

MANAGEMENT DISCUSSION AND ANALYSIS

I. Economic Review

The fiscal year 2020 was headlined by COVID-19. Periodic lockdowns, limited travel and curtailed economic activities led to a slump of 3.5%, according to the International Monetary Fund (IMF). However, policy response, economic stimulus measures, relief packages, and roll-out of COVID-19 vaccinations have led to a gradual economic recovery, and a revised global growth at 6% in 2021, moderating to an anticipated 4.4% in 2022.

Hit hard by the pandemic, the Indian economy has contracted by 8% in the financial year 2020-21. COVID related lockdowns stressed many companies' production, exacerbated by supply chain disruptions and migration of labour.

Food, pharma and chemicals were the first sectors to witness a recovery. Some measure of overall economic normalcy was attained in the September-December quarter. However, the resurgence of COVID-19, towards the end of FY2021, bodes uncertainty for the future.

II. Industry Review

Figure 1 shows the top five sectors that contributed to Thermax's order book during the year. The details of the orders are elaborated in sections VI and VIII, Segment Overview and Performance on Strategy of the MDA.

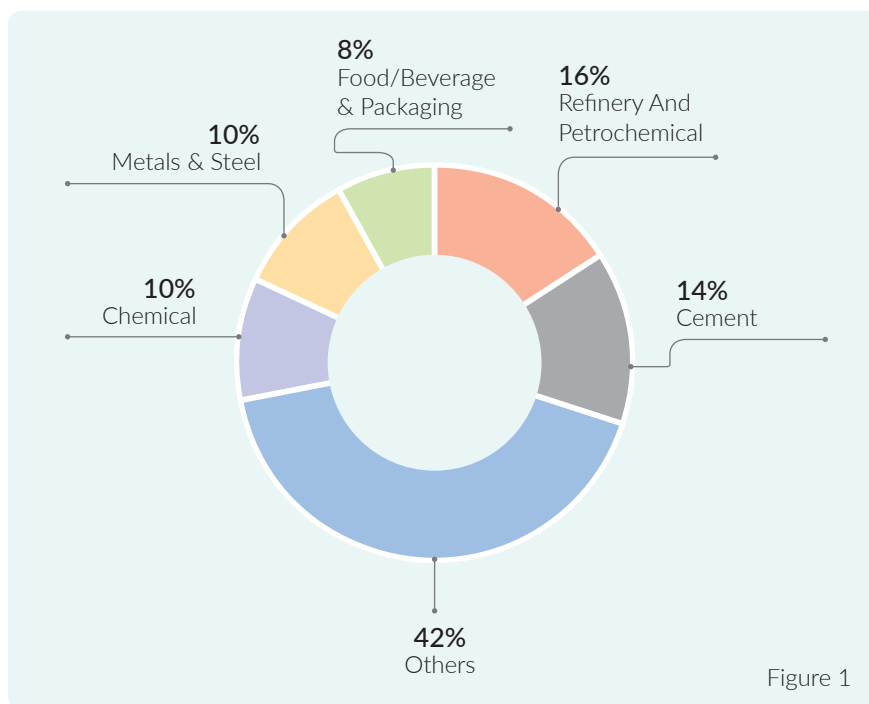


Figure 1



III. Company Overview

Headquartered in Pune, India, Thermax is an engineering and capital goods major. Its three key business segments are Energy, Environment and Chemical. It also has eight wholly-owned subsidiaries in India, and 22 overseas entities, six of them being purely project based.

Offerings

- Standard and custom-built products
- Projects and Engineering, Procurement and Construction (EPC) solutions for larger non-standard products
- Range of specialty chemicals
- Build-Own-Operate (BOO) model for utility delivery services to decarbonise customer operations
- Services related to projects and products, as well as Operations and Maintenance (O&M) contracts

➤ Further details of Thermax's offerings are available on page 13 and 14 of the Annual Report

IV. Outlook for Thermax

A multi-sector approach makes Thermax a resilient entity. After the first wave of COVID, its diversified and broad customer base helped the company take advantage of the momentum in the sectors of food, pharma and chemicals. The recovery was followed by green shoots in other sectors, such as cement, steel, sponge iron, and refinery & petrochemical.

Thermax has emerged as a beneficiary with the increasing focus of customers

on energy efficiency and carbon footprint reduction. The company's solutions in waste to energy, waste heat recovery, and renewables for domestic and international players, have positioned it ideally to harness the opportunities in these areas. Over the medium term, improvement in core industries, growing demand for Operations and Maintenance (O&M), Build-Own-Operate, and new

energy-driven technologies augur well for the company.

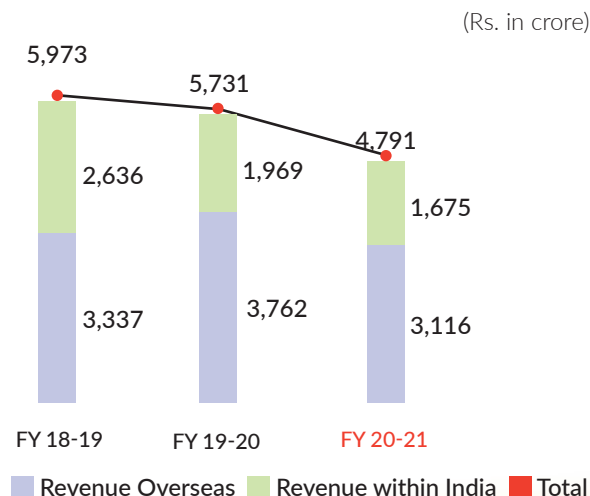
Its technology prowess, domain expertise, excellent capabilities in project execution, and cost optimisation have placed Thermax in an advantageous position to capitalise on opportunities in sunrise areas, including clean energy, clean water and clean air.

V. Operational Performance

The total revenue of Thermax Group during the financial year 2020-21 stood at Rs. 4,791 crore, compared to Rs. 5,731 crore in the previous year. The group's international business revenues were at Rs. 1,675 crore, compared with Rs. 1,969 crore in FY 2019-20.

The group's consolidated order booking for the year under review stood at Rs. 4,784 crore, compared with Rs. 5,498 crore during the last fiscal. International business contributed 28.5% to the consolidated order booking. At Rs. 1,363 crore, international orders were down 7.3% from Rs. 1,470 crore in FY 2019-20.

Thermax's key focus has been on further expanding in the overseas market. However, revenues of both domestic and international businesses declined due to the recession caused by the ongoing COVID-19 pandemic.



Amid the pandemic, the company's management focussed strategically on cost control, especially in the selling, general and administration expense categories. This helped in substantially mitigating the COVID impact on the bottom line, caused by the decline in business.

➤ Details are available in note 28 to the Consolidated Profit & Loss Account on page 207.

The company also managed to collect old receivables and use old inventory, resulting in the release of working capital of Rs. 472 crore. Additionally, this resulted in a sharp reduction in provisions held against the aforementioned assets, thus benefitting the bottom line.

➤ Notes 7 & 12 in the Consolidated Balance Sheet

VI. Business Segments of the Company

This section comprises the segment-wise performance of the group.



Energy Segment

Recent years have seen the concept of energy being redefined. No longer limited to mega power stations burning hydro-carbon fuels, energy now encompasses the areas of renewables, efficient use of fuels, capturing of waste heat, besides new energy applications. This transformation has provided Thermax with the opportunity to also transit to a 'clean energy' company. Equipped with a wide range of energy-efficient and environment-friendly solutions, the company is well entrenched to meet its sustainable energy goals.

The Energy segment of Thermax comprises Process Heating, Absorption Cooling and Heating, Boiler & Heater (TBWES) and Power (EPC and Solar) businesses, and related services. The company also provides outsourced utility delivery solutions on Build-Own-Operate model.

The company's Process Heating product portfolio consists of packaged boilers, thermal oil heaters, heat recovery boilers and hot water generators, among others.

A leader in vapour absorption cooling and heating systems, Thermax supplies chillers worldwide for industrial refrigeration, air conditioning, process cooling and heating. It also provides wet and dry cooling solutions for energy-efficient process cooling.

Thermax Babcock & Wilcox Energy Solutions (TBWES), a 100% subsidiary of the company, offers steam generation solutions for process and power needs. It also provides renovation and modernisation services for old boilers and process furnaces.

Thermax has a strong edge in setting up best-in-class captive power, cogeneration and trigeneration plants on an EPC basis, with a current contracted base of more than 3,400 MW. In Solar, Thermax has completed more than

150 projects, mainly of rooftop solar PV plants, on an EPC basis, aggregating to more than 70 MW of green power generation.

Through its wholly-owned subsidiary, Thermax Onsite Energy Solutions Limited (TOESL), the company provides 'green' utilities on a long-term contract basis. The business spans investing, installing and operating plants in customer premises, along with supply chain management of all consumables, including biomass fuels.

Cognisant of the growing opportunity in this segment, Thermax continues to make significant investment in enhancing its digital capabilities to further strengthen its competitive edge. The company is looking at offering IoT services, leasing, technology collaborations and R&D to drive sustainable solutions in new energy areas, such as fuel cells and Thermal-HVAC.

Prime Drivers

- Continued business from food, pharma and chemicals, due to government stimulus, exports, as well as focus on health and hygiene
- New demand from infrastructure segments – cement and steel, driven by infrastructural development and government policy; however, the demand continues to be uncertain in the backdrop of the second wave of the Coronavirus
- Emphasis on clean energy driving shift in energy mix, creating opportunities for brownfield replacements
- Focus on waste to energy based projects, including biomass
- Shift from capital expenditure model towards operating expenses
- Impetus on local manufacturing



A specially designed 100 TPD non-recyclable solid waste (NRSW) fired boiler installed by TBWES for a paper mill in Gujarat, India, helping the customer convert waste to energy for process or power needs

Key Focus Areas

- Diversification of EPC offering into international markets, unconventional fuels and green energy
- Modularisation in international markets for reduction in onsite construction work
- Thrust on efficiency improvement and green energy solutions for large boilers and heaters
- Leveraging opportunities in energy plants that deliver multiple utilities through a single installation
- Continued focus on combined heating power cooling plants
- Solutions for renewable energy and waste disposal
- Focus on comprehensive solutions to reduce energy costs and carbon footprint, owing to a strong pull from the industry
- Continued investments in value-added service offerings, including IoT-based solutions, remote assistance technology and automation
- Collaborations with industrial associations, OEMs, process licensors and consultants to develop business in key markets

- Supporting customers in their decarbonisation drive and sustainability, through the BOO model of Thermax (TOESL) and other energy efficiency portfolios

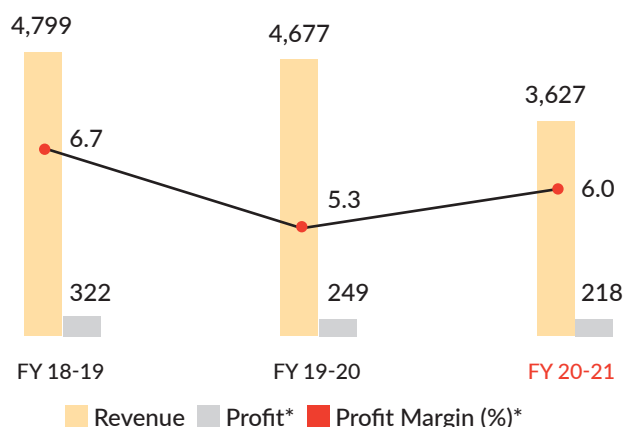
Performance in FY 2020-21

The Energy segment contributed 74.8% (80.4%) of the group's gross operating revenue in FY 2020-21. Operating revenue (net) at the group level stood at Rs. 3,627 crore

(Rs. 4,677 crore) for the year, while segment profit for the same period was at Rs. 218 crore (Rs. 249 crore). Order booking for FY 2020-21 was Rs. 3,724 crore, compared to Rs. 3,280 crore in the previous year. The onset of the pandemic disrupted revenues; however, profit margin improved due to reasons explained in Section V of the MDA. The outlook for FY 2021-22 continues to remain challenging, due to the uncertainty of the pandemic.

Financial Performance – Energy Segment

(Rs. in crore)



*Segment profit before interest and unallocable overheads



Environment Segment

Serious concerns over air pollution and effluent management have led to process driven industrial sectors adopting and practising stringent and increasingly regulated environment norms.

Thermax supports these industries through its Air Pollution Control (Enviro) business. It provides pollution control systems for particulate and gaseous emissions, and FGD (Flue Gas Desulphurisation) systems to mitigate SOx emissions in thermal power plants.

Through its Water and Waste Solutions (WWS) business, Thermax provides its expertise and customised solutions to industrial and commercial establishments. The WWS business offers water treatment solutions for process requirements, besides sewage and effluent treatment. It uses its advanced technological know-how for recycling water in water scarce areas.

Till date, the Environment segment has successfully completed over 47,000 installations across various industries, including food & beverage, energy, oil & gas, cement and steel.

From controlling emissions to minimising waste discharge and maximising recycling, Thermax's solutions are helping customers manage and mitigate the environmental impact of their business.

The company's investments in this segment are aimed at augmenting its technological prowess in the key areas of water purification, ensuring zero liquid discharge, and minimising air pollution.

Prime Drivers

- Enforcement of emission norms globally
- Indian government's mandate to power companies for installing FGD systems within a stipulated time to mitigate SOx emissions
- Fuel shift from coal to biomass or agro based fuels
- Stringent regulatory norms for water and effluent treatment
- Increased requirement for pure and ultra-pure water in sectors such as food, pharma and electronics
- Increased government push for water recycling and greater infrastructure investment

Key Focus Areas

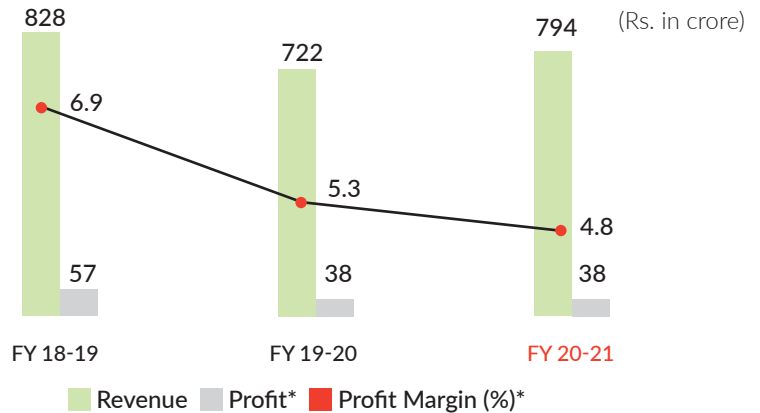
- Modularisation of new products
- Development of new air pollution control solutions, to handle different variants of gaseous pollutants and support agro based fuel combustion
- Continued focus on digitalisation and remote monitoring of products and systems
- Focus on plant modernisation projects for improvement and upgrades
- Continued expansion in international markets
- Expansion of service portfolio

Performance in FY 2020-21

The segment accounted for 16.4% (12.4%) of the group's gross operating revenues in FY 2020-21. Operating revenue (net) at the group level stood at Rs. 794 crore (Rs. 722 crore) for the year, while segment profits for the same period was at Rs. 38 crore (Rs. 38 crore). Order booking for the segment stood at Rs. 636 crore in FY 2020-21,

compared to Rs. 1,777 crore in the previous year. There was an improvement in revenue, due to partial revenue recognition from the two major FGD orders received in FY 2019-20, though the profit margin was lower on account of project execution costs.

