

Arterra: the ideal partner to lead democratic bio-innovation in Europe



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An Italian, research-based yet market-oriented biotech company

Nature contains a treasure trove of active ingredients that can improve health, wellness and nutrition. Plants or animals that make these ingredients are often too rare, too hard to grow or do not self-produce enough of the ingredients to allow sustainable sourcing at the right quality and price. 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 as cosmetics, nutraceutical, agriculture, agrifood and medical devices. By studying signal transduction mechanisms in cells, Arterra uses in-house developed technological platforms to verify the existence of molecular activity in various type of natural resources (plants, algae and agrifood by-products), which might have simultaneous industrial applications. Arterra represents the ideal partner to cross-sector companies who have not the financial or cultural strength for bio-innovation in processes and for bio-sustainable products, mainly in cosmetics (skin care, make up), food (supplements, functional food, natural preservatives), medical devices (acting on gastrointestinal, skin, nervous, respiratory and vascular systems), and agriculture (crop protection, quality enhancement). Arterra was founded in 2004 by Gabriella Colucci, an Italian Scientist with over 30 years of academic international research experience, author of several publications and relevant product and process patents. She is a rare mastermind returning to Italy after more than eight years in San Diego, including four years of leading the Plant Biology Team at Arena Pharmaceuticals.

A scalable and profitable business model

Research and development in Arterra's bio factories are for either production and sales of active ingredients (through Intercoss and Vitalab in cosmetics) or for licencing out in-house developed innovation platforms to various end markets and to different positioning within the same industry (cross sector, cross technology and from luxury green and complex substitutes of chemicals to simpler mass market bio products, even within the same sector). Arterra set an extremely profitable research and manufacturing model, where 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 that can be sold in a range of 4x to 10x the cost of raw materials. In the same way, from 1kg of food by-product or agriculture Arterra's bio farms can develop 10kgs of active ingredients that can be sold between 20x and 50x the cost of raw materials.

A history of consistent growth and profitability

Since its foundation (2004), Arterra has reported an average revenue growth above 20%, from €164k to €3mln, well above its main reference market, the global cosmetic industry (+4%). Revenue includes mainly turnover from the selling of active compounds (63% of total revenue in 2018), from research grants (19%) and research contracts (19%). During the past 14 years, EBITDA increased from €18k to €1.1mln with EBITDA margin improving from 11% in 2004 to 38% in 2018. Cumulated Free Cash Flows in 2017-2018 were over €760k including capex for €590k. In the 9M19, revenue increased by 39% yoy to €2.6mln and EBITDA margin improved 260bps to 35%.

Corporate strategy and our projections 2019E-2023E

Main corporate strategy is to: i) expand research activity by attracting specialised resources to better enter into new bio innovating industries and to adopt smarter, automatized production processes; ii) invest in new production equipment to scale up the production capacity over current 10,000 kgs/year; iii) acquire small Italian innovative tech companies to enhance Arterra's competitive advantage. In 2018-2023E, we expect 22% revenue CAGR to €8mln and 29% EBITDA CAGR to €4mln with margin to improve to 50%, driven by strong operating leverage. Main risk to our estimates is Arterra's effective capacity to diversify into new end-markets, within the planned time to market, to scale up production and use its strong operating leverage, to strongly grow in cosmetics beyond Intercos. The strengthening of management, especially in business development, is key for Arterra's solid and profitable growth. The recruiting process for upgrading research processes and investments to scale up production have started.

Valuation: 12-month target price at €4.3; HOLD

We run a DCF approach on an annual average FCF of some €900k in the 2019E-2023E period and set a WACC of 7.4%. The international competitive arena includes a suitable sample of listed comparable: we run a relative market multiples valuation on an average 2020E and 2021E EV/SALES at 6.9x and EV/EBITDA at 13.1x. We set our 12-month target price at €4.3/share, including current developing phase of the business, structuring phase of the management team and set up phase of production scale-up. Given a 16% upside on Arterra's price (€3.7 as of January, 10th), we set our recommendation at HOLD.

Target price	4.3
Recommendation	HOLD
Price as of Jan, 10th (€)	3.7
Number of shares (mln)	6.5
Market capitalization (€mln)	24.2
Performance	from IPO
Absolute	+42%
Max/min	4.9/2.6
Average daily volumes	91,110

(€/000)	2018	2019E	2020E	2021E
Total Revenue	2,978	3,571	4,117	5,057
yoy change	8%	20%	15%	23%
EBITDA	1,140	1,230	1,411	2,034
margin (%)	38%	34%	34%	40%
EBIT	1,067	986	904	1,347
margin (%)	36%	28%	22%	27%
Net income	1,044	924	696	1,026
margin (%)	35%	26%	17%	20%
Fixed assets	1,127	2,600	2,993	3,207
Net Working Capital	1,702	2,173	1,866	2,012
Adj Net debt/(cash)	464	(3,158)	(3,768)	(4,434)
Shareholders' Equity	2,559	7,477	8,173	9,199
Capex	536	1,718	900	900
Free Cash Flow	179	(506)	441	444

Source: Banca Profilo estimates and elaborations, Company data.

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Executive summary

Arterra in a nutshell: key investment drivers

Arterra: know-how in biological science to develop active innovative compounds for green processes and eco-friendly products

Arterra Bioscience (hereinafter "Arterra" or the "Company") 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 potential multiple industrial applications, such in 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 by-product), which might have simultaneous industrial applications.

Arterra: the ideal partner to cross-sector companies with limited financial strength and bio culture

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 gastrointestinal, skin, nervous, respiratory and vascular systems), and agriculture (crop protection and quality improvement).

Arterra: ready to serve the most active sectors in the global trend to bio innovation and eco sustainability

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).

Cosmetics is Arterra's core end-market: resilient high tech high marginality consistently growing industry

Among the most resilient, yet consistently growing and highly profitable market, 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 products, (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 2018, the turnover coming from cosmetics (skincare) was 63% of total revenue. Cosmetics is one of the most profitable end-market: in skincare from 1kg of active compounds it is possible to obtain from 200kgs (luxury, prestige skincare product) up to 1000kgs of finished goods (mass market, marketing-based skincare product). 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. In cosmetics Arterra owns some 50 active compounds

Founded in 2004 by the Italian scientist Gabriella Colucci, a rare mastermind returned from San Diego to Naples

Arterra Bioscience was founded in 2004 in Naples by Gabriella Colucci, an Italian Scientist which returned to Italy after more than eight years in San Diego, including four years as Senior Research Scientist at Arena Pharmaceuticals (a listed company at NASDAQ), leading the Plant Biology Team. Arterra has started bio research for industrial applications more than 15 years ago, anticipating an urgent need, a mandatory and irreversible trend in many industries today.

Arterra is participated by Gabriella Colucci with 28.4%, Isagro (16.8%), Intercos (8.8%) Paolo Colucci (7.7%), Maarten Chrispeels (6.9%), Fabio Apone (2.7%), Arena Pharmaceuticals (1.9%) and Gualtierio Ioiimo (1.9%). Free float is then 24.9%.

Key competitive advantage: a replicable and profitable business model

Arterra's business model is scalable and replicable: research and development in the biofactories are for either production and sales of active ingredients (through Intercoss and Vitalab) or for licencing to third parties of in-house developed Intellectual Property (IP) to be applied simultaneously to different end markets and positioning within them (cross sector, cross technology and from mass to luxury products). Arterra has set an extremely profitable research at manufacturing business model, where 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 that can be sold in a range of 4x to 10x the cost of raw materials. In the same way, from 1kg of agrifood 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.

Arterra: the most profitable within the listed peers

The competitive scenario comprises European and US listed biotech companies active in the research and development of natural substances for industrial green applications. Main difference between Arterra and its comparables lays in the profitability. Furthermore, Arterra has funded its research, investments and growth by research grants (at the beginning) with no additional funds or venture capital. Since its foundation, in 2004, Arterra has been showing positive EBITDA, whereas its peers show either negative marginality or much lower profitability. We selected a sample of listed peers which includes the German Brain and Deinove, the British Croda, the French Deinove, Fermentalg and Plant Advanced Techonogy, the Swiss Evolva, the Danish Novozymes and the US Earth Science and Tech, Codexis and Yield 10 Bioscience. Moreover, we added more mature and profitable specialty chemicals companies that have some operations in Natural Resources, such as Clariant, Evonik, Lonza and Ashland.

Main corporate strategy: expand research team; set up a business development team; scale up production; acquire innovative technologies

Main corporate strategy is to: i) expand the 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; ii) extend the application of its technological platforms and active ingredients to the most active industries in bio innovation such as nutraceutical, agrifood and medical devices; iii) to invest in new production equipment to scale up the production capacity and develop its valuable molecules production well over its current capacity of some 10,000 kgs / year; iv) acquire technologies mainly in active ingredients delivery systems in order to enhance their value in various end-markets.

Main financial data (2004-2018) and our estimates (2019E-2023E)

2004-2018: Double digit revenue (>20%) and EBITDA (>30%) growth

Since its foundation, in 2004, Arterra has reported an average revenue growth above 20% (CAGR 2004-2018 at 23%) from €164k to €3mln, well above its main reference market, the global cosmetic industry (+4% CAGR 2008-2017). Revenue includes mainly turnover from the selling of active compounds (63% of total revenue in 2018), from research grants (18%) and research contracts (17%). During the same period EBITDA increased from €18k to €1.1mln with EBITDA margin improving from 11% in 2004 to 38% in 2018. Net income stood at €1mln in 2018. In the first nine months of 2019, revenue increased by 39% yoy to €2.56mln and EBITDA margin improved from 29% in the same period of 2018 to 35% in the 9M19.

9M19: revenue +39%; EBITDA at 35%

Room to stretch the financial structure

The Balance Sheet is extremely stable with room to stretch its financial structure. In 2018 adjusted net debt was €464k, including IFRS 16 and excluding the interest bearing loans to Vitalab. The IPO proceeds have brought into Arterra about €4mln, which have been only partially used for a new plant, software and equipment.

*2018-2023E:
revenue CAGR of 22%
EBITDA margin at 50%
Cumulated FCF
€3.1mln including
€5.3mln capex*

According to our estimates, in the 2019E-2023E period Arterra's revenue is expected to grow at a CAGR of 22% to €8mln with an EBITDA at €4mln (29% CAGR) or 50% margin, driven by a robust operating leverage. We project cumulated Free Cash Flows of €3.1mln in the five-year period, including cumulated capex of €5.3mln. Considering the results reached in the first nine months of 2019, Arterra shows a very high visibility on our projections on 2019E.

*Business plan
execution risks*

Main risk to our estimates is Arterra's effective capacity to diversify into new end-markets, within the planned time to market, to scale up production and use its strong operating leverage, to strongly grow in cosmetics beyond Intercos, through the commercial and distribution strength of Vitalab. The right strengthening of management, especially in the business development, is a key factor for Arterra's solid and profitable growth.

*The recruiting process
of new managers has
started*

In line with the Use of Proceeds declared during the IPO process, Arterra has expanded the Research & Production team, hiring a Chief Operating Officer, with solid experience in key industrial groups and manufacturing sectors, to manage production growth and a new PhD in Scienze Agrarie to optimize research techniques and processes to obtain innovative molecules for multiple industrial applications. Furthermore, it has started the recruiting process for both the Chief Financial Officer and the Business Developer. Concerning the scaling up of production, some €500k investments have been done in the first nine months of 2019, mostly for upgrading research and increase production with further capex planned in 2020.

*€500k capex in
physical space,
research and
production equipment*

Valuation: DCF and market multiples approach

*DCF approach well
appraises a cash
generating model*

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

*A suitable sample of
international
comparables add a
valuable market
multiples approach
EV/SALES 6.9x
EV/EBITDA 13.1x*

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

Our sample of comparables to Arterra shows a mean EV/SALES 2020E-2021E of 6.9x and a mean EV/EBITDA 2020E-2021E of 13.1x.

