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Sustainable Development

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Cardiff School of Art & Design

Product Design Programme

Glynn Stockton
Lecturer

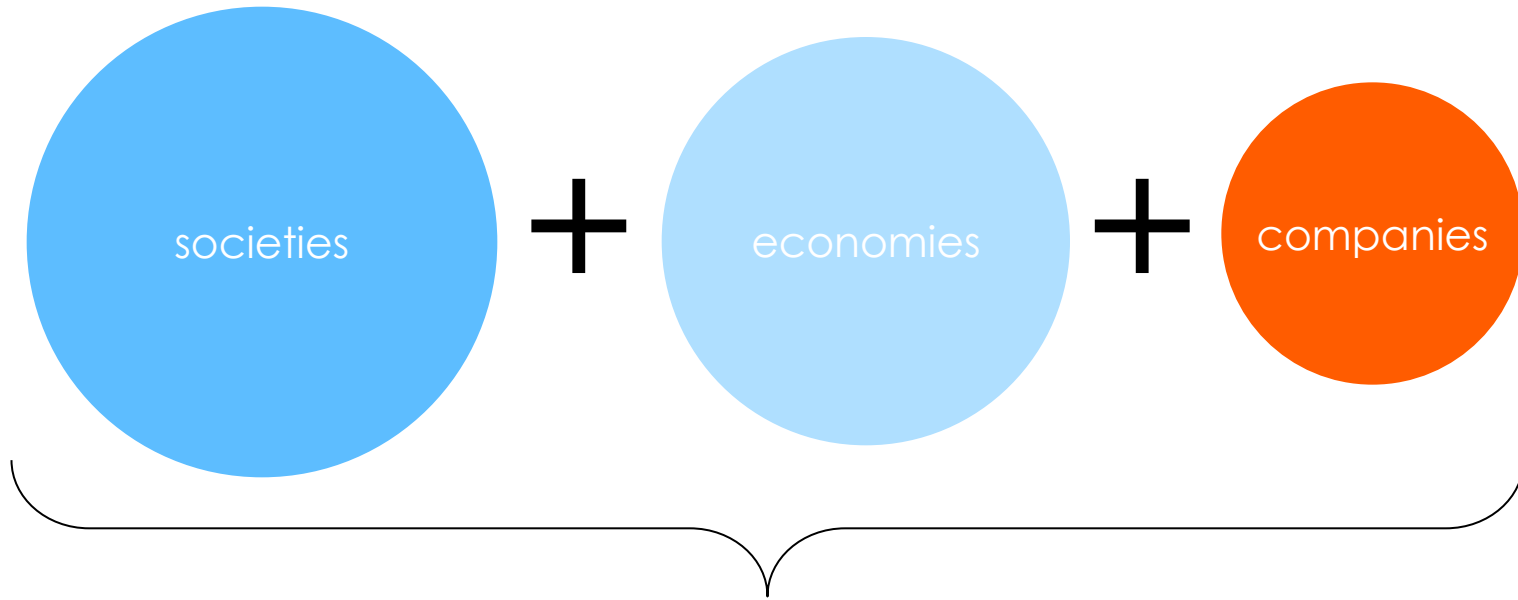
what is sustainable development?

