#### FROST & SULLIVAN

### The Evolution of Mobile Content in the European Cellular Communications Market

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#### Agenda

- Introduction to Frost & Sullivan
- Objective of the presentation
- The status of mobile communications in Europe
- The role of content in European mobile communications market
- The emergence of new mobile content applications
- A new role for customers
- The future of mobile communications in Europe
- Conclusions

#### Frost & Sullivan: Global Growth Consulting



#### Frost & Sullivan: Industry Coverage

#### Industrial Automation & Electronics

Power Transmission Test & Measurement Sensors, Smartcards

#### Chemicals, Materials & Food (CMF)

Specialty Chemicals
Performance Materials
Food Ingredients

#### Healthcare

Medical Systems & Devices
Drug Discovery
Diagnostic Technology
Pharmaceuticals

#### **Environment & Building Controls**

Water & Wastewater Waste, Air Treatment Building Mgt Technologies

#### ICT

Communications Services
Enterprise Services
Network Security
Mobile & Wireless
Smart Cards
Contact Centres/CRM
Digital Media

#### Automotive & Transportation

Automotive
Transportation Systems
Logistics
Railway Systems

#### **Aerospace & Defense**

Battlespace IT, C4ISR Satellites & Space Military Aerospace Training & Simulation

#### **Energy**

Power Generation
Decentralized Energy
Power Supplies
Batteries, Renewable

#### Technical Insights (R&D Watch)

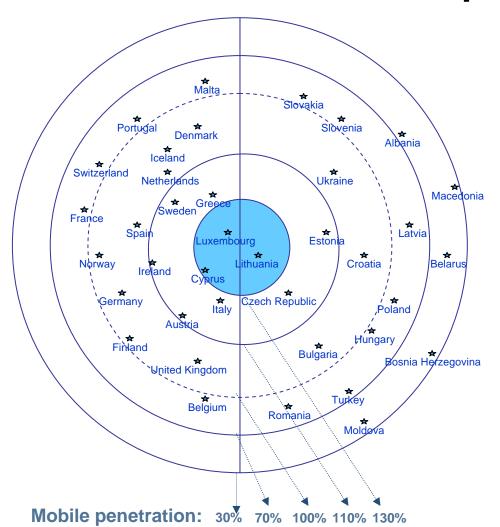
Emerging Technology Research Cross Industries

#### **Objective**

- Provide an overview of the European mobile communications market and the role of the mobile content.
- Illustrate the variety of mobile content applications and the changing role of consumers.
- Identify future paths for mobile content in the European market.

## Towards a Mobile Europe: mobile market and the role of mobile data

#### **Mobile Penetration in Europe**



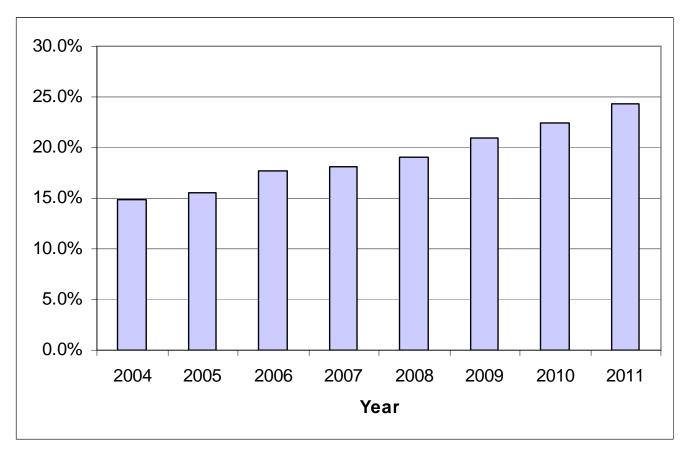
- •Saturated markets: mobile penetration is equal or more than 100%.
- •Almost saturated markets: mobile penetration is between 70% and 100%.
- •Transitional markets: mobile penetration is less than 70%

Frost & Sullivan, 2006

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#### **Mobile Data Revenues – An European View**

