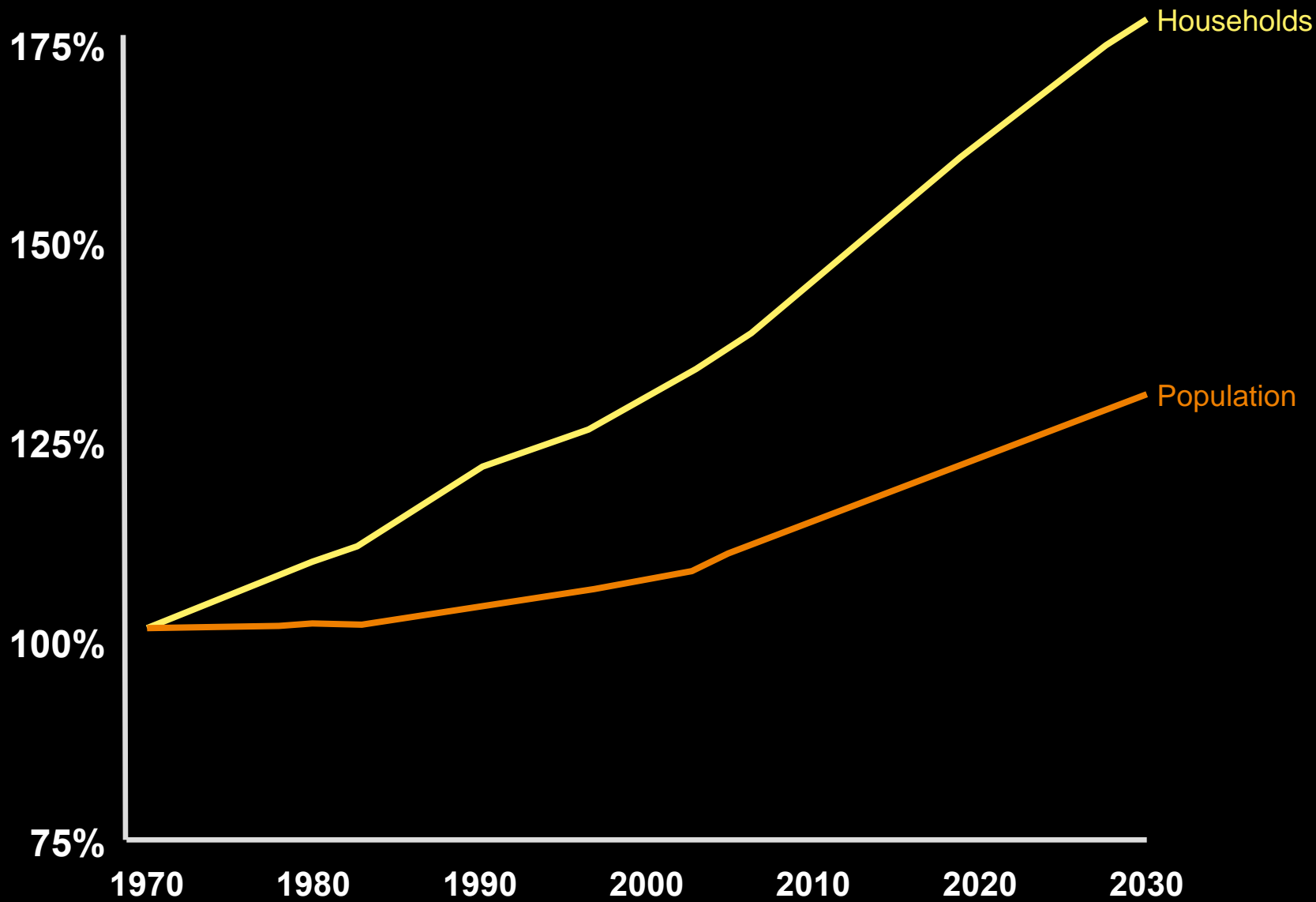


Buildings don't arise out of thin air.
They are generated by needs,
the needs of people.

Norman Foster

Population growth in the UK – where will everyone live?



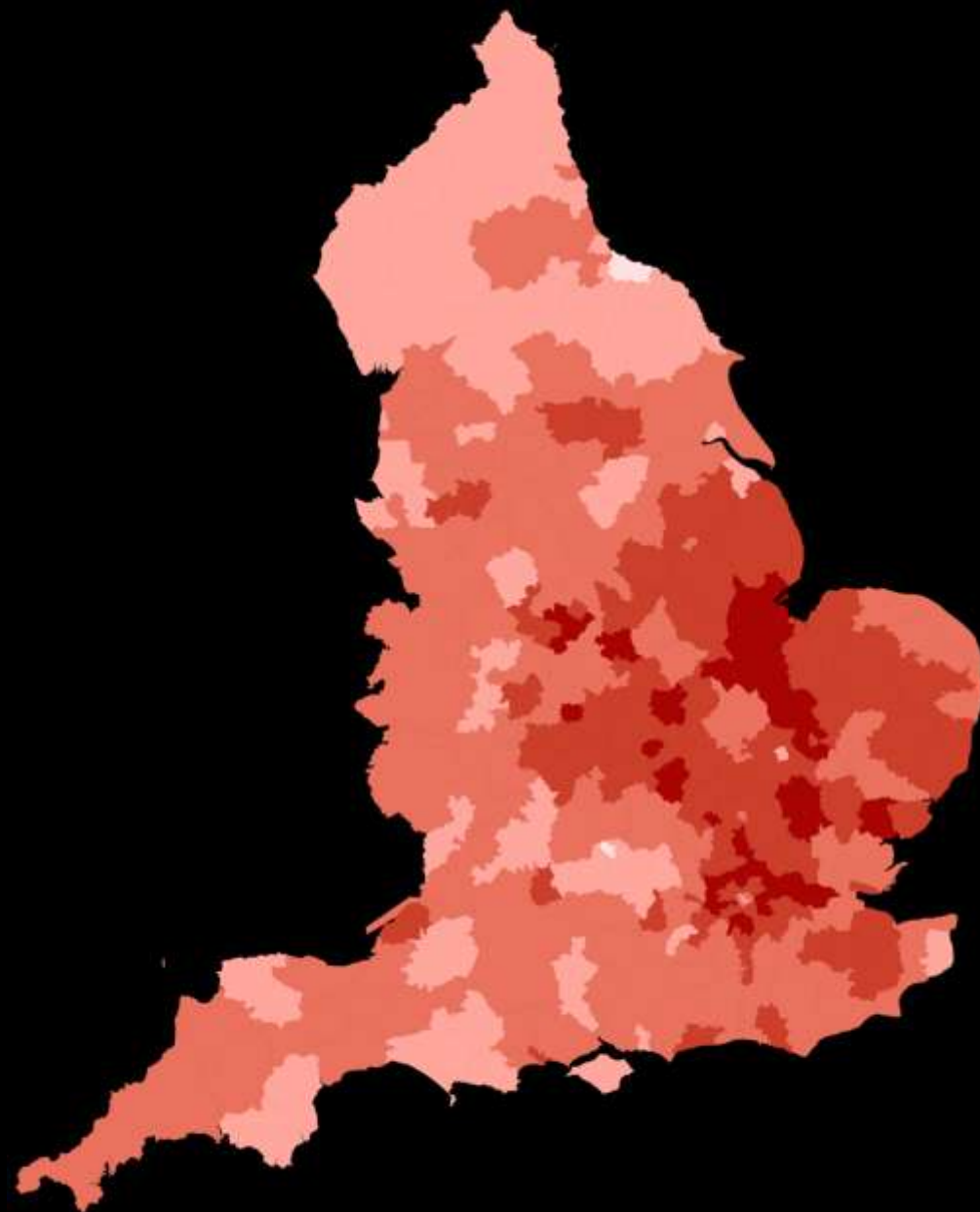
Changing nature of UK employment = changing infrastructure need

Predominant Industry

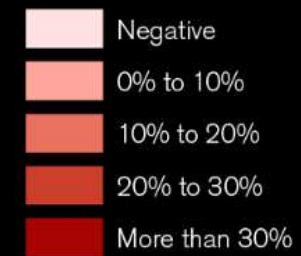
1900	1950	1980+	2000+
Extraction	Manufacturing	Services	Intellectual Services
			
Primary Sector	Secondary Sector	Tertiary Sector	Quaternary Sector
Mining, fishing, agriculture	Manufacturing - construction, light and heavy industry	Insurance, government, tourism, banking, retail, education	IT, R&D, bio and nano, advanced manufacturing consulting, media & entertainment, branding, security







