



COP27 ROADSHOW

10 NOVEMBER 2022

Charlotte Horobin

Regional Membership Director Midlands & East

makeuk.org

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Today's Agenda

11.00am Panel Discussion

- **Verity Davidge, Policy Director**
- **Johan Hanekom, Principal for Sustainability and Innovation AWS**
- **Jonathan Custance, Director, Green Custard**
- **Brian Holliday, Managing Director Digital Industries, Siemens**
- **Michael Owens, MD, Schumacher Packaging**

12.30pm Panel Q&A

13.00 Lunch

13.30 Optional Tours



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Verity Davidge,
Policy Director, Make UK

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SUSTAINABILITY TRANSFORMATION ACCELERATION TEAM (STAT)

Helping Customers Become Future Fit

Accelerating Sustainability Transformation
Make UK

Johan Hanekom

jhanekom@amazon.co.uk

Principal BDM, Sustainability Innovation

November 2022

AWS for Manufacturing industry



AWS leverages experience with leading industrial customers and Amazon's years of experience with factory operations.



AWS has purpose-built services to optimise operations at industrial sites.



AWS enables partner offerings addressing more industrial workloads than any other provider.

<https://aws.amazon.com/industrial/>

Future fit

adjective, future-fit, fit for the future

An aspirational state in order to remain relevant, compete and generate value in an increasingly resource constrained, carbon intense reality:

- 1) Sustainable, circular, and inclusive
- 2) Creates value (soc, env, eco) for a broad group of stakeholders
- 3) Leaves things better than how we found them

The purpose of business is to produce profitable solutions to the problems of people and planet, and not to profit from producing problems for people or planet.

- Colin Mayer CBE, Saïd Business School, University of Oxford



Current Business OS: Increasingly VUCA* Reality

Move customers from 'reactive' to 'proactive' to unlock scalable business models



Integrating ESG



Valuing human capital



Responding to climate change



Safeguarding natural systems



Building sustainable & resilient supply chains



Enabling sustainable consumption & production



Optimizing sustainability through technology



Protecting fundamental rights

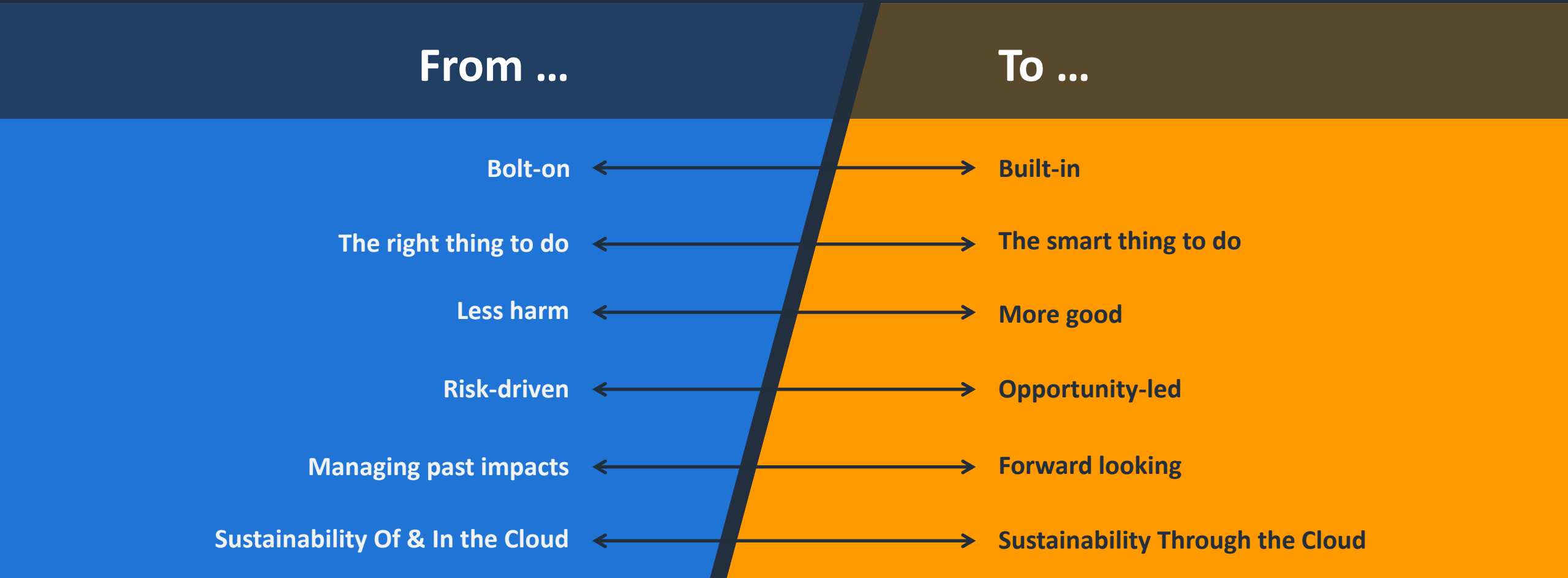


Shaping policy, regulation & norms



Creating multi-stakeholder partnerships

The Sustainability Landscape is Evolving



AWS Future Fit Customer Engagement Framework

Understanding your level of ambition will help us qualify the opportunity for impact and value

