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President's Message



Sikandar Mustafa Khan

President

Pakistan Foundry Association

9th International Foundry Congress & Exhibition (IFCE 2025), January 29-30, 2025, was a great success. It brought together industry leaders, experts, and businesses to explore new technologies and opportunities for the foundry sector.

I extend my sincere gratitude to our esteemed guests for their support and participation. Their presence reflects the strong collaboration between the foundry sector and key industrial stakeholders.

This event showcased the strength and potential of Pakistan's foundry industry. With insightful technical sessions, global participation, and valuable networking, IFCE 2025 has helped create new pathways for growth and innovation.

I would also like to highlight the importance of the **Commercial Sessions**, which have proven to be a

vital bridge between the foundry sector and key industries. These sessions created valuable business opportunities, helping foundry professionals connect with industrial sectors and secure new work.

I sincerely thank all our sponsors, exhibitors, speakers, and attendees for making this event impactful. **The Pakistan Foundry Association (PFA)** remains committed to supporting the industry's progress. Let's continue working together to drive innovation, strengthen global partnerships, and build a stronger future for Pakistan's foundry sector.

A special appreciation to **Mr. Asim Qadri**, General Secretary - PFA, and **Mr. Irfan Ahmad Qureshi**, Joint Secretary - PFA, for their dedicated efforts in organizing this wonderful exhibition. Their hard work and commitment have played a crucial role in making IFCE 2025 a success.

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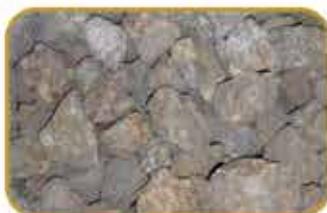
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9th IFCE2025
International Foundry
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29-30 Jan 2025

IFCE
International Foundry
Congress & Exhibition
(IFCE-2025)

See you in **2026**



Event Report 9th IFCE 2025

Pakistan Foundry Association is delighted to announce the success of the 9th International Foundry Congress & Exhibition (IFCE 2025), held on 29th & 30th January 2025 at Pearl Continental Hotel, Lahore.

The event not only showcased the local manufacturing potential to various industrial sectors but also connected these sectors with foundry exhibitors for the development of imported castings locally.

The event comprised of Exhibition, Inaugural Session, 9 Commercial Sessions, and 4 Technical Sessions, with the following highlights:

Exhibition Statistics

**63**

Local and Foreign
Exhibitors

**6000+**

Total
Visitors

**30+**

Industrial Sectors



Inauguration

The 9th International Foundry Congress & Exhibition commenced with an inaugural session attended by distinguished guests from various industrial sectors. The Chief Guest for the event was **Mr. Sikandar Mustafa Khan, President of the Pakistan Foundry Association.**

The Inaugural Session was graced by the following distinguished guests:

Rear Admiral Salman Ilyas HI(M)

Managing Director, Karachi Shipyard & Engineering Works

Rear Admiral Mazhar Mehmood Malik HI(M)

Managing Director, PN Dockyards

Air Vice Marshal Muhammad Asif Aslam, SI(M)

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Assistant Director Projects, R&D Establishment, Ministry of Defence, GoP

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Vice Chancellors from leading universities.

Key decision makers from various industrial & Defence sectors including HIT, HMC-3, POF, KRL, PAC, MoDP, etc



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Interlink Enterprises
KSB Pumps Company Limited
Karachi Shipyard & Engineering Works
Ravi Autos Sheikhpura Pvt Ltd
Eehabs Engineering (Pvt) Ltd.
NCB International
Materials Sourcing International
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General Manufacturing Concern (Pvt) Ltd
Ashtech
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Brothers Engineering Works

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Al Makkah Enterprises
Sigma Auto Industry.
Suleman Machinery Company
JSTS
Ammarian Industry Pvt Ltd
SRC (Pvt) Ltd.
International Fabrication Company (IFC)
Qasir Brothers
Eagle Foundries Pvt Ltd
Future Cast
Oil Industries Pakistan Limited (Target Oil)
RKB Europe SA
Shahsons Pakistan Pvt Ltd.
Turbo K.T.S
J. Habib International
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Yonghong Machinery Group Co., Ltd.
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Gujranwala Sand Company
Standard Ceramics Industries Pvt Ltd.
Maxima Machine Solutions
Unisons Steel Solutions Pvt.Ltd
Seven Star Engineering works
Mehta Brothers Pvt Ltd
PAKTECH Industrial & Trading Co.
Waqar Usman Auto Engineering
Maga Green







Sikandar Mustafa Khan

President,
Pakistan Foundry Association (PFA)

Addressing the gathering, the President of the Pakistan Foundry Association acknowledged the participation by the distinguished guests. He particularly emphasized the role of foundries in various industrial and defense sectors. He underscored the competitiveness of Pakistani foundries in producing export-quality castings and called for greater recognition of their capabilities on the global stage. The address reinforced the foundry industry's commitment to meeting industrial requirements and developing imported castings locally.



