NAIROBI

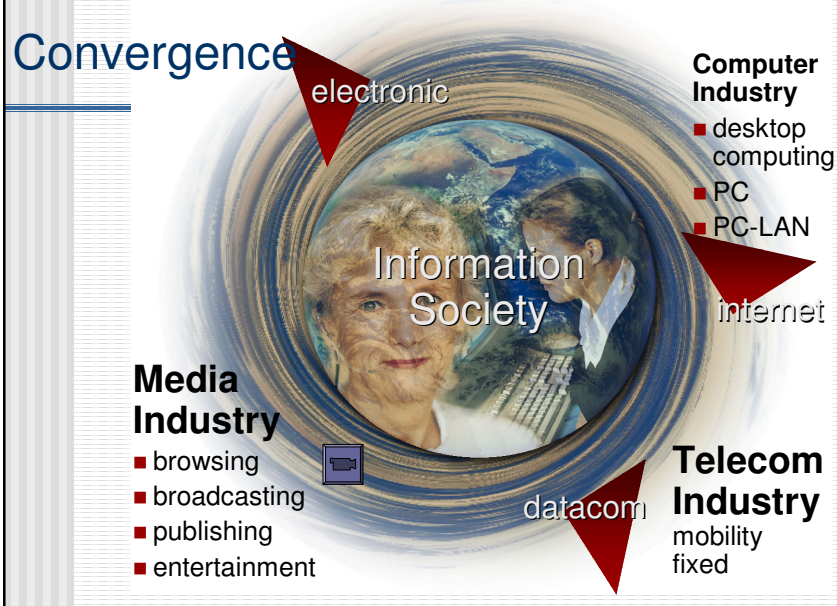
9-12 MAY 2005

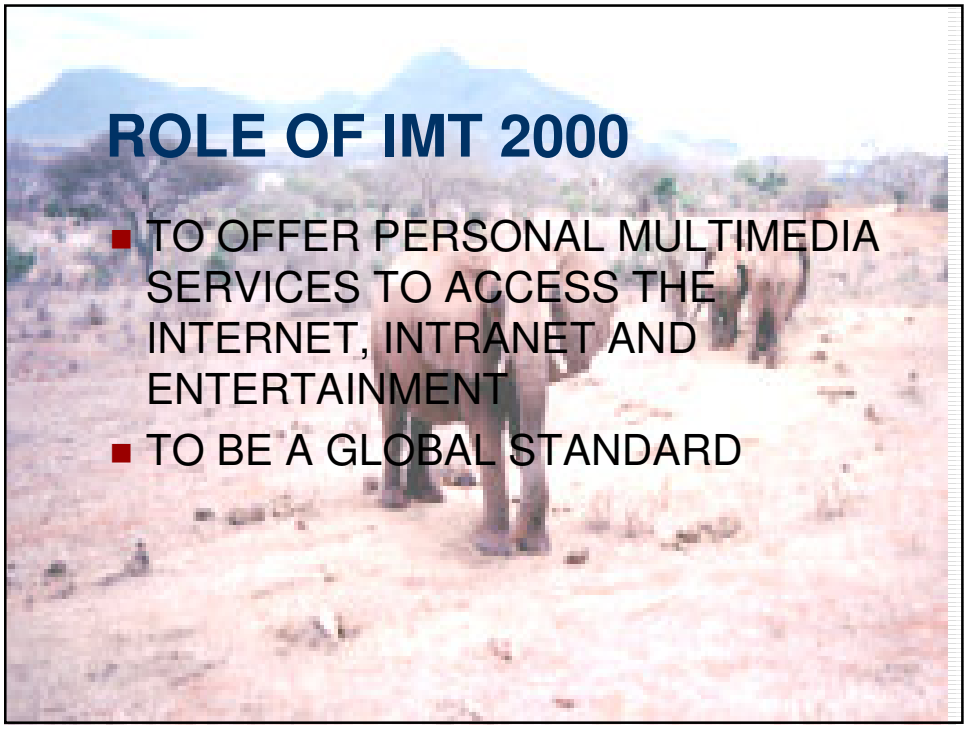
IMT 2000 SERVICES SPECIAL NEEDS OF OPERATOR, REGULATORS AND USERS IN DEVELOPING COUNTRIES

