Banca Profilo

Company Update

Covid-19: greater focus on science innovation support needed from solid biotech research

ArterraBioscience

May, 20th 2020 at 18:00

Arterra: an Italian, research-based yet market-oriented biotech company
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. 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 four years of leading the Plant Biology Team at Arena Pharmaceuticals, in San Diego.

A scalable and profitable business model
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 €3.6mln in 2019, well above its main reference market, the global cosmetic industry, which has been growing at low-single digit pace. Arterra's revenue includes mainly turnover from the selling of active compounds (60% of total revenue), from research grants (25%) and research contracts (15%). EBITDA has always been positive (opposite to the Industry average) and increased from €18k to €1.2mln with EBITDA margin improving from 11% in 2004 to 34% in 2019. Cumulated Free Cash Flows in 2017-2019 were over €1.4mln including capex for over €1.7mln to enhance research activity and scale-up production. In 2019, this positive trend has been confirmed: revenue rose 22% to €3.6mln driven by cosmetic sales (+18%) and EBITDA margin stood at 34%, losing 400pbs from 2018 due to higher costs for personnel for the strengthening and upgrading of the organization with new experienced researchers and a COO to enhance scientific innovation and for business development in new sectors. 2019 numbers were in line with our estimates. R&D worked on innovation not only in cosmetics but also in nutraceutical and agrifood; brought 3 new active compounds in cosmetics and 5 new patents. At the end of 2019, the adjusted net cash position stood at €3.5mln, including IPO proceeds.

Corporate strategy confirmed
Covid-19 emergency and lockdown has put greater focus on scientific research. Big multinational players in various sectors are looking for scientific innovation and need the solid experience of a biotech company such as Arterra. Furthermore, whatever the direction the final demand takes in a scenario of global change of customers' perceptions and lifestyle, Arterra will promptly respond since its active compounds are able to serve from the luxury to the mass market. Therefore, Arterra confirms its strategy in terms of scientific innovation, sectors diversification and production scale-up.

Estimates revision on 2020E-2023E
We revised our estimates considering 2019 results, the dynamics of the first months of 2020 including the negative effects of Covid-19 emergency: in 2020, we now expects flat revenue (from +15%), a lower EBITDA margin (30% from previous 34%) for hiring needs to strengthen the organization and lower FCFs for significant investments in equipment to scale up research activity and production. In 2019-2023E, we expect 18% revenue CAGR (vs previous 22%) to €7mln, including cosmetics at 70%, medical devices at 8%, IP licences at 7% and research grants below 10%. We forecast EBITDA margin to improve to 48% (vs previous 50%). Main risk to our estimates remain Arterra's effective capacity to diversify into new end-markets, within the planned time to market, and to strongly grow in cosmetics even beyond Intercos.

Valuation: 12-month target price at €4.3; BUY
We run a DCF approach on a Terminal Value FCF of some €1.4mln and set a 7.4% WACC. The international competitive arena includes a suitable sample of listed comparable: we run a relative market multiples valuation on the average 2020E and 2021E EV/SALES at 8.1x and EV/EBITDA at 14.2x. We confirm our 12-month target price at €4.3/share. Given the potential upside (above 30%) on Arterra's price (€3.15 as of May, 19th), we raise our recommendation to BUY.

Target price	**from**	**4.3**	**to**	**4.3**
Recommendation	**from**	**HOLD**	**to**	**BUY**

Price as of May, 19th (€)	3.15
Number of shares (mln)	6.5
Market capitalization (€mln)	20.6
Performance	**from IPO**
Absolute	+21%
Max/min	4.95/1.97
Average daily volumes	38,772

(€/000)	**2018**	**2019**	**2020E**	**2021E**
Total Revenue	**2,978**	**3,626**	**3,659**	**4,534**
yoy change	*8%*	*22%*	*1%*	*24%*
EBITDA	**1,140**	**1,236**	**1,102**	**1,675**
margin (%)	*38%*	*34%*	*30%*	*37%*
EBIT	**1,067**	**952**	**536**	**930**
margin (%)	*36%*	*26%*	*15%*	*21%*
Net income	**1,044**	**857**	**392**	**839**
margin (%)	*35%*	*24%*	*11%*	*18%*
Fixed assets	1,127	2,437	2,761	2,905
Net Working Capital	1,702	834	990	1,127
Adj Net debt/(cash)	**464**	**(3,439)**	**(3,805)**	**(4,363)**
Shareholders' Equity	2,559	7,110	7,503	8,341
Capex	536	1,897	900	900
Free Cash Flow	**179**	**641**	**(229)**	**219**

Source: Banca Profilo estimates and elaborations, Company data.

Francesca Sabatini
Head of Equity Research
francesca.sabatini@bancaprofilo.it
+39 02 58408 461

Sales Desk
+39 02 58408 478

Contents

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: 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 within 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 formulas, (mostly sold to make-up and skincare global brands of various positioning, from mass, to private label to prestige brands), and an equity co-participation in the joint venture Vitalab (25% Arterra and 75% Intercos), which distributes Arterra's active ingredients mostly to skincare multinational global and luxury global brands.

In 2019, the turnover coming from cosmetics (skincare) was higher than €2.2mln, representing 60% of Arterra's 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

Covid-19 challenging the ever resilient Cosmetics Industry, especially in the make-up segment

Covid-19 emergency and lockdown has been challenging the ever resilient Cosmetics Industry, especially in the make-up segment, which demand is estimated to slow down by some 30% yoy.

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 Gualtiero Ioimo (1.9%). Free float is then 24.9%. The shares buyback programme has involved (at the beginning of May) about 33k shares for a total value of €113k.

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.

Covid-19: greater focus on scientific research. Back-up is needed by a solid biotech company such as Arterra

Covid-19 emergency and lockdown has put greater focus on scientific research. Big multinational players in various sectors are looking for scientific innovation and need the solid experience of a biotech company such as Arterra. Furthermore, whatever the direction the final demand takes in a scenario of global change of customers' perceptions and lifestyle, Arterra will be able to promptly respond since its active compounds are able to serve from the luxury to the mass market. Therefore, Arterra confirms its strategy in terms of R&D investments for scientific innovation and business development for end-markets diversification and of investments for production scale-up.

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

Main corporate strategy is to: i) keep expanding 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 equipment both to scale up the production capacity and to enhance the research innovation; iv) acquire technologies mainly in active ingredients delivery systems in order to enhance their value in various end-markets.

Main financial data (2004-2019) and our estimates (2020E-2023E)

2004-2019: Double digit revenue (>20%) and EBITDA (>30%) growth

Since its foundation, in 2004, Arterra has reported an average revenue growth above 20% (CAGR 2004-2019 at 23%) from €164k to €3.6mln, well above its main reference market, the global cosmetic industry (+4% CAGR 2008-2017). Revenue includes mainly turnover from the selling of active compounds (60% of total revenue in 2019), from research grants (25%) and research contracts (15%). During the same period EBITDA increased from €18k to €1.2mln with EBITDA margin improving from 11% in 2004 to 34% in 2019. Net income stood at €860k in 2019.

2019: revenue +22%; EBITDA at 34%, in line with our estimates and well above the Industry average

2019: enhancing research activity and scale up production through relevant investments

More in details, in 2019 revenue increased by 22% to €3.6mln driven by cosmetic turnover which reached €2.2mln (+18% yoy), mainly driven by Arterra's growing presence in the "mass market" and the increasing usage of active compounds in the make-up. Asia contributed for 10% into growth. In terms of scientific innovation, in 2019 Arterra's R&D introduced 3 new active ingredients in cosmetics, brought 5 patents, published 13 scientific new works and set solid scientific bases for new projects for industrial applications in nutraceuticals and agrifood. EBITDA lost 400bps to 34% for higher expenses in personnel to strengthen the organization with new experienced researchers and a COO for production and business development. EBIT declined to €940k from €1.1mln in 2018 for significant capex (€1.1mln) in equipment to enhance the research activity to be able to make "ex vivo" testing on human tissues and develop active ingredients not only in cosmetics but also addressed to nutraceuticals and medical devices.

Room to stretch the financial structure

The Balance Sheet is extremely stable with room to stretch its financial structure. In 2019 adjusted net cash was €3.4mln, including IPO proceeds and IFRS 16, but excluding the interest baring loan to Vitalab. The IPO proceeds have been only partially used for a new plant, software and equipment to scale up production and enhance research activity in order to respond to the expected demand in the next two years. In 2019, Free Cash Flows was €641mln, including €1.1mln of capex.

2020E-2023E: 18% revenue CAGR EBITDA margin at 48% Cumulated FCF €2.1mln including €3.6mln capex

We revised our estimates considering 2019 results, the dynamics of the first months of 2020, including the negative effects of Covid-19 emergency: in 2020, we now expects flat revenue (from +14%), a lower EBITDA margin (30% from previous 34%) for hiring needs to strengthen the organization and lower FCFs for significant investments in equipment to scale up research activity and production and due to NWC cash absorption following the cash in of grants receivables in 2019, which significantly increased in 2018. In 2019-2023E, we expect 18% revenue CAGR (vs previous 22%) to €7.1mln, including cosmetics at about 70%, medical devices at 8%, IP licences at 7% and research grants below 10%. We forecast EBITDA margin to improve to 48% (vs previous 50%). In 2020E-2023E, we project cumulated Free Cash Flows of €2.1mln vs our previous estimate of €3.4mln, including cumulated capex of €3.6mln, unchanged vs our previous estimate.

Business plan execution risks

Main risk to our estimates remain Arterra's effective capacity to diversify into new end-markets, within the planned time to market, and to strongly grow in cosmetics even beyond Intercos, through the commercial and distribution strength of Vitalab.

The recruiting process of new managers has started

€1.1mln capex in physical space, research and production equipment

As promised during the IPO process, Arterra has expanded its 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 €1.1mln investments have been done in 2019, mostly for upgrading research and increase production with further capex planned in 2020.

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 8.1x
EV/EBITDA 14.2x

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 8.1x and a mean EV/EBITDA 2020E-2021E of 14.2x.
We use the average EV/SALES and EV/EBITDA multiples for Arterra's relative valuation and we end to an Equity Value of €28.9mln or €4.4/share, which includes a 15% liquidity discount.

DCF assumptions:
Terminal Value FCF at €1.4mln
WACC 7.4%

We also run a DCF model assuming cumulated FCFs of €2.1mln for the explicit 2020E-2023E period and the 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 €28.9mln or €4.4/share.

Valuation:
12-month TP confirmed at €4.3
Recommendation raised to BUY

Therefore, we confirm our 12-month target price at €4.3/share, which includes current developing phase of the business, strengthening of the management team and setting up phase of research and production scale-up. Given the upside (above 30%) on Arterra's price (€3.15 as of May, 19th), we move our recommendation to BUY from HOLD.

