





# Energy, Water & Sustainable Solutions: Supporting Malta's Corporate Sector

Friday 26th May 2023







#### **Table of Contents**

1.	EXECUTIVE SUMMARY
2.	CONFERENCE AGENDA
3.	DETAILED REPORT OF CONFERENCE PROCEEDINGS
3.1	
3.2	
3.3	
3.4	NETWORKING SESSION & CONCLUSION
4.	PRESENTATIONS
5.	IMAGES8
5.1	Conference Area8:
5.2	REGISTRATION DESK8
5.3	SIGNAGE INDICATING DIRECTION TO CONFERENCE
5.4	4 ROLL UPS & PAMPHLETS86
5.5	SPEAKERS
5.6	<i>y</i>
5.7	7 NETWORKING SESSION9
5.8	3 COEFFE BREAK







## 1. Executive Summary

The Conference on Energy, Water & Sustainable Solutions: Supporting Malta's Corporate Sector took place on Friday 26<sup>th</sup> May 2023. The main aim of the conference was to address climate change and the need for sustainability, focusing in particular on small and medium enterprises (SMEs).

The conference was held at the 5-Star Hotel InterContinental in St Julian's.

Attendees were able to sign up for the conference through <a href="https://water.org.mt/join-the-drops/energy-water-solutions/">https://water.org.mt/join-the-drops/energy-water-solutions/</a> where they could register online through a form, or by calling +356 2777 2777, or by sending an email to info@emcs.com.mt to register.

A standing lunch was organised for all attendees as well as a welcome coffee break and two coffee breaks, which provided attendees with short breaks and an opportunity to network.

In total, 62 people attended this conference. The attendees were made up of mainly private and public individuals, but also NGOs, and different ministerial representatives. All attendees registered their attendance at the registration desk. The conference was open to all, and walk-ins were also accepted on the day.

The conference lasted till the afternoon and was hosted by Keith Demicoli, a well-known TV presenter and moderator. The conference consisted of two opening speeches, three presentations delivered by different experts in the sector and a panel discussion. Throughout the report, one can find the presentations that were used by the various speakers, as well as the key points of each presentation.

Two exhibition stands were set-up inside the conference halls; one was an EWA project called MICIE, while the other had various Water Be the Change campaign related merchandise items including pencils, pens, notebooks and sticky notes were displayed at the registration desk and exhibition stand and handed out to participants. The agenda, a small note pad, together with a mug, a USB stick and a pencil were also placed on the seat of each individual.







## 2. Conference Agenda

**Date**: May 26<sup>th</sup>, 2023

Venue: InterContinental, St Julian's, Malta

#### **Time**

#### 09:30 Registration & Welcome Coffee

#### 10:15 Opening Speeches

Chief Executive Officer, Energy and Water Agency | Mr Manuel Sapiano Minister for Environment, Energy and Enterprise | Hon Minister Dr Miriam Dalli

#### 10:45 Session 1

Supporting Initiatives for More Sustainable Investments: Malta Enterprise Schemes | Mr Cain Grech

Supporting businesses in delivering Net Zero: Insights from the Sustainability in Enterprise Programme in Nottingham, UK | Ms Helen Taylor & Dr Muhammad Mazhar

#### 12:00 Coffee Break

#### 12:15 Session 2

We are all sustainability and climate leaders! | Dr Alex Mifsud Panel discussion

#### 13:30 Networking Lunch

#### 14:30 Networking Session, Coffee Break & Conclusion







## 3. Detailed report of conference proceedings

#### 3.1 Opening Speeches

#### MANUEL SAPIANO, CEO, ENERGY AND WATER AGENCY

Mr Sapiano outlined the present discussion which revolved around the topic of sustainability, a term that has gained increasing attention and significance in recent times. The imperative to enhance the sustainability of human practices and the environment is widely acknowledged, with a shared desire for improvement. The speaker maintained that sustainability begins at the individual level, whereby each person plays a pivotal role in advancing sustainable frameworks.

While policies and regulatory frameworks can serve as catalysts for incentivising sustainable solutions, Mr Sapiano acknowledged that it is imperative to grasp that sustainability is not solely the responsibility of external entities. The speaker affirmed that in organising this workshop, the Energy and Water Agency (EWA) underscored its commitment to promoting sustainable activities as part of a broader portfolio of initiatives. In pursuit of this objective, Mr Sapiano asserted that the agency extends its support to households by dispatching a team of experts to conduct audits, providing valuable guidance and assistance in addressing sustainability-related issues. Moreover, Mr Sapiano informed that the agency extends its auditing services to small and medium-sized enterprises (SMEs) through a range of dedicated initiatives. Furthermore, by establishing links between larger enterprises and their smaller counterparts, the agency endeavours to facilitate mentorship opportunities, enabling knowledge sharing and fostering sustainable practices. Mr Sapiano noted that EWA also actively supports non-SMEs across various sectors.

The speaker posited that the present conference, while serving as a significant milestone in promoting sustainability, represents a stepping stone towards a continuous journey. He stated that EWA envisions providing additional opportunities and courses in the forthcoming years. To achieve this, the insights and feedback of attendees, who have engaged in these conferences and workshops, is pivotal. Mr Sapiano concluded that future initiatives will be designed and tailored, based on the invaluable feedback and input from attendees.







#### HON MIRIAM DALLI, MINISTER FOR THE ENVIRONMENT, ENERGY AND ENTERPRISE

Hon Dalli asserted that the core principles of water and energy efficiency, as well as overall sustainability, extend beyond the responsibility of a select few and instead constitute a collective mission. She emphasised how imperative it is that each individual strives to minimise their environmental impact.

Over the course of the past four years, as noted by Hon Dalli, EWA has successfully organised approximately 30 sustainability training courses targeting diverse sectors such as hospitality, banking, education, micro-SMEs, and self-employed individuals. Even in the face of the pandemic, businesses exhibited a keen interest in online challenges, which, Hon Dalli posited, underscores the agency's exemplary role in leveraging digital tools to reduce the carbon footprint. Hon Dalli maintained that such endeavours contribute to enhancing sustainability in both personal and professional domains, all while fostering social cohesion and ensuring overall well-being. She assured that the transition towards sustainable practices is a shared objective of EWA, Malta Enterprise, and other relevant entities. Through a range of initiatives and support schemes, these organisations are actively assisting businesses in their pursuit of sustainable operations. Hon Dalli stated that the positive response from businesses indicates a strong desire to embrace sustainable strategies and establish a comprehensive framework for sustainable business models.

Hon Dalli highlighted that when large companies actively share their knowledge and best practices with SMEs, it facilitates cross-sectoral learning and empowers various industries. Moreover, Hon Dalli stated that the support provided by energy companies and the ECG portal initiative has proven instrumental in showcasing tangible progress. She noted that several companies reported an 8% reduction in energy consumption and a 9% decrease in waste generation, a testament to their commitment to sustainability. However, Hon Dalli acknowledged that these achievements, though commendable, represent only the beginning of the journey towards achieving sustainability targets. She affirmed that the ongoing discussions surrounding sustainability serve as catalysts for positive change, spurring technological advancements and prompting strategic investment decisions.

