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med originalet intygas:

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STEFAN WALLRAGEL

20240806032O4

Styrelsen och verkställande direktören för

VWR International AB

Org nr 556124-8153

får härmed avge

Årsredovisning

för räkenskapsåret 1 januari - 31 december 2023

Penneo dokumentnyckel: LPHUY-ZH1F-BAHZ3-4LW27-18DCD-JVK2U

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Undertecknad styrelseledamot intygar härmed att en med detta exemplar likalydande resultat- och balansräkning fastställts på ordinarie bolagsstämma 26 juni 2024. Stämman beslöt att godkänna styrelsens förslag till användning av det uppkomna resultatet.

26 juni 2024

STEFAN WALLRAGEL

20240806603205

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Förvaltningsberättelse

Allmänt om verksamheten

VWR International AB (VWR SE) säljer och marknadsför laboratorieprodukter från världsledande leverantörer runt om i världen till kunder i Norden.

VWR har länge varit en stor global oberoende och ledande leverantör av produkt- och servicelösningar till laboratorie- och produktionskunder inom läkemedels-, bioteknik-, industri-, utbildnings-, myndighets- och hälsovårdssektorn.

VWR SE fokuserar på fyra huvudsegment: bioteknik och läkemedel, universitet och statliga myndigheter, hälsovård samt övrig industri. Kunderna finns främst inom bioteknik, läkemedels-, livsmedels- och elektronikindustri, kemisk industri samt sjukhus, universitet och övriga skolor.

Syftet med organisationen är att erbjuda kunderna ett optimalt och segmentsanpassat erbjudande gällande produkter service och tjänster för en bättre marknadsbearbetning.

Företagets breda produktsortiment omfattar kemikalier, glas- och plastutensilier, apparater, instrument och laboratorieinredningar. Genom att erbjuda vår gedigna kompetens inom supply chain och logistik samt inom våra servicetjänster och individuella lösningar, kan kunderna helt fokusera på sina egna expertområden och därigenom arbeta med maximal effektivitet.

Det svenska huvudkontoret och bolagets säte ligger i Stockholm, där även merparten av försäljningsorganisationen finns. Regionkontor finns i Göteborg, Lund och Umeå. I Orebro ligger företagets distributionscenter, som sköter leveranserna till kunderna i Norden.

Marknaderna i Norge, Danmark och Finland bearbetas genom helägda dotterbolag i respektive land.

VWR är medvetna om att det ligger i företagets, våra medarbetares, våra leverantörers, våra kunders och vårt samhälles bästa att utveckla verksamhetspraxis baserad på principer för hållbar utveckling och med det öka företagets värde. Vi stödjer även våra kunders hållbarhetsinitiativ och vi hjälper dem att nå sina hållbarhetsmål.

VWR SE är certifierat inom kvalitet, miljö och arbetsmiljö enligt standarder för ISO 9001, ISO 14001, OHSAS 18001 samt ISO 17025 för vågkalibrering.

VWR Sveriges hållbarhetsrapport har upprättats i linje med GRI, i ett separat dokument som finns tillgängligt på VWR Sveriges hemsida.

VWR jobbar kontinuerligt med att utveckla våra policydokument så att de återspeglar nya prioriteringar. Vi utbildar våra medarbetare i linje med dessa policydokument för att säkerställa att vi agerar med integritet och främjar ansvarsfullt företagande.

VWR ska vara en attraktiv arbetsgivare som stödjer och främjar mångfald samt en inkluderande affärskultur. Företagskulturen bygger på individuell frihet som gör det möjligt för de anställda att ta ett stort personligt ansvar och därigenom bidra till företagets framgång.

VWR SE är rankat enligt Soliditets kreditvärderingssystem med AAA som är den högsta nivån sedan 2002.

Penneo dokumentnyckel: LPHU-Y27H1-BAHZ3-4LW2Z-ISDCD-JVK2U

20240806033206

VWR International AB
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Utveckling av företagets verksamhet, resultat och ställning

Belopp i TSEK

Ekonomisk översikt	*2023*	*2022*	*2021*	*2020*	*2019*
Nettoomsättning	1,042,576	1,048,312	980,001	928,747	877,698
Rörelsemarginal %	4.6%	5.2%	11.0%	9.8%	9.6%
Balansomslutning	574,554	683,402	619,987	554,836	625,439
Avkastning på sysselsatt kapital %					
Avkastning på eget kapital %	39.1%	69.4%	67.1%	52.2%	43.3%
Soliditet %	53.1%	63.8%	66.9%	71.0%	71.9%

Definitioner: se not 25

VWR:s totala nettoomsättning minskade med 0,55 % 2023 till 1042 miljoner kronor. Den svenska marknadens omsättning var 770 miljoner svenska kronor, en liknande siffra 2022.

Alla segment är i linje med föregående år.

Förväntad framtida utveckling samt väsentliga risker och osäkerhetsfaktorer

Marknaden för laboratorieprodukter förväntas under 2024 vara stabil. VWR kommer att fortsätta utveckla sin produktportfölj med världsledande leverantörer och fortsätta med integreringen mellan Avantor/VWR.

Det bolaget kommer att ha en stark position som en vertikalt integrerad global aktör med ännu bättre förutsättningar och nya möjligheter inom tillverkning och leverantörskedjelösningar för biovetenskap, avancerad teknik och forskning.

Genom ökad säljaktivitet och fortsatt utveckling av VWR SE´s LPS Service tjänster räknar bolaget med att ta marknadsandelar och att kunna bygga ut sin ledande position i branschen.

VWR agerar på en konkurrensutsatt marknad och är exponerad för ett antal potentiella marknads- och operativa risker. Det finns detaljerade interna policys och instruktioner uppsatta i bolaget i syfte att begränsa riskernas resultatpåverkan och för att kontrollera rikstagandet i verksamheten.

Den nuvarande konflikten mellan Ryssland och Ukraina har påverkat den svenska och europeiska marknaden negativt och befinner sig för närvarande i lågkonjunktur. Hög inflation har också påverkat investeringsviljan i större utrustning, så försäljningen har påverkats negativt jämfört med tidigare år.

Användning av finansiella instrument

En stor del av bolagets varuinköp sker i Euro. VWR terminssäkrar delar av sitt valutabehov för att minska valutaexponeringen.

Tillstånds- eller anmälningspliktig verksamhet enligt miljöbalken

Bolaget är ej tillstånds- eller anmälningspliktig enligt miljöbalken. I övrigt har bolaget de tillstånd som erfordras avseende miljö och säkerhet. Översynen avseende tillståndsplikt sker löpande.

Penneo dokumentnyckel: LPHU-27H1F-8AHZ3-4LW27-1SDCD-JWK2U

20240806032O7

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Eget kapital

Belopp i TSEK	Bundet eget kapital		Fritt eget kapital	
	Aktie-kapital	*Reserv-fond*	*Bal.res inkl årets resultat*	*Summa eget kapital*
Ingående balans	65,000	13,000	357,747	435,747
Utbetald utdelning			-250,000	-250,000
Årets resultat			119,177	119,177
Utgående balans	65,000	13,000	226,924	304,927

Förslag till disposition av företaget vinst eller förlust

Styrelsen föreslår att fritt eget kapital, SEK 226,923,565 disponeras enligt följande:

att till aktieägarna utdelas 138.46 SEK per aktie, totalt	90,000,000
Balanseras i ny räkning	226,923,565
Summa	316,923,565

Det är styrelsen uppfattning att den föreslagna utdelningen inte hindrar bolaget från att fullgöra sina förpliktelser på kort och lång sikt, inte heller att fullgöra erfoderliga investeringar. Den föreslagna utdelningen kan därmed försvaras med hänsyn till vad som anförs i ABL 17 kap 3§ 2-3 st.Bolagets resultat och ställning i övrigt framgår av efterföljande resultat- och balansräkningar mednoter. Redovisningsvaluta är svenska kronor. Samtliga belopp anges i kkr om ingenting annat anges.

Penneo dokumentnyckel: LPHUY-2H1F-BAHZ3-4LM27-18OCD-JVK2U

20240806033208

VWR International AB

Org nr 556124-8153

Resultaträkning

Belopp i kSEK	*Not*	*2023*	*2022*
Nettoomsättning	1	1,042,576	1,048,312
Övriga rörelseintäkter	2	13,064	19,870
		1,055,640	1,068,182
Rörelsens kostnader			
Handelsvaror		-704,725	-706,046
Övriga externa kostnader	4	-135,083	-144,534
Personalkostnader	3	-151,222	-143,253
Av- och nedskrivningar av materiella och immateriella anläggningstillgångar		-3,360	-2,338
Övriga rörelsekostnader	5	-12,776	-17,312
Rörelseresultat		48,474	54,699
Resultat från finansiella poster			
Resultat från andelar i koncernföretag	6	77,210	257,910
Nedskrivning av aktier i koncernföretag		-101	–
Ränteintäkter och liknande resultatposter	7	3,793	-79
Räntekostnader och liknande resultatposter	8	758	1,283
Resultat efter finansiella poster		130,134	313,813
Resultat före skatt		130,134	313,813
Skatt på årets resultat	9	-10,957	-11,522
Årets resultat		119,177	302,291

Penneo dokumentnyckel: LPHUY-27H1F-BAHZ3-4LW27-19DCD-JVK2U

20240806032O9

VWR International AB
Org nr 556124-8153

Balansräkning

Belopp i kSEK	*Not*	*2023-12-31*	*2022-12-31*
TILLGÅNGAR			
Anläggningstillgångar			
Immateriella anläggningstillgångar			
Materiella anläggningstillgångar			
Inventarier, verktyg och installationer	10	12,953	8,784
		12,953	8,784
Finansiella anläggningstillgångar			
Andelar i koncernföretag	11	257,264	257,365
Uppskjuten skattefordran	12	266	428
Andra långfristiga fordringar		485	25
		258,015	257,818
Summa anläggningstillgångar		270,968	266,602
Omsättningstillgångar			
Varulager m m	13		
Derivattillgång		468	–
Färdiga varor och handelsvaror		50,459	48,854
		50,927	48,854
Kortfristiga fordringar			
Kundfordringar		144,969	141,543
Fordringar hos koncernföretag		28,693	29,761
Aktuell skattefordran		6,042	5,102
Förutbetalda kostnader och upplupna intäkter	14	9,914	3,053
		189,618	179,459
Kassa och bank			
Kassa och bank		63,041	188,487
Summa omsättningstillgångar		303,586	416,800
SUMMA TILLGÅNGAR		574,554	683,402

Penneo dokumentnyckel: LPHUY-2H1F-BAHZ3-4LW27-ISDCD-JWK2U

20240806033210

VWR International AB
Org nr 556124-8153

Balansräkning

Belopp i kSEK	*Not*	*2023-12-31*	*2022-12-31*
EGET KAPITAL OCH SKULDER	15, 16		
Eget kapital			
Bundet eget kapital			
Aktiekapital		65,000	65,000
Reservfond		13,000	13,000
		78,000	78,000
Fritt eget kapital			
Balanserat resultat		107,750	55,456
Årets resultat		119,177	302,291
		226,927	357,747
		304,927	435,747
Avsättningar			
Uppskjuten skatteskuld	12	–	–
Övriga avsättningar	17	495	1,396
		495	1,396
Långfristiga skulder	18		
Övriga skulder avseende finansiella leasingavtal		2,481	2,671
		2,481	2,671
Kortfristiga skulder			
Leverantörsskulder		57,111	69,068
Skulder till koncernföretag		105,760	114,104
Övriga skulder		19,629	21,993
Upplupna kostnader och förutbetalda intäkter	19	84,151	38,423
		266,651	243,588
SUMMA EGET KAPITAL OCH SKULDER		574,554	683,402

Penneo dokumentnyckel: LPHUY-27H1F-8AHZ3-4LW27-1SDCD-JVK2U

20240806032111

VWR International AB

Org nr 556124-8153

Kassaflödesanalys

Belopp i kSEK		2023	2022
Den löpande verksamheten			
Resultat efter finansiella poster		130,134	313,813
Justering för poster som inte ingår i kassaflödet	23	167	-6,790
		130,301	307,023
Betald inkomstskatt		-11,737	-24,920
Kassaflöde från den löpande verksamheten före förändringar av rörelsekapital		118,564	282,103
Förändringar i rörelsekapital			
Ökning(-)/Minskning(+) av varulager		-1,605	10,731
Ökning(-)/Minskning(+) av rörelsefordringar		-9,219	-8,060
Ökning(+)/Minskning(-) av rörelseskulder		22,873	59,546
Kassaflöde från den löpande verksamheten		130,613	344,320
Investeringsverksamheten			
Förvärv av materiella anläggningstillgångar		-6,934	-4,170
Förvärv av immateriella anläggningstillgångar		875	–
Kassaflöde från investeringsverksamheten		-6,059	-4,170
Finansieringsverksamheten			
Utbetald utdelning till moderföretagets aktieägare		-250,000	-280,788
Kassaflöde från finansieringsverksamheten		-250,000	-280,788
Årets kassaflöde		-125,446	59,362
Likvida medel vid årets början		188,487	129,125
Likvida medel vid årets slut	22	63,041	188,487

Penneo dokumentnyckel: LPHUY-27H1F-BAHZ3-4LW2Z-18DCD-JVK2U

20240806032212

Noter

Belopp i kSEK om inget annat anges

Redovisningsprinciper
Årsredovisningen har upprättats i enlighet med årsredovisningslagen och enligt Bokföringsnämndens allmänna råd BFNAR 2012:1 Årsredovisning och koncernredovisning (K3).

Tillgångar, avsättningar och skulder har värderats till anskaffningsvärden om inget annat anges nedan.

Immateriella tillgångar

Övriga immateriella anläggningstillgångar
Övriga immateriella anläggningstillgångar som förvärvats är redovisade till anskaffningsvärde minskat med ackumulerade avskrivningar och nedskrivningar.

Avskrivningar
Avskrivning sker linjärt över tillgångens beräknade nyttjandeperiod. Avskrivningen redovisas som kostnad i resultaträkningen.

	Nyttjandeperiod
Förvärvade immateriella tillgångar	
Licenser	5 år
Goodwill	5 år

Nyttjandeperioden för goodwill har bedömts utifrån investeringens förväntade avkastning och bidrag till verksamheten.

Materiella anläggningstillgångar
Materiella anläggningstillgångar redovisas till anskaffningsvärde minskat med ackumulerade avskrivningar och nedskrivningar. I anskaffningsvärdet ingår förutom inköpspriset även utgifter som är direkt hänförliga till förvärvet.

Tillkommande utgifter
Tillkommande utgifter som uppfyller tillgångskriteriet räknas in i tillgångens redovisade värde. Utgifter för löpande underhåll och reparationer redovisas som kostnader när de uppkommer.

Avskrivningar
Avskrivning sker linjärt över tillgångens beräknade nyttjandeperiod eftersom det återspeglar den förväntade förbrukningen av tillgångens framtida ekonomiska fördelar. Avskrivningen redovisas som kostnad i resultaträkningen.

	Nyttjandeperiod
Inventarier, verktyg och installationer	3-10 år

Nedskrivningar - materiella och immateriella anläggningstillgångar samt andelar i koncernföretag
Vid varje balansdag bedöms om det finns någon indikation på att en tillgångs värde är lägre än dess redovisade värde.

Penneo dokumentnyckel: LPHUY-2ZH1F-BAHZ3-4LW2Z-I8DCD-JWK2U

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Leasing

Alla leasingavtal har klassificerats som finansiella eller operationella leasingavtal. Ett finansiellt leasingavtal är ett leasingavtal enligt vilka de risker och fördelar som är förknippade med att äga en tillgång i allt väsentligt överförs från leasegivaren till leasetagaren. Ett operationellt leasingavtal är ett leasingavtal som inte är ett finansiellt leasingavtal.

Finansiella leasingavtal
Rättigheter och skyldigheter enligt finansiella leasingavtal redovisas som tillgång och skuld i balansräkningen. Vid det första redovisningstillfället värderas tillgången och skulden till det lägsta av tillgångens verkliga värde och nuvärdet av minimileaseavgifterna. Utgifter som är direkt hänförbara till ingående och upplägg av leasingavtalet läggs till det belopp som redovisas som tillgång.

Efter det första redovisningstillfället fördelas minimileaseavgifterna på ränta och amortering av skulden enligt effektivräntemetoden. Variabla avgifter redovisas som kostnader det räkenskapsår de uppkommit.

Den leasade tillgången skrivs av över leasingperioden.

Operationella leasingavtal
Leasingavgifterna enligt operationella leasingavtal, inklusive förhöjd förstagångshyra men exklusive utgifter för tjänster som försäkring och underhåll, redovisas som kostnad linjärt över leasingperioden.

Utländsk valuta
Poster i utländsk valuta
Monetära poster i utländsk valuta räknas om till balansdagens kurs. Icke-monetära poster räknas inte om utan redovisas till kursen vid anskaffningstillfället.

Valutakursdifferenser som uppkommer vid reglering eller omräkning av monetära poster redovisas i resultaträkningen det räkenskapsår de uppkommer.

Kursdifferenser på rörelsefordringar och rörelseskulder ingår i rörelseresultatet, medan differenser på finansiella fordringar och skulder redovisas bland finansiella poster.

Finansiella derivat

Vid första redovisningen redovisas finansiella derivat till verkligt värde och omvärderas sedan till verkligt värde per balansdagen.
Vinsten eller förlusten från omvärderingen till verkligt värde per balansdagen redovisas direkt i resultaträkningen.
Om emellertid finansiella derivat är kvalificerade för säkringsredovisning, och säkringsredovisning tillämpas, redovisning av denna vinst eller förlust beror på säkringens karaktär.

Varulager
Varulagret är upptaget till det lägsta av anskaffningsvärdet och nettoförsäljningsvärdet. Därvid har inkuransrisk beaktats. Anskaffningsvärdet beräknas enligt först in- först ut- principen. I anskaffningsvärdet ingår förutom utgifter för inköp även utgifter för att bringa varorna till deras aktuella plats och skick.

Penneo dokumentnyckel: LPHUY-7H1F-84HZ3-4LIW27-I8DCD-JVK2U

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Skatt
Skatt på årets resultat i resultaträkningen består av aktuell skatt och uppskjuten skatt. Aktuell skatt är inkomstskatt för innevarande räkenskapsår som avser årets skattepliktiga resultat och den del av tidigare räkenskapsårs inkomstskatt som ännu inte har redovisats. Uppskjuten skatt är inkomstskatt för skattepliktigt resultat avseende framtida räkenskapsår till följd av tidigare transaktioner eller händelser.

Uppskjuten skatteskuld redovisas för alla skattepliktiga temporära skillnader, dock särredovisas inte uppskjuten skatt hänförlig till obeskattade reserver eftersom obeskattade reserver redovisas som en egen post i balansräkningen. Uppskjuten skattefordran redovisas för avdragsgilla temporära skillnader och för möjligheten att i framtiden använda skattemässiga underskottsavdrag. Värderingen baseras på hur det redovisade värdet för motsvarande tillgång eller skuld förväntas återvinnas respektive regleras. Beloppen baseras på de skattesatser och skatteregler som är beslutade före balansdagen och har inte nuvärdeberäknats.

Uppskjutna skattefordringar har värderats till högst det belopp som sannolikt kommer att återvinnas baserat på innevarande och framtida skattepliktiga resultat. Värderingen omprövas varje balansdag.

Avsättningar
En avsättning redovisas i balansräkningen när företaget har en legal eller informell förpliktelse till följd av en inträffad händelse och det är sannolikt att ett utflöde av resurser krävs för att reglera förpliktelsen och en tillförlitlig uppskattning av beloppet kan göras.

Vid första redovisningstillfället värderas avsättningar till den bästa uppskattningen av det belopp som kommer att krävas för att reglera förpliktelsen på balansdagen. Avsättningarna omprövas varje balansdag.

Intäkter
Det inflöde av ekonomiska fördelar som företaget erhållit eller kommer att erhålla för egen räkning redovisas som intäkt. Intäkter värderas till verkliga värdet av det som erhållits eller kommer att erhållas, med avdrag för rabatter.

Försäljning av varor
Vid försäljning av varor redovisas intäkten vid leverans.

Försäljning av service och tjänster
Intäkter för service och tjänster redovisas direkt i anslutning efter utfört arbete.

Utdelning
Utdelning redovisas när behörigt organ har fattat beslut om att utdelning ska lämnas.

Eventualförpliktelser
En eventualförpliktelse är:
- En möjlig förpliktelse som till följd av inträffade händelser och vars förekomst endast kommer att bekräftas av en eller flera osäkra framtida händelser, som inte helt ligger inom företagets kontroll, inträffar eller uteblir, eller

- En befintlig förpliktelse till följd av inträffade händelser, men som inte redovisas som skuld eller avsättning eftersom det inte är sannolikt att ett utflöde av resurser kommer att krävas för att reglera förpliktelsen eller förpliktelsens storlek inte kan beräknas med tillräcklig tillförlitlighet.

Eventualförpliktelser är en sammanfattande beteckning för sådana garantier, ekonomiska åtaganden och eventuella förpliktelser som inte tas upp i balansräkningen.

Penneo dokumentnyckel: LPHUY-7H1F-BAHZ3-4LWZ7-ISDCO-MK2U

20240806032115

VWR International AB
Org nr 556124-8153

Not 1 Nettoomsättning per rörelsegren och geografisk marknad

	2023	2022
Nettoomsättning per rörelsegren		
Hälsovård	69,498	70,139
Universitet och statliga myndigheter	143,992	146,024
Bioteknik och läkemedel	373,376	387,221
Övrig industri	173,006	154,010
Försäljning till dotterbolag	261,883	267,254
Övrig försäljning	20,821	23,664
	1,042,576	1,048,312
Nettoomsättning per geografisk marknad		
Sverige	769,956	770,407
Norge	145,583	153,408
Danmark	12,970	11,386
Finland	103,330	102,461
Övriga länder	10,737	10,651
	1,042,576	1,048,312

Not 2 Övriga rörelseintäkter

	2023	2022
Kursvinster på fordringar/skulder av rörelsekaraktär	11,590	16,838
Realisationsvinster	668	–
Övrigt	806	3,032
	13,064	19,870

Not 3 Anställda, personalkostnader och arvoden till styrelse och revisorer

Medelantalet anställda

	2023	varav män	2022	varav män
Sverige	203	82%	185	44%

Redovisning av könsfördelning i företagsledningar

	2023-12-31 Andel kvinnor	2022-12-31 Andel kvinnor
Styrelsen	67%	43%
Övriga ledande befattningshavare	29%	50%

Löner och andra ersättningar samt sociala kostnader, inklusive pensionskostnader

	2023	2022
Löner och ersättningar	*105,805*	*99,649*
Sociala kostnader	*45,417*	*43,604*
(varav pensionskostnad) 1)	*(11,068)*	*(9,022)*
	151,222	143,253

1) Av företagets pensionskostnader avseringet belopp bolagets ledning i förhållande till koncernens styrelse och VD.

Löner och andra ersättningar fördelade mellan styrelseledamöter m.fl. och övriga anställda

	2023		2022	
	Styrelse och VD	Övriga anställda	Styrelse och VD	Övriga anställda
Löner och andra ersättningar	3,658	102,152	3,257	96,392

Avtal om avgångsvederlag
Mellan företaget och verkställande direktören gäller en ömsesidig uppsägningstid om sex månader. Inget avtal om avgångsvederlag finns.

Penneo dokumentnyckel: LPHU-Y27H1-F-8AHZS-4LW2Z-18DCD-JWK2U

20240805032216

VWR International AB
Org nr 556124-8153

Not 4 Ersättning till revisorer

	2023	2022
Revisionsuppdrag Deloitte	243	425

Med revisionsuppdrag avses lagstadgad revision av årsredovisningen och bokföringen samt styrelsens och verkställande direktörens förvaltning samt revision och annan granskning utförd i enlighet med överenskommelse eller avtal.

Detta inkluderar övriga arbetsuppgifter som det ankommer på bolagets revisor att utföra samt rådgivning eller annat biträde som föranleds av iakttagelser vid sådan granskning eller genomförandet av sådana övriga arbetsuppgifter.

Not 5 Övriga rörelsekostnader

	2023	2022
Kursförluster på fordringar/skulder av rörelsekaraktär	-12,422	-16,818
Övrigt	-354	-494
	-12,776	-17,312

Not 6 Resultat från andelar i koncernföretag

	2023	2022
Utdelning	77,210	257,910
	77,210	257,910

Not 7 Ränteintäkter och liknande resultatposter

	2023	2022
Ränteintäkter, övriga	3,793	-79
	3,793	-79

Not 8 Räntekostnader och liknande resultatposter

	2023	2022
Räntekostnader, koncernföretag	-2,407	-391
Ränta intjänad, övriga	3,165	1,674
	758	1,283

Not 9 Skatt på årets resultat

	2023	2022
Aktuell skattekostnad	-10,795	-11,313
Uppskjuten skatt	-162	-209
	-10,957	-11,522

Avstämning av effektiv skatt

	2023		2022	
	Procent	*Belopp*	*Procent*	*Belopp*
Resultat före skatt		130,134		313,813
Skatt enligt gällande skattesats för moderföretaget	20.6%	-26,808	20.6%	-64,645
Ej avdragsgilla kostnader	0.0%	-56	0.0%	-32
Slutlig beskattning	0.0%	—	0.0%	26
Ej skattepliktiga intäkter	-12.2%	15,907	-16.9%	53,129
Redovisad effektiv skatt	8.4%	-10,957	3.7%	-11,522

Penneo dokumentnyckel: LPHUY-27H1F-BAHZ3-4LW27-18DCD-JVK2U

20240806033217

VWR International AB
Org nr 556124-8153

Not 10 Inventarier, verktyg och installationer

	2023-12-31	2022-12-31
Ackumulerade anskaffningsvärden		
Vid årets början	40,004	35,834
Nyanskaffningar	7,586	4,170
Utrangeringar	-4,583	–
	43,007	40,004
Ackumulerade avskrivningar		
Vid årets början	-31,220	-28,882
Återförda avskrivningar på avyttringar och utrangeringar	4,529	–
Årets avskrivning på anskaffningsvärden	-3,360	-2,338
	-30,051	-31,220
Redovisat värde vid årets slut	12,953	8,784

	2023-12-31	2022-12-31
Inventarier som innehas under finansiella leasingavtal ingår med ett redovisat värde om	4,053	4,053

Under övriga kort- respektive långfristiga skulder redovisas nuvärdet av framtida betalningar avseende skuldförda finansiella leasingförpliktelser.

Not 11 Andelar i koncernföretag

	2023-12-31	2022-12-31
Ackumulerade anskaffningsvärden		
Vid årets början	257,264	257,365
	257,264	257,365
Årets nedskrivningar	-101	–
Redovisat värde vid årets slut	257,264	257,365

Spec av företagets innehav av andelar i koncernföretag

			2023-12-31	2022-12-31
Dotterföretag / Org nr / Säte	*Antal andelar*	*Andel i % i)*	*Redovisat värde*	*Redovisat värde*
VWR International AS, 860964732, Oslo	49,750	99.5	9,016	9,016
VWR International OY, 0614918-0, Esbo	1,990	99.5	74,979	74,979
VWR International A/S, 27335659, Köpenhamn	58,705	99.5	173,269	173,269
			257,264	257,365

i) Ägarandelen av kapitalet avses, vilket även överensstämmer med andelen av rösterna för totalt antal aktier.

Penneo dokumentnyckel: LPHUY-27H1F-BAHZ3-4LW2Z-18DCD-JVK2U

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VWR International AB
Org nr 556124-8153

Not 12 Uppskjuten skatt

	2023-12-31		
	Redovisat värde	*Skattemässigt värde*	*Temporär skillnad*
Väsentliga temporära skillnader			
Pensionsavsättning	795	–	795
Garantiavsättning	254	–	254
Avsättning för omstrukturering	241	–	241
	1,290	–	1,290

	2022/12/31		
	Uppskjuten skattefordran	*Uppskjuten skatteskuld*	*Netto*
Väsentliga temporära skillnader			
Pensionsavsättning	164	–	164
Garantiavsättning	52	–	52
Avsättning för omstrukturering	50	–	50
Uppskjuten skattefordran/skuld	273	–	266

Not 13 Varulager m m

	2023-12-31	*2022-12-31*
Färdiga varor och handelsvaror	50,459	48,854
	50,459	48,854

Not 14 Förutbetalda kostnader och upplupna intäkter

	2023-12-31	*2022-12-31*
Hyror	1,689	1,555
Övriga poster	8,225	1,498
	9,914	3,053

Not 15 Vinstdisposition

Förslag till disposition av företagets vinst eller förlust

Styrelsen föreslår att fritt eget kapital, SEK 226,923,565 disponeras enligt följande

	90,000,000
Balanseras i ny räkning	226,923,565
Summa	316,923,565

Not 16 Antal aktier och kvotvärde

	2023-12-31	*2022-12-31*
Registrerade aktier		
Antal aktier	650,000	650,000
Kvotvärde i SEK	100	100

Penneo dokumentnyckel: LPHUY-2ZH1F-9AHZ3-4LIW2-18OCD-MK2U

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Not 17 Övriga avsättningar

	2023-12-31	2022-12-31
Garantiåtaganden	495	1,396
	495	1,396

Garantiåtaganden	*2023-12-31*	*2022-12-31*
Redovisat värde vid årets början	*1,396*	*2,508*
Avsättningar som gjorts under året[1]	604	-605
Belopp som tagits i anspråk under året	-1,505	-507
Redovisat värde vid årets slut	495	1,396

1) Inkl ökningar av befintliga avsättningar.

Not 18 Långfristiga skulder

	2023-12-31	2022-12-31
Skulder som förfaller senare än ett år från balansdagen		
Finansiella leasingavtal	-2,481	-2,671

Not 19 Upplupna kostnader och förutbetalda intäkter

	2023-12-31	2022-12-31
Upplupna personalkostnader	22,479	21,183
Övriga poster	61,672	17,240
	84,151	38,423

Not 20 Väsentliga händelser efter räkenskapsårets slut

Det finns inga väsentliga händelser efter räkenskapsårets slut.

Not 21 Betalda räntor och erhållen utdelning

	2023	2022
Erhållen utdelning	77,210	257,910
Erhållen ränta	959	-79
Erlagd ränta	758	1,283

Not 22 Likvida medel

	2023	2022
Följande delkomponenter ingår i likvida medel:		
Banktillgodohavanden	63,041	188,487
	63,041	188,487

Not 23 Övriga upplysningar till kassaflödesanalysen

Justeringar för poster som inte ingår i kassaflödet m m

	2023	2022
Av- och nedskrivning av tillgångar	3,360	2,338
Orealiserade kursdifferenser	-3,145	-7,927
Rearesultat försäljning av anläggningstillgångar	-668	–
Övriga avsättningar	-324	-1,201
Förlust vid försäljning av tillgång	22	–
Orealiserade kursskillnader - derivat	-468	–
Övriga ej kassaflödespåverkande poster	1,289	–
Nedskrivning av aktier i koncernföretag	101	
	167	-6,790

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20240805032220

VWR International AB

Org nr 556124-8153

Not 24 Koncernuppgifter

Företaget är helägt dotterföretag (99,5 %) till VWR International BV, reg nr 04038098 med säte i Amsterdam, Nederländerna. VWR International BV är helägt dotterföretag till Avantor, Inc. med säte i Pennsylvania, USA, och Avantor upprättar en separat konsoliderad årsrapport inklusive koncernredovisning.

Avantor, Inc.'s konsoliderade årsrapport finns att tillgå hos Avantor, Inc., 100 Matsonford Road, Radnor, PA 19087, USA. VWR International AB som utgör moderföretag för en koncern med dotterföretag enl not 12, upprättar ej koncernredovisning med hänvisning till reglerna i Årsredovisningslagen 7 kap. 2 §.

Inköp och försäljning inom koncernen

Av företagets totala inköp och försäljning mätt i kronor avser 59 % (45 %) av inköpen och 29 % (31 %) av försäljningen andra företag inom hela den företagsgrupp som företaget tillhör.

Not 25 Nyckeltalsdefinitioner

Rörelsemarginal:	Rörelseresultat / Nettoomsättning
Balansomslutning:	Totala tillgångar
Finansiella intäkter:	Poster i finansnettot som är hänförliga till tillgångar (som ingår i sysselsatt kapital)
Räntefria skulder:	Skulder som inte är räntebärande. Pensionsskulder ses som räntebärande.
Avkastning på egenkapital:	Årets resultat hänförligt till moderföretagets aktieägare / eget kapital hänförligt till moderföretagets aktieägare
Soliditet:	Totalt eget kapital / Totala tillgångar

Stockholm, date as per electronic signing

Johan Sven Magnus Borg
Styrelseledamöt

Stefan Walhagen
Styrelseledamöt

Ian Soellaart
Ordförande

Annica Elisabeth Bengtsson
Arbetstagarrepresentant

Eva Johanna Thompson
Arbetstagarrepresentant

Vår revisionsberättelse har lämnats 2023
Deloitte AB

Alexandros Kouvatsos
Auktoriserad revisor

Penneo dokumentnyckel: LPHU-Y27H1-BAHZ3-4LW27-18DCD-IWK2U

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"Med min signatur bekräftar jag innehållet och alla datum i detta dokumentet."

20240806032211

Johanna Thompson
Arbetstagarrepresentant
På uppdrag av: VWR International AB
Serienummer: 4869046b2de939[…]5ce96e30e40bf
IP: 165.225.xxx.xxx
2024-06-26 08:54:32 UTC

JOHAN BORG
Styrelseledamot
På uppdrag av: VWR International AB
Serienummer: d2a4cd3f32f493[…]a48ad9f81e070
IP: 136.226.xxx.xxx
2024-06-26 10:25:09 UTC

Soellaart, Ian
Styrelseordförande
På uppdrag av: VWR International AB
Serienummer: no_bankid:9578-5997-4-4801171
IP: 147.161.xxx.xxx
2024-06-26 11:25:22 UTC

Annica Bengtsson
Arbetstagarrepresentant
På uppdrag av: VWR International AB
Serienummer: f690707b89111c[…]ccf061fcdd062
IP: 165.225.xxx.xxx
2024-06-26 11:31:25 UTC

Stefan Anders Gunnar Walhagen
Styrelseledamot
På uppdrag av: VWR International AB
Serienummer: 5df38fbae0cf5d[…]2c47ff0dbfaeb
IP: 90.225.xxx.xxx
2024-06-26 16:25:20 UTC

ALEXANDROS MARTIN KOUVATSOS
Auktoriserad revisor
På uppdrag av: Deloitte AB
Serienummer: 0a29f9db32d889[…]5f45871423230
IP: 163.116.xxx.xxx
2024-06-27 07:25:32 UTC

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Deloitte.

REVISIONSBERÄTTELSE

Till bolagsstämman i VWR International AB
organisationsnummer 556124-8153

Rapport om årsredovisningen

Uttalanden

Vi har utfört en revision av årsredovisningen för VWR International AB för räkenskapsåret 2023-01-01 - 2023-12-31.

Enligt vår uppfattning har årsredovisningen upprättats i enlighet med årsredovisningslagen och ger en i alla väsentliga avseenden rättvisande bild av VWR International ABs finansiella ställning per den 31 december 2023 och av dess finansiella resultat och kassaflöde för året enligt årsredovisningslagen. Förvaltningsberättelsen är förenlig med årsredovisningens övriga delar.

Vi tillstyrker därför att bolagsstämman fastställer resultaträkningen och balansräkningen.

Grund för uttalanden

Vi har utfört revisionen enligt International Standards on Auditing (ISA) och god revisionssed i Sverige. Vårt ansvar enligt dessa standarder beskrivs närmare i avsnittet *Revisorns ansvar*. Vi är oberoende i förhållande till VWR International AB enligt god revisorssed i Sverige och har i övrigt fullgjort vårt yrkesetiska ansvar enligt dessa krav.

Vi anser att de revisionsbevis vi har inhämtat är tillräckliga och ändamålsenliga som grund för våra uttalanden.

Styrelsens ansvar

Det är styrelsen som har ansvaret för att årsredovisningen upprättas och att den ger en rättvisande bild enligt årsredovisningslagen. Styrelsen ansvarar även för den interna kontroll som den bedömer är nödvändig för att upprätta en årsredovisning som inte innehåller några väsentliga felaktigheter, vare sig dessa beror på oegentligheter eller misstag.

Vid upprättandet av årsredovisningen ansvarar styrelsen för bedömningen av bolagets förmåga att fortsätta verksamheten. Den upplyser, när så är tillämpligt, om förhållanden som kan påverka förmågan att fortsätta verksamheten och att använda antagandet om fortsatt drift. Antagandet om fortsatt drift tillämpas dock inte om styrelsen avser att likvidera bolaget, upphöra med verksamheten eller inte har något realistiskt alternativ till att göra något av detta.

Revisorns ansvar

Våra mål är att uppnå en rimlig grad av säkerhet om huruvida årsredovisningen som helhet inte innehåller några väsentliga felaktigheter, vare sig dessa beror på oegentligheter eller misstag, och att lämna en revisionsberättelse som innehåller våra uttalanden. Rimlig säkerhet är en hög grad av säkerhet, men är ingen garanti för att en revision som utförs enligt ISA och god revisionssed i Sverige alltid kommer att upptäcka en väsentlig felaktighet om en sådan finns. Felaktigheter kan uppstå på grund av oegentligheter eller misstag och anses vara väsentliga om de enskilt eller tillsammans rimligen kan förväntas påverka de ekonomiska beslut som användare fattar med grund i årsredovisningen.

