

FY22: slowing growth in 2H22 Recovery expected from 2H23

ArterraBioscience

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FY22 results: 2H22 slowing cosmetic turnover growth; EBITDA margin still very robust at 40%

In 2022, total revenue rose by 15% yoy to €5.3mln (-4.5% vs our estimates) and EBITDA increased to €2.1mln (-13% vs our estimates) from €1.7mln in 2021 with margin improving 200bps to 40% (vs 44% expected) [Please refer to our Company Update on October, the 11th. Turnover declined 7% yoy to €3.6mln, due to Cosmetics turnover down by 8% yoy to €3mln. Revenue growth slowdown, which we had seen since the 3Q22 (Cosmetics turnover growth from +28% yoy in 1H22 to +5% yoy in 9M22) continued in the 4Q22, mainly due to China's persisting zero-Covid policy with consequent weakening of active compounds demand. In addition, raw materials persisting scarcity (from compounds to glycerol, emulsifier, and packaging) in Cosmetics reduced Arterra's active ingredients orders even from third parties' producers and multinational companies. Finally, Arterra's clients experienced stock pilings as the expected China's rebound had been further delayed. In 2022, financial income included €200k dividend cash in from Vitalab. Net income rose to €1.4mln in 2022 from €1.1mln in 2021, with margin improving to 27% from 24%. Net cash at the end of 2022 was €5.5mln up from €4.2 mln at the end of 2021. The BoDs approved €665k dividend distribution.

Strategy update

Arterra keeps working on its corporate strategy to diversify into new-end markets and grow in Cosmetics even beyond Intercos and through Vitalab. In fact, the Company set up a team of experienced managers in research and extraction processes (V.Fogliano), production optimization (G. Ferrante) and business development (B. Cicatiello).

Regarding the Research activity, in Cosmetics, three new products have been launched in 2022. In-vitro research, especially on skin and on the intestine, led to new contracts with Food companies such as Monte Carlo Fruit and in Nutraceutical with ABR; this research led also to the development of new medical devices for atopic rash.

2023E-2025E Estimates revision amid FY22 results

According to management, the beginning of 2023 has not showed yet a clear recovery in China, but things should turn better during the 2H23. In Europe and in the US, the Make Up sub-sector of Cosmetics has been showing signs of recovery, whereas China has gradually begun to place some orders. However, Cosmetics multinational groups still need to clear out the inventories they had gathered on expected faster China's recovery. Big brands are now planning new Cosmetics launches for 2024-2025, whereas 2023 still looks like a transitory year. On the other hand, Arterra has become more and more the strategic Centre of Research for Intercos. Amid a still uncertain scenario and a slow recovery, we assume a return to growth starting from the 2H23 and significant growth in Cosmetics thereafter together with the ramp up of medical devices diversification from 2024. We chose to stay conservative on 2023 with Cosmetics volumes recovering towards those in 2021. Overall, we now expect 18% 2022-2025E sales CAGR (vs previous 21% in 2021-2024). In 2023, we estimate €5mln Total Revenue (-6% yoy; vs previous €6.6mln), which includes a recovery in Cosmetics turnover, lower research grants and stock piling. We now project EBITDA margin improving 7% from 40% in 2022 to 47% in 2025; this is a target we had expected a year before. In terms of Free Cash Flows, we now project cumulated FCFs of €4.5mln in 2023-2025 vs previous €4.9mln in 2022-2024, deriving from lower EBIT not-fully offsetting lower NWC absorption and smaller capex. [Please refer to our Company Update on October, the 11^{th} 2022]. Main risk to our estimates remains Arterra's effective capacity to significantly diversify into new end-markets, within the planned time to market. Furthermore, we would appreciate a better financial structure optimization amid the Company's strong cash generation.

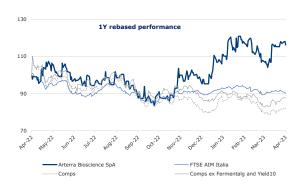
Valuation: 12-month target price confirmed at €4.8. BUY

Regarding the relative valuation, our sample of listed international peers trades at an average of 3.8x EV/SALES and of 13.1x EV/EBITDA 2023 vs previous 4.3x and 12.5x. Arterra trades well below its best peers at 2.7x and 6.9x, despite historically showing the highest EBITDA margin. Relative valuation leads to an Equity Value of €27.2mln, whereas our DCF valuation, based on €1.5mln yearly average FCF and 8.2% WACC, leads to an Equity Value of €33.2mln. Thus, we reduce our price target to €4.5/share, in line with the estimated FCFs reduction. Given the significant potential upside, our recommendation remains BUY.

Target Price	4.5 €	from 4.8 €
Recommendation	BUY	Confirmed
Company Profile		
Ticker	ARBSIM (BBG)	ABS-IT (Factset)
Reference Industry		Health Care - Biotech
Stock Exchange	Italian Stock Excha	ange - Euronext Growth
Reference Index		FTSE Italia Small Cap
Market Data		
Price as of	18/04/2023	2.5
Number of shares (mln)		6.7
M arket capitalization (€mIn)		16.9
Max/Min		5.2/1.8
Average daily volumes (1Y)		13,055

Main Financials	2020	2021	2022	2023E	2024E
€/000)					
Total revenue	4,308.5	4,608.2	5,303.4	4,996.7	6,166.1
yo y (%)	19%	7%	15%	-6%	23%
EBITDA	1,601.7	1,735.5	2,132.6	1,915.9	2,657.8
margin (%)	37%	38%	40%	38%	43%
EBIT	1,201.3	1,248.2	1,600.7	1,330.7	1,987.6
margin (%)	28%	27%	30%	27%	32%
Net Income	1,108.5	1,110.5	1,414.0	1,264.2	1,783.3
margin (%)	26%	24%	27%	25%	29%
Net Debt	(4,066)	(4,199)	(5,394)	(6,356)	(7,216)
Equity	8,180.9	9,472.7	10,466.9	10,865.2	11,947.4
Capex	382.6	609.1	183.6	350.0	500.0
FCFs	446.9	322.7	698.7	1.453.1	1.269.2

Source: Banca Profilo estimates and elaborations, Company data.



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SWOT analysis

STRENGTHS WEAKNESSES

- Outstanding R&D and high qualified Technology Team
- A global market reach with limited sales force investments thanks to the partnership with Intercos and the equity stakes in Vitalab and ADL
- Scalable business model as products and the inhouse developed IPs can be applied simultaneously to different end-markets
- Profitable business model driven by very low cost of raw materials, optimized production processes and a lean organization

- · Small size of the business
- End-markets concentration

OPPORTUNITY THREATS

- Bioscience great momentum as product sustainability has become the key mission of many industries
- Significant growth potential and resilience of main end-market, the cosmetic industry
- Rich opportunities in Nutraceutical and Agri-food
- Effective end-markets diversification within the planned time frame
- Potential difficulty in maintaining the independence from global multinational brands



FY22 results: 2H22 slowing cosmetic turnover growth; EBITDA margin still very robust

Historical performance analysis

volumes at 12,036 kgs (-10% yoy)

FY22: selling cosmetics Arterra reported its FY22 results on March the 30th: total revenue rose by 15% yoy to €5.3mln (-4.5% vs our estimates), mainly driven by a significant increase in research grants at €1.2mln and stock piling at €500k. [Please refer to our Company Update on October, the 11th 2022].

> Turnover declined by 7% yoy to €3.6mln, due to Cosmetics turnover decreasing by 8% yoy to €3mln, below our expectation of double-digit growth. The slowdown of revenue growth seen in the 3Q22 (cosmetic turnover growth from +28% yoy in 1H22 to +5% yoy in 9M22) has continued in the 4Q22, mainly due to China's persisting zero-Covid policy with consequent weakening of active compounds demand. In addition, raw materials persisting scarcity (from compounds to glycerol, emulsifier, and packaging) in Cosmetics has reduced Arterra's active ingredients orders from third parties' producers and even from multinational companies. Thus, Arterra's clients have experienced stock pilings as the expected China's rebound has been further delayed.

> EBITDA increased to €2.1mln (-13% vs our estimates) from €1.7mln in 2021 with margin improving 200bps to 40% (vs 44% expected). [Please refer to our Company Update on October, the 11th 2022].

Table 1: FY22 P&L

	F	Profit &	Loss				
	€/000	2017	2018	2019	2020	2021	2022
	Cosmetic turnover	1,503	1,868	2,167	2,281	3,253	2,984
Research co	ontracts and services	551	559	542	541	573	580
Total turnover		2,054	2,427	2,709	2,822	3,825	3,564
	yoy		18%	12%	4%	36%	-7%
cosmetic volumes (kg,)	5,690	7,142	8,839	9,117	13,342	12,036
	yoy	90%	26%	24%	3%	46%	-10%
avg	cosmetic price (€/kg)	264	262	245	250	244	248
Research grants and s	tock changes	692	551	917	1,487	783	1,740
	% on total revenue	25%	19%	25%	35%	17%	33%
Total Revenue		2,746	2,978	3,627	4,308	4,608	5,303
	yoy	45%	8%	22%	19%	7%	15%
raw materials cost		(210)	(259)	(455)	(525)	(318)	(507)
cost of services		(466)	(533)	(726)	(873)	(986)	(1,140)
	% on total revenue	-25%	-27%	-33%	-32%	-28%	-31%
cost of labour		(736)	(847)	(1,025)	(1,128)	(1,228)	(1,391)
	% on total revenue	-27%	-28%	-28%	-26%	-27%	-26%
lease		(123)	(146)	(146)	(151)	(158)	(83)
other operating costs		(43)	(53)	(38)	(30)	(184)	(51)
EBITDA		1,167	1,140	1,236	1,602	1,735	2,133
	margin	43%	38%	34%	37%	38%	40%
#employees		n.a.	20	28	30	35	41
labor cost per unit			(42)	(37)	(38)	(35)	(34)
D&A		(143)	(73)	(296)	(400)	(487)	(532)
	% on total revenue	-5%	-2%	-8%	-9%	-11%	-10%
EBIT		1,024	1,067	940	1,201	1,248	1,601
	margin .	37%	36%	26%	28%	27%	30%
net financial income	. ,	(7)	6	1	(2)	26	197
	% on total revenue	-0.2%	0.2%	0.0%	0.0%	0.6%	3.7%
EBT		1,017	1,073	940	1,199	1,274	1,797
tayos	margin	37%	36%	26%	28%	28%	34%
taxes	tay rata	(272) - <i>27%</i>	(29)	(83) - <i>9</i> %	(91)	(163)	(383) -21%
Net income	tax rate	-2/% 745	-3% 1,044	-9% 857	-8%	-13% 1,111	-21% 1,414
ivet income	% on total revenue	27%	35%	24%	1,108 26%	24%	27%
	% on total revenue				20%		21%

Source: Banca Profilo elaborations on Company data



FY22 EBITDA margin improved 200bps to 40% despite higher raw materials and services costs and hirings

€200k dividend from Vitalab €665k dividend distribution

Net cash at the end of 2022 rose to €5.5mln from €4.2mln in 2021

EBITDA improved despite raw materials and cost of services increased their weight on total revenue to 31% from 28% in 2021, for the intensive use of outsourcing, higher energy costs and additional research advisory contracts.

