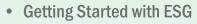


# Environment, Social & Governance:

Fostering Sustainable, Socially Beneficial & Ethical Business Practices



- ESG Good Behaviour is Good for Business
- ACMA Sustainable
   Manufacturing Program
   Summary Reports
- ACMA Atmanirbhar
   Excellence Awards
   & Technology Summit 2023





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Vol. 15 | No.3

December 2022









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# **Chairman's Message ACMA – Skilling & Mentoring**

Dear Reader,

I am happy to share with you the Volume 15 - Issue 3 of IMPACT, "ESG: Fostering Sustainable and Ethical Business Practices" Issue.

With the invention of wheel in 3500 BC, the civilization grew on fast-track, the pace accelerated in 18<sup>th</sup> century after industrial revolution and gained top speed from 19<sup>th</sup> century, when automobiles replaced horse carts. The wheel which started it all, is wanting to now pull it back as it is threatening the very stability of the planet earth and the existence of human race. Mahatma Gandhi truly said that - *The earth has enough resources to meet everyone's need but not enough for everyone's greed.* For amassing profits, industries worked in a manner where resources were exploited, human-rights compromised and value system tainted with clouded business practices. This all has resulted in environmental degradation and global warming, cascading a catastrophic effect on all living entities. It is in this context, Environment-Social-Governance (ESG), has assumed utmost importance.

The 2015 Paris agreement which is ratified by 194 nations worldwide, covers climate change mitigation, adaptation, and finance – targets to bring down emission levels to ~50% by 2030 and net zero by 2050, from preindustrial levels. With these targets to meet, the automotive industry has a daunting task ahead, as it requires huge investments in infrastructure, plant machinery, new technology, not only for its own but for the entire supply chain and support infrastructure including logistics. Above all, what will be needed most, will be commitment and support from the government for managing and addressing socio-economic impacts. As well as collaboration from public-private partnership, not to forget the support from citizens and consumers. Recently held COP 27 at Egypt, indicates that if we continue with the current pace, 2030 targets will not be breeched. Thus, the business of Manufacturing has to take responsibility upon itself and start taking tough actions to be within the line and not breach the emission target *lakshmanrekha*.

ACMA has always stood at the forefront for the cause of automotive component manufacturing industry. As ESG assumes a critical importance, my team has designed a new program for the automotive component manufacturing companies, which will help them in establishing a system in their organization for monitoring and reducing carbon emissions. This program will help in defining ESG policy, baselining carbon inventory, quantifying GHG emissions and establishing key performance metrics through Measuring, Monitoring and Reporting results. It will also work in reducing carbon footprint through transformation projects in areas of Energy, Material, Water and Waste reduction. Through this program ACMA intends to educate and sensitize employees towards ESG concepts, reduction in Carbon footprint – through Customers-Employees-Suppliers engagement, as well as community connect. Capability building, Ethical practices - code of conduct, Organization culture building, Transparent internal and external reporting, will also be a feature of this program. Apart from this, reduction in carbon footprint, is now incorporated in all our existing programs – like Engineering Excellence Program, Zero Defect Quality Program, Equipment Maintenance Program, Lean manufacturing program etc. ACMA Experts are participating at various forums working at sensitizing industry people about importance and adoption of ESG practices, at our manufacturing shop floor.

ACMA Centre of Excellence, is continuously conducting various programs, in physical mode to train industry personnel in newer technical sphere – Mechatronics, Step – up Program, Zero Defect Quality, EV and ESG workshop et al. ACMA Centre of Excellence is also in various stages of discussion with its national and international knowledge partners, for rolling out new programs and newer technologies. (Calendar attached)

Dear Reader, with this issue, I wish happy 2023 – a new year, bringing joy, prosperity, happiness and above all hope for you all. I wish you all a safe and happy learning and look forward to receiving your feedback on our publication to improve it further.

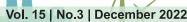
Best Wishes FR Singhvi













# ACMA Atmanirbhar Excellence Awards & Technology Summit 2023



March 6, 2023; Hotel Le Meridien, New Delhi



### Theme: Gearing Up for Carbon Neutrality & Sustainability

The much-awaited **ACMA Atmanirbhar Excellence Awards & Technology Summit 2023** is all set to be organised in physical mode on March 6, 2023 at Hotel Le Meridien, New Delhi. The day will be dedicated to celebration of outstanding performance in the Indian Auto Components Industry.

As the world and our industry, focusses attention on dealing with the issues of net zero - ESG, optimizing energy consumption, eliminating carbon footprint and much more, it is in this context the Summit is themed as 'Gearing up for Carbon Neutrality & Sustainability'.

The Summit will bring together leading experts from international organizations, governments, automotive OEMs & Supply Chains, research & academia, civil society, and the youth, to deliberate on the way forward, to meet India's carbon neutrality goal and sustainable manufacturing, to ensure a safer Earth for our future generations.

Further, with participation expected from over 1,000 delegates, the event will be an apt forum for you to not only network with experts in the domain of sustainability, but also an excellent opportunity for brand-building.

ACMA is delighted to share the **opportunities available for brand recognition and promotion.** By partnering/sponsoring, you will be able to

- Demonstrate your company's commitment to a clean & sustainable future
- Announce new technologies, services, products, and initiatives Be the leader capable of driving change.
- Build Partnerships for a sustainable transition.

Kindly note the Registration fee per person is INR 5000/- plus GST for ACMA Members/ACMA Cluster /ACMA-UNIDO Cluster companies (Past & Present). (10% extra will be applicable for ACMA non-Members).

Do please reserve your seat at this marquee event by filling online registration form as per applicable category <a href="https://forms.gle/XqkNXFZBrooNpNEC6">https://forms.gle/XqkNXFZBrooNpNEC6</a>

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# **Organizational Sustainability** Management



Tanu Ahuja Counselor, ACMA

All technological advances leave a major footprint on the ecology of Earth. Auto industry contributes to 16 % of GHG emissions.

Government has taken lot of initiatives to become Carbon Neutral in which moving away from fossil fuels and embracing renewable forms of energy are major focus.

Apart from this, lot of OEMs have also taken targets to carbon neutral and greening the supply chain.



its main parts suppliers to reduce carbon emissions annually by 4% versus 2019 levels, the Nikkei daily reported on Tuesday

start implementing the targets fiscal 2025, which begins in April 2025, the report said.

carmaker, in June said it had

EU is in the process of establishing a Carbon Borde Adjustment Mechanism (CBAM), in the context of the European Green Deal. The CBAM would place a price on imports of certain goods from outside EU to reduce the risk of "Carbon Leakage"

#### Auto companies are accelerating ESG agenda...

**DENSO** We have extended our target of achieving a 50% reduction in Co2 emissions to cover not only our production activities but also the products we offer. This means that we aim to become carbon neutral, or in other words, have the Co2 we emit be offset by the Co2 we absorb for net zero emissions.



