



Strategy for TØI

2000 - 2004

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Preface

This document contains a presentation of the strategy of the Institute of Transport Economics (TØI). The Institute's strategy includes its primary goals, business areas and what it deems to be challenges and opportunities for the future.

In strategic planning, the process is far and away most important. Throughout 1999, the management, staff and board of directors of the Institute of Transport Economics have prepared and discussed this plan. The purpose of this process has been to help produce a common understanding among staff and the board of management of the Institute's role in society and to take a stand on important policy issues.

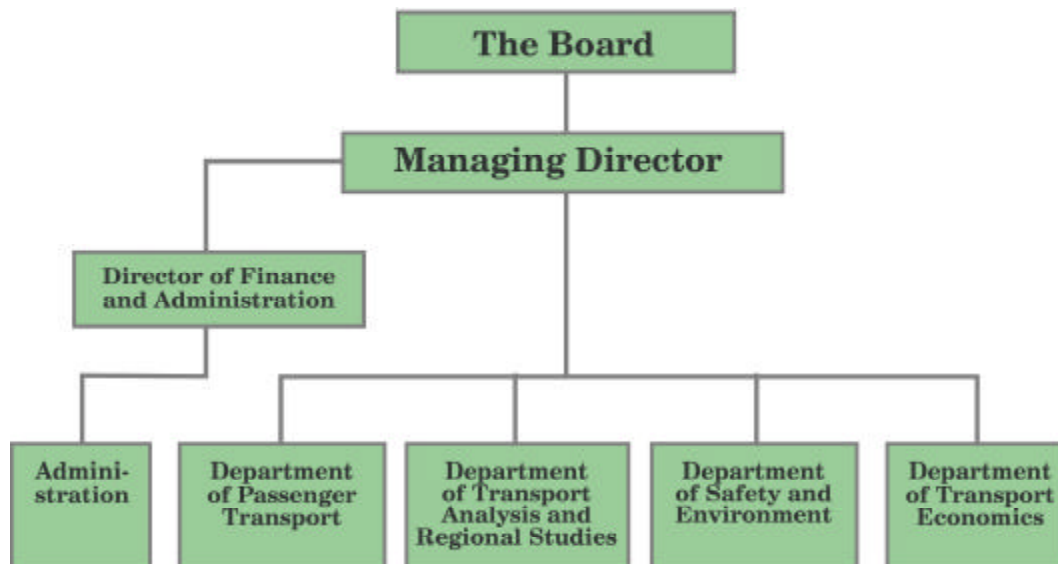
The purpose of this document is to provide a common frame of reference – internally and externally – for how the Institute will work, which functions it shall have and which instruments the Institute aims to use in order to achieve its objectives.

The present strategy concerns the period 2000–2004 and shall form the basis of annual plans of action and the day-to-day running of the Institute. In respect of internal activities, various background documents that have been drawn up will also be used.

In 1998, the Institute was assessed by the Research Council of Norway. The Council's Evaluation Committee found that the Institute carries out "uncommonly useful research and reporting", but points out that its strong dependence on the market has clear weaknesses such as a low share of doctorates, a low level of international publications, insufficient focus on professional quality control and not enough contact with universities and colleges. The Committee's evaluations represent challenges which the Institute will attach particular importance to during the strategy plan period.

*The Board of Directors, Institute of Transport Economics (TØI)
December 1999*

Organization chart



The Institute of Transport Economics (TØI) is a national institution for transport research and development. The Institute was set up in 1958, at first as a Government secretariat and later (from 1963) as a separate research institution under the auspices of the Royal Norwegian Council for Scientific and Industrial Research (NTNF, now merged into the Research Council of Norway). In 1986 the Institute became a private, independent research foundation. The Institute receives its annual base funding from the Research Council of Norway, Division of Culture and Society. The Research Council of Norway and the Ministry of Transport and Communications each appoint three representatives to the Institute's Board of Directors, while the Institute's staff elect two representatives.

TØI's business idea and professional objectives

The need for applied transport research

The transport sector is of vital importance in modern society. In Norway, 20 per cent of private consumption is spent on transport, logistics costs in industry amount to approx. NOK 45 billion per year, while central government spends NOK 20 billion per year on transport.

