SOCIAL RESEARCH NUMBER:
19/2017
PUBLICATION DATE:
05/04/2017

National Station Improvement Programme for Wales (NSIP+): Phase 1 Evaluation

© Crown Copyright Digital ISBN 978-1-4734-9314-8

National Station Improvement Programme for Wales (NSIP+): Phase 1 Evaluation

AECOM

Views expressed in this report are those of the researcher and not necessarily those of the Welsh Government.

For further information please contact:
David Roberts
Social Research and Information Division
Welsh Government
Sarn Mynach
Llandudno Junction
LL31 9RZ
Tel: 0300 062 5485
Email: david.roberts@wales.gsi.gov.uk

Table of contents

Executive Summary 3
1 Introduction 6
2 Impact Assessment 14
3 Process Evaluation 44
4 Conclusions 66
5 Recommendations 70

Glossary of acronyms

ATW	Arriva Trains Wales
EAH	Easier Access Humps
ERDF	European Regional Development Fund
FWHR	Ffestiniog and Welsh Highland Railway
GRIP	Guide to Rail Investment Process
LDG	Local Delivery Group
NR	Network Rail
NSIP+	National Station Improvement Programme for Wales
PMB	Project Management Board
QCRA	Quantified Cost Risk Analysis
RTC	Regional Transport Consortia
SWWITCH	South West Wales Integrated Transport Consortium
TOCs	Train Operating Companies
WEFO	Welsh European Funding Office
WG	Welsh Government

Executive Summary

AECOM was commissioned by the Welsh Government in June 2015 to undertake a final evaluation of the National Station Improvement Programme for Wales (NSIP+). The programme, part funded by the European Regional Development Fund (ERDF), Welsh Government, Network Rail, and Arriva Trains Wales, was developed to improve railway stations and their connections with other transport modes across the ERDF West Wales and the Valleys area over a 5-year period (2010-2015).

Individual projects consisted of improvements including station modernisation and upgrades (such as new or modernised station buildings), new or improved passenger facilities (such as ticketing), general station access improvements (such as cycle parking facilities) and easier access improvements (including lifts and ramps).

The programme was delivered in two phases, with Phase 1 schemes funded under the 2007-2013 ERDF programme and Phase 2 schemes funded under the 2014-2020 ERDF programme. This report focuses on the Phase 1 schemes which were predominantly delivered via a grant delivery model via third parties; a subsequent evaluation report will be prepared for Phase 2.

A total of 65 stations received some degree of improvement as part of NSIP+ Phase 1. In line with what was indicated within the Business Plan, schemes were delivered at Swansea, Carmarthen, Porthmadog Harbour and Llandudno, as well as a series of minor accessibility upgrades; the Easier Access Humps (EAH) programme and SWWITCH station access programme. The scope of the SWWITCH and EAH programmes did however vary from what was planned as part of the application for NSIP+ funding.

This evaluation has considered the results and impacts of the programme in terms of the numbers of stations improved and the nature of the improvements made, as well as the results of these improvements for users in terms of the change in passenger kilometres. The perceptions of station users

have also been gauged by way of a review of the National Rail Passenger Survey and face to face surveys undertaken at a sample of four stations improved as part of NSIP+.

Additionally, a process evaluation has been undertaken based upon interviews with key project staff and stakeholders and available project data sources, to establish key lessons learnt and examples of best practice from NSIP+.

In terms of the impacts of the programme on passenger kilometres the methodology adopted for the Business Plan was repeated utilising ticket sales data for the period following completion of the schemes. This indicated no observed evidence that the station enhancements have had any large impact on levels of passenger travel yet. However, the impacts of the improvement made may be obscured by external factors.

Face to face surveys were undertaken at a sample of the stations improved during NSIP+ Phase 1. It was identified that these station improvements had contributed to increased levels of satisfaction amongst passengers. One of the most noticeable improvements across the surveyed stations was the increase in the perceptions of safety. Although they are based on a small sample the results of the surveys also suggest that there may have been a modal shift from other modes of transport (from car to rail) though it was not possible to identify NSIP+ as the cause of this over other factors.

In terms of the processes adopted for the programme, NSIP+ initially adopted an open grant model to encourage involvement from a range of different organisations. However, concerns regarding contractual arrangements and match funding constraints limited the levels of take-up via this model, leading to a decision for Welsh Government to directly deliver subsequent projects.

Available financial information identifies that both the EAH programme and SWWITCH Access to Stations programmes experienced slight cost escalations, as well as changes to project scope. This resulted from initial

costings having been based upon preliminary designs, which changed following more detailed feasibility and option testing and consultation.

The project team members interviewed as part of this process evaluation have indicated that there was a good level of collaboration between the various organisations delivering different aspects of the programme.

Stakeholder involvement across the programme has been widespread, with a number of different organisations engaged in helping to shape the schemes delivered. The improvements made to Swansea station illustrate the impact that this involvement can have in ensuring the facilities provided meet the needs of users with different requirements.

1 Introduction

Project Overview

1.1 AECOM was commissioned by the Welsh Government in June 2015 to undertake a final evaluation of the National Station Improvement Programme for Wales (NSIP+). The programme, part funded by the European Regional Development Fund (ERDF), Welsh Government (WG), Network Rail (NR), and Arriva Trains Wales (ATW), was developed to improve railway stations and their connections with other transport modes across the ERDF West Wales and the Valleys area over a 5-year period (2010-2015).

1.2 The NSIP+ schemes have been delivered in two phases:

- Phase 1 schemes were funded under the 2007-2013 ERDF programme and all completed over one year ago.
- Phase 2 schemes were funded under the 2014-2020 ERDF programme and are either recently completed or still under construction in the case of Port Talbot station.

1.3 The following (Phase 1) schemes were approved with grants issued as part of NSIP+:

- Swansea station.
- Carmarthen station.
- Minor accessibility upgrades for rural stations (mid, west and north Wales).
- SWWITCH station accessibility improvement programme.
- Porthmadog Harbour station (Ffestiniog Railway).
- Llandudno station/interchange.
- Easier Access Installation programme (rural stations).

1.4 Of these, the majority have been delivered, by applicants under the original grant model. The latter two, were the subject of successful applications to the programme but were not progressed due to the

applicant being unable to accept the conditions of the grant and were subsequently delivered directly by the WG through NR. All schemes are within the scope of this evaluation and this report.

1.5 In addition, the WG prioritised the following station improvement projects to be delivered by NSIP+ under a Phase 2 direct delivery model:

- Pontypridd.
- Rhyl.
- Ystrad Mynach.
- Port Talbot.
- Aberystwyth.

These schemes are evaluated in a forthcoming separate evaluation report.

1.6 Figure 1 indicates the locations of the main schemes discussed above. In addition to individual station improvement projects, funding has been allocated for projects which will invest in small scale improvements across a range of stations.

1.7 A number of different types of improvements have been undertaken at different stations. Following a review, these improvements can be summarised into the following types:

- **Station modernisation and upgrade**, including new or modernised station buildings and forecourts utilising sustainable design solutions where possible.
- **Passenger facilities**, including ticketing, station information, waiting areas and toilets.
- **General access improvements**, including car parking, cycle facilities, bus and taxi facilities.
- **Easier access improvements**, including lifts, ramps and access humps.

1.8 Table 1 sets out the cost, phasing and category of the different improvements discussed above for the NSIP+ stations.

1.9 This Final Evaluation Report focuses on those schemes delivered as part of NSIP+ Phase 1. The Phase 2 schemes will be considered as part of a subsequent evaluation report.

Figure 1: NSIP+ Station Locations

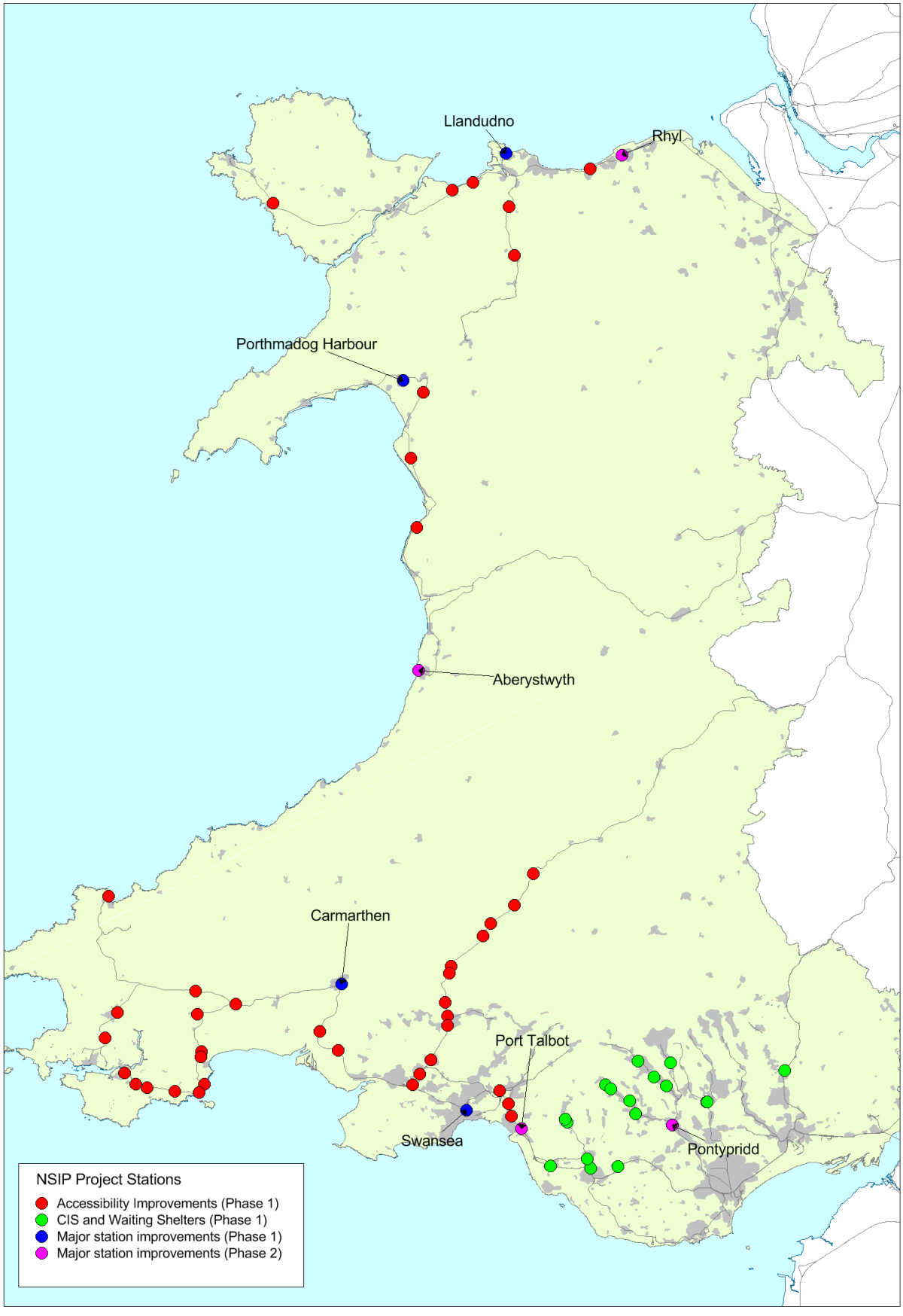


Table 1: NSIP+ Costs, categories and phases

Station/Program	Cost (£m)	Category
Swansea	6.595	Major station improvements (phase 1)
Pontypridd	0.507	
Carmarthen	0.362	
Porthmadog Harbour	0.993	
Llandudno	5.138	
Pontypridd	5.627	Major station improvements (phase 2)
Ystrad Mynoch	1.570	
Aberystwyth	3.100	
Port Talbot	11.035	
Rhyl	2.475	
Pencoed	0.382	Provision of customer information systems and waiting shelters (Phase 1)
Wildmill		
Sarn		
Ewenny Road		
Maesteg		
Treherbert		
Ynyswen		
Ystrad Rhondda		
Tonypandy		
Aberdare		
Fernhill		
Penrhiwceiber		
Ystrad Mynach		
Pontypool & New Inn		
Pyle		
Troedyrhiw		
Minor accessibility upgrades	0.107	Accessibility Improvements (Phase 1)
Pontarddulais	1.042	EAH programme - Accessibility Improvements (Phase 1)
Llangennech		
Ferryside		
Pembroke Dock		
Pembroke Station		
Rhosneigr		
Penmaenmawr		
Abergele		
Llanfairfechan		
Tal-y-Cafn		
North Llanrwst		
Llwyngwril		
Dyffryn Ardudwy		

Station/Program	Cost (£m)	Category
Talsarnau		
Haverfordwest		
Narberth		
Ferryside		
Llandeilo		
Kidwelly		
Baglan		
Clunderwen		
Kilgetty		
Saundersfoot		
Tenby		
Ammanford		
Llangennech		
Whitland		
Cynghordy		
Skewen	0.895	SWWITCH Station Access - Accessibility Improvements (Phase 1)
Briton Ferry		
Johnston		
Pembroke		
Manorbier		
Lamphey		
Fishguard		
Bynea		
Llandovery		
Llandybie		
Pantyffynnon		
Penally		
Llangadog		
Ffairfach		
Llanwrda		

Source: Welsh Government

1.10 Table 2 presents the programme objectives, indicators or targets, as outlined in the Business Plan.

Table 2: NSIP+ Phase 1 Business Plan objectives, indicators and targets

Objective	Result Indicator	Forecast Change
To bring forward improvements to rail stations in the Convergence Area as a catalyst for increased rail travel in Wales	Number of intermodal facilities created or improved	40
	Passenger satisfaction levels	
	Gross passenger kilometres on public transport per annum	Increase of 2.538m km
To increase the number of stations across Wales that are accessible to protected groups and/or have improved wheelchair access to trains	Number of stations with improved accessibility	
	Annual rating via the National Rail Passenger Survey (NRPS) 'improved access to services for passengers with particular needs'	

Source: NSIP+ Business Plan

Scope of the Evaluation

1.11 As required under ERDF arrangements for projects receiving in excess of £2million support, NSIP+ had to be independently evaluated. The specification for this final evaluation of the project identified the following requirements:

- To determine how and to what extent the project activity reflected the commitments set out in the Business Plan.
- To establish what the perceived results of the project were from the perspective of the beneficiaries of the scheme.
- To determine which aspects of project delivery have led to positive outcomes, or could be viewed as good practice.
- What barriers and constraints has the project faced? What are the lessons learnt from dealing with such barriers and constraints.

Purpose and Structure of this report

1.12 This report presents the key findings of the evaluation and includes the following sections:

- **Section Two - Impact Assessment:** Evaluating the results and impacts of the programme for users of the improved stations, based upon the analysis of key patronage data as well as face to face surveys with users of a sample of stations.
- **Section Three - Process Evaluation:** Evaluates the project management processes used to deliver the project. The process evaluation focuses on the topic areas below:
  - Inception and Scheme Identification.
  - Finance.
  - Project Schedule/Programme.
  - Project Delivery Team Skills.
  - Stakeholder Engagement.
  - Cross Cutting Themes.
- **Section Four – Conclusions:** concluding on the overall success of the project and key lessons learnt.
- **Section Five – Recommendations:** summarising the issues for consideration in future project/programme evaluations.

