

Masco Group overview



General Presentation

July, 2017

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- **Masco Group at glance**

- Only Masco can do it!
- Olsa Group
- Olsa activities

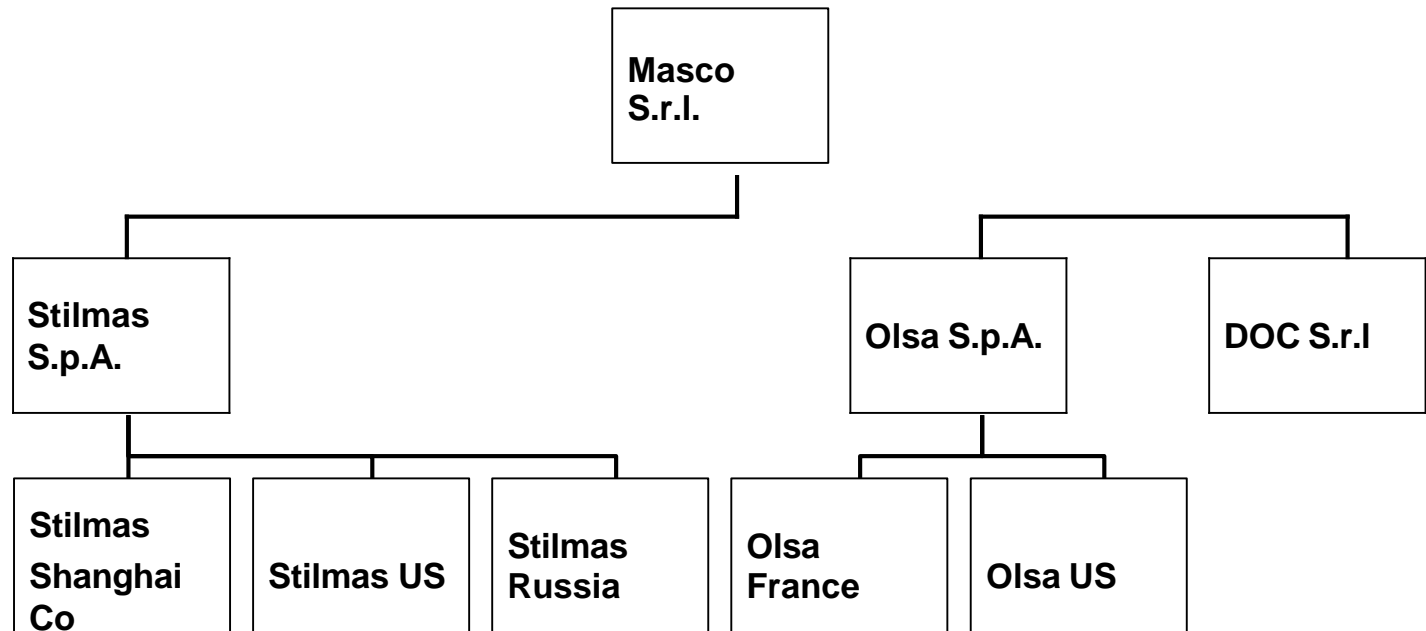


Masco Group encompasses different companies active in engineering, manufacturing and consulting to the pharma and cosmetic industry...

Description

- The Masco Group has its Headquarters in Italy, but several different subsidiaries around the world:
 - China
 - US
 - Russia
 - France
- The Group positions itself as the leader in providing engineering solutions to Tier1 clients in the Pharma and Cosmetic industry

Group structure



...where it's recognized as advanced engineered solution provider for all
Tier 1 pharma and cosmetic producers

ILLUSTRATIVE

Description	Client sample
<ul style="list-style-type: none"> The Group's reputation for reliability and excellence has allowed it to establish strong relationships (+10.000 installed units) with leading pharma & cosmetic companies The Group is not dependent on any single client nor a limited number of clients Customer satisfaction 	

Contents

- Masco Group at glance

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Masco is distinguishing in the market for managing complex integrated projects starting from basic design to validation...

Key distinguish factors

- Masco Group is the **only one in the world** being able to grant an:
 - Integrated approach from **basic engineering to process validation**
 - Deep experience and internal know-how from **clean utilities to production**
 - Strong knowledge of the different production processes (**solids, semisolids, orals and sterile products**)
 - **High flexibility** to fulfil the customer needs and expectations
 - **Sure execution**



Main client benefits

- Experienced, qualified and knowledge interface being able to provide **advise** to the client not only on the Group main competences, but also broadly on **the entire process flow**
- **One single contractor** with full responsibility
- **Direct ownership of the equipment** and technologies supplied with their full control
- The **same Quality approach** and **Quality System** along all the value chain
- **Full GMP approach**

