# 2021 LAB.INSTRUMENTS COMPANY PROFILE











#### "OUR SOLUTION IS YOUR SOLUTION"



#### DATI AZIENDALI

#### Company name:

LAB.INSTRUMENTS S.R.L.

Legal and operation headquarter: Castellana Grotte SS 172 (Putignano-Alberobello) km. 28+200

Phone:: +39 080.4969749 - fax: +39 080.2121749 - E-mail: info@labinstruments.it - PEC: labinstruments@pec.it

Web sites: www.crmlabstandard.com- www.labstandard.org - www.quelab.it VAT Number: IT 03176570723 - Code for electronic invoicing: KRRH6B9.

Date of foundation: 24 luglio 1984

CCIAA Bari: n. 247858 del Economic Admistrative Directory. Court of Bari: n. 12439 -16361 and 900/84 of Business Register.

Amministratore: Dr. Cosimo Mario Stefanelli MP: +39 3357168330 E-mail: m.stefanelli@labinstruments.it

#### **Activity Code:**

- ATECOFIN 2004 n. 24.66.5 "Manufacture of chemical products for non industrial use".
- ATECO 20.59.90 "Production of fine chemical standards and Certified Reference Materials (CRM) for environmental control and food safety ".

#### Research Registry of the Ministry of Education, University and Research (MIUR/MURST):

• Research Istitute of the Ministry of Education, University and Research (MIUR) registered since 2002 in the National Research Registry at n. 52833UTS.

#### Autorizzazioni/Licenze esercizio:

- Office Narcotics Center: Authorization pursuant to Presidential Decree n. 309 of 9/10/1990 Ministry of Health with DM n. 7879 of 04.07.1996.
- Authorization for hydrocarbons (Benzene-Toluene-Xylene) Law n.786 30.11.1976 Ministry of Finance UTIF n.15837 of 10.11.1986.
- License n.12432 for alcohols and sugary substances as per D.P.R. 162 of 12.02.1965 and subsequent amendments Ministry of Finance UTIF
- Resp. "PASSOE" code of the AVCPass system of the A.N.AC. (National Anti-Corruption Authority (Law 114/2014). Resp. Dr. Mario Stefanelli.
- Provisions regarding the installation of the systems referred to in the Ministerial Decree 37/2008 of the MISE. Authorization DM 37/2008. Plant Manager: Ing. C. Demarinis Cesare.

#### Equity investments in companies:

• Shareholder and partner of Banca Credito Cooperativo di Castellana Grotte.

Share capital: € 1.000.000.00 i.v.

Net assets: € 3.399.893,00 -. (Balance sheet data as of 31.12.2021).

## Benvenuti in Lab.Instruments srl



#### **VISION**

## Protagonists of improving the quality of the environment and food safety

Become the competent and trusted partner of any organization that operates in the field of scientific research.







#### **MISSION**

To create innovative, cheap and high quality products that facilitate scientific research activities. Develop analytical methods.

Create Certified Reference Materials (CRM & RM) for the determination of residues of micropollutants in food and the environment.







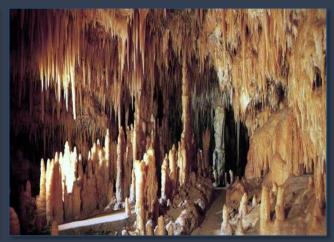
#### ..where we are...

We are in Puglia, in the splendid Territory of Trulli and Caves, in the province of Bari, between the Municipalities of Alberobello and Castellana Grotte, very close to Polignano a Mare, Ostuni and Martina Franca..

In a landscape constrained area, far from any industrial emission or external source of pollution, we have built the first and only industrial factory in Italy for the "Production of pure standards and certified reference materials (CRM) for environmental and safety control food" (ATECO Code n.20.59.50).







Our industrial site immediately obtained the ISO 14001 environmental certification.

#### ...who we are ...

We are a group of chemists, CTFs, pharmacists, biologists, laboratory technicians, technical assistance specialists, instrumental analytical chemistry experts, with over a century of experience in the field of chemical analysis with techniques that use analytical systems and high scientific instruments. technology.