Financial Performance – Environment Segment



*Segment profit before interest and unallocable overheads



A 2 MLD membrane based seawater desalination plant commissioned by WWS for a customer in South India, helping them overcome the water scarcity issue



Chemical Segment

Thermax is recognised as India's leading manufacturer and exporter of ion exchange resins, and is a pioneer in water and wastewater treatment chemicals. Through its Chemical business, the company manufactures and markets a wide range of specialty chemicals that help improve processes. Its presence also spans the entire spectrum of construction chemicals for strengthening, protecting and repairing concrete structures. Customised and cost-effective solutions to industrial sectors and customers across the globe give the company a powerful competitive advantage. The segment is steered by high-end research, backed by state-of-the-art manufacturing facilities at par with global standards. Highly qualified and skilled professionals are driving the company's growth in this niche segment.

Prime Drivers

- Increase in demand for solvent-free and low Total Organic Carbon (TOC) resins for applications such as ultrapure water
- Rise in demand for RO, MEE (multi effect evaporator) and incinerators, to boost business for water treatment chemicals that help in achieving zero liquid discharge and effluent treatment
- Growing requirement for boiler water chemicals, to improve energy efficiency of process heating equipment

Key Focus Areas

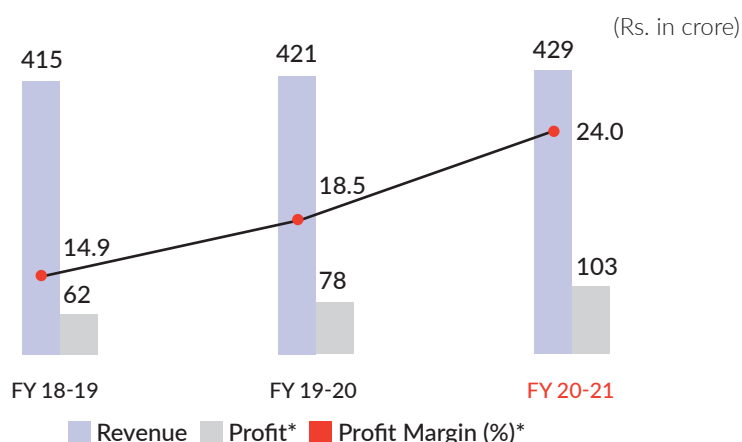
- Expand market presence and broaden the portfolio of specialty resins, build references for specialty applications
- Widen the market reach of water treatment chemicals, by focussing on digitalisation and remote monitoring of water treatment systems
- Explore partnerships for scaling waterproofing and flooring segment

Performance in FY 2020-21

The segment accounted for 8.8% (7.2%) of the group's gross operating revenues in FY 2020-21. The Chemical business posted an operating revenue of Rs. 429 crore (Rs. 421 crore). Profit for the year stood at Rs. 103 crore, compared to Rs. 78 crore in the previous year. The increase in profits is attributable to a better product mix, cost controls,

and the low price of styrene. Stringent regulations for industrial water treatment, urbanisation, and stricter effluent discharge norms are driving the demand for specialty chemicals globally. These factors have enabled the company to report a higher revenue and highest ever profitability. Order booking for the Chemical segment during the year totalled Rs. 424 crore (Rs. 441 crore).

Financial Performance – Chemical Segment



*Segment profit before interest and unallocable overheads



VII. Subsidiaries

The MDA captures the growth trends and outlook of only those subsidiaries that have a reasonable impact on the segmental performance. The comprehensive details on each subsidiary are available in AOC-1, on page 286.

Thermax Babcock & Wilcox Energy Solutions Private Limited

Thermax Babcock & Wilcox Energy Solutions Private Limited (TBWES), is a wholly-owned subsidiary of Thermax. Its domain expertise and experience in modularised equipment led TBWES to secure an order for a large modularised waste heat recovery boiler from a refinery in Latin America. Another order for one of the largest fired heaters from an Indian refinery is an endorsement of the subsidiary's operational excellence.

TBWES signed a know-how transfer and license agreement with Steinmüller Babcock Environment GmbH (SBE), Germany, for Waste to Energy technology. **(For more details on the agreement, refer to the Highlights section of the Annual Report on page no. 03)** Expanding its presence into the utility boiler services market, TBWES also garnered two orders for the supply of economisers from a large power utility during the year.

It displayed its service excellence amid the lockdowns and travel restrictions by successfully supporting clients in commissioning their boilers, using remote assistance technology.

Danstoker Group

The Danstoker Group comprises stepdown subsidiaries, Danstoker A/S, Boilerworks A/S and Danstoker Poland Spółka z Ograniczoną Odpowiedzialnością (DSPL), a step-down subsidiary of Danstoker A/S. Through these entities, the group is engaged in the business of design, production and sale of biomass boilers, heaters and related equipment to the European market. It is also catering to boiler rebuilding and servicing requirements of clients. Order booking was impacted in the first half due to COVID, but witnessed improvement in the latter half of the fiscal. The Danstoker Group sold the service business of Boilerworks A/S during

the year, owing to its cyclical nature. However, it strategically retained the profitable portfolio of heat exchanger line of products.

PT Thermax International, Indonesia (PT TII)

A subsidiary of Thermax Engineering Singapore Pte Limited, PT TII is engaged in the design, manufacturing, supply, installation, commissioning and servicing of boilers, heaters and other related equipment. Focussed on serving the Southeast Asian region, the subsidiary is continuously strengthening its local execution capabilities by commissioning large projects and securing repeat orders from reputed clients.

Various initiatives were taken during the year to optimise design and manufacturing. A steam supply order, secured from an oleochemical major under the BOO model, underscored the subsidiary's growing competence in this domain. It also won a couple of turnkey projects from glove, biodiesel and F&B industries. Despite improvement in order booking in a challenging situation, revenue and profits fell short of expectations, owing to lower order carry forward, with low profitability.

However, the experience gained in executing large and complex projects is expected to propel the company's growth in the future.

Thermax Europe

In the European market, the performance for 2020-21 has been satisfactory. The company bagged a large order from a chemical company in Hungary, and a large heat pump order for a district heating plant in Copenhagen. Travel curbs impacted revenue from services during the year.

The chiller business continues to be driven by the on-site power generation markets in Italy, Germany, Spain and UK. Energy change mix has led to the overall market for absorption heat pumps, driven on biomass fuels, shrinking by 75%, but the potential for gas-driven chillers and heat pumps remains strong, with East European countries increasingly shifting from coal to natural gas. The entry of new heat pumps and chillers has opened up additional markets for Thermax in food processing and chemicals.



As part of ideal asset utilisation initiative, TBWES Services successfully relocated and recommissioned two Heat Recovery Steam Generators (HRSGs) for an Indian oil & gas major in Jamnagar, Gujarat, addressing the need for additional steam and power generation

Thermax Onsite Energy Solutions Limited (TOESL)

TOESL is engaged in the Build-Own-Operate (BOO) business of providing green and sustainable solutions. It supplies industrial utilities, such as steam, water, solar and cogen, to a growing base of customers. The subsidiary registered strong growth during FY 2020-21, on account of emerging opportunities in new sectors and utilities. This momentum is

expected to further push the company's growth in the services segment.

Thermax Inc. (USA)

Thermax Inc., the US sales and service arm of the company, operates in two segments - Energy (sale of absorption chillers) and Chemicals (sale of ion exchange resins). Despite COVID-19 disruptions, the subsidiary registered a revenue growth in FY '21, at the back of rise in the cooling business from new

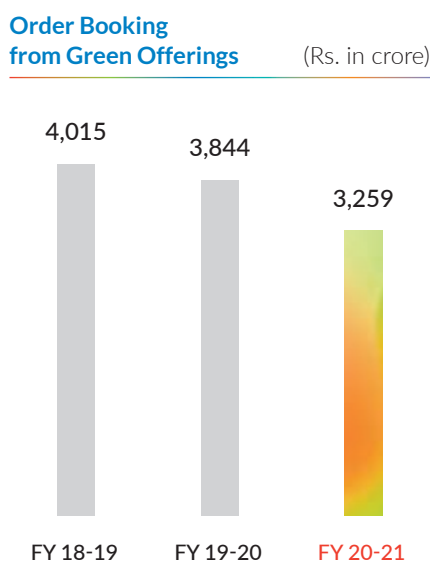
territories like Puerto Rico. Ion exchange resins witnessed opportunities from water treatment applications, owing to the growing demand for freshwater resources. New demand opportunities were also seen for specialty resins from industries like food & beverage and chemical & petrochemical. With encouraging prospects for both, the Energy segment in new markets and the Chemical segment, the outlook for the subsidiary looks promising.

VIII. Performance on Strategy

I. Increasing the order booking from green offerings, in line with the company's vision of providing sustainable solutions

The company considers all non-fossil fuel based business or applications in the Energy and Chemicals segments as 'green'. Also, all businesses in the Environment segment are considered green.

During the year, the share of green offering was 68% of the total orders booked by Thermax – almost similar to the previous fiscal. This was mainly on account of several non-fossil orders bagged by TBWES, a major biorefinery order for Power EPC, besides orders for biomass based boilers, and 'green' outsourced utilities. However, drop in FGD orders, which were a significant contributor to the green order book last year, led to a below-expectation performance in the segment during 2020-21.



Notable among the business secured by TBWES during 2020-21 were orders in waste heat recovery projects from steel and cement companies. The Process Heating business contributed with supply of biomass fired boilers for a palm oil major in the Philippines and a plywood major in India. Biomass briquettes are now also being combusted in the company's boilers for the dairy and brewery sectors. The Power business received a cogeneration order from a biorefinery for an innovative application, using bamboo as fuel.

The company received ESP (electrostatic precipitator) orders for biomass fuel and non-ferrous applications, the first-of-their-kind applications, in the Environment segment.



Success Stories

Another Milestone in Waste to Energy

An advanced solution for paper mills for tackling the impending problem of non-recyclable solid waste (NRSW) management was a milestone in the TBWES journey of excellence in innovation. TBWES worked on a special design to combust NRSW in an environment-friendly manner, without any support fuel, generating free steam for paper mills. The company has notched an order from a leading paper mill for the installation of a 100 TPD NRSW fired boiler at their plant in Gujarat. This will utilise 33,000 tonne of non-recyclable solid waste in a year, without any damage to the environment. The solution not only saves transportation costs to kilns but also frees up the land being utilised for waste storage, as a result of a 90% reduction in waste volume.

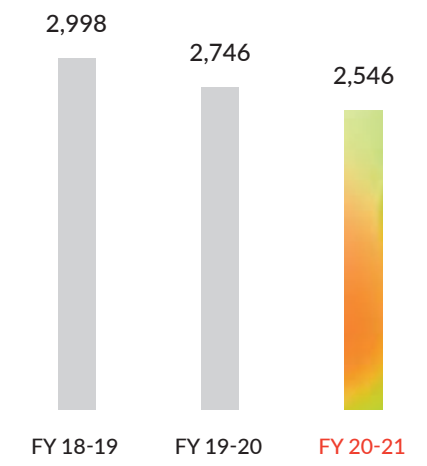
Green Steam Supply to Reduce Carbon Emissions

Thermax Onsite (TOESL) partnered with a Japanese tyre company for green steam supply to its plant in Maharashtra on an outsourced basis. It commissioned an 18 tonne biomass fired boiler under the Build-Own-Operate (BOO) model. The biomass solution resulted in significant reduction in steam cost, coupled with an estimated equivalent reduction in CO₂ emissions of more than 14,700 tonne a year.

II. Growing products and services portfolio

The company's order booking from products and services for FY '21 stood at Rs. 2,546 crore, as against Rs. 2,746 crore in the previous year. Though the order book has declined in FY 20-21, the proportionate reduction in order book from products and services is less in comparison to the project business. This indicates that the company's strategic charter of enhancing capabilities in product management, introducing the right kind of value-added digital solutions for customers, and leveraging its installation base to increase service footprint, is on track. Additionally, it underscores the company's ability to mitigate risks from over-dependence on projects. The performance also exhibits the company's resilience in the face of unprecedented challenges, as witnessed in the initial half of the year.

Order Booking from Products and Services (Rs. in crore)



Domestic orders, along with a few international orders, continued to drive the Heating business during the year. The business received a major order from a South India based tyre company to supply boilers and meet their process steam requirements. In its Cooling business, a notable achievement was the development of applications based on heat recovery for industrial plants and

processes. The company also received the CTI (Cooling Technology Institute, USA) certification for its range of closed loop cooling towers – a testimony to the high product standards. Thermax has the distinction of being the only Indian company to receive this certification.

Thermax also won major orders from steel and refinery conglomerates for water treatment chemicals. The construction chemicals arm received approval for supplying chemicals to a government infrastructure project, in addition to repair and retrofitting contracts for industrial and heritage structures. The company also launched several innovative products for improved performance during the year. Maxtreat® Sprayshot is a single component repair mortar, while Maxtreat® Plast-Tixo is a modern day plaster to improve speed and quality of construction work. Launched in the small and medium sectors, the company's new online monitoring equipment - Thermread and Thermdose, are designed to ensure optimum level chemical feed at all times. This will enable performance optimisation of water treatment chemicals. In another breakthrough initiative, the company has developed a portable chlorine dioxide dosing system (Chlorotherm) for algae control in cooling water circuits, with high accuracy of chemical feed. The product is designed for extended life.

