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**Spring Investor Conference**  
**Banca Profilo**  
April 3<sup>rd</sup>, 2023

# TOPICS

- ARTERRA AT GLANCE
- POST IPO (2020-2023)  
MARKET CONSOLIDATION & DIVERSIFICATION
- FINANCIALS



# People Speaking Today

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**M. GABRIELLA COLUCCI**

Founder, President and CEO



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**GUALTIERO IOIMO**

CFO and Investor Relations Manager

# Arterra Bioscience - *Innovative SME*



## Arterra Bioscience

Is a **biotech company** listed on the “Euronext Growth Milan” market of Borsa Italiana since **2019**, founded in Naples by M. Gabriella Colucci in 2004 with the aim of developing technologies and innovative solutions that find application in various industrial sectors. Arterra is a company strongly linked to the **Campania region** from which it derives the natural raw materials underlying many of its actives, as well as being able to take advantage of the ideas and enthusiasm of its **young researchers**.

# A Bit of History

Arterra Bioscience started its activity in 2004 as a spin-off of Arena Pharmaceuticals Inc. and based its research group in an incubator laboratory in Naples

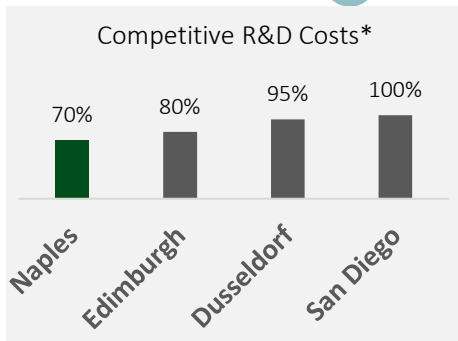


## WHY NAPLES?

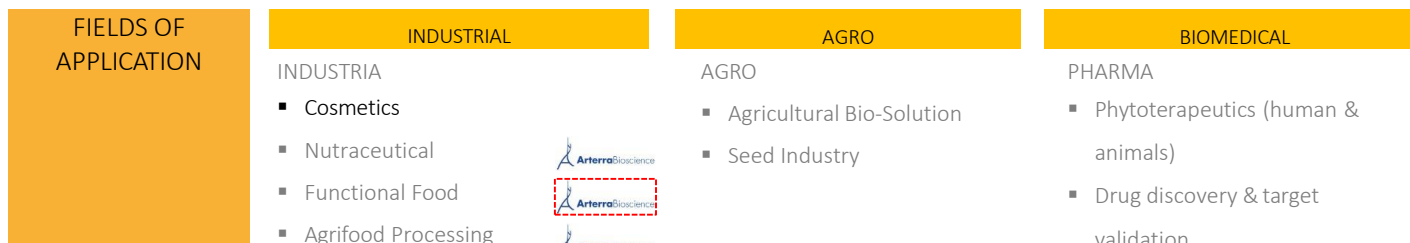
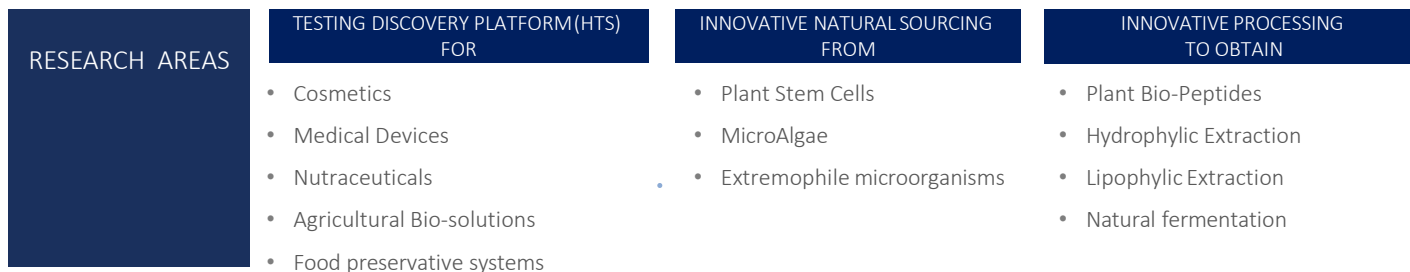
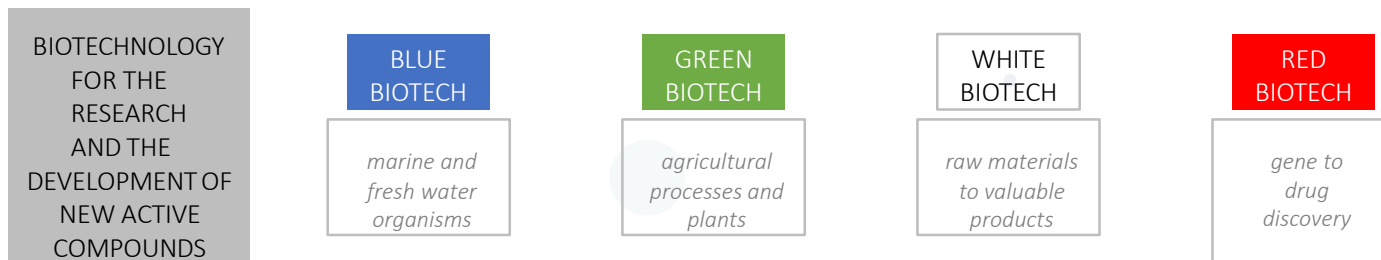
Accredited Universities and Research Centers