Labour costs declined to 26% of total revenue from 27% a year earlier, despite 6 new employees and the upgrade of some salaries.

Financial income includes €200k dividend from Vitalab. As a consequence, net income rose to €1.4mln in 2022 from €1.1mln in 2021, with margin improving to 27% from 24% respectively.

Finally, the BoDs approved €665k dividend distribution.

Net cash at the end of 2022 was €5.5mln up from €4.2 mln at the end of 2021, driven by higher EBIT and lower capex (less than €200k in 2022 from more than €600k in 2021), which compensated the significant increase in Operating Working Capital (from €1.8mln at the end of 2021 to €2.6mln in 2022), mainly for stock piling of semifinished products.

Table 2: FY22 Balance Sheet

В	alance s	Sheet				
€/000	2017	2018	2019	2020	2021	2022
tangibles	185	567	1278	1400	1662	1535
intangibles	27	108	706	567	442	204
financials	462	452	452	452	949	982
Fixed assets	675	1,127	2,437	2,419	3,052	2,722
other current net receivables	131	177	452	912	914	227
receivables from grants	1,176	1,062	495	585	755	905
trade receivables	303	630	414	339	806	774
inventories	263	267	425	570	488	1,157
trade paybles	(161)	(257)	(500)	(188)	(250)	(188)
Net operating Working Capital	1,582	1,702	834	1,306	1,798	2,648
% on total revenue	58%	57%	23%	30%	39%	50%
receivables from grants (% grants)	170%	193%	54%	39%	96%	52%
trade receivables (% revenue)	11%	21%	11%	8%	17%	15%
inventories (% revenue)	10%	9%	12%	13%	11%	22%
trade paybles (% COGS)	24%	32%	42%	13%	19%	11%
Сарех	50	536	1,897	383	609	184
tangible	28	447	1143	342	541	179
intangibles	22	89	754	40	68	5
% on total revenue	2%	18%	52%	9%	13%	3%
Provisions	(629)	(630)	(504)	(522)	(490)	(632)
Invested Capital	1,757	2,375	3,218	4,115	5,273	4,965
invested Capital	1,737	2,373	3,210	7,113	3,273	4,505
shareholders' equity	250	250	327	330	333	333
reserves	720	1,265	5,926	6,742	8,029	8,720
net income	745	1,044	857	1,108	1,111	1,414
Equity	1,715	2,559	7,110	8,181	9,473	10,467
Net debt (cash)	42	(185)	(3,892)	(4,066)	(4,199)	(5,502)

Source: Banca Profilo elaborations on Company data

€700k

FY22 Free Cash Flow at In 2022, Free Cash Flow was €700k, coming not only from increasing EBIT, but also from low capex (€184mln), which offset and cash absorption from Operating Working Capital (mainly inventories increase).

Table 3: FY22 Free Cash Flows

Cash Flows											
	€/000	2017	2018	2019	2020	2021	2022				
EBIT tax (figurative)		1,024 (256)	1,067 (267)	940 (235)	1,201 (300)	1,248 (312)	1,601 (400)				
D&A		143	73	296	400	487	532				
change in Net Working Capital capex		(219) (50)	(120) (536)	868 (1,153)	(472) (383)	(492) (609)	(850) (184)				
Free Cash Flow		642	217	715	447	323	699				

Source: Banca Profilo elaborations on Company data



Strategy and estimates

Strategy update: production scaled up, organization strengthening and first steps into Medical Devices

Arterra keeps working hard toward its strategic targets: to grow in Cosmetics and beyond Cosmetics

During its IPO process, Arterra declared the following corporate strategy:

- To expand its research activity attracting specialised resources, from scientists in the reference end-markets, to business developers to better reach new industries, to production specialists and technicians to adopt smarter, more effective and automatized production processes;
- To extend the application of its technological platforms and active ingredients to end markets, the most active in bio innovation such as Nutraceutical/Medical Devices and Agri-Food;
- To invest in new production equipment to scale up the production capacity and develop its valuable molecules production well over its original capacity of some 10,000kgs/year;
- To grow externally through the acquisition of bio technologies, mainly in delivery systems (for example for the gradual release of the active ingredient) to enhance the value of Arterra's active compounds and its competitive advantage in various sectors.

Most of R&D expansion and production scale up has been done

Arterra keeps working on its goals. In fact, the Company set up a team of experienced managers in research and extraction processes (V.Fogliano), production optimization (G. Ferrante) and business development (B. Cicatiello).

Thus, now focus is mostly on: i) developing new natural compounds addressable to Cosmetics, diversifying in new markets, mainly Medical Devices, especially through partnerships with companies having already the sector's regulatory expertise, and Agri-Food; iii) external growth through M&A.

Focus now stays on: end market diversification Regarding the Research activity, in Cosmetics, three new products have been launched in 2022. In-vitro research, especially on skin and on the intestine, led to new contracts with Food companies such as Monte Carlo Fruit and in Nutraceutical with ABR; this research led also to the development of new medical devices for atopic rash.

2023E-2025E estimates update amid FY22 results

We updated our estimates on the back of FY22 results.

In this report we updated our previous 2023-2024 estimates and added 2025 projections, according to FY22 results and strategic development guidance.

Cosmetics turnover growth recovery from 2H23 and the ramp up of diversification in Medical Devices from 2023 According to management, the beginning of 2023 has not showed yet a clear recovery in China, but things should turn better during the second part of this year. In Europe and in the US, the Make Up sub-sector of Cosmetics has been showing signs of recovery, whereas China has gradually begun to place some orders. However, Cosmetics multinational groups still need clear out the inventories they had gathered on expectations China's recovery would have been faster. Big brands are now planning new launches for 2024-2025 and 2023 still looks like a transitory year. On the other hand, Arterra has become more and more the strategic Centre of Research for Intercoss.

Amid a still uncertain scenario and a slow recovery, we assume a return to growth starting from the 2H23 and significant growth in Cosmetics thereafter together with the ramp up of medical devices diversification from 2024. We chose to stay conservative on 2023 with Cosmetics volumes recovering towards those in 2021.

We delayed to 2024 the ramp up of newend markets Overall, now expect 18% 2022-2025E Cosmetics sales CAGR, below our previous forecast on 2021-2024 period (21%). We target some 20,000 kgs in Cosmetics selling volumes in 2025 (vs previous 23,000 kgs in 2024E). [Please refer to our Company Update on October, the 11th 2022].



In 2023, we forecast a similar quantity of Cosmetics compounds volumes (13,300 kgs) leading to \in 3.3mln Cosmetics turnover and \in 5mln Total Revenue (-6% yoy) down from our previous \in 6.6mln, including the recovery in Cosmetics turnover, but lower research grants and stock piling.

Finally, we delayed to next year, a significant contribution to turnover by new endmarkets (Nutraceutical and Agri-food).

Table 4: Arterra P&L estimates revision 2023-2025

D (1) 0 1	Tuo	10 4. 111	terrur	CLI CSTII	nates i	coision	2023-2	023				
Profit & Loss												
	2017	2018	2019	2020	2021	2022E	2022	2023E	2023E	2024E	2024E	2025E
€/000	2017	2018	2019	2020	2021	old	2022	old	new	old	new	new
Cosmetic turnover	1,503	1,868	2,167	2,281	3,253	4,014	2,984	4,816	3,297	5,780	3,989	4,907
	1,303	24%	2,107 16%	2,281 5%	43%	23%	-8%	20%	11%	20%	21%	23%
yoy Nutraceutical/medical devices turnover	0	0	0	<i>5%</i>	43%	23%	-0%	300	0	600	300	60
Agriculture/Agri-food	0	0	0	0	0	0	0	0	0	000	0	00
Research contracts and services	551	559	542	541	573	544	580	571	500	600	617	75
Licences and royalties	0	0	0	0	0	0	0	0	0	000	017	75
Total turnover	2,054	2,427	2,709	2,822	3,826	4,558	3,563	5,688	3,797	6,979	4,906	6,26
yoy	2,034	18%	12%	4%	36%	19%	-7%	25%	7%	23%	29%	28%
cosmetic volumes (kg)	5,690	7,142	8,839	9,117	13,342	16,312	12,036	19,575	13,300	23,490	16,093	19,79
yoy	90%	26%	24%	3%	46%	22%	-10%	20%	11%	20%	21%	23%
avg cosmetic price (€/kg)	264	262	24/0	250	244	246	248	246	248	246	248	24
Research grants and stock changes	692	551	917	1,487	783	1,000	1,740	900	1,200	990	1,260	1,32
% on sales	25%	18%	25%	35%	17%	18%	33%	14%	24%	12%	20%	17%
Total Revenue	2,746	2,978	3,627	4,309	4,609	5,558	5,303	6,588	4,997	7,969	6,166	7,58
yoy	45%	8%	22%	19%	7%	21%	15%	19%	-6%	21%	23%	-5%
, ,												
raw materials cost	(210)	(259)	(455)	(525)	(318)		(507)					
cost of services	(466)	(533)	(726)	(873)	(986)	(1,478)	(1,140)	(1,687)	(1,501)	(1,961)	(1,853)	(2,280
% on total revenue	-25%	-27%	-33%	-32%	-28%	-27%	-31%	-26%	-30%	-25%	-30%	-30%
cost of labour	(736)	(847)	(1,025)	(1,128)	(1,228)	(1,483)	(1,391)	(1,758)	(1,446)	(2,053)	(1,522)	(1,598
% on total revenue	-27%	-28%	-28%	-26%	-27%	-27%	-26%	-27%	-29%	-26%	-25%	-21%
lease	(123)	(146)	(146)	(151)	(158)	(87)	(83)	(87)	(83)	(87)	(83)	(83
other operating costs	(43)	(53)	(38)	(30)	(184)	(56)	(51)	(56)	(51)	(56)	(51)	(51
EBITDA	1,167	1,140	1,236	1,602	1,736	2,453	2,133	3,000	1,916	3,812	2,658	3,57
margin	43%	38%	34%	37%	38%	44%	40%	46%	38%	48%	43%	47%
# employees	n.a.	20	28	30	35	37	36	39	38	41	40	4:
labor cost per unit D&A	(143)	(42) (73)	(37) (296)	(38)	(35)	(40)	(39)	(45)	(38)	(50)	(38)	(38
% on total revenue	(143) -5%	(73) -2%	-8%	(400) <i>-9%</i>	(487) -11%	(608) -11%	(532) -10%	(728) -11%	(585) -12%	(848) -11%	(670) -11%	(780 -10%
EBIT	1,024	1,067	940	1,201	1,249	1,845	1,601	-11% 2,272	1,331	2,964	1,988	2,79
	37%	36%	26%	28%	27%	33%	30%	34%	27%	37%	32%	37%
margin net financial income (expenses)	(7)	<i>36%</i>	26%	28% (2)	2/%	33% 42	(3)	34% 51	2/%	37% 64	<i>32%</i> 25	3/%
% on total revenue	-0.2%	0.2%	0.0%	0.0%	0.6%	0.7%	-0.1%	0.8%	0.4%	0.8%	0.4%	0.4%
# on total revenue	-0.2% 1,017	1,073	0.0% 941	1,199	1,274	1,887	-0.1% 1,597	2,323	1,353	3,029	2,013	2,82
margin	37%	36%	26%	28%	28%	34%	30%	35%	27%	38%	33%	37%
taxes	(272)	(29)	(83)	(91)	(163)	(504)	(383)	(621)	(289)	(810)	(429)	(603
tax rate	-27%	-3%	-9%	-8%	-13%	-27%	-24%	-27%	-21%	-27%	-21%	-21%
Net income	745	1,044	857	1,109	1,111	1,382	1,214	1,702	1,064	2,219	1,584	2,22
% on total revenue	27%	35%	24%	26%	24%	25%	23%	26%	21%	28%	26%	29%
70 OII LOLAITEVEITAE	2,70	3370	2-7/0	20/0	2-7/0	25/0	25/0	20/0	21/0	20/0	20/0	23/

Source: Banca Profilo elaborations and estimates on Company data

Raw materials and services costs will return to their efficiency-gain path thanks to process optimization

Net income to reach 30% of Total Revenue in 2025E We now project EBITDA margin improving 7%, from 40% in 2022 to 47% in 2025; this was a target we were expecting a year before, in our previous estimates. [Please refer to our Company Update on October, the 11th 2022].

