

# ***Fi*RE*Si*DE**

The House Magazine of the Thermax Group Volume 49 No. 4 October - December 2019





## **About the Cover**

*While the obvious attention is drawn to the vibrancy of the water lilies, let's take a moment to observe the honeybees busy pollinating the flowers. While they may seem insignificant insects, they teach us life lessons to the extent that they find their place in the book written by a Canadian biologist called, 'Lessons from the Hive' where he quotes, "Honeybees thrive by relying on decentralised and collective decision-making. They show flexibility and adaptability, robustness, and self-organization. It's truly a one for all and all for one society."*

*Photo by Sameer Karmarkar*

**BACK COVER**  
**Celebrations**  
**across**  
**Thermax**

*Comment*  
 I failed  
my way to success   
– Thomas Edison

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# What's New?

Commissions a heat recovery unit along with a hot water driven vapour absorption chiller

## Unique integrated solutions for glass furnace

**B**y harnessing waste heat from a glass furnace, which otherwise gets dissipated to the atmosphere, Thermax provided an integrated solution to a glass manufacturer comprising a Heat Recovery Unit (HRU) along with a hot water driven vapour absorption chiller in the downstream of the furnace. The two divisions, TBWES services and Absorption Cooling & Heating worked in tandem to provide this unique energy recovery system that not only saves energy but also reduces environmental

impact by offsetting power consumed in the electrical chiller that was partially substituted.

Heat recovery from flue gases in a glass furnace is challenging as it contains sticky dust and may impact critical furnace operations from a draft point of view. TBWES heat recovery systems are designed to handle such gases. Apart from this, the system has PLC based and redundant controls to enable high availability as well as a specially designed cleaning system to ensure

maximum heat recovery over time. The HRU can be serviced offline without disturbing the furnace operations.

The vapour absorption chiller of 320 TR is integrated with the HRU which provides chilled water at 7°C for cooling, through the existing Air Handling Unit system in the plant.

Thermax is geared to implement this customised solution for other glass plants and convert waste heat into usable energy.





## Urban Unveiled

**T**he Channel Business Group launched its 'Urban' business in line with Thermax's strategic move of entering the commercial space with its energy and environment portfolio.

Select products from the Water and Wastewater, Heating, Solar PV and Chemicals divisions which have proved their performance in energy efficiency will now address the critical needs of our customers in the Realty, Commercial, Hospitality, Healthcare and Infrastructure segments. Some of these products will feature enhanced aesthetics and functionality customised for the new sector. P. Sreekumar, who joined Thermax in November 2019 will be heading the 'Urban' channel business and reporting to Hiten Grover, CBG head.

The soft launch of the Urban Business took place in Delhi and Bengaluru on the 16<sup>th</sup> and 17<sup>th</sup> of

*Channel partners from the northern region at the training programme*



September respectively with 17 newly appointed channel partners. The launch was followed by two weeks of intensive training programmes covering in-depth knowledge sharing sessions on the product portfolio.

"The CBG team has done a great job in penetrating the industrial segment and grow market share consistently. We are positive about similar traction for our Urban business where we have already built a commendable order pipeline within the first three months of the pilot launch. The key is to create a unique customer experience by leveraging our comprehensive range of solutions backed by our credibility, to gain a leadership position in the years to come," says Hiten.



*Celebrating success; (L-R) Unny, Pravin Karve and Bill Shukla along with the APC team*

three quarters of the financial year, which is a significant milestone.

The scope of supply includes design, engineering, manufacturing, civil work, construction and commissioning of the FGD systems. The commissioning of the project is scheduled over 30 months. "This shows that the implementation of industrial pollution norms has gained momentum in the country, considering that we bagged two large FGD orders within a short span of six months," said M.S. Unnikrishnan, MD & CEO, Thermax.

## Scaling the 1000 mark

**2**019 ended on a jubilant note for our Air Pollution Control (APC) business when on 31<sup>st</sup> December, they announced their second large flue gas desulphurisation (FGD) order of the year, this time from a public-private joint venture power company. The customer will install two units of FGD systems of 525 MW capacity at their thermal power plant in the state of Jharkhand, India. With this Rs. 431 crore order, Thermax's Environment segment has crossed the Rs. 1000 crore order mark within

# Introducing Thermax Cooling Solutions Limited

**M**et the newest entity of the Thermax Group, Thermax Cooling Solutions Limited (TCSL). This 100% subsidiary of Thermax will focus on dry and wet solutions for varied heat rejection applications by integrating solutions from the Process Cooling portfolio and Thermax SPX Energy Technologies Limited (TSPX).

Dinesh Badgandi, who was the CEO of TZL, China, has moved to India as the CEO of this new subsidiary and will operate from its headquarters in Pune. "Our business is a perfect fit in the sustainable solutions portfolio of Thermax. It completes Thermax's play in the entire process cycle from heat generation to dissipation, making us a one-stop solution provider in the utility space," he said.

Tracing the history of this new subsidiary, TSPX was formed in 2009 as a strategic joint venture between Thermax and SPX Corporation, a global technology leader in providing power plant equipment and services. This tie-up helped Thermax introduce

the Air Cooled Condensers (ACC) in the Indian market, an efficient solution for condensing steam from steam turbines in power plants. Considering the water-stressed situation and increasing awareness on health hazards of algae formation in open cycle wet cooling, use of such dry cooling technologies proves to be a boon.

In 2019, Thermax acquired the entire stake in TSPX, which became a wholly owned subsidiary. On the other hand, Thermax introduced the Process Cooling business in the year 2017 to increase its portfolio beyond the traditional absorption cooling solutions and cater to the rising need for energy-efficient solutions in this space.

This synergetic approach of converging the strengths of the two businesses will equip TCSL to meet the growing demand for more efficient and environment-friendly industrial processes. Apart from ACC, TCSL offers adiabatic coolers, closed loop cooling towers, dry coolers,

air cooled heat exchangers and evaporative condensers.



**“ACC helps power plants to reduce dependence on natural resources while meeting their statutory and sustainability goals.”**

*TCSL showcases its offerings at Refcold India 2019, a leading event for the refrigeration and cold chain industry*



**Team Process Cooling at a learning and team-building session organised by L&D**



**Thermax's adiabatic cooler at a leading data centre company in Pune, maintaining the critical ambient temperature of their server rooms**

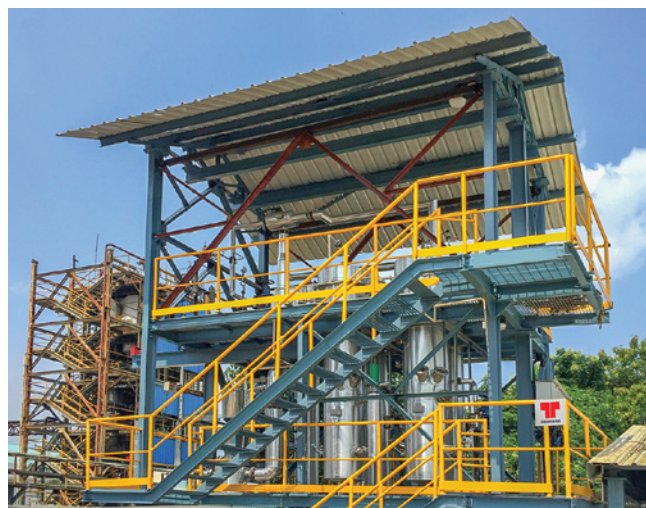


# Maiden contract for treated effluent water supply

**T**hermax Onsite Energy Solutions Limited (TOESL) recently signed an agreement with Garware Polyester Limited for treatment of effluent water at its plant in Aurangabad. This is the first Waste Water Treatment Plant (WWTP) installed by Thermax under the Build-Own-Operate model where TOESL is responsible for installing and operating the plant while the customer will pay for the quantum of water treated.

