



Private Railways: Lessons Learned From Europe (No Kidding)

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Problems for Rail in Europe



- ◆ Short distances favored rail passenger and road freight
 - ◆ Borders limited development
 - ◆ Railway standards different
 - ◆ Social focus of rail made losses common
 - ◆ Encouraged state ownership
- ◆ Geography, language, and custom limited interchange
- ◆ Economic growth magnified problems in recent years

Required Change



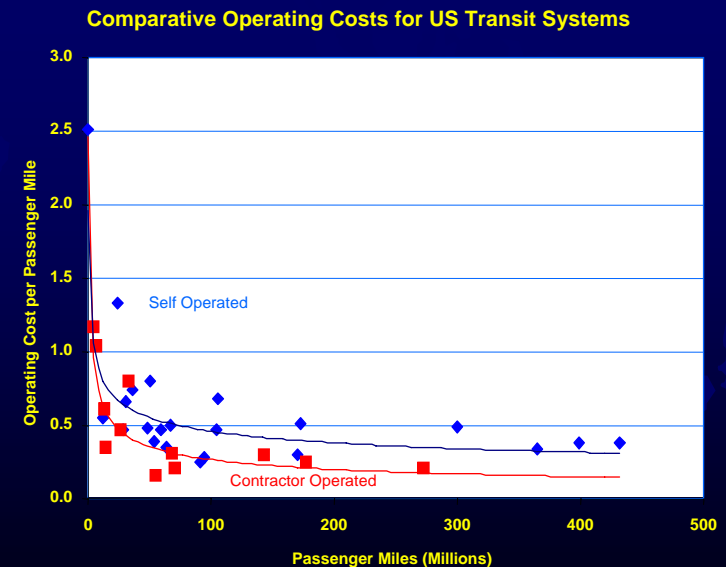
- ◆ European railways became large state owned monoliths
 - ◆ Focused on passengers
 - ◆ Limited freight services
 - ◆ Investment in high-speed
 - ◆ Heavily subsidized operations and capital programs
- ◆ European Union changing rules
 - ◆ Limit subsidies
 - ◆ Encourage competition
 - ◆ Forcing structural changes
- ◆ Resulting in new private sector entities and capabilities

Cost Reductions Real

- ◆ Many studies show unit costs decline from 14 to 50% for urban transit services where competitive tendering results in commercial service providers.
- ◆ US rail passenger transit system data shows systems with commercial operators have lower unit costs.

System	Period	% Converted	% Change		
			Total Cost	Service Level	Unit Costs
Auckland	1990-1996	100.0%	-21.2%	16.5%	-33.5%
Denver	1988-1999	22.4%	12.9%	31.8%	-14.3%
Indianapolis	1994-1996	70.0%	8.5%	38.4%	-25.9%
Copenhagen	1989-1999	100.0%	-13.5%	14.4%	-24.4%
Las Vegas	1993-1994	100.0%	135.0%	243.0%	-33.3%
London	1985-2000	100.0%	-34.9%	32.2%	-50.8%
San Diego	1979-2000	43.0%	2.7%	46.6%	-29.9%
Stockholm	1991-1999	100.1%	-7.1%	16.1%	-20.3%

Wendell Cox, Jean Love and Nick Newton, "Competition in Public Transport: International State of the Art" 5th International Conference on Competition and Ownership in Passenger Transport and Wendell Cox & Bruce Duthion, "Competition in Urban Public Transport, A World View" 7th International Conference on Competition and Ownership in Land Passenger Transport.



EU Transport Policy Forces Change

- ◆ EU has found that regulated competition reduces unit operating costs by 15%
- ◆ New regulation to introduce competition where possible
- ◆ Competition to be open to all EU suppliers
- ◆ Limit government intervention in competitive activities that might favor one country supplier over another
- ◆ Accounting separation of infrastructure from operations is mandated
 - ◆ Many are separating infrastructure and operations entirely
 - ◆ Somewhat different policy for transit than for heavy rail
- ◆ In 2004, transit agencies must open operations and maintenance services to competitive bidding

New EU Regulation

- ◆ Requires tendering of public transport operations
 - ◆ Operators are receive public money
 - ◆ Awarded exclusive rights for a given service
 - ◆ Sets out maximum length of contracts to ensure competition
 - ◆ Exceptions when investment is required (e.g., DBOMs) and longer payback periods are required
- ◆ Proposed regulation fiercely resisted by country operators (DB, SNCF)
- ◆ Regulation neutral to ownership but private operators have been cheaper and more competitive