The optimization of research and production processes and the scaling up of production capacity, with consequent reduction of external buying, will likely lead savings in raw materials and services costs which are expected to decrease their aggregated incidence on Total Revenue from 31% in 2022 to a stable 30% 2025E. Therefore, all the remaining P&L metrics being mainly unchanged, except for continuing to receive an average of €200k of yearly dividends from Vitalab, we expect a 22% net income 2022-2025E CAGR with net margin seen at 29% in 2025 from 23% in 2022.

55% 9,000 47% 8,000 7,589 50% 43% 7.000 43% 6,166 45% 38% 40% 5,303 6,000 38% 38% 37% 4,997 40% 4,608 5.000 34% 4,308 4,000 3 627 3.577 35% 2.978 2,746 2,658 3,000 2,133 30% 1,916 1,735 2,000 1,602 1,236 1,140 25% 1,000 0 20% 2017 2018 2019 2020 2021 2022 2023E 2024E 2025E **EBITDA** ■ Total Revenue -Margin

Figure 1: Revenue, EBITDA and margin 2017-2025E

Source: Banca Profilo elaborations and estimates on Company data

Balance Sheet: equity participation in ADL; inventories normalization; unchanged dividend policy

Regarding Balance Sheet estimates we: i) updated the equity stake in Del&Bas Pharma (ex ADL) for €35k in the financial assets which is Arterra's participation at the capital increase; ii) reduced capex at some €500k a year, on average, assuming the planned (and now in standby) acquisition of more physical space and new instruments will be delayed to 2H23; iii) improved Net Working Capital turnover as inventories return to their normalized levels; iv) assumed €300k a year as dividend distribution.

Table 5: Arterra Balance Sheet estimates revision 2023-2025

Balance Sheet												
	2017	2018	2019	2020	2021	2022E	2022	2023E	2023E	2024E	2024E	2025E
€/000						old		old	new	old	new	new
tangibles	185	567	1278	1400	1662	1,675	1535	1,592	1382	1,414	1296	1212
intangibles	27	108	706	567	442	420	204	375	122	305	38	-58
financials	462	452	452	452	949	982	982	982	982	982	982	982
Fixed assets	675	1,127	2,437	2,419	3,052	3,077	2,722	2,949	2,486	2,701	2,316	2,136
other current net receivables	131	177	452	912	914	914	227	914	227	914	227	227
receivables from grants	1,176	1,062	495	585	755	330	905	342	624	396	655	688
trade receivables	303	630	414	339	806	1,095	774	1,298	1,085	1,571	1,339	1,648
inventories	263	267	425	570	488	1,266	1,157	1,303	890	1,371	1,037	1,201
trade paybles	(161)	(257)	(500)	(188)	(250)	(494)	(188)	(462)	(171)	(439)	(211)	(260)
Net operating Working Capital	1,582	1,702	834	1,306	1,798	2,197	2,648	2,481	2,428	2,944	2,820	3,276
% on total revenue	58%	57%	23%	30%	39%	40%	50%	38%	49%	37%	46%	43%
receivables from grants (% grants)	170%	193%	54%	39%	96%	33%	52%	38%	52%	40%	52%	52%
trade receivables (% revenue)	11%	21%	11%	8%	17%	20%	15%	20%	22%	20%	22%	22%
inventories (% revenue)	10%	9%	12%	13%	11%	23%	22%	20%	18%	18%	17%	16%
trade paybles (% COGS)	24%	32%	42%	13%	19%	33%	11%	27%	11%	22%	11%	11%
c. dae paya. es (70 es es)	2.,,0	3270	.2,0	10/0	2370	3370	11/0	2,70	22/0	22/0	11/0	22/0
Сарех	50	536	1,897	383	609	600	184	600	350	600	500	600
tangible	28	447	1143	342	541	500	179	500	315	500	450	540
intangibles	22	89	754	40	68	100	5	100	35	100	50	60
% on total revenue	2%	18%	52%	9%	13%	11%	3%	9%	7%	8%	8%	8%
Provisions	(629)	(630)	(504)	(522)	(522)	(490)	(522)	(490)	(522)	(490)	(490)	(522)
Invested Capital	1,757	2,375	3,218	4,115	5,241	5,698	5,075	5,854	4,620	6,069	4,873	5,117
invested Capital	1,737	2,373	3,210	4,113	3,241	3,036	3,073	3,634	4,020	0,003	4,073	3,117
shareholders' equity	250	250	327	330	333	333	333	333	333	333	333	333
reserves	720	1,265	5,926	6,742	8,029	8,807	8,720	9,775	9,468	10,966	10,031	10,869
net income	745	1,044	857	1,108	1,111	1,382	1,414	1,702	1,064	2,219	1,583	2,223
Equity	1,715	2,559	7,110	8,181	9,473	10,522	10,467	11,809	10,865	13,518	11,947	13,425
Net debt (cash)	42	(185)	(3,892)	(4,066)	(4,232)	(4,823)	(5,392)	(5,955)	(6,246)	(7,449)	(7,074)	(8,308)
cash and cash equivalents	(249)	(738)	(4,669)	(4,536)	•	•	•					
short term loans to equity participated	(340)	(340)	(225)	(340)								
bank debt	630	893	1,002	809								
leasing (IFRS 16)	389	309	228									
adj Net debt (cash)	771	464	(3,439)	(3,727)	(4,232)	(4,823)	(5,392)	(5,955)	(6,246)	(7,449)	(7,074)	(8,308)

Source: Banca Profilo elaborations and estimates on Company data



Net cash €4.5mln in 2023E-2025E

In terms of Free Cash Flows, we now project cumulated FCFs of €4.5mln in 2023-2025 vs previous €4.9mln in 2022-2024, deriving from lower EBIT, which we see not fully offset by lower NWC absorption and smaller capex.

Table 6: Arterra Free Cash Flows estimates revision 2021-2023

Free Cash Flows													
	€/000	2017	2018	2019	2020	2021	2022E old	2022	2023E old	2023E new	2024E old	2024E new	2025E new
EBIT tax (figurative)		1,024 (256)	1,067 (267)	940 (235)	1,201 (300)	1,249 (312)	1,845 (461)	1,601 (400)	2,272 (568)	1,331 (333)	2,964 (741)	1,988 (497)	2,797 (699)
D&A		143	73	296	400	487	608	532	848	585	848	670	780
change in Net Working Capital		(219)	(120)	868	(472)	(492)	(180)	(850)	(284)	220	(463)	(392)	(456)
capex		(50)	(536)	(1,153)	(383)	(609)	(600)	(184)	(600)	(350)	(600)	(500)	(600)
Free Cash Flow		642	217	716	447	323	1,212	699	1,668	1,453	2,008	1,269	1,822

Source: Banca Profilo elaborations and estimates on Company data

To sum up, compared to our previous three-year forecast, in 2022-2025E we: i) reduced revenue CAGR to 18% (vs previous 21%) to some €6.3mln (vs previous €7mln in 2024E); ii) reduced EBITDA margin improvement from 10% to 7% to 47% (vs previous 48% in 2024E) and this has reduced the average yearly Free Cash Flows to €1.5mln from previous €1.6mln, mainly due to lower EBIT not fully offset by net working capital optimization and smaller capex.

Main risks to our estimates

Main downside risk to our estimates remains Arterra's effective capacity to reach a relevant scale in new end-markets; yet is has been showing its capability to strongly grow in Cosmetics even beyond Intercos, which was our additional concern. In fact, Vitalab has demonstrated its ability to sell active ingredients to clients not served and out of Intercos reach. Our potential impact on turnover of a potential further delay in end-market diversification (not offset by increasing sales in Cosmetics) is €300k and €600k in respectively 2024E and 2025E.

We also see the lack of net cash optimization with persisting cumulating cash and reduced capex.



Valuation

DCF approach well appraises the cash generating business Given Arterra's strong cash generating business model, a DCF method well adapts as a valuation approach.

Market multiples approach can also be used

For what concerns the market multiples approach, the listed international researchbased companies represent a fitting panel of comparables for suggesting an appropriate relative valuation using market multiples.

DCF valuation

DCF assumptions:

€4.5mln of cumulated FCFs

€1.5mln as Terminal Value cash flow

To run a DCF model, we use our projected FCFs for the 2023E-25E explicit period: cumulated FCFs for over €4.5mln (vs our previous *Company Update in October 2022* €4.5mln) or about €1.5mln as yearly average in 2023E-2025E.

To assess the Terminal Value, we factor in:

- an annual FCF generation of €1.5mln, corresponding to the average FCF in 2023E-2025E;
- perpetual growth rate of 2% (unchanged).

In order to get to the Equity Valuation we would consider the adjusted net cash at the end of 2022 (€5.5mln vs €4.9mln in June 2022 as in our previous Company Update).

Table 7: DCF valuation

DCF Valuation	2022	2023E	2024E	2025E	over
Free Cash Flows (€/000)	699	1,453	1,269	1,822	1,515
years		1	2	3	
discount factor		0.92	0.85	0.79	
NPV Cash flows (€/000)		1,343	1,085	1,439	
Sum of NPVs (€/000)					3,867
Terminal Value (€/000)					24,513
NPV Terminal Value (€/000)					19,363
Enterprise Value (€/000)					23,229
pheriferal assets: Vitalab (@40%)					4,482
Net debt December 2022 (€/000)					-5,502
Equity Value (€/000)					33,213
number of shares (mln)					6.7
Per share value (€)					5.0

Source: Banca Profilo estimates and elaborations

Updated WACC at 8.2% according to lower risk-free rate

We updated WACC to include updates on the risk-free rate. We end up with 8.2% WACC vs previous 8.8%.

