



# Biodiversity in the city

*Tom Butterworth  
Associate Director, Biodiversity*

March 2017

# BIODIVERSITY NET GAIN –

A NEW ROLE FOR INFRASTRUCTURE AND DEVELOPMENT  
IN IMPROVING BRITAIN'S WILDLIFE.

## BIODIVERSITY NET GAIN –

A new role for infrastructure and  
development in improving Britain's  
wildlife.

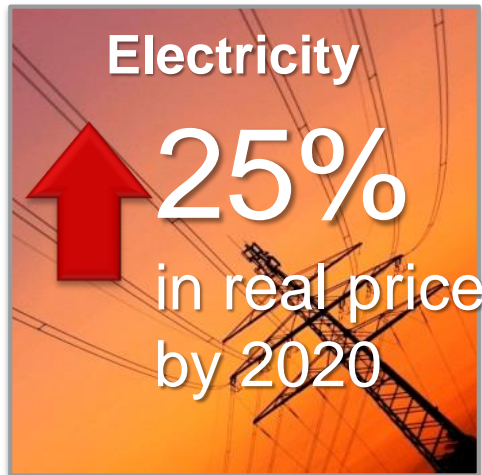
- **WSP | Parsons Brinckerhoff's Biodiversity Net Gain process and toolkit is an efficient and effective method for demonstrating whether built environment schemes have been able to maintain or increase biodiversity value before and after construction works.**
- **The toolkit is adaptable and ready to use on a variety of project types, including rail, highways and buildings.**



# THE UNITED KINGDOM IN 2030

## KEY TRENDS FOR THE BUILT ENVIRONMENT

# We've 12 key trends identified in the UK, for example.



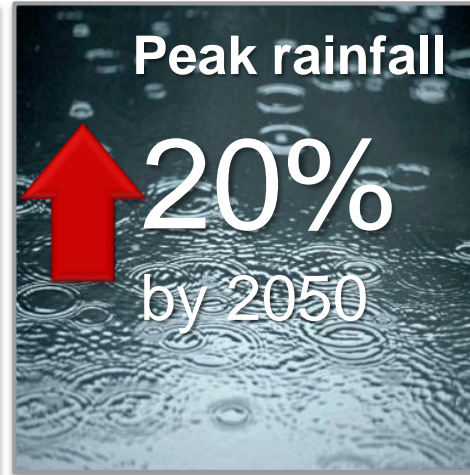
Electricity  
**25%**  
in real price  
by 2020

A red arrow points upwards. The background shows power lines against a sunset sky.



But  
becoming  
the source  
of power

A night street scene with illuminated buildings and cars.



Peak rainfall  
**20%**  
by 2050

A red arrow points upwards. The background shows raindrops on a dark surface.



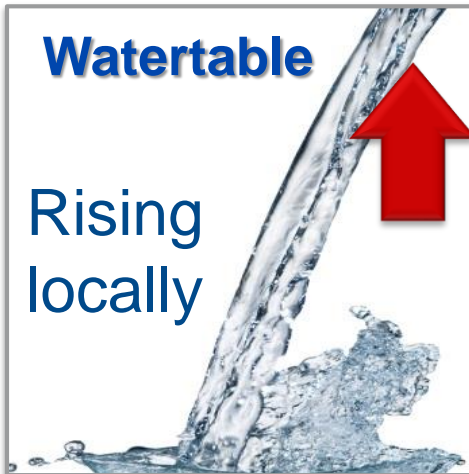
Sea levels  
**1m** by  
the end of  
the century

A red arrow points upwards. The background shows a measuring stick in the ocean.



Summers  
**5°C**  
hotter by  
2050

A red arrow points upwards. The background shows two people walking in a field at sunset.



**Watertable**  
Rising  
locally

A red arrow points upwards. The background shows a large splash of water.



Population  
**10m** more  
by 2040 and  
more in cities

A red arrow points upwards. The background shows a blurred crowd of people.