Aurangabad is a city that faces severe water scarcity for most of the year. Thermax's 110 KLD Zero Liquid Discharge (ZLD) system will enable the customer to recycle as much of the generated effluent as possible and reduce their dependence on freshwater. Such technical systems need to be handled with expertise which became one of the main reasons for the polyester major to opt for outsourced treated effluent water supply by TOESL. Also, the service contract relieved Garware from any operational hassles and enabled them to focus on their core business.

Under the agreement, TOESL guarantees committed delivery of quality treated effluent water for a period of 10 years, along with guaranteed uptime and performance of the equipment with committed lifecycle cost.



*Waste Water Treatment Plant (WWTP) at the customer site*

## Combloc gets smarter



*3D illustration of Combloc Optima*

**B**uilding on the strengths of its well established Combloc boilers, the Heating division has launched Combloc Optima with improved efficiency and better equipment uptime in line with customer requirements. The combustor used is a sloped reciprocating grate, licensed from our technology partner, Lambion, Germany that ensures progressive combustion through multiple grate casting design with different perforation. This helps to achieve desirable air distribution over the grate, ensuring better combustion.

Combloc Optima incorporates several automation features to improve efficiency and ease of operation. These include automated air and fuel regulation for efficient combustion and a default automated bed ash handling system. A fully modular design yields minimal installation time and cost.

It finds application across a host of industries such as food processing, textiles, engineering, chemicals, drugs & pharmaceuticals and is particularly focussed at servicing customer requirements of enhanced equipment efficiency, a greater level of automation and improved safety apart from modularisation and reduced site work.

# Expressions



Look forward to  
each of us thinking  
about our 'moat'  
within each of our  
businesses and its  
sustenance over time,  
through constant  
reinvention.

Let me begin by wishing you a happy new decade and hope you have a great year ahead. I was delighted to read Unny's message on the opening day of the new year, where he shared the progressive journey that we have made towards our vision of becoming a sustainable and contemporary organisation. Companies who work with a purpose and build a value-based ecosystem to achieve it, are the ones which continue to survive and inspire generations. This belief brings me to the memories of listening to Warren Buffet last year, a name synonymous with financial acumen and value-based investment.

Anu and I had the opportunity to attend the Annual General Meeting of Berkshire Hathaway (BH), chaired by Warren Buffet and Charlie Munger – an event on my bucket list! For those who aren't Wall Street enthusiasts, Berkshire is one of the largest multinational American public listed holding companies in the world and owns globally renowned brands such as Duracell, Lubrizol, Fruit of the Loom and a number of fossil fuel companies – not something I admire. It holds sizeable shares in corporate giants of the likes of Apple, American Express and The Coca Cola company. However, what attracted us to Warren Buffet was his extremely simple lifestyle, despite him being one of the richest men in the world and what he has achieved. He still lives in the same simple home in Omaha, which Anu and I walked past, ever since he began his career; as also

his magnanimous philanthropy alongwith Bill and Melinda Gates.

Among the many theories that he popularised, I am particularly fascinated with the 'moat' concept that he introduced in business, meaning that every company needs to have a competitive edge that will differentiate it from the clutter and sustain its growth over peers.

The aura was exuberant at the AGM, which was evident from a record participation of 40,000 attendees from all over the world. People lined up from the previous night in order to get good seats in the auditorium at Omaha - Warren Buffett's hometown. We got there at 4 am and by the time the doors of the stadium opened, it was 8 am.

The BH AGM is most unusual. Many questions asked are about his philosophy of investing and life – people are fascinated by Warren's wisdom and wit. Both he and Charlie Munger are 89 and 96 respectively, and yet, they sat patiently and answered every question from 8:30 am to 3:30 pm - what amazing stamina! In between questions asked by shareholders, teenagers were given an opportunity to ask what they had in mind; so the atmosphere was filled with youth, the investing community and various other shareholders.

Warren Buffet commenced the proceedings with a very important insight into how companies should evaluate their performance. While explaining the balance sheet of BH, Warren



emphasised that the media and shareholders shouldn't be too carried away with investments or derivative gains, instead focus on the operating profits because that is the only yardstick of the company's efficiency and competencies achieved in its core business.

It honestly reminded me of the year 1999-2000 when Thermax made a loss operationally but had a glowing profit thanks to the gains we made on the stock market. Anu announced at the AGM that she wasn't at all happy since investors had put their hard earned money into Thermax's core competences being energy and the environment – a strong resonance.

With every reply or explanation that he gave to the audience during the Q&A session, he reaffirmed BH's transparency, integrity and concern for its shareholders who have entrusted their hard earned money with the company. For him, the most important ingredient of a business is 'reputation' – and the only test is that whatever is printed about you on the front page of a reputed newspaper, does not embarrass you.

Apparently, they have never leveraged the organisation. Both believe strongly in keeping the customer's faith and trust. Having invested in an insurance company, they never flinched paying out their dues, however large the claim.

From making money by selling newspapers at the age of six to being at the helm of one of the largest conglomerates in the world at 88, he has seen many more economic cycles than most

average humans. This also means that his ability to ride the waves of change has stood the test of time. "We welcome change. And we certainly want managers who can anticipate and adapt to it. But sometimes, we'll be wrong. And those businesses will wither and die." They are also the world's richest fossil fuel billionaires – not something I admire!!

Charlie and Warren have relished an enviable undisputed partnership of over 60 years which speaks volumes about collaboration. He believes that it is important to support each other especially when things have gone wrong. Their philosophy in business is to employ executives better than them and learn from them. The world is going to change and therefore they believe in expanding their knowledge through others and through reading and are not ashamed to admit their limitations.

Understanding human nature through experiences has been very critical and valuable. Warren Buffet believes in building partnerships with people he trusts and chooses allies who are in sync with him.

If shareholders and the company are on the same page, then the relationship will be sustainable through ups and downs. Replying to the question "What's Warren's primary motivation when he wakes up every day?", he says, "I wouldn't want to be in a business where I let down my investors."

I would add the word "stakeholders" – whether it be

employees, customers or any business partners.