Irfan Ahmad

Joint Secretary
Pakistan Foundry Association

Mr. Irfan Ahmad, Joint Secretary of the Pakistan Foundry Association, inaugurated the session with a welcome address, emphasizing the significance of IFCE 2025. He highlighted the potential in Pakistan's foundry sector to develop imported castings locally. He also outlined the exhibition's objectives and its role in fostering industry connections while promoting local manufacturing opportunities.



Asim Qadri

General Secretary
Pakistan Foundry Association

Mr. Asim Qadri, General Secretary of the Pakistan Foundry Association, provided an overview of the event, highlighting that 63 foundries were exhibiting at IFCE 2025. Emphasizing the growing demand for local manufacturing as an alternative to imports, he encouraged industrial representatives to engage with foundries at the exhibition and participate in the Commercial and Technical Sessions to explore new business opportunities. He also urged attendees to bring their technical teams to gain maximum benefit from the event.



Rear Admiral Salman Ilyas HI(M),

Managing Director D KS&EW

Rear Admiral Salman Ilyas HI(M), Managing Director of Karachi Shipyard & Engineering Works (KS&EW), underscored the importance of synergy between Pakistan's foundry sector and the maritime industry. He highlighted how advancements in local casting capabilities can support naval and commercial shipbuilding, reducing reliance on imports. Additionally, he commended the Pakistan Foundry Association and Mr. Asim Qadri for their commitment to fostering industry growth through such initiatives.



Rear Admiral Mazhar Mehmood Malik HI(M),

Managing Director PN Dockyard

Rear Admiral Mazhar Mehmood Malik HI(M), Managing Director of PN Dockyard, discussed the critical role of high-quality castings in naval and defence applications. He stressed that Pakistan's foundry sector has the potential to meet the stringent demands of the maritime industry by adopting modern manufacturing techniques. By strengthening local capabilities, he noted, the industry could support the development of durable, accurately engineered components essential for naval operations.



Ekrem Pakdemirli

International Sales & Marketing Manager,
Çukurova Kimya Endüstrisi A.Ş.,

Mr. Ekrem Pakdemirli, International Sales & Marketing Manager at Çukurova Kimya Endüstrisi A.Ş., highlighted the company's advanced chemical solutions for the foundry industry. He emphasized how Çukurova Kimya's innovative resins, coatings, and feeder sleeves can enhance the quality and efficiency of casting production. By integrating these modern raw materials, Pakistani foundries can achieve higher precision and meet international standards, ultimately strengthening their position in the export market.



Arman Ghahramani

Accounts Manager, MAGMA

Mr. Arman Ghahramani, Accounts Manager at MAGMA, discussed the role of cutting-edge simulation software in optimizing casting processes. He elaborated on how MAGMA's advanced modeling tools help foundries reduce defects, improve yield, and streamline production. By adopting these technologies, Pakistani foundries can refine their casting techniques, minimize material waste, and enhance product quality, making them more competitive in the global market.



