The OECD Eurasia Competitiveness Programme was launched in 2008 to support Eurasian economies in developing more vibrant and competitive markets. It includes seven countries from Central Asia (Afghanistan, Kazakhstan, the Kyrgyz Republic, Mongolia, Tajikistan, Turkmenistan, and Uzbekistan) and six countries from Eastern Europe and the South Caucasus (Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova and Ukraine).

The Programme’s approach leverages OECD instruments and tools in order to assess where and how to enhance the competitiveness of countries, sectors and regions to generate sustainable growth. Since its inception, the Programme has developed and implemented several regional and country specific competitiveness strategies, complemented by capacity building seminars and coaching for policy makers.
From to 2001 to 2008, Ukraine’s economy grew by an annual average rate of 7.5%, among the highest in Europe. During this same period, foreign direct investment (FDI) inflows to the country expanded by 43.8% on a yearly average, reaching USD 10.9bn in 2008. However, the global economic crisis cut FDI inflows by more than half, and in 2009 real GDP contracted by 15%. Since then, growth levels have remained below former rates, and many of the country’s competitive advantages – vast stretches of arable land, a strategic location and a highly skilled labour force – remain untapped.

To support the country in implementing reforms that will help unleash its economic potential, the government of Ukraine asked the OECD to undertake a Sector Competitiveness Review with the financial support of the Swedish International Development Cooperation Agency (SIDA). The first phase of this review involves developing an assessment of the competitiveness and FDI attractiveness of several key sectors:

- **AGRI-BUSINESS** (with special a focus on the grain and dairy sectors)
- **ALTERNATIVE SOURCES OF ENERGY** (with a focus on production of energy from biomass)
- **MACHINERY AND TRANSPORT EQUIPMENT MANUFACTURING** (with a focus on civilian aircraft manufacturing)

This brochure contains the main conclusions of this assessment as well as an overview of the key reform recommendations for Ukrainian policy makers. It highlights the main strengths of each sector and details the main barriers to their further development. Finally, it outlines a strategy for overcoming these obstacles by targeting priority reforms for each sector: improving access to finance and reducing the skills gap in agribusiness, enhancing focus on investment policy and promotion in the biomass value-chain, and strengthening corporate governance in civilian aircraft manufacturing.
Numerous competitive advantages...

**ABUNDANT NATURAL RESOURCES**
Ukraine has 311,000 square kilometres of arable land, the largest such area in Europe. It has the largest manganese-ore fields and the second-largest mercury deposits in the world. It also has access to other abundant mineral resources, such as coal, iron, nickel, uranium.

**STRATEGIC LOCATION**
The country has access to the Black Sea and is a key energy transit country for Russian gas exports to Western Europe.

**A WELL QUALIFIED LABOUR FORCE**
Ukraine has universal literacy and high general school enrolment: the combined gross enrolment ratio in education of both sexes was 90% in 2009, higher than in some OECD countries.

**RISING INCOMES**
Since 2000 per capita income has increased by more than 60% (in purchase power parity), accelerating domestic consumption.
...however barriers to growth remain

HIGH ENERGY-INTENSIVENESS OF THE ECONOMY
Energy-efficiency in Ukraine is one third of the average for industrialised countries. Rising energy prices could make Ukraine’s position in highly energy-intensive industries such as metallurgy less profitable.

HIGH EXPOSURE TO EXTERNAL SHOCKS
Specialisation in commoditised sectors such as steel and reliance on external demand make the country highly vulnerable to price volatility.

LINGERING IMPACT OF THE CRISIS
The global financial crisis and the subsequent recession had a significant impact on living standards. Disposable income contracted and GDP per capita declined by 14.7% from 2008 to 2009. Although moderate growth returned in 2010, the economy has been unable to recapture its former dynamism.

POOR BUSINESS ENVIRONMENT
Factors such as corruption, lack of implementation of investment policy legislation, and weak contract enforcement discourage foreign investment.
Ukraine has more arable land (over 31 million hectares) than any other European country, an abundance of rich, black soil and favourable climatic conditions. Other sources of competitiveness include a long tradition in agriculture and low labour costs.

