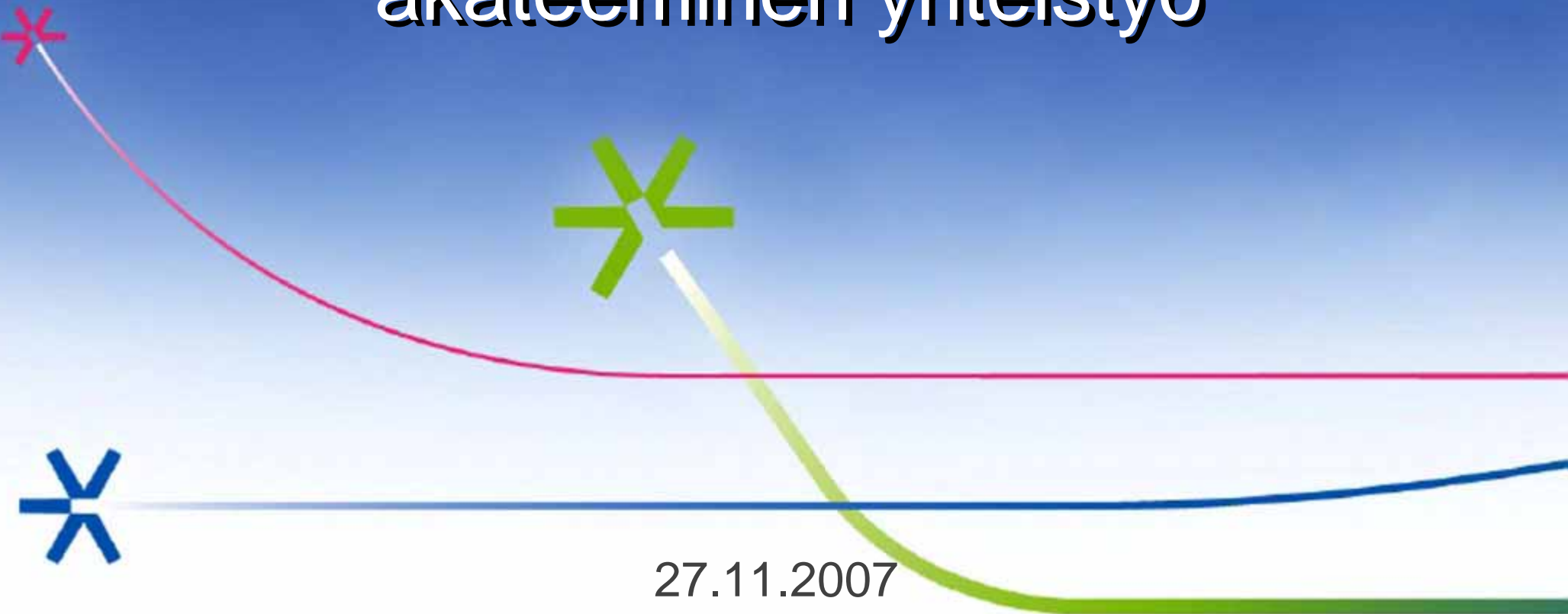


Nokia Smartphone360 mittaukset ja akateeminen yhteistyö



27.11.2007

Esa Eerola

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S60  Open to new features



Sisältö

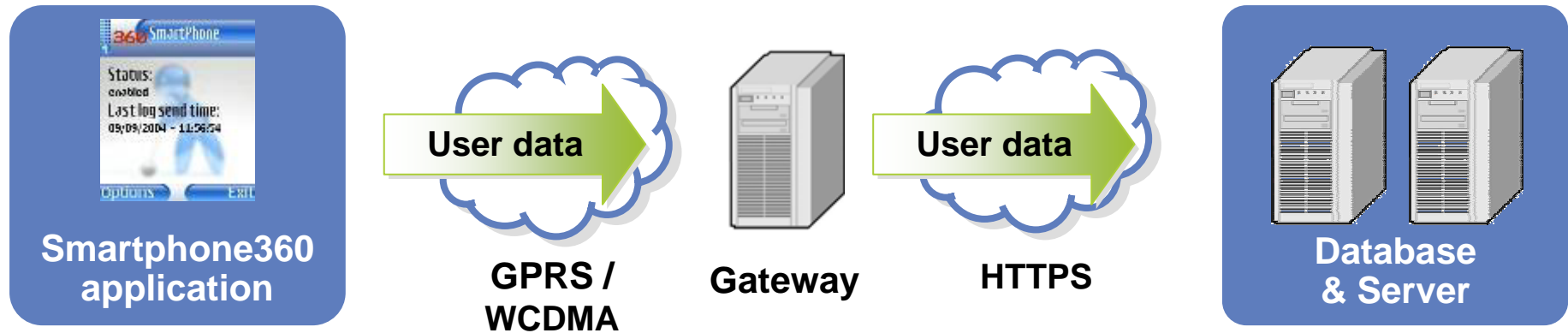
- Nokia Smartphone360 -tutkimusmenetelmä
- Poimintoja viimeaikaisista tuloksista
- Miten hyödynnämme tuloksia
- Näkökulmia akateemiseen yhteistyöhön

What is Smartphone360?

- A simple Symbian application installed in a S60 device.
- A reliable and objective method to collect unbiased data on S60 device usage.
- Results reveal everything from feature usage frequency to usage patterns.
- User data is completely anonymous.
- Participation is voluntarily.
- Results can be used for product planning, operator service planning, application design etc.



Smartphone360 research platform



The client SW is transparent to the panelist.

