

# Media kit

# THE ELECTRIC ADVENTURE

Originally a small French manufacturer founded in the 1980s, Venturi underwent a radical transformation when it moved to Monaco in 2000 and became a pioneer and expert in the field of electric vehicles.





### FROM EARTH TO THE MOON

Venturi's story began in 1984: founders Gérard Godfroy high-performance electric vehicles, ushering in two and Claude Poiraud decided to take on the challenge of decades of innovation, adventures and world firsts. presenting an ambitious GT at the Paris Motor Show. These included: record-breaking vehicles, concept cars, expeditions in hostile terrain, polar exploration The company enjoyed a sustained period of success until 1995, with its race cars even competing in the 24 vehicles, supplying motors to the French PSA Group Hours of Le Mans. Venturi also secured its place in Forand eight years competing in the World Formula E mula 1 history, securing a commendable sixth-place Championship (including four years as both a construcfinish in the Monaco Grand Prix in 1992. In 1999, the tor and a team). The Venturi Group represents and company was beset by financial difficulties and was demonstrates the full potential of electric vehicles, placed in receivership. When Gildo Pastor purchased proven by the fact that it holds all of the world speed Venturi and moved its head office to Monaco in 2000, records in this category (and the "fuel cell" category) on either two or four wheels. In 2020, at the behest of Gildo the entrepreneur took the strategic decision to focus on

Pastor, an electric lunar rover programme was established. A Swiss company, Venturi Lab, was founded and a strategic partnership was forged with a 100% American company based in Los Angeles, Venturi Astrolab Inc. The two centres are working with Venturi's historical base in Monaco. Together, the three companies are designing, developing and building FLEX, a multipurpose lunar vehicle, in response to NASA's call for proposals under its Artemis programme. Destination Moon 2026.





# INNOVATION IS A BUSINESS



#### GILDO PASTOR, PRESIDENT OF VENTURI GROUP

A passionate entrepreneur and experienced driver, Gildo Pastor is a visionary with a keen interest in technology. In the late 1990s, he had faith in electric vehicles, and there weren't many people who shared that faith back then... In 2000, when he bought the French sports car manufacturer Venturi, and despite the fact that electric vehicle technology was in its infancy, he decided to shift the company in a surprising direction. From that point on, Venturi would specialise in high-performance electric vehicles, ushering in two decades of records and world firsts.

#### INNOVATION PIONEERS I Innovation is a business



### ANTONIO DELFINO, CO-FOUNDER & DIRECTOR OF VENTURI LAB

Before joining Venturi, Dr Antonio Delfino was Head of the Chemistry and Physics Department at Michelin, In 2019, this aerospace and physics enthusiast joined forces with Gildo Pastor to found a company specialising in the space industry: Venturi Lab, based in Fribourg (Switzerland), of which he is also the Director. Antonio Delfino additionally serves on the Venturi Astrolab Advisory Board (Los Angeles, USA).



### SACHA LAKIC, STYLE DIRECTOR

Fascinated by motorcycles and cars, Sacha Lakic cut his teeth working on interior design for Peugeot before joining MBK-Yamaha. A series of collaborations followed. Sacha continued to focus on motorbikes, working with French brand Voxan Motors for whom he designed the Black Magic. Sacha Lakic has collaborated with Roche-Bobois on furniture and interior decoration. In 2001, fate threw him into the path of Gildo Pastor. Very quickly, the two men became friends and a working relationship developed. Sacha Lakic has been the Group's Style Director ever since. He also designed Venturi's premises in Monaco.



## XAVIER CHEVRIN, PRESIDENT OF VENTURI NORTH AMERICA

This former lecturer in French civilisation and sociology at the University of Beijing is an adventurer. Among other feats, he completed the first intercontinental journey from Paris to China by electric scooter. In 2009, Venturi President Gildo Pastor invited him to conduct endurance tests for the brand's vehicles. In this role, Xavier Chevrin has covered the longest distances ever driven in an electric vehicle, without assistance, travelling from Shanghai to Paris and crossing East Africa. Gildo Pastor then asked him to lead Venturi North America, the company's US branch based in Columbus, Ohio.

## CONCEPT CARS

Venturi's concept cars have revolutionized the world of electric mobility and inspired the world's biggest automotive constructors. Technological innovation, unique designs and special uses are all part of these exceptional vehicles' DNA.

2004







## Fetish

### THE WORLD'S FIRST ELECTRIC SPORTS CAR

The Fétish is also the very first electric car designed by Venturi.

