



UMTS
ForumShaping the mobile future

Status of UMTS to date

Dr Bernd Eylert
Chairman, UMTS Forum

ITU Sub-Regional Seminar on IMT-2000

Moscow, 10-13 September 2002

www.umts-forum.org

What is the UMTS Forum?



- ▶ **A global organisation with over 200 members from more than 40 countries:**
 - ▶ Mobile, fixed and satellite operators
 - ▶ suppliers
 - ▶ consultants
 - ▶ regulatory bodies
 - ▶ IT and media content providers
- ▶ **Goal:**
 - ▶ Successful global commercial deployment of UMTS / 3G services

What are our aims?



The Forum works to identify common interests and to promote:

- ▶ Realisation of the full vision of UMTS mobile services
- ▶ Timely availability of radio spectrum to support UMTS/IMT-2000
- ▶ A sound regulatory framework for the introduction of UMTS/IMT-2000
- ▶ A clear understanding of future market opportunities
- ▶ Convergence and mutual understanding between all relevant industries

Achievements to date

- ▶ **Licensing:**
 - ▶ Detailed advice on policy and cost issues to guide regulators: wide acceptance of our recommendations

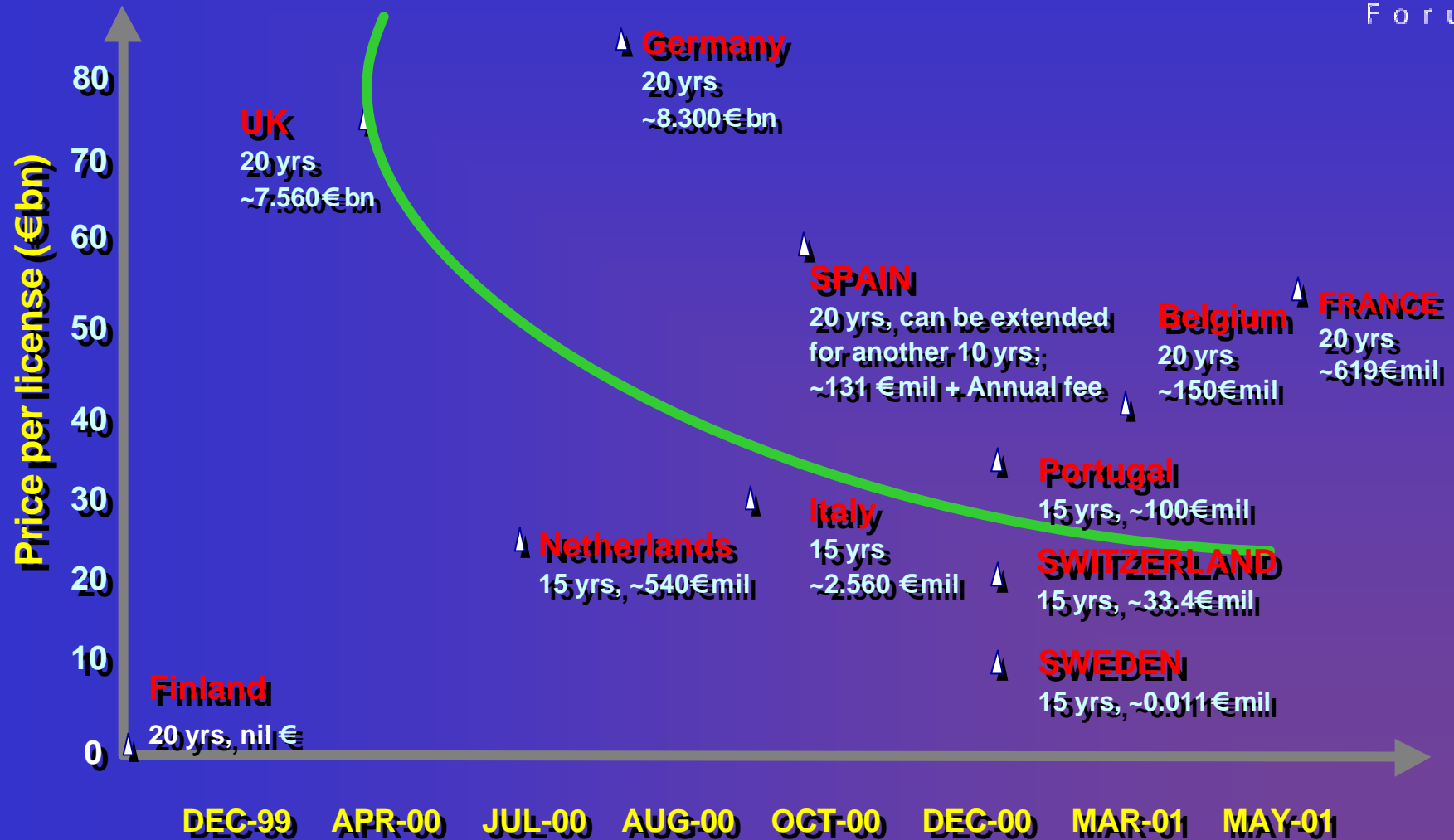
- ▶ **Clarification of market requirements:**
 - ▶ Guidance towards global standardisation

