

The Network Rail logo, featuring the text "NetworkRail" in a blue sans-serif font above a stylized red and white graphic element that resembles a train or a signal.

NetworkRail

A photograph of railway tracks receding into the distance, overlaid with a semi-transparent green filter. The tracks are made of steel rails on wooden sleepers, with gravel ballast between them. The background shows some green foliage on the left side.

Rail Innovation and Development Centre

(Melton and Tuxford)

Network Rail is delighted to introduce its Rail Innovation and Development Centres (RIDC) at Melton and Tuxford.

Network Rail has established these sites to act as an enabler to promote innovation within the rail industry and to directly support the Rail Technical Strategy (RTS)



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Investing in the Industry

We continue to deliver an ambitious programme of investment to build a bigger and better railway. The benefit of this investment will provide extra capacity and capability for passengers and freight customers, with increased seating capacity, more trains, longer trains and faster trains



Photo by Network Rail



Photo by Network Rail

The Rail Innovation and Development Centre

In 2009 we created the Rail Innovation and Development Centre (RIDC) Tuxford. A facility for the industry to experiment, trial and develop new rail vehicles, machinery and working practices in controlled conditions. Enabling improvement in how we maintain, renew and enhance the railway

The benefit of this investment will provide extra capacity and capability for passengers and freight customers, with increased seating capacity, more trains, longer trains and faster trains

It also provides a training facility for the industry to improve skills and develop new

processes in a highly realistic and controlled environment.

We have enhanced the RIDC with the addition of a further test and development centre near Melton, Mowbray in Leicestershire. This facility will be progressively brought on-line with full operation in January 2015

The Sites are available for use by the whole of the rail industry, facilitating innovation and thereby helping to reduce the costs involved with research, innovation and development.

Where are the RIDC Sites located?

The Rail and Innovation Development Centre (RIDC) is located across two conveniently located sites in the East Midlands. RIDC Tuxford is centred 15 miles north of Newark in Nottinghamshire and our new RIDC Melton site is centred at Asfordby near Melton Mowbray in East Leicestershire

RIDC Tuxford

Spurring off the Robin Hood Line, the RIDC incorporates some 11 miles of track between Thoresby Junction and High Marnham, with a separate branch line to Bevercotes, offering a perfectly sited facility to develop rail vehicles, technology and equipment.

A former cross-country line, it is truly representative of the operational railway and includes many characteristics found on the national network, including Continuous Welded Rail (CWR), Canted Curves, Gradients, Bridges, Cuttings, Embankments, etc.

RIDC Melton

Trailing off the Leicester to Peterborough Line, the Centre incorporates some 14 miles of track between Melton Jct and Edwalton, with a major operating centre at Asfordby near Melton Mowbray and a further smaller centre at Old Dalby. This comprehensive site is ideally suited to develop higher speed rail vehicles, technology and equipment. A former main line, it has characteristics that would be expected of a trunk route including electrification and two significant tunnels.

Benefits

Being away from the busy railway network, the facility removes the logistical difficulties and high costs traditionally associated with testing and training on the operational railway, whilst still providing a realistic, safe environment.

The RIDC is run by Network Rail and includes most of the features of the modern rail network. It is maintained by our in-house, Maintenance Teams to national standards and is therefore wholly representative of Network Rail infrastructure

This unique combination makes it a cost effective way to undertake development and innovation work from trialling the smallest of hand tools to commissioning and approving new, complex high output renewal systems.