Population growth
2011-2035 in %



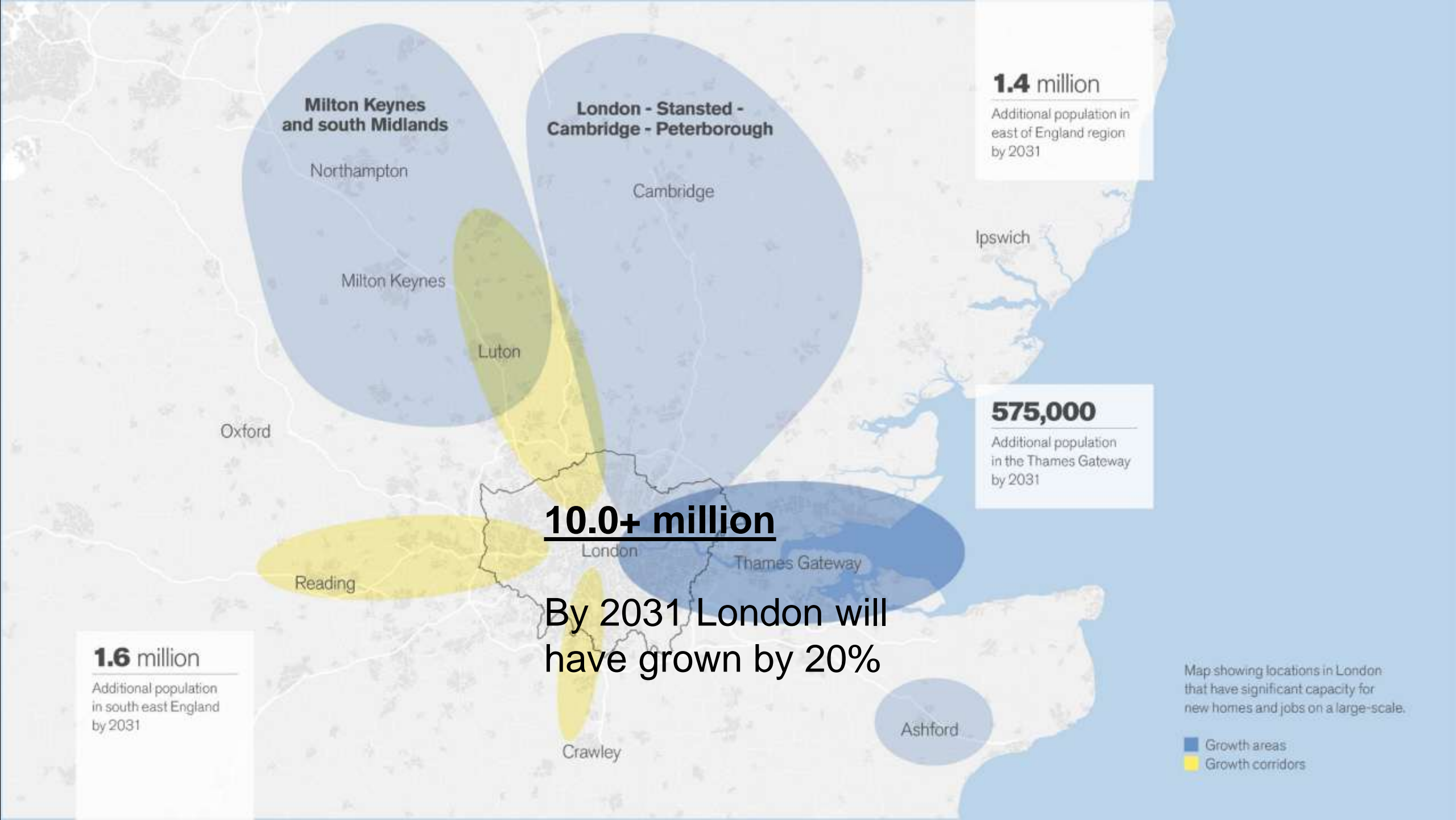


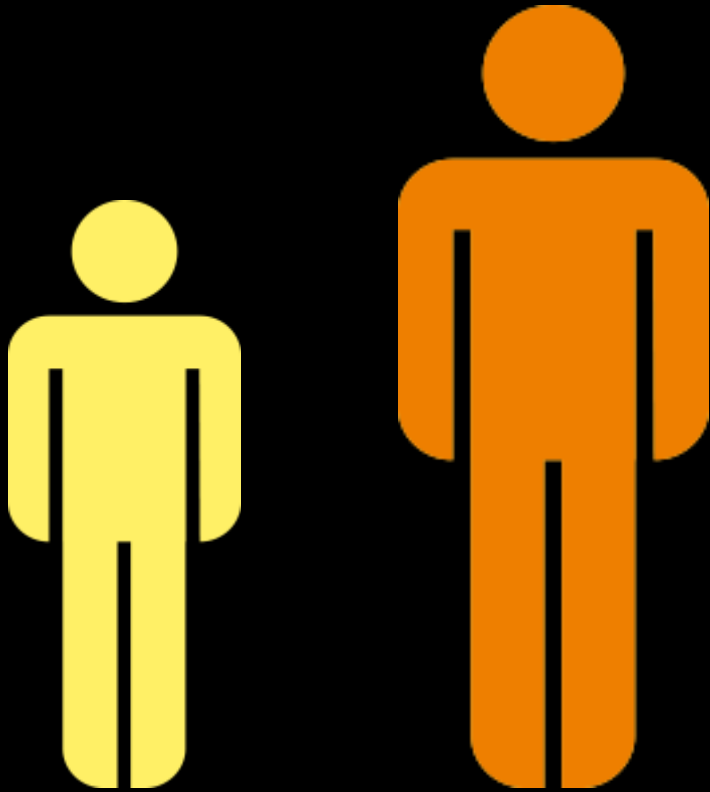
Base map



Household count

**The South East
dominates growth**





2014

2031

Projected rail passenger growth
in London by 2031

+36%

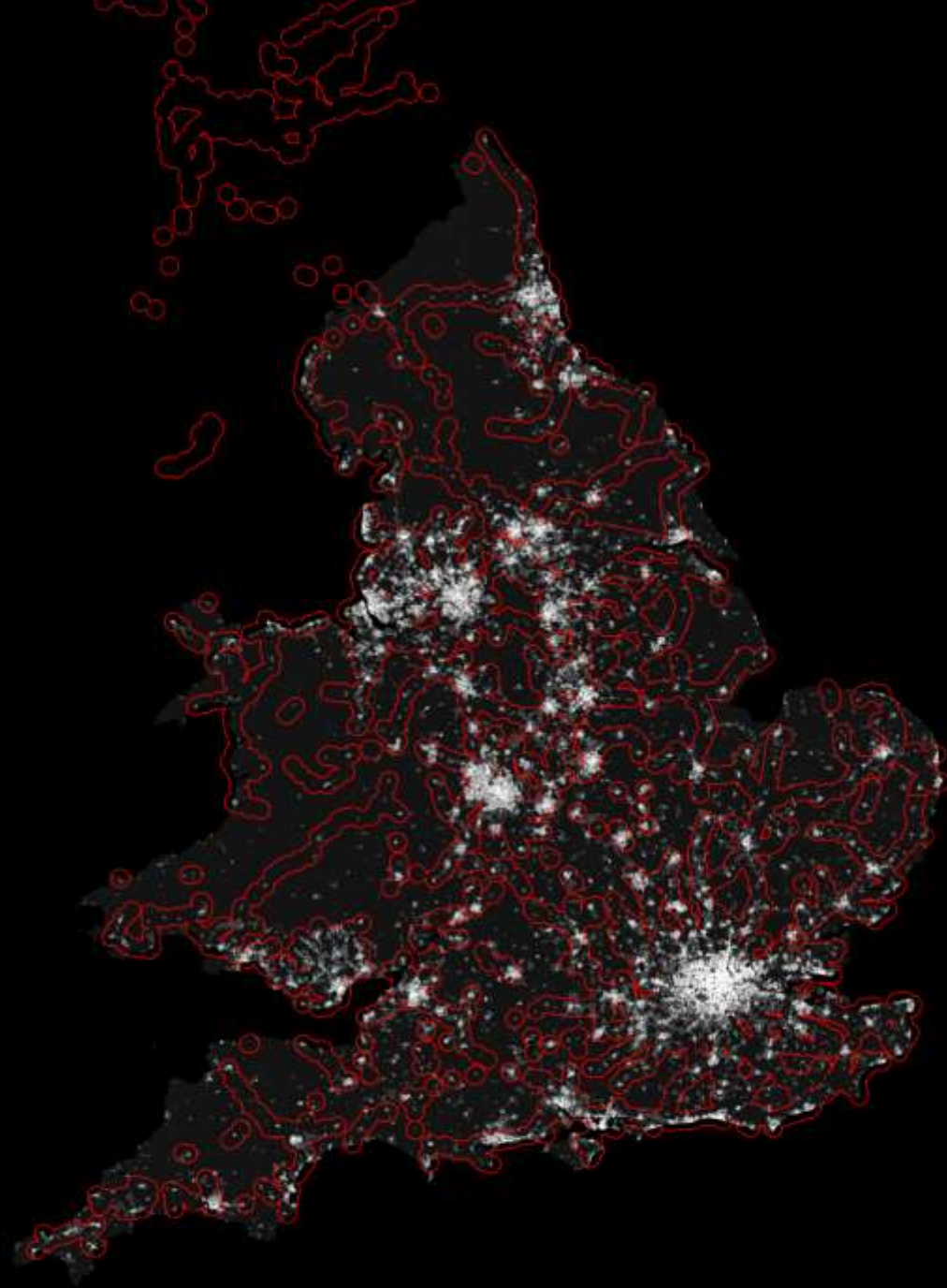
Source: Network Rail

[stey-shuh n]

a stopping place for trains or other land conveyances, for the transfer of freight or passengers.

