



مركز الملك عبد الله الثاني للتميز

King Abdullah II Center for Excellence

New Award Metrics for Sustainability

Designing Award Components for the King Abdullah II Center for Excellence

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ARAMEX

EDAMA

European Union (EU): Delegation of the EU to the Hashemite Kingdom of Jordan

Jordan Green Building Council

Jordan Institution for Standards and Metrology (JISM)

Jordan Ministry of Energy and Mineral Resources

Jordan Ministry of Environment

Jordan Ministry of Planning and International Cooperation

Jordan Ministry of Water and Irrigation

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Executive Summary

The King Abdullah II Award for Excellence (“the Award”), a prestigious set of industry-specific awards and major initiative currently underway in Jordan, is intended to recognize and promote excellence by commending best practices in private and public organizations. The Award is administered by The King Abdullah II Center for Excellence (“the Center”). Facing significant pressure on local resources, the Jordanian government has determined that the Award must evolve in such a way that environmental priorities are incorporated into the overall program. The Center has requested the help of the Columbia University Master of Science in Sustainability Management (MSSM) Capstone Program (“the Team”) to use their knowledge and expertise to develop new metrics for sustainability and integrate these into the Award criteria as a sustainability pillar (“the Pillar”).

To be successful, sustainability must be defined. This presents a challenge of both time and location, as the concept of Sustainability evolves almost daily and changes as a result of regional conditions. Therefore, the Team’s focus was identifying key elements of sustainability and developing metrics that integrate local business practices and needs. Since the scope of this project is for Year 1 (2014-2015), this report describes the steps that should be followed which will ensure these metrics adapt to changing requirements.

The Team’s methodology was designed such that the final deliverables to the Center are appropriately designed for the Center’s needs and specific to Jordan’s requirements. The methodology includes an extensive literature review, comprehensive research on key subjects, and telephone or in person interviews with local stakeholders, conducted during a Center visit to Amman, Jordan, during the week of March 11th, 2012. At the same time, the Team drew from workshops and coursework taught throughout the MSSM program.

The metrics were developed to measure the applicant’s ability to meet sustainability goals that are important in Jordan. These metrics are divided into two groups, environment and society, and include five components: Energy & Emissions, Water, Waste, Society, and Product & Services. The purpose of the metrics is to record both policies that are designed to drive sustainable activities and sustainable results in all five components.

By focusing on assigning metrics to the issues, the Center will be able to measure current usage, create a baseline, monitor usage in comparison to the baseline, and most importantly, capture resource use and availability. Water availability, for instance, currently depleted to dangerous levels, is of the highest priority in Jordan. In response to sharp population growth, energy use has soared prompting Jordan to import 96% of its energy (Ministry of Energy and Mineral Resources). Other issues, such as waste production, emission, and opportunity gaps related to poverty and gender, could benefit from sustainable strategies.

The metrics were designed to provide a nuanced approach to measuring related organizational activities by defining three tiers that indicate a level of accomplishment within related indicators. Tier I is for reporting activities, meeting legal compliance, and is a prerequisite for

recording other tier activities. Improvement beyond compliance allows for movement into Tier II, while Tier III is reserved for innovative strategies and excellence. As applicants collect points based on their achievements related to Tier I, Tier II, and Tier III, they also progress through the Award Star System. The Award Star System allocates stars (1 to 5) based on the final numerical result for the award cycle and allows for quick and easy identification of institutions that comply with the sustainability requirements of the Pillar, based on the number of stars allocated, in comparison to their peers and from one year to the next. While the King Abdullah II Award of Excellence is given to only one applicant in each sector, the Award Star System can reflect the current sustainability standing of all applicants.

The Pillar, as we propose it, is a significant addition to the current Award criteria. These recommendations serve as a starting point for this major initiative. To ensure the Pillar's success, the metrics should be tested each year to ensure that they continue to appropriately reflect the current Jordanian priorities. Modifications should be made when necessary, and after a thorough review of changing requirements.

The deliverables for this project include educational materials and a metrics workbook for the Center, applicants, Award mentors, and Award assessors. The educational materials, along with the recommended types of educational and training seminars, serve to guide the Center through the immediate and long-term integration of the Pillar. Engaging educational materials for seminars should inform applicants of the changes to the current Award criteria, update Award mentors on the requirements of the Pillar, and educate Award assessors on accurately recording the Pillar's requirements. The user-friendly metrics workbook includes instructions for use, and clearly presents the components, subcomponents, indicators, and weighting of each applicant activity measured. An initial set of education materials, and the complete metrics scorecard, are included in the Appendices, along with the presentation materials associated with the Team's final briefing on this report to Columbia University in New York City on April 24th, 2012.

1. Introduction

The Kingdom of Jordan faces immense pressure on its natural resources. Population growth, water shortages, and a lack of energy availability have caused the Jordanian government to look for ways to mitigate these issues. The first step towards successfully addressing these issues is to monitor the use of natural resources, as this will allow an overall strategy to be developed towards the comprehensive management of these assets. After a baseline is developed, steps should be made to reduce use, to ensure that they will be available for future generations. Once reductions are made, innovation in resource management shall be the next step towards ensuring resource availability for years to come.

1.1 Purpose

This document was developed to provide an actionable roadmap for the integration of sustainability metrics into the current structure of The King Abdullah II Award for Excellence (“the Award”). The Award currently exists to spur innovation in Jordan. The Award is given annually by the King Abdullah II Center for Excellence (“the Center”) to applicants within Jordan’s public and private sectors. Jordan faces serious environmental issues, particularly concerning water and energy availability. The Center recognizes the urgency to prioritize sustainability management due to the severity of the stress on natural resources.

The Award exists to reward organizations exhibiting excellent leadership thorough management and competitive results. This program was designed in such a way that each participant benefits from involvement, creating an audience of applicants interested in maximizing the results from excellence in management strategies. This audience presents an opportunity for the Center to prioritize sustainability management for private and public organizations through a separate pillar for excellence.

Sustainability management is in the nascent stage in the Middle East. Despite the existence of a decentralized network of initiatives, Jordan lacks a widely accepted definition of sustainability specific to its needs. The Center seeks a succinct plan for integrating a sustainability pillar (“the Pillar”) into the existing structure of the Award from the Columbia University Master of Science in Sustainability Management Capstone Team (“the Team”). This Pillar will promote sustainability not only among the organizations applying for the Award, but also advance sustainability as a concept within the network of the Award, which far surpasses the direct applicants.

1.2 Scope

The scope of the project is to design the sustainability Pillar for the Award and materials to integrate this Pillar into the Center’s current operating procedures. The scope is limited to the following:

- Designing metrics for Year 1 of the Pillar, to be introduced in the 2014-15 Award Cycle
- Explanatory chapter for the Award Booklet
- Assessment guidelines for Award assessors and mentors
- Corresponding educational plan and materials for assessors, mentors, and applicants

The Team considered designing the sustainability metrics into existing pillars to highlight the crosscutting impact on an organization’s operation. This strategy was too complex to provide value. A separate sustainability award was also considered but not pursued. A separate award would favor selective participation and place too little importance on an organization’s sustainability efforts. In contrast, an additional pillar would provide added benefit to a streamlined process without burdening current structure of the Award. The Pillar will be integrated into the current structure of both the private and public awards and exist alongside current Award pillars. The Pillar provides numerical weight to the sustainability efforts of an organization, thus encouraging participation in these activities.

The “Conclusion” section provides next steps for the Center to guide further development and enhancement of the Pillar. This approach was vetted and confirmed by the Center and aligns with the intention that the requirements of the Pillar be dynamic. Over the duration of the program, the goals will become increasingly more difficult to achieve, thus forcing participants to actively strive to meet increasing levels of achievement.

1.3 Methodology

The Team’s approach includes in-depth information gathering, fieldwork research, analysis, and construction of the deliverables. The methodology can be broken into research methods and metrics design methods.

The 5i methodology was applied to research methods, consisting of three overarching parts: literature review, fieldwork/interviews, and final report (Figure 1). The methodology is designed to align final deliverables both to the Center’s needs and to issues in Jordan.



Figure 1 – 5i Methodology

1.3.1 Issue

In order to create metrics that met the Center's needs, the Team carefully studied and issues around sustainability in Jordan and engaged the Center in active dialogue to understand both its vision for the Pillar and the challenges for implementation.

1.3.2 Information

The Team conducted literature reviews and research in several rounds conducted simultaneously, and fieldwork conducted in Amman, Jordan.

The first round of research focused on fact-finding of global sustainability components within the current Jordanian context, specifically, the key components that are crucial for sustainability management in Jordan. *Please refer to Section 3 for further details.*

The second round of research examined the Center and the Award's current framework and components, using the Center's own materials and interviewing key Center staff to determine how to incorporate the Pillar into the Award, and how to educate the public on the Award. *Please refer to Section 4 and Section 8 for further details.*

The third round of research reviewed current sustainability metric standards, globally recognized reporting systems, and international best practices. While a wide array of sustainability metrics systems and rankings exist (Appendix 3), the Team specifically examined the framework design of the Global Reporting Initiative (GRI) and Leadership in Energy and Environmental Design (LEED) when developing the customized metrics for the Center.

To conduct fieldwork and interview local stakeholders, a portion of the Team traveled to Amman, Jordan. As the Award is geared towards private and public sector institutions, the Team met with such organizations to obtain first-hand knowledge and insight. Some of the organizations interviewed were Award participants, while others were entities in the private or public sector interested in further developing sustainability initiatives in the country and in the region. *The full list of entities interviewed is detailed in Appendix 4.*

The Team interviewed an array of 20 entities across four strategic categories:

1. The Center: Award officials including assessors, mentors, and the Director
2. Public sector: Jordanian institutions including the Ministry of Environment (MoE) and the Ministry of Water and Irrigation (MoW)
3. Non-for-profit organizations: international developmental organizations located in Jordan, including United States Agency for International Development (USAID), the United Nations (UN), and the European Union (EU)
4. Private sector: lead firms including Aramex and Sustainability Excellence

The above listed entities were instrumental in obtaining critical information, feedback, and insight on local and regional sustainability issues. These entities offered advice on areas of focus to drive sustainability initiatives in Jordan at an institutional, local, and regional level.

1.3.3 Insights

After the literature review, research, and fieldwork, the Team analyzed the data and findings to identify common trends and reoccurring themes. The metrics design is based on an assessment of the current Award criteria, international sustainability best practices, and of the strengths of the existing sustainability assessment approaches. It includes reporting frameworks, sustainability assessment institutions in the Middle East, and metrics currently being applied and in development in Jordan. From the insight obtained, the Team refined its understanding of sustainability issues in Jordan, the Center's goals with the Pillar, and the processes of the Award assessment necessary to build the Pillar. *Please refer to Section 6 for further details.*

1.3.4 Implications - Design

The following step for the Team was to incorporate input from the Center to include design components such as the Award Star System and the Tier Approach to incremental sustainability innovation into the Pillar. During this stage of the project, the Team built upon their findings and insights to customize metrics to incorporate a sustainability pillar to the current Award for the private and public sector. *Please refer to Section 7 for further detail on the Pillar, the Tiers, and the Award Star System.*

1.3.5 Implementation

The final stage of the project involved the deliverables for the Center. These deliverables include providing metrics, guidelines for the Award assessors, and educational material in the form of an explanatory chapter regarding the Pillar for the Award booklet. *Please refer to Section 8 for further details.*

2. The Issue of Sustainability



Figure 2 - "Estidama": Arabic for Sustainability

primarily in the environmental construction field. The creation of the Pillar will stimulate awareness of the concept of sustainability, or "estidama" (Figure 2).

The Award exists to create a culture of excellence in Jordan. While the concept of sustainability is pervasive within Western culture, Jordan lacks a culture of sustainability excellence. However, sustainability in Jordan exists in silos. The Arabic word "estidama" loosely translates to sustainability, but is used

The Pillar requires a succinct definition of sustainability in order to create awareness. Similarly, this definition should promote integration of sustainability into an applicant organization's strategy in a holistic way. Though many definitions of the concept of sustainability exist and are catered to specific audiences, the Team provided the Center with an operational definition of sustainability, which is derived from both philosophical and directional definitions. The sustainability definition for the Award includes both a survey of existing definitions, internal expertise speaking to the global understanding of sustainability management, and the application of this concept to the Center's needs.

At the core, sustainability definitions are developed to align the nexus of standards of living and the environment. The underlying notion of sustainability is that society derives its standard of living from the endowment of the environment. For this reason, the concept of sustainability aligns the protection of the environment with continued economic prosperity.

A widely recognized definition of sustainability is the Brundtland definition: “Sustainable development seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future” (World Commission on Environment and Development). Other definitions cite the importance of long-term vision, a holistic approach that emphasizes the link between the economy, the environment, and society. Still others take a more philosophical approach, focusing on respect of the planet and protection of future generations.

Taking a new approach to sustainability, the Team defines sustainability as the set of activities that enable future operations: “what you do today that allows you to do business tomorrow (Columbia University). Sustainability management is a strategy that accounts for environmental impacts, resource efficiency, and social impact. Organizations executing long-term sustainability management strategies use these strategies to become more efficient and improve the core competency of the organization and its impact on the greater society. Sustainability management for the King Abdullah II Award for Excellence is more than environmental management; this perspective of sustainability management is both practical and holistic, comprising of the following components: Education, Driving Innovation, Profound Leadership, Accountability and Transparency, Consideration of Potential Social Impact, Employee Engagement, Continuous Improvement and Responsible and Efficient Resource Management.

Figure 3 illustrates the above components of effective sustainability management, the drivers within Jordan for sustainability management, the worldwide-recognized definition of sustainability, and the understanding of sustainability management from industry. From this constructed understanding of sustainability management, the Team composed an operational definition of sustainability management for the Center.

Operational Definition:

Sustainability management means creating business practices, policies and economic programs that address Jordan’s current Energy, Water, Products and Service needs while decreasing Waste and Emissions to ensure future societal prosperity.

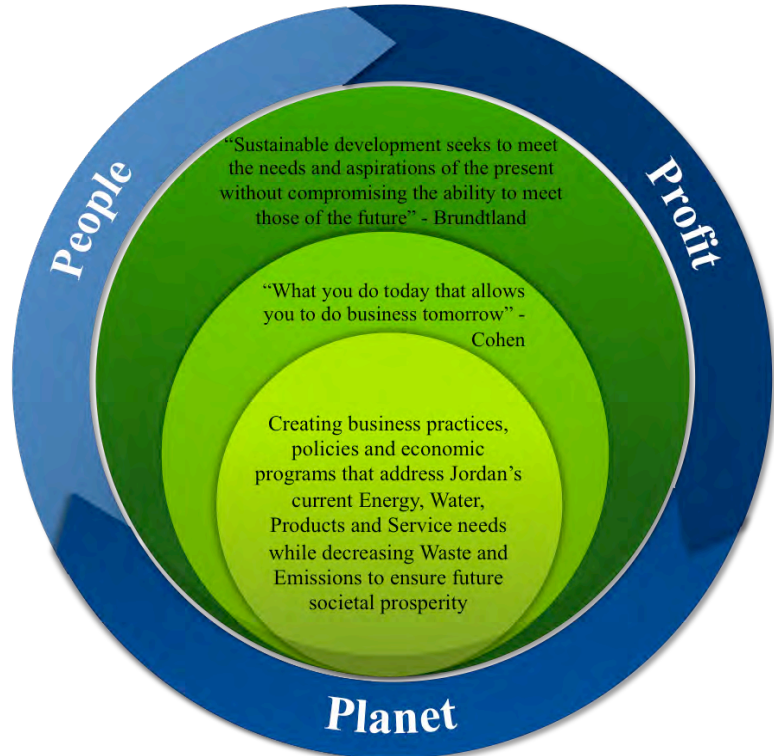


Figure 3 – Operational Definition



3. The Need for Sustainability Management in Jordan

The Team conducted an extensive literature review and fieldwork analysis to comprehend the issues that Jordan faces with regards to sustainability management and how these would be related to both the Award and to the Center's long-term vision of sustainability. The Team interviewed various local stakeholders such as ministries, foreign aid institutions, private sector entities, previous Award winners, mentors and assessors. This section provides a summary of the key findings and insights.

3.1 Environment

An understanding of Jordan's environmental issues is critical in developing metrics that properly manage the environmental impact of operations. The two most important environmental issues in Jordan are water management and energy use. Waste and emissions are the byproducts of growth within Jordan, and must also be adequately managed.

3.1.1 Energy

Energy is a critical issue for sustainability management in Jordan. Jordan is a net energy importer, importing over 96% of its total energy (Ministry of Energy and Mineral Resources). In recent years, the economic stress of dependence on imported energy is exacerbated by the rapid and significant increase in energy prices. As organizations need to allocate more of their budgets to energy expenses (e.g. transportation, heating etc.), less is available for other functions of the organization. Additionally, as energy prices increase, the cost of goods rise, further stressing the economy. The Jordanian government eliminated any subsidies on gas and other energy products to mitigate the impact of energy prices on the government budget (Ministry of Energy and Mineral Resources). The removal of this subsidy further intensifies the role of energy in an organization's competitiveness by increasing its production cost. Reducing energy use and increasing renewable energy will mitigate the impact of energy on the economy in Jordan.

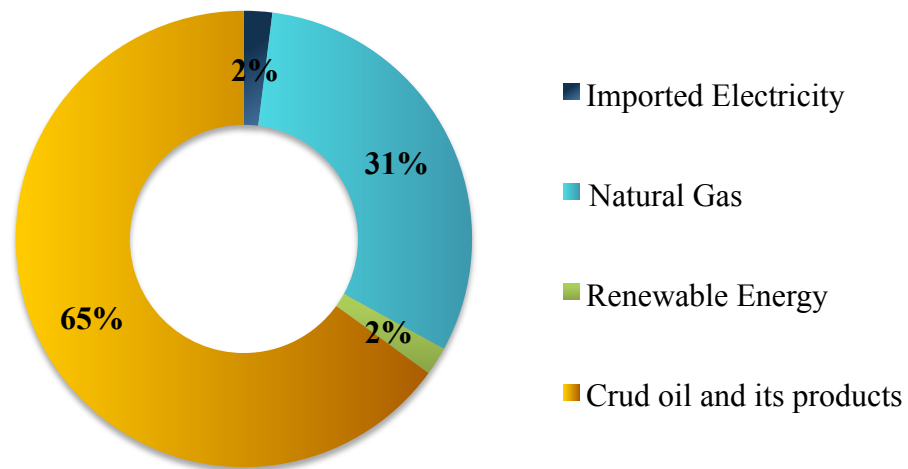


Figure 4 – Energy Sources 2010

Renewable energy could present a suite of options to mitigate the impact of energy prices on the Jordanian economy. Renewable energy sources in Jordan account for only 2% of the total energy production (Ministry of Energy and Mineral Resources); this number is expected to grow by year 2020 to become 10% according to the national energy strategy of Jordan (Ministry of Energy and Mineral Resources). The renewable energy makeup comprises of a mix of solar and wind energy projects. The level of utilization of solar energy in commercial, industrial, and residential is limited. Only 12% of domestic households use solar thermal energy to heat water, and 88% of homes are poorly insulated (Jordan Department of Statistics). An opportunity exists for both renewable energy and energy efficiency projects. The Return on Investment (ROI) for potential energy efficiency projects needs to be communicated so that organizations and individuals find value in investing in sustainable energy strategies.

Adding a sustainability dimension to the Award criteria provides this necessary communication piece, so public and private organizations can be equipped with a way to measure their use and find ways to reduce the wasted energy. Encouraging renewable energy use through the Pillar will supplement the mitigation efforts by providing low-impact energy sources.

3.1.2 Emissions

Framing the environmental issues in Jordan requires assessing which industries have the most greenhouse gas emissions (GHG). In the year 2000, Jordan contributed about 20140 gigagrams (Gg), or 20.14 million metric tons (Mt) of CO₂ equivalent (CO₂e), of GHGs into the atmosphere. Energy is the largest contributor to emissions in Jordan, followed by waste and industrial processes, as described in Figure 5:

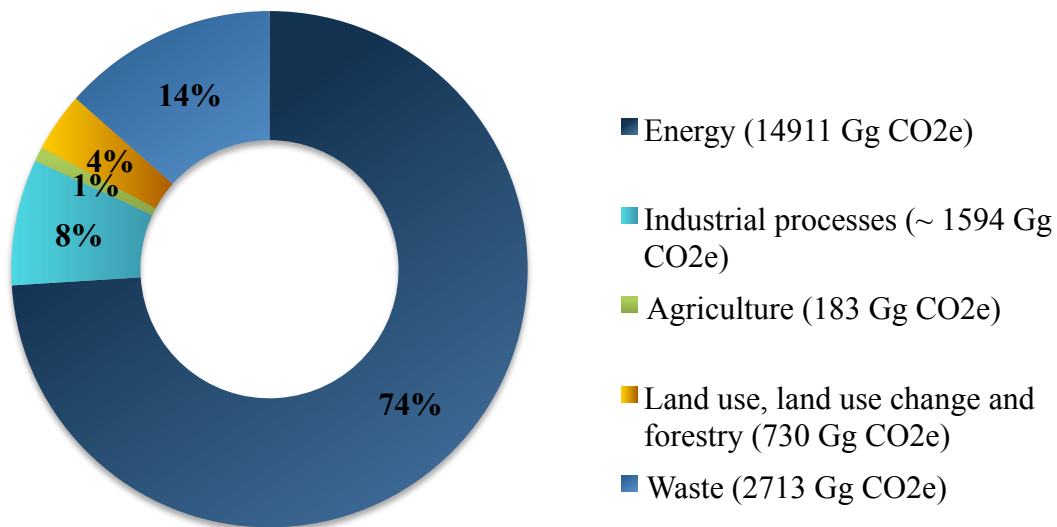


Figure 5 – Jordan’s total GHGs by sector

The main source of emissions is from the energy production sector; importance must be placed on energy efficiency and renewable sources of energy. Assessing the sectors that emit the most GHGs allows better-targeted sustainability management strategies. As the Award is broken by sector and sub-sector, it will incentivize appropriate strategies per sector.

Jordan’s emissions consist predominantly of carbon dioxide, methane, and nitrous oxide. Emissions of the fluorinated gases of sulfur hexafluoride, perfluorocarbons and hydrofluorocarbons were negligible in the year 2000 (Ministry of Environment of Jordan). A breakdown of Jordan’s total emissions by GHG is shown here:

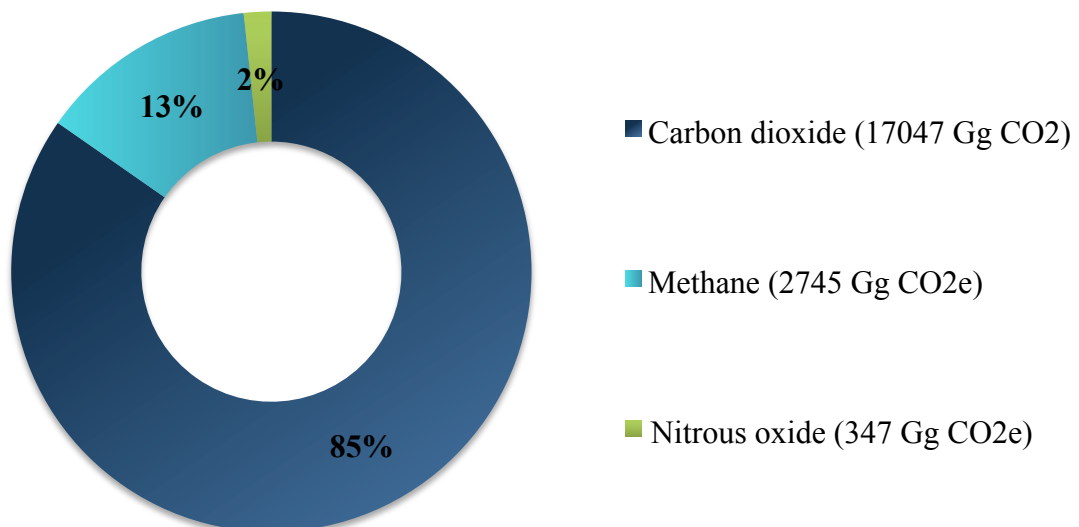


Figure 6 – Jordan’s breakdown of GHGs by pollutant

Knowledge of emissions is essential to targeting industries with a specific pollution impact in Jordan. The Pillar can address emission reduction as a measure of success. In later iterations of

the Pillar, the Center can target specific industries to increase impact. Understanding the carbon impact of each activity of an organization is a good tool to focus sustainability efforts on those strategies that reduce the most carbon for a lower capital investment or time commitment.

3.1.3 Water

Water is the paramount environmental issue in Jordan. Jordan faces chronic water scarcity with only 133 m³/capita/year available (The World Bank). Different forces intensify the water scarcity in Jordan, including population growth, an increase in economic activities, arid climatic conditions and no substantial renewable natural supplies (e.g. rivers, streams or rainfall).

The increase in population and economic activity intensified the pressure on already scarce water resources. Water demand far exceeds supply, and water allocation is unbalanced with 64% used for irrigation, 30% for municipal use, 5% for industrial use, and 1% for tourism (Ministry of Water and Irrigation). Available freshwater sources are even scarcer and include wastewater reuse as a source (The World Bank). If organizations need to plan to use more water, their operations become increasingly costly and complicated. By properly managing the water resources, organizations can mitigate the cost impact and organizational resources devoted to importing.

As indicated, economic and specifically agricultural activities account for a majority of the water use. Effective management strategies for irrigation, such as low-flow irrigation techniques or drip irrigation systems, can reduce this number. “The increase in water demand, the limited water resources and the increase in fuel and operating costs makes it all the more important to have a streamlined efficient operation through implementation of a good plan for institutional reform, (Ministry of Water and Irrigation)”. The Award, through the Pillar, is the mechanism through which water management goals can be set and successful strategies shared and embraced by organizations of similar structures.

Jordan is situated in a very arid region of the Arabian Peninsula with only 10% of its territory suitable for cultivation (Food Agriculture and Water Organization), with no surface water of any



kind, and very low average annual rainfall (registered from 1937/38 to 2004/2005 was 94 mm) (Directorate of Planning and Water Resources). These conditions force the country to depend heavily on the ground water resources. The available water in Jordan is drastically reduced from 3600m³/year in 1946 (The World Bank). “The rapid decline in water access has resulted in mining of renewable groundwater resources, with extraction currently 50% above safe yields in 2005 increased salinity, declining water table levels and increasing pumping costs” (ibid.). At this rate, not only does water extraction become expensive and difficult, but also, at this rate of extraction, organizations and individuals cannot rely on this resource to forecast their expenditure on water needs.

It is imperative to work closely with different stakeholders in order to achieve water sustainability. This will include working with the public sector, private sector and agricultural sectors to better manage water, treat wastewater, and research and development new water technologies. Wastewater is becoming an important source of water for human consumption; Wastewater in Jordan presents both a challenge and an opportunity.

Wastewater management is challenging because the quality of wastewater is considered unsatisfactory after treatment.

“There is also some concern about the presence of high phenol concentrations in all treated wastewater. Phenols in too high concentrations can damage irrigated crops; usually considered to be an indicator of uncontrolled semi-diffuse pollution from a multitude of industrial and commercial sources (iron industry, smithies, and car wash installations)” (The World Bank).

Effectively treating this water is essential for health safety and general quality control of this critical resource. The methods of disposal demonstrate how imperative it is to address this issue: “[Wastewater] is disposed in the following breakdown: 17% is released into the sewer network, 32% into irrigation canals, and a small fraction 6% is disposed of using tankers or other methods” (ibid.). By focusing management efforts at assessing processes, organizations will uncover more efficient processes. Improving the quality of wastewater by ensuring no chemicals are in water sources is critical for the safety of people in Jordan.

Wastewater is also an opportunity because the amount of wastewater treated is increasing steadily. “The amount of wastewater collected and treated in the municipal wastewater treatment plants has steadily increased at a rate exceeding population growth: from 14,300 l/capita/year in 1994, to 19,600 l/capita/year in 2000,” (ibid.). The amount of water cited here is essential for proper water management as it “is equivalent to 54 l/capita/day, about half of the estimated per capita daily water consumption,” (ibid.). Jordanians already view wastewater as an opportunity for mitigating demand by reusing. The Award can encourage more stringent wastewater quality measures and increasing the amount of wastewater treated and reintroduced annually. Participating in the Pillar assessment will allow organizations to compare themselves to competitors of the same size. By implementing these water management strategies, the applicant organizations will contribute to a countrywide mitigation strategy. Water is not only essential for human life, but is essential for daily organizational operations. Adding water reuse to the Award criteria can influence users to capture their wastewater and treat it for reuse.

3.1.4 Solid Waste

In order to reduce its carbon impact, Jordan needs to both reduce waste and create opportunities for reuse. The amount of waste in Jordan is increasing due to, “population pressure, industrial development, new consumption patterns and life style” (Ministry of Environment of Jordan). For these reasons, Jordanians must measure waste production and adopt mitigation strategies.

The current picture of annual and daily use is as follows: “It is estimated that municipal solid waste amounts to a gross annual production rate of approximately 1.5 million metric tons. The daily average per capita generation rate of municipal solid waste stands at 0.6 kg and 0.9 kg in rural and urban regions, respectively,” (Ministry of Environment of Jordan). This amount of waste presents an organization and capacity challenge for any organization attempting to limit and reduce their waste impact.

