The chipmaker who came in from the cold

It is Sahasra, not Micron or Foxconn, that is poised to roll out India's first semiconductor memory chip

SOURABH LELE Bhiwadi, 31 August

ost of the 2.5-hour drive from Delhi to the Electronic Industries Association of India's manufacturing cluster in Bhiwadi. in Rajasthan's Alwar district, is on the NH48. But once you leave the highway, there is a bumpy two-lane road to test your resolve.

When you get into the campus, the first facility on the left catches the eye with its state-of-the-art symbols of modern engineering. It also has cutting-edge equipment hard at work.

The urgency is understandable. In three weeks, give or take a few days, this unit on the left will roll out India's first semiconductor memory chip, marking the country's first step into the futuristic segment. Semiconductor chips are used in anything that uses advanced electronics, be it smartphones, cars, or rockets.

Curiously, it is the unheralded Sahasra Electronics that is poised to steal the march over more fancied outfits in rolling out India's first chip.

It was not supposed to. It could have been Foxconn. But the world's largest contract electronics manufacturer said on July 10 it had withdrawn from its \$19.5 billion semiconductor joint venture with Vedanta, a conglomerate with businesses ranging from oil to metals. The Taiwan-based giant is now exploring other avenues.

It could have been the United Statesbased Micron Technology, which is setting up a semiconductor assembly and test facility in Gujarat. However, the facility is expected to become operational only

In the meantime, against the backdrop of the government's \$10 billion semiconductor programme and constantly changing headlines of global partnerships, Sahasra marches on quietly, without the backing of any major investor nor in collaboration with any global semiconductor player.

"Frankly speaking, everything is complex. A lot of automation has come in. So far, we have not signed up any technology partners. But we have a lot of well-wishers who have helped us by sharing knowledge with us," says Varun Manwani, director,

Sahasra Group. On Wednesday, Sahasra emerged as one of the four notable Indian applicants the others are Dixon Technologies, VVDN Technologies, and Optiemus Infracom to apply for the government's revised information technology hardware production-linked incentive scheme for manufacturing laptops, tablets. servers, and edge computing devices within the country.

In Bhiwadi, its greenfield facility is spread over two acres, with a built-up area of 6,000 square metres dedicated to the semiconductor assembly plant. The construction of the plant started in January 2021 and was completed in two years.

"There is still a lot of equipment coming because it is an absolutely new facility. But enough equipment is in place. We are going to start mass production in September 2023," says Manwani.

Throughout the plant, soft tones inspired by nature dominate the colour palette. The exterior of the two-storey plant has translucent glass walls separated by brown beams and columns. Through these walls, one can see faint silhouettes of the machinery and intricate processes that will soon come to life.

On the ground floor, the factory has two cleanrooms, housing equipment that can $turn\,the\,most\,advanced\,semiconductor$ wafers into IC (integrated circuit) packages or, simply, the memory and logic chips that will go into electronic devices. The chip assembly plant is capable of packaging sixto 12-inch wafers. The top floor has office space for engineering teams and cabins for the directors.

The facility can produce millions of chips, but that will be in stages. Currently, the headcount is 17 people. It will take six to 12 months to scale up manufacturing. The company is in talks with at least 25 customers, which will be buying the final product, for different product categories. In the first financial year, the targeted revenue is ₹20 crore to ₹25 crore.

In the first phase, the focus is on memory chip products. The facility will roll out what is known as "standard packaging", and supply products like micro SD cards. small outline packages, and small outline integrated circuit packages, with pin counts within these packages. The trial production

was in March this year. Founded in 2000 by Amrit Manwani, a Indian Institute of Technology Kanpur graduate, who is now the chairman. Sahasra has four manufacturing plants in



The chip assembly plant at Sahasra's factory in Bhiwadi is capable of packaging six- to 12-inch wafers

the National Capital Region (NCR) and one in Rwanda, Africa.

From its early days, it focused on fabrication of printed circuit boards, wire harnesses, plastic injection moulding, as well as electronics manufacturing services for original equipment manufacturers. It ventured into the solid-state memory business in 2016, with a reference from "one of the very close well-wishers" in Taiwan, and started manufacturing memory products for Hewlett Packard.

We had a contract with PNY Taiwan. Through this brand licence, we manufactured for HP. Subsequently, we started manufacturing for Sony. Unfortunately, Sony quit the memory business worldwide in 2018,' Manwani says.

"THE EASIER PART IS DONE.

THE MORE DIFFICULT

AND RISKIER PART

STARTS NOW

MANWANI

Director,

Sahasra Group

The idea of backward integration into

packaging of memory ICs came up while doing business with Sony.

