

# **“TramTrain – Leeds’ Catch up Opportunities”**

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**All Party Parliamentary Light rail Group**

A presentation by

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# ***TramTrain – Grasping the Opportunity***



Presented to APPLRG:  
by  
Metro April 21st 2009

# “TramTrain – Leeds’ Catch up Opportunities”

## *Why TramTrain ?*

Can be cost effective use of underused/disused heavy rail assets

Reduction of the maintenance cost base, line of sight

Capacity relief at congested Heavy Rail stations by street running

Provision of frequent, reliable and inter-urban links

Seamless access to the heart of the urban area



Can be used as a “Starter Line” for a City network

# “TramTrain – Leeds’ Catch up Opportunities”

## Key Benefits of the Technology

Almost new concept in the UK

Most of the technical problems have been solved

Operating costs can be lower

Can take advantage of environmental benefits

High Modal Switch, Increased retail footfalls 35%+

Carbon Credits (Eventually!)

# “TramTrain – Leeds’ Catch up Opportunities”

## Key Benefits of the Technology (cont)

Frees railway stations from congestion

Improves punctuality and reliability.

Removes the need for additional mode journeys


Seamless switching from railway track to urban tramline.

Passengers alight closer to the office, the shops or leisure.

TramTrains can accelerate more rapidly make frequent stops and keep end-to-end journey times attractive.

# “TramTrain – Leeds’ Catch up Opportunities”

## Main Types of TramTrain



TramTrain:	Inter vehicle running, track sharing	Kassel, Karlsruhe etc.,
TramTrain:	Track sharing, Seperated by timetable	Sunderland, Kassel
TramTrain: Systems	Sole use of former heavy rail infrastructure	All of UK Light Rail
TramTrain:	Mainline railway-type vehicles	Zwickau, Camden – Trenton “River Line”

All can give access to a town tram system using heavy rail infrastructure

# “TramTrain – Leeds’ Catch up Opportunities”

What kind of track sharing is there?

Electric/Steam/Diesel/Freight/Timetable

Nordhausen Germany

Has it all!



Light Rail (UK)

# “TramTrain – Leeds’ Catch up Opportunities”

## Problems & Obstructions

Myths & Legends

Institutional

No political depth of vision

Lack of understanding

Perceived high costs





# The Town or City

***What do we need?***

***Connectivity & Movement***

Centre of activity, trade, commerce,  
agglomeration, retail, culture, leisure etc.,

Vibrancy, attractiveness

***Where do we need it?***

***Roads & Streets***

Roads & Streets are arteries'

Movement is lifeblood – clogged, life ebbs,

It is happening here in Leeds as we speak

# The Town or City

***Without movement what do we get?***

***Decay***

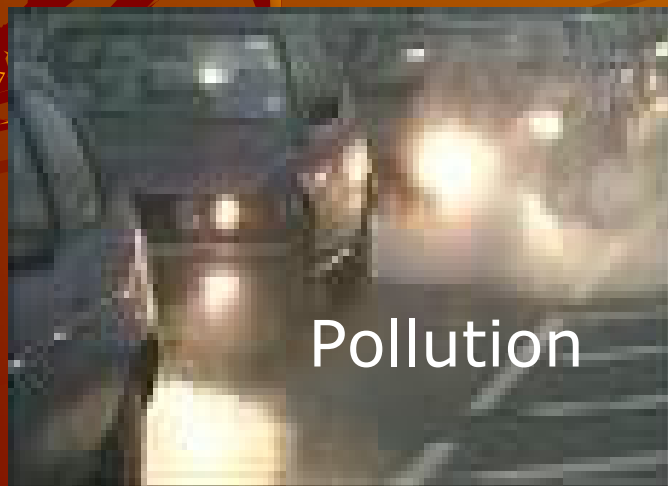
Regeneration and Reversal is slow, difficult & expensive

***Low cost alternatives have not worked on the same scale***



# “TramTrain – Leeds’ Catch up Opportunities”

Why do we still need it now?