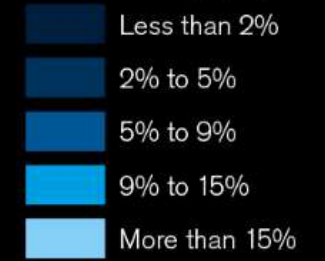


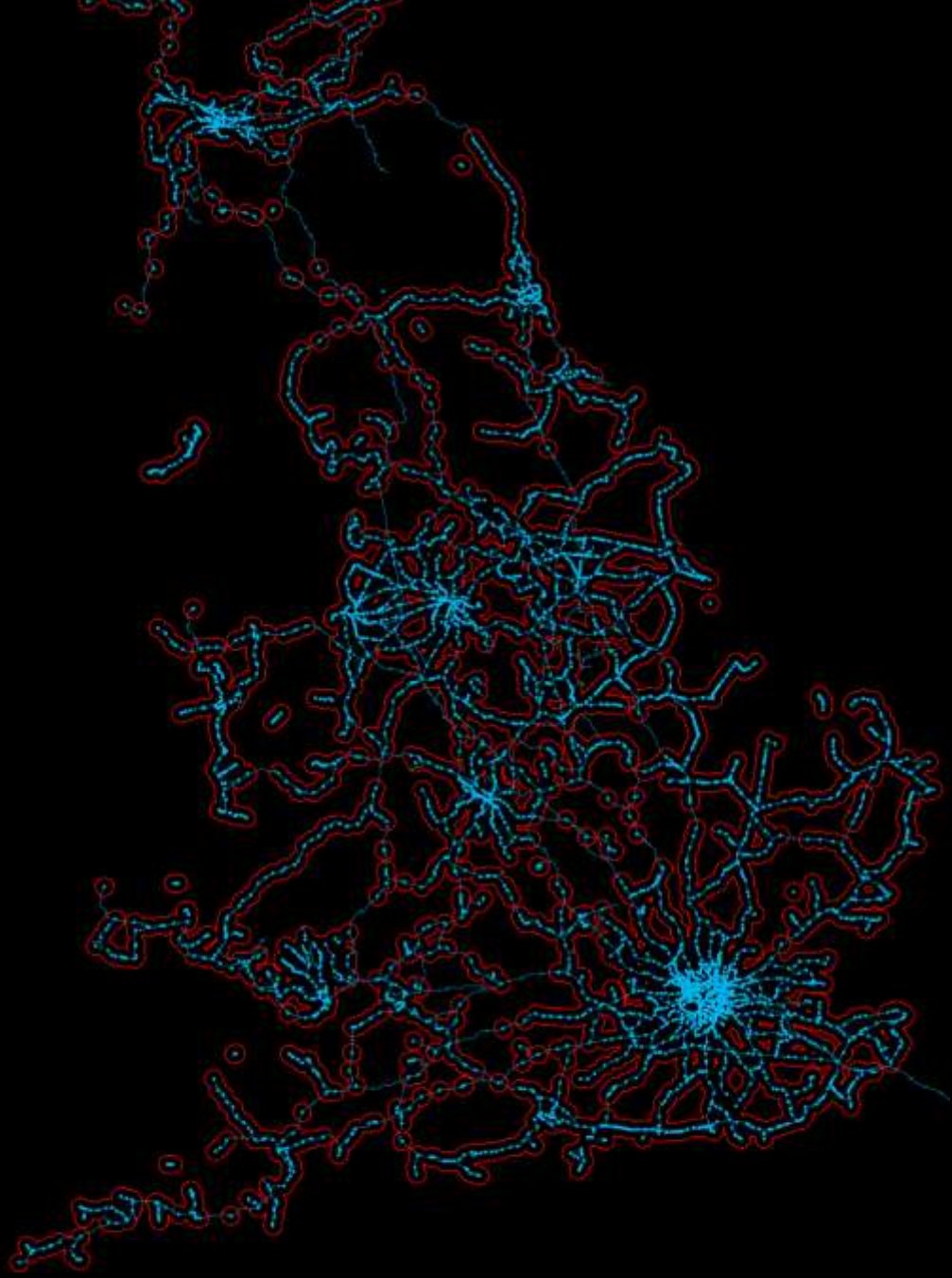


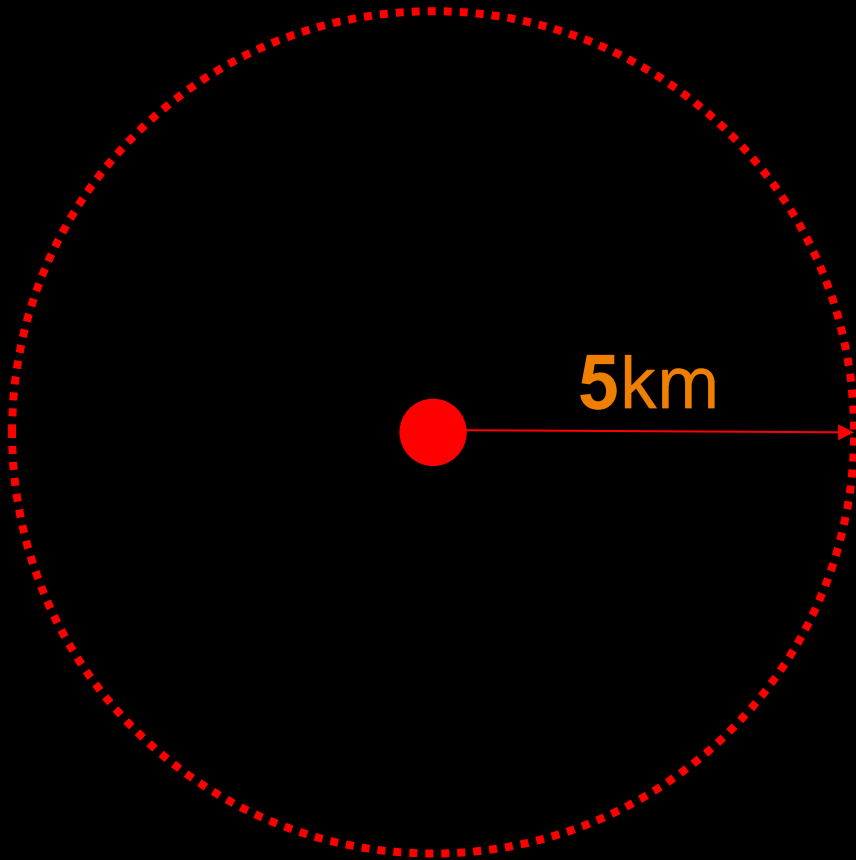




Commuting by train
% of working population







90%

of the population live and
work within **5 kilometres**
of a railway station

The station is the heart of the community (rural and urban)



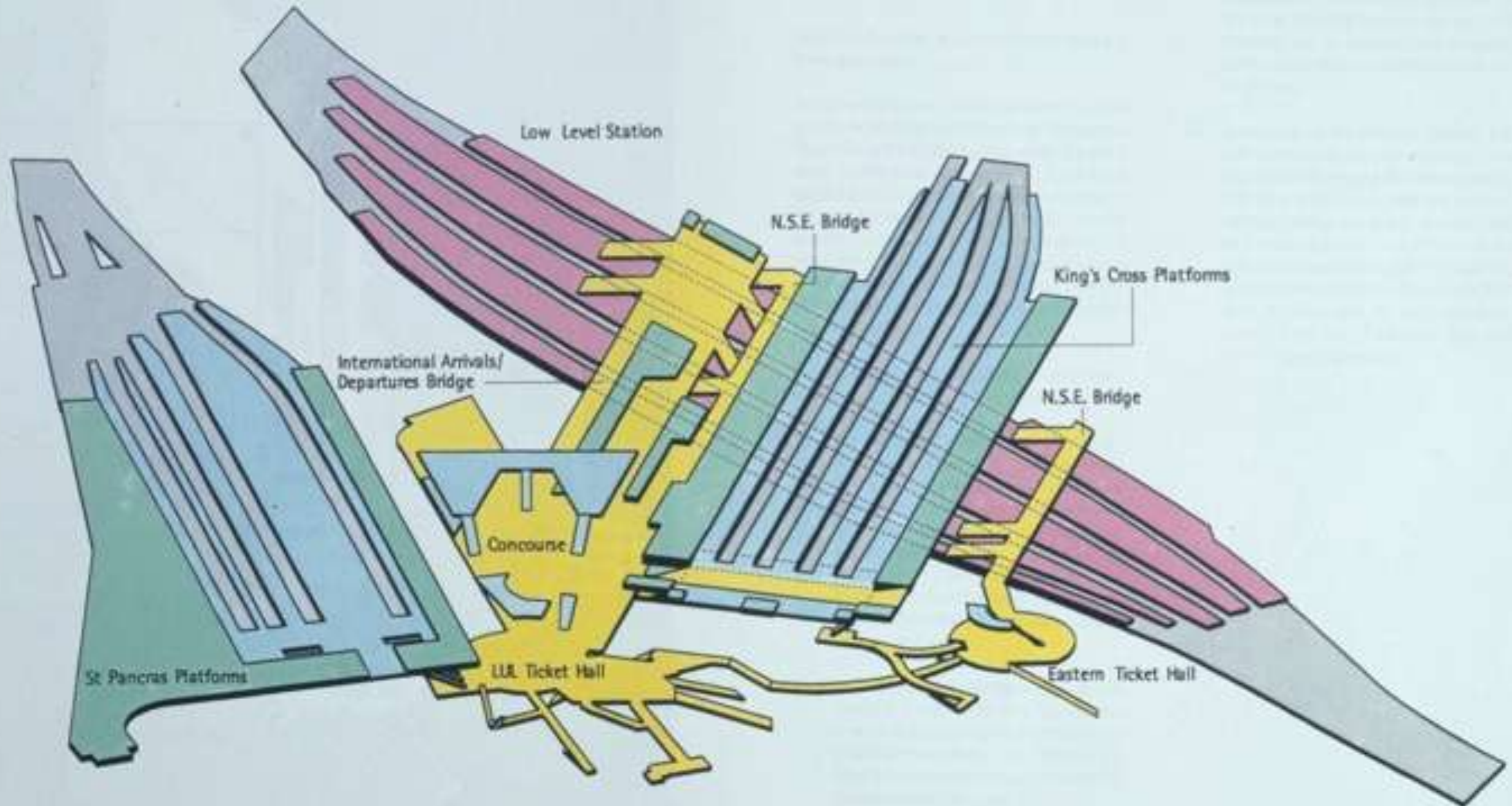
Urban decay



Kings Cross Masterplan



Station arrangement



St Pancras - extended station

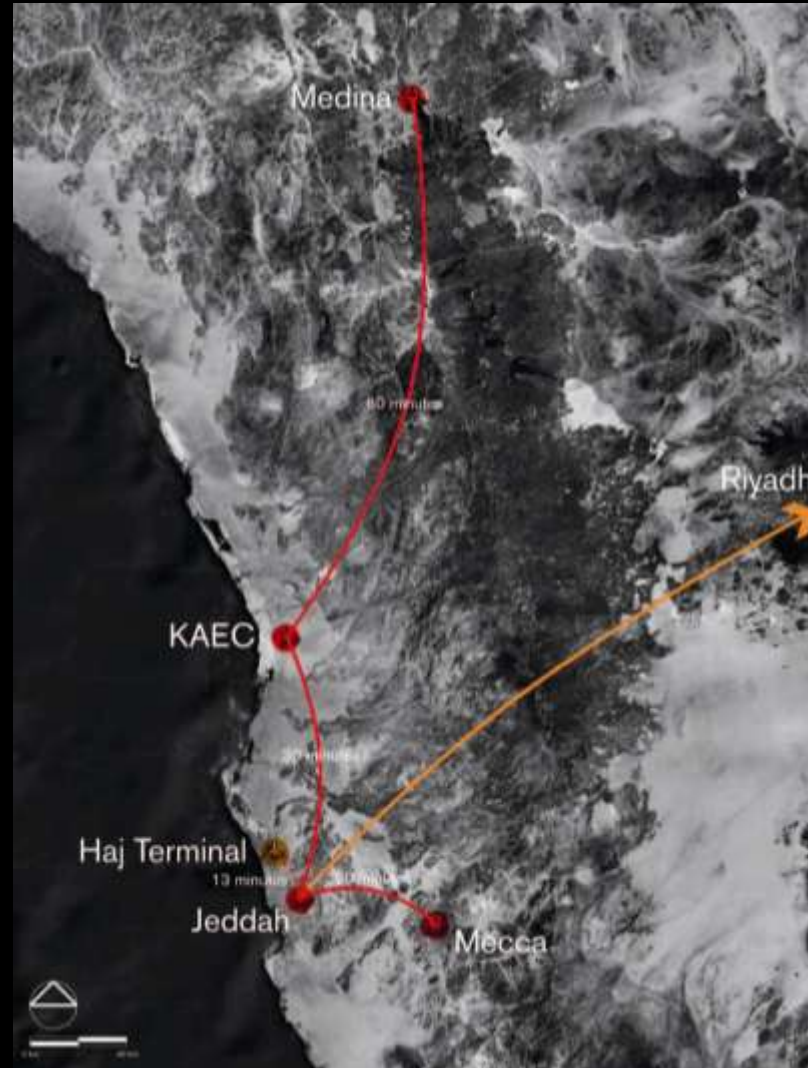


St Pancras - taking away the tracks



Haramain High Speed Rail

Moving fast to move faster



Exterior - Madinah



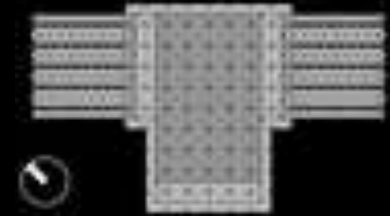
Haramain High Speed Rail | September 2010