Som del av en revision enligt ISA använder vi professionellt omdöme och har en professionellt skeptisk inställning under hela revisionen. Dessutom:

- identifierar och bedömer vi riskerna för väsentliga felaktigheter i årsredovisningen, vare sig dessa beror på oegentligheter eller misstag, utformar och utför granskningsåtgärder bland annat utifrån dessa risker och inhämtar revisionsbevis som är tillräckliga och ändamålsenliga för att utgöra en grund för våra uttalanden. Risken för att inte upptäcka en väsentlig felaktighet till följd av oegentligheter är högre än för en väsentlig felaktighet som beror på misstag, eftersom oegentligheter kan innefatta agerande i maskopi, förfalskning, avsiktliga utelämnanden, felaktig information eller åsidosättande av intern kontroll.
- skaffar vi oss en förståelse av den del av bolagets interna kontroll som har betydelse för vår revision för att utforma granskningsåtgärder som är lämpliga med hänsyn till omständigheterna, men inte för att uttala oss om effektiviteten i den interna kontrollen.
- utvärderar vi lämpligheten i de redovisningsprinciper som används och rimligheten i styrelsens uppskattningar i redovisningen och tillhörande upplysningar.
- drar vi en slutsats om lämpligheten i att styrelsen använder antagandet om fortsatt drift vid upprättandet av årsredovisningen. Vi drar också en slutsats, med grund i de inhämtade revisionsbevisen, om huruvida det finns någon väsentlig osäkerhetsfaktor som avser sådana händelser eller förhållanden som kan leda till betydande tvivel om bolagets förmåga att fortsätta verksamheten. Om vi drar slutsatsen att det finns en väsentlig osäkerhetsfaktor, måste vi i revisionsberättelsen fästa uppmärksamheten på upplysningarna i årsredovisningen om den väsentliga osäkerhetsfaktorn eller, om sådana upplysningar är otillräckliga, modifiera uttalandet om årsredovisningen. Våra slutsatser baseras på de revisionsbevis som inhämtas fram till datumet för revisionsberättelsen. Dock kan framtida händelser eller förhållanden göra att ett bolag inte längre kan fortsätta verksamheten.
- utvärderar vi den övergripande presentationen, strukturen och innehållet i årsredovisningen, däribland upplysningarna, och om årsredovisningen återger de underliggande transaktionerna och händelserna på ett sätt som ger en rättvisande bild.

Vi måste informera styrelsen om bland annat revisionens planerade omfattning och inriktning samt tidpunkten för den. Vi måste också informera om betydelsefulla iakttagelser under revisionen, däribland de eventuella betydande brister i den interna kontrollen som vi identifierat.

Fotokopians överensstämmelse
med originalet intygas:

STEFAN WALHAGEN

Penneo dokumentnyckel: EOAS-UPJJ7-02KO4-6HBE6-F1ES4-N1TM8

20240806032323

Deloitte.

Rapport om andra krav enligt lagar och andra författningar

Uttalanden

Utöver vår revision av årsredovisningen har vi även utfört en revision av styrelsens förvaltning för VWR International AB för räkenskapsåret 2023-01-01 - 2023-12-31 samt av förslaget till dispositioner beträffande bolagets vinst eller förlust.

Vi tillstyrker att bolagsstämman disponerar vinsten enligt förslaget i förvaltningsberättelsen och beviljar styrelsens ledamöter ansvarsfrihet för räkenskapsåret.

Grund för uttalanden

Vi har utfört revisionen enligt god revisionssed i Sverige. Vårt ansvar enligt denna beskrivs närmare i avsnittet *Revisorns ansvar*. Vi är oberoende i förhållande till VWR International AB enligt god revisorssed i Sverige och har i övrigt fullgjort vårt yrkesetiska ansvar enligt dessa krav.

Vi anser att de revisionsbevis vi har inhämtat är tillräckliga och ändamålsenliga som grund för våra uttalanden.

Styrelsens ansvar

Det är styrelsen som har ansvaret för förslaget till dispositioner beträffande bolagets vinst eller förlust. Vid förslag till utdelning innefattar detta bland annat en bedömning av om utdelningen är försvarlig med hänsyn till de krav som bolagets verksamhetsart, omfattning och risker ställer på storleken av bolagets egna kapital, konsolideringsbehov, likviditet och ställning i övrigt.

Styrelsen ansvarar för bolagets organisation och förvaltningen av bolagets angelägenheter. Detta innefattar bland annat att fortlöpande bedöma bolagets ekonomiska situation och att tillse att bolagets organisation är utformad så att bokföringen, medelsförvaltningen och bolagets ekonomiska angelägenheter i övrigt kontrolleras på ett betryggande sätt.

Revisorns ansvar

Vårt mål beträffande revisionen av förvaltningen, och därmed vårt uttalande om ansvarsfrihet, är att inhämta revisionsbevis för att med en rimlig grad av säkerhet kunna bedöma om någon styrelseledamot i något väsentligt avseende:

- företagit någon åtgärd eller gjort sig skyldig till någon försummelse som kan föranleda ersättningsskyldighet mot bolaget, eller
- på något annat sätt handlat i strid med aktiebolagslagen, årsredovisningslagen eller bolagsordningen.

Vårt mål beträffande revisionen av förslaget till dispositioner av bolagets vinst eller förlust, och därmed vårt uttalande om detta, är att med rimlig grad av säkerhet bedöma om förslaget är förenligt med aktiebolagslagen.

Rimlig säkerhet är en hög grad av säkerhet, men ingen garanti för att en revision som utförs enligt god revisionssed i Sverige alltid kommer att upptäcka åtgärder eller försummelser som kan föranleda ersättningsskyldighet mot bolaget, eller att ett förslag till dispositioner av bolagets vinst eller förlust inte är förenligt med aktiebolagslagen.

Som en del av en revision enligt god revisionssed i Sverige använder vi professionellt omdöme och har en professionellt skeptisk inställning under hela revisionen. Granskningen av förvaltningen och förslaget till dispositioner av bolagets vinst eller förlust grundar sig främst på revisionen av räkenskaperna. Vilka tillkommande granskningsåtgärder som utförs baseras på vår professionella bedömning med utgångspunkt i risk och väsentlighet. Det innebär att vi fokuserar granskningen på sådana åtgärder, områden och förhållanden som är väsentliga för verksamheten och där avsteg och överträdelser skulle ha särskild betydelse för bolagets situation. Vi går igenom och prövar fattade beslut, beslutsunderlag, vidtagna åtgärder och andra förhållanden som är relevanta för vårt uttalande om ansvarsfrihet. Som underlag för vårt uttalande om styrelsens förslag till dispositioner beträffande bolagets vinst eller förlust har vi granskat styrelsens motiverade yttrande samt ett urval av underlagen för detta för att kunna bedöma om förslaget är förenligt med aktiebolagslagen.

Anmärkning

Under 2023 har avdragen skatt och sociala avgifter vid flera tillfällen inte betalats i rätt tid. Bolaget har därmed ej fullgjort sina skyldigheter enligt Skatteförfarandelagen. Dröjsmålen har berott på bristande rutiner. Dessa brister och försummelser har inte medfört någon skada för bolaget, utöver dröjsmålsräntor.

Stockholm, enligt efterföljande signatur

Deloitte AB

Alexandros Kouvatsos
Auktoriserad revisor

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"Med min signatur bekräftar jag innehållet och alla datum i detta dokumentet."

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ALEXANDROS MARTIN KOUVATSOS
Auktoriserad revisor
På uppdrag av: Deloitte AB
Serienummer: 0a29f9db32d889[...]5f45871423230
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avantor™

2023 ANNUAL REPORT

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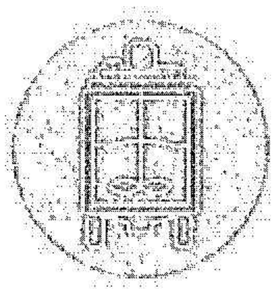
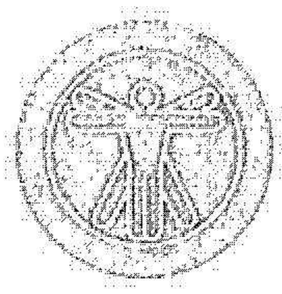
Avantor 2023 performance snapshot

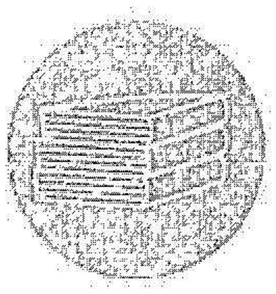
We serve customers across three geographic regions, in four end markets:



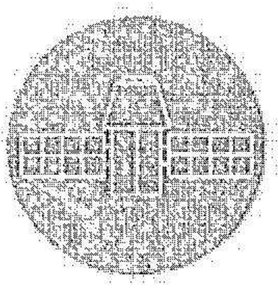
Biopharma



Healthcare



Education & Government



Advanced Technologies & Applied Materials

FULL YEAR

$6.97B
Reported revenue

$1,309M[1]
Adjusted EBITDA

$724M[1]
Free Cash Flow

AMERICAS

$4,072M
Reported revenue

EUROPE

$2,420M
Reported revenue

AMEA

$475M
Reported revenue

1. See "Reconciliations of non-GAAP measures" in our Annual Report of Form 10-K for a discussion and calculation of non-GAAP measures.
2. Based on management estimates.
3. Based on FY 2023 results.
4. Management estimate for bioprocessing based on revenue in 2023 from new products introduced over the past five years and innovation spend in 2023.

avantor™ avantorsciences.com

A global leader in life science tools

Global scale serving customers in **180** countries

>$3.85B total addressable markets[2]

~60% revenue from biopharma and healthcare end markets[3]

Global footprint offers extraordinary customer access

~85% recurring revenue from materials, consumables and services[3]

~90% self-manufactured production content specified into customers' products or processes

#1 supplier of high-purity silicone for medical implants

#1/#2 global partner for laboratory consumables

#1/#2 global materials provider in bioprocessing

~75% revenue per intervention dollar spent in 2023[4]

DD increase in e-commerce traffic in 2023

avantorsciences.com

avantor

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A message to our stockholders

MICHAEL STUBENRAUCH
President and Chief Executive Officer

In 2023, the scientific community continued to advance life-changing medicine and technology at an exhilarating pace. At Avantor, we are proud of our role working with innovators to solve scientific challenges and create a better, healthier world.

Our unwavering commitment to scientific excellence has been the hallmark of Avantor since John Townsend Baker founded the company over a century ago. Avantor works with our customers at every step of their scientific journey, with our robust portfolio of high-quality products and mission-critical materials and technologies. Our strategic position in customers' research and production workflows provides insight that enables us to meet their needs today and tomorrow.

Over the past year, Avantor made meaningful progress against our strategy by launching new proprietary products, enhancing our digital capabilities, and extending customer relationships across each of our end markets, including biopharma and academia.

We introduced several proprietary products under our J.T.Baker®, Masterflex®, and NuSil® brands to support customers' innovations in critical workflows, including monoclonal antibody and gene therapies, as well as in medical implants. For example, our J.T.Baker® Cell Lysis Solution for viral vector purification addresses a critical regulatory need in bioprocessing and continues the J.T.Baker brand's 120-year legacy of materials innovation. Last fall, we announced our new Scientific Advisory Board (SAB), which will steer our research and development agenda and collaborate with our scientists to accelerate customer solutions. I am delighted that Dr. Ger Brophy, who built Avantor's leading bioprocessing platform over the last 5 years, will Chair the SAB.

We have made strategic investments to enhance the customer experience, drive efficiencies, and position Avantor for growth.

- We began a phased geographic rollout of our enhanced e-commerce platform, Avantor ScienceCentral.
- We expanded digital services, including Inventory Manager, which integrates artificial intelligence to streamline lab procurement, enabling scientists to focus more time on research.
- To support new biologic platforms and meet customer demand, we increased manufacturing capacity and added automation upgrades to our distribution facilities throughout the U.S. and Europe.
- We announced the expansion of our innovation hub in Bridgewater, N.J., which will open in late summer 2024 with double the current lab and pilot space to facilitate increased customer collaboration across all modalities.

Our mission of setting science in motion comes with a deep sense of responsibility to our many stakeholders, including our customers, communities, and our associates. I am particularly proud of the progress we have made as part of our Science for Goodness sustainability platform and commitment to creating a better world. In 2023, we achieved our 2025 scope 1 and 2 greenhouse gas emission reduction goals two years early, announced new 2030 near-term climate targets and submitted to the Science Based Targets Initiative. Last June, we launched our Responsible Supplier Program globally to help reduce environmental impact across the supply chain. We were gratified to see our efforts to create a more inclusive culture for our associates recognized by the Human Rights Campaign Foundation, which designated Avantor as an Equality 100 leader.

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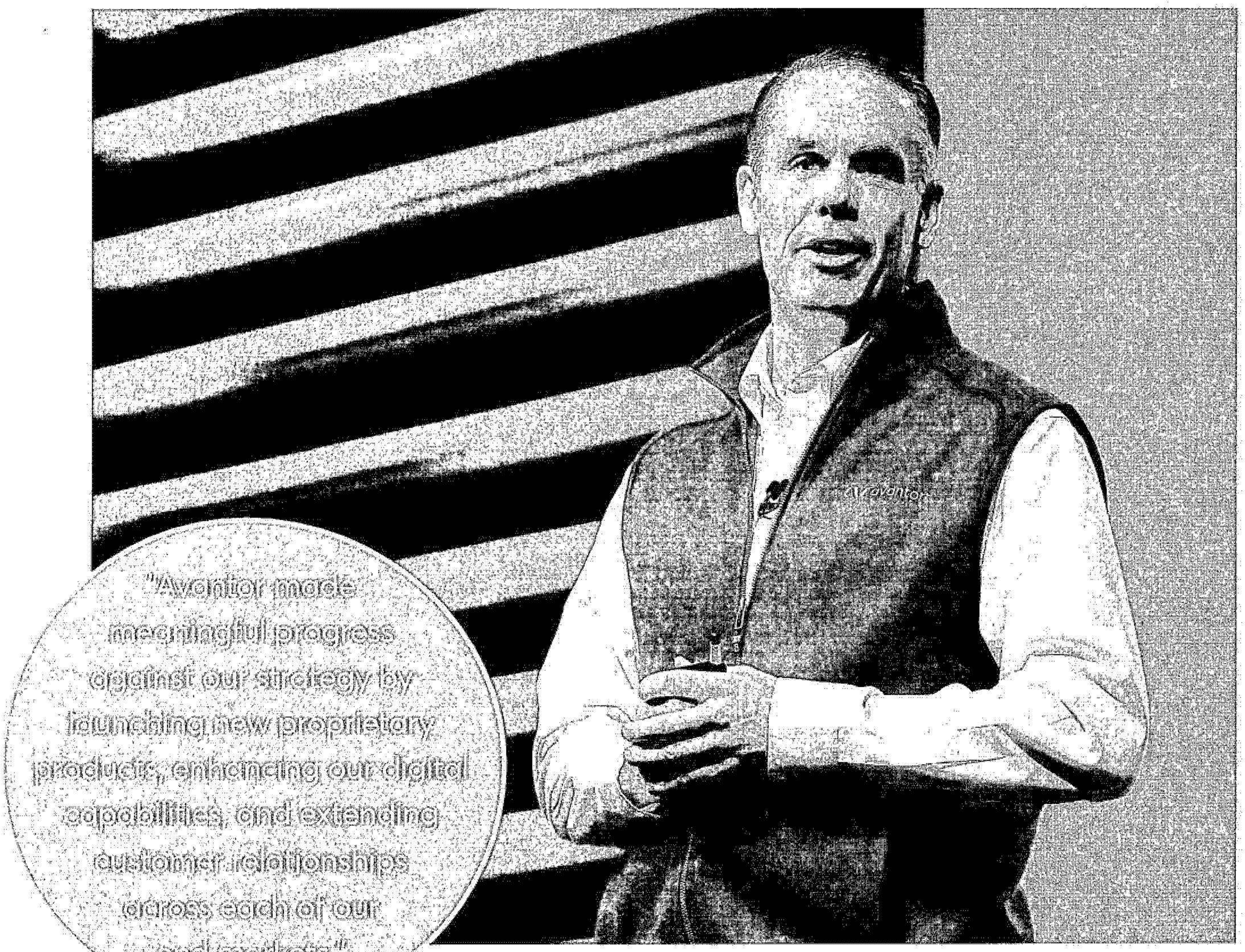

This May marks my 10th year as Avantor's president and CEO. The advancements in science and technology during the past decade have been truly inspiring. Avantor has more than kept pace, becoming a Fortune 500 life science tools leader that enables our customers' breakthroughs in medicine, healthcare, and technology at global scale.

In the past year, we have taken a series of actions to position our company for our next chapter, including simplifying our organizational structure to better serve customers, reducing our cost base, and rationalizing our footprint. In December 2023, we announced our business transformation and new operating model, including two complementary business segments: Laboratory Solutions and Bioscience Production. This alignment of our model with our research and production capabilities will strengthen our performance, sharpen our focus on accelerating customers' innovation, and unlock significant operating efficiencies. We have also welcomed new leaders to the Executive Leadership Team, including our CFO, Brent Jones, who is leading our multi-year transformation initiative. We have a world-class team of proven leaders with strategic, operational, and commercial acumen to lead our business evolution and future growth.

As we head into 2024, I am highly motivated by our progress and the significant opportunity ahead of us. Avantor has a strong market position and highly relevant, end-to-end offerings that are integral to our customers' applications. And I am confident that we have the right strategy, model, and team to advance our business evolution and future growth.

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Forward-Looking Statements

See "Cautionary factors regarding forward-looking statements" and "Item 1A: Risk Factors" in the enclosed annual report on Form 10-K for a discussion of risks and uncertainties relating to the forward-looking statements contained herein. Such statements speak only as of the date of this Annual Report and, except to the extent required by applicable law, the Company does not assume any obligation to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

Non-GAAP Financial Measures

As appropriate, we supplement our results of operations determined in accordance with U.S. generally accepted accounting principles ("GAAP") with certain non-GAAP financial measurements that are used by management, and which we believe are useful to investors, as supplemental operational measurements to evaluate our financial performance.

These measurements should not be considered in isolation or as a substitute for reported GAAP results because they may include or exclude certain items as compared to similar GAAP-based measurements, and such measurements may not be comparable to similarly titled measurements reported by other companies. Rather, these measurements should be considered as an additional way of viewing aspects of our operations that provide a more complete understanding of our business. We strongly encourage investors to review our consolidated financial statements in their entirety and not rely solely on any one, single financial measurement.

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Form 10-K

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UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2023

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission file number: **001-38912**

Avantor, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**82-2758923**
(State or other jurisdiction of incorporation or organization)	(I.R.S. employer identification no.)

Radnor Corporate Center, Building One, Suite 200
100 Matsonford Road
Radnor, Pennsylvania 19087

(Address of principal executive offices) (zip code)

610 386-1700

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading symbol	Exchange on which registered
Common stock, $0.01 par value	**AVTR**	**New York Stock Exchange**

Securities registered pursuant to Section 12(g) of the Act: **None**

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Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. ☒ Yes ☐ No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. ☐ Yes ☒ No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ☒ Yes ☐ No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). ☒ Yes ☐ No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. ☒ Large Accelerated Filer ☐ Accelerated Filer ☐ Non-accelerated Filer ☐ Smaller reporting company ☐ Emerging growth company

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to § 240.10D-1(b). ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). ☐ Yes ☒ No

The aggregate market value of common stock held by our non-affiliates at June 30, 2023 was $13,877,913,401.

On February 9, 2024, 678,281,383 shares of common stock, $0.01 par value per share, were outstanding.

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DOCUMENTS INCORPORATED BY REFERENCE

Portions of our definitive proxy statement for our 2024 annual meeting of stockholders will be filed with the SEC on or before 120 days after our 2023 fiscal year-end and are incorporated by reference into Part III of this report.

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Avantor, Inc. and subsidiaries
Form 10-K for the fiscal year ended December 31, 2023
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Glossary

	Description
we, us, our	Avantor, Inc. and its subsidiaries
2019 Plan	the Avantor, Inc. 2019 Equity Incentive Plan, a stock-based compensation plan
Adjusted EBITDA	our earnings or loss before interest, taxes, depreciation, amortization and certain other adjustments
AMEA	Asia, Middle-East and Africa
AOCI	accumulated other comprehensive income or loss
ASC	Accounting Standards Codification
BIS	the Bureau of Industry and Security
CERCLA	the Comprehensive Environmental Response Compensation and Liability Act
cGMP	Current Good Manufacturing Practice
COVID-19	Coronavirus disease of 2019
double-digit	greater than 10%
DDTC	Directorate of Defense Trade controls
DEA	Drug Enforcement Administration
DHHS	Department of Health and Human Service
EMA	European Medicines Agency
EPA	the U.S. Environmental Protection Agency
ERP	enterprise resource planning system
EU	European Union
EURIBOR	the basic rate of interest used in lending between banks on the European Union interbank market
FASB	the Financial Accounting Standards Board of the United States
FCPA	the United States Foreign Corrupt Practices Act
FDA	United States Food and Drug Administration
GAAP	United States generally accepted accounting principles
GDPR	the General Data Protection Regulation
Goldman Sachs	an investment banking firm and its affiliates
high single-digit	7 - 9%
ICH Q7	the International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use - Good Manufacturing Practice Guidance for Active Pharmaceutical Ingredients

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	Description
IPO	initial public offering
ISO	International Organization for Standardization or international equivalents
ITAR	the International Traffic In Arms Regulations
LIBOR	the basic rate of interest used in lending between banks on the London interbank market
Long-Term	period other than Short Term
low single-digit	1 - 3%
M&A	Mergers and Acquisitions
Masterflex	Masterflex LLC, a company we acquired in November 2021
MCPS	6.250% Series A Mandatory Convertible Preferred Stock
mid single-digit	4 - 6%
NAV	Net Asset Value
NuSil	NuSil Acquisition Corp, NuSil Investments LLC and subsidiaries, a business organization with which we merged in 2016
NYSE	the New York Stock Exchange
OCI	other comprehensive income
OEM	original engineering manufacturers
OFAC	the U.S. Department of The Treasury's Office of Foreign Assets Control
OSHA	the U.S. Occupational Safety & Health Administration
Ritter	Ritter GmbH and affiliates, a company we acquired in June 2021
RSU	restricted stock units represent awards that will vest annually and awards that contain performance and market conditions
SEC	the United States Securities and Exchange Commission
SG&A expenses	selling, general and administrative expenses
Short Term	period less than a year from the reporting date
SKU	stock keeping unit
SOFR	secured overnight financing rate
specialty procurement	product sales related to customer procurement services
VWR	VWR Corporation and its subsidiaries, a company we acquired in November 2017

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Cautionary factors regarding forward-looking statements

This report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, and are subject to the safe harbor created thereby under the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact included in this report are forward-looking statements. Forward-looking statements discuss our current expectations and projections relating to our financial condition, results of operations, plans, objectives, future performance and business. These statements may be preceded by, followed by or include the words "aim," "anticipate," "assumption," "believe," "continue," "estimate," "expect," "forecast," "goal," "guidance," "intend," "likely," "long-term," "near-term," "objective," "opportunity," "outlook," "plan," "potential," "project," "projection," "prospects," "seek," "target," "trend," "can," "could," "may," "should," "would," "will," the negatives thereof and other words and terms of similar meaning.

Forward-looking statements are inherently subject to risks, uncertainties and assumptions; they are not guarantees of performance. You should not place undue reliance on these statements. We have based these forward-looking statements on our current expectations and projections about future events. Although we believe that our assumptions made in connection with the forward-looking statements are reasonable, we cannot assure you that the assumptions and expectations will prove to be correct.

You should understand that the following important factors, in addition to those discussed under Item 1A, "Risk factors" and Item 7, "Management's discussion and analysis of financial condition and results of operations" could affect our future results and could cause those results or other outcomes to differ materially from those expressed or implied in our forward-looking statements:

- disruptions to our operations;
- competition from other industry providers;
- our ability to implement our strategies for improving growth and optimizing costs;
- our ability to anticipate and respond to changing industry trends;
- adverse trends in consumer, business, and government spending;
- our dependence on sole or limited sources for some essential materials and components;
- our ability to successfully value and integrate acquired businesses;
- our products' satisfaction of applicable quality criteria, specifications and performance standards;
- our ability to maintain our relationships with key customers;
- our ability to maintain our relationships with distributors;
- our ability to maintain our customer base and our expected volume of customer orders;
- our ability to maintain and develop relationships with drug manufacturers and contract manufacturing organizations;
- the impact of new laws, regulations, or other industry standards;

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- changes in the interest rate environment that increase interest on our borrowings;
- adverse impacts from currency exchange rates or currency controls imposed by any government in major areas where we operate or otherwise;
- our ability to implement and improve processing systems and prevent a compromise of our information systems or personal data;
- our ability to protect our intellectual property and avoid third-party infringement claims;
- exposure to product liability and other claims in the ordinary course of business;
- our ability to develop new products responsive to the markets we serve;
- supply chain constraints and the availability of raw materials;
- our ability to source certain of our products from certain suppliers;
- our ability to contain costs in an inflationary environment;
- our ability to avoid negative outcomes related to the use of chemicals;
- our ability to maintain highly skilled employees;
- our ability to maintain a competitive workforce;
- adverse impact of impairment charges on our goodwill and other intangible assets;
- fluctuations and uncertainties related to doing business outside the United States;
- our ability to obtain and maintain required regulatory clearances or approvals may constrain the commercialization of submitted products;
- our ability to comply with environmental, health and safety laws and regulations, or the impact of any liability or obligation imposed under such laws or regulations;
- our indebtedness could adversely affect our financial condition and prevent us from fulfilling our debt or contractual obligations;
- our ability to generate sufficient cash flows or access sufficient additional capital to meet our debt obligations or to fund our other liquidity needs; and
- our ability to maintain an effective system of internal control over financial reporting.

All forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the foregoing cautionary statements. In addition, all forward-looking statements speak only as of the date of this report. We undertake no obligations to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise other than as required under the federal securities laws.

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PART I

Item 1. Business

At Avantor, everything we do is tied to our unique mission of setting science in motion to create a better world.

We are a leading global provider of mission-critical products and services to customers in the biopharma, healthcare, education & government, and advanced technologies & applied materials industries. Our business model is grounded in supporting our customers from discovery to delivery and Avantor is embedded in virtually every stage of the most important research, scale-up and manufacturing activities in the industries we serve.

Our comprehensive offering provides scientists all they need to conduct their research: materials & consumables, equipment & instrumentation and services & specialty procurement. Our customer-centric innovation model enables us to provide solutions for some of the most demanding applications, and we leverage our comprehensive offering and access to early-stage research to identify and develop content and solutions that ultimately become specified into our customers' approved production platforms. Our broad portfolio of products and services, fully integrated business model and global supply chain enable us to support our customers' journey every step of the way.

We have a number of distinctive capabilities that set us apart from other companies in our space. For example, our global footprint offers extraordinary customer access, enabling us to serve more than 300,000 customer locations in more than 180 countries around the world.

Our legacy began in 1904 with the founding of the J.T. Baker Chemical Company. In 2010, we were acquired by New Mountain Capital from Covidien plc. Since then, we have expanded through a series of large acquisitions which have extended our global reach. In 2016, we merged with NuSil, a leading supplier of high-purity silicone products for the medical device and aerospace industries that was founded in 1985. In 2017, we acquired VWR, a global manufacturer and distributor of laboratory and production products and services founded in 1852.

Avantor, Inc. was incorporated in Delaware in May 2017 in anticipation of the VWR acquisition. We completed our initial public offering through Avantor, Inc. and listed its shares on the New York Stock Exchange in May 2019.

In June 2021, we acquired Ritter, a manufacturer of high-quality robotic and liquid handling consumables used in a variety of molecular screening and diagnostic applications. In November 2021, we acquired the Masterflex bioprocessing business of Antylia Scientific. Masterflex is a leading global manufacturer of peristaltic pumps and aseptic single-use fluid transfer technologies.

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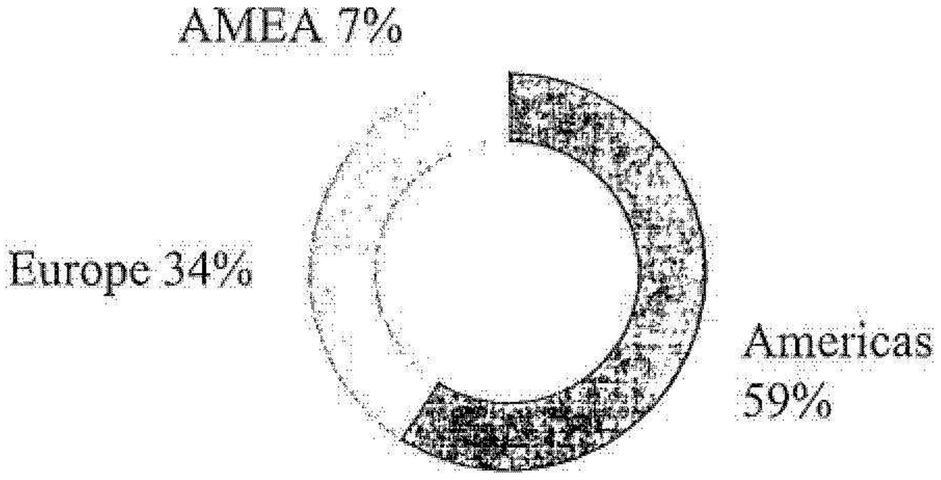
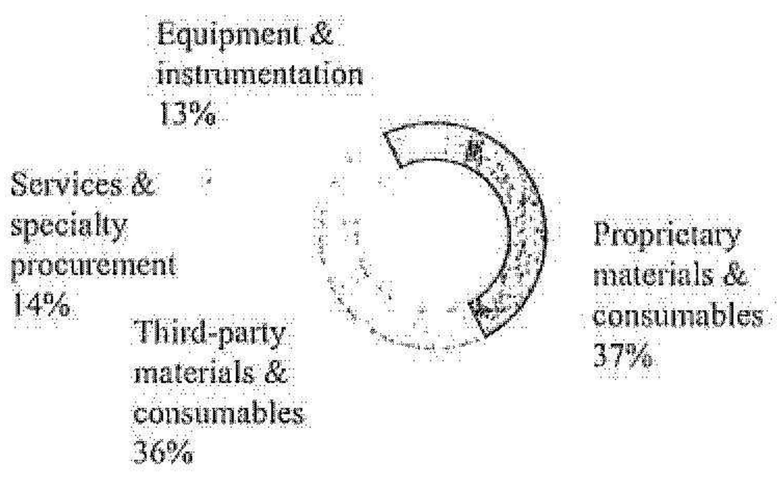
Business segments

We have reported financial results in three geographic segments based on customer location: the Americas, Europe and AMEA. The following chart presents the approximate mix of net sales for each of those segments during 2023:

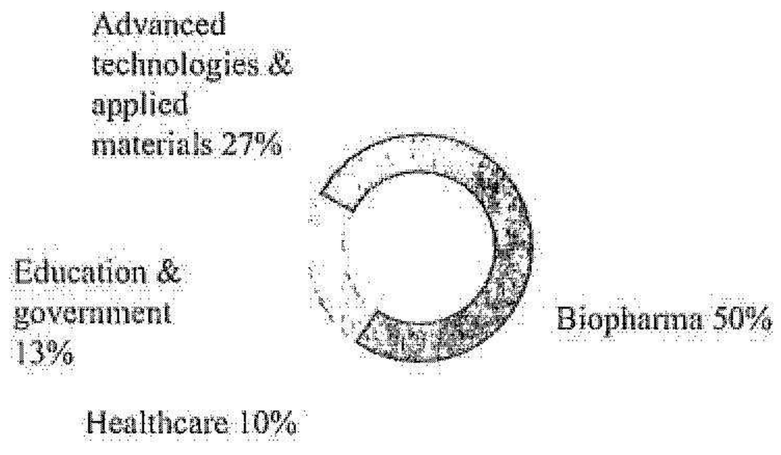


Within each of our geographic segments, we sell materials & consumables, equipment & instrumentation and services & specialty procurement to customers in the biopharma, healthcare, education & government and advanced technologies & applied materials industries. We work with customers across these sophisticated, science-driven industries that require innovation and adherence to the most demanding technical and regulatory requirements. The following charts present the approximate mix of net sales for each of these groups during 2023:

Product group



Customer group



On December 7, 2023, we disclosed that the company will transition from three geographic segments to two complementary business segments focused on customer needs: Laboratory Solutions and Bioscience Production, effective January 1, 2024.

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Products and services

Our portfolio includes a comprehensive range of products and services that allows us to create customized and integrated solutions for our customers. These products and services enable our customers to achieve precise analytical results in their research, diagnostic, and quality assurance and quality control activities. More than 85% of our net sales were from product and service offerings that we consider to be recurring in nature. Our products and services are as follows:

- *Materials & consumables* include ultra-high purity chemicals and reagents, lab products and supplies, highly specialized formulated silicone materials, customized excipients, customized single-use assemblies, process chromatography resins and columns, analytical sample prep kits and education and microbiology and clinical trial kits, peristaltic pumps and fluid handling tips. Some of these are proprietary products that we make while others are produced by third parties;

- *Equipment & instrumentation* include filtration systems, virus inactivation systems, incubators, analytical instruments, evaporators, ultra-low-temperature freezers, biological safety cabinets and critical environment supplies; and

- *Services & specialty procurement* include onsite lab and production, clinical, equipment, procurement and sourcing and biopharmaceutical material scale-up and development services.

In aggregate, we provide millions of SKUs, including high value specialty products developed to exacting purity and performance specifications. Our proprietary brands have been specified and trusted for decades. Our e-commerce platform, Avantor ScienceCentral, makes it easy for customers to do business with us and enables digital marketing efforts that position us to capture new demand. All of our capabilities are underpinned by our Avantor Business System which drives execution and continuous improvement. We manufacture products that meet or exceed the demanding requirements of our customers across a number of highly-regulated industries. Our high-purity and ultra-high purity products, such as our J.T.Baker brand chemicals, are trusted by life sciences and electronic materials customers around the world and can be manufactured at purity levels as stringent as one part-per-trillion. Similarly, our NuSil brand of high-purity, customized silicones has been trusted for more than 30 years by leading medical device manufacturers and aerospace companies.

Our services organization of over 2,500 colleagues work side-by-side with our customers to support their workflows. Our traditional service offerings focus on the needs of laboratory scientists and include procurement, logistics, chemical and equipment tracking and glassware autoclaving. In addition, we offer more complex and value-added scientific research support services such as DNA extraction, bioreactor servicing, clinical and biorepository services and compound management.

Customers

We benefit from longstanding customer relationships, and approximately 40% of our 2023 net sales came from customers that have had relationships with us for 15 years or more. We also have a diverse customer base with no single end customer comprising more than 5% of net sales.

Suppliers

We sell proprietary products we make and third-party products sourced from a wide variety of product suppliers located across the globe. Our supplier relationships are based on contracts that vary in geographic scope, duration, product and service type, and some include exclusivity provisions. Those

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relationships may include distribution, sales and marketing support as well as servicing of instruments and equipment. Many of our supplier relationships have been in place for more than twenty years.

Sales channels

We reach our customers throughout the Americas, Europe and AMEA via a well-trained global sales force, comprehensive websites and targeted catalogs. Our sales force is comprised of approximately 3,700 sales and sales support professionals, including over 200 sales specialists selected for their in-depth industry and product knowledge. Our sales professionals include native speakers for each of the countries in which we operate, allowing us to have high impact interactions with our customers across the globe.

Our e-commerce platform, Avantor ScienceCentral, plays a vital role in how we conduct business with our customers. In 2023, approximately 75% of our transactions came from our digital channels. Our websites utilize search analytics and feature personalized search tools, customer specific web solutions and enhanced data that optimize our customers' online purchasing experience with rich content and AI-based recommendations and better integrate our customers' processes with our own. Our websites are designed to integrate acquisitions, drive geographical expansion and serve segmented market needs with ease. In addition, we have introduced digital services and solutions that streamline lab procurement and operations and have become embedded into many customers' laboratories, such as Avantor's Inventory Manager.

Infrastructure

We have more than 200 facilities strategically located throughout the globe that include manufacturing, distribution, service, research & technology and sales centers.

We operate over 45 global manufacturing facilities, including 19 facilities that are cGMP compliant and have been registered with the FDA or comparable foreign regulatory authorities. Our facilities are strategically located in North America, Europe and the AMEA region to facilitate supply chain efficiency and proximity to customers. Our manufacturing capabilities include: (i) an ability to quickly change specifications depending on customer needs; (ii) our flexible unit operations, which allow for production scalability, from laboratory pre-clinical development to large-volume commercialization; (iii) proprietary purification technologies designed to ensure lot-to-lot consistency through ultra-low impurity levels; (iv) rigorous analytical quality control testing; and (v) robust regulatory and quality control procedures. Our global network of distribution centers gives our customers security of supply and real-time flexibility. We also have 13 innovation centers that enable extensive collaboration and customization, critical elements for serving highly regulated, specification-driven applications.

Information technology

We have a highly automated suite of ERP systems that promote standardization and provide business insight. Our global web infrastructure provides seamless integration with our customers and suppliers. These ERP platforms support rapid development and deployment of enhancements so that we may quickly adapt to meet the technology needs of our customers and seamlessly integrate new acquisitions. We have made significant investments to implement common ERP and online platforms that enhance the customer experience and employ network and data security architecture.

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Competition

We operate in a highly competitive environment with a diverse and fragmented base of competitors, many of whom focus on specific regions, customers, and/or segments. We focus on service and delivery, breadth of product line, customization capabilities, price, customer support, online capabilities and the ability to meet the special and local needs of our customers.

Competition is driven not only by the product quality and purity across industries we serve, but also by the adaptability of the supplier as a developmental and commercial partner. We rely on our scale, expertise, deep customer access, depth of product and value-added service offerings, marketing strategies and sales force, acquisition strategy, financial profile and management team to deliver superior solutions to our customers and provide extensive market channel access to our suppliers.

