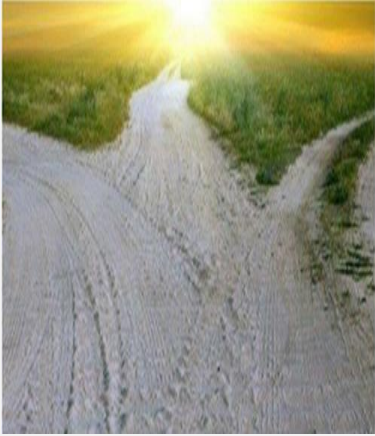


Today's Research Demonstrates A Whole-Of-Life Approach

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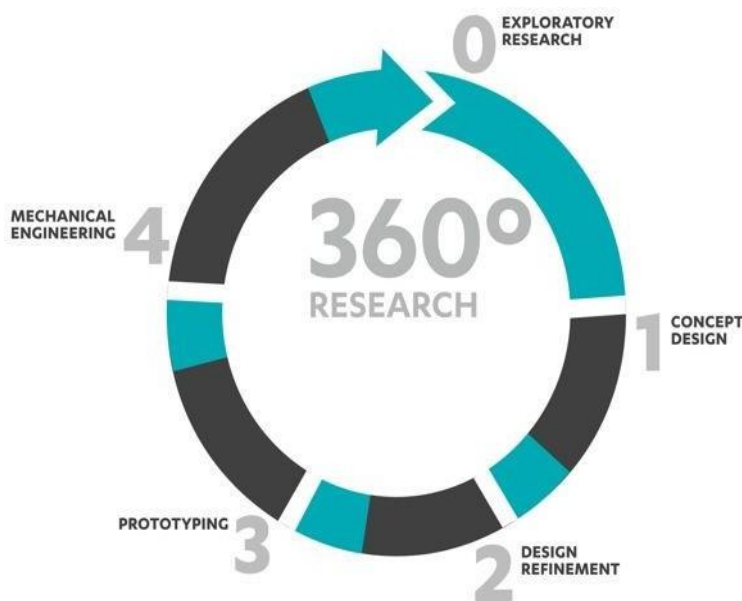
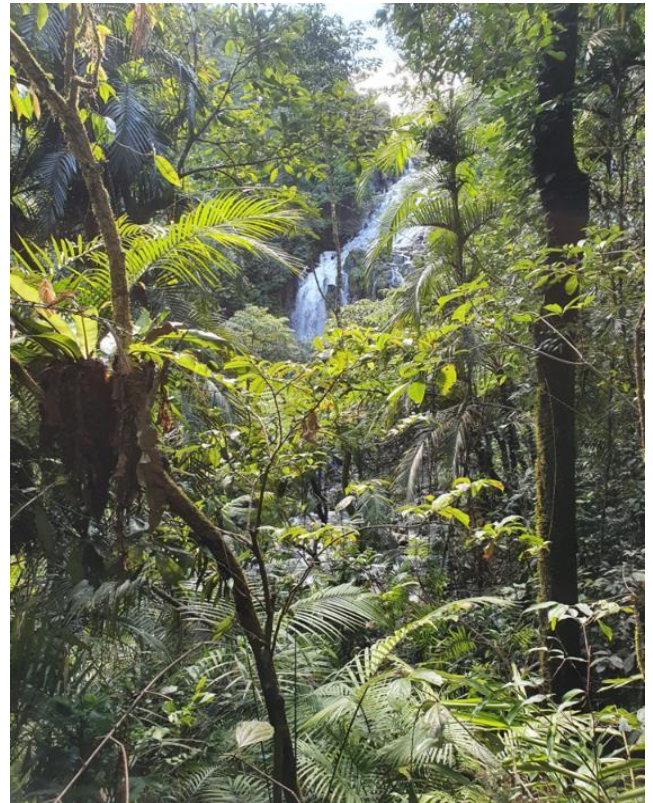
Abstract	Article Info
<p>Today, more than ever, Research is an essential element of our global environment. The recent years have created a period of change and challenge to all, and an environment for effective research to be undertaken to investigate opportunities and challenge the norms. Today the terms of Sustainability, Climate Change, the impacts on social, environmental and economic factors are widely used but often misunderstood. The factors affecting the past few years have identified many important items that may not have been fully addressed or considered in previous research, but now are identified as ESSENTIAL.</p> <p>Today, Research needs not only to be informative, but also to identify future impacts as well as recognizing what has happened in the field before. Research now needs to a “360 degree” investigation. Its effect on Sustainability, including Global climate and society have now open the opportunity for meaningful research to be undertaken recognizing Past, Present and Future issues, in other words, “THE LIFE CYCLE of the RESEARCH”. Research must now understand and appreciate the potential effects and impacts of its findings across a range of environments and societies. The Global Village is linked and impacts in one region will affect others across the Globe. Now is the time for “Research” to recognize its “Life Cycle”, which will in turn allow for greater recognition of the Value of Research to our Global Village.</p>	 <p>Keywords: Integration, Environmental / Social / Economic Pollution, Education, Assessment, Past Influences, Management, Sustainability, Future Impacts</p>

INTRODUCTION

The past few years have challenged many of the previously widely accepted practices and ideas. The constant, however, is that Research is an essential element of our global environment. It has also opened many new avenues of research as a result of these challenges and “disruptions to previously held ideas / norms”.