Hon Dalli concluded her speech by expressing gratitude towards EWA, as well as the companies participating in this conference. She encouraged each individual to take an active role in propagating the message and contribute to the collective endeavour of sustainability, reiterating that a more sustainable future can be forged as a collective.







#### 3.2 Session 1

#### MR CAIN GRECH, CHIEF BUSINESS DEVELOPMENT, MALTA ENTERPRISE

### TITLE: SUPPORTING INITIATIVES FOR MORE SUSTAINABLE INVESTMENTS: MALTA ENTERPRISE SCHEMES

The Smart and Sustainable Investment Grant, as explained by Mr Grech, is a financial scheme offered by Malta Enterprise to facilitate sustainable investment projects by providing a cash grant. He further elaborated that the grant aims to address potential financial barriers that may arise during the implementation of such projects and to qualify for the grant, the investment project must meet a minimum threshold of 10,000 euros. The grant can cover up to 50% of the total investment amount, with a maximum cash grant of 100,000 euros per project. In addition to the cash grant, Mr Grech informed the attendees that the scheme offers a top-up incentive in the form of a tax credit. This tax credit provides further financial support by improving cash flow and enabling the utilisation of available funds. For startups in operation for three years or less, as well as projects supported by an independent energy audit, the maximum tax credit can reach up to 40,000 euros.

The aim of the Smart and Sustainable Investment Grant, according to Mr Grech, is to promote waste minimisation and sustainability through a range of eligible investments. He stated that these include the introduction of new industrial solutions, strategic modifications to existing facilities, reduction of materials per production unit, reduction of packaging, and extension of product lifespan. Alongside the Smart and Sustainable Investment Grant, Mr Grech acknowledged that the Malta Enterprise collaborates with EWA to implement the Investment Aid for Energy Efficiency Project. The speaker affirmed that this scheme supports investments in equipment and installations aimed at reducing energy consumption, upgrading heating and cooling systems, and enhancing overall energy efficiency. Eligible costs for this project are limited to expenses directly associated with achieving higher levels of energy efficiency.

Mr Grech concluded that these schemes represent a selection of the incentives available through Malta Enterprise to encourage sustainable initiatives. He maintained that other schemes may also be applicable, based on specific project criteria or improvement objectives and encouraged interested parties to engage with Malta Enterprise to explore additional measures and opportunities for support.

## MS HELEN TAYLOR & DR MUHAMMAD MAZHAR, SUSTAINABILITY IN ENTERPRISE PROGRAMME IN NOTTINGHAM

TITLE: SUPPORTING BUSINESSES IN DELIVERING NET ZERO: INSIGHTS FROM THE SUSTAINABILITY IN ENTERPRISE PROGRAMME IN NOTTINGHAM, UK

Ms Taylor stated that the present discourse revolves around the pressing need to address sustainability and climate change, with a particular emphasis on the involvement of SMEs.







The speaker noted that the urgency stems from the tangible effects of climate change that individuals are already encountering, as evidenced by the devastating storm events witnessed in regions such as Myanmar and Bangladesh. Moreover, regulatory frameworks, legislation, and heightened enforcement serve as catalysts for action, compelling organizations to meet national and local targets, including the ambitious 2050 carbon reduction goal. Additional incentives for engaging in sustainability efforts, as listed off by Ms Taylor, encompass tender applications, access to finance and investment, escalating energy and fuel expenses, consumer pressure, safeguarding reputation and market positioning, as well as attracting and retaining talented personnel.

The speaker acknowledged that SMEs, as significant contributors to the United Kingdom's carbon emissions, bear the responsibility of effecting substantial reductions by two-thirds before 2030. The mounting pressure to embark on sustainability transformations, as presented by Ms Taylor, is exemplified by notable establishments like sustainable London hotels and influential manufacturing entities. She stated that the prevailing message within the UK's business landscape is that there are no grounds for evasion; enterprises must commence their sustainability journey promptly. Failure to embed sustainability practices will render organisations non-competitive in the market. Hence, Ms Taylor reiterated that a sense of urgency prevails.

Despite the challenges posed by geopolitical and macroeconomic factors, the maturity of carbon management practices, resource data control, financial constraints, time limitations, human resource allocation, and knowledge and skills gaps, Ms Taylor maintained that an environment conducive to collaborative sharing and support exists. She emphasised the pertinence of acknowledging that SMEs within the East Midlands region express a palpable demand for guidance and assistance. These businesses actively seek support; however, they encounter obstacles in terms of identifying the initial steps required to embark on their sustainability endeavours.

In essence, Ms Taylor stated the scientific consensus underscores the criticality of sustainability and climate action, with a specific focus on SMEs. She reiterated that neglecting these imperatives would result in diminished competitiveness, and thus concluded that SMEs are encouraged to avail themselves of available resources and collaborative networks as they endeavour to contribute to a more sustainable future.

In his presentation, Dr Mazhar noted that the Sustainability in Enterprise Programme was a two-year project conducted from April 2021 to June 2023, with a funding of £ 4 million ERDF/NTU. It aimed to support 244 SMEs in Nottingham, focusing on their sustainability efforts, and aiming to reduce annual greenhouse gas emissions by 750 tCO2e. The project, he informed, encountered significant challenges due to the ongoing Ukrainian war and the COVID-19 pandemic, which had a profound impact on small businesses. To provide support, Dr Mazhar affirmed that specific criteria were established, and SMEs located in the greater Nottingham SUDs area, encompassing Nottingham city, Broxtowe borough, and parts of Ashfield, Rushcliffe, and Gedling, were eligible for free assistance. According to the speaker, the programme employed an interdisciplinary approach, utilising sustainability consultancies to conduct comprehensive environmental and carbon audits, offer retrofit consultancy for premises, perform product life cycle analysis and redesign, and engage students to work on consultancy projects for SMEs. Additionally, the NBS carbon







management programme and the Sustainability Community Lab were implemented to build in-house capacity. Dr Mazhar assured that financial support was provided through a carbon grants programme and a graduate grant programme.

Dr Mazhar disclosed that for small and micro businesses, student teams supervised by sustainability professionals and academics tackled carbon management challenges. He noted that commercial product design consultants also contributed their expertise to reduce the carbon impact of products and packaging. Dr Mazhar elaborated that the programme featured a series of carbon management workshops that guided businesses through the process of data collection, carbon footprint measurement, target setting, strategy development, and action plan creation. The speaker maintained that directors and CEOs of the supported businesses provided positive feedback, emphasising the programme's impact on their operations. The Sustainability Community Lab aimed to transform early-career employees into sustainability advocates by equipping them with knowledge and tools to enhance sustainable practices within their respective businesses.

Overall, as presented by Dr Mazhar, the programme successfully supported 218 businesses, primarily small and micro enterprises facing challenges such as limited knowledge, skills, and funding. Most of these businesses, Dr Mazhar informed, operated in leased premises, and the supported sectors encompassed a range of industries, with a specific focus on enhancing support in the food sector. For Dr Mazhar, impressive outcomes were achieved, including environmental and carbon audits, product/packaging life cycle assessments and redesign, building retrofit consultancies, student consultancies, practical skills development for undergraduate students, completion of the carbon management programme by businesses, and participation of graduates in the sustainability community lab. Furthermore, the speaker noted that businesses reported overall cost savings of 100,000 dollars per year. He addressed that several barriers to decarbonization still exist, such as a lack of knowledge and expertise, limited time and resources, and insufficient capital funding. While the programme made significant strides in reducing these barriers, as asserted by Dr Mazhar, they continue to pose challenges that require attention and innovative solutions.