Private Rail Services Growing

- ◆ Governments are increasing the use the use of contracts with private operators
- ◆ A number of large companies have entered the market to provide rail operations services
- ◆ Several models of private participation
 - ◆ Separation of infrastructure with outsourcing for investment, maintenance, and, increasingly, operations
 - ◆ DBOM contracts for urban transport systems
 - ◆ Other structures, too, including private ownership
- ◆ Privatization, functional outsourcing, private finance for equipment and infrastructure is growing

Private Participation in All Aspects

- ◆ Restructuring created national, regional, and municipal authorities capable of entering into private transactions
- ◆ Financial and political pressures encourage change
 - ◆ Competitive tendering to reduce costs
 - ◆ Functional outsourcing – equipment maintenance, overhaul, track construction, signals, computer systems, computer systems
- ◆ Public authorities have reduced costs and the amount of capital they must invest to provide services
- ◆ Market open to competition has increased from about €7 billion in 1990 (bus), to €26 billion in 2000
- ◆ EU about to expand the market by an order of magnitude

Many Private Operator Services

- ◆ In 1990, virtually all rail and transit services provided by government
- ◆ Private operators began with bus services in the mid 1980s and has expanded since

Date Services First Provided by Private Operators¹

Country	Mainline Rail	Light Rail & Metro	Bus
Britain	1996	1992	1985
France	Before 1990 ²	Before 1990	Before 1990
Sweden	1989	1993	Before 1990
Germany	1987	None	Early 1990s
Netherlands	1998 ³	None	Early 1990s
Portugal	1998	Under construction	Early 1990s
Spain	None	Under construction	Early 1990s
Denmark	2003	Under construction	Since 1990
Greece	None	Under construction	None

¹ In some countries, private companies have operated local mainline services for much longer

² Some lines privately run under contract to SNCF.

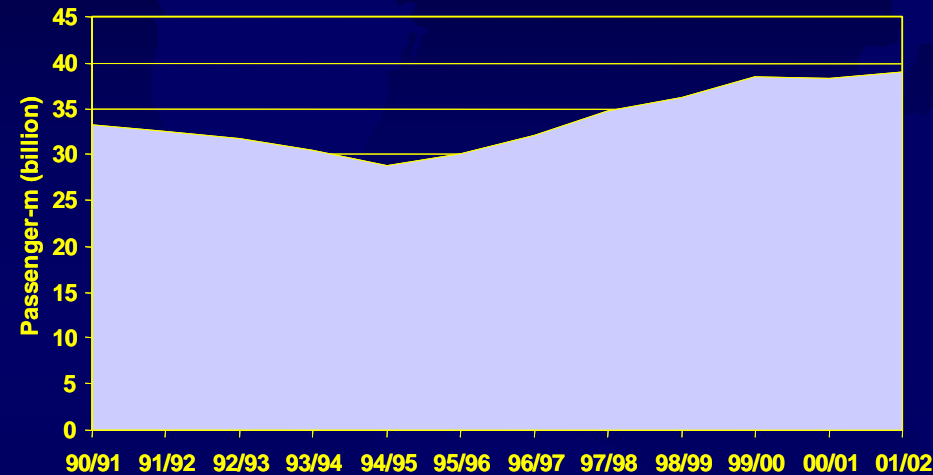
³ Joint ventures between national railway and private bus company.

UK Privatized All Intercity Rail

- ◆ UK radically restructured British Rail in 1996
 - ◆ Separated infrastructure from operations
 - ◆ Separated passenger services into 25 franchises (with 5 to 7 year term) and auctioned them
 - ◆ Freight rights auctioned in three pieces (now in two)
 - ◆ Passenger equipment auctioned to three leasing companies
 - ◆ Separated and sold many engineering units and workshops
 - ◆ Ultimately privatized infrastructure
- ◆ Franchising caused an investment frenzy

UK Results Positive but Mixed

Passenger Traffic in UK



- ◆ Passenger traffic grew by 40%
- ◆ freight by 50%
- ◆ Safety improved
 - ◆ Collisions and derailments per train-km declined by about 2/3s
 - ◆ Signals passed per train-km by about half
- ◆ Subsidy costs down by 20%-less than expected
- ◆ Rapid growth and burdensome safety and economic regulation, and poor management put infrastructure company in bankruptcy—now a not-for profit company

