

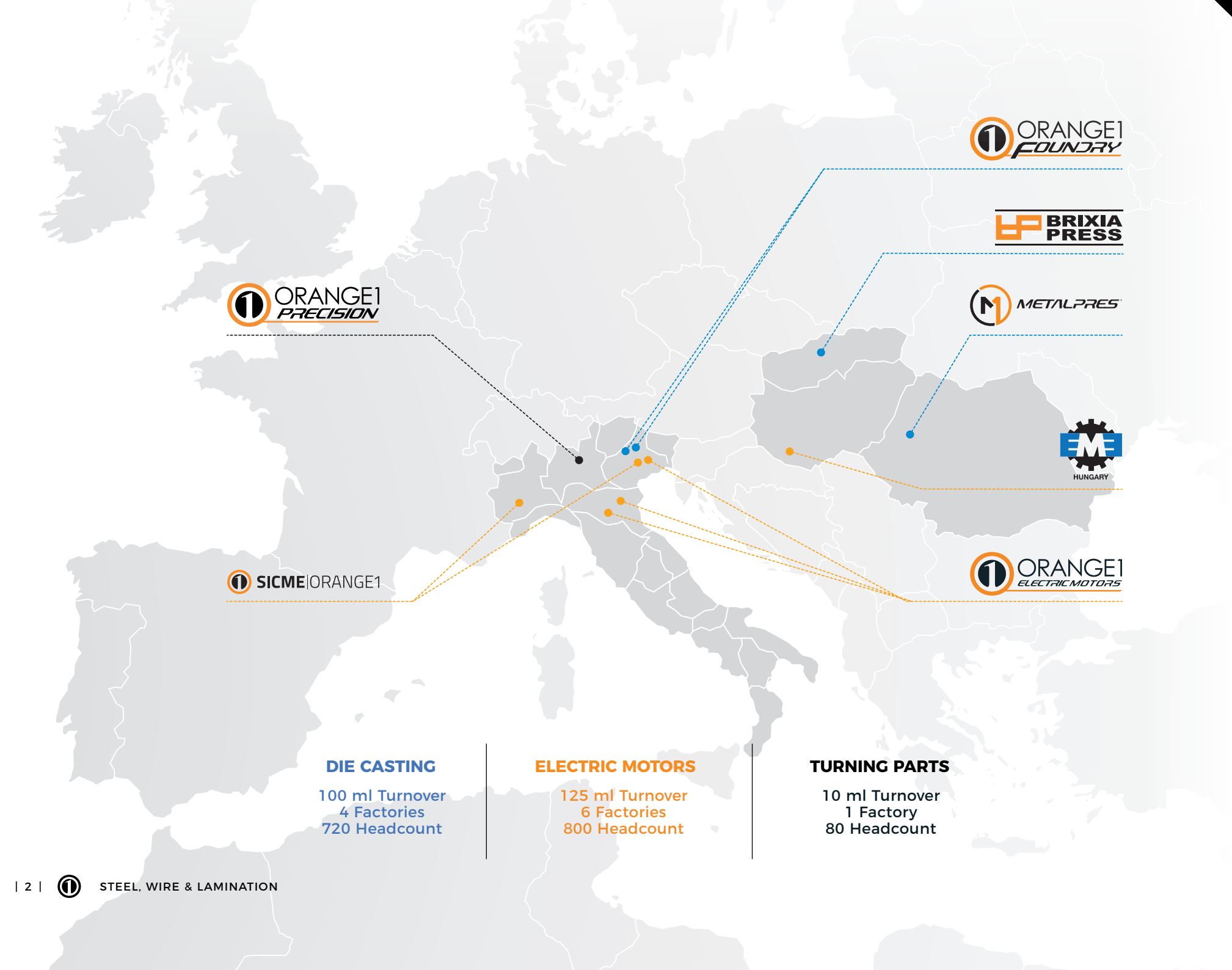


Steel, Wire & Lamination

SICME | ORANGE1



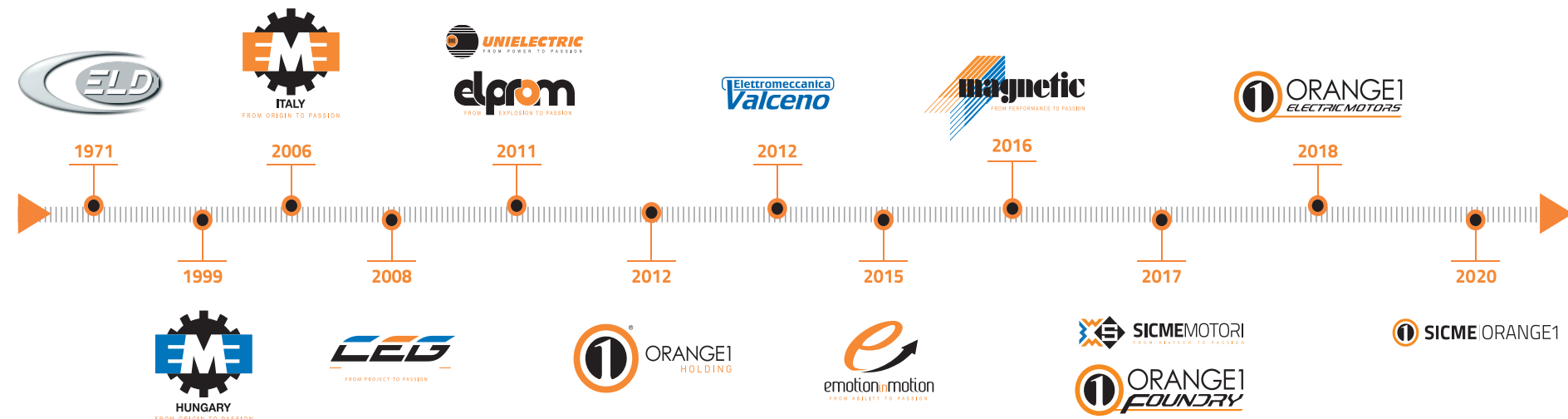
ORANGE1
HOLDING



A dynamic, strong and ambitious Group

Orange1 Holding is an international renown Group, one of the most important European manufacturers of single-phase and three-phase asynchronous electric motors. It has an annual capacity of more than 1 million motors and 5 million electric stators with an annual turnover of approx 235 million euro and more than 1600 workers in 15 production facilities. The group, established in 1971 by Leone Donazzan, chaired today by his son Armando Donazzan, is strongly focused on technological innovation, performance and customization to meet individual clients requirements.





€ 235.000.000 TURNOVER
11 COMPANIES
1600 HEADCOUNT

SICME | ORANGE1

Sicme Motori S.r.l., founded in 1967, produces AC motors, variable speed and high quality DC motors and it represents a **benchmark of excellence for its technology** providing the best economical solutions for many different applications. Since 2002 it has been cooperating actively with the Institute of Electrical Engineering of the Polytechnic of Turin and it has been **one of the world's largest producers of wind generators**. In 2008, it has developed motors with ASR technology, the most revolutionary type of electric machine in the world, and in 2014 developed an innovative range of synchronous reluctance motors IE4 with a specific patent.

A company with a 40 years history, well-known around the world for the high quality and product technology, it produces Asynchronous motors up to 3700 Kw, Synchronous motors up to 2700 Kw, Hydroelectric Generators up to 3000 Kw, Mini-Wind generators up to 200 Kw and Wind Turbines up to 5000 Kw. And among many other projects has developed and built the motor wheels for the Rover which landed on Mars.

Sicme Motori **is also one of the European Leaders for variable speed applications**, presents the serie of three-phase synchronous reluctance motors, which are designed for and can only be operated by a frequency converter (inverter).

