CHEMICAL AND PHARMACEUTICAL INDUSTRY IN SLOVAKIA, 2012





Contents

Contents	
1. Basic information	
1.1. Development in chemical industry in Slovakia	
1.2. Classification	
2. Basic figures and characteristics of chemical industry	
3. Largest companies in the chemical industry based on sales (2010)	
4. Map of chemical industry in Slovakia	
5. Employment in the chemical industry	
6. Average monthly salaries in chemical sectors	
7. Education	
8. Useful contacts	12

1. Basic information

1.1. Development in chemical industry in Slovakia

The chemical sector traditionally held and still holds a strong position in the national economy of Slovakia. In the 1990s Slovak chemistry entered into the process of transformation Slovak chemical industry already had a strong production base, a well-developed research capacity and a very good level of human potential. The orientation of exports was changed from the countries of the Council for Mutual Economic Assistance (CMEA or COMECON) towards more industrially developed countries. The transformation also had a negative impact on companies in the chemical industry and many old production units did not survive the competition, especially in the area of costs, ecological requirements or quality parameters. The problems of chemical companies were related to the lack of financial resources, expensive bank loans and a rise in the price of raw materials which could hardly be reflected in the prices of the final products due to the competition.

On the other hand, some big companies, such as Slovnaft, Matador, Duslo, Chemolak and the former Slovakofarma, have managed to develop and grow rapidly. At the same time, many new, small and well prepared companies have become important players on the market.

The beginning of the new millennium has brought new trends, such as:

- · the strengthening position of Asian competitors,
- the growth of the Slovak economy, driven by foreign investments,
- the strengthening of the Slovak currency (koruna), which has had a negative impact on Slovak exporters,
- · globalization tendencies,
- the growth of those sectors of the Slovak economy which have attracted the most foreign investment,
 i.e. the automotive and electro technical sectors.

Along with these trends, Slovakia's accession to the European Union in May 2004 also had a great impact on the development of the chemical industry, providing transnational corporations with easy access to the Slovak market.

Since June 2007 new EU legislation in this area, known as REACH, has entered into force. It dictates the process of control and registration for most of the chemical substances used in industry in a volume higher than 1 tons per year. Companies are obliged to prove the safety of the chemicals via costly testing.

The Slovak chemical industry estimates the costs of REACH at cca. 32 million EUR per year, and REACH requirements are supposed to be fulfilled over the next ten years.

During World economic crisis in late 2008 and throughout in year 2009 occurred several factors that harm and negative affected the industry: the gas crisis in early 2009, limited access to credit bank loans as a direct result of the financial crisis, delay or even stopping of repayment of debts, collapse of many companies as a result of crisis, underdeveloped market for energy carriers (gas, electricity), ineffectiveness of anti-crisis measures.

In addition to world economic crisis mainly the chemical industry has been affected in the first half of year 2009 by entry of Slovakia's into the euro area. The exchange rate has automatically hardened against the currencies of neighboring countries (V4 and others) since January the 1st 2009.

Despite the above mentioned trends, the chemical industry still represents one of the four most important sectors of Slovak industry.

1.2. Classification

A new version of the **European industrial activity classification (NACE Rev.2)** has been approved by the European Commission and was adopted in 2006. NACE is the European reference framework for the production and dissemination of statistics related to economic activities. Its national derivation, SK NACE, fully replaced the older OKEČ classification in January 2009. The usage of the NACE revision 2 is for

statistical purposes obligatory, , for all EU member states. Based on the SK NACE rev.2, the following groups are classified as parts of the chemical industry:

SK NACE 19 - **Manufacture of coke and refined petroleum products** (manufacture of coke, fuels, heating oil's, lubricating oils, paraffin, and asphalt)

SK NACE 20 – Manufacture of chemicals and chemical products (manufacture of organic and inorganic chemicals, chemical fertilizers, basic petrochemical products, plastics, paints, lacquers, pigments, explosives, glues, cosmetic products, detergents, and man-made fibres)