• EU Support fo Research


Competitive R&D Costs



# Biotech and its potential

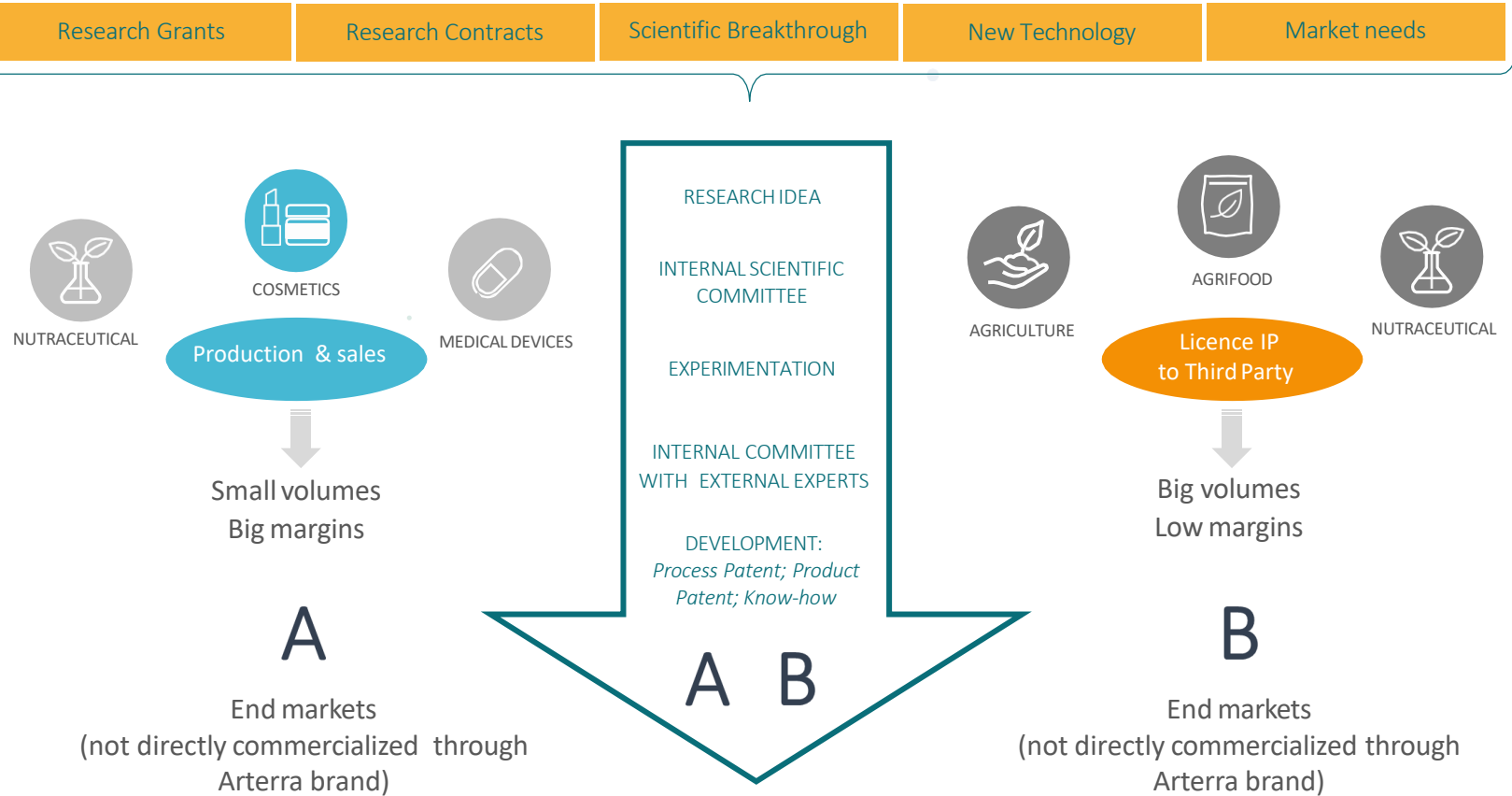


Legend:  Arterra is already active in the market

Legend:  Arterra is preparing to enter the market

Source: Company Management

# Our Buisness Model



# Our Business Model: A



Born in 2010 Vitalab Srl, a joint venture between Arterra Bioscience and Intercos

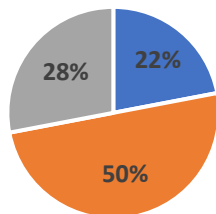




# Main Scientific Achievements & Prizes

## 18 GRANTS

Approved and **financed**  
for a total projects' value of  
approximately **€14m.**

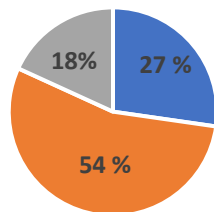


■ EU ■ National ■ Regional

## 22 PATENTS

Inventor/co-inventor of 22  
patents:

**N° 7 Worldwide Patents**  
N° 15 Italian Patents



■ Agriculture ■ Cosmetic  
■ Industrial

## 4 DEPOSITED TRADEMARK



## 52 SCIENTIFIC ARTICLES

Co-author of 30 scientific  
articles on **Peer Reviewed**  
Journals



## 46 INNOVATIVE PRODUCTS ON THE MARKET



**Marisa Bellisario Prize**  
**Mela d'oro - Women Value Company**



**EU Prize for Women Innovators**



**Rising Star 2019 In Cosmentics Global**



**"I Giganti del Mattino" Prize**



POST IPO  
2020-2023



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# Ownership & Company Structure

## Main Shareholders

**Gabriella Colucci**  
27.9%

**Paolo Colucci**  
7.5%

## Industrial Shareholders

**intercos**<sup>2021</sup>  
GROUP

8.7%

## Other Shareholders

**Zeus Capital  
Alternative SIF**  
5.0%

**Floating Shares**  
50.9%



## Employees



## Facilities



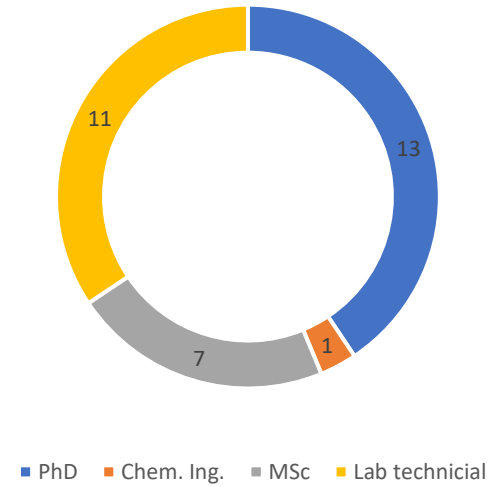
1600 Sqm

2022

## R&D Team



Production and R&D Team



The number does not include the administrative workforce (5 employees), and the PhD ad MSc students

# Management Team

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Gabriella Colucci  
CEO



Gualtiero Ioimo  
CFO  
& Investor Relations



Vincenzo Fogliano  
CSO



Giuseppe Ferrante  
COO



Marida Bimonte  
Grant & IP  
Director



Annalisa Tito  
Cell & Mol Biol.  
Director

# Company Organization

**President & CEO**  
Gabriella Colucci

**CFO and Investor Relations Manager**  
Gualtiero Iorio

**Executive Assistant**  
Alexandra Fellermeier

**Quality Control**  
Luigi Sena

**Scientific Coordinator**  
Vincenzo Fogliano

**Vitalab: Marketing Sales & Regulatory**

**Cell & Molecular Biology Director**  
Annalisa Tito

**Production Director**  
Giuseppe Ferrante

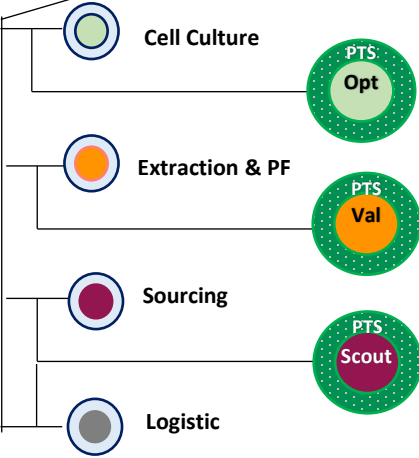
**Grant & IP Office Director**  
Marida Bimonte

