Rich Communication Suite

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Content

Telecom Italia & RCS Achievements

Telecom Italia RCS 1.0 pilots

- Interoperability pilot in Italy
- Service concept pilot

RCS Telecom Italia demo at MWC 2010

Next steps

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Rich Communication Suite: an industry commitment

■ The RCS initiative, under GSMA, is the joint effort of leading industry players to speed up and facilitate the adoption of applications and services that provide an interoperable, convergent, rich communication experience based on IMS

■ > 100 companies joined RCS
  – 30 of the world's top operators
  – Handsets vendors
  – Infrastructure vendors
  – applications developers

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RCS Basic Principles…Interoperability!

an enriched communication experience leveraging operator main asset: communication

easy to use

fun
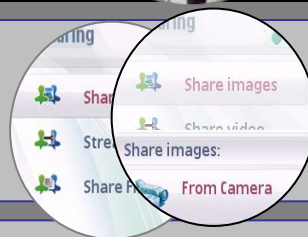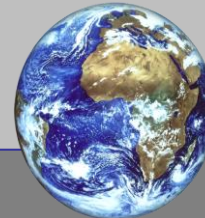
… to a large community

… on a wide range of devices

Share images
Share video
Share images:
From Camera

… and interoperable among different telecom operators

David

Can I ask you something?

Anything my love

David wants to send:
birthday.jpg (56 KB)
Accept/Reject

What's th|

Options   Send   Back

Lisa Francis
Out of control

Paul Langfield
Busy little bee

Brian Williams

Options   Chat   Back

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Telecom Italia services: Video Share, PoC, PIM and TIM I'M

Today	TIM I'M

•SERVICE

•Different applications and user interfaces for different services:
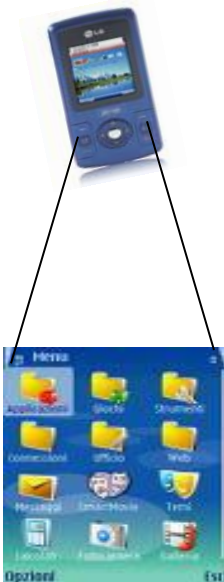-Basic: voice, sms, mms ..
-Enhanced: VideoShare, Mail, IM, VoIP, PTT

-•

BASIC

ENHANCED

VOICE

SMS

MMS

VIDEO

VS

PoC

IM

Mail

•SERVICE

• All services in the
  Address Book

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Lessons Learned

- Service implementation by proprietary silos solutions do not work & difficult to be adopted by consumers

- Barriers to success
  - Non homogeneous solutions
  - Different applications/clients
  - Lack of terminals
  - Lack of interoperability & commercial agreements between operators

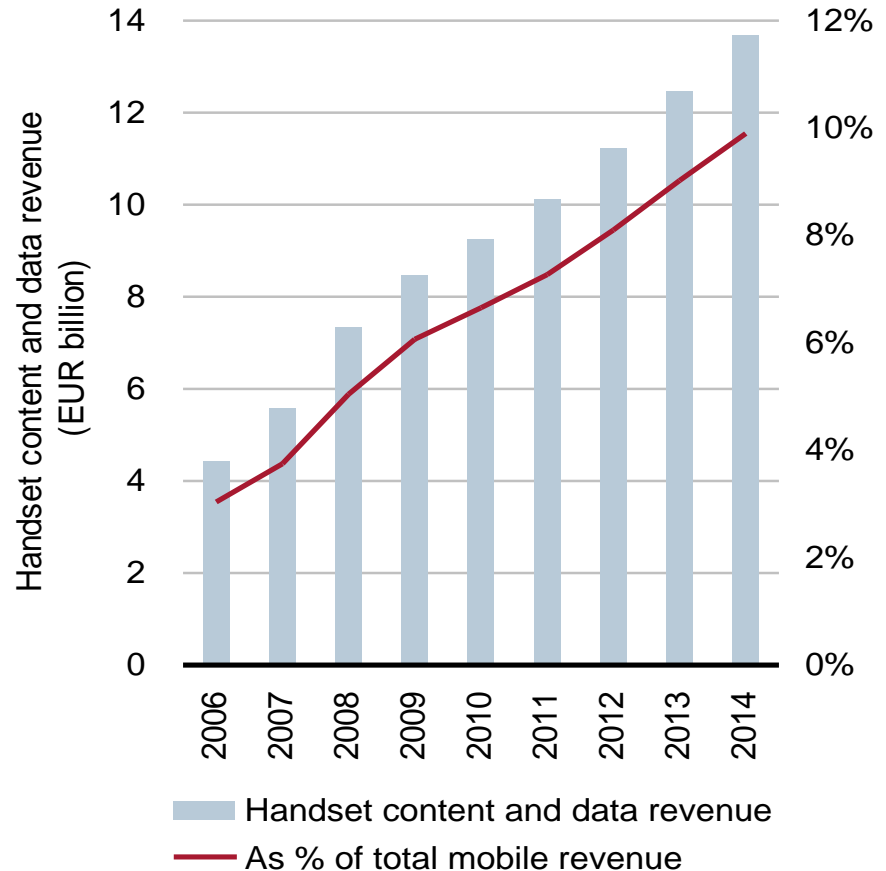## the key to success is interoperability

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Key characteristics for a successful solution from TIM experience

- Focus on users needs
- Integrate all services in a single Enriched Address Book
- Presence information
- Enhanced user interface experience
- Wide range of terminals
- Embedded clients into high and mid tier devices
- INTEROPERABILITY between networks
- Consolidated commercial agreement between operators

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RCS features evolution

RCS 1,2,3 have focused on creating a solid foundation for delivering end-to-end Rich Communications services based on interoperability.

- Social networking spreading everywhere
- Data services usage and revenues increasing
- Revenues from traditional services Voice and text decreasing
- iPhone has radically changed the way innovative applications are sold to consumers and Google Android has reinforced this trend

Handset content and data revenue (EUR billion)

■ Handset content and data revenue
— As % of total mobile revenue

Western Europe, 2006–2014 [Source: Analysys Mason, 2009

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Release 4 Open APIs feature: Business Context

- In response to the evolving needs of consumers, operators, vendors and developers RCS will use the Application Programming Interface (API) approach in order to expand capabilities, enable new business models, provide mechanisms for differentiated services, and significantly reduce time-to-market for innovation.

RCS APIs and Social Networking Position Document (Leaders:Telecom Italia & Ericsson)

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RCS: API definitions

RCS NW & Device APIs:

- Social Presence Information
- Service Capability Indication
- Video Sharing
- Image Sharing
- File Transfer
- Chat (*SIMPLE IM based*)

- Coordination with GSMA OneAPI project and OMA to specify the relevant APIs

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Telecom Italia – Pilot on "Service concept"

- Telecom Italia pilot performed in 2009 on Service Concept that was providing significant feedback on the acceptance by end users of the RCS user experience

- It was confirming that RCS meets many of the consumer needs for next-generation multi-media services

- It was also showing how RCS could be improved: user interface, handset capabilities (keyboard, screen..), battery's life, service robustness.

RCS Service concept Pilot in Telecom Italia

- **Objectives:**

Technical: execution of tests to verify robustness/stability of the IMS network and interoperability between clients and RCS core network

Business/Service: evaluate RCS service concept and collect feedback on user experience and usage

- **Number of users**: 50
- Focus Group Profile:
  - Age 25 - 50

  - 40% regularly access Social Networks
    - 10% through mobile internet

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RCS 1.0 Pilot in Telecom Italia

RCS 1.0 Field Trial

MSC

CS Mobile

Voice, SMS, MMS

IMS

RCS

Presence, Messaging, Sharing
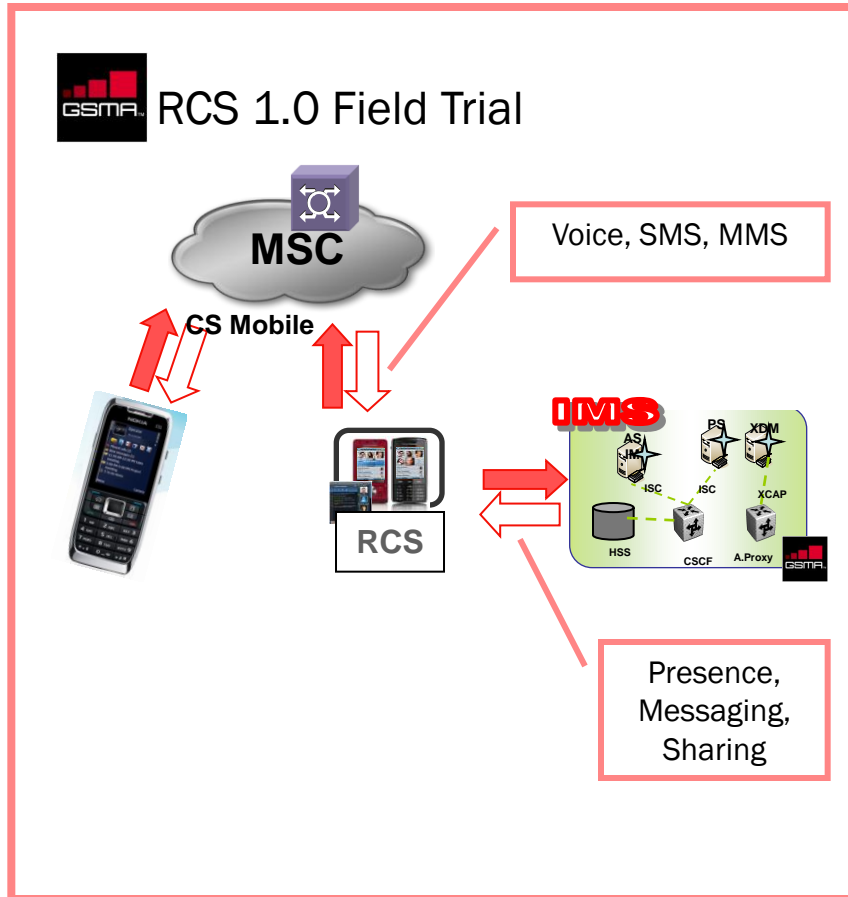
Features:

- Social Presence Info
  - profile picture
  - tagline
  - presence status
- Messaging
  - 1 to 1 Chat
  - 1 to 1 File Transfer
  - 1 to Many Chat
- Telecom Italia RCS 1.0 network is powered by Presence Server and Instant Messaging Server

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Service Appeal

If it was a commercial service, Do you will use it?

- No 6%
- Yes 18%
- Perhaps not 12%
- Perhaps yes 64%
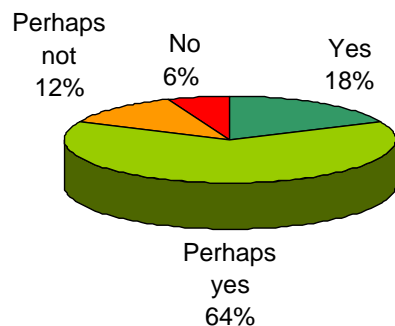
What did you like more of RCS?

La possibilità di conoscere la presence	La possibilità di impostare e vedere la frase di stato/immagine degli altri	Un buon supporto alla conversazione (history, fumetto..)	L'integrazione con il file transfer	Altro
24	18	14	8	3
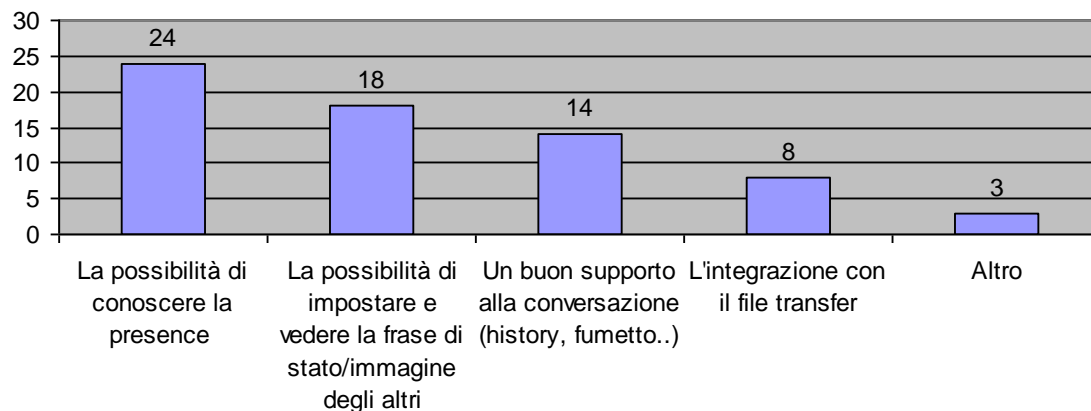
▸ **Good Service acceptance: 82% will use RCS if commercial available (64% probably, 18% YES).**

▸ **The feature that user likes more is "presence status".**

▸ **Presence information saying when the user is available, tagline and chat could have impact on phone calls**

▸ **Less SMS/MMS sent, because of chat (contacts in the buddies list).**

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Chat

Is chat an important feature?

- Molto 18%
- Poco 12%
- Abbastanza 70%

When a messagge can not be delivered via IM but vis SMS. What do you do?

- Altro 3%
- Accetto sempre l'invio come SMS 21%
- Non accetto mai l'invio, in fondo non era importante 15%
- Dipende dall'importanza del messaggio 61%
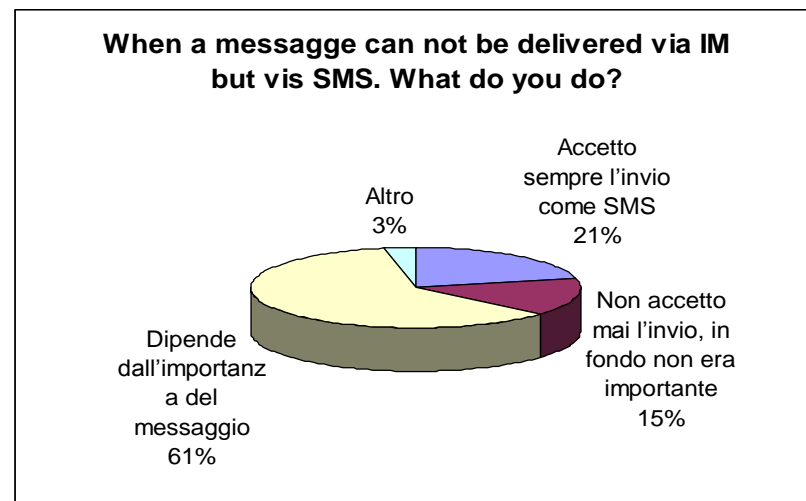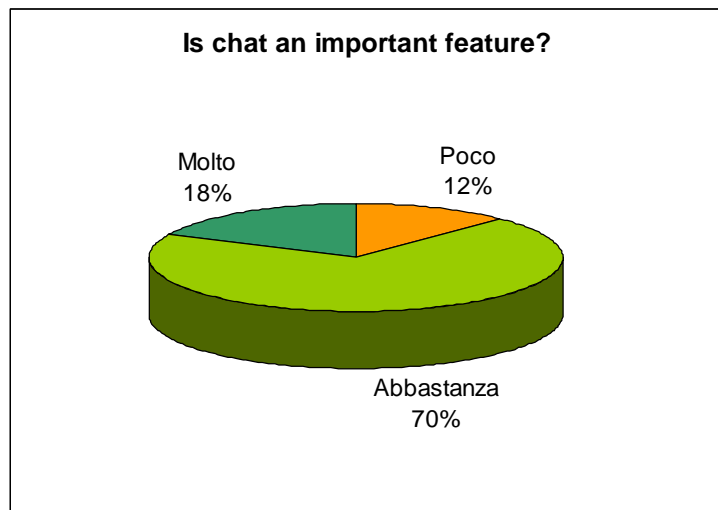
▸ **Chat has been used every day, once or more by 72%.**

▸ **Chat is considered an important feature by 88% (18% very important, 70% important).**

"For a fast and interactive way mainly in conversation one to many"
"for conversation not important"

▸ **Is perceived as complement of SMS (not in replacement), more friendly suitable for informal communication and appealing (Conversational view/history feature)**

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Service improvements

How to improve the service?

