



This project is funded by the European Union



Danube-Serbia: Building a European Gateway

Challenges and Opportunities



EXECUTIVE SUMMARY

January 2014

This document has been produced with the financial assistance of the European Union.

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MAXIMA Consulting



Introduction and context

The study's overall **objective** is to put the EU Strategy for Danube Region (EUSDR) into operation in Serbia. To that end, the study has focused on: the challenges facing Serbia in export-led growth and new employment generation, especially in Government's priority industries; how EUSDR measures can be connected to the planning of national, provincial and local budgets and EU/donor support; and raising the visibility of Danube-Serbia, as a river-based growth region of international standing.¹

The EUSDR covers all 14 countries of the **Danube macro-region**: Serbia plus Germany, Austria, Hungary, Czech Republic, Slovakia, Slovenia, Croatia, Romania, Bulgaria, Bosnia and Herzegovina, Montenegro, Moldova, and Ukraine. Almost a quarter of Danube's navigable length flows through Serbia (588km or 23%).

All of Serbia is within the scope of the EUSDR, except for the territory of Kosovo and Metohija. In line with the principle of geographic concentration, this study is concerned solely with socio-economic development in '**Danube-Serbia: the 11 districts (82 cities & municipalities) in the immediate hinterland of the River Danube**: West Bačka, South Bačka, Srem, Mačva, Belgrade, Central Banat, South Banat, Podunavlje, Braničevo, Bor and Zaječar. Such geographical focus is based on relevant analysis, and the most suitable measures to achieve results and ensure an appropriate transnational approach in cooperation with other countries. In a situation where macro-regional strategies are characterised by 'three noes' (no more money, no more institutions, no more legislation), this is an important step to focus implementation on priorities where the Danube Strategy can make the greatest added value. Under this logic, the study also includes the most important strategic projects outside the Danube-Serbia region that are directly contributing to implementation of the Danube Strategy.

Rivers have transformed human development, as a source of water, food, energy, production, transport, trade and territorial boundaries, and hence the sites for settlements, since civilisation began. The attributes of great rivers like the Danube have been a catalyst for social and economic innovation for thousands of years; the question that the study seeks to address is whether the Danube-Serbia region can become a driver of development going forward.

The **baseline position is challenging**: Serbia's GDP per capita at 36% of the EU average in 2012, with export levels at 60% of imports; just 49.2% of the working-age population in employment, with 21.0% unemployment (of which 76.3% over 12 months) and 49.1% youth unemployment in October 2013; expected GDP growth rate of 2.4% for 2013, insufficient for future mass job creation; public debt over 60% and rising in 2013 (€1 billion of interest payments in 2014); and Serbia 101st out of 148 countries in the respected Global Competitiveness Index for 2013-2014.

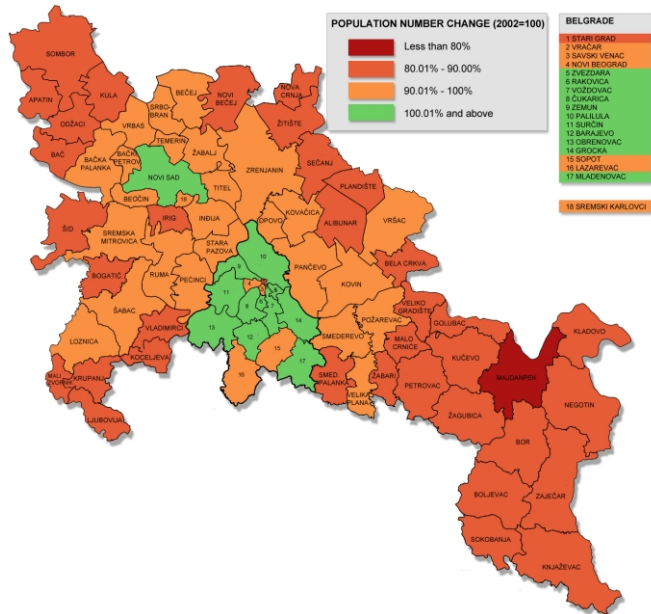
The **global outlook is promising**. Developing countries are becoming richer, but water use is growing at twice the rate of world population growth, while food production must increase by 60% (2005-

¹ All sources of the data quoted in the summary are set out in the main study. This publication has been produced with the assistance of the European Union. The contents are the sole responsibility of Maxima Consulting doo Beograd and can in no way be taken to reflect the views of the European Union and the Austrian Development Agency.

2050) to meet world demand. This presents huge opportunities for water-rich Danube-Serbia with its fertile land to produce and export, especially to Serbia's free trade agreement (FTA) markets.

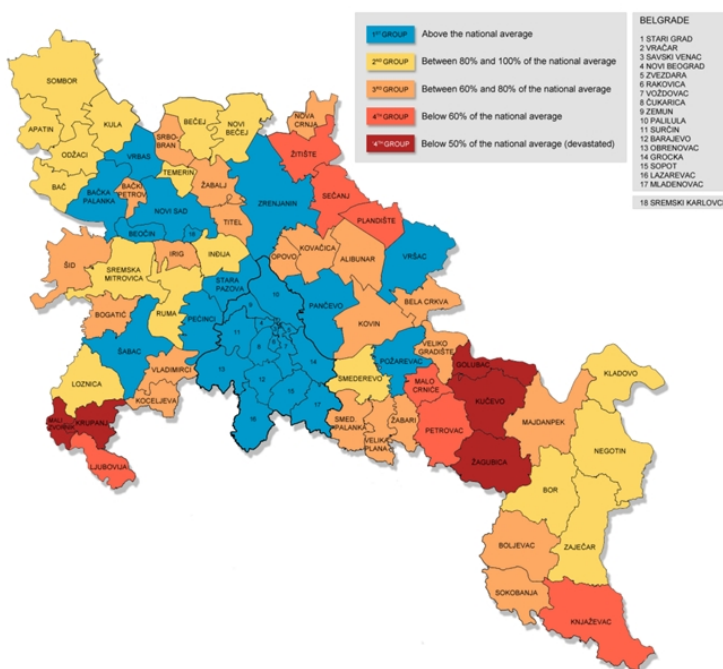
Overview of Danube-Serbia

The population of Danube-Serbia stood at 4.18 million in 2011 (58% of Serbia), 4% lower than the 2002 Census (see map on right), but 20% higher than 50 years ago. However, population growth in the last half-century was entirely concentrated in Belgrade and South Bačka, and (until the last decade when numbers fell) Podunavlje and Srem. All other districts have seen long-term population decline and a seemingly irreversible trend of **migration from rural to urban areas**, especially the largest cities, alongside depopulation from low birth rate and emigration.



There are now 30 municipalities with fewer than 20 000 people in Danube-Serbia, underlining the importance of inter-municipal cooperation for economic development. The region covers 36 155 km² (41% of Serbia); population density is highest in Belgrade with more than 500 people per km², but low in Braničevo, Bor and Zaječar districts (fewer than 50 people/km²).

Average **life expectancy** in the region is 73.6 years, ranging from 67.3 (Alibunar men) to 79.5 (Petrovaradin women). Contributory factors include nutrition, health awareness & care, and water quality.



According to the classification of **economic development** levels, more than half of the cities and municipalities in Danube-Serbia were “under-developed” or worse in 2013 (see map on left), including five that were “devastated” with less than 50% national average development: Golubac, Krupanj, Kučevo, Mali Zvonik & Žagubica.

EU Strategy for Danube Region (EUSDR)

To address unrealised potential, the Danube Strategy is structured around **four pillars** and 11 priorities:



Serbia is a **very active partner** in the EUSDR. The National Contact Point is the SEIO Deputy Director, who chairs a Danube Working Group in Serbia, including ministries and AP Vojvodina among others. Serbia is coordinating two priority areas of the Danube Strategy: rail-road-air (Ministry of Transport, jointly with Slovenia) and knowledge society (University of Novi Sad, with the Slovak Republic).

Existing development initiatives in Danube-Serbia

Serbia is already taking forward EUSDR pillars and priorities through the policies and programmes of **national** Government (planned spending in relevant ministries was almost €11.9 billion in 2013 for all Serbia) and **provincial** Government (equivalent budgets for all Vojvodina were around € 657 million).

Local self-government (LSG) spending in the region amounted to €1 466 million in 2011, with revenues marginally higher at €1 474 million. There were huge discrepancies in resources, however, with City of Belgrade alone enjoying 51% of revenue/spending (€459 per head), with just 31% of the population. There appears to be no direct correlation between spending and performance, as the lowest non-Belgrade spender (Krupanj, €137 per head) and highest (Žitište, €294) both fall under the 'highly underdeveloped' category of economic development at 60% or less of the national average.

The Government's database ISDACON identifies 155 **international** donor-funded programmes & projects, active in 2007-2012, that were targeted at interventions within Danube-Serbia.

The rest of this summary follows the EUSDR structure of four pillars (connectivity, sustainability, building prosperity, structures and security) and their 11 subordinate priorities.

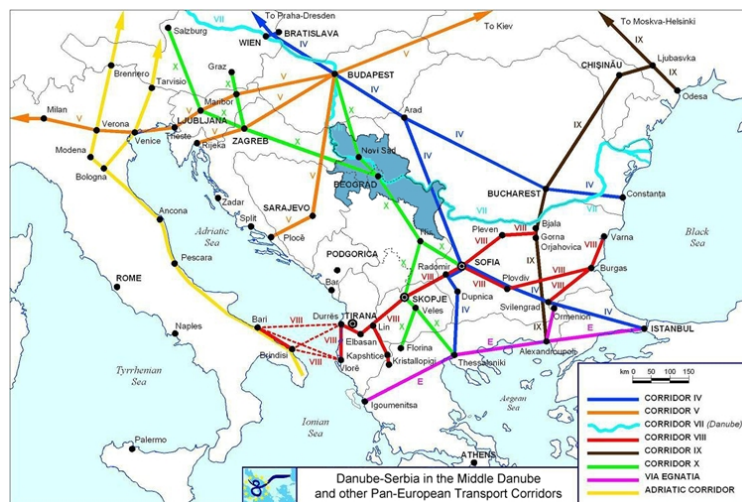
Connectivity

Transport system: mobility & multi-modality

Excluding urban (public) transport, **road transport** is the dominant mode for passenger transport in Serbia (90% by transported passengers, 70% by passenger-kilometres), and second-placed for freight (42% by tonne-km). The completion of Corridor X is well advanced, with just 19km out of 327km not completed or underway; the main priorities in Danube-Serbia are finalisation of Belgrade and Novi Sad bypasses and Batajnica interchange, and rehabilitation of the old Beška Bridge. 'Corridor XI' (Route 4) is at an earlier stage of development, particularly Požega-Boljare. Almost 100% of

magistral and over 90% of regional roads are classified as modern in Danube-Serbia, but just 53% of local roads. Access to the national road network is excellent or good in most districts, but poor in South Banat, Zaječar and especially Braničevo. Just to reach Corridor X takes over 90 minutes on average in six Danube-Serbia cities and municipalities: Bor, Zaječar, Ljubovija, Majdanpek, Negotin, and the worst, Kladovo (183 minutes).

