ITU/ITC Regional Seminar on Network Evolution to Next Generation Networks and Fixed Mobile Convergence
Moscow 27-30 April 2004

Fixed-Mobile Convergence – Regulators‘ Response
Ursula Lochmann, Detecon International
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1. Introduction: Regulators Response When Mobile Overtakes Fixed
   1.1 Introduction Detecon
   1.2 Where mobile overtakes fixed
1. Facts & Figures – Overview of Detecon

| Founding:      | 1954 Diebold  
               | 1977 DETECON |
|----------------|--------------|
| Post-Merger:   | 2002 Detecon International GmbH |
| Turnover 2002: | 160 Million Euros  
               | 600 Consultants |
| Subsidiary of: | T-Systems International GmbH |

Projects in 120 countries in the last 36 months
1. Mobile are overtaking fixed subscribers in countries worldwide

Unprecedented growth in mobile communications has significantly changed the communications environment in recent years.

- Countries with more mobile than fixed phones
  - 1: Developed Western European Countries
  - 2: Central and Eastern European Countries
  - 3: Developing Countries

Source: ITU
World Telecommunication Database (12/2003)
1. How Will Regulators Respond to the Phenomena of Mobile Growth?

- **Increase Regulation**: Impose traditional fixed regulation on mobile markets?
- **Decrease Regulation**: Withdraw from regulation?
- **Develop a new regulatory policy?**
Contents

2. Implications For Developed Western and Central/ Eastern European Countries
   2.1 The EU Regulatory Approach
   2.2 Development in CEE countries
   2.3 Regulatory Effects
The EU telecommunications markets were liberalized in 1998 with a “Big Bang”: All markets were opened and competition was supported by the creation of an independent Regulatory Authority in each country.

2. The EU Approach Towards Liberalization And Re-regulation

2.1 The EU regulatory development

Since 1998 basically unrestricted market entry (restrictions only if due to scarcity of resources)

Liberalization was flanked by a new regulatory approach and the establishment of an independent Regulatory Authority

The Mobile market was opened to competition earlier

Liberalization and Re-Regulation were strongly driven by European Commission.
2. The EU Approach Towards Liberalization And Re-regulation

2.1 Traditional regulatory functions and related obligations

Key EU regulations encompass the Market Dominance/ SMP concept, Market Abuse investigations and other technical regulation

### Market Dominance/ Significant Market Power (SMP) concept

An SMP determination triggers specific obligations on operators (ex-ante regulation)
- Reference Interconnection Offer (RIO)
- Reference Unbundling Offer (RUO)
- Cost based, non-discriminatory interconnection tariffs
- Pricing Regulation
- Billing requirements (itemized billing free of charge etc.)

### Ex-post regulation

<table>
<thead>
<tr>
<th>Investigations into potential abuse of market power</th>
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<tbody>
<tr>
<td>- Margin Squeeze</td>
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<tr>
<td>- Discrimination</td>
</tr>
<tr>
<td>- Excessive pricing etc.</td>
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</tbody>
</table>

### Other regulations

<table>
<thead>
<tr>
<th>Dispute Resolution procedures</th>
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<tbody>
<tr>
<td>…between operators and consumers</td>
</tr>
<tr>
<td>…between operators</td>
</tr>
</tbody>
</table>

Technical Regulation
- Frequency allocation,
- Standards, numbering
2. The Approach Towards Regulation in CEE and Baltic Countries

A growing number of CEE and Baltic countries have fully liberalized their telecommunications sectors and implemented the EU regulatory framework.

- **Liberalized West European countries/CEE Liberalized prior to 2003**
- **CEE Liberalized on 1 January 2003**
- **Planned to Liberalize in 2004/05/06**
- **No Liberalization Date set yet**
2. The EU Approach of Neutral Regulating in Converged Markets

2.3 Overview of regulatory obligations affecting fixed and mobile operators

A major EU regulatory principle is the one of “technology neutrality”
2. Number Portability

2.3 Fixed and Mobile Number Portability have been introduced in all (current) EU Countries.

Fixed and Mobile Operator Number Portability are key elements of the EU regulatory framework. Mobile Number Portability is not available in most “new” EUM member States.