Significant Private Participation in UK

Rail Transit Services Provided by Private Operators in the UK

Service	Locations	Contract Structure	Operators
Light Rail	Manchester	DBOM	Metrolink
Light Rail	Birmingham	DBOM	National Express
Light Rail	Sheffield	Operations & maintenance	Stagecoach
Light Rail	Croydon	DBOM	First Group
Light Rail	London Docklands	Operations & maintenance	DRML
Metro	Jubilee & Northern Line	Supply & maintain rolling stock. Contracts based on availability, with incentives & penalties.	Alstom
Metro	Underground Infrastructure	Finance, maintain, and renew infrastructure and rolling stock over 30 year period for agreed performance levels. Contracts renegotiated every 7-1/2 years. Total value ~£30 billion.	Metronet (Balfour Beatty, Halcrow Atkins) Tubelines (Bechtel, Amey, Jarvis)

- ◆ While all main-line services privatized, many rail transit services started moving that way
 - ◆ Mostly through DBOM
 - ◆ Though some contracts as in Docklands and Underground
- ◆ Infrastructure and equipment maintenance services spreading to transit and metro services

Private Operators in France

Rail Services Provided by Private Operators in France

Service Type	Location	Contract Provisions	Operators
Light rail, metro	Most large & medium size cities, excluding Paris & Marseilles	Management contracts being replaced by operating contracts that include asset maintenance. <ul style="list-style-type: none">• Municipality usually supplies equipment. Special provisions made for investment during contract period.• Typically last 8 to 9 years; longer if investment is made.	Keolis (formerly VIA GTI) Vivendi/Connex (formerly CGEA) Transdev
Main-line passenger including commuter rail services	Small parts of network in Brittany & Provence	In Brittany, CFTA is subcontracting to SNCF. In Provence, service run on private tourist railway.	CFTA (subsidiary of Vivendi)

- ◆ Private operation of main-line passenger services is not common
 - ◆ But from end of 2003, regions are responsible for all transport—could break up SNCF's monopoly of main line rail services
 - ◆ EU regulations require competitive tendering for loss making services—will probably exempt TGV routes

Germany has Private Operators

Rail Services Provided by Private Operators in Germany

Service Type	Location	Contract	Operators
Light rail, metro	Some cities in South & West Germany	Equipment finance only, so far	Foreign operators maneuvering to enter the market
Main-line passenger including commuter rail services	About 40 segments of DB (national rail system) and on private railways	Operating concessions let by Lander (regional government) or by Verkerverbund (transport associations formed by municipalities). Typical terms of 8 years, rolling stock may be privately financed, leased from local authorities, or operator owned	Connex Regionbahn operating under open-access (e.g., Leipzig-Rostok) as well as tendered operations Eurobahn (60% Keolis/40% BGW of Germany) Joint public/private operators

- ◆ Initially resisted by strong unions and social contract
- ◆ Large operators entering the market, now have ~ 8% share
 - ◆ In Schleswig-Holstein, private operators have 25% of train-kms
 - ◆ 4 routes in Berlin concessioned, more on the way

Netherlands Private Operators From 1996

Rail Services Provided by Private Operators in the Netherlands

Service Type	Location	Contract	Operators
Regional & local rail integrated with local bus system	Gelderland, Friesland & Groningen provinces in the north and east of the country.	5 year contracts. Equipment rented from NS or owned by operators.	Syntus, owned by Keolis 35%, NS Reiziger (national rail company) & ConneXXion (local bus company) Noordnet, owned by Arriva (UK) 50%, NS Reiziger 50%