The Award can be used to encourage reduction strategies and innovative reuse techniques. As with the other topics in sustainability, understanding the waste baseline of an organization’s activities uncovers processes that are not efficient. Organizations can find financial incentives to mitigate their impact when they tie waste to their operating budgets.

3.1.5 Hazardous Waste

Disposing and recycling of hazardous waste is challenging in any sector, however opportunities do exist. Medical waste is an example of where hazardous waste issues can be turned into an opportunity for reducing impact. With the development of the health sector in Jordan, and the wide range of health insurance coverage, in addition to the high reputation of Jordan’s medical services, medical waste is increasing exponentially.

“It is estimated that the daily amount of medical waste generated by the Jordanian hospitals in 2003 is about 9.4 metric tons. The highest amount is generated by the public hospitals at 3.5 metric tons/day, followed by the private hospitals at 3.4 metric tons/day. On the other hand, the military hospitals produce 1.7 metric tons/day, while the University hospitals are producing the lowest amount of about 0.67 metric tons/day” (Alnatsheh).

The main issue with hazardous waste, such as medical waste, is that it is difficult to recycle without jeopardizing health standards, and therefore is usually incinerated. However, incineration can be used to produce energy as a byproduct. While risks exist with this type of incineration that requires special handling and consideration, there is an opportunity to turn a problem into a resource. The Pillar is designed to encourage this type of thinking and innovation.

3.2 Society

Like all countries, Jordan faces challenges in meeting the needs of its people. Population growth and poverty levels in conjunction with unemployment present a huge issue in providing basic

needs and planning for meeting those needs in the future. As organizations think of their impact on their environment, they also should address the needs of the people impacted by their operations.

3.2.1 Population Growth

Jordan is located in the Middle East and North Africa region. In an region of political unrest, Jordan is known for its stability and security. With a growth rate of 2.2%, the Jordan population exceeded six million in 2010, of which 60 % are less than 30 years old (Jordan Department of Statistics). This poses one of the most important challenges for Jordan as unemployment reaches 12.5%, the nation needs to focus attention on job creation and economic growth (ibid.). An increase in activity in any sector can stimulate job growth. By increasing activities in sustainability areas, new jobs of all levels can be created to meet the needs of this growing industry.

3.2.2 Unemployment & Poverty

Unemployment is the leading cause for poverty in Jordan and presents a challenge when planning for a sustainable future for Jordan. High concentration in urban areas, a substantial percentage of Jordanians living under the poverty line, and a declining average of the middle class income characterize poverty in Jordan (Baldrige, Moushey and Amin). Of the 82% of Jordanians that live in urban areas, three-quarters reside below the poverty line (Jordan Department of Statistics). The World Bank Poverty Report from 2006 finds that, “13% of Jordanians live below a poverty line, earning JD 46.3 (approximately US \$32.41) per person, per month” (Baldrige et al). The cities of Amman, Zarqa, and Irbid are home to the largest shares of the poor, with 28%, 17% and 17% respectively (ibid.).

The impact of poverty on Jordan is:

- “Low labor force participation and a high dependency on public and private assistance
- Higher levels of abuse and family violence
- Lower levels of educational achievement
- Crowding and other infrastructure problems” (Baldrige et al).

The increasing population under poverty line can be directly connected to the high rate of unemployment, creating new opportunities, providing new jobs. In its report “Green Jobs,” the United Nations Environmental Program (UNEP) stated that, “the creation of green employment in key parts of the economy has the potential to “radiate” across large swaths of the economy, thus greening commensurately large sections of the total workforce” (UNEP). Building the economy creates opportunity for jobs at all levels. Sustainability strategies should address the impact that an organization can have positively as well. Organizations that adopt sustainability strategies can provide services, education, and job training that reduce the poverty gap.

Waste Concern, a company established in Bangladesh for waste management, provides one example of linkage between poverty alleviation and sustainability. Waste Concern is tackling the domestic waste accumulation problem to create economic opportunities. Bangladesh, a developing country that suffered from a considerable waste management problem, is now better off due to waste collection that is transformed into organic fertilizers. By creating sustainable

business and new sustainability jobs, Waste Concern is a success story for coupling sustainability with poverty alleviation (Zurbrugg).

3.2.3 Gender Issues

Targeting women positively should be included in the social component of the Award. Women are significantly under-employed. Although they constitute 48% of the population, their economic participation is only 12% (Miles). Unemployment among women is higher in the private sector than the public sector. USAID reports hostile work environments, disapproval of family members, and unsafe transportation as reasons for this underemployment (Baldrige, Moushey and Amin). As part of social initiatives, public and private organizations can address gender issues. Social components of Corporate Social Responsibility strategies can encompass ways to hire, train, and retain female employees. They can also include support for women with families so that they do not have to trade off careers and family. As employers, organizations can support women such that they have financial opportunities and social support.

The Pillar measures a social component in dealing with gender issue, and being inclusive by counting for gender disparity in the organization different occupational levels. According to the human development report, women do not have access to good healthcare, specifically for reproductive healthcare, “women’s ability to make reproductive choices carries ramifications for the environment and for women’s empowerment, and women’s political empowerment has consequences for pro-environment policy and practice” (United Nations Development Programme). Feeling empowered and secure allows female employees to contribute to all efforts of an organization, including sustainability.

3.3 Jordan's Environmental Legal Context

The increasing interest in environmental conservation and protection on both public and private levels spur the need for a more comprehensive environmental legislative framework. A robust legislative framework improves the environmental status in Jordan and the well-being of Jordanians. Strict regulation will also enable the country’s private sector to better compete in increasingly environmentally conscious markets.

The Ministry of Environment was established in 2003 with a mandate to improve the quality of the Jordanian environment by conserving Jordan’s environmental resources, and contributing to sustainable development. Environment Protection Law No. 52 of 2006, and its regulations, is the main legal framework for environmental protection and management in Jordan (Ministry of Environment of Jordan). All public and private sectors have to implement and adhere to that law in performing their daily activities and procedures. Appendix 1 highlights the different regulations that govern the environmental legal framework in relation with different environmental components such as water, air, noise and land use, as well as other initiatives.

This legal framework is an important base for the different international agreements that bind Jordan. The main international environmental agreements are:

- Ramsar Convention on Wetlands - 1971
- The Convention on International Trade in Endangered Species of Wild Fauna and Flora - 1973
- The United Nations Framework Convention on Climate Change (UNFCCC) - 1992
- The Convention on Biological Diversity (CBD) -1992
- The Basel Convention on the Control of Trans boundary Movements of Hazardous Wastes and their Disposal -1989
- Rotterdam Convention -1998
- Stockholm Convention on Persistent Organic Pollutants (POPs) -2001
- Kyoto Protocol -1997

International agreements and strict national regulations can protect the environment only if compliance is enforced. The Team’s interviews indicated a chronic absence of compliance to these laws due to absence of enforcement. The Award design for transparency in operation can be used to encourage compliance to environmental laws.

Understanding the economic, environmental, legal, and social context in Jordan provided key guidance on which areas to focus the Pillar for improving the current sustainability performance, as well as develop the commitment within businesses to reduce their future environmental and social impact. The suitable recommendations for the Pillar are based on expertise in the mechanisms of the Award.

4. The King Abdullah II Award for Excellence

4.1 The King Abdullah II Center of Excellence

The King Abdullah II Center of Excellence was founded in January 2006 to manage the “King Abdullah II Award for Excellence” which serves as a national reference of excellence for public and private sectors. It was issued according to Bylaw Number (6) of 2006. The purpose of the Center is to promote continuing excellence in the aforementioned sectors in Jordan in order to secure a sustainable and prosperous future. The objectives of the Center are to promote the culture of excellence through developing awareness, innovation and distinguished performance, and to provide a measurable guideline for the standards in order to promote positive competition, and continuous improvement (King Abdullah II Center for Excellence).

The Center is governed by four components: the Board of Trustees, the Steering Committee, the Executive Director, and Strategic Partnerships (ibid.). The Center manages three different awards: the King Abdullah II Award for Excellence for Private Sector, the King Abdullah II Award for Excellence in Government Performance and Transparency, and the King Abdullah II Award for Excellence for Business Associations Sector, which is added when 10 similar entities

compete from the private sector to allow fair competition (ibid.). For the purpose of this project, the Team only focused on the private and public sector awards.

4.2 The King Abdullah II Award for Excellence for Private Sector

The King Abdullah II Award for Excellence for Private Sector (KAAPS) aims to improve the competitiveness of Jordanian businesses by advancing business quality standards while also sharing the successful stories of participating businesses. The King Abdullah II Award for Excellence for Private Sector (KAAPS) is awarded to different organizations and is categorized under both size and industry: “large” or “small and medium” in terms of sizes, and “manufacturing” or “service organizations” in terms of industry (King Abdullah II Center for Excellence).

Assessors evaluate KAAPS based on the following nine criteria:

1. Leadership
2. Strategy
3. People
4. Partnerships and Resources
5. Processes
6. Products and Services
7. Customer Results
8. People Results
9. Society Results
10. Key Results

Each of these criteria is further divided into subcategories that measure the criteria’s success (ibid.).

4.3 The King Abdullah II Award for Excellence in Government Performance and Transparency

The King Abdullah II Award for Excellence in Government Performance and Transparency aims to embed the culture of excellence in government institutions in Jordan, enhance positive competitiveness among government departments and institutions, and therefore being leaders in global best practices. The King Abdullah II Award for Excellence in Government Performance and Transparency is based on five criteria; Leadership, People, Processes, Knowledge, and Finances (King Abdullah II Center for Excellence). The difference between the Award structure in the public and private sectors is in the Enablers and Results weighting. The public sector Enablers determine 70% of the Award and Results determine 30%. The weights are structured to encourage more leadership activities in this sector.

4.4 Components of The Award

4.4.1 Assessors

An assessor is a formally trained professional who measures indicators within an applying organization, and estimates the value of their work. For every applicant, a team of assessors manages the assessment process. That team size is a function of the size of the organization being assessed. A large team consists of four people; a team leader, a lead assessor, another assessor, and an observer (for training purposes) (Kanan). According to the Center, there is a list of requirements that must be met in order to qualify as an assessor. Assessors are qualified based on their education, experience of their relevant sector, knowledge of international excellence models such as European Foundation for Quality Management (EFQM) Excellence Model and the Center Awards criteria, and their availability. Having a variety of skills such as communication, training, leadership, and bilingualism is also required. Assessors are also required to take a training course from the Center. To this end, the King Abdullah II Center for Excellence provides training to potential assessors in order to introduce the Award's criteria, the EFQM Excellence Model, assessment process stages, case studies, and method of writing assessment reports (King Abdullah II Center for Excellence).

4.4.2 Mentors

A mentor is a formally trained professional who serves as a knowledgeable and trusted advisor for an applying organization. The King Abdullah II Center for Excellence conducts training courses for the approved mentor certificate. Individuals who acquire this certificate can work with (or for) organizations participating in selection for the King Abdullah II Awards for Excellence. The program provides the participants with the needed tools such as thorough knowledge about mentoring stages, training in approved mentor's skills and requirements, and mentoring processes. They also specify the organizations' status through the Award criteria and assessment mechanisms (King Abdullah II Center for Excellence).

Mentor qualifications are similar to those of assessors; however, they also include education on the mentoring stages and process, the organization's diagnosis and the Award's criteria (ibid.).

4.4.3 European Foundation for Quality Management ®

The EFQM framework is a quality management framework, which is used around the world to advance the quality management of products and services. This non-governmental organization is based in Brussels, Belgium and is assisting organizations work towards



excellence since the late 1980's. The model, which is depicted below is meant to provide a standard for excellence throughout the world. Because of the relative maturity of this model, it is one of the most well known frameworks in use today. The EFQM Excellence Model provides a common framework and language that facilitates the effective sharing of information between members.

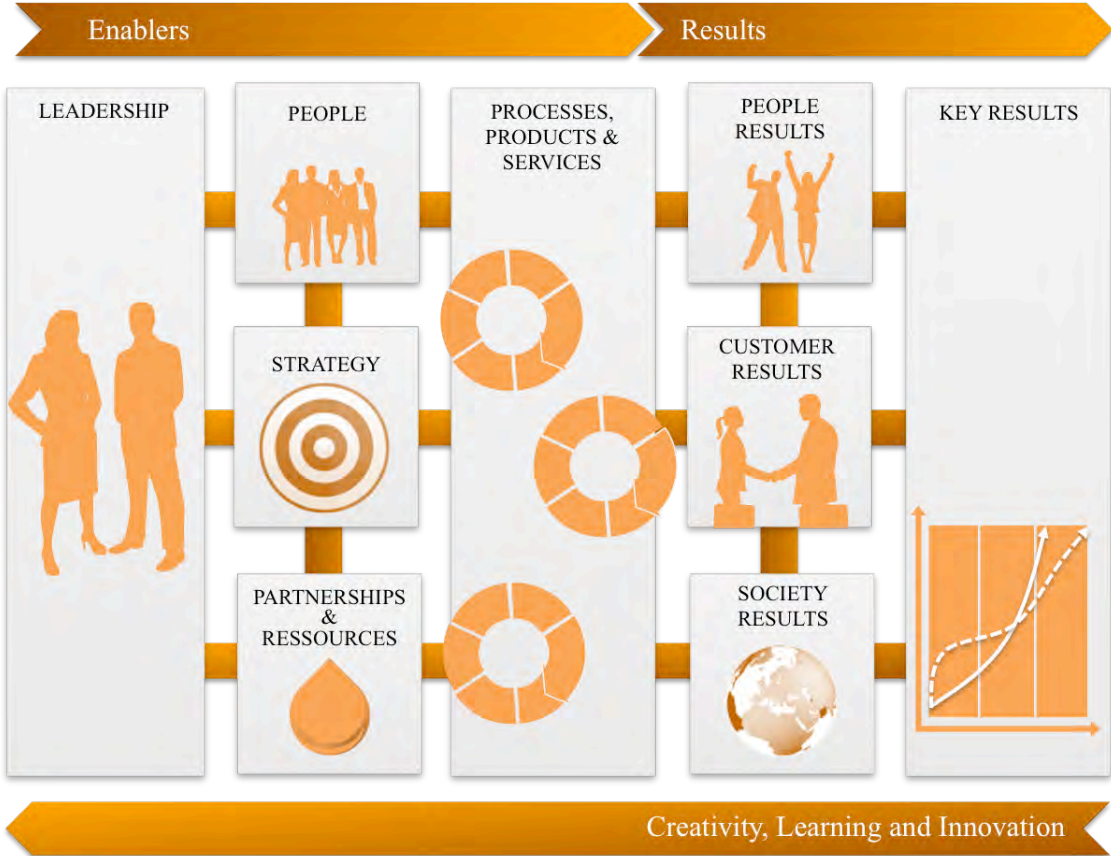


Figure 7 – EFQM Excellence Model

The EFQM Model that is embedded within the Award has an overarching framework of “Enablers” and “Results” which is included in the RADAR logic. This system allows organizations to develop approaches and strategies that provide a feasible plan for achieving results (EFQM). The Pillar will be incorporated within the existing criteria. The indicators were designed to align with EFQM framework for assessors, mentors, and applicants.

4.4.4 RADAR ©

The Award is assessed based on criteria through a scoring guideline called the RADAR© system designed by EFQM. RADAR© stands for: Results, Approach, Deployment, and Assessment & Refinement. The RADAR© system supports robust analysis of the enablers and the results. Enablers are tools or operations within the organization that allow it to reach certain goals within the Award's criteria. Results on the other hand are tangible outcomes that assessors can quantify in relation to a subcategory within the Award criteria. "The 'Enabler' criteria cover what an organization does. The 'Results' criteria cover what an organization achieves. 'Results' are caused by 'Enablers' and 'Enablers' are improved using feedback from 'Results.'" (EFQM)

In KAAPS, enablers count for 50 points and results count for 50 points (Al-Qa'qaa'). The first five criteria; Leadership, Strategy, People, Partnerships and Resources, Processes, Products and Services are from the Enablers dimension. Whereas the last four criteria; Customer Results, People Results, Society Results, and Key Results are from the Results dimension (King Abdullah II Center for Excellence).



Figure 8 - RADAR © Methodology

5. Metrics Methodology and Current Metrics

5.1 Sustainability Award Metrics

A measurement system must be in place in order to make organizational process improvements. Metrics provide the mechanism to inform managers of performance relative to their organizational strategy. By first identifying the goals that are important to a process, management can develop metrics to measure their progress towards achieving those goals. These standards are quantified, and therefore provide analysts with the ability to quickly compare goals and results.

Metrics can be developed around any requirement. For instance, the outreach activities of an organization may be used to measure involvement within the community where they operate. When metrics are developed, they will always measure a business process in one or more dimensions (e.g.: when building a road, the materials would be the measure, and the period of

time would be the dimension) (Gonzalez). However, the width and depth of this reporting varies from organization to organization, and industry to industry (Bose).

5.1.1 Key Performance Indicators

Indicators are metrics that have been tied to business goals. Definition of these indicators are broadly defined by executive managers of both public and private organizations. However, it would be the responsibility of mid-level managers to translate these broad requirements based upon their day-to-day activities. In the road-building example used above, the amount of materials used becomes a Key Performance Indicators (KPI) in the event that the company wishes to build roads using locally sourced/renewable materials. Once this occurs, the company measures its use of these types of materials compared with the goals set by the company. These indicators allow the company to continuously improve their business operations through measurement, innovation, and strategic efforts.

It is important to note that when an initiative begins to take shape, that the goals are achievable and that the KPI are relevant. A manager would not use indicators specific to the construction industry if they were interested in improving the health care industry. The two are simply not clearly related. As goals are achieved and the model matures, the goals must evolve and become more specific. KPI consist of the economic, environmental, and social factors specific to the Jordanian context.

5.2 Reporting

Metrics must provide decision makers with the ability to quickly and confidently make strategic decisions regarding business processes in which they measure. There are several different mechanisms for doing so, and at the tactical level they are quite similar. However, at the strategic levels of an organization, these tools can vary.

Scorecards are used by the highest levels within an organization to align business performance to operational strategies in real time. By mapping results back to certain strategies, management is able to make adjustments, and fine-tune the operations to the organization. Mapping empowers management to become engaged, and increase efficiency. The KPI is the primary measurement tool within the scorecard, and it is critical that these indicators map directly to organizational strategy. If an organization's strategy is not being met, then the scorecard should be modified to reflect previously unidentified requirements.



Figure 9 – Key Performance Indicators

The dashboard presents metrics data at the summary level. What differs is the dashboard is tied to the organizations' operational goals. Within the dashboard, the data is binary; whether or not an operational goal is being met. Often these operational goals tie into one or more higher-level strategies, but strategic decisions are not made as a result of data from the dashboard. The dashboard does, however provide actionable data that the rest of the organization can use in their tactical decision making processes.

The most common of the business intelligence tools are reports. Common throughout all levels of an organization, reports can be detailed and specific. They contain static data that provides only a snap shot of a point in time. Reports can be useful, but as mentioned above, they must be relevant. The goal within any organization is to have the right information at the proper time (Gonzalez).

5.3 Current Quality and Sustainability Programs

To fully understand how the metrics will work for the King Abdullah Award for Excellence, one must first look at other examples of successful strategies.

The surrounding framework for the sustainability metrics for the Award will incorporate the existing European Foundation for Quality Management (EFQM) model as well as internationally recognized sustainability reporting mechanisms and standards. The Global Reporting Initiative (GRI) is the most widely used reporting standard for economic, environmental, social, and governance performance, in the world (GRI). Leadership in Energy and Environmental Design (LEED) has a number of rating systems used to evaluate building design and construction, operations, and maintenance in relation to environmental impact (USGBC). Its framework includes key areas of sustainability including water, energy, and materials and resources efficiency and the Green Building Certification Institute (GBCI) offers certification for those projects registered under any LEED Rating System. Both the framework and the certification were used to create indicators and goals for certain areas of the Pillar.

5.3.1 Global Reporting Initiative™

GRI is a non-government organization that was established in 2002. The primary goal for GRI is to provide comparability between different organizations reporting under the Initiative. GRI promotes a unified framework for non-financial reporting. GRI is unique because of its multi-stakeholder consultative approach to framework revision. Essentially, as more organizations become GRI participants, the better the process becomes (Bose).



GRI has become a leading world standard for quality and sustainability reporting. GRI partners with international institutions such as the Organization for Economic Cooperation and Development, the United Nation Environmental Program, and the International Standard Organization (ISO).

Currently, of the 3,885 organization reporting according to GRI guidelines worldwide, including Shell, British Petroleum, Exxon Mobil, IBM, Apple, General Electric, Toyota, Volkswagen, Procter and Gamble, Nestle, Unilever, Samsung and most of the major world corporations in their field, only six companies in Jordan report: Arab Bank, Aramex, Electricity Distribution Company EDCO, Zain Jordan, Jordan River Foundation, Schema, and Jordan Aircraft Maintenance (Joramco).

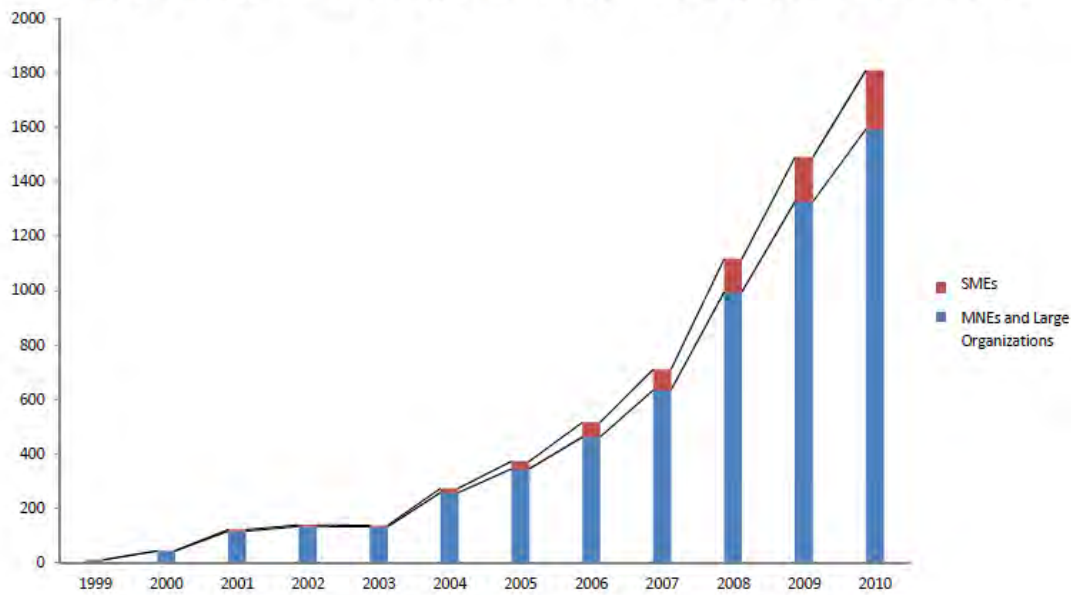


Figure 10 – GRI Reports from Small and Medium Enterprises (SMEs) 1999 - 2010

The GRI framework’s latest guideline version (“G3”) includes economic, environmental, and social indicators. The metrics designed use an array of the GRI indicators in the guidelines, but mostly extracted from the environmental category. Many of the economic and social indicators are already included in the existing award criteria. The environmental category for G3 consists of: Materials; Energy; Water; Biodiversity; Emissions, Effluents, and Waste; Products and Services; Compliance; Transport; and Overall (Global Reporting Initiative).

The advantage of incorporating these GRI guidelines is that applicants will start to become familiar with international reporting standards and can more readily adapt GRI in the future (GRI).

5.3.2 Leadership in Energy and Environmental Design®

Leadership in Energy and Environmental Design (LEED) is a recognizable sustainability certification system for designing, improving or measuring green buildings (such as through the use energy efficiency programs, or renewable materials.) LEED has targeted a significant market in building design certification, and its footprint can be seen worldwide.



LEED has certified nearly two billion square feet of commercial space alone (USGBC). LEED has successfully compiled metrics that link sustainability goals to the building industry. Thanks to its international reach, the Green Building Council is the standard used in Jordan (JGBC). After almost three years in Jordan, the JGBC is still facing coordination problems developing their strategic vision (Jordan GBC). This is due to the relative immaturity of the program in this region.

The LEED measurement framework and certification process provides specific indicators for building design, use, and operations. These indicators are especially useful for organizations that would focus more on everyday operations that can have impacts on their overall sustainability. LEED assesses Sustainable Sites; Water Efficiency; Energy & Atmosphere; Materials & Resources; Indoor Environmental Quality; Locations & Linkages; Awareness & Education; Innovation in Design; and Regional Priority (USGBC). LEED, like GRI, is internationally recognized. In Jordan, standards are assessed within the JGBC for certification. This encourages local “green” building strategies and helps organizations become familiarized with the LEED criteria (USGBC).

5.3.3 Other Awards, Certifications, and Standards

In addition to the major frameworks listed above, the designed metrics for the Pillar will also align many indicators of industry-specific rating systems such as the Green Key Eco-Rating program, the International Organization for Standardization (ISO) 14001, EnergyStar®, and the Environmental Management System (EMS) standard. Specifically, the new metrics will help implement EMS strategies by encouraging organizations to create a rigorous environmental policy that includes prevention of pollution and compliance with all local and international statutory and regulatory requirements (US EPA).

6. Key Insights

The research provided a background on sustainability issues in Jordan, the award criteria and current sustainability metrics systems. The interviews conducted during fieldwork were instrumental in providing a local perspective of the current and future initiatives, goals, missions, and strategies that stakeholders currently have in place. Through in-depth conversations, the Team learned about the intricacies, challenges, and success stories that each of the organization faces.

The Team extrapolated reoccurring themes that were highlighted throughout the research and reinforced in the interviews with the organizations. The main takeaways from the research and interviews are summarized as follows:

1. **Utilize the Sustainability Network:** The existing sustainability network in Jordan can facilitate training and education for the Center, its applicants, mentors and assessors.

2. **Human Capital Development:** There is a need for long-term development of human capital for the Kingdom of Jordan; with the lack of natural resources, human capital is a source of income and national pride.
3. **Compliance:** The proposed metrics system should drive compliance of government legislation and regulations.
4. **Transparency:** The Pillar should promote environmental management transparency, which can influence an entity towards further transparency in other areas of the organization.
5. **Possibility of Funding:** Current funding opportunities from development institutions and multi-development institutions currently exist in Jordan. These incorporate sustainability in their assessment criteria. By incorporating sustainability initiatives via the Pillar and the Award, such entities can have access to new funding opportunities.
6. **Collaboration with Key Partners:** Currently, there are multiple independent sustainability and environmental award initiatives, such as the Environmental Award from the Ministry of Environment. These provide for collaborative potential with the Center.
7. **Custom-designed Sustainability Metrics:** There is a need for customized metrics to fulfill specific goals of the Center and to address the sustainability challenges that Jordan faces.

These insights are the drivers in the development of the Award Star System, the Tier design, and the scoring mechanism of the Tiers. *Please see Appendix 4 for further details on the interviews conducted in Jordan. Please see Section 7 and Appendix 2 for further details on Tiers.*

7. The Sustainability Pillar

Similar to the other pillars in the Award, the Pillar will provide metrics for assessing organizations on their efforts. The Pillar sets metrics specific to sustainability topics, which will allow organizations to set goals, incrementally improve, and achieve best practice standards. Additionally, the Pillar is created with the goals of the Center in mind: synergizing efforts to continuously improve sustainability management. The Center intends to use the Pillar to advance sustainability by incentivizing sustainable practices in private and public organizations, to encourage coordination between existing efforts and interested parties, to best meet the goals of the existing efforts, and to use the Award as a vehicle for education.



Figure 11 - Adding a New Pillar

7.1 Best Practices for Sustainable Operations

The long-term goal of adding a sustainability pillar to the Award is to fundamentally effect change and promote positive, sustainable development in Jordan, moving beyond environmental compliance and changing business attitudes about sustainable, and successful practices (Edwards). A real opportunity for excellence exists, and channeling both public and private operations to a path that is economically and environmentally sound will brand participants as leaders in the global marketplace in generating environmental, economic, and social value (Elkington).

7.2 Sustainability in Private and Public Sectors

The proposed Pillar will be aligned with the current Award’s 50/50 weighting and rationale for public and private sectors. For the private sector Award, equal weight will be placed on enablers and results to encourage goal setting that will be correlated to achievable results. It is important for private

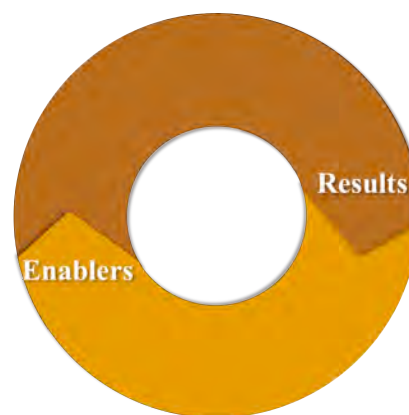


Figure 12 – Enablers and Results

organizations to create both feasible and ambitious goals that will be met, as it will encourage sustainability to be integrated within business strategy.

For the public sector, more weight will be put on actual goal setting and planning a comprehensive sustainability strategy within the ministry/institution. Since efforts towards better policies and national strategies for specific institutions are the base of their “results,” a 70% weight on creating sustainability initiatives that will benefit the Jordanian community and 30% on showing results will allow for the strategies to develop over time.