"Diversity is the foundation of our success. A working environment free of prejudice, combined with respectful coexistence, are important requirements for this,"



TML is committed to reach Net Zero by 2040 for its passenger Cars Business and 2045 for its Commercial Vehicle Business.

#### **Auto Components Manufacturers are responding**

BOSCH Company has developed circular economy strategy for different products. "eXchange" provides refurbished replacement parts reducing material consumption by 90% and energy consumption by 50% for each product.



Mandates 100% employees to volunteer 1 working day/ year towards social causes.

UNO MINDA Ensures equal remuneration for all employees in similar jobs regardless of gender or location

Along with focus on Emissions, companies have started focussing on employee welfare, societal issues, eithcal & transparent business practices.

In an effort to meet their overall ESG targets, automotive OEMs are increasingly adopting green procurement criteria addressing GHG emissions of suppliers. OEMs are evaluating the environmental performance of suppliers, contractor and service providers along with quality and cost giving priority to 'green' suppliers/contractors and service providers and 'green' products.

ESG stands for Environment, Social, and Governance. Investors and Customers (including automotive OEMs) are increasingly applying these factors as part of their analysis process to identify material risks and growth opportunities.

ESG and sustainability: ESG corresponds to PPP (triple bottom line) model of sustainability where in:

- **<u>E corresponds to Planet</u>**: **Environmental** concerns encompass greenhouse gas emissions, sustainability goals, water usage, renewable energy take-up, recycling schemes and the impact of business operations on the planet.
- <u>S corresponds to People</u>: Social factors include health and safety, diversity and inclusion, employee wellbeing and local community engagement schemes.
- **G** corresponds to Profits: Governance refers to policy formation, business ethics, transparency in reporting and board independence among many other factors.

Following a 2020 consultation, the Securities and Exchange Board of India (SEBI) has decided to introduce new environmental, social, and governance (ESG) reporting requirements.

The country's top 1,000 listed entities (by market capitalisation) - and all public sector companies will need to submit a Business Responsibility and Sustainability Report (BRSR), replacing the existing Business Responsibility Report (BRR);

This will be voluntary for the 2021-22 financial year and mandatory for 2022-23

ESG links to cash flow in five important ways:

- 1. Facilitating top-line growth
- 2. Reducing costs through Resource Efficiency
- 3. Productive company with high morale and ethical values
- 4. Minimizing regulatory and legal interventions
- 5. Having better opportunities from investors



# **Environment Social Governance Good behaviour is good for Business**



V.K.Sharma Mentor - Clusters & Projects, ACMA

Almost every company today wants to build on its environmental track record and expand its approach to include social and governance changes — to develop an ESG strategy. Such changes require resources, wholesale shifts in corporate culture, and strategic insights on how to embark on this journey. At the same time, it's essential for businesses to understand the upside. ESG isn't just about doing good; it's also about good business practice and risk management. Especially in an era when risks seem to be increasing all the time and calls for responsible corporate behavior have never been louder.

#### What ESG is:

The term ESG refers to how companies address certain fundamental societal values. It is used mainly, but not exclusively, in capital markets to describe and assess corporate behavior in three core areas: environmental record, social engagement, and governance practices. An ESG rating and the data used to calculate it provide investor and executives with a method of evaluating a company's track record. The information is also used by investors to assess a company's risk exposures as well as its possible future financial performance. As ESG has gained traction among investors, companies increasingly integrate this kind of thinking into their strategic planning, reporting, and communications choices, and leverage ESG performance as a way of tapping into new markets.



#### The Push for Change and the Rise of ESG

ESG practice gained the financial world's attention following the 2005 UN-sponsored report, The Global Compact, which argued that embedding ESG into capital markets would lead to better societal outcomes. The UN subsequently developed the Principles for Responsible Investment (PRI) to be the standard for global asset manager and asset owner groups to contribute to a sustainable global financial system. Since 2006, the number of signatories to the PRI has grown from 63 with

US\$6.5 trillion assets under management (AUM) to over 3,800 signatories with US\$121 trillion AUM.

While a rapidly growing number of large institutional investors and publicly traded companies have established



extensive ESG programs, this perspective is also increasingly important for businesses of all sizes. Midsized companies can tap into new markets, bolster the bottom line, and enhance their reputations with a well-conceived ESG strategy.

#### All Businesses Face ESG Issues

The following are the core elements of ESG, as well as examples of the kinds of issues that define each one. These issues may vary depending on the company and sector.

#### **ESG Stakeholders and Their Expectations**

Stakeholders play a central role in ESG programs. They are investors, employees, suppliers, customers, communities, governments anyone that might be affected by your business.

Companies face rising societal expectations about how they relate to their diverse stakeholders, rather than just shareholders. These expectations are





grounded in a company's legal or regulatory obligations, and they reflect the principle that corporations need a social license to operate. That is, to continue to operate, their conduct should align with values such as minimizing their impacts on the environment and society. Governance is the third leg of the ESG stool because responsible corporate governance ensures that a company is able to deliver on its promises.

# ESG is Worth the Effort: The Benefits of Action and the Risks of Inaction

Acting on ESG issues is about more than just being seen as a good corporate citizen and complying with regulations. Companies should be aiming to incorporate ESG practices into their operations because they are good for business and reduce risk. ESG risk is material risk, and failing to address it promptly and appropriately can lead to a range of damaging consequences.



The following are just a few of the broad benefits of integrating ESG into your business practices:

**Investor relations:** Investors, especially institutions, now expect to see ESG policies and practices including good governance (e.g., succession planning, independence of auditors), compliance tracking, and industry leadership.

**Effective risk management:** Risk management becomes more effective with good ESG practice, e.g., less exposure to supply chain disruptions and controversies; reduced regulatory burden; improved brand value; and goodwill reflected on the balance sheet.

**Cost reductions:** ESG programs reduce costs, e.g., by improving efficiencies in energy, materials, waste and water and by improving employee productivity.

**Enhanced value:** There is a growing body of research showing that ESG practices can lead to better financial performance and increased shareholder value.

Access to new markets: Evidence suggests that companies with strong ESG track records gain access to new markets, e.g., Millennials or environmentally or socially conscious consumers.

It's important for businesses to understand that ESG issues are regular business issues and ESG risk management is a part of standard risk management. With this knowledge, companies can confidently get started on their ESG journey.

## Assessing Exposure to Risk Through Material ESG Issues

All businesses face a range of issues that have a measurable impact on financial performance and which can be addressed by effective ESG practices. As public and investor awareness grows, companies that are intent on establishing an ESG program will need to evaluate their

exposure to material ESG issues (MEIs). These issues include ESG risks that go well beyond the most familiar and well publicized examples like emissions, supply chain human rights abuses, and others.



# Consider how familiar these types of stories have become:

- A well-known clothing retailer sources apparel from a supplier that sub-contracts to a company that ignores health and safety requirements. After a fire sweeps through the sub-contractor's plant and kills dozens of its
  - workers, human rights organizations tracking the incident identify the retailer and launch a boycott, accusing it of contributing to those deaths.



