BUILDING CAPACITY IN THE SAFE SYSTEM: PHASE 2

Independent Process Evaluation Report

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Dr Elizabeth Box
ECM Research Solutions Ltd

About this Report

This report presents an independent process evaluation of the *Building Capacity in the Safe System: Phase 2* project, delivered by Agilysis and commissioned by Transport Scotland. The evaluation assesses the effectiveness of the project's capacity-building activities, which were designed to strengthen Safe System understanding and implementation among road safety practitioners and leaders across Scotland.

About the Author

Dr Elizabeth Box is Director of ECM Research Solutions Ltd. She is an accomplished transport researcher and commissioner with over two decades of experience and an excellent track record in influencing and contributing to road safety policy outcomes at the national level.

Elizabeth's doctorate in Transport Psychology focused on developing and trialling pre-driver education interventions grounded in behavioural science, with the resulting intervention being awarded a Prince Michael International Road Safety Award in 2023. On completing her doctoral studies, Elizabeth founded ECM Research Solutions Ltd to provide consultancy services to public and private sector clients to support the development of high-quality evidence-based public safety interventions.

In addition to being Director of ECM Research Solutions Ltd, Elizabeth holds several other roles in the field of transport safety. Elizabeth is an advisor to a number of road safety industry and government project boards and is a judge for the Prince Michael International Road Safety Awards. She is also a Fellow of the Chartered Institute of Highways and Transportation, a technical champion for the organisation as well as a judge for the Institute's annual Road Safety Award. Elizabeth is also a Behavioural Science Consultant for the start-up Co-Pilot.

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Disclaimer

This report has been prepared for Transport Scotland and Agilysis by Dr Elizabeth Box, Director of ECM Research Solutions Ltd. Any errors or omissions are the author's sole responsibility. The report content reflects the views of the author and not necessarily those of the research funding and/or supporting organisations.

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Executive Summary

This independent process evaluation assesses Phase 2 of Transport *Scotland's Building Capacity in the Safe System* programme. Funded by Transport Scotland and designed and delivered by Agilysis, the initiative aimed to build understanding and capacity among Scotland's road safety professionals through a combination of in-person and online training, stakeholder engagement, and the creation of a dedicated Safe System Manual. Drawing on survey responses, stakeholder interviews, and document review, the evaluation explores the programme's delivery, participant engagement, and early outcomes.

The programme was delivered effectively and reached a wide audience. Across both in-person and online formats, over 500 individuals participated in training, with demand exceeding expectations. Agilysis responded flexibly by expanding provision, enabling professionals from a diverse range of roles and sectors to participate. The two-day in-person training was widely praised for its immersive format, which allowed participants to step away from daily responsibilities and reflect deeply on Safe System principles. Scenario-based activities were particularly influential in encouraging systems thinking and practical application. The online Safe System Principles training successfully extended access to those unable or not in a position to attend in person. It attracted a similarly diverse audience, including many with no prior exposure to the Safe System, and provided a structured, accessible learning experience.

Evaluation findings from both in-person and online training formats showed statistically significant improvements in Safe System knowledge, confidence, and perceived relevance to participants' roles. While effect sizes were larger for the in-person cohort, the online participants also experienced meaningful gains. Participants in both groups highlighted the value of understanding the system as a whole, recognising the importance of shared responsibility and the need to communicate these principles within their own organisations. Online respondents also identified the importance of self-efficacy in promoting Safe System ideas and expressed interest in follow-up opportunities to reinforce learning.

Feedback from both surveys and interviews indicated high levels of satisfaction with the quality of training content and facilitation. The in-person format was seen as particularly effective for fostering collaboration and culture change, while the online version was valued for its clarity and accessibility. Some respondents recommended the development of shorter or tailored formats to engage senior leaders or time-constrained professionals. The Safe System Manual was widely endorsed as a critical output of the programme. It was viewed as an essential support tool to reinforce training content, guide ongoing application, and sustain knowledge across the system. Stakeholders also highlighted its potential for wider dissemination and future development as a living resource.

Despite these successes, a number of implementation challenges were noted. These included resource limitations, competing priorities, and a lack of senior-level engagement in some contexts. While the training succeeded in building knowledge and intent, the ability to translate learning into sustained practice varies and may require targeted follow-up support, leadership engagement, and longer-term monitoring.

Overall, Phase 2 has delivered effectively on its intended goals. It has strengthened capacity, increased systems-based understanding, and supported a shift toward shared responsibility in Scotland's road safety landscape.

In light of these findings, the evaluation recommends the following actions:

- **Retain the two-day in-person training** as the core offer for future training, recognising its value in supporting deep reflection and meaningful culture change.
- **Expand lighter-touch formats**, such as one-day sessions or tailored briefings, to engage political leaders and senior executives who may have limited time.
- **Continue offering the online training format** as a scalable and accessible entry point for a wide range of professionals across sectors.
- **Promote and regularly update the Safe System Manual** to support ongoing learning, application, and integration of Safe System principles in practice.
- **Develop additional training modules**, including thematic or role-specific content, to strengthen the practical application of systems thinking across professional contexts.
- **Introduce follow-up evaluation and peer learning networks** to monitor long-term impact, support implementation, and encourage sustained engagement.
- **Champion Scotland's approach internationally** by sharing insights and promoting the programme as a model for systems-based capacity building in road safety.

By taking these steps, stakeholders can help build on progress to date and further embed Safe System thinking across Scotland's road safety landscape.

1.0 Introduction

The *Safe System Capacity and Capability Study: Phase 2*, commissioned by Transport Scotland, seeks to embed Safe System principles across Scotland's road safety landscape to help realise the ambition of achieving the best road safety performance in the world. Building on the foundational work delivered during Phase 1, the second phase of the programme has aimed to deliver comprehensive training, mature the cultural understanding of Safe System concepts across partner organisations, and develop a Safe System Manual co-produced with international experts.

To assess the effectiveness and implementation of this second phase, ECM Research Solutions was commissioned to conduct an independent process evaluation. This evaluation aims to provide a structured assessment of the programme's delivery, stakeholder and participant experiences, and emerging impacts. The evaluation draws on multiple data sources, including interviews with key stakeholders and survey responses from training participants, to generate actionable insights and recommendations for future Safe System development in Scotland.

1.1 Purpose of the report

The purpose of this report is to present the findings of the independent process evaluation of the *Safe System Capacity and Capability Study: Phase 2*. Specifically, the report seeks to:

- Verify whether the programme of work was delivered in line with the agreed scope and milestones;
- Evaluate the satisfaction and experiences of Transport Scotland and its delivery partners;
- Analyse qualitative and quantitative data from stakeholders and training participants;
- Identify lessons learned to support the continuous improvement of Safe System implementation in Scotland.

The report is intended for use by Transport Scotland and its partners to inform future phases of capacity building, training, and strategic development aligned with the Safe System approach.

1.2 Structure of the report

This report is structured to provide a clear and comprehensive account of the *Building Capacity in the Safe System: Phase 2* programme and the findings from its independent process evaluation. Section 1 introduces the background and context for the programme and outlines the aims and approach of the process evaluation. Section 2 provides an overview of the programme itself, describing its origins, objectives, delivery model, target audiences, and the key activities undertaken during Phase 2.

Section 3 outlines the process evaluation methodology, detailing the evaluation questions, data sources, and approach to data collection and analysis. Section 4 presents the main findings of the evaluation, drawing on both stakeholder interviews and survey responses. The results are structured around key themes, including training delivery and implementation, participant experiences, knowledge gains and confidence, application of learning, and barriers to implementation.

Section 5 offers a discussion of the findings, interpreting them in relation to the programme's goals and identifying areas of strength, as well as opportunities for future development. Finally, Section 6 draws overall conclusions from the evaluation and outlines a set of evidence-based recommendations to support continued progress in building Safe System capacity across Scotland.

2.0 Project Background

The Safe System approach to road safety offers a transformative framework for reducing road trauma by recognising that while human error is inevitable, death and serious injury are not. In line with this vision, Transport Scotland has committed to embedding Safe System thinking across the national road safety landscape as part of its wider goal to achieve the best road safety performance in the world.

Phase 2 of the *Safe System Capacity and Capability Study* builds directly upon the foundational efforts delivered during Phase 1. The second phase was designed to deepen stakeholder understanding, expand access to high-quality training, and cultivate a more mature Safe System culture across Scotland's transport and road safety agencies. This work was supported through the development of comprehensive training programmes and the creation of a practitioner-focused Safe System Manual.

This process evaluation forms part of the final phase of the project delivery, assessing both how the programme was implemented and how it has been received by stakeholders and participants.

2.1 Rationale

The rationale for Phase 2 was driven by the need to extend and consolidate the initial momentum established during Phase 1. While the earlier phase successfully introduced key stakeholders to Safe System principles, there remained a need for more consistent understanding and application across Scotland's road safety ecosystem.

Specifically, Transport Scotland recognised the importance of:

- Broadening reach to a wider audience of practitioners;
- Enhancing the capacity of individuals and organisations to apply Safe System thinking in daily practice;
- Creating lasting resources and structures to support cultural change, including a national Safe System Manual; and
- Evaluating delivery processes to ensure accountability, learning, and continuous improvement.

As such, Phase 2 was positioned not only to expand technical knowledge but also to foster long-term behavioural and organisational shifts.

2.2 Project aims and objectives

The overarching aim of Phase 2 was to embed Safe System principles more deeply and consistently within Transport Scotland and its delivery partners. The specific objectives of the programme included:

- Delivering a high-quality Safe System training programme to a broad cohort of stakeholders;
- Maturing the Safe System culture within Scotland's road safety organisations;
- Producing and disseminating a practitioner-focused Safe System Manual with contributions from international experts;
- Creating an accessible digital platform for hosting and sharing Safe System guidance; and
- Supporting partners to develop the internal capability needed to drive Safe System practice forward.

These aims were underpinned by a commitment to ensuring that all programme activities aligned with the ethos of shared responsibility, evidence-based practice, and systems thinking.

2.3 Key activities within Phase 2 delivery

To meet these aims, the following core activities were delivered as part of Phase 2. These activities were coordinated to ensure that the capacity-building goals were met in both breadth (reach) and depth (impact), to support sustained Safe System practice across Scotland.

Training delivery

- Four weeks of two-day Safe System Foundation courses, delivered to approximately 240 delegates.
- Ten half-day Safe System Principles training sessions, reaching 299 delegates.

Development of the Safe System Manual

- Collaborative creation of a comprehensive guidance manual, drawing on input from national and international experts.
- Dissemination of the manual through an online platform, increasing reach and accessibility.

Cultural Maturity Survey

Deployment and analysis of the Safe System Cultural Maturity Survey across operating companies to understand readiness, strengths, and areas for development.

Evaluation and stakeholder engagement

- Collection of feedback via pre- and post-training surveys
- Stakeholder interviews to explore experiences, reflections, and future needs

3.0 Methodology

This process evaluation was designed to assess the implementation and perceived impact of the *Phase 2 Safe System Capacity and Capability Study*. A mixed-methods approach was adopted, combining qualitative and quantitative data to provide a comprehensive view of programme delivery, stakeholder experiences, and emerging outcomes.

The evaluation was guided by the overarching aim of understanding how the training programme and related outputs were delivered and received, and whether they supported the intended capacity-building goals. The evaluation focused on both process-level insights (how activities were delivered) and user-level outcomes (how the activities were experienced and applied).

3.1 Scope of the evaluation

It is important to note that not all programme components were included in the scope of this process evaluation. Specifically, the Safe System Cultural Maturity Survey, which was delivered directly by Agilysis, falls outside of the remit of this report. Additionally, the Safe System Manual was still in development at the time of data collection. As such, its role and anticipated value are touched on only briefly, based on interview insights from Transport Scotland and Agilysis.

This process evaluation therefore focuses primarily on the training elements of the programme, exploring how the in-person and online sessions were delivered and received, and examining perceived outcomes from the perspectives of the delivery partner (Agilysis), the client (Transport Scotland), and training participants.

3.2 Data collection methods

Data for the evaluation were collected through three primary sources: stakeholder interviews, participant surveys, and document review.

A series of semi-structured interviews were conducted with key individuals involved in programme planning, delivery, or participation (See Annex A). These included representatives from the client organisation, Transport Scotland, and the delivery partner, Agilysis. In addition, one stakeholder who had taken part in the training also participated in an interview, providing a direct participant perspective. The interviews explored experiences of programme implementation, participant engagement, and training impact; perceptions of the Safe System Manual; coordination between partners; reflections on programme outcomes; and suggestions for future development.

Two online surveys were distributed to participants who attended the Safe System Foundation (In-person) and Safe System Principles (Online) training sessions (See Annexes B and C). A pre-training survey was used to gather baseline data on participants' existing knowledge of the Safe

System, their understanding of key concepts, and their motivations and expectations for attending the training. The follow-up post-training survey collected feedback on participants' experiences of the training, perceived knowledge gains, confidence in applying the content, and intended changes to work practices. Participants were also asked about potential barriers to implementation and their need for further support. Both surveys were designed for ease of completion and were distributed by email to attendees of the in-person and online sessions.