How number portability works in mobiles

Customer

Donor Network A

Recipient Network B

1. Cancels contract

2. Signs new contract
   Applies for number portability

3. Passes request for number portability

4. Answers to request
   Change of routing information in MNP database
   Pays one-off cost oriented fee for number portability

Rationale for Mobile Number Portability

- Consumers may change their provider easier: avoiding cost associated with a new number
- Removal of barriers to competition → stronger competition
- Required by EU regulations
- Barriers: complex technical issues, operator costs for introducing MNP
2. More Regulation Has to be Anticipated

2.3 Fixed-to-Mobile Interconnection

In the EU - but also in many other countries in the world - regulators regard the highly asymmetric interconnection rates as „market failure“.

Example: The Case of Germany
Fixed-Mobile vs. Mobile-Fixed Termination

- Interconnect prices are a major determinant of retail prices
- Interconnect prices are variable but generally very high, especially in Europe
- Calling party does not have a choice of operator to terminate the call
- Fixed-to-mobile and mobile-to-fixed interconnect rates are highly asymmetric (see example left)
- Regulators around the world see evidence of market failure

Regulators may obligate MNOs to lower fixed-mobile-interconnection rates
2. More Regulation Has to be Anticipated

2.3 Roaming Rates

Absence of competition as well as high price differences in the area of international roaming let the probability of regulatory intervention appear high.

<table>
<thead>
<tr>
<th></th>
<th>Euro cents/min.</th>
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<tbody>
<tr>
<td>Vodafone</td>
<td>1,26</td>
</tr>
<tr>
<td>BT Cellnet</td>
<td>1,52</td>
</tr>
<tr>
<td>Orange</td>
<td>1,33</td>
</tr>
<tr>
<td>One2One</td>
<td>0,47</td>
</tr>
</tbody>
</table>

- Roaming rates are essentially commercial deals struck between operators
- Thus absence of competition and very high price variations
- There is a significant differential between standard and discounted rates
- Regulators accuse MNOs of ripping off each others customers

Prospects of regulatory intervention appear high
2. More Regulation Has to be Anticipated

2.3 Cost orientation of Rates is only one regulatory measure that might be applied in the mobile market. 

*Increasing regular intervention of mobile operators will have a dramatic impact on revenue, cost and customer retention.*

<table>
<thead>
<tr>
<th>Potential Threats (Examples)</th>
<th>Revenue</th>
<th>Cost</th>
<th>Customer Retention</th>
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</thead>
<tbody>
<tr>
<td>Intl. Roaming</td>
<td>![Down Arrow]</td>
<td></td>
<td></td>
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<tr>
<td>Number portability</td>
<td>![Down Arrow]</td>
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<td>![Down Arrow]</td>
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<tr>
<td>Service Obligations</td>
<td>![Down Arrow]</td>
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<tr>
<td>Interconnection</td>
<td>![Down Arrow]</td>
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<tr>
<td>3rd party billing</td>
<td>![Down Arrow]</td>
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<tr>
<td>Call-by-call</td>
<td>![Down Arrow]</td>
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3. Implications For Developing Countries
3. **Regulatory Implications in Developing Countries**

In developing countries mobile communication has increased access to telecommunications services.

The focus of regulatory intervention in developing countries differs from those of in developed markets due to low teledensity.

### Important Regulatory Policies

- Promoting a liberal and stable Market Entrance Regime
- Providing a predictable tariff regulation regime that leaves sufficient scope for the introduction of new services and tariffs
- Prohibition of abuse of a dominant market position by carefully regulating wholesale services
- Identifying an appropriate scope and funding for universal services

### Most important regulatory goal:

Strategies to increase teledensity
4. Summary And Conclusions

It depends on the status of the countries what regulatory authorities should and should not do.

<table>
<thead>
<tr>
<th>Western European Countries</th>
<th>Central/ Eastern European Countries</th>
<th>Developing Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ More regulation can be expected for mobile operators</td>
<td>■ Regulation follows (successful) EU approach</td>
<td>■ Regulation plays an important role in enabling competition</td>
</tr>
<tr>
<td>■ Regulatory focus on: Mobile Termination Rates, Roaming Rates, Mobile Number Portability</td>
<td>■ Regulation to check costs and benefits of intervention</td>
<td>■ Regulatory focus on: Promotion of a liberal and stable market entrance regime, Tariff Regime policies, Prohibition of abuse of a dominant market position, Universal Service Obligation policies, Licence Requirements, Pricing</td>
</tr>
<tr>
<td>■ Regulation to continue to improve operators’ efficiency</td>
<td>■ Regulatory focus on: Prohibition of abuse of market power</td>
<td></td>
</tr>
<tr>
<td>■ Regulation to focus on the longterm interest of consumers</td>
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Thank You
For Your Attention
Your Contact

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Regulatory Affairs

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