We use the average EV/SALES and EV/EBITDA multiples for Arterra's relative valuation and we end to an Equity Value of €29.6mln or €4.5/share, which includes a 15% liquidity discount.

*DCF assumptions:
average FCF €1.4mln
WACC 7.4%*

We also run a DCF model assuming cumulated FCFs of €3.6mln for the explicit 2020E-2023E period (or an annual average of some €900k) and a Terminal Value FCF of €1.4mln. We use a WACC of 7.4% and a perpetual growth rate of 2%. We end to an Equity Value of €30.5mln or €4.7/share.

*Valuation:
12-month TP at €4.3
Recommendation:
HOLD*

We set our 12-month target price at €4.3/share, which included current developing phase of the business, structuring phase of the management team and setting up phase of production scale-up. Given a 16% upside on Arterra's price (€3.7 as of January, 10th), we set our recommendation at HOLD.

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 participation in Vitalab
- Scalable business model as products and the in-house 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 efficient and light organizational structure

WEAKNESSES

- Small size of the business
- End-markets concentration
- Not yet a structured management for a rapid and solid business development

OPPORTUNITY

- 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

THREATS

- Effective end-markets diversification within the planned time frame
- Potential difficulty in maintaining the independence from global multinational brands
- Complexity of scaling up production and distribution to satisfy growing demand

The 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

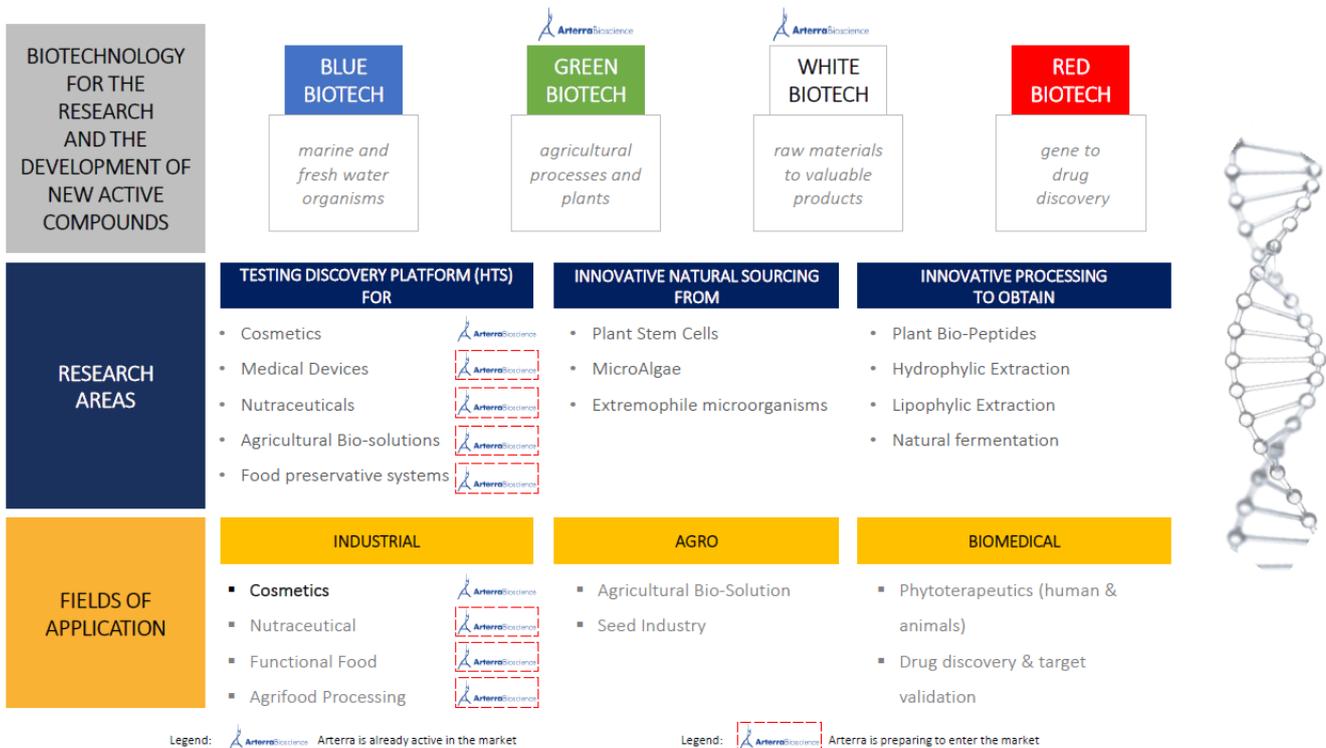
Arterra: know-how in biological science to develop active innovative compounds for green processes and eco-friendly products

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 of the ingredients by themselves 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 in order 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 able to have potential multiple industrial applications, such in 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 by-products), 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 gastrointestinal, skin, nervous, respiratory and vascular systems), and agriculture (crop protection and quality improvement).

Figure 1: Biotech sources of research and fields of application



Source: Company data

Arterra: strong know-how and experience for

Arterra's research activity is focused on the so-called Green Biotech (from plants and

simplifying needs of many industries in the persisting search for clean substitutes to chemicals

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 uses also algae and microalgae in the Blue Biotech, whereas from Red Biotech it acquires all data and information 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 biofactories and biomass production have applications in various fields simultaneously: the Company's core and current end market is the cosmetics, whereas new and potential sectors are nutraceuticals, functional food and agrifood processing.

Arterra: ready to serve the most active sectors in the global trend to sustainability.

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).

Ongoing research projects on rich biomolecules for application in: Medical devices Nutraceutical Agriculture Agrifood

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

The Pharmaceutical industry is investing in researching 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 of 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. In 2017 it had a size of \$383bn and it is expected to grow to \$561bn by 2023 (CAGR 6.6%). In Italy the market size has grown from €1.2bn in 2008 to €3bn in 2018 and it is expected to reach €3.4bn in 2020 (CAGR 18-20 of about 8%). [Sources: KPMG, Statista, IMS Health].

The Agriculture industry is shifting gradually 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 biosolutions for pest control, for protecting the plants from climate stress, for quality improvement. Isagro is one of the most important players in the Industry and has a 22% stake in Arterra; it is a partner to which Arterra will potentially licence out its Intellectual Property on biostimulants.

In the Agrifood industry there is a strong and increasing interest for natural food preservatives and additives as the attention of the consumers 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 coloring. Arterra is working on various active ingredients acting as antioxidant to be used for natural preservation of fresh food.

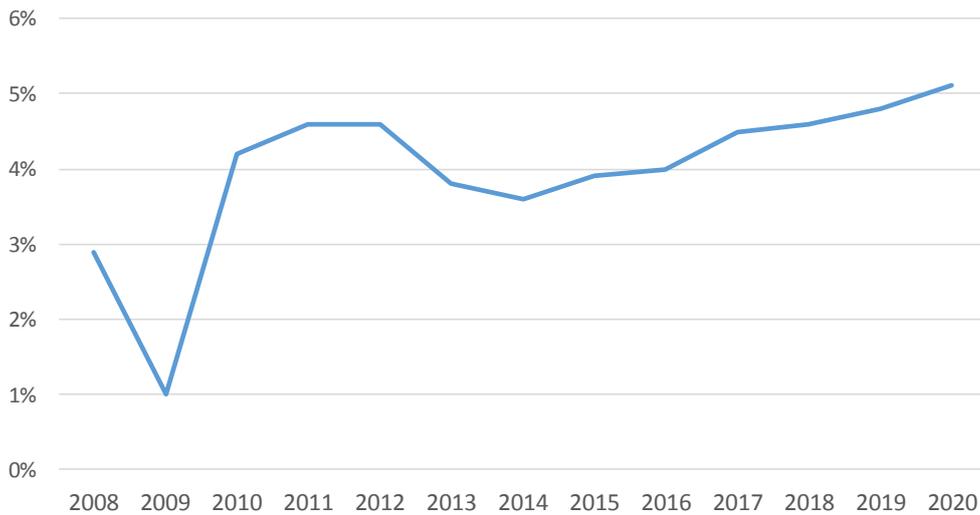
A focus on Arterra's core end-market: cosmetics (> 60% of total revenue)

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 products, (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

High productivity and quick time to market of the active compounds in skincare

active ingredients mostly to skincare multinational global and luxury global brands. In 2018, the turnover coming from cosmetics (skincare) was 63% of total revenue. The productivity of the active compounds in the skincare is particularly high: using 1kg of active compound it is possible to produce 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: there are typically from 3 to 6 new active ingredients every year, which compares to 3 to 5 years in Agriculture, as an example.

Figure 2: Global cosmetics industry 2008-2020E (€ bn)

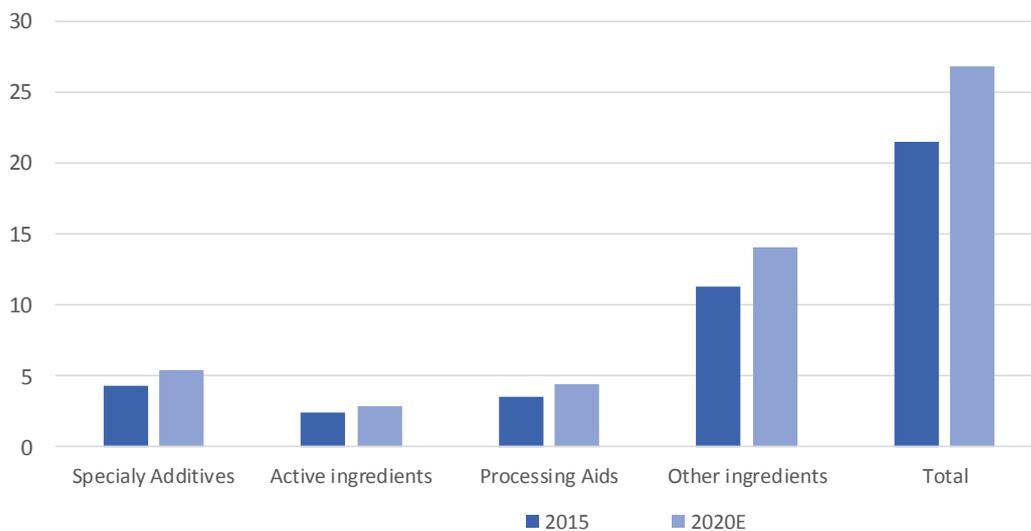


Source: Banca Profilo elaborations on Cosmetic industry worldwide 2018, Statista

Active ingredients in cosmetics are seen growing at a 4% CAGR in 2015-2020E.

Furthermore, cosmetics is a more resilient industry to the economic cycle and it has been growing globally at more than 4% pace in the 2010-2017 period and it is expected to grow at a CAGR of 4.6% in 2015-2020E. Within Cosmetics, active ingredients are expected to reach €3bn in 2020 from €2.4bn in 2015.