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

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

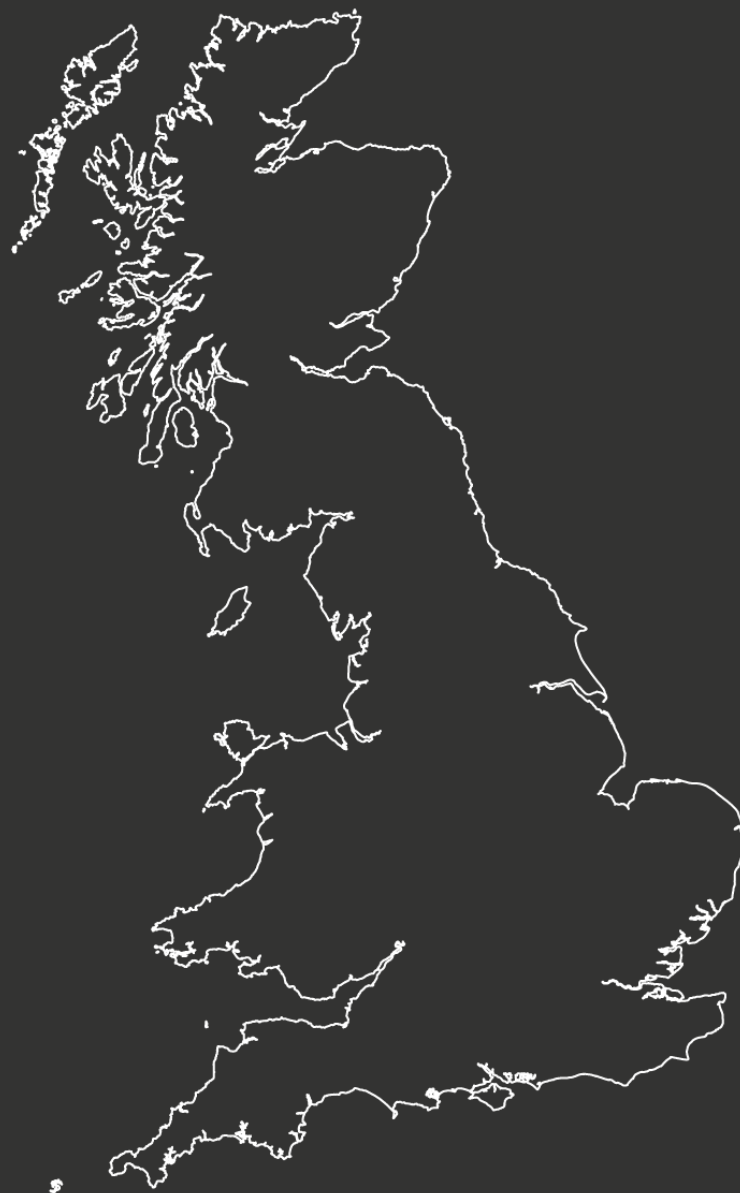
25% of mammal species,
12% of bird species and
34% of fish species are
under **threat of extinction**



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 (CO₂) at the rate we do in the UK, we'd need three planets to support us”