Our particularity is to possess rather unique skills, ability and knowledges in very specific sectors.

Skills that we have made available to the company, allowing them to implement innovative production processes and create products with unique characteristics.

We are the forerunners of the standards in solution and in mixture and among the few accredited ISO 17034 for their production.

Growing up in Carlo Erba Spa, we have matured in Thermo Fisher Scientific Inc., one of the most prestigious multinationals in the sector, also famous to the television audience because their equipment appears in TV series such as CSI, NYCI, etc.

Since 2006 we have focused our energies on LabStandard® - Qpp-Lab® - QuE-Lab® and Ion-Lab® projects.







We are at the service of science and we make products for those who do science.

#### ... our history .....

#### **FOUNDATION**

While the Olympics were being disputed in Los Angeles and Carl Lewis was winning his beautiful four gold medals, in the Apulian territory of the "Trulli e delle Grotte" the srl Lab.Instruments was established, whose partners were unaware that the future kept them from "Having to run" faster than the famous champion.



#### R&D

Launch of R&D activities for new Certified Reference Materials (CRM). Design and validation of "multi component" mixtures of pesticides for the calibration of mass spectrometers.

#### Funded research projects:

PON S.I.Mi.S.A. di € 8.276.602 (2014-2018), POR DEMETRA € 1.219.284 (2018-2020) MISE NEMESI €.4.036.499 (2018-2021).

1984

2002

2006

#### RESEARCH ISTITUTE OF MIUR

Registration in the Research Registry of MURST-MIUR since 2002 with no. 52833UTS (recognition of the status of "Research Body"). Realization and management of post-graduate Masters for young graduates in scientific subjects. Assignment of 20 scholarships for a value of € 300,000.00 in the context of PON projects funded by MURST-MIUR for € 660,000,00.



## ..... development and change ....



Achievement of ISO Guide 34: 2009 accreditations "General requirements for the competence of Reference Material Producers" abd ISO/IEC 17025:2005 "General requirements for the competence of testing and calibration laboratories" which are added to the certificationsi UNI EN ISO 9001:2005 and ISO14001-2005



**CERTIFIED QUALITY** 

2009

2011



#### **NEW HEADQUARTER**

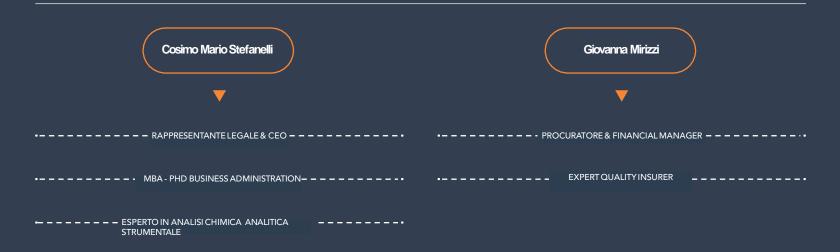
Inauguration of the new laboratories in the presence of scientific personalities, political and religious authorities including the Minister for Regional Affairs. Presentation of the first kits containing up to over 200 Analytical standards of pesticides for analysis in GC-QqQ and LC-QqQ distributed in only six stable and homogeneous mixtures. Launch of CRM & RM and Analytical Standards production activities for environmental control and food safety

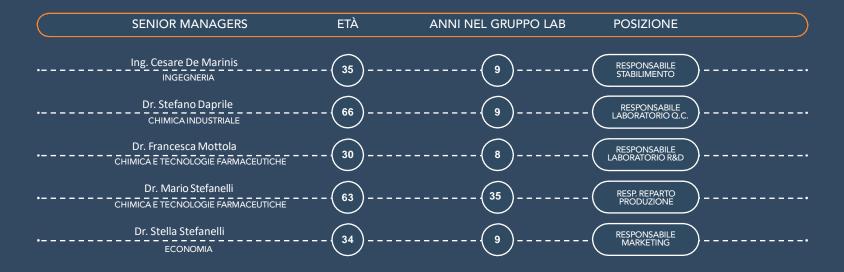


#### INTERNAZIONALIZATION

Launch of the company's internationalization activities. Participation in international trade fairs (CHEM-MED2015 EXPO Italy - ANALYTICA 2016 and 2018 in Munich (Germany). Participation in Work shops and sector conferences (MS FOOD DAY 2015 in Foggia (IT) and 2017 in Bologna (IT) - IMSC 2018 in Florence (IT) EURL-NRL 2016 and 2018 in Almeria (Spain) EPRW 2018 in Munich (Germany) LARPW2019 Foz de Iguazu (Brazil) - NACRW2019 in Naples (Florida). RAFA (Prague) and ArabLab2021.

