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3G business models A nightmare?

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Oct 2003



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3G business models : a nightmare ?

- **Mobile networks and services : the landscape**
- **About mobile network**
- **About services**
- **The regulatory outlook**



The mobile landscape

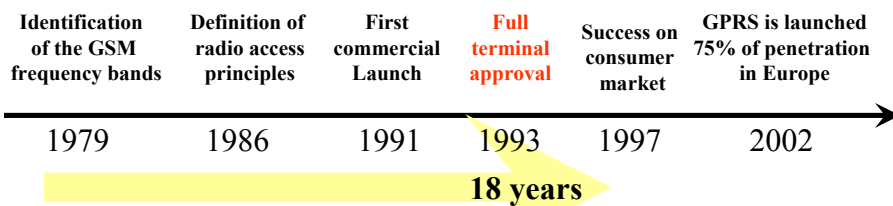


Towards new business models !

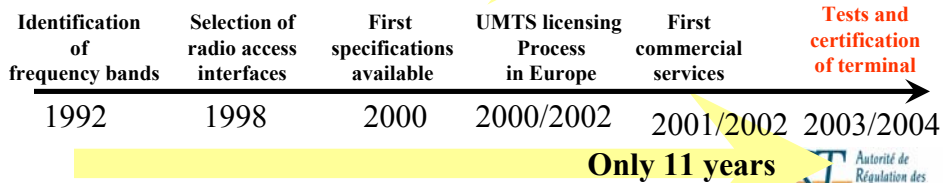


About mobile network

● **The GSM story :**



● **The UMTS story :**

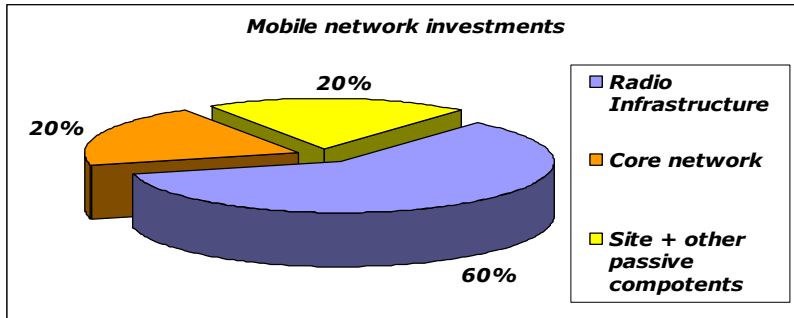


UMTS : a long path ...but a right track



About mobile network

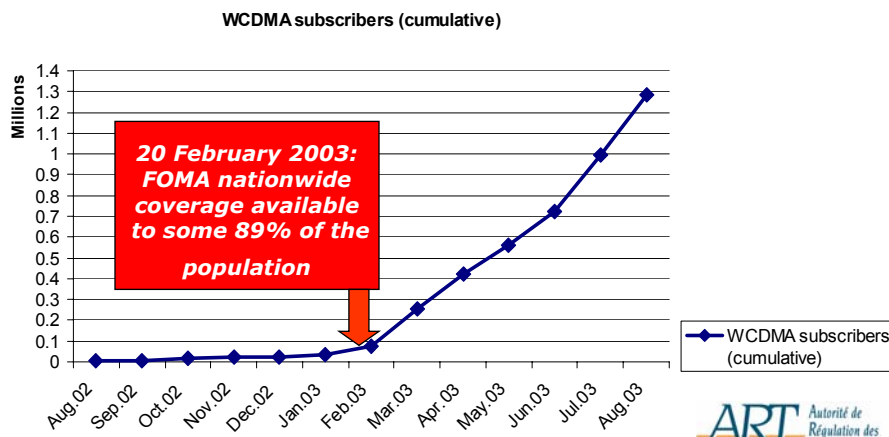
- **The radio access network will be the main contributor to the CAPEX.**



- **Regulatory regime offers network sharing opportunities under certain conditions.**

About mobile network

- **3G: Coverage is a killer application !**



About mobile network

- **3G: Coverage is a killer application !**
 - **European operators will complete the 3G coverage with 2G (GSM , GPRS coverage) or will introduce (benefit) from 2G (GSM, GPRS roaming),**
 - **terminal shall be multimode (2G/3G) otherwise mobile operators will encounter either the FOMA DoCoMo challenges,**
 - **Merging services on a single 2G, 3G network will meet CAPEX, OPEX reductions.**
- **Regulation may introduce national 3G coverage obligations on voice and data services.**

