ENVIRONMENT

Global Services
While every human activity and development exerts an impact on the natural world, we learn more every day about how to minimize project footprints, apply better practices, and integrate more balanced approaches.

WSP is one of the world’s leading engineering professional services consulting firms. We are dedicated to our local communities and propelled by international brainpower.

Our 5,000 multidisciplinary environmental experts include scientists, management consultants and engineers. We understand clients’ business needs and provide real solutions to real problems, wherever and whenever they may be.
Future Megatrends

We know the future is going to be different. From future climates to energy prices. From future customer expectations to new laws and policies. Understanding and acting on medium to long-term trends is key for all organizations.

In collaboration with IEMA, we have published a new guidance document designed to map, manage and mitigate the impacts of megatrends. Visit iema.net to read the complete publication.

Future Trend Checklist

The following checklist gives a practical guide to some of the key future trends that are likely to be relevant to many organizations. This list is not intended to be a comprehensive summary – every organization is different after all – but is aimed to give a starting point for considering which future trends could be relevant to your supply chain, operations and customers.

We’ve designed this checklist to be copied and used as a simple checklist for management and key departmental conversations. Some trends will be more important than others. In all, consider what the design life of decisions are and – practically – how future trends could impact on these in assessing relevance to your organisation.

1. Society
   - Demographic change - population becomes larger and older
   - People are better connected but more lonely
   - Attitudes and expectations towards environmental issues change

2. Policy and politics
   - Impact of new regulations and policies?
   - New regulators of the future?

3. Resources
   - Energy trends
   - Water efficiency
   - Circular economy and resource efficiency
   - Trend to long life, flexible, modular solutions

4. Climate change
   - Seasons shift
   - Extreme events and regional variability
   - Natural Environment and Ecosystem Services

5. Technology
   - Smarter technology
   - New materials become available and mainstream
Our Global Environment Services Include:

- Acoustics, Noise and Vibration
- Air Quality
- Archeology and Heritage
- CDP Reporting
- Compliance Monitoring and Management
- Contaminated Land and Soil Remediation
- Environmental Health and Safety Management, Due Diligence and Compliance
- Strategic Environmental Assessment
- Environmental Due Diligence
- Environmental and Social Impact Assessment and Planning
- Geotechnical and Ground Engineering
- GIS, Mapping and Surveying
- Land and Property
- Licensing and Permitting
- Materials Engineering, Testing and Quality Management
- Natural Environment and Ecology
- Sustainability, Energy and Climate Change
- Waste Management and Landfill
- Water
Service for the Entire Project Lifecycle, Across all Sectors

Our Environmental experts contribute to client projects in all sectors.

Transportation and Infrastructure
A selection of projects for which we have provided environmental and sustainability services:

• California High-Speed Rail (United States)
• Eurasia Tunnels (Turkey)
• Moorebank Intermodal Yard (Australia)
• Pacific Highway Upgrade – Woolgoolga to Ballina (Australia)
• Woodrow Wilson Bridge Replacement (United States)

Property and Buildings
A selection of projects for which we have provided environmental and sustainability services:

• Cape Town Stadium (South Africa)

Advisory Services
A selection of projects for which we have provided environmental and sustainability services:

• Congestion Charging (Sweden)

Environmental Consultancy
A selection of projects for which the main services provided were Environmental and Sustainability:

• Environmental Health and Safety Due Diligence (South Africa)
• Songdo International Business District (South Korea)
• Surface Water Management & Public Environmental Awareness Study (China)
• Ten-Year Megatrends for the Board of Edrington (UK)
• Walmart Global Refrigeration Strategy (global)

Mining
A selection of projects for which we have provided environmental and sustainability services:

• Gaspe Mine Rehabilitation (Canada)
Moorebank Intermodal Yard/ Australia

The Australian federal government undertook a three-year land transfer program that included a planning and feasibility study for the development of a port-related intermodal terminal on commonwealth land at Moorebank, in Sydney. The proposed facility will be the first and largest of its kind in Australia.

Services
Acoustics, Noise and Vibration / Air Quality / Ecology / ESIA / Environmental Site Assessment / Geotechnical and Ground Engineering / Contaminated Land and Soil Remediation
Woodrow Wilson Bridge Replacement / United States

This multi award-winning project replaced an obsolete bridge on the Capital Beltway with two side-by-side 1.4-mile-long structures with the world’s widest draw spans carrying 12 lanes of traffic over the Potomac River between the states of Virginia and Maryland.

Services
Acoustics, Noise and Vibration / Air Quality / ESIA / Environmental Management Compliance and Monitoring / Geotechnical and Ground Engineering / Licensing and Permitting / EHS Management / Planning / Environmental and Design Management
Pacific Highway Upgrade / Woolgoolga to Ballina

Australia

Australia’s largest regional infrastructure project will duplicate 155 km of the Pacific Highway to become a four-lane divided road. The project is being delivered under a Delivery Partner model.