WACC includes:

- risk free rate at 4.8%, down from previous 5%, according to lower 100-day 30-year BTP yield moving average and our revision on the expected path of BCE monetary tightening (from previous +75bps to +50bps);
- market risk premium at 5.5% (unchanged);
- beta at 0.9, as the average of chosen listed peers to Arterra (vs previous 1);
- debt to equity target structure with an 80% weight on Equity (unchanged).

Table 8: WACC calculation

WACC Calculation	
perpetual growth rate	2.0%
WACC	8.2%
risk free rate (30Y)	4.8%
equity risk premium	5.5%
beta	0.9
KE	9.8%
costo del debito	2%
tax rate	25%
KD	2%

Source: Banca Profilo estimates and elaborations



DCF Equity valuation: €33mln

We run the DCF model and end up with and Enterprise Value of €23.2mln (vs previous €21mln) and, therefore an Equity Value of €33.2mln (vs previous €31mln) or €5/share (vs previous €4.7/share). Main difference from our previous Company update derives from: i) higher FCFs; ii) higher net cash and iii) lower WACC.

Arterra competitive arena: strategic positioning and competitive advantages

European and US listed biotech companies

The competitive scenario comprises European and US listed biotech companies active in the research and development of natural substances for industrial green applications.

A profitable business model is the difference between Arterra and its international listed competitors

In 2022 Arterra showed, again, the highest EBITDA margin among peers Main difference between Arterra and its comparables is profitability. Furthermore, Arterra has funded its research, investments and growth through research grants (at the beginning) with no additional either funds or venture capital needed.

Since its foundation, in 2004, Arterra has been showing positive EBITDA, whereas its peers show either negative marginality or much lower profitability than Arterra. We set a sample of listed peers which includes the German Brain and Symrise, the British Croda, the French Fermentalg and Plant Advanced Technology, the Swiss Evolva, the Danish Novozymes and the US Codexis and Yield 10 Bioscience. Moreover, we added more mature specialty chemicals companies that have little operations in Natural Resources, such as Clariant, Evonik, Lonza and Ashland.

In 2022, Arterra reported 40% EBITDA margin, highest among peers' sample.

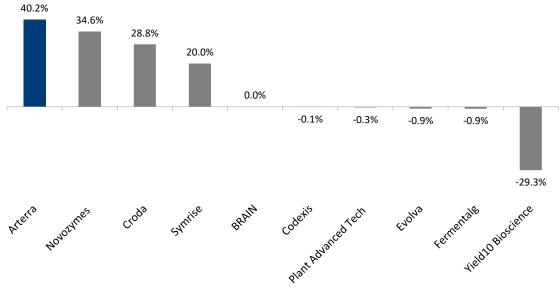


Figure 2: Main international listed players in the Industry – EBITDA margin in 2022

Source: Banca Profilo elaborations on Company data, Factset
The negative EBITDA margin has been divided BY 100 in order to make a graphic representation of the competitive arena

B.R.A.I.N. (DE) €51mln turnover -€700k EBITDA

Biotechnology Research and Information Network AG, is a German industrial biotech company active in both BioSciences, for research and development, and BioIndustrial, for the development, of own products addressed to companies or end consumers. Main products are enzymes, biocatalysts, strains and bioactive natural substances. The Company discovers and develops biotech compounds and microbial producer strains. Its end markets are mainly: Chemicals, Cosmetics, Food and Medical technology, as well as Energy companies, Consumer goods manufacturers and the green Mining sector.

Croda (UK) GBP 2bn turnover 29% EBITDA margin

Croda International Plc, is an English holding of a group of companies that develop specialty chemicals, including oleochemicals (derived from natural oils) and industrial chemicals. Its main end markets are: Consumer Care (35%), including Personal care



(natural ingredients for hair, skin especially anti-aging, sun care), Life science (health care and Agriculture with ingredients and formulation to pharma and nutritional markets such as dermatology and animal health and to agrochemical companies); Performance Technologies (34%), to which it delivers high-added value additives such as lubricants for the Automotive and Industrial sectors, coatings and polymers serving Oil & Gas, Water treatment, Packaging sector and Home care ingredients serving Households product manufacturers; Industrial Chemicals (11%) including process additives (fatty acids, glycerin...) to Textiles and other Industrials such as Engineering and Automotive. It is mostly exposed in Western Europe (40%), North America and Asia Pacific.

Symrise (DE) €4.6bn turnover 20% EBITDA margin

Symrise AG, is a German developer of fragrance bases, perfume oils, cosmetic raw materials and active ingredients, plant extracts, aroma chemicals, flavorings, fruit powders and seasonings, mostly based on natural raw materials. It addresses mainly to: Cosmetics, Personal care, Household care, Food & Beverage and Pharmaceuticals. Half of its sales come from Europe.

Evolva (CH) CHF 15mln turnover CHF -13mln EBITDA **Evolva Holding SA** is a Swiss biotech firm that manufactures sustainable ingredients for use in Food, Nutrition, Personal Care and Agriculture. Mostly uses biosynthetic and evolutionary technologies to create and optimize small molecule compounds and their production routes. Main products/ingredients: stevia sweeteners, nootkatone and resveratrol. Their processes start from plants (sugar from wheat or maize) and use yeast through fermentation.

Fermentalg (FR) €7.7mln turnover € -7.3mln EBITDA

Fermentalg SA, is a French industrial biotechnology company that obtain active ingredients from micro algae. It is an expert in microalgae culture and their industrial fermentation processes. Its main products are molecule including Omega 3 fatty acids, natural pigments antioxidants, proteins and biopolymers. It addresses its production to the following end-markets: Agri-food, Healthcare, Nutrition (human and animal) and Petrochemical industries.

Plant Advanced Technologies (FR) €2.3mln turnover € -800k EBITDA **Plant Advanced Technologies SA** is a French plant biotechnology firm manufacturing rare new actives for Cosmetics, Pharmaceutical and Agriculture. Its main products are proteins from the liquid of carnivorous plants and other actives from the roots of various plants.

Novozymes (DK) DKK 17.5bn turnover 35% EBITDA margin **Novozymes**, a Danish biotech-based company that research, develops and obtain enzymes for Industrial usage and addresses them to the technical enzyme market, the food enzyme market and the animal feed enzyme market.

Codexis (USA) USD 139mln turnover USD -18mln EBITDA **Codexis Inc.** is an American developer of protein and biocatalysts through an easy-on-the-environment technology that allows to scale-up and implement biocatalytic solutions for chemical processing. Relevant end-markets include Pharmaceuticals and Chemicals. It has a research agreement with Shell (half of Codexis' sales) to develop new ways of converting biomass into biofuel. It is also working to use its technology to manage carbon emissions from coal-fired power and treat wastewater. Some of its biocatalysts and enzymes are used to produce cholesterol-fighting drugs, allergy drugs and antidepressants. Americas represent almost 60% of Codexis' sales.

Yield10 Bioscience USD 500k turnover USD -13mln EBITDA

Yield10 Bioscience Inc. is an American agricultural bioscience company which focuses on the development of disruptive plan biotechnologies to improve crop productivity and seed yield and enhance global food security. The goal is to improve fundamental elements of plant metabolism through enhanced photosynthetic efficiency and directed carbon utilization. Most of its treatments are applied to canola, soybean, and corn to increase tolerance to drought, flooding and heat and thus raise their food productivity.

In 2022 Arterra showed slower growth than peers In 2022, Arterra reported 15% yoy total revenue growth, which compares to the peers' sample average of 19%.



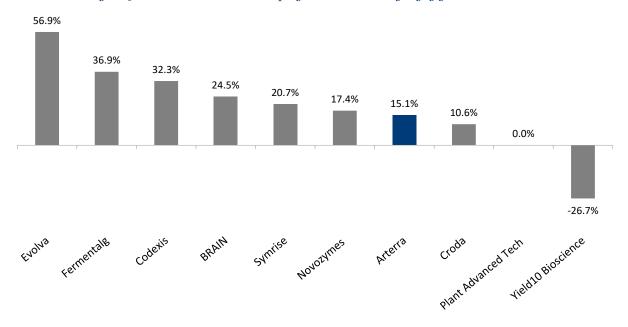


Figure 3: Main international listed players in the Industry – yoy growth in 2021

Source: Banca Profilo elaborations on Company data, Factset

Relative market multiples valuation

EV/SALES and EV/EBITDA used to assess the market multiples valuation of Arterra according to two selected subsamples To assess a relative valuation of Arterra through the market multiples approach, we divided our panel of comparables in to two set of peers:

- a first sub-sample of Arterra's peers, mostly by business and potential growth, but with negative EBITDA margin, including BRAIN, Evolva, Fermentalg, Plant Advanced Technologies, Codexis and Yield10 Bioscience;
- a second sub-sample of Aterra's peers, mainly by margins and cash flow generation, including Croda, Symrise, Novozymes, Lonza, Ashland, OCI and Wacker Chemie.

18/04/2023 2018 2019 2020 2021 2022 2023E 2024E 2018 2019 2020 2021 2022 2024E 22.6% 15.0% 24.8% 24.5% -16.7% GBP 9.688 9,918 1.0% 35.9% 10.6% -7.8% 8.0% Symrise EUR 14,809 17,087 20.0% 21.1% 21.3% 20.0% 20.1% 20.7% 30.9% 31.3% 45.2% -260.4% -103.4% 222.3% Fermentalo EUR 42 35 -46.6% 16.3% 155.3% 36.9% 245.7% -3002.0% -501.9% -306.3% -103.6% -94.8% -91.4% 7.1% 37.5% Novozvmes DKK 83,085 88,973 17.4% 35.8% 35.1% 36.3% 34.6% 33.8% 35.2% 21.1% -3.8% USD -31.8% -13.3% -10.8% -18.6% 79.0% Yield10 Bioso USD -38.2% 45.0% -0.9% -23.2% -36.7% 742.1% 1508.0 1026.89 1175.5 2930.7 5322.5 -26.7% 43,668 Lonza Group 8.6% -12.5% 14.6% 7.9% 12.99 Ashland USA 5.631 6,271 1.4% -28.4% -4.6% 1.7% 1.8% 5.7% 6.5% 18.8% 21.6% 22.2% 21.8% 24.6% 24.5% 25.0% OCI NV 56.3% 1.8% 32.5% 6,412 9,661 -2.6% 95.2% 64.0% -35.5% 0.0% 28.6% 22.8% 24.0% 40.1% 40.1% 36.3% Wacker Chemie AG Median best peers 21.9% 24.8% 0.2% 41.5% 28.4% 9.9% 58.3% 27.3% 22.8% 22.7% 29.0% 28.8% 29.9% 29.9% 16.9 Arterra 8.4% 21.8% 15.1% 37.2% 37.7% 40.2% 38.3% 43.1% 18.8% 7.0% -5.8% 23.4% 38.3%

Table 9: Sample benchmarking on revenue growth and EBITDA margin

Source: Banca Profilo estimates and elaborations on Factset

EV/SALES: 3.8x EV/EBITDA: 13.1x Consistently with our sample split up, we use EV/SALES 2023E at 3.8x, below our previous at 4.3x [Please refer to our Company Update on October, the 11th 2022] of the first sub-sample and EV/EBITDA 2023E at 13.1x, higher than in our previous research at 12.5x [Please refer to our Company Update October, the 11th 2022]. Arterra currently trades 30% below the first sub-sample mean and some 50% discount on the second sub-sample, despite its historically higher EBITDA confirmed as the highest EBITDA margin in 2022.



