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Sustainable Development

### Original Citation

Stockton, Glynn, O'Connor, Frank and O'Rafferty, Simon (2010) Sustainable Development. In: IP2010: Green products through a multicoloured approach, 08.02.10 - 20.02.10, Hogeschool West-Vlaanderen, Kortrijk, Belgium. (Unpublished)

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**UWIC**

ATHROFA PRIFYSGOL CYMRU, CAERDYDD

**Cardiff School of Art & Design**

**Product Design Programme**

**Glynn Stockton**  
**Lecturer**

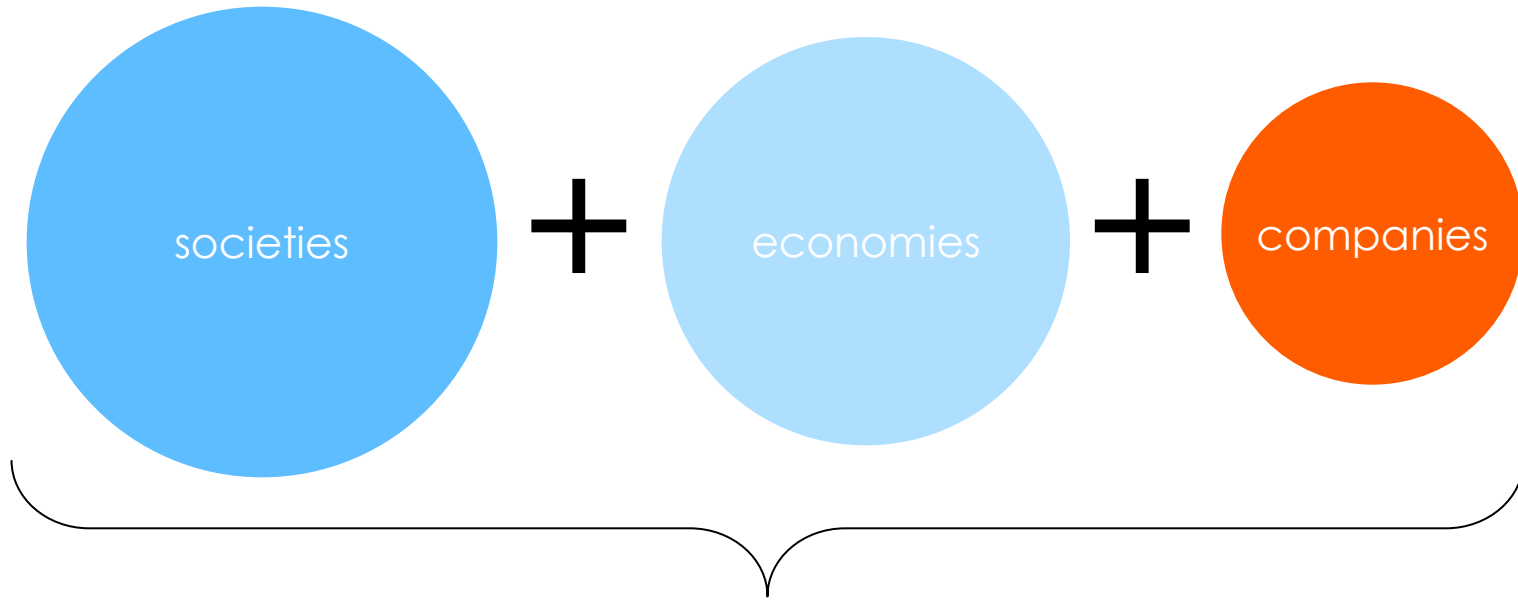
what is sustainable development?

Anyone that **needs** what they **want**  
And doesn't **want** what they **need**  
I want nothing to do with  
Gnarls Barclay "Going On"

“ Development which meets the **needs of the present** without compromising the ability of **future generations** to meet their own needs ”

