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## SUMMER MESSAGE

### Distinguished Readers and Friends,

We are nearly at the end of the summer and beside the COVID-19 and the Russian-Ukrainian war new dangers appear on the planet: China is attacking Taiwan and there are strained relations between Kosovo and Serbia. The European Union shot itself in the foot. Instead of win-win situation using cheap Russian energy and smart European technology due to Russophobia and hatred of Russians, the multiple embargoes led to energy and fuel exchange. LGBTQ and gender ideology is rampant and the EU illegally punishes Poland and Hungary because they do not submit to the liberal new order. The migrants are constantly attacking Europe and certain countries, such as Slovenia led by the new socialists, are tearing down the protective fence set up by the previous Government. If we look at the COVID and the Russian-Ukrainian war, everyone realize how fragile our glittering and rich lives are. We believed that there would always be everything on the store shelves, the shortage was unknown to us, and we imagined that it would stay like this forever, that maybe the delivery would be even faster and the production of the products even cheaper. Then a transport ship blocked the Suez Canal for a week, destroyed even the European bicycle industry, which has been unable to catch up, because the frames of the sports equipment are manufactured in Taiwan and shipped to Europe from there. And as *Levente Sittkei*, a journalist of the Magyar Nemzet (Hungarian Nations) wrote recently, the “over Taiwan fighter jets conduct warning flights, and where the majority of microchips that go into all cars and advanced electronic devices come from. We have to realize that mobile phones, electric bicycles and lactose-free milk are not human rights, they require a lot of work to get to us, and it is possible that the period when everything will not be available is not far away.”

In addition of the international threats there is an increasing danger to the mankind, which is absolutely free of politics, at that is a day by day increasing worldwide drought. The average temperature on our planet is 0.95-1.20°C higher than at the end of the 19th century. According to experts, a temperature increase of 2°C compared to pre-industrial times is the limit above which the risk of dangerous and potentially catastrophic environmental changes on Earth is much higher. The rivers and lakes dry up, the fish in the rivers die, the cattle herd suffers and many animals die, half of the maize and sunflower crops in Hungary alone have been harvested.

The war in Ukraine risks upending Europe’s economic recovery. Higher energy prices and trade disruptions could destabilise EU firms already weakened by the pandemic. At the same time, the European Investment Bank’s (EIB’s) economic models show that rising inflation could push more Europeans under the poverty line. Real economic growth in the European Union is now expected to fall below 3% in 2022, down from the 4% estimated by the European Commission before the war.

Beside the effect of the pandemic and the war in the neighbouring country leads to explosive increase in energy prices, the lack of raw materials, and the economic turbulence felt due to sanctions can be a cause for concern separately, and experts are sounding the alarm bells louder and louder: it's time for all companies to prepare for even the worst. The negative effects on the economy will deal an increasingly serious blow to the growth rate of the economies of Poland, the Czech Republic, Romania and Hungary. Capital Economics directly states that the industrial and commercial sectors will suffer the greatest damage, which can only reduce the rate of domestic growth by 1-1.3 percentage points.

Dr. Antal Szabó  
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## PAPERS

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## IS THE INCLUSIVE APPROACH A CATCH-22 AT YOUR WORKPLACE: A REFLECTIVE STUDY TOWARD GLOBAL WORKFORCE MANAGEMENT?

### ABSTRACT

Amid unprecedented global demographic trends, ethnically diverse work environments often produce hostile relationships, inequality, discrimination, and intolerance; however, if managed correctly, these frictions could result in harmony. To this background, this reflective study tries to address the challenges of managing diversity in a global context, the inclusive workplace model, and the impetus for implementing diversity management. The goal of diversity management is not to espouse people of diverse characteristics into the dominant culture or not to segregate groups or communities of similar backgrounds, but to create a social, legislative, and organizational environment that respects and values individual differences. The primary data of real-situation in a UAE-based firm and extensive secondary data aid to evaluate the characteristics and limitations of diversity management. The data analysis of the inclusive workplace in the UAE sheds light on the inclusive policies and practices in the region. Finally, the conclusion provides an overview of the inclusive workplace model for managing globalized workplace diversity. Furthermore, the study creates stepping stones for organizations to have inclusiveness through diversity within the organization, corporate-community collaborations, state/national corporations, and international cooperations. Hence, the notion of an inclusive workplace offers a broad vision of managing diversity in today's global economy, one that consists of individuals and teams that have a direct or indirect stake in the organization, such as potential future employees, customers, and investors, all of whom are also ever more diverse.

**Keywords:** managing diversity, inclusiveness, global workforce.

**JEL Classification:** J5, M21, M3

## AN OVERVIEW OF THE CRUX OF THE MATTER IN MANAGING A GLOBAL WORKFORCE

Inclusion begins with 'diversity within the organization,' which refers to the organization's internal relations with its employees (individuals and groups) and reflects its "micro" system. Such a workplace is based on a pluralistic value frame that relies on mutual respect and equal opportunities for different cultural perspectives on the organization's values and norms (Cox, 2001). The global economy and the increase in the number of multinational corporations make diversity management a necessity for firms that not only want to survive but thrive during this time of economic, social, and cultural changes. Globalization and internationalization play a crucial role in societal development; thus, society has increasingly diverse. Consequently, the workforce also became diverse (Walsh et al., 2016). According to Shore et al (2011), individuals and groups are implicitly and explicitly excluded from job opportunities, information networks, team memberships, human resource investments, and the decision-making process because of their individual or employer-perceived membership in a minority disfavoured identity group. It was found that job opportunities and career advancements are highly correlated with inclusion in decision-making processes and information networks. Nowadays, organizations analyze and initiate steps for a diverse workforce by considering disability status, religion, veteran status, and sexual orientation.

### 1.1 Background to the study

Organizations with gender-inclusive work cultures and gender ratios within management teams have seen rapid performance improvements across five key metrics; employee retention levels increased by 8 percent; client

retention levels grew by 9 percent; workplace accidents decreased by 12 percent, increased safety within the workplace; and employee engagement rates grew by 14 percent (Arabian Business, 2022). The legislative and social policy initiatives taken by individual countries such as the European Union [EU] and by international organizations such as International Labor Organization (ILO) mitigate potential harmful effects and define “the rules of the game” for work organizations. While designing diversity policies and programs, firms not only need to identify the framework or context of diversity but also the domain of firms’ responsibility in sustaining the same. Moreover, these initiatives need to cover a broader vision of inclusion with a wider perspective that includes the organization, surrounding community, and the national and international context (Mor Barack, 2014).

Research by renowned agencies such as McKinsey and Catalyst has suggested that a gender-balanced workforce positively influences financial and non-financial performance indicators within organizations. Another research that was undertaken by Aurora50, a social enterprise that promotes gender parity in boardrooms in the GCC, and the Mohammed Bin Rashid School of Government, Dubai (MBRSG) indicated that the UAE’s continued efforts to improve gender diversity in the boardroom have led to more women holding board positions (8.9%) than last year (Gulfbusiness, 2022).

**1.2 Rationale for the study**

Currently, the United Arab Emirates (UAE) is ranked first regionally and 18th globally in the Gender Inequality Index (GII) of the United Nations Development Programme’s (UNDP) Report Human Development 2020. Moreover, UAE is a melting pot of diversity and home to more than 200 nationalities. Almost a third of UAE’s federal cabinet is made up of women, including two-thirds of government employees and university graduates. Moreover, the institutions, both government and private, encourage youth talents at all levels, as further demonstrated by the recent cabinet resolution highlighting all government entities to include at least one Emirati under the age of 30 on their board. To support this fact, a recent Boston Consulting Group global study of 1,700 companies found that those companies with more diverse management teams have 19 percent higher revenues on average due to increased innovation. At a wider economic level, it has been estimated that closing the gender gap would add \$28 trillion to the value of the global economy by 2025, which is a 26 percent raise (national news, 2022). Another similar study claims that enhancing the diversity of leadership teams results in better innovation, creativeness, and improved fiscal benefits (BCG, 2018). Considering Hofstede’s cultural dimensions, UAE scores high on power distance, collectivist society, and uncertainty avoidance with 69 percent. Moreover, UAE maintains a high-context culture (Global reputation management, 2014). Further, Exhibit 1 depicts a comparative analysis that highlights the link between diversity leadership and innovation revenue.



**1.3 Aim of the study**

In more developed countries, the biggest impetus for workforce diversity will come from population stabilization, literate society, and population aging. This trend alone is probably sufficient to ensure that issues related to diversity will touch more and more workplaces in the years to come. Hence, organizations should take steps to

manage diversity and inclusion to have a conducive work environment. Diversity management, when looked back on its history relates to equal opportunity legislation and affirmative action programs; is proactive and aimed at developing a work culture where every individual can dedicate and showcase their talents. To, achieve this, one method is diversity training and related initiatives. In light of these aspects, the objectives of the study are;

- To identify the challenges of inclusion in a workplace.
- To establish a conceptual framework for managing diversity in a workplace.
- To collect evidence for inclusion methods in an organization.
- To suggest measures for an inclusive workplace.

## 2. A CONCEPTUAL FRAMEWORK FOR AN INCLUSIVE WORKPLACE

According to Thomas (2006) “Managing diversity is a holistic approach to creating a corporate environment that allows all kinds of people to reach their full potential in pursuit of corporate objectives.” In conjunction with this, diversity training is intended to boost “the awareness, knowledge, and interpersonal skills required to work successfully with others who are different from oneself.” (Thomas, 1991). Various programs such as role-playing activities, team-building practices, simulation activities, virtual methods, and videos can be considered at the workplace.

Organizations in this twenty-first century are keen while making employment decisions related to recruitment, compensation, and career development rather than based on an individual’s membership in a population with varied gender, religion, race, age, etc. Despite the difficulty of classifying individuals according to their ethnicity, data still allows for it, and projections, such as those offered by the Department of Labor, can provide insight into how a population and labor force are changing over time. (Baruch et al., 2013).

Demographic changes in society and the composition of the workforce create numerous challenges for the management of HR. For instance, diversity at Hasbro is called “D@H5=p3, which stands for “diversity at Hasbro equals people, products, and productivity,” the program received an award from the Society of Human Resource Management. Similarly, at Texas Instruments, the “business resource groups” are open to all employees regardless of background to deal with career issues, business issues towards companies success in a measurable way. Another case is Intrapreneurship at Intel to retain employees, maintain autonomy, and balance ownership. Diversity at PricewaterhouseCoopers (PwC) first established a CDO role in 2003 to allow more infusion of diversity into the organization’s culture to have higher accountability for results and credibility of diversity initiatives within the firm (Mello, 2019).

While considering specific ethnic groups in the US, in 1994, African Americans characterized just over 11 percent of the labor force, moving to 12 percent in 2014, and are expected to be nearly 13 percent in 2024. Regarding the labor force, the percentage of the labor strength of Asian origin was roughly 4 percent in 1994, escalated to nearly 6 percent in 2014, and is likely to be close to 7 percent in 2024. Moreover, the people of Hispanic origin were 9 percent of the U.S. labor force in 1994. Another noticeable factor is the labor force participation of women in the US grew over the second half into the 21st, moving from 33 percent in 1950, to the highest of over 60 percent in the early 2000s, to unevenly 57 percent in 2017 (Shaffer et al 2012). According to the Pew Research Center, in the year 2000, less than 13 percent of individuals in the U.S. aged 65 and older were still working full or part-time, but a decade and a half later, the percentage was up to roughly 19 percent, or around nine million workers (Baugh et al 2013). These aspects are aligned to Title VII of the 1964 Civil Rights Act that mandated Equal Employment Opportunity (EEO). In these backgrounds, firms in a developed country, like the U.S. can take initiatives for diversity training.

Cultural effectiveness and competence are indispensable for effective leadership in the context of diversity.

The Global Leadership and Organizational Behaviour Effectiveness (GLOBE) project is an example that investigated the intricate relationship between societal culture and organizational behavior with a focus on leadership (Dorfman et al., 2012). Therefore, understanding national culture gives an insight into which kind of leadership would likely be enacted and be effective in each society and more importantly, how to bridge those differences to generate leaders that would be effective across cultures. Leaders can inspire firms to become more inclusive concerning their diverse workforce. Moreover, leaders need to ensure that the employees are well perceived in their role in the communication systems, informal networks, and decision-making process of their

firm. To support this notion, Mor Bark & Travis (2010), illustrates a circular two-stage process of diversity and inclusion that can be followed in a global context (Exhibit 2).

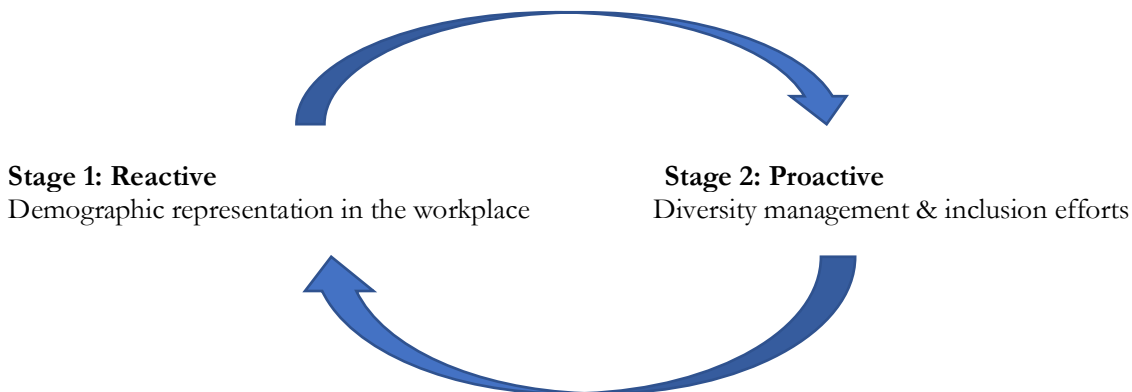


Exhibit 2. A circular two-stage process of Diversity and Inclusion

*Source:* Mor Barak, M.E., and Travis, D.J. (2010). Diversity and organizational performance. In Y. Hasanfield (Ed). Human services as complex organizations (pp.341-378). Thousand Oaks, CA: Sage.

Diversity management is voluntary as equal rights legislation is enforced through sanctions and affirmative action policies are enforced through incentives. It is a business strategy aimed at tapping into the full potential of all employees in the company to give the company a competitive advantage whereas, in the past, employees of different backgrounds were labeled as unqualified by managers if they did not conform to values and norms of the majority. For instance, Ford Australia has funded the Ford of Australia Women in Engineering Scholarship program since 2000 and in 2002 women had increased to a 43% share of the total company's total university graduate intake.

