

AGROFERT

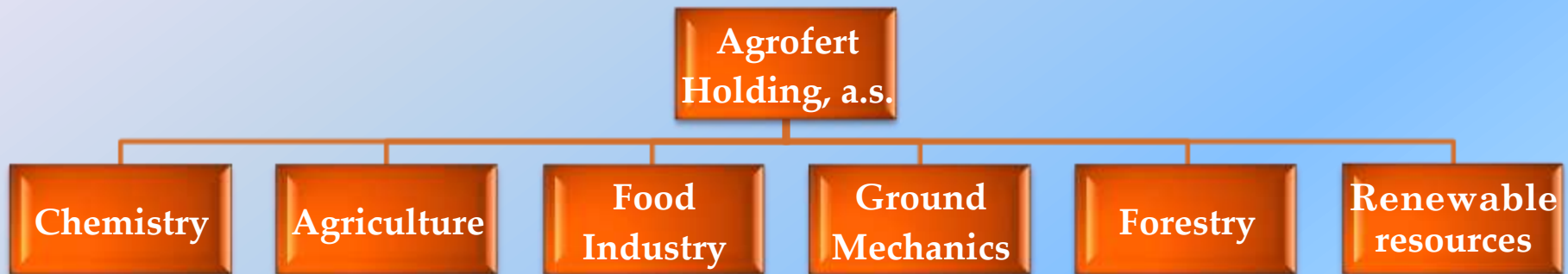
DUSLO, a.s. Šaľa



Member of the AGROFERT Group



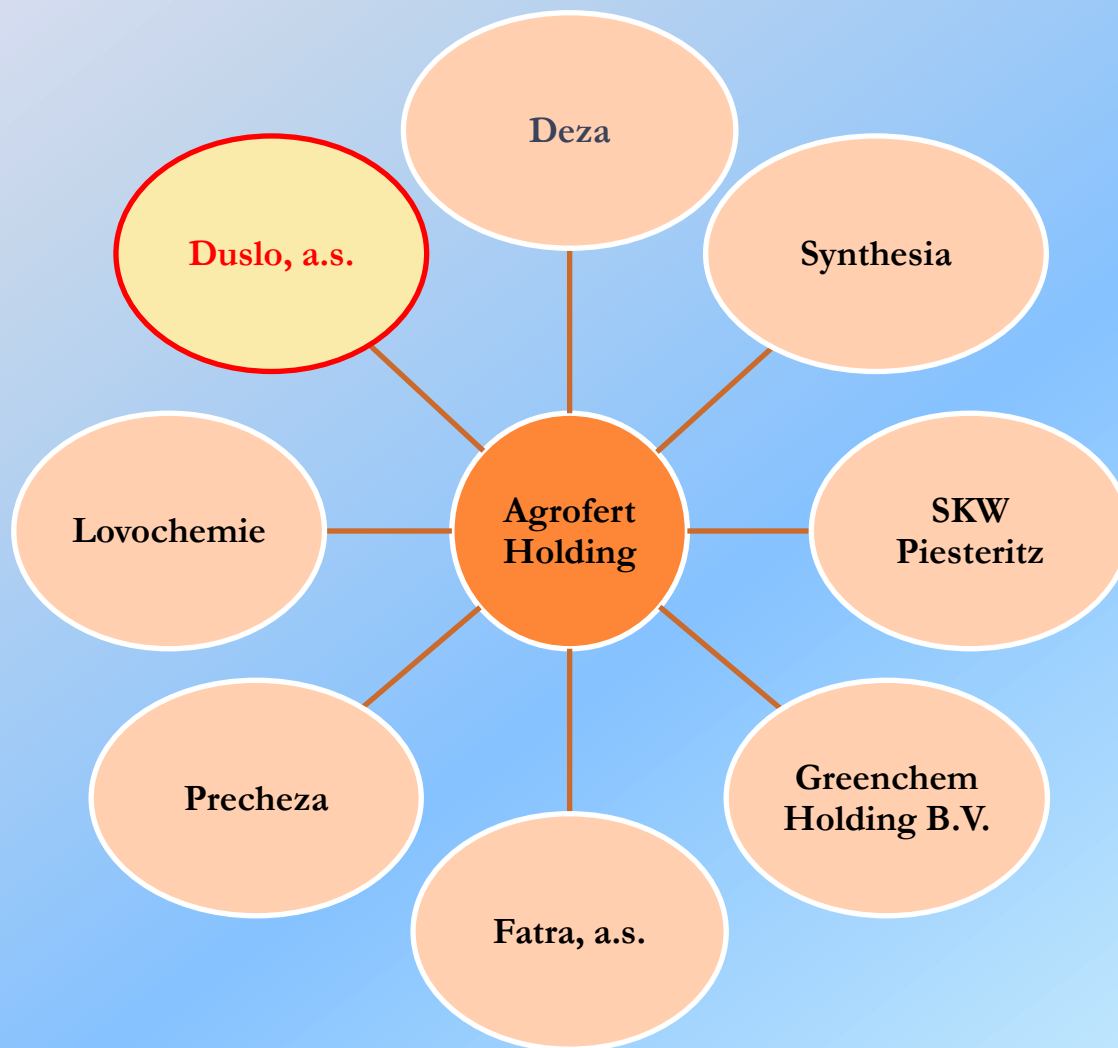
AGROFERT GROUP



Currently AGROFERT HOLDING, a.s. :

