



# Light Rail to Airports

Lessons learnt, key issues  
and success criteria

# Types of passenger airport railway

- High speed dedicated (Airport Express)
- High speed network
- Regional
- Metro, commuter or suburban
- Light rail



# Airports served by light rail

- ☞ Baltimore-Washington International (BWI)
- ☞ Bremen, Germany
- ☞ Copenhagen, Denmark
- ☞ London City Airport, UK
- ☞ Newcastle, UK
- ☞ Nuremberg, Germany
- ☞ Portland, Oregon
- ☞ Porto, Portugal
- ☞ St. Louis, Missouri

And about eight others (with  
more coming)



# Some statistics

	Time minutes	Distance km	Fare (US\$)	Trains /hour	First (weekdays)	Last (weekdays)	Mode share %
BWI	45	16	1.60	7	05:10	00:45	5
Bremen	<b>15</b>	<b>3</b>	3.19	6	04:55	23:45	
Copenhagen	<b>15</b>	<b>12</b>	5.96	12	05:00	Midnight	9
London City	22	8	5.20	6	05:30	00:15	51
Newcastle	22	9	5.20	5	05:40	22:40	23
Nuremberg	12	7.5	2.59	3	05:00	00:35	
Portland Oregon	38	14	2.30	4	05:00	00:05	8
Porto	30	18	2.00	4	06:00	01:30	
St. Louis	25	21	3.50	6	04:30	Midnight	5

Mode share figures are very difficult to find!



# Issues - BWI

- ☞ First train from airport is 10:40 on Sundays
- ☞ Four steps up into trains
- ☞ No baggage space
- ☞ Times not on airport FIDs – but Amtrak & MARC train times are!
- ☞ Slow journey
- Station well sited for international arrivals, bad for Southwest!
- ☺ Stops by Convention Center, downtown hotels
- ☺ Ticket machines in terminal



# Issues - Copenhagen

- ☞ Access from terminal is complex and not intuitive (but recently improved)
- ☞ No baggage space on trains
- ☞ Inconspicuous stations (low key signage)
- ☺ Good central area distribution
- ☺ Fast – 48 km/h



# Issues – London City

- ☞ Surges of passengers > waiting lines
- ☞ No bag space on trains
- ☞ With recent extension beyond the airport, London-bound trains are sometimes full of commuters
- ☞ Main downtown station (Bank) inconvenient for those with bags
- But a £½bn makeover coming
- ☺ Good interchange to London Underground
- ☺ Mode share would be 70% with direct connection to Canary Wharf – coming?
- ☺ Very short distance train to check-in



# Issues – Portland (Oregon)

- ☞ Slow journey
- ☞ Older trains have steps up
- ☺ Good provision for bags, bikes and strollers
- ☺ Excellent downtown distribution





# Issues – St. Louis

- ☞ No baggage space on trains
- ☞ Downtown distribution reasonable
- ☺ Highly visible within airport
- ☺ Welcome point staffed by volunteers
- ☺ Stations at both terminals
- ☺ Fast – 51 km/h



# Issues – Seattle-Tacoma

- ☺ Works in bad weather!
- ☺ Dramatic infrastructure: interesting ride
- ☞ Long walk to terminal (although less far than buses)
- ☞ Confusing fare structure



# Success factors

- Convenient
- Level platform and train floor
- Provision for luggage
- Hours of service ...



# Flights from Salt Lake City

- 5 leave before 6:00
- 8 leave between 6:00 and 6:30
- 6 leave between 6:30 and 7:00

What time do people need to be at the terminal for these flights?

What time do employees need to be there to welcome them?



# Other lessons - 1

- Surges of people
- Mission creep – do too many jobs badly?
- Good fit into airport fabric
- Fare irrelevant –
- - but must give value for money (SEPTA)
- Design is important
- Battleships have to be grey....  
.....subway cars do not



# Other lessons - 2

- ☞ Heathrow Airport owns Heathrow Express (\$67m profit in 2011)
- ☞ Vienna Airport owns 50.1% of the City Airport Train (\$360k profit 2011)



# Airport issues

- ☞ Sometimes cars full of gas are welcome, electric LR vehicles are not!
- ☞ Is there an impact on parking?
- ☞ Is there an impact on crime?



