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editorial

Dear Friends

The last three years have been instrumental for the Quality Council of India. With a vision to improve the overall quality infrastructure across the length and breadth of the country, we are defining and measuring quality by leveraging our boards and special projects division. One of the major highlights of the past three years includes integrating the National Accreditation Board for Testing and Calibration Laboratories (NABL) with QCI, thus bringing all zealots of quality under one umbrella.

QCI is involved in assessing various government schemes such as Swachh Bharat Mission (SBM) and National Urban Livelihood Mission (NULM) to name a few, and is providing accreditation in various spheres -- from quality certification of skill centres, certifying yoga professionals to even accreditation of laboratories and hospitals. There has also been a renewed emphasis on using standards and technical regulations to improve the quality of products with the aim to make them competitive in the international market.

Quality is being demanded from social sectors such as Environment, Education, Healthcare as well as other sectors such as Food and Drugs -- all of which impinge directly on the quality of life of the citizens. There has been a visible change in the mindset of people who are now insisting on quality. Swachh Bharat Urban and Rural have been a defining factor over the last three

years, which has made grassroot level changes in the lives of Urban & Rural poor.

From the last twenty years, our main area of operation has been accreditation through our Boards. Over the past three years, however, we have established strategic units within QCI, away from the Boards, to help evaluate and analyse outcomes in various projects. We have earned great insights from our work on the field and how technology can assist evaluation and assessment with minimal human interventions. We try to give our best recommendations after careful thoughts and discussions with experts so that the strategic interventions are robust, self-sustaining and can create impact. Our methodology has been well accepted and our reports referred extensively. This has been a major breakthrough in our functioning which necessitated large scale collaboration with industry, self-help groups and think tanks.

The quality movement has become a mass movement and we believe that the impetus that has been created in the last three years has made and will continue to make vast changes in the sphere of quality in our country. We invite co-operation, collaboration and constructive criticism to improve our efforts.

Dr. Ravi P. Singh
(Secretary General, QCI)

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From the desk of Chairman, QCI

Dear friends

QCI has had a very successful year in all aspects and this success is a function of the contributions made by each member of our organisation. I would like to share with you some of our combined achievements and vision for the upcoming year. We have made tremendous impact in many areas and I wanted to highlight few of them:

- QCI is working with many ministries and key programs of the government. Through our various boards and projects, QCI got the chance to measure the progress and assess the level of impact of major government schemes such as Swachh Bharat Mission, Skills India, Rural Electrification Scheme, etc. We started coal quality analysis for Coal India Limited and have scaled up the operations very fast. In the coming year, we plan to help in quality testing of products that are essential to the economy and lives of citizens. Our ability to deploy resources at a short notice and leverage the expertise of our accredited bodies has played a critical role in achieving these challenges.
- QCI is at the centre of many policy discussions and have helped in creating new policies. We setup Project Management Units to assist Ministry of Railways and Ministry of Petroleum and Natural gas in formulating and implementing policies. We developed technology based solutions for NITI Aayog to capture the progress of various central government ministries and this initiative has helped policymakers across levels to make data backed decisions. We worked with over 40+ ministries in helping them analyse public grievances and recommended administrative reforms. In the coming year, we shall be working with more central ministries and state governments by providing quality resources

and technology based solutions. Our Boards are supporting numerous initiatives in driving policy.

- QCI is being covered regularly by the media and the brand is being recognised country-wide. QCI's National Quality Conclave saw record-breaking footfall and increased participation by public and private sector leaders. Overall, QCI has been successful in establishing itself as a trusted third party agency and partner. We have received a lot of media coverage (including television) for most of our major initiatives and as a consequence we expect to be called for driving various initiatives and QCI is expected to rise to the challenge.
- On the conformity assessment front, our numbers have been quite encouraging. Following are the key highlights of each board:

NABL

- The beginning of year 2017 witnessed NABL merging with QCI
- NABL is supporting the GoI's Missions – Swachh Bharat Abhiyan and National Health Mission through its accreditation process for providing clean environment, safe drinking water, good quality pharmaceutical products and medical healthcare services to the citizens of India. NABL has more than 4500 accredited labs doing conformity assessment.
- NABL has imbibed usage of new technologies in its operations by digitalising the records, acceptance of online payments and automating the accreditation process to provide better services to its customers

NABH

- NABH has accredited many organizations of national repute in the field of Ayurveda and Homeopathy
- New initiatives have been taken such as Accreditation of Panchakarma Clinics
- NABH has used Lean Six Sigma methodology to improve its processes and has held stakeholders' meets with the top managements of accredited hospitals and assessors to understand their view point and integrate the same in the deliverables of NABH

NABET

- Working with NCTE, NABET is creating a disruptive approach and has prepared for accreditation of 14,000 teacher training colleges
- NABET has operationalized the Accreditation of CABs for the ISO/IEC 17024 standard since Sept 2015. This year three new CABs have been accredited, out of which two are from overseas (Qatar and USA)
- NABET is accelerating its work with schools – working with NDMC and CBSE to set standards for schools and drive improvement in outcomes

NABCB

- NABCB became a signatory to the Pacific Accreditation Cooperation (PAC) Multilateral Mutual Recognition Arrangement (MLA) for Energy Management Systems in the annual meetings in Bangkok
- NABCB underwent successful peer re-evaluations for Inspection programme by Asia Pacific Laboratory Accreditation Cooperation (APLAC) and FSMS & ISMS by PAC. It was reaffirmed as signatory to APLAC MRA for Inspection in the annual meeting
- NABCB also maintained its status as one of the most advanced accreditation bodies in the world by launching an accreditation programme for Trustworthy Digital Repositories certification and granting the first ever accreditation globally to a UK-based certification body. NABCB also increased its presence internationally by granting accreditation in Qatar and receiving applications from Nigeria and Oman.

NBQP

- Introduced on-line registration system and promotion through digital media which witnessed a 50% growth across all schemes
- Initiated awareness programs on technical subjects like TRIZ, Cyber Security, Risk Assessment

PADD

Yoga Certifications-

- 7 PrCBs are approved for carrying out certification of which application were received from Japan and South Korea
- There have been about 35000 registration and 3000 Yoga Professionals certified across the globe. Examinations have been held in various countries including Japan, Taiwan, German and Peru to name a few
- There are over 50 applications received from Yoga Schools that seek Yoga School Certification, of this 10 Yoga Schools have been certified

Lastly, we have achieved significant growth in people. On manpower front, we have a strong workforce of ~500 which is about 8 times the workforce we had in March 2015.

There are many more achievements of each Board and QCI. The underlining passion, commitment and drive of each individual to make a difference and help India accelerate its development and improve the life of its citizens is praiseworthy.

With such success, we have earned the right to have higher aspirations and make a greater impact on the overall quality of the lives of our citizens. We can take on bigger projects, take more risks and fill the gaps in India's quality ecosystem. Overall, I wanted to thank everyone for the role they have played in this success and invite them to continually engage with us.

Cheers !!

Adil

ZED : Creating growth drivers for MSMEs



Dr. Ramanand N. Shukla
Director - ZED, QCI

“Without a standard, there is no logical basis for making a decision or taking action”

Globally, the Micro, Small and Medium Enterprises have been recognized as the backbone of every economy. Contribution of MSMEs is manifold and includes employment generation, reduction of regional disparities, fostering equitable

economic growth and several other advantages. The role of MSMEs has been recognized by successive governments and this can be witnessed in the evolution of policy frameworks & measures adopted from time to time. The ambitious 'Make in India' initiative by the Government of India is a significant push that would make a substantial impact on the indigenization and attract sizable foreign investment. The vision of the Hon'ble Prime Minister to make India a global manufacturing hub can become a reality if our manufacturing sector becomes globally competitive and provides high quality products acceptable globally.

ZED is an indigenous, integrated & holistic maturity assessment model that aims at enhancing the global competitiveness of MSMEs by gauging the manufacturer's maturity in several areas that include quality, environment, IPR, human resources, overall performance etc. and gradually builds their capabilities to become world class. The ZED Certification Scheme of the Ministry of MSME, Government of India, not only aims to strengthen the processes & systems of MSMEs but also creates an ecosystem where they are identified as MSMEs with a difference.

The ZED Certification Scheme aims to provide a roadmap to the MSMEs to enhance their global competitiveness. The competitiveness comes not only from the capabilities of organizations but also from the strategic interventions of the Government. There are various challenges that MSMEs face and it is prudent that we create an ecosystem to alleviate the challenges of MSMEs and replace them with growth drivers. ZED is moving strategically to create these growth drivers and would play a critical role in times to come. Apart from conferring several advantages,

With the intention to build a strong eco-system for nurturing quality manufacturing, the Hon'ble Prime Minister launched “Financial support to MSMEs in ZED Certification Scheme” on October 18, 2016 at Ludhiana. The Quality Council of India (QCI) is the National Monitoring and Implementing Unit (NMIU) for this scheme.

ZED is making an attempt to create an ecosystem of a conducive business environment for the MSMEs to grow and thrive. MSMEs in India are heterogeneous in nature with a wide range of products, different sizes & constitution and so are the challenges. Some of the major challenges for MSMEs are : lack of adequate credit and capital, technological obsolescence and lack of knowledge or will to adopt new technologies, inadequate access to markets, lack of skilled human resources, cumbersome regulatory requirements and poor adaptability to emerging international trends. This calls for the need of strategic interventions to bring together various stake-holders including the Government, industry and other agencies/associations to address these challenges.

Addressing this need, ZED has collated the key challenges faced by the MSMEs and worked on the propositions that could help in alleviating them. Taking this forward, the Ministry of MSME, Government of India, has created a Task force comprising of various stake-holders from the Ministry, QCI, industry and industry chambers who would be deliberating on these proposed tangible benefits. The 1st meeting of this Task force, under the chairmanship of the Joint Secretary & Additional Development Commissioner (MSME), was held in January 2018 and the Task force is expected soon to come out with its recommendations on how ZED can address the challenges faced by the MSMEs.



Another significant development to encourage MSMEs adopt ZED and move towards becoming world class is inclusion of ZED in the Industrial Policy of Government of Punjab in the form of encouraging adoption of modern quality practices & linking incentives to achievement of performance ratings, ZED ratings etc. and providing additional support to ZED Scheme by "reimbursement of 50% of expenses subject to maximum of Rs. 5 lakh incurred on plant and machinery/testing equipment for obtaining at least silver category status under ZED scheme."

Over the last few months, the ZED Scheme received an overwhelming response. During this period, we also saw the registration numbers soar up crossing the 10000 mark; the current number being more than 12000

ZED has connected with 16 State Governments so far and has already signed MoUs with a few including Andhra Pradesh, Punjab, Telangana, Chhattisgarh and Haryana.



Engaging District Industries Centres (DICs):

District Industries Centres (DICs) have been pivotal in propagating ZED in their respective districts. In the past 3 months, ZED in association with 30 DICs across 7 states has carried out awareness-cum-registration camps. The most notable success of ZED was visible in the states of Jammu & Kashmir and Tripura, where 5 and 8 districts respectively saw awareness-cum-registration programmes seeing more than 400 MSMEs registered with ZED. This was in-line with one of the objectives of the Scheme of reaching out to North-East, J&K and industrially backward areas.



Large organisations adopting ZED:



While State Governments have taken ZED in the administrative stride, Large Enterprises have also shown interest in the adoption of ZED for their supply chain set up. The objective of including ZED as a measure in their procurement process and a standard of evaluation of their vendors has been seen in positive light by leading organisations like Airports Authority of India, Suez, ISRO, Mahindra & Mahindra, Lucas TVS, BASF, 3M, Hindustan Fertilizers Ltd, Hindustan Pesticides Ltd, Hindustan Petroleum Corporation Ltd BEE, ALIMCO, Bosch India, Food Corporation of India, ITI Ltd, Schneider, Air India amongst others.

Such initiatives of collaborating with the Ministries, the State Governments, industry, financial institutions, industry chambers/associations and other stakeholders would pave the way to create a conducive business environment for not only the MSMEs but for the entire industry as well.

Central government has recently given impetus on MSMEs perceiving the sector as the backbone of Indian manufacturing. Initiative like Make in India has also made quality manufacturing a finer aspect to be looked at considering the competitive industrial sector existing today. ZED certification is expected to act as a panacea with its holistic approach of assessment of MSMEs by reducing repetitive inspections. It will certainly be a game changer in the field of quality certification as it is the first Indian holistic maturity assessment model, laying down a roadmap for MSMEs to improve on specific aspects. The USP of the ZED model is that it makes quality measurable with a lot of stress given on the measurement and monitoring of the processes. If adopted in true spirit, ZED model will ensure that an MSME sees continual improvement in its processes and will, over a period of time, be competitive in both domestic and international markets. The ZED team is strategically bringing together the important stakeholders to position ZED as an enabler to drive the growth of Indian MSMEs and realize the 'Make in India' dream.

POPULAR ADVANCED MATERIALS FOR INDUSTRY 4.0 II PHASE CHANGE MATERIAL



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Preeti Pawaria

NABET, QCI

Introduction

Materials have played an essential role in diverse economic cycle and largely influenced every technological system. However, in the present emerging techno-economic hi-tech society, their role tends to be very different and not a single material seems to be associated with this paradigm shift in recent technologies. A kind of global dynamics has been emerged in which there is conception and diffusion of a vast variety of homogeneous and heterogeneous materials. The combination of several materials together is advocating futuristic new and advanced materials. As already discussed in our previous article, advanced materials are new engineering materials which exhibit high strength, hardness and superior thermal, electrical, optical and chemical properties. These materials have dramatically altered communication technologies, reshaped data analysis, restructured medical devices, advanced space travel and transformed industrial production process. These materials are often synthesized from the bi-products of conventional commodity materials and are of tremendous importance from the point of view of popularization of Industry 4.0.

We have demonstrated one of the exciting advanced materials, PZT which is ferroelectric in nature and commercially exploited in the manufacturing of smart devices including electromechanical applications. In the present report, we will make an attempt to discuss a new kind of advanced materials which is semi conducting known as Phase Change Material (PCM) discovered by Ovshinsky, in 1968.

Phase Change Technology

The information and knowledge based society creates a large demand for data storage capacity. Companies need long-term data storage

systems to secure emails, business documents or data bases containing information about customers and business partners. Private consumers need low-cost portable data storage solutions for portable music players, digital cameras, cell phones, or large capacity devices to store personal documents, cinema movies or a digital record collection in the private laptop or hi-fi system. Such a wide range of applications results in a wide range of commercially available data storage technologies, each tailor-made for a specific application. In recent days, NVM technologies are playing important role in portable electronic equipments mainly in cellular phones and electronic gadgets. After the introduction of flash memory technologies in late 1980s, this media has attained significant interest besides the fact that many of the fundamental physical theories were not understood. Extensive research efforts are in progress to settle contradictories issues in this field. Among the different NVM technologies, Phase Change Memory Technology (PCM) also known as Ovonic Unified Memory (OUM) have the potential to improve the performance compared to flash as well as to be scalable beyond flash technology. According to its proponents, PCM technology provides inexpensive, high-speed, high-density, high-volume nonvolatile storage on an unprecedented scale. Advantages of PCM include:

- Better wear characteristics at 100 million writes compared to 100 thousand on the high end of flash
- Better data longevity
- The feasibility to overwrite data without this makes it possible for PCM to function many times faster than conventional flash memory while using less power
- Smaller cell size without inter-cell noise (half the size of NOR flash memory), to potentially enable greater capacities in a smaller package
- Write and erase process that is less destructive over time
- Fewer manufacturing process steps
- Invulnerability to radiation, which is of particular interest to the military
- Faster switching speed of five nanoseconds which is approaching that of volatile DRAM used in computer main memory

Phase Change (PC-RAM), Ovonic Unified Memory (OUM) – Structure

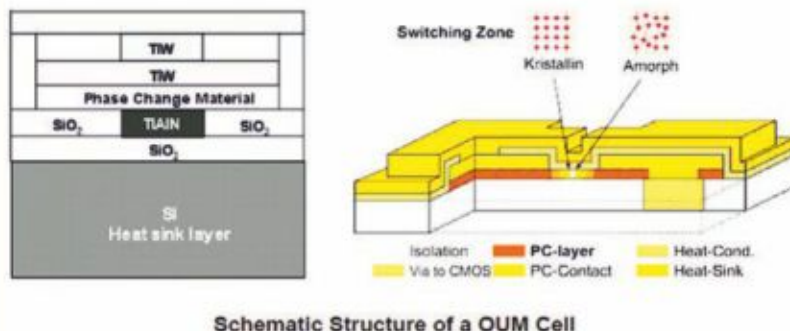


Fig. 1 Structure of OUM Cell

Potential Phase Change Materials

Some alloys based on the group VI elements, also called as chalcogenides, have the interesting characteristics of stability at room temperature both in the amorphous and crystalline state. The most promising alloy GeSbTe also referred to as GST is found to be a suitable candidate for flash/phase change memory application. GST is of the same family of material, which is used in the re-writable media of optical data storage. In the phase change flash, electrical current of different magnitudes are passed from a heater element through the chalcogenide materials.