In addition, a range of project documents, including training plans, milestone reports, and communications, were reviewed to provide background context and support understanding of how the programme was delivered.

3.3 Data analysis techniques

The evaluation used a mixed-methods approach to analyse qualitative and quantitative data from surveys and stakeholder interviews, ensuring a comprehensive understanding of programme delivery, participant experience, and early outcomes.

3.3.1 Qualitative analysis

Stakeholder interviews were reviewed and summarised thematically using a structured approach informed by the evaluation objectives. Interview transcripts were collated and key excerpts were organised under broad topic areas aligned with the evaluation framework. Thematic summaries were then developed iteratively to identify common insights, differences in perspective, and overarching patterns. The final thematic structure reflected six core themes, which underpin the findings presented in Section 4.1:

- Training programme delivery and implementation
- Training participant experience and perceived impact
- Safe System Manual development
- Project coordination and communication
- Reflections on programme outcomes
- Suggestions for future programmes

A single interview with a training participant was also included in this analysis to provide additional context from the learner perspective and to illustrate how the training was experienced first-hand.

Qualitative data from open-ended survey responses were reviewed separately and are integrated throughout Section 4.2 (Survey findings). While these responses were not thematically coded, a structured review was undertaken to identify illustrative comments that contextualised and expanded upon the quantitative findings. These insights provide additional depth into participants' reflections, perceived training value, and suggestions for improvement.

3.3.2 Quantitative analysis

Survey responses were analysed using descriptive and inferential statistics. Descriptive statistics (means, standard errors, and frequency distributions) were used to summarise participant characteristics, baseline knowledge, and training outcomes. Independent-samples t-tests were used to compare pre- and post-training scores on key outcome measures, including overall knowledge ratings and composite knowledge scales.

Effect sizes (Cohen's *d*) were calculated to assess the magnitude of any observed changes, and Cronbach's alpha (α) was used to assess internal consistency across multi-item scales. Due to the anonymous nature of the surveys, responses could not be matched across time points, and results were analysed as independent samples.

Results are presented in Section 4.2, supported by visual summaries (tables and figures) to highlight key patterns and areas of change in participants' knowledge, attitudes, and intended practice.

3.4 Limitations

Several limitations should be considered when interpreting the findings of this evaluation. Although survey response rates were sufficient to identify trends and themes, they represent only a portion of the more than 500 individuals who participated in the training. This introduces the potential for self-selection bias, as those who responded may have been more engaged or positively predisposed to the training.

All data collected were self-reported, which may be subject to recall bias or socially desirable responses, particularly in questions relating to intended behaviour change or perceptions of impact. While both pre- and post-training surveys were conducted, responses could not be matched at the individual level due to anonymity. As such, the data were analysed as independent samples. It is possible that some individuals completed both surveys, introducing a risk of non-independence; however, this could not be verified. This limitation affects the strength of inferences about individual-level change over time.

The qualitative component of the evaluation included interviews with the commissioning client and delivery partner, but only one stakeholder who had directly attended the training sessions. This limited the depth and breadth of first-hand participant perspectives captured through interviews, though the open-ended survey responses provided rich supplementary insight into participant experiences.

Finally, the evaluation was conducted within a relatively short time frame following the delivery of programme components. This meant that longer-term outcomes, such as sustained changes in practice, cultural shifts, or policy alignment, could not yet be assessed.

4.0 Results

This section presents the key findings from the evaluation of Transport Scotland's *Building Capacity in the Safe System: Phase 2* programme. The data draws from two primary sources:

- Qualitative interviews with stakeholders involved in the design and delivery of the programme, and
- Survey responses gathered from training participants before and after the sessions.

Additionally, a single interview with a training participant who took part in the programme is included to provide deeper insight into individual experience.

The findings are organised into two subsections. First, insights from stakeholder interviews are summarised to provide context on programme implementation, delivery, and perceived value. Second, the results of in-person and online training participant surveys are analysed to assess

the impact of the training on knowledge, confidence, attitudes, and intended changes in practice.

4.1 Stakeholder interview findings

The following sections summarise insights gathered from semi-structured interviews conducted with key stakeholders involved in the design, delivery, and oversight of the Phase 2 *Building Capacity in the Safe System* programme. These stakeholders included representatives from Transport Scotland and the contracted provider, Agilysis. Their reflections provide a deeper understanding of how the programme was implemented, the perceived effectiveness of different components, the experiences of participants, and lessons learned for future delivery. These perspectives complement survey data (presented in section 4.2) by offering a behind-the-scenes view of the programme's successes, challenges, and strategic value.

4.1.1 Training programme delivery and implementation

The delivery of the training programme was widely viewed as a success by both Agilysis and Transport Scotland. From a logistical standpoint, Transport Scotland took the lead in organising venues, prioritising delegate participation, and ensuring broad sector engagement. The Agilysis delivery team reported that *"All of that groundwork was handled really well"* by Transport Scotland, which they considered to be instrumental in securing high levels of interest and attendance from training participants.

Both parties acknowledged the high demand for training. Agilysis commented on the 'push and pull' nature of demand, generated by Transport Scotland's promotion and a strong desire for professional development across Scotland's road safety sector. The proactive promotion of the training by Transport Scotland was described as being central to its success: *"Transport Scotland have really been pushing it through"*, with the delivery team agreeing that this had been essential for generating significant uptake, with *"some pretty impressive numbers from a country the size of Scotland"*. It was also noted that there was significant demand for training coming from local authorities and other agencies: *"because local authorities have had so little to spend on training recently...we found a cohort of people who are actually really hungry for training and development as well"*. Transport Scotland echoed this highlighting that *"The training was really sought after, even more than we anticipated"* with 32 local authorities, blue light colleagues and operating companies wanting to attend. Transport Scotland were very appreciative of how *"the project team were really accommodating"* in their design and delivery of the training.

In-person delivery of the Safe System Foundation course saw particularly strong take-up, with some events requiring duplicate sessions in parallel due to demand, especially in Edinburgh. To accommodate demand, Agilysis scaled their delivery: *"We ended up running double...we had four courses in a week instead of two, so we had parallel rooms running because there were just so many people who wanted to attend"*, bringing additional trainers to Scotland to do so. This was appreciated by Transport Scotland who described how the Agilysis team *"really went above and beyond"* to deliver for the training demand.

Agilysis outlined how they adapted to fluctuating demand by "*increas*[ing] *the resilience in the team by bringing new people in"* scaling delivery capacity and adjusting the team structure to build resilience. This flexibility proved vital when team members were unexpectedly unavailable. Trainers reported that room layout and environmental factors impacted the quality of engagement, noting that smaller group tables facilitated more dynamic interaction compared to boardroom-style formats. Venue-related issues such as layout options and noise disruption were mitigated through responsive facilitation strategies: *"We mixed up the training, increased*

the amount of changeovers between people who are presenting to try and keep it more dynamic". The delivery team also noted that it was important to adjust the content slightly dependent on the cohort in the room, to ensure maximum engagement without affecting the fidelity of the training delivery: *"All of the trainers are quite adept at kind of picking up what's going on in the room and adjusting content accordingly"*. They also reported adapting the first day of theoretical content in particular in response to trainee engagement *"to make sure that there's enough interaction to keep people with us"*, although stressed that the core content, aims and objectives remained the same. Transport Scotland explained that the delivery team took care to mix participants at tables, which was beneficial for the quality of the discussions.

Both Transport Scotland and Agilysis agreed that smaller, in-person sessions were preferable to online delivery. Agilysis stated that *"The two-day in-person was much better attended than the virtual"* and Transport Scotland noted that *"it's hard to get engagement from people online"*, with the two sessions described as different as *"night and day"*, although it was recognised that the online sessions played an important role in securing engagement from, for instance *"Unit heads that couldn't dedicate attending a full day to the session"*. Transport Scotland said engaging broader than traditional road safety roles was considered to be vitally important as *"It's not about what road safety can do for other areas. It's all about what other areas can do for road safety as well"*. This emphasised the importance of having the half-day online sessions alongside the in-person two day training courses, some of which Transport Scotland said Agilysis tailored *"to meet the needs of the attendees…for example some of the sessions were quite heavily police or local authority focused"*.

4.1.2 Training participant experience and perceived impact

Participants of the in-person training were reported by Transport Scotland and Agilysis to be highly receptive and engaged. Agilysis reflected that *"I've delivered the same course elsewhere… it's received very differently…much more of a defensive position…that's testament to the groundwork that Transport Scotland have done in this space"*. Transport Scotland echoed this, noting that the *"training was discussed in lots of separate meetings that we weren't at"* which led to *"stakeholders discussing it amongst themselves…it made the sessions even more popular as they went on"* leading to more requests for training spaces, further increasing uptake.

Day one of the in-person training, characterised by more theoretical content, was acknowledged as harder going for some participants. However, the second day of training, which focused on scenario-based exercises, was repeatedly described as a 'lightbulb moment' for many. Agilysis explained that *"We give them a bunch of scenarios…and that is the biggest lightbulb moment"*. One police officer was described by Agilysis as having reflected emotionally on his past experience as *"he realised that if he'd taken a more systemic to his approach in road policing over the last 15 years or so"* that risks to road users might have been reduced. Transport Scotland reinforced this with an example from their senior leadership team who said: *"It was actually the best session the Senior Management Team have had"*. As the course progressed, Agilysis reflected that many participants moved from traditional paradigms to systems thinking: *"Until we get to that main exercise, they can still be stuck in their silos…[and then they realise] I can't do this on my own, can I?"* Across sectors, from road safety to active travel, participants were described by Transport Scotland as increasingly seeing the relevance of Safe System thinking in their work: *"they're actually considering how they're going to embed the Safe System within these active travel schemes"*.

Both Transport Scotland and Agilysis said that they thought participants benefitted from the mixed-cohort format, with cross-sector representation (e.g. engineers, fire officers, educators) enhancing dialogue and reinforcing the interdependent nature of Safe System thinking. The Agilysis trainers observed that delegates moved from discipline-specific assumptions toward recognising the need for collaboration across silos, *"Having that mix of blue light services, engineers, educators…you could feel the difference in the room"*. This was further supported by facilitation techniques that encouraged networking and systems-level reflection. Transport Scotland also carefully managed table placements to ensure cross-sector interaction by having *"one person per table"* from each organisation.

Transport Scotland praised the breakout exercises and delivery style: *"It [was] not just death by presentation…there was quite a lot of breakout sessions and table discussions as well…the delivery of the training was the best aspect"*. They reported that participants *"before they even left the room after the training ended, were asking me if we [were going to] roll it out further"*, with some asking for the slide deck to deliver internal training themselves. When asked about whether there was any specific lessons learned, or improvements to be made Transport Scotland noted that *"there's nothing that springs to mind that I would change now",* providing a strong endorsement from the client on how the training was delivered.

4.1.3 Safe System Manual development

Agilysis described the development of the Safe System Manual as a structured editorial process, guided by an extensive list of content topics and audience personas, *"If you're a fire officer, here's your core content written in your language…if you're a director in a local authority, you've got content targeted at you".* Agilysis engaged both internal and external contributors, aligning content language and structure to the needs of various user groups. The manual's structure was designed to ensure relevance and accessibility for diverse stakeholders. While Transport Scotland had not reviewed the final manual at the time of the interview, they expressed confidence in its development and described it as *"greatly sought after"* by road safety practitioners.

Platform selection for the manual was driven by a desire to avoid per-user licensing costs and ensure broad accessibility. The chosen system, Document360, was selected to support flexibility and long-term accessibility. It also includes AI-powered internal search, user role segmentation, and multimedia integration: "*We want it to seem not like just a static manual, but a source of wisdom and information for professional practitioners"* (Agilysis). Transport Scotland noted the importance of accessibility for screen readers and formats suitable for government publications as well as having the content updated when needed. The platform chosen was described by Agilysis as well positioned to serve as a dynamic and user-friendly resource that would support ongoing engagement well beyond the training period.

Both Transport Scotland and Agilysis agreed that the manual's long-term value lies in its ability to complement training and support ongoing practice change. Agilysis described the manual as being an important legacy element of the project: *"It will be the thing that encourages practitioners to continue to engage and explore…I think the training on its own is insufficient"*. Transport Scotland stated that the manual *"has been really sought after by road safety practitioners"* and expressed that they *"look*[ed] *forward to the feedback once* [they] *do roll it out"*, viewing it as a crucial tool for helping to *"embed the Safe System"*.

4.1.4 Project coordination and communication

The delivery relationship between Transport Scotland and Agilysis was consistently described in positive terms. Transport Scotland characterised the partnership as low-maintenance and high-performing: *"It's all been very smooth…working with Agilysis is always really great"*. They also noted the value of continuity across phases *"They've been working on the framework fund for years now…which has really helped as they know what's required on my end…it's been really great to work with them"*.

Agilysis said project coordination in Phase 2 was characterised by a shift from frequent formal meetings to more fluid, trust-based communication. The longstanding relationship between the Agilysis team and Transport Scotland enabled streamlined interactions, with responsive communication cited as a strength. Agilysis describing the working style as *"the kind of client relationship that you really enjoy working in"*. Informal check-ins, conference-based engagement, and visible progress helped maintain alignment and confidence between the partners.