Category	Value
Migliorare/rendere più utilizzabile l'interfaccia grafica	24
Aumentare la durata delle batterie del telefono	22
Rendere il servizio più robusto	19
Altro	11
Avere la garanzia che i messaggi di chat siano effettivamente ricevuti	8
Integrare altri servizi	7
Velocizzare il file transfer	3
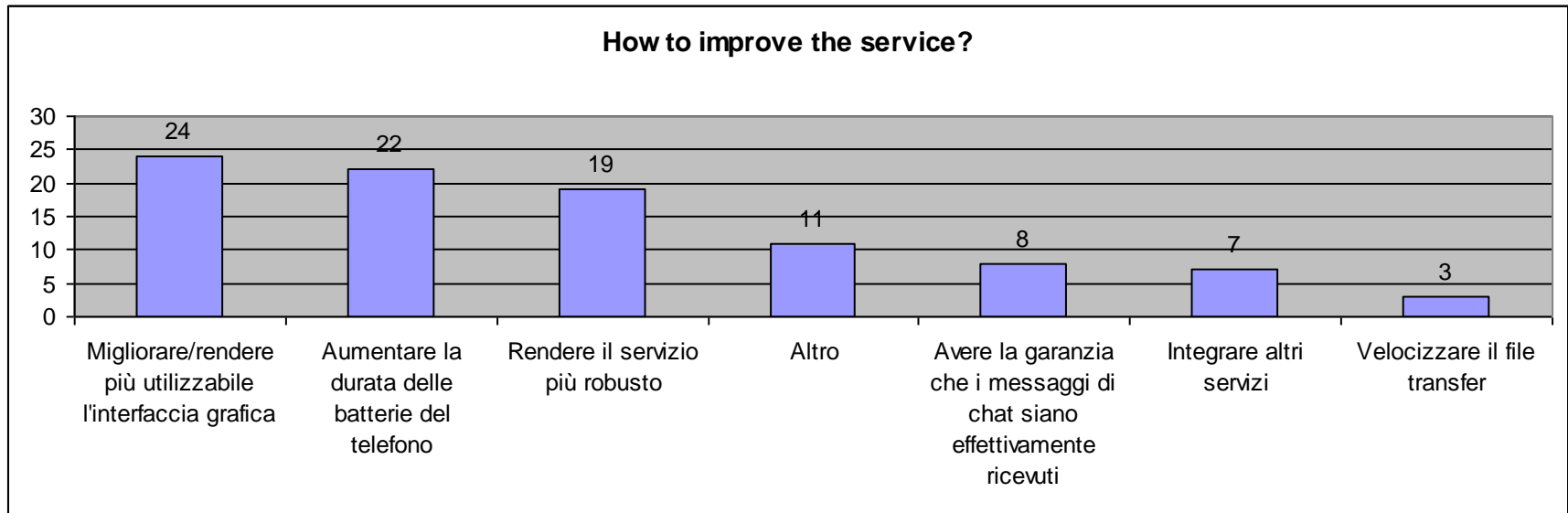
▶ **Improvements; user interface and handset capabilities: keyboard, screen size.. (73%), life battery (67%) service robustness (58%).**

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RCS Pilot in Italy

- RCS IOT between Telecom Italia and WIND has been conducted in 2H2009.

- IOT focus on NNI between Telecom Italia IMS Core network and WIND IMS Core Network to test RCS Release 1.0 features.

- Main objectives:

  - ✓ verify the maturity and robustness of RCS solution
  - ✓ give a clear message to national market and international MNOs community of interest on RCS
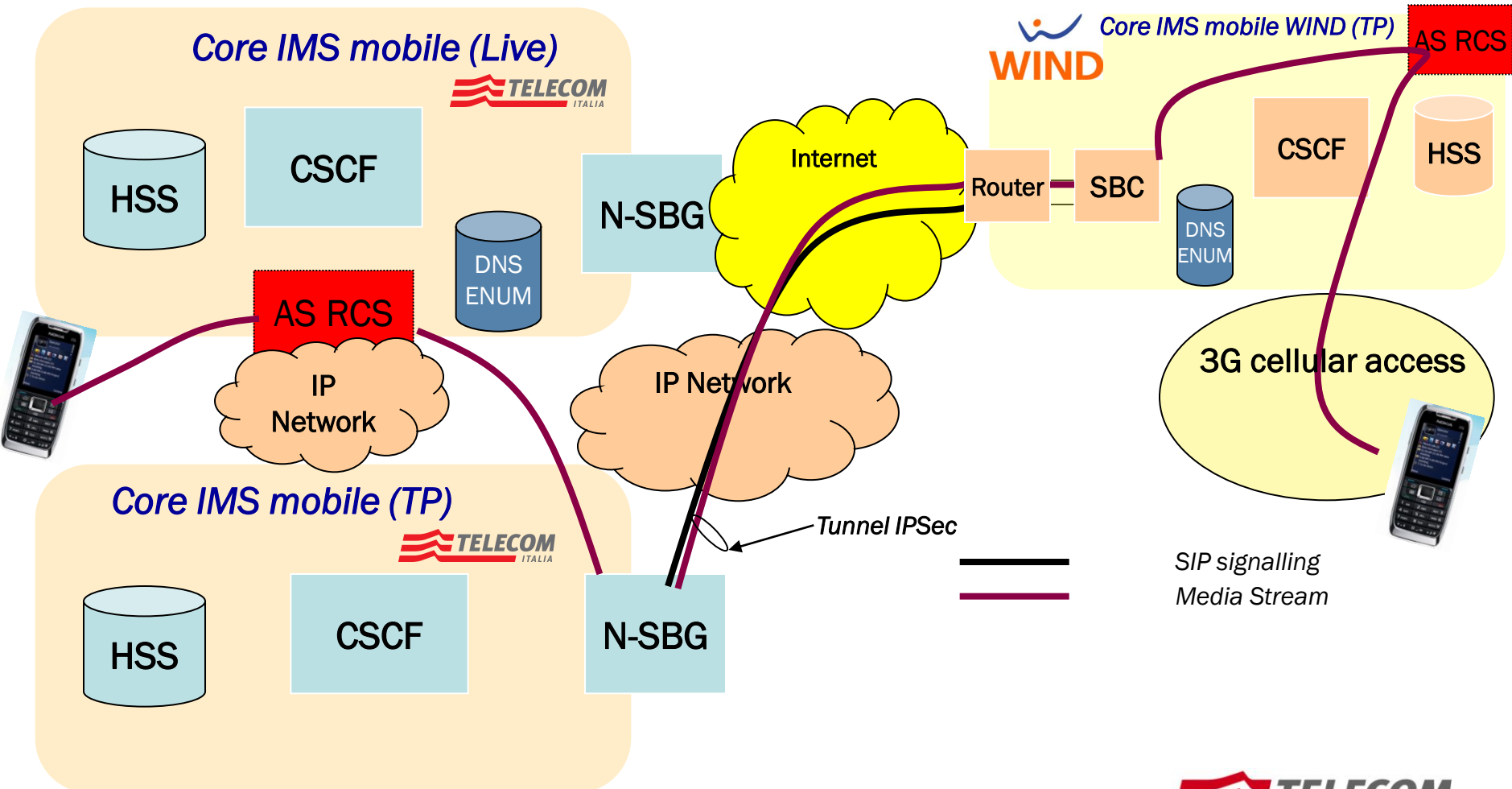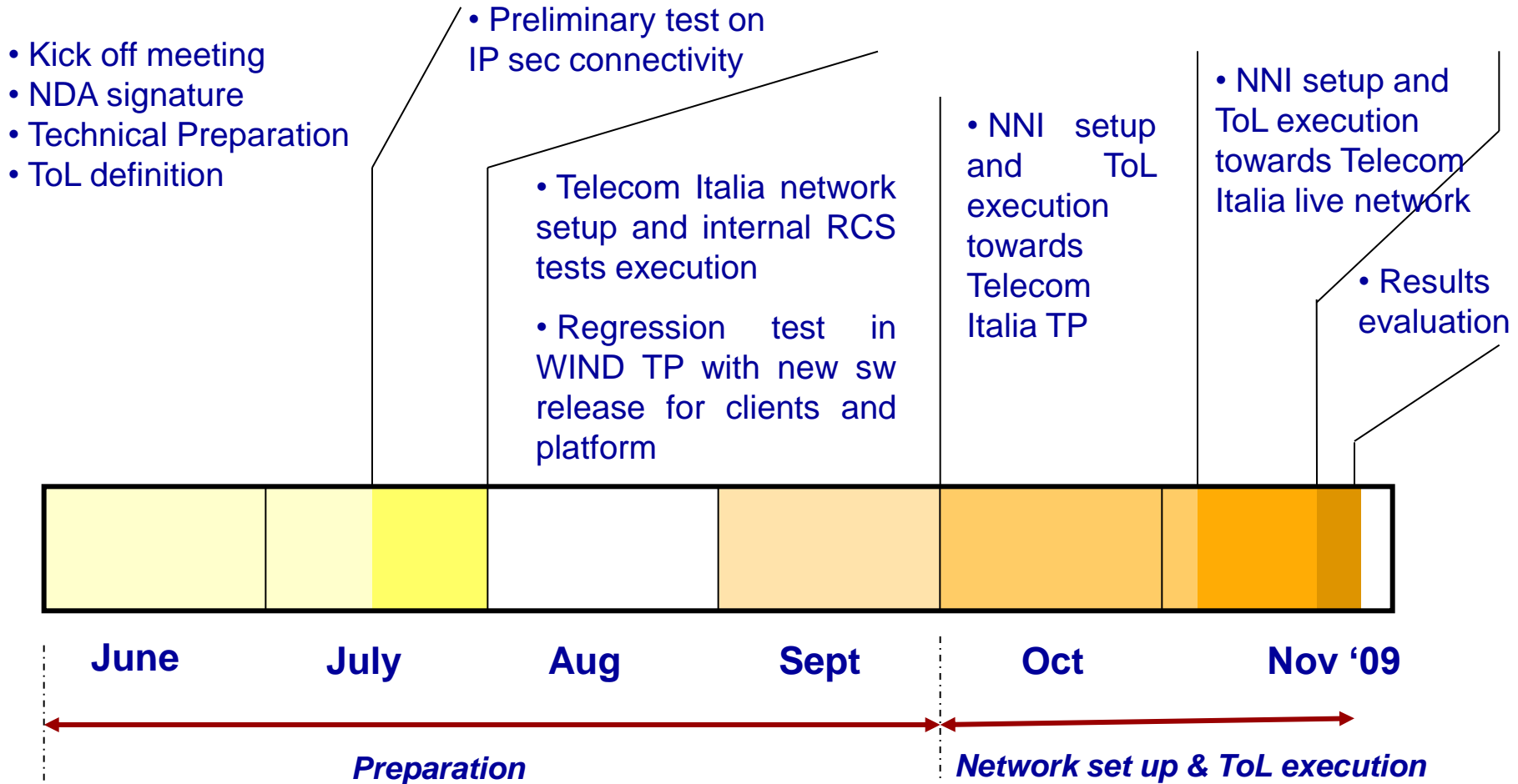 - ✓ evaluate the adoption of IMS technology and RCS service

