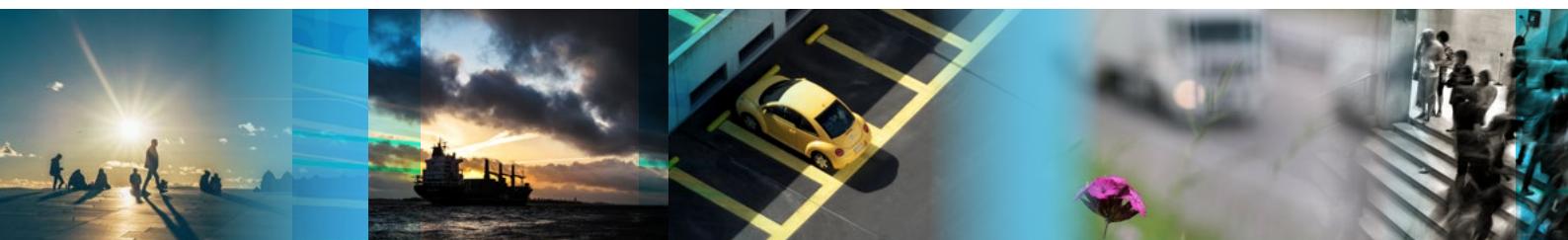




Institute of Transport Economics
Norwegian Centre for Transport Research



2017/2018



Research in motion

Institute of Transport Economics

Norwegian Centre for Transport Research, Oslo

The Institute of Transport Economics (Transportøkonomisk institutt -TØI), established in 1964, is a national, Norwegian institution for multidisciplinary transport research.

The Institute is an independent, non-profit research foundation. It holds no interests in any commercial, manufacturing or supplying organisation. Its mission is to develop and disseminate transportation knowledge of scientific quality and practical application.

Staff and projects

TØI has a multidisciplinary research environment with approximately 100 employees, of which about 85 are researchers. The Institute will normally have at least 200 research projects in progress at any one time, most of them being commissioned.

Its sphere of activity includes most of the current issues in road, rail, sea and air transport, as well as urban mobility, environmental sustainability and road safety. In recent years the Institute has been engaged in more than 70 research projects under EU's Research Framework Programmes.

Core values

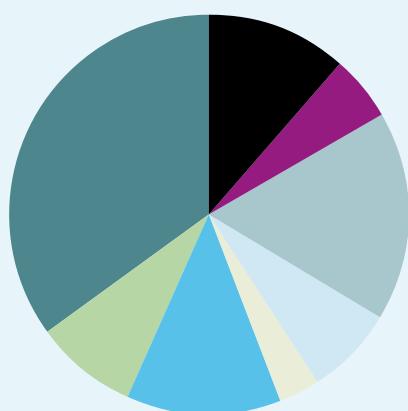
- *Independence*: conclusions follow from the analysis, not from the vested interests of clients or stakeholders
- *Transparency*: methods, assumptions and results are accounted for and made public
- *Teamwork*: co-workers share their knowledge, competence and data, for a maximally efficient use of the Institute's material and human resources

Funding

The Institute's turnover in 2016 was approximately NOK 128,5 millions. About 40 per cent stems from the Research Council of Norway (basic funding and competitive projects). The Norwegian Public Roads Administration are the Institute's second major client. International clients represent 7 per cent of the funding.

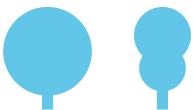
The board

TØI has a board appointed by the Norwegian Ministry of Transport and Communications (3), the Research Council of Norway (3) and the employees (2).



Research Staff

Economists	33
Political Scientists	8
Sociologists	12
Social Scientists	3
Psychologists	7
Engineers	16
Geographers	5
Other	11



CIENS

Since October 2006, TØI has been part of the Oslo Centre for Interdisciplinary Environmental and Social Research (CIENS). Being located next to the main campus of the University of Oslo, the centre consists of nine legally independent research institutes with a combined staff of about 500 persons. The aim of CIENS is to help solve the substantial and complex challenges arising in the interface between environment, business, and politics. See www.ciens.no

Dissemination and communication

Over the last few years, researchers at the Institute have authored or co-authored about 45 articles per year in peer reviewed scientific journals or books. The Institute also issues about 80 research reports each year. Some are in English, and most of those published in Norwegian have brief English summaries, available on the Internet. See www.toi.no

The Institute publishes the magazine "Samferdsel" on Internet. The English language magazine "Nordic Road & Transport Research" www.vti.se/nordic, summarising transport research results from the Nordic countries, is published in cooperation between the major transport research institutes of the respective countries. It is distributed free of charge.

The Institute's management and staff are frequent contributors at national and international research conferences, and every year they hold 200–250 presentations for the research community and general public.

