Workshop and Think-Tank Roundtable discussion of the future trends and directions covering the technological and socio-economic aspects of Mobile Search

Participants: All Previous Speakers

Chaired by Stavri Nikolov (IPTS) and Pieter van der Linden (Technicholor)

Presentation of the Preliminary Results of the 2010 IPTS Mobile Search Survey

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- Jose-Luis Gomez Barroso (UNED)
- Karen Church (Telefonica)
- Juha Kaario (Varaani Works)
- Michel Plu (Orange)
- Matt Jones (University of Swansea)
- Georg Treu (Aloqa)
- François Daoust (W3C)
- Steve Ives (Taptu)
- Pierre Scokaert (AB Phone)
- Philipp Breuss-Schneeweis (Mobilizy)
- Philippe Cheron (Yacast)
- Bernard Barani (EC DG INFSO)
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Questions to be Addressed

- How are mobile **information needs** changing?
- How is the mobile search **market** likely to evolve?
- Which are the major **bottlenecks**?
- Which are the main **challenges** to be overcome?
- How are mobile search **usage patterns** changing?
- How is **Europe placed** with regard to the rest of the world?
- Is there a consensus on **future trends** and directions?
- What are the main **technological and economical challenges** ahead?

Outline

- Survey Overview and Statements
- Mobile Search Technologies and Interfaces
- Mobile Search Applications and Business Models
- Mobile Search Usage
- Personalized Services and Privacy Issues

- **Survey organised by IPTS**
  - In the framework of the CHORUS+ project
  - Fieldwork ~ April-May 2010 (150 invitation sent)
  - Preliminary Results ~ June 2010 (54 replies received)
  - http://ec.europa.eu/yourvoice/ipm/forms/dispatch?form=MobileSearch2010

- **The questionnaire was designed to foster discussion of the current trends, main challenges and likely future developments of mobile search.**
  - Statements (14)
  - Expert mobile search use (15)
  - Mobile search technology today and tomorrow (6)
  - Mobile Search Challenges and Business Models (2)
  - Privacy Issues (7 Statements)
  - Respondent's profile (5)

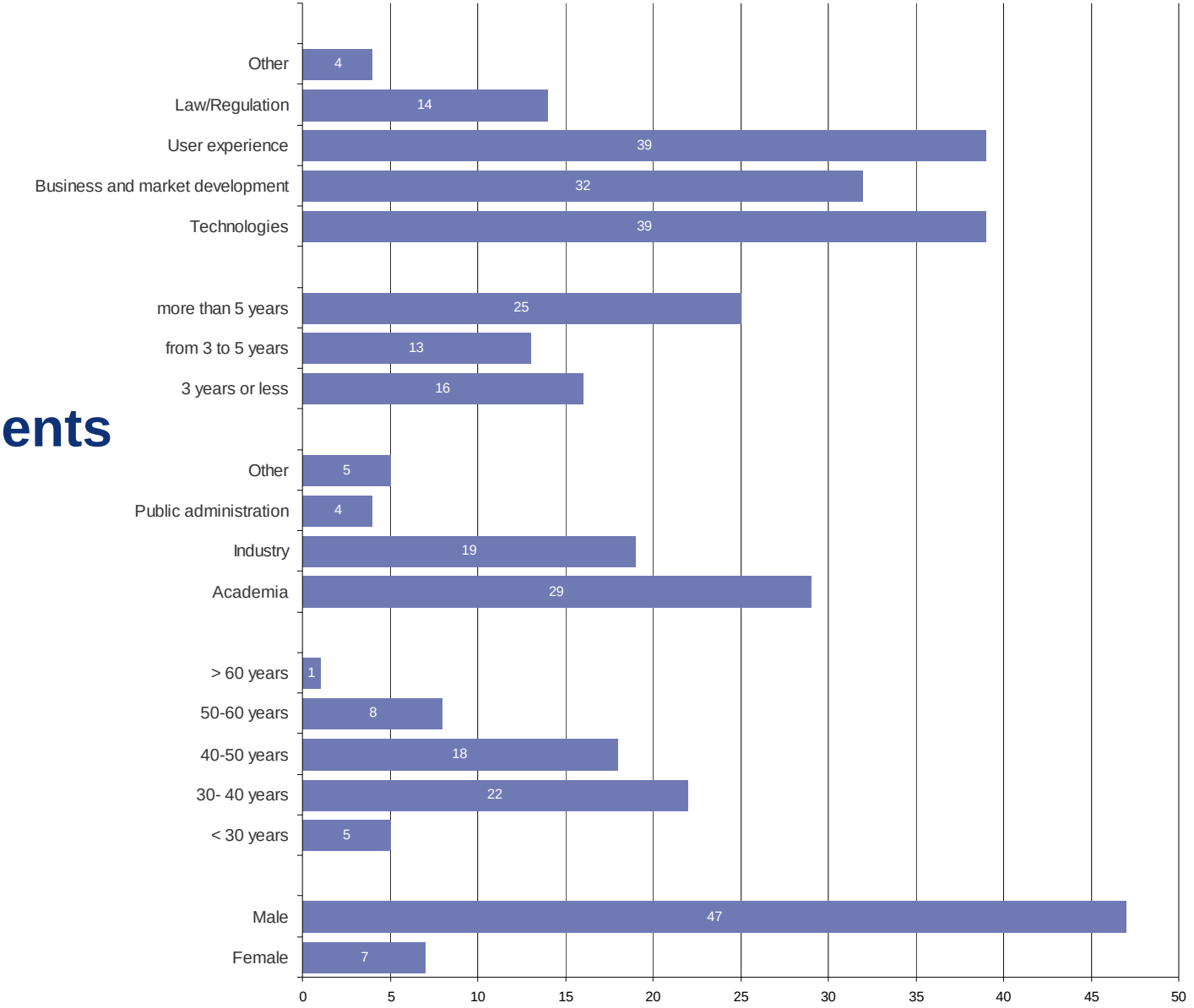
- **In 2009 a similar exercised was carried out, but scenarios were used to discuss the key issues that affect Mobile Search future developments, drivers and barriers**

- **Scenario were used to:**
  - ease forward thinking and reflection on current trends and developments,
  - stimulate dialogue about the future of Mobile Search by envisioning applications in context

- **Scenarios provided the context for replying to the survey, both scenarios and survey results were discussed in a f2f workshop [April 2009].**

Respondents'profiles

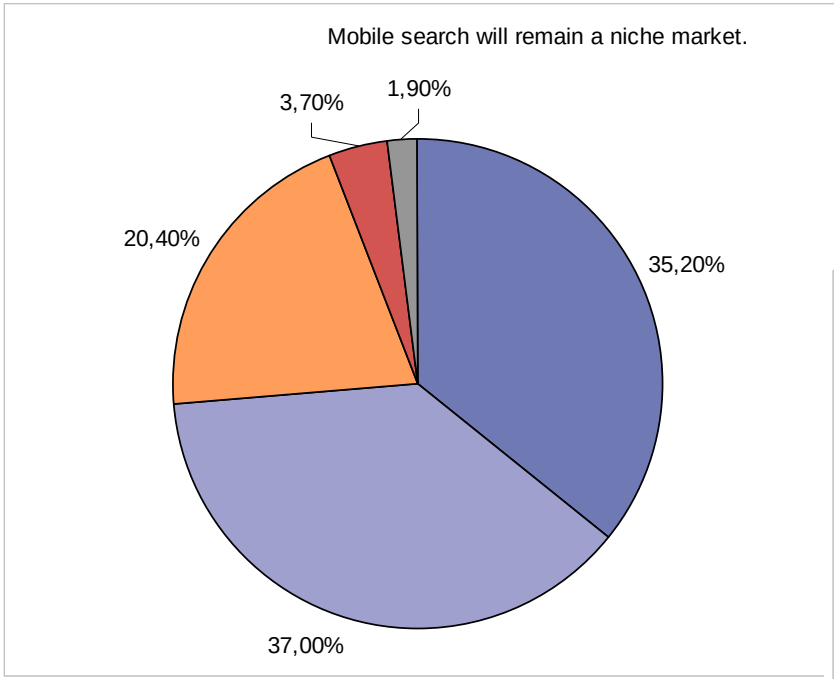
54 respondents

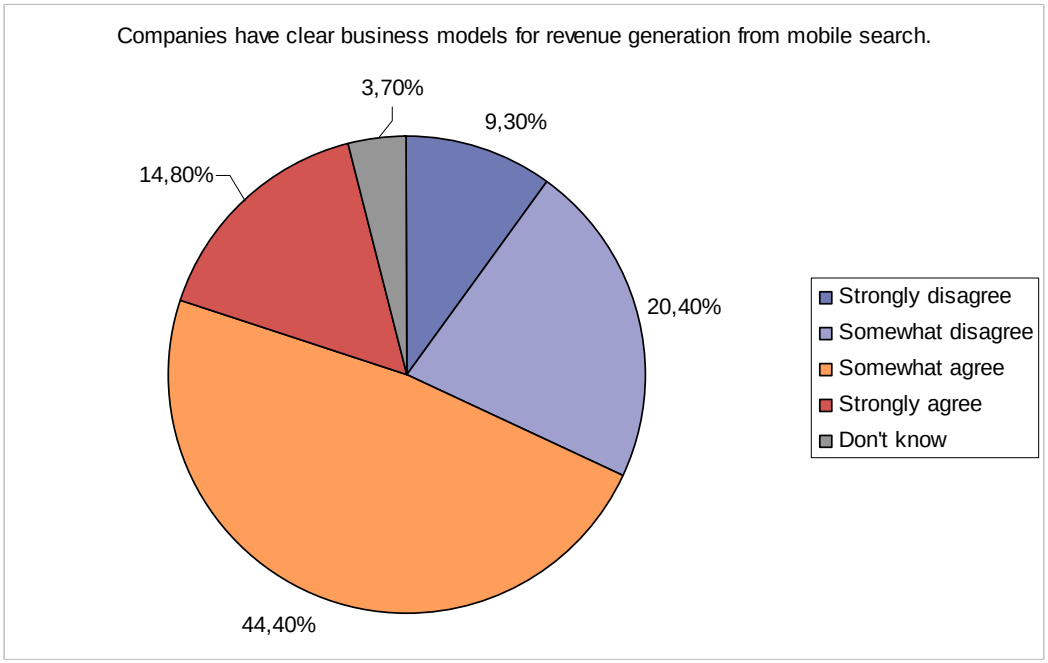


❑ Mobiles search related statements

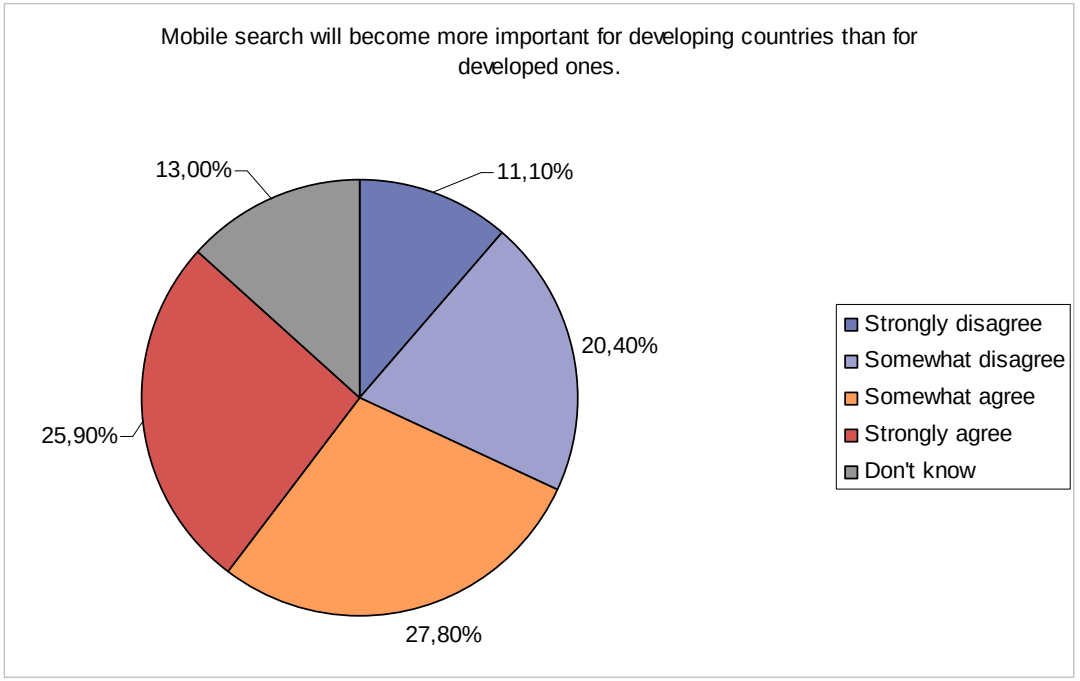
❑ How are mobile information needs changing?