- ▶ **Detailed spectrum recommendations:**
 - ▶ Successful conclusion to WRC-2000

- ▶ **Investor Confidence**
 - ▶ Increase awareness amongst investment community

UMTS VALUATIONS IN CONTEXT

(some examples)

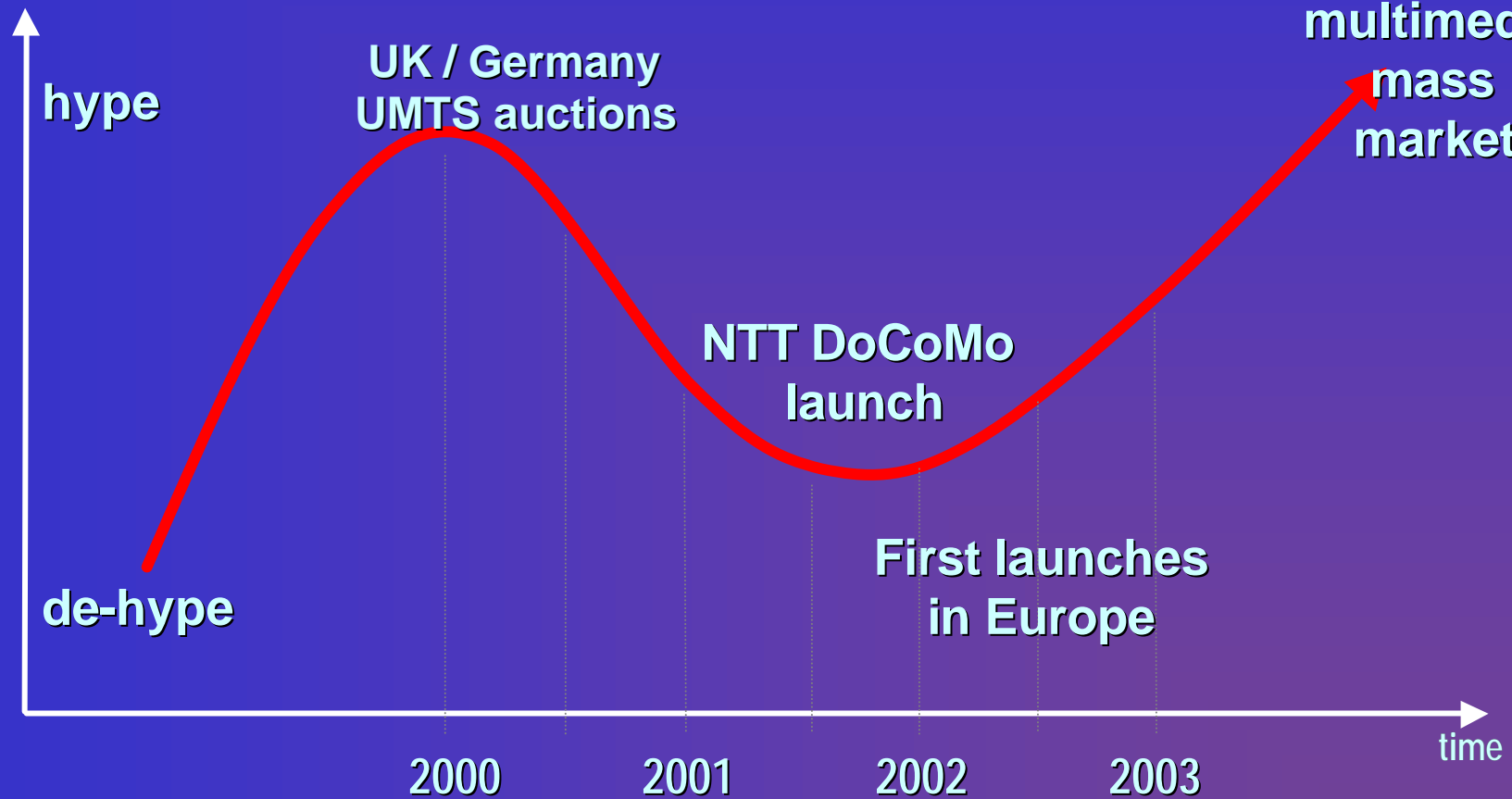


The future of UMTS/3G is bright



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mobile
multimedia
mass
market



