EBRD Regional Electronic Communications Conference, Amman, Jordan, 26th-27th September 2012

Conference background

Since the foundation of the EBRD in 1991, the electronic communication sector has been a key constituent of its portfolio. As both a significant investor and provider of technical assistance in the sector, the EBRD is an avid observer of the status and development of the electronic communications markets throughout its countries of operation. On the investment side, the EBRD assesses the legal and regulatory risks inherent in each country. While on the reform side, the Bank measures the effectiveness of its technical co-operation programmes and uses this to plan its technical cooperation efforts in the future.

The Bank last completed an assessment of the electronic communications sector in its countries of operations in 2008, leading to the publication of its December 2008 report “Comparative Assessment of the Telecommunications Sector in the Transition Economies”. This was presented at the 1st EBRD Regional conference in Tbilisi, Georgia in May 2009. For its 2012 Assessment, presented at the Amman conference in September 2012, four new countries have been added - Egypt, Jordan, Morocco and Tunisia - the four newest potential recipient countries of EBRD. This Amman Conference was hosted jointly with Jordan’s Telecommunications Regulatory Commission (TRC).

The 31 countries of this 2012 EBRD assessment are Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Croatia, Egypt, Estonia, FYR Macedonia, Georgia, Hungary, Jordan, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Moldova, Mongolia, Montenegro, Morocco, Poland, Romania, Russia, Serbia, Slovak Republic, Slovenia, Tajikistan, Tunisia, Turkey, Turkmenistan and Ukraine.

Conference proceedings

The conference presentations and accompanying report provide a comprehensive analysis and assessment of the level of compliance of the electronic communications legal and regulatory regime in each of EBRD’s countries. The comparative assessment is based upon relevant benchmarks, including the WTO reference paper and the implementation of the EU legal and regulatory frame framework for electronic communications. The results are intended to assist investors in judging the legal and regulatory risks associated with the electronic communications markets in each of the 31 countries.

A key feature of the conference was a set of discussions involving panels of experts from the sector within the countries assessed. Each panel followed presentations and case studies by sector experts on each issue. Six panel discussions were held during the conference, where the key issues facing existing and new investors in the electronic communications market were debated. All the participants to the conference were involved through questioning of the panels. Representatives from sector regulators, ministries, investors and operators from a number of countries participated in each of the panels in order to ensure the many perspectives on each issue were addressed.

The six panel discussions highlighted key challenges facing the sector, specifically:

- Why invest in the sector?
- What are the barriers to investment
- How is broadband demand best satisfied?
- Optimisation of infrastructure investment?
- How is spectrum management optimised?
- What are the required policy and regulatory responses?

A further key objective of the EBRD conference was to provide a venue for sector ministries, regulators and investors from these important regions to meet informally to discuss and compare progress and solutions to address sector challenges and attract further investment.

Who attended the conference?

Representatives from the sector in each country were invited to attend, including investors in the sector, plus the responsible ministries and regulatory agencies in each country. In addition representatives from

the EBRD and the European Commission attended plus international consultants Premiere Dynamics, Great Village International Consultants and Cullen International plus other sector specialists. A total of 84 persons attended from 24 countries.

Date and venue
The conference took place at the Amman Marriott Hotel, Jordan on 26th and 27th September 2012.

Summary of the conference and panel discussions

Why invest in the electronic communications sector?

The first panel focused on the changing demand profile for services within the sector. Market demand is characterised by a decline in traditional voice services and the now significant growth in data services. Data growth is driven by broadband-enabled services including higher speed internet access, mobile broadband growth using smartphones, the explosion of social networking, the growth of digital broadcasting and interactive video services.

Customer demand for fixed broadband connections has started to replace traditional fixed network services in many countries, especially where there are competitive retail offerings including “multiple play” broadband bundles. Multiple play service bundles allow consumers to access voice, internet and broadcast services flexibly and within a transparent pricing structure. Mobile broadband is experiencing particularly high demand, adding significantly to data traffic growth. The overall growth picture is driven not just by the rapid addition of new fixed and mobile broadband subscribers, but also by their use of substantially higher data speeds to support the vast array of new internet-based applications. 8Mbps is already seen as a basic service offering and many consumers now demand very high speed services from 30Mbps to 100Mbps.