- An engineering consulting company
- with overseas contracts is found to be using agents to bribe foreign officials in order to secure lucrative government deals. When news of these practices surface, the consulting company's executives are not only charged under anti-bribery laws, but the company is barred from bidding on government contracts in its country of origin.
- A manufacturer whose factory releases heavy emissions has resisted pressure from local regulators to invest in cleaner equipment, preferring instead to pay fines as the cost of doing business. But after a new government implements a carbon pricing policy, the company suddenly faces a future with significantly increased financial exposure that will cause its already substantial energy bills to quadruple over a decade.

Every company contends with MEIs, and most companies are managing some of these risks even in the absence of a more formally defined ESG program. For managers implementing an ESG initiative, the use of an assessment tool will allow them to identify the material ESG issues affecting them and systematically evaluate (and quantify where possible) how the company may be exposed to risk.



#### How Many MEIs Affect Your Organization?

Leading ESG research companies look at MEIs across the ESG categories, which in turn are underpinned by several hundred ESG indicators. They include:

- 1. Corporate Governance: Board/management quality and integrity; shareholder rights; remuneration; financial reporting; and stakeholder governance
- 2. Access to Basic Services: Health care services, products to disadvantaged communities or groups
- Bribery and Corruption: Alleged or actual illicit payments or receipt of such payments
- Business Ethics: Accounting, taxation, IP, anticompetitive practices; potential human rights violations
- 5. Community Relations: Community involvement, development, and measures to reduce negative impacts on local communities
- Data Privacy and Security: Data governance; ensuring safe and secure use and maintenance of customers' personally identifiable data
- Emissions, Effluents, and Waste: Emissions and releases from a company's own operations, excluding GHG emissions
- 8. Carbon Own Operations: Operational energy use and GHG emissions (scope 1 and 2); parts of Scope 3 emissions, e.g., transport and logistics
- Carbon Products and Services: Energy efficiency and GHG emissions of services and products during the use phase, excluding carbon risks related to financial services

- 10. Impact of Products and Services: Environmental or social impacts of products or service
- 11. Human Rights: Human rights within their own operations; protecting rights; policies on child and forced labor
- 12. Human Rights Supply Chain: Human rights in the supply chain, including the handling of conflict minerals, either directly or within sub-industries
- 13. Human Capital: Certain core HR and labor relations practices
- 14. Land Use and Biodiversity: Impact of operations on land, ecosystems, and wildlife
- Land Use and Biodiversity Supply Chain: Impact of suppliers' operations on land, ecosystems, and wildlife
- Occupational Health and Safety: Management of workplace hazards; may include COVID prevention programs
- 17. ESG Integration Financials: ESG integration by financial institutions driven by downside risk considerations or business opportunity
- 18. Product Governance: Responsibilities vis-à-vis clients (quality and/or safety of products and services)
- 19. Resilience: Financial stability and the management of related risks in the financial services industry
- Resource Use: Risk management of raw material inputs (excluding energy and petroleum-based products); use of recycling/circular economy programs
- 21. Resource Use Supply Chain: Risks related to water scarcity and raw material inputs





# MORE TORQUE PER GRAM





V.K.Sharma Mentor - Clusters & Projects, ACMA

#### What is ESG?

Companies report on ESG (environmental, social, and governance) performance in order to provide transparency to their investors, employees, and customers. ESG has historically been a focus for sustainability-minded business leaders. However, in the current business climate, ESG has become an important topic for all executives looking to improve performance.



ESG reports are most often used by investors — both institutional and personal — as a way to analyse and measure factors they consider important. ESG reports are also used by regulators in some industries to keep tabs on issues like carbon emissions, use of natural resources, and human rights.

#### What is an ESG framework?

ESG frameworks are systems for standardising the reporting and disclosure of ESG metrics. They are often voluntary, but may be required by a certain investor or by regulations in some countries. These frameworks are put together by nonprofit organisations, NGOs, business groups, and others. As a result, they vary widely in areas of focus and the metrics they recommend.

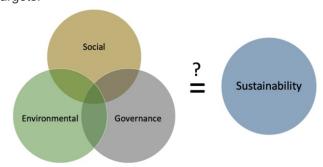
For example, one of the most commonly used ESG frameworks is the Global Reporting Initiative (GRI) framework, a set of standards for responsible environmental, social, economic, and governance conduct covering a wide range of topics. 73% of the world's 250 largest companies report on sustainability using the GRI framework.

Sustainability reporting in India: Following a 2020 consultation, the Securities and Exchange Board of India (SEBI) has decided to introduce new environmental, social, and governance (ESG) reporting requirements. The country's top 1,000 listed entities (by market capitalisation) – and all public sector companies - will need to submit a Business Responsibility and Sustainability Report (BRSR), replacing the existing Business Responsibility Report (BRR); this will be voluntary for the 2021-22 financial year and mandatory for 2022-23.

#### Do ESG frameworks set sustainability targets?

ESG frameworks typically set the metrics and qualitative elements that a company should disclose, as well as the format and frequency of that reporting. For the most part, they don't set targets for those metrics (e.g. targets for reducing carbon emissions or increasing diversity) — that's generally left to the discretion of the company.

However, some frameworks closely incorporate targets such as the UN's Sustainable Development Goals (SDGs) into their reporting requirements, and some business organisations require reporting on progress toward certain targets.



#### Why are ESG frameworks important?

ESG frameworks help companies make a positive impact on the world. In addition, reporting on ESG has been shown to have other benefits for the organisation. For example:

- Strong ESG policies can help companies reduce energy, water, and waste costs and drive more strategic resource allocation.
- Consumers are putting more and more pressure on businesses to be socially and environmentally responsible.
- Investors are increasingly considering ESG as a standard aspect of the investment process.
- Employees are also invested in corporate responsibility, so ESG reporting can contribute to employee morale/productivity and help attract talent.

The majority of enterprise businesses participate in some form of ESG reporting, so those that don't risk falling behind and losing business.

#### How many ESG frameworks are there?

There are more than a dozen very popular frameworks, and many more that are used by smaller numbers of organisations in certain industries and regions. Some



popular ESG Frameworks include:

- Carbon Disclosure Project (CDP)
- · Climate Disclosure Standards Board (CDSB)
- Global Reporting Initiative (GRI)
- · Science Based Targets initiative (SBTi)
- Sustainability Accounting Standards Board (SASB)
- Task Force on Climate-related Financial Disclosures (TCFD)
- UN Principles for Responsible Investment (PRI)
- World Economic Forum (WEF) Stakeholder Capitalism Metrics

The large number of ESG frameworks create variability; standards don't have the same power if they're not standardised. An investor who's well-versed in ESG might have a good understanding of various frameworks, but the average consumer or employee likely won't, and therefore won't have any frame of reference for interpreting reports.

ESG standards and frameworks were developed independently by many different parties, with each framework placing emphasis on different topics and metrics. The intentions were good, but the result is a very confusing landscape with too many frameworks to choose from.

