

3G LICENSING IN PORTUGAL ...AND BEYOND

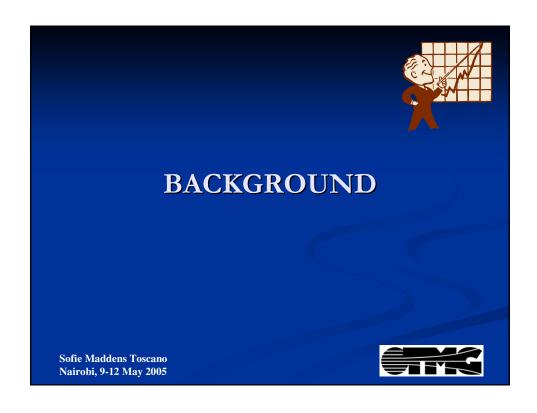
Nairobi, 9-12 May 2005

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Agenda

- BACKGROUND
- LICENSING PRINCIPLES AND REGULATORY FRAMEWORK FOR THE PUBLIC TENDER IN PORTUGAL
- THE TENDER PROCEDURE IN PORTUGAL
- OTHER EU 3G TENDERS
- FROM LICENSE TO COMMERCIAL OFFER DEVELOPMENTS IN PORTUGAL 2002-2005
- UMTS ROLL-OUT AND EVOLUTION IN EUROPE AND BEYOND: LESSONS LEARNT
- LESSONS FOR GOVERNMENTS CONSIDERING THE LICENSING OF 3G MOBILE SERVICES IN THE FUTURE





Mobile communications in Europe

- 143 Operators in 50 countries/areas in Europe
- From 0 to 395 million Subscribers in Europe in the last decade
- 2–5 Competing Mobile Operators in Every Country
- 84% Average Market Penetration in Western Europe
- Average Market Growth 2002: 36% or 102 million new customers



Mobile communications in Europe

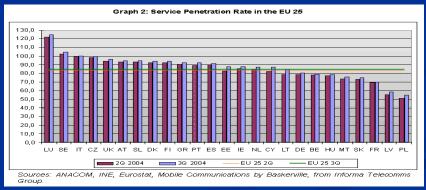
- The EU15 mobile services industry generated a GDP contribution of €105.6 billion in 2004
- During 2004, end users from the EU15 group spent:
 - €95.2 billion on services and terminals,
 - €10.4 billion in the form of call termination revenues
- In GDP terms the mobile industry is already larger than other ICT industries such as end user hardware or software, and the gap is growing between the two sectors.
- The mobile industry is approaching the same size as the combined agriculture, hunting, fishing and forestry industries and is already the same size as the mining industry.

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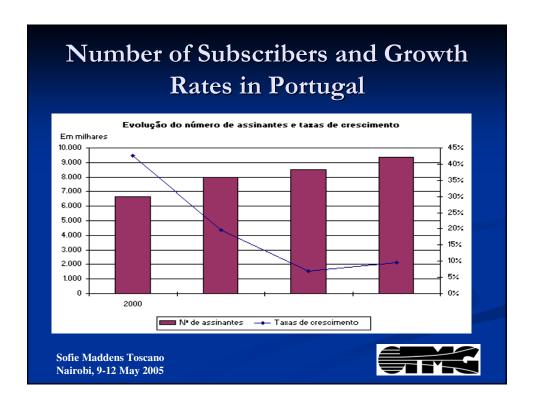


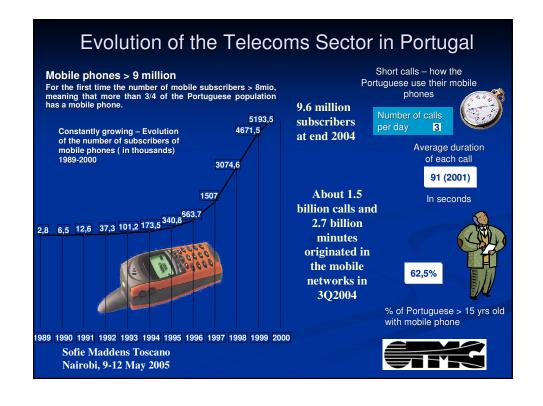
Penetration of Mobile in Portugal as compared to 25 EU Member States