The presentation on “Investor perspectives” by Dr Gary Healy (Telefónica Ireland) showed how the competitive market is achieving results, even in a challenging macro-economic environment. He also illustrated how good co-ordination at all levels of policy, regulation and local government can work to provide modern competitive broadband services to rural areas. In particular, Dr Healy highlighted how policy, legislative and regulatory measures can reduce the cost of rolling out national broadband infrastructure. These measures include:

- Development of a national infrastructure database available to existing and new operators.
- Easier procedures to obtain rights of way.
- Requirements for infrastructure access and sharing to avoid duplicative investments.
- Standardisation of technologies and more flexible market-based management of spectrum.

The overall macro-economic climate is still uncertain, with economic and political stability affecting the overall investment climate generally. During the last decade, the electronic communications sector has become saturated with high penetration levels of mobile voice services compensating for the historically limited penetration of basic fixed lines, particularly in transitional economies. The market is now changing significantly into one of strong broadband services growth, leading to new investment models dominated by higher data access speeds and flexible consumer offerings. Traditional voice revenues (fixed and mobile) are now declining in most countries. The new investment challenge is to satisfy a wider range of competitive market demands characterised by converging voice, internet and broadcasting services. These are being delivered over both fixed and mobile broadband platforms based on next generation networks and access.

When considering the new investment needed to meet the high growth of broadband services, the investors now assess the effectiveness of the competitive market. Relevant factors include the strengths and weaknesses of the existing players and the geographical spread of urban and rural infrastructure. In addition, the policy, legal and regulatory framework relating to the investment conditions in meeting broadband growth are now critical in the overall investment decision processes.

Investors believe that the European Union has clear advantages as an investment region compared to other regions – there is a clear EU information society policy with a transparent regulatory framework providing high levels of legal and regulatory certainty. Existing infrastructure is generally available for newer market entrants to share on a wholesale basis (for example through unbundled local copper loops and unbundled fibre access, leased lines, wholesale broadband access and passive infrastructure sharing).
The first panel focused on the key policy, legal and regulatory enablers. The required investment conditions include:

- Good policy environment in the country, with positive approach to the information society.
- An enabling approach to infrastructure investment, an open competitive market with best-practice regulation, plus availability of spectrum on an open, transparent and non-discriminatory basis.

If these enabling conditions are not yet in place, the strong demand for broadband services (fixed and mobile) will remain unmet in many countries, particularly outside the main urban centres.

The first panel also noted that:

- Investment will be led by Next Generation Networks (NGN) and Next Generation Access (NGA) including optical fibre and spectrum Long Term Evolution (4G/LTE) technologies.
- Both the demand and supply sides will be driven by the convergence of voice, internet and broadcast services, as well as the convergence of the networks built to deliver those services.
- Operators face the challenge of developing new business models to capture part of the value created by content, rather than just relying on supplying high-speed networks.

The planned switchover from analogue to digital broadcasting has already happened in some countries and all countries are planning to complete the analogue broadcasting switch-off by mid-2015.

Spectrum management models must evolve to ensure that the “digital dividend” resulting from the changeover from analogue to digital technologies is exploited for commercial and economic optimisation, rather than to achieve the narrower objectives of the existing legacy spectrum management models.

What are the barriers to investment?

The second panel accepted that demand for modern electronic communications services is generally strong, although in some countries there is a need to stimulate demand for broadband services due to lack of awareness of the benefits of these services.

The presentation on “EU information society policy and implementation” by Petri Koistinen (from the European Commission Directorate-General for Electronic Communications Networks, Content and Technology) highlighted how the EU’s clear policy objectives and harmonised legal and regulatory framework have reduced barriers to investment and are leading to very high levels of information society services in the EU. Mr Koistinen reviewed the main components of the EU framework and explained how these supported competition, investment and improvements in service choice and prices for consumers.

