

“The Promise of 3G: Technical Aspects and Market Demand”

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Outline

- **INTRODUCTION**
- **TECHNICAL ASPECTS**
- **MARKET DEMAND**
- **SUMMARY**

The Vision of 3G Services

GREAT PROMISE for Consumers-
High-speed data Communications to a
Variety of value added
Applications Content,
presented on multi mode Devices
practically anywhere in the world



INTERNET ACCESS

**Mobile
Internet**

Chat, e-mail
Travel Information
**Near Video on
Demand**
**News and Sports
Clips**
Business TV
**Audio on Demand
Information**

**Fixed
Internet**

Broadcasting



IMPORTANCE OF IP

**IP is more than
a Protocol.**

IP is ubiquitous.

**IP has influenced
many businesses**

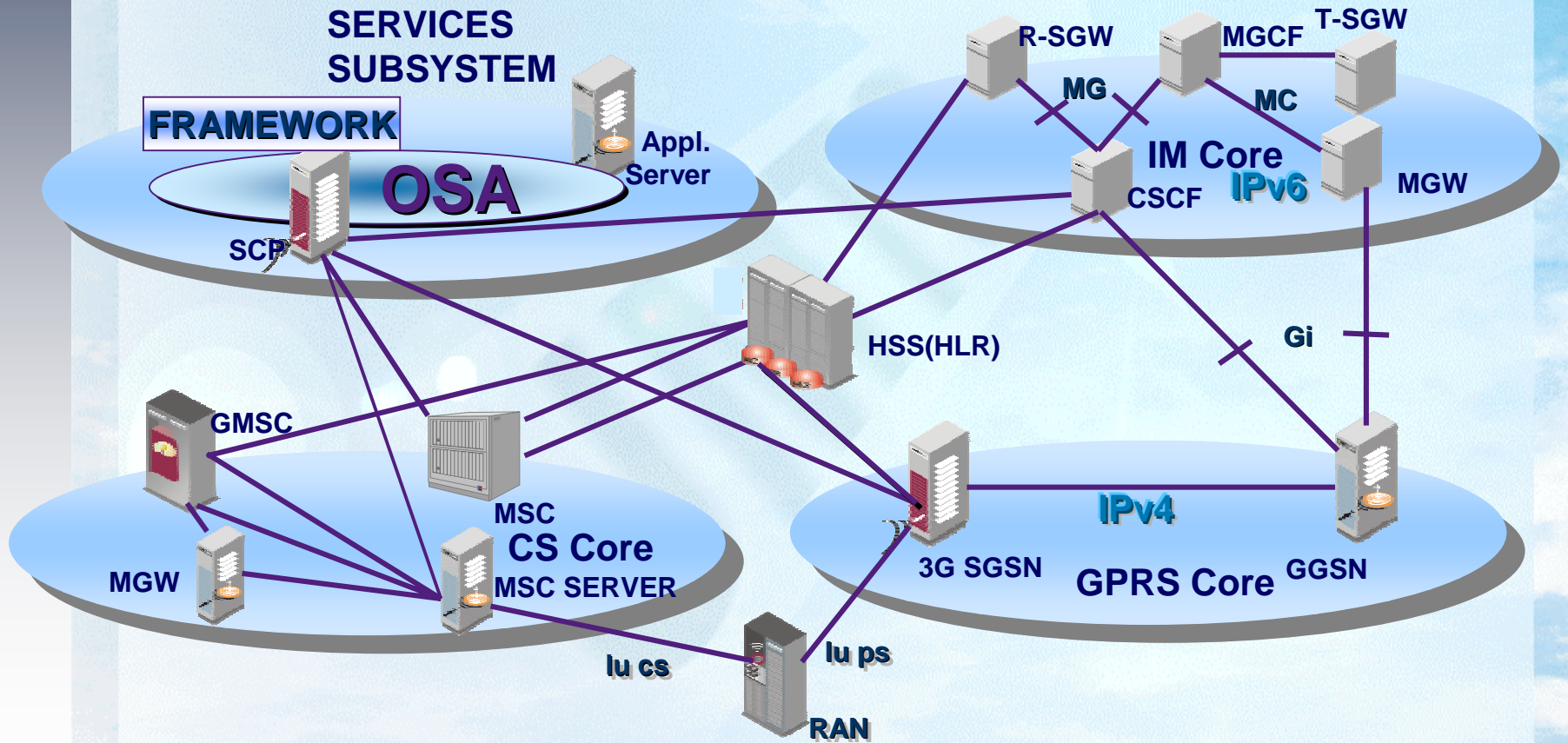


Mobile E-Mail
Mobile E-Commerce
Mobile Internet Service Provider
Mobile Intranet Access
Mobile Entertainment

Why has the Internet been successful?