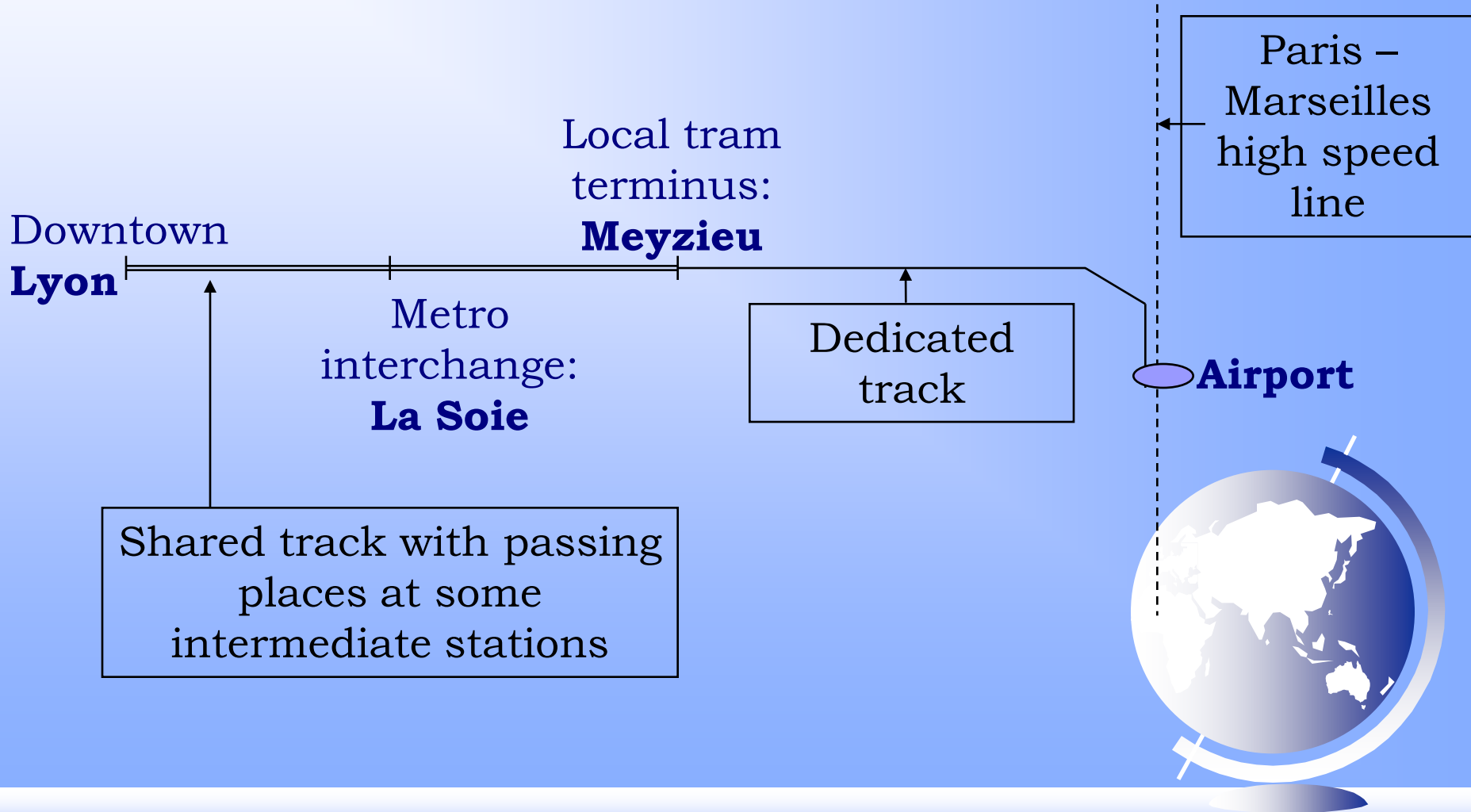
# One to watch - 1

- RhônExpress - express tram serving Lyon St-Exupéry Airport
- Opened August 2010
- Dedicated service – 2 intermediate stops, one fare
- Premium fare product
- Shares tracks with another operator for half of journey





# One to watch - 2



# One to watch - 3



Local tram ↑  
approaching  
La Soie – note  
passing loops.