The first product using Ge-Sb-Te material appeared in the market in 1990. However, very recently, Ag-In-Sb-Te and In₃SbTe₃ with high erasability with slight change in the stoichiometric composition has been commercialized for data storage application. In more recent year, a new dual layer phase change optical recording material Ge-Sn-Sb-Te has been investigated. This medium has claimed to have large transmittance, high erasability and good recording characteristics. There are currently new popular chalcogenides PCMs which are used for both phase change optical disc and electronic memory device. These are from the class of ternary and quaternary eutectic system.

Upcoming PCM Devices

One representative of these advanced technologies is Scanning Probe Phase Change Memory (SPPCM) that takes advantage of PCMs as storage media and a scanning electrical probe as the storage tool. Due to the implementation of PCMs as the storage media, SPPCM consequently inherits the advantageous characteristics of the PCMs such as fast transition and superb stability associated with large electric/optical contrast.

The application of PCMs to secondary memory storage led to the birth of PRAM that is undoubtedly the most prestigious phase-change memory to date, due to its prevailing characteristics for great scalability, fast switching speed, long retention time, and excellent endurance.

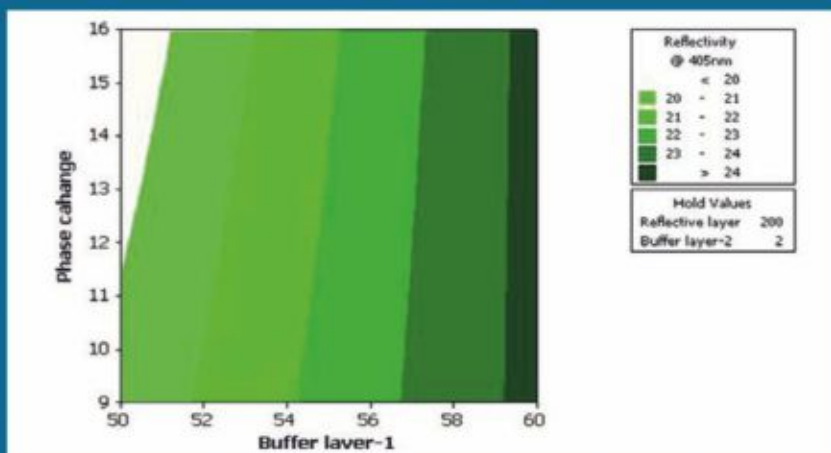


Fig 2. Reflectivity variation of phase change material and buffer w.r.t. heat

Sharpening the 'Entrepreneurial' Edge....



Dr. Indrajit Bhattacharya
Director, NABET

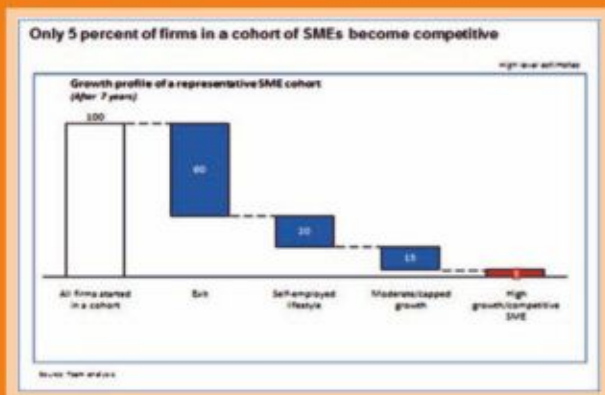


Figure 1 : Only 5% of firms in a cohort of SMEs become competitive

Source: Competitive Small and Medium Enterprises; A diagnostic to help design smart SME policy, World Bank 2013

Key words : Entrepreneurship, Skill and Competency; Sustainable and Inclusive Development; Industrial Training Institutes (ITIs); Personal Entrepreneurial Competencies (PECs); Micro Small and Medium Enterprises (MSME)

It is commonly acknowledged that Micro Small and Medium Enterprises (MSME) are engines for growth and employment, both in high income and developing countries. MSMEs are often treated synonymously with innovation and entrepreneurship, which is increasingly seen to be important source of growth. Particularly in times of high unemployment and intense competition (leading from large manufacturers, adoption of automation to reduce staff), focussing on MSMEs is an attractive proposition.

Figure 1 shows a study analysis conducted on small firms (with less than 100 employees), aged between 7 and 15 as of 2010. High growth firms are defined as firms that increased their employee strength by more than 50 people. The data was only on MSMEs that survived more than 7 years. It categorises firms into 4 groups according to their employment growth rate: hyper growth firms (with 150% growth in employment); strong growth firms (50-115% growth in employment); slow growth firms (between 0-50% growth in employment); declining firms (with negative employment growth). Related evidence on the growth profile of firms finds that it is not so much that small firms can grow quickly as much as young firms (who tend to be small). Young firms are more likely to grow than old firms.

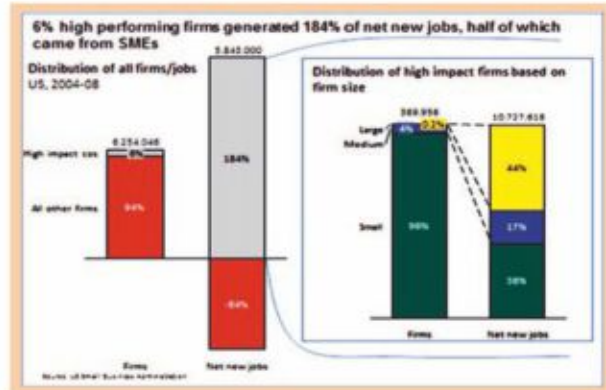


Figure 2 : 6% high performing firms generated 184% of net new jobs, half of which came from SMEs

Source: Competitive Small and Medium Enterprises; A diagnostic to help design smart SME policy, World Bank 2013

It is now well acknowledged that in order for India to reap the benefits from its demographic dividends, we must upscale the 'Quality Skill Development' initiatives with 'Speed' besides promoting 'High-Growth Entrepreneurship' initiatives.

The 'Sharda Prasad Committee Report' submitted in early 2017 on the 'NSDC initiatives' on the efforts by Sector Skill Councils (SSC) has not been very encouraging. However, establishing of 'Kaushal Kendras' - Centres of Excellence (CoE) in Skilling is being carried out for addressing the Skill-gap challenge; it is a capital intensive and time consuming proposition.

Further, it can be seen that so far our country has established over 13,500 Industrial Training Institutes (ITIs); 15% of it being set up by the government and the rest 85% established by private players. Out of the total ITIs established till date, over 6500 have been affiliated by National Council of Vocational Training (NCVT) after accreditation by Quality Council of India (QCI) till 2016. The MSME sector employs about 110 mn. manpower in our country, second to the agri-sector. Also the ITI qualifiers has been the basket for cost effective hands-on manpower providers for building the MSME sector in the country. With the growing focus of the government for 'Make in India', 'Start up India' and 'Stand up India', it becomes more imperative to look at the quality aspect of ITI qualifiers in India. Whereas as per reports, over 80% engineering graduates in India are having difficulty in job placements, there is a rising trend that 90% and above score achievers in Std. 12th are choosing the ITI route; starting from State of Maharashtra.

On the other side, it is quite easy to identify the pitfalls in the system of ITI— which is the missing aspect of 'surveillance assessment' of the established ITIs leading to gaps in failing infrastructure and absence of quality teaching faculty and delivery system. In this scenario, the corrective action should logically be to implement back the third-party accreditation system and introduce regular 'mandatory surveillance system', having outcomes displayed on public platform; besides institutionalising an 'independent third-party rating system' in place.

Next, the Pareto's principle needs to be applied here which is a principle, named after economist Vilfredo Pareto, that specifies an unequal relationship between inputs and outputs. The principle states that 20% of the invested input is responsible for 80% of the results obtained. Hence, to quickly arrive at the required results of fast tracking 'Sustainable and Inclusive developmental initiatives' of Sustainable Development Goals (SDGs) in our country, the focus should be to financially incentivise the 20% of the top rated ITIs of the country, to scale up. The scale up for the top performing ITIs should be for enhancement of Trade Sectors, creating master trainers, towards faculty incentivisation and increased allowance for batch size. This would automatically lead to striving for non- performing ITIs to improve the quality deliverables.



Figure 3 : Attributes of Competence

Besides above, as 'Skill and Competencies' are disparate entities, government's focus on 'Entrepreneurship development' through 'Start up India' and 'Stand Up India' requires to be re-aligned to focus on development of Personal Entrepreneurial Competencies (PECs) in aspiring/new entrepreneurs typically from :

- Existing small, medium and micro enterprises that have a track record of good business performance;
- Potential entrepreneurs with promising business ideas and high growth potential;
- Start-up companies with good bankable project proposals;
- Key institutions (Banks, Loan Guarantee Funds, Entrepreneur Associations, Investment Promotion Agencies, SME support agencies);



Figure 4: Attributes of Sustainable Development

The above two-step approach could possibly be a solution for 'inclusive and sustainable' fast track growth of MSME. As India is already racing against time for scaling up 'Quality Skill development initiatives', it becomes imperative for the system to start rolling. This will have a domino effect on reversing the slow-down in the manufacturing sector of the country, leading to a progressive growth in the economy.

Parallely, the weaving act between the qualifiers and employment opportunities needs to be carried out by the accredited (standardised) industry associations / Business Membership Organisations (BMOs). These BMOs would need to be empowered for enforcement of Apprenticeship Act for channelizing right skilled worker to the right MSME, a practice successfully implemented for 'right skilling' in developed nations such as Germany.

	SMEs Policy	High-Growth Entrepreneurship Policy
Policy Goals		
Objectives in relation to entrepreneurs	Entice more people to become entrepreneurs	Entice the right people to become entrepreneurs
Objectives in relation to entrepreneurial firms	Increase the number of new entrepreneurial firms	Increase the growth of entrepreneurial firms
Objectives in relation to operational environment	Facilitate the environment for small business operation	Facilitate the environment for entrepreneurial firm growth
Resource Provision		
Source	Mostly from public sources	Combination of public and private sources
Type of financial resources	Grants, subsidies, soft loans	R&D loans and innovation grants, business angel finance, venture finance, IPOs
Dominant service	Basic (standard) advice for firm creation, business planning, small business operation	Experience-based advice for venture finance, strategic planning, internationalisation, organisational growth
Resource distribution principle	Ensure equal access for everyone (resource spread)	Select promising recipients (resource focus)
Regulatory Emphasis		
Life cycle focus	Remove bottlenecks to new business entry	Remove bottlenecks to entrepreneurial firm growth
Compliance bottleneck addressed	Reduce cost of compliance for small businesses	Smooth compliance requirements for growing firms
Fiscal regulations	Reduce VAT for small firms	Accommodate dramatic changes in firm scale; treat share options neutrally
Attitude toward failure	Avoid failure, bankruptcy	Accept firm failure and bankruptcy, but reduce the related economic and social cost
Links to other policy domains	Industrial policy, social policy, labour policy	Industrial policy, innovation policy, labour policy

Table : High Growth Entrepreneurship Policy

Source:Competitive Small and Medium Enterprises;A diagnostic to help design smart SME policy, World Bank 2013

Conclusion:

A two-pronged approach can be foreseen to support competitive MSMEs, sharpening 'Entrepreneurial competencies' leading to increased employment. The first is a set of policy themes that reward outcome and impact, while the second pillar is the process of policy design, delivery, monitoring and iteration. Government policies should focus on enabling high potential enterprises to grow rather than merely increasing number of firms in the economy. Examples of key policy themes include management capacity building - Personal Entrepreneurial Competencies (PECs), improving firm's productivity and innovation, besides matchmaking for employability through accredited BMOs.

QCI participation in NTMs Week organised by UNCTAD and ITC of the United Nations



Dr. Manish Pande
Joint Director and Head
PAD Division, QCI



Private Sustainability Standards (PSS) on non-product-related processes and production methods related to certain safety, health, social, environmental and animal welfare requirements are increasingly being used in global supply chains. Compliance to PSS is becoming increasingly important for access to lucrative and dynamic international markets. It can be also used as an effective tool for achieving certain national sustainable development objectives. government commitment within the country is indispensable and cannot be compensated for by external actors such as NGOs, development agencies or international organizations.

Since Indian policymakers and businesses start to use Voluntary Sustainability Standards (VSS) as an instrument to address various sustainability challenges and increase the participation of Indian companies in international supply chains, it is important that all concerned stakeholders have a sound understanding of how VSS can be integrated into India's policy frameworks.

In this light, the launch of the National Platform was jointly organized by the Quality Council of India (QCI), and the United Nations Forum on Sustainability Standards (UNFSS) - an initiative of 5 UN agencies: FAO, ITC, UNCTAD, UNEP and UNIDO - with the understanding that the National Platform is a demand-driven, national public-private partnership initiative with India being the first country to set up a platform to tackle to issue of VSS/PSS.

In view of the above, ITC and UNCTAD requested QCI to share its experience with international gathering on NTMs Week at the United Nations.

The NTMs Week sheds light on the importance of mandatory trade-related regulations and VSS on international trade and development, and shows successful global, regional and national approaches to tackle the challenges including transparency initiatives and regulatory cooperation.

It was a 4-day event held from 25-28 September 2017 in Geneva encompassing various sessions tackling various issues pertaining to VSS, the partnership models, its management etc.

The first event of the series was held in ITC Headquarters in Geneva and catered to the various partnership models of Standards Organisations involved in the functioning of VSS. The Trade for Sustainable Development Forum (T4SD) activities include bringing together business people, researcher, standards organization and international trade officials to discuss trends in sustainable value chains and VSS. It included four sessions targeting issues related to standard organization, big businesses and policymakers followed by a mini-hackathon.



The second day sessions were put together by the German Development Institute /Deutsches Institut für Entwicklungspolitik (DIE) titled 'Drivers and Constraints for Adopting Sustainability Standards in SMEs'. The German Development Institute, as part of its Managing Global Governance (MGG) Network, had two sessions focusing on the specific challenges and opportunities faced by small and medium-sized enterprises (SMEs) about VSS and the related demand for finance. The sessions began with case studies from various countries such as Brazil, China, India, Indonesia and South Africa. Authors from each of the country that worked for the MGG gave their presentations.



QCI representative giving inputs during the hackathon

The authors André Meyer Coelho & Marcelo de Oliveira Nunes, Fundac o Getulio Vargas (FGV) gave a brief account of the level of sustainability adopted by the SMEs in Brazil. The Chinese case study was presented by Shanghai Institutes for International Studies (SIIS) whereas the Indian case study was presented in two parts as a macro-study by Indian Council for Research on International Economic Relations (ICRIER) and as a micro-study by Centre of Excellence for Sustainable Development. There were case studies from Indonesia and South Africa as well.