2 Impact Assessment

2.1 This section examines the key results and impacts of NSIP+ Phase 1 in terms of:

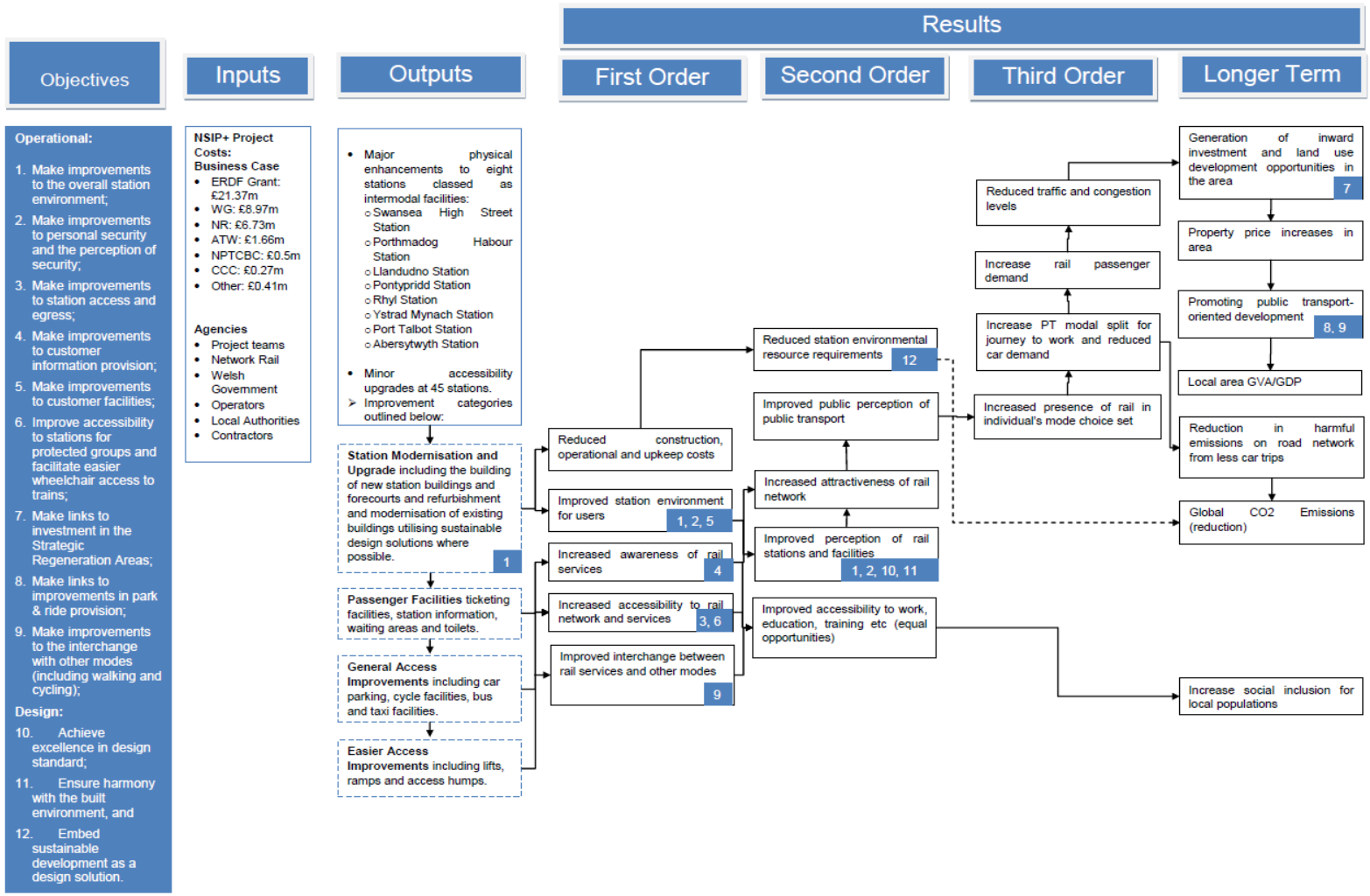
- the delivery of planned outputs and results
- the impacts achieved for end users when compared to the situation if the improvements had not been implemented
- whether the programme has delivered its planned objectives.

2.2 Following a scoping phase with key WG stakeholders the following impact evaluation questions were defined:

- How and to what extent did project activity reflect the commitments set out in the Business Plan?
- What are the perceived results of the project from the perspective of beneficiaries?
- How and to what extent is this making a difference compared to if the improvements had not been implemented?

2.3 To support the evaluation of the project results and impacts, Figure 2 presents a logic map of NSIP+ to indicate the causal pathways by which the objectives were anticipated to be achieved. The blue numbered boxes represent where each objective was anticipated to be relevant. This has been discussed and validated with the project team as part of the process evaluation interviews and is considered to accurately reflect the anticipated results of the programme. As part of a theory of change approach adopted, the outcomes predicted as part of this logic map were revisited to establish the results that were achieved in outturn.

Figure 2: Logic Map of NSIP+



Number of intermodal facilities created or improved

2.4 As part of NSIP+ Phase 1 a total of 65 stations received some degree of improvement. The stations where improvements were made are listed below:

- Aberdare
- Abergele & Pensarn (i)
- Ammanford (i)
- Baglan (i)
- Bodorgan
- Briton Ferry (i)
- Bynea (i)
- Carmarthen (i)
- Cilmeri
- Clunderwen (i)
- Cynghordy
- Deganwy (i)
- Dyffryn Ardudwy (i)
- Ewenny Road
- Fernhill (i)
- Ferryside (i)
- Ffairfach (i)
- Fishguard (i)
- Haverfordwest (i)
- Johnston (i)
- Kidwelly
- Kilgetty (i)
- Lamphey (i)
- Llandeilo (i)
- Llandovery (i)
- Llandudno (i)
- Llandybie (i)
- Llanfairfechan (i)
- Llangadog (i)
- Llangennech
- Llanwrda
- Llwyngwril (i)
- Maesteg (i)
- Manorbier
- Narberth (i)
- North Llanrwst (i)
- Pantyffynnon (i)
- Pembroke (i)
- Pembroke Dock (i)
- Penally (i)
- Pencoed
- Penmaenmawr (i)
- Penrhiwceiber
- Pen-y-bont (i)
- Pontarddulais (i)
- Pontypool & New Inn (i)
- Pontypridd (i)
- Porthmadog Harbour
- Pyle (i)
- Rhosneigr (i)
- Sarn (i)
- Saundersfoot (i)
- Skewen (i)
- Swansea (i)
- Talsarnau (i)
- Tal-y-Cafn
- Tenby (i)
- Tonypandy
- Treherbert
- Troed-y-Rhiw
- Ty Croes
- Whitland (i)
- Wildmill
- Ynyswen
- Ystrad Rhondda (i)

2.5 Of these, 46 stations met the criteria of an intermodal facility, defined by the presence of an on-station car park (indicated in the above list by the presence of an ‘i’). This therefore exceeded the target of 40 set in the Business Plan.

2.6 The original NSIP+ Business Plan indicated that the following large schemes would be delivered as part of the programme:

- Swansea
- Pontypridd 1
- Carmarthen
- Shelters
- Minor Accessibility upgrades
- SWWITCH station access
- Porthmadog Habour
- Llandudno
- Easier Access Humps
- Pontypridd 2
- Ystrad Mynach
- Aberystwyth
- Port Talbot
- Rhyl

2.7 As discussed in Section 1 a decision was made by WG to split the programme of improvements into two separate phases. The revised list of schemes to be delivered as part of NSIP+ Phase 1, as confirmed through stakeholder interviews as part of the final evaluation, was:

- Swansea.
- Carmarthen.
- Minor accessibility upgrades.
- SWWITCH station access.
- Porthmadog Harbour station.
- Llandudno.
- Easier Access Humps.

2.8 However, changes were made to the individual interventions delivered as part of the Easier Access Humps (EAH) programme and SWWITCH station access programme (discussed within Section 3 of this report).

Station Improvements

2.9 This section describes and illustrates some of the improvements made as part of the NSIP+ Phase 1, looking at a small number of station examples and also the installation of EAH which occurred at a number of stations. The examples here show the range of improvements provided as part of the programme. The stations/improvements discussed are:

- Swansea station.
- SWWITCH.
- Llandudno.
- Easier Access Humps Installation.

Swansea station

2.10 The improvements made at Swansea Station include the refurbishment and upgrade of the station including provision of a larger passenger concourse, better and more accessible passenger facilities and a new booking office.

2.11 Figure 3 shows before and after pictures of the front façade at Swansea Station. The façade has been renovated making it more aesthetically pleasing as well as creating easier access.

Figure 3: Swansea Station Improvements

Before

Source: www.geograph.org.uk/photo/1749551

After

Source: gov.wales/docs/det/policy/140122-swansea-station-improvement-report-en.pdf

SWWITCH station accessibility improvement programme

2.12 Following the WG announcement of NSIP+ in July 2010 the SWWITCH local authorities worked together to develop a regional bid for NSIP+ funding, which was submitted in July 2011. The bid was aimed at improving access by a range of different modes, rather than improvement to the actual stations.

2.13 Figure 4 provides examples of the stations improved under the SWWITCH initiative. At Kiln Park Road it can be seen that a pavement has been added with a ramp included for easier pedestrian access/egress to busses and taxis. Llandovery station saw an additional walkway provided as well as a sheltered bus stop. Finally, at Haverfordwest Station there have been junction improvements creating easier and safer access to the station for pedestrians.

Figure 4: SWWITCH Improvement Examples

Station	Before	After
Kiln Park Road, Narberth		
Station	**Before**	**After**
Llandovery Station		
Station	**Before**	**After**
Haverfordwest		

Source: Access to Stations in South West Wales Completion Report

Llandudno Station Improvements

2.14 The improvements made at Llandudno Station consisted of an enhanced passenger concourse with new seating, new ticket hall and retail space, refurbished toilets, upgraded customer information systems, new car park, bus layby and additional cycle storage.

2.15 Figure 5 shows the before and after improvement images for Llandudno Station. Similarly to Swansea Station, the entrance has been vastly improved and renovated, creating improved undercover access.

Figure 5: Llandudno Station Improvements

Before

Source: www.colwynbay.towntalk.co.uk/news/d/21549/

After

Source: www.bbc.com/news/uk-wales-north-west-wales-28418207

Easier Access Humps Installation programme (rural stations)

2.16 The EAH Installation programme involved the introduction of 'Harrington Humps,' which reduce step height between the platform and train in line with the appropriate wheelchair designed train door, enabling use of on-train ramps. These improvements were made at a number of stations where excessive step heights were identified, which had prevented the use of on-train ramps. Figure 6 provides an example of the problem and the Harrington Humps solution.

Figure 6: Easier Access Humps Example

Before

After

Source: news.bbc.co.uk/2/hi/uk_news/wales/north_west/8391451.stm

Passenger Kilometres

2.17 One of the key benefits of NSIP+ was anticipated to be an increase in passenger kilometres, resulting from the station improvements. A target increase of 2.568m gross passenger kilometres was presented in information accompanying the Business Plan, broken down as shown in Table 3 for both the NSIP+ Phase 1 and 2 schemes. The rationale for this target was not outlined within the Business Plan.

Table 3: Forecast Increase in Gross Passenger Kilometres presented in the Business Plan

Station	Gross Passenger km increase (2011)	% increase	Actual Completion
Llandudno	85,092	1.00	Jul-14
Rhyl	621,283	2.14	Sep-15
Aberystwyth	417,990	1.30	Feb-15
Pontypridd	221,111	2.14	Jul-15
Port Talbot	524,839	2.14	Mar-16
Ystrad Mynach	4,818	0.09	Feb-15
Swansea	693,071	0.53	Jun-12
	2,568,203		

Source: NSIP+ Business Plan

2.18 This forecast only covered the larger NR schemes and excluded Carmarthen; there was no rationale for this presented in the Business Plan. The forecast applied percentage demand uplifts taken from the rail industry's recognised source of guidance, the Passenger Demand Forecasting Handbook. This contains different uplift factors for different enhancements; for example the provision of a waiting room when previously the only form of shelter that existed was a basic wind-break, is expected, based on previous evidence, to increase demand by 0.14%. The appropriate percentage uplift applicable to the type of enhancement at each station was applied to the base 2011 passenger miles figure for travel originating at the station being upgraded. An allowance was made to reflect the expectation that some of this additional demand would be from people who travelled previously by rail, but used a different station slightly further away. This is known as abstraction, and was estimated to be 30 per cent of the additional demand, with the overall distance travelled by these people reduced by

7.4% to reflect the slightly shorter rail journey now being made. The figures applied in the calculation were obtained from WebTAG unit 3.13.2[1].

2.19 As part of the face to face survey, discussed in Section 2.31 of this report, levels of observed abstraction from other stations were established. This indicated that between 2 per cent (in the case of Pencoed) and 9 per cent (in the case of Ystrad Rhondda) of passengers had previously used a different station. This is significantly below the 30 per cent global abstraction figure utilised in the forecasting of gross passenger kilometres, suggesting that the forecasts may be underestimating passenger kilometre growth.

2.20 In order to assess whether the forecast growth has been achieved, the pre-implementation 2011 Lennon ticket sales data[1] and forecast growth assumptions presented in the Business Case have been compared against post implementation Lennon data to establish any changes in passenger kilometres. It is recognised that this approach does not allow for external factors (such as fares, the economy, timetable, weather or special events), which may have contributed to changing demand, to be excluded or accounted for, which might be a significant issue. This is particularly relevant at smaller stations or where only small improvements have been made as part of NSIP+. The Passenger Demand Forecasting Handbook expects these factors to play a greater contributory factor than the station improvement itself.

2.21 A full analysis of passenger ticket data has only been possible for the two stations which have been complete for more than a year, namely Swansea and Llandudno; Swansea was completed in June 2012 and Llandudno in July 2014.

[1] Industry standard guidance

[1] Rail industry ticket sales database with revenue allocation to individual operators. Includes rail journey origin/destination, fare paid, ticket type and mileage.

2.22 Actual passenger kilometres from these stations for the 12 month period following completion were obtained from the Lennon ticket sales database and are shown in Table 4. The 0.13 per cent increase observed at Swansea can be put in the context of a decrease in passenger kilometres of 1.06 per cent at Port Talbot and a decrease of 0.79 per cent at Cardiff Central in a similar time period. This indicates that Swansea actually slightly out-performed nearby major stations, even though the target incremental growth was not achieved.

2.23 The picture in North Wales is more mixed, with Llandudno recording a 1.13 per cent decrease in passenger kilometres compared to an increase of 3.90 per cent at Llandudno Junction and a decrease of 0.31 per cent at Colwyn Bay during the relevant time period. There were no major timetable changes affecting Swansea and Llandudno during the periods in question, and other drivers of demand such as weather and the local economy would be expected to have a similar impact at the nearby similar sized stations mentioned above.

Table 4: Lennon Ticket Sales Database

Station	Forecast increase gross passenger km in 12 months following completion	Actual increase in 12 months following completion
Swansea	693,071 (0.53%)	202,135 (0.13%)
Llandudno	85,092 (1.00%)	-90,427 (-1.13%)

Source: Lennon Ticket Database

2.24 The other NSIP+ Phase 1 stations have been complete for less than a year and so a full analysis of passenger kilometres cannot be undertaken. However, Table 5 shows the year-on-year changes in passenger km for the applicable period up to December 2015 since the station enhancement projects were completed. For example, Rhyl station opened in September 2015 therefore the comparison is October to December 2015 versus October to December 2014.

2.25 Table 5 also shows the average year-on-year change in gross passenger kilometres for stations in the same areas as those targeted for NSIP+ enhancements. These areas act as a comparison for the

impact NSIP+ stations, and represent a counterfactual scenario. It can be seen that all NSIP+ stations with the exception of Rhyl experienced growth. However, this growth was lower than that experienced at adjacent stations and in the case of Rhyl a drop in gross passengers was experienced, which is not mirrored by the other stations in the area; which recorded a 0.3 per cent increase.

Table 5: Year-on-Year Growth in Gross Passenger Kilometres since the Station Enhancement

Station	Year-on-year average growth since completion	Year-on-year average growth for all stations in same area
Rhyl	-4.6%	0.3% (North Wales coast)
Aberystwyth	1.2%	2.4% (Mid-Wales)
Pontypridd	0.6%	1.0% (Rhondda Cynon Taf)
Ystrad Mynach	2.4%	3.1% (Caerphilly)

Source: Lennon Ticket Database

2.26 This comparison highlights that the level of change at NSIP+ stations was lower than that experienced across the wider network.

2.27 At this stage (though with limited evidence) there is no indication that the station enhancements have had a substantial impact yet on levels of passenger travel. This is perhaps unsurprising as the use of ticket sales data is effective for measuring absolute usage, but does not allow for consideration of external factors which may have contributed to changing demand.

Passenger Satisfaction

2.28 To evaluate passenger satisfaction with the improvements delivered at the stations as part of NSIP+ Phase 1, data from two sources has been used. First, the National Rail Passenger Survey (NRPS)[2] collected by Transport Focus, has been used to provide context to the analysis. Secondly, a bespoke survey was designed and undertaken by AECOM at selected NSIP+ stations, through which to consider changes at the station level. A summary of the data used is provided below, followed by the outputs from the data analysis.

National Rail Passenger Survey

2.29 The NRPS data coverage was reviewed as part of the Scoping of this evaluation. This indicated that, for the majority of NSIP+ stations, there was not a sufficiently large sample size for any analysis to be based on statistical significance. Even through combining a number of NRPS 'waves' it would not be possible to achieve significantly robust before/after sample sizes for the majority of individual NSIP+ stations, with the exception of Swansea, Carmarthen and Aberystwyth.

2.30 'Building block' level NRPS data, which presents the results by rail line and area, was also considered as a means of aggregating individual station data. However, the methodology for classifying stations into 'blocks' was changed in 2014 which prevents the consideration of long term trends. Data reported at the whole of Wales level is therefore presented within this report, purely to provide context to the station specific surveys.

2.31 All questions from the NRPS have been analysed, with this report detailing the ones considered relevant to NSIP+ and key topic areas/objectives[3]. These are as follows:

[2] The NRPS is a network-wide picture of passengers' satisfaction with rail travel where passenger opinions of train services are collected twice a year from a representative sample of journeys.
[3] Data is shown for all relevant NRPS surveys over the past 5 years, from Spring 2011 through to Autumn 2015.

