

Mind your step Sustainable mixed-use developments

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*Annual Conference on Urban Area Development
7 November 2017, Amersfoort, NL*

Bioregional

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Today's presentation

- Introduce Bioregional
- One Planet Living – our challenge and an approach to restructuring our urban environment to enable sustainable living
- Stories of four One Planet Communities, sustainable mixed-use developments in UK and Canada



Bioregional

Championing a
better way to live

We work with partners to create places, products and services which enable people to live, work and do business within the natural limits of the planet. We call this One Planet Living.



Charity & Social Enterprise

Established in 1994 in UK, working across five continents

Bioregional – what we do and how we work

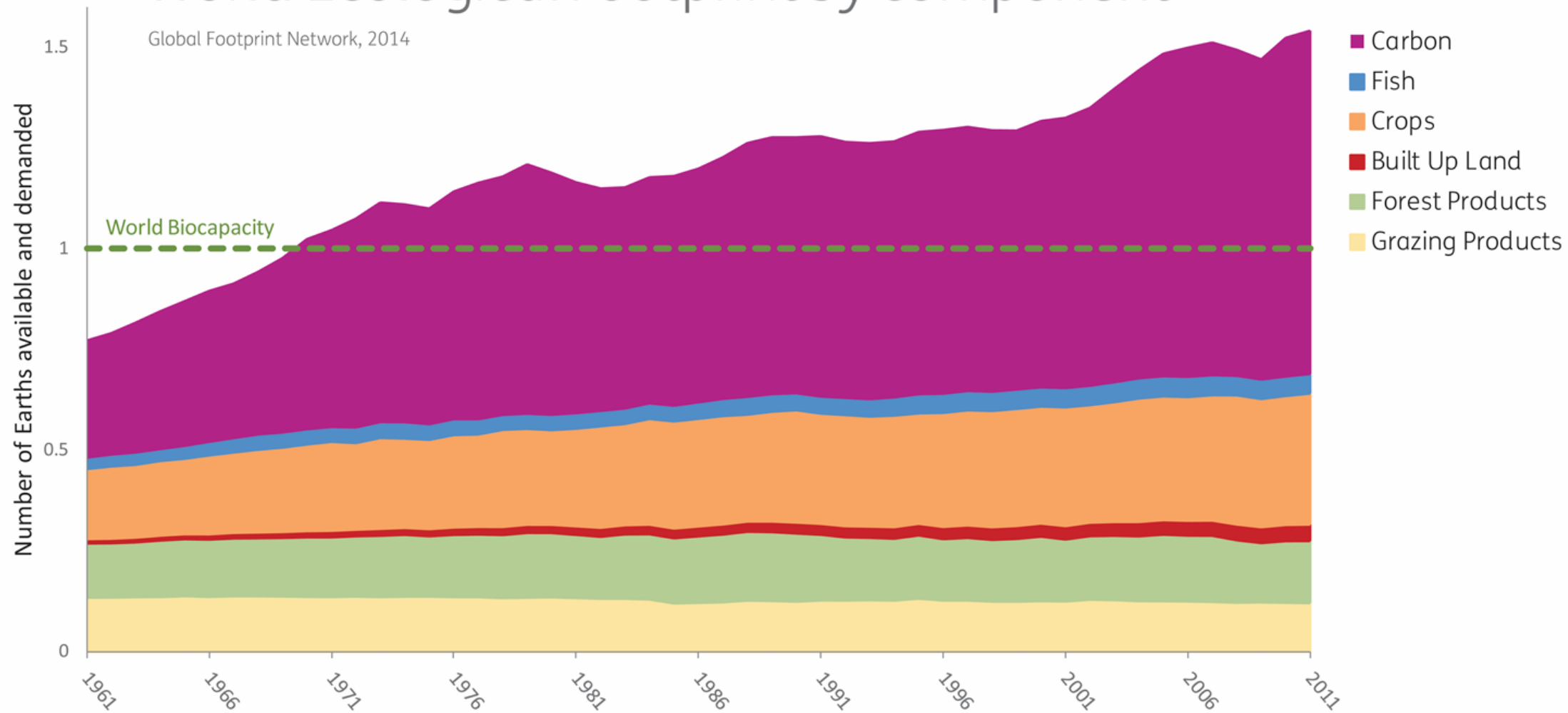
- Practical, social entrepreneurs, experts
- We work on sustainable living through;
 - Communities: new build & regeneration
 - Business: operations, products, services and events
- Work in partnership, in an advisory role & through our own associated companies
- Use our One Planet Living framework, train others & make it freely available
- Measure & tell the stories of our work to inform policy & industry practice