The success of GSM

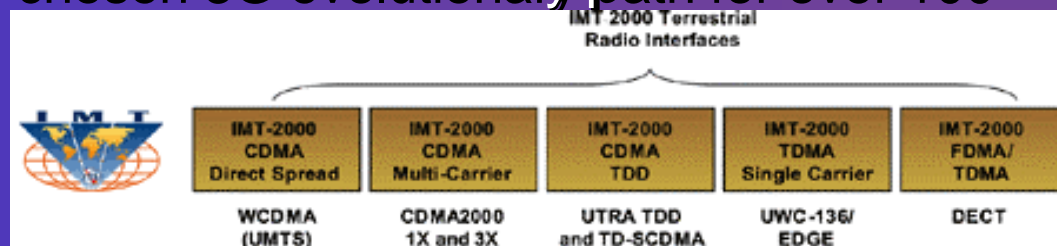
.....and the evolution to 3G via UMTS

- ▶ GSM covers 178 countries worldwide, serving a truly mass market - with approx. 700 million users ⁽¹⁾
- ▶ Today GSM is the **only** cellular system that is standardised for use in three cellular bands worldwide - 900, 1800 and 1900 MHz
- ▶ GSM coverage in most countries extends to over 99% of the population
- ▶ Popularity and growth of SMS: generated 30 billion text messages per month worldwide ⁽²⁾, with each user in Europe sending 35-40 SMS messages per month ⁽³⁾
- ▶ UMTS with WCDMA is the chosen 3G evolutionary path for over 100 operators worldwide

⁽¹⁾ End of March; EMC World Cellular Database

⁽²⁾ GSM Association

⁽³⁾ Mobilestreams, February 2002



Is IMT-2000 different?

Differences, but not crucial

- **Two main standards**
- **Multi-mode, multi-band terminals more common (also 2G - 3G)**
- **Possibility for satellite modes**
- **Non-GSM countries involved from the start**
 - **But being an international project, players wanted to have legal certainty from the start**



Challenges with UMTS



It is not only circuit switched voice services as in 2G! It is

- ▶ **the mobile component of the Information Society**
- ▶ **digital convergence of media, data & telecom**
- ▶ **a multi-national, multi-sector system**
- ▶ **Many different protocols (MPEG, WAP, IP, etc.)**
- ▶ **A wide range of terminals, products & services**
- ▶ **Shorter product development times & more complex products**
- ▶ **And, users want services available everywhere!**

UMTS user needs



Demand will be driven by the following user needs:

- ▶ Anywhere, anytime access to information
- ▶ Access to corporate networks from any device
- ▶ Access to all messages (voice, email, multimedia, fax) from any single device
- ▶ Video and Web conferencing
- ▶ Access to specific types of information (financial, recreational)
- ▶ Social contact (community of interests)
- ▶ Access to location-based information on demand

Economic trends and forecast implications



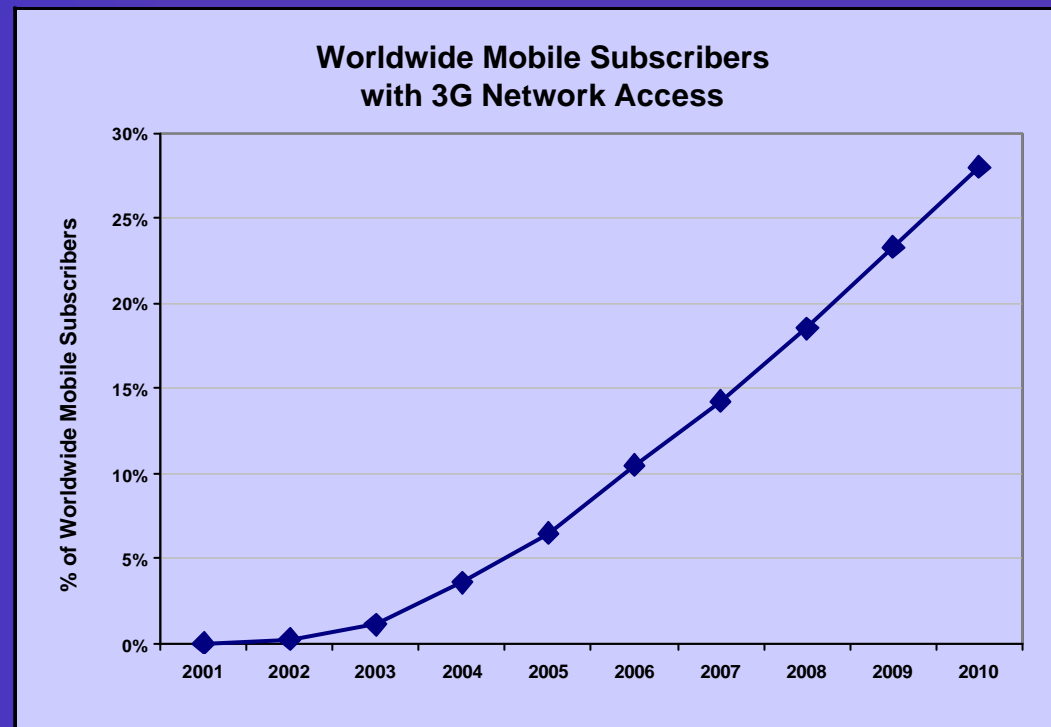
- ▶ Substantial long-term revenue opportunities for UMTS/3G
- ▶ 9-11 has little impact; economical downturn has short term impact
- ▶ Mobile market predicted to grow rapidly - on the brink of tremendous expansion driven by 3G
- ▶ Cumulative revenues of almost **\$1 trillion** from launch through 2010
- ▶ Operators revenue calculated at **\$ 322bn** by year 2010
- ▶ Non-voice service revenues will comprise **66%** of 3G service revenues by 2010