SWOT analysis

STRENGTHS	WEAKNESSES
• Outstanding R&D and high qualified Technology Team • A global market reach with limited sales force investments thanks to the partnership with Intercos and the 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	• Small size of the business • End-markets concentration • Not yet a structured management for a rapid and solid business development

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

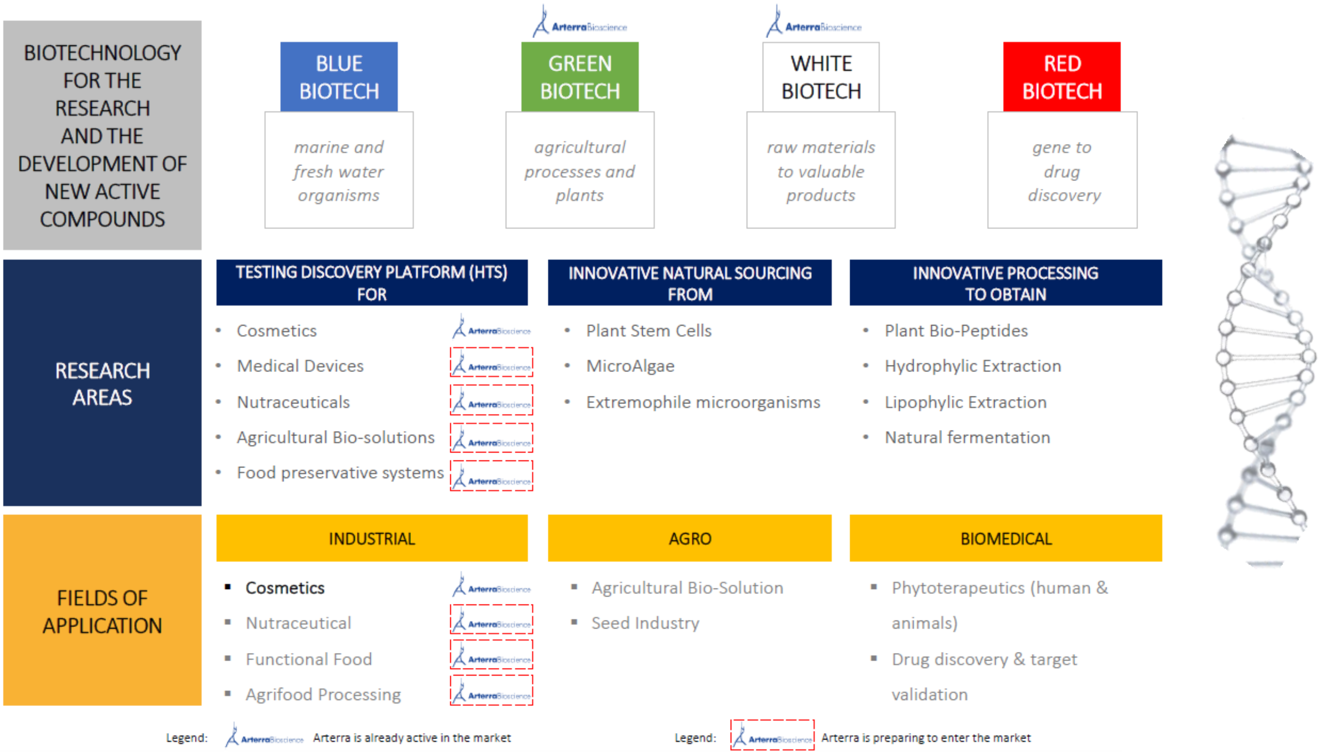
Biotechnology is living a great momentum to find solutions to green products

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

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.

Figure 1: Biotech sources of research and fields of application



Source: Company data

Arterra: strong know-how and experience for simplifying needs of many industries in the persisting search for clean substitutes to chemicals

Arterra's research activity is focused on the so-called Green Biotech (from plants and agricultural processes to innovative active ingredients) and White Biotech (from raw materials to valuable compounds). Other Biotech source of research are: the sea and its organism (Blue Biotech) and genetics (Red Biotech). Arterra 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 neutraceuticals, functional food and agrifood processing.

Arterra: ready to serve the most active sectors in the global trend to sustainability.
Ongoin research projects on rich biomolecules for application in:
Medical devices
Nutraceutical
Agriculture
Agrifood

The global industry is in an irreversible trend of finding ways to sustainable products and processes. Arterra is ready to serve the most active sectors in this global trend, through both its innovative technologies and its range of bio-sustainable active ingredients that can be applied not only to various end-markets but also to different segments in the same sector (from mass green to prestige luxury products, mostly in skincare).

The most active market is Cosmetics, Arterra's core end-market, followed by Parmaceutical, 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.
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 active ingredients mostly to skincare multinational global and luxury global brands. In 2019, the turnover coming from cosmetics (skincare) was 69% of total revenue.

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

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.

Covid-19 hitting the most resilient market especially in the make-

Covid-19 emergency and lockdown has been challenging the ever resilient Cosmetics industry, which had been growing more than 4% in 2010-2017 and was expected to *up segment*

reach 5% growth in 2015-2020E with active ingredients projected to reach €3bn in 2020 from €2.4bn in 2015. The most hit segment is make up.
Updated independent studies now sees a slowdown in global Cosmetics industry mostly due to an expected 30% decline in the make-up segment.

Covid-19 has put greater focus on scientific research

However, Covid-19 emergency and lockdown has put greater focus on scientific research. Big multinational players in various sectors are looking for scientific innovation and need the solid experience of a biotech company such as Arterra. Furthermore, whatever the direction the final demand takes in a scenario of global change of customers' perceptions and lifestyle, Arterra will promptly respond since its active compounds are able to serve from the luxury to the mass market. Therefore, Arterra confirms its strategy in terms of scientific innovation, sectors diversification and production scale-up.

Arterra competitive arena: strategic positioning and competitive advantages

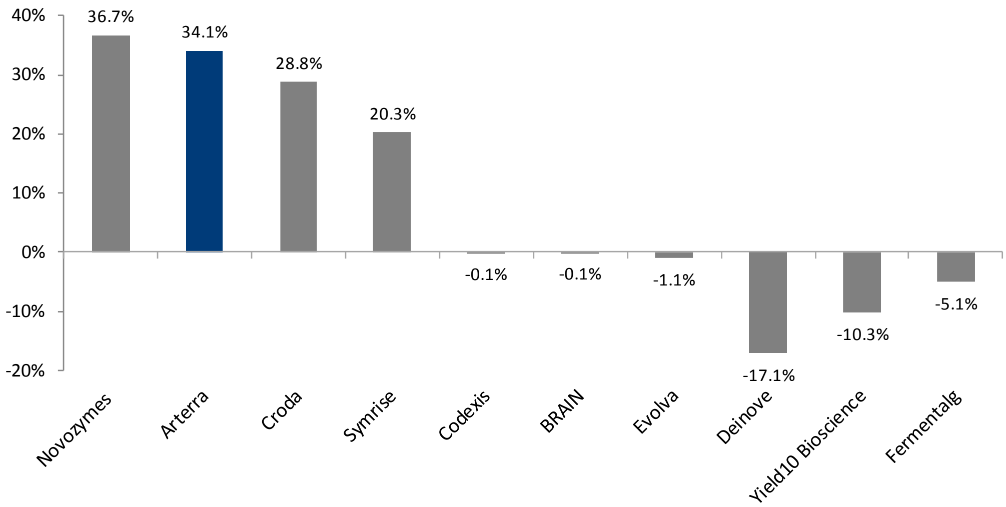
European and US listed biotech companies

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 2019, Arterra reported 34% EBITDA margin, second to the highest of the peers' sample.

Figure 2: Main international listed players in the Industry – EBITDA margin in 2019



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

B.R.A.I.N. (DE)
€40mln turnover
-€2mln EBITDA

Biotechnology Research and Information Network AG, is a German industrial biotech company active in both BioSciences, for research and development, and BioIndustrial, for the development, of own products addressed to companies or end consumers. Main products are: enzymes, biocatalysts, strains and bioactive natural substances. The Company discovers and develops biotech compounds and 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
29% EBITDA margin

Croda International Plc, is an English holding of a group of companies that develop specialty chemicals, including oleochemicals (derived from natural oils) and industrial chemicals. Its main end markets are: Consumer Care (35%), including personal care (natural ingredients for hair, skin especially anti-aging, sun care), life science (health care and agriculture with ingredients and formulation to pharma and nutritional markets such as dermatology and animal health and to agrochemical companies); Performance Technologies (34%), to which it delivers high-added value additives such as lubricants for the automotive and industrial sectors, coatings and polymers serving oil 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)
€3.4bn 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 addesses mainly to: cosmetics, personal care, household care, food&beverage and pharmaceuticals. Half of its sales come from Europe.

Deinove (FR)
€600k turnover
€-11mln 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 11.6mln turnover
CHF -12mln 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)
€1.9mln turnover
€ -9.7mln 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)
€1.2mln 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)

Novozymes, a Danish biotech based company that research, develops and obtain

DKK 14.4bn turnover
37% EBITDA margin

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 68.5mln turnover
USD -7.4mln EBITDA

Codexis Inc, is an American developer of protein and biocatalysts through an easy-on-the-environment technology that allows to scale-up and implement biocatalytic solutions for chemical processing. Relevant end-markets include: 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.

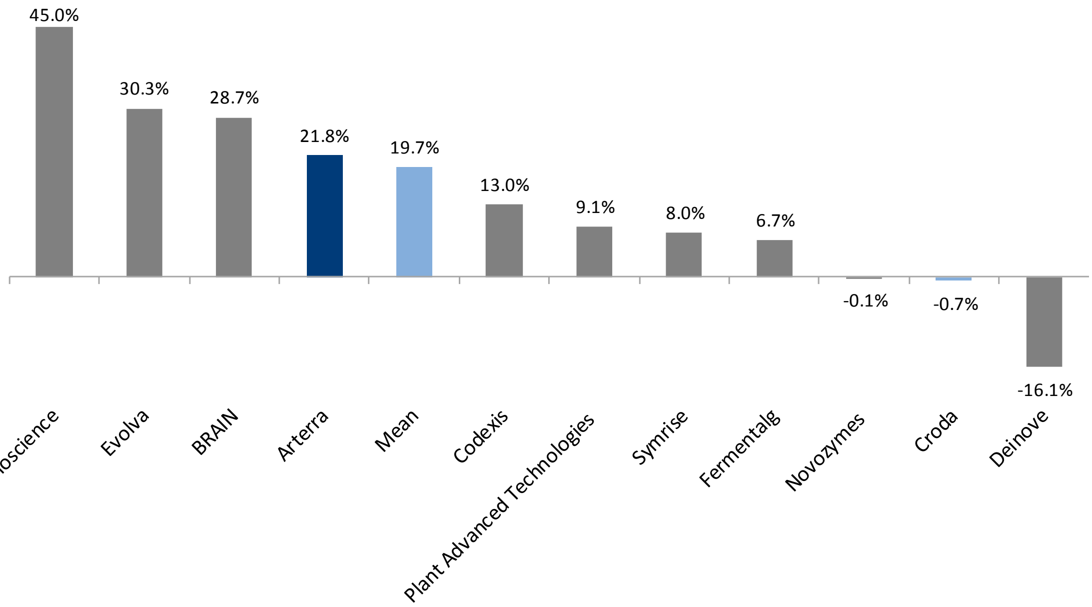
Yield10 Bioscience
USD 800k turnover
USD -8.3mln EBITDA

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

Arterra: 22% growth in 2019, higher than peers' average

In 2019, Arterra reported about 22% yoy revenue growth, above the average of the peers' sample of about 20%.

