Agenda

- ITS as at tool for “greening” of freight transport, report

- Performance Based Standard
- Experiences from Australia
- IAP pilot in Sweden

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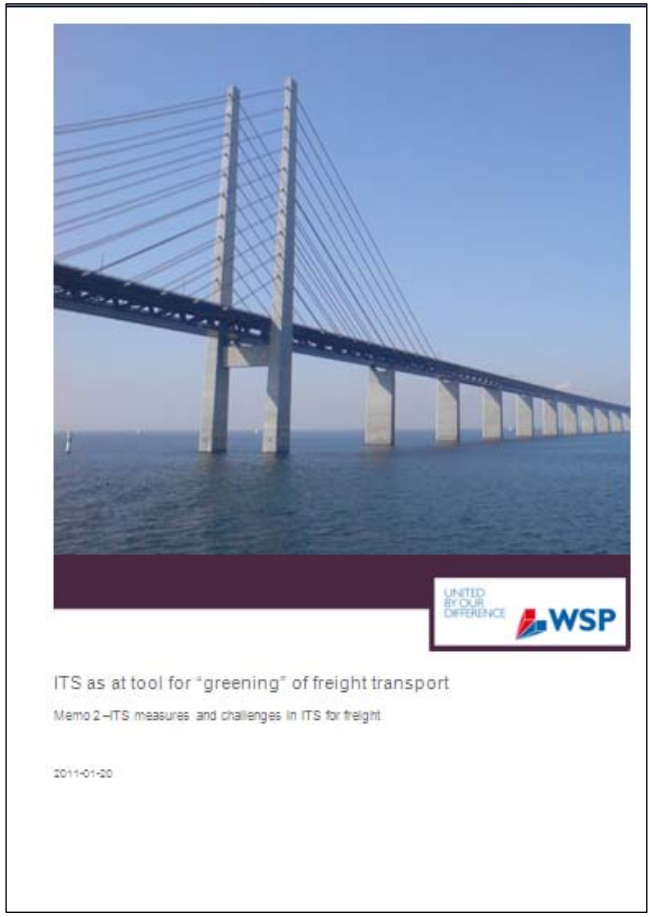
ITS as at tool for “greening” of freight transport
Report TransBaltic



- Benchmark of cluster of ITS tools in the Öresund Region
- Focus on the environmental effects of the ITS tools for road transportation
- Series of workshops
- WSP

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6 - ITS Measures

- **Environmental potential:** Assesses the potential for reduction of CO_2 from the transport sector (in the geographical area).
- **Maturity:** Assesses the maturity of the product/solution in relation to the market.
- **Complexity:** Assesses the complexity of implementation of the product/solution based on number of stakeholders etc.
- **Cost:** Assesses the cost for implementation, i.e. administrative and material costs
- **Yield:** Assesses the yield of the product/solution in relation to costs.
- **Accessibility:** Assesses the potential effect on the transport system in regard to accessibility.

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Summary of results

Main category	Sub category	Enviromental potential	Maturity	Complexity	Cost	Yield	Accessibility
Traffic control	Adaptive traffic signals	High	High	Low	Low	Medium	High
Others	Cooperative Systems	High	Low	High	High	Medium	High
Traffic control	Incident management	Medium	High	Low	Medium	Medium	High
Traffic control	Variable traffic signs	Medium	High	Low	Low	Low	Medium
Information	Real time information to drivers	Medium	Medium	Medium	Medium	High	Medium
Fees & taxes	Charges at ferries/bridges	Medium	High	High	Medium	Low	Medium
Fees & taxes	Congestion charging	Medium	Low	High	High	Low	High
Fees & taxes	Road user charging	Medium	Medium	High	High	Low	Medium
Monitoring	Surveillance special vehicles	Medium	Medium	High	Medium	Low	Low
Monitoring	Speed cameras	Low	High	Low	Low	Low	Low
Traffic control	Slot management at ports	Low	Medium	Medium	Medium	Low	Medium
Security	Safe parking	Low	High	High	Medium	Low	Low

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HCT
High Capacity Transport

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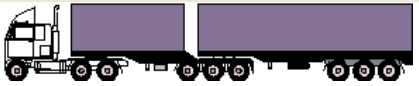
Transport infrastructure for more than 2000 billion kronor

It is vital to use capacities in existing infrastructure which meets industry's demand for transport!

