



# ISO 39001

## **Startup Guide to ISO 39001**

*Road Traffic Safety  
Management Systems*

# STARTUP GUIDE TO ISO 39001: ROAD TRAFFIC SAFETY MANAGEMENT SYSTEMS

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## Why adopt ISO 39001?

ISO 39001 is the template for best practice road traffic safety management in an organizational context. This document provides pointers for organizations wishing to use ISO 39001 to improve their road safety performance. The guide provides a brief introduction to what is involved in developing and implementing an ISO 39001 road traffic safety management system and encourages further enquiry and consideration.

- ***Preventing death and serious injury in road traffic crashes is a global priority***
    - Death and serious injury in road traffic crashes is a preventable problem imposing an unacceptably high burden on communities throughout the world.
    - UN Sustainable Development Goals for road safety were agreed in 2015.
    - Organizations can play a key role in improving road safety outcomes in low, middle and high-income countries.
  
  - ***Addressing a primary occupational safety risk***
    - Road traffic injury is a leading cause of work-related death and serious injury.
    - Continual improvement is needed to reduce and ultimately prevent road traffic deaths and serious injuries.
    - ISO 39001 assists organizations in addressing road traffic injury risk, both on the network and in the workplace.
  
  - ***Successful road injury prevention requires management***
    - Effective road safety management requires a systematic, results-focused approach.
    - Organizations of all sizes can contribute to addressing global, regional and national goals, targets and objectives for road safety.
    - ISO 39001 aligns with the best practice Safe System approach to road safety and the latest ISO management system standard framework. Its best practice road safety focused content is not found in management system standards on occupational health and safety.
  
  - ***Adopting ISO 39001 will bring benefits including:***
    - Preventing avoidable death and serious injury in the road traffic system, including the workplace and while commuting.
    - Contributing to better planning, design, operation and use of the road traffic system.
    - Cutting organizational road crash and incident costs, reducing the number of workdays lost to injury and reducing insurance premiums and repair costs.
    - Demonstrating social responsibility, improving organization profile and increasing business.
  
  - ***ISO 39001 in practice***
    - ISO 39001 is being promoted globally by leading international organizations.
    - ISO 39001 is being adopted across the world, including by small and medium enterprises.
    - Organizations report a range of positive benefits from adopting ISO 39001.
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## Why do organizations need a road traffic safety management system?

### *Preventing death and serious injury in road traffic crashes is a global priority*

Road traffic injuries are the ninth leading cause of death globally, responsible for over 1.25 million deaths and tens of millions of people being injured or disabled every year (WHO, 2016). To accelerate action to reduce this burden, the United Nations General Assembly declared a Decade of Action for Road Safety (2011–2020). UN Sustainable Development Goals include road safety targets to reduce deaths, achieve safe urban transport, and implement sustainable public procurement practices. ISO 39001 addresses the contribution that can be made by organizations to prevent avoidable death and serious injury across the road traffic system.

### *Road traffic injury is a leading cause of work-related death and serious injury*

Injuries in road traffic crashes contribute around 50% of work related deaths on public roads<sup>1 2</sup>. These road safety outcomes are costly but preventable with good practice road safety management.

Safety management systems are widely used by major corporations to limit organizational exposure to safety risks, and underpin safe aviation, maritime and rail transport operations. However, organizational management to improve road safety is less evident in road traffic and in the mainstream of occupational health and safety programs, even in the most active countries in road safety.<sup>3</sup>

### *A systematic, results-focused approach is needed*

Road injury prevention requires a clear focus on achieving results, meaningful shared responsibility and systematic management across public and private sectors. ISO 39001 assists organizations of all types and sizes in the road safety management task.

ISO 39001 is fully aligned with other ISO management system standards, including ISO 9001 Quality Management Systems and ISO 14001 Environmental Management Systems. While ISO 39001 provides direction on key safety issues and a strong focus on achieving better results for the interim and long-term, it does not prescribe specific safety measures. These are left for the organization to determine through safety management processes.

ISO 39001 is also fully aligned with the Safe System approach to road safety, which is embedded in the UN Global Plan for Road Safety, and the UN Sustainable Development Goals. ISO 39001 is designed to help organizations reduce, and ultimately eliminate, the incidence and risk of death and serious injury related to road traffic crashes.