Figure 3: Global cosmetics industry by type 2015-2020E (€ bn)



Source: Banca Profilo elaborations on Cosmetic industry worldwide 2018, Statista

Arterra competitive arena: strategic positioning and competitive advantages

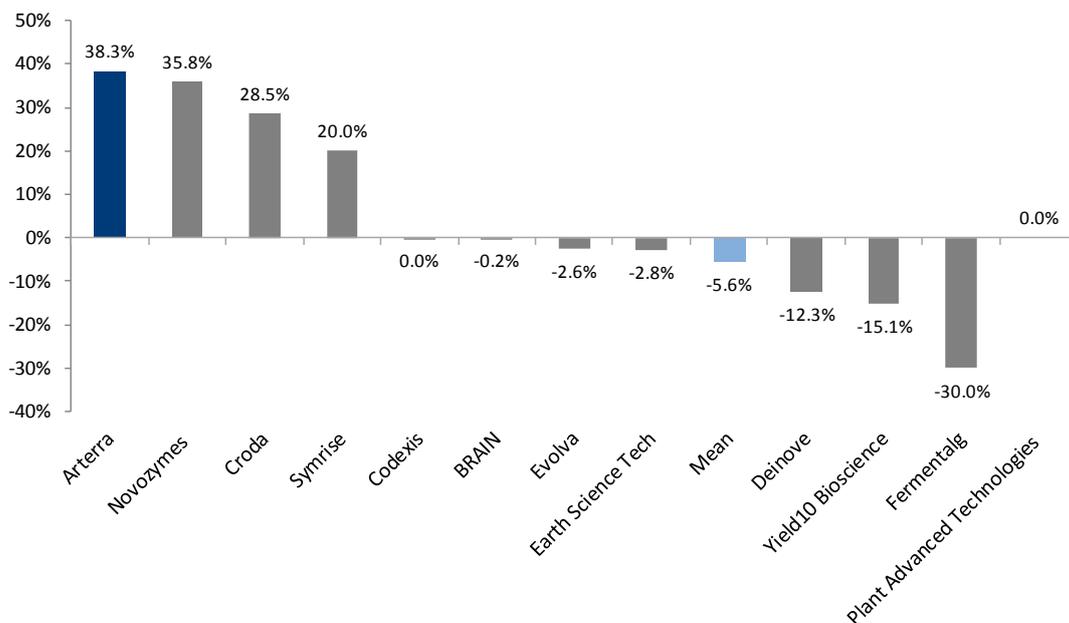
European and US listed biotech companies

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.

Main difference between Arterra and its comparables is the profitability. Furthermore, Arterra has funded its research, investments and growth by 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 Deinove, the British Croda, the French Deinove, Fermentalg and Plant Advanced Techonogy, the Swiss Evolva, the Danish Novozymes and the US Earth Science and Tech, 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 2018 Arterra reported a 38% EBITDA margin, the highest of the peers' sample.

Figure 4: Main international listed players in the Industry – EBITDA margin in 2018



Source: Banca Profilo elaborations on Company data, Factset

The negative EBITDA margin has been divided by 100 for each company and for the sample average in order to make a graphic representation of the competitive arena

B.R.A.I.N. (DE)
 €30mln turnover
 -17% EBITDA margin

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 microbia 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 1.4bn turnover
 28% 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 and 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)
 €3bn 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.

Deinove (FR)
 €800k turnover
 €-9mln EBITDA

Deinove SA, is a French company that develops compounds originated from bacteria. Its main clients are active in: Health Care, Nutrition and Cosmetics. Among its products there are: bio actives or active ingredients of natural origin to invent the new generation of sustainable cosmetics (mostly anti-aging) and to new products for the nutrition and health care products; organic acids, anti-infective molecules responding to the global challenge and major health threat of antibiotic resistance (mostly severe gastrointestinal infections), ethanol and biofuels.

Evolva (CH)
 CHF 9mln turnover
 CHF -23mln EBITDA

Evolva Holding SA, is a Swiss biotech firm that manufactures sustainable ingredients for use in food, nutrition, personal healthcare 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)
 €200k turnover
 € -7mln 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)
 €1.1mln turnover
 € -1.5mln 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 14bn turnover
 36% 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.

Earth Science Technologies (USA)
 USD 800k turnover
 USD -2mln EBITDA

Earth Science Technologies Inc., an American biotech company delivering nutraceuticals, bioceuticals and dietary supplements. Main end-markets are: healthcare, wellbeing, nutrition, cosmetics and alternative medicine. It produces cutting-edge high-grade, full spectrum cannabinoids to exploit their powerful medicine benefits. Its research activity is also on tools and vaccines to detect and treat sexually transmitted illnesses.

Codexis (USA)
 USD 60mln turnover
 -4% EBITDA margin

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: pharmaceutical and fine chemicals industries. 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.

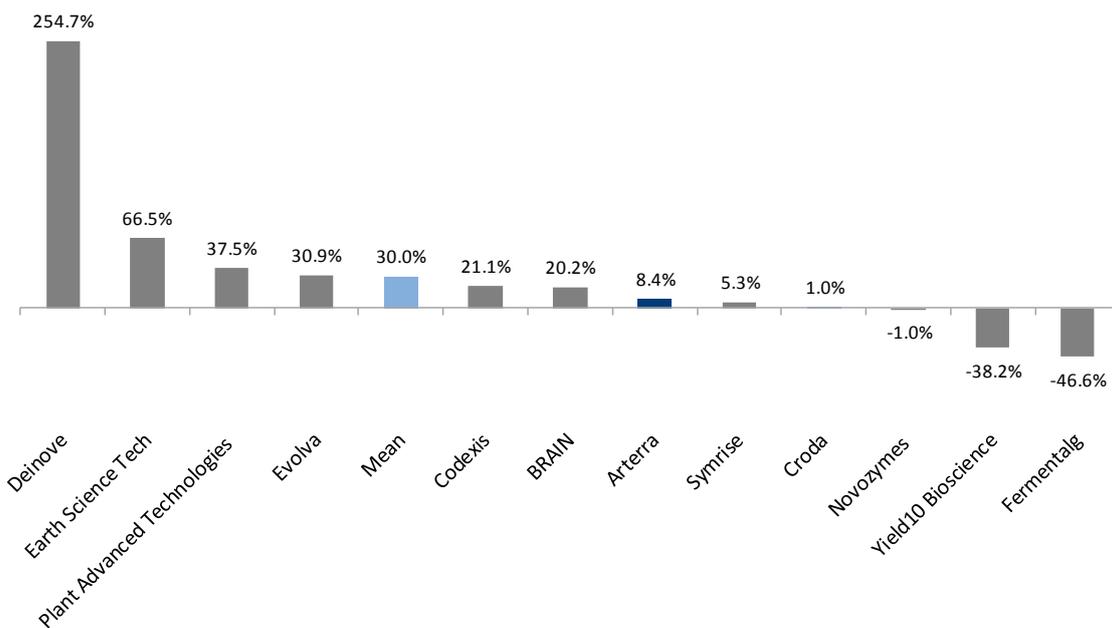
*Yield10 Bioscience
USD 600k turnover
USD -9mln EBITDA*

Yield10 Bioscience Inc., is an American agricultural bioscience company which focuses on the development of disruptive plant 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.

*Arterra: slower growth
in 2018 but closer to
peers' average in
2019E*

In 2018, Arterra reported an 8% yoy revenue growth, lower than the average of the peers' sample of about 22%. According to 9M results, which show a 39% sales growth, to management guidance and our projections on 2019, sales growth will be closer to peers' average.

Figure 5: Main international listed players in the Industry – yoy growth in 2018



Source: Banca Profilo elaborations on Company data, Factset

Arterra overview and business model

Company overview and activities

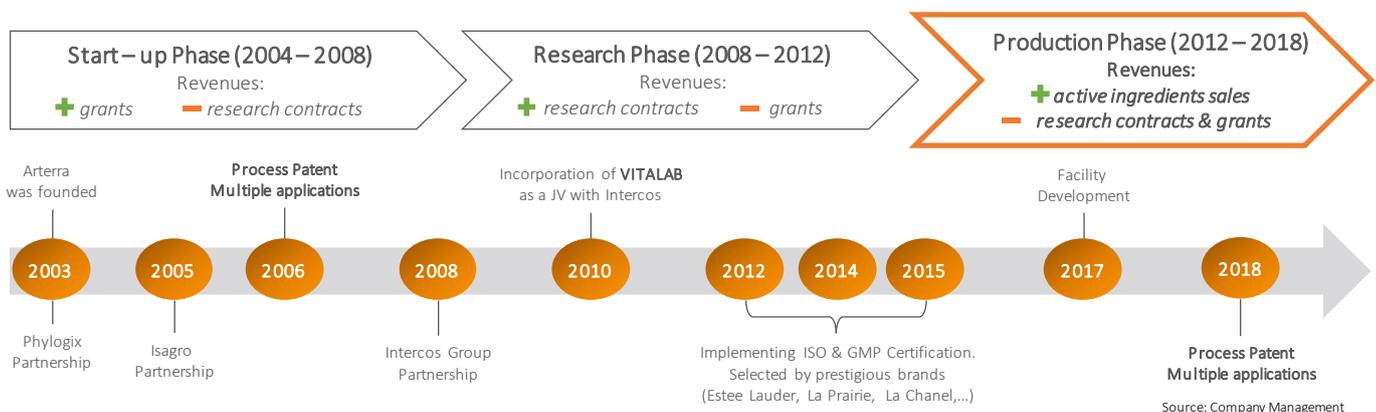
Founded in 2004 by Gabriella Colucci in Naples, as a spin-off of Arena Pharma Biology division (San Diego, USA). A key partner for bio innovation to various end-markets.

Arterra Bioscience was founded in 2004 in Naples by Gabriella Colucci, an Italian Scientist who returned to Italy after more than eight years in San Diego, including 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 bio-technology 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. Arterra is set today to become a key partner for bio solutions and innovation to various end-markets simultaneously. 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. New active ingredients sale at >60% of turnover

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. In 2012, public grants reduced their contribution to sales to less than 40% and revenue from research contracts weighted about 45% of total sales (mainly the research contract with Vitalab worth more than €500k and deriving from the agreement Arterra-Intercos-Vitalab). 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. Today Arterra can count on over 1500sqm of space where research and production work together. In 2018, the turnover from active compounds production represented more than 60% of the total, whereas research grants reduced their contribution below 20%, in line with that of research contracts.

Figure 6: from a research group to a profitable biotech company



Source: Company data

Arterra: research and technology to get valuable molecules from nature and active ingredients from food and agriculture waste. Plant extraction and agrifood 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.

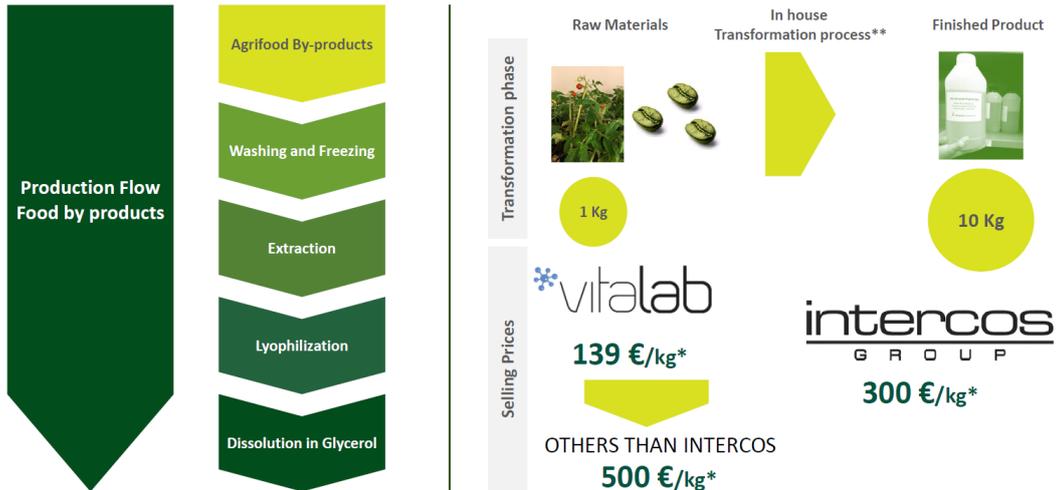
Supported by an excellent research and tech team (half of which holds a Phd in Biology, Biotech, LifeScience or Genetics) and by the long experience and endless passion of Gabriella Colucci, Arterra uses cells from plants or algae as bio-factories to extract and produce, through sustainable procedures, active and valuable molecules (Plants Extraction production process). Moreover, Arterra uses waste from food and agriculture to search for and develop new active ingredients (agrifood by-products production process). More in details, the in-house transformation and production process to get to molecules from plant extraction includes: cell propagation, washing and freezing phases, processing, lyophilisation and dissolution in glycerol. Typically, from 1kg of raw materials the transformation process is able to obtain more than 5kgs of finished product. The agrifood by-products in-house transformation and production process to get to active compounds from food and agriculture waste includes: agrifood-by-products, washing and freezing phases, extraction, lyophilisation and dissolution in glycerol. Typically, from 1kg of raw materials the transformation process is able to 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 end-customer product (skincare products, in cosmetics, for example), from 1kg of active compounds it is possible to obtain from 200kgs (luxury, prestige skincare product) up to 1000kgs of finished goods (mass market, marketing-based skincare product).