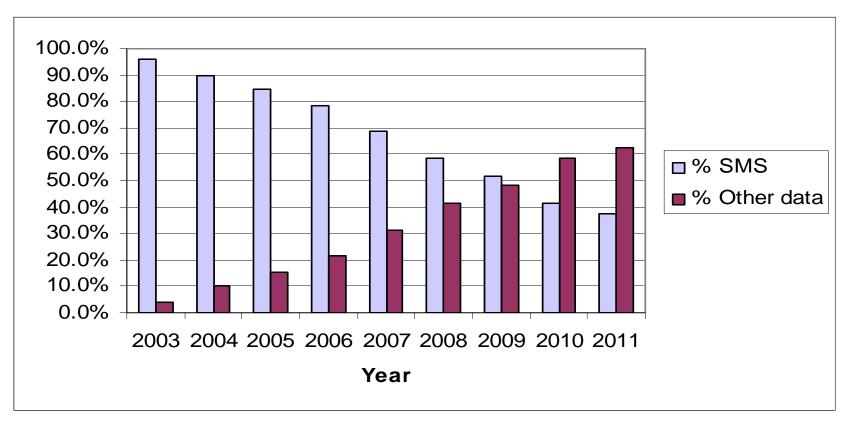
Mobile data revenues as percentage of total mobile revenue



Frost & Sullivan, 2006

#### SMS Revenues vs Other Data Revenue

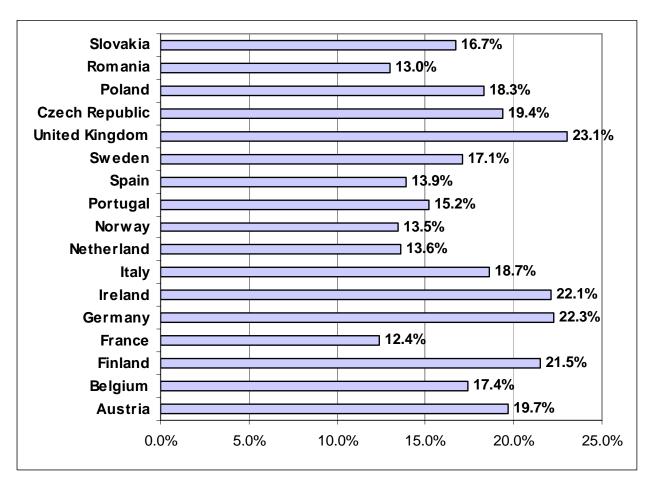
SMS revenues and non-SMS data revenues as percentage of total data revenues



Frost & Sullivan, 2006

#### **Mobile Data Revenue – Country Analysis**

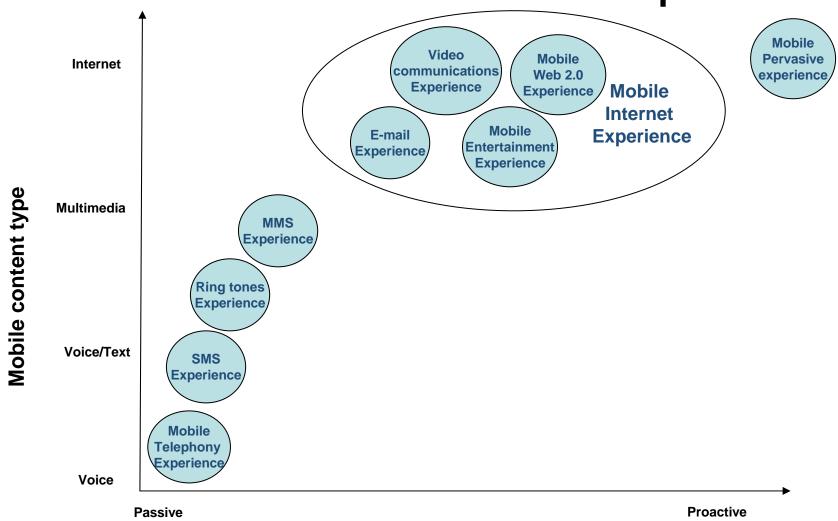
Mobile Data Services Market: Data-to-Mobile Revenue Percentages (Europe).