WWF UK

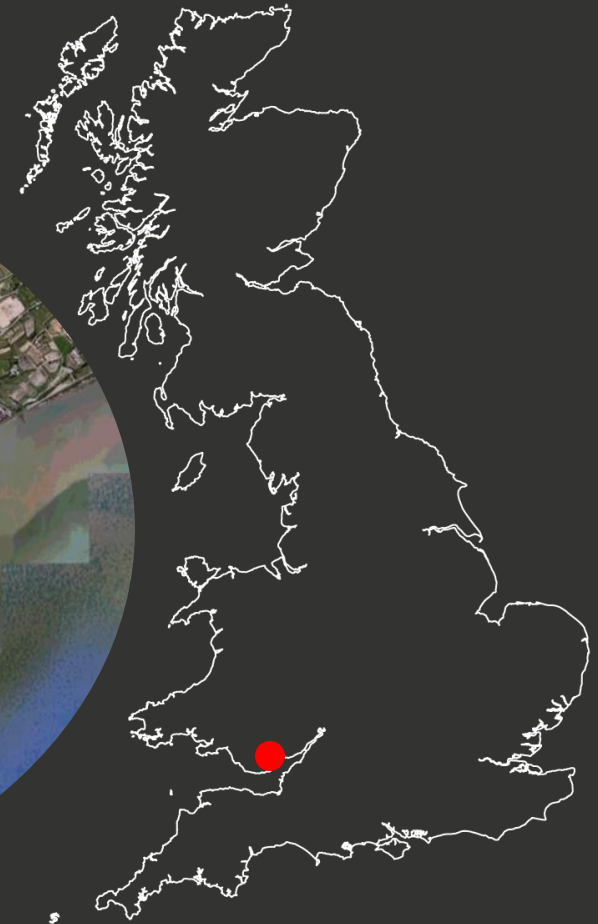
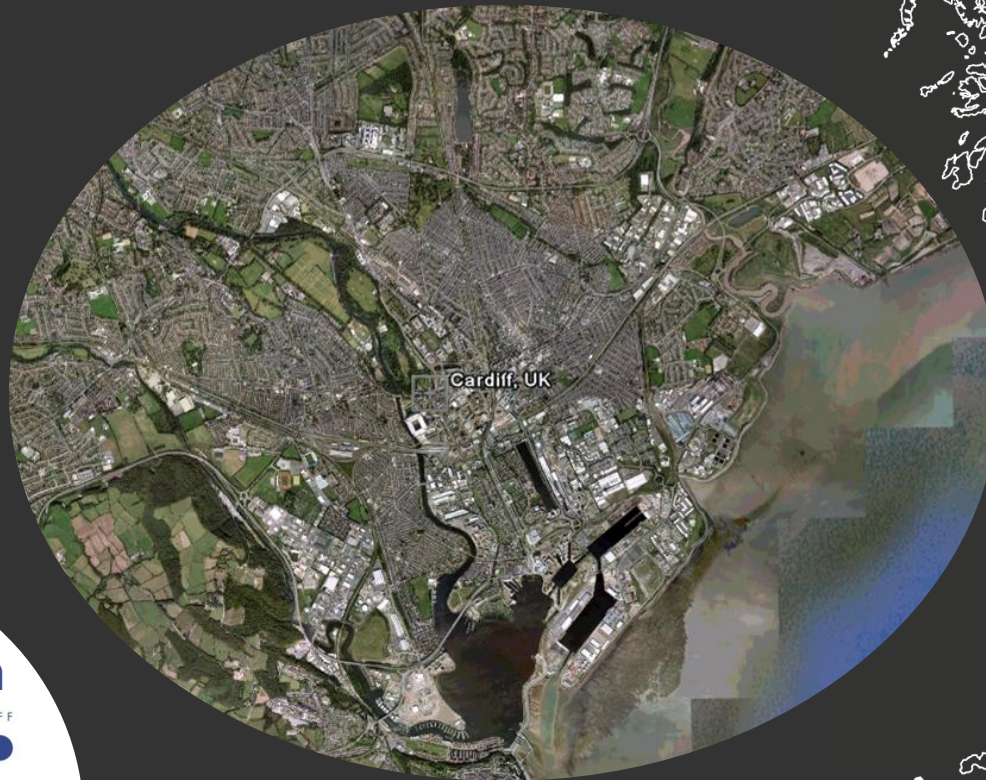
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The ecological footprint of Cardiff, is **125 times** the city's area.