Brundtland Report, 1987

it is about developing



that can be sustained on **social**, **economic** and **environmental** terms

sustainable development is about

# social progress

which recognises the needs of everyone



sustainable development is about

# environmental

protection being at the centre of everything we do

**sustainable development** is about ensuring

# employment

and economic security for everyone





sustainable development is about the

**prudent use**

of the earth's natural resources



dissecting garbage

# WHY IS SUSTAINABLE DEVELOPMENT IMPORTANT?

reason no.1  
we live in an unequal  
world



over 1 billion people live  
on less than \$1 a day



source: UNDP

over 1 billion people do  
not have access to clean  
drinking water



source: UNDP

80% of all disease in  
developing countries is  
caused by consumption  
of contaminated water



source: WHO

currently over 10 million  
children die each year  
before their fifth birthday



source: UK Department for International Development

**reason no.2**

the ecological systems  
of the world are under  
stress



over the past two  
decades global resource  
extraction grew from 40  
billion tons in 1980 to  
55 billion tons in 2002



source: Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management / SERI

air pollution kills 3 million  
people each year, mostly  
in poor countries



source: WHO / BBC

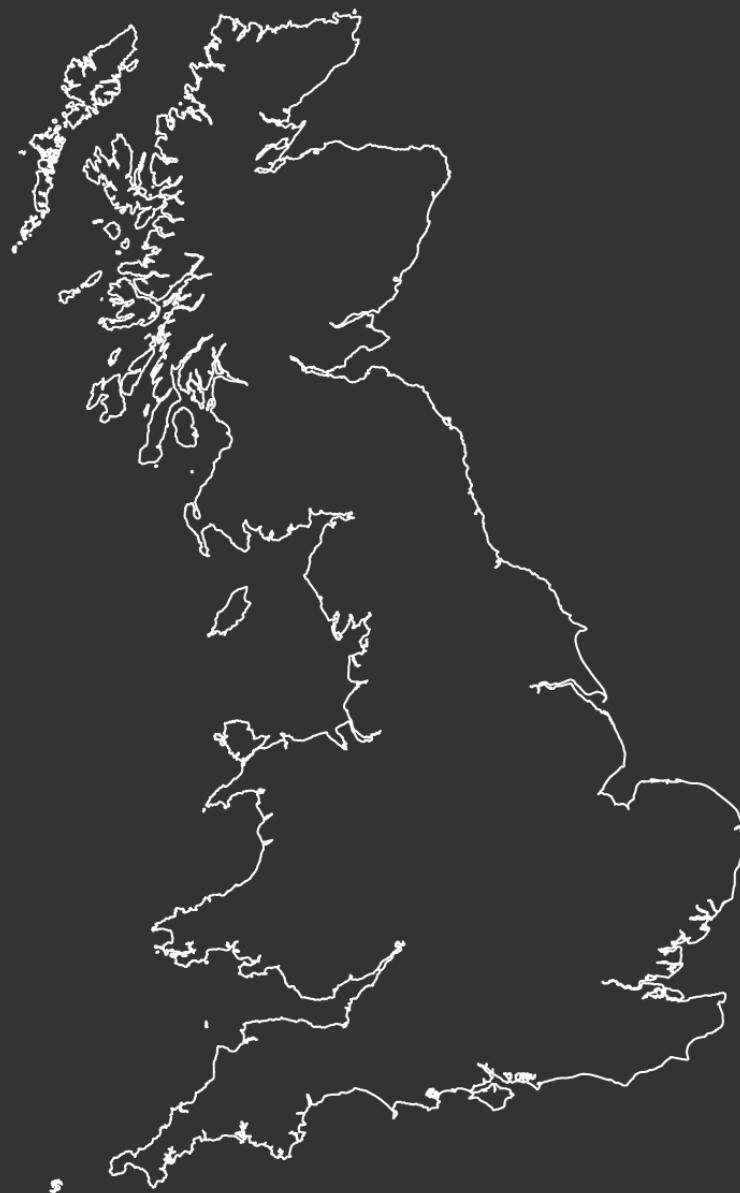
25% of mammal species,  
12% of bird species and  
34% of fish species are  
under **threat of extinction**



source: World Summit on Sustainable Development / European Commission

between 100 and 1000  
species become extinct  
each year, because their  
habitats are changing or  
being destroyed.

what about  
the UK?