The country has a significant opportunity to further strengthen its already important role in agribusiness, by addressing the following sector-wide barriers:

- Difficulty in accessing short and long-term financing, resulting in the continued use of obsolete technologies and low investment in chemical inputs such as fertilisers and pesticides
- Lack of knowledge, skills, and abilities in the fields of agronomy and agro-management
- Difficulties in accessing land
- Low productivity
- Product quality below the standards of neighbouring markets, hindering the development of high-quality exports

The expected rise in demand for basic and processed agricultural products could make this sector more attractive to private investors, especially to foreign agro-food companies currently investing in emerging economies. Two pilot sub-sectors for reform efforts were identified: grain and dairy.
**SECTOR STRENGTHS**

Ukraine is well-positioned to consolidate its leading role as a grain producer and exporter and to increase the share of processed goods in overall output. Its production costs are estimated to be about 50% lower than those of European producers. Its geographic position guarantees low freight costs for exports to neighbouring Western Europe and to growing importers such as Middle-Eastern and African countries. Finally, considerable potential to increase productivity and the availability of unused arable land could contribute to the significant growth of Ukrainian grain commodities output and processed goods production.

**SECTOR CHALLENGES**

**Difficulty in accessing finance** is a main concern for small and medium-sized farmers, limiting their ability to invest in operational activities and fixed assets.

**Low productivity** is the result of a limited use of high quality inputs (e.g. fertilisers, seeds), especially by small and medium-sized farms, and a lack of investment in fixed assets, such as machinery and storage facilities.

**A state-imposed moratorium on land sales** has prevented free competition and hindered investment and productivity gains. It has also had an adverse impact on access to finance – since land is rarely owned and as a result cannot be used as collateral – and on foreign investments, as land cannot be purchased by foreign individuals or foreign companies.

**Unpredictable trade policies** sometimes run counter to market conditions, penalising farmers. For example, restrictions on exports were temporarily implemented during the global grain price rise in 2010.

**Low quality of grain** also adversely affects the ability to process it and, ultimately, overall sector competitiveness.

**Facts:**

- Grain production makes up more than 40% of Ukraine’s agriculture production.
- Wheat accounts for around 50% of total grain production (in value).
RECOMMENDATIONS FOR SECTOR REFORM

→ **Align human capital skills** with the needs of the sector. Entrepreneurship know-how, technical skills, and financial literacy must be tailored to the requirements of Ukrainian farmers.

→ **Facilitate access to finance** through policies to support supply-chain financing, leasing, and insurance to cover against risk.

→ **Reform land policies** to attract investors and enable the full usage of land assets as collateral.

→ **Further develop institutional services**, such as credit information services, collateral registration, and market information services.

→ **Ease restrictions to grain trade** – such as quotas – to improve predictability and the attractiveness of the sector to domestic and foreign investors.

UKRAINE HAS THE POTENTIAL TO IMPROVE RELATIVELY LOW GRAIN YIELDS

Average wheat (left) and barley (right) yields, tonnes per ha, 2005-2010

Agri-business sector: dairy

**Facts:**

- Domestic demand in Ukraine for processed dairy products is expected to increase by 25% over the coming decade, according to OECD/FAO projections.

- CIS and Middle-East countries are already key importers of Ukrainian dairy products.

- Ukraine’s raw milk is sorted into three quality grades. Its highest quality category is lower than the single EU standard grade.

**SECTOR STRENGTHS**

Ukraine is traditionally a dairy producer, although its herd sizes and output have been decreasing since independence. Production costs in the sector are comparable to those of New Zealand and significantly lower than most of Eurasian countries. The domestic market is expected to grow strongly in the coming years. Moreover, Ukraine enjoys proximity to a number of large or developing markets, such as the European Union (EU), Russia and the Commonwealth of Independent States (CIS) countries.

**SECTOR CHALLENGES**

- **Quality standards** of milk for food production do not match those of the EU, and even the highest-quality Ukrainian milk is not exportable to Western Europe.

- **Milk yields**, although improving, are still 50% less than in other key producing countries.

- **Production structure**: the production of raw milk is still scattered, with 80% of production coming from households that own fewer than five cows.

- **The level of investment in the sector is low**, preventing necessary technological upgrades.
THE UKRAINIAN DAIRY INDUSTRY ALREADY EXPORTS SIGNIFICANT VOLUMES OF ITS PRODUCTION

Dairy consumption/export ratio of Ukraine, thousands of tonnes, 2009


RECOMMENDATIONS FOR SECTOR REFORM

→ **Better align available human capital with company needs** to improve both productivity and quality of raw milk output.

→ **Raise quality standards** to meet EU standards.

→ **Facilitate access to finance**, which would allow an increase in the number of cows per household, in order to reduce the number of contact points for processors. Possible approaches include, for example, micro-finance institutions, supply-chain financing, efficient credit guarantee schemes, and cooperative banks.

