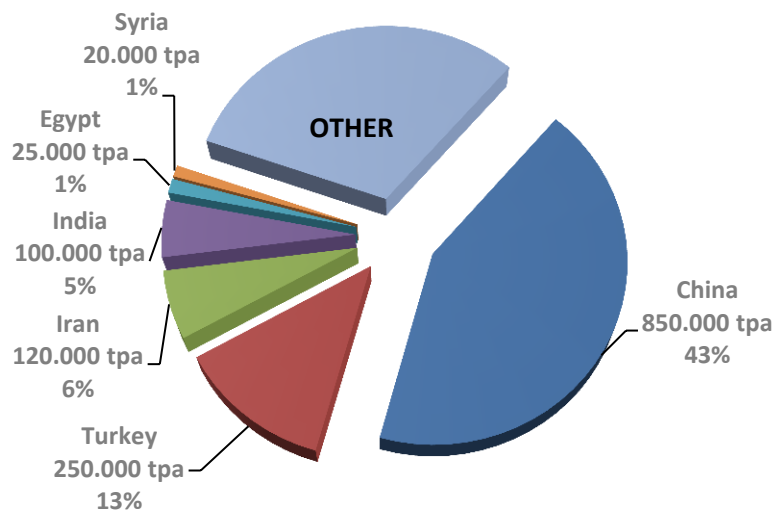
- Used in blends with natural and other synthetic fibers or by themselves,
- Easily washed and keep dimensional stability/resistant against sunlight & chemical substances,
- Dyed in brilliant colours,
- Natural and warm appearance and touch.

## ACRYLIC FIBER SECTOR IN BRIEF

Acrylic fiber market accounts for 2 million tonnes in 2012. The global demand for acrylic fiber in 2020 is expected to be around the same level as 2 million tonnes.

Biggest Consumption Market is China . During 2007-2010 shrank by 20% / adopts self sufficiency strategy/invests on new capacity no more.

Yearly average consumptions:



2012	Consumption ('000 tonnes)	%
Asia+Pacific	1.140	57
Europe	165	8
Middle East	175	9
Turkey	275	14
USA	185	9
Africa	50	3
South America	-	-
<b>Toplam</b>	<b>1.990</b>	<b>100</b>

Sector has average 90% of capacity utilisation rate. Europe accounts for excess capacity.

Far East balanced capacity and demand,

Shut downs (Europe, USA, Far East...) and consolidations have taken place for last 10 years.

- Leader in Turkey and in international markets in terms of capacity, size, pre-and post-service quality, product diversity & flexibility;
- Low cost leader;
- Production capacity : 308,000 ton/year;
- Capacity Utilization Rate:86% in 2010, 93 % in 2011, 96% in 2012, 98% in Q2 2013

## SUCCESS THAT COMES FROM A DIVERSITY OF PRODUCTS...

### Major Acrylic Fiber Uses;



Apparel

Home Textiles & Furnishings

Industrial Uses





# AKSA's Development Over 40 Years

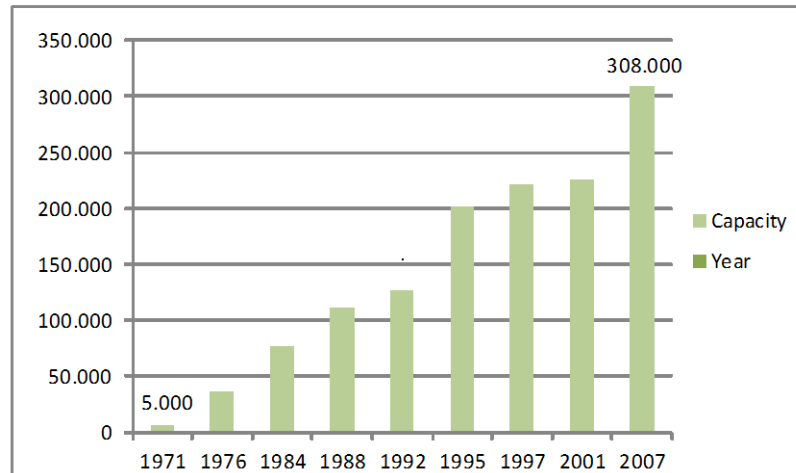


AKSA 1971  
Initial Capacity 5,000 tpa



AKSA Today  
Capacity 308,000 tpa

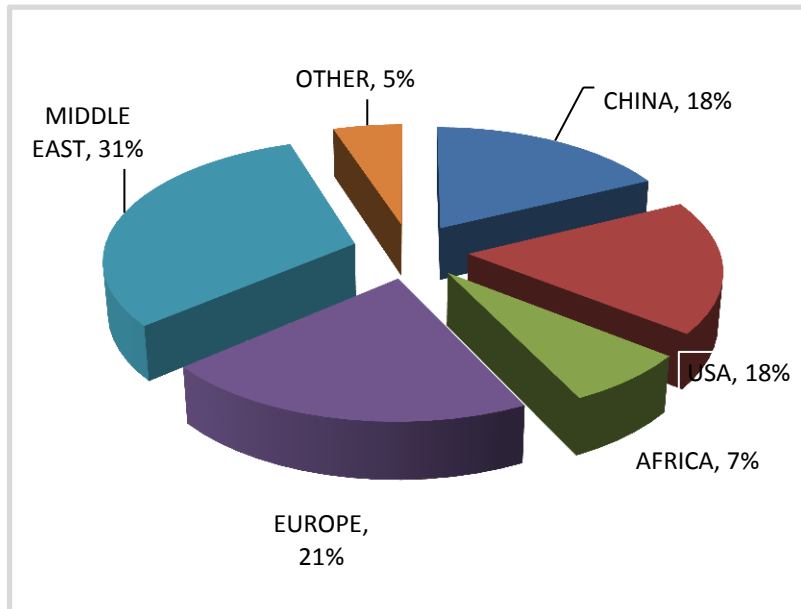
## AKSA PRODUCTION CAPACITY (TON)