In 2020 Sicme Motori was renamed **Sicme-Orange1**.



The application experience acquired in over 50 years enabled Sicme-Orange1 to develop products with specific characteristics to satisfy the demanding requirements in terms of quality and reliability of the steel and metal industries.

Heavy Duty Motorizations offered by Sicme-Orange1 for such applications are:

- DC motors up to 2500 kW
- DC motors according to AISE Std (MILL motors series 800) up to 200 kW
- AC motors for inverter supply up to 2600 kW
- Permanent magnets "Direct-Drive" synchronous motors up to 10.000 Nm (designed for direct coupling with the load, with no interposition of the gearbox)
- Special projects upon request

Some typical application all over the world of Sicme-Orange1 products:

- Cold and hot rolling mills, reversible and not reversible for steel and aluminium
- Finishing lines (painting, galvanising, tinning, etc.)
- Steel drawing machines
- Copper drawing machines
- Metal working lines (cutting lines, shears, cable machines, etc.)
- Wire and Tube forming machines

WHY CHOOSING ORANGE1 PREMIUM SOLUTIONS

in steel, wire & lamination



MADE IN ITALY GUARANTEED



HIGH LEVEL OF CUSTOMIZATION



RELIABILITY & DURABILITY



QUALITY



100% TESTED



DC Motors

These motors are a benchmark on the market, with more than 50 years of experience, since 1967. All these motors have fully laminated frames and class F and H insulation. The whole series comprises 20 shaft heights (from 80 to 800 mm), each one with 3 or more core lengths, thus being one of the most complete on the market today, fully engineered and manufactured in Italy.

The power and speed ranges of the versions with and without compensating windings are generally similar for any given size and armature voltage, but compensation, available for 132 and bigger frame-sizes, enhances the performance under conditions of overload or weakened flux. A broad set of standardised windings are available for each size in both versions, which offers a considerable number of winding voltage-speed combinations.

