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Future cities by Sweco Trends in certification – how to meet new challenges

5th April 2018



Synopsis of the movie Alien

The time is far in the future. A commercial space towing ship the Nostromo, makes an unscheduled stop at a remote planet, where one of the crew members is attacked by a parasite.

A horrible scene in which the parasite bursts through his chest sets up the rest of the story in which each crew member meets a horrible death until only one remains. As it turns out, the encounter was intentional.

The creature, a perfect killing machine, was known to authorities months before and they wanted to use the ship's crew to bring one of them back so it could be weaponized. The crew had no idea.

One lesson is that if you find yourself in an unknown situation assume the worst case and don't get too close to the unknown

But the lesson for you

know your real mission, and be **confident** in what you need to achieve.

And why is that important...

Know your current mission, as Our History is no template
for our future

At the start.....

1921



Our mission today, is very different

2017
BRE

Health & Well-being

adaptability

Offsite

Innovation

Modern methods of construction

Materials

bre

Connectivity

SWECO - how to meet new challenges

BRE



2017

Adaptability

Resilience

Yesterday

BRE

Off Site

Circular Economy

Net Energy Positive - ZedPod

Red Cross – Disaster shelter

SWECO - how to meet new challenges

BRE

ZEDTM • HUB



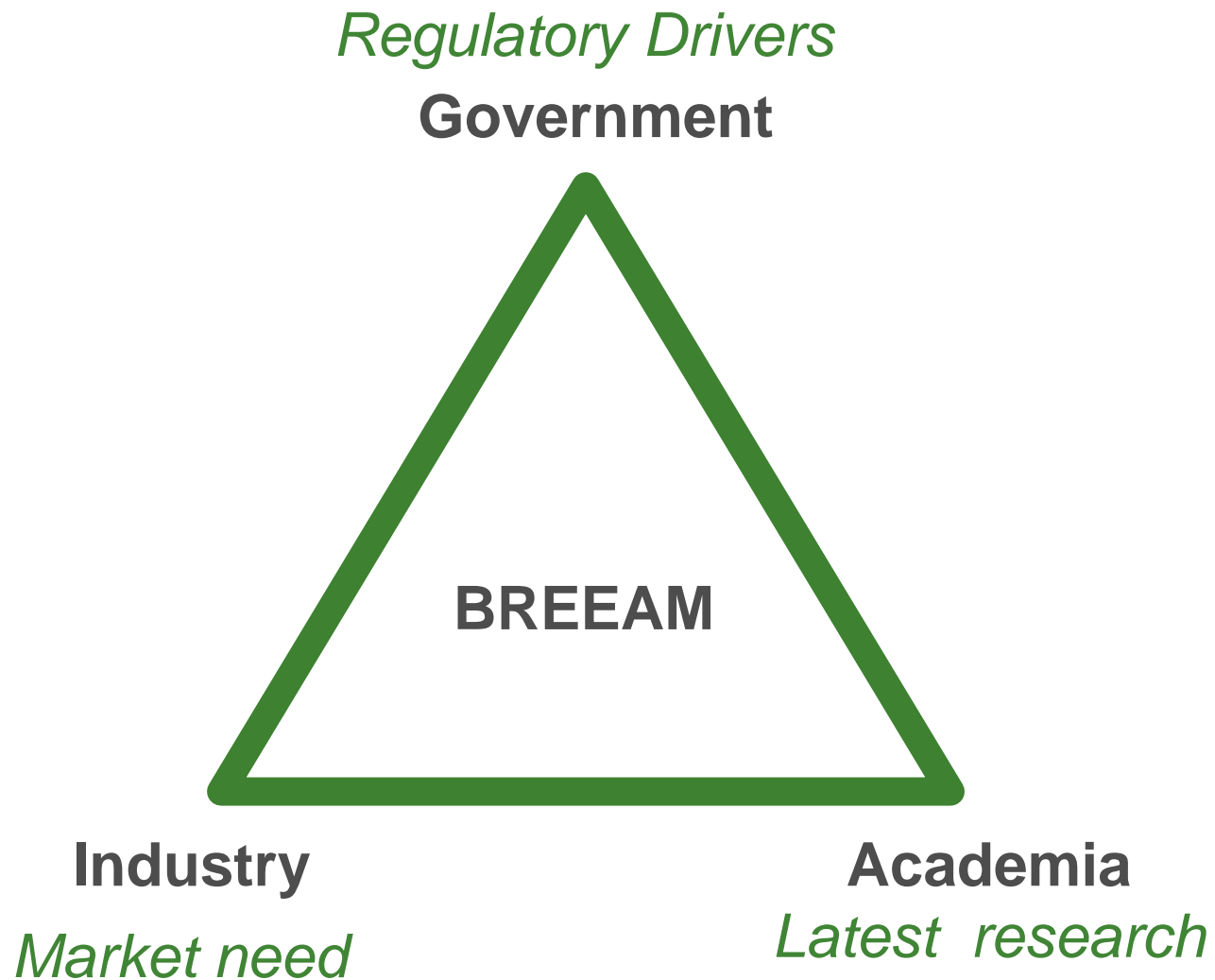
Petrol Station of the future !