Case: Australia

Australian case:
Network classification in Australia

PBS ROAD CLASS		EXISTING ROUTE
LEVEL 1 ACCESS (L1)* <20 m		GENERAL ACCESS
LEVEL 2 ACCESS (L2) <26 m		B-DOUBLE
LEVEL 3 ACCESS (L3) <36.5 m		TYPE 1 ROAD TRAINS
LEVEL 4 ACCESS (L4) <53.5 m		TYPE 2 ROAD TRAINS

PBS matches the vehicle with the road network

Nr. vehicles

Level 1

GENERAL ACCESS

Safety performance

Level 2

Level 3

Level 4

TYPE 2 ROAD TRAINS

Km roads

Road network access

Vehicle safety performance linked to road network access

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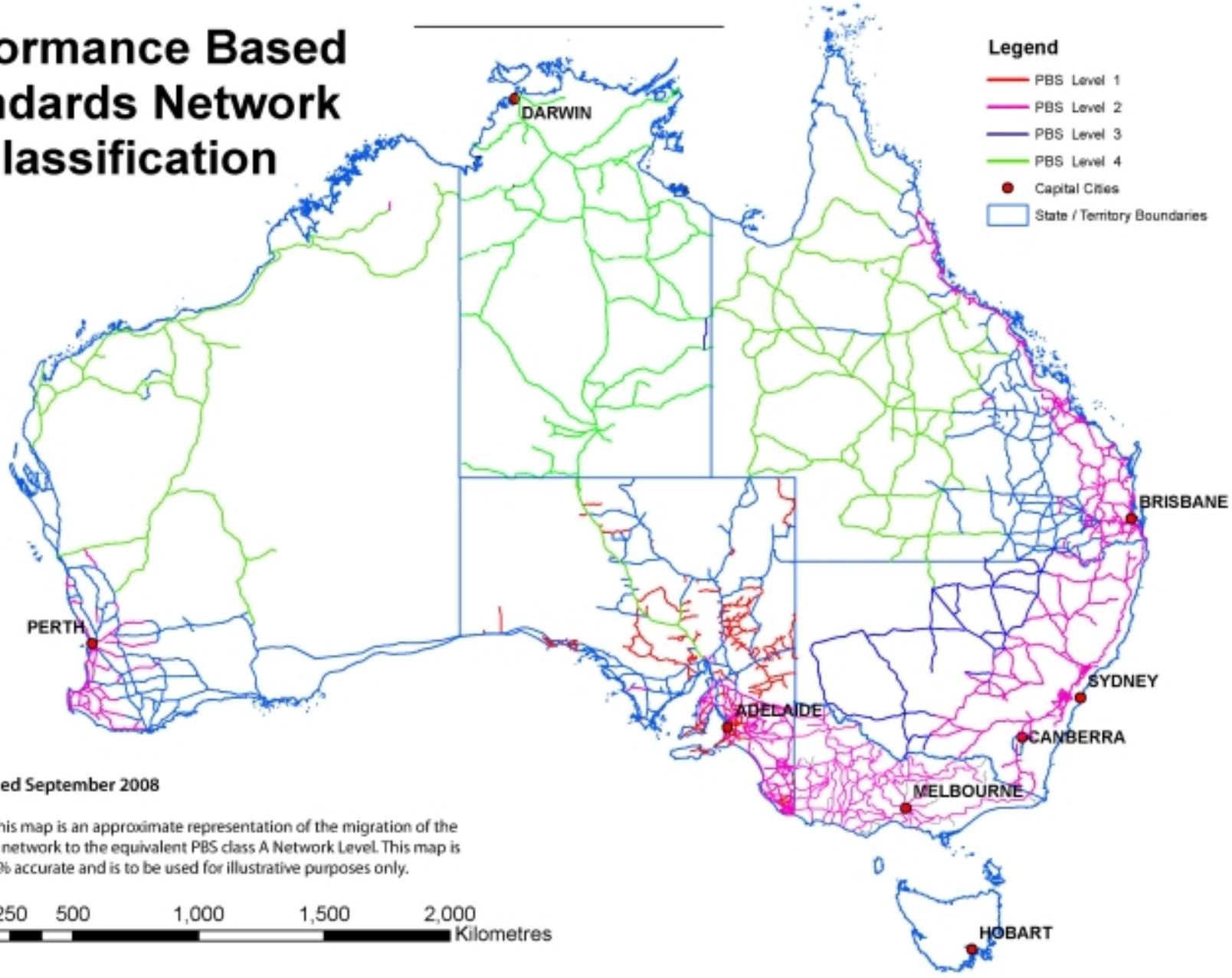
Performance Based Standards Network Classification