The maturity of the working relationship was described by both Transport Scotland and Agilysis as contributing to the smooth delivery of project components and reflected a move from initial scoping and engagement activities (Phase 1) to a more delivery-focused model in Phase 2.

4.1.5 Reflections on programme outcomes

Agilysis reflected that the combination of theoretical learning, interactive exercises, and practical applications applied within the in-person training successfully supported capacity-building aims. The two-day course was described as important for achieving this, as one-day courses were considered too compressed in comparison because *"You don't have enough time for reflection. You aren't really able to lead people to that sort of moment of self-discovery…whereas 2 days gives you the breathing space to do that"*. Transport Scotland strongly agreed, calling the programme *"an important project…*[which] *Scotland has been pioneering…we really want to get it right"*. Agilysis also noted that *"A foundational training programme shouldn't be the end of the picture. There will be the need for more"*.

Together, the training and manual development were seen as complementary elements by both Transport Scotland and Agilysis. Agilysis said *"It's interesting because the two-day course is intense, but at the end of it, people say I've got to work out what I'm going to do in my day job as a consequence of this, I've got some ideas of how I might work differently, but having some further help would be good. And that's when we kind of have these conversations* [and say] *this manual will be coming and it will give you some real pointers on what it means for your day job"*. Consequently, the manual was described by the Agilysis team as *"the really big legacy…in a positive sense"*, given its vital role in sustaining the shift in mindset initiated by training and providing ongoing guidance for daily practice.

The delivery team also highlighted Scotland's unique road safety landscape, particularly the political and institutional support that underpinned the programme, as a critical success factor: *"I think the whole programme is a message to the sector that this is something that we really value and it's massively important"*. It was also highlighted that the consistent messaging from ministers, senior officials, and Transport Scotland staff reinforced the programme's importance and encouraged broad buy-in: *"I think it's sends a really clear message to practitioners in road safety in Scotland…that it's an ambitious programme…we value what you're doing…we want to support you and therefore we're not just going to say this is the safety framework, go away and*

deliver it for us. How can we, you know, upskill you, give you the tools that you require in order to do this properly". Transport Scotland reinforced this ambition by stating: *"We went out there and funded this for our road safety practitioners…we want to try and educate as many road safety practitioners on the Safe System as we possibly can"*.

Agilysis also suggested that the programme approach could serve as a best practice model for other jurisdictions, *"Training and good quality guidance is a very desirable thing to for Scotland to have and I'm hopeful that a lot of other road authorities will see that it is something that is worth investing in"*. However, it was also recognising that there is *"a way of working in Scotland, that we probably don't see in other places"*. Transport Scotland also expressed pride in how Scotland has been, and continues to showcase this model Internationally, *"At the Global Ministerial Conference in Marrakech we could say that we've been pioneering Safe System delivery and training"*. Ultimately the leadership, enthusiasm and energy demonstrated by the Transport Scotland team, *"coupled with the fact they know they've got political backing to do it"* and *"the fact that they are increasing their road safety funding year-on-year"* was described by Agilysis as absolutely mission critical for securing ongoing engagement, support and results from this programme of work. Both Transport Scotland and Agilysis noted that the real impact will be evident in how the training translates into practice. Transport Scotland reported that it is committed to following up the work through its three-tiered governance structure and intends to ask, going forward: "*What are you doing differently to incorporate the Safe System into your schemes?"*.

4.1.6 Suggestions for future programmes

Reflections from both the client and contractor of this programme of work yielded a shared set of forward-looking recommendations:

Retain the two-day format for training

- This structure was recognised as allowing sufficient time for reflection, cross-sector learning, and transformational thinking, which shorter formats could not replicate.

Continue mixed-cohort delivery

- The benefits of multi-professional participation were repeatedly emphasised, suggesting future programmes should seek to replicate or expand this format.

Further roll-out based on evaluation results

- Transport Scotland expressed willingness to fund more training if the evaluation demonstrates success and funding continued to be available.

Build on the Safe System Manual

- While the manual is a foundational resource, Agilysis suggested that further training or thematic deep-dives (e.g., engineering-specific modules) could extend impact and reinforce learning. Both Transport Scotland and Agilysis described the manual as a long-term anchor for cultural and operational change.

Maintain and extend manual platform capabilities

- The knowledge management system should continue to evolve based on user feedback and emerging needs, preserving its relevance and accessibility.

Leverage and share Scotland's collaborative model

- The trust-based, cross-organisational approach adopted in this programme was cited as exemplary. Future efforts should reinforce this model and explore ways to cascade training and engagement across partner organisations and to share the programme as an exemplar that others can learn from.

Together, these recommendations reflect a vision for sustaining and scaling Safe System capacity building across Scotland. They highlight a commitment not only to maintaining the quality and structure of the existing programme, but also to evolving it in response to participant feedback, sectoral needs, and emerging challenges. Importantly, the emphasis on mixed-cohort learning, knowledge-sharing platforms, and long-term cultural change points to a maturing approach, one that sees Safe System implementation not as a one-off intervention, but as an ongoing, adaptive journey. By embedding these recommendations into future programme planning, Scotland is well-positioned to consolidate its leadership in systems-based road safety transformation.

4.2 Survey findings

The findings presented in this section draw on data collected through pre- and post-training surveys administered to participants of both the in-person Safe System Foundation Course and the online Safe System Principles training course. These surveys explored participants' backgrounds, prior knowledge, training expectations, perceived knowledge gains, satisfaction with the training, and intentions for future application. Qualitative and quantitative responses were analysed to assess the impact of the training and identify areas for continued support.

In addition to the survey data, one qualitative interview was conducted with a participant who attended the training. While limited in number, this interview offered valuable insight into how the training was experienced in practice, reinforcing and elaborating on survey themes. Reflections from this participant are included throughout the following subsections where relevant, particularly in relation to training delivery, perceived outcomes, and implementation challenges, to complement and contextualise the broader survey findings.

The subsections that follow outline participant demographics, baseline knowledge, post-training outcomes, and anticipated barriers to implementation. They integrate insights from both delivery formats to highlight shared themes, format-specific patterns, and implications for ongoing support.

4.2.1 Participant profile

Table 4-1 presents a breakdown of both planned (pre-survey) and actual (post-survey) attendance across the eight in-person Safe System Foundation Course training sessions, based on survey responses. The pre-training survey captured responses from 81 participants who indicated their intended attendance, while the post-training survey reflects 48 individuals who completed the in-person training.

Overall, responses were well distributed across training dates and locations, with representation from all sessions. The most commonly planned sessions included the 15–16 May Glasgow session (13.2%), 12–13 May Glasgow session (10.9%), and both Aberdeen sessions (27–30 May), each attracting over 10% of pre-survey respondents. Post-training responses showed slightly higher attendance for the 13–14 March Glasgow session (7.0%), with

most other sessions ranging between 2.3% and 5.4% of total responses. Notably, Edinburgh sessions (February) were only captured in the post-survey, suggesting those sessions may had already taken place before the pre-survey was circulated.

In addition to the in-person training data, survey responses were also collected from participants of the online Safe System Principles training sessions. While detailed attendance records by date or session were not available for the online format, 113 individuals completed the pre-training survey, and 32 provided post-training responses.

In terms of prior exposure to Safe System principles, only 6 respondents (4.7%) from the in-person pre-training survey indicated that they had attended the online Safe System Principles training delivered in November and December 2024. This suggests that the majority of in-person participants were engaging with the Safe System content for the first time through these face-to-face sessions.

Table 4-1: Planned and actual training session attendance by pre and post training survey respondents (Pre: *n* = 81, Post: *n* = 48)

Training Session	Location	Dates	No. (%) of responses (Pre)	No. (%) of responses (Post)
Session 1	Edinburgh	24–25 Feb	not applicable	7 (5.4%)
Session 2	Edinburgh	27–28 Feb	not applicable	6 (4.7%)
Session 3	Glasgow	10–11 Mar	13 (10.1%)	7 (5.4%)
Session 4	Glasgow	13–14 Mar	8 (6.2%)	9 (7.0%)
Session 5	Glasgow	12–13 May	14 (10.9%)	3 (2.3%)
Session 6	Glasgow	15–16 May	17 (13.2%)	3 (2.3%)
Session 7	Aberdeen	27–28 May	15 (11.6%)	6 (4.7%)
Session 8	Aberdeen	29–30 May	14 (10.9%)	7 (5.4%)
Total (All sessions)	**(All locations)**	**(All dates)**	**81 (100%)**	**48 (100%)**

4.2.2 Baseline knowledge and expectations

As part of the pre-training survey, participants were asked to self-assess their existing knowledge of the Safe System approach and to share what they specifically hoped to gain from the training. These questions were designed to capture both baseline familiarity with the topic as well as individual learning objectives, providing insight into perceived knowledge gaps and participant motivation.

Quantitative findings revealed that, while in-person participants rated their knowledge of the Safe System relatively low (Mean = 2.93, *SE* = 0.266 on a 10-point scale), they nevertheless rated the importance of the Safe System approach for reducing road traffic collisions very highly (Mean = 7.75, *SE* = 0.244). Online participants showed a similar pattern, rating their baseline knowledge slightly lower (Mean = 2.67, *SE* = 0.219), while still placing a high value on the Safe System's role in improving safety (Mean = 7.65, *SE* = 0.201). This suggests strong recognition of the Safe System's significance across both formats, even among those with limited prior exposure.

Figures 4-1 and 4-2 present pre-training survey responses from participants of both the in-person and online sessions. Figure 4-1 shows self-rated knowledge of the Safe System approach, while Figure 4-2 illustrates participants' perceived importance of the approach. The results indicate broadly comparable patterns across both delivery formats.

Figure 4-1: Pre-training rated knowledge of the Safe System by in-person (*n* = 81) and online participants (*n* = 113)

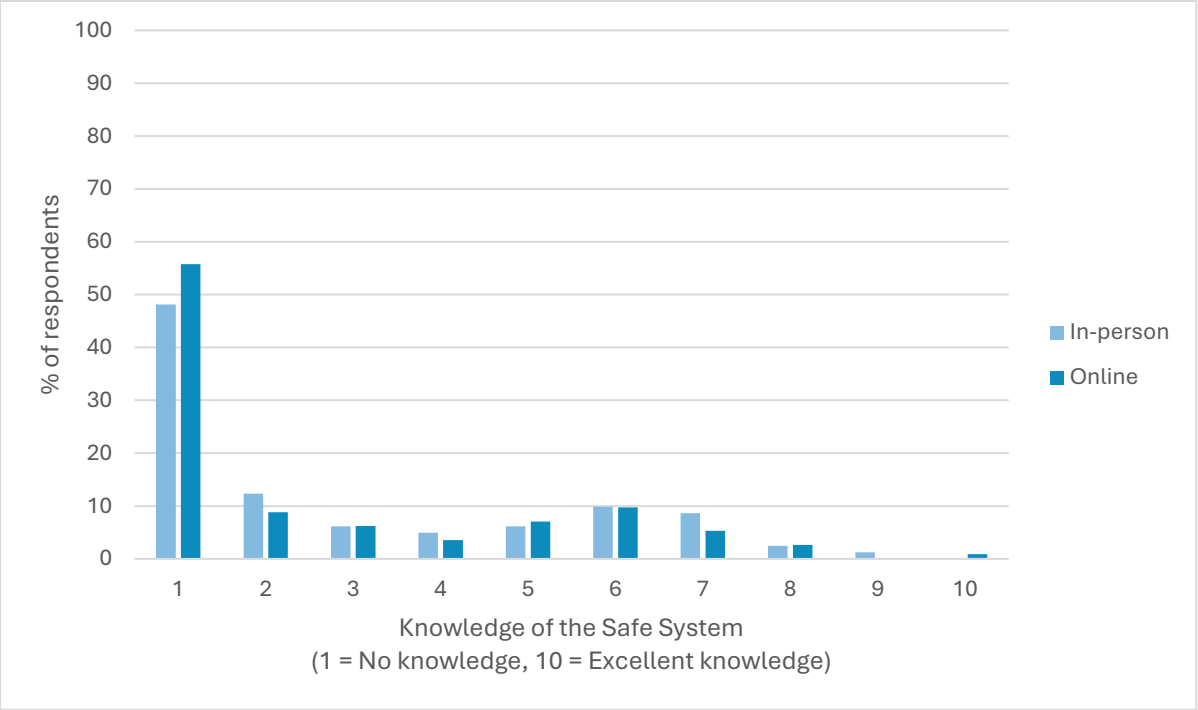
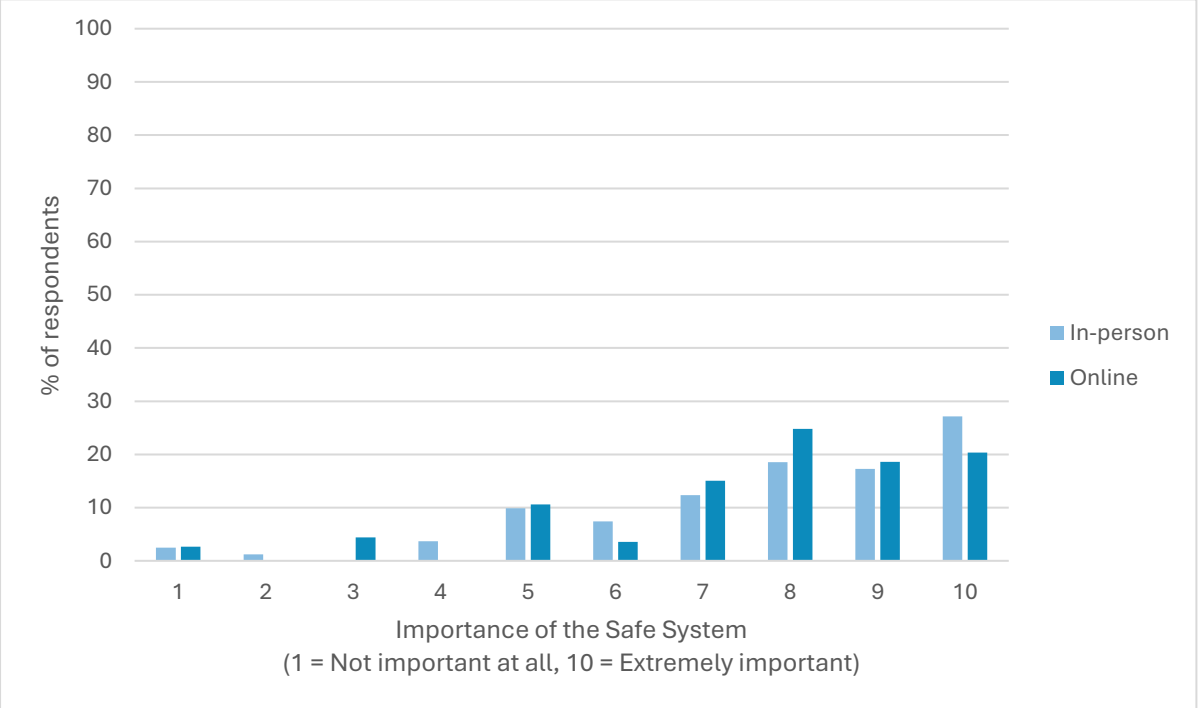