A number of organisations have undertaken efforts to develop a "universal" framework using the best elements of previously developed frameworks, which will hopefully make the ESG landscape easier to navigate.

#### What is an ESG rating?

Just as credit ratings aim to measure a company's creditworthiness based on a number of criteria, ESG ratings aim to measure a company's exposure to environmental, social, and governance risks and how effectively they manage those risks. Unlike frameworks, which provide recommendations for what to report on and how to report it, ESG ratings assign a specific score to a business based on their ESG performance.

Unfortunately, ESG ratings aren't always consistent across providers. Research conducted at the MIT Sloan School of Management found that prominent agencies' ESG ratings were only aligned in about 6 out of 10 cases. However, ESG ratings are still an emerging product, and they are poised to become more accurate and widely used in the future.

#### Conclusion

ESG reporting gives companies the opportunity to be transparent with stakeholders about their approach to environmental, social, and corporate governance topics. It's quickly becoming a necessary part of operating an enterprise business. Awareness is growing that a strong ESG proposition correlates with higher equity returns. Sustainable practices attract more customers, allows better access to resources, lowers energy and water consumption and therefore also reduce operational costs. While building a robust ESG ecosystem in the organisation, the improved efficiencies bring sustained economic gains making it a win-win initiative.

# **ENVIRONMENT**

















# SOCIAL























# GOVERNANCE





















V.K.Sharma Mentor - Clusters & Projects, ACMA

### **How Corporations Should Get Started Addressing ESG Issues**

The decision to implement an ESG program marks the beginning of a journey, one that may well start with a single manager and their own vision of how a company's future could unfold. As with any important corporate undertaking, ESG begins with high-level buy-in, and requires planning, resources, external advice, an action plan, and a strategy for reporting results to internal and external stakeholders. It is not something that will happen overnight. Indeed, companies that aspire to foster an ESG culture should be prepared for a process that has many stages and evolves through several iterations.

The journey, of course, is as important as the destination. Companies that make the effort should enjoy the benefits of reduced risk and costs, improved investor and public relations, efficient operations, enhanced reputation, and so on. However, these changes are often challenging for companies, so it's essential to retain external ESG expertise to provide guidance and direction from the beginning.

The following steps will give you a starting point for discussions and preliminary actions for your ESG journey:

# Step One: Ensure Board and Executive Buy-In and Resourcing

While ESG considerations should ultimately make their way through an entire organization, the initiative must come from the top, accompanied by clear communications, lines of accountability, and the necessary resources. Key



leaders must know that planned changes have the support of the CEO, owner-operator, or board of directors.

Boards and CEOs should decide on the overall scope of an ESG

initiative — will it be modest, pragmatic, or transformative? Those choices set the tone for all other decision-making. In particular, this choice will determine the resources available to the people assigned to do the work, the people who will be involved, and the types of information required.

An effective ESG agenda doesn't just happen on its own, nor should it be delegated to a single person. Because ESG touches so many parts of a business, companies should set up an inter-departmental committee charged with guiding the process, gathering information, seeking

expert guidance, consulting with stakeholders, and communicating results and progress.

#### Step Two: Understand Your Own ESG Situation

Executives leading ESG programs can begin by assembling data on their company's practices and track record. Some of that information may already exist, depending on the company's regulatory or shareholder requirements.

To fill out the picture, ESG leaders should consult with department heads, suppliers, and labor/employee representatives. They must also solicit feedback from investors and other external stakeholders. Reviewing the

material ESG issues above will provide a good idea of where you already have ESG information, what you're missing, and which stakeholders you should communicate with to fill the gaps. This data



will help inform your formal ESG assessment.

External ESG experts will be able to offer valuable insights into developing risk/impact assessments of different actions. They can also help companies understand the MEIs that affect their businesses and their industries more broadly.

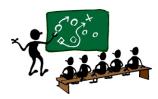
Companies that embark on an ESG program sometimes imagine they are further along the journey than they actually are. Long-range mission statement goals or the hiring of a chief sustainability officer are important markers, but must be tethered to a deeper understanding of a company's ESG profile, as well as the ESG issues facing the sector more broadly.

A crucial first step is to undertake a risk/impact assessment, ideally carried out by ESG experts. These assessments should include input from internal and external stakeholders and form the basis of a systematic effort to measure your MEIs, with the goal of understanding performance gaps. This may be the time to seek an ESG Risk Rating, which also allows companies understand their own ESG risk factors and to benchmark themselves against other companies in their industries. Those comparisons provide external validation as well as a guide to what's possible as part of an overall ESG initiative.



Once you understand your current ESG performance, you should have the information you need to know what to do next.

## Step Three: Develop a Strategy and Communicate It to Stakeholders



The central element of an ESG strategy is an implementation framework, with specific goals and KPIs, business plans, timelines, milestones, clearly articulated accountabilities, and narratives.

Establishing focused corporate goals (e.g., a net-zero commitment) can serve as important markers for employees, customers, suppliers, and other stakeholders. So can creating executive portfolios with specific responsibilities, such as sustainability, change management, and so on. Those tasked with implementing these changes will need to establish customized goals and milestones, taking care to validate the credibility of those objectives with ESG experts that have guided others through these journeys.

These projects may require financing tools, and companys can now access a growing assortment of instruments designed for ESG strategies. Companies can issue bonds or obtain loans whose proceeds are directed toward an element of an ESG program. Companies can also leverage their performance on ESG metrics to finance general corporate activities. For instance, the basic principle behind sustainability-linked loans and bonds is that the use of proceeds is not tied to specific green or social initiatives and the terms of the agreements are linked to the company's performance outcomes on relevant ESG targets. More generally, many investors today are also asking companies for their ESG metrics during roadshows as they do their own due diligence on pricing a company's financing requests.

A compelling communications plan supports the whole process. Companies that are building out an ESG program should be looking for ways to communicate their high-level objectives, achievements and, ultimately, the results. These can be described both quantitatively and qualitatively, and communicated through various channels, including conventional results reporting, marketing, and thought leadership.

#### Step Four: Sustainability Reporting

Regular ESG reporting provides internal and external stakeholders with a way of tracking progress over time. Through ESG reporting, companies measure and share both the qualitative disclosures and the quantitative metrics which are used to benchmark performance against ESG risks identified through the ESG rating process. Such reporting provides an opportunity for companys to consolidate their progress in a single document, as a means of responding to investor and stakeholder queries.

Institutional investors and regulators have pushed companies with ESG programs and other forms of environmental disclosure to adhere to accounting and reporting standards that provide capital markets with access to quantifiable and verifiable information. Companies should be seeking investor input as they develop their own ESG

develop their own ESC reporting approaches.

Many voluntary standards have emerged in recent years, most notably the Global Reporting Initiative, which is based on the GRI Universal standard. It lays out general parameters for disclosures on material issues, as well as more refined reporting standards



for a range of sectors and topics. External advisors can assist companys in choosing the appropriate standard, so that the form of reporting meets the needs of internal and external stakeholders.

