

BOX 2: THE IMPACT OF MITIGATING CLIMATE CHANGE ON MALTESE FIRMS' EMPLOYMENT PLANS¹

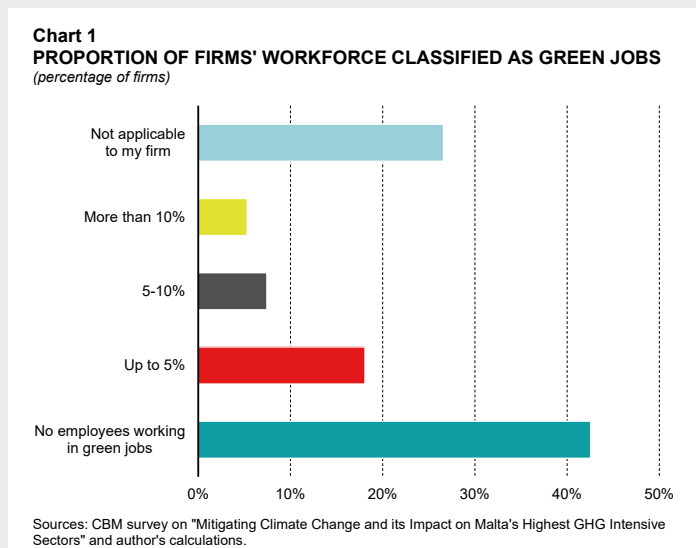
As the global community intensifies its efforts to mitigate the impact of climate change, businesses worldwide, including those in Malta, face increasing pressure to adapt their operations and workforce to align with a carbon-neutral future. The transition towards a green economy requires more than just investment in new technologies and infrastructure. It also necessitates a fundamental reshaping of the workforce to meet the demands of sustainability.

Building on a recent survey by the Central Bank of Malta, this box delves deeper into how local firms plan to adapt their employment practices in response to climate change. This survey, which used a quota sampling framework, specifically targeted firms which employ at least ten employees. Sectors were classified into high, mid, and low greenhouse gas (GHG) emissions intensity by scaling each sector's GHG emissions against its gross value added (GVA). Only companies in sectors with high and mid-level GHG emissions intensity were targeted.²

Employment shifts in response to climate change

Green jobs refer to any role that contributes to preserving or restoring the environment. This includes jobs that directly reduce the carbon footprint, promote energy efficiency, utilize renewable energy sources, reduce waste and pollution, or support sustainability practices.³ Green jobs are integral to the transition towards a low-carbon economy and involve the development, implementation, and maintenance of strategies that mitigate the impact of climate change.

According to the survey, while a substantial 43% of firms reported having no employees classified as working in green jobs, there is a notable minority making progress in this area (see Chart 1). About 7% of firms have 5-10% of their workforce engaged in green jobs, and 5% have more than 10% of their workforce in such roles. This was more prominent amongst



¹ Prepared by Mr Warren Deguara, Principal Economist within the Economic Projections and Conjunctural Analysis Office. The views expressed are those of the author and do not necessarily reflect the views of the Central Bank of Malta. Any remaining errors are the sole responsibility of the author.

² For further details see [The impact of mitigating climate change on Maltese firms](#), Deguara, et al. (2024).

³ See [Green jobs, green economy, just transition and related concepts: A review of definitions developed through intergovernmental processes and international organizations](#), Castillo (2023).

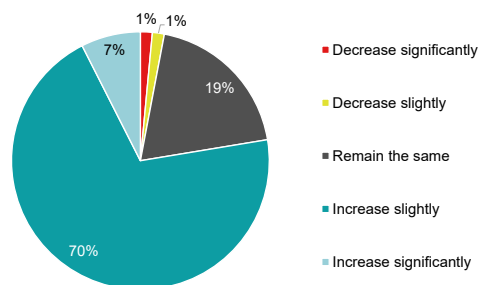
firms operating in mid-GHG intensive emitting sectors and in the construction sector. The remaining 18% have up to 5% of their workforce engaged in these roles.

These figures indicate a growing recognition among some Maltese firms of the importance of green jobs in driving sustainable business practices. Nonetheless, such figures are likely to be less than those reported in the ninth report on economic, social and territorial cohesion where an estimated 20% of total employment in Malta were classified as green jobs in 2020.⁴ Another interesting finding from this survey is that 63% of firms disagree that climate change or adaptation to it will cause the company to relocate some of its staff.