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“If everyone in the world were to consume natural resources and generate carbon dioxide (CO<sub>2</sub>) at the rate we do in the UK, we'd need three planets to support us”

WWF UK

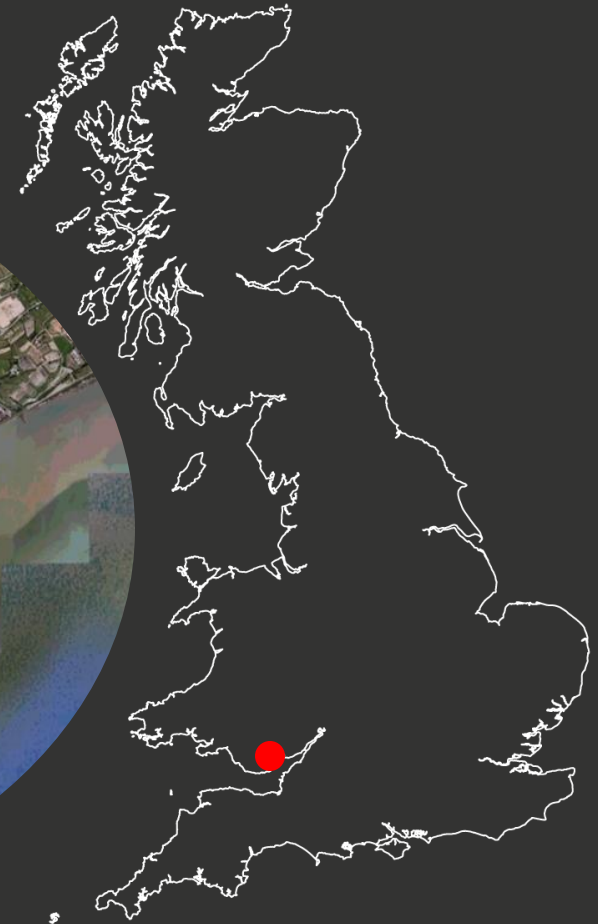
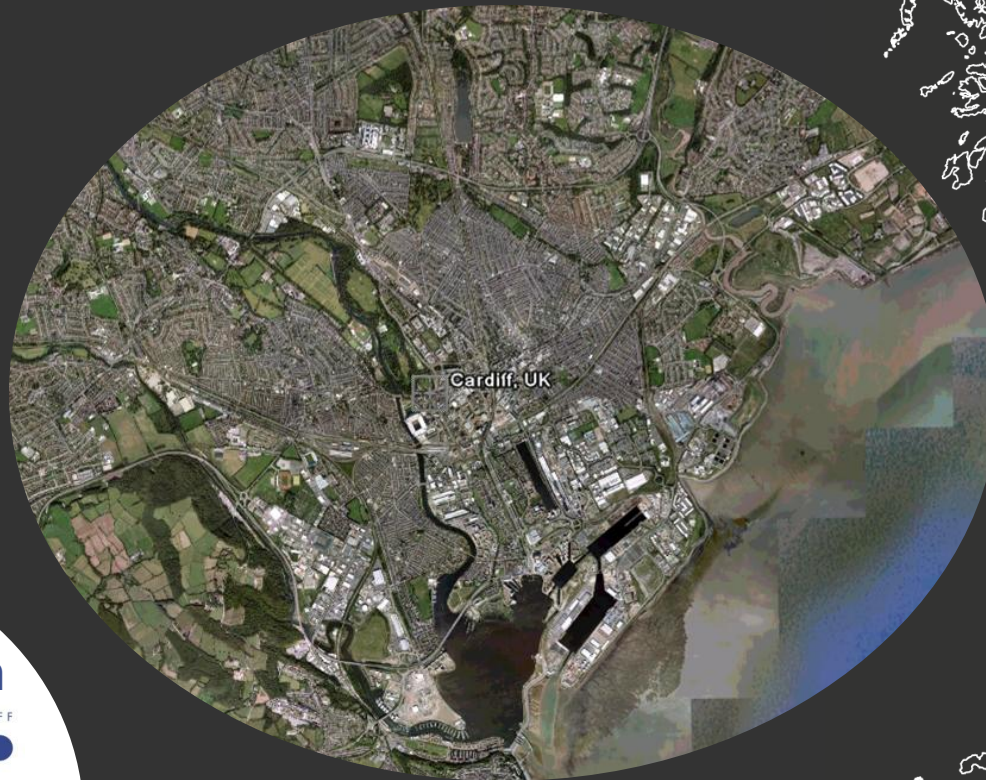
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The ecological footprint of Cardiff, is **125 times** the city's area.