Mobile search is taking off



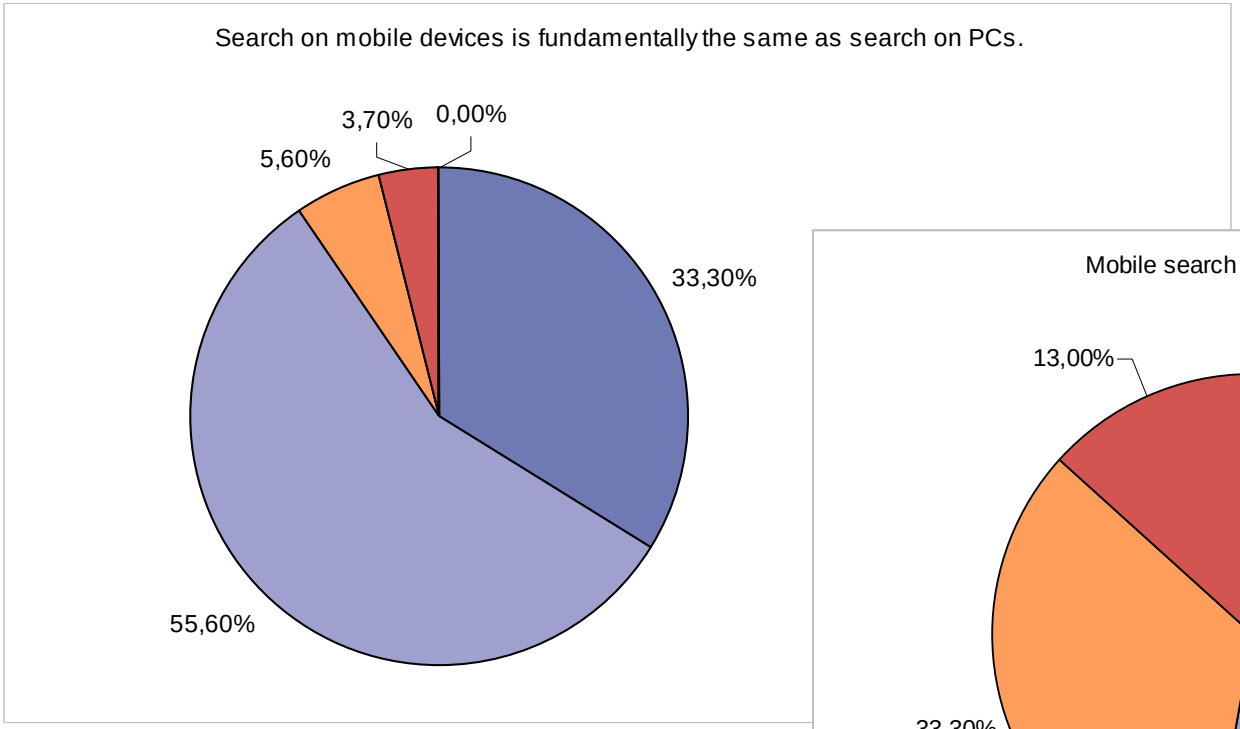


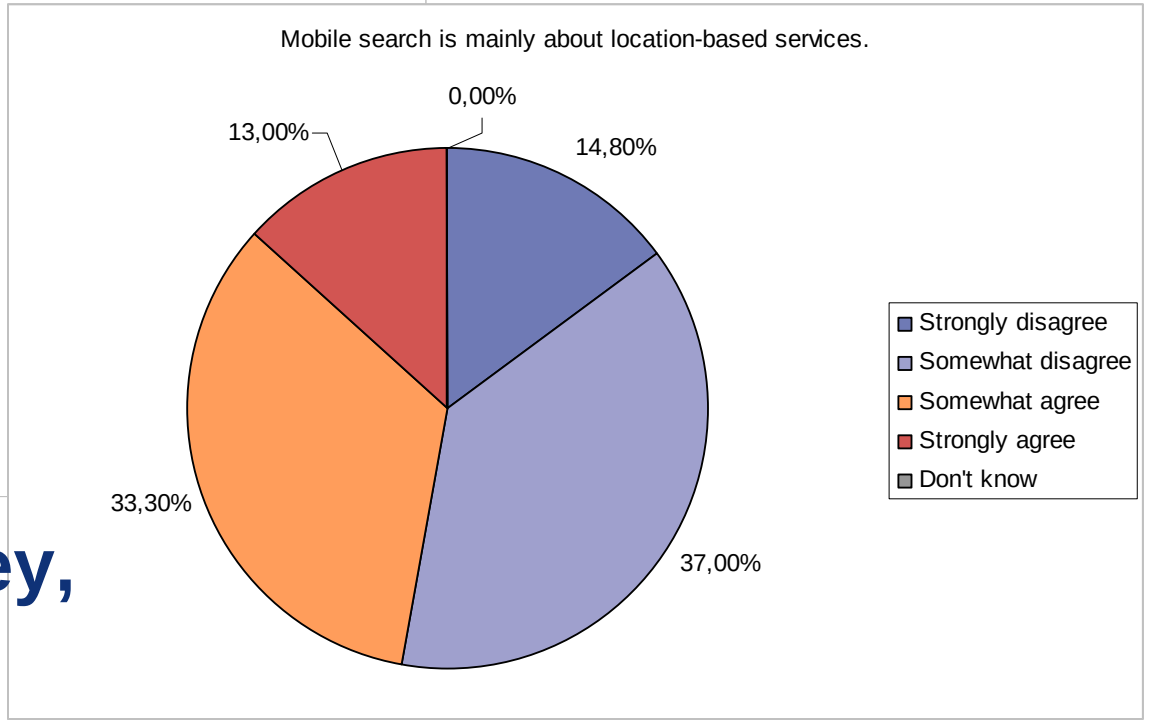
Mobile search is taking off



Will it be a global phenomenon or a confined one?

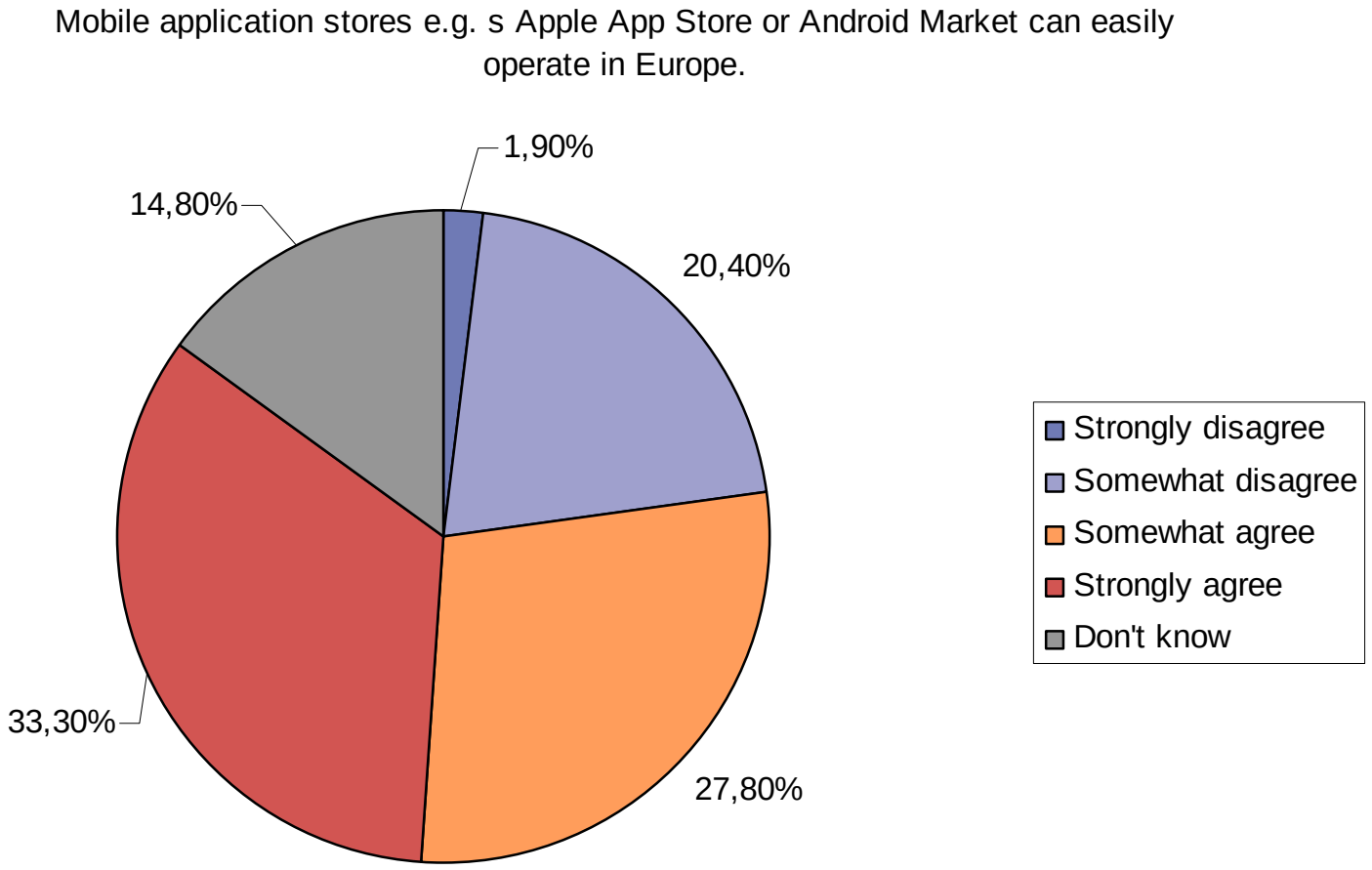
Is mobile search fundamentally different from PC search?





If location is not the key, which is it then?

Are we about to break the wall?