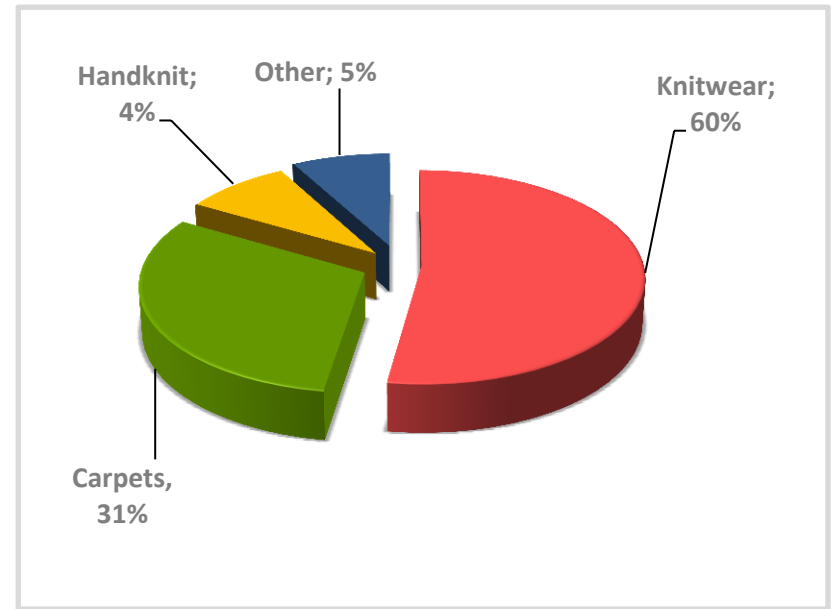
By the end of 2007, capacity reached 308,000 tpa.

# 2013 JUNE / SALES BREAKDOWN

## EXPORT SALES BREAKDOWN ( 2013 JUNE )



## DOMESTIC SALES BREAKDOWN ( 2013 JUNE )



## ACRYLIC FIBER INDUSTRY PLAYERS



AKSA (TURKEY) / Production Capacity: 308,000 tpa

MONTEFIBRE (SPAIN) / 95,000 tpa

DRALON (GERMANY) / 188,000 tpa

FORMOSA (TAIWAN) / 72,000 tpa

THAI ACRYLIC FIBRE (THAILAND)/ 120,000 tpa

SHANGHAI PETROCHEMICALS (SPC) (CHINA) / 150,000 tpa

DAQING PETROCHEMICAL(CHINA) / 65,000 tpa

JILIN (CHINA) / 120,000 tpa

JIMONT (CHINA) / 100,000 tpa



There are 35 acrylic fiber producer in the world. Despite the total capacity of acrylic fiber producers 2.3 Million tons / year ,total production level is around 2 million tons. The capacity utilization rate in the sector is around 90%.

# GLOBAL PRODUCTIONS OF TEXTILE FIBERS

	1970	1980	1985	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2025	2050
<b>Synthetic Fibers</b>	8.4	14.5	16.5	19.0	22.5	32.1	31.7	33.9	35.5	38.0	38.2	41.3	44.5	42.6	43.9	48.0	51.8	54.3	63.6	97.2
Polyester	0.0	0.0	0.0	0.0	0.0	19.1	19.2	21.0	22.3	24.4	24.7	27.8	31.1	30.7	32.0	36.0	38.8	41.0	50.0	80.0
PP fibers	0.0	0.0	0.0	0.0	0.0	6.0	5.8	5.9	6.2	6.3	6.5	6.5	6.4	5.9	6.1	6.0	6.2	6.5	7.0	10.0
Polyamide	0.0	0.0	0.0	0.0	0.0	4.1	3.7	3.9	4.0	4.0	3.9	3.9	3.9	3.5	3.3	4.0	3.9	3.9	4.5	5.0
Acrylics	0.0	0.0	0.0	0.0	0.0	2.7	2.6	2.7	2.7	2.7	2.6	2.5	2.4	1.9	2.0	2.0	2.0	2.0	2.1	2.2
Other	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.5	0.0	0.9	0.9	0.0	0.0
<b>Natural Fibers</b>	17.0	19.8	24.7	22.9	24.3	28.4	27.6	28.9	28.6	30.6	33.2	34.6	35.9	33.4	31.1	33.3	36.2	35.7	41.4	52.8
Cellulosics	3.5	3.5	3.2	3.1	3.0	2.8	2.7	2.7	2.9	3.1	3.1	3.3	3.6	3.2	3.0	3.6	3.7	4.5	6.0	10.0
Cotton	11.0	14.0	19.0	17.0	19.0	19.7	19.8	20.6	20.1	22.0	24.4	25.7	26.7	24.5	22.5	24.5	27.2	26.0	30.0	37.0
Wool	1.7	1.7	1.7	2.0	1.5	1.3	1.2	1.4	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.2
Hemp	0.0	0.0	0.0	0.0	0.0	4.0	3.1	3.2	3.2	3.2	3.3	3.2	3.2	3.3	3.3	3.2	3.2	3.1	3.0	3.0
Linen	0.7	0.6	0.8	0.7	0.7	0.5	0.6	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.6	0.6	0.8	1.0
Ramie	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3
Silk	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
<b>Total</b>	25.4	34.3	41.2	41.9	46.8	60.5	59.3	62.8	64.1	68.6	71.4	75.9	80.4	76.0	75.0	81.3	88.0	90.0	105.0	150.0
<b>Population (billion)</b>	3,6					5,8											7	7	8	9.5
<b>Kg Fiber / person</b>	7,0					10,3											12.6	12.9	13.1	15.8
<b>Acrylic fibers/textile fibers (%)</b>						4.4	4.3	4.4	4.2	4.0	3.7	3.3	3.0	2.5	2.7	2.4	2.3	2.2	2.0	1.5
<b>Acrylic fibers/Synthetic fibers (%)</b>						8.3	8.1	8.1	7.5	7.2	6.9	6.1	5.5	4.5	4.6	4.1	3.9	3.6	3.3	2.3

# COST STRUCTURE OF ACRYLIC FIBER

## The key cost component is the raw material Acrylonitrile

- Acrylonitrile prices fluctuates depending on the oil prices and the demand –supply balance;
- 30% of ACN locally sourced from PETKIM, The rest is heavily imported from Europe / US.