Main scientific achievements: patents for a total value higher than €1mln

As of today, Arterra and Vitalab can count on: 15 approved and finance research grants (>25% national and >45% EU), 17 proprietary patents (7 with worldwide applications, >50% in cosmetics, >30% in agriculture), about 30 written articles on well recognized Journals and 1 deposited trademark (Calmberry TM). Arterra's patents have a total value higher than €1mln and include: a methodology to isolate polypeptides to be used in agronomics; microorganisms containing double stranded RNA molecules to be used as pesticides; different compositions used in cosmetics, based on hydro-and liposoluble extracts or derived from tomato cells or as a mixture of peptides and sugars.

Figure 7: Arterra's production flow



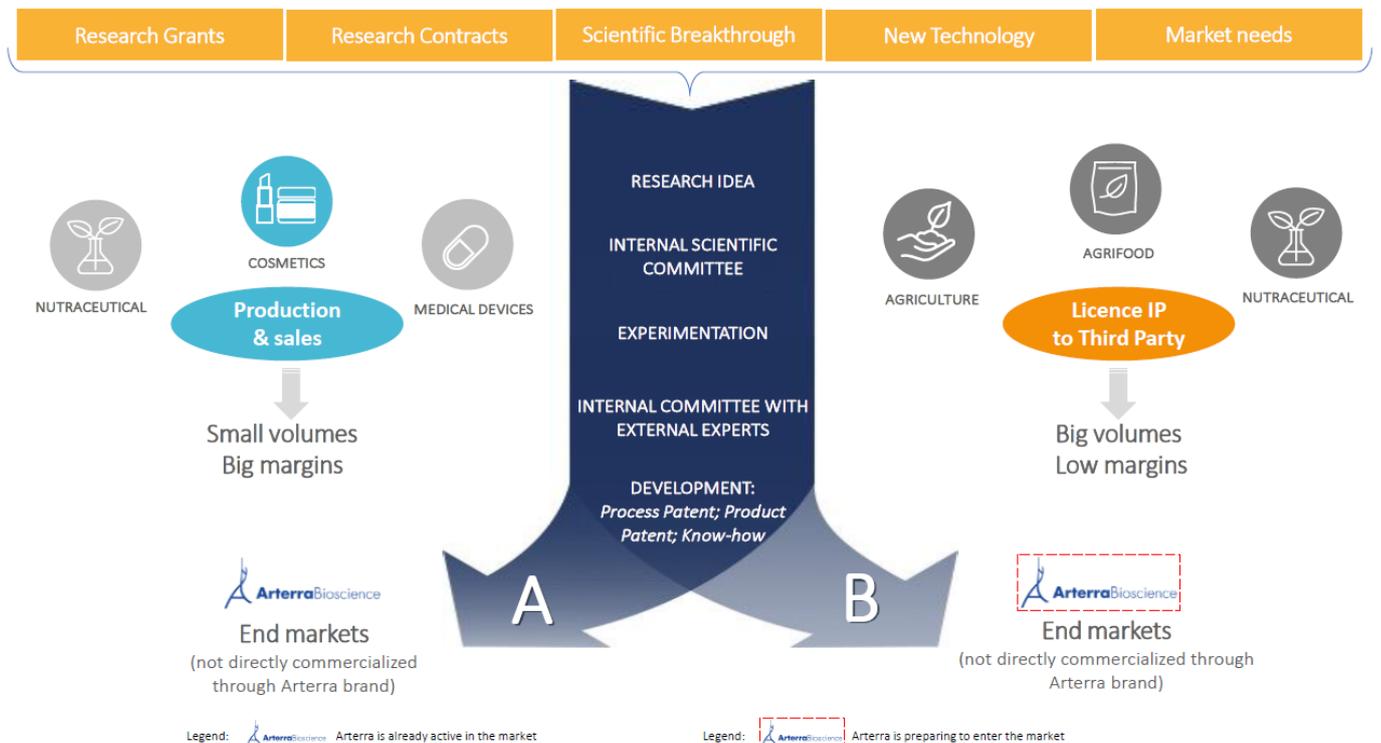


Source: Company data

Value chain: from the research idea to the final product/process to be either sold or licenced out

Arterra’s value chain starts from a Research Idea, driven internally, by scientific breakthrough, supported by research grants or requested by research contracts. All projects are presented to and analysed by an Internal Scientific Committee every month and, if approved, they are assigned to a research scientist. The ongoing projects follow then the experimental procedure and they are presented to and discussed within a Committee of External Experts. Only when solid data support the starting assumptions and reach the desired goal, the products or technology are effectively ready for development. Prototypes are then created, their marketability is evaluated and finally they are ready either for production and distribution or for licencing out the related Intellectual Property (IP).

Figure 8: Arterra research and development value chain



Source Company data

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

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 the potential of the end-market applications. Typically, cosmetics is a high tech industry, made of small volumes, but very high margins; it is an end-market to be well addressed by Arterra’s current and potential bio-factories. On the other hand, agriculture is an industry of typically large volumes, low margins and a very long time to market; it can be well served by Arterra’s through the licencing of its IPs. 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.

Key partnerships: Isagro and Intercos

In Agriculture, Arterra has been selected by Isagro, which invested directly a 22% stake in the Company in 2005. Isagro has become the right channel for the licencing of Arterra’s patented technology in Agrochemical. 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.

Figure 9: Arterra’s reach of global brands in cosmetics



Source: Company data

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. Thanks to this agreement, Arterra is able to sit next to the Head of Research of the most prestigious brands worldwide; this opens the possibility of extending the relationship

and find needs and solutions for other industrial applications within the same multinational groups. As on now, Arterra core end-market is cosmetics and with €1.9mIn turnover in 2018, skincare accounted 63% of total sales. Intercos' contribution to this turnover was 84% in 2018.

Figure 10: Arterra key partnerships and distribution agreements



Source: Company data

A scalable and profitable business model

Bio mass production is a replicable and a low cost process allowing outstanding yields

Arterra's business model is scalable and replicable: research and development in the biofactories are for either production and sales of active ingredients (through Intercos and Vitalab) or for licencing to third parties of in-house developed Intellectual Property (IP) to be applied simultaneously to different end markets and positioning within them (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 food to a bio gastrointestinal defender. The business model is profitable as bio mass production to get innovative active ingredients is a very low cost process. It has set an extremely profitable research at manufacturing business model, where 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 agrifood 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. In 2018, sold volumes in cosmetics were more than 7,000 kgs at an average price of €260; raw materials had a less than 10% incidence on total revenue.

Figure 11: 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 AIM segment of the Italian Stock Exchange on October, 28th 2019 at €2.6/share. The share capital is represented by 6.54mln of shares with a free float of 25% (excluding "key" shareholders with a stake lower than 5%, such as F.Apone, G. Ioimo and Arena Pharmaceuticals).

€6.5mln shares with a 25% free float

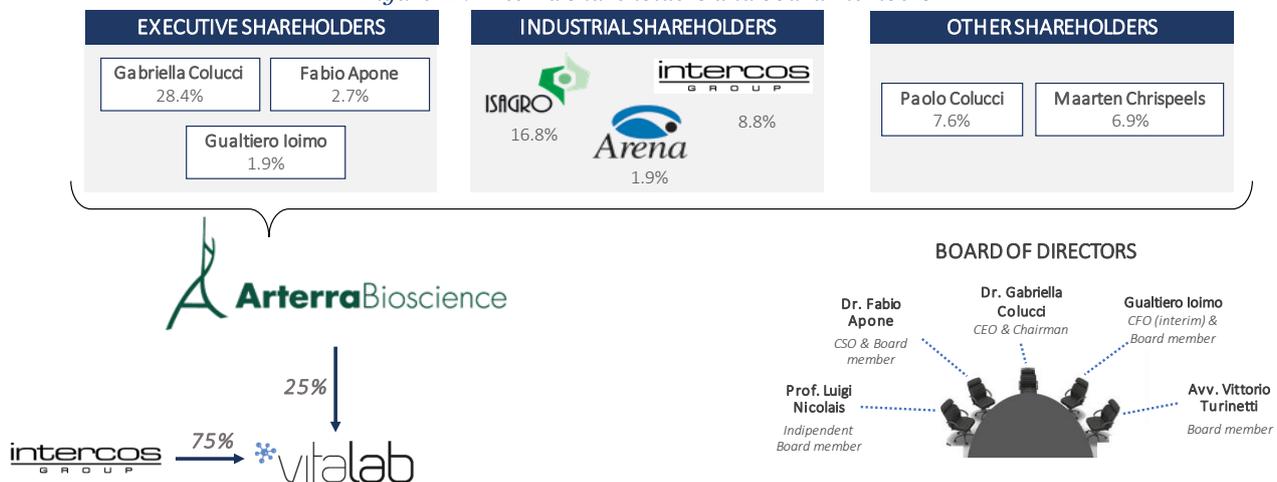
The Company is owned by:

- executive shareholders, the founder Gabriella Colucci with 28.4%, Fabio Apone, PhD in Cell Biology and Scientific Director in Arena with 2.7% and by the Company's advisor and ad interim CFO Gualtiero Ioimo with 1.9%;
- industrial shareholders, the Italian listed company Isagro with 16.8%, the partner in cosmetics Intercos with 8.8% and the US listed (NASDAQ) company Arena with 1.9%;
- other shareholders, Gabriella Colucci's brother Paolo Colucci with 7.6% and Professor Martin Chrispeels (an expert of plant biology, Professor at UCSD and member of the National Academy Society) with 6.9%.

Gabriella Colucci:
Founder, Chairman and CEO
A rare mastermind leaving US and returning to Italy

Arterra's founder and CEO 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 12: Arterra shareholders and board members



Source: Company data. According to Vitalab's by-laws, Arterra is entitled to obtain 40% of Vitalab's distributed income until 10.10.2020. The agreement has been signed because if Arterra held a 40% stake in Vitalab it would lose its status of SME and would need to consolidate all Intercos group, according to the European laws of research funding.

Paolo Colucci

Paolo Colucci, brother of Gabriella, founder of the LCA firm in 2004 and Freshfields Italian offices in 1996.

Gualtiero Ioimo: ad interim CFO. The recruiting process of a CFO has started

Gualtiero Ioimo has been Arterra's business consultant since 1993. He is chartered accountant and auditor since 1995. He covered various roles as business consultant and performed consulting activities in the financial services industry as responsible for several Italian and EU funded Projects. Ad interim, he is the CFO of Arterra, which has planned to hire a new CFO by June 2020. The recruiting process has started.

The Board of Directors

Gabriella Colucci, Fabio Apone (as Chief Scientific Officer), Gualtiero Ioimo sit in the Board of Directors of Arterra which also includes the lawyer Vittorio Turinetti and Professor Luigi Nicolais, an independent board member. He is an expert of materials compounds, he was Ministry of Internal Affairs in Italy and Chairman of Centro Nazionale di Ricerca.

Key partnerships: Isagro, Intercos and Vitalab

In 2005, Isagro acquired a 22% of Arterra and they started a partnership 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 in the first year; thereafter, the same ingredients become to be distributed globally through the joint venture Vitalab.

In 2010, Intercos and Arterra set up a joint venture, Vitalab, to sell active ingredients mainly to global and prestige brands in skincare. The joint venture is 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.

