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# The case for trams and their benefits for London

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# A bit about me....

Initial career in surveying at **British Rail** 1963-65

**London Transport** Estates & Rating trainee 1965-68

**Bristol Omnibus Company** 1968-1970 working in operational research then Assistant Divisional Traffic Superintendent (Bristol)

Personal Assistant to Chairman of **National Bus Company** (South West and South Wales Region) 1970-73

**Bristol Omnibus Company** 1973-76 District Traffic Superintendent (Swindon)

**London Country Bus Services** 1976-1984 Area Manager (South) until 1979 then Field Operations Manager

Thames Valley & Aldershot Omnibus Company (**Alder Valley**) 1984-85 Traffic Manager

Alder Valley North (later **The Bee Line**) 1985-1990 General Manager until privatisation in 1987 then Managing Director

**London Transport** 1991-2000 Head of Unit for Disabled Passengers

**Transport for London** 2000-03 Head of Access & Mobility

**Seconded to Transdev 2002-03 Project Manager, South Hants Light Rail Scheme**

*Retired from TfL in October 2003 at age 55 (the best time to go!)*

Independent Consultant - **A B O U T** - advising on public transport investment and modernisation (for EU in 2004 accession countries)

Interim Director General at **UKTram** - later Chairman of Promotions Group

Council Member **LRTA** from 2006, Chairman 2009-2018, now Vice-President

***Life-long and passionate advocate of electric traction - trams and trolleybuses***

# What can trams do?

Trams are good for jobs and the local economy!

Urban public transport provides 13 million jobs

Investment in public transport creates between 50% and 100% as many jobs as investment in roads (UITP)

Every Euro invested in public transport generates EUR 5.00 to 5.30 of added economic value (German study)

In Switzerland, each job created in the public transport sector creates 3.3 additional jobs in the regional economy

New tramways create unique opportunities to make cities more sustainable and much pleasanter places to live

Enhanced mobility for all and reduced social exclusion lead to hidden financial benefits

***Above all, fixed track public transport gives developers and other investors confidence***

# The 20th century problem

*..... we Brits gave up on the most sensible form of urban public transport known to man!*

*We went the American way instead of following the Austrians, the Belgians, the Dutch, the Germans and the Swiss.*

*They all retained and modernised their tram systems but other European countries did not.*

*France was much more like the UK .....*

# France – Tram Renaissance

In common with the UK and a few other countries, France had more or less given up the tram, except in Lille, Marseille and Saint Etienne.

These three cities remained loyal to rail-bound public transport as they had reserved track lines or very high loadings.

But in 1985 the situation changed.....

# The New Dawn

In 1985, the first French tramway for more than fifty years was inaugurated in the city of Nantes, following the state government's decision to encourage the re-birth of this mode of public transport. Line 1 in Nantes was an instant success.

After thirty years of continuous development, Nantes now boasts a three-line 42km network and a fourth line is planned.

# First Low-floor Cars

The second of the new generation of French tramways, opened in Grenoble in 1987, saw the first truly low-floor trams in the world.

Power-driven extending “palettes” at all the doorways provided gap-free access for wheelchair-users.

It was found, with experience, that these were not really necessary to ensure level boarding.





# Urban Mobility Plans

In all urban areas with a population of 50,000 or more, the local authority is obliged to prepare a *Plan de Déplacements Urbains (PDU)*. This sets out the means of achieving a desired level of mobility and must include plans for greater public transport use. There is consultation - especially with local business interests - and once approved specific projects are the subject of a *Déclaration d'Utilité Publique (DUP)*

# The DUP Process

- Sets out the plans for a TCSP project such as a tramway (*Transport en Commun sur Site Propre*)
- Defines the alignments, land acquisition needs and funding arrangements
- Some state subvention (on a reducing scale in recent years) is available
- Bulk of funding comes from the *Versement Transport* - effectively a local transport tax on employers related to payroll costs