Services

Acoustics, Noise and Vibration / Air Quality / EHS Management and Compliance / ESIA / Environmental Due Diligence / Environmental Site Assessment Phase 1, 2, and 3 / Sustainability / Planning, Environmental and Design Management
Both Stockholm and Gothenburg have implemented congestion charging with substantial effects on traffic flows, travel time improvements and GHG emission reductions. Beyond effectively reducing congestion and emissions, congestion charging also generates a revenue stream that can be used to strengthen sustainable modes of transportation with additional investments.

Services
Air Quality / ESIA
The Cape Town Stadium was constructed as a multipurpose 68,000-seater stadium for the 2010 FIFA World Cup in South Africa.

**Services**
Geotechnical and Ground Engineering / Contaminated Land and Soil Remediation / Air Quality
The Eurasia Tunnel provides a new strategic transport link between Europe and Asia. Reducing the travel time between the Turkish regions of Kazlicesme and Goztepe from 100 to 15 minutes, the project also increases safety and reduces GHG emissions and noise pollution.

Services
Acoustics, Noise and Vibration / Air Quality / Planning, Environmental and Design Management / Geotechnical and Ground Engineering
Gaspe Mine Rehabilitation / Canada

The CAN$116 million site rehabilitation program was the first mining operation and copper smelter decommissioning project in Canada and involved handling over 1,000,000 m³ of materials. We provided complete engineering, procurement and construction management services on the rehabilitation project and were the main environmental consultants for both the rehabilitation of the mine and the residential properties that were affected. The project won the Schreyer Award, one of the most coveted engineering awards in Canada.

Services
Contaminated Land and Soil Remediation / Mine environmental / Mine Water Management / Licensing and Permitting / Hydrogeology / Hazardous Substances Management / Environmental Site Assessment / Stakeholder Management / Environmental Demolition QVQC
We have been helping shape high-speed rail in California since the earliest feasibility studies in the 1990s, through to our current role as Rail Delivery Partner to the California High-Speed Rail Authority. Under our present contract, our fully integrated team has been providing comprehensive early-phase program and engineering management services, engineering design services, environmental and sustainability overview and review services, covering initial funding through to the business case development. Environmental Planning activities include addressing both federal (NEPA) and state (CEQA) requirements on a statewide programmatic level and also developing individual documents for each project section.
Executive Insights: Helping the Board of Edrington Understand 10-year Megatrends / UK

We advised the board of Scotland's largest distiller on key trends including the impact of climate change on barley production, customer attitude to environmental issues, availability of water on Speyside and long-term energy prices. The project was led by our environmental business' management consultants. We convened an expert team to research the issues and provide the board with a clear and practical briefing together with practical insights into how these could affect Edrington's business as usual plans.

Environmental Health and Safety Due Diligence / South Africa

We were contracted to undertake an environmental health and safety due diligence assessment of Libstar, comprising 22 manufacturing operations across South Africa, focusing on food and beverages, consumer chemicals and the production of consumer hygiene products. The assessment was undertaken in line with local legislation, the IFC Performance Standards and WBG EHS Guidelines. Our reporting resulted in material changes to the structuring of the deal, as a result of specific liabilities identified - improving the deal outcome for our client.
Songdo International Business District / South Korea

This six million sq.m. private development is a LEED-ND (Neighborhood Development) Pilot Project and the first LEED project of its kind in Korea.

Services
Sustainability Consulting and Project Management
Surface Water Management & Public Environmental Awareness Study / China

WSP was consultant to the Asian Development Bank prior to the rehabilitation of three feeder-lakes and water channels within Wuhan’s urban areas.

Services
Assessment of Surface Water and Lake-Water Quality / Quantitative Simulations / Forecasts and Analysis / Input to Public Information and Education Program

Walmart Global Refrigeration Strategy / Global

We worked with Walmart to develop the firm’s global refrigeration strategy covering 27 countries and 12,000 stores. For most retailers, leaks of chilling gas from stores have a larger greenhouse gas footprint than their distribution fleets. Our strategy cuts 1 million tons of CO2 emissions and saves $250m a year by 2020.

Services
Management Consultancy / Technical Refrigeration Engineering / Ecodegradation Analysis / Cost Analysis / Program Management
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WSP is one of the world’s leading engineering professional services consulting firms. We are dedicated to our local communities and propelled by international brainpower. We are technical experts and strategic advisors including engineers, technicians, scientists, architects, planners, surveyors and environmental specialists, as well as other design, program and construction management professionals. We design lasting solutions in the Property & Buildings, Transportation & Infrastructure, Environment, Industry, Resources (including Mining and Oil & Gas) and Power & Energy sectors as well as project delivery and strategic consulting services. With 36,000 talented people in more than 500 offices across 40 countries, we engineer projects that will help societies grow for lifetimes to come.

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