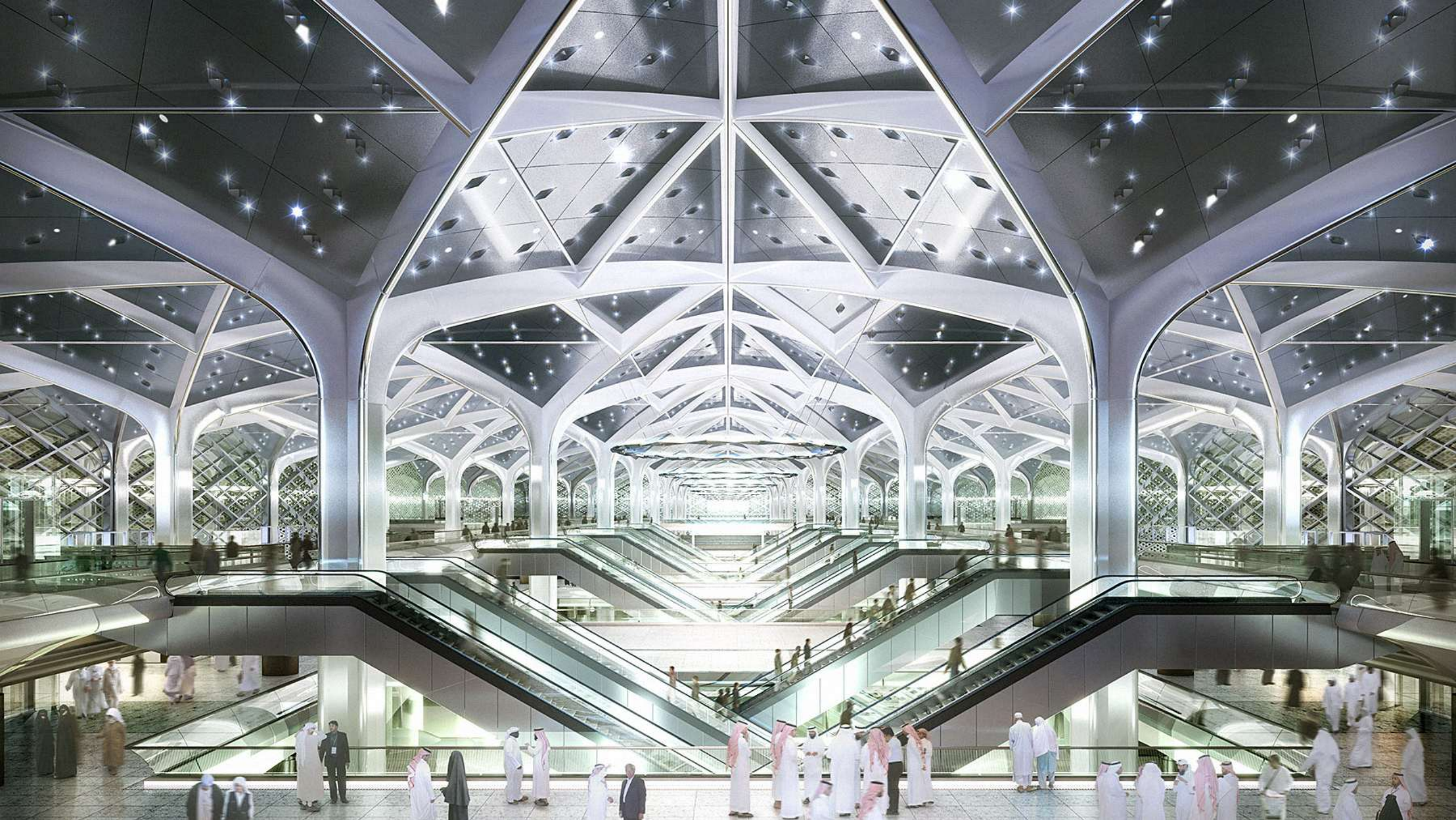


Exterior - Jeddah



Haramain High Speed Rail | September 2010

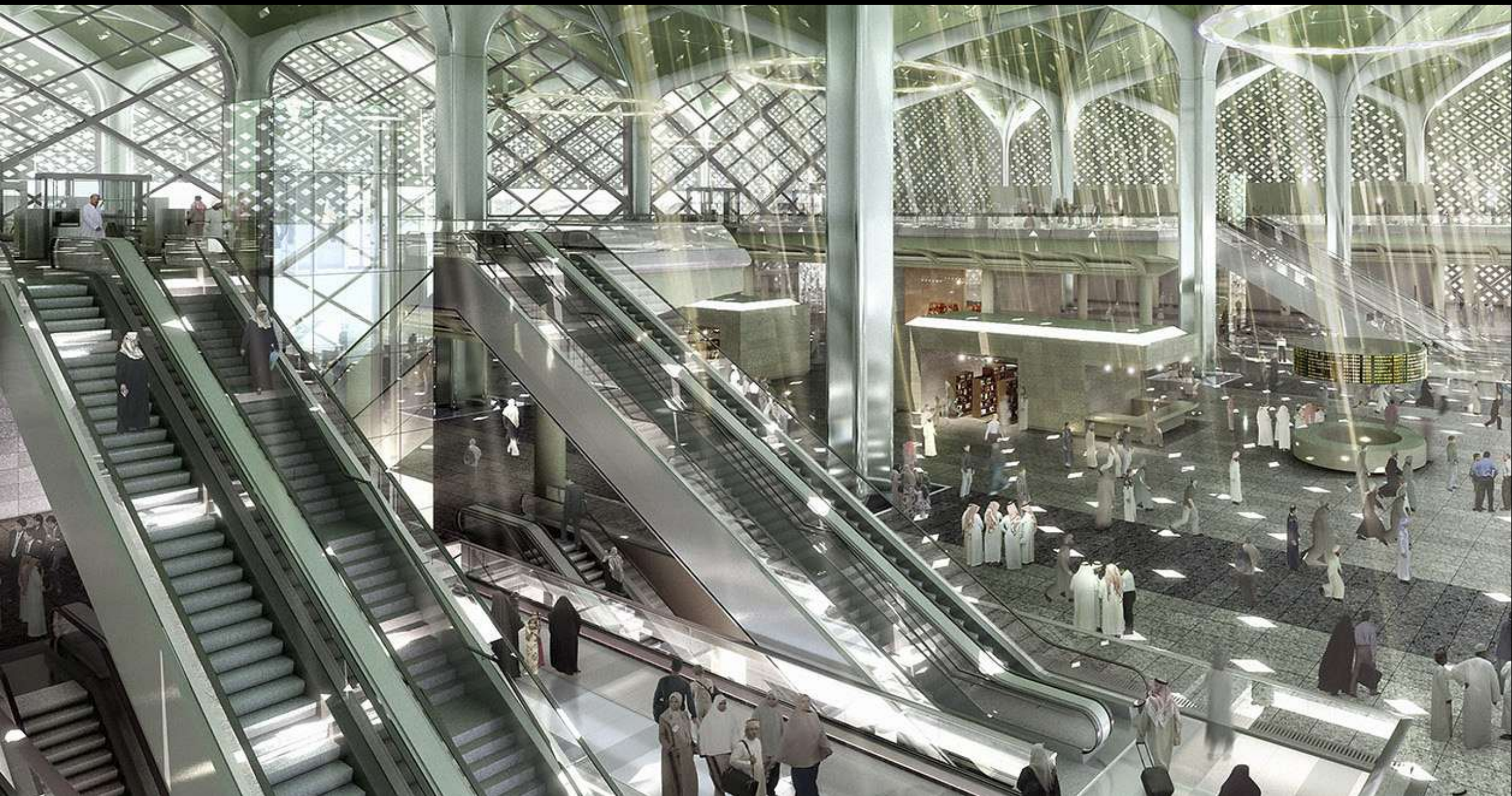




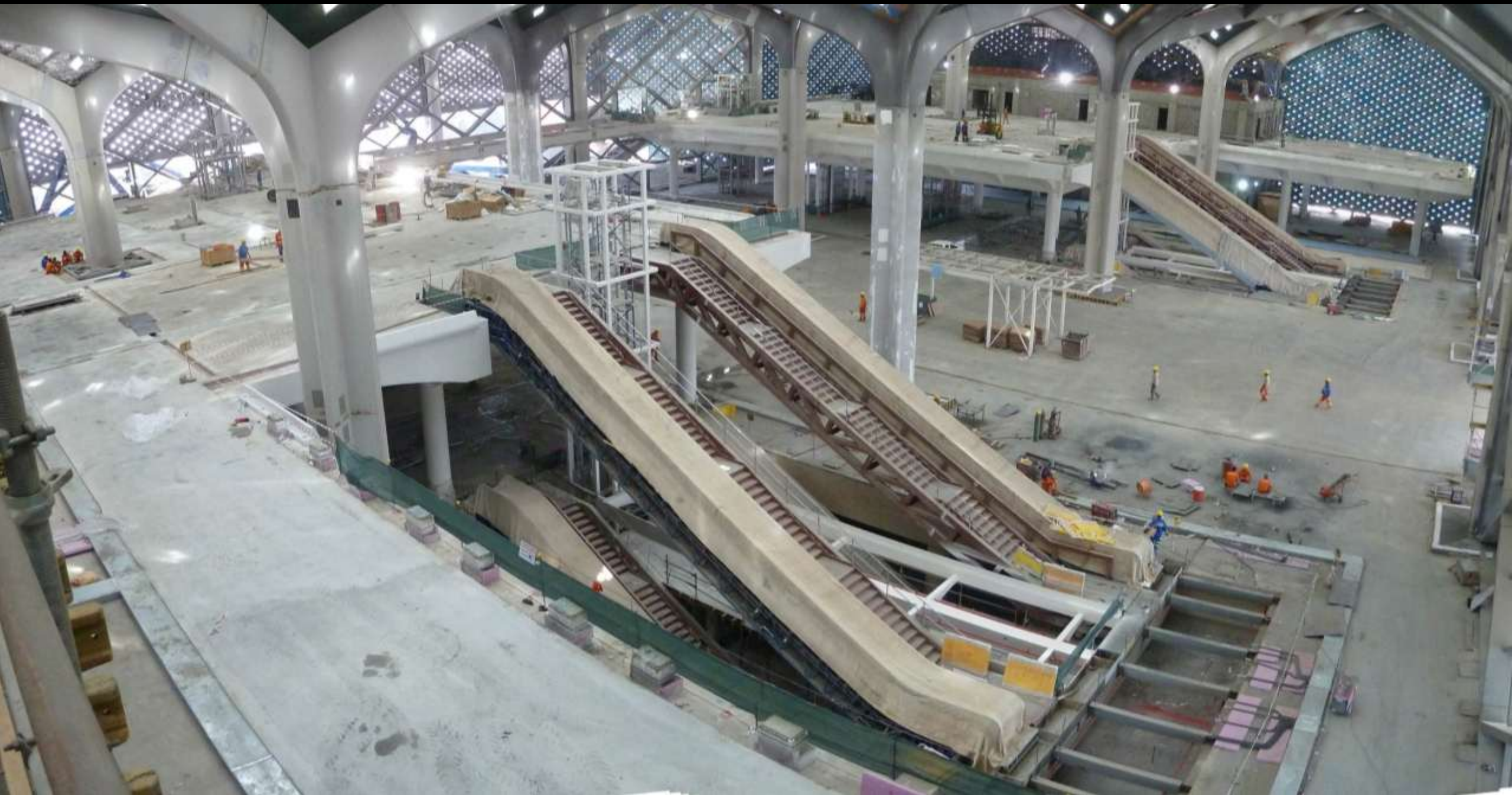
Escalator Design - Jeddah



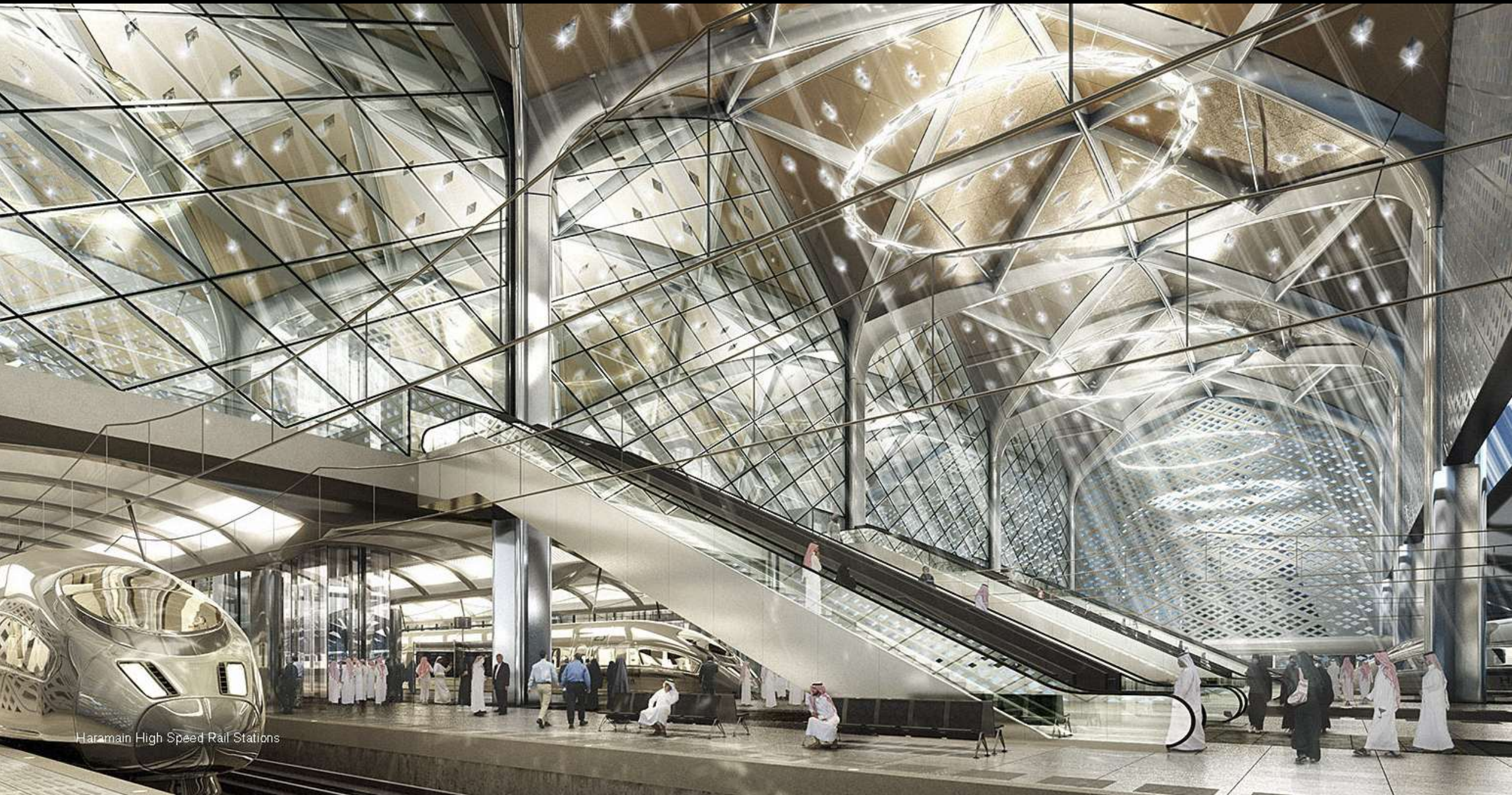
Escalator Design



Escalator Design - Madinah



Escalator Design - Makkah