Railways are the dominant mode for freight (48% by tonne-km), but just 8% of transported passengers, reflecting the poor quality of the infrastructure and rolling stock. Only one-third of railroads are electrified, and just 7% are double-track. Corridor X accounts for 20% of the network and 50% of traffic, but average speed is 28km/h. The journey time from Belgrade to Budapest is officially 7.5-8 hours. Progress in upgrading Corridor X is slow, with just some sections of Belgrade to Šid being complete and capable of 120 km/h. The main priorities for Danube-Serbia are Stara Pazova - Novi Sad - Subotica (2nd track), Belgrade-Stara Pazova, and Belgrade railway junction. The outstanding problem is maintenance: 18km a year is repaired nationally, less than 10% of the 191km required. This is a major financing and operational challenge.



The Danube (Corridor VI) and its tributaries (Sava, Tisa, Begej, Tamiš), alongside the Danube-Tisa-Danube (DTD) canal, comprise the **inland waterways (IWW)** system, with total length of 1 677km - a major resource for bulk cargo (10% of freight by tonne km), short passenger trips and nautical tourism. In practice, passenger numbers are negligible, while freight transport fell dramatically during the economic crisis (from 6.4 million tonnes in 2005 to 1.9 million tonnes in 2009) and has not recovered. Port utilisation in Danube-Serbia stands at around 30%, with no significant investment in development and equipment in the last decade. Navigability is severely reduced by bottlenecks in the Sava, Tisa, DTD, and especially the Danube with 24 'critical sections', caused by unexploded ordnance, sunk WWII fleet, insufficient dimensions on waterways (that require 'training'), bridges (eg Žeželj) and locks in need of reconstruction (eg Djerdap), and the build-up of silt that reduces depth. Like railways, the long-term factor is poor maintenance. IWW transport has been neglected, with no serious investment in dredging and training since the 1970s, and not integrated with other transport modes. The whole Danube is under-utilised, with goods volumes around 80% below those of the Rhine.

Air transport is mainly important for passenger transport (2% by transported passengers, but 22% by passenger-km) and agricultural aviation (crop-spraying), but currently negligible for freight (less than 1% by tonne-km). Two-thirds of the nation's airports are located in Danube-Serbia, dominated by Belgrade's "Nikola Tesla", which is predicted to grow from 3.36 million passengers (2012) to its capacity limit of 5 million by 2023. Only around 25% of its freight capacity is used, and there is scope

to double capacity. There is also underused potential at military airports (Batajnica) and smaller/private airports (eg Novi Sad and Zrenjanin).

Intermodal transport (IMT) involves linking 2-3 modes (road, rail, air and/or IWW) in an integrated logistics system, which requires the construction of terminals, loading equipment, storage, etc. IMT development is embryonic, with just a few functioning road-port terminals (Belgrade, Novi Sad & Pančevo) with partly constructed infrastructure to link to railroads (also at Prahovo). The legislative framework is incomplete, especially in relation to EU *acquis*, and site identification for terminals is outdated. IMT accounts for just 0.5% of transport in Serbia, compared with 9% in the EU. A road-rail terminal is planned for Belgrade (Batajnica).

The **challenge** for transport is to maximise the socio-economic benefits of Serbia's investment, by upgrading the TEN-T Corridors, but also ensuring these networks are fully integrated with local economies. Danube-Serbia should not be simply a transit route for international traffic; priority industries need to be more effectively connected to export markets in the EU, Russia, Turkey, Middle East and Asia.

Energy networks: security and sustainability

Serbia's two main coal basins are wholly or partly situated within Danube-Serbia. Kolubara and Kostolac, with their open-cast **coalmines**, supply lignite for thermal power plants (TPPs) and industry, but also produce three times as much 'overburden' (spoil and waste to access the seams) as coal, as well as 'tailings' (slurry produced when water is used to extract coal) as an environmental hazard that needs waste management.

Danube-Serbia also dominates the nation's **electricity generation**, with 80% of public enterprise EPS' capacity nationally and 91% of its output, through Nikola Tesla (A & B), Kostolac (A & B), Kolubara and Morava TPPs, hydro-power plants (HPPs) at Djerdap (1 & 2) and Zvornik, and combined heat and power (CHP) plants in Novi Sad, Zrenjanin and Sremska Mitrovica. The TPPs are outdated, with no new plants built for over 25 years, until the construction of 350 MW Kostolac B3, which should be completed by 2019. Hydro-power capacity in Danube-Serbia compares favourably with EU levels, Djerdap 1 is being rehabilitated, and a new Djerdap 3 is planned.

Public enterprise EMS has a natural monopoly over **electricity transmission** nationally, and transports energy from the EPS plants to distribution companies and large industrial consumers, using 90 high-voltage substations (SS) interconnected by 110 kV, 220 kV and 400 kV power lines. This infrastructure is adequate for Serbia's present generation and load demands, with almost 100% reliability and steady reduction of network losses (now 2.54%). It also interconnects with neighbouring systems, meeting the demands of the regional market within the TEN-E Central & South Eastern Connections Corridor. The transmission grid is rather sparse in South Eastern Europe, compared to the rest of the continent. There is a need for additional capacity, to increase power flows between South East European countries and with Central Europe.

The vast majority of Serbia's **oil** resources are located in Danube-Serbia: oil fields, the most important being Rusanda and Elemir in Žitište, and Turija in Srbobran; and therefineries in Pančevo

and Novi Sad. Crude oil output satisfies 43% of domestic consumption (no exporting), the remainder being mainly imported through the trunk oil pipeline from Omišalj in Croatia to the two refineries; less than 50% of their capacities are currently used. Sufficient volumes of fuel oil, jet fuel and kerosene are produced to satisfy most of the domestic market and achieve a trade surplus, but this is dwarfed by the trade deficit in diesel / gas oil and gasoline. Reliance on the single pipeline for crude oil, and no pipeline for the transport of petroleum products, threaten security of supply.

Serbia has modest domestic **gas** production from its own resources (9%), mainly located in Vojvodina, the most important gas fields in Danube-Serbia being Međa, Itebej, Torda (Žitiste) and Melenci (Zrenjanin). Underground storage is also in Danube-Serbia in the Banatski Dvor facility that is to be expanded. Over 60% of gas output is exported, but the rest accounts for just 8% of total consumption, 92% being imported, overwhelmingly from Russia (Gazprom), and also Hungary to meet peak consumption. Natural gas transportation is mainly through a high pressure pipeline stretching from the Hungarian border to Niš, which also allows for transit to Bosnia and Herzegovina, while the distribution network (middle and low pressure pipelines) is also concentrated in Danube-Serbia, with little connectivity south of Belgrade. This infrastructure is over 30 years old on average, however, and inter-connections with neighbouring countries remain limited, which constrains security of supply and the regional market. The construction of the South Stream gas pipeline with Bulgaria will allow the importation of Russian gas through the Black Sea, while a Niš-Dimitrovgrad gas interconnector within the TEN-E Southern Corridor would directly link the EU gas market to the largest deposit of gas in the world, the Caspian/ Middle East basin.

District heating exists in the City of Belgrade (Grocka, Obrenovac, Lazarevac and Zemun) and 28 other cities and municipalities of Danube-Serbia, as the dominant source for heating residences, commercial businesses and public buildings in urban areas, using natural gas, liquid fuels and solid fuels. However, these facilities operate below optimum efficiency due to lack of sensitive measurement and controls of heat delivered to end-users, with consequences for the environment. Industrial companies have their own power plants which enable combined heat and power production, although most have not been operational for a long time.

The **challenge** for energy, as one of the Government's priority industries, is to safeguard and modernise the energy network in all its facets: extraction, processing, generation and transportation. Danube-Serbia will be pivotal to any investment drive in the energy sector. To achieve security and sustainability of supply and become a net exporter of electricity, Danube-Serbia needs a new generation of modern power stations, using cleaner technologies and expanding the use of renewable energy sources, especially hydro-power, geothermal, biomass and biofuels, using waste products from the agri-food and wood processing industries. Investing in energy efficiency will also free up more generation capacity for export, given Serbia consumes 2.7 times more energy per unit of output than the OECD average.

Culture & tourism assets: connecting people

Serbia has a rich cultural heritage that is insufficiently exposed to international visitors as an important **export** market. Official tourism data tends to under-state the true scale of activity; Serbia's sector appears relatively small according to official statistics, contributing 1.8% to GDP and 32 100

jobs directly in 2011, increasing to 5.4% of GDP and over 80 100 jobs with indirect effects. While domestic tourist numbers within Serbia fell in 2008-2012, foreign arrivals and overnight stays have surged, particularly from major markets outside the traditional source markets of the former Yugoslavia - such as Italy, Germany, Russia, Bulgaria and Romania - bringing valuable export revenue.

Official statistics show that Danube-Serbia had just over 1 million **visitors** in 2011, around half of Serbia's total, of which 47% were domestic and 53% were foreign. These visitors stayed for 2.8 million nights, with domestic tourists averaging 3.4 nights, but foreign visitors just 2.1. Belgrade and Novi Sad contribute two-thirds of all visitors to Serbia; official data shows no other destination in



Danube-Serbia had more than 10 000 foreign visitors. Serbia ranks 89th out of 140 destinations in the World Economic Forum's 2013 Travel and Tourism Competitiveness index. Even Danube-Serbia's premier destination, Belgrade, had 6-8 times fewer visitors than Budapest, Prague and Vienna in 2011, and did not make it into Euromonitor's top 100 city destinations worldwide for tourist arrivals. Two-thirds of foreign tour operators surveyed in 2011 offered no tourism product in Serbia.

Tourism is divided into a series of **segments**, with five products in particular having scope for international appeal in Danube-Serbia, namely: city breaks; business tourism and MICE (Meetings-Incentives-Conferences-Exhibitions); events (eg EXIT, Belgrade Beer Festival); nautical tourism (river cruising); and rural, cultural and special interest tourism (see map on the left). Each segment appeals to a different audience and hence requires tailored offers, and careful choice of marketing and communication channels, but there are also opportunities for cross-fertilisation.

The World Travel and Tourism Council forecasts average annual real growth rates in Serbian tourism of 5.2% to 2023. But Danube-Serbia is currently not a tourism location with a developed identity. The region's tourism has to be reinvented, rebranded and restructured to attract the attention of international tour operators. This means: offering competitive and easily accessible **tourism packages**, differentiated from the competition, including jointly with Danube-Europe neighbours; reaching out to foreign tour operators, booking agencies and international media with these packages; and addressing identified weaknesses in hospitality, transport infrastructure, quality of natural environment and price competitiveness to meet visitors' expectations.

The **challenge** facing culture and tourism is whether the recent performance in attracting foreign tourists from key export markets can be accentuated with effective destination marketing and management, especially outside of Belgrade and Novi Sad (city breaks, business tourism and events), with greater numbers and longer stays, and whether it is possible to leverage more private finance in times of austerity.

Sustainability

Managing water as a scarce resource

Official data shows 95% of households are connected to the public **water supply** in Danube-Serbia (likely to be over-estimated). However, the network is in poor technical condition. Households are the main beneficiaries (69% of distributed water), but other users such as agriculture, services and industry (food and pharmaceuticals) also need high quality water. Officially, water losses during distribution are 31%, but the real figure is likely to be higher, as a cost to the system. Industrial users also draw from 'self-supply' (mainly lakes, dams and rivers) for hydro-power, cooling and industrial processes. Their distribution losses are comparatively negligible at just 0.05%.