Compiled September 2008

NOTE: This map is an approximate representation of the migration of the existing network to the equivalent PBS class A Network Level. This map is not 100% accurate and is to be used for illustrative purposes only.

Swedish Experience “One Pile More vehicle”

Conventional vehicle

24 meter, 60 ton
3 piles, 7 axels

- 20% CO_2, fuel, cost
+50 % productivity
-30% No vehicles
- 0 accidents

OPM vehicle

30 meter, 90 ton
4 piles, 11 axels

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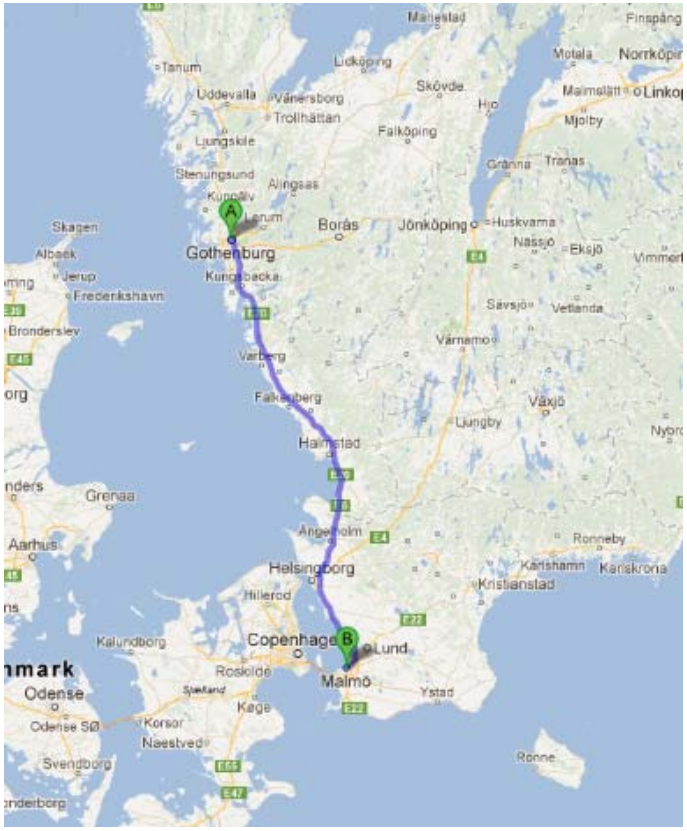
DUO Trailer Sweden 2012



Trafikverket
Transportstyrelsen
Volvo
Scania
Skogforsk

Skogsindustrierna
Fordonskomponentgruppen
Chalmers
Lund University
Closer

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Australian, Swedish experiences with HCT

1. 30-50% increased productivity (tonkm/truck, man)
2. 15-30% reduced CO_2 emissions per transported ton
3. 30% less traffic (vehiclekm) due to goods transportation
4. Reduced need for infrastructure investments
5. Increased safety (fewer vehicles)
6. Less wear on the roads, up to 2 times longer road life (less axel load, less vehicle weight/load, better suspension)

