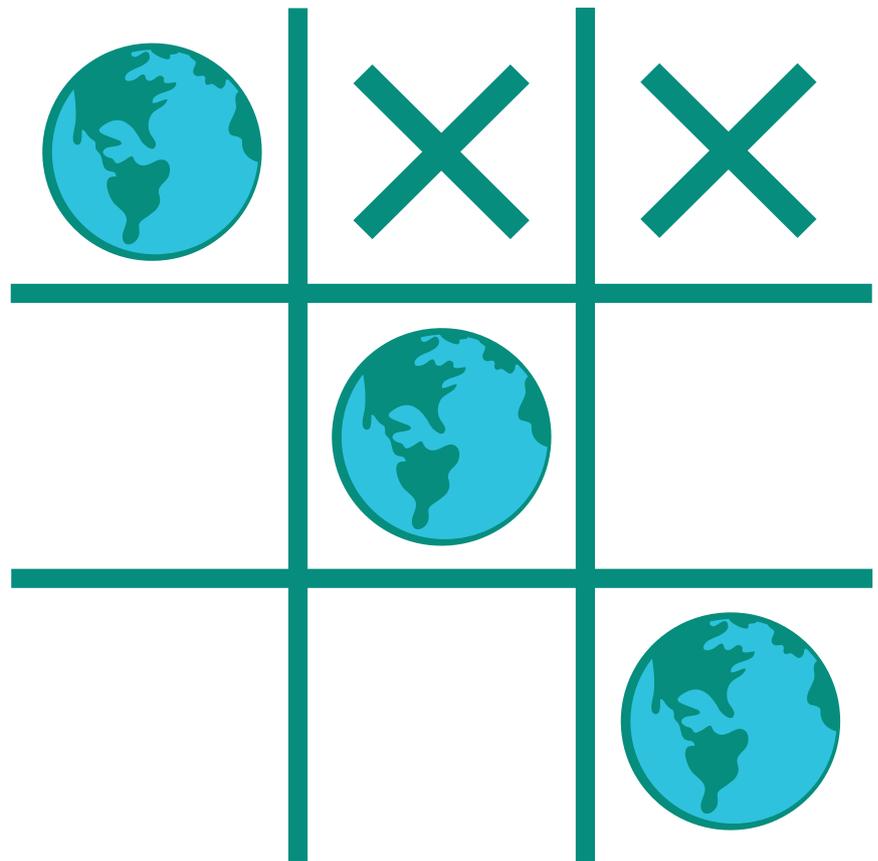




# Can fun & games help save the planet?

A 'final score' report on the project launch event at The Science Museum in Climate Week 2013



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## 01

**In Climate Week 2013, the Science Museum's Dana Centre, a venue more typically host to learned debates and serious science-related films, was transformed into a vast, giant, adult eco playground – for one night only.**

## The event Can fun & games help save the planet?

**All three floors of the Dana Centre were transformed into a warren of fun, entertainment and learning. From cheesy eco action bingo – a firm, on-the-night favourite – to a giant, human-sized eco action snakes & ladders board, a thought-provoking food footprint game through to eco-driving simulators and much more, the assembled audience could wander around the building and 'have a go' at any or all of the games whilst chatting and debating environmental issues at their leisure.**

A capacity crowd attended, made up of a mixture of invited environmental and sustainability professionals from the worlds of commerce, charity, central and local government, NGOs and small business. They were joined by members of the public who had signed up for tickets through the Science Museum. So perhaps not quite your 'average Joe' public audience, as they would most probably have an existing interest in science, but who may not be necessarily environmentally aware or eco-friendly in their daily lives.

In addition to it being billed as a fun and interactive event, we had some serious research going on behind the scenes too. We wanted to test how effective such an event could be to help educate people and gently encourage or 'nudge', to use a popular expression, them to take on environmental actions that they may not have considered previously.