The underlying issue that came out in each of the case study was the urgent need to encourage the SMEs to adopt VSS. All the studies also unanimously highlighted the role of the governments to support them with financial assistance and technical expertise to make it happen. The Indian case study identified the need to take up actions including spread of awareness and information, friendly policies, ease of access to resources and finances and capacity enhancement are some of the key determinants underlying the promotion, integration and success of VSS within the SMEs.

The India case study was presented in the form of a report that analysed about the Impact of Private Sustainability Standards on Market Access and Sustainable Development giving specific reference to the Indian market and the priority product groups that were identified post launch of the PSS platform in India.

There was a mention of the mushrooming of over 500 PSS in 199 countries and 25 industrial sectors, the PSS system, involving testing, inspection and certification procedures across all market sectors that apply to samples, products, services, management systems or personnel is the testament to PSS now becoming the new market reality as a tool for sustainable supply-chain management, marketing and competitiveness.

In India, PSS are seen to compete with the national regulatory institutions in defining the mandate for safety and quality. Therefore, in addition to mandatory regulations, voluntary measures are seen to be affecting market access of Indian products and therefore require a close consideration.

The study identifies three Priority Product Groups (PPGs) that are most affected by the proliferation of the PSS in the Indian context. The PPGs that were chosen (and later substantiated) include agri-food (tea &

grapes) since food safety is the paramount concern for the consumer and the retail chains, wooden handicrafts (forestry sector) since the exporters and buyers of handicrafts in EU market are concerned of issues related to illegal logging and harvest of timber from the forest. Textile is another such sector which attracts the highest number of voluntary and private standards and the manufacturers can't place their products in market if they don't have any certificate to show compliance to the buyer-demanded certifications.



Speaker in Panel : Managing Global Governance : Country Studies

During the day, the ITC Sustainability map platform was launched to help the stakeholders to adopt the current sustainability standards mapped by the ITC of the United Nation.

The concluding day proceeding was focused on the need for global governance and dealt with various sustainable development goals and means of achieving them. The SDG that can be effectively handled through adoption of the VSS includes poverty elimination (SDG1), gender equality (SDG5), decent work (SDG8), sustainable production and consumption (SDG12), sustainable marine ecosystem (SDG15), and terrestrial ecosystems protection (SDG15).

The day included country presentation about VSS from various countries including Indonesia, China, Brazil and Mexico. All of these growing economies echoed similar sentiments as that of India.

The meeting concluded with the following key deliberations:

- Each country needs to find the right kind of organisation that could handle the VSS Platform
- One needs to be weary of Private Sustainability standards as they are mostly profit driven and create hype that may be misleading – a clear case of wood certifying standard that is professing mango based handicraft
- It is important to not only focus on Sustainability Standard but also to look at the conformity tools that are used to grant certification. A V/PSS may be well written, but if the implementation is not done with rigour, the Standard would be dis-credited for lack of rigour in assessment process

As country platforms, it is important to build robust review process to control deviations that happen either due to the laxity of the Scheme Owners or incompetence of the Certification Bodies.

eLearning Programme on **Air Pollution & Air Quality Modelling (AP-AQ)**



Quality Council of India (QCI) - National Accreditation Board for Education and Training (NABET) being the national accreditation body developed an accreditation Scheme for EIA Consultant Organizations. The Scheme details out the expertise and facilities required by a consultancy organization wishing to conduct an EIA-EMP study and define the criteria for assessment. The Ministry of Environment, Forests and Climate Change (MoEFCC) mandated, first by an Office Memorandum on December 2, 2009, and then through a Notification dated March 3, 2015, that only consultants accredited under the QCI- NABET Scheme can prepare and present EIA-EMPs to the regulatory authorities for obtaining environmental clearances. The course on Air Pollution aspects will cover two expertise areas defined in the Scheme – Air Pollution monitoring, prevention and control (AP) and meteorology, Air Quality modelling and prediction (AQ). There are 6 Modules for this course as follows:

- Module 1** : Basics of atmospheric sciences and air quality modelling
- Module 2** : Rules and regulations applicable to AP and AQ in respect of EIAs
- Module 3** : Air pollution measurement and interpretation of baseline data
- Module 4** : Assessment of potential pollution generation (sources, quantities, and concentration)
- Module 5** : Impact identification, assessment including modelling
- Module 6** : Air pollution prevention and mitigation

Benefits for Learners

- Equip learners with necessary skill-sets under the QCI- NABET accreditation scheme
- Offering professional certificates to learners to enhance the career prospect
- Knowledge enhancement of budding consultants through interaction with the eminent subject matter experts in the Stage-II
- Real-time assessment of learners and learning progress

Lean Diary

Lean manufacturing: Concept and Introduction

Lean manufacturing is a revolutionary, though relatively less new approach, for identifying and eliminating Muda or waste (non-value-added activities) through continuous improvement by flowing the product at the pull of the customer in pursuit of perfection.



Fig.1 House of Lean

Lean management seeks to implement business processes that achieve high quality, safety and worker morale, whilst reducing cost and shortening lead times. Though the roots of lean management trace back to Toyota Production System (TPS) in Japan, the practice in itself is not unique to Japan. What sets modern lean management apart, and makes it particularly effective, is that it has at its core a laser-sharp focus on the elimination of all waste from all processes.

8 Wastes of Lean

Lean identifies 7 basic wastes which need to be eliminated in an organisation to achieve optimum and stable performance output. An eighth waste, by the name of 'Unused talent' has been recently introduced to identify gaps in realizing the full potential of the available human resource in the company.



Implementation of Lean tools and techniques to bring about reduction and subsequent elimination of these 8 wastes ensures the organisation moves towards achieving lean manufacturing.

Opportunity for MSME units in India

The Lean Manufacturing Competitive Scheme (LMCS) offers an existing MSME unit owner for realising tangible and non-tangible benefits over 18 months by remitting only 20% of Consultant Fees (upto Rs. 36,000/-); wherein 80% of the Consultant Fees is remitted by the Office of Development Commissioner, Ministry of MSME, without making any further Capital investments.

Lean Manufacturing Competitiveness Scheme

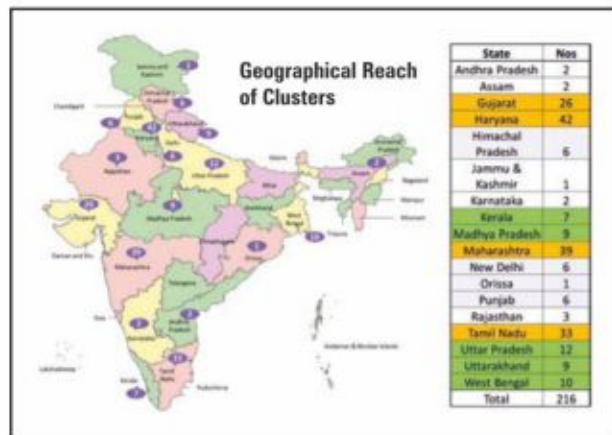
NABET is functioning as a National Monitoring and Implementing Unit (NMIU) for up-scaled version of Lean Manufacturing Competitiveness Scheme of Ministry of MSME. The scheme aims at enabling MSMEs for elimination of non-value-added activities, resulting in a more "lean," competitive, agile, cost reduction, cycle time reduction, "waste" minimization, and be market-responsive company through implementation of Lean Tools and Techniques.

Scheme at a Glance

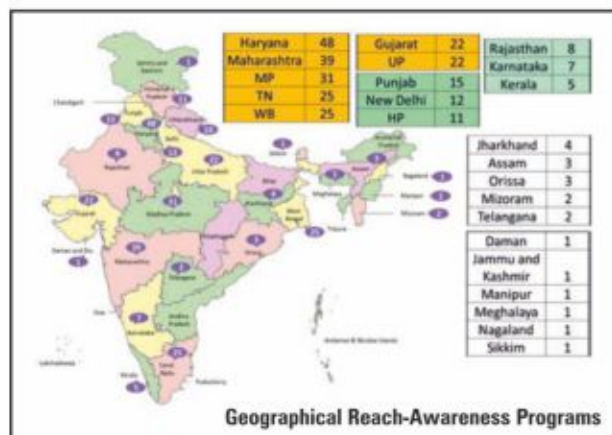
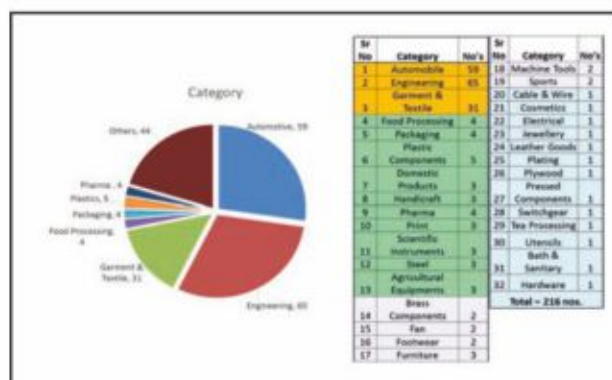


PARTICULAR	SCHEME REQUIREMENT
Implementation Period	18 months
LM Consultant Fees	Rs. 36 Lakhs (Max.)
Payment Terms	Pro Rata. Cluster size limited to 6 units
Contribution from Industries	Flat 20%
SPV formation	Sub Groups/ Distinct product Groups can also form Cluster

Till now NABET has formulated 216 Clusters **Geographical Reach of Clusters (State and UT Covered: 18)** and has conducted 250 awareness programs (24 States) under the scheme.



Total 32 sectors have been covered wherein Automobile, Engineering, Garment and Textile are the sectors where maximum Clusters have been formed.



Assessors' Meet

An all India Assessors' meet was organised at NABET, QCI, on 3rd August, 2017. The meet was chaired by Mr. S.M. Jamkhandi, Hon'ble Director, DC-MSME Office; Mr. Ali Rahman, Hon'ble Deputy Director, DC-MSME office and Dr. Indrajit Bhattacharya, Director, NABET-QCI.

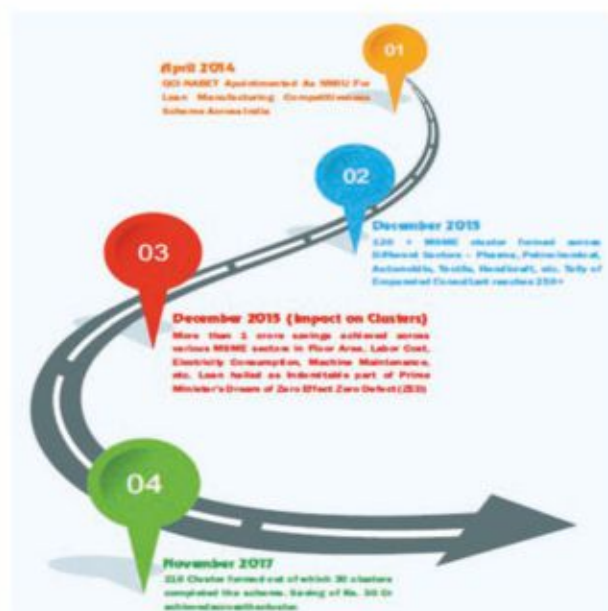
The meet was aimed at creating a platform for a rich exchange of ideas and experiences with regards to Lean Manufacturing implementation and assessment under the LMCS scheme across the country. It facilitated a discussion on the uniqueness of the scheme and the unprecedented success it has received amongst the MSMEs of India. The participants were the pool of assessors with NABET-QCI as well as officials from MSME-DIs of the country.

NABET-QCI trainers went through the assessment procedure under LMCS and presented case studies and initiated discussions on technical intricacies involved in evaluating the progress of the lean tools in Indian MSMEs.

The meet also marked the formal launch of the Assessor Manual.



Journey So far.....



Case Study : M/s Pragati Founders Pvt. Ltd.



Pragati Founders Pvt. Ltd. is a member unit of Shri Laxmi General Engineering Cluster under M/o MSMEs LMCS. It manufactures raw/machined castings for Automotive, Engineering and Machine tool Industries. It is equipped with foundry & Core shop unit with shot blasting, fettling & fabrication facilities with advanced machinery.



As part of the implementation plan under M/o MSMEs LMCS, projects such as Visual Control, KANBAN, Cellular Layout, Pokayoke, SMED, TPM, 5S and Kaizen have been implemented. Of the Lean projects implemented, a combination of 5S and Layout change have particularly brought about substantial change in the company's manufacturing process and have resulted in significant savings as well.

The project thus implemented and benefits accrued are illustrated below:

OPPORTUNITY	MEASURES TAKEN	BENEFITS
'Core Shop' and 'Core Assy. Shop' located away from 'Pouring area'.	With 5S and VSM, vacant area created in main shop. Core shop and core assy. Area shifted there.	1. Rent cost saving = Rs. 14000
1. Total travelling dist. = 128 mtrs.	Total travelling distance reduced to 30 mtrs.	2. Foreman + 2 helpers cost saving = Rs. 25,000/-
2. Two helpers + foreman employed = Rs. 25000 per month		3. Transport trips reduced = Rs. 9000/- saved
3. Rent cost = Rs. 14,000		4. Savings by applying single piece flow = Rs. 16000/-
		5. Defects reduced = Rs. 2000/- saved
		6. Total Rs. 66,000/- savings/month * 12 = Rs. 7,92,000/- lakh p.a.
		7. Space saving = 1500 sq. ft.

The figures below demonstrate the plant layout both before and after the implementation:



"We are very much thankful to DI Mumbai and especially to QCI for their efforts to bring us in Lean Cluster. We have been very much benefitted by Lean tools like 5s, Cellular Layout, Kaizen, Kanban, Poka Yoke, etc. Yearly we have got the savings of Rs 62,13,534. We have been converted from loss making unit to a profit making one due to Lean Mfg. Activity. We will keep this going and sustain in our factory."

- Mr. Milind Patil, Managing Director, M/s Pragati Founders

RESULT

M/s Pragati Founders, by way of lean tools implementation under LMCS, has saved minimum Rs. 7,92,000/- (Rupees Seven Lakh Ninety Two Thousand) from lean projects and **has transitioned from an average negative gross profit ratio of -3% to an average 12% gross profit ratio(Quarter on Quarter basis).**

REACH US : <http://nabet.qci.org.in/MSME/>



BEHOLD

I STAND AT THE DOOR,
AND KNOCK:
IF ANY MAN
HEAR MY VOICE,
AND OPEN THE DOOR,
I WILL COME
IN TO HIM, AND WILL
SUP WITH HIM,
AND HE WITH ME.

PSALM 122

The peace of Jerusalem

A song of degrees of David.

1. I was glad when they said unto me, Let us go into the house of the LORD. Is 2:3; Zech. 8:21
2. Our feet shall stand within thy gates, O Jerusalem.
3. Jerusalem is builded as a city that is compact together: See 2 Sam. 5:9
4. Whither the tribes go up, the tribes of the LORD, unto the testimony of Israel, to give thanks unto the name of the LORD. Ex 23:17; Deut. 16:16; Ex. 16:34
5. For there are set thrones of judgment, the thrones of the house of David. Deut 17:8; 2 Chr. 19:8
6. Pray for the peace of Jerusalem: They shall prosper that love thee. Ps. 51:18
7. Peace be within thy walls, and prosperity within thy palaces.
8. For my brethren and companions' sakes, I will now say, Peace be within thee.
9. Because of the house of the LORD our God I will seek thy good. Neh. 2:10

PSALM 121

Help from the LORD

A song of degrees.