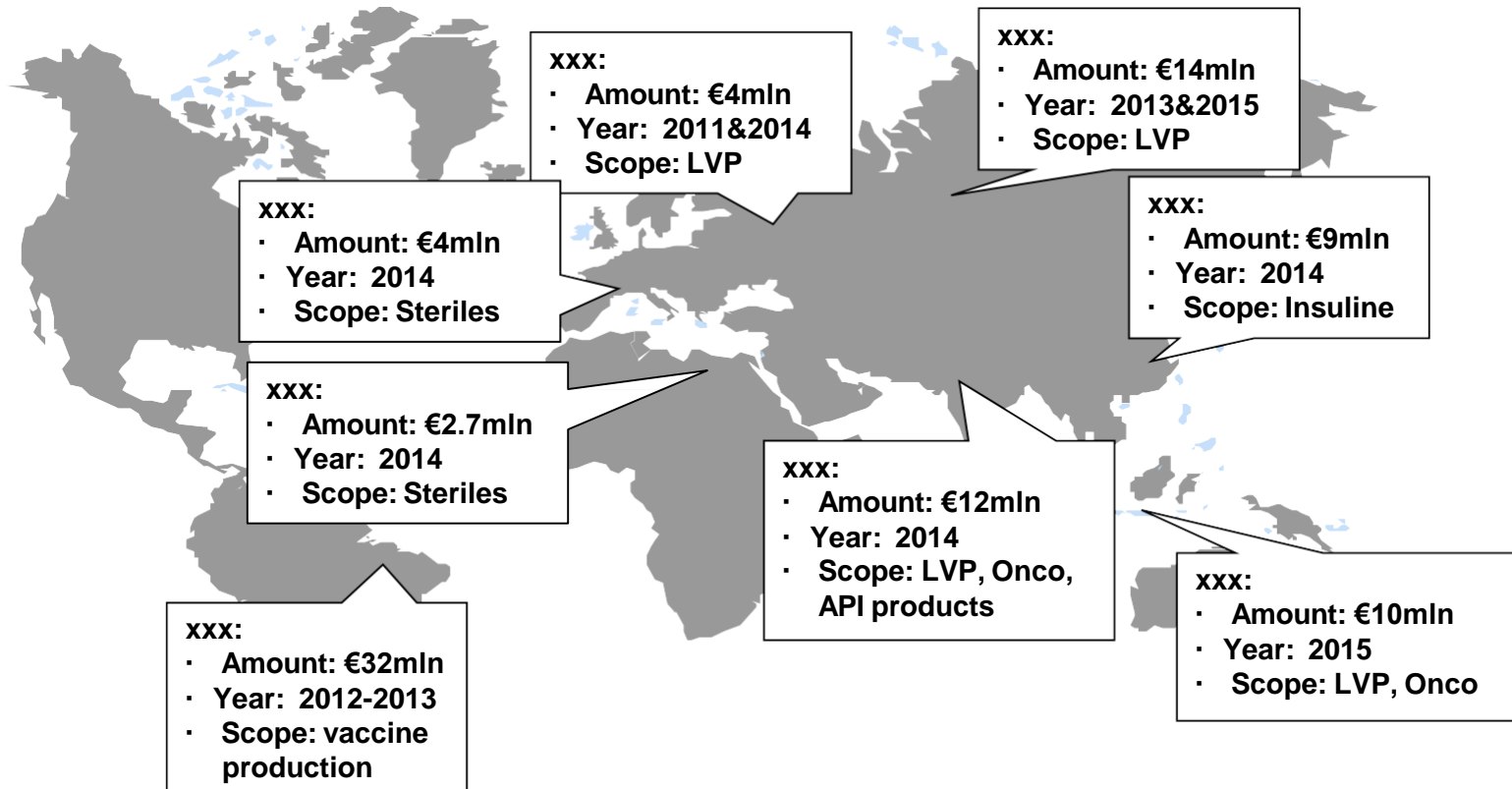


From engineering to execution



...and this approach is more and more appreciated by clients all over the world

Example of some integrated project



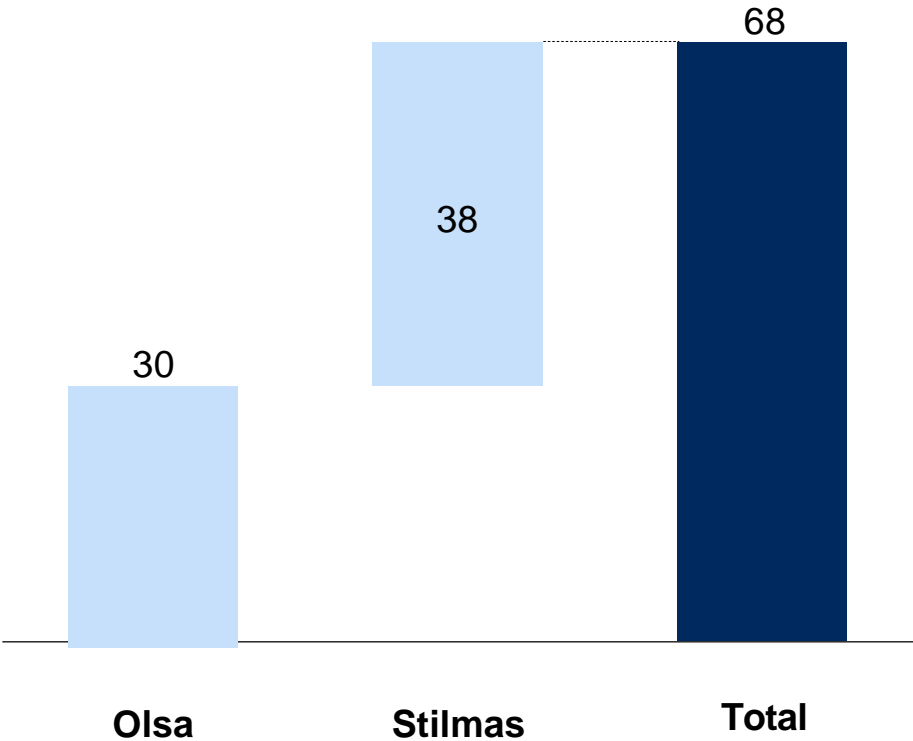
In particular Stilmas and Olsa have an installed base of ~€70mIn in the last 10 years only, in the enlarged CIS area

Description

- **Stilmas** and **Olsa** have an historical strong presence in all the CIS area with an installed base of more **than €70mIn** of which:
 - **Olsa €29.5mIn**
 - **Stilmas €38mIn**
- The majority of Olsa equipment are for **liquid sterile products** (i.e., approx. 80%) while rest is for **semi-solids** (i.e., approx. 15%) and **solids** (i.e., approx. 5%)
- **Turn-key projects** are the **core business** for Stilmas and Olsa supplies
- Olsa and Stilmas have a **direct presence** in the area with ample coverage of the market from **commercial till aftersales**

Project amount in CIS area

Euro mIn



Contents

- Masco Group at glance
- Only Masco can do it!