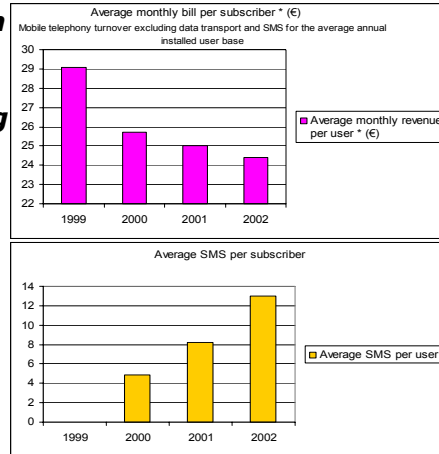
About mobile network

- **International roaming is still a key factor of the GSM success! UMTS with data capabilities needs international roaming.**
- **UMTS will benefit from GPRS roaming:**
 - **GSM/GPRS operators arbitrate between quality/security and installation costs and prefer the GRX solution which offers the best quality to cost ratio,**
 - **GRX infrastructures without traffic flows today are ready for UMTS,**
 - **Financial flows, already in place, will benefit from data traffic growth.**

(see ART study on GPRS roaming)

About services

- **Voice services are main contributor to mobile operators revenue but contribution decreasing (-2,3 % last year – source ART).**
- **SMS services increase mobile operators revenue (+58% growth, last year – source ART) with more than 80% margin.**
- **But what next ?**



About services

- **Communications services cover various forms of usages :**
 - **Voice (UMTS provides new codec AMR – voice quality)...but decreasing revenue is a major trend of fixed and mobile markets. As an example, H3G UK offer voice communications at half price relative to other UK mobile operators.**
 - **Video-phony, video conference, ...,**
 - **Messaging : SMS, MMS, Instant Messaging, e-mail, ...,**
- **The growth of communications services revenue is subject to Metcalf's law and interoperability issues as any new telecommunication services.**

About services

- **Mobile multimedia messaging and browsing offer a great potential in terms of usage ... and revenue.**
End user

		Person to person communication		Communication with machine
Services	Multimedia messaging	MMS person to person	Instant messaging	MMS push MMS pull
	Browsing	Email	Email Mobile operator provision	
				Access to content

Source Analysys

About services

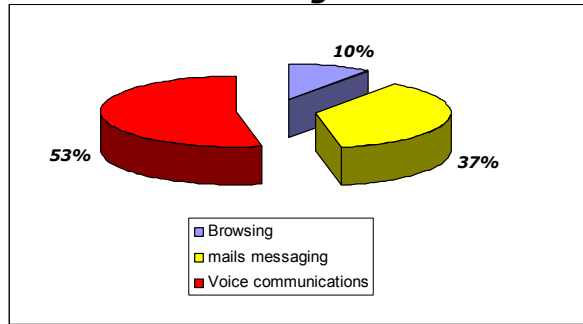
- **Mobile multimedia messaging open to various forms of billing.**

MMS person to person	<i>billing per message with capacity limit (0,35 to 45€),</i>
Instant messaging	<i>Billing on data trafic or per message (SMS, MMS)</i>
e mail	<i>Billing on data trafic</i>
e-mail i-mode	<i>Subscription + Billing on data trafic (emission and reception)</i>
MMS push	<i>monthly subscription</i>
MMS pull	<i>Evolution towards MMS premium (sms premium)?</i>

- **Moreover, SMS premium services show a way to go for MMS value added services. SMS + in France : more than 20 millions SMS for the 6 first months of operation.**

About services

- **Mobile browsing services seem, at this stage, less attractive than others usages.**



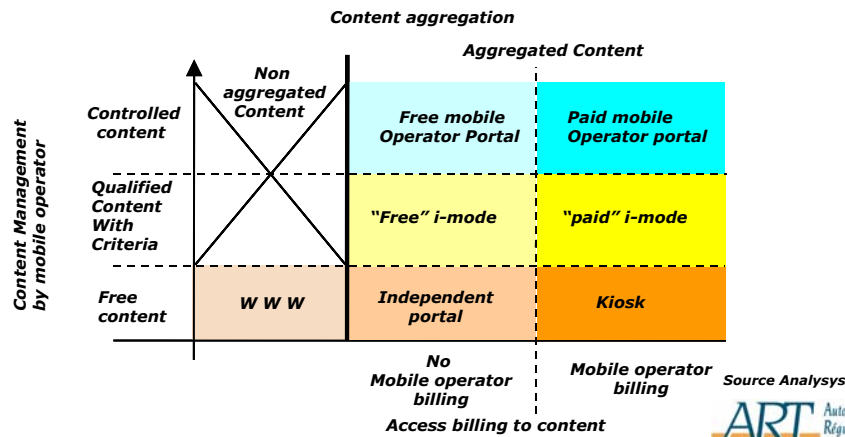
Mobile usages in Japan
Source Electronic Commerce Promotion Council of Japan 2003

- **But 2,5 G and 3G networks and new generation of terminals (color and large screen) seems browsing enablers.**