Figure 3: Main international listed players in the Industry – yoy growth in 2019



Source: Banca Profilo elaborations on Company data, Factset
Sales growth over 100% have has been divided by 100 for each company in order to make a graphic representation of the competitive arena

Arterra overview and business model

Company overview and activities

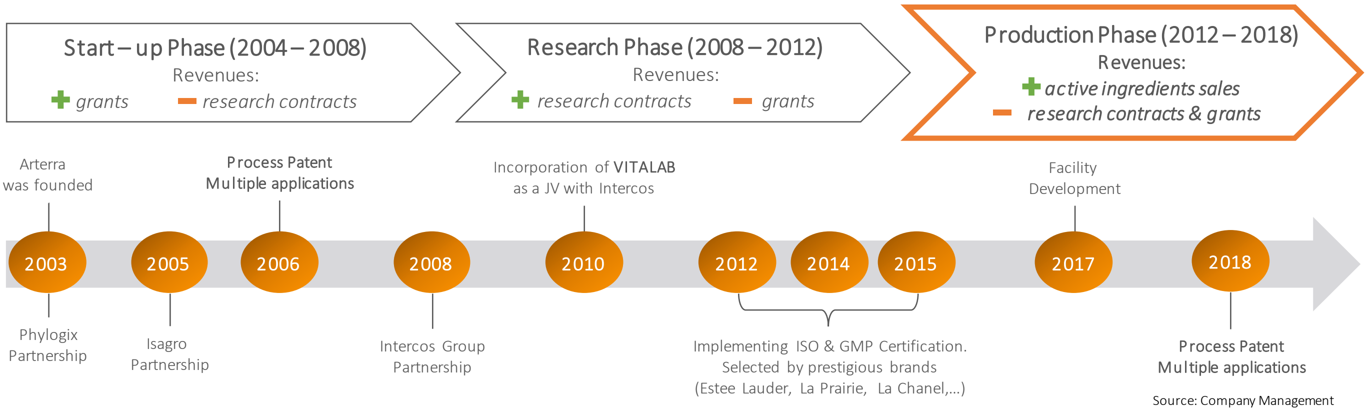
Founded in 2004 by Gabriella Colucci in Naples, as a spin-off of Arena Pharma Biology division (San Diego, USA). A key partner for bio innovation to various end-markets.

Arterra Bioscience was founded in 2004 in Naples by Gabriella Colucci, an Italian Scientist who returned to Italy after more than four years 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. 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 in 2019

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. In 2019, the turnover from active compounds production represented about 60% of the total, whereas research grants are expected to reduce their contribution below 10% within the next three years.

Figure 4: 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). Typically, from 1kg of raw materials the transformation process is able to obtain more than 5kgs of finished product. Moreover, Arterra uses waste from food and agriculture to search for and develop new active ingredients (agrifood by-products production process). 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 products formulas (skincare products, in cosmetics, for example), 1kg of active compounds is able to obtain from 200kgs (luxury, prestige skincare product) up to 1000kgs of finished goods (mass market, marketing-based skincare product).

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.

Figure 5: Arterra's reach of global brands in cosmetics

Source: Company data

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.

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 €2.2mln turnover in 2019, skincare accounted 60% of total sales. Intercos' contribution to this turnover was over 80%.

Figure 6: Arterra key partnerships and distribution agreements

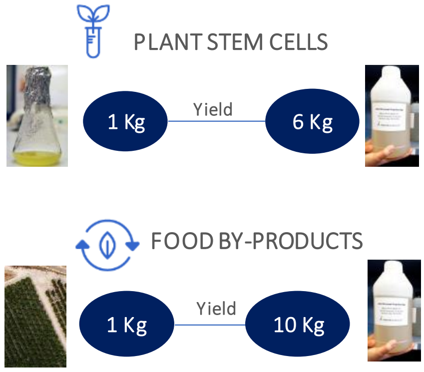
Source: Company data

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: R&D activity is for either production and sales of active ingredients (through Intercoss and Vitalab) or for licensing 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. 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 2019, sold volumes in cosmetics were more than 8,800 kgs (+24% yoy) at an average price of €245; raw materials had 10% incidence on total revenue.

Figure 7: 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.

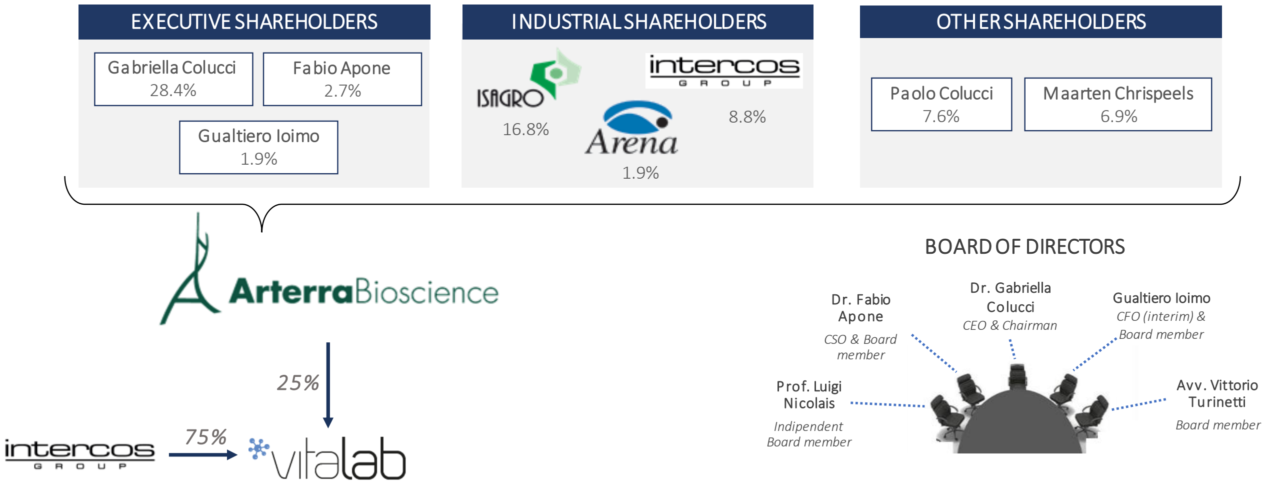
Paolo Colucci

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. Ad interim, he is the CFO of Arterra, which has planned to hire a new CFO in 2020. The recruiting process has started.

Figure 8: 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.

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

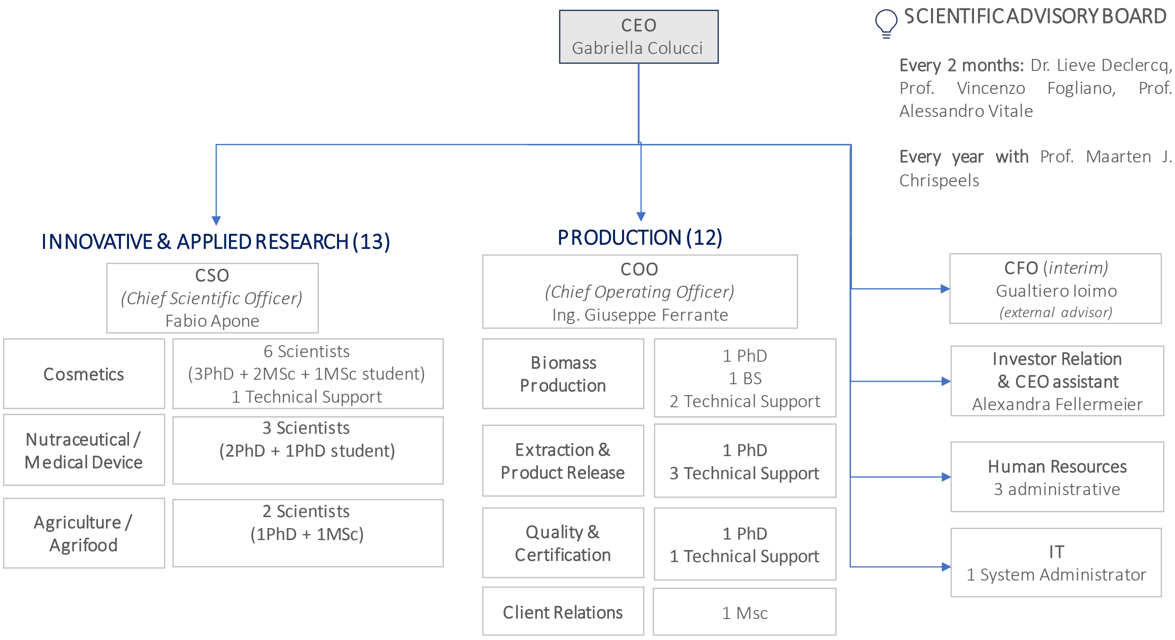
In 2005, Isagro acquired a 22% of Arterrra and they started a partnership for research-based bio innovation in agriculture. In 2008, Arterra signed an agreement with Intercos and became its biotech research arm in cosmetics. Arterra develops 3 active compounds every year in either skincare or make up. The active ingredients are bought by Intercos that has the exclusive use for the first year; thereafter, the same ingredients is 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, through the IPO process, Intercos became a shareholders in Arterra.

An outstanding R&D and highly qualified Tech Team

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

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 28 employees (including 3 stageurs), there are 9 PhDs, 4 with a Master of Science and the remaining with either a Bachelor Degree in Science or a Tech Diploma. The Scientific Advisory Board meets every two months and includes Dr. L.Declerq, 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, during 2019 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.

Figure 9: Arterra organization



Source: Banca Profilo elaborations on Company data

Historical operating and financial performance

Main operating and financial data: 2004-2019

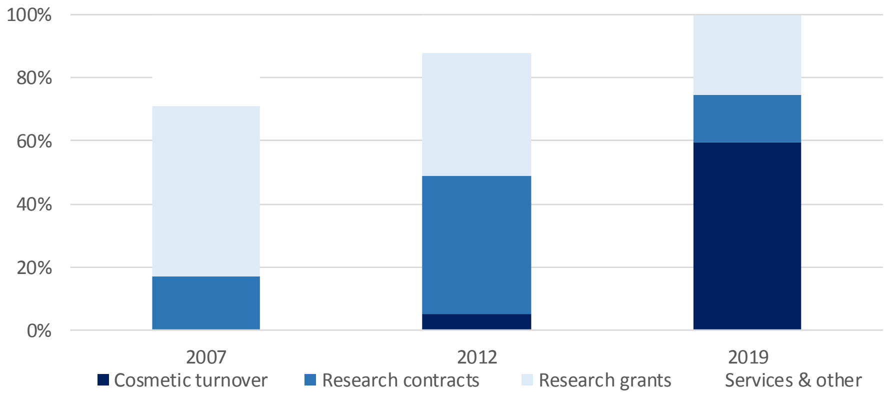
2004-2019:
> 20% revenue growth
> 30% EBITDA growth

Since its foundation, in 2004, Arterra has reported an average revenue growth above 20% (CAGR 2004-2019 at 23%) from €164k to €3.6mln, well above its main reference market, the global cosmetic industry (+4% CAGR 2008-2017). Revenue includes mainly turnover from the selling of active compounds (60% of total revenue in 2019), from research grants (25%) and research contracts (15%). During the same period EBITDA increased from €18k to €1.2mln with EBITDA margin improving from 11% in 2004 to 34% in 2019. Net income stood at €860k in 2019.