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NNI set up

Test object interface:
**RCS Network – Network Interface (NNI)
Release 1**

Client tested: Nokia C4 and Movial

Client tested: Ericsson and Nokia C4
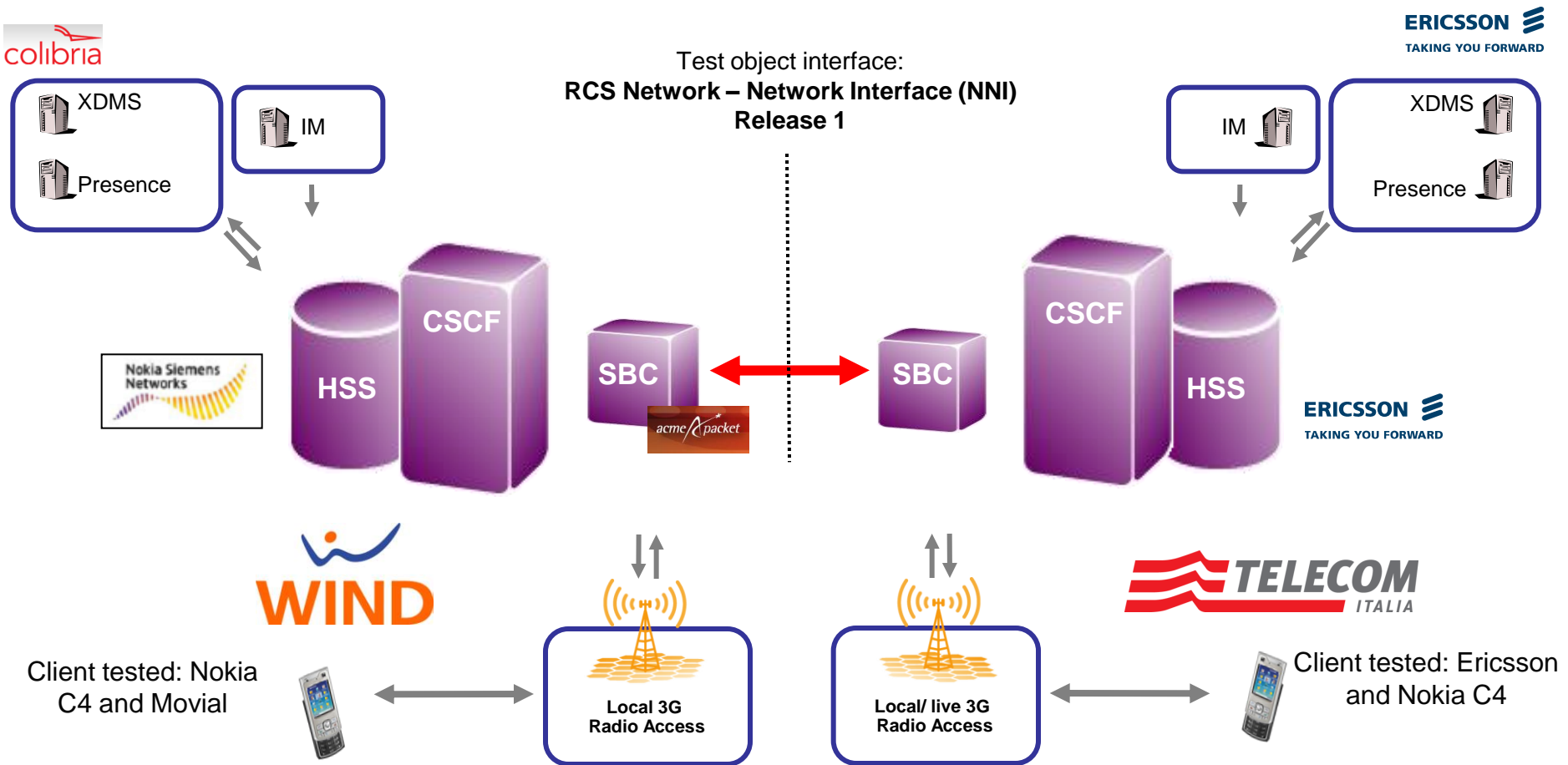
Test scenarios - participants

Operator	WIND	TELECOM ITALIA
IMS Core	Nokia Siemens Networks	ERICSSON TAKING YOU FORWARD
RCS AS	colibria	ERICSSON TAKING YOU FORWARD
BG/SBC	acme packet	ERICSSON TAKING YOU FORWARD
Client	MOVIAL / NOKIA Connecting People	ERICSSON TAKING YOU FORWARD / NOKIA Connecting People

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IOT Architecture

Core IMS mobile (Live)

Core IMS mobile WIND (TP)

WIND

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HSS   CSCF   DNS ENUM   AS RCS   IP Network   N-SBG   Internet   IP Network   Router   SBC   DNS ENUM   CSCF   HSS   AS RCS   3G cellular access

Core IMS mobile (TP)

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HSS   CSCF   N-SBG

Tunnel IPSec

SIP signalling
Media Stream

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IOT project milestones

- Kick off meeting
- NDA signature
- Technical Preparation
- ToL definition

• Preliminary test on IP sec connectivity

• Telecom Italia network setup and internal RCS tests execution

• Regression test in WIND TP with new sw release for clients and platform

• NNI setup and ToL execution towards Telecom Italia TP

• NNI setup and ToL execution towards Telecom Italia live network

• Results evaluation

| June | July | Aug | Sept | Oct | Nov '09 |

Preparation   *Network set up & ToL execution*

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Features list tested during pilot activity

RCS Release 1 Features
Enhanced Address Book
Presence information integrated into phonebook interface
Invitation to exchange Social Presence Information
Social Presence Info Sharing authorization
Revoke
Permanent presence state
Basic Service capability indication
Service capability (anonymous fetch + who can I invite)
Communication history per contact
Social Presence Attributes
Hyper-availability
Portrait icon
Free-text incl. textual note and emoticons
Favorite link
Content Sharing
Service capability indication during a Call
Video Share (GSMA IR.74)
Image Share (GSMA IR.79)
Enhanced Messaging
Conversational messaging (SMS/MMS)
Chat Service 1-to-1 (OMA IM SIMPLE 1.0)
File Transfer (in or out of a session)

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Test results (1/2)