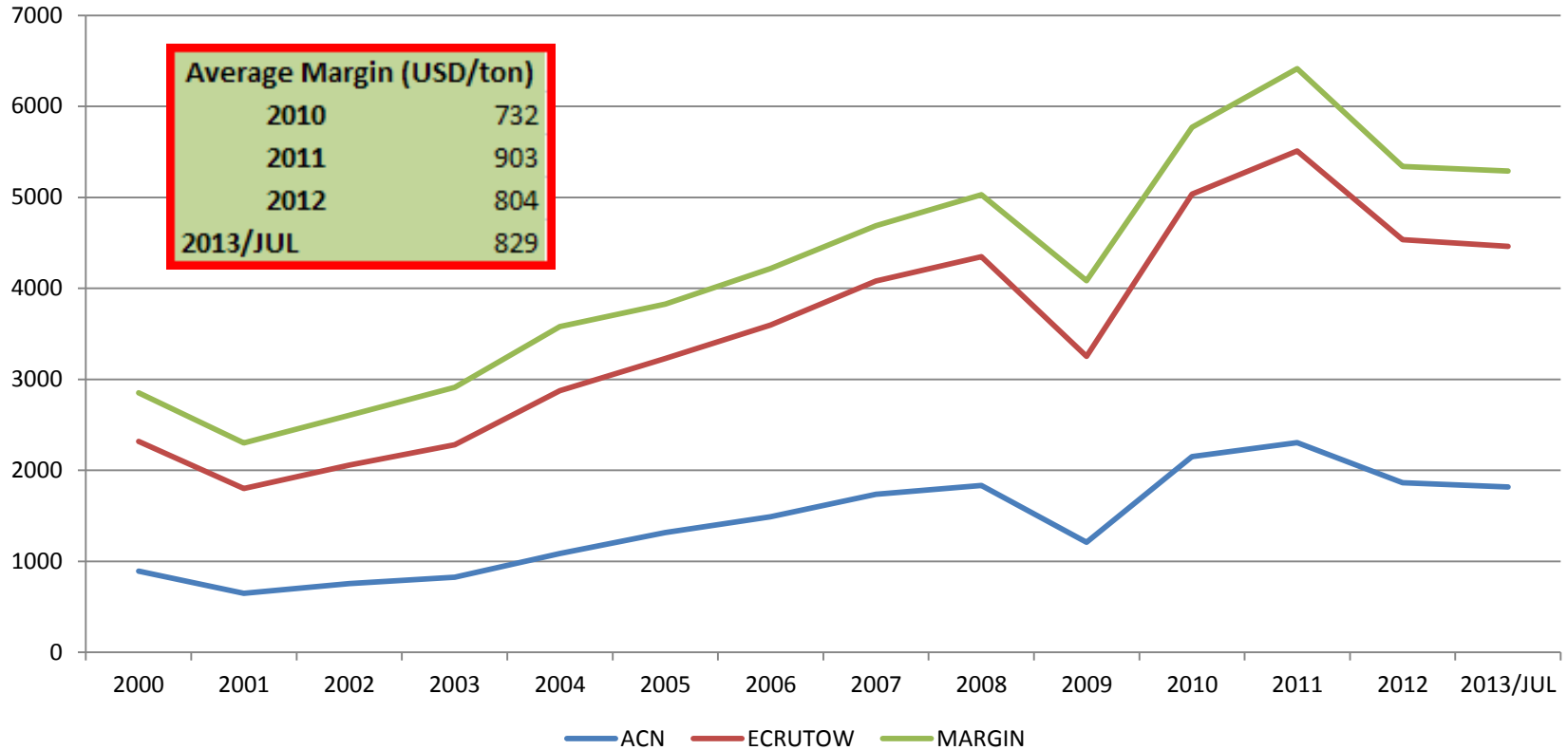
## The other important cost component is “The Energy”

- Continuously improving energy specific consumption through investments;

## Labor Costs

- High rate of production per capita;
- Low labor rate compared to European competitors.

# ECRU TOW - ACN PRICE MARGIN (US\$/ton)



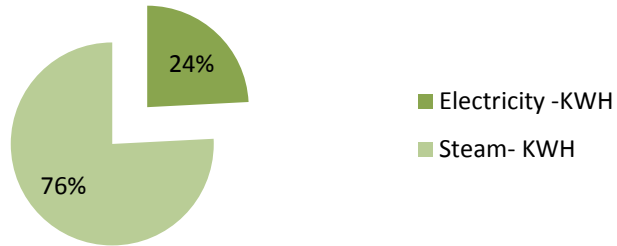
Source: PCI Average of US/Europe/Far East Prices