- Personal security.
- Provision of rail information.
- Connections with other modes of transport.

Face to face survey

2.32 In recognition of the limitations of the NRPS data, and the lack of any pre-existing survey data for NSIP+ stations, a bespoke face to face survey was undertaken. This was completed retrospectively to assess the views of passengers on the improvements delivered. For future projects a more appropriate approach would be to undertake surveys both pre and post implementation. This would allow overall views on the quality of the facilities at each station to be assessed without explicit reference to the improvements made and allow changes in levels of satisfaction to be revealed without prompting.

2.33 Due to the large number of stations improved as part of NSIP+ it was not possible to undertake surveys at all locations. It was therefore agreed during the scoping phase that a survey should be undertaken at a sample of stations to investigate the views of the public on each category of improvement delivered.

2.34 Given the differing nature of the stations in terms of size, type of improvement undertaken and level of investment, rather than choosing a random sample of stations, it was proposed that the surveys focused on stations where significant improvements had been made. It was suggested that this would maximise the chances that passengers were able to comment knowledgably on the improvements delivered. Additionally, it was proposed to exclude the minor accessibility improvements from the survey sample, as these improvements would not benefit all users and would be more effectively assessed via direct discussions with disability groups, as discussed under the stakeholder interviews section of this report. The following NSIP+ Phase 1 stations were selected to be included in the survey sample:

- Swansea.
- Llandudno.
- Pencoed.
- Ystrad Rhondda.

2.35 It is important to note that both Swansea and Llandudno stations had received additional improvements as part of the UK wide NSIP programme alongside the improvements delivered as part of NSIP+. It was not considered feasible to isolate the impacts of the NSIP+ improvements from these wider improvements as they would be unlikely to be perceived as separate by the general public.

2.36 The surveys were conducted for one day at each station over the week from the 23rd November to the 27th November 2015, from 7am to 7pm[4]. These were face to face interviewer led surveys; however self-completion questionnaires were also offered at busier stations and times of day to maximise the response rate achieved. All self-completed surveys were collected at the station.

2.37 Table 6 indicates the 2013/14 average daily passenger flows for each of the stations. These were calculated using the MOIRA database[5] published by the Office of Rail and Road and were used in the survey planning process to ensure appropriate levels of survey staff were attributed to each station to ensure an appropriate sample size was achieved. For Swansea Station a figure of 150 surveys were targeted to ensure a sufficient sample to allow statistically robust analysis. For the smaller stations (Llandudno, Pencoed and Ystrad Rhondda), the number of passengers on the specific survey days was considered to be the key

[4] Llandudno Station was surveyed over two days
[5] The MOIRA software contains the LENNON tickets sales data as trips and revenue, and gives full timetable breakdowns for the routes and services selected.

factor limiting the level of response[6] and therefore there was no definitive target set.

2.38 The achieved sample rate exceeded the target set for Swansea, obtaining over double the target sample. The levels of response achieved ranged from 12.5 per cent (at Llandudno) to 62 per cent (at Ystrad Rhondda) of the average daily flows.

Table 6: Passenger Flow and Target Sample by Station

Station	2013/14 Entries & Exits	Average Daily Flow	Achieved Sample Rate (No. & %)
Swansea	2,116,490	5,815	310 (5.3%)
Llandudno	315,366	866	108 (12.5%)
Pencoed	296,662	815	185 (22.7%)
Ystrad Rhondda	52,098	143	89 (62.2%)

Source: AECOM

2.39 The survey questions were chosen to allow for an investigation of the key topic areas aligned to the objectives of the NSIP+ programme and focused on the following key areas:

- Satisfaction with station enhancements.
- Perception of safety and security following enhancements.
- Impact of the improvements in terms of awareness of rail services.
- Impact of the improvement in terms of access to the rail network, rail services and travel information.
- Satisfaction with the ability to interchange between modes as a result of the enhancements.
- Impact of the improvement in terms of levels of use of rail services to/from this station and change of mode of travel to rail – if so what was previous mode of travel.

[6] Variability in station usage levels throughout the year/week was considered as part of the survey design process in the selection of appropriate survey dates.

2.40 All survey material was provided in English and Welsh and AECOM utilised their in-house, local, Welsh speaking team of trained interviewers to conduct the survey in the language of choice for the interviewee. The questionnaire survey used can be found in Appendix A to this report. The results for each station survey can be found in Appendix B.

Survey Analysis

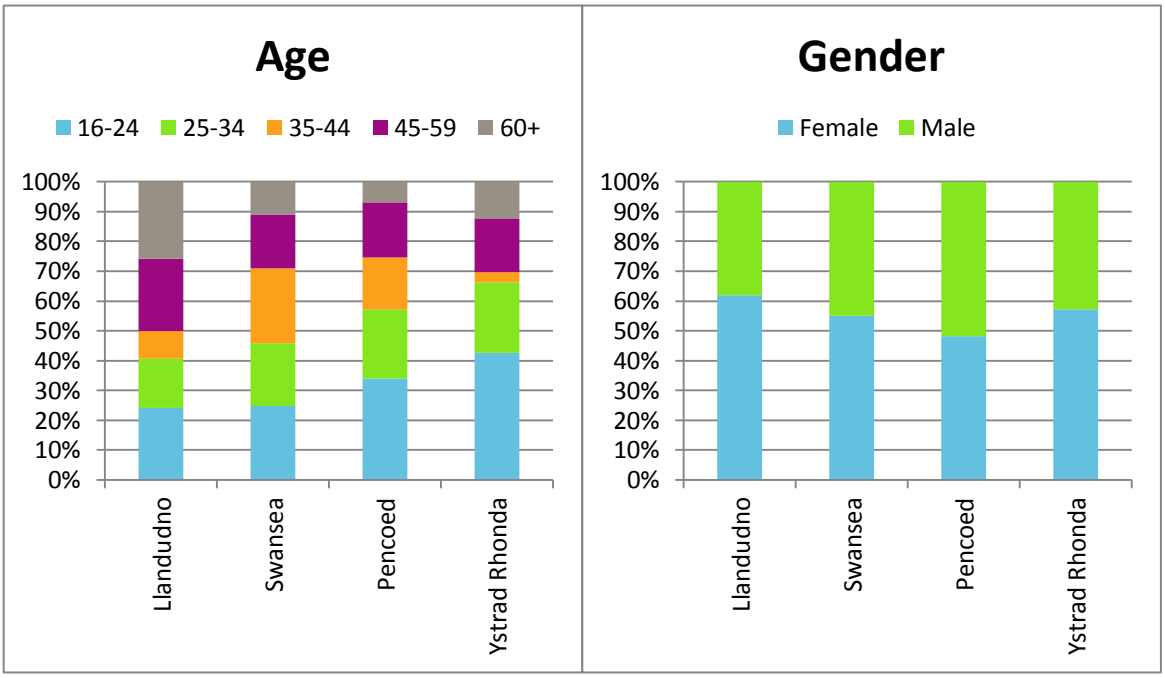
2.41 Table 7 provides a demographic breakdown of the survey respondents at each station, and shows a 45:55 male to female ratio overall. There was a relatively even age split of respondents, as shown in Figure 7, indicating that the views of different age groups will have been captured. The number of respondents with a physical disability was deemed too small to allow any robust analysis of this sub-group, with around 5 per cent of respondents indicating a disability.

Table 7: Survey Responses

Survey Station	Date	Total Responses	Gender		Age				
			Male	Female	16-24	25-34	35-44	45-59	60+
Llandudno	24/11/15 - 25/11/15	108	41	67	26	18	10	26	28
Swansea	23/11/15	310	139	171	77	65	78	56	34
Pencoed	27/11/15	185	96	89	63	43	32	34	13
Ystrad Rhondda	26/11/15	89	38	51	38	21	3	16	11
Total		**692**	**314**	**378**	**204**	**147**	**123**	**132**	**86**

Source: AECOM Surveys

Figure 7: Age and Gender Split

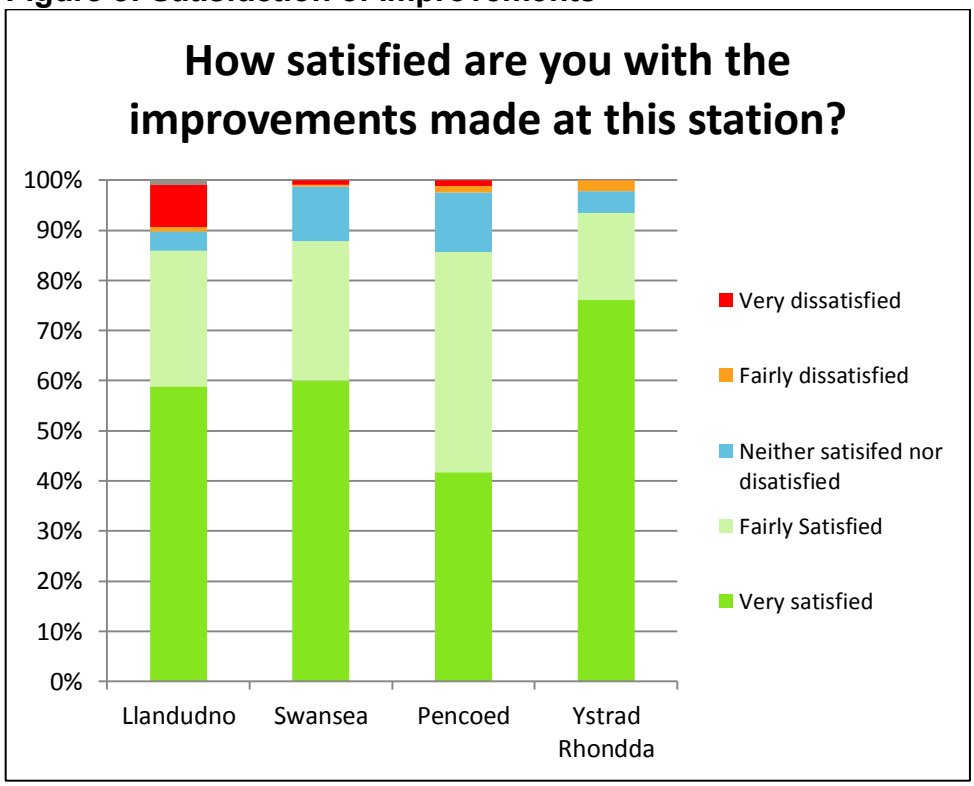


Sample size: Llandudno – 108, Swansea – 310, Pencoed – 185 and Ystrad Rhondda – 89

Satisfaction with station enhancements[7]

2.42 As part of the surveys across all sampled stations, passengers were asked to rate their satisfaction with the improvements. As Figure 8 shows, Llandudno achieved the highest levels of satisfaction, with over 80 per cent of participants stating that they are either 'very satisfied' or 'fairly satisfied'. However, Llandudno did also receive the largest proportion of 'very dissatisfied' users at around 8 per cent. The main reason for this dissatisfaction related to the closing time of the facilities, with toilets and waiting rooms closing at 2:30pm on weekdays when the ticket office closes. This issue was also identified in the Llandudno Station Improvements 'lessons learnt' report, which indicates that the feasibility of remote, out of hours opening of these facilities was under consideration.

Figure 8: Satisfaction of Improvements



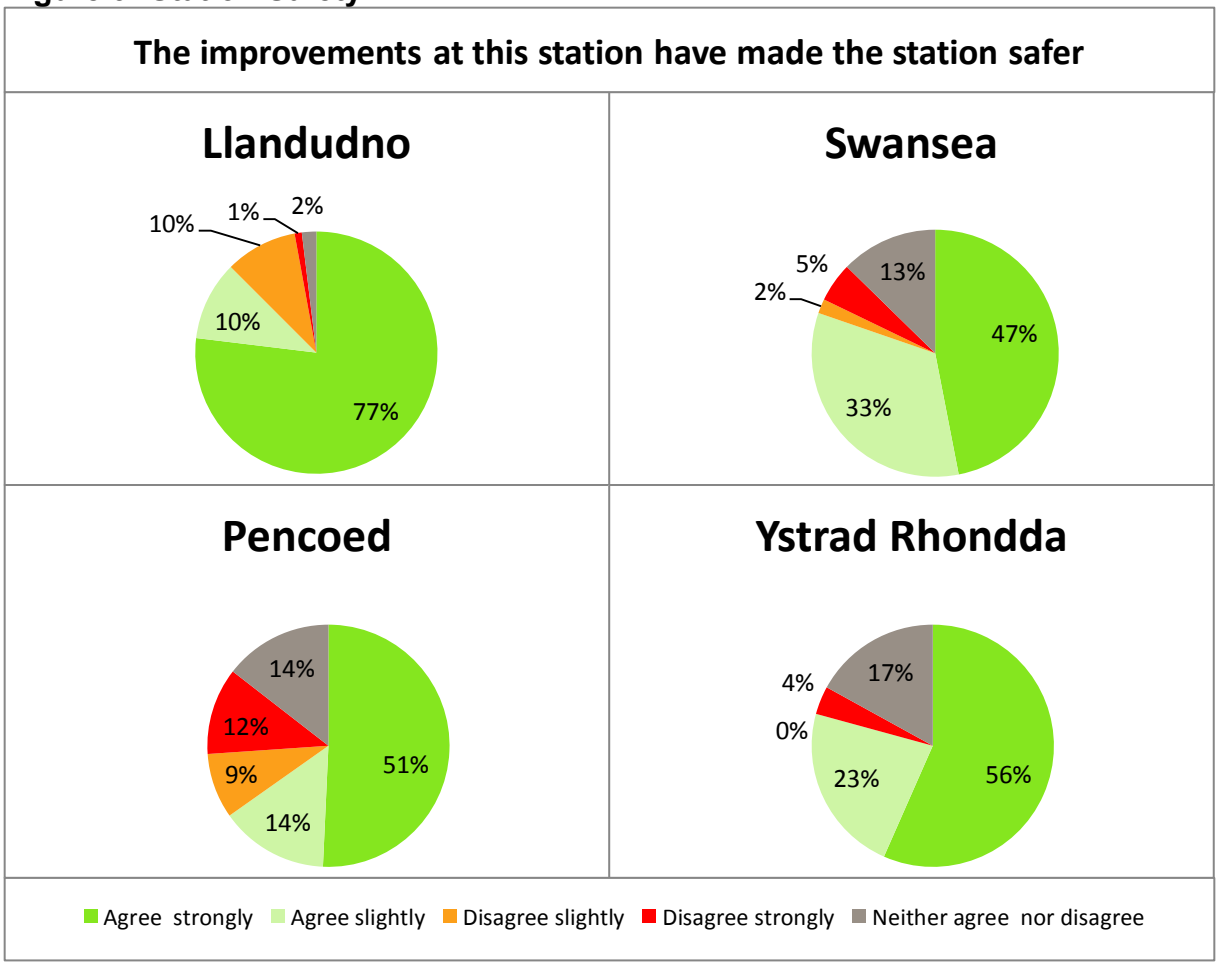
Sample size: Llandudno – 106, Swansea – 230, Pencoed – 84 and Ystrad Rhondda – 46

[7] Sample sizes for the survey analysis differ as 'don't know' responses are excluded as per the methodology used in the NRPS analysis.

Perception of safety and security following enhancements

2.43 The survey required passengers to rate their level of agreement with various aspects of the station improvements. One of these aspects related to safety within the station (incorporating personal security), where the results can be seen in Figure 9. Over 65 per cent of the participants across all of the stations strongly or slightly agreed that the improvements have made the stations safer. At Pencoed 21 per cent of the respondents strongly or slightly disagreed with this statement, suggested that some users feel the changes made have not made the station safer.