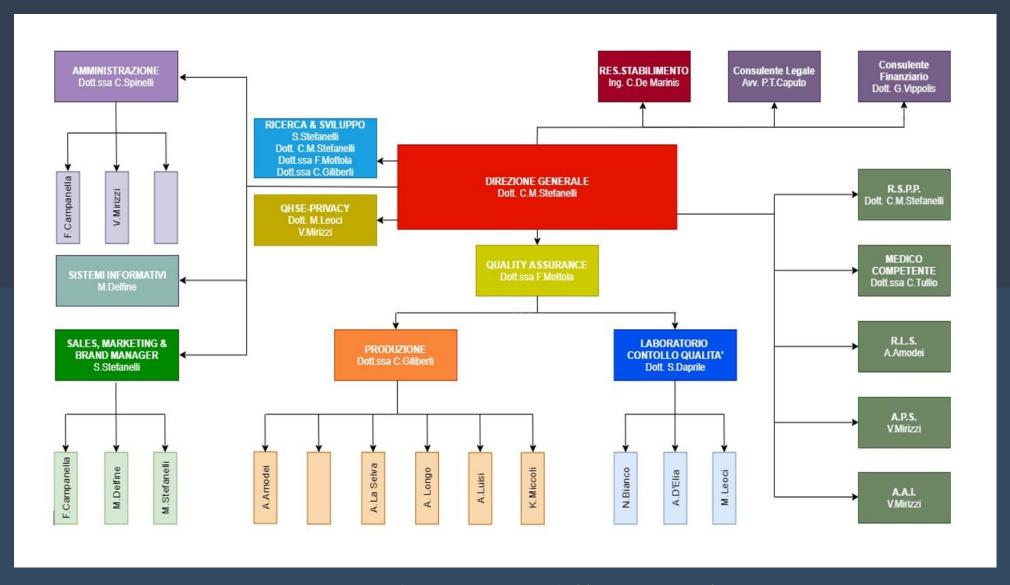
## Management Team





Il management è costituito dai soci e daparte delle unità lavorative.

## **ORGANIZATION CHART 2022**



#### ... the new company headquarters ...



Over 5,000 sqm structure has production laboratories, Quality Control laboratories, Research and Development laboratories, large offices, warehouses, meeting room with the necessary services including bar, canteen, parking, annex for interns or visitors. High-tech scientific instruments are installed in the laboratories, purchased with the contribution of MISE, MIUR, Credito Impsta Sud and Industria 4.0.





## ... the new production laboratories ...



These laboratories produce well over 4,000 Reference Materials (CRM & RM) and over 6,000 Analytical Standards under brand.The **LabStandard®** main packaging consists of amber and silanized glass ampoules sealed in an inert atmosphere. Storage takes place in refrigerated spaces of over 20,000 liters. Collective Protection Devices such as: clean rooms », glove boxes, absolute filtration hoods, together with all kinds of PPE, guarantee the safety of the operators and the quality of production.









## ... the degree of innovation of the laboratories ....

We are the first RMP (Reference Materials Producer) to have used (2010) Nuclear Magnetic Resonance (1HqNMR) to give traceability and metrological traceability to the purity and stability measurements of chemical standards.

1H-NMR spectroscopy can be considered a primary analysis technique which, unlike any other, does not need the same compound as the one to be analyzed as a reference standard. One of the characteristics of 1H-NMR spectroscopy is that the intensity of the signal is proportional to the number of hydrogens that generate the signal itself. In this case, by relating the number of protons of one of our products with that of a primary standard of National Institute of Science and Tecnology (USA) (Anal. Chem. 2015, 87, 6709-6717), we have been able to qualify and assign property values to hundreds of organic substances with a high degree of purity, mainly pesticides and metabolites, from which we produce CRM & RM or Analytical Standard with the patented LabStandard® brand used in chemical laboratories all over the world as they comply with ISO 17025:2017 (§ 6.5).







