#### PLAINTIFF'S EXHIBIT NO. 33;

United States District Court Northern District of California No. 12-CV-00630-LHK (PSG)

Apple Inc. v. Samsung Elecs.

Date Admitted:\_\_\_\_\_\_By:\_

# MIEUX -Emotional UX

## Make it Emotional UX

Malin Andersson, Dokshin Lim, Diana Ng, Sunny Yang, Jim Kosem, Mikael Metthey, Craig Allen | Wireless UI

05 June 2009

Version 1.2



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# MIEUX

# Make It Emotional UX

...creating a more intuitive and emotional Samsung mobile interface



\* MIEUX = Better

# Why are Nokia and iPhone known to be easier to use than Samsung?

...Multimedia applications and Touchwiz portray Samsung's advanced UX.

But are small, yet fundamental, parts of the UI forgotten in creating an emotional interface?



- 1 Project overview & desk research
- 2 Use cases & Bench marketing
- 3 Phone profile
- 4 New Samsung Profile
- 5 Storyboard
- 6 UI concepts
- 7 Summary



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## 1.1 Project overview

The main goal of the MIEUX project is the creation of a more intuitive and emotional Samsung Mobile interface.

UI emphasis would be on updating and linking smaller and more easily forgotten parts of the UI.

#### Includes consideration for:

- Replacing engineer-based UI & technology driven features
- Flexible interpretation of guidelines
- Enhancing contextual connectivity
- Offering friendly guidance
- Intriguing Users
- Applying meaningful creativity
- Introducing charm



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## 1.2.1 Desk research: Replacing engineer-based UI

### Samsung reveals still engineer-based UI:

- Current way of information display may be a reason to let Samsung UI be perceived engineer-based [U900 & others]
- Currently used type of information exposed to users may be another reason to let Samsung UI be perceived engineer-based [S8300 Loche & others]





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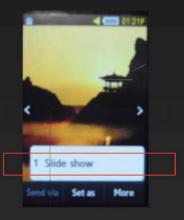
# 1.2.2 Desk research: Flexible Interpretation of Guidelines

Examples of strict interpretation of UI guidelines in the Samsung interface:

- Empty soft key line in Phonebook screen when no Options are available
- Empty tabs on event alert pop-ups when no other new events exist than one missed call
- Only one item in More options list [S8300 Loche]







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# 1.2.3 Desk research: Flexible Interpretation of Guidelines

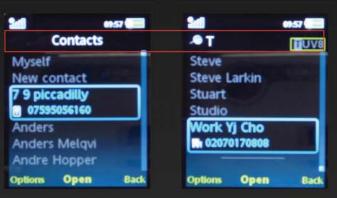
Additional examples of strict interpretation of UI guidelines in the Samsung interface:

 All available information (menu title line, tab title & tabs, search text line and contacts, ...) are always visible [U600 Soul]

Example of flexible application of [G]UI guidelines in the Sony Ericsson interface:

- Flexible using one line: menu title area is used to display search text only when the search is activated by the user
- It allows this screen to display more contacts, the core information that users need most on this screen [Sony Ericsson K660i]







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# 1.2.4 Desk research: Enhancing Contextual Connectivity

Samsung provides a basic alarm clock application which is functional but lacks a sense of contextual connectivity

- When the alarm goes off, users can only choose Stop or Snooze.
- After the pop-up disappears no way to figure out the alarm status "snoozed" or to deactivate snoozed alarm [U900 Soul & others]



No "Snooze activate" information available

Nokia considers user support to meet with specific contexts:

 Nokia alarm gives a way not only to simply stop or snooze but also to view the status of the alarm and deactivate/ reset this alarm easily during alarm-off situation [Nokia S60]



"Snooze activate" information available both in Clock & Alarm menu when the alarm is "snoozed" "Deactivate" option available when the alarm is "snoozed"



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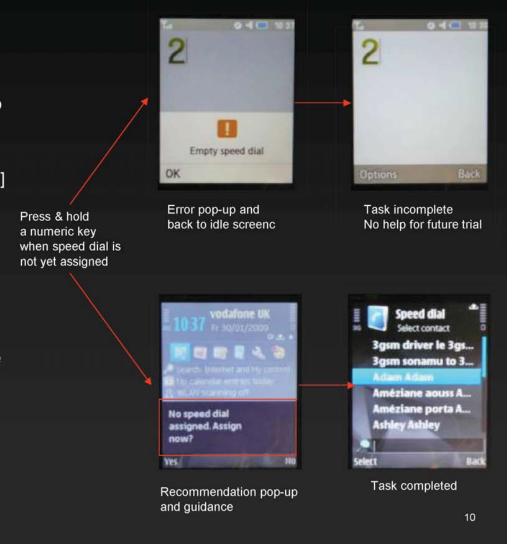
# 1.2.5 Desk research: Offering Friendly Guidance

Samsung interface creates obstacles to usage of some features:

- Speed Dial: Good feature if used, but no help to guide users to use it
- Users could feel lost on encountering a dry error message pop-up [U900 Soul & others]

Nokia provides kind guidance to users as they travel through the interface.