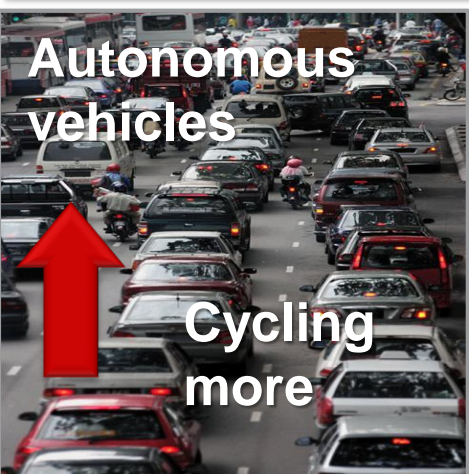
But more lonely

A person sits alone on a bench by the sea under a cloudy sky.



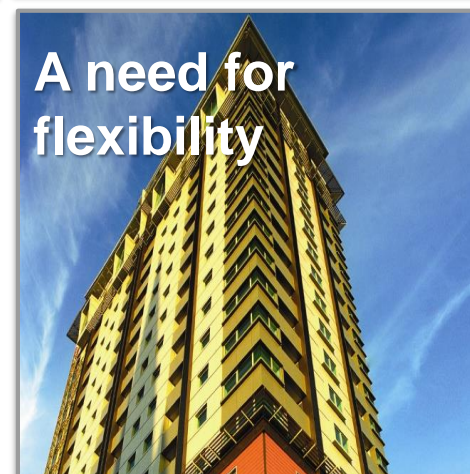
Terrorism  
But crime  
down

A red arrow points upwards. The background shows a newspaper clipping about terrorism.



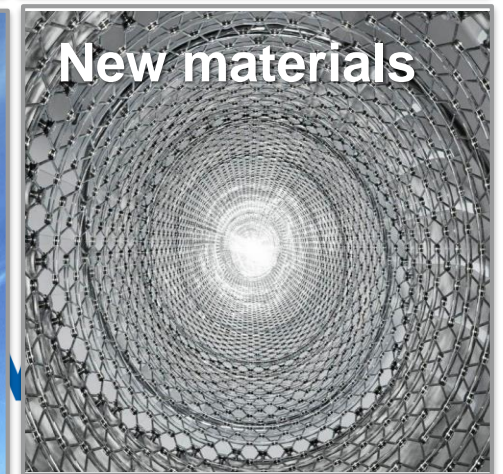
Autonomous  
vehicles  
Cycling  
more

A red arrow points upwards. The background shows a traffic jam of cars.



A need for  
flexibility

A tall, modern skyscraper against a blue sky.