2014-2019: revenue driven by cosmetics growth in selling volumes >45%

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 60% in 2019. 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 10: Revenue breakdown – 2007, 2012, 2019



Source: Banca Profilo elaborations on Company data

2019: revenue +22% yoy; EBITDA margin at 34%, in line with our projections

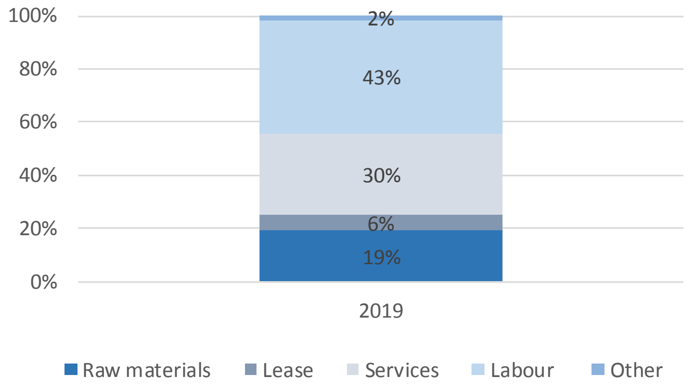
R&D activity enhanced by new equipment for "ex vivo" testing to enter into the medical devices industry

More in details, in 2019 revenue increased by 22% to €3.6mln driven by cosmetic turnover which reached €2.2mln (+18% yoy), mainly driven by Arterra's growing presence in the "mass market" and the increasing usage of active compounds in the make-up. Asia contributed for 10% into growth. In terms of scientific innovation, in 2019 Arterra's R&D introduced 3 new active ingredients in cosmetics, brought 5 patents, published 13 scientific new works and set solid scientific base for new projects for industrial applications in nutraceuticals and agrifood. EBITDA lost 400bps to 34% for higher expenses in personnel to strengthen the organization with new experienced researchers and a COO for production and business development. EBIT declined to €940k from €1.1mln in 2018 for significant capex (€1.1mln) in equipment to enhance the research activity to be able to make "ex vivo" testing on human tissues to develop active ingredients not only in cosmetics but also addressed to nutraceuticals and medical devices. Arterra's P&L results in 2019 were in line with our estimates.

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 19% and their incidence on total revenue is less than 15%. Labour is the biggest part of operating costs (>40%) 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 33% vs 23% respectively).

Figure 11: Operating cost structure and composition in 2019

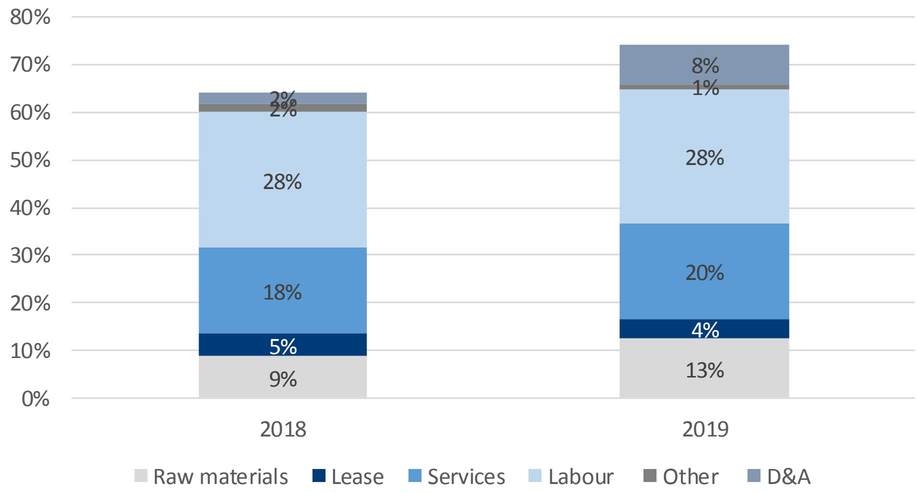


Source: Banca Profilo elaborations on Company data

Patent Box confirmed in 2019 with a positive effect on tax rate (9%)

D&A increased its incidence on total revenue in 2019 to 8% from 2% in 2018 for high capex last year. Net income stood just below €900k in 2019, including a 9% tax rate related to the "Patent Box" which allowed to benefit from a tax reduction on profits from 2015 to 2018 and was renewed in 2019.

Figure 12: Cost incidence on total revenue in 2018-19



Source: Banca Profilo elaborations on Company data

EBITDA margin 2019 down to 34% (-400bps) due higher labour costs

In 2019 the EBITDA margin declined to 34% from 38% in 2018 due to the increase in cost of personnel as the Company scales up its research and production teams.

Table 1: Profit & Loss 2017-2019 vs 2019E

Profit & Loss	2017	2018	2019	2019E
€/000				
Cosmetic turnover	1,503	1,868	2,167	2,191
Nutraceutical/medical devices turnover	0	0	0	0
Research contracts and services	551	559	542	529
Licences and royalties	0	0	0	0
Total turnover	**2,054**	**2,427**	**2,709**	**2,721**
yoy		*18%*	*12%*	*12%*
cosmetic volumes (kg)	5,690	7,142	8,839	8,803
yoy	*90%*	*26%*	*24%*	*23%*
avg cosmetic price (€/kg)	264	262	245	249
Research grants and stock changes	692	551	917	850
% on sales	*34%*	*23%*	*34%*	*31%*
Total Revenue	**2,746**	**2,978**	**3,627**	**3,571**
yoy	*45%*	*8%*	*22%*	*20%*
raw materials cost	(210)	(259)	(455)	
cost of services	(466)	(533)	(726)	(1,107)
% on total revenue	*-25%*	*-27%*	*-33%*	*-31%*
cost of labour	(736)	(847)	(1,025)	(1,046)
% on total revenue	*-27%*	*-28%*	*-28%*	*-29%*
lease	(123)	(146)	(146)	(147)
other operating costs	(43)	(53)	(38)	(41)
EBITDA	**1,167**	**1,140**	**1,236**	**1,230**
margin	*43%*	*38%*	*34%*	*34%*
# employees	n.a.	20	28	28
labor cost per unit		(42)	(37)	(37)
D&A	(143)	(73)	(296)	(245)
% on total revenue	*-5%*	*-2%*	*-8%*	*-7%*
EBIT	**1,024**	**1,067**	**940**	**986**
margin	*37%*	*36%*	*26%*	*28%*
net financial income (expenses)	(7)	6	1	38
% on total revenue	*-0.2%*	*0.2%*	*0.0%*	*1.1%*
EBT	**1,017**	**1,073**	**940**	**1,024**
margin	*37%*	*36%*	*26%*	*29%*
taxes	(272)	(29)	(83)	(100)
tax rate	*-27%*	*-3%*	*-9%*	*-10%*
Net income	**745**	**1,044**	**857**	**924**
% on total revenue	*27%*	*35%*	*24%*	*26%*

Source: Banca Profilo elaborations and estimates on Company data

A solid and well balanced financial structure: €3.4 mln net cash at the end of 2019

The Balance Sheet is extremely stable with room to stretch its financial structure. In 2019 adjusted net cash was €3.4mln, including IPO proceeds and IFRS 16, but excluding the interest baring loan to Vitalab. The IPO proceeds have been only partially used for a new plant, software and equipment to scale up production and enhance research activity in order to respond to the expected demand in the next two years.

Table 2: Arterra Balance Sheet 2017-2019 vs 2019E

Balance Sheet €/000	2017	2018	2019	2019E
tangibles	185	567	1278	1294
intangibles	27	108	706	854
financials	462	452	452	452
Fixed assets	**675**	**1,127**	**2,437**	**2,600**
other current net receivables	131	177	452	177
receivables from grants	1,176	1,062	495	1427
trade receivables	303	630	414	726
inventories	263	267	425	331
trade paybles	(161)	(257)	(500)	(311)
Net operating Working Capital	**1,582**	**1,702**	**834**	**2,173**
% on total revenue	*58%*	*57%*	*23%*	*61%*
receivables from grants (% grants)	*170%*	*193%*	*54%*	*168%*
trade receivables (% revenue)	*11%*	*21%*	*11%*	*20%*
inventories (% revenue)	*10%*	*9%*	*12%*	*9%*
trade paybles (% COGS)	*24%*	*32%*	*42%*	*28%*
Capex	**50**	**536**	**1,897**	**1,718**
tangible	28	447	1143	923
intangibles	22	89	754	795
% on total revenue	*2%*	*18%*	*52%*	*48%*
Provisions	**(629)**	**(630)**	**(504)**	**(630)**
Invested Capital	**1,757**	**2,375**	**3,218**	**4,319**
shareholders' equity	250	250	327	327
reserves	720	1,265	5,926	6226
net income	745	1,044	857	924
Equity	**1,715**	**2,559**	**7,110**	**7,477**
Net debt (cash)	**42**	**(185)**	**(3,892)**	**(3,158)**
cash and cash equivalents	(249)	(738)	(4,669)	
short term loans to equity participated	(340)	(340)	(225)	
bank debt	630	893	1,002	
leasing (IFRS 16)	389	309	228	
adj Net debt (cash)	**771**	**464**	**(3,439)**	**(3,158)**

Source: Banca Profilo elaborations and estimates on Company data

2019 FCFs at €641k including €1.1mln capex; above our estimates for higher NWC cash generation

In 2019, Free Cash Flows were €641mln, including €1.1mln of tangible capex and more than €850k cash generation mainly from the cash in of grants receivables, which had increased significantly in 2018.
Net debt and Cash Flows beat our projections because of the significantly higher than expected cash in of grants receivables during 2019.

Table 3: Arterra Cash Flows 2017- 2019 vs 2019E

Cash Flows				
€/000	2017	2018	2019	2019E
EBITDA	1,167	1,140	1,236	1,230
tax (figurative)	(312)	(305)	(309)	(329)
change in Net Working Capital	(219)	(120)	868	(471)
capex	(50)	(536)	(1,153)	(936)
Free Cash Flow	**586**	**179**	**641**	**(506)**

Source: Banca Profilo elaborations and estimates on Company data

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 2020E-2023E

We revised our estimates 2020-2023

2020E: flat revenue vs previous +14%; EBITDA margin 30% from previous 34%

We revised our estimates considering Arterra's 2019 results, the dynamics of the first months of 2020, including the negative effects of Covid-19 emergency: in 2020, we now expect flat revenue (from +14%), lower EBITDA margin (30% from previous 34%) for hiring needs to strengthen the organization and lower FCFs for significant investments in equipment to scale up research activity and production and due to NWC cash absorption that will follow the relevant cash in of grants receivables in 2019, which had significantly increased in 2018.

