Executive Summary

Ways2go is a mission-oriented Austrian research, technology and innovation funding programme of the Austrian Federal Ministry for Transport, Innovation and Technology (bmvit), Unit for Mobility and Transport Technologies (III/I4) Evelinde Gassberger

Concept and content preparation of the Executive Summary based on the full-length version of this report
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Research and Analysis for the Full-Report
Herwig Schöbel, Schöbel - innovation for transport, 2010

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Disclaimer
The information contained in this publication has been carefully researched. Nonetheless, no guarantees of any kind can be made as to the accuracy of this information. The ways2go research, technology and innovation funding programme is a component of the “Intelli

Social Challenges
Social challenges necessitate new approaches in the form of innovative products and services in the mobility sector. Climate change, dwindling energy and natural and land resources along with increasing traffic volumes represent the main challenges by obtaining social equitable mobility solutions for all user groups. In this regard, personal physical mobility is strongly determined by socio-demographic, socioeconomic and spatial phenomena, all of which are subject to significant changes. Of particular relevance here are questions pertaining to age-adapted solutions, accessibility and affordability in the light of sustainable mobility for urban and rural areas.

Overview of projects: Projects A – I (see www.ffg.at)

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Activities in „Research, Technology and Innovation” are rightly consid- ered the hope for the future in order to make it possible to live up to the com- plex social challenges existing in terms of mobility. However, new methods are critical for developing the holistic approaches needed in the context of the extended interdependencies and influencing factors.

The ways2go programme actively fos- ters innovations at the particularly important juncture between users, transport infrastructures and vehicles in order to offer all groups of citizens suitable mobility options and innova- tive mobility services.

Moreover, the ways2go programme „researches” products and services which encourage sustainable mobility styles and allow for improved planning and decision-making options in the fields of spatial and transport pl- anning.

In the frame of the ways2go programme funding is provi- ded for research and development projects (R&D projects) addressing an enhanced knowledge base for questions regar- ding the future of mobility and transport and transforming this knowledge base into concrete paths of innovation.

Overview of projects: Projects I – M (see www.ffg.at/verkehr)

Abbreviated Title
Full Title
IMITATE
Interactive testing environment for the evaluation of guidance systems in transport infrastructures
INFO-EFFECT
Target group specific effects of multimodal transport information on individual traveller behaviour
INNOMAT 1&2
Innovative and disabled-accessible ticket dispenser
INSENMOB
Ensuring local mobility in rural and suburban areas
ITSworks
Intelligent transport systems work!
JUGLEIST
User group-specific affordability and preference for means of transport
Jugment
Youth mentors
knowledge4all
Automated utilisation of currently unused multilingual expertise in the transport and mobility field
KOFLA
Cooperative driver assistance system for optimised charge management of electric vehicles
KOMOD
Concept study on mobility data in Austria
KoRa
Coordination of traffic light signal systems for bicycle traffic
KOWIPmove
Component development for knowledge management platforms in the field of mobility and transport
LEDs2go
Dynamic information and illumination systems to arrange pedestrian flows in mass transit
LF Datenschutz
Privacy aspects of transport data collection
LML
Last Mile Link
m2k
Mobility to know for ways2go
MAI
Mobility card for real estate for estimating the costs of mobility associated with a given location
MARIA
Mobile assistance for disabled-accessible transport of seniors, immigrants and illiterates
MASI-activ
Mobile telephony based survey system for the activity planning process
MASIMO
Multi-agent simulation model for group-specific movement and direction behaviour of pedestrians
Meta-Forum Verkehr
Semantic document and file management systems for transport research
MiMiSim
Microscopic modelling of behaviour and movement processes in mixed traffic modalities
MIP
Mobile Information Point
MixME
Mixed traffic microsimulation environment
MobiFIT
Mobility survey based on intelligent technologies
Mobi-Kid
Information suited for children for safe and sustainable use of public transport

Figure 3: Target Group/Barrier Matrix (Source: FFG 2011)
Sustainable technological solutions, however, can only be achieved by considering reflections and contributions from different points of view. As such, research projects have to be put into interdisciplinary settings, in which existing different disciplinary knowledge streams have to be incorporated and utilized towards common solutions for future challenges in the field of transport.

The ways2go interim Innovation Results

In the course of three programme calls for proposals between 2008 and 2010, 251 project proposals with a total project volume of 54 million euros were submitted by more than 350 organizations, which were selected for funding (funding volume of approx. 15.5 million euros). By means of a systematic analysis, the innovation impacts of the programme in the relevant thematic fields were presented in the form of a "interim innovation report" and discussed and/or reflected upon by experts. Although many of the projects selected in the ways2go calls for proposals are still in progress until the end of 2012, important new findings have already been made, from which specific innovation and product paths have been developed in the following thematic areas:

- Needs-based and barrier-free mobility solutions for specific user groups
- Mobility information and navigation systems for all user groups
- Innovative vehicle concepts and new mobility services

Instruments to support sustainable mobility behaviour

Many of these paths of innovation have already resulted into prototypical applications and technology demonstrations. The interlinking of the individual projects has also generated synergistic and thus integrative solutions.

The breadth of the programme topics reflects the need for action in the thematic field "mobility needs of the future" and at the same time provides the requisite latitude for far-reaching innovations effects in the domain of everyday mobility. For the most part, the projects deal with innovations for environment-friendly modes of transport (public transport, bicycle and pedestrian traffic) and provide concrete solution paths for specific target groups such as senior citizens, persons with disabilities, children and teenagers, etc. within the framework of the transport system as a whole. Suggestions and solutions for how to eliminate significant mobility barriers and how to overcome barriers for innovations are being developed in the course of accompanying studies. These include e.g.