Based on the lessons learned from the programme, Dr Mazhar assured that a set of top tips were shared with SMEs to further their sustainability efforts. He elaborated that these tips include defining and agreeing on sustainability goals, prioritising sustainability and carbon literacy within the organization, normalising and operationalising carbon management and energy efficiency practices, starting with low-cost measures and regularly monitoring progress, being mindful of embedded carbon in operations and supply chains, engaging all employees in sustainability efforts to foster a culture of sustainability, communicating commitments, progress, and successes to stakeholders, collaborating with other organisations and leveraging relevant networks for support, and focusing on progress rather than striving for perfection in sustainability endeavours.

In conclusion, Dr Mazhar stated that the Sustainability in Enterprise Programme successfully supported 218 SMEs, surpassing the target for greenhouse gas emissions reduction while enhancing knowledge and capabilities in carbon management. Despite the progress made, Dr Mazhar acknowledged that ongoing challenges remain, that necessitate concerted efforts to further promote sustainability, and decarbonisation in







SMEs. By implementing the lessons learned and leveraging recommended resources, SMEs can continue to make strides towards a more sustainable future.







#### 3.3 Session 2

#### DR ALEX MIFSUD, LECTURER FOR SUSTAINABLE DEVELOPMENT

#### TITLE: WE ARE ALL SUSTAINABILITY AND CLIMATE LEADERS!

Dr Mifsud commenced her speech by acknowledging the significance of the interdependence between businesses and their surrounding environment in promoting sustainability and fostering positive changes. The speaker emphasised that businesses operate within a broader system and exert influence on multiple stakeholders, including employees, clients, suppliers, and the ecological landscape. Dr Mifsud highlighted recent events, such as the invasion of Russia into Ukraine, which have increased public awareness of the supply chain concept and the global implications associated with consumer choices. This heightened awareness serves as a positive catalyst asserted Dr Mifsud, as it underscores the fact that all human activities bear consequences for others. Consequently, businesses are compelled to consider their social and environmental footprints.

According to Dr Mifsud, humanity has exceeded several critical planetary thresholds, including water scarcity, biochemical imbalances, the introduction of novel entities like chemicals and plastics, deforestation, biodiversity loss, and climate change. This reality necessitates concern and instils the imperative for action. High-income nations encounter challenges in swiftly decarbonising due to their heavy reliance on energy and thus, are struggling to meet the Paris climate agreement. Dr Mifsud cautioned that according to scientists, if global warming exceeds or approaches a certain point, humanity will face significant difficulties in adapting to the consequences. Rapid decarbonisation becomes imperative to mitigate these risks. The speaker informed that historically, the profitability of many businesses in developed countries has relied on exploitative practices rooted in a colonial legacy, where social and environmental costs are inadequately accounted for. Frequently, it is the global South that bears the brunt of these costs. The speaker stated that in order to address these challenges, academic circles are embracing a systems approach. She further elaborated on this approach which entails recognising and comprehending complex relationships, analysing intricate systems, considering various domains and scales, and addressing inherent uncertainties.

The speaker outlined several practices that can be adopted to assist business leaders in understanding their purpose or "why" in the realm of business:

- 1. Seeking the truth: Leaders should strive to communicate the truth in ways that individuals will accept. This point is more applicable to countries such as the US where climate denial is prevalent.
- 2. Assessing risks: Leaders need to understand the actions being taken by policymakers in order to effectively evaluate the risks associated with business operations.







- 3. Weighing the stakes: Recognising the interconnectedness among stakeholders and exploring the potential for collaboration, even with competitors, is essential in understanding the implications and potential benefits of sustainable practices.
- 4. Defining the business of business: Leaders should determine whether their business solely focuses on selling products or embraces a broader perspective that includes supporting suppliers and fostering cooperation.
- 5. Engaging global leadership: Building networks and establishing contacts is crucial, given that suppliers are dispersed worldwide. Global leadership involvement enables businesses to address sustainability challenges effectively.

Dr Mifsud maintained that various frameworks are available to assess a business's sustainability, such as Sustainable Business Typologies. The speaker elaborated that these frameworks categorise businesses based on their concerns, the value they create, and their organisational perspective. She asserted that while businesses often prioritise shareholder value, it is crucial to consider how they can contribute to addressing the pressing global challenges. Fortunately, Dr Mifsud affirmed that a wealth of information, tools, and support is accessible to guide businesses on their sustainable journey. Ultimately, businesses are led by individuals who bring their skills and unique set of values. Dr Mifsud emphasised the importance of recognising the human element in every facet of business encounters as it can serve as a catalyst for positive change.

#### **PANEL DISCUSSION**

This panel consisted of five speakers:

- Mr Manuel Sapiano, CEO of EWA
- Ing. Charles Buttigieg, CPO at EWA
- Dr Michael Schembri, CPO at EWA
- Ing. Patrick Spiteri Staines, Sustainability Engineer
- Ms Joanna Incorvaja, Ministry for Environment, Energy and Enterprise

The speakers were initially questioned by the moderator, Mr Keith Demicoli, with the final question posited by Dr Mazhar.

## Moderator: if you want to share anything following Dr Mifsud's presentation feel free to add something briefly.

<u>Ing. Buttigieg</u> mentioned that Dr Mifsud's presentation highlighted what every enterprise should be doing. He stated that it emphasised the importance of taking action in a timely manner and provided guidance on how to do so effectively.







## Moderator: Can we hear from Ing. Spiteri Staines regarding the thinking of big organisations in the hospitality industry?

<u>Ing. Spiteri Staines</u> emphasised that the hospitality industry is a people-centric sector. Considering the social and environmental aspects is crucial, he elaborated, especially with the increasing diversity in organisations. He concluded that in order to achieve success, everyone within the organisation needs to align their efforts.

Moderator: Hon. Minister Dalli mentioned that we managed to reduce the water consumption by the companies who enrolled themselves on the ESG (Environmental Social Governance) platform by 31%. That is quite significant but there is still a long way to go. What is your take on it and how is the government trying to support enterprises to achieve the ambitious targets?

<u>Ms Incorvaja</u> addressed that the water sector is often overlooked compared to the energy sector. However, the Maltese Government has a dual approach to water management: limiting demand and diversifying the water supply through investments in reverse osmosis and desalination.

## Moderator: This Campaign is soon coming to a close. Do you think you have managed enough? Where you happy with the approach and the level of engagement?

Mr Sapiano reflected on the Water Be the Change campaign, which has been ongoing for almost four years. He highlighted the importance of effective communication and empowering individuals to make sustainable choices. He also mentioned that Malta has seen positive results in household water usage and emphasised the need for public engagement and empowerment.

## Moderator: EWA undertook some important projects with regards to groundwater. Could you briefly take us through these projects and their status at the moment?