Client SW observes applications and services usage on the S60 device and makes a daily datalog.

Data transfer is automatic. Application uploads data daily.

Datalogs are sent compressed and encrypted over packet data / Internet link.

Data in servers is anonymous. Each panelist is identified by an anonymous person ID.

Aggregated and anonymous raw data is used for reporting.



Sisältö

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Comparison 2007 vs. 2006:

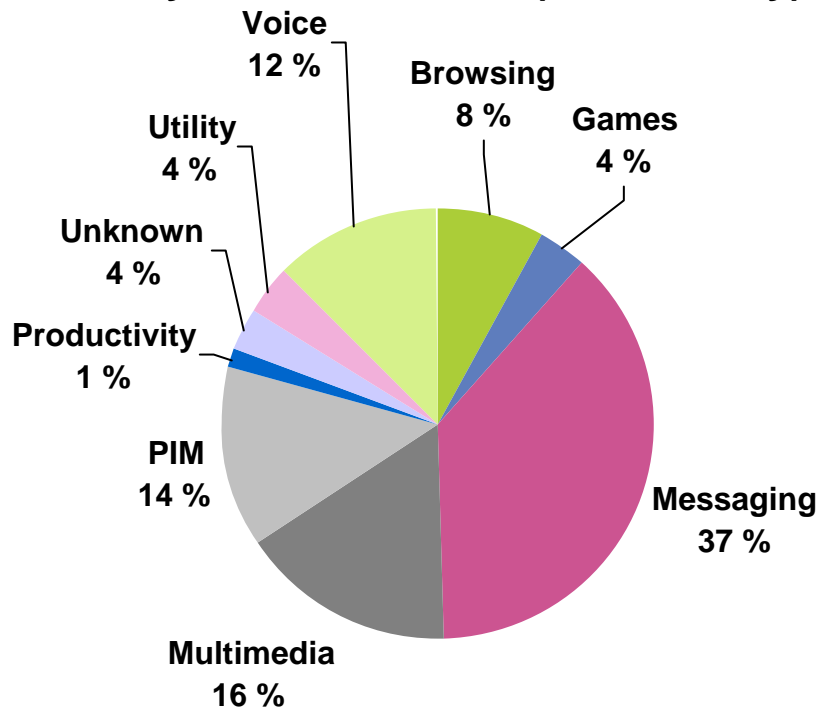
Note: different panels, panelists and devices

	2007	2006
Time	March-May 2007	March-June 2006
Panelists	547	531
Panelist distribution	UK: 57% Germany: 22% France: 21%	UK: 32% Germany: 39% France: 29%
S60 device models	12 Mostly N73, N70, N80	8 Mostly N70, 6680, 6630
Typical panelist	25-34 year old male full-time worker	25-34 year old male full-time worker

