

# Carbon footprints, change and choices.

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## Change

Change sneaks up on us.

Important trends start small, while being ignored by those with an interest in the status quo.

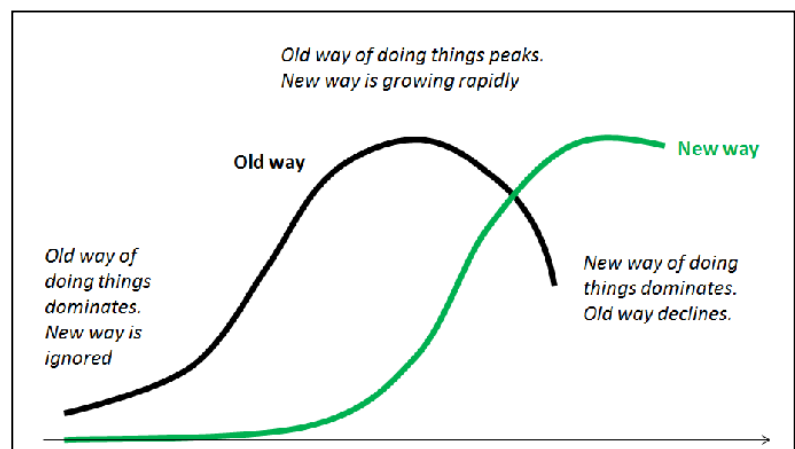
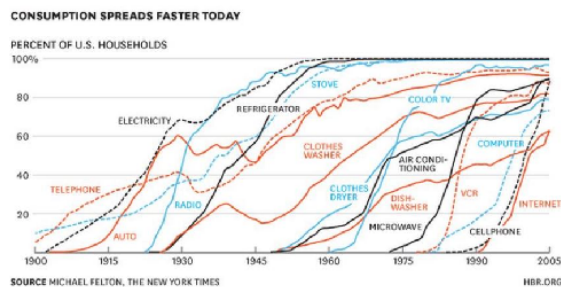
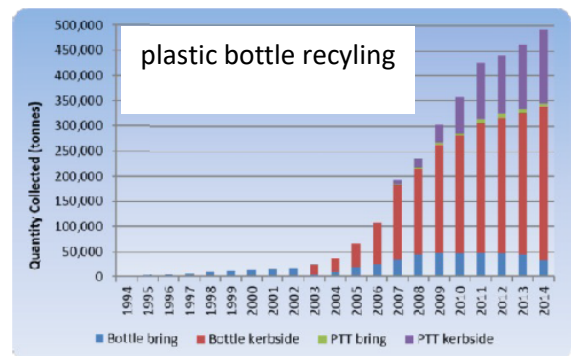


Figure 6.1: Technological uptake S-curves<sup>30</sup>



<sup>30</sup> <https://hbr.org/2013/11/the-pace-of-technology-adoption-is-speeding-up/>

<sup>31</sup> [https://en.wikipedia.org/wiki/Diffusion\\_of\\_innovations#/media/File:Diffusion\\_of\\_ideas.svg](https://en.wikipedia.org/wiki/Diffusion_of_innovations#/media/File:Diffusion_of_ideas.svg)



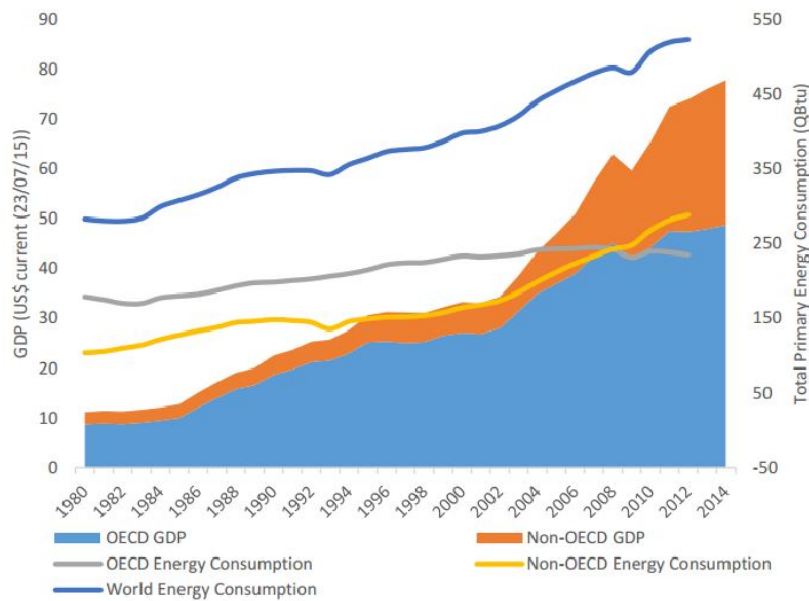
The good news is that our personal choices make a huge difference to carbon emissions, and we can change fast when we want to

