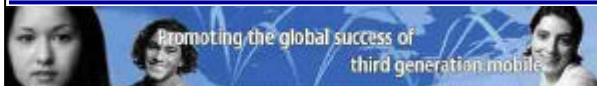


UMTS: the regulatory environment

Jean-Pierre Bienaimé

Chairman, UMTS Forum

www.umts-forum.org

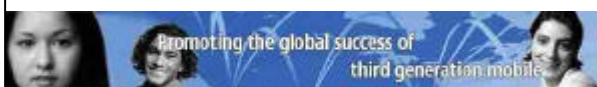


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2003! Worldwide UMTS Update

UMTS is happening now

- UMTS customers already approaching 2 million worldwide... First networks deployed in Japan (FOMA) and Europe, soon to be joined by Korea
- Licensing largely complete in Europe. >98% of 3G licenses awarded so far (approaching 120 operators) specify WCDMA
- 3G licensing continues in other world regions. E.g. China anticipated 2004
- European operator deployment plans characterised by soft launches, followed by commercial introductions during 2003/2004/2005
- Currently, seven EU Member States are reviewing license conditions in a process of flexible dialogue with operators



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Europe: Launch Roadmap



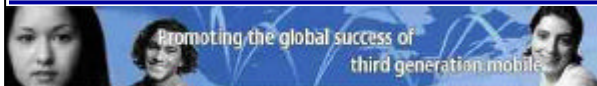
Hutchison '3' – the first mover in Europe

- 2003: Launches in Italy, UK, Austria and Sweden

Other European launches: alignment in 2003/04 timeframe

- France: "Soft" launches during end 03 - 04
- Germany: Launches likely from mid 04
- Italy: First soft launches expected by end 03. Further operator launch announcements likely during 1H 04
- Spain: First pilot launches end 03. More commercial launches anticipated during 04
- UK: Launches anticipated during 04

Information from public operator announcements



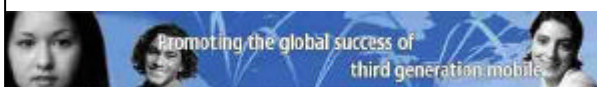
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European 3G Regulation



Factors influencing changes to regulatory timetable...

- Original launch timescales (2002) now under review
- Global economic downturn placed constraints on operators' financial plans and limited access to new capital
- Terminal availability and network refinements cited as key factors for determining commercial launch dates
- Progress still underway on interoperability between networks, terminals and services (compare with early days of SMS and MMS)



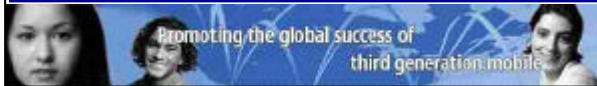
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European 3G Regulation



Country status highlights...

- **Austria:** Site sharing authorised. GSM and UMTS frequency trading authorised under approval from regulator
- **Denmark:** Operators negotiating with regulator to relax coverage requirements
- **Finland:** Government has extended timescale for launching networks by 1 year
- **France:** Sharing of UTRAN (antennas, NodeBs and RNCs) has been authorised by regulator
- **Germany:** Sharing of RAN (sites, passive elements and radio networks) permitted. T-Mobile / O2 and E-Plus / Quam sharing agreements. T-Mobile / O2 sharing now approved by EU. Rural roaming allowed until 2008.
- **Italy:** Government has extended license terms from 15 to 20 years. Measures for spectrum trading under approval



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European 3G Regulation



Country status highlights...

- **Netherlands:** Sharing agreements signed between KPN/O2, KPN/Dutchtone and Dutchtone/Ben-3G Blu
- **Norway:** Site and antenna sharing authorised. Two abandoned licenses will be re-allocated and 15 month extension to opening time granted. Hi3G Access has secured one of two re-allocated licenses.
- **Spain:** Licensees currently in infrastructure sharing discussions before submission to government.
- **Sweden:** Network sharing and construction agreements between Tele2/TeliaSonera and Vodafone/H3G. Regulator has relaxed coverage obligations and encourages co-operation between operators
- **UK:** Site sharing between O2/T-Mobile approved by EC. 2.5G / 3G roaming permitted between H3G and O2.