# “TramTrain – Leeds’ Catch up Opportunities”

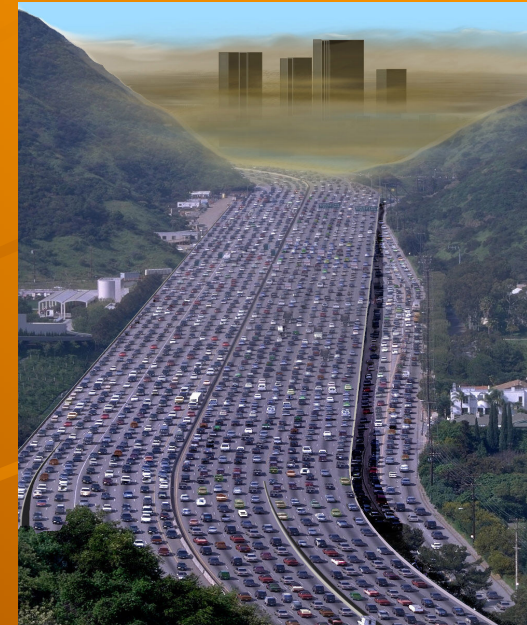
Why do we need it now?

## ***Climate Change***



- Clean at the point of use
- Can use green electricity
- Will be able to use local power generation
- Reduces carbon footprint
- Lasts for generations
- Significant Modal switch  
28% - 31% DfT

## ***Congestion***



*TramTrain ticks all the boxes*

# "TramTrain – Leeds' Catch up Opportunities"

## Pollution



No tail pipe emissions  
Reduces the immediate pollution

Reduces death on the pavement,  
No "Oslo Effect"

Year on year savings to health costs  
Release funding for other health projects etc.,

Increases the ambience of the city streets

Improves liveability of the immediate & surrounding area

*TramTrain ticks all the boxes*

# "TramTrain – Leeds' Catch up Opportunities"

## Health Costs



153,000 respiratory deaths,  
mainly young & old *British Thoracic Report*

*Figures show between 25% - 40% of  
deaths due to "Tail Pipe emissions"  
(38,250 – 61,100 deaths) UK Government*

*TramTrain will help prevent  
Death on the Pavement  
"Oslo Effect"*

*To burn carbon is to pollute  
Is this where it will all end?*

*TramTrain ticks all the boxes*

# *"TramTrain – The Opportunities"*

*So what does a TramTrain offer a city?*

*Regeneration*

Karlsruhe



*Increased retail footfall 30% +*

*A planned & controlled  
transport mode*

*Political statement  
not easily broken*

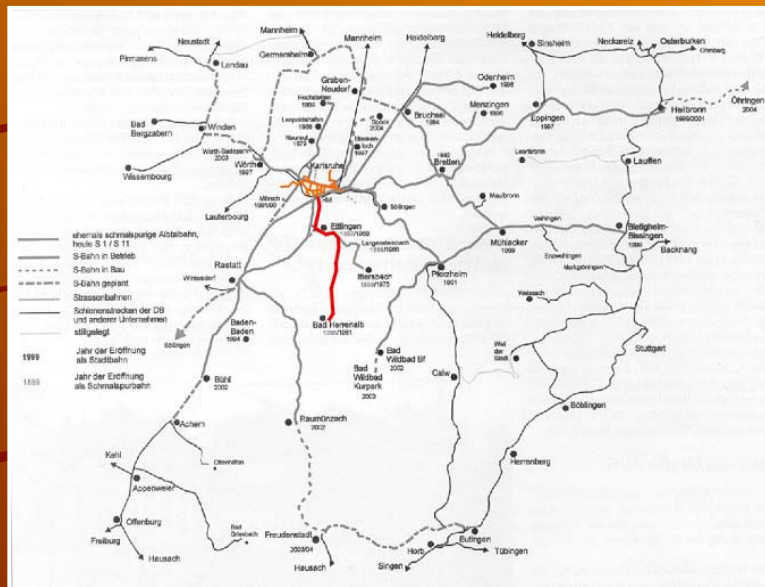
*A serious inward  
investment infrastructure  
statement*

