

Cross River Rail Project European Train Control System (ETCS)

RADIO MASTS AND ANTENNAS

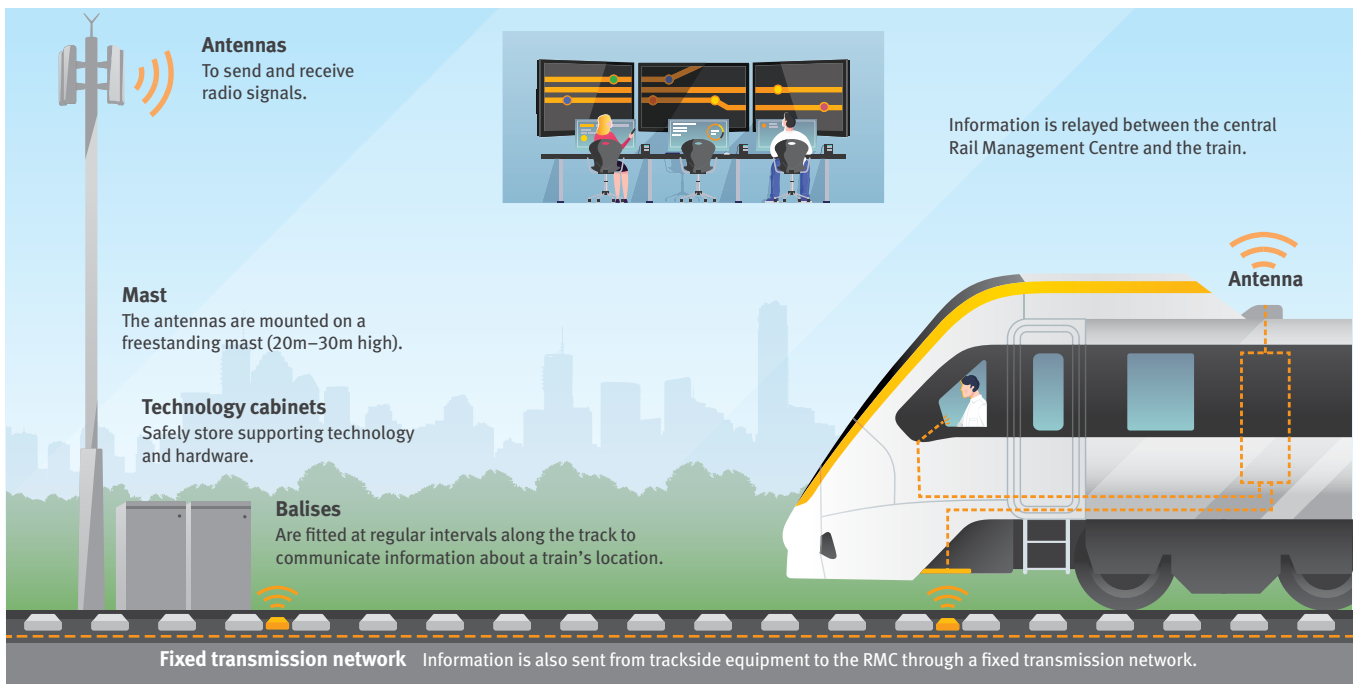
A world-class railway signalling system is being installed in South East Queensland as part of the Cross River Rail Project.

The new railway signalling system works by relaying continuous information on a train's position, direction and speed between the central Rail Management Centre (RMC) and trains via a radio system, and between trackside equipment and the RMC through a fixed transmission network.

Some additional data is transferred via fixed balises (or beacons) on the train tracks to the trains (See Illustration below).

The radio system will use a network of dedicated radio masts and antennas to send and receive signals.

Proven signalling technology



Designed for rail coverage only, the radio system uses European Standard GSM-R technology. GSM stands for Global System for Mobile Communications and the R in GSM-R stands for Railway.

GSM-R is not new. In fact, it has been used for more than 20 years.

It is the equivalent of 2G mobile telecommunications technology.

Locations

The radio masts and antennas will be located close to the railway and spaced along the line to provide a high degree of coverage and reliability.

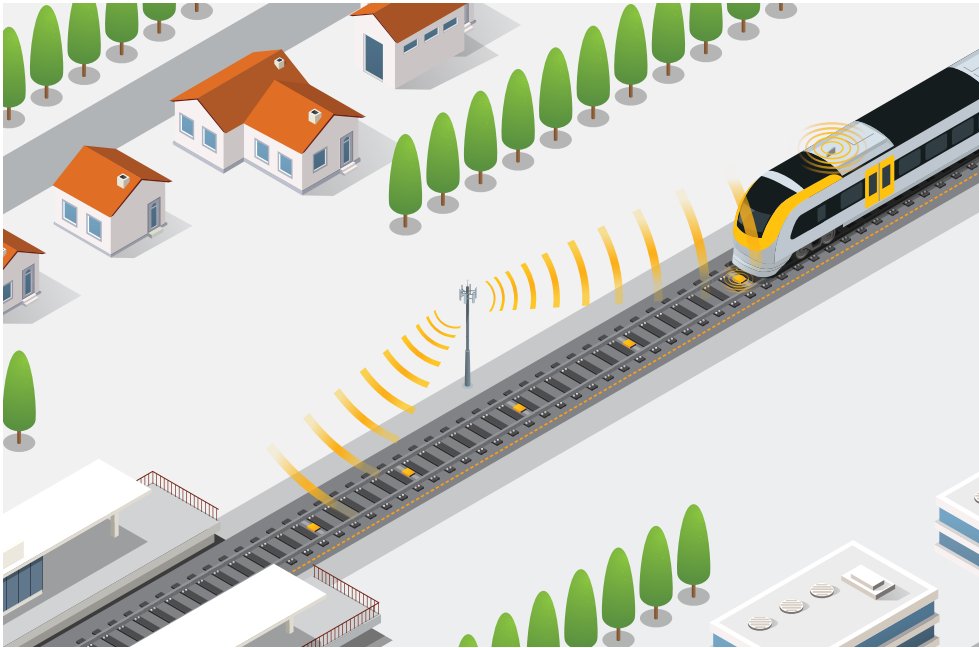
The infrastructure is for rail coverage only and the antennas will be directed towards the rail corridor and the trains with receivers (as per Illustration 1 below).

The majority of masts will be installed on Queensland Rail property designated for rail infrastructure to minimise any impacts on visual landscape, the community and the natural environment.

All sites and infrastructure designs comply with all relevant regulations.

Residents and businesses in the vicinity of proposed sites will be informed of the location of radio masts and antennas in advance of their installation.

Illustration 1



How do I keep informed and updated?

To learn more about the new railway signalling system, visit crossriverrail.qld.gov.au/about/rail-network-improvements.

To keep up-to-date with work in your area, subscribe to electronic updates by selecting ETCS.