Sustainability

Our Science for Goodness sustainability platform enhances our framework for creating long-term value by embedding sound environmental, social and governance practices into our business strategy. The platform also enables us to continually measure and report progress against four key commitment pillars, which are aligned with several of the United Nations Sustainable Development Goals.

Our sustainability is reflected in our people, the products we create, the transformative services we provide, and the integrity with which we serve our shareholders, business partners, suppliers, customers, and communities. Our efforts to build a more sustainable future include programs to monitor, measure, and set strategies to reduce greenhouse gas emissions and address our waste and water footprint. As part of our commitment to accelerate sustainable practices across the supply chain, in June 2023, we launched Avantor's Responsible Supplier Program, which was piloted with a small cohort of supplier partners in 2022. The program focuses on six priorities: climate change, deforestation, human rights, responsible packaging, waste, and water. These priorities were selected based on their relevance to Avantor and to suppliers' businesses, enabling collaboration with supplier partners to identify sustainability challenges and solutions. In late 2023, we announced new 2030 science-based climate targets with a goal to achieve by 2030 a 50% absolute reduction in scope 1 and 2 emissions and a 25% absolute reduction in scope 3 emissions from a 2020 baseline.

We have consistently improved our sustainability scores, and in 2023 we received a Bronze Medal from EcoVadis rating agency. In addition, Avantor was recognized as an Equality 100 Award: Leader in LGBTQ+ Workplace Inclusion honoree by the Human Rights Campaign Foundation's 2023-2024 Corporate Equality Index.

Employees and human capital resources

Our success depends on our ability to attract, retain and motivate highly qualified and diverse talent. As of December 31, 2023, we had approximately 14,500 employees located in over 30 different countries in a variety of roles. Approximately 5,900 of our associates were employed in the U.S. We believe that our relations with our employees are good. As of December 31, 2023, approximately 5% of our employees in North America were represented by unions, and a majority of our employees in Europe were represented by workers' councils or unions. We compete in the highly competitive life sciences industry. Attracting, developing and retaining talented people in technical, marketing, sales, research and other positions is crucial to executing our strategy and our ability to compete effectively. Our ability to recruit and retain such talent depends on a number of factors, including a positive and inclusive work environment and culture, compensation and benefits, talent development and career growth and opportunities, and protecting the health, safety and well-being of our associates. To that end, we invest in our associates in

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order to be an employer of choice. Our associates reflect the communities in which we live and work, the customers we serve, and possess a broad range of thought and experiences that have helped Avantor achieve our goal of setting science in motion to create a better world.

People & culture

Enhancing our Associate Experience is a strategic priority for Avantor. Our values give our associates a foundation for how we want to work together. Innovation, Customer-centricity, Accountability, Respect, and Excellence are the building blocks of our company culture and send a strong message to our associates, customers, suppliers, stockholders and communities: ICARE. In addition, our executive leaders serve as sponsors of our Associate-Centric Teams (ACTs) in support of our diversity and inclusion initiatives. ACTs are employee resource groups that foster an inclusive work environment, build connections, create community, and promote career opportunities. Based on common interests, backgrounds or characteristics, ACTs are open to all associates and serve as a support system to promote awareness, respect, and inclusion in the workplace. Additionally, Avantor's Talent Philosophy is a part of commitment to our associates and guides our managers in their role in supporting our people and our culture.

Compensation and benefits

We are committed to rewarding, supporting and developing the associates who make it possible to deliver on our strategy. To that end, we offer a comprehensive total rewards program aimed at the varying health, home-life and financial needs of our diverse and global associates. Our total rewards package includes market-competitive pay, broad-based stock grants and bonuses, healthcare benefits, retirement savings plans, an employee stock purchase plan, paid time off and family leave, flexible work schedules, access to wellness programs, free physicals and flu vaccinations, and an Employee Assistance Program and other mental health services.

Growth and development

We invest significant resources to develop talent with the right capabilities to deliver the growth and innovation needed to support our strategy. We offer associates and their managers numerous tools to help in their personal and professional development, including our Avantor Career Hub which enables associates to highlight their skills, capture development plans, make connections and find new opportunities inside Avantor. We have a robust portfolio of learning solutions that can be accessed in multiple formats and available to our global associates across various professional, personal and leadership development areas. Each year, we host a Learning & Career week program which is available to associates at all levels globally, and includes a diverse slate of learning opportunities, live sessions and on-demand resources designed to support the personal and professional growth and success of associates. In 2023, we hosted our first Avantor Leadership Experience for individuals at the Director, Vice President and Senior Vice President level. In addition, we provide programs on the Avantor Business System, which drives excellence in people, processes and problem solving. These consistent lean leadership practices empower associates to continuously improve and add value to our operations and customer solutions. We have aligned our performance management system through which 100% of our associates receive annual performance reviews, to support our culture of feedback to increase the focus on continuous learning and development. Our Career Accelerator programs are focused on providing management skills training to high-performing individual contributors and early career associates in underrepresented ethnicities.

Health, safety and well-being

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We are committed to protecting the health, safety and well-being of our associates. Our approach involves environment, health and safety professionals and process engineers who identify risks and implement behavioral solutions to prevent accidents before they occur. A robust auditing program is in place at every facility to ensure that we measure performance and drive continuous improvement. Our core areas of focus include compliance with regulatory and international requirements, active monitoring of regulatory agencies for changing requirements, partnering with operational leaders to meet Environment, Health & Safety, Security & Sustainability (EHSSS) requirements, and promoting effective communication throughout the organization.

Intellectual property

We rely on intellectual property rights, nondisclosure and other contractual provisions and technical measures to protect our offerings, services and intangible assets. Much of our intellectual property is know-how and asset configurations that we treat as trade secrets. These proprietary rights are important to our ongoing operations. In some instances, we may license our technology to third parties or may elect to license intellectual property from others. We have applied in the United States and certain foreign countries for registration of number of trademarks, service marks and patents, some of which have been registered and issued. We also hold common law rights in various trademarks and service marks. Other than our Avantor, VWR, J.T.Baker, NuSil and Masterflex trademarks, we do not consider any particular patent, trademark, license, franchise or concession to be material to our overall business.

Seasonality

Our business is not seasonal, but some of our proprietary products have exhibited cyclical customer demand in prior periods. We believe that this is caused by factors unique to those particular product markets such as customer manufacturing schedules, inventory levels in the supply chain and government approval processes. As a result, we may see fluctuations across periods as the timing of our customers' demand for these products may change.

Government contracts

We conduct business with various government agencies and government contractors. As such, we are subject to certain laws and regulations applicable to companies doing business with the government, as well as with those concerning government contracts. Failure to address or comply with these laws and regulations could harm our business by leading to a renegotiation of profits or termination of the contract at the election of the government agency. For a discussion of risks related to government contracting requirements, refer to "Item 1A, Risk Factors." No government contract is of such a magnitude as to have a material adverse effect on our financial results.

Government regulation

Our facilities that engage in the manufacturing, packaging, distribution and other biopharmaceutical and biomaterials production, as well as many of our products themselves, are subject to extensive ongoing regulation by U.S. governmental authorities, the EMA and other global regulatory authorities. Certain of our subsidiaries are required to register with these agencies, or to apply for permits and/or licenses with, and must comply with the operating, cGMP, quality and security standards of applicable domestic and foreign regulators, including the FDA, the DEA, the Bureau of Alcohol, Tobacco, Firearms and Explosives, DHHS, the equivalent agencies of European Union (EU) member states, and comparable foreign, state and local agencies, as well as various accrediting bodies, each depending upon the type of

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operation and the locations of storage or sale of the products manufactured or services provided by those subsidiaries in the event of noncompliance.

In order to maintain certain certifications of quality and safety standards for our manufacturing facilities and operations, we must comply with numerous regulatory systems, standards, guidance and other requirements, as appropriate, including, but not limited to, ICH Q7, the guidelines of the International Pharmaceutical Excipients Council, European in vitro diagnostic medical device directives, U.S. Pharmacopeia / National Formulary, as well as the European, British, Japanese, Indian and Chinese Pharmacopeia, the Food Chemicals Codex and controlled substances regulations.

In addition, our operations, and some of the products we offer, are subject to a number of complex and stringent laws and regulations governing the production, handling, transportation and distribution of chemicals, drugs and other similar products. We are subject to various federal, state, local, foreign and transnational laws, regulations and recommendations, both in the U.S. and abroad, relating to safe working conditions, good laboratory and distribution practices, and the safe and proper use, transportation and disposal of hazardous or potentially hazardous substances. In addition, U.S. and international import and export laws and regulations, including those enforced by the U.S. Departments of Commerce, State and Treasury, OFAC and BIS, require us to abide by certain standards relating to the cross-border transit of finished goods, raw materials and supplies and the handling of related information. Our logistics activities must comply with the rules and regulations of the U.S. Department of Transportation, Department of Homeland Security, Department of Commerce, Department of Defense, and the Federal Aviation Administration and similar foreign agencies. We are also subject to various other laws and regulations concerning the conduct of our foreign operations, including the FCPA and other anti-bribery laws as well as laws pertaining to the accuracy of our internal books and records.

The costs associated with complying with the various applicable federal, state, local, foreign and transnational regulations could be significant, and the failure to comply with such legal requirements could have an adverse effect on our reputation, results of operations and financial condition. See Item 1A, "Risk factors—Risks related to regulation." We are subject to audits by the FDA and other similar foreign regulatory bodies. To date, we have had no instances of noncompliance that have had a material impact on our operations.

In addition to the regulations described above, as part of our aerospace and military offerings, we are registered with the DDTC as a manufacturer and exporter of goods controlled by ITAR, and we are subject to strict export control and prior approval requirements related to these goods. In connection with our NuSil brand products, we have one ITAR site registration and one ITAR product registration, and we maintain control systems which enable ITAR compliance. With respect to our electronic materials products, we adhere to applicable industry guidelines which set stringent quality criteria for our products, and we are subject to import and export regulations and other restrictions regarding the safe use of these products as well.

We are also subject to various federal, state and international laws and regulations related to privacy and data protection, including the EU's General Data Protection Regulation ("GDPR") as well as the California Consumer Privacy Act of 2018 ("CCPA"), which became effective on January 1, 2020 (as amended by the California Privacy Rights Act, which took effect on January 1, 2023, the "CPRA"). The interpretation and application of data privacy, cross-border data transfers and data protection laws and regulations are often uncertain and are evolving in the U.S. and internationally, such as in the EU, China and other jurisdictions. We monitor pending and proposed legislation and regulatory initiatives to ascertain their relevance to, and potential impact on, our business and develop strategies to address regulatory trends and developments, including any required changes to our privacy and data protection

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compliance programs and policies. Globally, we see a growing trend toward data protection laws and regulations increasing in complexity and number, and we anticipate that our obligations will expand commensurately.

Environmental matters

We are subject to various laws and governmental regulations concerning environmental, safety and health matters, including employee safety and health, in the U.S. and other countries. U.S. federal environmental legislation that affects us includes the Toxic Substances Control Act, the Resource Conservation and Recovery Act, the Clean Air Act, the Clean Water Act, the Safe Drinking Water Act, and CERCLA. These laws and regulations govern, among other things, air emissions, wastewater discharges, the use, handling and disposal of hazardous substances and wastes, soil and groundwater contamination and the general health and safety of our associates and the communities in which we operate. We are also subject to regulation by OSHA concerning employee safety and health matters. The EPA, OSHA, and other federal and foreign or local agencies have the authority to promulgate regulations that may impact our operations.

Under CERCLA, and analogous statutes in local and foreign jurisdictions, current and former owners and operators of contaminated land are strictly liable for the investigation and remediation of the land and for natural resource damages that may result from releases of hazardous substances at or from the property. Liability under CERCLA and analogous laws is strict, unlimited, joint, several, retroactive, may be imposed regardless of fault and may relate to historical activities or contamination not caused by the current owner or operator. It is possible that facilities that we acquire or have acquired may expose us to environmental liabilities associated with historical site conditions that have not yet been discovered.

In addition to the federal environmental laws that govern our operations, various states have been delegated certain authority under the aforementioned federal statutes as well as having authority over these matters under state laws. Many state and local governments have adopted environmental and employee safety and health laws and regulations, some of which are similar to federal requirements.

A number of our operations involve, in varying degrees, the handling, manufacturing, use or sale of substances that are or could be classified as toxic or hazardous materials within the meaning of applicable laws. Consequently, some risk of environmental harm is inherent in our operations and products, as it is with other companies engaged in similar businesses. For additional information about environmental matters, see note 12 to our audited financial statements beginning on page F-1 of this report.

Available information

We file or furnish annual, quarterly and current reports, proxy statements and other documents with or to the SEC. The public can obtain any documents that we file with or furnish to the SEC at www.sec.gov.

You may also access our press releases, financial information and reports filed with or furnished to the SEC through our own website at www.avantorsciences.com. Copies of any documents on our website may be obtained free of charge, and reports filed with or furnished to the SEC will be available as soon as reasonably practicable after they are filed with or furnished to the SEC. The information found on our website is not part of this or any other report filed with or furnished to the SEC.

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Item 1A. Risk factors

Risks related to our business and our industry

Significant interruptions in our operations could harm our business, financial condition and results of operations.

Any significant disruptions to the operations of our manufacturing or distribution centers or logistics providers for any reason, including labor relations issues, power interruptions, severe weather, destruction or damage or other circumstances beyond our control could have a significant impact on our operating results, including an increase to our operating expenses without coverage or compensation, or seriously harm our ability to fulfill our customers' orders or deliver products on a timely basis, or both. We must also maintain sufficient production capacity to meet anticipated customer demand, which carries fixed costs that we may not be able to offset if orders slow, which would adversely affect our operating margins. If we are unable to manufacture our products consistently, in sufficient quantities, and on a timely basis, our net sales, gross margins and our other operating results will be materially and adversely affected. In addition, we have experienced problems with, or delays in, our production, shipping and logistics capabilities that have resulted in delays in our ability to ship finished products, and there can be no assurance that we will not encounter such problems in the future. Significant delays in our manufacturing, shipping or logistics processes could damage our customer relationships, cause disruption to our customers and adversely affect our business, financial condition and operating results.

We have been impacted by supply chain constraints and inflationary pressures

We have experienced challenges in sourcing certain products and raw materials as a result of global supply chain disruptions and have experienced inflationary pressures across all of our cost categories. While we have implemented pricing and productivity measures to combat these pressures, they may continue to adversely impact our results.

We compete in highly competitive markets. Failure to compete successfully could adversely affect our business, financial condition and results of operations.

We face competition across our products and the markets in which we operate, both domestically and internationally. Competition is driven by proprietary technologies and know-how, capabilities, consistency of operational performance, quality, supply chain control, price, value and speed. Our competitors range from regional companies, which may be able to more quickly respond to customers' needs because of geographic proximity, to large multinational companies, which may have greater financial, marketing, operational and research and development resources than we do, allowing for a more rapid response with new, alternative or emerging technologies.

In addition, consolidation trends in the biopharma and healthcare industries have served to create fewer customer accounts and to concentrate purchasing decisions for some customers, resulting in increased pricing pressures. New competitors in low-cost manufacturing locations, particularly developing markets, may create increased pricing and competitive pressures and impede our goal to grow in those markets. Failure to anticipate and respond to competitors' actions may adversely affect our results of operations and financial condition.

It may be difficult for us to implement our strategies for improving growth and optimizing costs.

We have announced a transition to a new operating model consisting of two complementary business segments, the Laboratory Solutions segment and the Bioscience Production segment, effective January 1, 2024, and plan to continue expanding our commercial sales operations and scope and complexity of our

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business both domestically and internationally, while maintaining our commercial operations and administrative activities. In conjunction with our new operating model, we have also launched a cost optimization initiative. Our ability to manage our business and conduct our global operations while also pursuing our strategies for improving growth and optimizing costs requires considerable management attention and resources and is subject to the challenges of supporting a rapidly growing business in an environment of multiple languages, cultures and customs, legal and regulatory systems, alternative dispute systems and commercial markets. Our failure to implement these strategies in a cost-effective and timely manner could have an adverse effect on our business, results of operations and financial condition.

Part of our growth strategy is to pursue strategic acquisitions, which will subject us to a variety of risks that could harm our business.

As part of our business strategy, we intend to continue to review, pursue and complete selective acquisition opportunities. There can be no assurances that we will be able to complete suitable acquisitions for a variety of reasons, including the identification of, and competition for, acquisition targets, the need for regulatory approvals, the inability of the parties to agree to the structure or purchase price of the transaction and the inability to finance the transaction on commercially acceptable terms. In addition, any completed acquisition will subject us to a variety of other risks, including: (i) potential adverse effects on our business relationships with existing or future suppliers and other business partners (in particular, to the extent we consummate acquisitions that vertically integrate portions of our business); (ii) the assumption of substantial actual or contingent liabilities, known or unknown, including environmental liabilities; (iii) failure to meet expectations of future financial performance; (iv) delays or reductions in realizing expected synergies; (v) substantial unanticipated costs or other problems associated with acquired businesses or devoting time and capital to investigate a potential acquisition that is not completed; (vi) failure to achieve intended objectives for a transaction; (vii) failure to retain key personnel, customers and suppliers of the acquired business; and (viii) adverse impacts resulting from impairment charges on goodwill, other intangible assets and tangible assets. These factors related to our acquisition strategy, among others, could have an adverse effect on our business, financial condition and results of operations.

The customers we serve have experienced, and will continue to experience, significant industry-related changes that could adversely affect our business.

Many of the customers we serve have experienced, and are expected to continue to experience, significant industry-related changes, including reductions in governmental payments for biopharmaceutical products, expirations of significant patents, adverse changes in legislation or regulations regarding the delivery or pricing of general healthcare services or mandated benefits, and increased requirements on quality. General industry changes include:

- development of large and sophisticated group purchasing organizations and on-line auction sites that increase competition for, and reduce spending on, laboratory products;
- consolidation of biopharmaceutical companies resulting in a rationalization of research expenditures;
- increased regulatory scrutiny over drug production requiring safer raw materials;
- customers' purchasing the products that we supply directly from our suppliers; and
- significant reductions in development and production activities.

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Some of our customers have implemented, or may in the future implement, certain measures described above in an effort to control and reduce costs. The ability of our customers to develop new products to replace sales decreases attributable to expirations of significant patents, along with the impact of other past or potential future changes in the industries we serve, may result in our customers significantly reducing their purchases of products from us or the prices they are willing to pay for those products. While we believe we will be able to adapt our business to maintain existing customer relationships and develop new customer relationships, if we are unsuccessful or untimely in these efforts, our results of operations may suffer.

Our offerings are highly complex, and, if our products do not satisfy applicable quality criteria, specifications and performance standards, we could experience lost sales, delayed or reduced market acceptance of our products, increased costs and damage to our reputation.

The high-purity materials and customized solutions we offer are highly exacting and complex due to demanding customer specifications and stringent regulatory and industry requirements. Our operating results depend on our ability to execute and, when necessary, improve our global quality control systems, including our ability to effectively train and maintain our employees with respect to quality control. A failure of our global quality control systems could result in problems with facility operations or preparation or provision of defective or non-compliant products. Nearly all of our products are subsequently incorporated into products sold to end users by our customers, and we have no control over the manufacture and production of such products.

Our success depends on our customers' confidence that we can provide reliable, high-quality products. We believe that customers in our target markets are likely to be particularly sensitive to product defects and errors. Our reputation and the public image of our products and technologies may be impaired if our products fail to perform as expected or fail to meet applicable quality criteria, specifications or performance standards. If our products experience, or are perceived to experience, a material defect or error, this could result in loss or delay of net sales, damaged reputation, diversion of development resources, and increased insurance or warranty costs, any of which could harm our business.

The loss of a significant number of customers or a significant reduction in customer orders could reduce our net sales and harm our operating results.

Our operating results could be negatively affected by the loss of revenue from a significant number of our customers, including direct distributors and end users. Though we often include pricing and volume incentives in our contracts, our customers are generally not obligated to purchase any fixed quantities of products, and they may stop placing orders with us at any time. If we experience a significant reduction in customer orders, increased order deferrals, our sales could decline, and our operating results may not meet our expectations. In addition, if customers order our products, but fail to pay on time or at all, our liquidity and operating results could be adversely affected.

Our contracts generally do not contain minimum purchase requirements, and we sell primarily on a purchase order basis. Therefore, our sales are subject to changes in demand from our customers, and these changes have been material in the past. The level and timing of orders placed by our customers vary for a number of reasons, including individual customer strategies, the introduction of new technologies, the desire of our clients to reduce their exposure to any single supplier and general economic conditions. If we are unable to anticipate and respond to the demands of our customers, we may lose customers because we have an inadequate supply of raw materials with which to manufacture our products or insufficient capacity in our sites. Alternatively, we may have excess inventory or excess capacity. Either of these factors may have a material adverse effect on our business, financial position and operating results.

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We are subject to risks associated with doing business globally, which may harm our business.

We have global operations and derive a substantial portion of our net sales from customers outside of the United States. Accordingly, our international operations or those of our international customers could be substantially affected by a number of risks arising from operating an international business, including: (i) limitations on repatriation of earnings; (ii) taxes on imports; (iii) the possibility that unfriendly nations or groups could boycott our products; (iv) general economic and political conditions in the markets where we operate, including actual or anticipated military or political conflicts, such as the Ukraine/Russia or Israel/Hamas conflicts; (v) foreign currency exchange rate fluctuations; (vi) potential changes in diplomatic and trade relationships; (vii) a global health crisis of unknown duration, such as the COVID-19 pandemic; (viii) potential increased costs associated with overlapping tax structures; (ix) potential increased reliance on third parties within less developed markets; (x) potential trade restrictions, tariffs and exchange controls; (xi) more limited protection for intellectual property rights in some countries; (xii) difficulties and costs associated with staffing and managing foreign operations; (xiii) difficulties in complying with a wide variety of foreign laws and regulations and unexpected changes thereto; (xiv) expanded enforcement of laws related to data protection and personal privacy; (xv) the risk that certain governments may adopt regulations or take other actions that would have a direct adverse impact on our business and market opportunities, including nationalization of private enterprise; (xvi) violations of anti-bribery and anti-corruption laws, such as the FCPA; (xvii) violations of economic sanctions laws, such as the regulations enforced by OFAC; (xviii) longer accounts receivable cycles in certain foreign countries, whether due to cultural differences, exchange rate fluctuation or other factors; (xix) the credit risk of local customers and distributors; (xx) limitations on our ability to enforce legal rights and remedies with third parties or partners outside of the United States; (xxi) import and export licensing requirements and other restrictions, such as those imposed by OFAC, BIS, DDTC and comparable regulatory agencies and policies of foreign governments; and (xxii) changes to our distribution networks.

Changes in exchange rates can adversely affect our net sales, profits and cash flows.

A substantial amount of our revenues is derived from international operations, and we anticipate that a significant portion of our sales will continue to come from outside of the United States in the future. The revenues we report with respect to our operations outside of the United States may be adversely affected by fluctuations in foreign currency exchange rates.

Further, we have a substantial amount of Euro denominated indebtedness. Fluctuations in the exchange rate between U.S. dollars and Euros may have a material adverse effect on our ability to repay such indebtedness. See Item 7A. "Quantitative and qualitative disclosures about market risk."

Our business depends on our ability to use and access information systems, and any failure to successfully maintain these systems or implement new systems to handle our changing needs could materially harm our operations.

Our businesses rely on sophisticated information systems: (i) to obtain, rapidly process, analyze, and manage data to facilitate the purchase and distribution of thousands of inventory items from numerous distribution centers; (ii) to receive, process, and ship orders on a timely basis; (iii) to account for other product and service transactions with customers; (iv) to manage the accurate billing and collections for thousands of customers; and (v) to process payments to suppliers. We continue to make substantial investments in data centers and information systems. To the extent our information systems are not successfully implemented or fail, or there are data center interruptions or outages, our business and results of operations may be adversely affected. Our business and results of operations may also be adversely

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affected if a third-party service provider does not perform satisfactorily, or if the information systems are interrupted or damaged by unforeseen events, including due to the actions or inactions of third parties.

Like other companies, the systems and networks we maintain and third-party systems and networks we use have in the past been, and will likely in the future be, subject to or targets of unauthorized or fraudulent access, including physical or electronic break-ins or unauthorized tampering, as well as attempted cyber and other security threats and other attacks such as "denial of service" attacks, phishing, untargeted but sophisticated and automated attacks, ransomware, and other disruptive software. For example, as artificial intelligence ("AI") continues to evolve, cyber-attackers could also use AI to develop malicious code and sophisticated phishing attempts. We are also exposed to similar risks resulting from cyber-attacks that are experienced by our third-party service providers. Security breaches can also occur as a result of intentional or inadvertent actions by our employees, third-party service providers or their personnel or other parties. A failure, interruption, or breach of our systems, or those of our third-party service providers, as a result of cyber-attacks or information security breaches, could disrupt our business, result in the disclosure or misuse of confidential or proprietary information or personal data, damage our reputation, cause loss of customers or revenue, increase our costs, result in litigation and/or regulatory action, and/or cause other losses, any of which may have a material adverse impact on our business operations and our financial position or results of operations. Although we believe that we have robust information security procedures, controls and other safeguards in place, as cyber threats continue to evolve, we will be required to expend additional resources to continue to enhance our information security measures and/or to investigate and remediate information security vulnerabilities.

Our actual or perceived failure to adequately protect personal data could adversely affect our business.

Given the nature of our business, we collect and store confidential information that customers provide in order to, among other things, purchase products and services and register on our website.

We are required to comply with increasingly complex and changing data privacy regulations both in the United States and beyond that regulate the collection, use, sharing, and transfer of personal data. Many of these regulations also grant rights to individuals. Many foreign data privacy regulations (including GDPR in the European Union) and certain state laws and regulations (including California's CPRA) impose requirements beyond those enacted under federal law including, in some instances, private rights of action. For example, the EU GDPR imposes more stringent data protection requirements, including a broader scope of protected data, restrictions on cross-border transfers of personal data and more onerous breach reporting requirements, and greater penalties for non-compliance than the federal data protection laws. Other states and countries continue to enact similar legislation. We are also required to comply with expanding and increasingly complex privacy and data protection regulations in the United States and abroad with respect to reporting adverse events and additional requirements for avoiding or responding to an adverse event. We also have contractual obligations to our customers related to the protection of personal data and compliance with privacy laws.

While we have taken various measures and made significant efforts and investment and designed our policies, processes and systems to be robust, a failure, or perceived failure, by us to comply with any applicable regulatory requirements or orders, including but not limited to privacy, data protection, information security, or consumer protection-related privacy laws and regulations, in one or more jurisdictions within the United States, the EU or elsewhere, could result in proceedings or actions against us by governmental entities or individuals; subject us to significant fines, penalties, and/or judgments; require us to change our business practices; limit access to our products and services in certain countries, incur substantial costs (even if we ultimately prevail) or otherwise adversely affect our business.

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Our inability to protect our intellectual property could adversely affect our business. In addition, third parties may claim that we infringe their intellectual property, and we could suffer significant litigation or licensing expenses as a result.

We rely on a variety of intellectual property rights, including patents, trademarks, copyrights and trade secrets, to protect our proprietary technology and products. We place considerable emphasis on obtaining patent or maintaining trade secret protection for significant new technologies, products and processes because of the length of time and expense associated with bringing new products and processes through development and to the market.

We may need to spend significant resources monitoring and enforcing our intellectual property rights and we may not be able to prove infringement by third parties. Our competitive position may be harmed if we cannot enforce our intellectual property rights. In some circumstances, we may choose to not pursue enforcement for business reasons. In addition, competitors might avoid infringement by designing around our intellectual property rights or by developing non-infringing competing technologies. Intellectual property rights and our ability to enforce them may be unavailable or limited in some countries, which could make it easier for competitors to capture market share and could result in lost revenues.

Our trademarks are valuable assets and if we are unable to protect them from infringement, our business prospects may be harmed.

Our brands, particularly our J.T.Baker, NuSil, VWR and Masterflex brands, are valuable assets. Therefore, we actively manage our trademark portfolio, including by maintaining registrations for long-standing trademarks and applying to obtain trademark registrations for new brands. We also police our trademark portfolio against infringement. Our efforts to protect and defend our trademarks may fall short or be unsuccessful against competitors or other third parties for a variety of reasons. To the extent that third parties or distributors sell products that are counterfeit versions of our branded products, our customers could inadvertently purchase products that are inferior. This could cause our customers to refrain from purchasing our brands in the future and in turn could impair our brand equity and adversely affect our sales.

We are subject to product liability and other claims in the ordinary course of business.

Our business involves risk of product liability, intellectual property claims and other claims in the ordinary course of business arising from the products that we source from various manufacturers or produce ourselves. Furthermore, there may be product liability risks that are unknown or which become known in the future. Substantial, complex or extended litigation on any claim could cause us to incur significant costs and distract our management. We maintain insurance policies and in some cases, our suppliers, customers and predecessors of acquired companies have indemnified us against certain claims. We cannot assure you that our insurance coverage or indemnification agreements will be available in all pending or any future cases brought against us. Accordingly, we could be subject to uninsured and unindemnified future liabilities requiring us to provide additional reserves to address such liabilities. An unfavorable result in a case for which adequate insurance or indemnification is not available could adversely affect our business, financial condition and results of operations.

We must develop new products, adapt to rapid and significant technological change and respond to introductions of new products by competitors to remain competitive.

We sell our products in industries that are characterized by significant technological changes, frequent new product and technology introductions and enhancements and evolving industry standards. As a result,

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our customers' needs are rapidly evolving. If we do not appropriately innovate and invest in new technologies, our offerings may become less desirable in the markets we serve, and our customers could move to new technologies offered by our competitors or make products themselves. Without the timely introduction of new products, services and enhancements, our offerings will likely become less competitive over time, in which case, our competitive position, net sales and operating results could suffer. Accordingly, we focus significant efforts and resources on the development and identification of new technologies, products and services that are attractive to, and gain acceptance, in the markets we serve and further broaden our offerings. To the extent we fail to timely introduce new and innovative products or services, adequately predict our customers' needs or fail to obtain desired levels of market acceptance, our business may suffer.

We depend upon the availability of raw materials.

Our operations depend upon our ability to obtain high-quality raw materials meeting our specifications and other requirements at reasonable prices, including various active pharmaceutical ingredients, components, compounds, excipients and other raw materials, many of which are sole-sourced due to market or customer demands. Our ability to maintain an adequate supply of such materials and components could be impacted by the availability and price of those raw materials and maintaining relationships with key suppliers.

Moreover, we are dependent upon the ability of our suppliers to provide materials and components that meet our specifications, quality standards, other applicable criteria, and delivery schedules. Our suppliers' failure to provide expected raw materials or components that meet such criteria could adversely affect production schedules and contract profitability and negatively impact our results of operations.

We depend upon maintaining our relationships with suppliers.

We offer products from a wide range of suppliers. While there is generally more than one source of supply for most of the categories of third-party materials & consumables and equipment & instrumentation that we sell, we currently do not manufacture the majority of our products and are dependent on these suppliers for access to those products.

Our ability to sustain our gross margins has been, and will continue to be, dependent in part upon our ability to obtain favorable terms from our suppliers. These terms may change from time to time, and such changes could adversely affect our gross margins over time. In addition, our results of operations and cash flows could be adversely impacted by the acceleration of payment terms to our suppliers and/or the imposition of more restrictive credit terms and other contractual requirements.

Our use of chemicals and chemical processes is subject to inherent risk.

We use chemical ingredients in the manufacture of certain of our products. Due to the nature of the manufacturing process itself, there is a risk of incurring liability for damages caused by or during the storage or manufacture of both the chemical ingredients and the finished products. The processes used in certain of our facilities typically involve large volumes of solvents and chemicals, creating the potential for fires, spills and other safety or environmental impacts. If any of these risks materialize, it could result in significant remediation and other costs, potential adverse regulatory actions and liabilities, any of which could have an adverse effect on our business, results of operations and financial condition.

In addition, the manufacturing, use, storage, and distribution of chemicals are subject to threats including terrorism. We have several high-risk chemical facilities that contain materials that could be stolen and

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used to make weapons. We could also be subject to an attack on our high-risk facilities that could cause a significant number of deaths and injuries. Such an occurrence could also harm the environment, our reputation and disrupt our operations.

Climate change, and the legal or regulatory response thereto, may have a long-term impact on our business, financial condition and results of operations.

We continue to focus on strategies and systems, such as reducing greenhouse gas emissions and packaging waste, to address climate change. However, we face climate and environmental risks and the occurrence of one or more unexpected events, including fires, tornadoes, tsunamis, hurricanes, earthquakes, drought, storms, sea level rise, floods, and other severe hazards or accidents in the United States, the United Kingdom, the European Union or in other countries or regions in which we operate could adversely affect our operations and financial performance. Extreme weather, natural disasters, power outages, or other unexpected events could result in physical damage to, and complete or partial closure of, one or more of our manufacturing or distribution centers; temporary or long-term disruption in the supply of products; and/or disruption of our ability to deliver products to customers. Increasing concern over climate change also may result in additional legal or regulatory requirements designed to reduce or mitigate the effects of carbon dioxide and other greenhouse gas emissions on the environment. The effects of climate change and legal or regulatory initiatives to address climate change could have a long-term adverse impact on our business, financial condition and results of operations. In addition, we have established and publicly announced goals and commitments to reduce our carbon footprint, including targets to reduce greenhouse gas emissions (scope 1, scope 2 and scope 3). If we are unable to achieve, or improperly report on our progress toward, our carbon footprint reduction goals and commitments, this may result in litigation and/or regulatory action as well as negative publicity, which could lead to the loss of business, adverse reputational impacts, diluted market valuations and challenges in attracting and retaining customers and talented employees.

We are highly dependent on our senior management and key employees.

Our success depends on our ability to attract, motivate and retain highly qualified individuals. Competition for senior management and other key personnel in our industry is intense, and the pool of suitable candidates is limited. The failure to attract, retain and properly motivate members of our senior management team and other key employees, or to find suitable replacements for them in the event of death, illness or their desire to pursue other professional opportunities, could have a negative effect on our operating results.

The indemnification provisions of acquisition agreements by which we have acquired companies may not fully protect us and as a result, we may face unexpected liabilities.

Certain of the acquisition agreements by which we have acquired companies require the former owners to indemnify us against certain liabilities related to the operation of the company before we acquired it. In most of these agreements, however, the liability of the former owners is limited and certain former owners may be unable to meet their indemnification responsibilities. We cannot assure you that these indemnification provisions will protect us fully or at all, and as a result, we may face unexpected liabilities that adversely affect our financial statements.

We face risks related to health epidemics and pandemics.

We face risks related to health epidemics and pandemics, including risks related to any responses thereto by the federal, state or foreign governments, as well as customers and suppliers. A pandemic could adversely affect our operations, supply chains and distribution network, and we could experience and

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expect prolonged unpredictable reductions in supply and demand for certain of our offerings similar to those experienced during the COVID-19 pandemic, as well as unpredictable increases in demand for certain of our offerings similar to those experienced during the COVID-19 pandemic. Further, it is possible that disruptions or delays in shipments of certain raw materials used in the products we manufacture and in the finished goods that we sell globally could be similar to those experienced during the COVID-19 pandemic. The implementation of any government-mandated vaccination or testing mandates may impact our ability to retain current employees and attract new employees. Any extended disruption in our ability to service our customers could have a negative effect on our operating results.

Changes in tax law relating to multinational corporations could adversely affect our tax position.

The U.S. Congress, foreign governments, and their agencies in non-U.S. jurisdictions where we and our affiliates do business, and the Organization for Economic Cooperation and Development ("OECD"), continue to focus on issues related to the taxation of multinational corporations. As part of this focus, the OECD has introduced a framework to implement a 15% global minimum corporate tax rate. Many aspects of this minimum tax directive will be effective beginning in 2024. While it is uncertain whether the U.S. will enact legislation to adopt the minimum tax directive, certain countries in which we operate have adopted legislation and other countries are in the process of introducing legislation to implement the minimum tax directive. While we do not currently expect the minimum tax directive to have a material impact on our effective tax rate, our analysis is ongoing as the OECD continues to release additional guidance. There can be no assurance that these changes, and any further contemplated changes when finalized and adopted by countries, will not have an adverse impact on our provision for income taxes.

Due to the potential for changes to tax laws and regulations or changes to the interpretation thereof, the ambiguity of tax laws and regulations, the subjectivity of factual interpretations, the complexity of our intercompany arrangements, uncertainties regarding the geographic mix of earnings in any particular period, and other factors, our estimates of effective tax rate and income tax assets and liabilities may be incorrect and our financial statements could be adversely affected. The impact of the factors referenced in the first sentence of this paragraph may be substantially different from period-to-period.

Certain of our businesses rely on relationships with collaborative partners and other third parties for development, supply and marketing of certain products and potential products, and such collaborative partners or other third parties could fail to perform sufficiently.

We believe that for certain of our businesses, success in penetrating target markets depends in part on their ability to develop and maintain collaborative relationships with other companies. Relying on collaborative relationships is risky because, among other things, our collaborative partners may (i) not devote sufficient resources to the success of our collaborations; (ii) fail to obtain regulatory approvals necessary to continue the collaborations in a timely manner; (iii) be acquired by other companies and terminate our collaborative partnership or become insolvent; (iv) compete with us; (v) disagree with us on key details of the collaborative relationship; (vi) have insufficient capital resources; and (vii) decline to renew existing collaborations on acceptable terms. Because these and other factors may be beyond our control, the development or commercialization of our products involved in collaborative partnerships may be delayed or otherwise adversely affected. If we or any of our collaborative partners terminate a collaborative arrangement, we may be required to devote additional resources to product development and commercialization or we may need to cancel some development programs, which could adversely affect our business and financial statements.

