



Sustainability | Leadership | Innovation

ACCOUNTING FOR SUSTAINABILITY



2015 WINNER  
Innovative new idea

## LESSONS IN DRIVING BUSINESS SUSTAINABILITY

### FROM WASTE COFFEE GROUNDS TO ADVANCED BIOFUELS

The Innovative new idea award category was won by bio-bean after they demonstrated their technology’s potential to help build a circular economy. By turning coffee waste into bio-fuel, bio-bean’s innovation can address the problems of waste disposal and energy security.

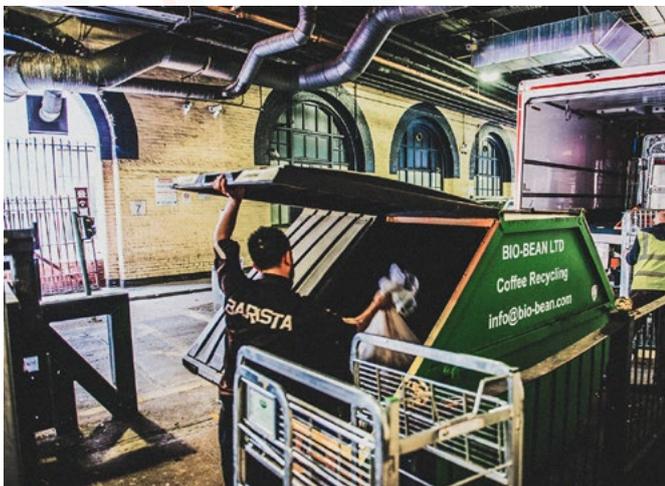
#### THE BUSINESS

bio-bean is a clean technology company that aims to turn waste coffee grounds into advanced biofuels for heating buildings and powering transport systems.

The company’s objective is to work within the existing coffee industry’s supply chain to collect and aggregate thousands of tonnes of waste coffee grounds produced by coffee factories, coffee shops, transport hubs and offices.

#### THE IDEA

bio-bean is a highly innovative business that aims to close the loop on coffee waste and have a positive impact on the development of a circular economy.



bio-bean works with the existing waste disposal system to collect thousands of tonnes of waste coffee grounds each year

Working at an industrial scale, bio-bean offers an operational solution for organisations to add commercial, environmental and social value to their supply chains. Their offering is first and foremost commercial – reducing waste collection costs and eliminating waste disposal gate fees.

The UK coffee industry produces 500,000 tonnes of waste coffee grounds each year, costing the industry almost £80m to dispose of the waste. bio-bean’s technology provides the potential to reduce this cost and turn coffee waste into fuel.

**It is a business with embedded sustainability values but bio-bean is also first and foremost a highly commercial offering.**