In addition to this, several paradigms have been supported for diversity management that argues its unique characteristics and purpose. The various HR approaches are diversity enlargement (strategy is by diverse recruitment; diversity sensitivity (train to improve communication); cultural audit (audit by surveys); and strategy for achieving organizational outcomes (integrate diversity management with HR policy areas). One is the human resource approach to diversity management by Kosek and Lobel (1996). Also, Cox (2001) proposed a paradigm that includes three types; monolithic organization; plural organization; and multicultural organization. Further, the BCG diversity and Innovation survey, 2017 points out that the presence of some factors would allow diversity to flourish and aid the team to develop innovation efforts. (Exhibit 3).

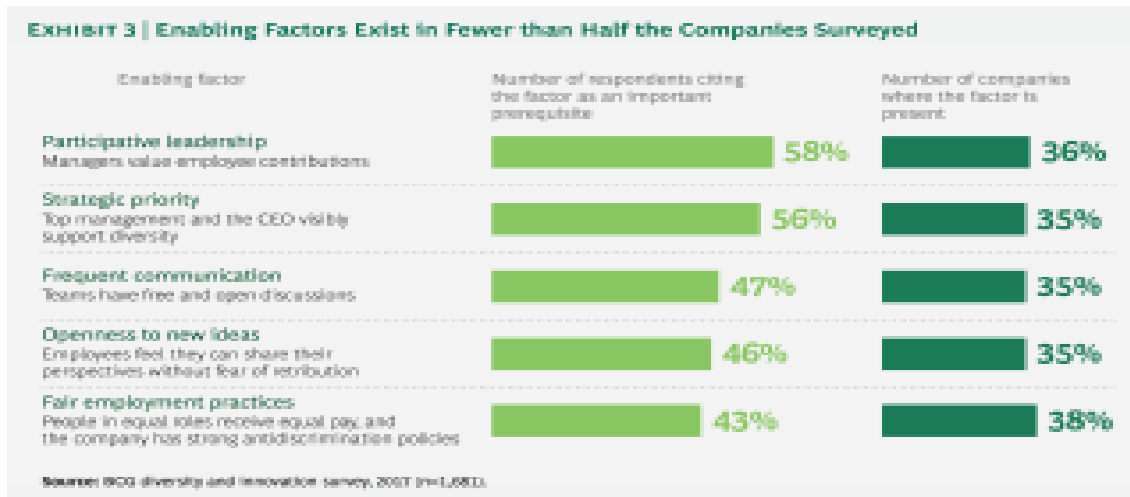
Another aspect of an inclusive workplace is corporate-community collaboration by integrating all stakeholders. The best case for such an inclusive workplace is Unilever, one of the world's largest consumer goods companies with operations in approximately 100 countries, sales in over 150 countries, and revenue of USD 445.6 billion in 2002. Dow Jones ranked Unilever's sustainable development plan number four on its sustainability index (Hartmann and SAM Research, 2003) and Fortune magazine listed it as Fortune's 50 World's Most Admired Companies" (World's Most Admired Companies." 2000). It is famous for its sustainable agriculture (palm) initiative, Nelson Mandela scholarships in South Africa, Indian School of Business, Unilever Cultural trust Fund in Sri Lanka, River cleanup in Indonesia, Sustainable living plan, improving healthcare in Bangladesh, etc (Environment and Society, 2003). Thus, it has strong community involvement initiatives in improving nutrition, health, greenhouse gases, water and waste management, sustainable sourcing, better livelihoods, and so on.

### 3. RESEARCH METHODS BY A CASE ANALYSIS

At **City University College of Ajman (CUCA)**, the strategic plan emphasizes its inclusion as one of its missions. To provide vision and inspire diversity, the leaders encourage the multiplicity of values, perspectives, and worldviews that individuals and groups may hold human capital and use their cultural intelligence in different settings to create an inclusive and effective work environment. It tries to maintain transformational leadership by coping with contrasting economic, political, and cultural practices in both the national and international contexts.

The present study took a bird's eye view of inclusive measures from City University College of Ajman (CUCA), one of the leading educational institutions in the UAE. The institution's values, stated under its "corporate ethos"

(CUCA strategic plan 2018-2023), indicate a strong commitment to promoting respectful interactions among all employees and to improving workforce living standards and conditions. In the context of UAE’s traditions of diverse sociodemography, CUCA’s human resource philosophy includes skill development for all employees and succession planning regardless of gender and origin. Moreover, it encourages cultural events, flexible work patterns, and community engagement programs as a part of employee work-life balance.



While considering the best practices at CUCA, starts with staffing. It recruits and employs a more diverse workforce as per UAE labor law. This raises the point that “to what extent do CUCA reflects their client base?” Thus, it is critical to gain a foothold in employing qualified individuals in accord with the changing demographics of the available talent and the community they serve at the initial stage as a reactive stage (Barak & Travis, 2010). The induction program creates an understanding of cultural values instilled in the organizational culture.

As a second stage, CUCA invests efforts in creating a culture that accepts and values diversity to increase a sense of inclusion for workers from various identity groups. The key considerations in this stage include the extent to which CUCA’s policies and procedures attract and retain the most well-qualified and diverse individuals; whether CUCA’s organizational culture is inclusive and culturally competent; the degree to which CUCA’s talents from different identity groups participating in formal and informal networks and are actively involved in the decision-making process. Therefore, the leadership at CUCA highlights the dimensions of organizational leadership as culture-specific, ethical and moral missions, to make the job effective. This is evident in the individuals’ job description that the work itself is diverse rather than stick to one particular type of job responsibility. This has a strong impact to increase profitability and enhance social justice for CUCA.

To a great extent, this achieves CUCA’s strategic plan for 2018-2023 in accomplishing student success through academic and career development; faculty and staff progression; improving community engagement programs. However, yet to tap the significance of diversity training programs. Additionally, CUCA can be benchmarked by its unique academic policies related to integrity, exam policies, student auxiliary services (advising, counseling, career planning, and so on), and various Memorandum of Understanding (MOUs) for effective collaboration with governmental and private institutions. Additionally, CUCA urges an investment approach by a reward and recognition and a collaborative approach to its talent management. This proves the firm’s human resource philosophy, a belief in achieving corporate goals through Human resource development, career planning, skill upgrading, the interest in alignment, creativeness, performance development, and “evolving and encouraging employee-management relationships.”

**4. DISCUSSION AND CONCLUSION**

The study emphasizes that diversity initiatives in organizations must cover five principal areas such as; *Management leadership* by conducting needs assessment and designing diversity training and programs; *facilitating and conducting seminars and workshops* to boost diversity awareness, skill building, and valuing diversity; *performance and accountability* by developing diversity action plan to meet the goals of business units and holding managers accountable to these goals by aligning diversity performance to compensation; *work-life balance* by offering flexible

work arrangements such as telecommuting, job sharing, working at home, and part-time work assignments to meet diverse needs and standard of living of employees, and *career planning and development* by establishing career growth initiatives for women and minority groups to establish promotion policies for competent employees and to increase diversity representation in managerial-level roles. Diversity initiatives are comprehensive approaches to inclusion that need to encompass a variety of policies and procedures by linking to the overall organizational strategy.

Managing diversity is like the tip of the iceberg. In the face of sociodemographic changes, organizations need to pay serious attention to diversity and inclusion. The development of diversity training is one method for enhancing diversity in organizations, however other factors also need to be considered for the successful execution of such programs. Therefore, any firm pursuing to manage diversity needs to develop a vision of multiculturalism that is central to the organization's mission, eliminate discrimination in hiring; identify the prominent issues that interfere with effectiveness in the diverse work environment; provide work opportunities; implement an effective sexual harassment policy; ensure that career policy and systems do not give unfair advantages to either gender or members of different racial or ethnic groups; develop work-life responsive programs and policies, and exercise consistent leadership and accountability for diversity throughout the organization. A study by the Boston Consulting Group in partnership with Sloan School of Management revealed that the percentage of firms that reported that sustainability initiatives are essential to remaining competitive in the marketplace increased from 55 to 70 percent. However, the report argues that only 31 percent mentioned that their sustainability initiatives were having a positive impact on their financial position. Therefore, it is quintessential to have a separate sustainability reporting function with a key position and operational performance indicators related to sustainability. It also divulges that there are hindrances in measuring key performance metrics such as the impact on brand reputation, employee engagement, commitment, and productivity (Fox, 2008).

The present study validates the evidence that the benefits of inclusive diversity practices in three areas: the opportunity to drive business growth and productivity by marketing to minority, unrepresented communities (McMahon, 2010); cost savings due to lower turnover, less absenteeism, and improved productivity; and winning the competition for talent or 'war for talent' by equity, justice in the reward system (both intrinsic and extrinsic) (Marquis et al., 2008); and enhancement of firm's image and stock prices or employee/firm branding (Hollowell, 2007). Additionally, community-oriented programs bring additional economic benefits by improving the company's standing with appropriate constituencies such as bankers, investors, and governmental officials. An inclusive workplace recognizes the economic and non-economic consequences of its presence in the community. It has a dual intrinsic and extrinsic focus with recognition of community systems as stakeholders as well. An emerging construct in the business literature is 'corporate social performance,' which is used as one of the criteria to assess Fortune 500's most admired companies (Valiente et al., 2012).

#### 4.1 Conclusion

Diversity efforts are engrossed in managing and engaging the firm's heterogeneous workforce otherwise a multicultural environment, to have a competitive edge in the global context. A company's ability to remain competitive in an ever-changing marketplace and society can greatly be compromised if HR is not allowed to analyze and create initiatives. Therefore, HR practices must be regularly revamped and revised properly for organizations to be able to respond to changing environments. To align with this fact, the present study sheds light on the importance of an inclusive workplace that values and utilizes individual and intergroup differences within its workforce; liaises with the surrounding community; considers the needs of underrepresented groups; collaborates with individuals, groups, and organizations across national, and cultural boundaries.

#### 4.2 Future scope of the study

The present study can be extended to deductive research in finding the causal relationships between diversity management and organizational performances. In addition to Mor Barak's 'Diversity Inclusion scale, utilized in this study, further studies can be concentrated on other inclusion factors such as sociodemographic transitions, prejudice, and discrimination, culture, communication, and interpersonal relationships. However, the questionnaire and interaction/interviews need to develop/articulate fit for the perceived response from employers based on diversity factors to avoid biases.



## LITERATURE

- Baruch, Y., Dickmann, M., Altman, Y. and Bournois, F. (2013). Exploring international work: Types and dimensions of global careers. *International Journal of Human Resource Management*, 24, 2369–2393.
- Baugh, S. G., Sullivan, S. E. and Carraher, S. M. (2013). Global careers in the United States. In Reis, C. & Baruch, Y. (Eds.), *Careers without borders* (pp. 297–322). New York: Routledge.
- Cox, T. (2001). *Creating the multicultural organization: A strategy for capturing the power of diversity* San Francisco: Josey Bass.
- Dorfman, P., Javidan, M., Hanges, P., Dastmalchian, A., and House, R. (2012). GLOBE: A twenty year journey into the intriguing world of culture and leadership [Special issue]. *Journal of World Business*, 47(4), 504-518.
- Environment and society. (2003). Unilever. Retrieved December 3, 2003. From [www.unilever.com/environment/society](http://www.unilever.com/environment/society)
- Fox, A. (2007). “Corporate Social Responsibility Pays Off,” *HR Magazine*, 52(8), August, 43-48.
- Hartmann, G.G., and SAM Research, Inc. (2003). November 20). *Profit of Unilever: Market Sector Leader, DJSI World*. Zurich: SAM Research, Inc.
- Greenhaus, J.H., Gerard A.C., and Veronica M.G. (2019). *Career Management for Life*. New York: Routledge.
- <https://globalreputationmanagement.wordpress.com/2014/02/06/cultural-metrics-uae/#:~:text=High%20Context%20vs.,verbals%20are%20important%20in%20communication.>
- Hollowell, B.J. (2007). Examining the relationship between diversity and firm performance. *Journal of Diversity Management*, 2, 51-60.
- Kossek, E.E., and Lobel, S.A. (1996). Introduction: Transforming human resource systems to manage diversity: An introduction and orienting framework. In E.E. Kossek & S.A. Lobel (Eds). *Managing Diversity: Human resource strategies for transforming the workplace*. Cambridge, MA: Blackwell.
- Marquis, J.P., Lim, ., Scott, L.M., Harrell, M.C., and Kavanagh, J. (2008). *Managing Diversity in corporate America: An exploratory analysis*. Occasional Paper, Labor and Population. Santa Monica, CA: RAND.
- McMahon, A.M. (2010). Does workplace diversity matter? A survey of empirical studies on diversity management and firm performance. 2000-2009. *Journal of Diversity Management*, 5, 37-48.
- Shaffer, M. A., Kraimer, M. L., Chen, Y. and Bolino, M. C. (2012). Choices, challenges, and career consequences of global work experiences: A review and future agenda. *Journal of Management*, 38, 1282–1327.
- Shore, L.M., Randel, A.E., Chung, B.G., Dean, M.A., Holcombe Ehrhart, K., and Singh, G. (2011). Inclusion and diversity in work groups. A review and model for future research. *Journal of Management*, 37(4), 1262-1289.
- Thomas, K.M. (2006). Diversity in Organizations. In Greenhaus, J.H. & Callanan, G.A. (Eds). *Encyclopedia of career development*. pp.236.243.
- Valiente, J.M.A., Ayerbe, C.G., and Figueras, M.S. (2012). Social responsibility practices and evaluation of corporate social performance. *Journal of Cleaner Production*, 35, 25-38.
- Walsh, K., Fleming, S. S. and Enz, C. A. (2016). Give and you shall receive: Investing in the careers of women professionals. *Career Development International*, 21, 193–211.
- World’s most admired companies. (2009). *Fortune*. Retrieved from <http://money.cnn.com/magazines/fortune/mostadmired/2009/snapshots/6127.html>
- <https://www.arabianbusiness.com/opinion/uae-businesses-need-to-embrace-gender-inclusive-initiatives>
- <https://www.bcg.com/publications/2018/how-diverse-leadership-teams-boost-innovation>
- <https://gulfbusiness.com/gender-diversity-on-the-rise-across-uae-boards-reveals-aurora50-report/>
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## HOW HAVE PEOPLE BECOME WHO WE ARE? (1000BC TO 2000AD)

### Part 1

#### ABSTRACT

**The following overview of the evolution of European and American people and economics is divided into five periods of time (ages) covering the years 1000 BC to 2000 AD. Each age begins with a brief description of the social and cultural aspects of the period followed by a look at the major economic factors that played a role in taking mankind from hunters and gathers, to farmers, to factory workers, and now service providers. Hopefully the review of these ages will help answer how we have evolved socially, politically, and economically.**

**Keywords:** economic periods, historical areas

**JEL Classification:** B15

#### THE CLASSICAL AGES: CIRCA 1000BC

The 'Classical Age' follows the Paleolithic and Neolithic ages from 70,000BC to 1000BC and shows early man as hunters and gatherers and then early farmers and villagers. Primary industry was based on the trading of agriculture products, animals, stone tools, bronze and copper utensils. These products were transported by foot, cart, canoe, and primitive sail as their means of distribution.