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Risks related to regulation

We are required to comply with a wide variety of laws and regulations, and are subject to regulation by various federal, state and foreign agencies, and our failure to comply with existing and future regulatory requirements could adversely affect our results of operations and financial condition.

We compete in markets in which we and our customers are subject to federal, state, local, international and transnational laws and regulations, including the operating, quality and security standards of the FDA, various state health departments, the DHHS, similar bodies of the EU and its member states and other comparable agencies around the world, and, in the future, any changes to such laws and regulations could adversely affect us. We develop, configure and market our products to meet customer needs driven by those regulations. Among other rules affecting us, we are subject to laws and regulations concerning cGMP and product safety. Our subsidiaries may be required to register for permits and/or licenses with, and may be required to comply with, the laws and regulations of the FDA, the DHHS, the DEA, foreign agencies including the EMA, and other various state health departments and/or comparable state and foreign agencies as well as certain accrediting bodies depending upon the types of operations and locations of distribution and sale of the products manufactured or services provided by those subsidiaries. Any significant change in regulations could reduce demand for our products or increase our expenses. For example, many of our products are marketed to the biopharma industry for use in discovering, developing and manufacturing drugs, or are sold as raw materials or components to drug device manufacturers or for use in the manufacture of implantable devices. Changes in the domestic or foreign regulation of drug discovery, development or manufacturing processes or medical device manufacturing processes, or adverse findings concerning any health effects associated with these products, could have an adverse effect on the demand for these products and could also result in legal liability and claims.

We are also registered with the DDTC, as a manufacturer and exporter of goods controlled by ITAR, and we are subject to strict export control and prior approval requirements related to these goods. Our failure to comply with ITAR and other export control laws and regulations, as well as economic sanctions, could result in penalties, loss, or suspension of contracts or other consequences. Any of these could adversely affect our operations and financial condition. Failure by us or by our customers to meet one or more of these various regulatory obligations could have adverse consequences in the event of material non-compliance. Compliance with relevant sanctions and export control laws could restrict our access to, and increase the cost of obtaining, certain products and at times could interrupt our supply of imported inventory or our ability to service certain customers. Conversely, compliance with these regulatory obligations may require us to incur significant expenses.

In addition, certain of our facilities are certified to ISO, including ISO 13485, ISO 9001, AS9100, ISO 22000 and/or ISO 14001. These standards are voluntary quality management system standards, the maintenance of which indicates to customers certain quality and operational norms. Customers may rely on contractual assurances that we make with respect to ISO certificates to transact business. Failure to comply with these ISO standards can lead to observations of non-compliance or even suspension of ISO or Aerospace Standard (AS) certifications or European Community (EC) Declarations of Conformity Certificates by the registrar. If we were to lose ISO or AS certifications or EC Declarations of Conformity, we could lose sales and customers to competitors or other suppliers. We are also subject to periodic inspections or audits by our customers. If these audits or inspections identify issues or the customer perceives there are issues, the customer may decide to cease purchasing products from us which could adversely affect our business.

Our reputation, ability to do business and financial statements may be impaired by improper conduct by any of our employees, agents or business partners.

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We cannot provide assurance that our internal controls and compliance systems will always protect us from acts committed by employees, agents or business partners of ours (or of businesses we acquire or partner with) that would violate U.S. and/or non-U.S. laws, including the laws governing payments to government officials, bribery, fraud, kickbacks and false claims, pricing, sales and marketing practices, conflicts of interest, competition, export and import compliance, money laundering and data privacy. In particular, the FCPA, the U.K. Bribery Act and similar anti-bribery laws in other jurisdictions generally prohibit companies and their intermediaries from making improper payments for the purpose of obtaining or retaining business, and we operate in many parts of the world that have experienced corruption to some degree. Any such improper actions or allegations of such acts could damage our reputation and subject us to civil or criminal investigations in the United States and in other jurisdictions and related shareholder lawsuits, could lead to substantial civil and criminal, monetary and non monetary penalties and could cause us to incur significant legal and investigatory fees. In addition, the government in relevant jurisdictions may seek to hold us liable as a successor for violations committed by companies in which we invest or that we acquire. We also rely on our suppliers to adhere to our supplier standards of conduct, and material violations of such standards of conduct could occur that could have a material effect on our business, reputation and financial statements.

We are subject to laws and regulations governing government contracts, and failure to address these laws and regulations or comply with government contracts could harm our business by leading to a reduction in sales to these customers or penalties.

We sell products to government entities and, as a result, we are subject to various statutes and regulations that apply to companies doing business with the government. The laws governing government contracts differ from the laws governing private contracts and government contracts may contain pricing terms and conditions that are not applicable to private contracts. We are also subject to investigation for compliance with the regulations governing government contracts. A failure to comply with these regulations could result in suspension of these contracts, criminal, civil and administrative penalties or debarment.

We are subject to environmental, health and safety laws and regulations, and costs to comply with such laws and regulations, or any liability or obligation imposed under such laws or regulations, could negatively impact our business, financial condition and results of operations.

We are subject to a broad range of foreign, federal, state and local environmental, health and safety laws and regulations, including those of the EPA, OSHA and equivalent local, state, and foreign regulatory agencies in each of the jurisdictions in which we operate, and we may be fined or penalized for non-compliance. In addition, contamination resulting from our current or past operations or from past uses of land that we own or operate may trigger investigation or remediation obligations, which may have an adverse effect on our business, financial condition and results of operations. We cannot be certain that identification of presently unidentified environmental, health and safety conditions, new regulations, more vigorous enforcement by regulatory authorities or other unanticipated events will not arise in the future and give rise to additional environmental liabilities, business interruptions, compliance costs or penalties, which could have an adverse effect on our business, financial condition and results of operations.

We currently incur costs and may incur additional costs related to remediation of alleged environmental damage associated with past or current waste disposal practices or other hazardous materials handling at property that we currently own or operate, or formerly owned or operated, or facilities to which we arranged for the disposal of hazardous substances. Our liabilities arising from past or future releases of, or exposures to, hazardous substances may exceed our estimates or adversely affect our financial statements and reputation and we may be subject to additional claims for cleanup or other environmental claims in the future based on our past, present or future business activities, and we may not be able to recover any

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costs under any of our indemnifications that we have. For additional information regarding environmental matters, see [note 12] to the consolidated financial statements beginning on page F-1 of this report.

Changes in corporate governance and public disclosure requirements and expectations could impact compliance costs and the risks of noncompliance.

We are subject to the rules and regulations promulgated by a number of governmental and self-regulatory organizations, including the SEC and NYSE, as well as evolving investor expectations around environmental, social and governance practices and disclosures. These rules and regulations continue to evolve in scope and complexity, and many new requirements have been created in response to laws and directives enacted by federal, state, local and foreign governments, making compliance more difficult and uncertain. The increasing complexity and costs to comply with such evolving expectations, rules and regulations, as well as any risk of noncompliance, could adversely affect our business.

Risks related to our indebtedness

Our indebtedness could adversely affect our financial condition and prevent us from fulfilling our debt or contractual obligations.

We now have and expect to continue to have a significant amount of debt. Our indebtedness could have important consequences to us including the following:

- making it more difficult for us to satisfy our debt or contractual obligations;
- exposing us to the risk of increased interest rates as certain of our borrowings, including borrowings under our senior secured credit facilities, are at variable rates of interest;
- restricting us from making strategic acquisitions or causing us to make non-strategic divestitures;
- requiring us to dedicate a substantial portion of our cash flow from operations to payments on our indebtedness, which would reduce the funds available for working capital, capital expenditures, investments, acquisitions and other general corporate purposes;
- limiting our flexibility in planning for, or reacting to, changes in our business, future business opportunities and the industry in which we operate;
- placing us at a competitive disadvantage compared to any of our less leveraged competitors;
- increasing our vulnerability to a downturn in our business and both general and industry-specific adverse economic conditions; and
- limiting our ability to obtain additional financing.

Our credit facilities contain financial and other restrictive covenants that could limit our ability to engage in activities that may be in our long-term best interests. Our failure to comply with those covenants could result in an event of default which, if not cured or waived, could result in the acceleration of all of our debt, which could adversely affect our business, earnings and financial condition.

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Despite our current level of indebtedness, we and our subsidiaries may still be able to incur substantially more debt.

We and our subsidiaries may be able to incur significant additional indebtedness in the future. Although our credit agreement and indentures contain restrictions on the incurrence of additional indebtedness, these restrictions are subject to a number of qualifications and exceptions, and the additional indebtedness incurred in compliance with these restrictions could be substantial. If new debt is added to our current debt levels, the related risks that we now face could intensify.

Risks related to ownership of our stock

Because we have no current plans to pay cash dividends on our common stock, you may not receive any return on investment unless you sell your common stock for a price greater than that which you paid for it.

We have no current plans to pay cash dividends on our common stock. The declaration, amount and payment of any future dividends on our common stock will be at the sole discretion of our Board of Directors. Our Board of Directors may take into account general and economic conditions, our financial condition and results of operations, our available cash and current and anticipated cash needs, capital requirements, contractual, legal, tax and regulatory restrictions and implications on the payment of dividends by us to our stockholders or by our subsidiaries to us, including restrictions under our credit agreement and other indebtedness we may incur, and such other factors as our Board of Directors may deem relevant.

As a result, you may not receive any return on an investment in our common stock unless you sell our common stock for a price greater than your purchase price.

If we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results.

Effective internal controls are necessary for us to provide reliable and accurate financial statements and to effectively prevent fraud. We devote significant resources and time to comply with the internal control over financial reporting requirements of the Sarbanes Oxley Act of 2002 and continue to enhance our controls. However, we cannot be certain that we will be able to prevent future significant deficiencies or material weaknesses. Inadequate internal controls could cause investors to lose confidence in our reported financial information, which could have a negative effect on investor confidence in our financial statements, the trading price of our stock and our access to capital.

Our amended and restated certificate of incorporation provides, subject to limited exceptions, that state and federal courts (as appropriate) located within the State of Delaware will be the sole and exclusive forum for certain stockholder litigation matters, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees or stockholders.

Our amended and restated certificate of incorporation provides that unless we consent to the selection of an alternative forum, the state or federal courts (as appropriate) located within the State of Delaware shall, to the fullest extent permitted by law, be the sole and exclusive forum for any (i) derivative action or proceeding brought on behalf of our company, (ii) action asserting a claim of breach of a fiduciary duty owed by any director, officer, or other employee or stockholder of our company to us or our stockholders, creditors or other constituents, (iii) action against us or any of our directors or officers involving a claim

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or defense arising pursuant to any provision of the Delaware General Corporation Law or our amended and restated certificate of incorporation or our amended and restated bylaws, (iv) action against us or any director or officer of the Company involving a claim or defense implicating the internal affairs doctrine, or (v) action against us or any of our directors or officers involving a claim or defense arising pursuant to the Exchange Act or the Securities Act. It is possible that these exclusive forum provisions may be challenged in court and may be deemed unenforceable in whole or in part. Our exclusive forum provision shall not relieve the company of its duties to comply with the federal securities laws and the rules and regulations thereunder, and our stockholders will not be deemed to have waived our compliance with these laws, rules and regulations.

Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and consented to the forum provisions in our amended and restated certificate of incorporation. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees or stockholders which may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provision contained in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, operating results and financial condition.

Item 1B. Unresolved staff comments

None.

Item 1C. Cybersecurity

Risk Management and Strategy

We rely on sophisticated information systems to obtain, rapidly process, analyze, and manage data in order to effectively operate our business. We are committed to protecting our business information, intellectual property, customer, supplier and employee data and information systems from cybersecurity risks and maintain an active cybersecurity risk management and strategy program, which is integrated in our enterprise risk management program.

We maintain enterprise-wide information security policies, processes and standards that set the requirements around acceptable use of information systems and data, risk assessment and management, identity and access management, data security, security operations, security incident response and threat and vulnerability management. We also perform formal risk assessment activities annually, aligned to the National Institute of Standards and Technology (NIST) 800-171 Cybersecurity Framework, as its program controls are designed to protect and maintain confidentiality, integrity, and continued availability of our data and information systems. Our team of information security professionals monitors our information systems for cybersecurity threats, breaches, intrusions and other weaknesses, responds to cybersecurity incidents, develops and implements plans to mitigate cybersecurity threats and facilitates training for our employees.

We also engage consultants and other third-party advisors to conduct independent assessments of our cybersecurity readiness and control effectiveness. In collaboration with external cybersecurity firms, we seek to gain insights into emerging threats and vulnerabilities, industry trends, and leading practices to inform our cybersecurity response, risk remediation and resilience capabilities, including by working with an external retained incident response team, receiving third-party threat intelligence, participating in incident tabletops, and performing assessments and controls testing on our enterprise environment.

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Our program includes procedures to oversee and identify cybersecurity risks and threats of our third-party service providers, which include third-party evaluations performed by our team of information security professionals, review of independent assessment documentation, and continuous monitoring of third-party independent posture scoring. We also include security and data protection provisions in our contractual arrangements with third-party service providers where applicable. Additionally, we have purchased a cybersecurity risk insurance policy that would reduce the costs associated with a covered cybersecurity incident if it occurred.

Although no cybersecurity incident during the year ended December 31, 2023 resulted in an interruption of our operations, known losses of critical data, or otherwise had a material impact on Avantor's strategy, financial condition or results of operations, the scope and impact of any future incident cannot be predicted. See "Item 1A. Risk Factors" for more information on how material cybersecurity attacks may impact our business.

Governance

Management plays a critical role in assessing and managing material risks from cybersecurity threats. Our Vice President of Information Security & Risk Management and Chief Information Security Officer (CISO), in coordination with our Chief Information Officer, leads a team of information security professionals and manages our cybersecurity risk management program and activities. This involves monitoring our information systems for cybersecurity threats, reviewing cybersecurity incidents, analyzing emerging threats, and the development and implementation of risk mitigation strategies. Our CISO has over 25 years of experience working in the information technology and services industry who is a subject matter expert in a variety of areas including information security, and IT risk.

Our CISO reports quarterly and more regularly, as needed, to our executive leadership team composed of our Chief Executive Officer, Chief Financial Officer, and Chief Information Officer on cybersecurity matters, providing the leadership team with updates on enterprise risks, cybersecurity incidents, the status of ongoing initiatives, key metrics, and additional cybersecurity topics. Our information technology leaders also meet regularly to discuss the progress of ongoing program initiatives, cybersecurity priorities, identified risks and metrics. We have also developed a cross functional disclosure working group to assess elevated cybersecurity incidents and, as appropriate, report on such events to Avantor's standing Disclosure Committee to conclude on the materiality of the incident and any need for regulatory reporting.

The Board of Directors exercises direct oversight of strategic risks to the Company. The Board has delegated the responsibility for cybersecurity oversight to the Audit and Finance Committee. The Audit and Finance Committee's responsibilities include reviewing and discussing with management the strategies, process and controls pertaining to the management of Avantor's information technology operations, including cybersecurity risks and information security. The CISO and Chief Information Officer report to the Audit and Finance Committee annually and more frequently, as needed, on cybersecurity matters, including the cybersecurity threat landscape, key metrics demonstrating the overall management of our cybersecurity risk and risk management program, related key initiatives, enterprise program framework alignment, annual risk mitigation strategy, and review of cybersecurity incidents. Our Board is committed to maintaining a well-informed and cybersecurity-aware posture, regularly engaging through regular and requested updates on our strategy and evolving threat landscape.

Item 2. Properties

As of December 31, 2023, the Company had facilities in over 30 countries, including approximately 200 significant administrative, sales, research and development, manufacturing and distribution facilities. Over 65 of these facilities are located in the United States in over 20 states and over 135 are located

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outside the United States, primarily in Europe and to a lesser extent in AMEA. Refer to the Consolidated Financial Statements included in this Annual Report for additional information with respect to the Company's lease commitments.

Item 3. Legal proceedings

For information regarding legal proceedings and matters, see note 12 to our consolidated financial statements beginning on page F-1 of this report, which information is incorporated into this item by reference.

Item 4. Mine safety disclosures

Not applicable.

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Information about our Executive Officers

The following table sets forth certain information regarding our executive officers at February 9, 2024:

	Age	Position
Michael Stubblefield	51	Director, President and Chief Executive Officer
R. Brent Jones	54	Executive Vice President and Chief Financial Officer
Benoit Gourdier	57	Executive Vice President, Bioscience Production
Christophe Couturier	58	Executive Vice President, AMEA
Brittany Hankamer	53	Executive Vice President and Chief Human Resources Officer
Claudius Sokenu	56	Executive Vice President, Chief Legal and Compliance Officer and Corporate Secretary
James Bramwell	57	Executive Vice President, Sales and Customer Excellence
Kitty Sahin	54	Executive Vice President, Strategy and Corporate Development
Randy Stone	57	Executive Vice President, Laboratory Solutions

Unless indicated to the contrary, the business experience summaries provided below describe positions held by the named individuals during the last five years.

Michael Stubblefield became our President and Chief Executive Officer in 2014. In addition, Mr. Stubblefield also serves as a Director. Prior to joining Avantor, Mr. Stubblefield was a Senior Expert for the Chemicals Practice of McKinsey & Company, a management consulting firm, from 2013 to 2014.

R. Brent Jones is our Executive Vice President and Chief Financial Officer, a position he has held since August 2023. Prior to joining the Company, Mr. Jones served as Executive Vice President, Chief Financial Officer and Chief Operating Officer of LifeScan Global Corporation, a medical devices company, from March 2023 until July 2023 and as LifeScan's Chief Financial Officer from February 2020 until March 2023. Prior to that, Mr. Jones served as Chief Financial Officer of Klöckner Pentaplast Group, a plastics packaging manufacturer, from April 2016 until August 2018.

Benoit Gourdier is our Executive Vice President, Bioscience Production, a position he has held since January 2024. Prior to his current role, Mr. Gourdier served as Executive Vice President, Biopharma Production from October 2023 to December 2023. Prior to joining Avantor, Mr. Gourdier spent 23 years at Merck KGaA, a chemical company, where he served in a number of leadership positions including, most recently, as Senior Vice President and General Manager, BioReliance Contract Testing Services at Millipore Sigma from September 2017 to September 2023.

Christophe Couturier is our Executive Vice President, AMEA, a position he has held since April 2021. Prior to his current role, Mr. Couturier served as Executive Vice President, Services, from April 2018 to April 2021. Prior to joining Avantor, Mr. Couturier served as Chief Executive Officer of Salicornia, LLC, a personal consulting company, from September 2017 to April 2018.

Brittany Hankamer is our Executive Vice President and Chief Human Resources Officer, a position she has held since August 2023. Prior to assuming her current position, Ms. Hankamer served as Avantor's Senior Vice President of Talent and People Operations from May 2021 to August 2023 and as Vice President, Human Resources from September 2019 to May 2021. Prior to joining Avantor, Ms. Hankamer was Vice President of Human Resources at Conquest Completion Services, LLC from May 2018 to September 2019.

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Claudius Sokenu is our Executive Vice President, Chief Legal and Compliance Officer and Corporate Secretary, a position he has held since July 2023. Prior to joining Avantor, Mr. Sokenu was General Counsel, Corporate Secretary and Chief Administrative Officer at Unisys, a technology company, from May 2022 to June 2023, Senior Vice President and Global Deputy General Counsel at Cognizant, an information technology services and consulting company, from March 2020 to April 2022 and Deputy General Counsel, Global Head of Litigation, Investigations and Ethics & Compliance from May 2017 to October 2018. Previously, he was a partner at Shearman & Sterling LLP and Arnold & Porter LLP.

James Bramwell is our Executive Vice President, Sales and Customer Excellence, a position he has held since January 2024. Prior to his current role, he served as Avantor's Executive Vice President, Americas from October 2022 to December 2023, and as Executive Vice President, Strategic Partners from November 2017 to October 2022.

Kitty Sahin is our Executive Vice President, Strategy and Corporate Development, a position she has held since June 2022. Prior to joining Avantor, Ms. Sahin served as EVP, Strategy & Business Development for Novanta, a medical, life science and industrial technology company, from September 2017 to June 2022.

Randy Stone is our Executive Vice President, Laboratory Solutions, a position he has held since January 2024. Prior to his current role, Mr. Stone served as Executive Vice President, Proprietary Research Products & Materials from April 2023 to December 2023. Mr. Stone joined Avantor after 16 years at DuPont, a science company, where he served in a number of leadership roles including, most recently as President, Mobility and Materials from March 2016 to November 2022.

PART II

Item 5. Market for registrant's common equity, related stockholder matters and issuer purchases of equity securities

Principal markets for common stock

Our common stock is listed on the NYSE under the symbol "AVTR."

Holders of common stock

On February 9, 2024, we had 5 holders of record of our common stock. This does not include holdings in street or nominee names.

Dividends

We currently do not expect to pay any dividends on our common stock. Additionally, our subsidiaries are party to certain debt agreements that would restrict their ability to fund future dividend payments to our common stockholders. For more information, see note 24 to our consolidated financial statements beginning on page F-1 of this report.

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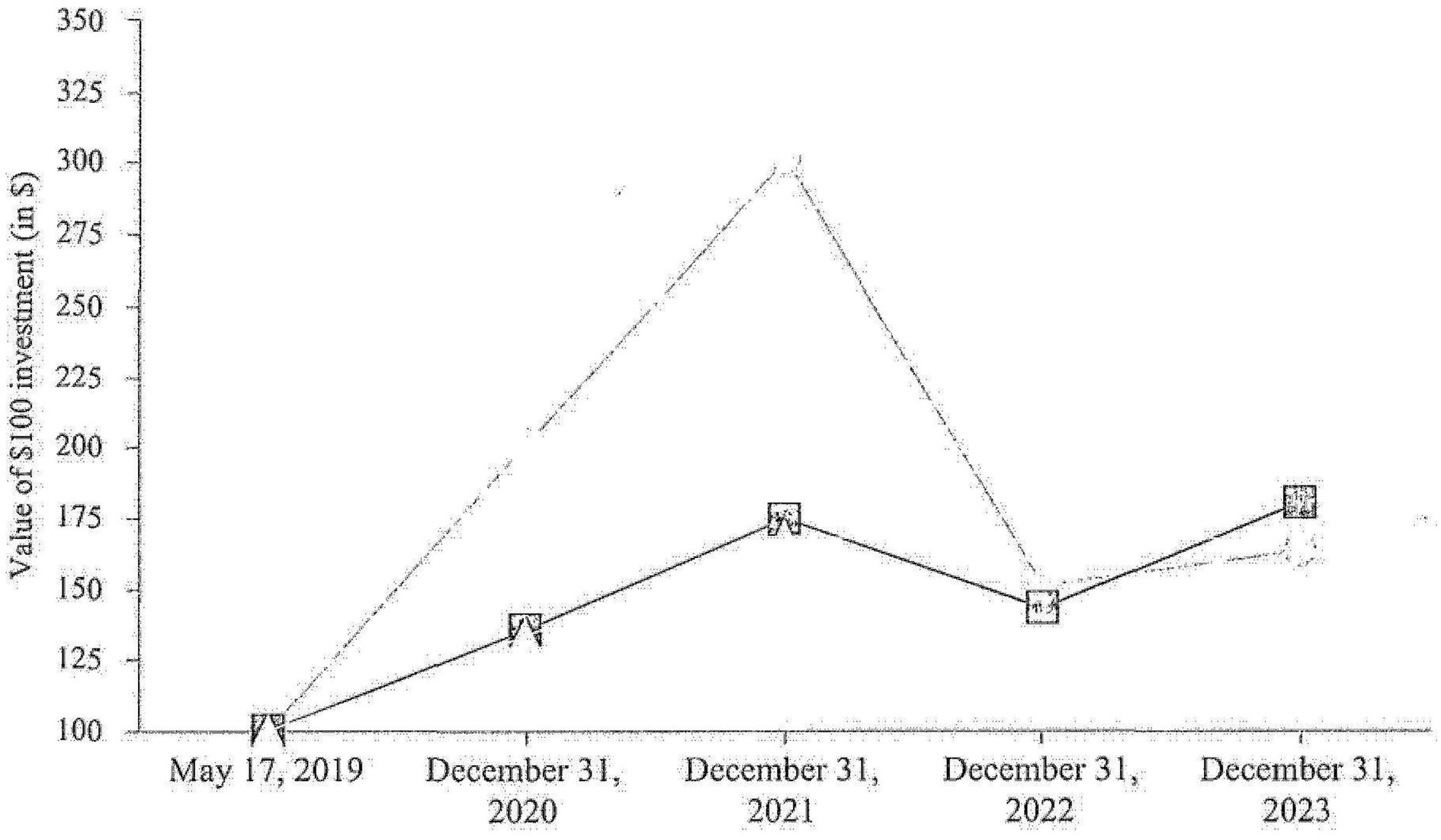
Stock performance graph

The following graph compares the return on a $100 investment in our common stock made on May 17, 2019, the day we first began trading on the NYSE, with a $100 investment also made on May 17, 2019 in the S&P 500 Index and the S&P 500 Health Care Index. The S&P 500 Index is a broad equity market index of companies having market capitalization similar to ours. The S&P 500 Health Care Index is an industry-specific equity market index that we believe closely aligns to us based on the following: (i) the index follows companies of a similar size to us in terms of net sales and market capitalization; (ii) the index includes health care distributors, the segment of the Global Industry Classification Standard that we believe most closely aligns to us; and (iii) the index includes companies in the biopharma and healthcare industries, two of our primary customer groups that together comprise over half of our net sales.

The information in this section is not "soliciting material," is not deemed "filed" with the SEC and is not to be incorporated by reference in any of our filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this report, except to the extent that we specifically incorporate such information by reference. The stock performance shown below is not necessarily indicative of future performance.



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Item 6. [Reserved]

Item 7. Management's discussion and analysis of financial condition and results of operations

This discussion contains forward-looking statements that reflect our plans, estimates and beliefs. Our actual results may differ materially from those contained in or implied by any forward-looking statements. See "Cautionary factors regarding forward-looking statements."

Overview

For the fiscal year ended December 31, 2023, we recorded net sales of $6,967.2 million, net income of $321.1 million and Adjusted EBITDA of $1,309.1 million. Net sales declined 7.3% which included 7.8% organic decrease compared to the same period in 2022. See "Reconciliations of non-GAAP measures" for a reconciliation of net income to Adjusted EBITDA and "Results of operations" for a reconciliation of net sales growth to organic net sales growth.

Trends affecting our business and results of operations

The following trends have affected our recent operating results, and they may also continue to affect our performance and financial condition in future periods.

Our results are being impacted by the transition from the global coronavirus outbreak

Customer demand and required inventory levels continue to normalize in the transition from the COVID-19 pandemic. The transition from the outbreak continued to impact the full year results of our three segments, as described further in the "Results of operations" section.

Our results are impacted by our recent acquisitions to further enhance our business model

We completed the acquisitions of Masterflex, Ritter, and RIM Bio in 2021. Masterflex is a leading global manufacturer of peristaltic pumps and aseptic single-use fluid transfer technologies. Ritter is focused on supplying high-quality liquid handling consumables used in a variety of molecular screening and diagnostic applications and as part of drug discovery and clinical trial testing in pharma and biotech applications and cartridges for sealants, adhesives and inks that are used in a variety of industrial applications. RIM Bio provides a complete range of single-use 2D bags, 3D bags, tank liners, bag assemblies and multi-bag manifolds used in the manufacturing of biologics including monoclonal antibodies (mAbs), vaccines, cell and gene therapies, and recombinant proteins.

Ritter's revenues declined in 2023 compared to prior expectations, primarily from reduced customer demand for medical fluid handling tips due to a decrease in COVID-19 testing. We are taking measures to replace these revenues; however, due to these sustained declines, we performed an impairment test of the Ritter asset group, which resulted in a fair value that was lower than its carrying value. As a result, we recorded impairment charges of $106.4 million on Ritter's finite-lived intangible assets and $54.4 million on Ritter's property, plant & equipment in the second quarter of 2023 in the unaudited condensed consolidated statements of operations.

We have been impacted by supply chain constraints and inflationary pressures

We have experienced inventory fluctuations and build up at customers as a result of global supply chain disruptions and have experienced inflationary pressures across all of our cost categories. While we have

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implemented pricing and productivity measures to combat these pressures, they may continue to adversely impact our results.

We increased our liquidity and mitigated the impact of rising rates

In June 2023, we amended the revolving credit facility to increase its funding limit up to $975.0 million and extended the term to June 29, 2028. We capitalized $2.3 million of fees in connection with this transaction. We also amended our U.S. dollar term loan B-5 from LIBOR based variable-rate rate interest to SOFR based variable-rate rate interest. We made prepayments of $680.0 million and $21.5 million on U.S. dollar term loan B-5 and Euro term loan B-4, which reduced our variable-rate debt. To further protect against rising interest rates, in April 2023, we entered into an interest rate swap to convert payments on $100.0 million of our U.S. dollar debt from SOFR based variable rate interest to fixed rate interest.

In 2022, we amended our receivables facility to increase its funding limit up to $400.0 million and extended the term to October 27, 2025. Also, we fully repaid U.S. dollar term loan B-4, Euro term loan B-3 and made a total prepayment of $555.0 million on U.S. dollar term loan B-5 which resulted in reduction of our annual cost of interest. To protect against rising interest rates, we entered into an interest rate swap and a cross currency swap that collectively convert interest payments on $750.0 million of our U.S. dollar term loan from U.S. dollar variable-rate to a Euro fixed-rate.

We continue to invest in a differentiated innovation model

We are engaging with our customers early in their product development cycles to advance their programs from research and discovery through development and commercialization. These projects include enhancing product purity and performance characteristics, improving product packaging and streamlining workflows. We are also developing new products in emerging areas of science such as cell and gene therapy.

Changes in foreign currency exchange rates are impacting our financial condition and results of operations

Our consolidated results of operations are comprised of many different functional currencies that translate into our U.S. dollar reporting currency. The movement of the U.S. dollar against those functional currencies, particularly the Euro, has caused significant variability in our results and may continue to do so in the future. See Item 7A, "Quantitative and qualitative disclosures about market risk."

Key indicators of performance and financial condition

To evaluate our performance, we monitor a number of key indicators. As appropriate, we supplement our results of operations determined in accordance with GAAP with certain non-GAAP measures that we believe are useful to investors, creditors and others in assessing our performance. These measurements should not be considered in isolation or as a substitute for reported GAAP results because they may include or exclude certain items as compared to similar GAAP-based measurements, and such measurements may not be comparable to similarly-titled measurements reported by other companies. Rather, these measurements should be considered as an additional way of viewing aspects of our operations that provide a more complete understanding of our business.

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The key indicators that we monitor are as follows:

- ***Net sales, gross margin, operating income*** and ***net income or loss***. These measures are discussed in the section entitled "Results of operations";

- ***Organic net sales growth (decline)***, which is a non-GAAP measure discussed in the section entitled "Results of operations." Organic net sales growth (decline) eliminates from our reported net sales change the impacts of earnings from any acquired or disposed businesses and changes in foreign currency exchange rates. We believe that this measurement is useful to investors as a way to measure and evaluate our underlying commercial operating performance consistently across our segments and the periods presented. This measurement is used by our management for the same reason. Reconciliations to the change in reported net sales, the most directly comparable GAAP financial measure, are included in the section entitled "Results of operations";

- ***Adjusted EBITDA and Adjusted EBITDA margin***, which are non-GAAP measures discussed in the section entitled "Results of operations." Adjusted EBITDA is used by investors to measure and evaluate our operating performance exclusive of interest expense, income tax expense, depreciation, amortization and certain other adjustments. Adjusted EBITDA margin is Adjusted EBITDA divided by net sales as determined under GAAP. We believe that these measurements are useful to investors as a way to analyze the underlying trends in our business consistently across the periods presented. A reconciliation of net income or loss, the most directly comparable GAAP financial measure, to Adjusted EBITDA is included in the section entitled "Reconciliations of non-GAAP measures";

- ***Cash flows from operating activities***, which is discussed in the section entitled "Liquidity and capital resources—Historical cash flows"; and

- ***Free cash flow***, which is a non-GAAP measure, is equal to our cash flow from operating activities, plus acquisition-related costs paid in the period, less capital expenditures. We believe that this measurement is useful to investors as it provides a view on the Company's ability to generate cash for use in financing or investing activities. This measurement is used by management for the same reason. A reconciliation of cash flows from operating activities, the most directly comparable GAAP financial measure, to free cash flows, is included in the section entitled "Liquidity and capital resources—Historical cash flows."

Results of operations

We present results of operations in the same way that we manage our business, evaluate our performance and allocate our resources. We also provide discussion of net sales and Adjusted EBITDA by geographic segment based on customer location: the Americas, Europe and AMEA. Corporate costs are managed on a standalone basis and not allocated to segments.

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Years ended December 31, 2023 and 2022

Executive summary

(dollars in millions)	Year ended December 31, 2023	2022	Change
Net sales	$ 6,967.2	$ 7,512.4	$ (545.2)
Gross margin	33.9 %	34.6 %	(70) bps
Operating income	$ 696.4	$ 1,130.2	$ (433.8)
Net income	321.1	686.5	(365.4)
Adjusted EBITDA	1,309.1	1,570.7	(261.6)
Adjusted EBITDA margin	18.8 %	20.9 %	(210) bps

Net sales decline was driven by decreases in all three regions primarily due to declines in customer demand, the impact of customer destocking, and COVID-19 related headwinds. Unfavorable product mix and inflationary factors contributed to contraction in gross margin. Softness in sales volumes along with unfavorable product mix drove Adjusted EBITDA margin contraction.

Net sales

			Reconciliation of net sales growth (decline) to organic net sales growth (decline)		
(in millions)	Year ended December 31, 2023	2022	Net sales growth (decline)	Foreign currency impact	Organic net sales growth (decline)
Americas	$ 4,071.6	$ 4,471.2	$ (399.6)	$ (2.2)	$ (397.4)
Europe	2,420.4	2,516.5	(96.1)	50.5	(146.6)
AMEA	475.2	524.7	(49.5)	(7.1)	(42.4)
Total	$ 6,967.2	$ 7,512.4	$ (545.2)	$ 41.2	$ (586.4)

Net sales decreased $545.2 million or 7.3%, which included $41.2 million or 0.5% of favorable foreign currency translation impact. Organic net sales decreased by $586.4 million or 7.8% (decline of 5.2% when excluding the impact of sales of COVID-19-related products in both periods, referred to herein as COVID-19 related headwinds or tailwinds).

In the Americas, net sales decreased $399.6 million or 8.9%. There was no material foreign currency translation impact to net sales. Organic net sales decreased by $397.4 million or 8.9% (decline of 6.1% excluding COVID-19 headwinds). Additional information on organic net sales by end market (with approximate percentage of total organic net sales for the region) is as follows:

- *Biopharma (55%)* — Sales declined double-digits, primarily due to the roll-off of COVID-19 revenues for vaccines and diagnostic testing, in addition to reduced customer demand and destocking of lab products and single-use solutions.

- *Healthcare (10%)* — Sales declined low single-digits as growth in our medical grade silicone business was offset by declines in COVID-19 related offerings for diagnostic testing.

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- *Education and government (15%)* — Sales increased low single-digits primarily due to continued strong growth to higher education customers, partially offset by weaker demand from K-12 and government customers.

- *Advanced technologies & applied materials (20%)* — Sales decreased double-digits driven by softness in the demand for our semiconductor and electronic device offerings.

In Europe, net sales decreased $96.1 million or 3.8%, which included $50.5 million or 2.0% of favorable foreign currency translation impact. Organic net sales decreased $146.6 million or 5.8% (decline of 3.9% excluding COVID-19 headwinds). Additional information on organic net sales by end market (with approximate percentage of total organic net sales for the region) is as follows:

- *Biopharma (50%)* — Sales declined high single-digits, primarily due to the roll-off of COVID-19 revenues for vaccines in addition to reduced customer demand and destocking of lab consumables and single-use solutions.

- *Healthcare (10%)* —Sales declined double-digits primarily due to reduced customer demand and destocking of lab consumables along with the roll-off of COVID-19 revenues for diagnostic testing.

- *Education & government (10%)* —Sales declined low single-digits driven by COVID-19 related headwinds in the government end market.

- *Advanced technologies & applied materials (30%)* — We experienced low single-digit growth driven by increased sales of proprietary materials and consumables, and equipment and instrumentation.

In AMEA, net sales decreased $49.5 million or 9.4%, which included $7.1 million or 1.3% of unfavorable foreign currency translation impact. Organic net sales decreased $42.4 million or 8.1% (decline of 4.2% excluding COVID-19 headwinds). Additional information on organic net sales by end market (with approximate percentage of total organic net sales for the region) is as follows:

- *Biopharma (45%)* — Sales increased low single-digits due to increased demand for our bioprocessing customers.

- *Advanced technologies & applied materials (50%)* — Sales declined double-digits primarily driven by softness in our proprietary offerings into the semiconductor industry.

Gross margin

	Year ended December 31,		
	2023	**2022**	**Change**
Gross margin	33.9 %	34.6 %	(70) bps

Gross margin decreased (70) basis points resulting primarily from unfavorable product mix and the impact of inflationary pressures, partially offset by lower distribution costs.

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Operating income

(in millions)	Year ended December 31, 2023	2022	Change
Gross profit	$ 2,363.8	$ 2,602.8	$ (239.0)
Operating expenses (excluding impairment charges)	1,506.6	1,472.6	34.0
Impairment charges	160.8	—	160.8
Operating income	$ 696.4	$ 1,130.2	$ (433.8)

Operating income decreased primarily from lower gross profit, as previously discussed, as well as higher operating expenses driven by asset impairment charges recorded in the second quarter of 2023, accrual of a long-term retention incentive, inflation and investments made to grow the business, partially offset by lower accruals related to incentive compensation.