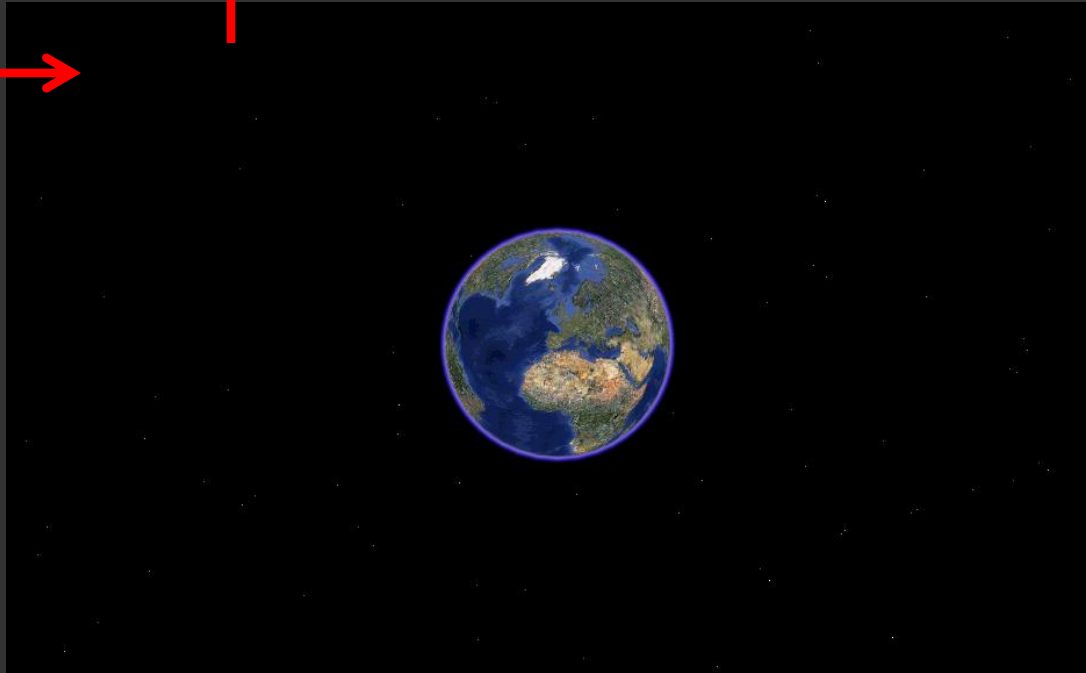
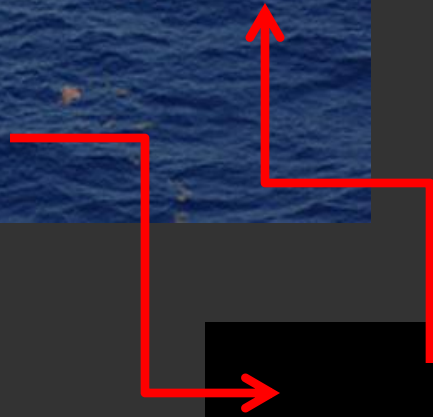




sustainable development
is about moving towards

‘one planet living’

