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Journey towards customer orientation

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Authors: This report was drawn up by CEDR's task group 15 (Customer Orientation)

Group leader: Ms Anu Kruth (Finland)

Group members:

Country	**Name**
Austria	Mr Werner Fritz Ms Sabine Aigner
Denmark	Ms Vibeke Overgaard Madsen Ms Maria Friborg Sólheyg
Finland	Ms Tytti Viinikainen
Italy	Ms Valentina Scaccia Mr Luigi Carrarini
The Netherlands	Ms Ariea Vermeulen
Portugal	Ms Cláudia Gonçalves Mr Jorge Soares Gomes
Sweden	Mr Einar Tufvesson
United Kingdom	Ms Jane Phillips Mr Ian Sweeting

Additional author: Ms Kati Kiiskilä (SITO Ltd, Finland)

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This report is: **FOR INFORMATION**

Executive summary

Customers—the users of the road network—should be the main reason why road administrations exist. Roads and the associated infrastructure are not provided for their own sake; their primary purpose is to enable people to travel in order to meet their everyday needs and to enable businesses to transport products.

The definition of customer orientation is 'the way of thinking and acting where the activities of an organisation are focused on providing benefits for its customers'. For a road authority to be customer orientated, it needs to show that it is developing and improving its activities and services by looking at them through the eyes of its customers. This is also at the core of road planning, construction, and improvement; knowing and understanding customer needs helps the organisation to do the right things in the right way; for example establishing a reasonable service level, prioritising tasks, and making improvements.

There is a general trend towards more customer-focused national road administrations (NRAs). Many NRAs are systematically working towards having a better understanding of their customers in order to deliver services that meet their customers' needs. There are several reasons for this. The public sector in European countries is changing and becoming more customer-focused. Customers' expectations and requirements regarding services delivered by the public sector—including road services—are rising while budgets are being reduced.

How then does customer orientation help tackle these developments in society?

Firstly, discussing ideas and proposals for improvement with customers helps to manage their expectations and demands and should ensure that the best solution is identified. An open dialogue with customers at a sufficiently early stage in the planning process often helps and speeds up the process at a later stage as there may be less complaints and conflicts. At its best, dialogue helps all parties to understand each other and should lead to better solutions than would have been identified without the dialogue.

Secondly, customer orientation helps organisations to allocate resources, which are often scarce, in the most efficient way. For example, there is evidence that the level of customer satisfaction for winter maintenance has stayed the same even though less money has been spent on maintenance and traffic volumes have increased. This has been achieved by prioritising the right tasks and choosing the right service levels by taking account of customer orientation.

There are three areas that organisations have to develop in order to achieve continual improvement in customer orientation. One is to make strategic-level decisions, the second is to listen to and communicate with customers, and the third is to develop their products, services, and processes accordingly. Due to the different political and structural organisation of the national road administrations, there is no one right solution or uniform model for customer orientation. Each country has to analyse its own situation, define its own strategies for customer orientation, and take measures accordingly; in other words, they must make their own journey and find their own way.

Nevertheless, based on our experience, we do make some recommendations for those authorities that are at the beginning of their journey and for those whose challenge is to develop their degree of customer orientation.

Recommendations:

Awakening: how to start

1. Top-level decisions are needed. Make sure that the key decision-makers and top management are involved. Make top management the figurehead for the change.
2. A lot of discussion is needed during this phase: clarify within your organisation why the change is needed, what benefits will be gained, and what it means in practice. Use early adopters as ambassadors.
3. Benchmarking with other countries, organisations, and private companies will help you to define what customer orientation means to your organisation.
4. Be prepared to make time for a discussion about the definition of 'the customer'. It can be a big change for an organisation to consider an end-user as the customer instead of, for example, politicians or ministers. Sometimes the word 'customer' can be irritating. Using other concepts (e.g. user, passenger, citizen) might make it easier to accept.
5. Make sure research processes are systematic, so that people can learn to rely on them. Plan, for example, prepare timetables, and decide how the results are to be utilised.
6. Remember that feedback differs from group to group. This explains the difference in results from feedback and surveys. It is important to consider all channels for customer feedback; do not rely on one source of feedback.
7. Make sure that the communication is relevant. Customers will ask: 'What's in it for me?' Try to explain in an understandable way the reasons for decisions: why is the NRA (not) doing something.

Getting it to work: make customer orientation part of 'business as usual':

1. Make sure that customer needs are one of the driving forces for business and strategic planning: introduce targets for customer satisfaction and bonuses if customer goals are reached.
2. If you are using contractors, do not forget to motivate them and their sub-contractors to work for the end-users.
3. Create systematic ways and learning programmes that involve all your staff. Do not forget middle management.
4. Include customer orientation in day-to-day working processes. Quite often you won't need separate or new customer processes; it's more a question of how decisions are made during the process and what information these decisions are based on.
5. Having an action plan for improving customer satisfaction that is agreed by both technical and customer service staff is a good way to integrate customer thinking into everyday actions.

6. Combine different sources of customer data: customer opinions that have been collected in the course of surveys and through complaints, correspondence, and direct contact with customers should all be used to inform decision-making.
7. When a customer suggests a solution, try to understand his/her needs and the issues behind them. At the end of the day, the solution to the problem might be quite different, but the customer's concerns and needs will still be met.
8. Customer segmentation is a useful tool for understanding different customers' needs and ensuring that needs are recognised. Be prepared to make time to carry out customer segmentation, especially for decision-making. It is a strategic choice.

It is good to remember that even though road administrations are responsible for a part of the journey, the customers' experience is based on how smooth and safe the whole journey is. That means that close co-operation with stakeholders is needed.

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Foreword

This report is meant to illustrate 'a journey' towards customer orientation. It is based on the work carried out by CEDR task group 15 (Customer Orientation) during the CEDR Strategic Plan of 2009–2013. The report is based on the experiences and best practice of eight CEDR member states and also on the 'State of the art' survey conducted by the task group in 2009.

Due to the differing general conditions of the national road administrations, there is no uniform model or one right solution for customer orientation. Moreover, customer orientation is a relatively new perspective for organisations in the public sector. To take account of this, we have included some general advice and specific recommendations in the report, and also detailed example cases. The examples of best practice were selected to represent the different tasks that organisations have to complete during their journey towards becoming a more customer-oriented organisation. Each country has to analyse its own situation, define its own strategies for customer orientation, and take measures correspondingly. In other words, they must make their own journey and find their own way.

In addition to the general advice and case studies, the most important and specific recommendations are presented at the beginning of each chapter. At the end of each chapter, we have collected the more detailed and practical lessons learned. We believe that each national road administration (NRA) can learn from the experiences, ideas, and practices of other NRAs while using customer orientation in accordance with their own cultures and institutions.

Initially, the intention was that the task group would conduct the next European Road User Survey (ERUS). ERUS is a comparative study of road quality perceptions based on interviews with car and lorry drivers at border-crossings. It has been conducted three times. However, the fourth ERUS was cancelled because not enough countries were willing to participate. For this reason, the report does not include comparative results of satisfaction levels in different member states. Hopefully, it will in future be possible to find some other way to collect comparative knowledge, if countries are no longer willing to participate in ERUS.

We hope the report gives you some ideas and inspires you to start the journey in your organisation and to continue the journey in order to better meet customers' needs and expectation.

We wish you a successful journey!

On the behalf of the task group,

Anu Kruth
Chairwoman

1 Journey towards customer orientation

Customer orientation means thinking and acting in such a way that the activities of an organisation are focused on providing benefits for its customers. In order to accomplish this, the organisation must be aware of and understand its customers' needs and develop its products and services according to those needs. Customer orientation also includes being aware of how well the customers' needs and expectations have been met and to what level of satisfaction. In other words, NRAs listen to their customers and work in a collaborative way with stakeholders in order to meet the needs of their customers within the given budget.

1.1 Why work in a customer-oriented way?

European public sectors are changing by becoming more customer focused. This orientation naturally brings benefits for customers: their views and opinions are taken seriously and are used to improve processes. Moreover, the actions of NRAs become more transparent and understandable. When customers get involved in processes at an earlier stage, they have more opportunity to influence decisions that affect them.

However, there are also several ways in which customer orientation benefits the organisation itself. Certain changes in society affect this. Customers' expectations and requirements for services delivered by the public sector are rising; citizens, including taxpayers and road users, demand better and more reliable services and journeys than ever before. Customers also want more transparency. Transport issues are being discussed more in the media than they were before, which makes people demand more information about road issues. At the same time, while customers' demands are rising, budgets—especially budgets for road maintenance—are being reduced in many countries.

How can customer orientation help tackle these developments in society?

Firstly, discussing ideas and proposals for improvement with customers helps to manage their expectations and demands and should ensure that the best solution is identified. An open dialogue with customers at a sufficiently early stage of the planning process often helps and speeds up the process at a later stage as there may be less complaints and conflicts. At its best, dialogue helps all parties to understand each other and should lead to better solutions than would have been identified without the dialogue.

Secondly, customer orientation helps organisations to allocate their resources, which are often scarce, in the most efficient way. Roads are not provided for their own sake, their primary purpose is to enable people to travel to meet their everyday needs and to enable businesses to transport products to their customers. The best road administrations know and understand the needs of their customers; this helps them to allocate resources and activities. For example, the Finnish Transport Agency (FTA) has put a lot of effort into understanding and meeting their customers' needs over the last decade. In Finland, the level of customer satisfaction for winter maintenance has more or less remained the same during that time despite the fact that the FTA now spends 20% less money on winter maintenance than it did a decade ago and that the traffic volume has increased by 20%.

A further example of how understanding customers' needs and expectations can be used to establish the right service level, is how survey results are used by the Highways Agency (HA) in England. The HA carries out an Area Road Users' Satisfaction Survey, which records customers' satisfaction and perceptions of its services, including maintenance activities, provided on England's trunk road network. By using the results of these surveys, the maintenance contractor (working on behalf of the NRA) can allocate resource to areas where results have indicated that work is needed or can continue to reduce maintenance activities if customers have not noticed a reduction in service.

The costs for the benefits of working in a customer-focused way, such as during major maintenance activities, can be calculated. Major maintenance works can mean temporary limited capacity on the road, causing congestion and delays. Road users who avoid the congestion by using public transport, for example, receive a small amount of financial compensation. In the Netherlands, the costs and benefits of a maintenance project on the A16 have been calculated: the compensation costs (for offering subsidised alternative modes to travel) amounted to €840,000 euros while the social benefits amounted to €1,365,000.

Private sector organisations are compelled to understand their customers in order to drive revenue; customer orientation can form a similar focus for public sector organisations too. It can also provide a uniting, motivating factor across the organisation (HM Government, UK).

To sum up, understanding customers better leads to:

- better decisions and service development;
- better targeting in communication and policy intervention;
- improved customer experience and satisfaction;
- better use of available communication channels;
- greater efficiency and cost savings in service delivery;
- better understanding of the transport system as a whole: customers do not care who is responsible for the road they drive on; they just want the whole journey to be safe and smooth.

1.2 Defining the customer and the stakeholder

The customer is the primary reason an organisation exists. The concept of the customer is well understood in the private sector; but in the public sector it is more complex (Cabinet Office, 2006). A public sector customer does not always have a choice about using the services as there are no alternatives. In some cases, they can choose to pay directly for the services (e.g. toll roads). In the public sector, people use or value services in different roles, for example as individual road users, as citizens, and as taxpayers. These multiple roles affect their attitudes to and satisfaction with road services.

There are several different ways of defining customers and stakeholders in NRAs. Customers are not only the end-users of transportation services, they can also be members of the community directly affected by the use of the transportation systems. Another term that can be used to characterise a customer is 'the public'. In Sweden and Finland, for example, customers are both citizens and business users.

The European countries that responded to CEDR's state of the art survey most often defined 'the customer' as anyone who uses (or is affected by) the road authority's network. The concept of the road user is narrower than that of the customer, as this just includes users of the roads. In the Netherlands, for example, where the concept of the 'user' is used, residents are defined as 'other stakeholders' (State of the Art: Customer Orientation in CEDR member organisations, 2010).

Regardless of which words are used to describe customers, it is nonetheless very important for NRAs to clarify who their customers are and to separate them from other stakeholder groups. Customers should be the main reason why NRAs exist. NRAs work in partnership with their stakeholders to improve services and deliver better value for customers.

For example, the following stakeholder groups can be indentified:

- *Road users, customers* = those who use and/or purchase our products or services. Examples: citizens/passenger transport, businesses/freight transport, emergency services, motoring and other organisations that represent the road user
- *Principals, clients* = the people whose demands and goals we must meet.
  Example: government authorities
- *Partners, service providers, and other stakeholders* = the people/companies/organisations with whom we create customer value
  Examples: municipalities, other government departments, media and traffic information providers, contractors, concessionaires, industry and business, other transport authorities and environmental groups

Stakeholders often have multiple roles. Stakeholders can act for road users/customers, for NRAs, or as a customer themselves.

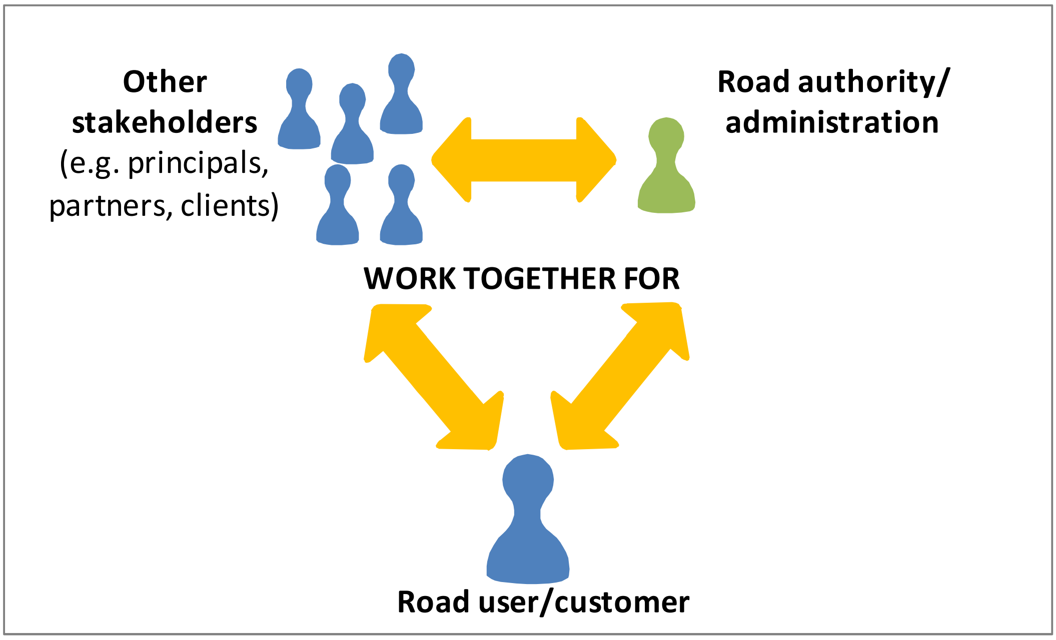


Figure 1: The road administration/authority works together with other stakeholders for the customer/road user

1.3 Beginning the journey

Road administrations are changing from being technical infrastructure providers to service managers. The journey from a product-oriented to customer-oriented organisation is a strategic choice that should begin with a top-level decision.

Organisations' mission and vision statements should provide a good basis for a customer-oriented way of working. It is important that the mission and vision statements impress the value that NRAs attach to its customers. An organisation needs to define and clarify who its customers are and other stakeholders with whom it produces value for the customers. If the organisation is just taking the first steps on its journey towards being recognised as a customer-oriented organisation, major changes are likely to be needed in the organisation's values and ways of working. The need to change organisational culture is often not an option but a given. Change also needs to be measured and monitored.

A customer-oriented administration works together with partners and uses feedback as a basis for their work, it works 'from the outside in' rather than 'from the inside out'. Organisations need to establish systematic processes and procedures to collect, handle, and use customer feedback and survey results both at strategic and operational levels. Organisations also need to involve customers to work with them.

Organisations need systematic customer-oriented policies and ways of working. Customer orientation is not a separate process; integrate the customer perspective into what you already have and improve services that give best value for customers. Don't forget to tell your customers what you have done and why, and use language that they will understand.

This report is a journey towards customer orientation. The report has been prepared in order to collect and disseminate a large amount of material and ideas exchanged during the CEDR Strategic Plan of 2009–2013.

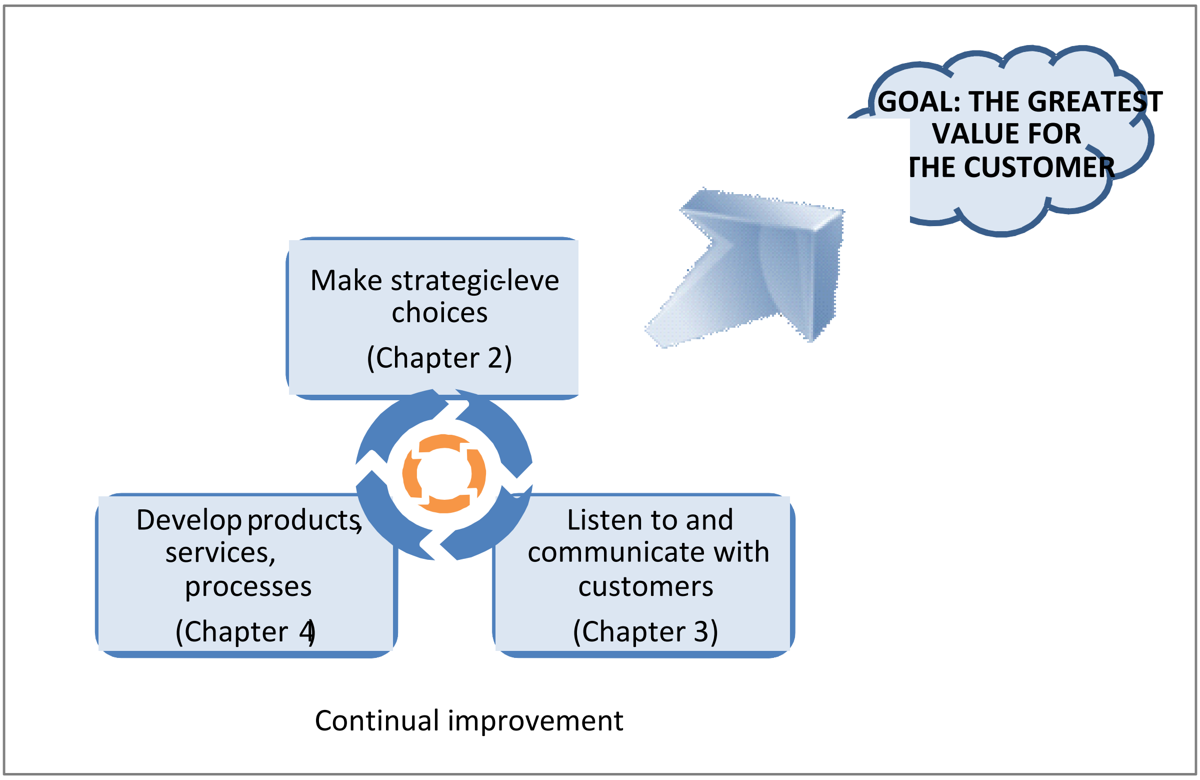


Figure 2: The journey towards becoming a customer-focused road administration

2 Customer orientation is a strategic choice

Recommendations

- Make a strategic level decision to begin the journey.
- Start from the customers'/users' point of view. Have a vision that clearly cares about the customer.
- Make top management the figurehead for the change.
- Make sure that the key decision-makers and top management are involved. Plan the whole process and accept that change takes time (top down).
- Clarify for your organisation a) the benefits for your customers and b) the benefits for your organisation. Show the benefits of the change for employees and for the customer.
- Customer-oriented thinking is one part of planning; it is not a separate process or plan. A deep and a thorough understanding of customers' needs is required.
- Have clear goals; report and monitor them.
- Make time and space for experiments and piloting; use good examples. Use real customers as part of the learning processes.
- Publicise good examples and results. Celebrate success and encourage competition.