The financial importance of the transport sector, its significance for not only local and regional social planning and industry but also extensive global and local safety and environmental problems makes it an important arena for international politics and national politics at all levels of the public administration.

Decisions taken in the transport sector directly affect the everyday lives and interests of people, businesses and public authorities. Conflicting interests in the sector mean it is especially important that research-based knowledge can provide a basis for decision-making.

Insight into transport issues presupposes knowledge of many different areas. Research initiatives also require sectoral expertise in order to deal with the various links between the transport sector and society at large.

In Norway, it was decided to develop transport research with the aid of independent, applied research institutes. This form of organization has significant advantages, as it allows for ongoing skills development based on a good insight into the transport sector. It also provides an opportunity to obtain, on a multi-disciplinary basis, knowledge and tools and to analyse initiatives and processes in the transport sector.

The Institute of Transport Economics is the largest of these institutes and has on this basis formulated the following

Business idea

TØI shall produce and disseminate research-based and decision-related knowledge about transport and society.

The Institute's objective is to develop and disseminate research findings about the workings of the transport sector and the interaction between transport and society. The Institute shall assist in ensuring that decisions related to transport issues can be taken on the basis of research findings.

Objectives for professional research

Evaluation of the Institute shows that its users are satisfied with the professional quality of the Institute's work. To a large degree, the Institute's activities are assessed as being relevant and useful for parties within the transport sector. The challenges ahead relate in particular to fragmentation and exposure to competition for research. In addition, the dividing lines between research, reporting and consultancy work are often unclear to parties within the transport sector.

During this period, TØI will assign priority to:

- Strengthening of the research side of its activities
- Internationalization as part of its efforts at quality assurance and skills development.

As a research institute, TØI wishes to attach importance to long-term initiatives within the Institute's key areas of focus in order to secure the cumulative development of knowledge. Developing knowledge requires an investment with a different time perspective than that relating to the application of knowledge. Too great a degree of financing by commissioned short-term work may mean the research findings are not available when they are needed.

TØI shall develop and produce:

- Relevant information for transport policy decisions
- High quality research independent of the source of funding
- Sound professional knowledge independent of vested interests.

The Institute's activities shall be characterized by placing individual results in a multidisciplinary context. The quality of activities shall be controlled internally and externally by exposing the research to professional criticism. Work shall be delivered within agreed time limits.

Democratic management presupposes independent research so as to ensure that the exercise of power can be tested. The Institute will therefore work to ensure a greater degree of self-initiated transport research, in order to be able to use its researchers' specialist skills and insight into the challenges facing the sector.

Self-managed research is also important in areas that lack principals or where critical assessment of the developments within the sector is required, independent of the individual parties.

Objectives for the dissemination of knowledge

Open documentation

TØI's research findings shall be open and freely available. The Institute assumes direct responsibility for actively disseminating acquired knowledge to various target groups in society and for the training and continued education of parties in the transport sector.

TØI's projects shall be published in research reports. In future, TØI will:

- Establish a clearer distinction between brief reports designed for users and documentation for the research community as a basis for scientific recognition
- Publish a greater number of its publications in English
- Work to ensure that international publication is part of the final reporting process.

Use of several channels

The Institute will use several channels to disseminate its research results effectively to various user groups. TØI will continue to offer a large range of general and scientific lecturing activities. The Institute will contribute to the debate on transport issues in the media.

During the period, TØI will attempt to increase the range of results disseminated through specialist meetings directed at principals and by participating in teaching at universities and colleges.

The journal "Samferdsel" (Transport) shall be a cornerstone of the Institute's information activities. "Samferdsel" is the only Nordic journal covering the entire transport sector. TØI will seek to

increase the number of subscribers to the journal – in the other Nordic countries as well.

TØI's library shall provide information and documentation services for the entire transport sector, for educational establishments and the Institute's own researchers.

TØI will also offer the following activities:

- The annual TØI basic training course on transport issues to parties within the transport sector
- In collaboration with others or on its own, annual user-oriented conferences on issues of current interest, including Transport Days and Research Days
- Disseminate more of its research findings and information on the Institute's activities over the Internet.