Household access to **urban wastewater collection** systems is officially just 62% in Danube-Serbia (again, likely to be over-estimated), other users include industry, services and agriculture. In total, municipal PUCs collect 92% of urban wastewater in Danube-Serbia, but this figure is boosted by Belgrade, which has 100% collection; collection rates vary elsewhere, reaching just 55% in West Bačka and 65% in Central Banat.

There is minimal **treatment** of urban wastewater in Danube-Serbia before disposal, just 4% of all discharged water, even lower than the Serbian average (15%). Moreover, just 0.17% of all discharged urban wastewater in the region is subject to full primary, secondary and tertiary treatment, involving mechanical, biological and chemical processes, to raise effluent quality to the highest standards. Just seven cities and municipalities in Danube-Serbia have wastewater treatment plants, of which two (Sombor and Vršac) are fully functional and not requiring rehabilitation.

Nationally, 95% of all urban wastewater collected by Serbian municipalities is **discharged** into passing rivers. In Belgrade and Novi Sad, which together account for 70% of collected wastewater in the region, sewage is channelled untreated into the Danube or its tributaries, relying on the rivers' volume and flow to absorb and disburse pollutants. Of the remainder, almost 4% of collected sewerage nationally is discharged straight into the ground (of which 19% has been treated), affecting the quality of groundwater that is the source of drinking water in the region, and almost 2% channelled into reservoirs, lakes, etc.

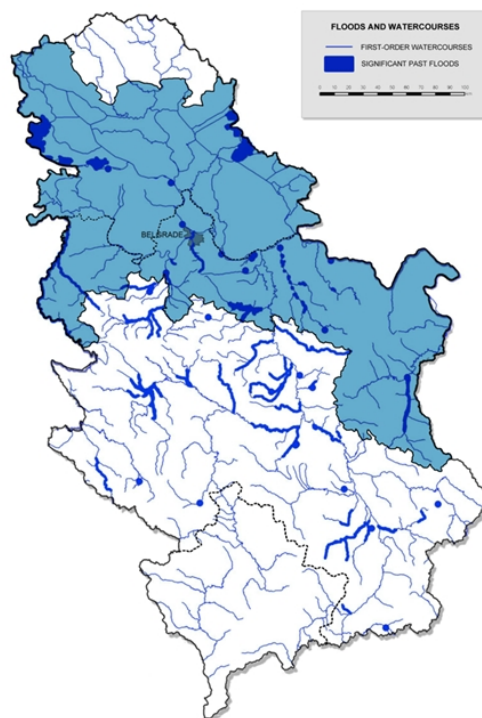
The vast majority of self-supply and public water used by industry in Serbia is discharged, as relatively little is retained by the process or products themselves. The vast majority (98%) of **industrial wastewater** is discharged after cooling thermal power plants, of which 99% goes into passing rivers. Excluding power generation, industry discharged 66% into passing rivers, 19% into the public sewerage network and 15% into groundwater. Just 4% of all polluted industrial wastewater receives any form of treatment before disposal.

For accession, Serbia must comply with the EU's Drinking Water Directive, which requires minimum standards of **water quality**. Analysis of over 67 000 samples of Serbia's drinking water in 2012 found 40% of samples were chemically unsafe and about 11% bacteriologically unsafe. Water sources for drinking and recreation are polluted by untreated wastewater, leakage from landfills and dump sites, 'run-off' from agriculture, *inter alia*. To meet the EU's Urban Wastewater Treatment Directive,

wastewater collection and treatment facilities must be in place for ‘agglomerations’ of 2000 population equivalent (PE) upwards, of which there are 282 in Danube-Serbia, and provisions for areas below 2000 PE involving septic tanks. Water tariffs have been kept low, but have starved the sector of investment: average fees for the year in Danube-Serbia came to just €8 per person in 2011. Mapping of donor-funded initiatives has identified 21 recent and ongoing water infrastructure projects in 17 Danube-Serbia cities and municipalities.

Managing environmental risks

Almost 11 000 km² of land in Serbia are potentially threatened by **flooding**. Danube-Serbia is a high risk area, mainly due to snowmelt and rainfall (see map on right). In the period 1965-2011, over 70 major floods occurred in Serbia, mainly along the Danube and Sava rivers due to capacity overflows, affecting areas larger than 50km² and at least 100 households or 300 inhabitants each time. The flood in 2006 affected over 200 000 hectares of agricultural land, as well as 2 000 houses in 30 communities within unprotected areas, while Civil Defence evacuated about 1 000 residents. Damage was estimated at over €40 million, and crop sowing delayed in over 2 million hectares of land.



The traditional approach to managing **flood risk** in Serbia has been reactive, by controlling floods through physical-structural means to limit damage when it occurs, rather than to mitigate actual flood risks. As an EU candidate country, Serbia is expected to adopt the Floods Directive, integrated with overall water management and pollution prevention. The preliminary assessment has identified 127 Areas of Potential Significant Flood Risk along 96 watercourses in Serbia.

The total area in Serbia subject to **flood defences** in 2012 amounted to just below 1.5 million hectares, a 25% decrease compared to 2011. The vast majority of this protected land (86%) was agricultural. The total area flooded by surface waters in 2012 was 32 583 hectares, of which 85% was agricultural land.

Paradoxically, Danube-Serbia is also threatened by **drought**, every 3-4 years on average in the recent past: 2000, 2003, 2008 and 2012. The severe drought of 2012 caused estimated losses of €2 billion to the agriculture sector and created the conditions for the fungal infection in the corn crop that introduced aflatoxins through cattle feed into the milk processing chain.

Land use planning and compliance with EU water and floods directives emphasises the need to combine flood prevention with capturing and controlling flood waters for use during drought conditions. **Irrigation** makes an essential contribution to improving agri-food productivity: worldwide, irrigated agriculture represents 20% of total cultivated land, but contributes 40% of total

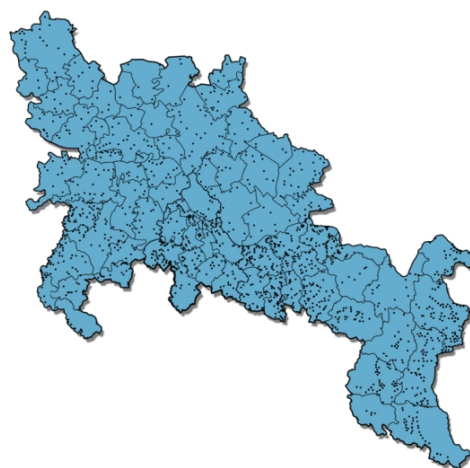
food output. In Serbia, irrigation systems cover less than 1% of Serbia's utilised agricultural land. The vast majority rely on water-intensive sprinkling systems (91%), rather than the more efficient drop-by-drop or surface irrigation.

Managing waste for the environment and economy

The amount of **household waste** generated by each citizen of Serbia has been on an upward trend in recent years to 2.65 million tonnes, or a daily average of 0.99kg per person in 2010. Data is not available for the whole of Danube-Serbia, but selected municipal information shows the average in Novi Sad being almost 4 times greater than Bor, for example. Just 72% of the Serbian population enjoy organised waste collection, with large parts of Serbia having no collection services, especially in rural communities.

Industrial waste has also exhibited year-on-year growth in Serbia to 54.4 million tonnes in 2012. The overwhelming majority came from mining and quarrying, followed by the energy sector. More than a quarter was hazardous, 99.5% being toxic waste from mining (tailings), the rest produced by chemicals and other sectors. The vast majority of industrial waste was landfilled (99.5% in 2012). There is still no facility for treating hazardous waste in Serbia.

There are relatively few formal facilities for recycling and reuse of household waste in Serbia, making **disposal** the dominant option. Serbia has fewer than 200 officially registered landfills, but over 4000 unauthorised ('wild') dumpsites. Even registered landfills are overwhelmingly 'non-sanitary', meaning there is little pre-treatment before disposal, minimal waste separation and recycling, and a lack of leachate drainage, bottom lining and gas collection. There are 1738 non-sanitary disposal sites in Danube-Serbia (see map on right) containing over 22 million m³ of solid waste. This includes industrial, construction, animal carcass, medical and other hazardous waste, presenting serious health threats, including polluting soil and groundwater. Of the 164 municipal landfills in Serbia, 12 are less than 100 metres from settlements, and 25 are less than 50 metres from water bodies (rivers, streams, lakes or reservoirs), of which 14 are practically located on the watercourse bank or bed.



Serbia faces exacting standards as a candidate country through the EU's Waste Framework Directive, Landfill Directive and other *acquis* on specific waste streams. The National Waste Management Strategy (NWMS) proposes regional **waste management** plans, though voluntary alliances of 2+ municipalities covering at least 200 000 residents, with collection, separation, treatment, recycling and sanitary landfills. Currently, there are 16 proposed waste management centres covering Danube-Serbia (or wider), of which nine cover fewer than 200 000 people. The Government's Environmental Approximation Strategy (EAS) proposes a minimum efficient scale of 400 000. The Ministry is reviewing the NWMS and preparing a Directive Specific Implementation Plan for landfills.

Protecting diversity, habitat, soil and air

Danube-Serbia enjoys a high level of **biodiversity** with ancient “relic” and “endemic” species which can only be found in Serbia or the Balkans, including wild relatives of commercially-used livestock and crop species that provide an ‘insurance policy’ and the basis for future agricultural and drug development. Wetlands and migratory bird habitats contribute to hunting, fishery and tourism revenues.

There are five national parks in Serbia, of which two can be found in Danube-Serbia (Fruška Gora and Djerdap) within a total of 109 **protected areas**.

Danube-Serbia is sparsely covered by **forests** relative to the rest of Serbia, the main concentrations being the more mountainous Mačva, Bor and Zaječar districts. Forests make an important contribution to soil erosion, regulating water regimes and air quality. Degradation and loss of forest cover have increased in the past decade, due to illegal forest cutting, uncontrolled livestock grazing and forest fires. Pressure is increasing due to economic conditions, demand for wood products, and conflicting interests, as public enterprises that manage forests rely on funds from extracting natural resources.

Only *ad hoc* soil monitoring is carried out by the relevant research institutes. The most immediate threat to land in Danube-Serbia comes from flooding. While just 202 km² was lost to **land erosion** in 2002 nationally, the amounts have grown more than ten-fold, reaching 3708 km² in 2011.

The Serbian Environmental Protection Agency monitors **air quality** for concentrations of nitrogen dioxide (NO₂), sulphur dioxide (SO₂), particulate matter (PM₁₀), carbon monoxide (CO) and ozone (O₃). The main contributory factors in air pollution are vehicle emissions, power generation and manufacturing industry. Within Danube-Serbia, “excessively polluted air” was found in Belgrade (PM₁₀ and NO₂), Bor (SO₂) and Pančevo (PM₁₀). This can be explained in part by proximity to TPPs, oil refineries and metals processing. PM₁₀ emission levels, along with NO₂ and SO₂, will fall with the introduction of electrostatic precipitators (air filters) to TPPs, supported by EU funding, in line with the EU’s Large Combustion Plants Directive.

Sustainability is not just an environmental consideration, but an economic one too, given the interaction with the Government’s priority industries, and also between environmental media (impact of waste on water and air quality, flooding and forestry on soil, etc). The **challenge** is to make explicit connections between causes (failure to tackle pollution of water sources, invest in the network to reduce leakages, collect and treat wastewater, maintain and extend flood and drought protection), and effects (higher costs from treatment of water supply, from lost water, from damaged crops and disrupted production). In particular, water should be treated as a holistic system, integrating all dimensions into river basin management, and reforms made to improve efficiency through water only and inter-municipal PUCs, as recommended by the EAS.