Comparison 2007 vs. 2006: Time spent on device

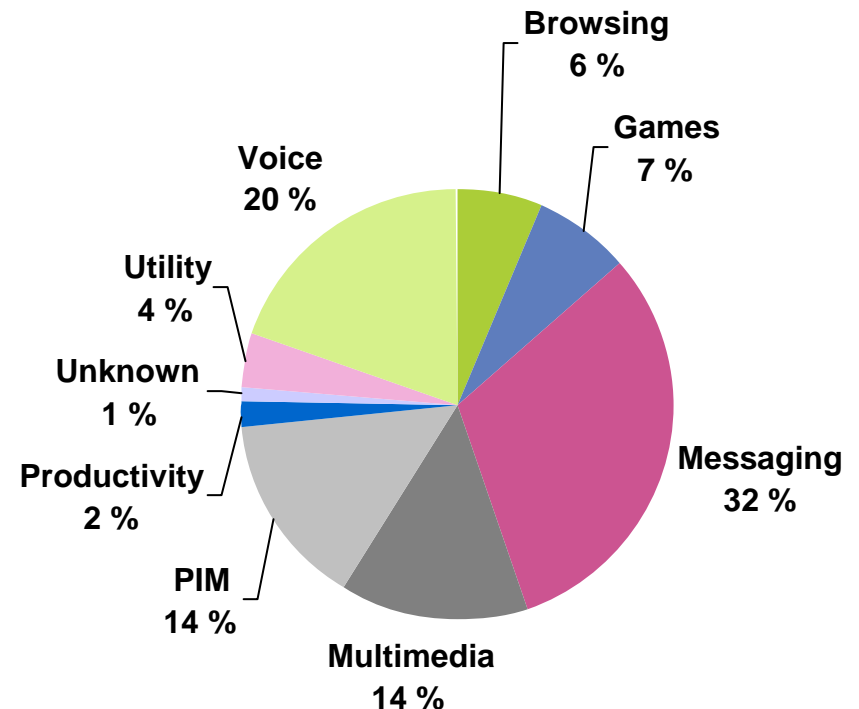
2007 panel

Daily Time Allocation (48 min / day)