Table 10: Market multiples

Company	EV / Sales		EV / EBITDA	
18/04/2023	2023E	2024E	2023E	2024E
BRAIN	2.5x	2.2x	44.1x	28.3x
Croda	5.2x	4.8x	17.2x	16.0x
Symrise	3.5x	3.3x	17.4x	15.9x
Evolva	3.7x	2.4x	n.m.	n.m.
Fermentalg	4.3x	1.2x	n.m.	n.m.
Plant Advanced Technologies	6.2x	3.7x	n.m.	n.m.
Novozymes	4.9x	4.7x	14.4x	13.2x
Codexis	2.4x	2.1x	n.m.	n.m.
Yield10 Bioscience	43.9x	5.2x	n.m.	n.m.
Lonza Group			21.4x	17.5x
Ashland			10.0x	9.2x
OCI NV			4.5x	5.1x
Wacker Chemie AG			6.7x	6.5x
Mean best peers	3.8x	2.3x	13.1x	11.9x
Arterra	2.7x	2.2x	6.9x	5.0x
premium (discount) on best peers	-30%	-7%	-47%	-58%

Source: Banca Profilo estimates and elaborations, Factset

Market multiples derating

Our Sample's market multiples have derated significantly over the past year, but, in the past month, the EV/EBITDA 2023E has significantly rerated.

Figure 4: Sample market multiples evolution (one year analysis)



Source: Banca Profilo elaborations, Bloomberg

Market multiples valuation: € 27.2mln

Market multiples valuation includes a 15% liquidity discount and an Equity valuation of Vitalab (at 40% stake) on the same mean EV/SALES 3.8x on its average sales in 2021-2022, leading to a value of ≤ 4.5 mln.

We end up with an Equity Value of €27.2mln (vs previous €31.6mln)

Table 11: Market multiples valuation

Valuation on market multiples (€/000)							
Arterra on EV/SALES (business + growth)	2023E	Arterra on EV/EBITDA (margins + cash flow generation)					
EV/Sales best peers	3.8x	EV/EBITDA best peers	13.1x				
sales 2023E	4,997	EBITDA 2022E	1,916				
net debt December 2022	-5,502						
EV	18,976	EV	25,073				
Equity	24,477	Equity	30,575				
Vitalab (@ 40%) on EV/SALES	2022	Vitalab (@ 40%) on	EV/SALES				
EV/Sales	3.8x						
sales	2,969						
net debt (adj)							
EV	11,275						
Equity	11,275						
(40% stake)	4,510	4,	,510				
Arterra (including Vitalab @40%)	2022E	Arterra (including Vitalab @40%)	2022E				
liquidity discount	15%	1	5%				
	24,639	29	,822				
Average	2022E EV/SALES	- EV/EBITDA					
27.231							

Source: Banca Profilo elaborations, Bloomberg



Valuation: BUY confirmed

12-month TP reduced to €4.5/share

We reduced our target price consistently with the reduction in FCFs (-7%) to €4.5/share as the average between DCF and market multiples valuation.

Given the relevant potential upside on Arterra's price, we confirm our BUY recommendation.

Figure 5: Target Price vs stock price since IPO

Source: Banca Profilo elaborations, Bloomberg



APPENDIX

Arterra's reference Industry: biotech serving the irreversible trend of product sustainability

Product environmental sustainability has become the mission of any industry

Biotechnology is living a great momentum to find solutions to green products

Arterra: know-how in biological science to develop active innovative compounds for green processes and eco-friendly products Nature contains a treasure trove of ingredients that can improve health, wellness and nutrition. Plants, animals and human cells that make these ingredients are often too rare, too hard to grow or do not reproduce enough to allow sustainable sourcing at the right quality and price. The plant kingdom is recognized as one of the most diverse and abundant sources of potentially active compounds.

Bioscience studies and screens to discover active molecules in nature and Biotechnology finds methods to make them reproduce to become an enough sustainable resource for specific applications.

Arterra Bioscience is an Italian, innovative SME, research-based biotech company with a strong know-how in biological science and an extensive experience in screening for the discovery of new active compounds with potential multiple industrial applications, such in Cosmetics, Nutraceutical, Agriculture and Agri-food. By studying signal transduction mechanisms in plants, animals and human cells, Arterra uses its technological platforms to verify the existence of molecular activity in various type of natural resources, which might have simultaneous industrial applications.

BIOTECHNOLOGY BLUF WHITE **RED FOR THE BIOTECH BIOTECH** BIOTECH **BIOTECH** RESEARCH AND THE marine and aaricultural raw materials aene to **DEVELOPMENT OF** fresh water processes and to valuable drug **NEW ACTIVE** oraanisms plants products discovery COMPOUNDS ESTING DISCOVERY PLATFORM (HTS) INNOVATIVE NATURAL SOURCING INNOVATIVE PROCESSING Cosmetics Plant Stem Cells Plant Bio-Peptides Medical Devices RESEARCH MicroAlgae · Hydrophylic Extraction **AREAS** Nutraceuticals · Extremophile microorganisms Lipophylic Extraction Agricultural Bio-solutions Natural fermentation Food preservative systems **INDUSTRIAL AGRO BIOMEDICAL** Agricultural Bio-Solution ■ Phytoterapeutics (human & Cosmetics FIELDS OF Nutraceutical Seed Industry APPLICATION animals) Functional Food Drug discovery & target Agrifood Processing validation Arterraßioscience Arterra is preparing to enter the market ordence Arterra is already active in the market

Figure 6: Biotech sources of research and fields of application

Source: Company data

Arterra: strong knowhow and experience for simplifying needs of many industries in the persisting search for clean substitutes to chemicals Arterra's research activity is focused on the so-called Green Biotech (from plants and agricultural processes to innovative active ingredients) and White Biotech (from raw materials to valuable compounds). Other Biotech source of research are: the sea and its organism (Blue Biotech) and genetics (Red Biotech). Arterra also uses algae and microalgae in the Blue Biotech, whereas from Red Biotech it acquires data on genetics and drug discovery and uses them for potential innovation and discovery addressable to other needing sectors. Arterra's main areas of activity are: technological screening platforms; plants and cellular farming to brew or modify in order to obtain rich molecules; process innovation mostly in the extraction phases.

Arterra's bio factories and biomass production have applications in various fields simultaneously: the Company's core and current end market is Cosmetics, whereas



new and potential sectors are Nutraceuticals, functional food and Agri-food processing.

Arterra: ready to serve the most active sectors in the global trend to sustainability. Ongoing research projects on rich biomolecules for application in: Medical Devices Nutraceutical Agriculture Agri-food The global industry is in an irreversible trend of finding ways to sustainable products and processes. Arterra is ready to serve the most active sectors in this global trend, through both its innovative technologies and its range of bio-sustainable active ingredients that can be applied not only to various end-markets but also to different segments in the same sector (from mass green to prestige luxury products, mostly in Skincare).

The most active market is Cosmetics, Arterra's core end-market, followed by Pharmaceutical, Nutraceutical, Agriculture and Agri-food.

The Pharmaceutical industry is investing in new applications using natural ingredients which are easier to be absorbed by the organism. Arterra has several ongoing research projects to find ways to add natural ingredients in the recipes of different Medical Devices (as any product that acts physically and mechanically, not biologically), mostly treatments addressed to the gastrointestinal, respiratory, and nervous systems.

The Nutraceutical industry is experiencing a growing demand of food supplements to add to one's diet, when lacking some key nutrients. Arterra is developing methods to enhance quality and concentration of natural ingredients to be added to food supplements based on solid research, effective screening, and robust tests.

Agriculture is gradually shifting towards sustainability as consumers are increasing their attention towards organic food and key players are introducing sustainable techniques for producing and protecting crops in place of chemical pesticides and fertilizers. Arterra is developing tools to enhance the use of bio solutions for pest control, for protecting the plants from climate stress, for quality improvement.

In the Agri-food industry there is a strong and increasing interest for natural food preservatives and additives as consumers' attention on both the production and conservation of food has been significantly increasing. Main players have begun investing in biological molecules that can act as natural preservatives or colouring. Arterra is working on various active ingredients acting as antioxidant to be used for natural preservation of fresh food.

A focus on Arterra's core end-market: Cosmetics (85% of 2021 revenue) Cosmetics is Arterra's core end-market, reached both through a partnership agreement with Intercos, which buys Arterra's active compounds and put them into its formulas, (mostly sold to make-up and skincare global brands of various positioning, from mass, to private label to prestige brands), and an equity co-participation in the joint venture Vitalab (25% Arterra and 75% Intercos), which distributes Arterra's active ingredients mostly to skincare multinational global and luxury global brands. In 2021, the turnover coming from Cosmetics (skincare) was 85% of revenue, the remaining coming from Research contracts and other Services.

High productivity and quick time to market of the active compounds in skincare The productivity of the active compounds used in Skincare is particularly high: 1kg of active compound produces from 200kg (in the suggested formulas) to 1000kg of final product (if used for mass market/marketing purposes). The time to market in Cosmetics is shorter than in other end markets: from 3 to 6 new active ingredients have been released every year, which compares to 3 to 5 years in Agriculture, as an example.

Finally, whatever the direction the final demand takes in a scenario of global change of customers' perceptions and lifestyle, especially post Covid-19 outbreak, Arterra will promptly respond since its active compounds are able to serve from the luxury to the mass market.



Arterra overview and business model

Company overview and activities

Founded in 2004 by Gabriella Colucci in Naples, as a spin-off of Arena Pharma Biology division (San Diego, USA). A key partner for bio innovation to various end-markets. Arterra Bioscience was founded in 2004 in Naples by Gabriella Colucci, an Italian Scientist who returned to Italy after more than four years as Senior Research Scientist at Arena Pharmaceuticals (a listed company on NASDAQ), leading the Plant Biology Team. Arterra is a spin-off of Arena Pharmaceuticals from which it took the biotechnology developed by Ms. Colucci during the years spent in the US Company. Arterra has started bio research for industrial applications more than 15 years ago, anticipating an urgent need, a mandatory and irreversible global trend today. Other than being Ms. Colucci native city, Naples has been chosen as Arterra's headquarter for: i) its competitive R&D costs (including labour, leasing, transportation, and utilities); ii) being in the South and thus having an easier access to substantial support by the EU funds for Bioscience research; iii) the local presence of accredited universities and Research Centers from which highly qualified scientists come out.

From a small research group to a profitable biotech company.

