

A round-up of the latest developments across central and eastern Europe

What's happening in CEE?

Belarus

A new enlarged biodiesel production factory will start production in Grodno in mid-2010.

This factory will be operated by company Azot and production capacity will be 60,000 tonnes of FAME a year.

Bulgaria

Zarneni Hrani, located in Provadia, is working on its new preparation, pre-pressing and solvent extraction plant, which will mainly process sunflower and rapeseed.

Czech Republic

In 2007 the first biodiesel plant with a large production capacity opened in Usti nad, Labem. Production levels are 100,000 tonnes of FAME a year and the facility is operated by Setuza.

Desmet Ballestra supplied the plant's technology and

Chemoprojekt was awarded the EPC contract.

In April 2009 Agrofert Holding completed the acquisition of Agropol Group. This acquisition helps stabilise the Czech agro-food industry. In 2008 Agrofert Holding had a turnover of €5.5 million.

In mid-2009 crushing and extraction factory Milo, located in Olomouc in the east of the country, was acquired by US-based agricultural producer ADM.

And around the same time Preol completed constructing a biodiesel plant in the industrial region of Lovosice. The plant, designed by Desmet Ballestra and supplied by Chemoprojekt costing more than €60 million, has the capacity to produce 100,000 tonnes of FAME and 10,000 tonnes of pharma quality glycerine a year. It also has an integrated oil mill capable of processing 400,000 tonnes of rapeseed a year and 160,000 tonnes of rapeseed oil, as well

as 230,000 tonnes of rape meal.

Hungary

A new biodiesel production factory, owned by Rossi Biofuels and Mol, opened in Komarom at the beginning of 2008. Production capacity is 150,000 tonnes of FAME a year, which is exclusively supplied to the Mol group. PPM designed and supplied the technology for the facility.

Hunest Biorefinery is developing its new biorefinery project which will process wheat and produce products like lactic acid, gluten, wheat-germ oil, protein concentrate, lactic acid esters, polylactic acid, propylene glycol and compost.

Central EU Biofuels is developing its first fully integrated bioenergy project located in Hod Bioenergy Park. The project consists of a multi-feedstock oilseed crushing plant with a capacity to process

500,000 tonnes of seeds a year, and a cogeneration biomass power station with a 49.9 MW input thermal capacity.

The crushing plant will produce approximately 200,000 tonnes of foodgrade vegetable oil, to be further processed into either biodiesel or edible oil. This will consist of 70% sunflower seeds and 30% rapeseed, which will be sourced from Hungary, Romania, Serbia and the Ukraine via longterm supply contracts.

It will also produce 225,000 tonnes of animal feed and 54,000 tonnes of hulls, which can be used in the biomass power station. After deducting its own consumption, the power station will generate 10.8MW of surplus energy that will be redirected to the national grid.

One of Hungary's most advanced vegetable oil plants was built in the industrial park of Sarkad in December 2007 by Bio-Ma. The plant produces degummed rapeseed oil. Annual processing capacity of the press mill is 60,000 tonnes of rapeseed (or 180 tonnes a day).

Poland

In mid-2009 a new crushing and extraction unit, together with a crude

Other bioethanol producers in the region:

- PLP**, Trmice-Czechia (100kt bioethanol, factory is based on Chematur-Biostil technology)
- Agroetanol**, Dobrovice-Czechia (100kt bioethanol, factory is based on Maguin Interis technology)
- Korfil**, Hustopece-Czechia (100kt bioethanol, factory is based on unknown technology)
- Ethanol Energy**, Vrdy-Czechia (60kt bioethanol, factory is based on unknown technology)
- Biohim**, Kazakhstan (60kt bioethanol, factory is based on Frings technology)
- Hungrana**, Hungary (60kt bioethanol, factory is based on unknown technology)

vegetable oil treatment unit, opened to produce rape or sunflower oil in Bodaczow.

The crushing mill has a capacity of 450,000 tonnes of oilseeds a year.

The factory is based on DeSmet Ballestra's technology and operated by Zaklady Tluszczowe Bodaczow.

Zaklady Tluszczowe Kruszwica is the largest oil seed processor and vegetable fat manufacturer in Poland. It supplies crude and refined vegetable oils for industrial applications, mostly for biofuels and biocomponents producers. In 2006, ADM purchased a country elevator at Slawa Wielkopolska with drying and aspiration equipment and consolidated it with their operations in Szamotuly, where it crushes oilseeds and refines vegetable oils.

Serbia

A new refinery started producing biodiesel from rapeseed, sunflower and

soyabean oils in 2007 in Sid, close to the Croatian border. Its production capacity is 100,000 tonnes of biodiesel and 35,000 tonnes of cooking oil. The project was supported by the European Bank for Reconstruction and Development (EBRD).

Slovak Republic

A new pilot plant for converting industrial plastic waste into a liquid fuels components will be opened by Castor-Pollux in Lieskovec during 2010. The end product will be used for electricity, energy and heat production.

The plastic waste recycling is carried out by the thermo-catalytic cracking process of depolymerisation. This allows the final product to obtain newly desired characteristics without the requirement for air and combustion.

This technology is able to transform 960-1,080 tonnes of plastics into 500-700 tonnes of final product a month.

A new biodiesel production factory opened in Leopoldov at the beginning of 2008. Its production capacity is 100,000 tonnes of FAME a year. This is now being expanded with a new crushing and extraction unit.