The Water and Waste Solutions division developed and launched atoM, a compact membrane based sewage recycling system, during the year. The Services business has been reorganised, with a greater focus on industrial and urban customers. Its Connect-Care-Commitment-Complete programme is aimed at improving customer offerings, with a broader coverage of water services - from plant audits and annual maintenance contracts, to operations and maintenance. The group increased the number of service franchises and channel associates to improve service delivery time.

The Power Services business implemented various plant and efficiency improvements across O&M sites, thus saving 11,339 tCO₂e over the previous year. It is currently operating approximately 40% of its sites with green fuel, which includes biomass and waste heat.

FY 2020-21 was also a year of many firsts for TOESL, which won its first multi-utility supply order from an agrochemicals major. Having entered the metal industry, TOESL was awarded its first cogeneration power supply order from a reputed aluminium company. It also won a treated effluent supply order from a steel major. TOESL acquired its first order during the year under the operation and fuel (O&F) model from a pharmaceutical major. It also expanded its presence in the textile industry by winning a joint steam and heat order from a leading textile company in southern India. It commissioned biomass boiler plants for steam supply to a specialty chemicals customer and a tyre manufacturing company.



Virtual commissioning of the ESP for an agro-based customer in the Philippines



Success Stories - Domestic Market

Enabling Freshwater Independence

A distillery and a bottling plant based in South India faced major water scarcity. The Water and Waste Solutions division helped the plant become freshwater independent by installing a 2 MLD membrane based seawater desalination plant in record time. The operating cost of this plant is below the outsourced freshwater cost. It is also equipped with an energy recovery system for reducing power consumption. The company's service team is currently operating and maintaining the plant.

Huge Electricity Savings for Pharma

A leading pharmaceutical company commissioned two steam-driven vapour absorption chillers, with a capacity of 500 TR each, from Thermax. The pharma plant had four electrical chillers, each of 950 amps, consuming 6.4 million units of electricity annually. Thermax replaced two of the chillers with its non-electric cooling solutions, reducing the plant's energy expenditure for cooling by Rs. 75 lakh annually. Expansion projects of the pharma company are expected to drive future partnership for Thermax.

Manufacturing in a Dust-Free Environment

In a first-of-a-kind project - a part of the Government's Make in India initiative, the Enviro division supplied six reactors, along with bulk material handling systems, to a manufacturer of Silicon Tetra Chloride (SiCl_4), which is used for making optical fibres. The system eliminates dust while transferring fine matter at a 30 metre height into a reactor.

III. Reducing dependence on domestic market through selective internationalisation

Thermax's order booking in FY 2020-21 stood at Rs. 1,363 crore, as against Rs. 1,470 crore in FY 2019-20. Currently, the international segment contributes 28.5% to the total booking.

With no significant orders received during the year, the performance of the international business remained subdued. This was further impacted by COVID-19 curbs, marked by recurrent lockdowns across the globe, disrupting economic and industrial activities for most part of the year.

The order for a waste heat recovery boiler for TBWES, from a refinery in Latin America, reflected the company's edge in supply of large, modularised equipment. Replicating its proven success in the United States, the Chemical segment focussed on growing its market for resins in Europe and water treatment chemicals in Southeast Asia.

Thermax won its first export order for the Flue Gas Desulphurisation unit during the year, from a customer in Saudi Arabia. This first-of-its-kind

order to supply air pollution equipment for lignin fired boilers and alumina calcination added a new layer to the company's strength in this niche domain. The Environment segment's continued efforts to reinforce its position in Southeast Asia resulted in several orders from agro based and food processing industries. The Steam Engineering division secured orders from a Malaysia-based rubber glove manufacturer for steam accessories and services. This has been the fastest growing industry since January 2020, and gained further momentum amid the rise in COVID-19 cases globally.

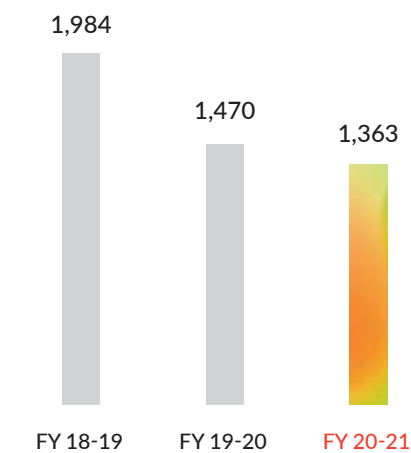
Power O&M continued to expand its reach, with its first ever order from Tanzania. On the renewable energy front, Thermax executed a 1 MW solar rooftop project for an African company, optimally combining energy from solar, steam turbine, DG and grid.

The continued travel restrictions across the globe on account of the pandemic catalysed the company's efforts to strengthen its remote commissioning

capabilities. The TBWES team successfully commissioned large boilers in Egypt and Nigeria. In Absorption Cooling, chillers were commissioned remotely in Spain, Ghana, Ivory Coast, Nigeria and Saudi Arabia.

International Order Booking

(Rs. in crore)





Success Stories - International Market

Remote Commissioning of ESP

Thermax's Air Pollution Control business commissioned an electrostatic precipitator (ESP) for a leading manufacturer of paper based products and packaging materials in the Philippines. The ESP, installed at a rice husk fired boiler, is helping the manufacturer maintain emissions within stipulated norms. To ensure smooth and timely installation, the team provided virtual technical support throughout the process.

Going the Extra Service Mile

Thermax Power O&M's Energy Efficiency Services unit synchronised one unit of 30 MW power for the cement company of an African conglomerate with a 66 KV grid, in Zambia. The synchronisation makes it the first plant of the customer to export power to the national grid. Thermax was the only vendor present at the site, and went beyond its scope to manage the project without the physical presence of vendors to handle the main components. The entire work was executed with strict adherence to COVID safety protocols.

IX. Financial Performance

During the financial year 2020-21, the group recorded an operating revenue of Rs. 4,791 crore, as compared to Rs. 5,731 crore in the previous year. The basic and diluted earnings per share for the year were at Rs. 18.34 per share (previous year Rs. 18.87 per share). The analysis of major items of the financial statements are given below:

a. Revenue from Operations

(Rs. in crore)

	FY 2020-21	FY 2019-20	Change (%)
Revenue from projects and products	4,061	4,907	(17)
Revenue from services	649	748	(13)
Other operating revenue	81	76	8
Total operating revenue	4,791	5,731	(16)

The decrease is primarily on account of the ongoing pandemic and frequent lockdowns, which impacted operations for a large part of the year.

b. Cost of Material Consumed

(Rs. in crore)

	FY 2020-21	FY 2019-20	Change (%)
Cost of material consumed	2,539	3,086	(18)
% of total revenue	53.0%	53.8%	

Better source optimisation, rate negotiations and effective supply chain management lowered the material cost during the year. However, this saving was, to some extent, offset by an increase in the price of a few key raw materials towards the end of the year.

c. Employee Benefit Expenses

(Rs. in crore)

	FY 2020-21	FY 2019-20	Change (%)
Employee benefit expenses	759	799	(5)

During the year, employee benefit expenses decreased primarily due to scale-down of operations of the Danstoker group, along with short-term salary reductions undertaken to navigate the COVID crisis. This decrease was partly offset due to an increase in provision for incentive payment to employees, in addition to one-time ex gratia payment to the outgoing managing director.

d. Other Expenses

(Rs. in crore)

	FY 2020-21	FY 2019-20	Change (%)
Consumption of stores and spare parts	69.70	85.02	(18)
Power and fuel	38.59	44.36	(13)
Freight and forwarding charges (net)	116.05	162.40	(29)
Site expenses and contract labour charges	537.01	616.35	(13)
Drawing, design, and technical service charges	21.10	25.61	(18)
Sales commission	17.49	18.77	(7)
Advertisement and sales promotion	11.25	28.90	(61)
Rent	14.89	28.34	(47)
Rates and taxes	13.51	26.06	(48)
Insurance	13.25	10.12	31
Repairs and maintenance	56.55	72.22	(22)
Travelling and conveyance	37.51	88.10	(57)
Legal and professional fees	77.66	83.24	(7)
Director sitting fees	0.84	0.74	14
Provision for impairment allowance of financial assets (net)	11.24	40.93	(73)
Warranty expenses (net)	41.00	45.20	(9)
(Gain) / loss on sale/ discard of assets (net)	0.76	(5.49)	
CSR expenditure	7.84	8.26	(5)
Miscellaneous expenses	52.47	62.03	(15)
Total	1,138.71	1,441.16	(21)
Less: Capitalised during the year	(0.04)	(0.74)	
Net total	1,138.67	1,440.42	(21)

Other expenses were lower during 2020-21, as compared to the previous financial year. This was primarily on account of travel restrictions during the pandemic, resulting in reduced travelling and conveyance cost, as well as a decrease in freight and forwarding

charges, due to better negotiations. Rates and taxes were higher in 2019-20 owing to certain one-time charges that were not incurred in FY 2020-21. Closure of some offices and rate negotiations helped lower the rent cost during FY '21. Additionally, reversal of

impairment provision, recognised earlier due to collection of old outstanding and other cost control initiatives related to sales promotion and discretionary expenses, resulted in good savings.

e. Exceptional Items

(Rs. in crore)

	FY 2020-21	FY 2019-20	Change (%)
Exceptional item	52.53	Nil	

Details of exceptional items for FY 2020-21 are as follows:

- Impairment of goodwill of Rs. 32.88 crore related to the stepdown subsidiary of Thermax Netherlands B.V. (i.e. Thermax Denmark ApS)
- Impairment of certain assets of Boilerworks A/S of Rs. 8.82 crore on account of discontinuation of service operations
- The group has made provision of Rs. 1.68 crore for closure of Omnical Kessel & Apparatebau GmbH, Germany
- The group, as on October 05, 2020, announced a Voluntary Retirement Scheme (VRS) for its eligible employees. The present value of the amount payable to employees who opted for it is Rs. 9.15 crore (gross value Rs. 10.96 crore)

f. Property, Plant and Equipment

(Rs. in crore)

	FY 2020-21	FY 2019-20	Change (%)
Property, plant and equipment	1,042.69	1,055.09	(1)
Capital work in progress	21.06	55.26	(62)
Right of use assets	167.40	169.67	(1)
Goodwill	3.03	35.31	(91)
Other intangible assets	28.92	22.91	26
Intangible assets under development	3.10	0.74	319
Total	1,266.20	1,388.98	(9)

Movement in the capital work in progress is mainly due to capitalisation of the Chemical plant phase II at Dahej. Impairment of goodwill in the stepdown subsidiary of Thermax Netherlands B.V. (i.e. Thermax Denmark ApS) led to this reduction. Intangible assets under development represent ERP implementation

g. Investment

(Rs. in crore)

	FY 2020-21	FY 2019-20	Change (%)
Non-current investment	119.21	59.13	102
Current investment	115.25	816.07	(88)
Total	234.46	875.20	(73)

Investment predominantly represents the investments in debt mutual funds. Due to concerns of credit exposure to corporate debt, most of the investments in mutual funds were redeemed, and the amount is invested in fixed deposits with banks.

h. Trade Receivable

(Rs. in crore)

	FY 2020-21	FY 2019-20	Change (%)
Non-current	100.87	92.13	9
Current	1,237.10	1,386.33	(11)
Total	1,337.97	1,478.46	(10)

Better collection and working capital management led to a decrease in trade receivables, apart from lower turnover.

i. Cash Flow

(Rs. in crore)

	FY 2020-21	FY 2019-20	Change (%)
Cash flows from operating activities	769.48	325.58	136
Cash flows from / (used in) investing activities	(635.68)	(168.51)	(277)
Cash flows (used in) financing activities	77.24	(232.45)	
Total	211.04	(75.38)	

Despite lower profit during the year, cash from operations increased due to better working capital management and better collection. Excess cash generated from the operations has been invested in bank fixed deposits, resulting in a higher outflow in investing activities. In the previous year, the group paid an interim dividend, resulting in higher outflow in financing activities, compared to FY '21.

j. Cash and Cash Equivalents and Other Bank Balance

(Rs. in crore)

	FY 2020-21	FY 2019-20	Change (%)
Cash and cash equivalents	461.31	254.04	82
Other bank balance	1,477.89	227.45	550
Total	1,939.20	481.49	

Cash and cash equivalents increased from Rs. 254.04 crore to Rs. 461.31 crore, as investments in short-term fixed deposits increased from Rs. 95.39 crore to Rs. 174.02 crore. Also, the shift in investments to fixed deposit, along with better collection, resulted in an increase in the cash balance from Rs. 157.48 crore to Rs. 285.84 crore. An increase in other bank balance majorly represents an increase in bank fixed deposits with remaining maturity of less than twelve months.

k. Non-current Other Liabilities

(Rs. in crore)

	FY 2020-21	FY 2019-20	Change (%)
Other liability	72.18	24.79	191

Other non-current liability increased from Rs. 24.79 crore to Rs. 72.18 crore, due to an increase in long-term customer advance received for project orders during the year.



I. Key Financial Ratios

In accordance with the SEBI (Listing Obligations and Disclosure Requirements 2018) (Amendment) Regulations, 2018, the company is required to give details of significant changes (change of 25% or more as compared to the immediately previous financial year) in key sector-specific financial ratios.

Particulars	Thermax Group		Thermax Limited	
	FY 2020-21	FY 2019-20	FY 2020-21	FY 2019-20
Debtors turnover ratio	3.34	3.88	3.49	3.67
Inventory turnover ratio	5.91	6.41	6.87	7.61
Interest coverage ratio	16.88	25.94	34.37	48.81
Current ratio	1.45	1.43	1.51	1.45
Return on capital employed	11%	13%	10.20%	9.30%
Return on Net Worth (RONW)	6%	7%	4.90%	5.90%

Interest cost increased by availing packing credit and lower profit impacted the interest coverage ratio.

X. Opportunities And Threats

a. Opportunities

Global energy demand in 2020 contracted around 6% as a result of COVID. However, renewable energy witnessed growth, in line with the commitment of nations to mitigate climate change. This benefits Thermax's prospects for bioenergy projects, as well as air pollution control and water treatment equipment, to meet stringent environmental norms of countries.