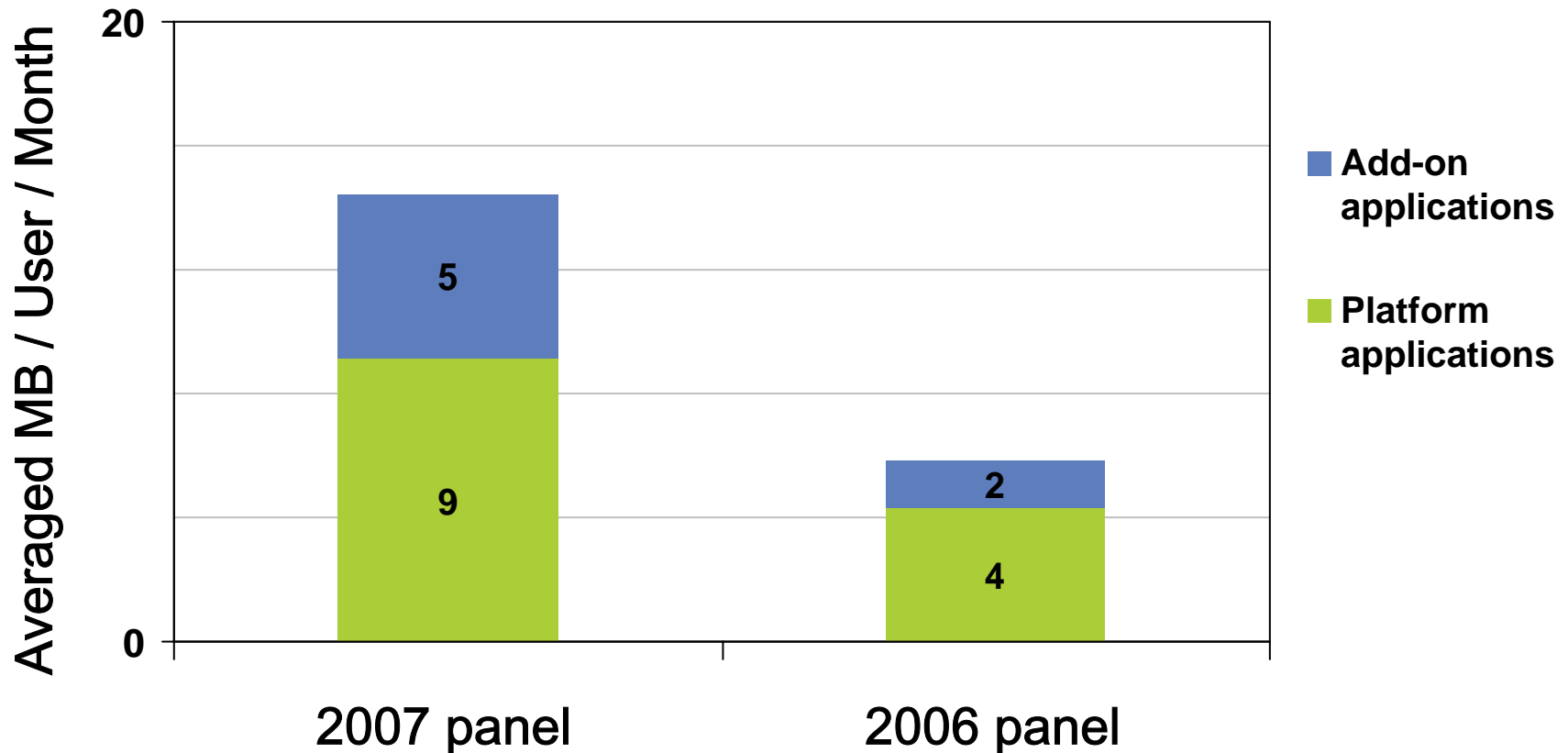
2006 panel

Daily Time Allocation (30 min / day)



**A typical panelist spent 18 min (60%) more time per day on the device in 2007 panel.
In particular, the time spent on messaging, multimedia and browsing has increased.**

Comparison 2007 vs. 2006: Packet data generation per panelist



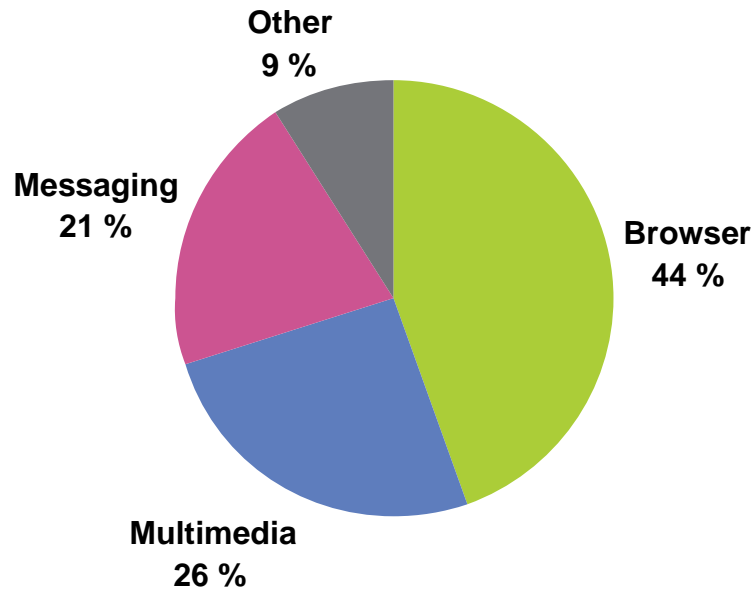
Average packet data traffic per user more than doubled in the 2007 panel.