Knowledge-based services

TØI will also offer services based on its specialist activities that are of benefit to Norwegian users. Examples of this include:

- Analyses of risk and environmental trends over time
- Ongoing statistical services, e.g. transport and tourism statistics etc.
- Cost-benefit, marketing and efficiency analyses
- Models for use in planning
- Reviews of national and international research findings.

TØI will seek to link such activities to framework agreements.

Overview of TØI's programmes as at 1.1.2000

Programmes	SIPs and topics with internal core financing, as at 1.1.2000	Proposed SIPs and framework agreements for the year 2000
Local and national transport models	Transport models, networks (passenger and freight)	
Public transport – market and framework conditions	Market organization of public transport	Competition in local passenger transport
Tourism		Tourism and the market
Travel habits		National surveys of travel habits
Regional and land-use analyses	Transport and regional development	
Planning and decision-making processes		Complete management and organization of the transport sector at a regional level
Risk analysis and cost calculation.		Meta-analysis of the transport sector
Travel behaviour, safety and environment	Travel behaviour model, traffic safety	
Environment, safety and health	Interplay; traffic environment, health and welfare	
Industry and freight transport		Ports and shipping
Socio-economic analyses	Socio-economic analysis methods	The size of the transport sector, economic growth and sustainability

Organization and cooperation

Varied user contact – relevance

TØI currently has broad contacts with various government bodies. As a basis for identifying the tasks and carrying out its activities, the Institute will continue to maintain close contact with the transport sector and related sectors, the political environment, public administration and industry.

Cooperation with other specialist environments

Key opportunities and challenges facing TØI are internationalization of the market for commissioned research and increased competition from universities and colleges.

TØI will give priority to cooperation with specialist environments possessing complementary expertise. The Institute will be involved in network building as a basis for participation in consortiums within EU's framework programmes and joint applications directed at the Research Council of Norway.

TØI also wishes to develop contact with universities and colleges. Particular opportunities exist in utilizing the Institute's vast amount of data for graduate dissertations and to use TØI's expertise and publications in teaching and tutoring. TØI will pave the way so that researchers at the Institute may hold grade II professorships at universities and colleges.

Increased international activity

An international network of contacts and partners is necessary in order to carry out high-quality research assignments. Besides an increase in international publications, TØI will seek to ensure:

- The increased exchange of researchers and cooperation with international specialist environments
- A continued high level of activity within EU framework programmes receiving support from Norwegian authorities and the development of an internal support team
- Prioritised core funding to areas where TØI is or has a potential to become a leading international specialist environment
- Continued participation in international collaborative organizations.

As regards developing countries, TØI will assign priority to more research-oriented activity, but will also place particular emphasis on training and the dissemination of research findings, for example in the area of traffic safety.

An efficient and flexible organization

TØI shall have an efficient and flexible organization capable of attaining its professional objectives. This requires an open and dynamic management and good contact between managers at all levels of the organization.

The challenges facing the Institute consist in ensuring openness and cooperation between departments, the opportunity to implement initiatives at an institutional level and organizational flexibility in respect of new research. TØI will therefore continually evaluate each department's sphere of responsibility.

TØI will develop interdepartmental measures aimed at developing skills and establish specialist fora for joint discussions at an institutional level. In addition, attempts shall be made to secure openness in respect of allocational issues.

Organization of programmes

Research activities shall be carried out in the form of programmes, headed by a programme administrator. All researchers shall belong to a programme. The chief research officers have primary responsibility for developing their programmes, for providing specialist support and for assuring the quality of the projects within their programme.

TØI currently has 11 programmes ensuring continuous activity in the Institute's key areas of focus. Within these programmes, the focus of the activity will be determined by the challenges facing the transport sector and society at large.

All programmes shall have a form of core funding, either from internal or external sources. TØI will seek to obtain strategic institute programmes (SIPs), framework agreements, resources for internal funding and major projects from the Research Council of Norway and other principals.

Quality control and project management

Quality control is dependent on skilled researchers and a lively specialist environment, which requires follow-up at the institutional, departmental and programme level.