2.1 Some theory about change

Customer orientation is a strategic-level choice. It needs follow-through and management of change as much as any other strategic change in organisation. Opportunities to begin the change process in an organisation could include the appointment of a new director, a new organisation, a new political climate following an election, requirements for savings and re-organisation, or the need to improve a poor image. In times of economic crisis, even an organisation that is already customer oriented will need to re-think its way of working in order to understand what customers really value and in order to work efficiently and keep their employees motivated.

Professor John Kotter's 8-step change process is widely used for transformational change initiatives by large organisations. Kotter distinguishes between *management and leadership*. He suggests that managers focus on planning, budgeting, organising; they appoint, monitor, and troubleshoot. Leaders aim to determine direction and to align, motivate, and inspire people. He says that successful changes are brought about by 70–90% leadership and only 10–30% management (Kotter, 1998).

The eight steps Kotter defines are:

1. **Establish a sense of urgency**
   - Identify and discuss crises, potential crises, or major opportunities.
   - Examine customer satisfaction.

2. **Form a powerful guiding coalition**
    - Assemble a group with enough power to lead the change effort.
    - Encourage the group to work as a team.
3. **Create a vision**
    - Create a vision to help direct the change effort.
    - Develop strategies for achieving that vision; make sure it's communicable.
4. **Communicate the vision**
    - Use every vehicle possible to communicate the new vision and strategies.
    - Give good examples.
    - Teach new behaviour by the example of the guiding coalition.
5. **Empower others to act on the vision**
    - Get rid of obstacles to change.
    - Change systems or structures that seriously undermine the vision.
    - Encourage risk-taking and non-traditional ideas, activities, and actions.
    - Organise training.
6. **Plan for and create short-term wins**
    - Plan for visible performance improvements.
    - Create those improvements.
    - Recognise and reward employees involved in the improvements.
7. **Consolidate improvements and produce still more change**
    - Use increased credibility to change systems, structures, and policies that don't fit the vision.
    - Reinvigorate the process with new projects, themes, and change agents.
8. **Institutionalise new approaches**

Each of these eight steps takes time. Step one alone may take months in a large organisation. Formulating an appropriate vision or strategy may be done in weeks, but it often requires 12 or even 24 months.

Customer orientation is discussed in section 2.2 from a management point of view and in section 2.3 from leadership point of view. Customer orientation requires a cultural change because the whole organisation needs to be involved.

2.2 Customers as the core of the vision

The journey from a product-oriented to a customer-oriented organisation is a strategic choice, which begins with a top-level decision. To do this, the following questions need to be considered and answered:
- Who is your customer? What kind of customer groups do you have?
- Does your vision and mission consider the customer?
- What services are you providing for your different customer groups and to what level of service/quality?
- How do you organise the work and what are the responsibilities?
- How do you set goals and measure them? (In other words: how do you ensure that customer orientation is used as part of steering and improving processes)?

- How does your organisation ensure it is aware of customers' needs and expectations?
- How does your organisation develop its products and services according to those needs?
- How do you work with stakeholders to deliver services to customers?
- What service standards/promises do you have for your customers?

Formal documents and ways to show the new ways that an organisation is working could include customer-oriented vision and mission statement, basis of valuation, balanced scorecard, customer category documents, strategic plan and indicators, customer satisfaction indexes.

In section 1.2 we discussed **the customers of national road administrations (NRAs)**. Each NRA needs to clearly define and describe the customer groups that are affected by its work. Customer segmentation is a valuable tool in understanding different customer groups and their needs (for more information, see section 4.1). Ideally, the vision is set and clarified together with the definition of the customers and responsibilities of the organisation. **The vision** should clearly show that the services the NRA provides are for its customers. A good vision describes what the value is for customers. A vision clarifies for whom the organisation is working.

The results of the 'State of the art' survey showed that some countries have a very comprehensive systematic approach to customer orientation. In these countries, customer-oriented thinking seems to be quite deeply rooted and linked to government objectives about customer focussed public services, to larger changes in society towards more transparency, and to 'business-like' models of administration. The measures taken to improve customer orientation were also quite diverse and intense in these countries (State of the Art: Customer Orientation in CEDR member organisations, 2010).

A customer-orientated organisation will assign **responsibilities** for customer orientation to all of its staff members. Customer issues should not be the responsibility of just one team or individual; it has to be part of everyone's job.

In European NRAs, there are as many different ways to organise work as there are administrations. However, some common features do exist. There are experts who are gathering and analysing information on customer needs. There are also strategy-orientated managers, co-ordinators, or strategists, whose job it is to change or influence the culture. Customer orientation should not only influence your work tasks, but also how you do the work.

When steering processes are made in a customer-oriented way, both **goals and indicators** are set from the customer point of view. Customer-oriented goals and indicators should be at the heart of the organisation's steering system, not a separate discipline. Indicators that are based on customer satisfaction and feedback should be used alongside technical measurements. What's more, it is important to improve technical measurements, particularly those that tell us about the things that customers find important.

It is not enough to collect data. You need to find **ways of establishing frameworks** for listening to and understanding customer needs and taking these needs into account.

2.3 Involving your people

Based on the experience of Rijkswaterstaat (in the Netherlands), three important elements in managing change have been identified: **inspiring, learning, and disciplining**. The process of change needs these elements all the time. However, the amount of attention paid to learning, inspiring, and disciplining can vary in the different phases of the process. Inspiring and learning can also be combined.

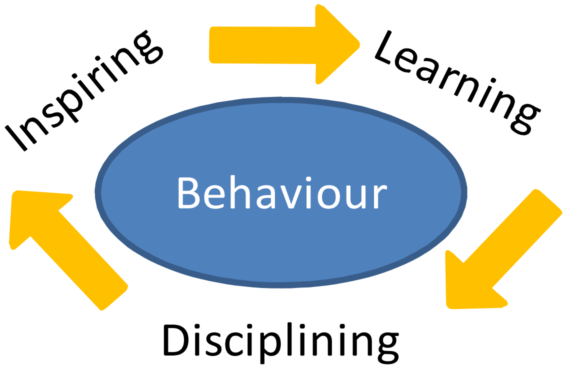


Figure 3: Changing behaviour by inspiring, learning, and disciplining

Inspiration

The strategic change needed to become a more customer-oriented organisation starts with establishing a sense of urgency. In the beginning, internal communication is very important for creating awareness of and enthusiasm about the change. Exposure and visibility can be created in a number of ways. It is important to make sure that the interest and perspective of customers is known. The process of inspiration must include all levels and every individual in the organisation. The focus is on creating a shared mindset and uniformity to get the whole organisation focused on change.

Tools:
- top-level road shows in the regions
- piloting and examples
- showcase projects (projects that are given special attention)
- best practice
- a reflection day with customers or other stakeholders (e.g. maintenance contractors) to discuss customer survey results
- a toolkit for managers
- Intranet, newsletters, magazines
- flyers/cards (e.g. behaviour rules)
- mini-conferences and workshops (e.g. share examples, create shared mindset, discuss how to deal with complaints, etc.)
- competitions (e.g. selection of the most customer-oriented worker)

Learning

To become a more customer-orientated organisation, all employees should be aware of their own customer-oriented behaviour and attitudes. The whole organisation should show customer orientation in communication and in their work with customers and stakeholders.

It is important to tell your employees how the goals of top management can be translated into the required behaviour for their own daily practice and habits. Target groups for learning must be formed to make the learning relevant. Moreover, clear training goals must be set. The goal for management is to educate their employees, set an example, and use feedback to help others to change their behaviour. For the employees, the goal is to be able and willing to apply the concept of customer orientation in their projects and everyday work (mindset, attitude, behaviour, and consultation).
Tools:

- Training modules on customer orientation for different target groups with appropriate training goals
- A research programme on customer needs. For example, steering research projects involves your employees and helps them learn more about the customer needs
- Employees should interact with customers (e.g. a road designer spends a day with a truck driver).
- Information and facts about customers (e.g. customer documents)
- Real life cases and role play with actors
- Tools and guidance on how to work with customers

Disciplining (and monitoring)

Inspiring and learning is the basis of change; discipline is all about embedding his change. Make sure everyone works in a consistent customer-oriented way. Make it part of the normal working processes. For example, use performance indicators or make it a topic in the performance appraisal. At the final stage, it is important that directors/managers monitor the organisation by having a clear vision, a basis of valuation, and balanced score card measures that focus on customer orientation and benefits.

Monitor:

- the satisfaction of customers and other stakeholders, e.g. through customer satisfaction surveys and customer feedback;
- the performance of the organisation, e.g. response times, technical quality indicators;
- the satisfaction, attitudes, and behaviour of employees: Do they know? Do they want to? Are they able to? Are they doing it?

Tools:

- strategies
- (management) contracts
- performance indicators
- individual performance appraisals
- corporate communication strategy
- bonuses and rewards for personnel according to customer satisfaction results
- competitions for personnel

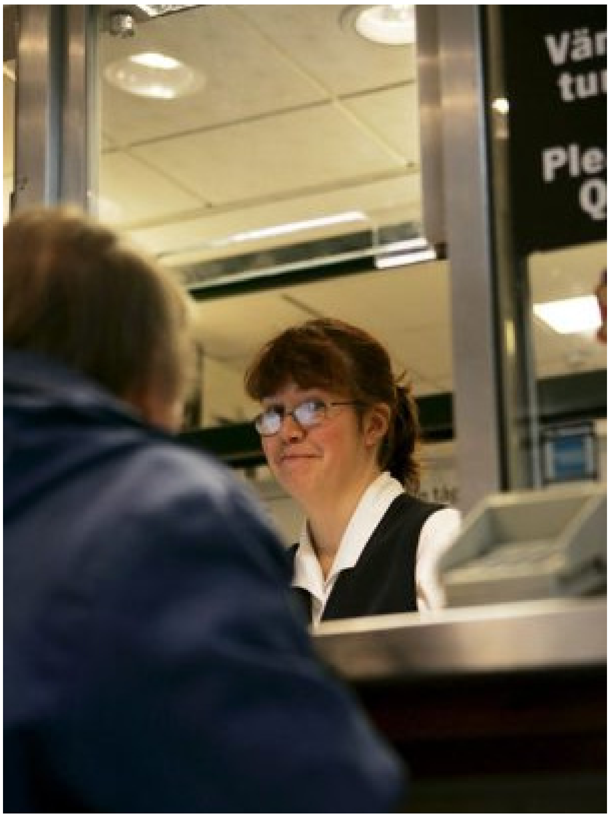


Photo: Swedish Transport Administration

2.4 Best practice: examples from European countries

2.4.1 The Customer House (the Netherlands)

The Rijkswaterstaat (RWS) opted to make the change by using three basic concepts. One of the concepts is the so-called 'Customer House'. This is a framework that shows how work should be organised. RWS employees work using the philosophy of the five rooms of the Customer House.

In room 1, they start by listening and thinking from the users' perspective. In room 2, the options are considered and then promises are made with regard to what they will or will not do. In room 3, there is clarification on the people with whom they must co-operate. In room 4, the corporate attitude, behaviour, and therefore identity is worked on. Both in the northern and southern parts of the Netherlands, the public sees the RWS as one single organisation. In room 5, they devote a great deal of attention to communication and providing information to the outside world, using clear language, coming from the fact that they are a public-oriented network manager. Internal communication is also an important focus.

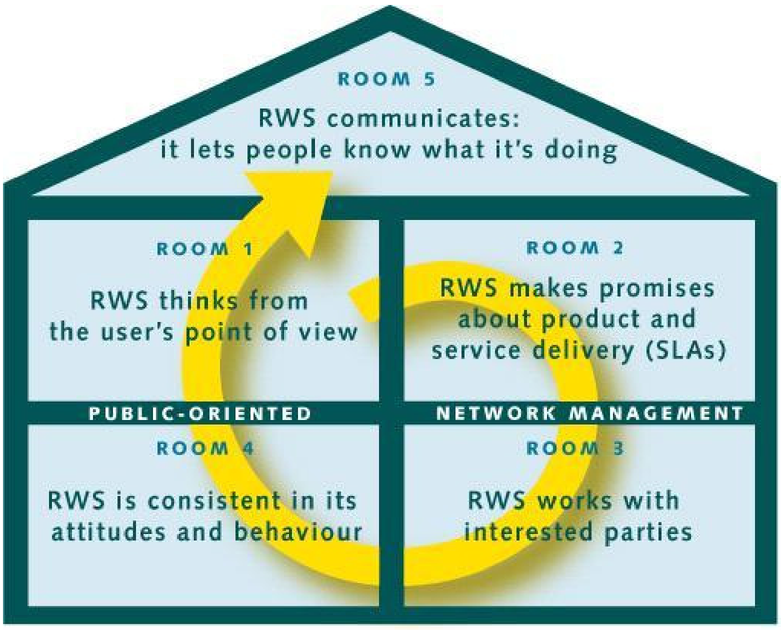


Figure 4: The Customer House (example from the Netherlands)

The Customer House is a very good example of what customer orientation is. It can be used to educate personnel and as a check-list from the top management level to operational level. The model is widely used within Rijkswaterstaat. Its use started with a top-level decision and was followed by an education programme.

2.4.2 Strategic planning (Sweden)

The Swedish Road Administration (SRA) has established a focus for the next decade in its Strategic Plan 2008–2017. 'The good journey' cannot be achieved alone. Cooperation with other players in the transport system is needed as well as a good dialogue with the customers. The SRA also wants to play a creative role at an early stage of community planning in order to achieve a society in which the transport system is efficient and the living environment attractive.

Building a strategic plan begins by analysing transport policy targets and customer needs. The objectives and targets are formed in the governments' instructions to the SRA, and customers' needs are collected in customer category documents. The next step is to analyse the gap between the situation today and the ideal situation, i.e. the goal. If the gap is wide, it will be one of the challenges in a strategic plan. The last step is to form a strategic plan with a mix of challenges that best monitor the development towards good journeys for society and the customer.

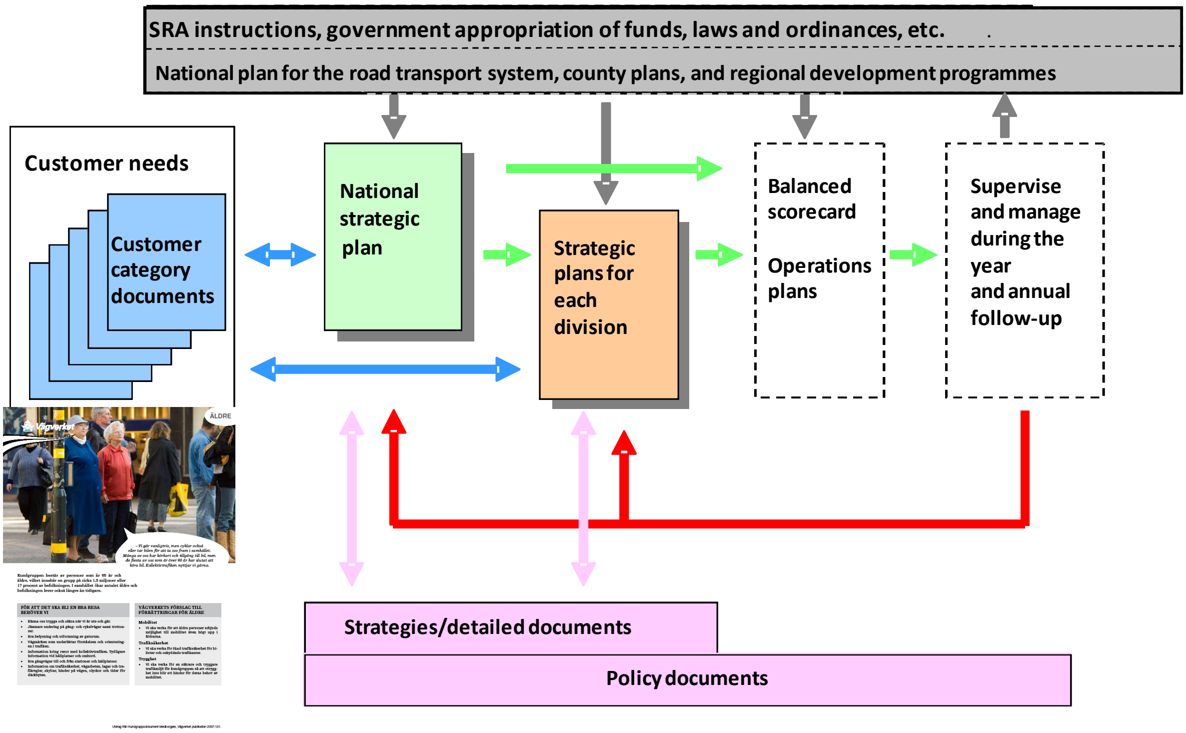


Figure 5 The strategic planning process and customer needs (example from Sweden)

A 'focus' is presented for each challenge, showing the goals the SRA is working towards in its capacity as a public authority and the body responsible for the road transport sector. While the focus is fixed during the ten year period, the timetable for goal achievement is largely governed by the SRA's financial frameworks.

The intention of the strategic plan is to provide the SRA's employees with an overview of the direction in which the SRA is moving and where its priorities lie for the next ten years. It is also designed for politicians, planners, partners, and customers that are affected by SRA activities or who themselves influence SRA activities.

The SRA strives for a balanced achievement of subsidiary goals in transport policy and of the needs and desires of different customer categories. This means one goal could be prioritised in the short term, but overall during the planning period, no goal is to be prioritised ahead of another.

The SRA contributes to developments in the transport sector by focusing on new and improved services for customers and through streamlining operations aimed at performance rather than detail.

2.4.3 Customer segmentation as the basis of a planning and steering process (Finland)

In the Finnish Road Administration, segmentation was done from a strategic point of view. Customers were divided according to two criteria: reaching societal goals and equality. Doing this segmentation was a major process; top management was heavily involved.

Customer segmentation was needed to understand and predict customer needs in an efficient way:

- segmentation helps an organisation recognise and categorise the most important customer needs;
- segmentation 'gives a face to our customers'; this way, everyone in the organisation understands customers in a same way;
- segmentation helps organisations to focus their work, for instance the interaction with customer groups, information gathering, surveys, etc.

