

# Transport

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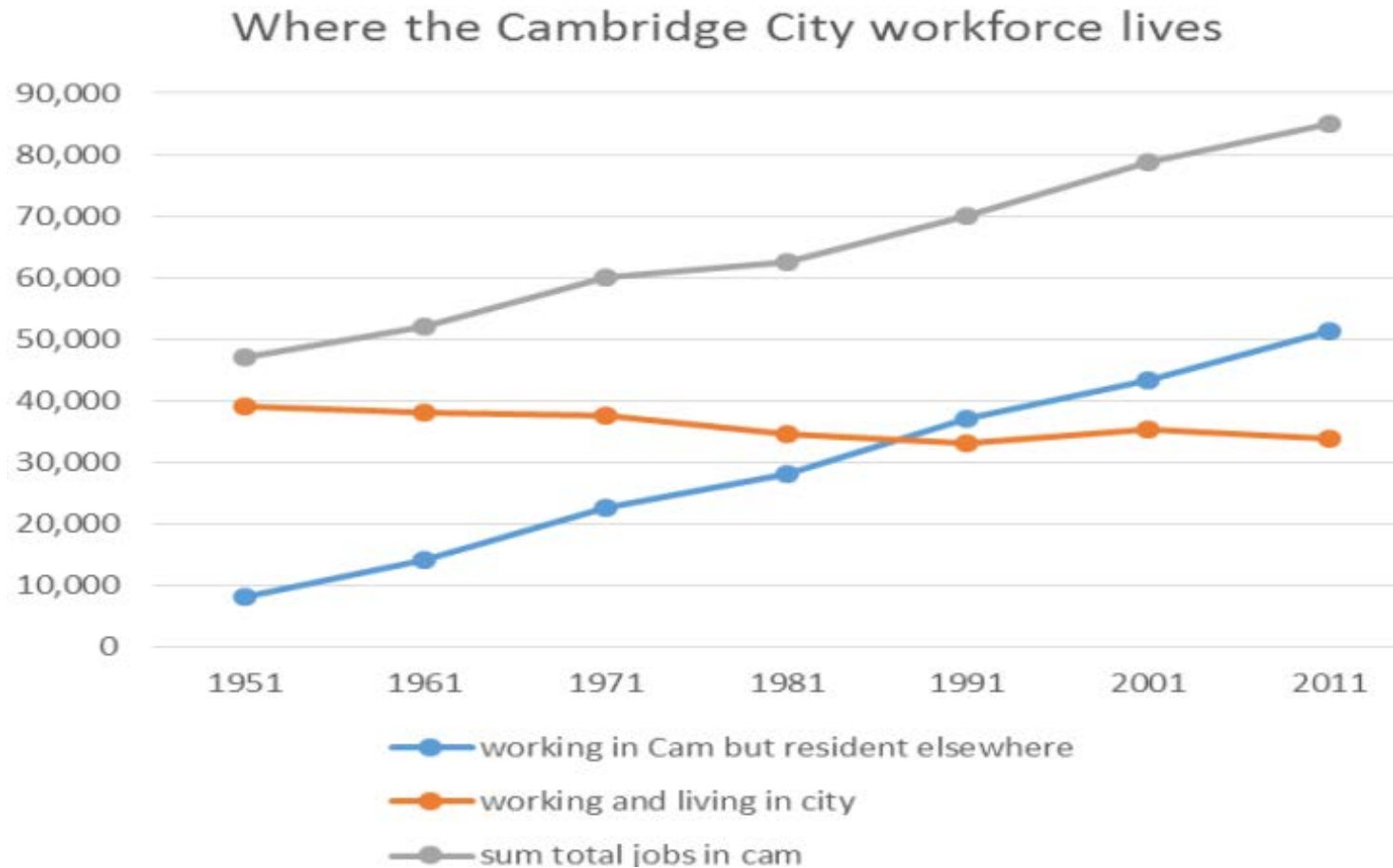
## **Conclusions from 2030 Vision**

- Transport should be planned, implemented and maintained on a regional basis.
- City congestion charging should be introduced and the proceeds used to improve public transport.
- New development should be planned around public transport.