To this end, we encouraged the members of the public to fill in a pre-event questionnaire, and asked everyone attending to complete a feedback form at the end of the evening. The incentive to completing the forms was they received a high value goodie bag, packed with eco and fair trade products, for their troubles.

The incentive worked a treat. Over three quarters of the assembled crowd completed the feedback form and the results from the evening make fascinating reading.

Here we highlight some of the top level findings from the feedback on the night. A full report on the pre and post event research, undertaken with the public,



## 02

The participants were asked to rate the event in terms of enjoyment, engagement with the games, educational content and whether they had been inspired to take action(s) as a result of attending and taking part in the games.

## The survey

### What people thought of the event

Over three quarters of the attendees filled in the questionnaire which has allowed us to analyse the data and come up with a number of interesting and positive insights. Here we present a selection of the main findings.

#### Motivation

We asked about people's motivations when playing the games. Were they mostly interested in the competitive element and trying to win? Or were they more interested in what they could learn from the games?. The results are insightful in terms of what motivates people to play.

#### Participation and engagement

# 96%

agreed or strongly agreed that they enjoyed the event.

# 90%

of respondents enjoyed the games they played.

# 281

The total number of games played in a two and a half hour period by the people who completed the feedback form.

# 57%

agreed or strongly agreed that they particularly enjoyed trying to win. Whereas just 11% disagreed with that statement. The attendees were obviously a competitive bunch!

# 3.5

The average number of games each attendee who submitted feedback played. Five busy people managed to fit in six games a piece!

# 86%

of respondents agreed or strongly agreed that they enjoyed learning new information when playing the games - so we can conclude it's not all about the winning!

# most played

The 'most played' games of the evening were **eco action bingo** and **play your eco cards right**. Over two thirds of the audience played both games.

# 80%

of the respondents agreed/strongly agreed that they enjoyed playing (non sporting) games and that they play at least occasionally.

# 1/4

Nearly all the games were played by at least a quarter of the audience through the evening.



**We also looked at the educational and motivational elements of the games, to ascertain whether they were an effective tool to educate, deepen engagement and assist in behaviour change.**

## The survey continued

### Education & inspiration

We then asked whether attendees had learnt anything new through playing the games. This was an interesting question, as around half the audience were invited guests and generally came from environmental and sustainability professions,

and hence assumed to be knowledgeable in topics 'eco'. Consequently it was fascinating to see that a significant number of them reported they had learnt something new and would be taking further action at home and/or work.

# 61%

agreed/strongly agreed they did learn useful new information through playing the games that they could take back home and/or to work.

# 56%

felt they can take actions at home to become more environmentally friendly because of information they had learned at the event.

# 23%

stated that they did not learn anything new about environmental actions that they didn't know already, with 65% disagreeing with this statement.

# 36%

thought they would be able to take actions at work as a result of attending the event.

# 14%

agreed with the statement that they had not been influenced to change anything in their everyday lives – which just goes to show you can't win 'em all!



**eco action trumps:** a simple re-imagining of that perennially popular card game that engages and educates young and old alike.

## 03

The games available on the night covered the gamut of sustainability actions that people could easily adopt at home.

## The actions

### Environmental actions featured at the event

The actions covered the use of energy and water in the home, waste and recycling, and the consumption of other resources. We also covered purchasing decisions when out shopping for products and food, greener transportation options and driving.

Information about the various benefits associated with the actions, both to the planet and to people's wallets, were communicated in a variety of formats. For example, through numbers in the **eco action trumps** and **play your eco cards right** and through rhyme in **eco bingo**.

### Key facts

# 192

For the respondents who stated they were inspired to take action, 192 separate actions were identified and reported.

# 24

people stated they were happy with what they were doing or already doing everything they could to be environmentally friendly.

## food

The most popular single action was concerning food choices, with over two thirds of respondents saying they would think more carefully about the food they buy.



## water

Water related actions were also popular, with over half of all respondents choosing these options.