## MANAGEMENT TEAM (MT)

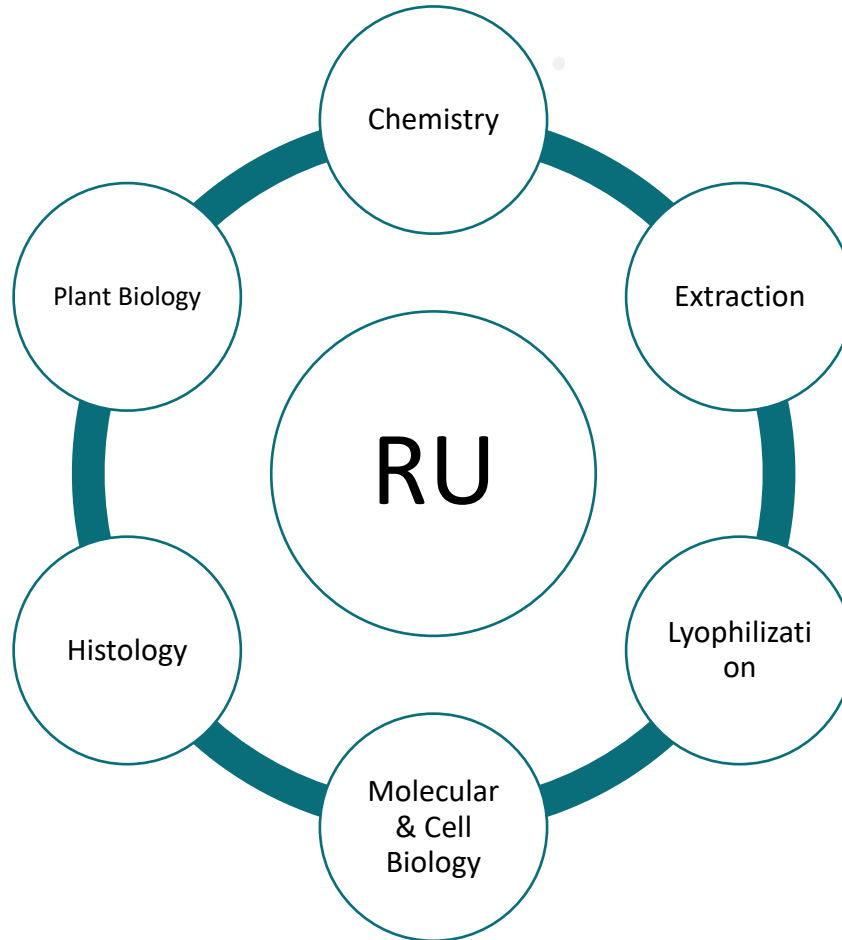
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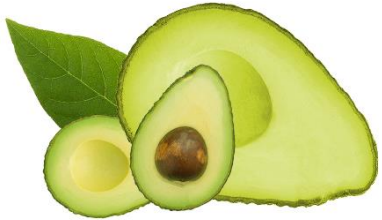
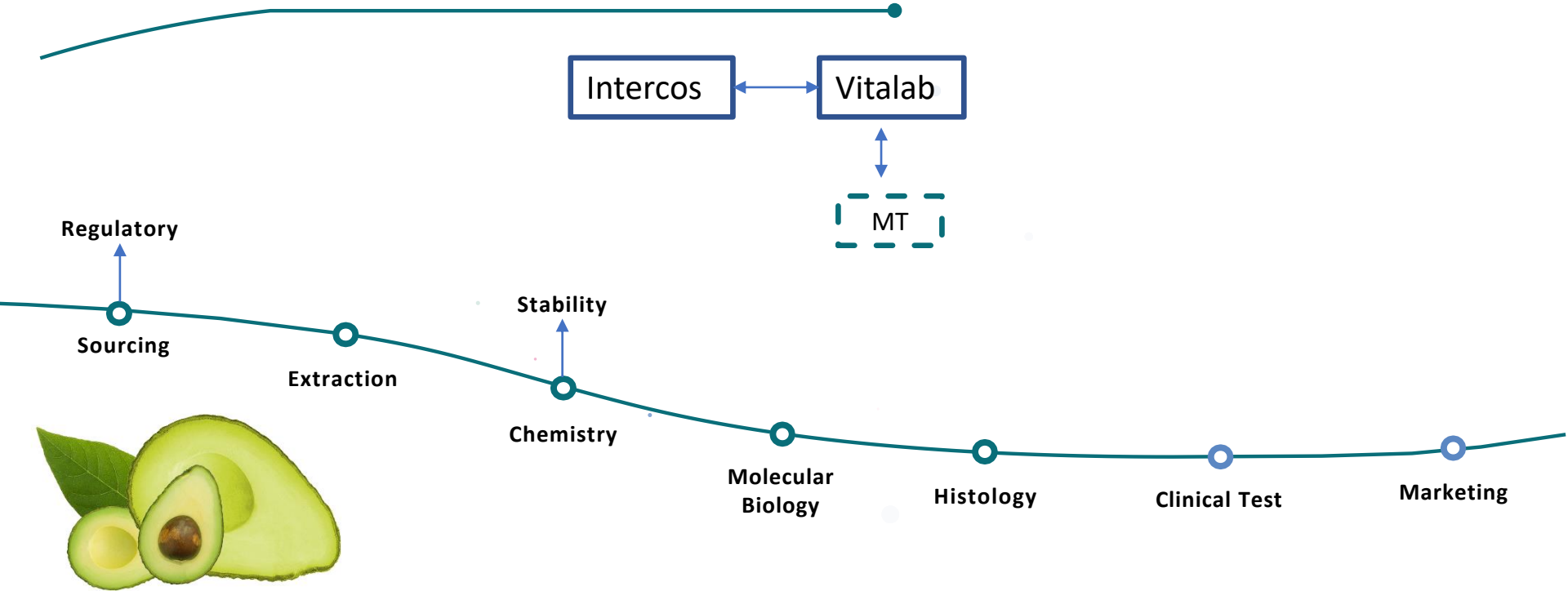
PTS Assay



## Research Units



## Research Units - Case study



# Vita AvoCare

3 months research project



# Capex



Total Investment: 1.8 M

New Chemistry lab

New Growing capability

Update Production lab

Update Cell Biol Lab

Utilities, Machinery, Equipment

# Certifications



# Production Capabilities

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

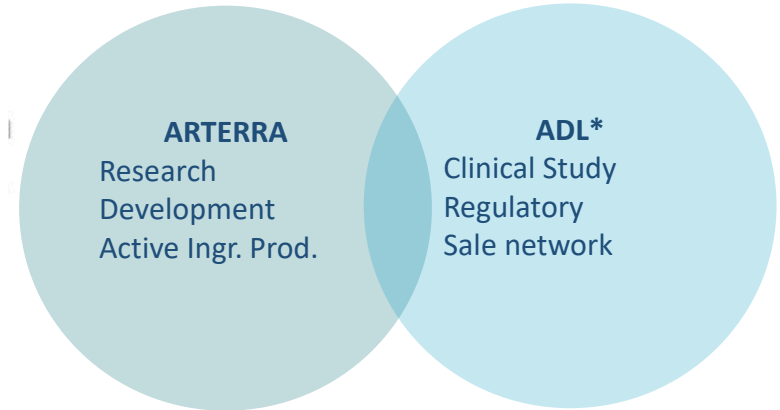
# M&A

To enhance the competitive advantage of **ARTERRA**



On 25 June 2021, **ADL Farmaceutici** completed a transaction bringing together key investors such as **Arterra Bioscience S.p.A.**, listed on Euronext Growth Milan of the Italian Stock Exchange, **Dr. Giorgio Basile**, previously the reference shareholder of Isagro S.p.A., a company listed on the MTA market in the STAR segment of the Italian Stock Exchange, and **Salvatore and Antonio Riccio**, the fourth generation of a family always involved in the Italian pharmaceutical scene.