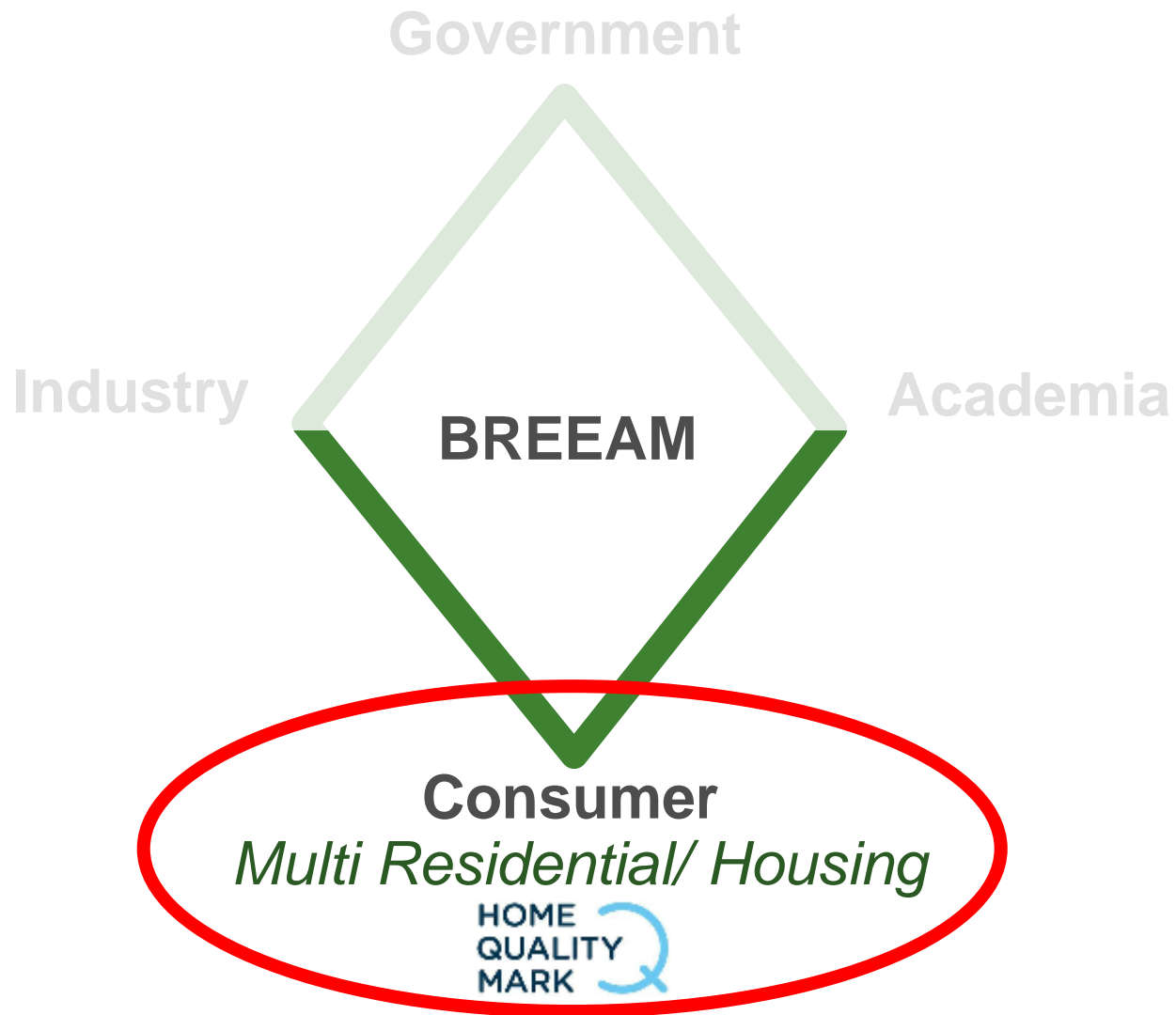
The Big Picture

- (Ultra) transparency;
- Brands in the Firing line (Response = Beyond shareholder value)
- Changing Global Markets
- Circular economy
- Sharing economy
- Internet of things (IoT)
- Renewable energy at tipping point
- Collaboration recognised as accelerators
- Infrastructure - Scale and purpose