At the beginning of its activity, in 2004, Arterra's main sources of revenue were the research grants from public institutions (Regione Campania, MISE, MIUR and the European Union). In 2005, Isagro invested a 22% stake in Arterra and became financing the bio research for innovation in Agriculture. Arterra's first patent was in this field, but immediately the Company discovered its perfect fit and application to Cosmetics. In 2007, research grants contributed for about 55% and research contracts for less than 20% of total revenue. Starting from 2008, both the agreement with Intercos for developing new active compounds for skincare green products and the setting up of the joint venture, Vitalab, for the distribution to clients different from Intercos', marked the shifting of revenue from mainly public research grants to research contracts.

Production Phase (2012 - 2018) Start - up Phase (2004 - 2008) Research Phase (2008 - 2012) IPO Revenues: Revenues:

research contracts +active ingredients sales (2019)**+** grants +research contracts research contracts & arants Process Patent Incorporation of VITALAB Facility IPO Multiple applications as a JV with Int Phylogix Implementing ISO & GMP Certification Partnership Multiple applications

Figure 7: from a research group to a profitable biotech company

Source: Company data

In 2021, turnover for the selling of active compounds contributed for more than 70% of Total Revenue, that for research contracts weighed 12% and public grants reduced their contribution to sales to 17%. Starting from 2017, the bio facility was extended and further developed and Arterra started the production of new active bio ingredients for different end-markets, thanks to a new process patent with multiple industrial applications. Starting from the second half of 2019, a first round of significant investments, using IPO proceeds, have been made for doubling production capacity and optimizing production processes. Moreover, the organizational structure has been strengthened appointing: an R&D coordinator (V. Fogliano), a Chief Operating Officer (G. Ferrante), a Grant & IP Director (M. Bimonte), a Cell & Molecular Biology Director (A.Tito) and a business developer (B. Cicatiello).

Arterra: research and technology to get valuable molecules from nature and active

Supported by an excellent research and tech team (most of them hold a Phd in Biology, Biotech, LifeScience or Genetics) and by the long experience and endless passion of Gabriella Colucci, Arterra uses cells from plants or algae as bio-factories to extract and produce, through sustainable procedures, active and valuable molecules



ingredients from food and agriculture waste. Plant extraction and Agri-food by-products in-house transformation processed to get active ingredients for multiple industrial applications. From 1kg of raw materials to >5kgs of active ingredients and up to 1000kgs of skincare finished goods.

Profitability and production capacity are main reasons to choose between product Production or IP Licencing

(Plants Extraction production process). Typically, from 1kg of raw materials the transformation process can obtain more than 5kgs of finished product. Moreover, Arterra uses waste from food and agriculture to search for and develop new active ingredients (Agri-food by-products production process). The Agri-food by-products inhouse transformation and production process to get to active compounds from food and agriculture waste includes: Agri-food-by-products, washing and freezing phases, extraction, lyophilisation, and dissolution in glycerol. Typically, from 1kg of raw materials the transformation process can obtain about 10kgs of finished product in the so-called upcycling process (creating value from food waste, much more than simply recycling food waste). Rich molecules and active compounds have various and simultaneous industrial applications in Cosmetics, Food supplements, Agriculture and Medical Devices. Furthermore, depending on the quantity of active compounds used in the products formulas (skincare products, in Cosmetics, for example), 1kg of active compounds can obtain from 200kgs (luxury, prestige skincare product) up to 1000kgs of finished goods (mass market, marketing-based skincare product).

To summarize, Arterra's revenue come from different sources: research grants, research contracts, product selling and licencing royalties.

Active compounds might be either produced and sold or their related in-house Intellectual Property (IP) might be licenced out. The decision depends on end-market applications. Typically, Cosmetics is a high-tech industry, made of small volumes, but very high margins; thus, it can be well served with Arterra's ingredients. Opposite, Agriculture is typically made of large volumes, low margins, and a very long time to market; it can be well served by Arterra's Ips licencing.

Moreover, in terms of time to market, in Cosmetics this is much quicker than in any other industry: 3 to 6 new active compounds are introduced every year in Cosmetics, whereas in Agriculture the time for a new active ingredient to land on the market can range from 3 to 5 years.

Arterra Bioscience

Sells ingredients for Cosmetic application through

Intercos

End markets

GLAMGLOW

AVEDA

CHANTECALLE

KIKO GLYCEL V

LAMER

LA

Figure 8: Arterra's reach of global brands in Cosmetics

Source: Company data

ÄrrenBio 🖑

Key partnerships: Isagro and Intercos

skyn

In Agriculture, Arterra has been selected by Isagro, that in 2005, invested directly a 22% stake, which went down to 16.5% after the IPO. Isagro has become the right channel for the licencing of Arterra's patented technology in Agrochemical. However, so far, no significant bio-solutions have been applied to Agriculture. In 2020 Isagro was acquired by Gowan, a worldwide provider of agricultural products and in Aplir 2022 Isagro disposed the whole stake increasing Arterra floating shares.

In Cosmetics, Arterra has been selected by Intercos as its research partner and preferred supplier of innovative active ingredients to be applied especially in skincare. According to their agreement, Arterra has a research contract with Vitalab worth more than €500k to develop three active ingredients every year; in the first year Intercos has the exclusive right to use the active ingredient in its products; starting from the second year the active compound is commercialized through Vitalab. Intercos owns an 8.7% of Arterra.



The distribution in Cosmetics is demanded to Intercos and Vitalab. Clients range from multinational to SME, from mass to prestige skincare or make up brands

Intercos and Arterra founded the commercial joint venture, Vitalab, with the purpose to distribute Arterra's active compounds into the global cosmetic market. Arterra owns 25% of Vitalab with a call option up to 40%, whereas Intercos owns the remaining 75%. According to their agreement, Arterra's ingredients for Cosmetics products are sold through either Intercos or Vitalab, which interact directly with global brands. Thanks to this agreement, Arterra can reach multinational global and prestige brands, make-up and skincare brands having a mass to private labelled to luxury positioning thanks to multiple and democratic applications of Arterra's valuable molecules. In 2019, Arterra core Cosmetics end-market weighted 60% of total turnover and Intercos' contribution was over 80%. Vitalab significantly increased its contribution from €1.3mln in 2019 to almost €3mln in 2021.

Figure 9: Arterra key partnerships and distribution agreements



Source: Company data

A scalable and profitable business model

Biomass production is a replicable and a low cost process allowing outstanding yields Arterra's business model is scalable: R&D activity is for either production and sales of active ingredients (through Intercoss and Vitalab) or for licensing to third parties inhouse developed Intellectual Property (IP) to be applied simultaneously to different end markets and positioning (cross sector, cross technology and from mass to luxury products). Applications vary from the anti-age compounds in Cosmetics, to natural pesticides in Agriculture to natural preservatives in fresh Aood to a bio gastrointestinal defender in Medical Devices. The business model is profitable as biomass production to get innovative active ingredients is a very low-cost process. Bio-factories allow for outstanding yields with relatively limited expenses and investments. Typically, from 1kg of plant stem cells, Arterra's bio farms produce more than 5kgs of active compound, via cells reproduction, that can be sold in a range of 4x to 10x the cost of raw materials. In the same way, from 1kg of Agri-food by-products Arterra's bio farms can typically develop about 10kgs of active ingredients that can be sold between 20x and 50x the cost of raw materials.

Figure 10: Profitable and scalable business model (p17)



Source: Company data

In addition, the distribution phase of the value chain and the reach of global brands, mainly in Cosmetics, is set on a win-win partnership with Intercos and through an equity participation (together with Intercos) in the commercial joint venture Vitalab. No investment in sales force is made with the focus on research and tech scientists.



Shareholders' structure, Management and Human Resources: long experience and sounded know-how

Listed on the AIM on October 28th at €2.6

The Company was listed on the Euronext Growth segment of the Italian Stock Exchange on October the 28th 2019 at €2.6/share. The share capital is represented by 6.6mln shares.

€6.6mln shares 49% floating following the exit of Isagro

The Company is owned by:

- executive shareholders, the founder Gabriella Colucci with 27.9%,
- industrial shareholders, Isagro sold its 16.5% stake in April 2022, but it remained co-owner in ADL (Arterra with 6.81%; G.Basile with 34.63%), Intercos with 8.7%, partner in Cosmetics and co-owner in Vitalab;
- other shareholders, Gabriella Colucci's brother Paolo Colucci with 7.5%;
- Zeus Capital with 5%;

Floating shares are then 50.9% of the total.

Gabriella Colucci: Founder, Chairman and CEO A rare mastermind leaving US and returning to Italy Arterra's founder, Gabriella Colucci built more than 30 years of Academic research experience in Italy, Nigeria, USA and Australia. She is the author of more than 40 scientific publications and 18 patents. She worked for more than 4 years in San Diego as Senior Research Scientist at Arena Pharmaceuticals, leading the Plant Biology group. In 2003, she left San Diego and returned to its native Naples, where she founded Arterra Bioscience, as a spin-off of Arena Pharmaceuticals. She won the Marisa Bellisario Prize, the EU Prize for Women Innovations in 2018 and the Rising Star in Cosmetics Global in 2019.

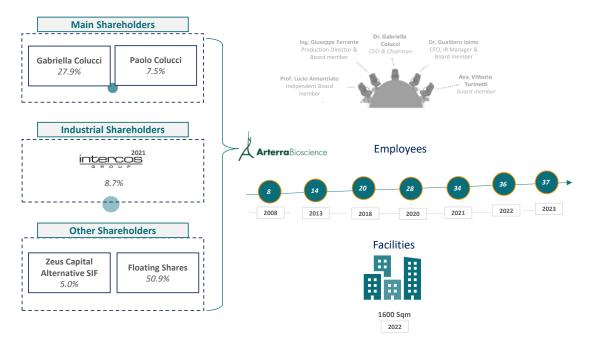


Figure 11: Arterra shareholders and board members

Source: Company data

The Board of Directors

Gabriella Colucci (founder, Chair and CEO), Gualtiero Ioimo (CFO, IR Manager) and Giuseppe Ferrante (Production Director) sit in the Board of Directors of Arterra which also includes the lawyer Vittorio Turinetti and Prof. Lucio Annunziato, as independent board members.

Key partnerships: Isagro, Intercos and Vitalab

In 2005, Isagro acquired a 22% of Arterra to partner for research-based bio innovation in Agriculture. In 2008, Arterra signed an agreement with Intercos and became its biotech research arm in Cosmetics. Arterra develops 3 active compounds



every year in either Skincare or Make up. The active ingredients are bought by Intercos that has the exclusive use for the first year; thereafter, the same ingredients are distributed globally through the joint venture Vitalab (25% owned by Arterra - with an option to go up to 40% and with the right to receive 40% of Vitalab's distributed income - and the remaining by Intercos). In 2019, through the IPO process, Intercos became a shareholder in Arterra.

Figure 12: Arterra organization

Source: Company data

An outstanding R&D and highly qualified Tech Team

Gabriella Colucci set up an outstanding R&D team supported by a Scientific Advisory Board which meets every two months, and it is coordinated by Vincenzo Fogliano. Among 37 employees, there are 13 PhDs, 11 with a Master of Science and the remaining with either a bachelor's degree in Science or a Tech Diploma. The Research Team has been divided by the R&D phases, but all units are market oriented so that each new project must release either a product or a technology to be brought forward.