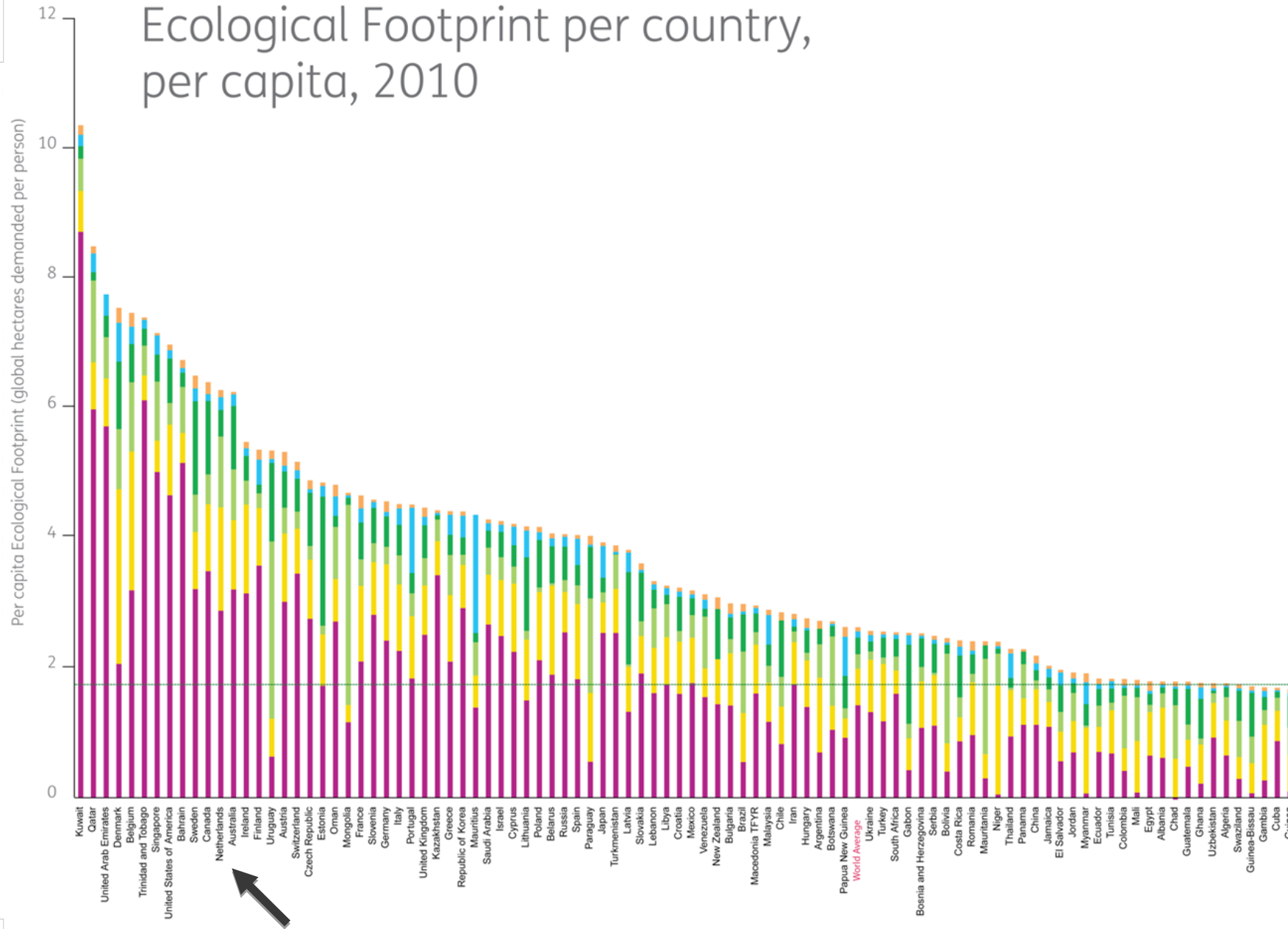


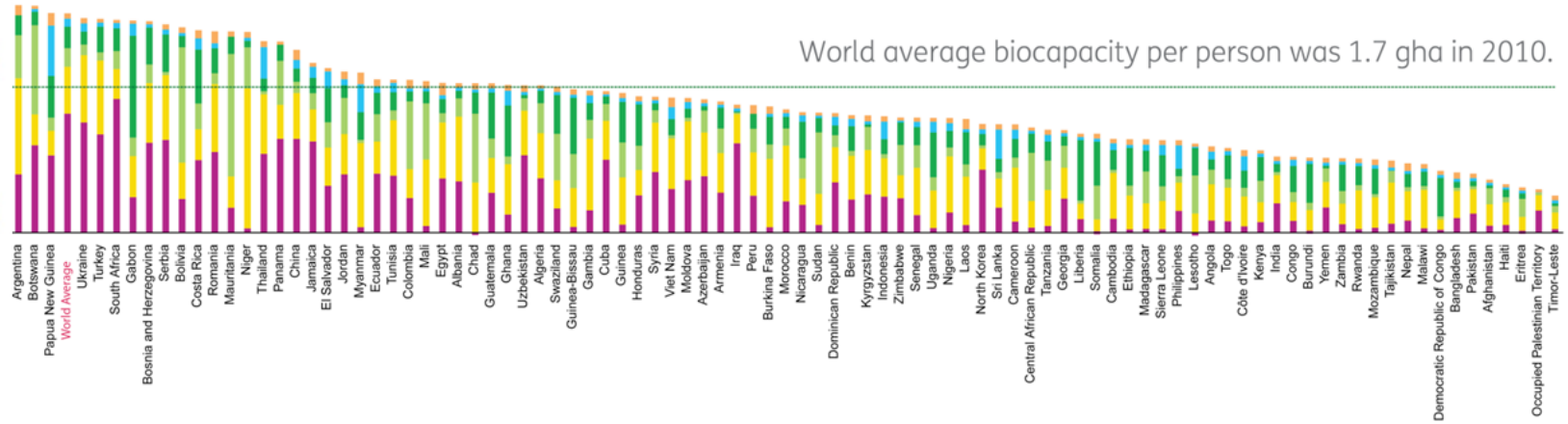
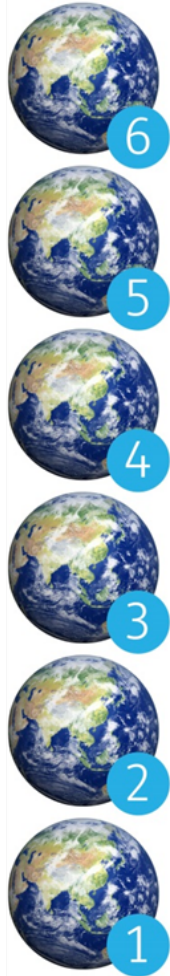


World Ecological Footprint by component

Global Footprint Network, 2014







- Built-up land
- Fishing grounds
- Forest products
- Grazing products
- Cropland
- Carbon
- World average biocapacity

Global Footprint Network, 2014



The world has agreed to take action:
Paris Climate Agreement & Sustainable Development Goals