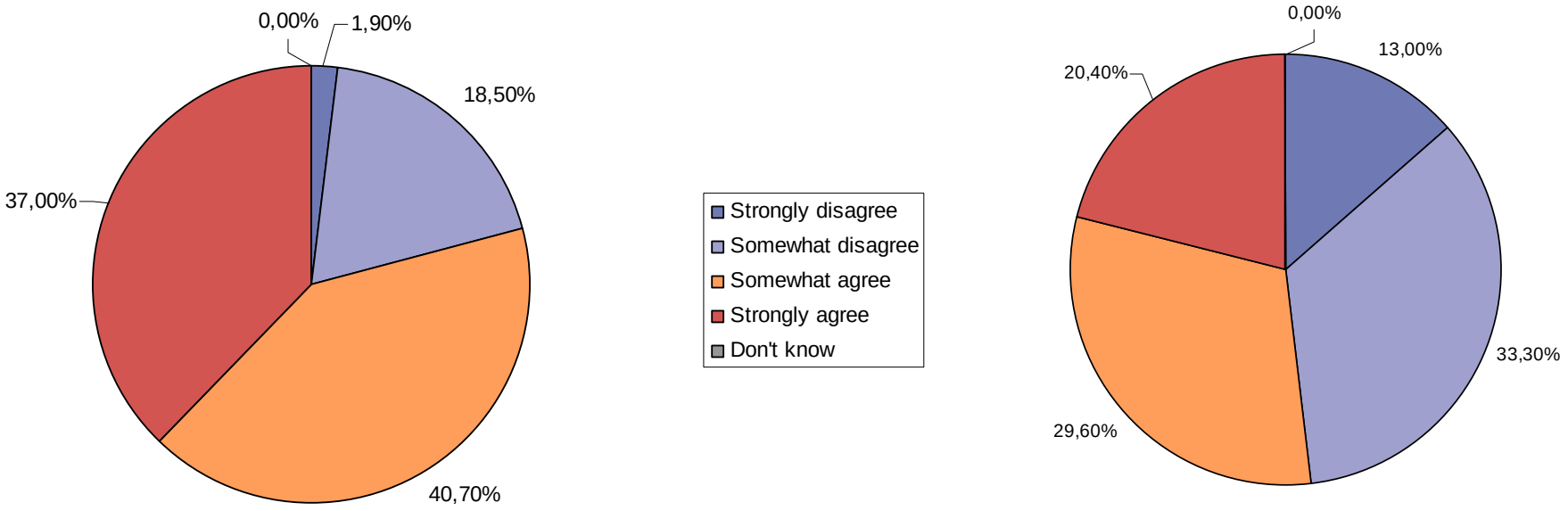


❑ Mobile search technology today and tomorrow

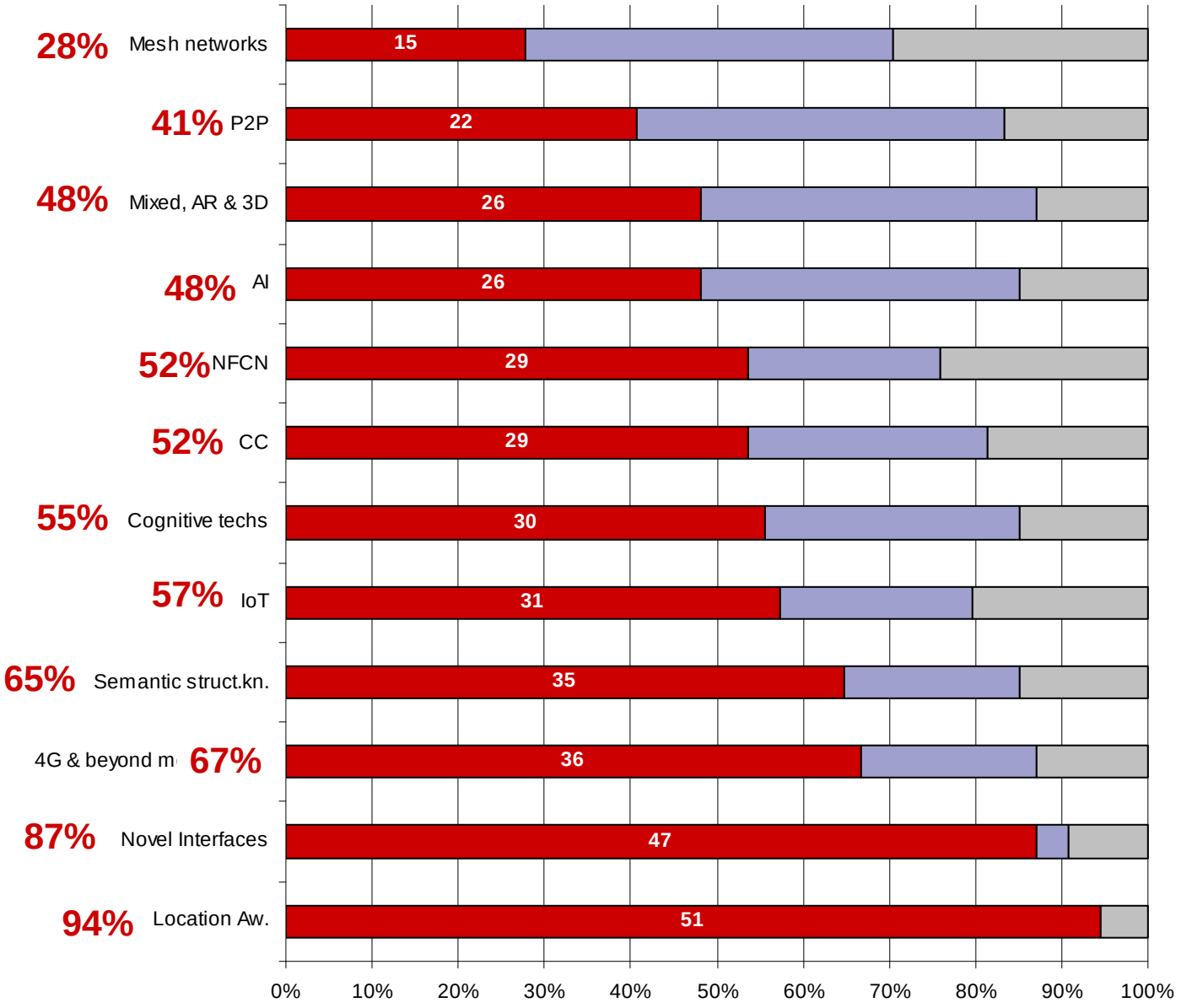
- ❑ What are the main technological challenges ahead?
- ❑ Is there a consensus on future trends and directions?
- ❑ Which are the major bottlenecks?

The main technological bricks (devices, networks, applications) for mobile search are already there

- 78% of respondents agree with this statement

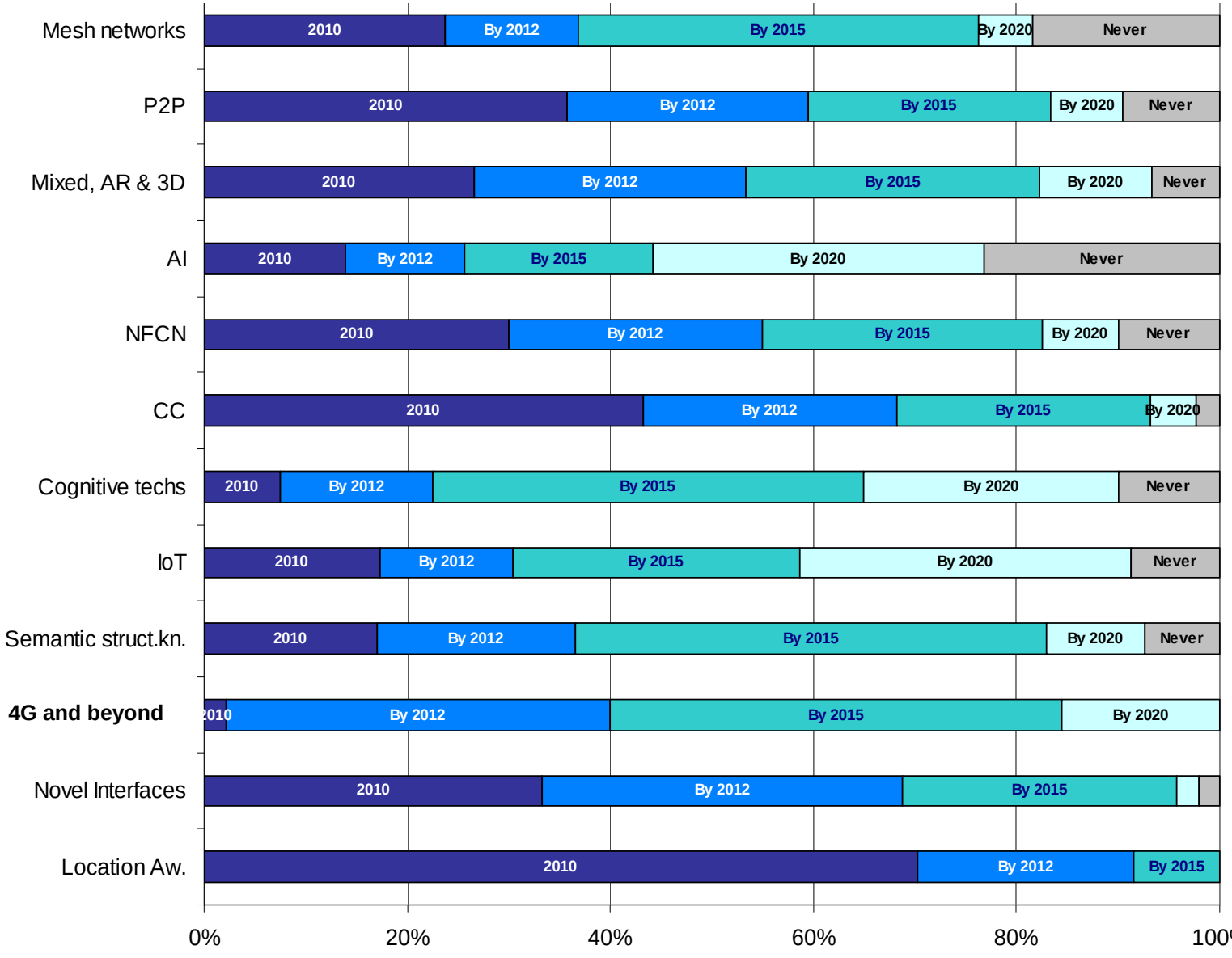


However 50% of respondents state that the major challenge for mobile search is still of technological nature



Please rate the importance of the technologies listed here for today's mobile search