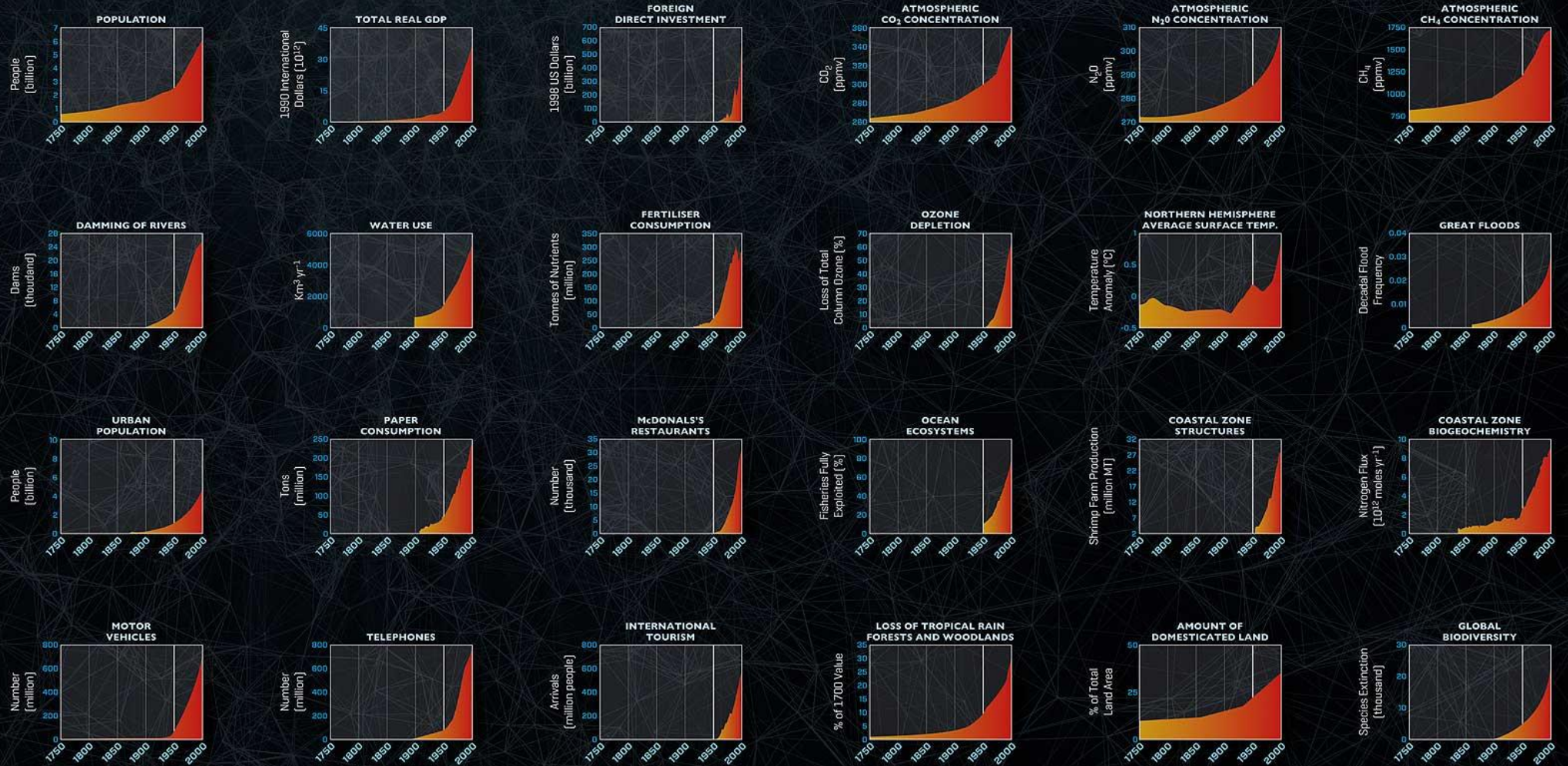


New materials

A complex, circular, metallic mesh structure.

# The Great Acceleration

1950 marked the beginning of a massive acceleration in human activity and large-scale changes in the Earth system.