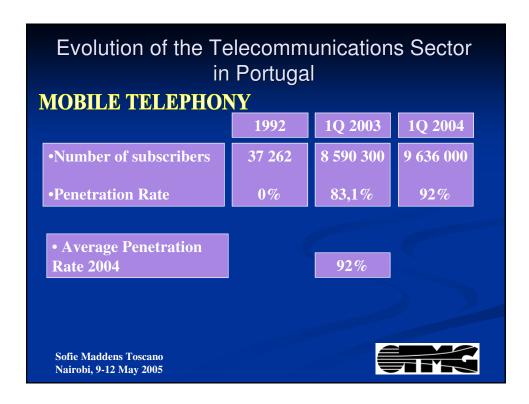
■ The mobile service penetration rate in Portugal reached 92%, remaining above the EU average, which stood at 84.4%.













Specific Texts for IMT 2000

- •Ruling 532-A/2000 approval of the rules for the open competition for the award of 4 national licences for IMT2000/UMTS (as adopted by the ICP Board of Directors on 23 December 1999)
- **Decision from the Minister of Social Infrastructure of 1 August 2000** nominating the members of the Evaluation Commission
- **Decision from the Minister of Social Infrastructure of 1 August 2000** on the opening of a Public Competition for the award of 4 national licences for IMT2000/UMTS

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Goals of Tender model

- To <u>encourage the development of the</u> <u>information society in Portugal</u>
- To *enhance competition* in the mobile market
- To <u>encourage a sustained development of</u> <u>operators</u>, including potential newcomers
- To *enlarge the choice of consumers*



Philosophy of Government for the licensing of UMTS/IMT2000

Choice = Comparative Bidding, and not Auction

- Despite significant gains seen across Europe through auctions, decision to continue with previous stance and methodology, i.e. comparative bidding (beauty parade)
- Process of comparative bidding understood to have been one of the reasons behind the significant evolution of mobile phones in Portugal

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Philosophy of Government for the licensing of UMTS/IMT2000

Wish to make 3rd generation mobile available to as many consumers as possible at the lowest rate possible

- Idea is that operators would pass on a high cost of the licenses to consumers through high prices for communications
- Idea that new operators would try to recover such high licensing costs quickly through a strategy which concentrates on high population areas



Philosophy of Government for the licensing of UMTS/IMT2000

Wish to provide 2G operators with the best chance possible of winning license for 3G whilst still obliging everyone to compete

- Costing of license takes into consideration that some of the second generation operators still had significant investments to recover
- Although everyone had to compete for the licenses, a certain "preference" was given to 2nd generation operators through valorization of roaming offers by 2G operators

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Philosophy of Government for the licensing of UMTS/IMT2000

Wish to make the promotion of the information society a key factor in the UMTS/IMTS licensing process

- The promotion of the Information Society was one of the main priorities of the Portuguese Presidency of the EU, with a special Summit dedicated to the subject and a specific program (E-Europe 2002) adopted during this Summit
- The government wanted tenderers to give special attention to this aspect, amongst others, by including original thinking in their proposals related to:
 - Bringing the information society to people with special needs
 - Coverage of regions "with special needs"



- PUBLIC TENDER
- FOUR LICENSES to be attributed
- FORESEEN TIMETABLE: quick turnaround tender to be opened in 3rd quarter of 2000, with licenses attributed in 1st quarter 2001, and services provided as from 1 January 2002 DELAYS ENCOUNTERED
- Principle that no licenses were to be attributed unless at least one of the proposals was based on the UMTS standard and fulfilled all the requirements set out in the respective regulations

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Licensing Principles

- SPECTRUM: 2 x 15 MHz of paired spectrum in the bands of 1920-1980 MHz / 2110-2170 MHz and 5 MHz of unpaired spectrum in the 1900-1920 MHz band, for each of the licensees
- DURATION OF LICENSES: 15 years, renewable
- COST= +/- 10 million US \$ license fee + annual spectrum fee



