

Global Business Innovation Programme - V2X bi-directional & smart charging, USA

The Global Business Innovation Programme

The **Global Business Innovation Programme**, organised by Innovate UK, consists of a preparation phase, a seven day innovation visit focused on V2X bi-directional charging, a post-visit exploitation workshop and follow up support from an Innovate UK innovation and growth specialist, helping you your business maximise the opportunities identified, including developing innovation projects with partners in the territory. This initiative will be delivered physically and could include virtual activities.

Innovate UK is committed to ensure that anyone, from any background, has an equal opportunity to be successful.

Focus Areas:

Vehicle-Grid Integration (VGI) encompasses both managed charging (smart charging or V1G) and bi-directional charging (V2X). VGI is an important tool for achieving both clean energy and Electric Vehicle (EV) adoption goals.

The UK Government has invested over £30M in bi-directional charging development and real-world demonstrations since 2018, to accelerate V2X adoption by both domestic and commercial users. UK companies have generated valuable experience which can be shared with US

colleagues, and this GBIP aims to open new business opportunities for the UK products and services developed.

We welcome applications from innovative UK companies working on bi-directional charging solutions to unlock and expand the energy flexibility potential of EVs. Companies developing novel vehicle-to-everything (V2X) hardware, software or commercial flexibility propositions focussed on the transport/energy interface are welcome to apply. Solutions for both domestic and commercial customers, using any of the mainstream EV charging protocols (AC, DC CCS, DC CHAdeMO & MW) to provide energy storage and flexibility services are within scope. This includes V2Grid, V2Home, V2Building and V2Vehicle applications using on-road EVs to deliver either behind-the-meter or grid services propositions.

Why the USA?

The US Government has committed to a net-zero power sector by 2035 and a net-zero transport sector by 2050.

With climate change a major concern in the US, from heatwaves to wildfires to winter storms, there is an urgent need to store and retrieve reliable electricity as a back-up.

V2X solutions can provide this facility whilst also optimizing renewable energy use and deferring expensive utility infrastructure upgrades. Cyber security, resilience, equity and affordability are also key V2X energy considerations shared by both the US and UK.

The US has a [Vehicle-to-Everything MOU](#),² bringing together resources from the US Department of Energy (DOE), National Labs, state and local governments, utilities and private entities to evaluate the technical and economic feasibility of bi-directional charging. The Smart Electric Power Alliance's "[Customer-centric pathways to V2X adoption](#)" was published in November 2022, and regular V2G Business, [Policy & Technology Forums](#) are run by the American Center for Mobility.

A number of pilot programmes are underway in the US to assess the viability of V2X for energy storage, resilience and flexibility purposes. Some US states already have an established ecosystem bringing together government, research, and industry in a coordinated way, supported by appropriate policy and funding, to test and advance V2X solutions.

Benefits:

- Explore V2X opportunities for doing business in the US
- Find potential collaborators and partners
- Get a better understanding of the challenges for V2X business in the US
- Improve your company's value proposition

KEY DATES:

Programme briefing:
7 May
2024

Applications close:
19 June
2024

Pre-visit workshop:
4 - 5 September
2024

Market visit:
21 - 28
September
2024

Post-visit workshop:
3 October
2024

WHAT TO EXPECT:

The Global Business Innovation Programme is structured around three main phases and each business will have a designated Innovate UK innovation & growth specialist to support them for the duration of the offering, including developing an action plan to capitalise on the opportunities identified. The three main phases of the Global Business Innovation Programme are:-

- **Getting ready for the market:** Pre-activity briefing workshop to build knowledge and understanding of the market and potential opportunities, including how to do business, cultural aspects, how to protect your IP and training on how to improve your pitch and articulate your value proposition (two day workshop).
- **Market activities:** Explore the innovation opportunities first-hand through meeting with key companies and research organisations and potential collaborators and partners through pre-arranged meetings and organised matchmaking (seven days of market related activity).
- **Exploiting the opportunity:** Each business is supported by an Innovate UK Business Growth innovation & growth specialist to help maximise the potential of being part of the programme and beyond.

INNOVATION ACTIVITIES - EXAMPLE (subject to change):

Date	Activity	Date	Activity
4 - 5 September 2024	Pre-visit GBIP Workshop	3 October 2024	Post-visit GBIP Workshop
21 - 28 September 2024	Market visit to the USA including site visits and meetings	June - October 2024	Work with an Innovate UK Business Growth innovation & growth specialist

TO APPLY FOR THIS PROGRAMME, YOU MUST:

Be a UK based innovation-led company with ambitions to grow and internationalise

Be a company with fewer than 250 employees

Be able to attend and complete all activities

WHAT IS THE COST?

Innovate UK will fund and organise flights, accommodation, in-market travel, and conference fees for successful applicants. Innovate UK will also pay for any reasonable adjustments throughout the initiative. Only one representative from each company will be funded. On acceptance to the initiative a commitment fee of £1,000 will be obtained from each delegate, which will be refunded on completion of the full activities and agreed action plan. Non-completion after formal acceptance may result in forfeiting some or all the commitment fee.

HOW TO APPLY:

The Global Business Innovation Programme has a competitive application process where only the best applications will be successful following an evaluation process. All applications must be made online through the Innovate UK Business Growth website and received no later than **5pm on 19th June 2024**. To support potential applicants, a [briefing](#) will take place between **4pm on 7th May 2024**.

Please note: successful applicants will be expected to fully comply with any conditions of travel to the USA. The safety of our delegation is a priority.

Innovate UK recognises that the innovation sector is not as diverse as the UK demographic and is committed to improving the diversity of who we support. As such, we welcome applications from those under-represented across the V2X bi-directional & smart charging sector.

ADDITIONAL INFORMATION & ASSISTANCE

To complete the online application form or to register for the [briefing event](#), please visit the [Innovate UK Business Growth website](#). For more information, assistance with your application or to discuss accessibility needs, please contact the global team at global1@innovateukedge.ukri.org.