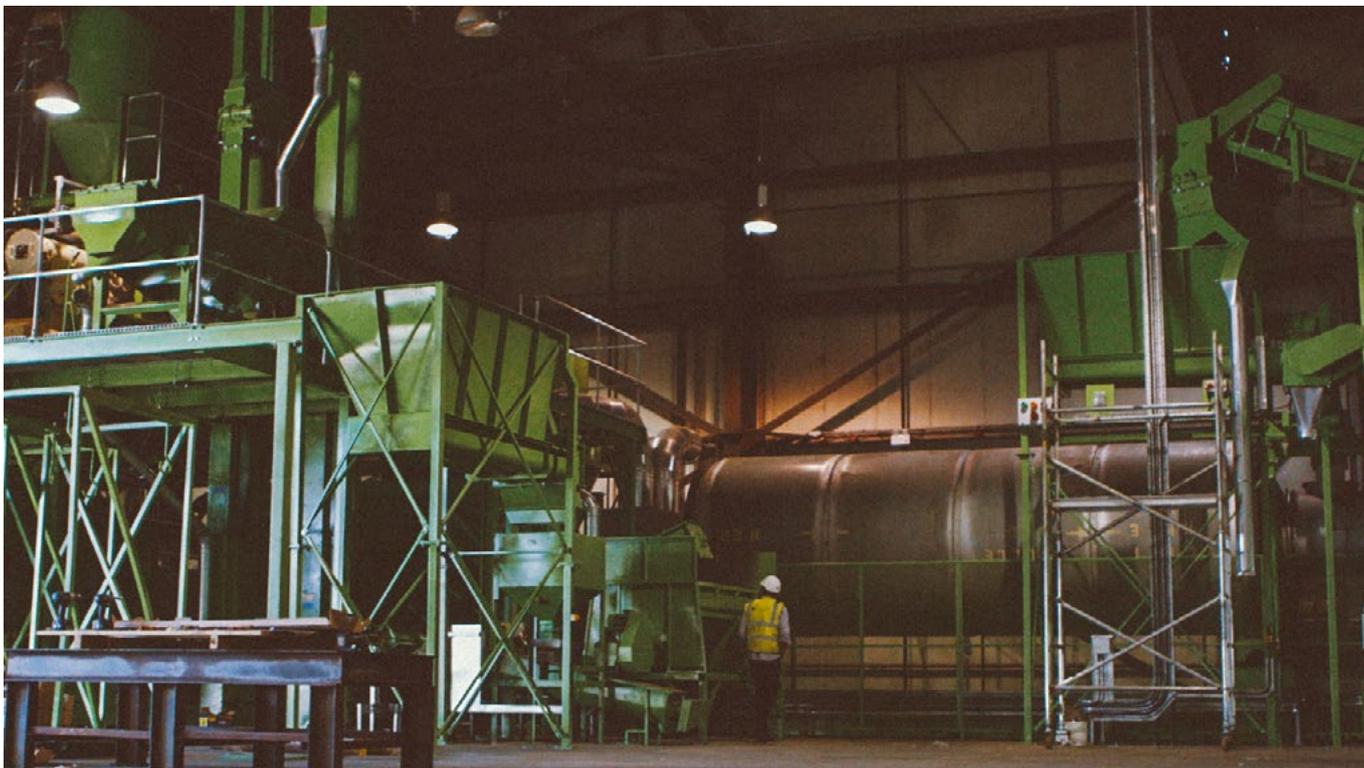
Alongside the need to reduce landfill, the UK, the EU and coffee companies need to valorise waste and reduce emissions. In addition, the bio-bean process diverts waste from landfill, incineration or anaerobic digestion which reduces greenhouse gas emissions and creates carbon-neutral biofuels. This could help finance teams to save money and achieve sustainability goals.

#### THE INNOVATION

bio-bean’s closed-loop process manufactures biomass heating pellets and biodiesel from waste coffee grounds. The business model and pioneering technology have attracted widespread attention from coffee companies, the media and the sustainability industry across the world, including endorsements from Shell, UK Trade and Investment, the Mayor of London, the Ellen MacArthur Foundation, Sir Richard Branson and the London Sustainable Development Commission.

bio-bean’s ambition is to help coffee companies to reduce greenhouse gas emissions and create zero-waste carbon-neutral fuels. The innovative technology has the potential to extend the product life cycle of coffee and helps businesses to realise their sustainability goals.

Up to 500,000 tonnes of coffee waste is produced in the UK annually – and the majority of that waste has an economically viable use. This presents an enormous opportunity for finance teams looking to save on costs and reduce their carbon footprint.



bio-bean has industrialised the process of recycling waste coffee grounds into advanced biofuels

## FINANCE FUNCTION LEADERSHIP

'bio-bean's innovative business model creates a circular economy opportunity,' says bio-bean CEO Arthur Kay. 'We provide commercial advantages for every size of client.'

'It is a business with embedded sustainability values but bio-bean is also first and foremost a highly commercial offering,' adds Kay. 'Due to bio-bean's pioneer status as a world-first company aiming to integrate with well-established systems controlled by large corporations, our financial proposition has to be extremely resilient.'

Bio-fuel bridges the waste management and green energy sectors, creating financial opportunities. For this reason the business has sought to ensure the necessary financial skills are present on the Board, including Chairman Jeremy Miller (an ICAEW Chartered Accountant with a background in corporate finance) and Non-Executive Director Chris Samuel, to steer and guide the financial sustainability of the business.



bio-bean conducts extensive research and development into the value of organic waste

## POSITIVE LONG-TERM IMPACT

bio-bean's approach highlights new financial management opportunities by turning waste into fuel. When the approach is scaled up and deployed on an industrial scale, there is potential for future growth and global adoption, significantly increasing the positive environmental benefits achieved.

**bio-bean's innovative business model creates a circular economy opportunity.**

## LESSONS FROM THE CASE STUDY

bio-bean provides an example of how 'circular economy' thinking – turning waste into a valuable new product – can be commercially viable and provide solutions to key environmental challenges faced. It underlines the important role that innovation can play in helping to address challenges faced along the supply chain.

## WHAT THE JUDGES SAID

The judges were impressed by the ethos of bio-bean, driving us all to view waste as a resource, along with their innovative go-to-market sourcing strategy, often turning suppliers into users of their product.