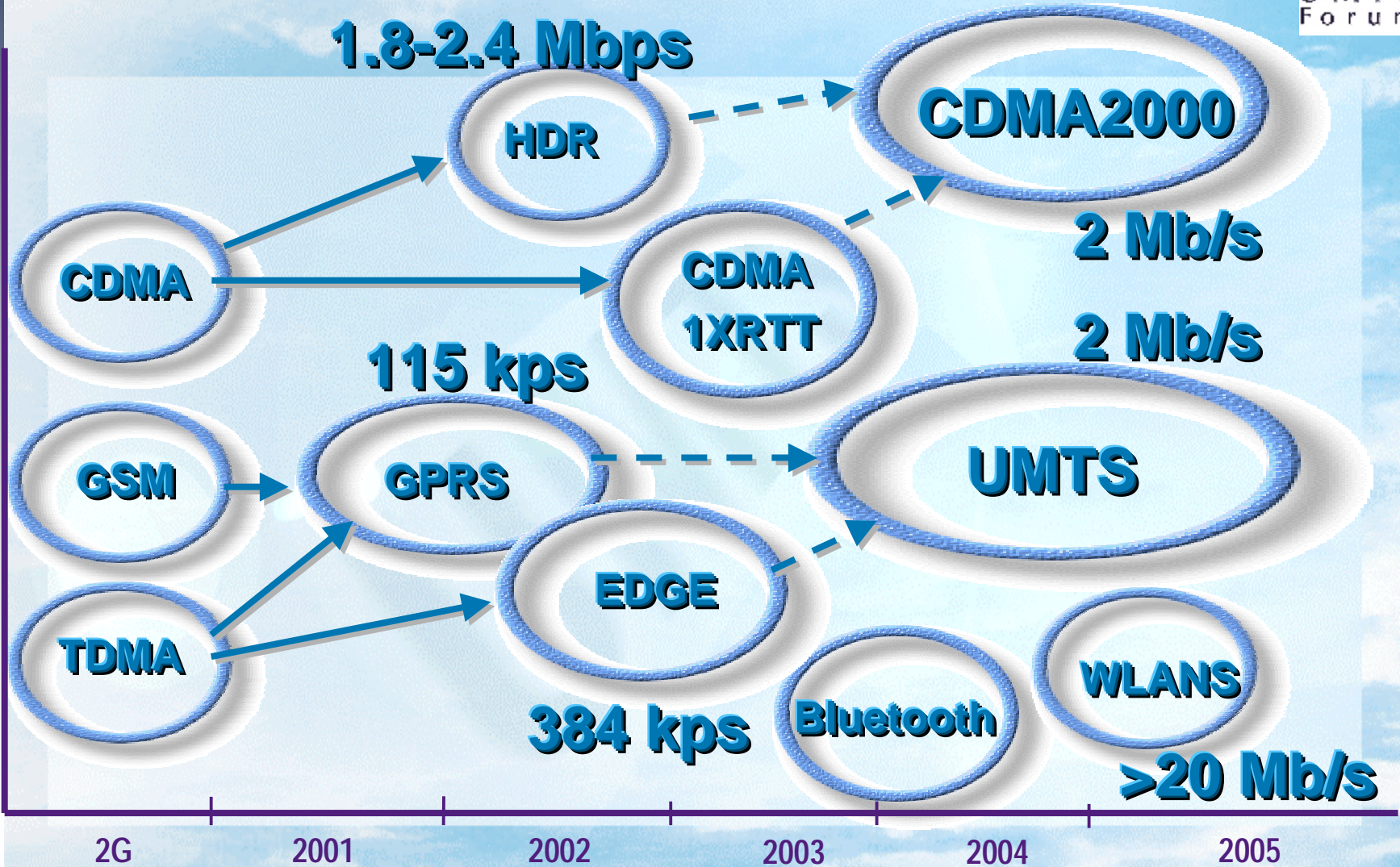
- **Extremely easy technology to use**
- **Technology was developed “outside” telecommunications and operator industry**
 - “Packet switching networks can not work in large scale“
AT&T, c.1970
- **Price and penetration**
 - “Virtually no-expenses for end-user“, 1960-1995
- **Not Regulated**

ARCHITECTURE OF 3G NETWORKS



SUMMARY of IMT-2000 Standards

Functionality & capability



**“The nice thing about standards is
That there are so many to choose from”**

**Today in multimedia rather than
choosing one, one uses all of
them together**

What is different?