 Nokia gives proper guidance to users when they try to use speed dial before contacts are assigned [Nokia S60]

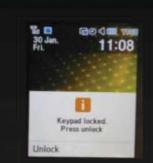


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# 1.2.6 Desk research: Applying Meaningful Creativity

### Samsung solutions

- Samsung "Two-step protective unlock" is secure protection and works well (for slide and bar-type handsets) but it does not evoke emotion [U900 & others]
- Samsung locked idle screen gives text information how to unlock (for touch-type handsets) but not appealing [F490 Tocco & others]







#### Creative ways of solving UI complexity:

 Swiping unlock on the screen allows to prevent erroneous unlock even without using hard key and users find it fun to swipe [iPhone]





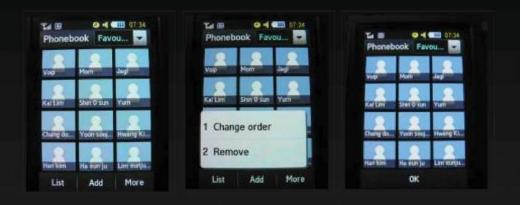
# 1.2.7 Desk research: Introducing Charm

Samsung's offers a way to customise the UI but it provides an ordinary path through the option and menus

Personalising the favourite contacts list [U900 & others]

Apple offers a creative way of giving feedback and intriguing the task to users

Main menu icon arrangement [iPhone]







## 1.3.1 Desk research conclusions

Replacing engineering-based UI & technology-driven features

Still some elements reveal engineer-based & technology driven UI

### Flexible interpretation of guidelines

Sometimes exception and deviation from principles makes better UI

#### Enhancing contextual connectivity

By sophisticated consideration of some critical context of the user, the UI may be perceived more user-supportive

### Offering friendly guidance and Intriguing users

Is Samsung really intriguing? It is time to ask ourselves.

### Applying meaningful creativity and introducing charm

 There seem to be many opportunities in UI/GUI to be more creative and even introducing charm



## 1.3.2 Focus areas for Emotional UX

Areas where we can apply new and more emotive design solutions and of common users ideas:

- Incoming events
- Other unexpected / passive user scenario
- Indicators
- Event / Idle pop-ups
- Basic widgets (UI/GUI assets and modules) behavior
- New paradigm to cover overall interaction
- Manipulating screens and layouts
- Multi-tasking
- Sound in silent
- Multimedia control
- PUI related (lock/unlock, side volume key, ...)
- Niche PUI (e.g. DACP, ...)



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# 1.3.3 Communicating our Samsung Personality

# Small things Matter!

...but Samsung UI should have an approachable and open human face and we believe meaningful design of small but critical elements of UI can change it.



# 1.3.4 Communicating our Samsung Personality



Google



Nokia



Apple



Sony-Ericsson



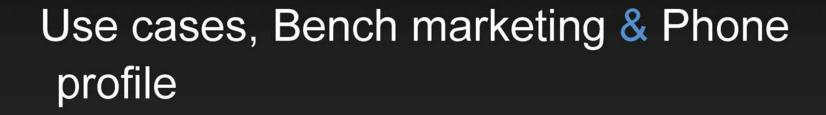
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What should be Samsung's true personality?



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# 2.1 Key Use cases for Bench marketing

In a brainstorming session we defined following key use cases for Bench marketing study:

- Set an alarm
- Icons and indicators
- Unlock your phone
- Receive a message
- Send a message
- Receive a call
- Multitasking
- Alarm snooze / set off
- Low Battery



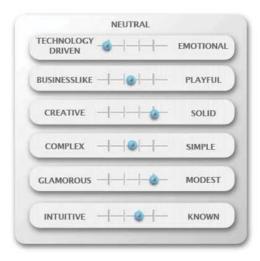
## 2.2 Bench marketing

Phase 1 | Research and Definition Characteristics Table

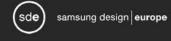


In phase 1 we analyze the chosen use cases. Our interest in this analysis is to compare the characteristics of the mobile phones, Samsung and competitors

We created a characteristic table that we use to compare all devices.



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## 2.3 Bench marketing

Phase 1 | Research and Definition Benchmarking



# Benchmarking Overview



Apple iPhone

Emotional Creative Playful
Businesslike Technology driven
Simple Solid Intuitive
Modest Gamorous Known



Samsung F480

Technology driven Businesslike Solid Gamerous Simple Modest Known



Android G1

Emotional Known
Playful Creative
Complex Glamorous
Businesslike Simple
Modest Intuitive Solid



Blackberry Storm

Technology driven Solid Businesslike stanocus Simple Modest Intuitive Known



Nokia 5800

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Nokia N95

Technology driven complex Businesslike Solid Gamoous Simple Modest Known

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# 3.1 Phone – Personality test

Phase 2 | Personality Test Overview



To identify the personality of the mobile phones we wanted to review, we created a mobile phone personality test based on the Myers-Briggs Type Indicator test.