## ... LabStandard® products...

LabStandard® is the registered trademark which identifies the Analitycal Standards and Certified Reference Materials (CRM) produced by Lab.Instruments® (Italy).

The line is mainly composed of standards of native pesticides and metabolites and of the corresponding isotopically labeledlinea si compone prevalentemente di standards di pesticidi e metaboliti nativi e dei corrispondenti marcati isotopicamente con <sup>13</sup>C, <sup>2</sup>H, <sup>15</sup>N, <sup>18</sup>O, etc.. To these have been added, and others are being added, standards and CRMs of other micropollutants such as: IPA, PCBs, PFAS, MOSH, MOAH, Ftalati, , Heavy Metals, cations ed anions.

With the exclusive stable, homogeneous and CRM certified multicomponent blends, we create dozens of high-performance "LabStandard Explorer Collection Kit" consisting of hundreds of CRM standards distributed in a few stable and homogeneous mixes to be used in ISO / IEC 17025 accredited laboratories, in the instrumental calibration phases of the multi-residue analysis in 17025 accredited laboratories.

Some "kits Explorer" have been made in collaboration with the most famous manufacturers of mass spectrometers, they are of the "triple quadruple" type (GCQqQ or LCQqQ) or "Time of Fly" (ToF) or with "Orbitrap ™ technology, to make the methods immediately usable o Application Notes made by them.







LabStandard® products are the solution to the difficulties of those who work in controlling the safety and quality of food.

## .. he advantages of LabStandards ®...

LabStandard® products offer indisputable technical, quality, safety and cost-effective advantages, such as:

- less use of hours / man (at least 7x) for setting up the "Working solutions";
- greater safety for operators compared to the use of dangerous "neat" standards;
- lower risk of contamination of the areas of the laboratories where gravimetric measurements are carried out;
- more frequent control of the "instrumental tune" and of the MRM transitions for the same hours/man engaged;
- quickly update the variation of Retention Times (Rt) and improve selectivity and sensitivity in MSMS;
- improve the efficiency, reduce the frequency of calibrations, validate the performance of the analysis method;
- calculate the recoveries of the "sample preparation" an improve accuracy by reducing uncertainty;
- significant savings in money (at least 3x) compared to the purchase of dangerous "neat";
- drastic decrease in the consumption of laboratory glassware (10x less) and refrigerated spaces (at least 7x);
- significant reduction in the consumption of ultra-pure solvents and related disposal costs (at least 30x).







LabStandard® products and "Explorer kits" are the higher quality alternative to the expensive and dangerous "neat" standards.

#### ... Production of extraction and purification systems QuE-Lab®...

We produce the widest line of extraction systems based on the QuEChERS method (M.Anastassiedes, S.J. Lehotay, D.Stajnbaher and F.J. Schenken U.S.A. - 2003) for the LLe extraction and for the clean-up (d-SPE) of pesticides, mycotoxins, acrylonitrile, etc. from food matrices.

QuEChERS is the acronym of Quick, Easy, Cheap, Effective, Rugged and Safe.

We produce LLe and dSPE systems for the US and Asian market, i.e. compliant with the A.O.A.C. 2007.01 and at the same time we manufacture all systems compliant with EN15662: 2018 intended for European users.

Our line of extraction and purification systems is completed with the SweEt system (Swedish Ethyl Acetate Method) introduced by Dr. Susan Ekroth of the Swedish National Food Agency.







QuE-Lab® products are packaged using an identifying «Color Code» for caps, labels, boxes, etc.





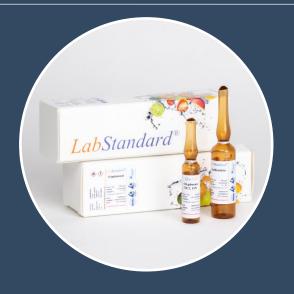
#### ... the products we introduced in 2021 ...