→ **Attract major foreign investors** to the dairy processing sector by creating a long-term strategy around two priorities: i) improving both the quality and productivity of raw milk production and ii) targeting first Ukraine’s domestic market before moving on to the CIS countries, and finally to the EU.
Energy-efficiency and alternative sources of energies:

Biomass

The use of biomass to produce energy was pioneered by the United States and the Nordic countries, such as Denmark, Finland and Sweden, for small-scale heating and for industrial use. Starting in the 1980s, biomass has also been increasingly used for local heating purposes. In 2006, about 10% of global primary energy demand was met through energy produced based on biomass.
**SECTOR STRENGTHS**

Ukraine’s abundant agricultural and forestry waste could provide the basis for the future development of energy production based on biomass. The expected convergence of natural gas import prices in Ukraine to Western European levels should further increase the attractiveness of renewable energy sources.

**SECTOR CHALLENGES**

*Administrative barriers* substantially limit investment opportunities in the sector, and a credible national plan defining the role and objectives of biomass in the energy landscape is still needed.

*Limited communication about and low awareness of the possible uses of biomass* among farmers, industrial companies and utilities brake the sector’s development.

*A lack of access to capital, indebtedness of local utilities and arrears in payments by consumers* also hinder sector growth.

Facts:

- The economic potential of crop waste per year is estimated at the equivalent of 14 million tonnes of coal.
- Biomass fuels are economical when consumed on site or transported over distances under 80 km, depending on transportation costs.
**THE BREADTH OF THE BIOMASS WASTE SUPPLY CHAIN REPRESENTS MULTIPLE OPPORTUNITIES FOR BUSINESS DEVELOPMENT**

**RECOMMENDATIONS FOR SECTOR REFORM**

- **Investment policy and promotion** is a priority area for reform, for example, by streamlining administrative processes (e.g. permits) or implementing a single-window approach for investors.

- **A sector-specific plan** should be defined by the government, spelling out a long-term strategy for development of biomass-based energy production, and a mid-term action plan.

- **Other areas for reform** are related to the overall energy sector, including alignment of prices, market regulation, solving the problem of payment arrears by consumers and privatisation of the utilities sector.
Machinery and transport equipment: Civilian aircraft manufacturing

Ukraine is one of the few countries in the world able to produce modern aircraft. The civilian aircraft manufacturing sector is part of the aerospace industry and covers the design, production, maintenance, repair and overhaul of civilian aircrafts.
SECTOR STRENGTHS

The Ukrainian civilian aircraft industry is renowned, thanks to the country’s long-standing presence in the sector, its engineering skills and capabilities, and its cost competitiveness. Ukraine inherited a significant part of the former USSR’s capabilities in the aerospace sector, starting with Antonov, its national aircraft manufacturer.

SECTOR CHALLENGES

Overly-rigid governance of state-owned companies and restrictive investment policies prevent the implementation of business strategies based on global best practice and limit integration into the global supply-chain.

Ukrainian manufacturers face a financing challenge, due to the size of their market, the restricted government budget and a lack of advanced financing schemes for manufacturers and customers.

Demand remains mostly regional. As a result of all these challenges, the majority of demand for Ukrainian products is currently concentrated in Ukraine and other CIS countries, while most of the demand for civilian aircraft in future years is expected to come from non-CIS countries.

THE CIVILIAN AIRCRAFT SECTOR IS SET TO GROW SIGNIFICANTLY

Total expected demand for civilian aircraft by segment over 2011-30

Source: Boeing Current Market Outlook, 2011.
**Facts:**

- **Ukraine enjoys a strong reputation in aerodynamics, for example in wing design.**

- **The global aircraft market is divided into three distinct duopolies for regional turboprops, regional jets and for large aircraft.** The European ATR and the Canadian Bombardier dominate the regional turboprop market, while Bombardier and Brazil’s Embraer lead the regional jet market. Boeing and Airbus dominate the market for aircraft over 100 passengers.

**RECOMMENDATIONS FOR SECTOR REFORM**

- **Finalise and enforce the reform of the status and the governance of aircraft-related companies.** The civilian aircraft manufacturing industry should be fully separated from the military industry, thus enabling it to interact with global suppliers and partners. This would foster closer industry partnerships and would help solve financing issues.

- **Intensify investment policy and promotion efforts** to showcase reforms which make the sector more attractive to foreign investors and other industrial partners.

- **Improve workforce skills** to remain competitive in this high value-added sector. To preserve and enhance workforce skills, action could be taken to improve initial, vocational and continuing education.

**HOWEVER, ANTONOV HAS DIFFICULTIES COMPETING IN THE GLOBAL MARKET OF REGIONAL JETS THAT ARE DOMINATED BY OTHER LEADING FIRMS**

Number of aircraft deliveries in 2009 by market player

Source: Company annual reports, press reports

Total pax + freighters = 1283

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**Number of aircraft deliveries in 2009 by market player**

Source: Company annual reports, press reports
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