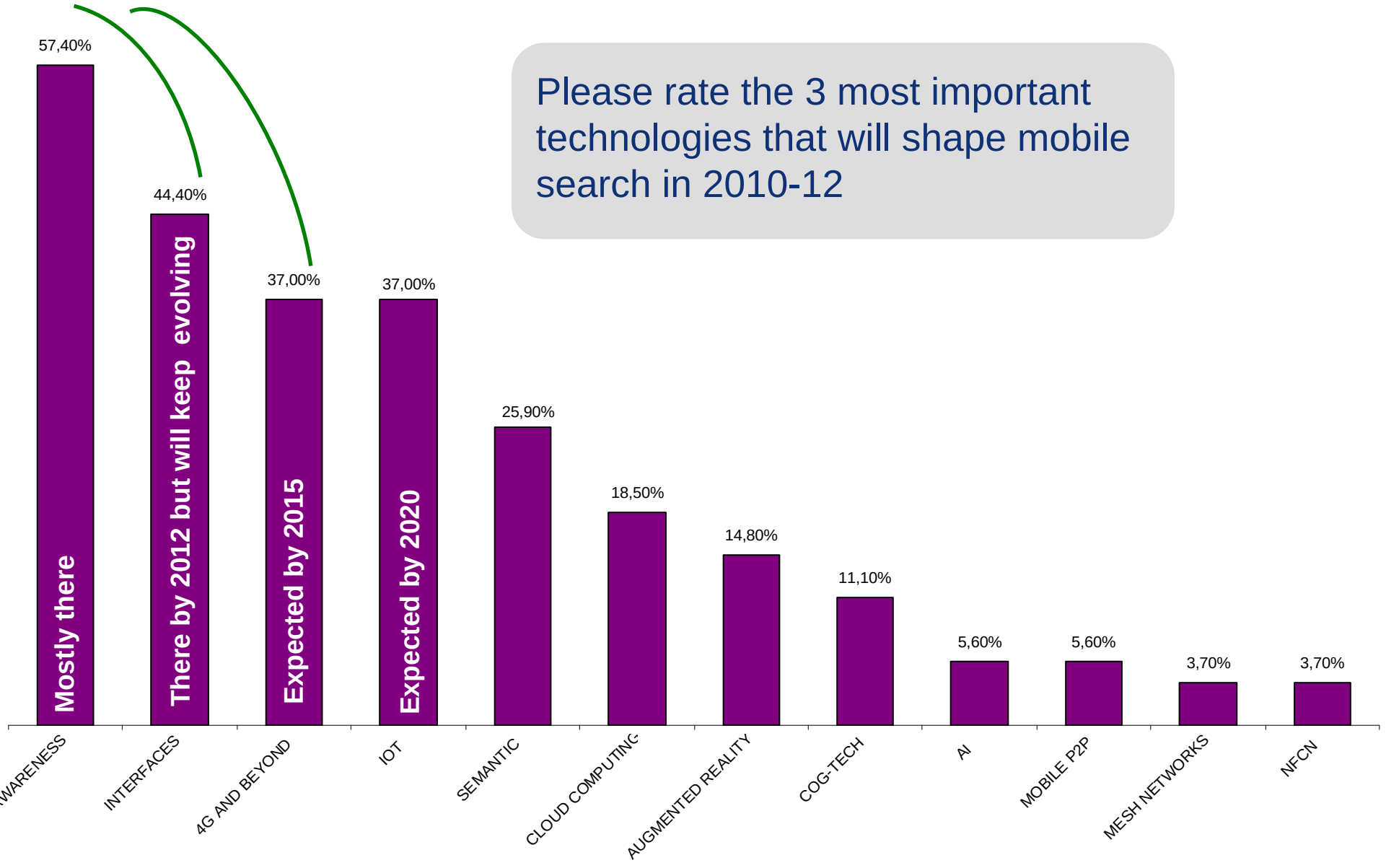
Timeline of different technologies



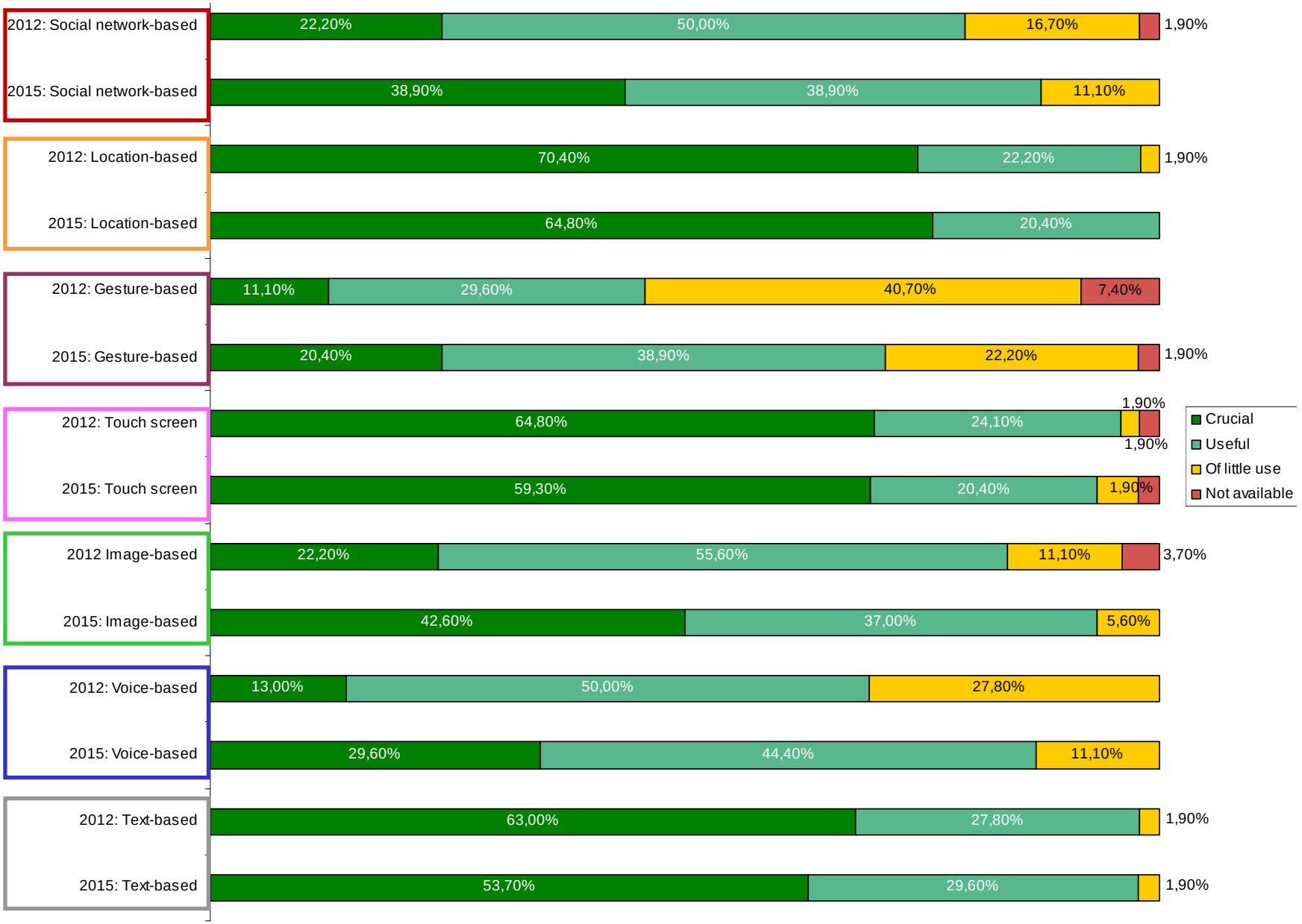
When will these technologies be commonplace in Mobile Search Applications?

Is a technological mix needed?

Please rate the 3 most important technologies that will shape mobile search in 2010-12



Interface usefulness 2012 / 2015

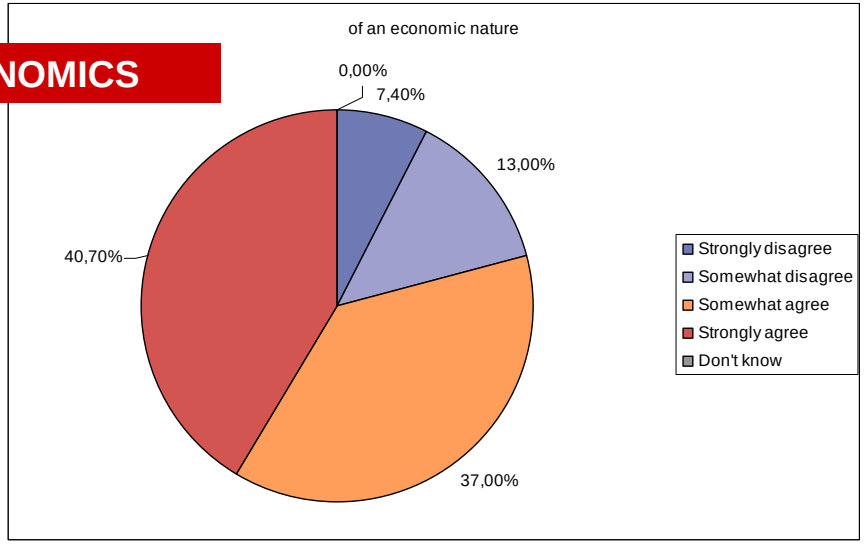


- **Mobile search applications and business models**

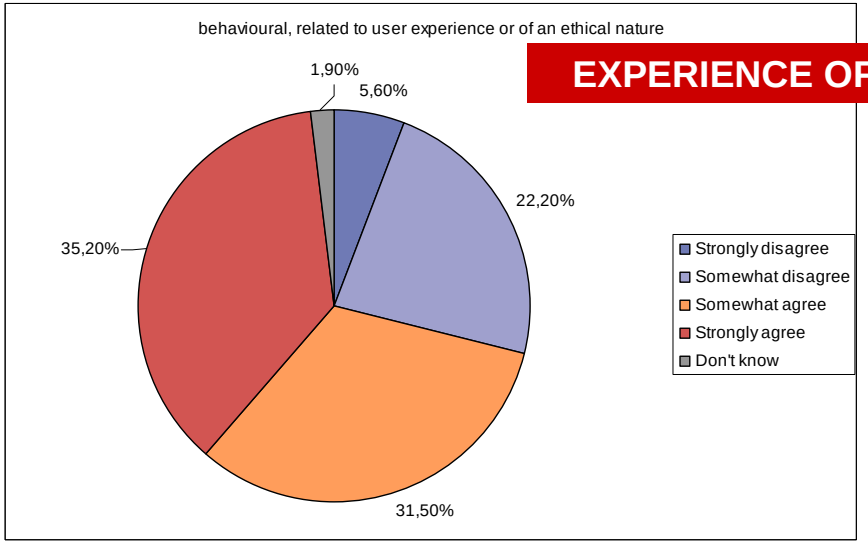
- What are the main economical challenges ahead?
- How is the mobile search market likely to evolve?
- Is there a consensus on future trends and directions (when it comes to business models)?
- How is Europe placed with regard to the rest of the world?