Test result - general
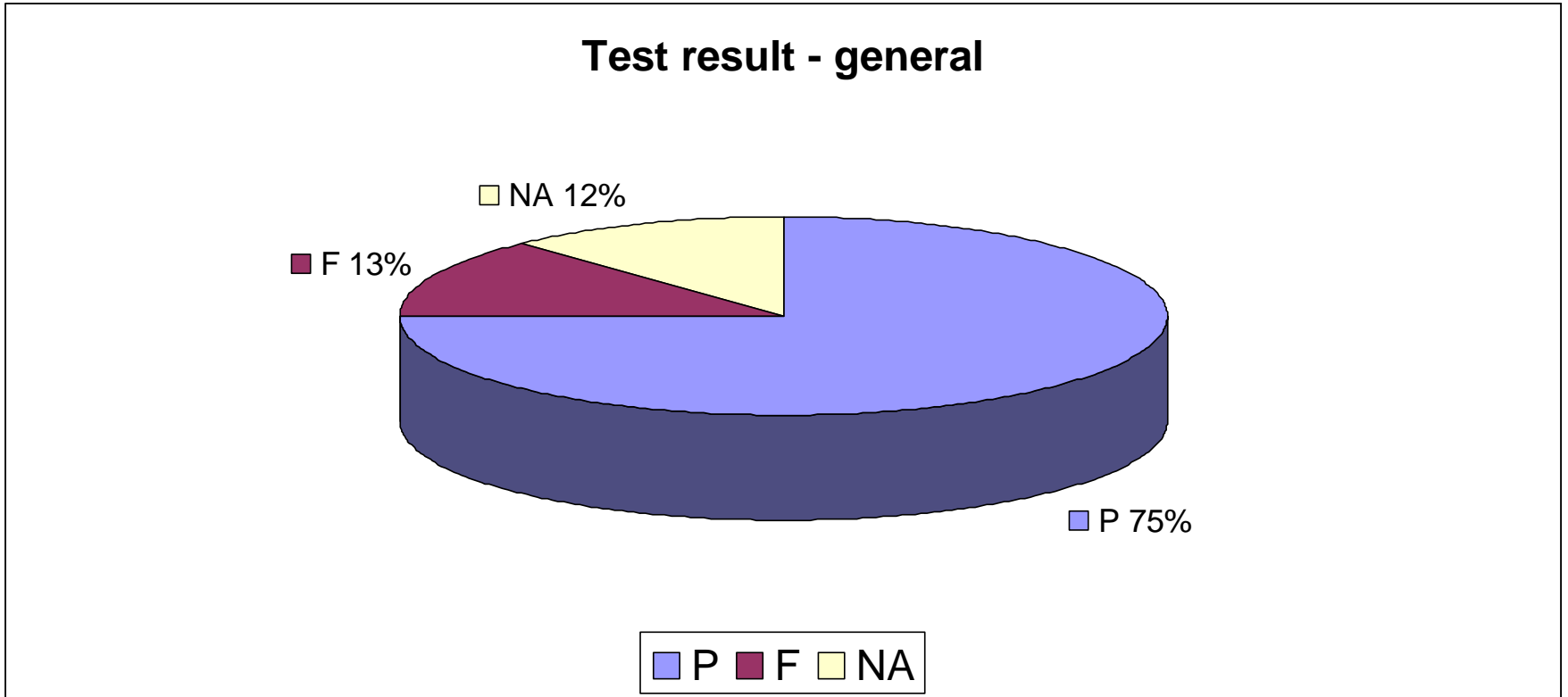
- **Pass (P)**
- **Fail (F)**
- **Not Available (NA) -** *test cases that were not possible to test because lack of support from client/clients and/or network*

Test results (2/2)

Enhanced Address Book

- NA 12%
- F 9%
- P 79%

Legend: P F NA

File transfer

- NA 17%
- F 25%
- P 58%

Legend: P F NA

Chat

- NA 19%
- F 0%
- P 81%

Legend: P F NA

Content Sharing

- NA 9%
- F 17%
- P 74%

Legend: P F NA

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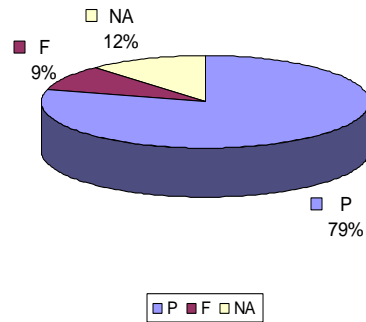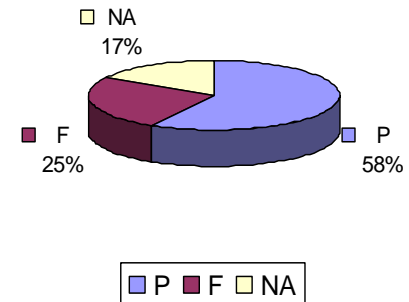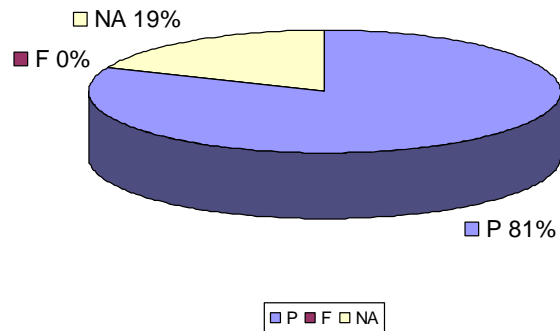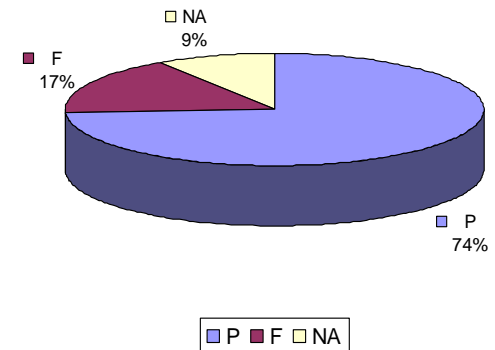
Italian trial: lesson learnt

- The Pilot activity has been concluded with very positive outcome, considered the complexity coming from the testing of an inter-operator, multivendor, multi-client environment.

- The experience gained during the pilot was really valuable for the number of problems found and solved, and is extremely relevant in the view of a future commercial launch.

- The IOT in Italy is an important example with operators working closely together to ensure interoperability

- This contribute to create a set of interconnected RCS platforms in many countries which is vital for future commercial launches of next-generation multi-media services.

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Live Demo
Italian Pilot Pod in App Garage