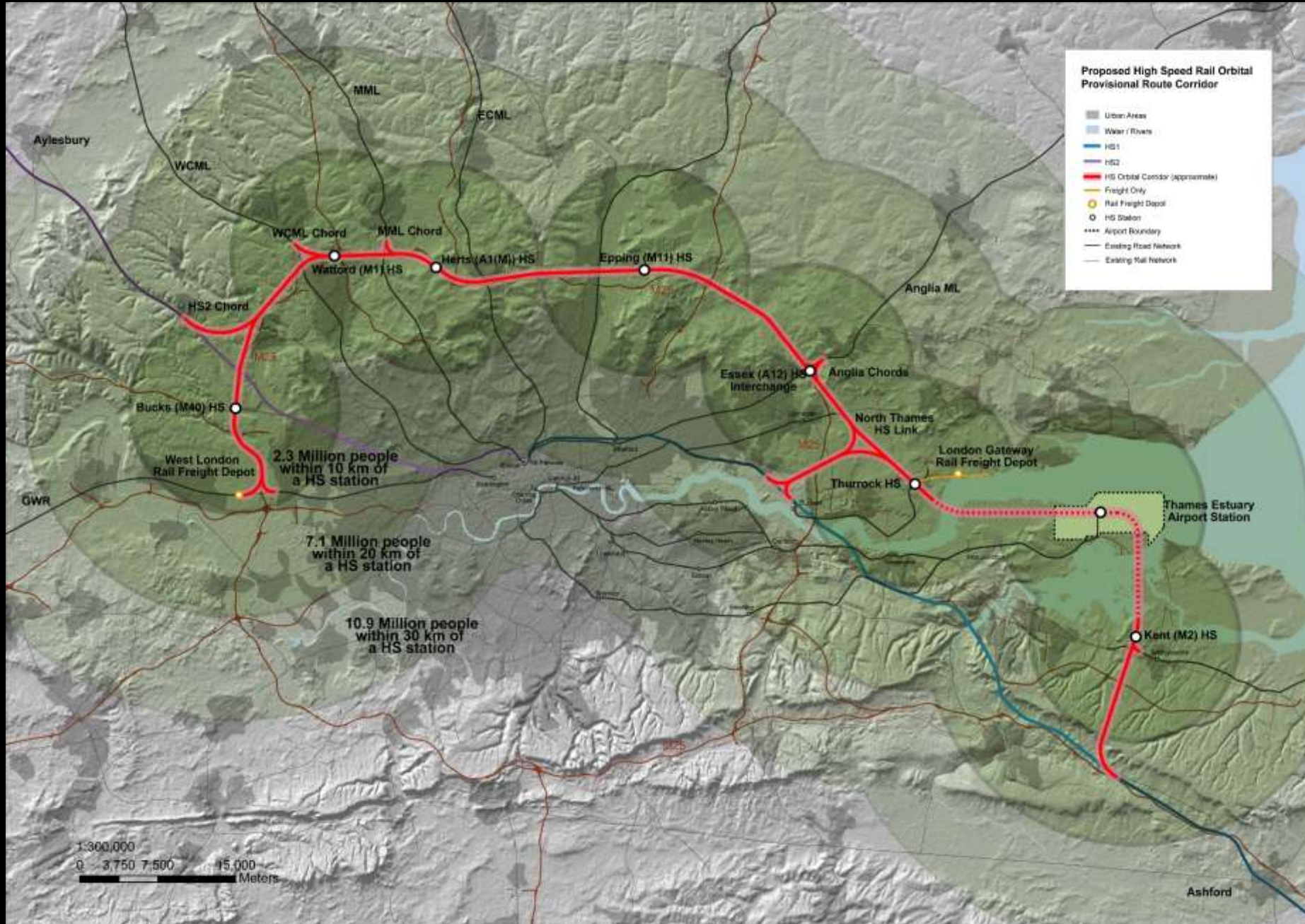
Haramain High Speed Rail Stations

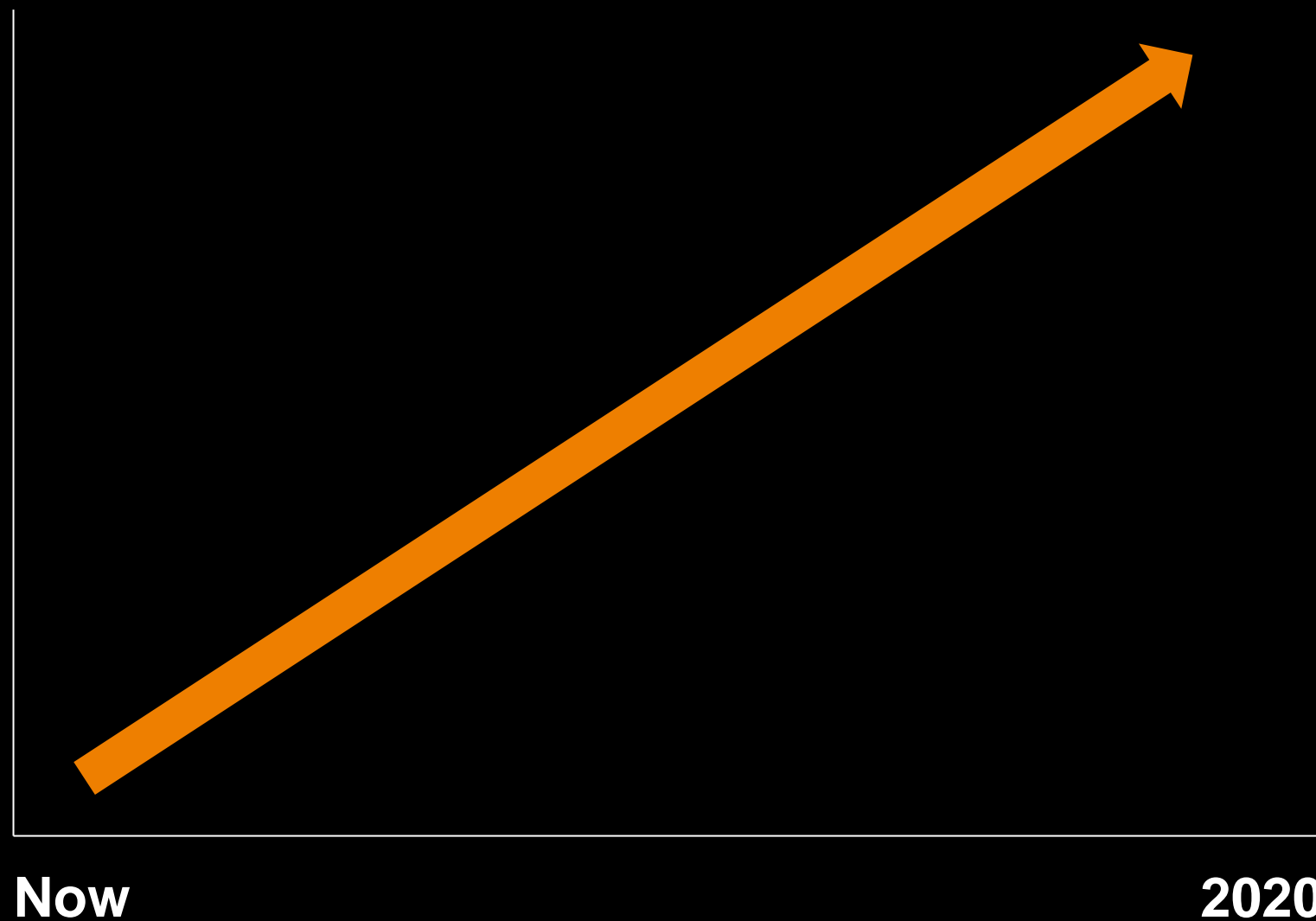
Escalator Design - Makkah





Minimising impact – maximising accessibility

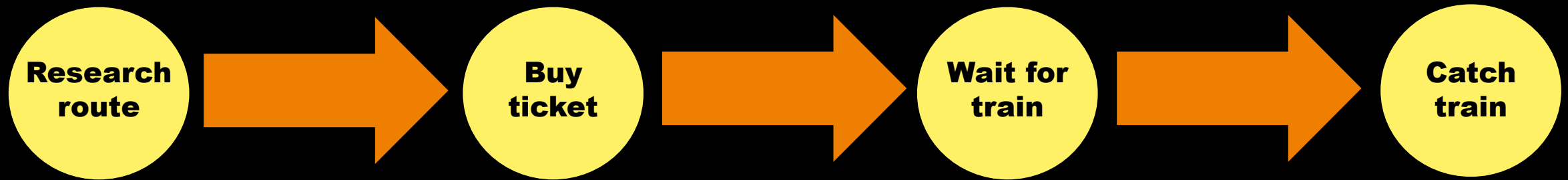




**+400
million**

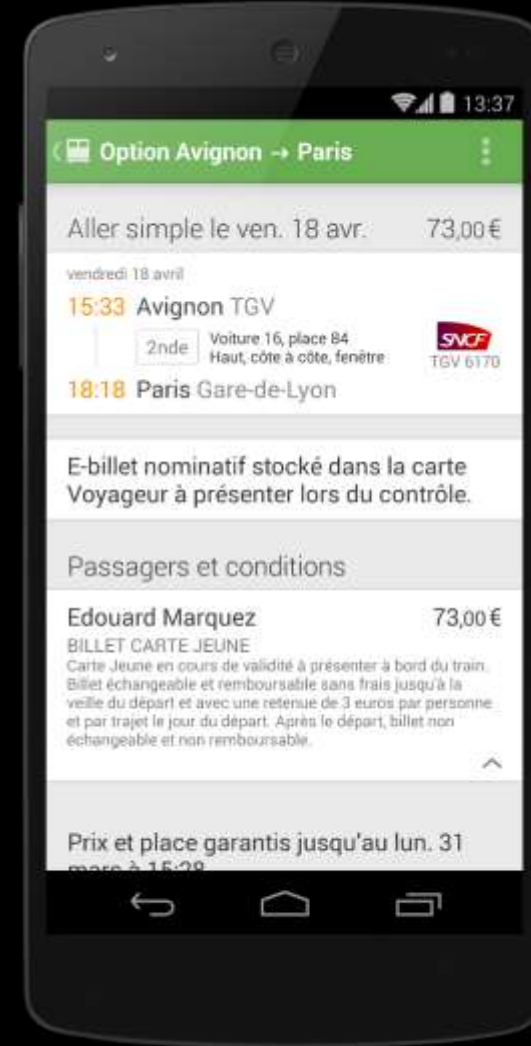
By 2020 another
400 million