### *The benefits of adopting ISO 39001*

Organizations that implement road safety management systems will be well placed to:

- Contribute to national and global efforts to prevent death and serious injury in road crashes.
- Demonstrate organizational commitment to an issue of significant public concern.
- Address one of the organization's primary occupational safety risks.
- Cut organizational road crash and incident costs, and working days lost to injury.



<sup>1</sup> M Small, T Bailey and M Lydon, (2014) *Work Related Road Safety* RACV Research Report 14/01, Melbourne.

<sup>2</sup> J Breen (2012, updated 2015) *Work-Related Road Safety* European Road Safety Observatory, Brussels.

<sup>3</sup> Royal Society for the Prevention of Accidents, (2012), *Managing Occupational Road Risk*, Birmingham,

- Make the best use of available resources to target safety risks on the road.
- Promote the organization, improve its profile and increase business.
- Increase competitive advantage in tendering processes.
- Reduce insurance premiums and repair bills.

## The Safe System approach

The ultimate goal under the Safe System approach goal is to eliminate road fatalities and serious injuries, supported in the interim by periodic, quantitative targets to reduce deaths and serious injuries, as well as those factors that are causally linked to them.

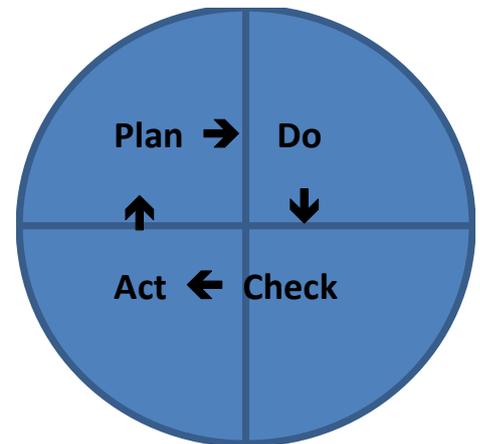
Safe System intervention addresses all elements of the road traffic system and their linkages - road infrastructure, vehicles, the emergency medical system, and road users. ISO 39001 provides a management tool to ensure the best possible results from these endeavors.

Inspired by the reframing of road safety as a societal health issue in the best performing countries, the core of the 'Safe System' approach is the design and management of a road traffic system better able to accommodate human error and recognize the physical vulnerabilities of road users. This is primarily through managing crash energy, so that no individual road user is exposed to crash forces likely to result in death or serious injury.

### *ISO 39001 is a member of ISO's family of management system standards*

ISO 39001 assists organizations in integrating road safety as a core objective into their management systems. As one of a family of ISO management system standards, it is based on the latest common management standard framework developed by ISO and a Plan, Do, Check and Act process.

The road safety management system can be integrated with the general management system of an organization and with several parallel disciplines of management system standards, e.g. ISO 9001 (Quality) and ISO 14001 (Environment). Organizations that already hold certification to these will find it easier to establish a road traffic safety specific component to their existing management system, as well as offer added benefit from the unique elements provided by ISO 39001 that are not covered by any other ISO management system standard.