Figure 4-2: Pre-training rated importance of the Safe System by in-person (*n* = 81) and online participants (*n* = 113)



In addition to these scaled responses, participants were invited to describe in their own words what specific skills or knowledge they hoped to gain from the training. A total of 81 valid open-text responses were provided for the in-person training and analysed thematically. These responses clustered into five core themes, summarised below.

General understanding of the Safe System approach

A substantial number of participants were seeking a foundational understanding of what the Safe System is, why it matters, and how it differs from traditional road safety approaches. Many had limited or no prior exposure to the concept and were looking to build a solid grounding (e.g. "*To fully understand the Safe System"*).

Practical application and implementation

Participants were highly focused on learning how to put the Safe System into practice, either within their own roles, projects, or organisations. This included a desire for concrete methods, examples, and implementation strategies relevant to local government, engineering, road safety education, and public sector operations (e.g. *"I hope to gain a deeper understanding of how to practically apply the Safe System approach within the context of road safety delivery in Scotland")*.

Relevance to role and local context

A third major theme related to understanding how the Safe System principles applied specifically to participants' existing roles, such as engineers, project managers, police officers, and road safety advocates. Many sought clarity on how their work aligned with the wider Safe System vision in Scotland (e.g. *"I would like to come away with an overview of what the Safe System approach is in Scotland…and apply the knowledge in my job"*).

Desire to influence and share knowledge

Several participants articulated a motivation to secure *"knowledge to pass on to colleagues"*, advocate for Safe System practices, or support capacity building within their organisations. This included aspirations to influence others, train staff, or initiate change based on what they learned.

Comparative learning and broader perspectives

Some respondents were particularly interested in understanding how the Safe System approach had been implemented internationally, how it relates to global standards, and what Transport Scotland's national vision entails (e.g. *"Better knowledge of Safe Systems and how this has been used globally and what lessons can we learn from this"*). This broader systems-level thinking highlights an appetite for comparative learning and a desire to stay aligned with best practice.

Overall, the responses revealed strong participant engagement and curiosity, with a clear emphasis on acquiring both foundational understanding and actionable knowledge. While a small number of respondents sought a general overview or refresher, most articulated well-defined objectives tied to their professional responsibilities and organisational contexts.

While the online responses largely echoed the themes found in the in-person training data, they also revealed a number of distinct nuances. Several participants emphasised the importance of feeling confident in articulating the Safe System approach, not only to support their own understanding, but also to engage effectively with peers, senior leaders, elected members, and the public. This focus on confidence introduces a dimension of self-efficacy that builds on the

in-person theme of influencing and sharing knowledge, highlighting the need for training to empower participants as advocates.

Additionally, the online feedback revealed a wider range of entry points, from participants with no prior exposure to the Safe System to those seeking a refresher after years of experience. This diversity underscores the importance of designing flexible, tiered training that accommodates varying levels of familiarity. A further distinction related to the need for support in overcoming implementation barriers, with some participants explicitly calling for the training to address challenges such as feasibility, resource constraints, and real-world application. For example, one participant asked for guidance on *"the practicality and practicability of utilising the Safe System approach in real and live situations"*.

Collectively, the learning goals expressed across both formats reflect the broad cross-sectoral relevance of the training and suggest growing recognition of the Safe System approach as a framework applicable across roles, from frontline delivery to strategic planning.

4.2.3 Knowledge gains and confidence post-training

Independent-samples t-tests, as detailed in the methods section, were used to assess differences between pre- and post-training responses. Participants' knowledge and confidence in applying the Safe System approach increased following training across both delivery formats. The in-person Safe System Foundation Course was associated with a particularly large shift in self-rated knowledge. Among in-person participants, mean knowledge ratings rose from 2.93 (SE = 0.266) prior to training to 6.71 (SE = 0.426) afterwards, a statistically significant increase, $t(127) = -7.94$, $p < .001$ (two-tailed). This change was associated with a very large effect size (Cohen's $d = -1.45$), indicating a strong impact of the training on participants' understanding of the Safe System approach.

For online participants, a similar upward trend was observed, with knowledge ratings increasing from a pre-training mean of 2.67 (SE = 0.219) to a post-training mean of 3.75 (SE = 0.604). While this change did not reach statistical significance at the conventional two-tailed threshold ($t(39.47) = -1.68$, $p = .101$), the one-tailed p-value was .051, indicating a borderline trend toward improvement in the expected direction. The associated effect size (Cohen's $d = -0.41$, 95% CI: -0.81 to -0.02) suggests a small to moderate increase in knowledge following the online training. Although the gains were less pronounced than in the in-person format, the results point to meaningful movement in participants' awareness and familiarity with Safe System principles.

Figure 4-3 shows the mean change in general knowledge rating across both formats (with standard error bars), clearly illustrating the positive shift following training. Figure 4-4 displays the distribution of pre- and post-training knowledge scores for in-person participants, while Figure 4-5 presents the equivalent distribution for online participants, allowing for a direct visual comparison of how perceived knowledge changed within each delivery format.

Figure 4-3: Safe System Knowledge Score, pre and post-training (Mean, *SE*), by training format

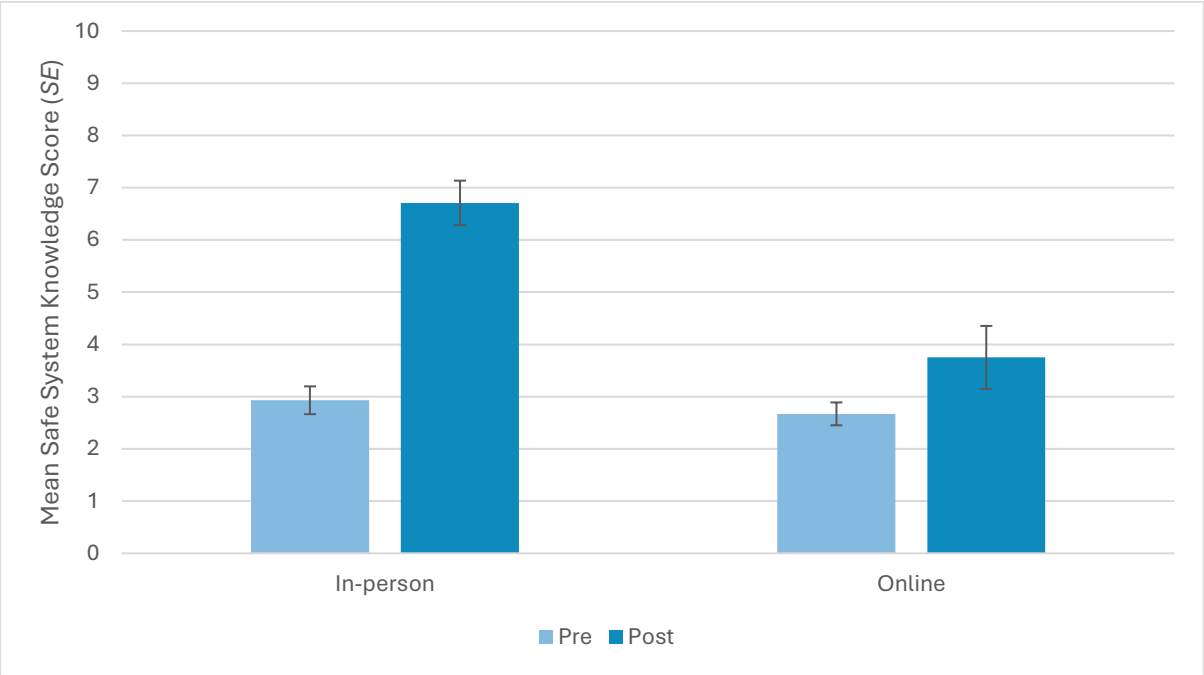


Figure 4-4: Safe System Knowledge Score, pre and post-training (In-person participants; Pre: *n* = 81, Post: *n* = 48)

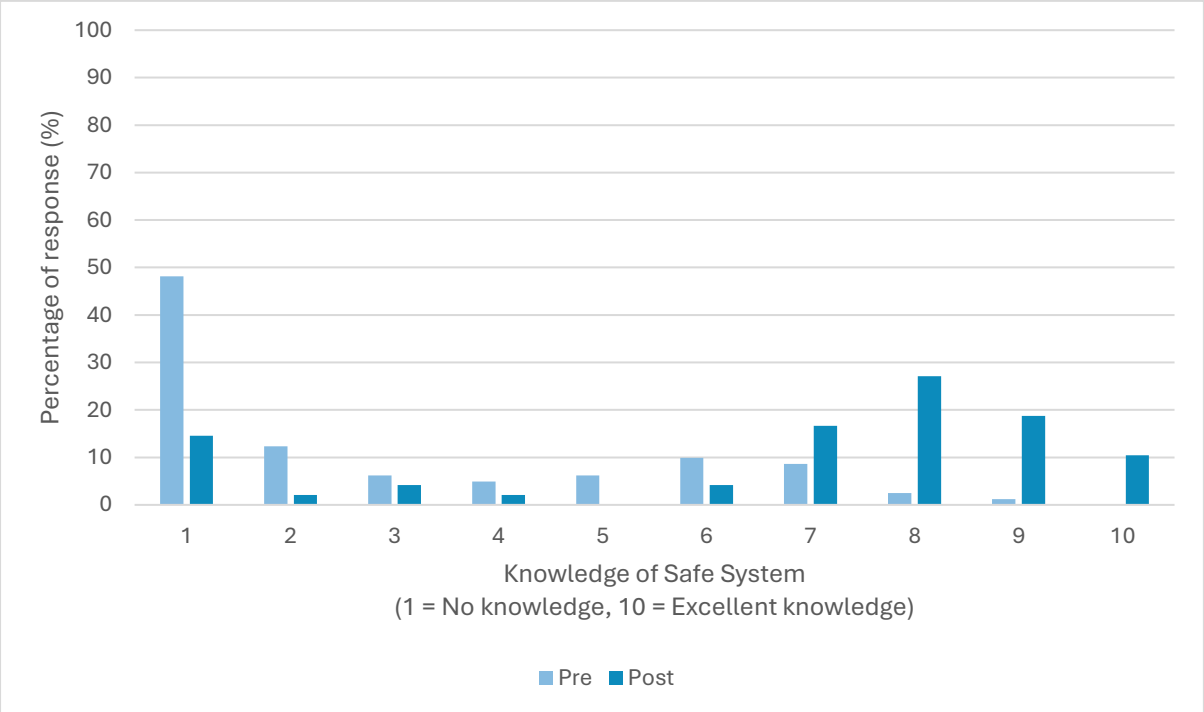
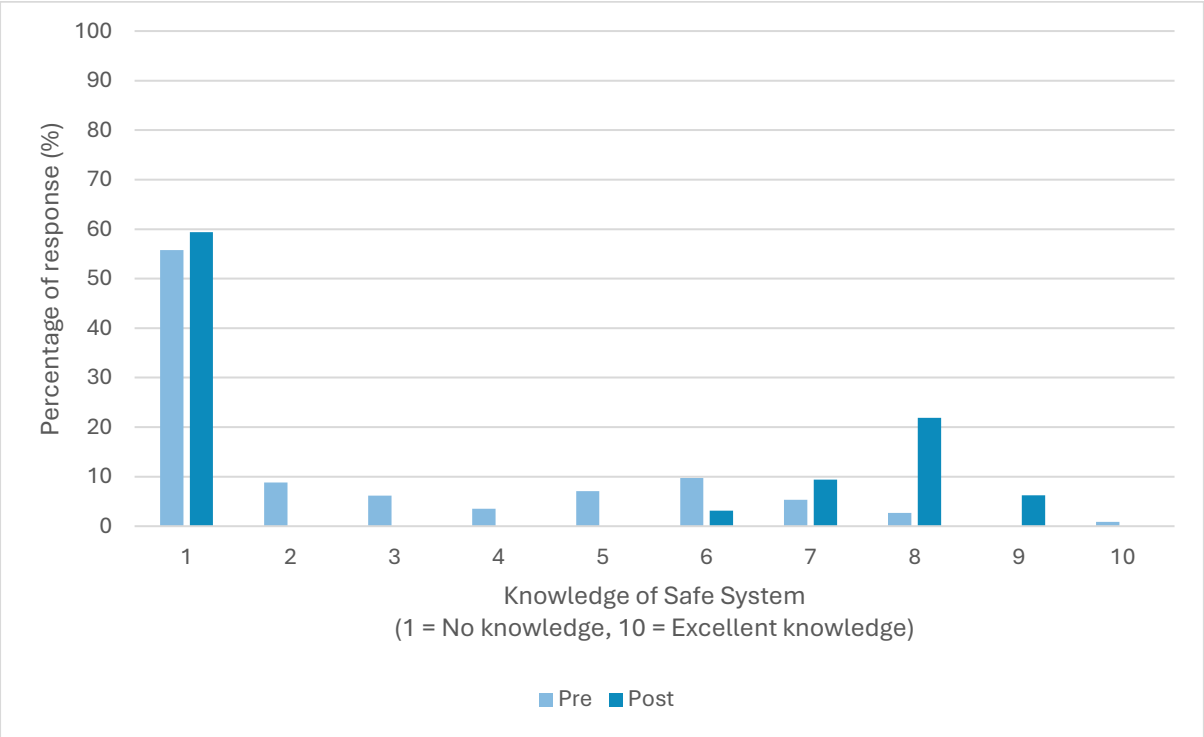