❑ The major challenge to Mobile Search is... (Please, indicate the level of your agreement)

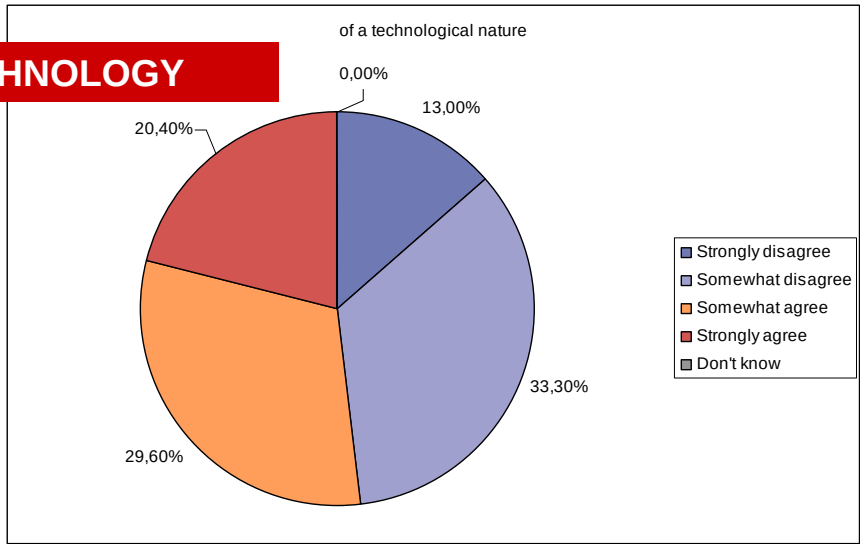
ECONOMICS



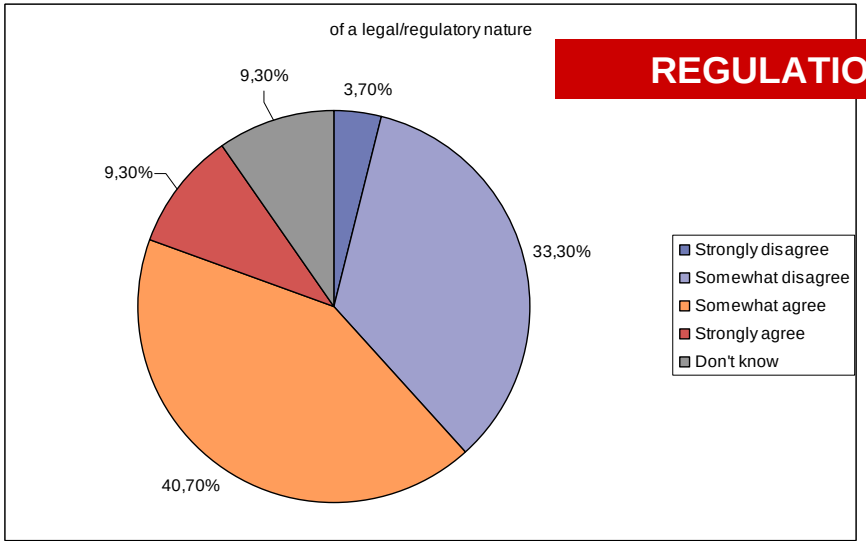
EXPERIENCE OF USE



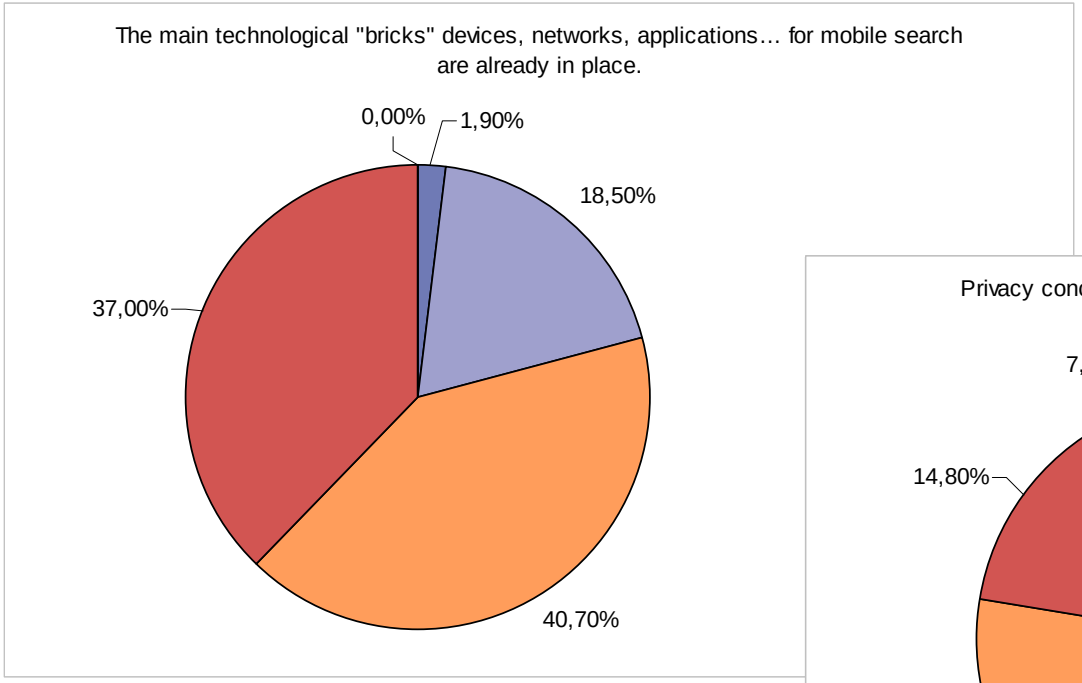
TECHNOLOGY

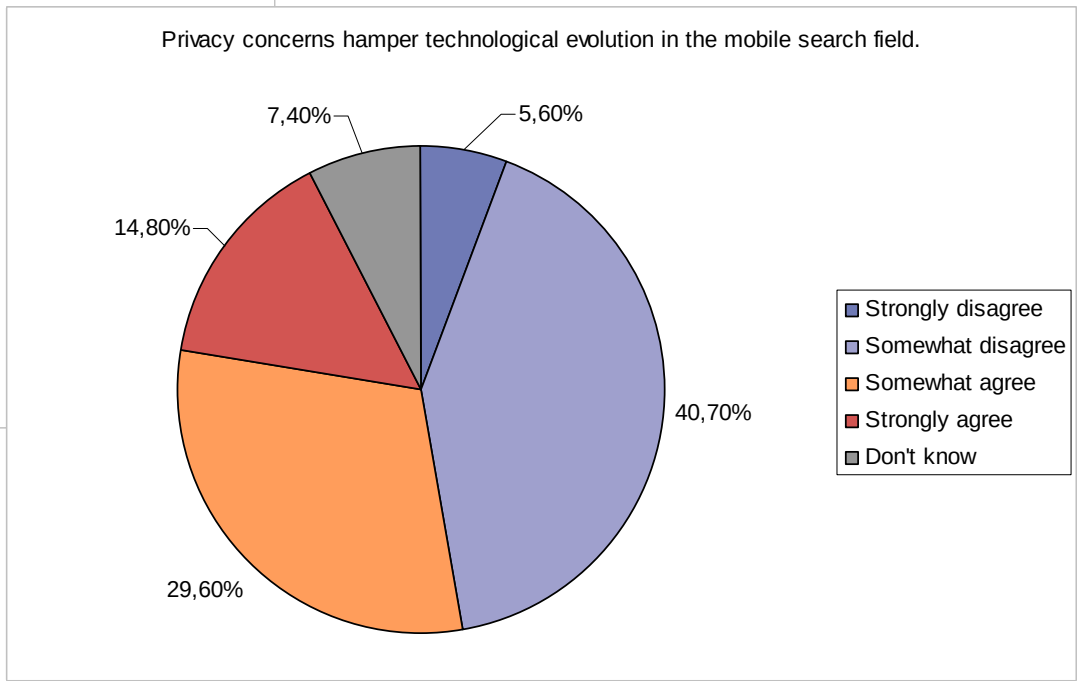


REGULATIONS



Technology is not slowing down the evolution of mobile search.



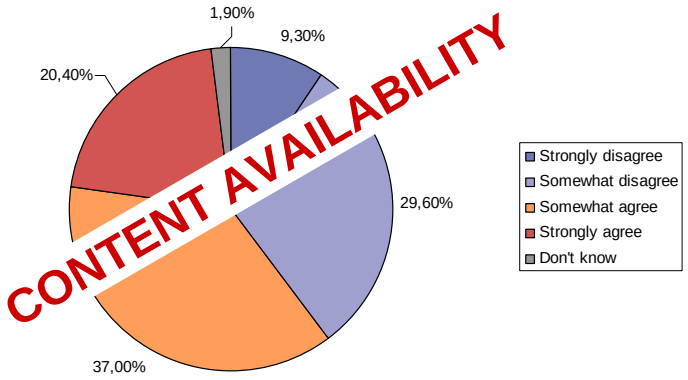


Where are the bottlenecks then?

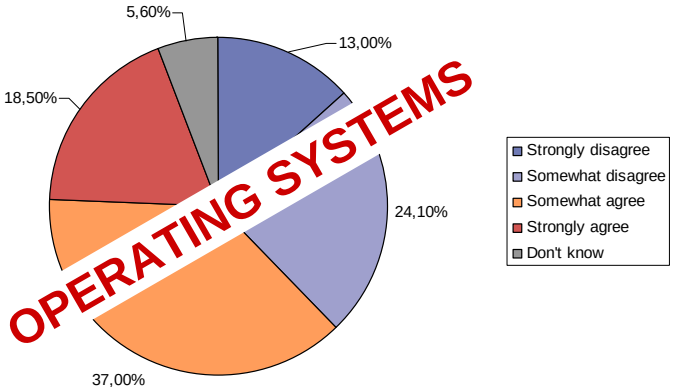
Mobile Search: Statements

Are there other bottlenecks?

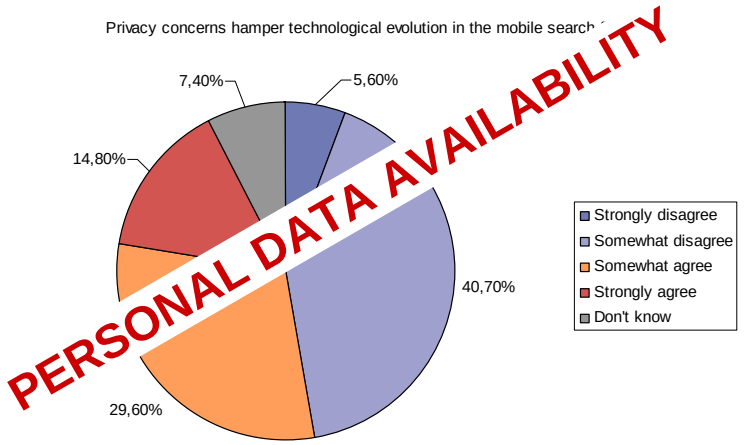
Mobile search works but there is little high-quality content tailored to mobiles to be retrieved.