Three customer categories were identified: 1) strategic customers, 2) customers with additional needs, and 3) standard customers. Strategic customers consist of customer groups that have extensive social significance and whose needs to a large extent define the needs of all other customers. Customers with additional needs have specific needs that are essential mainly for themselves. The remainder of customers were defined as standard customers.

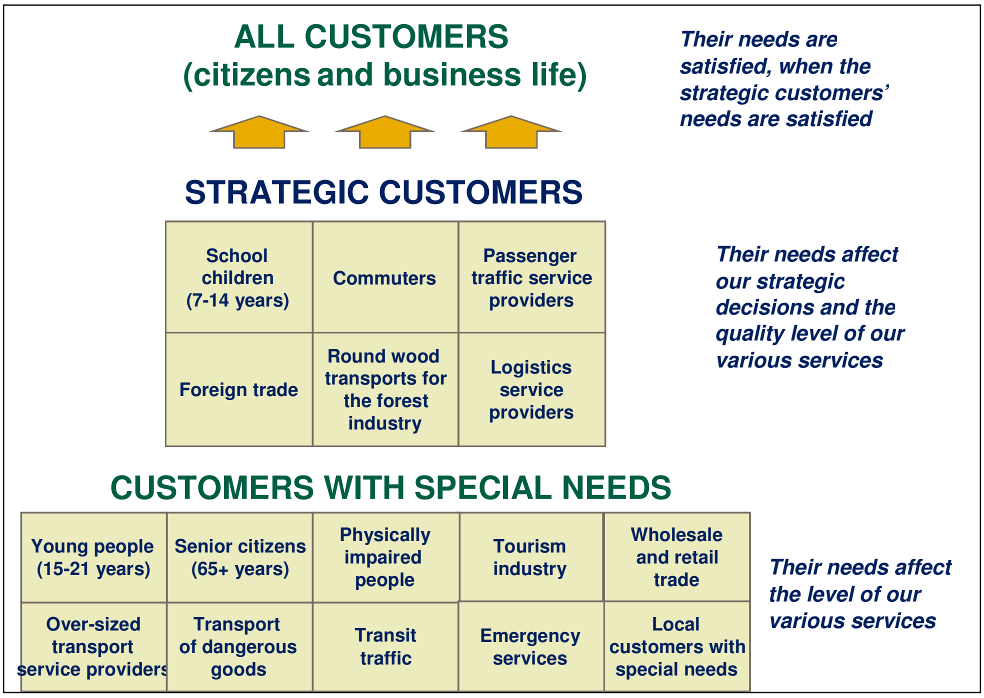


Figure 6: Customer segmentation (example from Finland)

The idea behind this categorisation is that products and services are planned according to the needs of strategic customers, and consideration is also given to customers with additional needs. They can then be sure that almost all the important needs of all the other customers are fulfilled.

When planning and steering is carried out at strategic level, the major focus is on strategic customers. When planning at a slightly more detailed level, e.g. the road management products (such us road planning, winter maintenance, paving replacement), customers with additional needs will also be taken into consideration if the need is relevant for the product. At operational level, when utilising the concrete products and services of the Finnish Road Administration (e.g. when using the road network, giving feedback, or applying for licenses), all customer groups are treated equally and there is no need to sort them according to customer groups.

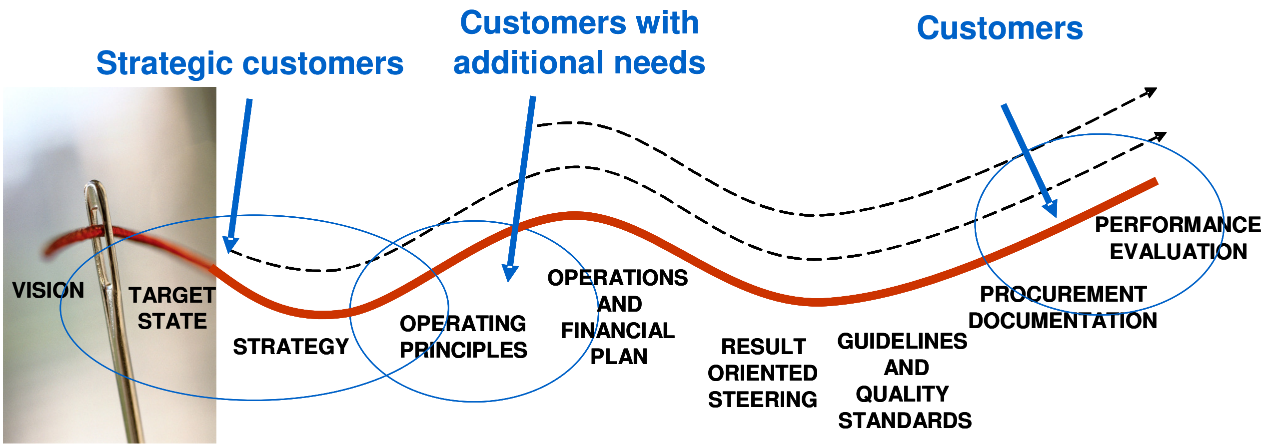


Figure 7: The planning and steering process (example from Finland)

The segmentation serves as a check-list to ensure that all important customer needs are met. Segmentation can also be used in impact assessments. For each of the six strategic customer groups, there is a dedicated manager, as well as an expert, whose responsibility it is to gather information on the needs of the group and to coordinate interaction with the group.

2.4.4 The result of the customer survey influences the director's salary (Denmark)

The director of the Danish Road Directorate's salary is influenced by a number of different tasks that have to be completed each year (according to a so-called 'bonus system'). The tasks are decided each year, and each task is independent of the other.

One task, which has been a part of the bonus system for the past few years, is the result of the winter customer satisfaction survey. At least 67.5% of customers have to be satisfied with winter maintenance. The results from 2007–2010 are shown below (percentage of satisfied people on a scale of 1–100%):

2007	2008	2009	2010
64.3	71.35	71.95	67.15

2.5 Lessons to be learned

Lessons we have learned from **management** becoming more customer oriented:

- Do not consider customer orientation separately; integrate it into all aspects of your work. Customer insight needs to affect what the organisation is doing and how it is done.
- Do not guess ('we already know customer needs and expectations'). Instead, listen to and try to understand what messages your customers are giving you.
- Consider making a simple model/framework for the whole organisation. This kind of tool forces the organisation to think about its customers. Also establish an education programme to make sure the framework is used.
- Create detailed reports and info sheets that link information about customers and their needs to the specific needs of the organisation, rather than general reports.
- You may need a communication plan for customers and this should be included in the organisation's strategic planning system.
- Benchmark with other organisations, including the private sector.

Lessons we have learned from **involving our people** in customer-oriented work in our organisations:

- Clarify the usefulness and necessity of the change before starting the process. Get a clear focus and plan the whole process.
- Customer orientation has to be part of everyone's job; otherwise it does not get done.
- Make top and middle management responsible for results.
- At the start of the process, specific personnel are needed to work to manage the change. Establish a diverse team made up of individuals from all levels and with different skills, rather than an 'executive group'. Eventually, as the organisation's culture changes, a separate organisation will no longer be needed.
- Find ways to inspire and learn that suit your organisational culture. Different target groups have to be inspired, so the methods and messages need to be planned accordingly.
- Use vertical learning processes. Do not write big manuals; ensure interaction with colleagues instead.
- Monitor and give feedback—both positive and negative. Do not automatically punish failure; organisations must learn and improve from their failures.
- Make it fun and relevant! Use as many real-life cases and learning-by-doing/telling as possible. Individuals generally learn most by telling other people about their experience.
- Do not hurry; change takes time.

3 Listen and communicate

Recommendations

- Make it easy for customers to contact your organisation. Feedback—both positive and negative—is a valuable source of information for improving services.
- Make the research and listening processes systematic. Plan the processes, make decisions on them, and write them down.
- Use results from quantitative surveys to explain qualitative results—and vice versa—to qualify results.
- Use understandable and appropriate language when communicating with customers.
- Give a realistic picture of your resources and capabilities to meet your customers' needs; 'manage their expectations' by communicating this information.
- Do not think that customer orientation means that all customers' needs have to be fulfilled.
- When a customer suggests a solution, try to understand the need and the problem behind the solution. At the end of the day, the solution for the problem might be quite different, but the customers need will still be met.

3.1 Levels of customer participation

Successful organisations know and understand their customers' needs and manage customers' expectations in delivering services. To improve services, NRAs have to understand their customers and know how to deliver best value for them. When customer needs are listened to and understood, NRAs are able to deliver better-quality services and a safer road environment for less money. This is how they make sure that taxpayers' money is well spent. Partnership is efficient and beneficial for both the NRA and their customers.

The well-known *ladder of citizen participation* (originally by Sherry Arnstein, 1969) is a framework that helps to classify and evaluate different forms of communication, research, and participation methods. It can also be used to evaluate the openness or customer-friendliness of the NRA. The idea of a ladder implies that it is meant to be 'climbed'. It is quite widely accepted that public road administrations—and their private counterparts—should, on the whole, aim for higher levels of participation and openness.

Figure 8: The ladder of participation (Shelly Arnstein, 1969)

In addition to this, each level of the ladder can be appropriate and legitimate at certain times or on certain occasions. When an organisation climbs the ladder, it does not mean that actions on lower rungs become unnecessary. For example, 'informing' and 'consulting' are suitable for certain occasions even when more profound ways to involve customers are used in other actions.

In conclusion, the ladder represents a framework that can be used to evaluate the extent to which NRAs involve customers in their processes. The methods presented here can be placed on the of 'consulting', 'dialogue', 'co-producing', and 'co-deciding' rungs.

3.2 <u>Listening to customers: quantitative customer surveys</u>

3.2.1 State of the art

Quantitative customer surveys (user surveys) usually measure users' opinions by collecting numerical data and using statistical methods to analyse the data. Textual answers can also be collected with the survey questionnaire, but more often, the numerical data forms the main basis of analysis. Textual answers can be used to support the statistics, or sometimes analysed separately. Quantitative data makes it possible to generalise the results.

Surveys can be conducted for several different reasons. It is important to find out what the customers mean by a 'good journey' or what kind of characteristics they value. With the help of customer surveys, it is possible to find out areas and issues that could be improved and to develop new services in the road administrations. In addition, when goals are set, new services are launched, or service levels are changed, a follow-up survey is often needed. The NRA can also use survey results to persuade politicians to allocate resources to road maintenance and construction.

Surveys can be divided into regular and ad hoc surveys. Ad hoc surveys are context-specific and are made when the need for information occurs. Regular surveys can be classified as follows (note that several features can be combined in one survey):

- key performance indicator surveys
- image surveys
- satisfaction surveys
    - satisfaction with the whole journey/transport system, i.e. not only roads
    - satisfaction with maintenance and operative services
    - satisfaction with the road administration (personnel or as a public authority)
    - satisfaction with customer services
- attitude surveys and surveys following up behaviour in traffic (e.g. after traffic safety campaigns)
- surveys on customers' future wishes/needs
- national or international benchmarking surveys (e.g. European Road Users' Survey)

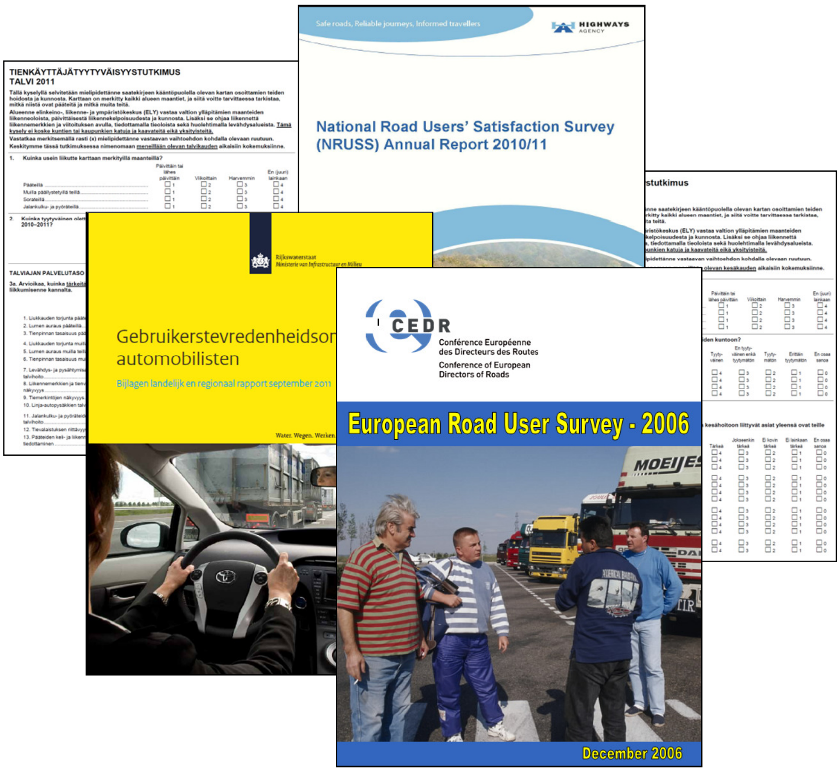
One viewpoint common to all the above-mentioned types is the need to follow trends, that is, how the survey results change over time. In addition, it is important to conduct the survey so that you get the opinions of different population groups, e.g. the elderly, the young, and the disabled.

Several European road administrations/authorities conduct customer surveys regularly. All of the 13 countries that responded to CEDR's 'State of the art' questionnaire have regular road user surveys at national level; some countries have several separate surveys for different purposes. Although most surveys are conducted at national level, some are conducted at regional, local, or road level. In many countries, separate surveys—or at least separate questionnaires—are used for business usage (or heavy goods vehicles) and for individual road users (State of the Art: Customer Orientation in CEDR member organisations, 2010).

Survey methods vary: although telephone interviews are most common, Internet-based surveys, postal surveys, roadside interviews, and face-to-face interviews at respondents' homes are also used. In most countries, separate samples are taken for individual drivers and professional drivers (State of the Art: Customer Orientation in CEDR member organisations, 2010).

Two new ideas are currently influencing how road user satisfaction surveys are being conducted. A modification in the method of questioning to ask respondents about their experiences during their last journey, as opposed to asking them about their experiences over the past few months (e.g. the most recent winter period) has been piloted in Sweden and in the Netherlands. The UK already conducts national road users' satisfaction surveys, which are based on the last journey perspective. Another new idea is to study the whole trip perspective instead of asking just the part of the trip that is made in road managed by NRA. Both in Finland and Sweden separate surveys have been introduced from the whole trip perspective.

The results of customer surveys can be used at strategic, tactical, and operational level. In many countries, there are annual targets for customer satisfaction, set at national level by either the NRA or the government. Survey results can also be used to build a Customer Satisfaction Index. In some countries, NRAs' guide or control their road regions and their contractors by setting customer satisfaction targets for them. In addition, promises given to customers can be measured using survey results.



3.2.2 Methods

Note: Most methods can be used to collect both cross-sectional and panel data.
Sources: HM Government 2007, several national reports, surveys, and experiences.

Method	Top benefits	Top risks	Examples
Phone interview	- Trained interviewers who can ask clarifying questions - The sample characteristics can be defined (e.g. random sample) - Questions can be skipped	- High costs - Can affect answers - Pictures or maps cannot be used - Limited options - Less home phones than before, mobile phones are not answered	- *Denmark*: Road User Survey (before 2010) - *Austria*: Customer Satisfaction Index - *Estonia*: Road User Satisfaction Survey - *Sweden*: Customer satisfaction with the SRA's exercise of public authority - *Italy:* Customer satisfaction about PRO, Contact Centre and Anas stand visited by road users during national fairs
Postal survey sent to selected respondents	- Respondents have more time to think about answers - The sample characteristics can be defined (e.g. random sample) - The option of adding material, e.g. pictures, maps	- Slow - No contact with non-respondents - The response rate is often low	- *Finland*: Road User Satisfaction Surveys - *Sweden*: Road User Satisfaction with Maintenance and Operation Services - Italy: Customer satisfaction about PRO, Contact Centre and Anas stand visited by road users during national fairs
Internet survey	- Low cost - Efficient and fast - Material that helps the respondent can be added (maps etc.) - Questions can be skipped and routing used	- Internet coverage (level depends, for example, on country and age group) - No control over who answers and when - Does not necessarily provide a representative sample	- *The Netherlands*: Road Users' Satisfaction Survey, car drivers - *Denmark*: Road User Survey (from 2010) - *Italy:* Customer satisfaction about PRO, Contact Centre and ANAS website

Method	Top benefits	Top risks	Examples
Web panel (quantitative)	- A steady group of people ready to answer questions at short notice → quick, effective - Low costs - Material that helps the respondent (maps etc.) can be added - Questions can be skipped and routing used	- Does not necessarily provide a representative sample - Needs constant screening in order to keep the quality high	- *UK:* Web-based panel on journey experiences - *Sweden*: 'the Swedish Panel' and Survey on satisfaction with service level
Face-to-face Interviews at respondents' homes	- Trained interviewers who can ask clarifying questions - Pictures and maps can be used - Questions can be skipped - The sample characteristics can be defined (e.g. random sample)	- High costs - Can affect answers - Slow - People might be reluctant to answer	- *UK*: National Road Users' Satisfaction Survey (NRUSS) and Area Road Users' Satisfaction Survey (ARUSS)
Face-to-face interviews in specific places (e.g. at service stations)	- Trained interviewers who can ask clarifying questions - Location-related questions - Questions can be skipped	- Short questionnaire - Sample characteristics (e.g. random sample)	- *Portugal*: Assessment of (Toll) Motorway User Satisfaction - *The Netherlands*: Road User Satisfaction Survey, heavy vehicles - *Austria:* Survey on Toll Topics - *CEDR:* European Road User Survey (ERUS)
Leaflet questionnaire (e.g. at service stations)	- Low costs - Easy to reach special groups like holiday travellers or certain petrol station users - A way to collect a group that can be used later	- No control about who answers and when - No guarantee of a certain amount of answers - Not a representative sample	- Formerly *Estonia* - *UK*: Summer holiday travel - *Italy:* Customer satisfaction about PRO, Contact Centre and ANAS website when the customer goes personally to one of the PROs

3.2.3 NRAs' experiences of working with quantitative methods

Most benefit is gained from surveys when they are repeated on a regular basis and in a systematic way. Recommended frequencies are:

- image surveys: once every two years or less

- satisfaction surveys: once a year at strategic level, more frequently at operational level (e.g. winter and summer maintenance separately)
- benchmark surveys: once a year or less

We have collected some practical things to consider when planning the research process, preparing survey questions, and after the surveys.

Planning the research process:

- Know exactly what you are measuring and what you are looking for and only then decide on the research method.
- Make the research process systematic (plan the timetable etc.).
- Plan processes, make decisions about them, and write them down: How will the survey data be analysed? How are decisions made based on results? What is the role of the results in your steering system? How are results and feedback delivered back to customers?
- Combine different sources and methods; for example use qualitative methods to improve your quantitative questionnaires.
- Always maintain high (statistical/scientific) quality, so that your organisation can trust your results.