7.3 Design Components

The evaluation criteria are structured to not only logically address all applicable aspects to Jordanian sustainability, but also to provide participants a launch pad to participate in international reporting or certification systems.

7.3.1 Tiers

To begin addressing sustainability, the Pillar is divided first to classify types of activity, spread over three tiers. In the spirit of the “what gets measured, gets managed” mantra, Tier I comprises all reporting activity. Reporting usage and policies is a first step toward transparency and good corporate governance. In terms of the advancing through the Pillar, Tier I is also a prerequisite: it is the entry gate to the Award.

Tier II, a catalyst for changes in business strategies, shifts focus from “reporting” to “reducing,” once opportunities for efficiency are revealed in Tier I. A green mission statement is developed, and from this the organizational strategy begins its metamorphosis. Coupled with reducing corporate impact, sustainability training and education is a key goal of Tier II.

Tier III is the most advanced in the tiered rating system and the activities present true opportunity for excellence. While in some cases, the points gained in this tier may be less than the other tiers, they are the most difficult to achieve. Reserved for innovation, certification-seeking organizations, going beyond legal compliance, and those organizations putting a high priority on community outreach, Tier III will activities showcase role models and set the example by which other organizations follow. By design, only a small portion of the candidates

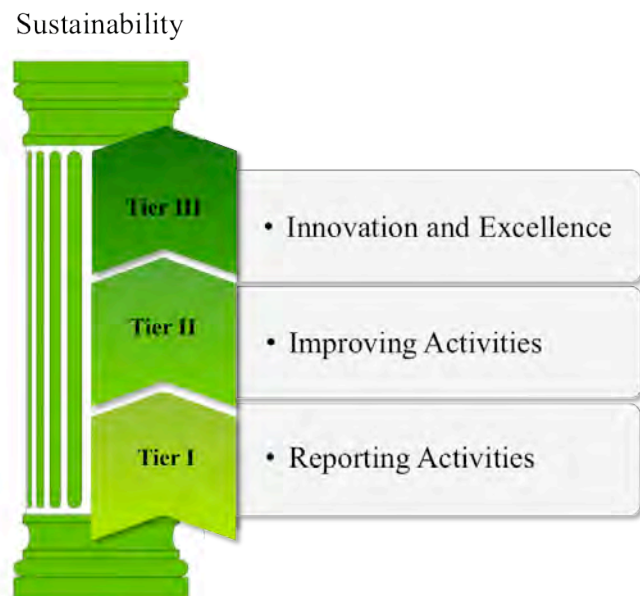


Figure 13 - Tier Descriptions

will achieve this goal. As more and more organizations begin to qualify for Tier III, the model must be further developed as to ensure that the community as a whole continues to advance towards excellence.

7.3.2 Award Metrics

The Award metrics are designed to reflect and address local Jordanian sustainability needs, as were evaluated during research and fieldwork, and determined through in-depth analysis. After evaluation, ninety-six indicators spread over five major components of impact are identified for action. These areas are designed to maximize environmental, economic, and social opportunities for Award applicants and drive sustainable business trends in Jordan.

Reporting activities aim to improve transparency in the corporate undertakings, not only for accountability purposes, but to provide the assurance of the quality of corporate activities. These activities in many cases invite organizations to partner with existing institutions such as the Jordan Institution for Standards and Metrology (JISM) or the Ministry of the Environment to report legal compliance, but also invite award applicants to work with third-party organizations to provide support in reporting measured activities and reduction, such as The Royal Scientific Society (RSS).

Improving activities are focused on sustainability strategies that present opportunities for continuous improvement by adopting people-centric procedures, which are economically beneficial while improving social impacts. In particular, much emphasis is put on Jordanian-sourced products and services, and workforce as they currently present an underutilized portion of the national resource endowment (Kinicki and Kreitner). Skill development, education, philanthropy, and job development create lasting, positive bonds between organizations and the populations that they serve. The specific activities have an overall reduction theme as an action step to help improvement in each area.

Innovation activities speak to the role of the King Abdullah II Center for Excellence in driving leadership and best practices across all sectors. These activities are meant to inspire organizations to drive beyond efficiency and incorporate cutting edge strategies or joining an international platform of certified elites, including incorporating outstanding practices for eliminating environmental impact, receiving certifications, subscribing to the strictest of international standards, or devising other innovative strategies.

The indicators are parsed briefly in the following section to provide further detail on the metrics that will be reported, and level in which they will be reported. *For an in-depth presentation of the metrics, please refer to the Metrics and Scoring Workbook in Appendix 2.*



Figure 14 - The crosscutting relationship between Tiers and Indicators

7.3.2.1 Energy & Emissions

The purpose of the Energy & Emissions indicators are to decrease reliance on foreign energy imports by assessing consumption, adopting strategies to reduce consumption, and remind Award applicants of the economic potential of Renewable Energy strategies. These strategies are additionally designed to measure and control GHGs. Core values of economy, environment, and society are expressed in the Transportation indicators for example, where sourcing Jordanian freight over foreign fleets is rewarded.

Energy Source & Efficiency

Tier I: Report energy consumption, fuel mix, energy source, GHG, and legal compliance

- Submit monthly energy bills for electricity and primary energy consumed on site
- Report the % of the source of energy used on site, % of renewable energy used, and prior year consumption through prior energy bills

Tier II: Reduce energy consumption and GHGs

- Report energy reduced based on prior years consumption
- Train employees on climate change and how to reduce energy consumption

Tier III: Excel in renewable energy use and pursue certifications

- Measure the amount of Renewable Energy-sourced consumption, both on and offsite
- LEED or other energy efficiency certification

Transportation

Tier I: Report fuel and emission data generated for transporting products, goods, organizational materials, and members of the workforce

- Reporting fuel efficiency (L/Km), route optimization (km/trip), load optimization (Tons/trip), vehicle emissions data (CO proportions, opacity, and emissions of other pollutants), and % of locally sourced freight

- Report or derive GHG emission from fleet (calculated according to the IPCC default emission values) (IPCC)

Tier II: Reduce fuel consumption, emissions (GHG and other pollutants), and train drivers to increase fuel efficiency and purchase locally sourced freight

- Reporting reduction in fuel efficiency (l/km), improvement in route optimization (km/trip), improvement in load optimization (Tons/trip), GHG reduction due to transportation, reduction in vehicle emissions data (Reporting CO proportions, opacity and emissions of other pollutants)
- Fuel Conservation Training and Education (no idling etc.)
- Increase in locally sourced freight

Tier III: Excel by improving the fleet (natural gas vehicles, lead to unleaded, Euro4 compliance)

- Changing from leaded gasoline or diesel to unleaded or natural gas
- Complying with Euro 4 emission standard

Pollutants

Tier I: Report and control emissions from any combustion process

- Reporting CO, NO_x, Sox, heavy metals, particulate matter, Dioxins, Furans, and other pollutants emissions due to a combustion process
- **OR** Documentation proving adherence to regulations from a regulatory authority (JISM, Ministry of Environment) or an independent Third Party for an emissions audit

Tier II: Reduce emissions from any combustion process

- Reporting reduction of CO, NO_x, Sox, heavy metals, particulate matter, Dioxins, Furans, and other pollutants emissions due to a combustion process

Tier III: Excel by going beyond local and national regulations.

- Compliance reported as % of reduction below national regulations

7.3.2.2 Water

The purpose of the Water indicators is to protect against increasing water scarcity by assessing consumption and adopting strategies to reduce consumption. These strategies are additionally designed to encourage the practice of greywater capture and reuse. Core values of economy, environment, and society are expressed in the Wastewater Capture & Reuse indicators for example, where purchasing greywater from treatment plants, or engaging with regulatory authorities for reporting are rewarded.

Withdrawal, Use, Capture & Reuse

Tier I: Report water consumption

- Reporting Water Bills, Water source including renewable sources and use, prior year consumption
- Report Water Conservation Policy/priorities

Tier II: Reduce water consumption

- Reduction in water consumption based on prior year consumption

- Report increase in water consumption from renewable sources
- Decrease in water consumption due to initiatives previously documented
- Increase in water consumption from renewable sources due to initiatives taken
- Rainwater-capture systems
- Water Conservation Training and Education

Tier III: Excel by upgrading to water efficient facilities

- Water efficient fixtures
- Desalination
- Integrated Water Management Systems

Wastewater Capture & Reuse

Tier I: Report water capture

- Reporting Water Capture, prior year consumption, Water Reuse Policy/priorities
- Report water quality as per local standard (JS202:2007/JS893:2006) or more recent)
- **OR** Documentation proving adherence to regulations from a regulatory authority (JISM, Ministry of Environment) or an independent third party

Tier II: Reduce water waste by increasing greywater use

- Greywater Use (irrigation, construction, non-potable toilets/urinal) and buy-back
- Goal Set/Green Mission Statement
- Water Conservation Training and Education

Tier III: Excel through onsite wastewater treatment, rainwater-capture systems

- Integrated Water Management systems (Biswas)

7.3.2.3 Waste

The purpose of the Waste indicators is to respond to national industrial and population development, and decrease the pressure on municipal treatment by assessing volume and type, and adopting strategies to reduce waste generation. These strategies are additionally designed to encourage the practice of recycling, reuse, and general landfill-diversion strategies. Core values of economy, environment, and society are expressed in the Waste indicators for example, where reducing the impact of hazardous waste through recycling or reuse programs is rewarded.

Solid Waste

Tier I: Report the amount of waste generated by type and disposal method

- Reporting the total weight of waste generated by type (Plastic, Glass, organic and paper), disposal method of solid waste (Landfill, waste-to-energy, recycling facility), total weight and disposal method of any by-product, and spills

Tier II: Reduce waste generation and increase in source from renewable sources

- Reduction in total weight by type of solid waste, amount of solid waste sent to landfill, process by-products, and number and volume of spills.

Tier III: Excel by innovation with uses and disposal of waste

- Waste recycling, capture, and reuse
- Landfill diversion

Hazardous and Universal Waste

Tier I: Report and control the amount of hazardous wastes and proper disposal.

- Report the amount of hazardous waste production and provide a proper disposal according to local and national regulations
- Report the compliance with the Basel convention in trans boundary movement of hazardous waste

Tier II: Reduce hazardous waste production.

- Reduce the amount of hazardous waste generation due to initiatives taken

Tier III: Excel by innovating with uses or disposal of hazardous waste

- Recycling or reusing at least 25% of the amount of hazardous waste

7.3.2.4 Society

The purpose of the Society indicators is to deepen the bond between organizations and Jordan by actively investing in the workforce, and adopting strategies to reduce gender and education gaps. These strategies are additionally designed to engage organizations in sustainable development and education activities. Every portion of the Society indicators expresses the core values of economy, environment, and society.

Workforce Development

Tier I: Report gender and youth ratio.

- Report employment statistics including gender and age ratios

Tier II: Reduce unemployment and create opportunities for development

- Administer or Youth/Women's Leadership, mentorship, Internship/Traineeship, and professional development programs

Tier III: Excel in Work-Life Programs

- Trainee retention and small business development
- Training external stakeholders: suppliers, contractors, customers

Community Service

Tier I: Report Philanthropic activity

- Report philanthropic activity

Tier II: Reduce opportunity gap through increased philanthropy

- Increase in philanthropic and community service efforts

Tier III: Excel in sustainable business practices

- Create philanthropic foundations

Outreach

Tier I: Report sustainability influence initiatives

- Report direct, sponsored, and partnership-based sustainability education programs
- Map of stakeholders for influence opportunity

Tier II: Reduce sustainability education gap

- Develop and implement sustainability outreach activities
- Develop key strategic partners

Tier III: Excel by engaging in public-private partnerships for sustainable business practices

- Develop sustainability initiatives such as clean technology industries, including renewable energy, advanced transportation, advanced water treatment, alternative fuels, green building, and energy efficiency with key partners

7.3.2.5 Product & Services

The purpose of the Products & Service indicators are to improve basic goods and services operations by assessing provenance and content, and adopting strategies to increase sustainable goods and services. These strategies are additionally designed as a catalyst for green design and supply. Core values of economy, environment, and society are expressed and rewarded in all aspects of “greening” supplies.

Supply & Sourcing

Tier I: Report on supply chain and suppliers’ sustainability performance

- All supplies received by the company with quantities from each supplier
- All suppliers must be measured for sustainability performance

Tier II: Reduce the use of unsustainable product and suppliers

- Increase number of sustainable suppliers

Tier III: Innovation and excellence through increasing

- Life Cycle Analysis and increase efficiency based on opportunities revealed
- CO₂ emissions associated to each product
- Cradle to cradle designs

The Pillar components and sub-components are illustrated below.

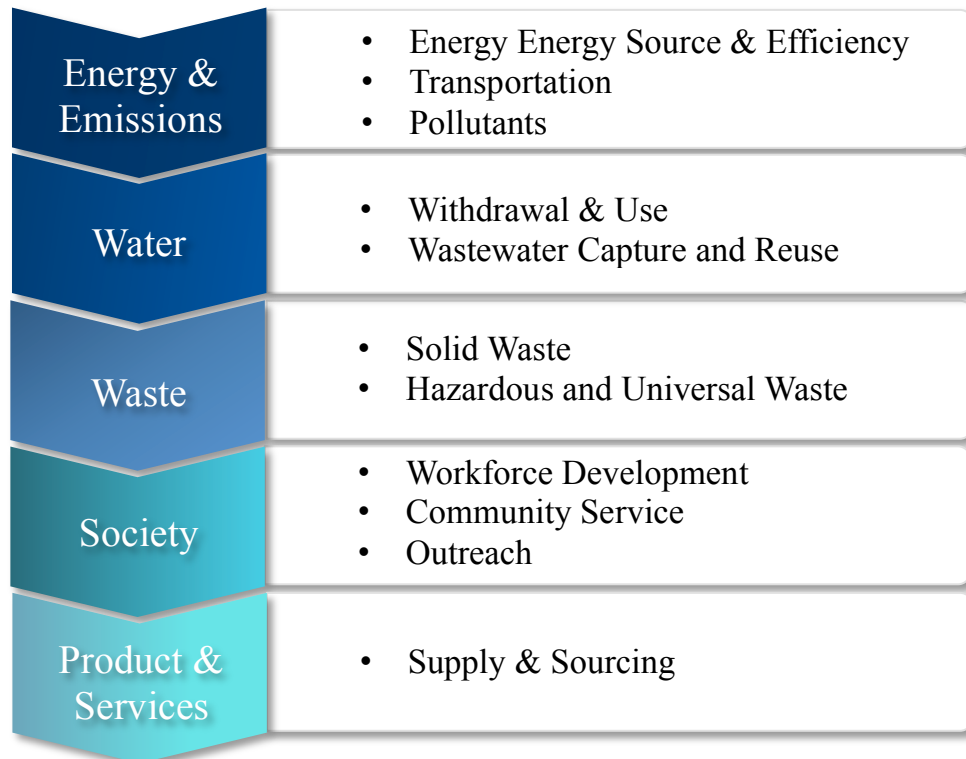


Figure 15 – Sustainability Indicators Components and Sub-components

7.3.3 Weighting Factors

Once the key performance indicators have been identified, it is important to weigh them based upon the strategic goals of the organization. Since water and energy are such important topics for Jordan, the metrics associated with these indicators must be weighted in such a way that they receive greater attention. The chart below reflects the priorities of the Center, based on the field research that was performed by the team. The priorities reflect their importance at the point in time. As the project matures, these priorities should be revisited, and adjusted as required.

As noted, the weighting is different for public and private institutions. For public organizations, participation in the program is voluntary, however, economic incentives will be provided for the organizations that enroll in the program. For private industry, the program is split equally: 50% for enablers, and 50% for results. For the public sector, an emphasis is put on goals, as development of these goals and sustainability initiatives are critical in public organizations.

There are other relevant dimensions to these metrics which can be used to ensure a more robust decision making tool. The weights listed in the above table indicate how the different categories are prioritized. However, within these categories, the organization being assessed will accrue points based upon the criteria they are expected to meet.

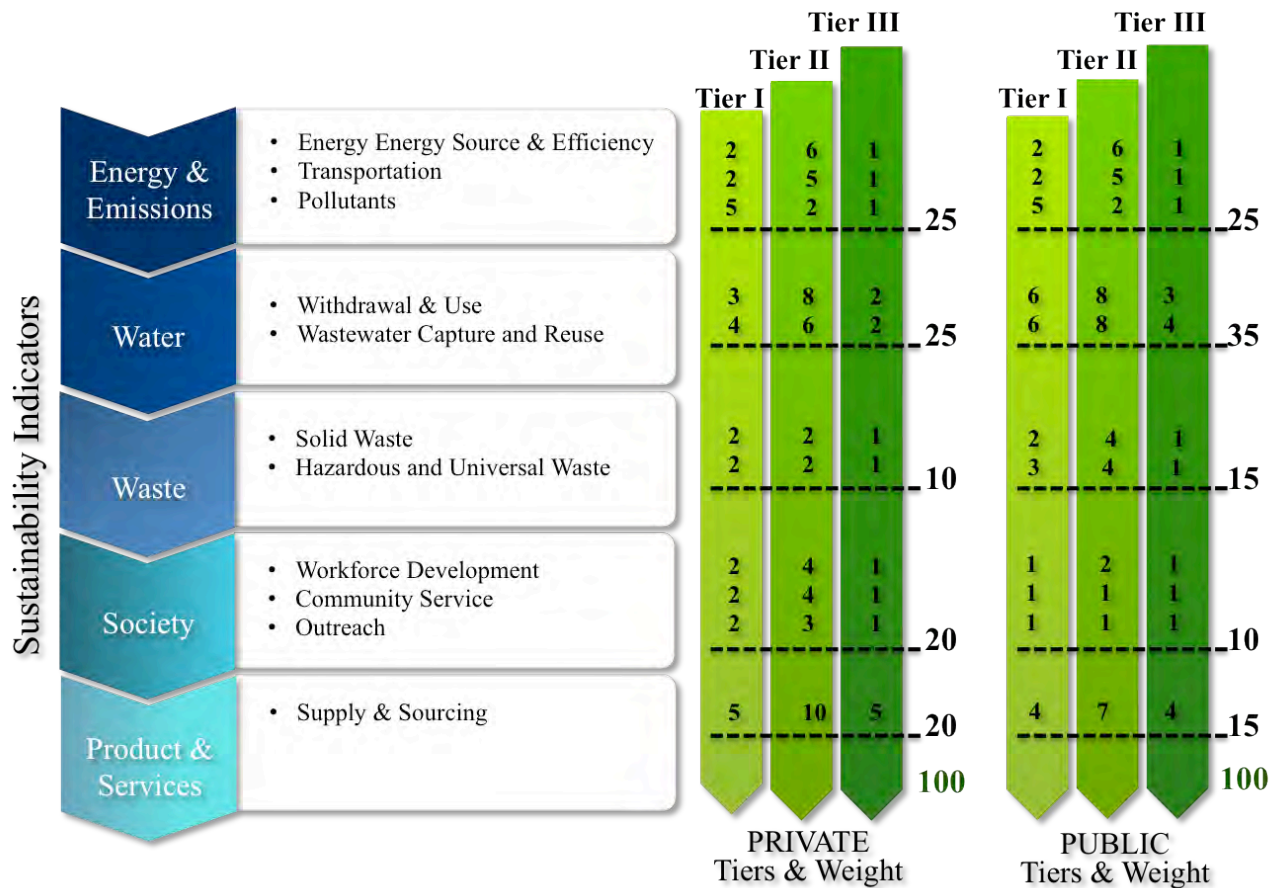


Figure 16 - Integration of Sustainability Indicators, Weights and Tiers

7.3.4 Award Stars System

The Award Stars System will allow for quick analysis to observe those organizations that are participating in the program. The stars will be awarded based on applicant’s point accumulation. Stars will be reevaluated every year to ensure longevity of the effect of the Award, and in hopes of motivating participants to maintain their “star-rating brand” or improve upon it.

Points were assigned to the Award Stars System in the Year 1 context, increasing high star opportunities for point totals. The Team recommends shifting point-to-star distribution in subsequent years to make the Award Stars more challenging to achieve and to drive innovation.

Scale 1-5, Year 1-4 point distribution

Private

Tier I points: 0-31
Tier II points: (0-52) 32-82
Tier III points: (0 -17) 83-100

1 star = 15 total points
2 stars = 16- 31 total points
3 stars = 32-50 total points
4 stars = 51-82 total points
5 stars = 83-100 total points

Public

Tier I points: 0-33
Tier II points: (0-48) 34-80
Tier III points: (0-19) 81-100

1 star = 15 total points
2 stars = 16-33 total points
3 stars = 34-49 total points
4 stars =50-80 total points
5 stars = 81-100 total point

Recommended Point distribution, following years

Private

Tier I points: 0-31
Tier II points: (0-52) 32-82
Tier III points: (0 -17) 83-100

1 star = 31 total points
2 stars =32-50 total points
3 stars =51-82 total points
4 stars =83-93 total points
5 stars = 94-100 total points

Public

Tier I points: 0-33
Tier II points: (0-48) 34-80
Tier III points: (0-19) 81-100

1 star = 33 total points
2 stars =34-49 total points
3 stars =50-80 total points
4 stars =81-93 total points
5 stars = 94-100 total points

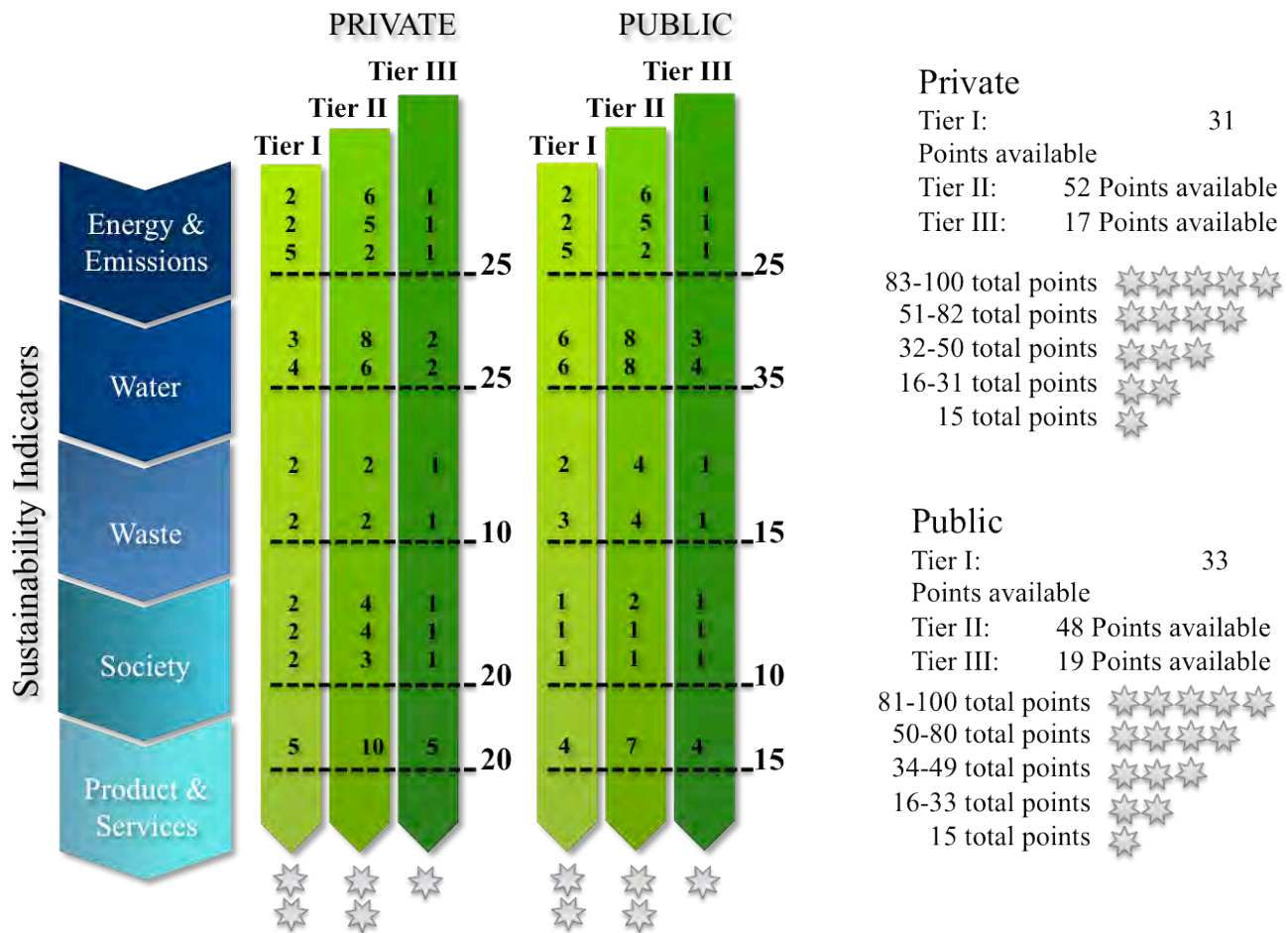


Figure 17- Star and Point Opportunities Year 1

By providing stars, observers can quickly and adequately assess an organization’s environmental and social responsibility. While the tiers indicate whether an organization is “reporting,” “improving,” or “innovating,” the Award Stars indicate the degree of excellence that is achieved. They are intended to simulate a “grade” or “mark.”

8. Metrics Application

The metrics system designed for the Pillar is intended to provide vigorous, yet achievable sustainability standards for applicants to strive towards as well as user-friendly tools for assessors to utilize during the Award process. This section provides describes the metrics’ elements application and utilization, which can be used for educating applicants about the Pillar.

8.1 Connection of Key Design Elements

The key design elements within the structure of the metrics system are: the major components, the Tier Approach, the Enablers and Results, and the Award Stars System. Together, these essentials piece together to highlight major areas of sustainability that are relevant in Jordan that organizations, both private and public, can address through their operations and strategies. The components identified are effective in addressing sustainability issues only if a system that encourages and helps organizations achieve solutions to the issues is present. Thus, the three tiers for “Reporting,” “Improving,” and “Innovating” work within each component to set goals for excellence for each issue. The Enablers and Results framework is a key element as it is a tool to drive attainable goals to reach achievable results within each tier. Finally, the sum of each component’s “Enablers” (E points) and “Results” (R points) points translate into the Award Stars System. This concept is the main takeaway for the Applicant and serves as a high-level goal for the Pillar. *Please refer to Appendix 8 for a Quick Reference Guide.*

8.2 Summary Scorecard

Each component and subcomponent includes specific questions pertaining to each issue. The applicant will answer these questions. The appropriate answer, based on the unit type, is to be provided. The assessor then completes the “E point” and “R point” column to answer “YES” if the applicant’s answer warrants points for that given question, or “NO” if the applicant did not meet the requirements for achieving the points. The dropdown list for the assessor will then correlate to the total summary scorecard of points. The assessor does not need to manually add or subtract points for each applicant as the simple “YES” or “NO” validation will automatically populate the points on the summary scorecard. This approach was specifically designed to avoid complicated manual inputs by the assessor and helps provide a standard summary scorecard for each participant. *Please refer to Appendix 8 for a scoring guide highlighting a snapshot of the worksheet and scorecard.*

9. Sustainability Award Education

Successfully implementing the Pillar into the Award is largely dependent on how the training is structured for the Award applicants, mentors and assessors. Effective training requires the practice of skills or knowledge and trainers to be available to correct mistakes and misconceptions. The first part of this section describes the components of a successful education model that takes these factors into consideration and the second part of the section describes how the Center can turn theory into practice. Without proper analysis and understanding of a successful education model, application of such a model will not be successful.

9.1 Components of a Successful Education Model

When designing the education and training for the Pillar it is important to create learning objectives. These objectives should document the behavioral changes expected from the assessors and mentors after training. Learning objectives should also reflect the knowledge and skills addressed in training materials that are then linked to various instructional methods (Merli). Establishing learning objectives will provide a strong foundation for evaluating course effectiveness in relation to learning. The learning objectives for applicants, assessors and mentors regarding the Pillar should be established with the following eight guidelines in mind (ibid).

1. **SMART Objectives:** Learning objectives should be specific, measurable, action-oriented, relevant, and timely (SMART). Learning objectives should be designed so that outcomes are observable by training staff. The learning objectives developed for the Center should be reviewed to follow under the SMART guidelines.
2. **Ease of Use:** The readability of training & education materials should be optimized using the Flesch-Kincaid Score (Merli). The Flesch-Kincaid readability tests are used extensively in the field of education and include two tests: Flesch Reading Easiness (a score from 0 to 100) and Flesch-Kincaid Grade Level. The tests use the same core measures: word length (syllables per word) and sentence length (words per sentence). The core measures are inversely proportional, so a text with a comparatively high score on the Reading Ease test will correspond to a lower score on the Grade Level test. It is recommended that the training and education materials the Center provides to its audience have a cumulative score of 60-70.
3. **Engaging Visuals:** The training materials should include at least five important visuals to improve comprehension of key sustainability concepts. Studies show that presentation graphics can reduce teaching time by as much as 28% (Pink, 2005). Visuals include room peripherals, diagrams, charts, mind maps (Rose, 2000), windowpanes and flash cards (Pink, 2005). In order to provide a successful learning experience, the Center should incorporate visuals such as diagrams of the current state of Jordan's energy and water usage.
4. **Uniformity in PowerPoint Presentations:** The training should include standardized PowerPoint presentations to maximize training benefit. In order to be most effective, it is recommended that a PowerPoint presentation use: a minimum 24-point type, upper and lower case fonts (avoid using all capital letters), bold or underline for emphasis, visuals more than words, a 6 x 6 format, good contrast between the text color and background color, page numbers on all slides, few colors on each slide, one font throughout the presentation, bright color to attract attention, and should avoid using italics, transitions, and moving text (Russell, 1999). All slides designed for training the Pillar should be reviewed using these guidelines.
5. **Appropriate Level of Training:** Consider at least four distinct information levels when conducting training needs assessments: awareness, familiarity, competence, and mastery.