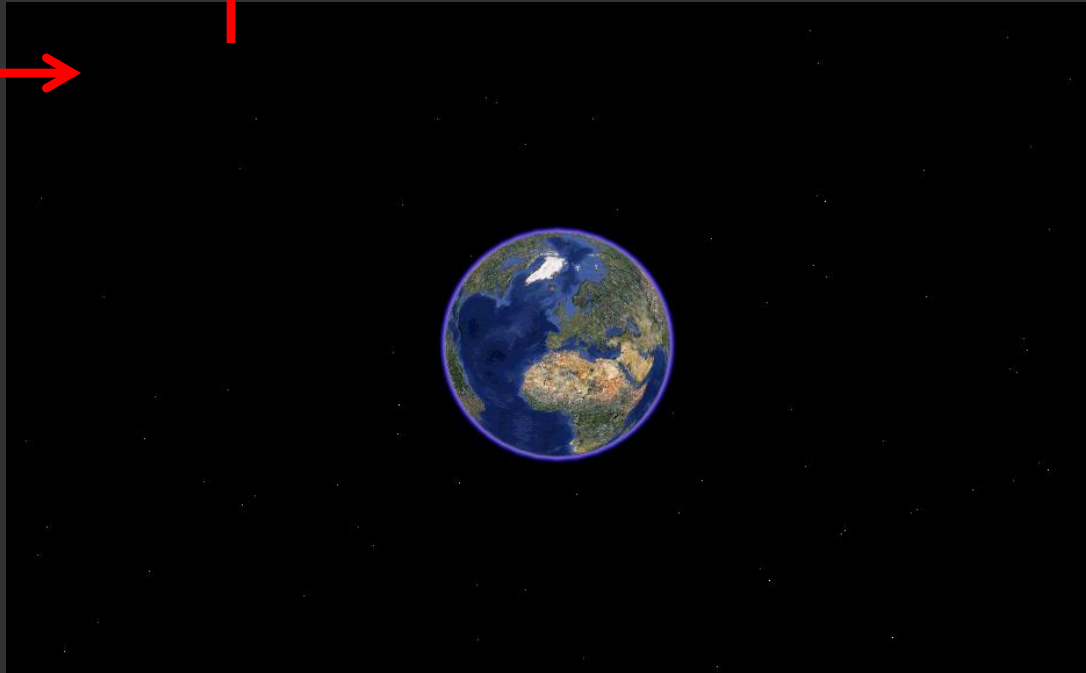
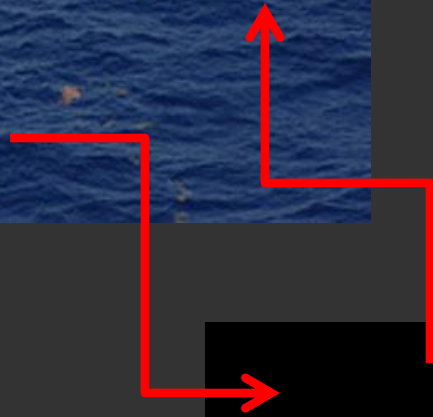


sustainable development  
is about moving towards

‘one planet living’