DC motors according to AISE Standard

Steel mill heavy duty DC motors series SM-ML (MILL motors series 802-816) have been designed for use in variable speed drives for heavy duty applications. Motors have skewed armature slots to ensure low torque ripples at slow speed. Motors are available up to 200 kW about with compensation winding (from frame 806), fully laminated stator core and heavy duty roller bearings.

Split frames are also available within frame 802-804.

These motors exactly meet AISE Standard requirements in terms of output performances, overall and coupling dimensions and dimensions and positioning of ventilation openings. For these reasons they are fully interchangeable to whatever DC motor of the same frame size manufactured in accordance with AISE Standards.



Asynchronous vectorial motors

The asynchronous motors series have been specially engineered to achieve reduced dimensions, high performances in variable speed applications with flux vector type controllers. The main feature is in the laminated stator pack which carries out the functions of the frame and integrates the air circulation system. In particular, these motors, even though they are sensibly more compact, make it possible to achieve very high specific powers with regard to a standard motor with the same shaft height. This technology is really appreciated on the steel & wire application because combines high power with relatively small motors and high precision of movement.

Reluctance motors

Orange1 Group has developed a range of reluctance round motors that give an important advantage, compared with a standard induction motor, because of the **highest efficiency**, due to the elimination of the rotor losses. This brings to unbeatable energy savings in variable load applications, such as fluid motion. These motors are assembled using standard IEC 60072 mechanical parts, in order to guarantee 100% compatibility in case of retro-fitting. The highly innovative active parts, synchronous reluctance, are designed to ensure the best efficiency, above all in terms at partial load conditions, in order to guarantee to the customer a **quick payback** when these drives are selected to replace standard induction solutions. Other important features are the low noise level and the synchronous speeds, important to have very **precise speed regulation** and a lower inertia.

Brushless motors

The Ngbe brushless range - the Ngbe brushless servomotors are designed to meet the increasingly demanding needs of the automation industry, which require high-performance systems, greater reliability, and reduced maintenance.

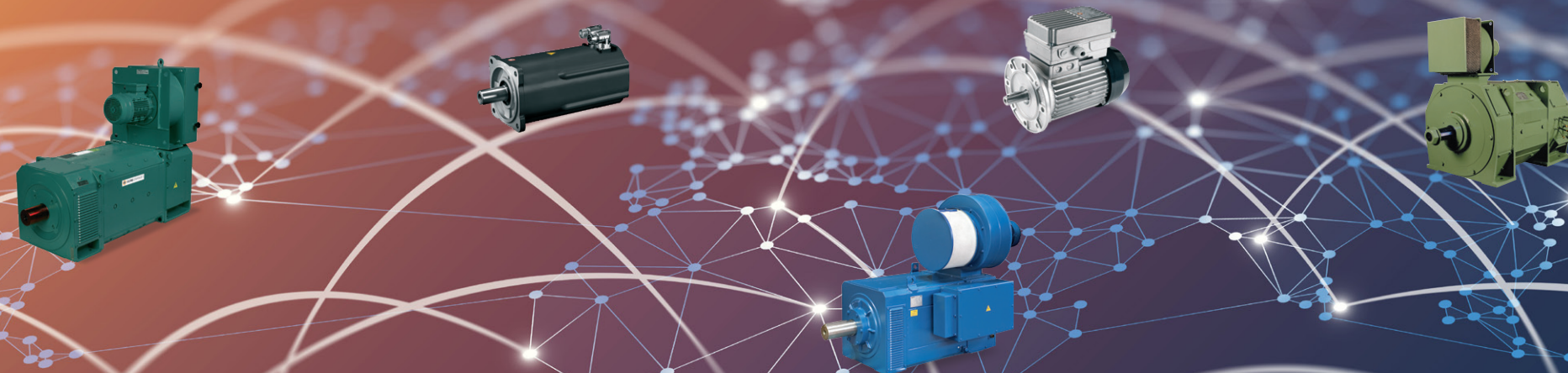
We used high-quality materials to develop the Ngbe series. the new aesthetic and functional details introduced allowed us to reduce the overall dimensions, resulting in great savings for the customer. Ngbe servomotors are designed to reduce torque oscillation and promote excellent rotation regularity.

Drive Motors

O1EM develops and manufactures Variable Frequency Drive for AC, Brushless and PM motors. O1EM range includes Single and Three phase input and Three phase output. The drives could be directly mounted on the motors as a unique kit. The internal R&D offers custom solution for the firmware according to the client's special applications.



**more than 15,000 motors running for wire & steel
application with worldwide presence, in the
most severe and various working conditions**



After sales, replacement & service

Orange1 Quality and Technical Team, together with a dedicated internal department, offers a full service system able to satisfy any specific request into electric motor maintenance. Orange1 Service can provide an innovative diagnostic tools for electrical testing and analysis to pinpoint immediately specific motor issues, and can provide a service of reparation for motors.



info@orange1.eu
www.orange1.eu

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