From Wikipedia, the free encyclopedia: The Myers-Briggs Type Indicator (MBTI) assessment is a psychometric questionnaire designed to measure psychological preferences in how people perceive the world. These preferences were extrapolated from the typological theories originated by Carl Gustav Jung, as published in his 1921 book Psychological Types (English edition, 1923).

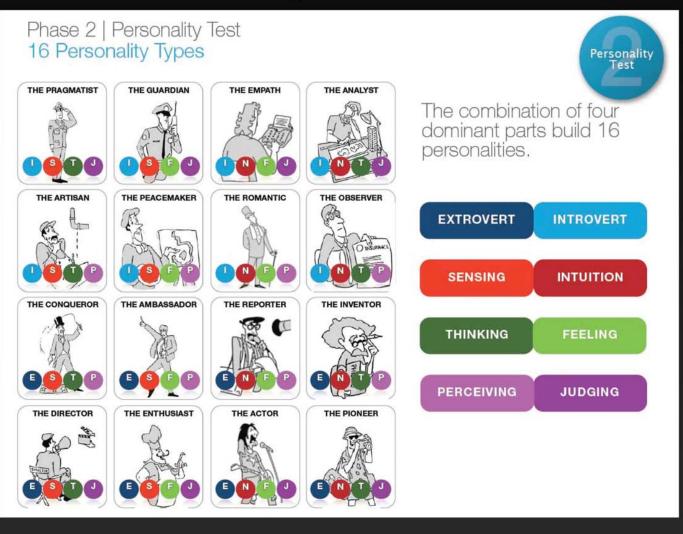
The MBTI emphasizes the value of naturally occurring differences.

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# 3.2 Phone – Personality test



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# 3.3 Phone – Personality test

Phase 2 | Personality Test Mobile Phone Myers-Briggs Type Indicator test



We used our Mobile Phone Myers-Briggs Type Indicator test to identify the personality of each of the ten devices we want to test.



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# 3.4 Phone – Personality test

Phase 2 | Personality Test Mobile Phone Myers-Briggs Type Indicator test





The Mobile Phones in the personality Grid.



THE CONQUEROR



THE AMBASSADOR

Nokia N96



THE REPORTER

G1 and Nokia 5800



THE INVENTOR



## 3.5 Phone – Personality test Phase 2 | Personality Test Mobile Phone Myers-Briggs Type Indicator test Personality Test THE ANALYST What Samsung phones have in common: THE ARTISAN THE OBSERVER Samsung S8300 Samsung F480 THE CONQUEROR THE AMBASSADOR THE REPORTER THE INVENTOR Where you might want to go THE ENTHUSIAST THE DIRECTOR THE ACTOR THE PIONEER samsung design europe

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# 4 New Samsung Profile

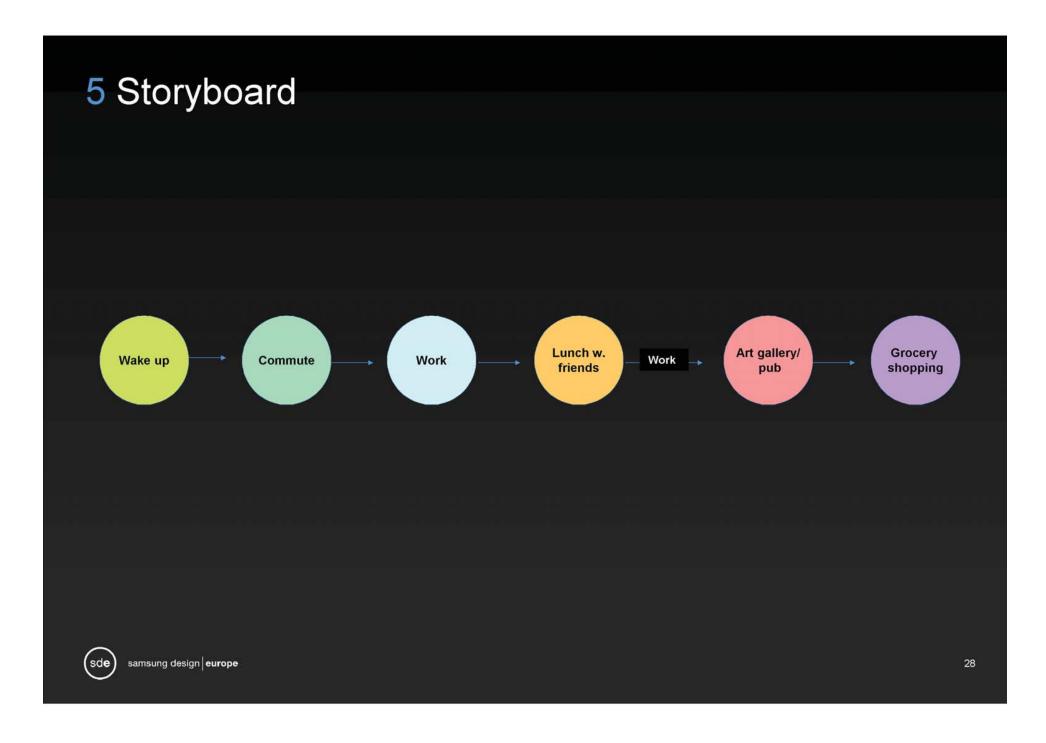
In brainstorming we defined following keywords for the new Samsung profile:

