

# Intelligent Transportation System (ITS) solution from Emtelle

Intelligent Transport Systems - making travel quicker, safer, cleaner

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Intelligent Transport Systems (ITS) can have a profoundly beneficial impact on traffic flows, contributing to:

- Fewer accidents
- Lower congestion
- Shortened travel times
- Reduced vehicle wear, vehicular emissions and fuel costs

- Europe-wide, the cost of road accidents is estimated to be around 1% of GDP<sup>1</sup>
- Smooth traffic flows can reduce CO<sub>2</sub> emission by up to 33%, NO emissions by up to 50% and Hydrocarbon emissions by up to 23%.<sup>2</sup>

<sup>1</sup> Parliamentary Office of Science and Technology, Intelligent Transport Systems (2009)  
<sup>2</sup> Siemens

An ITS monitors traffic-related data (for example, traffic patterns, accidents, bad weather and delays caused by roadwork). This data is sent to a control centre, which transmits appropriate responses to messaging signs, for example, or directly to vehicle operators. An ITS can be used for all sorts of traffic – road, rail, air, sea and inland waterways – and can help streamline traffic moving between these different methods of transportation.

## Emtelle – guided by experience, driven towards the future

Given the amount of data involved, and the critical conditions in which an ITS operates, it's clear that the technology used to create such a system should allow easy installation, offer limitless bandwidth and be flexible and scalable. Fibre – specifically blown fibre, such as Emtelle's FibreFlow™ – is the technology that meets these requirements.

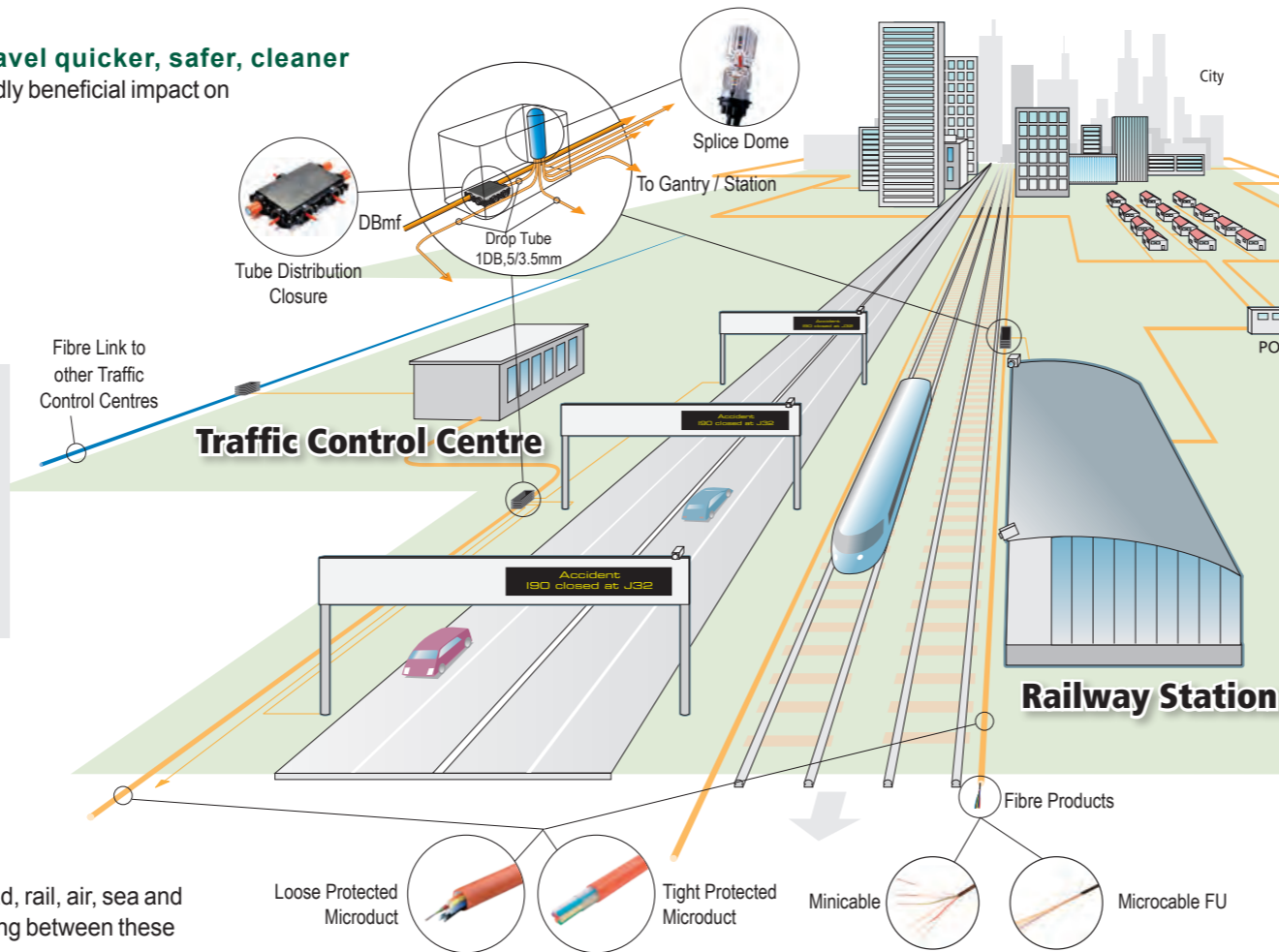
Emtelle provides and develops these passive network solutions. Our high-speed fibre solutions carry crucial data back and forth between remote locations and control centres, generating major benefits for ITS operators, engineers and the travelling public.