1. I will lift up mine eyes unto the hills, from whence cometh my help. Jer. 3:23
2. My help cometh from the LORD, which made heaven and earth. Ps. 124:8
3. He will not suffer thy foot to be moved: he that keepeth thee will not slumber. 1 Sam. 2:9; Ps. 127:1; Is. 27:3
4. Behold, he that keepeth Israel shall neither slumber nor sleep.
5. The LORD is thy keeper: the LORD is thy shade upon thy right hand. Is. 25:4; Ps. 16:8
6. The sun shall not smite thee by day, nor the moon by night. Ps. 91:5; Is. 49:10
7. The LORD shall preserve thee from all evil: he shall preserve thy soul. Ps. 41:2
8. The LORD shall preserve thy going out and thy coming in from this time forth, and even for evermore. Deut. 28:6

KNOCK : 09582424800

INTERNATIONAL MINISTRY OF MINISTERS

LT. COL. SELLARAJ JOHN (NADAR) HONORARY DIRECTOR
195, 2nd Floor, Pragati Apartments, Club Road, Paschim Vihar, New Delhi
Phone : 25211371, 25217399 Email : johnsellaraj@yahoo.com
RIGHTEOUSNESS EXALTETH A NATION



National Accreditation Board for Testing and Calibration Laboratories

INTERNATIONAL CHANGES IN STANDARD & IMPLEMENTATION

**IMPORTANT
ANNOUNCEMENT**

Transition to Standard ISO/IEC 17025: 2017

The third edition of International standard ISO/IEC 17025 (viz. ISO/IEC 17025: 2017) 'General requirements for the competence of testing and calibration laboratories' has been published on 29.11.2017 by ISO Committee on Conformity Assessment (CASCO) after being circulated for voting to the national bodies of both ISO and IEC, and was approved by both organizations.

INFORMATION FOR TESTING & CALIBRATION LABORATORIES

S. NO.	ACTION BY NABL	PERIOD
ASSESSMENTS		
01.	NABL will start conducting the assessments based on ISO/IEC 17025:2017 version	w.e.f. 1st August 2018
APPLICATIONS (INITIAL ASSESSMENT OR RE-ASSESSMENT)		
01.	Acceptance of applications for initial accreditation as well as for renewal of accreditation as per 2017 version	w.e.f. 1st August 2018
02.	Stop accepting applications based on 2005 version	31st July 2018
RE-ASSESSMENT (ACCREDITED LABORATORIES)		
01.	If re-assessment is conducted based on 2017 version, continuity will be maintained in accreditation cycle. Then, the subsequent surveillance (likely to be due in year 2019) will be Desktop Surveillance and existing procedure will be followed	August'18- December' 18
02.	If re-assessment is conducted based on 2005 version, continuity will be maintained in accreditation cycle. However, the subsequent Desktop Surveillance (likely to be due in year 2019) will be converted into On-site Surveillance and will be conducted based on 2017 version	August'18- December' 18
SURVEILLANCE (ACCREDITED LABORATORIES)		
01.	If Surveillance (either on-site or desktop) is due in 2018, the laboratory may decide to take up the assessment as per 2017 version or continue with 2005 version but the next assessment due in year 2019 will be on-site based on 2017 version.	After 01st August 2018

In all the above cases, these laboratories will be required to provide a compliance statement of 2017 version before the conduct of on-site assessment visit. Further, all certificates issued by NABL as per ISO/IEC 17025: 2005 version will cease to exist on 29th November 2020.

INFORMATION FOR TESTING & CALIBRATION LABORATORIES

It is to apprise you that NABL will conduct two-day workshops on new standard ISO/IEC 17025: 2017 at different locations across the country for empanelled assessors in accordance with the new standard w.e.f. April'18. The details for the same will be announced shortly and will be intimated to all the assessors or publicized on NABL website.



Revision of ISO/ IEC 17011 "Conformity assessment – General requirements for accreditation bodies"

The International Standard ISO/IEC 17011 specifies general requirements for accreditation bodies assessing and accrediting conformity assessment bodies (CABs). It is an appropriate requirements document for the peer evaluation process for mutual recognition arrangements between accreditation bodies.

The revised version of this standard has been published in November 2017 and ILAC & IAF have developed a plan to ensure that all accreditation bodies which are signatories to the ILAC MRA and IAF MLA have transitioned to ISO/IEC 17011:2017 within three years from the date of publication of the standard.

PROGRAMES CONDUCTED BY NABL

AWARENESS PROGRAM OF NOTIFICATION FOR TOYS TESTING

To sensitize the toy testing laboratories about the requirements of Toys testing and its accreditation in purview of DGFT notification No. 26/2015-2020 on "Amendment in policy condition no. 2 to chapter 95 of ITC (HS), 2017- Schedule-I (import Policy)", NABL has organized one day awareness programs in 15 cities across the country in which about 542 lab personnel. Wherein the trainers were the resource persons trained from the Master training program held on 27th November 2017 in Delhi.



Delhi (23.12.2017)

During the program, in addition to NABL Accreditation awareness, update towards notification of DGFT was shared. The program also deliberated upon upcoming business prospects in Toy testing which highlighted on import value of toys and size of the Indian toys industries, current demand for toys testing laboratories and the potential business opportunities in toys testing. The session also briefed about the requirements for toys testing as per Indian standards.

As an outcome, about 10-15 laboratories are planning to enhance their capability in toys testing to cater the current demand of Notification from DGFT.

AWARENESS PROGRAM FOR PROFICIENCY TESTING PROVIDERS

To bring awareness about importance and benefits of being an accredited PT Providers NABL organized one-day awareness programs in North, West & South Zone during December, 2017 wherein many potential PT providers participated.

The program covered an overview of ISO/IEC 17043 and PT provider accreditation process. This International Standard specifies general requirements for the competence of providers of proficiency testing schemes and for the development and operation of proficiency testing schemes.



Participants at PTP Accreditation

TRAINING PROGRAM ON "FIRE ASSAY TEST IN GOLD/ JEWELLERY"



Three-day training on 'Fire assay test in Gold/Jewellery - Harmonizing the assessment' was held at India Government Mint, Mumbai from 07th- 09th December 17. The training was conducted with an objective to harmonize the assessment process and impart practical exposure to the participants Gold and Silver testing. During the training the IS standards related to Gold and Silver testing namely IS 1418, IS 2113, IS 1417 and IS 2112 were discussed.

AWARENESS PROGRAM FOR NORTHERN STATES POLLUTION CONTROL BOARDS

NABL joined hands with CPCB and organised one-day awareness program on 07th December 2017 for the Northern region Pollution control boards of CPCB, Delhi. The Awareness program was graced by Mr. Anil Relia, CEO, NABL & Dr. Manoranjan Hota, Advisor, MoEFCC and representatives from Northern state pollution control boards. The program was conducted to create awareness amongst pollution control board labs throughout India.



AWARENESS PROGRAM FOR DRUG & PHARMACEUTICAL SECTOR



To habituate Drugs & Pharma Sector with quality compliance by self-regulation, NABL organized an awareness program as per ISO/IEC 17025:2005 on 28th November 2017, at Baddi, Himachal Pradesh.

The program was graced by State Drugs Controllers (Ex. DC & DDC), CDSCO and General Secretary, HDMA Drug Inspectors. The program comprised of interactive and informative sessions on ISO/IEC 17025: 2005 and NABL accreditation process and detailed information about Indian Pharmacopoeia-2018 and its relevance for Pharmaceutical Sector.

TRAINING ON CALIBRATION / TRACEABILITY OF MEDICAL DEVICES

NABL joined hands with EU- India CITD Project & EU Experts and organized a two-day training program on 11th – 12th January 2018 at Mumbai for Medical Devices Calibration facility.

The objective of the program was to aware Laboratories calibrating Medical Devices and NABL Accreditation, Accreditation Process with its benefits. The training updated the participants with the knowledge of EU framework on medical devices including accreditation and conformity assessment requirements, the scope of the Notified bodies and affixing of the CE marking. Forty participants were trained during the program.



TRAINING ON TESTING OF TELECOMMUNICATION EQUIPMENT

To facilitate our stakeholders in the area of Telecommunications NABL, with support from EU- India CITD Project & EU Expert, conducted Telecom Training Program at New Delhi and Bengaluru. The Training Program provided general information about the EU Regulatory framework, particularly regarding the Radio Equipment Directive (RED) and the Electromagnetic Compatibility Directive (EMC).



13th -15th November' 17, New Delhi

ASSESSOR'S TRAINING COURSES

Assessor training course based on ISO 15189:2012 Medical Laboratories – Requirements for Quality & competence held on 11-15.12.17 at Indian Spinal Injuries Centre, New Delhi.



Assessor training course based on ISO/IEC 17025:2005 General Requirements for the competence of testing & calibration laboratories held at St. John's Medical College, Bengaluru.



Assessor training course based on ISO 15189:2012 held on 13-17.11.17 at Fab Hotel Pawan Putra, Kolkata.

“BMOs play a stellar performance in creating world class infrastructure in SPVs”: SIDBI



Dr. Subhansu Sekhar Acharya, General Manager, SIDBI

Hon'ble Finance Minister, Mr. Arun Jaitley, had announced during his budget speech for the year 2018-2019 that all the companies with a turnover upto Rs 250 crore will now have to pay 25% of corporate tax. Previously, companies with turnover of above Rs 50 crore came under this slab. Highly efficient equipment used in space mission is a contribution of MSME sector. The greatest enemy of mankind today is 'Poverty'. Sustainable Development Goals (SDGs) can be built to eradicate poverty & MSMEs can play a pivotal role in achieving it. BMOs have played a stellar role in setting up Special Purpose Vehicle (SPVs) to partner with government & SIDBI to create a world class infrastructure in MSMEs, especially clusters. BMOs play an important role in advocating appropriate policies for the MSME sector. SIDBI helps BMOs in investing in capacities and enables them to advocate policies & create an ecosystem where MSMEs can grow in orderly fashion. BMOs can also help the startups, can be the real mentor and can act as an adviser to solve the issues of MSME.



Shri Arun Kumar Panda, Hon'ble Secretary, MoMSME

Classification	Annual Turnover
Micro Enterprise	Less than or equal to Rs. 5 crore
Small Enterprise	More than Rs. 5 crore but does not exceed Rs. 75 crore
Medium Enterprise	More than Rs. 75 crore but does not exceed Rs. 250 crore

New Classification proposed for MSME

Tax rebate of 25% of corporate for the MSME sector stems from the new classification. The new definition will focus on the annual turnover of an enterprise. The units with turnover of less than or equal to 5 crore annually will be classified as micro enterprise. Units with turnover between Rs 5 crore & Rs 75 crore will fall under the small enterprise category & those that have a turnover between Rs 75 crore & Rs 250 crore will be referred to as medium enterprises. A new initiative initialized from the government wherein the 20% of the total procurement made by the Central Public Sector Enterprises (CPSEs) should come from the MSMEs. RBI is providing relief to MSMEs sector. RBI would allow up to 180 days to make loan repayments to GST-registered MSMEs with aggregate standard exposure of up to Rs 25 crore. This will now be classified as NPAs after 180 days instead of earlier 90-day limit. BMOs can act as a bridge between MSME and rest of the world.



Dr. Rajiv Kumar, Vice Chairman, NITI Aayog

Niti Aayog and government strongly supports to strengthen MSME. MSMEs are the driving force, the energy and the dynamism the country needs to take growth rate to a new level. There is a need for small & medium enterprises to grow. We need to identify why small & medium enterprises is not scaling up. **Here BMOs can play an important role in the scaling up of MSMEs. BMOs can play an important role in the self-assessment & ranking themselves. This will encourage to improve themselves. Niti Aayog, in collaboration with DC, MSME can organize larger awards for this and can provide bigger incentives to the awardee BMOs.** MSMEs can be a part of local & regional global value change.

Valuable suggestions for scaling up of the MSME sector is needed. This will help in growth of the small & medium enterprises.

Compiled by Manila Talwar, NABET

.....Join the Action



ABLF @ablf
Following

Mr @AdilZainulbhai is the winner of the #ABLF Outstanding Business Achiever Award #Leaders #achiever #rolemodel #innovator @QualityCouncil



Certification awarded for ISO/IEC 17024:2012 to Aman Skills Programming society for Conformity Assessment Body by Dr.Ravi.P. Singh (Secretary General) & Mrs Vanita Yadav (Director), Mr C.S Sharma (Deputy Director) , Ms. Chinmayi Salooja (Senior Executive) NABET @QualityCouncil



#Punjab surges ahead: MoU signed between @minmsme, @QualityCouncil & @PunjabGovtIndia will give a huge boost to #MSMEs as it aims to create a #ZED enabled eco-system for the MSMEs. @narendramodi @PMOIndia @CimGOI @girirajsinghbjp @rkverma20 @AdilZainulbhai @RaviPSingh



Quality Council of India
Published by Asian Queens 11 December 4, 2017

Indrajit Bhattacharya Director, NABET speaking on Accreditation, International Standards and Reporting at #QCI accredited World Asia for Small and Medium Enterprises #WCSME2017



Director NABET @Director_NABET

#NABH training program at Uttaranchal Ayurveda College, Dehradun. Inaugurated by Dr Harak Singh Rawat, Minister of AYUSH, Uttarakhand @moayush @QualityCouncil



Manish PANDE @Monks_MP · 15 Nov 2017
Apprised Shri Gajendra S Shekhawat Hon'ble Minister of State, QCI's activities in Agri @QualityCouncil @RaviPSingh @AgriSci @AdilZainulbhai



CEO's interactive session (4th in series) with NABH assessors on 17 Dec at Hyderabad



Quality Council of India
Published by Anam Qureshi on November 2, 2017
#QCI launched #HindQHP & #HindQACP Certification Schemes for food sector. They were launched by Anilabh Kant, CEO, NITI Aayog in Food Safety and Standards Authority of India, New Delhi.



Quality Council of India added 4 new photos.
Published by Anam Qureshi on December 14, 2017
Thank you @telangana for making our 1-day training program on #practicalassessment based on ISO 9001:2015 (Quality Management System) a #GreatSuccess! Take a look at some of the images captured at the event.



Director NABH @Director_NABH - 17 Dec 2017
#NABH Committee #NABH Accreditation. Three day Assessor training Course completed today at Mumbai @NABHDELHI @NABHINDIA



QCI @QualityCouncil - 14 Dec 2017
Thank you @telangana for making our 1-day training program on #practicalassessment based on ISO 9001:2015 (Quality Management System) a #GreatSuccess! Take a look at some of the images captured at the event.



QCI @QualityCouncil - 22 Nov 2017
In a review meeting on draft structure of National Policy of Medicinal Plants of India, minister of @mha launched Voluntary Certification Scheme for Medicinal Plant Produce (VCSMP) which is jointly developed by @NationalMedicinalPlants and QCI.



MohUA @MohUAIndia - 29 Nov 2017
The officials from @QualityCouncil verified the placed candidates under #NUSLM in Hyderabad, #Telangana.
#TransformingLives
#TransformingIndia

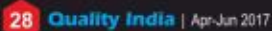


Director NABH @Director_NABH - 3 Dec 2017
NABH working towards enhancing quality healthcare and patient safety @nabhi @QualityCouncil



Director NABH @Director_NABH - 3 Dec 2017
Plenary session IV on Standardization and Quality Control in AYUSH sector @engyk2017 @QualityCouncil







National Accreditation Board for Certification Bodies

PAC Re-evaluation of NABCB for FSMS & ISMS is Successful

NABCB underwent a re-evaluation by Pacific Accreditation Cooperation (PAC) for the Food Safety Management Systems (FSMS) and Information Security Management Systems (ISMS) accreditation programmes. The week long evaluation commenced on 13 Nov 2017 and was conducted by a team of 2 PAC peer evaluators, Mr Fei Yang from CNAS, China, as Team Leader and Ms. Melissa Yeh from TAF, Taiwan as the other team member. Two additional members were also a part of the team - Mr. Khumrak Narathip from Thailand as Trainee Evaluator and Ms. Loawattanatrakul Wimaluck, also from Thailand, as Observer.