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Our future plans

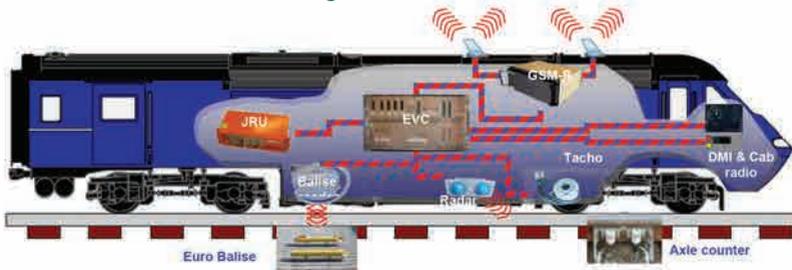
At RIDC we pride ourselves in working collaboratively with colleagues from across the Industry, creating mutually beneficial working and operating conditions. We strive to continuously improve our capacity and capability making our facilities the best they can be whilst recognising the need for an affordable service to our customers. We are currently working on several major developments including;

National Telecoms Development Centre:

RIDC Melton is to become the “go-to” network for rail innovators as part of a common connected environment which includes RIDC Tuxford. The presence of a reference telecommunications network on accessible railway infrastructure gives innovators an on-network secure equipment environment, with an associated “connected” trackside environment for product and technology trials.



National ERTMS Test & Driver Training Facilities



National ERTMS Test & Driver Training Facilities:

To support Network Rail’s existing ERTMS test facility on the Hertford North line, we are developing additional capability at RIDC to allow First in Class testing for rail vehicles, additional integration capability and driver confidence training to meet anticipated demand from the industry. Our team can also provide in-life support and carry out trials to optimise user selectable parameters for ERTMS equipment. We can also provide a service to maximise reliability and manage reliability growth of ERTMS train mounted equipment.

Special Switch & Crossing (S&C) Testing:

Recognising the importance of reliable S&C to the whole industry, we are working on a variety of initiatives to assist in undertaking full scale endurance testing of these key assets.

A vital part of our strategy is being able to perform both static and dynamic tests at one site. Being part of a 125m/hour test track capability allows this.



Photo by Network Rail

Services Provided



Photo by Network Rail

The RIDC Sites cater for a wide range of customer requirements, including:-

- Delivery of Innovation across all engineering disciplines and operational environments
- Development of Rail Vehicles, On-Track Machines, On Track Plant, assorted systems and products
- Training on vehicle and infrastructure systems and equipment
- Vehicle Acceptance Testing for Rail Vehicles, Equipment, Plant and Machinery
- Product Acceptance of New Infrastructure Systems, Equipment and Components
- Incident Reconstruction Trials, Emergency Services Training
- Promotional work including filming and photography

These are just a few examples of what The RIDC sites have to offer, but we can help tailor a service to suit your needs.

Services Provided



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Calling upon Network Rail's vast technical and operational capability, our resources and supplier base can provide all of the on-site services you are likely to need to support your requirements.

We pride ourselves on being able to offer a "timely solution" to meet our customers' needs in a seamless manner. For example: We can provide Locomotives and Drivers, On-Track Plant, delivery of infrastructure materials, staffing for a safe system of work and technical experts in most fields associated within Rail Engineering and Operations. Please contact us with your specific requirements.



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Facilities



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Our RIDC Tuxford Site

Our classroom and amenity point at Lodge Lane, Tuxford, offers secure and flexible accommodation to support our customers' needs. At RIDC Tuxford, we have a "no frills" approach and utilise several portacabin style buildings which can be configured to your requirements, including Syndicate Rooms, Offices, Classrooms and a Display Area

Cost effective catering can also be arranged to meet your individual needs.

We are able to provide a 300m² rail connected Inspection Shed to enable Rail Vehicle and On-Track Plant (OTP) to be prepared for your testing or training needs. This may also be used for training or small-scale demonstrations and exhibitions.