Here are some encouraging trends to keep an eye on .....

# 1. Global energy use and the economy

Global GDP growth is decoupling from energy demand, even in developing countries.

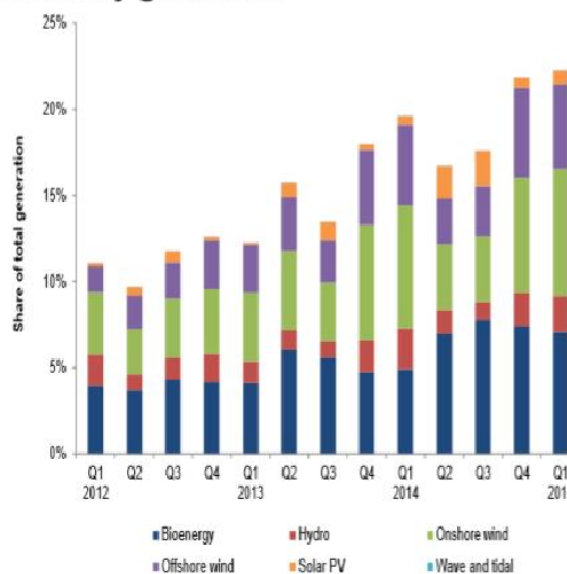
Figure 3.1: Global GDP growth is decoupling from energy demand



Source: US EIA, World Bank

[http://www.carbontracker.org/report/lost\\_in\\_transition/](http://www.carbontracker.org/report/lost_in_transition/)

Chart 6.1 Renewables' share of electricity generation

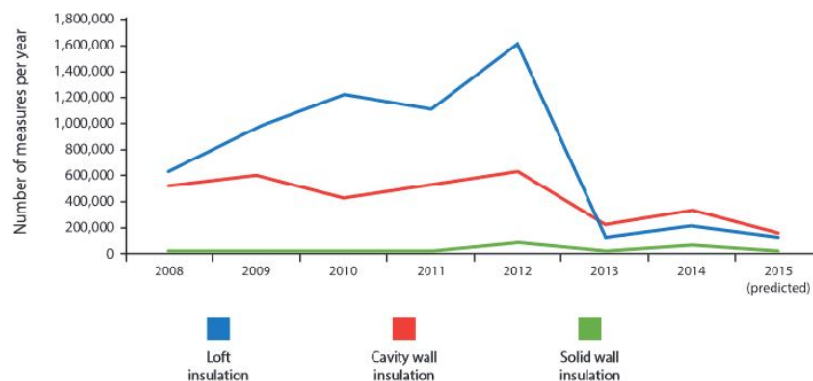


UK renewables

## 2. Home energy

**Our homes are getting better insulated (although UK insulation installation rates dropped dramatically during the failed "Green Deal" scheme)**