- Awareness: The other employees of the Center and organizations applying to the Award who are not assessors or mentors.
- Familiarity: The affected entities that will be assessed during the Award evaluation process.
- Competence: The executive level managers responsible for ensuring that sustainability practices are continuous and ongoing. Mastery: The assessors, mentors, and supervisory level individuals responsible for disseminating and evaluating the new Award metrics. Offering one level of training and putting all trainees in the same session may be efficient, but it is not effective.

Each level of training described above requires separate training tailored to unique knowledge and skills. Applicants, assessors or mentors that require awareness-level training may become overwhelmed and unmotivated if they are placed in sessions taught at the competence or mastery level.

6. **Case Studies:** Assessors and mentors should learn key concepts related to sustainability by completing case study presentations and hands-on exercises. Studies have shown that one remembers only 20% of what one reads, but remembers 90% of what one sees, says, hears and does (Rose, 2000). For this reason, it is recommended that the Center provide case studies relevant to the region and to both the private and public sector.
7. **Include Breaks:** To maximize recall, training should include frequent, short breaks (5 minutes per hour) to increase primacy and frequency. Memory aids and reference materials should also be provided to help assessors and mentors rehearse/review/repeat what they have learned after training. These breaks can also serve as a time for audience members to interact.
8. **Prepare the Audience:** Assessors and mentors should be prepared for training objectives before training begins. Meier suggests sending learners a pre-course prep kit to reduce anxiety, identify goals, clarify benefits, raise curiosity and create positive feelings about the upcoming training (Meier). A kit designed to introduce assessors and mentors to the Pillar might include a training agenda, a list of the learning objectives, endorsements from previous attendees about the value of the training and a contract specifying what learning outcomes assessors and mentors wish to achieve and how much time they expect to spend to achieve those outcomes.

In addition to the learning objectives, different levels of training and evaluations should be established. New information must be understood correctly before learners leave the training room. New skills must be reinforced shortly after training has ended or they will not be retained. Evaluating training outcomes also helps justify training budgets, quantify performance improvement and improve the effectiveness of all aspects of the training and education materials designed for the assessors and mentors. These levels of training evaluation might include:

1. Using a survey to document feedback about the trainer, agenda, presentation style, audiovisuals, handouts, and training environment.

2. Measuring learning – the change in knowledge, skills or attitude at the end of training. This can be achieved by comparing pre/post training tests or quizzes.
3. Measuring behavior change – the transfer of knowledge, skills or attitudes towards specific sustainability measures. To measure this, it is best to establish behavioral goals or baselines and then conduct observational analyses of pre-training and post-training performance.
4. Measure results from training. Such results might include return on investment, increased profits, or reduction in waste.

9.2 Implementation of Training and Education

Only after addressing learning objectives and different levels of training, a comprehensive education plan can be designed to introduce key target groups to the Pillar and the metrics designed to drive sustainability within the private and public sectors in Jordan. The following section outlines the education plan model, target group, educational topics, and expected results, along with the appropriate recommendations for the Center to implement their strategy of driving sustainability in these sectors.

9.3 Educational Plan Model

The recommended education plan for the Award is based on the 70:20:10 model of adult learning (ICF). The 70:20:10 model of adult learning is a result of a significant amount of research that indicates that:

- 10% of learning are actual learning events such as workshops, courses, seminars, tutorials, and even in some cases reading books, articles, and watching videos.
- 20% of learning are informal conversations about the learning content, including sharing ideas, experiences and coaching and mentoring about the learning topic.
- 70% of learning are actual application and practice of the information learned in a real and practical sense, such as on the job usage or in the pursuit of goals.

The educational and training provided to applicants, Mentor, and assessors are in the form of workshops and seminars which incorporate practical approaches and the direct application of the materials learned during the educational workshops and seminars.

9.4 Target Group

In order for the Pillar to be successful, the target group must receive education about sustainability and how it will be integrated into the Award. The target group is comprised of: (i) the Center, (ii) applicants, (iii) mentors, and (iv) assessors. Each member of the target group will

receive training and education specific to their role. All training and education for the target group must be designed with the Pillar in mind and incorporating the components of a successful education plan as described above. In order for the training and education to change behavior rather than solely being Award seeking, it must achieve short-term, medium-term, and long-term sustainability goals and strategies throughout all stages of the award process over continuous award cycles. The short-term, medium-term and long-term educational goals align with the stages of the Pillar, the Tier approach, and the Award Stars System.

9.4.1 The Center

It is important for the Center to obtain a thorough understanding of sustainability in a global, regional, and local context. It is recommended that the Center establish a sustainability team to:

- (i) Monitor the current state of key issues surrounding sustainability in Jordan and serve as the focal point for continuing education within the center,
- (ii) Coordinate training and education for applicants, mentors and assessors, and
- (iii) Establish relationships with Key Partners

The Center should become familiar with international sustainability best practices and the metric components: Energy and Emissions, Water, Waste, Society and Product & Services. It is recommended for the Center to liaison with Key Partners to obtain current and relevant educational materials to become familiar with the metric components. It is recommended that the Center immediately become acquainted with key sustainability concepts and the most urgent problems facing sustainability in Jordan. Throughout the medium and long-term periods, the Center should focus on continuously becoming educated on local, regional, and global sustainability issues.

At the same time, the Center should lead by example by incorporating sustainability efforts and strategies into their own business model by:

- (i) Educating all employees regarding sustainability and developing their own sustainability team or specialist,
- (ii) Implementing small initiatives; such as providing online applications and not reprinting Award Booklets, therefore using less paper, etc.
- (iii) Connecting interested stakeholders via seminars and conferences, and
- (iv) Providing ongoing internal education regarding sustainability issues locally, regionally and globally

9.4.2 Applicants

The applicants, whether private or public sector institutions, must have a general understanding of sustainability and how it affects them organizationally and internally. It is recommended that the Center educate applicants on general sustainability issues in Jordan and why the new Pillar was added to the Award criteria. As applicants prepare to apply for the 2014/2015 cycle, they need to understand how the new sustainability metrics work and what their organization can do to achieve high results within the Pillar. The Center should provide informational and

educational sessions to such organizations prior to the Award cycle. These sessions should incorporate the objectives and appropriate learning levels for each session.

In order for applicants to grasp the purpose of the new Pillar of sustainability in the Award, it is best if strategies are first introduced to the decision makers and strategic thinkers of the organization. In order for sustainability to be implemented into the Applicant's mission and strategy, it is important that management supports the vision. To implement this vision, it is recommended that applicants nominate a specialist for sustainability within their organization.

9.4.3 Mentors

As the internal advisor to their entity, whether private or public, mentors must fully comprehend what sustainability is, why the Center is incorporating a sustainability pillar into the Award criteria and how their organization can prepare to fulfill the prerequisites and ongoing criteria of the new pillar. The Mentor will work hand-in-hand with the sustainability specialist. It is recommended that the Center provide information sessions and awareness seminars to mentors prior to the application process. As liaisons between the Center and their organizations, mentors should be familiar with the immediate steps their organizations must take to apply for the upcoming Award cycle. They must also be knowledgeable of the Tier approach and the medium and long-term goals of the Pillar so their organizations can address them in future Award cycles.

It is recommended that the mentors be selected by the Center and by the applicants as key individuals to drive the vision of the Center within their organizations. It is extremely important for the mentors to fully understand why the Center is adding a new Pillar and to fully comprehend the Tier approach. With this knowledge the Mentor can drive their organization towards long-term sustainability.

9.4.4 Assessors

As the party responsible for evaluating how entities report their sustainability efforts during the application process, assessors must know what they are evaluating, how to evaluate it, and why it is important. Assessors for both private and public institutions must have a general understanding of sustainability, how it is defined within the context of the Award, why the Center is incorporating a sustainability pillar within the Award criteria, and how it will be reported and assessed. Through educational and training sessions and seminars developed with the techniques above, the Center will provide assessors answers to such questions and assessors will comprehend the Tier approach, the corresponding metrics and the grading criteria.

The assessors are essential in assisting the Center's implementation of its vision of sustainable best practices. While assessors assess the documentation, their understanding and knowledge of sustainability and the application of each organization's efforts is extremely important to understand the potential pitfalls and challenges that applicants may face. It is recommended that the Center provide a forum for assessors to report these findings so the Center can then involve Key Partners to assist applicants strive towards sustainability.

9.5 Educational Topics

It is recommended that the educational and training sessions include sustainability and the following five components: Energy & Emissions, Water, Waste, Society, and Products & Services. In order to understand the relevance of the new Award metrics and how to best implement them within an organization, a thorough understanding of the listed topics is necessary. This section describes what the educational and training sessions should include under the listed components.

9.5.1 Sustainability

Training should provide the applicants, assessors and mentors a clear understanding of what sustainability is and how the proposed metrics will work to assess it. To create a common understanding of sustainability as it relates to the Award, mentors and assessors should be taught the operational definition of sustainability from the section above, titled: “The Issue of Sustainability”. In order to best illustrate how organizations can incorporate sustainability, the Center should provide case studies of local or regional organizations that have achieved superior business results and outstanding leadership and implementation practices. Case studies are also an effective way to convey important concepts portrayed in the operational definition.

When implementing sustainability training in educational materials, it may be useful to collaborate with Columbia University’s MSSM Program, Columbia University Middle East Research Center (CUMERC), and EDAMA, a private/public association formed to build public awareness of sustainability issues in Jordan.

9.5.2 Metric Components: Energy & Emissions, Water, Waste, Society, Products & Services

It is important for the audience to understand why the Award is focusing on Energy & Emissions, Water, Waste, Society, Products & Services. For example, it is important for the audience to understand why striving towards efficient energy usage is important to alleviate Jordan’s energy dependency, or why monitoring water use can address scarcity issues.

The training material provided to educate the applicants, mentors and assessors about the five metric components should be specific to each component. One way to accomplish this is to introduce the local laws, regulations and standards that are relevant to each component. Furthermore, the assessors and mentors need to be trained on the measurement units of each metric component. The education material should have a guide to explain each scientific unit and how to convert from one to another. For instance, under Energy Emissions, reports can be provided in MJ or KWH, and the assessors should recognize these units and know how to convert them. Training and education in this area should also be prioritized by the short-term, medium-term and long-term goals outlined in the sections below.

9.5.3 Key Education and Training Partners

To best prepare for the educational and training process, the Center should establish relationships with key partners. It is recommended that the Center establish partnerships with the following organizations for each metrics category:

Key Partners: Energy & Emission

- Ministry of Environment (MOE)
- Ministry of Energy and Mineral Resources
- Jordan Institution for Standards and Metrology (JISM)
- Jordan Green Building Council (JGBC)

Key Partners: Water

- Ministry of Environment (MOE)
- Ministry of Water and Irrigation (Water Authority of Jordan-WAJ)
- Jordan Institution for Standards and Metrology (JISM)
- Jordan Green Building Council (JGBC)

Key Partners: Waste

- Ministry of Environment (MOE)
- Ministry of Municipal affairs (MOMA)
- Greater Amman Municipalities (GAM)
- Jordan Institution for Standards and Metrology (JISM)
- Jordan Green Building Council (JGBC)

Key Partners: Society

- Ministry of Labor (MOL)
- Ministry of Health (MOH)
- Ministry of Education
- Jordan Institution for Standards and Metrology (JISM)
- Jordan Green Building Council (JGBC)

Key Partners: Products & Services

- Ministry of Environment (MOE)
- Ministry of Trade and Industry (MOTI)
- Jordan Institution for Standards and Metrology (JISM)

9.6 Expected Results

The proposed training materials should effectively educate participants about the sustainability goals outlined in The Award. It is advised that the Center develop immediate, short-term, medium-term and long-term goals that reflect Tiers I, II and III in the proposed Award design. By doing so, the Center will provide the skills public and private organizations need to develop sustainable outcomes and strive for excellence in the areas of: Energy and Emissions, Water, Waste, Society, and Products and Services.

9.6.1 Actions for Immediate Attention

Upon receiving suggested metrics, the Center should first become acquainted with the concept of sustainability that is being used for the new metrics. At the same time, the Center's sustainability specialist should initiate collaborations with suggested partners for developing private and public training material and content delivery. The training materials that need to be produced include presentation slides, case studies and information pamphlets for Tier I, II and III. At the same time, the Center should begin advertising the new Award Pillar to create awareness for existing participants and potential applicants. The Center should use current advertising methods in addition to creating a section in the King Abdullah II Center for Excellence website, information brochures, emails to previous participants, and any other pertinent communication methods.

The immediate training sessions for mentors and assessors should not last more than 2-3 days. The detailed topics are detailed in Appendix 5. The Key Partners and the specialists responsible for preparing training material can determine the duration of training. The total number of trainees (mentors and assessors) in each training session should not exceed 25. It is recommended that the best performing trainees should be asked to help teach future trainers. At the same time, full-time course attendance should be required and monitored.

9.6.2 Short-Term

Short-term goals are the steps necessary to attain long-term goals. The training materials developed for short-term should focus on creating awareness about current sustainability efforts in Jordan. They should focus specifically on efforts surrounding Energy and Emissions, Water, Waste, Society, and Products and Services. This approach will generate an understanding for why the Award is being created and what it hopes to achieve. Information about related regulations and standards that address the focus areas should also be provided in the short-term.

Furthermore, the suggested information should create enough background knowledge for organizations to understand the proposed metrics that they will report and be assessed on. The Center should encourage the organizations and provide guidance on reporting the five Topics of the Award.

9.6.3 Medium-Term

Medium-term goals build on the foundation established by short-term goals and provide the requirements necessary to achieve long-term goals. In the medium-term, the Center should provide organizations with a vision for achieving sustainability excellence. To encourage strategic vision, the Center should provide case studies of organizations that have benefited from the implementation of successful sustainability initiatives. It is recommended that the Center build on the relationships with the Key Partners developed during the previous year (short-term) to promote sustainability via seminars and conferences thus creating a robust network of stakeholders.

The Center's medium-term and long-term educational sessions should include day seminars, conferences, power breakfasts etc. Such scheduled events should be sponsored by Key Partners and should not be longer than a day or half a day. The purpose of these events is to:

- (i) Promote an extensive network of sustainability leaders,
- (ii) Facilitate open conversations, and
- (iii) Create opportunities for organizations to showcase their results, challenges and ongoing efforts.

It is recommended that such sessions be geared towards key stakeholders in the private and public sectors separately.

9.6.4 Long-Term

Creating innovations, investing in research and development efforts, and developing out-of-the-box training programs are important goals for a long-term vision. This component should align with Tier III activities in order to “lead the way”. It is recommended that the Center showcase sustainability excellence through its seminars and conferences. It is recommended that the Center organize networking and informational sessions for applicants, Key Partners, mentors and assessors to continue to develop an extensive network of entities interested in leading sustainability efforts locally and in the region. The Center will be pivotal in bringing key stakeholders to the table to discuss their results, challenges, success stories and ongoing efforts.

10. Recommendations

The Team has the following recommendations for the Center with regards to the implementation of the new Pillar as part of the Award criteria. These proposed actions will assist the Center in successfully accomplishing their mission of driving sustainability best practices for Award applicants and for organizations in Jordan. The recommendations are divided into three different action types: (i) actions taken at an institutional level to drive sustainability excellence, (ii) actions taken to ensure the appropriate education and training, and (iii) actions taken with regards to the future development of the Pillar.

10.1 Institutional

The Center will have the unique opportunity to be a driver in coordinating sustainability efforts in Jordan by being the first institution to present a sustainability metrics designed to address the local needs and challenges of private and public institutions. The Center will be essential in connecting key players by addressing these entities’ initiatives and visions into a common language and mission. The Center can further establish the existing partnerships and expand the network of entities involved in developing sustainable best practices. The Center will be in the forefront of sustainability planning with stakeholders by hosting educational seminars and networking events. It is recommended that the Center have a sustainability coordinator to assist with the efforts. The Center sustainability coordinator will also be a liaison with the stakeholders throughout the educational seminars, the application process, and maintaining an ongoing relationship to coordinate efforts and initiatives. Internally, applicants should designate sustainability liaisons within their organizations to assist with the efforts as well.

10.2 Educational

It is recommended that the Center announce the incorporation of the new pillar of the Award in a formal publication to inform the Award applicants prior to launching the educational and awareness sessions. Following the announcement, the Center and its key partners should develop the educational material according to the criteria explained in Section 9 and schedule the educational seminars. It is recommended that the Center provides current and future applicants with the educational chapter on sustainability in preparation for the seminar. The Center's website should also include this updated information. It is crucial for the Center to set timeframes for goals, measurements, and reassessments of the educational material to provide the most current and up to date information on the sustainability components of the Pillar.

10.3 Further Development of the Pillar

As the vision of the Center and the purpose of the Award are to drive excellence in the private and public sectors, the Pillar should be revisited and enhanced in the future. There may be a need to adjust the point allocation to encourage innovate strategies or to create competition between applicants. The Pillar may eventually be considered an award of its own or may be developed to have subcategories to the Award, for example recognizing those applicants who achieve high points on energy or water management. If successful and well received, the Center can recommend that Award applicants only deal with other entities that have the same standard of sustainability. For example, a government entity may eventually only conduct business with 3 Star entities or higher. This strategy will drive sustainability in Jordan and make the Center a leader of sustainability excellence within the region.

10.4 Next Steps

1. Develop a Strategic Plan including implementation strategies
2. Communicate the incorporation of the sustainability pillar as part of the Award criteria
3. Publish new booklet
4. Set goals to ensure that the strategy is being executed
5. Measure success against these goals
6. Update strategic plan on an annual basis
7. Center should develop the training syllabus based on the outline described in the Education section of this report
8. Train assessors and mentors
9. Establish partnerships with other sustainability projects in Jordan
10. As a result of the survey information from Year 1 baseline data is available, perform statistical analysis on those data to readjust the Award Stars System so that National strategic priorities are reflected

Conclusion

There is no “perfect method” to executing a sustainability strategy. As the definition changes frequently, what is important is that sustainability is defined, a strategy is developed, and organizations remain persistent. If steps are not taken now, then the resources necessary for the future will be at risk. It is as simple as a balance sheet; what is taken today will not be available tomorrow.

This report should provide the information necessary to implement a robust sustainability strategy. It is important, however, that this plan is updated to reflect the most recent issues, as this is a static document. This report should be reviewed frequently, and updated on an annual basis, to ensure that it remains relevant.

The entire Columbia University Master of Science in Sustainability Management team thanks you for the opportunity to use the skills and knowledge we have learned throughout the course of the program.

Appendix

1. List of Environmental Laws, Standards and By-Laws
2. Metrics & Scoring Workbook
3. Researched Green Rankings and Sustainability Indexes
5. Fieldwork Insights
6. Education and Training Concepts
7. Goals of Education and Training
8. Schedule of Training Seminars, Awareness Sessions & Networking Events
8. Case Study
9. Sustainability Chapter to Award Booklet
10. Final Report Briefing Presentation Materials

Appendix 1: List of Environmental Laws, Standards & By-Laws

Jordanian Regulations	Air	Water	Solid Water	Waste Water	Land Use	Housing & Settlements	Public Health	Pesticides, Fertilizers & Chemicals	Noise
LAWS									
Environmental Protection Law No. 12-1995	✓	✓	✓		✓	✓		✓	✓
Water Authority Law No.18-1988		✓		✓					
Jordan Valley Development Law No.19-1988		✓		✓	✓	✓			
Organizing Cities, villages & Buildings Law No.79-1966		✓	✓		✓	✓			✓
Agriculture Law No.20-1973		✓			✓		✓	✓	
Public Health Law No.21-1977	✓	✓	✓	✓			✓	✓	✓
Industrial cities Corporation Law No.59-1985	✓	✓			✓				
Municipalities Law No.29-1955		✓	✓	✓			✓		✓
Civil Defense Law No.12-1959		✓	✓			✓			
Pharmaceutical Law No.34-1972			✓	✓			✓	✓	✓
Traffic Law No.14-1984	✓							✓	✓
Nuclear Power Law No.14-1987			✓				✓		
Natural resources Law No.12-1968					✓				
Housing & Urban Development Bank Law No.28-1992					✓	✓			
Manipulation of Public Properties Law No.17-1974					✓	✓			
Electricity Law No.10-1996						✓	✓	✓	
Crafts & Industries Law No.16-1953							✓	✓	
Jordan Doctors syndicate law No.13-1972							✓		
Jordan Dentist Syndicate Law No.17-1972							✓		
Jordan Pharmacist Syndicate Law No.17-1972							✓		
Codes & Sales Law No.15-1994							✓		
Narcotics law No11-1988		✓							
STANDARDS									
Jordanian Standard No.202-1991- Industrial wastewater		✓		✓			✓		
Jordanian standard No.286-1997-Drinking water		✓					✓		
Jordanian Standard No.287-1982-Drinking water- Methods of sampling		✓					✓		
Jordanian Standard No.893-1995-Treated Domestic Wastewater		✓		✓			✓		
Jordan standard .983-1995 of Treating wastewater				✓					
Jordan standard.73/1990 on Motor Vehicles-gasoline engines	✓						✓		
Jordanian Standard No.1052, 1053, 1054-1998- Motor Vehicles-Diesel engines	✓						✓		

Jordanian Standard No.1140-1999-Ambient air quality Standards	✓	✓		✓	✓		✓		
Jordanian Standard No.1145-1996-Reuse of treated wastewater	✓	✓		✓	✓		✓		
Jordanian Standard No.1189-1999-Maximum allowable limits of air pollutants emitted from stationary sources	✓						✓		
Jordanian standard No.2204-1979 - sounds level	✓						✓	✓	✓
BY-LAWS									
BY Law for Environmental Impact Assessment	✓	✓	✓	✓	✓	✓	✓	✓	✓
By-Law No.131-1966- Mining	✓				✓	✓			
By-Law No.66-1994-Sewage System				✓					
By-Law No.131-1966-Meterology		✓							
By-Law No.26-1977- Subsurface Water Control		✓							
By-Law No.53-1997-Deligation system and rent public land					✓				
By-Law No,19-1981-Buildings & cities organization system					✓				
By-Law No.67-1979-buildings system & organization in Amman					✓				
By-Law No.64-1974-Protecting public health from smoking									
By -Law No.66-1994 for sewage systems		✓		✓		✓	✓		

Table 1 – Regulations

Source: (Al-Zubi)

Appendix 2: Metrics & Scoring Workbook Public Sector

PUBLIC SECTOR INSTRUCTIONS

STEP 1:

During the audit, the auditor will check that:

In case of Enablers

- ÿ For tier 1, there must be enough evidence that there is a system to report, which explains the way to report each of the indicators: Flow of data, responsible person and name and location of the document where the data will be stored
- ÿ For tier 2, initiatives and procedures must be documented and approved by the person responsible for the initiatives. They must include the specific actions the organization will take to improve in the indicator.

In case of Results

- ÿ For tier 1, auditors must check that the data has been reported and the evidence of where that data comes from.. For example in the case of electric energy they must check electric bills and in the case of water, the water meter readings or the water bill.
- ÿ For tier 2, auditors will check that the improvement has come from initiatives or procedures previously documented and approved in the enabler for tier 2. Reliability of the data must also be proved by going back to the source of the data for the current and previous years.
- ÿ For tier 3, auditors will have to check that the official document stating that the organization has been certified in the case of green key or LEED or that actual innovative systems have been implemented or carried on such as on site renewable energy generation or life cycle assessment for products.

STEP 2:

In case evidence is present, the auditor will click YES in the E results or R results cell correspond at to the indicator. If there is not enough evidence, the auditor will click NO.

The results will go directly to the summary page and an score will appear automatically at the bottom of the table.

(Automatic Score calculation and Clicking YES/NO is only possible in the Excel Workbook the Team provided)

COMPONENT	SUBCOMPONENT	TIER	ENABLER	RESULTS	TOTAL points
Energy & Emissions	Energy Source & Efficiency	1	1.75	0.6	2.35
		2	4.55	1.8	6.35
		3	-	0.3	0.3
	Transportation	1	1.75	0.6	2.35
		2	3.85	1.5	5.35
		3	-	0.3	0.3
	Pollutants	1	3.85	1.5	5.35
		2	1.75	0.6	2.35
		3	-	0.3	0.3
	TOTAL			17.5	7.5
Water	Withdrawal & Use	1	5.25	1.8	7.05
		2	6.65	2.4	9.05
		3	0	0.9	0.9
	Capture & Reuse	1	5.6	1.8	7.4
		2	7	2.4	9.4
		3	-	1.2	1.2
	TOTAL			24.5	10.5
Waste	Solid Waste	1	1.75	0.6	2.35
		2	3.15	1.2	4.35
		3	-	0.3	0.3
	Hazardous Waste	1	2.45	0.9	3.35
		2	3.15	1.2	4.35
		3	-	0.3	0.3
TOTAL			10.5	4.5	15
Society	Workforce Development	1	1.05	0.3	1.35
		2	1.75	0.6	2.35
		3	-	0.3	0.3
	Community Service	1	1.05	0.3	1.35
		2	1.05	0.3	1.35
		3	-	0.3	0.3
	Outreach	1	1.05	0.3	1.35
		2	1.05	0.3	1.35
		3	-	0.3	0.3
TOTAL			7	3	10
Products & Services	Supply & Sourcing	1	4.2	1.2	5.4
		2	6.3	2.1	8.4
		3	-	1.2	1.2
	TOTAL			10.5	4.5
TOTAL			70	30	100

PUBLIC SECTOR									
SUBCOMPONENT	TIER	INDICATOR	ENABLER	E Points	RESULTS	R Points	Applicant Data	UNIT	Notes
Energy Source	1	Report Energy consumption, fuel mix, energy source, GHG and legal compliance	Is there a system in place to report energy consumption, fuel mix, energy source, and green house gas emissions?	YES	Monthly energy bills for electricity and primary energy consumed on site	YES		MJ and KWH	[1] Categories (Category, Metric, 2030 Target, Figure for Most Recent Year, Trend from Baseline) Sourced from PlaNYC 2030 Presentation from Adam Freed ????
					Reporting the % of the source of energy used. In case the data is not available for electricity, report country average			%	[2] Put Arrow indicating progress, Sourced from PlaNYC 2030 Presentation from Adam Freed ????
					Report prior year consumption through prior energy bills			MJ and KWH	
			Calculate green house gas emissions based on reported consumption					Tons of CO2	primary energy use IPCC fuel emission default values http://www.ipcc-nggip.iges.or.jp/EFDB/find_ef_s1.php in case of electricity use Jordan's electricity emission factor from the EIA
	2	Reduce energy consumption and GHG emission	Has an energy audit been performed? Are there any initiatives in place to increase the use of renewable energy?	YES	Energy reduced based on prior years consumption due to recommendations from the energy audit	YES		MJ and KWH	Either per employee, in the case of offices or per product in manufacturers
					Increase in the use of energy from renewable sources	YES		%	
Training given to employees on climate change and how to reduce energy consumption					YES		Number of training hours/employee		
3	Excel in renewable energy use and pursue certifications	-	-	Increase in the amount of energy consumed coming from RE generated onsite	YES		%		
				Becoming LEED or Green Key certified	YES		yes/no		
Transportation	1	Report fuel and emission data generated for transporting products, goods, organizational materials, and members of the workforce. Even if the transportation services are outsourced.	Is there a system in place to report fuel and emission data generated for transporting product, materials, and other goods used for the organization's operations, and transporting the workforce?	YES	Reporting fuel efficiency (L/Km)	YES		l/km	
					Reporting route optimization (km/trip)			km/trip	Consider round trip
					Reporting load optimization (Tons/trip)			Tons or people /trip	Tons of material transported/trip. In case of people, people/trip
					Reporting vehicle emissions data (Reporting CO proportions, opacity and emissions of other pollutants)			mg/m3	(check Jordanian regulations data for the annual vehicle inspection required by law)
					Report GHG emission from fleet (GHG emission data will be calculated according to the IPCC default emission values) (IPCC)			Tons of CO2	Use IPCC fuel emission default values http://www.ipcc-nggip.iges.or.jp/EFDB/find_ef_s1.php
					Reporting % of locally sourced freight			% of freight sourced locally	
	2	Reduce fuel consumption, emissions (GHG and other pollutants), and train drivers to increase fuel efficiency and purchase locally sourced freight	Are there any initiatives in place to reduce fuel consumption and emissions (GHG and other pollutants), train drivers to increase fuel efficiency and purchase locally sourced freight?	YES	Reporting reduction in fuel efficiency (l/km)	YES		L/km	
					Reporting improvement in route optimization (km/trip)	YES		Km/trip	
					Reporting improvement in load optimization (Tons/trip)	YES		Tons/trip or people/trip	
					Reporting GHG reduction due to transportation	YES		Tons of CO2	
					Reporting reduction in vehicle emissions data (Reporting CO proportions, opacity and emissions of other pollutants)	YES		mg/m3	
					Fuel Conservation Training and Education (no idling etc.)	YES		Number of training hours/employee	
3	Excel by improving the fleet (natural gas vehicles, lead to unleaded, Euro4 compliance)	-	-	Changing from leaded gasoline or diesel to unleaded	YES		% of fleet		
				Changing fleet to natural gas	YES		% of fleet		
				Complying with Euro 4 emission standard	YES		% of fleet		
Pollutants	1	Report and control emissions from any combustion process	Is there any system in place to control and report emissions from any combustion process (CO, NOx, SOx, Heavy metals, Particulate matter and Dioxins and Furans)	YES	Reporting CO emissions due to a combustion process	YES		mg/m3	Must not exceed local standard JS1189:1999 or more recent
					Reporting NOx emissions due to a combustion process			mg/m3	
					Reporting SOx emissions due to a combustion process			mg/m3	
					Reporting Heavy metals emissions due to a combustion process			mg/m3	
					Reporting Particulate matter emissions due to a combustion process			mg/m3	
					Reporting Dioxins and Furans emissions due to a combustion process			mg/m3	
	OR Documentation proving adherence to regulations from a regulatory authority (JISM, Ministry of Environment) or an independent Third Party for an emissions audit		Yes/no						
	2	Reduce emissions from any combustion process	Are there any procedures in place to reduce emissions from any combustion process (CO, NOx, SOx, Heavy metals, Particulate matter and Dioxins and Furans)	YES	Reporting reduction of CO emissions	YES		mg/m3	
					Reporting reduction of NOx emissions	YES		mg/m3	
					Reporting reduction of SOx emissions	YES		mg/m3	
					Reporting reduction of Heavy metals	YES		mg/m3	
					Reporting reduction of Particulate matter	YES		mg/m3	
Reporting reduction of Dioxins and Furans and other pollutants					YES		mg/m3		
3	Excel by going beyond local and national regulations. In an XX%	-	-	Compliance reported as XX % reduction below local standard (JS1189:2006 or more recent)	YES		% of improvement regarding local mandate		

¹ Where applicable, if the percentage increases to 100%, the full points shall be awarded for that metric.



