

BAUHAUS  
26.01.17

# PUSHING BOUNDARIES

FROM COMPUTATIONAL DESIGN  
TO INFORMATION LIFE

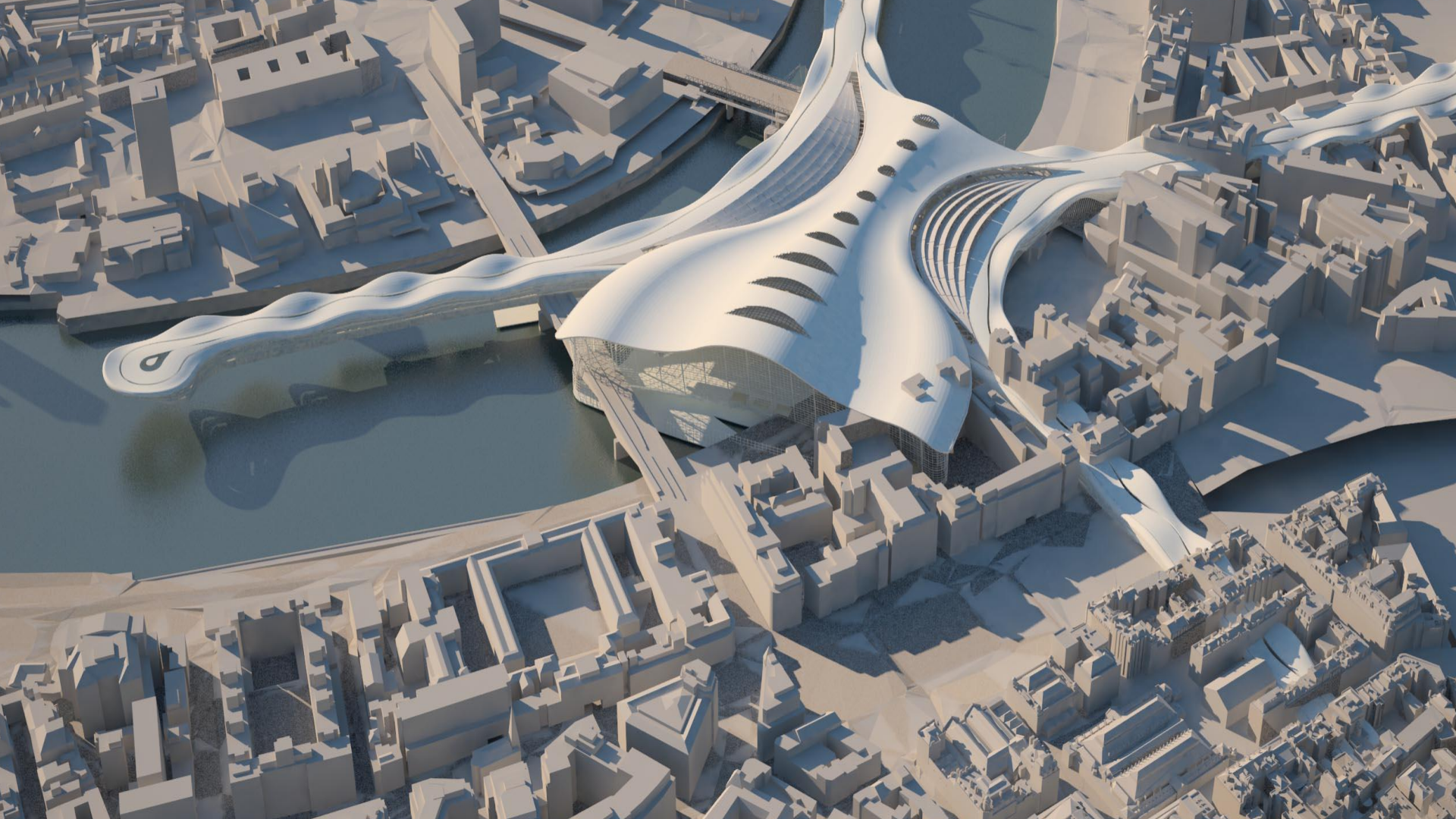
## What boundaries? Of Imagination

Lars Hesselgren  
Director Research PLP/ARCHITECTURE  
Visiting Professor  
Chalmers