### THE FIRST URBAN ELECTRIC VEHICLE

Eclectic is a veritable renewable power 2006 plant, capable of generating and storing both solar and wind energy.

### THE FIRST SOLAR-ELECTRIC VEHICLE

Astrolab is capable of running with only a modest amount of on-board power, and  ${f extsf{S}}$ instead recharges using solar energy, even S while on the move.







### AN ELECTRIC GT BUILT ON UNIQUE TECHNOLOGY

The Volage is a jewel of technological innovation that includes eight Active Wheel inwheel motors.

2008

## AN ELECTRIFYING CROSSOVER

AMERICA

The America is a hugely versatile all-terrain vehicle that boasts the performance, balance and handling of a sports car.

BACK TO TELEGRAPH CREEK

MISSION N°01 JAMAIS CONTENTE MISSION N°05 KENNEDY SPACE CENTER

MISSION Nº03

Since 2009, Venturi has been pushing the human and technological limits of electric mobility with the Venturi Global Challenges. Incredible speeds, extreme weather, tough terrain in the remotest corners of the planet... Venturi vehicles are tested in extraordinary conditions, making an indelible mark on our era. Inspired by the great automobile expeditions of the last century, these missions aim to demonstrate the efficiency and reliability of electric vehicles. VENTURI GLOBAL CHALLENGES | Beyond the limits

# VENTURI GLOBAL CHALLENGES

MISSION Nº04 KILIMANJARO TO OKAVANGO

MISSION Nº07

SPITZBERG

MISSION Nº06

MISSION Nº02

SHANGHAI TO PARIS

INTERNATIONAL POLAR FOUNDATION

# MISSION 01: JAMAIS CONTENTE

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: MISSION ACCOMPLISHE VENTURI GLOBAL CHALLENGES | Mission 01

The opening chapter of the Venturi Global Challenges. Mission 01: Jamais Contente aimed to set new speed records for an electric vehicle.

EBT EVS

WATCH THE VIDEO 🕟





Mission 01: Jamais Contente was named after the first ever automobile to break the symbolic 100 km/h mark: the Jamais Contente, a torpedo-shaped electric car. Driven by Camille Jenatzy, it achieved a speed of 105 km/h in 1899, setting a world record for any method of propulsion (steam or petrol).



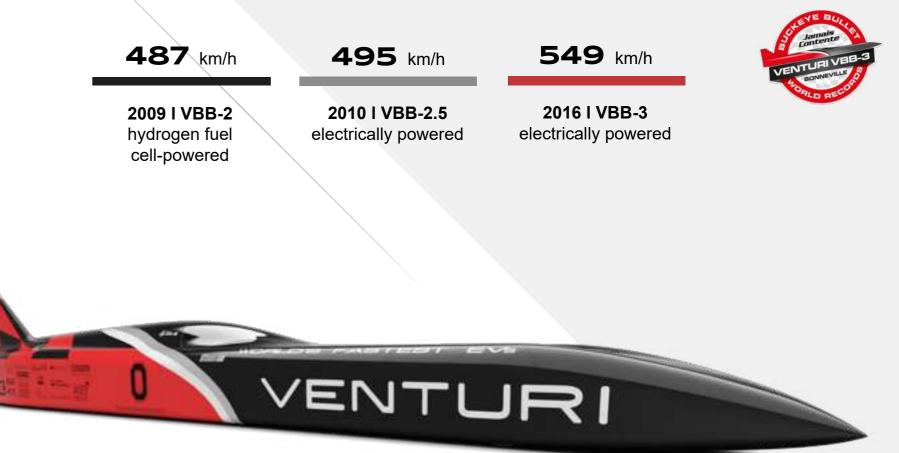
## THE CHALLENGE

Venturi designed its own record-breaking vehicle: the Venturi Jamais Contente, also dubbed the VBB, in reference to the Venturi Buckeye Bullet team, a group of students from the Ohio State University who helped to develop the vehicle. The VBB proved a worthy successor to the original pioneer of 1899, successively beating its own world speed records on the famous salt flats of Bonneville in the USA.

## THE **D**RIVER

A driving instructor and test driver at the Transportation Research Center (Ohio, USA) since 1990, Roger Schroer is Venturi's official driver for electric vehicle speed record attempts. A professional speed driver, Roger is a member of the exclusive "300 mph Club", which includes the sixty drivers in the world to have exceeded that speed (482.8 km/h).