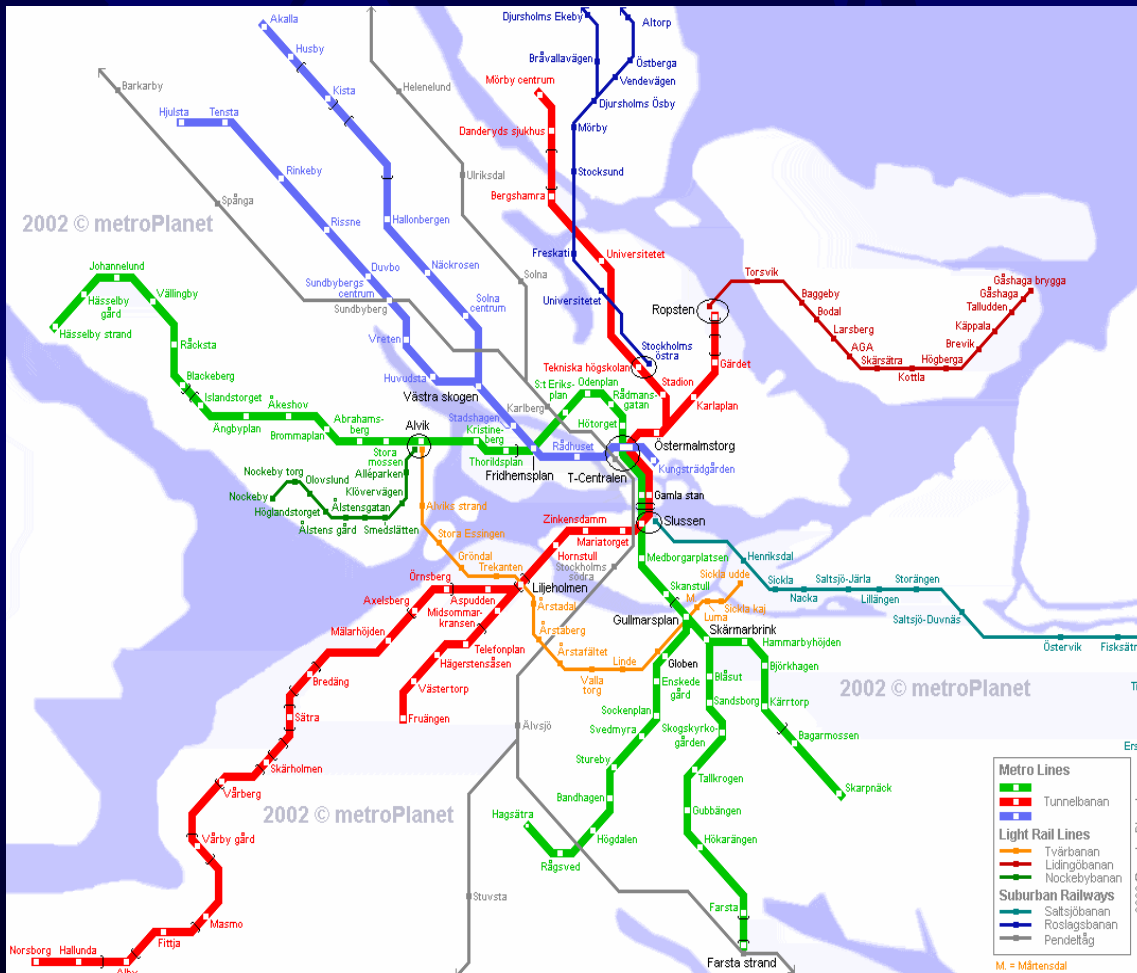
- ◆ In 2003, Government introduced legislation to require all loss making main-line, metro, and light rail services to be tendered as a part of EU regulations
 - ◆ Government has tendered for private operator to run international high-speed rail services from Amsterdam to Brussels
 - ◆ Note that the national railway (NS) is a major shareholder in both existing private operating companies

Private Service Common in Sweden

Rail Services Provided by Private Operators in Sweden

Service Type	Location	Contract	Operators
Light rail & metro	Stockholm	Operating contracts with equipment leased from Transport Authority (SL). First tendered in 1993– 1996.	Connex Tunnexbanan
Airport express	Stockholm	DBOM: operations began 11/99.	A-Train consortium including 2 Swedish companies, Mowlem (UK) & Alstom (France)
Commuter rail	Stockholm	Operation contracts that include provision of rolling stock: operations began in 2000.	Citypendeln, owned by Keolis (partly owned by SNCF), & Connex Tunnelbanan, Rogslagstag
Main-line rail	50% (measured by revenue) operated by private firms. Government authority Rikstafiken, established in 1990 to purchase unprofitable transportation services.	Operating contracts (usually gross cost contracts with 5 year term.) Authorities usually own rolling stock.	Connex (night trains) BK Tag (local lines)

