

# SPECIAL FEATURE:

# PROJECTS SURVEY



COUNTRY	COMPANY MILL	INVESTMENT	PM NO	NEW / REBUILD	START-UP DATE	CAPACITY CHANGE (tonnes/yr)	PM TRIM (m)		PM SPEED (m/min)	SUPPLIER	COMMENTS
Africa	Confidential	Confidential	NA	New	2023	NA	NA		1,800	Toscotec	AHEAD 1.8 machine (TT NextPress shoe press)
Argentina	Celupaper	Buenos Aires	5	New	2023	23,400	2.75		1,300	Toscotec	MODULO-PLUS machine
Bangladesh	City Group	Hoshendi	NA	New	2023	40,000	2.8		2,000	Toscotec	AHEAD 2.2 machine (TT NextPress shoe press)
Brazil	Araucária	NA	2	New	2024	26,000	2.76		1,900	Hergen	Crescent Former machine EVO 16
Brazil	Bracell Cellulose	Lençóis Paulista, São Paulo	4	New	2024	NA	5.68		2,000	Andritz	PrimeLine™ W 2000 (ShoePress)
Brazil	Bracell Cellulose	Lençóis Paulista, São Paulo	3	New	2024	NA	5.68		2,000	Andritz	PrimeLine™ W 2000 (ShoePress)
Brazil	Bracell Cellulose	Lençóis Paulista, São Paulo	2	New	2024	NA	5.68		2,000	Andritz	PrimeLine™ W 2000 (ShoePress)
Brazil	Bracell Cellulose	Lençóis Paulista, São Paulo	1	New	2024	NA	5.68		2,000	Andritz	PrimeLine™ W 2000 (ShoePress)
Brazil	Inpel	NA	2	New	2022	20,000.0	2.76		1,200	Hergen	Crescent Former machine Smart 12
Brazil	Mister Paper	NA	2	New	2024	20,000.0	2.36		1,300	Hergen	Crescent Former machine Smart 12 Eco
China	Asia Symbol	Guangdong	1	New	2022	25,000	2.8		1,600	Baotuo	Crescent Former TM
China	Asia Symbol	Guangdong	2	New	2022	25,000	2.8		1,600	Baotuo	Crescent Former TM
China	Asia Symbol	Guangdong	3	New	2022	25,000	2.8		1,600	Baotuo	Crescent Former TM
China	Asia Symbol	Guangdong	4	New	2022	25,000	2.8		1,600	Baotuo	Crescent Former TM
China	Asia Symbol	Guangdong	13	New	2022	NA	5.65		1,900	Andritz	PrimeLine™ W 2000 (ShoePress)
China	Asia Symbol	Shandong	34	New	2023	NA	5.65		1,900	Andritz	PrimeLine™ W 2000 (ShoePress)
China	Asia Symbol	Shandong	33	New	2023	NA	5.65		1,900	Andritz	PrimeLine™ W 2000 (ShoePress)
China	Confidential	Confidential	NA	New	2023	34,300	3.5		1,600	Valmet	IntelliTissue 1600
China	Guangxi Longpai Co.	Guangxi	1	New	2023	20,000	2.8		1,500	Baotuo	Crescent Former TM
China	Guangxi Longpai Co.	Guangxi	2	New	2023	20,000	2.8		1,500	Baotuo	Crescent Former TM
China	Guangxi Longpai Co.	Guangxi	3	New	2023	20,000	2.8		800	Baotuo	TAD
China	Hengan Group	Fujian	NA	New	2023	40,000	3.65		1,500	Toscotec	TADVISION machine (TAD)
China	Hengan Group	Hunan	1	New	2022	30,000	3.6		1,800	Baotuo	Crescent Former TM
China	Hengan Group	Hubei	NA	New	2023	40,000	3.65		1,500	Toscotec	TADVISION machine (TAD)
China	Hengan Group	Shandong	2	New	2022	30,000	2.8		1,800	Baotuo	Crescent Former TM
China	Hengan Group	Yunfu	30	New	2023	NA	3.65		1,700	Andritz	PrimeLineCOMPACT M 1600
China	Hengan Group	Yunfu	29	New	2023	NA	3.65		1,700	Andritz	PrimeLineCOMPACT M 1600
China	Hengan Group	Yunfu	28	New	2023	NA	3.65		1,700	Andritz	PrimeLineCOMPACT M 1600
China	Hengan Group	Yunfu	27	New	2023	NA	3.65		1,700	Andritz	PrimeLineCOMPACT M 1600
China	Lee & Man Group	Guangxi	1	New	2022	20,000	2.8		1,500	Baotuo	Crescent Former TM

