

Partnership opportunities

Fields marked with \* are mandatory.



Are you looking for partner to fulfill the requirements of current or forthcoming [F4E business opportunity](#)?

Do you have relevant expertise, technologies, or interesting raw materials to offer?

Or do you simply want to introduce your company and engage in the EU Fusion Industry Supply Chain?

Whether you are a large corporation, an SME, an established fusion player or a newcomer to the field, this is your starting point.

In just a few minutes, you can submit an offer or request below. Our Market Analysis team will review your submission and feature it in the [Fusion Partnerships section](#) of the F4E Industry Portal.

Thank you for joining us and contributing to the future of fusion!

**F4E Market Analysis and Techno Transfer Group**

**\* Description (Please describe what you are offering / looking for. If related to a specific Call for Tender or Business Opportunity with F4E or ITER IO please indicate the name**

## and reference)

45-8 ENERGY is dedicated to the exploration and production of eco-responsible industrial gases such as helium and natural hydrogen. 45-8 ENERGY's ambition is to secure a sustainable European supply of helium, by producing it locally, as close as possible to where it is consumed, while limiting the environmental impact of importing this gas.

Recognized for its pioneering and innovative spirit, 45-8 ENERGY is pursuing its mission beyond its core business by offering a unique helium recycling service, called RECYCL'He. This service recovers degraded helium, recycles it and puts it back on the market, giving a second life to the resource. With this innovative solution, the company aims to democratize the recycling and circular economy of this rare and strategic gas, for better preservation and security. RECYCL'He is a helium recycling service that recovers degraded helium from a customer's site, purifies it and gives it a new life. Not just once, but repeatedly: helium can be recycled ad infinitum, creating a genuine circular economy in Europe. This approach preserves available volumes, while reducing the environmental impact of extracting and importing native helium.

This service is aimed at a wide range of customers: airships, leak detection, various industries, etc. Finally, RECYCL'He is aimed at all professionals who have degraded helium (mixed with other gases at some point during use) and who usually release this mixture into the atmosphere.

To further adapt to customer needs, RECYCL'He offers two solutions:

- Mobile: the mobile system comes to the customer's site to recover used helium from a balloon, a gasometer or another type of installation which accumulates degraded helium in some way. We offer a turnkey solution, making it easy to recover the helium. In March 2025, the RECYCL'He mobile solution was awarded the Solar Impulse label for its ability to combine positive environmental impact and economic viability.
- Fixed: an autonomous fixed system is installed directly on the customer's site, which recovers the helium after use. This helium is then collected at regular intervals by 45-8 ENERGY, enabling customers to optimize their use of this rare resource.

What happens to helium once it has been recovered by RECYCL'He?

Once recovered, the degraded helium is purified in a dedicated unit, where it is separated from the other gases present. Once the helium has been purified, it is pressurized so that it can be put back on the market for a second use. This second use then becomes a third use, then a fourth use, then a fifth, and so on. So, helium has several lives!

At the end, recycling helium means preserving and securing the supply of the resource in Europe, as well as reducing the carbon impact of the helium industry, which traditionally has a significant impact mainly through longdistance transportation.

### \* What form of collaboration would you like to promote?

- ☒ Offer - my organisation has relevant expertise, technologies, or raw materials to offer
- ☐ Request - we are looking for specific expertise, technologies, or raw materials
- ☐ Both of the above

### \* Please indicate below the collaboration preferences you wish to highlight (you can select more than one)

- ☒ Specific expertise and technologies

- ☒ Specific materials
- ☐ To sub-contract to partners
- ☐ To co-contract with partners
- ☐ Sharing general technologies and business presentations
- ☐ Other

**Upload supporting documentation (e.g., business presentation, relevant technical specifications)**

3174cc66-cd84-428e-8904-0b9c551867e4/2025\_-\_45-8\_ENERGY\_-\_Helium\_native\_and\_recycled\_-VF\_2\_compressed2.pdf

27e875fa-9864-4f57-821b-701a3b436418/2025\_-\_RECYCL\_HE\_with\_technical\_characteristics\_-\_EN.pdf

**Logo of your company or additional file**

9b510efe-dae7-4104-9734-3fbaacf7d13e/Logo-45-8-ENERGY-Fond-transparent.png

**Expiry Date of the Offer or Request (you must indicate any business opportunity related expiry date, by default postings will expire after six months but can be renewed on request)**

**\* Your contact email**

thomas.poinsu@458energy.com

**\* Your organization name**

45-8 ENERGY

**Contact**

[Contact Form](#)