Net income

(in millions)	Year ended December 31, 2023	2022	Change
Operating income	$ 696.4	$ 1,130.2	$ (433.8)
Interest expense, net	(284.8)	(265.8)	(19.0)
Loss on extinguishment of debt	(6.9)	(12.5)	5.6
Other income (expense), net	5.8	(0.8)	6.6
Income tax expense	(89.4)	(164.6)	75.2
Net income	$ 321.1	$ 686.5	$ (365.4)

Net income decreased primarily due to lower operating income, as previously discussed, as well as higher interest expense from rising interest rates on our variable-rate term loans, partially offset by lower income tax expense due to lower income before income taxes.

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Adjusted EBITDA

For reconciliations of Adjusted EBITDA to net income, see "Reconciliations of non-GAAP measures."

(dollars in millions)	Year ended December 31, 2023	2022	Change
Adjusted EBITDA	$ 1,309.1	$ 1,570.7	$ (261.6)
Adjusted EBITDA margin	18.8 %	20.9 %	(210) bps
Adjusted EBITDA:			
Americas	$ 912.6	$ 1,077.3	$ (164.7)
Europe	449.5	524.1	(74.6)
AMEA	125.3	141.5	(16.2)
Corporate	(178.3)	(172.2)	(6.1)
Total	$ 1,309.1	$ 1,570.7	$ (261.6)

Adjusted EBITDA decreased $261.6 million or 16.7%, which included a favorable foreign currency translation impact of $5.3 million or 0.3%. The remaining decrease was $266.9 million or 17.0%.

In the Americas, Adjusted EBITDA decreased $164.7 million or 15.2%. There was no material foreign currency translation impact to Adjusted EBITDA. The decrease was driven by lower sales volumes and unfavorable product mix, partially offset by reduced operating expenses and lower distribution costs.

In Europe, Adjusted EBITDA declined $74.6 million or 14.2%, or 15.7% when adjusted for favorable foreign currency translation impact. The decrease was driven by lower sales volume and unfavorable product mix, partially offset by reduced operating expenses, distribution costs and favorable manufacturing variances.

In AMEA, Adjusted EBITDA declined $16.2 million or 11.4%, or 10.4% when adjusted for unfavorable foreign currency translation impact. The decrease was driven by lower sales volume and inflationary pressures, partially offset by lower distribution costs.

In Corporate, Adjusted EBITDA declined $6.1 million or 3.5%, or 3.3% when adjusted for unfavorable foreign currency translation impact. The decrease was driven by investments in our workforce made over the course of 2023.

Year ended December 31, 2021

A discussion and analysis covering the year ended December 31, 2021 is included in our 2022 10-K.

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Reconciliations of non-GAAP measures

The following table presents the reconciliation of net income or loss to Adjusted EBITDA:

	Year ended December 31,		
(in millions)	**2023**	**2022**	**2021**
Net income	$ 321.1	$ 686.5	$ 572.6
Interest expense, net	284.8	265.8	217.4
Income tax expense	89.4	164.6	180.4
Depreciation and amortization	402.3	405.5	379.2
Loss on extinguishment of debt	6.9	12.5	12.4
Net foreign currency (gain) loss from financing activities	(3.1)	7.0	1.3
Other stock-based compensation expense (benefit)	0.3	(3.3)	3.0
Acquisition-related expenses[1]	—	—	77.8
Integration-related expenses[2]	7.6	19.2	15.9
Purchase accounting adjustments[3]	—	9.4	6.3
Restructuring and severance charges[4]	26.5	3.5	5.3
Receipt of disgorgement penalty[5]	—	—	(13.0)
Reserve for certain legal matters[6]	7.1	—	—
Impairment charges[7]	160.8	—	—
Transformation expenses[8]	5.4	—	—
Adjusted EBITDA	$ 1,309.1	$ 1,570.7	$ 1,458.6

1. Represents legal, accounting, investment banking and consulting fees incurred related to the acquisition of acquired companies.
2. Represents non-recurring direct costs incurred with third parties and the accrual of a long-term retention incentive to integrate acquired companies. These expenses represent incremental costs and are unrelated to normal operations of our business. Integration expenses are incurred over a pre-defined integration period specific to each acquisition.
3. Represents the non-cash reduction of contingent consideration related to the Ritter acquisition and the amortization of the purchase accounting adjustment to record Masterflex and Ritter inventory at fair value.
4. Reflects the incremental expenses incurred in the period related to initiatives to increase profitability and productivity. Typical costs included in this caption are employee severance, site-related exit costs, and contract termination costs.
5. As described in note 18 to our consolidated financial statements beginning on F-1 of this report.
6. Represents charges and legal costs in connection with certain litigation and other contingencies that are unrelated to our core operations and not reflective of on-going business and operating results.
7. As described in note 4 to our consolidated financial statements beginning on F-1 of this report.
8. Represents non-recurring, incremental expenses directly associated with the Company's publicly-announced program to transform our operating model.

Liquidity and capital resources

We fund short-term cash requirements primarily from operating cash flows, while most of our long-term financing is from indebtedness, which we use to finance transactions outside of our normal operations.

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Our most significant contractual obligations are scheduled principal and interest payments for indebtedness. We also have obligations to make payments under operating leases, to purchase certain products and services and to fund defined benefit plan obligations primarily outside of the United States. In addition to contractual obligations, we use cash to fund capital expenditures and taxes. Changes in working capital may be a source or a use of cash depending on our operations during the period.

We expect to fund our short-term and long-term capital needs with cash generated by operations and availability under our credit facilities. Although we believe that these sources will provide sufficient liquidity for us to meet our long-term capital needs, our ability to fund these needs will depend to a significant extent on our future financial performance, which will be subject in part to general economic, competitive, financial, regulatory and other factors that are beyond our control.

We believe that cash generated by operations, together with available liquidity under our credit facilities, will be adequate to meet our current and expected needs for cash prior to the maturity of our debt, although no assurance can be given in this regard.

Liquidity

The following table presents our primary sources of liquidity:

	December 31, 2023		
(in millions)	**Receivables facility**	**Revolving credit facility**	**Total**
Unused availability under credit facilities:			
Capacity	$ 335.0	$ 975.0	$ 1,310.0
Undrawn letters of credit outstanding	(15.4)	—	(15.4)
Outstanding borrowings	(221.0)	—	(221.0)
Unused availability	$ 98.6	$ 975.0	1,073.6
Cash and cash equivalents			262.9
Total liquidity			$ 1,336.5

Our availability under our receivables facility depends upon maintaining a sufficient borrowing base of eligible accounts receivable. We believe that we have sufficient capital resources to meet our liquidity needs.

At December 31, 2023, $249.2 million or 95% of our cash and cash equivalents was held by our non-U.S. subsidiaries and may be subject to certain taxes upon repatriation, primarily where foreign withholding taxes apply. We ordinarily generate significant cash flows in the U.S. and deploy U.S. cash flows promptly toward debt principal repayment. Our U.S. business has significant liquidity via our undrawn working capital facilities and therefore management has been comfortable operating with minimal cash balances in the U.S.

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Historical cash flows

The following table presents a summary of cash provided by (used in) various activities:

(in millions)	Year ended December 31, 2023	2022	Change
Operating activities:			
Net income	$ 321.1	$ 686.5	$ (365.4)
Non-cash items[1]	533.0	485.4	47.6
Working capital changes[2]	(21.3)	(161.6)	140.3
All other	37.2	(166.7)	203.9
Total	$ 870.0	$ 843.6	$ 26.4
Investing activities:	(143.7)	(109.6)	(34.1)
Cash paid for acquisitions, net of cash acquired	—	(20.2)	20.2
Capital expenditures	(146.4)	(133.4)	(13.0)
Cash proceeds from settlement of cross currency swap	—	42.5	(42.5)
Financing activities	(843.7)	(648.7)	(195.0)

1. Consists of non-cash charges including depreciation and amortization, impairment charges, stock based compensation expense, deferred income tax expense and others.
2. Includes changes to our accounts receivable, inventory, contract assets and accounts payable.

Cash flows from operating activities provided $26.4 million more cash in 2023 primarily due to the change in net working capital, lower 2023 payments for incentive compensation payments pertaining to fiscal year 2022 company performance, partially offset by lower net income.

Investing activities used $34.1 million more cash in 2023. The change was primarily attributable to the absence of cross currency swap settlement in 2023 and increased capital spending across the Company compared to the prior year, partially offset by the absence of acquisition activity in 2023.

Financing activities used $195.0 million more cash in 2023 primarily due to the net repayments made on the receivable facility in 2023 compared to having net borrowings in 2022. This was partially offset by lower repayments on our term loans in 2023 compared to the prior year.

Free cash flow

(in millions)	Year ended December 31, 2023	2022	Change
Net cash provided by operating activities	$ 870.0	$ 843.6	$ 26.4
Capital expenditures	(146.4)	(133.4)	(13.0)
Free cash flow	$ 723.6	$ 710.2	$ 13.4

Free cash flow was $13.4 million higher in 2023 due to changes in cash flows from operating activities noted above, partially offset by an increase in capital spending in 2023, principally reflecting growth-related expansions in our global supply chain.

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A discussion and analysis of historical cash flows covering the year ended December 31, 2021 is included in the 2022 Form 10-K.

Indebtedness

A significant portion of our long-term financing is from indebtedness. The purpose of this section is to disclose how certain features of our indebtedness influence our liquidity and capital resources. Additional detail about the terms of our indebtedness may be found in note 13 to our consolidated financial statements beginning on page F-1 of this report.

Our credit facilities provide us access to up to $1,310.0 million of borrowing capacity.

We have entered into a receivables facility and a revolving credit facility that provide us access to cash to fund short-term business needs. See the section entitled "Liquidity" for additional information.

Our indebtedness restricts us from paying dividends to common stockholders.

Certain of the debt agreements entered into by our wholly-owned subsidiary, Avantor Funding, Inc., prevent it from paying dividends or making other payments to Avantor, Inc., subject to limited exceptions. At December 31, 2023 and 2022, substantially all of Avantor, Inc.'s net assets were subject to those restrictions.

Our senior secured credit facilities require or may require us to make certain principal repayments prior to maturity

We are required to make quarterly payments on our senior secured credit facilities, with the balance due on the maturity date. We have generated sufficient cash flows to make all required historical payments, and we expect that our cash flows will continue to be sufficient to make future payments.

To the extent our net leverage ratios, as defined in our credit agreement, reach certain levels, we are required to make additional prepayments if: (i) we generate excess cash flows, as defined in our credit agreement, at specified percentages that decline if certain net leverage ratios are achieved; or (ii) we receive cash proceeds from certain types of asset sales or debt issuances. We are required to make a prepayment of 50% of our excess cash flows if our first lien net leverage ratio, as defined in our credit agreement, exceeds 4.50:1.00, a prepayment of 25% of our excess cash flows if our first lien net leverage ratio is less than or equal to 4.50:1.00 but greater than 3.75:1.00, and no prepayment if our first lien net leverage ratio is less than or equal to 3.75:1.00. As our first lien net leverage ratio was below 3.75:1.00 at December 31, 2023, no additional prepayments were required and no such prepayments have become due since the inception of the credit facilities.

We are subject to certain financial covenants that, if not met, could put us in default of our debt agreements

The receivables facility and our senior secured credit facilities contain certain customary covenants, including a financial covenant. That covenant becomes applicable in periods when we have drawn more than 35% of our revolving credit facility. When applicable, we may not have total borrowings in excess of a pro forma net leverage ratio, as defined. This covenant was not applicable at December 31, 2023, and our historical net leverage has been below the covenant requirement.

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Contractual obligations

The following table presents our contractual obligations at December 31, 2023:

	Payments due by period		
(in millions)	**Total**	**Short-Term**	**Long-Term**
Debt:			
Principal[1][2]	$ 5,580.0	$ 259.9	$ 5,320.1
Interest[1]	1,106.5	263.6	842.9
Operating leases	144.1	40.5	103.6
Purchase obligations[3]	459.8	130.2	329.6
Other liabilities:			
Underfunded defined benefit plans[4]	98.3	7.2	91.1
Transition tax payments[5]	34.8	15.5	19.3
Other	5.0	1.2	3.8
Total	$ 7,428.5	$ 718.1	$ 6,710.4

(1) Includes finance lease liabilities. To calculate payments for principal and interest, we assumed that variable interest rates, foreign currency exchange rates and outstanding borrowings under credit facilities were unchanged from December 31, 2023 through maturity. Further, we have not considered any interest obligation on our receivables facility. For the variable interest rates and principal amounts used, see note 13 to our consolidated financial statements beginning on page F-1 of this report.

(2) Our senior secured credit facilities would require us to accelerate our principal repayments should we generate excess cash flows, as defined, in future periods.

(3) Purchase obligations for certain products and services are made in the normal course of business to meet operating needs.

(4) Represents our obligation to fund defined benefit plans with obligations in excess of plan assets. The total obligation is equal to the aggregate excess of the discounted benefit obligation over the fair value of plan assets for all underfunded plans. The payments due in less than one year are estimated using actuarial methods. The payments due for all other years are estimated by distributing the remaining funding status to future periods in the same way as benefit payments are expected to be made by the plans following actuarial methods.

(5) Represents our transition tax obligation due over eight years to transition to the modified territorial tax system under U.S. income tax legislation issued in 2017.

Critical accounting policies and estimates

The preparation of financial statements in conformity with GAAP requires us to make estimates and assumptions that affect the amounts reported throughout the financial statements. Those estimates and assumptions are based on our best estimates and judgment. We evaluate our estimates and assumptions on an ongoing basis using historical experience and known facts and circumstances. We adjust our estimates and assumptions when we believe the facts and circumstances warrant an adjustment. As future events and their effects cannot be determined with precision, actual results could differ significantly from those estimates.

We consider the policies and estimates discussed below to be critical to an understanding of our financial statements because their application places the most significant demands on our judgment. Specific risks for these critical accounting policies are described in the following sections. For all of these policies, we

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caution that future events rarely develop exactly as forecasted, and such estimates naturally require adjustment.

Our discussion of critical accounting policies and estimates is intended to supplement, not duplicate, our summary of significant accounting policies so that readers will have greater insight into the uncertainties involved in these areas. For a summary of all of our significant accounting policies, see note 2 to our consolidated financial statements beginning on page F-1 of this report.

Testing goodwill and other intangible assets for impairment

We carry significant amounts of goodwill and other intangible assets on our consolidated balance sheet. At December 31, 2023, the combined carrying value of goodwill and other intangible assets, net of accumulated amortization and impairment charges, was $9,492.0 million or 73% of our total assets.

Required annual assessment

On October 1 of each year, we perform annual impairment testing of our goodwill and indefinite-lived intangible assets, or more frequently if an event or change in circumstance occurs that would require reassessment of the recoverability of those assets. The impairment analysis for goodwill and indefinite-lived intangible assets consists of an optional qualitative test potentially followed by a quantitative analysis. These measurements rely upon significant judgment from management described as follows:

- The qualitative analysis for goodwill and indefinite-lived intangible assets requires us to identify potential factors that may result in an impairment and estimate whether they would warrant performance of a quantitative test;
- The quantitative impairment test requires us to estimate the fair value of our reporting units and indefinite-lived intangible assets. We estimate the fair value of each reporting unit using a weighted average of two valuation methods based on a discounted cash flows method and a guideline public company method. These valuation methods require management to make various assumptions, including, but not limited to, future profitability, cash flows, discount rates, weighting of valuation methods and the selection of comparable publicly traded companies.

Our estimates are based on historical trends, management's knowledge and experience and overall economic factors, including projections of future earnings potential. Developing future cash flows in applying the income approach requires us to evaluate our intermediate to longer-term strategies, including, but not limited to, estimates about net sales growth, operating margins, capital requirements, inflation and working capital management. The development of appropriate rates to discount the estimated future cash flows requires the selection of risk premiums, which can materially impact the present value of future cash flows. Selection of an appropriate peer group under the market approach involves judgment, and an alternative selection of guideline companies could yield materially different market multiples. Weighing the different value indications involves judgment about their relative usefulness and comparability to the reporting unit.

We did not record any impairment charges as a result of our October 1, 2023 impairment testing. Each reporting unit had a fair value that was in excess of its carrying value, and our indefinite-lived intangible assets did not show any indications that their fair value was more likely than not below their carrying value.

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Estimating valuation allowances on deferred tax assets

We are required to estimate the degree to which tax assets and loss carryforwards will result in a future income tax benefit, based on our expectations of future profitability by tax jurisdiction. We provide a valuation allowance for deferred tax assets that we believe will more likely than not go unutilized. If it becomes more likely than not that a deferred tax asset will be realized, we reverse the related valuation allowance and recognize an income tax benefit for the amount of the reversal. At December 31, 2023, our valuation allowance on deferred tax assets was $206.1 million, $159.6 million of which relates to foreign net operating loss carry forwards that are not expected to be realized.

We must make assumptions and judgments to estimate the amount of valuation allowance to be recorded against our deferred tax assets, which take into account current tax laws and estimates of the amount of future taxable income, if any. Changes to any of the assumptions or judgments could cause our actual income tax obligations to differ from our estimates.

Accounting for uncertain tax positions

In the ordinary course of business, there is inherent uncertainty in quantifying our income tax positions. We assess income tax positions for all years subject to examination based upon our evaluation of the facts, circumstances and information available at the reporting date. For those tax positions where it is more likely than not that a tax benefit will be sustained, we have recorded an amount having greater than 50% likelihood of being realized upon ultimate settlement with a taxing authority assumed to have full knowledge of all relevant information. For those income tax positions where it is not more likely than not that a tax benefit will be sustained, no tax benefit has been recognized in the financial statements. Our reserve for uncertain tax positions was $106.9 million at December 31, 2023, exclusive of penalties and interest. Where applicable, associated interest expense has also been recognized as a component of interest expense.

We operate in numerous countries under many legal forms and, as a result, we are subject to the jurisdiction of numerous domestic and non-U.S. tax authorities, as well as to tax agreements and treaties among these governments. Our tax positions may be scrutinized by local tax authorities upon examination. Determination of taxable income in any jurisdiction requires the interpretation of the related tax laws and regulations, including transfer pricing guidelines, and the use of estimates and assumptions regarding significant future events, such as the amount, timing and character of deductions and the sources and character of income and tax credits. Changes in tax laws, regulations, agreements and treaties, currency exchange restrictions or our level of operations or profitability in each taxing jurisdiction could have an impact upon the amount of current and deferred tax balances and hence our net income.

We file tax returns in each tax jurisdiction that requires us to do so. Should tax return positions not be sustained upon audit, we could be required to record an income tax provision. Should previously unrecognized tax benefits ultimately be sustained, we could be required to record an income tax benefit.

Calculating expense for long-term compensation arrangements

Our employees receive various long-term compensation awards, including stock options, RSUs, performance stock units and cash-based awards. We calculate expense for some of those awards using fair value estimates based on unobservable inputs. Additionally, some of those awards contain performance or market conditions. We assess the probability of achieving those performance conditions, and in cases where partial or exceptional performance affects the size of the award, we also estimate the projected

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achievement level. We determine the fair value of awards with market conditions on their grant date using a Monte Carlo model, which incorporates the probability of achieving the market condition in the awards' fair value. We recognize the expense for such awards ratably over their vesting term.

Expense for stock options without performance or market conditions is determined on the grant date and recognized ratably over their vesting term. We estimate the grant date fair value of stock options using the Black-Scholes model. This model requires us to make various assumptions, with the most significant assumption currently being the volatility of our stock price. A public quotation was first established for our common stock in May 2019, which does not provide adequate historical basis to reasonably estimate the expected volatility of our common stock over their more than six-year expected life. Instead, we estimate volatility based on historical stock price trends of a peer company set. The fair value of our awards would have differed had we selected different peer companies or used a different technique to estimate volatility. Increasing our expected volatility assumption by 5 percentage points for all stock options at the date of grant would have increased our 2023 stock-based compensation expense by $1.6 million.

Estimating the net realizable value of inventories

We value our inventories at the lower of cost or net realizable value. We regularly review quantities of inventories on hand and compare these amounts to the expected use of each product or product line, which can require us to make significant judgments. If our judgments prove to be incorrect, we may be required to record a charge to cost of sales to reduce the carrying amount of inventory on hand to net realizable value. As with any significant estimate, we cannot be certain of future events which may cause us to change our judgments.

Business combinations

We allocate the fair value of purchase consideration to the assets acquired, liabilities assumed, and non-controlling interests in the acquired companies generally based on their fair values at the acquisition date. The excess of the fair value of purchase consideration over the fair value of these assets acquired, liabilities assumed and non-controlling interests in the acquired companies is recorded as goodwill. When determining the fair values of assets acquired, liabilities assumed, and non-controlling interests in the acquired companies, management makes significant estimates related to intangible assets.

Critical estimates in valuing intangible assets include, but are not limited to, expected future cash flows and discount rates. Fair value estimates are based on the assumptions management believes a market participant would use in pricing the asset or liability. Amounts recorded in a business combination may change during the measurement period, which is a period not to exceed one year from the date of acquisitions, as additional information about conditions existing at the acquisition date becomes available.

Item 7A. Quantitative and qualitative disclosures about market risk

Foreign currency exchange risk

Although we report our results and financial condition in U.S. dollars, a significant portion of our operating and financing activities are denominated in foreign currencies, principally the Euro but also many others.

Our U.S. subsidiaries carry Euro-denominated debt. This does not result in any material risks from an earnings perspective because the exposure from these instruments is substantially hedged by offsetting

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exposures from intercompany borrowing arrangements. From a cash flow perspective, we have the risk of paying more or less cash for any optional or mandatory repayments of our Euro-denominated debt that may not be offset with equivalent cash repayments of our intercompany borrowings. For example, an optional debt repayment of €100 million on December 31, 2023 and December 31, 2022, with a 10% weakening of the U.S. dollar would have caused us to pay an additional $11.1 million and $10.7 million, respectively, to extinguish that debt.

Changes to foreign currency exchange rates could favorably or unfavorably affect the translation of our foreign operating results. For example, during times of a strengthening U.S. dollar, our reported international sales and earnings will be reduced because local currencies will translate into fewer U.S. dollars. For the year ended December 31, 2023, a 10% strengthening of the U.S. dollar compared to all other currencies would have increased net income by $17.5 million and decreased Adjusted EBITDA by $51.6 million. For the year ended December 31, 2022, a 10% strengthening of the U.S. dollar compared to all other currencies would have decreased net income by $14.3 million and decreased Adjusted EBITDA by $60.3 million.

Interest rate risk

We carry debt that exposes us to interest rate risk. A portion of our debt consists of variable-rate instruments. We have also issued fixed-rate secured and unsecured notes. None of our other financial instruments are subject to material interest rate risk.

At December 31, 2023, we had borrowings of $1,989.1 million under our senior secured credit facilities and our receivables facility. Borrowings under these facilities bear interest at variable rates based on prevailing LIBOR, EURIBOR and SOFR rates in the financial markets. At December 31, 2023 the Company had $850.0 million of interest rate swaps to convert variable rate interest to fixed rate interest. Changes to those market rates affect both the amount of cash we pay for interest and our reported interest expense. At December 31, 2023, a 100 basis point increase to the applicable variable rates of interest taking into account our interest rate swap would have increased the amount of interest by $11.4 million per annum. At December 31, 2022, a 100 basis point increase to the applicable variable rates of interest would have increased the amount of interest by $20.4 million per annum.

Our senior secured notes and senior unsecured notes bear interest at fixed rates, so their fair value will increase if interest rates fall and decrease if interest rates rise. At December 31, 2023, a 100 basis point decrease in the market rate of interest would have increased their aggregate fair value by $130.6 million. At December 31, 2022, a 100 basis point decrease in the market rate of interest would have increased their aggregate fair value by $147.1 million.

Item 8. Financial statements and supplementary data

The information required by this item is included at the end of this report beginning on page F-1.

Item 9. Changes in and disagreements with accountants on accounting and financial disclosure

None.

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Item 9A. Control and procedures

Management's evaluation of disclosure controls and procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934) as of December 31, 2023. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of December 31, 2023, our disclosure controls and procedures were effective in providing reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized, reported, accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in internal control over financial reporting

There have been no changes to our internal control over financial reporting during the fiscal quarter ended December 31, 2023 that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

Management's annual report on internal control over financial reporting

Our management, including our Chief Executive Officer and Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. Our management conducted an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2023 based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, our management concluded that, as of December 31, 2023, our internal control over financial reporting was effective.

Deloitte & Touche LLP (PCAOB ID No. 34), an independent registered public accounting firm, which has audited and reported on the consolidated financial statements contained in this Form 10-K, has issued its report on the effectiveness of the Company's internal control over financial reporting which follows this report.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Avantor, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Avantor, Inc. and subsidiaries (the "Company") as of December 31, 2023, based on criteria established in Internal Control — Integrated

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Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control — Integrated Framework (2013) issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2023, of the Company and our report dated February 14, 2024, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Deloitte & Touche LLP

Philadelphia, Pennsylvania

February 14, 2024

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Item 9B. Other information

Securities Trading Plans of Directors and Officers

On December 8, 2023, Steven Eck, Senior Vice President and Chief Accounting Officer (an officer of the Company as defined in Rule 16a-1(f) of the Securities and Exchange Act of 1934), adopted a trading plan (the "Plan") intended to satisfy the affirmative defense of Rule 10b5-1(c) of the Securities Exchange Act of 1934. The Plan provides for the sale of up to 5,485 shares of the Company's common stock. The Plan will terminate on the earlier of March 15, 2024, or the execution of all trades contemplated by the Plan.

No other directors or officers, as defined in Rule 16a-1(f) of the Securities Exchange Act of 1934, of the Company adopted or terminated (i) a Rule 10b5-1 trading arrangement, as defined in Item 408(a) under Regulation S-K of the Securities Act of 1933, or (ii) a non-Rule 10b5-1 trading arrangement, as defined in Item 408(c) under Regulation S-K of the Securities Act of 1933, during the three months ended December 31, 2023.

Item 9C. Disclosure regarding foreign jurisdictions that prevent inspections.

Not applicable.

PART III

See Part I, "Information about our executive officers" for information about our executive officers, which is incorporated by reference herein. The other information required by Part III is incorporated herein by reference to our definitive proxy statement for our 2024 annual meeting of stockholders.

Item 10. Directors, executive officers and corporate governance

See Part I, "Information about our executive officers" for information about our executive officers, which is incorporated by reference herein. The other information required by this Item is incorporated herein by reference to the applicable information in our definitive proxy statement for our 2024 annual meeting of stockholders which we intend to file with the SEC no later than 120 days after our 2023 fiscal year end (the "2024 Proxy Statement").

Item 11. Executive compensation

The information required by this Item is incorporated by reference to the applicable information in our 2024 Proxy Statement.

Item 12. Security ownership of certain beneficial owners and management and related stockholder matters

The information required by this Item is incorporated by reference to the applicable information in our 2024 Proxy Statement.

Item 13. Certain relationships and related transactions, and director independence

The information required by this Item is incorporated by reference to the applicable information in our 2024 Proxy Statement.

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Item 14. Principal accountant fees and services

The information required by this Item is incorporated by reference to the applicable information in our 2024 Proxy Statement.

PART IV

Item 15. Exhibits and financial statement schedules

The following documents are filed as part of this report.

1. Financial Statements and Schedules. See Index to Consolidated Financial Statements and Schedules on page F-1.

2. Exhibits:

Exhibit no.	Description	Location of exhibits		
		Form	Exhibit no.	Filing date
3.1	Third Amended and Restated Certificate of Incorporation, effective May 13, 2021	8-K	3.1	5/17/2021
3.2	Third Amended and Restated Bylaws of Avantor, Inc.	8-K	3.1	1/28/2021
3.3	Certificate of Designations of 6.250% Series A Mandatory Convertible Preferred Stock of Avantor, Inc.	8-K	3.3	5/21/2019
3.4	Certificate of Elimination relating to the 6.250% Series A Mandatory Convertible Preferred Stock	8-K	3.1	5/17/2022
4.1	Description of capital stock	10-K	4.1	2/14/2023
4.2	Indenture, dated as of July 17, 2020, among Avantor Funding, Inc., the guarantors party thereto and The Bank of New York Mellon Trust Company, N.A., as Trustee.	8-K	4.1	7/17/2020
4.3	Indenture, dated as of November 6, 2020, among Avantor Funding, Inc., the guarantors party thereto and The Bank of New York Mellon Trust Company, N.A., as Trustee and Notes Collateral Agent.	8-K	4.1	11/6/2020
4.4	Indenture, dated as of October 26, 2021, among Avantor Funding, Inc., the guarantors party thereto and The Bank of New York Mellon Trust Company, N.A., as Trustee.	8-K	4.1	10/26/2021
10.1	Credit Agreement, dated as of November 21, 2017, by and among Vail Holdco Sub LLC, Avantor Funding, Inc. (f/k/a Avantor, Inc.), the guarantors party thereto, Goldman Sachs Bank USA and the other lenders, l/c issuers and parties thereto.	S-1/A	10.1	4/10/2019
10.2	Amendment No. 1, to the Credit Agreement, dated as of November 21, 2017, among Vail Holdco Sub LLC, Avantor Funding, Inc., the guarantors party thereto, Goldman Sachs Bank USA and the other lenders, l/c issuers and parties thereto.	S-1/A	10.2	4/10/2019

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Exhibit no.	Description	Location of exhibits		
		Form	Exhibit no.	Filing date
10.3	Amendment No. 2 to the Credit Agreement, dated as of November 21, 2017, among Vail Holdco Sub LLC, Avantor Funding, Inc., each of the Guarantors, each of the lenders from time to time party thereto and Goldman Sachs Bank USA, as administrative agent and collateral, Swing Line Lender and an L/C Issuer, the lenders party thereto and Goldman Sachs Lending Partners LLC, as the Additional Initial B-2 Euro Term Lender and the Additional Initial B-2 Dollar Term Lender.	8-K	10.1	6/18/2019
10.4	Amendment No. 3 to the Credit Agreement, dated as of November 21, 2017, among Vail Holdco Sub LLC, Avantor Funding, Inc., each of the Guarantors, each of the lenders from time to time party thereto and Goldman Sachs Bank USA, as administrative agent and collateral agent, Swing Line Lender and an L/C Issuer, the lenders party thereto and Goldman Sachs Lending Partners LLC, as the Additional Initial B-3 Euro Term Lender and the Additional Initial B-3 Dollar Term Lender.	8-K	10.1	1/27/2020
10.5	Amendment No. 4 to the Credit Agreement, dated as of November 21, 2017, among Vail Holdco Sub LLC, Avantor Funding, Inc., each of the Guarantors, each of the lenders from time to time party thereto and Goldman Sachs Bank USA, as administrative agent and collateral agent, Swing Line Lender and an L/C Issuer.	8-K	10.1	7/14/2020
10.6	Amendment No. 5 to the Credit Agreement, dated as of November 21, 2017, among Vail Holdco Sub LLC, Avantor Funding, Inc., each of the Guarantors, each of the lenders from time to time party thereto and Goldman Sachs Bank USA, as administrative agent and collateral agent, Swing Line Lender and an L/C Issuer, the lenders party thereto and Goldman Sachs Lending Partners LLC, as the New Term Lender	8-K	10.1	11/6/2020
10.7	Amendment No. 6 to the Credit Agreement, dated as of November 21, 2017, among Vail Holdco Sub LLC, Avantor Funding, Inc., each of the Guarantors, each of the lenders from time to time party thereto and Goldman Sachs Bank USA, as administrative agent and collateral agent, Swing Line Lender and an L/C Issuer, the lenders party thereto and Citibank, N.A., as the New Term Lender	8-K	10.1	6/14/2021
10.8	Amendment No. 7 to the Credit Agreement, dated as of November 21, 2017, among Vail Holdco Sub LLC, Avantor Funding, Inc., each of the Guarantors, each of the lenders from time to time party thereto and Goldman Sachs Bank USA, as administrative agent and collateral agent, Swing Line Lender and an L/C Issuer, the lenders party thereto and Bank of America, N.A., as the Additional Initial B-4 Dollar Term Lender and as the Additional Incremental B-5 Dollar Term Lender	8-K	10.1	7/9/2021

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Exhibit no.	Description	Location of exhibits		
		Form	Exhibit no.	Filing date
10.9	Amendment No. 8 to the Credit Agreement, dated as of November 21, 2017, among Vail Holdco Sub LLC, Avantor Funding, Inc., each of the Guarantors, each of the lenders from time to time party thereto and Goldman Sachs Bank USA, as administrative agent and collateral agent, Swing Line Lender and an L/C Issuer, the lenders party thereto and Citibank, N.A., as the New Term Lender	8-K	10.1	11/2/2021
10.10	Amendment No. 9 to the Credit Agreement, dated as of November 21, 2017 between Avantor Funding, Inc., and Goldman Sachs Bank USA, as administrative agent and collateral agent for the lenders.	10-Q	10.1	7/29/2022
10.11	Amendment No. 10 to the Credit Agreement, dated as of November 21, 2017, among Avantor Funding, Inc., Goldman Sachs Bank USA, as administrative agent and collateral agent for the lenders and the Revolving Credit Lenders.	10-Q	10.1	4/28/2023
10.12	Amendment No. 11 to Credit Agreement, dated as of November 21, 2017, among Vail Holdco Sub, LLC, Avantor Funding, Inc., each of the Guarantors, each of the lenders from time to time party thereto and Goldman Sachs Bank USA, as administrative agent and collateral agent, Swing Line Lender and an L/C Issuer	8-K	10.1	7/5/2023
10.13	Security Agreement, dated as of November 21, 2017, among the grantors identified therein and Goldman Sachs Bank USA, as agent.	S-1/A	10.3	4/10/2019
10.14	First Lien Intercreditor Agreement, dated as of November 21, 2017, by and among Avantor Funding, Inc. (f/k/a Avantor, Inc.), Vail Holdco Sub LLC, the other grantors party thereto, Goldman Sachs Bank USA, as collateral agent for the credit agreement secured parties, the Bank of New York Mellon Trust Company, N.A., as collateral agent for the indenture secured parties and each additional agent party from time to time thereto.	S-1/A	10.4	4/10/2019
10.15	Receivables Purchase Agreement, dated March 27, 2020, among Avantor Receivables Funding, LLC, VWR International, LLC, the various conduit purchasers from time to time party thereto, the various related committed purchasers from time to time party thereto, the various purchaser agents from time to time party thereto, the various LC participants from time to time party thereto and PNC Bank, National Association, as Administrator and LC Bank.	8-K	10.1	3/30/2020

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Exhibit no.	Description	Location of exhibits		
		Form	Exhibit no.	Filing date
10.16	Amendment No. 1 dated as of December 21, 2021 to the Receivables Purchase Agreement, dated as of March 27, 2020, among Avantor Receivables Funding, LLC, VWR International, LLC, the various conduit purchasers from time to time party thereto, the various related committed purchasers from time to time party thereto, the various purchaser agents from time to time thereto, the various LC participants from time to time party thereto and PNC Bank, National Association, as Administrator and LC Bank.	10-K	10.13	2/11/2022
10.17	Amendment No.2 dated as of October 25, 2022 to the Receivables Purchase Agreement, dated as of March 27, 2020, among Avantor Receivables Funding, LLC, VWR International, LLC, the various conduit purchasers from time to time party thereto, the various purchaser agents from time to time thereto, the various LC participants from time to time party thereto and PNC Bank, National Association, as administrator and LC Bank	10-Q	10.2	10/28/2022
10.18	Amendment No. 3 dated as of June 14, 2023 to the Receivables Purchase Agreement, dated as of March 27, 2020, among Avantor Receivables Funding, LLC, VWR International, LLC, Avantor Funding, Inc. as performance guarantor, and PNC Bank, National Association, as administrator, LC Bank, Related Committed Purchaser and Purchaser Agent	10-Q	10.1	7/28/2023
10.19	Amendment No. 4 dated as of September 19, 2023 to the Receivables Purchase Agreement, dated as of March 27, 2020, among Avantor Receivables Funding, LLC, VWR International, LLC, Avantor Funding, Inc., as performance guarantor, PNC Bank, National Association, as administrator, LC Bank, Related Committed Purchaser and Purchaser Agent, and Wells Fargo Bank, National Association, as Related Committed Purchaser, Purchaser Agent and LC Participant	10-Q	10.1	10/27/2023
10.20	Purchase and Sale Agreement, dated March 27, 2020, between the various entities listed on Schedule I thereto as Originators and Avantor Receivables Funding, LLC.	8-K	10.2	3/30/2020
10.21^	Avantor Funding, Inc. (f/k/a Avantor, Inc.) Equity Incentive Plan (as amended through September 28, 2016).	S-1/A	10.12	4/5/2019
10.22^	Form of Nonqualified Stock Option Agreement under the Avantor Funding, Inc. Equity Incentive Plan.	S-1/A	10.13	4/25/2019
10.23^	Avantor, Inc. (f/k/a Vail Holdco Corp) Equity Incentive Plan.	S-1/A	10.14	4/5/2019
10.24^	Form of Nonqualified Stock Option Agreement under the Avantor, Inc. Equity Incentive Plan.	S-1/A	10.15	4/25/2019

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Exhibit no.	Description	Location of exhibits		
		Form	Exhibit no.	Filing date
10.25^	Avantor, Inc. 2019 Equity Incentive Plan	8-K	10.2	5/21/2019
10.26^	Form of Option Grant Notice under the Avantor, Inc. 2019 Equity Incentive Plan.	S-1/A	10.25	4/25/2019
10.27	Form of Performance Stock Unit Grant Notice under the Avantor, Inc. 2019 Equity Incentive Plan (Employees)	10-K	10.22	2/16/2021
10.28^	Form of Restricted Stock Unit Grant Notice under the Avantor, Inc. 2019 Equity Incentive Plan (Employees).	S-1/A	10.26	4/25/2019
10.29^	Form of Restricted Stock Unit Grant Notice under the Avantor, Inc. 2019 Equity Incentive Plan (Non-Employee Directors).	S-1/A	10.27	4/25/2019
10.30^	Avantor, Inc. 2019 Employee Stock Purchase Plan	8-K	10.3	5/21/2019
10.31^	Amendment No. 1 to the Avantor, Inc. 2019 Employee Stock Purchase Plan	S-8	4.4	11/14/2019
10.32^	Amendment No.2 to the Avantor, Inc. 2019 Employee Stock Purchase Plan	10-Q	10.1	10/28/2022
10.33^	Amendment No.3 to the Avantor, Inc. 2019 Employee Stock Purchase Plan	*		
10.34^	Amended and Restated Employment Agreement, dated April 10, 2019, between Michael Stubblefield and Avantor, Inc. (f/k/a Vail Holdco Corp)	S-1/A	10.16	4/25/2019
10.35^	Employment Letter Agreement, dated October 5, 2018, between Thomas A. Szlosek and Avantor, Inc. (f/k/a Vail Holdco Corp)	S-1/A	10.17	4/5/2019
10.36^	Amended and Restated Employment Letter Agreement, dated April 2, 2019, between Gerard Brophy and VWR Management Services, LLC	S-1/A	10.19	4/10/2019
10.37^	Contract of Employment, dated June 29, 2018, between Frederic Vanderhaegen and VWR International GmbH	S-1/A	10.20	4/25/2019
10.38^	Addendum to Contract of Employment, dated April 10, 2019, between Frederic Vanderhaegen and VWR International GmbH	S-1/A	10.21	4/25/2019
10.39^	Employment Letter Agreement dated December 18, 2020 between Sheri Lewis and VWR Management Services, LLC	10-Q	10.2	7/29/2022
10.40^	Offer Letter, dated July 12, 2023 between R. Brent Jones and VWR Management Services, LLC	8-K	10.1	7/13/2023
10.41^	Form of Indemnification Agreement (between Avantor, Inc. and its directors and officers)	S-1/A	10.23	4/25/2019
21	List of subsidiaries of Avantor, Inc.	*		
23	Consent of Deloitte & Touche LLP	*		
31.1	Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	*		
31.2	Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	*		

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Exhibit no.	Description	Location of exhibits		
		Form	Exhibit no.	Filing date
32.1	Certification of Principal Executive Officer pursuant to 18 U.S.C. 1350 (Section 906 of the Sarbanes-Oxley Act of 2002)	**		
32.2	Certification of Principal Financial Officer pursuant to 18 U.S.C. 1350 (Section 906 of the Sarbanes-Oxley Act of 2002)	**		
97^	Erroneously Awarded Compensation Recovery Policy	*		
101	The following materials from this report, formatted in iXBRL (Inline eXtensible Business Reporting Language): (i) the Consolidated Statements of Income, (ii) the Consolidated Statements of Comprehensive Income, (iii) the Consolidated Balance Sheets, (iv) the Consolidated Statements of Cash Flows, and (v) Notes to Consolidated Financial Statements.	*		
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)			

* Filed herewith

** Furnished herewith

^ Indicates management contract or compensatory plan, contract or arrangement.

