

Use cases Socialtainment

Working title of the project	Mobile Internet
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Objective

The main objectives of the use cases are to identify new trends in the mobile Internet, from “Micro-coordination” towards “Socialtainment”

Use-case: Social Mobility

This use case deals with the social aspects of the envisaged reduction of carbon dioxide, in the area of personal mobility. The scenario addresses new forms for commuting and travelling, including CO₂-neutral electrical transportation. Mobile (SMS)-based request and registration of a vehicle and NFC¹-based vehicle access are the key technological components, using embedded systems to keep control of the vehicles. Socialtainment² addresses the social aspects of future transportation.

Commuting and work-related travel is a substantial part of this emission, and nSHIELD will provide the security, privacy and dependability solution to enable a change in mobility. Figure xxx provides the scenario for social mobility, where the SPD related aspects are:

- **Security:** Users need to be ensured that their their data from embedded systems are securely handled.
- **Privacy:** Users will only share their data with people they trust, and in certain situations they will prefer to be anonymous.
- **Dependability:** The handling of data from embedded system depends on the user preferences, the situation or context and the desired goal.

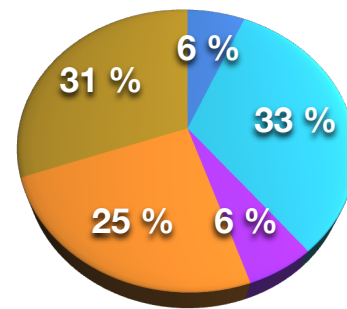
All these aspects will be demonstrated in the social mobility scenario, through the introduction of context-aware trust networks. The social aspects “*it is fun*”, “*we enjoy traveling together*” of the social mobility scenario are addressed through the *socialtainment equipment* in the vehicle, linking together yourself and your friends and colleagues from your trust network. This type of

¹ Near-Field Communication (NFC), <http://nfc-forum.org>

² Socialtainment: The social act of communication and commuting with your friends and colleagues

equipment is expected to be the “Web 3.0” in the future vehicle, and seen as being as substantial as navigation systems are today.

Why social mobility? SAP reports in the 2009 sustainability report that the carbon dioxide footprint is reduced by 15 %, but that the total commuting and travelling part accounts to 45% [SAP, 2009]. The commuting amount of 6 % as presented in figure xx is underrepresented, as the use of corporate cars with 33 % includes a substantial part of commuting. The Environmental Protection Agency (EPA) published various scenarios, indication that a vehicle emission reduction of 27 % is suitable within 2030, looking primary on technology advances.



● Corporate travel ● Corporate cars
 ● Commuting ● Flights
 ● Energy & Logistics

Fig xx: SAP carbon dioxide footprint, segment usage [SAP, 2009]

We believe that another 8 % of CO₂ can be reduced through a change of attitude and behaviour of people, thus ‘social mobility’. The principles are outlined in figure xxxx, where emphasis is put on making a travel become a social event, with people communicating with people of their trust network.

The potential of social mobility accounts for 1.2 billion Euro (for Norway), which is further elaborated in the business section. For the use-case we envisage an advanced city trying to become CO₂ neutral³ will adopt the nSHIELD results. With more than 20 % of public employees the city has plans to substantially reduce the travel-related CO₂ budget, looking for advanced solutions.

References

[SAP, 2009] *SAP Sustainability Report*, <http://www.sapsustainabilityreport.com/>, [assessed 25.8.2010]

[EPA, 2010] *EPA Analysis of the Transportation Sector: Greenhouse Gas and Oil Reduction Scenario*, Environmental Protection Agency, March 2010, www.epa.gov/oms/climate/GHGtransportation-analysis03-18-2010.pdf, [assessed 23.8.2010]

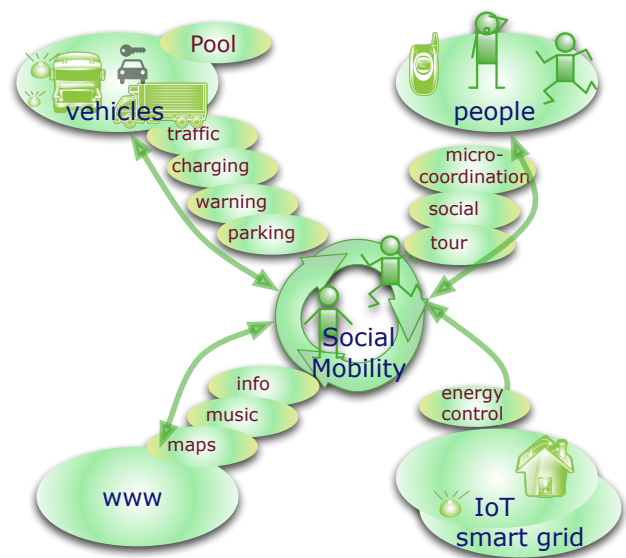


Fig xxx: Social Mobility, adding socialtainment² to commuting and traveling

³ Arrendal of Norway expects to become CO₂-neutral: www.unep.org/climateneutral/Default.aspx?tabid=204