PUBLIC SECTOR

SUBCOMPONENT	TIER	INDICATOR	ENABLER	E Point	RESULTS	R points	Applicant Data	UNITS
Withdrawal, Use, Capture & Reuse	1	Report water consumption	Is there any system in place to report water consumption?	YES	Reporting Water Bills	YES		m3
					Reporting Water source			% by source
					Reporting Renewable sources and use			% of water from renewable sources
					Report prior year consumption			m3
					Reporting Water Conservation Policy/priorities			yes/no
	2	Reduce water consumption	Are there any procedures in place to reduce water consumption and increase in source from renewable sources?	YES	Decrease in water consumption due to initiatives previously documented	YES		m3
					Increase in water consumption from renewable sources due to initiatives taken	YES		%
					Water Conservation Training and Education	YES		Number of training hours /employee
	3	Excel by upgrading to water efficient facilities	-	-	International Standard for Water efficiency, LEED Water	YES		Yes/No
					Rainwater-capture systems	YES		yes/no
Water efficient fixtures					YES		System installed	
Desalination					YES		System installed	
Waste Water Capture and Reuse	1	Report Water Capture	Is there system in place to report water capture and reuse and to measure the quality of water?	YES	Reporting Water Capture or reuse	YES		m3
					Report prior year consumption			m3
					Reporting Water Reuse Policy/priorities			yes/no
					Report water quality as per local standard OR Documentation proving adherence to regulations from a regulatory authority (JISM, Ministry of Environment) or an independent Third Party			yes/no
	2	Reduce water waste by increasing greywater use	Are there procedures in place to reduce water waste and increase greywater use?	YES	Increase in the amount of Reused water: Greywater Use (irrigation, construction, non-potable toilets/urinal)	YES		m3
					Greywater buy-back	YES		%
	3	Excel through onsite wastewater treatment, rainwater-capture systems	-	-	Integrated Water Management systems	YES		yes/no



PUBLIC SECTOR

SUBCOMPONENT	TIER	INDICATOR	ENABLER	E Points	RESULTS	R Points	Applicant Data	UNIT
Solid Waste	1	Report the amount of waste generated by type and disposal method.	Is there a system in place to report waste generated by type, disposal method, and significant spill?	YES	Reporting the total weight of waste generated by type (eg: Plastic, Glass, Metals, Paper, and Organic)	YES		kg or Ton
					Reporting the disposal method of solid waste (Landfill, waste-to-energy, recycling facility)			%
					Report the total weight and disposal method of any by-product			kg or Ton
					Reporting any spill			# and m3
	2	Reduce waste generation and increase in source from renewable sources	Are there initiatives in place to reduce the amount of solid waste and by products, and to reduce the amount of solid wastes sent to landfill?	YES	Reduction in total weight by type of solid waste	YES		%
					Reduction in the amount of solid waste sent to landfill	YES		%
					Reduction in by products from the company's process	YES		%
					Reduction in number of spills and total volume	YES		# and m3
3	Excel by innovation with uses and disposal of waste	-	-	On site recycling or re use of products	YES		%	
Hazardous Waste	1	Report and control the amount of hazardous wastes and proper disposal.	Are there system in place to control and report the amount of hazardous wastes and their proper disposal?	YES	Report the amount of hazardous waste production and provide a proper disposal according to local and national regulations	YES		kg, m3
					Compliance with the Basel convention in trans boundary movement of hazardous wastes			Yes/no
	2	Reduce Hazardous waste	Are there initiatives taken to reduce hazardous waste production?	YES	% of reduction in the total weight or colume of hazardous wastes	YES		%
3	Excel by innovating with uses or disposal of hazardous waste	-	-	Recycling or reusing at least 25% of the amount of hazardous waste	YES		%	

PUBLIC SECTOR								
SUBCOMPONENT	TIER	INDICATOR	ENABLER	E Points	RESULTS	R Points	Applicant Data	UNIT
Workforce Development	1	Report employment ratios	Are there systems in place to control and report gender and youth employment ratios?	YES	Report employment statistics including gender and age ratios	YES		% from total workforce
	2	Reduce unemployment and create opportunities for development	Are there professional development programs geared toward women and youth?	YES	Administer or Youth/Women's Leadership, mentorship, Internship/Traineeship, and professional development programs	YES		Number of programs and training hours/ employee
	3	Excel in Work-Life Programs	-	-	Trainee retention and small business development	YES		
					Training external stakeholders: suppliers, contractors, customers	YES		Number of training hours
Community Service	1	Philanthropic Activity Report	Are there systems in place to monitor and report philanthropic activity?	YES	Report philanthropic activity	YES		\$
	2	Reduce opportunity gap through increased philanthropy	Are there initiatives to increase philanthropic activities?	YES	Increase philanthropic activity	YES		\$
	3	Excel in sustainable business practices	-	-	Creation of philanthropic foundations	YES		yes/no
Outreach				YES	Map of stakeholders for influence opportunity	YES		Stakeholder map
	2	Reduce sustainability education gap	Are there initiatives to increase outreach activities and partnerships?	YES	Develop and implement sustainability outreach activities within stakeholders	YES		number of outreach programs
	3	Excel by engaging in public-private partnerships for sustainable business practices	-	-	Develop public private partnerships with sustainability initiatives such clean technology industries, including renewable energy, advanced transportation, advanced water treatment, alternative fuels, green building, and energy efficiency with key partners	YES		Number of private/public partnerships

PUBLIC SECTOR								
SUBCOMPONENT	TIER	INDICATOR	ENABLER	E Point	RESULTS	R Point	Applicant Data	Unit
Supply & Sourcing	1	Report on supply chain and suppliers' sustainability performance	Is there a system in place on how to perform life cycle analysis and the sustainability performance of suppliers? (sustainability questionnaire)	YES	Supply chain analysis performed	YES		Yes/no
					All suppliers must be measured according to their sustainability performance			% of sustainable suppliers
	2	Improvement supply chain (locally sourced within 500 miles)	Are there initiatives in place to increase the number of sustainable suppliers?	YES	Increase in the number of sustainable suppliers	YES		Increase in % of sustainable suppliers
	3	Innovation and excellence through increasing efficiency based on opportunities revealed	-	-	CO2 emissions associated to each product (CO2 footprint)	YES		% of products with CO2 footprint
					Life cycle analysis for products	YES		% of products with Life cycle analysis

PRIVATE SECTOR INSTRUCTIONS

STEP 1:

During the audit, the auditor will check that:

In case of Enablers

- For tier 1, there must be enough evidence that there is a system to report, which explains the way to report each of the indicators: Flow of data, responsible person and name and location of the document where the data will be stored
- For tier 2, initiatives and procedures must be documented and approved by the person responsible for the initiatives. They must include the specific actions the organization will take to improve in the indicator.

In case of Results

- For tier 1, auditors must check that the data has been reported and the evidence of where that data comes from.. For example in the case of electric energy they must check electric bills and in the case of water, the water meter readings or the water bill.
- For tier 2, auditors will check that the improvement has come from initiatives or procedures previously documented and approved in the enabler for tier 2. Reliability of the data must also be proved by going back to the source of the data for the current and previous years.
- For tier 3, auditors will have to check that the official document stating that the organization has been certified in the case of green key or LEED or that actual innovative systems have been implemented or carried on such as on site renewable energy generation or life cycle assessment for products.

STEP 2:

In case evidence is present, the auditor will click YES in the E results or R results cell correspondent to the indicator. If there is not enough evidence, the auditor will click NO.

The results will go directly to the summary page and a score will appear automatically at the bottom of the table.

(Automatic point calculation and clicking YES/NO only apply when using the preformatted excel workbook the Team provided)

COMPONENT	SUBCOMPONENT	TIER	ENABLER	RESULTS	TOTAL points
Energy & Emissions	Energy Source & Efficiency	1	1.25	1	2.25
		2	3.25	3	6.25
		3	-	0.5	0.5
	Transportation	1	1.25	1	2.25
		2	2.75	2.5	5.25
		3	-	0.5	0.5
	Pollutants	1	2.75	2.5	5.25
		2	1.25	1	2.25
		3	-	0.5	0.5
	TOTAL			12.5	12.5
Water	Withdrawal & Use	1	2	1.5	3.5
		2	4.5	4	8.5
		3	0	1	1
	Capture & Reuse	1	2.5	2	4.5
		2	3.5	3	6.5
		3	-	1	1
	TOTAL			12.5	12.5
Waste	Solid Waste	1	1.25	1	2.25
		2	1.25	1	2.25
		3	-	0.5	0.5
	Hazardous Waste	1	1.25	1	2.25
		2	1.25	1	2.25
		3	-	0.5	0.5
	TOTAL			5	5
Society	Workforce Development	1	1.25	1	2.25
		2	2.25	2	4.25
		3	-	0.5	0.5
	Community Service	1	1.25	1	2.25
		2	2.25	2	4.25
		3	-	0.5	0.5
	Outreach	1	1.25	1	2.25
		2	1.75	1.5	3.25
		3	-	0.5	0.5
	TOTAL			10	10
Products & Services	Supply & Sourcing	1	3.75	2.5	6.25
		2	6.25	5	11.25
		3	-	2.5	2.5
	TOTAL			10	10
TOTAL			50	50	100



PRIVATE SECTOR

SUBCOMPONENT	TIER	INDICATOR	ENABLER	E Points	RESULTS	R Points	Applicant Data	UNIT
Energy Source	1	Report Energy consumption, fuel mix, energy source, GHG and legal compliance	Is there a system in place to report energy consumption, fuel mix, energy source, and green house gas emissions?	YES	Monthly energy bills for electricity and primary energy consumed on site	YES		MJ and KWH
					Reporting the % of the source of energy used. In case the data is not available for electricity, report country average			%
					Report prior year consumption through prior energy bills			MJ and KWH
					Calculate green house gas emissions based on reported consumption			Tons of CO2
	2	Reduce energy consumption and GHG emission	Has an energy audit been performed? Are there any initiatives in place to increase the use of renewable energy?	YES	Energy reduced based on prior years consumption due to recommendations from the energy audit	YES		MJ and KWH
					Increase in the use of energy from renewable sources	YES		%
Training given to employees on climate change and how to reduce energy consumption					YES		Number of training hours/employee	
3	Excel in renewable energy use and pursue certifications	-	-	Increase in the amount of energy consumed coming from RE generated onsite	YES		%	
				Becoming LEED or Green Key certified	YES		yes/no	
Transportation	1	Report fuel and emission data generated for transporting products, goods, organizational materials, and members of the workforce. Even if the transportation services are outsourced.	Is there a system in place to report fuel and emission data generated for transporting product, materials, and other goods used for the organization's operations, and transporting the workforce?	YES	Reporting fuel efficiency (L/Km)	YES		l/km
					Reporting route optimization (km/trip)			km/trip.
					Reporting load optimization (Tons/trip)			Tons or people /trip
					Reporting vehicle emissions data (Reporting CO proportions, opacity and emissions of other pollutants)			mg/m3
					Report GHG emission from fleet (GHG emission data will be calculated according to the IPCC default emission values) (IPCC)			Tons of CO2
					Reporting % of locally sourced freight			% of freight sourced locally
	2	Reduce fuel consumption, emissions (GHG and other pollutants), and train drivers to increase fuel efficiency and purchase locally sourced freight	Are there any initiatives in place to reduce fuel consumption and emissions (GHG and other pollutants), train drivers to increase fuel efficiency and purchase locally sourced freight?	YES	Reporting reduction in fuel efficiency (l/km)	YES		L/km
					Reporting improvement in route optimization (km/trip)	YES		Km/trip
					Reporting improvement in load optimization (Tons/trip)	YES		Tons/trip or people/trip
					Reporting GHG reduction due to transportation	YES		Tons of CO2
					Reporting reduction in vehicle emissions data (Reporting CO proportions, opacity and emissions of other pollutants)	YES		mg/m3
	Fuel Conservation Training and Education (no idling etc.)	YES		Number of training hours/employee				
	3	Excel by improving the fleet (natural gas vehicles, lead to unleaded, Euro4 compliance)	-	-	Increase in locally sourced freight	YES		%
Changing from leaded gasoline or diesel to unleaded					YES		% of fleet	
				Changing fleet to natural gas	YES		% of fleet	
				Complying with Euro 4 emission standard	YES		% of fleet	
Pollutants	1	Report and control emissions from any combustion process	Is there any system in place to control and report emissions from any combustion process (CO, NOx, SOx, Heavy metals, Particulate matter and Dioxins and Furans)	YES	Reporting CO emissions due to a combustion process	YES		mg/m3
					Reporting NOx emissions due to a combustion process			mg/m3
					Reporting SOx emissions due to a combustion process			mg/m3
					Reporting Heavy metals emissions due to a combustion process			mg/m3
					Reporting Particulate matter emissions due to a combustion process			mg/m3
					Reporting Dioxins and Furans emissions due to a combustion process			mg/m3
					OR Documentation proving adherence to regulations from a regulatory authority (JISM, Ministry of Environment) or an independent Third Party for an emissions audit			Yes/no
	2	Reduce emissions from any combustion process	Are there any procedures in place to reduce emissions from any combustion process (CO, NOx, SOx, Heavy metals, Particulate matter and Dioxins and Furans)	YES	Reporting reduction of CO emissions	YES		mg/m3
					Reporting reduction of NOx emissions	YES		mg/m3
					Reporting reduction of SOx emissions	YES		mg/m3
					Reporting reduction of Heavy metals	YES		mg/m3
				Reporting reduction of Particulate matter	YES		mg/m3	
				Reporting reduction of Dioxins and Furans and other pollutants	YES		mg/m3	
3	Excel by going beyond local and national regulations. In an XX%	-	-	Compliance reported as XX % reduction below local standard (JS1189:2006 or more recent)	YES		% of improvement regarding local mandate	

PRIVATE SECTOR									
SUBCOMPONENT	TIER	INDICATOR	ENABLER	E Point	RESULTS	R points	Applicant Data	UNIT	
Withdrawal, Use, Capture & Reuse	1	Report water consumption	Is there any system in place to report water consumption?	YES	Reporting Water Bills	YES		m3	
					Reporting Water source			% by source	
					Reporting Renewable sources and use			% of water from renewable sources	
					Report prior year consumption			m3	
					Reporting Water Conservation Policy/priorities			yes/no	
	2	Reduce water consumption	Are there any procedures in place to reduce water consumption and increase in source from renewable sources?	YES	Decrease in water consumption due to initiatives previously documented	YES		m3	
					Increase in water consumption from renewable sources due to initiatives taken	YES		%	
					Water Conservation Training and Education	YES		Number of training hours /employee	
	3	Excel by upgrading to water efficient facilities	-	-	International Standard for Water efficiency, LEED Water	YES		Yes/No	
					Rainwater-capture systems	YES		yes/no	
					Water efficient fixtures	YES		System installed	
					Desalination	YES		System installed	
Waste Water Capture and Reuse	1	Report Water Capture	Is there system in place to report water capture and reuse and to measure the quality of water?	YES	Reporting Water Capture or reuse	YES		m3	
					Report prior year consumption			m3	
					Reporting Water Reuse Policy/priorities			yes/no	
					Report water quality as per local standard OR Documentation proving adherence to regulations from a regulatory authority (JISM, Ministry of Environment) or an independent Third Party			yes/no	
					Increase in the amount of Reused water: Greywater Use (irrigation, construction, non-potable toilets/urinal)		YES		m3
	2	Reduce water waste by increasing greywater use	Are there procedures in place to reduce water waste and increase greywater use?	YES	Greywater buy-back	YES		%	
					Integrated Water Management systems	YES		yes/no	
	3	Excel through onsite wastewater treatment, rainwater-capture systems	-	-					

PRIVATE SECTOR									
SUBCOMPONENT	TIER	INDICATOR	ENABLER	E Points	RESULTS	R Points	Applicant Data	UNIT	
Solid Waste	1	Report the amount of waste generated by type and disposal method.	Is there a system in place to report waste generated by type, disposal method, and significant spill?	YES	Reporting the total weight of waste generated by type (eg: Plastic, Glass, Metals, Paper, and Organic)	YES		kg or Ton	
					Reporting the disposal method of solid waste (Landfill, waste-to-energy, recycling facility)			%	
					Report the total weight and disposal method of any by-product			kg or Ton	
					Reporting any spill			# and m3	
	2	Reduce waste generation and increase in source from renewable sources	Are there initiatives in place to reduce the amount of solid waste and by products, and to reduce the amount of solid wastes sent to landfill?	YES	Reduction in total weight by type of solid waste	YES		%	
					Reduction in the amount of solid waste sent to landfill	YES		%	
					Reduction in by products from the company's process	YES		%	
					Reduction in number of spills and total volume	YES		# and m3	
3	Excel by innovation with uses and disposal of waste	-	-	On site recycling or re use of products	YES		%		
Hazardous Waste	1	Report and control the amount of hazardous wastes and proper disposal.	Are there system in place to control and report the amount of hazardous wastes and their proper disposal?	YES	Report the amount of hazardous waste production and provide a proper disposal according to local and national regulations	YES		kg, m3	
					Compliance with the Basel convention in trans boundary movement of hazardous wastes			Yes/no	
	2	Reduce Hazardous waste	Are there initiatives taken to reduce hazardous waste production?	YES	% of reduction in the total weight or colume of hazardous wastes	YES		%	
	3	Excel by innovating with uses or disposal of hazardous waste	-	-	Recycling or reusing at least 25% of the amount of hazardous waste	YES		%	

PRIVATE SECTOR									
SUBCOMPONENT	TIER	INDICATOR	ENABLER	E Points	RESULTS	R Point	Applicant Data	UNIT	
Workforce Development	1	Report employment ratios	Are there systems in place to control and report gender and youth employment ratios?	YES	Report employment statistics including gender and age ratios	YES		% from total workforce	
	2	Reduce unemployment and create opportunities for development	Are there professional development programs geared toward women and youth?	YES	Administer or Youth/Women's Leadership, mentorship, Internship/Traineeship, and professional development programs	YES		Number of programs and training hours/employee	
	3	Excel in Work-Life Programs	-	-	Trainee retention and small business development Training external stakeholders: suppliers, contractors, customers	YES YES		Number of training hours	
Community Service	1	Philanthropic Activity Report	Are there systems in place to monitor and report philanthropic activity?	YES	Report philanthropic activity	YES		\$	
	2	Reduce opportunity gap through increased philanthropy	Are there initiatives to increase philanthropic activities?	YES	Increase philanthropic activity	YES		\$	
	3	Excel in sustainable business practices	-	-	Creation of philanthropic foundations	YES		yes/no	
Outreach				YES	Map of stakeholders for influence opportunity	YES		Stakeholder map	
	2	Reduce sustainability education gap	Are there initiatives to increase outreach activities and partnerships?	YES	Develop and implement sustainability outreach activities within stakeholders	YES		number of outreach programs	
	3	Excel by engaging in public-private partnerships for sustainable business practices	-	-	Develop public private partnerships with sustainability initiatives such clean technology industries, including renewable energy, advanced transportation, advanced water treatment, alternative fuels, green building, and energy efficiency with key partners	YES		Number of private/public partnerships	

PRIVATE SECTOR									
SUBCOMPONENT	TIER	INDICATOR	ENABLER	E Point	RESULTS	R Point	Applicant Data	Unit	
Supply & Sourcing	1	Report on supply chain and suppliers' sustainability performance	Is there a system in place on how to perform life cycle analysis and the sustainability performance of suppliers? (sustainability questionnaire)	YES	Supply chain analysis performed	YES		Yes/no	
					All suppliers must be measured according to their sustainability performance			% of sustainable suppliers	
	2	Improvement supply chain (locally sourced within 500 miles)	Are there initiatives in place to increase the number of sustainable suppliers?	YES	Increase in the number of sustainable suppliers	YES		Increase in % of sustainable suppliers	
	3	Innovation and excellence through increasing efficiency based on opportunities revealed	-	-	CO2 emissions associated to each product (CO2 footprint) Life cycle analysis for products	YES YES		% of products with CO2 footprint % of products with Life cycle analysis	

Appendix 3: Researched Green Rankings and Sustainability Indexes

Commonly Used Global Metrics:

- Carbon Disclosure Project (CDP): All S&P 500 companies are sent a questionnaire from CDP. Respondents to the questionnaire are the universe of companies (Carbon Disclosure Project).
- International Institute for Sustainable Development: Produces a free, non-commercial software package that illustrates the complex relationships among economic, social and environmental issues". (International Institute for Sustainable Development 2012).
- Leadership in Energy and Environmental Design (LEED): LEED provides building owners and operators with a framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solution (USGBC).
- Dow Jones Sustainability Index: Looks at leading sustainability companies' performance. List covers 58 different sectors. Sustainable Assets Management (SAM) manages this index. (Global Reporting Initiative).
- Global Reporting Initiative (GRI): A non-profit organization that promotes economic sustainability. It produces one of the world's most widely used standards for sustainability reporting - also known as ecological footprint reporting, Environmental Social Governance (ESG) reporting, Triple Bottom Line (TBL) reporting, and Corporate Social Responsibility (CSR) reporting. GRI seeks to make sustainability reporting by all organizations as routine as, and comparable to, financial reporting. (Global Reporting Initiative).

Most Relevant Institutions Implementing Sustainability Metrics in the Middle East

- KPMG: One of the fastest growing professional services firms in the region, with international and nationally-based audit and tax Centers and a dynamic advisory practice aligned to the strategic growth of the Middle East (KPMG).
- Arabia CSR network: Launched in 2004 with the aim of working more closely with the corporate sector in the promotion of sustainable development in the UAE. The CSR Network also aimed to bring into focus the local and regional efforts that are undertaken at the corporate level to further CSR in the Middle East (Arabia CSR Network Web).
- CSE – Center for Sustainability and Excellence: Global Sustainability (CSR) strategic advisory and training, it operates in more than 20 countries with private and public sector Centers including FT 500 for the integration of Sustainability (CSR) within their operations and has extensive experience in the areas of Sustainability (CSR)

Strategy, Reporting, Carbon footprint and Supply Chain Management (Centre for Sustainability and Excellence).

- Account-Ability: Leading global organization providing innovative solutions to the most critical challenges in corporate responsibility and sustainable development (AccountAbility).
- Arab Sustainability Leadership group: Founded in 2008 by Her Majesty Queen Rania of Jordan, as a network of high profile companies, government entities, and non-profit organizations committed to achieving the highest levels of sustainability management, performance and reporting (Arab Sustainability Leadership Group).
- Sustainable Business Associates: Non-governmental organization established in 1995 in Switzerland. It is active in the field of sustainable development in emerging countries mainly in the Maghreb, the Middle East and Africa. In close collaboration with the academic and industrial spheres, SBA works toward the integration of eco-efficiency and sustainable development on the national, regional and international levels (Nouvelles).

Appendix 4: Fieldwork Insights²

Aramex

European Union (EU): Delegation of the EU to the Hashemite Kingdom of Jordan

Jordan Green Building Council/EDAMA

Jordan Institution for Standards and Metrology (JISM)

Ministry of Energy and Mineral Resources

Ministry of Environment

Ministry of Planning and International Cooperation (Jordan)

Ministry of Water and Irrigation

Royal Scientific Society

Sustainability Excellence

United Nations Development Programme (UNDP Jordan)

USAID (Jordan)

² Unless otherwise cited within this section, all information was gathered during the week of 11-15 March, 2012, by the following individuals.

PURPOSE

To meet with an entity that has successfully incorporated sustainability measures within its strategy

BACKGROUND OF ORGANIZATION/INDIVIDUAL (IN RELATION TO AWARD)

- Description of Company: International and domestic express delivery, freight forwarding, logistics and warehousing, records and information management solutions, e-business solutions, and online shopping services.
- History of company:
 - Established in 1982
 - Jan 1997- listed in the NASDAQ
 - Feb 2002- went back to private ownership
 - June 2005- listed in Dubai Financial Markets as Arab International Logistics
- Company Reach: 12,000 offices, 33,000 vehicles and 66,000 employees in 240 countries
- Regarding Sustainability: Aramex established aramex.org as an initiative about sustainability, responsible logistics, and international trends in corporate citizenship.
- Issued Carbon Report in 2010: “The report attempts to calculate, assess, and present Aramex’s greenhouse gas emissions, with the highest standards of accountability and transparency, as part of our efforts to continually reduce our global greenhouse gas emissions and ultimately to deliver our services with the least amount of impact on the environment” (Aramex, 2012)
- Issued Sustainability Reports since 2006
- Issues addressed in the report are: (i) education and youth empowerment, (ii) environment, (iii) entrepreneurship, (iv) sports, and (v) community development

KEY INSIGHTS & TAKEAWAYS

- Companies confuse sustainability with charitable giving
- Sustainability must be embedded in the core business and strategy of the company to be successful; it is beyond reporting and reducing, it is acting on those actions and making sure all employees are engaged and educated about such strategies
- Sustainability efforts make business sense

European Union: Delegation of the EU to the Hashemite Kingdom of Jordan

PURPOSE

To discuss the sustainability projects funded by the EU, and to understand the projects purposes, activities, and its relation to our current project.

BACKGROUND OF ORGANIZATION/INDIVIDUAL (IN RELATION TO AWARD)

- Within the European Neighborhood Policy (ENP), Jordan is the first Mediterranean partner country with whom the EU has concluded technical negotiations leading to an "Advanced Status".
- The EU delegation in Amman supports Jordan's to implement the Action Plan outlines a set of priorities that support Jordan's National Agenda in economic, environmental and social reform efforts to become a model for growth and prosperity in the region.
- Jordan is a priority partner country for German development organizations such as GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit) and GTZ (Deutsche Gesellschaft für Technische Zusammenarbeit). For 30 years GTZ has worked there successfully on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ).
- In the early 1990s GTZ stepped up its activities in the water sector and, by agreement with the German and Jordanian Governments, focused since 2001 on the priority area water, water-related environmental and resource protection.

KEY INSIGHTS & TAKEAWAYS

- EU works mostly on the decision-making/policy implementation side and helps ministries and institutions develop strategies
- EU wants the funding criteria used to give (or take away) funds for various industries according to how they pair up to their results; they want to encourage long term planning not one year projects. This may help in our own design/strategy (i.e. give stars, take away stars based on the applicants previous year performance)
- Lots of work to be done, especially in the following areas: education, awareness, policy, regulation.
- Financial incentives go a long way

Jordan Green Business Council (JGBC)/EDAMA

PURPOSE

Discuss potential cooperation between Center, the Jordan Green Building Council (JGBC) and the EDAMA association to implement sustainability metrics and evaluate performance in the private and public sectors. Also obtain an understanding of the major challenges they foresee in implementing the proposed evaluation criterion and review the opportunities available to address these challenges.

BACKGROUND OF ORGANIZATION/INDIVIDUAL (IN RELATION TO AWARD)

- JGBC is non-governmental organization started by Jordanian architects in 2009
- Vision: “to evolve and expand into recognized regional leader in developing and implementing innovative green building practices” (JGBC)
- Influence the Jordanian building and construction sector by presenting, promoting and advocating their vision
- Mr. Mohammad Asfour is the chairman of the JGBC. He is advisor to Asfour Investment and Management and Vice Chair of the Advocacy Committee UNEP SBCI (Sustainable Building and Climate Initiative). He was part of a USAID funded program that focused on water, energy and environment. He was instrumental for enhancing the productivity of Jordan's Architecture and Engineering Sector. He served as an Advisor to the Board of Trustees at the Princess Sumaya University for Technology (PSUT) and a Director for the Queen Rania Center for Entrepreneurship. In addition to being the key contact for the JGBC, Mr. Asfour is the director of the EDAMA association.

