Item:
13

Report to Partnership Board Meeting 20th September 2024

EUROPEAN PROJECTS

FASTER Project Update

PURPOSE OF REPORT

To update Members on the development of the FASTER project, funded through the INTERREG VA Programme, managed by the European Regional Development Fund (ERDF) and match funded by Transport Scotland. The project launched in October 2020.

OVERVIEW

The FASTER Project (Facilitating A Sustainable Transition to EVs in the Regions) was a joint proposal between seven Partners across Scotland, Ireland and Northern Ireland to support the overarching ambition to transition to low carbon transport systems.

The key objective of FASTER was to install 73 interoperable rapid charge points (50KW capacity) in the INTERREG VA region by the end of December 2023, ensuring that the availability of charging stations was not a major obstacle to EV market penetration. It was also to provide an additional supportive, enabling environment for suppliers and consumers, providing increased confidence and reassurance in regional commitment to the emerging EV market.

HITRANS led the technical work package on procurement, and were to install 24 rapid charge points across the three local authority areas covered within the programme area: Argyll & Bute (excluding Helensburgh), Western Isles, and Skye, Lochalsh & Lochaber areas of The Highland Council.

UPDATE

The FASTER Project officially ended on 31st December 2023 but was granted a 6-month grace period for installations to fully complete. This is a full closure report for the project.

Contextual changes

This project was conceived in 2018, with delivery from October 2020 to June 2024. In that time:

- Brexit was being implemented so the UK was no longer part of the EU or OJEU
- Contactless payment came into EV charging, questioning the definition of interoperability
- Scottish Councils implemented charging tariffs to become more financially sustainable
- CPS was both re-contracted and then announced as coming to an end in 2025
- Councils developed strategies for long term EVI involvement, including changes to business model from own and operate

- Covid affected working structures, personnel availability, commodity prices and product availability (global chip shortage leading to shortage of cars and chargers). Travel habits and travel data were impacted
- War in Ukraine caused an increase in energy prices
- There were unprecedented inflation rates
- The 2030 ban on ICE vehicles pushed back to 2035, stalling industry and public confidence

---

Delivery In Scotland

The project deliverable was to install 73 50kW chargers, which was achieved.

In Scotland, ScottishPower was selected to deliver 23 new chargepoints at 12 locations across the Highland, Argyll and Bute and Western Isles council areas. These were all 50kW chargers, with a total capacity of 1150kW**.**

Partners included:

Lead Partner: East Border Region Council
HITRANS
Power Network Demonstration Centre
South West College
Louth County Council
Ulster University
Dundalk Institute of Technology

Stakeholders for Scotland's delivery included:

- Special EU Programmes Body
- Transport Scotland
- The Highland Council
- Argyll and Bute Council
- Comhairle nan Eilean Siar
- Urban Foresight (advisor to lead partner)
- Euan McTurk (media consultant)

Additional suppliers in Scotland included:

- SSE (DNO)
- EDF (metering and energy supplier)
- Cenex (procurement and technical support)
- Highland Geomatics (legal plans)
- Millar Bryce (legal plans)

HITRANS work package delivery

HITRANS Deliverables	Completion	Key Outcome
Identify whether existing frameworks offer an comprehenasive procurement option for the FASTER project	Yes	Frameowrks not considered suitable for the reporting evidnece requirements of ERDF funding. Dynamic Purcahsing Systems were analysed, but a competitive tender was chosen.
Hold a procurement workshop	Yes	Key outcomes from the workshop shaped our work focus on the project and are further detailed in this report - Prioritise accessibility - Improve maintenance - Create visual aids for understanding networks and installation
Site specifics were taken on by the procurement partners in each	Yes	Detailed in the portfolio of sites in the procurement documents
Complete Procruement for Scotland's chargers	Yes	Including by condition of funding: - the chargers are on the Charge Place Scotland Back office - maintenance contracts inlcude annual servicing and 48hour fault response response - chargers operation can transfer after 3 years but selling the asset before its 10 years old or is worth les than £10K requires Scottish minister consent and pro rata sharing of proceeds.
Procurement evaluation report deliverable	Deliverable cancelled by lead Partner	However observations are included in this report
Installation of 24 chargers across Scotland	23 installed	This was reduced to 23 chargers to cover the cost of unforseeable works on site and counteract price increases due to contextual changes detailed in the report. The project overall - across the 3 jurisdictions - still delviered the
Project Management		
Project delviered on budget	Overspend of 0.73%	With a budget of €1,675,703, (£1,417,477.17 at time of writing, 18.07.24) Hitrans had to fund one additional invoice that came in after the claim cut off. This was to rectify the earthing arrangement at Lochboisdale, a cost of
Project delivered to schedule	Yes	All chargers were compelted and live by the end of June 2024
Project delivered to satisfactory quality	Yes	