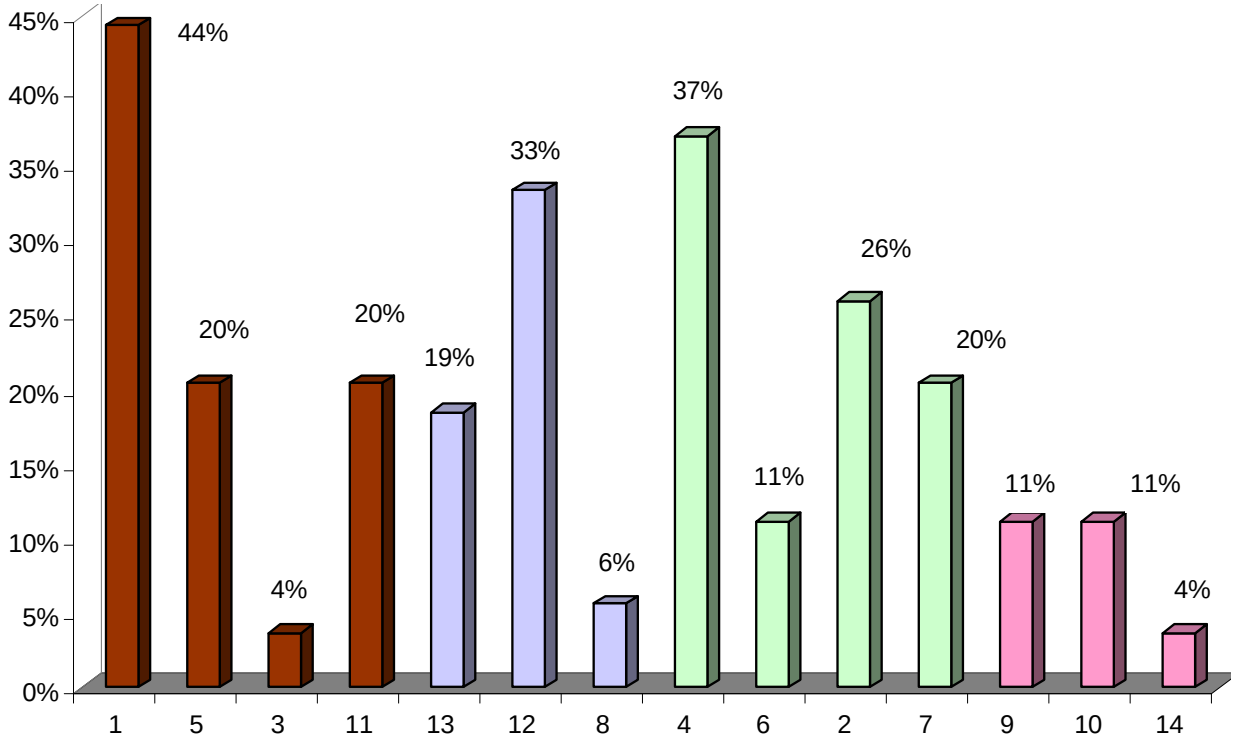
The current variety of operating systems is a barrier to mobile search services.



Privacy concerns hamper technological evolution in the mobile search



Mobile Search Business Models



1 **Advertising in general** i.e. like in today Web search.

5 Advertising but based on some product placement i.e., linked with another product: a TV show, a cinema premiere, ….

3 Merchandising i.e., as a way to sell some other product or service or affiliation i.e., to create opportunities of business for some other site.

11 User profiling i.e., selling the user profiles for commercial purposes.

13 Packaged with the mobile handset.

12 **Packaged with the voice**, data services of the MNO

8 Packaged with some other product or service not related with ICTs a flight ticket, an insurance,…

4 **Premium services**

6 Value-added services i.e., a contract for a pack of services on top of usual ones.

2 **Pay-as-you-go impulse purchase**.

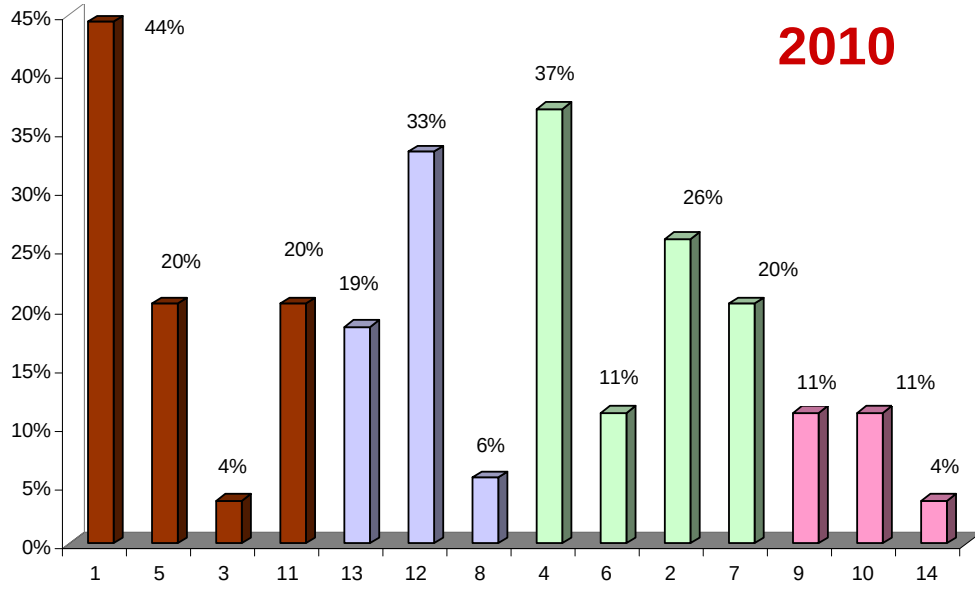
7 Subscription monthly/annual fee, etc.

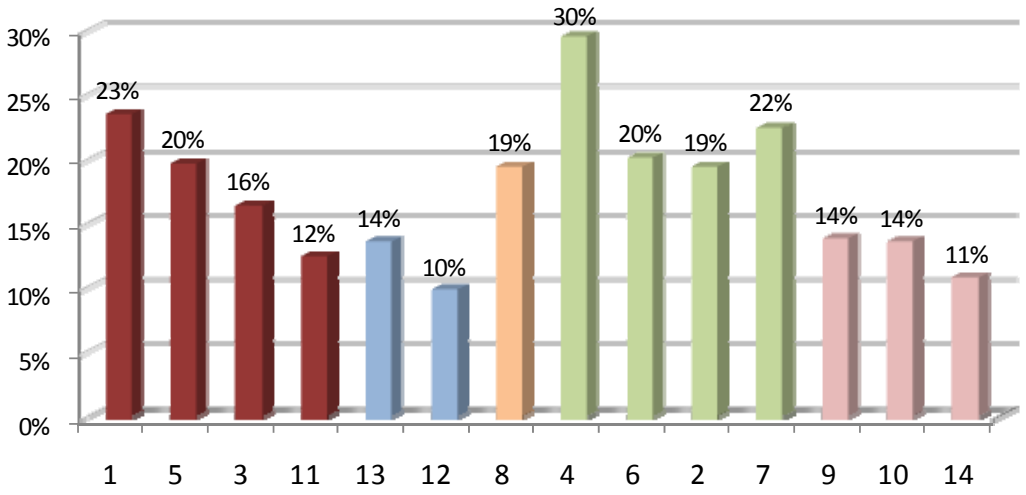
9 Business model to be defined at a very late stage when a critical mass of users is achieved (e.g.Twitter)

10 User community maintained by users (e.g. Wikipedia)

14 Not a commercial service i.e., a public service.

Mobile Search Business Models





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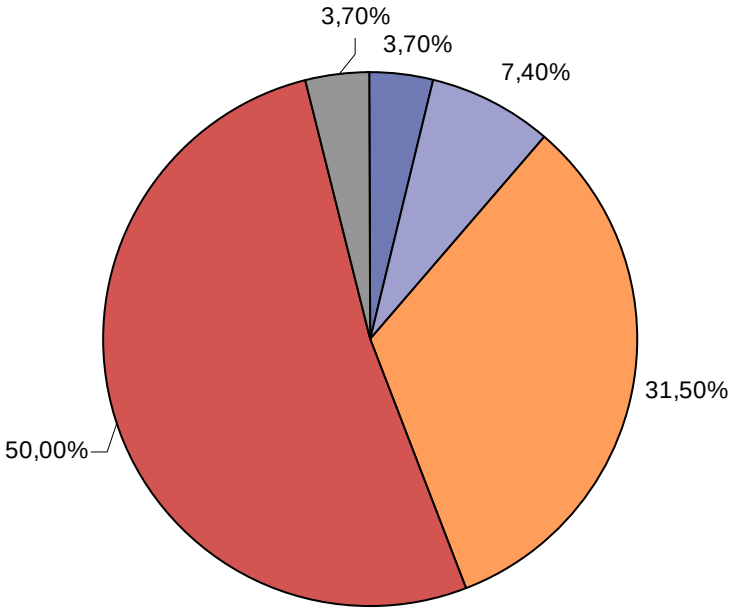
14 **Not a commercial service i.e., a public service.**

- **Privacy issues and personalised services in relation to mobile search**

Mobile Search: Privacy Issues

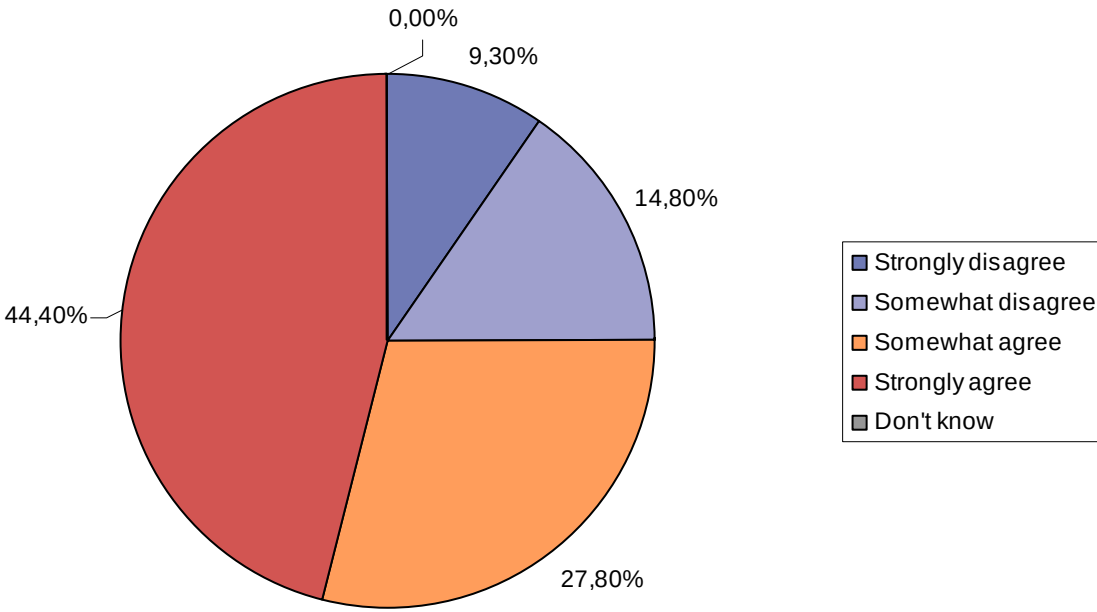
- For each one of the following statements, please indicate the level of your agreement.

Gathering data about individuals, even if it is aggregated for anonymization, allows for profiling.