The EU is seen as an enabling framework with good legal and regulatory certainty, so demand for broadband services is (generally) being satisfied in the EU. Investors can enter markets without bureaucratic hurdles and the competitive market conditions are generally fair, with predictable and reliable regulatory rules that remove the distortions of incumbent operators having significant market power. In countries that have not adopted the EU legal and regulatory framework, there remain structural barriers to entry, including:

- Lack of legal and regulatory certainty.
- Unnecessarily bureaucratic licensing.
- Legacy spectrum management procedures that hold back the release of spectrum for growth
- Abuse of market power by incumbents.
- Lack of access to existing infrastructure which forces new entrants to invest in unnecessary and duplicative infrastructure, rather than getting new services to market quickly.

Outside the EU, the level of legal and regulatory risk facing investors varies considerably from country to country. This is largely because of the reluctance by policy makers and regulators to adopt best practice.

It is within regulators’ power to remove market barriers and reduce investment risk, thereby supporting increased investment, more consumer choice and more rapid roll out of modern services across the country. Specific barriers mentioned during the panel discussion were:

- The high level and unpredictability of the taxation regime in every form (licence fees, spectrum fees, revenue sharing).
- Cumbersome procedures for obtaining rights of way over public and private property.
Lack of legal and regulatory certainty, for example the decisions of ministries and regulatory agencies (including competition law authorities) are still susceptible to change due to political or vested interests (such as state ownership of operators).

Lack of available spectrum for commercial.

There are still unnecessary bureaucratic licencing regimes in place.

How is broadband demand best satisfied?

The third panel agreed that the majority of investment in today’s networks must be private investment, driven by market demand. The state has an important role in bringing modern services to all citizens and therefore needs to promote enabling policies backed up by state support (including state funding where necessary to accelerate private sector investment).

Investment in a national high-speed infrastructure is a vital enabler to meeting broadband demand. Unless there is investment, there is a danger that existing networks will run out of capacity and not be able to meet demand from broadband users (fixed and mobile). The EU model is attractive because there is a joined-up policy and regulatory framework, backed up by state aid for infrastructure projects that accelerates investment into rural areas without unduly distorting or replacing private competitive investment.

The demand gap evidence is powerful. In the EU, around 72% of citizen use the internet regularly and 71% are served by broadband services, so the demand gap is negligible. In almost all other countries, however, the number of internet users is significantly higher than the supply of broadband, giving rise to a substantial demand gap and an opportunity to invest and plug the gap.

Demand is generally being met in urban areas by the competitive market. But there remain significant shortfalls in infrastructure roll-out into rural areas. This is because the level of required investment is high compared with the returns, as the demand is more distributed and the physical investment conditions are often more challenging than in urban areas. Therefore the problem of meeting broadband demand is largely a rural problem. The problem is being solved in the EU by allowing new entrants to use existing infrastructures and by large scale investments in fibre backbone networks that reach the more remote areas, assisted by state-aid where necessary. Investment efficiency is therefore higher in the EU, with its greater legal certainty and enabling policy and regulatory framework.

As the Poland Case Study “Accelerating broadband investment” confirms, state intervention can accelerate infrastructure development into rural areas by using an effective wholesale model without unduly distorting the competitive market at the retail level for consumers.

The presentation by Marko Čavlović (from the Croatian Post and Electronic Communications Agency) showed how regulators can improve the effectiveness of the competitive market to supply “multi-play” broadband services.
Specific points noted in this panel discussion were:

- Operators tend to underestimate the forecast growth in broadband demand and data traffic.
- Demand stimulation is needed, particularly in rural areas. At the moment, many citizens claim not to need broadband access.
- There is a lack of local content in many countries.