ROAMING

- Roaming between UMTS/IMT2000 system and 2nd generation systems possible under the terms foreseen in Decree-Law 415/98 of 31 December
- Roaming offer = one of the valorization criteria of proposals
- Any roaming offer to be valid for at least 5 years, unless UMTS/IMT2000 operators who do not have GSM or DCS systems = declared as having SMP (Significant Market Power) in the UMTS/IMT2000 market

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Licensing Principles

ROAMING

- Roaming offer conditions = subject to re-evaluation by the Regulator two years as from the date of attribution of the licenses
- Roaming offer conditions must adhere to a set of parameters established in the tender regulation
- The tender regulation foresaw that the Regulator may intervene in the resolution of legal disputes that may arise amongst interested parties as related to roaming



- COVERAGE OBLIGATIONS: establishment of minimum coverage obligations, which must ensure debits above 128 Kbps, with detailed specifications which were included in the tender regulations according to the following schedule:
 - 20% coverage of the national population by the end of the first year of the license coming into force,
 - 40% by the end of the third year, and
 - 60% by the end of the fifth year

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Licensing Principles

■ None of the three licensed GSM or DCS operators could automatically be granted an IMT 2000 license

BUT ... Proposals which offered the possibility of national roaming between second and third generation systems were granted extra points in the evaluation.....



Limits to be imposed on shareholdings in competing commercial enterprises, so as to ensure that no bidder holds any shares, directly or indirectly, in the share capital of another bidder.



No shareholder of a licensed operator may hold, either directly or indirectly, more than 10% of the capital of another licensed operator

■ Where an investor is part of a successful group which is granted a license, then such an entity will have to sell his stake in the other licensed operator within a year of the license being granted

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THE TENDER PROCEDURE Sofie Maddens Toscano Nairobi, 9-12 May 2005

Elements to be included in proposal

- Official Documents
- Technical Proposal
 - Coverage plans,
 - Planning and development of the system,
 - Quality of service levels, amongst others
- Economic and Financial Proposal
 - Market development forecasts,
 - Marketing strategy,
 - Roaming offers,
 - Range of services to be offered, including special offers,
 - Pricing policy,
 - Distribution channels,
 - Financing resources, amongst others

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Evaluation Criteria

- Contribution to the development of the Information Society 50%;
- Contribution to the development of effective competition 20%;
- Quality of the Technical proposal 15%;
- Quality of the Economic and Financial proposal 8%;
- Contribution to the development of a sustainable economic activity -7%.



Evaluation Grid

- Contribution to the development of the Information Society 50%
 - Coverage indicators
 - Population covered,
 - Surface covered,
 - Areas covered,
 - Roads covered
 - Promotion of universal access and of info-inclusion with an <u>economically</u> accessible offer targeted at different user profiles
 - Price policy (reference prices, flexibility, promotional policies and discounts),
 - Special conditions for <u>low income population</u> (notably in terms of access, prices and quality),
 - Special conditions for <u>users with special needs</u>.
 - Special conditions for <u>institutions with special needs</u>

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Evaluation Grid

- Contribution to the creation of effective competition 20%
 - Diversity and differentiation of the range of services with <u>special</u> emphasis to the offer of innovative and convergent services/contents
 - Conditions associated with the roaming offer
 - Phasing of the offer,
 - Coverage,
 - Other aspects (notably price policy)
 - Global quality of the services
 - Commercial Quality (amongst others access, customer care service, after sales service, commercial policy related to the replacing of equipments, billing),
 - Other quality parameters, notably related to dispute handling and information policy to the users



Evaluation Grid

- Quality of the technical plan 15%
 - Conditions related to the sharing of infrastructures (sites and support infrastructures),
 - Coverage planning,
 - Frequency plan,
 - Technological system and network topology,
 - Measures to minimize the environmental impact,
 - Measures to minimize human exposure to electromagnetic radiations,
 - Security and network confidentiality,
 - Network performance,
 - Interconnection plan,
 - Numbering/addressing

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Evaluation Grid

- Quality of the economical and financial plan 8%
 - Market study,
 - Strategy,
 - Economic evaluation (VAL, TIR, pay-back),
 - Financial evaluation,
 - Sensibility analysis (notably in terms of prices, number of subscribers and traffic volume),
 - Commercial and economic-financial qualifications (experience in mobile services/networks, commercialisation/distribution...)