Accessibility

Mobility access

Designs were finalised before PAS1899 was released but through consultation with Motability and Designability included:

- increased hatching for accessiblity
- plinth height lowered where possible but not flush due to flood risk
- bollards spaced to allow wheelchair access

The Raption 50 charger conforms to current accessibility requirements with Daylight readable screens with anti-glare glass and visual contrast in content

Contextual changes in the course of the project meant budget proved very tight following unprecedented inflation in a post covid economy and a rise in demand as suppliers struggled with chip shortages and increased/unstable commodity costs. Hitrans had to de-scope due to budget, still posing and scoring accessibility questions in procurement but cable management, user shelters, additional lighting and CCTV had to be procured as desirable rather than essential simply to meet funding restrictions.

Van access

28 of 40 bays accommodate 6m vans with longer CCS cables

AC Charging

Councils were finding triple headed chargers (AC and DC in one machine) was not working and made the decision to disable the AC charging on the FASTER chargers, because:

1 They suit different places because journey and destination charging have very different dwell times. It's essential to keep to installing the right charger at the right place if chargers are to be used effectively.

2. We need to encourage turnover at a rapid chargers particularly. It's very difficult to implement overstay charges (to encourage that turnover) if the charging times vary so much at one machine

3. Side mounted cables are particularly difficult for people with mobility challenges to use

4. AC was included in the design of this chargepoint model to accommodate older Zoe's that couldn't take DC. The older Zoe is being discontinued so this is becoming a legacy feature anyway

Rural network gaps

Rural network gaps were prioritised by our strategy because the funding enabled provision in these critical areas and facilitated a just transition to transport decarbonisation.

Maintenance

Maintenance of chargepoints was recognised as a challenge in rural and remote areas, and particularly on islands. Suppliers have historically struggled to meet Service Level Agreements, particularly timed agreements to fix faults, and although some of this was justifiable due to the geography of the region, holding suppliers accountable was difficult.

Hitrans therefore negotiated an improved maintenance agreement, including:

- Local training aexplored as an optional extra. Unfortuantely this met hurdles that could not be overcome in the project timeframe but has fed into consequent delivery programmes.
- Explicit list of what can be repaired in tier 2 response times from standard list of parts carried in maintenance van list
- Warranty exclusions
    - 'subject to availability of personnel' removed

    - ‘subject to availability of spare parts’ reduced to effectively ‘unless the whole charger needs replacing’
    - more examples given of communication and access exclusions.
- Agreement to replace charger if the same fault occurs 5x in 12 months

On the Western Isles, it was also decided to co-locate 2 chargers at each site to improve the resilience of the network, meaning if one charger had a fault, there was still charging provision if the fault took longer than expected to fix. This has proved successful, as utilisation has increased at these sites and has decreased at outlying sites, demonstrating improved public confidence in the FASTER charging sites.

Aids

2 diagrams were created to aid understanding of EV networks and the installation process. These can be found in the appendix.