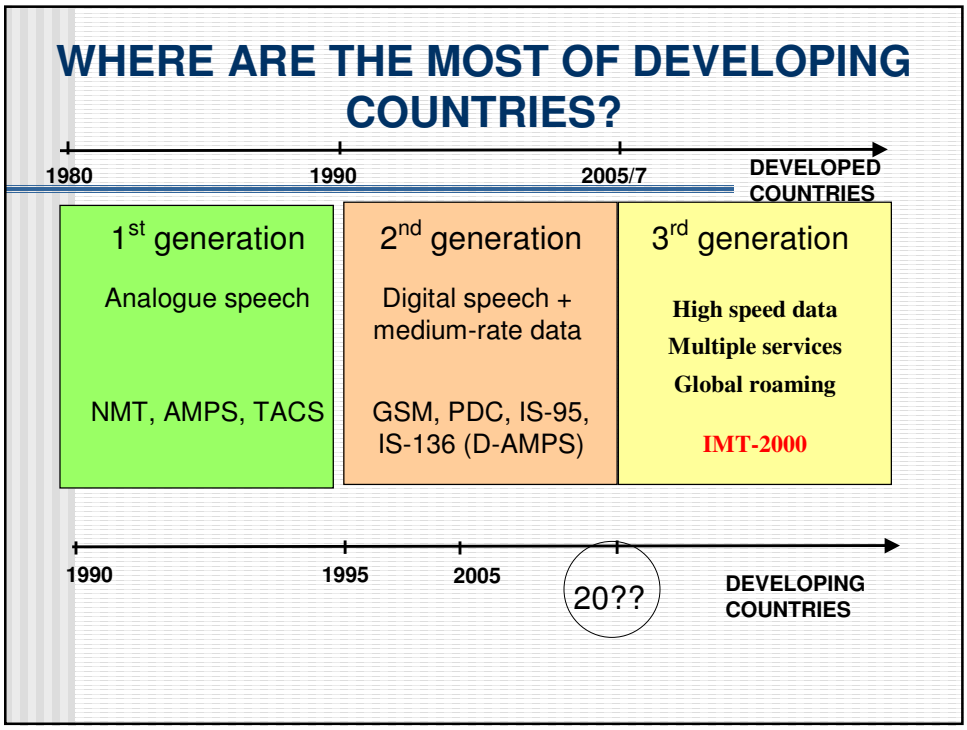
Prof dr Nataša Gospić

Rapporteur of the Q 18/2

WHAT ARE DRIVING FORCES WORLDWIDE?




ROLE OF IMT 2000
TO OFFER PERSONAL MULTIMEDIA SERVICES TO ACCESS THE INTERNET, INTRANET AND ENTERTAINMENT
TO BE A GLOBAL STANDARD


WHERE ARE THE MOST OF DEVELOPING COUNTRIES?
1980
1990
2005/7
DEVELOPED COUNTRIES
1st generation
Analogue speech
NMT, AMPS, TACS
2nd generation
Digital speech + medium-rate data
GSM, PDC, IS-95, IS-136 (D-AMPS)
3rd generation
High speed data
Multiple services
Global roaming
IMT-2000
1990
1995
2005
20??
DEVELOPING COUNTRIES

WTDC ISTANBUL 2002

- HOW IMT 2000 WILL PROGRESS IN DEVELOPING COUNTRIES?
- HOW TO ASSIST MEMBER STATE AND SECTOR MEMBERS IN DEVELOPING COUNTRIES IN TRANSITION TO IMT 2000, BOTH TECHNICALY AND ECONOMICALY?
- Q 18/2: "*STRATEGY FOR MIGRATION OF MOBILE NETWORKS TO IMT 2000 AND BEYOND"*

Q 18/2
STRATEGY FOR MIGRATION OF MOBILE NETWORK TO IMT 2000 AND BEYOND

- ISSUES PROPOSED FOR STUDY:
  - Identify the economic impact and development aspect for such migration, with particular attention to cost affordability for end users, as well as identification of migration techniques taking into consideration the experience of developing countries and the special needs of developing countries
  - Examine the possibility of using first and second generation spectrum for IMT 2000 and beyond

Q 18/2
EXPECTED OUTPUT

- A GUIDELINES for smooth migration, including system interoperability among third- generation technologies, with proper collection, analysis and periodical dissemination of relevant data from relevant groups within ITU and those outside
- The course of next ITU-D study period (WTDC 2006) with mid-term guide by early 2004.