Look forward to each of us thinking about our 'moat' within each of our businesses and its sustenance over time, through constant reinvention.

~~~~~

Warren has left an everlasting impression on the lives of many people world over. It is here that we also met another extraordinary gentleman by the name of Mr. Dhanuka. He is a fan of Buffet's investment philosophy and wanted to train women in Kolkata to start investing and not be vulnerable by always depending on their husbands. He and Sanjay Bhuvania started with 5 ladies and have 500 such women today – we happened to meet 30 of them, called 'Millennium Mams', who came to the AGM. This NGO works towards women empowerment through financial literacy and business acumen. The curriculum imparts financial knowledge through the study of current affairs and business dailies, analysis of sector-wise balance sheets, AGM participation, tracking of global economic trends and plant visits. When Anu and I were in Kolkata recently, we once again met with some of them over a 'Fireside Chat' – a truly wonderful initiative.

Wish you all and your families a wonderful New Year.

Warmly,

Meher

# ***The role of a CDO***

**Prosenjit Sengupta, CDO, Thermax shares his strategy on steering the roadmap of digitalisation at Thermax in a conversation with Swastika Mukherjee.**

***Automation can help the company enter into a value-based revenue generation model which is more sustainable and profitable.***

**'S**mart' Thermax has been trending in the organisation for a while, thanks to our management's vision of becoming a digitally enabled company and the thrust brought in by Prosenjit and his team after he joined as the Chief Digital Officer (CDO).

Prosenjit joined Thermax a year ago after working with Volkswagen as the Chief Information Officer (CIO) for six years. "Thermax provided me with the opportunity to elevate from driving IT change to bringing about business change," he says.

Explaining the difference between a CIO and CDO, he adds "The role of a CIO is specific to technology while that of a CDO is about orchestration. The crux of the role is to assimilate the information coming from the CIO to understand the business process; identify areas for improving efficiencies and collaboration among divisions, and explore the potential to bring in business revenue from uncharted territories through automation."

It is interesting to learn that Prosenjit never wanted to work in the technology domain during the initial phase of his career. Born and brought up in Delhi, he completed his degree in Electronics engineering in 1998 from Kolhapur and joined Tata Motors where he moved across functions before being selected for their 'Fast Track' programme. Upon completion, he was exposed to IT for the first time as his next strategic project. "I need to confess that IT has shaped my career. Being a process-oriented person, I pay attention to details and understand the nuances. Due to my earlier stints in core businesses, I have

the added advantage of being able to tie the ropes of technology with business outcomes. This means finding ways and means in which technology can start benefitting the business scenario in terms of analytics, driving it further and bringing multiple silos into a connected world."

Dwelling into his journey at Thermax he cites, "I was hired to digitise but soon realised that we first needed to 'modernise' by building a reliable infrastructure that is contemporary, robust and protected from hackers and other security threats. Simultaneously, we focussed on creating an analytics-based structure to make data available for consumption at all levels, leading to more calculated and informed decisions. We have also moved away from a typical 'divisional approach', and resorted to functional approach comprising Sales & Marketing, Proposal Management, Engineering Automation, Manufacturing Automation, Supply Chain and Services."

"Though Thermax is not as large as the global biggies in size, we are equally complex as them in terms of the operations and offerings; hence we needed a comprehensive approach." Speaking of the need to transform digitally, in a nutshell, he says, "It's similar to an F1 race. For a company to accelerate, we need to build a robust track to be able to cruise at top gear but at the same time develop equally competent and equipped drivers who can make the most of it. This requires capability building in-house and leveraging external expertise wherever required. We need to elevate the efficiencies



# *is that of orchestration*

so that the same employee can multiply their output by manifolds.”

We asked him about the key drivers of his success. “The first and foremost success has been a buy-in from our top management as they have realised the positive impact of digitalisation on the top line and bottom line of the company. Next is the uninhibited acceptance of digitalisation by our Executive Council and the willingness to embrace it to bring about change in their respective businesses and functions.”

“We also believe that our employees being the epicentre of our stakeholders’ universe, should first experience the benefits of digitalisation to be able to promote it to our external stakeholders with conviction. And the proof of the pudding has been the automation of employee management portal, expense reimbursement portal and other applications impacting their personal space which has led to saving time, expediting processes and making virtual interfacing a lot easier than before.”

He shares that his digital transformation rests mainly on three pillars – from individualistic to collaborative for the organisation, from people-driven to industry benchmarked processes and from a product-based approach to outcome-oriented solutions for customers that ensures precision, reliability and consistency. “Since utilities comprise a major portion of the customer’s cost, our solutions should enable them to become more efficient and profitable.”

Explaining this further, he says, “Automation can help the company

enter into a value-based revenue generation model which is more sustainable and profitable.”

While the initiatives have kicked off at a fast pace, it is also essential to sustain the transformation and Prosenjit believes that this requires us to be open-minded and develop the ability to upskill continuously. He explains this by citing Darwin’s theory that emphasises on the capacity to adapt and adopt as a key to existence. “The different generations should be able to learn and benefit from each other’s competencies. While a person in their ‘50s can learn the nuances of technology from a youngster, a 20+ needs to be patient and learn from the wisdom of the experienced to be able to understand the business better and build a long term career.”

When asked about his ultimate goal for digitalisation, he said, “My journey is towards building a paperless, connected organisation which enables a seamless flow of knowledge and equips our employees to understand and help with each other’s businesses.”

He believes in a collaborative and participative way of working. “I am in a field where technology is ever changing, and most of the times we are enablers not doers. Hence it is evident that I need to capitalise on the strengths of my team and work in collaboration with others.

Speaking of his experience with the culture, he says, “Thermax is a warm company which helps you to integrate soon as people are willing to accept

you with open arms. There is a sizeable share of employees who have been with the company for most of their career; hence their process understanding and loyalty is indomitable. But this has also limited their exposure to emerging trends and industry practices and in some areas, processes have become people specific; hence standardisation and consistency is the need of the hour.”

Prosenjit shares that the bond that he has developed with the company doesn’t make him feel away from his family, comprising his wife Sukanya and daughter Nikita who are based in Mumbai.



# Round up



**Thermax chemicals for cooling towers**

## Major order bagged for water treatment chemicals

**T**hermax's Chemical division recently received a significant order from a steel manufacturing giant in India for water treatment chemicals. Given the prevailing water shortage situation and norms that are being enforced, it is critical to conserve and recycle water, especially in industrial processes. Addressing this challenge, Thermax through its portfolio of cooling water treatment chemicals and polyelectrolytes, helped

the customer to reduce water consumption in their process applications by treating the water with its speciality chemicals. These specially developed chemicals minimise impurities in water, scaling and fouling, along with corrosion control by providing clean heat transfer surface, thereby enhancing the performance and overall efficiency of the plant. Customer centricity displayed by the sales team blended with the technical expertise of the product management team has led us to secure this order. The customer appreciated Thermax's focus on sustainable solutions that are instrumental in reusing and recycling water.