ECTRI

The Institute of Transport Economics is among the founding members of the European Conference of Transport Research Institutes (ECTRI). ECTRI aims to promote research contributing to a safe, efficient, and cost effective intermodal transport system in Europe. Read more at www.ectri.org

SAFER

TØI is also a member of The Vehicle and Traffic Safety Centre (SAFER) at Chalmers in Göteborg, Sweden, a joint research unit where academy, industry and authorities cooperate in the design of future vehicle and road safety systems.

Organisational and editorial work

The Institute is represented in several international transport organisations and expert committees. About 20 percent of the researchers are editors, co-editors or members of the editorial board of various international professional journals.

Funding (projects in 2016, per cent)





Management



Managing Director
Gunnar Lindberg
gli@toi.no



Deputy Managing Director and Research Director, Department of Economics and Logistics
Kjell Werner Johansen
kjo@toi.no



Research Director, Department of Safety and Environment
Michael W.J. Sørensen
mis@toi.no



Research Director, Department of Mobility and Organisation
Frode Longva
flo@toi.no

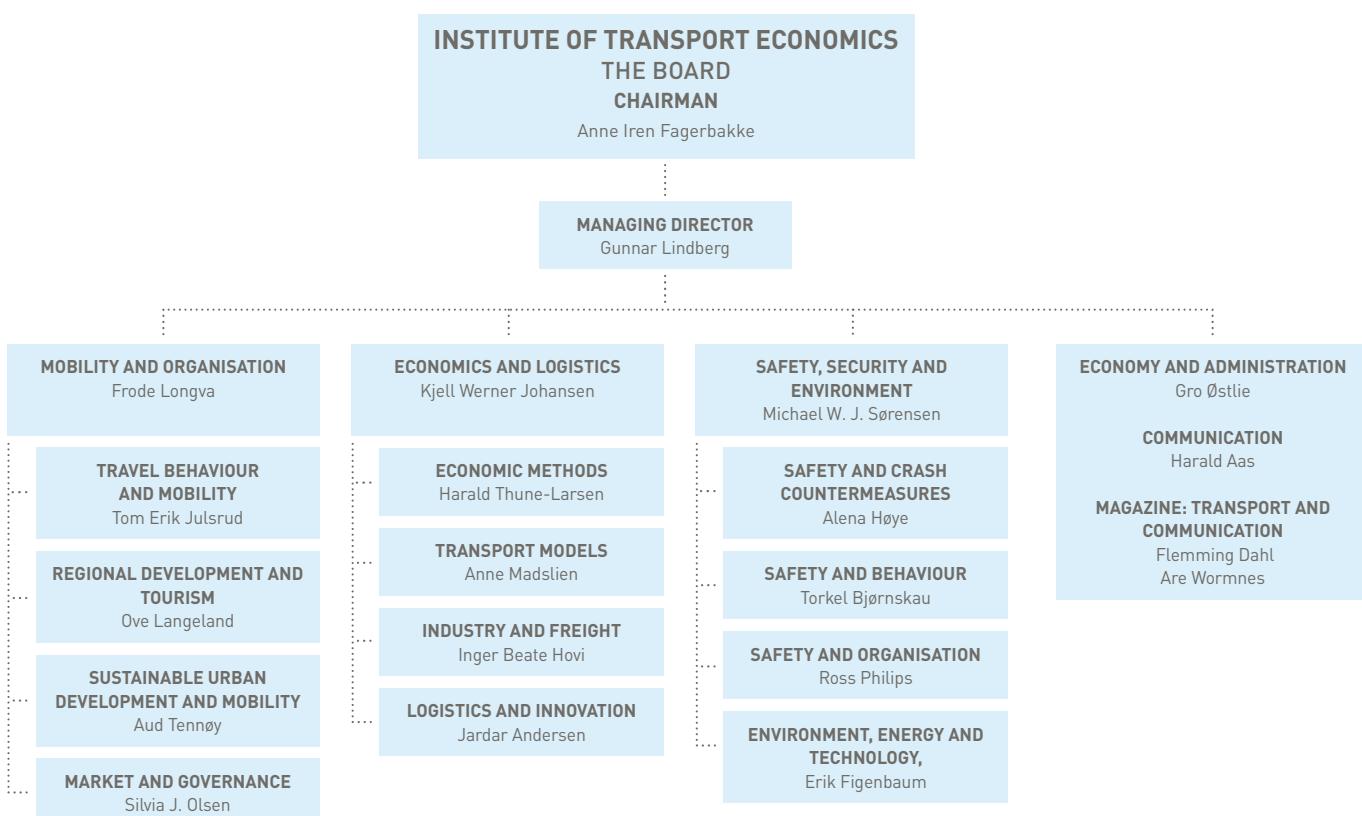


Director of Finance and Administration
Gro Østlie
gro@toi.no



Head of Communication
Harald Aas
ha@toi.no

The Institute has three research departments covering 12 thematic areas:





Mobility and Organisation

Research Areas



Travel behaviour and Mobility

Tom Erik Julsrød
Chief Research Officer
tej@toi.no

This research area is concerned with social conditions for travel activity and mobility, developing theories and improving methods for collecting data on travel behaviour.