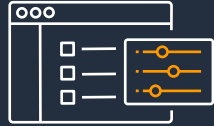


Data-driven optimisation to go further faster



Energy & Resource Optimisation

Reduce carbon footprint, waste and costs



Production & Process Optimisation

Increase productivity, reduce waste and reduce costs



Decarbonise Production

Measure, report and reduce carbon footprint per product



Future Fit Products

Improve customer satisfaction, product life and reduce carbon footprint



Case study: energy analytics and forecasting (ML/AI)

Coca-Cola, Turkey with distribution to 400M consumers

Improved clean in place (CIP) process

Saved 20% on energy annually

Saved 9% on water annually

Time and performance gains

34 days annual process gains/year

Multiple pathways to a successful green and digital transition

Build



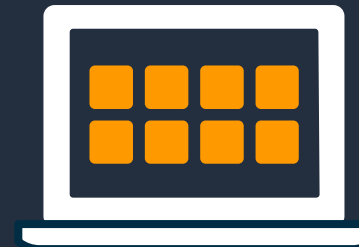
AWS Services &
Solutions

Engage



AWS Partners &
AWS ProServe

Deploy



AWS Partner
Solutions

Plus AWS manufacturing and sustainability focus teams to help customer journey

Thank you and get in touch with us!

Johan Hanekom jhanekom@amazon.co.uk

Dimitrios Spiliopoulos dimspil@amazon.co.uk

Charlie Hockton hocktonc@amazon.co.uk



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Jonathan Custance, Director, Green
Custard

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Brian Holliday, Managing Director
Digital Industries Siemens

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Michael Owens, MD Schumacher
Packaging

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CORPORATE RESPONSIBILITY

Innovation

Responsibility

Sustainability



schumacher

The current megatrends



“Rapid market changes require flexible and dynamic decisions - across Europe and in all product segments!”

We take responsibility

“For us sustainability is not a buzzword, but an absolute necessity.
We always think and act with future generations in mind.

We invest
700 million euros in sustainable, forward-looking technologies,
in order to achieve our **ambitious goal of carbon-neutral production by 2035.**”

Björn and Hendrik Schumacher
CEOs Schumacher Packaging Group



AGENDA

1. INVEST 2025

- Our solar parks
- Our eligible future technologies

2. For the environment

- Our measures in the field of logistics and mobility
- Our certificates and awards
- Our sustainable packaging solutions

3. For the people

- Our employees
- Our social commitment
- Our commitment to elite sport

Invest 2025: New solar parks



- ✓ At sites Bydgoszcz and Grudziądz we will build new solar parks with an output of 1.6 MW/h and 2.4 MW/h respectively from 2022.
- ✓ Further solar parks are currently in the planning stage, including Ebersdorf, Forchheim, Wrocław and Sonneberg, as well as Myszków with an output of 5 to 6 MW/h.
- ✓ **This will allow us to generate 25% of our energy needs from solar energy.**



Existing photovoltaic systems

- ✓ We already use photovoltaic systems at the Sonneberg and Forchheim plants and produce about 600,000 kWh electricity each year.
- ✓ Compared with fossil energy, that **saves us around 330 tons of CO₂ per year!**



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Invest 2025: High-speed digital printing



- ✓ Since 2015, Schumacher Packaging has been at the forefront of fast digital printing for corrugated board packaging with high-quality colour print images.
- ✓ In spring 2021, we commissioned a newly developed, highly efficient digital printing machine at the Greven site: The RSR® printer. (Roll to printed sheet in real time).
- ✓ We have received more than 2.8 million Euros from the Federal Environment Ministry as part of the environment innovation program to develop and realise this innovative digital printing technology.

17 PARTNERSHIPS FOR THE GOALS



Invest 2025: iPrep - world first at the Greven site



- ✓ With iPrep, the raw paper rolls are transported to a peeling station by means of a driverless transport system (AGV) and peeled there fully automatically.
- ✓ With this automated transport and peeling system, we can avoid around 548 tonnes of waste corrugated board base paper at the Greven production site and thus indirectly avoid the emission of around **274 tonnes of CO₂ per year**.
- ✓ For the resource-saving transport and peeling system "iPrep", which is currently unique worldwide, the company receives about 480,000 euros in funding from the Federal Environmental Innovation Programme.