Driving forces for longer vehicles

- Demand freight transport increases faster than capacity
- Increased demand on energy efficiency and lower CO2
- Northern Europe and AU are sparsely and unevenly populated. Limited road budget and long distances.
- Part of the infrastructure cannot take higher loads.
- Large mining and forest industry. Low valued goods over large distances, cannot take higher transport costs
- Local governments demand that HCT vehicles only operates where, when and how they are allowed to allow them
- Telematic boxes with GPS and Mobil phone modems are commonly used in trucks for fleet management

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Conditions for High Capacity Vehicles in Australia

1. Performance Based Standards (PBS) vehicles

2. Classification of road network to match the PBS vehicle

3. Intelligent Access Program (IAP) for compliance of 1 and 2 since 2009

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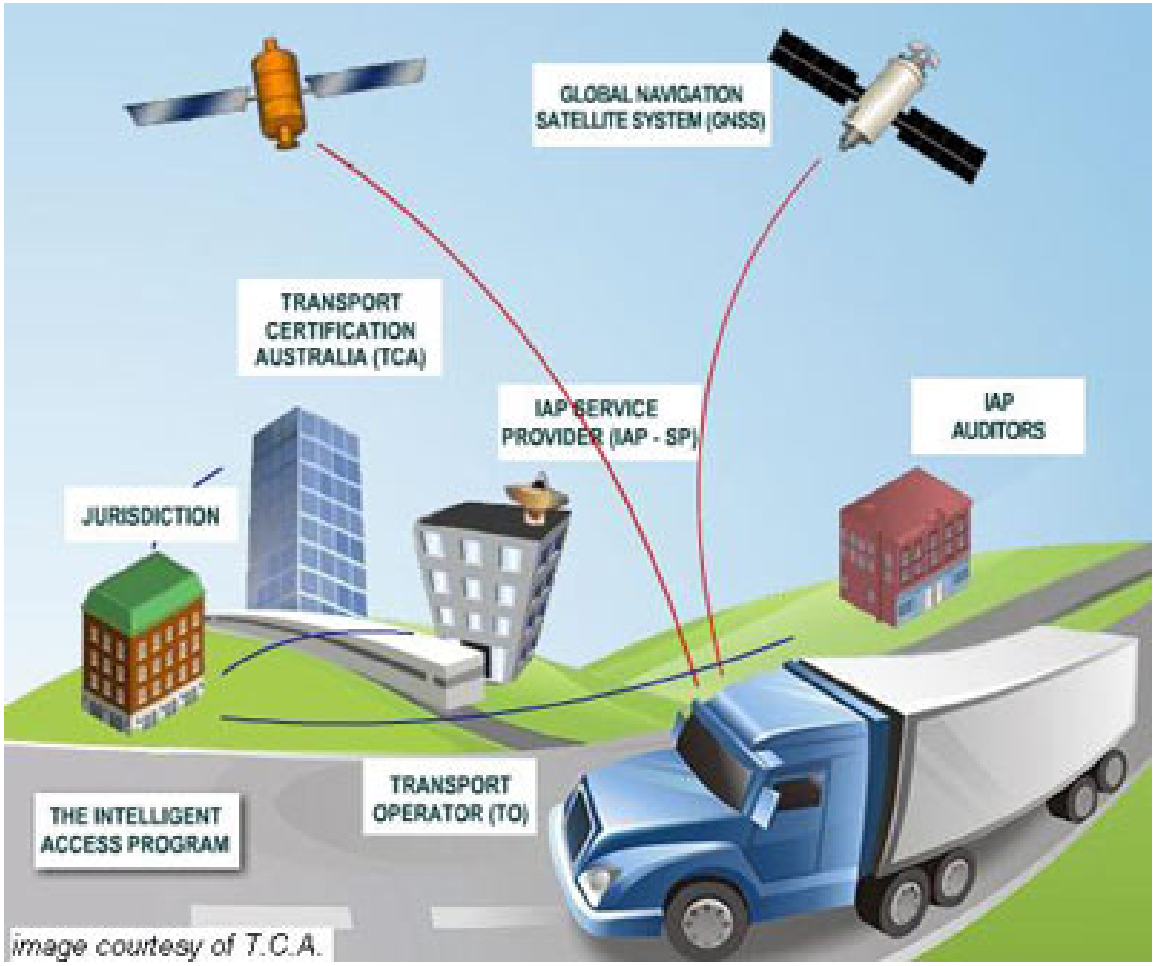
The IAP system in a nutshell