We have completed the Ion-Lab branded product line consisting of CRM solutions, with primary NIST traceability, of inorganic standards for the calibration of ICP-OES and ICPMS as well as Ion Chromatographs and multi-parameter anion-to-cation analyzers.

The product line for the m/z ratio calibration of all Thermo Fisher Scientific mass spectrometers has been completed with the introduction of calibrators for all QqQ Thermo, HRMS Orbitrap ™, Velos ™, QExactive ™ series, etc.

We have created the new CRM blends of polar pesticides (Glyphosate, AMPA, Glyphosinate, etc.), native or labeled with isotopes <sup>13</sup>C, <sup>2</sup>H, <sup>15</sup>N, <sup>18</sup>O, etc. used in the analysis of polar pesticides in foods of plant and animal origin, in accordance with the methods QuPPe-AO and QuPPE-PO.

We have introduced the new LabStandard Explorer Collection Kits (676 + 474) specifically made for the Russian market as a result of a collaboration with the Russian State Center for the Quality and Standardization of Medicines for Animals and Feed (FGBU "VGNKI").







## ... the "incoming" products for 2022-2023 ...

#### The FOOD Division:

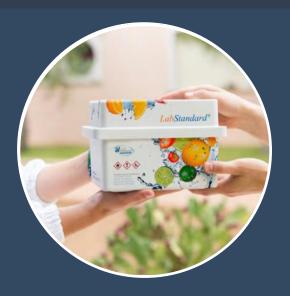
is completing the CRM validation of polar metabolites and pesticides provided for in the recently published Official Methods of the EURL for analysis of residues in foods of animal origin (QuPPe-AO) and of plant origin (QuPPE-PO). With the inclusion of LabStandard® isotopically labeled with <sup>13</sup>C, <sup>2</sup>H, <sup>15</sup>N, <sup>18</sup>O, of Phosphonic Acid-<sup>18</sup>O3, Glyphosate-<sup>13</sup>C<sup>15</sup>N, Chlorate-<sup>18</sup>O3, Ethephon-D4, AMPA-<sup>13</sup>C<sup>1</sup>N, Glufosinate-D3- our proposal becomes the most complete on the market. The

#### **ENVIRONMENT Division:**

is completing the preparation of CRM mixtures of PFAS, MOSH-MOAH (Mineral Oil Saturated and Aromatic Hydrocarbon), ZDHC WasteWater, marked isotopically and not already some prestigious laboratories such as: Food and Drug Administration (FDA), Environmental Protection Agency (EPA), Association of Official Agricultural Chemists (AOAC), United States Department of Agriculture (USDA) tested.







The LabStandard® QuPPE catalog is the most complete CRM of polar pesticides and metabolites included in the EURL Official Methods.

#### ... the R&D and Q.C laboratories....



In the R&D laboratories we create new CRM & RM and study new variants to QuEChERS extraction and purification systems. We identify new Primary NIST Standards (SRMs) that allow us to characterize, qualify and certify other candidate raw materials using 1HqNMR.

In ISO 17025: 2017 accredited Quality Control laboratories we carry out homogeneity, stability and switchability tests on products and related metabolites.





## ... the instrumental equipment of our laboratories...

Lab.Instruments was the first Italian company (2011) to obtain ISO Guide 34: 2009 accreditation "General requirements for the competence of reference material producers" with annexed ISO / IEC 17025 accredited Quality Control laboratories where dozens of tests and checks are carried out using modern analysis techniques, such as: GC, HPLC, KF, NIR, NMR, CHNSO, FTIR, NIR, UV/VIS, AA, ICP-OES, ICPMS, GCMSMS, LCMSMS, GCHRMS, LC-FTMS Orbitrap®(\*), etc..