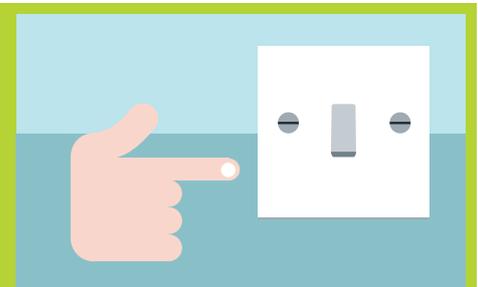
## transport

Interestingly the transport related options were some of the least chosen options.



## simple

The simple behavioural actions such as turning lights off, drying clothes outside, not overfilling kettles and turning things off standby were also popular.



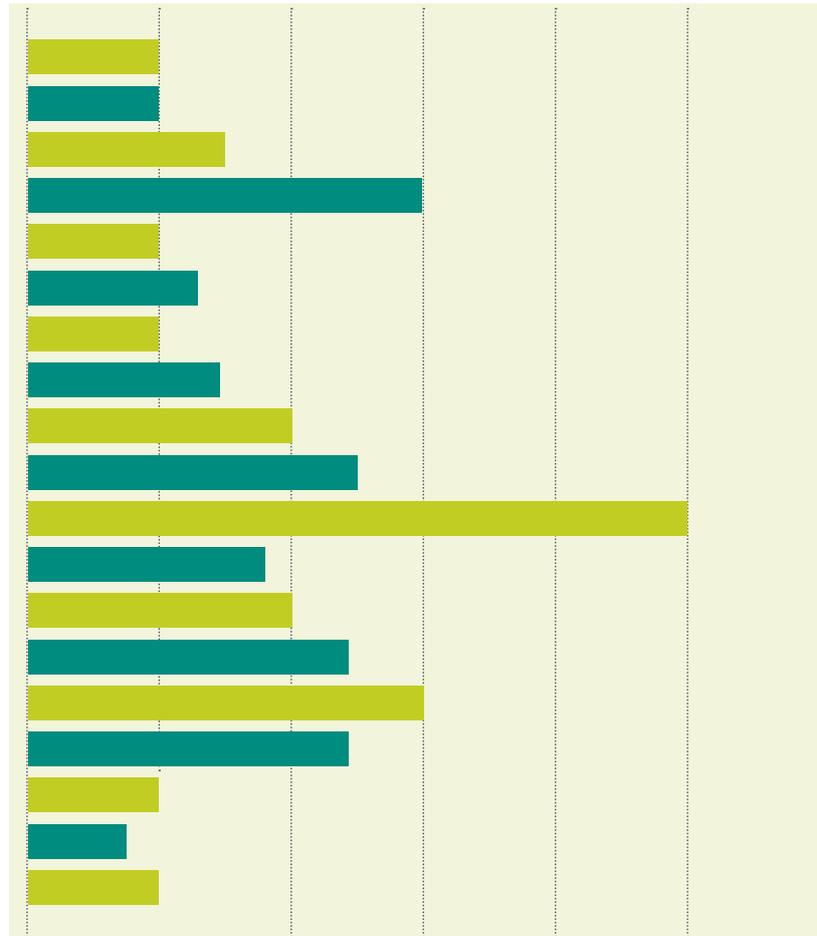
## The actions continued

### The range of actions explored on the night

The actions explored through the games covered the more expensive and complex measures such as insulation, renewable technologies and heating system upgrades, alongside simpler, no/low cost behavioural actions such as turning the tap off when brushing teeth, walking on short journeys and taking shorter showers.