In the end, companies should aim to integrate ESG into their purpose and culture, so that it becomes as much a part of the company's operations as financial accounting, human resources, and supply chain management.

#### Conclusion: Now is the Time to Act on ESG

The extraordinary surge of interest in ESG in global capital markets in recent years, and particularly during the pandemic, offers hope that a growing number of companies are aligning their missions with sustainable values. While this movement began with publicly traded companies and large institutional investors, interest has spread to smaller companies, privately held corporations, and private equity investors.

Many medium, small, and owner-operated companies want to take actions like reducing their carbon footprint or improving their staff and board diversity. But they may face resource challenges and knowledge gaps when it comes to developing an ESG program. For these companies, drawing on the advice of ESG experts will enable them to assemble the required data, profile their own ESG risk, and formulate a workable path forward.

What they will discover is that ESG programs are not necessarily expensive or time-consuming. Indeed, such programs increasingly form a core part of the operations of industry leaders.

The bottom line is that investing in ESG represents a practical and far-sighted approach to risk management. After all, companies that ignore ESG today will ultimately face greater costs in the future as their exposure to these material risks rises. Acting now represents an investment that will likely reduce downstream costs, improve future value, and strengthen a company's relationships with its diverse network of stakeholders.



**Fastrack to Sustainable Mobility.** 



MANUFACTURER OF BEST-IN-CLASS COMPONENTS AND SYSTEMS FOR THE INDIAN AUTOMOTIVE INDUSTRY

> 18,000 EMPLOYEES | 60 LOCATIONS | 21 COMPANIES 13 JOINT VENTURES | 5 TECHNICAL COLLABORATIONS

THE FUTURE OF MOBILITY WILL BE ON DISPLAY AT THE AUTO EXPO 2023 COME, STEP IN AND TALK TO ANAND ABOUT THE EXCITING JOURNEY AHEAD.









































# Sustainability at Abilities India Pistons & Rings Ltd.



Praveen Kr Mishra Manager & Plant MR

Today, Sustainability pillar comes before Productivity, Quality, Delivery, Safety. Although, it is increasingly becoming a key factor for the customers; It is also our duty & responsibility to work for a sustainable future.

Abilities is partaking in program from ACMA "ACMA SUSTAINABLE MANUFACTURING PROGRAM (ASMP)". Abilities had defined its Sustainability Policy and is committed to reduce its carbon emission through various projects.

We are hereby sharing a project on energy efficiency of AIR COMPRESSOR

Air compressor 1: 285 CFM Air compressor 2: 185 CFM Generation Pressure: 6.5 bar

Units Consumed: 1300 KWH per day

#### Steps taken:

- Joined both the compressors and made a closed loop instead of open loop
- · Installed VFD for arresting load variations



- Strategical placement of air compressor to reduce line losses
- Installed booster near machine (s) requiring high pressure
- Replaced all 90° elbow joints to 60°
- · Arresting line leakages
- No to compressed air usage for part cleaning
- · Closing unused points.

The project required lot of physical changes at the shop floor and in the machines, but we have achieved good results. Energy consumption has come down to almost 50 % (1267 units/ day to 694 units/ day).

Generation pressure has come down to 5.2 bar from 6.5 bar

# Before Improvement :

Before: Dec-21 Daily Unit Consumption: 1267

#### After Improvement:



After: Jun-22 Daily Unit Consumption: 694

We have reduced around 175 tons of carbon emissions through this project apart from cost benefits to the company.

Many more such projects are going on in the area of: Material efficiency, Water efficiency, Energy Efficiency & Waste reduction & reuse.

Benefits :	Value
Daily Energy consumption on Compressor (Before)	1267 unit / day
Daily Energy consumption on Compressor (After)	694 unit / day
Daily reduction on energy	573 unit / day
Monthly saving on energy	17, 190 units
Saving in INR (Monthly)	Rs. 1,71, 900
Saving in INR (Annual)	Rs. 20,62,800
Co2 Reduction (Monthly)	14.6 Ton (17190*0.85/1000)
Co2 Reduction (Annual)	175.2 Ton



# Sustainability at Sundaram Auto Components Ltd.



**EP Parameswaram** Head Sustainability

#### **Company introduction:**

Sundaram Auto Components Limited (SACL), a wholly owned subsidiary of TVS Motor company, is a part of TVS group of companies. We have 6 manufacturing locations (Hosur, Chennai, Mysuru, Nalagarh, Bhiwadi and Sanand) across India and technical center available at Hosur.

Manufacturing	Processes carried out				
locations	Moulding		Dointing	A a a a sanahlu	Foaming
locations	Injection	Blow	rainung	ASSEITIDIY	roanning
Hosur	>	>	>	>	
Chennai	>		>	>	
Mysuru	>			>	
Nalagarh	>	>			>
Bhiwadi	>				
Sanand	>				

We are manufacturer of automotive plastic products and supplying parts to OEM in and around India. Processes carried out in our plant are given in table. We use scientific tools such as SIM, DOE for establishing our processes to reduce wastage in order to meet our sustainability goal. Our quality systems are certified for IATF 16949, ISO 14001 and ISO 45001. Also we are certified by our valued customer and awarded for SQ Mark, Q1 certification and MACE certification.

#### **Problem introduction**

As a sustainability initiative, material flow analysis used to map wastages in painting process at our Hosur plant. One of the major improvement area identified is the manufacturing of roof rail parts for passenger vehicle segment which requires

moulding and painting process. Roof rails parts are aesthetically critical ("A" class parts) and having metallic painted finish colour. We were having high painted rejection in roof rail parts more than 16% due to painting defects especially uncover and sag. This resulted in huge loss in our capacity and cost of poor quality. As a part of sustainability improvement, we have identified this as a project, analysed, and taken corrective action using



manufacturing flow analysis and QC story approach.

#### **Analysis and Actions development**

QC Story approach is adopted as a problem solving methodology in SACL. This project is also done using the same methodology. As a first step we have verified the process against the standards to be followed in the paint plant and ensured the adherence. We have involved all our painting plant team right from operators and plant in-charge for brain storming session and identified probable causes. Three levels of cause and effect diagram used to arrive at root cause.

Possible causes from Level II cause and effect diagram. We have validated the identified causes against the specification and observed flow rate, paint pattern and air pressure are the combined factors which are contributing to sag and uncover. These factors need to be validated for optimum condition and

hence decided to conduct Design of Experiment using Orthogonal Array.

#### **Design of Experiment**

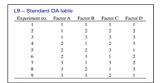
3 factors are identified for the DOE, (i.e, paint pattern, flow rate and air pressure) We have



identified the effect of change in use. Responses identified for the experiment as rejection due to surface defects (Uncover and sag). We have selected L9 orthogonal array with 3 factors and 1 error.

Effect of change in cause

Factor	Cause	Uncover	Sag
Α	Pattern length	1	<b>+</b>
В	Flow rate		<b>†</b>
С	Air pressure ↓	Ī	<b>+</b>



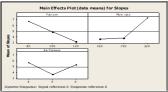
We have exercised following controls during our experiment.