Figure 9: Station Safety



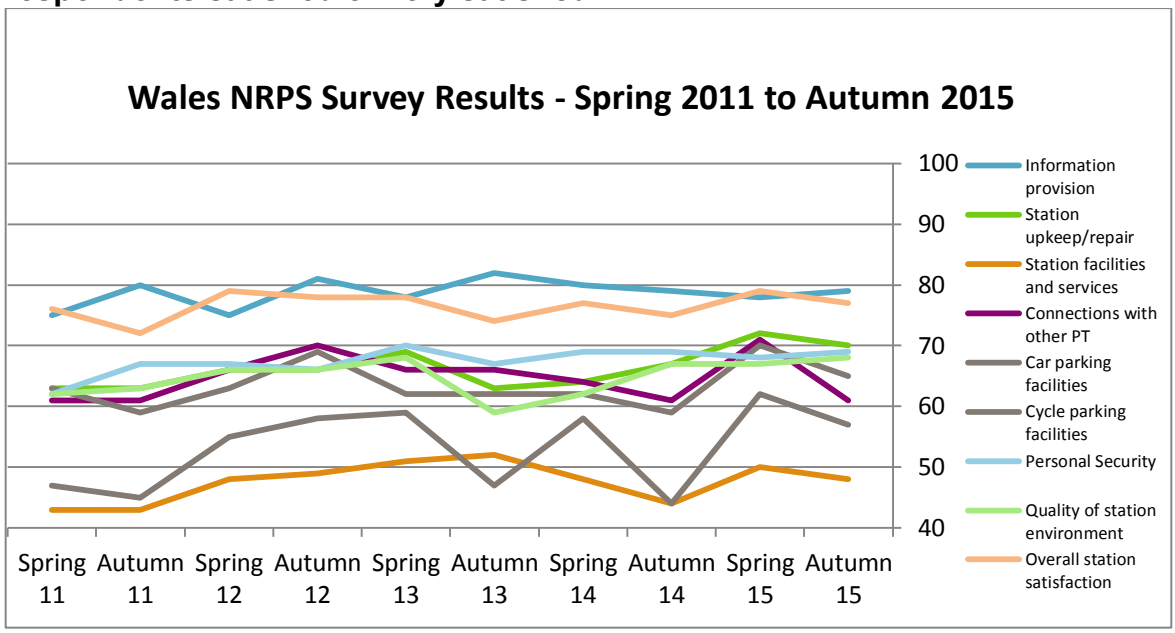
Sample size: Llandudno – 104, Swansea –213, Pencoed –69 and Ystrad Rhondda – 53

2.44 To consider the level of satisfaction at NSIP+ stations with wider trends in passenger satisfaction across Wales, the NRPS has been used. The NRPS asks similar questions to those covered by the face to face survey, including questions on information and parking provision, station

facilities and connections with other modes. Figure 10 shows the overall trends for customer satisfaction (those satisfied or very satisfied) with a range of station facilities and amenities observed within the NRPS data for the period from Spring 2011 to Autumn 2015 for the questions relevant to NSIP+.

2.45 As part of the NRPS a similar question relating to personal security within stations was asked to that contained within the face to face survey. Although the NRPS shows that the overall trend has risen gently upwards from spring 2011, more recently from 2014 through to 2015 the general trend has been static.

Figure 10: National Rail Passenger Survey – All Wales – Percentage of respondents satisfied or very satisfied.



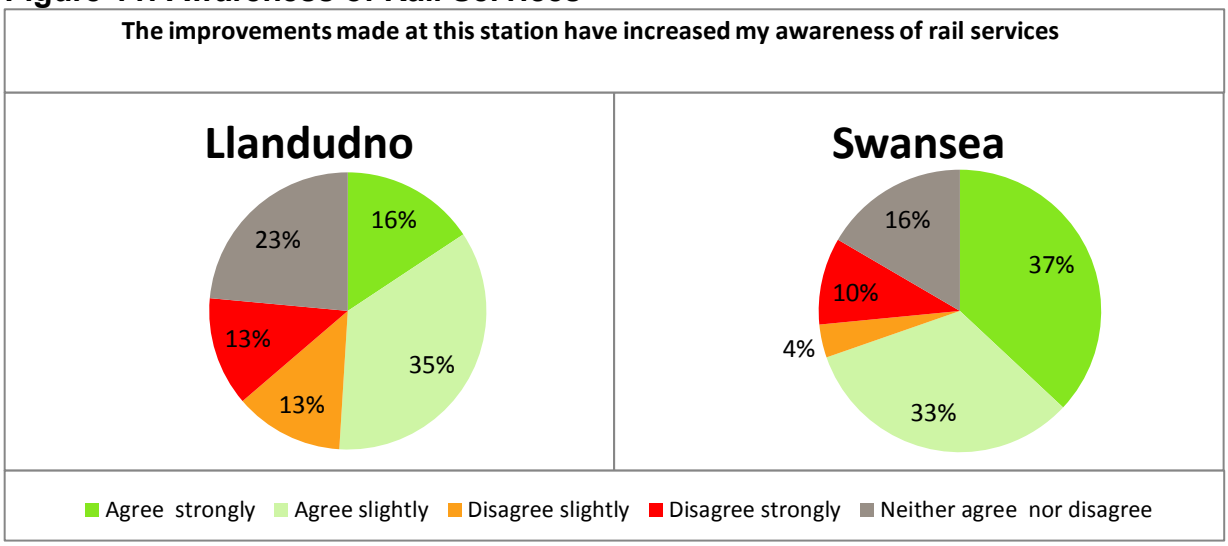
Source: NRPS 2016[8]

[8] http://www.transportfocus.org.uk/media/9d857653d619fe5d7b35172cf6a096a7caf2fd9b/NRPS%20-%20Autumn%202015%20-%20Main%20Report.pdf

Impact of the improvements in terms of awareness of rail services

2.46 Due to the scale and nature of the improvements at each location, the survey questions were tailored to ensure they suited the situation at each station. Participants were asked for their perceptions of the schemes, with some questions only asked at Llandudno and Swansea, where major improvements were made. Information provision was improved at these stations as part of the NSIP+ works. Survey participants were asked whether the improvements made had increased their awareness of rail services, with the results shown in Figure 11. Just over 50 per cent of the respondents from both stations agreed with the statement. Just over a quarter (26 per cent) of the respondents from Llandudno disagreed with the statement.

Figure 11: Awareness of Rail Services



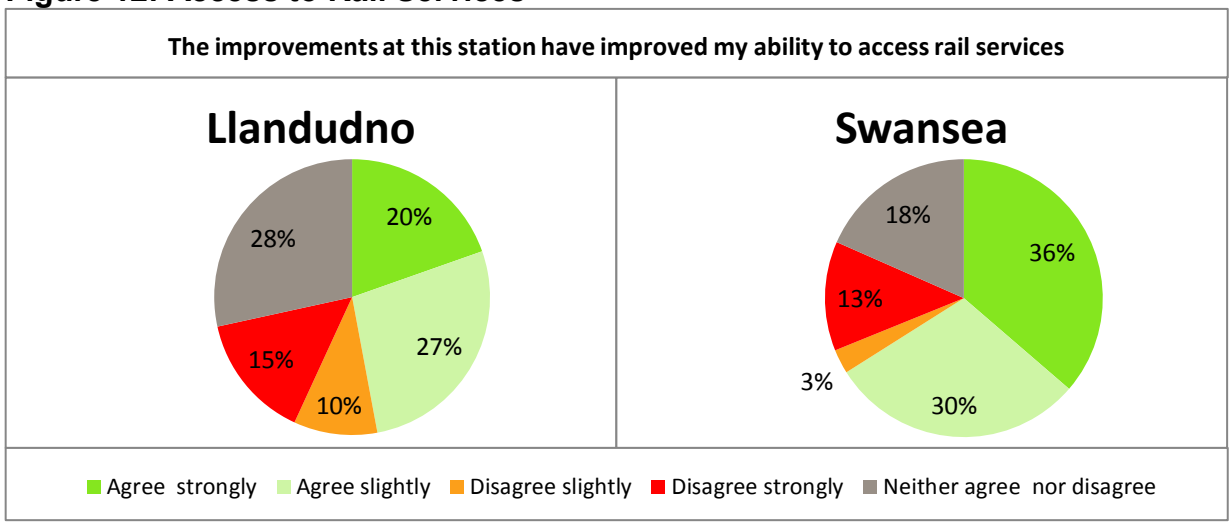
Sample size: Llandudno – 102, Swansea – 211

2.47 Access to information at stations formed a key part of the improvements made through NSIP+, and was anticipated to influence the levels of awareness of rail services. The NRPS includes a question focusing on information provision, included within Figure 10. Since spring 2011, satisfaction across Welsh stations has risen from 75 per cent satisfied to over 79 per cent, indicating a wider upward trend in satisfaction with station information provision.

Impact of the improvement in terms of access to the rail network and rail services

2.48 Increased accessibility to rail services was one of the key impacts outlined in the Business Plan to justify the improvements at both Llandudno and Swansea. This was addressed through measures to improve access for those with mobility limitations, as well as improvements to the facilities to support interchange with other modes. Respondents were asked whether they thought that the access to rail services had been improved, with the results displayed in Figure 12. Over 45 per cent of the respondents at both stations agreed that access had improved; however, 25 per cent from Llandudno and 16 per cent from Swansea disagreed that access had improved.

Figure 12: Access to Rail Services

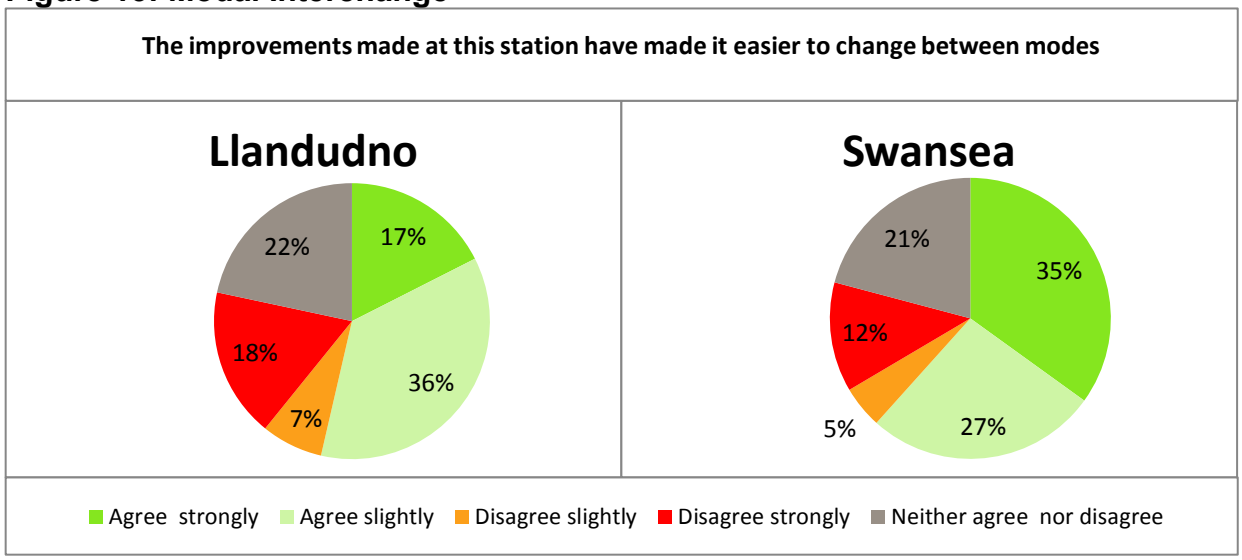


Sample size: Llandudno – 102, Swansea – 212

Satisfaction with the ability to interchange between modes as a result of the enhancements

2.49 The NSIP+ improvements made at Llandudno and Swansea were designed to enhance the ability to interchange between transport modes. Participants were asked whether or not the improvements had made changing modes of transport easier. Figure 13 shows that in excess of 50 per cent of respondents at both Llandudno and Swansea agreed, either slightly or strongly, that the improvements made it easier to change between modes; 25 per cent and 17 per cent disagreed at Llandudno and Swansea respectively.

Figure 13: Modal Interchange



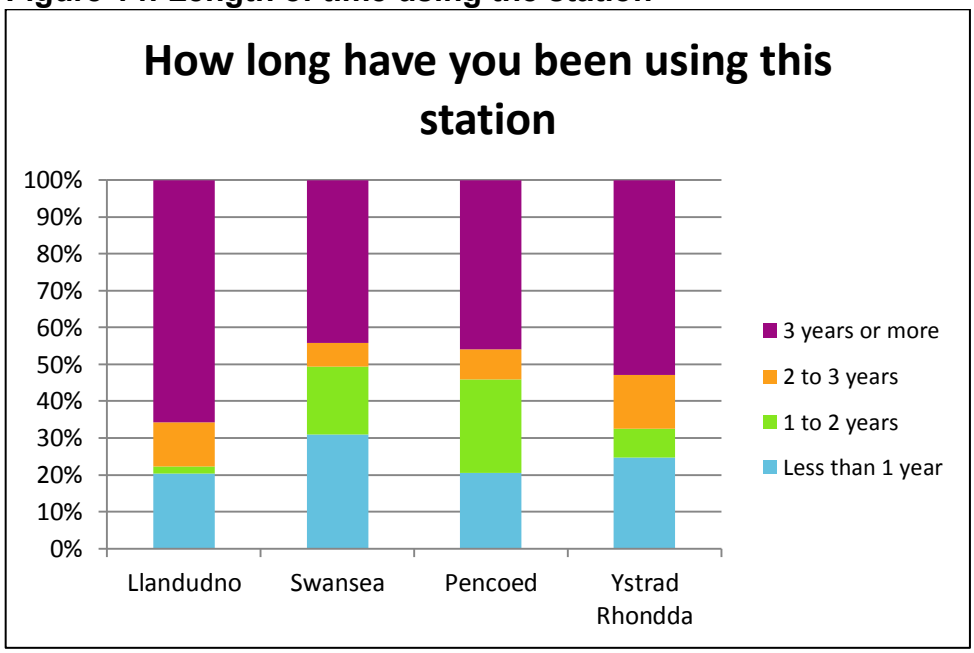
Sample size: Llandudno – 97, Swansea – 206

2.50 The NRPS also includes a question on satisfaction with connections with other public transport services (e.g. buses and taxis), with the results shown in Figure 10. Since 2011 there is no obvious trend within this data, with 61 per cent of respondents in 2011 and 2015 satisfied with the connections provided, although higher levels of satisfaction were observed in autumn 2012 and spring 2015.

Impact of the improvement in terms of levels of use of rail services to/from this station and change of mode of travel to rail – if so what was previous mode of travel

2.51 Passengers at each NSIP+ survey station were asked for how long they had used that specific station, as indicated within Figure 14. Sixty-six per cent of those surveyed at Llandudno had used the station for over 3 years. The largest proportion of users at each of the surveyed stations had used that station for over three years. This indicates that these users have not been influenced to use the station by the NSIP+ improvements. However, between 20 per cent of users (at Llandudno) and 31 per cent (at Swansea) had used the station for less than one year and therefore only after the NSIP+ improvements were implemented.

Figure 14: Length of time using the station



Sample size: Llandudno – 108, Swansea –310, Pencoed –185 and Ystrad Rhondda – 89

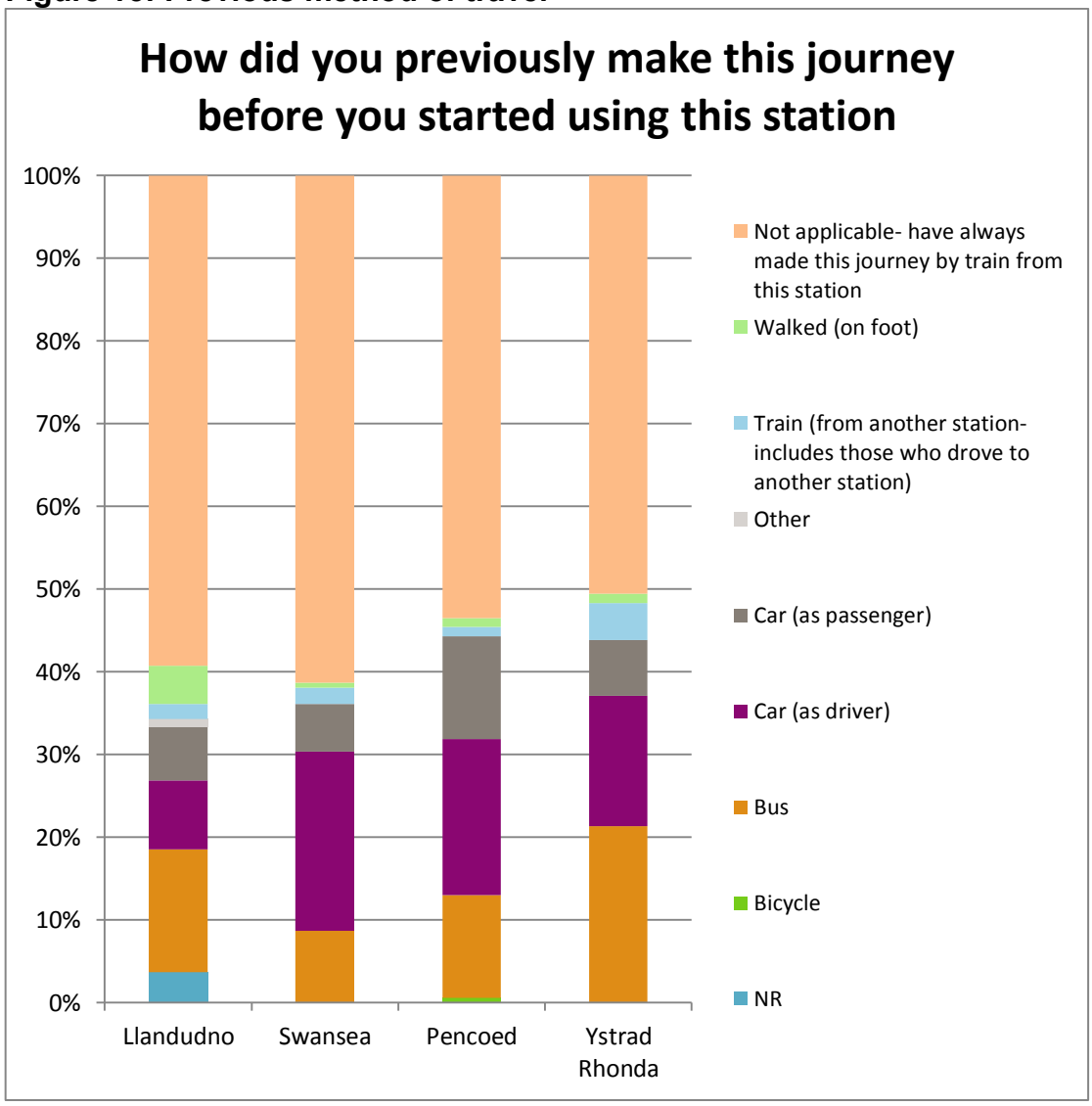
2.52 Passengers at each station were asked the reasons why they had started using the station. The most common reasons were the convenience offered by the station, either in relation to a place of education or in general terms, or because of a new job. Between 15 per cent (at Llandudno) and 26 per cent (at Pencoed) had chosen to travel from that station because the train was considered easier than previous modes used. Only one of the passengers surveyed (at Swansea)

specifically indicated that they had commenced use of that station directly because of the improvements made to the station.