This Classical Age is the period of the beginning of our cultural history between the 1000BC BC and 500AD. It centred on the Mediterranean Sea, comprising the interlocking civilizations of first the ancient Greeks then followed by the ancient Romans. It was a period in history when early man peaked in his use of literature, philosophy, art forms and architecture.

In Greece it was the time of the great philosophers. Socrates teaching by asking thought-provoking questions; Plato believing that only the wise should rule and Aristotle for his reasoning in science and mathematics. Culturally, the Greeks also gave us our first looks at democracy, the use of money, and yes, a postal service.

Rome's powerful civilisation ruled for about a1000 years. It controlled a huge portion of Europe that stretched north into Britain and south-east to Egypt. Ancient Rome is remembered for its supreme power, advanced engineering, military successes, entertainment, and its brutality. Due to the Roman Empire's vast extent and long endurance, the institutions and culture of Rome had a profound and lasting influence on the development of language, art, architecture, literature, philosophy, law, and forms of government in the various territories it governed.

Perhaps Rome's greatest contribution was its engineering techniques. Although arches existed thousands of years before the time of ancient Rome, the Romans revolutionized the structure by using it to build colosseums, aqueducts, bridges, and other public buildings. The base of these structures was constructed by their engineers who created wooden frames in the shape of an arch, then created the stonework around the frame with concrete that they made from volcanic ash, lime, and seawater.

**THE CLASSICAL ECONOMY.**

Any economy can be defined as the process by which goods and services are produced, distributed, and consumed in a country. In ancient Greece their land was of poor quality and thus the Greeks relied heavily on imported goods into their ports from surrounding countries. However, Athens was near the sea, and it had a good harbor and thus, Athenians traded with other city-states and some foreign lands to get the goods and natural resources they needed. They acquired wood from Italy, grain from Egypt and textiles from Asia Minor. In exchange, Athenians traded honey, olive oil, silver, metal, and beautifully painted pottery. Colonies of ancient Greece became wealthy trading centers and sources of slaves to do the work for the upper class.

Given the Roman's Mediterranean climate and rich soil the Roman economy was based on agriculture. Farmers were able to produce many vegetables, fruits, wine, olive trees, and wheat for bread. Roman agriculture relied on large farms run by slaves, and these slaves (captives of former battles) were further used in their mining operations particularly marble and iron ore.

The Roman Empire had created an enormous integrated market, connected by cheap water transport and well-maintained brick roads. Stability for this market economy was reinforced by effective institutions, military, a stable monetary system, and good laws.

**THE MIDDLE AGES: CIRCA, 500 TO 1500AD**

The 'Middle Ages' witnessed the rise of towns and cities that were controlled by the feudal system and by the Catholic church. Feudalism was a set of legal customs in medieval Europe that flourished between 500 and 1500AD. It can be broadly defined as a system for structuring society around relationships derived from the holding of land, known as a fiefdom, in exchange for service and labour. Under the feudal system land was granted to people for service. This granting started at the top with the king granting his land to lords who was protected by barons whose land was worked by the peasants who were became the lord's foot soldiers in time of wars.

The center of life in the Middle Ages was the manor run by the local lord. The peasants were at the bottom of the Feudal System and had to obey their local baron to whom they had sworn an oath of obedience and consequently to those above him all the way to the king. Life, for the peasants could be hard. If crops failed to produce enough food, they suffered the greatest. It was a time of great castle building, knights, and the frequent regional wars. In wars those who suffered the greatest were again the peasants who became cannon fodder and were taken by the victors as slaves.

Feudalism helped protect communities from the violence and warfare that broke out after the collapse of strong central governments in Western Europe. Feudalism secured Western Europe's society, kept out powerful invaders, helped restore trade, and repaired bridges and roads. Feudal kingdoms were generally expanded either by winning local battles or by marriages.

The period saw major technological advances, including the adoption of gunpowder, the invention of vertical windmills, mechanical clocks, improved water mills for crops and cattle, and developments in iron production. But the printing press may well be the most important invention of the medieval era. It would eventually wrench control of information distribution from the state and the church to the middle class and lead to the establishment of the first university, University of Bologna (1180) followed by Oxford (1200) and Cambridge in 1210. Ultimately it lay the groundwork for the Protestant Reformation, the Enlightenment, and the education of the masses.

**THE ECONOMY OF THE MIDDLE AGES.**

Medieval Europe was overwhelmingly rural, and its economy depended almost entirely on agriculture. The basic economic unit was the manor, managed by its lord and his officials. Towns and cities did not become significant centers of enterprise until the late Middle Ages, but after that time their economic importance increased rapidly.

The Middle Ages were also a time of dramatic economic change in Europe. Between the ninth and the fourteenth centuries, a primarily agrarian economy based on the values of land and labor, grew into a commercial economy based on the exchange of currency.

During the high Middle Ages, the European economy greatly expanded, leading to a revived cash economy and widespread trade and commerce. Towns and cities grew, and with them new centers of learning emerged and expanded. Goods that traded between the Arab world and Europe included slaves, spices, perfumes, gold, jewels, leather goods, animal skins, and luxury textiles, especially silk. The main vehicles of trade on land were the horse, donkey, and camel and on water the advanced sail boats and barges along the rivers that connected one feudal kingdom to the next. One of the most important trade routes of the Middle Ages was the Silk Road. This network of trade routes connected South Europe with East Asia, Persia, the Arabian Peninsula, East Africa, and Egypt.

### **EARLY MODERN PERIOD: CIRCA, 1500-1800**

Some of the more notable trends and events of the “Early Modern Period” in Europe included the Reformation and the Enlightenment. The Reformation was a religious reform movement that swept through Europe in the 1500s. It resulted in the creation of a branch of Christianity called Protestantism, referring to the many religious groups that separated from the Roman Catholic Church due to differences in doctrine. The Enlightenment was a philosophical, intellectual, and cultural movement of the seventeenth and eighteenth centuries that stressed reason, logic, and freedom of thought over dogma, blind faith, and superstition.

Perhaps the greatest feature of this period was exploration and the beginning of globalization. Globalization refers to the increasing integration of economies around the world, particularly through the movement of goods, services, capital across borders and the creation of global empires. Globalization began in Europe with exploration of the new world (America) followed by a period of colonialism. Colonialism involved the practice of declaring new land for the king, acquiring full or partial political control over other people and territories, founding a colony, occupying it with settlers, and exploiting it economically.

Modern colonialism began during what is also known as the ‘Age of Discovery’ Beginning in the 15th century Portugal started looking for new trade routes and searching for trade outside of Europe. In the last decade of the fifteenth century, Christopher Columbus set out on a westerly course across the Atlantic Ocean searching for an alternative route to the Indies but inadvertently "discovered" a new continent.

The European colonial invasion of the North American continent began with the Spanish in 1565 settling St. Augustine, Florida, and then the British settlement of 1587 in present-day Virginia. Britain dominated the colonial settlements with twice as many colonies as either France, Spain, or Portugal.

### **THE ECONOMY OF THE EARLY MODERN AGES.**

One of the major motivating factors in the European Early Modern Ages was the search for direct access to the highly lucrative Eastern spice trade. In the 15th century, spices came to Europe via the Middle East land and sea routes and these spices were in huge demand both for food dishes and for use in medicines. It was the era of European ocean navigation and the building of colonial empires.

From the American colonies Europeans acquired additional resources like gold and silver, but more importantly new foods like corn, pineapple, and tobacco. The Europeans enslaved the Native Americans and brought them to Europe. Tragically they also began the ‘slave trade’ taking people from West Africa to supply cheap labour to their sugar and cotton plantations in America and the Caribbean. Directly or indirectly, the economies of all 13 British colonies in North America depended on slavery. By the 1620s, the labor-intensive cultivation of tobacco for European markets was established in Virginia, with indentured servants performing most of the heavy labor. The slave trade brought enormous wealth to merchants and traders and provided the labor that helped profitable colonial economies grow. Yet the impact on Africans was devastating to African states and ultimately was a major factor in the American Civil war.

The purpose of colonization was to serve as a source of inexpensive labor and natural resources to Europe. This led to large trade enterprises and economic benefits for colonial powers. European settlement had a longstanding positive effect on economic development in countries that were colonized. The early modern period saw a dramatic expansion of world trade and commercial activity that some have labeled a commercial revolution. However, it also brought many negatives including: political oppression, environmental degradation, the spread of disease, economic instability, human rights violations and finally wars of independence as the American settlers grew more and more upset with the taxes being imposed by European motherlands.

Even as capitalism advanced in the West, the once-free peasants of central and eastern Europe slipped further into serfdom. The apparent prosperity of the 16th century gave way in the middle and late periods of the 17th century to a “general crisis” in many European regions. Leading to mass emigration to the colonies.

### **MODERN AGES: CIRCA, 1800 to 1960s.**

The ‘Modern Ages’ might also be called the ‘Age of Revolution’. It was a time during which there were several revolutionary movements that occurred in Europe and in the Americas. Europe lost many of its monarchs and these were replaced with representative governments of the people with written constitutions. Human and civil rights, democracy, nationalism, and free market systems all ushered in a period of major social change. The ‘Enlightenment’, set the stage for the American Revolution (1765-1783) and this spilled over to the French Revolution of 1789 which in turn spilled over to the Spanish, German and eventually Russian Revolutions. Perhaps the greatest change came from a quieter revolution that was non-confrontational in nature and global in impact - the Industrial Revolution. The 20th century was dominated by significant events that defined the modern era: Spanish flu pandemic, World War I and World War II, nuclear weapons, nuclear power, space exploration, decolonization, technological advances, the Cold War, post-Cold War conflicts and a greater awareness of global our global community.

### **THE ECONOMY OF THE MODERN AGES.**

The Industrial Revolution shifted Europe and the Americas from an agrarian economy (based on manual farm labour) to a manufacturing economy (based on mechanization) where products were no longer made by hand but by machines. Mechanization led to increased production and efficiency, lower prices, more goods, improved wages, and migration from rural areas to urban areas. The Industrial Revolution began with the mechanization of the textile industries and the development of better iron-making techniques, and then trade expansion was enabled by the introduction of canals, improved roads, and then railways. New machines, new power sources, and new ways of organizing work made existing industries more productive and efficient.

The main technology of the 19th century was steam power. Steam engines provided a more reliable and effective source of power than water or wind. The most significant breakthrough in the ‘age of steam’ was the development of railroads and ocean steamers to move goods cheaper and faster nationally and internationally. Soon the traditional energy sources of coal and fossil fuels that were used to power mechanization systems was replaced by electricity that allowed machines to operate other machines efficiently and the birth of automation was introduced to accelerate production systems once again.

One of the greatest inventions of the Modern Age was the automobile. Commercial production of automobiles began in 1896 in the United States with the invention of the internal combustion engine. The Ford Motor Company in 1908 became the first automobile to be mass-produced on a moving assembly line. The development of the car has contributed to changes in employment distribution, shopping patterns, social interactions, manufacturing priorities and city planning. The automobile has been a key force for change in twentieth-century America. During the 1920s the industry became the backbone of a new consumer goods-oriented society. By the mid-1920s it ranked first in value of product, and in 1982 it provided one out of every six jobs in the United States.

The Industrial Revolution brought rapid urbanization and the movement of people to cities. Changes in farming, soaring population growth, and an ever-increasing demand for workers led masses of people to migrate from farms to cities. Almost overnight, small towns around coal or iron mines mushroomed into cities. The Industrial Revolution also led to a rise in capitalism where means of production were privately owned, and owners are motivated by profit.

The 1920s is the decade when America's economy grew 42% but with the stock market crash of 1929 sent America in recession and wiped-out millions of investors. Over the next several years, consumer spending and investment dropped, causing steep declines in industrial output and employment fell sharply. This major recession became known as the "great depression" Its effect was felt all over the globe.

Within 20 years and after World War II Mass production returned to spread new consumer goods into every household in America and Western Europe. The modern auto and airline industries were born. The U.S. victory in two World Wars gave the country its first experience of being a global power. Eastern Europe countries that fell under control of the Soviet Union did not fare so well and their economies suffered until the early 1990s.

### **THE COMPUTER AGE: CIRCA, 1950 TO 2000**

The Computer Age also referred to as the Information Age is a historical period that began in the mid-20th century, characterized by a rapid shift from traditional industries established in the Industrial Revolution to an economy primarily based upon information technology. This conversion transferred many jobs from providing goods to providing services. Those countries that made the shift to utilize information became part of the 'new knowledge economy' that separated themselves from undeveloped countries who remained focused on agriculture and industry. The knowledge economy is a system of consumption and production that is based on intellectual capital. It refers to the ability to capitalize on scientific discoveries and applied research. The knowledge economy represents a large share of the activity in most highly developed economies.

The invention of the transistor ushered in the electronic age. People harnessed the power of transistors that led to electronic circuits, and the early computers. The first multipurpose computer, ENIAC set speed records with an amazing 5,000 calculations per second, today a laptop today can do 500,000,000 calculations per second. Gradually, computers have become smaller and faster, enabling people to use them anywhere. By the 1980s computers became popular and changed business, education, government, healthcare, social interaction. The internet and world wide web were followed by digital networks in the early 2000s and then the Internet of Things (IoT).

Computers have changed the world in many ways. They allow huge amounts of information to be stored in a small space and allow a person to create mathematical models for forecasting with ease. Finally, computers allow people to communicate with one another through internet sites such as Facebook, My Space, and Twitter. However, there are some challenges to these new mass communication devices such as privacy, accuracy, IP patents, accessibility, cyberwarfare, and cybercrimes. Perhaps Let us NOT allow this digital stuff to become our gods ... as it has much muscle but no personality

### **THE ECONOMY OF THE COMPUTER AGE.**

In recent years, technology has profoundly impacted the global economy, and its use has been linked to the transformation of markets, improved living standards, and more robust international trade. The technological advancements have greatly improved operations and lower the costs of doing business. Information communication technology (ICT) enables economic growth by broadening the reach of technologies such as high-speed Internet, mobile broadband, and computing. Expanding these technologies itself creates growth, and the fact that technologies make it easier for people to interact makes workers more productive and this creates additional benefits such as lower prices for consumers, resulting in faster growth in living standards.

The newest aspect of the computer age is the Internet of Things (IoT). IoT technology is based on the concept that all the desired devices can be connected inside a specific network for sharing data and information without any manual intervention. The IoT is producing new business opportunities through innovation as well as by

redefining traditional business operations. In the vast industrial sector, more equipment is becoming digitized and more connected, establishing networks between machines, humans, and internet. While we are still in the nascent stages of adoption, the industrial IoT opportunity could amount a multi-trillion-dollar global industry soon and possibly set the stage for the next period of economic history.