Q 18/2 FRAMEWORK

- ITU-D SG 2
- Rapporteur Group on Q 18/2 was created, composed of experts from developed and developing countries,
- After two and half years, Mid Term Guidelines was approved by SG 2, September 2004,
- First draft of Guidelines for smooth transition of the existing networks to IMT 2000 for developing countries is prepared and
- Hopefully during Yaounde meeting second draft will be ready for submission to ITU-D SG 2 meeting, September 2005.

DOES Q18/2 ACHIEVED ITS TARGETS

→Identify the economic impact and development aspect for such migration, with particular attention to cost affordability for end users (NOT EXPLICITELLY), as well as identification of migration techniques taking into consideration the experience of developing countries and the special needs of developing countries (YES)

→ Examine the possibility of using first and second generation spectrum for IMT 2000 and beyond (YES)

→ Different analyses and market trends (YES)

→Dissemination of relevant data (YES) ITU web site: IMT 2000

→**MID TERM GUIDELINES FOR SMOOTH TRANSITION FROM EXISTING MOBILE NETWORKS TO IMT 2000 FOR DEVELOPING COUNTRIES**

DEVELOPMENT OF POLICY FOR TRANSITION

- SPECIAL NEEDS OF DEVELOPING COUNTRIES:
  - GOVERNMENT DEVELOPEMENT POLICY
  - OPERATOR PERSPECTIVE
  - REGULATOR PERSPECTIVE
  - CONSUMER-USER PERSPECTIVE

GOVERNMENT DEVELOPMET POLICY

WSIS DECLARATION OF PRINCIPLES:

Building the Information Society: a global challenge in the new Millennium

–Information and communication infrastructure: an essential foundation for an inclusive information society

–A well-developed information and communication network infrastructure and applications, adapted to regional, national and local conditions, easily-accessible and affordable, and making greater use of broadband and other innovative technologies where possible, can accelerate the social and economic progress of countries, and the well-being of all individuals, communities and peoples

GOVERNMENT DEVELOPMENT POLICY

WSIS ACTION PLAN to be achieved by 2015:

a) to connect villages with ICTs and establish community access points;

b) to connect universities, colleges, secondary schools and primary schools with ICTs;

c) to connect scientific and research centres with ICTs;

d) connect public libraries, cultural centres, museums, post offices and archives with ICTs;

e) to connect health centres and hospitals with ICTs;

f) to connect all local and central government departments and establish websites and email addresses;

g) to adapt all primary and secondary school curricula to meet the challenges of the Information Society, taking into account national circumstances;

h) to ensure that all of the world's population have access to television and radio services;

i) to encourage the development of content and to put in place technical conditions in order to facilitate the presence and use of all world languages on the Internet;

j) to ensure that more than half the world's inhabitants have access to ICTs within their reach.

IMT 2000 ACCOMODATES SPECIAL NEEDS

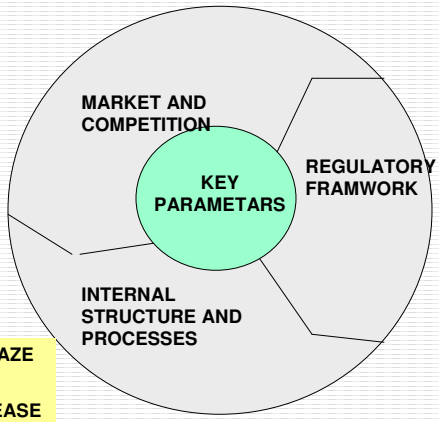
- FOR URBAN AREAS
- FOR SPARCELY POPULATED AREAS
- FOR MIX URBAN/RURAL AREAS

OPERATOR PERSPECTIVE FOR TRANSITION TO IMT 2000

- **Cost**
- **Fixed wireless access**
- **Coverage and deployment obligations**
- **Transition time**
- **Mass application**
- **Spectrum**
- **Infrastructure sharing**
- **Satellite components**
- **Market analysis and business case**
- **Service and applications**
- **Availability of equipment from multiple vendors**

OPERATOR'S BUSINESS POSITION TOWARDS IMT 2000

- MARKET DEVELOPMENT
- WHO ARE COMPETITORS AND IN WHICH MARKET SEGMENTS?
- DEVELOPMENT OF MARKETING STRATEGY



- STRATEGY TO MEET REGULATION REQUIREMENTS
- LICENSING CONDITIONS

- HOW TO OPTIMAZE INVESTMENT
- HOW TO DECREASE OPEX
- HOW TO PREPARE ORGANIZATION FOR NEW TECHNOLOGY

MARKET SEGMENTS

DEVELOPED COUNTRIES:

- I. EXAMPLE
  - business professional,
  - product managers,
  - young generation,
  - family,
  - senior citizens
- II. EXAMPLE
  - pioneers,
  - materialist,
  - sociables,
  - achivers and
  - traditionalist

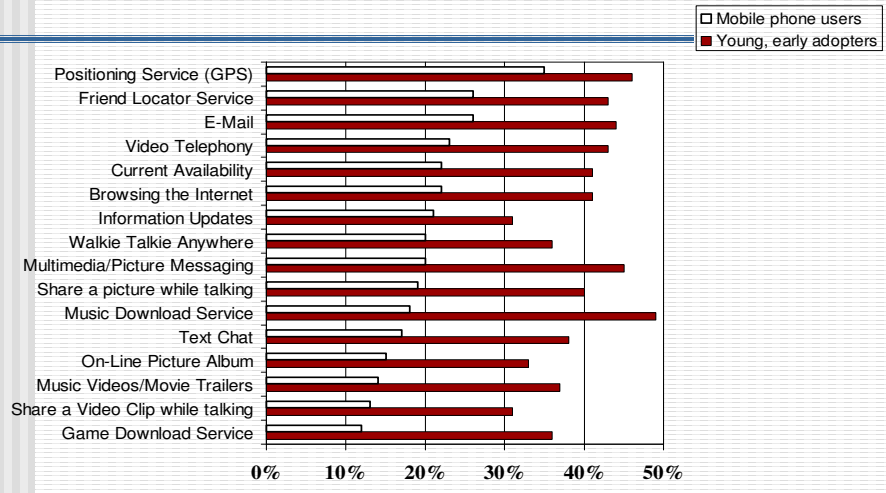
DEVELOPING COUNTRIES

- LESS DIFFERENTIATIONS
- EXAMPLE:
  - **Business professional**
  - **SME**
  - **Young generation???**
  - **Solutions for universal access**
  - **Roamers**

Mobile data revenues on the rise

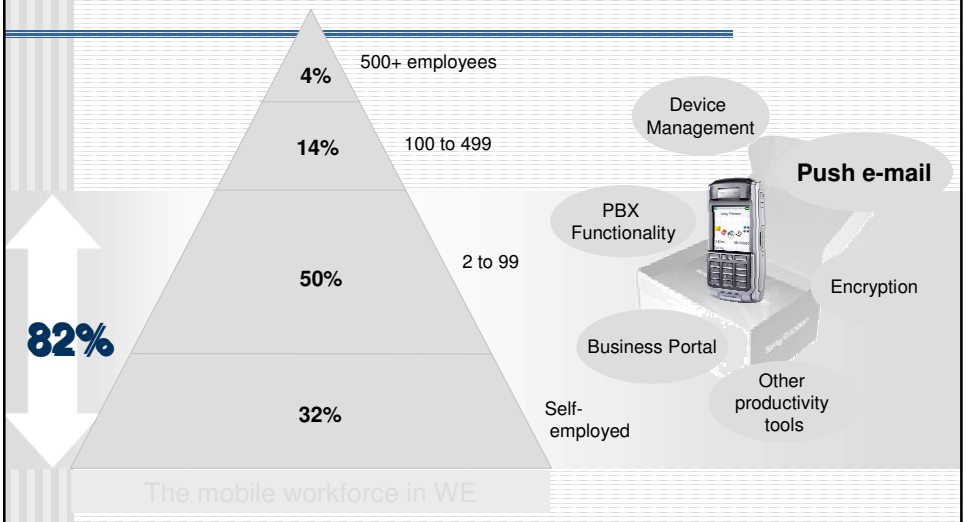
SOURCE ERICSSON 2005

INTEREST FOR RANGE OF SERVICES



SOURCE ERICSSON 2005

Small enterprises - a lucrative segment



Source: DTC, division of mobile workers in Western Europe (52 million)