All transport modes and travel purposes are covered, whether private or work and business related. We also study the interplay between transport and ICT (information and communication technology), the social drivers for travel activity, and the perceptual aspects of journeys on the job and in everyday life.



Regional Development and Tourism

Ove Langeland
Chief Research Officer
ola@toi.no

This research area includes studies of regional and urban development on local, regional, national and transnational level and, industry analysis of tourism and studies of tourism experiences.

Regional development studies focus on industry analyses and innovation and, particularly on the role of city-regions in regional development. It includes analyses of accessibility and mobility focusing on regional integration and interaction, impacts of transport policy and investments in infrastructure, communication and transport systems, which are important for a competitive and sustainable regional and industrial development. There is also increased focus on the emerging "sharing economy" related to industrial development, transport and tourism.

Tourism has been a key topic at the Institute since the end of the 1960s and it includes economic impact analyses, tourism development studies and trend investigations, nature-based tourism and green tourism.



Sustainable Urban Development and Mobility

Aud Tennøy
Chief Research Officer
ate@toi.no

How cities and urban transport systems are developed, is crucial for important societal goals to be reached. These include the objectives of zero-growth in road traffic in urban areas, more climate-friendly, attractive and liveable cities,

with vibrant and strong city centres, and a more universally designed society. We develop research that could help planners and decision-makers ensuring that these and other objectives can be reached. We investigate effects of urban developments and development of urban transport systems (road, public transport, bicycling, walking), and which kinds of developments that contribute to goal achievement.

Moreover, we do research on planning- and decision-making processes, relevant institutions and organizations, governmental policy instruments, as well as planners' use and non-use of knowledge in planning, as to whether and how this affect planning, decision-making, development and goal-achievement.

Urban development and mobility is a strategic priority for TOI, and the strategic institute initiative *Urban development and urban transport for climate-friendly and attractive cities* is located in our group.



Markets and Governance

Silvia J. Olsen
Chief Research Officer
sjo@toi.no

Market mechanisms are increasingly being used in all parts of the passenger transport system; for transport services as well as for the development and maintenance of infrastructure. Simultaneously, significant structural changes are taking place, in terms of political reforms, the creation of urban environmental agreements and increased delegation of responsibilities to the regional/county level. Also, new technology affects both markets, travel behavior and the need for regulation.

The research area Markets and Governance develops knowledge that will contribute to meeting these changes. This includes state of the art-knowledge, optimal design of reforms/regulations - and studies on the effects of these changes. Knowledge on passengers' preferences and how they react to different characteristics of travel options is a key prerequisite for designing appropriate measures. This also applies to knowledge on how actors adapt to different competition regimes and conditions of competition. Within the research area we have a strategic institute project: Competition in passenger markets - governance, regulation and efficiency.



Economics and Logistics

Research Areas



Economic Methods

Harald Thune-Larsen
Chief Research Officer
htl@toi.no

Economic methods are used in the transport sector to calculate the economic efficiency of various investments and comparing benefits and costs for different projects. The research area covers the development and adaptation of methods and unit prices for such analyzes.

The group also conducts economic analyzes of specific measures and quality control of assessments performed by others. Along with Dovre Group AS, constitute TOI one of five research groups that perform quality assurance concept (KS1) for large government investments within a framework agreement with the Ministry of Finance. Through agreement with Avinor and assignments for governments at various levels, we also conduct market analysis, traffic forecasts and economic analyzes of structural changes for Norwegian airports and Norwegian aviation.



Transport Models

Anne Madslien
Chief Research Officer
am@toi.no

Use of transport models is an important element in all transport planning and central when calculating the effects of various measures. The Transport model group covers theoretical and practical development of new and existing transport models for passenger and freight transport, and the use of the models in specific analyzes.

The group contributes to the improvement of the transport authorities' model system, consisting of The National passenger transport model (NTM6), The Regional passenger model (RTM) and The National freight transport model. We also develop new types of models, including a new market potential model for RUTER (MPM) and an activity-based model for Trondheim.