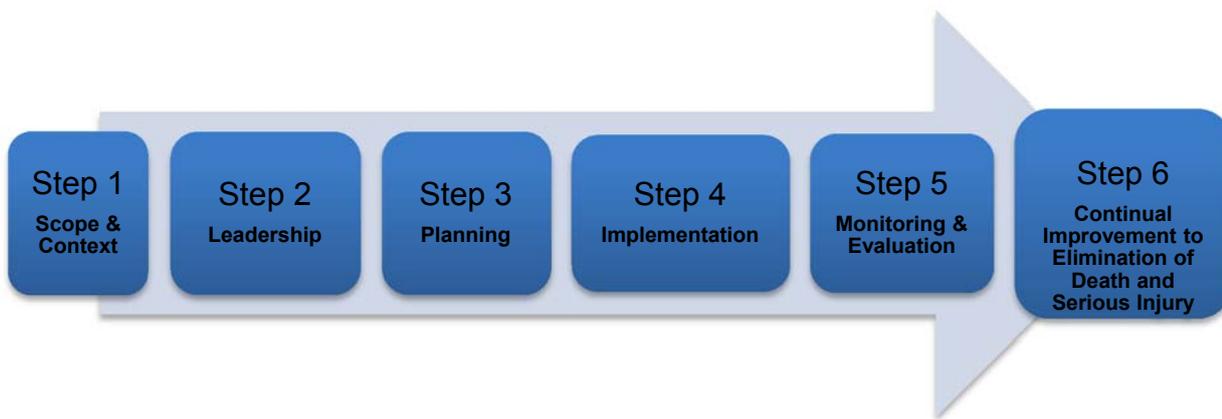


## The road map to implementing ISO 39001

In broad terms, an organization seeking certification to ISO 39001, or following this proven method for developing a safety management system before considering certification, would undertake the following six steps of a basic plan-do-check-act model for continuous improvement.<sup>4</sup>

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<sup>4</sup> This section draws upon Annex A of ISO39001:2012 and guidance prepared in M Small, S Job, R Excell, C Sakashita, (2015) *Safety Management Systems for Road Agencies: ISO 39001 and the Next Step Towards a Safe Road Transport System*. Austroads Research Report AP-496-15, Sydney.



### **Step 1: Scope and context**

*Identify the impact the organization can have on road traffic safety (RTS), map that impact across interested parties, and determine the organizational scope of an RTS management system (refer clause 4 of ISO 39001).*

The standard requires the organization to commit to the long-term goal of the eventual elimination of death and serious injury resulting from road traffic crashes, while allowing it to determine the scope of the management system that it puts in place.

The scope of the management system is best determined by first considering the following activities that have an impact on road user safety:

- Employees' use of the road traffic system to and from work, or on duty.
- Goods and passenger transport in the road traffic system carried out by the organization, or contracted to other organizations.
- Activities that generate traffic to and from locations controlled or influenced by the organization such as supermarkets, schools, and locations with many visitors.
- Service delivery and products for the road traffic system, such as road or vehicle construction or maintenance, as well as activities such as emergency trauma response or enforcement.

Each of these activities can involve an organization in increasing the risk of fatality or serious injury on the road network or on its premises, or reducing this risk. Interested parties need to be engaged during this process, as they are likely to need to play a role in implementation.

### **Step 2: Leadership**

*Establish leadership commitment by adopting a long-term vision to eliminate death and serious injury and providing resources to establish, implement, maintain and continually improve the RTS management system towards these ends. Establish, document and communicate RTS policy, and assign organizational responsibilities (refer clause 5 of ISO 39001).*

ISO 39001 requires top management of the organization to demonstrate leadership and commitment in a variety of ways, including:

- Adopting the elimination of death and serious injury in road traffic crashes as the long-term RTS objective, as well as deciding on the RTS results to be achieved in the interim.
- Working in partnership and collaboration with interested parties to develop a safe road traffic system to achieve the established RTS objective(s).
- Communicating the importance of effective RTS management and conforming to the RTS management system requirements.
- Nominating and allocating the human and financial resources to establish, implement, maintain and continually improve the RTS management system.

Another key leadership aspect is the need to prepare a succinct policy statement that reflects the commitment of top management to the elimination of death and serious injuries, and to continuous

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improvement of the management system. The policy becomes a guiding document for developing objectives and targets, and mobilizing the resources needed for their delivery.

### **Step 3: Planning**

*Determine risks and opportunities through assessment of current performance and identify the RTS performance factors that are relevant to the agency. Set objectives and targets for each performance factor and develop action plans (refer clause 6 of ISO 39001).*

A defining feature of ISO 39001 is the identification of safety performance factors that the organization must consider when developing its objectives and targets. There are three sets of safety performance factors specified in the standard:

- Risk exposure factors (for example traffic volume on the road network by different user groups, including vulnerable users – pedestrians, cyclists and motorcyclists).
- Final safety outcome factors (for example the number of deaths or serious injuries on the road network).
- Intermediate safety outcome factors (those factors having an evidential base that links their improvement with improved safety).

### **Intermediate safety outcomes**

While *risk exposure factors* and *final safety outcome factors* need to be continually monitored, intermediate safety outcome factors (which are causally linked to the final safety outcome factors) need the most attention. This is because they provide the best means of assessing the underlying level of safety, rather than relying on relatively rare instances of crashes or injuries. Typical intermediate outcomes or safety performance indicators that are targeted and/or monitored in successful road safety work include:

- Average mean speed or levels of excess speed.
- Levels of use of seat belts, child restraints and crash helmets.
- Levels of sober driving.
- Safety ratings of the road network using iRAP scores.
- Safety ratings of the vehicle fleet using NCAP ratings.
- Emergency medical system response times.