Item 16. Form 10-K summary

None.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Avantor, Inc.

Date: February 14, 2024

By: /s/ Steven Eck
Name: Steven Eck
Title: Senior Vice President and Chief Accounting Officer (Principal Accounting Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated, as of February 14, 2024.

/s/ Michael Stubblefield Michael Stubblefield	Director, President and Chief Executive Officer (Principal Executive Officer)
/s/ R. Brent Jones R. Brent Jones	Executive Vice President and Chief Financial Officer (Principal Financial Officer)
/s/ Steven Eck Steven Eck	Senior Vice President and Chief Accounting Officer (Principal Accounting Officer)
/s/ Juan Andres Juan Andres	Director
/s/ Michael Severino Michael Severino	Director
/s/ John Carethers John Carethers	Director
/s/ Joseph Massaro Joseph Massaro	Director
/s/ Jonathan Peacock Jonathan Peacock	Chairman of the Board of Directors
/s/ Lan Kang Lan Kang	Director

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/s/ Christi Shaw — Director
Christi Shaw

/s/ Greg Summe — Director
Greg Summe

/s/ Mala Murthy — Director
Mala Murthy

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Avantor, Inc. and subsidiaries
Index to consolidated financial statements

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Avantor, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Avantor, Inc. and subsidiaries (the "Company") as of December 31, 2023 and 2022, the related consolidated statements of operations, comprehensive income or loss, stockholders' equity, and cash flows, for each of the three years in the period ended December 31, 2023, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 14, 2024, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

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Goodwill —Americas and Europe Reporting Units - Refer to Notes 2, 6 and 11 to the financial statements

Critical Audit Matter Description

Goodwill is tested for impairment at the reporting unit level on October 1 of each year or more frequently whenever an event or change in circumstance occurs that would require reassessment of the recoverability of the asset. Quantitative impairment testing requires the Company to estimate the fair value of each of its four reporting units. The Company estimates the fair value of each reporting unit using a weighted average of two valuation methods based on a discounted cash flows method and a guideline public company method. These valuation methods require management to make various assumptions, which include, but are not limited to, future profitability, cash flows, discount rates, weighting of valuation methods, and the selection of comparable publicly traded companies (peer groups). If the Company determines the carrying value of a reporting unit exceeds its fair value, an impairment charge is recorded for the excess. No impairment charges were recorded as each reporting unit had a fair value in excess of its carrying value.

The assumptions management made to estimate fair value for the Americas and Europe reporting units under the discounted cash flows method included net sales growth and discount rates and, under the guideline public company method, the selection of appropriate peer groups and market multiples. Performing audit procedures to evaluate the reasonableness of these assumptions for the Americas and Europe reporting units required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures over management's estimates of net sales growth and discount rates as well as the selection of peer groups and market multiples for the Americas and Europe reporting units included the following, among others:

- We tested the effectiveness of controls over management's goodwill impairment testing, including those over management's assumptions of net sales growth and discount rates under the discounted cash flows method and the selection of appropriate peer groups and market multiples under the guideline public company method.

- We evaluated management's ability to accurately forecast net sales growth by comparing management's forecasts reflected in the prior period Americas and European reporting unit forecasts to actual results.

- With the assistance of our fair value specialists, we evaluated the reasonableness of the discount rate assumptions and the selection of peer groups and guideline public company market multiples, including testing the underlying information supporting these assumptions and the mathematical accuracy of the calculations.

Long-Lived Asset Impairment – Ritter GmbH— Refer to Notes 2, 4, 6, 10 and 11 to the financial statements

Critical Audit Matter Description

The Company's long-lived assets include property, plant and equipment, finite-lived intangible assets and certain other assets. For impairment purposes, the Company groups its long-lived assets with working capital and other types of assets or liabilities if they generate cash flows on a combined basis. The

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Company evaluates long-lived assets, or asset groups, for impairment whenever events or changes in circumstances indicate a potential inability to recover their carrying amounts. Events that result in an impairment review include a significant decrease in the operating results of the asset group or significant adverse changes in the business climate. When such events or changes in circumstances occur, the Company compares the asset group's carrying value to its estimated undiscounted future cash flows. If the carrying value of the asset group exceeds the estimated undiscounted future cash flows, an analysis is performed to estimate the fair value of the asset group. An impairment charge is recorded if the fair value of the asset group is less than its carrying amount.

Due to sustained revenue declines at Ritter, the Company performed an impairment review of the asset group, which resulted in a fair value that was lower than its carrying value. As a result, the Company recorded impairment charges of $106.4 million on Ritter's finite-lived intangible assets and $54.4 million on Ritter's property, plant, and equipment in fiscal 2023. The Company's cash flow analysis performed to evaluate the Ritter asset group for impairment included the following key assumptions: revenues, gross margin, and current market assumptions for the discount rate.

Performing audit procedures to evaluate the reasonableness of the cash flow analysis required a high degree of auditor judgment and an increased extent of effort, including the need to use more experienced audit professionals as well as the assistance of our fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures to evaluate Management's methodology to develop an estimate for the fair value of the asset group , included the following, among others:

- We tested the effectiveness of the controls over management's key assumptions utilized in estimating the fair value of the asset group, such as sales and gross profit forecast as well as discount rate.
- We evaluated the reasonableness of the key assumptions used in management's cash flow forecast by comparing them to:
  - Historical sales and gross profit.
  - External information regarding industry growth and trends.
- With the assistance of our fair value specialists, we evaluated the methodology used to determine the fair value of the asset group and reasonableness of the discount rate assumptions, including testing the underlying information supporting these assumptions and the mathematical accuracy of the calculations.

Income Taxes – Uncertain Tax Positions – Refer to Notes 2 and 19 to the financial statements

Critical Audit Matter Description

The Company operates in numerous countries under many legal forms and, as a result, is subject to the jurisdiction of numerous domestic and non-U.S. tax authorities, as well as to tax agreements and treaties among these governments. Determination of taxable income in any jurisdiction requires the interpretation of the related tax laws and regulations including transfer pricing guidelines. In the normal course of business, the Company is subject to examination by taxing authorities throughout the world. The Company evaluates its tax position using the recognition threshold and the measurement analysis in accordance with the accounting guidance. A tax position that meets the more-likely-than-not recognition threshold is measured to determine the amount of benefit recognized in the financial statements.

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Performing audit procedures to evaluate uncertain tax positions for transfer pricing, required a high degree of auditor judgment and an increased extent of effort, including the need to use more experienced audit professionals as well as the assistance of tax and transfer pricing specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the Company's uncertain tax positions for transfer pricing included the following, among others:

- We tested the effectiveness of controls over management's evaluation and determination of uncertain tax positions for transfer pricing.

- With the assistance of our tax specialists, including transfer pricing professionals, we evaluated the Company's uncertain tax positions related to transfer pricing and performed the following:

  - We evaluated the third-party transfer pricing studies obtained by the Company and assessed the transfer pricing studies with applicable laws and regulations, including transfer pricing guidelines, as well as how the Company applied the transfer pricing method to its transactions.

  - We read and evaluated management's documentation, including relevant accounting policies and information obtained by management from outside tax specialists, that detailed the basis of the uncertain tax positions.

  - Evaluated the reasonableness of management's approach in the identification, recognition, and measurement of uncertain tax positions.

  - We analyzed the Company's critical assumptions and data used to determine the amount of tax benefit to recognize and compared this amount to an independently developed estimate.

/s/ Deloitte & Touche LLP
Philadelphia, Pennsylvania
February 14, 2024

We have served as the Company's auditor since 2010.

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Avantor, Inc. and subsidiaries
Consolidated balance sheets

(in millions)	December 31, 2023	December 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	$ 262.9	$ 372.9
Accounts receivable, net of allowances of $35.0 and $28.2	1,150.2	1,218.4
Inventory	828.1	913.5
Other current assets	143.7	153.1
Total current assets	2,384.9	2,657.9
Property, plant and equipment, net (see note 10)	737.5	727.0
Other intangible assets, net (see note 11)	3,775.3	4,133.3
Goodwill, net (see note 11)	5,716.7	5,652.6
Other assets	358.3	293.5
Total assets	$ 12,972.7	$ 13,464.3
Liabilities and stockholders' equity		
Current liabilities:		
Current portion of debt	$ 259.9	$ 364.2
Accounts payable	625.9	758.2
Employee-related liabilities	133.1	122.4
Accrued interest	50.2	49.9
Other current liabilities	411.2	364.1
Total current liabilities	1,480.3	1,658.8
Debt, net of current portion	5,276.7	5,923.3
Deferred income tax liabilities	612.8	731.4
Other liabilities	350.3	295.4
Total liabilities	7,720.1	8,608.9
Commitments and contingencies (see note 12)		
Stockholders' equity:		
Common stock including paid-in capital, 676.6 and 674.3 shares issued and outstanding	3,830.1	3,785.3
Accumulated earnings	1,491.5	1,170.4
Accumulated other comprehensive loss	(69.0)	(100.3)
Total stockholders' equity	5,252.6	4,855.4
Total liabilities and stockholders' equity	$ 12,972.7	$ 13,464.3

The accompanying notes are an integral part of these consolidated financial statements

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Avantor, Inc. and subsidiaries
Consolidated statements of operations

(in millions, except per share data)	Year ended December 31, 2023	2022	2021
Net sales	$ 6,967.2	$ 7,512.4	$ 7,386.1
Cost of sales	4,603.4	4,909.6	4,883.4
Gross profit	2,363.8	2,602.8	2,502.7
Selling, general and administrative expenses	1,506.6	1,472.6	1,530.5
Impairment charges	160.8	—	—
Operating income	696.4	1,130.2	972.2
Interest expense, net	(284.8)	(265.8)	(217.4)
Loss on extinguishment of debt	(6.9)	(12.5)	(12.4)
Other income (expense), net	5.8	(0.8)	10.6
Income before income taxes	410.5	851.1	753.0
Income tax expense	(89.4)	(164.6)	(180.4)
Net income	321.1	686.5	572.6
Accumulation of yield on preferred stock	—	(24.2)	(64.6)
Net income available to common stockholders	$ 321.1	$ 662.3	$ 508.0
Earnings per share:			
Basic	$ 0.48	$ 1.02	$ 0.86
Diluted	$ 0.47	$ 1.01	$ 0.85
Weighted average shares outstanding:			
Basic	675.6	650.9	590.5
Diluted	678.4	679.4	599.6

The accompanying notes are an integral part of these consolidated financial statements

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Avantor, Inc. and subsidiaries
Consolidated statements of comprehensive income or loss

(in millions)	Year ended December 31, 2023	2022	2021
Net income	$ 321.1	$ 686.5	$ 572.6
Other comprehensive income (loss):			
Foreign currency translation — unrealized gain (loss)	38.3	(102.0)	(62.8)
Derivative instruments:			
Unrealized gain (loss)	21.3	33.1	(1.6)
Reclassification of (gain) loss into earnings	(31.0)	(7.4)	3.5
Activity related to defined benefit plans	(13.6)	46.9	8.0
Other comprehensive income (loss) before income taxes	15.0	(29.4)	(52.9)
Income tax effect	16.3	(27.7)	(12.0)
Other comprehensive income (loss)	31.3	(57.1)	(64.9)
Comprehensive income	$ 352.4	$ 629.4	$ 507.7

The accompanying notes are an integral part of these consolidated financial statements

Avantor, Inc. and subsidiaries
Consolidated statements of stockholders' equity

(in millions)	MCPS including paid-in capital		Common stock including paid-in capital		Accumulated (deficit) earnings	AOCI	Total
	Shares	Amount	Shares	Amount			
Balance on December 31, 2020	20.7	$ 1,003.7	580.1	$ 1,737.6	$ (88.7)	$ 21.7	$ 2,674.3
Comprehensive income (loss)	—	—	—	—	572.6	(64.9)	507.7
Issuances, net of issuance costs	—	—	23.8	967.0	—	—	967.0
Stock-based compensation expense	—	—	—	47.7	—	—	47.7
Accumulation of yield on preferred stock	—	—	—	(64.6)	—	—	(64.6)
Stock option exercises and other common stock transactions	—	—	5.8	64.9	—	—	64.9
Balance on December 31, 2021	20.7	$ 1,003.7	609.7	$ 2,752.6	$ 483.9	$ (43.2)	$ 4,197.0
Comprehensive income (loss)	—	—	—	—	686.5	(57.1)	629.4
Stock-based compensation expense	—	—	—	49.1	—	—	49.1
Accumulation of yield on preferred stock	—	—	—	(24.2)	—	—	(24.2)
Stock option exercises and other common stock transactions	—	—	1.7	4.1	—	—	4.1
Conversion of MCPS into common stock	(20.7)	(1,003.7)	62.9	1,003.7	—	—	—
Balance on December 31, 2022	—	$ —	674.3	$ 3,785.3	$ 1,170.4	$ (100.3)	$ 4,855.4

The accompanying notes are an integral part of these consolidated financial statements

Avantor, Inc. and subsidiaries
Consolidated statements of stockholders' equity (continued)

(in millions)	MCPS including paid-in capital		Common stock including paid-in capital		Accumulated (deficit) earnings	AOCI	Total
	Shares	Amount	Shares	Amount			
Balance on December 31, 2022	—	$ —	674.3	$ 3,785.3	$ 1,170.4	$ (100.3)	$ 4,855.4
Comprehensive income	—	—	—	—	321.1	31.3	352.4
Stock-based compensation expense	—	—	—	40.2	—	—	40.2
Stock option exercises and other common stock transactions	—	—	2.3	4.6	—	—	4.6
Balance on December 31, 2023	—	$ —	676.6	$ 3,830.1	$ 1,491.5	$ (69.0)	$ 5,252.6

The accompanying notes are an integral part of these consolidated financial statements

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Avantor, Inc. and subsidiaries
Consolidated statements of cash flows

(in millions)	Year ended December 31, 2023	2022	2021
Cash flows from operating activities:			
Net income	$ 321.1	$ 686.5	$ 572.6
Reconciling adjustments:			
Depreciation and amortization	402.3	405.5	379.2
Impairment charges	160.8	—	—
Stock-based compensation expense	40.5	45.8	50.7
Provision for accounts receivable and inventory	84.5	65.0	44.9
Deferred income tax benefit	(172.4)	(69.1)	(17.7)
Amortization of deferred financing costs	13.0	15.7	16.3
Loss on extinguishment of debt	6.9	12.5	12.4
Foreign currency remeasurement (gain) loss	(2.6)	10.0	6.7
Changes in assets and liabilities:			
Accounts receivable	77.0	(45.2)	(111.8)
Inventory	30.3	(112.5)	(129.8)
Accounts payable	(139.6)	15.6	64.9
Accrued interest	0.3	0.1	5.3
Other assets and liabilities	48.6	(179.3)	56.9
Other	(0.7)	(7.0)	3.0
Net cash provided by operating activities	870.0	843.6	953.6
Cash flows from investing activities:			
Capital expenditures	(146.4)	(133.4)	(111.1)
Cash paid for acquisitions, net of cash acquired	—	(20.2)	(4,014.1)
Cash proceeds from settlement of cross currency swap	—	42.5	—
Other	2.7	1.5	3.5
Net cash used in investing activities	$ (143.7)	$ (109.6)	$ (4,121.7)

The accompanying notes are an integral part of these consolidated financial statements

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Avantor, Inc. and subsidiaries
Consolidated statements of cash flows (continued)

(in millions)	Year ended December 31, 2023	2022	2021
Cash flows from financing activities:			
Debt borrowings	$ —	$ 327.2	$ 2,834.6
Debt repayments	(846.0)	(947.0)	(533.9)
Payments of debt refinancing fees and premiums	(2.3)	(0.6)	(40.6)
Proceeds from issuance of stock, net of issuance costs	—	—	967.0
Payments of dividends on preferred stock	—	(32.4)	(64.6)
Proceeds received from exercise of stock options	18.3	17.3	82.5
Shares repurchased to satisfy employee tax obligations for vested stock-based awards	(13.7)	(13.2)	(25.8)
Net cash (used in) provided by financing activities	(843.7)	(648.7)	3,219.2
Effect of currency rate changes on cash and cash equivalents	8.2	(15.5)	(13.2)
Net change in cash, cash equivalents and restricted cash	(109.2)	69.8	37.9
Cash, cash equivalents and restricted cash, beginning of year	396.9	327.1	289.2
Cash, cash equivalents and restricted cash, end of year	$ 287.7	$ 396.9	$ 327.1

The accompanying notes are an integral part of these consolidated financial statements

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1. Nature of operations and presentation of financial statements

We are a global manufacturer and distributor that provides products and services to customers in the biopharmaceutical, healthcare, education & government and advanced technologies & applied materials industries.

Basis of presentation

The accompanying financial statements have been prepared in accordance with the rules and regulations of the SEC for annual reports and GAAP. The financial statements include the accounts of Avantor, Inc., its consolidated subsidiaries, and those business entities in which we maintain a controlling interest.

Conversion of MCPS into Common Stock

In May of 2022, all outstanding shares of 6.250% Series A MCPS, par value $0.01 per share, automatically converted into 62.9 million shares of our common stock, in accordance with their terms. The conversion rate for each share of MCPS was 3.0395 shares of our common stock, subject to receipt of cash in lieu of fractional shares, and was determined based on the price of our common stock on the date of conversion. No outstanding shares of the MCPS remained following the mandatory conversion.

Principles of consolidation

All intercompany balances and transactions have been eliminated from the financial statements.

Use of estimates

The preparation of financial statements in conformity with GAAP requires us to make estimates and assumptions that affect the amounts reported throughout the financial statements. Actual results could differ from those estimates.

2. Summary of significant accounting policies

Earnings per share

Basic earnings per share is computed by dividing net income available to common stockholders by the weighted average number of common shares outstanding during the reporting period.

Diluted earnings per share is computed based on the weighted average number of common shares outstanding increased by the number of additional shares that would have been outstanding had the potentially dilutive common shares been issued and reduced by the number of shares we could have repurchased with the proceeds from the issuance of the potentially dilutive shares. Variable conversion ratios are determined as of period end. Preferred dividends are added back to net income available to common stockholders provided that the preferred securities are not anti-dilutive to the calculation.

Segment reporting

We report three geographic segments based on customer location: the Americas, Europe and AMEA. Our operating segments are the same as our reportable segments.

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None of our customers contributed more than 10% to our net sales, and we disclose net sales for the following product categories: proprietary materials & consumables, third party materials & consumables, services & specialty procurement and equipment & instrumentation.

We disclose geographic data for our two largest countries, the United States and Germany, as a percentage of consolidated net sales. No other countries were individually material. We also disclose certain regional data because of differences in geopolitical and / or competitive conditions. We disclose property and equipment by geographic area because many of these assets cannot be readily moved and are illiquid, subjecting them to geographic risk. None of our other long-lived assets are subject to significant geopolitical risk. We do not manage total assets on a segment basis. Segment information about interest expense, income tax expense or benefit and other significant non-cash items are not disclosed because they are not included in the segment profitability measurement nor are they otherwise provided to our chief operating decision maker ("CODM") on a regular basis.

Cash and cash equivalents

Cash equivalents are comprised of highly-liquid investments with original maturities of three months or less. Bank overdrafts are classified as current liabilities, and changes to bank overdrafts are presented as a financing activity on our consolidated statements of cash flows.

Accounts receivable and allowance for current expected credit losses

Substantially all of our accounts receivable are trade accounts that are recorded at the invoiced amount and generally do not bear interest. Accounts receivable are presented net of an allowance for current expected credit losses. We consider many factors in estimating our allowance including the age of our receivables, historical collections experience, customer types, creditworthiness and economic trends. Account balances are written off against the allowance when we determine it is probable that the receivable will not be recovered.

Inventory

Inventory consists of merchandise inventory related to our distribution business and finished goods, raw materials and work in process related to our manufacturing business. Goods are removed from inventory as follows:

- Merchandise inventory purchased by certain U.S. subsidiaries using the last-in, first-out method.
- All other merchandise inventory using the first-in, first-out method.
- Manufactured inventories using an average cost method.

Inventory is valued at the lower of cost or net realizable value. Cost for manufactured goods is determined using standard costing methods to estimate raw materials, labor and overhead consumed. Variances from actual cost are recorded to inventory at period-end. Cost for other inventory is based on amounts invoiced by suppliers plus freight. If net realizable value is less than carrying value, we reduce the carrying amount to net realizable value and record a loss in cost of sales.

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Property, plant and equipment

Property, plant and equipment are stated at cost. Depreciation is recognized using the straight-line method over estimated useful lives of three to forty years for buildings and related improvements, three to twenty years for machinery and equipment and three to ten years for capitalized software. Leasehold improvements are depreciated on a straight-line basis over the shorter of the estimated useful lives of the assets or the estimated remaining life of the lease. Depreciation is classified as cost of sales or SG&A expense based on the use of the underlying asset.

Software development costs are capitalized as property, plant and equipment once the preliminary project stage is completed and management commits to funding the project if it is probable that the project will be completed for its intended use. Preliminary project planning and training costs related to software are expensed as incurred.

Impairment of long-lived assets

Long-lived assets include property, plant and equipment, finite-lived intangible assets and certain other assets. For impairment testing purposes, long-lived assets may be grouped with working capital and other types of assets or liabilities if they generate cash flows on a combined basis.

We evaluate long-lived assets or asset groups for impairment whenever events or changes in circumstances indicate a potential inability to recover their carrying amounts. Impairment is determined by comparing their carrying value to their estimated undiscounted future cash flows. If long-lived assets or asset groups are impaired, the loss is measured as the amount by which their carrying values exceed their fair value.

Goodwill and other intangible assets

Goodwill represents the excess of the price of an acquired business over the aggregate fair value of its net assets. Other intangible assets consist of both finite-lived and indefinite-lived intangible assets.

Goodwill and other indefinite-lived intangible assets are tested annually for impairment on October 1 of each year and whenever an impairment indicator arises. Goodwill impairment testing is performed at the reporting unit level. Our reporting units are Americas, NuSil, Europe and AMEA.

Our finite-lived intangible assets are tested for impairment whenever an impairment indicator arises. Examples of impairment indicators include unexpected adverse business conditions, economic factors, unanticipated technological changes or competitive activities, loss of key personnel and acts or anticipated acts by governments and courts.

The impairment analysis for goodwill and indefinite-lived intangible assets consists of an optional qualitative assessment potentially followed by a quantitative analysis. If we determine that the carrying value of a reporting unit or an indefinite-lived intangible asset exceeds its fair value, an impairment charge is recorded for the excess.

Indefinite-lived intangible assets are not amortized. Annually, we evaluate whether these assets continue to have indefinite lives, considering whether they have any legal, regulatory, contractual, competitive or economic limitations and whether they are expected to contribute to the generation of cash flows indefinitely.

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Finite-lived intangible assets are amortized over their estimated useful lives on a straight-line basis, with customer relationships amortized over lives of ten to twenty years, tradenames amortized over lives of ten to fifteen years and other finite-lived intangible assets amortized over lives of five to twenty years. Amortization is classified in SG&A expenses. We reevaluate the estimated useful lives of our finite-lived intangible assets annually.

Restructuring and severance charges

Restructuring plans are designed to improve gross margins and reduce operating costs over time. We typically incur up-front charges to implement those plans related to employee severance, facility closure and other actions:

- *Employee severance and related* — Employee severance programs can be voluntary or involuntary. Voluntary severances are recorded at their reasonably estimated amount when associates accept severance offers. Involuntary severances covered by plan or statute are recorded at estimated amounts when probable and reasonably estimable. Significant judgment is required to determine probability and whether the amount can be reasonably estimated. Involuntary severances requiring continuing service are measured at fair value as of the termination date and recognized on a straight-line basis over the service period.

- *Facility closure* — On the date we cease using a facility, facility lease assets are tested for impairment in the same way as other long-lived assets. The remaining lease expense is recognized between the period that we commit to cease use of a facility and the date we exit.

- *Other* — Other charges may be incurred to write down assets, divest businesses or for other reasons and are accounted for under applicable GAAP as described elsewhere in these policies.

Restructuring and severance charges are classified as SG&A expenses. Accrued restructuring and severance charges are classified as employee-related or current liabilities if we anticipate settlement within one year, otherwise they are included in other liabilities.

Contingencies

Our business exposes us to various contingencies including compliance with environmental laws and regulations, legal exposures related to the manufacture and sale of products and other matters. Loss contingencies are reflected in the financial statements based on our assessments of their expected outcome or resolution:

- They are recognized as liabilities on our balance sheet if the potential loss is probable and the amount can be reasonably estimated.

- They are disclosed if the potential loss is material and considered at least reasonably possible.

Significant judgment is required to determine probability and whether the amount can be reasonably estimated. Due to uncertainties related to these matters, accruals are based only on the information available at the time. As additional information becomes available, we reassess potential liabilities and may revise our previous estimates.

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Debt

Borrowings under lines of credit are stated at their face amount. Borrowings under term debt and through the issuance of notes are stated at their face amounts net of unamortized deferred financing costs, including any original issue discounts or premiums.

The accounting for financing costs depends on whether debt is newly issued, extinguished or modified. That determination is made on an individual lender basis when the lenders are part of a syndication. When new debt is issued, financing costs and discounts are deferred and recognized as interest expense through maturity of the debt. When debt is extinguished, unamortized deferred financing costs and discounts are written off and presented as a loss on extinguishment of debt. When debt is modified, new financing costs and prior unamortized deferred financing costs may be either (i) immediately recognized as interest expense, other expense, or SG&A expense or (ii) deferred and recognized as interest expense through maturity of the modified debt, depending on the type of cost and whether the modification was substantial or insubstantial.

Borrowings and repayments under lines of credit are short-term in nature and presented on the statement of cash flows on a net basis.

Equity

Stockholders' equity or deficit comprises nonredeemable ownership interests in MCPS and common stock. Our accounting policies for these instruments are as follows:

- MCPS is classified as permanent equity and initially recorded at fair value, net of issuance costs. Accrued but unpaid MCPS dividends are classified as other current liabilities with a corresponding reduction to common stock including paid-in capital.

- Common stock is presented at par value plus additional paid-in amounts, net of issuance costs. Distributions are accounted for as reductions to common stock including paid-in capital and are classified as financing activities on the statement of cash flows.

- Upon issuance, paid-in capital is allocated among host stock instruments on a relative fair value basis.

Costs directly associated with new equity issuances are recorded as other current assets until the issuances are completed or abandoned. If the issuance is completed, the costs are reclassified to stockholders' equity and presented as a reduction of proceeds received. If the issuance is abandoned, the costs are reclassified to SG&A expenses. Costs associated with secondary equity offerings under a registration rights agreement are recorded as SG&A expenses.

Disclosures about certain classes of stock are provided in the footnotes and not stated separately on the balance sheet or statement of stockholders' equity when those presentations are not deemed to be material.

Revenue recognition

We recognize revenue by applying a five-step process: (i) identify the contract with a customer, (ii) identify the performance obligation in the contract, (iii) determine the transaction price, (iv) allocate the transaction price to the performance obligations and (v) recognize revenue as the performance obligations

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are satisfied by transferring control of the performance obligation through delivery of a promised product or service to a customer.

Control of a performance obligation may transfer to the customer either at a point in time or over time depending on an evaluation of the specific facts and circumstances for each contract, including the terms and conditions of the contract as agreed with the customer, as well as the nature of the products or services to be provided. The substantial majority of our net sales are recognized at a point in time based upon the delivery of products to customers pursuant to purchase orders. We recognize service revenues and sales of certain of our custom-manufactured products over time as control passes to the customer concurrent with our performance. We are able to fulfill most purchase orders rapidly, and service and custom-manufacturing cycles are short. As a result, we do not record material contract assets or liabilities, nor do we have material unfulfilled performance obligations.

We have elected to use the practical expedient not to adjust the transaction price of a contract for the effects of a significant financing component if, at the inception of the contract, we expect that the period between when we transfer a promised good or service to a customer and when the customer pays for that good or service will be one year or less.

Some customer contracts include variable consideration, such as rebates and prebates, some of which depend upon our customers meeting specified performance criteria, such as a purchasing level over a period of time. We use judgment to estimate the value of these pricing arrangements at each reporting date and record contract assets or liabilities to the extent that estimated values are recognized at a different time than the revenue for the related products. When estimating variable consideration, we also apply judgment when considering the probability of whether a reversal of revenue could occur and only recognize revenue subject to this constraint.

The only significant costs we incur to obtain contracts are related to sales commissions. These commissions are primarily based on purchase order amounts, not recoverable and not applicable to periods greater than one year. We elected to apply the practical expedient to expense these costs as incurred as if the amortization period of the asset that would have otherwise been recognized is one year or less.

Performance obligations following the delivery of products, such as rights of return and warranties, are not material. No other types of revenue arrangements were material to our consolidated financial statements.

Classification of expenses — cost of sales

Cost of sales includes the cost of the product, depreciation of production assets, supplier rebates, shipping and receiving charges and inventory adjustments. For manufactured products, the cost of the product includes direct and indirect manufacturing costs, plant administrative expenses and the cost of raw materials consumed in the manufacturing process.

Classification of expenses — selling, general and administrative

Selling, general and administrative expenses include personnel and facility costs, amortization of intangible assets, depreciation of non-production assets, research and development costs, advertising expense, promotional charges and other charges related to our global operations. Research and development expenses were not material for the periods presented.

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Employee benefit plans

Some of our employees participate in defined benefit plans that we sponsor. We present these plans as follows due to their differing geographies, characteristics and actuarial assumptions:

- *U.S. plans* — The two U.S. plans are closed to participants who joined the Company after 2018, and annual accruals of future pension benefits for participating employees are not material to our financial statements.

- *Non-U.S. plans* — Eight plans for our employees around the world that we acquired from VWR in 2017, most of which continue to accrue future pension benefits.

- *Medical plan* — A post-retirement medical plan for certain employees in the United States. The medical plan is closed to new employees, and annual accruals of future pension benefits for participating employees are not material to our financial statements.

We sponsor a number of other defined benefit plans around the world that are not material individually or in the aggregate and therefore are not included in our disclosures. Defined contribution and other employee benefit plans are also not material.

The cost of our defined benefit plans is incurred systematically over expected employee service periods. We use actuarial methods and assumptions to determine expense each period and the value of projected benefit obligations. Actuarial changes in the projected value of defined benefit obligations are deferred to AOCI and recognized in earnings systematically over future periods. The portion of cost attributable to continuing employee service is included in SG&A expenses. The rest of the cost is included in other income or expense, net.

Stock-based compensation expense

Some of our management and directors are compensated with stock-based awards. Stock-based compensation expense is included in SG&A expenses on the statement of operations.

Stock options and RSUs

We measure the expense of stock options and RSUs based on their grant-date fair values. These awards typically vest with continuing service, so expense is recognized on a straight-line basis from the date of grant through the end of the requisite service period. When awards are contingent upon the achievement of a performance condition, we record expense over the life of the awards in accordance with the probability of achievement. We measure the expense of awards with a market condition based on the grant-date fair value, which includes the probability of achieving the market condition. We recognize forfeitures of unvested awards as they occur by reversing any expense previously recorded in the period of forfeiture. We issue new shares of common stock upon exercise or vesting of awards.

The grant-date fair value of stock options is measured using the Black-Scholes pricing model using assumptions based on the terms of each stock option agreement, the expected behavior of grant recipients and peer company data. We have limited historical data about our own awards upon which to base our assumptions. Expected volatility is calculated based on the observed equity volatility for a peer group over a period of time equal to the expected life of the stock options. The risk-free interest rate is based on U.S. Treasury observed market rates continuously compounded over the duration of the expected life. The

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expected life of stock options is estimated as the midpoint of the weighted average vesting period and the contractual term.

The grant-date fair value for RSUs in which the vesting condition is based only on continuing service is measured as the quoted closing price of our common stock on the grant date. For awards with market conditions, we measure the grant-date fair value using a Monte Carlo model. The grant-date fair value of awards with performance conditions is the quoted closing price of our common stock on the grant date, adjusted for the probability of achievement.

Award modifications

When stock-based compensation arrangements are modified, we treat the modification as an exchange of the original award for a new award and immediately recognize expense for the incremental value of the new award. The incremental value is measured as the excess of the fair value of new awards over the fair value of the original awards, each based on circumstances and assumptions as of the modification date. Fair value is measured using the same methods previously described.

Income taxes

Our worldwide income is subject to the income tax regulations of many governments. Income tax expense is calculated using an estimated global rate with recognition of deferred tax assets and liabilities for expected temporary differences between taxable and reported income. Deferred tax assets and liabilities are measured using the enacted tax rates expected to apply to taxable income when those temporary differences are expected to reverse. We record a valuation allowance to reduce deferred tax assets to the amount that is more likely than not to be realized.

Income tax regulations change from time to time. The effect of a change in tax law on deferred tax assets and liabilities is recognized as a cumulative adjustment to income tax expense or benefit in the period of enactment. The effect of a change in tax law on the income tax expense or benefit itself is recognized prospectively for the applicable tax years.

Income tax regulations can be complex, requiring us to interpret tax law and take positions. Upon audit, tax authorities may challenge our positions. We regularly assess the outcome of potential examinations and only recognize positions that are more likely than not to be sustained. Recognized income tax positions are measured at the largest amount that is more likely than not of being realized. Changes in recognition or measurement are reflected in the period in which a change in judgment occurs, as a result of information that arises or when a tax position is effectively settled. We recognize accrued interest and penalties related to unrecognized tax benefits as a component of interest expense in our consolidated financial statements.

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Fair value measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at a measurement date. We classify fair value measurements based on the lowest of the following levels that is significant to the measurement:

- *Level 1* — Quoted prices in active markets for identical assets or liabilities
- *Level 2* — Inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the asset or liability
- *Level 3* — Inputs that are unobservable for the asset or liability based on our evaluation of the assumptions market participants would use in pricing the asset or liability

We exercise considerable judgment when estimating fair value, particularly when evaluating what assumptions market participants would likely make. The use of different assumptions or estimation methodologies could have a material effect on the estimated fair values.

Foreign currency translation

Our operations span the globe, so we are impacted by changes in foreign currency exchange rates. We determine the functional currency of our subsidiaries based upon the primary currency used to generate and expend cash, which is usually the currency of the country in which the subsidiary is located. For subsidiaries with functional currencies other than the U.S. dollar, assets and liabilities are translated into U.S. dollars using period-end exchange rates, and revenues, expenses, income and losses of our subsidiaries are translated into U.S. dollars using monthly average exchange rates. The resulting foreign currency translation gains or losses are deferred as AOCI and reclassified to earnings only upon sale or liquidation of those businesses.

Gains and losses related to the remeasurement of debt and intercompany financing into functional currencies are reported in earnings as other income or expense, net. Gains and losses associated with the remeasurement of operating assets and liabilities into functional currencies are reported within the applicable component of operating income.

Leases

We primarily enter into real estate leases for manufacturing, warehousing and commercial office space to support our global operations. We also enter into vehicle and equipment leases to support those operations.

