

Achieving the Paris Agreement



The Consulting Engineering Industry's Statement of Commitments



International Federation of Consulting Engineers
The Global Voice of Consulting Engineers



COP23 FIJI
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Achieving the objectives of the agreement reached at the 21st Session of the Conference of the Parties (Paris, 2016)

The consulting engineering industry represented by FIDIC, the International Federation of Consulting Engineers, has confirmed this statement of operational and monitoring commitments to help achieve the objectives of the agreement that was entered into by the Conference of the Parties (COP) at its 21st Session in November 2016 in Paris.

The commitments cover three main areas:

- the development of the actions and tools needed to implement sustainability requirements in different sectors at scales ranging from buildings and infrastructure through to industries, transport systems and cities;
- the systematic integration in training programmes of specific sustainability considerations, with a focus on climate change mitigation and adaptation;
- the duty to advise clients with regard to corporate responsibility and sustainability.

The commitments stem from a position paper adopted by the FIDIC Executive Committee in 2015 to support the Paris Agreement and a draft set of commitments that the Vice-President of FIDIC was invited to present at COP 22 in Marrakesh in 2016.

The consulting engineering industry - a high-value added sector

Consulting engineering firms range in size from a single practitioner to multinational corporations with tens of thousands of employees operating from offices world-wide. They provide independent expertise and a wide range of services to government, industry, project developers, and construction firms in, for example, the design and construction of infrastructure. Consulting engineers have a deep understanding and experience in business processes that cover financial and administrative matters, management expertise, business development, construction know-how, and project management.

Globally, the industry comprises some 1.5 million highly skilled staff who work for consulting engineering firms that respond to the 700 billion US dollars per annum demand for services for investments in buildings, infrastructure and industrial plant amounting to about 7 trillion US dollars.

FIDIC, the International Federation of Consulting Engineers, represents directly more than one-half of the industry's staff and is therefore a key stakeholder in ensuring that the industry contributes to the implementation of the Paris Agreement - the climate change agreement entered into by the Conference of the Parties at its 21st Session in November 2016 in Paris.

Encompassing all the areas related to greenhouse-gas emissions

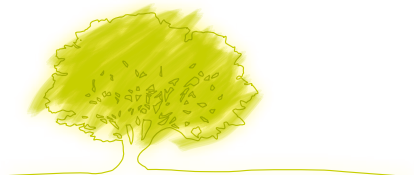
Buildings, infrastructure and industrial plant designed by consulting engineers influence the climate:

- directly and immediately according to a) project specifications and construction methods (for example, bio-climatic design and the selection of materials), and b) over the entire life cycle of a project, including the end-of-life stage, according to the performance of the processes selected and the methods used for their subsequent operation;
- indirectly by the very nature of a building, an infrastructure facility or an industrial plant, its location and its global impact on the environment.

The consulting engineering industry's capacity to deliver sustainable solutions

Consulting engineering firms provide the wide range of independent skills, expertise and services which are required for buildings, infrastructure and cities to be sustainable. They:

- organise and manage activities using an holistic, integrated approach;
- establish and build upon technical choices;
- integrate environmental and social issues, which can be both constraints and strengths;
- assess environmental, social and economic impacts;
- by means of multidisciplinary teams, optimise resources functionally, technically and financially;
- benefit from a close dialogue with public institutions and research organisations;
- accompany the implementation of projects.



THEMATIC COMMITMENTS

The evermore stringent social, environmental and financial requirements linked to sustainable development results in many economic actors in added-value supply chains proposing products and services that go beyond regulatory requirements. However, it is observed that:

- on the one hand, projects in the building and construction value chain while being fit for purpose are not always designed from a whole-of-life perspective;
- on the other hand, the proliferation of reference frameworks and heterogeneous methodologies makes it difficult to identify and harmonise selection approaches adopted by decisions makers.

A. Specific tools to complement FIDIC's sustainable development toolkit

FIDIC has developed tools as part of its "Sustainability Pack" to help move away from silo-like approaches to sustainable development in the building, construction and industrial added-value chain towards more global approaches that integrate all aspects, from the initiation stage of a project to the end-of-life.

