Roadmap

• **Connectivity**
  • Why connectivity?
  • Export product space analysis
  • Infrastructure connectivity (transport, energy and ICT)
  • Learning from others

• **Policy recommendations**
Why connectivity?

- Access to international trade and international capital markets
- Benefits from globalized pool of information, knowledge, and ideas

- Montenegro has one of the lowest goods export-to-GDP ratios in the world (11 percent)
- With services included, the export ratio still averages only about 35 percent for 2007–12.
- More prosperous small countries have much higher ratios than this -- Slovenia 68%, Estonia 78%, and Malta 85%. 
Export product space analysis

Merchandise exports are highly concentrated on metal products.

Concentration of Montenegro’s Exports, 2006-12

Source: Osorio-Roddarte and Bogetić (2012).
Low technological content of the merchandise exports compared to other small countries

Merchandise Exports by Technological Content, 2006-11

Source: Osorio-Roddarte and Bogetić (2012).
Existing merchandise exports have relatively little income potential

A Dearth of Income-Enhancing Products

Source: Osorio-Roddarte and Bogetić (2012).
Montenegro’s Position in the Product Space

• Comparative advantage lies in the core of the product space:
  - Agriculture, food processing, transport/logistics services, ICT (new)
  - Tourism, wine, energy (existing)

• Existing export products lie in the periphery of the product space suggesting competitiveness problems
Infrastructure connectivity

Transport infrastructure is especially central to Montenegro’s regional integration

Montenegro's Scores in the Infrastructure Pillar

Energy sector is extremely dependent on imported power...

Electricity Balance, 2003–11

...and the crisis interrupted growing electricity imports

Electricity Imports and Exports, 2003–11

Source: MONSTAT.
Average Electricity Price for Residential Customers

Note: France and Hungary do not have 2011 estimates. 2010 prices are used instead.

Source: Energy Regulatory Agency of Republic of Montenegro.
...much higher electricity prices for commercial customers

Source: Zametica (2010).
ICT, broadband technology in particular, drive economic growth

- On average, a 10-percent increase in broadband penetration can over the longer term lead to 1.21-1.38 pp increase in GDP (World Bank).
- Internet helped create 2.6 jobs for every job destroyed (McKinsey Institute).
- Annual growth of the mobile broadband penetration rate in Montenegro reached 10.4 percent surpassing the EU-27 average of 8.1 percent; however, when compared regionally there is still a room for improvements.

Source: TeleGeography GlobalComms
Broadband infrastructure is one of the weakest chains of the ICT market development in Montenegro

- Connections with download speeds below 2 Mbps still prevail
- The market was liberalized, yet fixed broadband competition remains weak (80 percent of all broadband connections supplied over main operator’s network);
- There is a lack of Local Loop Unbundling in practice; the number of ISPs remains among the lowest in the Balkans; and the country lacks an Internet Exchange Point.

In EU-27 only 8.9% of all connections were only above 144 Kbps - 2 Mbps as for July, 2011.
# Learning from Others

<table>
<thead>
<tr>
<th>Country</th>
<th>Key Feature</th>
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<tr>
<td>Lithuania</td>
<td>Broadband connectivity</td>
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<td>Estonia</td>
<td>Connectivity in general following transition to a market economy</td>
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<td>Slovenia</td>
<td>Transportation infrastructure</td>
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<td>Israel</td>
<td>Small country that mobilizes human capital, technical skills, and links with business and multinational firms to better connect with the world markets</td>
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<td>Ireland</td>
<td>Small country with few resources making itself highly attractive for doing business, innovation, and investment</td>
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<tr>
<td>Finland</td>
<td>Top-notch education and links with the private sector</td>
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<td>Switzerland</td>
<td>Rail transportation</td>
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Policy Recommendations

Export expansion and diversification

- Promote exports and FDIs with export content
- Dismantle nontariff barriers and promote export certifications of MN firms
- Encourage banks for greater access to credit for exports
- Align education system with the skills and knowledge that the private sector demands
- Actively seek multinational firms to open regional base

Infrastructure connectivity – Energy

- Move the tariff structure toward cost recovery and rebalance tariffs to reduce cross-subsidization
- Accelerate tenders on small and mini-hydro power plants and remove constraints to entry and competition into the solar and wind sectors
- Strengthen links with regional energy markets and accelerate the undersea cable to Italy
# Policy Recommendations

## Infrastructure connectivity – Transport

- Enhance quality of the existing network and improve maintenance (road safety and rural connectivity) rather than making new investments.
- Explore financing sources to expand transport infrastructure (EU grant funding, concessions, PPPs, etc).
- Continue improving rail transportation by attracting foreign investments, and consider connecting the airport by rail to the Bar-Belgrade main rail line.

## Infrastructure connectivity – ICT

- Action plan to jump-start cloud computing and encourage the creation of an ICT innovation ecosystem based on open data.
- Strengthen the telecom regulatory body and promote competition in the sector.
- Bridge broadband differences between rural and urban areas.
- Strengthen the skills development policy to equip the talent pool with skills for an ICT-enabled economy.
- Establish a full-scale open data initiative as part of the Open Government Partnership action plan.