The Institute has professional responsibility for the quality of its R&D activities. TØI's programme for ensuring the quality of the projects is based on a clear allocation of responsibility to with the programme administrator or departmental leader. The preparation of realistic working plans in respect of the financial constraints and follow-up measures shall be the joint responsibility of the project leader, chief research officer and other management.

Financial framework

A sound financial basis

TØI shall seek to achieve good framework conditions and shall be run in order to ensure financial stability. This is an important condition for integrity and autonomy in respect of principals.

Profits produced in individual years shall be adapted to the opportunities available within the market. This means that profits may be accrued in good times, and used in bad times to develop new market opportunities and to secure the Institute's professional environment.

Like other knowledge-based companies, TØI reserves part of its R&D capacity for self-managed activities (TØI time/TØI funds). TØI wishes to maintain the level of TØI funds and to continue to channel them towards prioritised activities.

TØI shall operate and maintain its property in order to maintain the value of its base capital.

Increased basic grants in order to secure independence and continuity

The evaluation of the Institute of Transport Economics contains a clear recommendation that TØI's basic grant should be increased. This represents a particular challenge for the sectoral responsibilities of the Ministry of Transport and Communications.

The basic grant, which comprises the basic grant (BG) and strategic institute programmes (SIPs), is important in order to secure the long-term basis for professional quality and renewal, skills development, self-initiated research and networking.

In order to stimulate long-term skills development within specific areas of importance to the Institute's users, TØI will continually initiate new SIPs and seek financing for these from the Research Council of Norway and the public administration.

Increased basic funding will strengthen the potential for skills development and contribute to an increase in the share of research compared with consultancy work. This presupposes that the number of employees does not rise significantly. TØI therefore plans that the Institute will continue to have just over 60 research man-years.

Framework agreements

As a national centre for transport research, TØI wishes to be able to offer a range of services that are of benefit to society. The fragmentation of responsibility for R&D activities among principals and the use of tenders prevent continuous activity and

preparedness in key areas. TØI will therefore seek to:

- Establish framework agreements with the public administration
- Develop better procedures for the handling of long-term R&D in respect of principals
- Maintain good relations with our major principals and manifest their contributions more clearly in publications etc.
- Create an understanding of the differences between research and consultancy work and under what circumstances tenders may be suitable.

Efficient project management and good routines

TØI works constantly to develop support systems and internal training schemes for project management. The challenges facing the Institute consist in managing rising costs in connection with acquisition and deviation while carrying out projects. TØI's strategy is to:

- Clarify both internally and externally which type of assignments it wants
- Seek to obtain project funding that facilitates research
- Improve the efficiency of the preparation of tenders and bids
- Strengthen skills in respect of the the drawing up of contracts
- Develop structured standards for working plans and contracts
- Offer courses in project management to new members of staff
- Develop good routines for managing deviations and additional work in connection with projects.

More transport related programmes by the Research Council of Norway

Projects arranged under the auspices of the Research Council of Norway are central to long-term professional development and contact with other Norwegian specialist environments. The extent of transport research is low in relation to the social significance of the sector. The Ministry of Transport and Communications is of key importance in the funding of transport-related programmes. TØI's strategy is to:

- Develop its own programme proposals for the Ministry of Transport and Communications
- Seek to involve other ministries and sectoral agencies in programme development and funding
- Participate in the development of programmes initiated by others.

Working conditions and infrastructure

A good working environment

The most important measures aimed at providing a good working environment at TØI are discussed in the section entitled Organization and funding. Good framework conditions are essential in order to reduce stress and to establish a basis for creative activities.

In addition, TØI shall monitor the Institute's working environment through the AMU scheme, annual staff interviews, a company medical scheme and individual working environment surveys. The work of improving communication between employees is also of key importance in this respect.

TØI's premises shall be maintained and run so that staff members are ensured good working conditions and a good indoor environment. Staff workplaces shall be ergonomically adapted and advice given by the company doctor/physiotherapist shall be followed.

TØI shall be environmentally aware when procuring products and in respect of its consumption.