2.53 Passengers were also asked how they previously made the type of journey they were undertaking prior to their decision to travel by rail. The results are shown in Figure 15. Between 51 per cent (Ystrad Rhondda) and 61 per cent (Swansea) of people indicated that they had always made this journey by train from the same station. Around 40 per cent of the respondents from all stations indicated that they previously used a different mode of travel. Of these between 15 per cent (Llandudno) and 31 per cent (Pencoed) indicated that they previously travelled by car. For other modes of transport 9 per cent (Swansea) rising to 21 per cent (Ystrad Rhondda) of people indicated that they previously travelled by bus to make the journey.

2.54 A small proportion (between 1 per cent and 4 per cent) of respondents previously travelled from another station, indicating that the level of abstraction to the four stations from other stations has been relatively low. Ystrad Rhondda had the highest levels of abstraction with 4 per cent. It should be noted that the change in mode indicated here cannot directly be attributed to the improvements made as part of NSIP+.

Figure 15: Previous method of travel



Sample size: Llandudno – 108, Swansea –310, Pencoed –185 and Ystrad Rhondda – 89 (NR= no response)

Summary of Passenger Satisfaction Findings

2.55 Overall, the NSIP+ improvements have been viewed positively by passengers, although perceptions vary from station to station. The levels of satisfaction are higher at the two stations with major improvements (Swansea and Llandudno), suggesting that the smaller improvements may be too small to positively affect station users' attitudes and perceptions or that they are not as noticeable as the major works.

2.56 The station improvements were widely viewed as having made the stations feel safer. However, this was against a backdrop of improving

perceptions of personal security across stations in Wales as a whole, indicating that other factors may also be affecting perceptions of safety.

2.57 Station users indicated levels of modal shift away from car travel of between 15 per cent and 31 per cent as a result of their decisions to travel by rail, although this cannot solely be attributed to the NSIP+ improvements.

Theory of Change Analysis

2.58 As part of a theory of change evaluation approach adopted for this evaluation, the anticipated first, second and third order results of NSIP+ were reviewed with stakeholders. They were further reviewed following the analysis of the above datasets. A summary of the findings are presented in Table 8. This is also transposed onto the Logic Map utilising a Red, Amber, Green colouring system to indicate where the anticipated change can be evidenced against actual progress, see Figure 16.

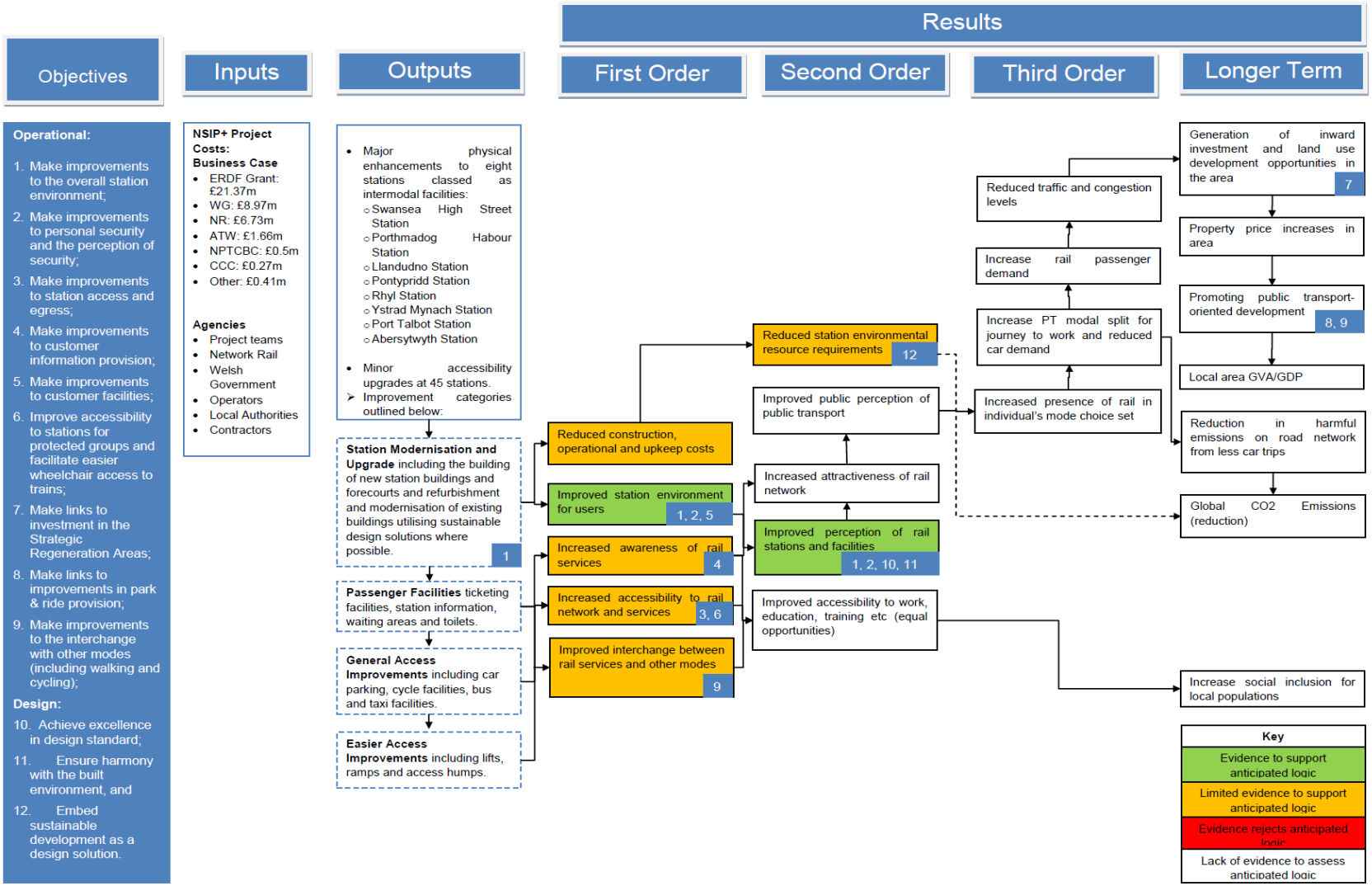
2.59 This indicates that there is some evidence (from the face to face survey and process evaluation interviews) to conclude that progress has been made in achieving the majority of first order and second order results. However, there was limited evidence to support third order outcomes, reflecting the long term nature of these outcomes and the variety of factors which influence these outcomes.

Table 8: Summary of Evidence to Support Anticipated Project Outcomes.

Anticipated Results	1st, 2nd or 3rd order	Evidence
Improved station environment for users	1st	Survey of sample of stations indicated the majority of users were satisfied with improvements made.
Increased awareness of rail services	1st	ca.50 per cent of survey respondents at Swansea and Llandudno stations indicated an increased awareness of rail services.
Increased accessibility to rail network and services	1st	Over 45 per cent of respondents at Llandudno and Swansea stations agreed that their ability to access rail services had improved.
Improved interchange between rail services and other modes	1st	40 per cent of respondents at Llandudno and Swansea stations agreed that their ability to interchange between services and transport modes had been enhanced.
Improved perception of rail stations and facilities	2nd	Over 50 per cent of respondents at all surveyed stations felt that the improvements made had made the stations safer, however at the smaller stations a significant proportion of those surveyed did not know what the impact of the improvements had been.
Increased attractiveness of rail network	2nd	As indicated above surveyed users felt that the improvements made at individual stations had improved these stations. However it is not possible to ascertain the impacts of this on perceptions of the wider rail network, although it is likely that these improvements will have contributed to removing barriers to rail travel.
Improved public perception of public transport	2nd	As indicated above satisfaction with the NSIP+ improvements was high, but it is not possible to ascertain the impacts of this on wider public perceptions of public transport.
Improved accessibility to work, education, training etc (equal opportunities)	2nd	Levels of accessibility to destinations will be unchanged, however easier access improvements will facilitate greater access for people with mobility difficulties. Improved perceptions of safety at stations may also facilitate use of rail for those who previously would not choose to.
Increased presence of rail in individual's mode choice set	3rd	40 per cent of survey respondents had previously used a different mode of travel. However, it is not possible to ascertain the role of NSIP+ in this mode choice decision.
Increase PT modal split for journey to work and reduced car demand	3rd	Between 15 per cent and 31 per cent of those surveyed had previously undertaken similar journeys by car. However, it is not possible to ascertain the role of NSIP+ in this mode choice decision.
Increase rail passenger demand	3rd	Ticket sales data indicated no significant impacts on levels of passenger travel, however these impacts may be obscured by external factors.
Reduced traffic and congestion levels	3rd	No evidence available.

Source: AECOM

Figure 16: Results Logic Map



3 Process Evaluation

3.1 A process evaluation has been undertaken to examine some of the key aspects of project delivery for NSIP+. The aspects in scope for this evaluation included:

- Which aspects of project delivery have led to positive results, or could be viewed as good practice?
- What barriers and constraints has the project faced?
- What are the lessons learnt from dealing with such barriers and constraints?

3.2 This process evaluation has drawn on evidence from a number of different sources, including interviews with the project team and key local and national stakeholders, as well as project information in the form of reports and working documents where these could be made available to evaluators. This allows for the triangulation of findings.

Interviews

3.3 The delivery of NSIP+ was managed by NR on behalf of the WG, with ATW and the Ffestiniog and Welsh Highway Railway providing an interface into specific projects. The process evaluation interviewees for this project were selected from these organisations and in particular individuals in those organisations with a working knowledge of the NSIP+ delivery processes and included:

- Welsh Government EU Programme Manager.
- Welsh Government Rail Development and Delivery Manager.
- Welsh Government Rail Technical Advisor.
- Network Rail Programme Development Manager.
- Network Rail Project Manager.
- Arriva Trains Wales Project Interface Manager.
- Ffestiniog and Welsh Highway Railway Company Director and General Manager.

3.4 In addition, a number of groups were stakeholders in the delivery of the NSIP+ works. The stakeholders listed below were contacted and interviewed to gain their views with regard to both the national perspective (on accessibility from Disability Wales) and specific local circumstances (from the Local Authorities). To align with the four stations where surveys were undertaken the corresponding Local Authorities were also contacted:

- National Accessibility:
  - Disability Wales Policy Officer - Access & Transport.
- Local Stakeholders:
  - Swansea City and County Council.
  - Rhondda Cynon Taf County Borough Council.
  - Bridgend County Borough Council.
  - Conwy County Borough.

Scope of Evaluation

3.5 A process evaluation scoping exercise was undertaken and the findings presented in a Scoping Report delivered to the Welsh Government. This identified the scope of the process evaluation to be undertaken with the NSIP+ project team and stakeholders and also what topic areas were to be covered as part of the interviews, these were:

- Inception and Scheme Identification.
- Finance.
- Project Schedule/Programme.
- Project Delivery Team Skills.
- Stakeholder Engagement.
- Cross Cutting Themes.

3.6 The decision to cover these topics was based on those where sufficient project documentation and information was available to evaluators to undertake analysis of delivery against forecasts, and where discussion of how the project had progressed could be undertaken.

Inception and Scheme Identification

3.7 NSIP+ has its origins in the £150million National Stations Improvement Programme (NSIP); a Department for Transport/Network Rail led initiative to improve over 150 medium sized stations across England and Wales, initially for the period from 2007 to 2012[9]. It was felt by stakeholders at WG, NR and ATW that this funding was limited in scope as it could not be used beyond the boundary of the station and therefore did not facilitate wider investment outside of the station to make journeys fully accessible.

3.8 NSIP funds were made available to make improvements to stations in the Wales and Borders area. A Local Delivery Group (LDG) was set up between ATW, WG and NR to provide appropriate governance to this programme of works, as well as the selection and prioritisation of projects. This funding was also utilised to select 11 schemes for future investment and to undertake the Guide to Rail Investment Process (GRIP) stage 1 to 4 processes for these schemes.

3.9 NSIP+ was devised to build on the perceived successes and limitations of the original NSIP by utilising a parcel of committed WG funding and seeking to maximise the value of this funding via an application for EU funds and other sources of matched funding. The initial aim was to create an innovative programme, with WG taking the lead with a bid for ERDF funding and then holding this as a 'pot' for third party applicants to submit applications. This was based upon an open grant scheme model previously successfully used by WG for coastal protection projects. It was anticipated that the train operating companies (TOCs), NR and the Regional Consortia/Local Authorities would bid for this funding. The WG announced NSIP+ in July 2010 at an opening event at Llandudno station, where a call for schemes was initiated.

3.10 Some of the NSIP+ Phase 1 schemes were NSIP legacy schemes which were at various stages in the design and delivery process ahead of the NSIP+ announcement. Swansea Station, for example, had already secured DfT NSIP and NR renewals programme funding for the station refurbishment before

[9] http://www.networkrail.co.uk/nsip/

securing NSIP+ funding to deliver specific additional accessibility improvements at the station.

3.11 As part of the NSIP+ grant application process an application form was utilised to collate the key information about each project. An assessment framework was then used to determine which schemes would be able to access the funding and also to determine the priority of each successful scheme. The assessment criteria used in this framework included:

- Scheme cost.
- Station footfall (2012).
- Scheme cost per footfall.
- Level of match funding available.
- Level of match funding as a percentage of cost.
- Forecast footfall growth.
- Welsh Index of Multiple Deprivation relative score.

3.12 This prioritisation process was overseen by a working group of WG, NR and Regional Transport Consortia (RTC) officers and was used to ensure that available funds achieved benefits for the highest number of potential users. Local authorities developed pre-existing regional transport groups into four RTCs (SWWITCH; Sewta; TraCC and Taith) to develop and implement Regional Transport Plans.

3.13 The NR Guide to Rail Investment Process (GRIP) process was utilised for the management, control and delivery of the projects on the operational railway and determined all of the preferred options selected to be taken forward for delivery. Some interviewees felt that this process was too prescriptive and lacked scalability. It was felt that this requirement may stifle contractor interest in such projects in future.

3.14 At the inception phase of the programme an issue was identified with the planned grant delivery model, whereby third parties would be responsible for the direct delivery of schemes. Rail industry lawyers interrogated the planned contracting arrangements and identified that the rules were considered to

represent ‘unreasonable’ risk in relation to the proposed funding claw back procedures. This led to the decision being taken that the Llandudno Station and EAH Installation NSIP+ Phase 1 schemes, as well as all of the NSIP+ Phase 2 projects, should be delivered directly by WG, with NR as its delivery agent.

3.15 The contracting arrangements between NR and the WG were ‘developing cost’, rather than ‘fixed contribution’ cost contracts, and the level of ERDF funds were fixed, which collectively placed additional financial risk on WG for any future cost escalations. To minimise future financial risk for WG, stakeholders noted that consideration should be given to the use of fixed contribution contracts and that project management should be independent of NR where this is viable.

3.16 The RTCs also identified further issues in pursuing their proposals through the funding structure. Primarily this was due to a lack of long term certainty with regard to their ability to access other available sources of funding necessary to achieve the required level of match funding. These issues limited the levels of RTC take-up of the programme funds through the grant delivery model.