Preparing survey questions:

- 'Good to know' is not enough. Qualify the questions in your organisation before conducting the survey.
- Try to get specific information that you can really use when making decisions. For example, conduct your survey at contract area level.
- Keep your questionnaire consistent so that you are able to track trends:
    - Ask separate 'basic questions' that can be asked every year to obtain trends and separate 'topical questions' that can be changed from year to year.
    - Do not change the position and the wording of basic questions in the questionnaire; these issues may affect results.
    - Ask some background questions and value questions separately.
- Make questions easy to answer:
    - Do not make questionnaires too long.
    - Use simple and clear questions without using 'expert jargon'.
    - Do not make questions too repetitive or too long.
    - Keep answer scales consistent throughout the questionnaire.
    - Target the questions according to the customer group. Include regional questions.
- Ask about importance, as well as satisfaction, so you can prioritise results.
- Where possible, include demographic questions to improve analysis.
- Maps can be sent with the questionnaire to show the respondent the network to which the questions relate.
- Test the questionnaire on a cross section of population/customers.
- Ask respondents if they are prepared to be contacted again. Take contact details if you plan to conduct further research, e.g. qualitative research, afterwards.

After the survey:

- Optimise communication inside your organisation; the results are the start, not the end of the challenge!
- Set targets, follow up developments, and act. For example, develop action plans based on survey results and keep them updated.
- Be creative when analysing the data.
- Try to find comparable information.
- Create fact sheets/summaries for management.
- Websites are a good way of keeping customers, contractors, and stakeholders informed.

3.2.4 Comparative knowledge: ERUS trans-national survey

The Trans-European Road Network (TERN) is a European road network that is comparable with the E-road network. The need was felt within CEDR that the views of road users on the respective networks of CEDR members should be compared. The European Road User Survey (ERUS) was introduced for this purpose (CEDR, 2007).

ERUS is a comparative study of road quality perceptions based on interviews with car and lorry drivers at border-crossings between the participating countries. The first three ERUS surveys were conducted in 2002, 2004, and 2006. Approximately eight countries participated in each survey (CEDR, 2007).

The overall purpose of the ERUS studies is to help the member states monitor road users' satisfaction domestically by means of comparison with other participating member states. The study includes statements that allowed the drivers' degree of satisfaction with the road network and the importance of several items relating to the road network to be measured. Both satisfaction and importance was evaluated. A transnational comparative study is particularly helpful for the participating countries, as relevant benchmarking partners within national borders are difficult, if not impossible to find (CEDR, 2007).

The ERUS studies also made it easier for each national road agency to draw upon knowledge from other member states. Once a member state has information on its own performance on the various focus points of the ERUS study, it can turn to other relevant member states in order to gather valuable information and experience (CEDR, 2007).

Some problems were experienced when conducting ERUS. Perspectives on corridors could not be obtained, because many critically situated countries did not join the survey. Because the number of participating countries was quite small, the cost of the survey for each country increased. Comparative results were not always seen as a positive thing, especially in those cases where a country consistently ranked lower than other countries.

ERUS IV was due to be conducted under the leadership of CEDR Task 15 in 2011. The intention was that the survey would adhere to the same methodology as the previous studies; few methodological changes were planned. However, an insufficient number of countries was willing to participate, and ERUS IV was cancelled. If countries are not willing to participate in ERUS in the future, some other way of collecting comparative knowledge will need to be considered.

3.3 Listening to customers: qualitative research methods and public participation

3.3.1 State of the art

In *qualitative research,* data collection and analysis are not based on statistics, as they are in quantitative research. Qualitative research methods are suitable in those cases where you want to get rich textual data about subjective interpretations, meanings, or experiences. The research question is not 'how many?' or 'how much?', but rather 'why?' or 'how?'. Qualitative research methods are widely used in social science and in market research. There are several possible reasons for using qualitative methods: to explain quantitative survey results; to get a deeper understanding of customers' needs, expectations, opinions, or behaviour; to work with customers to come up with new solutions and innovations; to teach NRA employees about the users' perspectives.

Public participation—when defined in a narrow sense, i.e. as participation in certain ongoing projects or plans—is a legal requirement in many countries. Whether legally mandated or not, public participation has many functions in the planning process: to guarantee the openness and inclusiveness of the process; to learn about stakeholders' interests and needs; to get information about the local environment; to inform stakeholders; to get different parties together in order to understand each others' viewpoints; to look for a common understanding and solutions.

In this chapter, we will present various qualitative-based methods, regardless of whether they are most suitable for research, public participation, or both. The methods can have different roots: some of them stem from market research, some from social sciences, and some from community development initiatives or various citizen participation traditions. In addition, there is no one 'correct' way of naming and classifying methods. However, it can be justifiably argued that there is a remarkable difference between research and participation: when looking at the ladder, research is mostly situated on the 'consultation' rung, and participation on the three upper rungs.

According to the CEDR 'State of the art' survey, the most commonly used method for gathering information about customers' needs is public consultation, as well as other forms of direct dialogue with customers and stakeholders. Feedback from customers via telephone, mail, or the Internet was also frequently mentioned. Qualitative research methods (e.g. focus groups, observational studies, web panels, 'mystery shopping', driving panels of frequent drivers, dialogue via Internet) were mentioned by a few countries. For example, the UK, Sweden and the Netherlands are good examples of countries where qualitative research methods are used widely by NRAs. In general, we recommend that qualitative methods should be used more and should be combined with quantitative methods in order to get a complete picture of customer opinion (State of the Art: Customer Orientation in CEDR member organisations, 2010).

Public participation is commonly used in several countries and, as mentioned above, is also a legal requirement in many countries. It can be included in legislation on road planning, land use planning, and/or Environmental Impact Assessment. However, various participation methods could be used more widely, and the process itself could be developed (State of the Art: Customer Orientation in CEDR member organisations, 2010).

The method of processing and using research results, as well as the information gathered in public participation, should be systematic. In order to gain full benefit from research and participation, it should be an integral part of the decision-making process. Moreover, the right timing for participation is essential, i.e. it should be early enough to ensure that the public's opinions can be taken into consideration.

Information on research results/participation outcomes should also be communicated to customers. For example, information about the actions taken after results and communication about detected problems and needs is important. It is also important to get the media interested in the results.

3.3.2 Methods

Note: In this table, the focus is on new and less commonly used methods. For example, some frequently used methods such as seminars or media analysis are left out, as they are already well known.

Sources: Vägverket 2006, King Baudoin Foundation & Flemish Institute for Science and Technology Assessment 2005, and several national reports, surveys, and experiences

Method	Description	Examples
Permanent customer committee	A permanent, strategic group with representatives of various customer/user groups, stakeholders, and the road authority; meets, for example, once every three months; normally comprises 10–20 people. One possible risk might be that NRAs problems are often of a strategic nature, while customers' interests are often local. Interested representatives might thus be difficult to find or might lose interest; their motivation is needed throughout the whole working period of the forum.	- *Finland*: The Road User Forums (Citizen forum, Business forum) - *UK*: National Road Users' Committee - *Sweden*: Traffic Panel - *Austria*: User Committee -*The Netherlands:* User Board
Working group, reference group, project group	Working groups are commonly used to follow up a specific planning case. Customers should also be invited to these groups.	Widely used
Focus groups/group discussions	Focus groups normally consist of max 8–10 people and the moderator. The group is recruited to discuss a chosen topic in detail; the moderator guides the discussion. Focus groups are widely used, e.g. in marketing research.	
As a research method	There can be many uses for focus groups in many planning stages (from very general/strategic/behavioural to local and specific). When used as a research method, the staff of an NRA are not present in the discussion, they only observe it. A possible risk is that strong personalities may dominate the group -> One should always have more than one group for the same theme, to guarantee diversity.	Widely used
As a participation method	As a participation method, it is necessary that the staff of an NRA participates in the discussion.	- *The Netherlands:* Reflection Day - *Finland*: Road Maintenance Forums

Method	Description	Examples
Interviews	Interviews are a common research method e.g. in social science. They are a very efficient method, as subjects can be dealt with in great detail. However, they are quite expensive, as only one to three people can be interviewed at a time. A common way to use the method is to interview a few people in the locality (e.g. near the site of the road project) to get general information about the local community.	Widely used, mostly for research purposes but also, for example, in Social Impact Assessment studies
Open space/ open house	'Open house' means that there is a drop-in opportunity for the general public. A staffed site office is set up, for example, in a library or school, and experts and planners are there to answer questions and to discuss issues with the public.	Widely used
Charrette / Planning weekend	A charrette can also be called a planning weekend. It lasts an average of six to eight days. A charrette should include representatives of planners/designers, landowners, various public authorities, interest groups and associations, and the general public. It is a demanding but also a rewarding method, as the group produces a whole plan together. During the charrette, people can come and go, it's a kind of open debate. The method is good at the early planning stage/at the beginning of a project, when general ideas are being openly discussed. It is also suitable when the intention is to generate wider interest.	Used in Sweden
Arena	Arena (also called the Samoan Circle) has people seated in an inner circle within an outer circle. First, only those in the inner circle are allowed to speak, and all others must remain silent. Then both circles discuss together. The circles can be organised so that all NRA personnel sit in the outer circle. The method is good for finding solutions and increasing understanding about a specific issue. It increases the ability to listen to views other than one's own.	- *The Netherlands*: Developing controlling 'locks' on distance (for waterways)
Observational methods (ethnological methods)	Observational methods are used to gain a deep understanding of customers' behaviour, often connected with listening to their opinions. Observation can happen e.g. while they are driving to work, usually one person or one household at a time, and the results are then extrapolated to a larger group. The method must be carried out in a professional way (using a researcher) in order to gain valid results.	- *The Netherlands:* Kitchen table - *Sweden, the Netherlands*: driving with the user

Method	Description	Examples
Walking tour	In a walking tour, 5 to 12 selected participants walk through the route/area together with the planner and express their views on it. The method is good for obtaining detailed (local) information. Walking tours can be used at many stages of the planning process, from collecting needs before the plan is drawn up to evaluating the implementation.	- *Sweden, Finland:* Walking tour with elderly people and the disabled
Panels	As a qualitative method, a panel is a group where the same people meet more than once to evaluate/reflect/discuss/follow up on a certain topic (or the development of it). A panel differs from focus groups of group discussions in that it is repeated, while focus groups usually meet only once.	- *The Netherlands*: Client panel, 'Pizzapanel'
Web-based (interactive) methods	There are various web-based methods that can be used for participation and sometimes also for research: chat, discussion forums on the Internet, focus groups on the Internet, 'citizen maps' (interactive feedback maps). In these methods, the road authority actively feeds/moderates the discussion. A disadvantage can be that every population group may not have the same access to the Internet (e.g. the elderly). In addition, there is less 'control' over the theme of the feedback.	- *Sweden:* New speed limits (chat about them, collecting opinions, representative from NRA chatting with customers)
Social/new media ('web-scraping')	One of the newest methods is the so-called 'web-scraping' method, where the Internet (e.g. Facebook, discussion forums) are monitored to understand what the customers are talking about. This is a way of 'getting answers without asking'. The road authority does not participate actively in the discussion, it just observes it.	- *The Netherlands:* 2010 Twitter (interactive) - *Sweden*: Screening—not involvement in—social media
Getting innovative ideas from customer feedback	With this method, the customer feedback collected through Internet and/or feedback telephone lines is utilised in a new way. The best proposals and ideas are chosen from all the feedback obtained. The customers who put forward the idea are then invited to a meeting with the NRA to explain and share their idea. If possible, the idea is implemented. Here, the customers are used as 'a part of our research and development team', that is, as a source for new innovations.	- *The Netherlands*: Einstein

Method	Description	Examples
Driving panels	a) Constant panel e.g. with frequent travellers b) One-time driving panel (as a research method) The purpose of these methods is to get 'on-the-road' customer feedback about the quality level of the NRA's services/operations. In addition, the results can be compared to the technical quality measurements done at the same time.	- *Finland:* Frequent drivers' panel -> following up winter maintenance - *Sweden:* GPS device used for feedback - *UK:* Watchmen (workers are encouraged to fill out Watchmen cards)
Mystery shopping, test pilots	Mystery shopping is a method commonly used in marketing research. A group of trained customers is asked to evaluate the customer services 'incognito' (like a normal customer). The method is good for the later phase of an NRA's processes: evaluating the service level 'afterwards'	- *Sweden*: Test pilots, e.g. free public transport tickets are given to members of the test group, who are asked to fill in a diary about their experiences - *Netherlands*: Night riders - *UK*: Mystery shopping - *Italy:* Mystery calls on Contact Centre's work

Sometimes it is the combination of qualitative and quantitative data collection that gives the best results. For example, focus groups can help when planning survey questions or when analysing and explaining survey results. In addition, qualitative data can in some cases also be analysed in a quantitative way (and used as an 'indicator').

A benefit common to many qualitative methods (e.g. focus groups, charrette, panels) is that many kinds of supportive material and methods can be used to feed the discussion: videos (e.g. on road conditions), photos, maps, plans, pictures and charts, games, drawing, newspaper articles.

3.3.3 NRAs' experiences of working with qualitative methods

This section contains some practical things to consider when planning the participation and planning process, conducting research, and for the period after the research.

Public Participation

Participation process in general:
- Be open-minded and involve customers as early in the process as possible.
- Define roles: what does the planner do? What does the consultant do?, etc.

- In long-term projects with many phases, make a separate plan for participation (including goals, timetables, participants, methods, responsibilities, etc.)
- Do 'expectation management':
    - Do not raise expectations that cannot be met. Consult your organisation beforehand so that you know which options are technically/financially possible and which are not.
    - Do not make customers tired of participation. Consider which are the most critical points for participation and limit their number.
- Use several methods and channels of communication.
- Make sure you tell customers why you have decided on the preferred option.

Organising the meetings/hearings:
- 'Be their guest': meet people in places where they usually meet (in their own environment).
- Bring decision-makers and other experts from your organisation to meetings, showing that you respect and value the customers and the participation process. These are also valuable learning experiences for the experts and decision-makers.
- Make sure that the language used is non-technical and clear. Never use 'technical jargon'.
- Be visible and understandable.
- Allow space and time for discussion. Be receptive and open to new ideas and comments.
- Never allow yourself to be provoked.
- Be honest, never lie.
- Make sure that all the dialogue is recorded and that the documentation follows the different phases of the project.
- Write down all the feedback that customers give you, even if it concerns a topic other than the one you are interested in. Give that feedback to the appropriate people in your organisation.

Qualitative Research

Planning the research process:
- Clarify the targets of the research: to what questions are we looking for an answer? Make sure that someone from your organisation 'owns' the research and will use the results.
- Ensure high quality (because some people tend to question qualitative research methods).
    - Do not approach the research with pre-conceived ideas about the results.
    - Do not manipulate results.
    - Do not favour one group over another.
    - Do not be discouraged if you get answers you did not expect.
- Listen carefully and then translate the customers' needs into good solutions.

Conducting the research:
- Have clear goals for the discussion/focus group/meeting.
- Use an independent facilitator/moderator with good expertise and knowledge to carry out in-depth interviews and focus groups.

- If you use a follow-up type of method (panel), make sure you can really change something. If you simply cannot change anything, explain why not.
- It is a good idea to make a short video film of the discussion/meeting. Share it with your colleagues/management.

After the research:

- Do not let your report sit on the shelf. Make sure that action plans are prepared and regularly evaluated.
- Recognise the needs behind the measure/action that customers are suggesting. Even if you cannot take exactly that measure, you still might be able to fulfil the need by doing something else.
- Use results from quantitative surveys to explain qualitative results and vice versa to qualify results.

Photo: Swedish Transport Administration

3.4 Communicating with customers

3.4.1 *Why communication is needed?*

Customers want more transparency from the public sector and they demand more information on road topics too. Discussing ideas and proposals for improvement with customers helps to manage their expectations and ensures that the best solution is identified. NRAs are paid for by the customer and have a duty to try to adhere to—or at least manage—their customers' expectations. Good communication is a key activity in order to improve customer satisfaction.

These are examples of improvements that can be made by good communication:

- The road user is more informed about the traffic situation, which helps them make the right decision.
- Manage customer expectations
  - Maximise customer satisfaction (= number of satisfied customers)
  - Minimise customer dissatisfaction (= number of dissatisfied customers)

- Obtain a greater understanding of customers
- The effect on the image of the organisation both in the long and short term

In times of economic constraint, less money is available to act on and fulfil customer needs. Communication between customers, stakeholders, and decision-makers help organisations set priorities and creates an understanding of the consequences of prioritising and the level of funding. Organisations also need to communicate to their customers why and how they have set their priorities. This helps the customer understand the actions of the organisation. We call this 'expectation management'. However, it does not necessarily lead to a more satisfied customer.

It is not easy to give customers negative news and tell them about falling levels of service. However, if such information is not communicated, expectations will remain high and the number of disappointed customers could rise. Even where there are no funds to make major investments, there will be other work that is being done in the road sector or in the area. This should be the subject of positive and informative communications. Organisations should identify what is important for the customer and what the organisation is doing about those things. They should also tell customers what they are doing. Different channels of communication should be considered to reach as many customers as possible.

It should be recognised that some areas of service will be easy for customers to criticise. In such cases, aim to have as few dissatisfied customers as possible rather than trying to increase the number of highly satisfied customers.

3.4.2 When and how to communicate?

Communication should be planned like any other activity of the organisation. On a strategic level, organisations should understand that communication is a core tasks and not an 'extra'. A communication plan is a good way of recognising and planning the aim and identifying the target groups and the activities for communication. Communication plans should be done for each task and service provision.

Communication should be carried out at a number of stages, for example:

- to inform the public about plans for the future: this could be public relations information;
- when service levels are changed/changing;
- for road projects, each project should have a separate communication plan drawn up by communication department and the project manager;
- after carrying out a customer satisfaction survey and agreeing actions on the results; drawing up a communication plan could be one action, in order to inform customers how the results will be used;
- real-time traffic information, especially in failure or high demand periods, e.g. severe weather.

Effective communication to customers and stakeholders should be on time, correct, transparent, and understandable. Real transparency in communication means that organisations have to inform their customers and stakeholders realistically about levels of funding and be prepared to give negative news when something has gone wrong. The organisation should always keep its promises in order to gain a reliable reputation.

The aim of the communication affects the way the communication is done. When the aim is to influence customers' expectations and satisfaction, it can be done in at least two ways: 1) by giving customers reasons and arguments for the actions or 2) by giving customers some new information about the actions they do not currently know about or notice. However, it is important to note that communication on its own will not make customers satisfied; it will mainly depend on the implications on road network and services.

The following aspects should be considered when planning communications:

- Address the communication to the individuals (or groups of individuals) in a manner that suits the audience.
- Make sure the communication is relevant. Customers will ask: 'What's in it for me?'
- Recognise that most road users find traffic information and information about roadworks the most interesting areas.
- Communicate about what your organisation is really doing and key results, rather than what you may be planning to do (eventually).
- Make it easy for customers and stakeholders to contact your organisation. For example, have a memorable telephone number.
- Communicate details about where customers can meet your personnel in person. For example on site, in construction centres, on road tours, etc.

Using customer segmentation techniques is a good way to understand customers and their information needs. Segmenting customers can help organisations to identify and understand the various motors that drive satisfaction, the needs of customers, and what can influence behaviour of the different groups that make up their customer base.