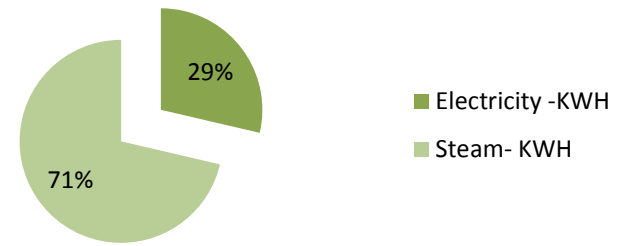
# ENERGY

# ENERGY GENERATION & TURNOVER

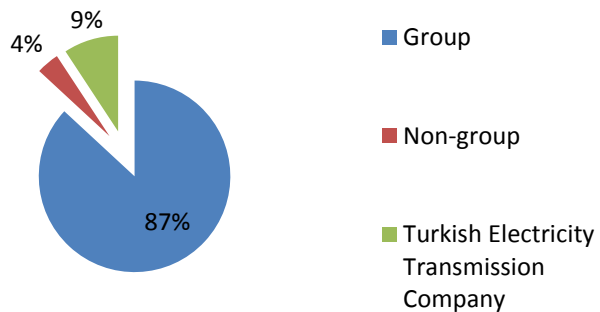
Generation (2012) KWH



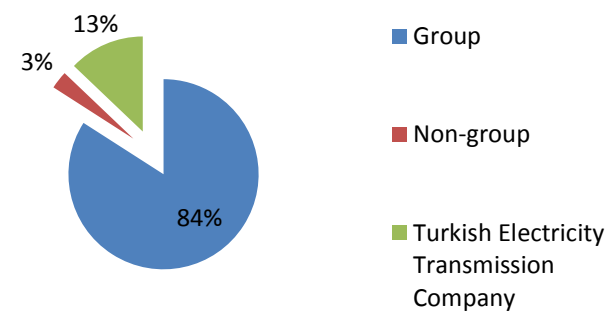
Generation (2013 Q2) KWH



Energy Turnover (2012)



Energy Turnover (2013 Q2)

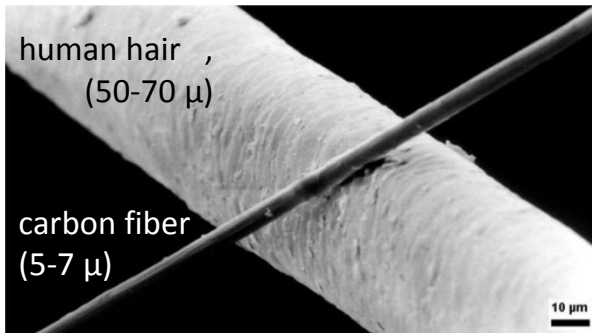


Energy Turnover  
US\$ 43 million

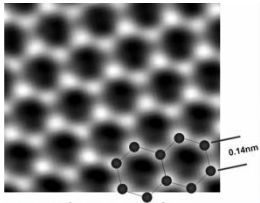
Energy Turnover  
US\$ 30 million

# CARBON FIBER

# WHAT IS CARBON FIBER?



a carbon fiber and a human hair  
(source: wikipedia)



graphene sheet  
(source: wikipedia)



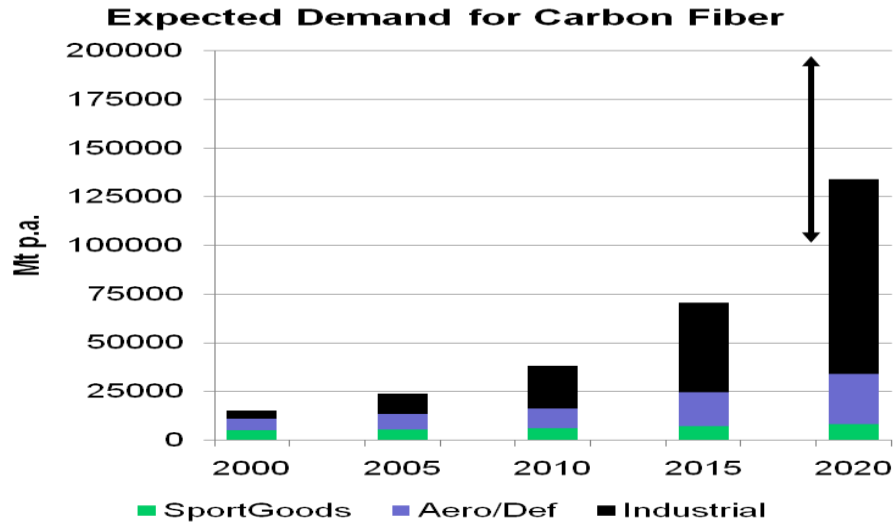
↙  
↘ "3k"  
= 3,000  
filaments

- Carbon fibers are extremely fine fibers (typ, 5-7  $\mu$  in dia,) consisting mostly of carbon atoms,
- Carbon fiber is >95% carbon,
- The structure of carbon fiber is similar to graphite: sheets of carbon atoms, arranged in hexagonal patterns, aligned along the axis of the fiber,
- Carbon fibers are produced in tows (yarns) ranging from 1,000 filaments (1k), to 3k, 6k, 12k, 24k, 50k, etc.

# EXPECTED GROWTH IN DEMAND FOR CARBON FIBER



**DowAKSA**  
Advanced Composites



Carbon fibre demand was around 20,000 tonnes in 2004, The demand then doubled in the four years to 2008, We expect the market (currently 40,000 tonnes) to double by 2015 and double again by 2020.

Industrial Applications are expected to make up the majority of future demand.