3.17 The EAH programme, which forms a subset of NSIP+, had its origins in an initial pilot study undertaken at Aberdovey Station. It was identified that step up/down accessibility between platform and train could be cheaply and efficiently improved for people with mobility impairments via the placement of simple ‘humps’ onto the platforms. Following this pilot study and a second pilot study at stations on Anglesey, a GRIP Stage 5 report was produced and a survey was undertaken of all Welsh branch line stations to establish the step height and pitch of the platforms. Following this around 20 stations were identified for improvements within the ERDF funding area, aimed at facilitating wheelchair boarding at every station on the branch lines and ensuring continuity of accessibility provision across these lines.

3.18 The Ffestiniog and Welsh Highland Railway (FWHR) was not directly approached to bid for NSIP+ funding, but found out about the fund at the opening event at Llandudno Station. They were then able to apply for funding

for the Porthmadog Harbour scheme, which already had plans drawn up but had not been able to access any suitable financial support.

Finance

3.19 A review of the NSIP+ finances, and the financial control procedures in place, has been undertaken considering the following key questions:

- Whether the projects were delivered to the forecast cost, and if not what were the main causes for variation?
- Which areas of project delivery experienced the greatest level of cost variance, and why?
- What mitigation was developed to minimise cost variance and how effective were they?
- How the financial spend was managed to ensure project delivery?
- What lessons can be learnt regarding project costing assumptions?

Planned Programme Costs

3.20 Table 9 indicates the planned financial spend on the various elements of NSIP+ Phase 1, as outlined in the Business Plan. This also indicates the levels and sources of match funding achieved for each scheme. In total, the NSIP+ Phase 1 had a forecast cost of £16.02million, of which £11.63million was to be delivered by match funding, with the additional £4.39million coming from ERDF funds. The largest source of match funding came from NR (52 per cent) followed by the WG (32 per cent) and ATW (11 per cent). Local Authority, RTC and other sources of funding accounted for a further 5 per cent of programme funds. The largest scheme in terms of overall cost was Swansea Station; however the majority of this cost was covered by other (non NSIP+) WG and NR funds. It is also important to note that this scheme was complete at the time of the Business Plan submission, so the figures presented for this scheme are outturn costs.

3.21 In terms of ERDF funds the biggest contribution went to Llandudno Station, which was allocated 45 per cent of the total NSIP+ Phase 1 ERDF funds (£3.15million).

Table 9: Forecast Costs and Funding Breakdown

			£Million							
Station	**Organisation**	**Grant / Direct Delivery**	**Estimated cost**	**Match**	**ERDF**	**WG**	**Network Rail**	**Arriva Trains Wales**	**RTC / LA**	**Other**
Swansea - outturn	ATW	Grant	6.595	6.575	0.020	2.466	2.859	1.250	0.000	0.000
Pontypridd phase 1	ATW	Grant	0.507	0.507	0.000	0.507	0.000	0.000	0.000	0.000
Carmarthen	Carmarthenshire CC	Grant	0.362	0.362	0.000	0.092	0.000	0.000	0.270	0.000
CIS/Shelters	ATW	Grant	0.382	0.382	0.000	0.382	0.000	0.000	0.000	0.000
Minor accessibility upgrades	ATW	Grant	0.107	0.107	0.000	0.107	0.000	0.000	0.000	0.000
SWWITCH station access programme	SWWITCH	Grant	0.895	0.012	0.883	0.000	0.000	0.000	0.000	0.012
Porthmadog Harbour	Ffestiniog Railway	Grant	0.993	0.393	0.600	0.000	0.000	0.000	0.000	0.393
Llandudno	NR	Direct Delivery	5.138	3.150	1.988	0.000	3.150	0.000	0.000	0.000
Easier access (humps)	NR	Direct Delivery	1.042	0.145	0.897	0.145	0.000	0.000	0.000	0.000
		sub-total	**16.021**	**11.633**	**4.388**	**3.699**	**6.009**	**1.250**	**0.270**	**0.405**

Source: NSIP+ Business Plan

Outturn Programme Costs

3.22 A review of the NR Infrastructure Projects Wales – Periodic Progress Reports has been undertaken to establish how costs varied throughout the programme. Only the Llandudno and EAH programmes were included in the reports available to evaluators for this review[10]. The latest information available (March 2015) indicated that Llandudno station was anticipated to be delivered with a saving of around £140k (2.7 per cent) on the planned costs. The EAH programme was anticipated to have a slight increase in costs of ca.£36k (3.5 per cent) due to the cost of additional trial holes and surveys. This increase in costs would have been larger. However, a decision was made to remove eight EAH schemes from the NSIP+ Phase 1 programme which reduced the overall costs.

3.23 For the Southwest Wales RTC (SWWITCH) Access to Stations programme a completion report produced by SWWITCH was provided for analysis in this evaluation. This indicated the planned and outturn costs of the improvements made at individual stations as part of the NSIP+ allocation to SWWITCH and is summarised in Table 10. The scope achieved compared to the initial plans is also indicated within the table. The table indicates where additions were made to the scope (extra items added), as well as amendments (a different set of items delivered), or reductions in scope (items of scope removed), as well as the schemes which were cancelled or delivered as originally planned.

3.24 It can be seen that on a station by station basis outturn costs varied considerably from the initial forecasts in the majority of cases. This was due to the initial bid having been based upon preliminary assessments of the work required. More detailed feasibility and option testing, as well as stakeholder consultation led to significant changes to the scheme proposals. In some instances this necessitated an expansion in the scope and in others certain elements of the proposals were identified as undeliverable or unnecessary. Overall, the SWWITCH element of the programme was delivered at a cost of £885k, compared to an original plan of £866k. This represents an increase in

[10] Comparable information was requested for other projects, but could not be obtained due to a variety of factors including staff turnover.

costs of £19k, which was covered by the SWWITCH Local Authorities. Improvements at three of the proposed stations were not delivered, although some costs were incurred at these stations due to initial preparatory works.

Table 10: SWWITCH Station Improvements – Forecast and Outturn Costs

Station	Forecast Cost (£k)	Outturn Cost (£k)	Difference (£k)	Scope Achieved
Haverfordwest	60	169	109	Additional
Llandeilo	100.5	189.11	88.61	Additional
Narberth	106	163.02	57.02	Amended
Cynghordy	38	67.07	29.07	Amended
Llandybie	6	27.74	21.74	Amended
Ferryside	23	31.41	8.41	Amended
Tenby	17	24.39	7.39	Additional
Skewen	18.9	25.32	6.42	No change
Pantyffynon	5.5	11.59	6.09	Amended
Llandovery	3	3.39	0.39	Amended
Fishguard	2	2	0	No change
Ffairfach	3.5	0.22	-3.28	Cancelled
Whitland	8	3.92	-4.08	Reduced
Penally	7	1	-6	No change
Briton Ferry	18.1	11.4	-6.7	Reduced
Kilgetty	8	1	-7	Amended
Llangennech	12	0.59	-11.41	Reduced
Kidwelly	33.5	21.71	-11.79	Amended
Johnston	24	12	-12	Amended
Baglan	27.4	14.53	-12.87	Reduced
Bynea	21	7.8	-13.2	Amended
Llangadog	23.5	3.13	-20.37	Cancelled
Pembroke	23	1	-22	Amended
Ammanford	51.5	27.72	-23.78	Reduced
Lamphey	42	18	-24	Additional
Clunderwen	73	43.29	-29.71	Amended
Saundersfoot	32	1	-31	Amended
Llanwrda	39	2.2	-36.8	Cancelled
Manorbier	40	1	-39	Reduced
Total	866.4	885.6	19.2	

Source: SWWITCH

3.25 For the Porthmadog Harbour scheme delivered by FWHR, which was initially estimated to cost £993k the scheme promoter indicated that there were some increases in costs, although there was insufficient information available to evaluators for this to be analysed. This increase in costs was attributed to the costs of items already within the scope of the project being higher than originally forecast, rather than unanticipated elements not in the original plan. These additional costs were covered by FWHR funds.

3.26 The Porthmadog Harbour project was able to achieve cost efficiencies by utilising a contractor for part of the work (Jones Brothers) who was already working in the local area delivering Porthmadog town bypass. The contractor was keen to win the work as they had a gap in their forward programme of work. They were able to utilise pre-existing site offices and plant, thus enabling them to submit a competitive tender price. The contractors also provided a fixed price contact, which was considered beneficial to a small organisation, such as FWHR, who had limited funds to absorb potential cost increases.

3.27 Because the scheme related to the improvement of a popular heritage railway, FWHR were able to make extensive use of unpaid volunteer labour, which helped to keep the costs of this project down.

3.28 Due to a variety of factors including staff turnover, limited project financial information was available to evaluators. It has therefore not been possible to evaluate how outturn costs compared to forecasts, and the key reasons for any variances, for the following projects:

- Swansea.
- Carmarthen.
- Minor accessibility upgrades.
- Llandudno.

3.29 One difficulty in delivering NSIP+ through a variety of agencies was the ability to track and manage cost increases and use of contingencies at a programme level, as separate fixed funding agreements were in place for each project. For future programmes of this nature, it has been suggested by a number of stakeholders that a single contingency fund would be beneficial to allow savings on one project to fund cost increases on another. The possibility of this was explored by WG for NSIP+, but was not considered possible in this instance due to NR internal processes. However, this approach was adopted for the SWWITCH and EAH sub-programmes, where the scope of these programmes was amended during the delivery of the programme to reflect anticipated costs and available funds.

Project Schedule/Programme

3.30 As part of an assessment of the NSIP+ delivery the following key questions were considered:

- Was the programme and its component projects delivered on time, as scheduled at the business case stage, and if not what were the main causes of slippage?
- Which areas of programme and project delivery experience the greatest variance in terms of schedule and why?
- What techniques and methods for programme and project scheduling and management represented good practice and why?
- What lessons were learnt regarding project schedule and slippage?

3.31 Table 11 shows the planned and actual completion dates for the key elements of NSIP+ Phase 1, based upon available information. Initial project plans and works timetables for all projects were not available to the evaluators for examination in this evaluation. Swansea Station and the Minor Accessibility Upgrades scheme were both indicated as complete at the time of the Business Plan submission. Funding for these schemes was therefore achieved retrospectively.

Table 11: Forecast and Actual Project Completion Dates

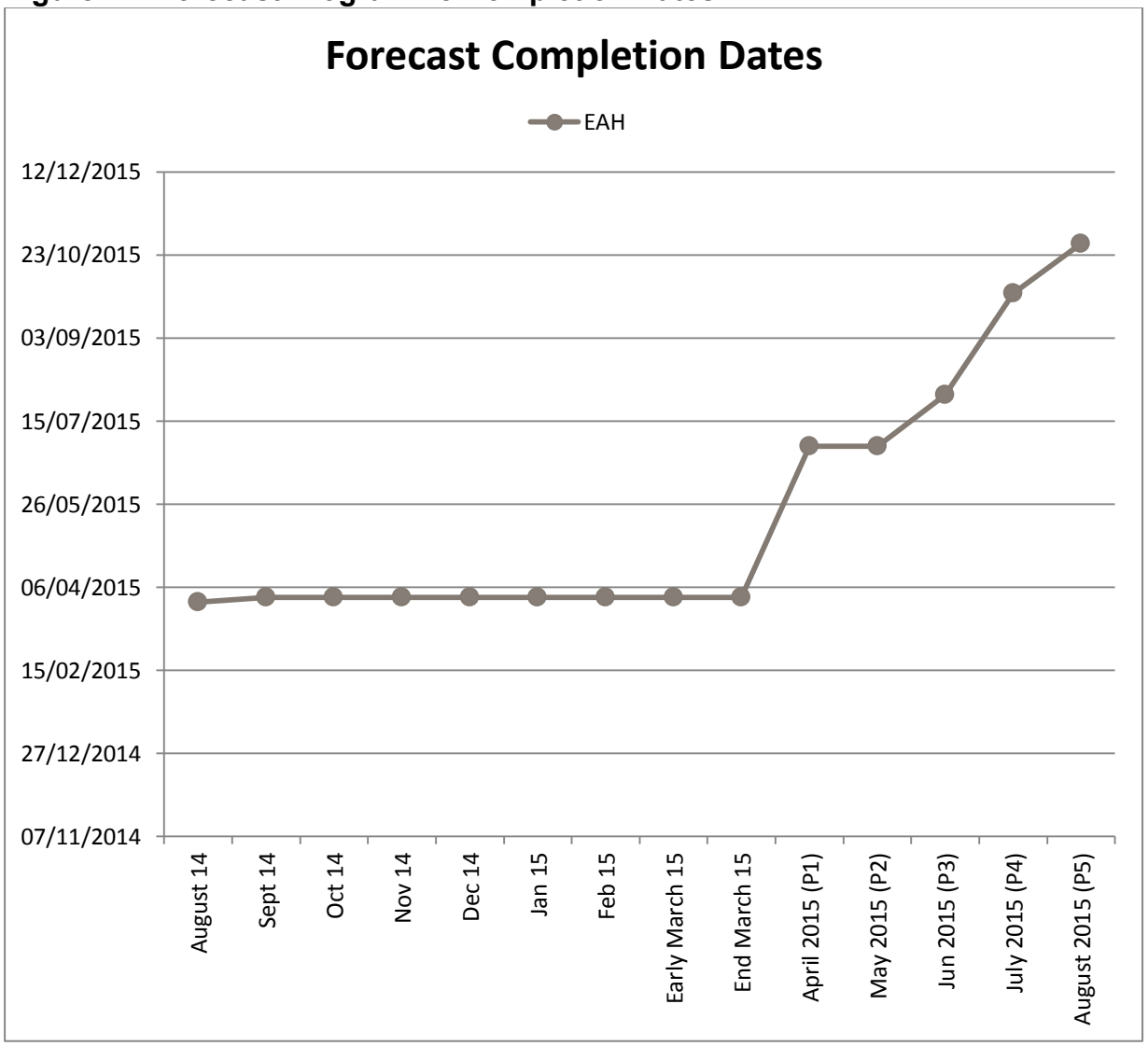
Scheme	Anticipated Completion Date	Actual Completion Date
Swansea		June 2012
Llandudno		March 2014
Pontypridd		March 2015
Porthmadog Harbour	December 2013*	March 2014
Minor Accessibility Upgrades		Complete before May 2014
EAH programme	July 2012*	October 2015
SWWITCH Station Access		March 2014

Source:NSIP+ Application Forms

3.32 The project application form for the EAH indicated that the project was planned to be completed by the 31st July 2012. The NR progress report for March 2015 indicated that it was anticipated to pass through GRIP Stage 6 (Construction, Testing and Commissioning) by the 31st March 2015. This represents a delay of almost three years compared to the initial funding application plans. One factor in this delay was the concern expressed by the NR Asset Manager regarding the planned EAH design and the anchoring of these onto the platform. This led to the development of a 'conventional' mass fill solution to the hump design, which was piloted at Builth Wells station. Subsequently this postponed the delivery of the EAH programme and necessitated a redesign and re-scoping of the programme as a whole due to additional costs associated with the new design.

3.33 Figure 17 indicates how the forecast completion dates for the EAH programme changed through time, as reported in the NR monthly progress reports throughout the construction phase of the programme up to August 2015. The NSIP EAH programme had construction delays totalling 216 days by August 2015. The first major delay came during April 2015 (91 days) when a change to the scope of the project resulted in additional humps being required. During July 2015, issues were experienced with First Great Western and a lack of construction contractor resources which resulted in 60 days being added to the forecast completion date. The same issues then arose during August 2015 causing a further 30 days of delay.

Figure 17: Forecast Programme Completion Dates



Source: NSIP+ Business Plan

3.34 At Porthmadog Harbour station the key risk for the planned schedule of work was the need to undertake the works during the winter period to avoid impacting upon the peak tourist season. This created a risk that works would be delayed due to bad weather. This potential risk only partially materialised as only a few days were lost due to bad weather. This project was completed by March 2014, a delay of 3 months compared to initial plans.

Project Delivery Team Skills

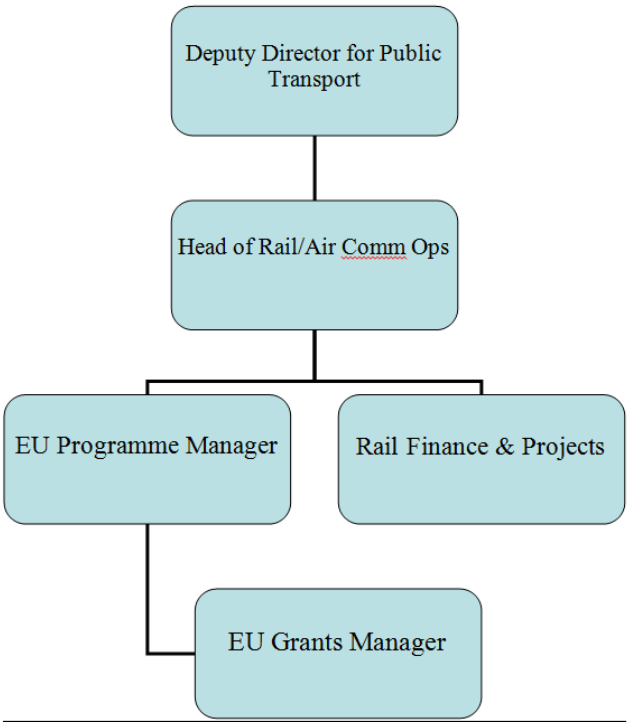
3.35 The following key questions were used to consider the approach adopted for the composition and management of the project delivery team and the matching of suitable, available skills used to ensure successful delivery of NSIP+:

- What approach was adopted to the formation of a project team for this project?
- How well aligned were staff resource levels to the resource requirements of the project?
- What was done to ensure that the team had the necessary skills to undertake the project?
- What techniques were used to improve team performance?