Comparison 2007 vs. 2006: Data traffic by application category

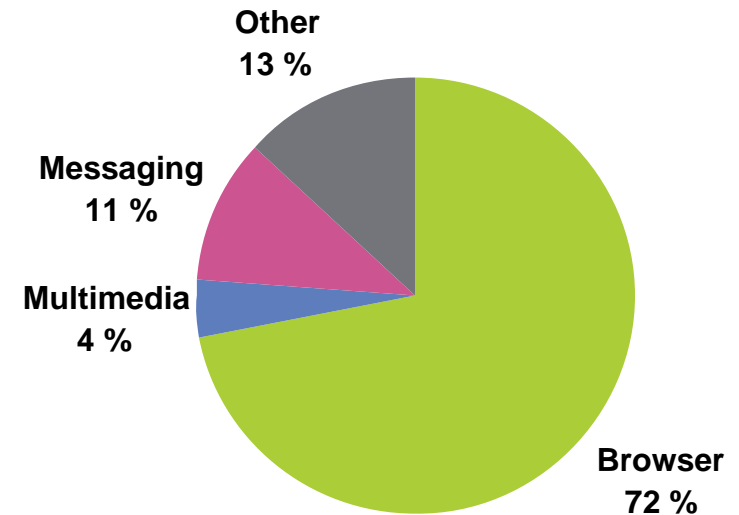
2007 panel

2006 panel

Share of All Data Traffic by Application Category



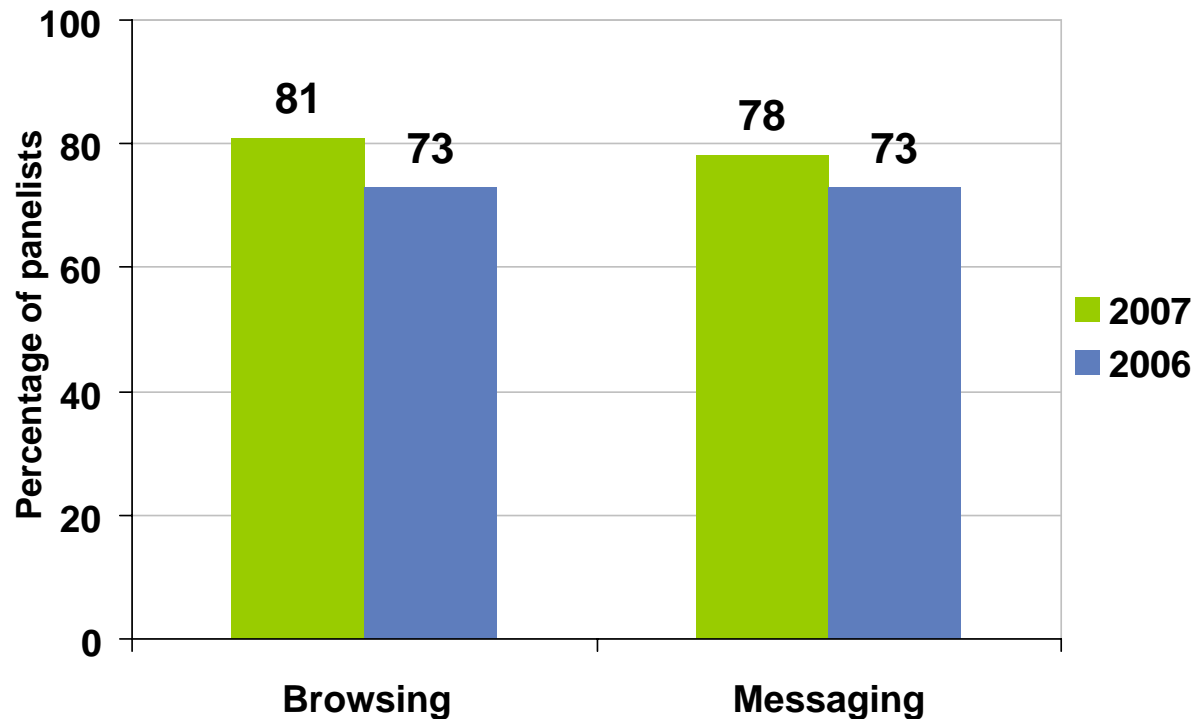
Share of All Data Traffic by Application Category



The share of data traffic generated by multimedia applications increased a lot in 2007 panel.

