



STRATEGIC BUSINESS PLAN

ISO/TC 22

EXECUTIVE SUMMARY

The technical committee on ISO on road vehicles (TC22) was created in 1947 and gathers the main trading and producing countries of the automotive sector.

Rapidly-evolving technology of intelligent vehicles, as well as increasing public interest for the safety and environmental performance of road transport, provides continuous momentum for the hundreds of standards developed by the TC. Although ISO/TC22 has until now managed to attract and fulfill the standardization needs of the sector, it is also confronted, since the beginning, with international regulatory decisions that influence part of its strategy. This regulatory co-operation takes place mainly with the United Nations Organization, but also at a regional level in the European Community, and also recently in the Asia-Pacific region. Minimum levels of performance or standardized designs are thus fixed by international law, representing a moving framework to which the drafting of standards has to adapt.

The last several years have seen a major evolution of the weight in terms of production and market between the traditional industrial countries in Western Europe, North America and Japan, Korea and the emerging ones – China, which became the first producer and market, plus other members of the “BRIC” (even while Russia has faced economic crisis for two years) and other countries in east Asia, Latin America and Africa.

The standards developed by TC22 support this evolution, both by reducing the complexity of relations between vehicle manufacturers and their suppliers, as well as the complexity of diverging requirements between geographical regions. Twenty-nine countries participate fully in the work at the TC level, and 44 more are regularly informed as observers. Through this national representation, all major automotive companies and other stakeholders take a direct part in the TC’s activities.

The work program of TC22 reflects the general objectives of the TC:

- To answer any need on road vehicle standard elaboration;
- To adapt the efficiency and speed of the TC to the needs of the industry;
- To ensure that the 833 standards already published are regularly reviewed and updated according to the technical progress in the industry;
- To increase the recognition of the TC’s work, especially by regulatory authorities.

In order to match the acceleration of new technologies and the changes in the relation of the customer with his vehicle to a relation with his/her mobility, ISO/TC22 put an emphasis on the means to become more efficient and fast.



Firstly, to ensure a good coordination between the most implied National Bodies, a Strategic Advisory Group named “SAG” was created during the 2010 plenary in Beijing. This group works in a flexible way, with regular meetings (audio and face-to-face ones). SAG has played a distinctive role in the definition of the new organization, and participates actively to the orientations proposed by the TC’s staff.

Secondly, in 2014, TC 22 decided to rework its structure in order to meet the new challenges facing the industry, and to become much more effective in its work. Particularly, the number of subcommittees (SCs) has been drastically reduced to create a more transversal organization adapted to the growing part of complex controlled systems in the vehicles. Nineteen active subcommittees have been reorganized into 11 subcommittees.

Thirdly, using the SAG meetings, a think tank has proposed a priority of most critical topics, and an ad-hoc group has been created to list main subjects to be developed as standards for autonomous vehicles and to coordinate the relevant projects.

To achieve the layout to enforce the TC efficiency, a program is on the way to facilitate a better coordination between the SCs.

Finally, this whole program is resource-oriented and targets to minimize cost and time to produce new standards.



1. INTRODUCTION

1.1 *ISO technical committees and business planning*

The extension of formal business planning to ISO Technical Committees (ISO/TCs) is an important measure which forms part of a major review of business. The aim is to align the ISO work program with expressed business environment needs and trends and to allow ISO/TCs to prioritize among different projects, to identify the benefits expected from the availability of International Standards, and to ensure adequate resources for projects throughout their development.

1.2 *International standardization and the role of ISO*

The foremost aim of international standardization is to facilitate the exchange of goods and services through the elimination of technical barriers to trade.

Three bodies are responsible for the planning, development and adoption of International Standards: [ISO](#) (International Organization for Standardization) is responsible for all sectors excluding Electrotechnical, which is the responsibility of [IEC](#) (International Electrotechnical Committee), and most of the Telecommunications Technologies, which are largely the responsibility of [ITU](#) (International Telecommunication Union).

ISO is a legal association, the members of which are the National Standards Bodies (NSBs) of some 162 countries (organizations representing social and economic interests at the international level), supported by a Central Secretariat based in Geneva, Switzerland.

The principal deliverable of ISO is the International Standard.