"We realised there was a huge gap in technology, knowledge, people, everything. That's how we came to OSAT," savs Manwani.

OSAT is short for outsourced semiconductor assembly and test. The semiconductor ecosystem also has fab plants, ATMP (assembly, testing, marking and packaging) facilities, and chip design facilities.

In July 2020. Sahasra Semiconductors started as a new company. The promoters of the company — the Manwani family and the Desai family have made the entire investment with

credit from HDFC Bank and CitiBank. In Phase 1, the total investment is ₹160 crore (\$20 million), of which ₹120 crore has already been committed for the plant building and machinery. The rest is for the remaining equipment. In Phase 2, the planned investment is \$30 million.

The company has applied for incentives under the Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors, which provides a financial incentive of up to 25 per cent on capital expenditure for electronics that comprise the downstream value chain of electronics products such as electronic components, semiconductor or display fabrication units, etc.

Isn't Manwani worried about competition from global biggies such as Micron and Foxconn?

"We do not take them as competition at all. As they are bigger players, they will be able to pull in the entire semiconductor ecosystem much better than what we are going to be able to pull in. Secondly, everybody coming into this space will have to come up with their niche. Globally, no company can do everything," he says.

But why the land-locked Bhiwadi? Other chipmakers are looking at better port connectivity.

Manwani says the lightweight material required for the OSAT facility makes Bhiwadi as good a location as any, with additional benefits such as proximity to Gurugram and the NCR.

"Chip as an end product is not heavy. Talking about export, it is primarily going to be by air. For distribution within the country, we are close to the Delhi-Mumbai industrial corridor and freight corridor. Similarly, the input materials — wafer, wires, films and tapes — to be imported are not heavy," he says.

What about the commute? Manwani travels to the plant every day from Jasola, in the heart of Delhi, negotiating the bump and grind. The day this correspondent visited the plant, there was a truck overturned near a ditch on the two-lane

stretch that begins after the highway.

"There is a different way to reach here, whereby you can bypass at least 80 per cent of these rough patches. Unfortunately, that is a much longer way of coming here,"

You do not get to be the first to a milestone by taking the longer road.

CHIPPING

PHOTO: SOURABH LELE

Global memory has announced a \$2.75 billion project in Gujarat

Foxconn called off its venture with Vedanta, but aims to build chip fabs separately

UAE's Next Orbit Ventures and Israel's Tower Semiconductor have a consortium for a fab unit

Singapore-based IGSS Ventures plans to build a \$3.5 billion semiconductor hi-tech park

US semiconductor firm GlobalFoundries for a local partner

WHERE IT COMES FROM

Founded in 2000, named Sahasra (Hindi for millennium) due to its year of foundation

In early days, focused on fabrication of printed circuit boards and electronics manufacturing services

▶ Ventured into solid-state memory business in 2016; manufactured memory products for HP

ABC INDIA LIMITED

CIN: L63011WB1972PLC217415

Regd. Office: P-10, New C.I.T. Road, Kolkata - 700 073

Corporate Office: 40/8, Ballygunge Circular Road, Kolkata – 700 019

Phone: (033) 22371745, 24614156, Fax: (033) 24614193

Email: vrmd@abcindia.com; Website: www.abcindia.com

NOTICE TO MEMBERS

NOTICE is hereby given that 50th Annual General Meeting (AGM) of the members of the Company for the financial

year 2022-23 will be held through Video Conferencing (VC) or other Audio Visual Means (OAVM) on **Monday, the 25th day of September, 2023 at 3:00 P.M. (IST)** pursuant to circular dated 5th May, 2022, January 13, 2021 read

with circulars dated April 8, 2020, April 13, 2020 and May 5, 2020 (collectively referred to as "MCA Circulars") and the Securities and Exchange Board of India (LODR) Regulations, 2015 ("SEBI Listing Regulations") to transact

the business as set forth in the Notice convening the AGM. The VC/OAVM facility is being availed by the Company

Members can attend and participate in the AGM through the VC/OAVM ONLY. The detailed instructions with respect

to such participations have been provided in the Notice convening the Meeting. Attendance of the members through

Idea of backward integration into packaging of memory ICs came up while doing business with Sony

Sahasra Semiconductors ▶ Promoters have made the entire investment,

with credit from HDFC Bank

In July 2020, incorporated

▶ Phase 1 total investment:

and CitiBank

\$20 mn; Phase 2: \$30 mn

Xsidbi SMALL INDUSTRIES DEVELOPMENT BANK OF INDIA **GeM TENDER NOTICE** SIDBI invites eligible bidders to submit their bids in

GeM Portal for:

Support

For detailed bid document, please visit GeM Portal (gem.gov.in) or our website at www.sidbi.in Addendum/Corrigendum, if any, will be published in the above-mentioned websites only.