Facilities

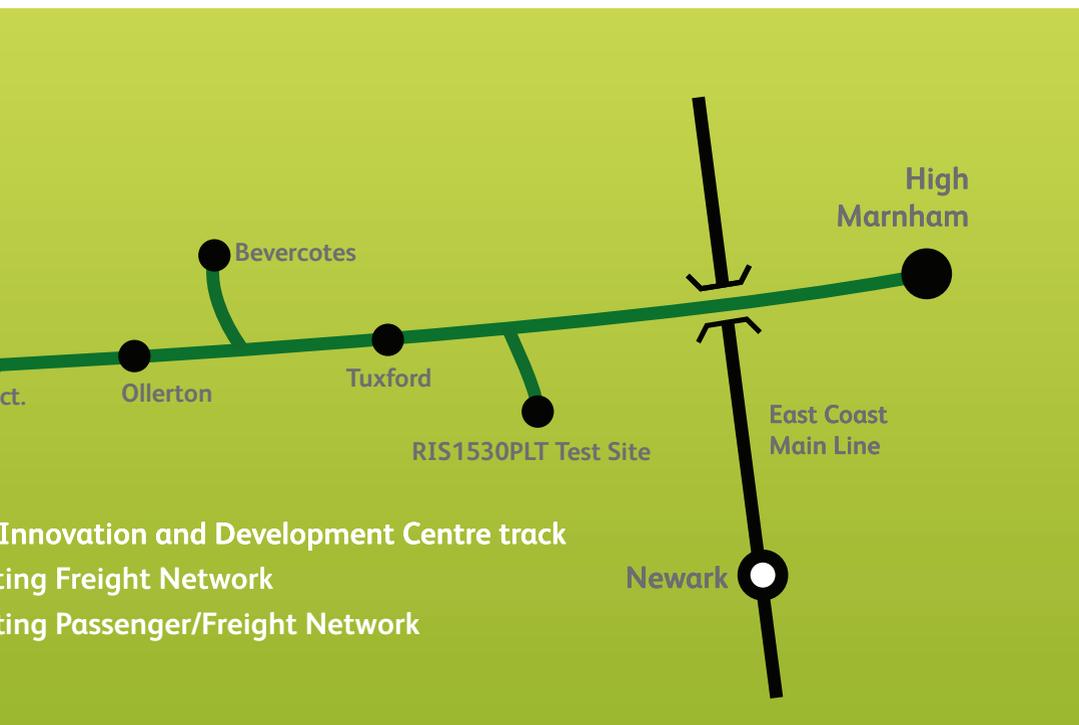
One of our bespoke capabilities is the RIS1530PLT Rail Plant Test Site. This is unique in the UK and has all of the required infrastructure parameters for compliance with Railway Industry Standards, applicable to new and modified On-Track Plant on one site

Other facilities include a Tamper and Stoneblower Training Area and a dedicated Thimbling Training Area.

We are passionate about developing RIDC Tuxford so that it becomes a highly sought after facility. Based on demand, we will continue to invest and upgrade the Centre to meet the needs of both Network Rail and the rail industry.



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Innovation and Development Centre track
Existing Freight Network
Existing Passenger/Freight Network