2020E-2023E: 18% revenue CAGR vs previous 22% EBITDA margin 48% vs previous 50%

In 2019-2023E, we expect 18% revenue CAGR (vs previous 22%) to €7.1mln, including cosmetics at about 70%, medical devices at 8%, IP licences at 7% and research grants below 10%. We forecast EBITDA margin to improve to 48% (vs previous 50%). In 2020E-2023E, we project cumulated Free Cash Flows of €2.1mln vs our previous estimate of €3.6mln, including cumulated capex of €3.6mln, unchanged vs our previous estimate.

Table 4: Arterra estimates revision 2020E-2023E (new vs old)

Profit & Loss

€/000	2017	2018	2019	2019E	2020E old	2020E new	2021E old	2021E new	2022E old	2022E new	2023E old	2023E new
Cosmetic turnover	1,503	1,868	2,167	2,191	2,970	2,514	3,713	3,143	4,641	3,929	5,801	4,911
Nutraceutical/medical devices turnover	0	0	0	0	50	0	150	150	300	300	600	600
Research contracts and services	551	559	542	529	556	558	583	575	612	592	643	610
Licences and royalties	0	0	0	0	10	0	100	100	300	300	500	500
Total turnover	**2,054**	**2,427**	**2,709**	**2,721**	**3,586**	**3,073**	**4,546**	**3,968**	**5,853**	**5,121**	**7,544**	**6,621**
yoy		*18%*	*12%*	*12%*	*32%*	*13%*	*27%*	*29%*	*29%*	*29%*	*29%*	*29%*
cosmetic volumes (kg)	5,690	7,142	8,839	8,803	11,443	10,050	14,304	12,563	17,880	15,703	22,350	19,629
yoy	*90%*	*26%*	*24%*	*23%*	*29%*	*14%*	*25%*	*25%*	*25%*	*25%*	*25%*	*25%*
avg cosmetic price (€/kg)	264	262	245	249	260	250	260	250	260	250	260	250
Research grants and stock changes	692	551	917	850	531	586	511	566	491	546	461	516
% on sales	*34%*	*23%*	*34%*	*31%*	*15%*	*19%*	*11%*	*14%*	*8%*	*11%*	*6%*	*8%*
Total Revenue	**2,746**	**2,978**	**3,627**	**3,571**	**4,117**	**3,659**	**5,057**	**4,534**	**6,344**	**5,667**	**8,005**	**7,137**
yoy	*45%*	*8%*	*22%*	*20%*	*14%*	*1%*	*23%*	*24%*	*25%*	*25%*	*26%*	*26%*
raw materials cost	(210)	(259)	(455)									
cost of services	(466)	(533)	(726)	(1,107)	(1,147)	(1,026)	(1,383)	(1,249)	-1,735	(1,561)	(2,190)	(1,966)
% on total revenue	*-25%*	*-27%*	*-33%*	*-31%*	*-28%*	*-28%*	*-27%*	*-28%*	*-27%*	*-28%*	*-27%*	*-28%*
cost of labour	(736)	(847)	(1,025)	(1,046)	(1,372)	(1,347)	(1,453)	(1,426)	-1,533	(1,505)	(1,614)	(1,584)
% on total revenue	*-27%*	*-28%*	*-28%*	*-29%*	*-33%*	*-37%*	*-29%*	*-31%*	*-24%*	*-27%*	*-20%*	*-22%*
lease	(123)	(146)	(146)	(147)	(147)	(146)	(147)	(146)	-147	(146)	(147)	(146)
other operating costs	(43)	(53)	(38)	(41)	(41)	(38)	(41)	(38)	-41	(38)	(41)	(38)
EBITDA	**1,167**	**1,140**	**1,236**	**1,230**	**1,411**	**1,102**	**2,034**	**1,675**	**2,888**	**2,417**	**4,014**	**3,402**
margin	*43%*	*38%*	*34%*	*34%*	*34%*	*30%*	*40%*	*37%*	*46%*	*43%*	*50%*	*48%*
# employees	n.a.	20	28	28	34	34	36	36	38	38	40	40
labor cost per unit		(42)	(37)	(37)	(40)	(40)	(40)	(40)	-40	(40)	(40)	(40)
D&A	(143)	(73)	(296)	(245)	(507)	(576)	(687)	(756)	-867	(936)	(1,047)	(1,116)
% on total revenue	*-5%*	*-2%*	*-8%*	*-7%*	*-12%*	*-16%*	*-14%*	*-17%*	*-14%*	*-17%*	*-13%*	*-16%*
EBIT	**1,024**	**1,067**	**940**	**986**	**904**	**526**	**1,347**	**919**	**2,021**	**1,481**	**2,967**	**2,286**
margin	*37%*	*36%*	*26%*	*28%*	*22%*	*14%*	*27%*	*20%*	*32%*	*26%*	*37%*	*32%*
net financial income (expenses)	(7)	6	1	38	45	10	53	11	69	14	94	18
% on total revenue	*-0.2%*	*0.2%*	*0.0%*	*1.1%*	*1.1%*	*0.3%*	*1.1%*	*0.2%*	*1.1%*	*0.2%*	*1.2%*	*0.3%*
EBT	**1,017**	**1,073**	**940**	**1,024**	**949**	**536**	**1,400**	**930**	**2,090**	**1,494**	**3,062**	**2,304**
margin	*37%*	*36%*	*26%*	*29%*	*23%*	*15%*	*28%*	*21%*	*33%*	*26%*	*38%*	*32%*
taxes	(272)	(29)	(83)	(100)	(254)	(143)	(374)	(92)	(559)	(400)	(819)	(616)
tax rate	*-27%*	*-3%*	*-9%*	*-10%*	*-27%*	*-27%*	*-27%*	*-10%*	*-27%*	*-27%*	*-27%*	*-27%*
Net income	**745**	**1,044**	**857**	**924**	**696**	**392**	**1,026**	**839**	**1,531**	**1,095**	**2,243**	**1,688**
% on total revenue	*27%*	*35%*	*24%*	*26%*	*17%*	*11%*	*20%*	*18%*	*24%*	*19%*	*28%*	*24%*

Balance Sheet

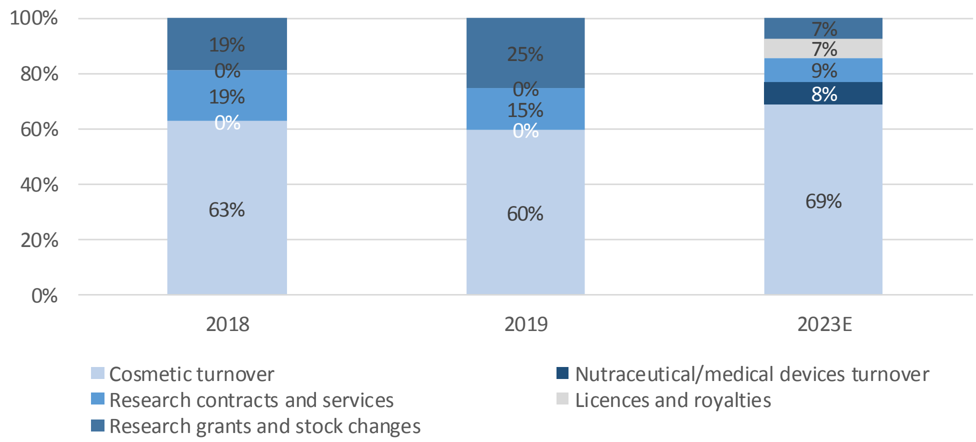
€/000	2017	2018	2019	2019E	2020E old	2020E new	2021E old	2021E new	2022E old	2022E new	2023E old	2023E new
tangibles	185	567	1278	1294	1689	1617	1,939	1812	2,046	1864	2,009	1771
intangibles	27	108	706	854	852	691	815	640	742	553	632	429
financials	462	452	452	452	452	452	452	452	452	452	452	452
Fixed assets	**675**	**1,127**	**2,437**	**2,600**	**2,993**	**2,761**	**3,207**	**2,905**	**3,240**	**2,869**	**3,094**	**2,653**
other current net receivables	131	177	452	177	177	452	177	452	177	452	177	452
receivables from grants	1,176	1,062	495	1427	982	316	920	283	859	273	784	258
trade receivables	303	630	414	726	823	732	1,011	907	1,269	1,133	1,601	1,427
inventories	263	267	425	331	382	356	469	441	589	551	743	694
trade paybles	(161)	(257)	(500)	(311)	(322)	(413)	(389)	(503)	(488)	(629)	(615)	(792)
Net operating Working Capital	**1,582**	**1,702**	**834**	**2,173**	**1,866**	**990**	**2,012**	**1,127**	**2,230**	**1,328**	**2,513**	**1,587**
% on total revenue	*58%*	*57%*	*23%*	*61%*	*45%*	*27%*	*40%*	*25%*	*35%*	*23%*	*31%*	*22%*
receivables from grants (% grants)	*170%*	*193%*	*54%*	*168%*	*185%*	*54%*	*180%*	*50%*	*175%*	*50%*	*170%*	*50%*
trade receivables (% revenue)	*11%*	*21%*	*11%*	*20%*	*20%*	*20%*	*20%*	*20%*	*20%*	*20%*	*20%*	*20%*
inventories (% revenue)	*10%*	*9%*	*12%*	*9%*	*9%*	*10%*	*9%*	*10%*	*9%*	*10%*	*9%*	*10%*
trade paybles (% COGS)	*24%*	*32%*	*42%*	*28%*	*28%*	*40%*	*28%*	*40%*	*28%*	*40%*	*28%*	*40%*
Capex	**50**	**536**	**1,897**	**1,718**	**900**	**900**	**900**	**900**	**900**	**900**	**900**	**900**
tangible	28	447	1143	923	800	800	800	800	800	800	800	800
intangibles	22	89	754	795	100	100	100	100	100	100	100	100
% on total revenue	*2%*	*18%*	*52%*	*48%*	*22%*	*25%*	*18%*	*20%*	*14%*	*16%*	*11%*	*13%*
Provisions	**(629)**	**(630)**	**(504)**	**(630)**	**(630)**	**(504)**	**(630)**	**(504)**	**(630)**	**(504)**	**(630)**	**(504)**
Invested Capital	**1,757**	**2,375**	**3,218**	**4,319**	**4,405**	**3,698**	**4,765**	**3,979**	**5,016**	**4,144**	**5,152**	**4,187**
shareholders' equity	250	250	327	327	327	327	327	327	327	327	327	327
reserves	720	1,265	5,926	6226	7150	6,783	7,845	7,176	8,871	8,014	10,403	9,109
net income	745	1,044	857	924	696	392	1,026	839	1,531	1,095	2,243	1,688
Equity	**1,715**	**2,559**	**7,110**	**7,477**	**8,173**	**7,503**	**9,199**	**8,341**	**10,730**	**9,436**	**12,973**	**11,125**
Net debt (cash)	**42**	**(185)**	**(3,892)**	**(3,158)**	**(3,768)**	**(3,805)**	**(4,434)**	**(4,363)**	**(5,714)**	**(5,292)**	**(7,821)**	**(6,938)**
cash and cash equivalents	(249)	(738)	(4,669)									
short term loans to equity participated	(340)	(340)	(225)									
bank debt	630	893	1,002									
leasing (IFRS 16)	389	309	228									
adj Net debt (cash)	**771**	**464**	**(3,439)**	**(3,158)**	**(3,768)**	**(3,805)**	**(4,434)**	**(4,363)**	**(5,714)**	**(5,292)**	**(7,821)**	**(6,938)**

Source: Banca Profilo elaborations and estimates on Company data

2023E revenue to €7.1mln of which: cosmetics 69% nutraceutical 8% royalties from IPs at €500k research grants below 10% 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 60% in 2019 to 69% of total revenue in 2023. We project Arterra to enter the nutraceutical market very gradually from 2021 with a goal of reaching €600k in 2023 or 8% of total revenue; to extend the selling of IPs with a goal of turnover by royalties at €500k in 2023 or 7% of total revenue and to gradually increase the research contracts to finance bio innovation with a target above €600k in 2023 or 9% 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 just above €500k in 2023 or 7% of total turnover. As a consequence, we project an 18% revenue 2018-2023E CAGR for the Company to reach €7.1mln in 2023. Selling volumes of active compounds are seen above 19,000 kgs in 2023E from about 8,800 kgs in 2018.