#### Actions

- Insulate my loft / cavity wall
- Upgrade my boiler / controls
- Investigate renewable technologies
- Not overfill kettle / put lids on pans
- Car sharing / car club / eco-driving
- Use public transport more often
- Buy efficient A++ products
- Turning products off standby
- Washing at 30°C / dry outside
- Recycle more / compost / buy wormery
- Think carefully about food choices
- Be more water efficient
- Turn lights off when leaving room
- Turning down thermostat by 1°C
- Buy laptop instead of desktop
- Take shorter showers
- Replace lights with eco options
- Insulating hot water tank and pipes
- Don't use the car for short journeys



## 04

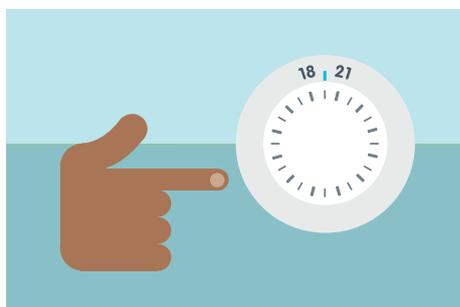
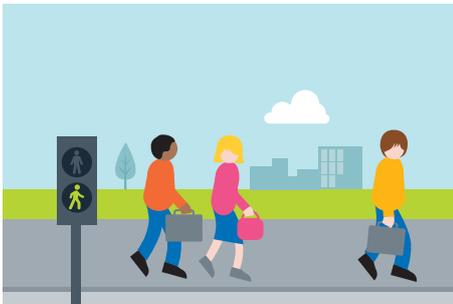
**If everyone who chose their actions actually carried them out, the audience on the night would save a minimum of 30 tonnes of carbon, reduce water usage, reduce their food miles and save on fuel for transportation.**

## Carbon savings calculated How much did we save?

### Carbon savings

In the majority of cases the carbon savings made by adopting or installing the actions featured were straightforward to calculate, eg insulation measures, energy and water based behavioural measures and car-sharing/eco-driving. However, some savings were not possible to quantify, these included: food choices,

public transport use, renewable technologies and recycling/composting. Consequently, the 30 tonne saving does not cover them. Given that the 'more careful food choices' option was the most popular action, we can conclude the potentially impact is much larger than our quantified saving suggests.



**We are conducting a year-long research experiment in order to investigate whether ‘fun & games’ really can help save the planet.**



## What next?

**The event at the Science Museum is just the start of the fun & games. Over the next year we will be taking our eco action game events to a range of community and interest groups, to corporates and universities; collecting socio-demographic data and existing views, opinions and environmental behaviours before the event, and gathering feedback afterwards. This data will allow us to assess the direct learning that occurs as a result of interaction with the games.**

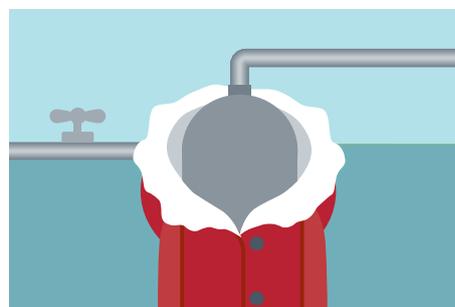
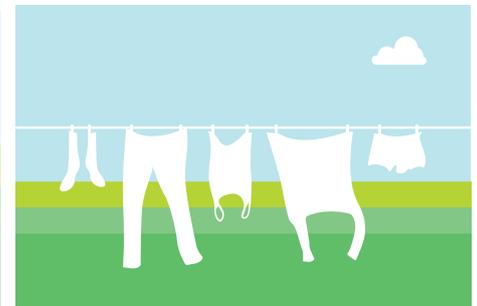
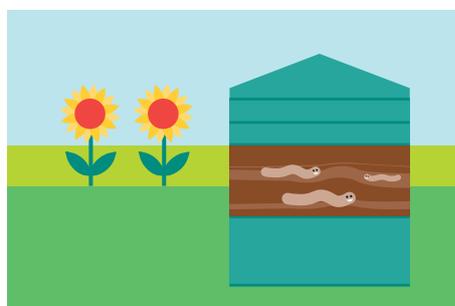
To evaluate whether this approach to education and behaviour change works in the longer term we will follow up with people who have attended our events (and who have agreed to be contacted). We will enquire into what information and learnings have been retained since the event took place and whether any changes in behaviours and habits have occurred.

