



GRUPPO LANDIRENZO

CONNECTING THE WORLD WITH CLEAN TRANSPORTATION



Per più di 60 anni il gruppo LandiRenzo ha sviluppato tecnologie per l'utilizzo di carburanti alternativi.
LandiRenzo, the clean air company

GRUPPO LANDIRENZO - STORIA



- **1954:** Renzo Landi e la moglie Giovannina Domenichini fondano “**Officine Meccaniche Renzo Landi**”
- **1960:** Sviluppo della rete distributiva e vendita in **Italia, Europa, Giappone e Brasile**
- **1968:** Prodotto il primo riduttore GPL **RENZOMATIC**
- **1980:** Introduzione del primo riduttore CNG **TN1**
- **1990:** Espansione Prosegue nei mercati internazionali
- **1995:** Acquisizione del 70% di **Eurogas Holding NL**
- **1996:** Certificazione **ISO 9001**
- **1998:** Costituzione di **Landi Renzo Polska**
- **2000:** Acquisizione di **Med Spa**
- **2001:** Acquisizione del 100% **Eurogas Utrecht** e raggiungimento della certificazione **ISO TS 16949**
- **2003:** Apertura di **Landi Renzo do Brasil**
- **2005:** Apertura di **Landi Renzo Beijing**



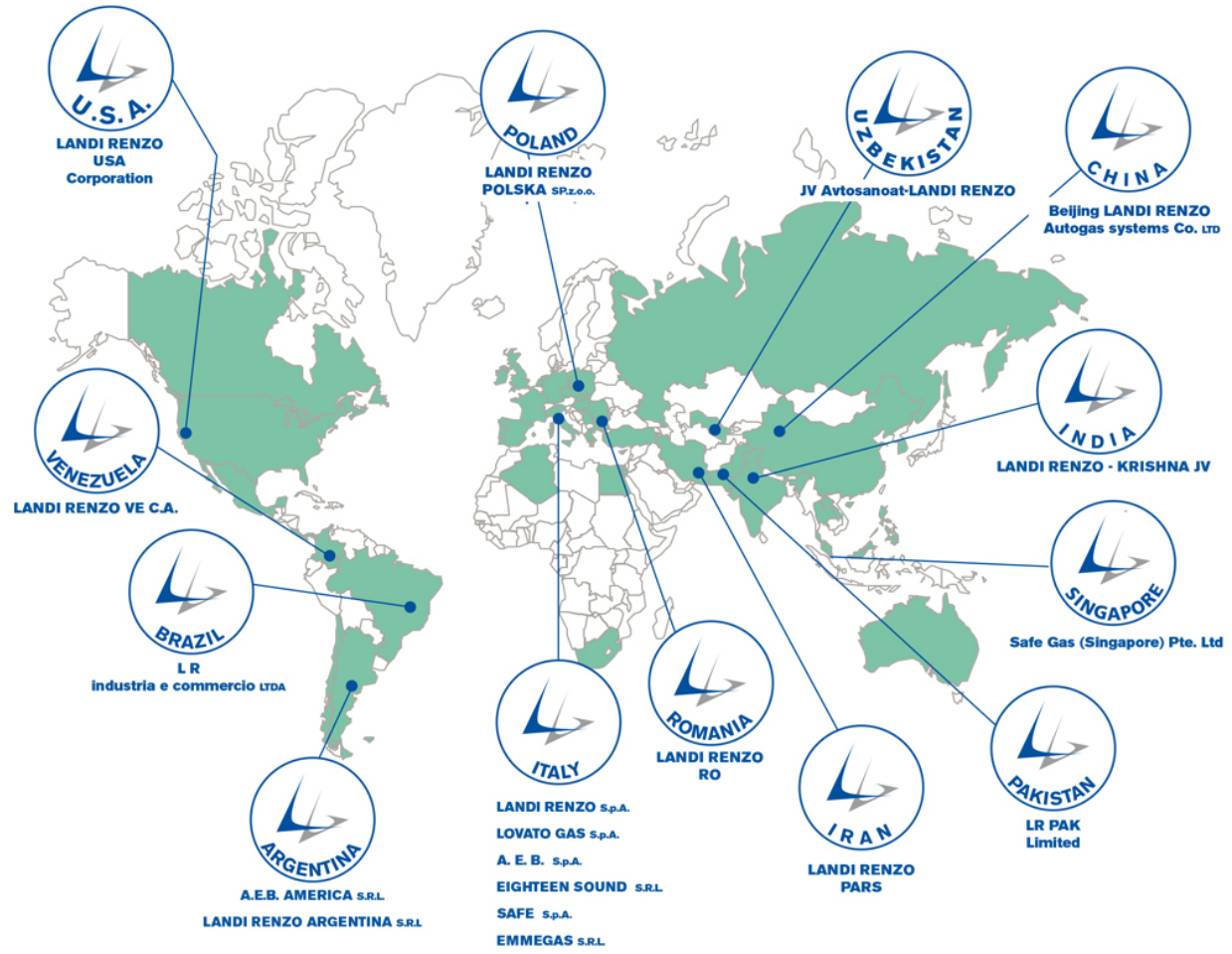
LANDIRENZO GROUP - STORIA



- **2006:** Apertura di Landi Renzo Pak. Certificazione ISO 9001 della rete officine.
- Nasce Landi Renzo Corporate University
- **2007:** Apertura **Landi Renzo Pars**
- **Quotazione nel segmento STAR di Borsa Italiana**
- **2008:** Acquisizione di **Lovato Gas Spa**
- **2009:** Apertura Filiali **Romania and Venezuela**
- **2010:** Apertura filiale **Usa**
- Acquisizione di **AEB Spa**
- **2012:** Acquisizione di **Safe Spa**
- **2013:** Acquisizione del 70% di **Emmegas Srl**
- Creazione **JV in India e Uzbekistan**
- Spin off di **Eighteen Sound**
- **2014:** Celebrazione dei **Landi Renzo 60° Anniversary**
- Inaugurazione del nuovo **R&D centre**
- **2015:** Apertura di **Landi Renzo Argentina**