## Shining stars



**A**s a yearly practice, Thermax recognises the outstanding performance of the employees' children who secure exceptional results in their 10<sup>th</sup> and 12<sup>th</sup> grade exams. Meet the 28 brilliant young minds who were felicitated for the academic year 2018-19 by Thermax's senior management at a ceremony held in Thermax House.



# Highest benchmark in information security

In line with the commitment to upkeep security of critical data and business information within Thermax, the Business Technology Group (BTG) team had initiated project ETHOS (Essential Transformation in Hygiene of Operating System) in the year 2017-18 to implement a robust Information Security Management System (ISMS) across the company.

We are proud to share that Thermax recently achieved a significant milestone in this area



The certificate was presented to the BTG by Venkataram Arabolu, MD, BSI Group India Pvt. Ltd.

by acquiring the ISO 27001:2013 certification, the highest and internationally accepted benchmark in information security standards.

As a process, Thermax's compliance was validated by an independent auditor (BSi Group). After demonstrating an ongoing and systematic approach to managing and protecting the company's and customers' data, the review was completed with zero major non-compliances. The scope of the ISO certification was

all-encompassing and comprised all the information systems owned by Thermax as well those accessed by contractors and third parties. During the course, BTG and representatives from various SBUs and departments worked cohesively towards accomplishing milestones of the project.

This certification not just endorses our best information security practices but also assures our customers that their crucial data is in safe hands.

## PHOTONEWS



A glimpse of the second shipment comprising four massive plug and play modules of utility boilers that set sail from the Mundra port for the largest refinery in Africa. This consignment is a part of Thermax's largest export order which was featured in the April-June, 2019 issue of Fireside. The first package was installed in a record time of 21 hours which goes to prove the capability of our modularised solutions in helping customers optimise their productivity with minimal integration time, ensuring safety and peace of mind. Here's a short video on the project: <https://www.youtube.com/watch?v=tvJvBiLxOcc>

*The Power O&M team behind the successful commissioning*

## First 'non-Thermax' power project in South East Asia

**T**he Power O&M division commissioned a non-Thermax power project for an independent power producer located at Negros Island in the Philippines - a first in South East Asia.

Thermax bagged the contract for the 19.9 MW plant due to the customer's dispute with a Chinese EPC company who initially started the work. Having a proven track record in EPC, boiler manufacturing and O&M, which was a prerequisite by the customer, Thermax was able to complete the project whose scope comprised a 90 TPH boiler, 19.9 MW steam turbine generator and Balance of Plant systems. The team got involved at the erection completion and pre-commissioning phase and ensured that the plant was up and running in a short span of five months.



Thermax was also awarded a certificate of appreciation from the customer for demonstrating professionalism and executing the project with world-class safety practices.

## Service excellence for customer retention



*Service engineers gathered at TLA to imbibe critical skills*

**'U**pgrade your skills to align with business growth strategy' was the theme for the Air Pollution Control division's Service Engineers' Conference 2019-20, held from 20-22 November 2019.

The agenda of the conference was built on enhancing the key competencies crucial to service - technical knowledge of critical technologies; project management expertise and related software knowhow; safety awareness and emergency response; improved reporting methods through advanced MS Excel training; and sound interpersonal skills.

"Continuous improvement in services will retain our customer base," said Bill Shukla, Environment segment head, while addressing over 50 service engineers from the Product and EPC PU within the division.



# Repeat order for steam supply from the Marico Group

**T**hermax Onsite Energy Solutions Limited (TOESL) recently installed and commissioned the second boiler plant at Eternis Fine Chemicals Limited, Kurkumbh – a Marico Group company, under the Build-Own-Operate model. TOESL diversified its offering by supplying other utilities like treated water as well as compressed air along with steam. For the timely completion of this project and adhering to safety and quality standards, Thermax has been awarded as the 'Best Collaborator' with a certificate of appreciation by the customer.

This repeat order from the customer affirms that TOESL delivered on all its performance and uptime guarantees consistently as well as provided constant customer support. Under the agreement, TOESL ensures committed delivery of quality steam and treated effluent water for a period of 10 years. The utilities leveraged for this solution comprised a 15 TPH boiler and 200 KLD water treatment plant.



*A boiler house set up by TOESL*

## Extending service expertise to customers



*Customer training on vapour absorption machines*

**T**he Absorption Cooling and Heating division's service team organised a customer training on the basic principles of vapour absorption machines, operation & maintenance, troubleshooting and safety at Vishakhapatnam. The training took place on November 15, 2019, in collaboration with our channel associate, Vensai Associates, witnessing an impressive attendance of over 40 customers from the region. The services team also presented new offerings from the Thermax cooling portfolio during the programme. Customers appreciate this initiative of Thermax as it enables them to upkeep the performance of equipment and address routine operational requirements without dependence on experts.

## Our own OH&S certified lead auditors

**T**he new HSE guidelines mandate organisations to transition from OSHAS 18001 to ISO 45001:2018, the first 'international standard' in occupational health and safety (OH&S) management. The new standard aims to link health and safety with business strategy, thereby laying greater emphasis on leadership participation, change management and performance management. Besides, it provides an enhanced compatibility with other standards owing to its high-level structure.

To align our safety officers and divisional safety coordinators with the new scope, the Thermax HSE team organised technical sessions to train them as certified lead

auditors as per the new norm, accredited by the IRCA (International Register of Certified Auditors).

The sessions were conducted at the Thermax Learning Academy by reputed agencies, TUV SUD from 23<sup>rd</sup> to 27<sup>th</sup> September 2019 and Bureau Veritas from 18<sup>th</sup> to 22<sup>nd</sup> November 2019. This enabled the 20 participants to gather required skills and knowledge to conduct a complete OH&S audit, including planning, implementation,

identification, assessment, reporting and developing an action plan based on the findings.

*The team trained and certified by Bureau Veritas*



*TUV SUD training for another batch of safety officers and divisional safety coordinators*

## Cricket champs!

**T**hermax lifted the champion's trophy at the Citibank inter-corporate cricket tournament 2019. Organised at The Poona Western Club in November, the series had participation from many Pune based corporates including Zensar, Bharat Forge, Eaton, Fiat, Bridgestone and Garware Technical Fibers.

Our colleague Pradeep Karnawat from Thermax Cooling Solutions won the 'Man of the Match' award for his all-round performance. Other Thermax employees who participated in the match were

*Team Thermax flaunts their 'Champions' trophy*



Rishikesh Kshrisagar, Rahul Kasar, Santosh Chokulkar, Gaurav Nikumbh, Girish Naikwadi, Chandrakan Dudhane, Vivek Sarna, Rohan Kamat, Amol Sonawane and Ganesh Bhaygude.



# Chiller-Heater in the UAE

**T**he Absorption Cooling & Heating division's 600 TR chiller-heater has replaced the existing electrical chiller at the Al Dhafra Paper Manufacturing Company LLC in the UAE. Thermax's installation has resulted in saving 4.81 million units of electricity annually for the customer and has also helped them in reducing carbon emissions by 3,302 tonnes, equivalent to planting 3,30,240 trees per annum.

The energy-efficient chiller-heater produces chilled water at 6.6°C,