Facilities

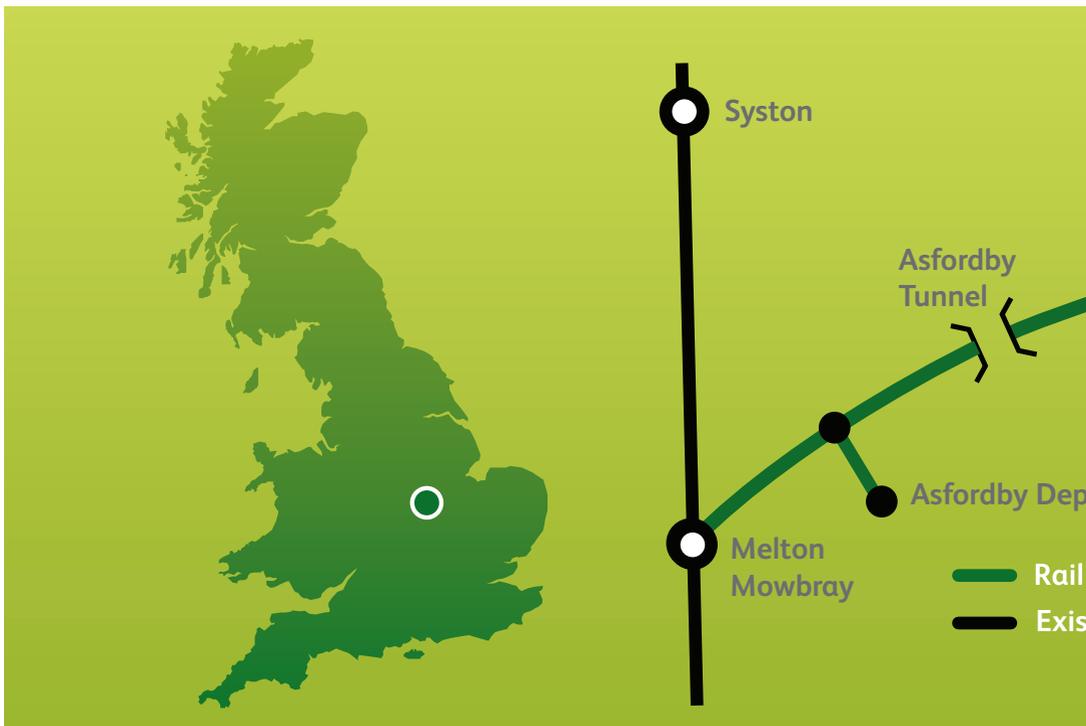


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Our RIDC Melton Site

Our Melton Site is intended to provide a complementary test facility to our Tuxford Site. We are working in partnership with industry colleagues to establish RIDC Melton as a “Centre for Excellence” for the testing and commissioning of high speed Rail Vehicles and Infrastructure Components including those found on high density metro and suburban railway systems, such as London’s Under and Over-ground railway

At Melton we are able to offer significant high quality secure accommodation for staff and equipment under test. At its centre is a 9,000m² rail connected depot with good engineering facilities to enable preparation of Rail Vehicle and Infrastructure Equipment for testing or to undertake static testing under cover. The facility may also be used for training or large scale demonstration and exhibitions