**Arterra Bioscience,  
contract with ADL  
Farmaceutici /  
Del&Bas Pharma for  
the sale of medical  
devices**



**\*ADL** changed its denomination in  
Del&Bas Pharma

# Business Consolidation

## Innovation in COSMETICS - 2020-2022

### New Products on the Market



NC55 Vita Ray-Immune  
*Pelargonium capitatum*  
plant cells extract



NC56 Anchoryl Vita  
*Scabiosa arvensis*  
plant cells extract



NC57 Vita Adren-Align  
*Ficus carica*  
plant cells extract



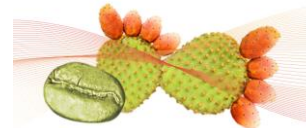
NC59 Vita BotaniGuard.  
*Punica granatum*  
peels extract



NC60 Vita Up-Gravity  
*Oenothera Biennis*  
plant cells extract



NC61 Vita Avocare  
*Persea gratissima*  
fruit extract



NC62 Vita Xtend  
*Opuntia ficus indica* cladodes extract +  
*Coffea arabica* seed extract



NC63 Vita GojiVerse  
*Goji berries*  
extract



NC64 Vita Gly-Jasmin  
*Jasminum Sambac*  
Plant cell extract

# Business Consolidation

## Innovation in COSMETICS - 2020-2023

### Scientific Publications

- Zappelli C, *et al.* **Scalp soothing properties of Portulaca oleracea.** Personal Care Magazine, January 2023.
- Ceccacci S, *et al.* **Jasminum sambac Cell Extract as Antioxidant Booster against Skin Aging.** Antioxidants 2022, 11, 2409.
- Tito A, *et al.* **Innovative 3D skin and plant models to monitor Piezo1- and Piezo2-driven mechanotransduction.** IFSCC Magazine, Volume 25 (5), 2022.
- Ceccacci S, *et al.* **Promitotic Action of Oenothera biennis on Senescent Human Dermal Fibroblasts.** International Journal of Molecular Sciences 2022, 23, 15153.
- Zappelli C, *et al.* **Rose Geranium Rebalances IR-, Blue Light- and UV-Altered Skin Biomarkers.** Cosmetics & Toiletries, September 2022.
- Gogliettino M, *et al.* **Recombinant expression of archaeal superoxide dismutases in plant cell cultures. A sustainable solution with potential application in the food industry.** Antioxidants 2022, 11, 1731.

# Business Consolidation

## Innovation in COSMETICS - 2020-2023

### Scientific Publications

- Zappelli C, *et al.* **Imperfectly perfect: moisturising and anti-ageing potential of an oil-soluble extract from rejected avocados.**  
HPC Today vol. 17 (3), 2022.
- Ceccacci S, *et al.* **An Oenothera biennis Cell Cultures Extract Endowed with Skin Anti-Ageing Activity Improves Cell Mechanical Properties.**  
Metabolites 2021, 11, 527.
- Apone F. **Uses and properties of bioactive peptides in skin care.** HPC Today, vol. 16 (3), 2021.
- Tortora A, *et al.* **Soothing Moves: Cannabis Sativa Cell Culture Alleviates Inflammation.**  
Cosmetic & Toiletries, Jan 2021, vol. 136, n. 1, 34-39
- Tito A, *et al.* **An hydrosoluble extract from Oenothera biennis cell culture produces skin anti-ageing effects by improving cell mechanical properties.**  
The proceeding of the 27<sup>th</sup> IFSCC Congress 2021, Mexico.
- Dini I, *et al.* **An extract from Ficus carica cell cultures works as an anti-stress ingredient for the skin.**  
Antioxidants, 2021, 10, 515.

# Business Consolidation



## Innovation in COSMETICS - 2020-2023

### Scientific Publications

- Laneri S, *et al.* **Plant cell culture extract of *Cirsium eriophorum* with skin pore refiner activity by modulating sebum production and inflammatory response.** *Phytother Res.* 2020; 10.1002/ptr.6832. doi: 10.1002/ptr.6832.
- Tito A, *et al.* **A peptide preparation from *Scabiosa arvensis* cell cultures increases skin compactness by stimulating Collagen XVII and Insulin-like Growth factor.** The Proceedings of the 26th IFSCC Congress 2020, Yokohama.
- Apone F, *et al.* **Plant tissue cultures as sources of ingredients for skin care applications.** *Annual Plant Reviews* 2020, 3: 135-150.
- Tito A, *et al.* **A *Triticum vulgare* extract exhibits regenerating activity during the wound healing process.** *Clin Cosm & Invest Dermatol* 2020, 13: 21-30.
- Tito A, *et al.* **A new ingredient from *Rosa rugosa* tissue cultures delays skin aging by promoting mitochondrial functions.** *Personal Care Europe* 2020, April 131-137.