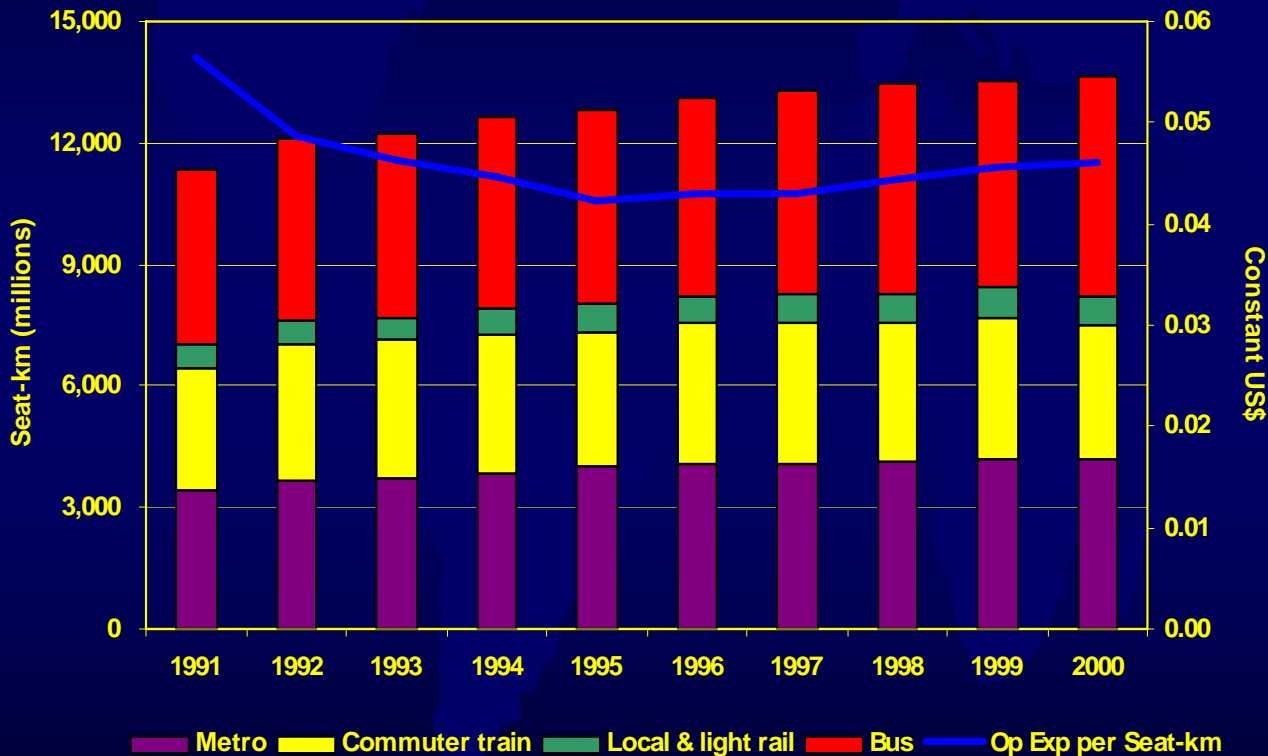
Example: Storstockholm Lokaltrafik



- ◆ SL transformed
 - ◆ From an integrated urban transit service (bus and rail) in 1990
 - ◆ To a transit service procurement agency today
 - ◆ Started as simple contracting-out
 - ◆ Now incentive contracts with finance

SL Now Produces More for Less

SL Traffic & Operating Expense



- ◆ Started in 1991 by separating service and infrastructure
- ◆ Has done bus, light rail, and heavy rail
- ◆ Real operating costs declined by 24% from '91 to '96
- ◆ Operating costs today are 15% below '91 but traffic and services are up

Private Operators in Other Countries

- ◆ DBOM contract in Thessalonika, Greece where Keolis (France) has an 80% share of consortium
- ◆ Lisbon, Portugal awarded a DBOM contract including a 27 year operating concession
- ◆ In Porto, Portugal, a DBOM contract awarded to consortium with Transdev (France)
- ◆ Barcelona, Spain, DBOM contracts with TramMet consortium with Connex as member
- ◆ Copenhagen, Denmark using a DBOM for metro

Private Operators in Other Countries

- ◆ Spanish government has plans for open access competition on entire main line network by 2004
- ◆ Italy is granting licenses to private operators for main-line and regional networks. Regions will start putting rail passenger services to tender in 2004
- ◆ Lisbon, Portugal put suburban Tagus line to 30 year tender to Fergatus, part of private Barraqueiro
- ◆ Austrian Railways (ÖBB) tendering 12 branch-lines in 15 year leases
- ◆ Norway tendering two rail lines in 2004

Even in Eastern Europe!