<u>Dr Schembri</u> elaborated that EWA is involved in several projects related to groundwater usage, one such project looks at utilising groundwater for heating and cooling purposes. He underlined EWAs goal as to explore different approaches to increase efficiency.

### Moderator: Could you take us through how the stakeholder support unit within EWA is trying to support businesses in trying to instil this philosophy of sustainability?

<u>Ing. Buttigleg</u> affirmed that EWA focuses on promoting energy and water efficiency to consumers, particularly in enterprises. The agency collaborates with organisations such as







the Chamber of Commerce and the Chamber of SMEs and encourages energy audits as a starting point for enterprises.

### Moderator: If I were a representative of a company, would the agency support me in trying to analyse and make some sense out of those numbers?

<u>Ing. Buttigieg</u> explained that energy audits are conducted by auditors who also recommend actions. However, he maintained that EWA could provide assistance in seeking financing and to collaborate with volunteer organisations to implement recommended actions.

#### Moderator: What is your advice to SMEs on where to start?

<u>Ing. Spiteri Staines</u> recommended starting with an energy audit to understand their current situation and identify potential areas for improvement. He emphasised that sometimes simple changes, rather than major investments, can lead to significant energy and water savings.

## Dr Mazhar: Do you have any insight into what large businesses can do to support SMEs within the supply chain?

<u>Ing. Spiteri Staines</u> mentioned that interaction between large and small organisations is typically based on commercial arrangements. However, he suggested that authorities make it easier for larger organisations to access applicable funding, which would ultimately benefit SMEs.

Ing. Buttigieg added that non-SMEs can play a mentoring role in supporting SMEs.







#### 3.4 Networking Session & Conclusion

The attendees were sorted into three groups with each group allocated to a table and able to converse on what was discussed during the conference. Some questions were then put forth by the moderator and other speakers.

#### Moderator: Could you tell me what you have been discussing?

Dr Mifsud stated that Ing. Spiteri Staines has given them a lot of insight into the industry and the challenges they face, especially with regard to the Corinthia Group. She maintained hope that more funds will be allocated towards this department in the future so that next year there will be between 10 to 20 people working on this theme within the Corinthia Group as it is much needed.

#### Moderator: Have you gained something out of this conference and this session?

Ing. Spiteri Staines, who was seated at Table 2, assured that he gained a lot from this conference. The speaker noted that he has met some very interesting people with very interesting insights to different aspects of the sustainability situation. The networking session has helped him a lot and will keep in contact with a number of experts for future collaboration.

#### Moderator: Where there any emerging trends discussed that you were unaware of?

Dr Mazhar acknowledged that he was not that familiar with the hospitality industry. Thus, for Dr Mazhar, this conference gave him a better picture of the challenges and the opportunities found in this type of industry, especially from the aspect of energy and water as well as the wider supply chain. He also highlighted the aspect of hotels and their sustainability credentials.

#### Moderator: Ms Taylor, could you tell me about the discussion you had here?

Ms Taylor, situated at Table 1, underscored the importance of auditing, stating that it is a high-level priority as measurement is needed in order to manage water and electricity properly. She also noted other topics that were discussed, such as providing smart solutions for IoT devices, more resource efficient equipment, live site analysis, wells, rainwater collection, greywater reuse and strategies such as education and moving from smart homes into smart cities.







#### Moderator: Ms Taylor, what have you managed to take out of this conference?

Ms Taylor (Table 1) posited that it is both refreshing and rewarding to meet businesses in Malta that are making a real effort to approach sustainability in a difficult environment. She elaborated that these businesses are also taking advantage of the support and the tools available locally. Ms Taylor reiterated that it is always good practice when people collaborate to solve problems.

#### Moderator: Mr Farrugia, is there anything you would like to add?

Mr Farrugia, seated at Table 4, stated that, as employees of EWA, they work at the backend of all these conferences and thus, tend to be on the same page. He noted that everyone has different ideas and concepts that belong to their workplace which also applies to EWA employees. He informed the participants that during this session they mainly discussed their daily operations at EWA. With regard to EWA, he maintained that they practice what they preach while acknowledging that there is always room for improvement. However, he discussed that they, as EWA employees, do not have full control on what can and cannot be done, and thus, to an extent, there is limitation.







## 4. Presentations



# ENERGY, WATER & SUSTAINABLE SOLUTIONS

**SUPPORTING MALTA'S CORPORATE SECTOR** 



Supporting businesses in delivering Net Zero: insights from the Sustainability in Enterprise Programme in Nottingham, UK

Dr Muhammad Mazhar and Helen Taylor

Friday 26 May 2023





## **Climate Change Commitments**



#### **Global Level - The Paris Agreement - 1.5°C**

- 2016 Legally binding international treaty on climate change, adopted by 196 Parties at COP21 in Paris
- Goal to limit global warming to below 2°C, preferably to 1.5°C, compared to pre-industrial levels
- COP26 requested governments strengthen their climate commitments before end 2022 to realign with Paris Agreement temperature goal

#### National Level – Net Zero by 2050

- UK Climate Change Act 2008
- Net Zero by 2050 legal commitment



**Local Level – Nottingham City Council Carbon Neutral 2028** 



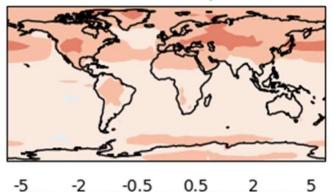
## Why businesses need to decarbonise and embed sustainability





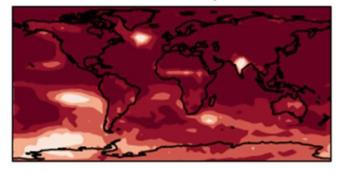
Ensemble mean forecast MJJAS 2022-2026

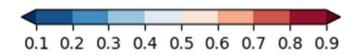
near-surface temperature



-3 -1 0.0 1 3 Anomalies from 1991-2020 ( °C)

Probability of above average near-surface temperature





## Cyclone Mocha: Deadly storm hits Myanmar and Bangladesh coasts



https://www.bbc.co.uk/news/world-asia-65587321 (18/05/23)



Predictions for 2022-2026 May to September anomalies relative to 1991-2020 World Meteorological Organisation (WMO), 2023

## **Main Reasons to Act**

Regulation, legislation & increased enforcement

Tender
applications
for large
organisations
& public sector

Accessing finance & investment

Increasing energy and fuel costs

Consumer pressure

Reputation & market position

Attracting & retaining staff



## Why SMEs?

56%

**believe** the planet is facing a **climate crisis** but...



...only **36%** 

of small businesses have a plan to combat climate change

- The UK needs to cut its carbon emissions by two-third by 2030
- SMEs = c.30% UK greenhouse gas emissions
- SMEs = 60-70% of industrial pollutants (in EU)
- SMEs = 99% of firms (90% have less than 10 employees)

Federation of Small Business survey of 1200 firms in 2021. FSB (2021) Accelerating Progress: Empowering small businesses on the journey to net-zero (p.3)



## Pressure to transform is mounting

69%

of small businesses don't know how to measure how much carbon emissions their business produces.

75%

of the world's largest companies expect to deselect suppliers based on environmental performance.

89%

of consumers are more likely to shop with businesses who display sustainable practices.