An International Standard embodies the essential principles of global openness and transparency, consensus and technical coherence. These are safeguarded through its development in an ISO Technical Committee (ISO/TC), representative of all interested parties, supported by a public comment phase (the ISO Technical Enquiry). ISO and its [Technical Committees](#) are also able to offer the ISO Technical Specification (ISO/TS), the ISO Public Available Specification (ISO/PAS) and the ISO Technical Report (ISO/TR) as solutions to market needs. These ISO products represent lower levels of consensus and have therefore not the same status as an International Standard.

ISO offers also the International Workshop Agreement (IWA) as a deliverable which aims to bridge the gap between the activities of consortia and the formal process of standardization represented by ISO and its national members. An important distinction is that the IWA is developed by ISO workshops and fora, comprising only participants with direct interest, and so it is not accorded the status of an International Standard.



2. BUSINESS ENVIRONMENT OF THE ISO/TC

2.1 Description of the Business Environment

The following political, economic, technical, regulatory, legal and social dynamics describe the business environment of the industry sector, products, materials, disciplines or practices related to the scope of this ISO/TC, and they may significantly influence how the relevant standards development processes are conducted and the content of the resulting standards:

The road vehicle since its inception has seen uninterrupted advances in technology to improve the performances and the quality of the product, and offer to its various clients a mobility package as efficient as possible at acceptable costs. Since the 1980's, though, political demand for greater safety in transportation and a reduced environmental impact of the use of road vehicles has deeply influenced the orientation of this technological evolution. Some major technological leaps forward have been accomplished in this period of thirty years, both in safety and environment. At the same time, the development of digital and connective technologies will change the context and offers:

- Possibilities of complex loop controls of main functions of the vehicle, as well as more efficiency, leading to more ecologic vehicles
- Possibilities of dialogue with the external world, making the vehicle a contributor to his own environment, and contributing to more fluency, safety and fewer emissions, via the systems currently called "ADAS"
- This could lead to the automated driving functions, changing drastically the relation of driver/vehicle.

The global relationship between road transport and society is in quick evolution and could lead to new concepts such as car sharing, instead of the ownership of the vehicles.

But societal requirements are not foreseen to calm down, so that new outstanding developments are already planned and will happen in the very next years.

The major trends of today are:

- The gradual integration of telecommunications and information technologies on board the road vehicle, which began some years ago and has not reached its full maturity yet. This integration in the vehicle is complemented by wider scale networks and systems dealt with by other standardization bodies.
- The evolution of the space for cars in the cities in a world where a majority of the population lives now in urban areas. This evolution could be seen as contradictory between emergent countries where large growth of vehicles traffic exists, and the developed ones where the question to limit the use of cars in cities (at least centers) is clearly studied. This could lead to a drastic change of relations between citizens and vehicles.
- The introduction of a wide variance of propulsion concepts, including the usage of alternative fuels and electric energy, or a mixture of such concepts in order to adapt the vehicles as best as possible to various applications by minimizing the environmental footprint for mobility and transportation, or hybrid type that uses both electric motor and thermal engine.
- The growing need to care for indirect environmental impacts of road vehicles during their whole life cycle – that is, their energy consumption, the environmental cost of their production and their ability to be recycled.

Not only vehicle producers are interested in this process. It is obviously also true for parts suppliers and subsystems for the vehicle producers, the body builders for those vehicles that are built in several stages from a base vehicle, the maintenance and repair services sectors, and indirectly the producers of testing,



control, repair and dismantling equipment or tools.

Many other stakeholders are concerned with this evolution of the environment of automotive industry:

- Road transport service providers, for goods or passengers, for the constraints in traffic, the environmental targets in use, the new possibilities offered by the connectivity.
- Governmental central authorities are looking after the consequences of the use of road vehicles ever since they appeared. This may encompass various departments in charge, in any case, of transportation, but also in some instances of police forces, industry, environment or else.
- Public interest is also important, mainly from three different kinds of representation: automobile clubs, which express shared interests and concerns within the community of motorists; customer associations, whose goal is to establish a dialogue with the producer and communicate a deeper knowledge of the product; and environmentalist associations, concerned with the negative environmental impact of human activity, including the use of road vehicles.

Being an industry that takes advantage of many technologies, road vehicles standards are also indirectly addressed or influenced by many other standards groups in ISO, in IEC for the electro-technical aspects, in CEN, SAE or JSAE for example, to quote the most relevant works. The definition on the boundaries of each work and the competence of the various groups has to be resolved each time a problem appears. It must be underlined that the number and frequency of such boundary problems is increasing.