The evaluation was concluded successfully with no Nonconformities and 07 Concerns and NABCB is likely to be reaffirmed as MLA signatory in the forthcoming joint PAC-APLAC annual meetings in Kyoto in June, 2018.



PAC Peer Evaluation Team with NABCB Team

News from NABCB Board

The NABCB Board held its 50th meeting on 30 Nov 2017 at New Delhi under the Chairmanship of Mr Shyam Sunder Bang.

The Board desired that

- NABCB should take steps to increase its visibility in market and work towards taking steps wherein NABCB accreditation is widely used in the industry leading to increase in accredited certificates issued to the industry.
- NABCB should develop a road map for promoting NABCB accreditation in international market.
- The processing time for new applications should be reduced to 6 months.
- Software which is being developed to make the accreditation process online to be commissioned in early 2018

Mr B Satish Rao, NABCB's first assessor, was given farewell during this Board meeting and the Board placed on record its appreciation for his immense contributions

NABCB bids farewell to its First Assessor

NABCB bid farewell to the first empanelled NABCB assessor Mr. Satish Rao on 30 November 2017 at its Board meeting. The Board appreciated his contribution to NABCB. CEO NABCB in his remarks stated that Mr. B. R. Satish Rao was the first Assessor for NABCB. He was empanelled as

Lead Assessor by NABCB on 21 April 2000 and conducted his first NABCB assessment of DNV in March 2001, which was also the first assessment NABCB carried out since it started operations. He has been empanelled as NABCB Lead Assessor for QMS, EMS and Inspection Body accreditation programmes of NABCB, and has carried out about 200 assessments for NABCB. He had carried out assessments for foreign accreditation bodies as well such as RvA, UKAS, ANAB, JAS-ANZ and is currently an empanelled Lead Assessor with JAS-ANZ also. Mr. Satish Rao completed 70 years on 25 Aug 2017, which is the age limit for assessors as per NABCB policy. Mr. Satish Rao has professionally carried out all assessments as per the requirements for NABCB. Mr. Satish Rao thanked the Board and NABCB for felicitating him. He stated that it is a proud moment for him, and he highly appreciates the growth of NABCB.



NABCB Assessors' Conclave 2017 (II)

NABCB holds Assessors' Conclave biannually for calibration of assessors to harmonize the assessment process, deliberate on specific issues and provide information on new requirements/standards. The second Conclave of NABCB Assessors was held on 01-02 December 2017 at Bharatpur. It was attended by 28 assessors and the Chairman of NABCB Accreditation Committee.

The first day of the Conclave was devoted to specific issues related to certification bodies.

The participants were informed of NABCB's successful ISMS and FSMS Peer reevaluation in November 2017 and CEO, NABCB thanked all the assessors and secretariat staff involved in the evaluation for their support in ensuring that no non conformities were raised.

Major highlights included guidance to assessors on the key changes in the revised ISO/IEC 17011: 2017, update on the merger of APLAC and PAC to form Asia Pacific Accreditation Cooperation (APAC) on 1 Jan 2019, ISO/IEC 17021-3 Requirements, Grant of Scope based on Risk Categorization: QMS, EMS & OHSMS, and Transition to new standards and NABCB policies for the same.

The second day of the Conclave focussed on issues related to inspection bodies. An update was provided to all participants on the decisions taken by NABCB during NABCB inspection body meeting, and the deliberations of the Technical Committee on Oil & Gas. There were deliberations on the methodology to be adapted to arrive at the scope of accreditation of IBs.

A farewell was given to Mr. Satish Rao on the evening of Day 1 on his retirement from the assessors panel.



NABCB to launch Accreditation Scheme for BCMS

NABCB intends to launch accreditation scheme for Business Continuity Management System (BCMS) certification bodies. The scheme has been designed based on the standard ISO 22301 "Societal Security - Business Continuity Management Systems" which is an ISO standard for a management system (similar to ISO 9000) for business continuity. When implemented properly, business continuity management systems will decrease the possibility of a disruptive incident, and if such incidents do occur, an organization will be ready to respond in an appropriate way, thus drastically decreasing the potential damage of such incidents. Business continuity encompasses planning and preparation to ensure that an organization can continue to operate in case of serious incidents or disasters and is able to recover to an operational state within a reasonably short period. Business continuity includes three key elements like resilience, recovery and contingency.

MoEF decides to regulate chemicals

Mr. Anil Jauhri, CEO NABCB along with Dr. Dileep Wakankar, Chairman, REACH Committee, CHEMEXCIL gave a presentation to the National Coordination Committee (NCC) on preparation of National Action plan for Chemicals, of the Ministry of Environment & Forests (MoEF) chaired by Mr. V. Rajagopalan, former Secretary, MoEF, on the need for having a regulation on chemicals in the country and the Committee highly appreciated the presentation and readily accepted the proposal as well as the approach proposed in the presentation. The regulation would be brought under the Environment Protection Act in a phased manner. The Committee also decided in principle to utilize third party bodies accredited by NABCB for safety audits.

From International Arena

NABCB to participate in IAF Evaluation of IAAC

NABCB is happy to inform that NABCB Peer Evaluator Ms. Shobha Hegde has been nominated by Pacific Accreditation Cooperation (PAC) to be a part of the IAF evaluation team for IAAC. This is the first time when NABCB evaluator is a part of IAF evaluation team.

The International Accreditation Forum (IAF) as a part of its process to recognize Regional Cooperation Bodies conducts their evaluation / re-evaluation every 4 years. The Inter American Accreditation Cooperation (IAAC), the regional body for accreditation bodies in North & South Americas, is one of the recognized regional bodies of IAF and would be undergoing IAF re-evaluation process in 2018. As a part of the evaluation process of the regional body, IAF observes peer evaluation of few

members of the regional body as well as the assessment performed by them.

NABCB Participates in ISO/CASCO Working Group

Ms. Shobha Hegde attended the 2nd meeting of the CASCO WG 46 as an expert nominated by BIS for the Development of ISO/IEC 17029 in Geneva during 3 – 5 October 2017. ISO/IEC 17029 is a framework standard on expected to be supported by sector specific standards such as ISO 14065 for GHG validation and verification.

PAC Training in revised ISO/IEC 17011:2017

The revised ISO/IEC 17011 standard has been released in November 2017 and a series of trainings are being organized by APLAC and PAC.

Mr. Anil Jauhri, CEO, NABCB who was a member of the drafting group as well as the CASCO Working Group 42 involved in revision of ISO 17011, is the faculty on behalf of Pacific Accreditation Cooperation (PAC) providing trainings on revision of ISO/IEC 17011.

The first training organized by PAC was held at Taipei, Taiwan during 20-21 Nov 2017. This was attended by Ms. Sunita Rawat, Dy. Director as a participant from NABCB besides 33 other participants from 24 Accreditation Bodies.

NABCB is hosting a 2 day joint training for PAC and APLAC (Asia Pacific Laboratory Accreditation Cooperation) for peer evaluators on revision of ISO/IEC 17011:2017 shortly at Jaipur. This would be attended by peer evaluators from NABCB and other members of PAC and APLAC.

NABCB participates in India-US TPF/Commercial Dialogue Meetings

Mr. Anil Jauhri, CEO, NABCB attended the India-US Trade Policy Forum/Commercial Dialogue meetings at Washington D.C. on 26 - 27 October, 2017 as part of the delegation led by Mr. Suresh Prabhu, Commerce and Industries Minister. This was the 3rd such year when CEO, NABCB was invited to be part of Indian delegation. The two countries are discussing mechanisms for acceptance of each other's conformity assessment.

NABCB participates in IHAF 2nd MRA&TA Committee meetings as well as IHAF GA in Vancouver, Canada

Mr Anil Jauhri, CEO, NABCB and Ms. Sashi Rekha, Director NABCB attended the International Halal Accreditation Forum (IHAF) General Assembly on 19 Oct 2017, While Ms. Rekha also attended the 2nd MRA Committee and Technical Committee meetings on 18 Oct 2017 and a workshop on Global Halal Trade, Challenges & opportunities on 20 Oct 2017, held in Vancouver, Canada prior to the IAF-ILAC annual meetings.

The workshop had eminent speakers from WTO, SMIC, ESMA, Cargill Incorporated, among others and also IHAF and provided an overall perspective on Halal trade and challenges faced. A number of resolutions were adopted in the IHAF General Assembly such as approval of TORs of all the three committees – Technical Affairs (TAC), MRA and Marketing and Media (M&MC), election of chairs of TAC and M&MC, approval of structure of IHAF documentation, approval of draft Appeals policy, and acceptance of new full, associate and affiliate members.

The MRA Committee deliberated on the requirements for Halal ABs and alignment of IHAF requirements with international practices.

NABCB Technical Committee for Petroleum & Natural Gas Sector

The NABCB Technical committee on Oil & Gas held its meeting on 03 Oct 2017 under the Chairmanship of Mr. Anand Kumar, former Director R&D, Indian Oil Corp. Ltd. in which meeting - no various stakeholders from the oil & gas sector including PNGRB, OISD, oil & gas companies and representatives of accredited inspection bodies participated. During the meeting, the draft for competence requirements for Inspection Bodies in the Oil and Gas sector was discussed and finalized for circulation. The Committee also deliberated on two other documents meant for inspection bodies – the ERDMP Inspection Process, and the Scope Sub-sector Categorization for Accreditation.

NABCB Task Force on accreditation of notified bodies for medical devices

NABCB has established a Task Force on development of accreditation system for notified bodies under the Medical Devices Rules, 2017 chaired by CEO, NABCB. The Task Force met twice during Nov – Dec 2017 to discuss various issues like reduction of audit time in case of manufacturers certified to an equivalent or similar standard, development of a uniform reporting format and role of notified bodies in auditing for Schedule – 4 and Schedule – 5 of MDR 2017.

NABCB Outreach to Industry and Consumers

Industry Awareness Programmes

NABCB in order to spread awareness about accreditation and its benefits to the industry has undertaken a series of Industry Awareness Programmes which covered the following topics: Challenge of Standards & Conformity Assessment, Benefits of international equivalence of accreditation for industries and Guidance on selection of certification bodies for ISO 9001 etc. certification; NABCB conducted a session on 'Accreditation & its International Equivalence' at the Regional Standards Conclave organized by the Department of Commerce in partnership with Confederation of Indian Industry (CII) at Jaipur on 18 Dec 2017. Another such programme will be held shortly at Visakhapatnam.

NABCB also conducted Industry Awareness Programmes on "International Equivalence of Accreditation & its Benefits to Processed Food Manufacturers and Exporters" in partnership with PHD Chambers of Commerce & Industry (PHDCCI) at Guwahati on 27 November 2017. Apart from the above mentioned topics, the participants were also provided a presentation on Voluntary Certification Schemes for the food sector. NABCB intends to conduct more such programmes with PHDCCI for the food sector in different cities of the country. NABCB also has plans to conduct more programmes in partnership with industry bodies like CII, FICCI, WASME, EEPC India and other industry bodies / export promotion councils in the country.

Consumer Awareness Programmes

In order to educate consumers and consumer organizations in small cities about Quality of Products and Services, NABCB organizes Consumer Awareness Programmes in partnership with Consumer Coordination Council (CCC). NABCB conducted one such programme at Rajkot on 23 December 2017 at the National Consumer Convention held during 23-24 December 2017. The participants were informed about Voluntary Standards and Regulations, Role of accreditation, Product and Systems Certification and Complaint handling. NABCB plans to conduct more such programmes jointly with the Consumer Coordination Council.

QCI Certification Schemes India GHP and India HACCP Launched

QCI has launched two new certification schemes for Indian food chain related industry based on the international Codex standards for GHP and HACCP in an FSSAI event on 02 Nov 2017 to provide a credible, home grown certification to the Indian food industry to demonstrate compliance to these standards popular and adopted worldwide. The Department of Commerce has endorsed both the schemes, and certification bodies are expected to seek accreditation under these schemes from NABCB.



Voluntary Certification Scheme for Medicinal Plant Produce revamped

The Voluntary Certification Scheme for Medicinal Plant Produce was relaunched by National Medicinal Plants Board (NMPB) in collaboration with QCI in order to encourage Good Agricultural Practices (GAP) and Good Field Collection Practices (GFCP) in medicinal plants and enhance quality and safety of these plants. This scheme was launched by the Hon'ble Minister of State for AYUSH Shri Shripad Yesso Naik on 22 Nov 2017. The scheme would use NABCB accredited certification bodies.

NABCB Accreditation at a Glance

New Accreditations

During the quarter Oct – Dec 2017, NABCB has granted accreditations in Management Systems (1), Product Certification (1) and Inspection (1) as follows:

- GeoChem Laboratories Pvt. Ltd. as Type-A inspection body since Nov 2017
- EMTAC Laboratories Pvt. Ltd. for Product Certification as per ISO/IEC 17065 since Nov 2017
- Vexil Business Process Services Pvt. Ltd. for OHSMS as per ISO/IEC 17021-1 since Dec 2017

New Applications

During the quarter Oct – Dec 2017, NABCB has received applications for NABCB accreditation in Management Systems (5), Product Certification (1), and Inspection (4) as follows:

- Standards Organization of Nigeria for QMS, EMS, FSMS & OHSMS as per ISO/IEC 17021-1
- Cotecna Inspection India Pvt. Ltd. for FSMS as per ISO/IEC 17021-1 and for Product Certification as per ISO/IEC 17065
- Indian Rubber Manufacturer Research Association for Inspection as per ISO/IEC 17020
- Accurate Sales & Solutions LLP for Inspection as per ISO/IEC 17020
- AMPY Pipeline Solutions LLP for Inspection as per ISO/IEC 17020
- Eli Technical Economic Services (EliTes) India Pvt. Ltd. for Inspection as per ISO/IEC 17020

NABCB ACCREDITATIONS (AS ON 31 DECEMBER 2017)

SCHEME	ACCREDITATION	APPLICATIONS
Quality Management Systems (QMS)	36	04
Environmental Management Systems (EMS)	09	02
Inspection Bodies (IB)	40	20
Food Safety Management Systems (FSMS)	13	06
Occupational Health and Safety Management Systems (OHSMS)	06	02
Product Certification (PCB)	09	05
Information Security Management Systems (ISMS)	03	02
Energy Management Systems (EnMS)	05	-
Information Technology Service Management Systems (ITSMS)	01	-
Personnel Certification (PrCB)	-	03
Road Traffic Safety Management Systems (RTSMS)	-	-
Trustworthy Digital Repositories Management Systems (TDRMS)	01	-
Medical Devices QMS (MDOMS)	04	07

QUESTION CORNER

The questions are designed for inspection bodies but can be applied with relevant changes for certification bodies as well.

Accreditation Process

Question : How does a new organization get accredited for inspection body programme?

Answers : The first step is to gain an understanding of what standards needs to be implemented. For the purpose of accreditation in inspection, organization should refer to ISO/IEC 17020. The management system should be established as per requirements of ISO/IEC 17020 and all requirements should be addressed in a Quality Manual which is required to be prepared.

The inspection body seeking to apply for accreditation should document and control the procedures and necessary forms and formats. A training course on requirements of ISO/IEC 17020 can also be undertaken,

After completion of documentation and implementation of the system, NABCB application form has to be filled updating the necessary columns. The application form can be downloaded from NABCB website

http://www.qcin.org/nabcb/applicantlist/appli_acc_inspection_bodies.php. To download the application form, pl go to section of Accreditation schemes in the side bullet review Inspection Bodies and download the application form. The other documents under this section i.e Accreditation Criteria (BCB (IV)-110_Mar 2017), Accreditation Procedure (BCB-201 (IB)_Sep 2005), NABCB Fees, Self Assessment checklist (BCB_F_010 (4)) and draft agreement for accreditation should also be downloaded and reviewed.