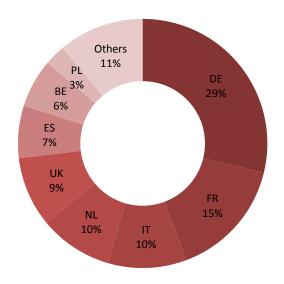
SK NACE 21 – Manufacture of basic pharmaceutical products and pharmaceutical preparations (includes the manufacture of drugs, vaccines, antisera, and homeopathic products)

SK NACE 22 - Manufacture of rubber and plastic products

Currently chemical industry in Slovakia produces a wide range of refined petroleum products and petrochemical products, basic organic and inorganic chemicals and intermediate products, agrichemicals, rubber chemicals, rubber and plastic products and auxiliary industrial preparations.

2. Basic figures and characteristics of chemical industry

Turnover of enterprises in the chemical industry depends on the price development of raw materials and chemical products on world markets. Among the largest players in Europe we can consider countries like Germany, France, Great Britain and Italy. The share of the V4 and other members of the EU27 countries shows the following graph.



Chemiché výrobky - tržby EU27, podiely v % 2010: 491 miliárd EUR

Source: The European Chemical Industry Council, http://www.cefic.org

Germany remains the largest producer of chemical products in the EU, followed by France, Italy and Netherlands. Together, these four countries generate 64% of sales of chemical products in the amount of 315 billion EUR. Among the new EU countries Poland has the largest share with 2.7% share of sales.

Slovakia's economy is export- oriented country, resulting that more than 80% of produced goods are exported. The share of Chemicals and pharmaceuticals on the export is 17% and chemical sector is the 3th strongest sector of the Slovak industry. It can be also characterized by a tight specialization in electronics, automobiles and low added value - manufacture and assembly of imported materials.

Revenues from the sale of chemical products in 2011 for the entire chemical industry in the Slovak market represented over 9.9 billion EUR, of which a group of Class:

- NACE 19 (Coke and refined petroleum products) reached 4.3 billion EUR,
- NACE 20 (Chemical and chemical products) reached 2.5 billion EUR,
- NACE 21 (Manufacture of basic pharmaceutical products and preparations) reached 0.33 billion EUR.
- NACE 22 (Manufacture of rubber and plastic) achieved sales of 5.3 billion EUR.

Total sales of all industrial production in Slovakia were in 2011 EUR 62.54 billion, of which the share of chemical sector was 19.9%.

In general the chemical industry in 2011 in Slovakia was moving even more quickly than in successful year 2010 and after very poor performances in 2009 due to the world economic crisis which take place in late 2008. Economic performances of all subgroups of the chemical industry in 2011 showed better results, which may be cause by re-growth of the world economy and demand for chemical products.

The whole Slovak industry in the last quarter of 2011 reached pre-crisis numbers. Since the chemical industry is one of the most significant sectors of Slovak economy, the pre-crisis values were reached but still with certain time lag.

Chemical industry sub-sectors NACE 19 (Coke and refined petroleum products) recorded during the whole year 2011 revenues by 36.8% higher than in 2010 and for the first time are even higher by 18.7% than in 2008.

A subgroup of NACE 20 (manufacture of chemicals, chemical products) recorded annual growth of 25.2% in 2011 compared to 2010. Comparing to year 2008 sales were higher by 22.6%.

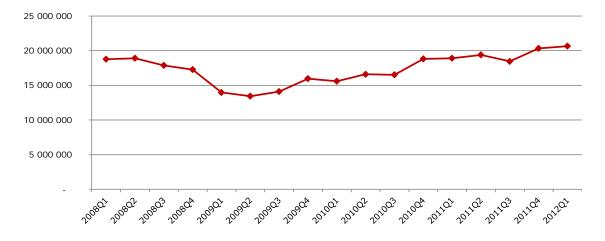
NACE 21 (Manufacture of basic pharmaceutical products) achieved sales in 2011 by 1.6% compared to 2010, and also reached over 15.6% higher sales as they were 2008.

NACE 22 (Rubber and Plastics) increased sales in 2011 compared to 2010 by 18.6%, compared to 2008 sales were higher by 3.8%.