# The *Versement Transport*

- Maximum rate of 2.6% in central part of Île-de-France, reducing to 1.7% and 1.4% for the outer areas
- Elsewhere the maximum is 1.0% for cities of 100,000 or more and 0.55% for those with 10,000 to 99,999 population
- **But.....** in the larger centres of population the rate can increase up to 1.75% to fund approved TCSP projects
- Importantly, the proceeds are available to subsidise operating as well as capital costs

# The Rôle of the Mayor

- Key figure in all transport projects
- Frequently elected as a result of proposals for urban renewal and investment in public transport
- Acts as bridge between state government, local authorities and operating consortia
- High profile promoter of tramway projects constantly visible throughout the planning and construction process
- “Champion” of business involvement

# The *Grand Projet* Approach

- High-quality urban design is paramount
- 100% priority for the tramway
- Careful insertion in existing built environment
- Detailed consultation with residents and businesses throughout construction period
- Turnkey contracting and virtually all financial risk resting with the public sector
- Total integration of bus and tram services

***..... and now for  
some examples of  
the state of the art***







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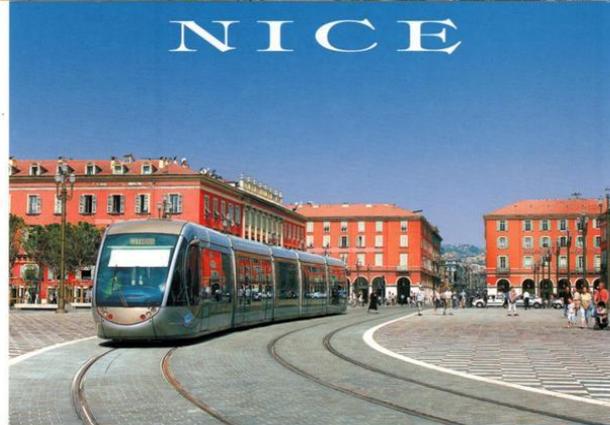






In the last thirty-four years, France has inaugurated twenty-eight new tram networks and there are more under construction or planned. The average time from inception to start of service is six years. In the UK we have struggled to build less than a quarter of that number and the gestation period is anything up to twenty years!

# Municipal pride



# What are the lessons for the UK?

- Autonomy at local level - powerful Mayors to deliver on election promises
- Obligation to produce a PDU in close consultation with business interests
- Funding streams from VT collected locally
- High quality urban design
- Insertion of TCSP in built environment
- Total integration of tram and bus networks with one common operator (or franchising)
- Acceptance that revenue support is desirable
- *Be more European and less American!*

# Paris - London

- Now 13 tramways in Greater Paris
- One in London (+ the DLR)
- Busiest bus route converted
- 69k passengers per day now 130k
- 44m trams replaced 12m buses
- Significant reduction in operating costs
- Massive public support for more lines

# Vital post-Covid action

## Traffic congestion

Huge cost to local economies; massive contributor to pollution

Growth of Uber and other private hire vehicle numbers

Deliveries to workplaces of goods ordered on-line

Movement of **people** not movement of **vehicles**

## Poor air quality

More cities in breach of limits than any other European country

London's annual target is exceeded by mid-January

Too many diesel-powered vehicles (though buses are the cleanest)

Particulate matter PM10 and PM2.5

The "Oslo Effect" of tyre, brake-pad and road surface wear

Heavier battery-powered vehicles make that worse

Massive contributor to reduced life expectancy and growth of Asthma

**Rapid electrification of all urban public transport is the key**  
through sustainable localised power production and distribution

# Dealing with the Climate Emergency

## Tackle Non-Exhaust Emissions

### Reduce CO2 emissions

*Kg/km - car: 138; bus:104; train: 4.1; tube: 2.5; tram: 2.2*

### Revenue raising powers (eg: WPL)

*How about rounding-up petrol/diesel pump prices?*

### Reform Department for Transport

*Establish PT investment authority*

### Link housing demand to brownfield sites

*Ensure land value capture to fund PT*

# Generation "Z"

- Young people... the future is theirs!
- Car ownership and use?
- Digitally connected - instant response
- More likely to travel collectively
- Environmentally concerned
- Understand the need for housing density
- Willing to make sacrifices