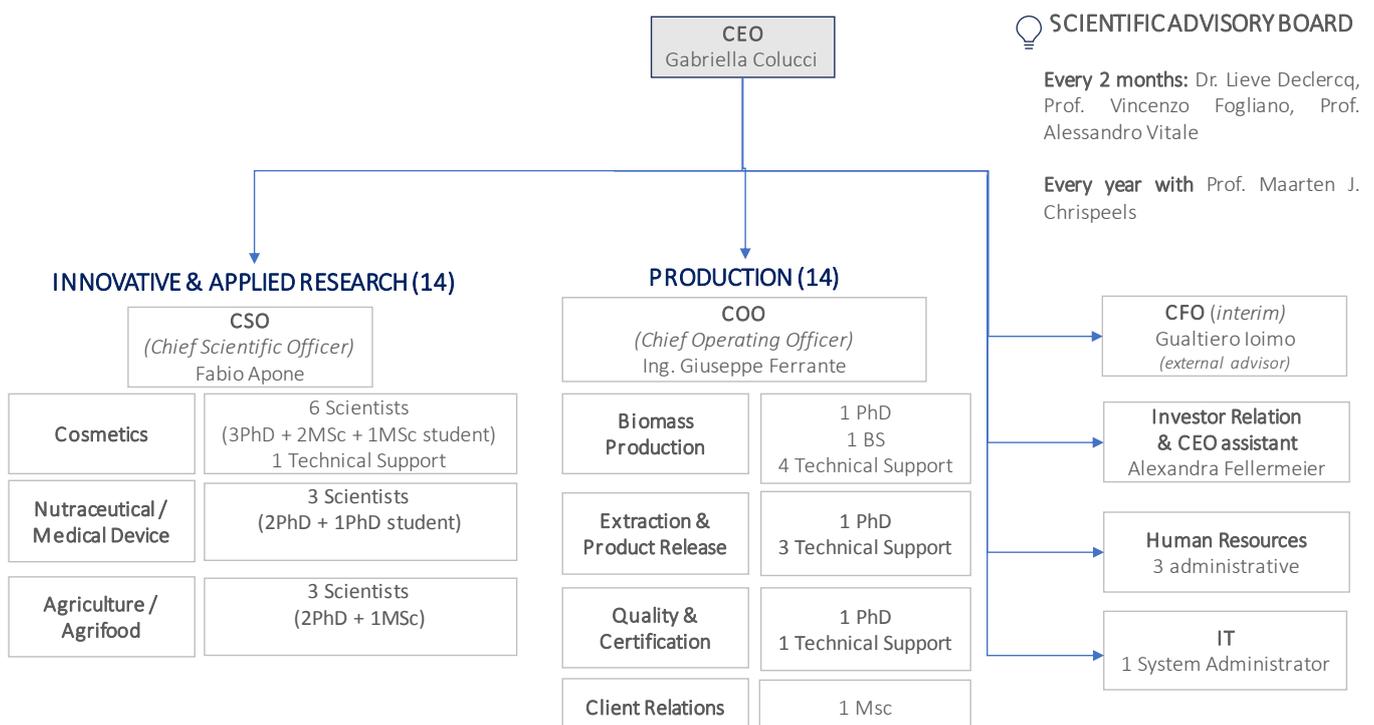
In 2019, Intercos became a shareholders in Arterra after the IPO process.

An outstanding R&D and highly qualified Tech Team

Gabriella Colucci set up an outstanding R&D and highly qualified technology team supported by a Scientific Advisory Board. Fabio Apone is the Chief Scientific Officer. Among 32 employees (including 3 stageurs), there are 11 PhDs, 4 with a Master of Science and 11 with either a Bachelor Degree in Science or a Tech Diploma. The Scientific Advisory Board meets every two months and includes Dr. L.Declercq, Prof. Vincenzo Fogliano, Prof. Alessandro Vitale. Every year Professor Maarten Chrispeels joins the Scientific Advisory Board. In line with the guidance given during the IPO process, Arterra has expanded the Research & Production team and it is in an advanced phase for hiring a Business Developer. It hired a Chief Operating Officer, with solid experience in key industrial groups and manufacturing sectors, to manage production growth and a new PhD in Scienze Agrarie to optimize research techniques and processes to obtain innovative molecules for multiple industrial applications.

The process of hiring for managing production growth and business development has started

Figure 13: Arterra organization



Source: Banca Profilo elaborations on Company data

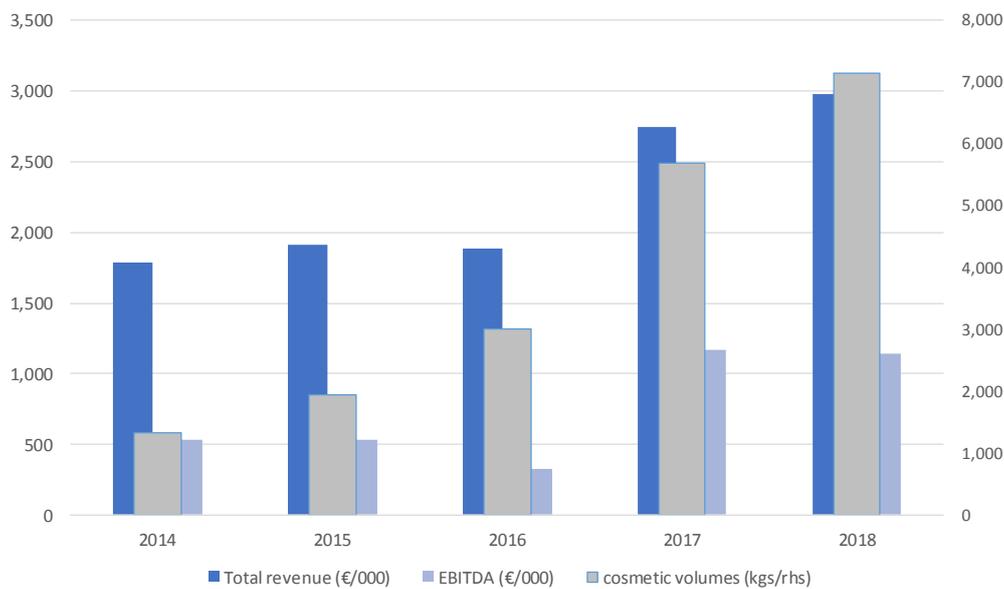
Historical operating and financial performance

Main operating and financial data: 2004-2018

2004-2018:
 > 20% revenue growth
 > 30% EBITDA growth

Since its foundation, in 2004, Arterra has reported an average revenue growth above 20% (CAGR 2004-2018 at 23%) from €164k to €3mln, well above its main reference market, the global cosmetic industry (+4% CAGR 2008-2017). Revenue includes mainly turnover from the selling of active compounds (63% of total revenue in 2018), from research grants (18%) and research contracts (17%). During the same period EBITDA increased from €18k to €1.1mln with EBITDA margin improving from 11% in 2004 to 38% in 2018.

Figure 14: Arterra revenue, selling volumes and EBITDA 2014-2018

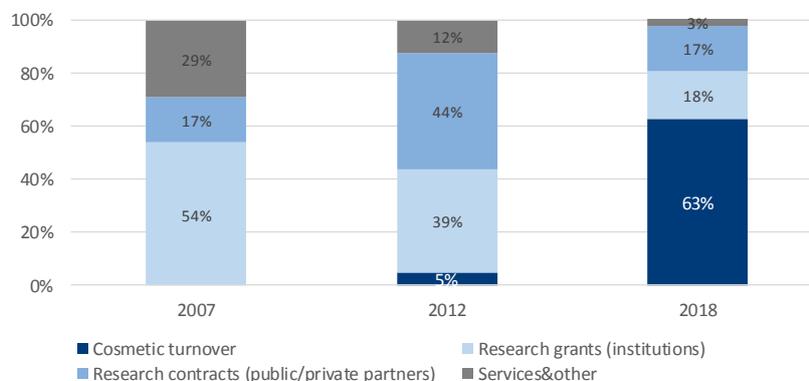


Source: Banca Profilo elaborations on Company data

2014-2018:
 revenue driven by cosmetics
 growth in selling volumes >50%

A revenue breakdown shift has started in 2007 with turnover from active compounds production increasing its weight on total revenue from 5% in 2012 to 63% in 2018. Revenue growth has been mostly driven by the selling of active ingredients to Intercos and Vitalab, therefore to cosmetics end-market (skincare and make up).

Figure 15: Revenue breakdown – 2007, 2012, 2018



Source: Banca Profilo elaborations on Company data

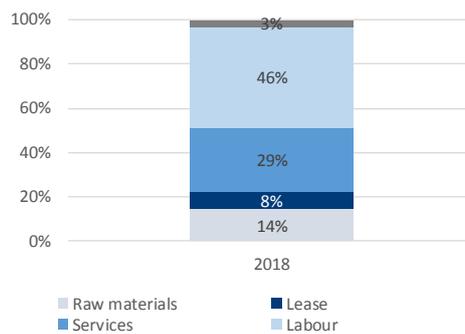
Total selling volumes have increased from 1,324 kgs in 2014 to 7,142 kgs in 2018 (+52% CAGR) and the average selling price has stabilized above €260/kg. Among

skincare active compounds, in 2018 cell culture (33 new raw materials, including 7 that have started commercialization in 2018) weighted more than 75%, followed by plant extraction (4 new active compounds weighting 16% of skincare volumes), agrifood by-products (6 new raw materials contributing with a 5% to skincare volumes) and microalgae (3%).

*Raw material costs not impacting on the P&L
Labour cost partially financed by research projects
Extremely high operating leverage*

Raw material costs basically consist of reagents functional to research, screening and production activities. Their weight on total operating costs is 15% and their incidence on total revenue is less than 10%. Labour is the biggest part of operating costs (>85%) with an incidence on total revenue slightly lower than 30%. Since bio farms are highly productive (from 1kg of plant stem cells to more than 5kgs of active compound or from 1kg of agrifood by-products Arterra’s bio farms can typically develop about 10kgs of active ingredients) and profitable (compounds can be sold in a range of 4x to 10x, in the case of plant stem, and between 20x and 50x in the case of agrifood by-products), the EBITDA margin is rich. Moreover, since between 60% and 80% of the labour cost (scientists and technicians) is linked to single projects and thus partially financially supported by research contracts and projects, the value generation becomes even higher. In other terms, both the productivity and profitability of raw materials and the marginal need of human resources give Arterra’s business model an extremely high operating leverage leading to a stronger increase of EBITDA than revenue growth since 2004 (CAGR 34% vs 23% respectively).

Figure 16: Operating cost structure and composition in 2018

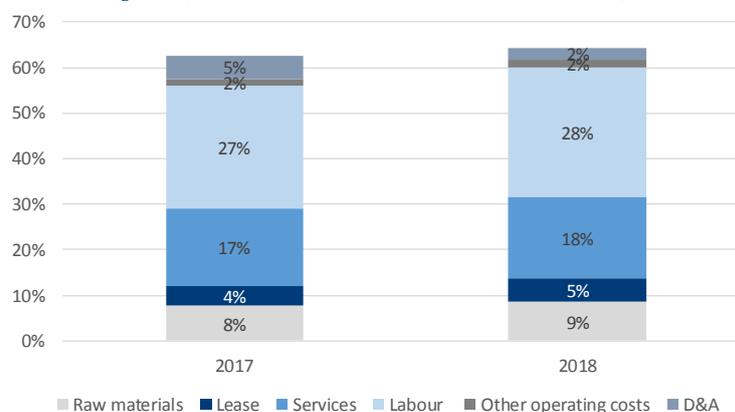


Source: Banca Profilo elaborations on Company data

Patent Box in 2018 with a positive effect on tax rate

D&A showed a 2% incidence on total revenue in 2018 and financial expenses were very little. Net income stood at €745k in 2017 and increased to €1mln in 2018, partially positively influenced by the “Patent Box” which allowed to benefit from a tax reduction on profits from 2015 to 2018, entirely accounted in 2018. Tax rate gained some 20% from its historical 27%.

Figure 17: Cost incidence on total revenue in 2017-18



Source: Banca Profilo elaborations on Company data

EBITDA margin 2018 slightly lower vs 2017 due to the anticipation of some operating costs to support future growth. At 35% in 9M19.