COO appointed for production scale up and process optimization

In line with Company guidance, on top of expanding its R&D team, Arterra hired a Chief Operating Officer, with solid experience in key industrial groups and manufacturing sectors, to manage production growth. He managed production scale up and process optimization: since the IPO, production capacity went from 9kgs/day to more than 20kgs/day and raw materials costs have been significantly reduced by reducing outsourcing with further positive effect on raw materials effectiveness and production quality.

Business Developer for end markets diversification Furthermore, the Company signed a one-year collaboration contract with a Business Developer, Ing. Bruno Cicatiello, for end-markets diversification. In fact, he has experience in food transformation and will focus on developing and diversifying Arterra's business into Nutraceutical, Agri-food and Agri-pharma.



Strategy update

Focus on: research and production process optimization

Over €2mIn capex since 2019 to enhance research capabilities, scale up production and increase productivity Since 2019, Arterra increased its production capacity and research activity investing over €2mln. In 2021, The Company extended further its production plant, bought additional equipment, and invested in technology to enhance cellular growth. Among relevant investments: i) equipment for "ex vivo" tests on skin and human tissues for innovation in Nutraceutical and medical devices; ii) new lyophilizers; iii) expanding chemical laboratories for cellular growth. These investments will lead to an increase in productivity from 21kgs/day in 2021 to 50kgs/day in FY22.

Fulfilled orders Productivity Productivity Outsourcing Year kg/day Euro/day (Euro) (kg) Cell Culture Lyophilization 2019 8860 9 3150 147.800 8.800 2020 272.636 8.000 9117 21 7350 2021 13.335 21 7.350 14.400 20.000 2022 E. 14.500 50 17.500 62.560 8000

Figure 13: Arterra new laboratories

Source: Company data

Simplifying and streamlining research and production processes

In 2020 and 2021 Arterra strengthened its organization by appointing a COO, an R&D Coordinator, a Grant & IP Director and a Cell & Molecular Biology Director.

Moreover, the Company simplified and streamlined research and production processes.

Within this new organization, research ideas arise from multidisciplinary research units with all processes managed by an internal technical-scientific Committee.

Once an idea has been validated, the Research Unit:

- starts with the sourcing of raw materials;
- proceeds with chemical extraction;
- analyse and tests on molecular and cellular for scientific validation;
- sends samples for clinical testing;
- studies preliminary data;
- compares ingredients with market benchmarks;
- launches the product on the market

This process is constantly on track to catch new opportunities. Every 15 days, the Company takes part to the seminar "Science for Breakfast" on new topics, with the aim to find hints and ideas for the next project.

Each research unit is market oriented, and the scientific idea must bring to a product or a technology to be either approved or rejected. In Cosmetics, the time to market is between 3-4 months.



Vitalab Intercos MT Stability Ó 0 Sourcing Extraction Ó Chemistry 0 0 0 0 Marketing Histology Clinical Test Vita AvoCare 3 months research project

Figure 14: Arterra research process – the Vita AvoCare case study

Source: Company data

Focus on: diversifying in Medical Devices and Agri-Food; expanding in Cosmetics via Vitalab

Appointed a Business Developer for endmarkets diversification

Regarding end-market diversification, in the 1H22, Arterra signed a one-year collaboration with a Business Developer, Ing. Bruno Cicatiello, who will focus on developing into Nutraceutical, Agri-food and Agri-pharma

First steps into Medical Devices: 5-year production licence with ADL Arterra owning 6.8% of **ADL**

Furthermore, in April 2021, Arterra signed its first agreement in Medical Devices with ADL Farmaceutici for a 5-year production and licence of mix of four active compounds named "ArterraBio Complex I" against skin acne. This is only the beginning of a potentially larger partnership with ADL, which is skilled and experienced in Nutraceutical, that might lead to new active compounds. In fact, in June 2021 Arterra subscribed the capital increase by ADL acquiring a 6.81% stake.

Figure 15: Arterra's first product in Medical Device



Source: Company data

Following the entrance Arterra-ADL collaboration on the natural treatment of atopic dermatitis

ADL and Arterra will also work together for the development of a product for the in Medical Devices with treatment of atopic dermatitis, both through topical and oral use. As regards to the ADL more has to come: topical use, Arterra is evaluating with specialists in dermatology which kind of clinical test should be carried out to have sufficient data for a new dermatological product that can be launched by the end of 2023. As regards to the oral use, time to market could be longer as Arterra must be accredited as a producer of raw materials for ingested products, register the product and finally proceed with a clinical trial for oral

Arterra-MATERIAS partner in projects for Medical Devices and Agriculture

In addition, Arterra partners with MATERIAS on two projects.

The first project concerns the validation of the use of a synthetic peptide with strong bactericidal abilities to treat acne, as a potential substitute for benzoyl peroxide in anti-acne products in Medical Device. The second project concerns the possibility of expressing in a bacterial system, other than E.coli, a peptide with bio stimulating



activity for plants to be used in Agriculture. The peptide has been chemically synthesized and it has increased the defence response of plants to biotic stress.

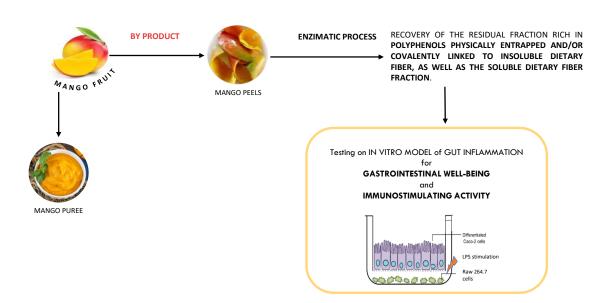
Patents in Medical Devices

In 2020-2023, two extracts have been patented: olive and prickly pear leaf extract for preventing and treating atopic dermatitis; Punica granatum peels extract for treating viral infections.

Arterra-MONTECARLOFRUIT Research addressed to agri-food Moreover, Arterra's research is continuing in Agri-food. In June 2021, Arterra and Montecarlofruit signed a research agreement for the up cycling of the mango waste. Montecarlofruit is active in the production of aseptic mango fruit puree for baby food, in Mali. In 2021, a research unit (RU) within Arterra was launched and named "Beat the best": about 80 extracts have been analysed to identify those that exceeded a selected benchmark in effectiveness. As estimated, a new fat-soluble active from avocado waste was selected. Fruits that are grown in Sicily and do not have the right size for being put into the market, will be used. Furthermore, an ethanolic extract from Jasminum officinale cells was fully characterized for its anti-glycation, antiox and anti-inflammatory activities through cell and skin explant assays.

Figure 16: Research agreement Arterra-Montecarlofruit





Source: Company data

Consolidating in Cosmetics

Expanding even through suggestions driven by Vitalab-Intercos co-working As regards to Cosmetics, Arterra innovated with 4 patents in 2020-2023: extracts deriving from Oenothera Biennis cell cultures for Cosmetics use; extracts coming from Portulaca grandiflora stem cells for treating skin signs due to skin ageing; essence from Pelargonium capitatum stem cells for Cosmetics use; extract derived from Cannabis Sativa cell culture for use in Cosmetics, Pharma, and Nutraceutical. Since 2021, Research has been also driven by specific suggestions provided by Vitalab thanks to continuous inputs received from Intercos. In 2022 Arterra will develop new active ingredients to support specific activities driven by its partners.



NC55 Vita Ray-Immune
Pelargonium capitatum
plant cells extract

NC60 Vita Up-Gravity
Oenothera Biennis
plant cells extract

Figure 17: Cosmetics – new products





NC62 Vita Xtend

Opuntia ficus indica cladodes extract +

Coffea arabica seed extract



NC63 Vita GojiVerse Goji berries extract



NC61 Vita Avocare

Persea gratissima

fruit extract

NC64 Vita Gly-Jasmin Jasminum Sambac Plant cell extract

Source: Company data

ESG Analysis

Sustainability Report

ESG and the Sustainability of Competitive Advantage Every active investor seeking value should be aware of how companies deal with environment, social and governance issues, since these are factors that can improve corporate value. In a world where companies are increasingly facing environmental issues, such as climate change and pollution, as well as social factors such as diversity and inclusion, gender balance and product safety, attention to ESG issues has become a competitive advantage.

Arterra Sustainability Report

To best involve stakeholders and to communicate in an increasingly transparent way its ESG goals, Arterra published its Sustainability Report in 2020 in accordance with both GRI and SDGs standards.

Sustainability for Arterra

Arterra, a biological and molecular R&D company applied to cells of natural origin Beyond sustainability standards and goals, Arterra naturally generates positive externalities with its core activities. In fact, the Company operates in the Research and Development of biological molecules to extract innovative active ingredients mainly for Cosmetics, but with potential applications in Agriculture, Nutraceuticals and Pharmaceutical. Arterra has always focused on green biotechnologies as a tool for sustainable innovation and a potential boost to the circular economy. More in details, the Company develops sustainable products, such as active ingredients from plant-based raw material and uses certified sustainable production processes.

Arterra is leader in the biological and molecular research on plant-based raw materials Arterra's main production process consists of the processing of raw materials in liquid culture, a process free of any type of microbiological contaminant or environmental pollutant. Raw materials are on average 86% natural, the remaining being synthetic. To increase the incidence of natural raw materials and seek constant innovation, Arterra has recently launched a project in collaboration with Montecarlo Fruit, a supplier of quality fruit and vegetables on a global scale, for producing active ingredients from fruit waste.

Banca



Figure 18: Raw materials breakdown between natural and synthetic ones

■ Natural raw materials

■ Synthetic raw materials

86%

Source: Banca Profilo elaborations on Company data

Materiality Assessment

Materiality Assessment Arterra carried out a Materiality Assessment to identify priority sustainability disclosure items, set most relevant issues for the Company and its stakeholders, and finally to decide which issues should be included (and updated) in the Report.

Figure 19: Materiality Assessment

Source: Profilo

		tient	<u>"</u>	3 mar. -W*	4 5554	•	6 2000L	7	**************************************	•==== &	10 11111	-14-	© €	13 thr	M Paul	5 % <u>•</u>	16 mm	17 seess	Priority v	aluation
Macro Area	Items	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Stakeholder	Arterra
	Product / service quality																		5.0	4.8
	Responsible selection of suppliers																		3.0	2.8
	Customer satisfaction																		5.0	3.5
(A)	Digitization																		3.0	2.5
SS	R&D and Innovation																		5.0	4.8
BUSINESS	Data security																		3.0	3.5
FIN	Reputation																		5.0	3.3
త	Profitability																		5.0	3.0
	Financial balance																		5.0	2.8
	Claims management																		5.0	4.3
	Internationalization																		5.0	4.8
	Responsible use of resources and waste																		3.0	5.0
	Raw materials quality & product sustainability																		5.0	4.8
ш	Biodiversity protection																		5.0	5.0
	Sustainable water management																		5.0	3.3
_	Human rights protection																		5.0	5.0
rna	Fight against corruption																		5.0	4.5
S (External)	Beware of demographic and social changes																		3.0	3.0
_	Development of the territory																		5.0	5.0
	Attraction and development of talents																		5.0	3.8
	Employee welfare																		5.0	4.8
	Employee engagement																		5.0	4.3
S (Internal)	Diversity, inclusion and equality among employees																		5.0	4.8
(Inte	Staff training and enhancement of the personnel																		5.0	2.8
	Staff incentives																		5.0	3.5
	Health and safety at work																		5.0	5.0
	Safeguard workers' rights																		5.0	4.8
G	Transparency																		5.0	4.5
U	Ethics and integrity																		5.0	5.0

elaborations on Company data

The Materiality matrix

Through a two-dimension analysis, internal (top management expectations) and external (stakeholders' expectations), the Company assigned a score to each material



topics according to their importance.