– Case study BBraun

- Olsa Group
- Olsa activities



Olsa and Stilmas were awarded €10mIn turnkey project for clean utilities and sterile product preparation (1/2)

Project description

Masco Group was awarded the supply of the entire clean utilities, distribution loops, preparation room, filtration room, SCADA systems for a LVP project, involving the installation of:

Specifically:

- **Stilmas** supply encompasses
 - PW Production Systems
 - No 2 Cationic / Anionic lines(36.000l)
 - Purification System EDI/ Filtration 0.2 based 34.000 l
 - PW Storage Tank 20.000 l
 - PW Loop 70.000 l/h – 700m – 23 UP
 - WFI generator; MS5010 (15.000l/h)
 - WFI Storage Tank 100.000l
 - WFI Loop 1.000 m – 120.000 l/h – 25 UP
 - 6 Heat Exchanger 1.200.000 Kcal/h
 - Pure steam generator PSG 1500 -2.200 Kg/h
 - PS distribution system – 500 m - 30 UP
 - Clean Compressed air generation 6.000 Nm³/h
 - Clean Compressed air distribution System 83 UP – 5 filtration stations – 6 redaction systems – 270 m
 - Vent Lines - 380 m
 - Vacuum generation and distribution - 180m

Specifically:

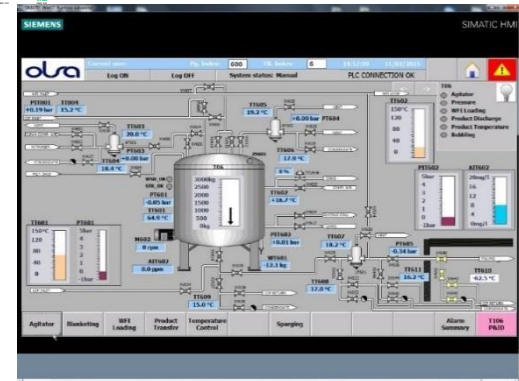
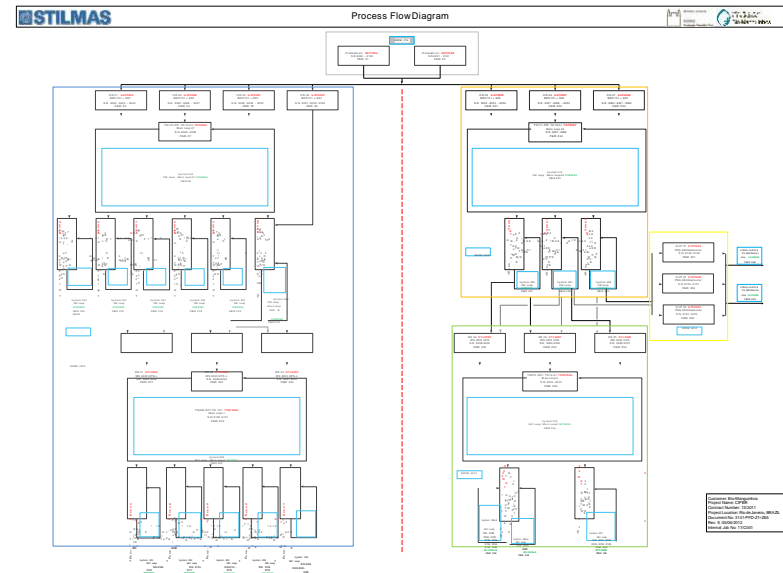
- **Olsa**
 - 5 preparation lines from 15k lt to 30k lt
 - 5 filtration skids with 2 pre-filters followed by sterile filters
 - ATEX execution
 - Powder handling room
 - LAF system, manual loading system and weighing system
- **DOC** supply encompasses
 - FAT/SAT/IQ/OQ protocols
 - IQ/OQ execution
 - SW development