- Simple
- Modest
- Powerful but easy to use
- Inner strength
- Useful
- Helpful
- Subtle
- Timeless
- Clean
- Clear
- Effortless
- Self explanatory

- Contextual
- Flexible
- Consistent
- Pleasant
- · Stress-free
- Intuitive
- Sincere
- Innovative
- Intelligent
- Considered
- Responsive
- Reliable



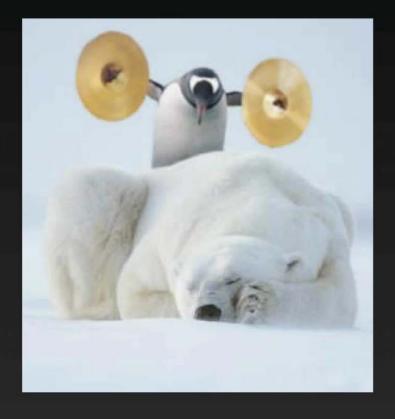
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# 5.1 Storyboard – Wake up

Alarm & Home screen

- Alarm & snooze
- Turn off alarm
- · Check for (Home screen):
  - Any calendar events for today
  - Unread messages
  - Weather & traffic information (Web feeds/ widgets)





# 5.2 Storyboard – Commute

Multitasking & Incoming call

- Listening to music
- Unlock phone
- Read the news (browser)
- Incoming call (colleague/ friend/ partner)
- Continue reading the news







# 5.3 Storyboard – Lunch with friends

Change profile, Photo application & incoming msg

- Change phone profile when going out for lunch
- Meeting Peter at the restaurant. Showing some photos from yesterday's concert while waiting for Sarah
- Incoming message Sarah is getting delayed
- Replying to Sarah
- Continue looking at photos while waiting for Sarah

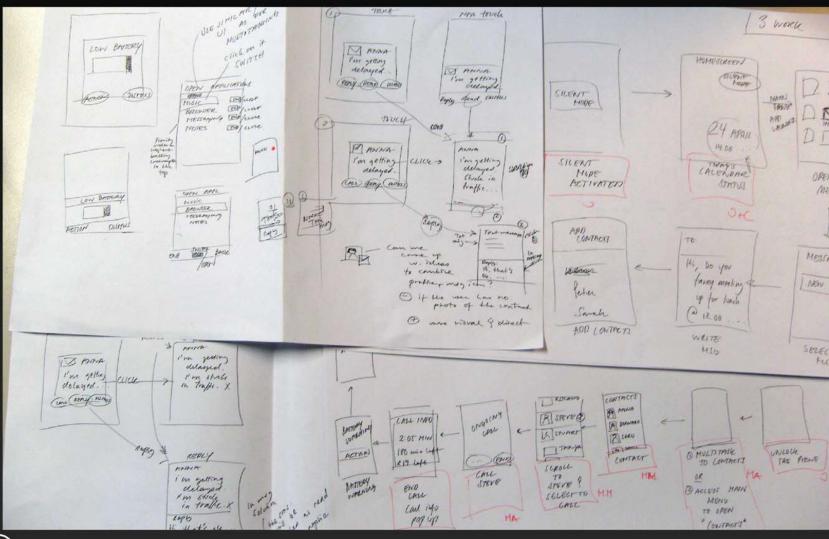






Please note that all UI concepts for TOUCH are missing the softkey/ touch bar UI concepts – initial proposals samsung design europe

# 6.1 UI Concepts: UI flows - from the Storyboards



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# 6.2 UI Concepts: Key Use cases for UI Concepts

Following use cases were selected from the UI flows to be redesigned:

- Home screen
- Unlock/ lock
- Set alarm
- Alarm snooze/ turn off
- · Ongoing call (during) & Ended call
- Incoming message
- Low battery
- Multitask
- Silent mode



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 $\boxtimes$ 

23:04

Mon 30th Apr

(0)

# 6.3 UI Concepts: Home screen

Home screen displays ongoing activities like e.g. Set alarm, unread messages, missed calls, weather and etc.