Figure 2: Delivery rates of key insulation measures

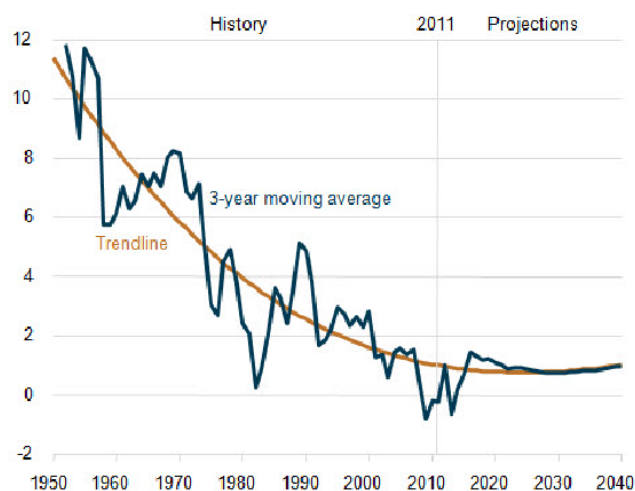


Source: Based on Committee on Climate Change<sup>15</sup> and DECC<sup>16</sup>

<http://www.respublica.org.uk/wp-content/uploads/2015/09/After-the-Green-Deal.pdf>

**Electricity companies are complaining that demand growth is declining.**

Figure 75. U.S. electricity demand growth, 1950-2040 (percent, 3-year moving average)

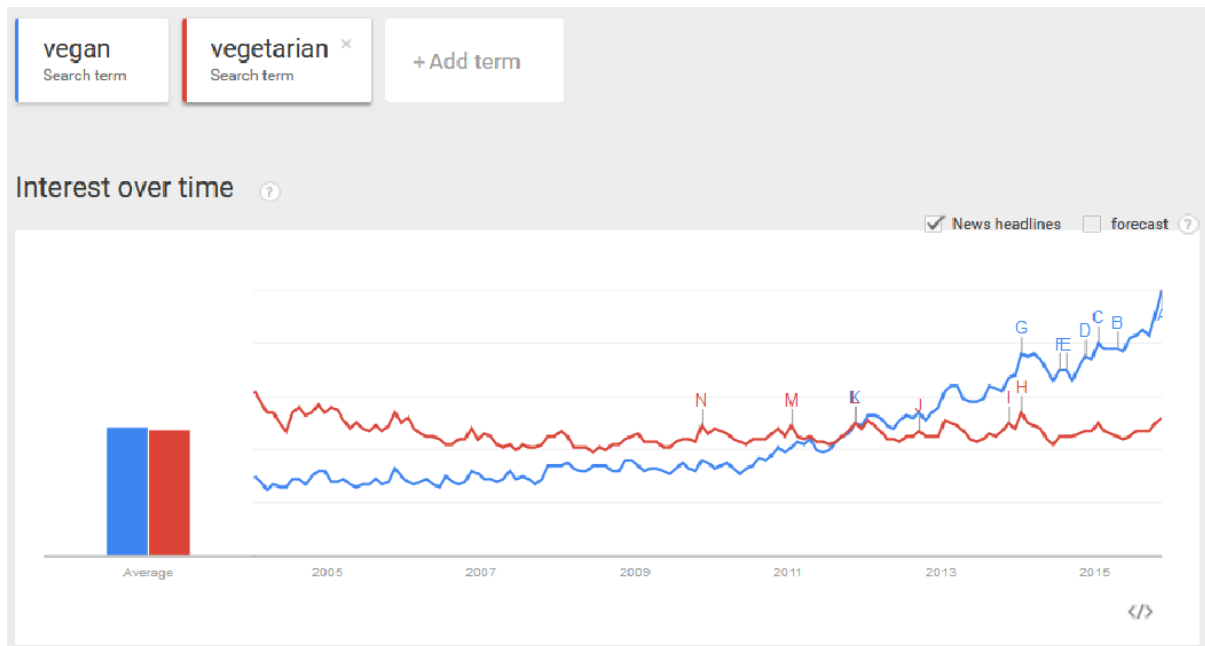


eia

[http://q.foolcdn.com/editorial/images/116983/eia-electricity-demand-growth\\_040714.jpg](http://q.foolcdn.com/editorial/images/116983/eia-electricity-demand-growth_040714.jpg)