REGULATOR'S PERSPECIVE

ITEM	REGULATOR'S NEEDS AND RATIONALE
License handling and allocation	**Capitalize on experience of developed countries on** ·license awarding method, ■license conditions, ■license fees, ■number of licenses.
DATABASES	**Capitalize on experience of developed countries on:** ■**RFP (Request for Proposal) issued for awarding IMT-2000 licenses;** ■**Rationale behind the preferred license awarding methods;** ■**Information on the method of determination of Lowest Bid Rates;** ■**Standard concession agreements – including provisions related to QoS numbering, interconnection, roaming, coverage, infrastructure sharing etc. – that were signed with the IMT-2000 operators;** ■**A list of rights and obligations of the IMT-2000 operators, including the rationale behind each.**

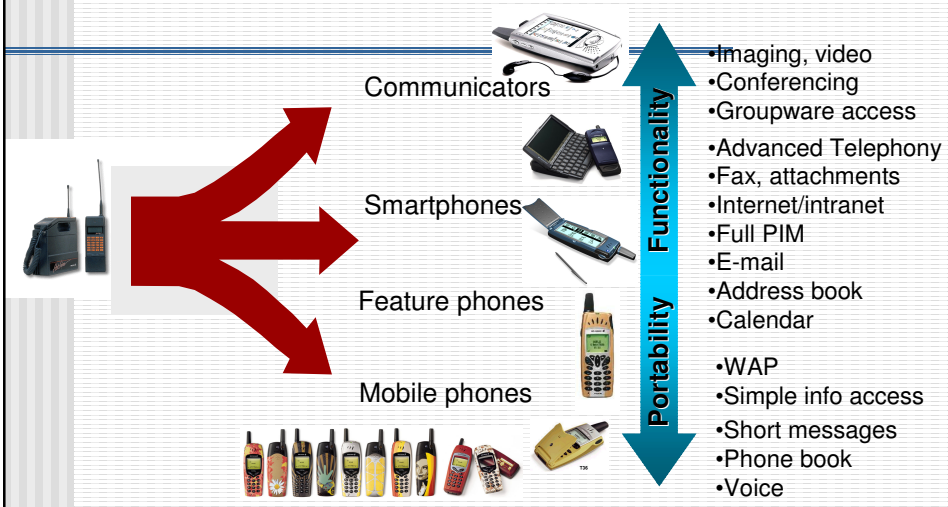
REGULATORY FLEXIBILITY

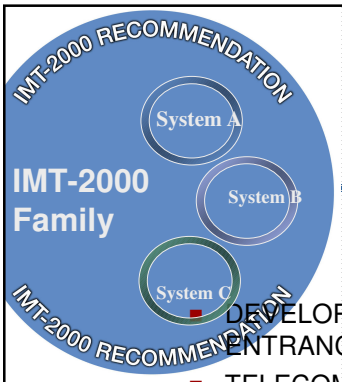
- ADOPTION OF FLEXIBLE POLICY FOR SPECTRUM ALLOCATION
- ITU FREQUENCY BANDS FOR IMT 2000
- POSSIBILITY TO FACILITATE IN-BAND MIGRATION

USER'S PERSPECTIVE

ITEMS	USER NEEDS AND RATIONALS
COST	User affordability for services and terminals. ▪Tariffs should be affordable to the end-users
TERMINALS	Ease of use and convenience of terminals. ▪The terminals should support local requirement in terms of language and must take into consideration the literacy level across the country.
EASY ROMING	▪Users want to use their usual terminals when traveling. ▪Roaming is facilitated by low prices and by the availability of compatible technologies/terminals in foreign countries.
Services and applications	Use of IMT-2000 for education in remote villages, rural economic development, access to Internet at affordable price. Training of users on wireless data applications.

Driving Trends – User Preferences





CONCLUSIONS

- DEVELOPING COUNTRIES ARE CHALLENGING THE ENTRANCE TO GLOBAL E-ECONOMY MARKETS
- TELECOM MARKET HAS TRADITIONALLY BEEN TECHNOLOGY AND SUPPLY DRIVEN,
- IMT 2000 IS TECHNOLOGICALY AND COMMERCIALY READY
- BROADBAND MOBILE ACCESS ENABLES PERSONALIZED SERVICE PORTABILITY ACROSS NETWORK BOUNDARIES AND BETWEEN TERMINALS
- IDENTIFICATION OF TRANSITION POLICY TO IMT 2000 SHOULD BE BASED ON THE ANALYSIS OF KEY ASPECTS THAT IMPACT DEMAND, INVESTMENT AND REVENUES