TVS MOTOR COMPANY LIMITED

red Office : "Chaitanya" No.12 Khader Nawaz Khan Road, Nungambakkam, Chennai 600 006 CIN : L35921TN1992PLC022845 ∫ Website : tvsmotor.com

NOTICE OF LOSS OF SHARE CERTIFICATES NOTICE is here given that the following share certificate(s) issued by the compan are stated to have been lost or misplaced or stolen and the registered holders/th legal heirs of the registered holders thereof have applied to the company for issue of

Folio	Share	No. of	Distinctive	Name of
No.	Cert. Nos.	Shares	Nos.	Registered holder
R3417	4822	500	4638651- 4639150	RAMESH
	19817	500	242441963 - 242442462	RATANLAL JAKHOTIA
The public are hereby warned against purchasing or dealing in any way, with the				

above share certificates. Any person(s) who has/have any claim(s) in respect of the said share certificates should lodge such claim(s) with the company at its registers office at the address given above within 15 days of publication of this notice, aft which no claim will be entertained and the company will proceed to issue dupl hare certificates For TVS Motor Company Limite Place : Chennai

Website Maintenance, Development and

VC/OAVM will be counted for the purpose of reckoning the quorum under section 103 of the Companies Act, 2013

from Central Depository Services (India) Ltd. (CDSL)

The Notice of 50th AGM, Annual Report and other reports/documents (AGM documents) have been sent through electronic mode only to such Members whose e-mail addresses are registered with their respective Depository Participants (DPs) or the Company's Registrar and Share Transfer Agent (RTA) viz. M/s. MCS Share Transfer

The AGM related documents would be made available on the websites of the Company at www.abcindia.com, the website of CDSL at www.cdslindia.com, the Stock Exchanges viz., Bombay Stock Exchange of India Limited at www.bseindia.com and CSE Ltd. at www.cseindia.com.

Pursuant to Regulation 44 of the SEBI Listing Regulations and Section 108 of the Companies Act, 2013 and the Rules framed thereunder, the Company is providing e-voting facilities to the Members of the Company holding shares either in physical or in dematerialized form as on the **cut-off date i.e.** 18th September, 2023

to cast their vote electronically through e-voting services provided by Central Depository Services (India) Ltd. (CDSL) on all resolutions set out in the Notice of the AGM. Please also note that: a. The Remote e-voting period shall commence on Friday, 22nd September, 2023 at 9:00 A.M. (IST) and

shall end on Sunday, 24th September, 2023 at 5:00 P.M. (IST). The remote e-voting module shall be disabled thereafter and voting through electronic mode shall not be allowed beyond the said date and time b. Cut-off date: Monday, 18th September, 2023.

c. Pursuant to section 91 of the Companies Act, 2013 and Regulation 42 of SEBI (LODR) Regulations, 2015, the Register of Members shall be closed from Tuesday, 19th September, 2023 to Monday, 25th September, 2023 (both days inclusive) for the purpose of the AGM & payment of Dividend d. Any person, who acquires shares of the Company and become member of the Company after dispatch of

the notice and holding shares as on the cut-off date i.e. 18th September, 2023, may obtain the login-ID and sequence number by sending a request to RTA at mcssta@rediffmail.com or to the Company at vrmd@abcindia.com. However, if the member is already registered with CDSL for e-voting then such member can use

e. Members attending the AGM who has not casted their votes by remote e-voting shall be eligible to cast their vote through e-voting during the AGM. Members who have casted their votes through remote e-voting shall

be eligible to attend the AGM, however, shall not be eligible to vote again at the meeting. In case you have any queries or issues regarding e-voting, you may refer the Frequently Asked Questions

("FAQs") and e-voting manual available at www.evotingindia.com under help section or write an email to helpdesk.evoting@cdslindia.com or contact them at 022-23058542. Manner of registering/ updating e-mail addresses:

his/her existing User ID and password for casting his/her vote.

· Members holding shares in dematerialized mode and who have not registered their e-mail addresses are requested to register their e-mail addresses and mobile numbers with their respective DPs to enable the Company/RTA to mail the Annual Report in future. Members holdings shares in physical mode who have not updated their e-mail addresses with the Company

RTA are requested to update their e-mail addresses by writing to the Company/ RTA at vrmd@abcindia.com or at mcssta@rediffmail.com along with the scanned signed copy of the request letter providing their e-mail address, mobile number along with self-attested copies of PAN, proof of address and share certificate(s) by to enable the Company/ RTA to mail the Annual Report in future.