**Optimisation of infrastructure investments**

There is an emerging understanding that competing operators need to accept more co-operative models of infrastructure investment than have been adopted during the previous wave of investment. During the mobile market boom of the last 10 years, competing operators built their own separate infrastructures, fulfilling their drive for geographical coverage by erecting separate masts networked with separate back-haul and national infrastructures. This has been wasteful in investment terms, resulting in duplicative infrastructures. The additional money invested in unnecessary separate infrastructures could have been saved (leading to lower tariffs) or redistributed (leading to greater coverage).

Faced with the challenge of significant new investments to meet the large growth in broadband and data traffic demands, the operators have to find new models that do not waste investment. These models will be facilitated by changes in national supporting policies and regulatory frameworks to enable infrastructure sharing on a fair, transparent basis using modern costing methods to regulate wholesale charges. This will encourage joint use of infrastructure, providing better options for new entrants and reasonable rates of return for incumbents.

The scope for infrastructure sharing should include both active and passive infrastructure elements. Wholesale leased lines, copper and fibre unbundling, ducts, masts, buildings, street cabinets, poles and power plant sharing are all possible and already working effectively to optimise infrastructure investment in the EU. Active sharing such as radio access network (RAN) sharing and spectrum sharing, while not yet widely used, hold the potential for even further cost savings for operators.

Changes to operator behaviour are necessary, for example more co-operation on joint investments, on coordination with other services, for example joint trenching with water, electricity and road construction schemes.

Operators’ shareholders and board members need to examine the case for developing wholesale services (“carriers’ carrier” services) to improve overall returns in a competitive market. Mature incumbents in the EU have had to learn this lesson as a response to competition. Incumbent operators in other countries need to examine the commercial case for serving wholesale as well as retail customers in order to increase profits.

As discussed above, supportive national efforts to reduce the cost of infrastructure investment through appropriate policy, legislation and regulation, including development of a national infrastructure database and easier procedures to obtain rights of way.

The presentations on “Broadband markets; services and next generation infrastructure” and on “Co-operative models, infrastructure access, sharing and joint construction” by sector analysts Will Burnfield (of Great Village International Consultants) and Peter Lundy (of Premiere Dynamics) showed the emerging technologies and investment models will be used to satisfy broadband demand. With around 70% of investment costs taken up in physical construction (trenching, ducting and engineering costs) it makes strong commercial sense to optimise investment through joint co-operation with other investors. These presentations also highlighted the critical contribution that broadband penetration and broadband speeds make to increasing national GDP, productivity and jobs.

As Peter Lundy’s presentation showed, mature incumbents such as British Telecommunications have responded to competitive markets by supplying highly effective wholesale services to their competitors. These wholesale services typically generate higher financial returns than their retail services. Incumbent operators in developing markets should study the experience from their more mature counterparts in the EU and consider changing their business models to fit the challenges of modern competitive markets.

The specific points noted in the panel discussion were:
Faced with growing pressure on profit margins, telecommunications operators around the world are looking at possible network sharing agreements.

More work is needed on a better understanding of the obstacles to such agreements (for example tax law).

Advanced forms of network sharing that go beyond the sharing of passive elements, such as frequency pooling, and these may require a review of current competition law.

Optimisation of spectrum policy

The fifth panel discussion focussed on the modern approaches to spectrum management that are required to meet the changing needs of a converged and global electronic communications market. The modern approach involves:

Modern technology such as Dynamic Spectrum Access can exploit the spectrum in more ways, with more flexibility, and better capacity to serve consumers’ more demanding needs.

Spectrum management should move more rapidly from administrative allocations and assignments in order to take full account of the need to optimise the economic use of a scarce resource, based on market demand for services, and not simply focus on technical optimisation.

More spectrum (or change of spectrum use) is required to enable the benefits of new technology to reach rural areas cost effectively.

Governments and regulators should not create artificial shortages – for example by holding back the release of spectrum in order to raise short-term auction revenues or continue inefficient use of spectrum by national defence and security authorities.