## THE VEHICLE



### PROPULSION

Engine: 4 motors (1 per wheel) Battery pack: Lithium-ion (2.000 cells)

## CHARATERISTICS

Body: Carbon fiber Length: 11.35 m Width: 1.06 m Weight: 3.5 tonnes

## PERFORMANCE

Max. power: 2.200 kW (2.950 HP) Max. torque: 2.000 Nm

> Mission 02: Shanghai to Paris was a test of endurance like no other. The Citroën Berlingo "Powered by Venturi" covered the longest distance ever travelled by a mass-production electric vehicle without assistance.

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WATCH THE VIDEO

# MISSION 02: SHANGHAI TO PARIS

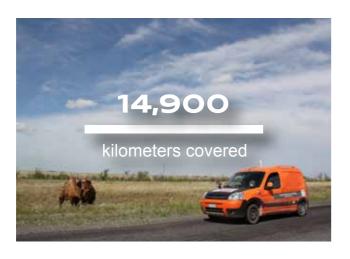


## THE CHALLENGE

Mission 02: Shanghai to Paris was an epic journey reminiscent of Citroën's "Croisière Jaune" ("Yellow Cruise"), one of the first rally raids of the 20th century. Between 3 May and 13 July 2010, Xavier Chevrin, President of Venturi North America, crossed eight countries from Shanghai to Paris in an electric Citroën Berlingo "Powered by Venturi". From China to France, via Kazakhstan, Russia, Ukraine, Poland, Czechia and Germany, the adventurer made the first voyage of this kind in an electric vehicle, in stages of 300 to 400 km per day. Along the way, he was forced to negotiate deserts, sandstorms and snowy mountain passes at over 3,000 metres' altitude, with the vehicle safely carrying him through all these extreme conditions, completing a voyage of 14,900 kilometres, the longest distance ever travelled by a mass-produced electric vehicle without assistance.













## THE VEHICLE



## ENGINE Max. power: 46 kW (63 HP)

Max. torque: 180 Nm

### BATTERIES

"Zebra for Venturi" Energy: 70.5 kWh (3 x 23.5 kWh)

### PERFORMANCE

Range: 400 km Top speed: 110 km/h



# MISSION 03: BACK TO TELEGRAPH CREEK



Venturi has developed an electric exploration vehicle capable of withstanding extreme temperatures: Antarctica. Its first test in-situ was also a tribute to a glorious past.

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## THE CHALLENGE

Inspired by Prince Albert II of Monaco following a visit to the Antarctic, Mission 03: Back to Telegraph Creek aimed to develop an electric vehicle capable of navigating hostile terrain and withstanding temperatures as low as -50°C. The ultimate goal was to one day supply a vehicle of this kind for use by a polar exploration base. This zero-emission mode of transport would ensure that the scientists are able to carry their equipment to research sites without impacting the environment..





# "BACK TO TELEGRAPH CREEK"

## ANTARCTICA THE VEHICLE

On 6 March 2019 in British Columbia (Canada), the Venturi Antarctica was put through a battery of tests in climatic conditions similar to those at the South Pole. The vehicle travelled 42 km in extreme temperatures as low as -30°C. The expedition was an opportunity for Venturi to recreate a zero-emissions version of Citroën's "Croisière Blanche" ("White Cruise"), a 20th-century automobile raid that entailed crossing the Canadian North-West. That historic expedition ended in failure, owing to the nature of the terrain and the disastrous climatic conditions. On Telegraph Creek Road, considered to be one of the world's most dangerous highways, three exceptional drivers took their seats aboard Antarctica: H.S.H. Prince Albert II of Monaco, the Canadian astronaut Chris Hadfield, and the President of Venturi North America. Xavier Chevrin.



ENGINE Engine: 2 x 60 kW DC Batteries: 2 x 100 kW

PERFORMANCE Range: 50 km Top speed: 25 km/h CHARACTERISTIC Weight: 2 tonnes

WATCH THE VIDEO

Yet another world first: travelling from Kenya to South Africa aboard an electric vehicle, without any assistance. The Citroën Berlingo 'Powered by Venturi' covered some 5,800 km.