Rail Services Provided by Private Operators in Eastern Europe

Service Type	Country	Contract	Operators
Main line passenger & freight	Estonia	Sale to private operators. Subsidies provided by government. Freight privatized with infrastructure	GB Railways (UK) finalized pax contract in 2000. World Rail has freight franchise
All services	Poland	Separate infrastructure subsidiary of PKP set up in October 2001. New law paves way for independent regulator & privatization of passenger & freight services over next few years	Some industrial companies have formed subsidiaries to operate domestic freight services over rail infrastructure
All services	Czech Republic	Established separate authority for infrastructure and operating company for operation in 2002/3	Industrial companies operate own account freight services over national infrastructure
All services	Slovak Republic	Separate companies established for infrastructure and operations in 2002/3	One industrial company has formed a rail operations subsidiary to operate own account freight services
All services	Romania	Separate state owned infrastructure, freight, passenger and equipment leasing companies established in 1999, possible privatization of freight and passenger services by 2005	None as yet.
All services	Slovenia	1999 law defines public service obligations, determines access conditions and foresees privatization	None as yet.

Who Are These Operators?

- ◆ Many started as bus operators in the UK
- ◆ Restructuring in the UK helped them evolve
- ◆ Activities expanded to include intercity main line, metro, light rail, and airport services
- ◆ Many now competing globally to provide operating, maintenance, and infrastructure services
- ◆ Largest are European

Connex: Revenue of €3.4 Billion

- ◆ Offices all over Europe and world
- ◆ 1.5 billion trips/year
- ◆ 55,240 employees
- ◆ Rail services in eight countries, bus services in 17
- ◆ Has 4,800 rail vehicles, 19,800 road vehicles
- ◆ Operates rail services in Australia, France, Germany, Sweden, UK, Ireland, Spain, USA



Keolis: Revenue of €1.4 Billion

- ◆ Owned by BNP, SNCF, and Vivendi
- ◆ Operates mostly in France where it has a market share of 40% of urban sector contracts
- ◆ Has 50% interest in Eurobahn with 3 commuter rail systems
- ◆ Part of consortium to build and operate Thessalonika metro
- ◆ Owns 35% of GOVIA a UK operator with Thameslink
- ◆ Awarded South Central London commuter franchise in 2000
- ◆ Owns 35% of Syntus in Netherlands with local rail and bus
- ◆ Operates in France, UK, Sweden, Germany, Netherlands, Canada



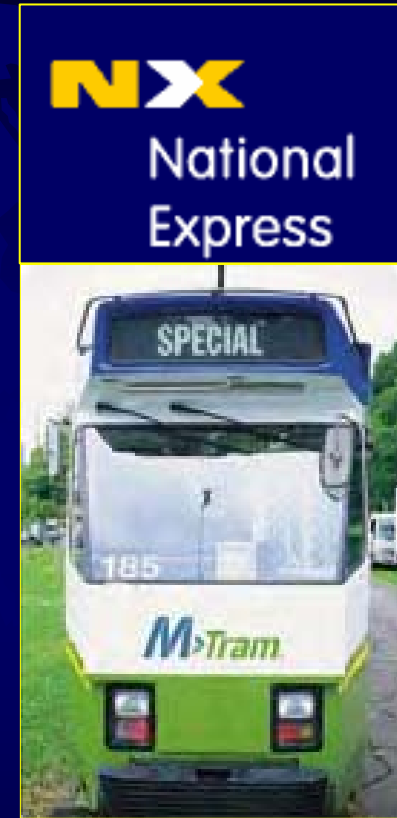
Transdev: Revenue of €430 Million



- ◆ Subsidiary of Caisses des Depots (C3D)
- ◆ Formed strategic alliance with RATP (Paris Metro) who took a 25% stake
- ◆ Has 14,000 employees worldwide
- ◆ Operates in 50 cities in France
- ◆ Operates tram or subway systems in Grenoble, Melbourne, Montpellier, Nantes, Nottingham, Orleans, Porto, Rennes and Strasbourg
- ◆ Part of a consortium that built and operates tram system in Porto Portugal