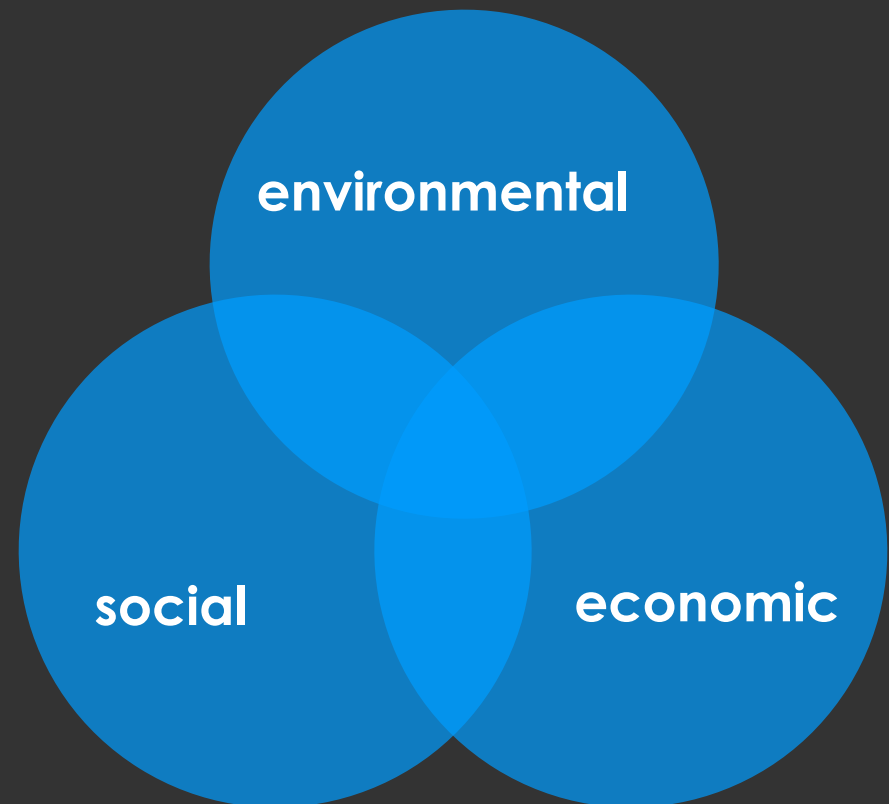






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we become more sustainable
when we balance environmental,
social and economic concerns