- **2G differentiator is about Tariffs**
- **3G is about services and Applications, hence these will be the differentiator**

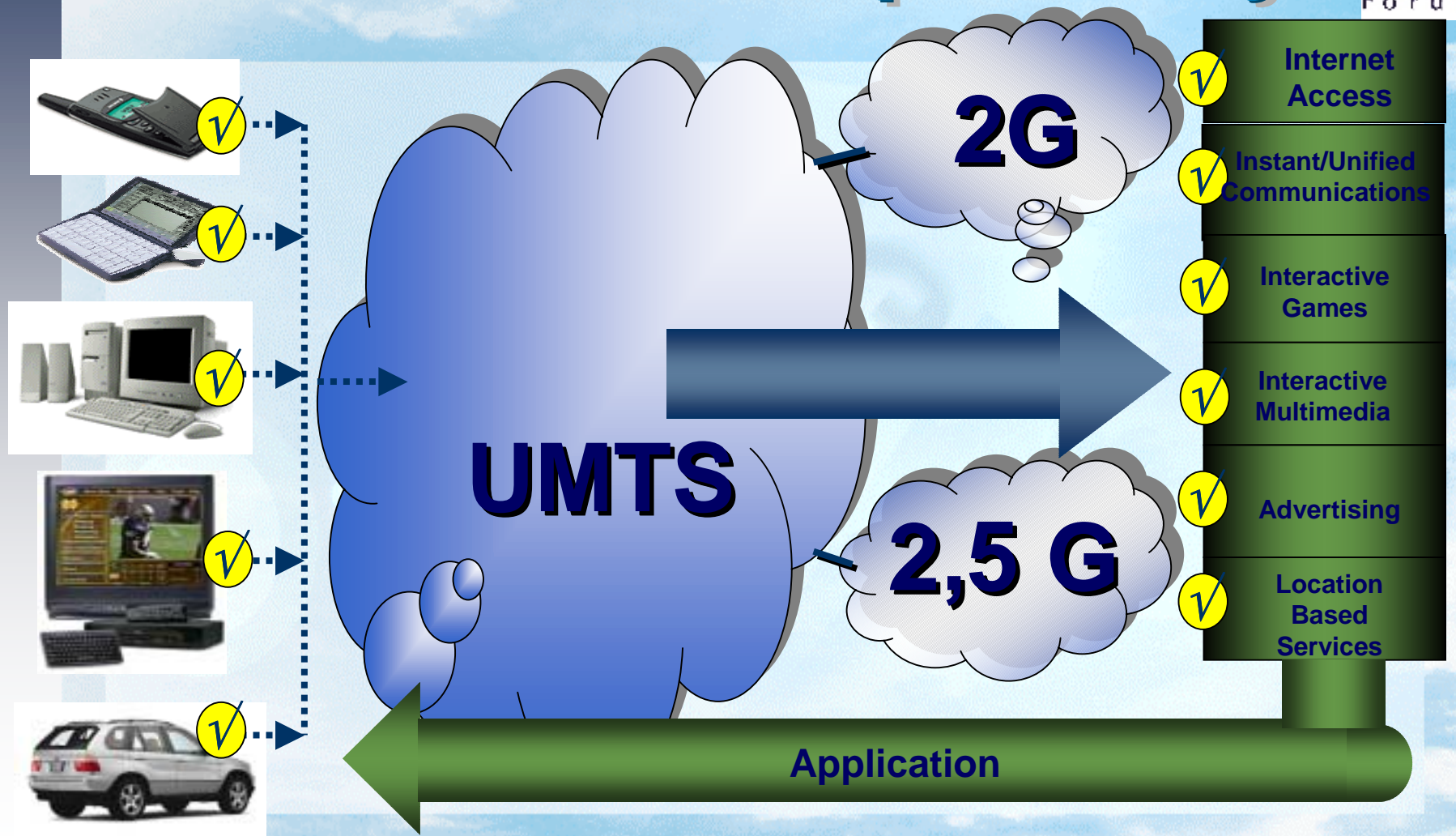


3G market demand

The 3G operator role will change from a simple voice-only, direct relationship with the user to one which involves: multiple partners, revenue sharing, and third parties also targeting the end-user