Regulatory and legal issues represent a major challenge for road vehicle standards. In the 1950s, international discussions to harmonize various national regulations began. In 1953, a subgroup of the Economy and Social Council of the United Nations Organization was created and named Working Party 29 (WP.29) to deal with road motor vehicles and their trailers. WP.29 drafted an international harmonization agreement, later referred to as the 1958 Agreement. Regulations on several aspects of the design of road vehicles have been internationally adopted and annexed to the 1958 Agreement, implemented in various countries of the world, and updated according to technical progress and political demand. There are now 136 regulations relative to safety, environment and security. In the field of periodical testing of vehicles in use, WP.29 confirmed an international agreement to harmonize testing procedures and requirements, referred to as the 1997 Agreement. This agreement entered into force in 2000, and will result in harmonized regulations.

At a regional level, the European Community decided by means of the Treaty of Rome in 1957 to ensure the free circulation of goods, and especially to harmonize design requirements of goods, including road vehicles. A European framework directive on harmonized approval of road vehicles was published in 1970. This framework directive governs today more than fifty separate directives for design requirements of road vehicles, some of them close to corresponding regulations of the 1958 Agreement. Most of these directives have been repealed by the Regulation (EC) No 661/2009 (General Safety Regulation).

Conformity to these regulatory requirements allows a vehicle to be sold in the 28 States of the Community (mandatory for passenger cars since 1998). It must be noted that EC also signed the UN agreements of 1958 and 1998.

In the forum of the Asia-Pacific Economic Co-operation (APEC) as well, discussions on liberalization of trade have concerned road vehicles. The governmental officials of the "Automotive dialogue" meet once a year since 1999. In 2002, they contemplated a possible mutual recognition agreement among the ASEAN countries. They also took steps to favor the participation of developing countries to UN's WP.29. Another activity conducted is the "Road transport harmonization project".

In conclusion, there is a long-standing effort to regulate road vehicles at an international level. The first consequence is that the presence of technical barriers to trade on the most important markets has been



extremely reduced, and between some countries totally eliminated. It must be noted though for now, most of the international regulations annexed to the 1958 Agreement are not recognized in USA. The second consequence for TC 22 is that an important number of essential characteristics of the vehicles are already cared for by international regulating authorities – to alter these essential requirements in an international standard is not desirable, or would be pointless if decided. This being said, many standards of TC 22 have been implemented by international regulation authorities, which in some cases had specifically asked for ISO's help.

This means an opportunity for the stakeholders and experts of the TC22 subcommittees to influence regulations by writing standards before the emergence of the regulations or in liaison with the EC or WP.29 experts.

2.2 Quantitative Indicators of the Business Environment

The following list of quantitative indicators describes the business environment in order to provide adequate information to support actions of the ISO/TC:
(Source OICA)

- Production of road vehicles products by major countries over 2004-2014:

PRODUCTION	2004	2009	2014
China	5230000	13790000	23720000
USA	11990000	5710000	11660000
Japan	10510000	7930000	9770000
Germany	5570000	5210000	5900000
South Korea	3470000	3510000	4520000
India	1510000	2640000	3840000
Mexico	1580000	1560000	3360000
Brazil	2310000	3180000	3140000
Spain	3010000	2170000	2400000
Canada	2710000	1490000	2390000
Russia	1380000	720000	1890000
Thailand	920000	1000000	1880000
France	3660000	2050000	1820000
UK	1860000	1090000	1600000
Indonesia	410000	460000	1300000
Czech Republic	450000	980000	1250000
Turkey	820000	870000	1170000
Iran	790000	1390000	1090000
Slovakia	220000	460000	970000
Argentina	260000	510000	620000
Italy	1140000	840000	700000
Malaysia	470000	490000	600000
Poland	600000	880000	590000



In terms of origin of the OEMs, the situation is the following:

OEM COUNTRY	2004	2009	2014
China	3060000	7090000	11500000
USA	15610000	12200000	15570000
Japan	20110000	17970000	27110000
Germany	12125000	8840000	14040000
South Korea	2770000	4640000	8010000
India	660000	940000	1590000
Russia	1070000	70000	530000
France	6060000	5330000	5670000
UK	100000		
Iran	310000		400000
Italy	2120000	2460000	4860000
Malaysia		150000	170000

▪ In most of the United Nations WP.29 regulations, references are made to ISO standards. In some way, 122 different ISO International Standards are used, and some of them are referenced in several regulations. Consequently, as a lot of countries around the world transpose UN regulations, those countries are effectively using ISO Standards. The same situation exists with the directives of the European Union.