journeys will be
made every year

Traditional passenger experience of the railway station





The way we connect has changed





89%

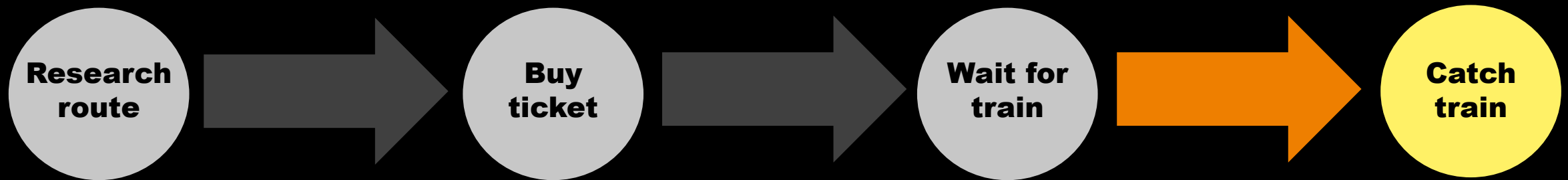
of commuters own
a smartphone

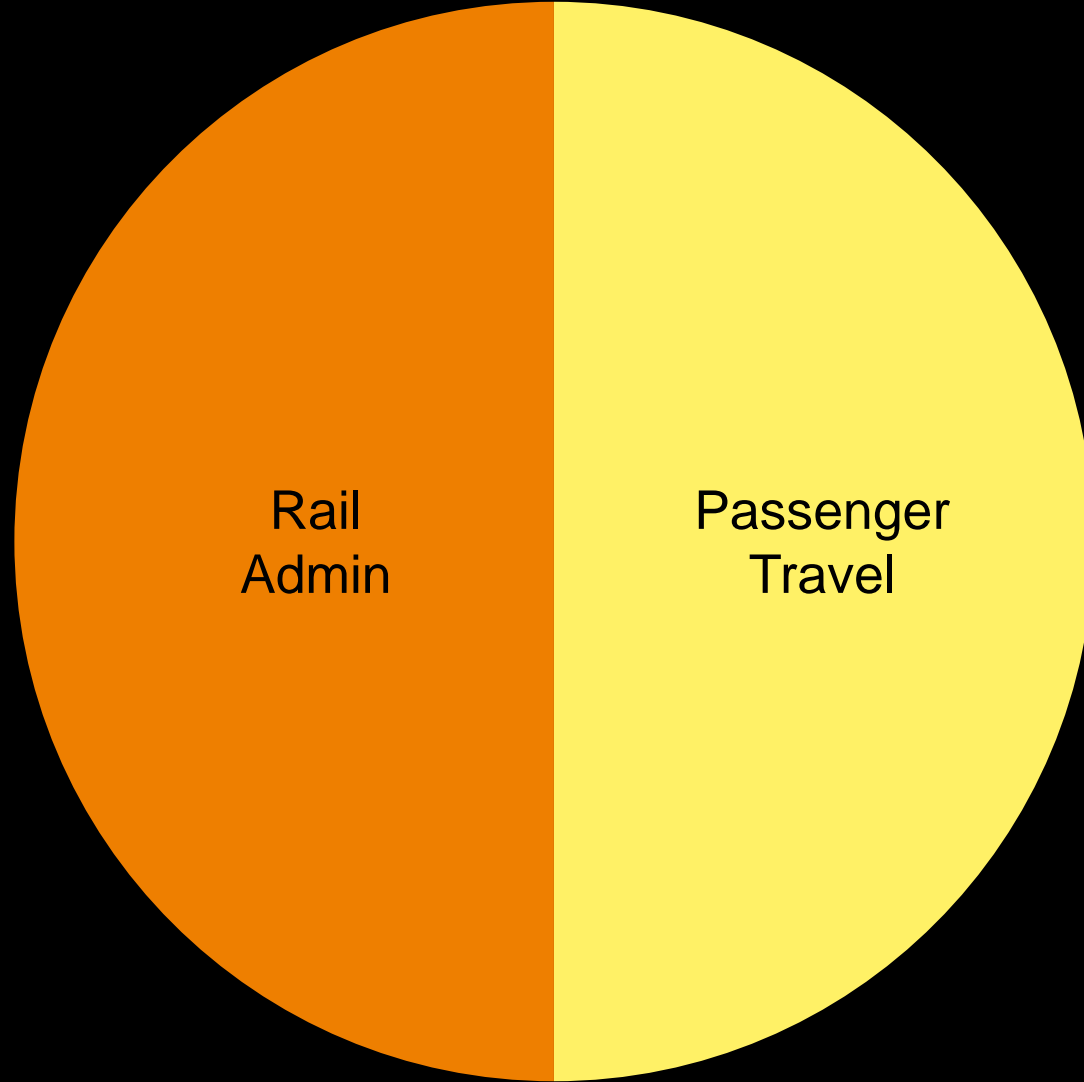
85%

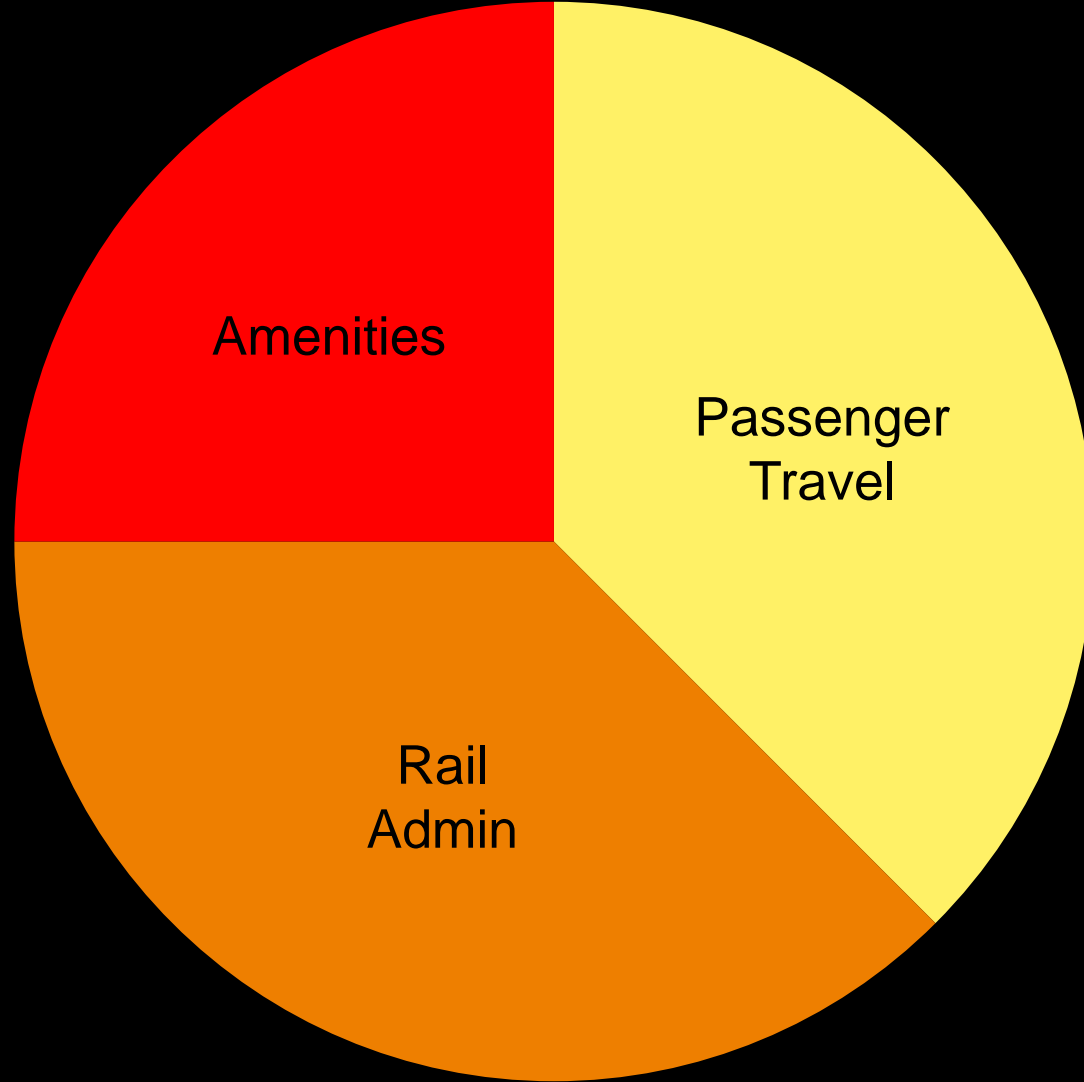
of which use it while
travelling by train