Imran Ghani

Vice President Pakistan Foundry Association

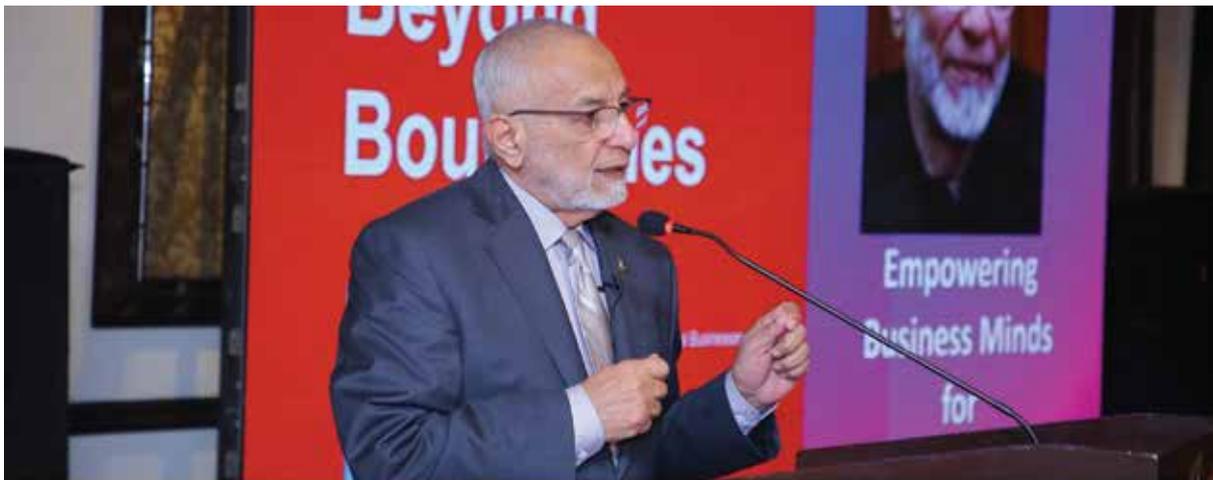
Mr. Imran Ghani, Vice President of the Pakistan Foundry Association, gave the closing remarks, highlighting the importance of Pakistan's foundry industry in supporting industrial growth and the economy. He thanked all the participants, speakers, and exhibitors for their valuable input and active participation. Mr. Ghani reiterated PFA's dedication to promoting innovation and strengthening connections within the industry, encouraging everyone to continue working together for the betterment of Pakistan's foundry sector.

Technical & Commercial Sessions

The Technical Sessions focused on new foundry technologies, innovations in manufacturing processes, improvements in existing technologies, cost reduction, and quality enhancements. These sessions were well attended, with participants appreciating the expertise of the speakers and the relevance of the themes. Foundry and industry owners, technical staff, young engineers, and many more benefited from these discussions.

Technical Sessions were conducted by Çukurova Kimya Endüstrisi, MAGMA, Chenab Engineering, and RKB Bearing Industries.

Commercial Sessions were conducted by Pakistan Navy Dockyards, Maritime Industry, Oil & Gas, Defense, Cement, Sugar, Chemical, and Fertilizer Sectors. A special session for guiding foundries how to plan for the export market was conducted by Mr. Imtiaz Rastgar, Chairman of Rastgar Group.





Sponsor Recognition

Mementos were presented to the following main sponsors:

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Çukurova Kimya Endüstrisi

Chenab Engineering Works & Foundries Ltd.



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Thank you!
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The 9th International Foundry Congress & Exhibition 2025 marked a significant step toward empowering foundries with the tools and insights needed to enhance their competitiveness in the global market. By focusing on locally produced export-quality castings, the event encouraged the industrial sectors to reduce their dependency on imported goods and explore the advantages of the development of imported castings locally. Engaging discussions and specialized Technical & Commercial sessions allowed foundry industry leaders to delve into strategies for improving casting quality and efficiency, while also fostering collaboration across industrial sectors.

This exhibition not only served as a catalyst for local foundries' growth but also as a vital networking hub for suppliers, manufacturers, and technology providers. Ultimately, it strengthened both the foundry sector and the wider industrial landscape, offering new opportunities and expanding supply chains.

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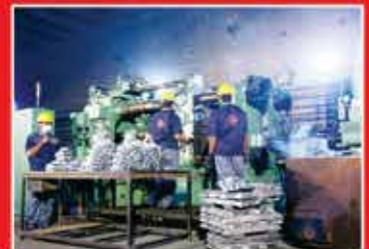


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Sustainability is the Key Driver of Innovation

D.R. Cooper)
Fairmount Minerals Ltd, Benton Harbor, Michigan
World Foundry Organization 2014

Abstract

Innovation Opportunities; building business platforms will allow technology development centered on Sustainable Development efforts. The presentation will discuss the growing enthusiasm for sustainability within the business and metric reporting. We will link business values and sustainable work projects, how to challenge your workforce to engage in business innovation training and develop innovation programs that are aligned with business sustainability improvements. The examples will provide global evidence of how sustainability pays for all stakeholders.

