

## The tradition of designing the future











## **WHO WE ARE**

#### Technoilogy: 70 years of excellence and expertise







In 1950 Ernesto
Bernardini founds the
CMB

Costruzioni Meccaniche Bernardini.

In a few years, the company is globally recognized as a leader engineering company.

Since then, the
Bernardini family has
been pursuing its long
tradition of engineering
in the oils&fats industry,
by designing and
manufacturing plants for
Edible oils,
Oleochemicals and
Biodiesel production.

In 2015, the Bernardini family, who now reached the third generation, created the brand Technoilogy to operate in the field of Solvent Extraction, Edible Oil refining, Oleo-chemicals and Biofuel technologies.

## **TECHNOILOGY**



Owned by the **BERNARDINI** family active in the Oils & Fats industry since 1950



More than 1450 industrial units installed all over the world



Worldwide leader due to innovative technologies and original know-how



Committed to deliver high-quality and cost-effective engineering projects



Outstanding expertise in various markets with different clients and local conditions



Professional multi-lingual team of engineers with over 30 years of experience



Maximum support to clients in every step of the project



Truthworthy business partner for clients and suppliers.

## **OUR WORKSHOP**

The company office compound includes a highly specialized workshop of 28,000 m<sup>2</sup> where key components are manufactured. Machineries are assembled in the complex in compliance with strict construction regulations and quality standards, such as UNI EN, ASME and AWS.







**TECHNOILOGY** expertise suits the most stringent requirements in terms of environment protection and pollution control, automation and computerized operation, use of different raw materials and quality of finished products.

## **OUR WORKSHOP**



## Excellence and Innovation built in every design



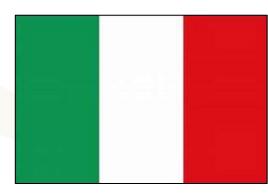






## **OUR WORKSHOP**









## **ORGANIZATION**



#### **HEAD COMPANY**





MALAYSIAN BRANCH



**KUALA LUMPUR** 

**UAE BRANCH** 



**DUBAI** 

**INDIAN BRANCH** 



**BANGALORE** 

#### **ORGANIZATION**

## INTER-TECHNOI LOGY MALAYSIA

The Malaysian branch of TECHNOILOGY has been created in year 2020 through the transformation of previous company INTERSONIKON ENGINEERING (ISE), solid partner for 15 years of TECHNOILOGY.

TECHNOILOGY MALAYSIA in specialized in the design and manufacturing of plants for Palm Oil Refining and Fractionation and Specialty Fats. The company can rely on several local workshops for the manufacturing of all machinery and mainly serves the markets of South-East Asia, Middle East and Africa.

The Indian branch of TECHNOILOGY has been created in the wake of the numerous requests coming from a market in full expansion. To further strengthen the global presence of the organization and to support Indian Industries, we have recently established full fledged operations from Bangalore, India. The company's Office Branch is directed by Mr. Raghuram Mulyia, former Executive of Desmet Ballestra for 20 years, who joined the company with his team of engineers (Chief Process Engineer, Business Development Manager and Assistant to General Manager).

TECHNOILOGY INDIA

TECHNOILOGY INDIA works with qualified local worshops for the manufacturing of equipment destined to India, Middle East and Africa upon client's request.

#### **ORGANIZATION**

TECHNOILOGY UAE The UAE branch of TECHNOILOGY is the result of a joint venture with SAIMECO Group, a local organization specialized in Business Development, Public Affairs and Financial Advisory. The new branch is located in Dubai and has been created to reinforce TECHNOILOGY's presence in the Middle East and Sub-Saharan Africa markets. The branch is headed by Ascanio Martelli and Manuel Saccomandi, Senior Executives with an extensive experience in Corporate Finance and Administration, and directed by George Magdy, a Senior Engineer responsible for the technical development of projects and the supervision of local operations.

By leveraging the network of financial and banking institutions, SAIMECO and TECHNOILOGY are able to offer to clients customized financial solutions for the implementation of their projects.

## **TECHNOILOGY WORLDWIDE**

With 13 Representative Offices throughout the world and a team of high-skilled engineers **TECHNOILOGY** provides continuous commercial and technical assistance to its customers.



