

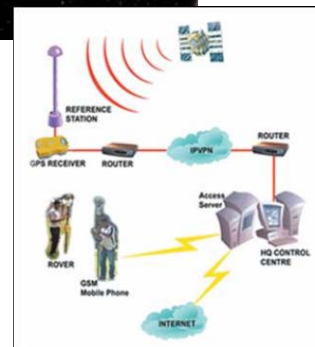
# The Provision of Access to a Nationally Coordinated CORS Network

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## CORS: Delivers significant efficiencies

Real-Time Kinematic (*RTK*) GNSS was introduced by Trimble in 1992, where, through the addition of a wireless link, correction data could be transmitted from the base station to one or more rovers. It has proved itself as a most powerful positioning technique delivering significant benefits that are well documented. This technique's value is often extended through the use of Continuously Operating Reference Stations (CORS).



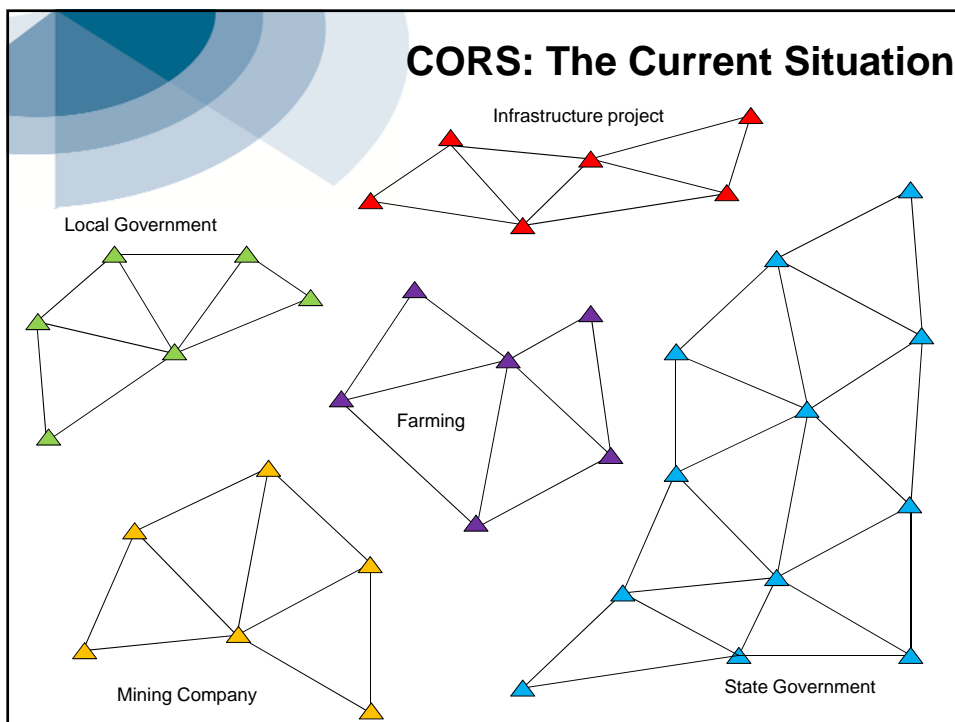
## CORS Popularity

The diagram illustrates the CORS (Continuous Operating Reference Station) system. It shows a network of reference stations (green boxes) connected to a central Network RTK Server. The process is numbered 1 through 4:

- 1. Collect Satellites:** Satellites in the sky provide data to the reference stations.
- 2. Server Software:** The Network RTK Server processes the data.
- 3. RTK Corrections:** The server generates RTK corrections and sends them to the tower.
- 4. RTK Receiver:** Receivers at various sites receive the corrections to improve accuracy.

Additional text in the diagram: "RTK Receiver software & algorithms", "Generate RTK corrections", "Send to tower". A distance of "70 km" is indicated between two reference stations.

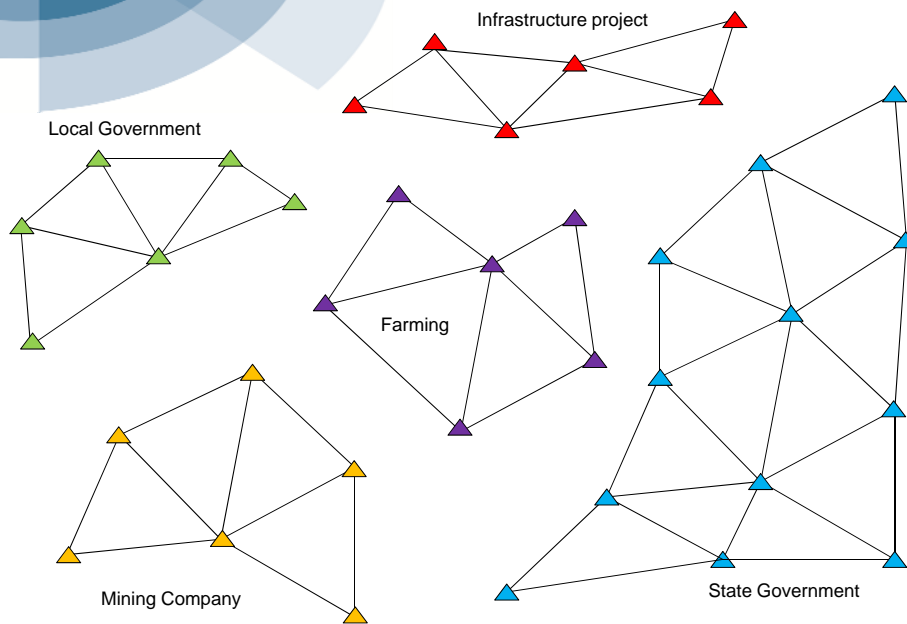
Three photographs show CORS stations in use: a yellow construction vehicle, a green tractor in a field, and a yellow container with a CORS receiver on top.