Market for CF	2010	2015	2020
Mt	40	>80,000	~150.000 (100.000-500.000)
Value	US\$ 1,0-1,5 B	US\$ 2-3 B	US\$ 3-15 B



## Industrial Apps

**2010 vs 2020:**

### Wind:

5,000t → 15,000-50,000t

### Compounding:

5,000t → 15,000-50,000t

### Pressure Vessels:

3,000t → 15,000-50,000t

### Autos:

2,500t → 20,000-100,000t

### Infrastructure:

2,000t → 5,000-25,000t

### Others:

5,000t → 15,000-50,000t

## Aerospace Apps

**2010 vs 2020:**

8,000t → 25,000-30,000t

## Sports Goods

**2010 vs 2020:**

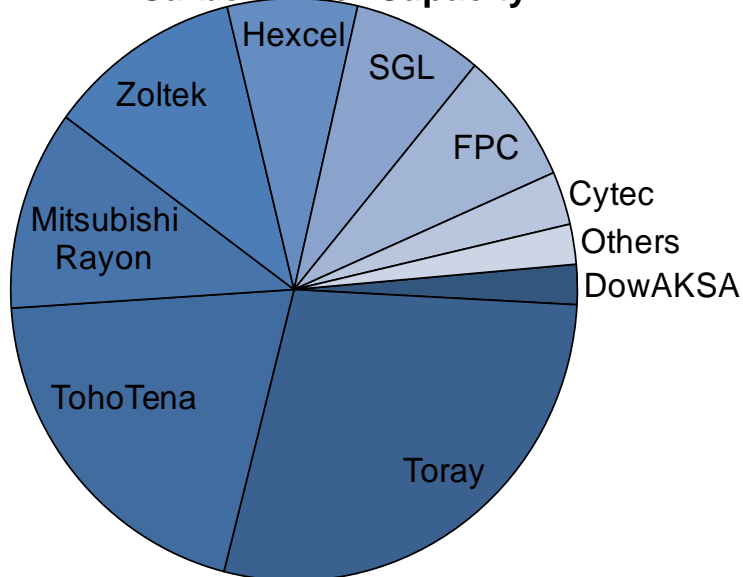
7,000t → 10,000-15,000t

# THE “UN-MET NEED” FOR CARBON FIBER



**DowAKSA**  
Advanced Composites

**Carbon Fiber Capacity**



## Market Research;

- Carbon fiber has been available commercially since the 1970's,
- Demand has grown irregularly depending on new applications,
- Tight supply conditions have occurred every few years
- There appears to be an “un-met need” in the market for—high quality, reliably supplied, competitively priced carbon fiber

- With the world's largest plant producing acrylic fiber production under one roof,
- With 40+ years of know-how, own technology and experience in acrylic fiber and specialty technical fibers,
- With the resources and ability to develop PAN precursor and carbonization technology in house,
- With the resources to facilitate to produce PAN precursor and carbon fiber,

***AKSA decided to develop PAN precursor and enter the carbon fiber business.***



## LONG-TERM GOALS

- Generate at least US\$1 billion sustainable revenues,
- Sustain EBITDA Margins around 12-13%,
- Maintain capacity utilization and low-cost leadership through cost saving projects and economies of scale,
- Develop new technical fibers to create added value and end-use areas except textile industry.

## DEVELOPMENTS DURING 2012-2013

■ Aksa Karbon Elyaf San. A.Ş. is established by partial spin off as of 2 January .

■ Establishment of 50%-50% joint venture company for carbon fiber operations is finalised with Dow Europe (50% of equity value is 185 mio USD) as of 29 June.

■ First phase of new co-generation power plant is successfully activated as of March 2012. Second phase is activated in June 2013.

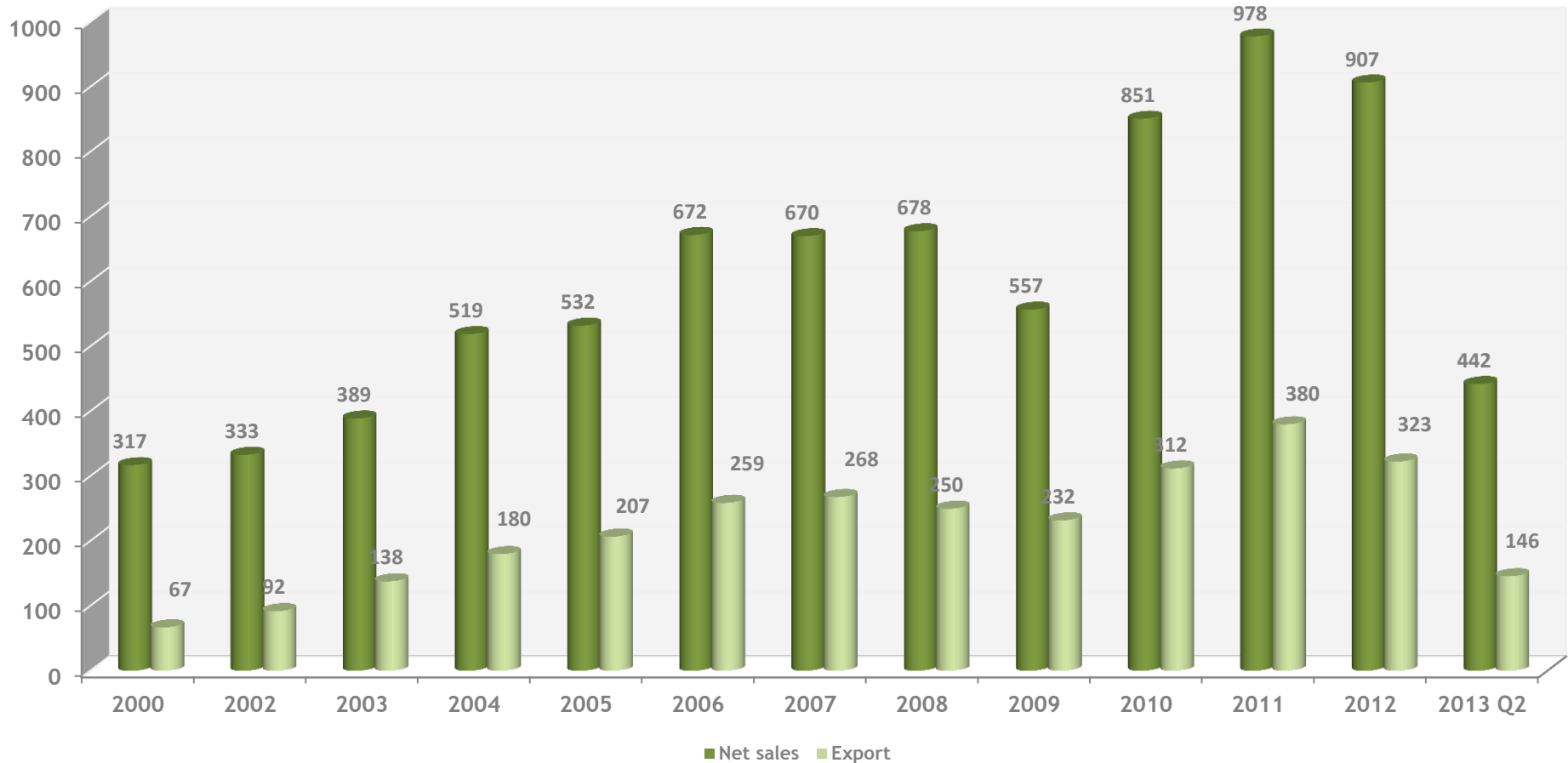
■ Dividend payments amounting to USD 25 million have been completed in May 2012, in 2013 the amount has been increased to USD 50 million and paid in March.