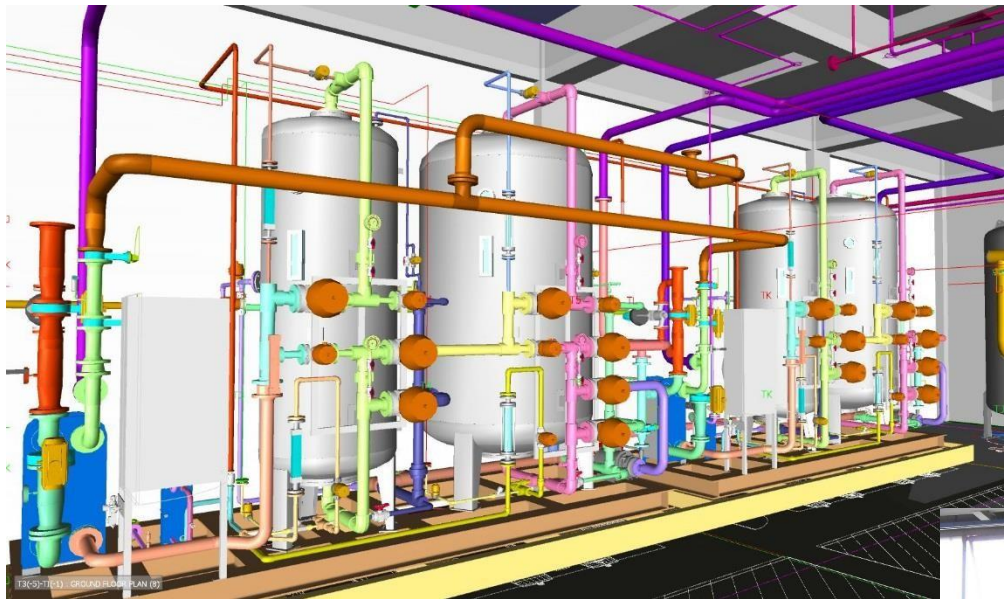
Olsa and Stilmas were awarded €10mIn turnkey project for clean utilities and sterile product preparation (2/2)

Manpower deployment

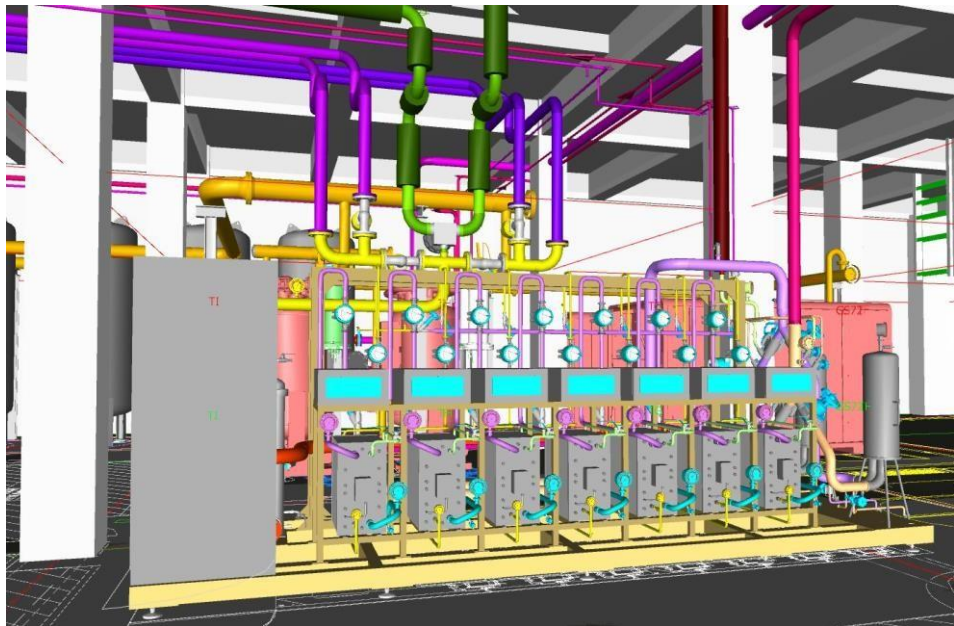
- During the project, **manpower utilization** has been massive and up to now the following hours have been spent:
 - **Engineering:** 9.000 hrs
 - **Project management:** 3.200 hrs
 - **Electrical design:** 1.100 hrs
 - **SW design:** 3.300 hrs
 - **SCADA design:** 2.700hrs
 - **Site construction:** 10.900hrs
 - **Validation:** 3.000 hrs