Figure 13: Arterra revenue trend by type 2018, 2019 and 2023E



Source: Banca Profilo elaborations and estimates on Company data

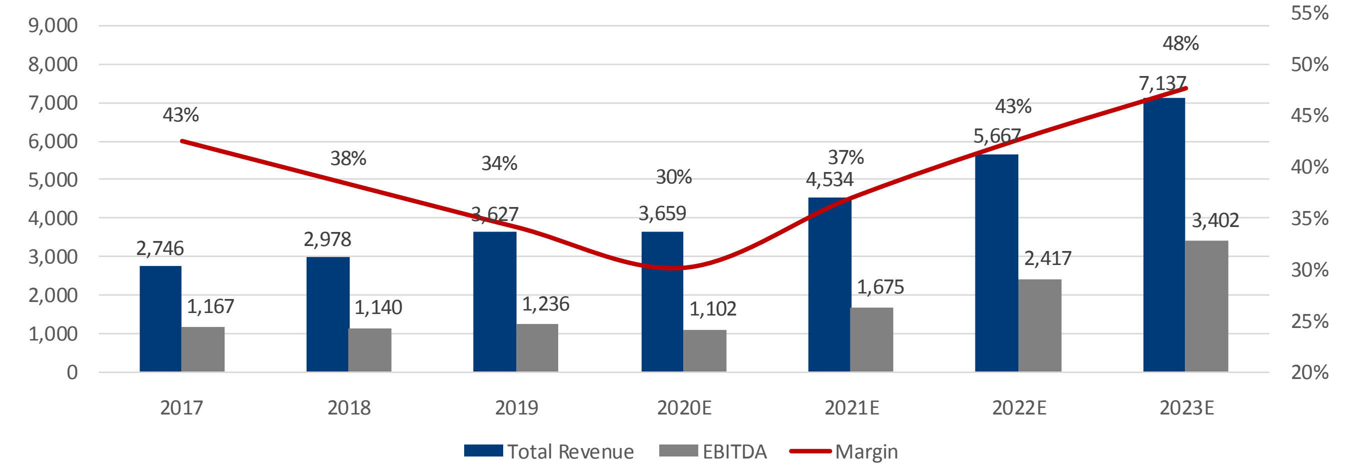
In 2019, we estimate total revenue +1% yoy cosmetics at 68%

More in details, in 2020 we estimate €3.66mln of total revenue (+1% yoy), which includes €2.5mln of cosmetic turnover (€10,000 kgs of cosmetics selling volumes at an average price of €250/kg), €558k of research contracts turnover and €586k of research grants (and stock changes), in line with approved and requested grants in the first months of 2020.

We expect 29% CAGR 2019-2023E in EBITDA to €3.4mln; EBITDA margin to improve to 48% thanks to strong operating leverage

In 2019-2023E, we expect Arterra to increase its EBITDA from €1.2mln to some €3.4mln (CAGR 29%) and EBITDA margin to improve from 34% to 48%. More in details, in the period we kept raw materials and services at an average of 28% of total revenue (from 33% in 2019), we increased the number of employees from 28 in 2019 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 2019 to 22% in 2023, including a peak at 37% in 2020 for the expected step up of personnel this year. In 2020E we projected EBITDA margin at 30% for the significant hirings in line with the Company’s target of scaling up research activity and production, enter in new end-markets and set up a structured management team.

Figure 14: Revenue, EBITDA and EBITDA margin 2017-2023E



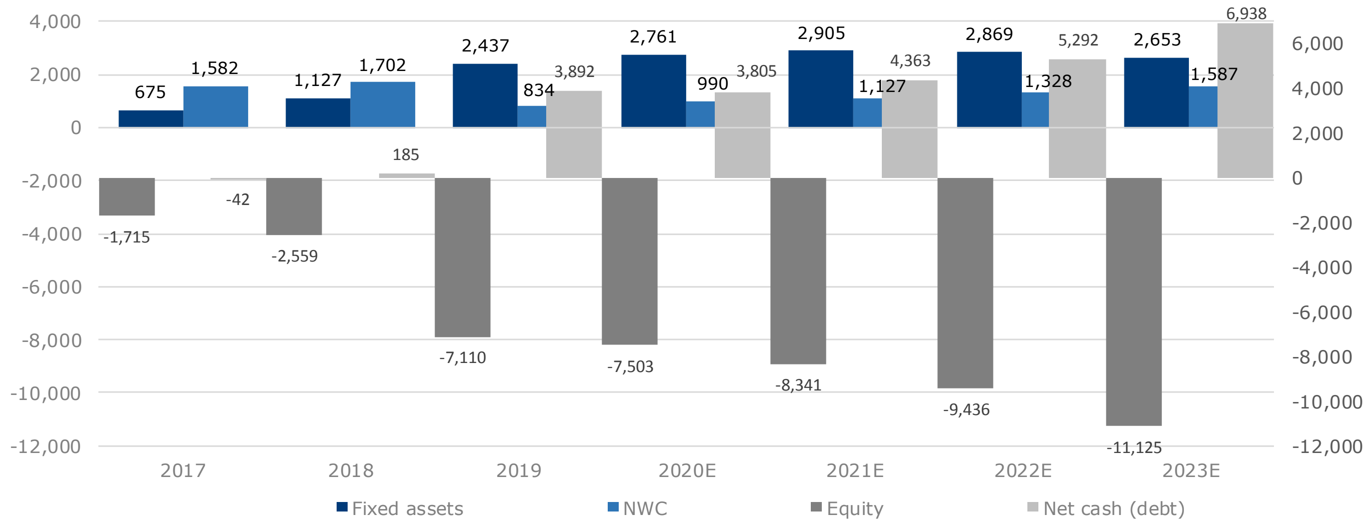
Source: Banca Profilo elaborations and estimates on Company data

D&A is seen increasing in line with capex. Tax rate still low for Patent Box in 2019 possibly confirmed in the next years

For the 2019-2023E period, we estimated increasing D&A from €296k to above €1mln in 2023E and an incidence on total revenue from 8% to above 15% 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 €1.7mln in 2023, including a reduced tax rate at 10% in 2021 given the expected renewal of Patent Box.

Figure 15: Balance Sheet evolution 2017-2023E



Source: Banca Profilo elaborations and estimates on Company data

Balance Sheet projections: €3.6mln cumulated capex to scale up production and optimize cellular growth processes

Regarding our projections (2020E-2023E) of the Company Balance Sheet, we have included:

- €3.6mln cumulated capex in four years for the development of the bio factories, including physical spaces, equipment and technology to managing and enhancing cellular growth;
- €750k of operating working capital increase in four years with a stable incidence of just above 20% on total revenue

Therefore, net cash is seen from €3.5mln at the end of 2019 to just below €7mln at the end of 2023.

Free Cash Flows €2.1mln in four years Including €3.6mln normalized capex

In terms of cash flow generation we project €2.1mln of cumulated Free Cash Flows in 2020E-2023E (vs previous €3.6mln, mainly due to some €2mln lower cumulated EBITDA), after having invested a total of €3.6mln in fixed assets (unchanged vs our previous forecast), and financed more than €750k of operating net working capital need (vs our previous €340k).
We included no dividend distribution in our estimates, assuming the Company's policy is to retain most of its net profit for growth.

Table 5: Arterra Free Cash Flow evolution 2017-2023E

Cash Flows €/000	2017	2018	2019	2019E	2020E old	2020E new	2021E old	2021E new	2022E old	2022E new	2023E old	2023E new
EBITDA	1,167	1,140	1,236	1,230	1,411	1,102	2,034	1,675	2,888	2,417	4,014	3,402
tax (figurative)	(312)	(305)	(309)	(329)	(377)	(275)	(544)	(419)	(772)	(604)	(1,073)	(851)
change in Net Working Capital	(219)	(120)	868	(471)	308	(156)	(146)	(137)	(217)	(201)	(283)	(259)
capex	(50)	(536)	(1,153)	(936)	(900)	(900)	(900)	(900)	(900)	(900)	(900)	(900)
Free Cash Flow	**586**	**179**	**641**	**(506)**	**441**	**(229)**	**444**	**219**	**998**	**711**	**1,758**	**1,393**

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 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

> €1mln capex in physical space, research and production equipment

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. Furthermore, it has started the recruiting process for both the Chief Financial Officer and the Business Developer. Concerning the scaling up of research activity and production, more than €1mln investments have been done mostly in plants and equipment to enhance research activity including a tool to allow for "ex vivo" testing on human tissues for developing active compounds not only in cosmetics but also in medical devices. Further significant capex are planned in 2020.

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:

€2.1mln of cumulated FCFs

€1.4mln as Terminal Value cash flow

To run a DCF model, we use our projected FCFs for the 2020E-23E explicit period: cumulated FCFs for €2.1mln or about €780k as yearly average in 2021E-2023E.
In order to assess the Terminal Value, we factor in:

- an annual FCF generation of €1.4mln, corresponding to the FCF in 2023E
- perpetual growth rate of 2%.

In order to get to the Equity Valuation we would consider the adjusted net cash at the end of 2019 (3.4mln).

Table 6: DCF valuation

DCF Valuation	2020E	2021E	2022E	2023E	over
Free Cash Flows (€/000)	**-229**	**219**	**711**	**1,393**	**1,393**
years	1	2	3	4	4
discount factor	0.93	0.87	0.81	0.75	0.75
NPV Cash flows (€/000)	-214	190	574	1,047	
Sum of NPVs (€/000)					1,597
Terminal Value (€/000)					25,766
NPV Terminal Value (€/000)					19,361
Enterprise Value (€/000)					**20,959**
pheriferal assets: Vitalab (@40%)					**4,596**
Net debt 2019 (€/000)					-3,439
Equity Value (€/000)					**28,994**
number of shares (mln)					6.5
Per share value (€)					**4.4**

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 7: 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	**8.6%**
costo del debito	1%
tax rate	25%
KD	**1%**

Source: Banca Profilo estimates and elaborations

DCF valuation: Equity €28.9mln or €4.4/share

We run the DCF model and end up with and Enterprise Value of €25.5mln and, therefore an Equity Value of €28.9mln or €4.4/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 Aterra's peers, mainly by margins and cash flow generation, including Croda, Symrise, Novozymes, Clariant, Evonik, Lonza and Ashland.