An average UK citizen's eco-footprint



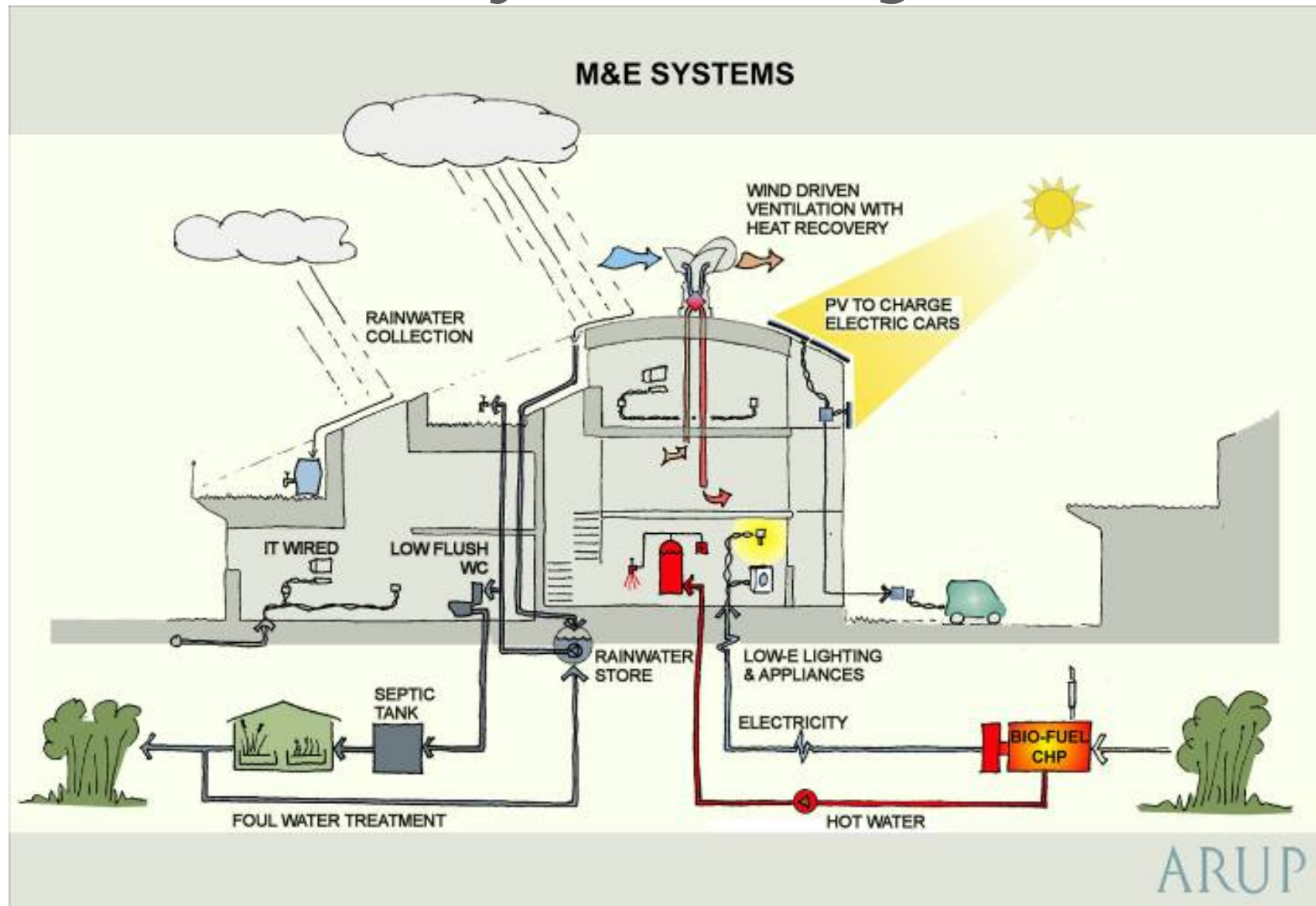
BedZED eco-village

Designing in sustainability at the start

- zero carbon energy strategy
- sustainable building materials
- green transport plan
- water strategy
- composting and recycling
- local and sustainable food
- Work space