When it comes to future employment plans, most firms (70%) who consider green jobs to be relevant for their operations expect their green workforce only to increase slightly in the coming years, and this was common across emissions intensity levels and across sectors. A further 7% anticipate a significant increase in green employment (see Chart 2). Nonetheless, almost a fifth of surveyed firms expect their level of green workforce to remain the same in the coming years.

This cautious approach may reflect the broader challenges firms face in adapting to climate change, particularly in the context of financing and skill development. It could also hint at the tightness of the Maltese labour market whereby several skills shortages have been reported by firms interviewed in the Central Bank of Malta's Business Dialogue over the past few years.

Chart 2
EXPECTED CHANGE IN GREEN WORKFORCE OVER THE COMING YEARS
(percentage of firms)



Sources: CBM survey on "Mitigating Climate Change and its Impact on Malta's Highest GHG Intensive Sectors" and author's calculations.
Note: Replies conditional on the respondents' answer to whether green occupations are relevant to their operations i.e. conditional on the results in Chart 1.

Labour and skill requirements

Maltese companies identified several key skills and roles needed for their transition to a green economy, reflecting both the nature of their operations and their environmental impact. A clear takeaway from company replies is the need for their workforce to develop the necessary green skills to aid in the transition. The Inter-Agency Working Group on Work-based Learning defines skills for the green transition as 'skills and competences but also knowledge, abilities, values and attitudes needed to live, work and act in resource-efficient and sustainable economies and societies'.⁵

⁴ See [Ninth Report on Economic, Social and Territorial Cohesion](#), European Commission (2024). This report utilises NUTS2 regional data for 56 NACE sectors and hence results might differ from survey data.

⁵ See [Work-based learning and the green transition](#), Inter-Agency Working Group on Work-based Learning (2022).

In the manufacturing sector, companies in high-GHG intensive emitting sectors consistently emphasized the need for enhanced engineering skills, particularly in energy efficiency, sustainability, and compliance. These companies highlighted the importance of upskilling their existing workforce, especially in areas such as engineering and environmental management, to integrate green practices into their operations. For instance, traditional roles like chemists and engineers are expected to incorporate sustainability into their daily tasks. Meanwhile, companies in mid-GHG intensive emitting sectors also point out the need for environmental engineers, energy auditors, and specialists in logistics and product design. There is a clear demand for both technical expertise and a shift in operations to meet green economy goals. These findings are very much in line with other local studies and with the most in demand green jobs in 2023 as reported by the European Labour Authority.⁶

In the wholesale and retail sector, high-GHG intensive emitting sector companies exhibited a wider range of needs, including consultancy services to guide employees, expertise in ecosystem management, clean energy, and ESG (Environmental, Social, and Governance) practices. These firms also noted the importance of transitioning to electric vehicles and managing carbon footprints. Mid-GHG intensive emitting companies focused on more practical skills, such as the need for trained installers for renewable energy technologies like photovoltaic systems and electric vehicle chargers. Additionally, there was a call for greater awareness and training among staff to adapt to green economy requirements.

The services sector presented varying needs depending on the GHG intensity. High-GHG intensive emitting sector companies stressed the importance of sustainability managers, engineers with green technology expertise, and personnel knowledgeable in EU Taxonomy and environmental certifications. These companies are looking for individuals who can bring a green mindset into their operations and help integrate sustainability into existing structures. On the other hand, mid-GHG intensive emitting firms highlighted the need for renewable energy advisors, data collection specialists, and experts in waste management. They also emphasized the need for training programs to change employee mindsets and improve understanding of new technologies.

Respondents from the construction and real estate sector, who mostly operated in mid-GHG intensive emitting companies, highlighted waste and sustainability management, along with the need for general education on environmentally friendly practices. These firms are particularly focused on adopting new technologies and machinery, and ensuring their workforce is trained in sustainable practices.

Challenges in developing a green workforce

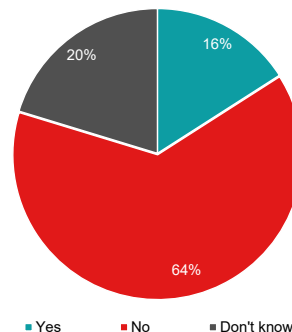
One of the most significant findings from the survey is the perceived inadequacy of the current Maltese labour force to support the transition to carbon neutrality. A striking 64% of firms believe that the local labour force is not adequately equipped to help achieve this goal, with only 16% expressing confidence in the labour force's readiness (see Chart 3). These views are practically identical across emissions intensity levels and economic sectors. This is in