The application form (with annexures) has to be submitted with fees, Quality manual, procedures (as relevant) and self assessment checklist.

Inspection bodies will also need to define the scope of activities they are seeking accreditation for. A classification of scope sectors can be viewed in the document BCB 201 (IB)_ Sep 2005 – Accreditation procedure.

You may also like to refer to scope of other accredited inspection bodies from website http://www.qcin.org/nabcb/accreditation/reg_bod_inspection_bodies.php

For more FAQ, please visit our website at link <http://nabcb.qci.org.in/faq-ib.php>



ENHANCING FOOD SAFETY



International
Recognition



Minimizes Risks



Customer Confidence
& Satisfaction



Certified for
Food Safety



Assurance of
Quality



Competent Persons



FOOD SAFETY MANAGEMENT SYSTEMS

NABCB, a constituent Board of QCI, provides internationally recognised accreditation to certification bodies providing Food Safety Management Systems Certification.

CONSUME SAFE FOOD FROM FACILITIES CERTIFIED FOR FOOD SAFETY



QUALITY COUNCIL OF INDIA | NATIONAL ACCREDITATION BOARD FOR CERTIFICATION BODIES
 Institution of Engineers Building, 11nd Floor, 2, Bahadur Shah Zafar Marg, New Delhi - 110002, India
 Tel: +91-11-23378056, 23378057, 23378837, 23378838, 23379621. Fax: 91-11-23378678
 Email: nabcb@qcin.org Web: www.qcin.org/nabcb

For reliable, impartial and internationally recognised inspections



Insist on NABCB Accredited Inspection Bodies

National Accreditation Board for Certification Bodies (NABCB) is one of the constituent Boards under Quality Council of India (QCI), an apex body on Quality & Accreditation Infrastructure in India. NABCB provides accreditation to Inspection Bodies as per the International Standard ISO/IEC 17020 ensuring their technical competence for delivering specific inspection services to various industry sectors.

NABCB accreditation is recognized worldwide as it is a signatory to international Mutual Recognition Arrangements (MRAs) leading to global acceptance of inspection results provided by NABCB accredited inspection bodies and thus facilitating trade.

For your Third-Party Inspection needs relating to products, materials, plant, machinery, equipment, installation, design, process etc. in any industry sector, always insist on NABCB Accredited Inspection Bodies. Please visit our website for the list of accredited inspection bodies with their specific scope of accreditation for inspection.



For further details please contact:

**National Accreditation Board for Certification Bodies
Quality Council of India (QCI)**

2nd Floor, Institution of Engineers Building, 2, Bahadur Shah Zafar Marg, New Delhi - 110 002

Phone: +91-11-23378056/7, 23378837/8, Fax: +91-11-23378678

E-mail: nabcb@qcin.org, ceo.nabcb@qcin.org, Website: www.qcin.org/nabcb





National Board for Quality Promotion

NBQP Celebrates **World Quality Month** — November 2017



Global quality community usually celebrates November as the Quality Month. The World Quality Month provides a platform for acknowledging the efforts and accomplishments of Quality and all who work to make it happen.

NBQP also celebrated November as Quality Month by planning and implementing several quality promoting activities. These include Poster Making, Kaizen Implementation, Slogan Writing, Quality Quiz and Essay/Quality Success Story. This year a new "Photography competition" was launched.

This year the theme of the Quality Month was "Digital Way to Quality Life". These activities were spread throughout the month enabling a large number of quality professionals participate in the various competitions. Some of these competitions received a huge response

from all across the country. The winning entries were facilitated with gift hampers and certificates in the workshop organized by NBQP in New Delhi.

The celebration ended with a half-day seminar at India Habitat Centre on December 7, 2017 on the topic "Digital Way to Quality Life." The seminar saw engaging discussions on the key theme of how Digitization and Technology as revolutionizing the Quality of life of the customers.

The seminar commenced with a welcome address by Mr. K.C. Mehra (Ex Chairman, NBQP). Keynote speaker was Mr. Sameer Kumar, Deputy General Manager - Manufacturing Learning and Development, JCB India Ltd, Ballabgarh, India. He spoke about the opportunities as well as challenges thrown by digitization.



Digital way of quality life

We are living in an extraordinary time where digitisation is impacting all walks of our life. We are flooded with data, information and new-age technologies. This is giving us huge opportunity as well bigger challenges. The opportunity to solve our problems and make improvements; challenges to filter and use the right information efficiently, quickly and effectively. We need to focus on innovation, adopting new skills, mobility, sharing, networking and engagement to improve digital way of quality life.

The Seminar was attended by more than 60 quality professionals from different domains. Overall, it was a knowledge enhancing session and definitely provided impetus in nurturing the impact and importance of digitization on Quality of life of the customers.



QUALITY MONTH COMPETITION WINNERS - 2017

QUALITY POSTER COMPETITION		
S. No	Winners' Name	Institution / Company / Organization Name
01.	Dr. Rimy Khurana	NITI Aayog
02.	Ribu Ann Mathew	Tiruvalla Medical Mission
03.	Sacchidanand Sandip Gogawale	Aadishakti Foundation
04.	Amit Tanpure	Aadishakti Foundation
05.	Poonam Tanpure	Aadishakti Foundation
06.	Vaidehee Tanpure	Aadishakti Foundation
07.	Suhas Agawane	Simple Solutions Consultant
08.	Shrusti Pardeshi	Envirocare Labs Pvt. Ltd.
09.	Anuprita Raichurkar	Envirocare Labs Pvt. Ltd.
10.	Dr Amrit Kumar Sen	Dept. of Health and Family Welfare, Hooghly. Govt. of West Bengal
11.	Vani	USP
12.	Simit Pandya	IDMC LIMITED
13.	Rama Koteswara Rao Dandu	United States Pharmacopeia India Private Limited
14.	Ms Mokshada Naidu	Envirocare Labs Pvt. Ltd.
15.	Atul Bhushan	Care Hospital nagpur
16.	Fortis Escorts Nursing Education team	Fortis Escorts Hospital
QUALITY SLOGAN COMPETITION		
S. No	Winners' Name	Institution / Company / Organization Name
01.	Raju Shah	Escon Tech
02.	Panchal Vaishali Rameshbhai	School of science, Gujarat University
03.	Neer Pandey	Eicher School Faridabad
04.	Abhijeet Chatterjee	ANT
05.	Gagan Shukla	Cognizant Technology Solutions
06.	Vani	USP India
07.	Sameer Kumar	JCB India Limited

QUALITY QUIZ COMPETITION		
S. No	Winners' Name	Institution / Company / Organization Name
01.	Deependra	Timken India
02.	Diwakar Kumar	BHEL
03.	Ramnath	Aditya Birla Group
04.	Umesh Mangroliya	Consent Circle
05.	Manoj Agrawal	Margdarshan Management & Measurement Pvt Ltd Gurgaon
06.	Ayush	UBS
07.	Sacchidanand Gogawale	VIT
08.	Nirmala Chellappa	Pawana Hospital
09.	Udita Gupta	Jaypee Business School, Noida
10.	Manish Sharma	OGS India
KAIZEN IMPLEMENTATION COMPETITION		
S. No	Winners' Name	Institution / Company / Organization Name
01.	Dr. Sanjeevani Gogawale	Aadishakti Foundation
02.	Sandeep P	Medical Records Department, PSG Hospitals
03.	Rohit Saini	JCB India Ltd.
QUALITY ESSAY WRITING COMPETITION		
S. No	Winners' Name	Institution / Company / Organization Name
01.	Dr Renuka Vidyashankar	Kauvery Hospital, Chennai
02.	Dr Amrit Kumar Sen	Dept. of Health and Family Welfare, Hooghly. Govt. of West Bengal
03.	Dilip Kumar Gayen	East West Infosolutions
04.	Ankit Chakraborty	
05.	Praveen Vasudeo Karlekar	Ultra Tech Cement Limited Unit-Kotputli Cement Works
QUALITY PHOTOGRAPHY COMPETITION		
S. No	Winners' Name	Institution / Company / Organization Name
01.	Vaidehi Tanpure	Pune University



Kokila Gaur

Executive Assistant, NBQP

TRIZ is the acronym of an innovation method of Russian origin. The 4 Russian words, if freely translated in English, will mean "Theory of Inventive Problems Solving". Altshuller, the founder of TRIZ, while working at Moscow patent office as patent examiner during 1945-47, realised that inventions happen in a systematic way. He called it as "Theory of Invention". He and his colleagues continued their work till about 1984. By this time it had 6 TRIZ tools for defining Inventive (read difficult) problems and generating solution concepts for each TRIZ tool.

TRIZ has tools to define the RIGHT problem as well as to Generate Innovative Solutions. Problems could be defined as conflicts or contradictions between two desirable results, as harmful effects, improper or incomplete utilization of resources. Problems could be at any stage of the product life, starting with Design, Manufacture, Testing, Packaging and transportation, Installation and Repair, and finally Salvaging. In Design, TRIZ is effective in overcoming Design Challenges. In Manufacture, TRIZ can eliminate Rework and Rejects, by bringing the process well within the specifications and simultaneously reducing the Cost.

The 1-Day to 3-Day training courses cover various tools, illustrated with real life examples. For specific industry problems, hand-holding is done through monthly TRIZ reviews for 3 months after the training course.

About faculty:



Prof. Prakash R Apte, Founder President

APTennovate, Training and Consultancy in ROBUST Technology Innovation

Professor Apte is an M Tech from IIT Kanpur and did his PhD at Tata Institute of Fundamental Research (TIFR), Mumbai. After 30 years of Experimental Research at TIFR, he joined IIT Bombay. After retiring from IITB in 2014, he started his own company APTennovate for Training and Consultancy in ROBUST Technology Innovation using TRIZ and Taguchi Methods.

For the past 20 years, he has been practising the method of Russian origin, called TRIZ – Innovative problem solving, and its potential in innovative problem solving and opportunity creation. He also conducts training courses on Design of Experiments and Taguchi Method for ROBUST Technology development. He has conducted over 130 "open and "in-house" courses as Continuing Education Programs (CEP) at IIT Bombay, 40+ of which have been for Mahindra & Mahindra, training over 500 engineers and solving over 250 problems. In last 3 years alone, he has conducted 34 TRIZ courses and 8 Taguchi courses. The Open course durations are 1-Day to 3-Days and In-house training program durations are 2-Days or 3-Days with monthly follow-ups for specific problems solving.

NBQP/QCI Intervention

NBQP board recognizing the potential of TRIZ, organized a 1-day awareness program on TRIZ in New Delhi on 07 December 2017 at India Habitat Centre and the program was attended by around 45 participants. The faculty was professor Prakash Apte. The response of the participants was quite enthusiastic. Encouraged by the success, NBQP organized a 2-Day Certificate course on "Problem Solving using TRIZ Innovation" on February 22-23, 2018 at IIT Madras Research Park, Chennai, and the training was attended by 40 participants. The training was for forward looking organizations, which have a zeal to demolish observation and innovate at a faster pace, showcasing their talent in problem solving in their professional permits in the industry. These permits are not only for better performance in term of production and its quality, but also for furtherance of the national goal for quantum jumps in our status as an industrialized nation and augmenting our economy.

To continue these initiatives, NBQP is planning to organize another 2-day program on TRIZ in New Delhi in the month of June and in Bengaluru in July. Those who are interested to attend may contact:

Ms. Kokila Gaur

Training Co-ordinator

Email : kokila.nbqp@qcin.org, Phone : 011 23321274-75; 23323415 Ext : 307
Details are available at : <http://nbqp.qci.org.in/workshop-event.php>



12th QCI - D.L. Shah Quality Award

(Project Based)

Recognising Organizations
for Best Practices in Quality
Excellence and sharing their
success stories

Quality Council of India invites applications
from Organisations, Entities, NGOs,
Govt Departments etc., to showcase their
unique/out-of-the-box Projects

About the Award

The QCI-D.L. Shah Quality Awards Scheme was launched in 2007 to promote quality excellence and is today recognised as one of the most coveted Awards at the National level. The Awards recognise successful projects of establishments within India that have ensured continuous improvement in three aspects, namely;

1 Operations and processes

2 Products and/or services

3 Customers'/Stakeholders' satisfaction

Eligibility

This Award is open to any type of Establishment-

- Any Govt. Enterprise • PSU • MSME • NGO
- Manufacturing including Oil and Gas, Pharma, Food, Textiles etc.
- Services like Infrastructure (Road, Transport etc.), Financial Service (Banking, Insurance etc.), Hospitality etc.
- Healthcare
- Education

Selection Process

Stage 1: Online Application

Stage 2: Preliminary Screening: - Document Assessment

Stage 3: Project Presentation at QCI office

Stage 4: Site Verification for project implementation

Stage 5: Final Selection by Jury

The Award



The Awards will be presented at the 13th National Quality Conclave of QCI scheduled on 19-20 Sept. 2018

For Registration and other details log on to
<http://www.qcin.org/nbqp/dsa/home/>

Online Application Deadline
30th April 2018

For any queries ✉ shruti.nbqp@qcin.org, priyanka.nbqp@qcin.org

☎ 011- 011- 23321274/75, 23323415 Extn. -306/305 📠 8800891834

To register as a QCI Member or as a Consultant/Auditor you may visit <http://nbqp.qcin.org.in/membership/about-scheme>

India and Russia

Defence Co-operation: New Avenues



Indrani Talukdar
Research Fellow, ICWA



India and Russia last year celebrated their 70 years of the establishment of their diplomatic relations. In the changing geopolitical architecture, the desire from both the sides to keep refreshing the relationship speaks about the profundity of the partnership. The leadership in the high level understands the importance of the relationship hence the upgradation to a special and privileged strategic partnership since 2010. India and Russia have been upgrading all the pillars of their relationship including the defence sector.

One of the pillars has been the military industrial complex. India procures almost 68 per cent of its military hardware from Russia. India's Air Force, Army and Navy are equipped with military hardware of Soviet or Russian origin constituting almost 70 to 85 per cent. Moscow still leads in being the direct suppliers of the most advanced weapons and military equipments. Their relationship has been further strengthened with the joint exercises which have been conducted under the banner of "INDRA" since 2003. Last year, for the first time, the country witnessed the tri-series exercises that were conducted between all the arms of their defence force. These exercises enables India and Russia to build military and personnel trusts, share tactics, techniques and procedures as well as gain knowledge of each other's national interests. In the case of India and Russia, because of their convergence of many interests these exercises help in stemming out any problems that might be emerging.

The two countries are also closely working on joint research products in this area. Russia has been transferring the defence technology with India which none other country has done so far. This highlights the deep level of trust both the countries share.



India and Russia are working on joint projects such as the construction of the BrahMos missiles and the development of frigates, helicopters and fifth generation fighter aircrafts. Last year, the two countries concluded the agreements on the supply of the S-400 air defence system and the manufacture of KA-226T helicopters apart from the frigates. Important part of these deals are that issues such as work share, Intellectual Property Rights (IPR) on ToT, access codes and roots etc. related to the joint productions have been done on near-equal footing. The buyer-seller relationship that was shared between the two countries has transformed to the new approach of joint research and development culminating in the production of 'state of the art' military platforms.

The strategic pillar of defence between India and Russia is also infested by many problems, leading to complains from both sides. On India's front, the country is not happy with the delays on the spare parts that affects in the maintenance of military systems, the increase in the cost price of the equipments and degradation in the quality etc. New Delhi has been trying to diversify the military basket and not completely depend on Russia as was the case during the Soviet Union's time. On Russia's part, the delay in deliveries and the poor quality also could be because of the non-accessibility to its factories which were established in the ex-Soviet lands during the Soviet Union's time. Moscow has re-negotiated in the price, resulting in the increase of it, is because the country feels that India can afford due to its improvement in its economic development. Further, it has been difficult for Russia to accept the shift in position from a 'single vendor' to a 'multi-vendor' in the Indian arms market. These issues that have been creating problems however, makes it more problematic because of the growing relationship of these two

countries with each other's adversaries i.e. growing cooperation between India and US on one hand and Russia, China and Pakistan on the other.