These are the steps that road administrations can take to carry out customer segmentation to improve communication with customers:

1. Understand and define who your customers are and homogeneous customer groups.
2. Understand customer insight and data gathered from, for example, customer satisfaction surveys, focus group discussions, and direct contact with customers.
3. Define and gain an understanding about how to communicate with different customer groups and target communications using this knowledge.

Good communication with customers needs co-operation between communication experts and other professionals within an organisation. Preparing communication plans together can build co-operation and understanding within the organisation.

When communication with the customer is on a personal level, for example at a customer contact centre, it is important to be friendly and knowledgeable. The method of contact should be made as easy as possible for the customer: phone calls should always be answered quickly during normal working hours. Service levels at customer service centres and other methods of communication can be improved, for example, by using check-lists, guidelines, training, crisis training and management, and lists of 'frequently asked questions'.

3.4.3 Feedback

Everything customers tell us is feedback. **Feedback** is a valuable material when developing services. Feedback can take the form of a complaint, a compliment, a suggestion, or a comment. All feedback is important. It is given through many channels, e.g. letters, e-mails, phone calls, exhibitions, questionnaires, surveys, road users' satisfaction surveys. It also includes feedback from stakeholders where they are representing the views of their customers, and from external partners/supply chain.

Organisations need to:

- evaluate feedback to understand what customers are saying;
- share feedback with experts and discuss what this means for the different work areas;
- encourage/facilitate the use of feedback to drive business change and to communicate what actions you have taken.

When customer feedback is handled with systematic procedures, it should be combined with survey results and other customer insight. To demonstrate that the organisation understands its customers, responding organisations need to inform customers what they have done in response to their feedback. This type of communication closes the loop.

According to the CEDR 'State of the art' survey, most countries also tell customers what the administration has done as a result of their feedback. Survey results or even summaries of all customer feedback are often published on the Internet. Some countries also placed articles in newspapers, have direct dialogue with customers, provide information leaflets, press releases, customer magazines and annual reports (State of the Art: Customer Orientation in CEDR member organisations, 2010).

3.4.4 Methods/channels of communications

Road administrations have several channels of communication for different purposes and for different customer groups. The following 'levels' of communication have been indentified according to the message and the target group:

- Strategic communication: with strategic stakeholders (includes lobbying/networking)
- Public relations: with the media and the general public (road users/customers)
- Project-based communication
- Traffic information
- Direct communication with individual customers (telephone etc.)

There are several possible channels of communication available:

- Websites
    - Road Administrations usually have a website for their organisation. There may be separate websites for traffic information, for a specific stakeholder group (for example partners, contractors), and for complex road projects. Websites can also include interactive tools such as blogs.

- Media/press releases
- Regular newsletter e.g. for stakeholders, for the media
- E-mail address for feedback
- Contact centre (by telephone etc.), but sometimes also for face-to-face contact
- Social media (Twitter, Facebook, YouTube)
- PR gatherings with stakeholders (for example various events or an open house).

Service centres/call centres

The focus of the call centres/service centre is that customer enquiries are answered in a professional, friendly, and efficient manner. Several different channels are usually available for customers to contact the centre. Customers receive answers to their problems. Moreover, all requests, customer needs, requirements, and expectations are collected and analysed on a regular basis in a systematic manner.

Traffic information

Providing traffic information enables communication with customers and interaction with them. The provision of traffic information can affect customers' daily travel experiences, making their journey smoother and more predictable. In failure situations, the real-time information will have an affect on customer satisfaction. Possibilities to deliver real-time traffic information for customers gets better all the time and customers are finding it more important.

Promises to customers

Some road administrations have chosen to develop and publish their 'promises' to customers. This enables a dialogue with the customer to be developed. It allows organisations to be clear about what they can deliver and influences employees in their own organisation, encouraging them to be more customer-orientated and efficient (doing the right things in the right way). Promises to customers have been used two ways in NRAs:

- as a way of promising that services will be developed so they are better than today (e.g. in Sweden) and
- as a way of informing customers of the service level they can expect (e.g. in Finland, the UK).

In order to develop customer promises, the organisation has to listen to its customers to find out what is important to them. The organisation also needs an honest and open internal discussion on what it can deliver, identify the things it has to do, and agree how and when to deliver it. The level of the promise has to be 'reasonable' so as to put sufficient pressure on the organisation and to generate the right customer expectations. Promises have to be relevant.

For example, where promises related to winter maintenance, customer satisfaction has been achieved and the level of customer service has been provided. Our experience is that there are both benefits and drawbacks to using customer promises. Such promises provide the right expectations regarding service levels. It helps organisations give priority to important areas and puts pressure on the administration. The drawback is that people find the promised level to be 'business as usual'. They have no opinion, because they find this to be the normal service standard.

When formulating customer promises, segmentation of target groups can be useful. An organisation needs to use suitable and concise language that the customer will understand, preferably just one sentence. An organisation should consider splitting the promises into promises for those customers who have personal contact with the organisation (e.g. customer services) and promises for those who do not have direct contact (e.g. winter maintenance for road users). Such promises need good communication.

Social media

Social media is a new method of communication. It turns communication into an interactive dialogue. It is a way of giving information, but also a way of making contacts and of sharing and creating together. Road administrations around Europe are discussing and developing their own ways of working with these new channels to communicate with customers, e.g. Facebook, Twitter, Yammer, YouTube, etc. Some road administrations (e.g. in the UK, the Netherlands, Italy, and Sweden) have already done a few pilot projects with social media and gained positive feedback on how social media can be used.

3.5 Best Practice: Examples from European countries

3.5.1 InIR Road Users Satisfaction Survey 2009 – brief explanation of the methodology (Portugal)

InIR is responsible for regulating concession contracts, guaranteeing that the state's goals for the sector are met and, no less importantly, defending the rights of motorway infrastructure users, thereby ensuring the efficiency, impartiality, and quality of the system. It was against this backdrop that in 2008, the first year of its existence, InIR decided to conduct a survey with the aim of assessing users' use of motorway infrastructure services in Portugal and their perception of the quality of these services.

The data was collected in personal interviews conducted in service areas or service stations near motorway exits between 27 November 2008 and 3 January 2009. In total, 3,007 interviews were conducted, including interviews with drivers of lightweight and heavy goods vehicles who use tolled and non-tolled highways. The data obtained underwent the usual market study analysis and was subsequently used to estimate a satisfaction model for motorway infrastructure users.

The satisfaction model first produced variables that are not directly observable, called *dimensions* (or indicators), using one or more variables from the questionnaire. This part of the satisfaction model was called the 'model of measurement'. Next, the structural model set up the relations among the different dimensions. The dimensions preceding satisfaction and loyalty, i.e. the variables that are not directly observable and that explain the variability of the satisfaction and loyalty of users, were then defined.

More specifically, the satisfaction model calculation was made based on:

- the structural sub-model, which integrates the correlations between the variables that are not observable, i.e. it is made up of the equations that define the correlation among the dimensions;

- the sub-model of measurement, which relates the dimensions that were not observed to the variables of measure gathered in the survey. The structural model uses latent variables, i.e. which are not directly observable. Each of these variables therefore has to be associated with a set of indicators (called variables of measure) obtained directly from the users' answers to the questionnaire.

Finally, using a system of simultaneous equations, the weight of the dimension's indicators, the average value of the dimension, and its direct impact on satisfaction and on loyalty, were calculated.

In global terms, motorway infrastructure users were satisfied (7.2 points on a scale from 1 to 10) with the motorways in mainland Portugal. An international benchmarking analysis showed that the average satisfaction index is above the average of the ECSI (European Customer Satisfaction Index) activity sectors.

Note that the usual approaches of the client satisfaction and loyalty study do not use any structural modelling, being limited to the first stage, i.e. using a descriptive analysis of the market study results.

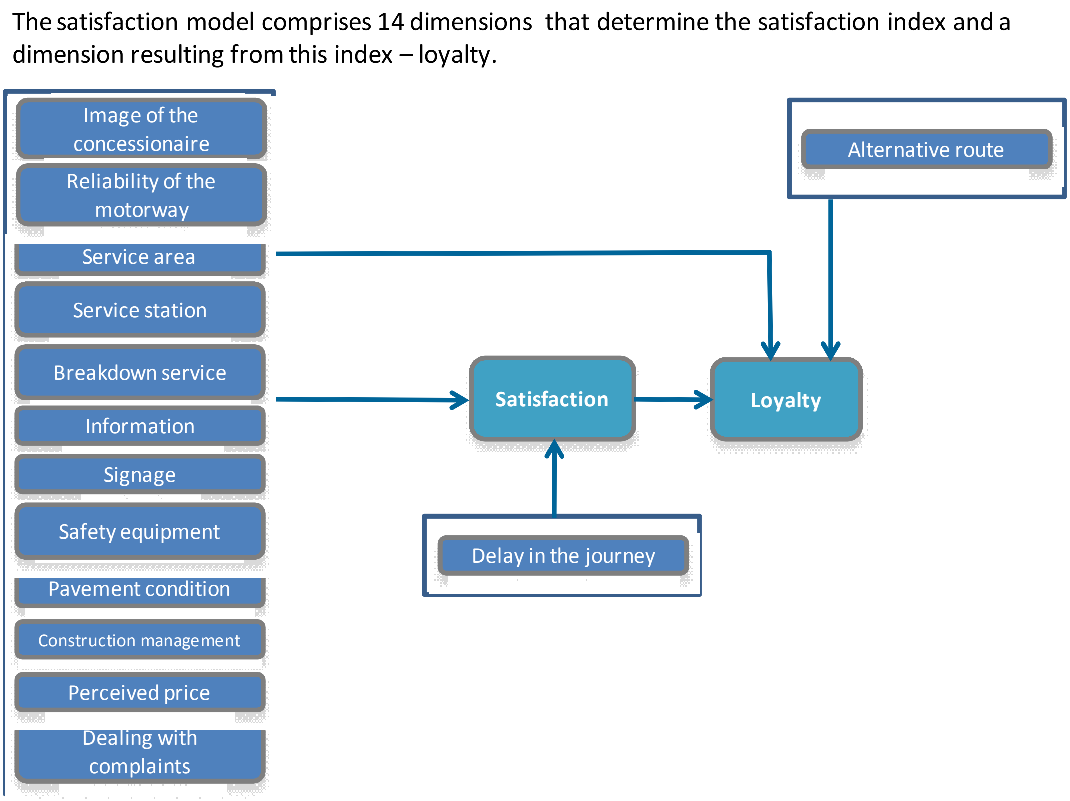


Figure 9: The methodology behind the satisfaction model (example from Portugal)

Although these descriptive analyses—multivariate in nature (as is the case with factorial analysis)—make it possible to reduce a large number of indicators to a smaller set that is easier to interpret, they do not permit the identification or quantification of fundamental relations among the various indicators or components identified. This is an important contribution to the structural approach (based on an econometric model of simultaneous equations and latent variables) used in this survey.

3.5.2 ANAS : Communicating with road users (Italy)

Anas S.p.A. uses a centralized communication model, which is managed directly by the Central Management for External and Institutional Relations and combines all the very latest information distributing mechanisms. This system may be used to highlight and safeguard the activity carried out by the regional road network departments. It shows the company as a unified organisation that informs and communicates along well-identified channels. Several different channels, such as telephone, fax, e-mail, Certified Electronic Mail (CEM), mail, and direct contact are used.

In particular, information communicated outside the company is most frequently traffic news. Anas S.p.A. provides traffic information through:

Press releases: these are published in real time on the company web site www.stradeanas.it and are forwarded to the media. Over 8,500 news agency releases were produced in 2011.

The CCISS (the Road Safety Information Coordination Centre): the CCISS's 'Viaggiare Informati' (Travel well informed) service specialises in providing information on traffic across Italy with the support of the traffic police, the carabinieri, the local police, ANAS, the Italian Automobile Association, AISCAT, and the Italian motorway company, through the programme 'Ondaverde' broadcast on the Rai Radio channels.

VAI Integrated Anas-Managed Roads**:** this service is accessible on the site www.stradeanas.it. It is an innovative tool that integrates several sources into a single web interface provided free of charge to all users:

- traffic announcements managed by the Anas operations rooms;
- information from the Octotelematics satellite traffic detection system on the main roads in Italy;
- images from cameras distributed around the motorway and main road network.

VAI provides georeferenced information on traffic in real time (updated every 200 seconds), on the presence of roadworks and any other relevant events (tailbacks, obstructions, lost loads). The software uses Google technology and enables the user to select the type of search he/she wishes to undertake. This service is supplemented by applications such as 'Quo vadis', which enables users to plan and organise their journey. Since the end of last year, Anas has also put a *VAI application for* Apple and Android *tablets and smartphones* at the disposal of users free of charge.

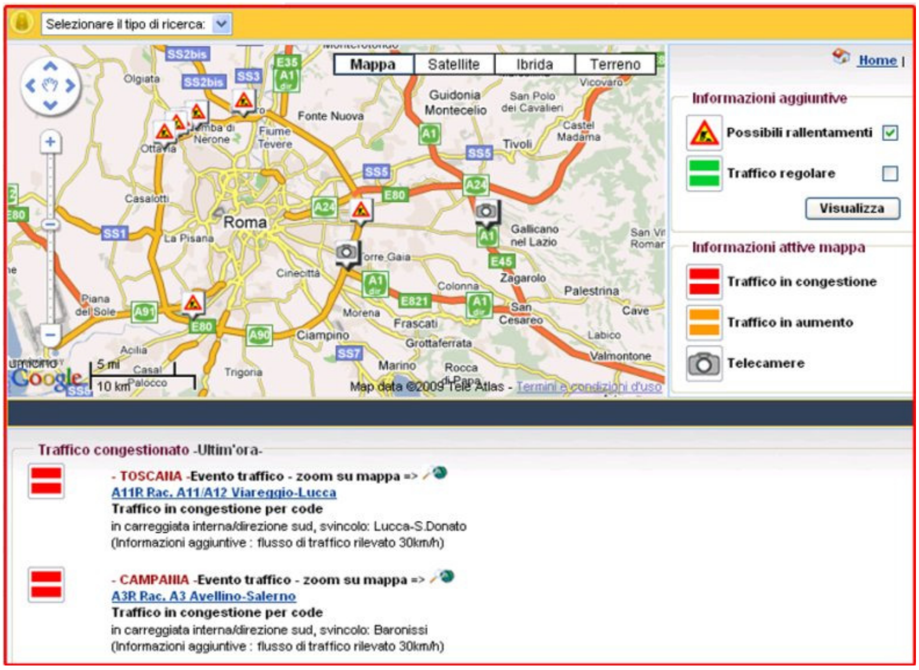


Figure 10: The VAI (Integrated Anas-Managed Roads) website (Example from Italy)

Twitter: during the summer holiday exodus in 2011, Anas introduced a new form of communication by opening the official Anas company channel '@Stradeanas', which broadcasts the most important information about the company and, in particular, traffic news in posts of up to 140 characters (known as *tweets*). Over 5,000 users are currently registered on our channel and follow us daily (as at 16 February 2012).

The web magazine www.lestradellinformazione.it: this magazine consists of an average of 8–10 articles a day. 2011 also saw the launch of a weekly web magazine called *newsletter,* which is sent to a selected mailing list of representatives of institutions, media, and infrastructure industry. The magazine has established itself as the leading online information provider in the infrastructure industry. It has positioned itself between operators, institutions, the academic world, and the media as a 'strategic forum' of reflection and analysis on infrastructural topics. It is becoming a point of reference for the sector with its scientific, technical, and cultural articles.

3.5.3 ASFINAG Service Center (Austria)

The focus of the ASFINAG Service Center (ASC) is that customer enquiries are answered in a professional, friendly, and efficient manner. All requests, needs, requirements, and expectations concerning all ASFINAG-related topics submitted by customers and stakeholders are collected and analysed on a regular basis and in a systematic manner.

The ASC consists of four major teams: the Customer Service Centre, Complaints and Payment Management, Back Office, and Knowledge Management/Quality Assurance.

Core responsibilities

Providing information: customer requests are received by phone, e-mail, fax, or regular mail. A number of tools help to deal with requests in a professional, friendly, and efficient manner (SAP CRM, knowledge database, info-portal). Questions that cannot be answered straight away are forwarded to the relevant specialists and experts within the organisation. In general, the respective expert submits the required information to the ASC, which then provides the customer with a suitable response to their request. Additionally, our customers are informed about current developments via a newsletter.

Documentation and reporting: customer requests are documented systematically (CRM, Solve Direct). Suggestions for improvement are collected and forwarded to the respective organisational unit of the company. Several reports provide management as well as staff with an overview of customer requests on a regular basis (e.g. monthly briefing book, Top 5 topics of the month).

Management of customer-relevant knowledge: Well-prepared and internally released information and knowledge are provided to our staff in the knowledge database.

Managing Customer Satisfaction: Surveys are conducted and focus group meetings are held to measure our customers' satisfaction with our services and to collect opinions and information on particular needs. The results are analysed with regard to ASFINAG's strategic objectives and discussed broadly within the company. Certain measures are derived and implemented (see figure 14, ASFINAG Customer Satisfaction Index). In addition, the ASC obtains information through the observation of websites, blogs, and social media, press releases, minutes, and letters from interest groups and stakeholders, to name but a few. The information is collected, structured, and processed and interpreted in order to come up with adequate measures. In addition, views are exchanged with stakeholders and interest groups.