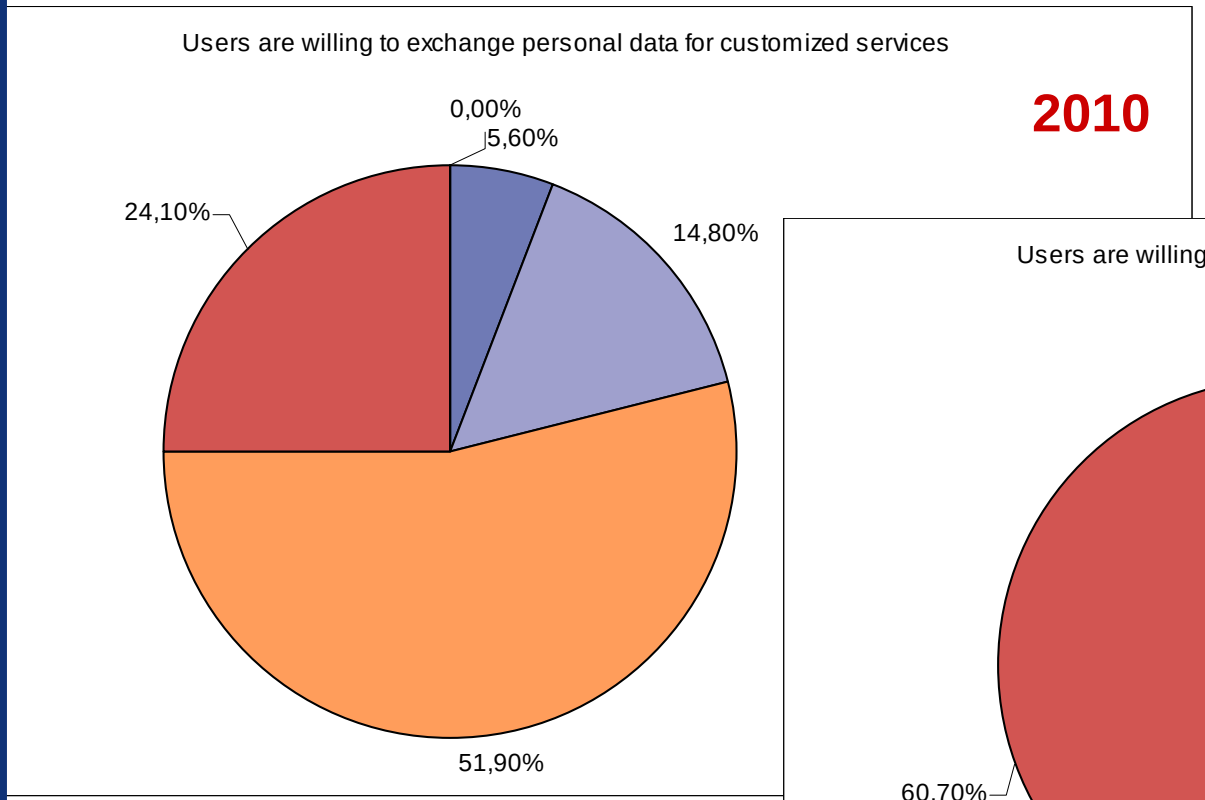
Personal information is the currency for personalised services

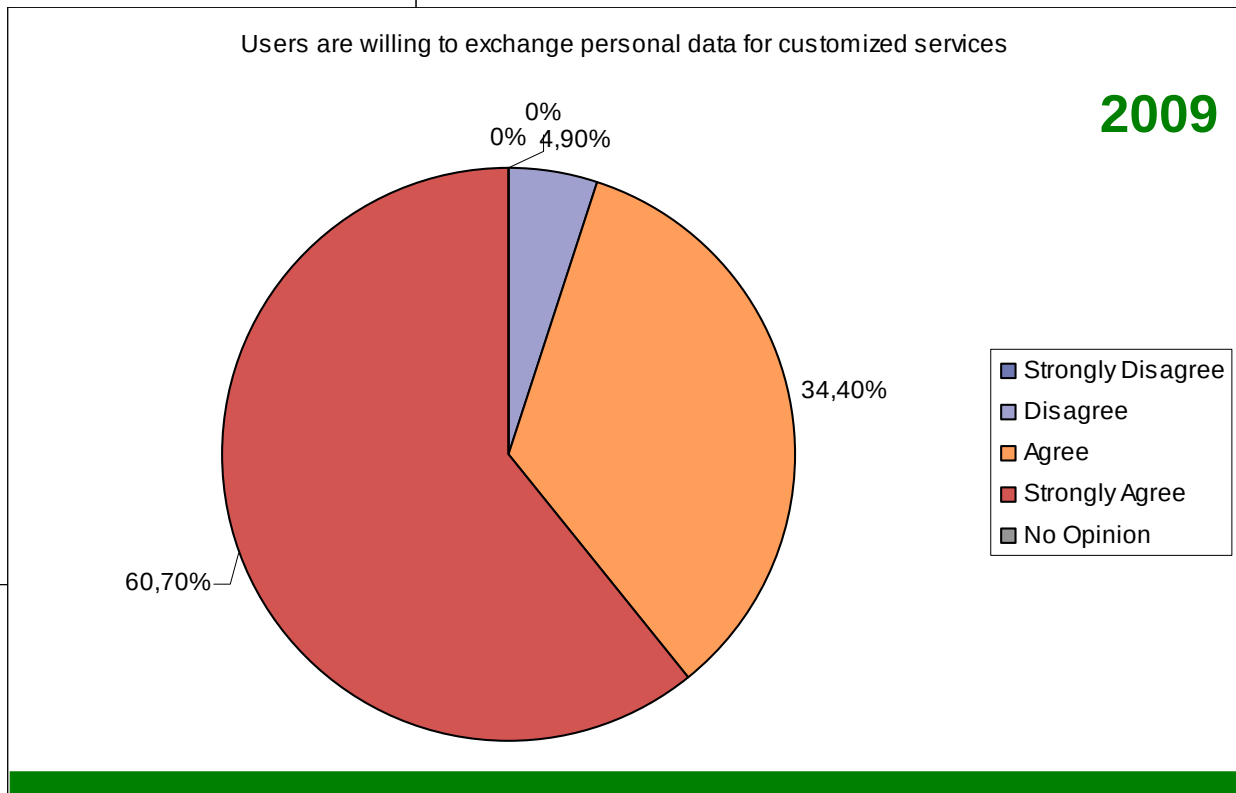
The more personal information is known about the user, the more personalised and useful a mobile search service will become



Mobile Search: Privacy Issues

- **Is personal data a more sensitive issue today than it was one year ago? Are user more aware?**



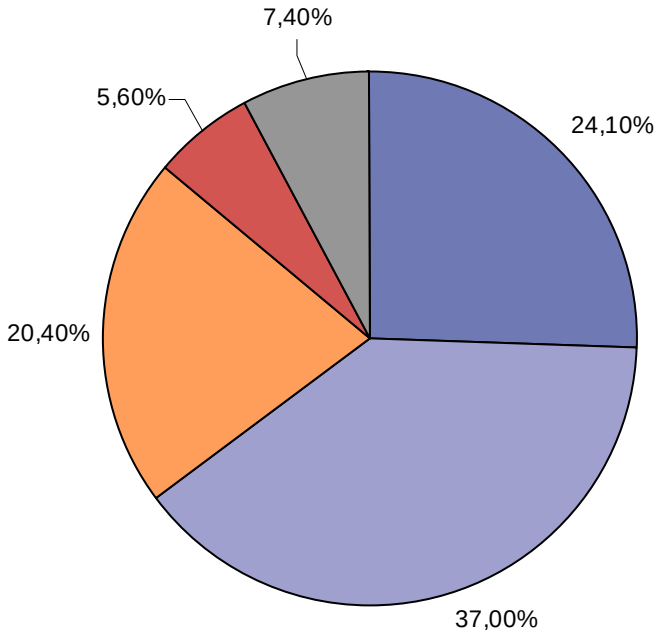


Mobile Search: Privacy Issues

❑ Have PET and TET dramatically evolved?

"Privacy by design" e.g. privacy-enhancing, transparency-enhancing technologies is not viable e.g. due to hacking, costs, etc.

2010



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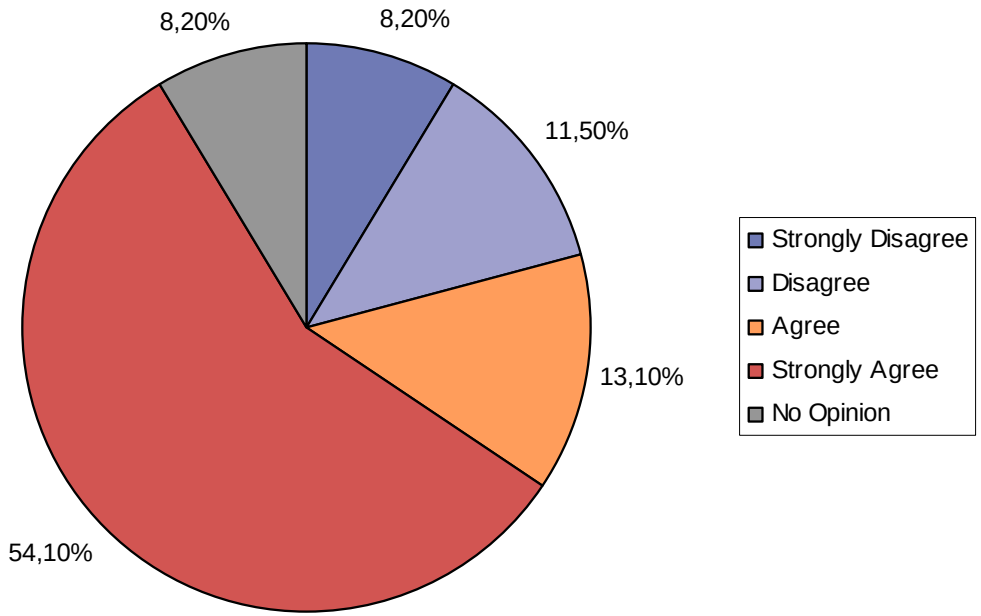
2009



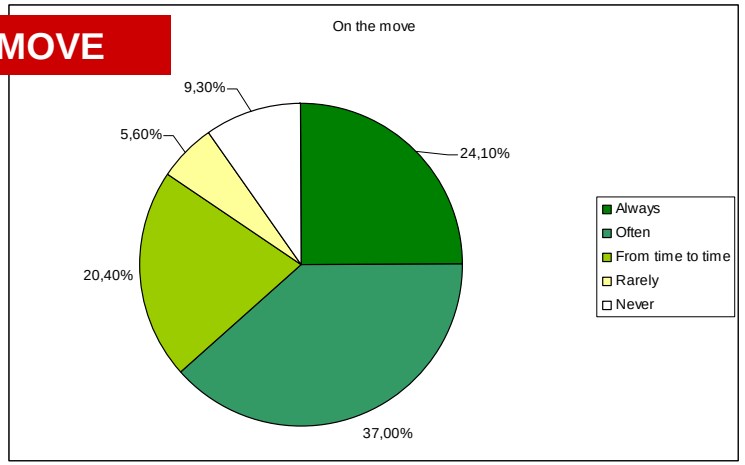
- **About how experts use mobile search**

- How are mobile search usage patterns changing?
- Is there a consensus on future trends and directions?

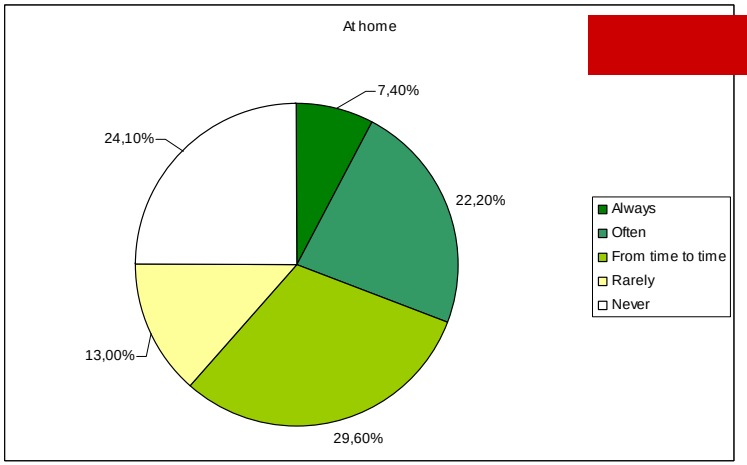
Mobile Search Use

❑ Where do you use your mobile device for search?