Figure 4-5: Safe System Knowledge Score, pre and post-training (Online participants; Pre: *n* = 113, Post: *n* = 32)



Two measures of knowledge were used to assess learning outcomes across both in-person and online training formats:

- A single-item general self-assessment, as outlined in Figures 4-3 to 4-5.
- A multi-item composite score based on eight Safe System statements, shown in Figures 4-6 to 4-8.

These eight statements captured participants' confidence, understanding of Safe System components, awareness of international best practice, and the relevance of the approach to their professional context. Figure 4-6 presents the mean agreement ratings (1 = Strongly disagree to 5 = Strongly agree) for each statement across pre- and post-training surveys for in-person participants. Figure 4-7 provides the equivalent data for online participants.

Figure 4-6: Knowledge and understanding of the Safe System among in-person participants, pre-post training (Pre: *n* = 81, Post: *n* = 48) (Mean, *SE*)

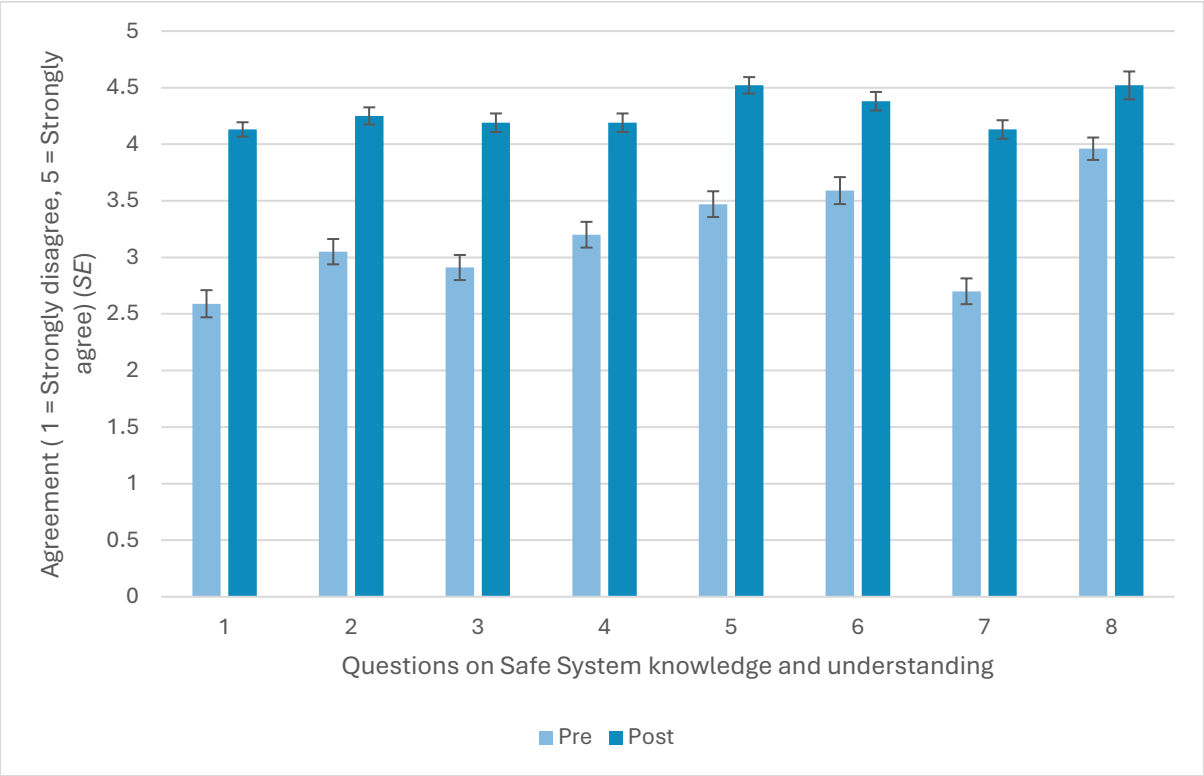
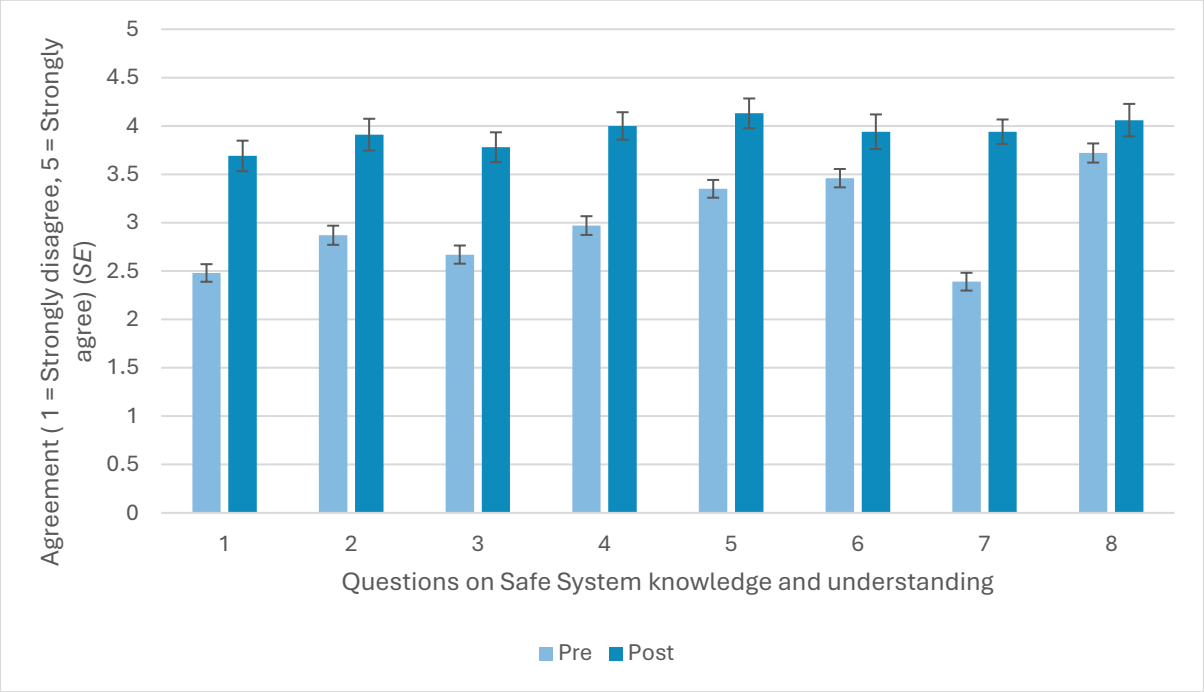


Figure 4-7: Knowledge and understanding of the Safe System among online participants, pre- and post-training (Pre: *n* = 113, Post: *n* = 32) (Mean, *SE*)



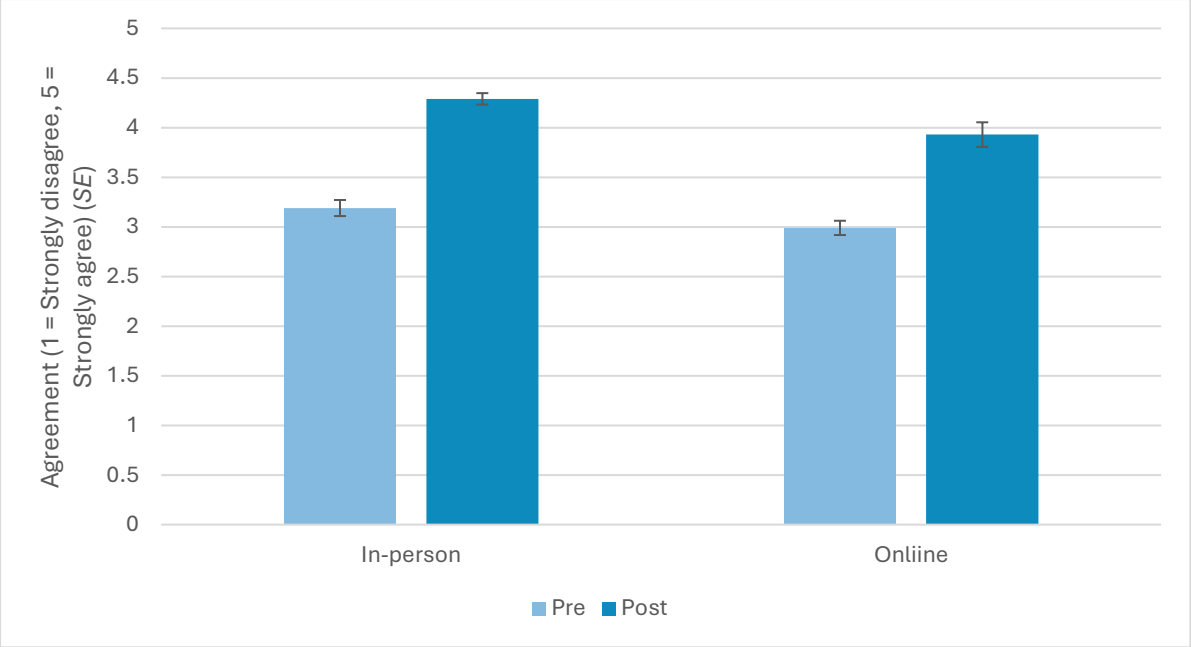
Question	Statement
1	I am confident with explaining the principles of the Safe System
2	I know how the components of the Safe System relate to each other
3	I am aware of the different operators that are used to deliver the Safe System
4	I know about the different safe speeds for survivability in different crash scenarios
5	I recognise the challenges of implementing the Safe System
6	I understand how the Safe System is relevant to delivering road safety within Transport Scotland
7	I am aware of how the Safe System is being successfully applied in other countries
8	I understand that we can't prevent people from making mistakes

A composite Safe System knowledge score was calculated by averaging responses to the eight items for each participant. The scale demonstrated excellent internal consistency for both formats:

- In-person: α = .87 (pre), α = .83 (post)
- Online: α = .90 (pre), α = .92 (post)

These values confirm that the items reliably captured a single construct of Safe System knowledge and understanding. Among in-person participants, an independent samples t-test revealed that the composite score increased significantly from 3.19 (*SE* = 0.081) pre-training to 4.29 (*SE* = 0.058) post-training (out of a maximum score of 5) (See Figure 4-8). This 1.10-point gain was statistically significant: $t(127) = -11.00$, $p < .001$ (two-tailed), and associated with a very large effect size (Cohen's $d = -1.75$), confirming the training's strong impact on perceived knowledge. Among online participants, the composite knowledge score also improved significantly, rising from 2.99 (*SE* = 0.072) pre-training to 3.93 (*SE* = 0.124) post-training. This 0.94-point increase was statistically significant: $t(143) = -6.23$, $p < .001$ (two-tailed), with a large effect size (Cohen's d = -1.25, 95% CI: -1.66 to -0.83), indicating that post-training knowledge scores were more than one standard deviation higher than the comparison group.