Evaluation Grid

- Contribution to the development of a sustainable economic activity 7%
 - Project externalities
 - Industry and technology development,
 - Market expansion (effects on the mobile value chain, penetration and use of data and voice mobile services),
 - Direct and indirect creation of employment,
 - Training, research and development,
 - Others
 - Degree of development of the project/consortium notably in terms of agreements and/or partnerships related to services/contents, technology/know how, etc.

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WINNERS

- Telecel (2nd Generation Mobile Operator) now Vodafone
- TMN (2nd Generation Mobile Operator) – PT spin-off
- Optimus (2nd Generation Mobile Operator) – France Telecom and Sonae Group
- Oniway (EDP = Electricity
 Operator and 2nd Fixed Operator







Comparison to other EU Member States - Sweden

- On 12 May 2000, PTS issued an invitation to interested parties with guidelines for applicants to provide network capacity for UMTS mobile telecommunications services in Sweden
- Four licenses were to be issued for 15 years up to 31.12.2015
- The selection of the applicants would be based on a "beauty contest" using two steps



Sweden 3G Licensing Methodology

- The Swedish legislators believed that the government should be flexible so as to allow market forces to direct the development of new services and forms of communication.
- The PTS decision was to use a beauty contest
 - PTS believed that this was an appropriate legal interpretation of Swedish law, which stipulates that licenses must be allocated based on specific criteria. Selection criteria determined in other ways than the intended goals of the laws, like an auction or a lottery, were not considered to be grounds of fact.
 - Another important reason for using a beauty contest was that rapid development of 3G could be an essential part of the development of Sweden as an IT nation.
- PTS focused on two main criteria when choosing operators:
 - rapid rollout
 - nation-wide coverage

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Swedish Licensing Process

- The contest was organized in the following way:
 - The applicants should submit their applications no later than 1 September 2000
 - At that date, they should have paid the application fee of 100000 SEK (approximately 10000 USD)
 - The applicants were responsible for all costs of the preparation and submission of the application
 - It was not possible for the applicant to add information after the application period. The PTS could request further information from the applicant after the application date



Swedish Licensing Process

- Applicants were asked to describe their ownership structures in order to enable PTS to assess whether any applicant was closely related or not to another applicant.
 - As a rule of thumb, a business that had 20 % or more of all shares in an applying company was considered to be closely related to that company.
 - If two or more applicants were considered to be closely related they could only get one license.
 - A license comprising GSM activities would not be granted to an applicant that already operated with a GSM license in Sweden.

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Swedish Licensing Process

- In an <u>initial consideration</u>, an evaluation was made of whether the applicants had fulfilled the preconditions for the establishment of a network in accordance with the following criteria:
 - <u>Financial capacity</u>: The applicant shall be able to demonstrate that it has enough capital at its disposal to establish the promised network
 - <u>Technical feasibility:</u> The applicant shall demonstrate the network's reliability, availability, voice quality and other used quality parameters.
 - <u>Commercial feasibility:</u> Is a demand that the applicant presented a documented business and market plan with investment plans and financial projections that showed the costs, revenues and resources required to provide the services.
 - Expertise: the applicant should demonstrate that it had access to appropriate expertise and experience to construct a mobile telecommunications network.



Swedish Licensing Process

- If a firm or a consortium passed the initial considerations, it was <u>further</u> <u>evaluated</u> in a detailed consideration, which analyzed:
 - Commitments concerning coverage in relation to surface area and population.
 - Commitments concerning the development rate (rollout speed) for the networks.
- According to the guidelines for applicants:
 - the license conditions impose a requirement that the license holders shall ensure at every phase that at least 30% of the population coverage promised takes place through establishment of its own radio infrastructure
 - for other parts of the population, the license holders have the possibility of satisfying the coverage requirements by national roaming. However, this does not affect the license holder's obligation to ensure that network capacity of high quality is held available in accordance with the license conditions
 - a license holder that cannot satisfy the license conditions through national roaming is thus obliged to establish its own access network to satisfy its obligations
 - all masts in the network could be shared with other operators

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Swedish Licensing Process

- The initial administration fees paid by applicants did not cover the costs for the PTS of organizing the beauty contest.
- The preparation process consumed around 2 manyears from PTS.
- From September 2000 to December 2000, PTS had 8 persons working full-time on the process as well as a number of consultants.