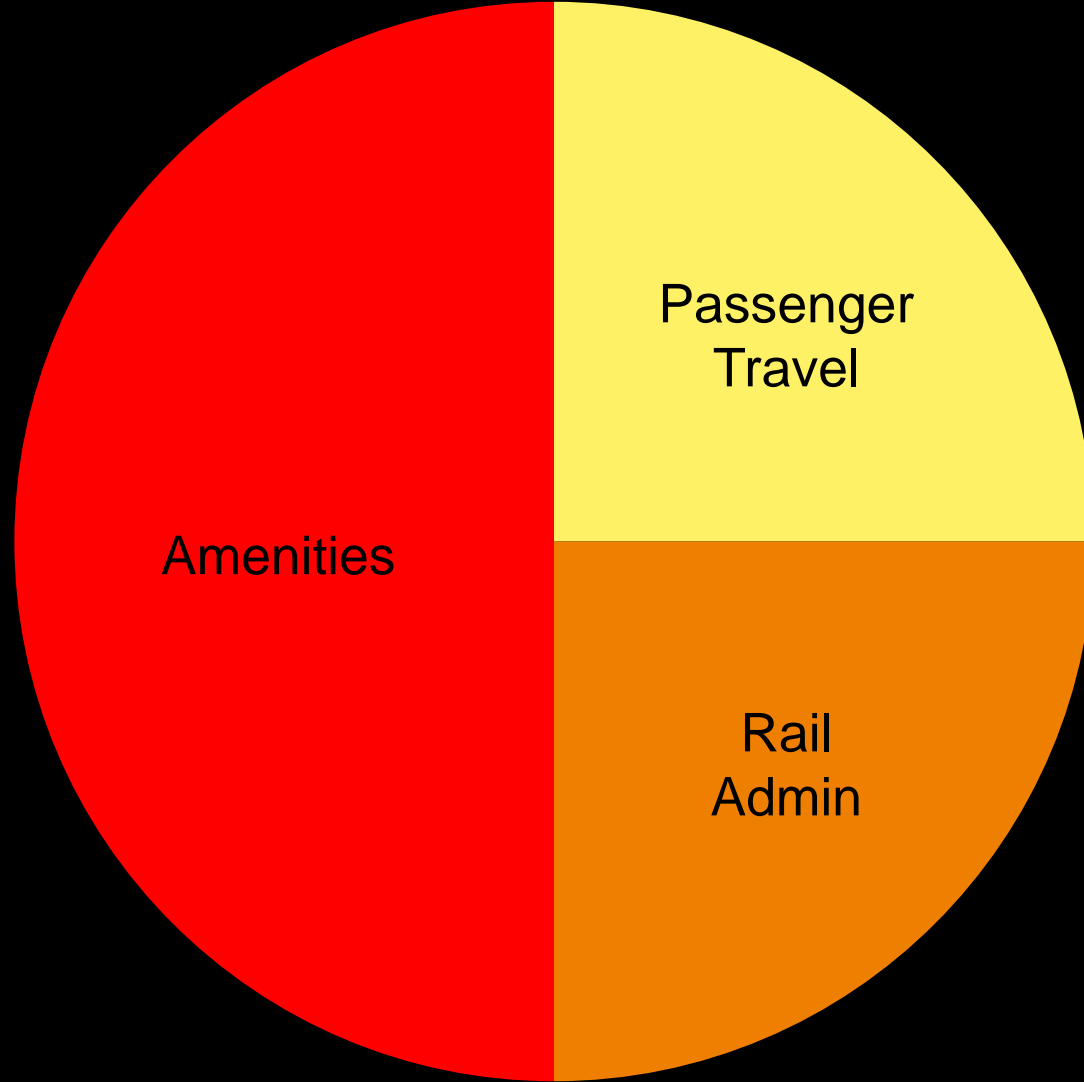
Source: KBH On train media

Today's passenger experience of the railway station









Community Choice Wellbeing

Community

Choice

Wellbeing

Primary purpose



Secondary purpose



“The Apple Store is much more than a store. We offer free workshops for people of all experience levels — we even offer youth programs like Apple Camp. And when you buy a new Mac, you can sign up for One to One training and take your skills to the next level.”

Business community



Business traveller needs: connected, wi-fi enabled personal space

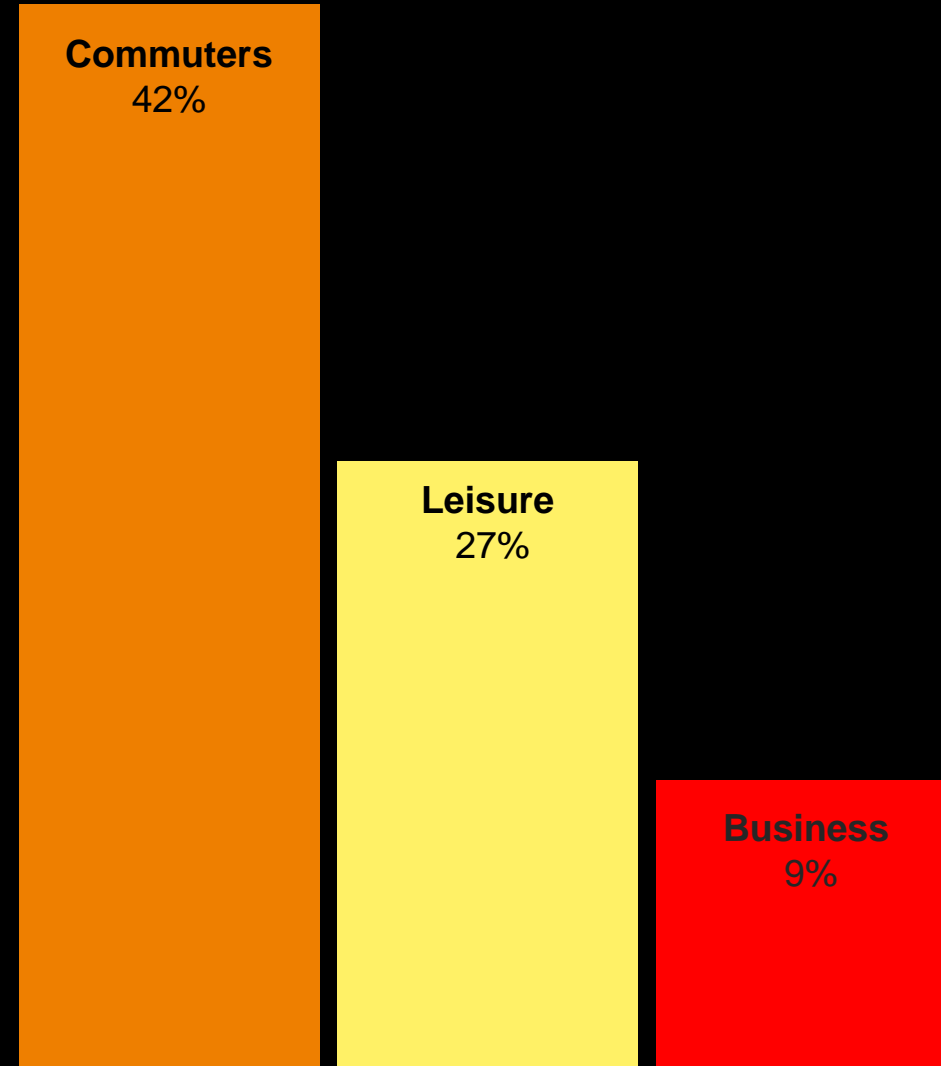


Commuter needs: social centres to connect with friends and colleagues



Community
Choice
Wellbeing

A point of connection for station users





**SKY
PRIORITY®**

BusinessElite, First & Business Class
Diamond, Platinum & Gold Medallion
SkyTeam® Elite Plus