SDGs vs corporate goals: n. 8, 1, 11, and 12 are those Arterra is more sensitive to

By relating the material topics identified through the Materiality Map to the seventeen Sustainable Development Goals (SDGs), it emerges that SDGs 8, 1, 11, and 12 are the most sensitive ones for Arterra.

- 1. Goal 8 promotes inclusive and sustainable economic growth as well as decent work for all. This goal is particularly sensitive for the Company as Arterra guarantees higher levels of economic productivity mainly through technological upgrading and R&D, promotes development-oriented policies that support productive activities, decent job creation, creativity, and innovation. Moreover, Arterra particularly cares to progressively improve global resource efficiency in production and responsibly select suppliers.
- 2. Goal 1 promotes to end poverty in all its forms everywhere. Arterra promotes this goal mainly by implementing appropriate social protection systems and granting equal rights to economic resources.
- 3. Goal 11 makes cities and human settlements inclusive, safe, resilient, and sustainable. Arterra promotes this goal mainly thanks to the strong connection with the Neapolitan and Campania territory, from which Arterra obtains natural raw materials used in its processes. Arterra is also promoter of Est(ra)Moenia, an association aimed at implementing projects that enhance the Naples surrounding areas and East Naples.

Goal 12 ensures sustainable consumption and production patterns. Arterra promotes this goal mainly by achieving the sustainable management and efficient use of natural resources and the sound management of chemicals and all wastes throughout their life cycle.

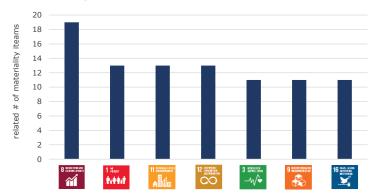


Figure 20: SDGs Arterra is more sensitive to

Source: Banca Profilo elaborations on Company data

Environmental sustainability









Arterra does not use dangerous or toxic solvents. The entire production process uses 86% of natural raw materials (including plants, food-by-products and glycerine) whereas the rest is synthetic raw materials.

Energy consumption

Arterra is a non-energy eater. On average energy consumption is just above 262 MWh per year, totalling just above €40k. More than 80% of Energy comes from renewable sources.

GHG Emission monitoring

Raw materials

There are no emissions in the plants: all equipment using either chemical or biological materials have carbon filters which are wasted according to current rules.

Water consumption

The average water consumption is some 530 m3 a year or below €2k.

Waste management

No waste from the Company production processes is dangerous for human or the environment. The waste coming from cell collection is the same liquid (salty and thus sterile solution) where the cells grow. All reagents are included in the finished goods therefore there is no waste.



Social issues

Human capital





















Human capital is central in Arterra. The Company culture is for totally inclusive Human Resources, far from discrimination and prejudice aiming at talent enhancement. Arterra commits to engage all its employees into firm activity and strategic decisions mainly through meetings among top management, department supervisors and lab technicians. At the end of 2021, Arterra employed 34 people of which:

- more than 70% women;
- more than 50% between 36 and 50 years old
- more than 60% holding either a PhD or a bachelor's degree.

Benefits and Welfare

In June 2020 Arterra distributed 600 stocks for free to each employee and added 100 stocks for each year of work to stress the fact that human capital is a strategic asset for Arterra. Furthermore, the Company developed a Welfare plan including Health Insurance for his employees.

Training and skills development

Human Resources training comprises both Security courses and Specific technical courses according to each employee's job.

Research and Innovation

Arterra is a Biotech company funded on Bioscience research. Arterra core business is the Research and Development of new technologies to discover new active ingredients which can have industrial applications in Agriculture, Cosmetics, Nutraceuticals and Pharma. Raw materials production comes from stem cells liquid farming. The production processes are highly valuable: cells farming, and food-by-products are processed in minimum quantities (grams) and through highly technological biotech processes they create tons of finished products. The relevance of Arterra Research turns into national and international scientific works, patents, registered active ingredients brands and industrial applications (new active ingredients brought into markets mainly Cosmetics)

Partner in Research and Innovation

Arterra's partnerships with Universities, Corporates and Research Centres are key for Innovation. Arterra ensures Innovation in Bioscience also through investments in chemicals laboratories including equipment and new production spaces. Material capex were €540k in 2019, €250k in 2020 and €200k in 2021. Innovation is finally reached through investing in human capital; Arterra's scientists and technicians have increased by 14% in 2020 and by 32% in 2021.

Est(ra)Moenia promoter

Arterra is, among others, promoter of Est(ra) Moenia, which is an association aiming at attracting national and international investors in the Historical Centre and the Eastern part of Naples. This association is supported by the Architecture Department of the University of Naples, which is developing a research project to give a "scientific" reading of the territory for urban renewal and social inclusion.

Governance







A traditional Governance system Arterra adopts a traditional Governance system, which includes a BoDs (5 members) appointed by the Shareholders and a Board of Auditors (5 members). KPMG is the Accounting Firm.

Governing bodies composition

The presence of men and women in the Governing Bodies is in line with the recommendations of Borsa Italiana. In particular, the new Corporate Governance Code states that at least one-third of the BoD should be made up of members of the less represented gender.





Arterra "ID Card"

Recommendation

Target Price

Upside

BUY

4.5 €

77%

Company Overview

Arterra Bioscience is an Italian research-based biotech company with a strong know-how in biological science and an extensive experience in screening for the discovery of new active compounds able to have various potential industrial applications in multiple end markets, such as cosmetics, nutraceutical, agriculture and agrifood. By studying signal transduction mechanisms in plants, animals and human cells, Arterra uses its technological platforms to verify the existence of molecular activity in various type of natural resources (from plants, to microalgae to food waste), which might have simultaneous industrial applications. Arterra, thus, represents an ideal partner to cross-sector companies who have not the financial or cultural strength to develop innovative technologies and bio-sustainable products, mainly in cosmetics (skin care and make up), food (supplements, functional food, natural preservatives), medical devices (acting on stomach, skin, brain, breathing and vascular systems), and agriculture (crop protection and yield enhancement). Since its foundation in 2004 Arterra has been showing strong revenue growth (>20%) and positive EBITDA (current margin at 40%), in a competitive scenario of international players with negative marginality.

SWOT Analysis

Strengths

- Outstanding R&D and high qualified Technology team
- A global market reach with limited sales force investments thanks to the partnership with Intercos and the equity participation in Vitalab
- Scalable business model as products and in houd developed Ips can be applied simultaneously to different end-markets
- Profitable business model since its set up for a very low cost of raw materials and an effective and light organizational structure

• Bioscience great momentum as product sustainability has become the key mission of many industries

Opportunities

 Significant growth potential and resilience of Arterra's main end-market, the cosmetic industry

Weaknesses

- Small size of the business
- End-markets concentration
- Non-optimized financial structure
- Threats
 Effective end-markets diversification within the planned time frame
- Potential difficulty in maintaining the independence from global multinational brands

Main catalysts

Profitability improvement driven by the scaling up of production

Significant growth fuelled by the needed bio innovation across industries

Main risks

Effective end-market diversification within the business plan time frame Becoming dependent on global multinational brands





Arterra "ID Card"

Recommendation

Target Price

Upside

apr, 19 2023 - 17:23

BUY

4.5 €

77%

Main Financials						
(€/000)	2020	2021	2022	2023E	2024E	2025E
Total revenue yoy change	4,308 18.8%	4,608 7.0%	5,303 15.1%	4,997 -5.8%	6,166 23.4%	7,589 23.1%
EBITDA EBITDA margin (%)	1,602 37.2%	1,735 37.7%	2,133 40.2%	1,916 38.3%	2,658 43.1%	3,577 47.1%
EBIT EBIT margin (%)	1,201 27.9%	1,248 27.1%	1,601 30.2%	1,331 26.6%	1,988 32.2%	2,797 36.9%
Net income Margin (%)	1,108 25.7%	1,111 24.1%	1,414 26.7%	1,064 21.3%	1,583 25.7%	2,223 29.3%
Adjusted net debt (cash) Shareholders Equity Net Operating Working Capit: Capex and acquisitions	(4,067) 8,181 1,306 383	(4,199) 9,473 1,798 609	(5,502) 10,467 2,648 184	(6,356) 10,865 2,428 350	(7,216) 11,947 2,820 500	(8,418) 13,425 3,276 600
Free Cash Flow	447	323	699	1,453	1,269	1,822

Company Description	
Company Sector Price (€) Number of shares (mln) Market Cap (€ mln) Reference Index Main Shareholders	Health Care - Biotech 2.5 6.7 16.9 Euronext Growh Gabriella Colucci, Intercos
Main Shareholder stake Free Float Daily Average Volumes Sample of comparables	27.9% 49.5% 13,055 BRAIN, Croda, Symrise, Deinove, Evolva, Fermentalg, Plant Advanced Technologies, Novozxymes, Codexis

Breakdown by business unit					
(% of total sales)	2020	2021	2022	2023E	2024E
Cosmetic turnover	53%	71%	56%	66%	65%
Nutraceutical/medical devices turnover	0%	0%	0%	6%	10%
Research contracts and services	13%	12%	11%	10%	10%
Licences and royalties	0%	0%	0%	0%	0%
Research grants	35%	17%	33%	33%	0%

Data of peers				
	2019	2020	2021	2022
Revenue Growth (yoy)	25%	0.2%	42%	28%
EBITDA Margin	23%	23%	29%	29%

Average data

Solvibility Ratios					
	2020	2021	2022	2023E	2024E
Net debt (cash) / EBITDA Net debt (cash) / Equity	-2.5x -0.5x	-2.4x -0.4x	-2.6x -0.5x	-3.3x -0.6x	-2.7x -0.6x

Multiples of peers		
	2023E	2024E
Best peers (business and potential growth) EV / SALES	3.8x	2.3x
Best peers (margins and cash flows) EV / EBITDA	13.1x	11.9x

Financial and Operative rat	ios				
	2020	2021	2022	2023E	2024E
Tax rate	-8%	-13%	-21%	-21%	-21%
ROIC	29%	24%	32%	30%	42%
ROE	14%	12%	14%	10%	13%
Capex/Sales	9%	13%	3%	7%	8%
D&A to capex	105%	80%	290%	167%	134%

Source: Factset, Banca Profilo estimates and elaborations



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