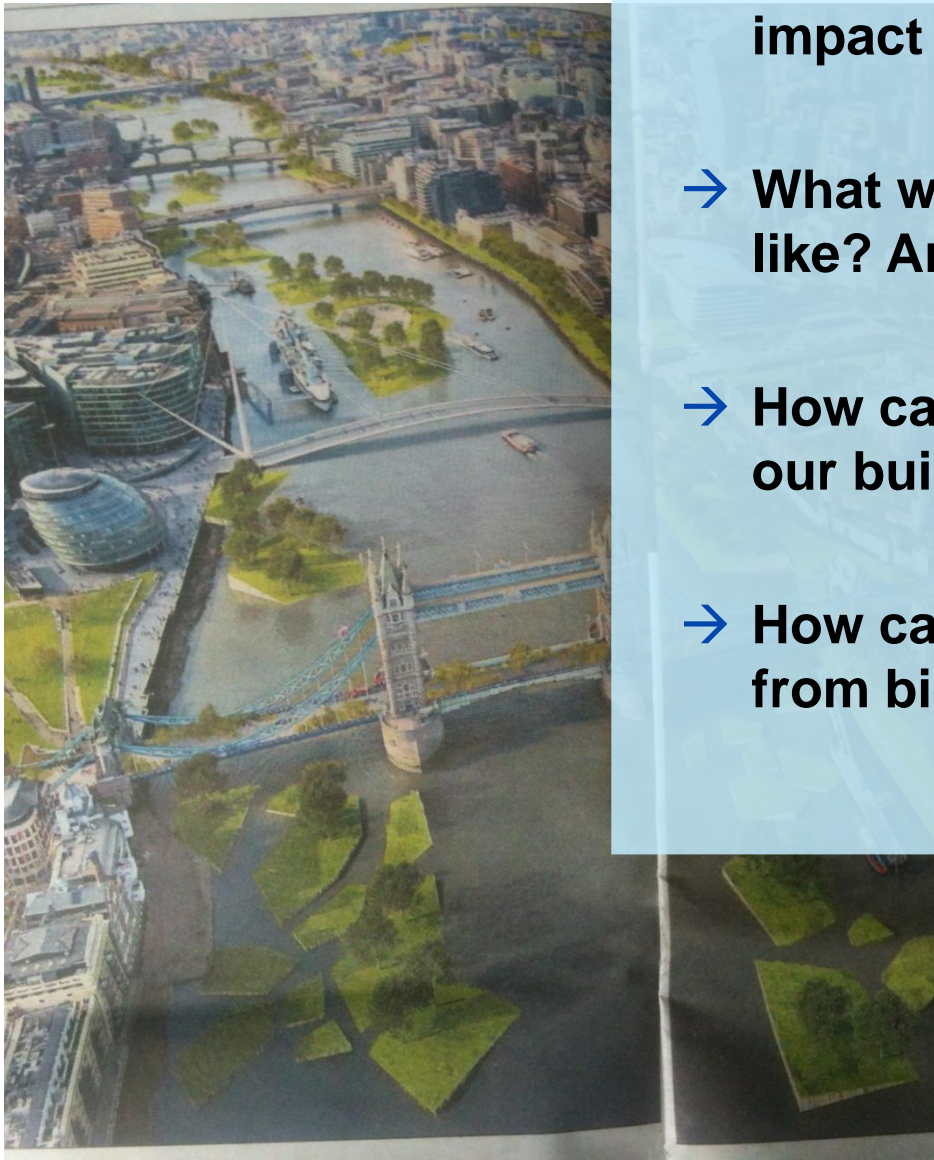


SOURCE: igbp.net | Steffen et al., 2005, Global Change and the Earth System, Springer, pp. 132-133  
 DESIGN: Globaia.org

→ **International Geosphere-Biosphere Programme - Global Change**  
<http://www.igbp.net/globalchange/greatacceleration.4.1b8ae20512db692f2a680001630.html>

# OUR QUESTIONS...

# AREAS FOR DISCUSSION



- How will cities change in ways that will impact on biodiversity ?
- What would a truly bio-diverse city look like? And how / why would we create it ?
- How can we integrate biodiversity into our building design in cities ?
- How can we maximise the benefits we get from biodiversity in cities?