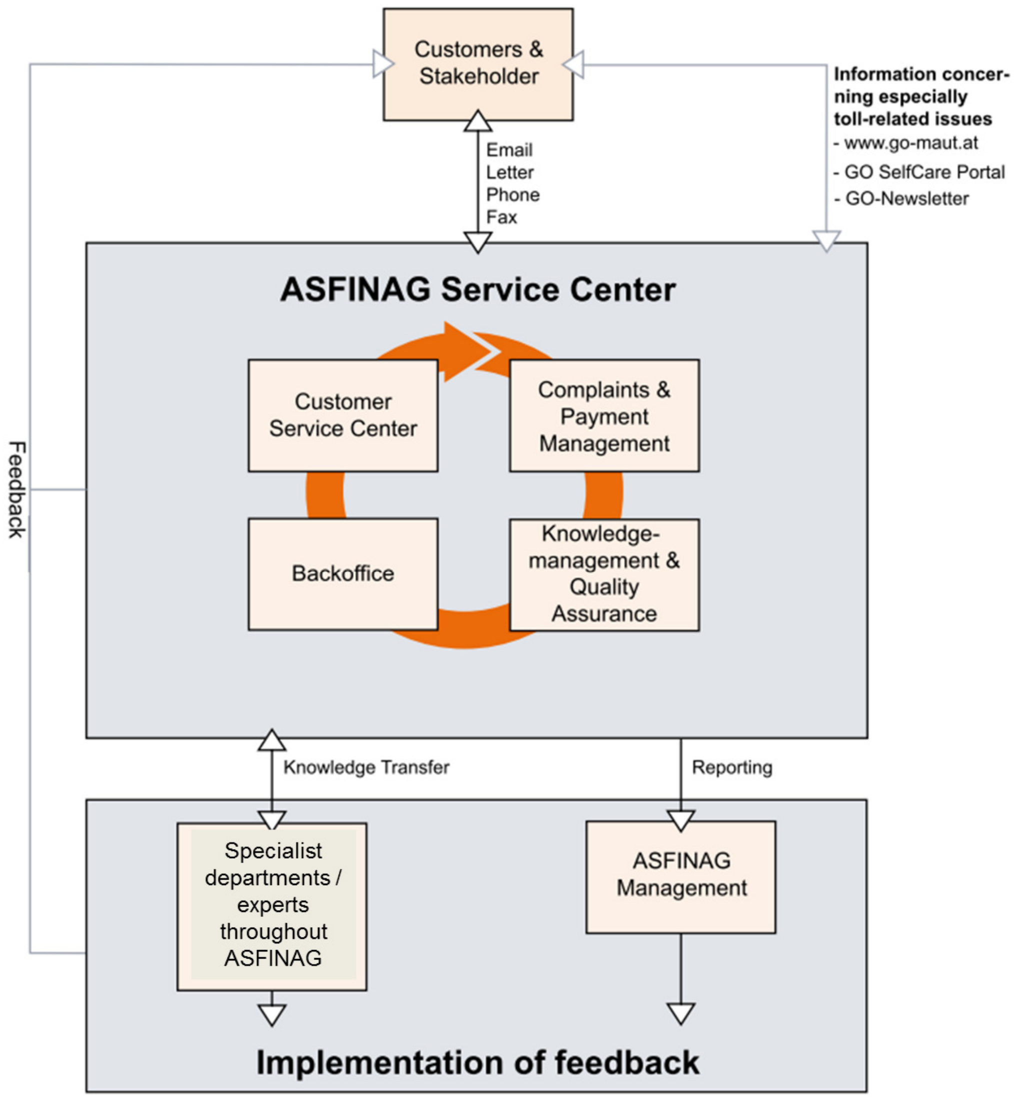


Figure 11: The ASFINAG Service Center (Example from Austria)

The data triggers progress by:

- raising awareness of the 'customer's point of view';
- serving as an early warning system based on annual comparison of key figures;
- providing a pool of ideas and a basis for defining priorities and specific targets;
- helping to monitor the progress that is being made by the implementation of measures;
- providing the basis for the application and optimisation of technical tools (e.g. an online knowledge base)

3.5.4 Contact Center: Pronto ANAS Service (Italy)

The 'Pronto Anas' service uses an information system called Contact Pro, which enables contact centre operators receiving calls, faxes, and e-mails from users to record the contacts received, assigning each user a person ID number and a case number.

Every first- or second-level request, classified according to case, is either handled directly by the contact centre operators (first level) or transferred to the PRO General Management Office or the local PROs for the department concerned (second level). In the specific case of first-level requests made by fax or e-mail, the operators will send a standard answer directly to the user who contacted them, using Contact Pro.

If the user's request (received by fax, e-mail, or telephone) is more complex and therefore requires second-level management, the PRO contact will answer the user, having received the relevant information from the competent offices, writing the answer received in a predefined field.

According to the provisions laid down by the Anas Regulations and Service Charter, the Public Relations Offices of Anas S.p.A. provide:

- answers to first-level requests from the user <u>in real time;</u>
- initial acknowledgment of the request within <u>two calendar days</u> when it cannot be handled on the first level but needs an answer from the subject matter expert. Through this acknowledgment, the PRO informs the user that his request has been passed on to the subject matter expert, which may be the legal office, the exceptional transport office, the secretary's office of the Department Manager, etc.;
- <u>a final answer within 30 calendar days</u> when a request cannot be handled on the first level and needs an answer from the subject matter expert. In this reply, the PRO provides the user with the information requested. The PRO is also responsible for 'translating' the answer, making it easier to understand and simplifying it where use has been made of technical terms that users may not be familiar with.

In case of damage caused to the user by Anas S.p.A.'s failure to respect the minimum quality of service standards defined in the Service Charter, the place of jurisdiction will be the court of the location where the problem arose. Alternatively, the user may submit a claim to the Supervisory Body.

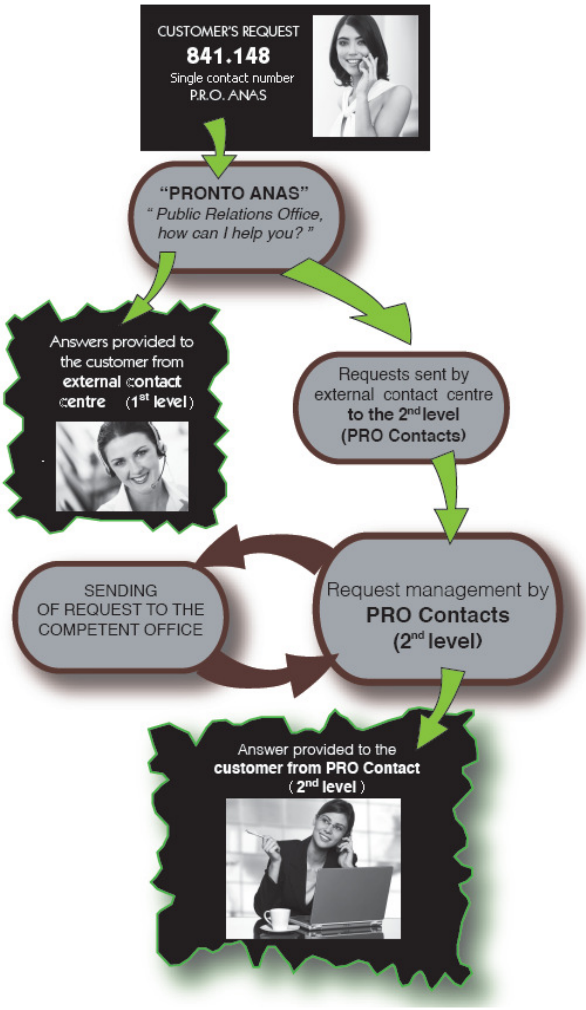


Figure 12: The 841.148 'Pronto ANAS' service and PRO process (Example from Italy)

3.5.5 Social media experiences (the Netherlands)

Rijkswaterstaat has used an interactive website named *File Sophie* for communication during a large-scale construction project, which could cause delays of up to one hour. There had previously been information and communication about road construction, but new innovations were required. The variety in target groups (for example tourist, business, etc.), the amount of work, and the need to gain better information were the main reasons to try a new approach.

File Sophie was a website with several elements. It was a totally separate website developed for this project, linked to Rijkswaterstaat's website. Key elements of File Sophie were information, interaction, awareness, and a personal touch. The main functions of the website were:

- a dynamic map (people could check current traffic conditions),
- web cameras,
- short movies and a blog (e.g. Sophie on the construction site or her comments about what is currently happening),
- the possibility and talk to Sophie using Twitter, ask her questions, and share tips with other followers.

'Sophie', the image that was used, is a real person, who worked for Rijkswaterstaat. She responded to Twitter, so the 'personal touch' remained. She didn't use official language, but the message was the same. It took about 20 hours each week for her to be involved in this project.

Figure 13: The File Sophie website (Example from the Netherlands)

The impacts of File Sophie were less traffic and less congestion. In cases of 30- to 60-minute delays, car drivers changed their timetables because of the information they received. The web pages were viewed about 35,000 times over a 4-week period and Sophie had 300 followers on Twitter. It also gained a lot of free and positive publicity. User satisfaction was very high (91%). The experience gave very positive results.

Rijkswaterstaat has used *Twitter* since 2008. The organisation makes 200–400 tweets per month. The amount of followers has risen steadily; the organisation currently has 11,500 followers (as at February 2012). For Rijkswaterstaat, Twitter is a new means of spreading information about roadworks (announcements) and large-scale disruptions (incidents). It is also used for making contacts and interaction, and for crowd sourcing and participation. For example, some focus groups have been gathered together using Twitter. Feedback has been very positive. People want more information and appreciate Twitter as the channel to provide this, in particular information about disruptions.

3.6 Lessons to be learned

Lessons we learned when using **qualitative and quantitative research methods and public participation** in our organisations:

- Don't assume that you know your customers' needs. Use methods like focus groups and share the information and best practice within your organisation.
- Make research processes systematic. Plan how the results are utilised.
- Maintain high quality in research, otherwise the results will not be believed.
- Meetings and working groups with the business industry are an effective and appreciated method.

Lessons we learned when we developed **communication** with customers:

- Do not start with the solution; first ask what the problem or need is.
- It is important to have a dialogue with customers and also to have good tools and evidence for the discussion
- Inform customers more and explain what, why, and how you are doing something.
- You can get more information and gain a deeper understanding when survey results and feedback are discussed with stakeholders and customers.
- Decisions are made at different levels of the organisation, so it is good to focus customer feedback at the right level.
- Feedback does not come equally from different groups. This explains different results from feedback and surveys. Thus we cannot only act on spontaneous customer feedback.
- Make it easy for customers to contact your organisation and do not ignore the customer when he/she contacts you.
- Use understandable language when you communicate with the customer.
- Provide possibilities for giving feedback in different languages.

Lessons we learned when using **social media**:

- Social media provides some extra communication channels, but does not replace old ones.
- Do not be afraid to use social media, but consider when and how to use it.
- Do not be too afraid of negative feedback. Social media/discussion cannot be controlled, so just join the conversation. Your organisation will be discussed anyway, whether you like it or not.
- When the organisation is open and positive, feedback is probably similar.
- Social media is fast, you have to answer quickly. If possible, always respond on the same day.
- Give influential people (i.e. those who have followers) special treatment, so you gain more followers faster.

4 Develop products, services, and processes

Recommendations

- Establish systematic processes and procedures for handling customer feedback, survey results, and results from dialogue with customers (e.g. focus groups).
- Combine survey results and feedback with other types of information in a systematic manner.
- Include customer orientation in normal working processes.
- Start working groups and innovative processes with customers.
- Effectiveness can be improved through contracting; however, customer orientation has to be expanded to the whole chain. It is very important to motivate contractors and sub-contractors to understand that the end-user is also their most important customer (so they are not delivering the services to the NRA, but to the users).
- Introduce bonuses, if harmful effects are minimised and/or added value is created for customers.
- Use a check-list and other methods to follow-up development processes for products and services.

4.1 How to translate customer needs into products and services?

The organisation is truly customer focused when customer needs and requirements are met in its products and services. In practice, this means that instead of being some separate process or task, customer orientation is a part of NRAs' core processes. In other words, **all core processes of the NRA seek to create added value for the customer**.

How customer needs and expectations can be 'translated' into products and services:

1. Learning from the customer: communicate with customers and learn about their needs.
2. Using the knowledge in practice: steering and developing, creating incentives and bonus systems, and doing follow-ups.

Once the critical needs of customers are understood, the aim is to ensure that these critical needs are met, and the quality of products and services is consistent. This is achieved through planning, controlling, assurance, and constant improvement.

Photos: Swedish Transport Administration

4.2 Learning from the customer

From a strategic point of view, it is as important to collect data on customers' needs as it is to define processes to be used in decision-making. This means establishing **systematic processes and procedures for handling customer feedback and survey results**. Survey results and feedback should be combined with other types of information in systematic manner.

Some of the methods used to handle customer feedback and survey results and to make them visible in European road administrations include:

- **The publication of results**: reports, articles, press releases, periodicals, etc.
    - making survey results available on Intranet and Internet
    - publishing internal reports on customer needs to management and/or to all personnel
- The internal **presentation** of results to senior management, different road regions, expert groups, etc.
    - discussing and analysing survey results and/or customer feedback in teams
- **Follow up**: workshops, updated customer segmentation documents, policy changes, work from public analysis teams, etc.
    - Utilising customer survey results in customer segmentation can be used as a tool in developing services
    - Making recommendations and 'to do lists' on the basis of survey results
    - Using survey results as a basis for further research, e.g. focus groups
    - Utilising customer feedback when selecting topics for press articles etc.
    - Creating customer satisfaction indexes/performance indicators/bonus systems (State of the Art: Customer Orientation in CEDR member organisations, 2010).

In the Netherlands, for example, the public analysis team combines all customer feedback information with systematic matter (hard data) and make proposals on how to respond to the information. Every month they publish a one-page document outlining the public's reaction. This document is then discussed with management.

One tool for creating customer insight is customer segmentation. The purpose of **customer segmentation** is to better understand the needs of the customer by identifying and differentiating customer groups based on the shared needs or interests of individuals in each group. It is a valuable tool for working both at strategic and operational levels. Segmentation can help identify the key differences between groups in terms of their attitudes and behaviours, as well as telling who they are and what services they use. Segmentation provides valuable insight by focusing on customer needs, motivations, and choices. It helps services move away from the idea that 'one size fits all' for customers. It also shows if there are any conflicts between different customer groups.

There are also many ways to segment customers. The segmentation criteria could be one or more of the following: frequency of using the network, mileage, age, availability of driver's licence, mode (car/bus/heavy vehicle), professional vs. individual drivers; business community (goods transport) vs. citizens (passenger transport); local users vs. transit and foreign drivers, seasonal road maintenance interests (State of the Art: Customer Orientation in CEDR member organisations, 2010).

4.3 Putting knowledge into practice

To be customer oriented, an organisation must **develop its products and services according to customers' needs**. Customer needs should affect the way an organisation operates, influence the actions it takes, and inform when and where actions are taken. The outcome of the strategic change towards working in a more customer-oriented way will be seen at operational level. All developing processes need **follow-up measures**. Practical tools like a check-list can be used.

When asked in the state of the art survey how customer orientation has influenced or changed the services of the road administration, respondents mentioned the following ways:

- public consultation in road projects affects the project outcome;
- a customer promise has been developed in consultation with customers;
- various development projects, new innovations, and new services can be based on customer feedback;
- external communication to the public is based on the issues that the public sees as problems;
- strategic plans/guidelines and the definition of service levels are based on customers' needs (e.g. winter maintenance);
- contracts include measures of customer satisfaction, e.g. contractors can earn bonuses on the basis of these measures;
- all business cases for developing new services are required to include information about customer feedback;
- personnel motivation systems/training programmes for personnel are based on customer orientation (State of the Art: Customer Orientation in CEDR member organisations, 2010).

Nowadays, NRAs are outsourcing' many activities that customers consider as core activities', such as building and maintenance. It is very important to motivate contractors and sub-contractors to understand that the end-user is also their most important customer (so they are not delivering the services to NRA, but to the users). For example, a bonus system is one way of expanding customer orientation to the whole chain. The NRA also needs to supervise the quality of the services so customers receive the level of service that the NRA expects from its contractors. When it is not possible to deliver the quality of service that customers expect, it is important to explain to the customer why this is so.

In addition, when interactive processes with customers are clear and well defined, it is the organisation that leads the process, not the customer. If this is not done, the organisation can end up dealing with customer feedback in an inefficient way, resulting in neither party being satisfied.

4.4 Best practice: examples from European countries

4.3.1 Public analysis teams: systematic way to process feedback (the Netherlands)

The National Public Analysis Team in the Netherlands contains representatives from all our departments that work with customer feedback: network advisors, the national telephone line, the Internet and social media department, researchers who are conducting customer surveys, PR officers and media analysts, and representatives of the regional analysis teams.

The task of the Public Analysis Team is to make the whole organisation aware of public opinion and to give advice on follow up. The team analyses different kinds of customer data, e.g. the amount of Internet users, customer feedback, survey results, etc.

The team produces two outputs:

- a monthly leaflet entitled 'What about the public?' and
- an overall integrated report twice a year.

Separate reports from individual data sources (e.g. a report solely on survey results) are not provided in overall integrated report.

In preparing the overall report, the following steps are taken:

1) Plan: data is gathered, merged, and analysed.
2) Do: we find out what we are doing at the moment and what we should do more of = to give advice on follow-up.
3) Check: the report—including the advice on follow-up—is discussed with the management, which decides what actions will be taken.

The advice is divided into different kinds of public response according to their subjects. This makes sure that advice is directed to the right level and actions will be taken. Advice is divided into:

1) structural subjects: the corporate approach (e.g. rest areas, communication, expectation-management)
2) incidental subjects: the regional/corporate approach (mainly input for this report)
3) incidents: regional approach (issues that require a response ASAP, mainly input for the report)

Advice on structural subjects is decided by the executive board.

4.3.2 ASFINAG Customer Satisfaction Index (Austria)

The Customer Satisfaction Index (CSI) is not only an indicator of the image of ASFINAG and our customers' satisfaction with our services, it is more an all-encompassing programme that seeks to measure the level of customer satisfaction in relation to time and to improve it.

The CSI is a strong tool that enables the planning and implementation of certain measures within the company. Moreover, the findings help evaluate progress on these measures in order to allow us to make progress on our journey towards customer orientation.

The ASFINAG department of customer management conducts the CSI study annually in collaboration with an external partner. The questionnaire is prepared with regard to the company's strategic objectives and discussed broadly within ASFINAG to add importance to the survey and its results within as many organisational units of the company as possible. This of course will be crucial to the process of analysing the results and deriving measures that effect different decision-makers accordingly.

The data survey combines different methods. Car drivers are interviewed by telephone. Telephone numbers are chosen at random. The survey sample thus provides us with the opinions of a representative cross-section of the Austrian population. HGV drivers and bus drivers are interviewed face-to-face on the road-network. The pragmatic reason for the different approach is the easier selection of such specific customer segments.

In addition to the CSI survey, focus groups are used as a qualitative method of data collection. The information gathered in this way draws a clearer picture of customer satisfaction and highlights specific topics of interest.

Specific conclusions are drawn from the collected data and presented to management and to the different companies within the ASFINAG group. We inform staff by giving presentations and delivering newsletters. The survey results are available for inspection by any interested colleague.

In a first annual steering committee meeting, we further analyse the findings and together with the relevant decision-makers define measures that must be implemented throughout the year. In the course of a second steering committee meeting in late autumn, the status of the implementation of the CSI-related measures is discussed.

Figure 14 illustrates the chronological order of the CSI-process.

Over the course of this cycle, the CSI key data helps:

- raise awareness of the customer's point of view and certain sensitive topics;
- understand the bandwidth for individual performance indicators;
- introduce an early warning system based on individual comparisons of key figures;
- generate a pool of ideas and implement proposals for improvement;
- provide us with a basis for defining priorities and specific targets, including the preparation of 'to do' lists.

The results of the CSI provide a base on which to follow up relevant suggestions from our customers and to improve their satisfaction.