BedZED – not just buildings and technology



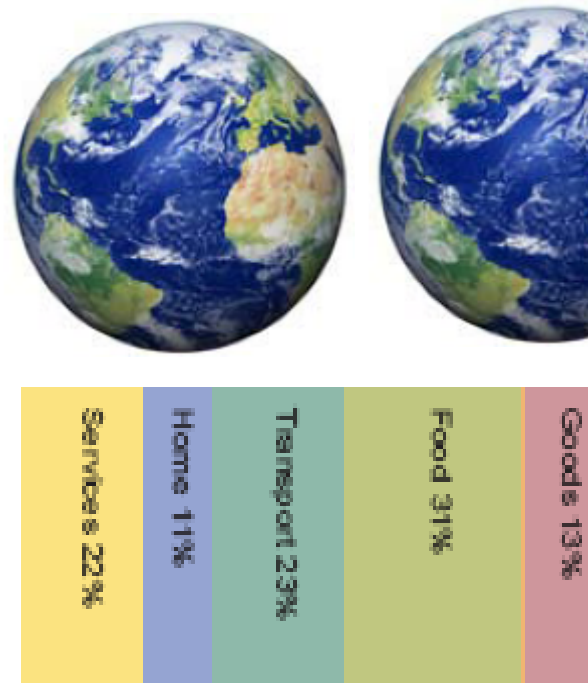


Make it easy to do the right thing...



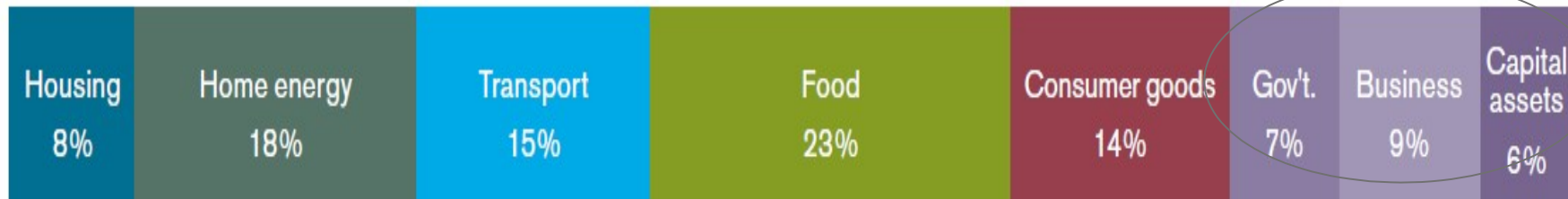
....difficult to do the wrong thing....

One planet living at BedZED?



Nicole's eco-footprint is 1.7 planets and her carbon footprint is 6 tonnes per year

Achieving one planet living – differing responsibilities



An aerial photograph of a modern residential courtyard. The courtyard is paved with light-colored stone tiles and features several young trees with green and yellowing leaves. A silver car is parked on the left side. Numerous people of various ages are gathered in the courtyard, some standing in groups, others walking, and some with bicycles. In the background, there are modern brick buildings with large windows and a green lawn area. Two blue speech bubbles are overlaid on the image, containing text about the community spirit and social side of the area.

"Nice community spirit, non-isolating"

"Social side is spectacularly good"

One Planet Living framework

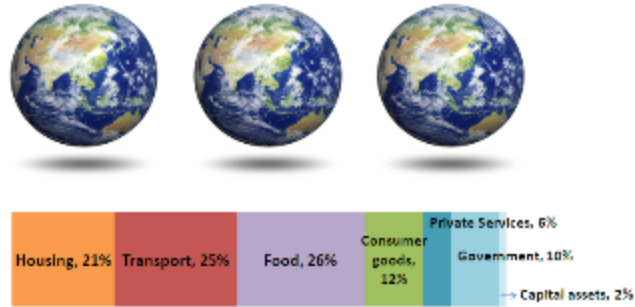
	Health and happiness
	Equity and local economy
	Culture and community
	Land and nature
	Sustainable water
	Local and sustainable food
	Travel and transport
	Materials and products
	Zero waste
	Zero carbon energy