RCS demo at MWC 2010 using Telecom Italia RCS Live Network

Live Network Architecture

Barcelona

SGSN

GRX

Milan

IMS Ericsson

GGSN

Social Presence Information

Profile icon

Status line

Favourite link

Buddy List

Profile picture

Status line: showing user mood

Favourite link

Communication capabilities

chat

File transfer

Send Video

Groupchat

Video Call

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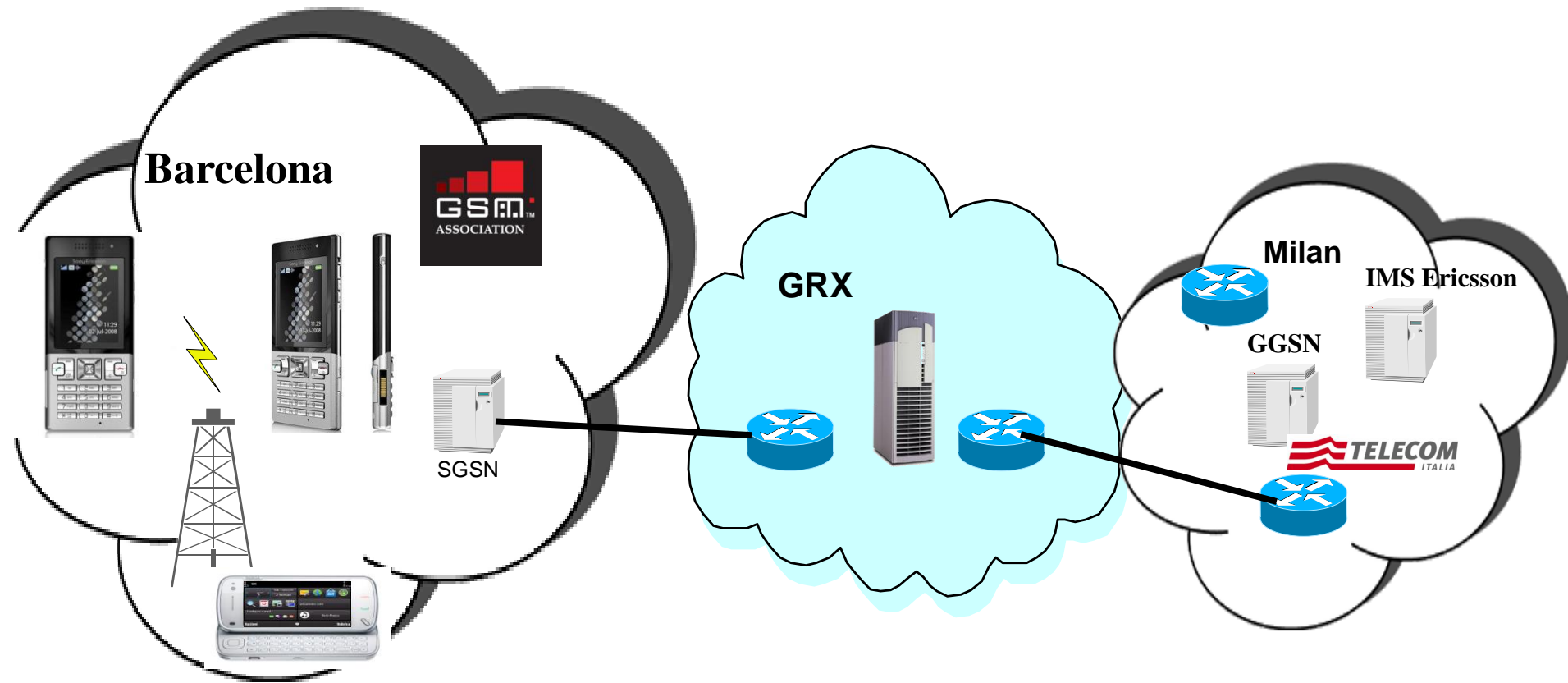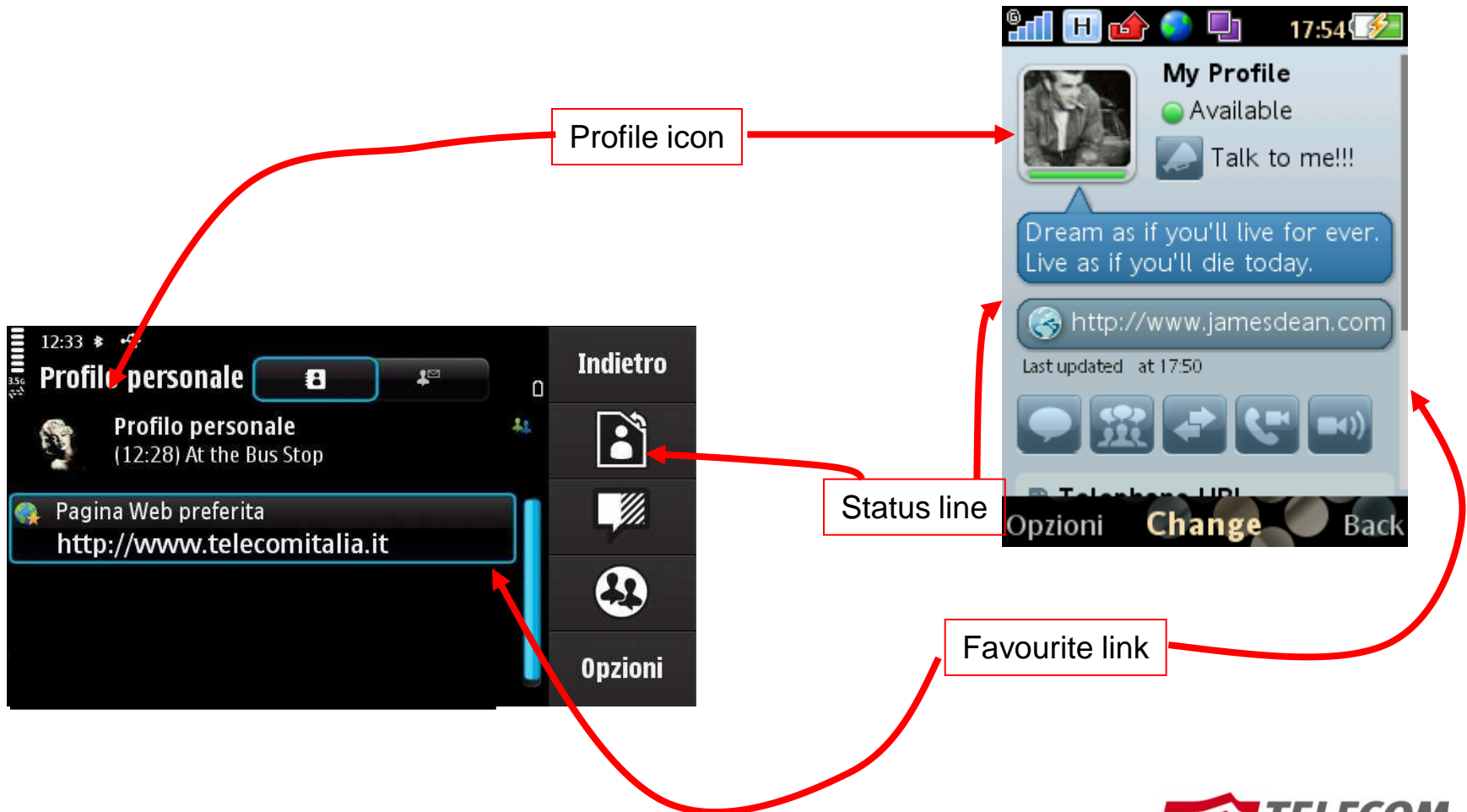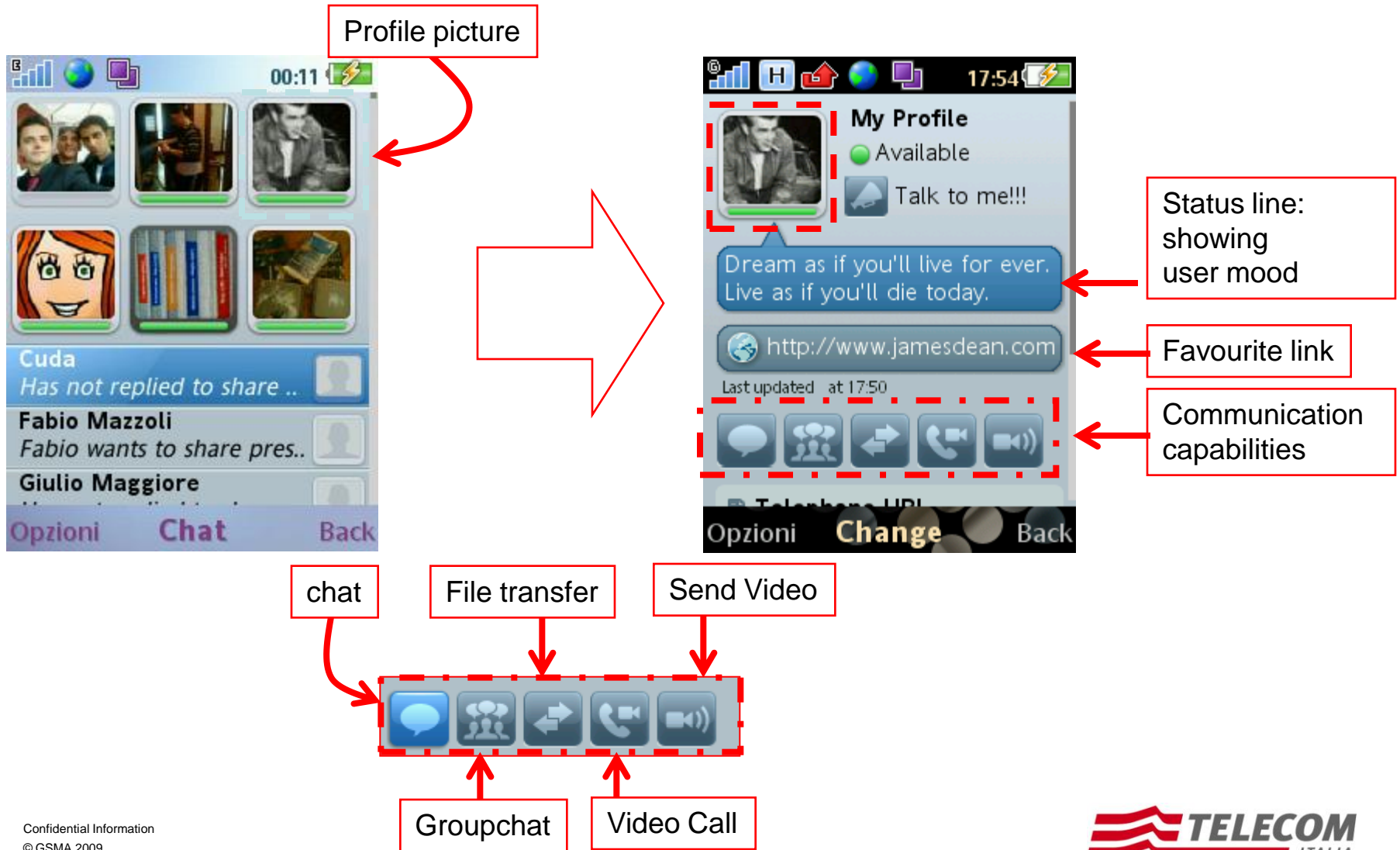
Pick up a friend