***SUMMATION. ‘HOW HAVE WE EVOLVED FROM 1000BC TO 2000AD?’***

We have evolved. As economic beings from hunters and gatherers to farmers, from makers and sellers to service providers. In transport from foot to cart; from raft, canoe, and sail to ocean steamer; and from paths and expressways to the skies. In war from bow and arrow to cavalry; from muskets and cannon to machine gun and tanks; from nuclear weapons to cyberwarfare. And in information from hieroglyphs to writing; from alphabets to printing presses; and from the telephone, telegraph and radio to the internet and artificial intelligence. But where from here? Is it time to allow people to catch up with the technology?



**Entrance gate at the Swarovski Crystal Worlds in Wattens (Austria)**

Photo © by Dr. Antal Szabó

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## CIRCULARITY MATTERS

### ABSTRACT

Association for Farmers Rights Defense, AFRD is a Non-Governmental Organization established in 1999 as a development organization that aims to contribute toward innovative, inclusive and Smart Agriculture-sustaining Family Farmers and Rural societies where local Farmers by advocating their rights. Our approaches are solution- driven, and we build wider movements for change by amplifying and capacity-building programs for local farmers and making their voices heard. Association for Farmers Rights Defense, AFRD has become a Member of the World Farmers Organization, WFO in 2022.

The aim of the study is to obtain basic information and data for the further stages of cooperation on the Circular Economy in Georgia. For this study has been provided qualitative and qualitative research based on the main information providers and a group of farmers was used, which should reveal the behaviors of the target groups and their perception in relation to specific topics or issues. Has been used deep questionnaires, and semi-structured comprehensive interviews were used as the main qualitative method.

The World is changing and these changes are rapid and in many cases uncertain. We are facing great challenges in the years to come as climate Change, Waste, Pollution, Micro-Plastic, Soils erosion, Drought, Floods, forests and bush fires that are threatening the lives and livelihoods of far too many Farmers and people around the world, yet we are not doing nearly enough to deal with it. COVID-19 and Regional Conflict, the War in Ukraine have created Food Systems and Supply chains more fragile and human tragedy on a huge scale, with deep consequences for the global economy that will lead to an extended recession and long-term hardship.

Circular Economy vs Linear Economy means a new economic approach that seeks every possible virtuous synergy between different activities, to ensure that the waste or by-products of one become raw materials of the other. The advantages of this approach are many, either because the amount of waste to be processed would be reduced, or because the raw materials would cost less. The environmental and ecological benefit is a key aspect for many research institutions, Universities, Non-Governmental Organizations, Local and National Governments, Donors and Investors.

**Keywords:** Climate Change, Circular Economy, Agriculture, Biofarming, Food Systems

**JEL Classification:**

### INTRODUCTION

In addition to analyzing the impacts of garbage if the global waste management system continues more or less in its current state, the researchers tested the effects of implementing a circular waste management system in these different development scenarios.

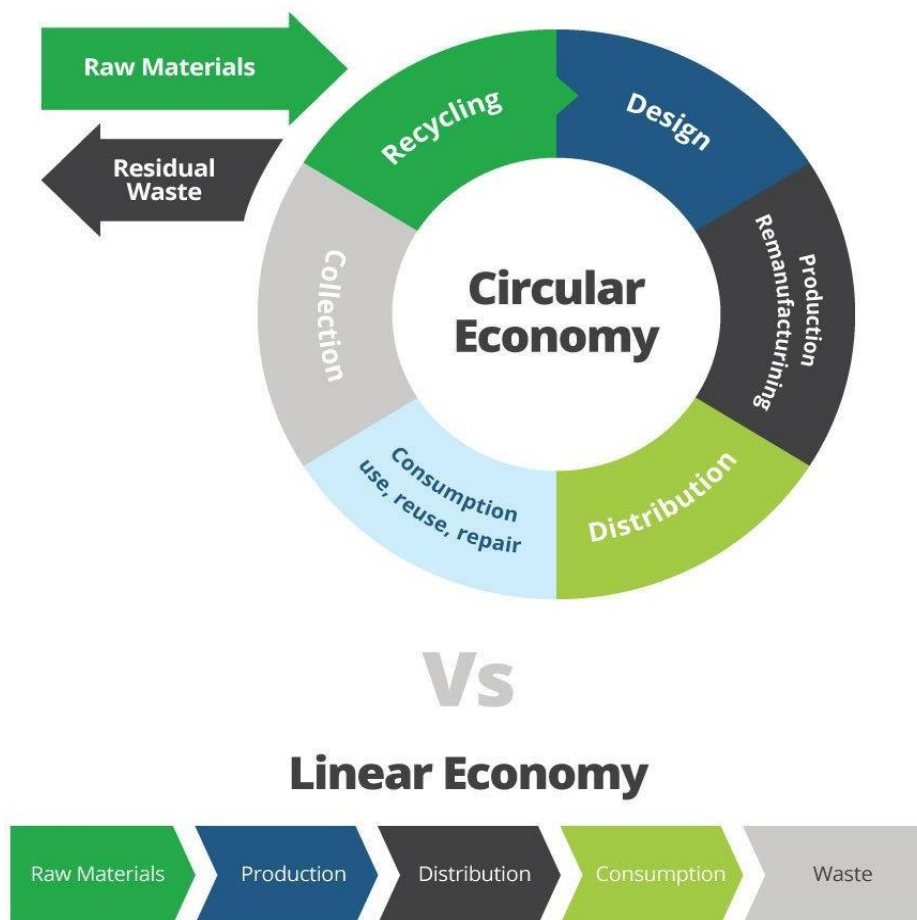
Circular waste management emphasizes technologies and policies that, first and foremost, encourage reuse and recycling of materials. Material that can't be recycled is burned in high-tech incinerators to generate energy, and the landfill is a last resort.



The researchers assumed that circular waste management scenarios would achieve pickup of all the world's trash by 2050, recycle 90% of paper and textile waste and 80% of plastic and wood, and send 100% of food waste to anaerobic digesters that produce biogas for energy.

A scenario in which the world develops both an equitable and sustainable way has larger and faster potential to reduce the environmental impact of waste than a one that relies on technological advances to deal with pollution after it is produced, the researchers report in Nature Communications. Adding circular waste management on top of that sustainability/equity development path yields the best-case scenario, they found.

The best way to build resilience against future pandemics, Over Pollution, Disrupted Food Systems and Supply Chain and the impact of climate change is to move to a circular economy from the linear economy and in doing so the Circular Economy could address 45% of global greenhouse gas emissions and provide a USD4.5 trillion economic opportunity. Preventing and reducing resource use and reusing materials in a global, regional, and sub-regional circular economy are key strategies to protect the environment, nature and the mantra of the 3-R (**Reduce, Reuse, Recycle**) could work as well as its capacity to provide for current and future generations saving natural resources by extending the life of different products and things.



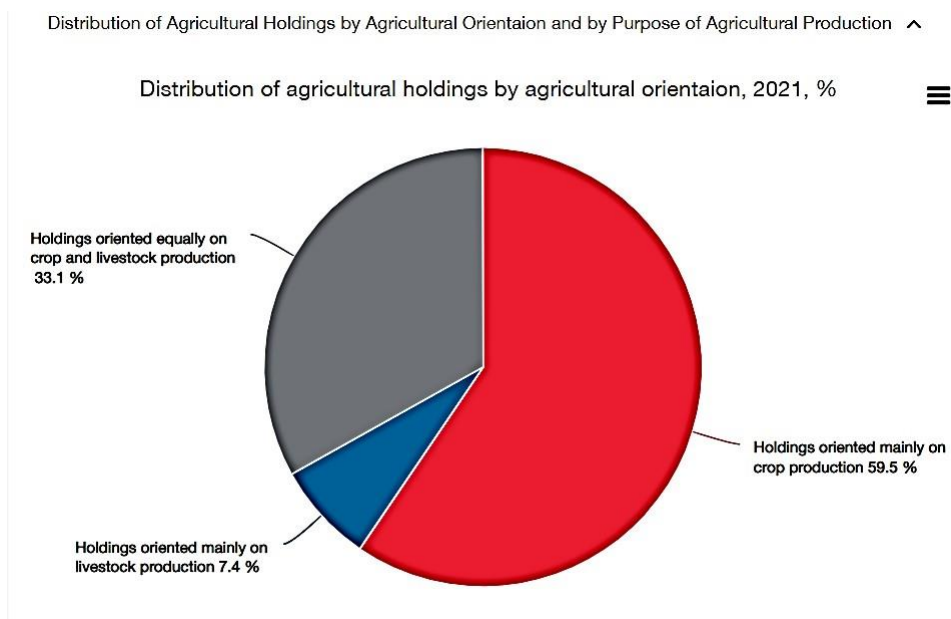
Food production is responsible for over a quarter of global greenhouse gas emissions. Agriculture uses half of the world's habitable land and 70 percent of the freshwater withdrawals. In addition, 94 percent of mammal biomass (excluding humans) is livestock: outweighing wild mammals by a factor of 15-to-1 while posing a threat to the conservation of biodiversity in a global ecosystem. Most European Countries move set to limit global warming to 1.5°C as targeted under the Paris climate agreement and translate the European Green Deal resolutions into actionable climate practices that decrease the ecological footprints of food production on a global scale.

Striving to nourish the world and provide unconditional access to high-quality, safe and affordable nutrition to a growing population and most important to understand and determine the Index of Circularity for each Country and core circular practices must be in practice at all levels, from Farmers or consumers to the national governments. These sometimes include two more 'R's that can be added to the three basic ones.

- Rethink
- Recover

The major philosophy of the Circular Economy is recycling using old products in new ways, minimizing the amount of waste we create, and using items more than once. Providing Circular economics methods in Agriculture is an important part of sustainable living, as they help to cut down on the amount of waste we have to throw away. As we currently live in a society where there is overconsumption, and this comes with increased garbage, which is a great problem raising the Level of Carbon and Greenhouse gases.

A circular economy and a sustainable future cannot be achieved if the Farmers and Agricultural Cooperatives, and Family Farmers remain operating linear and far from environmentalism and Farm Circularity planning. Agriculture remains a great space to spark this collective thinking, but it needs to do more efforts with a new movement on these crucial topics of regenerative and recycling agriculture.

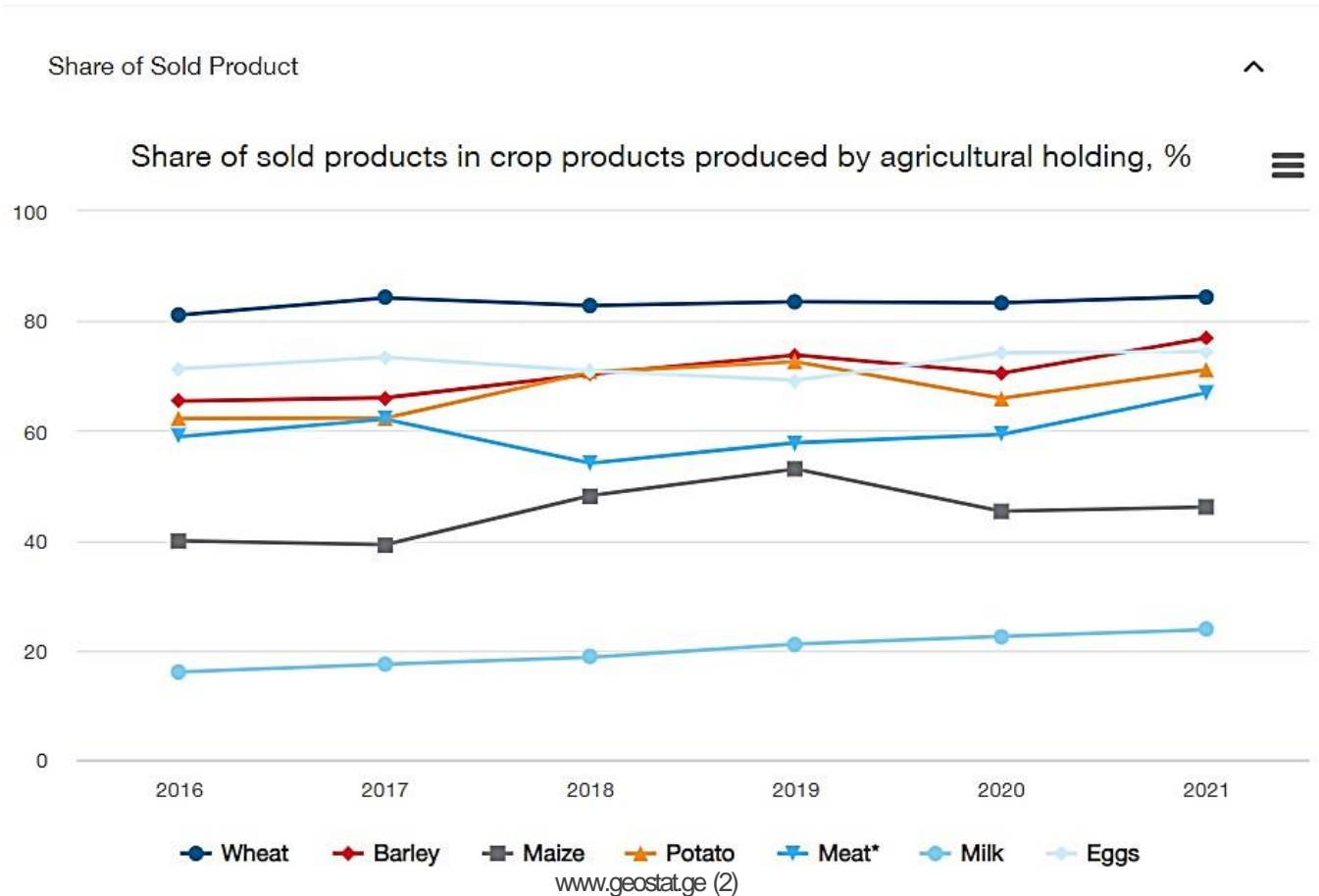


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For small and developing countries like Georgia, the critical discussions on how a transition to a circular economy can be equitable and inclusive of marginalized communities are still active. Moreover, the question is how to establish a baseline and road map out what a path to circularity would look like and share what this collaboratively designed vision of circularity looks like for local Farmers, Agricultural Markets, Agribusinesses, Food Systems and Supply Chain with the leadership of innovations and advances, novel technologies.