Greater choice of amenities



Access to 'click and collect' shopping services

Greater choice of amenities

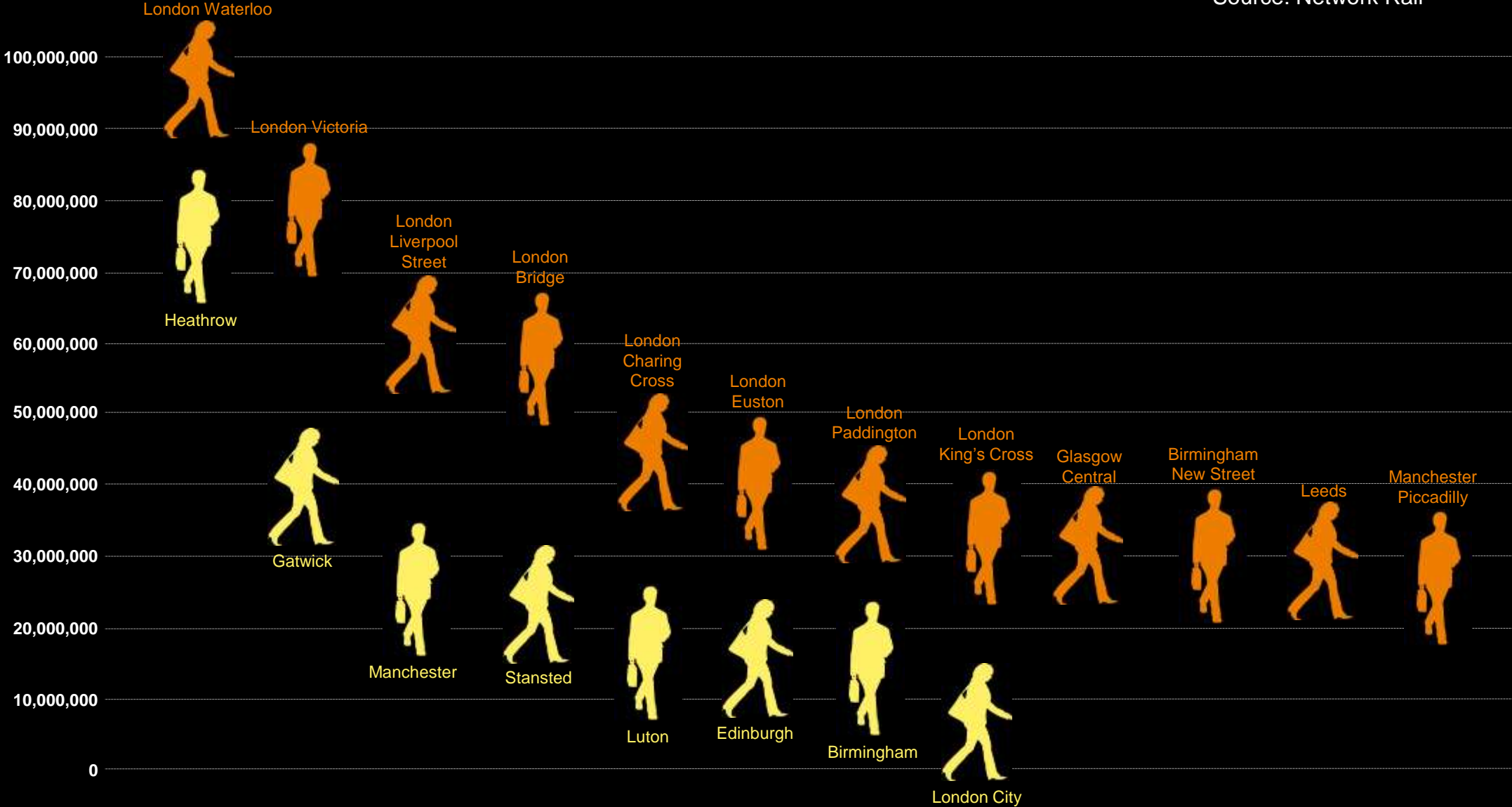


Community
Choice
Wellbeing

Train stations are busier than airports

Number of passengers per year
Airports compared with railway stations

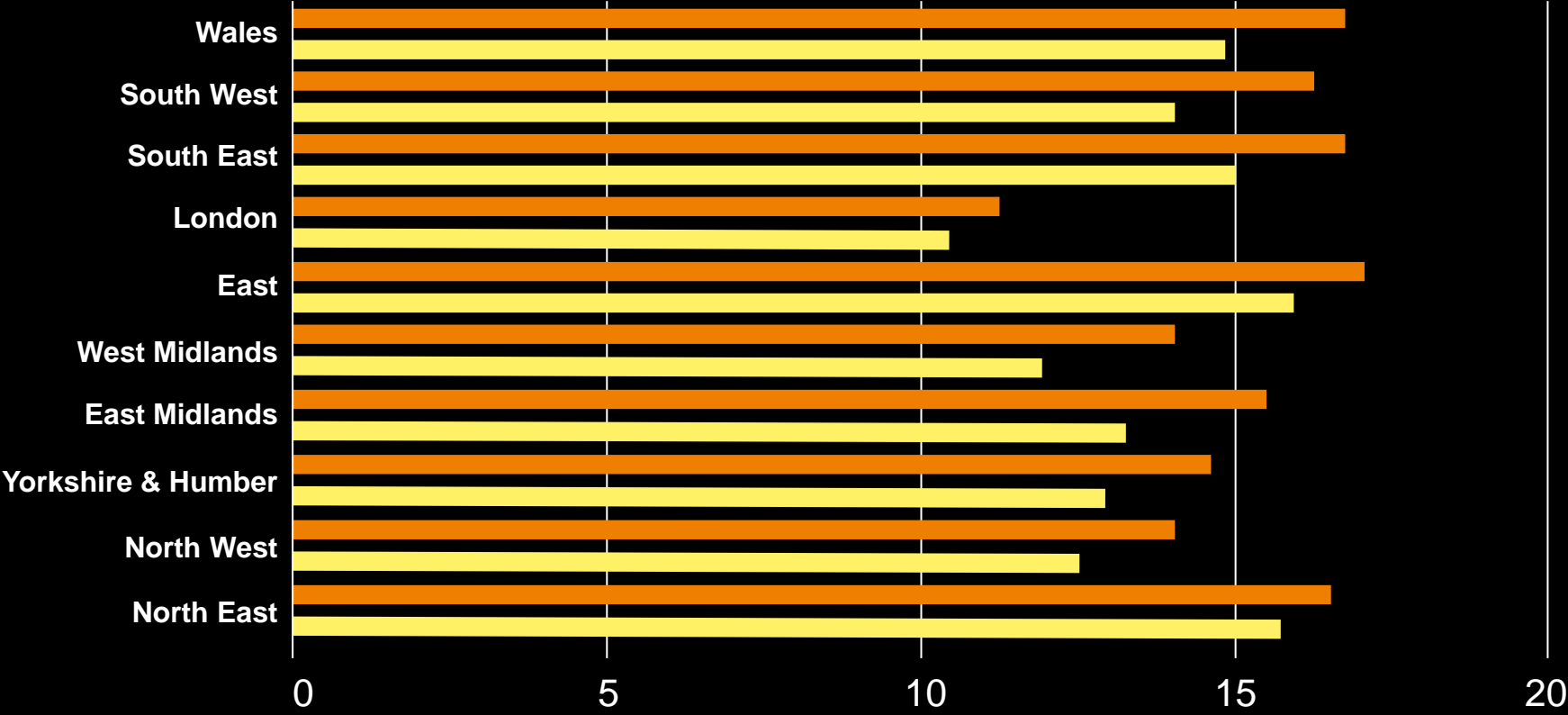
Source: Network Rail



Those that commute, travel further

Average distance travelled to work in England and Wales (km)

2001
2011



Source
Office for National Statistics



❤️ 117-144 bpm



❤️ 140 bpm



❤️ 120-160 bpm



❤️ 170+ bpm



❤️ 170-185 bpm



❤️ 189 bpm



❤️ 145+ bpm



❤️ 200+ bpm

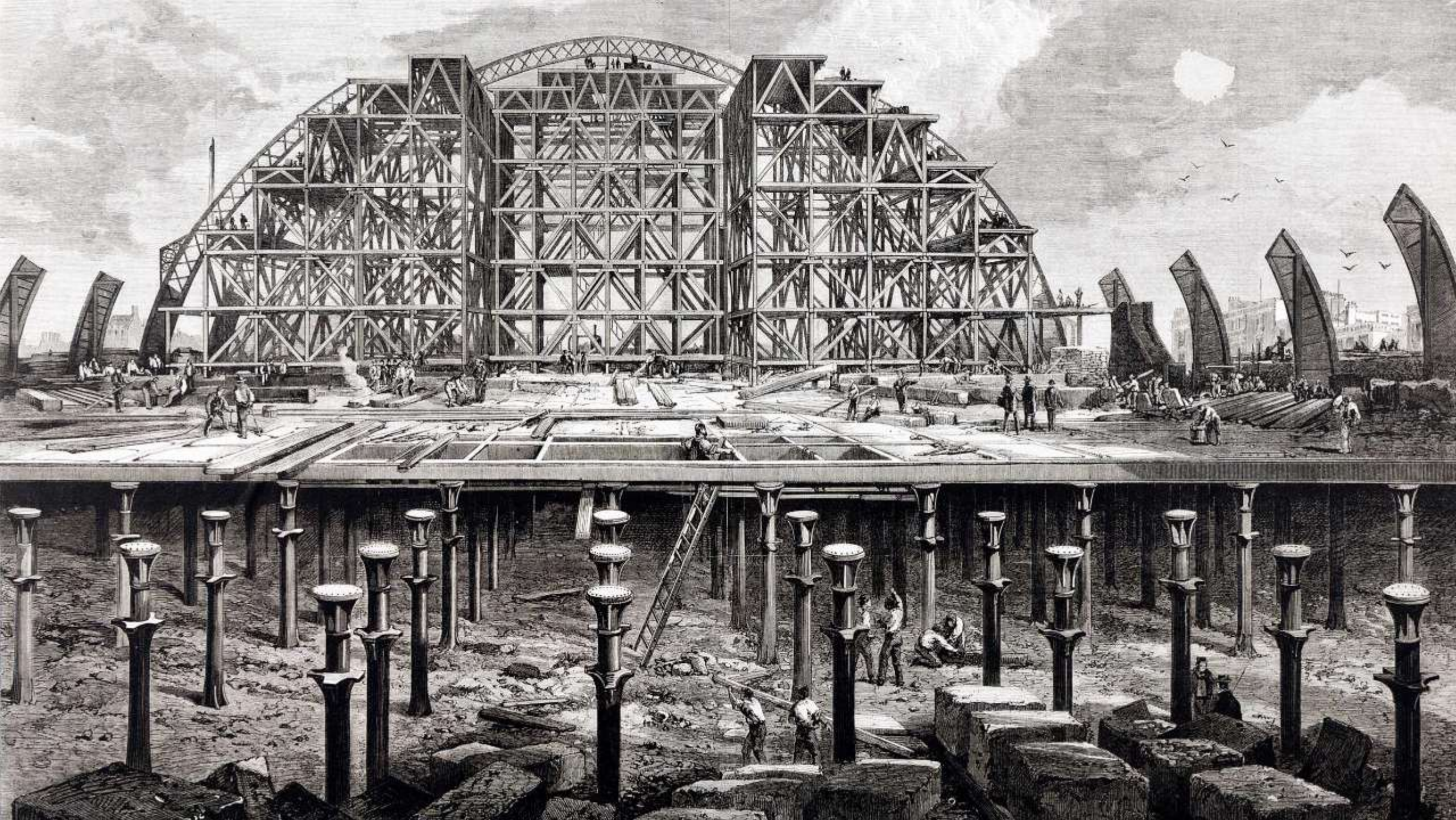
Greater choice of amenities



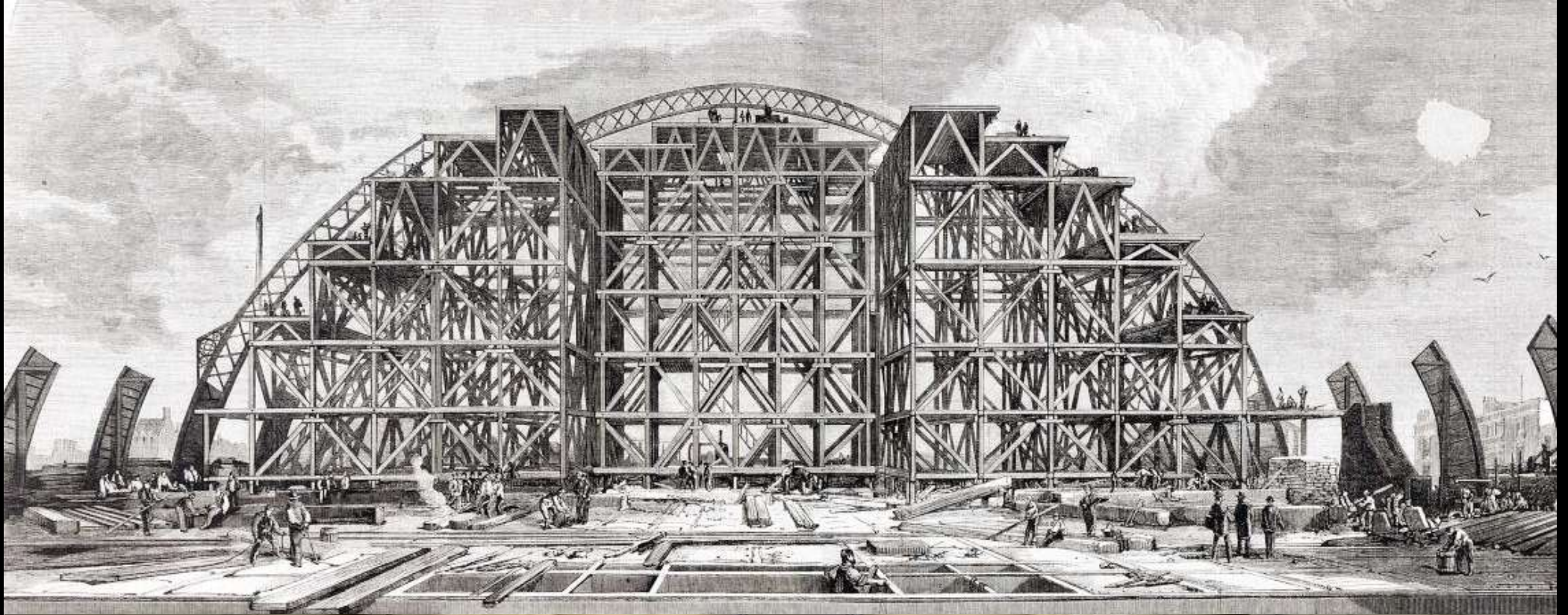


How can the station itself be designed to increase wellbeing?





1866



2007