Economic trends and forecast implications (cont)

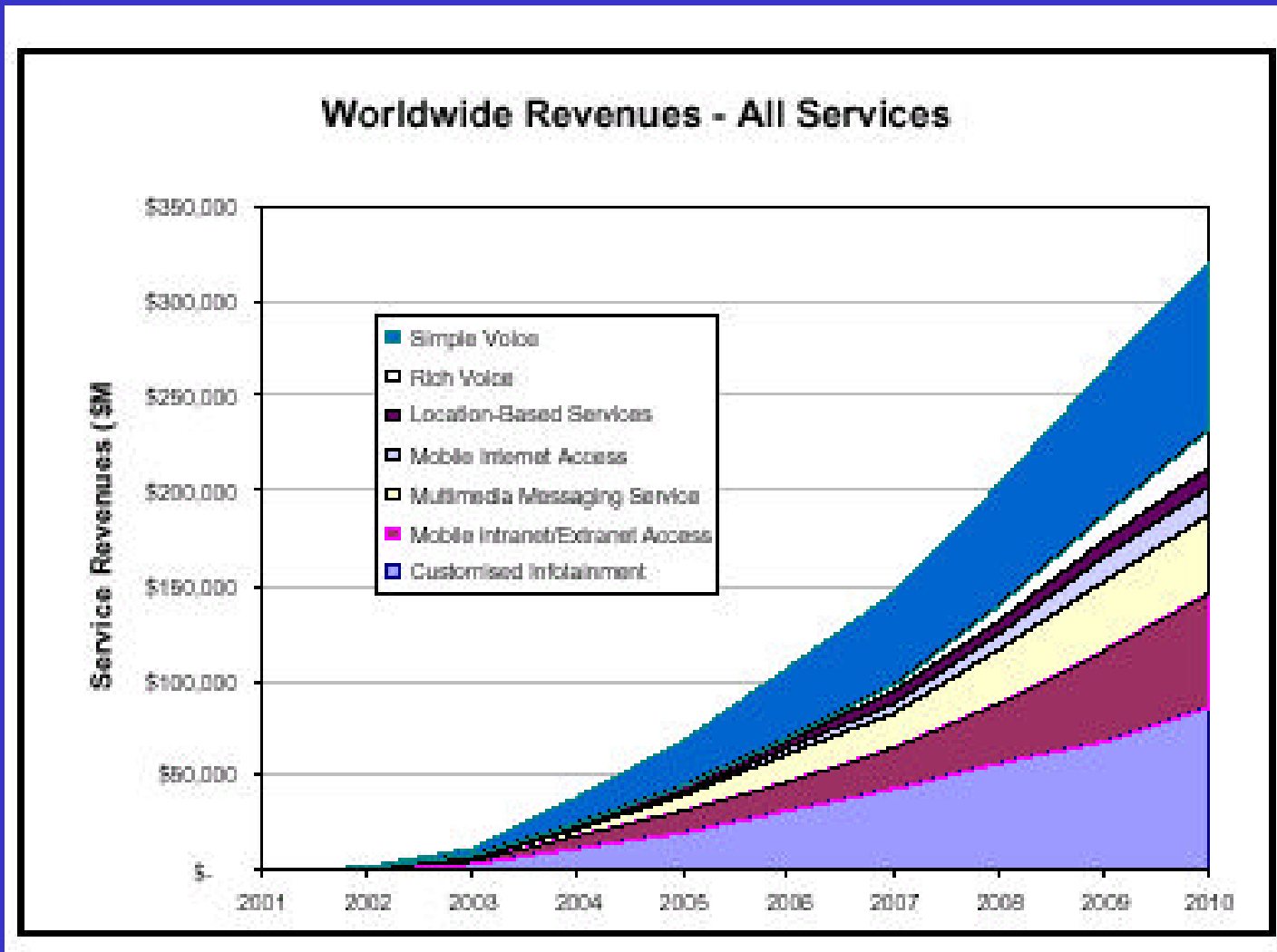
- ▶ Gradual 3G adoption in the early years
- ▶ Nearly a third of worldwide subscriber will use 3G in 2010
- ▶ Complex services will take time to develop

Figure 3. 3G-adoption rate, showing that 28% of worldwide mobile subscribers will be 3G subscribers in 2010 – a conservative assumption.

Source: Telecompetition, Inc./UMTS Forum, February 2002.