*Enhancement of people  
movement*

*Improves the ambience  
& air quality.*

*TramTrain ticks all the boxes*

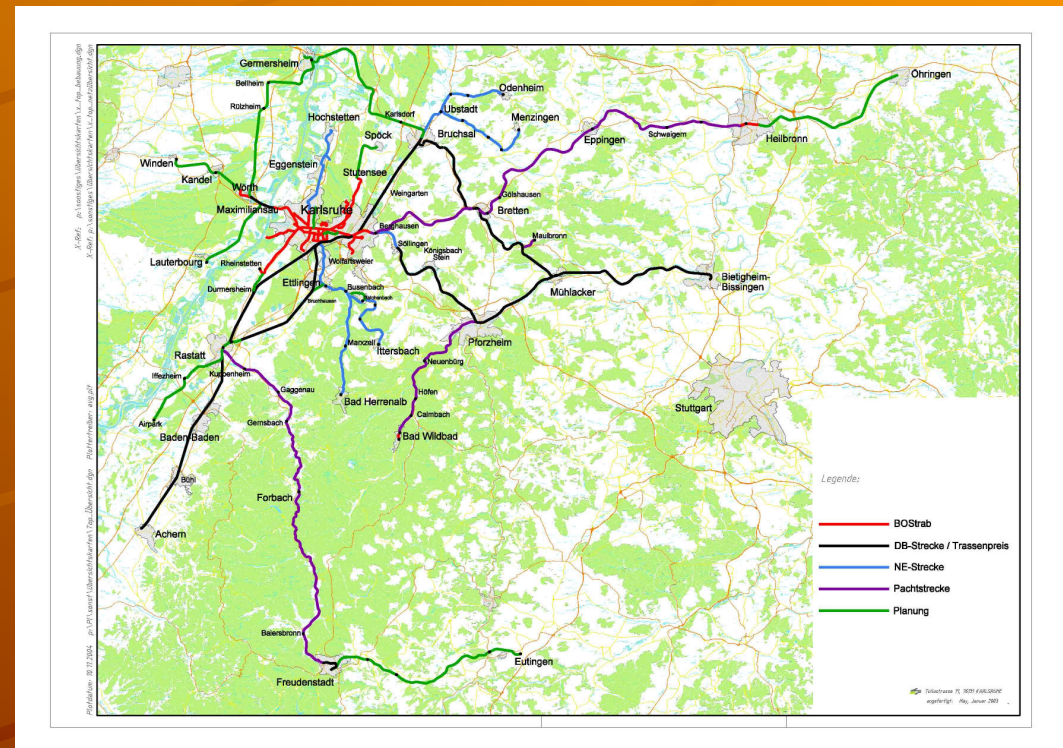
# “TramTrain – Leeds’ Catch up Opportunities”



**TramTrain  
Karlsruhe  
1961**

Light Rail (UK)

**TramTrain  
Karlsruhe 2016  
500 KM in operation**





# “TramTrain – Leeds’ Catch up Opportunities”

## Heavy Rail Rail Capacity

Longer term requires increased train paths

Street running adjacent Leeds Station/Gateway to provide additional passenger capacity

Can be provided by using tram/train to route local services onto city centre streets

Taking passengers closer to their destinations and freeing up capacity.



# “TramTrain – Leeds’ Catch up Opportunities”

## TramTrain Investment

Tram-train conversion for:

Harrogate Line / Extension to the Airport

New alignment to the Lower Aire Valley and  
Five Towns

More affordable solution to increase capacity compared with heavy rail

Better city centre accessibility, solution helps to alleviate platform capacity constraints at Leeds station

Value for Money solution – requires less subsidy

# “TramTrain – Leeds’ Catch up Opportunities”

## *Harrogate Line*

- ◆ Identified as a priority for conversion
- ◆ To include a direct link to LBIA from Leeds (cost of £17m-£25m)
- ◆ Indirect link from Harrogate/York to LBIA (interchange at Horsforth)
- ◆ On street alignments into Leeds City Centre and York Development sites
- ◆ Frequencies of up to 6tph into Leeds, 4tph into York
- ◆ Interface with open access operators