Figure 4-8: Composite knowledge and understanding score, pre and post training, by in-person (Pre: *n* = 81, Post: *n* = 48) and online participants (Pre: *n* = 113, Post: *n* = 32) (Mean, *SE*)



These results provide strong evidence that both delivery formats were successful in increasing Safe System knowledge, with particularly large gains in confidence and conceptual understanding across both general and specific knowledge items.

4.2.4 Perceptions of the training experience

To explore how participants perceived the training, ten post-training survey items were analysed, covering various aspects of the learning experience. These included views on logistics (e.g. venue and session length), the delivery and quality of training content, and how useful or applicable participants found the material.

To support interpretation, the ten items were grouped into three conceptually aligned categories:

Logistics satisfaction

(2 items for in-person: venue appropriateness and session length; 1 item for online: session length only)

Content delivery and quality

(5 items: content organisation, structure, pace, instructional quality, and overall satisfaction)

Learning outcomes and application

(3 items: usefulness of learning, ability to apply knowledge, and likelihood to recommend)

Each multi-item grouping showed strong internal consistency, confirming reliability in measurement:

- In-person: Content delivery α = .93; Learning outcomes α = .90; Logistics α = .71
- Online: Content delivery α = .97; Learning outcomes α = .96

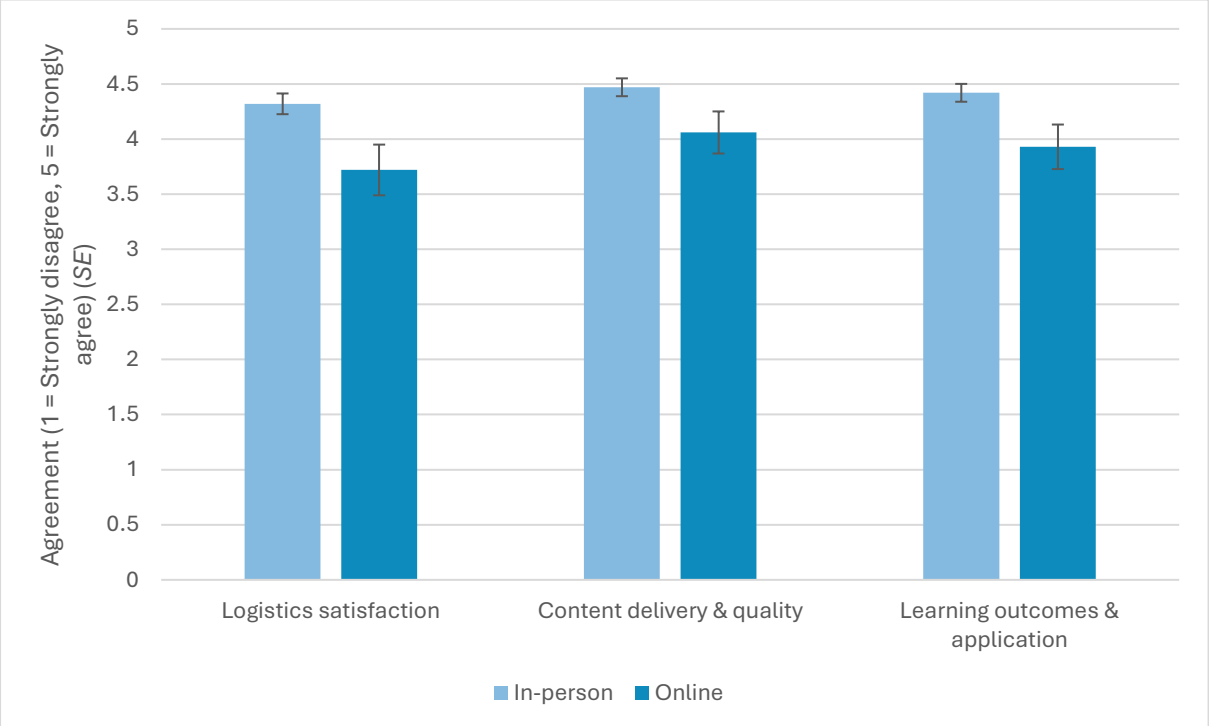
Participants attending the in-person training rated all three dimensions positively, with content delivery and quality scoring slightly higher (Mean = 4.47, *SE* = 0.081) than logistics satisfaction (Mean = 4.32, *SE* = 0.09), $t(47) = -3.14$, $p = .003$ (two-tailed). No significant differences emerged

between logistics and learning outcomes or between content delivery and learning outcomes, indicating generally high and consistent satisfaction across categories.

Participants of the online training reported a similarly positive experience overall, though mean scores were slightly lower than those of the in-person cohort. For the online group, content delivery and quality (Mean = 4.06, *SE* = 0.191) was rated significantly more positively than learning outcomes and application (Mean = 3.72, *SE* = 0.230), $t(31) = 2.579$, $p = .015$ (two-tailed). In contrast to the in-person findings, where no significant differences emerged between these categories, this suggests slightly greater variation in perceived value across domains in the online format. While a composite score for venue-related logistics was not calculated for the online training, the session length item was analysed independently and included in the t-test comparisons. No significant differences emerged between ratings of session length and either content delivery or learning outcomes.

These findings suggest that both formats were generally well-received. Participants consistently appreciated the structure and clarity of the content and found the material relevant to their roles. While in-person delivery was rated slightly higher overall, online participants also expressed satisfaction, with indications that content engagement and applicability could be further enhanced through tailored examples and follow-up support (explored further in Section 4.2.6). Figure 4.9 presents average scores for each training format across the three thematic groupings, illustrating participant satisfaction with logistics (based on one item for online participants), content delivery and quality, and learning outcomes and application.

Figure 4-9: Participant satisfaction with training logistics (single item for online), content delivery, and learning outcomes, by training format (In-person: *n* = 48, Online: *n* = 32) (Mean, *SE*)



The in-person training attendee who was interviewed described the sessions as *"engaging"* and praised the trainers for making a complex and potentially dry topic accessible and stimulating. They valued the chance to step back from daily tasks to reflect on strategic road safety issues

and reported that while there were no dramatic 'lightbulb' moments, the training validated and sharpened their existing approach. Although minor logistical issues were mentioned (e.g. venue access and refreshments), overall satisfaction was high, especially in terms of cross-sector dialogue and facilitated reflection. They also suggested that a condensed one-day format might suit senior professionals or those with limited time.

4.2.5 Perceptions of the Safe System and road safety post-training

Participants from both the in-person and online training formats were invited to reflect on whether and how the training had influenced their perceptions of road safety and the Safe System approach. Responses spanned a wide range of professional roles and levels of prior familiarity with Safe System concepts. Despite these varied starting points, participants commonly described meaningful shifts in mindset, deeper appreciation for systems thinking, and increased clarity around how their roles contribute to road safety. In addition to these shared outcomes, several format-specific experiences and challenges also emerged.

4.2.5.1 Common positive outcomes

Across both in-person and online formats, the majority of participants reported a shift in their thinking following the training. Many described gaining a broader and more integrated understanding of the Safe System model, moving beyond isolated interventions to a systems-level appreciation of how road safety is achieved. The training helped participants see how different elements, engineering, enforcement, education, emergency response, and policy, should be combined to create safer roads.

One in-person participant noted:

"It has given me insight into all the different elements that need to be combined to provide a truly systemic approach."

Similarly, online respondents described being *"much better informed",* having *"a greater understanding"*, or becoming *"more aware of road safety"* with one stating:

"I understand more about the Safe System approach and how it aims to make the roads safer."

Several participants, particularly those newer to the field, reported that the training helped clarify previously vague concepts and provided a practical framework to better understand how their own roles contribute to road safety. Some stated they would now look to incorporate Safe System principles into future project work or advocate for systemic change in their organisations. For example:

"I will look at the information contained in the sources that were cited throughout the presentation and look to implement them in my designs going forward." (Online participant)

Both groups also noted a mindset shift from working in professional silos toward recognising shared responsibility. One in-person participant reflected:

"I now appreciate that we should no longer view our respective roles in isolation. The course emphasised and made clear that we have to have a joined-up approach to road safety."

Additionally, participants across formats expressed support for the Safe System as a national framework. One online participant said:

"This training is required to get a consistent approach nationally…it will get everyone thinking about this in road safety decision making going forward."

4.2.5.2 Format-specific challenges and needs

While feedback from both groups was largely positive, several challenges and needs were identified that were format-specific.

For the in-person training, a small number of participants reported limited shifts in perception, typically because they were already well-versed in the Safe System model. Even so, they valued the training for consolidating understanding, staying informed about cross-sector developments, and exchanging ideas with others. These participants tended to see the experience as one of professional reflection and reaffirmation rather than transformation.

In contrast, online training participants more frequently reported difficulties with the delivery format. A few found the session hard to follow or commented on its length and density:

"The training was well delivered but not what I was expecting at all. It was far too long. I couldn't keep my concentration, three hours and 77 slides is just too much to take in."

Others described a gap between the clarity of the theory and the challenge of applying it in practice:

"I have a good understanding of the principles but I have no idea how to apply them to my work."

One participant expressed disappointment in the lack of focus on long-term trends and vulnerable road users. Such comments highlight that while comprehension was achieved in many cases, the online format sometimes lacked opportunities for deeper engagement, contextualisation, or role-relevant translation of learning.

4.2.5.3 Practical implications for future training design

These findings suggest that Safe System training, across both in-person and online formats, effectively supports systems thinking and raises awareness among a wide range of professionals. However, several adaptations could enhance its effectiveness, particularly in supporting deeper engagement and practical application of learning.

For online delivery, breaking the content into shorter, modular sessions could help sustain concentration and engagement throughout the training. Incorporating more interactive elements and real-world case studies may also support the practical application of Safe System principles. In addition, offering supplementary resources (such as the soon to be released Safe Systems Manual) or follow-up sessions tailored to specific professional roles could assist participants in translating theoretical understanding into their day-to-day work.

In-person training, by contrast, is well placed to continue to prioritise cross-sector dialogue, which was valued for helping participants appreciate the interconnected nature of road safety. To further benefit those already familiar with the Safe System model, integrating structured reflection activities could further deepen learning and prompt professional self-reflection.

Across both training formats, there is likely to be value in offering further applied examples that reflect the distinct needs of different professional groups, such as designers, enforcement officers, educators, and policy-makers. Furthermore, several participants highlighted the importance of reinforcing national consistency in Safe System application, suggesting that the training should continue to be embedded within the broader policy landscape.

Overall, while the training was described as effective in shaping participant perceptions and encouraging a systems-based approach to road safety, future refinements to content delivery

and support, particularly for the online format, will help ensure that Safe System principles are understood and put into practice across diverse roles and settings.

4.2.6 Planned changes in practice following training

Participants from both in-person and online training sessions were asked to reflect on any specific changes they planned to make in their work as a result of the Safe System training. Their responses revealed a diverse range of intended actions, reflecting different professional roles, levels of seniority, and organisational contexts. Despite this diversity, a number of common themes emerged, alongside some format-specific nuances.

In addition to qualitative reflections, quantitative data indicate that participants felt confident in applying their learning. Among in-person attendees, the average agreement score for the statement *"I will be able to apply the knowledge I learned"* was 4.23 out of 5 (*SE* = 0.09), with over 93% rating this statement as 4 or 5. For online participants, the average score was slightly lower at 3.81 (*SE* = 0.208), with 75% scoring 4 or 5. These findings suggest that both training formats supported participants in developing the confidence needed to begin embedding Safe System thinking into their professional practice.

4.2.6.1 Shared themes across training formats

Across both formats, participants commonly reported an intention to integrate Safe System principles more systematically into their everyday roles. For in-person attendees, this often involved incorporating Safe System thinking into route action plans, infrastructure projects, construction consents, and committee reporting. Online respondents also referenced intentions to apply the approach within planning processes, housing developments, and communications work. One in-person participant reflected:

"As someone who comes from a traditional road safety background, I'm going to try and adopt a more systems-based approach", while an online respondent similarly noted that they would be, *"thinking about* [the] *Safe System more within my design work"*.

Collaboration and cross-sector working also emerged as a strong theme. Participants in both groups described the importance of moving away from siloed working to engage more meaningfully with colleagues from different professional disciplines, including engineers, local authorities, enforcement, and education teams. One online participant shared that the training: *"Reinforced the need to work with even more organisations to secure safer roads for all"*. This echoed in-person respondents' emphasis on developing shared responsibility through strengthened partnerships.