The 2 tabs represent:

- Past activities today & previous day
  - E.g. links (browser), last taken photos, calls, messages and played games
- Future activities following 7 days
  - E.g. calendar events, upcoming birthdays and meetings





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### 6.3 UI Concepts: Home screen (touch)

- today &



- Tap to expand/ minimise the tabs
- Both tabs can be expanded at the same time for touch.

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Future activities

- 7 next days

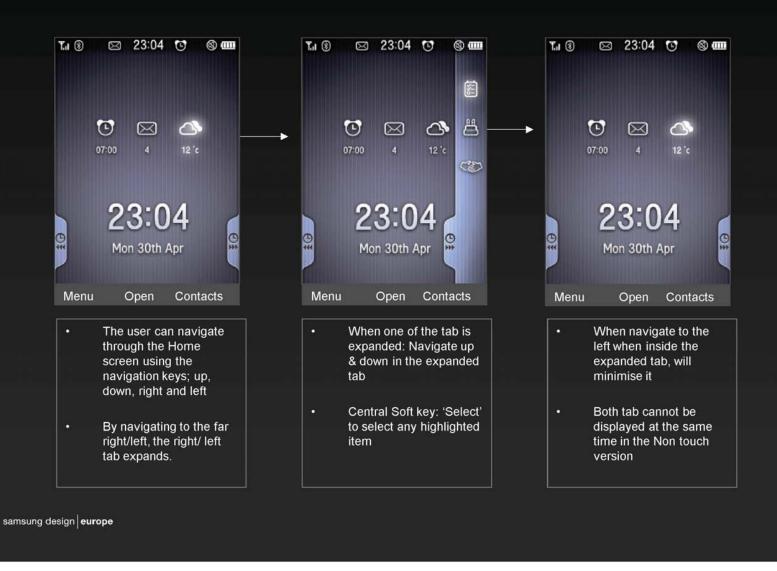
• Expand/ minimise the tab – one by one.

Tab icons are only drafts!



- Activated item opens up a detail view.
- Close detail view by tapping another item in tab/ outside the detail view

## 6.3 UI Concepts: Home screen (non touch)



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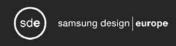
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## 6.4 UI Concepts: Unlock/ lock – alternative 1 (touch)









### 6.4 UI Concepts: Unlock/ lock – alternative 1 (touch)







- Tapping the screen will display the dog ear in the right, upper corner
- Unlock by tapping and dragging diagonally from the dog ear
- It has a time out of x seconds –
  if the user does not tap and
  drag, the dog ear fold back
- The unfold animation follows the finger when dragging

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## 6.4 UI Concepts: Unlock/ lock – alternative 2 (touch)

- Tap the screen and it scrolls down a bit - revealing a part of the underlying screen
- Unlock by tapping and dragging down
- It has a time out of x seconds if the user does not tap and drag, it scrolls back









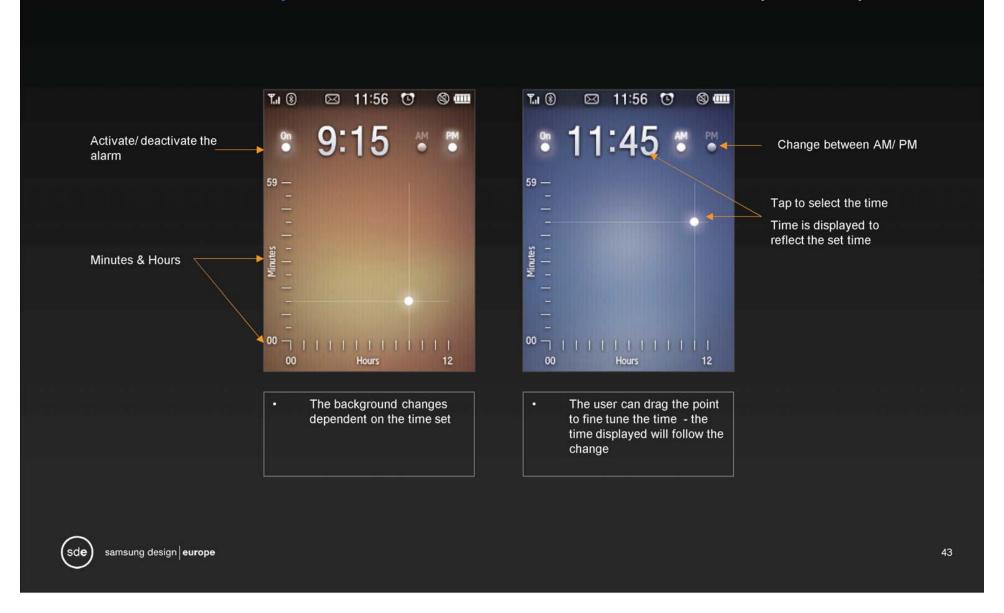
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### 6.5 UI Concepts: Set alarm – alternative 1



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## 6.5 UI Concepts: Set alarm - alternative 2 (touch)



## 6.5 UI Concepts: Alarm – snooze & turn off

When the alarm goes off:

- Long press to STOP
- Tap to SNOOZE the alarm
- Each tap add 5 min. to the snooze time

When snooze it activated:

- It is a countdown animation that represent the time
- Long press to CANCEL

Optimised for touch.