Invest 2025: Green Loan Certificate



- ✓ We received the Green Loan Certificate from IKB Bank for the financing of the new WPA in Greven.
- ✓ The new WPA has climate protection effects that were rewarded by KfW through a special promotional loan combined with a grant.
- ✓ Within the framework of a "Green Loan Framework", criteria were developed that fulfil certain requirements of a "green loan".

17 PARTNERSHIPS
FOR THE GOALS



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2Win trailer – für noch bessere Effizienz



- ✓ Unsere 2Win-Auflieger haben dank des Doppelbodens eine Kapazität von bis zu 54 Europaletten. Dadurch können wir 63% mehr Ladung transportieren.
- ✓ Jeder 2Win-Anhänger **spart somit rund 30% der CO₂-Emissionen im Vergleich zu herkömmlichen Lkw!**
- ✓ Das Additive **AdBlue®** reduziert zudem den Ausstoß von Stickoxiden (NOx) um rund 90 Prozent.



Gigantisch – Unsere Gigaliner



- ✓ Ein Gigaliner ist ein regulärer Auflieger plus einem Anhänger. Der Lkw hat eine Ladekapazität von 33 Paletten, der Anhänger fasst nochmals 19 Paletten.
- ✓ So können insgesamt 52 Paletten mit einer Zugmaschine transportiert werden.
- ✓ **Durch den Einsatz der Gigaliner können wir die CO₂-Emissionen um bis zu 30% verringern!**



E-trucks on the test track

✓ We are currently planning to use the fully electric eActros truck on a first test track.

✓ **We will keep you informed!**



Promotion of e-mobility

- ✓ We will gradually convert our company vehicles to hybrid and fully electric cars.
- ✓ In the meantime, we are building charging stations at all plants.



Bike leasing for our employees

- ✓ Since 2019, we have offered our employees the option of company bike leasing.
- ✓ Several hundred contracts were concluded by 2021.



From diesel to electric forklift

- ✓ In recent years, we have successively replaced our diesel forklifts with fully electric forklifts.
- ✓ **Each electric forklift saves around 21,500 kg of CO2 per year!**



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Targeting on Sustainability



United Nations Global Compact



- ✓ The UNGC is the world's largest and most important initiative for sustainable and responsible corporate governance.
- ✓ It is based on 10 principles in the areas of human rights, labour standards, environmental protection and anti-corruption.
- ✓ The Schumacher Packaging Group has been a signatory since June 2021.

Sustainable Development Goals



- ✓ The 17 Sustainable Development Goals (SDGs) are targets set by the United Nations (UN).
- ✓ The goals ensure sustainable development at the economic, social and environmental levels worldwide.
- ✓ They came into force on January 1, 2016 with a term of 15 years.

VISION SUMMIT 2045

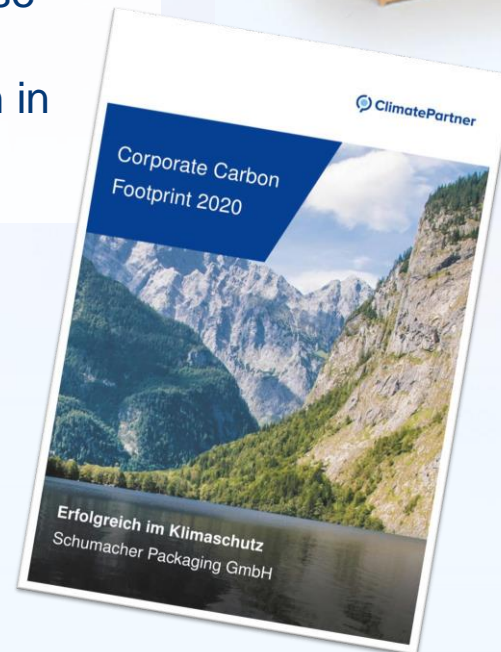


50 SUSTAINABLE & CLIMATE LEADERS

- ✓ During the days of the COP26 (Convention of Climate Change) in November 2021 in Scotland **50 Climate Leaders** came together to discuss how to positively impact the future of our planet.
- ✓ Schumacher Packaging was invited to join this summit for a series of groundbreaking panel discussions with a handful of **decision makers** across the political business and social arena.

Climate Partner

- ✓ Since 2018, Schumacher Packaging has been a licence partner of Climate Partner.
- ✓ The calculation of our CO₂ balances enables us to offer our customers climate-neutral packaging on request as a valuable contribution to climate protection!
- ✓ As part of the compensation of greenhouse gases, we are currently supporting the climate protection project for reforestation in Guanaré, Uruguay.



EcoVadis

farbfläche

✓ We regularly have all our plants assessed by the rating agency EcoVadis.

✓ The assessment is made in relation to corporate social responsibility in the areas of environment, labour and human protection, ethics and sustainable procurement.