Relevant institutional outputs can also be measured, targeted and monitored. An example is the level of fitment of seat belt reminders in the fleet that will affect levels of seat belt use.

The general categories of RTS factors that need to be considered within ISO 39001 are:

- *Road design and safe speed*, especially considering separation (on-coming traffic and vulnerable road users), side areas and intersection design.
- *Use of appropriate roads*, depending on vehicle type, user, type of cargo and equipment.
- *Use of personal safety equipment*, especially considering seat belts, child restraints, bicycle helmets and motorcycle helmets and the means to see and be seen.
- *Using safe driving speed*, also factoring in vehicle type, traffic and weather conditions.
- *Fitness of drivers*, especially considering fatigue, distraction, alcohol and drugs.
- *Safe journey planning* including consideration of the need to travel, the amount and mode of travel and choice of route, vehicle and driver.
- *Safety of vehicles*, especially concerning occupant protection, protection of other users (vulnerable as well as other vehicle occupants), road traffic crash avoidance and mitigation, roadworthiness, vehicle load capacity, and securing loads in and on the vehicle.
- *Appropriate authorization to drive/ride* the class of vehicles being driven/ridden.
- *Removal of unfit vehicles and drivers/riders* from the road network.
- *Post-crash response and first aid, emergency preparedness and post-crash recovery and rehabilitation.*

Once the organization has selected which safety performance factors it wants to work with, then objectives and targets need to be established for intermediate outcomes, as well as specific action plans developed to support achievement of these and headline targets and goals. By focusing,

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measuring and following up on the intermediate outcome factors that will most improve RTS performance, systematic improvements can be achieved.



**Examples of RTS context and performance factors for different types of organizations <sup>5</sup>**

<p>Transporting people and goods</p> <p>A small taxi company</p>	<p>The core business of transporting people has a direct impact on the safety of employees, clients, and other road users. Interested parties who the taxi company could need to consult include clients (for example, regarding the use of restraints), drivers (regarding speed) and those involved in vehicle purchase (regarding the selection of safe vehicles) and maintenance (to ensure safety is maintained). Key RTS performance factors for the taxi company should include driver impairment (e.g. fatigue, alcohol or drugs), driving speed, driver and passenger seatbelt use, vehicle selection and maintenance, and journey planning. Key monitoring tools include restraint use and driver licence status.</p>
<p>Transporting people and goods</p> <p>A multinational sales and marketing organization</p>	<p>Driving on company business represents the highest risk activity within many multinational companies that operate regional or global fleets. Sales, service and other drivers can spend 40% to 60% of their time driving on company business in company owned, leased, car allowance, rental or other vehicles. As such, companies have an obligation to ensure the health and safety of their employees and the communities in which they operate. Key RTS performance factors include: understanding their fleet safety risks, i.e. the risk of death and injury; appropriate entry and exit of vehicles and drivers into the road network; policies around speed, alcohol, seat belt/helmet use, driver fatigue and distraction, vehicle selection/maintenance; journey planning; contractor RTS management; and corporate social responsibility through involvement in road safety advocacy and support of community road safety initiatives.</p>
<p>Transporting people and goods</p> <p>A road haulage provider</p>	<p>Commercial vehicle operations are involved in a disproportionately high number of road deaths on the world’s roads. Road haulage providers have an RTS responsibility to their employees, third parties with whom they come into contact, and the communities in which they operate. They also have a responsibility to their customers to ensure goods arrive safely. Key RTS performance factors include driver selection and how drivers are managed and motivated to ensure appropriate skills and behaviours, particularly in terms of speed management and driver fitness; the selection and use of vehicles best suited to the task, designed and equipped to reduce the risk of a road traffic crash and the risk of death and serious injuries to vehicle occupants and other road users, and inspected and maintained to ensure roadworthiness; loads that are properly managed to ensure no overloading and the safe securing of cargo; safe journey planning to ensure the most appropriate routes, speeds and working/driving hours; and consideration of other vulnerable road users within the road network, particularly in the event of a road traffic incident, and emergency preparedness.</p>

<sup>5</sup> Based on Table A.1 — RTS context and performance factors for different types of organizations, Annex A ISO 39001:2012.