These tools for a holistic approach to sustainable development can be proposed to decision makers by consulting engineers in partnership with professionals such as architects and town planners to achieve globally recognised quality standards while integrating a total life-cycle cost approach.

In order to ensure that the requirements for climate change mitigation and adaptation are more prominent and better understood it is important to:

- establish objectives, targets and indicators;
- develop innovative solutions;
- incorporate relevant provisions in contracts;
- manage projects from a life-cycle performance perspective.

FIDIC's Project Sustainability Management and Project Sustainability Logbook tools and its online Project/Programme Sustainability Logbook (PPSL) and Urban Sustainability Management platforms can be used to monitor buildings, infrastructure facilities and urban sustainability programmes.

The FIDIC commitments

- Encourage the federation's member firms to propose to clients the use of its tools and online platforms.
- Offer training to make users aware of these tools and platforms for monitoring projects.
- Monitoring indicator: the number of projects adopting PPSL each year.

B. Sustainable cities - co-designed urban projects

The efficient implementation of sustainability in the context of urban projects, sustainable neighbourhoods and sustainable cities mainly depends upon urban professionals being able to work together and in close cooperation with decision makers.

High-quality urban building and construction requires a multidisciplinary and systematic approach for conceiving urban projects. Architects, engineers, town planners, sociologists, and specialists in biodiversity and other areas need an appropriate and mutually agreed internationally recognized framework for the necessary close cooperation.

With this in mind, FIDIC's urban professionals published the Rethink Cities white book in 2014. In the light of world-wide experience with urban projects, Rethink Cities proposed a holistic approach to urban development to enable the sustainable development of cities.

In addition, FIDIC in association with representatives of other stakeholder organisations engaged in urban projects helped develop reference frameworks to support a holistic approach that would be recognized at the international level. These include:

- The ABC for sustainable cities: a glossary for policy makers comprising a compendium of the most important words and concepts related to sustainable cities (published jointly by FIDIC, UN Habitat and UN Environment in March 2016);
- International Standards Organization (ISO) Technical Committee publications related to smart, sustainable and resilient cities and communities which resulted in an international standard dealing with the sustainability management of cities and communities (published by ISO in July 2016).



The FIDIC commitments

- Encourage professionals to participate in monitoring the implementation of frameworks related to the ISO Sustainable development in communities – Management system for sustainable development standard.
- Contribute to the development of implementation guides and specific tools for different types of urban projects, in particular the Urban Sustainability Management Platform for urban projects that is derived from the Project-Programme Sustainability Logbook.
- Ensure that the technologies and solutions which enable sustainable growth, effective city management, efficient resource use, and reduced greenhouse-gas emissions while taking into account resilience and climate adaptation are promoted to both consulting engineering firms and urban procurement authorities and other stakeholders.
- Monitoring indicators: number and variety of participants in awareness and training sessions.

FIDIC REPOSITORY OF BEST PRACTICE MANUALS AND TRAINING MATERIALS

Cities are growing rapidly, but cover only 2 percent of the Earth's surface. Yet cities and those who live there are responsible for close to 75% of the impact on the Earth's climate. Urban infrastructure and buildings, the demand for transport and the citizens' consumption patterns and way of living are the main contributing factors.

The use of limited natural resources must be minimized as they will not return when they have run out. Renewable and natural resources such as air, water and forests must be protected and used carefully and, given time, restored. A good quality of life can be maintained even with a careful use of resources.

Government and municipalities must therefore focus more on how infrastructure and cities are planned and built. Developing best practice and training is therefore a key activity for the consulting engineering industry. Greater knowledge will result in better and more sustainable solutions and the capacity to achieve the Paris Agreement's goals.

The consulting engineering industry uses expertise in many fields to support sustainable development: it has a key role to play in implementing sustainable solutions for buildings, infrastructure, transportation, and urban planning. Knowledge and experience combined with improved procurement and project implementation will lead to a better planning and development of cities and infrastructure with a shift towards a more resource efficient, resilient and sustainable "circular" economy.

