

# Identification and labeling of electrical vehicle and industrial batteries to enable battery passport

In collaboration with the GBA



According to the recent Circularity Gap Report 2022, of the 100 billion tonnes of materials that enter the global economy every year, only 8.6% are cycled back into the economy. This leaves a massive circularity gap for several actors and the battery one plays a very important role, for itself, but it can also enable circular changes in all other sectors and areas involved.

The EV battery demand is expected to grow by around 30 percent, nearing 4,500 gigawatt-hours (GWh) a year globally by 2030, and the battery value chain is expected to increase by as much as ten times between 2020 and 2030 to reach annual revenue as high as \$410 billion.



Using the GS1 System and Standards to make

# the battery supply chain more efficient

by focusing on the identification of raw materials, products, locations and economic operators

Under those dynamic conditions, GS1 and GS1 in Europe signed an MoU with the Global Battery Alliance to deliver battery passport pilots based on the GS1 system and standards.

GS1 can play a role in providing open and interoperable standards to support the GBA in enabling a circular battery supply chain. Even more, GS1 standards can go beyond the battery regulation and ensure cross-sectorial compliance with the Ecodesign Sustainable Products Regulation.

According to the EU sustainable battery regulation proposal, EV batteries shall be identified and linked to the digital product passport. The economic operator that places the battery on the market shall identify each individual battery through a unique identifier. This identifier shall be printed or engraved on the battery itself. The GS1 standards system is available to provide this unique identification, and the relevant data attributes needed for the battery passport by enabling a decentralised data system.

## **GS1** in Europe's commitment to circularity

With the European Union's goal of carbon neutrality by 2050, the industry is facing complex and critical challenges. GS1 in Europe is committed to assisting the industry in fostering circular, responsible value chains, starting with the battery sector.

GS1 has a long history of developing and maintaining supply chain standards through collaborative efforts with industry, for industry. Challenges related to raw material identification, production and lifecycle management of batteries caused by the needed rapid scale-up of battery production can be faced through global and open standards for product identification, data capturing and sharing.

Tackling these challenges by implementing open, global and cross-sectorial standards can facilitate a successful, circular transition toward more sustainable value chains.

### Global, open & interoperable standards

Identification and visibility systems based on global standards help to:

- · Regulatory implementation globally.
- More efficiency in the implementation, integration and maintenance of data systems.
- Enhanced collaboration between trading partners making it quicker and easier to identify trade items, locations, entities, etc. and to share data along the entire supply chain.
- Scalable solutions/systems because a global, common language is used.
- Digitalisation in an easier and standardized way.

### For more information

The collaboration on the battery passport is open and ongoing. A guiding document is available that supports the identification of battery models, battery cells, battery modules, battery packs, economic operators, manufacturers, producers, and importers.

We encourage all to visit the website for more information on our collaboration, the identification of batteries and data sharing for the battery passport.

Click the link: www.gs1.eu/activities/batteries

Or scan the QR code