Building prosperity

Employment in Danube-Serbia stands at over 1.1 million jobs. Danube-Serbia has around two-thirds of all active registered businesses in Serbia, and a higher than national share of companies with the largest assets and highest earnings, including the top five.

As with any European economy, the **business base** in Danube-Serbia is dominated by entrepreneurs and micro-enterprises (fewer than 10 employees), but with a higher ratio than in the EU. The share of medium-sized enterprises is lower, just 0.8% compared with 1% in the EU-27.

Official statistics on **foreign trade** show that Danube-Serbia produced a trade deficit in 2011, equivalent to around €4.6 billion (RSD 523 billion), almost the entire national trade deficit (96%). In fact, the Serbian trade deficit is essentially concentrated in Belgrade (RSD 419 million) and South Bačka (RSD 161 million), the rest of Serbia being in surplus or balance. Within these two districts, every size bracket of enterprise from sole traders to large companies is importing more than it is exporting. Danube-Serbia is not producing enough from its key export-oriented industries to justify current levels of import consumption in the cities. The largest trade deficits (in descending order) are with China, Russia, Germany, Italy and Hungary; surpluses are largely with the CEFTA countries. Despite favourable trade agreements with Russia, Turkey and Kazakhstan, longstanding links to the non-aligned movement (eg India, South Africa and Brazil), and preferential access to EU markets, Serbia is reliant on its trading relations in the former Yugoslavia to keep the trade deficit down.

Publicly-funded **business related infrastructure** (BRI) aims to address identified gaps in physical space with associated services and/or incentives that are restricting the potential for business creation and expansion, and employment generation: business incubators, industrial zones (or parks, or estates); business parks; free zones: science and technology parks; and brownfield locations. Unfortunately, there is also no comprehensive and up-to-date information on the take-up, performance and impact of existing public BRI assets, in the context of private BRI and market demand, to assess the merits of further intervention.

The existence of 1.1 million jobs in Danube-Serbia must be weighed against the employment and income needs of its citizens. Unfortunately, up-to-date **labour market** information is limited at district level, but the 2011 Census shows 31.5% of the total population in Danube-Serbia was active and employed, almost the same as the national level (32.1%), but lowest in West Bačka (28.3%) and highest in Belgrade (35.7%).

Quality, level and accessibility of **education** in Serbia are still lagging behind EU standards, with just 19% of the economically active population having completed college or university against 30% in the EU. However, the share of those who completed this tertiary education and are unemployed (17%) is extremely high, when contrasted with Hungary (4.6%) or the EU average (6.3%). Illiteracy among over 10 year olds has fallen dramatically over the last 20 years, from 6.1% (1991) to 1.9%. Both the best rates (less than 1% illiteracy) and the worst (over 6%) can be found in Danube-Serbia, the latter in municipalities in Mačva, Braničevo and Bor. Serbia's 'reserve army' of labour appears well qualified at tertiary level for future jobs creation, but recent PISA results raise questions about the quality of education at primary and secondary levels.

Data on average monthly **income** shows that just seven cities and municipalities in Danube-Serbia have income levels above the national average (Belgrade, Bor, Majdanpek, Novi Sad, Pančevo, Požarevac and Vršac), most of which are completely or partly surrounded by municipalities that have less than 60% of the average income. The economic crisis and rising unemployment reversed the previous downward trend in absolute poverty, the proportion of people below the poverty line worsening from 6.1% (2008) to 9.2% (2010). According to the Survey on Income and Living Conditions, 24.6% of the population are at risk of poverty, putting Serbia at the bottom of the league table of 31 European countries for relative poverty in 2012. Unemployment and poverty has increased dependency on social welfare.

The **challenge** to building prosperity is to create the environment for Danube-Serbia's enterprises in priority industries to be competitive in export markets, employ local people in skilled and well-paid work, bring wealth into the region and thereby create multiplier effects for local businesses in non-tradable sectors. Industries are organised in value chains to bring products and services to market, from concept to customer, including design, production, marketing, distribution and aftercare. Global value chains (GVCs) are spread across many different firms and multiple locations worldwide, and are responsible for over 80% of the international trade in goods and services each year. GVCs are important, because they shape business choices about location and investment, and ultimately performance. Understanding the nature of GVCs in each priority industry is fundamental to designing measures best suited to those sectors, in order to maximise value in Danube-Serbia, generate exports and create jobs. This means industry-specific strategies.

Agri-food production

The agricultural sector contributes €4.5 billion to Serbia's economy and accounts for 25% of national **exports** (€2 billion), but is massively under-achieving given the quality of the land, increasing global demand for food products, and Serbia's free trade agreements with growing export markets. Danube-Serbia has over 2.5 million hectares of fertile arable land, around 50% of Serbia's total, of which just 75% is utilised. With the same resources as Danube-Serbia (1.9 million hectares), the Netherlands exports €75 billion of agri-food (including processing raw materials, imported through its ports). On average, the export value from each hectare in the old EU member states is more than \$6000, and from new EU members is \$2600 per hectare. By contrast, Serbia exports just \$302 per hectare on average. The two main reasons are Danube-Serbia's position in agri-food GVCs and poor organisation of land and producers.

The structure of agricultural production favours low margin products with little scope to add value. Danube-Serbia is mainly an exporter of **raw materials**, dominated by cereal production especially wheat and maize corn, accounting for 1.2 million hectares (64% of used agricultural land). Sugar beet, sunflowers and soya are important for export and offer better margins than cereals (especially after processing) and account for a further 320000 hectares (17%). However, this means almost three-quarters of the land is tied up in primary and semi-processed food materials.

Vegetables (138 000 hectares) and fruit production (78 000) have considerable **added value opportunities**, along with food ingredients, but provide insufficient volumes to meet export demands. Vegetable farming is one of the most profitable sectors but there are a large number of

small producers producing for own consumption; production and supply chains are not well organised in the region. Efforts are being made to increase fruit production. Livestock production has the highest value, but the national cattle herd and number of cattle farmers has been in constant decline. 'Intensive' livestock production (pigs and poultry) is well developed and vertically integrated, but meat and dairy production generally face strong competition from EU members.

Productivity is poor. Average yields are much lower than the EU, except for maize corn which is comparable. For example, potato production in the EU averages 51 tonnes per hectare, but ranges from 5.1 tonnes (Bor) to 21 tonnes (South Bačka) in Danube-Serbia. Land-holdings are small in Serbia (average 4.5 hectares), and range from 3.1 hectares (Belgrade) to 10 hectares (Central Banat) in Danube-Serbia, still well below the EU average level of 14 hectares. Over 425 000 hectares of arable land are state-owned. Improving average yields and taking-up unused land, there is scope to significantly increase current output for domestic and export markets. Changing the production structure toward highly profitable crops (fruits and vegetables, instead of cereals) can significantly raise revenues per unit area. Without reform, local producers will be increasingly exposed to more cost-effective competition, as Serbia moves to full market liberalisation through the EU accession process.

Agricultural extension **services** offer advice, information and training to farmers, but are not currently effective in promoting change. Research institutes deal with state-financed research projects, which are not market driven and connected with the needs of producers. Access to finance is needed to reorient the sector, but is both constrained and unpredictable which undermines long term planning and investment. Farm subsidies are not targeted on moving to higher value produce, rewarding productivity, and incentivising formation of cooperatives. Bumper harvests and hence exports in good years (eg 2013) mask both under-performance against potential and agri-food's vulnerability to weather conditions from cuts in flood defences and negligible irrigation.

There is insufficient **market analysis and access** to global agri-food buyers, reflected in a limited range of food products and lack of innovation, uneven quality of existing products in some sectors, and weak producer-processor relations. Inadequate export orientation results in constantly unfulfilled meat export quotas to the EU. Ironically, there is excess capacity in food processing capacities of around 50%. Currently, Serbian food products have access to markets of over 1 billion people on favourable trading terms. Some existing products have competitive price (wheat, corn), some quality (fruit), and for some there is a constant demand (sunflowers, sugar beet, soya). The focus, however, must be on moving toward the high value end of GVCs.

Automotive components

The automotive industry is gaining in importance in Serbia, with growth in outputs, exports and jobs, largely centred on **Fiat's** joint venture with the Government in Kragujevac. With around €1 billion invested in reorganising the plant and state-of-the-art production lines, Fiat has moved from imported kit assembly (2009) to full manufacture (2012 onwards) with maximum annual capacity of 200 000 units.

Fiat is at the top of the value chain, within a **highly competitive market**, especially the small car segment occupied by the Fiat 500L. There are currently nine major volume carmakers, including Fiat, that operate on a truly global basis, none of which has a totally dominant position in any market (North America, Japan, Western Europe etc). In the past 2-3 decades, carmakers have introduced lean production, total quality management and just-in-time techniques, as well as investing in innovation, in a continuous drive to improve efficiency, quality, reliability and features, and reduce inventories, costs and prices.

The industry also streamlined the **supply base** by introducing a system of 'tiers' as a pyramid structure, meaning that the carmaker only deals with a relatively small number of direct Tier-1 suppliers (usually modular systems), which source their components from Tier-2 suppliers, which in turn rely on Tier-3 for parts or processes (eg treatments) and so on. Tier-1 companies that gain 'preferred supplier' status with a carmaker enter a privileged world of information exchange and joint development, but must meet the highest quality and reliability standards, tight delivery schedules, invest in R&D, and achieve cost & price savings. These pressures are passed down the line to lower tier suppliers. Intense competition creates a dynamic environment, with incentives to perform within existing supply chains, and opportunities to compete to enter new ones.

With full volume manufacturing, it becomes attractive for suppliers (and essential for certain Tier-1 companies) to be **located** sufficiently close to Fiat's assembly plant to meet delivery requirements. The supply industry currently comprises about 150 registered companies, with annual turnover of more than €800 million and over 30 000 jobs. The epicentre is Kragujevac, but there are also major companies (usually Tiers 1 or 2) in Danube-Serbia, such as Germany's Bosch (Pečinci), DAD Dräxlmaier Automotive (Zrenjanin), Italy's Lames (Sremska Mitrovica) and France's Streit Jucit (Stara Pazova). Although these sites are 100-200km from Kragujevac, the distance is not considered as an obstacle for suppliers that are located on the Corridor X or close to the main highways. Some supply (only) to other vehicle makers in Central and Eastern Europe.

While Western European output has largely flat-lined over the last 12 years, Central and Eastern Europe (CEE) has received major investments to serve local markets and to establish a low unit cost export base. The **market outlook** suggests global car sales will increase annually by 3.6% on average to 2020, with developing markets accounting for 5.7% and developed markets for just 1.2%. The expectation is that the benefits will be overwhelmingly enjoyed by the producers located in the emerging car industries: CEE, India, South America, the ASEAN region and especially China. Turnover of Serbia's automotive industry has shown rapid growth, from €438 million in 2006 to €929 million in 2011, mostly from component sales. Given the uplift in Fiat production from 2012, this number should continue to surge upwards. Exports have accelerated substantially and are expected to expand by an impressive 25% year-on-year to €11 billion in 2013. Car exports alone will stand at between €1.5 billion and €2 billion.