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European licensing conditions: UMTS Forum recommendations

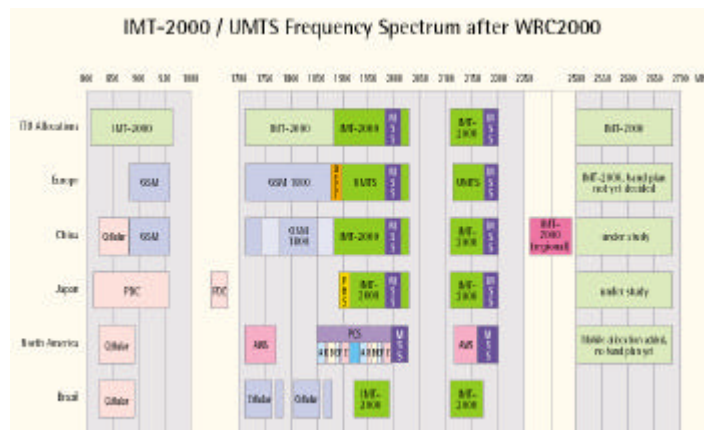


- **Spectrum pricing**
 - Large initial down-payments for spectrum will adversely affect the growth of 3G service. Yearly fees give better stimulus to efficient use than initial down-payments.
- **Coverage and roll-out obligations**
 - Roll-out of 3G networks should follow market demand. Coverage obligations must be linked to level of network service capability.
- **Sharing of facilities and infrastructure**
 - Sharing of facilities can give a rapid deployment of networks and introduction of services, but must be compliant with the goal of infrastructure competition. However, sharing should be commercial not mandatory.
- **National roaming**
 - National roaming may help achieve coverage of unprofitable regions. Licensing conditions should allow commercially negotiated roaming agreements, if infrastructure competition is maintained.
- **Global circulation of terminals**
 - The right to carry and use personal terminals is important for many users. The ITU has decided on a regulatory framework for global circulation. This should be the basis for national rules for 3G.



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Spectrum planning



Global harmonization of mobile communications spectrum reduces complexity and cost of mobile terminal equipment... giving superior economies of scale and increased customer satisfaction.



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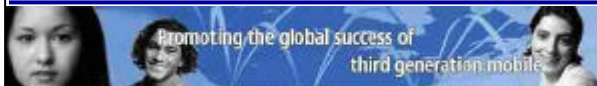
UMTSF Viewpoint on Spectrum



Recommendations on use of other bands for IMT-2000

- Requirement for roaming and interoperability means that globally harmonized frequency bands will minimize requirements for multi-mode/multi-band terminals
- Further studies within ITU, as stated in WRC 03 Resolution 228, will be the basis for additional identification of spectrum for the development of IMT-2000, in particular for rural areas... typically below 600 MHz
- The UMTS Forum urges administrations not to make 3G national allocation in bands that are not consistent with globally identified spectrum arrangements for IMT-2000, e.g. in 450 MHz range
- “Unique” national allocations will not serve the interest of mobile users and the market as a whole

UMTS Forum recommends that new frequencies for UMTS / 3G services must be proposed to all operators on a transparent basis and globally harmonised



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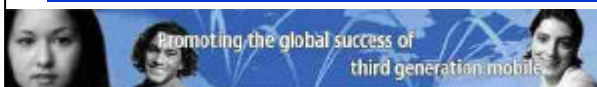
Concluding Remarks



What can Governments do? UMTS Forum Recommendations:

- Promote flexible dialogue between administrations and operators
- Set realistic roll-out and coverage obligations (quick coverage of urban areas)
- Allow co-operation between operators in suburban and rural areas (network sharing, national roaming)
- Simplify the process of site acquisition and agree on harmonised environmental conditions
- Support global circulation of terminals
- License now, using IMT-2000 spectrum bands

Governments, regulators and industry must work together with flexibility and vision to ensure market success of UMTS



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