Comparison 2007 vs. 2006: Popularity of packet data services

Share of panelists using packet data services

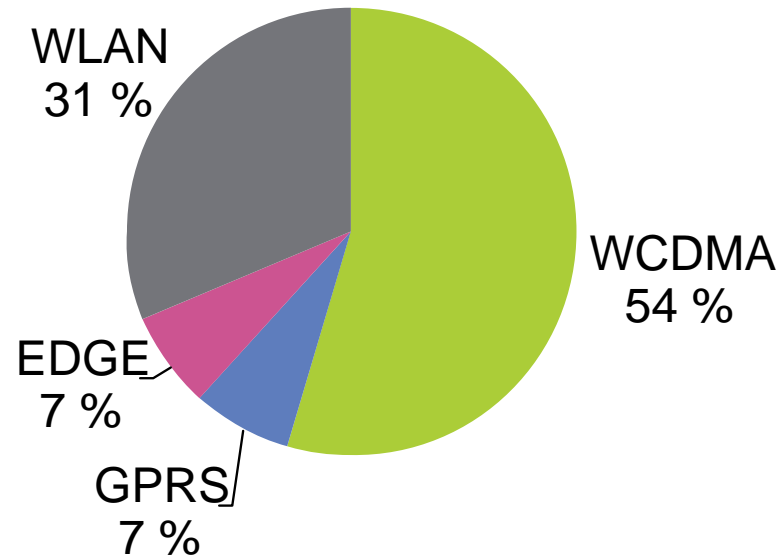


Clearly more panelists used packet data services in 2007 panel.

10% of panelists generated 60% of the total data traffic in 2007 (80% in 2006).