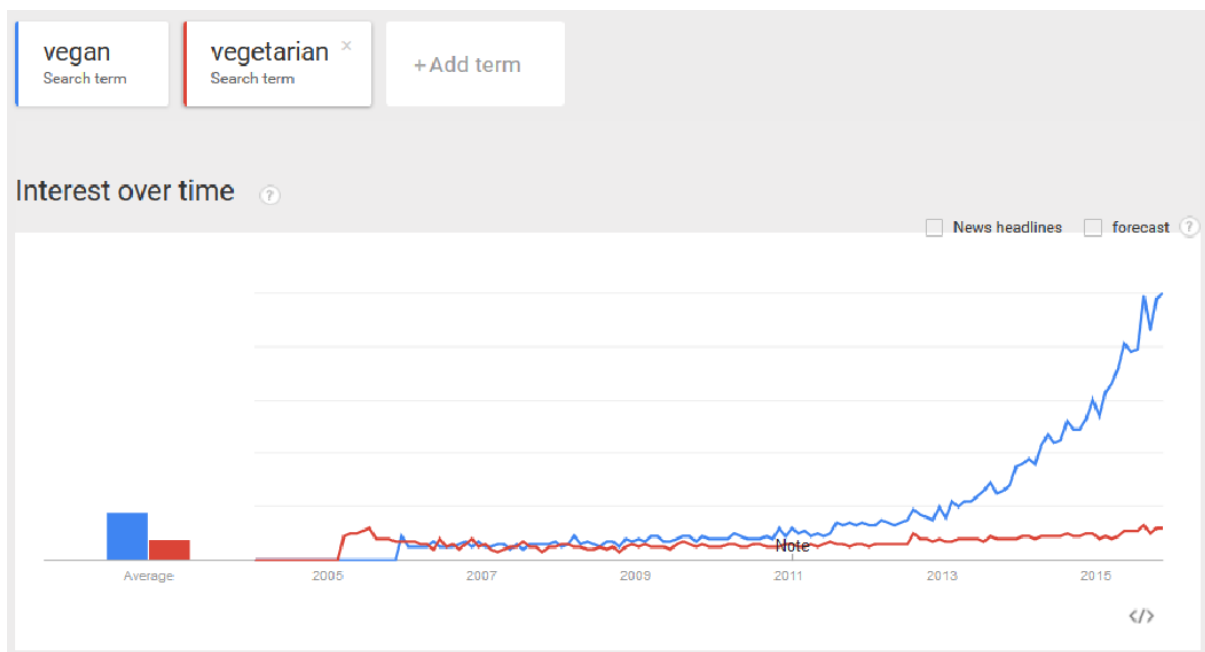
### 3. Food

Interest in Veganism is increasing worldwide.



Data from Google Trends

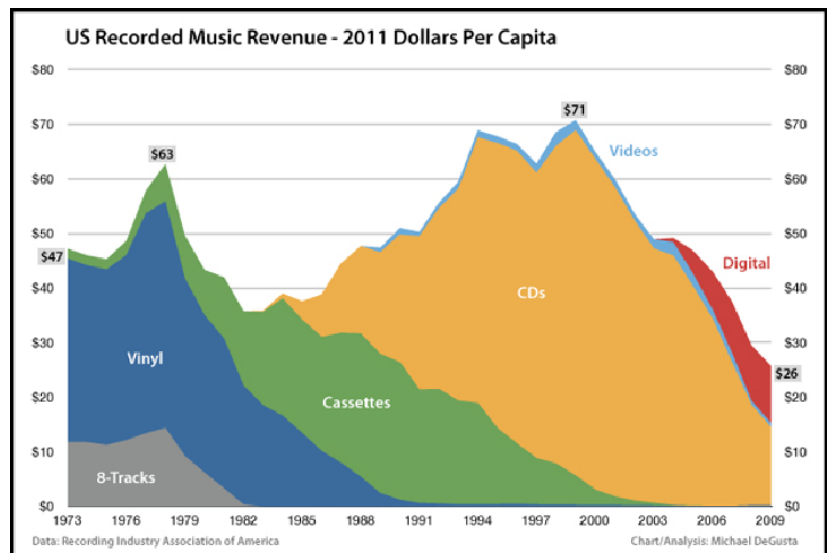
..even in France.