The US has been giving a lot of focus to India which comes across in the former's foreign policy objectives such as encouragement to India's role in the US' South Asian policy including in Afghanistan and then the recent quadrilateral meeting between India, Japan, Australia and US has not gone down well with Russia. Likewise, the growing defence cooperation including the friendship military exercises being held between Russia and Pakistan in the latter's borders and the strengthening of the strategic

partnership between Moscow and China creates insecurity within India. Last year, Russian President Vladimir Putin said that the trust based relationship between India and Russia will not be diluted by Moscow's growing ties with Pakistan.

Similarly, India too assuages time and again the grudge that Russia has built due to New Delhi's diversification by agreeing on sophisticated defence deals (as we saw last year during the annual summit) and supporting Moscow in the international forum such was the case during Ukraine crisis of 2014 etc. However, with the constant flux in the world order, it would be difficult to maintain the trust between India and Russia because of the diversification on their common interests. For instance, Russia and India's view on terrorism has diversified. For India, there is a not 'good or bad' terrorist, a policy followed by Russia till 2015. However, Moscow's support to Taliban in order to eliminate the ISIS in the region shows a shift in the policy (the country denies any kind of support to Taliban). There is a growing disparity between the decisions taken during summits and in the practical implementations.

Another example of it can be Russia's support to China's initiatives—One Belt One Road (OBOR) and China Pakistan Economic Corridor (CPEC) which doesn't go well with India's national security.

It would be prudent if India and Russia addresses the concerns and take practical measures to eliminate the trust deficit. With the growing diverse national interests it would be difficult to merge and compromise. However, given the time-tested relationship, it would be in their interests if they could cooperate and not outplay each other.

BOOK REVIEW

"ISO-9001:2015. Quality Management Systems" in Hindi

This is the first ever printed book in Hindi on Quality Management Systems and is a sequel to the author's earlier book in English – "UNDERSTANDING ISO-9001: Quality Management System".

The focus is that the reader should understand the concepts before proceeding to implementation.

The book having 210 pages (excluding contents, index, preface etc.) is in two parts. The first part deals with basics and fundamental concepts while the second part details out each clause of ISO-9001.

This is the only Indian book (so far) having an index at the back for easy referencing.

Chapter 1 starts with a journey of quality from the industrial revolution to current period –

upto SIX SIGMA.

The Chapter 2 exposes the reader to the **basics of quality** in depth. The terms 'requirements', 'characteristics', Quality of design /conformance, quality costs and value addition have been explained in this chapter.

The next two chapters continue with the explanation of the **concepts of process, process management and process approach** –the soul of the QMS. Addition of PDCA in the 5th Chapter is a very thoughtful addition. The author has gone beyond the usual prose description of **PDCA** by giving three working examples. This will surely enable the beginner/novice to start practising this vital tool and gradually become perfect by practice.

This part should be read by everyone related to any type of

organization. After reading these chapters, the reader will be in a better position to UNDERSTAND the QMS including other such standards brought out by the ISO..

The II part of the book devotes one chapter to each of the main clause of ISO-9001 starting with an overview which summarizes the salient features/requirements of the new version. The **intent** of almost every clause and important sub clause has been clearly explained. Similarly, the sequence and interaction diagrams are also shown for almost all the clauses.

Managing each process has been explained as a **PDCA model**.

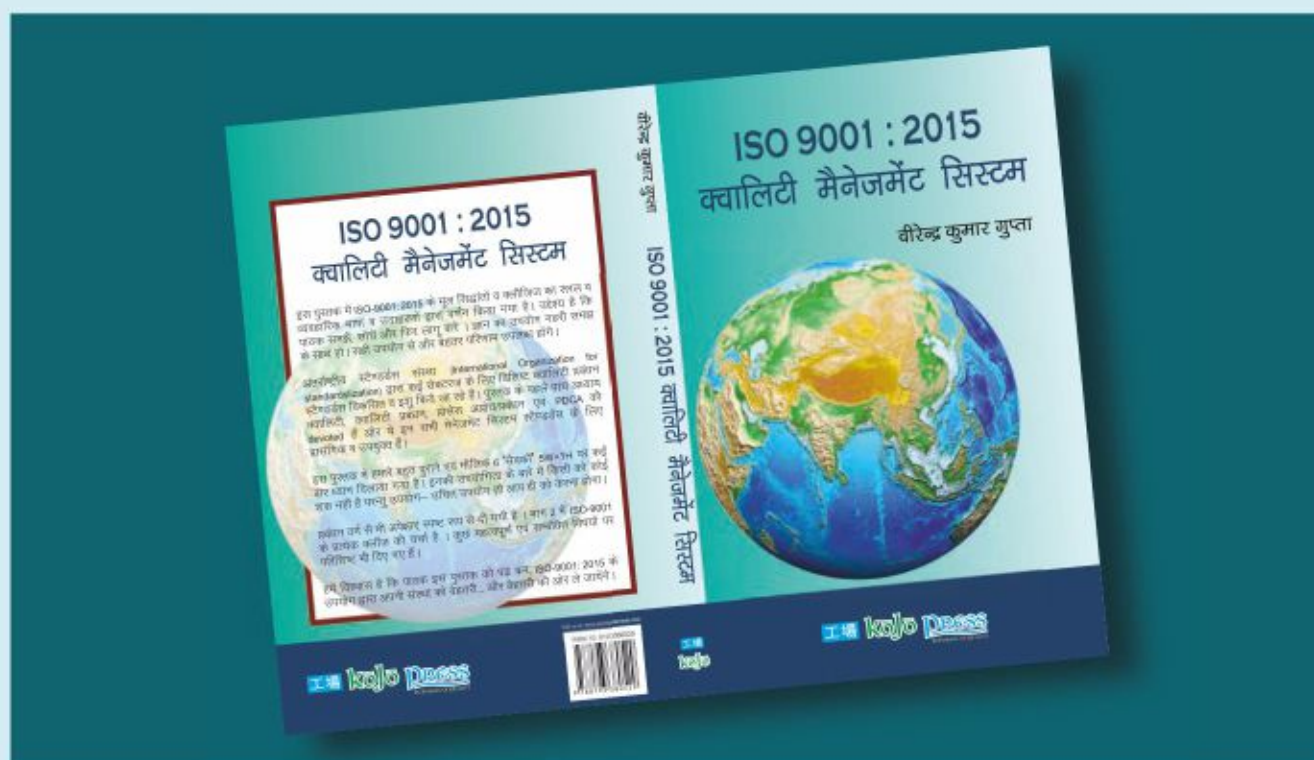
Practical examples of **deployment of quality policy** in Chapter 8 to establish quality objectives will be found immensely useful by senior professionals.

It is expected that after reading this book, the readers shall be able to implement the system more effectively.

This is certainly a good and useful book for a better comprehension of the concepts and details by the professionals and managers in the HINDI speaking areas.

The book has been published by Kojo Press:

4760/61, Sai Sarovar,
23, Ansari Road, 2nd floor;
Daryaganj; Delhi- 110002.
www.standardsmedia.com



'Quality is Dreadful... or is it really!?'

How can quality make it happen for small and medium sized enterprises



Prashant Hoskote
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There's even a name for it – Juranophobia.

Well, with all due respect to my early mentor, I made that up. If there isn't a psychological classification for not embracing quality methods, there should be, and I'll explain why.

To issue fair warning, this article isn't for the experienced Quality practitioner. Over the years, many authors, trainers and consultants have done an excellent job of providing guidance to help quality professionals continue to improve their business skills.

This also isn't for leaders of large organizations, who already use a variety of methods and tools to improve performance. They understand the complexity of integrating Lean, Six Sigma, ISO and other approaches into their business models.

What this is, is an attempt to explain why most small businesses do not use quality methods and how they can begin improving their organizations with some basic Quality concepts.

The Landscape

In almost every country, small organizations dominate the business landscape and have a significant impact on employment, production and exports.¹

In the US, small businesses make up 99 percent of employer firms, 64 percent of net new private-sector jobs, 49 percent of private-sector employment, 46 percent of private-sector output, and 98 percent of firms exporting goods.²

Yet, eight out of ten small businesses fail in the first eighteen months and fifty percent fail in the first five years.^{3 4} Same is the case across the world.

The challenge for small businesses to survive is further complicated by the global economy. As Leo Sun explains,



"Once you start up a new business, you plunge into an ocean populated by a few smaller fish, which compete with you for food, and lots of bigger ones, eager to eat you alive. The big fish in the sea tend to be well-connected, multinational beasts taking full advantage of the perks of globalization – such as outsourcing, uneven exchange rates, and low-margin high-volume sales models – making them nearly impossible to compete against."⁵

The only differentiators a small business can depend on are efficiency, effectiveness, continuous improvement and customer loyalty – fundamentals of what we call Quality.

Unfortunately, many small business leaders and their employees believe Quality and its deployment are complicated and difficult to understand. Therefore, many avoid engagement in traditional quality improvement and, if they do recognize a need, they delegate the mysteries of Quality to a junior Quality Technician / Manager, consultants, whom they hire but may not understand, or sometimes, even trust.

If small businesses want to be competitive and sustainable in the new global economy, they will have to understand and use some fundamental tools that can help them reduce costs, understand customers and accelerate productivity. What has worked up until now, may not work as global markets and their customers evolve.

While the changes required to improve organizations can be difficult and take time, the tools of quality improvement are simple and can be learned and used by anyone.

What follows is a somewhat simplified generalization about small businesses and how they might use some fundamentals of Quality for improvement and sustainability. It is understood that not all small businesses are alike and businesses of all types are complex in both structure and leadership.

When you consider that 48% of all small businesses have 1-4 employees and 98% have a staff of less than 100, broad use of complex quality systems isn't realistic.⁶ The Quality solution must be simple, cheap, and easy to understand by everyone in the organization.

What is Quality?

Let's start by defining what we're talking about. The ASQ Quality Glossary defines Quality as, "A subjective term for which each person or sector has its own definition."

This description is only partially correct. The inability to define what we mean by quality adds to the confusion of those new to the concept that are trying to understand the complex methods with which they are confronted.

For the sake of this discussion, let's consider that there are two aspects of the word Quality – two 'Qualities', if you will.

On one hand, there is Attribute Quality. This Quality is, what the 20th century guru, Dr. Joseph Juran, called "fitness for use". Simply put, it's what the customer wants, can use, and will buy more of. Only the customer can define Attribute Quality. He or she sees it in their mind when they place an order, and they anticipate receiving the attributes they are expecting. As the definition suggests, each customer or sector may have their own definition of the attributes they want.

While this is important to the customer, in a sense, it is an after-the-fact type of Quality. That is to say, when the customer receives their order, it is or is not what was expected and it's too late to change the attributes. The real issue is, how do we get the right attributes; at the right price, at the right time, so the customer is happy and our business makes a profit?

There is another more important kind of Quality. This may be simply called, 'Method Quality' – the systemic approaches to production, operations and improvement an organization takes, to ensure that the customer receives the right attributes.

Quality Professionals Make 'Method Quality' Complicated

Imagine the small businessperson who takes his two employees to attend a Quality conference because they heard Quality methods are important and they want to learn more about them.

They listen to a presentation on Lean where they hear the importance of beginning with 5S, asking the 5 why's, understanding the 7 wastes, doing a Gemba walk, eliminating Muda, measuring turn-around time, and drawing Spaghetti Diagrams; all because you need to create the best Value Stream.

They now move to a presentation on Six Sigma where they hear they must first define CTQ, do a DOE, use SPC, follow the DMAIC process, do an FMEA, create an IPO Diagram, implement Poke-Yoke, and use QFD to integrate customer requirements; all to ensure breakthrough improvement.

If they're lucky, the bar is still open before they go home.

To those outside the profession, but especially small business leaders and their employees, the alchemy of Quality seems confusing, complicated and not worth the time and effort. They typically opt for quick fixes. And incidentally they get quick results as well....but seldom sustained results.

What Quality Really Does

Fundamentally, Quality should help us increase customer satisfaction, improve productivity and engage our employees. It guides us to reduce cost, errors, and complaints, and do better planning.

The dilemma is, how can we get started on these important things without being overwhelmed with confusing jargon and complicated concepts that are demoralizing and off-putting.

What Quality Methods To Use

If you never learned to swim, it's foolish to jump into the deep end of a pool. When implementing Quality in a small business, it's best to start with basic approaches that can have an immediate impact on the sustainability of your organization. It's easy to drown in Quality complexity.

There are four transformational tools of Quality that any business, no matter how small, can use for problem analysis, planning improvements, understanding customers, developing processes and driving strategy.

Flow Charting

This tool depicts how a process (that we always feel we know) really works. Various, bottlenecks, reworks, redundant activities become apparent when the process is mapped using basic symbols of flow charting.

Cause And Effect Diagram

This one, Quality professionals may call a Fishbone or Ishikawa diagram, but your organization should only refer to it as a cause and effect diagram, because that is its intended purpose – understanding what causes things to happen (either solving a problem or planning an action). The smallest business that normally does planning at lunch, written on a napkin, will find this a useful logical approach to outlining goals and actions.

Ranking Chart

Technically, this is called a Pareto Chart, but for your purpose, it simply ranks the importance of things and helps call out the 'vital few' from the 'useful many'. It's a natural progression from the cause and effect diagram. What's impacting a problem or is needed to drive change may be determined through measurement or can be agreed upon and ranked by knowledgeable employees.

Trend Chart

This chart tracks the occurrence of activities (whether errors or improvements). It tells you how things are improving (or not). It's the next progression from the ranking chart. It should be used to track the impact of the actions you took based on the ranking chart. Are things improving?

The following is an example of an improvement project where some of these tools were used to eliminate root cause(s) of a chronic problem...believed to be almost fait accompli.

A project was taken up to 'reduce service incidences' at the service desk, because it directly impacted customer experience as well as, one of the company's key measures of success i.e. cost reduction. A cross functional team was pulled together involving five different sections or departments. Through Brainstorming, several 'Quick Wins' were identified and the team already saw encouraging results post implementation of these quick wins. Post implementation of these quick wins, a 36% reduction was observed, in transactions coming from their enquiries and service section to their back office. Quality tools such as Flow Charting, Cause-Effect Diagrams, Ranking Charts and Trend Charts, were used to identify the 'vital few' causes. Further through brainstorming, the team identified solutions and an implementation plan was rolled out, clearly defining the roles and responsibilities of team members. Timelines for each task were also agreed upon. The redundant activities that were identified during Flow Charting were eliminated from some of the high volume processes. Short and long term solutions were also identified and implemented. As a result, a 20% reduction was achieved in volumes of the queries, which accounted for close to 64000 lower transactions, thereby resulting in an annualized cost saves of approx \$40,000. Customer satisfaction scores also saw an upward trend in the Trend Chart. Solutions led to facilitating a self service for customers to enable quick and easy access to information along with other process improvements to reduce the turn-around time for query resolution.

How To Make A Quality Program Successful

You can't be half-pregnant and you can't take a faint-hearted approach to organizational improvement. Sustaining a business is serious and continuous work. Quality isn't something only a leader can make work — it requires the full engagement of the entire organization, whether there are four employees, forty or four hundred. W. Edwards Deming, a 20th century Quality Guru, said, "Everyone must be involved in the transformation." This isn't a trite comment. It's fundamental.

Establishing a culture of Quality and Improvement in an organization is about change management and transformation in thought about how we run a business. Everyone must be involved and appreciated for their participation.