- The drive to reduce the dependency on fossil fuels in various countries will improve prospects for the company's energy efficiency portfolio, comprising waste to energy, cooling from waste heat, solar, and efficiency enhancement services.
- With environmental norms getting stricter in many regions, including MENA and other Asian countries, air pollution control equipment, such as FGDs to arrest sulphur dioxide (SOx) and related services, will continue to be in demand, and will positively impact the company.
- Digitalisation, IoT and remote online service with dependable systems are helping open up new territories and possibilities to expand and challenge the company's capabilities beyond its reach, across offerings.
- Modularisation with high value addition in the company's Indian facilities is witnessing enthusiastic response from overseas clients. The company expects increased opportunities in this area, going forward.
- Sustainability of industries will be based on the criteria of reduction in operational cost, through the implementation of various efficiency improvement solutions, modernisation, and adoption of new technologies to reduce energy consumption. This will drive demand for Thermax.
- Tightening of ESG norms, decarbonisation, and the transition of energy will open opportunities for Thermax, with its expertise across heating, cooling, power and various environmental solutions placing it in a favourable position to tap the same.
- To neutralise the impact of COVID-19, several governments released relief packages to boost economies in sectors like infrastructure, food processing, pharmaceutical, textile chemicals, iron & steel, oil & gas, and power. This will positively impact the sentiment of industries to continue their investments and meet the growing demand.
- In line with India's commitment to COP21 and COP24, the Finance Minister announced in the Union Budget speech of 2021-22, the expected launch of the National Hydrogen Energy Mission. With Thermax's capabilities in areas such as hydrogen generation through biomass gasification, and hydrogen utilisation through fuel cells, this movement towards a hydrogen economy could help the company grow its green portfolio with new technologies.

b. Threats

- A renewed outbreak of COVID-19 was witnessed in the form of a second wave in India in March '21. The severity of this surge, marked by lockdowns, lack of medical oxygen (and resultant scarcity of industrial oxygen), is expected to have a

cascading effect on the supply chain. This could impact the demand for Thermax's products and services.

- Raw material prices of certain chemicals and metals witnessed a huge surge, owing to a spurt in demand post the first lockdown in 2020, as well as the trade war between India and China. This has not only impacted Thermax's profitability on projects which were set for completion, but the company had to revisit its costings for projected and new assignments. For Thermax, the price of styrene and steel have a significant impact on financial performance.
- Despite modularisation and plug-and-play products from Thermax, logistic issues and restrictions in movement will be a challenge until most people across the world have received their vaccinations. This is because COVID-19 is affecting different parts of the world differently and in different timeframes. This naturally impacts the prospecting of services, such as plant modernisation, efficiency improvement, replacement of critical and non-critical parts, and finding new avenues for waste to energy for new applications.
- The shift from the net metering policy to a gross metering policy may impact investment in rooftop solar PV plants. Under the latter, the electricity exported to the grid will be compensated at a fixed feed-in tariff, which is typically much lower than the industrial/commercial tariff. This will lower the return on investment for project developers.
- There is uncertainty in the global regulatory environment as markets are still evolving. This strongly governs the demand for Effluent Treatment Plants, Zero Liquid Discharge solutions and Flue Gas Desulphurisation projects – which constitute the technology offered by Thermax's Environment portfolio.

XI. Risk Management

The company has a robust Enterprise Risk Management (ERM) framework in place for identification, assessment, mitigation, and reporting of risks. The Risk Management Council and Committee of the company carry out a detailed review of key risks facing the company, their impact on strategic decisions, and mitigation measures.

The process of risk identification is guided by the company's objectives, external environment, stakeholders, among others. The risk identification process covers strategic, financial, and operational risks. Once risks are identified, the designated risk owner is responsible for devising plans outlining mitigation actions for the assigned risks.

These risk mitigation plans are closely monitored and reviewed periodically by the company's Risk Management Council and Committee. **The details of the company's significant risks and mitigation plans are available on page 56 of the Annual Report**

XII. Internal Controls

With the help of its Internal Audit function, the company evaluates the quality of its controls and the extent of compliance. Its internal financial controls are audited by the management and internal audit team. The internal auditors, statutory auditors and secretarial auditors check compliance with certain laws related to their areas of work. There is a process by which operating managers are kept updated with legal amendments affecting their

areas of operation. Every month, managers confirm compliance with various provisions.

The company has a strong culture and elaborate processes to reduce the risk of unethical conduct, including a clear code of conduct and whistle blower policy. It also makes use of enterprise resource planning packages in its operations. The package contains a variety of in-built controls, and includes

a careful analysis of variations between performance and plan. The company's internal culture also reduces the risk of non-compliance with the laws. Based on all the abovementioned factors, the Board believes the systems to ensure compliance with applicable laws are proper and internal controls are adequate, and that the company operates effectively.

XIII. Health, Safety and Environment

At Thermax, every task, job or assignment is mandated to be performed in a safe manner. The company's commitment to Health, Safety and Environment is demonstrated through a clear approach of creating a safer work environment for its employees, contractors, supply

chain partners and customers, through rigorous systems and procedures, and their stringent implementation. The company's corporate Health, Safety and Environment (HSE) policy articulates its strong commitment towards building a safe workplace. Safety of the workforce

is given high priority across activities, and performance on safety is reviewed every quarter by the senior management. Divisional safety councils review their performance, and carry out corrective and preventive actions to ensure high performance levels.

a. Update on Certifications and Audits

- Cooling plant at Sri City certified for ISO 14001:2015 and ISO 45001:2018 by Lloyds
- TBWES project sites and manufacturing plants at Savli, Mundra, Chinchwad and Shirwal certified for ISO 14001:2015 and ISO 45001:2018 by Bureau Veritas
- Cooling & Heating manufacturing units at Chinchwad and Savli certified for ISO 14001:2015 and ISO 45001:2018 by TUV:SUD
- Surveillance audits for ISO 14001:2015 and ISO 45001:2018 were conducted by DNV.GL for TOESL
- Chemical manufacturing facilities at Paudh, Jhagadia and Dahej were audited by Bureau Veritas for 14001:2015 and ISO 45001:2018
- Enviro business was audited by TUV:SUD for 14001:2015 and ISO 45001:2018
- Power business and Heating project sites were audited for ISO 45001:2018 by TUV:SUD and DNV.GL
- WWS division was audited for ISO 45001:2018 by Bureau Veritas in April 2021

Safety Audits in FY 2021

1,105

Internal Audits

20

External Safety Audits



Celebration of the National Safety Week at a project site

b. Safety Audits and Training

Safety audits were conducted during the year across all Thermax manufacturing plants in India, with special fire prevention audits at office locations in Pune. All manufacturing and project locations developed an emergency preparedness plan. Training was imparted on fire prevention, and

control and mock drills on emergency evacuation were conducted at plants and office locations.

Regular safety trainings were conducted for employees, contractors, vendors and suppliers. The new standard ISO 45001:2018 aims to link health and safety with business strategy, thereby laying greater emphasis on leadership

participation, change management and performance management. Owing to its high-level structure, it also seeks to enhance compatibility with other standards.

The company prepared e-learning modules on safety and environment, which have been made available on the SAP portal. A training programme was

conducted on hazard and operability study (HAZOP) by an external agency, to build in-house HAZOP expertise and increase awareness amongst employees. During FY 2020-21, though the number of incidents declined, the Lost Time Injury Frequency Rate (LTIFR) increased to 0.28, due to low man-hours and more than one injury reported in a single accident.

c. Results and Outcomes

- Continued use of a mobile app on incident reporting improves reporting of leading indicators, which helps in minimising hazards, as well as risks at plants and sites.

- At manufacturing plants under the Environment Management System, several management programmes on waste/resource reduction were successfully implemented.

XIV. Human Resource

During the year, the group ensured occupational health and safety of all its employees in the backdrop of the outbreak of COVID-19 pandemic (for more details, refer to page 57). The group focussed on creating a caring and positive environment for its workforce, by understanding and

responding to trends shaping the future of work in the new reality. It launched a number of initiatives to improve the existing HR systems and processes, and developed new tools to enhance employee engagement and experience. The group also emphasised on leadership and succession, capacity

building, performance and recognition, development, employee engagement, digitalisation, and diversity and inclusion, among others. **More details on the above are available in the Human Capital chapter on page 46.**



XV. Cautionary Statement

The Management Discussion and Analysis contains statements about future events, financial and operating results of Thermax Group, which are forward-looking. By their nature,

forward-looking statements require the company to make assumptions and are subject to change based on risks and uncertainties. A number of factors could cause assumptions and

actual future results and events to differ materially from those expressed in the forward-looking statements. Readers are cautioned not to place undue reliance on forward-looking statements.

MANAGING THE SIX CAPITALS FOR SUSTAINABLE VALUE CREATION



Financial Capital

This represents the funds utilised for investment in manufacturing and other forms of capitals. These funds are generated from surplus arising out of business operations and financing activities.

Interlinkage with other capitals

The company makes investments in technologies, infrastructure, manufacturing, working capital, marketing, development and talent retention. This helps provide quality products to customers and drives growth for the company. The Financial Capital positively impacts the company's Manufactured Capital, Human Capital, Intellectual Capital, Social and Relationship Capital and Natural Capital.

Rs. 4,791 crore

Total revenue

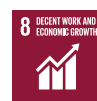


Rs. 207 crore

Profit after tax



SDGs impacted



Manufactured Capital

This represents the company's manufacturing facilities, physical assets and logistics facilities. These are utilised for developing solutions for the segments served by Thermax. The company continually invests in this capital to enhance its production capacities, and to ensure the safety and reliability of its operations.

Interlinkage with other capitals

Thermax invests in its Manufactured Capital by upgrading its technologies, and also by enhancing its manufacturing capacities and capabilities. This helps in delivering quality products to customers, besides enhancing the company's reputation and driving growth. This, in turn, enhances Thermax's Financial Capital, Social and Relationship Capital, and Natural Capital.

14

State-of-the art manufacturing facilities in India, Poland, Denmark, Germany and Indonesia



10,000 m³ per annum

Capacity expansion at Dahej, Gujarat



SDGs impacted



Human Capital

This represents the collective knowledge, skills and experience of the Thermax workforce, which helps in the creation of value for all stakeholders. The company invests in skill building, engagement and welfare activities, to improve the technical know-how and the overall well-being of its employees. The investments help in maximising the outcomes and providing the workforce with a safe and healthy work environment.

Interlinkage with other capitals:

These employee interventions positively impact the company's Financial Capital, Manufactured Capital, Intellectual Capital and Social and Relationship Capital.

0.28

Lost time injury frequency rate



65,410

Man-hours of training



SDGs impacted





Intellectual Capital

This represents the company's scientific knowledge and research skills, which help it develop superior products. Such skills also help the company improve process efficiency and optimise resource utilisation. The company is constantly striving to strengthen its capabilities and innovation quotient to deliver sustainable value to its stakeholders.

Interlinkage with other capitals

Investments are made in this capital through technology interventions. This helps bring cutting-edge technology, design and innovation to drive growth for the company. It leads to enhancement in Financial Capital, Manufactured Capital, Natural Capital and Human Capital.

15

Customer processes digitalised



369

Equipment with remote monitoring functionality



SDGs impacted



Social and Relationship Capital

This represents the way Thermax engages with the communities and the investment it makes for their development. The company aligns its social interventions with the United Nation's Sustainable Development Goals (SDGs). Relationship capital implies how it builds long-term and trust-based relations with its business partners and customers, with the aim of building an organisation for the long-term.

Interlinkage with other capitals

Through its social programmes, the company engages with different sections of the society. And through its various customer and business partner connect programmes, it makes meaningful engagement with these stakeholders. Besides promoting brand equity and loyalty, this helps the company drive higher growth. These initiatives also positively impact the company's Financial Capital and Manufactured Capital.

5,000

Direct beneficiaries of CSR interventions around manufacturing plants



668

Total number of customers, distributors and vendors engagement in FY2021



SDGs impacted



Natural Capital

This represents the renewable and non-renewable resources on which the company's operations are dependent. These include raw materials, energy, land and water. Thermax invests regularly in this capital to carry out sustainable operations.

Interlinkage with other capitals

Thermax is continually striving to improve its environmental footprint by reducing the use of natural resources, such as water and energy. The company also makes efforts to reduce its carbon footprint and generate less waste in its manufacturing processes. This enables the company to convert Natural Capital into value-added products, and positively impact its Social Capital, Manufactured Capital and Financial Capital.

15,201 GJ (4,222 MWh)

Renewable energy consumed



17,464 GJ (4,851 MWh)

Energy saved



8,09,018 m³

Water consumed



2,16,413 m³

Water recycled



25,253 m³

Rainwater harvested



SDGs impacted





FINANCIAL CAPITAL

Thermax continues to make the right investments to foster resilience and create a more sustainable future. Despite the global challenges faced during the year, Thermax sustained its investment proposition, at the back of its integrated value chain, multi-sector approach and highly skilled people. Additionally, prudent risk management and focus on cash conservation helped the company navigate the challenges to end the year with a strong cash position of Rs. 2,053 crore.

The company uses the cash generated from its operations, as well as from debt and equity financing, to grow its business and ensure sustainable value creation for its stakeholders. Financial Capital is reinvested in other capitals to strike the right balance between profitability and cash flows.

Investments in digitalisation helped Thermax improve its internal process efficiencies and customer experience. Further, project 'Agile', aimed at bringing rigour into indirect cost reduction, yielded cost saving and improved profitability. As the company continued to build capacity to capitalise on the growing opportunities during the pandemic, it focussed on driving efficiencies and productivity by investing in operational excellence initiatives.

Through investment in ThermaxNXT, its transformation project, the company aims to scale up revenue growth in its identified businesses. The project is focussed on building an organisation that drives excellence, inclusivity and innovation. **For more details, refer to Propelling a Sustainable Growth Strategy on page no. 16.**

During the year, Thermax also made investments in further augmenting its R&D capabilities. Its R&D centre deploys cutting-edge technologies through technology tie-ups to develop unique applications for customers. This enables the company to deliver on its brand promise of 'Conserving Resources, Preserving the Future'. Thermax is currently working in the

areas of new energy, such as fuel cells, Thermal-HVAC and bio CNG. Thermax subsidiary TOESL is setting up a compressed biogas project through its newly formed subsidiary Enerxnt Private Limited.