Frost & Sullivan, 2006

## The Evolution of Mobile Content: new applications and consumers' proactive role

#### **Towards Mobile Internet / Pervasive Experience**



#### Consumers' behaviour

#### **Mobile Entertainment Experience - 1**



Used by mobile operators in Portugal, Ireland, and Switzerland.



A vast library from major labels on almost 30 operators' phones in Europe.



Nearly 4 millions titles downloaded in 2006. A catalogue of 600.000 tracks.



Mobilni TV on O2 Czech Republic phones.



T · · Mobile · Nine TV channels on T-Mobile phones.

#### **Mobile Entertainment Experience - 2**



TV, music, and other services on Vodafone mobiles.



Music and not only on 3 phones.



Audio books for mobile phone, 210 titles available.



Music, ring tones, wallpapers on Cosmote phones.

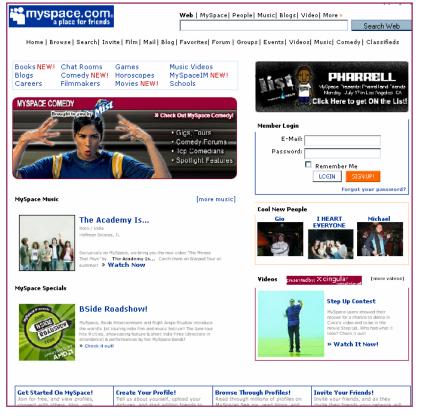


Games, ring tones on Meteor phones.



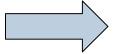
Zapp Meet-Me: teleconference from anywhere on Zapp phones.

#### **User Generated Content and Social Networking**





Web 2.0 generation



Mobile Web 2.0 generation

#### Mobile Web 2.0: New Actors



- Global play.
- The services provided are more valuable than the actual cost of delivering the service ... communities drive actual revenues through ad sales, e-commerce and service upgrades.
- X-factor companies devaluing core products and establishing strong relationships with customers -Starting a market position from a position of strong brand loyalty.













#### Mobile Web 2.0: Some Examples





Bebo social networking experience for Orange subscribers.





YouTube and Myspace as part of the Internet mobile Vodafone experience.







YouTube as part of the Internet mobile Telecom Italia Mobile experience.

#### Mobile web 2.0: Role of Consumers

Consumer habits changing from ....

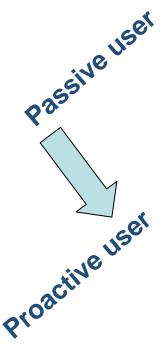
Web habits

SWITCH SURF SLEEP **Mobile habits** 

SWITCH SPEAK SMS

to ....

SEARCH PARTICIPATE PERSONALIZE



# The Future of Mobile Communications in Europe: the critical role of mobile content and the emergence of multifunctional usage

#### Mobile Market in Europe: a Possible Scenario

- An over-penetrated Europe with more than 30% of 3G/Beyond 3G subscribers.
- Extensive use of entertainment applications.
- A new social use of mobile communications: the advent of Mobile Web 2.0.
- Use of mobile devices as a multimode tool.
- There will not be a killer application, but a variety of customized services based on customers' needs.
- Customers as active part of the mobile chain.

#### Features of the Mobile Internet Experience

- SMS → Mobile blogging.
- MMS → Media sharing, video blogging.
- Operator portals → Mobile websites and mobile search engines.
- Push-to-talk → Mobile VolP.
- Content consumption → Content creation.
- Java games → Mobile games communities.
- Operators-centric strategies → Customers-centric strategies.
- Customers as users → Customers as content users/producers.

#### **Mobile Pervasive Experience**



Mobile devices become multifunctional. Not only multimedia communications, but other usage, such as:

- -Home automation applications,
- -e-Health applications,
- -Learning applications,
- -Telematics.



Barclays.mobi allows customers to check accounts via mobile Phones.





Machine-to-machines applications adopted by French mobile operators for business clients.

#### **Future Frost & Sullivan Research**

- European mobile communications market outlook.
- Mobile security.
- Mobile content.
- Broadband wireless technologies.
- Pervasive wireless devices and applications.
- Regulation in mobile and wireless communications.
- The impact of mobile and wireless technologies on environment.

#### **Contacts**

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#### Thank you very much