3. BENEFITS EXPECTED FROM THE WORK OF THE ISO/TC

The vehicle industry is a worldwide industry, and the implementation of international standards should limit the cost of producing vehicles and their parts. In every country, the construction of vehicles is widely regulated, but the harmonization of regulations is under way at UN WP.29. Those international regulations often need the support of international standards that are prepared and issued by ISO. In accordance with this statement, the automotive industry contributed through ISO Standards to the development of new fuel systems such as Compressed Natural Gas (CNG), Liquefied petroleum Gas (LPG) and in the future hydrogen, without forgetting the electrically propelled vehicles.

ISO/TC 22 standards also have contributed to attaining and maintaining a high level of safety and protection of the environment, according to the scopes of its subcommittees. Some examples can be given with active and passive safety testing methods, road handling ability testing methods, emissions testing methods and so on.

In addition to the safety and environmental area, TC22 provides standards that help to save costs and resources by defining balanced requirements for quality, performance and durability, as well as interface requirements.

In all participating countries, there is a general tendency to transfer TC 22 Standards as national Standards following the harmonization of international regulations. Cost saving is at stake, as well as the removal of unjustified barriers to trade.



4. REPRESENTATION AND PARTICIPATION IN THE ISO/TC

4.1 Membership

Please see [here](#) for a list of current P- and O- Members of ISO/TC22.

4.2 Analysis of the participation

Among the 29 P-members, the balance of developing and developed countries is composed of roughly 11 developing countries or transition countries, as well as 18 developed countries (according to the World Bank's definitions). The relative importance of developed countries is explained by the fact ISO/TC22 is a TC specific to an industrial sector, for which technical design decisions are historically centralized in developed countries. Almost all Participating countries have a strong automotive industry that is either vehicle manufacturing or part manufacturing or both. As a result, all the main vehicle manufacturers of the world, and most part manufacturers, are present in the subcommittees and in the working groups, depending of the availability of their experts.

The discrepancy between the various world regions is explained by the same factors as above.

On the whole, no major country or region known to have significant business, trade or experience in road vehicles is absent from participation to ISO/TC22.

At TC22 or TC22/SC level, the international organizations of vehicle manufacturers, parts manufacturers, or regulatory bodies or users' organizations are consulted through an external liaison. (See in annex for the external liaison participation in TC22 and its subcommittees).



5. OBJECTIVES OF THE ISO/TC AND STRATEGIES FOR THEIR ACHIEVEMENT

5.1 *Defined objectives of the ISO/TC*

The main TC22 objectives are as follows:

Generic objectives:

- Take full responsibility and ensure a worldwide involvement for handling work items relating to road vehicles and their equipment
- Produce cost-effective standards, which correspond to user and market needs, in due time
- Support the technical progress of the sector
- Maintain the collection of 833 published standards and adapt them to technical progress through the 5-year systematic review
- Increase the recognition of the work of ISO and of ISO/TC 22 within the automobile sector.

Specific objectives:

ISO/TC22/SC31 "Data communication" is active in the fields of:

- Data bus and protocols development for CAN, LIN, MOST and Automotive Ethernet
- Active revision of vehicle-to-grid (V2G) communication requirements, including reverse power transfer
- New OBD communication framework and secure diagnostic communication
- "Extended Vehicle" as the new standardized server based interface
- Fault data symptom exchange formats (FXD) as new data formats
- Requirements on electronic periodic technical inspections (ePTI)

ISO/TC22/SC32 "Electrical and electronic components and general system aspects" is active in the three following main tasks: the standardization of electric/electronic components (wiring harnesses, dedicated connectors, dedicated E/E components and parts and dedicated optical components), and the standardization of electromagnetic compatibility test and safety/security of E/E systems.