Added value

- Excellent Council relationships amongst EV personnel
- The set up of a regional stakeholder forum to collaborate of infrastructure
- Material that has been incorporated into EST guidance
- HITRANS successfully trialled procurement for standalone operational services as CPS comes to an end

Delivery in Ireland and Northern Ireland

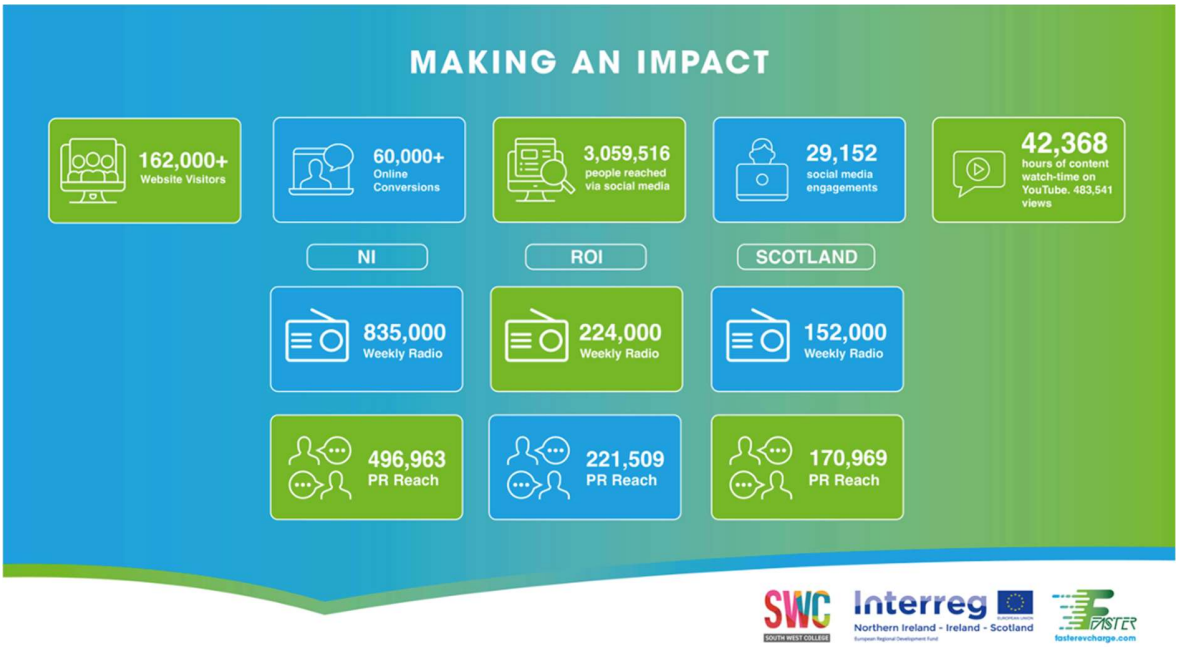
In Northern Ireland, EasyGo was selected to deliver the new charging infrastructure at 16 locations including a mix of 50 kW, 75 kW and 180 kW chargers, with a total capacity of 1735kW.

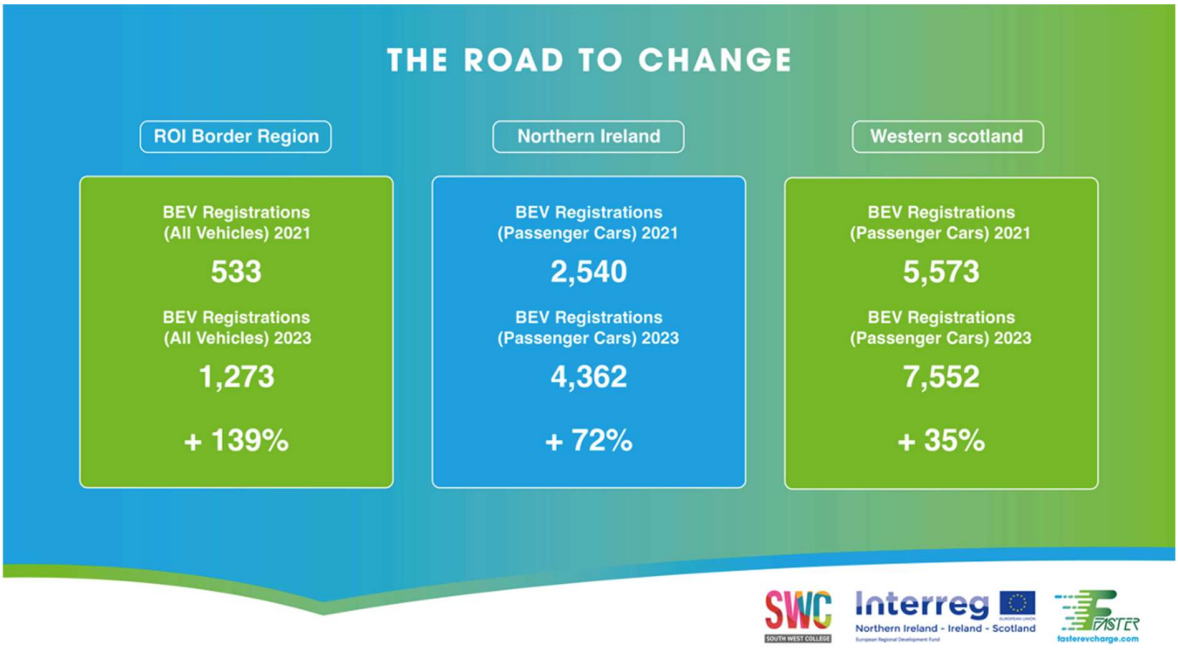
In the Republic of Ireland, Weev was selected by Louth County Council to deliver the new charging infrastructure at 14 locations, including a mix of 50 kW-150 kW chargers, with a total capacity of 2790kW.