In order to evaluate carbon savings we will also record whether attendees have purchased and installed energy and water saving products and how they are using them.

For workplace based events we are developing games with specific office related actions to ascertain how useful this approach is to influencing pro environmental behaviour at work.

We are collaborating with other organisations and research groups across the UK to test out and collect evidence on the potential usefulness of this approach to increasing environmental awareness, deepening knowledge of the actions people can take and being a catalyst for pro environmental behaviour change.

**If you want to join in the experiment, or would like to discuss running an eco game event in your area, please get in touch with us.**



## 05

**There was a wide range of games available over the three floors of the Dana Centre.**

## The games

### More information about the games

**The games featured on the night were mainly 'real' games that people came together to play. However we did include a number of computer based environmentally themed games for people to try at their leisure.**

Here we provide more information on the games available on the evening and website addresses where you can find more information on each one. For more information on eco action games visit: [ecoactiongames.org.uk](http://ecoactiongames.org.uk)

#### eco action trumps

A modern environmental twist on the traditional, much loved Top Trumps game. Instead of fast cars, footballers or Harry Potter characters the cards depict environmental actions that everyone could adopt, and gives information on the action's carbon, energy, money and resource savings.



#### eco action bingo

Another take on an old favourite, instead of 'legs eleven', 'two fat ladies' and 'a knock on the door', we again explore everyday actions that people can take through the medium of a bingo rhyme - 'a leaky tap is quick to fix, number 6'. So 'eyes down' and don't forget to shout 'eco house'.



#### play your eco cards right

That long-running TV game show has been given an eco twist. Teams answer environmentally-related questions to get control of the board. They then decide if an unseen card will depict an action which will save 'higher' or 'lower' carbon emissions than the preceding action.



#### eco action snakes + ladders

A life-size board where the players become the pieces. Ascend the eco ladders when you land on good environmental actions, but slide down the snakes when you get stuck with bad, wasteful habits. More information at: [ecoactiongames.org.uk](http://ecoactiongames.org.uk)



#### Play rethink

This drawing based game tests your innovative creative juices to the max. You are challenged to reinvent and redesign common everyday objects, but only using a restricted set of materials that you have been allocated. More information can be found at: [playrethink.com](http://playrethink.com)



## The games continued

### Ecodriving simulation

This Global Action Plan driving game challenges people to test their driving habits to see how efficient they are. A leader board compares your skills against others. Who will be crowned the best eco-driver? Hire this game through Global Action Plan: [globalactionplan.org.uk](http://globalactionplan.org.uk)



### Food footprint

The Carbon Conversation food game helps to put the carbon and environmental intensity of food in context. Players are challenged to test their knowledge on the environmental impact of the food they eat, and to guess the carbon footprint of various foodstuffs.



### Energy at home

A Carbon conversation game that looks at energy use in the home and explores ways of reducing consumption. Find out more about Carbon conversations and both the food and energy games here: [carbonconversations.org](http://carbonconversations.org)



### Rufopoly

Visit the fictional county of RUFshire and join their community, bringing with you your real life situation. Your journey is determined by the throw of a die, where you'll land you face questions relating to real life issues encountered in the rural urban fringe. [www.bcu.ac.uk/tee/news/playing-around-in-the-rural-urban-fringe](http://www.bcu.ac.uk/tee/news/playing-around-in-the-rural-urban-fringe)



### Online environmental games

Stop disasters  
BBC's climate challenge  
Electrocity energy  
Water conservation  
Pollution simulator game  
Clim'way game  
The great green web  
The DoNation pledge site  
For website addresses for these games visit: [ecoactiongames.org.uk](http://ecoactiongames.org.uk)



## 06

**Feedback**  
A selection of comments

We have chosen a small selection of the many comments depicting what people liked most about the event...