Portuguese situation

- Various decisions made (especially by regulator) to attempt to allow 4th licensee (Oniway) to survive:
 - National roaming agreement with TMN approved by regulator and other operators were encouraged to make similar agreements with new entrant, Oniway (did not happen),
 - Original licensing conditions changed
 - Various delays in launch approved
- P.S.:
- Oniway only new entrant and only licensee who did not have 2G license
- Newest 2G operator (Optimus) had not reached break-even point at that stage
- Infrastructure sharing was, in fact, one of the criteria in the license selection procedure



ANACOM Decision Dec. 2002

- Time limit for launch was delayed to 31 December 2003
- All obligations covered by licenses maintained
- A fee for radio spectrum usage was to be applied to operators who started their activities in 2003

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Portuguese Situation –Dec. 2002

ICP/ANACOM:

- The confirmed absence in the market of network and terminal equipment was determined to be a case of 'force majeure'
- Any amendments to the licenses should be restricted to the time limit for the commercial offer of the UMTS systems and should not affect the central core of the obligations assumed by licensees in their tenders
- Pilot networks suitable for testing should be encouraged



Portuguese situation – Jan. 2003

- Infrastructure sharing amongst operators encouraged (for example through incentives such as decreases in the amount of fees for spectrum usage)
- Some flexibility is to be granted as to the number of control centers and base stations, without ceding on the need to comply with coverage obligations as set out in the licenses
- The delay in the launching of 3G should not be an obstacle to the launching of the Information Society development projects

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Portuguese situation – Jan. 2003

 Oniway finally had to give up due to commercial pressures and gave the license back to ICP – ANACOM......



Portuguese Situation – Jan. 2003

- On 9 January 2003, ICP/ ANACOM
 - Accepted the return of the 4th license
 - Concluded that there is no place for a 4th operator, given:
 - The small size of the national market,
 - The high penetration rates of mobile services,
 - The lack of interest of other economic agents to obtain a UMTS license or to purchase OniWay
 - The substantial competitive advantage of first entrants (as shown in case of Optimus)

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Portuguese Situation – Jan. 2003

- ICP/ ANACOM recognized that:
 - Small operators or operators whose market share is small have extreme difficulties in remaining in the market
 - A new entrant into the market will not necessarily increase the value of the market



Portuguese Situation – Jan. 2003

- ICP/ ANACOM also recognized that:
 - The preservation of the 2G market structure may actually allow/lead to:
 - a faster recovery of investments,
 - an increase of cost-effectiveness levels,
 - a better investment capacity of existing operators,

and particularly to reflexes such as:

- a faster offer of 3G services,
- the creation of conditions for lower prices,
- the improvement of quality of services

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Portuguese Situation January 2003

- 3 operators left (all also 2G mobile operators)
 - Oniway returned its license
- "Oniway" frequencies were divided amongst remaining licensees
- Delays approved until 31 December 2003



- ANACOM Decision of 10 February 2004 to amend license conditions
- Background:
 - Although the minimal conditions for the launch of UMTS service were considered to have been met, the regulator did recognize that because of a limited availability of terminal and network equipment on the market, a pre-commercial test-phase of 6 months (with the commercial offer of UMTS to be offered before 1 July 2004) was justified
 - Such a test-phase meant that the service could only be offered to a limited number of « friendly users »
 - It is important to ensure an appropriate coverage of the population and, in addition, to take operators' proposals as contained in their respective licenses into account;

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Amendments to License Conditions - 2004

- Background to ANACOM decision of 10 February 2004 (cont.) :
 - For the purposes of coverage obligations, the end of year 1 is determined to correspond to the 12-month period elapsed after the beginning of the UMTS system commercial operation
 - ICP-ANACOM has already decided to allow sharing of the UMTS network infrastructures



1. To bind the operators to ensure, by their own means, <u>national</u> population coverage at 144 kbps, corresponding to 60% of the values fixed in the respective licenses, in any case,

And this notwithstanding compliance with the minimum requirements which were originally based on the Licensing Specifications, namely:

- End of 1st year 20% of the population;
 End of 2nd year 20% of the population;
 End of the 3rd year 40% of the population;
 End of 4th year 40% of the population;
 End of 5th year 60% of the population.