Keywords: *Sustainable Development, Business Innovation, Innovation*

Introduction

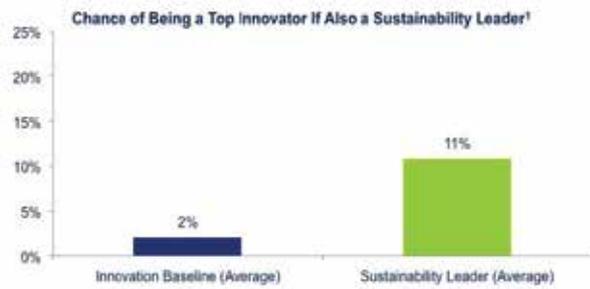
Sustainability and Innovation are both important and critical issues for organizations. Based on surveys and interviews Sustainable Development (SD) is driving business innovation and will continue to do so for the next decade. The last 10 years has allowed for a change and positive adoption rates in companies understanding of sustainability. Many companies were convinced that the more environment-friendly they become, the more the efforts will erode their competitiveness. They believed SD initiatives adds costs and will not deliver immediate financial benefits.

Companies have engaged in many different methods to foster innovation, from cultural changes to incentivizing employees for being innovative. New technology was the catalyst for business innovation in the 1990's, however, few have made the connection

between innovation and sustainability or have used sustainability as a way to improve innovation performance. Sustainability is a new way to engage in business innovation and gain or maintain a competitive advantage. Business Innovation involves more than just science and technology, it is a social process in which both economic and ultimately governance factors have important roles. In the last few years, more and more companies are looking to play catch up to the leading companies in the United States. As a result, we are seeing sustainability being driven from a group of top leadership.

MIT Sloan's 2012 Sustainability & Innovation Global Executive Study asked 2600 executives across various industries about innovation and the role of sustainability. 48 percent responded that they had changed their business model to incorporate sustainability, up from 40 percent in 2011. Of those, 75 percent reported that they broke even or made a profit, and 46 percent said sustainability added to their bottom line.

There are still a number of senior business leaders today that think sustainability is disconnected from the core of their business; however, research suggests that sustainability is strongly tied to the ability of the company to innovate. Recent completed research demonstrates that being a sustainability leader can significantly raise your company's chances of being a top innovator.



When the question was asked if sustainability is linked to innovation, the results showed a 2009 sustainability leader is 400% more likely to be an innovation leader in 2009 and 600% more likely to be one in 2010. Sustainability and innovation are linked together, as shown in Figure 2.



Why are we Seeing Such a Strong Link From Sustainability to Innovation?

Sustainability can provide a different “lens” for thinking and helps companies to approach situations differently. Thinking about different subjects or thinking differently about existing subjects creates new ideas. Thinking differently can unlock companies’ innovative potential. They may see situations from a different point of view. They may reexamine their perspective of what’s important, and they can tap into new ideas. Many Environmental Health & Safety (EH&S) leaders are becoming more involved in the ideation sessions.

A study from 2004 projected sustainability is part of the 6th wave of innovation. The use of bio products and green chemistries were predicted to increase significantly. The time

for implementation continues to be shorter than previous waves of innovation. Figure 3 shows the rate of change in the US, which was predicted to increase with technology and he ability to adopt change.

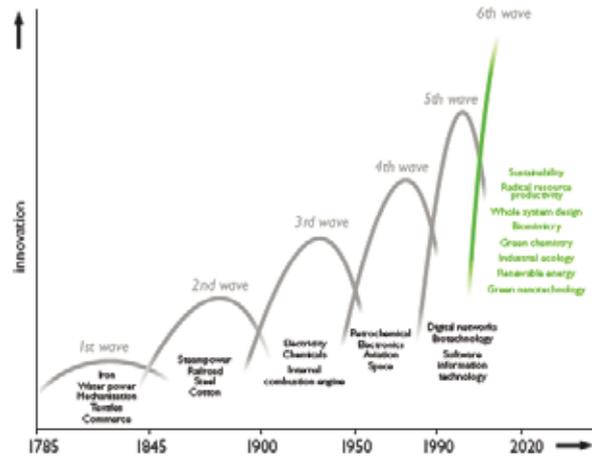


Fig. 3. The waves of Innovation 10.