A full list of locations for Scotland, Northern Ireland and Ireland can be found in the appendix.

Impact

The impact of South West College’s behavioural change marketing has been summarised below:


MAKING AN IMPACT
162,000+
Website Visitors
60,000+
Online Conversions
3,059,516
people reached via social media
29,152
social media engagements
42,368
hours of content watch-time on YouTube. 483,541 views
NI
ROI
SCOTLAND
835,000
Weekly Radio
224,000
Weekly Radio
152,000
Weekly Radio
496,963
PR Reach
221,509
PR Reach
170,969
PR Reach
SWC
SOUTH WEST COLLEGE
Interreg
Northern Ireland - Ireland - Scotland
FASTER
fasterevcharge.com


THE ROAD TO CHANGE
ROI Border Region
BEV Registrations (All Vehicles) 2021
533
BEV Registrations (All Vehicles) 2023
1,273
+ 139%
Northern Ireland
BEV Registrations (Passenger Cars) 2021
2,540
BEV Registrations (Passenger Cars) 2023
4,362
+ 72%
Western scotland
BEV Registrations (Passenger Cars) 2021
5,573
BEV Registrations (Passenger Cars) 2023
7,552
+ 35%
SWC
SOUTH WEST COLLEGE
Interreg
Northern Ireland - Ireland - Scotland
FASTER
fasterevcharge.com

Value for Money

The cost of delivery for each of the jurisdictions can be seen below.

	Cost (€)	Number of chargers	kW capacity installed	Average kW per charger	€ per kW capacity	€ per charger
Scotland	€ 1,833,000.00	23	1150	50	€ 1,593.91	€ 79,695.65
Ireland	€ 2,788,975.00	14	2790	199	€ 999.63	€ 199,212.50
Northern Ireland	€ 2,591,818.00	27	1735	64	€ 1,493.84	€ 95,993.26

Scotland were the first jurisdiction to procure their chargers. Higher capacity charging had become realistic since the inception of the project, but our original budget, especially in light of contextual changes, did not allow for this. The budget could not be increased and the number of chargers delivered could not be decreased at that point.

Before the other 2 jurisdictions procured, €1.5m extra programme funding became available. HITRANS proposed delivering an additional 9 chargers for €517, 825. However, a bid of €1,461,216 was put forward for ROI and NI to deliver their existing deliverables (more if possible) and cover a shortfall in professional fees and inflation. They were given permission to deliver less chargers if needed.

€38,784 was granted to HITRANS to extend the warranty and maintenance on the chargers from 3 years to 5 years.

Lessons learned

These observations have been collated throughout the project and each Council and the Power Network Demonstration Centre were approached for written feedback after the project. Two feedback forms were received and are included below in summary and in the appendix in full.