1. Pick-up a friend

2. Start chatting

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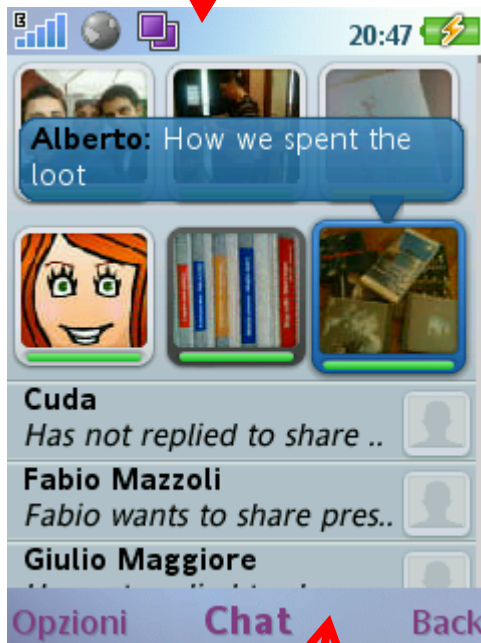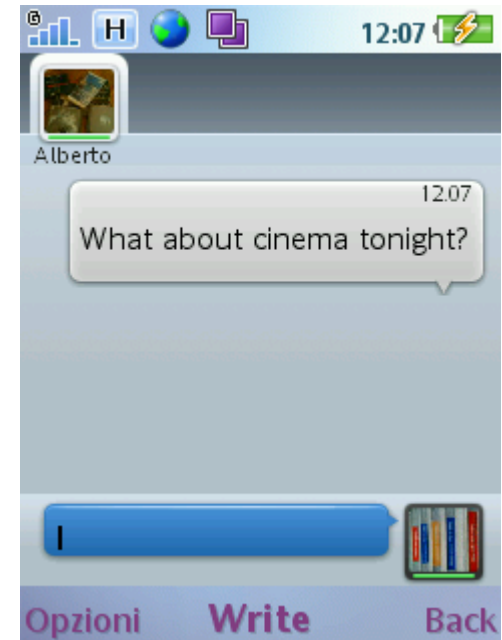
Chat scenario
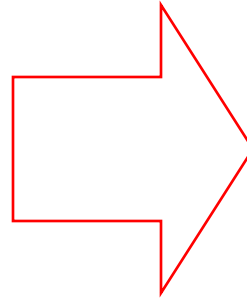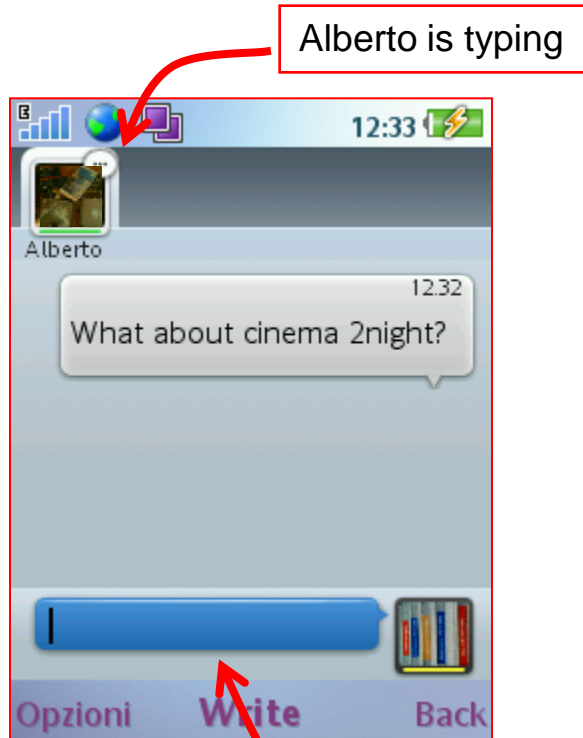
Alberto is typing

You can type while Alberto is typing

Message history in one window

Presence Status Change

Image available even if user not registered

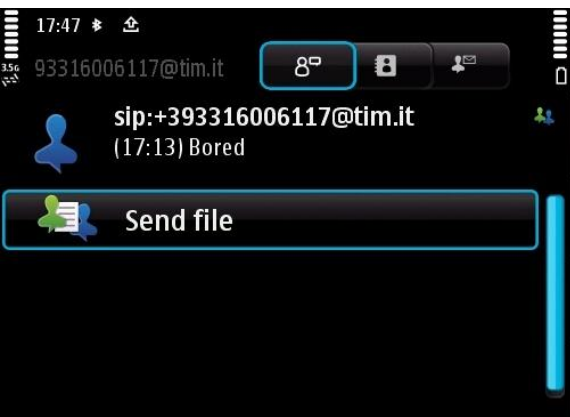James' presence info Changed: he's busy now

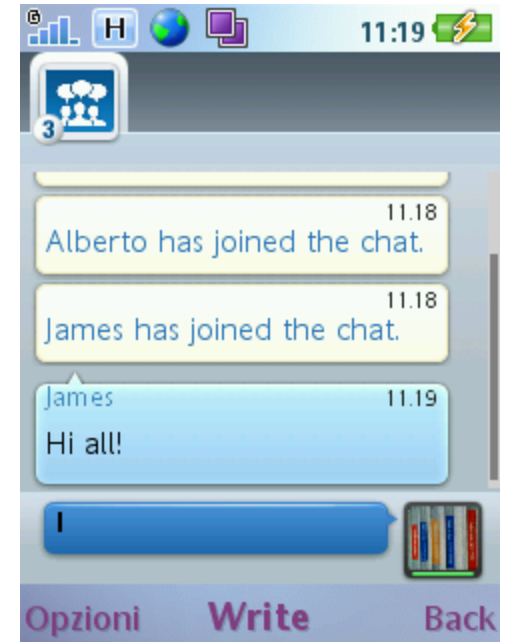James' status line changed
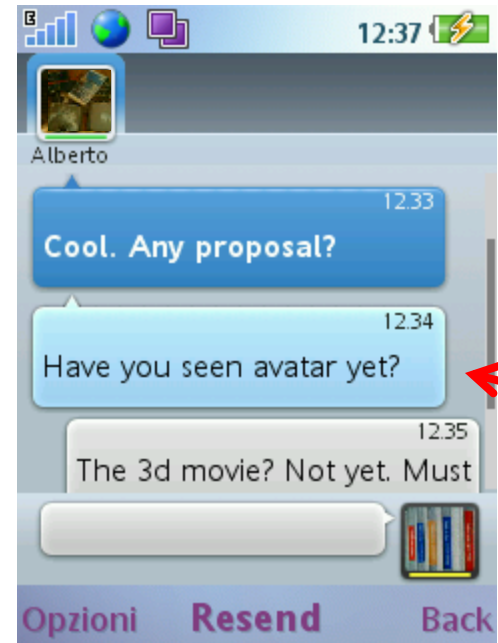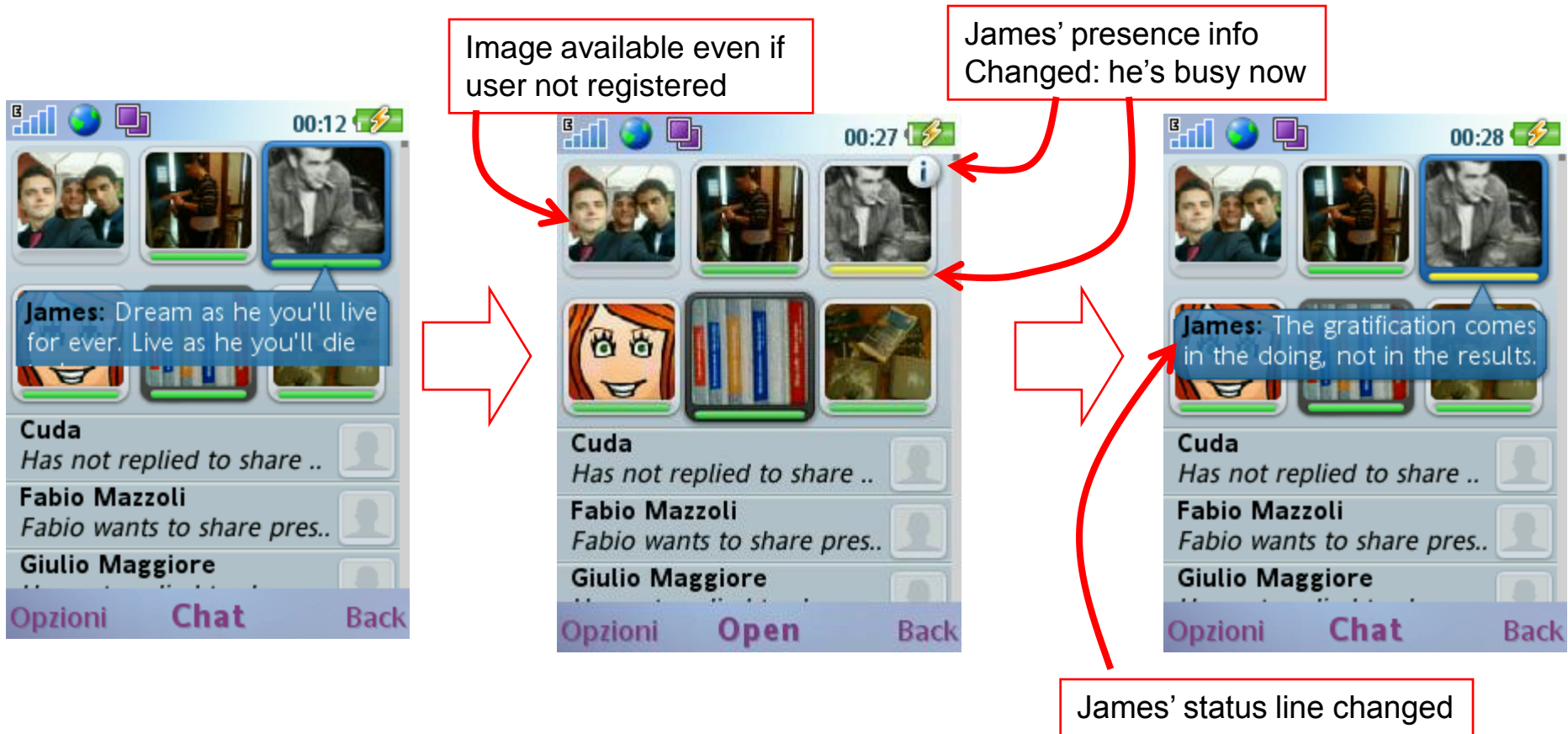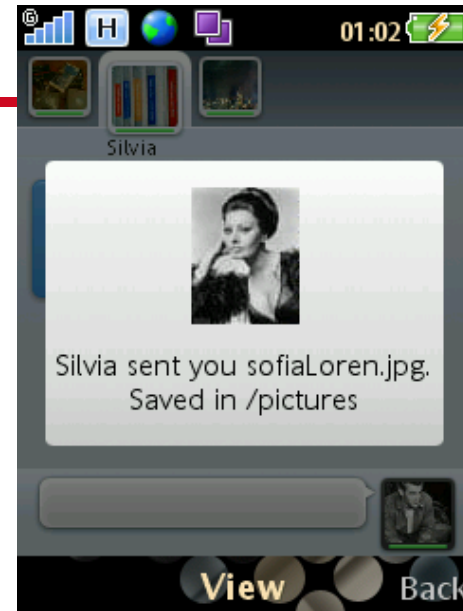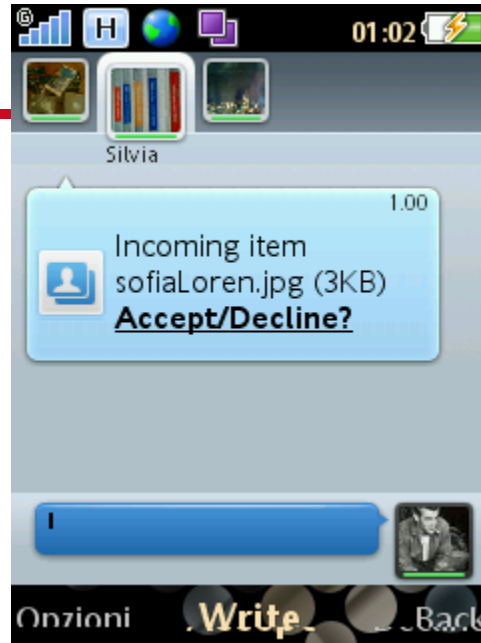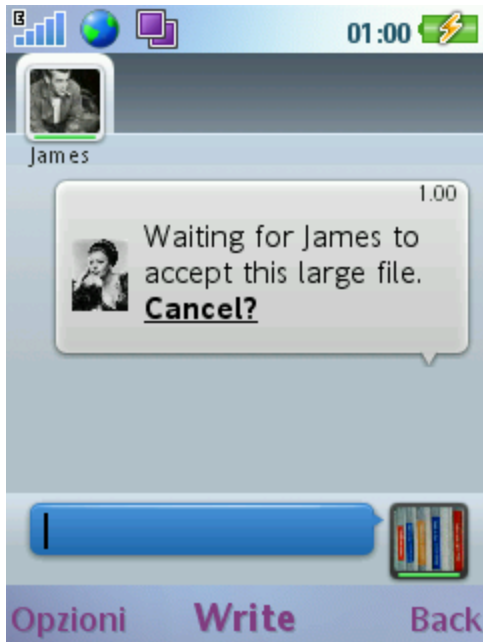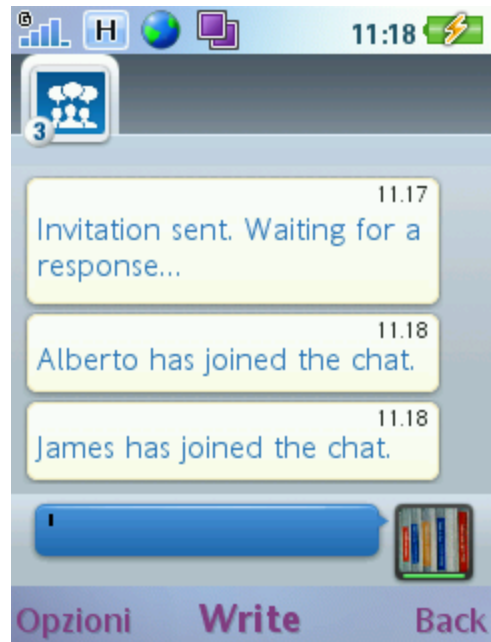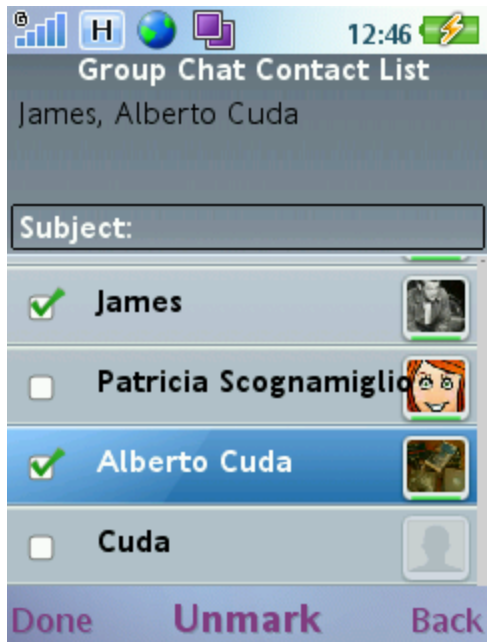
File Transfer (1/2)