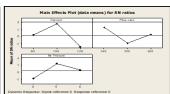
- 1. Booth condition
- 2.Painters skill level 4.Paint pressure

3. Viscosity

All other process conditions such as part preparation, painting and baking process parameter settings are ensured without change during the experiment.

The experiments are conducted as per the design and the following are the results obtained.





#### **Action implementation**

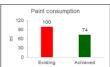
From the above plots, we have identified best setting for Flow rate, Pattern and air pressure are identified. We have conducted trial run with above identified setting and observed the rejection rate is reduced more than 50%. Also the painting finishing is improved. After trial run, the products are validated for the necessary inspection and testing and found meeting the customer requirements.

Hence, we have decided to standardize the optimum setting and all of our process control standards such as Control plan, Process audit check sheet, operation standards are revisited to address the changes in parameters.

#### Resul

We reduced 50% of our rejections in roof rail parts. Due to the optimum setting for painting, we could reduce 26% of paint consumption as an additional benefit. As a part of standardization, We have implemented this actions horizontally to the identified parts. The overall impact of this project helped us to reduce 56T CO2 generation annually.









# Sustainability at Wheels India Ltd., EEPD



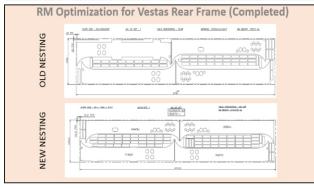
**Lokesh** Manager - Manufacturing

Sustainability is a new concept for most of the developing economies in the world. Lack of alternative strategies, self-discipline as well as guidance also contribute to the above point.

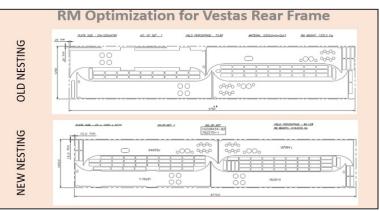
Our major customer, Vestas Wind Systems had given targets to reduce our carbon emission in scope 1, 2 and 3. It has also given guidance on transition to zero waste. Steel is our major RM. So we had taken few projects in reducing the consumption of RM by optimising the Input RM sizes by which we can reduce the Input RM wastage to a greater extent.

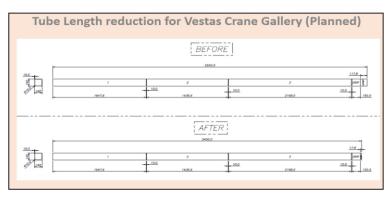
By doing so, we had been able to optimized the use of the raw material.

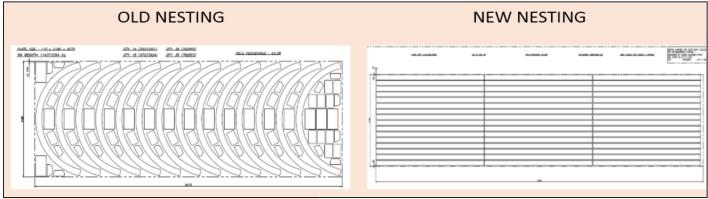
















# Sustainability at Global Autotech Limited



Dr. Navnath Tarle

Sustainability is no longer a tick-box or checklist exercise. It is a critical investment area where organisations can realise genuine returns and opportunities for competitive advantage. In my opinion, Sustainability is more of a moral duty than a regulatory compliance.

Most of our customers have started focussing on green score along with our productivity and quality scores.

We, at Global Autotech are committed to work for environment enrichment. Global Autotech has joined hands with ACMA for working on Sustainable Manufacturing Practices. This program is going on for more than one year now and we have done many things and planned our future scopes also.

Along with simple kaizens such as increasing efficiency of chiller, furnace and other equipment, investments have been done to increase the efficiency of air compressor. Many productivity improvement projects have been done to reduce specific energy consumption per part.

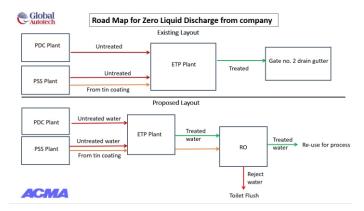
Our 100 percent employees are sensitized towards sustainability and contributing to this noble cause. Global Autotech has planned to become zero liquid discharge company by mapping the water flow and waste generated. Analysis and action plan have decided to be completed in next financial year.

Waste from kitchen is now reused and converted to compost.

Our future plan includes:

- · To become zero liquid discharge company
- Construction of rain harvesting pit to store 80 KL of rain water
- Targeting to become Carbon neutral by 2030

We have planted more than 1000 trees in last 2 years and still counting.











# -ON-ESTOP MULTIPLE SOLUTIONS

- Motors & Controller
- Belt drive system
- eAxle Solution
- Moulded Rubber parts
- **Sealing Solutions**
- Brake Hose solution



Design, developed & manufactured in India

EV Solutions for 2, 3 & 4 Wheelers







# **Culmination of ACMA Lean Process Engineering Program for** Plastic Industry - Sundaram Auto Components Ltd, Nalagarh

This program was first of its kind, designed for exclusively plastic industry. The focus of this program is on improving quality productivity, reducing inventory and



Mr V K Sharma Mentor & Expert **ACMA** 

**Project Team** 

Mr. Pankaj Mathur **Expert Cluster Program ACMA** 



Mr. Bhavanisankar K **Operations Head** SACL



Mr. Sher Singh Thakur Plant Head & Project CEO SACL Nalagarh

making the plastic moulding process lean. Some major achievements of this projects are:

- ☐ Inventory turns improved by 100 %
- ☐ Blow Moulding productivity improvement by 73.5%
- ☐ Short fill Rejection Reduced by 49 %
- Mould change time reduced by 42 %
- Overall Plant Productivity Improvement by 13.6%

1300

10.5

Pankaj Mathur **Expert Cluster Program** 





#### Value for Money Rs. Lacs # **Description** PA **Productivity Improvement** 56.31 1 in Injection Moulding **Productivity Improvement** 36.03 2 in Blow Moulding 3 **Inventory Reduction** 117.70 Kaizens, QCC, 5S & other 4 24.25 projects **SMED** 5 10.08

#### Overall Savings Rs. 2.44 Cr



#### Overall Feedback

#	Particulars	Score * (Out of 10)
1	Counselor Visits	10
2	Inputs Received	10
3	Relevance of Inputs	10
4	Delivery as per plan	9
5	Learning from MRM	9
	Total score (out of 50)	48
	Score in %	96%





Re-engineering in Plastic Mould by replacing Pin to eliminate rejection due to blow holes



# Culmination of ACMA Deskilling Manufacturing Operations Program for Wheels India Limited, Rampur

This Program was designed for Deskilling of Operations in Production activities as well as Non Production Activities and overall upkeep of the plant.

The focus was on making the manufacturing operations easy by deskilling of activities through kaizens or low cost automation.