Many respondents across formats also identified opportunities to advocate for Safe System thinking and influence others. In-person attendees often referred to efforts to embed Safe System language in strategic documentation or influence senior colleagues, while online participants described plans to share slides with peers, incorporate training content into their own sessions, or raise awareness within their teams. One participant noted, *"I will share the slides with colleagues and encourage developers to think about the environment they seek to create"*.

Finally, reflection and personal learning featured prominently. Several respondents said that although they might not be in a position to implement changes immediately, the training had expanded their awareness, prompted self-reflection, and equipped them to ask better questions or challenge existing assumptions (e.g. *"I think the training will make me ask different questions when considering designs, and broaden my perspective*").

4.2.6.2 Format-specific reflections

While common themes were evident, the nature and depth of planned actions sometimes differed by training format. In-person participants tended to articulate more specific and concrete implementation plans. These included proactive changes to project design processes, earlier integration of safety considerations in planning cycles, and greater use of tools like the Cultural Maturity Playbook. Several participants described intentions to initiate or contribute to strategic policy discussions within their organisations, or to reframe committee papers using Safe System language.

In contrast, many online participants described being at an earlier stage in their learning journey, often expressing intentions to further explore Safe System concepts or build confidence before advocating for change. This included reviewing cited resources, deepening their understanding of key statistics, or using course content to inform future communication with the public or elected officials. One respondent wrote:

"I do not plan to make any specific changes to my current work practices, but I feel more empowered to make recommendations based on the information gained."

A small number of online participants reported that the training had limited relevance to their current role or expressed uncertainty about how to apply the content. Others offered constructive critique, suggesting that greater alignment with Scottish policy, such as the road user hierarchy, would enhance future training relevance. For example, one participant noted:

"The tutors need to focus on the Scottish roads hierarchy and the order we consider road users in...[there was] *too much focus on high-speed multi-lane roads."*

These reflections highlight the need for differentiated content or additional guidance based on professional role, level of experience, and regional context.

4.2.6.3 Summary and implications

Overall, the training generated a broad spectrum of intended changes in practice, ranging from concrete implementation plans to more strategic or reflective shifts in mindset. Participants across both formats reported a stronger understanding of how Safe System principles relate to their work and expressed a commitment to applying this thinking more deliberately, whether through individual actions, team processes, or wider organisational influence.

While in-person participants were more likely to report detailed implementation intentions, likely due to the immersive nature of the two-day format, online participants also demonstrated meaningful shifts in perspective and a readiness to engage further with the approach. The majority of in-person participants (83.3%) expressed a desire for additional support, such as follow-up resources or peer networks. Among online participants, a similar pattern was observed, with 62.5% indicating that they would benefit from additional resources or follow-up sessions. This reinforces the finding that participants across both formats are keen to continue their learning, particularly through materials that support the practical application of Safe System principles in their day-to-day work.

Together, these findings underscore the value of both training formats in promoting Safe System thinking, while also highlighting opportunities to deepen impact. Tailored follow-up support aligned to specific roles, provision of additional implementation resources, and mechanisms to foster continued cross-sector engagement will be important for embedding these principles into everyday practice. The forthcoming Safe System Manual is expected to be a key enabler in this process, offering a central resource to support ongoing application and learning.

4.2.7 Barriers to implementing knowledge gained from training

Participants across both the in-person and online formats were invited to identify barriers they anticipated in applying the Safe System principles within their roles. While a minority reported no foreseeable obstacles, the majority described a variety of challenges. These clustered into five overarching themes, shared across formats, with some format-specific reflections also emerging.

1. Financial and resource constraints

The most frequently reported barrier across both training formats was limited financial and staffing resource. Local authority participants in particular noted budgetary pressures, with several referencing a growing reliance on external funding schemes (e.g. the Road Safety Improvement Fund) and concerns about inequitable distribution across the road network:

"Budgets are very tight."

"Funding is insufficient to make significant engineering improvements."

"Local Authority budgets [are] *constantly being reduced…if* [the Scottish Government] *are serious about achieving the targets,* [they need to] *maintain and increase funding to all 32 local authorities fairly."*

Staffing capacity was also a concern, especially in teams under pressure from public demands and statutory duties:

"A lot of our time is spent dealing with customer complaints, FOI requests, and the tidal wave of communications from the public - it is therefore difficult to be proactive."

"Lack of funding requiring redundancies, loss of knowledge, momentum and opportunities to embed Safe System considerations."

Both groups recognised that resource limitations restrict the ability to move from theoretical alignment with Safe System principles to tangible, proactive change.

2. Leadership support and organisational culture

Participants frequently cited internal organisational dynamics as a barrier, including challenges securing buy-in from senior leaders and aligning wider teams to Safe System thinking (e.g. *"People thinking they know better")*. This was particularly emphasised by in-person participants but also echoed by online attendees:

"Getting and keeping traction with senior management to ensure that Safe System is embedded in our practices [is challenging]*."*

"[I will] *push for integration of the Safe System within the Council - has extending this course to developers or planners been considered?"*

One online participant noted that staff are often not empowered to lead on design solutions, and are instead constrained by having to assess against pre-existing standards:

"We are not encouraged to lead design solutions. Our role is to assess the information presented based on local and national standards."

The in-person training interviewee also reinforced the importance of leadership engagement, recommending shorter or hybrid training models to support senior-level attendance and foster broader organisational traction.

3. Policy, standards and governance limitations

Numerous responses, particularly from those in technical or engineering roles, highlighted concerns that existing design standards, policy frameworks, and legislative contexts conflict with Safe System implementation. Participants noted that current standards can constrain innovation or introduce liability risks when professionals seek to adopt more progressive approaches:

"Road maintenance is based on indicators like cracking and integrity, not risk."

"Some of the methods promoted are contrary to current standards…sticking our necks out to make changes could create liability issues."

"Safe Systems approach vs Highway Standards…Highway Standards approach every time due to reluctance of teams to recognise safe systems developed and proven outside UK."

Others raised concerns about the lack of national legislative backing or political support, suggesting that top-down endorsement is essential for widespread change:

"This feels very much like a bottom-up approach…If a fundamental change is to happen it needs to be fully endorsed at a national level."

In the online training, some frustration was also expressed about the perceived disconnect between course content and national planning policy (e.g. National Planning Framework 4), with participants noting that this made it difficult to reconcile theory with local implementation frameworks.

4. Translating theory into role-specific practice

A recurring theme, especially among online participants, was the challenge of applying Safe System principles within specific roles. Some participants found the training highly theoretical and struggled to identify relevant actions they could take within operational or constrained roles such as maintenance engineering, development planning, or construction consents:

"Most of our work is like-for-like maintenance and repair…there is little I can change following this course."

"There was very little practical guidance on how to make the trunk road safer…most of the principles were outside my control."

"This training needs to be better targeted…rather than just being seen as a low-cost CPD event."

Others, however, described how the training would help them shift their questions or broaden their perspective in design work, even if immediate actions were limited.

This suggests that while the training was effective in raising awareness, further tailoring or role-specific resources may be needed to support practical implementation across diverse professional contexts. The forthcoming Safe System Manual, developed as part of this project, is expected to play a key role in meeting this need by offering practical guidance and case study examples that can help bridge the gap between theory and application across a range of professional settings.

5. Public perception and external pressures

Some participants reported concern about how Safe System principles would be perceived by the public, particularly in relation to speed management or proactive safety measures:

"The public will expect action at points they identify, rather than looking at the bigger picture."

Several also pointed to external pressures, such as political decision-making or community expectations, that can conflict with data-led or systems-based approaches. These insights reinforce the importance of wider communication, engagement, and policy alignment to support the cultural shift required for Safe System implementation.

Overall, across both in-person and online cohorts, participants expressed motivation to apply Safe System principles but acknowledged a range of barriers to doing so. The most consistent themes included limited financial and staffing resources, lack of leadership support, restrictive design standards and policy environments, and difficulty applying theory in practice.

While these challenges were common across formats, online participants more frequently emphasised practical applicability and role relevance, while in-person participants focused more on organisational culture and leadership engagement.

These findings point to a need for continued support that goes beyond awareness-raising by providing targeted tools, practical examples, and structured follow-up tailored to professional roles and local delivery contexts. Supporting leaders, aligning standards, and building a permissive policy environment will also be critical for enabling systemic change.

5.0 Discussion

The Phase 2 programme has been widely recognised by stakeholders and participants as a significant step forward in building Safe System capacity across Scotland. Evaluation data show that the initiative was delivered with a high degree of professionalism, agility, and responsiveness, with strong collaboration between Transport Scotland and Agilysis contributing to its success.

The two-day Safe System Foundation training emerged as a cornerstone of the programme. It enabled a diverse range of participants, from engineers to enforcement officers, to engage in structured learning and dialogue. Feedback highlighted the value of the scenario-based exercises in moving delegates from traditional paradigms to systems thinking. These 'lightbulb moments' were consistently associated with increases in perceived knowledge, confidence, and motivation to apply Safe System principles in practice.

The mixed-cohort approach enhanced cross-sectoral engagement, breaking down silos and reinforcing shared responsibility, a central tenet of the Safe System model. Importantly, the complementary online Safe System Principles training successfully extended access to participants unable or not in the position to attend in-person sessions. This format provided a flexible entry point for professionals across Scotland and captured a similarly diverse audience, including those with little to no prior exposure to the Safe System.

Findings from stakeholder interviews, including the delivery contractor Agilysis and Transport Scotland representatives, further reinforce the programme's success in achieving both reach and relevance. Interviewees highlighted the importance of collaborative development and the adaptability shown in delivering both in-person and online formats, particularly in meeting the needs of different audiences. They also emphasised the strategic alignment of the programme with national goals and the value of investing in capacity building across sectors.

Evaluation findings from both in-person and online formats confirm meaningful gains in knowledge and confidence. While effect sizes were larger among in-person participants, online participants also demonstrated significant improvement in their self-rated understanding and in their composite knowledge scores. This suggests that even compressed or remotely delivered training can foster key learning outcomes, particularly when designed with structured content and strong evidence-based teaching foundation.

Both in-person and online participants emphasised the value of practical application, relevance to role, and the importance of being able to communicate Safe System principles to others. The online format also surfaced additional considerations around self-efficacy in advocacy and the need for training that accommodates varying levels of prior knowledge.

The delivery format, pacing, and facilitation style were praised across both interview and survey responses, with participants citing both the content and its presentation as highly effective. While some respondents recommended a lighter version for time-pressed senior leaders, the two-day structure was generally seen as essential for deeper reflection and culture change. The stakeholder interviewee who attended training described the experience as engaging and reflective, praising the opportunity to step away from day-to-day responsibilities to focus on strategy. While they did not report major new revelations, they appreciated the affirmation of their existing practices and the opportunity for peer discussion.

Similarly, online respondents noted that the shorter format was accessible and informative, but some desired additional depth or follow-up opportunities. This interest in continued engagement was echoed in open-text survey responses and confirmed through interview feedback, suggesting appetite for peer networks, ongoing learning opportunities, or refresher modules to maintain momentum.

Notably, the development of the Safe System Manual represents a critical legacy component. The manual offers a tailored and accessible reference for ongoing practice, allowing practitioners to revisit training content and explore further application. Stakeholders interviewed for the evaluation strongly endorsed the manual's potential to embed and extend learning, highlighting its importance in supporting long-term cultural change and reinforcing Safe System thinking within professional communities. As suggested by both in-person and online respondents, such a resource is necessary to support continued learning and practical implementation. Its availability may also help address calls for further materials and role-specific guidance.

Despite these successes, several challenges to implementation remain. Survey responses pointed to financial and resource limitations, competing operational pressures, and limited organisational or political buy-in as significant barriers. While the training sparked enthusiasm and intent, the capacity to act on this varies across contexts.

The evaluation also surfaces a need to better engage senior managers and political leaders, who are critical to embedding the Safe System at a strategic level. Suggestions for lighter-touch training or targeted briefings reflect this need and offer a potential next step in expanding Safe System literacy.

As with all evaluations, certain limitations should be acknowledged. While more than 500 individuals participated in training, the survey responses represent only a proportion of this group, introducing the potential for self-selection bias. In addition, because the surveys were anonymous and responses could not be matched across pre- and post-training, the data were analysed as independent samples. This limited the ability to assess individual-level learning progression over time. Lastly, the evaluation was conducted shortly after the delivery of training sessions, meaning that findings largely reflect short-term outcomes such as satisfaction and knowledge gain. Longer-term impacts, such as shifts in practice or policy, were beyond the scope of this evaluation and could not be assessed within the project's timescale.

These limitations have been considered in analysis and interpretation. Overall, the evidence supports the conclusion that Phase 2 has meaningfully advanced Safe System understanding, built capacity across sectors, and laid the foundation for long-term culture change. With continued support, targeted adaptation, and strategic investment, the initiative has the potential to drive sustained systems-based road safety improvement across Scotland.

6.0 Conclusions and recommendations

The *Building Capacity in the Safe System – Phase 2* programme was delivered effectively and met or exceeded expectations in terms of participation, quality, and immediate impact. Strong coordination between Transport Scotland and Agilysis enabled flexible, high-quality training delivery across both in-person and online formats, accommodating professionals from a wide range of roles and geographies. The initiative demonstrated strong logistical execution, effective content delivery, and adaptability to differing participant needs and contexts.