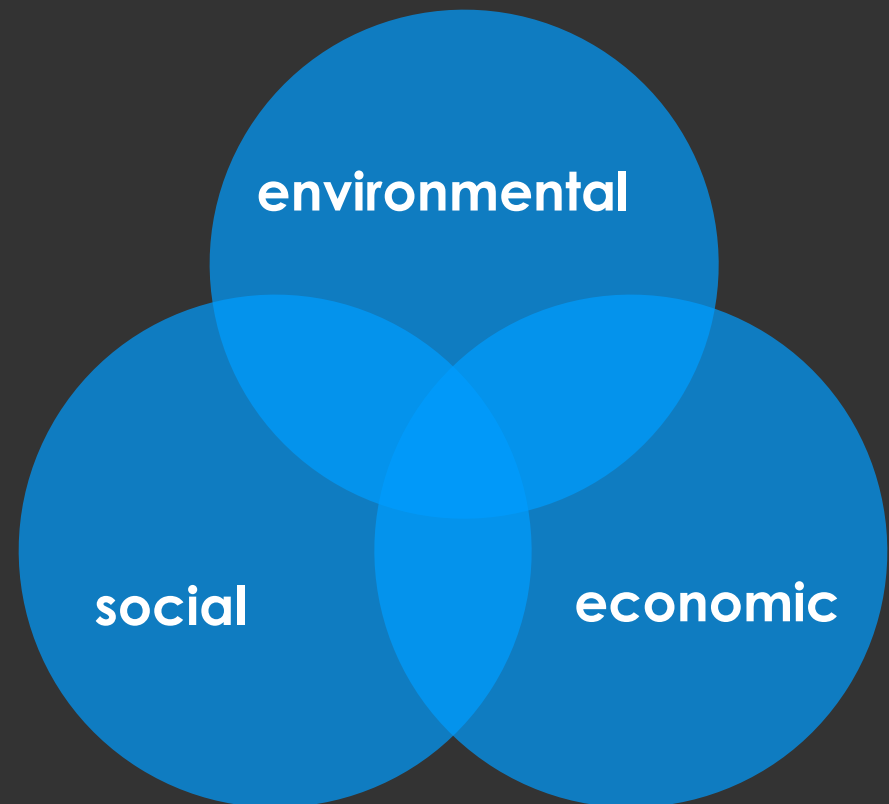


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we become more sustainable  
when we balance environmental,  
social and economic concerns



# videos

sustainability & business



**Ray Anderson**

talks about sustainability  
& business – 9.45



life cycle thinking expands the traditional focus on manufacturing processes to incorporate all stages from material extraction through to end-of-life

most designers are concerned with these stages

take

make

buy/use

waste



recycle

re--manufacture

re-use

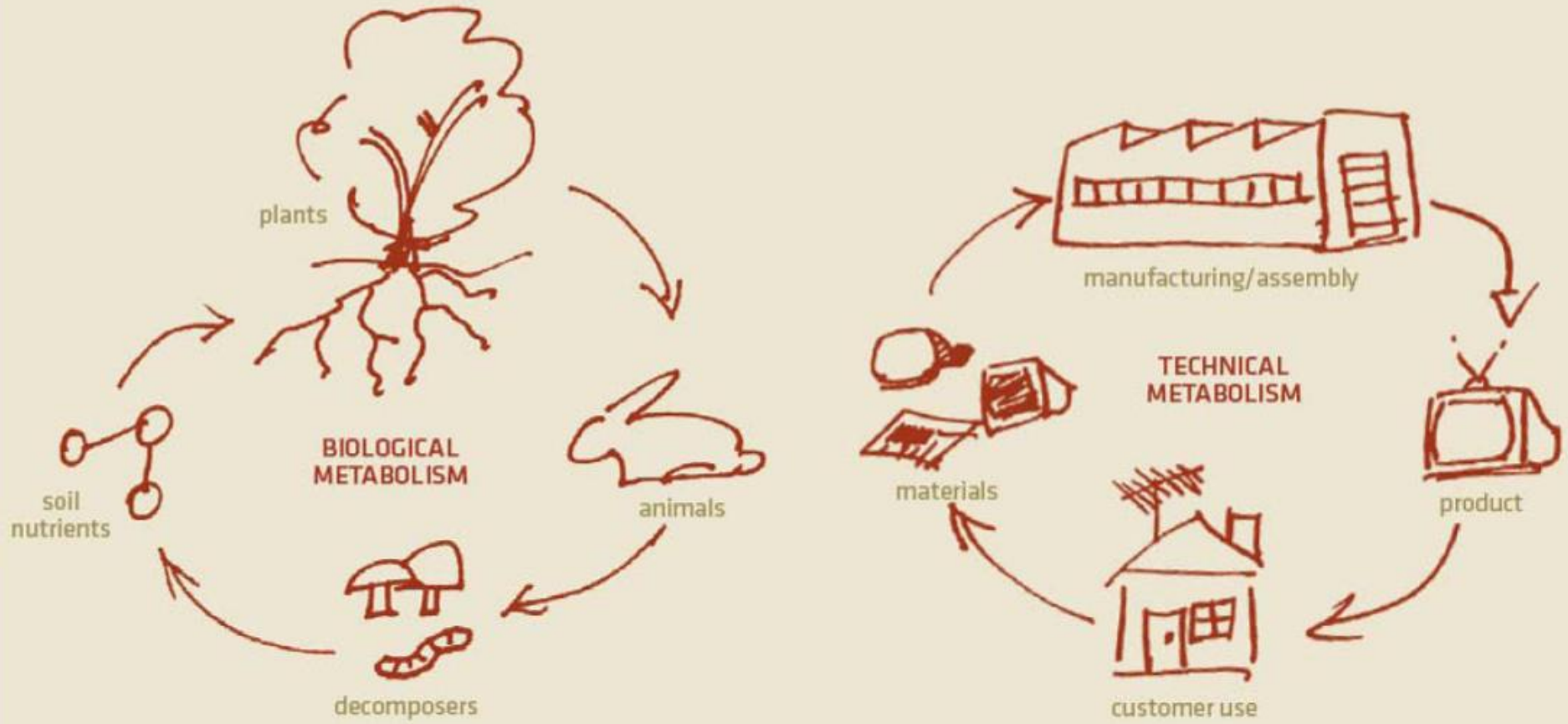


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life cycle thinking is understanding where the impacts happen over a product life cycle with a view to reducing those impacts