Chat messages and
transfered files
share the same history

File Transfer (2/2)
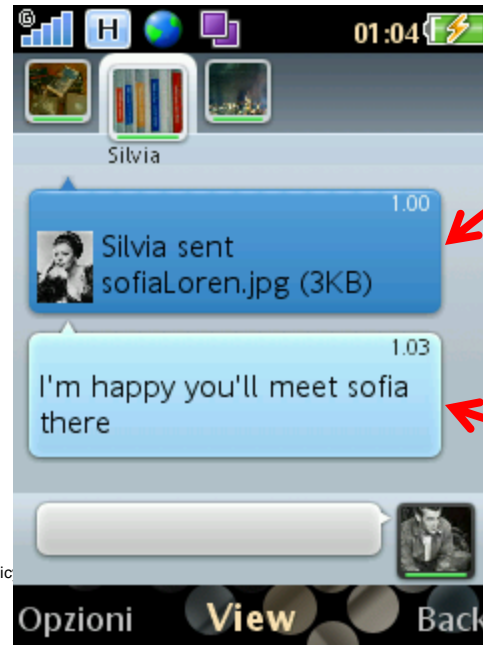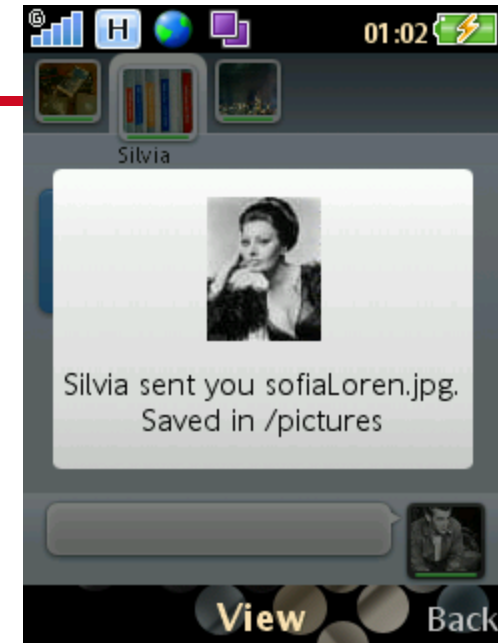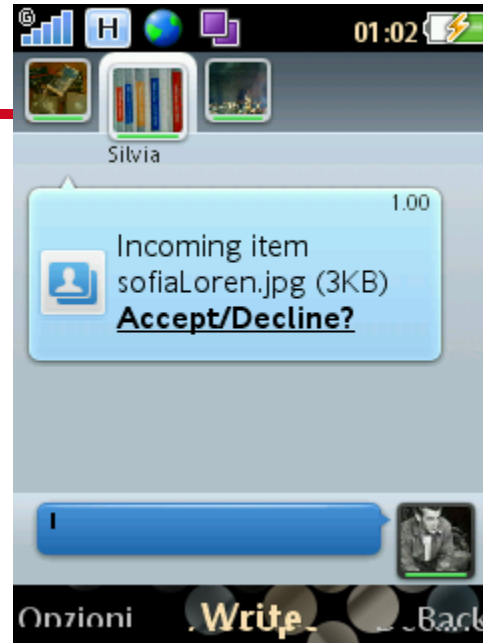
Chat messages and transfered files share the same history

Group Chat

Video Share

What next ?

- Definition RCS Open APIs

- Definition of charging principles for Presence and Group Chat

- Evaluation of RCS 2.0 pilot end of 2010

- Contribution to RCS Go to market activities

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Thank you

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