## Challenges and business support for SMEs

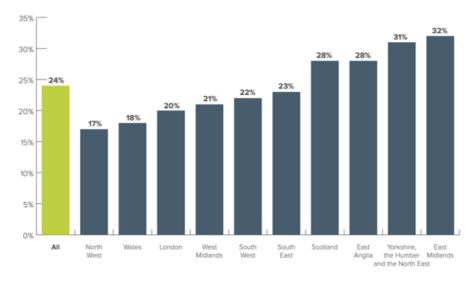
- Geopolitical, macro and micro economic factors
- Carbon management maturity
- Control of resource data
- Cost and access to finance
- Time
- Human resource
- Knowledge and skills





## But SMEs need and want support

#### SMEs in the East Midlands want more help



Proportion of small businesses that say more information from their local authority or LEP would encourage their business to be more energy efficient

FSB (2021) Accelerating Progress: Empowering small businesses on the journey to net-zero (p.12)



# Sustainability in Enterprise Programme









## The Sustainability in Enterprise Programme

- A £4 million ERDF/NTU funded project
- Delivered over 2 years April 2021 to June 2023
- Supporting 244 local small and medium size enterprises (SMEs) in Nottingham
- Target to reduce annual greenhouse gas emissions by 750 tCO<sub>2</sub>e





## 2021 - 2023













## **Eligibility for SMEs**

Free support is available to SMEs based in the Greater Nottingham SUDS area, which includes all of Nottingham city and Broxtowe borough, and parts of Ashfield, Rushcliffe, and Gedling.

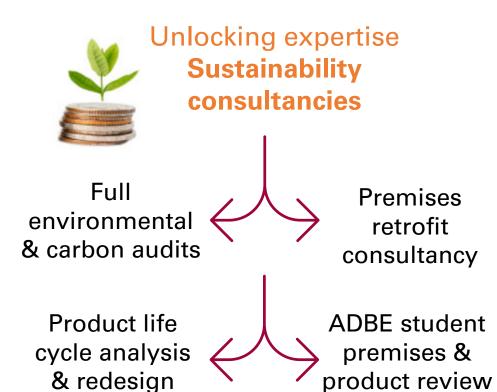
## **SMEs** are defined as having:

- Less than 250 employees
- An annual turnover under EUR 50 million; or
- An annual balance sheet less than EUR 43 million

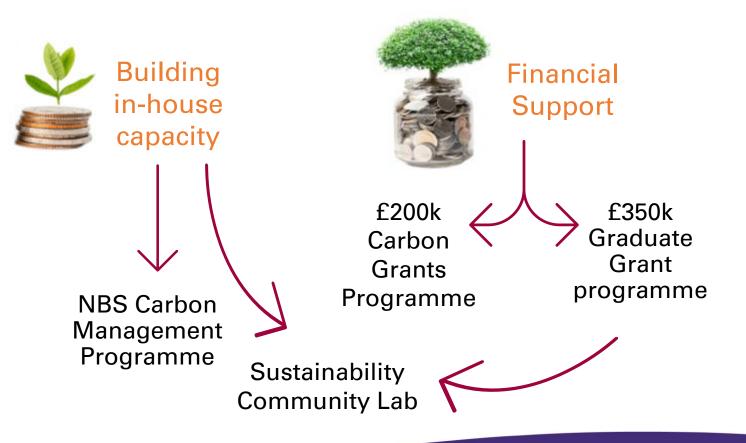




## SiE interdisciplinary support



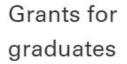
NBS student carbon management consultancy





## SiE support





Access graduate talent, free recruitment support and a 20% grant towards the cost of hiring a university graduate on a 12-month placement.



#### Workshop programmes

Build in-house capacity to manage your carbon emissions via our bespoke carbon management programme for SMEs, and develop graduate employees to develop as sustainability advocates through our early careers development programme.



## Sustainability consultancy

Sustainability consultancy from NTU professional and academic staff and students to help you understand and reduce your carbon emissions. This can relate to your product design, business processes, or premises.



## Carbon reduction grants

Receive up to £9,600 support to implement carbon reduction recommendations from your consultancy. The grant funds 40% of the overall cost.

## Sustainability and carbon consultancy

## Delivered by qualified sustainability consultants in the team managing NTU's own road to Net Zero, the support includes:

- A baseline carbon footprint calculation for business operations
- An environmental and carbon management assessment with performance improvement recommendations
- A bespoke carbon management action plan to address key areas and implement change





## Student sustainability consultancy

Supervised and supported by qualified sustainability professionals/academics, student teams worked on focused carbon management challenges within business.

- Nottingham Business School (NBS) student consultancy includes a bespoke carbon footprint calculation for three aspects of business operations and a set of recommendations and associated savings.
- Architecture, Design and the Built Environment (ADBE) student consultancy includes an estimation of your current building and/or product-related carbon emissions, recommended measures to reduce emissions, and sustainability and inclusive design ideas such as use of materials.





## Product design consultancy

## Commercial product design consultants used their design experience to reduce the carbon impact associated with products and packaging.

- An independent carbon footprint of existing business products via a lifecycle analysis
- Initial research into the design challenges within the business and market context
- Design consultancy focused on waste reduction
- A second lifecycle analysis of redesigned product to quantify the associated carbon reduction





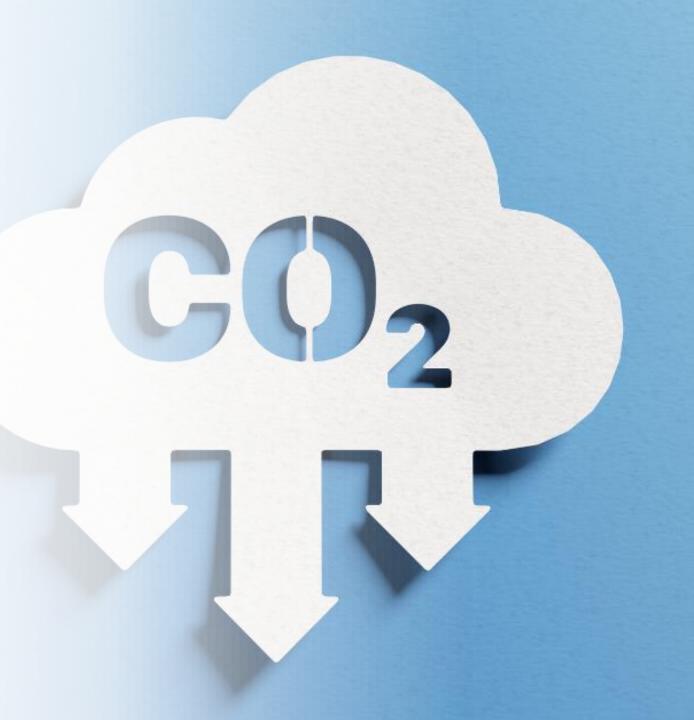
"I thought it would be one or two quick fixes and that's it, but what's been great is that the scope of the consultancy is so broad. It has helped bring everything together and inform how to coordinate it better."

 Iain Kenny, Head of Technical at Murphy & Son



"Working with NTU's Sustainability Consultant has given us our first ever baseline carbon footprint, along with 31 recommendations for reducing our operational carbon emissions. If all the recommendations were implemented, they could cut our carbon footprint by 20.61%."