But the conversation
need to mature and widen
Beyond business relationships to
drive change

Creating even greater demand for sustainability





Remove Barriers;
Provide Facilities;
Provide viable alternatives;
Educate/Train/Provide Skills;
Provide capacity;

Enable

**Catalyse
Change**

Encourage

Tax system
Grants
Recognition
Fines/enforcement

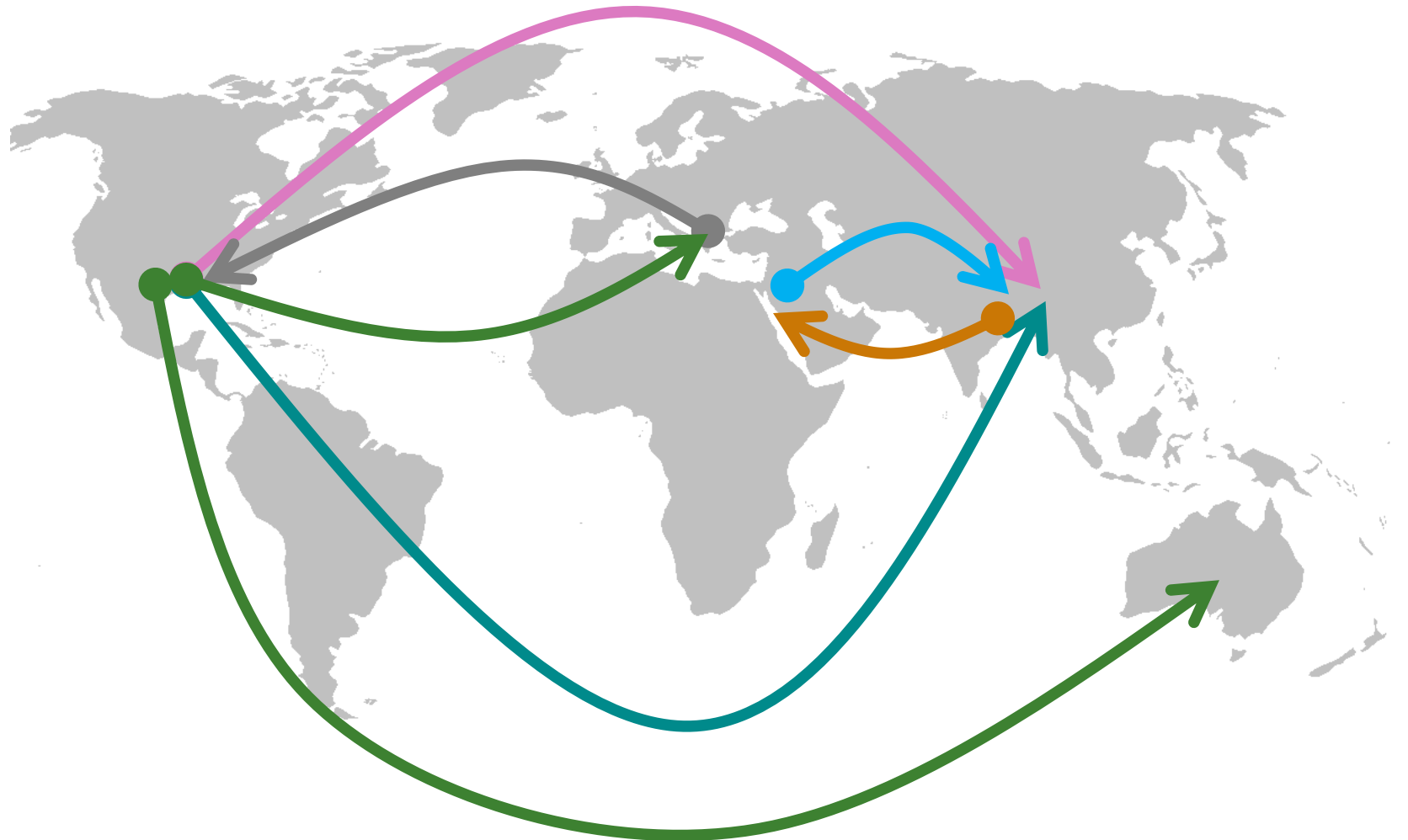
Engage

Co-production
Fora;
Media

Exemplify

Leading by example;
Achieving consistency;