Data from Google Trends

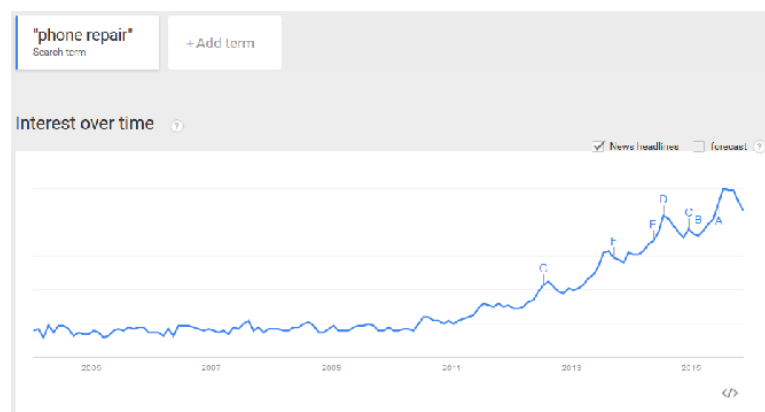
## 4. Consumption

Digital products are replacing physical products



<http://static2.businessinsider.com/image/4d5ea2accd1d54e7c030000/music-industry.jpg>

Interest in repairing things is growing, worldwide.



Data: Google trends

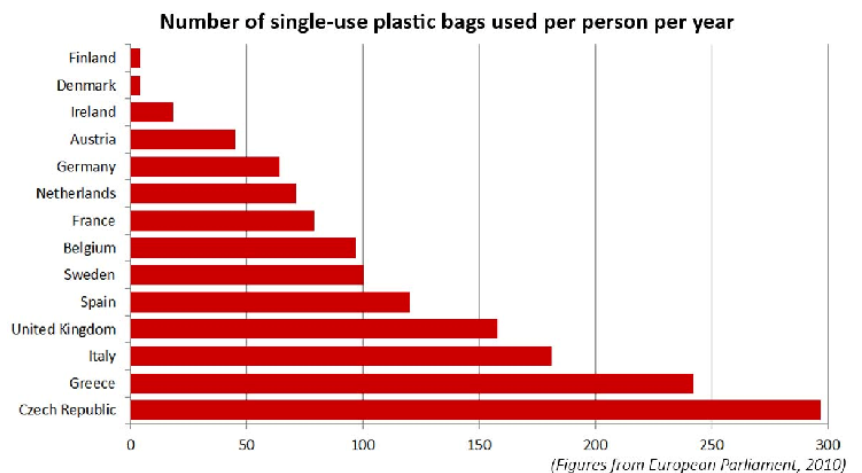
We can change wasteful habits within months... eg plastic bag usage

England's plastic bag usage drops 85% since 5p charge introduced

Number of single-use bags handed out dropped to 500m in first six months since charge, compared with 7bn the previous year



Plastic bag floating underwater at Pulau Bunutan, Indonesia. Around 8m tonnes of plastic flows into the world's oceans each year. Photograph: Paul Kennedy/Getty Images



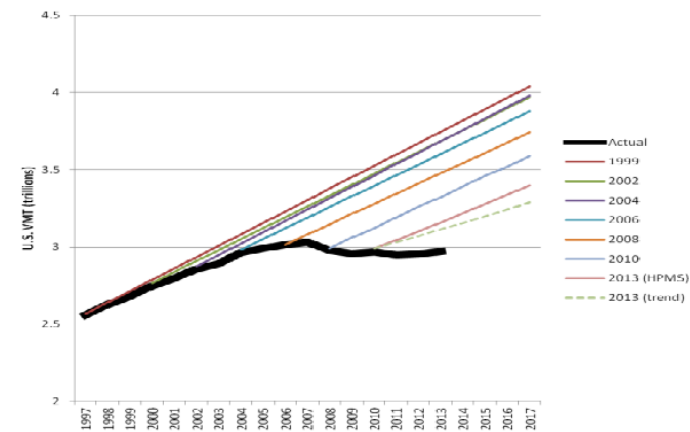
<https://www.theguardian.com/environment/2016/jul/30/england-plastic-bag-usage-drops-85-per-cent-since-5p-charged-introduced>

## 5. Travel

Car use is declining. The official projections of growth are increasingly unrealistic.