In 2018 the EBITDA margin declined to 38% from 43% in 2017 due to a 15% reduction in research grants, a 10% increase in labour costs and a 15% increase in cost of services and structure as the Company has anticipated some operating expenses to finance the expected revenue growth in 2019. In fact, during the first nine months of 2019 total revenue increased by almost 40% yoy and EBITDA margin improved 260bps to 35%.

Table 1: Profit & Loss 2017-2018

Profit & Loss			
	€/000	2017	2018
Cosmetic turnover		1,503	1,868
Nutraceutical/medical devices turnover		0	0
Research contracts and services		551	559
Licences and royalties			
Total turnover		2,054	2,427
	yoy		18%
cosmetic volumes (kg)		5,690	7,142
	yoy	90%	26%
avg cosmetic price (€/kg)		264	262
research grants and stock changes		692	551
	% on sales	34%	23%
Total Revenue		2,746	2,978
	yoy	45%	8%
	of which		
raw materials cost		(210)	(259)
cost of services		(466)	(533)
	% on total revenue	-25%	-27%
cost of labour		(736)	(847)
	% on total revenue	-27%	-28%
lease		(123)	(146)
other operating costs		(43)	(53)
EBITDA		1,167	1,140
	margin	43%	38%
# employees			20
labor cost per unit			(42)
D&A		(143)	(73)
	% on total revenue	-5%	-2%
EBIT		1,024	1,067
	margin	37%	36%
net financial income (expenses)		(7)	6
	% on total revenue	-0.2%	0.2%
EBT		1,017	1,073
	margin	37%	36%
taxes		(272)	(29)
	tax rate	-27%	-3%
Net income		745	1,044
	% on total revenue	27%	35%

Source: Banca Profilo elaborations on Company data

A solid and well balanced financial structure: €464k net debt in 2018 and €320 net cash in 9M19

On the Balance Sheet side, at the end of 2018, Arterra had €1.1mln of fixed assets, including the equity participation in Vitalab for €452k, properties, general equipment and a software for managing the production process (to be delivered in 2019). Net Operating Working Capital stood at €1.7mln, including receivables referred to grants due for research projects (€1mln) for BNL projects, for CNR's GENOPOM research, MISE and MIUR activities, that we consider in the operating net working capital as they are directly related to Arterra's typical activity generating revenue from research grants.

At the end of 2018, Arterra showed a solid and well balanced financial structure with an adjusted (including the €309k IFRS 16 leasing and excluding the €340k interest bearing financing in favour of Vitalab with maturity in December 2019) net debt of €464k, against an equity of €2.6mln. At the end of September 2019, Arterra showed an adjusted net cash of €318k, which includes IFRS 16 leasing debt and excludes €340k of the credit line in favour of Vitalab.

Table 2: Arterra Balance Sheet 2017-2018

Balance Sheet			
	€/000	2017	2018
tangibles		185	567
intangibles		27	108
financials		462	452
Fixed assets		675	1,127
other current net receivables		131	177
receivables from grants		1,176	1,062
trade receivables		303	630
inventories		263	267
trade paybles		(161)	(257)
Net operating Working Capital		1,582	1,702
<i>% on total revenue</i>		58%	57%
receivables from grants (% grants)		170%	193%
trade receivables (% revenue)		11%	21%
inventories (% revenue)		10%	9%
trade paybles (% COGS)		24%	32%
<i>DSO (days)</i>		44	78
<i>DPO (days)</i>		66	90
<i>DIO (days)</i>		47	40
Capex		50	536
<i>tangible</i>		28	447
<i>intangibles</i>		22	89
<i>% on total revenue</i>		2%	18%
Provisions		(629)	(630)
Invested Capital		1,757	2,375
shareholders' equity		250	250
reserves		720	1,265
net income		745	1,044
Equity		1,715	2,559
Net debt (cash)		42	(185)
cash and cash equivalents		(249)	(738)
short term loans to equity participated		(340)	(340)
bank debt		630	893
leasing (IFRS 16)		389	309
adj Net debt (cash)		771	464

Source: Banca Profilo elaborations on Company data

Cumulated FCFs 2017-2018 at €765k including €590k capex

In 2017-2018 Arterra generated Free Cash Flows for a total of €765k including about €590k of capex, mainly related to the acquisition of a new property in 2018. The Company has distributed a total of €250k of dividend in the 2017-2018 period. Arterra's financial statements are audited by KPMG.

Table 3: Arterra Cash Flows 2017- 2018

Cash Flows			
	€/000	2017	2018
EBITDA		1,167	1,140
tax (figurative)		(312)	(305)
change in Net Working Capital		(219)	(120)
capex		(50)	(536)
Free Cash Flow		586	179

Source: Banca Profilo elaborations on Company data

Main operating and financial data: 2019 so far

9M results:
 cosmetics turnover
 +46% yoy; EBITDA
 margin at 35%

In the first nine months of 2019, total revenue increased by 39% yoy to €2.56mln, including €1.7mln of cosmetic turnover (+46% yoy) and €495k of research grants. The EBITDA stood at €890k with margin increasing from 29% in 9M18 to 35% in 9M19. Net income reached €571k (from €341k a year earlier), showing over 20% of incidence on total revenue.

Table 4: Profit & Loss 9M18-9M19

Profit & Loss			
	€/000	9M18	9M19
Cosmetic turnover		1,141	1,665
yoy			46%
Research contracts and services		421	397
yoy			-6%
Total turnover		1,562	2,061
yoy			32%
cosmetic volumes (kg)		4,424	6,687
yoy			51%
avg cosmetic price (€/kg)		258	249
research grants and stock changes		273	495
% on sales		17%	24%
Total Revenue		1,835	2,556
yoy			39%
raw materials cost		(164)	(325)
cost of services		(390)	(458)
% on total revenue		-30%	-31%
cost of labour		(634)	(784)
% on total revenue		-35%	-31%
lease		(107)	(110)
other operating costs		(43)	(31)
EBITDA		525	890
margin		29%	35%
# employees			28
labor cost per unit			(28)
D&A		(43)	(66)
% on total revenue		-2%	-5%
EBIT		465	826
margin		25%	32%
net financial income (expenses)		2	3
% on total revenue		0.1%	0.1%
EBT		468	829
margin		25%	32%
taxes		(121)	(252)
tax rate		-26%	-30%
Net income		341	571
% on total revenue		19%	22%

Source: Banca Profilo elaborations on Company data

9M results:
 €544k capex;
 €320k adjusted net
 cash
 €870k FCF

At the end of September 2019, Fixed assets rose to €1.7mln from €1mln a year earlier for investments in a new building aimed at extending the production plant, equipment and software for €544k. Adjusted net cash stood at €318k, excluding the loans to Vitalab and including the IFRS 16 leasing. In the first nine months, Arterra generated more than €870k of Free Cash Flows, including €890k EBITDA and €544k capex.

Table 5: Balance Sheet 30.09.19

Balance Sheet			
	€/000	9M18	9M19
tangibles		509	979
intangibles		52	253
financials		462	452
Fixed assets		1,023	1,684
other current net receivables		174	203
receivables from grants		1,403	413
trade receivables		296	360
inventories		212	286
trade paybles		(121)	(119)
Net operating Working Capital		1,791	939
	<i>% on total revenue</i>	<i>n.a.</i>	<i>66%</i>
	receivables from grants (% grants)		<i>190%</i>
	trade receivables (% revenue)		<i>30%</i>
	inventories (% revenue)		<i>20%</i>
	trade paybles (% COGS)		<i>12%</i>
Capex		<i>n.a.</i>	544
	<i>tangible</i>		531
	<i>intangibles</i>		13
	<i>% on total revenue</i>		<i>1%</i>
Provisions		(736)	(606)
Invested Capital		2,252	2,219
shareholders' equity		250	250
reserves		1265	2009
net income		341	571
Equity		1,856	2,831
Net debt (cash)		50	(967)
cash and cash equivalents		(492)	(1,751)
short term loans to equity participated		(340)	(340)
bank debt		881	1,125
leasing (IFRS 16)		309	309
adj Net debt (cash)		699	(318)

Strategy and estimates

Corporate strategy

Main strategy is to grow in cosmetics even beyond Intercos through investments in: resources and equipment to scale up production and enter in the most active end-markets in bio innovation

Main corporate strategy is to:

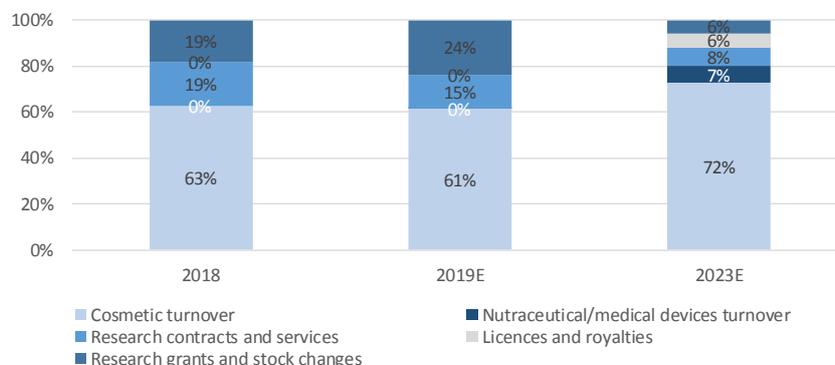
- expand its research activity attracting specialised resources, from scientists in the reference end-markets, to business developers to better reach new industries, to production specialists and technicians to adopt smarter, more effective and automatized production processes;
- extend the application of its technological platforms and active ingredients to end markets, the most active in bio innovation such as nutraceutical, agrifood and medical devices;
- invest in new production equipment to scale up the production capacity and develop its valuable molecules production well over its current capacity of some 10,000 kgs / year;
- external growth 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.

Our estimates 2019E-2023E

We expect 22% revenue CAGR 2018-2023 to €8mln of which: cosmetics 72% nutraceutical 7% royalties from IPs at €500k research grants down to 6% only of total turnover

We expect Arterra to grow its selling volumes in cosmetics to Intercos and to Vitalab to reach global multinational brands in skincare; we estimate cosmetics turnover to move from 63% in 2018 to 72% of total revenue in 2023. We project Arterra to enter the nutraceutical market very gradually from 2020 with a goal of reaching €600k in 2023 or 7% of total revenue; to extend the selling of IPs with a goal of turnover by royalties at €500k in 2023 or 6% of total revenue and to gradually increase the research contracts to finance bio innovation with a target above €600k in 2023 or 8% of total revenue. As the turnover from the selling of active compounds, royalties and research contracts increases, we estimate a lower incidence of research grants, which we see at €460k in 2023 or 6% of total turnover. As a consequence, we project a 22% revenue 2018-2023E CAGR for the Company to reach €8mln in 2023. Selling volumes of active compounds are seen above 22,000 kgs in 2023E from just above 7,000 kgs in 2018.