PLP/ARCHITECTURE









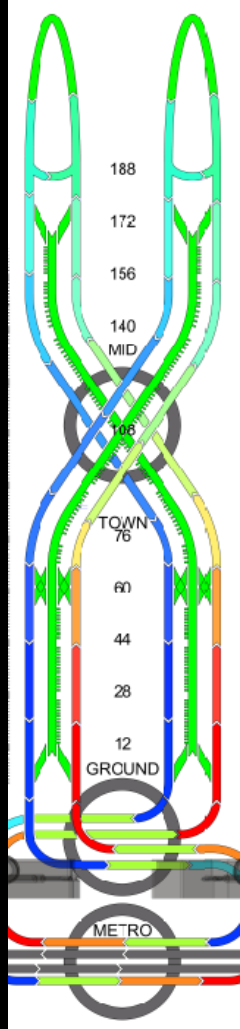


1 km

tower

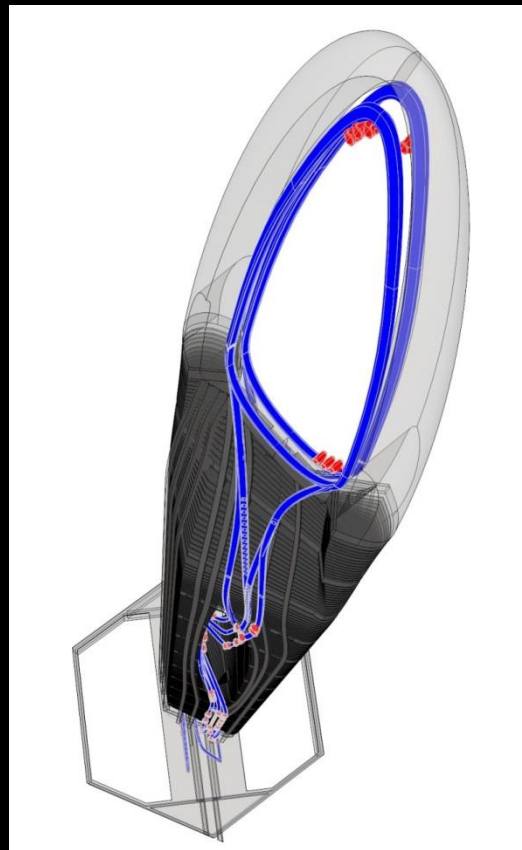
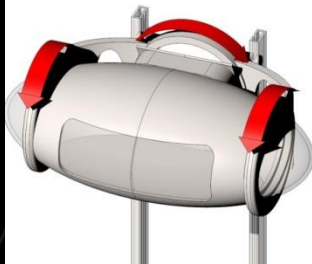