A skilled and motivated staff

The efforts, motivation and expertise of the staff are crucial in order to meet TØI's objectives as a research institute. TØI shall offer:

- Its staff the opportunity to work on important social issues
- A multidisciplinary and stimulating professional environment with an international network
- Opportunities to work independently and to develop new problem issues and subject areas
- The opportunity to disseminate research findings nationally and internationally
- Systematic support and counselling of new members of staff
- Support in respect of everyday work by management and the administration
- Internal and external training in methodology
- Systematic planning of skills development measures for researchers under training and researchers with a view to assessment as researcher II
- External evaluation for placement on the Institute's scale of seniority
- The opportunity to provide support for doctorate studies for researchers who have received approval for such a scheme by a university or the Research Council of Norway
- Administrative staff shall be ensured professional training in accordance with their tasks and areas of responsibility.

Elements of the above points will form part of the professional development plans of all employees.

The main bulk of skills development will take place in connection with project work. In addition, TØI will use funds for ongoing skills development, and to comply with individual initiatives from staff members.

A separate staff plan

TØI shall draw up a staff plan documenting the Institute's staff policy. The plan shall provide the basis for information concerning adopted measures. This work will take place in cooperation with the Institute's employees and their labour organizations.

The plan shall pave the way for measures in the following areas, among others:

- Doctorate studies in collaboration with the Research Council of Norway
- Recruitment policy
- Exchange of researchers with other specialist environments
- Attitudes to deviation from working plans
- Handling of staff problems
- Management development at all levels.

The Institute shall provide a good level of remuneration within a familiar and open pay system, in addition to offering good welfare schemes.

ICT as support and a research tool

Use of information and communication tools (ICT) shall contribute to the high quality of TØI's professional products and to the efficient running of the Institute. TØI's strategy in this respect involves:

- Continuous testing of new research and administrative tools
- Systematic training of staff in the use of currently defined basic tools
- Utilization of potential integration/automation in existing systems.

A separate ICT strategy will be drawn up.

A well-functioning administration

TØI shall have competent supporting staff that working efficiently and professionally with a high level of service. The administration shall maintain a constant dialogue with its users with regard to their expected level of service. The Institute will continually evaluate the division of responsibilities between researchers and the administration, and assess whether services should be outsourced or be carried out by its own staff.

TØI's library is a key part of the research infrastructure, see page 4.

Quantitative objectives for the period up to 2004

The Institute's links with the Research Council of Norway means that its activities are regularly assessed. In producing its strategic plan, the Institute has defined several quantitative objectives in areas where it reports annually to the Research Council of Norway. Together with the Institute's professional objectives, these statistical objectives will be an indicator of the success of the Institute's annual plans.

Financial objectives

Indicators	Status 1998	Goal 2004
<i>Business economics</i>		
Equity as a percentage of total assets	40	As now
Working capital as a percentage of turnover	25	As now
Real value of basic capital (NOK millions)	30	As now
Project reserve as at 31 January as a percentage of turnover	25	60
Operating result (NOK millions per year)	1	1
<i>Financing structure, percentage of financing</i>		
Basic grant	14	25
Research Council programmes	15	15
Framework agreements for service functions	0	7
Regular clients in central public administration	40	30
International customers	8	10
Other principals	23	13

Dissemination and publication

Indicators	Status 1998	Goal 2004
<i>International dissemination and publication</i>		
Papers in scientific journals	6	More
Papers at international conferences	58	More
<i>National dissemination and publication</i>		
Publications in TØI's publ. system	69	As now
Simple documentation reports	-	More
Handbooks, overviews, booklets, books	2-3	More
Popular scientific articles/lectures	64	As now

Organizational objectives

Indicators	Status 1998	Goal 2004
<i>Skills development</i>		
Number of researchers holding a doctorate	8	More
Number of doctorates in progress	8	As now
Share of Researcher II positions, %	46	More
Share of Researcher II positions, %	5	More
<i>Cooperation</i>		
Collaborative projects with Norwegian and international environments	35	More
Turnover of staff, expressed as a percentage	10	As now
Exchanges to/from other institutions	Few	More
Tutoring of graduate students	3	More