Post updation of email ids, Members holding shares as on the cut-off date may request Company/ RTA for a copy of the Annual Report for the F.Y. 2022-23.

Manner of casting vote through e-voting:

vrmd@abcindia.com

Place: Kolkata

Date: 31.08.2023

Members whose name is recorded in the register of members or the register of beneficial owners maintained by the depositories as on the cut-off date only will be provided with the facility to cast their votes electronically, through the e-voting services provided by Central Depository (India) Services Ltd. (CDSL) on all resolutions set forth in the Notice through remote e-voting as well as e-voting during the AGM

e-mail addresses registered for this purpose in the manner prescribed above.

The detailed instructions to the Members for participating in the 50th AGM through VC/OAVM including the

The login credentials for casting the votes through e-voting would be provided to the Members at their

manner of participation and voting would be set out in the Notice of AGM Shareholders may please note that the Board of Directors of the Company at their meeting held on 26th May, 2023 has recommended Dividend of 5% i.e.₹ 0.50 per equity shares (face value ₹ 10/- each). The dividend subject to the approval of Members, will be paid to the Members whose names appear in the Register of Members, as on the cut-off date i.e. Monday, 18th September, 2023 through various online transfer mechanisms to the shareholders who have updated their bank details.

For the Shareholders who have not updated their bank account details, dividend warrants/ demand drafts/ cheques as permitted under the law will be sent to the registered addresses once the postal facility is normalised The Company has appointed Mr. Santosh Kumar Tibrewalla, Practicing Company Secretary as Scrutinizer to scrutinize both the electronic voting process and voting process at the venue of AGM in fair and transparent

Manner of registering mandate of receiving Dividend electronically: Members holding shares in physical form and whose bank account details are not yet registered with the Company can provide a request letter informing the bank account number, name of bank, branch along with self- attested copies of PAN, proof of $address, cancelled \ cheque \ and \ share \ certificate(s) \ to \ the \ Company \ at \ \underline{vrmd@abcindia.com} \ or \ to \ the \ RTA \ at$ mcssta@rediffmail.com to enable direct credit of dividend into their bank accounts in a secured manner.

For shares held in dematerialized form, Members are required to update the bank account particulars with their

10. In view of the amendment to the Income Tax Act, 1961 vide the Finance Act, 2020 making the dividends taxable in the hands of the shareholders effective from 1st April 2020, Members are requested to update the details of their residential status, PAN & category as per Income Tax Act, 1961 with the Company at vrmd@abcindia.com

in case of shares held in physical form and with your DP in case of shares held in demat form 11. In case of any query or grievances connected to e-voting, please contact Mr. Moloy Biswas, Regional Managel $(CDSL), Kolkata\ at\ Phone\ (033)\ 2282-1376\ or\ e-mail: \underline{helpdesk.evoting@cdslindia.com}\ or\ \underline{moloyb@cdslindia.com}\ or\ \underline{mo$ For any clarification regarding the AGM documents or participation in the AGM, you may contact us at

> For ABC India Limited Saniav Agarwal

> > Company Secretary

he remote e-Voting module shall be disabled by the CDSL for voting thereafter and members will not e allowed to vote electronically beyond the said date and time. . The voting right of the members shall be in proportion to their share of the paid-up share capital of ne Company as on cut-off date Friday, 15th September, 2023. The facility of remote e-Voting shall

roting during the AGM. 8. Members who have cast their vote by remote e-Voting prior to the Meeting may also attend the neeting electronically but shall not be entitled to vote again. I. In case of any query, you may refer the frequently asked question (FAQs) for shareholders and e-roting manual for shareholders available at www. evotingindia.com under help section or write an mail to helpdeskevoting@cdslindia.com or contact at toll free no. 1800 22 55 33.