which is circulated through the Air Handling Units (AHUs) to air-condition office buildings, production plant building, panel rooms and drive rooms. The hot water produced at 90°C is used as feed water for the boilers, resulting in the reduction of heat required in the steam generation process.

*600 TR chiller heater at Al Dhafra Paper Manufacturing Company LLC*



Steam, which is the driving heat source for the chiller-heater, is produced using two Thermax's natural gas-fired boilers of capacity 35 TPH each.

# Running Miles, Bringing Smiles

*Happy faces supporting the 'Runathon of Hope' marathon*



**T**his year too, Thermaxians ran wholeheartedly for the tenth edition of 'Runathon of Hope' organised on 10<sup>th</sup> December 2019. An initiative by the Rotary Club of Nigdi-Pune, this year's theme was supporting the cause of

health and women empowerment. What's more commendable is that, in addition to corporate sponsorship for the event, employees opted to pay for their own registration in the category of 'Corporate Run'.

Earlier in the month, a few of our colleagues, including members from the senior management had also participated in the 'Pune International Marathon', to support the Akanksha Foundation, championing the cause of better education for the underprivileged.



*Participants at the Pune International Marathon*

# National Energy Conservation Day



*Divisions present their case studies at Enviro House*

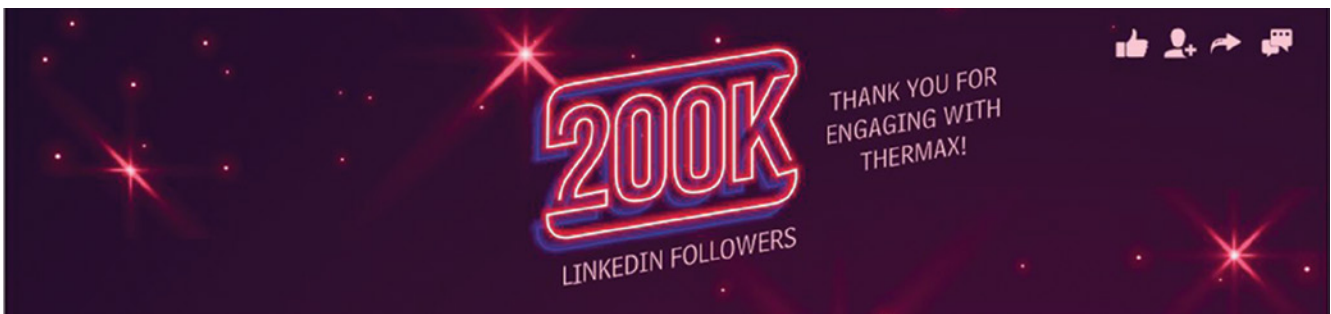
**W**hile energy conservation has been integral to Thermax's business, it also needs to percolate into the lives of our employees and in everything we do. With this motive, we celebrated the National Energy Conservation Day on December 14, an initiative by the Government of India's Energy Efficiency Bureau (BEE).

As a prequel to the event, divisions were invited to present case studies on unique applications that have yielded energy savings. An online quiz was conducted on the topic, garnering an impressive participation from 337 employees.

The event was organised in the Thermax Environment house, Pune where business unit heads, Bill Shukla and B.C. Mahesh spoke about the prevailing climate crisis and how small initiatives can make a big difference. K. Narayanan from Power O&M shared case studies on how the Performance Improvement Cell of Thermax can make power plants more efficient while Rajesh Kulkarni from Heating spoke about the benefits of steam engineering products in optimising energy consumption in industrial processes.

Anant Kshirsagar (AGK), head of HSE, concluded the forum by encouraging employees to imbibe sustainability in the smallest of things we do, for example, measuring and reducing the carbon footprint at home. Winners of the quiz contest Shubham Sirsikar, Yogesh Desai and Apoorv Sarvesh were felicitated at the event.

## Thermax enters the 2,00,000 follower club



**T**he year 2019 ended on a high note for Thermax's digital presence as we entered the 2,00,000 follower club on LinkedIn. During the year, our LinkedIn community doubled with the addition of 99,800 new followers and we reached more

than 4.4 million users. Continuous information sharing by various businesses and functions has yielded engaging and interesting content that has outperformed most of our industry peers on LinkedIn, the leading professional networking global platform. A big

thank you to all our stakeholders for enabling Thermax to cross this important milestone.

Please do visit and follow our LinkedIn page: <https://in.linkedin.com/company/thermaxlimited>



## First chiller from Sri City dispatched overseas

**T**hermax executed its first export consignment manufactured at the Absorption Cooling & Heating division's new state-of-the-art facility in Sri City. This was a repeat order for a 60 TR low temperature hot water driven vapour absorption chiller from UBE Chemicals (Asia) Public Company Limited in Thailand. The chiller helps the customer in the process cooling application of

ammonium sulphate, used as a fertiliser in the Asian region and caprolactam used in nylon fibres and resins.

The chilled water at 5°C maintains Dinitrogen ( $N_2$ ) at its dew point temperature, which in turn is used for polycarbonate diol processing.

Hot water, the driving heat source, is produced from steam condensate and process heat recovery.

Thermax's chiller is helping the customer save 2,00,000 units of electricity and reduce carbon footprint equivalent to planting 19,200 trees in a year.



*An aerial view of UBE Chemicals, Thailand*

## Churning efficiency for a dairy major

**T**wo units of Shellmax Global boilers were commissioned at a dairy in Abu Dhabi, showcasing world-class aesthetics and latest automation features.

These fully-packaged 8 TPH boilers generate consistent and high-quality steam, catering to the customer's heating needs for processing of milk and other dairy products. The steam is used for pasteurisation, drying and cleaning applications.

To ensure enhanced efficiency and assured fuel flexibility, each boiler is fitted with an effimiser – a unique patented heat recovery solution which adjusts to change in fuel variety and maximises heat recovery performance at

all load conditions; delivering 94% efficiency while operating on high-speed diesel and natural gas.

**8 TPH Shellmax Global**



# The passion continues...



It's that time of the year when the cricket season commences with a host of matches, bringing out the *Virats* and the *Dhonis* in our employees. Before we announce the winners of this year, let's applaud the passion of the organising team who have been meticulously planning these tournaments for the past 19 years, alongside their busy work schedules.

At the senior management cricket tournament, 'B&H Falcons' retained their top spot, beating seven other teams. A total of 16 matches were played over two

days on 16<sup>th</sup> & 17<sup>th</sup> November at the Poona Club Ground. 'Pune Warriors' stood as the first runners-up!

Our women force was no less when it came to proving their mettle in the Women's Cricket Tournament held on 17<sup>th</sup> November. The team 'Desi Girls' outperformed the other participating teams, taking the first position. 'Killer Queens' and 'Dazzling Girls' grabbed the second and the third spot, respectively.

**B&H Falcons**



**Team Desi Girls**



## ASPIRE – building leadership for tomorrow

To strengthen our leadership capabilities in line with the company's growth plans and changing industry demands, a Leadership Development Programme was

instituted in collaboration with India's leading management institute, ISB comprising modules for strategy, manufacturing, finance and people development.

Launched in October 2017, ASPIRE was a comprehensive programme designed to help leaders build strategic, high-performance and self-aware leadership skills; focussing on both organisational and personal impact as a leader.

**Final review and closure session of 'Aspire' at Fort Jadhavgarh**



A team of senior management members embarked on the journey with a diagnostic study aligned with classroom sessions at ISB in a phased manner; followed by strategic group projects based on learnings from the sessions.

Thermax's leadership team periodically reviewed the strategic projects taken up by the teams with a final review and closure in November 2019



# AWARDS & ACCOLADES



## '5S Gold' award

Thermax's Absorption Cooling and Heating division's state-of-the-art manufacturing facility in Sri City, Andhra Pradesh continues its journey of accolades, this time for its best-in-class operations and processes. The team bagged a '5S Gold' award from the Quality Circle Forum of India (QCFI) – Chennai Chapter for its consistent efforts towards adopting 5S practices in optimising and utilising resources efficiently. As a part of the inspection process, Dr. A. Sanjeeva Rao, National Vice President and Mr. V. Thiagarajan, Executive Committee Member, QCFI – Chennai Chapter inspected the site. Some of the key aspects that received special mention were water conservation using straining methods; clean passages and plant office areas; and implementation of standardised 5S practices. The initiative has also helped in optimising workspace, reducing retrieval time and overall operational costs.



## Excellence in exports

Thermax won a 'Special Trophy for Excellence in Exports of High Technology Products' at the 50<sup>th</sup> EEPC India National Award, concluded on December 10, 2019 at New Delhi, India.

The National Awards are adjudged based on the export performance of organisations and evaluated through detailed audits conducted by the Engineering Export Promotion Council of India (EEPC) in various categories.

Rajendran A, CFO, Thermax and Anand Iyer, Head EXIM - Corporate received the award on behalf of Thermax from B.S. Bhalla, Additional Secretary, Ministry of Commerce and Industry. The event was also graced by the chief guest, Hardeep Singh Puri, Minister of State for Commerce and Industry, Minister of State for Civil Aviation and Housing and Urban Affairs.