In the US....

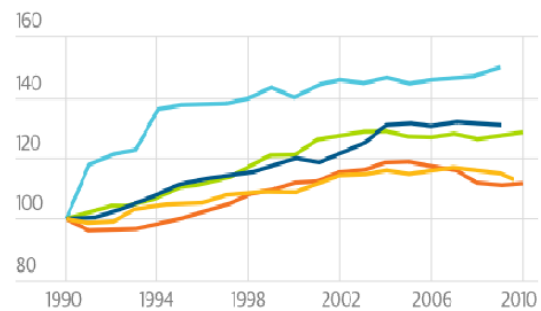
and elsewhere in the developed world too...



### Passenger kilometres travelled

Private car and light trucks 1990-2009, index 1990=100

Germany | Australia | France | UK | US

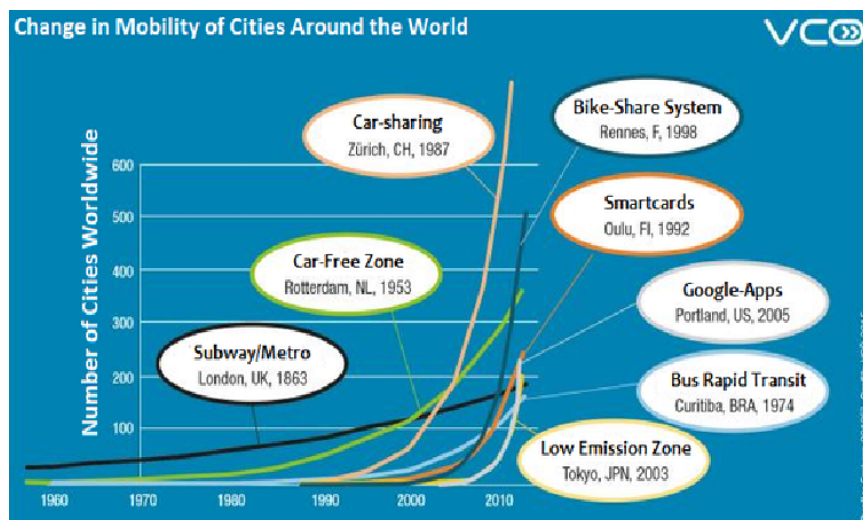


Guardian graphic

Source: International Transport Forum statistics

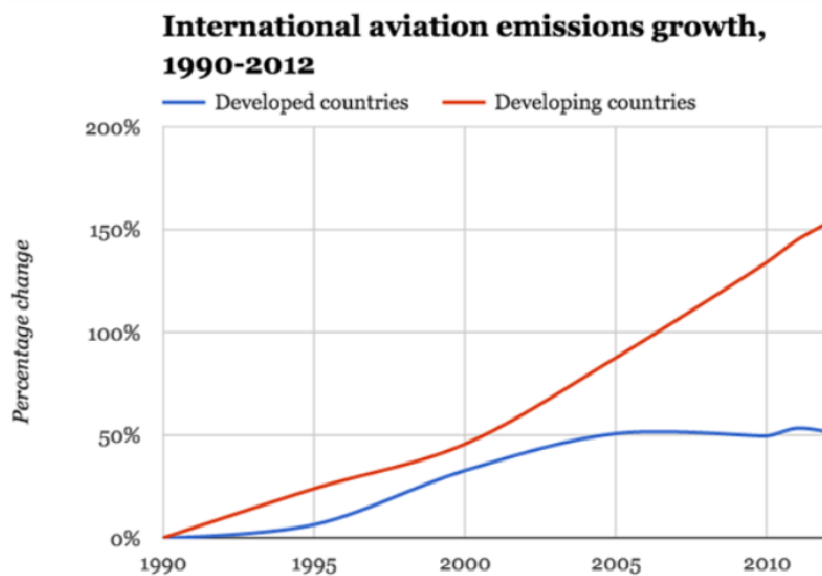
From <http://transportationist.org/2014/12/03/extrapolations-in-traffic-vs-reality/>

Low carbon "mobility services" are booming, worldwide.