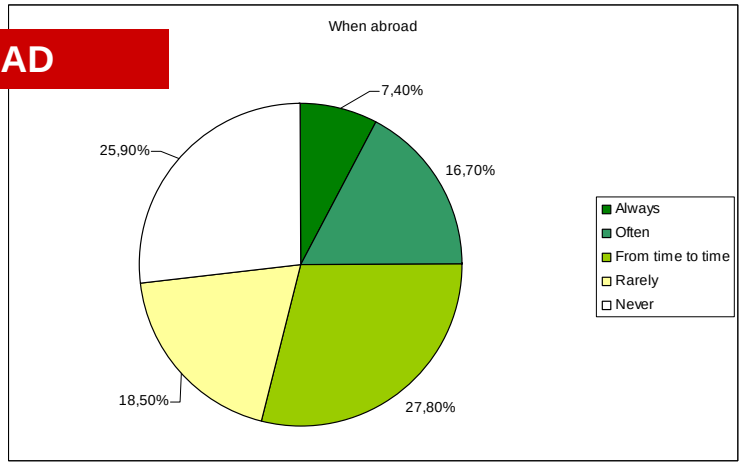
ON THE MOVE



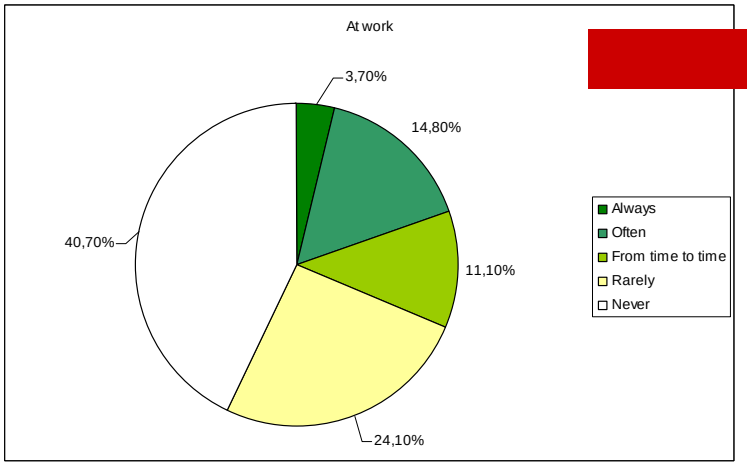
AT HOME

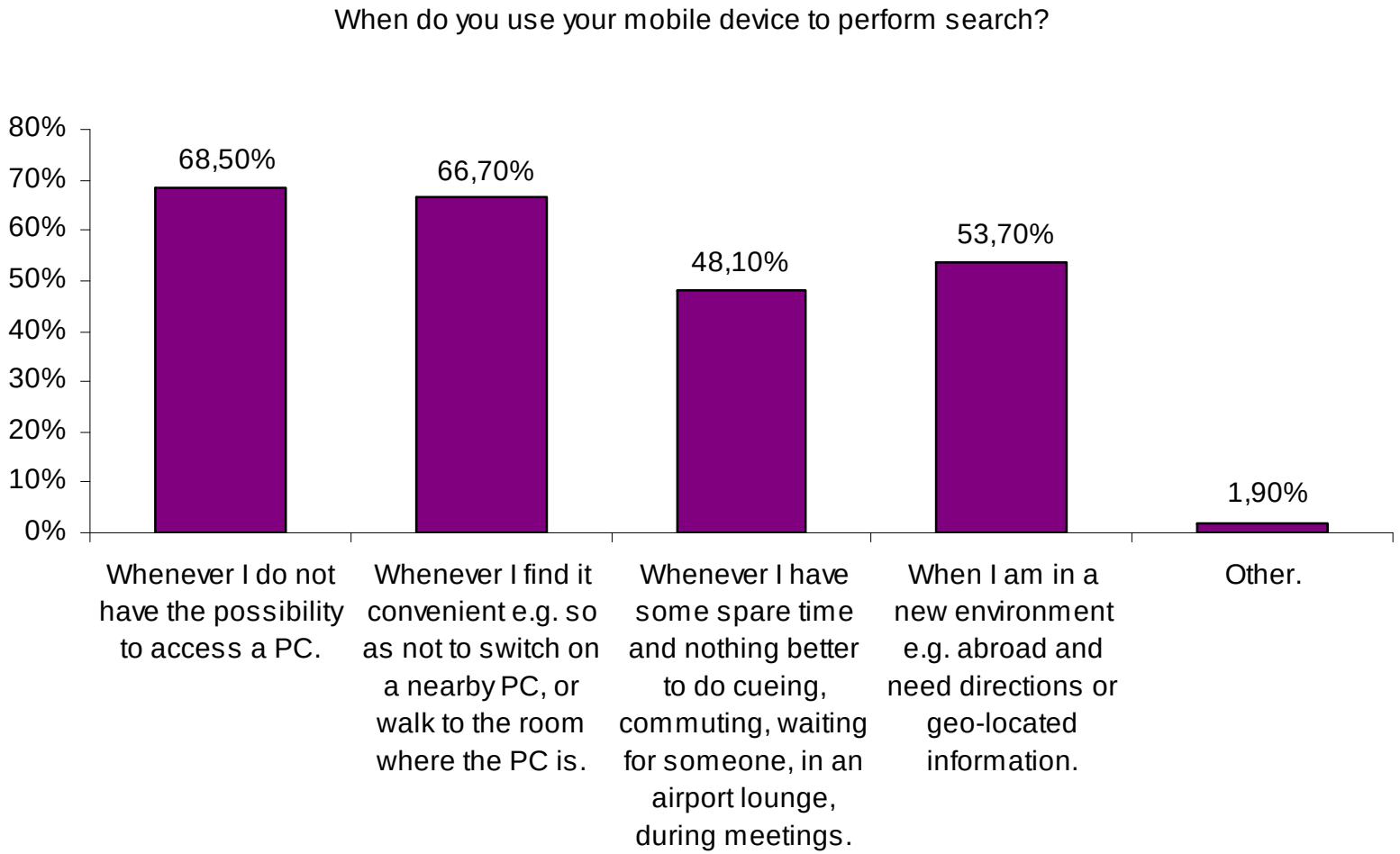


ABROAD



AT WORK

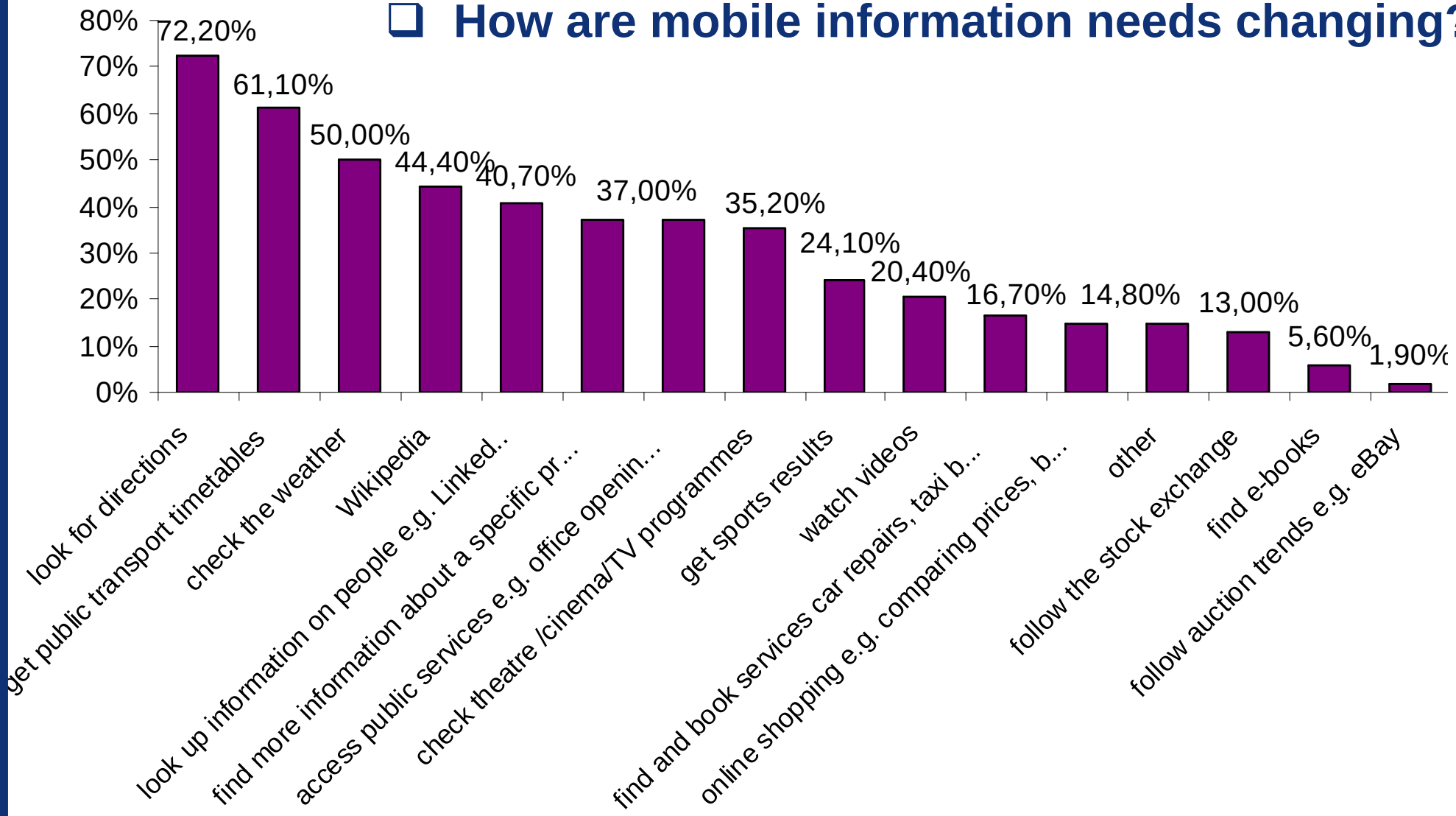




- **How are mobile search usage patterns changing?**

What do you use mobile search for

❑ How are mobile information needs changing?



- **Which search engine(s) do you use on your mobile?**

- **40 replies**
  - 39 use Google (19 Google only, Google Goggles, Google Maps)
  - 1 safari only
  - Yahoo (7),
  - Shazam (2),
  - Youtube(2),
  - local search engines (e.g.hitta.se for addresses and maps, vasttafik for public transport)(2)
  - YellowPages / phonebooks (2)
  - Aroundme, Search it, Bing, Exalead, Voilá, Nokia Maps, Facebook, SoundHound, Wipanion, Kooaba,Taptu, Wikipidia, Wolfram Alpha, service widgets, on portal search engines.

Questions That Have Been Addressed

- How are mobile information needs changing?
- How is the mobile search market likely to evolve?
- Which are the major bottlenecks?
- Which are the main challenges to be overcome?
- How are mobile search usage patterns changing?
- How is Europe placed with regard to the rest of the world?
- Is there a consensus on future trends and directions?
- What are the main technological and economical challenges laying ahead?

Thanks

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