## Best EPC player

Thermax Solar has been awarded 'Best EPC Player' in the industrial segment in the state of Haryana and Punjab by EQ Magazine. The award function took place at EQ – Suryacon Conference on October 16, 2019 in Chandigarh.



## IFAT 2019

In line with our brand positioning as a 'One Stop Solution Provider' for industrial water and wastewater challenges, the Water & Waste Solutions & Chemical businesses came together with their innovative solutions at one of the biggest water expos in India, the 'IFAT 2019' held in Mumbai from 16<sup>th</sup>-18<sup>th</sup> October 2019. The theme of the booth was 'Reuse Reduce Recycle' where our technical experts shared their insights on how the country can conserve water by using Thermax's green & sustainable solutions which was well appreciated by our customers and channel partners. Highlights of the event were touch screen displays of solutions, scale models of various offerings from raw water to effluent treatment and leveraging social media platforms to engage with our stakeholders.



## PIPOC 2019

Considered to be the world's largest palm oil technical and trade congregation, the International Palm Oil Congress and Exhibition (PIPOC), organised by the Malaysian Palm Oil Board (MPOB) took place from 19<sup>th</sup> to 21<sup>st</sup> November 2019 at the Kuala Lumpur Convention Centre, Malaysia. Thermax had two prominent booths, one showcasing its utility solutions specific to the palm oil industry viz. biomass and other fuel-fired power & utility boilers, water & waste solutions, absorption cooling, utility optimisation solutions etc. Additionally, the Air Pollution Control business displayed its new industry advances, current technologies, equipment and products while aligning with the theme of this congress – 'Balancing Sustainability Pillars'. The teams had the opportunity to interact with potential customers, industry stalwarts and key government officials, including YB Teresa Kok, Minister of Primary Industries, Malaysia.



## Aquatech Amsterdam



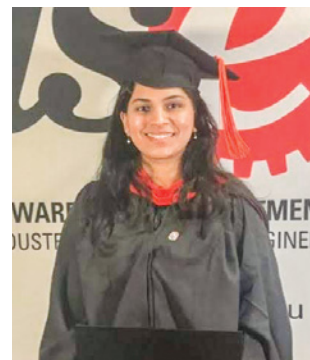
Thermax's stall at Aquatech held from 6<sup>th</sup> to 8<sup>th</sup> November 2019 at Rai, Amsterdam witnessed visitors from varied industries and geographies who showed interest in the applications of Tulsion® ion exchange resins. Our technical experts and industry leaders had engaging discussions with customers on water treatment challenges across the globe and how Thermax can help solve them through its comprehensive range of specialty chemicals. Industry stalwarts appreciated Thermax's customised products and sustainable solutions.



# **Limelight**

## **Surabhi conferred her master's degree**

Surabhi Lale, daughter of Sudhir Lale from our secretarial department completed her master's degree in Industrial and Systems engineering from North Carolina State University, USA with a specialisation in manufacturing and optimisation. Surabhi pursued this degree after completing her bachelor's in Mechanical engineering from the MIT College of Engineering, Pune. She was also among the children felicitated by Thermax for her outstanding results in the 10<sup>th</sup> & 12<sup>th</sup> grade. Her hobbies include cooking and listening to music.



**Surabhi**

## **14 year old Srijan wins a bronze medal**

Srijan, son of Deepak Bera from the power O&M team has bagged a bronze medal in the CBSE National Badminton Championship 2019 held at Varanasi in December 2019, where he participated in the under-14 category. Srijan has been a student of Nikhil Kanetkar Badminton Academy (NKBA) and playing the game for nearly three years. He has won accolades in the zilla parishad, zonal, south zone II and district tournaments.

Srijan is a student of Indira National School and is currently studying in the eighth grade. Apart from badminton, he enjoys playing cricket and football.



**Srijan**

## **Rohit completes his specialisation course in Internet of Things**

Rohit Khindri, associated with Thermax since 2008 and currently working with the Innovation team of the Heating division, recently completed a post-graduate certificate programme on 'Internet of Things' from BITS, Pilani with 8.5 CGPA. This one year programme covered data analytics, cloud computing, application systems, big data, and their interplay in IoT systems.

Rohit has been a part of various automation initiatives in the Heating division, the latest being the launch of UltraMind® – an IIoT and data analytics solution for boilers and heaters.



**Rohit**

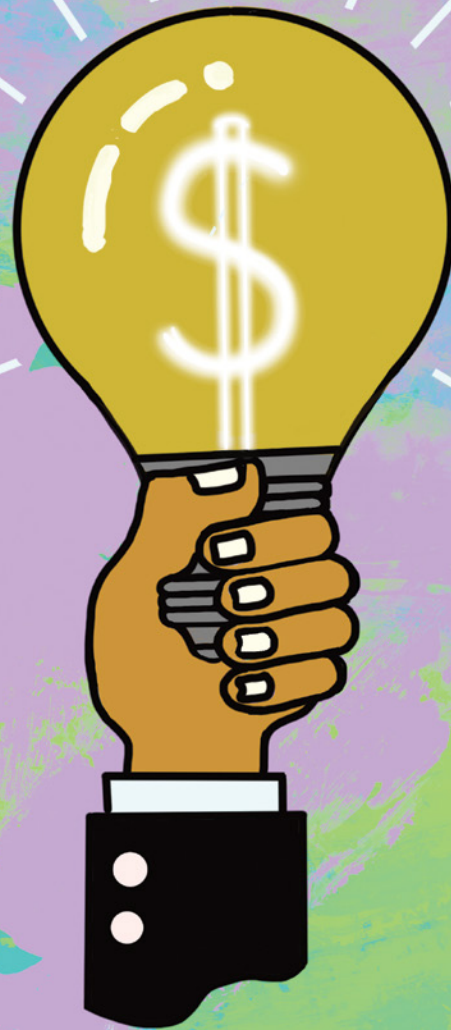
## **T.A. Pai Young Millennial HR Leader Award – 2019**

Vinita Kulkarni, our colleague from HR received the esteemed 'T.A. Pai Young Millennial HR Leader Award' for 2019, held in association with Economic Times and ET Now in Mumbai. As a part of the qualifying process, she had to undergo a rigorous shortlisting and evaluation process including a panel interview. This recognition qualifies her as one of the 20 most promising young HR leaders at the National level.

Vinita joined Thermax as a management trainee in 2015 and is now a part of the Corporate HR team.



**Vinita**



# Is Venture Capital Worth The Risk?

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An interesting narration excerpted from the article by Nathan Heller that traces the origin of Venture Capital in the nineteenth-century whaling business and then delves into its success and fallacies over decades.

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**F**or a certain sort of nineteenth-century person—the sort with high risk tolerance and little revulsion to brutality—a natural career lay in whaling. The odds of success here were, by almost every measure, poor. An expedition first needed to find whales in the vastness of the oceans. If it succeeded, it had to approach the whales in

silence, with a small craft; strike with a harpoon; stay afloat, intact, engaged, and oriented as the poor creatures thrashed about, sometimes for miles through iceberg-laden water; row back to the main ship with the carcasses; harvest the baleen and render the oil; and survive the journey home.

For those who made it through the earthly trials, there could be

riches in tow. A captain with some skill could spend a few years leading expeditions and retire rich. In 1853, the *Times* described the whaling town of New Bedford, Massachusetts, as “probably the wealthiest place” in the United States.

The people on the boat, however, weren’t the largest earners. Dispatching a whaling voyage cost



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## In principle, venture capital is where the ordinarily conservative, cynical domain of big money touches dreamy, long-shot enterprise.

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between twenty and thirty thousand dollars, a small fortune in the mid-nineteenth century, and an industry emerged to get these expeditions off the dock. Specialized agents in whaling-industry towns invested their own money, pooled cash from rich investors, did due diligence, and worked with captains to develop winning strategies and to plot uncrowded routes.

In “V.C.: An American History,” the Harvard Business School professor Tom Nicholas sees whaling as the first practice of what we now call venture capital: collecting large pots of money and using it to invest in young companies, while also getting involved in their management, in the hope of guiding growth and generating huge returns. Venture capitalists fill these cash pots, or funds, with money from large-scale investors—foundations, pension funds, university endowments, and other passive contributors. They take a management fee, drop a bit of their own money into the mix, and, like the whaling agents, promise expertise. They, too, make predominantly bad bets: about eighty per cent of venture investments don’t pay off. Occasionally, though, there is a wild success, and, since the nineteen-

seventies, such successes have transformed American business. Venture capital backed Apple and Intel. It funded Google, Amazon, and Facebook before any of them turned a profit. In principle, venture capital is where the ordinarily conservative, cynical domain of big money touches dreamy, long-shot enterprise. In practice, it has become the distinguishing big-business engine of our time. Can it offer both returns?

Venture capital is off limits to most of us as a direct investment. Yet most of us now have daily contact with the world of venture capital, because its sphere of influence has exploded. Once, venture capital was sought by risky startups needing lots of up-front cash, whether for research and development (Genentech had to fund academic-grade research before it had a product to bring to market) or for essential leaps in scale (Uber is appealing only if it’s big enough to get a car to you quickly). Such financing seemed especially suited to proprietary technology, which was expensive, hard to seed into the market, and yet, if things went right, extremely lucrative. That has changed. Since extending its focus to direct-to-consumer retail, venture capital

