



Smart Safety Systems

Industrial Projects and services

Protection in Nuclear Environments

3D Printing

#### About Groupe Gorgé

Established in 1990, Group Gorgé is an industrial group operating in different areas of expertise:

**Smart Safety Systems** – Using technology to work in risk environments;

**Protection in Nuclear Environments** – Protecting people and securing buildings operating with radioactive materials;

#### **Industrial Projects & Services**

Conducting Robotics and Fire protection systems projects for industry and service-sector player;

**3D Printing** – Enabling major industry players to find new routes to successful innovation and production processes by providing systems, 3D printers and new premium material.

In 2015, the Group reported revenue of €264.5 million. It is backed by 1,536 employees and operations in over ten countries.

# More information available on www.groupe-gorge.com

Groupe Gorgé is listed on Euronext Paris and on the US OTC market in the form of ADR.

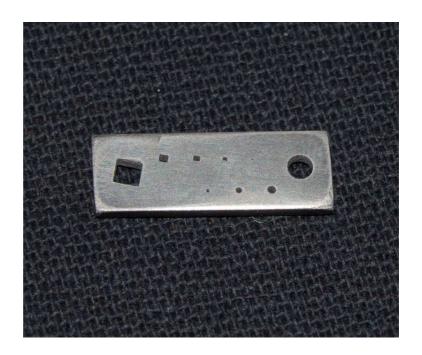
Euronext Paris: Compartment B. ISIN code: FR0000062671 Ticker code: GOE

US OTC market: CUSIP NUMBER: 399451 103 ISIN NUMBER: US3994511034 Ticker Code: GGRGY / GGRGF

# Prodways, a Groupe Gorgé subsidiary, develops a new metal 3D printing technology

## Development of a new metal 3D printing technology

The Prodways R&D teams have been collaborating with CEA-LITEN for two years. This collaboration with this institute of CEA – CEA Tech - is working on a new metal 3D printing process using metal powder combined with organic binders. This project has just seen its first successful production of titanium parts using this new exclusive process:



Sample of a metal part printed using the Prodways© R&D technology

### **Contacts**

Groupe Gorgé - Raphaël GORGÉ - CEO & Chairman - Tél. : +33 1 44 77 94 77 - E-mail : <a href="mailto:contact@groupe-gorge.com">contact@groupe-gorge.com</a>
Actus Finance - Natacha MORANDI - Analysts/Investors Relations - Tél. : +33 1 53 67 36 94 - E-mail : <a href="mailto:nmorandi@actus.fr">nmorandi@actus.fr</a>
Actus Finance - Jean-Michel MARMILLON - Press Relations - Tél. : +33 1 53 67 36 73 - E-mail : <a href="mailto:jmmarmillo:jmmarmillo:jmmarmillo:jmmarmillo:jmmarmillo:jmmarmillo:jmmarmillo:jmmarmillo:jmmarmillo:jmmage7.fr">jmmarmillo:jmmarmillo:jmmarmillo:jmmarmillo:jmmarmillo:jmmarmillo:jmmage7.fr</a>
Image 7 - Lauranne Guirlinger - Press relations - Tél. : +33 1 53 70 74 18 - E-mail : <a href="mailto:jquirlinger@image7.fr">jquirlinger@image7.fr</a>



If it were to be ramped up to series production scale, this new technology would offer substantial advantages compared to the highest performance methods currently in use:

- Offers a printing process that is up to five times faster than direct metal 3D printing;
- Has the ability to work with all types of metals (including titanium, Inconel, cobalt-chrome, etc.);
- Resolves problems related to health, safety and the environment (with a process that does not produce fine particles, using very fine powders);
- Reduces overall operation time and production costs;
- Requires less energy, as the energy normally used to fuse metal is provided by an oven and not a laser;
- Provides a very high degree of precision that is not possible with current metal 3D printing technology.

We are still facing numerous challenges in development, but this first successful production, result of a two year research study, is a major step forward.

# Development of 3D printing technologies for fabrication of metal parts using an indirect process

Furthermore, Prodways obtained the first conclusive results in refining the process by using MOVINGLight® technology for indirect fabrication of metal parts. These technologies, such as the lost wax casting process, can make tools, master patterns, or unique moulds that make it possible to fabricate high performance metal parts. In particular, this technology can create master pattern geometries that are more complex. Prodways is also developing new resins that can optimise this technology for casting metal parts. This indirect process, which is often used in the aeronautic and automotive industries, is currently being tested at several leading companies in these sectors.



# **Expertise in parts fabrication and strengthening the offer in metal**

Lastly, the group notes that with a fleet of approximately 10 machines dedicated to metal, and more than 10 years of experience in the sector, Initial is one of the largest French players in metal 3D printing parts production (titanium, Inconel, etc.). The Prodways subsidiary also has reinforced its offer by acquiring a new metal fusing machine so that it can optimally meet the requirements of the aeronautics and medical sectors.

Changes are sweeping the metal 3D printing technology industry, with General Electric's \$1.4 billion buyout of the two biggest players in the sector. The Prodways group, a subsidiary of Groupe Gorgé, intends to strengthen its efforts in metal additive manufacturing to enrich its offer.

#### Disclaimer

This press release could contain statements on past events and forward-looking statements including statements regarding future goals or targets. Forward-looking statements reflect current expectations for results and future events.

Such forward-looking statements and targets depend on known and unknown risks, uncertainties and other factors that may cause actual results, performance or events to differ materially from those anticipated herein. All these risks and uncertainties could affect the Group's future ability to achieve its targets. Risks, uncertainties and other factors that could cause actual results to differ materially from the results anticipated in the forward-looking statements and targets include, among other things: the risks and uncertainties possibly mentioned in this press release; the strength of competition; the growth of the market; currency fluctuations; interest rate fluctuations; raw materials and freight price fluctuations; armed conflicts or political instability; control of costs and expenses; changes in tax legislation, rules, regulation or enforcement; our ability to successfully keep pace with technology changes; our ability to attract and retain qualified personnel and key-men; the evolution, interpretation and uniform application and enforcement of International Financial Reporting Standards (IFRS), according to which we prepare our financial statements; supply chain bottlenecks; the performance of our business partners (subcontractors, agents, suppliers, etc.).

Some of these risk factors are set forth and detailed in our Document de Référence (Registration Document including the annual financial report filed with the French Autorité des Marchés Financiers). This list of risks, uncertainties and other factors is not limitative. Other non-anticipated, unknown or unforeseeable factors could also have material adverse effect on our targets. The Group expressly disclaims any obligation or undertaking to update or revise any forward-looking statements or targets potentially contained in this press release to reflect any change in events, conditions, assumptions or circumstances on which any such statements are based.

Follow us on Twitter for live updates from Groupe Gorgé!