 Callum Tindall, Sustainability Champion at Cockburn Lucas



### Carbon Management Workshop Programme

With an aim to understand the business case for carbon management and offer practical step-bystep support to collect relevant data, measure carbon footprint, set carbon reduction targets, develop carbon management strategies, and an action plan.

**Format:** Four half-day workshops to provide 12 hours of support (blended; online and face-to-face).





 "The workshop programme has given us a framework to put together a comprehensive carbon management plan and broadened our perspective of what environmental responsibility looks like."

**David Mather, Director of Operations at New Art Exchange** 

 "NTU's Carbon Management Programme has enabled me to not only calculate carbon and carbon equivalent emissions, but also empowered me to look at ways of reducing carbon emissions whilst factoring in the return on investment for the business and ultimately work towards the City Council's CN28 carbon neutral pledge".

**Gary Matthews, Church Lucas** 





# **Sustainability Community Lab**

For early career employees to support participants to become a sustainability advocate, providing them with the knowledge and tools to improve sustainable practices within their businesses.

**Format:** Six half-day workshops over eight weeks (delivered on-campus with options for virtual delivery).





# Financial support

#### **Carbon grant**

 Businesses can receive up to £9,600 support to implement carbon reduction recommendations from consultancy. Up to 40% of the overall project cost can be funded.

#### Recruiting talent grant

• Claim a 20% grant towards the salary of a new employee who has graduated within the last three years (sustainability champion).



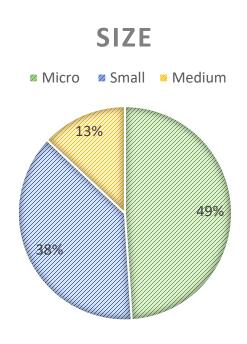


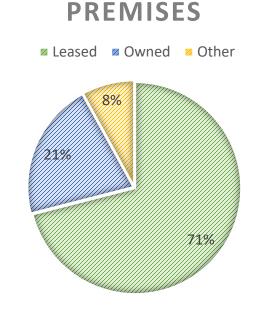
# SiE Outputs and Impact on Businesses

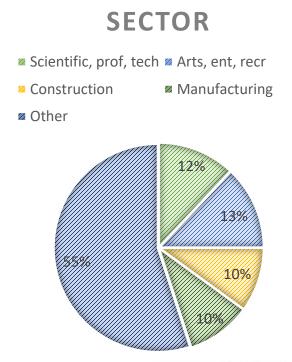




# 218 businesses supported











# Outputs



**218** businesses supported, **76** with two interventions and **39** with 3+ interventions

- 56 full environmental & carbon audits
- 14 life cycle assessment and redesign of products/packaging
- 7 building retrofit consultancies
- 63 SMEs provided with NBS and ADBE student consultancies
- **500** undergraduate students gained practical skills to take to future employers



## Outputs



**218** businesses supported, **76** with two interventions and **39** with 3+ interventions

- 62 businesses completed the Carbon Management Programme
- **90** graduates or early career professionals completed the Sustainability Community Lab peer support programme
- 88 graduates employed in roles including Sustainability KPIs were supported by £315k of ERDF grant
- 30 carbon grants awarded £240k of ERDF funding supporting
   £340k of SME investment in decarbonisation initiatives



### Carbon Maturity Model – British Business Bank

#### 1. Awareness and engagement

20%

- Does the business demonstrate awareness of the carbon agenda?
- Does the business consider reducing carbon emissions a priority?
- Has the business set targets to reduce its carbon emissions in the future?

#### 2. Knowledge and capabilities

20%

- Does the business measure its carbon emissions impact?
- Has the business implemented actions to grow its net zero capabilities?

#### 3. Physical actions

60%

- Has the business taken any tangible action to reduce carbon emissions?
- Is the business considering or planning any action to reduce carbon emissions in the future?
- Has the business taken any actions that are 'extensive' (ie complex/ achieving significant reductions in carbon emissions)?
- Is the business considering or planning (but has not yet taken) any actions that are 'extensive' (ie complex/achieving significant reductions in carbon emissions)?



#### Outcomes – Physical actions

- Almost 1000 tCO<sub>2</sub>e reduced
- Environmental audits gave recommendations that total 3000 tCO<sub>2</sub>e or an estimated average 53% of the recipients' measured carbon footprint
- £100,000 cost savings overall pa. Average payback period on investment is 8 years (ranged between 6 mths and 13 yrs)
- SMEs report planned action on: building energy (70%), waste (52%), business travel (50%), procurement & supply chain (50%), staff commute (40%), own transport fleet (27%), water (23%)
- 62% say they are effectively managing their carbon emissions and successfully implementing carbon reduction projects as planned, compared with 9% before support

#### 3. Physical actions

- Has the business taken any tangible action to reduce carbon emissions?
- Is the business considering or planning any action to reduce carbon emissions in the future?
- Has the business taken any actions that are 'extensive' (ie complex/ achieving significant reductions in carbon emissions)?
- Is the business considering or planning (but has not yet taken) any actions that are 'extensive' (ie complex/achieving significant reductions in carbon emissions)?



#### Outcomes – Awareness/Engagement

Statement	Pre Support	Post Support
Carbon management is central to our business activities and decision making	20%	56%
We have, or are progressing towards setting carbon reduction targets	25%	70%
We are able to manage the conflicts between carbon management and core business growth	23%	59%
We have carbon reduction behavioural change and awareness raising programmes for staff	12%	59%
We communicate our carbon reduction targets, strategies and performance to all relevant stakeholders	12%	53%

#### 1. Awareness and engagement

20%

- Does the business demonstrate awareness of the carbon agenda?
- Does the business consider reducing carbon emissions a priority?
- Has the business set targets to reduce its carbon emissions in the future?



#### Outcomes – Knowledge & Capabilities

Statement	Pre Support	Post Support
Does your enterprise measure its carbon emissions/ footprint? yes/in progress	18%	71%
We have the required knowledge and skills to calculate the carbon footprint of our business	12%	73%
We are effectively tracking and reviewing progress towards our carbon management target	8%	58%

2. Know	ledge and
capabilit	ies

- Does the business measure its carbon emissions impact?
- Has the business implemented actions to grow its net zero capabilities?