Adding Constraints

Sustainability can also help drive innovation by adding constraints. While constraints are often seen as reducing the ability to be creative, that is not always the case. The constraints imposed by regulations are moving us to reserve resources for future generations. Sustainability can actually serve as great ways for companies to think differently and therefore act innovatively. For instance, viewing emission standards as a new constraint may lead to ideas for improving energy efficiency and reducing the volume of resources required. Figure 4 shows there are 4 different stages to engage more departments in an organization. Individuals advance from compliance, to reviewing the end to end supply chain. Top Management can spark research development and marketing for creating and designing new products and services. Once additional departments are engaged creating a true sustainable culture, new business models naturally occur and will be developed allowing companies to prosper.

Sustainability Challenges, Competencies, and Opportunities



Fig. 4. The stages of Engagement.

Sustainability can drive innovation by introducing new design constraints that shape how key resources— energy, carbon, water, materials and waste—are used in products and processes.

A 2012 survey was conducted with the American Foundry Society (AFS) adhoc Sustainability Committee members⁶. The initial survey included 42 member companies. After attending many educational sessions the survey showed 62% of the member companies were operating in stage 1are viewing compliance as a method for reducing resource consumption. Stage 2 showed a few results and one company had scoring in Stage3.

Process

A Harvard Business Review² article notes: "Sustainability is a mother lode of organizational and technological innovations that yield both bottom-line and top-line returns." In order for sustainability to impact innovation, companies must look at modifying the existing business model or creating a new one

Key examples include²:

- Leadership Support, CEO buy-in
- Change Management – Appreciate Inquiry
- Stakeholder Collaboration –Best practice sharing
- Living through principles - trust, fun, integrity, etc.

The first, of course, is support from the top leadership. It is not enough for executives to state that this is a priority; they must act upon it and demonstrate the leadership activities. Sustainability cannot be only denoted in something such as annual Sustainability CSR (corporate social responsibility) report. It must be part of the strategic plan and interwoven into the roles of the different departments.

The second is communicating the business case for change and action. Innovation means thinking differently and most people are not

comfortable with change. Having a clear vision of how this change will benefit those participating and those potentially being impacted in the future by the change goes a long way to gaining buy-in. So does involving the individuals that will be impacted.

The third is collaborating and obtaining input from external stakeholders. This can include customers, nonprofit organizations, suppliers, the community and even competitors. A local university may have new insights and relevant research and a customer may have suggestions on improving the product in ways you may not have thought of.The fourth and equally important ingredient is to have fun. Integrity and Trust are required to allow the individuals to engage in having fun. Get your company's creative excitement by creating safe friendly games.

Companies can use sustainability to their advantage and turn these new ways of thinking and innovative outputs into concrete improvements: improved focus, ideas and decisions about which ideas to pursue. No matter how an organization's innovation process is defined—even if they don't have a formal innovation process at all— just the act of including sustainability in their thinking can create real value.

Innovation Types

There are two different distinctions between innovation types. The two types include

- 1). Sustaining Innovation - incremental advantages
- 2). Disruptive Innovation – radical thinking. Both types will open new roads to organizations which may not have engaged in this type of thinking. The types of innovations will differ according to the innovation systems and socio-economic conditions of different countries, and needs critical assessment.

Innovative Leaders Speak out Around the World

CEO's and world leaders continue to speak out on linkages of business innovation to sustainability. Bill Gates called on world leaders to invest more in innovation for development, describing innovation as the "most powerful force for change in the world". "Innovation fundamentally shifts the trajectory of development," Gates, founder of the computing corporation Microsoft and co-chair of the Bill & Melinda Gates Foundation, told the summit of the Group of 20 major advanced and emerging economies (G20) in France on Nov 3, 2011.

Leaders are setting the stage in key areas around the world.

Gates said that, despite some successes, "Innovation has not played as big a role in development as it could have". "Some innovations take hold in rich countries quickly but take decades to trickle down to poor countries. The pace of innovation specifically for the poor has been too slow. But I believe it can be sped up, and the rapidly growing countries of the G20 are especially well positioned to drive this improvement." In particular, he said, the G20 should identify the "highest priority innovations for development" including areas of agriculture, health, education, governance, manufacturing and infrastructure.

"One of the newest resources for development – and potentially one of the most transformative – is rapidly growing countries' capacity for innovation. Countries like Brazil, China, India, and Mexico are in a great position to work closely with poor countries because they have recent experience in reducing poverty, as well as enormous technical capabilities," Gates said. "This unique combination gives them both the insights and the skills to create breakthrough tools for development."