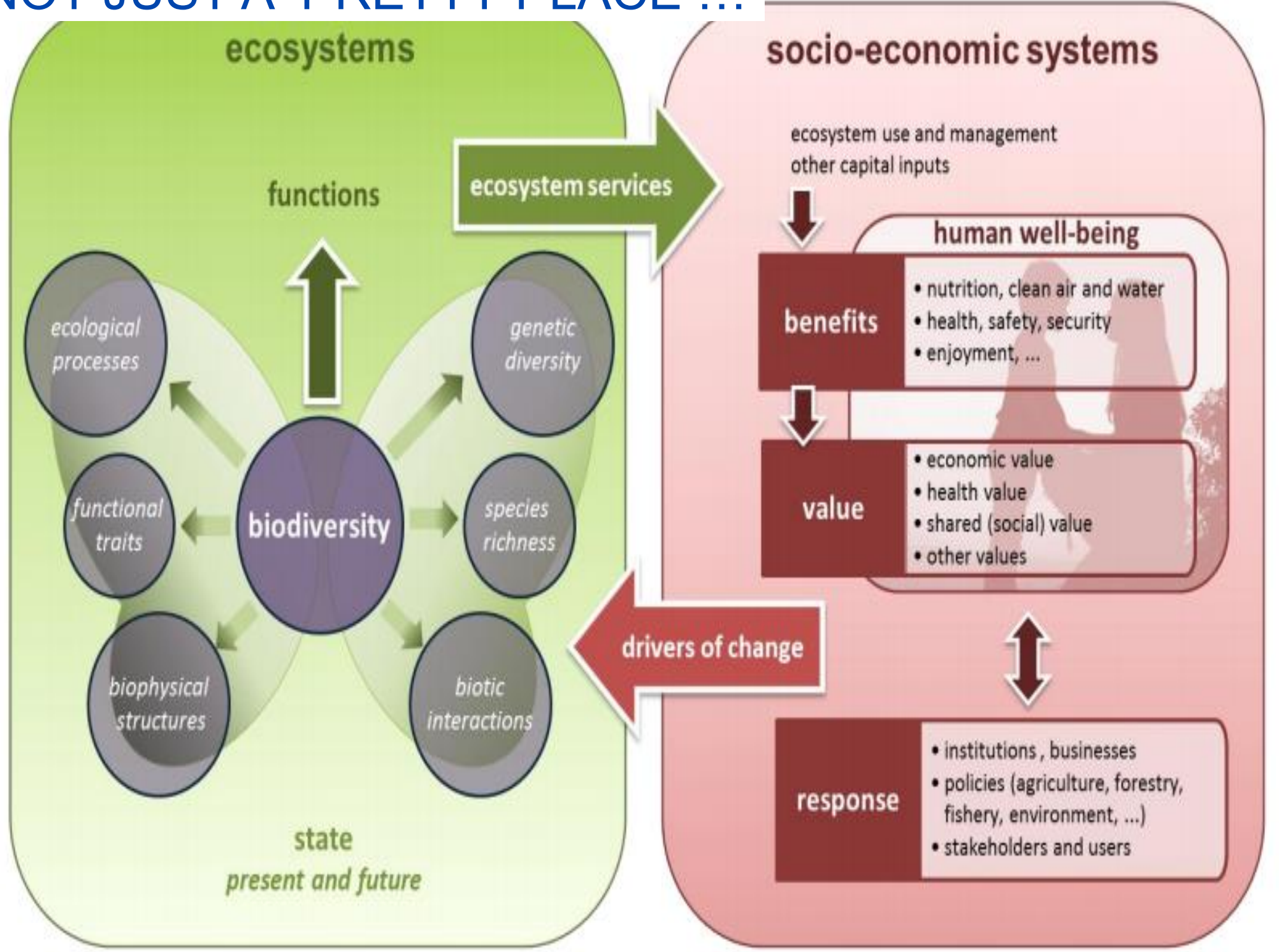
6th March 2013  
London Evening Standard

# A PRETTY PLACE ...





# NOT JUST A PRETTY PLACE ...



# HOW WILL CITIES CHANGE IN WAYS THAT WILL IMPACT ON BIODIVERSITY ?

→ **What effect will self-driving vehicles and more cyclists have?**

# HIGH LINE NEW YORK



[http://en.wikipedia.org/wiki/High\\_Line\\_\(New\\_York\\_City\)](http://en.wikipedia.org/wiki/High_Line_(New_York_City))



**PARSONS  
BRINCKERHOFF**

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<http://www.designboom.com/architecture/bosco-verticale-vertical-forest-stefano-boeri-studio-milan-10-20-2014/>

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- **What does climate change mean in cities?**
- **Electric cars – changing the air?**
- **Are pigeons our vultures?**

# ARE PIGEONS OUR VULTURES?



[https://commons.wikimedia.org/wiki/File:Gyps\\_bengalensis\\_PLoS.png](https://commons.wikimedia.org/wiki/File:Gyps_bengalensis_PLoS.png)



<http://www.4freephotos.com/it/Pigeon-nel-parco-1973.html>



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