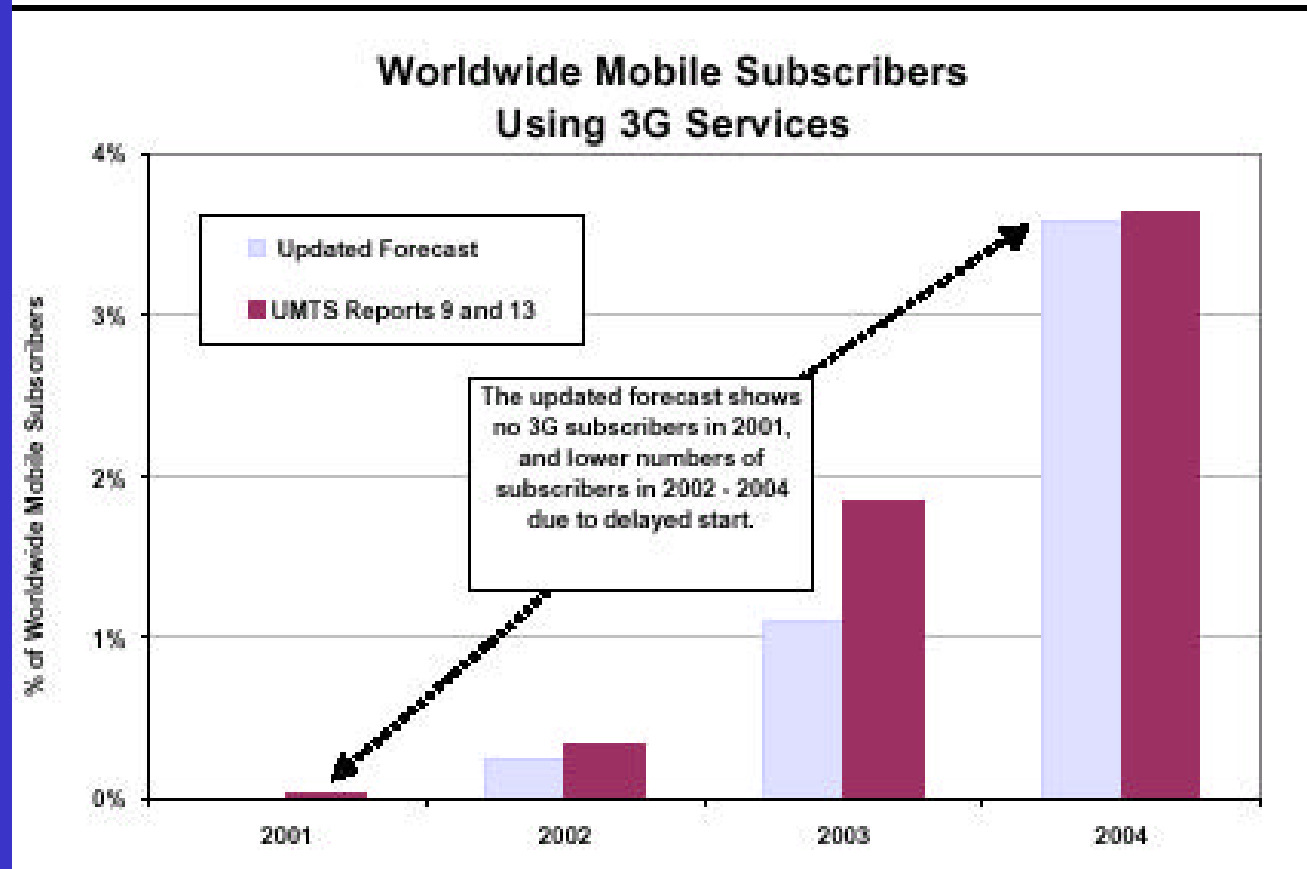
UMTS/3G Operators Revenues



Source: UMTS Forum Telecompetition Inc., February 2002

Worldwide Mobile 3G Subscribers

Figure 1. Worldwide 3G adoption rate comparison.