has come to fund delivery services, financial services, car companies, shoe companies, office real estate, leisure real estate, coffee brewers, beer brewers, smoothies, razors, trousers, speakers, scooters, mattresses, toothbrushes, socks, and underwear.

This realm of direct commerce could be called Venture World. You know what its businesses are like. They appear suddenly, everywhere, with chatty ad campaigns on public transit starring cool, young people. They tell you that their products aren’t just better; they are simplifying the whole deal, changing how stuff works across society, and not a moment too soon. But the bulk of Venture World’s offerings are online, where they are hawked on bright, uncluttered sites that scroll down, down, and down again with charming animations, offering moving stories about one big idea that will change the industry, about community, about zero-impact supply chains, which, thanks to their backing, they can afford.

A marriage between social enlightenment and manic growth defines the business of the past decade. Venture capitalists, having helped officiate the ceremony, often find themselves in awkward

standing when the marriage falls apart. In the fall, WeWork, a venture-founded office-rental company, tried to enter the public markets with a forty-seven-billion-dollar valuation and the pixie dust of world-changing rhetoric, only to postpone the I.P.O. indefinitely when the valuation dropped by about seventy-five per cent and its lion-haired C.E.O. resigned amid disturbing revelations about his management style.



On the money tree of contemporary finance, venture capital comes off the branch of private equity: the buying and selling of shares of companies which aren't publicly available, ostensibly to turn a profit while helping businesses thrive and grow. When people speak of "private equity," however, they usually mean funds that move on mature companies, often with the goal of restructuring and selling them as if flipping a house. Venture capitalists are different. They buy equity from brand-new or young companies, and they generally cannot get their money out until the startup enters the public market or is acquired by a larger company, like a herring being swallowed by a tuna. This is what happened to Instagram, when it was bought by Facebook, or YouTube, upon its acquisition by Google. Acquisitions are one reason that, despite the efflorescence of new startups, power in tech flows toward the giants at the top.

During the Second World War, the government raised taxes further while plowing taxpayers' money into business growth. Prospective innovators were paid four hundred and fifty million dollars—about five billion dollars in today's money, by Nicholas's calculations—in government contracts. When the war ended, the G.I. Bill helped talented people get technical training and social access, expanding the pool of potential entrepreneurs. The war

and its aftermath, which saw the growth and reimagining of such companies as I.B.M. and Hewlett-Packard—plus the first programmable digital computers, the jet engine, mass-produced antibiotics, and oodles more—was by most measures a golden age of American innovation. It happened largely on the government's tab.

Did the government's investment pay off? Yes, venture capital in the seventies helped bring us Apple, Atari, Genentech, and the like. And, yes, in the nineties it was crucial to the launch of Netscape Navigator, Hotmail, and Google. Now consider a few entities that got off the blocks without a penny from Papa V.C.: Microsoft (Bill Gates sold a five-per-cent share of his already profitable company in 1981, solely to bring an old hand onto the board); the Mosaic browser (federally funded and released free of charge); and Craigslist (which diverted an existing advertising market into its coffers). Subtract venture capital from the landscape of late-twentieth-century innovation, and we would have reached the new millennium with roughly the same technological capacities.

The *Times* journalist Mike Isaac, in his buoyant and well-reported new book, "Super Pumped: The Battle for Uber," points to the advent of the iPhone as a crucial turning point in venture investment. "The App Store changed the model for software development entirely," he writes. What used to



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**It is true that we get goods and services on the cheap thanks to venture capitalists pouring money into “pre-revenue” companies. But we also learn to value them less.**

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require distribution infrastructure could now be served at a click. What used to be trapped at your desk could be in your pocket, a huge scaling-up of market opportunity that paved the way for companies like Uber. “Venture funds began throwing money at twenty somethings, hoping to stumble into funding the next killer app,” Isaac writes. “But the *real* winning apps were backed by top-tier venture capitalists, who made connections to potential partnerships with large companies, built pipelines to faster recruiting, offered strategic advice and, of course, turbocharged growth and marketing with millions of dollars in funding.”

The pressure of scale fell hardest on startup founders. When venture capitalists take board seats, they are supposed to help guide a company in the best direction. By sheer necessity, though, their most immediate interest is seeing the company grow quickly enough that their equity can reach their own targets. For a young startup, getting bigger faster is not always the best directive. One trend in Venture World has been growing valuations, which in median last year reached a five-year high. Valuations and the economics of dilution (the portion

of ownership that entrepreneurs must sell in order to bring more money on board) are spurs to faster growth.

Institutionalizing venture capital has had good effects. For all its swagger about finding diamonds in the rough, the industry has always been largely about whom you know and what narrative you fit, with firms notoriously favoring socially maladapted young white men. This tendency has begun to change as its costs, financial and social, come to mainstream attention.

Other perils remain unaddressed. It's nice that we're able to get cheap or free stuff from wildly scaled-up unprofitable startups with venture backing. (Recall the brief, bright age of MoviePass.) But how healthy is this norm? Thirty years ago, it was widely understood that, if you wanted to get quality news on your doorstep, you had to send a subscription check through the mail; if you wanted to see a great new movie, you had to fork some bills across the box-office window or the video counter; and if you wanted to take a cab uptown you had to pay the driver the standard fee, plus tip. Venture World has weaned us off these habits of direct exchange. Now we expect certain things to be free, because

surely a wealthy, ambitious funder somewhere will be picking up the tab. It is true that we get goods and services on the cheap thanks to venture capitalists pouring money into “pre-revenue” companies. But we also learn to value them less.

The American whaling industry ended largely because the most valuable of those creatures were hunted almost to extinction. In the venture-capital realm today, the risks of fishing out the sea are no less real. Nicholas writes of early venture capitalists' sense of “social responsibility,” by which he means that they didn't regard growth toward profit as their primary goal. Making the planet a better place gets a lot of discussion in Venture World, but it is sometimes as simple as constructing a company that is useful and sustainable, and that treats its employees well. Venture capital, once a small and chancy field, is now a profit machine for its managers, with all that entails. Poorly designed for its scale, rote and entrenched at the higher echelons, it has become vulnerable to a particular sort of change: disruption by a bright, daring idea.

*Source: newyorker.com*

## **A Dubai experience with RDA**

**T**hey often say that a picture is worth more than a thousand words. The one that I am about to share with you brings many events to the fore.

It was the winter of December 1994, if my memory serves me right. The Middle Eastern market had started picking up after sustained efforts of over a year of establishment. Out of the blue, I received a message from Nitin Warty, the International boss at the Head Office - "RDA will visit the Dubai office around Christmas". I realised later that the workaholic that Mr. Aga (fondly known in the office by his initials – RDA) was known to be, was probably visiting the UK to meet up with his newborn