The challenge now is to ensure that effective research is undertaken to investigate opportunities and challenge the norms. This is not to say that previous research did not do this, but rather the Global Village is now looking more to research to ensure that issues such as Sustainability, Climate Change, Social / Community factors and Economic factors are being incorporated more widely.

The factors affecting the past few years have identified many important items that may not have been fully addressed or considered in previous research, but now are identified as ESSENTIAL. The wider community (the inhabitants of our Global Village) are looking for Research not only to be challenging and informative, but also to identify future impacts as well as recognizing what has happened in the field before (the Past). Research now needs to be a “360 degree” investigation.



The recent effect on Sustainability, including global climate and society, have now open the opportunity for meaningful research to be undertaken recognizing Past, Present and Future issues, in other words, “THE LIFE CYCLE of the RESEARCH”. In the past, there has often been extensive and numerous research undertaken on many topics and it’s this volume of work that has often resulted in a lower level of perceived relevance or usefulness. The wider community may have viewed it as “more of the same”.

Research must now understand and appreciate the potential effects and impacts of its findings across a range of environments and societies. So, what do I mean about 360-degree research? In industrial research, 360-degree research, as that for manufacturing (as illustrated here), relates to the constant research, design, implement and review cycle. (7)

However, for most research, 360-degree research relates to the need to consider all related (and sometimes not directly related) factors, information and impacts.

360-degree Research allows for the following factors, Research is:

- usually based on an issue that has arisen,
- impacted by actions or events from the past,
- impacted by the environment that the issue exist within (physical, natural, economic),

- affected by external factors, locally and remotely, have potential to affect local and / or distant people, communities, economies, natural environments,...
- have potential to foster associated or ongoing research,
- require the creation of additional programs or resources to allow the outcomes to be implemented,
- create the potential for the research outcomes to be classified as “Disruptive” – “likely to disrupt the existing traditional norm”.

Over the centuries, there are a number of examples of 360-degree research having been undertaken. These research initiatives created major changes to the way things were done, but now may be obsolete or still the “norm” today.

Some of these research initiatives can be categorized within periods of history or technological development. As examples, let's consider some from the past:

- the creation of the “Water Mill”, was the outcome of much research and has been considered as an integral part in the commencement of the industrial revolution,
- medical advances, including vaccines, were generally the result of a need created by an illness or disease (eg the current Covid Vaccines, and the earlier Polio Vaccines).

Both of these developments were not done in isolation.

The creation of the “Water Mill” was the outcome of researching a need for most effective and efficient processing of grain, however, it also led to ongoing research to further identify improvements and developments. It has also led to social research relating to the effect of this research outcome on affected communities and economies.

In regard to vaccines and treatments, the path of research has often been more complex. New treatments and vaccines have been created over the centuries to meet emerging needs at the time. Many were based on historical natural ingredients or treatments. The issue with this type of research has often been that it is related to “knowledge” at the time. As time went on, and knowledge improved, additional research was carried out to either improve the outcomes or (unfortunately) to identify side effects – or worse. The use of 360-degree research has, at times, led to once well-known remedies and treatments being discontinued due to being later found to be unsafe.

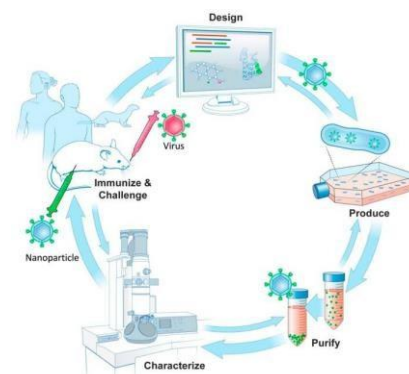
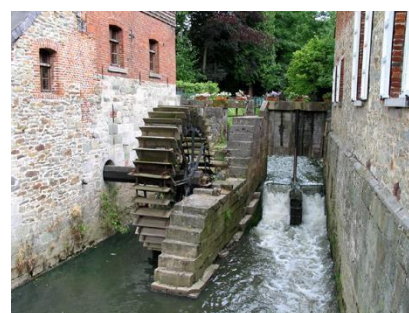
In regard to a range of research undertaken now, the issues often relate to technology creation or use technology to deliver its outcomes. While in many locations, this is a reasonable assumption, it is just as important to appreciate the impact of associated technologies on implementing a range of research outcomes, including conducting associated skills development programs, across a range of global locations. Outcomes that seek to use existing or develop technologies to implement outcomes need to consider the diverse global situations, namely:

- 940 million or 13% of the world's population have no access to electricity (4)
- Nearly 3 billion people or 37% of the world's population have never used the internet (3)(5)

Today, the use of 360-degree research relies extensively on the integration of sustainability within the research methodology and considerations. The creation of Sustainable

Development Goals (SDG) by United Nations has presented an opportunity to researchers to use the linkage between the Goals to expand their understanding of potential impacts and considerations that can assist in creating a more effective research methodology and enhance the outcomes to better address the issues being researched.