Industry and Freight

Inger Beate Hovi
Chief Research Officer
ibh@toi.no

Norwegian business and industry is dependent of good infrastructure and efficient freight transport. The research area includes studies of commodity flows, future freight flows, wider economic impacts from infrastructure investments, logistics costs, competition between different modes of transport, environmental and climate impacts of implementation of new vehicle technology and localisation of terminals and surrounding analysis. Other important topics include efficiency analysis of various elements in transport chains, international logistics and business models.

This knowledge is important for shippers, transport operators and authorities. An important part of the team's work is quantitative analyses for the four transport agencies and the Ministry of Transport and communication connected to the work with the National Transport Plan. Through close cooperation with Statistics Norway, we have access to basic data from several surveys.



Logistics and Innovation

Jardar Andersen
Chief Research Officer
jan@toi.no

Freight transport and logistics account for 20-30 % of transport-related emissions from urban areas, and the efficiency of operations suffer from congestion and lack of space. There is a need for developing and replicating logistics solutions for increased efficiency and reduced emissions and a need to better plan and organise city logistics.

The Logistics and Innovation group contributes to development and communication of research-based knowledge forming the basis for better planning of logistics as well as more efficient operations. We also support the development, testing and implementation of new technologies through research and demonstration projects. These projects are in cooperation with both industry and government, nationally and internationally.

Safety, Security and Environment

Research Areas



Safety and Crash Countermeasures

Torkel Bjørnskau
Chief Research Officer
tblj@toi.no

The relationship between behaviour and safety is essential in research on traffic and transport safety. The theme is extensive, and covers behaviour and safety related to city traffic where the interaction between pedestrians, cyclists, motorists and public transport will be key, in addition to traditional behavioural issues in road safety research as speed, errors and violations, distraction, fatigue etc. among drivers.

The program will particularly focus on behaviour and interaction involving vulnerable road users such as pedestrians and cyclists. It is a political goal that traffic growth in urban areas will be achieved through such means of transport. Meanwhile, pedestrians and cyclists are traditionally more at risk than car occupants. It is therefore a challenge to achieve more cycling and walking without increasing accident numbers.



Safety and Behaviour

Alena Høye
Chief Research Officer
alh@toi.no

Research in this field covers mainly the following topics: Road safety evaluations, meta-analysis, crash prediction models, driver behavior models, as well as evaluations of road safety policy, including cost-benefit analysis of road safety measures.

An important activity is the continuous updating of the Handbook of Road Safety Measures which describes effects of more than 140 road safety measures, mainly based on meta-analysis.

Road safety evaluations are being conducted for all kinds of measures. Crash prediction models are important especially in before-after studies and evaluations of road measures. Driver behavior models are essential especially in evaluations of driver and vehicle related measures.

Evaluations of road safety policy are being conducted with the help of cost-benefit analyses, as well as risk calculations and scenarios for future trends in road safety.



Safety and Organisation
Ross Phillips
Chief Research Officer
rph@toi.no

This research aims to develop and promote the application of knowledge, tools and practical expertise, in order to analyse and improve the integration of safety and risk management in transport organisations and systems.

The research will consider the significance of human, social, organisational, cultural, economic and technical factors in the full integration of safety into transport operations, departments, organisations, project collaboration, in supervision and in whole transport systems. It is recognised that safety management must be considered alongside the need to manage risks associated with security, health and environment.

Emphasis is placed on a user-centred research, and the development of results that can be applied in practice. In this way the research will lead to real improvements in transport safety.



Environment, Energy and Technology
Erik Figenbaum
Chief Research Officer
efi@toi.no

Transporting people and freight generate a considerable amount of local exposures, and about one third of Norwegian emissions of greenhouse gases.

Real emissions from diesel cars exceed substantially the type approval values. Norway needs to continue measuring vehicle emissions under Nordic colder climate conditions and realistic urban driving cycles. Norway is the world leading pilot area for electro mobility and our research is of international interest.

Are the billions spent on noise insulation and prevention by road, railway, and air-port authorities to satisfy Norwegian zoning limits effective use of public funding? The consequences of restrictive regulations should be assessed to see which type of efforts are effective, and socio-economically advantageous.

Cars sharing, and urban bicycle solutions stimulate to more environmental friendly, flexible and integrated mobility solutions. A micro-city approach can contribute to the transformation of today's car-dependent suburbs.

Climate change alters the probabilities natural hazards. It is the secondary natural hazard impacts that have the gravest consequences, and resilience building efforts should target second and third affected tiers, and their stakeholders.



www.toi.no

Read more at our web site www.toi.no. There you will find more detailed information about research areas, research personnel, e-mail addresses, new reports, and report summaries.



Postal address:
Institute of Transport Economics
Gaustadalléen 21
NO-0349 Oslo
Norway

Office:
Oslo Science Park (Forskningsparken)
Gaustadalléen 21
Telephone: +47 22 57 38 00
toi@toi.no
www.toi.no