**3** BRANCH OFFICES

12 REPRESENTATIVE OFFICES

**30** EXPERIENCED ENGINEERS

1400 UNITS INSTALLED IN OVER 50 COUNTRIES

## **OUR PROCESSING TECHNOLOGIES**

#### **EXTRACTION**



Seed preparation

Mechanical
Extraction

Prepressing – Full
Pressing

Solvent Extraction

#### REFINING



Neutralizing –
Degumming

Combined Neutralizing
and Winterizing

Bleaching and Filtering
Dry Degumming &
Bleaching
Winterizing

Deodorizing / Physical

Refining

#### OLEOCHEMICALS



Fat Splitting
F.A. Distillation
F.A. Fractional
Distillation
Glycerine Refinery
Hydrogenation

#### **BIOFUELS**



Low grade feedstock
Pre-Treatment for
HVO and Biodiesel
Production
Methylester
Distillation
Acid Oil Esterification
Glycerine Refining

#### **RE-REFINING**



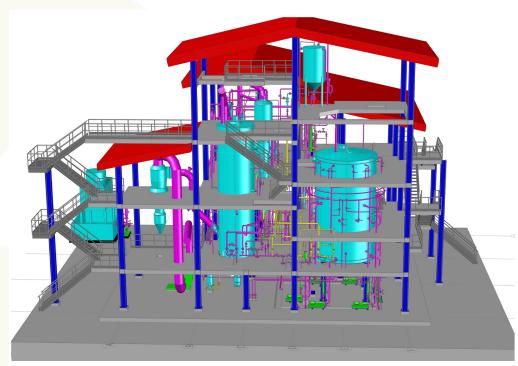
Used Lube oil de-metalization and bleaching

Hydrotreatment for Gr. I and Gr. II base oils

Diesel fuel production

## **ENGINEERING**

- In house Process Know-how
- High Level of "Plant-Automation" integrated by Control System Architecture
- Engineering executed according to all requested international codes and standards
- Remote "SCADA" service and plant monitoring from head offices
- Design and drafting performed through the most important software packages available on the market



All engineering studies are covered and fully managed in house by TECHNOILOGY.

## **OUR TEAM**

More than 30 professional engineers with over 30 years of experience are dedicated to our clients every day.





Flexible and highly responsive, our team provides engineering solutions that combines the most innovative solutions with a proved know-how in the field of Solvent Extraction, Edible Oils Refinery, Oleochemicals, Biodiesel Production and Used Mineral Oil Re-refining.

Our Technical Department guarantees a 24h support to clients around the world and can rely on an extensive network of representative offices in Europe, Asia, Africa and South America.



## **SERVICES**

Our company can provide a great variety of services, from technical / economic feasibility studies to plant start-up.



#### **ENGINEERING CONSULTING**

- Project feasibility studies
- Advisory services on new technologies, new equipment available on the market, improvements of plant operations, safety, etc..

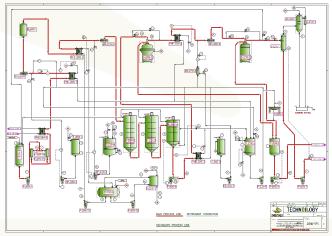


#### R&D

Project feasibility studies
Research & Laboratory analysis, process development
Custom tailored products formulation
Process & product testing on pilot plants



**EQUIPMENT FABRICATION AND PROCUREMENT** 





## **SERVICES**



#### SUPERVISION OF PLANT ERECTION AND START UP



#### **TRAINING**

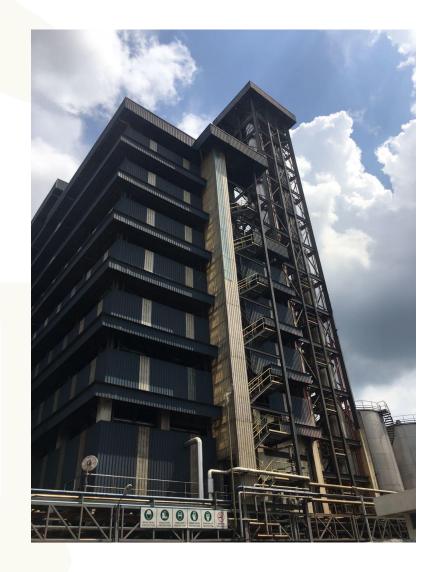


#### AFTERSALE TECHNICAL ASSISTANCE

- Troubleshooting
- Plant performance (product quality, energy consumption, plant operation reliability), evaluation and optimization
- Evaluation of plant equipment operating conditions for planned maintenance (mechanical, electrical, instrumentation & control)