Non touch: Have to use softkeys













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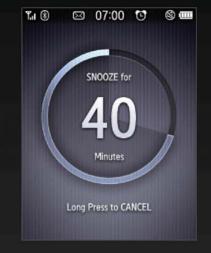
## 6.5 UI Concepts: Alarm - snooze & turn off

Optimised for TOUCH!

Non touch: Have to use softkeys









- Time displayed
- Long press to STOP
- Tap to SNOOZE
- Each tap: 5 min snooze
- Tapped ONCE: snooze5 min
- Snooze time displayed
- Tapped 8 TIME: snooze 40 min
- Snooze time displayed
- Countdown animation
- Remaining snooze time is displayed
- Long press to CANCEL

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## 6.6 UI Concepts: Ongoing (during) call & call ended

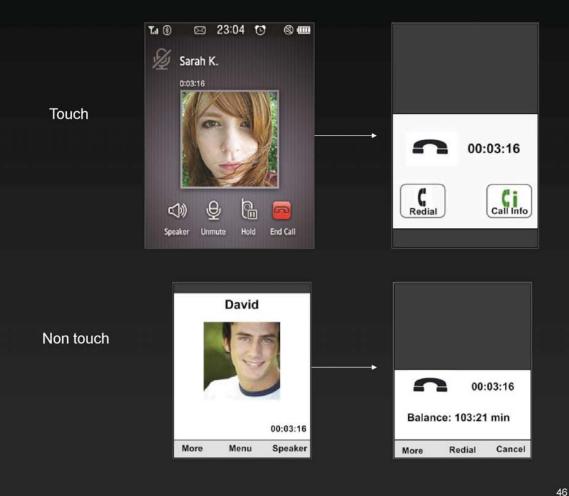
#### Ongoing call;

- More personal
- Cleaner UI
- Hide advanced features in More menu

#### Call ended;

- Total time of call
- Time out after x seconds
- Balance of remaining time or money
- Call/ credit info feature requesting the balance from the operator





## 6.6 UI Concepts: Ongoing (during) call

#### Existing call



- Too cluttered and technical
- Even saved contact picture
   NOT displayed here

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#### Touch



- Contact name/ phone number and picture/ default icon
- Buttons: Speaker, Mute, Hold and End call
- Central Softkey should be 'Menu' instead of today's 'Phonebook' to easy task away





- Contact name and Picture (if any)
- Central SoftKey should be '**Menu**' to easy task away

## 6.6 UI Concepts: Call ended – solution 1

- Total call time
- Time out after x sec.
- Call info the user can request to get the balance (time or money)
- Save displayed when phone number is not saved (highest priority)
- Redial button (touch)

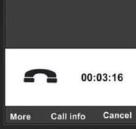
Touch

00:03:16

Call Info

Call Info

Non touch





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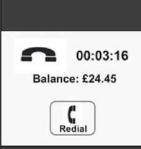
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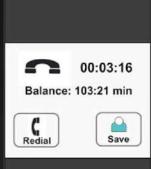
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## 6.6 UI Concepts: Call ended – solution 2

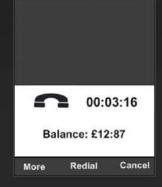
- Total call time
- Time out after x sec.
- Balance of total time left (monthly contract)
- Balance of total amount left (pay as you go)
- · Redial feature
- 'Save' when phone number is not saved

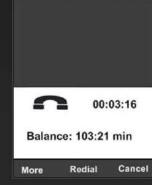
Touch





Non touch



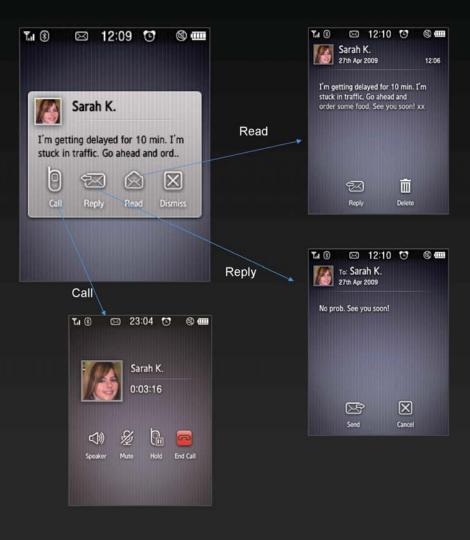


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## 6.7 UI Concepts: Incoming message (touch)

