



N O I S E R E D U C T I O N F O R A B E T T E R L I F E



CTM Ambiente S.r.l. established in 2001 (operating since 1994 as division of CTM S.p.A.), is a leading company in tailor made soundproofing systems for power plant, Oil & Gas, industrial and shipyard applications.

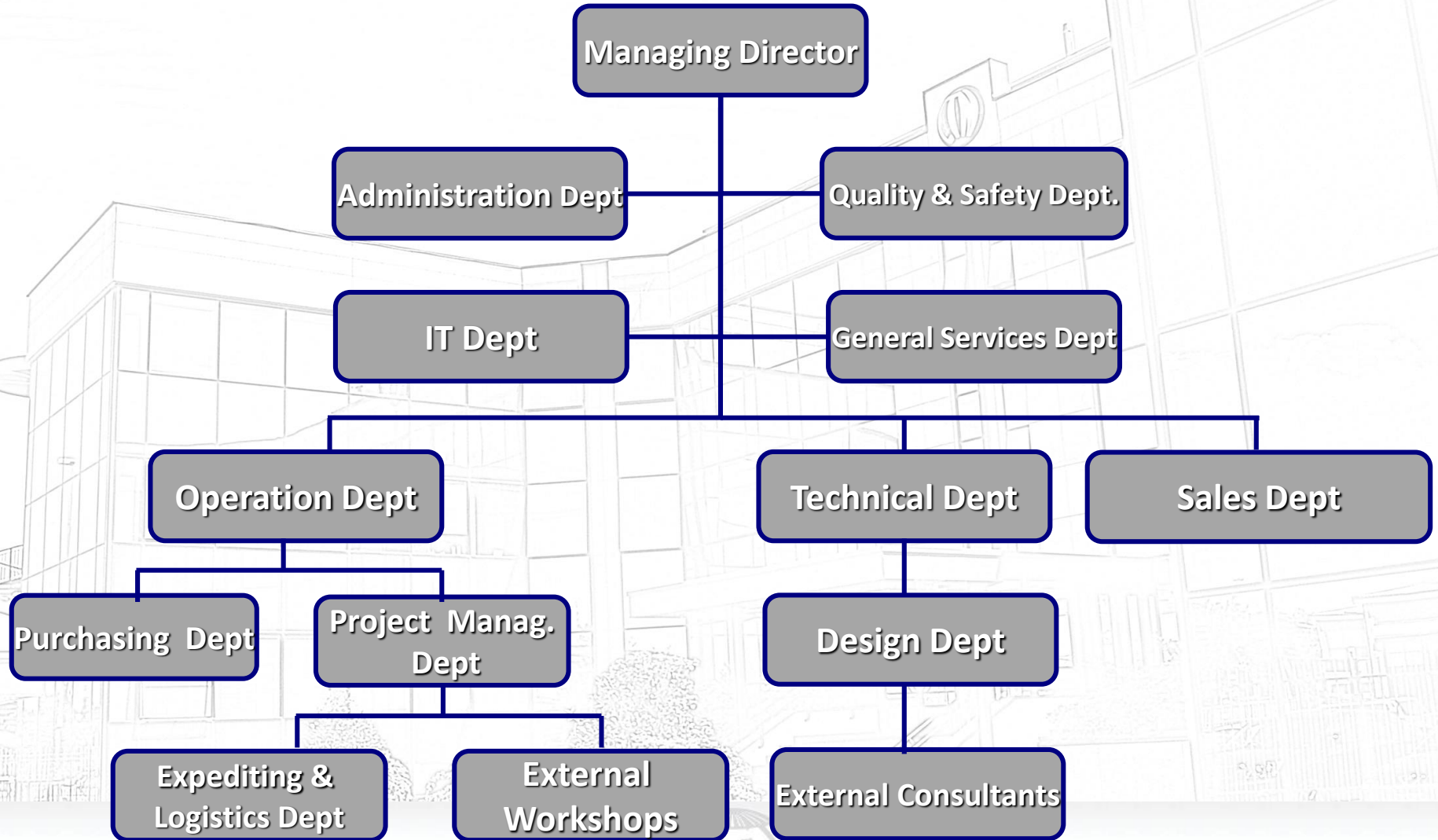


Our highly specialized team of engineers and skilled technicians **design and realize turn key tailor made soundproofing systems**, according to international standards and customer specifications.