# Business Consolidation

## Innovation in COSMETICS - 2020-2023

### Patents

- **102020000021994.** Uso cosmetico di estratti derivati da colture cellulari appartenenti alla specie *Oenothera biennis* e composizioni cosmetiche che contengono tali estratti.
- **102019000021324.** Uso cosmetico di un estratto derivato da colture cellulari di *Portulaca grandiflora* per il trattamento di inestetismi cutanei dovuti all'invecchiamento della pelle.
- **102019000009558.** Uso cosmetico di estratti derivati da colture di cellule vegetali appartenenti alla specie *Pelargonium capitatum* e composizioni cosmetiche che contengono tali estratti.
- **WO2020127056A1.** **Cosmetic, pharmaceutical and nutraceutical** use of an extract derived from cannabis sativa cell cultures.

# Business Diversification

## Innovation in MEDICAL DEVICE - 2020-2023

### Scientific Publications

Tito A, *et al.* **Pomegranate Peel Extract as an Inhibitor of SARS-CoV-2 Spike Binding to Human ACE2 Receptor (in vitro): A Promising Source of Novel Antiviral Drugs.**  
Front Chem. 2021 Apr 28;9:638187.

Tito A, *et al.* **A pomegranate peel extract as inhibitor of SARS-CoV-2 Spike binding to human ACE2 (in vitro): a promising source of novel antiviral drugs.**  
bioRxiv December 2020.

### Patents

**102021000020309.** Estratti derivati da olive e pale di fico d'India per l'uso nella prevenzione e nel trattamento della dermatite atopica.

**102020000018949.** Estratto derivato da bucce di *Punica granatum* per il trattamento di infezioni virali.

# Business Diversification

First product on the medical device market



# Business Diversification

## MEDICAL DEVICE & NUTRACEUTICAL

### Grant

NUTRABEST - Fondo Crescita Sostenibile “Agrifood”, DM 5.3.2018, (Gennaio 2020 -Gennaio 2023) - Sviluppo di piattaforme molecolari e cellulari per l’identificazione di prodotti innovativi ad attività NUTRAceutica da Biotrasformazioni mediante organismi ESTremofili.



### Atopic Dermatitis



### Patent

102021000020309.Estratti derivati da olive e pale di fico d’India per l’uso nella prevenzione e nel trattamento della dermatite atopica.

### Clinical Study – in progress



# Business Diversification

## AGRIFOOD



**June 2021:** Arterra Bioscience and Montecarlofruit S.a.r.l., specialized in the production of aseptic mango fruit purea for baby food, in Mali, signed a research agreement for the up-cycling of the mango waste.

## Fruit for peace



It is an ongoing project promoted by Montecarlofruit and born as a project of economic activation and social development designed for marginal contexts and characterized by states of endemic emergency.