#### The main instrumental equipment of the R&D and Q.C. it's composed by:

- TSP AS4000 P4000 FL3000 CQ Sw
- HPLC Surveyor + DAD CQ Sw (n.2)
- TSP AS4000 P2000 RI Shodex (n.2)
- Thermo Trace GC Ultra/PolarisQ Triplus
- Thermo Trace ISQ 8000-Triplus
- Thermo Trace GC ULTRA + TRIPLUS (n.6)
- Thermo GC Ultra/TSQ9000 + Triplus
- Thermo GC Ultra Triplus FID (n.3)
- Thermo Surveyor/ TSQ Quantum Ultra
- Thermo Dionex/ TSQ
- Thermo Dionex / Exactive\*
- Thermo / Surveyor/LCQ Deca (n.3)
- Autoanalyzer Smartchem 200
- Bruker NMR Fourier 80 + PAL
- ICP-OES Thermo ICAP + AS520
- Thermo Dionex / Q-Exactive\*







The important instrumental equipment and the large number of validated procedures and methods are the basis of the

#### Certificazioni ed Accreditamenti Internazionali

Following the recommendations of International Laboratory Accreditation Cooperation (I.L.A.C.), we pursue multiple accreditation by means of which we are able to guarantee industry operators the best in quality and the highest level of product reliability. We are the first RMP in Europe to have obtained ISO 17025: 2005 / ISO Guide 34: 2009 accreditation (today ISO 17034: 2016) «*General requirements for the competence of reference material producers*" for the production and certification of Analitycal Standards and Certified Reference Materials (CRM) single or in multi-component mixtures of veterinary drugs, mycotoxins, pesticides and metabolites, native or labeled with stable non-radioactive isotopes (<sup>13</sup>C, <sup>2</sup>H, <sup>15</sup>N, <sup>18</sup>O, etc.).

The purpose of accreditation is the "Production of certified reference materials" single component "and" multi-components "of pesticides and metabolites and other organic and inorganic compounds".

UNI FN ISO9001:2015

UNI EN ISO14001:2015

ISO/IEC 17025:2017

ISO 17034:2016









We are part of the NQI, an infrastructural metrological body in assessing the conformity of goods.

## .. our partners in R&D and production of new CRMs ...

We work in close collaboration with Universities, CNR, and other Research Istitutes present in our territory for R&D activities of new CRMs, synthesis of pesticides and isotopically marked metabolites, stability studies of pesticides and innovative tools for improving food safety., etc.. We actively participate in research projects such as:PON S.I.Mi.S.A. di € 8.276.602,00 (2014-2018) - POR Innovatech DEMETRA € 1.219.284,00 (2018-2020) - PON MISE NEMESI €.4.036.499,00 (2018-2022).























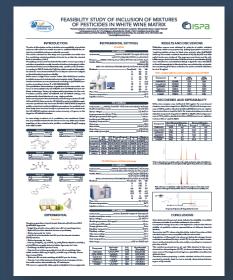


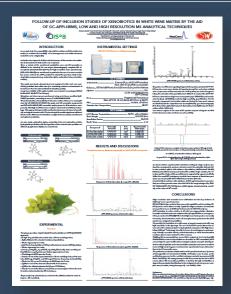










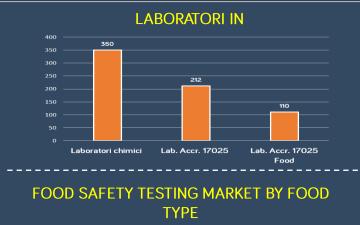




We publish scientific works on prestigious journals in the sector, we present posters of our works in

#### .. our target market ...

The market served consists of: private laboratories that carry out analyzes of pesticide residues on behalf of producers and exporters of fruit and vegetables or for the GDO (Coop, Conad, Selex, Auchan, CRAI, Despar, Metro, Interdis, etc.); public laboratories responsible for controlling the safety and quality of food(IZS, ISS, Laboratori delle CCIAA, ARPA, APAT, Lab. Dogane, MAF, EPA, EURL, FDA, etc.; pharmaceutical industry laboratories that produce galenics, homeopathic medicines, nutraceutical products, etc. using plant extracts; research centers operating in the food and pharmaceutical fields (CRA, CNR, Università, IRCCS, CEHIAM, etc.); QC laboratories inside the food companies that check incoming raw materials and finished products(Ferrero, Parmalat, Barilla, Unilever, Danone, Nestlè, Coca-Cola, Mars, General Mills, Mondelez, Pepsico, etc.; mass spectrometer manufacturers (Thermo Fisher, Agilent, Sciex, Waters, Shimadzu, Bruker, Young Lin, Perkin Elmer, Leco, Mascom, Hitachi, etc.) who intend to accompany their supplies with standard multi-component mixtures to perform QA / QC in the start-up of mass spectrometers or to satisfy those customers who require the holistic supply of GCMS or LCMS systems complete with materials and method for multi-residual analysis of pesticides.