■ 40% minority shares of Ak-Tops has been acquired by Aksa in 2013. 10,5 million USD has been paid for 40% of Ak-Tops and 100% of the company is owned by Aksa as of August 2013.

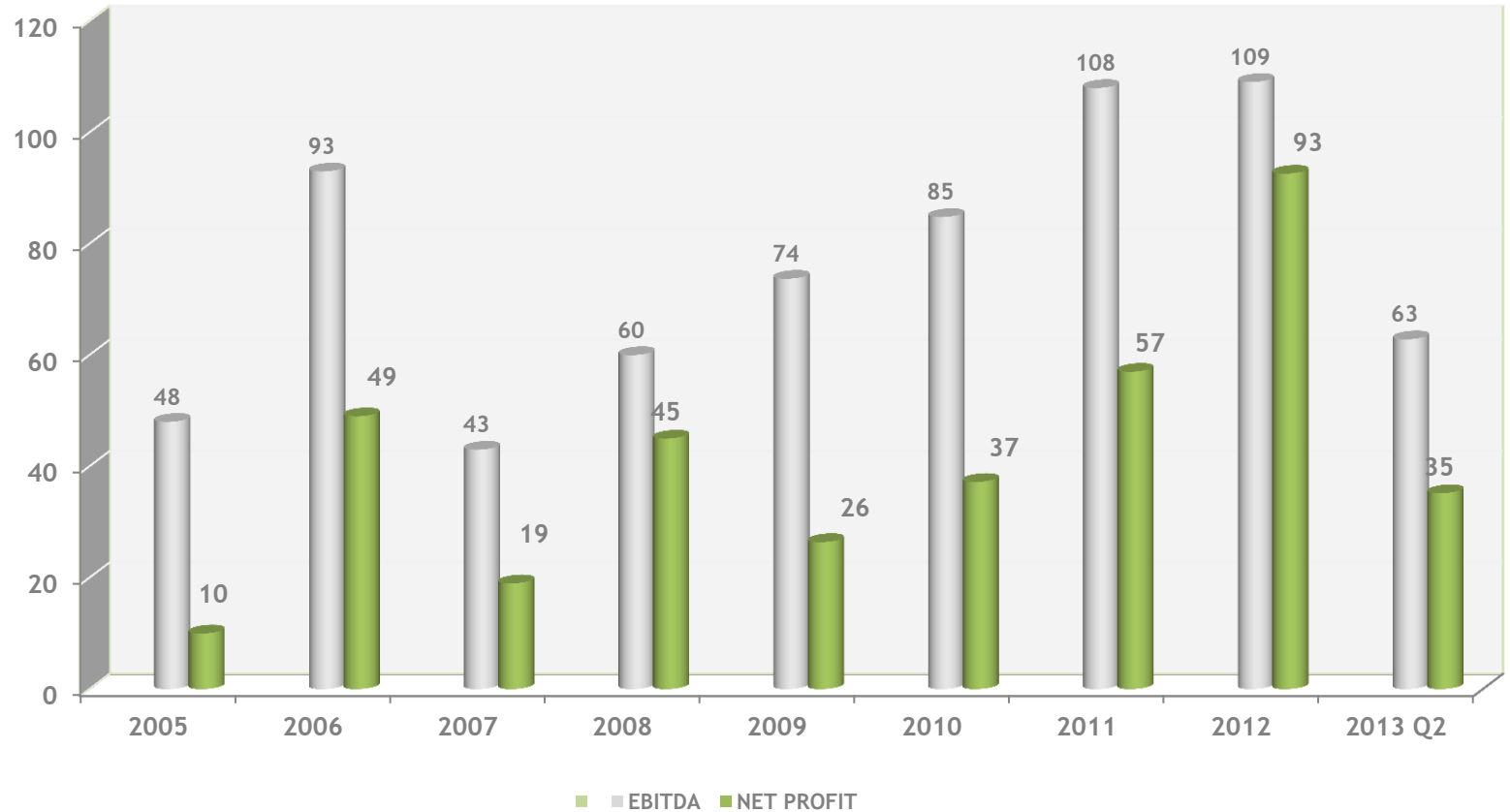
## BUDGET FIGURES

(million US\$)		2012 Actual	2013 June Actual	2013 Budget
<b>Net Sales</b>		<b>US\$900</b>	<b>US\$442</b>	<b>US\$850-900</b>
	AF	US\$800	US\$377	US\$725-765
	Technical Fibers	US\$60	US\$35	US\$60-65
	Energy	US\$40	US\$30	US\$65-70
<b>Exports</b>		<b>US\$320</b>	<b>US\$146</b>	<b>US\$260-280</b>
AF CUR		95%	98%	95%
<b>EBITDA margin ~</b>		<b>12%</b>	<b>14%</b>	<b>12%</b>
CAPEX		US\$45	US\$30	US\$70