Monitor resources regularly	Pre Support	Post Support
Electricity	52%	83%
Gas	37%	59%
Water	34%	46%
Waste	30%	60%
Fuel - owned fleet vehicle	8%	31%
None	40%	9%

## Insights - barriers to decarbonisation

Barriers	Pre support	Post support
Lack of knowledge and expertise	<b>79%</b>	2%
Lack of time and resources	58%	15%
Lack of capital funding	46%	48%
Lack of data collection, monitoring or		
management systems	44%	8%
Lack of policy or strategy	42%	2%
Not a priority	7%	2%
Factors out of our control (e.g., rented		
premises / accessing suppliers)	Not asked	40%



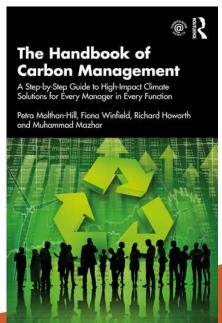
### **Top Tips for SMEs – Lessons Learnt**

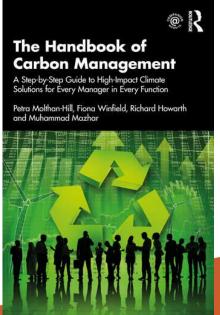
- Define and agree on what sustainability means to your business
- Prioritise sustainability and carbon literacy
- Normalise and operationalise carbon management and energy efficiency
- Start with low or no cost measures and regularly monitor progress against targets
- Beware of embedded carbon
- Make sustainability everybody's role and build your sustainability culture
- Communicate your commitments, progress and success
- Collaborate and seek support
- Progress not perfection



#### Further support from Nottingham Business School

- Handbook of Carbon Management
- Future Learn Microcredentials: Climate Literacy and Action for All and Climate Solutions for a Net Zero Future











MINISTRY FOR THE ENVIRONMENT, ENERGY AND ENTERPRISE MINISTRY FOR THE ECONOMY, EUROPEAN FUNDS AND LANDS PARLIAMENTARY SECRETARIAT FOR EUROPEAN FUNDS







#### Thank you! Any Questions or Comments?

 Dr Muhammad Mazhar: muhammadusman.mazhar@ntu.ac.uk

Helen Taylor: <a href="https://helen.taylor02@ntu.ac.uk">helen.taylor02@ntu.ac.uk</a>

Follow: @NBS\_Susty@u\_mazhar

















# ENERGY, WATER & SUSTAINABLE SOLUTIONS

**SUPPORTING MALTA'S CORPORATE SECTOR** 



# We are all sustainability and climate leaders!

Dr. Alex Mifsud

Education for Sustainable Development Sustainability in Business Climate Education (Carbon Literacy)









The **Human** behind the educator



The Individual beneath the student

**Education setting** 



The **World** beyond the classroom





The **Human** behind the employee



The **Individual** beneath the client/supplier

**Business setting** 

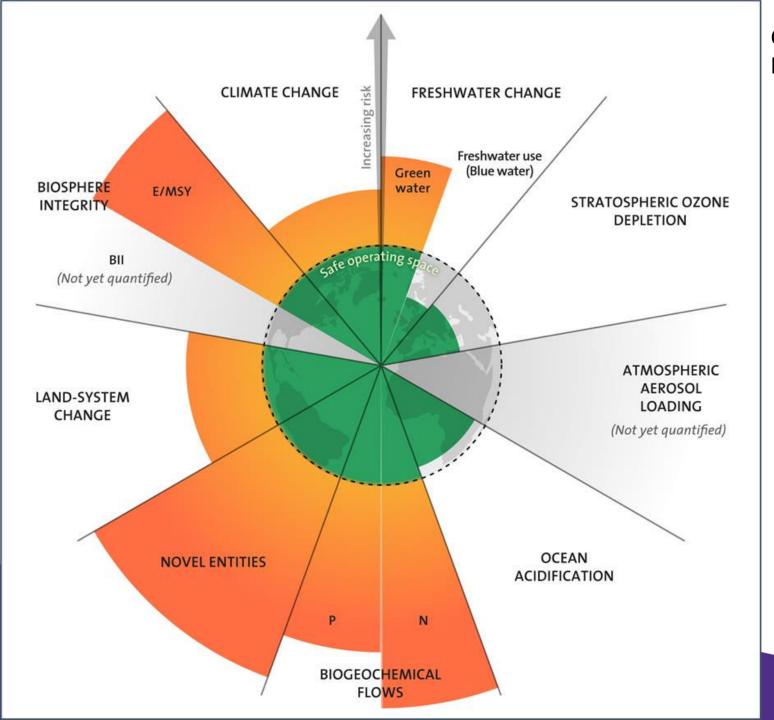


The **World** beyond the office



# The Why? Humanity has exceeded 6 planetary boundaries





Credit: Azote for Stockholm Resilience Centre, based on analysis in Wang-Erlandsson et al 2022.



#### **Why? Climate Change**

We are already at 1.2 C of global warming.

Urgency and imperative for high income countries to stay within their carbon budget for 1.5C.

High income countries have a high energy use making it extremely challenging for rapid decarbonisation.

EU is not on track to meet its Paris Climate obligation.

Denmark and Netherlands are the best performing countries in the EU.

Emphasis on rapid mitigation is needed.



#### **Why? Biodiversity Loss**

An average decline of 69% in species populations since 1970.

Driven by high income countries' excessive material extraction and use.

Capitalist growth in the global North has only been possible through the plundering of natural resources and labour in the global South.

Increases global inequalities.

Social and ecological costs of goods consumed in the global North are borne by the communities in poorer regions of the world.



# The How? Using Systems thinking to solve wicked problems



#### **Systems Thinking for Systems Change**

# SUSTAINABLE GENERALS



13 CLIMATE ACTION



B DECENT WORK AND ECONOMIC GROWTH

14 LIFE BELOW WATER



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE























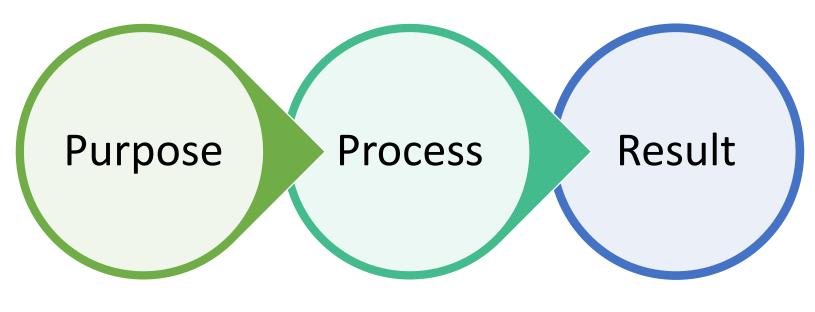
#### An ability to:

- recognize and understand relationships;
- analyse complex systems;
- think of how systems are embedded within different domains and different scales; and
- deal with uncertainty.



# The What? What's the Plan? What's the Result?

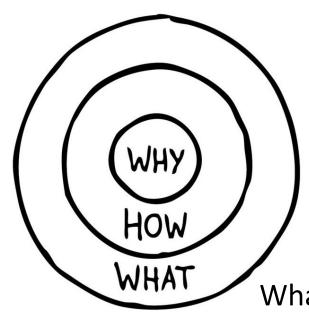








#### **Borrowing from Sinek's Golden Circle**



What's your purpose? What's your cause? What's your belief?

Specific actions to realise/operationalize your Why.

What do you do? The result of your Why.



#### The 5 Practices

- 1. Get the truth
- 2. Assess the risks
- 3. Weigh the stakes
- 4. Define the business of business
- 5. Engage global leadership

Prof Andre, 2020





### **Sustainable Business Typologies**

BUSINESS SUSTAINABILITY TYPOLOGY (BST)	Concerns (What?)	Values Created (What for?)	Organizational Perspective (How?)
Business-as-Usual	Economic concerns	Shareholder value	Inside-out
Business Sustainability 1.0	Three-dimensional concerns	Refined shareholder value	Inside-out
Business Sustainability 2.0	Three-dimensional concerns	Triple bottom line	Inside-out
Business Sustainability 3.0	Three-dimensional concerns	Creating value for the common good	Outside-in
The key shifts involved:	1 <sup>st</sup> shift: broadening the business concern	2 <sup>nd</sup> shift: expanding the value created	3rd shift: changing the perspective

# We are all one people







MINISTRY FOR THE ENVIRONMENT, ENERGY AND ENTERPRISE MINISTRY FOR THE ECONOMY, EUROPEAN FUNDS AND LANDS PARLIAMENTARY SECRETARIAT FOR EUROPEAN FUNDS





Thank you for your attention. Leading for a fair and just society on our beloved planet.