A sustainable living design framework based on:

- Natural resource limits & equity: fair share carbon & ecological footprint
- Ten principles with science-based goals and suggested targets and indicators

One Planet Living – Process

1. Gather information



2. Workshops-Action Plan



- Health and happiness
- Equity and local economy
- Culture and community
- Land and nature
- Sustainable water
- Local and sustainable food
- Travel and transport
- Materials and products
- Zero waste
- Zero carbon energy

3. Implement & share progress & learning

Zero carbon

Performance against targets	
✓✓	Reduce energy use in line with CO ₂ reduction target of 20% by 2012
✓	New stores zero carbon by 2012
✓	Zero carbon across existing stores by 2013 in line with goal target

Key activities and achievements in 2010

- Invested £1.2 million in lighting upgrades for 20 stores.
- Absolute reduction in CO₂ from store energy use of 11% compared to the 2006 baseline.
- Played a leading role in the provision of support to government to develop the Green Deal following the successful F&M pilot with the London Borough of Sutton.

Plans for 2011

- Trial measures to reduce heat loss for example building lobbies onto existing stores and thereby reducing gas consumption.
- Further investment in lighting upgrades with £2.5m already approved to spend on lighting upgrades in 25 stores including installing energy efficient lighting and new lighting controls.
- Develop concept for zero carbon store and identify suitable offsite renewable energy supply that could be secured to meet any residual demand.



North West Bicester, UK
A2 Dominion



Riverside One, UK
Bioregional Quintain



One Planet Middlesbrough, UK
Middlesbrough Council



One Planet Sutton, UK
London Borough of Sutton



One Planet Brighton & Hove, UK
Brighton & Hove Council



BedZED, UK
Peabody / Bioregional



London 2012 Olympic and Paralympic Games, UK



One Brighton, UK
Crest Nicholson Bioregional Quintain



B&Q One Planet Home, UK



Grow Community Bainbridge Island, USA
Asani



Sonoma Mountain Village, USA
Codding Enterprises



Imbera, Mexico



Mata de Sesimbra Portugal
Pelicano



Singita Serengeti Reserves, Tanzania
Singita



Ivory Park / Sibaya, South Africa
Johannesburg EcoCity Trust / Tongaat Hulett Developments



Masdar City, Abu Dhabi
Mubadala



WestWyck, Australia
The CDM Building Group



Bangaroo, Australia
Lend Lease



Cundall, Global



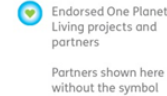
Villages Nature, France
Euro Disney and Groupe Pierre & Vacances Center Parcs



Hollerich Village, Luxembourg
Schuler Group



Jinshan, Guangzhou, China
China Merchants Property Development



Endorsed One Planet Living projects and partners

Partners shown here without the symbol have applied the One Planet Living principles during their development



ONE
PLANET
LIVING



An
initiative
by Bioregional

One Brighton, UK



172 apartments,
office and
communal space

One Brighton – sustainable construction



- Health and happiness
- Equity and local economy
- Culture and community
- Land and nature
- Sustainable water
- Local and sustainable food
- Travel and transport
- Materials and products
- Zero waste
- Zero carbon energy