- Call and Reply with 1 click!
- Touch only



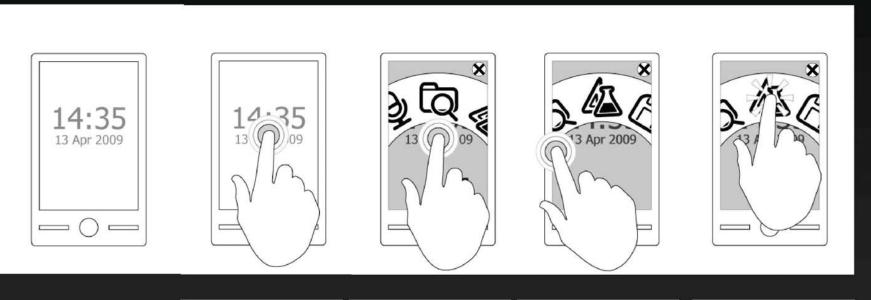
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# 6.10 UI Concepts: Multitask – open an active application

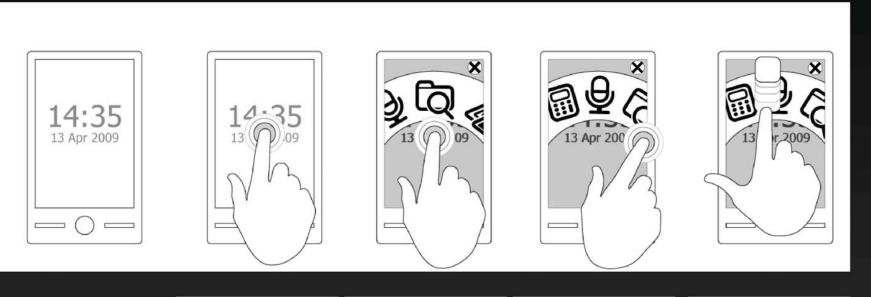


- Press down & hold to activate the 'QuickNav' wheel.
- Reachable in the whole device.
- It has a time out of x seconds

- It displays all active applications.
- The user can scroll between active applications.
- By tapping on the application in focus, it is launched.
- Close the wheel by tapping the 'close' icon in upper right.



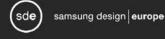
# 6.10 UI Concepts: Multitask – close an active application



- Press down and hold to activate the 'QuickNav' wheel.
- Reachable in the whole device.
- It has a time out of x seconds

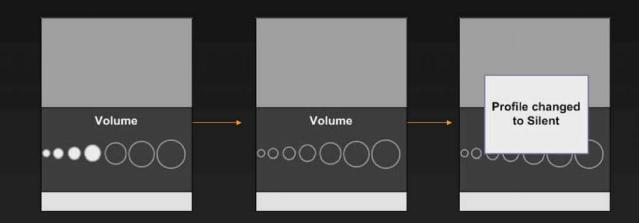
- It displays all active applications.
- The user can scroll between active applications.
- By tapping and dragging upwards

   it ends the active application.
- Close the wheel by tapping the 'close' icon in upper right.



## 6.11 UI Concepts: Silent mode – solution 1 (touch& non touch)

- Default volume dialog appears when pressing the volume keys
- Continue pressing 'volume key ' to activate Silent mode
- By pressing 'volume key +' it goes back to 'Normal mode;





## 6.11 UI Concepts: Silent mode – solution 2 (touch)

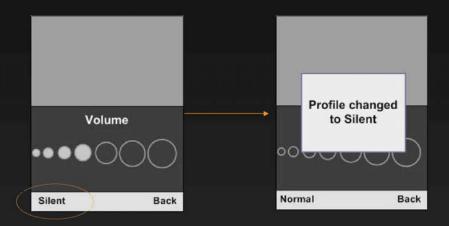
- When pressing the volume keys the 'Volume dialog' is displayed
- Activate 'Silent mode' by pressing the volume icon