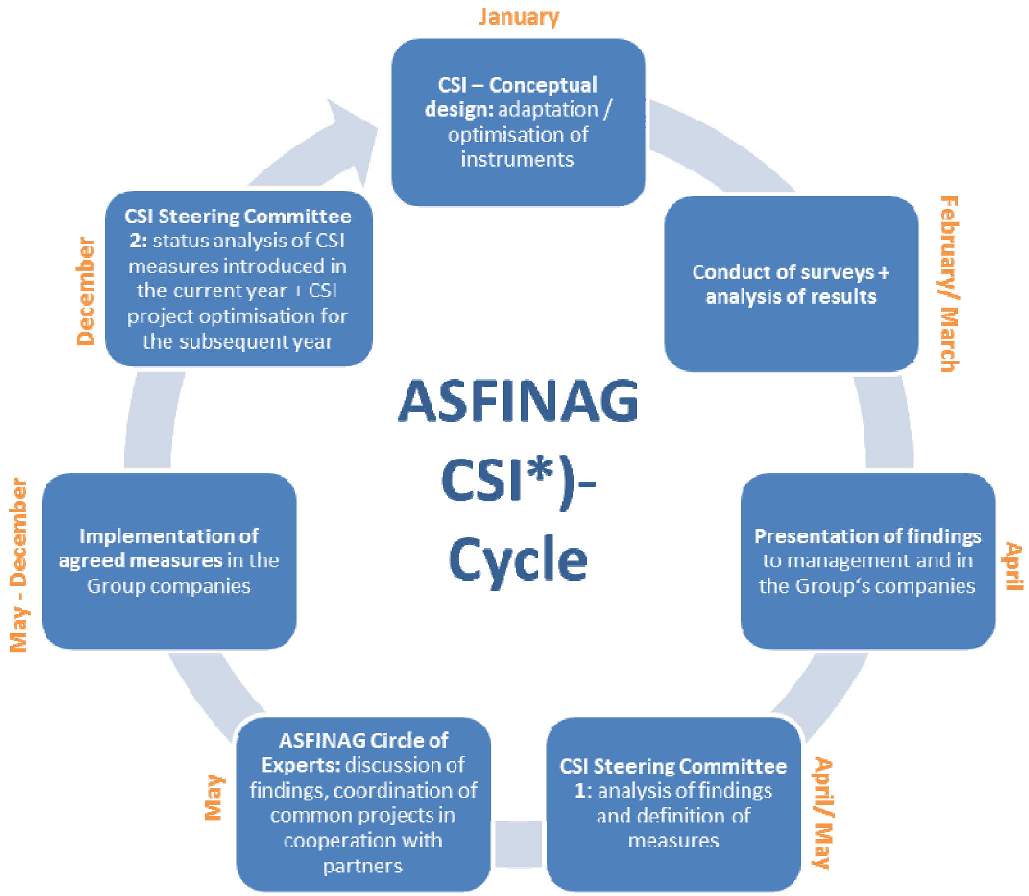


*Figure 14: ASFINAG *) Customer Satisfaction Index Cycle (example from Austria)*

4.3.3 Using road users' experiences of driving through roadworks to improve signing and communications (UK)

The Highways Agency commissioned two focus groups to find out about road users' perceptions and experiences of travelling through the M5 roadworks schemes at Avonmouth Bridge. The project team had put considerable resources into communications relating to this project, and it was important to find out whether it had worked.

Quantitative information was available for around 400 road users, who had been interviewed as part of Area Road Users' Satisfaction Survey. To supplement this, the agency decided to do some qualitative research.

The focus groups provided more in-depth information about satisfaction with the scheme and perceptions of how well the agency had dealt with traffic management.

Two small conference rooms in a local hotel with closed circuit television were used so the project team and their service providers could watch and listen to the focus groups live. Usually only a few people would have the opportunity of observe, but in this case, the project manager wanted the whole team to hear what road users were saying about the roadworks.

The results have been used by the project team to inform and improve their communication plans for future schemes requiring traffic management. The results have been shared across the agency, and other teams are picking up on best practice and sharing their feedback through the Customer Beacon network, a network of individuals within each business area. They collate feedback and best practice within their area for inclusion in an agency-wide report.

4.3.4 Translating data into action: ASFINAG importance/performance matrix (Austria)

ASFINAG conducts an annual study to measure customers' satisfaction with its services. The results of the CSI survey provide a base from which to follow up relevant suggestions by our customers and improve their satisfaction. A systematic strategic approach is needed to harness the high potential of the CSI programme.

To identify core issues that have a very high potential for the improvement of overall customer satisfaction, customers are not only asked about their level of satisfaction with certain services, the survey also contains additional questions on how important a given aspect is to the respondent. In addition, the influence of each aspect on the overall level of satisfaction is calculated. Together, this data provides us with a detailed picture of the importance of different aspects of ASFINAG's work.

If we compare this importance value to the corresponding performance value, we can identify areas of priority and draw conclusions on where to start bringing about sustainable positive change. It is best to derive measures for areas that are important to our customers and that also have been assessed more critically.

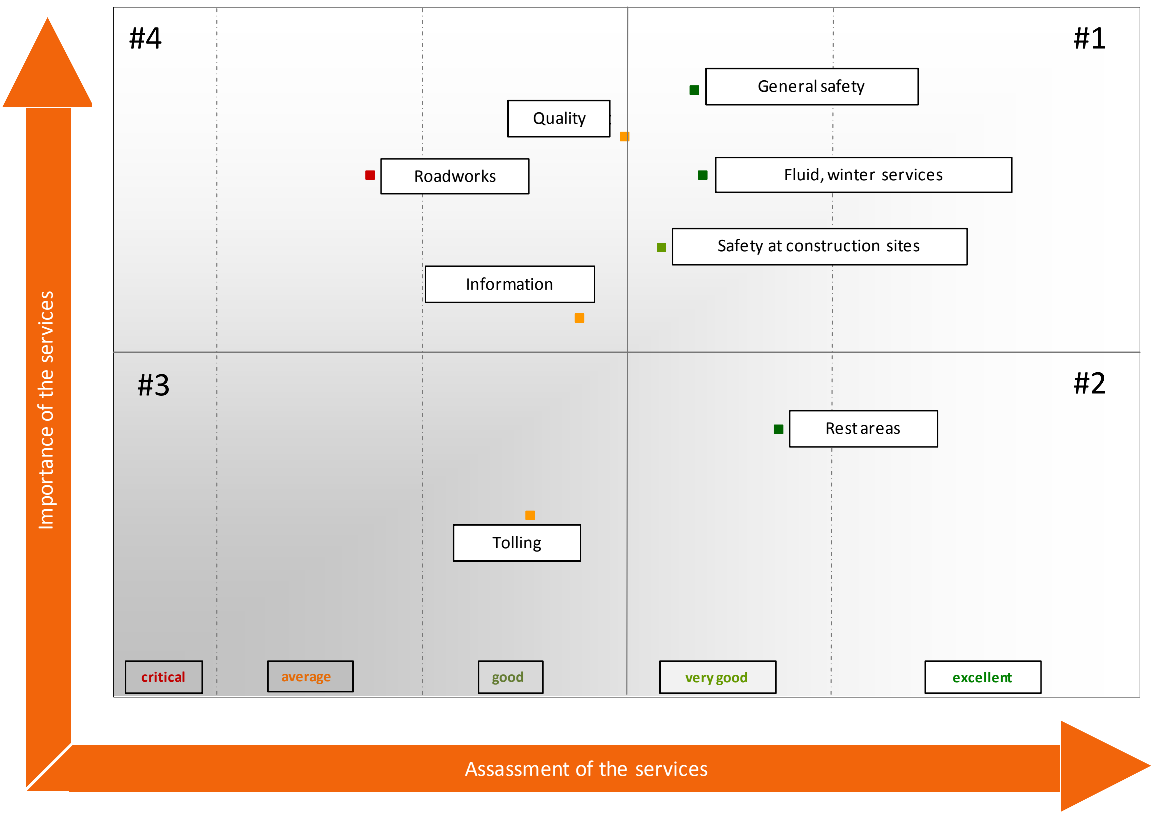


Figure 15: Importance and satisfaction of motorists (example from Austria: ASFINAG CSI 2011)

Field 1 in Figure 15 contains service aspects that are very important to customers. At the same time, customers are very satisfied with ASFINAG's work in these areas. The goal is to maintain the quality of service at an already high level and build on our strengths.

➔ Goal No. 1: to maintain and strengthen quality

In field 2 we find service aspects that our customers are satisfied with, but which are not that important to them.

➔ Goal No. 2: to maintain quality

Field 3 displays aspects with which customers are not satisfied. Although they do not consider them very important, those areas should not be forgotten when it comes to deriving concrete measures.

➔ Goal No. 3: to focus on quality

Field 4 is our main focus. Here we find service areas that are important to our customers. At the same time, the customers expressed their discontent with ASFINAG's performance in these areas. This area holds great potential for improving customers' overall satisfaction.

➔ Goal No. 4: to improve quality

The process of evaluating customer satisfaction has to be transparent and participative to guarantee a high level of commitment by various decision-makers and staff. This also includes a regular flow of information between different organisational levels.

4.3.5 More customer friendly management for tourist and business direction road signing (Sweden)

In 2007–2008, there was a discussion about how the Swedish Transport Authority (STA, formerly SRA) was dealing with signs for destinations and locations. It became clear that the administration did not take sufficient account of the customers' perspective. For example, the tourism and business sectors were not satisfied with the answers they received for their road sign applications (they often received a negative answer even in those cases where the need for the sign was considerable). This later resulted in a mission from the government/ministry and a statement from the STA on acting in a more customer-orientated way.

To become more customer orientated, the STA had to look at:

- the way it worked;
- how it applied rules, regulations, and instructions;
- the information it gave to the customer;
- products and services.

Don't ask why; ask why not?

The review resulted in some actions.

- The administrators were trained to act in a more customer-friendly way (service minded) and were taught how to apply rules and instructions. The aim is to give the customer a positive response to their sign application whenever possible.

- The decision process had to be more transparent, so another important step was to strengthen the dialogue with customers in the region. These groups enable customers to express their true needs relating to signing and to work together to identify a solution for them.
- It was decided that all applications would be reported to (and through) the regional director before decision. This ensures that there is internal pressure for the administration to do a good job and to really try to get a positive result for road sign applications.

It has been some time since this new perspective was introduced, and some progress has already been made. The business sector and the municipalities are satisfied with the regional dialogue, where customer needs are listened to. There are also some good examples. One is that signs for B&Bs (Bed and Breakfast) are now accepted by the STA. Previously, the STA only accepted signs in Swedish ('Rum och frukost'). Now there are new signs for some business sectors, such as marketplace/shopping centre, farm shop, and crafts. There are also new applications for tourist signs that make it easier to find tourist areas, special destinations, and scenic routes.

The customer satisfaction index on these issues has varied the over the last few years, with a tendency to rise. We still have a long way to go; we will carry out regular reviews, make the decision process even more transparent, continue the dialogue with customers and the business industry, and try to get more customer-orientated solutions implemented.

4.3.6 Customer-based significance classifications of roads (Finland)

Previously, the targeting of various road-maintenance actions was almost exclusively based on traffic volume (= average daily traffic). In recent years, other more customer-based prioritisation criteria have been applied. The traffic volume describes only an 'average' customer, more specific information on customer groups helps to target actions to those traffic routes important to each customer group. Furthermore, this information helps to schedule actions (e.g. the scheduling of winter maintenance, the scheduling of roadworks outside peak hours).

In order to plan and schedule road maintenance, information is needed on which parts of the highway network are the most important for each customer group. In the Turku road district in Western Finland, the most important routes in the road network were defined as those used by commuters and buses. Those routes were 1) main commuting routes for car traffic; 2) the busiest bus routes; 3) the most important commuting routes for pedestrian and bicycle traffic.

The basic idea was to ensure a specific service level for commuters and public transport. One outcome of the work was that the requirement for winter maintenance was increased for some sections. Requirements for roadworks were set, e.g. that it is forbidden to do roadworks during rush hours. The results of the work were used for preparing the significance classification of the road network.

The significance classification of the road network means the classification of roads based on certain criteria into different priority categories (roads in significance category 1, roads in significance category 2, roads in significance category 3, etc.). The classification is used when making decisions on management or maintenance actions.

The Turku road district prepared road significance classifications for low-traffic and medium-traffic roads in the district. Geographical information was used when establishing the classification. The following factors were chosen as the significance criteria:

LOW-TRAFFIC ROAD NETWORK	MEDIUM-HEAVY ROAD NETWORK
<u>Regular passenger traffic</u> - Traffic volume (average daily traffic volume) - Regular bus traffic services	<u>Regular passenger traffic</u> - Traffic volume (average daily traffic volume) - Work travel route
<u>Regular goods traffic</u> - Volume of HGV traffic (average daily volume of HGV traffic) - Timber - Milk - Sugar beet - Peat - Soil, landfills and waste treatment - Fishing industry - Major agricultural processing plants	<u>Regular goods traffic</u> - Volume of HGV traffic (average daily volume of HGV traffic)
<u>Other factors</u> - Comprehensive school - Heavy load route - Substitute route - Urban area - Traffic volume in summer - Tourist route - Tourist attraction	<u>Other factors</u> - Comprehensive school - Heavy load route - Substitute route - Traffic volume in summer - Tourist route - Tourist attraction

These factors were weighted according to a specially tailored calculation formula, which resulted in a significance score for each road being reviewed.

The classification is used when planning the following actions:

- resurfacing or the structural improvement of roads;
- converting a paved road into a gravel road;
- maintenance classification of road surface;
- maintenance and management classification;
- repair requirements for bridges;
- selecting maintenance and renovation actions;
- smart maintenance targets.

For example, where several roads have been identified for resurfacing, but the resurfacing programme cannot accommodate them all, those to be included will be selected on the basis of their significance classification. Equally, where the significance categorisation of a particular road indicates that its current maintenance classification is too low, classification should be raised.

4.3.7 How to use customer satisfaction survey results (Denmark)

The Danish Road Directorate carries out a customer satisfaction survey twice a year. For the last few years, the customer surveys have shown a low score on toilet cleaning in unstaffed toilets (table 1). Based on the low score, a project commenced with the goal to increase customer satisfaction.

Table 1 The questions about how satisfied customers are with the cleaning of unstaffed toilets had received a low score for many years (percentage of satisfied people on scale 1–100%)

2002	2003	2004	2005	2006	2007	2008	2009	2010
40.8	41.9	47.2	42.9	43.7	40	39.3	37.9	40.2

It was therefore decided that from autumn 2010 to autumn 2011, six unstaffed toilets on the island of Fyn should be cleaned more often: an increase from once a day to twice a day. Fyn is an island that has to be crossed to get from the east of Denmark to the west, unless you use the ferry.

In autumn 2011, a new survey was carried out. Customers were asked how satisfied they were with the cleanliness of toilets. This time, the survey was carried out among those who used unstaffed toilets. The customer satisfaction rate was 75%.

4.3.8 The model of the Portuguese road sector and customer orientation (Portugal)

Customer orientation means listening to road users in order to continue to improve the way the sector operates. The more the road administration takes road users and stakeholders into account, the more the sector will develop towards a sustainable and efficient system; it is a win-win situation. Major changes took place in Portugal in late 2000, both in the public administration organisation and in the road sector. In the road sector, a new organisational model, management, and financing system was set up for the national road network, based on the separation of regulatory/supervision functions (focus on customer) and operational functions.

The Institute for the Road Infrastructure (InIR) was created under the new model, as a regulatory and supervision body—a national road authority. Its mission highlights the importance of the road user, stating that the institute's responsibilities include 'ensuring the efficiency, equity, quality, and safety of roads, as well as user rights and interests'. To accomplish that goal, InIR developed several lines of action where the user is given a voice.

InIR manages road network users' complaints and suggestions. To ensure efficient and effective supervision, the institute implemented an innovative IT platform with standard exchange of information between InIR and the road concessionaires. This allows InIR not only to receive complaints, suggestions, and requests of information, but also to supervise all the processes being handled by the concessionaires. If a user wishes to be aware of the status of his or her process, InIR's online system can easily provide a clear answer to the user.

This initiative fulfils the users' needs concerning complaints, suggestions, and information requests. However, most importantly, the platform helps to substantiate the recommendations issued to the concessionaires, based on the users' comments and complaints, improving the road network's operating conditions and ensuring a public service with better quality.

Moreover, InIR launched the road users satisfaction survey, which was based on more than 3,000 interviews conducted between November 2008 and January 2009 at 100 survey posts at 60 service areas along the national road network and service stations near motorway exits. The information was collected in order to obtain a significant sample of the road users' opinion and totalled 3,007 interviews.

The survey led to the conclusion that the average satisfaction index was above average in terms of the evaluation of activity sectors measured on the ECSI (European Customer Satisfaction Index). Senior management at InIR and its collaborators were made aware of the results, shared them with the concessionaires, and incorporated them into its activities and work in order to reinforce the users' opinion, demands, and expectations.

By working in a customer-oriented way, road administrations increase their ability to supervise road operators in accordance with the users' requirements, fulfilling their needs more and more capably. This is an ongoing and continuously improving process.

4.3.9 Road maintenance and customer orientation: how to work with service providers? (Finland)

The Finnish Transport Agency (FTA) is responsible for 78,000 km of public roads. Maintenance is entirely outsourced. Only 80 people currently work within maintenance, so the customer orientation of contractors is essential. Work is outsourced in the form of maintenance area contracts. Maintenance area contracts last 5 to 7 years. Contracts cover 500–2,000 km of road and cost €0.7–2 million per annum.

The transport agency specifies national policy, quality standards, and guidelines of procurement process. Regional Centres for Economic Development, Transport and the Environment (=ELYs) are responsible for conducting competitive bidding processes and paying contractors. The contractor organises work, chooses procedures, and is also responsible for quality control. In those cases where the target level for quality is set by the ELY, contractors have the freedom to choose how they want to achieve this target. The regional ELY randomly checks the quality and audits contractor's processes

There are several ways to ensure that customer orientation is considered by contractor and sub-contractors (see Figure 16).

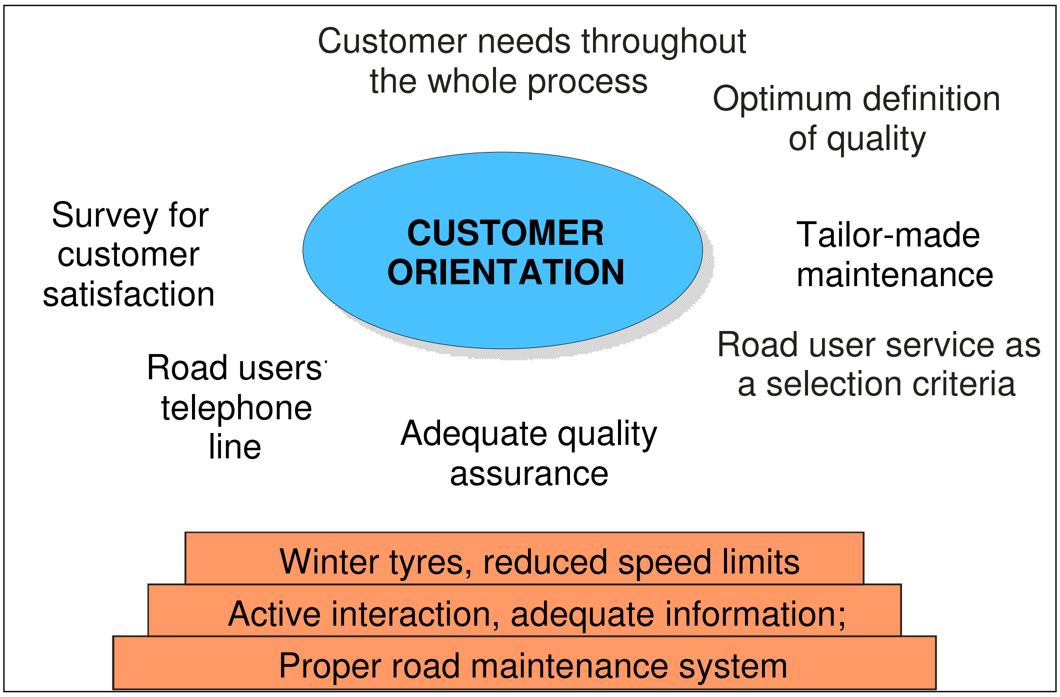


Figure 16: Customer orientation in road maintenance (example from Finland)

The proper road maintenance system, adequate information about the weather conditions, mandatory winter tyres, and reduced speed limits form the stepping stones to more customer-focused activities. When these things are in order, it is possible to introduce more customer-focused elements.

