# The Cambridge Forum for Sustainability and the Environment

## 18th October 2016 in Downing College



The Forum's topic for this year is 'connecting health, wellbeing and sustainability'. During the first three meetings we are focusing on places. On the 18th October, Ron Bakker, an architect with a passion for technology, formed a panel with Dimitris Ballas, an economist who is interested in metrics of happiness, and Peeter Pärt, an advisor on health and environment interactions for the EC Joint Research Centre. The discussion explored internal environments and generated research questions concerning where we live and work.

### Research gaps

In their introduction, the three witnesses discussed issues pertaining to the indoor built environment and its effect on the wellbeing of occupants as well as how improvements in this area can be made in conjunction and coordination with sustainability goals. The different ways of measuring and understanding wellbeing were also examined.

Ron Bakker reminded us of the benefits of feeling connected to nature through buildings before introducing The Edge, a large commercial building in Amsterdam which gained a BREEAM rating of 98.36%. As in the case of the stakeholders for this project, people are starting to attach real monetary value to demonstrably sustainable buildings: sustainability need not be just for saving energy but also for creating value. The Edge technologically maintains a daily communicative connection between itself and the building's users. Amongst many other sustainability features, the building uses a third of the space a traditional building would use through intelligent systems, design and collaborating with the users' needs. Such an ethos should be expanded to cities; by using space, materials, transport and energy more efficiently and flexibly you can assign more value to quality designs. To achieve this you need long-term thinking and public and private cooperation.

Dr Dimitris Ballas discussed his research on the personal, geographical and socio-economic contexts of happiness and wellbeing and how these related to social spaces and psychosocial processes. Objective measures that relate to happiness, such as natural (climate, proximity to nature, etc.), urban (green spaces, entertainment buildings, etc.) and human-created amenities (crime, education, social capital, etc.) can be assessed by combining social survey and geographical data and then using multi-level modelling and microsimulations, although the optimal state will vary depending on personal circumstance. Social comparison of positional goods is a key factor and this process exists on different scales (building, neighbourhood, city, social media, etc.). However, more research is needed on its importance, its relationship with horizontal and vertical segregation within the built environment and social cohesion. Understanding such factors will aid social policy regarding wellbeing as well as urban planning and design.

<u>Dr Peeter Pärt</u> focused on the indoor environment and stressed the danger of colliding policies. Sustainable buildings or saving energy does not always create an optimal and healthy indoor environment. The noise environment, such as from ventilation systems, increased microorganism levels stemming from humid buildings and exposure to chemicals and radon are all factors that affect our wellbeing and may cause sick building syndrome. We need better insight regarding the relationship between human behaviour, policy and the planning of the built environment or unintended and unforeseen consequences for sustainability can occur. The political system also tends to veer towards short-term thinking with regards to the built environment, meaning that materials and resources can be wasted on buildings with a short lifespan.

#### Wicked problems and questions generated by the open discussion included:

**Is happiness a useful term?** Although certain key indicators, such as social connections, opportunity and physical and mental health, appear to be globally consistent, happiness can be subjective and affected by cultural and linguistic variance. Additionally, happiness may be different depending on whether it is assessed from an internal or external perspective. It is possible that a focus on happiness may not be intrinsically good and is detracting from attempts to stem inequality and social deprivation. Wellbeing may be a better and more inclusive term, focusing more on external factors such as social and environmental influences.



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How do we quantify happiness and wellbeing? There is an uneasy balance between the need to influence policy and policy makers by clearly quantifying and demonstrating the cost-effectiveness of an intervention and the dangers of monetising something as fundamental as wellbeing. Wellbeing and sustainability are increasingly on the radar of the electorate and, therefore, policy makers so there is opportunity to catalyse change.

What is the best way of understanding the value of sustainability and wellbeing? There are a number of different rating tools and metrics for urban planners and policy makers but these are not always appropriate: they may lead to box-ticking or may prevent a holistic outlook. Nonetheless, it is important to find ways to express the value of both terms to raise awareness, both for planners and the public.

How can we improve urban design to improve wellbeing? With regards to the built environment, adaptability is crucial for creating a durable building for an unknown future. There are opportunities to make better use of space and challenge assumptions about the standard workplace environment. Building 'less but better' in cities may help us devote more resources to sustainability. This approach may also have applications to wellbeing and life quality. Instead of focusing simply on prolonging life we should focus on prolonging and improving the period where people are happy and healthy.

How do we deal with scenarios where policies of wellbeing and sustainability collide? These two policies have a clear relationship but are often in conflict when it comes to policy decisions. If we can change this perception then we may be more willing to invest in win-win scenarios. Being able to quantify these values in an understandable way is critical.

### Witness profiles

#### Ron Bakker

Founding Partner, PLP Architects

Ron is a Partner at PLP Architecture, a London-based group of architects, designers and thinkers who value the transformative role of ideas and the capacity for architecture to inspire. He has a particular interest in the architectural techniques that influence the qualities of gathering places in our cities and buildings and an excitement about the role of new technologies in the built environment. His recent projects include The Edge, the world's most sustainable office building developed by OVG Real Estate for Deloitte in Amsterdam



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## **Dr Dimitris Ballas**

Senior Lecturer, Department of Geography, University of Sheffield

Dimitris is an economist by training and has extensive experience in using GIS and spatial microsimulation for the evaluation of the socio-economic and spatial impact of national social policies, as well as area-based policies. He has recently completed an ESRC midcareer research fellowship project (in the context of the "Understanding Population Trends and Processes" programme). This project aimed to critically review past studies and theories of happiness and to add a geographical dimension to recent innovative work of economists, psychologists and other social scientists in this relatively new research area.



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#### Dr Peeter Pärt

Advisor in Environment and Human Health Interactions, Joint Research Centre (JRC), European Commission

Peeter has worked for the European Commission's DG Joint Research Centre since 1997, most recently as Advisor in Human Health and Environment Interactions in the Institute for Environment and Sustainability. In this function he has been following Environment, Human Health and Ecotoxicology related issues in the Commission, including chemicals (specifically endocrine disruptors), air and water pollution, noise, electromagnetic field, etc. His scientific background is in comparative physiology, aquatic toxicology and ecotoxicology.