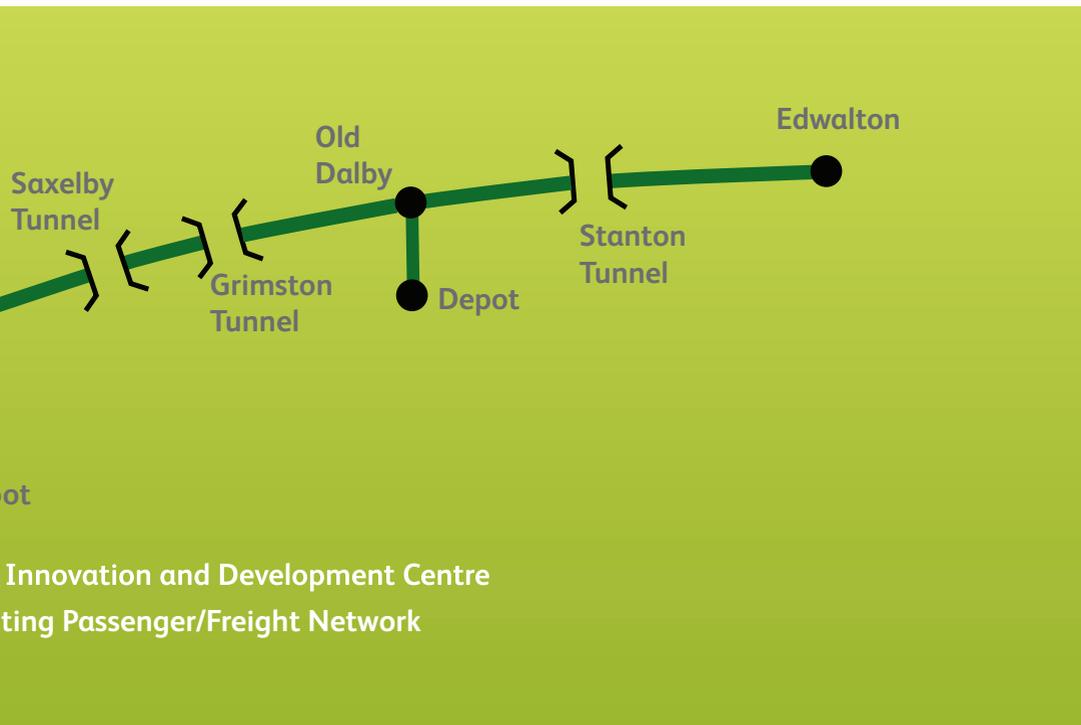
Facilities

RIDC Melton includes extensive 25kV AC 3rd and 4th rail DC electrification and 4 tunnels – the longest of which is over 1,300 yards long. This provides an easily accessible and safe environment in which to conduct tests on Rail Vehicles, On-Track Plant and other infrastructure systems. All our tunnels are available to support the training of Track and Civil Engineering and Technical and Maintenance staff in a realistic situation. They can also be used for post-incident emergency exercises.

We are extremely excited about working with the wider rail industry to offer our Melton Site as a high specification and quality facility. We look to our customers to work with us to inform the future development of this exciting facility.



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Innovation and Development Centre
Supporting Passenger/Freight Network

RIDC at a glance

Tuxford Facility

Linespeed:	75 mph max.
Length:	11 miles.
Topography:	Cross Country Route, Gradient up to 1:120 (Main Line), 1:25 (Test Facility), numerous Bridges.
Rail:	Predominantly Flat Bottom Continuous Welded Rail (CWR), with Concrete Sleepers.
Layout:	Single Line with section of Double Track (3 miles), Sidings, Various Switches and Crossings, including AV6, CV9.25 and a Double Slip.
Facilities:	Based on modular accommodation units – Welfare, General Amenities, Meeting, Training, Office Accommodation, 300m ² Rail Connected Inspection Shed, Road and Rail via RRAP's. Catering by arrangement. Road collection/delivery access for large T & R's

Bespoke Facilities: Our specialist infrastructure/capability includes:-

- Short section of non-live 25kV Type Catenary
- Short section of non-live 3rd and 4th Rail
- Track Twist
- Various RRAP's, incl under non-live OLE
- 20mm Dipped Joints
- Raised Check and Guard Rail
- 80m Reverse Curve
- Cant up to 200mm
- Adhesion Test Sites up to 1:25
- W6A Vehicle Gauge
- Dedicated Tamper/Stoneblower Training Area
- Dedicated Thimbling Training Site
- Lifting Training Site
- Noise Testing
- Handbrake Testing
- Slip Brake Testing Equipment

RIDC at a glance

Melton Facility

Linespeed:	Up to 125 mph
Length:	14 miles.
Topography:	Main Line Route, Gradient up to 1:250, numerous Bridges and 4 Tunnels up to 1330 yards.
Rail:	Predominantly Flat Bottom Continuous Welded Rail (CWR), with Concrete Sleepers.
Layout:	Single Line with section of Double Track (4 miles), many Sidings, various Switches and Crossings.
Facilities:	Permanent traditionally constructed accommodation on two sites – Welfare, General Amenities, Meeting, Training, Office Accommodation. 10,000m ² Depot with pitted, 220 yard, 25kV wired roads, stores etc. Road and Rail access to line. Note: The Road Collection/Delivery Access for large T & R's Depot is capable of being used as a large scale exhibition area. Catering by arrangement

Bespoke Facilities: Our specialist infrastructure/capability includes:-

- 11.5 mile section of live 25kV Type Catenary including a 4 mile section of double track
- 2.5 mile section of live 3rd/4th Rail
- Reversing Triangle
- Cant up to 150 mm
- TSI Noise Testing
- Handbrake Testing
- Slip Brake Testing
- Maximum Cant Deficiency Testing

If you would like further details on the Rail Innovation and Development Centre, please contact:-

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