ISO/TC22/SC33 "Vehicle dynamics and chassis components" is currently adapting existing standards for passenger cars and for commercial vehicles, which describe driving maneuvers even to new requirements of hybrid and electric vehicles. The new WG3 "Driver assistance and active safety functions" is working on a set of new standards for high/fully automated driving maneuvers in cooperation with TC204/WG14. Another focus is set on the standardization of valid simulation models for vehicle dynamic simulation.

ISO/TC22/SC34 "Propulsion, powertrain and powertrain fluids" continues to work on the revision of existing standards. There are 115 published documents currently under SC34 (Four were published in the first half of 2016). A new activity on Engine EGR coolers has been approved and will be developed under WG7 led by Japan. Two other approved new projects will now be developed under the newly formed WG5 "Engine Test Code" with the US taking the lead.

ISO/TC22/SC35 "Lighting and visibility" is the subcommittee dedicated to the standardization of the methods of describing, measuring and testing in relation to the driver's visibility (both direct and indirect visibility) and devices for aiding visibility, including lighting and light-signalling devices (except for motorcycles and mopeds). SC35 is furthermore working on safety glazing materials (inorganic as well as organic materials and combination thereof) and their mountings. There are 32 published ISO standards under the direct responsibility of SC35 which are periodically reviewed and updated on the basis of the technical evolution.

ISO/TC 22/SC36 "Safety and impact testing" is very active to support improved traffic safety of road vehicles, including impact test procedures, instrumentation, test devices, injury assessment criteria, adult and child occupant protection systems, virtual testing of occupant restraint systems and accident analysis. This work is undertaken in link with regulations and NCAP specifications.



As current activities, SC36 is working on WorldSID dummy, seating procedures, injury criteria, and rescue sheets (Information for first and second responder).

ISO/TC22/SC37 “Electrically propelled vehicles” covers standardization aspects for electric vehicles in order to contribute to provide environmental friendly and sustainable mobility. The already existing standards for electrical safety are permanently maintained to adopt them to the newest technological findings. SC37 is furthermore working on projects for requirements on the rechargeable energy storage systems, for energy consumption measurement as well as on requirements for the E/E-Systems and components of the high voltage system.

Liaisons to other standardization committees shall ensure that the projects will meet the demands of industry and standards are developed according the market needs. ISO TC22/SC37 is therefore i.e. in liaison with ISO/TC197 for (hydrogen) Fuel Cells and IEC/TC69 for the connection for charging electrical vehicles from the electrical power grid.

ISO/TC22/SC38 “Motorcycles and mopeds” concentrates its activities in the standardization of any topic related to the world of mopeds and motorcycles, from the efficiency levels, their consumption, their safety and any aspect related to the on-board components.

The SC is currently focusing on the standardization of the charging systems and batteries for electric mopeds and motorcycles, as well as the methods for the evaluation of their consumption and pollution. Last but not least, SC experts are actively contributing in the drafting of a part of the future ISO 26262 dedicated to the functional safety of motorcycles.

ISO/TC22/SC39 “Ergonomics” covers standardization for the ergonomics and driver interaction with the driver environment and in vehicle systems. The breadth of this SC encompasses in-vehicle symbols, controls and displays, human accommodation and Human Machine Interface (HMI) documents. The SC has recently begun working on developing documents to support automated vehicle research and development, and is starting to focus on developing documents for standardizing automotive ergonomics research activities.

ISO/TC22/SC40 “Specific aspects for light and heavy commercial vehicles, busses and trailers” focus is and has always been on the standardization of all aspects related to commercial vehicles, with particular focus during the last several years on the coupling components and means to guarantee and ease the mounting of different devices on the vehicle chassis. Thanks to the recent merger between the former SC15 and SC4, the SC has now a wider list of stakeholders on both light and heavy duty vehicles, which eases the work for those manufacturers building components for both categories of vehicles.

ISO/TC22/SC41 “Specific aspects for gaseous fuels” covers specifications of construction, installation and test of components for vehicles using gaseous fuels, including their assemblies and the interface with refuelling systems.

The main activities are related to the revision of existing standards for CNG components (ISO 15500 series) and refuelling connector, definition of standards for compressed gaseous hydrogen and hydrogen/natural gas fuel system components (ISO 12619 series), definition of standards for LNG fuel system components and refuelling connectors, definition of standards for LPG fuel system components (ISO 20766 series) and refuelling connectors, definition of standards for DME fuel system components and refuelling connectors, definition of standards for safety of CNG, LNG and compressed gaseous hydrogen and hydrogen/natural gas fuel systems.

