

Are lithium ion batteries suitable for aerospace?

Lithium-ion (Li-ion) batteries are especially attractive for most aerospace applications due to their low self-discharge rate. In power system configurations for aerospace, rechargeable Li-ion batteries are a popular choice for on-board battery systems. Therefore, the motivation and context for using Li-ion batteries in aerospace.

Where is italtvolt battery factory located?

Italtvolt has made a strategic decision to locate its battery cell factory in Italy, the country where Alessandro Volta invented the battery in 1800. Today, Italy holds significant opportunity for the modern battery industry, with its strategic location and highly skilled workforce.

Is Italy a good place to start a battery industry?

Today, Italy holds significant opportunity for the modern battery industry, with its strategic location and highly skilled workforce. Italy has a rich industrial heritage, especially as a hub of Europe's automotive industry, offering access to a large, skilled workforce.

What type of batteries are used in aerospace applications?

Batteries with solid polymer electrolytes, such as Li-Po batteries, are commonly preferred for aerospace applications due to their ability to solve leakage problems. This paper presents a brief overview on batteries for aerospace applications.

How will italtvolt support Italy's Green industrialisation ambitions?

Italtvolt intends to honour Italy's important industrial legacy by supporting the country's green industrialisation ambitions, and by delivering battery cells which will help drive decarbonisation across a variety of industries. Italtvolt's 45GWh battery plant will be the Italy's largest, independent, battery cell factory.

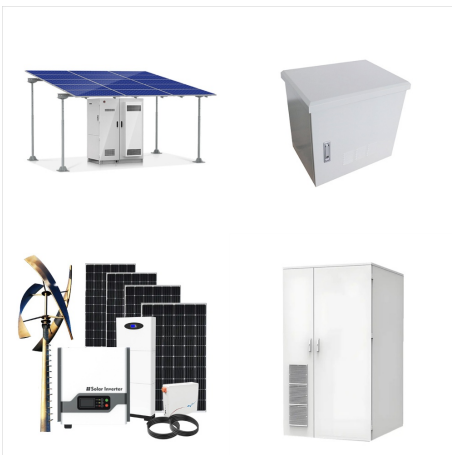
What is Italy's largest battery cell factory?

Italtvolt's 45GWh battery plant will be the Italy's largest, independent, battery cell factory. The battery cell factory will focus on creating new opportunities for re-skilling and upskilling workers from Italy's automotive industry.

# ITALY AEROSPACE BATTERY SYSTEMS



Flash Battery srl, (Flash Battery), is an Italy-based company committed to developing technologies and creating tailored projects with high added value in custom battery production for industrial machines and electric vehicles.



Lithium Battery Systems for Aerospace Applications . Outline ??? Provide awareness of the FAA technical standard orders associated with lithium battery and battery systems ??? Aircraft manufacturers and operators are incorporating rechargeable and non-rechargeable lithium battery TSOs at a rapid pace



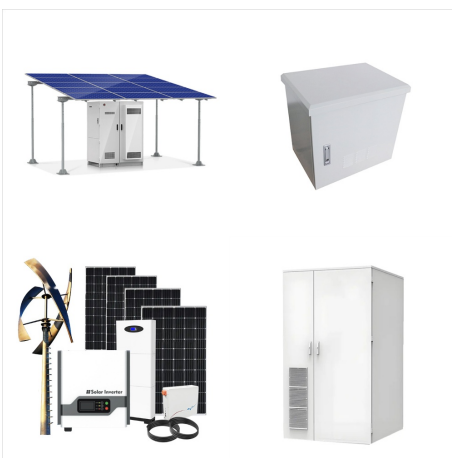
Italtel has made a strategic decision to locate its battery cell factory in Italy, the country where Alessandro Volta invented the battery in 1800. Today, Italy holds significant opportunity for the modern battery industry, with its strategic location and highly skilled workforce.



This paper presents a brief overview on batteries for aerospace application. In particular, More Electric Aircraft (MEA) and All Electric Aircraft (AEA) concepts are introduced at first, together with their main advantages and drawbacks.



4 ? The intention of the MIBA BATTERY SYSTEMS IPCEI project is to realize a highly automated, cutting-edge battery-pack production that serves as lighthouse for innovative/flexible and regional production of outstanding products in a high-cost country in the heart of Europe.



For more than 10 years Podium has engineered and built advanced battery systems for motorsport, automotive, aerospace, marine and railway applications. With a voltage level that ranges from 400 up to 800 V and beyond, Podium's own BMS today represents a complete, scalable and reliable solution to manage energy storages.

# ITALY AEROSPACE BATTERY SYSTEMS



Combining load-bearing with energy storage capabilities to create multifunctional structural batteries is a promising way to minimize the detrimental impact of battery weight on the aircraft.



BAE Systems, a leading aerospace and defense company, and Heart Aerospace, a Swedish electric airplane maker, announced a collaboration to define the battery system for Heart's ES-30 regional electric airplane.



Combining load-bearing with energy storage capabilities to create multifunctional structural batteries is a promising way to minimize the detrimental impact of battery weight on the aircraft.

# ITALY AEROSPACE BATTERY SYSTEMS



???Design & manufacture Li-ion battery solutions for military, medical, commercial & industrial markets ???Specialize in unique battery management system (BMS) solutions ???Global engineering & operations with US location focused on complex military & medical applications ???Conformable Wearable Battery (CWB) ???Worn directly by warfighter