The combination of life after the outbreak of Covid-19, the global energy crisis, and ongoing fluctuations across trades and raw materials, has meant that the last 12 months have been yet another extraordinary year for the global tissue market.

Yet while the impact on day-to-day life, pressures on individual tissue sectors, and the subsequent price and cost-of-living crisis are still unknown in the longer-term, the number of tissue projects in this year's Projects Survey is heartening, providing some certainty by showcasing the resilience and innovation of the industry. The annual Projects Survey is an accumulation of tissue capacity data collected across the global industry during this and previous years by TWM. Significant intel is gained from TWM's six annual Country Reports which in 2022 included in-depth interviews with tissue mills in Italy, Mexico, Poland and Romania, Thailand, Turkey, and France. Wide ranging news coverage throughout 2022 and into 2023 has also reported on the latest tissue machinery investments from across every continent. In many cases information and investment strategy have come from leading executives themselves.

While the survey represents a detailed snapshot of production strategies in all the major tissue regions, as always caution must be considered with the survey's findings due in large part to its sheer scope. The figures included here are based on the best information provided, and this has included extensive research into the global tissue industry over the past few years, as well as a reliance on reliable responses from the many companies contacted to detail their present and future developments. With that in mind, this year's annual Projects Survey notes another healthy figure: 100 tissue projects are listed as being added, ordered or in final planning stages during 2022, 2023, and 2024. This compares to the 157 tissue projects listed during 2021, 2022, and 2023, and the 146 tissue machine projects that were expected to come on stream or had already started-up in 2020, 2021 and 2022. In 2019, the survey noted 101 projects.

As is often the case, many of last years predicted start-ups have been delayed and are now planned for 2023, and some of the 'new' capacity announced this year in fact includes some of last year's estimate. Additionally, and understandably, some companies declined to comment on their projects at this time. There are also a substantial number of confidential projects.