The basis for the optimum definition of winter maintenance is maintenance classifications of the roads and the service level for each maintenance class described in the national policy document. When defining the policy, the FTA co-operates closely with different customer groups in order to understand their needs. In addition to customer needs, regional climate, road network, and national objectives are considered.

One way to meet customer needs in winter maintenance is through tailor-made maintenance. This means that the basic service level (described in the policy document) is improved locally through better timing and focused maintenance activities based on the special needs of customers. Some examples are: 'snow must be removed before the bus travels at 5.40 (road 16225)' or 'Contractor must provide "jubilee quality" on main road 5 for outbound and inbound traffic at Christmas and for the winter holiday and Easter'.

Road user service is one selection criteria for contractors: when contracts are bid for, there is a prequalification phase and the actual competition. In the prequalification phase, contractors need to write a quality plan. One of the four topics valued in quality plan is 'development of customer satisfaction during the contract'.

There is also quality assurance during the contract. Contracts are based on the principle of quality responsibility. The ELY primarily monitors the functionality of the contractor's quality system. Private consultants assist in spot checks. Feedback from the customer via a 24/7 telephone line is used to help quality assurance: private consultants can direct their monitoring activities to those areas that have produced a lot of feedback. All feedback is forwarded to the contractor either as a request for action or for information. All feedback, as well as customer satisfaction results, are discussed with the contractor regularly at monthly meetings.

Contractors can earn a bonus based on customer satisfaction. The strategic target of the customer satisfaction bonus is to make contractors recognise customers and motivate them to improve the service for the road users. The bonus is calculated on the basis of the annual tender price. The annual bonus is 0.0-2.0% and can be worth up to €70,000 per annum.

The bonus is awarded mainly on the basis of road user satisfaction. Wintertime road user satisfaction surveys are conducted, and the sample is representative of all 82 contracting areas (a sample of 350 from each area).The size of the bonus is decided in accordance with the following six evaluation criteria:

1. Customer satisfaction with main roads compared with the previous year
2. Customer satisfaction with other roads compared with the previous year.
3. Customer satisfaction with main roads compared with the average for the specific road region where contracting area is situated.
4. Customer satisfaction with other roads compared with the average for the specific road region where contracting area is situated.
5. The timing of the winter maintenance works (estimation of the evaluation group).
6. Quality of the summer maintenance works (estimation of the evaluation group).

The work that the FTA has done over the past decade to understand and meet customer needs seems to have been beneficial: in Finland, the level of customer satisfaction for winter maintenance has more or less remained the same during that time despite the fact that the FTA spends 20% less money on winter maintenance than it did a decade ago and that the traffic volume has increased by 20% during this period.

4.5 Lessons to be learned

Lessons we have learned when developing systematic processes to **learn from the customer**:

- It is beneficial to have one overall report on public opinion, rather than fragmented reporting based on individual data sources. Sources should not only include customer satisfaction results and customer feedback, but also information from various data sources, e.g. mobility studies.
- A systematic procedure for monitoring customer satisfaction and making it part of the steering process is needed. Find the right level at which to report satisfaction results so that you can track changes from year to year and define real actions to implement. Report both goals and results in the same report.
- It is good to involve many different kinds of professionals in the groups that analyse customer information, e.g. researchers, workers who work with customer feedback, and maintenance experts.
- Low satisfaction scores should lead to an action plan that measures any issues that are important for you and the customers.
- Sometimes it might be better to measure the amount of dissatisfied respondents rather than the amount of satisfied respondents or the average score.

Lessons we have learned when **improving our services** to make them customer oriented and advice on this action:

- Include customer orientation in normal working processes.
- Don't argue with the customer. Listen and explain the circumstances and the process and try to find a solution. It is often possible to meet their needs with a negotiated action.
- Bonus systems are a good way of influencing the way work is done in the organisation.
- One can improve effectiveness through contracting; however one has to expand the customer orientation to the whole chain. Supervise the quality of the services. Customers should get the level of service that NRA orders from contractors.
- Benchmarking and learning from good examples are a good way to share ideas when services are improved.

5 Ways to continue the journey

5.1 Recommendations for CEDR member states

National road administrations have different tasks and responsibilities in CEDR member states. Some manage only motorway and expressway systems, while others are responsible for the whole transport system (road, rail, maritime, and air traffic). Roles vary, for example, from regulator to planner, financier, maintainer, and constructor. Some are user-funded companies, while others are institutions and government agencies. Due to the differing political and organisational conditions of the national road administrations, there is no single model for customer orientation. Each organisation has to analyse its own situation, define its own strategies for customer orientation, and take measures accordingly.

However, we have tried to illustrate the journey towards becoming a more customer-focused NRA by presenting some typical aspects of the first step ('**Awakening**') and the next step ('**Getting it to Work**'), when a customer-focused way of working begins to apply to more activities of the organisation and will become business as usual (see table 2). We have presented some recommendations based on our own experience for those who are at the beginning of their journey and for those whose challenge is to deepen its degree of customer orientation.

We have also identified a third phase, called '**Changing Priorities**'. What we mean by that is that road administrations that have already worked in a customer-oriented way have faced new situation: greater responsibilities over the whole transport system instead of just the road system, economic constraints, a new organisational model, to name but a few. In these situations, organisations have to reconsider their strategies and ways of working in general, but also from a customer-oriented point of view. Basic questions, like 'Who is our customer and other stakeholders?' are asked again. It means that somehow, the organisation needs to start again from the 'Awakening' phase. What is different in this phase of 'Changing Priorities' is the fact that at least at some level or in some parts of the organisation, customer-oriented thinking is already business as usual and there are several experiences and materials to utilise. This makes the 'Changing Priorities' phase much faster than the 'Awakening' and 'Getting it to Work' phases were the first time around.

It is important to recognise that different parts of the organisation can be in a different phase at the same time, and that the borders between the different stages are not that clear. However, we have collected in table 2 some typical aspects of different stages that might help a road authority to identify the stage at which it is.

Table 2 Typical aspects of the 'Awakening' and 'Getting it to Work' phases for the customer-oriented organisation

		Awakening	Getting it to Work
STRATEGIC CHOICE	**Discussion topics**	Why? What?	How?
	Involvement	Some level or some people found customer orientation important (e.g. experts, top level).	Customer-focused thinking is present at all personnel and management levels.
	Steering system	The need to work in a customer-oriented way is included in visions, values, and business plans.	Customer needs are included in the existing steering system; e.g. processes, balance scorecard, targets for satisfaction levels. There are also bonus systems based on customer satisfaction.
	Definitions	There is a definition of who the customer is. Customers are separated from other stakeholders.	Different customer segments are defined and their different needs are recognised.
LISTEN AND COMMUNICATE	**Interesting topics**	Customer satisfaction	Customer needs, behaviour, and satisfaction
	Satisfaction surveys	Do not exist or is done without a clear understanding of how the results are used.	Results are used widely and actions plans are made for improving 'bad' results.
	Feedback	Feedback from customers is collected, but not necessarily very systematically. It is analysed separately from other customer information.	Feedback is seen as valuable source of information and it is collected systematically. It is used with survey results and other sources of customer information. There is also quality policy over how the feedback is answered.
	Communication	Mostly one-way communication. When customers' opinions are listened to, topics are defined by the organisation.	Two-way communication on topics that customers and the organisation find important. Planning and problem-solving, even decision-making is done together with customers.
DEVELOP PRODUCTS AND PROCESSES	**The knowledge on which development is done**	Problems and points to develop are asked directly from the customers.	Co-operating with customers in order to understand the activities of the customers so successfully that it's possible to recognise the customer needs.
	Use of different data sources	Customer data and technical data are used separately.	Combining technical and customer information based on different sources.
	Actions taken	The level of satisfaction is known, but we don't know what kind of actions to take based on that.	Customer needs influence products and processes. Promises to customers steer actions.
	Processes	Customer orientation is a separate process.	Customer orientation is a part of core processes => they aim to give customers added value.

Recommendations and critical things in different phases

Awakening - how to start:

1. A top-level decision is needed. Make sure that the key decision-makers and top management are involved. Make top management the figurehead of the change.
2. A lot of discussion is needed in this phase: clarify with your organisation why this change is needed, what the benefits are, and what it means in practice. Use early adaptors as ambassadors.
3. Benchmarking of other countries, organisations, and private companies helps you to define what customer orientation means to your organisation.
4. Be prepared to spend a considerable amount of time discussing the definition of the customer. It is a big change for organisations to consider the end-user as a customer instead of, for example, the ministry. Sometimes the word 'customer' is considered irritating. Using other concepts (user, passenger) might make it easier to accept.
5. Make research processes systematic so people learn to rely on them. For example, plan a timetable and how the results are to be utilised.
6. Remember that feedback does not come equally from different groups. This explains different results from feedback and surveys. Thus one cannot act only based on spontaneous customer feedback
7. Make sure the communication is relevant. Customers will ask: 'What's in it for me'. Try to explain in an understandable way the reasons for the decisions: why are you (not) doing something.

Getting it to Work - make customer orientation business as usual:

1. Make sure that customer needs are one of the driving forces for the steering system: introduce targets for customer satisfaction and also bonuses if customer goals are reached.
2. If you are using contractors, don't forget to motivate them and their sub-contractors to work for the end-users.
3. Create systematic ways and learning programmes to involve all your staff. Do not forget middle management.
4. Include customer orientation in the normal working processes. Quite often you don't need separate processes or to create new customer processes; it's more question about how decisions are made and the information on which decisions are made during the process.
5. Action planning for improving customer satisfaction together with technical and customer people is a good way of integrating customer thinking into part of normal actions/processes.
6. Combine different sources of customer data: data on customer opinions that have been collected in the course of the surveys should not be perceived as results per se. They only serve as a basis for and task for pursuing issues that have been expressed by the customers
7. When a customer suggests a solution, try to understand the need and the problem behind it. At the end of the day, the solution for the problem might be quite different, but the customer's need will be fulfilled.
8. Customer segmentation is a useful tool for understanding different customer needs and ensuring that these needs are recognised across the board. Be prepared to make time for customer segmentation and especially for decision-making. It is a strategic choice.

It's good to remember that even though the road administrations are responsible for only some part of the journey, the customers' experience is formed on the basis of how smooth and safe the whole journey is. That means that close co-operation with stakeholders is needed.

5.2 Suggestions for CEDR as to how to continue the work

The work on customer orientation issues should continue in the future, also within CEDR. The groundwork for customer orientation presented in this report makes it possible for CEDR to delve deeper into chosen subjects in the future. Some themes that would be very interesting and useful to explore include:

The connection between efficiency and customer orientation. Quite often, people think that working in a customer-focused way costs money. We believe that it gives value for money: understanding customers' needs helps NRAs to allocate resources in a better and more efficient way. No matter what one's opinion, this connection should be investigated further: how can the connection be measured? How strong is this connection? How can customer orientation be used to achieve better efficiency?

How to create value together with other players in the transport system in order to solve customers' problems in a multimodal way? Road Administrations cannot serve their customers alone; their stakeholders are an essential part of that work (e.g. regional road administrations, cities/municipalities, rail/marine/aviation administrations, contractors, and concessionaries). In today's world, most value and innovations are created in inter-organisational networks. Moreover, in some countries, different modes have been united under a multi-modal transport administration. How do these trends help us to work for the customer? Are there problems that need to be overcome?

How to influence users' behaviour? We need to understand our customers so that we not only provide them with services, but also influence them. Mobility management (i.e. affecting people's mobility patterns towards sustainable modes) is a concept that has gained popularity in many countries. In the traffic safety field too, there is a need to affect behaviour, as many users feel that unsafe behaviour by other drivers is the most important safety issue.

How to make relevant comparisons of road satisfaction between different countries. If the ERUS (European Road User Survey) is not conducted in the future, other ways to compare customer satisfaction between CEDR member states needs to be found. Although the scales, methods, questions etc. vary a lot—which does not make the task easy—this highlights the need to develop benchmarking methods. In addition to satisfaction, information on mobility patterns, attitudes, traffic behaviour etc. could be compared.

Social media as a new way of obtaining customer information. Social media have already been used by some NRAs to collect information on users' views. However, as a method, it differs from traditional methods. There is a need to investigate the advantages and disadvantages of using social media in NRAs.

In addition to a separate task for customer orientation, we also suggest that customer orientation issues are part of other groups' work, e.g. traffic information, maintenance, etc. Each of these groups has the best expertise in their respective areas, so these groups are ideally placed to integrate customer thinking in their own work.

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Conference of European Directors of Roads

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Appendix 1

CEDR Task 15: organisations

ANAS S.p.A (Italy)

Anas manages the Italian road and motorway network. It is subject to the control and the technical and operational monitoring of the relevant Italian government ministry, the Infrastructure and Transport Office. It is a joint-stock company whose sole partner is the Ministry of Economics and Finance. The Italian road network is made up of 30,396 km of national roads and motorways, divided up as follows: directly managed national roads and motorways: 24,669 km; contracted motorways: 5,727 km. Anas directly manages 1,278 km of motorways and motorway link roads. Anas manages 23,391 km of roads, parallel roads, and slip roads. Anas's functions include management, renovation, construction of new national roads and motorways (including toll roads) both directly and by contracting the work out to third parties, information services for users, the monitoring of construction work that has been contracted out, the supervision of motorway management, the implementation of laws and regulations, the improvement of traffic safety, and research.

The Finnish Transport Agency (Finland)

The Finnish Transport Agency (FTA) is a government agency operating under the Ministry of Transport and Communications. The objective of the FTA's work is to enable smooth, efficient, and safe travel and transport. The FTA is in charge of state-owned roads, railways, and waterways. The state-owned network covers all railways, all roads except streets, and most waterways. The FTA procures the planning, maintenance, and building of the networks from service providers.

The Swedish Transport Administration (Sweden)

The Swedish Transport Administration (STA) is an administration operating under the Ministry of Enterprise, Energy, and Communications. The STA is responsible for the long-term planning of the transport system for road, rail, maritime, and air traffic. The STA is also responsible for the construction, operation, and maintenance of public roads and railways. The STA also works for accessibility in public transportation, for example, by awarding public service obligation contracts at national level. The STA is also responsible for rules on questions regarding state grants to the maritime shipping sector. The vision is: everybody arrives smoothly, the green and safe way.

The Highways Agency (United Kingdom)

The Highways Agency is an executive agency of the Department for Transport (DfT) and is responsible for operating, maintaining, and improving the strategic road network in England on behalf of the Secretary of State for Transport. The strategic network is made up of England's motorways and all-purpose trunk roads (the major A roads). The aim of the agency is to meet the needs of road users by engaging with them and understanding the way its network impacts on them. The agency fulfils its role by working closely with its partners and contractors to deliver a safe and efficient network that meets the needs of all its customers.

Rijkswaterstaat (the Netherlands)

Rijkswaterstaat is the executive arm of the Dutch Ministry of Infrastructure and the Environment. On behalf of the Minister and State Secretary, Rijkswaterstaat is responsible for the design, construction, management, and maintenance of the main infrastructure facilities in the Netherlands. Rijkswaterstaat manages the country's main road network, main waterway network, and main water systems. It is responsible not only for the technical condition of the infrastructure but also and in particular for its user friendliness. It facilitates the smooth and safe flow of traffic, keeps the national water system safe, clean, and user-friendly, and protects the country against flooding.

ASFINAG (Austria)

ASFINAG plans, finances, maintains, and tolls the entire Austrian motorway and expressway network, which covers 2,175 km of road. This figure includes 340 km per direction in tunnels and 340 kilometres per direction over bridges. ASFINAG is wholly owned by the Austrian Federal Government. A contract signed in 1997 between the Federal Government and ASFINAG gave the company additional powers and responsibilities: by virtue of this contract, ASFINAG holds usufruct rights related to land and facilities belonging to the primary federal road network and owned by the Federal Government and has the right to collect tolls and/or charges from those who use such land and facilities. As a user-funded company, ASFINAG has committed itself to utmost efficiency in managing its financial resources. ASFINAG does not receive any money from the federal budget.

The Danish Road Directorate (Denmark)

The Danish Road Directorate is responsible for Denmark's state-owned roads. The state road network is about 3,800 km long, which accounts for about 5% of the entire road network in Denmark. Although state roads only represent around 5% of the entire road network, its importance in terms of transport and society should be emphasised because approximately 45% of all road traffic in Denmark runs on these roads. The Danish Road Directorate promotes an integrated road and transport system. Giving special consideration to the environment, the directorate is working towards safe, secure, and easy journeys on the roads for people as well as for goods.

InIR, IP - Instituto de Infra-Estruturas Rodoviárias (Portugal)

The Institute for the Road Infrastructure (InIR, IP) is the Portuguese road sector regulator. InIR is a public institution endowed with administrative autonomy under tutelage of the Ministry of Economy and Employment. InIR's mission is to supervise and oversee the management and operation of the road network, to monitor compliance with laws and regulations and concession agreements, to ensure the completion of the National Road Plan, and to ensure the efficiency, equity, quality, and safety of infrastructure as well as users' rights.

Appendix 2

'State of the art' survey

A survey of the customer orientation of road administrations in all CEDR member states was launched in December 2009. Detailed results were collected in the memorandum entitled 'State of the Art: Customer Orientation in CEDR member organisations'. Of CEDR's 24 member states, 13 responded to the survey. The questionnaire included the following questions:

1. How important are customer/user orientation issues in your road administration?
2. Who are your customers/users? Have you carried out any segmentation?
3. Do you carry out customers'/users' satisfaction surveys? If so please fill in some basic information on the enclosed table.
4. Do you use any other methods to obtain feedback (information) on customers'/users' needs? For example: recording customer comments, qualitative research methods, public consultation.
5. How does your organisation analyse and use the feedback that is obtained through surveys and/or other methods? How do you share customer feedback within your organisation?
6. Has customer orientation influenced or changed your services for your customers? For example, do you use the feedback to develop your service commitment, vision, mission, strategic planning (e.g. balanced scorecard)? How does it affect detailed planning? How does it affect the work of your contractors or concessionaries?
7. Do you tell customers what you have achieved as a result of their feedback? If so please give examples of how you do this.
8. Do you have other ways of working with customer orientation (not described above)? Please give examples.

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Conférence Européenne des Directeurs des Routes
Conference of European Directors of Roads

La Grande Arche, Sud 19e
FR – 92055 PARIS – LA DEFENSE
Tél. : + 33 (0) 1 40 81 36 87   Fax. : + 33 (0) 1 40 81 99 16