Medical, Health and Social research offer examples of the potential to integrate SDG into research.



Significant research has been undertaken in the fields of “Good Health & Wellness”, which when considered against the SDG, provide criteria for enhanced consideration for:

- Reducing the number of deaths and injuries from road traffic accidents.
- Reduced stress and tension, as citizens achieve better mental health and generally healthier.
- More productive and committed workforce and engaged population.
- Greater concentration of resources on effective services and treatments
- Enhanced compliance with the goals of all other United Nations Sustainable Goals, including:
- Reduced poverty (SDG1) – a key link to better health and wellness
- Elimination of Hunger (SDG 2) – a key link to better health and wellness
- Better education (SDG 4) – better health and wellness promotes opportunities for better education due to commitment of citizens.
- Better water and sanitation services (SDG 6) and Energy Services (SDG 7) – a key requirement to better health and wellness
- Decent work and economic conditions (SDG 8) – a healthier workforce increase productivity, commitment and opportunities,
- Innovation and Infrastructure (SDG 9) / sustainable cities and communities (SDG 11)
- Climate action including cleaner waters, land and air (SDG 13 – 15)



The challenge of research, however, is to understand the how, when, where, why associated with that change. For research to be able to stand up to greater Academic, Social, Economic and Governmental reviews and thus have the potential for greater acceptance and implementation of outcomes, the use of 360-degree criteria needs to be evident. 360-degree considerations are also referred to as establishing an enhanced “life cycle” for the research outcomes. Effective research needs to reflect past, present and future integration. For research to be effective, it needs to create a life cycle for it to exist within.

The issue may have developed in the PAST, exist in the PRESENT, impact on the FUTURE.

The research will impact and have a life within its environment(s), and therefore will potentially be responsible for any impacts that have directly (or indirectly) related to the research outcomes. Research, will often, be a part of an ongoing process. As discussed earlier, the research into vaccines and medical issues will potentially result in ongoing research to review and assess the outcomes, check effectiveness, consider the creation of variants, and its ongoing development and use. This example brings together the wider 360-degree considerations for research and the ongoing 360-degree manufacturing research / implementation as discussed earlier.



The creation of Assessment Tools such as MAPIS has provided a simple flexible management assessment tool which can allow all initiatives to be analyzed to reflect the integration of sustainability which in today's challenging times is most important.

(Management Assessment Planning Integrating Sustainability)

In today's challenging times, MAPIS is a modern simple process that integrates the benefits of sustainability into traditional management processes to create a tailored sustainable environment for enhanced outcomes / delivery of real benefits / success.

- Simple to use, implement and understand,
- Provides effective / actionable results that can produce real benefits and cost savings Assess the likelihood issues occurring / level of impact or effect / level of management or effort needed to deal with the issue / potential of specialist involvement / interaction
- Flexible to all levels of business and projects as well as all participants /stakeholders – applicable to any International, national, local, social application. Adaptable to all languages and cultures.
- Provides real time updating, allowing for updates or consider corrective actions or new issues *as need arises*.

MAPIS enables the adoption of the philosophy of “STOP, THINK, CONSIDER, RETHINK, RECONSIDER, AND IMPLEMENT then RETINK AND RECONSIDER REGULARLY TO SEEK THE BEST POSSIBLE OUTCOMES FOR ALL”.

Outcomes:

- Develop a working understanding of implementing and using MAPIS,
- Develop an initial working understanding of Sustainability and its benefits, applications, and impacts,
- Develop an understanding of the ongoing monitoring and review process,
- Appreciate the benefits of continued self-development of the topics,
- Access to follow-up online assistance for clarifications



CONCLUSION

Research is an essential component of our development which has resulted in many innovations, social and technical developments. As part of this need for research comes the ultimate responsibilities as well, when research outcomes are implemented.

The Global Village is linked and impacts in one region will affect others across the Globe. Now is the time for “Research” to recognize its “Life Cycle”, which will in turn allow for greater recognition of the “Value of Research” to our Global Village development.

Research is not a static event and must recognize the Past, Present and Future Influences that impact on the research. Research will create collectively environments for our current Present and the potential Future.

As Researchers, there is a need to ensure that related, potentially related and perhaps not-yet related are identified as much as possible during the research. Sustainable Outcomes need to be generated by research that produce “Real Benefits” within the “Life Cycle” of the research (and its outcomes).

Research will create roadmaps to be followed to realize outcomes, but the challenge is to identify the best and most inclusive pathway to be followed. The best pathway however may not be easily identified initially, but through comprehensive examination prior to the undertaking of the actual research as well as the need to inbuild flexibility into the process, the Most Inclusive Pathway can be identified for moving forward.



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