COUNTRY	COMPANY MILL	INVESTMENT	PM NO	NEW / REBUILD	START-UP DATE	CAPACITY CHANGE (tonnes/yr)	PM TRIM (m)		PM SPEED (m/min)	SUPPLIER	COMMENTS
China	Lee & Man Group	Guangxi	2	New	2022	20,000	2.8		1,500	Baotuo	Crescent Former TM
China	Lee & Man Group	Guangxi	3	New	2022	20,000	2.8		1,500	Baotuo	Crescent Former TM
China	Lee & Man Group	Guangxi	4	New	2022	20,000	2.8		1,500	Baotuo	Crescent Former TM
China	Lee & Man Group	Guangxi	5	New	2022	20,000	2.8		1,300	Baotuo	Crescent Former TM
China	Lee & Man Group	Guangxi	6	New	2022	20,000	2.8		600	Baotuo	Crescent Former TM
China	Liansheng Pulp & Paper	Zhangzhou	2	New	2023	NA	5.65		2,000	Andritz	PrimeLineTM W 2000
China	Liansheng Pulp & Paper	Zhangzhou	1	New	2023	NA	5.65		2,000	Andritz	PrimeLineTM W 2000
China	Liaoning Yusen	Tai'an	3	New	2023	34,300	3.5		1,600	Valmet	IntelliTissue 1600
China	Liaoning Yusen	Tai'an	4	New	2023	34,300	3.5		1,600	Valmet	IntelliTissue 1600
China	Liaoning Yusen	Tai'an	5	New	2024	34,300	3.5		1,600	Valmet	IntelliTissue 1600
China	Liaoning Yusen	Tai'an	6	New	2024	34,300	3.5		1,600	Valmet	IntelliTissue 1600
China	Libang Group	Hubei	1	New	2022	20,000	2.8		1,500	Baotuo	Crescent Former TM
China	Libang Group	Hubei	2	New	2022	20,000	2.8		1,500	Baotuo	Crescent Former TM
China	Libang Group	Hubei	3	New	2022	20,000	2.8		1,500	Baotuo	Crescent Former TM
China	Libang Group	Hubei	4	New	2022	20,000	2.8		1,500	Baotuo	Crescent Former TM
China	Libang Group	Hubei	5	New	2022	27,000	3.5		1,500	Baotuo	Crescent Former TM
China	Libang Group	Hubei	6	New	2022	27,000	3.5		1,500	Baotuo	Crescent Former TM
China	Sun Paper Group	Guangxi	1	New	2022	25,000	2.8		1,800	Baotuo	Crescent Former TM
China	Sun Paper Group	Guangxi	2	New	2022	25,000	2.8		1,800	Baotuo	Crescent Former TM
China	Symbol Sateri	Jiangxi	1	New	2023	25,000	2.8		1,600	Baotuo	Crescent Former TM
China	Symbol Sateri	Jiangxi	2	New	2023	25,000	2.8		1,600	Baotuo	Crescent Former TM
China	Yuen Fong Yu	Taiwan	10	New	2023	NA	3.65		1,650	Andritz	PrimeLineCOMPACT M 1600 (ShoePress)
China	Vanov Group	Sichuan	1	New	2022	25,000	2.8		1,600	Baotuo	Crescent Former TM
China	Vanov Group	Sichuan	2	New	2022	25,000	2.8		1,600	Baotuo	Crescent Former TM
China	Vanov Group	Sichuan	3	New	2022	25,000	2.8		1,600	Baotuo	Crescent Former TM
China	Vanov Group	Sichuan	4	New	2022	25,000	2.8		1,600	Baotuo	Crescent Former TM
China	Zhongshun C&S Paper Co.	Hebei	1	New	2022	30,000	3.5		1,800	Baotuo	Crescent Former TM
Colombia	GrandBay Papelera Internacional	Pereira	5	New	2024	40,000	3.6		2,200	Toscotec	AHEAD 2.2 machine (TT NextPress shoe press)
Croatia	Astrabel	Belišće	1	New	2023	NA	2.85		1,300	Andritz	PrimeLineCOMPACT S 1300
Confidential	Confidential	Confidential	NA	New	2022	50,000	3.46		2,000	Toscotec	AHEAD 2.2 machine (TT NextPress shoe press)
Confidential	Confidential	Confidential	NA	New	2024	65,000	5.6		2,000	Valmet	Advantage DCT 200HS
Confidential	Confidential	Confidential	NA	New	2023	65,000	3.6		2,000	Valmet	Advantage QRT 135
Confidential	Confidential	Confidential	NA	New	2023	65,000	3.6		2,000	Valmet	Advantage QRT 135
Confidential	Confidential	Confidential	NA	New	2023	75,000	5.6		2,000	Valmet	Advantage ThruAir
Confidential	Confidential	Confidential	NA	New	2023	35,000	3.6		2,000	Valmet	Advantage ThruAir I35
Confidential	Confidential	Confidential	NA	New	2023	38,000	3.5		2,000	Valmet	Advantage eTAD 135
Confidential	Confidential	Confidential	NA	New	2023	38,000	2.5		2,000	Valmet	Advantage eTAD 135
Confidential	Confidential	Confidential	NA	New	2023	38,000	2.5		2,000	Valmet	Advantage eTAD 135

## Notable points to include

Environmental projects have been accelerated. Increasing in the past 12 months almost more than any other are the number of tissue projects announcing ambitious sustainability targets. One positive, at least, to come from the ongoing energy crisis.