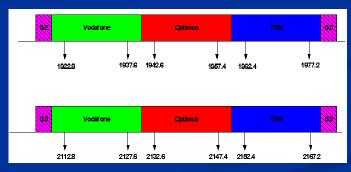
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Amendments to License Conditions - 2004

- 2. To allow that *the differential* between the general population and area coverage to which each operator is bound by the license he holds and the minimum coverage through own means demanded above <u>may be ensured through national roaming</u>, <u>in accordance with an annual plan</u> to be submitted by the operators and to be approved by ICP-ANACOM;
- 3. To <u>eliminate the specification requiring coverage</u> obligations within the NUTS II regions (note: EU specification of regions with special needs), the coverage obligations at national level being maintained meeting the 144 **kbps** and 384 kbps contained in the respective licenses;

4. To <u>reformulate the radio spectrum assignments</u> taking into account the additional allocation of 2x5 MHz to the operators licensed in accordance with the following:



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Amendments to License Conditions - 2004

- 5. To decide to request the *operators to submit*.
 - a) By 1 March and for the previous commercial launch of a two-month plan containing the universe, *the type and number of users* to whom an UMTS system shall be made available, the services provided and the coverage area included;
 - b) By 1 June 2004, <u>technical projects</u> that will give the reasoning for any possible amendment to the network implementation, namely as to the number of network infrastructures (RNCs and B Nodes) to be installed;
- 6. To <u>admit</u>, as far as service availability, price and package policy obligations are concerned, the possibility for operators to request, with the respective basis, a possible <u>revision to the scheduling foreseen for the</u> availability of the services;



- 7. To <u>admit the possibility of revising the licensing</u> <u>certificate validity terms, issued in accordance with the rules applicable to the new regulatory framework,</u>
- 8. Upon compliance with the *shareholding contribution limit* referred to in clause 20 of the licensing certificate issued to OPTIMUS, this condition should *be eliminated*.

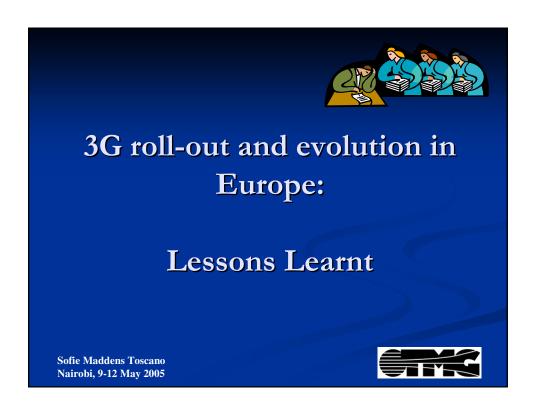
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Portuguese Launches

- 21 April 2004 launch of commercial service by TMN
- 5 May 2004 launch of commercial service by Vodafone
- 4 June 2004 launch of commercial service by Optimus





Some data on 3G Licenses in Europe

Country	No of licences	Mobile incumbents	Commercial launch	Method	Date awarded	Sum paid, US\$ million
Austria			Q1 2002	Auction	November 2000	
Belgium			2002	Auction	March 2001	421.2
Czech Republic			Aug-Sep 2001	Auction	December 2001	200
Denmark			2002	Sealed bid Auction	September 2001	
Finland			Q1 2002	Beauty contest + nominal fee	March 1999	Nominal
France	4 (2 still to be issued)		Mid 2002	Beauty contest + fee	July 2001	4'520 (subsequently reduced to 553 each)
Germany			2002	Auction	August 2000	About 7'690 each
Greece			Q1 2002	Beauty contest + auction	July 2001	414
Italy			2002	Hybrid	October 2000	10'180
Netherlands			Jan 2002	Auction	July 2000	369 to 667 each
Norway				Beauty contest + fee	November 2000	88
Slovenia			Dec 2003	Cancelled auction	December 2001	82.2
Spain			Aug 2001	Beauty contest + fee	March 2000	480
Sweden			2002	Beauty contest	December 2000	44.1
Switzerland			2002	Auction	December 2000	119.8
UK	5		Jan 2002	Auction	April 2000	6'100 to 9'100