Of all the subgroups of the chemical industry compared with 2008 sales rose which means that chemical industry is in good condition and numbers are even better than they were before the world crisis.

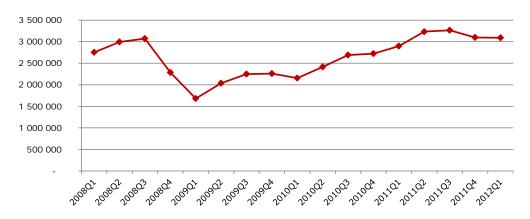
The entire chemical industry in 2011 compared to 2010 increased by 25.2% and also compared to 2008 the chemical industry increased by 12.6%.

Industry of the Slovak Republic, sales, ths. EUR (1.Q 2008 - 1.Q 2012)



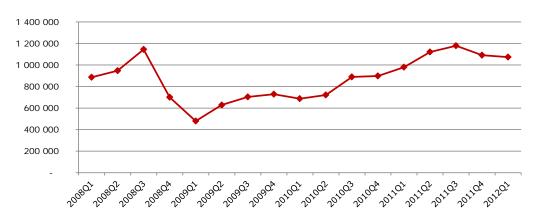
Source: Statistical Office Slovak Republic, 2012

Chemical industry, sales, ths. EUR (1.Q 2008 - 1.Q 2012)



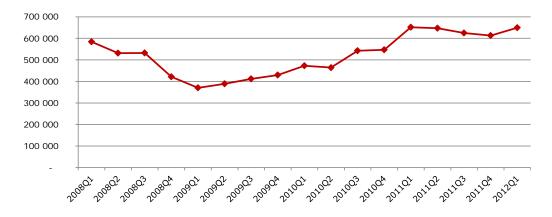
Source: Statistical Office Slovak Republic, 2012

Manufacture of coke and refined petroleum products, sales, ths. EUR $(1.Q\ 2008-1.Q\ 2012)$



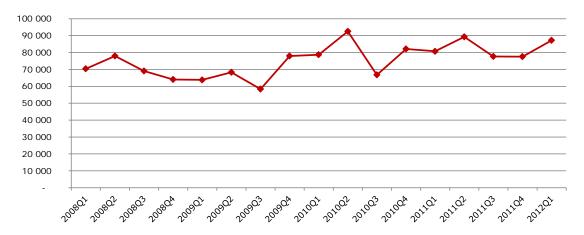
Source: Statistical Office Slovak Republic, 2012

Manufacture of chemicals and chemical product, sales, ths. EUR (1.Q 2008 – 1.Q 2012)



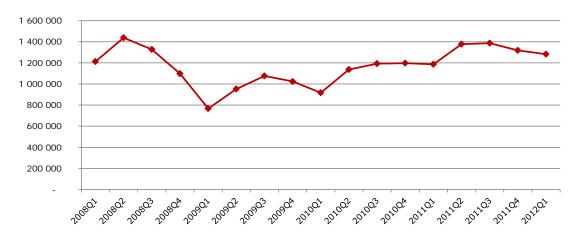
Source: Statistical Office Slovak Republic, 2012

Manufacture of basic pharmaceutical products and pharmaceutical products, sales, ths. EUR (1.Q 2008 – 1.Q 2012)



Source: Statistical Office Slovak Republic, 2012

Manufacture of rubber and plastic and other non-metallic mineral products, sales, ths. EUR (1.Q 2008 – 1.Q 2012)



Source: Statistical Office Slovak Republic, 2012

Year to year changes in the chemical industry segments $(1.Q\ 2012\ /\ 1.Q\ 2011)$

Segment	Nr. Of Cor	mpanies	Profit / Loss		Sales		Nr. Of Employees	
	1.Q 2011	1.Q 2012	in ths. EUR 1.Q 2011	in ths. EUR 1.Q 2012	in ths. EUR 1.Q 2011	in ths. EUR 1.Q 2012	1.Q 2011	1.Q 2012
Refined petroleum products	5	5	44 391	50 758	1 125 747	1 168 494	2 464	2 441
Plastics in primary form	10	12	4 088	-13 067	319 549	275 964	3 251	3 037
Paints, varnishes and similar coatings	7	6	-253	-369	11 193	10 217	425	391
Soap and detergents	8	6	785	2 575	35 410	37 809	827	923
Man-made fibers	3	3	-959	612	30 047	30 341	563	602
Basic pharmaceutical products	11	12	30 061	18 216	78 019	71 659	2 147	2 144
Rubber products	16	19	36 342	74 652	346 686	425 076	6 395	7 002
Plastics products	99	165	19 249	21 319	376 067	414 816	16 883	16 687