A. Mobility, inter-operability and inter-modality

Consulting engineers are frequently responsible for planning and implementing mobility networks using all modes of transport at all geographical scales.

These activities provide a powerful lever for achieving the goals and objectives of the Paris Agreement because they create the frameworks and infrastructure under which operations are carried out a long way into the future.

In the implementation of the necessary approaches on site, consulting engineers combine the roles of trusted adviser, specifier, integrator, and observer.

The way forward for sustainable mobility requires not only further development of public transportation infrastructure but also the more efficient use of existing infrastructure. Two priorities come to the fore, namely the inter-operability of systems and inter-modality.

Consulting engineers are in position to identify:

- the potential for further optimisation in the light of existing regulations and the Paris Agreement's objectives;
- initiatives to progress operational practices aimed at minimising cost while maximising efficiency.

The FIDIC commitments

Update its repository of best practice – the basis of the training developed under the federation's control – and commit the industry's professionals to refer to it when:

- acting as a consultant or advisor to an employer under a contract, by advising the client to incorporate inter-operability and inter-modality goals;
- consulted in the context of a project management assignment, to propose inter-operability/modality goals as part of a solution, if the client's brief permits.



B. Mobility and planning studies

Inter-operability and inter-modality challenges address the relationship between the various forms of public transport as well as sharing modes, soft transportation, inter-city transport, the transport of goods, and the conditions under which cars are used.

The FIDIC commitments

Support the development of methods and tools which:

- foster a greater acceptance of the short- and long-term interaction between urban planning and transport;
- facilitate an understanding of the immediate “system effects” of a proposed project by exploring the full range of alternative operating modes.
- Encourage consulting engineers to provide in their offers alternatives that incorporate these methods and tools as soon as a procurement process permits.
- Monitoring indicators: number of consulting engineers who have undertaken FIDIC accredited training (including the training proposed under the FIDIC Young Professionals Management Training Programme and for the FIDIC Certified Consulting Engineer pilot programme) where the improved methods and tools are recognized and incorporated.

C. Infrastructure

The consulting engineering industry’s scope of work encompasses all types of infrastructure (road, rail, ports, waterways, airports, water, energy networks, civil engineering, etc.) from the initiation stage to decommissioning. Consulting engineers are heavily involved not only in the planning and design of projects but also in their operation, maintenance and renovation.

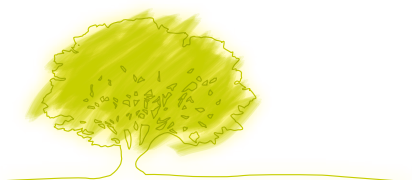
The leverage consulting engineering assignments provide to advance sustainable development mainly arises when a project is optimised and innovation is introduced. For example, in addition to their position as a trusted adviser at the initiation stage of a construction project, consulting engineers can ensure that any extracted material is reused by having this specified in terms of reference and included in the assessment of contractors’ proposals.

Project stakeholders also benefit from the consulting engineering industry’s capabilities with regard to multidisciplinary and the feedback from, and the experience in, the transfer of innovative technologies between most industry sectors in both national and international markets.

The FIDIC commitments

Revise its best-practice guidelines and training to introduce specific requirements for the contribution to project sustainability by consulting engineering firms in the following areas:

- the organisation and management of a cross-disciplinary, integrated approach at all stages of a project, both upstream and downstream (including operation and decommissioning) and covering the needs of different stakeholders;
- establishing and strengthening technical choices by providing assurance, streamlining and the invention and creation of innovative solutions;
- the integration early in the project cycle of environmental and social constraints and strengths, including the effects induced by climate change;
- the assessment of environmental, social and economic impacts (which often lead to conflicting outcomes) based upon defined and prioritised objectives with indicators adapted to the local context of each project.
- Monitoring indicator: amount of investment where these principles have been applied.



D. Corporate social responsibility and training

With regard to corporate social responsibility, FIDIC membership requires that consulting engineering firms warrant that their activities are in line with a global approach to corporate social responsibility that is open to public scrutiny and to shareholders directly or indirectly involved in the realisation of projects.