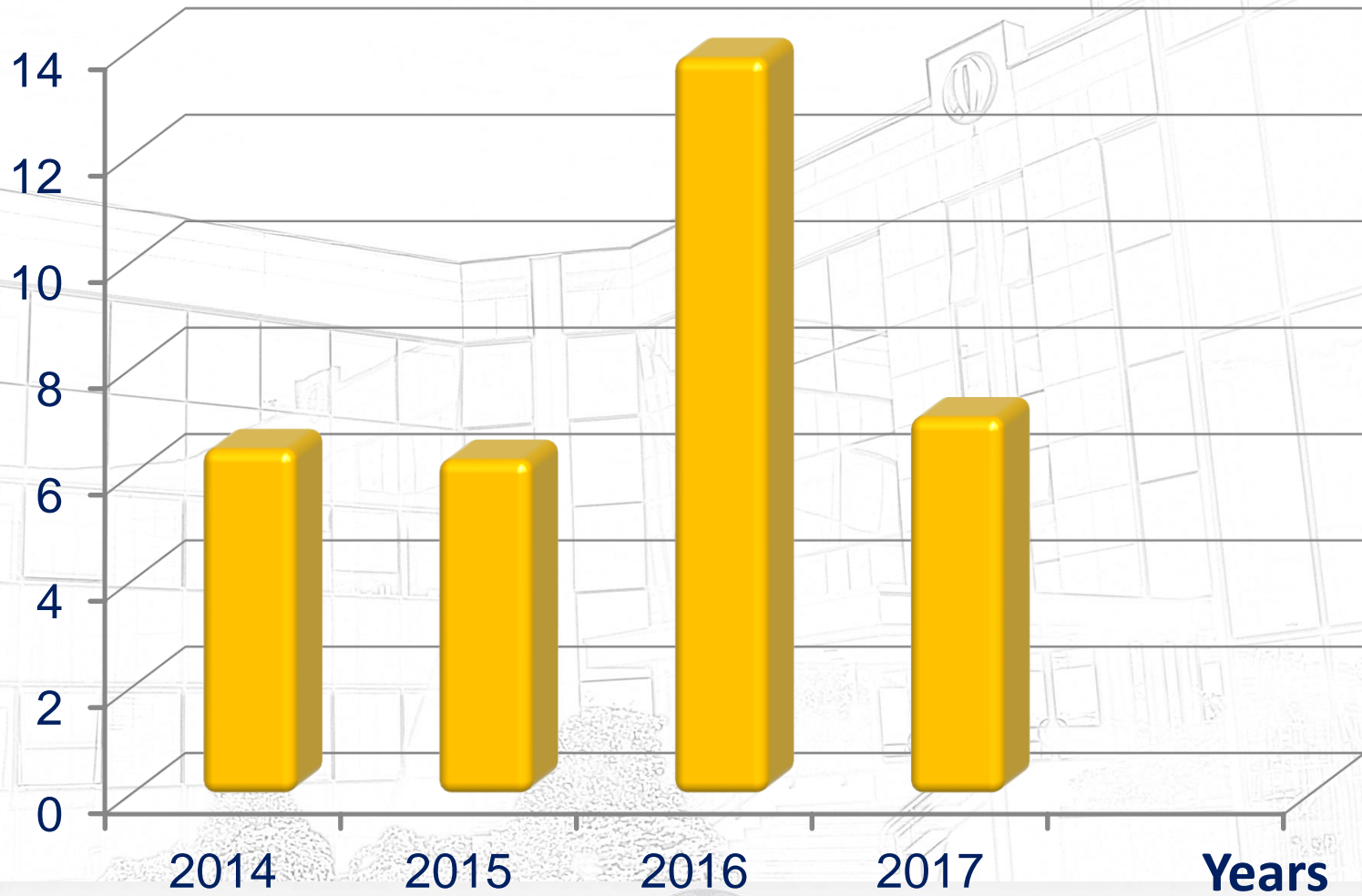
CTM Ambiente S.r.l. has been certified by “Lloyd’s Register Quality assurance” according to the Quality Management System Standard :

ISO 9001





Amount (€)