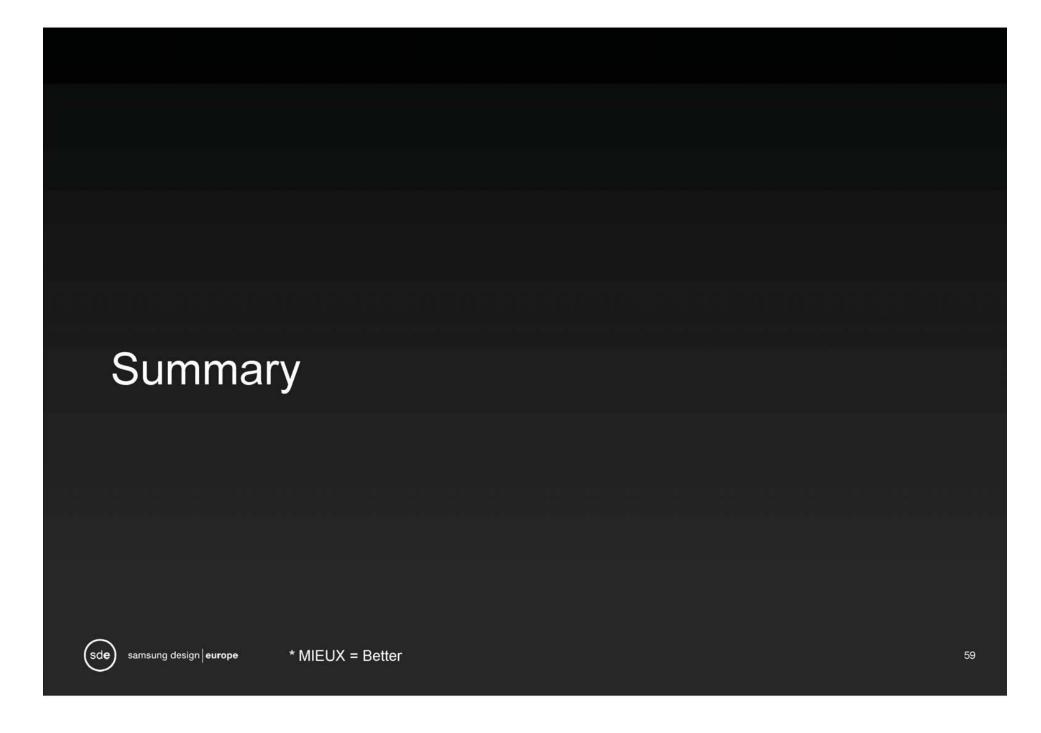
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# 6.11 UI Concepts: Silent mode – solution 2 (non touch)

- When pressing the volume keys the 'Volume dialog' is displayed
- Activate Silent mode by selecting the soft key 'Silent'







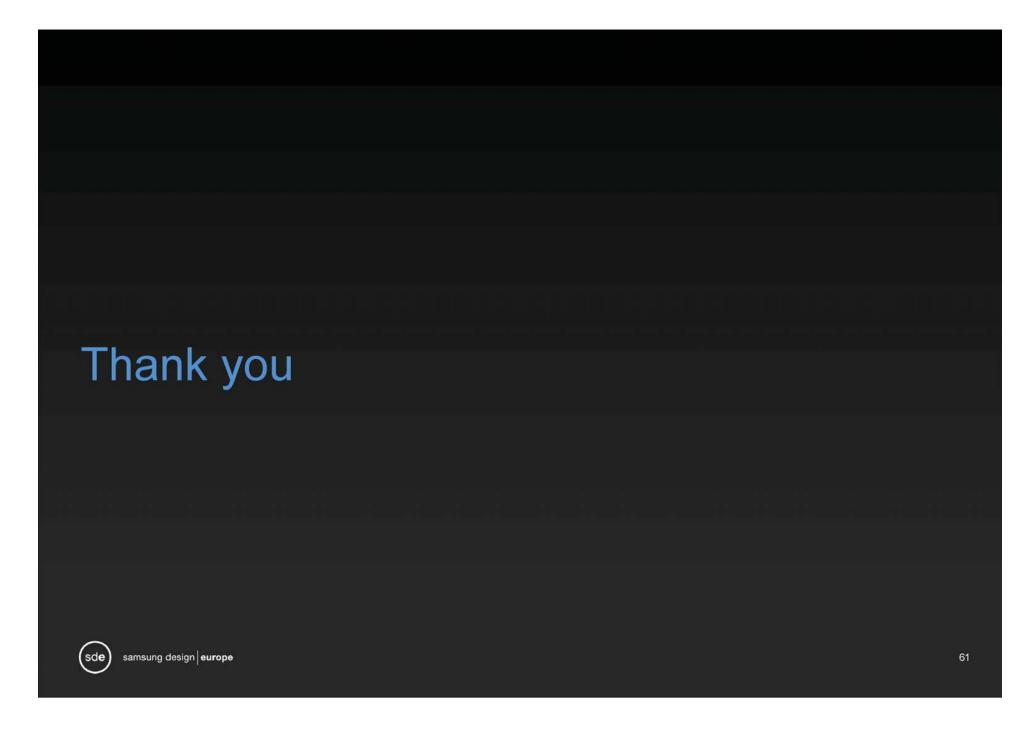
## 7 Summary

- Emotional UX creating a more intuitive and emotional Samsung mobile interface
- Focus on everyday and small use cases to create a positive experience – small things matters
- Creating a holistic UX of Samsung from low to high end phones, across platforms
- New Samsung Profile should be easy to recognise with keywords like e.g. Simple, Modest, Powerful but easy to use, Useful, Subtle and Clear.





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