At present, car output from Serbia, and to a lesser extent components manufacture, is heavily dependent on the prospects of Fiat and one model (500L). Fiat is a major global player, but has experienced mixed fortunes for several years now. In the short-medium term, output and revenue will grow rapidly, but in the **longer term**, it is important that Fiat is both competitive and increasingly

embedded in the economy through a strong components supply base and other facilities (training, R&D etc), and that componentmakers diversify at the same time into a range of GVCs.

This presents major **challenges** to continue attracting new investors, using the critical mass of supply opportunities not subsidies, and support existing / potential domestic suppliers. So far, Gomma Line in Kragujevac is the only Serbian manufacturer to have been incorporated into Fiat's local supplier chain as a Tier-2 supplier, but shows the potential with the right vision, leadership and focus on quality management, investment and seizing opportunities.

Information and communication technologies (ICT)

There are estimated to be around 2500 ICT companies, mostly located in Belgrade and Novi Sad, of which around 1700 have revenue of more than €10 000 a year. What is clear is that ICT is still small but **adynamic and rapidly growing industry** in response to expected double-digit growth in domestic markets and export opportunities, especially for IT services and software. The industry is characterised by rapid technological progress and interesting, well-paid job opportunities.

The ICT industry broadly breaks down into relatively few large **enterprises**, a substantial base of SMEs that are mainly micro-enterprises (around 1400 that employ fewer than 10 people) and a large number of freelancers. Serbia has successfully attracted global ICT firms that employ a local highly-qualified workforce, such as Cisco Systems, Motorola, Ericsson, Oracle, Google, Redhat, Hewlett Packard, SAP, IBM, Siemens, Intel, Telenor and Microsoft. However, just four IT enterprises would be classified as large (more than 250 employees). Leading Serbian firms include DMS Group, ComTrade Group, Execom and Euronet Worldwide, as well as Aseko SEE which operates in 12 countries.

IT enterprises in Serbia are **export-oriented**, collaborating with IT enterprises worldwide, providing high quality 'outsourcing' services to IT companies in US, Germany, Netherlands and elsewhere, or marketing their own products and services. The export of IT services and software has been growing strongly each year, reaching \$200 million in 2011, with IT services increasing their share of all service exports. A small number of Serbian enterprises work exclusively for foreign customers that typically use technologies and solutions for which there is no demand on the domestic market. Their products and services have higher added value and the profit they realise is much larger than the majority of their local competitors.

These enterprises offer the whole spectrum of IT services, but their penetration of global value chains is constrained by lack of **specialisation**, as they mainly develop products on a sub-contract basis. Opportunities exist for products with higher added value and export potential in web design and web applications development, stand alone and client-server (except web) software development, embedded software development, electronics / automation products, mobile & wireless applications development, and telecommunications networks.

Important obstacles for Serbian ICT enterprises are the lack of **intelligence on export markets** and access to foreign buyers. Contracts appear to emerge from *ad hoc* contacts, though international fairs, personal links through working abroad or other contacts, business-to-business (B2B) events, or the intervention of agencies and associations. Quality management and standards are becoming

increasingly important to meet client and partner expectations in export markets, and certification of Serbian origin for free trade agreement markets.

Freelancers are an important element of the outsourcing industry, which allows the contracting enterprises to have greater flexibility, to access the best staff on the market when required, and to reduce payroll and administration costs by hiring these temporary staff via a recruitment provider. Serbia still has an uncertain legal framework for freelancers and so they become part of the grey economy. The Ministry of Labour, Employment and Social Policy has prepared amendments to the Labour Law that will define freelancing for the first time.

The Danube-Serbia **higher education** system is the key strength of the industry, especially the technical faculties teaching ICT skills in Belgrade, Novi Sad and Zrenjanin. Around 2500 graduates can be expected to emerge each year with a high level of competence, although lacking workplace experience. In 2011, the Serbian IT industry employed 15000 highly skilled experts, out of which 86% completed a university level of education. In addition, it is estimated that almost 35000 ICT specialists work in the telecommunications sector, enterprises which are IT end-users, or the freelance ICT sector. Given the ICT industry's growth, Serbia's educational institutions face the challenge of attracting even more students and supplying more experts to the market. However, skill shortages and gaps are already becoming apparent.

The cooperation between ICT enterprises and education should extend to **R&D** projects with scientific-research institutions to strengthen the technological base of the industry. Serbian applicants have been relatively successful in bidding for state and EU funds, but the volume of research remains low. The 'centres of excellence' for R&D in ICT, which were established as a new concept in 2008 under the Law on Research Activities and number at least 72, are under-developed.

Serbia is in 87th position out of 144 countries in the World Economic Forum's 2013 Networked Readiness Index. Infrastructure and digital content scores relatively well (54th), but for Danube-Serbia's ICT sector to stay competitive, it is important that bandwidth, data transmission security and reliability keep pace with industry developments, which means investing in **fibre optic** cabling, or enabling access to the installed capacity of existing businesses, such as EPS, Serbia Telekom, NUBA Invest and AMRES, and innovative initiatives such as the City of Novi Sad's local network.

Structures and security

Institutional capacity and cooperation

The EUSDR priority on institutions mainly implies national-level responses, in terms of policy towards administrative structures and capacity, engagement with socio-economic partners and civil society, and government-to-government dialogue across borders. Most of these factors are not captured by data and analysis at the level of Danube-Serbia. Policy is determined at the **national or supra-national level**, for example the Public Administration Reform and e-Government strategies, the design of the SECO mechanism for consulting civil society organisations, and the structures for preparing and implementing cross-border programmes financed by the EU.

Within **Danube-Serbia** itself, the most relevant concerns for institutional cooperation are: coordination of ministerial interventions across central Government; the interaction of local and provincial government with ministries in specific fields; and the capacity to prepare projects to implement EUSDR pillars and priorities at all levels of the administration. Here, the most useful recent source is the SIDA-funded strategic evaluation of all international assistance on a sector basis from 2007 to 2011, which touches on these issues and was completed in May 2013.

Among the main **evaluation findings** from independent analysis (including SIGMA assessments), previous monitoring and evaluation, and international benchmarks (such as the Global Competitiveness Reports) was that Serbia's development is challenged by: weak coordination of policy planning and implementation; overlap of responsibilities or unclear responsibilities; the poor record of preparing and executing costed and timed implementation plans; a disconnect between central and municipal government and across local self-government that undermines the delivery of national policy objectives and the organisation of inter-municipal solutions; public expenditure management which is input-based, not outcome-oriented, and a public finance system which is focused on economy (spending controls), rather than effectiveness and efficiency (resource management to achieve objectives); a culture of bureaucracy which stifles rather than enables business through under-developed regulatory reform and impact assessment; and corruption which imposes extra and variable costs on citizens and businesses and thereby distorts decision-making.

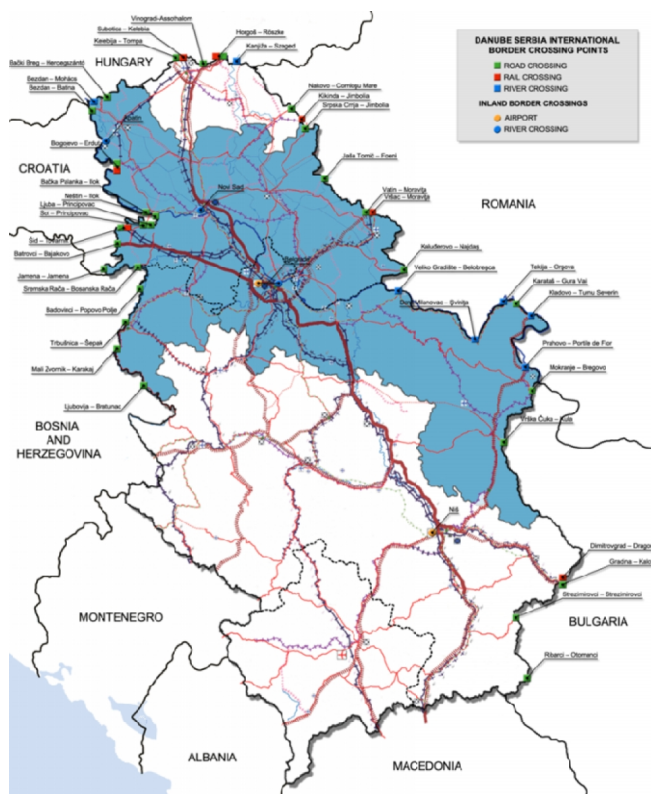
Against this backdrop, the top priority should be to empower the centre of Government, and specifically the General Secretariat working closely with the Ministry of Finance and SEIO, in taking forward **policy planning and coordination**: communicating Government's policy priorities; setting and enforcing standards; acting as a 'clearing house' to vet all strategies and legislation before approval for content; and ensuring that 'boundary disputes' between institutions do not get in the way of effective governance. This should have a 'ripple effect' on the performance of the public sector at all levels, including improving central-local coordination necessary for an orderly process of decentralisation, and is a prerequisite for successfully introducing programme budgeting from 2015.

Promoting security and tackling crime

Danube-Serbia is an EU border region, surrounded by new member States (Bulgaria, Croatia, Hungary and Romania), as well as Bosnia and Herzegovina. The main **threats to security** are illegal migration, drug trafficking, organised crime and human trafficking. The high-risk routes identified for illegal migration originate in Albania. Detection of illegal travellers has significantly increased at border crossing points from 2 797 (2010) to 10 217 (2011). Serbia is also a transit country for heroin which is produced in Afghanistan and smuggled via Turkey and the Balkans en route to the EU. The Serbian authorities have continued to be successful in breaking up criminal gangs and uncovered 22 new groups in 2011 alone, and have taken an active approach to tackling human trafficking, but the conviction rate is frustratingly low (only 15 out of 47 convicted traffickers served jail time in 2011).

Progress has been made with the physical construction of border crossing points, the training of personnel, and the modernisation of communication equipment. Much remains to be done to strengthen security on Danube-Serbia's borders. The border crossing points continue to need investment, particularly in the use of latest communication technologies and full staffing of trained personnel. The European Commission's 2012 Progress Report identified the need for greater **risk analysis** to predict and prepare for future border threats.

Border security **cooperation** is well developed. A series of agreements have been signed with the police of Croatia, Bulgaria and Romania, which commit the parties to participating in joint activities, including criminal data exchange and joint operational-investigative activities. The Serbian border police engage in joint border patrols with their Croatian, Hungarian and Bulgarian counterparts.



Border police, visa control, customs, phyto-sanitary and veterinary inspections within Serbia need to be fully coordinated to create a single intelligence-gathering system, and increase the speed and efficiency of border crossing to enhance exporting (waiting times mean perishable goods such as berries must be transported frozen, not fresh, reducing their export value). The World Bank's Logistics Performance Index ranked Serbia 137th out of 155 countries for timeliness in **trade facilitation** in 2010. Progress in reducing border waiting times for freight were achieved in the late 2000s, but the amount of time needed in 2010 at the Bulgaria, Croatia and Hungary crossings was still above the average 20 minute period for trucks entering the EU market via Poland, including more than 60 minutes at Gradina (Bulgaria). The establishment of Green Lines at Gradina in 2012 was a positive development, as it allowed simplified customs processing of TIR vehicles, but further steps are needed. The World Bank has calculated that investments to address institutional impediments at border crossings would have a greater impact on the operating speed of transit traffic for a modest cost than major investments in upgrading Corridor X rail infrastructure.