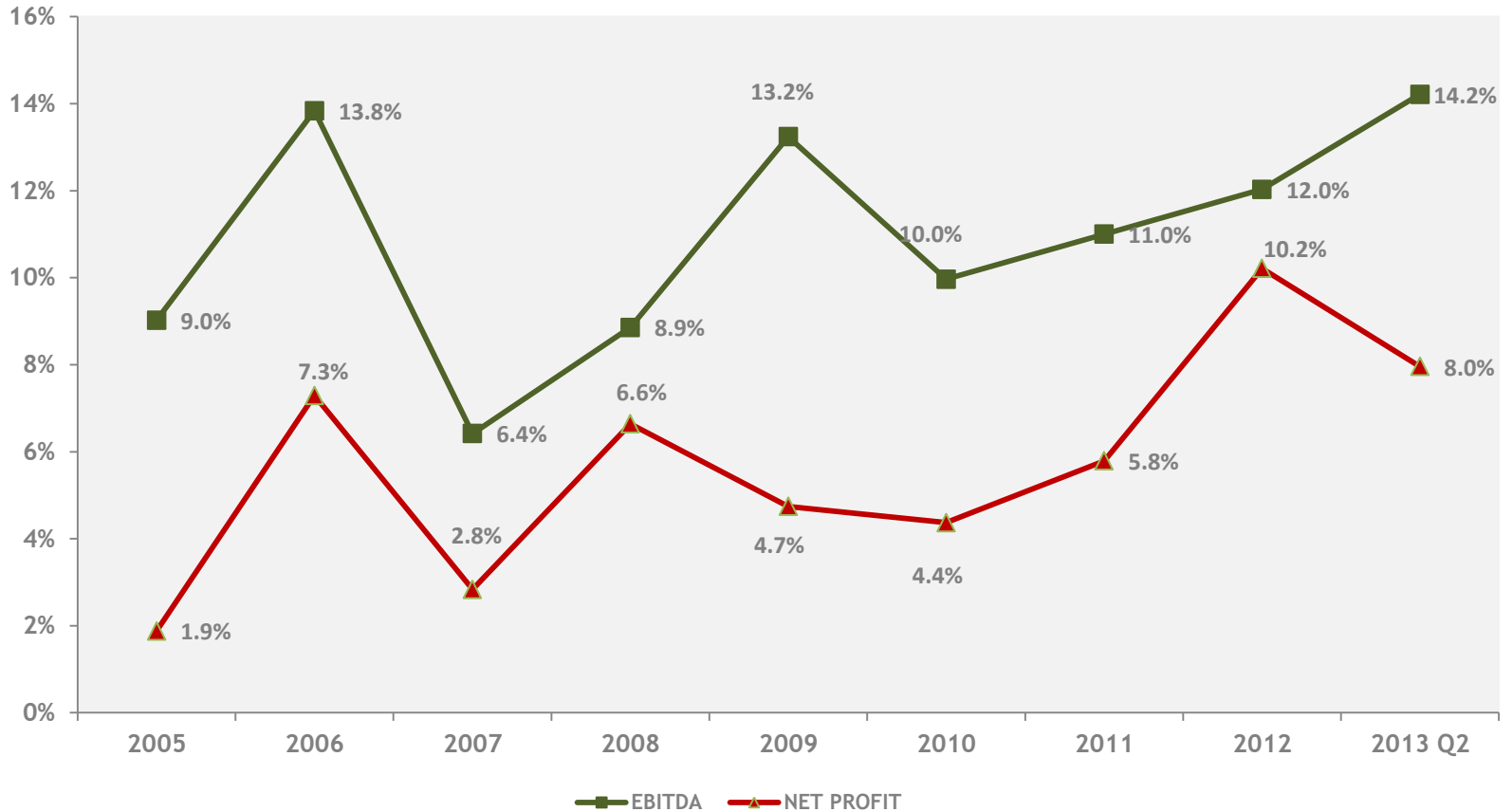
# NET SALES & EXPORT (FOB) (USD mio)