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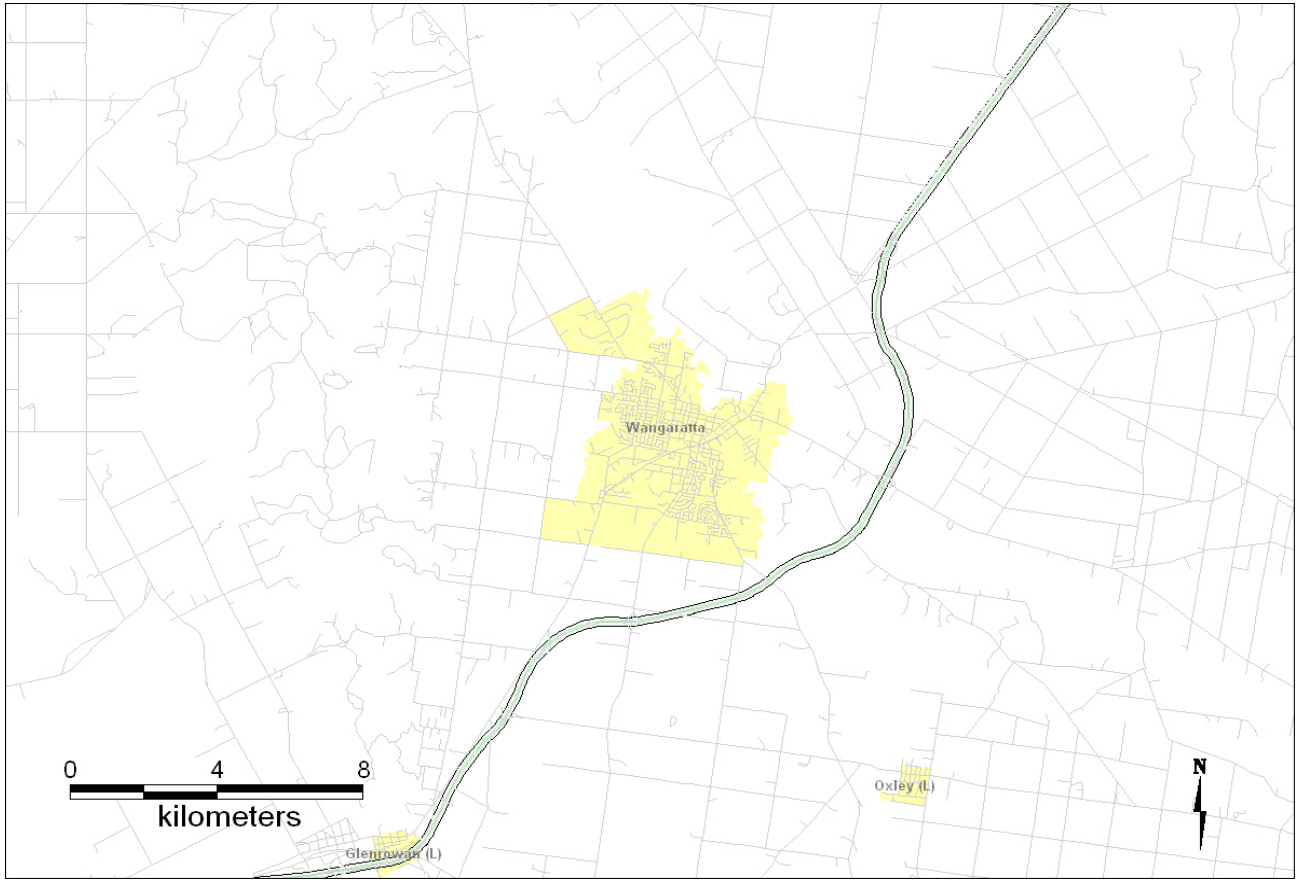
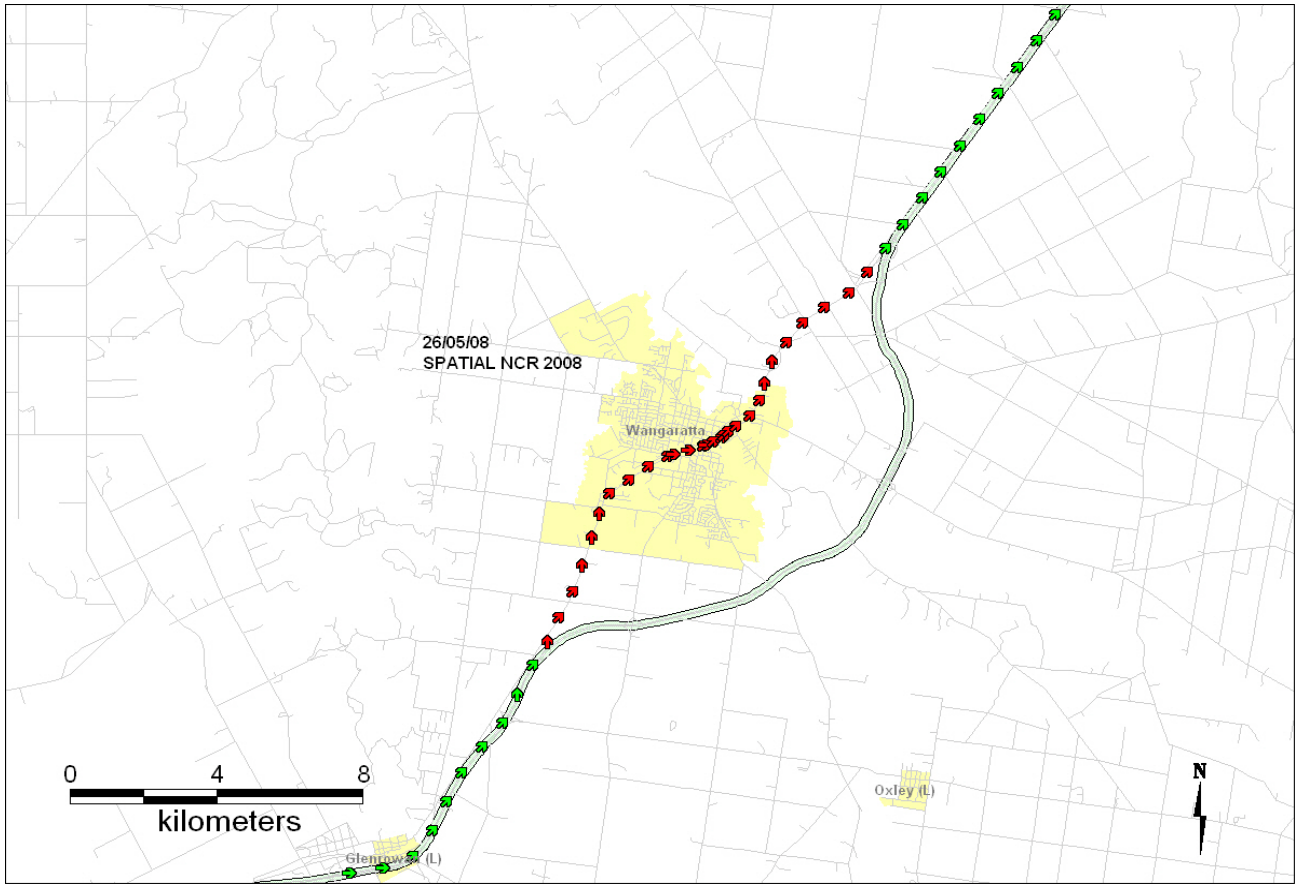
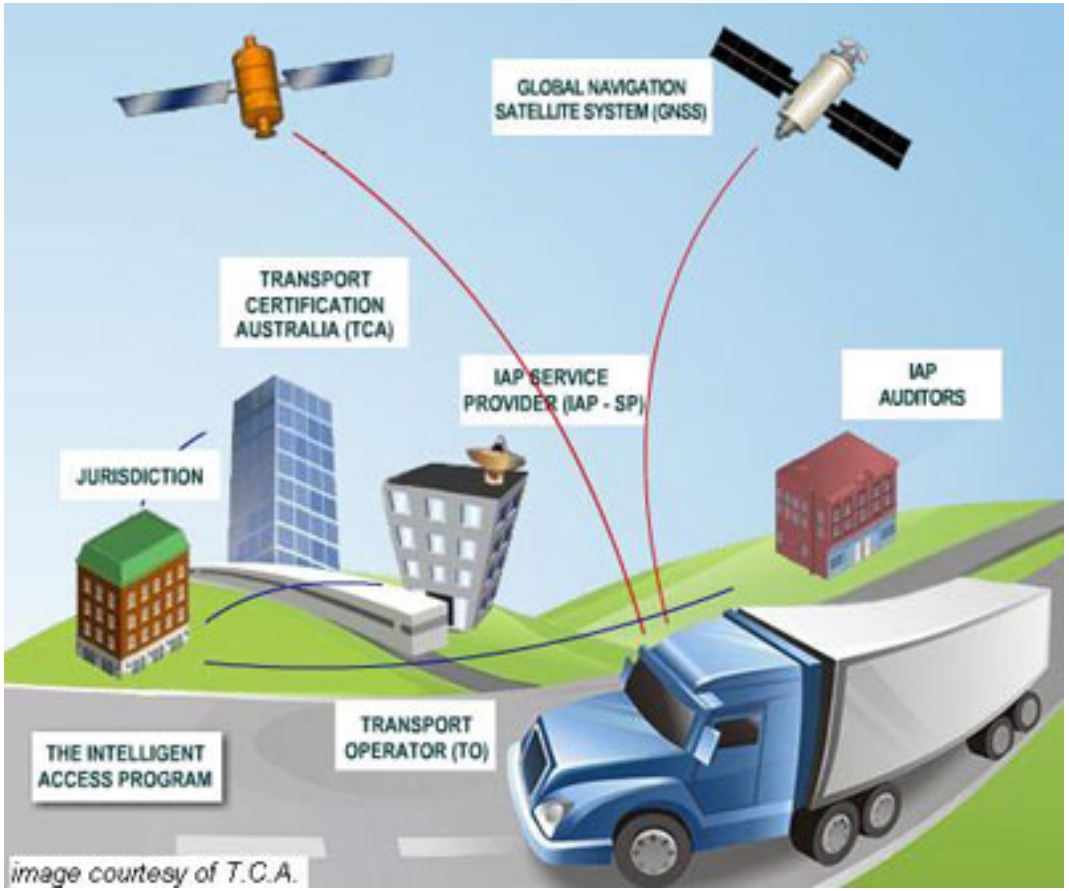
Allowed route



Non compliance event





Transport operator pay monthly fee to Service Provider
TCA (Transport Certification Australia) Certifies Service Providers
Service Providers - Non-Compliance Reports to TCA
NCR could be used as legal evidence in Court

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DUO Trailer Sweden 2012 will be equiped with Australian IAP

Length: 32,5m
Height: 4,5m
Volume: 200m3
Max weight: 80t
Engine: 750hp

The DUO –pull tractor, one dolly and two semitrailers which are 13,6m each.

Only E6 Malmö-Gothenburg 7pm and 6am. March 2012

Trafikverket
Transportstyrelsen
Volvo
Scania
Skogforsk

Skogsindustrierna
Fordonskomponentgruppen
Chalmers
Lund University
Closer

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In Australia: *one* Multi-purpose GPS box

Surveillance, Fleet management, Route planning

Picture from the cabin of a truck at the South German border


DB SCHENKER
DUO² Ett samarbete mellan:
SSAB
WABCO
Vi testar längre fordon för bättre miljö
Lång last

Questions?