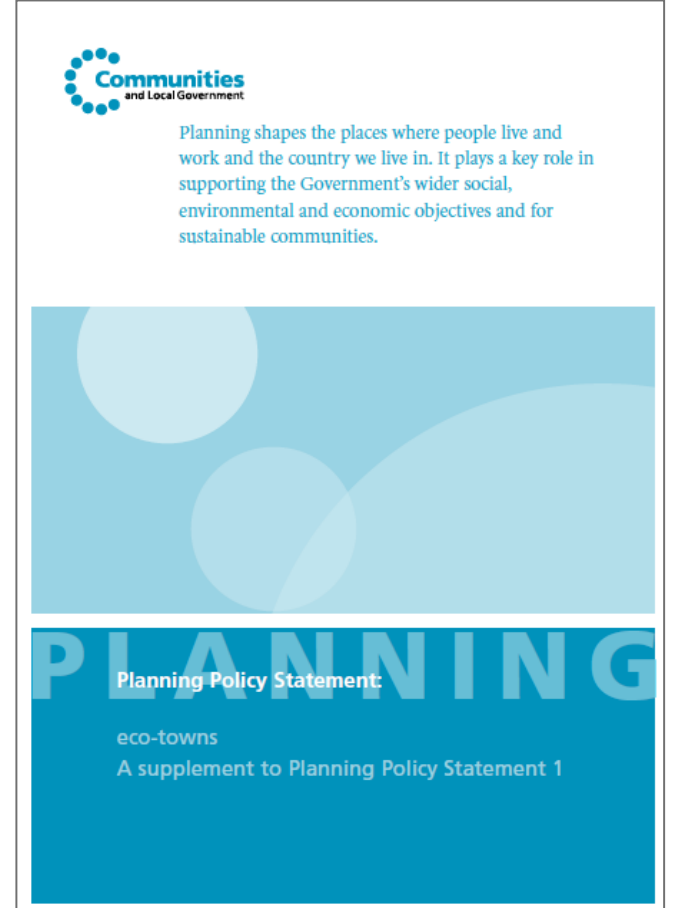
- Site workers induction
- Sustainable food for workers
- Bio-diesel generators
- Greenest concrete frame in UK – post tensioned concrete comprising 50% ground granulated blast furnace slag & 100% secondary aggregates
- low fired clay block

One Brighton - sustainable living



- Rooftop food gardens
- Zero carbon energy
- Zero car use
- Healthy residents
- Easy Recycling, on site composter
- Café and workspace
- Commercial success
 - Built within the normal range of build costs
 - 10% ROCE in 2009
 - Sold 50% faster
- In 2013 Brighton & Hove become a One Planet City

Eco-towns – influencing policy



Bicester eco-town – 6,000 home mixed-use extension to an Oxfordshire market town



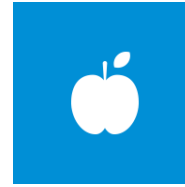
Bicester eco-town, Elmsbrook, the first 400 homes



One Planet Living at Elmsbrook, Bicester



Cycle culture, green space, local food growing, outdoor facilities



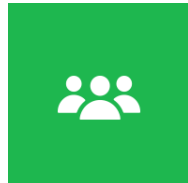
Community orchards, allotments, Markets for local produce, cooking classes in community centre



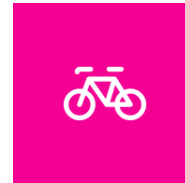
30% affordable housing, 430 jobs
Business start up centre



40% reduction in carbon – use of timber, local, natural building products, community swap-shop



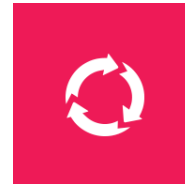
Community centre & café as social hubs, community development programme



Green travel plan, cycle network, 50% of journeys non-car, new amenities close to homes



40% of site to be open space, net biodiversity gain with meadows and ponds, green roofs



Zero construction waste to landfill, 80% recycling/composting rate



Reduce water use by 45%: rainwater collection, efficient appliances, SUDS



Zero carbon through energy efficient homes, District heating, PV panels

Zibi, Ottawa – a one planet community



Zibi

- 15 hectare ex-paper mill site on two river islands
- 3 million square feet of development
- 2,500 homes, shops and office space, hotel, waterfront parks, pedestrian and cycling paths
- Working with the Algonquin-Anishinabe First Nations people