# A tale of two cities

- Freiburg

Population 220,000

Public transport modal split 31%

Car use 21%

- York

Population 199,000

Public transport modal split 8%

Car use 52%

# So how can we afford a tram system?

Remember:

*The bitterness of poor quality is rarely exceeded by the sweetness of low price*

*“Marry in haste - repent at leisure”*

Ignore “Buses are cheaper”:

*£200 to 250k compared to £1.8 to 2.5M for a tram*

Understand whole-life costs:

*It's the drivers, stupid!*

*£3Bn for buses; £27.5Bn for roads!*

*Climate crisis..... What climate crisis.....??*

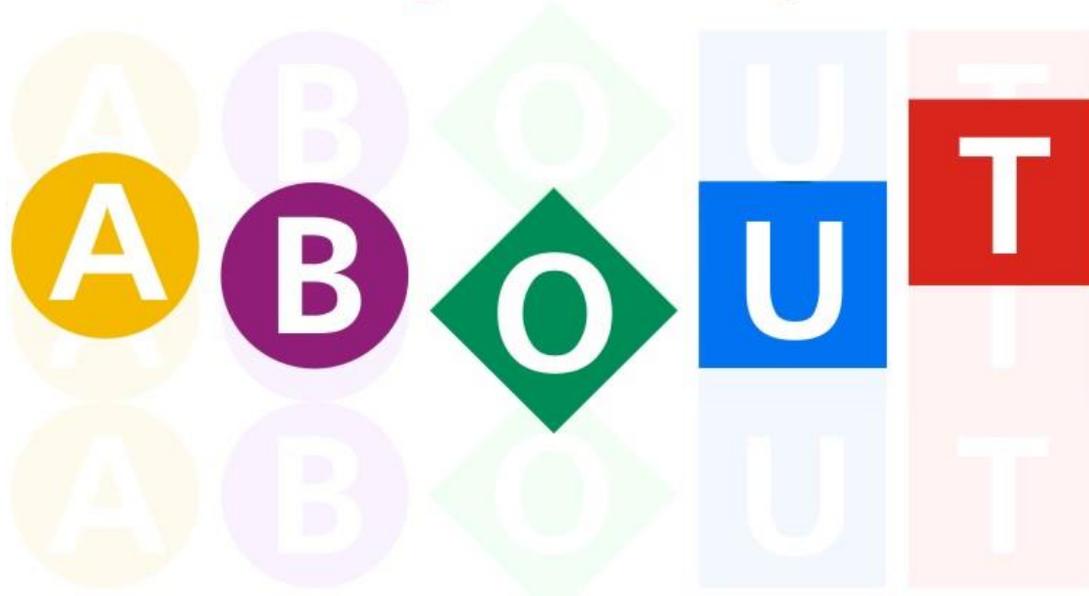
# Priorities for London

- Problem: only 30% PT journeys zero emission (88% in Riga)
- Re-visit Cross River Tram and West London proposals
- Build on local support (eg: Southwark - 57.9% for a tram)
- Convert busiest bus routes to tram (eg: 25 Oxford Street - Ilford)
- Ensure multi-modal interchanges (hubs) are created
- Recognise that poorer Boroughs need better infrastructure
- Avoid lack of standardisation (a problem in Paris)
- Take back the streets: trams, pedestrians, cyclists
- Feeder routes with IMC trolleybuses
- Local / suburban routes with battery-electrics
- Maximise steel wheel on steel rail
- Build a car-free sustainable city

# Thinking aloud....

- What could we have had in place of Crossrail?
- Keep public transport at street level
- Stop-spacing is a problem underground
- Access - physical and time taken
- Interchange & feeder services - at same level
- PT is better seen not buried out of sight
- Avoid lifeless (and soul-less) High Streets
- How about retail deliveries by tram?

About Bus Overground Underground Tram



Andrew Braddock On Urban Transport