# “TramTrain – Leeds’ Catch up Opportunities”

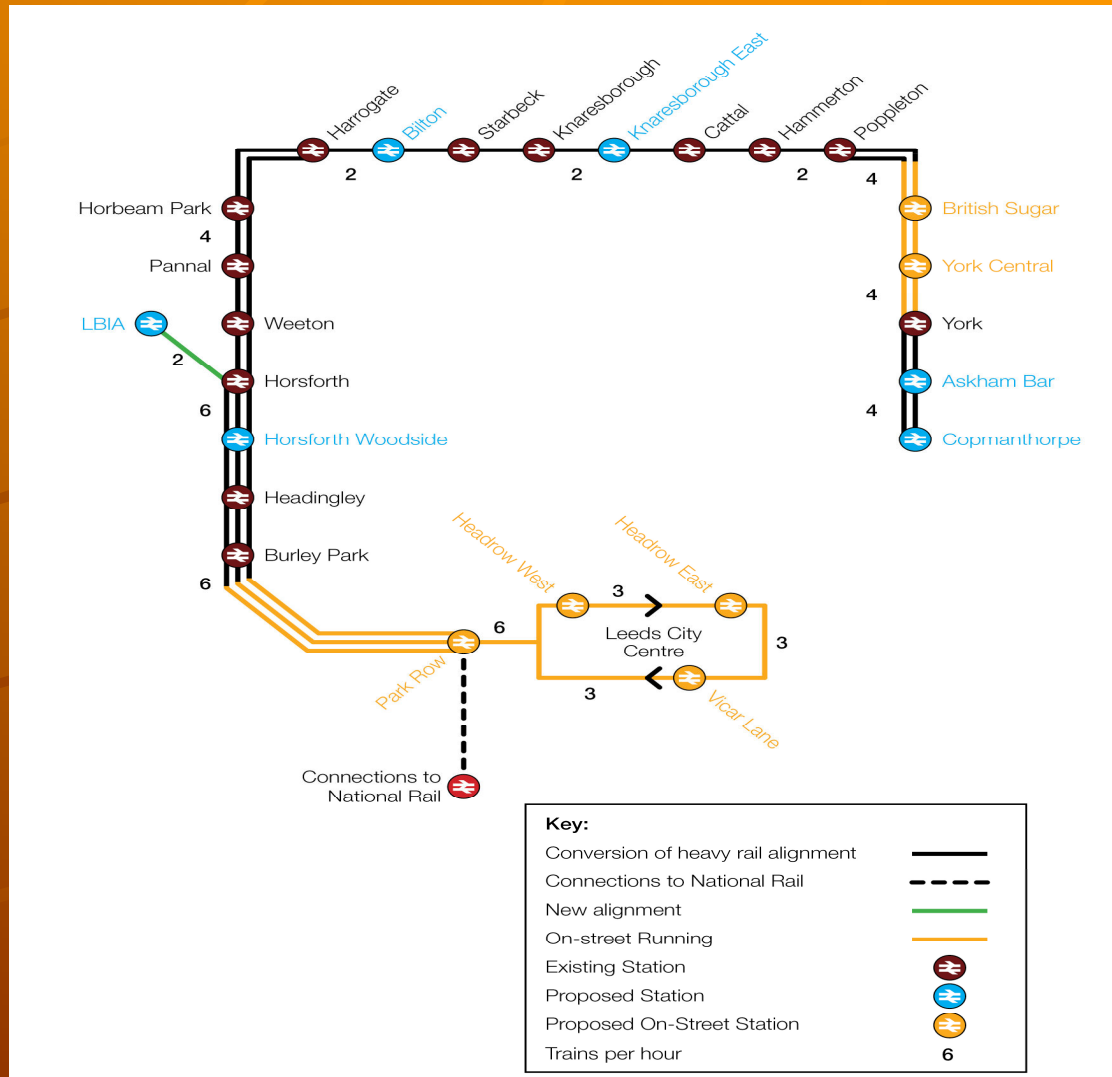
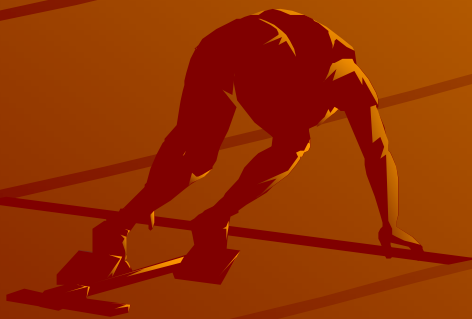
*TramTrain can be used as a “starter line”*



***City Centre Loop Options***

# “TramTrain – Leeds’ Catch up Opportunities”

## Possible Network



# “TramTrain – Leeds’ Catch up Opportunities”

A success story Greater Manchester



# “TramTrain – Leeds’ Catch up Opportunities”

Greater Manchester, A centre for agglomeration

Sheffield – Leeds – Greater Manchester – Warrington – Liverpool/Chester

Potential Rail North East West (alternative corridor)



Sheffield

In Place & Expanding



Greater Manchester Core in place,  
TramTrain planned for Marple &  
Hyde and Stockport



Street running Trials 2016



Leeds

Missing!