✓ In 2022, our plant in Wrocław was able to achieve a PLATIN award again! Further we won gold and silver medals for our further production sites.



FSC® certification



- ✓ FSC® is the abbreviation for the Forest Stewardship Council®, an international non-profit organisation. The FSC®'s vision is the continuous growth of sustainable, FSC®-certified forests.
- ✓ Schumacher Packaging supports the creation of globally uniform standards regarding forest management with its own FSC® certification.
- ✓ Our plants have been certified since 2011 with the license number FSC-C108888.



Closed Loop



- ✓ Packaging is essential to ensure an efficient supply chain for consumer goods. In this respect, packaging fulfils three main functions: Protection, conservation of goods and presentation.
- ✓ The basic raw material of paper and cardboard is renewable, since the wood fibres originate from sustainably managed woodland.
- ✓ Paper and cardboard are the most frequently recycled packaging materials in Europe. More than 80 percent of packaging made from paper and cardboard is fed back into the recycling loop.



Energy management secures our future



- ✓ **ISO 50001** is a globally valid standard which aims to support companies in systematically managing their energy consumption.
- ✓ **The 50001:2018 Certificate** currently have all German site and our Polish paper mills in Grudziadz and Myszków.
- ✓ **LED instead of neon tubes** By gradually replacing the lightning from neon tubes to LED light we can reduce the electricity cumsumption by around 70 percent.
- ✓ **Generating power using steam** Back in 2010, we put a steam turbine into operation at our Schwarzenberg plant **saving 500 tonnes of CO₂ per year.**



Environmental management



- ✓ **Environmental management system standard DIN ISO 14001** The international standard ISO 14001 is a environmental management system which helps an organisation improve its environmental impact and achieve its environment goals.
- ✓ Our German site in Schwarzenberg as well as our Polish plants in Bydgoszcz and Wrocław and the paper factory in Grudziądz have been certified in accordance with **ISO 14001**.
- ✓ **EMAS standard for energy, water and waste** Our plant at Schwarzenberg has been certified according to this highest of global environmental standards since as early as 2005.



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Sustainable process and product innovation



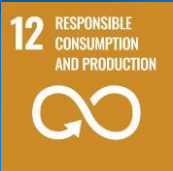
- ✓ **Halopack®: MAP food packaging made from cardboard** reduces plastic from 70-90 percent.
- ✓ This innovative hybrid packaging largely consists of a sturdy cardboard box which is lined with a thin, fully-hygienic, gas-tight plastic film on the inside.
- ✓ This makes HALOPACK® an ideal modified atmosphere packaging (MAP) for perishable foods such as meat or ready meals.



Sustainable process and product innovation



- ✓ **Consecutive barcode printed directly on the packaging** cutting out one of the process steps - the application of barcode labels – saves time and costs.
- ✓ The digitally printed code is now on all four sides of the package that guaranteed not to scan an empty side.



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For the people



Our principles:

- Ethical and moral business practices
- Equal treatment and equal opportunities
- Promoting diversity
- Active health promotion
- Career development training
- Individual support for young workers



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The significance of social projects



The topic of social projects, especially in the field of youth work, has been of great importance to us from the outset. We support e.g.:

- ✓ an educational circus initiative called “Zirkus Giovanni” by Don Bosco
- ✓ nurseries and schools with donations all year round
- ✓ school classes visiting a theatre performance
- ✓ the Klinikum Coburg especially children suffering from cancer
- ✓ Every year, Schumacher Packaging provides several thousands of boxes for the "Love in a box" Christmas project.



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Sponsoring sports



- ✓ Schumacher Packaging is also committed to sponsoring sports by supporting a wide variety of clubs and different kinds of sport:
- ✓ Handball HSC2000 Coburg
- ✓ Basketball BBC Coburg und s.Oliver
- ✓ Motos Sport in Upper Franconian
- ✓ Equestrian Sports
- ✓ Judo
- ✓ and many local sports clubs

At the Olympic Games in Tokyo in 2021 the four Schumacher judokas Sebastian Seidl, the brothers Karl-Richard and Johannes Frey and Theresa Stoll won bronze at the Olympic première of the mixed-team event.



CR-Report 2021 - Download



- ✓ Detailed information on the topics of sustainability and ESG can be found in our CR Report 2021, which is available to all employees, customers and interested parties as a download on our website:

[SchumacherPackaging_CR_Report_EN_29032022.indd](https://www.schumacher-packaging.com/SchumacherPackaging_CR_Report_EN_29032022.indd) ([schumacher-packaging.com](https://www.schumacher-packaging.com))

Thank you very much for your attention!



schumacher

www.schumacher-packaging.com

27 LOCATIONS:
17 plants
3 sales offices
7 service centres



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Q&A

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