# Transport





# Pod 2 DoF Technology





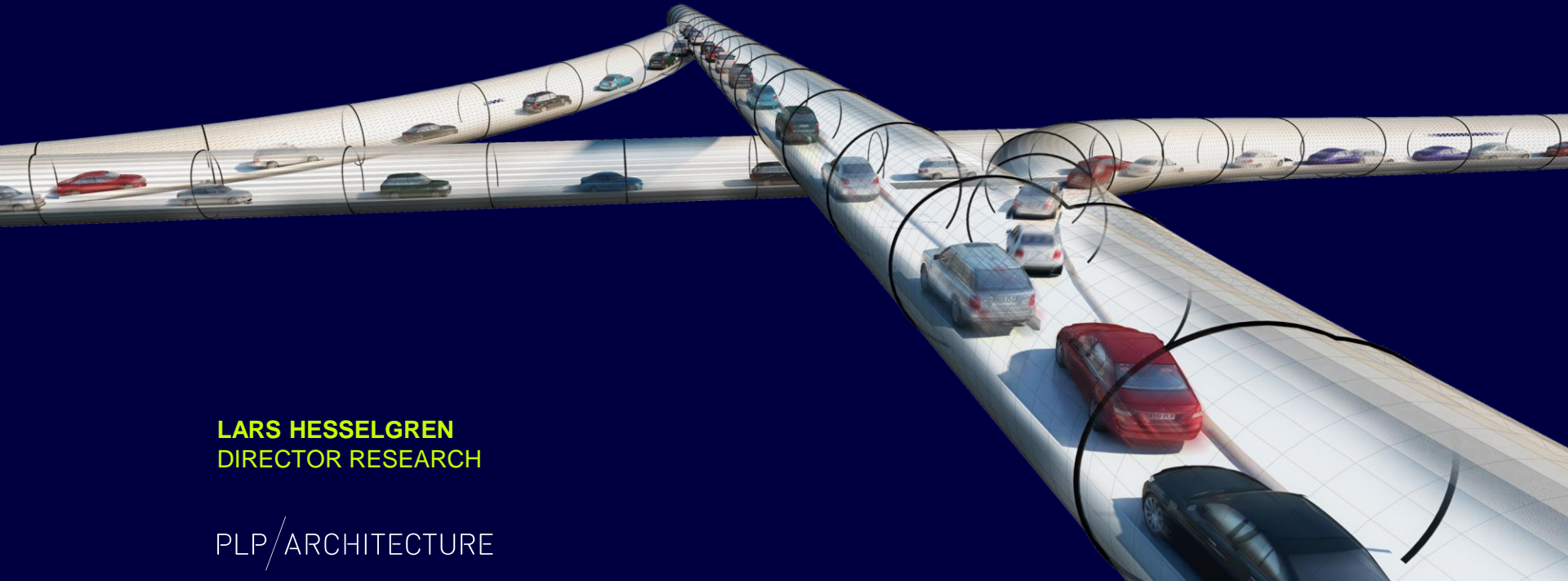
# The Crick Institute





# IMAGINING THE FUTURE OF URBAN MOBILITY

## WHAT IS AN IDEAL TRANSPORT SYSTEM?



**LARS HESSELGREN**  
DIRECTOR RESEARCH

PLP/ARCHITECTURE





# THE EVOLUTION OF (AUTO) MOBILITY



# THE EVOLUTION OF (AUTO) MOBILITY

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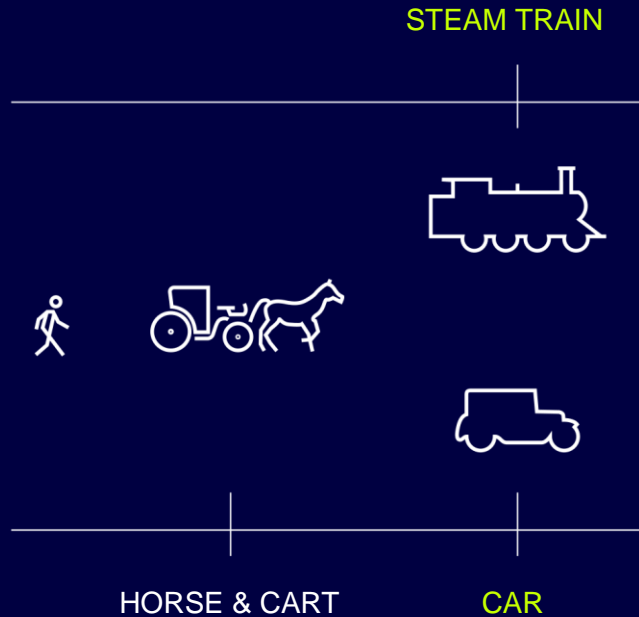