⁶ Based on a representative survey amongst Maltese companies, employers, training providers and/or agencies, in a 2022 Intercept Project study about green jobs in Malta, Dr Vincent Marmara found that the most needed occupations are Solar (82.9%) and Wind (66.9%) Energy Engineers. See also [In-demand green jobs in 2023](#), European Labour Authority (2023).

line with findings from the 2022 Intercept Project study about green jobs in Malta which shows that across different skills levels (low, medium and high), most Maltese companies report that there will be a need of both new skills and upgrading of existing skills. Moreover, the report finds that motivation, creativity, communication, and critical thinking are among the top four soft skills considered by the respondents as most important for green jobs. As such, training opportunities for upskilling are essential for employment in green jobs. This sentiment underscores a critical gap in the current skills landscape, which could impede Malta's progress towards its climate goals.

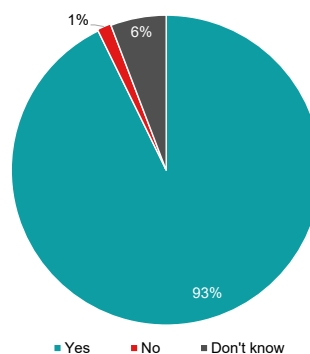
On a positive note, local firms have a strong willingness to invest in training their employees to gain green skills. In fact, 93% of companies that consider green jobs to be relevant for their operations are willing to train their workforce in green skills, highlighting their commitment to improve operations, become more sustainable, and achieve their climate goals (see Chart 4). On the other hand, a small proportion (1% of firms) is unwilling to do so, and a further 6% are uncertain. This reluctance or indecision could stem from the perceived costs and logistical challenges associated with training, further complicating efforts to build a green economy. In fact, the survey reveals that financing the transition to a green economy remains a significant challenge for Maltese firms. While the survey indicates that many companies are making changes in response to climate change, the financial burden of these investments is a recurring theme. The cost of upgrading infrastructure, adopting new technologies, and training employees can be prohibitive, particularly for smaller firms with limited resources.

Chart 3
MALTESE LABOUR FORCE ADEQUACY TO AID IN ACHIEVING CARBON NEUTRALITY
(percentage of firms)



Sources: CBM survey on "Mitigating Climate Change and its Impact on Malta's Highest GHG Intensive Sectors" and author's calculations.
Note: Replies conditional on the respondents' answer to whether green occupations are relevant to their operations i.e. conditional on the results in Chart 1.

Chart 4
WILLINGNESS TO TRAIN EMPLOYEES IN DEVELOPING GREEN SKILLS
(percentage of firms)



Sources: CBM survey on "Mitigating Climate Change and its Impact on Malta's Highest GHG Intensive Sectors" and author's calculations.
Note: Replies conditional on the respondents' answer to whether green occupations are relevant to their operations i.e. conditional on the results in Chart 1.

This financial burden is worsened by the lack of awareness of available funding opportunities, especially from national sources. Without knowing about these support options, firms may struggle to get the resources they need for a sustainable transition, thus slowing their progress.

Main conclusions

Considering the challenges identified in the survey, it is essential for Maltese firms to adopt a more strategic approach to workforce development for a successful transition to a green economy. This requires not only ensuring the existing workforce is adequately trained for a carbon-neutral future but also attracting talent capable of contributing to the shift towards sustainability.

Investment in education and training must be prioritized. Firms should focus on upskilling employees, particularly in critical areas such as renewable energy, sustainability management, and green technologies. By doing so, they can build a workforce that not only supports current operations but also drives innovation and growth in the green economy. Collaboration with educational institutions, government bodies, and industry associations will be key in bridging the existing skills gap. Together, these stakeholders can develop targeted training programs that align with the specific needs of Maltese firms, ensuring the labour force is prepared for the challenges of climate change.

The survey highlights both progress and ongoing challenges in adapting to the demands of a green economy. While there is increasing recognition of the importance of green jobs and skills, significant gaps remain in workforce readiness, environmental awareness, and access to financing. To address these gaps, firms must take a proactive stance on workforce development, focusing on building technical skills in areas like engineering, sustainability, and environmental management. Upskilling initiatives, whether through formal training or hiring experts in green technologies, are recognized across sectors as essential.

The transition to a green economy is not only a technical challenge but also one requiring a shift in mindset and operational practices. Greater awareness and utilization of available funding and support mechanisms will be critical to easing the financial burden of this transition. By addressing these issues, Maltese firms can ensure a sustainable future for both their businesses and the wider community.