GRUPPO LANDIRENZO – PRESENZA INTERNAZIONALE



LANDIRENZO GROUP – PRINCIPALI BRAND

LANDIRENZO GROUP

SISTEMI E
COMPONENTI



ELETTRONICA



COMPRESSORI E
STAZIONI



ALLARMI E
GPS

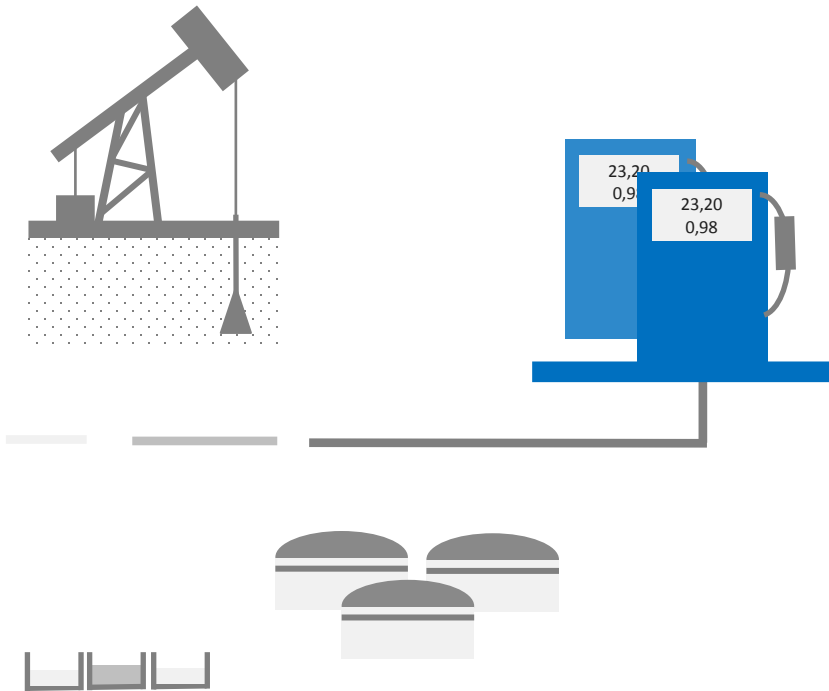


SISTEMI
AUDIO



GRUPPO LANDIRENZO – FROM WELLS TO WHEELS

COMPRESSORI E STAZIONI



SISTEMI E COMPONENTI

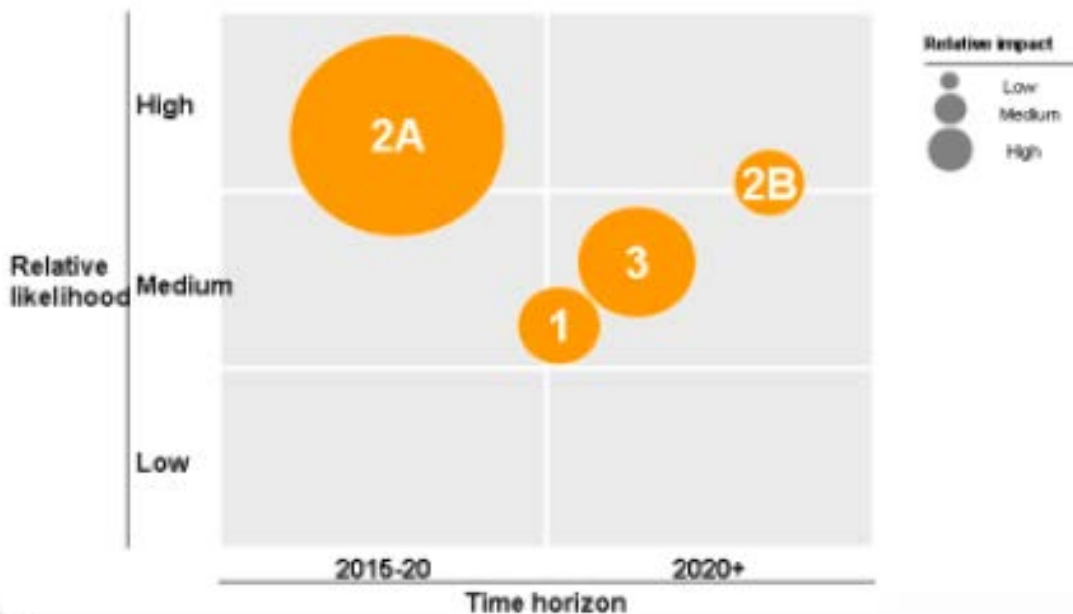


GRUPPO LANDIRENZO - SCENARIO

Assessment del potenziale di diffusione del gas nello scenario eni

Suddivisione dei consumi mondiali di gas naturale nei trasporti secondo lo scenario base eni:

Miliardi m ³	2020	2030
1: LNG Trucks	2	11
2A: CNG Strada	40	75
2B: Consumo indiretto EV	1	8
3: LNG Bunker	2	21

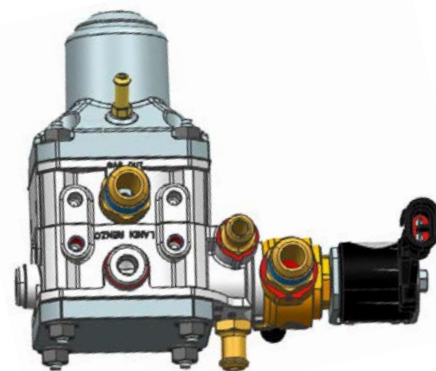


GRUPPO LANDIRENZO – SISTEMI DUAL FUEL

LNG



CNG



GRUPPO LANDIRENZO – SISTEMI DUAL FUEL



Stati Uniti d'America

Detroit Diesel S60



Detroit Diesel S60 12.7L



Landi Renzo USA is proud to announce the availability of our Diesel Dual Fuel (DDF) technology for factory remanufactured Detroit Diesel S60 12.7L engines.

The Technology

Years of successful research and development bring Landi Renzo's dual fuel technology to the US Market after perfecting the system on various global Diesel applications.

- Average Fuel Displacement up to 60%
- Noise reduction up to 40%
- Particulate Matter reduction from 40%
- CO2 reduction up to 14%
- Smoke reduction up to 50%

Our DDF technology allows a diesel engine to operate efficiently on a combination of Diesel and compressed natural gas. During vehicle operation the system provides and controls the injection of CNG and diesel in varying degrees based on engine operating output demand.

Benefits

The clear benefits of this type of conversion are that it's reversible and achieves a significant savings in fuel costs - all while reducing vehicle emissions.

- Performance comparable to the original engine in terms of torque/power and drivability
- Maintaining/improving the emission levels of original engine
- Flexibility for adaptation to different Diesel engines
- Ability to switch back to original full Diesel if needed
- Requires Less CNG storage compared to a Dedicated CNG vehicles
- Extended range compared to original Diesel system

Landi Renzo DDF System Components

- Landi Renzo DDF Electronic Control Unit (ECU) capable of interfacing with Diesel electronics
- Landi Renzo Pressure Regulator
- Landi Renzo Fuel Injectors
- Landi Renzo Switch & Level Indicator
- Fuel Pump Actuators, Accelerator Pedal Interfaces



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GRUPPO LANDIRENZO – SISTEMI DUAL FUEL