## MISSION 04: KILIMANJARO TO OKAVANGO

IMANJARO TO OKAVANGO

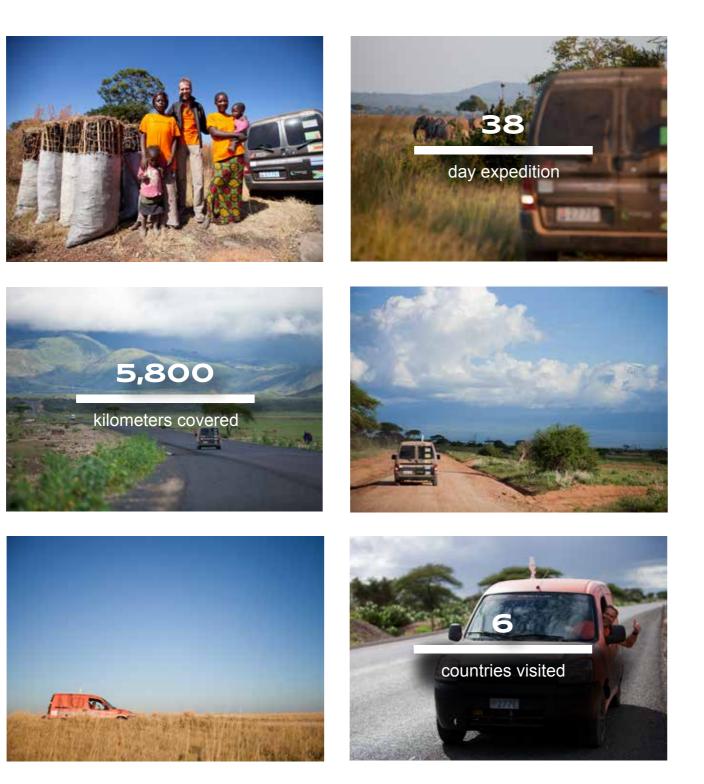
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## THE CHALLENGE

A modern-day version of the "Croisière Noire", a 1924 automobile expedition that crossed the African continent from north to south. Mission 04 was the first crossing of Africa by an electric vehicle without any assistance. Following the Mission Shanghai to Paris, Xavier Chevrin undertook his second epic journey at the wheel of a Citroën Berlingo "Powered by Venturi". Setting out from Nairobi on 11 May 2012, he covered a distance of 5,800 km unassisted, reaching Johannesburg a month later. From Kenya to South Africa, in a region where half of the population has no access to electricity, the adventurer recharged his vehicle around forty times with the local people he encountered along his route.



## THE VEHICLE



ENGINE Max. power: 46 kW (63 HP) Max. torque: 180 Nm

## BATTERIES

"Zebra for Venturi" Energy: 70.5 kWh (3 x 23.5 kWh)

### PERFORMANCE

Range: 400 km Top speed: 110 km/h

# MISSION 05: KENNEDY SPACE CENTER

VOXAN

FONDATION \* PRINCE ALBERT II DE MONACO

MICHELIN



VENTURI GLOBAL CHALLENGES | Mission 05

WATCH THE VIDEO

Venturi Group is passionate about speed records. One driver and one machine take on the stopwatch, pushing themselves - and the capabilities of electric vehicles - to the very limit and beyond. Voxan, the motorcycle brand owned by Venturi, currently holds no fewer than 21 speed records.

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RECORDS LIST

## THE CHALLENGE

In October 2020 and November 2021, the Voxan team and rider Max Biaggi travelled to the airfield at Châteauroux (France) and the runway of Kennedy Space Center (United States), where they set a total of 21 new world speed records. Hitting an average speed of 456 km/h, Max Biaggi and the Wattman wrote their names into the history books by claiming the highly sought-after speed record in the "semi-streamlined electric motorcycle under 300 kilos" class, and achieved a peak speed of over 470 km/h.

## THE **RIDER**

Italian rider Max Biaggi was chosen to take on this challenge, astride the Voxan Wattman. Max Biaggi boasts an impressive CV that includes four 250cc World Championship titles and two World Superbike Championship titles. He is also twice Vice-World Champion in the 500cc category.

Over the course of a truly outstanding career in various world motorcycle championship categories, Max clocked up no fewer than 63 victories and 66 pole positions.