NOISE REDUCTION FOR A BETTER LIFE



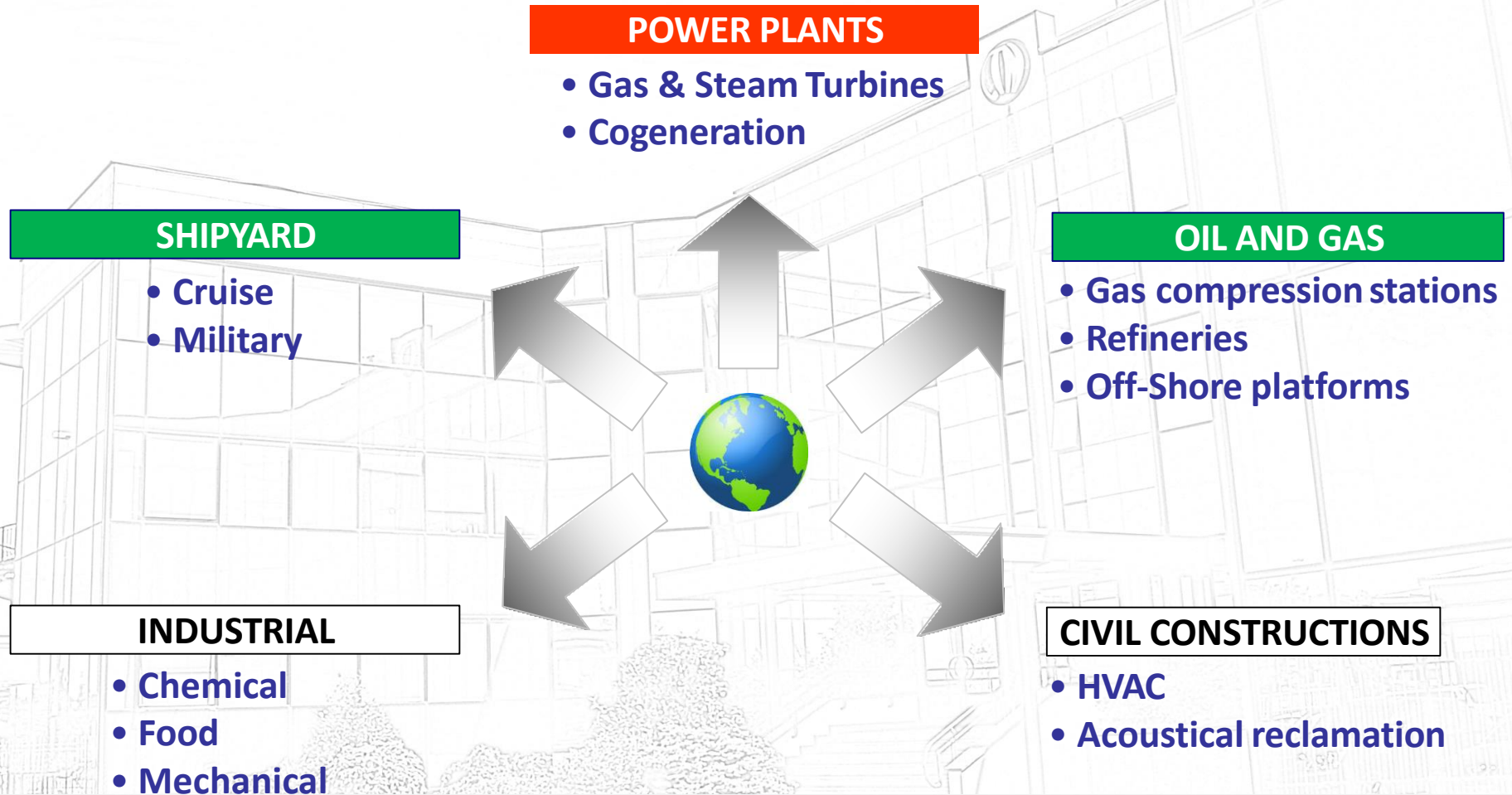
— OUR PRODUCTS ARE OPERATING IN:

Algeria
KSA
Australia
Austria
Bahrain
Belgium
Brasil
Brunei
Canada
Cile
Cina
Egypt
France
Gabon
Germany
Greece
Guinea
Equatoriale
Indonesia
Ireland
Israel
Italy



Kazakhstan
Kuwait
Lybia
Malaysia
Niger
Norway
Oman
Polonia
Qatar
UK
Romania
Russia
Siria
Spain
Sweden
Switzerland
Tailandia
Tanzania
Tunisia
Turkey
Vietnam
Venezuela



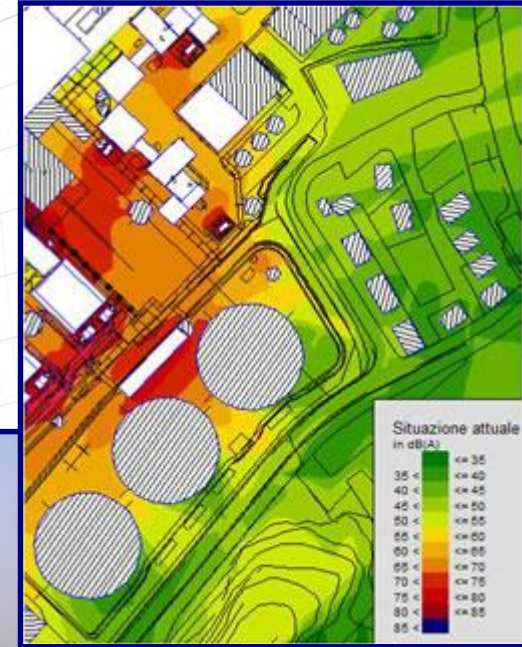


We can offer a wide range of acoustical solutions, including all the necessary **engineering services and acoustic surveys in accordance to the main Standards and Regulations:**

- Predictional acoustic calculations
- Measures campaign to define acoustic reclamation
- Environmental noise impact studies
- Acoustic maps
- Phonometric measures pre and post noise treatments
- Noise tests

Typical applications:

Evaporative Towers, Refrigerating Groups, CHP Plants, Power Plants, Manufacturing Departments, etc...