The Pace of Change



- Rebalancing Our Energy infrastructure
- De-carbonising transport
- Creating Energy efficient homes



40% of our Cities relate to the Car

<https://vimeo.com/158604063> © HTA



Urban Remodelling

Driverless Vehicles

Health and Well-being

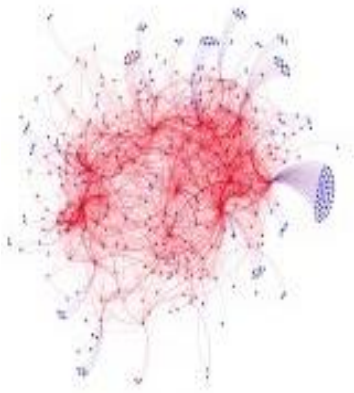
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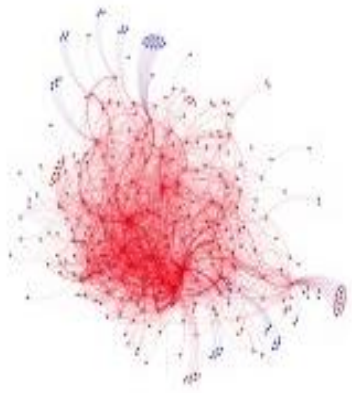
- **Regulation vs voluntary standards**
- Achieving industry **transformation**;
- Achieving low **cost and low impact**;
- Retrofit of the **existing** building stock;
- A greater focus on **health and well-being**;

- More **integrated** working;
- Faster **innovation cycles**;
- Reduced costs of construction, and hence new business opportunities;
- Turning **data into knowledge**;

No Information flow in various sectors



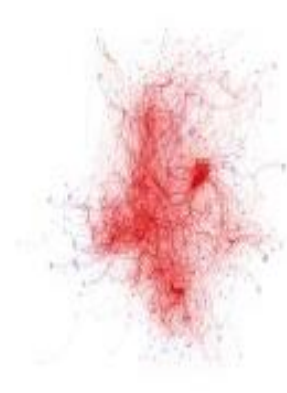
Software



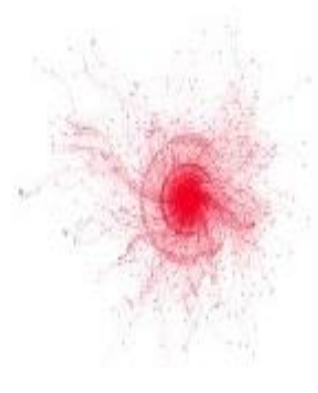
Media



Construction



Manufacturing



Finance

Industry transformation in both performance and sustainability means a step change, from **goods to service**.

To experience.....

From a **BREEAM** perspective

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- Brands in the Firing line (Response = Beyond shareholder value)
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Responding to IoT, and turning
knowledge in to data

BREEAM live — Live data streaming

BREEAM API's - GRESB, CDP, Measurabl

Responding to Performance Gap

BREEAM Verification stage

Responding to Ultra transparency

BREEAM Crosswalks – WELL, 3star,

Fitwell

Consumer cantered standard

Ethical labour standard -

<https://www.bing.com/videos/search?q=bre+ethical+sourcing+standard&&view=detail&mid=462B9AD9B3CBAE535C76462B9AD9B3CBAE535C76&&FORM=VRDGAR>

Responding to Infrastructure - Scale and purpose

BREEAM Infrastructure/CEEQUAL

Responding to Collaboration recognised as
accelerators

Research on health and well being

<https://www.youtube.com/watch?v=NHYuSG8vZYY>

biophilic design

Healthy Cities index

- Largest accommodation provider owns no real estate (Airbnb);
- Largest phone companies own no teleco infra (skype, WeChat);
- World's most valuable retailer has no inventory (Alibaba);
- Most popular media owner creates no content (Facebook);
- World's largest Movie house owns no cinemas (Netflix);
- Largest software vendors don't write the apps (Apple and Google);

What is the new business model for Construction

Buildings as power stations (net energy positive), buildings we recycle, buildings that Adapt to us, buildings and cities that make us healthy

And lets not forget

BREEAM®

Thank you

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