Future measures to realise Danube-Serbia's potential

The **vision** for Danube-Serbia is to become recognised as a global trading region within the context of Danube-Europe, with the major focus on export opportunities in agri-food, energy, automotive, ICT and tourism industries.

Critically, it is not enough for future success only to put in place the national framework of rule of law and efficient administration, although these are essential pre-conditions. Danube-Serbia requires

well-designed, technically and financially sustainable **interventions with a territorial focus** that deliver the development priorities of the four EUSDR pillars and maximise the synergies between them.

The following **measures** are intended to help Danube-Serbia reach its development potential, and thereby raise output, enhance productivity, increase exports, create rewarding jobs, improve living standards and share the benefits of prosperity across society and sustainably.²

0.1	Territorial marketing of Danube-Serbia within Danube-Europe
0.2	Piloting a Danube-Serbia Revolving Fund (DSRF)
1.1	Improving navigability of the Danube and the IWW network in Serbia
1.2	Completing the upgrading of TEN-T Corridor X
1.3	Ensuring connectivity of TEN-T to the regional economy and key sectors
1.4	Building air corridors for fresh Danube-Serbia produce
1.5	Investing in sustainable power generation capacity for export
1.6	Completing transportation infrastructure within the TEN-E corridors
1.7	Making better use of scarce energy resources
1.8	Destination marketing for Danube-Serbia
1.9	Renewing assets on the Danube
2.1	Exploring the feasibility of 'regional water management systems'
2.2	Rehabilitating the public water supply system and extending the network
2.3	Increasing urban wastewater collection and treatment in line with UWWTD
2.4	Actively managing flood risks and drought protection
2.5	Ensuring landfilling is a last resort for municipal waste
2.6	Tackling unsanitary and illegal dumping of municipal waste
2.7	Improving air quality in Danube-Serbia
3.1	Boosting productivity of agri-food for export
3.2	Securing agri-food finances and investment through the Novi Sad Commodity Exchange
3.3	'Intelligent' development of automotive suppliers
3.4	Supporting specialisation and expansion of the ICT sector
3.5	Tailoring economic development instruments to local industrial clusters
4.1	Full risk analysis and contingency strategies for Danube-Serbia's border crossing points
4.2	Further enhancing Danube-Serbia cross border cooperation
4.3	Introduction of a 'single window system' for trade facilitation at border crossings

Like the pillars which form an integrated whole, these measures should not be seen in isolation from each other. To achieve the objectives of EUSDR and the goal of export-led growth and job creation in Danube-Serbia, with the benefits reaching across society (especially into disadvantaged groups and communities), this demands fundamental and lasting change, with the priority industries as the focal points. It will be important in managing the implementation of measures that **synergies** are attained (such as linking agri-food with tourism), but also conflicts (such as the potential negative effects of industry, energy and transport on resource use and pollution) are anticipated and mitigated.

² Please note, the measures are not designed to cover every national and supra-national policy concern affecting Danube-Serbia, such as justice, administrative capacity-building, business environment, labour relations, managing protected areas, transport safety, tackling climate change, etc. The assumption is that these will continue to be taken forward under existing and new strategies, laws and instruments.

Action plan for priority industries

At the Danube Working Group meeting on 18 November 2013, it was agreed to focus the implementation of Danube-Serbia measures on the five priority industries, while also taking into account other important local industrial clusters and horizontal themes that apply across one or more industrial sectors.

The action plan overleaf presents detailed activities to take forward the 26 measures in three timeframes: immediate (up to 1 year), short-term (2014-2016) and medium-term (2017-2020). It also identifies the lead bodies and potential funding sources, drawn from national, provincial, municipal, EU or other donor finance as the first step towards identifying budgets and monitoring their progress and achievement. In the tables overleaf, 'national sources of financing' means national budget or/and IFI financing.

The action plan is not intended to cover every potential activity that might emerge from the measures, as some are dependent on future programming and others are linked to 'first round' actions (e.g. strategy preparation and adoption) and will be elaborated in the future. Therefore, the action plan will need to be reviewed and updated regularly, based on feedback.

As with the measures, these actions should be understood as a package. For example, to boost agri-food's export performance sustainably to EU levels and create jobs, it is important not only to engage in market intelligence and analysis in high growth target markets, but also to incentivise farmers to move production away from low margin crops and into high value produce, to improve access to investment finance, to help raise productivity with more effective advisory services, to extend irrigation and ensure flood protection, to improve transport of fresh produce and cool storage, and to speed up border crossings.

Agri-food

Vision: Danube-Serbia as the premier agri-food region for production and trading, closing the gap with EU levels of productivity and exports per hectare, by moving to larger, higher yield farms with higher margin produce and greater processing before export to Free Trade Agreement (FTA) countries.

Timescale	Action	Lead bodies	Potential funding sources
Immediate (up to 1 year)	Sign inter-governmental agreement with UAE on cooperation in the field of agriculture, agro-industry and construction of irrigation systems	GoS	-
	Sign loan agreement with UAE Development Fund for irrigation systems covering 24000 ha in Vojvodina & Mačva	GoS	UAE DF
	Convene 'Danube-Serbia Agri-Food Export Forum' with the Ministry of Economy, independent agriculture experts and business representatives to identify policy solutions to challenges identified in Danube-Serbia strategy for raising agri-food exports to EU levels, from average \$302 / ha (Serbia) to \$2600 / ha (new MS)	MAFWM	National
	Adopt Law on Commodity Exchange (to establish Commodity Exchange as a modern way to manage risk & trading for Serbian farmers)	GoS, Parliament	-
	Develop and adopt by-laws to Commodity Exchange Law by the Securities Commission (SC) and Novi Sad Commodity Exchange (NSCX)	MoTT, MoF, SC, NSCX	USAID
	Increase capacities of the public warehouse system and Indemnity Fund, move from paper based to e-warehouse receipts & further promote use of warehouse receipts as prime collateral for financing farmers & agri-businesses.	MAFWM	National / IPA
	Perform assessment of the possibilities for development of agri-zones in Danube-Serbia for future support	MRDLSG & MAFWM	National
	Ensure adequate flood protection budget for 2014 onwards (given 25% cut in flood defences in 2011-2012)	MoF	National
	Assess proposed flood protection projects for Mačva and Timok areas (€28m estimated value)	SEIO, MAFWM	Donor
	Prepare Danube-Serbia grant funding applications under EU's IPA 2013 project 'Prevention, preparedness and response to floods in the Western Balkans and Turkey' (€2m call for proposals scheduled for end 2013)	MAFWM, MoI	IPA
Short-term (2014-2016)	Prepare market intelligence reports of agri-food demand in target FTA & other markets, using embassies to gather data & establish networks, disseminate to agri-industry to promote production change (with financial incentives)	MoE, MFA	National
	Review and re-orientate agricultural subsidies to incentivise production in high value export products with processing potential (e.g. fresh fruits and vegetables) and away from low margin crops, and based on export market intelligence	MAFWM	National
	Introduce changes to agriculture extension (advisory) services for farmers and re-direct municipal agricultural funds to support new crops and production techniques in higher value, export-oriented food products, and identify all unused (state-owned) agricultural land that can be offered to exporters in high value products	MAFWM	National

	Form joint venture companies with Al-Dahra to operate 10 Serbian farm companies to grow and process food and fodder for export, in line with the inter-governmental agreement with UAE	MAFWM	Private sector
	Implement results of EU-funded 'Rural Development – Efficient Land Management' project, particularly the use of geographic information system (GIS) for better agricultural land management, through access to information on land parcels (area, owner, user or lessee, type of usage, crop culture and land characteristics)	MAFWM, RGA	National
	Prioritise Danube-Serbia municipalities as test-case examples under GIZ 'Strengthening Municipal Land Management in Serbia (2013-15)' project, to design and implement schemes for consolidating municipal-owned and privately-owned agricultural land to improve farm productivity	MAFWM, RGA	GIZ
	Support formation of Danube-Serbia producer and processor partnerships, including agriculture land-owning municipalities, to create sufficient volumes to compete in identified export markets	MAFWM, SCTM	National & municipal
	Implement licensing of commodity exchange brokers, investment advisors and portfolio managers	SC	National
	Launch awareness and education campaign for farmers to take advantage of CX for raising benefits and operation, including role of brokers	SC/NCSX	National
	Upgrade the IT system for trading commodities, provide training for (additional) staff, and promote the CX (branding, website and marketing) to farmers, agribusinesses and potential investors	MAFWM, MoTT, CX	USAID
	Develop Novi Sad - Čenej airport to enable freight transport of fresh produce	MoT / APV	EU/IFIs
	Prepare additional projects in Danube-Serbia for funding, such as major irrigation & flood management schemes, logistics centres (storage/cooling facilities), and development of Zrenjanin (Ečka) airport (existing feasibility study) to service specialised food export markets in low-volume, high-value products	MAFWM, MoT	National, donor, DSRF (<i>see also 'horizontal'</i>)
Medium-term (2017-2020)	Implement flood protection and other infrastructure projects with national and donor funding, potentially DSRF	SEIO, MAFWM	National, donors
	Expand irrigation projects until coverage of over 30% of Danube-Serbia agricultural land (canals or drip systems)	MAFWM	National, private
	Promote Novi Sad Commodity Exchange in BiH, Croatia, FYROM, Montenegro as regional CX, expand scope into more agricultural commodities (fruits, livestock), and increase scope and capacities of public warehousing system	MAFWM & MoE	National, USAID
	Identify and attract FDI opportunities to increase added value production in Danube-Serbia, particularly in food ingredients and to build agri-food processing centres around regional airports and Corridor X	MoE & MAFWM	National and EU
	Re-assign state funding from research in traditional low-value products (maize corn) to higher value products such as food ingredients or processed foods (e.g. Institute for Food Technology Belgrade, Institute of Field and Vegetable Crops Novi Sad), ensure research outputs are transferred to producers through extension services	MESTD, MoE, MAFWM	National
	Prepare long term development plan to address decline in livestock herds, and increase meat production for export markets by exploiting availability of feed stuffs (e.g. maize corn)	MAFWM	IPA
	Develop cross-border agreements between Danube-Serbia and other Danube-Europe agricultural municipalities (e.g. in south Hungary) to jointly supply export markets through combined production capacities	SEIO, MAFWM, SCTM	National, EU

Energy

Vision: Danube-Serbia as the heart of the energy sector achieving security of supply on a sustainable basis, reducing import dependence and becoming a substantial net exporter of electricity within the TEN-E corridors, while also meeting Serbia's international treaty obligations.