“Conversations were generated by getting different people together around a game”

“Making learning about eco actions fun”

“Inclusive games and adding the fun aspect to eco activities”

“Everyone was friendly and I didn't waste time feeling guilty about not doing enough regarding the environment – I just felt optimistic”

“The level of engagement has been fantastic”

“The different variety of ways of how similar information was expressed”

“The games are a very enjoyable approach to learning about these issues”

## thank you

### We would like to thank the following people and organisations for making the event happen:

The Science Museum and its staff for hosting this event, providing food and drink and Pippa Hough, in particular, who was instrumental in organising the evening. Thanks to Tosin Ogwe of Toch of Class Ltd for filming the evening's festivities for us and to Nicholas Gates for the photography.

A short film and photographs from the event will be used on our website and Facebook page.

Thanks also to the volunteer 'fun & gamers' who have helped with organising and for being games masters/mistresses.

So thank you: Jamie Beevor; John Condon; Michael Davies; Sally May; Alessandra McConville; Robb McDonald; Ross Mitchell; Tom Robinson; Jamie Wallace.

Thanks to the games makers who brought their games along to be played: Lili Larratea of Play Rethink; Ro Randall and Andy Brown of Carbon Conversations; Global Action Plan and Alister Scot of Rufopoly.

Special thanks to Faithful Conteh who worked tirelessly to co-ordinate the event so well and efficiently and for her work on securing the wonderful contents of the goodie bag.

And thank you to the organisations who generously supplied us with all the fantastic, environmentally friendly and Fair Trade products for the goodie bag. Thank you to: Baggee, BAM bamboo clothing; Divine chocolate; Fullwell Mill; Green People; Ohyo Collapsabottle; Okido; Onya bags; Promo2U; Purepotions; Rapanui clothing; Save Water Save Money; Smencils; Yorkshire tea and Visionary soaps.

Design: zuma-creative.com  
Word and numbers: Paula Owen  
paulaowenconsulting.co.uk  
Photography: nicholasgates.co.uk

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## press

### The event generated a large amount of media interest, here we list a selection of the press and media coverage of the event and the project generally:

**BBC news online**  
[www.bbc.co.uk/news/science-environment-21655918](http://www.bbc.co.uk/news/science-environment-21655918)

**2Degrees Network**  
[www.2degreesnetwork.com/groups/employee-engagement/resources/seven-games-help-save-planet/](http://www.2degreesnetwork.com/groups/employee-engagement/resources/seven-games-help-save-planet/)

**Guardian Sustainable Business**  
[www.guardian.co.uk/sustainable-business/gaming-gamification-save-the-planet](http://www.guardian.co.uk/sustainable-business/gaming-gamification-save-the-planet)

**CSR Wire**  
[csrwire.sharedby.co/share/C83qdX](http://csrwire.sharedby.co/share/C83qdX)

**Arts Council England**  
[blog.artscouncil.org.uk/blog/arts-council-england-blog/fun-and-games](http://blog.artscouncil.org.uk/blog/arts-council-england-blog/fun-and-games)

**Huffington Post**  
[www.huffingtonpost.co.uk/paula-owen/can-games-help-save-the-planet\\_b\\_2755430.html](http://www.huffingtonpost.co.uk/paula-owen/can-games-help-save-the-planet_b_2755430.html)

## How gamification can help your business engage in sustainability

Paula Owen, founder of the project has written a book on how using fun and games can help your organisation, community group or business engage stakeholders, staff and customers in sustainability.

You can buy or rent the book at:  
**[Dosustainability.com](http://Dosustainability.com)**

## contact us

For more information on any of the eco action games products or services please contact:

– For details on bespoke or standard versions of eco action trumps visit:

**[ecoactiontrumps.org.uk](http://ecoactiontrumps.org.uk)**

– For eco action bingo, eco action snakes + ladders and play your eco cards right, visit:

**[ecoactiongames.org.uk](http://ecoactiongames.org.uk)**

– For general enquiries contact:

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