image source: mc donagh / braungart

what about global supply chains?



## Division of labor "Sonicare Elite 7000" production and supply locations



## "Sonicare Elite 7000"

produced at 11 locations and in five time zones, comprised of 38 components, parts supplied by Japan, France, China and Malaysia, materials and production in Austria, Sweden, assembly in Philippines and United States, when fully assembled and packaged in Seattle the components have travelled a full 27,880 kilometres, two thirds of the Earth's circumference.

# videos

Life cycle thinking



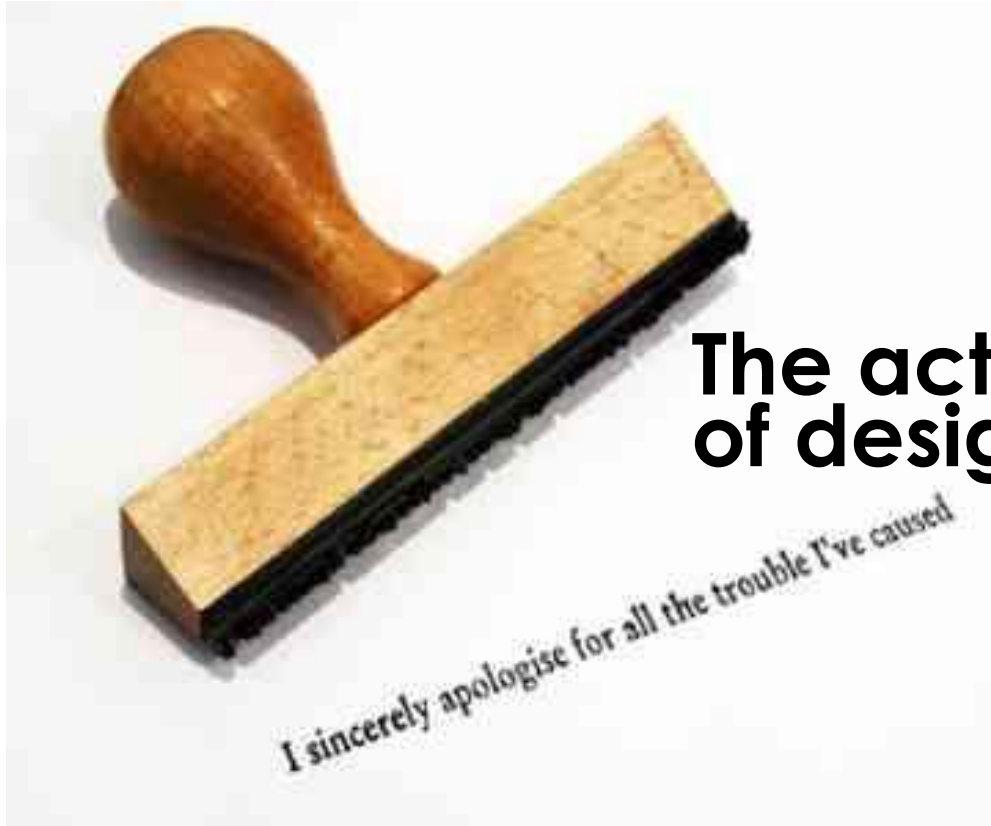
Royksopp

Remind Me video

4.15

**you**

**x 7 billion**



# The actions of designers

*I sincerely apologise for all the trouble I've caused*

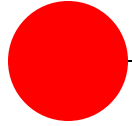
**Question  
everything**



Be responsible for your actions

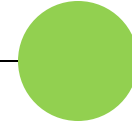


**BAD**



**0%**

**GOOD**



**100%**

**50%**

**Be  
sustainable  
in everything  
you do**

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**If you do,  
we will be  
fine 😊**