### **Project Team**



Mr. V K Sharma Mentor & Expert ACMA



Mr. Pankaj Mathur Expert Cluster Program ACMA



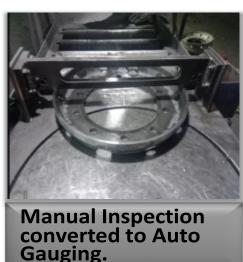
Mr. G. Mohan Krishna Plant Head & Project CEO WIL Rampur



## **Major Cost-Effective Benefits**

Sr No	Description	Unit	Saving / Benefit (Model Line)	Saving / Benefit (Other Lines)	Total Saving / Benefit
1	Cost Saving	Rs. (Lacs)	50.3	85.9	136.2
2	Operations Deskilled	Nos	7	9	16
3	Deskilling Kaizens implemented	Nos	22	18	40
4	Reduction in Skilled Manpower	Nos.	24	7	31

### Overall Savings Rs. 1.36 Cr







# **Culmination of ACMA Advance Lean Project** for Lucas-TVS Ltd, Pantnagar

Working with ACMA team this Project was fantastic experience us. It opened many gates for endless improvements on our lines.

ACMA initiated point by point for many of improvement carried i.e. VSM, Kanban System, Straight Line Formation.

> V.S.Rana Plant Head

**Mentor & Expert ACMA** 

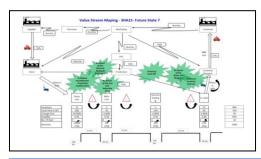
**Project Team** 

Mr. Pankaj Mathur **Expert Cluster Program Plant Head & Project CEO** 



Mr. V. S. Rana Lucas-TVS

#### Overall Feedback Score **Particulars** Out of 10 10 **Counselor Visits** 10 2 Inputs Received 3 10 Relevance of Inputs 4 Delivery as per plan 10 Learning from MRM 10 Total score (out of 50) 50 Score in % 100%



value Stream Mapping				
	BEFORE VSM	AFTER VSM		
No. of Manpower	12	9		
Line Length	8 m	5.5 m		
Total no. of Station	18	18		
Total Lead Time	145012 sec	725 sec		
Productivity / hr / op	22	27		
VAR	0.56	25.60		

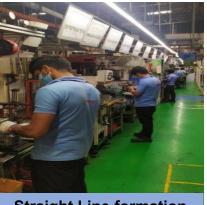
#### **Major Cost-Effective Benefits**

#	Description	Unit	Saving / Benefit
1	Q. C Projects	Rs.in Lacs	20
2	WIP Reduction by Single Piece flow	Rs. in Lacs	20
3	Savings through Productivity	Rs. in Lacs	2.8
4	Red Inventory Disposal	Rs. in Lacs	60
5	Productivity Improvement through VSM	%	23%
6	Space Generation	Sq. ft.	2050

Overall Savings Rs. 1.02 Cr

# Kanban Implementation





**Straight Line formation** 



### **Thermal Solutions for Sustainability**

### A Joint Venture between





Established in 1985, Subros is the Largest Automotive Air Conditioning & Thermal Products company in India.

Complete thermal solution provider for all automotive applications.

Subros has manufacturing plants across India, strategically placed nearby customer locations, backed by a well-equipped R&D and Tool Engineering Center.



We aim to provide comfort by adopting new & innovative technologies, while striving to make the planet a better place.































Passenger Vehicle Thermal Management System

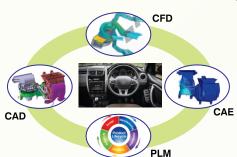
Refrigeration System

Truck Cabin AC System

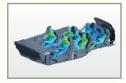




#### **R&D Capabilities**







Cabin Thermal Comfort







System Calorimeter

#### **Manufacturing Capabilities**

Regional Offices







Presence of world-class manufacturing infrastructure



Anechoic Chamber



Vibration Lab

Equipped with all infrastructure required for thermal system design & validation





#### **Futuristic / Upcoming Programs**

Industry 4.0 / Al

Special Program on Robotics & Automation - maintainability & Optimization

**Enhancing Innovation** 

Electric Vehicle Support Program

#### **List of Clusters Programs**

ACMA program on Environment, Social and Governance

Sustainable Manufacturing Cluster - Carbon Footprint reduction

Zero Defect Quality Cluster

Zero Defect Plus Cluster - Zero defect in NPD process

Beyond Zero Defect

**Engineering Excellence Cluster** 

Advance Cluster - Lean Manufacturing

New Product Development Foundation Cluster

New Product Development Design Cluster

Tool Engineering Cluster

BFZ SINADE - TVET Skill Development Cluster

Low Cost Automation Cluster

Rudimentary Framework Program

Human Resource Cluster

#### **List of Programs / Projects**

Wow Effect - Complete Turn Around Project

Daily Work Management Program

**Deskilling of Manufacturing Activities** 

Special Lean Process Engineering for Plastic Industries

Special Lean Process Engineering for Forging Industries

Special Lean Process Engineering for Foundry Industries

Special Lean Process Engineering for Fabrication Industries

ACMA Equipment Maintenance & Optimization Program

Uptime Improvement

Lean implementation Program

0 110 1 7 0 6

Special Projects on Zero Defect

Asset Turn Ratio Improvement Project

Productivity Improvement Project

Quality Adherence Project

**Breakeven Point Reduction Program** 

New Plant Initiation Project

Material Flow Cost Accounting - MFCA program

Management By Objective - Improvement Project

Paint shop Optimisation & Modernization Project

Through Put Rate Improvements Project - Bottleneck Management

Working Capital Improvement Project

Performance Enhancement Project

Employee Participation, Involvement and Engagement Project

Manufacturing and Process Engineering Project

Safe Working Culture development program

**Engineering Improvement Project** 

Inventory Improvement Project

MORE

#### ACMA Centre of Excellence ( ACoE ) Programs

Middle Management Development Program (Creating Smart Managers)

Sr. Management Development Program (Converting Managers to Leaders)

Customer Satisfaction Program (Customer Delight)

Supplier League Development Program (Upgrade Suppliers to Supplier Partners)

ACMM- ACMA Capability Maturity Model for Supplier Certifications ( Complete Diagnosis of all Business Processes and Support for Improvements, Certifications)