To further boost efficiencies, Thermax undertook restructuring during the year in its global operations to consolidate its presence. Impairment of assets was made post assessment of the recoverability of investments made in Thermax Netherlands B. V. and

Thermax Engineering Singapore Pte Ltd. of Rs. 74.68 crore and Rs. 22.49 crore respectively. In another move, Thermax closed down its China subsidiary - TZL (Thermax (Zhejiang) Cooling & Heating Engineering Co. Limited, China) and has proposed liquidation of Thermax Senegal S.A.R.L, post winding up of operations. Thermax also sold a non-profitable service business segment of Boilerworks A/S. Entities have been established in Thailand and Nigeria to steer the expansion of the project business overseas.



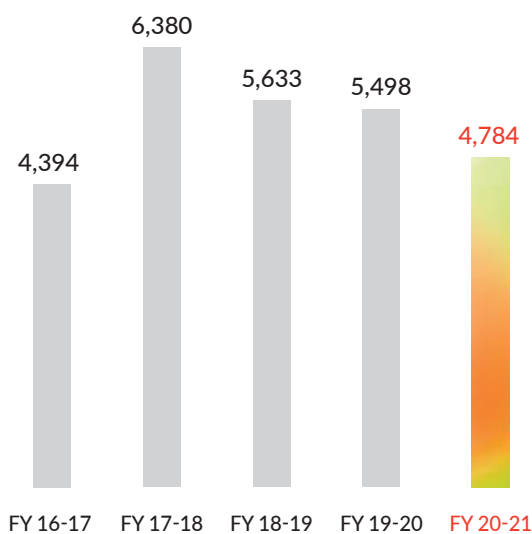
TOESL proliferates the tyre industry by commissioning an 18 tonne biomass fired boiler plant for a Japanese tyre manufacturer

Key Financial Indices

Thermax Group

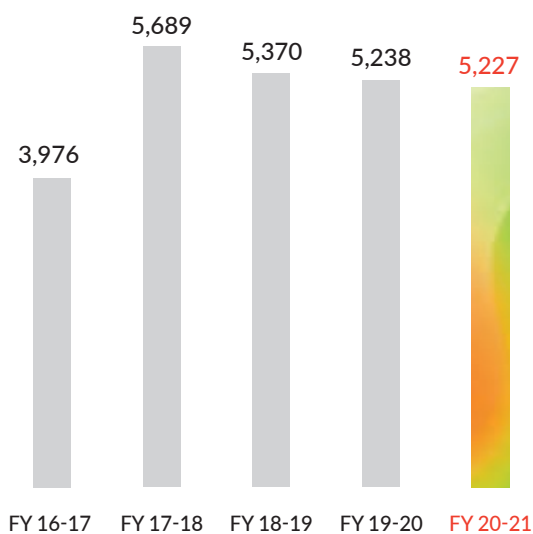
Order Booking

(Rs. in crore)



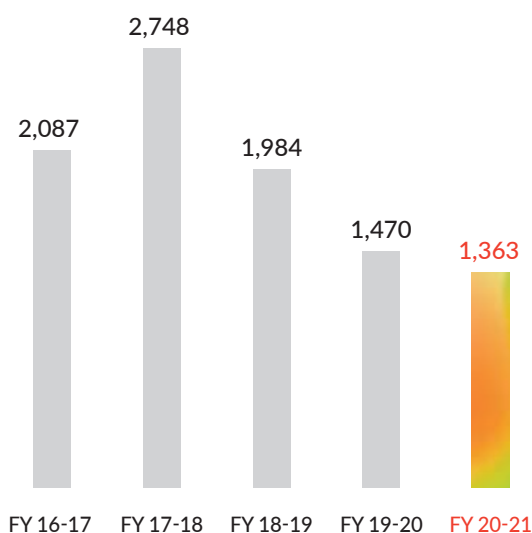
Order Balance

(Rs. in crore)



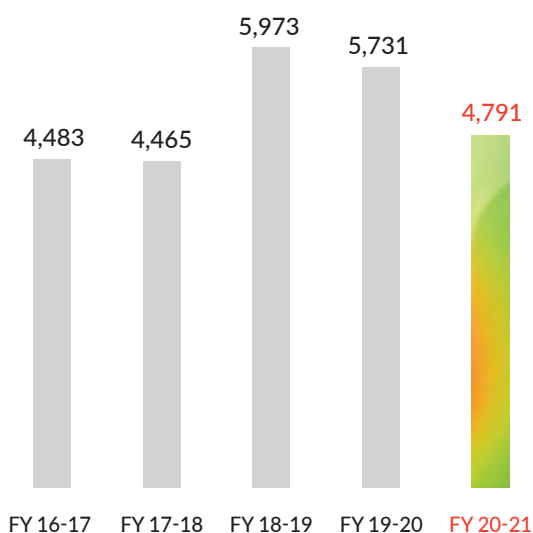
International Order Booking

(Rs. in crore)



Revenue (Excluding Excise Duty/GST)

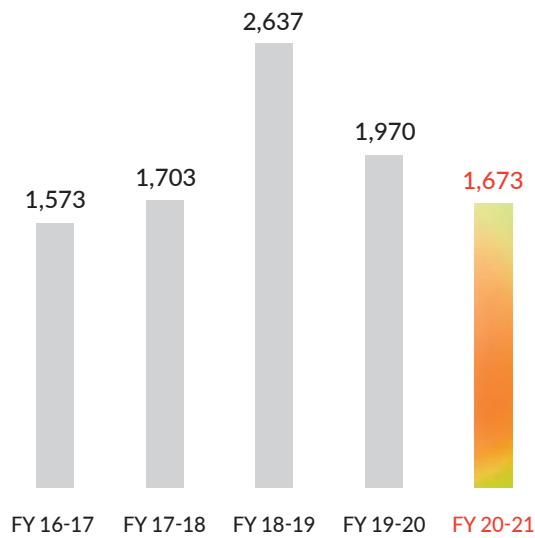
(Rs. in crore)



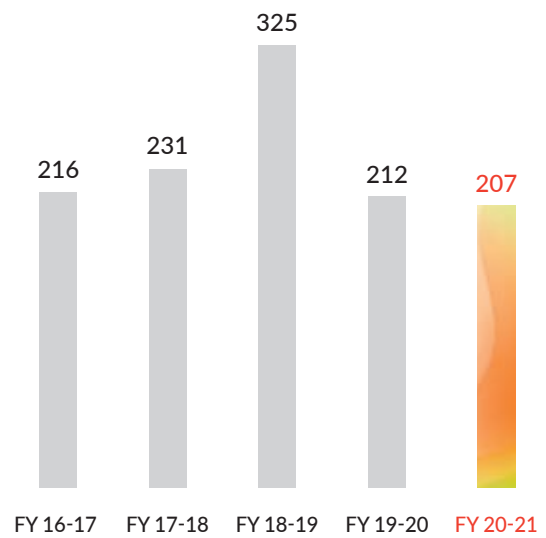
Key Financial Indices

Thermax Group

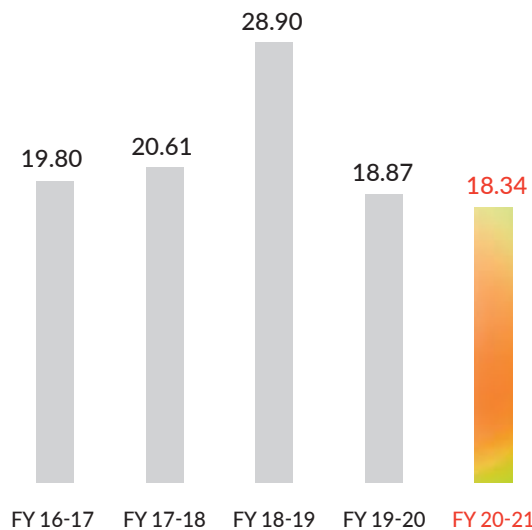
International Revenue (Rs. in crore)



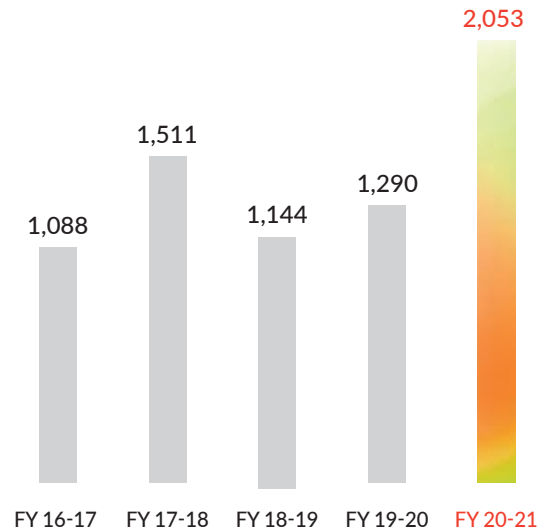
Profit After Tax (Rs. in crore)



Earnings Per Share (Rs.)



Cash and Cash Equivalent (Including Current Investments) (Rs. in crore)



Financials at a Glance

Thermax Group

PARTICULARS	2020-21	2019-20	2018-19	2017-18	2016-17	2015-16*	2014-15	2013-14	2012-13	2011-12
Domestic Sales (excluding excise duty)	3,037	3,685	3,249	2,668	2,813	3,210	3,618	3,199	3,898	4,333
International Sales/Business	1,673	1,970	2,637	1,703	1,573	1,859	1,624	1,758	1,468	1,574
% to Total Sales	36%	35%	45%	39%	36%	37%	31%	35%	27%	27%
Total Sales	4,710	5,655	5,886	4,371	4,386	5,069	5,242	4,957	5,366	5,907
Growth	(17%)	(4%)	35%	0%	(13%)	(3%)	6%	(8%)	(9%)	15%
Other Operating Income	81	76	87	94	97	76	62	72	59	60
Revenue from Operation	4,791	5,731	5,973	4,465	4,483	5,145	5,304	5,028	5,425	5,967
Other Income	108	100	150	116	114	122	123	72	85	84
Total Income	4,899	5,831	6,123	4,581	4,597	5,267	5,427	5,100	5,510	6,051
Total Expenses	4,435	5,324	5,516	4,064	4,049	4,716	4,843	4,592	4,935	5,377
Profit Before Depreciation, Interest, Extraordinary Items and Tax	464	507	607	517	548	551	584	508	575	674
(% to Total Income)	9%	9%	10%	11%	12%	10%	11%	10%	10%	11%
Depreciation	115	117	92	82	82	72	134	92	77	66
Interest	21	15	14	13	10	12	82	27	17	12
Exceptional Items of Expenses	53	-	90	0	18	0	49	0	0	0
Profit Before Tax	275	375	411	422	438	467	319	389	481	596
(% to Total Income)	6%	6%	7%	9%	10%	9%	6%	8%	9%	10%
Tax	69	162	85	166	156	144	171	169	177	204
Profit After Tax before Non-controlling Interest and Share in Loss of Associate and Joint Venture	206	212	326	256	282	323	148	220	304	392
Share in Joint Venture /Associates Loss	0	0	(1)	(25)	(66)	(41)	NA	NA	NA	NA
Minority Interest	NA	NA	NA	NA	NA	NA	(62)	(26)	(16)	(12)
Profit After Tax after Minority and Share in an Associate's Loss	206	212	325	231	216	282	210	246	320	404
Other Comprehensive Income	17	(9)	(22)	27	(19)	22	NA	NA	NA	NA
Total Comprehensive Income Attributable to Equity Holders of the Parent	223	204	304	258	197	304	NA	NA	NA	NA
Non-controlling Interest	-	-	-	(1)	(7)	-	NA	NA	NA	NA
Gross Block	2,151	2,255	2,236	1,741	1,515	1,438	2,051	2,044	1,296	1,193
Net Block	1,266	1,339	1,352	1,076	952	887	1,474	1,580	1,390	1,091
Investments	234	875	829	1,472	1,083	1,050	822	708	443	240
Current Assets	4,466	3,977	4,737	4,102	3,297	3,610	4,185	4,125	3,287	3,406
Current Liabilities	3,071	2,787	3,654	3,079	2,365	2,615	3,274	2,999	2,509	2,758
Net Current Assets	1,395	1,190	1,083	1,023	932	995	911	1,126	778	648
Capital Employed	3,273	3,061	3,050	2,768	2,585	2,450	2,719	2,695	2,362	1,829
Equity Share Capital	23	23	23	23	23	23	24	24	24	24
Reserves and Surplus	3,228	3,005	2,992	2,692	2,515	2,393	2,123	2,014	1,845	1,605
Networth	3,251	3,028	3,015	2,715	2,538	2,416	2,147	2,038	1,869	1,629
Minority Interest	-	-	-	-	1	-	78	140	110	112
Loan Funds (long term)	22	33	35	53	46	34	494	517	383	88
Fixed Asset Turnover Ratio	3.72	4.23	4.35	4.06	4.61	5.71	3.56	3.14	3.86	5.42
Working Capital Turnover Ratio	3.38	4.75	5.43	4.28	4.71	5.10	5.75	4.40	6.90	9.11
Current Ratio	1.45	1.43	1.30	1.33	1.39	1.38	1.28	1.38	1.31	1.24
Return on Capital Employed	11%	13%	14%	15%	15%	18%	15%	15%	21%	33%
Return on Net Worth	6%	7%	11%	9%	9%	12%	10%	12%	17%	25%
Cash Earnings per Share (Rs.)	28.50	29.30	37.06	27.93	27.08	31.48	28.86	28.38	33.33	39.42
Earnings per Share (Rs.)	18.25	18.87	28.90	20.61	19.80	25.07	17.61	20.64	26.87	33.86
Dividend	350%	350%*	350%	300%	300%	300%	350%	300%	350%	350%
Book Value per Share (Rs.)	289	269	268	241	225	215	180	171	157	137

Figures have been reclassified as per Indian Accounting Standards (IND AS) as prescribed by the Ministry of Corporate Affairs

* It is interim dividend paid to shareholders



MANUFACTURED CAPITAL

With strategic investments in its plants and equipment, Thermax converts its resources into high value solutions. These investments also help to enhance production as well as the safety and reliability of operations. Additionally, it enables the company to effectively manage its environmental footprint and comply with the regulatory requirements.