Team Structure

3.36 In terms of the team in overall control of managing delivery of NSIP+, Figure 18 shows the organisational structure from the initial project Business Plan and indicates the planned roles within the WG tasked with delivery of the NSIP+ programme. This included officers specialising in the management of EU funded projects, as well as director level governance of the overall programme. A WG NSIP+ Programme Manager was also subsequently appointed to lead delivery.

Figure 18: NSIP+ Organisational Structure



Source: NSIP+ Business Plan

3.37 The individual NSIP+ projects and sub-programmes were delivered by a variety of organisations. Table 12 summarises the organisations with responsibility for the delivery of each project/sub-programme, as well as the delivery mechanism utilised.

Table 12: Delivery Organisation and Mechanism by Scheme

Scheme	Delivery Mechanism	Grantee / Contracting Party
Swansea	Grant	Arriva Trains Wales
Pontypridd phase 1	Grant	Arriva Trains Wales
Carmarthen	Grant	Carmarthenshire Council
CIS/Shelters	Grant	Arriva Trains Wales
Minor accessibility upgrades	Grant	Arriva Trains Wales
RTC schemes - SWWITCH station access programme	Grant	City & County of Swansea
Porthmadog Harbour	Grant	Ffestiniog Railway Trust
Llandudno	Contract Agreement	Network Rail
Easier access (humps) - full programme	Contract Agreement	Network Rail

Source: AECOM

3.38 For the schemes delivered via the grant delivery model, such as Porthmadog Harbour and the SWWITCH station access programme, the level of WG involvement was limited as the WG undertook the role of funding body, as opposed to client.

3.39 For the WG directly delivered projects at Llandudno and the EAH programme, the WG had a wider role as project client, ensuring project delivery and making decisions on changes to project scope.

3.40 Contractors were procured via competitive tender on a project-by-project basis to deliver the works. Opportunities for shared contracting arrangements between multiple projects at different stations were considered; however this was not possible for the NSIP+ Phase 1 schemes.

3.41 To ensure swift decision making between NR and ATW, as station operator on the projects delivered by NR, a member of the ATW team was seconded into the project delivery team. This was considered particularly beneficial in speeding up the project handback process.

3.42 NR invited the WG along to Project Technical Group meetings, as well as Quantified Cost Risk Analysis (QCRA) and Programme Management Board meetings. Where greater levels of WG involvement have been achieved this involvement was

considered beneficial in speeding up the process of agreeing changes to project scope.

3.43 WG officers also agreed that for those projects that allowed higher levels of involvement of WG staff in the project monitoring and delivery stages this proved to be beneficial and that the most successful projects were the ones where 'the WG were able to sit in the same room as the contractors'. This was also considered beneficial in ensuring a suitable degree of project knowledge amongst WG officers to ensure that the required Wales European Funding Office (WEFO) reporting was provided.

Approach to Delivery

3.44 The key project team interviewed as part of this process evaluation have indicated that there was a good level of collaboration between the various organisations delivering different aspects of the programme.

3.45 The use of a grant delivery approach was beneficial from a resource perspective as it allowed the WG to access additional resources within the partner organisations to oversee and monitor the delivery of the programme. Without this approach it is unlikely that the WG would have had sufficient staff resources to directly deliver a programme of this scale.

3.46 As part of the project delivery stage, consideration was given to the most appropriate agency to deliver different elements of the works. For example, at Swansea Station the City Council were commissioned via a separate grant to deliver the station car park, forecourt improvements and information provision elements of the project. As these elements of works were primarily outside of station land there was no specific requirement for NR to manage these elements of work. Additionally, the City Council as the highway authority had the necessary development rights to undertake works on the local highway and was able to utilise its local supply chain to deliver the work. It was considered that this was a more cost effective solution than for NR to commission the works.

3.47 At Porthmadog Harbour the project delivery agent, FWHR, were able to utilise a combination of unpaid volunteers, contractors and contracted staff to deliver the project. Levels of collaboration between these different groups were high as everyone was working towards a shared objective.

Stakeholder Engagement

3.48 To evaluate the success of NSIP+ in relation to stakeholder engagement the following key questions were considered:

- Who were the key stakeholders and why? What were their roles and responsibilities?
- What were the different approaches to stakeholder engagement? Which were the most effective at engaging with their target audience and why?
- What lessons were learnt regarding stakeholder management and engagement?

<u>Key stakeholders</u>

3.49 At the outset of NSIP+ a number of stakeholders were engaged as part of the Grant delivery model, to identify applicant schemes for funding. This was achieved through publicity raising events, such as the launch event at Llandudno Station, which was attended by the Deputy First Minister. This process was initially successful in engaging with the key potential delivery organisations. However, as previously discussed, legal and contractual issues eventually led to a WG decision to deliver some of the Phase 1 schemes and all Phase 2 schemes itself via a direct delivery model.

3.50 As the various NSIP+ schemes have been delivered by a variety of different delivery agents, a number of different groups were engaged as stakeholders as part of the design and delivery. These included:

- Network Rail.
- Welsh Government.
- Arriva Trains Wales & other TOCs.
- The Local Authorities.
- National and Local Access Groups/Panels.
- Line side residents & local businesses.

- Rail users.

3.51 The specific roles and responsibilities of these groups varied on a project by project basis.

3.52 As stipulated within the Business Plan, it was a funding requirement that NSIP+ projects undertake an Equalities Impact Assessment (EqIA) to ensure the projects did not lead to the unequal treatment of any particular groups within society. Whilst it has not been possible to review all of these documents due to limited availability, stakeholders have confirmed that the EqIA process has been followed where appropriate. For the EAH programme no formal EqIA was undertaken on a station by station basis as an extensive consultation process with relevant stakeholders and disability access groups as part of initial pilot projects was undertaken and universally supported.

3.53 Some interviewees felt that the approach adopted to the EqIA and wider consultations on access issues as part of NSIP+ focused too much on the requirements of those with physical disabilities. Conversely, too little consideration was given to the requirements of those with other disabilities, such as the blind or deaf. Additionally it was felt that local access groups tended to be composed predominantly of people with physical impairments. In future, impairment specific groups should also be encouraged to provide feedback as part of the EqIA process and other consultation activities to ensure designs meet the requirements of all users.

<u>Swansea Station: Consultation Approach Case-Study</u>

3.54 As one of the major station improvements within NSIP+ Phase 1 the approach to stakeholder consultation adopted at Swansea Station has been reviewed in detail for this evaluation.

3.55 Public consultation on this project began in June 2010 ahead of the start of construction. This phase of consultation identified a number of areas where the scheme could be improved to benefit different users, including: the provision of a tactile route to and from the station to benefit the blind and partially sighted; and, the provision of an access ramp to the taxi rank for those with mobility impairments.

Follow-on consultations with relevant access groups were held to discuss these issues in detail and establish viable solutions.

3.56 Guide Dogs for the Blind and Swansea Access for Everyone were considered by interviewees to have been 'committed, vocal and persuasive' stakeholders on the project. Their input led to a small parallel grant of ca.£70k being accessed (not included within the ERDF allocation), which was utilised to fund the provision of tactile paving to nearby Metro stops, as well as braille maps and large font publicity materials. Swansea Council led on the delivery of these elements of the project as these were primarily focussed outside of the station itself. This was regarded by stakeholders as an example of how early consultation on a project can allow for beneficial changes to the project to be made.

3.57 Most interviewees were of the opinion that good reporting procedures were utilised on the programme in relation to how consultation responses were managed and utilised. Interviewees described how all consultation comments were captured and written responses were provided to consultees to explain how comments and suggestions had been considered. This was regarded as beneficial in ensuring transparency for consultees and also for the project team in allowing them to consider all opportunities to improve the scheme. Briefing papers supplied for reviews as part of the evaluation document the consultation approach for issues such as the provision of a taxi rank access ramp, station access arrangements and tactile paving. These documents also indicate how the consultation responses inform the chosen design and also provided reasons justifying why certain comments were not taken forward in the final designs.

3.58 Access groups were also invited to visit Swansea Station ahead of the official opening of the station. Stakeholders considered this was a useful way of allowing disabled users to familiarise themselves with the new station facilities and also offered the opportunity for potential issues to be identified. Issues identified as part of this process included the glare of the glass at the ticket office preventing lip reading for deaf people, distortion of sounds as part of the two way microphone system, as well as the ticket office counters being considered too high for some wheelchair users. Unfortunately, in this instance it was too late for these issues to be rectified as part of the project. However, this approach has proved a useful exercise on other

projects, such as Energlyn, where an issue with the height of information screens was able to be quickly resolved ahead of the station opening. It is recommended that this approach is adopted at the design stage on future station improvement projects to ensure that facilities are fit for purpose for a variety of users.

3.59 Another example of good practice from Swansea Station that was adopted on other schemes as part of NSIP+ was the use of 'Lessons Learnt' exercises. These are used as standard practice by NR and allow the key lessons from a project to be established and recorded to inform and guide the approach used for future projects. At Swansea Station, this process was undertaken in collaboration with a wide range of stakeholders including Disability Wales, ATW, Swansea Council, Guide Dogs for the Blind, Access for Everyone, NR and WG to ensure that a number of different perspectives were included in the review. This document was also published online to allow other organisations to reflect on the lessons learnt from the project. It is recommended that this approach is adopted for all major rail improvement schemes.

Cross Cutting Themes

3.60 One of the major areas of compliance for projects which access EU funding stipulates that they must incorporate the following cross-cutting themes to help contribute towards a well-balanced, sustainable and innovative economy:

- Equal opportunities.
- Environmental Sustainability.
- Value for money.

3.61 This section of the report brings together the evidence discussed to some degree elsewhere in the report to establish how the project has contributed towards each of these themes.

<u>Equal Opportunities</u>

3.62 Equality is at the heart of the WG and European policy and this placed requirements on scheme promoters to ensure that correct processes were in place for engaging with equality impact groups. As a part of the funding, it was a requirement that all of the NSIP+ projects undertook an EqIA to ensure the projects do not lead to the unequal treatment of any particular groups within society. The interviewees we spoke to have indicated that these processes were followed, although these documents were not made available to the evaluators.

3.63 As discussed above one of the key objectives of the NSIP+ programme has been to improve access to rail for all users. The Swansea Station example discussed in section 3.54 illustrates how improvements were made taking into account considerations of equal opportunities and taking pro-active steps to incorporate the views of a wide range of stakeholders and service users groups. The design changes for the taxi rank ramp and tactile paving provided at Swansea Station illustrate this.

3.64 To ensure equal opportunities with regards to engaging with the programme, publicity materials were provided in English and Welsh, as well as accessible formats as required.

3.65 Records were not available to allow evaluators to assess the extent of equal opportunities monitoring undertaken as part of the delivery of the NSIP+ programme. However, the interviews with stakeholders encompassed many of the considerations of the issues necessary to meet the equal opportunities requirements we consider that the evaluation is able to comment on this issue. In terms of meeting some of the equal opportunities criteria attached to the funding the physical accessibility benefits of NSIP+ Phase 1 are considered to include:

- Easier access humps on station platforms.
- Provision of an access ramp to a taxi rank.
- Footpath/cycle way construction/reconstruction including tactile paving.
- Car park provision.
- Bus interchange facilities.
- Accessible changing and toilet facilities.
- Cycle storage facilities.

<u>Environmental Sustainability</u>

3.66 Records were not kept to allow evaluators to assess the extent of environmental sustainability monitoring undertaken as part of this programme. However, interviewees commented on the following aspects of environmentally sustainable behaviour adopted during the programme:

- LED lighting has been utilised for the projects where major refurbishments have been made. This has helped to reduce electricity usage, although in some

instances additional lighting has been provided where previously there was none.

- Where possible local materials suppliers and local labour have been utilised. This would have had a positive environmental effect through the lower transport miles needed to transport materials and the workforce.
- The Porthmadog Harbour scheme assisted in the improvement of flood defences as part of the expansion of the 'Cobb' pebble ridge.

3.67 As outlined in the logic map presented in Section 2 (Figure 2) of this report, a number of the key results should, in the long term, if preceding impacts are achieved, lead to environmental benefits. These include:

- Modal shift from car use to rail, reducing CO_2 emissions. This is evidenced to some extent within the survey findings, which indicate some degree of modal shift from car to rail.
- Reduced noise and air quality impacts resulting from road transport.
- Promotion of public transport orientated development.

Value for Money

3.68 Ensuring value for money is a key condition attached to EU funding. The following key activities have been undertaken to ensure that NSIP+ Phase 1 represented good value for money including activities undertaken throughout the programme at the planning, procurement and construction phases:

- An open competitive tender process was utilised to ensure the chosen contractors, and planned approach, represented best value for money.
- The grant delivered schemes were awarded on a fixed price basis which limited the risk of overspend for the Welsh Government, but equally could have limited the benefits of any cost saving exercises for the Welsh Government.
- Materials and technologies used for the improvements were chosen to limit ongoing maintenance requirements and service costs, for example through the use of LED lighting.
- Local suppliers and labour were utilised where possible which would have reduced the cost of transport.

4 Conclusions

4.1 NSIP+ was developed to improve railway stations and their connections with other transport modes across Wales over a 5-year period (2010-2015). The programme was subsequently split into two phases. This evaluation has considered Phase 1 of the programme. A subsequent evaluation will consider Phase 2.

4.2 This final evaluation of NSIP+ Phase 1 has considered the performance of the programme in relation to its stated aims and objectives, and determined which aspects of project delivery led to positive results. The barriers and constraints that the project experienced and the lessons learnt in dealing with these were also assessed.

4.3 A total of 65 stations received some degree of improvement as part of the programme of which 46 were classified as intermodal interchanges, above the target of 40. In line with what was indicated within the Business Plan, schemes were delivered at Swansea, Carmarthen, Porthmadog Harbour and Llandudno, as well as a series of minor accessibility upgrades, the EAH programme and SWWITCH station access programme. The scope of the SWWITCH and EAH programmes did however vary from what was planned as part of the application for NSIP+ funding.

4.4 The evaluation has considered the results and impacts of the programme in terms of the numbers of stations improved and the nature of the improvements made, as well as the benefits of these improvements for users in terms of the resultant change in passenger kilometres. The perceptions of station users have also been gauged by way of a review of the NRPS and the surveys undertaken at a sample of four stations improved as part of NSIP+ Phase 1.

4.5 Due to the range of projects delivered as part of the programme, in addition to the various funding routes adopted, it has not been possible to quantify the overall impacts of NSIP+. The approach adopted for this evaluation therefore was to consider the impacts at specific stations.

4.6 In terms of the results and impacts of the programme on passenger kilometres the methodology adopted for the Business Plan has been repeated utilising Lennon ticket sales data for the 12 month period following completion of the schemes. Due

to a number of stations having only recently been completed this analysis was only possible for Swansea and Llandudno stations. This indicated no observed evidence that these station enhancement projects have had any impact yet on levels of passenger travel. As acknowledged in the scoping report, the use of ticket sales data is effective for measuring absolute usage, but does not allow or account for external factors which may have contributed to changing demand. For future projects consideration should be given at project inception stage for ways of isolating the impact of the project from externalities, for example through the use of comparison areas.

4.7 Face to face surveys undertaken at Swansea, Llandudno, Pencoed and Ystrad Rhondda identified that station improvements at these stations have created a positive impact demonstrated through increased levels of satisfaction amongst passengers. Passengers at Swansea and Llandudno demonstrated higher levels of awareness of the improvements made at these stations, perhaps reflecting the more substantial changes made at these stations.

4.8 One of the most noticeable improvements across the surveyed stations was the increase in the perceptions of safety; the majority of responses were positive. The survey also indicated that there had been a modal shift from other modes of transport, particularly from car to rail, although it was not possible to isolate the contribution of NSIP+ from the wider causes of this change.

4.9 A broad range of stakeholders were interviewed as part of the process evaluation including the WG, NR, ATW, as well as Disability Wales and a sample of local authorities.