Table 8: Sample benchmarking on revenue growth and EBITDA margin

Company	Currency	Market Cap (mln)	Enterprise Value (mln)	Sales growth				EBITDA margin			
19/05/2020				**2018**	**2019**	**2020E**	**2021E**	**2018**	**2019**	**2020E**	**2021E**
BRAIN	EUR	164	179	*22.6%*	*28.7%*	*13.1%*	*16.8%*	*-16.7%*	*-5.4%*	*-0.3%*	*7.2%*
Croda	GBP	6,468	7,001	*1.0%*	*-0.7%*	*-1.5%*	*4.2%*	*28.5%*	*28.8%*	*29.5%*	*30.4%*
Symrise	EUR	12,833	14,501	*5.3%*	*8.0%*	*8.5%*	*5.6%*	*20.0%*	*20.3%*	*20.8%*	*21.7%*
Deinove	EUR	16	28	*254.7%*	*-16.1%*	*135.5%*	*99.0%*	*-1234.0%*	*-1713.0%*	*-735.6%*	*n.a.*
Evolva	CHF	181	148	*30.9%*	*30.3%*	*-6.1%*	*46.9%*	*-260.4%*	*-105.9%*	*-110.1%*	*-41.8%*
Fermentalg	EUR	20	32	*-46.6%*	*667.5%*	*88.5%*	*133.1%*	*-3002.0%*	*-511.2%*	*-146.2%*	*-27.8%*
Plant Advanced Technologies	EUR	21	22	*37.5%*	*9.1%*	*33.3%*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*
Novozymes	DKK	81,125	84,591	*-1.0%*	*-0.1%*	*0.1%*	*5.3%*	*35.8%*	*36.7%*	*35.7%*	*35.8%*
Codexis	USD	658	594	*21.1%*	*13.0%*	*3.7%*	*18.8%*	*-3.8%*	*-10.8%*	*-16.2%*	*-0.5%*
Yield10 Bioscience	USD	11	4	*-38.2%*	*45.0%*	*24.1%*	*30.0%*	*-1508.0%*	*-1026.8%*	*-957.3%*	*-850.6%*
Clariant	CH	5,686	7,132	*3.9%*	*-33.6%*	*-9.8%*	*6.3%*	*15.4%*	*16.8%*	*15.9%*	*16.8%*
Evonik Industries	DE	10,224	13,174	*4.2%*	*-12.8%*	*-4.2%*	*6.1%*	*17.3%*	*16.4%*	*15.1%*	*16.0%*
Lonza Group	CH	34,822	37,928	*8.6%*	*6.8%*	*4.1%*	*7.2%*	*27.3%*	*26.8%*	*27.2%*	*28.5%*
Ashland	USA	3,669	5,095	*1.4%*	*-28.8%*	*-5.6%*	*n.a.*	*18.8%*	*21.2%*	*21.4%*	*n.a.*
Median best peers				***22.6%***	***28.7%***	***24.1%***	***38.5%***	***20.0%***	***21.2%***	***21.4%***	***25.1%***
Arterra	***ITA***	***20.6***	***17.2***	***8.4%***	***21.8%***	***0.9%***	***23.9%***	***38.3%***	***34.1%***	***30.1%***	***36.9%***

Source: Banca Profilo estimates and elaborations on Factset

EV/SALES: 8.1x EV/EBITDA: 14.2x

Consistently with our sample split up, we use the average EV/SALES 2020E-2021E at 8.1x of the first sub-sample and the average EV/EBITDA 2020E-2021E at 14.2x 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 9: Market multiples

Company	EV / Sales		EV / EBITDA	
19/05/2020	**2020E**	**2021E**	**2020E**	**2021E**
BRAIN	4.0x	3.4x	n.m.	
Croda	5.2x	5.0x	17.5x	16.3x
Symrise	3.9x	3.7x	18.8x	17.1x
Deinove	18.7x	9.4x	n.m.	
Evolva	13.6x	9.3x	n.m.	
Fermentalg	8.9x	3.8x	n.m.	
Plant Advanced Technologies	14.0x	n.a.	n.m.	
Novozymes	5.9x	5.6x	16.5x	15.6x
Codexis	8.4x	7.0x	n.m.	
Yield10 Bioscience	4.0x	3.1x	n.m.	
Clariant	n.m.		11.3x	10.1x
Evonik Industries			6.9x	6.2x
Lonza Group			22.7x	20.2x
Ashland			10.3x	9.3x
Mean best peers	**10.2x**	**6.0x**	**14.9x**	**13.5x**
Arterra	**4.7x**	**3.8x**	**15.6x**	**10.3x**
premium (discount) on best peers	*-54%*	*-37%*	*5%*	*-24%*

Source: Banca Profilo estimates and elaborations, Factset

Market multiples valuation: €28.9mln or €4.4/share

We end up with an Equity Value of €28.9mln or €4.4/share, including a 15% liquidity discount and an Equity valuation of Vitalab (at 40% stake) on the same mean EV/SALES 2020-2021 of 8.1x.

Table 10: Market multiples valuation

Valuation on market multiples (€/000)					
Arterra on EV/SALES (business + growth)	**2020E**	**2021E**	**Arterra on EV/EBITDA (margins + cash flow generation)**	**2020E**	**2021E**
EV/Sales best peers	10.2x	6.0x	EV/EBITDA best peers	14.9x	13.5x
avg EV/Sales 2020-2021	**8.1x**		**avg EV/EBITDA 2020-2021**	**14.2x**	
sales	3,659	4,534	EBITDA	1,102	1,675
net debt 2019E	-3,439		net debt 2019E	-3,439	
EV	37,469	27,253	EV	16,366	22,660
Equity	40,908	30,692	Equity	19,806	26,099
Average 2020-2021	**35,800**		**Average 2020-2021**	**22,952**	
Vitalab (@ 40%) on EV/SALES	**2020**	**2021**	**Vitalab (@ 40%) on EV/SALES**		
EV/Sales	10.2x	6.0x			
avg EV/Sales 2020-2021	8.1x				
sales	1,346	1,530			
net debt (adj)					
EV	13,783	9,198			
Equity	13,783	9,198			
Average 2020-2021 (40% s	**4,596**			**4,596**	
Arterra (including Vitalab @40%)	**2020**	**2021**	**Arterra (including Vitalab @40%)**	**2020**	**2021**
liquidity discount	*15%*			*15%*	
Average 2020-2021	**34,337**			**23,416**	
Average 2020-2021 EV/SALES - EV/EBITDA					
28,876					

Source: Banca Profilo estimates and elaborations, Factset

Valuation: 12-month TP confirmed at €4.3

We confirm 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.

Recommendation raised to BUY

Given more than 30% upside on Arterra's price (€3.15 as of May, 19th), we raise our recommendation to BUY.

Arterra "ID Card"

Recommendation	Target Price	Upside
BUY	**4.3 €**	**37%**

Company Overview

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

SWOT Analysis

Strengths

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

Weaknesses

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

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

Threats

- Effective end-markets diversification within the planned time frame
- Potential diffculty 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"

mag, 20 2020 - 12:21

Recommendation	Target Price	Upside
BUY	**4.3 €**	**37%**

Main Financials

(€/000)	2017	2018	2019	2020E	2021E
Total revenue	**2,746**	**2,978**	**3,627**	**3,659**	**4,534**
yoy change	*45.3%*	*8.4%*	*21.8%*	*0.9%*	*23.9%*
EBITDA	**1,167**	**1,140**	**1,236**	**1,102**	**1,675**
EBITDA margin (%)	*42.5%*	*38.3%*	*34.1%*	*30.1%*	*36.9%*
EBIT	**1,024**	**1,067**	**940**	**526**	**919**
EBIT margin (%)	*37.3%*	*35.8%*	*25.9%*	*14.4%*	*20.3%*
Net income	**745**	**1,044**	**857**	**392**	**839**
Margin (%)	*27.1%*	*35.1%*	*23.6%*	*10.7%*	*18.5%*
Adjusted net debt (cash)	**771**	**464**	**(3,892)**	**(3,805)**	**(4,363)**
Shareholders Equity	1,715	2,559	7,110	7,503	8,341
Net Operating Working Capital	1,582	1,702	834	990	1,127
Capex and acquisitions	50	536	1,897	900	900
Free Cash Flow	586	179	641	(229)	219

Company Description

Company Sector	BioScience
Price (€)	3.2
Number of shares (mln)	6.5
Market Cap (€ mln)	20.6
Reference Index	FTSE AIM ITALIA
Main Shareholders	Gabriella Colucci, Isagro
Main Shareholder stake	28.4%
Free Float	24.9%
Daily Average Volumes	38,772
Sample of comparables	BRAIN, Croda, Symrise, Deinove, Evolva, Fermentalg, Plant Advanced Technologies, Novozxymes, Codex, Yield10 Bioscience

Breakdown by business unit

(% of total sales)	2018	2019	2023E
Cosmetic turnover	63%	60%	69%
Nutraceutical/medical devices turnover	0%	0%	8%
Research contracts and services	19%	15%	9%
Licences and royalties	0%	0%	7%
Research grants	19%	25%	7%

Data of peers

	2018	2019	2020E	2021E
Revenue Growth (yoy)	*23%*	*29%*	*24%*	*38%*
EBITDA Margin	*20%*	*21%*	*21%*	*25%*

Average data

Solvibility Ratios

	2017	2018	2019	2020E	2021E
Net debt (cash) / EBITDA	0.7x	0.4x	-3.1x	-3.5x	-2.6x
Net debt (cash) / Equity	0.4x	0.2x	-0.5x	-0.5x	-0.5x

Multiples of peers

	2020E	2021E
Best peers (business and potential growth)		
EV / SALES	10.2x	6.0x
Best peers (margins and cash flows)		
EV / EBITDA	14.9x	13.5x

Financial and Operative ratios

	2017	2018	2019	2020E	2021E
Tax rate	*-27%*	*-3%*	*-9%*	*-27%*	*-10%*
ROIC	*58%*	*45%*	*29%*	*14%*	*23%*
ROE	*43%*	*41%*	*12%*	*5%*	*10%*
Capex/Sales	*2%*	*18%*	*52%*	*25%*	*20%*
D&A to capex	n.m.	14%	26%	64%	84%

Source: Factset, Banca Profilo estimates and elaborations

DISCLAIMER

ANALYST'S AND BANK'S INFORMATION

THIS DOCUMENT CONCERNING INTRED S.P.A, (THE "ISSUER" OR THE "COMPANY") HAS BEEN DRAFTED BY FRANCESCA SABATINI WHO IS EMPLOYED BY BANCA PROFILO S.P.A. ("THE BANK") AS FINANCIAL ANALYST; FRANCESCA SABATINI IS RESPONSIBLE FOR THE DRAFTING OF THE DOCUMENT.