Thermax is a leading manufacturer of capital goods that meet the utility requirements of diverse industries globally. The company is present in 88 countries. The manufacturing facilities are ISO 14001:2015 and ISO 45001 / OSHAS 18001 certified. They are inspected by Lloyds, Bureau Veritas, SGS and TUV. Thermax manufactures as per international standards – ASME, BS, DIN, GOST, API, and CE, besides the IBR code in India.

Through its Manufactured Capital, Thermax continues its pursuit to provide clean and green offerings to its customers. Its facilities strengthen the company's capabilities to execute complex projects in the domestic and overseas markets. Its operational excellence helps the company integrate its people and processes in a seamless manner, resulting in better performance – financially and non-financially.

The company's Manufactured Capital enables it to engineer sustainable solutions that fulfil customers' needs, and thus, warrants strategic consideration and due investment. Thermax has a strong manufacturing edge built on targeted initiatives. These initiatives include supporting customers with utility needs for greenfield facilities; upgrading the capacity of existing facilities; deploying technologies such as modularisation; and service based on the Industrial Internet of Things (IIoT).



Thermax Solar expanded its international presence by installing its first solar PV plant of 1 MW capacity in Kenya, Africa, for a leading edible oil manufacturer

During the year, the manufacturing operations across industries were impacted due to the COVID induced lockdown. Challenges continued even post the resumption of operations, with pandemic safety protocols making it difficult to scale back to normalcy. Despite the problems, the Heating plant at Savli not only effectively managed the backlog built during the lockdown period but also clocked the highest ever production

in December 2020. Resilience of the workforce and cross-functional synergy between different teams including providing on-time inputs to delivering the highest manufacturing output, led to this exemplary achievement. Thermax's latest state-of-the-art Cooling plant at Sri City continued to leverage its automation capabilities, and delivered 30 machines in September 2020 - the highest number of units in a single month.

With the commissioning of Phase II of resin production at Thermax's Dahej plant in Gujarat during the year, manufacturing capacity at the facility went up to 20,000 m³ per year from 10,000 m³ in the previous fiscal. This challenging task was managed in spite of the severe damage caused by an explosion in an adjacent chemical facility.



Success Stories



Remote commissioning of a boiler in Egypt

Remote Commissioning of Auxiliary Boiler

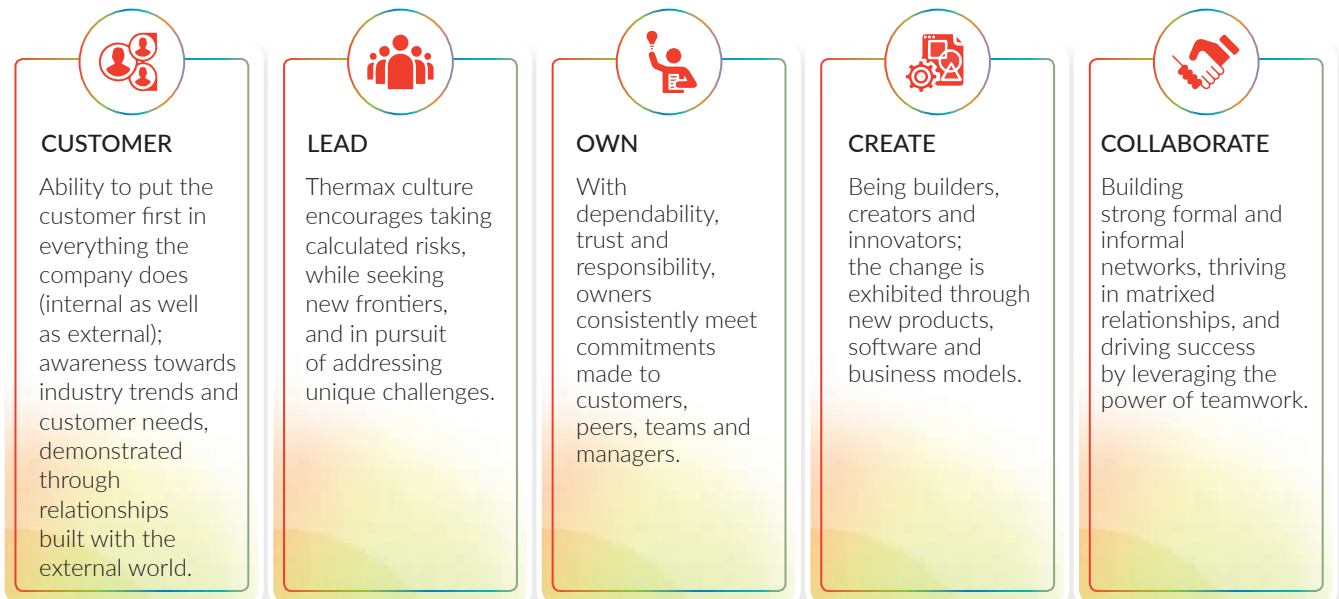
One of the key projects executed by Thermax during the pandemic was the remote commissioning of a large auxiliary boiler in Egypt. With meticulous planning and execution, TBWES commissioned a unit of 50 TPH natural gas, acetone and water gas fired boiler for a chemical company. All critical processes were carried out through Remote Online Service Support (ROSS). The operations were conceptualised with adequate SOPs and O&M manuals, and a live view of the Data Collection System was conducted. The project paved the way for Thermax to develop a service model that can yield substantial cost savings for its customers. At the same time, this will help increase workforce productivity by enabling employees to support multiple sites simultaneously.



HUMAN CAPITAL

Thermax remains steadfastly focussed on nurturing a healthy organisation and a capable workforce, with an inclusive approach to its human resources. At the core of its people policy is the company's thrust on building and retaining its critical skills, enhancing its performance potential, and developing its leadership capabilities.

While the Thermax values have been the company's guiding light, the Executive Council has also formulated a set of behaviours that define a true Thermaxian. These behaviours serve as a beacon in the overall development of an employee. The Thermax behaviour code is centred around: Customer (customer centricity), Lead, Own, Create, and Collaborate, briefly known as CLOCC.



Health and Safety

With health and safety of employees taking centre stage amid the COVID-19 crisis, Thermax stepped up the momentum of its wellness programmes during the year. Various initiatives were launched to help employees deal with challenges, keep up their morale, and stay connected. All the health related days were observed through activities like 'yoga' sessions, talks by professional experts on relevant topics like cancer, mental wellness, and so on. Spouses of the employees were also encouraged to join.

The company created a Wellness app in collaboration with its health

partner - Health Positioning System (HPS) Wellness, to enhance the wellness quotient of employees at physical, emotional and social levels. The app provides a comprehensive and multi-dimensional health enhancement programme, personalised to the employee's 'Prakruti' (age, gender, diet and current health status). More than 2,000 employees have been engaged through the app.

Upskilling safety officers to align with international standards in occupational health and safety is a key priority at Thermax. The Safety app was revamped by the Business Technology Group and Health, Safety and Environment (HSE) teams to enhance its functionalities.

Its advanced and dynamic dashboard facilitates the managing team in accessing more transparent, accurate, simple and handy data, thus saving time from reporting to closure by 25-30%. The feature-loaded app has seen a user increase from 2,100 to 3,400 within three months of its launch.

Themed 'Save yourself to save your family', the Road Safety Month was celebrated from January 18 to February 17, 2021, across locations, offices and customer sites. The celebrations were marked by online quiz, safety bulletins, training on mobile vehicle safety, PUC check-up and check-ups of all transport vehicles.



Employees take the safety and environment oath during the Road Safety Month

The National Safety Week, celebrated from March 4 to 11, 2021, was themed 'Learn from disasters and prepare themselves for a safer future'. More than 17,785 people, including Thermax employees and workmen, third party staff and other contractual workforce, participated in the activities.

Nurturing Talent

The progressive growth-led people culture at Thermax has enabled many employees to rise through the ranks, while several have assumed critical leadership and senior management positions over the years. The company recently formalised a policy on Talent Mobility, which encourages employees,

identified as talent, to look for lateral or vertical shifts. The policy is designed to inspire employees to take up new positions that augment and diversify their existing potential. It also enables managers to adopt robust processes to manage people movement, and gain from multi-faceted talent. The HR team encourages managers and individual contributors to adopt talent mobility, by sharing blogs on success stories of employees.

The learning curve of the employees continued through the pandemic. 'Maximise Learning' was launched, as part of which 159 internal technical subject matter experts joined hands with

L&D trainers. Over 300+ behavioural and functional sessions were conducted for 27,047 hours, which helped maximise learning for 3,000+ learners.

Through its Managerial Development Programme, aimed at middle-level managers, Thermax targets building of managerial capability and ability to drive performance. The company's Learning and Development team leverages the expertise of Business Unit heads to deliver functional training. Consistent utilisation of concepts, across divisions and functions, helps the team move closer towards 'One Thermax'. Key competencies identified for the training are: techno-commercial decisions and contracting, strategic/execution decisions, driving performance, developing people, managing change, and communication.

Scale-up – a collaborative sales intervention programme of the company, is helping it develop and enhance B2B sales development skills and competencies in managers. A first time managers' programme, called 'ACE', is aimed at developing skills for employees who have transitioned from an individual contributor to the role of a team leader within the last 18 months. It focusses on bringing change, developing the team, and steering performance.



Success Stories



Becoming Knowledge Partners through L&D Programmes

The Water and Waste Solutions division partnered with a globally renowned food and beverage company to deliver a training module, 'Site Expert Trainer'. The module was crafted to help the operations team in Africa, Middle East, South Asia (AMESA) division manage tasks and improve alignment with sustainability. The programme delivers a user-friendly and interactive step-by-step knowledge repository. After experiencing benefits from the first module, the customer awarded two more projects to the company for locations outside India. The initiative's success enabled Thermax to make training a business proposition, and firmly position itself as a knowledge partner.



SOCIAL AND RELATIONSHIP CAPITAL

Thermax integrates the needs of its stakeholders, and delivers on its commitments, in order to create an enabling environment for its operations and investments. It maintains effective partnerships and relationships with its customers, suppliers, shareholders, dealers, employees, local communities and the regulators, among others. Its constant endeavour is to be responsive and solution-focussed, and to partner with stakeholders to achieve its strategic objectives.

Communities and Society

The company recognises that its business sustainability is premised on the relationships it builds with its communities. It acknowledges the importance of its societal welfare initiatives to promote sustainable growth. Its key objective is to facilitate quality education for children from economically weaker backgrounds, to help them come out of the vicious cycle of poverty. Further, Thermax Foundation works closely with the vulnerable communities around the company's manufacturing locations, and encourages key projects based on need-based evaluation.

Due to COVID lockdown and subsequent physical distancing norms, the involvement of Thermax employees in community outreach programmes during the year was limited. However, the company endeavours to look at ways to involve its employees in contributing their skills and domain expertise towards addressing critical social challenges.

The School Project

Inspired by the belief that every child deserves access to quality education, Thermax Foundation (TF) continues to partner with The Akanksha Foundation (TAF) in strengthening the Pune Municipal Corporation (PMC) schools through a tripartite agreement. Among the PMC schools run by TAF, last year, TF funded K. C. Thackeray Vidya Niketan English Medium School and Savitri Bai Phule English Medium School; and also partially funded Matoshri English Medium School. TF also continued to handhold and mentor the alumni of Akanksha Schools, encouraging them to pursue higher education.

The success of the programme can be gauged from the fact that four alumni from Akanksha Schools joined Warburg College, Wheaton College, Whitman College and University of Oklahoma in the United States, respectively, post their junior college at United World College (UWC). Four others joined Ashoka University, while one got inducted into NIT Silchar.



Students of grade 10 from Savitri Bai Phule English Medium School attending classes when pandemic norms were relaxed

iTeach Alumni Support

Thermax Foundation has partnered with iTeach Alumni Wing Support programme to mentor 200 alumni from Teach for India. During the year 2020-21, TF funded iTeach to provide support and mentoring to alumni under the broad categories of foundational learning academics, mentoring, and employment readiness. Though there was a delay in the admission process due to the lockdown, all the alumni secured admissions in junior college, due to timely support and guidance by the iTeach project team.

CSR Near Factory Locations

The Manav Seva project at the Savli plant facilitated access to government schemes for eligible beneficiaries. The project was also implemented in Alindra, Manjusar, Lasundhra and Gothara. Responding to the pandemic needs, the contours of Churni project, being run in partnership with Srotoshwini Foundation, were changed from the programme's focus on imparting tailoring skills to stitching COVID masks. The change assisted the 35 below-poverty women beneficiaries of Lasundhara and Manjusar villages to continue earning livelihood during COVID. Thermax Foundation purchased all 16,000 masks stitched by these women, ensuring a monthly average income of Rs. 4,000-5,000. These masks were distributed, through Thermax employee volunteers from Savli, to community dwellers of Jhumkal, Lambdapura, Paladi, Manjusar and Alindra villages.

The Foundation also worked with Haqdarshaks to spread awareness, and provide access to poor people, towards welfare schemes like old age doles, widow pension etc. The beneficiaries were people living near Dahej and Jhagadia factory locations in Gujarat. Some of them were also provided sustainable livelihoods as a result of this initiative.

Following the stream widening work done at Ranmasale village near Solapur, a few volunteers from the village were invited by Thermax Foundation's NGO partner Manavlok to Ambejogai to learn best farming practices in water-deficit areas. This resulted in an increased yield of onions, despite the pandemic.



Thermax employees from Savli distribute masks stitched by women associated with the Churni project, to communities near its factory location

Employee volunteering

Six employees from Leadership Development Programme of Thermax were selected to impact six NGOs through an ongoing support instead of one time volunteering. The team of volunteers tried to support their respective NGOs online through initiatives like developing websites for them and raising funds. However, due to the pandemic situation, travel restrictions and language barrier, the envisaged impact of the programme was not as anticipated.

Like every year, employees took part in the Joy of Giving Week. This year, the donation appeal was made to employees through the online programme called 'Tea Talks'. Thermax employees responded with enthusiasm, and contributed towards the purchase of tablets for students from Akanksha Foundation, Teach For India, iTeach and Jagruti School for Blind Girls. This was to ensure that the students get seamless access to online learning. Thermax employees also contributed to the appeal from Hope Foundation for seed funding for women entrepreneurs from underprivileged families who had enrolled with them for various skills. With income of the family severely impacted during lockdown, the donation

was to help them buy the equipment to start masala making or other basic accessories to start their own business. Thermax Foundation made a matching contribution to these NGOs.