Numbers who have not yet registered or updated their email addresses are requested to register their mail addresses with their depository participants. For members holding shares in physical mode, lease provide necessary details like Folio No, name of shareholder(s) by email to

For Sangam (India) Limited

Place: Bhilwara

Date: 31st August, 2023

(Anil Kumar Jain), Company Secretary FCS - 7842

SANGAM (INDIA) LIMITED

MOTICE OF THE 37th ANNUAL GENERAL MEETING, E-VOTING AND BOOK CLOSURE
Notice is hereby given that the 37th Annual General Meeting ("AGM") of members of the Company
will be held on Friday, 22nd September, 2023 at 4.00 p.m. IST through Video Conferencing
("CC")(Other Audio-Visual Means ("OAVM") to transact the businesses as set out in the Notice of
AGM, in accordance with the General Circular issued by the Ministry of Corporate Affairs dated April
08, 2020, April 13, 2020, June 15, 2020, September 29, 2020, December 31, 2020, June 23, 2021,
December 8, 2021, May 5, 2022 and December 28, 2022 ("MCA Circulars") and Securities and
Exchange Board of India ("SEBI) dated May 12, 2020, Junuary 15, 2021, May 13, 2022, June 3,
2022 and January 5, 2023 the Company has sent the Notice of 37th AGM along with the Annual
Report 2022-23 on Thursday, 31st August, 2023, through electronic mode only to those members
whose email addresses are registered with the Company or Registrar & Share Transfer Agent
("RTA") or Depositories. The requirement of sending physical copies of Notice of AGM and Annual
Report has been dispensed with vide MCA/SEBI Circulars. The Annual Report 2022-23 of the
Company and Notice of 37th AGM alone is available on the website of the Company and
Www.nseindia.com.

Dividend NOTICE OF THE 37th ANNUAL GENERAL MEETING, E-VOTING AND BOOK CLOSURE

Dividend Members are requested to note that a dividend of Re 2!- per equity share i.e. 20% has been recommended by the Board of Directors for the financial year ended on March 31, 2023, subject to approval of the members at the ensuing AGM. Members are also requested to note that pursuant to provisions of the Finance Act, 2020, the dividend income will be taxable in the hands of members w.e.f. April 01, 2020 and the Company is required to deduct tax at source ("TDS") for dividend paid to the members at the prescribed rate. Vecessary information in this regard is provided in the Notice convening the 37th AGM of the Company.

Members holding shares in physical form and who are yet to register/update their bank account details for electronic receipt of dividend amount directly into their bank account, are requested to get the same registered by sending a request letter duly signed by the registered member(s) along with self-attested PAN, Aadhar Card, Cancelled Cheque/copy of passbook to RTA of the Company at their embers holding shares in dematerialized form are requested to get their bank account detail

egistered/updated with their respective DP, with whom they maintain their demat account.
lemote e-Voting in complaince with the section 108 of the Companies Act, 2013 ("the Act") read with Rule 20 of the Companies (Management and Administration) Rules, 2014, as amended from time to time, the Secretarial Standard on General Meetings ("SS-2") issued by the Institute of Company Secretarias of india and Regulation 44 of the SEBI (Listing Obligations and Disclosure Requirements) Regulation, 2015, the Company is providing to its Members the facility of remote e-voting before as well as during he AGM in respect of the business to be transacted at the AGM and for this purpose, the Company has appointed CDSL for facilitating voting through electronic means. The detailed instructions for remote e-Voting are given in the Notice of 37th AGM. Members are requested to note the following:

1. The remote e-Voting facility would be available during the following period:

Remote e-Voting Start Date & Time | Monday, the 18th September, 2023 (9.00 a.m. IST) Remote e-Voting End Date & Time | Thursday, the 21st September, 2023 (5.00 p.m. IST)

lso be made available within 30 minutes after the conclusion of AGM, who have not already cas eir vote by remote e-Voting, shall be able to exercise their right. A person whose name is recorded the rights of the stands, show the dute to exercise their right. A person whose name is recorded it ergister of members as on the Cut-off date only shall be entitled to avail the facility of remote entitled to avail the facility of remote entitled to avail the facility of remote entitled during the AGM.

enial to helpheskevolting decisional action of contract at toil reel in 1.600 2.25 35.3.

5. All grievances connected with the facility for voting by electronic means may be addressed to Mr. Rakesh Dalvi, Sr. Manager, (CDSL.) Central Depository Services (India) Limited, A Wing, 25th Floor, Marathon Futurex, Mafatlal Mill Compounds, N M Joshi Marg, Lower Parel (East), Mumbai - 400013 or send an email to helpdesk, evoting@cdslindia.com or call toil free no. 1800 22 55 33.

6. CS Brij Kishore Sharma, Practicing Company Secretary has been appointed as Scrutinizer for conducting the voting process in a fair and transparent manner.

Notice is further given that pursuant to Section 91 of the Companies Act, 2013 ("Act") read with relevant rules made there under and Regulation 42 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, the Register of Members and the Share Transfer Books of the Company will remain closed from Saturday, the 16th September, 2023 to Friday, the 22nd September, 2023 (both days inclusive) for the purpose of Annual General Meeting and determination of payment of dividend, if approved at the said AGM.

By order of the board