This factory is operated by Meroco and partially owned by Slovnaft and the biodiesel is mainly supplied to Mol group. The plant is based on DeSmet Ballestra's technology and the EPC contractor was Chemoprojekt.

Also in 2008 Palma, a crushing, extraction and edible oil production facility located in Bratislava, was acquired by equity group Slavia Capital.

Slavia Capital controls the majority of biodiesel and oilseed producers in Slovakia, but since it closed its biodiesel plant in Senkvice in Q2 2009 biodiesel is now only produced by its Czech company Agropodnik. The production capacity of this plant is 70,000 tonnes of FAME a year, and is based on Germany-based Agrar-

Technik's technology.

A new biodiesel production factory is under construction in Senica. It will be operated by New Diesel in Bratislava and the planned production capacity of the plant is 40,000 tonnes of FAME a year. The project's main investor is Slovak American Enterprise Fund and the main contractor of raw material sources is Belar group.

A new pressing plant is under construction at the Danube river port of Komarno. The planned production capacity is 60,000 tonnes of vegetable oil (including rapeseed, sunflower and soyabeans). The plant will be operated by Bratislava-based Dinix.

In 2007 a new corn-based bioethanol plant started production in Leopoldov. The plant's production capacity is 100,000 tonnes a year. The factory is based on GEA's technology and operated by Enviral, which supplies ethanol exclusively to the Mol group.

A new bioethanol factory started production in Hniezdne in 2009, producing 55,000 tonnes of bioethanol a year from wheat and corn. The plant is operated by BGV and is based on Vuchz's technology.

Ukraine

OJSC Creativ is one of the leading producers of crude oils in Ukraine. It has started construction of two new plants, including a soyabean processing plant and a new oil extraction plant.

The soyabean plant was partially put into operation in 2009 for testing and the new oil extraction plant is scheduled to launch in 2010. ●

For more information:

This article was written by Julius Forsthoffer, Association of Manufacturers of Alcohol in Slovakia (Bioethanol), forsthoffer@nexta.sk, Roman Kharchenko, Oilseeds Union, Ukraine (Vegetable oil producers in post USSR), roman@amarant-bio.com.ua and Tomas Cvengros, Slovak Biofuels Association (Biodiesel, Pure Plant Oil-PPO), tcvengros@chemoprojekt.cz

Other biodiesel producers in the region:

Biodiesel Paldiski, Estonia (100kt FAME, factory is based on DeSmet Ballestra (DBO) technology)

Rapsoila, Mazeikiu-Lithuania (30kt FAME, factory is based on Biorafineria SK technology)

Mestilla, Klaipeda-Lithuania (100kt FAME, factory is based on BDI technology)

BioVenta, Ventspils-Latvia (100kt FAME, factory is based on BDI technology)

Rafineria Trzebinia, Poland (150kt FAME, factory is based on AT technology)

Biopaliva/Elstar Oils, Malbork-Poland (100kt FAME, factory is based on DBO technology)

Wratislavia, Poland (150kt FAME, factory is based on DBO technology)

Grupa Lotos, Poland (100kt FAME, factory is based on GEA technology)

BioTech, Lask-Poland. Production capacity of this crushing mill is up to 60,000 tons of oil/year.

Pavex CZ, Pardubice-Czechia (20kt FAME, factory is based on Biorafineria SK technology)

Fabioprodukt, Jicin-Czechia (10kt FAME, factory is based on Biorafineria SK technology)

Oleochemicals, Liberec-Czechia (80kt FAME, factory is based on unknown technology)

Primagra, Milin-Czechia (30kt FAME, factory is based on OTZ technology)

EkoTips, Zohor-Slovakia (30kt FAME, factory is based on its own technology)

Agrochemix, Sered-Slovakia (30kt FAME, factory is based on unknown technology)

Bell, Zvolen-Slovakia (10kt PPO, factory is based on OTZ/Farmet technology)

Venas, Trebisov-Slovakia (10kt PPO, factory is based on Reinartz technology)

Okoline, Hungary (40kt FAME, factory is based on unknown technology)

Zoldolaj, Hungary (60kt PPO, factory is based on unknown technology)

Slunchevi Luchi, Bulgaria (100kt FAME, factory is based on DBO technology)

BioDreams, Lovech-Bulgaria (20kt FAME, factory is based on Biorafineria SK technology)

Ekopetroleum, Vidin-Bulgaria (100kt FAME, factory is based on unknown technology)

GalaksOil, Pleven-Bulgaria (30kt FAME, factory is based on unknown technology)

Bulmarket, Ruse-Bulgaria (60kt FAME, factory is based on unknown technology)

KlasOlio, Dobric-Bulgaria (30kt FAME, factory is based on unknown technology)

Prio, Romania (100kt FAME, factory is based on DBO technology)

Ulerom, Vaslui-Romania (20kt FAME, factory is based on unknown technology)

Makoil, Macedonia (20kt FAME, factory is based on OTZ technology)

Europamil, Croatia (35kt FAME, factory is based on unknown technology)

Modibit, Croatia (20kt FAME, factory is based on unknown technology)

Pinus, Slovenia (50kt FAME, factory is based on DBO technology)

System Ecologica, Bosnia and Herzegovina (20kt FAME, factory is based on own technology)