For more details please contact : Ms. Sangeeta Sharma at sangeeta.sharma@acma.in



# ACMA Centre of Excellence ( ACoE) Programs (Jan-Mar 2023)

S. No.	Topic	Training Program Name	Key Deliverables	Target Audience	Days of Training	Month of Training
1	Zero Defect	Two Days Certification Workshop "HOW TO TRANSFORM A COMPONENT MANUFACTURING COMPANY FROM PPM TO ZERO DEFECT"	Understanding Zero Defect Understand the methodology to transform from PPM to Zero Defect companies Understand requisites to transform from companies to best in class Quality Companies Forward Engineering process	Senior / Middle-Level Management People Production, Quality, Engineering, and Change Management teams	2 Days	10-11 Jan 23
2	Sustainable	Workshop on Carbon Nuterality	Understand and learn to measure     Process to improve	CEOs/HODs/ Sr. Management People	1 Day	24 Jan 2023
3	Industrial Automation	Industries Robot Training	Integration of an industrial robot in an assembly process     Teaching of robots in complex assembly environments     Commissioning of complex systems     Maintenance, servicing and troubleshooting of complex systems     Programming of industrial robots combined with the integration of sensors and additional actuators     Programming of multitasking applications	Managers, Engineers, Supervisors, Freshers DET/GET from Maintenance & Operations, Process Engineering & Manufacturing Excellence domain.	3-4 days	Feb-23
4	Scrap Management	STRATEGY IS WINNING SCRAP SALES FOR THE AUTO COMPONENT BUSINESS	o Efficient & Effective Disposal of Manufacturing Scrap. o Sharing The Customer Experience o Buyer/ End User Experience o Introducing solutions to the Audience.	Senior Leadership & Top decision makers from leading Auto Component Manufacturers.  CEO & MD, CPO, Head of Commercial Projects, Head of Sourcing, Plant Heads, and Chief Digital Officer.  Subject Matter Experts (SME), Thought Leaders, and senior consultants from the automotive industry.	2 Hrs	Feb-23
5	Industrial Automation	Round table with Rockwell Automation	Take Control of Enterprise-wide Quality & traceability by Error-Proofing Production Operations.	o Target Industry : Auto -Tier -1. o Target Offering : Plex QMS o Target Personals : QMS Target Persona : Enterprise / Corporate Quality Manager, VP Operations, CEO o Target Size : Plant Turn Over ~350+ Cr	1 days	Feb-23
6	Low Cost Automation	Advance Mechatronics - Factory Automation (Learning on MPS)	Actual industry level learning on MPS Learn to program, operate, and adjust components and applications on an automated production line. PLC basics, types, ladder logic diagram, wiring, program downloading, and ladder diagram interpretation. Covers major topic areas such as the concept of construction, working principles, mechatronics various mechatronics systems. Software learning as well like FluidSim-Pneumatic, Hydraulic, and CIROS, etc.	Managers, Engineers, Supervisors, Freshers DET/GET from Maintenance & Operations, Process Engineering & Manufacturing Excellence domain.	4	Mar-23
7	Leadership Program	IN PURSUIT OF EXCELLENCE ("UNLEASHING THE POTENTIAL IN YOU & YOUR ORGANIZATION")	Unleash the potential within yourself Understand the power of the mind Meet workplace & life's challenges with enthusiasm conquer stress Manage time more effectively Motivate self & team members	CEO's, COO's CFO's, Directors, VP's, GM's, Chief People Officers, Heads of Department, Managers and Executives of the organization at all levels and from all functional areas including Operations, Sales, Marketing, Finance, Human Resources, Talent Management, Training and all other departments will find tremendous value from this workshop.	1	Mar-23
9	ZED program	Achieving Zero Customer Complaints by addressing CTC and CTQs with Process Improvements	☐ Deep understanding on root concerns of Customer Complaints and its causes ☐ Defining SOP's to recognise CTC and CTQs for your products and Processes ☐ Define Linkage between process parameters and Customer requirements ☐ Re-Design processes to eliminate defects at generation points ☐ Validate improvements ☐ Understand irreversible improvements ☐ Measure Skills requirements and understand process of De- skilling ☐ Zero Defect Culture requirements	Employees across the verticals of company from Team Leader to Sr Management Level, marketing professionals, engineers and middle level executives.	2	Mar-23



# PROGRAMS HELD IN ACOE, SONIPAT





3 Days Certification Course on Mechatronics - Factory Automation, 24-26 Nov., 2022



ACMA SINADE Program - I, 29th August to 9th Sept., 2022



**ACoE** certification course on Mechatronics -Factory Automation (Dec) 14-16 Dec. 2022



ACoE one-day physical workshop on Cylinder to Cells 9 Dec., 2022



ACoE one-day physical workshop on Cylinder to Cells 9 Dec., 2022



Webinar on Strategy is Winning Scrap Sales for the Auto Component Business 9 Nov., 2022



**ACOE Physical workshop on Material Testing for Automotive Industry with** Focus on E-Mobility - 5 Sep., 2022



# **UNIDO ACTIVITIES**



Visit of Dr. Rene Van Berkel, **UNIDO** Representative at M/s Mascot Plastic Industries (MPI), on 19th October 2022 in Vadodara, Gujarat.



An introductory meeting was held with C4i4 Lab on 3rd November 2022 to kick start the work on Industry 4.0 content development.



**The fifth Steering Committee** Meeting (SCM) of MHI-UNIDO-ACMA partnership programme was held on 11.11.2022

# **Panasonic**

# **GLOBAL INNOVATION IN** ARC WELDING TECHNOLOGY

#### SHIELDED METAL ARC WELDING (SMAW)



**IGBT Based 400amps** Rectifier

#### GAS METAL ARC WELDING (GMAW)



**Thyristor Based 400amps** MIG/MAG Machine



**IGBT Based 400amps** MIG/MAG Machine



**Full Digital 350amps** MIG/MAG Machine Supports Welder to achieve mature skill Weld

TAWER

#### **GAS TUNGSTEN** ARC WELDING (GTAW)



**IGBT Based 400amps Pulse TIG Machine** 

PROCESS TRAINING TO INDUSTRY / **INSTITUTES** 

### **ARC WELDING ROBOTS**



**TAWERS** 







**SUPER ACTIVE TAWERS** 

**Robotic Welding** 

### **Panasonic Smart Factory Solutions India** (Division Company of Panasonic Life Solutions India)

Presents Range of Welding Equipment: MMAW | MIG/MAG | TIG | Plasma Cutting | Welding Accessories | Welding Robots Panasonic has set-up its own state-of-the-art welding equipment manufacturing facility at Jhajjar Near Gurugram, Haryana, India.

#### **Customer Helpline:**

(M): +91-9729900200 / (E): PSFSIN.enquiry@in.panasonic.com Web URL: https://www.panasonic.com/in/business/introduction.html

# **GLIMPSES OF ACMA PROGRAMS LAUNCHES**





ACMA Environment, Social & Governance Program at IP Rings Ltd. on 16.12.2022



ACMA Advance Cluster 16 at Sadhu Forgings on 23.11.2022



ACMA Engineering Excellence Cluster Program 6 at Deluxe Bearings Pvt. Ltd. on 27.12.2022



ACMA Lean Implementation Program at Fitwel Tools and Forgings Pvt. Ltd. on 12.12.2022



ACMA Zero Defect Quality Cluster Program at Mutha Foundry on 5.11.2022



ACMA Supply Chain Management Program at Lucas TVS Ltd. on 2.11.2022



ACMA Zero Defect Quality Cluster in Knorr Bremse Systems for Commercial Vehicles India Pvt. Ltd. on 21.11.2022



Launching of Profiling of Finalizing Skills Program at Neosym Industry Ltd. on 12.11.2022