STUDY AND PROPOSAL FOR PLANT REVAMPING AND CAPACITY INCREASE



## **R&D**



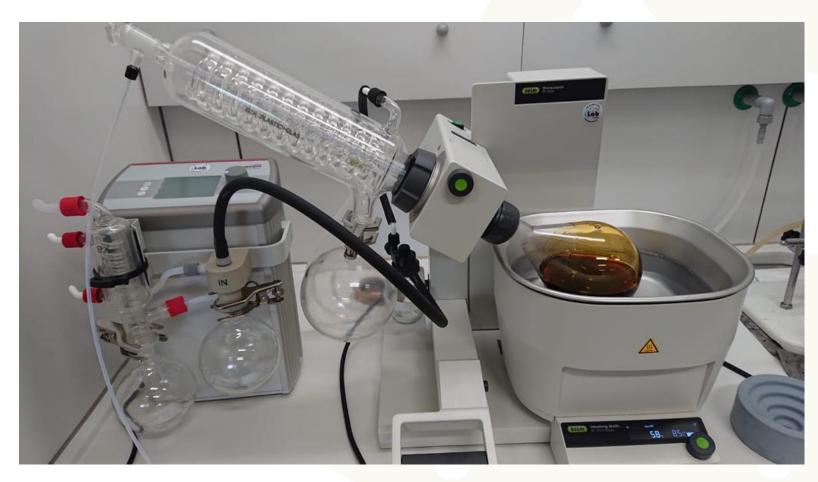
TECHNOILOGY'S R&D Department is constantly involved in developing advanced and cost-effective solutions in the field of Oils & Fats.

The company relies on its laboratory of Rome for analysis and trials on all kind of feedstocks: edible oil, waste oil (such as UCO, POME etc..), tall oil, pyrolisis oil, seeds and meals, methylester, glycerine, etc..

The laboratory is directed by by Prof. Franco Cataldo, a Chemist-Researcher with proven experience in the field, who works side by side with our Engineering Department to develop innovative technologies to be applied in the Processing industry.



## **R & D**





## **OUR PARTNERS**

Our partners Binacchi Italy and EBM (European Baking Machine S.R..L.) are respectively pioneers in Soaps, surfactants and Sulphonation technologies and in the design and manufacturing of Margarine – Shortening – Ghee and Dry & Fresh pasta plants. Our partner EGEO operates in the Base oils field. Chevron is an international energy corporation.

**TECHNOILOGY** has a solid partnership with European Baking Machine s.r.l. (E.B.M.), market leader in the design, construction and operation of plants for the food industry.

**TECHNOILOGY** regularly collaborates with Binacchi & co, world leader provider of advanced technologies for Soap and Detergent makers.

**TECHNOILOGY** has a co-operation agreement with **CHEVRON** for the Hydrofinishing Technology for producing Gr. II Base Oils of High Quality.

**TECHNOILOGY** has a cooperation agreement with the Portuguese Company EGEO OIL for the worldwide development of the used mineral oil re-refining for regenerated base oils production.





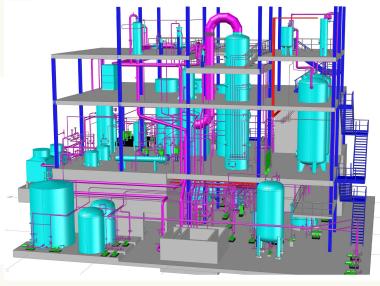




## Bernardini: a synonym of innovative engineering



















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# THANK YOU! www.technoilogy.it