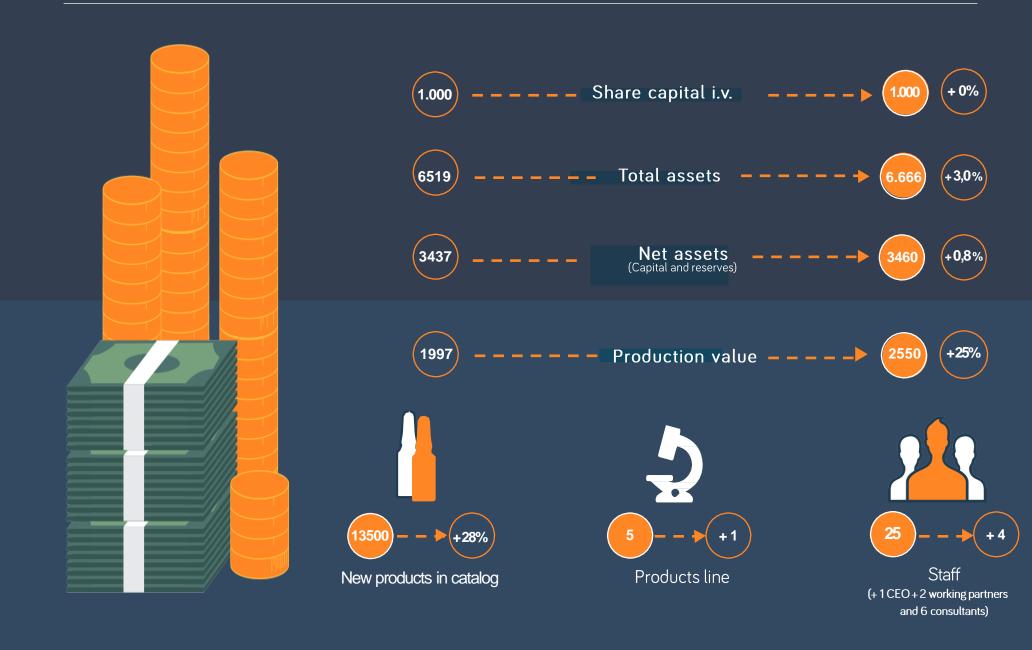




MARKET PROFILE: PESTICIDE



## ...Overview 2020 vs 2021... (in K€)



#### ..Internazionalization...



The internationalization strategy focuses heavily on participation in national and international thematic workshops to make our products known and meet new operators in the sector. We attended Mass Food Day 2017 (Foggia) and 2018 (Bologna), the European Pesticide Residue Work Shop (EPRW) 2016-2018, the Latin American Pesticides Residue WorkShop LAPRW2019 (Brazil) and the North American Contaminants Work Shop NACRW2019 (USA) . We exhibit at Fairs such as Analytica 2016-2018 in Munich, CHEMED (Milan), ArabLab (Dubai).







































## ... the Italian customer portfolio ...

The customer portfolio already includes the most important public and private chemical laboratories, almost all ISO 17025 accredited, which perform multi-residue analyzes of pesticides and metabolites, mycotoxins and veterinary drugs. Among them ISS, IZS, ARPA, MAF, RETELAB of the Chamber of Commerce, in addition to the most famous private chemical laboratories that carry out analyzes for the most important exporters or suppliers of the GDO (Auchan, COOP, CONAD, SGS, etc.