We determine if an arrangement is a lease at inception. Short-term leases, defined as having an initial term of twelve months or less, are expensed as incurred and not recorded on the balance sheet. We record the value of all other leased property and the related obligations as assets and liabilities on the balance sheet. Information about the amount and classification of lease assets and liabilities is included in note 22.

At inception, lease assets and liabilities are measured at the present value of future lease payments over the lease term. As most of our leases do not provide an implicit rate, we exercise judgment in selecting the incremental borrowing rate based on the information available at inception to determine the present value of future payments. Operating lease assets are further adjusted for lease incentives and initial direct costs.

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Our lease terms may include options to extend or terminate the lease. We exercise judgment to calculate the term of those leases when extension or termination options are present and include such options in the calculation of the lease term when it is reasonably certain that we will exercise those options. Operating lease expense is recognized on a straight-line basis over the lease term, except for variable rent which is expensed as incurred. Short-term lease and variable rent expense was immaterial to the financial statements and has been included within operating lease expense. Finance lease expense includes depreciation, which is recognized on a straight-line basis over the expected life of the leased asset and interest expense.

Some of our lease agreements include both lease and non-lease components. We account for those components separately for real estate leases and as a combined single lease component for all other types of leases.

Business combinations

We account for business acquisitions under the accounting standards for business combinations. The results of each acquisition are included in our consolidated results as of the acquisition date and the purchase price of an acquisition is allocated to tangible and intangible assets and assumed liabilities based on their estimated fair values. Any excess of the fair value consideration transferred over the estimated fair values of the net assets acquired is recognized as goodwill.

Any purchase price that is considered contingent consideration is measured at its estimated fair value at the acquisition date. Contingent consideration is remeasured at the end of each reporting period, with changes in estimated fair value being recorded through SG&A expense within our statement of operations.

Derivatives and hedging

We use derivative instruments primarily to manage currency exchange and interest rate risks and recognize them as either assets or liabilities which are measured at fair value.

- *Cash flow hedges* — We use interest rate derivatives to add stability to interest expense and to manage its exposure to interest rate movements. For derivative instruments that are designated and qualify as a cash flow hedge, the gain or loss on the derivative is recorded in AOCI and reclassified into earnings in the same period(s) during which the hedged transaction affects earnings and is presented in the same income statement line item as the earnings effect of the hedged item.

- *Net Investment hedges* — We use foreign currency-denominated debt and cross-currency swaps to hedge our net investments in foreign operations against adverse movements in exchange rates. For derivatives designated as net investment hedges, the gain or loss on the derivative is reported in AOCI as part of the cumulative translation adjustment. Amounts are reclassified out of AOCI into earnings when the hedged net investment is either sold or substantially liquidated.

3. New accounting standards

Segment Reporting

In November 2023, the FASB issued Accounting Standards Update 2023-07, *Improvements to Reportable Segment Disclosures*, which amends the existing segment reporting guidance (ASC Topic 280) to improve reportable segment disclosure requirements, primarily through enhanced disclosures about

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significant segment expenses that are regularly provided to the CODM and included within each reported measure of segment profit or loss, an amount for other segment items by reportable segment and a description of its composition, the title and position of the CODM and an explanation of how the CODM uses the reported measure(s) of segment profit or loss in assessing segment performance and deciding how to allocate resources.

The amendments in this update are effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. Early adoption is permitted. We are currently evaluating the impact of our pending adoption of this standard on our financial statement disclosures.

Income Taxes

In December 2023, the FASB issued Accounting Standards Update 2023-09, *Improvements to Income Tax Disclosures*, which amends the existing income taxes guidance (ASC Topic 740) to require additional disclosures surrounding annual rate reconciliation, income taxes paid and other income tax related disclosures.

The amendments in this update are effective for annual periods beginning after December 15, 2024. Early adoption is permitted. We are currently evaluating the impact of our pending adoption of this standard on our financial statement disclosures.

Other

There were no other new accounting standards that we expect to have a material impact to our financial position or results of operations upon adoption.

4. Business combinations

Masterflex acquisition

Masterflex is a leading global manufacturer of peristaltic pumps and aseptic single-use fluid transfer technologies. The acquisition strengthened Avantor's offering across all bioproduction and research platforms including monoclonal antibodies (mAbs), cell and gene therapy and mRNA, and supports both therapy and vaccine manufacturing including COVID-19.

On November 1, 2021, we completed the acquisition of Masterflex for cash consideration of $2,865.5 million.

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The fair value of the net assets acquired on November 1, 2021 included the following:

(in millions)	November 1, 2021
Inventory	$ 45.7
Property, plant & equipment	4.4
Other intangible assets	664.2
Goodwill	2,169.1
Other assets and liabilities	(3.3)
Deferred income taxes, net	(14.6)
Total net assets	$ 2,865.5

The assets acquired and liabilities assumed are recorded at their fair values as part of our Americas operating segment as of November 1, 2021. The balances of the acquired assets and liabilities have been updated from the provisional amounts recorded during the period of acquisition to reflect additional information relating to the fair value of acquired inventory, tangible and intangible assets, working capital, and the related deferred tax assets, and are considered final. The purchase accounting adjustments that impacted current period income were adjustments to other intangible assets and inventory, which impacted amortization expense, recorded as SG&A expenses, and cost of sales, respectively, and were immaterial to the results of our operations.

The following table summarizes the fair value of intangible assets acquired on November 1, 2021 and their related weighted average amortization period:

(dollars in millions)	Fair value	Weighted average estimated life
Trademark	$ 95.8	15.0 years
Customer relationships	212.0	13.0 years
Developed technology - Tubing	234.4	15.0 years
Developed technology - Pumps	122.0	10.0 years
Total	$ 664.2	

The goodwill represents intellectual capital and the acquired assembled workforce, which are other intangible assets that do not qualify for separate recognition. A portion of the goodwill is deductible for tax purposes and is included in the Americas operating segment.

Ritter acquisition

On June 10, 2021, we completed the acquisition of Ritter for net cash consideration of $1,079.8 million, and contingent consideration with a fair value of $6.1 million on the date of acquisition. Ritter's current business is focused on providing diagnostic system providers and liquid handling OEMs with robotic fluid handling tips, plates, and other consumables. The combination of our companies expanded our proprietary offerings to our biopharma and healthcare customers and enhance our offerings for critical lab automation workflows. The combined businesses also share similar characteristics including a recurring, specification-driven revenue profile and a consumable-driven portfolio of products produced to exacting standards that enhances our unique customer value proposition.

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The purchase consideration is as follows:

(in millions)	June 10, 2021
Cash paid at closing	$ 1,084.5
Cash acquired	(4.7)
Net cash consideration	1,079.8
Fair value of acquisition contingent consideration	6.1
Purchase price	$ 1,085.9

The contingent consideration has a maximum potential payout of €300.0 million over three years. The fair value of the contingent consideration was determined using a Monte Carlo simulation as further described in note 21.

The fair value of the net assets acquired on June 10, 2021 was $1,085.9 million, which included the following:

(in millions)	June 10, 2021
Accounts receivable	$ 33.7
Inventory	30.0
Property, plant & equipment	141.2
Other intangible assets	220.0
Goodwill	807.0
Other assets and liabilities	(0.2)
Accounts payable	(21.5)
Accrued expenses	(37.2)
Debt	(20.4)
Deferred income taxes, net	(66.7)
Total net assets	$ 1,085.9

The following table summarizes the fair value of intangible assets acquired on June 10, 2021 and their related weighted average amortization period:

(dollars in millions)	Fair value	Weighted average estimated life
Customer relationships	$ 125.0	18.0 years
Developed technology	95.0	7.0 years
Total	$ 220.0	

The goodwill represents intellectual capital and the acquired assembled workforce, which are other intangible assets that do not qualify for separate recognition. Of the goodwill recognized, none is deductible for tax purposes.

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Asset impairment - Ritter

Persistently high customer inventory in the end markets served by Ritter and an overall slowdown in research activity has caused Ritter's revenue to decline compared to prior expectations. Due to these sustained declines, we performed an impairment test of the Ritter asset group, which resulted in a fair value that was lower than its carrying value. As a result, we recorded impairment charges of $106.4 million on Ritter's finite-lived intangible assets and $54.4 million on Ritter's property, plant and equipment in the second quarter of 2023. These charges impact our Europe reportable segment.

Our impairment test was performed as of June 30, 2023 and utilized our latest estimates of Ritter's projected cash flows, including revenues, gross margin, SG&A expenses, capital expenditures to maintain the acquired assets, and investments in debt free net working capital, as well as current market assumptions for the discount rate.

We did not identify any further events or changes in circumstances in the year that would represent an impairment triggering event related to the Ritter asset group following the recognition of the impairment during the second quarter of 2023.

RIM Bio acquisition

On June 1, 2021, we completed the acquisition of RIM Bio, a China-based single-use bioprocess bag manufacturer. RIM Bio's current business provides a complete range of single-use 2D bags, 3D bags, tank liners, bag assemblies and multi-bag manifolds used in the manufacturing of biologics including monoclonal antibodies (mAbs), vaccines, cell and gene therapies, and recombinant proteins. The addition of RIM Bio enables us to better serve our customers by expanding our single-use manufacturing, distribution, and cleanroom capabilities to the AMEA region. The impact of this acquisition is not material to our consolidated financial statements.

Acquisition-related costs of completed acquisitions

For the year ended December 31, 2021, we incurred $77.8 million of acquisition-related costs. These costs consist of non-recurring legal, accounting, investment banking, certain financing and consulting fees incurred to complete our acquisitions. All acquisition costs are expensed in the period incurred and excluded from Adjusted EBITDA, as shown in footnote 7 of these consolidated financial statements. These acquisition costs have been primarily recorded within the Europe, Americas and Corporate operating segments and presented in SG&A in the consolidated statements of operations.

Proforma disclosures

The following unaudited pro forma combined financial information for the fiscal years ended December 31, 2021 gives effect to the Ritter and Masterflex acquisitions as if they had occurred on January 1, 2020. The pro forma information is not necessarily indicative of the results of operations that actually would have occurred under the ownership and management of the Company.

(in millions)	**Year ended December 31, 2021**
Revenue	$ 7,699.2
Net income	609.3

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The unaudited pro forma combined financial information presented above includes the accounting effects of the Ritter and Masterflex acquisitions, including, to the extent applicable, amortization charges from acquired intangible assets; depreciation of property, plant and equipment that have been revalued; transaction costs; interest expense; and the related tax effects.

5. Earnings per share

The following table presents the reconciliation of basic and diluted earnings per share for the years ended December 31, 2023, 2022 and 2021:

(in millions, except per share data)	Year ended December 31, 2023			Year ended December 31, 2022			Year ended December 31, 2021		
	Earnings (numerator)	Weighted average shares outstanding (denominator)	Earnings per share	Earnings (numerator)	Weighted average shares outstanding (denominator)	Earnings per share	Earnings (numerator)	Weighted average shares outstanding (denominator)	Earnings per share
Basic	$ 321.1	675.6	$ 0.48	$ 662.3	650.9	$ 1.02	$ 508.0	590.5	$ 0.86
Dilutive effect of stock-based awards	—	2.8		—	5.6		—	9.1	
Dilutive impact of MCPS	—	—		24.2	22.9		—	—	
Diluted	$ 321.1	678.4	$ 0.47	$ 686.5	679.4	$ 1.01	$ 508.0	599.6	$ 0.85

For the year ended December 31, 2021, diluted earnings per share included accumulation of yield on preferred stock of $64.6 million, and excluded 62.9 million of common stock equivalents under the MCPS because they were anti-dilutive to the calculation.

6. Risks and uncertainties

Remeasurement of foreign-denominated debt and intercompany borrowings

Our operations span the globe. To fund those operations, we have entered into significant Euro-denominated indebtedness (see note 13), and we have also established significant intercompany borrowings among our subsidiaries that are denominated in various currencies. Changes in foreign currency exchange rates, particularly the Euro, have required us to record gains and losses, some of which have been significant, to remeasure the debt and the intercompany borrowings into functional currencies of the subsidiaries holding them.

Our intercompany capitalization structure is intended to mitigate substantially all of our net Euro financing exposure in future periods. We expect to record gains and losses related to intercompany borrowings denominated in other currencies. Historically, the remeasurement of borrowings denominated in currencies other than the Euro has not been material.

Impairment testing

On October 1, 2023, we performed quantitative annual impairment testing of goodwill for each of our reporting units. We did not record any impairment charges. Each reporting unit had a fair value that was in excess of its carrying value.

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Unfavorable changes to forecasted results and other assumptions used to determine fair values of reporting units or long-lived assets could present a risk of impairment in future periods. We have not recorded any material impairments during the periods presented.

Collective bargaining arrangements

As of December 31, 2023, approximately 5% of our employees in North America were represented by unions, and a majority of our employees in Europe are represented by workers' councils or unions.

7. Segment financial information

We report based on three geographic segments based on customer location: the Americas, Europe and AMEA. Each segment manufactures and distributes solutions for the biopharmaceutical, healthcare, education & government and advanced technologies & applied materials industries. Corporate costs are managed on a standalone basis and not allocated to segments.

The following tables present information by reportable segment:

	Net sales Year ended December 31,			Adjusted EBITDA Year ended December 31,		
(in millions)	2023	2022	2021	2023	2022	2021
Americas	$ 4,071.6	$ 4,471.2	$ 4,237.4	$ 912.6	$ 1,077.3	$ 978.4
Europe	2,420.4	2,516.5	2,677.3	449.5	524.1	538.5
AMEA	475.2	524.7	471.4	125.3	141.5	113.9
Corporate	—	—	—	(178.3)	(172.2)	(172.2)
Total	$ 6,967.2	$ 7,512.4	$ 7,386.1	$ 1,309.1	$ 1,570.7	$ 1,458.6

	Capital expenditures Year ended December 31,			Depreciation and amortization Year ended December 31,		
(in millions)	2023	2022	2021	2023	2022	2021
Americas	$ 101.4	$ 88.6	$ 75.0	$ 262.9	$ 260.8	$ 232.3
Europe	33.4	38.9	33.3	133.0	139.2	140.9
AMEA	11.6	5.9	2.8	6.4	5.5	6.0
Total	$ 146.4	$ 133.4	$ 111.1	$ 402.3	$ 405.5	$ 379.2

The amounts above exclude inter-segment activity because it is not material. All of the net sales for each segment are from external customers.

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The following table presents the reconciliation of Adjusted EBITDA from net income:

(in millions)	Year ended December 31, 2023	2022	2021
Net income	$ 321.1	$ 686.5	$ 572.6
Interest expense, net	284.8	265.8	217.4
Income tax expense	89.4	164.6	180.4
Depreciation and amortization	402.3	405.5	379.2
Loss on extinguishment of debt	6.9	12.5	12.4
Net foreign currency (gain) loss from financing activities	(3.1)	7.0	1.3
Other stock-based compensation expense (benefit)	0.3	(3.3)	3.0
Acquisition-related expenses[1]	—	—	77.8
Integration-related expenses[2]	7.6	19.2	15.9
Purchase accounting adjustments[3]	—	9.4	6.3
Restructuring and severance charges[4]	26.5	3.5	5.3
Receipt of disgorgement penalty[5]	—	—	(13.0)
Reserve for certain legal matters[6]	7.1	—	—
Impairment charges[7]	160.8	—	—
Transformation expenses[8]	5.4	—	—
Adjusted EBITDA	$ 1,309.1	$ 1,570.7	$ 1,458.6

1. Represents legal, accounting, investment banking and consulting fees incurred related to the acquisition of acquired companies.
2. Represents non-recurring direct costs incurred with third parties and the accrual of a long-term retention incentive to integrate acquired companies. These expenses represent incremental costs and are unrelated to normal operations of our business. Integration expenses are incurred over a pre-defined integration period specific to each acquisition.
3. Represents the non-cash reduction of contingent consideration related to the Ritter acquisition and the amortization of the purchase accounting adjustment to record Masterflex and Ritter inventory at fair value.
4. Reflects the incremental expenses incurred in the period related to initiatives to increase profitability and productivity. Typical costs included in this caption are employee severance, site-related exit costs, and contract termination costs.
5. As described in note 18 to our consolidated financial statements beginning on F-1 of this report.
6. Represents charges and legal costs in connection with certain litigation and other contingencies that are unrelated to our core operations and not reflective of on-going business and operating results.
7. As described in note 4.
8. Represents non-recurring, incremental expenses directly associated with the Company's publicly-announced program to transform our operating model.

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The following table presents net sales by product category:

(in millions)	Year ended December 31, 2023	2022	2021
Proprietary materials & consumables	$ 2,538.4	$ 2,898.4	$ 2,548.2
Third party materials & consumables	2,537.3	2,704.1	2,906.3
Services & specialty procurement	963.5	921.0	922.6
Equipment & instrumentation	928.0	988.9	1,009.0
Total	$ 6,967.2	$ 7,512.4	$ 7,386.1

The following table presents information by geographic area:

(in millions)	Net sales Year ended December 31, 2023	2022	2021	Property, plant and equipment, net Year ended December 31, 2023	2022
United States	$ 3,705.2	$ 4,278.1	$ 3,931.7	$ 462.1	$ 417.0
Germany	571.4	478.7	561.7	102.7	152.1
Other countries in Europe	1,849.0	2,037.8	2,115.6	113.4	103.3
All other countries	841.6	717.8	777.1	59.3	54.6
Total	$ 6,967.2	$ 7,512.4	$ 7,386.1	$ 737.5	$ 727.0

8. Supplemental disclosures of cash flow information

The following tables present supplemental disclosures of cash flow information:

(in millions)	December 31, 2023	2022
Cash and cash equivalents	$ 262.9	$ 372.9
Restricted cash classified as other assets	24.8	24.0
Total	$ 287.7	$ 396.9

(in millions)	Year ended December 31, 2023	2022	2021
Cash flows from operating activities:			
Cash paid for income taxes, net	$ 224.4	$ 256.9	$ 144.7
Cash paid for interest, net, excluding financing leases	267.0	242.2	187.0
Cash paid for interest on finance leases	5.1	5.1	5.1
Cash paid under operating leases	43.8	42.9	43.6
Cash flows from financing activities:			
Cash paid under finance leases	5.1	4.6	4.7

At December 31, 2023, $249.2 million or 95% of our cash and cash equivalents was held by our non-U.S. subsidiaries and may be subject to certain taxes upon repatriation, primarily where foreign withholding taxes apply.

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9. Inventory

The following table presents components of inventory:

(dollars in millions)	December 31, 2023	December 31, 2022
Merchandise inventory	$ 503.5	$ 556.1
Finished goods	91.0	117.1
Raw materials	167.2	181.2
Work in process	66.4	59.1
Total	$ 828.1	$ 913.5
Inventory under the LIFO method:		
Percentage of total inventory	23 %	26 %
Excess of current cost over carrying value	$ 42.2	$ 34.1

10. Property, plant and equipment

The following table presents the components of property, plant and equipment:

(in millions)	December 31, 2023	December 31, 2022
Buildings and related improvements	$ 426.8	$ 393.8
Machinery, equipment and other	548.3	522.2
Software	187.3	130.2
Land	55.6	57.8
Assets not yet placed into service	136.4	141.4
Property, plant and equipment, gross	1,354.4	1,245.4
Accumulated depreciation and impairment charges	(616.9)	(518.4)
Property, plant and equipment, net	$ 737.5	$ 727.0

Depreciation expense was $94.6 million in 2023, $87.2 million in 2022 and $88.4 million in 2021.

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11. Goodwill and other intangible assets

The following tables present changes in goodwill by segment:

	December 31, 2023			
(in millions)	**Americas**	**Europe**	**AMEA**	**Total**
Beginning balance, net	$ 3,830.8	$ 1,787.4	$ 34.4	$ 5,652.6
Currency translation	2.9	61.3	(0.1)	64.1
Additions	—	—	—	—
Ending balance, net	3,833.7	1,848.7	34.3	5,716.7
Accumulated impairment losses	21.0	6.7	11.1	38.8
Ending balance, gross	$ 3,854.7	$ 1,855.4	$ 45.4	$ 5,755.5

	December 31, 2022			
(in millions)	**Americas**	**Europe**	**AMEA**	**Total**
Beginning balance, net	$ 3,411.4	$ 1,897.9	$ 31.8	$ 5,341.1
Currency translation	(7.7)	(111.1)	(1.5)	(120.3)
Additions	427.1	0.6	4.1	431.8
Ending balance, net	3,830.8	1,787.4	34.4	5,652.6
Accumulated impairment losses	21.0	6.7	11.1	38.8
Ending balance, gross	$ 3,851.8	$ 1,794.1	$ 45.5	$ 5,691.4

The following table presents the components of other intangible assets:

	December 31, 2023			December 31, 2022		
(in millions)	**Gross value**	**Accumulated amortization and impairment[1]**	**Carrying value**	**Gross value**	**Accumulated amortization and impairment[1]**	**Carrying value**
Customer relationships	$4,883.2	$ 1,670.3	$ 3,212.9	$4,806.4	$ 1,333.5	$ 3,472.9
Trade names	359.7	228.3	131.4	354.4	205.1	149.3
Other	635.5	296.8	338.7	630.9	212.1	418.8
Total finite-lived	$5,878.4	$ 2,195.4	3,683.0	$5,791.7	$ 1,750.7	4,041.0
Indefinite-lived			92.3			92.3
Total			$ 3,775.3			$ 4,133.3

1. As of December 31, 2023, accumulated impairment losses on Customer relationships were $65.9 million and on Other were $40.5 million totaling $106.4 million. As of December 31, 2022, there were no accumulated impairment losses.

Amortization expense was $307.7 million in 2023, $318.3 million in 2022 and $290.8 million in 2021.

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The following table presents estimated future amortization:

(in millions)	December 31, 2023
2024	$ 303.5
2025	302.4
2026	300.9
2027	299.4
2028	284.5
Thereafter	2,192.3
Total	$ 3,683.0

12. Commitments and contingencies

Our business involves commitments and contingencies related to compliance with environmental laws and regulations, the manufacture and sale of products and litigation. The ultimate resolution of contingencies is subject to significant uncertainty, and it is reasonably possible that contingencies could be decided unfavorably against us.

Environmental laws and regulations

Our environmental liabilities are subject to changing governmental policy and regulations, discovery of unknown conditions, judicial proceedings, method and extent of remediation, existence of other potentially responsible parties and future changes in technology. We believe that known and unknown environmental matters, if not resolved favorably, could have a material effect on our financial position, liquidity and profitability. Matters to be disclosed are as follows:

Mallinckrodt indemnification

In 2010, New Mountain Capital acquired us from Covidien plc in accordance with a stock purchase agreement dated May 25, 2010. At that time, we were organized as Mallinckrodt Baker, Inc. or MBI. Pursuant to the terms of that agreement, we are entitled to various levels of indemnification with respect to environmental liabilities involving the former MBI operations. In 2013, in connection with the Covidien plc divestiture of Mallinckrodt Group S.a.r.l and Mallinckrodt LLC, together "Mallinckrodt," and by a second amendment to the stock purchase agreement dated June 6, 2013, but effective upon the consummation of the divestiture, Covidien plc assigned its obligations as described herein to Mallinckrodt, and Mallinckrodt assumed those obligations from Covidien plc subject to a continuing guarantee by Covidien International Finance, S.A ("CIFSA"). As a result of the stock purchase agreement and assignment, Mallinckrodt is contractually obligated to indemnify and defend us for all off-site environmental liabilities (for example, Superfund or CERCLA liabilities) arising from the pre-closing disposal of chemicals or wastes by former MBI operations.

In connection with environmental liabilities arising from pre-closing noncompliance with environmental laws, Mallinckrodt became contractually obligated to reimburse us for a percentage of the total liability, with such reimbursements made through disbursements from a $30.0 million environmental escrow established at the time of the closing. Specifically, Mallinckrodt became responsible for reimbursement of 80% of the total costs up to $40.0 million of such environmental liabilities. Mallinckrodt became responsible for reimbursement of 50% of the next $40.0 million of such environmental liabilities. If such environmental liabilities exceed $80.0 million in the aggregate, Mallinckrodt became responsible for

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reimbursement of 100% of such liabilities up to the next $30.0 million in the aggregate. Currently, reimbursements are 80% of the amounts spent by us, with reimbursements and settlements to date exceeding $12.0 million. In addition, in connection with operation and maintenance activities required pursuant to administrative consent orders and subsequently issued remedial action permits involving our Phillipsburg, New Jersey, facility, amounts in excess of a small annual threshold are also subject to reimbursement, currently at the 80% level.

In 2023, Mallinckrodt initiated bankruptcy proceedings under Chapter 11 of the Bankruptcy Code and notified us that it was seeking to reject the 2010 stock purchase agreement and its obligations thereunder. We have disputed the effectiveness of Mallinckrodt's attempted use of its bankruptcy proceeding to reject the agreement and believe their indemnity obligations are ongoing. As noted above, Mallinckrodt's obligations under the 2010 stock purchase agreement were guaranteed by CIFSA and we have demanded CIFSA honor its obligations under the guaranty.

Other noteworthy matters

The New Jersey Department of Environmental Protection has ordered us to remediate groundwater conditions near our plant in Phillipsburg, New Jersey. This matter is covered by the indemnification arrangement previously described. At December 31, 2023, our accrued obligation under this order is $2.5 million, which is calculated based on expected cash payments discounted at rates ranging from 3.8% to 4.8% between 2023 and 2045. The undiscounted amount of that obligation is $3.8 million.

In 2016, we assessed the environmental condition of our chemical manufacturing site in Gliwice, Poland. Our assessment revealed specific types of soil and groundwater contamination throughout the site. We are also monitoring the condition of a closed landfill on that site. These matters are not covered by our indemnification arrangement because they relate to an operation we subsequently acquired. At December 31, 2023, our balance sheet includes a liability of $1.1 million for remediation and monitoring costs. That liability is estimated primarily on discounted expected remediation payments and is not materially different from its undiscounted amount.

Manufacture and sale of products

Our business involves risk of product liability, patent infringement and other claims in the ordinary course of business arising from the products that we produce ourselves or obtain from our suppliers, as well as from the services we provide. Our exposure to such claims may increase to the extent that we expand our manufacturing operations or service offerings.

We maintain insurance policies to protect us against these risks as well as product liability insurance. In many cases the suppliers of products we distribute have indemnified us against such claims. Our insurance coverage or indemnification agreements with suppliers may not be adequate in all pending or any future cases brought against us. Furthermore, our ability to recover under any insurance or indemnification arrangements is subject to the financial viability of our insurers, our suppliers and our suppliers' insurers, as well as legal enforcement under the local laws governing the arrangements.

We have entered into indemnification agreements with customers of our self-manufactured products to protect them from liabilities and losses arising from our negligence, willful misconduct or sale of defective products. To date, we have not incurred material costs to defend lawsuits or settle claims related to these indemnification provisions.

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Litigation

At December 31, 2023, there was no outstanding litigation that we believe would result in material losses if decided against us, and we do not believe that there are any unasserted matters that are reasonably possible to result in a material loss.

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13. Debt

The following table presents information about our debt:

(dollars in millions)	December 31, 2023 Interest terms	Rate	Amount	December 31, 2022
Receivables facility	SOFR[1] plus 0.80%	6.25 %	$ 221.0	$ 327.2
Senior secured credit facilities:				
Euro term loans B-4	EURIBOR plus 2.50%	6.34 %	630.1	636.7
Euro term loans B-5	EURIBOR plus 2.00%	5.84 %	350.4	342.0
U.S. dollar term loans B-5	SOFR[1] plus 2.25%	7.71 %	787.6	1,488.3
2.625% secured notes	fixed rate	2.625 %	718.7	694.5
3.875% unsecured notes	fixed rate	3.875 %	800.0	800.0
3.875% unsecured notes	fixed rate	3.875 %	442.3	427.3
4.625 % unsecured notes	fixed rate	4.625 %	1,550.0	1,550.0
Finance lease liabilities			68.3	68.9
Other			11.6	14.2
Total debt, gross			5,580.0	6,349.1
Less: unamortized deferred financing costs			(43.4)	(61.6)
Total debt			$ 5,536.6	$ 6,287.5
Classification on balance sheets:				
Current portion of debt			$ 259.9	$ 364.2
Debt, net of current portion			5,276.7	5,923.3

1. SOFR includes credit spread adjustment.

The following table presents mandatory future repayments of debt principal:

(in millions)	December 31, 2023
2024[1]	$ 259.9
2025	757.0
2026	377.0
2027	738.1
2028	2,601.1
Thereafter	846.9
Total debt, gross	$ 5,580.0

1. Includes $221.0 million of outstanding borrowings on our receivables facility.

Interest expense, net includes interest income of $65.2 million, $15.9 million and $1.9 million for the year ended December 31, 2023, December 31, 2022 and December 31, 2021, respectively. The interest income

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for the year ended December 31, 2023 and December 31, 2022 primarily relates to income on our interest rate swaps and cross currency swaps. Refer to note 20 to the consolidated financial statements for more information.

Credit facilities

The following table presents availability under our credit facilities:

	December 31, 2023		
(in millions)	**Receivables facility**	**Revolving credit facility**	**Total**
Capacity	$ 335.0	$ 975.0	$ 1,310.0
Undrawn letters of credit outstanding	(15.4)	—	(15.4)
Outstanding borrowings	(221.0)	—	(221.0)
Unused availability	$ 98.6	$ 975.0	$ 1,073.6

Current availability under the receivables facility depends upon maintaining a sufficient borrowing base of eligible accounts receivable. At December 31, 2023, $535.4 million of accounts receivable were available as collateral under the facility.

In June 2023, we amended the revolving credit facility to increase its funding limit up to $975.0 million and extended the term to June 29, 2028. We capitalized $2.3 million of fees in connection with this transaction.

In June 2023, the Company entered into an Amendment to the Receivables Purchase Agreement to increase the Delinquency Ratio cap from 13.0% to 16.0%.

Receivables facility

The receivables facility is with a commercial bank and functions like a line of credit. On October 25, 2022, we amended the receivables facility to increase its funding limit up to $400.0 million and extended the term to October 27, 2025. The fees to complete this transaction were not material. Borrowings are secured by accounts receivable which are sold by certain of our domestic subsidiaries to a separate consolidated subsidiary. As a result, those receivables are not available to satisfy the claims of other creditors. We bear the risk of collection on those receivables and account for the receivables facility as a secured borrowing.

The receivables facility includes representations and covenants that we consider usual and customary, including a financial covenant. That covenant becomes applicable for periods in which we have drawn more than 35% of our revolving credit facility under the senior secured credit facilities. When applicable, we may not have total borrowings in excess of a pro forma net leverage ratio, as defined. This covenant was not applicable at December 31, 2023.

Senior secured credit facilities

On December 31, 2023, the senior secured credit facilities consist of a $975.0 million revolving credit facility that matures on June 29, 2028, a $787.6 million term loan facility that matures on November 8, 2027, a $350.4 million term loan facility that matures on June 10, 2026 and a $630.1 million term loan facility that matures on June 10, 2028. The revolving credit facility allows us to issue letters of credit and also to issue short term notes. Borrowings under the facilities are guaranteed by substantially all of our

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domestic subsidiaries and secured by substantially all of their assets except for the accounts receivable that secure the receivables facility.

The senior secured credit facilities bear interest at variable rates. The margin on the revolving credit facility declines if certain net leverage ratios are achieved. Various other immaterial fees are payable under the facilities.

We are required to make additional prepayments if: (i) we generate excess cash flows, as defined, at specified percentages that decline if certain net leverage ratios are achieved; or (ii) we receive cash proceeds from certain types of asset sales or debt issuances. No additional required prepayments have become due since the inception of the credit facilities.

We may also prepay the term loans at our option. In 2023 and 2022, we made optional prepayments of $21.5 million and $124.0 million, respectively, of Euro term loans and $680.0 million and $782.4 million, respectively, of U.S. dollar term loans. In connection with the 2023 and 2022 prepayments, we recorded losses on extinguishment of debt of $6.9 million and $12.5 million, respectively, for the proportional write-off of the related unamortized deferred financing costs.

During the second quarter of 2023, we also amended our U.S. dollar term loan B-5 from LIBOR based floating rate interest to SOFR based floating rate interest. This amendment was done in accordance with ASC 848 and had no impact on the financial statements. The Company is applying optional expedients and exceptions to certain contract modifications and hedging relationships as permitted under ASU 2020-04 and 2022-06.

The senior secured credit facilities contain certain other customary covenants, including a financial covenant. That covenant becomes applicable in periods when we have drawn more than 35% of our revolving credit facility. When applicable, we may not have total borrowings in excess of a pro forma net leverage ratio, as defined. This covenant was not applicable at December 31, 2023.

14. Equity

The following table presents the equity capitalization of Avantor, Inc.:

(shares in millions)	Par value per share	Shares authorized
Undesignated preferred stock	$ 0.01	75.0
Common stock	0.01	750.0

Conversion of MCPS into Common Stock

In May of 2022, all outstanding shares of 6.250% Series A MCPS, par value $0.01 per share, automatically converted into 62.9 million shares of our common stock, in accordance with their terms. The conversion rate for each share of MCPS was 3.0395 shares of our common stock, subject to receipt of cash in lieu of fractional shares, and was determined based on the price of our common stock on the date of conversion. No outstanding shares of the MCPS remained following the mandatory conversion.

Common stock

Each share of common stock entitles the holder to one vote for applicable matters. Holders are entitled to receive dividends declared by the board of directors and a pro rata share of assets available for distribution after satisfaction of the rights of the preferred stockholders.

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15. Accumulated other comprehensive income (loss)

The following table presents changes in the components of AOCI:

(in millions)	Foreign currency translation	Derivative instruments	Defined benefit plans	Total
Balance on December 31, 2020	$ 51.8	$ (1.0)	$ (29.1)	$ 21.7
Unrealized (loss) gain	(62.8)	(1.6)	7.9	(56.5)
Reclassification of loss into earnings	—	3.5	0.1	3.6
Change due to income taxes	(8.2)	(0.5)	(3.3)	(12.0)
Balance on December 31, 2021	(19.2)	0.4	(24.4)	(43.2)
Unrealized (loss) gain	(102.0)	33.1	47.9	(21.0)
Reclassification of gain into earnings	—	(7.4)	(1.0)	(8.4)
Change due to income taxes	(10.1)	(6.2)	(11.4)	(27.7)
Balance on December 31, 2022	(131.3)	19.9	11.1	(100.3)
Unrealized gain (loss)	38.3	21.3	(7.7)	51.9
Reclassification of gain into earnings	—	(31.0)	(5.9)	(36.9)
Change due to income taxes	10.2	2.4	3.7	16.3
Balance on December 31, 2023	$ (82.8)	$ 12.6	$ 1.2	$ (69.0)

The reclassifications effects shown above were immaterial to the financial statements and were made to either cost of sales, selling, general and administrative expense or interest expense depending upon the nature of the underlying transaction. The income tax effects in 2023 and 2022 on foreign currency translation were due to our net investment hedge and cross-currency swap discussed in note 20.

16. Employee benefit plans

We sponsor many defined benefit plans across the globe. Those plans have resulted in significant obligations to pay benefits to current and former employees, many of which are at least partially funded with plan assets. Unless required otherwise, we typically seek to close the defined benefit plans to new participants. Defined benefit plans do not materially impact our earnings, and as a result, certain disclosures have been omitted.

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The following table presents changes in benefit obligations and plan assets and the funded status of our plans:

	U.S. pension plans Year ended December 31,		Non-U.S. pension plans Year ended December 31,		U.S. medical plan Year ended December 31,	
(in millions)	**2023**	**2022**	**2023**	**2022**	**2023**	**2022**
Benefit obligation:						
Beginning balance	$ 168.7	$ 230.1	$ 179.3	$ 291.6	$ 10.2	$ 14.9
Service cost	2.9	3.4	3.1	4.1	0.1	0.1
Interest cost	8.6	5.3	7.2	3.3	0.5	0.3
Employee contributions	—	—	1.4	1.2	—	—
Actuarial loss (gain)	1.6	(54.4)	12.7	(92.6)	0.2	(4.7)
Benefits paid	(13.1)	(15.7)	(6.1)	(5.6)	(0.4)	(0.4)
Settlements and curtailments	(4.1)	—	(8.7)	(1.5)	—	—
Currency translation	—	—	10.1	(21.1)	—	—
Other	—	—	1.7	(0.1)	—	—
Ending balance	164.6	168.7	200.7	179.3	10.6	10.2
Fair value of plan assets:						
Beginning balance	211.4	268.9	118.6	182.8	—	—
Return (loss) on plan assets	15.7	(42.5)	4.2	(49.4)	—	—
Employer contributions	0.7	0.7	5.8	5.6	0.4	0.4
Employee contributions	—	—	1.4	1.2	—	—
Benefits paid	(13.1)	(15.7)	(6.1)	(5.6)	(0.4)	(0.4)
Settlements and curtailments	—	—	(8.7)	(1.5)	—	—
Currency translation	—	—	7.6	(14.7)	—	—
Other	—	—	2.0	0.2	—	—
Ending balance	214.7	211.4	124.8	118.6	—	—
Funded status at end of year	$ 50.1	$ 42.7	$ (75.9)	$ (60.7)	$ (10.6)	$ (10.2)

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The following table presents other balance sheet information for defined benefit plans:

	U.S. pension plans December 31,		Non-U.S. pension plans December 31,		U.S. medical plan December 31,	
(in millions)	2023	2022	2023	2022	2023	2022
Accumulated benefit obligation	$ 164.5	$ 164.0	$ 197.6	$ 176.5	$ 10.6	$ 10.0
Amounts recorded in balance sheet:						
Other assets	$ 58.1	$ 47.8	$ 3.9	$ 4.3	$ —	$ —
Other current liabilities	(0.7)	(0.7)	(3.6)	(2.8)	(0.7)	(0.8)
Other liabilities	(7.3)	(4.4)	(76.2)	(62.2)	(9.9)	(9.4)
Funded status	$ 50.1	$ 42.7	$ (75.9)	$ (60.7)	$ (10.6)	$ (10.2)
Components of AOCI, excluding tax effects:						
Actuarial (loss) gain	$ (10.1)	$ (16.1)	$ 5.4	$ 21.0	$ 9.4	$ 10.8
Prior service gain	—	—	1.4	1.2	—	—

The following table presents the assumptions used to determine the benefit obligation:

	U.S. pension plans December 31,		Non-U.S. pension plans December 31,		U.S. medical plan December 31,	
	2023	2022	2023	2022	2023	2022
Discount rate	5.1 %	5.4 %	3.6 %	4.1 %	5.1 %	5.4 %
Annual rate of salary increase	3.5 %	3.5 %	2.2 %	1.9 %	—	—
Health care cost trends:						
Initial rate	n/a	n/a	n/a	n/a	7.2 %	5.9 %
Ultimate rate	n/a	n/a	n/a	n/a	4.0 %	4.0 %
Year ultimate rate is reached	n/a	n/a	n/a	n/a	2048	2046

The discount rate continues to be the primary driver for changes in the projected benefit obligation. The decreases in discount rates in 2023 caused most of the actuarial losses in the U.S. and Non-U.S. pension plan projected benefit obligations but were offset by experience gains in the U.S. In 2022 , the increase in discount rates was the primary reason for the gains on projected benefit obligations. The actuarial gains in the U.S. medical plan in 2023 were primarily driven by the decrease in the discount rate and also the increase in the claims trend assumption and were offset by favorable experience gains; in 2022 the increase in the discount rate was the primary reason for the actuarial gains.