Through Thermax's women networking platform 'Sakhi', several activities were undertaken to increase awareness on health and wellness, and to sensitise

women on social issues. In another project, Thermax employees from the Shirwal factory, along with their family members, painted COVID safety messages on 1,000 reusable cloth bags, working from the safety of their homes. These beautifully painted bags were distributed at schools and shops, and also to the local panchayat through the NGO, 'Being Volunteers'.



Cloth bags with COVID safety messages painted by employees from the Shirwal factory were distributed in schools, shops and the local panchayat

Dealers and Vendors

During the year, Thermax maintained strong relationships with its dealers and vendors. Its Channel Business Group recorded its highest ever revenue in the last two quarters of the fiscal, despite the pandemic challenges. Meticulous planning and focussed growth initiatives led to this achievement. Along with channel partners, the Thermax team also displayed hard work and determination to ensure business continuity, while addressing customers' needs. The team also proved its mettle by breaking

through stiff competition in new geographies, and tapping into future opportunities, while continuing to take utmost safety precautions. A noteworthy achievement was the supply, erection and commissioning of a boiler for a leading pharmaceutical company, within stringent timelines. This landmark installation was attended by the Prime Minister of India.

Online training sessions were held to build supplier capabilities, and more than 80 vendors

were trained during the year. 'Supply chain sustainability' series was organised for the company's critical vendor partners, to build awareness on safety and the environment. The sustainability questionnaire is now included in the vendor registration process. Buyers from most of the SBUs worked along with the company's suppliers to create awareness on sustainability. This resulted in improving the percentage of material sustainably sourced, from 30.4% to 35.6%.

Customers

Thermax continued to support customers in their sustainability efforts throughout the year. The solutions offered by the company helped the customers save energy and water, minimise pollution and CO₂ emissions, enabling them to transition into green and ensuring sustainable operations.

The company focussed actively on providing timely solutions to essential services based customers on priority during the pandemic. For example, it provided a hot water generator to a hospital, and efficiency improvement solutions for a pharmaceutical laboratory.

The company's commitment in this regard was also manifest in the supply of ion exchange resins to a leading US based water purifying products company and on-time export order execution.



Success Stories



A 1,500 kWp ground mounted captive solar plant for a Government of India entity

Installation of Solar PV Plant

Thermax recently commissioned a solar PV plant in Jabalpur, Madhya Pradesh, for a large construction and maintenance company providing infrastructural support to the Government of India. Spread across a 16,000 square metre area, the 1,500 kWp ground mounted captive solar plant is capable of generating more than 2.5 million units of 'green' electricity. It is equipped to cut down carbon emissions by 1,890 tonne every year, thus facilitating the customer's shift towards sustainable energy solutions.

Serving Customers through O&M

Through its O&M services, Thermax facilitates its customers in optimising resource consumption, besides keeping their assets efficient and productive. The company's O&M team leveraged its strengths to support an Indian conglomerate with businesses in textile and steel, save cooling tower make-up water by 0.5 M³/MWh at its 43 MW captive power plant in Anjar, Gujarat. The team studied the cooling tower parameters, modified the chemical dosing programme, and maintained all standard parameters. This helped the company cut down its water usage by 8,000 m³ water, saving over Rs. 80 lakh a year.



INTELLECTUAL CAPITAL

Thermax has a rich Intellectual Capital repository, comprising a robust knowledge base, including its patents, rights and licenses, research and development policies, systems, procedures and controls. The company is continually strengthening its Intellectual Capital through process and business model innovations, R&D efforts, as well as initiatives on operational excellence and digitalisation. The cumulative value of the Intellectual Capital that Thermax has refined over the years, drives its evolving business strategy.

The company is among a few, globally, to offer integrated innovative solutions in the areas of heating, cooling, power, water and waste management, air pollution control and chemicals. It has a reputation for inculcating proven global technologies in customer processes, to improve their resource productivity. Its multi-sectoral technology prowess enables Thermax to promote green technologies, including waste heat recovery systems, flue gas desulphurisation systems, power from waste and renewables, helping customers reduce carbon footprint.

Thermax's long-standing Research, Technology and Innovation Centre (RTIC), equipped with around 111 R&D engineers and scientists, is constantly working on developing new and cutting-edge technologies and upgrading existing technologies.

The company celebrates Technology Day, Dr. N. D. Joshi award, and Operational Excellence awards, besides rewarding its employees for business innovations.

Digitalisation of offerings and operations helped the company scale up its presence in relevant markets amid the pandemic. It continued to harness the power of digitalisation to deliver customer-centric applications that add value to customer processes. Considering the complex nature of its offerings, Thermax deployed a robust automated proposal generation process, addressing customer requirements accurately, with improved response time. It further augmented its capabilities in remote commissioning and monitoring of equipment. To enhance its EPC capabilities, the company introduced 4D BIM (Building Information Modelling). It also developed an in-house app – ThermQ, to facilitate all EPC teams in planning, assigning, coordinating and seamlessly tracking projects.

A new solar microsite was created to provide customers with a comprehensive overview of the company's solar PV offerings and share other relevant information. Thermax also revamped its website to put in place a more contemporary user interface, with new features. The revamp and search engine optimisation activities improved website traffic, with better ranking and consistent flow of enquiries. In line with its focus

on digital marketing, the company leveraged social media channels, including YouTube, LinkedIn, Facebook and GoogleAds, for lead generation for select businesses. Promotional content was utilised to enable customers access specific product/solution-related information. Customers were also facilitated in capturing and tracking enquiries effectively, thus enhancing their experience.



Manufacturing Execution System deployed at the Sri City plant in Andhra Pradesh



Success Stories

Increasing Biofuels' Share in India's Energy Mix

To address the issue of burning of paddy straw stubble, Thermax launched bio-CNG technology in partnership with Pune based Primove Engineering. The technology enables the use of difficult biomass to generate bio-CNG. This unique and high-yield bio-digestion process breaks down the lignocellulosic biomass in a digester, creating a new market in India. The technology can be deployed for several other straw type lignocellulosic biomasses. It provides a promising solution to replace carbon-positive fossil fuel with a carbon-neutral biofuel, and reduce import costs for natural gas. The carbon-neutral technology will help increase the share of biofuels in India's energy mix by harnessing its vast and untapped agro-waste. It is a major step forward for the country to achieve its sustainability goals.

Making Vehicles More Fuel-Efficient

Thermax's RTIC team developed and commercialised a first-of-its-kind T-HVAC (Thermal Heating, Ventilation, and Air Conditioning) product for mobility application. This waste heat recovery project has developed absorption technology, utilising engine exhaust heat. A 32 kW capacity of the T-HVAC unit, integrated with a 5-star premium coach, was approved by the German regulatory authority for meeting stringent homologation and roadworthiness requirements. The approval paves the way for the adoption of this technology across the European Union. T-HVAC provides the benefit of total cost of ownership, by achieving fuel savings in the range of 5-8%, thus lowering pollution. Thermax is contributing to a greener environment through its thrust on making vehicles more fuel-efficient, economically and environmentally.



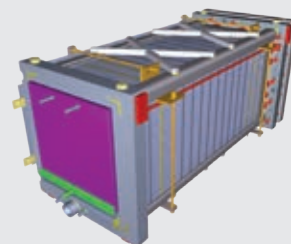
atoM

The Water and Waste Solutions (WWS) business of Thermax launched 'atoM', a completely modularised system to treat sewage water efficiently in confined spaces, such as basements. It incorporates Membrane Bioreactor based technology. Engineered for automated operations, it removes nitrogen and phosphorus from wastewater and provides consistent water quality with varying inlet loads, which is suitable for recycling and reuse. The product finds application in the Urban segment, with its contemporary aesthetics, sleek design, easy installation and automated operational features making it a perfect fit in commercial and residential spaces. Thermax received its first major order for atoM from an e-commerce giant for its Indian data centre in Hyderabad.

Thermax Fuel Cells for Indian Navy

Thermax has supplied fuel cell stacks for India's home-grown Air Independent Propulsion (AIP) system. The cells are designed to significantly enhance the operational effectiveness of submarines.

➤ For more details, refer to the Highlights section on page no. 03 of the Annual Report





NATURAL CAPITAL

Thermax is committed to minimise the use of natural resources and the impact of its operations on nature. It remains committed to building its Natural Capital through resource efficiency and excellence in environmental performance. The company is constantly measuring and managing the impact of its business and manufacturing operations on the environment, and taking necessary measures to reduce energy, water and material consumption.

During 2020-21, Thermax enhanced its renewable energy portfolio and improved green energy consumption from solar and biomass i.e. 15,201 GJ or 5.2% of its total energy consumption. The company achieved energy savings of 17,464 GJ from various energy efficiency initiatives, resulting in a 30% improvement over the previous year.



15,201 GJ

Renewable
Energy Consumption



2,79,312 GJ

Non-Renewable
Energy Consumption



17,464 GJ

Energy Savings



2,174 tCO₂e

Emission Savings

Water Consumption

Thermax follows a 'reduce, reuse and recycle' concept at all its zero discharge manufacturing plants. All the treated effluent is used for gardening, fire hydrant system and flushing in toilets, resulting in recycling of water. Rainwater harvesting is also facilitating the company in reducing its dependence

on freshwater. The company's water harvesting initiatives in Paudh, Jhagadia, Dahej, Sri City plants, and in its two offices in Pune, led to storage, consumption and groundwater recharge of 25,253 cubic metre of rainwater during the year.



8,09,018 m³

Water Consumption



2,16,413 m³

Water Recycled



25,253 m³

Rainwater Harvested





World Environment Day marked by sapling plantation

Environmental Protection

Through 'Thermax Cares', the company is inculcating environmental consciousness into the organisational culture. It has undertaken various initiatives to encourage the employees and their families to contribute to reducing the earth's carbon and water footprint. This is being done through a series of planned "Know", "Act" and "Become" programmes, involving meaningful activities aligned with the UN SDGs.

Nurturing Biodiversity

To promote sustainable biodiversity, the company planted 4,310 tree saplings during the year. It also planted saplings at customers' sites, besides conducting competitions on 'Conserve biodiversity to preserve humanity' and 'COVID-19 versus biodiversity'.



Thermax relocated and shifted 120 matured trees to a safer place at a customer's Flue Gas Desulphurisation plant in Dhanbad. Environment Day was celebrated with the theme 'Ecosystem Restoration', and a learning module was launched on 'Decarbonising Life', to increase awareness and strengthen mitigation plans on carbon emissions.

Environmental Compliance




Thermax conforms strictly to all environmental laws, regulations and standards. All its plants comply with the permissible limits of Ambient Air Quality, with parameters like PM2.5, PM10, SOx and NOx. The stack emissions are also within the parameters, as prescribed by the Central Pollution Control Board (CPCB) and SPCBs. Waste generated is disposed of in a socially responsible and environmentally safe manner across the company's sites. Also, hazardous and non-hazardous waste is segregated and handed over to collection vendors to dispose of, recycle or reuse, as applicable.

MANAGING RISKS


Some of the major risks identified by the company, and its mitigation plans, are given below. Risk ranking undergoes periodic change, based on scores of the identified risks and the status of risk mitigation plan implementation.

Identification of Major Risks	Detailing of the Risk	Mitigation Plan
Project Execution Risk 	<ul style="list-style-type: none"> Loss of reputation/market share/margin erosion, due to inadequate process framework and monitoring of risks during the entire project lifecycle 	<ul style="list-style-type: none"> Robust project management structures are in place across business divisions, to monitor and control project execution risks during the project lifecycle. Multiple controls, from the proposal to execution stage, enable the company to take timely measures to mitigate potential risks.
Data Governance and Cyber Security Risk 	<ul style="list-style-type: none"> Inability to identify, classify, document/digitise and archive business-critical knowledge/information to ensure complete, consistent, reliable, and secure corporate data Adverse impact on company's operations due to cyberattacks and lack of firewalls, encryption, remote access controls, leading to compromise of confidential data and intellectual property. Inability to continue/recover business operations during any crisis, and/or disaster, with minimal disruption or loss of business. 	<ul style="list-style-type: none"> Security awareness is created through training on regular basis. Archiving and purging of unused information is done, as per the timeframe decided in Data Retention policy. Role-specific access to IT equipment is created and controlled. Identity and access management, through single sign-on and multi factor authentication, is underway. Servers and databases of all hosted applications are being upgraded, with high availability. Disaster recovery for critical applications is tested.

Additional risks emanating from COVID-19 pandemic

Identification of Major Risks	Detailing of the Risk	Mitigation Plan
Employee Infection at Work Sites / Availability of People 	<ul style="list-style-type: none"> Manpower shortage challenges faced, owing to workforce getting COVID infections 	<ul style="list-style-type: none"> The company has designed comprehensive SOPs for manufacturing, site and office locations. Regular review is conducted to ensure adherence to COVID safety protocols. Any changes to local government rules are immediately communicated and followed. A core team was set up at every location, and employees were encouraged to provide continuous feedback for improvement of safety processes, if and where required.
People Travel Challenges Impacting Operations (Domestic + International) 	<ul style="list-style-type: none"> Difficulties faced in attending to customer issues due to travel restrictions 	<ul style="list-style-type: none"> Remote support capabilities, such as remote commissioning, have been developed. Selective domestic travel, in compliance with statutory and safety protocols, was undertaken to address emergencies at the customer's end.
Supply Chain Issues 	<ul style="list-style-type: none"> Inability to manage supplies, in line with demand and strategic business plans 	<ul style="list-style-type: none"> Detailed vendor analysis has been conducted to identify high-risk vendors. Risk mitigation plans of identified high-risk vendors were reviewed before placing any new orders. This helped minimise risk on account of disruption at the vendor's end. Additional transporters have been onboarded to increase the supply of transport vehicles.