#### Step 4: Implementation

*Implement and operate the RTS management system, and ensure that sufficient capacity is provided for the objectives and targets to be met (refer clauses 7 and 8 of ISO 39001).*

The defining features of ISO 39001 as a management standard lie in the first three steps of the development of the management system. The implementation, operation, evaluation, and improvement of the management system is more generic in nature, reflecting good management processes.

ISO 39001 emphasizes several key implementation functions:

- Effective coordination of activity both within the organization itself and with external stakeholders is essential for the successful operation of the management system.
- Ongoing allocation of resources is needed to implement the safety management system and additional resources are likely to be needed to support improvements in the system.
- The management system requires staff who understand its purpose and the key processes and approaches that are necessary for its implementation, as well as processes to ensure new safety practices and techniques are disseminated and adopted over time.
- The requirements of the safety management system need to be communicated and regularly promoted both internally and externally to build support for the system and for continuing reductions in road traffic risk.

Road traffic safety processes need to be set, documented and followed. Processes and documentation need to support the management task and not become a burden or a focus in itself. Documentation of the system and the reporting associated with the system need to be sufficient only for the purposes of effectively controlling safety risk and improving safety results over time.

#### Step 5: Monitoring and evaluation

*Monitor and evaluate RTS performance, conduct internal audits and periodic reviews of the RTS management system to identify opportunities for continual improvement (refer clause 9 of ISO 39001).*

The performance of the management system and the results it is achieving need to be monitored and evaluated over time. Monitoring, investigation, audit, and review processes need to be established, which focus on critical safety issues - that is the safety performance factors that have been identified by the organization. In addition, it is important that compliance with the standard is evaluated periodically.

#### Step 6: Continual improvement

*Improve the RTS management system on a continual basis following review of RTS performance, and of the RTS management system itself (refer clause 10 of ISO 39001).*

Eliminating the involvement of an organization in death and serious injury on the road will take time. Organizations need to look ahead to the most substantial improvements that can be made in their own operations, and work towards achieving these. ISO 39001 requires top management to undertake a critical review of what is required to achieve the objectives of the RTS management system, and to make the necessary changes to the management system.

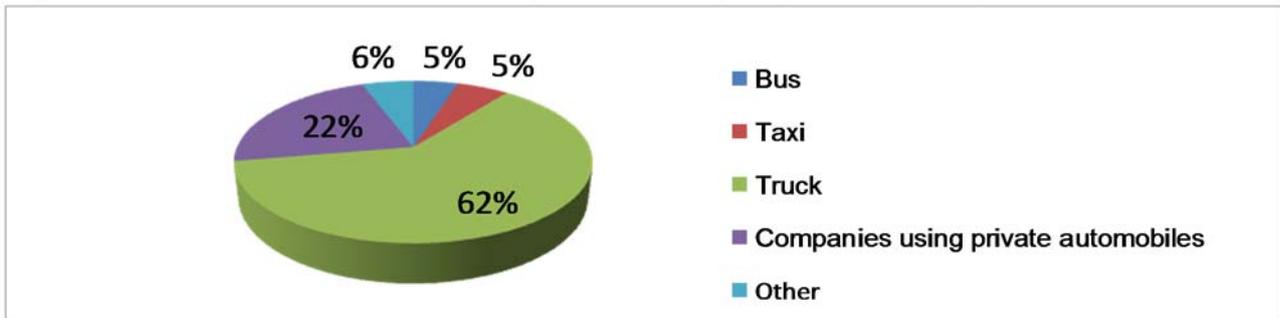


## ISO 39001 in practice

ISO 39001 is being adopted increasingly to reported good effects across the world in low, middle and high-income countries. The most commonly reported benefits are increased awareness and interest on the part of top management in addressing road safety, as well as reduced costs to the organization, including repair bills and insurance premiums and improved corporate image.

Monitoring in Japan, which is particularly active in adopting ISO 39001, indicates that the majority of certified organizations are transport businesses, most of which are small and medium enterprises.