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

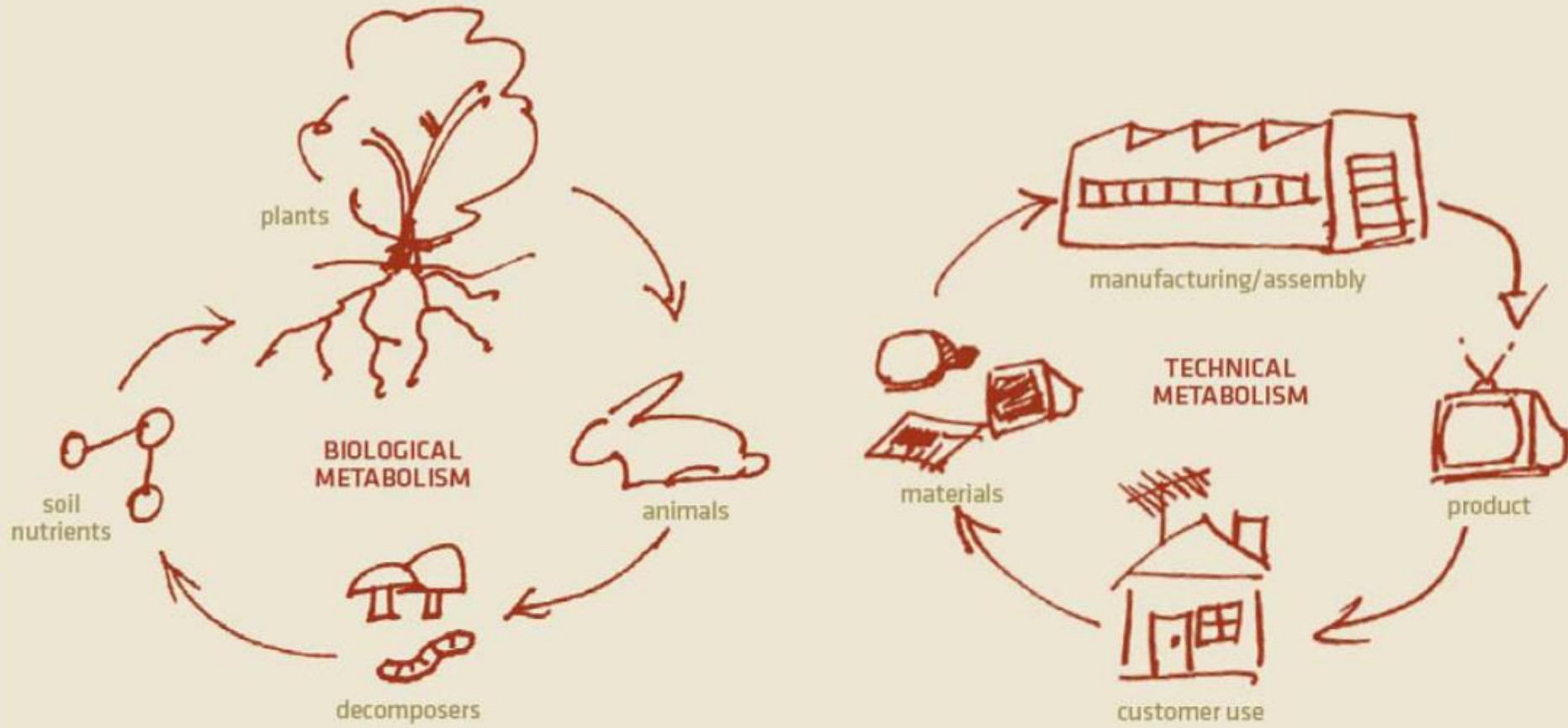


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life cycle thinking is understanding where the impacts happen over a product life cycle with a view to reducing those impacts



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



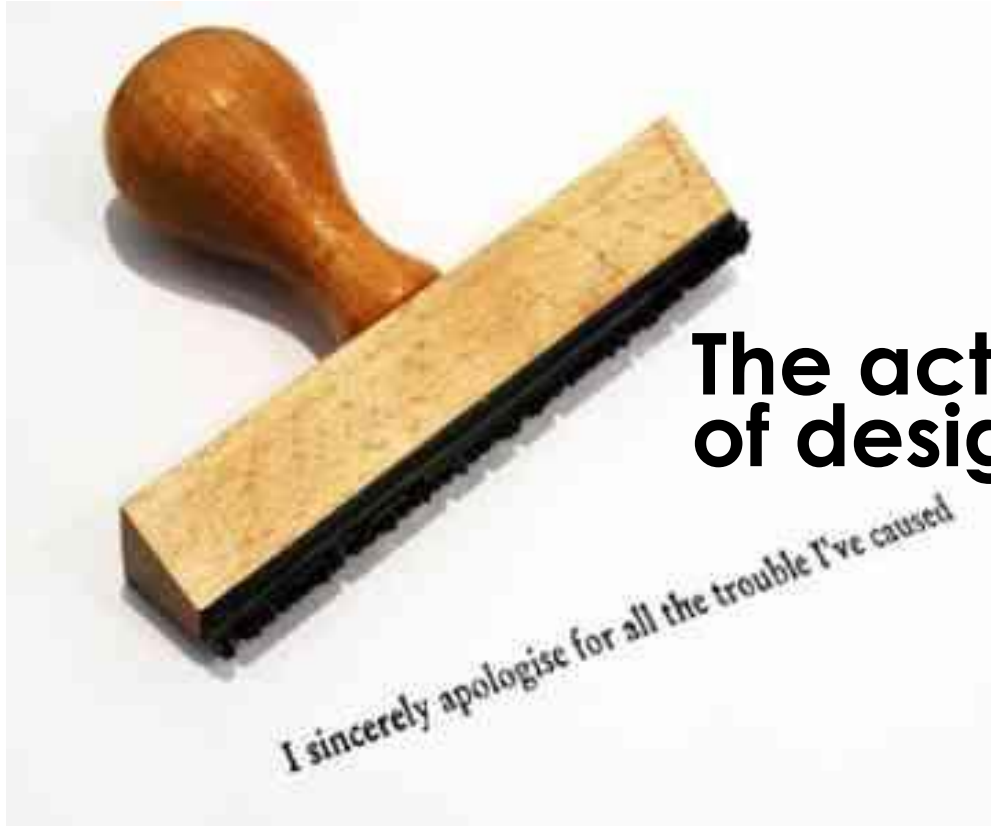
Royksopp

Remind Me video

4.15

you

x 7 billion



The actions of designers

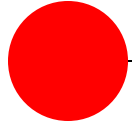
**Question
everything**



Be responsible for your actions

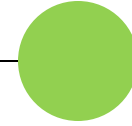


BAD



0%

GOOD



100%

50%

**Be
sustainable
in everything
you do**

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**If you do,
we will be
fine 😊**