Some 46 projects are in China, again the largest number of start-ups in any country. However, the figure is substantially lower than last year's survey that expected 80 tissue machines to come on stream. This slowdown could be a result of ongoing overcapacity in the country. It is also important to note there are numerous other small confidential start-ups in China not listed here.

The Brazilian tissue market continues to go from strength-to-strength. While last year's survey noted just two tissue projects expected to come on stream, this year notes seven, six of which are expected to start production in 2024, and all of which are supplied by Andritz or Hergen.

Across the Middle East, one confidential project is also expected to start up, and Saudi Arabia has three new lines expected to come on stream during 2023 and 2024. Whilst last year Turkey looked robust with six large tissue machines coming on stream in 2021, or expected to in 2022 or 2023, this year just two projects are expected to start-up.

In Indonesia, Asia Pulp & Paper will be starting up three Valmet-supplied lines, whilst India's Gayatrishakti Tissue is starting up a Toscotec TM in 2024. Across Africa, one confidential tissue machine expected to come on stream in 2023, and Ghana also has one project in the pipeline.

During 2022, there have also been several further price hike announcements made. Effective on 21 March, the Navigator Company applied a 20% energy, logistics and commodities surcharge on the sales price of its tissue products to offset what it said was the significant raising of its input costs. At the time, it said the move was a result of "extreme uncertainty, with Navigator being exposed direct and indirectly to energy price volatility, significantly affecting its profitability".

In November, Essity implemented "significant price increases," and said that further increases will also be carried out: "We raised prices for our leading hygiene and health solutions by an average of 14.5% compared to the same period a year ago at the same time as we reported higher volumes in all business areas. Our price increases are offsetting the high-cost inflation with a delay of approximately two quarters," it said.

With the long-awaited opening-up of the global AfH market seemingly in full bloom, and an unprecedented boost to the At-Home market that seems set to stay, last year's conclusion that the central theme is "emphatically one of expansion" looks set to stay.