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The following table presents future benefits expected to be paid:

(in millions)	December 31, 2023 U.S. pension plans	Non-U.S. pension plans	U.S. medical plan
2024	$ 12.5	$ 8.4	$ 0.7
2025	12.8	9.4	0.8
2026	12.9	9.4	0.8
2027	12.8	10.1	0.9
2028	12.5	10.0	0.9
2029 – 2033	59.9	58.3	4.5

We do not expect to make any material contributions to our defined benefit plans in 2024.

The following table presents the allocation of plan assets:

	December 31, 2023					December 31, 2022				
(in millions)	Total	Level 1	Level 2	Level 3	NAV[1]	Total	Level 1	Level 2	Level 3	NAV[1]
U.S. plans:										
Cash	$ 4.2	$ 4.2	$ —	$ —	$ —	$ 5.2	$ 5.2	$ —	$ —	$ —
Fixed income	167.2	—	167.2	—	—	164.5	—	164.5	—	—
Equity	43.3	—	43.3	—	—	41.7	—	41.7	—	—
Total	$ 214.7	$ 4.2	$210.5	$ —	$ —	$ 211.4	$ 5.2	$206.2	$ —	$ —
Non-U.S. plans:										
Cash	$ 0.6	$ 0.6	$ —	$ —	$ —	$ 0.7	$ 0.7	$ —	$ —	$ —
Fixed income	46.6	—	46.6	—	—	46.1	—	46.1	—	—
Equity	10.1	—	10.1	—	—	8.9	—	8.9	—	—
Other	21.8	—	6.6	—	15.2	19.5	—	6.3	—	13.2
Insurance contracts	45.7	—	—	45.7	—	43.4	—	—	43.4	—
Total	$ 124.8	$ 0.6	$ 63.3	$45.7	$ 15.2	$ 118.6	$ 0.7	$61.3	$43.4	$ 13.2

1. Investments are measured at fair value using the net asset value per share practical expedient, and therefore, are not classified in the fair value hierarchy.

For the U.S. plans, our primary investment strategy is to match the duration of plan assets with benefit obligations. This strategy, utilizing diversified fixed income funds, attempts to hedge the rate used to discount pension obligations. The fixed income funds invest in long duration investment grade corporate bonds primarily across industrial, financial and utilities sectors and is managed by a single institution. Surplus assets are invested in equity funds. We estimate the expected long-term rate of return on plan assets considering prior performance, the mix of assets and expectations for the long-term returns on those asset classes. Assets measured using Level 3 inputs were not material to the portfolio.

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For the non-U.S. plans, in many cases we enter into insurance contracts to guarantee payment of benefits for an annual fee. Otherwise, our primary investment strategy is to seek a return on plan assets sufficient to achieve our long-term funding objectives. To seek this return, we invest significantly in global equity funds and secondarily in fixed income funds to mitigate inflation and interest rate risk. These funds primarily invest in inflation-linked and other types of government bonds. We estimate the expected long-term rate of return on plan assets in a similar manner to the U.S. plans.

The following table presents changes to plan assets of non-U.S. plans that were measured using unobservable inputs:

	Year ended December 31,	
(in millions)	**2023**	**2022**
Beginning balance	$ 43.4	$ 41.4
Purchases	6.5	4.1
Actual returns	1.8	0.5
Settlements	(9.4)	(1.5)
Currency translation	3.4	(1.1)
Ending balance	$ 45.7	$ 43.4

17. Stock-based compensation

The following table presents components of stock-based compensation expense:

		Year ended December 31,		
(in millions)	**Classification**	**2023**	**2022**	**2021**
Stock options	Equity	$ 13.7	$ 16.0	$ 18.8
RSUs	Equity	25.5	31.7	26.8
Other	Both	1.3	(1.9)	5.1
Total		$ 40.5	$ 45.8	$ 50.7
Award classification:				
Equity		$ 40.2	$ 49.1	$ 47.7
Liability		0.3	(3.3)	3.0

At December 31, 2023, unvested awards have remaining expense of $74.3 million to be recognized over a weighted average period of 1.7 years.

We recognized a reduction to income tax expense as a result of tax benefits associated with our stock-based compensation plans of $5.0 million, $10.3 million and $30.0 million, in 2023, 2022 and 2021, respectively.

Our stock-based compensation awards have been issued under a succession of plans sponsored by the ultimate parent of our business, which is currently Avantor, Inc. In connection with the IPO, we adopted the 2019 Plan. The 2019 Plan provides for up to 23.5 million shares of common stock to be issued in the form of stock options, restricted stock units or other equity-based awards or cash-based awards. The 2019 Plan also provides for 1% annual increases to the number of shares of common stock available for issuance unless reduced by our Board of Directors. At December 31, 2023, 31.1 million shares were

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available for future issuance. The 2019 Plan will automatically terminate on May 17, 2029, and no award may be granted after this date.

Stock options

The following table presents information about outstanding stock options:

(options and intrinsic value in millions)	Number of options	Weighted average exercise price per option	Aggregate intrinsic value	Weighted average remaining term
Balance on December 31, 2022	16.1	$ 20.90		
Granted	2.2	23.49		
Exercised	(1.0)	14.49		
Forfeited	(0.9)	25.71		
Balance on December 31, 2023	16.4	$ 21.37	$ 43.9	5.5 years
Expected to vest	3.9	24.74	4.5	8.3 years
Vested	12.5	20.32	39.4	4.6 years

During 2023, we granted stock options that have a contractual life of ten years and will vest annually over four years, subject to the recipient continuously providing service to us through each such date.

The following table presents weighted-average information about stock options granted:

	Year ended December 31,		
	2023	2022	2021
Grant date fair value per option	$ 9.64	$ 11.09	$ 8.63
Assumptions used to determine grant date fair value:			
Expected stock price volatility	33 %	31 %	29 %
Risk free interest rate	4.1 %	2.2 %	1.1 %
Expected dividend rate	nil	nil	nil
Expected life of options	6.2 years	6.3 years	6.3 years

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The following table presents other information about stock options:

(in millions)	Year ended December 31, 2023	2022	2021
Fair value of options vested	$ 14.2	$ 15.4	$ 17.2
Intrinsic value of options exercised	7.1	10.1	74.9

RSUs

The following table presents information about unvested RSUs:

(awards in millions)	Number of awards	Weighted average grant date fair value per award
Balance on December 31, 2022	4.2	$ 24.29
Granted	1.9	25.69
Vested	(1.7)	19.05
Forfeited	(0.4)	29.50
Balance on December 31, 2023	4.0	$ 26.35

During 2023, we granted restricted stock units that will vest annually over three to four years, subject to the recipient continuously providing service to us through each such date. Certain of those awards contain performance and market conditions that impact the number of shares that will ultimately vest. We recorded expense on such awards of $3.1 million, $7.3 million and $7.4 million, for the years ended December 31, 2023, 2022 and 2021, respectively.

The fair value of RSUs that vested in 2023, 2022 and 2021 was $29.5 million, $20.9 million and $27.5 million, respectively.

18. Other income or expense, net

The following table presents the components of other income or expense, net:

(in millions)	Year ended December 31, 2023	2022	2021
Net foreign currency gain (loss) from financing activities	$ 3.1	$ (7.0)	$ (1.3)
Income related to defined benefit plans	2.6	6.0	10.4
Other	0.1	0.2	1.5
Other income (expense), net	$ 5.8	$ (0.8)	$ 10.6

Most of the net foreign currency remeasurement gain (loss) from financing activities was caused by the volatility of the U.S. dollar on unhedged intercompany loan positions as disclosed in note 6. The income related to defined benefit plans includes expected returns on defined benefit plan assets, partially offset by interest cost on defined benefit plan obligations. During the year ended December 31, 2021, we recognized $13.0 million of other income related to the disgorgement of disallowed trading profits from Goldman Sachs, which was a related party until December 31, 2020 and expensed $11.9 million of debt issuance costs related to the issuance of an additional $900.0 million under our term loan facility.

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19. Income taxes

The following table presents detail about captions appearing on the statements of operations:

(in millions)	Year ended December 31, 2023	2022	2021
Income (loss) before income taxes:			
United States	$ 527.6	$ 618.0	$ 555.0
Foreign	(117.1)	233.1	198.0
Total	$ 410.5	$ 851.1	$ 753.0
Current income tax (expense) benefit:			
Federal	$ (110.7)	$ (119.9)	$ (74.0)
State	(35.5)	(32.2)	(32.3)
Foreign	(115.6)	(81.6)	(91.8)
Subtotal	(261.8)	(233.7)	(198.1)
Deferred income tax (expense) benefit:			
Federal	18.9	18.0	(11.6)
State	0.9	4.4	(1.9)
Foreign	152.6	46.7	31.2
Subtotal	172.4	69.1	17.7
Income tax expense	$ (89.4)	$ (164.6)	$ (180.4)

The following table reconciles the income tax provision calculated at the United States federal corporate rate to the amounts presented in the statements of operations:

(in millions)	Year ended December 31, 2023	2022	2021
Income before income taxes	$ 410.5	$ 851.1	$ 753.0
United States federal corporate rate	21 %	21 %	21 %
Income tax expense at federal corporate rate	(86.2)	(178.7)	(158.2)
State income taxes, net of federal benefit	(27.3)	(23.3)	(27.0)
Rate changes related to foreign jurisdictions	1.5	1.3	(9.7)
Stock-based compensation	0.1	3.5	14.5
Foreign taxes	38.7	12.8	1.4
Valuation allowance	(22.1)	4.8	4.1
Changes to uncertain tax positions	(0.9)	1.1	(10.7)
Foreign-derived intangible income	17.1	12.1	8.2
Transaction costs	—	—	(2.1)
Executive Compensation Limitation	(6.1)	—	—
Other, net	(4.2)	1.8	(0.9)
Income tax expense	$ (89.4)	$ (164.6)	$ (180.4)

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Deferred taxes

The following table presents the components of deferred tax assets and liabilities:

(in millions)	December 31, 2023	2022
Deferred tax assets:		
Reserves and accrued expenses	$ 50.8	$ 61.7
Pension, postretirement and environmental liabilities	3.0	1.1
Net operating loss and deferred deductions	451.3	325.7
Other	22.9	6.1
Deferred tax assets, gross	528.0	394.6
Less: valuation allowances	(206.1)	(179.7)
Deferred tax assets, net	321.9	214.9
Deferred tax liabilities:		
Intangibles	(741.3)	(810.4)
Property, plant and equipment	(40.9)	(51.3)
Investment in partnerships	(51.2)	(44.1)
Other	(1.2)	—
Deferred tax liabilities	(834.6)	(905.8)
Net deferred tax liability	$ (512.7)	$ (690.9)
Classification on balance sheets:		
Other assets	$ 100.1	$ 40.5
Deferred income tax liabilities	(612.8)	(731.4)

The increase (decrease) to the valuation allowance was $26.4 million in 2023, $(7.9) million in 2022 and $(22.3) million in 2021.

At December 31, 2023, $159.6 million of the valuation allowances presented above relate to foreign net operating loss carryforwards that are not expected to be realized. We evaluate the realization of deferred tax assets by considering such factors as the reversal of existing taxable temporary differences, expected profitability by tax jurisdiction and available carryforward periods. The extent and timing of any such reversals will influence the extent of tax benefits recognized in a particular year. Should applicable losses, credits and deductions ultimately be realized, the resulting reduction in the valuation allowance would generally be recognized as an income tax benefit.

Uncertain tax positions

We file federal income tax returns in the United States and other tax returns in various states and international jurisdictions. In the normal course of business, we are subject to examination by taxing authorities throughout the world. In these cases, we evaluate our tax position using the recognition threshold and the measurement analysis in accordance with the accounting guidance. A tax position that meets the more-likely-than-not recognition threshold is measured to determine the amount of benefit recognized in our financial statements. Tax years are subject to examination in the United States since 2017 at the federal level, since 2015 for certain states and in certain international jurisdictions since 2013.

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The following table reflects changes to the reserve for uncertain tax positions, excluding accrued interest and penalties:

	Year ended December 31,		
(in millions)	**2023**	**2022**	**2021**
Beginning balance	$ 51.8	$ 55.3	$ 46.7
Additions:			
Tax positions related to the current year	—	1.2	5.1
Tax positions related to prior years	65.2	—	7.3
Reductions:			
Settlements with taxing authorities	(6.3)	(0.1)	(0.9)
Lapse of statutes of limitations	(4.5)	(2.4)	(1.6)
Currency translation	0.7	(2.2)	(1.3)
Ending balance	$ 106.9	$ 51.8	$ 55.3

At December 31, 2023, December 31, 2022 and December 31, 2021, the total amount of unrecognized tax benefits that, if recognized, would reduce income tax expense and the effective tax rate by $50.8 million, $51.8 million and $55.3 million, respectively.

Accrued interest and penalties related to the reserve for uncertain tax positions were $8.2 million at December 31, 2023, $6.7 million at December 31, 2022 and $5.3 million at December 31, 2021. We believe that it is reasonably possible that the reserve for uncertain tax positions could decrease by up to $22.0 million over the next twelve months.

The development of reserves for uncertain tax positions requires judgments about tax issues, potential outcomes and the timing of settlement discussions with tax authorities. If we were to prevail on all uncertain tax positions, we would recognize an income tax benefit.

Other matters

Undistributed earnings of foreign subsidiaries that are deemed to be permanently reinvested amount to $2,727.6 million at December 31, 2023. In addition to the one-time transition tax imposed on all accumulated foreign undistributed earnings through December 31, 2017, undistributed earnings of foreign subsidiaries as of December 31, 2023 may still be subject to certain taxes upon repatriation, primarily where foreign withholding taxes apply. We assert indefinite reinvestment related to investments in foreign subsidiaries. It is not practicable to calculate the unrecognized deferred tax liability on undistributed foreign earnings due to the complexity of the hypothetical calculation.

At December 31, 2023, we had federal net operating loss carryforwards of $16.2 million that have indefinite expirations and state net operating loss carryforwards of $118.7 million that expire at various times through 2040. In addition, we had foreign net operating loss carryforwards of $705.5 million, which predominantly have indefinite expirations.

At December 31, 2023, we had a remaining transition tax payable imposed by the Tax Cuts and Jobs Act of 2017 of $34.8 million, of which $15.5 million is payable in 2024.

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20. Derivative and hedging activities

Hedging instruments:

We engage in hedging activities to reduce our exposure to foreign currency exchange rates and interest rates. Our hedging activities are designed to manage specific risks according to our strategies, as summarized below, which may change from time to time. Our hedging activities consist of the following:

- *Economic hedges* — We are exposed to changes in foreign currency exchange rates on certain of our euro-denominated term loans and notes that move inversely from our portfolio of euro-denominated intercompany loans. The currency effects for these non-derivative instruments are recorded through earnings in the period of change and substantially offset one another;

- *Other hedging activities* — Certain of our subsidiaries hedge short-term foreign currency denominated business transactions, external debt and intercompany financing transactions using foreign currency forward contracts. These activities were not material to our consolidated financial statements.

Cash flow hedges of interest rate risk

In April of 2023, the Company executed a $100.0 million interest rate swap to convert SOFR based floating rate interest to fixed rate interest. The transaction is intended to mitigate our exposure to fluctuations in interest rates and will terminate on October 27, 2025. In addition, in April of 2023, we amended our $750.0 million interest rate swap from LIBOR based floating rate interest to SOFR based floating rate interest. This amendment was done in accordance with ASC 848 and had no impact on the financial statements. The Company is applying optional expedients and exceptions to certain contract modifications and hedging relationships as permitted under ASU 2020-04 and 2022-06.

Our objectives in using interest rate derivatives are to add stability to interest expense and to manage its exposure to interest rate movements. To accomplish this objective, the Company primarily uses interest rate swaps as part of its interest rate risk management strategy. Interest rate swaps designated as cash flow hedges involve the receipt of variable amounts from a counterparty in exchange for the Company making fixed-rate payments over the life of the agreements without exchange of the underlying notional amount.

For derivatives designated and that qualify as cash flow hedges of interest rate risk, the gain or loss on the derivative is recorded in AOCI and subsequently reclassified into interest expense in the same period(s) during which the hedged transaction affects earnings. Amounts reported in AOCI related to derivatives will be reclassified to interest expense as interest payments are made on the Company's variable-rate debt. During the next twelve months, the Company estimates that an additional $14.9 million will be reclassified as a reduction to interest expense.

As of December 31, 2023, the Company had the following outstanding interest rate derivatives that were designated as cash flow hedges of interest rate risk:

(dollars in millions)

Interest rate derivative	Number of instruments	Notional
Interest rate swaps	2	$ 850.0

Effect of cash flow hedge accounting on AOCI

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The table below presents the effect of cash flow hedge accounting on AOCI for the years ended December 31, 2023 and 2022.

(in millions)

Hedging relationships	Amount of gain or (loss) recognized in OCI on Derivative		Location of gain or (loss) reclassified from AOCI into income	Amount of gain or (loss) reclassified from AOCI into income	
	Year ended December 31,			Year ended December 31,	
	2023	2022		2023	2022
Interest rate products	8.4	24.3	Interest expense, net	18.0	(1.9)
Total	$ 8.4	$ 24.3		$ 18.0	$ (1.9)

Effect of cash flow hedge accounting on the income statement

The table below presents the effect of our derivative financial instruments on the statement of operations for the years ended December 31, 2023 and 2022.

(in millions)	Year ended December 31,	
	2023	2022
	Interest expense, net	Interest expense, net
Total amounts of line items presented in the statements of operations where the effects of cash flow hedges are recorded	$ (284.8)	$ (265.8)
Amount of gain (loss) reclassified from AOCI into income	$ 18.0	$ (1.9)

Net investment hedges

We are exposed to fluctuations in foreign exchange rates on investments we hold in foreign entities, specifically our net investment in Avantor Holdings B.V., a EUR-functional-currency consolidated subsidiary, against the risk of changes in the EUR-USD exchange rate.

For derivatives designated as net investment hedges, the gain or loss on the derivative is reported in AOCI as part of the cumulative translation adjustment. Amounts are reclassified out of AOCI into earnings when the hedged net investment is either sold or substantially liquidated.

As of December 31, 2023, we had the following outstanding foreign currency derivatives that were used to hedge its net investments in foreign operations:

(value in millions)

Foreign currency derivative	Number of instruments	Notional sold	Notional purchased
Cross-currency swaps	1	€ 732.1	$ 750.0

Effect of net investment hedges on AOCI and the income statement

The table below presents the effect of our net investment hedges on AOCI and the statement of operations for the years ended December 31, 2023 and 2022.

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(in millions)

Hedging relationships	Amount of gain or (loss) recognized in OCI on Derivative Year ended December 31, 2023	2022	Location of gain or (loss) recognized in income on Derivative (amount excluded from effectiveness testing)	Amount of gain or (loss) recognized in income on Derivative (amount excluded from effectiveness testing) Year ended December 31, 2023	2022
Cross currency swaps	$ (21.1)	$ 30.6	Interest expense, net	$ 12.7	$ 9.7
Total	$ (21.1)	$ 30.6		$ 12.7	$ 9.7

The Company did not reclassify any other deferred gains or losses related to cash flow hedge from accumulated other comprehensive income (loss) to earnings for the years ended December 31, 2023 and 2022.

The table below presents the fair value of our derivative financial instruments as well as their classification on the Balance Sheet as of December 31, 2023 and 2022.:

	Asset derivatives				Liability derivatives			
	December 31,				December 31,			
	2023		2022		2023		2022	
(in millions)	Balance sheet location	Fair value	Balance sheet location	Fair value	Balance sheet location	Fair value	Balance sheet location	Fair value
Derivatives designated as hedging instruments:								
Interest rate products	Other current assets	$ 16.6	Other current assets	$ 26.2	Other current liabilities	$ —	Other current liabilities	$ —
Foreign exchange products	Other current assets	—	Other current assets	—	Other current liabilities	(55.2)	Other current liabilities	(21.4)
Total		$ 16.6		$ 26.2		$ (55.2)		$ (21.4)

Termination of cross-currency swap

In July 2022, we terminated our existing $750.0 million cross-currency swap, maturing on April 30, 2025 and monetized $42.5 million of cash proceeds. We simultaneously entered into new on-market $750.0 million fixed-to-fixed cross-currency swap to hedge our exposure to changes in foreign exchange rates of its foreign investments. The purpose of this swap is to replace the swap that we terminated in July 2022. The new swap matures on April 30, 2025. Cross-currency swaps involve the receipt of functional-

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currency fixed-rate amounts from a counterparty in exchange for making foreign-currency fixed-rate payments over the life of the agreement.

Non-derivative financial instruments which are designated as hedging instruments:

We designated all of our outstanding €400.0 million 3.875% senior unsecured notes, issued on July 17, 2020, and maturing on July 15, 2028, as a hedge of our net investment in certain of our European operations. For instruments that are designated and qualify as net investment hedges, the foreign currency transactional gains or losses are reported as a component of AOCI. The gains or losses would be reclassified into earnings upon a liquidation event or deconsolidation of a hedged foreign subsidiary.

Net investment hedge effectiveness is assessed based upon the change in the spot rate of the foreign currency denominated debt. The critical terms of the foreign currency notes match the portion of the net investments designated as being hedged. At December 31, 2023, the net investment hedge was equal to the designated portion of the European operations and was considered to be perfectly effective.

The accumulated gain related to the foreign currency denominated debt designated as net investment hedges classified in the foreign currency translation adjustment component of AOCI was $9.3 million and $24.3 million as of December 31, 2023 and December 31, 2022, respectively.

The amount of loss (gain) related to the foreign currency denominated debt designated as net investment hedges classified in the foreign currency translation adjustment component of other comprehensive income is presented below:

	Year ended December 31,		
(in millions)	**2023**	**2022**	**2021**
Net investment hedges	$ 15.0	$ (27.8)	$ (34.1)

21. Financial instruments and fair value measurements

Our financial instruments include cash and cash equivalents, accounts receivable, accounts payable, debt, contingent consideration arrangements and derivatives.

Certain financial and non-financial assets and liabilities are measured at fair value on a nonrecurring basis and are subject to fair value adjustments in certain circumstances, such as when there is evidence of impairment. As discussed in note 4, during the second quarter of 2023, property, plant and equipment, customer relationships and developed technology related to the Ritter asset group were deemed to be impaired and their carrying values were reduced to estimated fair values of $25.9 million, $31.4 million and $19.3 million, respectively. This was the result of an impairment charge of $160.8 million. The

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Company estimates the fair value of the Ritter asset group using Level 3 inputs, which included a discounted cash flow analysis.

Assets and liabilities for which fair value is only disclosed

The carrying amount of cash and cash equivalents was the same as its fair value and is a level 1 measurement. The carrying amounts for trade accounts receivable and accounts payable approximated fair value due to their short-term nature and are level 2 measurements.

The following table presents the gross amounts, which exclude unamortized deferred financing costs, and the fair values of debt instruments:

	December 31, 2023		December 31, 2022	
(in millions)	Gross amount	Fair value	Gross amount	Fair value
Receivables facility	$ 221.0	$ 221.0	$ 327.2	$ 327.2
Senior secured credit facilities:				
Euro term loans B-4	630.1	630.9	636.7	627.5
Euro term loans B-5	350.4	351.1	342.0	340.7
U.S. dollar term loans B-5	787.6	791.0	1,488.3	1,485.5
2.625% secured notes	718.7	705.3	694.5	658.5
3.875% unsecured notes	800.0	727.3	800.0	672.0
3.875% unsecured notes	442.3	434.3	427.3	396.5
4.625 % unsecured notes	1,550.0	1,489.1	1,550.0	1,407.6
Finance lease liabilities	68.3	68.3	68.9	68.9
Other	11.6	11.6	14.2	14.2
Total	$ 5,580.0	$ 5,429.9	$ 6,349.1	$ 5,998.6

The fair values of debt instruments are based on standard pricing models that take into account the present value of future cash flows, and in some cases private trading data, which are level 2 measurements.

Recurring fair value measurements with significant unobservable inputs

Certain of the business acquisitions we completed entitle the sellers to contingent consideration based on sales or earnings during a period of time following the acquisition.

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The following table presents changes to contingent consideration liabilities:

(in millions)	Year ended December 31, 2023	2022
Beginning balance	$ 1.2	$ 5.7
Acquisitions	—	—
Changes to estimated fair value	—	(4.4)
Cash payments	—	—
Currency translation	—	(0.1)
Ending balance	$ 1.2	$ 1.2

We estimated the fair value of contingent consideration on a recurring basis using the average of probability-weighted potential payments specified in the purchase agreements, which were level 3 measurements. The significant assumptions used in these calculations include forecasted results and the estimated likelihood for each performance scenario.

22. Leases

The following table presents lease assets and liabilities and their balance sheet classification:

(in millions)	Classification	December 31, 2023	2022
Operating leases:			
Lease assets	Other assets	$ 120.7	$ 118.7
Current portion of liabilities	Other current liabilities	36.2	35.6
Liabilities, net of current portion	Other liabilities	88.5	86.6
Finance leases:			
Lease assets	Property, plant and equipment, net	52.3	55.3
Current portion of liabilities	Current portion of debt	5.5	4.3
Liabilities, net of current portion	Debt, net of current portion	62.8	64.7

The following tables present information about lease expense:

(in millions)	Year ended December 31, 2023 (1,2)	2022 (1,2)	2021 (1,2)
Operating lease expense	$ 52.5	$ 48.5	$ 48.2
Finance lease expense	11.6	10.7	11.1
Total	$ 64.1	$ 59.2	$ 59.3

(1) Operating lease expense for 2023 and 2022 includes $7.8 million and $7.9 million, respectively, classified as cost of sales and $44.7 million and $40.6 million classified as SG&A expenses, respectively.

(2) Finance lease expense consists primarily of amortization of finance lease assets that is classified as SG&A expenses.

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	December 31,	
	2023	2022
Weighted average remaining lease term:		
Operating leases	6.6 years	6.3 years
Finance leases	11.7 years	12.7 years
Weighted average discount rate:		
Operating leases	4.4 %	3.9 %
Finance leases	7.9 %	7.8 %

The following table presents future payments due under leases reconciled to lease liabilities:

	December 31, 2023	
(in millions)	Operating leases	Finance leases
2024	$ 40.5	$ 10.4
2025	28.4	9.5
2026	20.2	8.9
2027	13.0	8.2
2028	8.7	8.1
Thereafter	33.4	65.4
Total undiscounted lease payments	144.2	110.5
Difference between undiscounted and discounted lease payments	(19.5)	(42.2)
Lease liabilities	$ 124.7	$ 68.3

23. Subsequent Events

As announced at our Investor Day in December 2023, the company has changed its operating model and reporting segment structure effective January 1, 2024. The company's new reporting segments, Laboratory Solutions and Bioscience Production, are product-based rather than our former segment structure which was geographically-focused.

24. Condensed unconsolidated financial information of Avantor, Inc.

Pursuant to SEC regulations, the following presents condensed unconsolidated financial information of the registrant, Avantor, Inc.

The following condensed unconsolidated financial statements should be read in conjunction with our consolidated financial statements and notes thereto because certain applicable disclosures are provided there. In these condensed unconsolidated financial statements, all of our subsidiaries are wholly-owned for the periods presented and presented as investments of Avantor, Inc. under the equity method. Under that method, the equity interest in subsidiaries' assets and liabilities is stated as a net non current asset at historical cost on the balance sheet.

No statements of operations are included because Avantor, Inc. only had equity in the earnings or loss of its subsidiaries for the periods presented in amounts equal to our consolidated net income or loss.

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Avantor, Inc.
Condensed unconsolidated balance sheets

(in millions)	December 31, 2023	December 31, 2022
Assets		
Investment in unconsolidated subsidiaries	$ 5,252.6	$ 4,855.4
Total assets	$ 5,252.6	$ 4,855.4
Stockholders' equity		
Common stock including paid-in capital, 676.6 and 674.3 shares outstanding	3,830.1	3,785.3
Accumulated earnings	1,491.5	1,170.4
Accumulated other comprehensive loss	(69.0)	(100.3)
Total stockholders' equity	$ 5,252.6	$ 4,855.4

Avantor, Inc.
Condensed unconsolidated statements of cash flows

(in millions)	Year ended December 31, 2023	Year ended December 31, 2022	Year ended December 31, 2021
Cash flows from investing activities:			
Contribution (to) from unconsolidated subsidiaries	$ (4.6)	$ 28.3	$ (967.3)
Net cash (used in) provided by investing activities	(4.6)	28.3	(967.3)
Cash flows from financing activities:			
Proceeds from issuance of stock, net of issuance costs	—	—	967.0
Payments of dividends on preferred stock	—	(32.4)	(64.6)
Contribution from unconsolidated subsidiaries	—	—	—
Proceeds received from exercise of stock options, net of shares repurchased to satisfy employee tax obligations for vested stock-based awards	4.6	4.1	64.9
Net cash provided by (used in) financing activities	4.6	(28.3)	967.3
Net change in cash and cash equivalents	—	—	—
Cash, cash equivalents and restricted cash, beginning of year	—	—	—
Cash, cash equivalents and restricted cash, end of year	$ —	$ —	$ —

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25. Valuation and qualifying accounts

The following table presents changes to our valuation and qualifying accounts:

(in millions)	Allowance for expected credit losses	Valuation allowances on deferred tax assets
Balance on December 31, 2020	$ 26.2	$ 209.9
Charged to costs and expenses	3.6	(9.4)
Deductions[(1)]	(2.6)	—
Currency translation	(0.8)	(12.9)
Balance on December 31, 2021	26.4	187.6
Charged to costs and expenses	6.9	2.7
Deductions[(1)]	(3.7)	—
Currency translation	(1.4)	(10.6)
Balance on December 31, 2022	28.2	179.7
Charged to costs and expenses	15.3	20.2
Deductions[(1)]	(9.2)	—
Currency translation	0.7	6.2
Balance on December 31, 2023	$ 35.0	$ 206.1

(1) For the allowance for expected credit losses, deductions represent bad debts charged off, net of recoveries, and other additions represent recoveries, net of bad debts charged off.

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Board of Directors

Jonathan Peacock
Chairman of the Board
Avantor, Inc.
Chairman
UCB SA

Michael Stubblefield
President and Chief Executive Officer
Avantor, Inc.

Juan Andres
Former President, Strategic Partnerships and Enterprise Expansion
Moderna, Inc.

John Carethers, M.D.
Vice Chancellor Health Science
University of California San Diego

Lan Kang
Senior Managing Director
CBC Group

Joseph Massaro
Chief Financial Officer and Senior Vice President, Business Operations
Aptiv PLC

Mala Murthy
Chief Financial Officer
Teladoc Health, Inc.

Michael Severino, M.D.
Chief Executive Officer
Tessera Therapeutics

Christi Shaw
Former Chief Executive Officer
Kite, a Gilead Company

Greg Summe
Managing Partner
Glen Capital Partners

COMPANY AND INVESTOR INFORMATION

2024 Annual Meeting
May 9, 2024, 11:00 a.m. Eastern Time

Avantor will be hosting a virtual Annual Stockholder Meeting this year. Stockholders entitled to vote at the meeting will be able to participate by accessing www.virtualshareholdermeeting.com/AVTR2024

Additional Information
Financial documents, such as our Annual Report on Form 10-K, quarterly reports on Form 10-Q and other reports and filings, such as the Company's Code of Ethics and Conduct, may be obtained from the Company website at ir.avantorsciences.com or by calling the Company's Investor Relations Department at (610) 386-1524.

Stockholder Services
Our transfer agent, Equiniti Trust Company, LLC ("EQ"), can assist you with a variety of stockholder services, including change of address, ownership transfer and account consolidation and can be reached at:
Tel.: (800) 937-5449, outside the U.S. and Canada at (718) 921-8124
Internet: www.equiniti.com
Mail: PO Box 500
Newark, NJ 07101
Email: HelpAST@equiniti.com

Investor Relations
Stockholders, security analysts, portfolio managers and other investors desiring further information about the Company may direct questions or requests to:
Avantor, Inc.
Building One, Ste. 200
100 Matsonford Road
Radnor, PA 19087
Tel.: (610) 386-1524
Email: AvantorIR@avantorsciences.com

Independent Auditors
Deloitte & Touche LLP, Philadelphia, Pennsylvania

Stock Listing
Common stock
New York Stock Exchange | Ticker Symbol: AVTR

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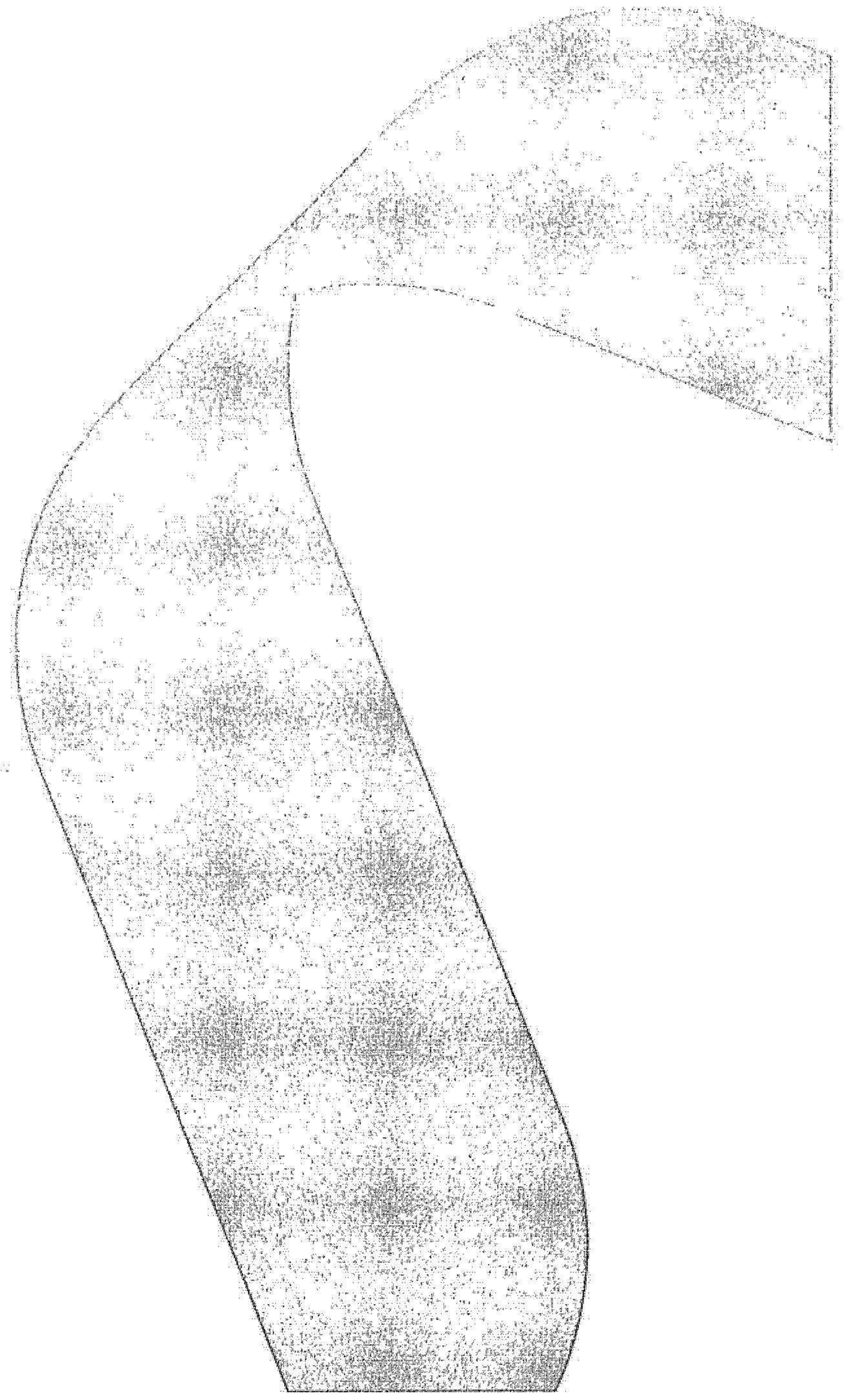

CORPORATE HEADQUARTERS

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