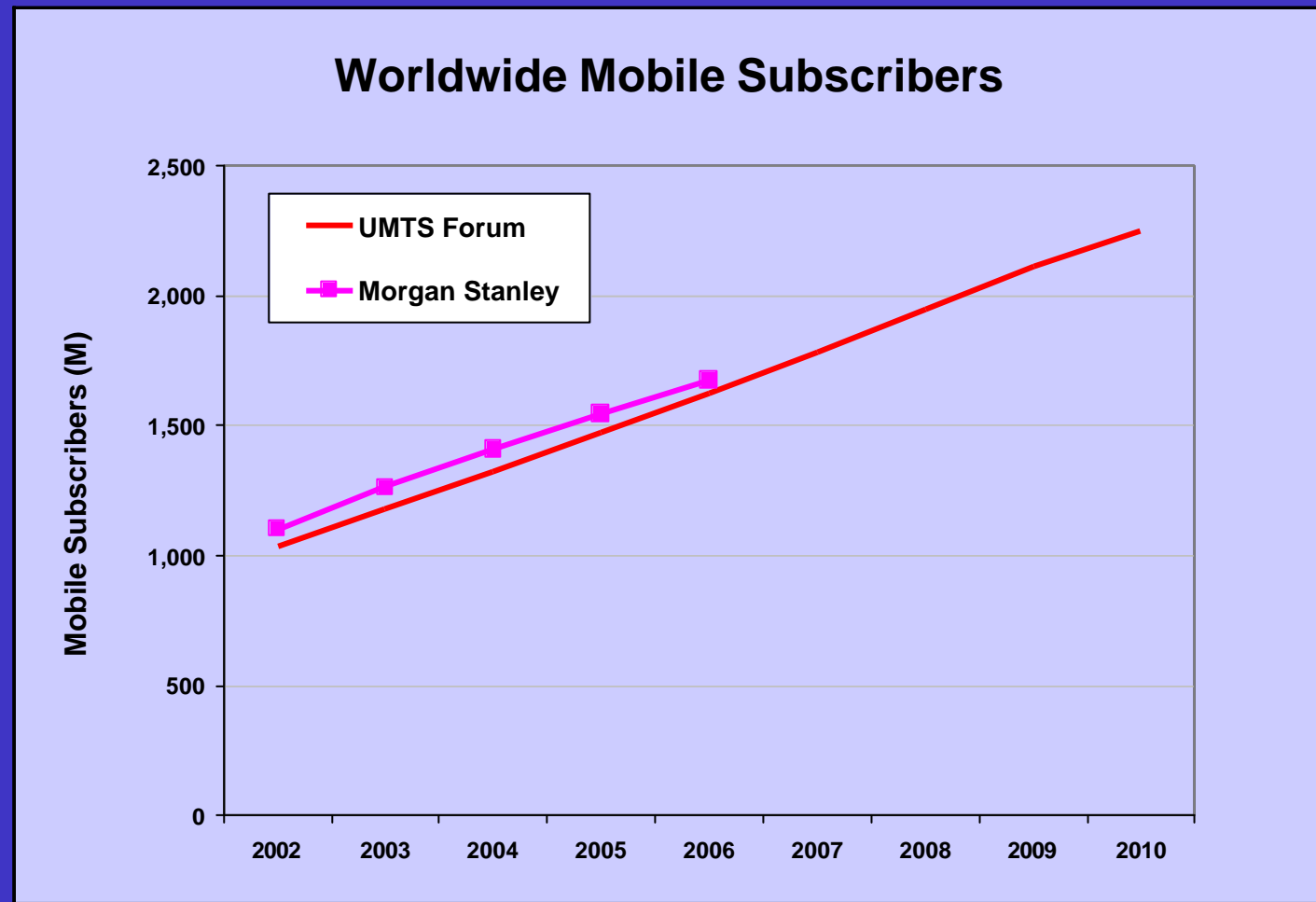
Source: UMTS Forum / Telecompetition Inc.
August 2001