"Innovation fundamentally shifts the trajectory of development," said Bill Gates, founder of the computing corporation Microsoft and co-chair of

the Bill & Melinda Gates Foundation

Customers are asking the Questions

Even if a company is not investigating about how to incorporate sustainability into business operations, it is very likely that at least some of their customers are. The organization is at risk and potentially missing out on valuable opportunities if they do not include the topics in the search for innovative ways to provide value to these customers.

The business case for sustainability is a well-defined list of benefits, both tangible and intangible. These include, but are not limited to, cost savings, quality improvements, attracting and retaining talent, enhancing reputation, and compliance, among others. Innovative sustainable development's potential is a way to create opportunities for companies to tweak or radically improve their products and services in a way that reduces their environmental impacts. The services and products deliver new features and benefits. Sustainability-driven innovation includes identifying new applications for current services and products, upgrading business processes, developing new products and services, using or creating new technologies and changing management techniques.

Identify key areas for improvement—not all sustainability initiatives are created equal in terms of potential to create business value.

Prioritize projects—don't follow the leader, but instead prioritize projects based upon your individual company strategy.

Measure key performance indicators and results against target: establish meaningful targets for improvement with verifiable data.

Implementation of Small Ideas assisting – People, Planet, Profits (3P’s)

Sustainability-focused innovation does not have to mean an overhaul of the entire organization. Even the small ideas can save big and have a big impact. Many examples exist where a small change led to bigger changes and bigger savings, for the company, as well as for the planet.

For example, UPS' no left turn policy resulted in a savings close to \$20 million a year. 3M's 3P program (Pollution Prevention Pays) encourages employees to rethink products and processes. The 3P's saved 3M nearly \$1.7 billion, and eliminated more than 3.8 billion pounds of pollution as a result. A Foundry is providing approximately 200,000 cubic yards of foundry byproducts to facilitate the construction of a community sledding hill, ice rink, amphitheatre and parking for residents in the City of Waupaca, Wisconsin. The 3P's is allowing for a reduction of landfill, community benefit and reuse of a natural mined material. The members on the committee⁶ have created a list of items which to most are small ideas, which once reviewed show significant impact to the triple bottom line.

Use of challenges was tested by an AFS member company to generate ideas for innovation using the principals of SD. In 2013, the member company used specific challenges to engage and educate employees in the process of innovation. The Business Innovation Team at includes approx. 45 employees or 5% of the company. Six companywide challenges were posed to all internal stakeholders in the form of questions. A challenge was supplied monthly to the organization from May – October, 2013. The group was given three weeks for each challenge to provide responses as well as build on other responses. A tracking system was provided and individuals would email their responses to a contact person.

All employees were all asked to engage in the process and each facility had a goal to provide a set number of ideas into the tracking system over the time period. The group submitted over 300 responses during the 6 months. The

challenges served as a way to assist the facilities in achieving their goals. As ideas were received the concept of idea mapping⁴ was utilized. This tool worked to advance the ideation to the next level. With a focused approach individuals were able to contribute ideas concerning a topic with little background information.

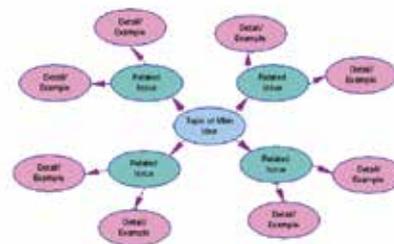


Fig. 5. An example of an Idea Map.⁴

Idea Mapping⁴

is a powerful whole-brained visual thinking tool that enhances memory, note-taking skills, thought organization, planning, creativity, and communication. It uses color, keywords, lines and images to connect thoughts associatively. Idea Maps are the natural expression of the way the brain processes information associatively. Idea Mapping is a simple and profound tool that helps individuals and organizations improve productivity, clarify thinking, save time, and enhance learning, while simultaneously producing incredible results.⁴

Building a Pipeline of Ideas

Once you have the ideas, you can spend time reviewing and identifying those to pursue. ⁷

Focus on the Front-End: Innovation leaders spend more time working the innovation process to identify higher-quality ideas at the front end and consequently fund more sustainable ideas than their peers.

Collaborate Externally: Top performers devote more to open innovation with stakeholders, thus they are better at combining external technologies with internal capabilities.

Optimize the Best Ideas: Leading innovators spend more time in the innovation process and less time in execution.