BANCA PROFILO S.P.A. IS A BANK AUTHORISED TO PERFORM BANKING AND INVESTMENT SERVICES; IT IS PART OF BANCA PROFILO BANKING GROUP (THE "GROUP") AND IT IS SUBJECT TO THE MANAGEMENT AND CO-ORDINATION OF AREPO BP S.P.A. (THE "PARENT COMPANY"). SATOR PRIVATE EQUITY FUND "A" LP (THE "PARENT ENTITY") HOLDS INDIRECT CONTROL PARTICIPATION INTERESTS IN BANCA PROFILO.

THE BANK IS REGISTERED WITH THE ITALIAN BANKING ASSOCIATION CODE NO. 3025 AND IS SUBJECT TO THE REGULATION AND SURVEILLANCE OF THE BANK OF ITALY AND OF CONSOB (COMMISSIONE NAZIONALE PER LE SOCIETÀ E LE BORSA). THE BANK HAS PREPARED THIS DOCUMENT FOR ITS PROFESSIONAL CLIENTS ONLY, PURSUANT TO DIRECTIVE 2004/39/EC AND ANNEX 3 OF THE CONSOB REGULATION ON INTERMEDIARIES (RESOLUTION N. 16190). THIS DOCUMENT IS BEING DISTRIBUTED AS OF [NOVEMBER, 23RD, 17:48].

THE ANALYST FRANCESCA SABATINI WHO HAS DRAFTED THIS DOCUMENT HAS SIGNIFICANT EXPERIENCE IN BANCA PROFILO S.P.A. AND OTHER INVESTMENT COMPANIES. THE ANALYST AND ITS RELATIVES DO NOT OWN FINANCIAL INSTRUMENTS ISSUED BY THE ISSUER AND SHE DOES NOT ACT AS SENIOR MANAGER, DIRECTOR OR ADVISOR FOR THE ISSUER. THE ANALYST DOES NOT RECEIVE BONUSES, INCOME OR ANY OTHER REMUNERATION CORRELATING, DIRECTLY OR INDIRECTLY, TO THE SUCCESS OF THE INVESTMENT BANKING OPERATIONS OF BANCA PROFILO S.P.A.

A REDACTED VERSION OF THIS REPORT HAS BEEN DISCLOSED TO THE ISSUER TO PERMIT TO IT TO REVIEW AND COMMENT ON FACTUAL INFORMATION RELATING TO THE ISSUER AND THIS REPORT HAS BEEN AMENDED FOLLOWING SUCH DISCLOSURE PRIOR TO ITS FINAL DISSEMINATION.

THIS DOCUMENT IS BASED UPON INFORMATION THAT WE CONSIDER RELIABLE, BUT THE BANK HAS NOT INDEPENDENTLY VERIFIED THE CONTENTS HEREOF. THE OPINIONS, ESTIMATES AND PROJECTIONS EXPRESSED IN IT ARE AS OF THE DATE HEREOF AND ARE SUBJECT TO CHANGE WITHOUT NOTICE TO THE RECIPIENT. PAST PERFOMANCE IS NOT GUARANTEE OF FUTURE RESULTS.

THIS REPORT HAS BEEN PREPARED BY ITS AUTHORS INDEPENDENTLY OF THE COMPANY AND ITS SHAREHOLDERS, SUBSIDIARIES AND AFFILIATES. THE BANK HAS NO AUTHORITY WHATSOEVER TO GIVE ANY INFORMATION OR MAKE ANY REPRESENTATION OR WARRANTY ON BEHALF OF THE COMPANY, ANY OTHER PERSON IN CONNECTION THEREWITH. IN PARTICULAR, THE OPINIONS, ESTIMATES AND PROJECTIONS EXPRESSED IN IT ARE ENTIRELY THOSE OF THE AUTHOR HEREOF.

NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, IS MADE AS TO AND NO RELIANCE SHOULD BE PLACED ON THE FAIRNESS, ACCURACY, COMPLETENESS OR REASONABLENESS OF THE INFORMATION, OPINIONS AND PROJECTIONS CONTAINED IN THIS DOCUMENT, AND NONE OF THE BANK, THE COMPANY, NOR ANY OTHER PERSON ACCEPTS ANY LIABILITY WHATSOEVER FOR ANY LOSS HOWSOEVER ARISING FROM ANY USE OF THIS DOCUMENT OR ITS CONTENTS OR OTHERWISE ARISING IN CONNECTION THEREWITH.

NO DUPLICATION

NO PART OF THE CONTENT OF THE DOCUMENT MAY BE COPIED, FORWARDED OR DUPLICATED IN ANY FORM OR BY ANY MEANS WITHOUT THE PRIOR CONSENT OF THE BANK. BY ACCEPTING THIS REPORT, YOU AGREE TO BE BOUND BY THE FOREGOING LIMITATIONS.

NO OFFER OR SOLICITAION

THIS DOCUMENT DOES NOT CONSTITUTE AN OFFER OR INVITATION OR FORM PART OF AN OFFER, SOLICITATION OR INVITATION TO PURCHASE ANY SECURITIES, AND NEITHER THIS DOCUMENT NOR ANYTHING CONTAINED HEREIN SHALL FORM THE BASIS OF ANY CONTRACT OR COMMITMENT WHATSOEVER.

RECIPIENTS

THIS DOCUMENT IS GIVEN TO YOU SOLELY FOR YOUR INFORMATION ON A CONFIDENTIAL BASIS AND MAY NOT BE REPRODUCED OR REDISTRIBUTED, IN WHOLE OR IN PART, TO ANY OTHER PERSON. IN PARTICULAR, NEITHER THIS DOCUMENT NOR ANY COPY HEREOF MAY BE TAKEN OR TRANSMITTED IN OR INTO THE UNITED STATES (THE "U.S."), AUSTRALIA, CANADA OR JAPAN OR REDISTRIBUTED, DIRECTLY OR INDIRECTLY, IN THE U.S., AUSTRALIA, CANADA OR JAPAN. ANY FAILURE TO COMPLY WITH THIS RESTRICTION MAY CONSTITUTE A VIOLATION OF U.S., AUSTRALIAN, CANADIAN OR JAPANESE SECURITIES LAWS.

THIS DOCUMENT IS BEING DISTRIBUTED ONLY TO, AND IS DIRECTED ONLY AT, PERSONS WHO ARE QUALIFIED INVESTORS WITHIN THE MEANING OF ARTICLE 2(1) (E) OF THE PROSPECTUS DIRECTIVE (DIRECTIVE 2003/71/EC) (ALL SUCH PERSONS BEING REFERRED TO AS "RELEVANT PERSONS"). THIS DOCUMENT MUST NOT BE ACTED ON OR RELIED ON BY PERSONS WHO ARE NOT RELEVANT PERSONS. ANY INVESTMENT OR INVESTMENT ACTIVITY TO WHICH THIS COMMUNICATION RELATES IS AVAILABLE ONLY TO RELEVANT PERSONS AND WILL BE ENGAGED IN ONLY WITH RELEVANT PERSONS.

IN CASE THAT THIS DOCUMENT IS DISTRIBUTED IN ITALY IT SHALL BE DIRECTED ONLY AT QUALIFIED INVESTORS WITHIN THE MEANING OF ARTICLE 100(1) (A) OF LEGISLATIVE DECREE NO. 58 OF FEBRUARY 24, 1998, AS AMENDED, AND ARTICLE 34-TER, PARA. 1, LETT B), OF CONSOB REGULATION NO. 11971 OF 1999, AS AMENDED. THIS DOCUMENT IS NOT ADDRESSED TO ANY MEMBER OF THE GENERAL PUBLIC IN ITALY. IN NO CIRCUMSTANCES SHOULD THIS DOCUMENT CIRCULATE AMONG OR BE DISTRIBUTED TO (I) A MEMBER OF THE GENERAL PUBLIC, (II) INDIVIDUALS OR ENTITIES FALLING OUTSIDE THE DEFINITION OF "QUALIFIED INVESTORS" AS SPECIFIED ABOVE OR (III) TO DISTRIBUTION CHANNELS THROUGH WHICH INFORMATION IS OR IS LIKELY TO BECOME AVAILABLE TO A LARGE NUMBER OF PERSONS.

THE DISTRIBUTION OF THIS DOCUMENT IN OTHER JURISDICTIONS MAY BE RESTRICTED BY LAW AND PERSONS INTO WHOSE POSSESSION THIS DOCUMENT COMES SHOULD INFORM THEMSELVES ABOUT, AND OBSERVE, ANY SUCH RESTRICTION. ANY FAILURE TO COMPLY WITH THESE RESTRICTIONS MAY CONSTITUTE A VIOLATION OF THE LAWS OF ANY SUCH OTHER JURISDICTION.

CONFLICTS OF INTEREST

THE BANK MAY, FROM TIME TO TIME, DEAL IN, HOLD OR ACT AS MARKET MAKER OR ADVISER, BROKER OR BANKER IN RELATION TO THE FINANCIAL INSTRUMENTS, OR DERIVATIVES THEREOF, OF PERSONS, FIRMS OR ENTITIES MENTIONED IN THIS DOCUMENT, OR BE REPRESENTED IN THE GOVERNING BODIES OF THE COMPANY. IN FACT, THE BANK ACTED AS GLOBAL COORDINATOR IN THE IPO OF THE ISSUER, THE BANK IS PRESENTLY NOMAD, CORPORATE BROKER, LIQUIDITY PROVIDER AND SPECIALIST OF THE ISSUER.

BANCA PROFILO S.P.A. HAS ADOPTED INTERNAL PROCEDURES FOR THE PREVENTION AND AVOIDANCE OF CONFLICTS OF INTEREST WITH RESPECT TO THE RECOMMENDATIONS, WHICH CAN BE CONSULTED ON THE RELEVANT SECTION OF ITS WEBSITE (WWW.BANCAPROFILO.IT, IN THE SECTION "CLIENTI AZIENDALI E ISTITUZIONALI/ANALISI E RICERCA).

EQUITY RESEARCH PUBLICATIONS IN LAST 12M

THE BANK PUBLISHES ON ITS WEBSITE WWW.BANCAPROFILO.IT, ON A QUARTERLY BASIS, THE PROPORTION OF ALL RECOMMENDATIONS THAT ARE 'BUY', 'HOLD', 'SELL' OR EQUIVALENT TERMS OVER THE PREVIOUS 12 MONTHS, AND THE PROPORTION OF ISSUERS CORRESPONDING TO EACH OF THOSE CATEGORIES TO WHICH SUCH PERSON HAS SUPPLIED MATERIAL SERVICES OF INVESTMENT FIRMS SET OUT IN SECTIONS A AND B OF ANNEX I TO DIRECTIVE 2014/65/EU OVER THE PREVIOUS 12 MONTHS.

ADDITIONAL INFORMATION

THE BANK PROVIDES ALL OTHER ADDITIONAL INFORMATION, ACCORDING TO ARTICLE 114, PARAGRAPH 8 OF LEGISLATIVE DECREE 58/98 ("FINANCIAL DECREE") AND COMMISSION DELEGATED REGULATION (EU) 2016/958 AS OF 9 MARCH 2016 (THE "COMMISSION REGULATION") ON THE RELEVANT SECTION OF ITS WEBSITE (WWW.BANCAPROFILO.IT, IN THE SECTION "CLIENTI AZIENDALI E ISTITUZIONALI/ANALISI E RICERCA").