Timescale	Action	Lead bodies	Potential funding sources
Immediate (up to 1 year)	Complete new Energy Sector Development Strategy for 2015-2025/30	MEDEP	-
	Finalise procedure for signing the loan agreement for Kostolac B3 thermal power plant (TPP) & expanding capacity of Drmno mine	MEDEP	EXIM Bank
	Continue revitalisation of Djerdap 1 hydro-power plant (HPP)	MEDEP	EPS & Russian credit
	Perform gap assessments of proposed electricity generation projects in Danube-Serbia: Nikola Tesla B3 TPP, Djerdap 3 HPP, geothermal energy (Bogatić), combined heat and power (CHP) in Novi Sad (€2016.6m total estimated value)	SEIO, MEDEP	IPA
	Perform gap assessments of 11 proposed energy storage & transportation projects affecting Danube-Serbia, including Transbalkan electricity transmission corridor, petroleum product line system, crude oil storage, underground gas storage, and gas pipeline to Romania (€393.5m total estimated value)	SEIO, MEDEP	IPA
	Perform gap assessments on 12 proposed projects to reduce NOx and SO ₂ emissions from thermal power plants in Danube-Serbia (€116m total estimated value)	SEIO, MEDEP, EPS	IPA
	Tender and commence South Stream gas pipeline construction	MEDEP	Gazprom/Srbijagas
Short-term (2014-2016)	Commence construction of Kostolac B3 TPP	MEDEP	EXIM Bank
	Complete South Stream gas pipeline construction (2016)	MEDEP	Gazprom/Srbijagas
	Continue revitalisation of Djerdap 1 hydro-power plant (HPP)	MEDEP	EPS & Russian credit
	Prepare project documentation for selected energy infrastructure projects for financing & tendering	SEIO, MEDEP	IPA/National
	Identify further investment projects and funding sources for electricity generation in Danube-Serbia using renewable sources and biomass, in line with Energy Sector Development Strategy	MEDEP	Private / national / donors (DSRF?)
	Implement IPA 2012 project with comprehensive survey of energy consumption in residential, agricultural, commercial & public services, transport & industry	MEDEP	IPA / national
	Launch Energy Efficiency Fund to finance energy efficiency projects	MEDEP	National
	Implement German loans (phase 4) to medium-sized municipalities for district heating projects	MEDEP	Germany (KfW)
	Introduce 'Energy Management System' for large and public consumers and in municipalities of over 20 000 residents	MEDEP	National

	Implementation of 2nd National Action Plan for Energy Efficiency (2013-2015) and Law on Rational Use of Energy (energy labelling and other requirements)	MEDEP & other institutions	National
Medium-term (2017-2020)	Complete revitalisation of Djerdap 1 HPP (2018)	MEDEP	EPS / Russia
	Complete construction of Kostolac B3 TPP (2019)	MEDEP	EXIM Bank
	Tender and construct electricity generation, energy storage & transportation, and air quality infrastructure projects selected for financing	SEIO, MEDEP	National/IPA

Automotive

Vision: Danube-Serbia as a recognised automotive region which supplies Fiat and Tier 1 suppliers in Kragujevac, exports components to Danube-Europe and FTA countries, and attracts further investment through the quality of its supply base, innovation and skilled labour force.

Timescale	Action	Lead bodies	Potential funding sources
Immediate (up to 1 year)	Produce a comprehensive survey & analysis of the automotive supplier base (location, products, processes, customers, standards), including <i>potential</i> suppliers in Tier 2 and below, their business development & infrastructure needs	MoE, Automotive Cluster of Serbia	National / donor
	Use the 2014 National Employment Action Plan to incentivise Local Employment Councils in local economies with automotive sectors to tailor their active labour market measures to the needs of component suppliers for skilled labour where appropriate, depending on available co-financing at the local level	MLESP, NES	National & municipal
Short-term (2014-2016)	Design a supplier development programme for existing and potential local suppliers, including lean production, continuous improvement, achieving quality management standard (TS16949) & environmental management standards (EMS / ISO14001)	MoE, Automotive Cluster of Serbia	National / donor
	Identify and implement innovative solutions to channelling sources of finance to suppliers (eg 'meet the funders' events, new credit lines for private development, export credit guarantees)	MoE	National, IFIs
	Explore creating an offshoot of the Automotive Training Centre of Central Serbia (ATC) in Vojvodina to train up unemployed workers for automotive engineering (possible expansion of Education Centre for Training in Professional and Work Skills in Novi Sad)	APV	Provincial
	Use national and donor innovation grant schemes to incentivise scientific-research institutions (eg Faculty of Technical Sciences, Novi Sad) to develop R&D and technology transfer projects with automotive companies, including bids for EU's Horizon 2020	MESTD, MoE	National / EU
	Creation of new school/academic programmes in engineering skills adapted to the needs of the industry	MESTD	National, donor municipal

Medium-term (2017-2020)	Implement the supplier development programme, customised to the needs of individual automotive companies	MoE, Automotive Cluster of Serbia	National
	Target further FDI in vehicle manufacture and Tier 1/2 component suppliers based on strength of supplier base, qualified labour, better transport network (Corridor X and 'XI'), and access to FTA markets (including Russia for components, Turkey, EU neighbourhood) rather than job subsidies	MoE	National
	Implement R&D projects financed by State budget and Horizon 2020	Businesses & researchers	National, EU
	Strengthen conformity assessment infrastructure to register products for export against international quality standards	MoE	National, donor

Information and communication technologies (ICT)

Vision: Establishing Danube-Serbia as the regional centre for ICT by increasing investment in education and innovation, reinforcing the region's growing reputation for 'outsourcing' from export markets, while moving up the value chain with locally-owned products and intellectual property (specialisation).

Timescale	Action	Lead bodies	Potential funding sources
Immediate (up to 1 year)	Ensure the new Labour Law clarifies and regulates the status of freelancers, so that self-employed IT professionals have an alternative to operating in the informal economy	MoE / MLESP	-
	Convene a regular 'Danube-Serbia ICT Dialogue', bringing together Government representatives, the main ICT cluster organisations (VOICT, ICT Net), business reps (FIC, SCC), leading investors and HE faculties to identify bottlenecks to industry growth and agree policy solutions	MESTD, MoE, MoCI, MLESP	-
	Implement the Government's IT Strategy, prepare a financial plan & entry conditions for Science and Technology Parks at Zvezdara and Novi Sad as incubators (taking into account private facilities, eg Indija IT Park), to enable freelancers, graduates and other entrepreneurs to set up ICT companies & specialise	MESTD	Donor
	Implement the IT Strategy & Action Plan's provisions for economic advisers in Serbian embassies gathering export market intelligence, arranging B2B meetings, public calls for export marketing grants etc	MoE, MCI, AOFI	National
	Implement the IT Strategy's provisions for increasing student numbers for IT in higher education, and ensuring IT is introduced & updated at all levels from primary onwards, with strong education-industry links	MESTD, MoE (with industry reps)	National
	Use the 2014 National Employment Action Plan to incentivise Local Employment Councils in Danube-Serbia (and elsewhere) to tailor their active labour market measures to the industry's needs where appropriate, depending on available co-financing at the local level	MLESP / NES	National & municipal
	In line with the IT Strategy & Action Plan, adjust the legal framework to facilitate e-commerce	Various LMs	-

Short-term (2014-2016)	Implement business plan to utilise Science and Technology Parks at Zvezdara and Novi Sad as incubators	MESTD	National
	Use national and donor innovation grant schemes to incentivise academics to develop R&D and technology transfer projects with IT companies, including bids for EU's Horizon 2020	MESTD, MoE	National / EU
	Strengthen capabilities of certification & accreditation agencies with a web-based platform for certifying IT products as Serbian origin for export purposes	MoE	Donor?
	Review the coverage of public and private fibre optic networks (EPS, AMRES, NUBA Invest, Targo Telekom, City of Novi Sad) and produce a plan for ensuring infrastructure is put in place to meet ICT industry's needs	MCI, MoE, MESTD, MEDEP	National / donor?
Medium-term (2017-2020)	Expand trade fairs, events and conferences to put Danube-Serbia 'on the map' for ICT (<i>see business tourism</i>)	MoE / industry	National/private
	Implement R&D projects financed by State budget and Horizon 2020	Businesses & researchers	National / EU
	Develop the 72+ Centres of Excellence (CoEs) for IT, in line with the Law on Research Activities, as leaders of R&D activities in Danube-Serbia	Businesses & researchers	National / EU
	Implement plan for ensuring industry access to fibre optic network	MCI, MoE	National, donor

Tourism

Vision: Increase visitor numbers substantially to Danube-Serbia, especially foreign visitors as export business, maximising revenue and jobs by improving the offer and experience in city breaks, events, business, nautical and special interest / rural tourism, in line with World Tourism & Travel Council recommendations.

Timescale	Action	Lead bodies	Potential funding sources
Immediate (up to 1 year)	Facilitate a 'Visit Danube-Serbia Forum' (Ministry of Economy, National Tourism Organisation, SCTM and private tourism operators) to design new initiatives and respond to challenges in the Danube-Serbia study	MoE	National
	Prepare and start to implement destination marketing strategy (strategic marketing plan as per Law on Tourism) based on positioning within Danube-Europe (Budapest, Vienna, etc), creative packaging of tourist-centred experiences (eg city breaks + cultural events, river + rural tourism, river / natural attractions + active holiday, rural tourism + gastronomy/wine, etc) to maximise the length of stay & visitor spending, upgrading www.danube.travel portal & linking to social media tools / mobile apps, and using all available marketing & communication channels (Serbia Convention Bureau, ICCA, Danube in ITB Berlin, promotion on other relevant tourism fairs and stand-alone events, etc)	SEIO	IPA (SEDDSR)

	Identify potential tourism infrastructure for project preparation for national & donor funding, including development of ports, landing points, marinas and surrounding attractions (such as Bogojevo, Bačka Palanka, Novi Sad, Smederevo, Prahovo, Požarevac and Viminacium, Golubac, Donji Milanovac, Kladovo) and other sites & activities, such as the Cultural Route of Roman Emperors, Danube medieval fortresses and new culture classes with respective creativity, design, music and sport events	SEIO, MoE	National / donor
	Develop proposals for skills development in hospitality training and tourism services for Danube-Serbia	MoE/MESTD/ MLESP	CBC/TNP/ donor
Short-term (2014-2016)	Implement Danube-Serbia marketing strategy, including establishing a Danube-Serbia “quality mark” or Danube labels for example sustainability index, green technology index etc. together with development of branding iconography related to individual products, and logo for hotels, restaurants, attractions, tourism operators and local products meeting defined standards	MoE & partners	National / donor
	Prepare project documentation for selected projects for financing & tendering	SEIO, MEDEP	National/IPA
	Complete the rehabilitation of Golubac fortress	SEIO	IPA (SEDDSR)
	Launch a grant scheme for upgrading tourist sites (renewal, signage & promotion) and facilities (rural accommodation, restaurants, etc), including support to introduce online booking & payment	MoE	National / IFI
	Introduce system of measurement based on Tourism Satellite Account (TSA) and statistics research (qualitative and quantitative), conduct survey on third markets, as well as European market (the possibility of promoting active holiday tours such as cycling corridor Eurovelo 6 combined with nautical tourism, etc) and maintain the integrity of the Danube-Serbia brand	NTOS	National / donor
Medium-term (2017-2020)	Develop new international events (such as an annual ‘Danube-Europe Hunting and Fishing festival’, based on expanding the annual ‘Lorist’ fair held in Novi Sad), and especially business tourism events for priority industries (agri-food, automotive, ICT) to enhance their profiles and build on momentum in rest of action plan	MoE	National
	Revitalisation and rehabilitation of cultural heritage on the Danube in general and the process of building up the position of these sites (Vinca, Trajanova tabla, Bač etc.) in function of tourism marketing	MoCI/NTOS	National / donor
	Attract new tourism and leisure FDI, based on Danube-Serbia vision, packages and growing visitor numbers, and produce a ‘White Book’ on how to improve business environment in tourism sector, based on customer behaviour and image analysis	MoE	National
	Create partnerships with other Danube-Europe destinations & offer integrated packages to the market	MoE/SEIO	National
	Exploit international connections (such as the Etihad alliance with Air Serbia to increase visits from Middle East) and other historic links with non-aligned states (e.g. India) to promote Danube-Serbia. While promoting the Danube in these markets, the focus would be on city breaks (led by Belgrade & Novi Sad) with respective events/festivals being held in these cities with possibility of 1-2 day excursions to the countryside along the Danube (eg national parks, wine routes, cultural and historical heritage, fishing/sailing). The focus should also be directed to the large markets that have trend of tourism expansion on European market (such as China, Russia, Brazil) and enhance regional cooperation to provide international positioning and connections	GoS/MFA	National

Tender and construct selected tourism-related infrastructure projects in Danube-Serbia

MoE

National / donor

Horizontal themes

Vision: Tackling common obstacles to exporting and job creation in Danube-Serbia's priority industries and other local clusters (*metals mining, mechanical & electrical engineering, pharmaceuticals, clothing & textiles, wood processing & furniture*): access to investors and buyers, leveraging private finance, transport bottlenecks, lack of environmental infrastructure, and slow border crossings, as well as development and enhancement of institutional capacities to contribute to economic growth.