grandson, baby Zahaan (Meher's son) and did not wish to spend idle time in the UK or India, around the New Year, when there is little business activity in most parts of the world. The only probable activity would happen in the Middle East!!

This sent all of us into a tizzy. The few moments that I had spent with him on clearance to set up the North East office at Dibrughar and the UAE office, was taxing enough. Three days with RDA was a tough call.

Honestly, I got all the help that I possibly could to create a watertight program. Our small team comprised of Mr. Raut and Muthu, as well as our closely networked ex -Thermax group. Mr. Sunil

John, ex-Corporate Communications, deserves a special mention here for being well connected with the press for RDAs visit to be covered by the Gulf News and Khaleej Times. Unny, who was the GM with Terrazo, Sharjah at that time, was a key guide and advisor. Of course, we cannot forget our dear Parvin who prepared a sumptuous dinner for the entire Thermax fraternity. Apart from various customer visits, we had an exciting 'Key

*This memorable picture was enroute our meeting with the chairman of the Jabel Ali Free Zone (JAFZA). Our office was established at the JAFZA, which was then the fastest growing free zone, and continues to be so.*





Customer Contact' power lunch at the Hyatt, since Mr. Aga always wanted to get the feel of the market first hand. After two decades, I still look back with pride at Arab, Pakistani and Indian entrepreneurs animatedly discussing business and quality of customer response in unison.

There are a couple of memorable snippets that I would like to share with our readers.

As we were moving around the UAE, I kept receiving repeated phone calls from an irate customer of Indian origin. We had supplied a surface quoting line for job work. The installation was having multiple teething problems. I kept assuring our customer, Mr. George that the matter was being dealt with and we were on top of the situation. My intention was to shield Mr. Aga from the client. However, as expected, he caught on to the situation and my plight and insisted that he wished to visit the customer's site. So, Mr. Aga and I drove through the narrow lanes of a rundown industrial estate in Sharjah. He took down every detail of the issues faced by the customer on his 'red pad' and promised a suitable response. That evening he flew back to Mumbai. Phew!!... However, as expected, it wasn't the last we had heard from RDA about the customer's issues.

I had just reached the office the next day at 9 am and heard the phone ringing. RDA was on the line (It was 10:30 IST). Without any preamble, he asked me to repeat all the issues that Mr. George was facing and I rattled out every detail. He clarified that

the entire team were listening in on the call and that matters would be sorted out. And, indeed they were. Much later I realised that he probably went straight to the office from Mumbai airport, met up with the team and only got back home after the engagement and feedback were done with. What an exemplary commitment to customer support!

Sadly, as we all know, all good things must pass and the circle of life takes over. I faced a double whammy in February / March. Within months of the exciting times in the UAE, I lost my father and we all lost Mr. Aga within a gap of a week or so. It struck me that the last time RDA landed back on the shores of India was after the UK /Dubai trip. At one end, I faced a huge loss but at the other end was gratitude in my mind for being blessed to have this exposure. Years later, Pheroze Pudumjee summed it up aptly during one of our many exchanges at the erstwhile Thermax International "My only regret is that I could not spend a few more years working under Rohinton." Well, the show goes on and the circle of life continues.



**– Feroze Bacha**  
(Ex-Thermaxian)

# Slice of Life

## Brain freeze: path to immortality for a fee

**W**hen Alexei Voronenkov's 70-year-old mother passed away, he paid to have her brain frozen and stored in the hope breakthroughs in science will one day be able to bring her back to life.

It is one of 71 brains and human cadavers - which Russian company KrioRus calls its "patients" - floating in liquid nitrogen in one of several metres-tall vats in a corrugated metal shed outside Moscow.

They are stored at -196 degrees Celsius (-320.8°F) with the aim of protecting them against deterioration, although there is currently no evidence science will be able to revive the dead.

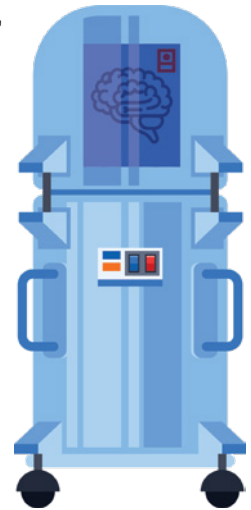
Voronenkov sets his hopes on science. "I hope one day it reaches a level when we can produce artificial bodies and organs to create an artificial body where

my mother's brain can be integrated."

It costs \$36,000 for a whole body and \$15,000 for the brain alone for Russians, who earn average monthly salaries of \$760, according to official statistics. Prices are slightly higher for non-Russians.

The head of the Russian Academy of Sciences's Pseudoscience Commission, Evgeny Alexandrov, however described this procedure, known as cryonics as "an exclusively commercial undertaking that does not have any scientific basis", in his comments to the Izvestia newspaper.

Source : Reuters



## 'The ducks have won': French court says they may keep on quacking

**T**he ducks on a small French holding may carry on quacking, a French court ruled on Tuesday, rejecting a neighbor's complaint that the birds' racket was making their life a misery. The court in the town of Dax ruled that the noise from the flock of around 60 ducks and geese kept by retired farmer Dominique Douthe in the foothills of the Pyrenees, southwestern France, was within acceptable limits, broadcaster France 3 said. The complaint was brought by Douthe's neighbor who moved from the city around a year ago into a property about 50 meters (yards) away from the enclosure in the Soustons district where Douthe keeps her flock.

The dispute is the latest in a series of court cases that have pitted the traditional way of life in rural France against modern values which, country-dwellers say, are creeping in from the city.

Source: Reuters

## And this pun picture

TEMPORARY INSANITY

By SANDY VISUAL



Cartoon by Sandeep Shete



## The last quarter saw a series of customer meets and seminars where our in-house experts presented solutions that can help customers improve their business

**T**he Air Pollution Control business of Thermax participated in a seminar organised by the Department of Environment (DOE), Malaysia where our experts presented a technical paper on 'Selection of Air Pollution Control Systems (APCS)' while focussing on optimising OPEX and CAPEX.



**M**V Reddy, Country Manager, Turkey, Eastern Europe & CIS Countries, was a part of the six-member business delegation of the Confederation of Indian Industry (CII) that visited Baku (Azerbaijan) on November 21-22, 2019 and participated in a business symposium organised by the Indian embassy. He took to the stage to present smart and sustainable solutions by Thermax.



**T**he Absorption Cooling and Heating Division participated and presented solutions catering to the pharma industry in a workshop conducted by CII in Sikkim. The event saw an enthusiastic participation from the leading local pharmaceutical companies. The companies in Sikkim are adopting energy-efficient solutions owing to the strict compliances on dumping ash which provides a great opportunity for Thermax's innovative and eco-friendly offerings. The division also participated in the subsequent workshops conducted by CII in Punjab, Haryana, and Bhopal, displaying cooling and heating solutions unique to the dairy industry.



**T**he *In Touch* programme in Chennai was a success with about 55 customers attending from various sectors. The theme for this year was 'Technology leadership in Energy & Environment', where our business leaders presented their product offerings which could add value to customer's process. The highlight of the event was the display of 3D miniature models of products from Heating, Absorption Cooling, WWS and Process Cooling divisions.



**T**he 4<sup>th</sup> ASEAN-India Business Summit in Manila, Philippines on October 19, 2019 was a strategic forum co-hosted by the two countries that witnessed an address from the President of India, Shri Ram Nath Kovind, reinstating the significance of Philippines-India economic collaboration. Thermax participated at this important conference where Matt Martin, Country Manager, Thermax Philippines, shared information about our solar offerings during discussions on clean energy involving industry leaders from diverse sectors.





# Celebrations

Like every year, the last quarter was abuzz with festive celebrations, starting with the nine days of Navaratri to 'Secret Santa' unveiling surprises during Christmas. The 'festival of lights' was made brighter with Diwali celebrations across locations, where our colleagues emphasised on 'going green' and a 'Green Diwali' contest was run on the Thermax Facebook page to build awareness.