MANGO PUREE



### SOCIAL AND ECONOMICAL IMPACT



**60 PERMANENT WORKERS**



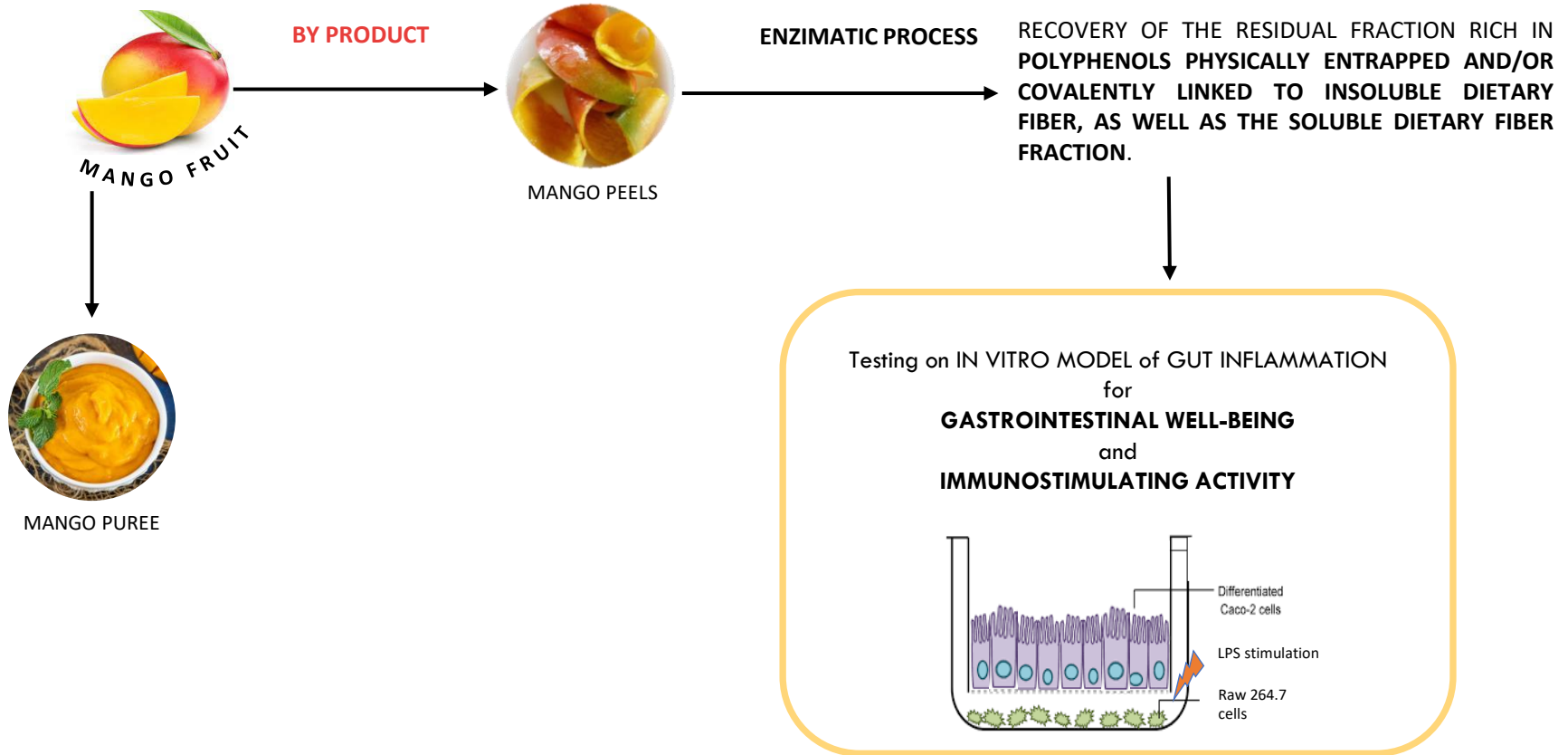
**4.300 SMALL FARMERS**



**42 COOPERATIVES ACROSS THREE REGIONS IN MALI**



**TECHNICAL ASSISTANCE** TO SUPPORT THE DEVELOPMENT AND UPGRADE OF PLANTATIONS AND THE IMPLEMENTATION OF SUPPLY CHAIN TRACEABILITY SYSTEMS



# From lab protocol to industrial process



**MANUFACTURING PROCESS**



**INDUSTRIAL SCALE-UP**



**PROCESSED MANGO PEELS**


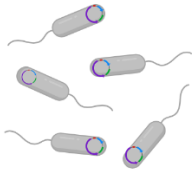



Our Research Scientist Antonio with local farmers in Mali

**MANGO FUNCTIONAL PUREE**



# Granted Projects

✓ InnCoCells	✓ SmartLab	✓ Plantform
Granted:Horizon 2020 2021-2024	Granted: Region 2022-2023	Granted: MISE 2023-2025
<i>Cosmetics</i>  <i>PLANT CELL CULTURE</i>	<i>Technology Environment</i>  <i>LATTOBACILLUS SP</i>	<i>Cosmetics Agrifood Nutraceuticals Medical Device</i>  <i>PLANT CELLS AND TISSUES AS BIOFACTORY</i>
ACTIVE INGREDIENTS	NEW EXPRESSION TOOL RNAi FOR BEE DEFENCE	ACTIVE INGREDIENTS FOR INDUSTRIAL APPLICATION
	 Engineered lactic acid bacteria	



FINANCIALS

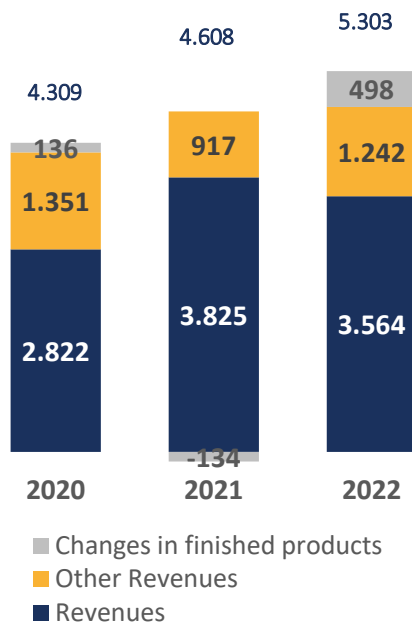


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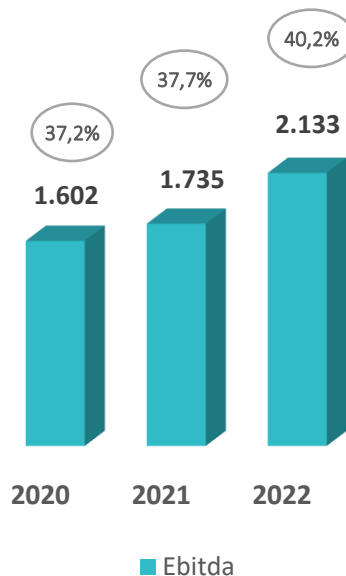
# Limited production costs driving compelling profitability: thriving upside arising from additional revenues to be mostly converted in EBITDA

Value of Production (€/000)



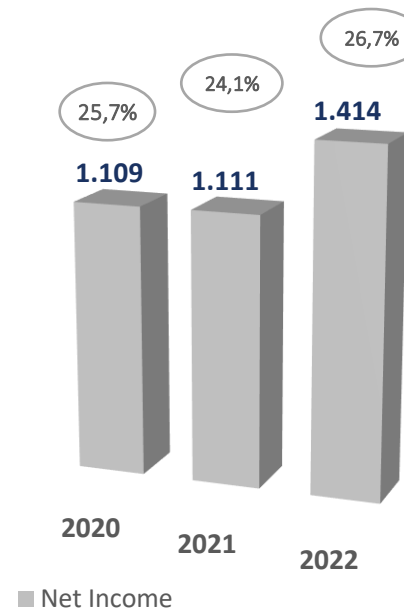
YoY 2021-2022: + 15,09%

Ebitda (€/000)