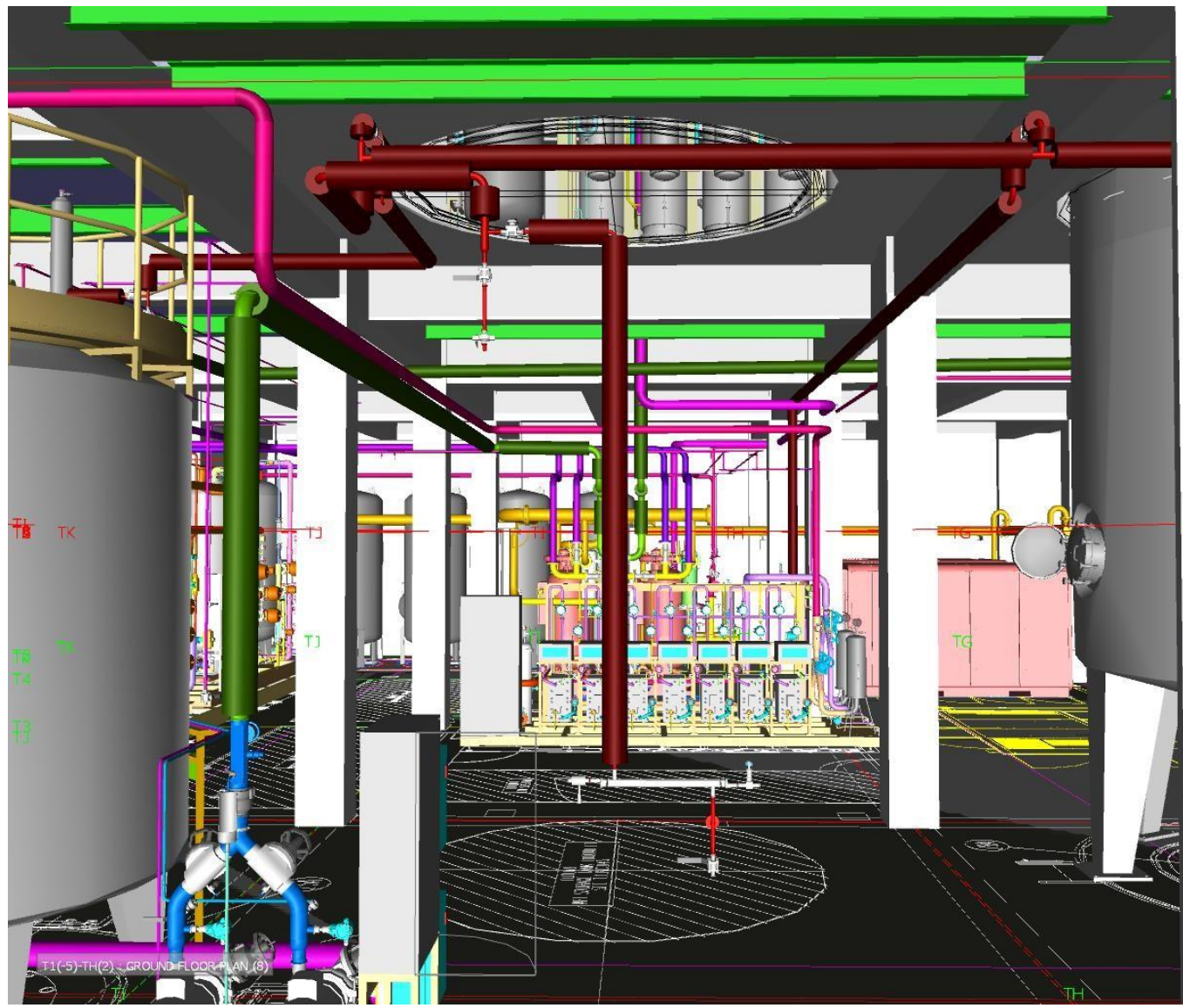
As well as all the pre-treatment...

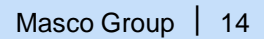


As well as PW generation...

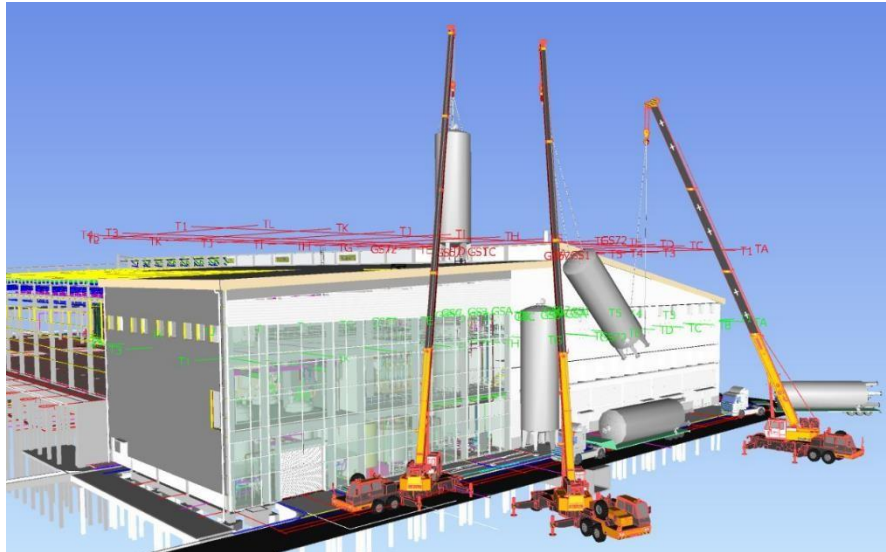


As well as new engineering design philosophy (BIM)...