Improve Transparency: The best firms communicate and collaborate on successes and failures to continuously improve the process.

Developing the ideas into your strategic planning process is key to maintain momentum. Continue to dig deeper – using different tools. Collaborate where it makes sense with external stakeholders, follow the value creation and support future opportunities.

Linking to bottom & top line returns to the Triple Bottom Line

Research shows that sustainable development cultures create organizational and technological innovations that yield both bottom-line and top-line returns. Becoming environment-friendly lowers costs because companies end up reducing the inputs they use. In addition, the process generates additional revenues from better production or enables companies to create new businesses. In fact, because those are the goals of corporate innovation, we find that smart companies now treat sustainability as innovation's new frontier.

Leadership and talent are critical for developing a low carbon economy. The current economic system has placed enormous pressure on the planet while catering to the needs of only about a quarter of the people on it, but over the next decade twice that number will become consumers and producers. Traditional approaches to business will collapse, and companies will have to develop innovative solutions. That will happen only when executives recognize a simple truth: Sustainability = Innovation. Indeed, the quest for sustainability is already starting to transform the competitive landscape, which will force companies to change the way they think about products, technologies, processes, and business models.

The key to progress, particularly in times of economic crisis, is innovation. Just as some internet companies survived the bust in 2000 to challenge incumbents, so too, will sustainable corporations emerge from today's economic conditions to upset the status quo.

By-product Synergy

By-Product Synergy is the matching of wastes and under valued resources at one facility with potential users at another – the results include reductions in operating costs, improved environmental performance, increases in energy efficiency, reductions in CO2 emissions, and job creation and retention. – Definition provided by USBC-SD

Communicating the current practices of the metal casting industry is important since the industry is one of the oldest recyclers, (examples; slag, spent foundry sand, packaging, etc.). Utilizing the triple bottom – economic, governance, and social elements, allows for the projects. One innovative idea is to engage in By-product Synergy groups. The groups allow the audiences to identify opportunities across organizations and industries. The AFS First Group⁹ has been engaged in the reuse of spent foundry sand for over a decade.

The United States Business Council for Sustainable Development (USBC-SD)⁸ has been working on by product synergy efforts for many years within and across industries. Recently the AFS sustainability committee has been in discussions with the group⁸ to leverage the current projects for growth. There are also innovations in the ways organizations are arranged, in the way agendas are set, in the ways funding is allocated, and in ways of ensuring accountability. Many constraints placed on metalcasters from regulatory agencies or a local community has and will continue to force the innovation process. Many ongoing projects already include the following; Recognition of the efforts in the projects and taking credit for the efforts is missing from the metal casters surveyed.

Examples include:

- **Reclamation or offsite beneficial reuse of spent foundry by-products (sand, slag, etc.)**
- **Reduction or greater implementation of energy use**
- **Reduction or greater implementation of water use**
 - **Utilization of state of the art pollution control equipment (air, water, etc.)**
- **Substitution of process chemicals/materials with less hazardous replacements**
- **Improvements in land use management sustainability initiatives, being a local resource, employee health programs)**

The results from interviews and the AFS survey showed that companies that pursue sustainability significantly increase their chances of becoming innovative leaders in the process. This is consistent with a conclusion noted³ where innovation became stronger over time – the assumption being that using sustainability as a lens can lead to innovative ideas, some of which take time to become visible from the outside and therefore would show up in future years' innovation results.³

The majority of managers who say that their company's sustainability activities have added to profits also say that innovation has led to business model change.

Conclusion

In summary, sustainability is on the rise and will drive business innovation. Metalcasters are encouraged to communicate the great elements of Sustainability already implemented in the organizations and industry. Additionally, metal casters are being requested to set goals which drive innovation for a competitive advantage. Creating a culture which includes change management techniques allows individuals to create change. Continuing education is key for

gaining innovative ideas from the viewed constraints. Engaging all stakeholders allows for ideation excellence. Sustainable-Driven Innovators in the metal casting industry will outperform financially.

The committee⁶ is striving and encouraging metalcasters to develop and publish Sustainability Policies. The policies are used to communicate and convey companies' individual messages on their advancements. The AFS research and activities provide a working document and template for metalcasters to communicate their findings in the form of metrics and reporting. Many new ISO programs around the world are looking to assist individuals in making the commitments.

A comparison survey⁶ was completed initially with a group of 60 global companies. The original responses were obtained in early 2012 with a follow up in late 2013.