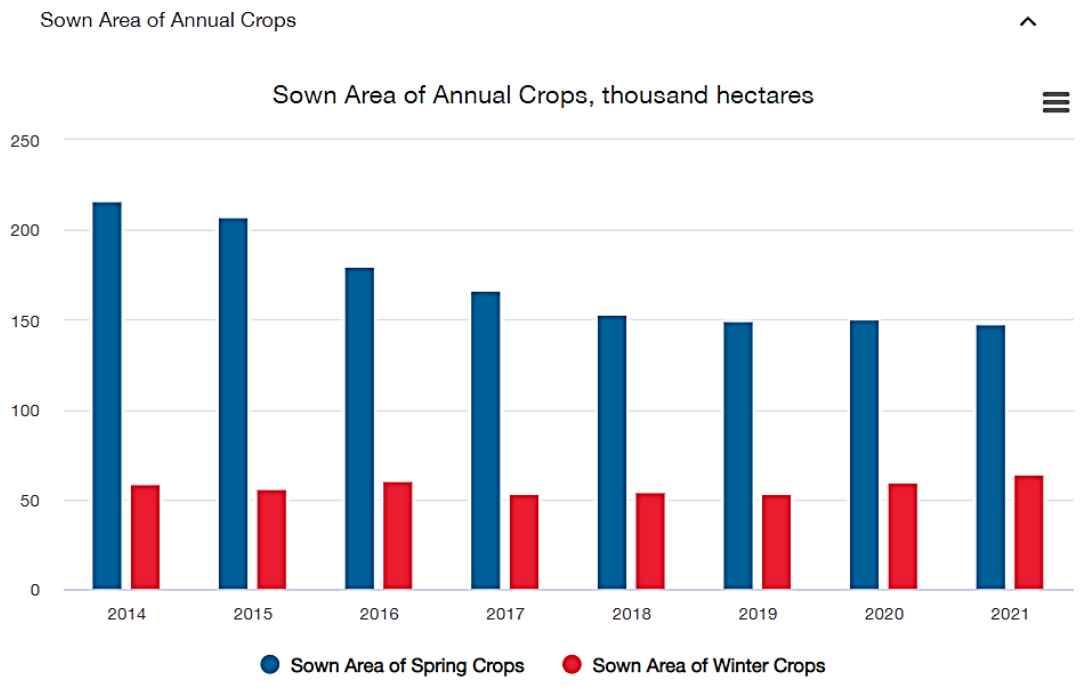
Based on the results of the analysis provides by our team Agriculture and Agribusiness main contributor to the Circular Economy in Georgia. Agriculture is mainly responsible for the contamination of groundwater and soil. This is caused by the increased use of pesticides, as well as by the intensive character of its production. Almost all pesticides are made from chemical substances and are meant to keep diseases and threatening animals away from the crops. Furthermore, as agriculture gets more and more intensive to feed the increasing world population, more environments and ecosystems are destroyed to make space for the crops. Some of them, like rapeseed –used to make oil – demand a lot of space for a relatively small output. We fully believe that supporting local farming can slash emissions and contribute to a circular economy.

The circular economy transformation will empower our Economy with the benefits, and new tools to tackle the current and future challenges and provide the benefits to empower and create resilience, recycling the by-products for regenerative Agriculture, recycling and reusing from Farming. As well as the Circular economy (CE) is a system that is restorative and regenerative by intention and design, which maximizes ecosystem functioning and human well-being with the aim of accomplishing sustainable development. It replaces the end-of-life concept with closing, slowing and narrowing the resource flows in production, distribution and consumption processes, extracting economical value and usefulness of materials, equipment and goods for the longest possible time, in cycles energized by renewable sources.



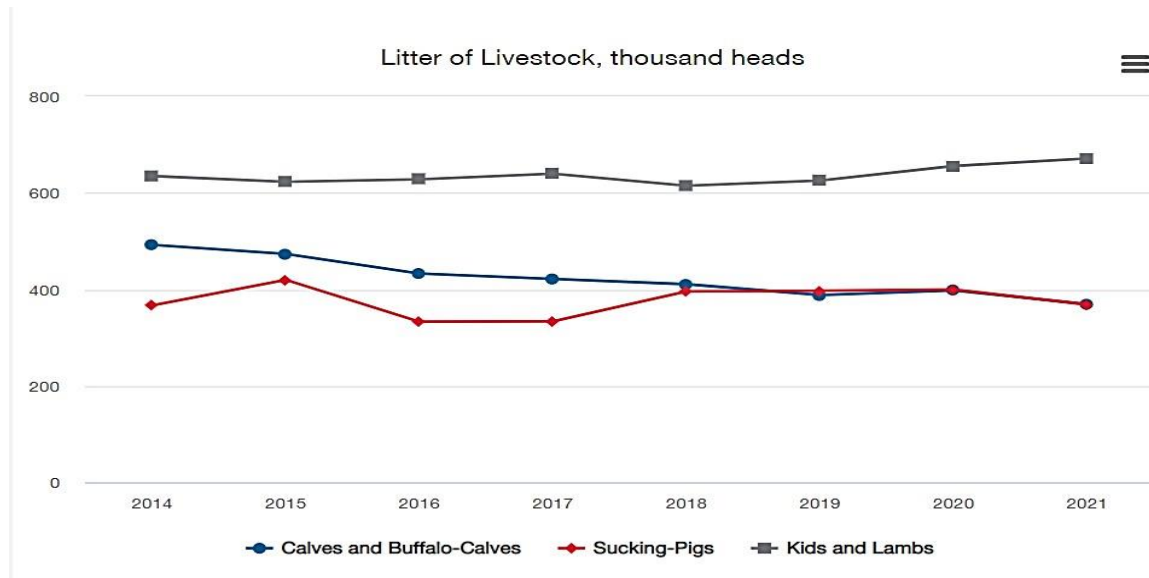
Networking and collaboration with and between Farmer, Suppliers, customers, and rural infrastructure is the only way to build a system that benefits Agribusiness and the whole of society. Producing the Compost from various food (Fruits, Vegetables, after Pruning), for enriching the soil, creating innovative pallets, biodegradable plastic from Kiwi Waste, Biochar, Bone meal from the Slaughter Houses avoiding Farm based waste, making agribusinesses more efficient, and creating new employment opportunities in Rural and Urban, Peri-Urban Areas.

As we need to look to the past to learn lessons for the future by creating efficient Business Models by practicing the habits of our grandparents by going local and regional when picking our ingredients can have substantial environmental plus points. This often reduces the need for hot-housing vegetables, which equates to a reduction in fuel inputs, plus fewer food miles and lower transportation impacts. Supporting or practicing urban, organic and precision farming models can also eliminate harmful synthetic fertilizers in use, a huge source of emissions on its own.



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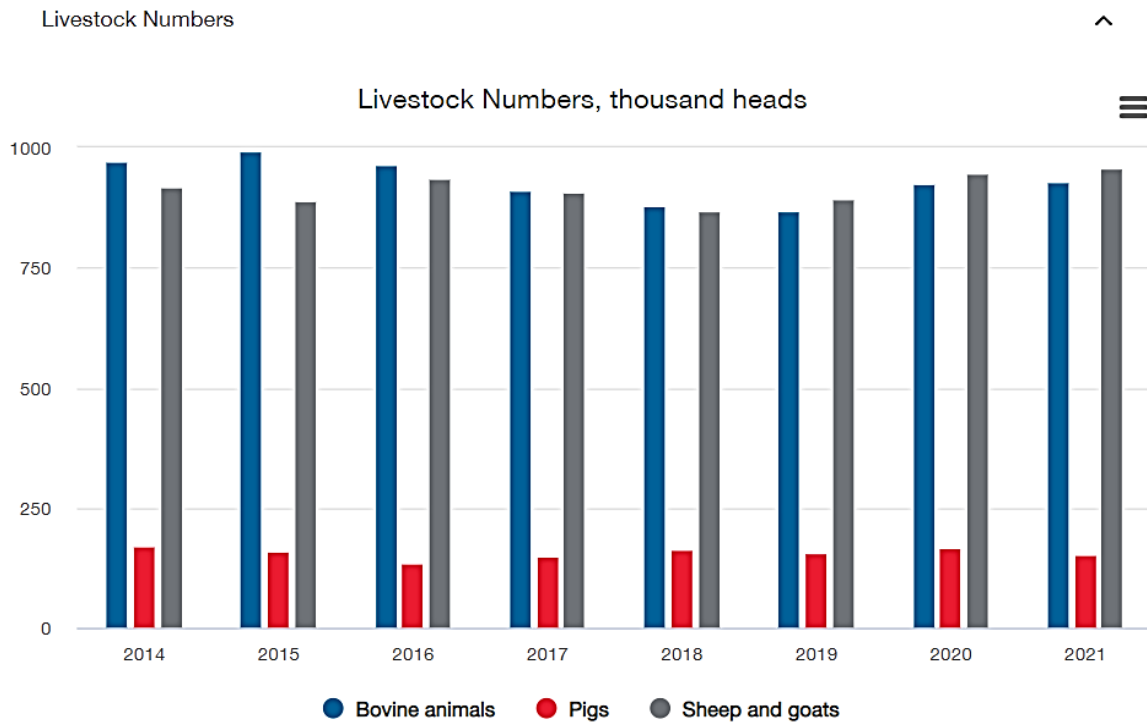
Surprisingly many Farmers in Georgia are ready to move to carbon-neutral biomass Farming, using food waste and losses as animal feed, which will support the growth of secondary markets, take a chunk out of livestock emissions and help to avoid deforestation. This is a real gateway for the resources, which will inspire innovation, highlight opportunities, and demonstrate how we can implement circular economy solutions at scale.



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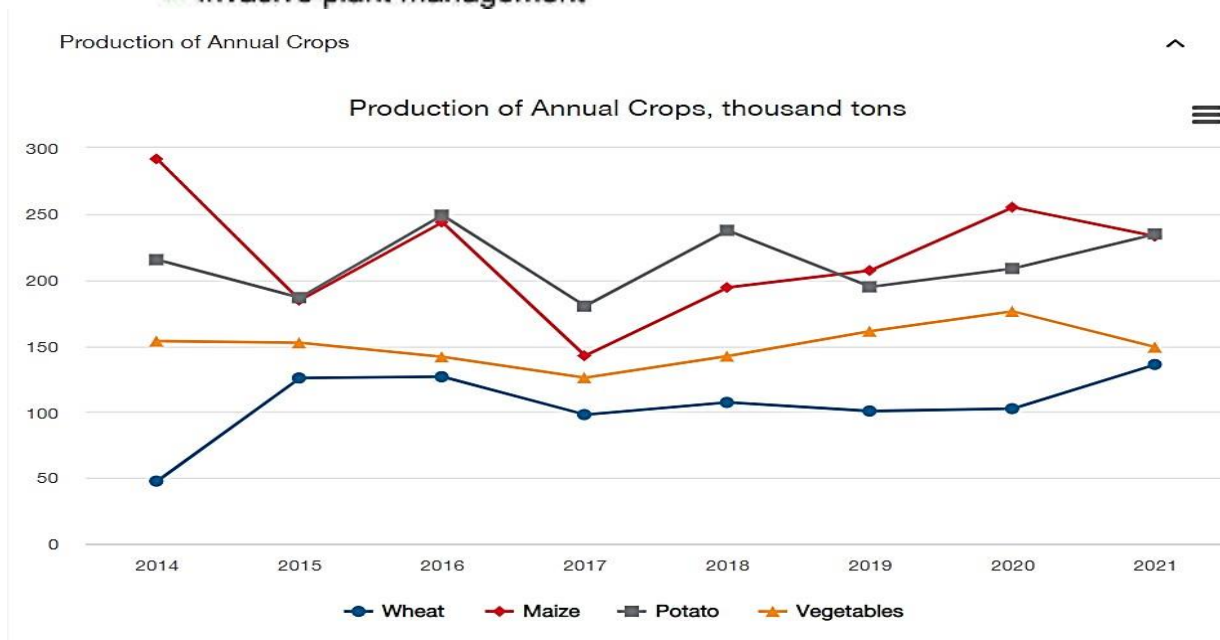
Our network brings together businesses, innovators, universities, and thought leaders to build and scale a circular economy. This collection of bright ideas and best practices as the best examples shows how the circular economy business models can drive the economy, social life and raise the quality of Life in Georgia.

The private sector plays an important role in Georgia’s Economy investing and driving innovations to solve the issues of Farm based waste management plans to convert them into new products. There are great opportunities for greater private sector involvement in those innovations throughout the Biomass, Bio humus and value chain of Biochar, which is a charcoal-like substance that is made by burning organic material from agricultural and forestry wastes in a controlled process called pyrolysis. Although it looks a lot like common charcoal, produced using a specific process to reduce contamination and safely store carbon. In many developed countries, sustainable food systems pioneer net-zero emissions across their supply chain and food systems that leverage existing plans for piloting the future developing industrial plant to reach sustainability goals at scale. It is necessary to facilitate greater interactivity, synergy and rationalization among zero waste management at the Farm based areas and circular economy innovators and investors. This could be addressed with a curated marketplace that facilitates the growth and evolution of greener innovations across the value chain.



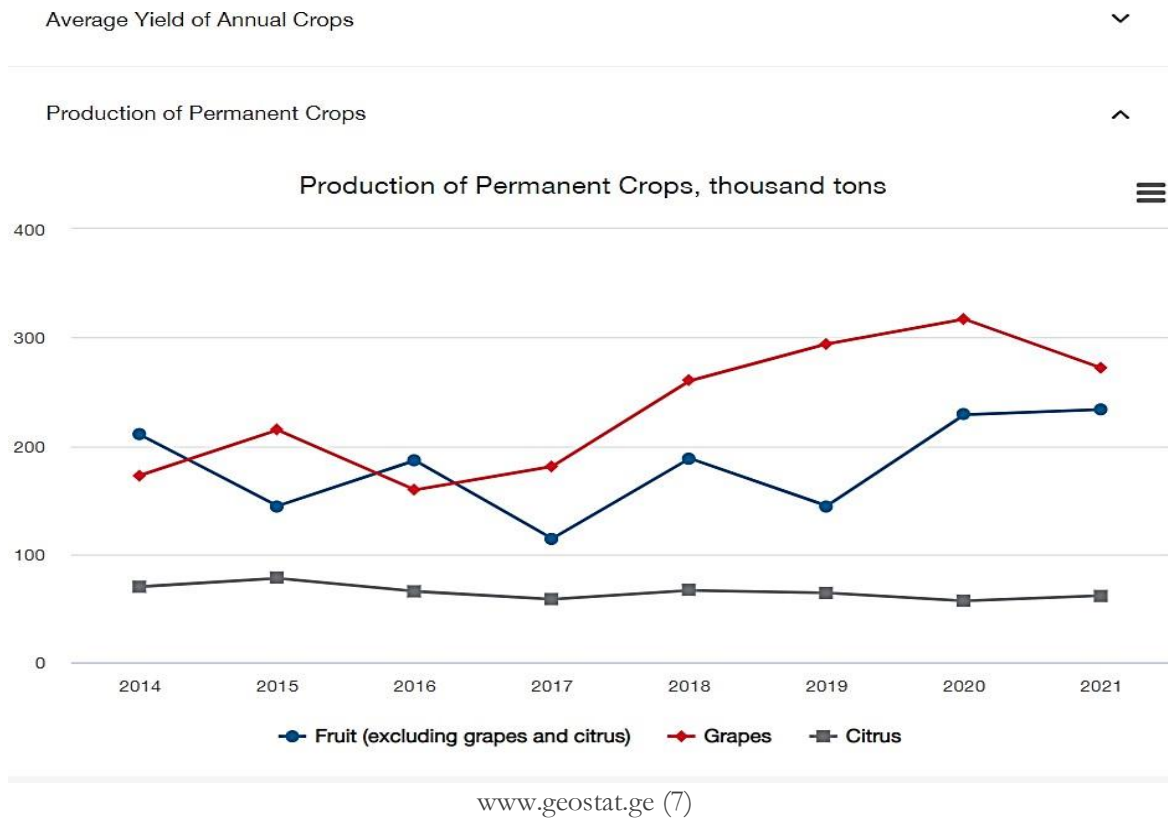
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Biochar production is a carbon-negative process, which means that it actually reduces CO<sub>2</sub> in the atmosphere. In the process of making biochar, the unstable carbon in decaying plant material is converted into a stable form of carbon that is then stored in the biochar. When biochar is applied to the soil, it stores the carbon in a secure place for potentially hundreds or thousands of years. To put it simply, the feedstock that used for making biochar would release higher amounts of carbon dioxide to the atmosphere if they were left to decompose naturally. By heating the feedstock's and transforming their carbon content into a stable structure that doesn't react to oxygen, biochar technology ultimately reduces carbon dioxide in the atmosphere.