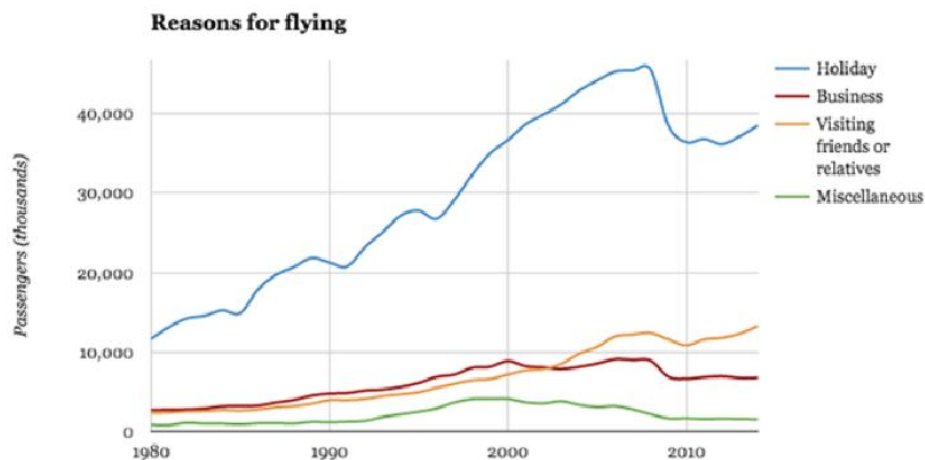
From <https://twitter.com/DewanMKarim/status/618586219950272513>

But flying is a huge and growing problem ... Emissions are growing at 50% p.a. in developed countries, over 150% p.a. in developing countries.



Source: Carbon Brief, using [IEA data](#)

The good news is that UK business flights have been declining since 2000....



Reasons for UK passengers travelling abroad by air. Credit: Carbon Brief, based on [ONS statistics](#)

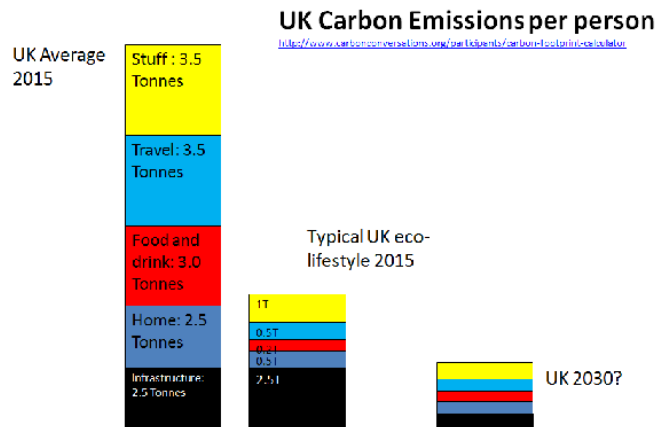
<http://www.carbonbrief.org/explainer-aviations-battle-to-limit-rising-emissions>

...and in the UK: 14% of people were voluntarily choosing not to fly in 2014, up from 13% in 2010.

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/336702/experiences-of-attitudes-towards-air-travel.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/336702/experiences-of-attitudes-towards-air-travel.pdf)

## 6. Personal Carbon Footprints

As we make these lower carbon lifestyle choices, we make big reductions in our personal carbon emissions.



<http://www.carbonconversations.org/participants/carbon-footprint-calculator>

But have patience and be persistent. Big lifestyle changes and often take time..

Helps grow the wave of change, by telling others what you're doing and why.