Figure 18: Arterra revenue trend by type 2018, 2019 and 2023E



Source: Banca Profilo elaborations and estimates on Company data

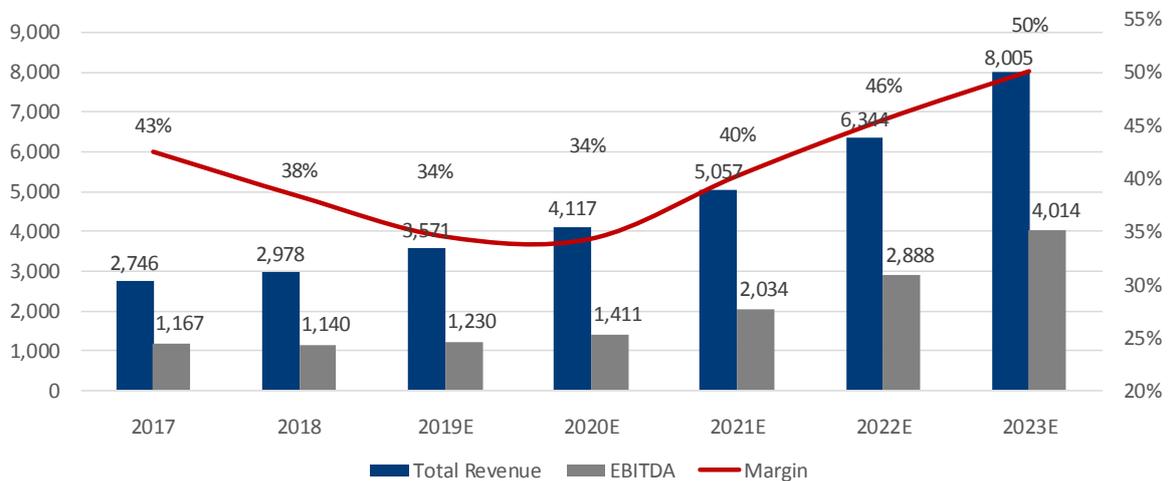
*In 2019, we estimate total revenue +20% yoy to €3.6mln of which cosmetics at 61%
9M19: revenue €2.6mln (+39% yoy)*

We expect 29% CAGR 2018-2023E in EBITDA to close to €4mln; EBITDA margin to improve to 50% thanks to strong operating leverage

More in details, in 2019 we estimate €3.57mln of total revenue (+20% yoy), which include €2.2mln of cosmetic turnover (€8,800 kgs of cosmetics selling volumes at an average price of €250/kg), €530k of research contracts turnover and €750k of research grants. In the first nine months of 2019 Arterra sold more than 6,600 kgs of active compounds (+51% yoy) to cosmetics and generated total revenue for €2.56mln (+39% yoy).

In 2018-2023E, we expect Arterra to increase its EBITDA from €1.1mln to some €4mln (CAGR 29%) and EBITDA margin to improve from 38% to 50%. More in details, in the period we kept raw materials at an average of 28% of total revenue (from 27% in 2018), we increased the number of employees from 20 in 2018 to 40 in 2023, including new scientists, technicians, one business developer and a CFO with labour cost to reduce its weight on total revenue from 28% in 2018 to 20% in 2023. In 2019E and 2020E we projected EBITDA margin at 34% for the significant hirings in these two years, in line with the target of scaling up production, enter in new end-markets and set up a structured management team.

Figure 19: Revenue, EBITDA and EBITDA margin 2017-2023E



Source: Banca Profilo elaborations and estimates on Company data

*D&A is seen increasing in line with capex.
Tax rate still low for Patent Box in 2019E
Net income projected at €2.2mln in 2023*

For the 2018-2023E period, we estimated increasing D&A from €73k to €1mln in 2023E and an incidence on total revenue from 2% to above 10% for the planned investment in bio factories, including physical space, equipment and technology to enhance cellular growth.

Finally, we project Arterra to reach a net income of €2.2mln in 2023, including a reduced tax rate at 10% in 2019 given the expected renewal of Patent Box and a regular 27% of tax rate from 2020.

Table 6: Arterra Profit & Loss 2017-2023E

Profit & Loss								
	€/000	2017	2018	2019E	2020E	2021E	2022E	2023E
Cosmetic turnover		1,503	1,868	2,191	2,970	3,713	4,641	5,801
Nutraceutical/medical devices turnover		0	0	0	50	150	300	600
Research contracts and services		551	559	529	556	583	612	643
Licences and royalties		0	0	0	10	100	300	500
Total turnover		2,054	2,427	2,721	3,586	4,546	5,853	7,544
	yoy		18%	12%	32%	27%	29%	29%
cosmetic volumes (kg)		5,690	7,142	8,803	11,443	14,304	17,880	22,350
	yoy		26%	23%	30%	25%	25%	25%
avg cosmetic price (€/kg)		264	262	249	260	260	260	260
research grants and stock changes		692	551	850	531	511	491	461
	% on sales	34%	23%	31%	15%	11%	8%	6%
Total Revenue		2,746	2,978	3,571	4,117	5,057	6,344	8,005
	yoy	45%	8%	20%	15%	23%	25%	26%
	of which							
raw materials cost		(210)	(259)					
cost of services		(466)	(533)	(1,107)	(1,147)	(1,383)	(1,735)	(2,190)
	% on total revenue	-25%	-27%	-31%	-28%	-27%	-27%	-27%
cost of labour		(736)	(847)	(1,046)	(1,372)	(1,453)	(1,533)	(1,614)
	% on total revenue	-27%	-28%	-29%	-33%	-29%	-24%	-20%
lease		(123)	(146)	(147)	(147)	(147)	(147)	(147)
other operating costs		(43)	(53)	(41)	(41)	(41)	(41)	(41)
EBITDA		1,167	1,140	1,230	1,411	2,034	2,888	4,014
	margin	43%	38%	34%	34%	40%	46%	50%
# employees		n.a.	20	28	34	36	38	40
labor cost per unit			(42)	(37)	(40)	(40)	(40)	(40)
D&A		(143)	(73)	(245)	(507)	(687)	(867)	(1,047)
	% on total revenue	-5%	-2%	-7%	-12%	-14%	-14%	-13%
EBIT		1,024	1,067	986	904	1,347	2,021	2,967
	margin	37%	36%	28%	22%	27%	32%	37%
net financial income (expenses)		(7)	6	38	45	53	69	94
	% on total revenue	-0.2%	0.2%	1.1%	1.1%	1.1%	1.1%	1.2%
EBT		1,017	1,073	1,024	949	1,400	2,090	3,062
	margin	37%	36%	29%	23%	28%	33%	38%
taxes		(272)	(29)	(100)	(254)	(374)	(559)	(819)
	tax rate	-27%	-3%	-10%	-27%	-27%	-27%	-27%
Net income		745	1,044	924	696	1,026	1,531	2,243
	% on total revenue	27%	35%	26%	17%	20%	24%	28%

Source: Banca Profilo elaborations and estimates on Company data

Balance Sheet projections: €5.3mln cumulated capex to scale up production and optimize cellular growth processes

Regarding our projections (2019E-2023E) of the Company Balance Sheet, we have included:

- €5.3mln cumulated capex in five years for the development of the bio factories, including physical spaces, equipment and technology to managing and enhancing cellular growth; in 2019 we see €1.7mln capex, including some €800k of capitalized IPO costs, and the rest in the beginning of the development of the bio factories as said and announced during the IPO;
- €800k of operating working capital increase in five years with a decreasing incidence on total revenue (from 57% in 2018 to 31% in 2023E) driven both by increasing turnover and to the lower weight of receivables for research grants which are expected to reduce their weight on total revenue.

Our projections in 2019E include the IPO proceeds and capital increase with a Net Equity at the end of 2019 seen at €7.4mln including net IPO proceeds for about €4mln. Therefore, at the end of 2019 we end up with net cash at €3.1mln.

Table 7: Arterra Balance Sheet evolution 2017-2023E

Balance Sheet							
€/000	2017	2018	2019E	2020E	2021E	2022E	2023E
tangibles	185	567	1294	1689	1939	2046	2009
intangibles	27	108	854	852	815	742	632
financials	462	452	452	452	452	452	452
Fixed assets	675	1,127	2,600	2,993	3,207	3,240	3,094
other current net receivables	131	177	177	177	177	177	177
receivables from grants	1,176	1,062	1,427	982	920	859	784
trade receivables	303	630	726	823	1,011	1,269	1,601
inventories	263	267	331	382	469	589	743
trade paybles	(161)	(257)	(311)	(322)	(389)	(488)	(615)
Net operating Working Capital	1,582	1,702	2,173	1,866	2,012	2,230	2,513
% on total revenue	58%	57%	61%	45%	40%	35%	31%
receivables from grants (% grants)	170%	193%	168%	185%	180%	175%	170%
trade receivables (% revenue)	11%	21%	20%	20%	20%	20%	20%
inventories (% revenue)	10%	9%	9%	9%	9%	9%	9%
trade paybles (% COGS)	24%	32%	28%	28%	28%	28%	28%
Capex	50	536	1,718	900	900	900	900
tangible	28	447	923	800	800	800	800
intangibles	22	89	795	100	100	100	100
% on total revenue	2%	18%	48%	22%	18%	14%	11%
Provisions	(629)	(630)	(630)	(630)	(630)	(630)	(630)
Invested Capital	1,757	2,375	4,319	4,405	4,765	5,016	5,152
shareholders' equity	250	250	327	327	327	327	327
reserves	720	1,265	6,226	7,150	7,845	8,871	10,403
net income	745	1,044	924	696	1,026	1,531	2,243
Equity	1,715	2,559	7,477	8,173	9,199	10,730	12,973
Net debt (cash)	42	(185)	(3,158)	(3,768)	(4,434)	(5,714)	(7,821)
cash and cash equivalents	(249)	(738)					
short term loans to equity participated	(340)	(340)					
bank debt	630	893					
leasing (IFRS 16)	389	309					
adj Net debt (cash)	771	464	(3,158)	(3,768)	(4,434)	(5,714)	(7,821)

Source: Banca Profilo elaborations and estimates on Company data

Free Cash Flows
€3.1mln in five years
Including €4.5mln
normalized capex

Arterra is expected to improve its cash generation capacity and we project €3.1mln of cumulated Free Cash Flows in 2019E-2023E, after having invested a total of €4.5mln in fixed assets, capitalized €780k of IPO costs, and financed €800k of operating net working capital change.

We included no dividend distribution in our estimates, in line with the Company's policy to retain most of its net profit for growth.

Table 8: Arterra Free Cash Flow evolution 2017-2021E

Cash Flows							
€/000	2017	2018	2019E	2020E	2021E	2022E	2023E
EBITDA	1,167	1,140	1,230	1,411	2,034	2,888	4,014
tax (figurative)	(312)	(305)	(329)	(377)	(544)	(772)	(1,073)
change in Net Working Capital	(219)	(120)	(471)	308	(146)	(217)	(283)
capex	(50)	(536)	(936)	(900)	(900)	(900)	(900)
Free Cash Flow	586	179	(506)	441	444	998	1,758

Source: Banca Profilo elaborations and estimates on Company data

Business plan execution risks

Main risk to our estimates is Arterra's effective capacity to diversify into new end-markets, within the planned time to market, to scale up production and use its strong operating leverage, to strongly grow in cosmetics beyond Intercos, through the commercial and distribution strength of Vitalab. Another risk might be the difficulty to maintain the independence of its active compounds in terms of applications. Finally, the right strengthening of management, especially in the business development, remains a key factor for Arterra's solid and profitable growth.

The recruiting process of new managers has started

In line with the Use of Proceeds declared during the IPO process, Arterra has expanded the Research & Production team, hiring a Chief Operating Officer, with solid experience in key industrial groups and manufacturing sectors, to manage production growth and a new PhD in Scienze Agrarie to optimize research techniques and processes to obtain innovative molecules for multiple industrial applications. Furthermore, it has started the recruiting process for both the Chief Financial Officer and the Business Developer. Concerning the scaling up of production, some €500k investments have been done in the first nine months of 2019, mostly for upgrading research and increase production with further capex planned in 2020.

€500k capex in physical space, research and production equipment

9M19 results on track to our FY19 estimates

Our targets for 2019 are very in line with what the Company has already reached in the first nine months:

- €3.6mln revenue in FY19E vs €2.6mln reached in 9M19
- €1.2mln EBITDA in FY19E vs €890k reached in 9M19
- €920K net income vs €571k reached in 9M19

Valuation

DCF approach well appraises the cash generating business

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

The relative market multiples approach can also be used

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

DCF valuation

DCF assumptions:

To run a DCF model, we use our projections of FCF for the 2020E-23E explicit period: cumulated Free Cash Flows for €3.6mln or about €900k as yearly average.

€3.6mln of cumulated FCFs

In order to assess the Terminal Value, we factor in:

- an annual FCF generation of €1.4mln
- perpetual growth rate of 2%.

€1.4mln as Terminal Value cash flow

In order to get to the Equity Valuation we would consider our projected adjusted net cash at the end of 2019 (3.1mln).