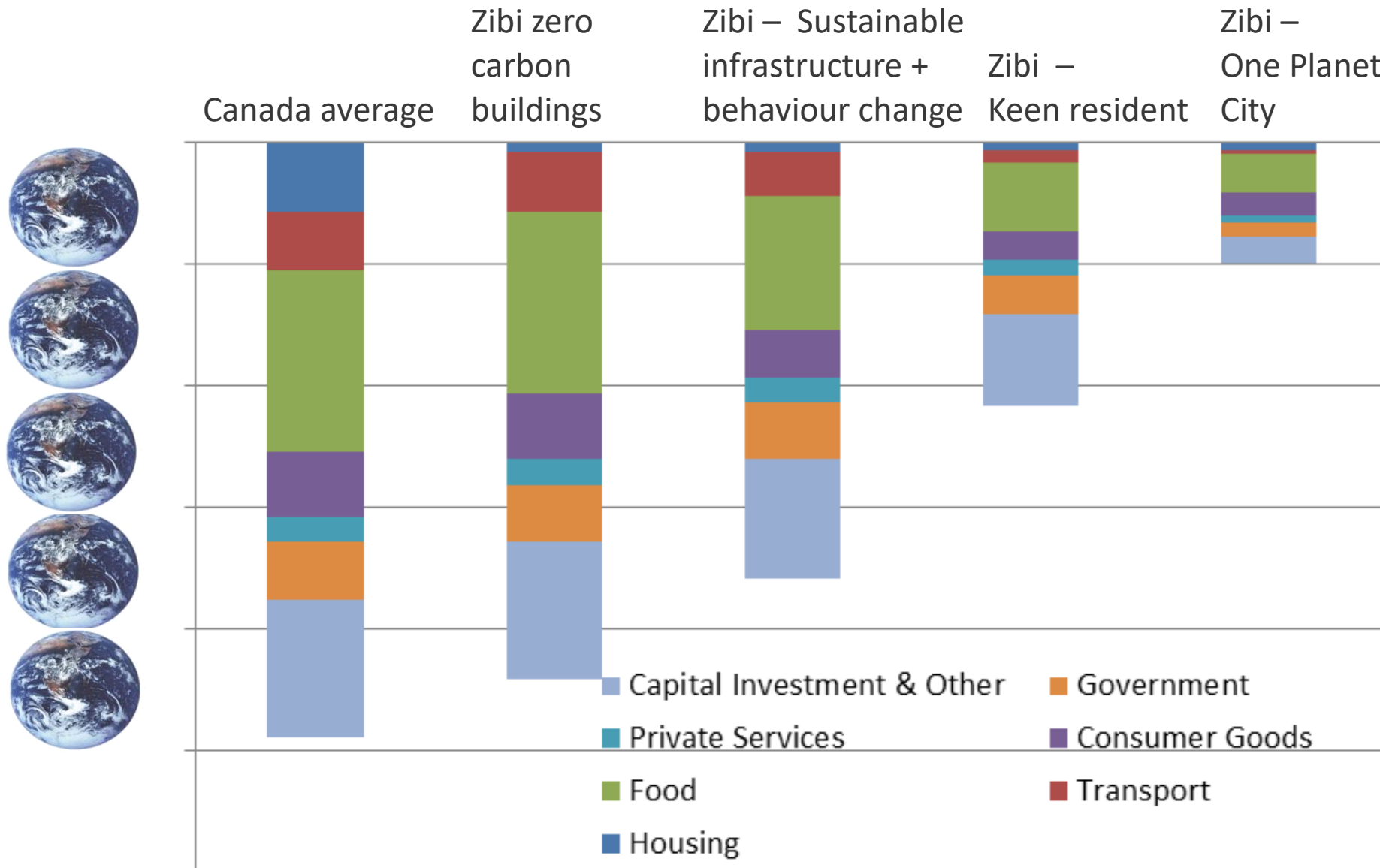


Bioregional

Zibi



Zibi - steps to sustainable living



Zibi – on site last week



Thank you!

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