Dr. A. Mifsud Northumbria University Zuyd University of Applied Sciences Northeastern University University of Malta









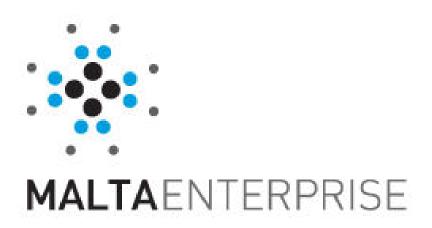




# ENERGY, WATER & SUSTAINABLE SOLUTIONS

**SUPPORTING MALTA'S CORPORATE SECTOR** 





# Supporting initiatives for more sustainable investments:

Malta Enterprise schemes

Cain Grech Sargent Chief Business Development Malta Enterprise

## **Smart and Sustainable Investment Grant**

## **ELIGIBLE SUPPORT**

- Investment project of minimum €10,000
- De minimis aid
- 50% of investment costs up to a maximum cash grant of €100,000 per project
- Top up\* of a tax credit (max. €40,000) for start-ups (less than 3 years from setting up); investments carried out in Gozo; projects supported by an independent energy audit

\*Top-up is of 10% if project meets one criterion, or 20% if meeting two criteria



## **ELIGIBLE INVESTMENTS**

#### **Waste minimisation**

The introduction of new industrial solutions or strategic modifications to existing plant. Reduction in materials per production unit and reduction in packaging and increase of product lifespan,

#### **Sustainable materials**

Investments in the change of materials in production processes and products which allow for better recovery of material at end of life. These include sustainable/ecologically-friendly material and reduction/elimination of toxic material. Investment can include pilot projects and changes in the value chain.



## **ELIGIBLE INVESTMENTS**

## **Energy Efficiency**

Reducing Energy use per production unit. Investments in solutions to reduce power requirement in relation to machinery and lighting, improving insulation of buildings, investments in co-generation of heat and power and geo-thermal installations.

### **Water Efficiency**

Reducing water use per production unit. Investments in solutions to improve water usage such as investments in closed-cycle water systems and investment to store run-off rain water



## **ELIGIBLE INVESTMENTS**

## **Sustainable Digitalisation**

Adoption of technology (electronic devices/systems) to increase product functionality, modernising processes, migration to business models leading to more environmentally efficient operations. Projects include increase in process efficiency through IoT sa. Smart HVAC, system monitoring, and installation of BMS to optimise heat, light and power usage.



# **Investment Aid for Energy Efficiency Projects**

## **ELIGIBLE PROJECTS**

- Investment in substitution/upgrading of equipment and installations to reduce energy consumption
- Renovation/upgrading of equipment for heating and cooling systems
- Improvement of energy efficiency of existing lighting systems

- Minimum investment of €10,000 and project leads to ≥10% energy savings





## **ELIGIBLE COSTS**

- Only costs directly linked to achievement of higher level of energy efficiency shall be considered eligible.
- Eligible costs shall be the extra investment costs necessary to achieve the targeted higher level of energy efficiency.



## **AID INTENSITY**

## Support = Eligible Cost x Aid Intensity

SMALL ENTERPRISES	50%
MEDIUM ENTERPRISES	40%
LARGE ENTERPRISES	30%





MINISTRY FOR THE ENVIRONMENT, ENERGY AND ENTERPRISE GOVERNMENT MINISTRY FOR THE ECONOMY, EUROPEAN FUNDS AND LANDS PARLIAMENTARY SECRETARIAT FOR EUROPEAN FUNDS

> Operational Programme I – European Structural and Investment Funds 2014-2020 "Fostering a competitive and sustainable economy to meet our challenges" Project part-financed by the Cohesion Fund

Co-financing rate: 85% European Union Funds; 15% National Funds





















# 5. Images

Below one can find a number of images that were taken during the event.

#### 5.1 Conference Area

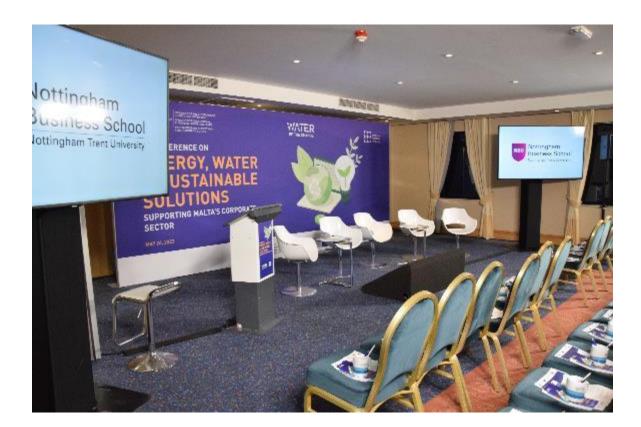
The conference was held at the InterContinental hotel offering full conference facilities and exhibition area.

















### 5.2 Registration Desk

A registration desk was provided in order to greet the participants and hand out name tags.









#### 5.3 Signage indicating direction to conference

Signage was provided by the organiser in various locations around the hotel.



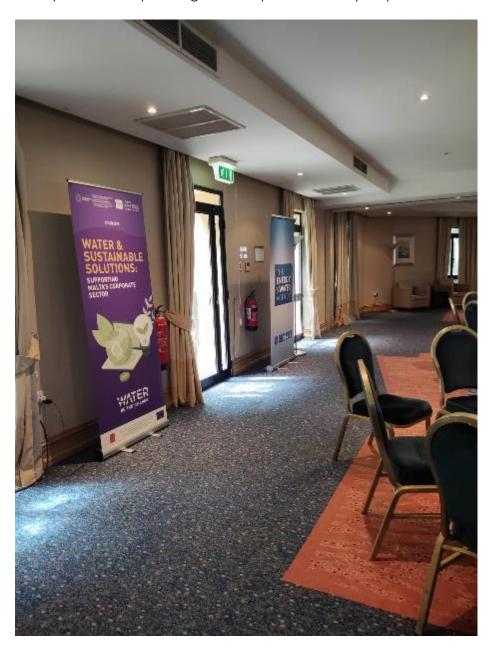






### 5.4 Roll Ups & Pamphlets

Roll ups were set up throughout the premises and pamphlets were laid out on a table.

















#### 5.5 Speakers

Speakers went up on stage to give their presentation. During the panel discussion, chairs were set up on stage for the speakers.



























#### 5.6 Attendees

The conference was well attended, by both public and private individuals.

















### 5.7 Networking Session

At the end of the conference attendees were sorted into three groups, each group provided with a table.

















#### **5.8 Coffee Break**

Food was set-up outside.

