

**Keywords:**

#standardisation, #FCHtechnologies,  
#hydrogen, #recycling, #sustainable design,  
#ISO, #IEC



## BEST4Hy – Pioneering Standards for Hydrogen Fuel Cell Recycling

### The project standardisation needs

**BEST4Hy**, a project focused on developing and validating recycling techniques for hydrogen fuel cell technologies, identified a pressing need to align its innovations with existing and emerging standards. The project sought guidance to address the lack of comprehensive standards for managing the end-of-life phase of fuel cells, specifically PEMFC and SOFC technologies.

With the aim of integrating sustainable design, disassembly, and handling of end-of-life fuel cell components, BEST4Hy needed support to identify relevant standards and benchmark its methods against approaches used in similar fields, such as those involving precious and hazardous materials. The project also required insights into technical committees and directives, such as IEC TC105 (Fuel Cell Technologies), IEC TC111 (Environmental Standardisation), and ISO TC197 (Hydrogen Technologies), to ensure its findings would contribute meaningfully to standardisation efforts.



THE HSBOOSTER.EU EXPERT

### Seyed Mohammad Mousavi Agah

Principal Power System Studies Engineer at RPG Power Systems

*"It was a privilege to contribute to BEST4Hy by ensuring its standardisation requirements were met, providing a solid foundation for consistency and quality. I'm truly glad to have supported the team in achieving this critical milestone for project success."*



PROJECT REPRESENTATIVE

### Ilaria Schiavi

Project Manager & Business Development Exec at Environment Park

*"Standardisation is key to support the progress of innovation, and thus the help of HSBooster has been fundamental. HSB has helped BEST4Hy in identifying the relevant standard committee where the progress of the innovation developed could be better supported"*

### The HSbooster.eu Consultancy service

HSbooster.eu provided BEST4Hy with strategic advice to navigate the underdeveloped standardisation landscape in hydrogen recycling. The service included a comprehensive mapping of relevant standards and technical committees, identifying gaps in the current framework and opportunities for engagement. Experts recommended participation in national mirror committees, particularly in Italy, to align the project with ongoing discussions in IEC TC105, IEC TC111, and ISO TC197.

The consultancy also advised on engaging with directives such as WEEE and Eco-design, highlighting their relevance to fuel cell recycling. Tailored recommendations were provided to help the consortium propose a new working group dedicated to the end-of-life management of fuel cell technologies, using their research to shape emerging standards.