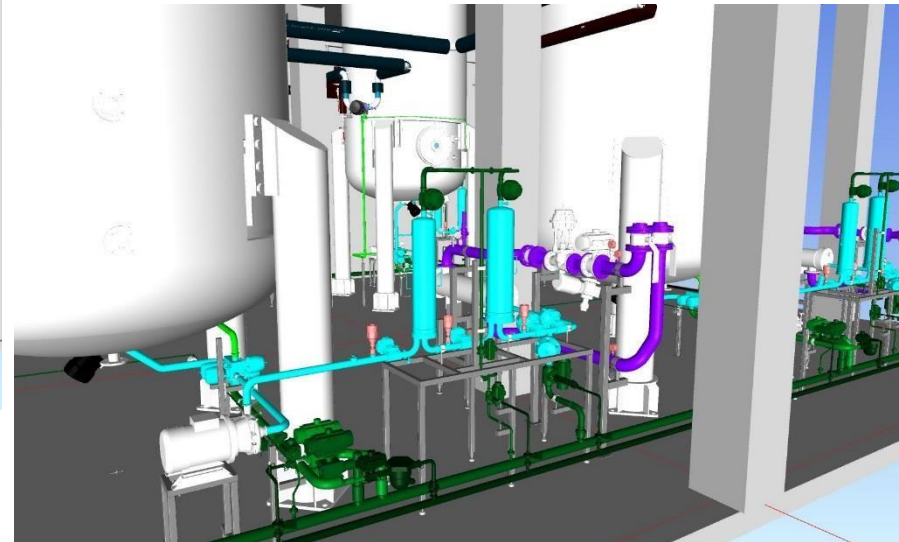
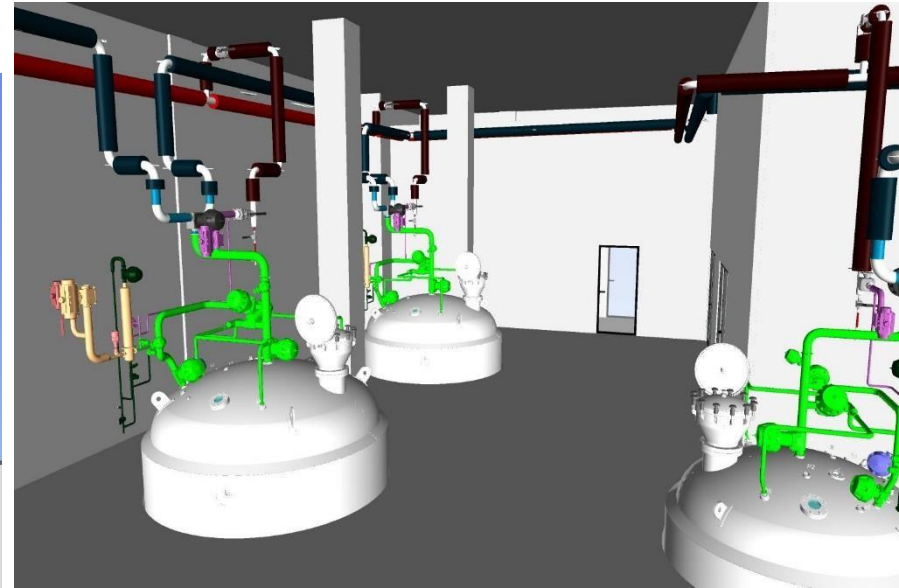
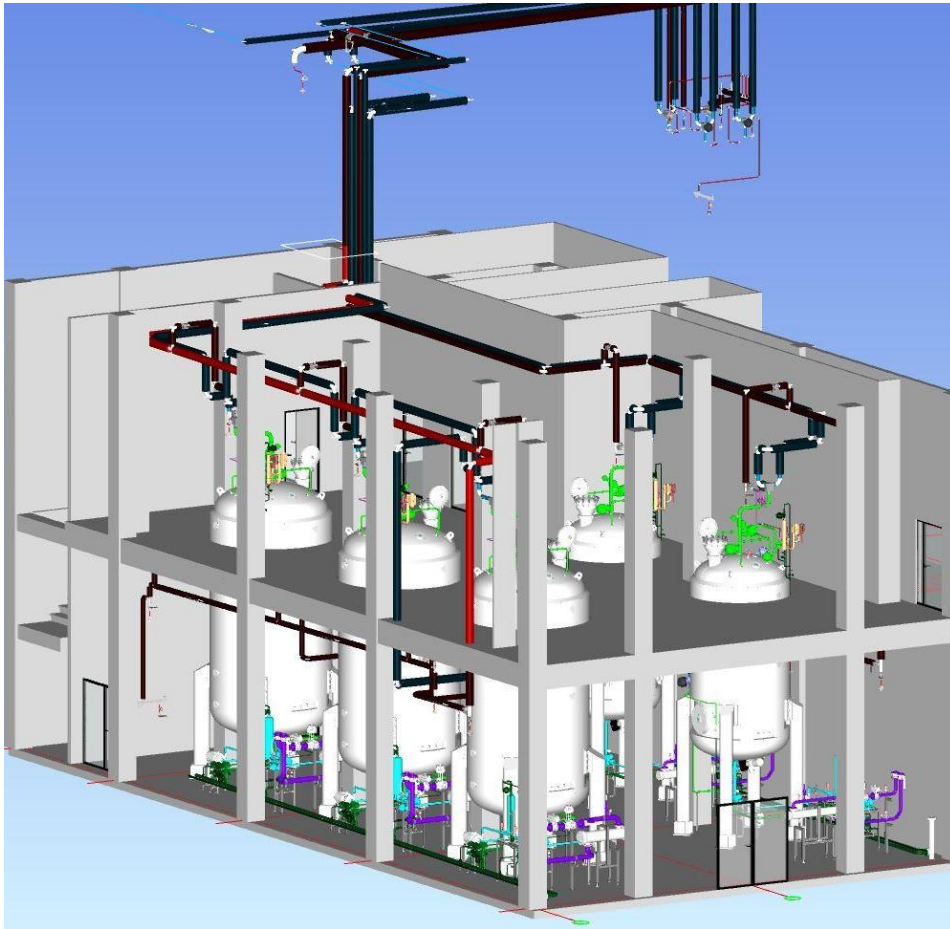




As well as complete site yard capability.