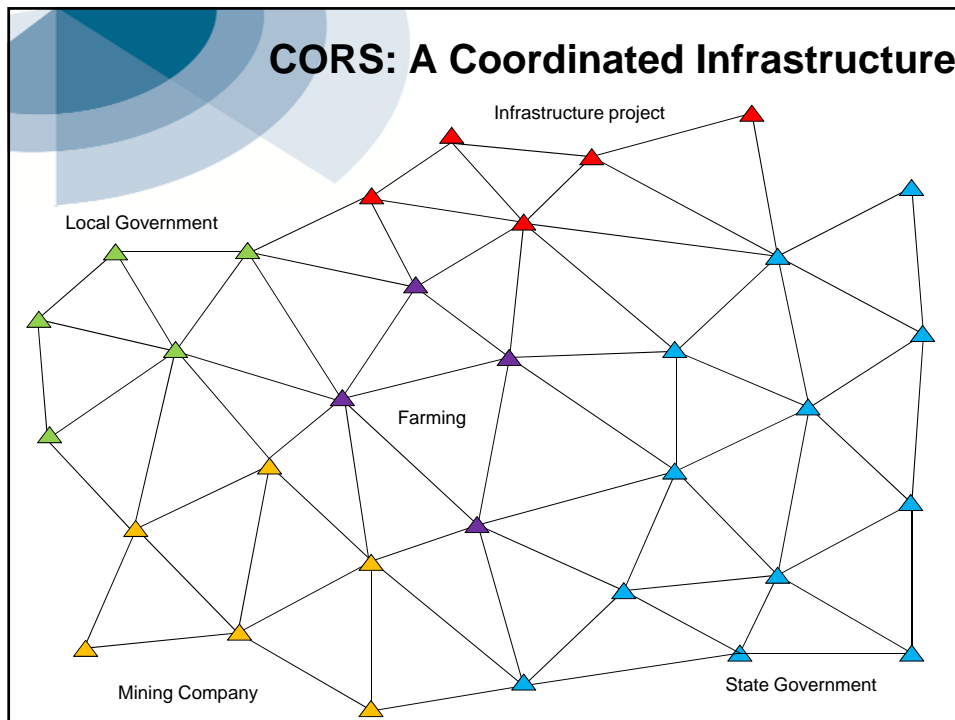


## CORS: Unlocks significant efficiencies



## CORS: A Coordinated Infrastructure





- ### Outcomes sought from national coordination
1. Coordination of investment in CORS infrastructure.
  2. Reduction in costs and improvement in quality for all participants.
  3. All data from all stations available through a single agreement.
  4. Revenue is available to infrastructure owners to encourage participation.
  5. A sizable market that attracts competition, stimulates innovation and promotes efficiency.
  6. Structured and transparent CORS network planning process with clear and nationally recognised minimum standards associated with the establishment of CORS infrastructure.
  7. Monitoring of the network to confirm quality of data available from the network.

## Coordination: The Key Ingredient

- Establishing and coordination the relationships that deliver an integrated national solution is core business for PSMA Australia.



- Managing the relationships and contractual arrangements
- Facilitating the use of the network
- Promoting and encouraging participation in the network

## Actions currently underway

Audit current stations in all jurisdictions.

Network testing and Simulation to develop an optimal network.

Develop a business model, pricing structure and licensing details to support the coordination initiative.

Establish support for the initiative from ANZLIC and participation from the jurisdictions.

ANZLIC have established a National Positioning Infrastructure (NPI) Policy and Future Directions Working Group to provide policy and future direction – PSMA Australia is a member.

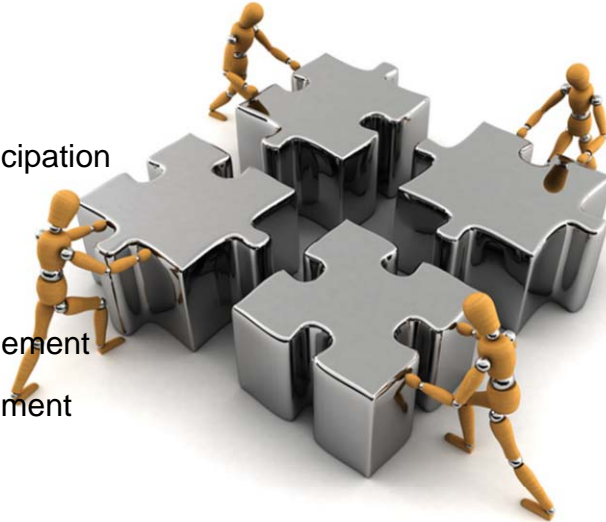
Inform industry and discuss the above actions so as to refine them into a workable and productive model.

	Operational	Last Updated: (31/12/2009)
	Planned	

Grant Hausler  
26 February 2010

## Challenges in creating a national network

- Timely action
- Balanced model
- Broad Industry Participation
- Coverage Planning
- Communication
- Relationship Management
- Infrastructure Investment



### Questions

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### Answers

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