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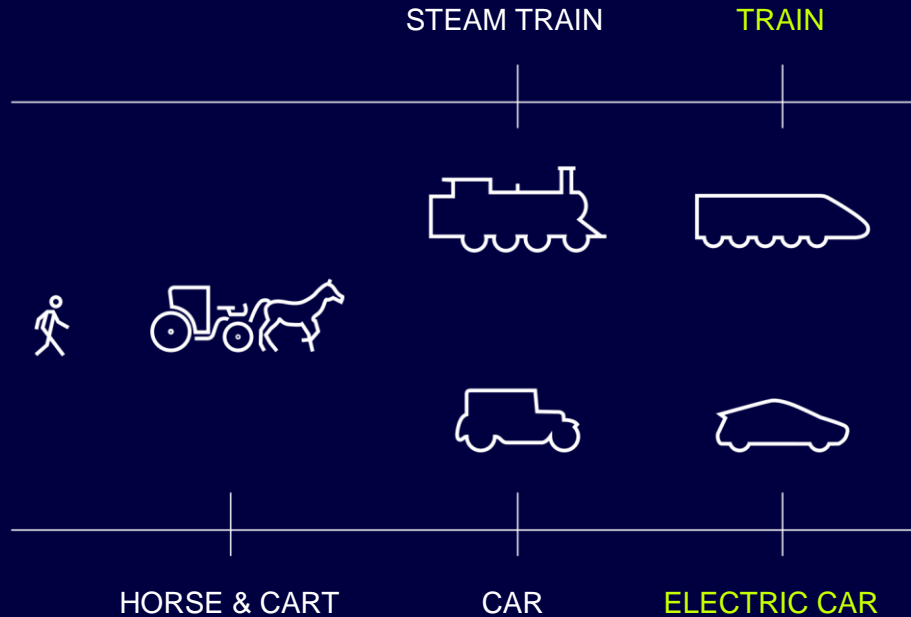
HORSE & CART



# THE EVOLUTION OF (AUTO) MOBILITY

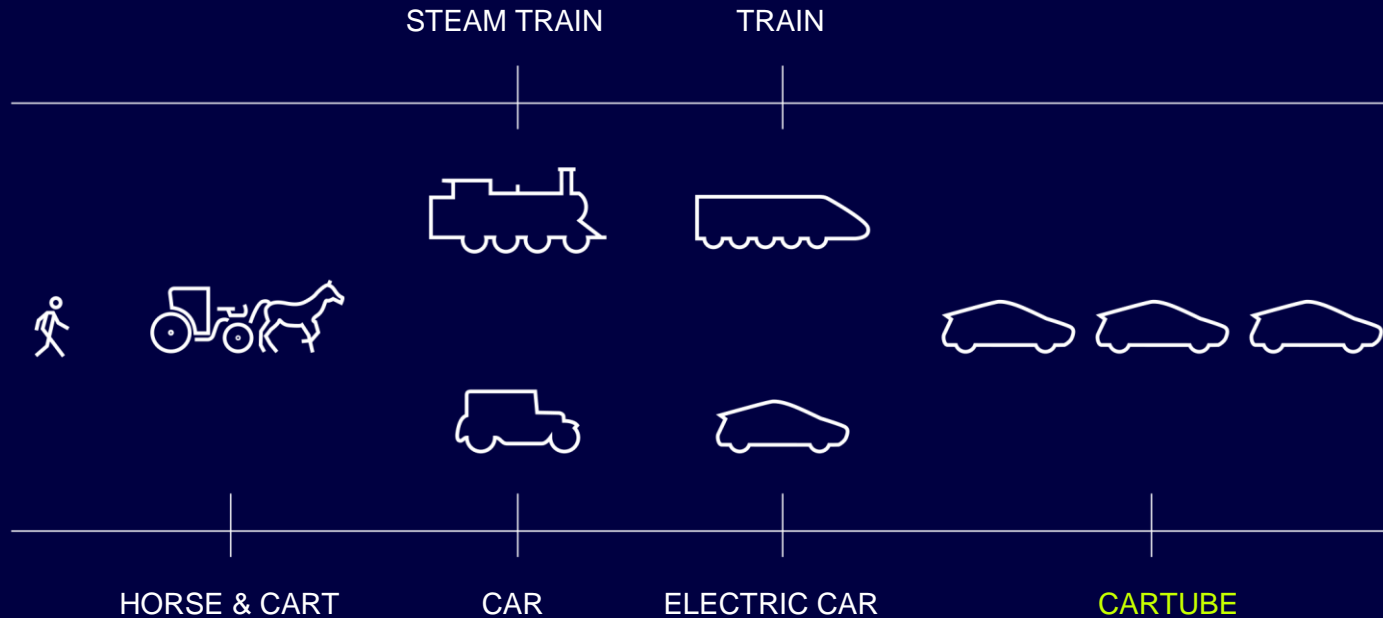


# THE EVOLUTION OF (AUTO) MOBILITY





# THE EVOLUTION OF (AUTO) MOBILITY



Central London, Hammersmith  
Heathrow ✈️ (Terminals 1, 2 & 3)