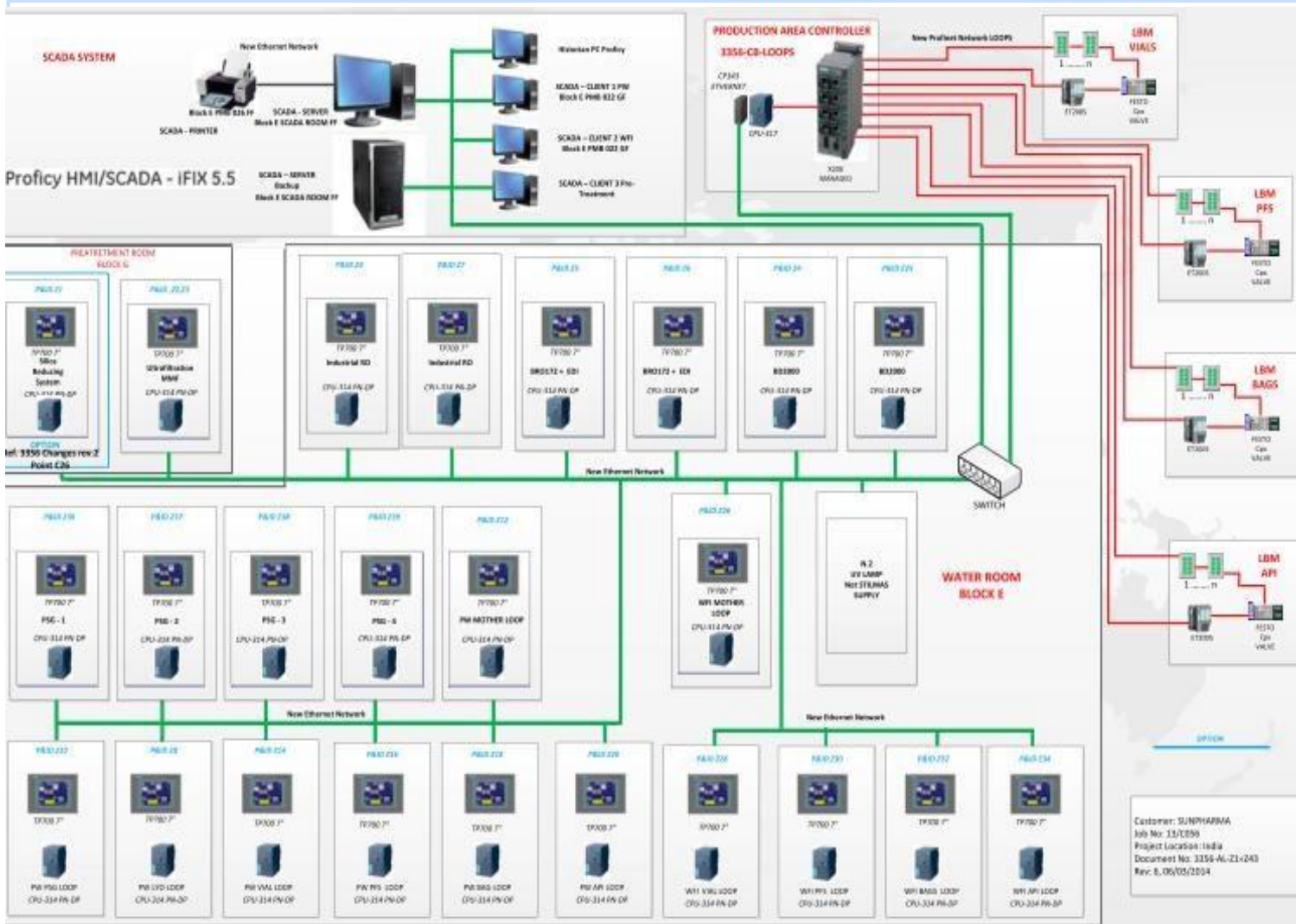
While Olsa supplied the entire preparation room including filtration platforms and skids



The entire system is overarched by a SCADA enabling automatic operation and recipes management

Description

- **Internal automation Group** developed a **complete SCADA system** being able to control and register all parameters from **generation up to distribution and preparation**
- A set of **fully flexible recipes** has been created to guarantee complete flexibility of the equipment, having the **possibility to modify all parameters** of the different recipe
- The architecture encompasses 25 HMI, 1 SCADA, 3 CB



Contents

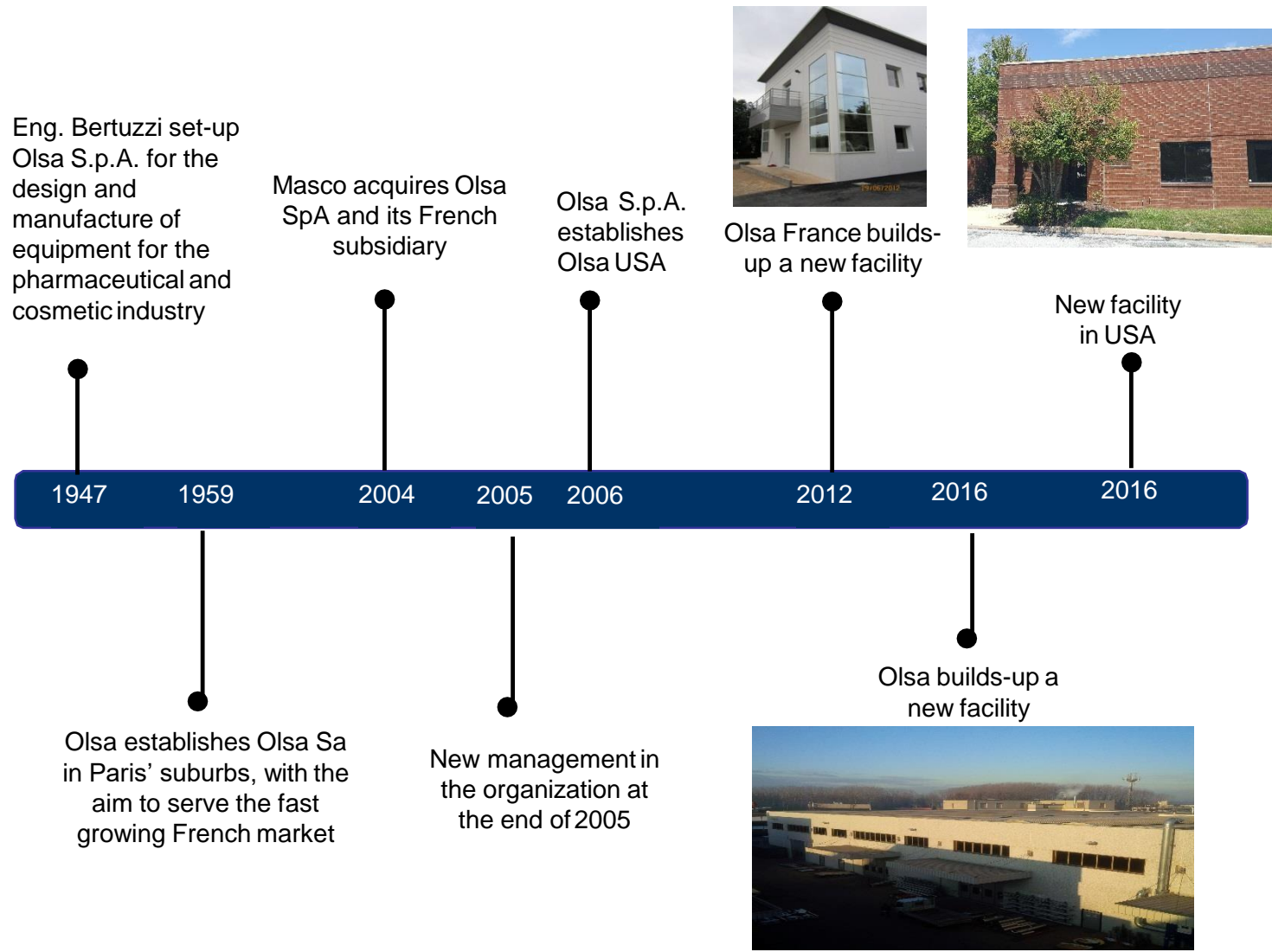
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During last years Olsa has shown a continuous growth also thanks to the substantial investment performed...