KEY INSIGHTS & TAKEAWAYS

- EDAMA member companies can provide auditors in addition to feedback on the ongoing development of the sustainability Pillar
- The most pressing challenges according to the JGBC are developing good governance practices such as:
 - Private Public Partnerships
 - Benchmark activity by:
 - Calculating consumption and calculate % of reduction
 - Using evaluations such as: Environmental Impact Assessment; PRIAM (Presentation of Information in Ambient intelligence); LEED; Green Star/EnergyStar
 - Energy efficiency
 - Water: grey water harvesting and reuse
 - Materials: includes shipping and recycling. Some components are related to industrial process and others are related to maintenance and management.
 - Land Use

Jordan Institution for Standards and Metrology (JISM)

PURPOSE

To discuss the role of JISM in relation to sustainability reporting by the public and private sectors. To understand the framework of the environmental/sustainability standards that JISM has developed and is currently developing.

BACKGROUND OF ORGANIZATION/INDIVIDUAL (IN RELATION TO AWARD)

- JISM is the national and only authority that develops national standards for the different national bodies, any standards whether environmental or not is developed by JISM in cooperation with the related agency
- JISM is specialized in standardization and quality infrastructure
- Mission: to protect the health, safety and rights of humans and of the environment
- The related agency provide JISM with the need and JISM in turn develops the new standards in cooperation with related stakeholders
- JISM use international best practices to provide current standards that will satisfy the national need and are compatible with international best practices
- JISM may amend any adopted standards and refine it to the local need
- JISM is partners with Jordan Standards and Metrology Organization
- Target sectors as described on their website (JISM.gov) are:
 - industrial, trade, agriculture and service sectors
 - governmental organizations, regional and international organizations
 - civic societies and non-governmental organizations
 - Scientific, research and academic institutions

KEY INSIGHTS & TAKEAWAYS

- The Center should work with JISM to obtain standards and regulations that are relevant and important to the Award by defining criteria based upon them
- JISM can be a potential educator regarding the relevant standards, laws and regulations
- JISM can provide compliance certificates with regards to certain areas such as emissions, water quality, etc.

Ministry of Energy and Mineral Resources

PURPOSE

To discuss the role of The Ministry of Energy and Mineral Resources in sustainability issues in both public and private sectors. To understand the framework of the energy standards that the Ministry works on; review relevant implementations and regulations.

BACKGROUND OF ORGANIZATION/INDIVIDUAL (IN RELATION TO AWARD)

- The Ministry of Energy and Mineral Resources is the key authority and the national body in dealing with energy issues specifically: energy use, energy rationalization etc.
- These initiatives and strategies are important to the Award by defining a criteria based upon these information.
- The Ministry's main focus is write policy in regard to generation, distribution and transportation to promote and enhance energy efficiency programs
- The Ministry passed the law on renewable energy and energy efficiency
 - Promoting solar and solar-thermal
- The Ministry works with other public organizations and research organizations such as the Public Works for Energy Environment and Water (USAID program), Ministry of Education, UNDP, Ministry of Public Works, Ministry of Planning, several municipalities, and National Energy Research Center

KEY INSIGHTS & TAKEAWAYS

- As regulators of renewable energy in Jordan, the Ministry can provide applicants with the necessary tools and information to comply with the Pillar
- The Ministry can educate the Center, applicants, assessors and mentors the renewable energy laws, standards and regulations
- The Ministry is working with other key stakeholders; potential collaboration with this entities
- The Ministry can be a potential Key Partner to the Center
- The Ministry has established (but not active) the Jordan Renewable Energy Efficiency Fund for commercial and residential projects and programs
- The Pillar should focus to facilitate and build on their initiatives of renewable energy and energy efficiency

Ministry of Environment

PURPOSE

To discuss the role of The Ministry of Environment in sustainability issues in both public and private sectors. To understand the framework of the environmental standards that the Ministry works on; Review implementation procedures and regulation. To interview the entity as an Applicant of the Award and if possible speak with the Mentor within the organization.

BACKGROUND OF ORGANIZATION/INDIVIDUAL (IN RELATION TO AWARD)

- The Ministry of Environment is the key legislation and standardization national body in the environmental issues specifically: air quality, emissions, and noise, water quality (jointly with the Ministry of Water and Irrigation), waste and hazards waste, landfills, waste treatment facilities etc.
- The Ministry of Environment focuses on the following sectors:
 - Energy
 - Transportation
 - Water
 - Waste
 - Ecotourism
 - Agriculture
- The Ministry of Environment also has the following focus areas:
 - Resource conservation
 - Health (quality of life and population health)
 - Environmental protection

KEY INSIGHTS & TAKEAWAYS

- The Ministry can be a potential Key Partner to the Center to drive sustainability initiatives
- The Ministry's standards and regulations are important for the Pillar within the Award to help define the baselines and criteria based upon this information.
- The Ministry sees sustainability within these areas: social, economic, and environmental
- The Ministry is developing their own environmental award to spread awareness of the environmental issues Jordan faces and move towards best practices; the Pillar should run parallel to this Award in the future

Ministry of Planning and International Cooperation

PURPOSE

To understand the Ministry of Planning and International Cooperation's (MoPIC) approach to meet the Award requirement, and the potential sustainability projects (past, ongoing, future) on the ground to utilize any potential there and to avoid duplication. To interview an Award winner and mentor on the key challenges and components when applying to the Award.

BACKGROUND OF ORGANIZATION/INDIVIDUAL (IN RELATION TO AWARD)

- MoPIC is responsible for setting effective policies, identifying public and private sectors priorities, assisting with the implementation of development programs while focusing on international cooperation
- MoPIC is the liaison between the international organizations and development institutions and local entities
 - MoPIC follows the framework of Jordan's National Agenda to steer foreign assistance to assist Jordan in its development as defined in the Agenda.
- MoPIC is a previous applicant for the Award, and was awarded the following:
 - Silver Award in the fifth cycle 2010/2011
 - First Place in Ministries Participating more than once in the fourth cycle 2008/2009
 - Gold Award in "Best Ministry" in the third cycle 2006/2007

KEY INSIGHTS & TAKEAWAYS

- Projects are presented to MoPIC prior to be submitted to the international organizations
- There are many international organizations interested in funding projects and sustainability initiatives in Jordan
- Current departments within MoPIC include several topics such as water, agriculture, and energy
- The working potential and network of interested parties is extensive and existing; the Center should capitalize on that to develop further Key Partners.
- Long-term commitment is essential for success of the Award; for example, the mentor of MoPIC had been in the organization for several years and the Ministry has won the Award 4 years

Ministry of Water and Irrigation

PURPOSE

To discuss the role of The Ministry of Water and Irrigation in sustainability issues in both public and private sectors. To understand the framework of the environmental standards that the Ministry works on; Review implementation procedures and regulation. To obtain feedback on our potential structure of metrics, tiers, stars.

BACKGROUND OF ORGANIZATION/INDIVIDUAL (IN RELATION TO AWARD)

- The Ministry of Water and Irrigation works with the following institutions:
 - Programme Management Unit
 - Jordan Valley Authority; responsibilities include the socio-economic development of the Jordan Rift Valley; include water distribution and development
 - Water Authority of Jordan
- Goal is to develop and protect water resources, maintain updated information systems and regulations, secure funding for water programs and projects, assist with proper implementation

KEY INSIGHTS & TAKEAWAYS

- The shift from public to private sector management has proven to force the proper management of water
- The Ministry provides awareness of water scarcity via training materials, campaigns and knowledge
- Some organizations that work closely with the Ministry are PepsiCo and local banks; potential of private/public partnerships
- There is a shift towards incentives for organizations to conserve water through tax exemptions and award systems
- The Ministry may be a potential educator for training and educational seminars
- The Ministry may be a potential Key Partner for the Center

The Royal Scientific Society

PURPOSE

To meet researchers and directors within The Royal Scientific Society (RSS) to absorb information and insights from their projects and expertise on the field.

BACKGROUND OF ORGANIZATION/INDIVIDUAL (IN RELATION TO AWARD)

- The Royal Scientific Society is a reputable think tank in Jordan
- Provides research, consultancy, and technical support
- Guide, supports and strengthens government research

- Work in several sectors including:
 - Energy development
 - Environment research
 - Social drivers of change

KEY INSIGHTS & TAKEAWAYS

- In order to have continuous development in Jordan there is a need for uniformity in policy to drive sustainability
- Working on pollution prevention awards; potential collaboration with the Center
- Assist with training and educational materials and seminars
- The Center should partner with RSS

Sustainability Excellence

PURPOSE

Interview a company that has expertise on sustainability issues in Jordan whose main mission is to drive sustainability excellence in Jordan and in the region. Understand and learn from the challenges they face in trying to attain this goal.

BACKGROUND OF ORGANIZATION/INDIVIDUAL (IN RELATION TO AWARD)

- Sustainability Excellence is a private company located in Jordan that provides sustainability services across the Middle East. Company's Vision is to accelerate sustainability efforts in the Arab. In order to do so, the company:
 - Works with leading companies and institutions
 - Develops sustainability competitiveness strategies
 - Supports sustainability leadership networks
 - Leads by example
- The company works with over 15 sectors and 8 markets across the Middle East has worked extensively with GRI reporting in the region.
- It has co-authored "Arab Responsible Competitiveness Index 2009", describing the link between sustainability and competitiveness at the national and regional level.
- Sustainability Excellence defines sustainability as "the integrated management of economic, environmental and social performance with the goal of maximizing value creation for both business and its stakeholders (society). It is the next step in management excellence and central to business innovation and competitiveness." (Sustainability Excellence)

KEY INSIGHTS & TAKEAWAYS

- Companies need to understand sustainability and how it is relevant to their core business; it should be implemented from the CEO level and down
- Companies must incorporate a global strategy that includes sustainability strategies
- Sustainability must be defined and taught; people need to understand it and how it affects them directly
- Transparency is a must for companies
- In order to push agenda further need:
 - Transparency and improve performance of company
 - Engage with media/society internally and externally
 - Show the Carrot Side; show the clear business case
 - Educate society; there is not enough awareness of sustainability issues (for example, demonstrating per capita consumption of energy or water)

United Nations Development Programme (UNDP Jordan)

PURPOSE

To meet with UNDP to discuss their effort in the area of sustainability in Jordan; review their current projects; understand their challenges and success stories.

BACKGROUND OF ORGANIZATION/INDIVIDUAL (IN RELATION TO AWARD)

- UNDP programs in Jordan are based on the premise that the government has the primary responsibility for the development of its country and for setting and leading the national development agenda.
- One of the focuses of UNDP in Jordan is to support the Hashemite Kingdom of Jordan in providing solutions to the challenges of Climate Change and the Environment
- UNDP will add significant value to a healthy and sustainable environment because of its comparative advantage, experience and capacities.
- Has a partnership with Government of Jordan, Ministry of Industry and Trade, Royal Society for the Conservation of Nature (RSCN), National Energy Research Center, etc.
- Focus on reporting, national communication, adaptation, mitigation and capacity building
- Key partnerships: currently with Ministry of Environment, Water, Energy, NERC, RSCN and Green Building Council to be included as of 2013
- Key environmental programs are with regards to energy efficiency

KEY INSIGHTS & TAKEAWAYS

- UNDP may be a potential educator for training and educational seminars via Case Studies as a way to raise awareness through real life examples
- UNDP may be a potential Key Partner for the Center

USAID Jordan

PURPOSE

To discuss the "Environmental Conservation", and other USAID funded project, and to understand the project purpose, activities, and its relation to our current project.

BACKGROUND OF ORGANIZATION/INDIVIDUAL (IN RELATION TO AWARD)

- The USAID program in Jordan supports Jordan's economic and social reform efforts to become a model for growth and prosperity in the region. Building on a 55-year partnership, USAID focuses its efforts on addressing the country's needs, namely in: water, economic opportunities, health, education, and democracy & governance.
- One of the focuses of USAID in Jordan is to support the Hashemite Kingdom of Jordan in improving the water demand management. Their counterpart in this field is the Jordan's Ministry of Water and Irrigation.
- USAID

KEY INSIGHTS & TAKEAWAYS

- Potential educator for training and educational seminars via Case Studies as a way to raise awareness through real life examples
- USAID may be a potential Key Partner for the Center

Appendix 5: Education and Training Concepts

Sustainability

The Sustainability training outline should include:

- Sustainability at a global level
- Operational definition of sustainability- how is sustainability defined within the Award
- The business case for sustainability
- Examples or cases of outstanding sustainability leadership within the region

All training materials and trainers should be identified in full cooperation with the following potential partners:

- Columbia University of New York, MSSM Program
- Columbia University Middle East Research Center (CUMERC)
- EDAMA

Energy & Emissions

The Energy & Emissions training outline should include:

- Jordan's energy context
- Related laws, regulations, standards and by-laws
- Show cases for the best practices in energy efficiency
- Proposed sustainability metrics
- Requirements to submit for Award

All training materials and trainers should be identified in full cooperation with the following potential partners:

- Ministry of Environment (MOE)
- Ministry of Energy and Mineral Resources
- Jordan Institution for Standards and Metrology (JISM)
- Jordan Green Building Council (JGBC)

Water

The Water and Wastewater training outline should include:

- Jordan's water and wastewater context
- Related laws, regulations, standards and by-laws
- Show cases for the best practices in water efficiency and wastewater management
- Proposed sustainability metrics
- Requirements to submit for Award

All training materials and trainers should be identified in full cooperation with the following potential partners:

- Ministry of Environment (MOE)
- Ministry of Water and Irrigation (Water Authority of Jordan-WAJ)
- Jordan Institution for Standards and Metrology (JISM)
- Jordan Green Building Council (JGBC)

Waste

The Waste training outline should include:

- Jordan's solid and hazardous waste context
- Related laws, regulations, standards and by-laws
- Show cases for the best practices in solid and hazardous waste management
- Proposed metrics
- Requirements to submit for Award

All training materials and trainers should be identified in full cooperation with the following potential partners:

- Ministry of Environment (MOE)
- Ministry of Municipal Affairs (MOMA)
- Greater Amman Municipalities (GAM)
- Jordan Institution for Standards and Metrology (JISM)
- Jordan Green Building Council (JGBC)

Society

The Society training outline should include:

- Jordan's socio-economic context
- Related laws, regulations, standards and by-laws
- Show cases for the best practices
- Proposed metrics
- Requirements to submit for Award

All training materials and trainers should be identified in full cooperation with the following potential partners:

- Ministry of Labor (MOL)
- Ministry of Health (MOH)
- Ministry of Education
- Jordan Institution for Standards and Metrology (JISM)
- Jordan Green Building Council (JGBC)

Products & Services

The Product and Services training outline should include:

- Jordan's context
- Related laws, regulations, standards and by-laws
- Show cases for best practices
- Proposed metrics
- Requirements for award applications

All training materials and trainers should be identified in full cooperation with the following potential partners:

- Ministry of Environment (MOE)
- Ministry of Trade and Industry (MOTI)
- Jordan Institution for Standards and Metrology (JISM)

Appendix 6: Goals of Education and Training

Short-Term

- Create knowledge, skills, and competencies
- Develop training material content
- Build educator and trainer capacity
- Establish educational partner
- Participatory and collaboration skills and knowledge

Medium-Term

- Assess and develop assessor and mentor skills and knowledge
- Drive a national sustainability strategy
- Promote awareness regarding sustainability drivers in society
- Influence public policy
- Teach the economic benefits of sustainable practices
- Develop environmental priorities
- Develop secondary education; maintain

Long-Term

- Educate future generations, drive policy, influence regulation
- Develop tertiary education
- Obtain additional educational resources
- Evaluate education and training to assess learning outcomes
- Continuously update training and education content

Timeline:



Short-Term Goals

Training/Education Timeframe	Education Concepts	Sustainability	Energy & Emissions	Water	Waste	Society	Products & Services
Short-Term	Knowledge, skills, and competencies	The operational definition of sustainability- how is sustainability defined within the Award	Jordan's energy context	Jordan's water and wastewater context	Jordan's solid and hazardous waste context	Jordan's socio-economic context	Jordan's... context
	Training material content	The business case for sustainability	Show cases for the best practices in energy efficiency	Show cases for the best practices in water efficiency and wastewater management	Show cases for the best practices in solid and hazardous waste management	Show cases for the best practices	Show cases for best practices
	Building educator and trainer capacity	Examples or cases of outstanding sustainability leadership within the region	Proposed sustainability metrics	Proposed sustainability metrics	Proposed metrics	Proposed metrics	Proposed metrics
	Educational partner building		Requirements to submit for Award	Requirements to Submit for Award	Requirements to submit for Award	Requirements to submit for Award	Requirements for Award applications
	Participatory and collaboration skills and knowledge						

Medium & Long Term Goals

Training/Education Timeframe	Education Concepts	Sustainability	Energy & Emissions	Water	Waste	Society	Products & Services
Medium-Term	Assessor and Mentor skills and knowledge assessment	Examples or cases of outstanding sustainability leadership within the region	Requirements to Submit for Award	Requirements to Submit for Award	Proposed metrics	Proposed metrics	Requirements for Award applications
	National Sustainability strategy	The business case for sustainability	Show cases for the best practices in energy efficiency	Show cases for the best practices in water efficiency and wastewater management	Requirements to submit for Award	Requirements to submit for Award	Related laws and regulations
	Awareness regarding sustainability drivers in society		Related laws and regulations and standards	Related laws and regulations and standards	Show cases for the best practices in solid and hazardous waste management	Related laws and regulations	
	Public policy				Related laws and regulations and standards		
	Law Economic benefits Environmental priorities Development of secondary education						
Long-Term	Time Dimension, future generations, policy, law, etc.	Proposed metrics	Proposed sustainability metrics	Proposed sustainability metrics	Proposed metrics	Proposed metrics	Proposed metrics
	Development of tertiary education	Requirements to submit for Award	Requirements to submit for Award	Requirements to Submit for Award	Requirements to submit for Award	Requirements to submit for Award	Requirements for Award applications
	Educational resource appropriation Learning outcomes Evaluation of training and education content						

Appendix 7: Schedule of Training Seminars, Awareness Sessions & Networking Events

	Education Concepts	Sustainability	Categories under Sustainability Pillar				
			Energy & Emissions	Water	Waste	Society	Products & Services
Short-Term	<p>Knowledge, skills, and competencies</p> <p>Training material content</p> <p>Building educator and trainer capacity</p> <p>Educational partner building Participatory and collaboration skills and knowledge</p>	<p>The operational definition of sustainability- how is sustainability defined within the Award</p> <p>The business case for sustainability</p> <p>Examples or cases of outstanding sustainability leadership within the region</p> <p>Develop relationships with Key Partners that share sustainability vision</p>	<p>Jordan's energy context & related laws, regulations and standards</p> <p>Illustrate cases for the best practices</p> <p>Proposed sustainability metrics</p> <p>Requirements to submit for Award</p> <p>Address the appropriate Ministries</p>				
Medium-Term	<p>Assessor and Mentor skills and knowledge assessment</p> <p>National sustainability strategy; economic benefits and environmental priorities Public policy & Law</p> <p>Development of secondary education</p>	<p>Examples or cases of outstanding sustainability leadership within the region</p> <p>The business case for sustainability</p> <p>Awareness regarding sustainability drivers in society</p> <p>Expand relationships with Key Partners</p>	<p>Requirements to Submit for Award & Proposed Metrics</p> <p>Show cases for the best practices in energy efficiency</p> <p>Related laws and regulations and standards</p> <p>Address the appropriate Ministries</p>				

Long-Term	<p>Time Dimension, future generations, policy, law, etc.</p> <p>Development of tertiary education</p> <p>Educational resource appropriation</p> <p>Learning outcomes</p> <p>Evaluation of training and education content</p>	<p>Proposed metrics</p> <p>Requirements to submit for Award</p>	<p>Proposed sustainability metrics</p> <p>Requirements to submit for Award</p>
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Appendix 8: Case Study

Purpose & Background

The purpose of this scoring guide is to describe how the metrics for the sustainability pillar, the Pillar, of the King Abdullah II Awards for Excellence (Center) were developed, how they should be used, and how they will be assessed. The scoring guide was constructed using a fictional company that closely resembles one of the organizations that may apply for The King Abdullah II Award for Excellence, the Award. The scoring guide uses this fictional case to demonstrate how an Assessor would use the metrics worksheet to assess an organization across the five components and the subcomponents that compose the Pillar.

Metric Workbook Scoring

The Metric workbook is separated between the private and public sector. These workbooks are identical to each other except for the weighting difference described above. The following seven tabs are in each of the workbooks:

- Instructions – provides a guidance in using the document with detailed directions
- Summary – gathers the data from each of the components automatically and consolidates it in an easy-to-read and compare format
- Energy & Emissions – detailed information gathered for each subcomponent
- Water – detailed information gathered for each subcomponent
- Waste – detailed information gathered for each subcomponent
- Society – detailed information gathered for each subcomponent
- Products and Services – detailed information gathered for each subcomponent

An example is provided on the next page for an organization in the private sector with sample information completed for the Energy component and its subcomponents. A similar process must be followed for the other components to obtain a final score and obtain the corresponding stars.

SUBCOMPONENT	TIER	INDICATOR	ENABLER	E Points	RESULTS	R Points	Applicant Data	UNIT	Notes:
Energy Source	1	Report Energy consumption, fuel mix, energy source, GHG and legal compliance	Is there a system in place to report energy consumption, fuel mix, energy source, and green house gas emissions?	YES	Monthly energy bills for electricity and primary energy consumed on site	YES	129MJ, 35.8KWH	MJ and KWH	
					Reporting the % of the source of energy used. In case the data is not available for electricity, report country average		80%	%	
					Report prior year consumption through prior energy bills		3816MJ, 1060KWH	MJ and KWH	
					Calculate green house gas emissions based on reported consumption		2.5 Tons	Tons of CO2	
	2	Reduce energy consumption and GHG emission	Has an energy audit been performed? Are there any initiatives in place to increase the use of renewable energy?	NO	Energy reduced based on prior years consumption due to recommendations from the energy audit	YES	129MJ, 35.8KWH	MJ and KWH	Either per employee, in the case of offices or per product in manufacturers
					Increase in the use of energy from renewable sources	NO	0%	%	No energy from renewable sources
					Training given to employees on climate change and how to reduce energy consumption	NO	0	Number of training hours/employee	No training has been provided to employees
3	Excel in renewable energy use and pursue certifications	-	-	Increase in the amount of energy consumed coming from RE generated onsite	NO	0%	%		
				Becoming LEED or Green Key certified	NO	no	yes/no		
Transportation	1	Report fuel and emission data generated for transporting products, goods, organizational materials, and members of the workforce. Even if the transportation services are outsourced.	Is there a system in place to report fuel and emission data generated for transporting product, materials, and other goods used for the organization's operations, and transporting the workforce?	YES	Reporting fuel efficiency (L/Km)	YES	2l/km	l/km	
					Reporting route optimization (km/trip)		15km	km/trip.	Consider round trip
					Reporting load optimization (Tons/trip)		3 Tons	Tons or people /trip	Tons of material transported/trip. In case of
					Reporting vehicle emissions data (Reporting CO proportions, opacity and emissions of other pollutants)		10mg/m3	mg/m3	(check Jordanian regulations data for the annual vehicle inspection
					Report GHG emission from fleet (GHG emission data will be calculated according to the IPCC default emission values) (IPCC)		3 Tons	Tons of CO2	
					Reporting % of locally sourced freight		10%	% of freight sourced locally	
	2	Reduce fuel consumption, emissions (GHG and other pollutants), and train drivers to increase fuel efficiency and purchase locally sourced freight	Are there any initiatives in place to reduce fuel consumption and emissions (GHG and other pollutants), train drivers to increase fuel efficiency and purchase locally sourced freight?	YES	Reporting reduction in fuel efficiency (l/km)	YES	1.5l/km	L/km	
					Reporting improvement in route optimization (km/trip)	YES	15km	Km/trip	
					Reporting improvement in load optimization (Tons/trip)	YES	3 Tons	Tons/trip or people/trip	
					Reporting GHG reduction due to transportation	YES	0.5 Tons	Tons of CO2	
					Reporting reduction in vehicle emissions data (Reporting CO proportions, opacity and emissions of other pollutants)	YES	15mg/m3	mg/m3	
					Fuel Conservation Training and Education (no idling etc.)	NO	0	Number of training hours/employee	
	3	Excel by improving the fleet (natural gas vehicles, lead to unleaded, Euro4 compliance)	-	-	Changing from leaded gasoline or diesel to unleaded	YES	20%	% of fleet	
Changing fleet to natural gas					YES	10%	% of fleet		
Complying with Euro 4 emission standard					YES	50%	% of fleet		

Pollutants	1	Report and control emissions from any combustion process	Is there any system in place to control and report emissions from any combustion process (CO, NOx, SOx, Heavy metals, Particulate matter and Dioxins and Furans)	YES	Reporting CO emissions due to a combustion process	YES	650mg/m3	mg/m3	Must not exceed local standard JS1189:1999 or more recent
					Reporting NOx emissions due to a combustion process		530mg/m3	mg/m3	
					Reporting SOx emissions due to a combustion process		358mg/m3	mg/m3	
					Reporting Heavy metals emissions due to a combustion process		123mg/m3	mg/m3	
					Reporting Particulate matter emissions due to a combustion process		53mg/m3	mg/m3	
					Reporting Dioxins and Furans emissions due to a combustion process		232mg/m3	mg/m3	
					OR Documentation proving adherence to regulations from a regulatory authority (JISM, Ministry of Environment) or an independent Third Party for an emissions audit		no	Yes/no	
	2	Reduce emissions from any combustion process	Are there any procedures in place to reduce emissions from any combustion process (CO, NOx, SOx, Heavy metas, Particulate matter and Dioxins and Furans)	YES	Reporting reduction of CO emissions	YES	50mg/m3	mg/m3	
					Reporting reduction of NOx emissions	YES	100mg/m3	mg/m3	
					Reporting reduction of SOx emissions	YES	100mg/m3	mg/m3	
					Reporting reduction of Heavy metals	NO	0mg/m3	mg/m3	No data provided
					Reporting reduction of Particulate matter	NO	0mg/m3	mg/m3	No data provided
	Reporting reduction of Dioxins and Furans and other pollutants	NO	0mg/m3	mg/m3	No data provided				
3	Excel by going beyond local and national regulations. In an XX%	-	-	Compliance reported as XX % reduction below local standard (JS1189:2006 or more recent)	YES	20%	% of improvement regarding local mandate		

Example Summary of Metric Workbook Scoring – Private Sector

COMPONENT	SUBCOMPONENT	TIER	ENABLER	RESULTS	TOTAL points
Energy & Emissions	Energy Source & Efficiency	1	1.25	1	2.25
		2	0	1	1
		3	-	0	0
	Transportation	1	1.25	1	2.25
		2	2.75	2.14	4.89
		3	-	0.5	0.5
	Pollutants	1	2.75	2.5	5.25
		2	1.25	0.5	1.75
		3	-	0.5	0.5
	TOTAL			9.25	9.14

In the example provided, the example organization has earned points for all of the enablers, or “E Points”, except for Tier 2: “Reduce energy consumption and GHG emission”. This is reflected in the Summary as a score of 0 points.

Since the example organization has not received points in Tier 3 within “Energy Source”, this indicates that the company is in an intermediate stage of sustainability reporting.

In the results section, or “R Points”, the example company has indicated that they have had no increase in the use of energy from renewable sources. They have provided no training to employees on climate change and how to reduce energy consumption. They have indicated that they have no data regarding the reduction of the use of heavy metals. They have not reported on the reduction of particulate matter. They have indicated that they do not have the data available to report on the reduction of Dioxins and Furans and other pollutants. They earned 0 points for those items, but were still able to score points in each tier because of other initiatives that they have implemented and reported on.

Based on the data, the example organization has received 9.25/12.5 for the enablers and 9.14/12.5 for the results for a total of 18.39 out of a possible 25 points in the Energy & Emissions component. This detailed analysis is repeated for each of the other four components in order to determine how the organization has performed and the appropriate stars that are allocated. The results of this analysis show applicants and the assessors how the metrics can be used to analyze, compare and award sustainability excellence based on the organizations achievements.

Appendix 9: Sustainability Chapter to Award Booklet

Below is an example of an educational booklet which includes the Pillar for private sector. A similar booklet can be developed for the public sector by making the relevant modifications to the Award criteria as described throughout this report in relation to the public sector criteria. The booklet was designed in the same format and size as previous private and public informational booklets.





Awards Criteria

The King Abdullah II Award for Excellence for Private Sector Criteria and Excellence Model.

The King Abdullah II Award for Excellence for Private Sector criteria were developed according to the EFQM Excellence Model (2010) which is based on the new Eight Fundamental Concepts of Excellence.

The Fundamental Concepts of Excellence

1. Achieving Balanced Results

Excellent organizations meet their mission and progress towards their vision through planning and achieving a balanced set of results that meet both the short and long term needs of their stakeholders and where relevant exceed them.

In practice, excellent organizations:

- Identify and understand the Key Results required to achieve their mission and evaluate progress towards their vision and strategic goals.
- Gather stakeholders' needs and expectations for input to the development and review of their strategy and supporting policies, remaining constantly alert to any changes.