The results are consistent with the research and discussions with key leaders. During the 15 month time period, education sessions and committee work communicated at events resulted in a 73% improvement in understanding and efforts for communications on linking Sustainability with Innovation. Innovation is driven by your Sustainable Development Activities completed in organizations. Sustainability activities bring a new set of data to the table. Reviewing constraints in a positive manner, engaging with stakeholders and acting on your ideation events allows you to grow in your triple bottom line.

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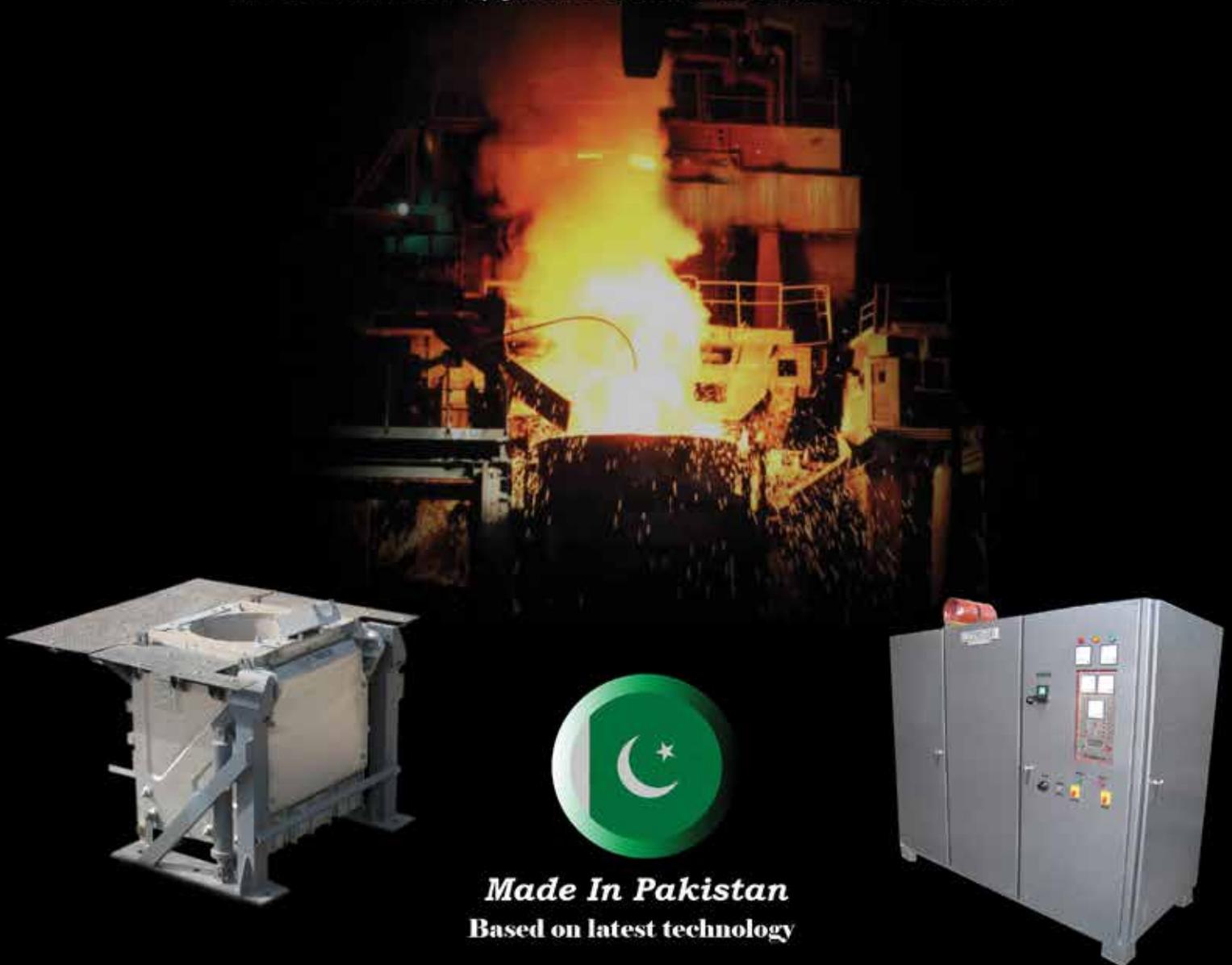
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