Worldwide Mobile Subscribers

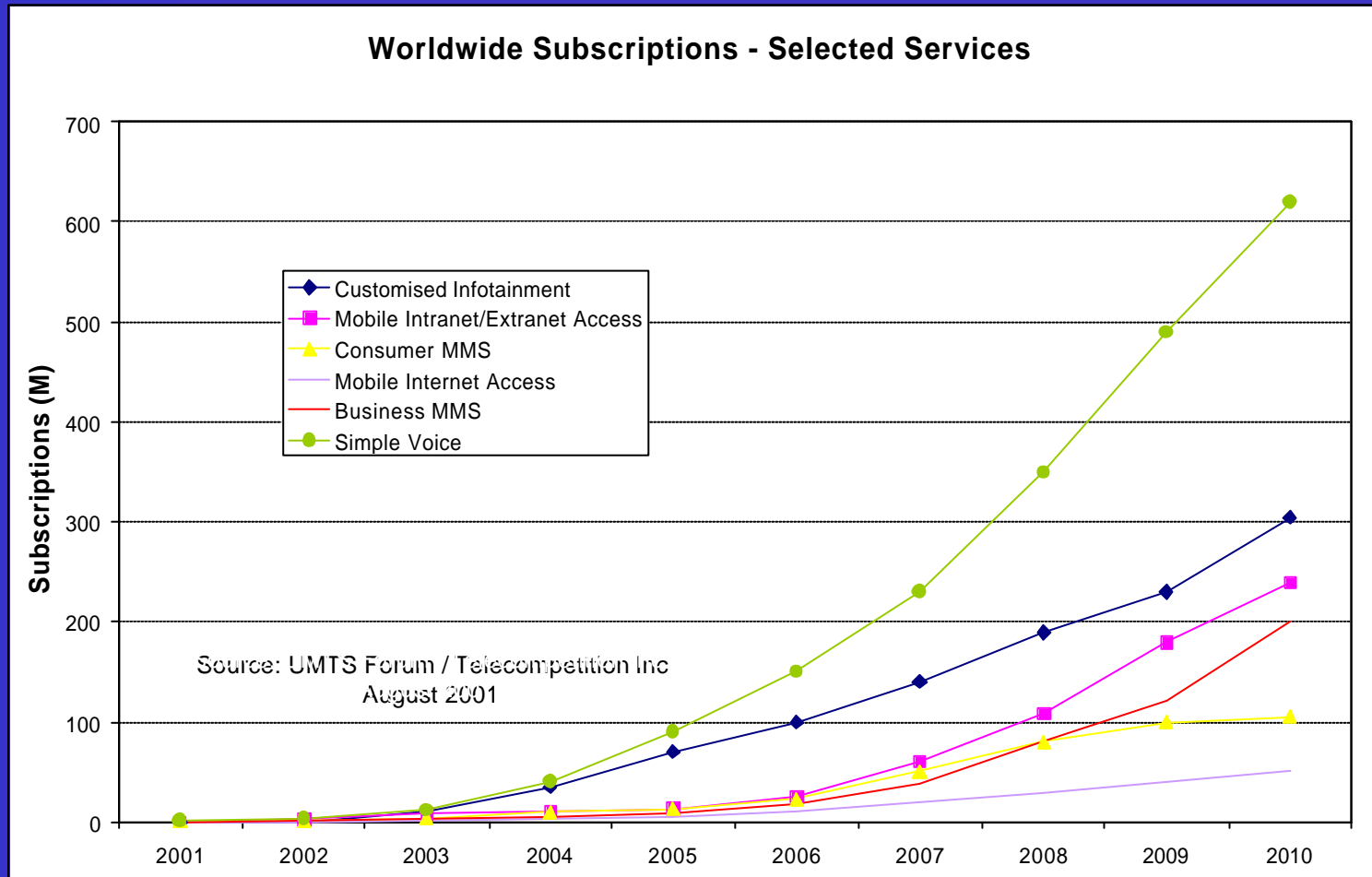
Figure 2. Worldwide mobile subscriber forecast comparisons.

Years 2007-2010 extrapolated from Morgan Stanley projections by applying 2001-06 compound annual growth rate (12.7%) to the remaining forecast years.

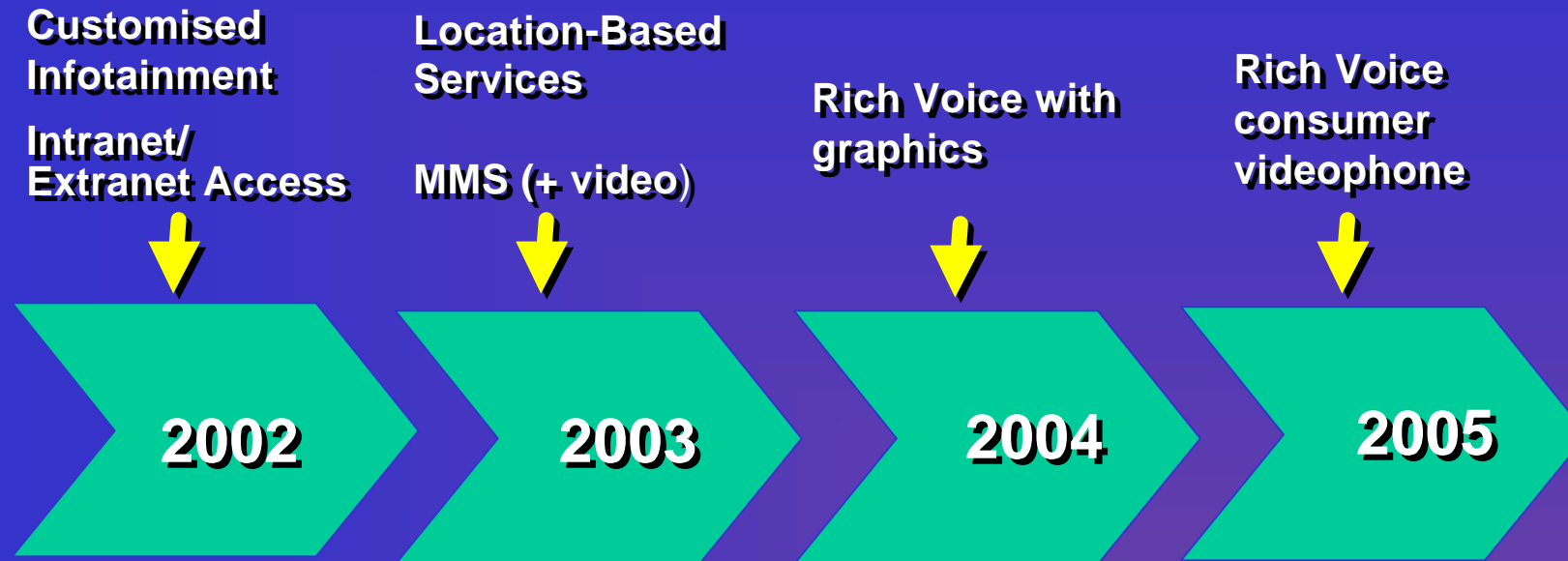
Source: Telecompetition, Inc./UMTS Forum February 2002, and Morgan Stanley "Worldwide Wireless-1/02", January 22, 2002.