# Key issues

- Desperate shortage of affordable houses close to Cambridge
- Over four years Cambridge employment has grown by 26% (Cambridge Ahead)
- Number of University postdocs increased from 3200 to 4000 over 4 years (very poorly paid).
- AstraZeneca bringing 2500 staff (better paid – unlikely to be happy with Trumpington Meadows). ARM and our biotech campuses aim to double in size.
- Royston, Haverhill, Newmarket, Chatteris, Wisbech ...All rather depressed: could benefit both them and Cambridge by good transport links

# Plot by Dr Ying Jin



# Problems with transport

- Rail is hugely expensive to install and maintain – annual subsidy £4.5 billion and Network Rail's debt increased 11% last year to £45 billion
- Government subsidy to Transport for London: £700 million per year – Cambridgeshire bus subsidy £1 million per year
- Tax on petrol brings in £30bn per year to the Treasury

## Something has to be done about congestion in Cambridge

- Public Health data attributed 257 deaths in Cambridgeshire in 2010 to Particulate Air Pollution, compared with 34 from Road Traffic Accidents – City Council report
- The diesel fiasco – and are electric and hybrid worse than petrol?

# Problems with buses

- Poor service in many rural areas, and even in some City areas  
Newnham has one bus an hour  
Whippet has just had to discontinue several services
- If people do not use a service it is not economically viable  
But if the service is not good people will not use it
- Many services do not run in the evening or Sundays

**Economic reality is the problem. Changing the system will not change that.**

- The City centre is too congested for a good bus

**Note:** twice as many bus journeys in London as tube

# Pollution over a year in Cambridge

The number of days in each index band for the following date period is shown below: **24/05/2016 - 26/05/2017**

Monitoring site	Index 1 Low	Index 2 Low	Index 3 Low	Index 4 Moderate	Index 5 Moderate	Index 6 Moderate	Index 7 High	Index 8 High	Index 9 High	Index 10 Very High
<a href="#">Cambridge Medipark (CAM01)</a> <a href="#">View pie chart</a>	55	31	7	0	0	0	0	0	0	0
<a href="#">Cambridge Parker Street (CAM1)</a> <a href="#">View pie chart</a>	60	273	29	4	0	0	0	0	0	0
<a href="#">Cambridge Gonville Place (CAM3)</a> <a href="#">View pie chart</a>	75	233	44	8	1	3	2	1	0	0
<a href="#">Cambridge Newmarket Road (CAM4)</a> <a href="#">View pie chart</a>	241	92	25	1	4	3	0	0	1	0
<a href="#">Cambridge Montague Road (CAM5)</a> <a href="#">View pie chart</a>	103	233	28	4	0	0	0	0	0	0

Experts tell me:

Air Quality in Cambridge has improved over the last 10 years with levels of NO<sub>2</sub> falling in the worst affected.

Over the last year only a handful of monitored locations have exceeded the National Air Quality Objectives.

Concentrations are falling in the City Centre but are rising in the areas of intense development in the southern fringe of the city around Addenbrookes .

Most (not all) PM events are from transport from outside Cambridge (East Anglia? London?) while NO<sub>x</sub> is clearly generated within the city.



# Electric Cars

*The Times*, June 2017

The IEA said that large-scale deployment would not be easy, requiring vast battery manufacturing sites, supplies of lithium, cobalt and other commodities and a rethink of electrical grid infrastructure.

“As the number of electric vehicles increases, charging could have a sizeable impact on the capacity required by the grid at certain times and locations”

A study by the Green Alliance found that six cars charging in close proximity could cause localised blackouts.

## Hydrogen cars

(powered by fuel cells)

Quick refuel provides about 300 miles

Producing the hydrogen causes pollution, though not when thermonuclear fusion comes in

March 2017: £23m from the Government to increase fuel station coverage and vehicle uptake. There are 13 operational hydrogen refuelling stations in the UK, with many reserved for University or research purposes, though a further eight are planned for the near future. <http://www.autoexpress.co.uk>

Hydrogen can be stored and transported in liquid ammonia.

Australia is embarking on a trial

<http://www.ammoniaenergy.org/csiro-membrane-ammonia-to-high-purity-hydrogen/>

## **Some current suggestions for the Cambridge area**

Pollution charge

Light rail going north, east, south and west

Advanced Very rapid Transit

East-west road expressway

East-west rail link

Rail link Cambridge-Wisbech

Driverless cars

Provide better information

## **Discussion to be led by Ian Gaseltine:**

- **Where do you disagree with what I have said?**
- **What have I omitted that is important?**
- **What should the local authorities and other local bodies do now to prepare for 2050?**