5.2 Identified strategies to achieve the ISO/TC’s defined objectives

- Adapt ISO/TC22’s structure by creating, maintaining or disbanding working groups and subcommittees that bring together experts competent in the various technical fields. If several work



items of TC22 duplicate and lead to diverging solutions to one problem, designate a lead subcommittee and organize cooperation between the subcommittees involved, for example, with the creation of a joint group

- When different standardization bodies cover the same subject, clarify the division (sharing) of responsibilities while observing the prevalence of the vehicle aspect. Share the information and ensure that the works shared with other TC(s) are complementary, not redundant and do not lead to divergent solutions:
 - Maintain a balanced agreement on Intelligent Transport Systems issues with ISO/TC204, with regular exchange between the both Technical Committees (see the MoU, TC22 Document N-3394).
 - Maintain the cooperation with ISO/TC197 on Hydrogen ;
 - Maintain and improve cooperation with IEC (see the MoU signed on March 2011 "ISO/IEC Agreement concerning standardization of electrotechnology for road vehicles and the cooperation between ISO/TC 22 "Road Vehicles" and IEC Technical Committees")
- Speed up the rate at which International Standards are prepared, in order to meet the requirements of the international regulatory authorities, as well as the main economic players
- Pay particular attention to the selection of new subjects and to commitments to participate in new work
- Resort to a preliminary stage (coded « 00 »), which provides for a preliminary study before including a new proposal in the program of work. The role of a WG includes carrying out this preliminary study, which once approved by the subcommittee can be subject of an introductory enquiry in the program of work
- Examine at each subcommittee meeting the status of the SC's work program in order to cancel (or re-launch, if necessary) all "no progress items" and provide the TC22 Secretariat and the ISO Central Secretariat with an updated work program
- At the time of the creation of a new working group, break its scope down into specific subjects with realistic target dates that take into account the constraints of standardization processes
- Make use of telecommunication technologies as much as desirable, for the circulation of information between meetings or to replace them
- Improve the recognition of ISO/TC22 within the major manufacturers, as well as their ability to give directly an opinion on the work program and the TC's results
- Decide upon an ISO/TC22 policy with regard to new ISO deliverables, with the understanding that they might not be granted the same level of recognition as an international standard
- Maintain good cooperation with the external stakeholders not involved in standards development. Special attention has to be paid to the requests of regulatory bodies as ECE/WP.29 by undertaking new tasks from them and providing them with new deliverables, so as to be able to contribute to the establishment of globally harmonized regulations. Respect the set of guidelines decided by TC22 on external representation of the TC, especially with WP.29 World Forum for harmonization of Regulations
- Set requirements for results based on test procedures rather than impose specific means. Nonetheless, the standardization of components plays a role in controlling the costs by promoting interchangeability



6. FACTORS AFFECTING COMPLETION AND IMPLEMENTATION OF THE ISO/TC WORK PROGRAMME

The ISO Directives provide the rules that have to be followed for the development of an ISO Standard, particularly describing the different stages. Some delay slowing down the process is due to the heavy administrative and rigid procedures applied by the ISO Central Secretariat, especially with regard to the editorial work.

It is also true that the most important participation to the Working Groups comes from the industry, and the time devoted to the standardization work by the experts is obviously limited. This affects the development of the work program in a very arbitrary way. Decisions to stop or to delay contribution to the TC's work are usually not taken in relation to the interest of the ISO work item. Rather, this happens on totally autonomous grounds.

In a world governed by the system analysis, in example all the connected devices, it is particularly important to be efficient and aware of the quality of cooperation with technical committees. This is one of the main challenges of the standardization work for decades to come.



7. STRUCTURE, CURRENT PROJECTS AND PUBLICATIONS OF THE ISO/TC

Information on ISO online

The link below is to the TC's page on ISO's website:
ISO/TC22 on ISO Online

Click on the tabs and links on this page to find the following information:

- About (Secretariat, Secretary, Chair, Date of creation, Scope, etc.)
- Contact details
- Structure (Subcommittees and working groups)
- Liaisons
- Meetings
- Tools
- Work programme (published standards and standards under development)

Reference information

[*Glossary of terms and abbreviations used in ISO/TC Business Plans*](#)

[*General information on the principles of ISO's technical work*](#)