- Use a balanced set of results to review their progress, providing a view of long and short term priorities for the key stakeholders, with clearly defined "cause and effect" relationships.
- Adopt effective mechanisms to understand future scenarios and manage strategic risks.
- Define the required outcomes and related performance indicators and establish targets based on comparisons of their performance with other organizations and the Mission and Vision.
- Deploy strategy and supporting policies in a systematic manner to achieve the desired set of results, balancing short and long term objectives.
- Evaluate the set of results achieved to improve future performance and provide sustainable benefits to their stakeholders.
- Ensure transparency of reporting to key stakeholders, including appropriate governance bodies, in line with their expectations.
- Ensure that their leaders are provided with accurate and sufficient information to support them in effective and timely decision making, enabling them to effectively predict the future performance of the organization.

2. Adding Value for Customers

Excellent organizations know that customers are their primary reason for being and strive to innovate and create value for them by understanding and anticipating their needs and expectations.

In practice, excellent organizations:-

- Know who their different customer groups are, respond to and anticipate their different needs and expectations.
- Build and maintain a dialogue with all their customers, based on openness and transparency.
- Strive to innovate and create value for their customers.

- Ensure their people have the necessary tools, competencies, information and empowerment to be able to maximize the customer experience.
- Continually monitor and review the experiences and perceptions of customers and respond quickly and effectively to any feedback.
- Involve customers in the development of new and innovative products, services and experiences.
- Compare their performance with relevant benchmarks and understand their strengths in order to maximize the value generated for customers.

3. Leading with Vision, Inspiration & Integrity

Excellent organizations have leaders who share the future and make it happen, acting as role models for its values and ethics.

In practice, excellent organizations have leaders who:

- Set and communicate a clear direction and strategic focus; they unite their people to share and achieve the organization's core purpose and objectives.
- Understand the key business drivers: they balance the needs of the organization and its stakeholders in planning for the achievement of present and future objectives.
- Demonstrate their ability to make sound and timely decisions, based on available information, previous experience and consideration of the impact of their decisions.
- Are flexible; they review, adapt and realign the direction of their organization when necessary, inspiring trust at all times.
- Recognize sustainable advantage is dependent on their ability to learn quickly and respond rapidly with new ways of working.
- Inspire people and create a culture of involvement, ownership, empowerment, improvement and accountability, at all levels.
- Promote a culture which supports the generation and development of new ideas and new ways of thinking to encourage innovation and organizational development.

- Champion the organization's Values and are role models for integrity, social responsibility and ethical behavior, both internally and externally, to develop and enhance the organization's reputation.

4. Managing by Processes

Excellent organizations are managed through structured and strategically aligned process using fact-based decision making to create balanced and sustained results.

In practice, excellent organizations:

- Create and manage a framework of key processes that are structured and aligned to deliver their strategy in a way that adds real value for their stakeholders, achieving the optimum balance of efficiency and effectiveness.
- Analyze, categories and priorities their processes and adopt appropriate approaches to effectively manage them, including the management of processes extending beyond the boundaries of the organization.
- Develop meaningful process performance indicators and related outcomes, clearly linked to measuring progress against the strategic goals.
- Base decisions on factually reliable information and use all available knowledge to interpret current and predicted performance of the relevant processes.
- Use data on the current performance and capabilities of processes to identify opportunities for, and generate, innovation.
- Involve their people in continually reviewing, improving and optimizing the effectiveness and efficiency of their processes.
- Deliver high levels of stakeholder confidence by ensuring risks are identified and appropriately managed across all their processes.
- Manage end to end processes, within and beyond the organization, to achieve the desired performance and outcomes.

5. Succeeding through People

Excellent organizations treat their people and create a culture of empowerment for the balanced achievement of organizational and personal goals.

In practice, excellent organizations:

- Understand the skills and competencies required to achieve the Mission, Vision and strategic goals.
- Create a culture where people's dedication, skills, talents and creativity are developed and valued.
- Ensure that their people can contribute to their own, and the organization's ongoing success, realizing their full potential in a spirit of true partnership.
- Align personal and team objectives with the organization's strategic goals and ensure their people are empowered to maximize their contribution.
- Adopt approaches that ensure a responsible work / life balance for their people.
- Ensure and embrace the diversity of their people.
- Foster organizational development through shared values, accountability, ethics and a culture of trust and openness.
- Clearly define the levels of people performance required to achieve the strategic goals.
- Encourage their people to be the creators and ambassadors of the organization's ongoing success.

6. Nurturing Creativity & Innovation

Excellent organizations generate increased value and levels of performance through continual and systematic innovation by harnessing the creativity of their stakeholders.

In practice, excellent organizations:

- Establish and manage networks to identify opportunities for innovation from signals within the internal and external environment achievements.
- Set clear goals and objectives for innovation and refine their strategy in line with innovation achievements.
- Establish approaches to engage people, partners, customers and society in generating ideas and innovation.
- Create a culture of entrepreneurship to enable innovation across all aspects of the organization.
- Use innovation in a way that goes well beyond technical change and reveals new ways of offering value to customers, new ways of working and new ways of building on partnerships, resources and competencies.
- Use innovation to enhance their organization's reputation and image and attract new customers, partners and talent.
- Have an open mindset and use creativity and innovation to respond quickly to challenges they face.
- Turn new ideas into reality through innovation enabling processes which fit the nature and importance of the changes they will make.
- Assess the impact and the added value of innovations.

7. Building Partnerships

Excellent organizations seek, develop and maintain trusting relationships with various partners to ensure mutual success. These partnerships may be formed with amongst others, customers, society, key suppliers, educational bodies or Non-Governmental Organizations (NGOs).

In practice, excellent organizations:

- Recognize that, in the increasingly demanding world of today, success may depend on the effective partnerships they develop.

- Know what their core purpose is and they seek partners to enhance their capabilities and ability to generate stakeholder value.
- Establish extensive networks to enable them to identify potential partnership opportunities.
- Understand partnerships entail working together for long-term, sustainable value enhancement.
- Identify strategic and operational partnerships based on organizational and strategic needs, complementary strengths and capabilities.
- Develop partnerships that systematically enable the delivery of enhanced value to their respective stakeholders through competencies, synergies and seamless processes.
- Work together with partners to achieve mutual benefit, supporting one another with expertise, resources and knowledge to achieve shared goals.
- Build a sustainable relationship with partners based on mutual trust, respect and openness.

8. Taking Responsibility for a Sustainable Future

Excellent organizations embed within their culture an ethical mindset, clear values and the highest standards for organizational behavior, all of which enable them to strive for economic, social and ecological sustainability.

In practice, excellent organizations:

- Secure their future by defining and communicating a core purpose that provides the basis for their overall vision, values, ethics and corporate behavior.
- Understand their organization's key competencies and how they can benefit wider society.
- Consider economical, societal and ecological sustainability as a reference when balancing the sometimes conflicting imperatives they face.

- Are able to demonstrate that they have considered the impact of their operations, product lifecycle and services on public health, safety and the environment.
- Ensure a safe and healthy working environment for their people.
- Ensure their people act with integrity and adopt the highest standards of ethical behavior.
- Encourage their people and other stakeholders to participate in activities that contribute to wider society.
- Are transparent and accountable to their stakeholders and society at large for their performance and actively support the desire to go beyond regulatory compliance.
- Allocate resources to provide for long-term needs rather than just short-term gain and, where relevant, become and remain competitive.

Award Criteria

The following diagram shows the Award nine criteria, where the five criteria (Leadership, Strategy, People, Partnerships and Resources, Processes, Products and Services) constitute the dimension of Enablers, while the four criteria (Customer Results, People Results, Society Results and Key Results) constitutes the dimension of Results, and the tenth criteria (Sustainability) constitutes both Enablers and Results dimensions:

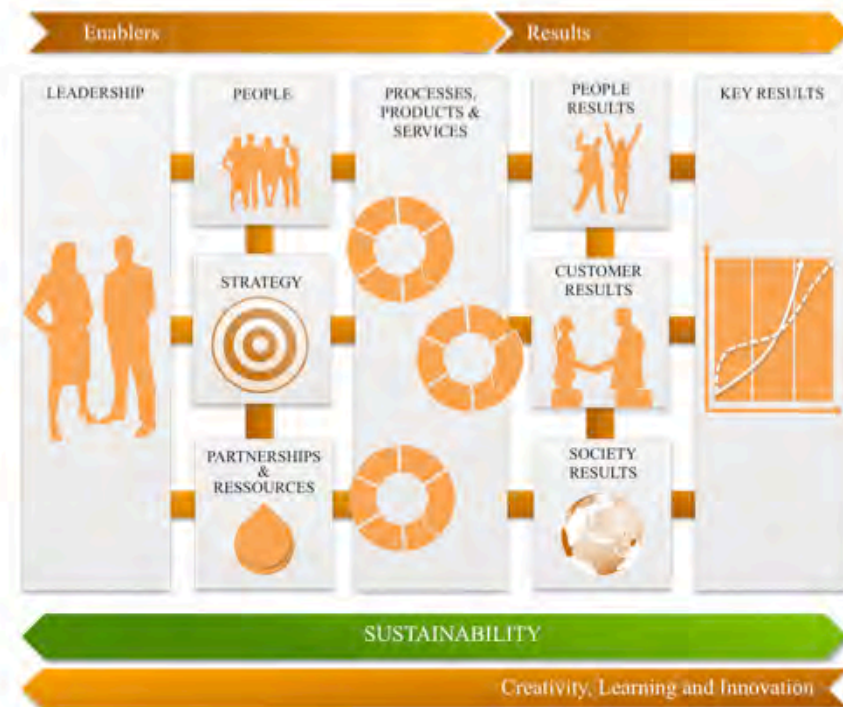


Figure No. (5): The Award Excellence Model

1. Leadership

Definition

Excellent organizations have leaders who shape the future and make it happen, acting as role models for its values and ethics and inspiring trust at all times. They are flexible, enabling the organization to anticipate and react in a timely manner to ensure the ongoing success of the organization.

- 1a. Leaders develop the mission, vision, values and ethics and act as role models.
- 1b. Leaders define, monitor, review and drive the improvement of the organization's management system and performance.
- 1c. Leaders engage with external stakeholders.
- 1d. Leaders reinforce a culture of excellence with the organization's people.
- 1e. Leaders ensure that the organization is flexible and manages change effectively.

1a. Leaders develop the mission, vision, values and ethics and act as role models.

In practice, leaders of excellent organizations:

- Set and communicate a clear direction and strategic focus; they unite their people in sharing and achieving the organization's core purpose and objectives.

- Secure the future of the organization by defining and communicating a core purpose that provides the basis for their overall Vision, values ethics and corporate behavior.
- Champion the organization's values and are role models for integrity, social responsibility and ethical behavior, both internally and externally.
- Foster organizational development through shared values, accountability, ethics and a culture of trust and openness.
- Ensure their people act with integrity and adopt the highest standards of ethical behavior.
- Develop a shared leadership culture for organization and review and improve the effectiveness of personal leadership behaviors.

1b. Leaders define, monitor, review and drive the improvement of the organization's management system and performance.

In practice, leaders of excellent organizations:

- Use a balanced set of results to review their progress, providing a view of long and short term priorities for the key stakeholders, with clearly defined "cause and effect" relationships.
- Develop and improve the organization's management system, including evaluating the set of results in order to improve future performance and provide sustainable benefits to stakeholders.
- Base decisions on factually reliable information and use all available knowledge to interpret current and predicted performance of the relevant processes.
- Are transparent and accountable to stakeholders and society at large for their performance and actively support the desire to go beyond regulatory compliance.
- Deliver high levels of stakeholder confidence by ensuring risks are identified and appropriately managed across all their processes.
- Understand and develop the underlying capabilities of the organization.

1c. Leaders engage with external stakeholders.

In practice, leaders of excellent organizations:

- Know who their different external stakeholders groups are and develop approaches to understand, anticipate and respond to their different needs and expectation.
- Establish approaches to engage partners, customers and society in generating ideas and innovation.
- Use innovation to enhance their organization's reputation and image and attract new customers, partners and talent.
- Identify strategic and operational partnerships based on organizational and strategic needs, complementary strengths and capabilities.
- Ensure transparency of reporting to key stakeholders, including appropriate governance bodies, in line with their expectations.

1d. Leaders reinforce a culture of excellence with the organization's people.

In practice, leaders of excellent organizations:

- Inspire people and create a culture of involvement, ownership, empowerment, entrepreneurship improvement and accountability, at all levels.
- Promote a culture which supports the generation and development of new ideas and new ways of thinking to encourage innovation and organizational development.
- Ensure that their people can contribute to their own, and the organization's ongoing success by realizing their full potential in a spirit of true partnership.
- Support people throughout the organization to achieve their plans, objectives and targets, recognizing efforts in a timely and appropriate manner.
- Promote and encourage equal opportunities and diversity.

1e. Leaders ensure that the organization is flexible and manages change effectively.

In practice, leaders of excellent organizations:

- Understand the internal and external drivers of organizational change.
- Demonstrate their ability to make sound and timely decisions, based on available information, previous experience and consideration of the impact of their decisions.
- Are flexible; they review, adapt and realign the direction of their organization when necessary, inspiring trust at all times.
- Involve and seek commitment of all relevant stakeholders for their contribution to the sustainable success of the organization and any changes necessary to ensure this success.
- Demonstrate their ability to maintain sustainable advantage through their capability to learn quickly and respond rapidly with new ways of working.
- Allocate resources to provide for long-term needs rather than just short-term profitability and, where relevant, become and remain competitive.

2. Strategy

Definition

Excellent organizations implement their mission and vision by developing a stakeholder focused strategy. Policies, plans, objectives and processes are developed and deployed to deliver the strategy.

- 2a. Strategy is based on understanding the needs and expectations of both stakeholders and the external environment.
- 2b. Strategy is based on understanding internal performance and capabilities.

- 2c. Strategy and supporting policies are developed, reviewed and updated.
- 2d. Strategy and supporting policies are communicated, implemented and monitored.

2a. Strategy is based on understanding the needs and expectations of both stakeholders and the external environment.

In practice, excellent organizations:

- Gather stakeholders' needs and expectations for input to the development and review of their strategy and supporting policies, remaining constantly alert to any changes.
- Identify, understand and anticipate developments within the organization's external environment.
- Identify, analyze and understand external indicators, such as economic, market and societal trends, which may effect the organization.
- Understand and anticipate the long and short term impact of changes to relevant political, legal, regulatory and compliance requirements.
- Identify, understand and anticipate opportunities and threats, based on feedback from stakeholders and other external information and analyses.

2b. Strategy is based on understanding internal performance and capabilities.

In practice, excellent organizations:

- Analyze operational performance trends, core competencies and outcomes to understand current and potential organizational capabilities.
- Analyze data and information regarding existing and potential partners' core competencies and capabilities to understand how they complement the organization's capabilities.

- Analyze data and information to determine the impact of new technologies and business models on the performance of the organization.
- Compare their performance with relevant benchmarks to understand their relative strengths and areas for improvement.

2c. Strategy and supporting policies are developed, reviewed and updated.

In practice, excellent organizations:

- Create and maintain a clear strategy and supporting policies to achieve the mission and vision of the organization.
- Identify and understand the Key Results required to achieve the mission and evaluate progress towards the vision and strategic goals.
- Use core competencies to generate benefit for all stakeholders, including the wider society.
- Adopt effective mechanisms to understand future scenarios and manage strategic risks.
- Understand the key business drivers: they balance the needs of the organization and its stakeholders in planning for the achievement of present and future objectives.
- Ensure economic, societal and ecological sustainability.

2d. Strategy and supporting policies are communicated, implemented and monitored.

In practice, excellent organizations:

- Define the required outcomes and related performance indicators and establish targets based on comparisons of their performance with other organizations and the mission and vision.

- Deploy strategy and supporting policies in a systematic manner to achieve the desired set of results, balancing short and long term objectives.
- Maintain and align an organizational structure and a framework of key processes to deliver their strategy in a way that adds real value for their stakeholders, achieving the optimum balance of efficiency and effectiveness.
- Align individual and team objectives with the organization's strategic goals and ensure they are empowered to maximize their contribution.
- Communicate strategy and supporting policies with stakeholders, in an appropriate way.
- Set clear goals and objectives for innovation and refine their strategy in line with innovation achievements.

3. People

Definition

Excellent organizations value their people and create a culture that allows the mutually beneficial achievement of organizational and personal goals.

They develop the capabilities of their people and promote fairness and equality. They care for, communicate, reward and recognize, in a way that motivates people, builds commitment and enables them to use their skills and knowledge for the benefit of the organization.

- 3a. People plans support the organization's strategy.
- 3b. people's knowledge and capabilities are developed.
- 3c. People are aligned, involved and empowered.
- 3.d. People communicate effectively throughout the organization
- 3.e. People are rewarded, recognized and cared for.

3a. People plans support the organization's strategy

In practice, excellent organizations:

- Have clearly defined the people performance levels required to achieve the strategic goals.
- Align people plans with their strategy, the organizational structure, new technologies and key processes.
- Involve employees, and their representatives, in developing and reviewing the people strategy, policies and plans, adopting creative and innovative approaches when appropriate.
- Manage recruitment, career development, mobility and succession planning, supported by appropriate policies, to ensure fairness and equal opportunities.
- Use people surveys and other forms of employee feedback to improve people strategies, policies and plans.

3b. People's knowledge and capabilities are developed

In practice, excellent organizations:

- Understand the skills and competencies required to achieve the mission, vision and strategic goals.
- Ensure training and development plans help people match the skills and future capability needs of the organizations.
- Align individual and team objectives with the organization's targets, reviewing and updating them in a timely manner.
- Appraise and help people improve their performance to improve and maintain their mobility and employability.

- Ensure their people have the necessary tools, competencies, information and empowerment to be able to maximize their contribution.

3c. People are aligned, involved and empowered

In practice, excellent organizations:

- Ensure their people, at the individual and team level, are fully aligned with the organization's mission, vision and strategic goals.
- Create a culture where people's dedication, skills, talent and creativity are developed and valued.
- Encourage their people to be the creators and ambassadors of the organization's ongoing success.
- Ensure that people have an open mindset and use creativity and innovation to respond quickly to challenges they face.
- Create a culture of entrepreneurship to enable innovation across all aspects of the organization.
- Involve their people in continually reviewing, improving and optimizing the effectiveness and efficiency of their processes.

3.d. People communicate effectively throughout the organization

In practice, excellent organizations:

- Understand the communication needs and expectations of their people.
- Develop communications strategy, policies, plans and channels based on communications needs and expectations.
- Communicate a clear direction and strategic focus ensuring their people understand the organization's mission, vision, values and objectives.
- Ensure that their people understand and can demonstrate their contribution to the organization's ongoing success.

- Enable and encourage the sharing of information, knowledge and best practices, achieving a dialogue throughout the organization.

3.e. People are rewarded, recognized and cared for

In practice, excellent organizations:

- Align remuneration, benefits, redeployment, redundancy and other terms of employment with strategy and policies and, to promote and sustain the involvement and empowerment of their people.
- Adopt approaches that ensure a responsible work / life balance for their people.
- Ensure and embrace the diversity of their people.
- Ensure a safe and healthy working environment for their people.
- Encourage their people to participate in activities that contribute to wider society.
- Promote a culture of mutual support, recognition and care between individuals and between teams.

4. Partnerships & Resources

Definition

Excellent organizations plan and manage external partnerships, suppliers and internal resources in order to support strategy and policies and the effective operation of processes. They ensure that they effectively manage their environmental and societal impact.

- 4a. Partners and suppliers are managed for sustainable benefit
- 4b. Finances are managed to secure sustained success

- 4c. Buildings, equipment, materials and natural resources are managed in a sustainable way.
- 4d. Technology is managed to support the delivery for strategy
- 4e. Information and knowledge are managed to support effective decision making and to build the organizational capability

4a. Partners and suppliers are managed for sustainable benefit

In practice, excellent organizations:

- Segment and differentiate partners and suppliers, in line with the organization's strategy, and adopt appropriate policies and processes for effectively managing them.
- Build a sustainable relationship with partners and suppliers based on mutual trust, respect and openness.
- Establish extensive networks to enable them to identify potential partnership opportunities.
- Understand partnership include working together for long-term, sustainable value enhancement. They know what their core purpose is and seek partners to enhance their capabilities and ability to generate stakeholder value.
- Develop partnerships that systematically enable the delivery of enhanced value to their respective stakeholders through competencies, synergies and seamless processes.
- Work together with partners to achieve mutual benefit, supporting one another with expertise, resources and knowledge to achieve shared goals.

4b. Finances are managed to secure sustained success

In practice, excellent organizations:

- Develop and implement financial strategies, policies and processes to support the overall strategy of the organization.

- Design the financial planning, control, reporting and review processes to optimize the efficient and effective use of resources.
- Establish and implement financial governance processes, tailored to all appropriate levels in the organization.
- Evaluate, select and validate investment in, and divestment of, both tangible and non tangible assets, taking into account their long-term economic, societal and ecological effects.
- Deliver high levels of stakeholder confidence by ensuring financial risks are identified and appropriately managed.
- Ensure alignment between the delivery of long-term goals and short term financial planning cycles.

4c. Buildings, equipment, materials and natural resources are managed in a sustainable way.

In practice, excellent organizations:

- Develop and implement a strategy and supporting policies for managing buildings, equipment and materials that supports the organization's overall strategy.
- Optimize the use and effectively manage the lifecycle and physical security of their tangible assets, including buildings, equipment and materials.
- Demonstrate they actively manage the impact of their operations on public health, safety and the environment.
- Measure and manage any adverse effects of the organization's operations on the community and their people.
- Adopt and implement appropriate policies and approaches to minimize their local and global environmental impact, including setting challenging goals for meeting and exceeding legal standards and requirements.

4d. Technology is managed to support the delivery for strategy.

In practice, excellent organizations:

- Develop a strategy and supporting policies for managing the technology portfolio that supports the organization's overall strategy.
- Use technology, including IT-enabled processes, to support and improve the effective operation of the organization.
- Manage their technology portfolio, including optimizing the use of existing technology as well as replacing their out-dated technology.
- Involve their people and other relevant stakeholders in the development and deployment of new technologies to maximize the benefits generated.
- Identify and evaluate alternative and emerging technologies in the light of their impact on organizational performance and capabilities and the environment.
- Use technology to support innovation and creativity.

4e. Information and knowledge are managed to support effective decision making and to build the organizational capability

In practice, excellent organizations:

- Ensure that their leaders are provided with accurate and sufficient information to support them in effective and timely decision making, enabling them to effectively predict the future performance of the organization.
- Transform data into information and, where relevant, into knowledge that can be shared and effectively used.
- Provide and monitor access to relevant information and knowledge for their people and external users, whilst ensuring both security and the organization's intellectual property is protected.
- Establish and manage networks to identify opportunities for innovation from signals within the internal and external environment.
- Use innovation in a way that goes well beyond technical change and reveals new ways of offering value to customers, new ways of working and new ways of building on partnerships, resources and competencies.

- Use data and information on the current performance and capabilities of processes to identify opportunities for, and generate, innovation.

5. Processes, Products and Services

Definition

Excellent organizations design, manage and improve processes, products and services to generate increasing value for, customers and other stakeholders.

- 5a. Processes are designed and managed to optimize stakeholder value.
- 5b. Products and Services are developed to create optimum value for customers.
- 5c. Products and Services are effectively promoted and marketed
- 5d. Products and Services are produced, delivered and managed
- 5e. Customer relationships are managed and enhanced.

5a. Processes are designed and managed to optimize stakeholder value.

In practice, excellent organizations:

- Analyze, categorize and priorities their end to end processes as part of the overall management system and adopt appropriate approaches to effectively manage and improve them, including those processes that extend beyond the boundaries of the organization.
- Clearly define processes ownership and their role and responsibility in developing, maintaining and improving the framework of key processes.
- Develop meaningful process performance indicators and outcome measures, clearly linked to the strategic goals.
- Turn new ideas into reality through innovation-enabling processes that fit the nature and importance of the changes they will make.

- Assess the impact and the added value of innovations and improvements to processes.

5b. Products and Services are developed to create optimum value for customers.

In practice, excellent organizations:

- Strive to innovate and create value for their customers.
- Use market research, customer surveys and other forms of feedback to anticipate and identify improvements aimed at enhancing the product and service portfolio.
- Involve their people, customers, partners and suppliers in the development of new and innovative products, services and experiences for both existing and new customer groups.
- Understand and anticipate the impact and potential of new technologies on products and services.
- Use creativity to design and develop new and innovative products and services together with customers, partners or other stakeholders.
- Take into account any impact of the product and service lifecycle on economic, societal and ecological sustainability.

5c. Products and Services are effectively promoted and marketed.

In practice, excellent organizations:

- Clearly define their value propositions, ensuring sustainability by balancing the needs of all relevant stakeholders.
- Define the business model in terms of core capabilities, processes, partners and value proposition.
- Implement the business model and value proposition by defining their "unique selling points", market positioning, target customer groups and distribution channels.
- Develop marketing strategies to effectively promote their products and services to target customers and user groups.

- Effectively market their product and service portfolio to existing and potential customers.
- Ensure that they have the capability to fulfill their promises.

5d. Products and Services are produced delivered and managed.

In practice, excellent organizations:

- Produce and deliver products and services to meet, or exceed, customer needs and expectations, in line with the offered value proposition.
- Ensure their people have the necessary tools, competencies, information and empowerment to be able to maximize the customer experience.
- Manage products and services throughout their entire lifecycle, including reusing and recycling where appropriate, considering any impact on public health, safety and the environment.
- Compare their product and service delivery performance with relevant benchmarks and understand their strengths in order to maximize the value generated for customers.
- Involve their people, customers, partners and suppliers in optimizing the effectiveness and efficiency of their value chain.

5e. Customer relationships are managed and enhanced.

In practice, excellent organizations:

- Know who their different customer groups are and respond to, and anticipate, their different needs and expectations.
- Determine and meet customers' day-to-day and long-term contact requirements.
- Build and maintain a dialogue with all their customers, based on openness, transparency and trust.
- Continually monitor and review the experiences and perceptions of customers and respond quickly and effectively to any feedback.
- Advise customers on the responsible use of products and services.

6. Customer Results

Definition

Excellent organization:

- Develop and agree a set of performance indicators and related outcomes to determine the successful deployment of their strategy and supporting policies, based on the needs and expectations of their customers.
- Set clear targets for Key Results based on the needs and expectations of their customers, in line with their chosen strategy.
- Demonstrate positive or sustained good Customer Results over at least 3 years.
- Clearly understand the underlying reasons and drivers of observed trends and the impact these results will have on other performance indicators and related outcomes.
- Anticipate future performance and results.
- Understand how the Key Results they achieve compare to similar organizations and use this data, where relevant, for target setting.
- Segment results to understand the experience, needs and expectations of specific customer groups.

6a. Perceptions

- These are the customers' perceptions of the organization. They may be obtained from a number of sources, including customer surveys, focus groups, vendor ratings, compliments and complaints.
- These perceptions should give a clear understanding of the effectiveness, from the customers' perspective, of the deployment and execution of the organization's customer strategy and supporting policies and processes.
- Depending on the purpose of the organization, measures may focus on:

- Reputation and image
- Product and service value
- Product and service delivery
- Customer service, relationship and support
- Customer loyalty and engagement

6b. Performance Indicators

- These are the internal measures used by the organization in order to monitor, understand, predict and improve the performance of the organization and to predict their impact on the perceptions of its external customers.
- These indicators should give a clear understanding of the efficiency and effectiveness of the deployment and execution of the organization's customer strategy and supporting policies and processes.
- Depending on the purpose of the organization, measures may focus on:
 - Products and services delivery
 - Customer service, relationships and support
 - Complaints and compliments
 - External recognition

7. People Results

Definition

Excellent organization:

- Develop and agree a set of performance indicators and related outcomes to determine the successful deployment of their strategy and supporting policies, based on the needs and expectations of their people.

- Set clear targets for Key Results based on the needs and expectations of their People, in line with their chosen strategy.
- Demonstrate positive or sustained good People Results over at least 3 years.
- Clearly understand the underlying reasons and drivers of observed trends and the impact these results will have on other performance indicators and related outcomes.
- Anticipate future performance and results.
- Understand how the Key Results they achieve compare to similar organizations and use this data, where relevant, for target setting.
- Segment results to understand the needs and expectations of specific groups within their organization.

7a. Perceptions

- These are the people's perceptions of the organization. They may be obtained from a number of sources, including surveys, focus groups, interviews and structured appraisals.
- These perceptions should give a clear understanding of the effectiveness, from the people's perspective, of the deployment and execution of the organization's people strategy and supporting policies and processes.
- Depending on the purpose of the organization, measures may focus on:
 - Satisfaction, involvement and engagement
 - Pride and fulfillment
 - Leadership and management
 - Target setting, competency and performance management
 - Competency, training and career development
 - Effective communications
 - Working conditions

7b. Performance Indicators

- These are the internal measures used by the organization in order to monitor, understand, predict and improve the performance of the organization's people and to predict their impact on the perceptions.
- These indicators should give a clear understanding of the efficiency and effectiveness of the deployment and execution of the organization's people strategy and supporting policies and processes.
- Depending on the purpose of the organization, measures may focus on:
 - Involvement and engagement
 - Target setting, competency and performance management
 - Leadership performance
 - Training and career development
 - Internal communications

8. Society Results

Definition

Excellent organizations:

- Develop and agree a set of performance indicators and related outcomes to determine the successful deployment of their societal and ecological strategy and related policies, based on the needs and expectations of the relevant external stakeholders.
- Set clear targets for Key Results based on the needs and expectations of their external stakeholders, in line with their chosen strategy.
- Demonstrate positive or sustained good Society Results over at least 3 years.
- Clearly understand the underlying reasons and drivers of observed trends and the impact these results will have on other performance indicators and related outcomes.