M4



40

40

40

40



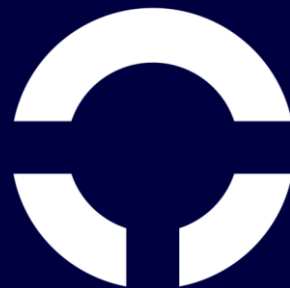




PLP/ARCHITECTURE

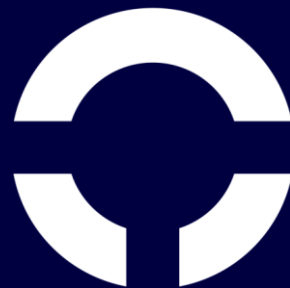


PLP/ARCHITECTURE





# CARTUBE



# CARTUBE



**SAVES TIME**

# CARTUBE



**SAVES TIME**



**CONNECTS PEOPLE**





# CARTUBE



**SAVES TIME**



**CONNECTS PEOPLE**



**GIVES FLEXIBILITY**

# CARTUBE



**SAVES TIME**

**FASTER**



**CONNECTS PEOPLE**



**GIVES FLEXIBILITY**

# CARTUBE



**SAVES TIME**

**FASTER**



**CONNECTS PEOPLE**

**BETTER**



**GIVES FLEXIBILITY**



# CARTUBE



**SAVES TIME**

**FASTER**



**CONNECTS PEOPLE**

**BETTER**



**GIVES FLEXIBILITY**

**CHEAPER**



PLP/ARCHITECTURE

Barbican Oakwood Tower

Swedish Embassy Visit -Talk -16/09/09



set temperature  
and lighting

to individual  
preferences



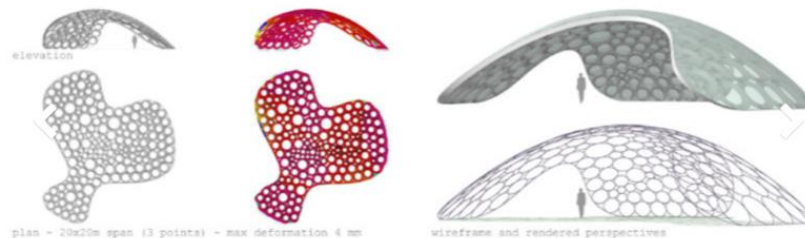
INNOVATIVE AND SUSTAINABLE

PLP/ARCHITECTURE





“The Edge is part  
of my team; it  
proactively works  
with me”



Lightweight Conical Components for Rotational Parabolic Domes Geometric Definition, Structural Behaviour,  
Optimisation and Digital Fabrication

Roberto Narváez-Rodríguez and José Antonio Barrera-Vera

## Advances in Architectural Geometry Conference

**Geometry lies at the core of the architectural design process.** It is omnipresent, from the initial form-finding stages, to novel manufacturing techniques, to the construction, and to post occupancy monitoring. But the role of geometry in architecture and engineering is also continuously evolving. Geometry increasingly plays a role in modelling environments and processing sensing information. Modern geometric computing provides a variety of tools for the efficient design, analysis, and manufacturing of complex shapes. Besides descriptive geometry controlling form algorithmic processes play a crucial rule in integrating disciplinary input. On the one hand this opens up new horizons for architecture. On the other hand, the architectural context also poses new problems to geometry. Around these problems the research area of architectural geometry has emerged. It is located at the common border of architecture with applied geometry, computational design, mathematics, and manufacturing.

**Advances in Architectural Geometry (AAG)** is a conference where both theoretical and practical work linked to new geometrical developments