

Rail. Right through

International Rail Technology Consultants

Vehicle Engineering

Engineering Consulting

- Feasibility Studies
- Investigations
- Mechanical Systems and Components
- Electrical and Electronic Systems
- Engineering Design
- Specification Development
- Industrial Design
- Handicap Facilitation
- Emergency Preparedness
- Structural Analysis
- Environmental Assessment
- Crashworthiness/Crash Energy Management (CEM)
- Expert Witness Services
- Vehicle Dynamic Modeling
- Clearance Evaluation
- Trucks/Bogies

Program/Project Management

- Program Management Oversight (PMO)
- Project Engineering
- Management of New Build, Overhaul and Refurbishment
- Site Engineering

Maintenance Services

- Reliability, Availability, Maintainability and Safety (RAMS)
- Benchmarking
- Lifecycle Costing
- Reliability Centered Maintenance (RCM)
- Cost Improvement
- Documentation Services
- Maintenance Facilities

Audits

- Process Audit
- Quality Audit

Testing, Measurement and Monitoring

- Static and Dynamic Vehicle Testing and Approval
- Instrumented Wheelsets
- Structural Testing
- Acceptance Testing

Systems Engineering

Railway Operations

- Accident and Incident Investigation
- Train Performance Simulation
- Feasibility and Route Development
- Timetabling and Resource Planning
- Capacity Analysis
- Infrastructure
- Wheel-Rail Interface
- Track
- Electrification/Substation

Safety and Approvals

- Regulatory and Standards Compliance
- Fire Safety Analysis
- Hazard Analysis
- Risk Analysis
- System Safety and Security Plans
- Safety Plan Audit
- Independent Safety and Security Assessment

Business Strategy

- Financial Analysis and Appraisal
- Benchmarking and Due Diligence

Telecommunications

- Data Networks/SCADA

To explore your high speed requirements and to find out how Interfleet can add value, contact Nigel Davies, Vice President - Business Development, or Tim Zimmer, Vice President - Marketing, at:

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Unrivalled Credentials

Interfleet Technology Inc is part of the international Interfleet Technology group, an engineering consulting firm comprising more than 575 staff world-wide, with 24 offices in 10 countries.

Our extensive services encompass vehicle engineering, systems engineering and business strategy and we support a wide range of clients across the rail industry.

We have strength in depth of resources and proven experience gained from more than 40 years' involvement in the field of passenger equipment for both incremental and very high speed rail systems.

This experience spans equipment types which include Electrical Multiple Units, Diesel Multiple Units (both tilt and non-tilt) and loco hauled equipment. So, regardless of your needs, Interfleet can deliver benefits for your organization and meet your high speed rail requirements.

International Best-Practice

Our conventional and very high speed rail experience includes equipment types and systems operating in North America, UK, continental Europe and Australia.

We therefore offer you detailed understanding of both national high speed rail equipment and systems, combined with international best-practice, to enable the optimum and most suited solutions to meet your service needs.

Throughout the Asset Lifecycle

Our capabilities span the full project lifecycle, from equipment strategy development, feasibility studies through vehicle procurement, including project management/engineering, production oversight, engineering design, testing and commissioning, together with all aspects of rail operations, train maintenance and overhaul.

So, whether you are working at a governmental level to develop a high speed rail service, a car builder seeking to supply high speed rail equipment, a financier looking to invest in a new high speed rail operation, or another key rail organization, Interfleet Technology Inc has expert services to support you with this.

Contact us to discuss your exact requirements and to find out how we can add value for your organization in the high speed rail arena.

How We Can Help You – Our Services

The world-wide expertise and knowledge of the international Interfleet group, coupled with our local North American operation, means we can offer you a unique portfolio of services relating to high speed rail, from high level strategy to detail implementation.

The wide range of services we offer encompasses:

- Rail equipment technology benchmarking and assessments/appraisals
- Regulatory advisory services
- Vehicle Procurement support for new and/or rehabilitation including:
 - Development of either performance based or prescriptive based specifications or a blend of the two
 - Industrial Design - Interior and exterior design development
 - Design and production oversight (QA/QC)
 - Acceptance testing and commissioning oversight
 - Safety and approvals
 - Warranty management
- Instrumented wheel-set services
- Engineering Design services including
 - Train performance simulations and Vehicle Dynamic Modeling
 - Clearance evaluation
 - Life Cycle Costing (LCC)
 - Reliability Availability, Maintainability and Safety (RAMS)
- Operations and Maintenance support including:
 - Development of operations and maintenance specifications
 - Depot layouts
 - Reliability Centered Maintenance
 - Support for ongoing revenue operation, including equipment maintenance oversight and day-to-day engineering/technical support

In brief, Interfleet Technology has proven ability to plan, manage and oversee the implementation of successful high speed rail equipment procurements from concept to operation, delivering solutions to complex problems and meeting tight timescales.