PROPULSION Engine: Mercedes-Benz EQ electric engine WATTMAN (permanent magnet motor technology) Max. power: 320 kW (435 HP) Battery pack: Lithium-ion Transmission: Direct drive with timing belt

### CYCLE

Front suspension: dual swingarm with central shock absorber + offset handlebar with link rod Rear suspension: dual swingarm with central shock absorber Tyres: Michelin (Front: 120/70 ZR17 / Rear: 190/55 ZR17) Rear brake: 305 mm disc - 4-piston calliper

## CHARACTERISTICS

Length: 2,700 mm Width: 710 mm Height: 1,030 mm (Seat height: 685 mm) Wheelbase: 1.957 mm Ground clearance: 70 mm Weight: 296 kg (Battery: 96 kg)

VOXAN

THE VEHICLE

# MISSION 06: INTERNATIONAL POLAR FOUNDATION

BELARE



Following Mission 03: "Back to Telegraph Creek", the Venturi Antarctica project continued on the world's southernmost continent in late 2021. The vehicle was tested in the true Antarctic conditions, before being handed over to the Princess Elisabeth Antarctic research station, part of the International Polar Foundation.

WATCH THE VIDEO 🕨

> ""In 2009, H.S.H. Prince Albert II of Monaco returned from a trip to Antarctica and told me that the scientific research stations did not have clean vehicles. Through the Prince Albert II of Monaco Foundation, Venturi was then entrusted with the task of providing a zero-emissions solution that would enable access to areas of scientific study. Back then, in 2009, there was no technology that allowed such a vehicle to operate on rough terrain at -50°C. This third version of the Antarctica is now optimal. My teams and I are proud to supply this vehicle to the International Polar Foundation."

Gildo Pastor,

President of Venturi"



Attached to the Princess Elisabeth Antarctica polar research station, the vehicle enables the scientists there to get around with their equipment, whilst keeping any impact on the ecosystem to an absolute minimum. Venturi chose the Belgian station for its environmental approach, as the only zero-emissions station on the Antarctic continent. The Venturi Antarctica, the first ever tracked electric polar vehicle, can be used to:

pheric observation stations, rature measurements.

MEDIA KIT

## THE CHALLENGE

- maintain meteorological and atmos-- reach an altitude of 2,300 metres in order to carry out snow surface tempe-

- carry out emergency operations to rescue an individual from a crevasse.

## ANTARCTICA THE VEHICLE

RANGE 50 > 200 km

OPERATING TEMPERATURES As low as -50°C

HABITABILITY 1 to 6 persons





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# MISSION 07: SPITZBERG



Adventure and exploration, forever and always. For the first time in its history, Venturi did not test any vehicle. This goal was different...

## THE CHALLENGE

As part of the celebrations and commemorations marking the centenary of Prince Albert I of Monaco's death. Gildo Pastor, the President of Venturi, was keen to pay tribute to H.S.H. Prince Albert II of Monaco's great-great-grandfather by entrusting Xavier Chevrin with a dangerous mission on the island of Spitsbergen in the Svalbard archipelago (Atlantic Ocean). Unlike the previous challenges that he has taken on for Venturi, this time Xavier did not test any of the brand's vehicles. Only his own physical and mental capabilities were put through their paces. Nonetheless, the company's R&D department was still involved in the trek, designing solar-powered electric charging systems.



## THE EXPEDITION

The island of Spitsbergen, a land of glaciers and rugged terrain in the Norwegian Svalbard archipelago, had never before been explored from the interior, making this mission a world first. The Venturi adventurer skied 220 kilometres, completing a net climb of around 3,000 metres. It took almost the entire month of June 2022. Traversing unexplored land and valleys, Xavier Chevrin crossed "Albert I Land", linking the four points mapped by Prince Albert I from the sea between 1898 and 1907 (departing from Mount Grimaldi, then crossing the Monaco Glacier to reach Prince Albert I Mountain and, finally, Princess Alice Mountain).







"Venturi acquired the iconic French motorcycle maker Voxan in 2010, refocusing the brand on a new core business: electric motors.

VOXAN

MOTORS

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In 2013, Venturi unveiled the Voxan Wattman, a symbol of the brand's rebirth. The Wattman embodied the new technical and stylistic direction adopted by the constructor purchased three years earlier."





## PERFORMANCE

The Made in Monaco motorcycle delivers a phenomenal 150 kW (203 HP) of power at up to 10,500 rpm, generating instant torque of 200 Nm. At the time, it staked a claim to be the most powerful electric motorcycle ever built, capable of accelerating from 0 to 100 km/h in just 3.4 seconds.

### DESIGN

Designed by Venturi's long-serving lead designer, Sacha Lakic, the Wattman ushered in a new architecture, built around an enginebattery pack carrier set. Instead of a frame, it has an ultra-rigid aluminium exoskeleton that integrates all of the powertrain components.

