

# Electromobility: leading the charge

The electric revolution isn't just about cars and charging points, says GYS CEO Bruno Bouygues. Golf carts, lawn mowers and even hospital beds are also part of it.

The global electric vehicle market has enormous potential. Almost every day new products, applications, ideas and approaches are announced. There are, however, significant challenges – the lack of infrastructure or a standard charging system; a bewildering variety of available chargers, charging speeds, wattage and connections; the limited distances that EVs can travel on one charge; and questions about electricity generation capacity. All these make long journeys in an EV, whatever its range, still something of a calculated gamble.

Nevertheless, I'm confident these obstacles will be overcome eventually. The days of the diesel, and even the petrol hybrid, are definitely numbered.

But a second transformation in how we move people and things from one place to another is also taking place. Quieter, but just as profound, it has fewer impediments to success. And, in my opinion, its potential is even greater – I'm talking about electromobility.

## Lithium – the game changer

The lead-acid battery was invented 160 years ago. It has done a sterling job since then, but the continuing development of the lithium-ion (Li-ion) battery has been a game-changer.

In the worlds of sport, industry and healthcare, for example, anything that was previously powered by lead-acid batteries will eventually change to lithium. This will improve performance and influence design, reducing weight and boosting efficiency. Lighter, low-maintenance and reliable, with high energy density and low self-discharge, lithium batteries can provide very high current to energy-hungry equipment.

Golf carts, forklift trucks, cherry-pickers, mobility scooters, wheelchairs, powered tugs and lawnmowers are just a few examples of equipment making the switch. Not to mention electric motorcycles, bin-lifters and hospital bed movers.

This exciting new market is not without its issues. It is fragmented. Advanced technology will be needed to support its growth – charging lithium batteries is complex. They need an electronic protection circuit to keep voltage and current within safe limits and the chargers themselves require up to 50-times more software code. Nevertheless, the opportunity is enormous.

## Expertise, experience and know-how

GYS is a major manufacturer of automotive battery chargers and has unrivalled expertise in battery management. Our high-tech battery support units maintain voltage during vehicle diagnostic checks, software downloads and programming configurations.

This know-how is now being employed in the growing electromobility market. Six experts at our R&D laboratories focus solely on developing new lithium-ion-related products. GYS currently offers more than 30 different battery chargers,

ranging from 1A to 120A and 6V to 48V. Eleven of these are lithium dedicated and 25 will be available by year-end, all with widely varying output capacity. We also develop bespoke solutions for specific customer needs, ranging from 12V to 72V.

Determined to be at the forefront of this revolution, GYS is busy building relationships with premium partners in the electromobility sector around the world – listening, understanding and responding to their needs. You could say we're leading the charge.



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