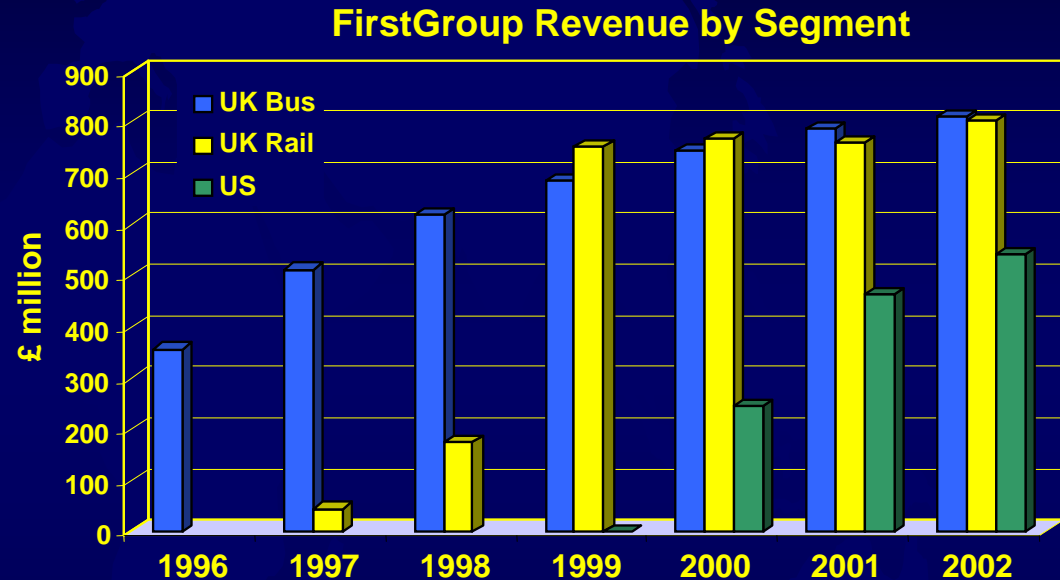
National Express: €4 Billion

- ◆ Major UK passenger services provider also operates in US and Australia
- ◆ Employees 36,000 staff
- ◆ Largest UK franchise operator with intercity, commuter and rural passenger operations
- ◆ Leads consortium that operates EuroStar TGV train between London and Paris
- ◆ Operates a dedicated train maintenance service
- ◆ Third largest school bus operator in the US where it also operates public bus and paratransit services



First Group: Revenue of €3.5 Billion

- ◆ FirstGroup employs about 50,000 staff
- ◆ Over 35% of revenue is from rail services
- ◆ 3 UK franchises:
 - ◆ First Great Western
 - ◆ First Great Eastern
 - ◆ First North Western
 - ◆ Croydon Tramlink
- ◆ FirstGroup operates school buses, urban transit buses, and fleet maintenance services in the US



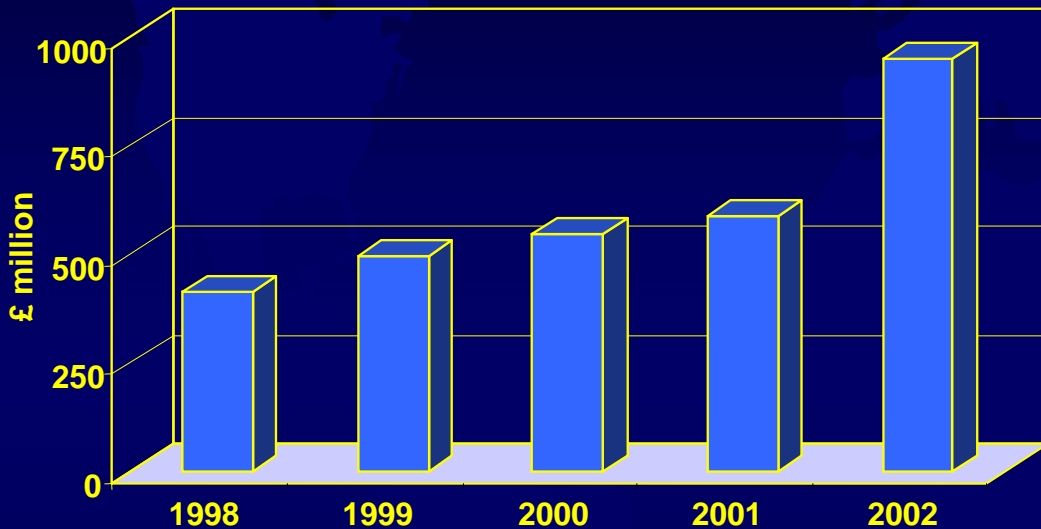
Arriva: Revenue of €3.3 Billion



- ◆ Arriva operates bus & rail services in UK, Netherlands, Denmark, Italy, Spain, Portugal, and Sweden
- ◆ About 30,000 employees
- ◆ 2 UK franchises: Arriva Trains Northern; Arriva Trains Merseyside
- ◆ Joint venture with Dutch Rail and Noordnet for first open rail tender in the Netherlands
- ◆ 2 rail passenger franchises in Denmark as well as Copenhagen Metro