Warrington & Halton  
Actively Planning



Liverpool City Region

# "TramTrain – Leeds' Catch up Opportunities"

## *Summary*

The technology works

A step change in thinking & outlook

It needs funding £173m as a starter, lobbying, campaigning, sales & marketing

Use UKTram methods of construction including "Stopping the Tram"

It is cheaper considering the long term outlook

It has many applications

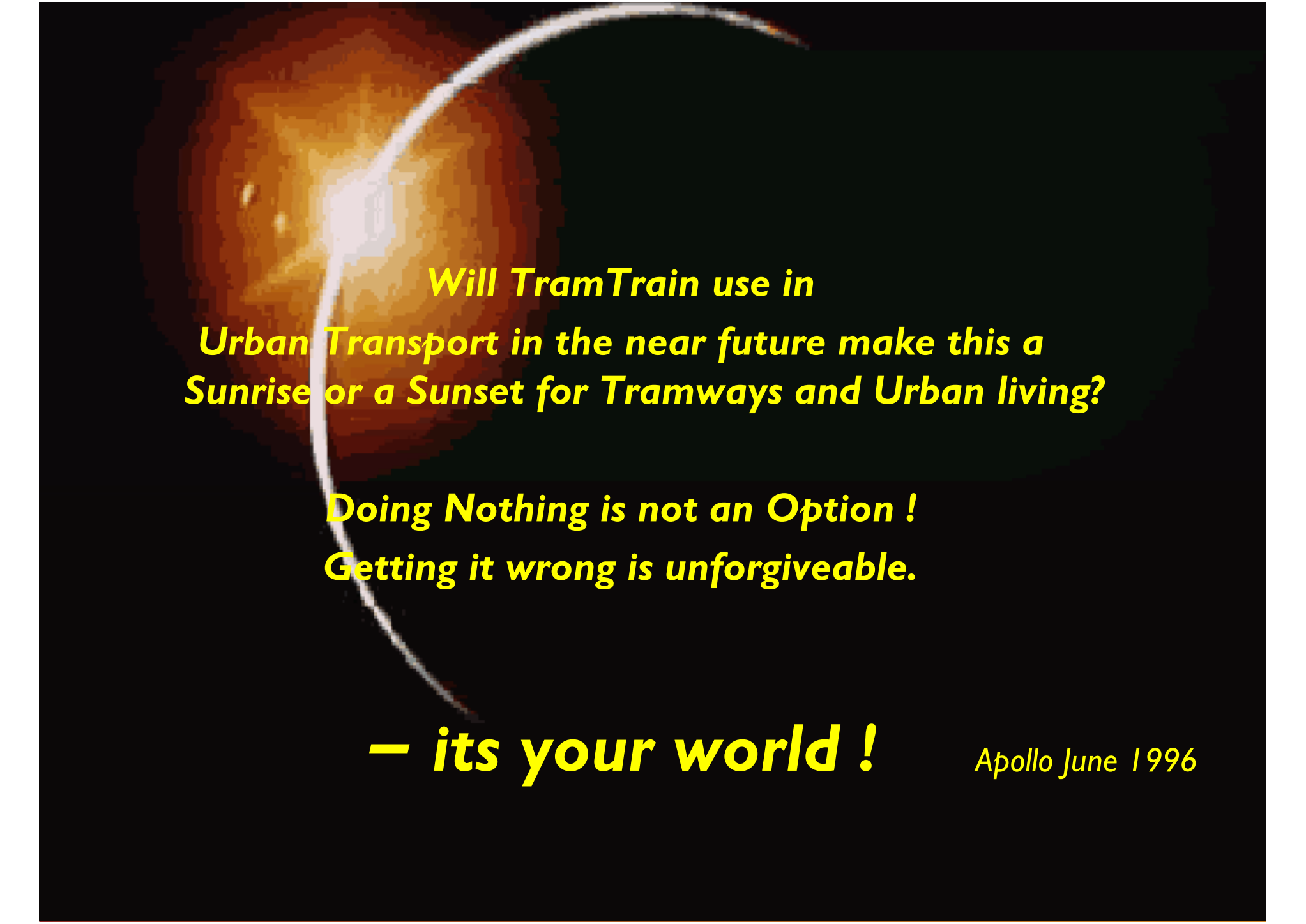
Has all the benefits of a Tram+

The attractions of the Train+

All it Needs is you to do it!

*TramTrain ticks all the boxes*





**Will TramTrain use in  
Urban Transport in the near future make this a  
Sunrise or a Sunset for Tramways and Urban living?**

**Doing Nothing is not an Option !  
Getting it wrong is unforgiveable.**

**– its your world !**

*Apollo June 1996*

# Thank You for Listening.

## *Any*

## *Questions ?*



A copy of this presentation is available as pdf on  
[www.applrguk.co.uk](http://www.applrguk.co.uk)