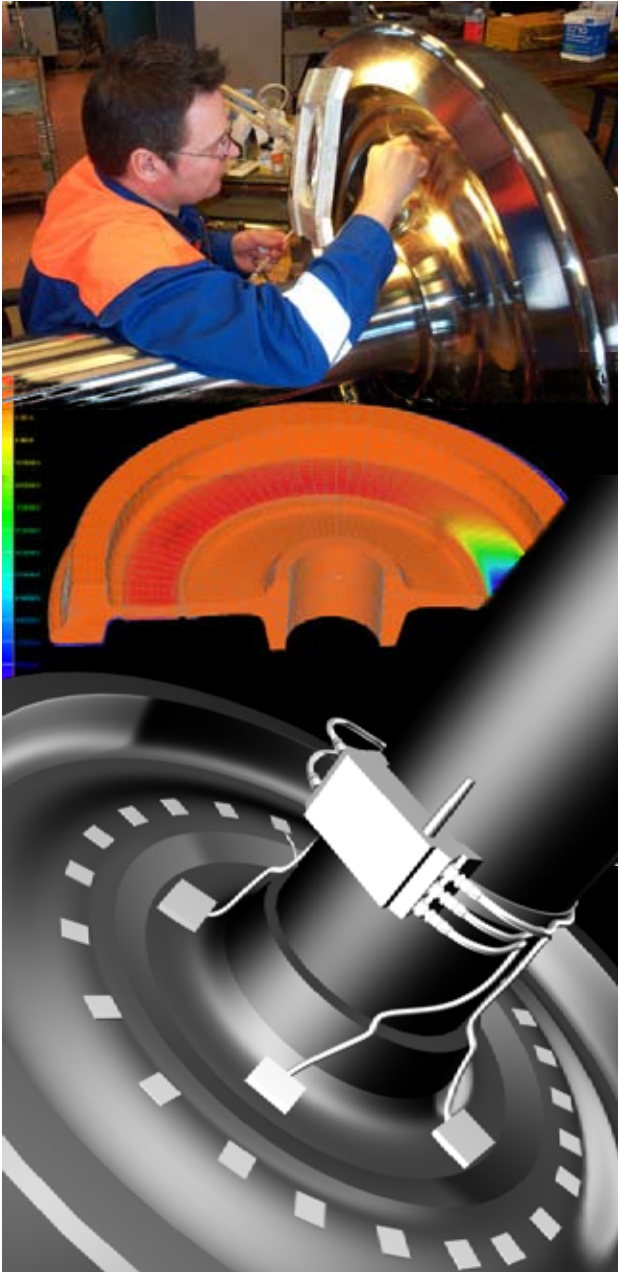


## IWT<sup>4</sup> Instrumented Wheelset Technology



Interfleet Technology's Test Services has been at the forefront of Instrumented Wheelset Technology (IWT) since the conception of the technology in the 1950's. Test Services pioneered the use of instrumented wheelsets for measuring vehicles running characteristics in the 1950's. Today Test Services remains a preferred supplier and a world leader in this technology.

Interfleet Test Services continuously seeks to push the boundaries of technology. Ongoing research and development in the field has led to a revolutionary new IWT measurement system, IWT4.

IWT4 offers the following advantages:

- The technology utilises the standard wheels fitted to the vehicle. No special "test wheels" are required to be fabricated, this reduces the delivery time and the cost of the total measurement system.
- The system requires only one side of the wheel to be fitted with measurement equipment, which simplifies the instrumentation process.
- No slip ring devices are utilised in the system. This decreases the cost, increases reliability and simplifies installation of the system.
- The technology doesn't require the wheel to be machined, so its structural integrity is not altered.

All of the advantages of IWT4 are made possible by utilising an advanced mathematical method for processing the strain signals on the surface on the wheel in combination with a state of the art measurement device including a cutting edge radio system.

IWT4 is CE marked, accredited by the German Railway Authority (Eisenbahn Bundesamt), and ready use in applications such as:

- Vehicle acceptance testing – running dynamics
- Validation of vehicle models
- Demonstrating "track friendly" vehicle behaviour – Track Access Charges
- Solving wheel or rail wear issues
- Solving running dynamics issues
- Monitoring safety when increasing speed or axle load
- Providing key data during the development of novel designs
- Wheel-Rail interaction research.