This commitment can be implemented internally by firms with the support of a FIDIC Member Association and according to the willingness of a firm's board and management team to define ethical and deontological rules that take precedence over purely regulatory and economic aspects.

The FIDIC commitments

Act so that recognised corporate social responsibility values are the basis for developing governance principles for consulting engineering firms.

Actively promote the implementation of contractual arrangements and action plans at a global level and in relation to all member firms for:

- the integration through alternative forms of training (for example, school plus work) of apprentices and job seekers;
- gender equality among professionals;
- the employment of disabled workers;
- the employment and career management of seniors;
- the development of mentoring and of the transfer of skills and expertise.

Revise the FIDIC Code of Ethics so that leaders of member firms commit to the code and ensure that their firm's employees make a similar commitment.

E. Corporate social responsibility and training – eco-responsibility

Acquiring relevant experience, both individually and at the firm level, and maintaining and building capacity including eco-responsibility, namely taking responsibility for environmental impacts, are among the most positive actions that can be undertaken by consulting engineers.

These types of actions support sustainable development, the challenges consulting engineers face and their partners' expectations in collectively achieving the Paris Agreement's objectives. They also have the most leverage effect over both the short and long terms.

The consulting engineering industry's sustainability commitments include raising awareness for sustainable development, the integration of sustainability considerations in existing vocational training, the development and acquisition of new capabilities and skills, and working within internal and external networks. The industry's preferred approach for implementing these commitments is to target the skills and knowledge required to address sustainable development and the expectations of both the industry itself and its clients.

The industry's actions with regard to climate change mitigation and adaptation should be developed in the light of ambitious and consistent objectives, targets and indicators that reinforce corporate social responsibility objectives and the 13th United Nations' Sustainable Development Goal.

The FIDIC commitments

Facilitate the deployment of eco-responsibility initiatives by its members through initiation and training. These initiatives will include:

- maximizing the efficiency of staff mobility (commuting to workplaces; routes to project sites; execution of missions);
- promoting soft transport (for example, cycling);
- establishing adequate car parking (for example, optimising parking areas);
- the internal management of consumables and waste generated by business activities.

Promote a more efficient use of materials, the recycling of materials and waste, and the optimisation of energy and water consumption.

Monitoring indicator: number of member firm executives who received initiation and training in eco-responsibility initiatives of the types listed above.



IMPLEMENTING THE FIDIC STATEMENT OF COMMITMENTS

FIDIC will implement its programme of voluntary commitments through the federation's committees and task forces and through its national Member Associations and their member firms. Monitoring of the programme will be undertaken by Member Associations, which will report to FIDIC.

Programme

1. Duration: 5 years, with an annual progress report on the programme's implementation made public at the FIDIC annual conference.
2. Status report: with effective implementation of the Paris Agreement as the objective, establishes the starting point upon publication of this statement of commitments together with details of tools for monitoring the various indicators.
3. Monitoring: FIDIC Member Associations will monitor the programme's implementation by means of questionnaires covering the following issues:
 - a) awareness of climate change challenges and policies;
 - b) support for innovative solutions to address climate change at all levels and scales, from a building through to a district, the city and its neighbourhoods, infrastructure networks and mobility systems;
 - c) member firm corporate social responsibility practices, especially as regards climate change;
 - d) the support for incorporating sustainability and climate change requirements in contracts;
 - e) dialogue with interested parties.

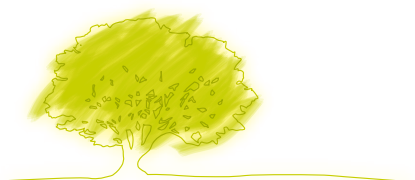
International co-operation

FIDIC will seek to enter into agreements to implement its commitments at the international and sectoral levels in order to promote effective partnerships and to strengthen complementarities between all stakeholders in the built environment.

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International Federation of Consulting Engineers
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FIDIC
World Trade Center 2
1215 Geneva 15
Switzerland



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