Evaluation findings clearly show that the training made a meaningful contribution to participants' knowledge, confidence, and intention to apply the Safe System approach in their work. Both the two-day in-person Safe System Foundation course and the shorter online Safe System Principles course were associated with statistically significant improvements in knowledge and understanding, with larger effects observed among in-person participants. Online participants, however, also reported substantial gains, underscoring the value of providing flexible access routes into Safe System learning.

Participants consistently described the training as relevant, professionally delivered, and practically useful. The scenario-based activities and cross-sectoral groupings within the in-person sessions were seen to support deeper reflection and collaborative problem-solving. Meanwhile, the online format was praised for its accessibility and clarity, with participants valuing the opportunity to engage in Safe System learning despite logistical constraints. In both formats, the importance of translating theory into practice, and the need for ongoing support to do so, was repeatedly emphasised.

The Safe System Manual was widely welcomed as a critical legacy output of the programme. Across feedback from both training formats and stakeholder interviews, the manual was seen as essential for embedding and extending learning beyond the training itself. It is well-positioned to support continued reflection and organisational awareness-building in the months and years ahead.

Despite the strengths of the training offer, challenges to practical implementation remain. Survey and interview data identified time and resource constraints, competing priorities, and gaps in senior-level or political buy-in as barriers to operationalising Safe System principles. These concerns suggest that training alone is not sufficient to enable transformation. Ongoing strategic leadership, institutional alignment, and capacity-building will be necessary to support wider systems change.

Nonetheless, Phase 2 has laid a robust foundation for the future. Stakeholders expressed a clear appetite for further training opportunities, extended support resources, and stronger peer networks, all aimed at building on the momentum achieved to date. The inclusion of online training options has proven valuable in reaching a broader audience and offers a scalable model for future delivery.

In light of the evaluation findings, the following recommendations are made:

Retain the two-day in-person training as the core offer for future training

Recognising its unique value in enabling deep engagement, collaborative learning, and mindset shift.

Continue to develop and refine online formats

To complement the in-person offer and provide accessible, scalable entry points for a wider audience.

Develop lighter, targeted versions of the training

Such as one-day sessions or executive briefings, to engage senior managers, elected officials, and strategic influencers whose support is vital for implementation.

Expand the use and visibility of the Safe System Manual

Ensuring it is regularly updated and actively promoted as a tool for individual learning and organisational development.

Introduce additional training pathways

Such as thematic deep-dives or role-specific modules (e.g. for engineers, planners, enforcement professionals), to support sector-relevant application and further embed Safe System thinking.

Support follow-up engagement opportunities

Such as peer learning groups, communities of practice, or resource hubs, to encourage long-term knowledge mobilisation and mutual support among practitioners.

Monitor long-term impact

Through periodic evaluation, including post-training follow-ups and case studies of implementation, to assess whether and how training translates into sustained changes in practice, policy, and outcomes.

Position Scotland as a leader in Safe System capacity building

By sharing lessons learned, showcasing the programme's approach, and contributing to the international road safety community.

With continued investment, targeted adaptation, and collaborative leadership, Scotland is well positioned to build on the progress achieved by this programme of work. It has demonstrated how structured, evidence-based training can shift professional understanding, build cross-sectoral capacity, and lay the foundations for systemic change. Going forward, the challenge will be to sustain this momentum and embed the Safe System approach as the foundation for road safety strategy and delivery at all levels.

Annex A – Process evaluation interview questions

The following interview question sets were developed to support a process evaluation of the Safe System Capacity Building Programme. Each set was tailored to a specific stakeholder group: Contractor (Agilysis), client (Transport Scotland), and road safety delivery body (from a Scottish local authority), in order to gather a well-rounded understanding of the programme's delivery, outputs, and perceived impacts.

The questions aimed to explore a range of topics including training design and delivery, development of the Safe System Manual, project coordination, organisational engagement with Safe System principles, and recommendations for future improvement. Insights from these interviews were used to inform the overall interpretation of the programme's effectiveness.

A.1 Contractor questions (Agilysis)

Training programme delivery

- How were the Foundation and Principles training sessions delivered in practice (logistics, engagement, delegate feedback)?
- What went well - and what challenges did you face (including reaching the target number of participants?)
- What is your perspectives on how the training was received?

Safe System Manual development

- How was the editorial process managed, and what role did you play?
- What kind of feedback came in from contributors or reviewers?
- Is there anything that you would have done differently?
- What impact do you expect this aspect of the project to have going forwards?

Project coordination and communication

- How did collaboration with Transport Scotland and other partners work day to day?
- Were there any particular barriers or friction points that impacted delivery?

Reflections on programme outcomes

- In your view, has the programme supported meaningful capacity building or culture change?
- What would you recommend doing differently in future programmes?

A.2 Client questions (Transport Scotland)

Programme delivery

- To what extent were the original aims of the programme achieved?
- Were milestones and deliverables delivered on time and to expected quality?

Training programme

- What were your impressions of the training programme's strengths and weaknesses?
- How well did the Safe System Foundation and Principles training meet internal needs?
- What feedback have you received from internal or external participants?
- Can you describe a moment when the training/manual/partnership really clicked, or didn't?

Safe System Manual

- How effective has the development process been?
- Do you feel the manual will meet the intended audience's needs and support ongoing learning?

Partnership and engagement

- How has collaboration with delivery partners (e.g., Agilysis) and other stakeholders worked in practice?
- Any lessons learned regarding stakeholder engagement?

Overall reflections and recommendations

- What has worked well in this phase of the programme?
- What would you recommend for improvement in future phases or similar programmes?
- Is there anything we haven't covered that you think is important for the evaluation?

A.3 Road safety delivery body questions (a Scottish local authority)

Training experience

- Did you or colleagues attend the Safe System Foundation or Principles training?
- What aspects of the training were most or least useful?

Safe System awareness and culture

- Has the programme influenced your organisation's understanding or commitment to Safe System principles?
- Have you seen any practical changes as a result?

Safe System Manual

- Have you accessed or used the Safe System Manual or related resources?
- How relevant and usable do you find them?

Future needs and support

- What further support or training would help your organisation embed Safe System thinking?
- Do you have any suggestions or recommendations for the programme team going forward?

Annex B – Online training survey questions

B.1 Pre-survey questions

Q1. Baseline knowledge

Do you have any knowledge about the Safe System?

(Please rate your level of knowledge on a scale from 1 = No knowledge to 10 = Excellent knowledge)

Q2. Understanding of Safe System concepts

Please indicate your level of agreement (Strongly disagree – Strongly agree) with the following statements:

- Q2.1 I am confident in explaining the principles of the Safe System.
- Q2.2 I know how the components of the Safe System relate to each other.
- Q2.3 I am aware of the different operators that are used to deliver the Safe System.
- Q2.4 I know about the different safe speeds for survivability in various crash scenarios.
- Q2.5 I recognise the challenges of implementing the Safe System.
- Q2.6 I understand how the Safe System is relevant to delivering road safety within Transport Scotland.
- Q2.7 I am aware of how the Safe System is being successfully applied in other countries.
- Q2.8 I understand that we can't prevent people from making mistakes.

Q3. Training goals

What specific skills or knowledge do you hope to gain from this training session?

(Open-ended response)

Q4. Perceived importance

How important do you believe the Safe System approach is in reducing road traffic collisions?

(Please rate how important you believe this is on a scale from 1 = Not important at all to 10 = Extremely important)

B.2 Post-survey questions

Q1. Knowledge assessment

How would you assess your knowledge of the Safe System after the training course?

(Please rate your level of knowledge on a scale from 1 = No knowledge to 10 = Excellent knowledge)

Q2. Understanding of Safe System concepts

Please indicate your level of agreement (Strongly disagree – Strongly agree) with the following statements:

- Q2.1 I am confident in explaining the principles of the Safe System.

- Q2.2 I know how the components of the Safe System relate to each other.
- Q2.3 I am aware of the different operators that are used to deliver the Safe System.
- Q2.4 I know about the different safe speeds for survivability in various crash scenarios.
- Q2.5 I recognise the challenges of implementing the Safe System.
- Q2.6 I understand how the Safe System is relevant to delivering road safety within Transport Scotland.
- Q2.7 I am aware of how the Safe System is being successfully applied in other countries.
- Q2.8 I understand that we can't prevent people from making mistakes.

Q3. Training experience and impact

Please rate your agreement (Strongly disagree – Strongly agree) with the following statements regarding the training session:

- Q3.1 I will be able to apply the knowledge I learned.
- Q3.2 The content was organised in a way that was easy to follow.
- Q3.3 The length of the session was about right.
- Q3.4 The structure of the training was appropriate.
- Q3.5 The quality of the instruction was good.
- Q3.6 The pace of the training was just right.
- Q3.7 I learned something useful.
- Q3.8 I'm glad I attended.
- Q3.9 I am likely to recommend this course to others.

Q4. Perception shift

Has the training changed your perception of road safety and the Safe System approach?

If yes, please explain how.

Q5. Implementation barriers

What barriers, if any, do you foresee in implementing the knowledge gained from the training in your current role?

Q6. Further support

Would you benefit from additional resources or follow-up sessions to further support your implementation of Safe System principles?

Q7. Intended actions

What specific changes, if any, do you plan to make in your work practices following this training?

Annex C – In-person training survey questions

C.1 Pre-survey questions

Q1. Baseline knowledge

Do you have any knowledge about the Safe System?

(Please rate your level of knowledge on a scale from 1 = No knowledge to 10 = Excellent knowledge)

Q2. Current understanding of the Safe System

Thinking about your knowledge now, before the Safe System training course, please indicate your level of agreement (Strongly disagree – Strongly agree) with the following statements:

- Q2.1 I am confident in explaining the principles of the Safe System.
- Q2.2 I know how the components of the Safe System relate to each other.
- Q2.3 I am aware of the different operators that are used to deliver the Safe System.
- Q2.4 I know about the different safe speeds for survivability in various crash scenarios.
- Q2.5 I recognise the challenges of implementing the Safe System.
- Q2.6 I understand how the Safe System is relevant to delivering road safety within Scotland.
- Q2.7 I am aware of how the Safe System is being successfully applied in other countries.
- Q2.8 I understand that we can't prevent people from making mistakes.

Q3. Learning goals

What specific skills or knowledge do you hope to gain from this training session?

(Open-ended response)

Q4. Perceived importance

How important do you believe the Safe System approach is in reducing road traffic collisions?

(Please rate how important you think this is on a scale from 1 = Not important at all to 10 = Extremely important)

Q5. Previous participation

Did you attend the Safe System Principles Online training in November and December?

(Yes/No)

Q6. Session attendance

Which Safe System training session are you planning to attend for the upcoming training?

(Open-ended or multiple-choice depending on available options)

C.2 Post-survey questions

Q1. Attendance

Which Safe System training session did you attend?

(Open-ended or drop-down list of sessions)

Q2. Knowledge assessment

How would you assess your knowledge of the Safe System after the training course?

(Please rate your level of knowledge on a scale from 1 = No knowledge to 10 = Excellent knowledge)

Q3. Understanding of Safe System concepts (Post-training)

Thinking about your knowledge now, after completing the training, please indicate your level of agreement (Strongly disagree – Strongly agree) with the following statements:

- Q3.1 I am confident in explaining the principles of the Safe System.
- Q3.2 I know how the components of the Safe System relate to each other.
- Q3.3 I am aware of the different operators that are used to deliver the Safe System.
- Q3.4 I know about the different safe speeds for survivability in various crash scenarios.
- Q3.5 I recognise the challenges of implementing the Safe System.
- Q3.6 I understand how the Safe System is relevant to delivering road safety within Transport Scotland.
- Q3.7 I am aware of how the Safe System is being successfully applied in other countries.
- Q3.8 I understand that we can't prevent people from making mistakes.

Q4. Training experience

How much do you agree (Strongly disagree – Strongly agree) with the following statements about the training session?

- Q4.1 I will be able to apply the knowledge I learned.
- Q4.2 The content was organised so it was easy to follow.
- Q4.3 The length of the session was about right.
- Q4.4 The structure of the training was appropriate.
- Q4.5 The quality of the instruction was good.
- Q4.6 The pace of the training was just right.
- Q4.7 I learned something useful.
- Q4.8 I'm glad I attended.
- Q4.9 I am likely to recommend this course to others.
- Q4.10 The venue was appropriate for the training.

Q5. Perception shift

Has the training changed your perception of road safety and the Safe System approach?

If yes, please explain how. (Open-ended response)

Q6. Implementation barriers

What barriers, if any, do you foresee in implementing the knowledge gained from the training in your current role?

(Open-ended response)

Q7. Further support

Would you benefit from additional resources or follow-up sessions to further support your implementation of Safe System principles?

(Open-ended or Yes/No)

Q8. Intended actions

What specific changes, if any, do you plan to make in your work practices following this training?

(Open-ended response)