- Anticipate future performance and results.
- Understand how the Key Results they achieve compare to similar organizations and use this data, where relevant, for target setting.
- Segment results to understand the experience, needs and expectations of specific stakeholders within Society.

8a. Perceptions

This is the society's perceptions of the organization. This may be obtained from a number of sources, including surveys, reports, press articles, public meetings, NGOs, public representatives and governmental authorities.

- These perceptions should give a clear understanding of the effectiveness, from the society's perspective, of the deployment and execution of the organization's societal and environmental strategy and supporting policies and processes.
- Depending on the purpose of the organization, measures may focus on:
 - Environmental impact
 - Image and reputation
 - Societal impact
 - Workplace impact
 - Awards and media coverage

8b. Performance Indicators

- These are the internal measures used by the organization in order to monitor, understand, predict and improve the performance of the organization and to predict the impact on the perceptions of society.
- These indicators should give a clear understanding of the effectiveness and efficiency of the approaches adopted to manage the organization's societal and environmental responsibilities.

- Depending on the purpose of the organization, measures may focus on:
 - Environmental performance
 - Regulatory and governance compliance
 - Societal performance
 - Health and safety performance
 - Responsible sourcing (water & energy) and procurement performance

9. Key Results

Note: Key results for Customers, People and Society are covered in Criteria 6,7 and 8.

Definition

Excellent organization:

- Develop and agree a set of key financial and non-financial results to determine the successful deployment of their strategy, based on the needs and expectations of their key stakeholders.
- Set clear targets for Key Results based on the needs and expectations of their key stakeholders, in line with their chosen strategy.
- Demonstrate positive or sustained good Key Results over at least 3 years.
- Clearly understand the underlying reasons and drivers of observed trends and the impact these results will have on other performance indicators and related outcomes.
- Anticipate future performance and results.
- Understand how the Key Results they achieve compare to similar organizations and use this data, where relevant, for target setting.
- Segment results to understand the performance levels and strategic outcomes achieved within specific areas of the organization.

9a. Key Strategic Outcomes

These are the key financial and non – financial outcomes which demonstrate the success of the organization's deployment of their strategy. The set of measures and relevant targets will be defined and agreed with key stakeholders.

- Depending on the purpose of the organization, measures may focus on:
 - Financial outcomes
 - Performance against budget
 - Volume of key products or services delivered
 - Key process outcomes


9b. Key Performance Indicators

- These are key financial and non – financial indicators that are used to measure the organization's operational performance. They help monitor, understand, predict and improve the organization's likely key performance outcomes.
- Depending on the purpose of the organization, measures may focus on:
 - Financial performance indicators
 - Project costs
 - Key process performance indicators
 - Partner and supplier performance
 - Technology, information and knowledge

10. Sustainability

Definition

Concepts from the previous nine criteria can also be applied to sustainability, as excellence sustainability strategies require strong enablers and strong results. Excellent organizations understand the value of sustainability in order to thrive in business as well as take responsibility of their social and environmental impacts.



Excellent organizations develop business practices, policies and economic programs that address Jordan's current Energy, Water, Products and Service needs while decreasing Waste and Emissions to ensure future societal prosperity. This is demonstrated through measuring impact, improving them, and innovating.

10a. Measurements.

- Organizations measure the following impacts of their organization, both qualitatively and quantitatively:
 - Water
 - Energy
 - Waste
 - Society
 - Products and services
- These are indicators used by the organization in order to monitor, understand, and compare the environmental and social performance of the organization.

10b. Improvements.

Organizations make efforts to improve their impacts of the above components. In practice, excellent organizations:

- Reduce water consumption and consider and act on ways to reuse water.
- Reduce energy consumption and consider and act on ways to reuse energy. Organizations should also integrate renewable sources of energy.
- Reduce waste consumption and consider and act on ways to revamp procedures in order to eliminate waste.
- Advance prosperity of society through organization run programs or strategic support of NGO programs.
- Revisit their products and services to consider and act on strategies which can lessen the environmental impact of their core operations.

- Foster organizational development of sustainability through education of employees and prioritizing sustainability from a leadership level.
- Champion sustainability as part of the organization's core values.

10c. Innovation.

Organizations innovate and find new ways to improve their impacts of the above components. In practice, excellent organizations:

- Understand the importance of innovation in achieving sustainable goals and reducing the organization's environmental and social impact.
- Develop innovative products, processes, and business models to meet sustainable objectives.

Glossary of Terms

Approach – The overall way by which something is made to happen – an approach comprises of processes and structured actions within a framework of principles and policies.

Benchmarking – a systematic comparison of approaches with other relevant organizations that gains insights that will help the organization to take action to improve its performance.

Benchmark – A measured achievement for comparison and target setting purposes.

Business Model – The elements of the business that create and deliver value; these elements normally include the value proposition, the profit formula, key resources and key processes of the organization.

Change Management – The approach during which the changes of an organization or system are implemented in a controlled manner by following a pre-defined frame work or process, to support the achievement of the strategic goals. Change management enables the transition from a current state into a desired future state.

Continual Improvement – The ongoing improvement of processes that lead to achievement of higher levels of performance through incremental change.

Core Competence – A well-performed internal activity or capability that is central to the organization's competitiveness, profitability or efficiency.

Corporate Governance – A framework of authority and control within an organization used to help it fulfill its legal, financial and ethical obligations.

Creativity – The generation of ideas for new or improved products, services, processes, systems

or social interactions.

Critical Success Factors – Limited number (usually between 3 to 8) of characteristics, conditions or variables, that have a direct impact on the effectiveness, efficiency and viability of an organization, program or project.

Culture – The specific collection of values and norms that are shared by people and groups in an organization that control the way they interact with each other and with stakeholders outside the organization.

Customer – The recipient of products or services provided by the organization.

Empowerment – The process by which individual or teams are able to take decision making responsibilities, and operate with a degree of autonomy in their actions.

Equal Opportunity – The practice of ensuring that all people receive fair and equal treatment regardless of gender, age race, nationality, religion, disability or sexual orientation.

Excellence – Achieving and sustaining superior levels of performance that meet or exceed the expectations of all stakeholders.

Fundamental Concepts of Excellence – The set key and proven principles upon which the EFQM Excellence Model framework is based.

Good/ Best Practice – Superior approaches, policies, processes or methods that lead to exceptional achievement. Since it is difficult to find out what is best, the term "good practice" is preferred by most organizations. Ways to find good practice outside the organization can include benchmarking and external learning.

Innovation – The practical translation of ideas into new products, services, processes, systems or social interactions.

Intellectual Capital – The value of an organization that is not captured in its traditional financial accounts. It represents the intangible assets of an organization and is often the difference between market and book value.

Key Processes – The processes that are of the utmost importance for the organization since they deliver and support the strategy and drive the value chain.

Knowledge – Knowledge is expertise and skills acquired by a person through experience and education, involving the theoretical and/ or practical understanding of a subject. While data are raw facts and information is data with context and perspective, knowledge is information with guidance/ ability for action.

Leaders – The people who coordinate and balance the interests and activities of all who have a stake in the organization.

Leadership – Directing the organization to achieve the vision and mission, and to provide the requirements for the purpose of improving the performance.

Management System – The framework of processes, related performance/ result indicators and process management and improvement systems used to ensure that the organization can fulfill its Mission and Vision.

Mission – A statement that describes the purpose or "raison d'être" of an organization, confirmed by its stakeholders.

Mobility – The willingness and capability of people to change their job or the working location.

Organizational Agility– The ability to respond and adapt, in a timely way, to an emerging threat or opportunity.

Organizational Culture – the total range of behaviors, ethics, and values which are transmitted, practices and reinforced among members of the organization.

Partnership – A durable working relationship between the organization and partners, creating and sharing added value for both parties. Partnerships can be formed e.g. with suppliers, distributors, educational bodies or customers. Strategic partnerships support the strategic objectives of the organization in a particular way.

People – All individuals employed by the organization (full time, part-time, including volunteers), including leaders at all levels.

Perception – The opinion stakeholders have of the organization.

Process – A set of activities that interact with one another because the output from one activity becomes the input for another activity. Processes add value by transforming inputs into outputs, using resources.

Products – Commercially distributed goods as a result of a fabrication, manufacturing, or production process that passes through a distribution channel before being consumed or used. In a broad sense, products include a wide range of goods, from commodities to complex installations such as facilities, plants or factories.

Society – The social infrastructure outside the organization that can be affected by the organization.

Stakeholder – Person, group or organization that has direct or indirect stake or interest in the organization because it can either affect the organization or be affected by it. Examples of external stakeholders are owners (shareholders), customers, suppliers, partners, government agencies and representatives of the community or the society. Examples for internal stakeholders are people or groups of people.

Strategy – A high level plan describing the tactics by which an organization intends to achieve its mission and vision.

Values – Operating philosophies or principles that guide an organization's internal conduct as well as its relationship with the external world. Values provide guidance for people on what is good or desirable and what is not. They exert major influence on the behavior of individuals and terms and serve as broad guidelines in all situations.

Value Proposition – The differentiating value the organization's products and services offer to customers.

Value Chain – The sequential set of primary and support activities that an enterprise performs to turn inputs into value-added outputs for its external customers.

Vision – Description of what the organization is attempting to achieve in the long-term future. It is intended to serve as a clear guide for choosing current and future courses of action and, along with the mission; it is the basis for strategies and policies.

Reference

- European Foundation for Quality Management (EFQM) Excellence Model 2010
- Malcolm Baldrige Excellence Model (USA)
- International Standard Organization (ISO) 9000:2000 (E)

Appendix 10. Final Report Briefing Presentation Materials



King Abdullah II Award for Excellence Taking Responsibility for a Sustainable Future

Workshop in Sustainability Management Final Briefing
Columbia University
April 24, 2012



مركز الملك عبد الله الثاني للتميز

King Abdullah II Center for Excellence

 COLUMBIA UNIVERSITY
IN THE CITY OF NEW YORK

Agenda

- The Client
- Project Purpose
- The Scope
- Key Insights
- Deliverables
 - The Metrics
 - The Educational Material
- Challenges Addressed
- Client Recommendations

The Client | KACE



Photo credit: Digital Production Me

The role of the King Abdullah II Centre for Excellence is to promote continuing excellence in the public sector, private sector, business associations and non-governmental organizations and Education Services Providers for the purpose of increasing Jordan's international competitiveness to help secure a sustainable, prosperous future for Jordan.

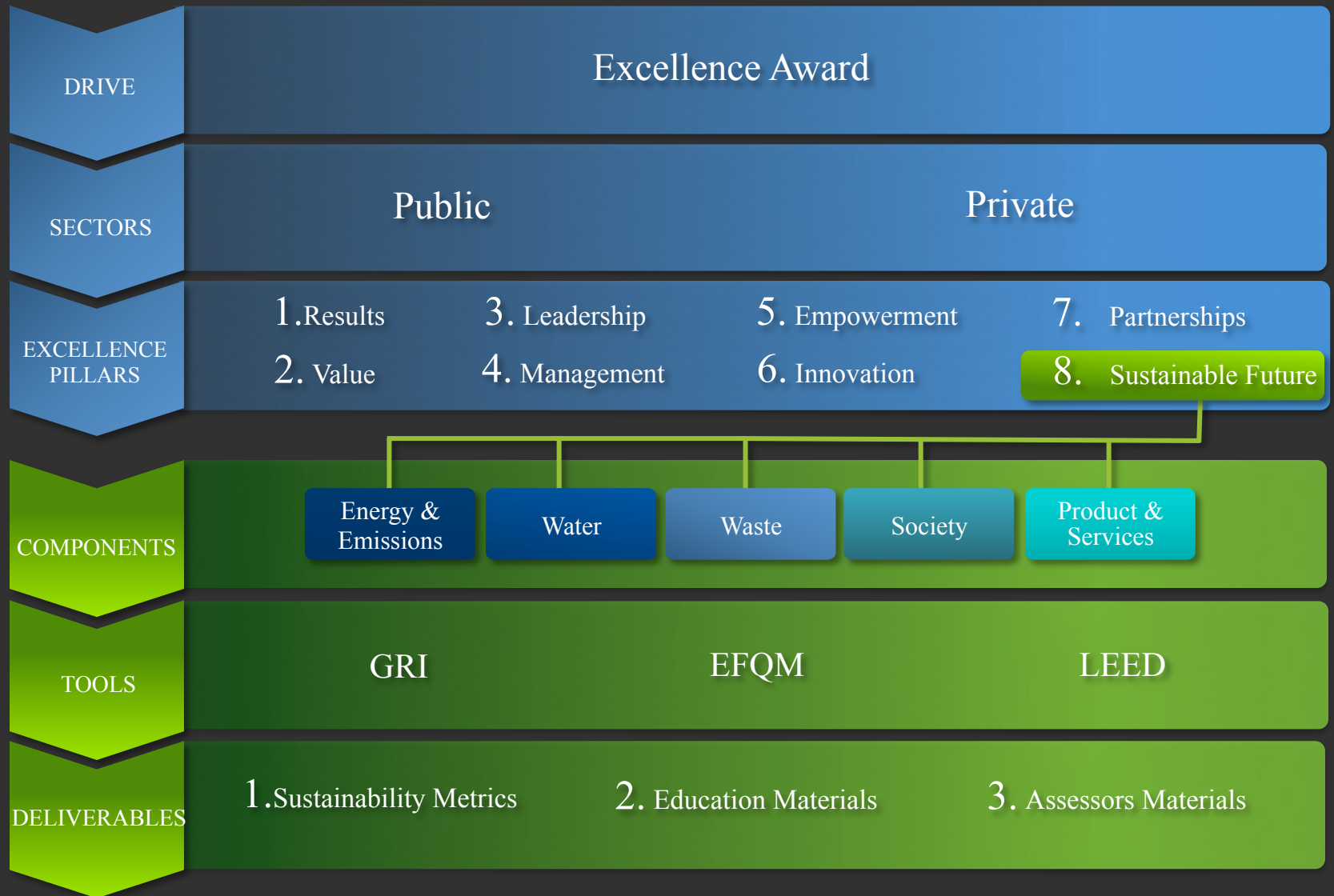
The Project | Purpose



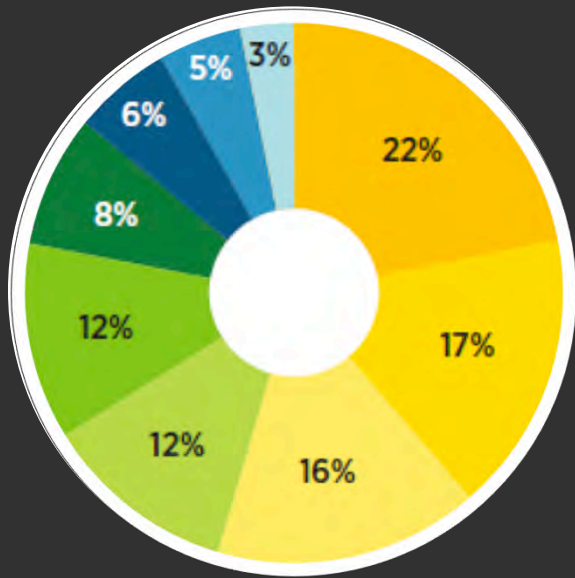
Photo credit: Dinesh

The current structure of The King Abdullah II Awards for Excellence lacks the tools to grade sustainability. Our project purpose is to provide a framework of goals, targets and metrics to support their effort to **consolidate sustainability as a fundamental pillar of excellence.**

Project | Scope



Project | Deliverables for Key Players



KACE
Sustainability
Metrics



Mentors
Education
Materials

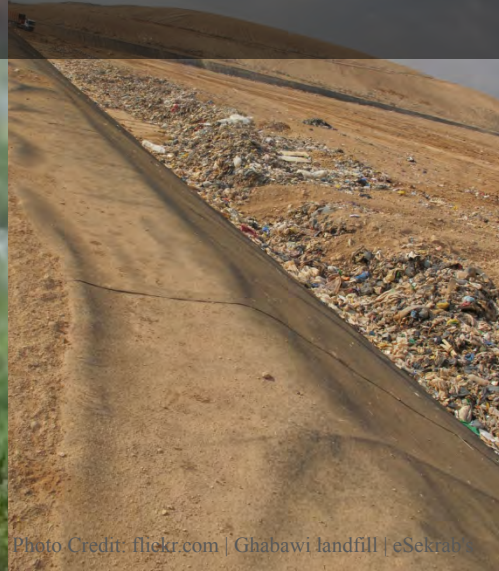


Assessors
Evaluation
Materials

Key Insights

Literature and Fieldwork

Key Insights | Local Level



- 1/5 of Jordan's GDP is attributed to import **energy**
- 94% of the available **water** is used for irrigation and municipal needs
- 1.5 million metric tons of municipal solid **waste** is produced per year
- 13% of the **people** live below the poverty line

Key Insights | Institutional Level



Photo credit: Diana Sierra

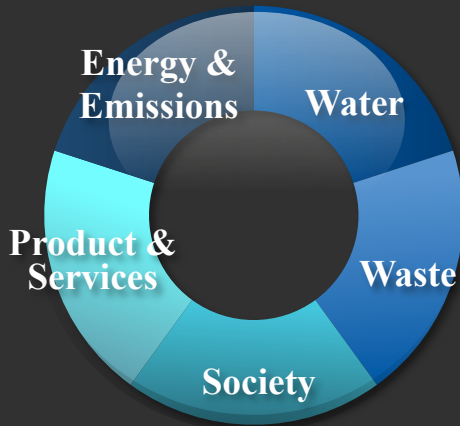
1. There is an established sustainability **network** for training & education
2. Capitalize on the existing long-term development of **human capital**
3. Metric system should drive **compliance** of government legislation and regulations
4. The Award will promote environmental management **transparency**
5. New metrics will expose **incentives** and funding already available
6. Multiple independent sustainability and environmental award initiatives provide **collaborative potential**

Deliverables

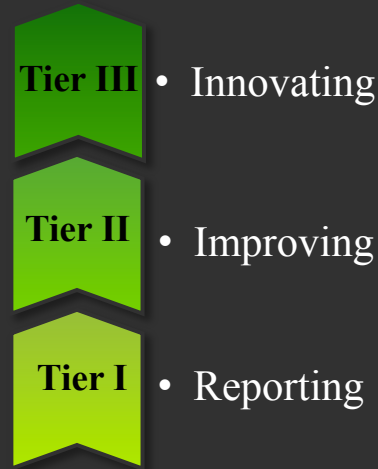
Metrics

The Metrics | Key Design Elements

1. Components



2. Tiers



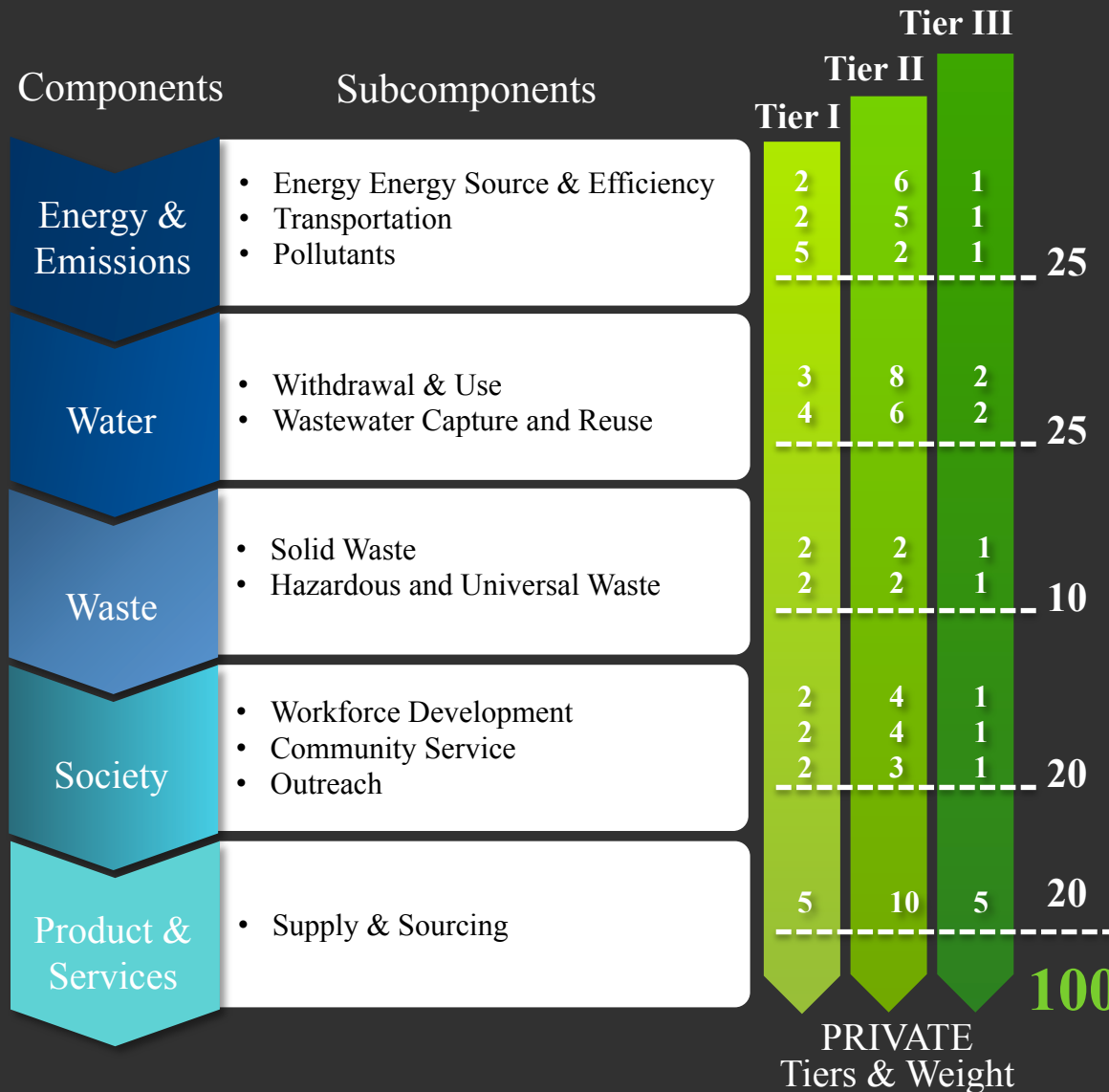
3. Enablers & Results



4. Stars



Metrics Scorecard | Indicators and Weights



Private

Tier I: 31 Points available
 Tier II: 52 Points available
 Tier III: 17 Points available



PRIVATE
Tiers & Weight

Deliverables

Education & Assessors Materials

Education and Training | Timeframe and Concepts



Long Term

Medium Term

Short Term

- Define sustainability
- Make business case
- Introduce new Pillar metrics

- Engage society with sustainability
- Develop key partnerships
- Align goals with national sustainability strategies

- Plan for adaptability over time
- Evaluate learning outcomes
- Update training and education content for relevance

Project | Challenges Addressed

Photo credit: Daniel Martínez Lara and Kike Oliva

استدامة

- Defining sustainability in context of the Award
- Obtaining baseline and standards data

Project | Client Recommendations

Institutional

1. Coordinate Pillar with sustainability efforts in Jordan
2. KACE should have a sustainability point person
3. Applicants should designate sustainability liaisons

Educational

1. Announce new metrics
2. Develop and disseminate educational materials
3. Set timeframe for goals, measurement, and reassessment

Metrics

1. Enhance the sustainability Pillar in the future
2. Adjust points to encourage innovative strategies
3. Develop metrics for each subcategory Award



Thank you

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Glossary

Assessors: a formally trained professional who measures indicators within an applying organization, and estimates the value of their work. An assessor may work individually or within a team of other assessors.

Award: the Award is given annually by the King Abdullah II Center for Excellence (CENTER) to applicants of both public and private sectors (King Abdullah II Center for Excellence).

Baseline Metrics System: the minimum requirement or starting points of the measured metrics in the Award.

Business Associations Sector: a sector that is introduced when 10 entities in the same industry compete from the private sector to allow fair competition (KAAPS).

Center: King Abdullah II Center for Excellence.

Carbon Dioxide Equivalent (CO₂e): a measure used to compare emissions from various greenhouse gases based upon their global warming potential (OECD).

Cradle to Cradle Design: a holistic economic, industrial and social framework that seeks to create systems that are not just efficient but essentially waste free (EPEA).

Economic Participation: the ability for individuals to achieve their professional potential and the level of available opportunities to participate fully in the economy.

Enabler: a tool or operation within the company that enables it to reach certain goals (King Abdullah II Center for Excellence).

Environmental Management System (EMS): a framework that helps a company achieve its environmental goals through consistent control of its operations (EPA).

Flesch-Kincaid readability Tests: tests that are used extensively in the field of education and include two tests: Flesch Reading Easiness (a score from 0 to 100) and Flesch-Kincaid Grade Level (Merli).

Gigagrams (Gg): A unit of mass equal to 1,000,000,000 grams.

Global Reporting Initiative (GRI): a non-profit organization that works towards a sustainable global economy by providing sustainability reporting guidance. GRI is the most widely used reporting standard for economic, environmental, social, and governance performance, in the world. (GRI)

Green Building: the practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building's life-cycle (EPA).

Green Employment: employment in businesses that produce goods or provide services that benefit the environment (BLS).

Greenhouse Gases: gases that contribute to the greenhouse effect by absorbing infrared radiation, e.g. CO₂.

Green Key: an Eco-Rating Program that is designed to recognize hotels, motels and resorts that are committed to improving their environmental and fiscal performance (Green Key Global).

Greywater: a term that refers to wastewater generated from domestic uses such as dishwashing, laundry and showers (excluding human waste), which can be recycled on-site and used for activities such as irrigation (LEED).

Indicators: notable measurements that are tied to specific business goals, and indicate the level of that goal (Global Reporting Initiative).

Integrated Waste Management: a comprehensive waste prevention, recycling, composting, and disposal program. An effective Integrated Waste Management system considers how to prevent, recycle, and manage solid waste in ways that most effectively protect human health and the environment (EPA).

Intergovernmental Panel on Climate Change (IPCC): a panel that assesses the scientific, technical and socio-economic information relevant for the understanding of the risk of human-induced climate change (IPCC).

International Organization for Standardization (ISO) 14001: an Environmental Management System Standard; This means what the organization does to (i) Minimize harmful effects on the environment caused by its activities, and to (ii) Achieve continual improvement of its environmental performance (ISO).

Key Partners: other organizations that have partnerships with the CENTER and assist them in obtaining their goals.

Key Performance Indicators: metrics that have been tied to business goals (Gonzalez).

Leadership in Energy and Environmental Design (LEED): a number of rating systems used to evaluate building design and construction, operations, and maintenance in relation to environmental impact (LEED).

Life Cycle Assessment (LCA): a tool that can be used to assess the environmental impacts of a product, process or service from design to disposal i.e. across its entire lifecycle, a so-called cradle to grave approach (RSC).

Medical Waste: waste products from healthcare premises, such as hospitals, clinics, doctors' offices, labs and nursing homes (Alnatsheh).

Mentor: a formally trained professional who serves as a knowledgeable and trusted advisor for an applying organization.

Metrics: a system or standard of measurement (Gonzalez).

Metric Categories: also "Pillars of sustainability"; 6 topics including: Sustainability, Energy & Emissions, Water, Waste, Society, and Products & Services.

Mitigation: the action of reducing environmental issues.

Municipal Solid Waste: a waste type that includes household and commercial wastes collected by a municipality within a given area. Does not include medical waste (Ministry of Environment of Jordan).

Pillar: a component within the Award structure that provides support towards specific criteria.

Rainwater-Capture Systems – also "Rainwater Harvesting Systems"; is a process of accumulating and storing of rainwater for reuse before it reaches the aquifer (LEED).

Renewable resources - Are resources that are capable of regeneration at a rate greater than its rate of depletion.

Renewable Energy: energy sources that are naturally replenished. Examples are Solar, Wind, and Geothermal.

Results: tangible outcomes that can be quantified in relation to a certain cause.

Scorecard: a sheet in which scores of an applying company are entered by qualified assessors (Gonzalez).

SMART: specific, measurable, action-oriented, relevant and timely; term used for learning objectives (Meir).

Stars – also "Award Stars"; 1-5 stars will be awarded based on candidate's point accumulation.

Supply Chain – consists of all parties involved, directly or indirectly, in fulfilling a customer request. (SBANC)

Sustainability Management: Sustainability management means creating business practices, policies and economic programs that address Jordan's current Energy, Water, Products and Service needs while decreasing Waste and Emissions to ensure future societal prosperity

Sustainable Development: a pattern of economic growth which does not reduce or deplete the available resources for future generations.

Target Group - is comprised of (i) the Center, (ii) applicants, (iii) mentors, and (iv) assessors.

Wastewater: water that is affected in quality by environmental pollution and/or human activities (LEED).

Waste-to-Energy: facilities which produce sustainable energy through the combustion of municipal solid waste in specially designed power plants equipped with the most modern pollution control equipment to clean emissions (Waste to Energy)

Weighting Factors – prioritized key performance indicators based on strategic goals of the organization.

5i Approach: a study approach and methodology designed specifically for this project, and consists of three overarching parts: literature review, fieldwork, final report.