Project Management

- Open & regular communication is essential
- Agree on how to share and file documents early on to avoid separate version storage
- If the PM needs to change during a project, handover needs to involve those it impacts, not just the outgoing and incoming project manager
- Identify unfamiliar processes as risks and learn about them from experienced professionals
- Understand the unique selling point, methodology and data sets used by consultants
- Infrastructure deployment is bespoke to places -policy, user groups, existing infrastructure and facilities, commercial viability, grid constraints- and it doesn't stand still either! The EV landscape in Scotland changed drastically, and is changing globally rapidly.
- Agree a consistent approach to prioritise complex considerations ie. van chargepoint access requires longer cables but these then make mobility access more difficult; flood risk is unavoidable in many costal locations, but that prevents chargers being flush to the ground for mobility access
- EVCP locations – see list of considerations in the appendix
- Having a technical consultant to check things with throughout a project is extremely useful.
- If legal work is involved, having Councils sign up to projects as associate Partners reduces the workload, as they have already agreed to the aims and deliverables of the project.

- As soon as a decision is made to lease, buy, sell etc an area of ground ask a suitably qualified person to look at the title to ensure that there is no title problem.

Procurement

A successful tender was launched in September 2022 and awarded in November 2022.A previous procurement exercise in April 2022 bought in 3 tenders over budget. This was largely due to contextual changes listed in this report. We had to reduce the specification, reconsider the portfolio of sites, and restructure the procurement to include reserve sites.

- Collaboration in planning and evaluation takes more time but it's informative
- Overspend needs to be factored into the contract value as inevitable, and then a contingency applied. Construction costs are renowned for spiralling.
- Ensure that contractors aren't bidding based upon completing jobs during the same journey - ie. one site could have been commissioned earlier but the contractor was looking to save costs by commissioning two sites at the same time.
- Procurement - testing the market and entering negotiated or dialogue procedures is extremely useful in a new context, where rolling out as standard is not desirable. For Ireland and Northern Ireland, this resulted in an NEC contract being preferable and allowed them to plan for integrating legal and design teams in different ways to suit each jurisdiction
- Build in transparent flexibility to procurement as much as you can ie hourly/day rate prices are useful in any tender for extension.
- Be very explicit about the information you want ie how do you achieve compliance vs are you compliant
- Ensure the weighting match your requirements. Often service contracts are high quality, low price, and construction is weighted more the other way.
- Keep the procurement evaluation and tender request as simple as requirements allow.

DNO

- Wayleaves are handled by the DNO but need monitoring. Chargers could be repositioned if we know early as possible. Work may be scheduled by the DNO but cancelled if the wayleaves are not in place.
- Earthing – check the earthing arrangement carefully to ensure they meet you hardware requirements and touch potential requirements
- Metering in remote and rural locations is the biggest risk to the project schedule, sometimes adding months to installations. Try to understand their process and lead-times before you start.
- A previous network shutdown was disclosed after accepting a quote, meaning the upgrade required could not happen for 12 months. This is worth checking as soon as possible if a shutdown is required for your connection
- Amends to the DNO quote puts you back to the end of the queue and can cause considerable delays

Installation

- 3rd parties are a risk because you don't have control or oversight of them and they are not necessarily accountable to your timeframes. Identify third parties and try to reduce that risk. ie have the supplier manage the DNO and metering so that you are not liable for cost increases. Co-ordination of multiple suppliers for the installation process requires constant monitoring
- A clerk of work is a useful way to validate the quality of EV installations

- Use local contractors on islands to reduce transport costs for people, plant and vehicles, and accommodation costs. It also helps with availability.
- Rural and remote utilities are not necessarily where they are shown on the plan.
- Track change requests

PROJECT BUDGET

HITRANS has a significant budget in the FASTER project totalling €1,675,703, allowing for the installation of at least 24 rapid charge points.

RISK REGISTER

RTS Delivery
Impact – Positive

Comment – The FASTER project supports several RTS objectives, particularly in the field of low carbon transport and support for EV uptake.

Policy
Impact – Positive

Comment – FASTER is supporting broader policy work by conducting research on the procurement and installation of a rapid charging network and how this complements existing infrastructure.

Financial
Impact – Positive

Budget line and value – The project attracts a reimbursement rate of 85%.

Equality
Impact – Positive

Comment – FASTER aims to increase the number of publicly accessible charge points to encourage more EV drivers in the region.

RECOMMENDATION

Members are asked to note the report.

Report by: Gemma Robinson
Designation: FASTER Project Manager
Date: 28th August 2024