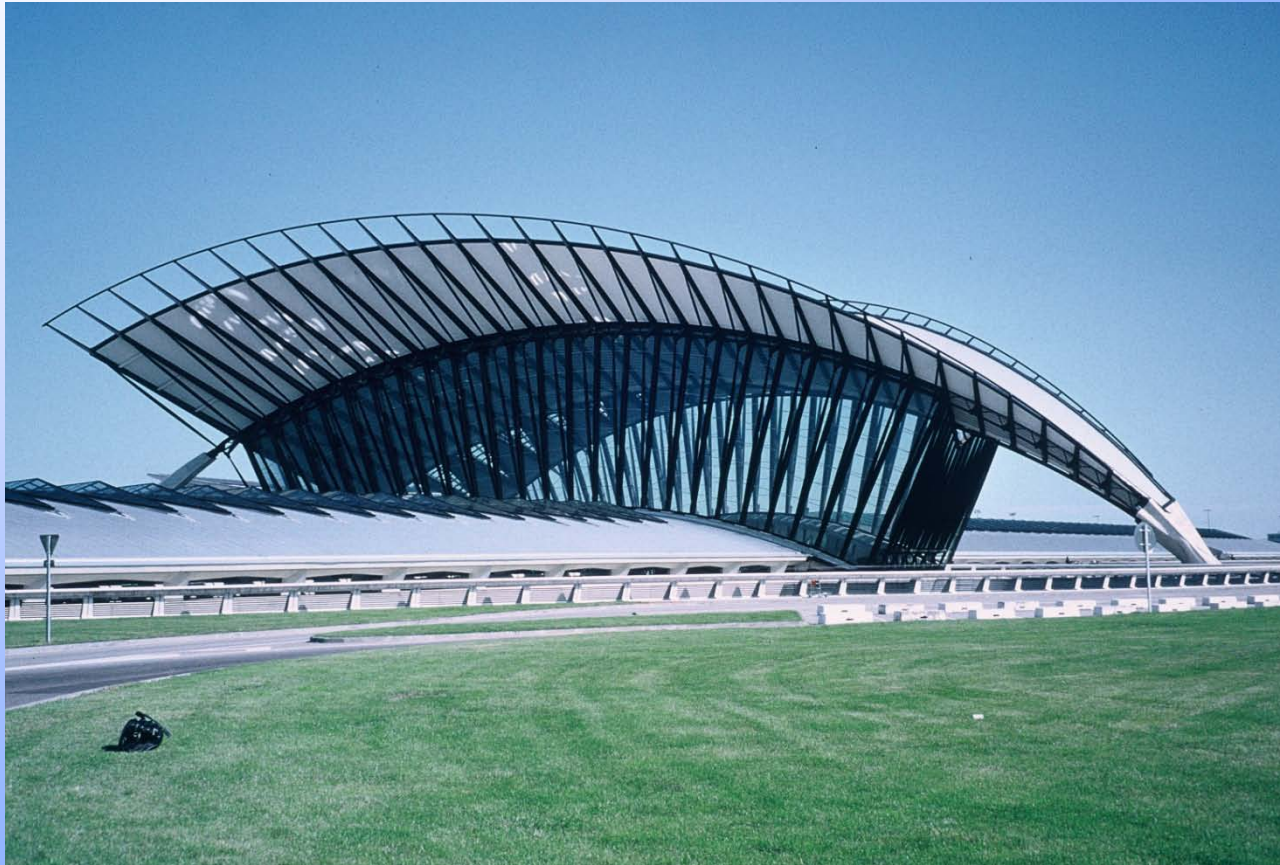


↑ RhonExpress at  
the temporary  
airport station

RhonExpress  
interior →



# Lyon Saint-Exupery Airport Station, France



# Other useful resources

- ☞ TCRP report 62 – Improving public transportation access to large airports (2000)
- ☞ TCRP report 83 – Strategies for improving public transportation access to large airports (2002)
- ☞ ACRP report 4 – Ground access to major airports by public transportation (2008)

Major author was Matthew Coogan, a member of IARO's governing Board



# International Air Rail Organisation (IARO)

- Spread world class best practice
- Disseminate good practical ideas – for new and existing links
- Provide information
- Research solutions in common problem areas

Overall objective - to  
improve everyone's bottom line



# Our next International Air/Rail Conference

- Here in Salt Lake City
- 8/9 April 2013
- Airport Line press launch 8 April
- Launch of IARO's report on "Light rail to Airports"



# Welcome, Lublin!

- ☞ Lublin Airport opened yesterday
- ☞ Light rail service to the city



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