### Emtelle has completed ITS projects around the world, including:

- M8 Motorway (Scotland)
- Perth Bunbury Highway (Australia)
- Kuala Lumpur monorail system (Malaysia)

## Research – the roadmap to success

Travel and transportation involve huge numbers of people and huge amounts of investment. Understanding the workings of the industry is a complex task, and it's one that Emtelle takes seriously: by keeping up to



speed with developments in the transportation industry, we can focus on our clients' needs and create high-value solutions.

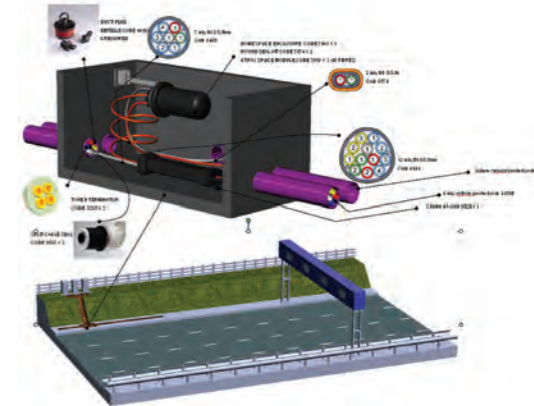
Maintaining this awareness of trends and market information is a must. Understanding ITS enables us to deliver optimal network solutions in terms of flexibility, scalability and Cost of Ownership.

## Innovation – no assembly-line solutions



To minimize disruption, Emtelle offers different installation methods (including mole ploughing, trenching and mini-trenching, as well as traditional dig). Our comprehensive range of ready-to-use, easy-to-use products allows us to fine-tune our solutions to a degree that no other company can match.

Should a situation call for it, we will develop a tailor-made innovative solution for our client. While meeting clients' particular needs, these innovations also enable us not only to keep pace with technological developments, but also to be the driving force behind them.



## Benefits of FibreFlow™ ITS solution

- Reduced capital expenses
- Reduced operating expenses
- Greater broadband capacity and lower costs per Megabyte
- Optimal network flexibility and scalability
- Greater freedom in network planning and design
- Investment required only when justified by potential returns
- Innovative, robust products
- Lower skill set requirements
- Complete end-to-end solution
- One reliable source for all products, accessories and services
- An integrated, immediately compatible product range

If components need to be especially designed, we can do that. After all, a solution is a solution only if it saves time, offers hassle-free installation and maintenance, is scalable to future requirements and meets the demands of the local situation/conditions.

## Performance – engineered to perfection

An ITS typically demands consistent and high-level network performance – needless to say, sustained downtime can be extremely problematic when traffic is involved. Also, should a network require maintenance or upgrades, it's clear that the quicker the recovery time, the better.

Used worldwide in a variety of FttX applications, Emtelle's solution offers unmatched day-to-day reliability. With our FibreFlow™ technology, fibre is simply blown in and out of already-established ducts, so network modification can be done with ease, ensuring maximum uptime, enhanced efficiency and a high level of operational security.



## Value – getting more mileage out of ITS

In terms of investment costs, our solutions offer significant benefits – requiring minimal manpower, reduced civil work and lighter equipment than rival technologies. In addition, because it uses less energy, a fibre optic infrastructure saves on Operating Expenses (OpEx).

### Given all these savings, investors in an ITS network can realise a return on their investment surprisingly quickly:

- Reduced day-one capital expenses and ongoing operating expenses
- A quicker return on investment
- Pay-as-you-go fibre installation: money need only be invested in the network when justified by rising demand or new revenue generation possibilities

The high speed with which ducts and fibre can be installed is an important benefit at any time, but is especially valuable when traffic management or road closures are involved. This flexibility also creates freedom should an ITS infrastructure need to be expanded or upgraded.

End to End passive fibre optic network solutions, such as those created by Emtelle, optimise the network's Total Cost of Ownership (TCO), so as to create real and long-lasting value for investors and stakeholders.



## Convergence – when applications intersect

Another important trend is the convergence of infrastructures. Just as landlines and mobile phones now interoperate, passive network technologies and applications are moving closer together. For instance, the same modular passive infrastructure used in ITS monitoring and signalling can also be used to connect cities and communities with fibre to enable high-speed (>100Mbps) broadband connections. Clients can therefore capitalise on their ITS investment by partly deploying it for other applications, and can enjoy additional revenues by leasing the infrastructure to third parties.

## Emtelle – moving ahead

Our people are extremely proficient and dedicated. Our products are robust and easy to use. Our support services are second to none. And we go all out to ensure that our solutions meet our clients' needs precisely. In terms of financial savings, lower cost of ownership, higher return on investment, convenience, sustainability, flexibility and long-lasting, high-level performance, our End to End passive network solutions are the best means to ensure that our clients reach their goals – and people reach their destinations – as quickly, securely and cost-efficiently as possible.

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