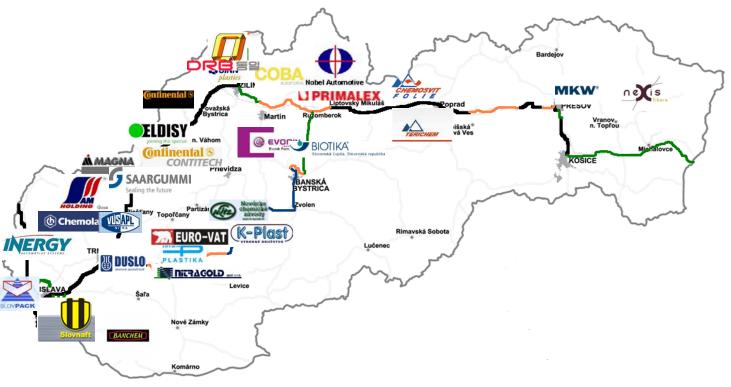
Source: Association of chemical and pharmaceutical industry of the Slovak Republic, 2012

3. Largest companies in the chemical industry based on sales (2010)

Company	Sales 2009(ths.E UR)	Change in % 09/08	Profit / Lose (ths.EUR)	Average Nr. Of employees in 2011	The share of exports in sales
Slovnaft, Bratislava	4 729 687	35,1	-18 643	3 624	69,5
Continental Matador Rubber, Púchov	595 971	54,4	39 085	2 175	67,1
Continental Matador Truck Tires, Púchov	554 142	46,3	56 149	1 142	89
Duslo, Šaľa	459 774	43,5	33 997	2 233	81,7
Zentiva, Hlohovec	223 156	3,9	7 550	892	n
Novácke Chemické Závody, Nováky	174 080	13,6	n	n	n
Chemosvit, Svit	157 738	7,6	2 011	2 132	n
Meroco, Leopoldov	157 438	54,0	7 450	37	0
Nexis Fibers, Humenné	99 443	29,0	2 183	318	96,2
Inergy Automotive Systems Slovakia, Lozorno	94 522	35,5	5 300	172	34,6
Chemosvit Folie, Svit	89 121	12,6	95	917	80
Magna Slovteca, Nove Mesto nad Váhom	87 149	8,3	273	712	82,9
Giesecke & Devrient Slovakia, Nitra	84 310	-8,9	3 078	544	100
de Miclén, Levice	78 194	23,9	1 415	530	95
ContiTech Vibration Control Slovakia, Dolné Vestenice	59 902	15,4	8 772	528	96,8
Terichem, Svit	59 725	29,8	4 763	265	n
SaarGummi Slovakia, Dolné Vestenice	48 251	25,7	68	743	99,2
Evonik Fermas, Slov. Ľupča	42 134	-2,6	1 830	201	100
Bang Joo Electronics Slovakia, Šurany	37 691	13,1	18	350	5
Biotika, Slov. Ľupča	36 976	-1,4	4 627	200	77,4
Nobel Automotive Slovakia, Dolný Kubín	35 554	11,9	693	382	95
Quinn Plastics Slovakia, Žilina	33 562	2,3	1 215	91	87,7
Vegum, Dolné Vestenice	28 466	8,5	17	563	76,4
Sehwa SK, Šurany	25 578	8,2	671	360	n
Chemolak, Smolenice	23 881	3,9	-544	255	45
Bourbon AP Nitra, Čab	23 321	12,5	1 341	200	70
GeLiMa, Lipt. Mikuláš	21 807	22,9	2 117	117	98
Gold-Pack, Beluša	20 719	22,4	724	200	95
Chirana T. Injecta, Stará Turá	19 718	11,4	1 360	364	93,8
Elastik, Šelpice	18 641	1,5	727	42	60
HBM Pharma, Martin	17 971	-7,1	1 973	249	76,5
Ospra – Invest, Bratislava	16 554	-1,8	517	122	n
Slovpack Bratislava, Bratislava	15 811	18,5	234	69	58,3
http Slovakia Vráble, Vráble	14 388	16,6	-1 128	230	70
Polytec Composites Slovakia, Sládkovičovo	14 286	15,9	2 444	121	90