### Organizations certified to ISO 39001 by sector in Japan (October 2016)



National governmental leadership is resulting in the adoption of ISO 39001 in public procurement (e.g. Sweden), in Governmental fleet safety policy (e.g. Colombia, Malaysia (Royal Police) and Mauritius) the availability of financial incentives for the development of ISO 39001 in organizations (e.g. Japan) and the production of a Starters' Guide for road agencies (e.g. Australia). The existence of research reports, materials for guidance and training in ISO 39001 is reported in several countries (e.g. UK, Malaysia).

### Examples of implementation of ISO 39001 in two countries

Activity	Sweden	Japan
<b>Adoption of ISO 39001?</b>	<input checked="" type="checkbox"/> Sweden has adopted ISO 39001 and published a Swedish translation.	<input checked="" type="checkbox"/> Japan has adopted ISO 39001 and published a Japanese translation.
<b>Presence of a certification body for ISO 39001?</b>	<input checked="" type="checkbox"/> 2 certification bodies are present.	<input checked="" type="checkbox"/> 18 certification bodies work with ISO 39001 (non-accredited).
<b>Presence of accreditation process for ISO 39001?</b>	<input checked="" type="checkbox"/> The national accreditation body manages the certification process. It has published guidance for accreditation.	<input checked="" type="checkbox"/> The Japan Accreditation Board (JAB) established an accreditation scheme for ISO 39001 in 2014.
<b>National mirror committee for ISO 39001?</b>	<input checked="" type="checkbox"/> The mirror committee comprises the joint lead agencies for road safety, a large municipality, the national umbrella road safety organization and user organizations; industry bodies; companies and a certification body.	<input checked="" type="checkbox"/> The mirror committee comprises academic experts, government, transport business, car manufacturers, insurance bodies, certification bodies and the accreditation body.
<b>Number of organizations certified to ISO 39001?</b>	<input checked="" type="checkbox"/> There are 7 organizations certified to ISO 39001 by an accredited certification body: 2 in public transport and 5 in cargo transport. There are around 110 organizations certified to ISO 39001 by the road transport company association (non-accredited): transport/logistics organizations.	<input checked="" type="checkbox"/> There are 144 organizations certified to ISO 39001 (October 2016) by private 17 certification bodies in Japan. These are mainly organizations involved in freight transport.

<b>Active promotion and monitoring of ISO 39001?</b>	<input checked="" type="checkbox"/> Certification bodies actively promote ISO 39001. Promotion is also carried out in conference presentations by various road safety stakeholders. Monitoring is carried out by national mirror committee.	<input checked="" type="checkbox"/> The National Agency for Automotive Safety and Victims' Aid (NASVA) actively promotes and monitors the adoption of ISO 39001 through website, seminars, surveys.
<b>Funding for ISO 39001 development?</b>  <b>Public procurement and ISO 39001?</b>	<input checked="" type="checkbox"/> ISO 39001 is chaired by a Swedish Transport Administration representative: the secretariat is provided by the Swedish Standards Institute. <input checked="" type="checkbox"/> ISO 39001 used in some public transport contracts and often included by suppliers in their business process. Road safety requirements are commonly used in public procurement.	<input checked="" type="checkbox"/> A subsidy system for development of ISO39001 systems was established by Ministry of Land, Infrastructure, Transport and Tourism in Japan in May, 2016.
<b>Guidance on ISO 39001?</b>	<input checked="" type="checkbox"/> ISO 39001 is embedded within the Swedish Vision Zero framework and associated guidance. Volvo Trucks (Brazil) has produced guidance on getting started with ISO 39001).	<input checked="" type="checkbox"/> Several handbooks on ISO 39001 have been published in Japan.
<b>Impact of adopting ISO 39001?</b>	<input checked="" type="checkbox"/> Positive benefits identified by organizations adopting ISO 39001 include demonstration of strong road safety interest, reduced damage costs, improved fuel economy, etc.	<input checked="" type="checkbox"/> NASVA's survey of certified organizations to ISO 39001 reports increased safety awareness of top management, reduced insurance premiums and crash costs, and improved corporate image and internal and external communication.

*\*For more information on ISO/TC241 and its activities, please look us up at:  
<https://www.iso.org/committee/558313.html>*

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for Standardization**

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