## EBITDA - NET PROFIT (USD mio)



# EBITDA - NET PROFIT (%)

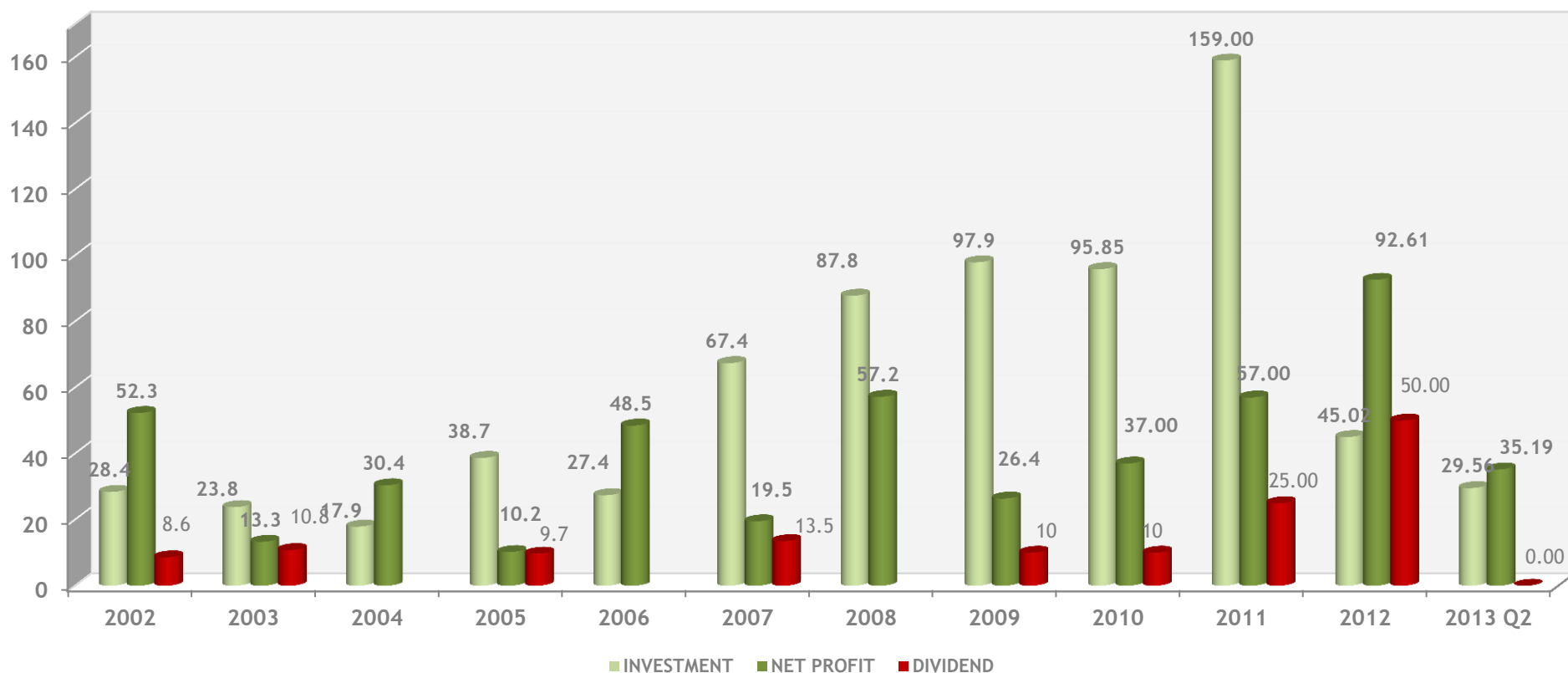




## INVESTMENT-PROFIT-DIVIDEND

### 2002-2013 Q2:

- Total Investment : US\$ 718,7 mio USD
- Total Net Profit : US\$ 479,6 mio USD
- Total Dividend : US\$ 137,6 mio USD



# SUMMARY INCOME STATEMENT

Income Statement ('million USD)	2008	2009	2010	2011	2012	2013 Q2
<b>NET SALES</b>	678	556	851	978	907	442
<b>EBITDA</b>	60	74	85	108	109	63
<b>NET PROFIT</b>	45	26	37	57	93	35

# BALANCE SHEET

Balance Sheet ('000 US\$)		2008	2009	2010	2011	2012	2013 Q2
<b>ASSETS</b>		<b>707,481</b>	<b>808,967</b>	<b>836,241</b>	<b>874,882</b>	<b>873,419</b>	<b>856,547</b>
Current Assets		<b>376,237</b>	<b>390,652</b>	<b>388,060</b>	<b>406,678</b>	<b>388,342</b>	<b>395,787</b>
	Liquid Assets	26,685	64,003	36,832	45,056	79,363	95,664
	Receivables	264,282	218,251	211,656	212,450	178,657	180,668
	Inventories	63,738	73,592	88,627	101,316	92,525	85,902
	Other	21,532	34,806	50,945	47,857	37,797	33,552
Long Term Assets		<b>331,244</b>	<b>418,316</b>	<b>448,181</b>	<b>468,204</b>	<b>485,077</b>	<b>460,760</b>
	Long Term Trade Receivables	8,375	7,792	6,179	569	2,519	0
	Financial Assets	17,945	18,024	17,554	733	744	689
	Joint Venture Investments	-	-	-	-	127,758	121,320
	Tangible Assets	281,527	353,984	416,635	444,129	346,704	328,037
	Intangible Assets	128	4,393	3,344	11,333	2,704	5,284
	Other Long Term Assets	23,269	34,123	4,469	11,441	4,647	5,429
<b>LIABILITIES</b>		<b>707,481</b>	<b>808,967</b>	<b>836,241</b>	<b>874,882</b>	<b>873,419</b>	<b>856,547</b>
Current Liabilities		<b>158,370</b>	<b>209,146</b>	<b>227,168</b>	<b>229,220</b>	<b>240,994</b>	<b>259,660</b>
	Financial Liabilities	66,719	87,856	85,478	91,580	95,589	92,053
	Trade Payables	75,029	109,854	134,669	133,815	137,141	157,833
	Tax Liabilities	1,362	-	-	-	3,311	5,500
	Other Short Term Liabilities	15,260	11,436	7,021	3,825	4,953	4,273
Long Term Liabilities		<b>100,070</b>	<b>121,144</b>	<b>117,949</b>	<b>195,163</b>	<b>87,759</b>	<b>96,747</b>
	Financial Liabilities	80,070	91,253	90,108	169,540	72,437	83,968
	Trade Payables	-	1,697	-	-	-	-
	Derivative Financial Instruments	3,098	2,515	3,234	2,210	967	562
	Provisions for Debt and Expenses	4,923	6,306	7,218	7,528	9,063	7,915
	Deferred Tax Liabilities	9,044	9,478	8,679	9,096	4,736	4,079
	Other Long Term Liabilities	2,934	9,895	8,709	6,788	556	223
<b>Shareholders' Equity</b>		<b>449,041</b>	<b>478,677</b>	<b>491,124</b>	<b>450,499</b>	<b>544,665</b>	<b>500,140</b>



THANK YOU

<http://www.aksa.com>  
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