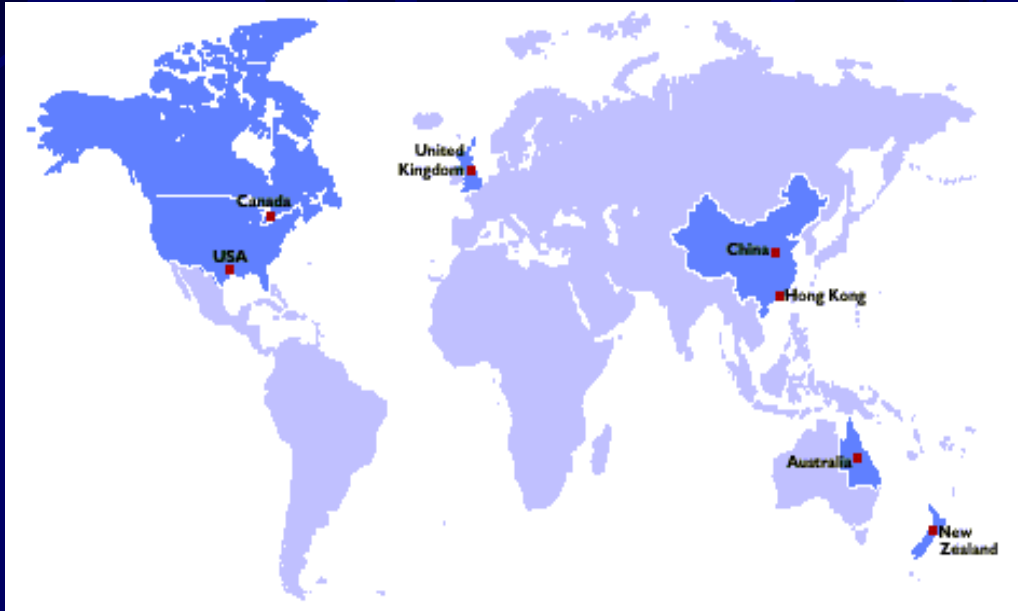
Go Ahead Group: €1.5 Billion

Go Ahead Group Revenue Growth



- ◆ Rail, bus and air transport
- ◆ About 18,000 employees
- ◆ Operates Thames Trains and South Central franchises in UK
- ◆ Owns 65% of GO VIA
- ◆ Provides urban bus services in the UK and has 18% of London market
- ◆ Subsidiary, Aviance, provides airport services (check-in, information, VIP lounges, baggage, customs, and ground services at 18 UK airports)

Stagecoach: €3.3 Billion Revenue



- ◆ Rail, bus and intercity coach services worldwide
- ◆ About 39,000 employees
- ◆ Bus services in UK, Hong Kong, New Zealand, & China provides about 1/3 revenue
- ◆ Operates 2 UK franchises and has interests in two others
 - ◆ South West Trains, Island Line, Sheffield SuperTram (light rail)
 - ◆ 49% share of Virgin Trains with two additional intercity franchises
- ◆ Second largest bus/coach operator in the US. Coach USA has commuter, charter, sightseeing, airport shuttle and convention and taxi services in the US and Canada

So, What are the Lessons Learned?

- ◆ There are many ways to privatize rail services
- ◆ Many are re-thinking the value of infrastructure separation, it has succeeded in increasing competition in Europe
- ◆ Private rail services have reduced costs and greatly reduced government subsidy and investment requirements
- ◆ There is more private capital than government capital, it just needs an opportunity to earn a return
- ◆ If there is an opportunity to earn a return and a competitive market, private entities will compete to provide services
- ◆ If rail services are to be privatized, care must be taken to write the rules properly—you get what you reward.
- ◆ Competition really works and brings wonderful results