- associates over 230 subjects
- own equity over € 1,34 billion.

AGROFERT GROUP - CHEMISTRY



DUSLO, PART OF AGROFERT GROUP

History of Duslo:

- **1958 – foundation of Duslo plant** (Originally Dusikáreň Šaľa works)
- 1960 – beginning of industrial fertilizers production
- 1966 – foundation of Duslo, national enterprise Šaľa
- **1981 – beginning of rubber chemistry production**
- 1989 – change of the legal form to Duslo, state-owned enterprise
- 1990 – acquiring a licence for foreign-trade activities
- **1994 – foundation of the joint-stock company Duslo, a.s.**
- 2003 – company VUCHT became daughter company of Duslo
- **2005 – Duslo as an integral part of the company Agrofert Holding, a.s.**
- 2006 – fusion with Istrochem, a.s. , Bratislava
- 2007 –Duslo acquired part of Chemko Strážske -fertilizer plant
- establishment a new company : Hnojivá Duslo, Strážske

DUSLO - BASIC DATA

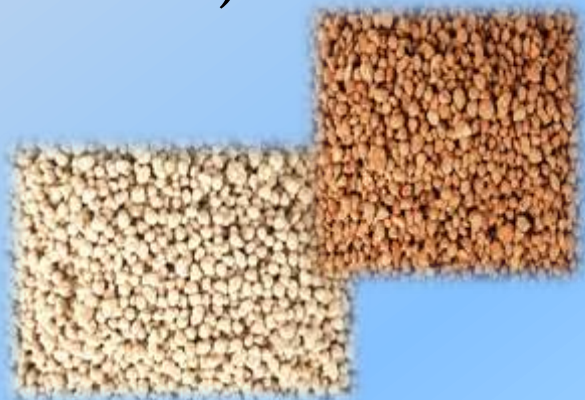
LEGAL FORM:	JOINT-STOCK COMPANY
100% SHAREHOLDER:	AGROFERT HOLDING A. S.
PRODUCTION SITES:	ŠAĽA, BRATISLAVA, STRÁŽSKE
REVENUES (2012):	462,6 MIL.€
PROFIT BEFORE TAX (2012):	27,6 MIL. €

DUSLO - PRODUCTION PROGRAM

- In 1958 was built a plant for production of **nitrogen fertilizers**.
- Since this year, Duslo has come through several stages of development and the original production program was gradually widened and with plant in:

SBU Inorganic chemistry

- Fertilizers
- Technical products (ammonia, nitric acid...)



SBU Organic chemistry

- Rubber Chemicals
- Dispersions and dispersion adhesives
- Special products of organic and inorganic chemistry



SBU INORGANICS

- Production
 - Basic chemistry (NH_3 , HNO_3 , NH_4NO_3 , urea)
 - Fertilizers (CAN, NPK, ASN and related products..)
 - Dispatch of products
- Analytical control
- Commerce
- Logistics

SBU INORGANICS



PRODUCTION - BASIC CHEMISTRY



	No of lines	Capacity (mt/d)	Licence	Year
Ammonia	1	1000	UHDE	1973
		1300	Revamp UHDE	2007
Nitric Acid	2	700	STAMICARBON	1972
		900	GRANDE PAROISSE	1999
Urea	1	600	STAMICARBON	1973
		900	Revamp STC	2014
AN	3	2450	DUSLO	2000

SBU INORGANICS

PRODUCTION - FERTILIZERS



Fertilizers	N° of lines
Nitrogen fertilizers CAN ASN, NPK...	2
Complex fertilizers	1
Liquid Fertilizers UAN UANs	1
<u>Sum capacity with urea</u>	1.2 mil mt/year

PRODUCT INOVATIONS	Produced mt	Year
DASA 26/13 (ASN) (EP1595860 (A3) — 2010-04-07)	843 000	2000
AdBlue	240 700	2006
MAGNISUL (ASN wit fully water soluble Mg) (WO2011146026 (A2) — 2011-11-24)	8 000	2007
AUTOMOTIVE UREA	200 000	2007
DUCANIT (Calcium ammonium nitrate GG) (EP 2 167 428)	170 600	2008
DASAMAG (ASN with magnesium content)	212 300	2008
ENSIN (ASN with nitrification inhibitors)	3 700	2012
CORNSTARTER (NPK with Zn)	15 000	2012