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Biochar also contributes to the mitigation of climate change by enriching the soils and reducing the need for chemical fertilizers, which in turn lowers greenhouse gas emissions. The improved soil fertility also stimulates the growth of plants, which consume carbon dioxide. The many benefits of biochar for both climate and agricultural systems make it a promising tool for regenerative agriculture.

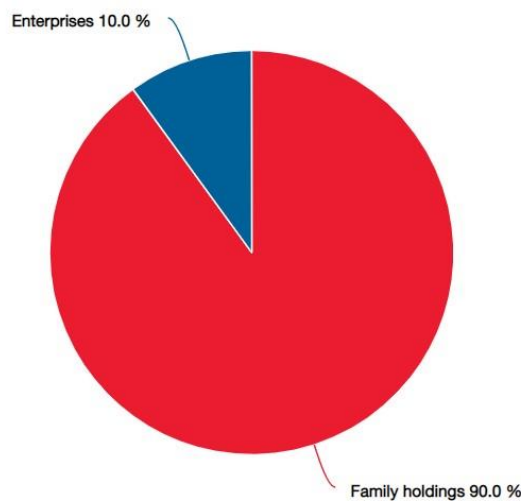


We aim to develop sharing of knowledge of how the concept of circular economy relates to Georgian Farming, Food Packaging and aquaculture industries, including downstream activities such as post-harvest processing and marketing. It will provide basement on how circular practices being applied in other sectors and industries could be adopted by fishing and aquaculture businesses. This includes opportunities for fisheries/aquaculture industries to develop circular linkages with other marine and land based sectors in west part of Georgia. In addition, it will identify barriers to adoption and develop strategies for addressing those barriers.

General Statistics of Aquaculture Sector ^

Distribution of aquaculture holdings by legal status, 2021, %

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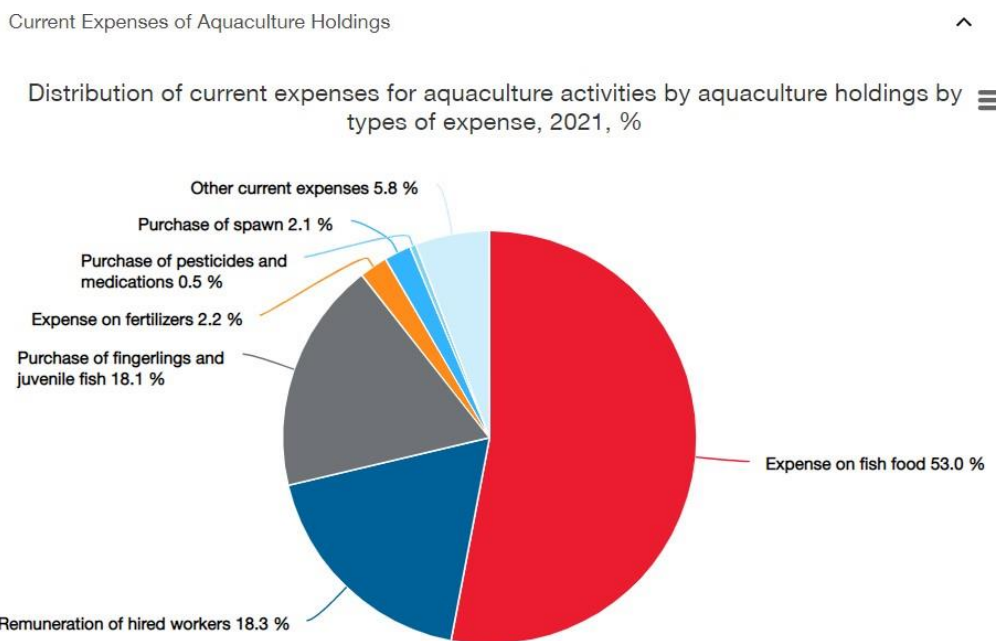
Innovative Solutions will develop the value chain requirements for a circular economy to become commonplace. With increased demand from government and clients for circular requirements, innovation needs to be built into the full Farming process until Marketing, which historically has preferred the use of tried and tested techniques,



utilizes new technologies. Pilot projects will help to overcome potential skepticism and provide some learning tools for further developing the particular Agribusiness cases in Georgia. Businesses that do not already think of a circular economy must change their outlook, or run the risk of slipping behind as the field makes the shift towards more sustainable business strategies. Our researchers have developed the Concept of Business Models, which form the basis for business strategies for companies to benefit from the lucrative market that the circular economy will be.

By adopting circular economy business models, the focus will shift to sourcing sustainably, maintaining material productivity over the lifecycle of developments, and reducing losses of non-renewable materials. This will produce financial, social and environmental benefits. The market for a circular economy is growing and circular economy will help businesses save on raw material cost as well as waste management costs, reducing the volume of waste going to landfill would result in substantial financial benefits for businesses.

There will be little or no waste to landfill and environments will be enriched by biological nutrients reintroduced into the biosphere through composting and bio-digesters. Growth will be de-coupled from resource extraction due to closed loops of technical components and an increase in sustainable renewable materials. Fewer resources will be extracted thus reducing the impact on the climate.



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We think, the role of mass media, including print and electronic media and the internet, is the main source of information about the benefits of the Circular Economy and its multi-environmental issues. These should, therefore, be used more intensively to facilitate the transmission of environmental information and promote more positive environmental attitudes. As the environment has been advancing rapidly, environmental education has a strategic and important role in preparing people to solve global and regional environmental problems. Environmental issues should be included in the national education syllables to have well-educated and concerned people about environmental, economic and social issues of the Circular Economy.

The integration of environmental education must be presented in classes and such programs is necessary, helpful, and mandatory to change a societal mindset, which is fundamental for the Circular Economy to flourish. The top-level politicians, Farmers, Agricultural Cooperative Members, executives, administrators and all the other entrepreneurs should also be educated about Circularity and one of the basic properties of environmental education is the need for a close relationship between the inter-discipline and inter-professions. Local

Governments should be concerned about educating the civil servants by providing the means (e.g., books, brochures, seminars) to make them understand the importance of circular economy and outcomes.



Our team has prepared:

- E- learning modules, that are linked to each other but can also be used as stand-alone learning and teaching elements;
- Data, that support the practical implementation of the knowledge acquired with the modules. They are **the main element for the implementation of the knowledge and building up skills in companies.**



**The circular economy-related business models would allow the retention of an asset at its highest value over time and support enhancement of natural capital. Successful implementation of these business models will require action from farmers, change makers, suppliers, service providers and end-of-life companies by sharing materials, systems, energy, as well as information and services.**

LITERATURE:

[www.geostat.ge](http://www.geostat.ge)

<https://www.europarl.europa.eu/news/en/headlines/economy/20151201STO05603/circular-economy-definition-importance-and-benefits>

[www.FAO.org](http://www.FAO.org)

<https://www.fao.org/in-action/sustainable-and-circular-bioeconomy/en/>

<https://olc.worldbank.org/content/circular-economy>

<https://www.oecd.org/regional/cities/circular-economy-cities.htm>

<https://www.ebrd.com/news/2021/ebrd-launches-first-circulareconomy-programme.html>

<https://www.weforum.org/about/world-economic-forum>

[https://environment.ec.europa.eu/strategy/circular-economy-action-plan\\_en](https://environment.ec.europa.eu/strategy/circular-economy-action-plan_en)

Source: [greeneducationfoundation.org](http://greeneducationfoundation.org)



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## PYXIS NAUTICA ARCHITECTS

### ANNEX

**The article presents the story of a Budapest based architect studio called Pyxis Nautica Architects. You can read about the founders and the circumstances of the company foundation and development. You can get familiar with the company's professional profile, ars poetica or it's corporate culture. The article tells about the prizes and awards won by the studio and shows highlight of some recently realised or designed projects.**

**Keywords:** Pyxis Nautica, architecture, architect studio, interior design, ars poetica, corporate culture, entrepreneurship

**JEL Classification:** D40, L14, L15, O32, O33.

### ESTABLISHMENT AND HISTORY

The Pyxis Nautica architectural studio from Budapest was founded by László Monori, Dávid Tóth and Tamás Tótszabó in June 2017. Tamás and László met during the Erasmus program in Horsens, Denmark in 2009, where they together discovered the mysteries of Danish architecture and education. Later they worked together in several workplaces, where they recommended each other. Dávid and László met through acquaintances, and their friendship began during a joint real estate development project, which was later joined by Tamás as well. Finally, all three ended up in an architectural office, where they discovered over time that their common goal was to become independent and create their own architectural studio. The idea of starting their own architectural company was decided on a sailing course in Balaton in 2017.

In the beginning, there was no company, but a union of three sole proprietorships was created. We worked from home office on joint projects, which were ordered by acquaintances of the three of us. The first big step was leasing our first office, which took place in Donáti utca in the 1st district under the Buda Castle. The office was a previously unlet 28 m2 premise in a building complex (Bastion Residence) built according to the plans of Péter Reimholz, an architect and designer we highly esteem. The first challenge was to cover the rent, and the second was to have at least as much salary as we had during employmentship.

We managed to meet this challenge in the first few months, and with the help of the first major client (**Optinvest Zrt.**) and work (7), we were able to change the union of the sole proprietorships to a limited liability company. **The company name Pyxis Nautica** is actually a star constellation, which is not visible from Europe because it is just under the horizon. The constellation has three bright stars (these represent the founders) but has more stars around them (these are the colleagues). Pyxis Nautica (i.e. PYX) was named after the nautical compass.

Choosing the right brand name for the company was a tough process. We wanted something that is understandable both in Hungarian and internationally, and that is unique and elegant. Finally we ended up by star constellations names, because those are Latin words, have abbreviations, and have symbols, that can be used as a logo. We chose 'Pyxis Nautica' (i.e. PYX), which comes from the Latin word for 'nautical compass'. We liked the name and the shape of it, and it also referred to the founders hobby, the sailing. The constellation has three bright stars (these represent the founders) but has more stars around them (these are the colleagues). The name can be also interpret as the 'compass for design' or 'showing the right direction in visual culture'. Nautica is not visible from Europe because it is just under the horizon.

As the number of works increased, more colleagues joined. We outgrew the small office so we had to rent a second office in the building complex, keeping the small office as a meeting room. We had to move out of Bastion in 2021 because we kept growing. Currently, ten of us work in the Kis-Rókus street office, which has a wonderful view of Millenáris and Széllkapu Parks, as well as Buda Castle.

### **FIELD OF PROFESSION**

Our office deals with architectural and interior design from the small scale (a 30 m<sup>2</sup> apartment or office) to the design of industrial or community facilities of several thousand square meters. In five years, we have gained a lot of experience in architectural and interior reconstruction of historical buildings, as well as in interior design of corporate offices. In addition, we design family houses and apartment buildings and any architectural task that poses a challenge.

Our architectural ars poetica is to design buildings and spaces that are durable, simple, clean, but also entertaining for the user and the designer. When reconstructing historical buildings, we strive for playfulness, the harmony of the contemporary and the old, variety, and the unexpected.

### **CORPORATE CULTURE**

As company managers, we strive to maintain a work-life balance, we do not work overtime, we work normal working hours. Colleagues mostly work in the office, but if necessary, home office is also provided. Every week on Thursday, we relax together on our roof terrace (free beer), we call these events Afterworks, i.e. AW. A colleague who used to work in Sweden introduced this to us. We educate each other, we make educational videos, so we teach our colleagues and ourselves in a time-efficient way. Colleagues receive a competitive salary. The team works in an open office, the company management is quite transparent, the managers share a lot with their colleagues, we discuss both successes and failures and difficulties in front of a large plenum, because this way the team is stronger and the colleagues feel closer to the company. We travel twice a year for team building, and at Christmas we say goodbye to the year at a festive dinner. Last year, we gave a year-end party where we invited our most important clients and friends and shared them our results.

### **OUR WORK HAS BEEN AWARDED SEVERAL TIMES:**

- 2017 – Office of the year - 1<sup>st</sup> Prize / Betsson Group Office
- 2018 - Office of the year - finalist / Possible CEE
- 2019 - BIG SEE Award Residential Category / B31 Loft
- 2019 - Office of the year - finalist / Palazzo Hunyadi
- 2019 - Office of the year / Interior Designer of the year
- 2020 - Office of the year - shortlist / Telenor Astoria
- 2021 - Octogon magazine cover / Irányi Palace
- 2021 – Façade of the year (Baumit) Irányi Palace
- 2021 – Young Architects Black and White / Prize - Irányi Palace
- 2022 - Octogon magazine cover / Golden age of palaces

**SOME WORKS THAT WE ARE PROUD OF:**

**Heineken office, Budapest**



**Telenor flagship store, Budapest**



**Nemesvita apartments**



Aszófő pilgrimage house



Irányi Palace



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## SUSTAINABLE ENTREPRENEURSHIP AND ITS VIABILITY <sup>1</sup>

### ABSTRACT

**Purpose** – The purpose of this paper is to analyse the drivers as well as Govt. Scheme operating towards sustainable entrepreneurial practices in MSMEs, operating in Odisha. The secondary objectives are to explore the relationship between these drivers and to draw out the implications for policy and practice besides finding the awareness regarding entrepreneurial education for entrepreneurship development and the linkage between entrepreneurship development and technical education.

**Design/methodology/approach** – There is a growing interest in the role that entrepreneurship can play as a catalyst to accomplish economic and social development objectives, together with growth, innovation, employment, and equity. The paper is informed by the literature on sustainable entrepreneurship, and on the drivers of pro-environmental practices in SMEs. It reports on the results of an exhaustive multi-level empirical study, which investigates the environmental practices of SMEs in Odisha. This case study/review was carried out to determine ways for invigorating technical, vocational education and training through entrepreneurship education.