Ensure the interoperability



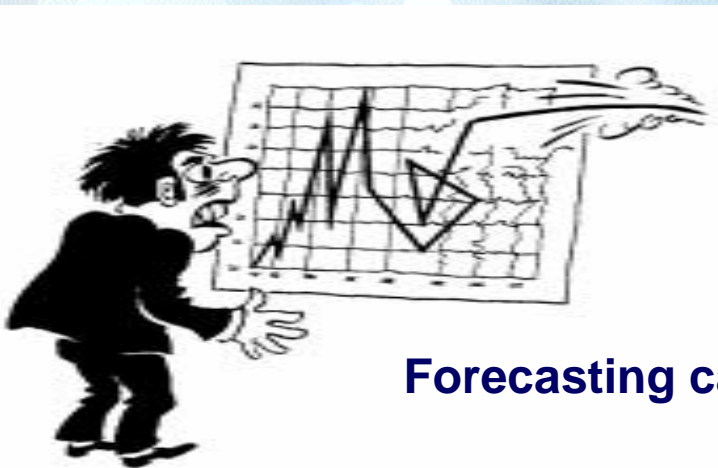
Migration from 2G to 3G

How will we know when we will have got to 3G?

Famous last words

“The telephone would be used only to inform people of the arrival of telegrams.”

**1876 Alexander G. Bell invents
the phone**



Forecasting can have unpredictable results

Do not wait for Killer Applications

Go out and find them



Appliances + Devices



be
inspired



SERVICES & APPLICATIONS

mobile commerce

- Mobile Banking/Brokerage
- Interactive Shopping
- Multimedia Booking & Reservation
- Mobile Auctioning
- and more . . .

mobile info-services

- Map based location info service (e.g. restaurant finder)
- Map based traffic info
- Multimedia personal info service
- and more . . .

mobile services

- Control of Household Devices
- Personal Security Systems
- Video Surveillance
- Machine-to-machine comms
- and more . . .

mobile portal

- Personalized application menus
- Search Engine
- Banner Ads
- and more . . .

mobile communication

- Multimedia Messaging
- Video Telephony / Video Chat
- Fast Internet Access
- and more . . .

mobile entertainment

- Audio- Video-Clips
- Multimedia Lottery & Betting
- Interactive Games
- and more . . .

mobile office

- Personal Organizer
- Corporate Directory
- Fast Internet-/Intranet Access
- Video Conferencing
- and more . . .