THERMAX STAKEHOLDER ENGAGEMENT FRAMEWORK

Stakeholder	Company Responsibility	Mode of Engagement
Customers 	<ul style="list-style-type: none"> To execute the company's commitment to its group ethos 	<ul style="list-style-type: none"> Customer satisfaction survey, company website, brochures, customer meets, mailers, social media, exhibitions, roadshows, brochures, promotional campaigns, in-house magazine (Fireside), customer programmes (InTouch)
Employees 	<ul style="list-style-type: none"> To have an engaged and committed workforce to drive the organisation towards growth, with the company providing necessary growth opportunities 	<ul style="list-style-type: none"> Open forums, online and functional training, people and leadership development, communication blogs, celebrations like Technology Day, Environment Day, Safety Week
Vendors and Business Partners 	<ul style="list-style-type: none"> To develop mutually beneficial and long-term relationships 	<ul style="list-style-type: none"> Vendor meets, dealer conferences, site visits, selection process, vendor visits, training, vendor surveys, personal communication
Owners and Shareholders 	<ul style="list-style-type: none"> To provide accurate, transparent and timely information, and enable the stakeholder group to make informed investment decisions 	<ul style="list-style-type: none"> Quarterly updates, half-yearly updates, annual general meetings, press releases, investor meets and annual reports

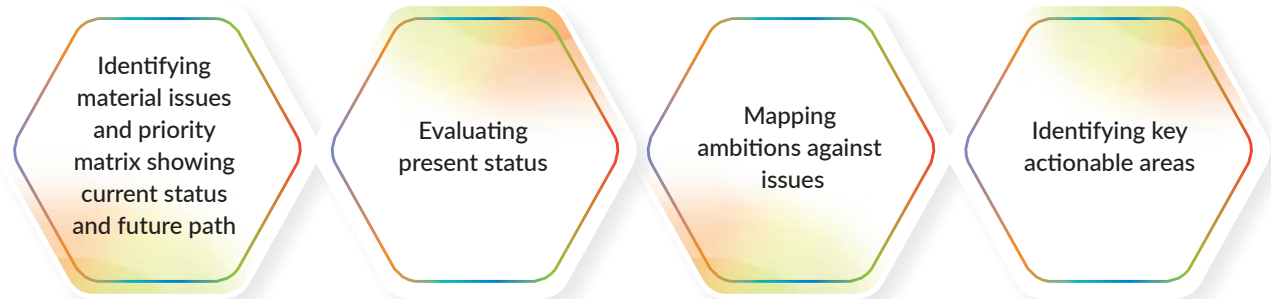
Stakeholder	Company Responsibility	Mode of Engagement
<p>Government Authorities</p> 	<ul style="list-style-type: none"> To ensure full compliance and regulatory requirements, thus setting industry benchmarks 	<ul style="list-style-type: none"> Government forums, interaction with statutory bodies
<p>Communities and Academic Groups</p> 	<ul style="list-style-type: none"> To uplift the communities impacted by the business around the manufacturing facilities and offices 	<ul style="list-style-type: none"> Meeting with local communities and NGOs, sustainability related information, education of underprivileged children, campus connect programmes, media

➤ For detailed information on how Thermax engages with its stakeholders, check Social and Relationship Capital and Human Capital section on page 48 and 46 of the Annual Report respectively.

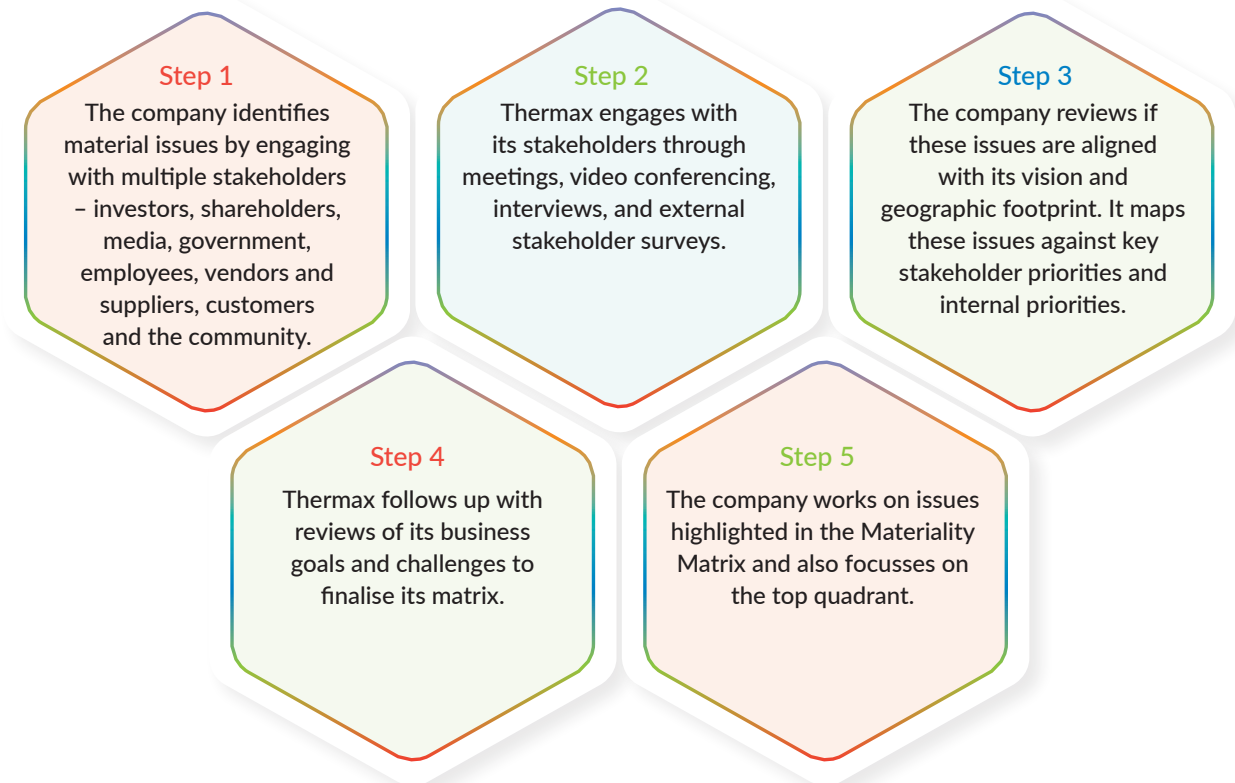


ADDRESSING MATERIAL MATTERS

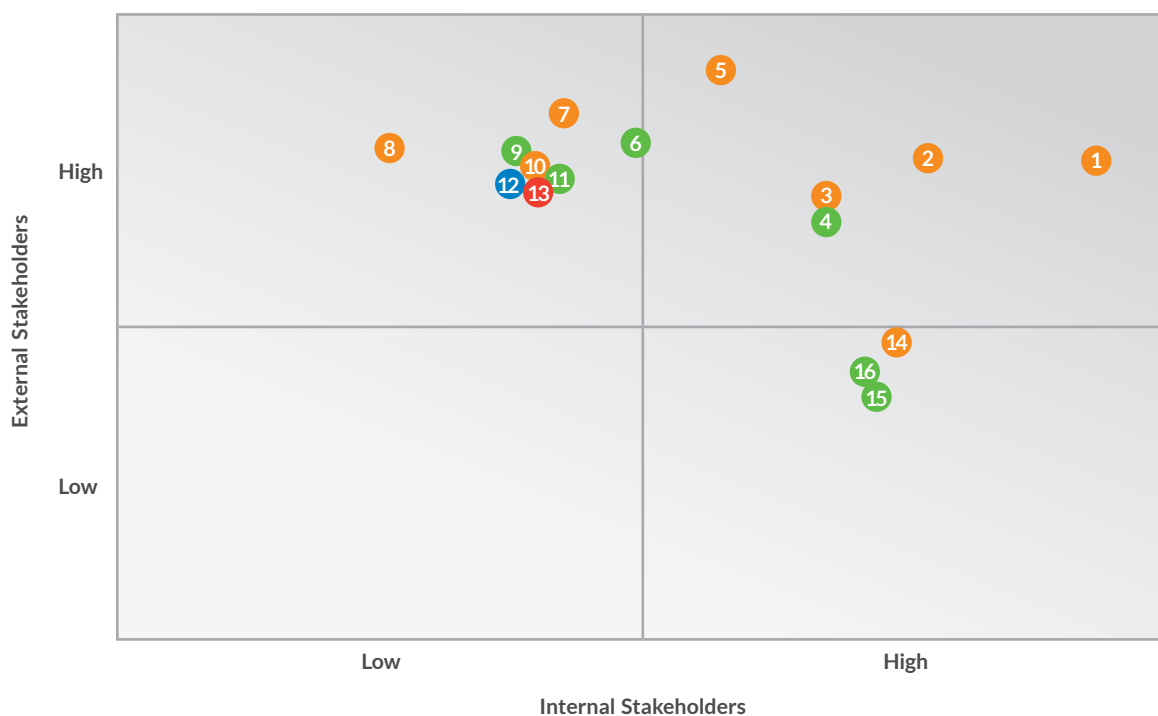
Materiality Determination Process



Identifying and Mapping Material Issues



Thermax Materiality Chart



Economic

- 3 Product Performance
- 13 Upgradation and Improvement of Designs (Eco-designs)



Environment

- 4 Waste Management
- 6 Climate Change Related Risks
- 9 Resource Usage Optimisation
- 11 Energy Management
- 15 Water Management
- 16 Emission Management



Social

- 1 Local Employment
- 2 Community Engagement
- 5 Occupational Health, Safety and Emergency Preparedness
- 7 Talent Acquisition and Retention
- 8 Training and Development
- 10 Protection of Human Rights
- 14 Responsible Supply Chain Management



Governance

- 12 Compliance and Integrity

BOARD OF DIRECTORS



Meher Pudumjee
Chairperson



Pheroze Pudumjee
Non-Executive Director



Ashish Bhandari
Managing Director and CEO



Harsh Mariwala
Independent Director



Dr. Jairam Varadaraj
Independent Director



Nawshir Mirza
Independent Director



Rajani Kesari
Independent Director



S. B. (Ravi) Pandit
Independent Director



Dr. Valentin A.H. von Massow
Independent Director

MANAGEMENT EXECUTIVE COUNCIL



Ashish Bhandari
Managing Director and CEO



B.C. Mahesh
Executive Vice President
and Group Head - Power



Bill Shukla
Executive Vice President
and Group Head -
Environment Business



Hemant Mohgaonkar
Executive Vice President
and Group Head - Cooling
& Heating



Jasmeet Bhatia
Executive Vice President - HR,
IR, HSE, Administration and
Corporate Communication



Dr. Mahesh Murthy
Chief Technology Officer and
Head of Research Technology
and Innovation Centre



Pravin Karve
Chief Executive Officer -
TBWES



Prosenjit Sengupta
Executive Vice President
and Group Chief Digital
Officer



Rajendran Arunachalam
Executive Vice President and
Group Chief Financial Officer



Shekhar Kashalikar
Senior Vice President -
TBWES

CORPORATE INFORMATION

BOARD OF DIRECTORS

Meher Pudumjee

Chairperson

Pheroze Pudumjee

Non-Executive Director

M.S. Unnikrishnan

Managing Director and CEO
(Up to August 31, 2020)

Ashish Bhandari

Managing Director and CEO
(w.e.f. September 1, 2020)

Harsh Mariwala

Dr. Jairam Varadaraj

Nawshir Mirza

Rajani Kesari

S.B. (Ravi) Pandit

Dr. Valentin A.H. von Massow

EXECUTIVE COUNCIL

Ashish Bhandari

B.C. Mahesh

Bill Shukla

Hemant Mohgaonkar

Jasmeet Bhatia

Dr. Mahesh Murthy

Pravin Karve

Prosenjit Sengupta

Rajendran Arunachalam

Shekhar Kashalikar

KEY MANAGERIAL PERSONNEL

Ashish Bhandari

Managing Director and CEO

Rajendran Arunachalam

EVP and Group CFO

Kedar P. Phadke

Company Secretary and
Compliance Officer

REGISTERED OFFICE

D-13, M.I.D.C Industrial Area,
R.D. Aga Road, Chinchwad,
Pune - 411 019.
Ph.: 020-66122100/66155000
Fax: 020-66122142
Corporate Identity No.
L29299PN1980PLC022787

REGISTRAR AND SHARE TRANSFER AGENT

KFin Technologies Pvt. Ltd.
Selenium Tower B,
Plot No. 31 & 32, Gachibowli,
Financial District, Nanakramguda,
Serilingampally, Hyderabad - 500 032.
Tel: 040-67162222 / 79611000
Fax: 040-23001153
Toll free: 1800 309 4001
E-mail: einward.ris@kfintech.com
Website: www.kfintech.com

BANKERS

Union Bank of India
Bank of Baroda
Canara Bank
Citibank NA
ICICI Bank Ltd.
State Bank of India
HSBC
Kotak Mahindra Bank Ltd.

AUDITORS

SRBC & CO. LLP
Chartered Accountants
C-401, Panchshil Tech Park, Yerawada,
Pune - 411 006.
ICAI Firm Reg. No. 324982E/E300003

SUBSIDIARIES

Domestic

1. First Energy Pvt. Ltd.
2. Thermax Babcock & Wilcox Energy Solutions Pvt. Ltd.
3. Thermax Engineering Construction Company Ltd.
4. Thermax Instrumentation Ltd.
5. Thermax Onsite Energy Solutions Ltd.
6. Thermax Cooling Solutions Ltd.

CORPORATE OFFICE

Thermax House
14, Mumbai-Pune Road, Wakdevadi,
Pune - 411 003.
Ph.: 020-66051200/25542122
Fax: 020-25541226
Website: www.thermaxglobal.com

7. Thermax Sustainable Energy Solutions Ltd.
8. Enernext Pvt. Ltd.

Overseas

1. Boilerworks A/S, Denmark
2. Boilerworks Properties ApS, Denmark
3. Danstoker A/S, Denmark
4. Danstoker Poland Spółka Z Ograniczona Odpowiedzialnoscia
5. Ejendomsanpartsselskabet Industrivej Nord 13, Denmark
6. PT Thermax International, Indonesia
7. Rifox-Hans Richter GmbH Spezialarmaturen, Germany
8. Thermax Denmark ApS
9. Thermax do Brasil-Energia e Equipamentos Ltda, Brazil
10. Thermax Energy & Environment Lanka (Private) Limited, Sri Lanka
11. Thermax Energy & Environment Philippines Corporation
12. Thermax Engineering Construction FZE, Nigeria
13. Thermax Engineering Singapore Pte Ltd.
14. Thermax Europe Limited, UK
15. Thermax Inc., USA
16. Thermax International Ltd., Mauritius
17. Thermax International Tanzania Ltd.
18. Thermax Netherlands B.V.
19. Thermax Nigeria Limited
20. Thermax SDN. BHD., Malaysia
21. Thermax Senegal S.A.R.L
22. Thermax (Thailand) Ltd.