YoY 2021-2022: +22,88%

Net Income (€/000)



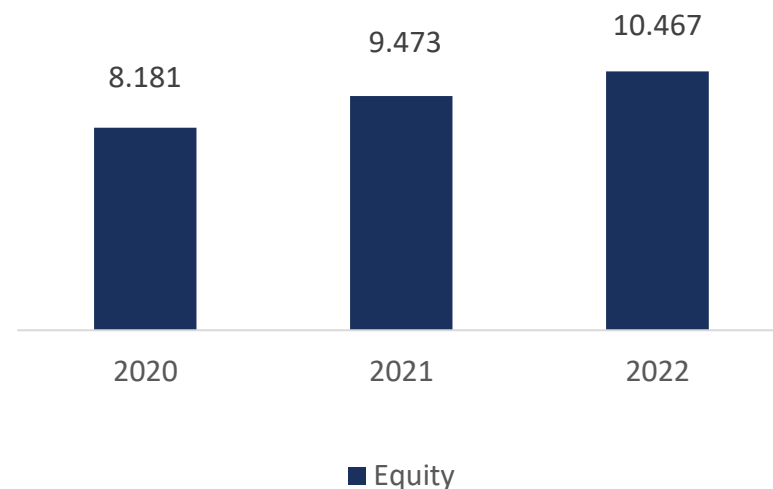
YoY 2021-2022: +27,33%

# Net Debt / Equity

Net Debt (€/000)

	2020	2021	2022
Cash and Cash Equivalents	(4.536)	(4.814)	(4.393)
Current Financial Receivables	(340)	-	-
Financial assets other than fixed assets			(1.598)
Current Financial Debt	218	223	174
<b>Current Net Debt</b>	<b>(4.658)</b>	<b>(4.591)</b>	<b>(5.817)</b>
Long term Financial Receivables	-	-	-
Long term Financial Debt	592	391	315
<b>Net Debt (Cash)</b>	<b>(4.067)</b>	<b>(4.199)</b>	<b>(5.502)</b>
<b>*including credits from grants</b>	<b>(4.587)</b>	<b>(4.923)</b>	<b>(6.407)</b>

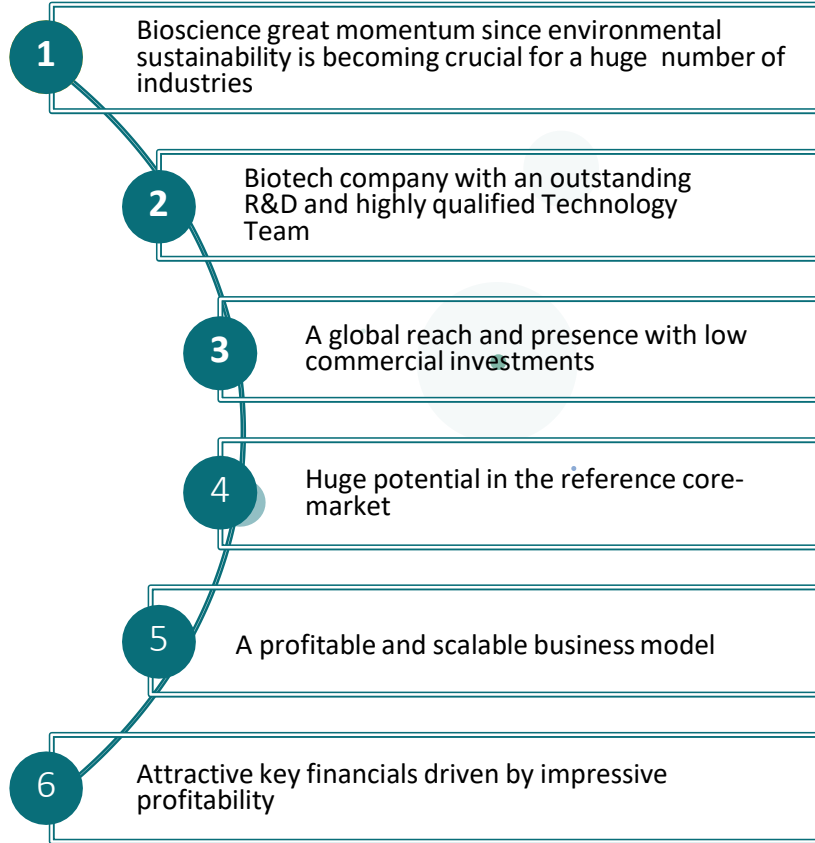
Equity (€/000)



THE **BOARD OF DIRECTORS**, WHICH MET ON MARCH 30<sup>TH</sup> 2023, FOR THE FY 2022 **PROPOSED TO DISTRIBUTE A DIVIDEND OF 666 €/K (DIV/PRICE 4,5%<sup>(1)</sup>)** TO BE PAID IN MAY 2023, SUBJECT TO THE APPROVAL OF THE SHAREHOLDERS' MEETING WHICH WILL MEET AT THE END OF APRIL

(1) calculated with stock price updated to March 30<sup>th</sup>, 2023

# Key Highlights



THANKS



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