USER EXPECTATIONS

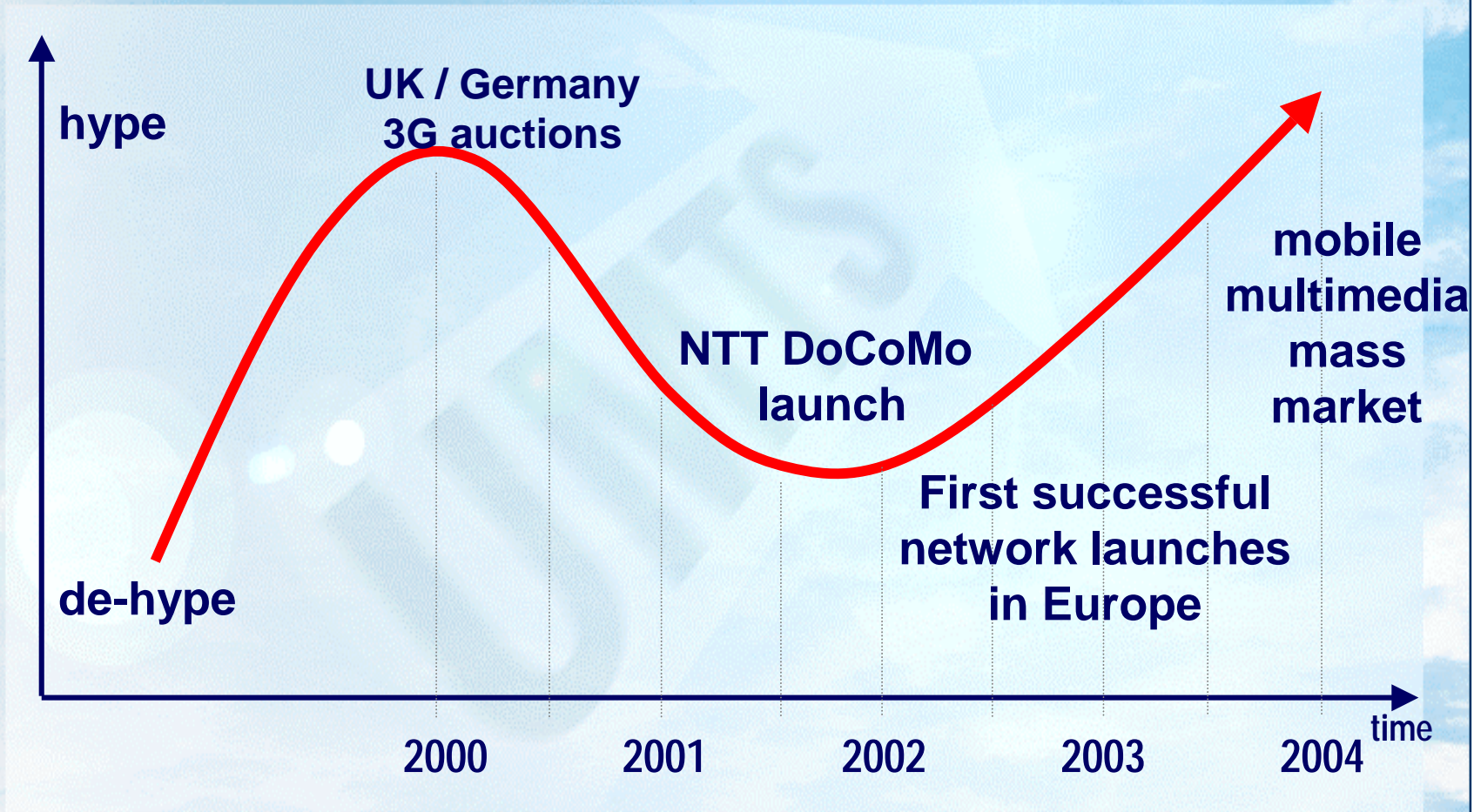
- **Added Value
here
now
for me**
- **Simple to use**
- **Affordable price**



UNCERTAINTIES

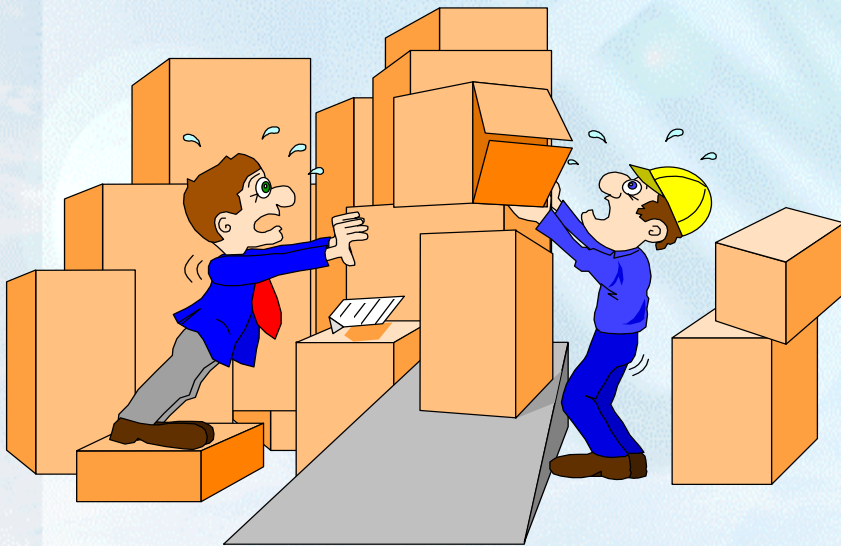
- **European network Operators have invested approx. 313 billion Euro on UMTS Licenses**
- **In addition large to new infrastructure, Device Availability, network development costs**
- **Strategic uncertainty on product / market positioning, service and market segments etc.**

Jackpot or Bankruptcy - The future of 3G licensees ?



“This is not the end, it is not even the beginning of the end. It is merely the end of the beginning“

Winston Churchill



SUMMARY

- **More communications required within Standards bodies**
- **Licensing policies should be fair and simple**
- **A competitive landscape encouraged**
- **Infrastructure sharing should be allowed**
- **Very encouraging prospects for 3G**

*Thank you for your
attention!!*

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