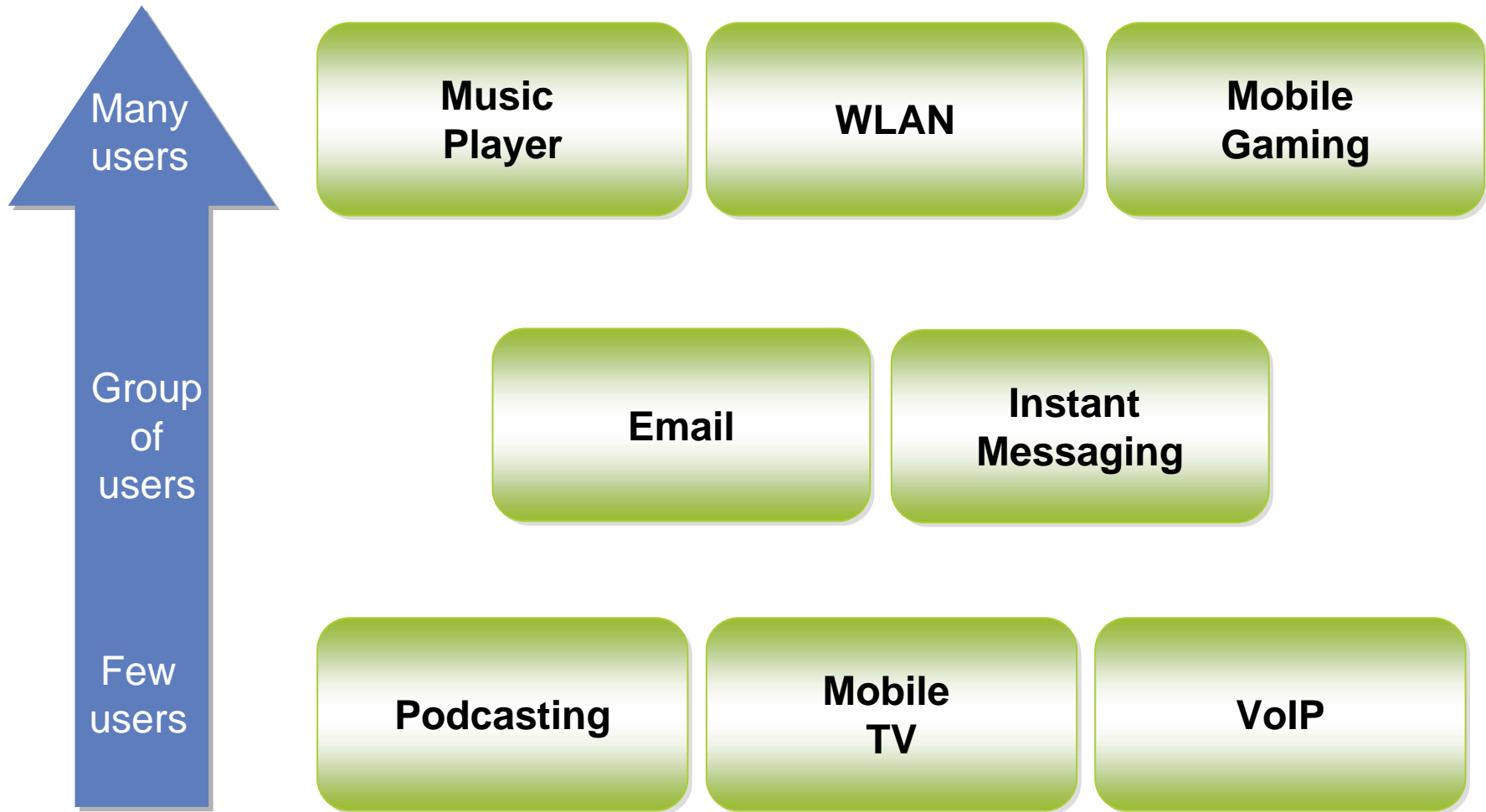
Packet Data Traffic by Bearer

Distribution of Data by Bearer



Almost one third of the total data traffic was generated using WLAN

Adoption of New Services



Source: Nokia Smartphone 360 panel spring 2007

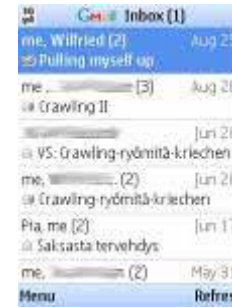
Music

- **38%** of panelists used music player weekly
- A typical user used music player 1.9 times/week
- **47%** of the panelists said the mobile is their primary portable music player
- **40%** of the panelists said they had bought music from online music stores
- Transferring music from PC using cable connection was the most popular method for getting music files to the mobile



Popular add-on applications by number of users (in alphabetical order)

- Adobe Reader
- Anti-Virus
- AutoLock
- GoogleMail
- GoogleMaps
- Nokia LifeBlog
- Opera/Opera Mini
- QuickOffice
- QuickWord
- TomTom
- Yahoo!Go



Note:

Big differences between individual panelists exist.

Some of these applications may have been pre-installed in some devices.



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Smartphone 360 data is widely utilized in Nokia

To understand consumer behavior

- One tool used in Nokia consumer research
- Gives accurate data how people actually use smartphone in their daily life

As input to S60 platform R&D

- How much, how and when platform applications and features are used
- ... to continuously improve usability and application interworking

As input to device programs

- How much, how and when device applications and features are used
- How usage patterns differ between device models

Smartphone 360 data is widely utilized in Nokia

In sales and marketing

In customer meeting with operators, distributors, S60 licensees etc

- Highly interesting topic to share findings by all parties

At industry events

- Several public presentations given, e.g. Nokia World 2006, S60 Summit, Symbian Smartphone Show, MAPOS etc

Meetings with media and analysts

- Concrete numerical data on consumer behavior is interesting



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Co-operation with “academic world” is valuable

Nokia Smartphone360 research produces HUGE amount of data

Challenges

- How to best manage the data
- What does a certain “strange” data point mean?
- Do we cover all relevant viewpoints?

Co-operation with universities helps us identifying and resourcing new research areas, such as

- Context analysis: where do people use devices for what
- Social grouping and social networks
 - Are there consumer groups that behave the same way
 - Communication patterns: existing and arising
 - How new technologies get adopted

Co-operation with “academic world” is valuable

Since the beginning, Nokia Smartphone360 research has been done in co-operation with Helsinki University of Technology

Some findings from our viewpoint

- Roles and responsibilities have been clear
- Nokia has received support in ways how to do “Academic research”
- Nokia has got supportive data for other Smartphone360 researches
- HUT has got topics, research platform and live data for empiric research

Keskustelua, kysymyksiä!