If spectrum is available it should be released on the market rapidly to be exploited by investors to improve economic usage, in a technologically neutral way.

The changeover from analogue to digital broadcasting will provide a valuable “digital dividend” for commercial exploitation in the telecoms sector. This opportunity must not be artificially delayed by political factors such as the government ownership of broadcasting interests.

Broadcasting spectrum and telecommunications spectrum need to be more closely co-ordinated

The presentation on “Spectrum liberalisation” by Will Burnfield (sector analyst from Great Village International Consultants) and the “Finland Case Study” presentation by Antti Kohtala (from the Ministry of Transport and Communications in Finland) highlighted the fact that spectrum demand is increasing exponentially, giving rise to the potential for spectrum deficits in some countries. Technology advances and best practice regulation can avoid spectrum deficits and ensure sufficient spectrum available to support broadband roll out.

Advanced spectrum management in countries like Finland is already making high speed broadband universally available to all citizens, bridging the urban/ rural digital divide.

Specific points noted in the panel discussion were:

- Technology neutrality and the re-farming of spectrum are principles universally agreed but their implementation is delayed by regulation and by technical constraints (for example availability of handsets).

- There is too often an inconsistency between the stated objectives of policy (rural coverage and universal service) and the terms of auctions (for example the maximisation of revenue for the treasury).
Required policy/regulatory responses

The final panel focused on the required responses from policy makers and regulators. By the time of this panel session, many of the conference participants had reached a common view on objectives as follows:

- Clear information society policy, regulation and state-support (for example the EU model).
- Best practice regulations for better competitive markets in the form of easier market entry, good competitive safeguards and access to available infrastructure.
- More spectrum to be made available to bring the benefits of new technology to rural areas more cost effectively.
- More co-operation within the sector (and between the sector and other utilities) to reduce the overall cost of expanding modern infrastructure into rural areas (co-operative investment models).

The specific points made by the final panel were:

- Countries need to establish policy objectives clearly and set their priorities accordingly. These priorities should be set in a published national plan with measurable targets.
- Such a plan should be developed in a dialogue between authorities, civil society and industry.
- Regulatory decisions should be taken according this plan to provide more certainty for investors.
- Regulators should be fully independent structurally, operationally and financially.

Extracts from national newspaper coverage of the conference

“During the Conference, which was opened by the Chairman of the Telecommunications Regulatory Commission, Engineer Mohammad Al Taani, presentations were given by key analysts and advisers from the sector of electronic communications in addition to interactive sessions held by a group of specialists. These sessions dealt with many of the key issues aimed at providing opportunities for investment in the sector of Information and Communications Technology.

Delegates emphasised the importance of the electronic communications sector and the information society and its role in advancing economic and social development. The Conference also highlighted the importance of investment in network infrastructure to support digital information society and to preserve the continuity of the flow of information to all citizens.

The Conference emphasised the importance of a competitive environment in the market to attract more investments and improve the quality of services provided. It also stressed the importance of policies and supportive legal and regulatory frameworks that do not hinder current and new investors.

The European Bank for Reconstruction and Development presented to the Conference an assessment of key sector indicators and benchmarks of compliance with international standards of best practice. The full results of this assessment will soon be available on the EBRD’s website www.ebrd.com.

EBRD was founded in 1991 to foster transition from centrally planned to free market economies, investing across 29 countries from central Europe to central Asia. It is owned by 63 countries, including countries of operations, and two intergovernmental institutions.

In 2011 in the wake of historic changes sweeping across the Middle East and North Africa and in response to calls from the international community and from emerging Arab democracies themselves, the EBRD’s shareholders gave unanimous backing to the expansion of the Bank’s mandate, allowing future activities in the southern and eastern Mediterranean (SEMED) region – Egypt, Jordan, Morocco and Tunisia. The EBRD will apply over 20 years of experience that it has built up supporting the process of economic and democratic change in Eastern Europe. The first EBRD investments in Jordan, Tunisia and Morocco were approved earlier this month.”