### WORLD SPEED RECORD

A high-performance version of the Wattman has also been built. Likewise developed at Venturi and Voxan's base in Monaco, the machine is a marvel of cutting-edge technology and is currently the fastest electric motorcycle on the planet, having set a total of 21 world speed records.











December 2013: Venturi becomes the first team to commit to Formula E. Over the course of its eight seasons in the single-seater electric championship, the company will leave an indelible mark on the history of the sport.

September 2014: First race in Beijing.

November 2014: Venturi is certified as an official manufacturer, supplying its powertrains to Dragon Racing (2015–2016) and HWA GmbH, the competitive branch of Mercedes-AMG (2018–2019).

June 2018: Venturi CEO Gildo Pastor entrusts Susie Wolff with managing the team. She will pass the baton to Jérôme d'Ambrosio three years later.

December 2020: Gildo Pastor sells Venturi Group's Formula E business to Scott Swid and José M Aznar Botella. The company remains a stakeholder and partner, as demonstrated by the team name: ROKiT Venturi Racing.

September 2022: The final curtain comes down on Venturi's Formula E adventure, as Gildo Pastor decides to shift the Group's focus.



FORMULA E Made In Monaco

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**BEST RESULTS** 



# SPACE VENTURE

In 2026, Venturi will write the most inspiring page in its history when the FLEX rover, the result of international collaboration, sets down on the Moon.



### HISTORY AND PROGRAMME

It was in 2019, at the behest of Venturi President Gildo Pastor, that the electric lunar rover programme was conceived and put in place. A Swiss company, Venturi Lab S.A., was founded. At the same time, a strategic partnership was forged with an American-owned company based in Los Angeles (Hawthorne), Venturi Astrolab, Inc. Astrolab and Venturi Lab are working with Venturi's historical base in Monaco. Together, the three companies are designing, developing and building FLEX, a multipurpose lunar vehicle, in response to NASA's call for proposals under its Artemis programme. The rover will be transported to the lunar surface in 2026 by American company SpaceX. Once it has landed on the moon, FLEX will begin operating and will demonstrate its versatile capabilities, effectiveness and viability.

## STRUCTURE AND EXPERTISE

The collective team is staffed with engineers and scientists from the fields of space mobility, terrestrial and planetary robotics, industry, development, research into cutting-edge technology, electric vehicles, fuel cells, battery technology, hydrogen storage, composite materials and manufacturing processes. Each organisation draws on its own area of expertise:

#### VENTURI

Venturi in Monaco is dedicated to high performance batteries. In this, it is accompanied for the test phases by its US subsidiary, Venturi North America (Ohio, USA). This branch is located at Ohio State University and collaborates and works closely with its mechanical engineering students.

Venturi Lab is creating materials that can withstand extreme conditions (low temperatures and radiation), high-performance solar panels, deformable wheels and electric control systems. It also manages relations with the European Space Agency (ESA).

#### ASTRGLAB

Venturi Astrolab designs the vehicle's architecture, its primary structure and mechanisms, develops its software and avionics, assembles it, and conducts validation testing.



#### VENTURI LAB







### CHALLENGES AND DEVELOPMENT

The specifications drawn up by the American space agency pose a host of challenges. For example, FLEX will need: to be reliable over the very long term, to work at temperatures of between -90°C and -230°C, to withstand radiation or indeed be able to operate for two weeks in the darkness of the South Pole of the Moon. There are also constraints associated with the control modes for the vehicle. The rover must be able to move around semi-autonomously, and be driven by astronauts on board, and be controlled from the future lunar orbit station as well as from Earth.



### FOCUS ON VENTURI LAB

Venturi Lab was co-founded in 2021 by Gildo Pastor and Dr Antonio Delfino in Corminboeuf, in the Canton of Fribourg (Switzerland).

It comprises a team of experienced and passionate engineers, chemists and physicists who hold more than 250 patents between them in the fields of electric vehicles, fuel cells, materials science, composite materials, procedures, software engineering, information technology, space mobility and polymer science. Each engineer has more than 20 years of experience in applied technology. Together, they are designing and building new components and materials for space mobility, which will be able to withstand the extreme environmental conditions on the Moon and Mars. Venturi Lab has the capacity to embark on basic research leading to a usable practical application. To do this, it makes use of a modern physics and chemistry laboratory, as well as its mechanics, electricity and microcomputing departments.



L'AVENTURE SPATIALE

On 19 June 2023, the company presented its hyper-deformable lunar wheel at the Paris Air Show in Le Bourget, France. The wheel will be used on Venturi Astrolab's FLEX rover.









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