Description

- Olsa has almost 70 years of history during which it has expanded its footprint globally with offices and production sites in Italy & France and commercial offices in US
- During last 4 years Olsa invested significantly to built-up state of the art facilities in France, in Italy and US
- Olsa is experiencing continuous growth thanks to these “model factories” and the possibilities for clients to test our equipment with their products in dedicated laboratories at our premises



... and to its unique abilities in engineering and executing customized equipment for liquid, semi-solids and solid production

Liquid products

1

- Product range: from 50lt up to 50kl
- Applications: blood derivatives, preparation of sterile liquid solutions, injectable solutions, eye-drops, syrups, aerosol, human and animal vaccines, enzymes
- Sectors: Pharma and Biotech



Semi-solid products

2

- Product range: from 3lt up to 15kl
- Applications: ointments, suppositories, emulsions, gels, suspensions, soft capsule
- Sectors: Pharma and cosmetic



Solid products

3

- Product range: very different set of products from vacuum dryers, dry filters and hot air hovens
- Applications: API production, powders, solid and liquid separation and drying under vacuum
- Sectors: Pharma, chemical and fine chemical



**ADVANCED PROCESSING SOLUTIONS
AROUND THE CORNER, AROUND THE WORLD**



Liquids products

Within the liquids family we consider all products having a viscosity lower than or equal to 500 cPs

- ❖ **A solution is a homogeneous mixture composed of only one phase**
- ❖ **A suspension is a heterogeneous mixture containing solid particles that are sufficiently large for sedimentation**
- ❖ **A dispersion is a system in which particles are dispersed in a continuous phase of a different composition (or state)**
- ❖ **An emulsion is a mixture of two or more liquids that are normally immiscible (unmixable or unblendable).**



Sterile Pharmaceutical Products

- Injectables SVP
 - Vaccines
 - Blood Derivatives
 - Antibiotics
 - Cytotoxic
 - Anesthetics
 - Biotech (Recombinant/MAB)
- Injectables LVP
 - LVP
 - Dialysis Solutions
- Ophthalmics
 - Eye Drops
 - Cleaning and Disinfectant

Non Sterile Pharma, Cosmetic and Food

- Syrups
- Aerosols
- Mouthwash solutions
- Lavage solutions
- Vitamine solutions
- Cosmetic oils and emulsions



Bioreactors:

**Lab Scale
(Modular)**



From 2 to 30 Liters

Pilot Scale



From 40 to 200 Litres

Industrial Scale



Larger 200

**Applications: Hormones, Vaccines (Human and Animal),
Antibiotics, Monoclonal Antibodies, Recombinant**



MULTIPURPOSE STERILE PLANT



**ADVANCED PROCESSING SOLUTIONS
AROUND THE CORNER, AROUND THE WORLD**



What is a Semisolid ?

**We consider a semisolid, a product form
having a viscosity higher than 500 cPs
Viscosity > 500 cPs**



Category

Ointment
(Single phase)
Sterile and non sterile

Creams
(multi phases)
Sterile and non sterile

Gels
(single phase)
Sterile and non sterile

Paste
Non sterile



Range of vessel configurations



Compact



**Customized
Skid Execution**



On Legs

Range of vessel configurations



SPEEDYCREAM



OLSAMIX



SPEEDYMIX

Models / Features



N°2 SPEEDYMIX 5000 Liter production lines



Olsa Vacuum Dryer solutions



14-4412 Foto Studio Sirtoli

Static
Tray Dryers



foto 202

Rotary Dryers

Dynamic
Dryers



Drymix