Source: Trend TOP in Industry, 27.9.2012 & Global Slovakia, SIMS

4. Map of chemical industry in Slovakia



Source: SARIO

5. Employment in the chemical industry

Total number of employees in the chemical industry in 1.Q 2012 was 61 979 persons, of which 2 404 persons worked within the NACE 19, 9 613 in NACE 20, 2 248 in NACE 21 and 47 714 employees within NACE 22. The total number of people working in the industry in Slovakia in 1.Q 2012 reached number 499 026. Chemical industry divided into sectors according to NACE codes contributed with 12.4 percents.

Number of employees in the chemical industry

Classification	2005	2006	2007	2008	2009	2010	2011
NACE 19 - Manufacture of coke and refined petroleum products	3 154	2 811	2 474	2 642	2 567	2 481	2 428
NACE 20 - Manufacture of chemicals and chemical products	10 239	9 706	9 916	10 594	9 948	9 125	9 578
NACE 21 - Manufacture of basic pharmaceutical products and pharmaceutical preparations	2 861	2 820	2 733	2 664	2 460	2 260	2 239
NACE 22 - Manufacture of rubber and plastic products	49 415	49 063	52 493	54 867	47 593	44 923	48 602
TOTAL	65 669	64 400	67 616	70 767	62 568	58 789	62 847

Source: Statistical Office Slovak Republic, 2012

6. Average monthly salaries in chemical sectors

The highest average monthly wage within the chemical sector in 1.Q 2012 was recorded in the refined petroleum segment (1 518 \in), whilst the lowest average wage was attributed to the rubber and plastic products manufacture segment (838 \in).

Average monthly wages in EUR

Classification	Year 2009	Year 2010	Year 2011
NACE 19 - Manufacture of coke and refined petroleum products	1 739	1 681	1 777
NACE 20 – Manufacture of chemicals and chemical products	828	881	943
NACE 21 – Manufacture of basic pharmaceutical products and pharmaceutical preparations	1 042	1 058	1 063
NACE 22 – Manufacture of rubber and plastic products	767	822	853
Industry total	754	795	824

Source: Statistical Office Slovak Republic, 2011

7. Education

In the school year 2010/2011 were studying at universities in Slovakia totally 3 829 students with a focus on chemical and pharmaceutical industries. Schools providing study programs in the field of chemistry are traditionally settled in cities Bratislava, Trnava, Banska Bystrica and Kosice.

University	Nr. Of students in school year 2010/2011
University of Comenius in Bratislava – Pharmaceutical faculty	1 225
Comenius University in Bratislava - Faculty of Natural Science	516
Slovak Technical University in Bratislava - Faculty of Chemical and Food Technology	2 009
University of St. Cyril and St. Methodius - Faculty of Natural Sciences	186
University of P. J. Šafárik – Faculty of Natural Sciences	297
University of Matej Bel, B. Bystrica - Faculty of Natural Sciences	87
Universities total	4 320

Source: The Institute of information and Prognoses of Education (www.uips.sk) - school year 2011/2012

8. Useful contacts

Companies operating in the chemical industry are associated, along with pharmaceutical companies, in the Bratislava-based Association of the Chemical and Pharmaceutical Industry at $\underline{www.zchfp.sk}$.

Employees in the chemical industry are represented by the Trade Union Chemistry of the Slovak Republic at www.ozchsr.sk.

PlasticPortal provides complex information on plastic industry at one place at http://www.plasticportal.eu/sk

REACH http://www.zchfp.sk/reach/index.htm

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