LabStandard® italian users



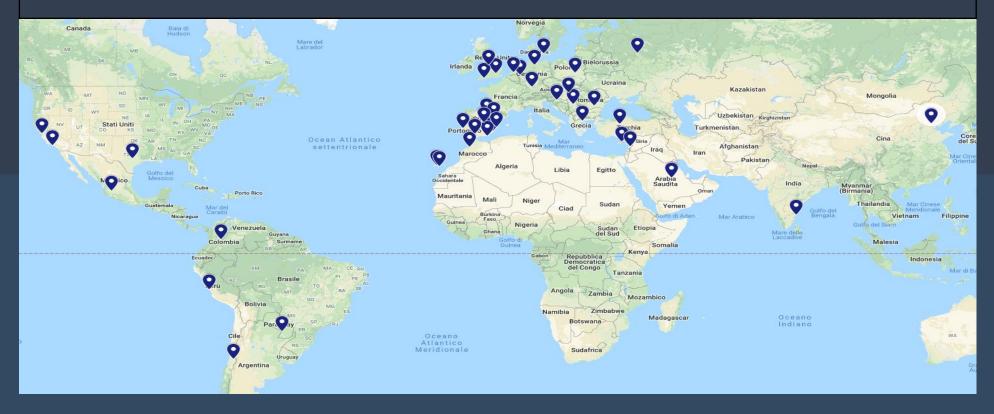
LabStandard<sup>®</sup> italian 2022 leads

Our LabStandard® and QuE-Lab® branded products also meet the needs of QC laboratories in the food industry (De Cecco, Monini, Ferrero, Conserve Italia, Nestlè, etc.) and some ONG (GreenPeace, LegaAmbiente, etc.)

#### .. the foreign markets served ...

LabStandard® products well meet the needs of the foreign market because it has already implemented the novelties of the new ISO17025: 2017 standard according to which "the calibration of laboratory instruments must necessarily be carried out using CRMs produced by accredited RMPs".

Our LabStandard® Catalog, created in over 15 years of activity, consists of over 4000 CRM & RM compounds, single neats or in solution and / or mixtures, which meet the needs of customers.



In revenue 2021, exports account for 51% of the total with + 145% on 2020. We provide laboratories in 34 different states.

Among the current customers there are International Authoritative Bodies: EURL, FDA, EPA, AOAC, etc., manufacturers of mass spectrometers such as: Thermo Fisher Scientific Inc., Bruker Gmbh, Waters, Agilent Technologies, Perkin Elmer, etc.

## .. the sales network in Italy and Europe ...

The national sales network, which is nearing completion, is made up of qualified and experienced salespeople who are well-established in chemical laboratories that carry out multi-residue analyzes of pesticides. Exclusive agents and distributors are being identified in Europe, USA and South America.

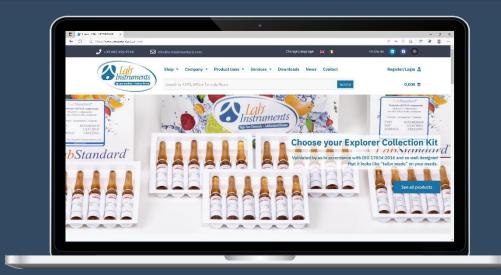


The company organization chart includes mother tongue staff, appropriately trained, who are at the service of customers on a daily basis (24/7), in various languages (Spanish, Portuguese, English, French, Russian).

#### .. our online services ...

We have a website in six languages with a Direct Marketing platform that allows customers to acquire technical information on the product, stock availability, delivery times, price, etc. .







Watch the video about us clicking here

In the download area of our website www .crmlabstandard.com you can download all the promotional material available.

Download certificati

www.accredia.it www.ukas.org www.pilabs.com www.crmlabstandard.com Accreditamenti e Certificazioni

ISO 17034:2016 ISO/IEC 17025:2017 UNI EN ISO 14001:2015 UNI EN ISO 9001:2015

Prodotto da:

LAB. INSTRUMENTS S.r.I. - High Pure Standards & Chemicals Division

Tel. +39 080 4969749 - Fax: +39 080 2121749

SS 172 (Putignano-Alberobello) km 28+200 - 70013 Castellana Grotte (BA)

Sito: www.crmlabstandard.com - E-mail: info@labinstruments.it





 $LabStandard^{\circ} \mid QPP\text{-}Lab^{\circ} \mid QuE\text{-}Lab^{\circ} \mid SwE\text{-}Lab^{\circ} \mid Iso\text{-}Lab^{\circ}$