Key Lessons to be Learnt from 3G Licensing Process

- 3G licensing created significant transition problems in mobile markets
 - Substantial value was extracted from the mobile market (high license fees, deflating stock prices and worsening debt ratings),
 - Severe funding problems have occurred for certain operators (e.g. EDP/Oniway in Portugal) – leading to delays in roll-out and application developments or even withdrawal from process (Portugal),
 - There was a significant increase in the cost of supply,
 - Imbalance between cost of supply and expected demand and potential revenues in Member States

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Key Lessons to be Learnt from 3G Licensing Process

- 3G licensing allowed for distortions to occur in terms of:
 - The impact that the evolution of market expectations had over time,
 - The number of licenses offered this influenced the number of potential candidates and stimulated competition amongst bidders,
 - The specific characteristics of the awards methods and the way in which they were designed pushed the operators bid up



Key Lessons to be Learnt from 3G Licensing Process

- Other stakeholders are also dealing with the "big bet" on 3G: end-users, European vendors, content developers, and governments – considerable resources and funds have been spent on and committed to the rollout and development of UMTS
- For years to come, a significant mortgage has been put on the sector in the EU, in terms of finances and profitability and probably even in terms of the introduction of alternative mobile technologies in the market



All those involved have had to review their strategies, investments and expectations and decide on priorities.

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EU Position

The Council of Ministers of the European Union stated at it meeting of 5/6 December 2002 that: "there is a need to ensure the transparency of the obligation to launch the 3G systems and the need to start the debates on more flexible approaches as to the spectrum use and network infrastructure sharing, as well as to the possibilities of infrastructure sharing, spectrum re-allocation so as to aim for a more effective market and appropriate coordination at European level"



Changes/Clarifications in other European Countries

- Dates for the roll-out of the UMTS network and the commencement of the commercial offer of UMTS
- Dates for compliance with coverage obligations
- Sharing of Infrastructures
- Extension of the period of validity of licenses
- Return/Withdrawal of licenses

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LESSONS FOR
GOVERNMENTS
CONSIDERING THE
LICENSING OF 3G MOBILE
SERVICES IN THE FUTURE



Lessons for Governments considering UMTS/IMT2000 for the future

- Governments now have the opportunity to design a process that will allow national mobile networks to develop at a rate that is beneficial to the whole economy and which is expected to compensate for lower license fee revenues,
- Governments will not necessarily have the complication of having to create future legislation to take back licenses from failing operators (as has happened in Portugal and Spain).

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Lessons for Governments considering UMTS/IMT2000

- Governments will have the opportunity to be more creative with their policies on issues including infrastructure sharing, Mobile Virtual Network Operators (MVNOs), and infrastructure roll-out schedules.
- When combined with lower license fee expenses, more flexible policies will give operators more strategic and financial flexibility to launch infrastructure and service projects.



Lessons for Governments considering UMTS/IMT2000

The indirect effects of a well-thought out strategy, which has learnt from past lessons, are likely to promote information technology investment and employment environments, which could more than offset the reduced expectations on license fee revenues

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Important considerations for government

- **YOUR ROLE IS UNIQUE** Government and/or regulator is a stakeholder among stakeholders but with a unique agenda
- *DO NOT GET LOST IN THE DETAIL* Need to consider the overall set of objectives to be pursued FOR YOUR COUNTRY
- *DO NOT BE SHORT SIGHTED* A focus on the long term will help avoid inappropriate short term decisions
- YOU ARE PART OF A REGION/GLOBAL PROCESS While a national matter, essential to consider your situation in an international context





Thank you for your attention!!

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