

EcoPLAY works with many organisations to reduce their carbon footprint and save energy by changing employee behaviour.

The current situation: The biggest challenge all large organisations have in saving energy and reducing costs is how to engage with those who use the most energy. The staff in offices, at home, in public buildings and schools, whilst in often 'leaky' buildings, currently make up around 40% of Europe's entire energy consumption, and produce approximately 36% of CO₂ emissions. The Government's 2016 Building Energy Efficiency Survey estimates organisations could achieve up to 42% of savings with basic behaviour change and the same BEIS survey calculated that out of all properties in the UK, employee's habit changes could offer savings of £1.3bn a year. The report identified carbon and energy management amongst the largest potential savings measures.

To change energy behaviours requires busy organisations to keep people engaged in energy reduction techniques for a long period of time, nudging them regularly to keep the new habits fresh in their minds. This requirement for extended behavioural training is a challenge for traditional workforce trainers using PPT and half-day workshop presentations. After a 3-year trial funded by the Horizon 2020 Energy programme, LiMETOOLS has met the challenge with EcoPLAY.

The Solution: EcoPLAY is a 12-week immersive campaign game (requiring typically 20 minutes per learner, per week), designed to make savings of at least **12% (and often more) of annual energy and utility bills**, in large organisations. The competitive games do this by changing the energy-use



habits of office workers and home workers – facilitating simple behaviour changes everyone can make, staff become aware of the positive impacts they can have on energy consumption at work and home, in business and in the wider context of climate change. The gripping series of games combines scientific facts, fictional scenarios made in the style of a TV soap drama, with technical animations, quiz games and localised documentary; all designed to immerse the learner and guide them towards more energy efficient behaviour.

The EcoPLAY campaign design, content and duration can be adapted to fit your individual organisation.

An example of the full Campaign Pack for a local administration contains:

- ❖ 12 x a weekly information and awareness programme, with new techniques explained
- ❖ 3 x quizzes that use silent comedy video drama of how to / how not to manage a working day
- ❖ 6 episodes of a TV 'soap' drama [shot originally in Poole, UK] that allow observation of typical habits, whilst narrating a thriller with political intrigue and the emergence of renewable energy solutions
- ❖ Game score data captured and weekly 'leader board' publishing that enables teams to compete for rewards by meeting their energy 'pledges'
- ❖ Weekly 'nudge' interventions straight to the desktop or player's mobile, with auto sensor triggers
- ❖ A Buildings@Work energy reduction tool for facility managers of key suppliers
- ❖ An integrated campaign to be played by school building managers, teachers, pupils and governors
- ❖ An integrated campaign to be played by leisure centre staff, competing across the region
- ❖ An integrated campaign to be played by homeworkers, who are adjusting to work/home balance
- ❖ A citizen's campaign on the mobile, to be played whilst travelling to and from work or when at leisure

The competition and results: Teams can be created around existing data sensor locations (attached to your building/environments) to add to the score values, or the campaign can be operated without direct sensor input. EcoPLAY has been **enhanced to include travel and homeworking energy savings** as part of the data capture and team scoring. Player competition and interaction is a key aspect to the overall immersion of teams in the competition and throughout the campaign, players are encouraged to respond with video diaries and

blogs that are shared with the playing community. This community spirit is celebrated in events [online or in person] facilitated by LiMETOOLS, where players are brought together to have fun and enjoy their success...and failures. The desire to be part of the Climate Change solution is something that stretches out past the workplace, and as part of the collective and wider community approach, LiMETOOLS have developed a parallel Citizen Campaign to be played by the general public, as part of a larger public awareness campaign from the local authority.

The R&D Background: EcoPLAY was developed as part of the European Commission's Horizon 2020 research programme and tested in large organisations across Portugal, Germany and Spain. It was designed as a solution to bring about energy reduction in buildings, whilst maintaining autonomy of staff and ensuring that those staff remained comfortable throughout. The energy team at LiMETOOLS have used the knowledge gained from this project and are currently developing a new suite of tools to enhance the originals, including new aspects to the existing games such as our Travel Credits and Home Worker Tool.

EcoPLAY in Action: We work closely with our clients using a profiling process to get to know the staff and management and use this information to guide our style of delivery and embed individualised content. Our products are influenced by Social Cognitive Learning Theory, using immersive TV-style drama and Nudge



theory. We know that it is important to capture the progress of staff on their journey, so we incorporate interactive quizzes that enable us to track understanding and knowledge retention and give qualitative data measurement. We use a Learning Management System to capture this data and can adapt scoring, pass/fail requirements, and other specific metrics to suit the work environment. The EcoPLAY campaign game is separated into two parts: The Learning Phase, and The Challenge Phase. In the Learning Phase players are taught habit changing information and techniques and are tested on their continued learning and understanding. In the Challenge Phase teams are challenged to put what they have learned into practise and compete against the other teams in saving the most energy. Most of the campaign games are played in teams of about ten players, who are selected based on their natural work groupings, like HR, IT or Planning, or different categories such as homeworker or traveller teams. The winning team is the one with the most credits at the end of the 12 weeks. Teams gain credits by a combination of high quiz scores and a range of team behaviour pledges that have reduced energy, like 'banning the office microwave for a week'. The exact nature of the reward structure varies between sites and is decided upon locally, often with local ethical sponsorship.

Who is LiMETOOLS? LiMETOOLS is a small, Bournemouth based company who specialise in behaviour change in two primary areas of corporate risk: cyber security and energy & CO₂ reduction. We apply a unique approach to teaching and use a variety of interactive media interlaced with Social Cognitive Learning Theory behavioural psychology to create a learning environment that promotes sustained positive behaviour change. After our first year of investment development, we won the RBS Innovation Gateway International Award for Best Concept. LiMETOOLS have the experience of working with a breadth of partners internationally including the European Commission, Ministry of Defence, The World Bank, Siemens, Santander [Brazil], ING Bank and PWC and have a combined experience of professional broadcasting, behavioural psychology and environmental science to contribute in product development. We are currently the main suppliers to BCP's Cyber Well tool for SMEs funded by BEIS.