- Potential of technology-based planning tools and methods in designing the transport systems of the future.
- Enhanced data quality in the field of mobility through the design of a future-proof, technology-based, federal mobility survey.
The ways2go Research Community

As a result of the ways2go programme activities, a specific, diversified network of key technologies for the future of mobility (foresight).

Identification of key technologies for the future of mobility (foresight).
Support for innovation and technology development in the context of data privacy requirements.

Measures designed to reinforce the field-related knowledge base, leverage required skills and to enhance opportunities for involving probands in user-centred innovation projects.

The ways2go Innovation Principle

Network of main stakeholder groups in ways2go

Abbreviated Title
Full Title
RoSana
Influencing transport behaviour with regard to route choice through flexible road charges in order to achieve sustainable mobility development.

Route4you
User-specific online route planning.

SmartCountPlus
Automatic outdoor counting and modelling of non-motorised individual transport.

SmartMo
Smartphone mobility survey tool.

Step by Step
Group-specific behaviour and simulation model based on telematic surveys.

Store&Go
Barrier-free luggage storage system for train stations and transportation hot spots.

su:b:city
Integrated approach toward increasing the share of bike traffic in transport between cities and their suburban areas.

SZENAMO
Scenarios of future mobility for the elderly.

Ticket4all
Ticket for all.

TechnoVeP
Practical relevance of technology-based planning instruments and methods to encourage innovative transport technologies.

TellMeTheWay
A mobile, voice-based companion for travellers using public transport.

TP4DP
Traffic platform for disabled people.

TrafficCheck.at
An online platform developed through user innovation to rate traffic-signal controlled intersections.

VeGIS
Tools for connectivity between transport and traffic models and geographical information systems.

VERMOBIL
Use of cell data generated by mobile phones as a basis for transport models.

VIATOR
Transport infrastructure for a general, intermodal transport and location-based travel information system.

ways2dat
Recommendations on inclusion of and central access to probands in "mobility of the future" projects.

ways2dat II
Design and prototypical implementation of a pool of data for improved integration of probands in mobility-relevant projects.

ways2gether
Target group-specific use of Augmented Reality and Web 2.0 technologies in participatory transport planning processes.

WAYS2KNOW
An innovative tool for ways2go’s knowledge management.

ways2navigate
Digital map, voice, Augmented Reality: Analysis of new forms of information dissemination in pedestrian navigation.

ways4all
Accessible mobility for all! Explicit blind navigations adapted to the special requirements of public transport!

Ways4All Complete
Accessible travel for all - Supporting people with special needs in public transport!

ways2go in Figures

Programme calls for proposals 1-3

97 funding projects with a project volume of 21.4 million € (average project volume: 220.000 €).

Funding volume: 15.5 million €, of which approx. 70% for cooperative R&D projects in applied research (industrial research, experimental development).

Degree of cooperation and partnerships: More than 350 organisations (3.6 project partners per research project, 95% of the funding in cooperative projects).

Characteristics of ways2go are the large percentage of small and medium-sized enterprises (SME) which – due to the economic structure – play a significant role as driving force for innovations in Austria (SME account for 78% of the companies and 85% of the project-relevant costs). Nearly one third of the stakeholders are made up by academia, in roughly equal proportions, of university and non-university research institutions (approx. 50% of the total project-relevant costs).

Although solid research and cooperation networks have evolved which can be expected to endure in the future, the ways2go community is characterized by a high degree of permeability and openness in order to continuously enrich its innovation activities with new impetus.

The incubator function of ways2go is abundantly clear when one looks at the high percentage of "newcomers" in the area of transport and mobility research. Every fifth proposal submission came from an organisation which had not previously been active in the thematic field of transport and mobility research. For the successful projects selected for funding, more than one-third of the submissions can be traced back to new stakeholders.

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Overview of Projects: Projects R - Z

A mobile, voice-based companion for travellers using public transport.

TrafficCheck.at
An online platform developed through user innovation to rate traffic-signal controlled intersections.

VeGIS
Tools for connectivity between transport and traffic models and geographical information systems.

VERMOBIL
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Accessible mobility for all! Explicit blind navigations adapted to the special requirements of public transport!

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Accessible travel for all - Supporting people with special needs in public transport!
Research promotion should be more geared to fundamental research. Therein lays the key for developing user-needs based technological applications.

Future urban transport and mobility concepts must include diversified mobility services. In this regard, ways2go is closing a gap in the mobility research landscape.

The results of the pure research conducted in the frame of project MARIA – where technology development was closely tied to the user groups – made it possible to lay the thematic groundwork for a continuing EU research project.

ways2go generated and intensified important planning and technology development contacts for the Austrian Working Group for Rehabilitation. Contacts, which will be endurable for the sake of efficient collaboration in the future.

Knowledge of specific user requirements is the basic prerequisite for an efficient technology development process.

ways2go provides the Vienna Transport Authority with an extra impetus for early realisation of projects aimed at increased accessibility for all user groups and fosters cooperation with associations for persons with disabilities on a solid base.

ways2go is setting a milestone in the European research landscape and making an important contribution to interdisciplinary mobility and transport research.

ways2go is making a crucial contribution to sustainable, environmentally responsible mobility for all groups of people. The projects promoted have enabled Austria to achieve a top international position, both in technological research and development and in the implementation of needs-based and barrier-free mobility.

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