Worldwide demand for 3G services by subscriptions – 2001-2010



Staged UMTS/3G services introduction



- 3G services available in Japan (similar to customised infotainment and Intranet/Extranet Access)
- UMTS Market trials for videophone service on Isle of Man and Monaco
- Multimedia Messaging Service introduction H1 2002

Market Study Summary



- ▶ Recent economic downturn and market turmoil following September 11 will have only short term implications on 3G revenues
- ▶ proposed increased spending in the US on defence & technology
- ▶ Cumulative revenues of almost **\$1 trillion** from launch until 2010
- ▶ **\$322 billion** in revenues in 2010
- ▶ In 2010 the average 3G subscriber will spend about **\$30** per month on 3G data services
- ▶ Non-voice service revenues will dominate voice revenues and comprise **66%** of 3G service revenues by 2010
- ▶ market slowdown leading to better cash generation from 2G networks

UMTS Forum Reports & Papers



Latest Reports (e.g. 3Q2001 to 2Q2002)

- ▶ 3G Portal Study (No 16)
- ▶ UMTS Third Generation Market Study Update and Forecast (No 17/18)
- ▶ Benefits and drawbacks of introducing a dedicated TLD... (No 19)
- ▶ IMS Study (No 20)
- ▶ Charging, Billing and Payment Views on 3G Business Models (No 21)
- ▶ Public WLANs & 3G Business Revenues (No 22)
- ▶ UMTS/IMT-2000 in Central & South American Countries (No 23)

Reports under study (2002) e.g.

- ▶ (more) Wireless LAN Studies (expected 3-4Q2002)
- ▶ Research on Customers Behaviour (expected 4Q2002)

Further more

- ▶ Position & White Papers on different subjects (continuing) e.g.
 - ▶ Global Terminal Circulation
 - ▶ 2G-3G Evolution





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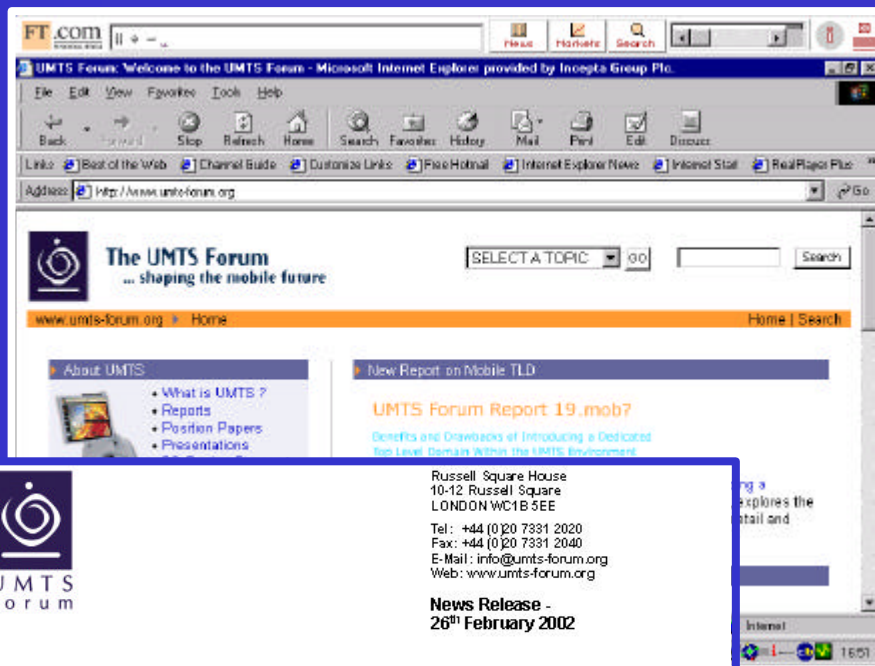
.....Shaping the mobile future

**Committed to the global success
of UMTS / 3rd Generation Mobile
Communication:**

The UMTS Forum

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News Release -
26th February 2002

Potential remains high for 3G services post September 11th

- \$1 trillion opportunity for 3G predicted over next decade -

The UMTS Forum, the systems and services, has post September 11th which is extremely high, even with

The report follows up the January 2002, and extends to September 11th as well



- ▶ **Website:**
 - ▶ News, Reports, Events, Contacts
www.umts-forum.org
- ▶ **Mobilennium:**
 - ▶ next issue: June 2002
- ▶ **General Assembly:**
 - ▶ #26, 6-7 June 2002, Philadelphia, USA
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