Table 9: DCF valuation

DCF Valuation	2019E	2020E	2021E	2022E	2023E	over
Free Cash Flows (€/000)	(506)	441	444	998	1,758	1,378
years	0	1	2	3	4	4
discount factor	1.00	0.93	0.87	0.81	0.75	0.75
NPV Cash flows (€/000)	(506)	411	385	806	1,321	
Sum of NPVs (€/000)						2,922
Terminal Value (€/000)						25,526
NPV Terminal Value (€/000)						19,186
Enterprise Value (€/000)						22,108
peripheral assets: Vitalab (@40%)						5,232
Net debt 2019E (€/000)						-3,158
Equity Value (€/000)						30,498
number of shares (mln)						6.5
Per share value (€)						4.7

Source: Banca Profilo estimates and elaborations

7.4% WACC

We use a WACC of 7.4%, derived from:

- risk free rate of 3.8%, as implicitly expected by consensus on the 30Y Italian BTP yield curve;
- market risk premium of 5%;
- beta of 0.9, coming from the average of chosen listed peers to Arterra;
- debt to equity target structure with an 85% weight on Equity.

Table 10: WACC calculation

WACC Calculation	
perpetual growth rate	2.0%
WACC	7.4%
risk free rate (30Y) (Bloomberg projections)	3.8%
equity risk premium	5.0%
beta	0.9
KE	8.5%
costo del debito	1%
tax rate	27%
KD	1%

Source: Banca Profilo estimates and elaborations

DCF valuation:
Equity €30.5mln or
€4.7/share

We run the DCF model and end up with and Enterprise Value of €27mln and, therefore an Equity Value of €30.5mln or €4.7/share.

Relative market multiples valuation

EV/SALES and EV/EBITDA used to assess the market multiples valuation of Arterra according to two selected sub-samples

In order 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, Deinove, Evolva, Fermentalg, Plant Advanced Technologies, Codexis and Yield10 Bioscience;
- a second sub-sample of Arterra's peers, mainly by margins and cash flow generation, including Croda, Symrise, Novozymes, Clariant, Evonik, Lonza and Ashland.

Table 11: Sample benchmarking on revenue growth and EBITDA margin

Company	Currency	Market Cap (mln)	Enterprise Value (mln)	Sales growth				EBITDA margin			
				2018	2019E	2020E	2021E	2018	2019E	2020E	2021E
				10/01/2020							
BRAIN	EUR	206	220	21.3%	25.4%	10.2%	10.3%	-17.8%	-7.5%	1.4%	10.6%
Croda	GBP	6,522	7,025	1.0%	1.2%	2.6%	4.0%	28.5%	28.9%	29.4%	30.3%
Symrise	EUR	12,194	13,935	5.3%	7.8%	10.9%	6.2%	20.0%	20.8%	21.4%	21.7%
Deinove	EUR	18	33	254.7%	71.3%	215.4%	124.4%	-1234.0%	-904.2%	-268.5%	n.a.
Evolva	CHF	167	129	30.9%	33.7%	48.7%	102.3%	-260.4%	-126.1%	-65.5%	-5.0%
Fermentalg	EUR	36	45	-46.6%	766.6%	147.4%	85.1%	-3002.0%	-275.5%	-39.6%	3.8%
Plant Advanced Technologies	EUR	21	23	37.5%	27.3%	42.9%	n.a.	n.a.	n.a.	n.a.	n.a.
Novozymes	DKK	76,397	79,866	-1.0%	0.0%	3.5%	5.0%	35.8%	35.2%	34.5%	34.5%
Codexis	USD	1,054	989	21.1%	17.5%	15.7%	23.2%	-3.8%	-9.0%	-3.8%	-2.5%
Yield10 Bioscience	USD	7	10	-38.2%	53.0%	22.0%	201.5%	-1508.0%	-918.6%	-780.6%	-180.4%
Clariant	CH	7,133	8,657	3.9%	-33.8%	3.4%	4.3%	15.4%	16.2%	16.7%	17.2%
Evonik Industries	DE	12,419	14,490	4.2%	-12.8%	2.4%	3.6%	17.3%	16.4%	16.2%	16.8%
Lonza Group	CH	26,503	29,505	8.6%	6.2%	6.7%	7.4%	27.3%	27.1%	27.4%	28.5%
Ashland	USA	4,480	5,895	1.4%	-27.4%	0.0%	n.a.	18.8%	21.4%	22.3%	n.a.
Mean best peers				40.1%	142.1%	71.8%	91.1%	23.3%	23.7%	24.0%	24.8%
Arterra	ITA	24.2	21.1	8.4%	19.9%	15.3%	22.8%	38.3%	34.5%	34.3%	40.2%

Source: Banca Profilo estimates and elaborations on Factset

EV/SALES: 6.9x
EV/EBITDA: 13.1x

Consistently with our sample split up, we use the average EV/SALES 2020E-2021E at 6.9x of the first sub-sample and the average EV/EBITDA 2020E-2021E at 13.1x of the second sub-sample to our estimates of Arterra sales and EBITDA for the same years. Arterra currently trades at some 30% discount on the first sub-sample mean for lower potential revenue growth and basically in line on the second sub-sample, even if it shows much higher marginality.

Table 12: Market multiples

Company	EV / Sales			EV / EBITDA			
	10/01/2020	2019E	2020E	2021E	2019E	2020E	2021E
BRAIN		5.7x	5.2x	4.7x			n.m.
Croda		5.0x	4.9x	4.7x	17.3x	16.6x	15.5x
Symrise		4.1x	3.7x	3.5x	19.7x	17.3x	16.1x
Deinove		25.1x	8.0x	3.5x			n.m.
Evolva		10.8x	7.3x	3.6x			n.m.
Fermentalg		21.0x	8.5x	4.6x			n.m.
Plant Advanced Technologies		16.7x	11.7x	n.a.			n.m.
Novozymes		5.5x	5.4x	5.1x	15.8x	15.6x	14.8x
Codexis		13.9x	12.0x	9.7x			n.m.
Yield10 Bioscience		11.4x	9.3x	3.1x			n.m.
Clariant					12.2x	11.5x	10.6x
Evonik Industries			n.m.		6.7x	6.7x	6.2x
Lonza Group					18.5x	17.1x	15.3x
Ashland					11.1x	10.6x	9.7x
Mean best peers			8.9x	4.9x		13.6x	12.6x
Arterra			5.1x	4.2x		14.9x	10.4x
<i>premium (discount) on best peers</i>			<i>-42%</i>	<i>-15%</i>		<i>10%</i>	<i>-18%</i>

Source: Banca Profilo estimates and elaborations, Factset

Market multiples valuation: €29.6mIn or €4.5/share

We end up with an Equity Value of €29.6mIn or €4.5/share, including a 15% liquidity discount and an Equity valuation of Vitalab (at 40% stake) on the same mean EV/SALES 2020-2021 of 6.9x.

Table 13: Market multiples valuation

Valuation on market multiples (€/000)					
Arterra on EV/SALES (business + growth)	2020	2021	Arterra on EV/EBITDA (margins + cash flow generation)	2020	2021
EV/Sales best peers	8.9x	4.9x	EV/EBITDA best peers	13.6x	12.6x
avg EV/Sales 2020-2021	6.9x		avg EV/EBITDA 2020-2021	13.1x	
sales	4,117	5,057	EBITDA	1,411	2,034
net debt 2019E		-3,158	net debt 2019E		-3,158
EV	36,436	24,684	EV	19,219	25,633
Equity	39,594	27,842	Equity	22,376	28,791
Average 2020-2021	33,718		Average 2020-2021	25,584	
Vitalab (@ 40%) on EV/SALES	2020	2021	Vitalab (@ 40%) on EV/SALES		
EV/Sales	8.9x	4.9x			
avg EV/Sales 2020-2021	6.9x				
sales	1,750	2,187			
net debt (adj)					
EV	15,485	10,675			
Equity	15,485	10,675			
Average 2020-2021 (40% stake)	5,232				5,232
Arterra (including Vitalab @40%)	2020	2021	Arterra (including Vitalab @40%)	2020	2021
liquidity discount		15%			15%
Average 2020-2021	33,107				26,193
Average 2020-2021 EV/SALES - EV/EBITDA					
29,650					

Source: Banca Profilo estimates and elaborations, Factset

Valuation: 12-month TP at €4.3

Recommendation: HOLD

We set our 12-month target price at €4.3/share, which includes the current developing phase of Arterra's business, the structuring phase of its management team and the set up phase of its production scale-up. Given a 16% upside on Arterra's price (€3.7 as of January, 10th), we set our recommendation at HOLD.



Arterra "ID Card"

Recommendation

HOLD

Target Price

4.3 €

Upside

16%

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 hound 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

Opportunities

- Bioscience great momentum as product sustainability has become the key mission of many industries
- Significant growth potential and resilience of Arterra's main end-market, the cosmetic industry

Weaknesses

- Small size of the business
- End-markets concentration, mostly cosmetics
- Not yet structured management for business development

Threats

- Effective end-markets diversification within the planned time frame
- Potential difficulty in maintaing 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

HOLD

4.3 €

16%

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Main Financials					
(€/000)	2017	2018	2019E	2020E	2021E
Total revenue	2,746	2,978	3,571	4,117	5,057
yoy change	45.3%	8.4%	19.9%	15.3%	22.8%
EBITDA	1,167	1,140	1,230	1,411	2,034
EBITDA margin (%)	42.5%	38.3%	34.5%	34.3%	40.2%
EBIT	1,024	1,067	986	904	1,347
EBIT margin (%)	37.3%	35.8%	27.6%	22.0%	26.6%
Net income	745	1,044	924	696	1,026
Margin (%)	27.1%	35.1%	25.9%	16.9%	20.3%
Adjusted net debt (cash)	771	464	(3,158)	(3,768)	(4,434)
Shareholders Equity	1,715	2,559	7,477	8,173	9,199
Net Operating Working Capital	1,582	1,702	2,173	1,866	2,012
Capex and acquisitions	50	536	1,718	900	900
Free Cash Flow	586	179	(506)	441	444

Company Description

Company Sector	BioScience
Price (€)	3.7
Number of shares (mln)	6.5
Market Cap (€ mln)	24.2
Reference Index	FTSE AIM ITALIA
Main Shareholders	Gabriella Colucci, Isagro
Main Shareholder stake	28.4%
Free Float	24.9%
Daily Average Volumes	91,110
Sample of comparables	BRAIN, Croda, Symrise, Deinove, Evolva, Fermentalg, Plant Advanced Technologies, Novozymes, Codex, Yield10 Bioscience

Breakdown by business unit			
(% of total sales)	2018	2019E	2023E
Cosmetic turnover	63%	61%	72%
Nutraceutical/medical devices turnover	0%	0%	7%
Research contracts and services	19%	15%	8%
Licences and royalties	0%	0%	6%
Research grants	19%	24%	6%

Data of peers				
	2018	2019E	2020E	2021E
Revenue Growth (yoy)	40%	142%	72%	91%
EBITDA Margin	23%	24%	24%	25%

Average data

Solvency Ratios					
	2017	2018	2019E	2020E	2021E
Net debt (cash) / EBITDA	0.7x	0.4x	-2.6x	-2.7x	-2.2x
Net debt (cash) / Equity	0.4x	0.2x	-0.4x	-0.5x	-0.5x

Multiples of peers			
	2020E	2021E	
Best peers (business and potential growth)			
EV / SALES	8.9x	4.9x	
Best peers (margins and cash flows)			
EV / EBITDA	13.6x	12.6x	

Financial and Operative ratios					
	2017	2018	2019E	2020E	2021E
Tax rate	-27%	-3%	-10%	-27%	-27%
ROIC	58%	45%	23%	21%	28%
ROE	43%	41%	12%	9%	11%
Capex/Sales	2%	18%	48%	22%	18%
D&A to capex	n.m.	14%	26%	56%	76%

Source: Factset, Banca Profilo estimates and elaborations

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