We are a leading company in design and manufacture of soundproofed enclosures tailor made designed, as required by the customer needs, from on base enclosures to acoustic buildings (that can contain a complete engine room).

It is also part of our supply the acoustical and structural project, fluid dynamics and lighting calculations data.



Starting screw compressor situation with noise level at 120 dB(A) ~



Final solution applied on the skid, noise reduction of 30 dB(A) ~



Typical Applications: Compressors, Gas Turbines, Steam Turbines, Endothermic Engines, Pumps, Compressors, Gas Regulation Valves, etc...



Usually soundproofed enclosures are composed by a **supporting structure and panels**, that allows an **easy disassembly** and **full access** to the machine in case of any needs.

The noise produced by the units is reduced by the **enclosure** that surrounds the source of the noise, **limiting the diffusion of acoustic waves**.



The enclosures have also some important functions such as:

- **Dissipation of the heat** produced inside;
- **Protection of the machine** from external agent;
- **Support for auxiliary devices** (crane, ventilation system, etc ...)



Some examples of our recent applications :



Tailor made enclosure on compressor, for oil and gas plant, 40 dba final noise reduction



Some examples of our recent applications :



Tailor made enclosure installed on a compressor



Silencers are our specialty, from the ones for boiler exhausts ducts, gas turbines and industrial engines, to the ones for fans or ventilation plants for civil and naval purposes.

Our silencers solutions are also designed for vent to atmosphere, for steam and compressed gas, as air, methane or nitrogen applications.

We have designed and supplied silencers for the most important and luxurious passenger ships and greatest yacht..



Silencers installed on a skid compressor package



Blow-off silencers



Typcal applications: Power Plants, CHP plants, Gas Compression Stations, Marine Engines, UPS, etc...

Some examples of our recent applications :



Silencers installed in a marine engine, with high efficiency over a large range of frequencies



Blow off silencers painted

Engine silencers completely made in stainless steel.



Dissipative silencers with splitters in St St. Aisi 316 for compressor

Our reliable tailor made silencers solutions can be divided into two main types .

The first, the **reactive** type, relies on a tuned element in general of more use for fixed speed machinery producing pure tones, where the second, the **dissipative** type, is an untuned frictional device converting acoustic energy into heat. Attenuators working in the first way tend to be more effective at low frequency absorption than the second type. When pressure loss is the key factor, it is also possible to use **side branch resonators**, which can take the form of Helmholtz resonators.



Typical silencer attenuations:

Reactive (frequency range: 20Hz - 250Hz): ~**10-15 dBA**

Dissipative (simple): ~ **15 dBA**

Dissipative (high performance): ~ **25 dBA**

Dissipative + Reactive in sequence: > **35 dBA**.



SOME INSTALLATIONS AND CUSTOMERS

ALGERIA

Sonatrach
Sonelgaz

AUSTRALIA

KJV Woodside Energy Ltd.

BAHRAIN

Gulf Petrochemical Industries

BRASIL

Petrobras

CHILE

Posco E&C

GREECE

Edison

FRANCE

Arcelor

EGYPT

Spanish Egyptian Gas
Union Fenosa Sas

IRAN

MAPNA
NIOC
PDEC
TUGA

KAZAKHSTAN

Agip KCO

ITALY

Ansaldo AEM/A2A
Bosch
Caterpillar
Cummins
Edison ENEL
Endesa ENI Group
Exxon Mobil
Fincantieri
GE Nuovo Pignone
Ingersoll Rand
Ind. Cartarie Tronchetti Group
Renco
Siemens
Termigas
Tirreno Power

KINGDOM OF SAUDI ARABIA

Saline Water Conversion
Corporation
Petro Rabigh
Saudi Aramco Oil Company
Shuaibah Water and Electricity
Compay

KUWAIT

Kuwait Oil Company
KNPC

LIBYA

Agip North Africa
Agip Green Stream

SPAIN

Enagas
Repsol
Viesgo

NIGERIA

NLNG
Daewoo-SHELL

NORWAY

Statoil

OMAN

Qalhat LNG S.A.O.C.

QATAR

Qatar gas

RUSSIA

SEIC- Sakhalin
OJSC Power Machine

SYRIA

Al Furath Petroleum Co.

VIETNAM

Petrovietnam



SOME OF OUR MAIN CUSTOMERS



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