Timescale	Theme	Action	Lead bodies	Funding source	
Immediate (up to 1 year)	Territorial marketing	Produce 'brand image' for Danube-Serbia (including trademarked logo and registered website) and associated territorial marketing strategy (<i>see also tourism</i>)	SEIO/TOS	IPA (SEDDSR)	
		Identify 'Danube business ambassadors' to promote Danube-Serbia to investors, buyers and media (eg FIC, Chamber, major companies), under leadership of high-profile GoS-appointed 'champion'	GoS	-	
	Danube-Serbia Revolving Fund	Prepare a feasibility study and business plan which can be put to Cabinet for discussion and decision on DSRF as special investment vehicle for infrastructure & business development	SEIO	Bilateral (USAID?)	
	Transport	Perform gapassessments on 14 proposed Corridor X road and rail, Corridor 'XI' road and other strategically important road connections affecting Danube-Serbia, two projects to remove critical sections on Danube (Corridor VII) and Sava rivers and one inter-modal terminal project (€48101.7m total estimated value)		SEIO, MoT	IPA
			Complete construction of Žeželj Bridge (Corridor VII bottleneck & Corridor X road and rail)	MoT	IPA & national
			Completion of Novi Sad bypass (Corridor X road)	Roads of Serbia	EIB
			Adopt General Urban Plan for Batajnica to enable tendering for intermodal terminal to proceed	City of Belgrade	-
	Environment	Complete review / revision of national Waste Management Strategy, and produce Directive Specific Implementation Plan (<i>may lead to additional actions in short- and medium-terms</i>)		MEDEP	-
			Complete & adopt Water Management Strategy, in line with Environmental Approximation Strategy proposing water only / inter-municipal PUCs (<i>may lead to additional actions</i>)	MAFWM	-
			Perform assessments on 8 wastewater and 12 waste management and remediation projects in Danube-Serbia proposed for donor financing (€410.91m total estimated value)	SEIO, MAFWM, MEDEP	IPA & national

Industrial development		Perform assessments on 7 proposed business infrastructure projects in Danube-Serbia according to the methodology for prioritisation of infrastructure projects	SEIO,MRDLSG	IPA & national
		Perform detailed assessments of the situation and state of business-related infrastructure (BRI) in the remaining local self-government units (LSUs) foreseen for development of industrial zones according to the Spatial Plan of the Republic of Serbia (2010-2020) and identification of priority projects for future funding (<i>there are 56 LSUs in Danube-Serbia proposed as the location for industrial zones according to the Spatial Plan</i>)	MRDLSG	National
		Drafting of the national legal, strategic and institutional framework for development of BRI	MRDLSG/other line ministries & organisations	National/donor
Border management		Carry out a long-term risk analysis of Danube-Serbia border crossing points, identify emerging threats from illegal migration, human trafficking and criminal smuggling, and develop contingency plans that balance security with facilitating trade and exports	MoI	National/IPA
		Prepare funding proposal for design and implementation of a 'Danube-Serbia Single Window System' to allow exporters to submit documents (customs declarations, export permits applications and trading invoices) in electronic form to a single location / entity	MoI, MAFWM MoE	IPA & national
		Implement outputs of the IPA 2007 River Information System (RIS) project & prepare funding proposals to further integrate Serbia's RIS with other Danube-Europe RIS (Austria-DORIS, Hungary-DaTRAM, Croatia-CRORIS & Romania-RoRIS) to facilitate trade & exports along Corridor VII & within the wider trading framework of pan-European IRIS plan from North Sea to Black Sea.	MoI, MAFWM MoE, MoT Directorate for Inland Waterways	IPA
Short-term (2014-2016)	Territorial marketing	Implement territorial marketing strategy, using all available channels and stratified along lines of priority industries (agri-food etc) and other local clusters (metals mining, pharmaceuticals etc)	GoS	National
	Danube-Serbia Revolving Fund	Assuming DSRF is approved to proceed, employ advisers to prepare structure of investment vehicle, identify investors / IFIs and produce investment prospectus	SEIO	National / donor (USAID?)
	Transport	Complete rehabilitation of old Beška Bridge (Corridor X road)	Roads of Serbia	EIB
		Completion of Batajnica interchange on Belgrade bypass (Corridor X road)	Roads of Serbia	EIB
		Programme international assistance to prepare documentation for removing the remaining critical sections (bottlenecks) on the Danube, and completing Corridor X road & rail	SEIO, MoT	IPA / national
	Support Al Dahra in taking over a port on the Danube as a logistics centre for exports of agricultural products from Serbia, in line with Memorandum of Cooperation with UAE	MoT / MoE	????	

		Perform diagnostic analysis & forecasts of connectivity (traffic flows, capacity, speeds & bottlenecks) of economic centres with export focus to Corridors VII, X and 'XI' through urban and rural transport networks, and prepare plans, including multi-modal linkages, to determine future priority investments (including logistics centres & ports development)	MoT	National / donor
Environment		Construct public water supply network (treatment and collection) in Veliko Gradište	SEIO	IPA (SEDDSR)
		Sample waste streams in all municipalities on a monthly basis for 1 year, so that regional waste management plans are based on more realistic assumptions and their future regional centres are financially viable & sustainable	MEDEP	National, municipal, bilateral?
		Programme international assistance to prepare documentation for wastewater, waste management and remediation projects	SEIO, MAFWM, MEDEP	IPA & national
Industrial development		Programme international assistance to prepare documentation for business infrastructure projects and development of pipeline of strategic projects	SEIO, MRDLSG	IPA & national
		Tender and construct business infrastructure projects selected for donor financing	SEIO, MRDLSG	IPA & national
		Strengthen the capacities and support municipalities and regional development agencies to identify, select, prepare, implement & monitoring strategic and sustainable projects for development of BRI, and to cooperate with each other and socio-economic partners and investigate the growth prospects of local export-oriented clusters, constraints on development, and design tailored initiatives (admin reforms, LEAPs, project preparation, business infrastructure, VET etc)	MRDLSG, municipalities, and other relevant ministries and institutions	Municipal, IPA & donor
Border management		Implement the electronic 'Single Window System' project to reduce delays with border crossing documentation and roll system out to all Danube Serbia Crossing Points.	Mol, MAFWM MoE	IPA
		Implement IPA 2007 project and further integrate the RIS system in Serbia with other Danube Europe systems (Austria-DORIS; Hungary-DaTRAM; Croatia-CRORIS; and Romania-RoRIS) to facilitate trade and exports	Mol, MAFWM MoE	IPA
		Equip border policy stations and river police stations along the Danube in Serbia particularly with new telecommunications	Mol	IPA
Medium-term (2017-2020)	Territorial marketing	Continue to implement the strategy & build momentum within the frame of Danube-Europe, reaching out to other Danube regions for appropriate joint initiatives (eg in agri-food, tourism)	GoS	National
	Danube-Serbia Revolving Fund	Launch DSRF to finance infrastructure projects with revenue streams (eg water, waste) and export-oriented business expansion projects in agri-food & other priority industries (eg producer/processor business plans, irrigation schemes, freight refitting of local airports)	DSRF	National, donors / IFIs, private finance
	Transport	Tender and construct transport infrastructure projects selected for donor financing	SEIO, MoT	IPA & national
	Environment	Tender and construct wastewater, waste management and remediation projects selected for donor financing	SEIO, MAFWM, MEDEP	IPA & national

Industrial development	Tender and construct business infrastructure projects selected for donor financing and further preparation of project pipeline	SEIO, MRDLSG	IPA & national
	Identify, prepare and implement strategic local and inter-municipal programmes to encourage investment, start-ups, exporting and job creation	MRDLSG, municipalities	Municipal, IPA & donor
Border management	Within the frame of ‘Cooperation Southeast Danube Region’ (initiated by Bavaria Police), develop compatible systems with other Danube-Europe police forces to track & monitor river vessel traffic	Mol	IPA & national
	Increase the number of joint customs on border crossing points to improve security while reducing the administrative burden & waiting times for passenger and freight traffic, by sharing facilities with Croatia, Romania & Bulgaria, with border locations on the same platform	Mol	IPA & national
	Develop procedures to allow customs officials & border guards to perform the other agency’s primary controls, leading the way for cross-designation and delegation of powers with contingency plans for emergencies or increased traffic flows	Mol	IPA & national
	Establish an integrated database within the River Information Services, which would contain data on legal entities, vessels and persons information on the movement of vessels, cargo and passengers to reduce criminal activities such as smuggling and/or people trafficking	Mol/MoT Directorate for Inland Waterways	IPA & national

Legend:

ALMPs	Active labour market policies	IPA	Instrument for Pre-Accession Assistance	MoTT	Ministry of Trade and Telecommunications
AOFI	Agency	KfW	Kreditanstalt für Wiederaufbau	MRDLSG	Ministry of Regional Development & Local Self-Government
APV	Autonomous Province of Vojvodina	LEAP	Local Employment Action Plan	MS	Member State
CBC	Cross Border Cooperation	LMs	Line Ministries	NBS	National Bank of Serbia
DSRF	Danube-Serbia Revolving Fund	MAFWM	Ministry of Agriculture, Forestry & Water Management	NES	National Employment Service
GoS	Government of Serbia	MEDEP	Ministry of Energy, Development & Environmental Protection	NSCX	Novi Sad Commodity Exchange
GIZ	Gesellschaft für Internationale Zusammenarbeit	MESTD	Ministry of Education, Science & Technological Development	NTOS	National Tourism Organisation of Serbia
EIB	European Investment Bank	MFA	Ministry of Foreign Affairs	RGA	Republic Geodetic Authority
EPS	Electric Power of Serbia	MLESP	Ministry of Labour, Employment & Social Policy	SC	Securities Commission
EU	European Union	MoCI	Ministry of Culture and Information	SEDDSR	“Socio-economic development of Danube Serbia region”
FTA	Free trade agreement	MoE	Ministry of Economy	SEIO	Serbian European Integration Office
ICCA	International Congress & Convention Association	Mol	Ministry of Interior	TNP	Transnational Programme
IFI	International financial institution	MoT	Ministry of Transport	USAID	US Agency for International Development