About services

- **Mobile browsing opportunities with more or less involvement of mobile operators**



About services

- **With kiosk model and revenue sharing, mobile operators will re-invent the Internet. A paid Internet!**

"Free" Internet browsing	Operator billing on data traffic
Independant portals	Operator billing on data traffic (and independant billing)
Kiosk services	Operator billing on data traffic and content
"Paid" i-mode	Operator billing on data traffic and content
"Free" i-mode	Operator billing on data traffic (and independant billing)
Mobile operator portal	Operator billing on data traffic and content

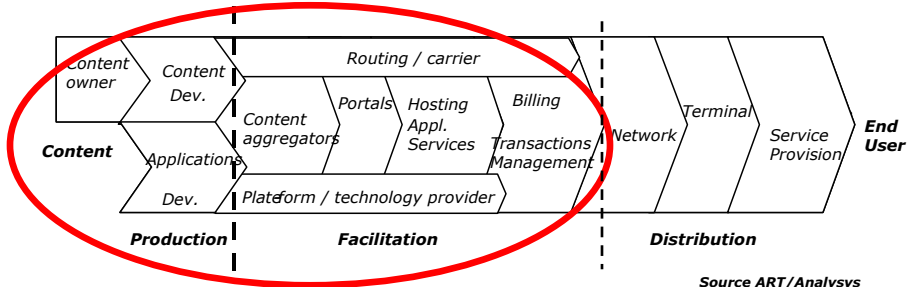
Revenue sharing on content provision

About services

- **And more revenues:**
 - **Content offer large potential of services such as personalization, video downloading, personal multimedia storage.**
 - **Mobile community will enter within a new arena with gaming and on line gaming. On line gaming and games downloading may generate revenue to mobile operators.**
 - **Location based services and location data will also generate revenues which are network independent.**

The regulatory outlook

Spring 2000 : Mobile multimedia services prehistory with WAP services on GSM. New players enter the mobile market.



Source ART/Analysys

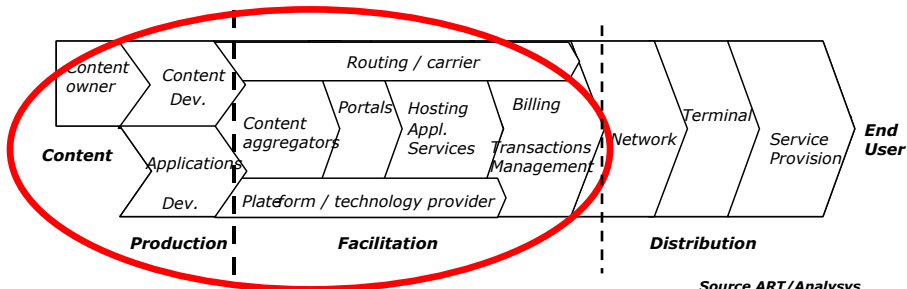
Mobile multimedia value chain and the new players

ART publishes recommendations on the Mobile Internet. Orange and SFR 3G licenses refer to these recommendations.



The regulatory outlook

GPRS with these new players already introduces new business models: messaging, browsing, value added services.



Source ART/Analysys

Mobile multimedia value chain and the new players

UMTS will stimulate usages but does not require new business models except for few services (video-phony, etc.).



The regulatory outlook

- ***Ex ante regulation may influence the competitive conditions taking shape within new emerging markets which are innovation driven markets.***
- ***Currently, mobile operators are not subject to specific obligations regarding the services provided on the retail market, other than the measures appended to their authorization.***
- ***Under the new European regulatory framework, NRAs started market analysis on the wholesale access and call origination market, the voice call termination wholesale market on individual mobile networks, the wholesale national market for international roaming.***

The regulatory outlook

- ***Concerning the mobile multimedia services, regulatory issues could cover interoperability of services, consumer information, access to data network, to gateway, free choice of the user (competition between access and value added service providers), service visibility, numbering integrity within a converging environment with addressing and naming, etc.***
- ***However, evolution of the revenue structure and flows (access and services) and revenue distribution are mainly under construction.***
- ***Regulators will keep this evolution under close review for the next few years without excessive ex-ante regulation due to mainly emerging market characteristics.***

Conclusions

- **Mobile migrates smoothly towards new form of usages. The tools, 2,5 G, 3G networks and service enablers, are already there and generate potential revenues.**
- **With kiosk model, billing by message, billed instant messaging, etc., mobile operators re-invent the Internet. A paid Internet!**
- **GPRS and today mobile multimedia services offer the opportunity to establish new business models and revenue sharing involving mobile operators and new mobile players.**
- **Regulators will keep this evolution under close review for the next few years without excessive ex-ante regulation due to mainly emerging market characteristics.**

**Thank you for your listening,
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