More than 1,7 mil. t of innovative products for 12 years

INVESTMENTS (more than 200 mil €)	Year (s)
AdBlue Plant	2006-2008
Warehouse for bulk products, capacity 50 kt	2007
Ammonia Plant Revamp	2008
CN plant in Strážske	2008
Automotive Urea Packaging (big-bag)	2008
Enviroment – N₂O reduction – Nitric Acid plant	2010
Central packing house (big-bag and bags)	2011
Technical products	2008-2013
Automotive Urea Cooling	2012
Syntetic Ammonium Sulphate Slurry for ASN	2013
Urea Plant Revamp 660 to 900 mt/day	2014

Agrofert as a strategic investor

PRODUCTS AND TECHNOLOGIES INOVATIONS, INVESTMENTS



PRODUCTS AND TECHNOLOGIES INOVATIONS, INVESTMENTS – HNOJIVÁ DUSLO STRÁŽSKE

- Plant for production of **Calcium nitrate GG** quality DUCANIT[®]

- conversion former CAN plant

Technology

- cooperation Duslo-Hnojivá Duslo-VUCHT
- awarded by patent
- main raw materials - limestone, nitric acid and ammonia
- Project and investments realized during years 2007-2008 with capacity 60 kt/year of product
- Special product - marketed in the global market



GRANULATED NITROGEN FERTILIZERS

% NUTRIENTS

Product	N-NH ₂	N (NO ₃ +NH ₄)	MgO	CaO	S
<u>Urea</u>	46				
<u>Calcium ammonium nitrate with dolomite (CAN)</u>		27	4	7	
<u>DASA ® 26/13 (ASN)</u>		26			13
<u>DUCANIT ®</u>		15,5		26,3	
<u>MAGNISUL ®</u>		21	5		
<u>DASAMAG ®</u>		24	6		10
<u>ENSIN ®</u> (ASN with inhibitors of nitrification)		26			13



COMPLEX , LIQUID FERTILIZERS AND TECHNICAL PRODUCTS

Product	N	P ₂ O ₅	K ₂ O	Zn	S	MgO
<u>DUSLOFERT[®] NPK</u>	20	20	0			
	10	15	15			
	15	15	15			
	15	20	10	1,5		
<u>DUSLOFERT EXTRA[®] NPK</u>	14	10	20		7	
	12	8	15		5	5
<u>DAM 390 (UAN)</u>	30					
<u>DUMAG[®]</u>	10					8
<u>DUSADAM[®] (UANS)</u>	24				3	



Technical products : AdBlue[®], Urea AM, Urea feed, Urea technical grade, AN solutions, Ammonium solutions, HNO₃, ...



NEW TECHNOLOGIES AND NEW PRODUCTS ARE RESULT OF COOPERATION BETWEEN DUSLO AND ITS SUBSIDIARY VUCHT (SINCE 2002)

New technologies awarded by patent :

- **WO2011146027 (A2) — 2011-11-24**

**GRANULAR FERTILIZER WITH CONTROLLED RELEASE OF
NUTRIENTS**

- **WO2011146026 (A2) — 2011-11-24**

**GRANULAR FERTILIZER WITH CONTROLLED RELEASE OF
NUTRIENTS**

- **WO2008013510 (A2) — 2008-01-31**

**GRANULATED FERTILIZER CONTAINING WATER SOLUBLE FORMS
OF NITROGEN, MAGNESIUM AND SULPHUR, AND METHOD OF ITS
PREPARATION**

- **EP1595860 (A3) — 2010-04-07**

**PROCESS OF PREPARATION OF GRANULATED AMMONIUM NITRATE-
SULPHATE FERTILIZER**

VUCHT



DUSLO'S SUBSIDIARY WITH 99 % CAPITAL PARTICIPATION

The company VUCHT heads towards establishing its position on the market as an engineering company specialized in providing services:

- **in the areas of the development of active substances for polymer application**
- **chemical and technological process optimization**
- **the research and development of chemical substance preparation processes**
- **small-scale special products**

Providing services is an active process of offering ongoing projects as well as the company's own licenses and know how in compliance with world trends and the needs of customers

DUSLO HAS IMPLEMENTED & USES THE QUALITY MANAGEMENT SYSTEM ACCORDING TO STANDARDS:



- ISO 9001:2008
- ISO 14001:2004
- OHSAS 18001:2007
- TS 16949





THANK YOU FOR YOUR ATTENTION