This paper emphasizes the prevailing Governmental scheme for entrepreneurship development and strategies suggested to build up the culture and the plausible reasons for gap for entrepreneurship towards breaking new ground by deploying solutions for rapid, sustainable and resource-efficient growth are also discussed.

**Findings** – The study identifies that coercive, normative and mimetic isomorphic pressures concurrently drive sustainable entrepreneurial activity in the majority of MSMEs. These pressures are exerted by specific micro and macro-level factors, ranging from international customers' requirements to individual-level values of owners and managers. It also reveals the catalytic effect of Technical education not only to boosts the capacity of innovation but also nurtures the innovation and entrepreneurship among the students of engineering college in Odisha.

**Practical implications** – The evidence suggests that, in countries where formal institutional mechanisms have less of an impact, intermediary organisations can perform a proto-institutional role that helps to overcome pre-existing barriers for sustainable entrepreneurial activity..

**Originality/value** – This paper provides new insights into sustainable entrepreneurship and motivations for environmental practices in an under-researched developing economy with special reference to Odisha state in India. .

**Paper type** : Case Study /Research Paper

**Key words**: Entrepreneurship, Sustainability, Competitive, Innovation, Strategies, MSME

**JEL Classification**: D6, M10, O31, O44 and Q56

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<sup>1</sup> "Final Paper -ANIL-2019-IIPM-Sustainable Entrepreneurship and its Viability.pdf" by Dr. Anil Barik presented at the 4<sup>th</sup> National Seminar on Business & Social Science on February 16, 2019

## INTRODUCTION

Sustainable entrepreneurship is a concept that combines elements from both sustainability and entrepreneurship, and its emergence has adopted a new aspect to the prediction of entrepreneurship. Enterprises with sustainability-driven approach contribute towards improving the environmental quality and social well-being in ways that are equally accommodating.

An entrepreneurial activity can only be labelled sustainable, if there is an equal blending of the 3Ps (People, Planet, Profit) -which called 'triple bottom line'. Sustainable entrepreneurship is about a combination of economic, social and environmental value creation.

The need for engineering entrepreneurship education has been well reported in the past two decades. However, most research and educational efforts focus on the design and implementation of engineering entrepreneurship programs. There is a gap in assessment practices and there are several reasons for this. (Pittaway, L. & Hannon, P. 2009).

Enterprise education is highly important for engineering both diploma and degree level course. Technical and Vocational Education Training (TVET) refers to the educational processes that involve the study of technologies and related sciences and the possession of practical skills and knowledge aimed at discovering and developing the individual for employment in various sectors of economic and social life (Moss & Liang, 1990)

### **Defining sustainable entrepreneurship**

Shepherd and Patzelt (2011) offered the following definition 'sustainable entrepreneurship is focused on the preservation of nature, life support, and community in the pursuit of perceived opportunities to bring into existence future products, processes, and services for gain, where gain is broadly construed to include economic and non-economic gains to individuals, the economy, and society'

According to Spencen et al (2011) sustainable entrepreneurship is 'An innovative, market oriented and personality driven form of value creation by environmentally or socially beneficial innovations and products exceeding the start-up phase of a company'.

### **Entrepreneurial Skills in Technical Vocational Education and Training**

The only way to empower the youth is to provide them with adequate and qualitative education in order to make them job creators and eradicate poverty (Sekena, 2004). Many countries of the world including Nigeria have considered Technical Vocational Education and Training (TVET) as relevant in equipping young people with technical skills that would enable them engage in productive livelihoods. However, the United Nations Education Scientific and Cultural Organisation (UNESCO) section for Technical and Vocational Education and Training (TVET) in 2006 observed that TVET programmes have not lead to increased employment, despite the obvious need for technical and vocational services. This might be due to dearth of wage employment opportunities for technically trained man power (Saba et.al ,2013).

Summarily, An entrepreneur with the mind-frame to solve an exact, particular sustainability problem (widely known as Sustainability Entrepreneurship, note the difference from Sustainable Entrepreneurship, which this paper focuses on) can be beneficial once an opportunity arises that the entrepreneur can put to use, but until then, the situation may remain the same – resources may still be used up in uneconomical ways, and it is a flawed way to conduct sustainable operations, however well-meant it may be. Sustainable Entrepreneurship, on the other hand, strives to set a universal mindset to practice sustainable methods throughout the organization, from internal personnel to purchased goods from partners, from top to bottom.

### **Sustainability Entrepreneurship versus Sustainable Entrepreneurship**

Sustainable entrepreneurship sees the focus on the internal processes and everything surrounding the outputs of a business, while sustainability entrepreneurship focuses on opportunity fulfillment in the market.

Schaltegger et al (2011) described sustainable entrepreneurship as “*an innovative, market-oriented and personality driven forms of creating economic and societal value by means of break-through environmentally or socially beneficial market or institutional innovations*” .

In general terms, there are two key perspectives on sustainable entrepreneurship. On the one hand, there are those academics that believe that any entrepreneurial activity must be subordinated to the relationship between sustainable entrepreneurship and the triple bottom line. Their researches are mainly published in sustainable management journals (Parrish and Foxon, 2009). They concluded, “innovators and entrepreneurs will consider sustainable development as one of the greatest business opportunities in the history of trade” (Hart and Milstein, 1999).

### **Viability**

As per the conglomerate view of various English dictionaries, the word of viability is defined as “*capable of living, developing, or germinating under favorable conditions*”. It describes its prefix as if it was a living, prosperous, growing entity which is why it was a perfect global definition to a company that is at minimum covering all costs, continuing to grow in size and output and makes a positive return in turnover. Effectively, in economic terms, this would be seen as being profitable over years in time, or profitable to remain out of financial danger for years. Moreover it can be defined as making a positive return before taxes.

According to Leonaris Rey (2011) , sustainability practices are related to the viability of sustainable entrepreneurship. However, her research results shows, there is no strong association between the three pillars of sustainability and viability. This in turn also shows that there is no negative association in actively pursuing sustainable measures and viability in SMEs. Thereby it can be concluded that there are no grounds for belief that pursuing a sustainable means of operation will result in company failure, and should not be a reason for SMEs to reject sustainable entrepreneurship.

### **What could Entrepreneurship do for Sustainable Development?**

Entrepreneurship is seen as an alternative to unemployment and poverty which could be the panacea for development (Bogan & Darity, 2008).

Initially entrepreneurship was detected as establishing a business with people using their own capital. Nowadays, entrepreneurship and small businesses are the basics of economy, responsible for breakthrough innovations that influence the growth of free market economy and its general performance . (Sahin & Asunakutlu, 2014; Sharma et al., 2013).

SMEs' involvement in sustainable development can be considered as an entrepreneurial act. The sustainability market is in its development phase in industrialized nations and still quasi-non-existent in developing countries. This market presents not only uncertainties but also opportunities to those who can recognize them. Moreover, several studies demonstrate that adopting sustainable strategies and integrating them at the core of the strategic activities creates value for stakeholders and preserves wealth for future generations (Spence et al., 2011).

Shepherd & Patzelt (2011) opined that Sustainable Entrepreneurship embodies the objective to enhance social wealth, with the goal to create profit, and to ensure *financial viability* to pursue other opportunities that may arise to be exploited outside the realm of the social objective.

Mair and Marti (2006) advocate that ‘while economic value creation is seen as a necessary condition, it is more important to ensure financial viability and business longevity’.

Parrish (2010) suggests that the values and motives that give rise to sustainability entrepreneurship, based on equanimity between self, other people, and nature, result in specific organizing tensions that have the potential to challenge the viability of enterprises that embody these values. However, he indicates that the distinct competencies and cognitive patterns of sustainability entrepreneurs, derived from the same values and motives, enable these organizing tensions to be effectively overcome. Following this argument, he concludes that the use of perpetual reasoning is a key feature that ultimately distinguishes sustainability entrepreneurs.

### **Types of Entrepreneurship :**

Five types of entrepreneurs;

*Administrative entrepreneurship* : It is the joint efforts of both the general management and scientific technical personnel to identify areas for R & D and the development of new products, techniques or the improvement of existing ones.

*Opportunistic Entrepreneurship* : Ability to catch at the right time the fruits of the internal as well as external technological developments.

*Incubative Entrepreneurship*: This is nothing but the ability to initiate and nurture new venture developments within the original company with special care.

*Imitative technical Entrepreneurship*: This stresses the replication or creative imitation of innovative technical achievements made by another firm - done with appropriate modifications and refinements in case protected property right are involved.

*Acquisitive Entrepreneurship*: This is the ability of the internal management/entrepreneurs to acquire competitors technical capabilities.

### Characteristics of Entrepreneurship:

An assessment instrument was designed to measure the entrepreneurial mindset of engineering students. Such an instrument is needed to measure the growth in engineering entrepreneurship mindset of engineering students who pursue programs focused on developing such a mindset (Harichandran et.al., 2016).

Entrepreneurial behaviors as the learning outcomes grouped into the following four categories

- *Engineering Thought and Action:*  
Apply creative thinking to ambiguous problems, Apply systems thinking to complex problems  
Evaluate technical feasibility and economic drivers, Examine societal and individual needs
- ❖ *Collaboration:* Form and work in teams, Understand the motivations and perspectives of others
- ❖ *Communication:* Convey engineering solutions in economic terms, Substantiate claims with data and facts
- ❖ *Character:* Identify personal passions and a plan for professional development, Fulfil commitments in a timely manner, Discern and pursue ethical practices, Contribute to society as an active citizen

### Govt. of India Initiatives for Entrepreneurship Development:

#### Name of Schemes

- 1 *Prime Minister's Employment Generation Programme and Other Credit Support Schemes*
  - i. Prime Minister's Employment Generation Programme (PMEGP)
  - ii. Performance and Credit Rating Scheme
  - iii. Credit Guarantee Trust Fund for Micro & Small Enterprises (CGTMSE)
  - iv. Interest Subsidy Eligibility Certificate (ISEC)
- 2 *Development of Khadi, Village and Coir Industries*
  - i. Science and Technology Scheme
  - ii. Market Promotion & Development Scheme (MPDA)
  - iii. Revamped Scheme of Fund for Regeneration of Traditional Industries (SFURTI)
  - iv. Coir Udyami Yojana (CUY)
  - v. Coir Vikas Yojana (CVY)
    - Skill Upgradation & Mahila Coir Yojana (MCY)
    - Development of Production Infrastructure (DPI)
    - Domestic Market Promotion Scheme
    - Export Market Promotion
    - Trade and Industry Related Functional Support Services (TIRFSS)
- 3 *Technology Up gradation and Quality Certification*  
A Scheme for Promoting Innovation, Rural Industry & Entrepreneurship (ASPIRE) through QMS&QTT
  - Building Awareness on Intellectual Property Rights (IPR)
  - Lean Manufacturing Competitiveness for MSMEs National Manufacturing Competitiveness Programme (NMCP)

- iv. Marketing Support Assistance to MSMEs (Bar Code)
  - Entrepreneurial and Managerial Development of SMEs through Incubators
  - Enabling Manufacturing Sector to be Competitive
  - Design Clinic for Design Expertise to MSMEs
  - Technology and Quality Upgradation Support to MSMEs
- *Marketing Promotion Schemes*
  - International Cooperation
  - Marketing Assistance Scheme
  - Marketing Assistance & Technology Upgradation (MATU)
  - MSME Market Development Assistance (MDA)
- *Entrepreneurship and Skill Development Programme*
  - Assistance to Training Institutions (ATI)
- *Infrastructure Development Programme*
  - Micro & Small Enterprises Cluster Development (MSE-CDP)
  - Tool Room
  - TCSP
- *Schemes of NSIC*
  - Single Point Registration Scheme
  - Credit Facilitation through Bank Tie-up
  - Raw Material Assistance & Credit

### **Govt. of Odisha Initiatives for Entrepreneurship Development**

Entrepreneurship is characterized by the ability to organize, manage and assume the risks of a business enterprise with aim to generate wealth, employment and social good. Entrepreneurship serves as the genesis for developing a vibrant micro, small and medium enterprise (MSME) sector which is an indispensable component of competitive economies. Entrepreneurship also has the potential to promote inclusive growth through empowerment of women, disadvantaged sections as well as educated unemployed youth.

Odisha MSME Department formulated a Development Policy in 2016 through a consultative process involving stake holders including Industry, Associations, Financial Institutions, Experts and Government Departments concerned with an objectives to Encourage new manufacturing capacity, Provide a conducive eco-system for promotion and growth of MSMEs in potential sectors, to provide opportunities to local entrepreneurial talent

### **Entrepreneurship Development Models of Odisha**

Decades of 1980-2000 experienced a considerable growth and development of small and medium enterprises (SMEs) in Orissa. De-licensing, direct foreign investment, trade liberalization, policy reforms etc. were the innovations made. Protectionist attitude and subsidy culture were almost eroded. Investments were made cheaper. But, competition was intensified and gradually made complex. This posed challenges for SMEs to adjust to the changes, affiliating them to large industries. Policy changes attempted to raise preparedness of SMEs to share the market, develop inter-industry competition, render production of quality products and services. Govt. adopted several

- 1 Strategic Alliance Model for Small & Medium Enterprises (SMEs)
- 2 Radio Programme Model for Entrepreneurship(RPE)
- 3 Resource Potential Model for No-Industries District (NID)
- 4 Enterprise Education Model for SMEs
- 5 Marketing Model for SMEs
- 6 Entrepreneurship: A Professional Business Model
- 7 EDP Models for Orissa: from Management to subject inputs
- 8 Corporate Instinct Model for SMEs
- 9 Entrepreneurship Model for Women

## WHERE WE ARE ? – Entrepreneurship Scope at ODISHA

### **Strong economy :**

The state's economy witnessed high growth rates between 2011-12 and 2017-18, with GSDP of the state growing at a CAGR of 10.30 per cent. Cumulative FDI inflows in the state, during April 2000 to December 2017, amounted to US\$ 425 million

### **Strong mineral production**

Odisha has emerged as a key state with regards to the mineral and metal based industries. At 32.8 per cent in February 2018, Odisha contributed the largest share of mineral production in India in terms of value\*. Value [ *Excluding fuel minerals, atomic minerals and minor minerals* ]of minerals produced in the state reached US\$ 2.71 billion in April-February 2018.

### **Strong growth in MSME units**

The state is home to a large number of MSME units. The state is amongst the top ten states accounting for the highest number of MSME enterprises

### **Strong power sector**

Odisha is the first state in India to have undertaken reform and restructuring initiatives in the power sector. As of August 2018, the state had a total installed power generation capacity of 7,369.10 MW. (Source: Economic Survey of Odisha 2018)

### **High economic growth**

The state's GSDP grew at a Compound Annual Growth Rate (CAGR) of 10.30 per cent between 2011-12 and 2017-18.