COUNTRY	COMPANY MILL	INVESTMENT	PM NO	NEW / REBUILD	START-UP DATE	CAPACITY CHANGE (tonnes/yr)	PM TRIM (m)	PM SPEED (m/min)	SUPPLIER	COMMENTS
Confidential	Confidential	Confidential	NA	New	2023	65,000	5.6	2,200	Valmet	Advantage DCT 200TS
Confidential	Confidential	Confidential	NA	New	2023	35,000	3.5	2,000	Valmet	Advantage DCT 135HS
Confidential	Confidential	Confidential	NA	New	2024	34,200	2.75	1,800	Valmet	IntelliTissue 1800
El Salvador	Alas Doradas	San Salvador	NA	New	2023	35,000	2.8	2,000	Valmet	Advantage DCT 100HS
EMEA	Confidential	Confidential	NA	New	2024	70,000	5.6	2,200	Valmet	Advantage DCT 200TS
France	MP hygiène	Annonay	2	New	2024	38,000	2.8	2,200	Toscotec	AHEAD 2.2 machine (TT NextPress shoe press)
Ghana	Triton	Triton	1	New	2023	23,800	2.75	1,600	Valmet	IntelliTissue 1600
Guatemala	GrandBay Papelera Internacional	Rio Hondo Zacapa	7	New	2023	70,000	5.5	2,200	Toscotec	AHEAD 2.2L machine (TT NextPress shoe press)
Hungary	Vajda Papír	Dunaföldvár	4	New	2022	80,000	5.6	2,200	Toscotec	AHEAD 2.2L machine (TT NextPress shoe press)
India	Gayatrishakti Tissue	Vapi, Gujarat	1	New	2024	35,000	2.85	2,000	Toscotec	AHEAD 1.8 machine (TT NextPress shoe press)
Indonesia	Asia Pulp & Paper	APP OKI	2	New	2023	41,650	3.7	1,700	Valmet	IntelliTissue 1600
Indonesia	Asia Pulp & Paper	APP OKI	3	New	2023	41,650	3.7	1,700	Valmet	IntelliTissue 1600
Indonesia	Asia Pulp & Paper	APP OKI	4	New	2023	41,650	3.7	1,700	Valmet	IntelliTissue 1600
Japan	Confidential	Confidential	3	Rebuild	2022	15,000	2.5	1,000	Kawano Zoki	BF-15
Japan	Confidential	Confidential	3	New	2023	46,000	3.5	1,800	Kaw. Zoki/Valmet	DCT135HS
Japan	Confidential	Confidential	4	New	2023	32,000	3.6	1,300	Kawano Zoki	BF-15 Towel
Japan	Confidential	Confidential	6	New	2023	46,000	3.6	1,800	Kaw. Zoki/Valmet	DCT135HS
Latin America	Confidential	Confidential	NA	New	2023	30,000	2.8	1,800	Toscotec	AHEAD 1.8 machine (TT NextPress shoe press)
Mexico	Papel San Francisco	Mexicali	NA	New	2024	30,000	2.8	2,200	Valmet	Advantage DCT 100TS
Middle East	Confidential	Confidential	NA	New	2023	NA	NA	1,500	Toscotec	AHEAD 1.5 machine
Oceania	Confidential	Confidential	NA	Major Rebuild	2024	NA	NA	NA	Toscotec	NA
Poland	Jack-Pol	Jack-Pol	2	New	2023	27,600	2.85	1,600	Valmet	IntelliTissue 1600
Romania	MG TEC Industry	Dej	2	New	2022	MA	2.85	1,900	Andritz	PrimeLineCOMPACT V (Steel Yankee)
Saudi Arabia	MEPCO	Jeddah	4	New	2023	65,000	NA	2,200	Toscotec	AHEAD 2.2L machine (TT NextPress shoe press)
Saudi Arabia	Saudi Paper Group	Dammam	2	New	2023	30,000	2.85	2,100	Toscotec	AHEAD 2.2 machine (TT NextPress shoe press)
Saudi Arabia	Saudi Paper Group	Dammam	5	New	2024	65,000	5.6	2,200	Toscotec	AHEAD 2.2L machine (TT NextPress shoe press)
Sweden	Metsä Tissue	Mariestad	NA	New	2024	70,000	NA	2,200	Valmet	Advantage DCT 200TS
Turkey	Eczacıbaşı	Manisa	5	New	2023	70,000	5.6	2,200	Valmet	Advantage DCT 200TS
Turkey	Europap Tezol	Mersin	4	New	2023	40,000	2.92	2,100	Toscotec	AHEAD 2.2 machine (TT NextPress shoe press)
Vietnam	Xuan Mai Paper	Ho Chi Minh City	2	New	2024	NA	2.85	1,800	Andritz	PrimeLineCOMPACT S 1800
Vietnam	Xuong Giang	Bac Giang	12	New	2024	NA	2.85	1,300	Andritz	PrimeLineCOMPACT S 1300
USA	ST Paper	Duluth, Minnesota	2	New	2022	NA	5.65	2,000	Andritz	PrimeLineTM W 2000 (ShoePress)

100

Projects being added, ordered or in final planning stages during 2022, 2023, and 2024

157

Projects listed during 2021, 2022, and 2023

146

Projects listed during 2020, 2021 and 2022

101

Projects listed in 2019's survey

7

Brazilian tissue projects announced in this year's table.

3

Tissue projects announced in Saudi Arabia.

**CAUTION**

All aggregates taken from the survey should be treated with some caution. While all care has been taken to publish comprehensive data, it is inevitable that projects will be missing or details incomplete. Many projects have also been delayed, so start-up data used in last year's Project Survey has had to be repeated. We welcome your help to ensure as comprehensive a survey as possible at the end of 2023.