Proven Track Record – Our Experience

The international Interfleet group has been involved in many successful high speed projects world-wide, including North America. Here is just a small sample of how our high speed skills have been employed in different countries and on different assignments:

North America

- Technical support to Bombardier Inc and Alstom for the Acela Express trainsets on the Northeast Corridor, including train performance and energy consumption analysis, conducting instrumented tests, track force studies, truck structural design evaluation and development of the braking system specification for the trainsets.
- Provision of vehicle technology evaluation support to Transmax for the DesertXpress operation between Las Vegas and Victorville.
- Support for a range of detailed feasibility studies for North American high speed rail, including 'Americanization' studies of the French TGV technology for the Ontario-Quebec Rapid Train Task Force studies, supporting the Texas TGV Consortium with the development of technical sections of the proposal submitted to the Texas High-Speed Rail Authority and technical support to the Fox Consortium for the Florida Overland Express project which included:
 - Technical evaluations and feasibility studies
 - Leading the petition with the FRA for a Rule of Particular Applicability (which addressed both equipment, and systems and infrastructure)
 - In-field support for selection of the final alignment conducting Train Performance Simulations
- Advice on the maintenance strategy, maintenance facilities and overhaul program for Amtrak's HHP-8 High Horsepower locomotives.

United Kingdom

- Interfleet defined the Train to Infrastructure Interface Specification for the new 125mph high speed trains being procured for the upgrade of the UK West Coast Main Line from London to Scotland. Interfleet was also retained by the UK government to oversee the design and build of the new 'Pendolino' high speed tilting trains, manufactured by Alstom/Fiat. Interfleet was retained by Virgin Trains to assist in introducing the fleet into service, including supporting testing and managing the approvals process.
- Project engineering, technical and approvals support for the new Hitachi high speed equipment for operation as a 140mph commuter service over the UK Channel Tunnel Rail Link.
- Interfleet's staff supported the new 125mph electric train fleet procured as part of the London-Scotland UK East Coast Main Line upgrade. Interfleet staff led the design, production, testing and service introduction. Interfleet has continued to provide support to the current fleet owners and operators, including maintenance and overhaul, refurbishment and re-engineering.

Australia

- Interior design, communications/entertainment systems and ride/vibration support for the Cairns Tilt Train, a high-speed 100mph tilting train service operated by Queensland Rail along the Queensland coast.
- Support for XPT fleet – Interfleet's Australian offices have provided a wide range of support for the 100mph XPT fleet, the high speed train operating on key eastern seaboard routes, including Sydney-Brisbane and Sydney-Melbourne. Our activities have included a wide range of engineering support, together with support for the fleet's refurbishment and engine replacement.
- Trial of Swedish X2000 high-speed train – Interfleet project managed the trial of X2000 trailer vehicles in Australia, operated with XPT diesel power cars, including testing and performance monitoring.

Continental Europe

- Eurostar – several Interfleet staff were seconded into the multinational project team (comprising the 3 national railway administrations involved, SNCF, SNCB and British Rail) that managed the procurement of the 186mph high speed passenger rail equipment that operates on the hugely successful Eurostar Channel Tunnel Rail Link service between the UK, France and Belgium.
- Support for the Swedish Arlanda Express 124mph high-speed airport link, including risk analysis of its rolling stock, infrastructure and maintenance, together with technical support.
- Procurement of new intermediate trailer cars to increase fleet capacity for the Norwegian Flytoget 130mph high-speed airport link. Interfleet support included project management, type tests, quality assurance and technical expertise. We also evaluated the trains' running dynamics.
- Project management/engineering support for the 126mph X2000 high-speed tilting train, including measurement of track-forces and the development of interior design concepts to improve passenger comfort.

As can be seen from these selected examples, we have delivered a wide range of high speed rail solutions around the world to organizations like yours and we could do the same for you.

Contact us to discuss how we can help.