The tertiary sector was the major contributor to the state's GSDP with contribution of 45.25 per cent during 2017-18.

### **Policy, fiscal incentives and initiatives**

The state offers a wide range of fiscal and policy incentives for businesses under the Industrial Policy Resolution, 2007.

### **Objectives of the Study**

Two fold objective was set,

- 1.To find the awareness regarding entrepreneurial education for entrepreneurship development
2. To check linkage between entrepreneurship development and technical education

Hypotheses: Created, based upon the above two objectives:

H<sub>0</sub> : Entrepreneurship education is considered as a strong background for entrepreneurship development.

H<sub>1</sub>: There is a significance relationship between technical education and entrepreneurship development.

### Methodology :

A structured Questionnaire was used to identify both the quantitative and qualitative points of view . Analysis of variables responsible towards the awareness of entrepreneurship development through technical education is statistically measured. SPSS ver. 19 is used for descriptive analysis of collected data.

### Sampling

The sample consists of 158 respondents of different categories. The respondents were selected on the basis of Stratified Random Sampling Technique. A total 180 questionnaire were administered among Poly technics & Engineering colleges in and around Rourkela and Bhubaneswar . After continuous follow up requests, only 158 responses were received back which were found to be complete and correct. Care has been taken to ensure that the sample covers almost different categories of people.

### Findings (Awareness on Entrepreneurship Development)

Descriptives- **Table1.3** shows that the standard deviation is highest ( $\sigma = 4.412$ ) in the age group of 51years and above people and lowest in 31-40 years of age group ( $\sigma = 2.709$ ). It represents that the variation in perception of respondents is more in 51 years and above of age and less in 31 to 40 years of age on awareness of entrepreneurial education for entrepreneurship development

The ANOVA **Table-1.4** represents the variations of respondents among the age group awareness of entrepreneurship development dimension. The value points out that there is no significance in perception of respondents between the age group and group awareness of entrepreneurship development dimension as the level of significance shows **greater than 0.05, i.e 0.914**. The mean square value is 1.842 between the groups and 10.590 in within the groups.

Descriptives- **Table1.5** shows that the standard deviation is highest ( $\sigma = 3.752$ ) in the people having qualification of BE/BTech people and lowest in the people having qualification of ITI and Intermediate ( $\sigma = 1.728$ ). It represents that the variation in perception of respondents is more in having qualification of BE/ BTech and less having qualification of ITI and Intermediate on awareness of entrepreneurial education for entrepreneurship development.

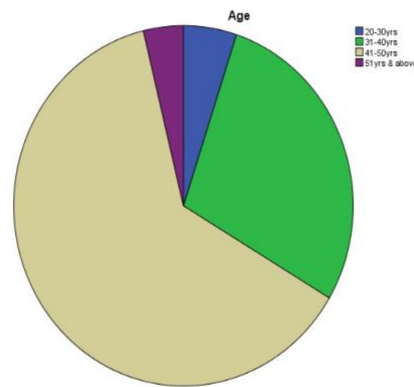
### Findings : (on linkage between entrepreneurship development and technical education)

The ANOVA **Table-1.6** represents the variations of respondents among the age group awareness of entrepreneurship development dimension. The significance value is 0.003(less than 1%) is

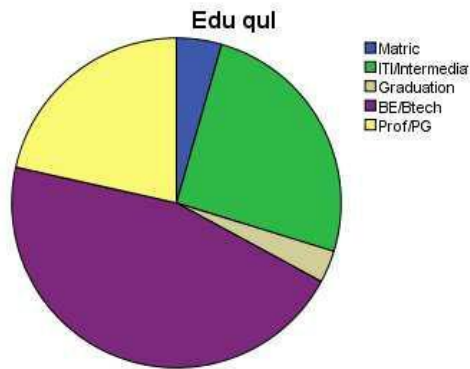


### Data Analysis

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-30yrs	8	5.1	5.1	5.1
	31-40yrs	45	28.5	28.5	33.5
	41-50yrs	99	62.7	62.7	96.2
	51yrs & above	6	3.8	3.8	100.0
	Total	158	100.0	100.0	



Edu qual					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Matric	7	4.4	4.4	4.4
	ITI/Intermediate	40	25.3	25.3	29.7
	Graduation	5	3.2	3.2	32.9
	BE/Btech	72	45.6	45.6	78.5
	Prof/PG	34	21.5	21.5	100.0
	Total	158	100.0	100.0	



Age		Awareness on Entrepreneurship Development	
20-30yrs	Mean	19.50	
	N	8	
	Std. Deviation	2.828	
31-40yrs	Mean	18.73	
	N	45	
	Std. Deviation	2.709	
41-50yrs	Mean	18.85	
	N	99	
	Std. Deviation	3.433	
51yrs & above	Mean	18.33	
	N	6	
	Std. Deviation	4.412	
Total	Mean	18.83	
	N	158	
	Std. Deviation	3.228	

Edu qul		Report	
Edu qul		Awareness on Entrepreneurship Development	
Matric	Mean	19.71	
	N	7	
	Std. Deviation	1.890	
ITI/Intermediate	Mean	20.30	
	N	40	
	Std. Deviation	1.728	

Graduation	Std. Deviation	5
	Mean	2.608
	N	17.85
BE/Btech	Std. Deviation	72
	Mean	3.752
	N	18.91
Prof/PG	Std. Deviation	34
	Mean	3.059
	N	18.83
Total	Std. Deviation	158
	Mean	3.228
	N	

**Descriptives**

Awareness on Entrepreneurship Development

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
20-30yrs	8	19.50	2.828	1.000	17.14	21.86	14	23
31-40yrs	45	18.73	2.709	.404	17.92	19.55	12	25
41-50yrs	99	18.85	3.433	.345	18.16	19.53	6	24
51yrs & above	6	18.33	4.412	1.801	13.70	22.96	10	22
Total	158	18.83	3.228	.257	18.32	19.34	6	25

**ANOVA**

Awareness on Entrepreneurship Development

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.525	3	1.842	.174	.914
Within Groups	1630.861	154	10.590		
Total	1636.386	157			

**Descriptives**

Awareness on Entrepreneurship Development

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
					Matric	7		
ITI/Intermediate	40	20.30	1.728	.273	19.75	20.85	17	25
Graduation	5	19.40	2.608	1.166	16.16	22.64	15	21
BE/Btech	72	17.85	3.752	.442	16.97	18.73	6	24
Prof/PG	34	18.91	3.059	.525	17.84	19.98	9	23
Total	158	18.83	3.228	.257	18.32	19.34	6	25

**ANOVA**

Awareness on Entrepreneurship Development

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	163.303	4	40.826	4.240	.003
Within Groups	1473.083	153	9.628		
Total	1636.386	157			

**Acknowledgement:**

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**LITERATURE:**

Annual Report Ministry of Micro, Small and Medium Enterprises, Govt. of Odisha, 2017-18 Bogan, V. & Darity, Jr. W. (2008). Culture and Entrepreneurship? African American and Immigrant Self-employment in the United States. Journal of Socio-Economics. 37, 1999-2019

Department of Industrial Policy & Promotion, Economic Survey of Odisha, News articles Economic Survey of Odisha 2018, CAGR – Compound Annual Growth Rate; GSDP – Gross State Domestic Product

Harichandran, Cheryl Q. Li, Ronald S., Maria-Isabel Carnasciali, Nadiye O. Erdil, University of New Haven, Dr. Jean Nocito-Gobel, University, Development of an Instrument to Measure the Entrepreneurial Mindset of Engineering Students, American Society for Engineering Education (ASEE), 123<sup>rd</sup> Conference & Exposition, New Orleans LA, June 25-26, 2016

Hart, S.L.; Milstein, M.B. Global sustainability and the creative destruction of industries. Sloan Manag. Rev. 1999, 41, 23–33., p. 25

Indian Brand Equity Foundation, November 2018, www.ibef.org

Leonaris Rey, M.Sc Thesis, Sustainable Entrepreneurship, Erasmus School of Economics, Rotterdam, 2011

Vocational Education, University of California, 1990. (ED 325 645).

Parrish, B.D.; Foxon, T.J. Sustainability Entrepreneurship and Equitable Transitions to a Low-Carbon Economy. *Greener Manag. Int.* **2009**, 55, 47–63.

Pittaway, L. & Hannon, P. (2009). Assessment practice in enterprise education. *International Journal of Entrepreneurial Behavior and Research.* 15(1): 71-93.

Saba T.M., Maigida J.F & Namkere J.U, Entrepreneurial Skills in Technical Vocational Education and Training as A strategic Approach for Achieving Youth Empowerment, *International Journal of Humanities and Social Science* Vol. 3 No.5; Mar'2013,p 303-310

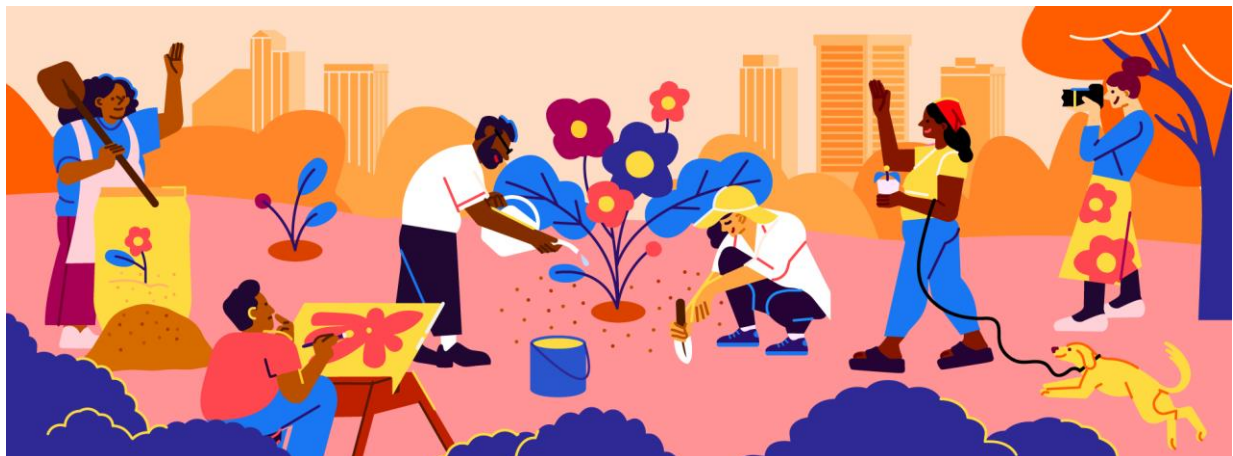
Sahin T.K. & Asunakutlu T (2014), entrepreneurship in a cultural context : A Reserch on turl in Bulgaria, *Proceedings Social and Behavioural Science*,150,851-861

Sharma and M. Starik (eds.), *Sustainable Innovation and Entrepreneurship.* 27-48, UK: Edward Elgar, Cheltenham

Shepherd, D. A. And Patzelt, H., 2011, The New Field Of Sustainable Entrepreneurship: Studying Entrepreneurial Action Linking “What Is To Be Sustained” With “What Is To Be Developed”, *Entrepreneurship Theory and Practice*, January, 137-163

Spence, M.; Gherib, J. B. B. & Biwole, V. O. (2011). Sustainable Entrepreneurship: Is Entrepreneurial will Enough? A North-South Comparison.*Journal of Business Ethics.* 99(3), 335-367.

Schaltegger, S., & Wagner, M. (2011). Sustainable entrepreneurship and sustainability innovation: categories and interactions. *Business strategy and the environment*, 20(4), 222-237. 2011, p. 226



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## INSTITUTIONAL PROFILE

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#### GEF At a Glance

Green Education Foundation (GEF) is a national non-profit organization committed to creating a sustainable future through education. GEF aims to identify key factors and impediments influencing sustainability education, evaluate existing approaches, and develop effective educational materials and programs to promote behavior change towards sustainable practices. GEF offers free programs that provide curricula and hands-on activities to inspire K-12 students and teachers to think holistically about global sustainability concerns and solutions.

Today, GEF's community of over 9,200 members represents more than 5 million students who, through GEF's National Green Week programs, learn the principles of waste reduction, energy and water conservation, green energy, and sustainable building. In addition, GEF works to empower the teachers who guide K-12 students, helping them understand and integrate principles of sustainability into their curricula. GEF offers educators the tools they need to enhance their sustainability knowledge, incorporate sustainability into education subjects/standards, and collaborate with sustainability-focused faculty nationwide.

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## NEWS



## APPEAL TO FELLOW SCIENTISTS: BE VOCAL AGAINST THE WAR

Brussels, May 2022

*The responsibility of Europeans is to build a European House, as Robert Schuman said in 1949, where all can live in peace without fear of war.*

The citizens want peace. Scientists – privileged members of civil society – must be vocal and raise their voice against the brutal war in Ukraine.

The military situation in Ukraine has deteriorated to a point of almost no-return. If the war continues, there will be no winners. Both parties will lose; above all, innocent civilians. The EU is a loser too.

The ultimate winner will be large military-industrial complex in the West.

The atrocities have deteriorated to a level of unimaginable inhumanity. There are criminal activities on both sides.

But responsible criminal(s) cannot be punished for the time being.

The current situation necessitates a realistic strategic approach: Sanctions against criminal(s) must be carefully balanced against an unavoidable need for future co-operation with them on global issues such as global warming, pandemics, nuclear non-proliferation, etc.

Neither the war nor sanctions must destroy the very existence of a state,

To save the life of innocent people (including children), the war must be stopped. There is an urgent need to a common ground where both parties could claim that they have found a way to live together in peace for the foreseeable future.

*The Global Round Table* recommends that the European Union must be active in stopping the war – its actions must not extend it.

The EU must act as a peacemaker.

In particular, the EU should:

Facilitate top level discussion between the two parties with full participation of the West to find common grounds for stopping the war. The EU has valuable experience; it was created as a Community that made war not only unthinkable but materially impossible.

Organise related international conference(s) on:

How to avoid that quarrel between countries on European soil escalates uncontrollably;

How non-nuclear states should be guarded against blackmail by nuclear states.

*The Global Round Table* appeal to fellow scientists in Europe – scientific organisations as well as individual scientists, men and women alike – to raise their voice against the brutal war in Ukraine.

The European scientific community must be determined and vocal. *The Global Round Table* recommends that this paper could serve as inspiration.



• This document has been elaborated through a virtual “Global Round Table” by a group of senior European individuals of various ages and with various backgrounds. However, the sole responsibility for the content rests with The Global Round Table.

The Global Round Table is an independent International Non-profit Organisation with the aim to identify new and emerging ideas of socio-economic importance; improve the level and quality of information available to economic- and political decision-makers; inspire civil society leaders and the young generation.

The Global Round Table keeps distance from lobbying bodies, interest organisations, party politics, ideologies, etc. It is an honest broker providing discretely advice with long-term perspective for humanity.

Working discretely, The Global Round Table doesn’t occupy a dedicated Internet position.

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