Italia



GRUPPO LANDIRENZO – SISTEMI DUAL FUEL



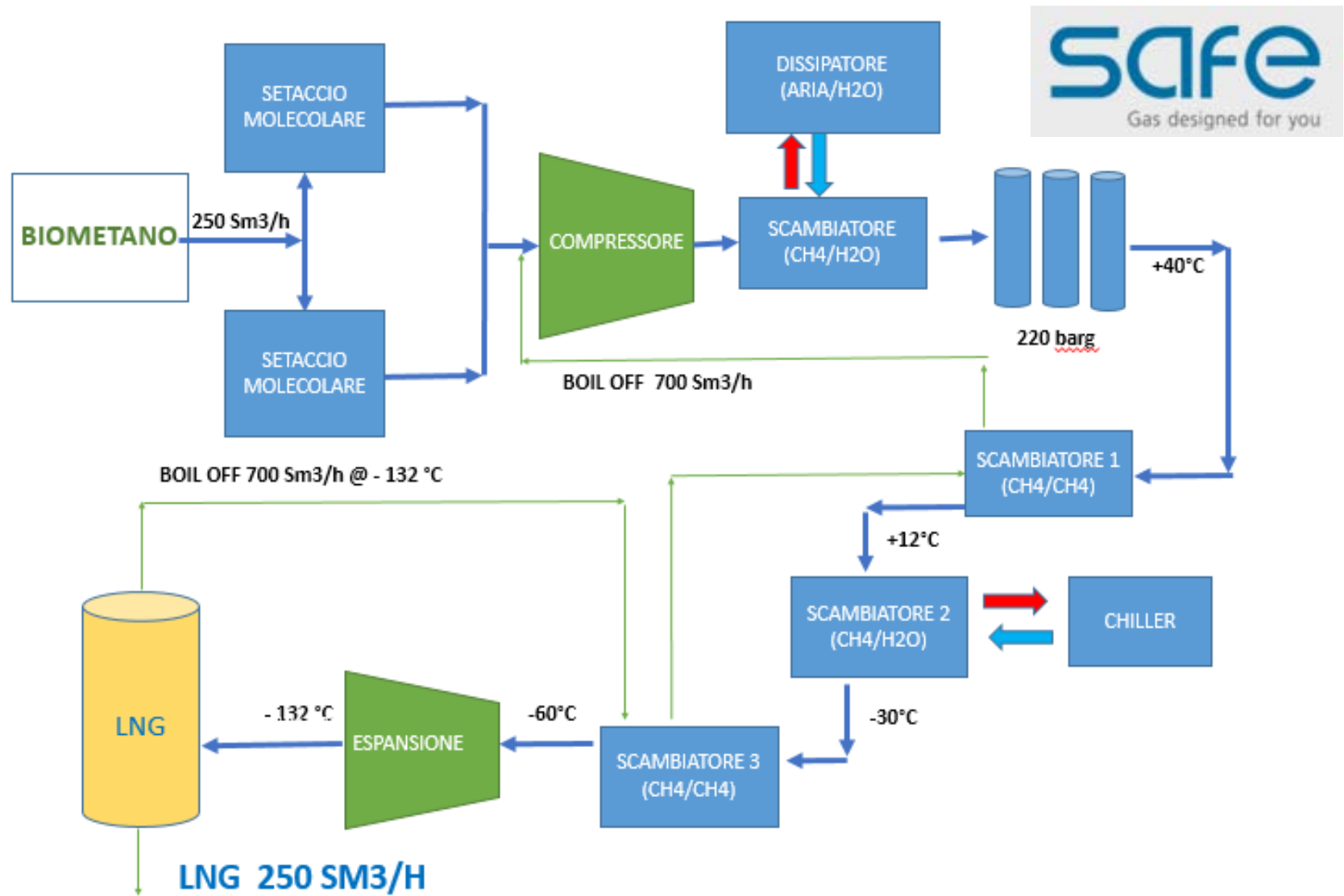
GRUPPO LANDIRENZO – SISTEMI DUAL FUEL



Cina



GRUPPO LANDIRENZO – LNG IN STAZIONE O B-LNG





GRUPPO LANDIRENZO – NUOVO CENTRO TECNICO



AREA 15.500 m²

7% FATTURATO REINVESTITO
117 BREVETTI ATTIVI A FINE 2014

ENGINE TEST FACILITY
OF THE YEAR 2014

2014 Awards winners announced!

The winners of the Automotive Testing Technology International Awards 2014 have been revealed!

Engine Test Facility of the Year
Winner: Landi Renzo, Italy



The closest vote in any category in the 2014 Awards was for Engine Test Facility of the Year, where Italian alternative fuels specialist Landi Renzo's ambitious new technical center edged out Škoda's huge new engine center for the trophy.

Landi Renzo has invested €32m in the new center in Cavriago, Italy. Its engineers now benefit from brand-new engine test benches capable of running on all kinds of liquid and gaseous fuels (CNG, LPG, hydromethane, hydrogen). Elsewhere in the new R&D center are emissions chassis dynos and component testing facilities.

"We are very glad to receive this prize," says Giovanni Costi, manager of the R&D labs at Landi Renzo. "It's an important reward for all the years of



**GRAZIE DELL'ATTENZIONE
CI VEDIAMO AL PADIGLIONE 29 / AREA LNG**

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LANDIRENZO
GROUP™