The greatest risk to a small business is the leader or entrepreneur who may think they have all the answers. There is a saying, "A physician who treats himself has a fool for a patient". And so it can be for the entrepreneur. The leader brings vision and the driving passion about organizational direction. But, the quality approaches described above are based on the concept that all of us are smarter than any one of us. They require brainstorming and group knowledge that only a passionate, engaged workforce can contribute to sustain the organization. "It sounded like a good idea at the time," are famous last words of many single-minded business leaders.

The mantra should be, keep it simple and involve everyone.

What About All Those Other Methods

As the saying goes, "For everything there is a season, a time for every activity under heaven." The next step to use more complex Quality



approaches depends on where the organization is in its evolution and what it needs to address.

The time may come when more comprehensive process documentation is needed to build a strong quality system. ISO may be the solution. High costs, standardization of processes and reduction of process variation in processes can be addressed with Lean and Six Sigma.

All these great concepts require resources, training, money, time and skill. The important thing for a small business is to not do something before its time, just because it sounds like a good idea, a consultant is selling it or other businesses leaders are bragging about it.

Building a business is evolution, not revolution, and so should be the use of Quality.

"Nurturing Start-ups and Small Businesses Around the World", Catherine Rampell, New York Times, June 2011

²Source : U.S. Bureau, SUSB, CPS; International Trade Administration; Bureau of Labor Statistics, BED; Advocacy-funded research, Small Business GDP : Update 2002- 2010, www.sba.gov/advocacy/7540/42371.

³Forbes, September 12, 2013.

"Why So Many Companies Fail During Their First Five Years", Sangeeta Badal, Gallup Business Journal, October 23, 2014

⁵"Impact of Globalization On Small Businesses", Leo Sun, BusinessDictionary.com, May 2014

⁶SMB Research, January 2010

Other Online Resources

There is literally no end to the volume of advice about how small businesses can use Quality, and even more opinions about making small businesses successful. These few offer some useful information, but frankly the more you read, the more confused you will get.

"Principles of Total Quality Management in Small Business Environment," John T. Williams, Charon

"Should a Small Business Practice Total Quality Management?,"
BusinessDictionary.com

Analytics buzzword in the realm of Quality Management



Animesh Tiwari
SixSigma Pro SMART

Past few years have observed astronomical increase in the quantum of data around every little thing that we do. More than ever before, today, every single click online and every single purchase made in a brick and mortar is of some value to the decision makers. While most of the large players across sectors and industries have already invested heavily in building their Analytical capabilities, others are definitely catching up fast. Hence, a common question that often arises is – What's going to happen to traditional Quality approaches such as Lean and Six Sigma? Are these practices becoming obsolete as the newer and more advanced techniques of data science are gaining popularity and finding wider applications?



What are the differences? To start with, the fundamental difference is that traditional approaches mostly found their way to decision making through sampling i.e. a representative subset of the population. Therefore, the statistical techniques involved manipulating this sample so that we could better understand the population with a certain level of confidence. Typically, a hypothesis was formulated, and depending upon the type of data and its arrangement, appropriate tests were conducted to validate the hypothesis. Primary reasons behind the popularity of

sampling approach were the constraints associated with the cost, time and technology. Hence, given the constraints, sampling was a good bargain.

Can Analytics and Lean Six Sigma complement each other? The answer is --yes. How? Well, today with all advanced technological capabilities, the constraints of time and technology have largely been leveled. Using advanced Machine Learning techniques we can manipulate billions of records in the fraction of a second. In most cases we do not have to limit our scope to a sample because for each transaction the data is being conveniently captured in the systems and is readily available for study and research. Even the data related to emotions and free expressions is readily available on open social media platforms, though mostly unstructured i.e. not organized in the rows and columns of an excel sheet, it is of paramount importance for companies as it represents Customer's sentiment.

The core of Lean and Six Sigma involved knowing the Customer better, and these further focused on designing our processes in such a way that we create value for our Customers by eliminating waste and being more consistent. The capabilities that data science leverages definitely bring us much closer to each customer. Today, a buying decision can be easily predicted basis the past purchase behavior, hence the companies can do much sophisticated targeting for each customer segment than ever before.

The quality of information available to us has improved multifold, but would it be of any competitive advantage if the management and frontline doesn't practice the discipline and commitment in the form of a project-driven approach such as Lean Six Sigma. Information is only as good as it is interpreted; it can bring gains to an enterprise only if it translates into actions that yield results. While automation might ease redundant tasks saving time and effort, the ideas for improvement will still come from the people who experience the process most closely. Likewise, marrying customer expectations with technical specifications of a product will still require a subject matter expert's inputs. Therefore, between Lean Six Sigma and Analytics it is not either/or, it is both together hand-in-hand.

Aim for 'Excel In The World' by improving 'The Quality of your way of Doing Business'



Prakash Baxi
CQP MCQI



CQI
CHARTERED QUALITY
PROFESSIONAL

Modi government has launched a massive 'Make in India' and "Start Up India" drive. The objective is obviously employment generation and improving the overall standard and quality of living of all through improving the ease of doing business. The government has shown its strong initiative and commitment, but real role now starts for the small and medium entrepreneurs. The 'Make in India' and "Start Up India" movement will be successful in its true sense only when the small and medium entrepreneurs in India grab this opportunity and can produce world class products and services and maintain competitive edge on a sustainable basis. I am sure the government of India is going to be successful in its purpose and fulfil its commitment. The whole success story now depends upon how SMEs convert this opportunity into creating excellent sustainable business organizations, producing products and services that are safe, reliable and of world class quality.

At present, we have an opportunity to undertake the task of building a better society through Entrepreneurial Spirit, Employment Generation and Promoting Quality Culture. Though there is a lot of emphasis on management studies and education in the traditional Indian industrial and business world, the importance of promoting Skills (Skill India), standards and process frameworks and promoting culture of excellence has now started getting its due importance in India, with a strong initiative from the current government. This includes Cleanliness (through Swachh Bharat), Good Governance, Quality, Safety, Improvement and Innovation.) The SMEs must grab this opportunity to build world class companies and to achieve a sustainable competitive advantage.

For this, SMEs and their organizations need to manage all aspects of Business. They need to protect business risks, protect and enhance their reputation and brand image, improve competitive advantage and ultimately maintain and improve business profits.

For example, there is constant pressure from customers, consumers, compliance agencies, associations, unions, political representatives and the public at large. Far-sighted organizational leaders recognize that lasting success must be built on credible processes which will strengthen organizations to successfully face this pressure and achieve sustainable competitive advantage and business result.

To start with, Entrepreneurs need to ask some simple questions to themselves... Are our customers happy? How is our business doing? Are we meeting our objectives? How is our system (our way of doing business) working for us? How can the wastage be reduced, and process be further improved?

Process Improvement : The business result can be improved by the below process excellence principles:

1. Waste Reduction 2. Process Simplification 3. Cycle time Reduction 4. Root Cause Elimination and 5. Mistake proofing.

There can be many types of wastes e.g. 1. Waste of over-production 2. Waste of unnecessary Inventory 3. Waste of defects 4. Waste of unnecessary motions (movements) 5. Waste of inappropriate processing 6. Waste of waiting 7. Waste of transport 8. Waste of untapped human potential 9. Waste of inappropriate systems 10. Waste of Energy and Water 11. Waste of material 12. Service and office waste 13. Waste of customer time 14. Waste of exiting customers.

Business Risks : Risk is always there in doing any business, particularly in the current context of rapidly changing environment, technology and compliance requirement. It is seen that 50% of the start-ups or medium and small enterprises (SMEs) are closed down before they complete 5 years. Operating a business is always associated with risk. Risk has effects in terms of business loss and professional reputation but there are also environmental, legal, safety and social considerations. These risks can be internal or external, direct or indirect. These risks can have an impact on the reputation of the Company and its brand, its credibility to the customers and other stakeholders and the risks associated with compliance can have the impact on the very survival of the company. Therefore, managing risk effectively is a must for organizations to perform well in an environment full of uncertainty in a constantly changing competitive market.

Business and organizations cannot operate in isolation. Their relationship to the society and environment has become a critical factor in their ability to continue to operate effectively.

One of the challenges also involves creating harmony among the working of various departments and divisions. Managing human resources is the most important element in the whole process.

In this regard, a Chartered Quality Professional (Member of Chartered Quality Institute) can greatly help the organizations and contribute towards the above objective of Protecting and Enhancing the reputation, achieving excellence and improve business profits.

Mitigation of Carbon Dioxide through Agriculture



Dr. J.S.I. Rajkumar
Managing Director
Firgun Bioscience Pvt. Ltd.

Agriculture is an adaptation policy to climate change and a promising opportunity for rural communities. Adaptation and mitigation based on agriculture can build on well-established practice, since agriculture is a sustainable livelihood strategy. Climate change and variability will affect agricultural systems substantially, requiring farmers to adapt.

Choosing effective adaptation and mitigation strategies will represent a key challenge for farmers over the coming decades. Careful management of land, maintain or increase the resilience and stability of production systems, while also sequestering soil carbon and/or reducing fluxes from farm activities are some of the important strategies. Certainly, over the coming decades, the global and regional challenges connected to anthropogenic climate forcing call for the need to maximize collaboration among scientists, farmers and land managers, politicians, and citizens, in order to ensure efficient responses to a global problem that is in essence interconnected across years, regions, and societal sectors. Strategies to enhance local adaptation capacity are therefore needed to minimize climatic impacts and to maintain regional stability of food production.

At the same time, agriculture as a sector offers several opportunities to mitigate the portion of global greenhouse gas emissions that are directly dependent upon land use, land-use change, and land-management techniques. Adaptation and mitigation strategies in agriculture are implemented to alleviate the potential negative effects of climate change, key synergies need to be identified, as mitigation practices may compete with modifications to local agricultural practices aimed at maintaining production and income. Under future climate and socio-economic pressures, land managers and farmers will be faced with challenges about selecting those mitigation and adaptation strategies. The ultimate challenge is to apply this knowledge to 'real-world' agricultural practices, so that long-term sustainability may be effectively enhanced under climate change, by finding the optimal synergies between the necessary adaptation and mitigation strategies. The set of practices identified assume that the objective of farmers is to increase both carbon sequestration and income. However, farmers' practices can be flexible in order to minimize risk by showing opportunistic responses to the changing environmental conditions. Soil carbon sinks resulting from sequestration activities are not permanent and will continue as long as appropriate management practices are maintained. If a land

management or land use is reversed, the carbon accumulated will be lost, usually more rapidly than it was accumulated.

Scientific agriculture can be a solution to environmental issues, especially to reduce the rate of enrichment of CO₂ in the atmosphere. The permanence of soil C sequestered depends on the continuity of the recommended practices adopted. With continuation of recommended management practices, however, the sequestered C stays for a relatively long time in the soil pool and decreases the rate of enrichment of atmospheric CO₂ concentration. Agriculture has a dramatic capacity to sequester carbon dioxide and worldwide, farmers have the opportunity to offset their own emissions and those of other industries. Soils and plants contain 2.7 times more carbon than the atmosphere; they represent the earth's largest store of biological carbon other than ocean. Thus, enhancement of verifiable C pool in terrestrial (soils and vegetation) and aquatic (wetlands) ecosystems can have both economic and environmental benefits. Contribution towards environmental sustainability depends upon the different methods focused in the storing of soil carbon in soil sinks. Improved soil's agronomic capabilities increases the organic matter content of soil, which in return produces better soil and better crops, improves water conservation and reduces erosion.



Before Cultivation



After Cultivation of Crops (Hybrid Napier and Hedge Lucerne)

Advancing personalized cancer treatment through CANscript™



Muthu Dhandapani
Scientist & Quality/Regulatory Affairs
Manager Mitra Biotech, Bengaluru

Cancer is a devastating disease caused due to abnormal division of cells in the body. Aberrant cell growth in cancer can be a result of random mutations in DNA that are instigated by environmental and/or genetic factors. Cancer treatments

are provided based on the type, stage (early or late) and grade (low or fast growth rate) of the cancer cells. Currently, available cancer treatments include non-targeted interventions like surgery, chemotherapy, radiation therapy, stem cell transplant as well as targeted therapies such as immunotherapy, hormone therapy and use of specific drugs to block the growth of cancer. However, these therapies are not free of drawbacks. While non-targeted therapies kill both cancerous and healthy cells leading to side effects, targeted treatments become ineffective over time as cancer cells become resistant to the drugs or re-grow utilizing alternate pathways. Therefore, it is important to deliver the right combination of therapies that kill cancer cells with high efficacy. This is very challenging as there is no defined approach for the use of combination treatments. Hence, there is a need to develop tools that will help physicians select appropriate patient-specific cancer therapy.

Precision medicine is a form of personalized cancer therapy, based on understanding of the patient's genetic background. In this therapy, clinicians recommend treatments to a patient depending on population studies, where patients are grouped by factors such as similarity in the treatment history, genomic profile and tumor type or tumor progression. However, each cancer can be idiosyncratic due to differences in DNA mutation profile, tumor microenvironment, vasculature, and immune system. Therefore, similar precision therapies may have low success rate in patients sharing common features. This calls for a stricter personalized cancer treatment approach that is specific for each patient and takes into consideration the characteristics of not only the tumor but also its microenvironment. This is where Mitra Biotech's approach 'CANscript' falls into place. CANscript is currently the only available 'truly personalized' cancer therapy of its kind.

CANscript involves efficiently recreating a tumor's microenvironment in culture (ex-vivo). The technology utilizes a tiny amount of tumor or cancer cells obtained via biopsy and blood of the patient. The isolated cancer cells are grown under controlled conditions on culture dishes ex-vivo using a suitable matrix and patient serum for optimal cell growth.

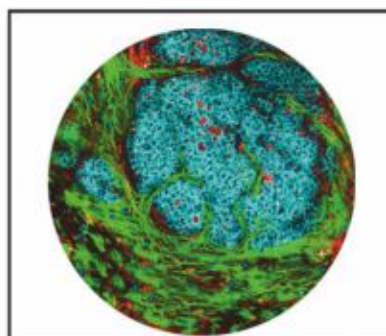


Fig 1 : CANscript recreates the tumor microenvironment, including the immune compartment, stroma, and vasculature.

This recreated tumor microenvironment is then subjected to various combination of drug treatments following which the tumor response is scored. The tumor response is measured through various parameters such as changes in morphology, metabolism, viability

and necrosis. The data output obtained from these measurements is then subjected to analysis by a proprietary algorithm to predict clinical response to the respective treatments in the form of M-score. An M-score greater than 26 is indicative of high probability for that patient to respond well to the same treatment. The tumor microenvironment along with the algorithm forms the CANscript technology. The full procedure of CANscript testing is completed within seven days.

CANscript has been tested and validated in nearly 2000 patients with close to two dozen tumor types being included during the development. Moreover, CANscript has been tested for hundreds of drugs and drug combination across multiple drug classes. Data from clinical studies show that CANscript predicted treatments have greater than 90% correlation with clinical response. An important consideration here is that the therapies to be tested on the tumor are suggested directly by the patient's oncologists, in which case, factors like therapeutic availability, cost, time, toxicity and other side effects have already been evaluated. Once results are generated, the physician considers the M-score for each of the tests and selects a therapy based on the experience and patient's treatment history. Thus, CANscript aids in eliminating ineffective therapies thereby sparing patients from unnecessary toxicity from the failed treatments. CANscript saves time and is cost-effective for patients both of which are important factors, suggesting that it truly resembles a personalized form of cancer therapy.

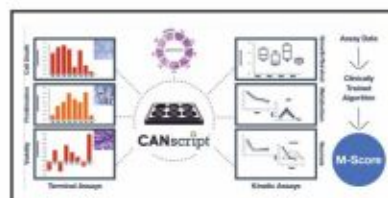


Fig 2: A unique multi-dimensional analysis:
CANscript utilizes multiple terminal and kinetic assays to predict clinical outcomes.

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