4.10 Available documents were also reviewed to establish the processes put in place to deliver the programme and how the project performed against plans. It was noted that not all the desired documents were available to the evaluators, which has limited the scope of the evaluation.

4.11 NSIP+ was instigated to build on the success of the original NR/DfT NSIP. Improvements were made to NSIP+ in recognition that NSIP had been limited to improvements within stations only.

4.12 NSIP+ initially adopted an open grant scheme model to encourage involvement from a range of different organisations; however concerns regarding contractual arrangements and match funding constraints limited the levels of take up via this model, leading to a decision for Welsh Government to directly deliver subsequent projects.

4.13 Both the EAH programme and SWWITCH Access to Stations programmes resulted in slight cost escalations compared to original plans, as well as changes to project scope. This resulted from initial costings having been based on preliminary designs, these changed following more detailed feasibility and option testing and consultation.

4.14 Across the programme the key project team interviewed have indicated that there was a good level of collaboration between the various organisations delivering different aspects of the programme.

4.15 The use of a grant delivery approach was beneficial from a WG resource perspective as it allowed the WG to access additional resources within the partner organisations to oversee the delivery of the programme, rather than relying on internal resources. Without this approach it is unlikely that the WG would have had sufficient staff resources to directly deliver a programme of this scale.

4.16 Stakeholder involvement across the programme had been widespread, with a number of different organisations engaged in helping to shape the schemes delivered. The improvements made to Swansea Station illustrate the impact that this involvement can have in ensuring the facilities provided meet the needs of users with different requirements.

4.17 The European Commission requires that all projects qualifying for EU funding must incorporate the cross-cutting themes of equal opportunities, environmental sustainability and value for money. Analysis of these cross cutting themes has indicated that the EqIA process has been followed to ensure equal opportunities are delivered to access rail services for all users. Environmental sustainability practices have been adopted, including the use of efficient LED lighting and the use of local contractors and suppliers. Value for money has also been maximised through the

use of competitive tender processes and a grant delivery model which reduced Welsh Government levels of financial risk exposure.

5 Recommendations

5.1 This final evaluation of NSIP+ Phase 1 has identified a number of recommendations which could help in improving project delivery for future rail projects in Wales. These recommendations are listed below in relation to the key areas of project delivery analysed as part of this evaluation.

Results and Impacts

5.2 The analysis of passenger kilometre impacts of station improvements requires improvements to have been complete for at least a year. Only two stations met this criterion at the point of this evaluation. Further analysis of changes in passenger kilometres should be undertaken at a later date for the stations which have currently been complete for less than a year to establish the impacts that have occurred. The data for non-NSIP+ stations on the same lines should also be analysed as comparators for the programme to allow externalities to be isolated from the impacts of interventions. Enhanced baseline and interim analysis of available secondary data should also be undertaken.

5.3 For this evaluation a retrospective station user survey has been undertaken to establish the results and impacts of the NSIP+ improvements. For future projects pre and post implementation surveys should be undertaken to more accurately assess changes in passenger perceptions and behaviour in relation to the improvements made.

Project Identification and Inception

5.4 For a variety of reasons the planned approach of a grant delivery model for NSIP+ proved unpopular amongst potential delivery partners including the local authorities and train operators. Future planned delivery mechanisms for programmes such as this should be tested with potential delivery agents to ensure that the contractual terms and arrangements will be acceptable ahead of project commencement.

Finance

5.5 One difficulty in delivering NSIP+ through a variety of agencies was the management of cost increases and contingencies, as separate fixed funding agreements were in place for each project. For future programmes of this nature, the potential for a single contingency fund to be used should be investigated. This would be beneficial in allowing savings on one project to fund cost increases on another, with greater levels of WG oversight on how contingency funds are spent.

5.6 Due to limited information on outturn costs for a number of Phase 1 projects, it has not been possible to evaluate how outturn costs compare to forecasts and the key reasons for any variances for these projects. Programme level records should be maintained indicating planned and outturn costs by individual project to allow further analysis of financial performance at a programme level.

Team/Skills

5.7 A member of the ATW team was placed as a secondee within the project delivery team as part of the overall programme. It was felt that this sped up the project handback process which helped to ensure delivery to schedule. It is recommended that such an approach is considered for future major programmes to ensure efficient delivery.

5.8 Good practice approaches adopted on NR led schemes as part of NSIP+ included the Lessons Learnt exercises. These are adopted as standard practice by NR and allowed the key lessons from a project to be established and recorded to inform the approach used for future projects. It is recommended that this approach is adopted by all delivery partners to ensure key project lessons are successfully captured for future projects.

5.9 All interviewees agreed that WG having direct involvement in the delivery of projects for which they were the client was beneficial in ensuring the quick resolution of issues as well as the ability to accurately report progress to WEFO. It is recommended that for future projects such as this, where possible, WG officers attend project technical meetings and risk workshops to ensure greater levels of input into and awareness of project development.

Stakeholder Engagement

5.10 Early consultation with access groups has been regarded as beneficial in identifying and resolving project issues and ensuring the improvements delivered were beneficial to all. It is recommended that comprehensive early consultation with a wide range of access groups representing the needs of different users is undertaken to ensure designs meet the needs of all.

5.11 Good reporting procedures in relation to consultation responses were evidenced for the Swansea Station scheme, with all consultation comments captured and written responses provided for how these comments had been addressed or responded to. It is recommended that such processes are adopted for future projects to ensure transparency.

Cross Cutting Themes

5.12 Limited information was available to facilitate the evaluation of cross cutting themes as part of NSIP+, although examples were provided for specific projects within the overall programme. For future programmes of this nature it is recommended that the following programme level records are centrally maintained during the delivery of the programme to facilitate the evaluation of cross cutting themes:

- Records of equalities impact assessment findings undertaken at the project planning stage.
- Records of consultation activities undertaken with equalities or environmental groups including the concerns expressed and how these issues/concerns were addressed.
- Records of any construction plans indicating how environmental sustainability has been maximised as part of the construction process.
- Records of any value engineering exercises and the outcomes of these in reducing project costs.

Appendix A: Questionnaire Surveys

NSIP PASSENGER SWANSEA PROFILE SURVEY PHASE 1

Int Initials ☐ **Time** ☐

Date ☐

Q1 Station

Swansea..... ☐

We are collecting this information on behalf of the Welsh Government in order to assess use of this station. The information collected will be reported at an aggregated level and no individual responses will be identifiable.

Q2 How long have you been using this station for ?

Less than 1 year ..... ☐ 1 *1 to 2 years*... ☐ 2 *2 to 3 years*... ☐ 3 *3 years or more* ..... ☐ 4

Q3. And why did you start using this station? *Please select all that apply*

Convenient for place of education .. ☐ 1 *New job/ potential job opportunity*... ☐ 2

Moved house ..... ☐ 3 *Previous mode no longer available*. ☐ 4

Train is easier than previous mode used..... ☐ 5 *Improvements made to station* ..... ☐ 6

Other ..... ☐ 7

Other reason not listed- please write in: ☐

Q4. And how did you previously make this journey before you started using this station?

Not applicable- have always made this journey by train from this station ..... ☐ 1

Car (as driver) ..... ☐ 2

Car (as passenger) ..... ☐ 3

Bus..... ☐ 4

Walked (on foot)..... ☐ 5

Bicycle..... ☐ 6

Train (from another station-includes those who drove to another station)..... ☐ 7

Other..... ☐ 8

Other mode - please write in ☐

Which train station did you use previously if applicable? ☐

Q5 **Have you noticed any changes to this station in the last three years?**
Please write in those you have noticed

Q6 **And what difference would you say the changes on the station have made to you?**

	Station buildings, forecourt and waiting areas	*Information and ticketing facilities*	*Station access inc. bridges, lifts and ramps*	*Parking, cycle and drop-off areas*
No impact- I use the station the same amount as I did previously	☐	☐	☐	☐
Slight impact- I use the station more frequently than I did previously	☐	☐	☐	☐
High impact- I use the station a lot more than I did previously	☐	☐	☐	☐
Don't know	☐	☐	☐	☐

Q7 **How satisfied are you with the improvements made at this station?**

Very satisfied..... ☐ 1
Fairly Satisfied ..... ☐ 2
Neither satisifed nor disatisfied..... ☐ 3
Fairly dissatisfied ..... ☐ 4
Very dissatisfied..... ☐ 5
Don't know ..... ☐ 6

Q8 **And what are your reasons for giving the satisfaction rating above?**

Q9 **To what extent do you agree with the following statements:**
The improvements made at this station have:

	Agree strongly	*Agree slightly*	*Neither agree nor disagree*	*Disagree slightly*	*Disagree strongly*	*Don't know*
Made the station safer	☐	☐	☐	☐	☐	☐
Increased my awareness of the rail services available at this station	☐	☐	☐	☐	☐	☐
Improved my ability to access rail services	☐	☐	☐	☐	☐	☐
Made it easier for to change between modes of transport (e.g. train and bus)	☐	☐	☐	☐	☐	☐
Increased my use of the station	☐	☐	☐	☐	☐	☐

Q10 **Do you have any further comments to make about this station and its facilities?**

Q11 **What is the <u>main</u> purpose of your journey today from this station?**
Tick one box only

Travel to/from work ..... ☐ 1
Travel to/from education and/or training ..... ☐ 2
Shopping ..... ☐ 3
Leisure/recreation ..... ☐ 4
Meeting friends/relatives ..... ☐ 5
Personal business ..... ☐ 6
Other ..... ☐ 7

Other, please specify ☐

Q12 **To which of these age groups do you belong?**

16-24 ..... ☐ 1
25-34 ..... ☐ 2
35-44 ..... ☐ 3
45-59 ..... ☐ 4
60+ ..... ☐ 5

Q13 **Which of these best describes your current working status?** ***Tick one box only***

In full time employment ..... ☐ 1
In part time employment ..... ☐ 2
in full/part time education ..... ☐ 3
Retired ..... ☐ 4
Volunteer ..... ☐ 5
Unemployed ..... ☐ 6
Other ..... ☐ 7

Other - please specify ☐

Q14 Do you have a physical disability which limits your mobility?

Yes ..... ☐ 1 *No* ..... ☐ 2

Gender (by observation)	*Male* ..... ☐ 1	*Female* ..... ☐ 2

Thank respondent for their time

Appendix B: Questionnaire Results

Q2 How long have you been using this station for?

	Llandudno	Swansea	Pencoed	Ystrad Rhondda
1 to 2 years	2	57	47	7
2 to 3 years	13	20	15	13
3 years or more	71	137	85	47
Less than 1 year	22	96	38	22
Total	108	310	185	89

Q3 And why did you start using this station?

	Llandudno	Swansea	Pencoed	Ystrad Rhondda
Convenient for place of education	19	63	32	28
New job/ potential job opportunity...	17	74	51	20
Moved house	2	29	21	9
Previous mode no longer available	5	13	4	0
Train is easier than previous mode used	16	50	48	17
Improvements made to station	0	1	0	0
It's convenient	21	7	17	10
Leisure/holiday/visiting	10	40	3	1
Using to go shopping	3	27	2	3
Cheaper	7	4	6	2
No answer	4	3	1	0
Don't know	0	0	1	0
Environmentally Friendly	0	**0**	1	0
Total	109	311	187	90

Q4 And how did you previously make this journey before you started using this station?

	Llandudno	Swansea	Pencoed	Ystrad Rhondda
NR	4	0	0	0
Bicycle	0	0	1	0
Bus	16	27	23	19
Car (as driver)	9	67	35	14
Car (as passenger)	7	18	23	6
Not applicable- have always made this journey by train from this station	64	190	99	45
Other	1	0	0	0
Train (from another station-includes those who drove to another station)	2	6	2	4
Walked (on foot)	5	2	2	1
Total	108	310	185	89

Q5 Have you noticed any changes to this station in the last one to two years?

	Llandudno	Swansea	Pencoed	Ystrad Rhondda
Additional Facilities / Signage / Announcements	1	15	11	4
Complaints about Trains	1	1	0	0
Don’t know / No answer	6	9	11	1
Facilities Close too Early	8	1	0	0
Improved / Modernized / Renovated	77	116	2	5
Improved Lighting	0	5	0	0
Improved safety	0	2	0	1
More accessible	0	6	2	0
More people / Well run / More efficient	0	1	0	1
New buildings / Structural improvements	5	13	1	2
New Shelter	0	0	39	25
Not noticed a change	10	141	119	50
Total	108	310	185	89

Q6 And what difference would you say the changes on the station have made to you?

Waiting Shelters

	Pencoed	Ystrad Rhondda
Don't know	6	17
High impact- I use the station a lot more than I did previously	0	0
No impact- I use the station the same amount as I did previously	167	65
Slight impact	12	7
Total	185	89

Station buildings, forecourt and waiting areas

	Llandudno	Swansea
Don't know	11	6
High impact- I use the station a lot more than I did previously	23	7
No impact- I use the station the same amount as I did previously	65	253
Slight impact	9	44
Total	108	310

Information and ticketing facilities

	Llandudno	Swansea
Don't know	30	7
High impact- I use the station a lot more than I did previously	16	7
No impact- I use the station the same amount as I did previously	52	259
Slight impact	9	37
Total	108	310

Station access inc. bridges, lifts and ramps

	Llandudno	Swansea
Don't know	57	8
High impact- I use the station a lot more than I did previously	11	7
No impact- I use the station the same amount as I did previously	28	264
Slight impact	12	31
Total	108	310

Parking, cycle and drop-off areas

	Llandudno	Swansea
Don't know	62	9
High impact- I use the station a lot more than I did previously	11	6
No impact- I use the station the same amount as I did previously	27	266
Slight impact	7	29
Total	108	310

Q7 How satisfied are you with the improvements made at this station?

	Llandudno	Swansea	Pencoed	Ystrad Rhondda
Don't know	2	80	101	43
Fairly dissatisfied	1	1	1	1
Fairly Satisfied	29	64	37	8
Neither satisfied nor dissatisfied	4	25	10	2
Very dissatisfied	9	2	1	0
Very satisfied	63	138	35	35
Total	108	310	185	89

Q8 And what are your reasons for giving the satisfaction rating above?

	Llandudno	Swansea	Pencoed	Ystrad Rhondda
Complaints about cleanliness / Temperature	0	5	15	0
Complaints about closing times	12	0	0	0
Complaints about Stations	0	6	3	0
Don't know / No answer	11	80	86	40
Ease of access / More Convenient	0	9	6	2
Generalised positive improvements	0	4	2	4
Generalised positive statements	82	62	3	16
Haven't noticed any changes	1	43	32	14
Improved Cleanliness / Safety	0	25	0	5
Improvements to Facilities	1	57	31	7
Neutral sentiments	1	12	7	1
Positive train comments	0	4	0	0
Train complaints	0	3	0	0
Total	108	310	185	89

Q9 To what extent do you agree with the following statements: The improvements made at this station have:

Made the station safer

	Llandudno	Swansea	Pencoed	Ystrad Rhondda
Agree strongly	11	0	35	30
Agree slightly	52	71	10	12
Disagree slightly	0	4	6	0
Disagree strongly	1	11	8	2
Don't know	7	97	116	36
Neither agree nor disagree	11	27	410	9
Total	108	310	185	89

Made the station more pleasant to use

	Pencoed	Ystrad Rhondda
Agree strongly	43	35
Agree slightly	17	9
Disagree slightly	2	0
Disagree strongly	3	0
Don't know	110	39
Neither agree nor disagree	10	6
Total	185	89

Increased my awareness of the rail services available at this station

	Llandudno	Swansea
Agree strongly	16	78
Agree slightly	36	69
Disagree slightly	13	8
Disagree strongly	13	21
Don't know	6	99
Neither agree nor disagree	24	35
Total	108	310

Improved my ability to access rail services

	Llandudno	Swansea
Agree strongly	20	77
Agree slightly	28	63
Disagree slightly	10	6
Disagree strongly	15	27
Don't know	6	98
Neither agree nor disagree	29	39
Total	108	310

Made it easier for me to change between modes of transport (e.g. train and bus)

	Llandudno	Swansea
Agree strongly	17	72
Agree slightly	35	55
Disagree slightly	7	10
Disagree strongly	17	26
Don't know	11	104
Neither agree nor disagree	21	43
Total	108	310

Increased my use of the station

	Llandudno	Swansea
Agree strongly	19	67
Agree slightly	23	41
Disagree slightly	7	18
Disagree strongly	22	70
Don't know	6	86
Neither agree nor disagree	31	28
Total	108	310

Q10 Do you have any further comments to make about this station and its facilities?

	Llandudno	Swansea	Pencoed	Ystrad Rhondda
Complaints about cleanliness / Security	0	2	12	1
Complaints about train / station service	1	6	1	0
Don't Know / No Answer	5	31	32	11
Facilities close early	16	1	1	0
Generalised negative statements	0	2	2	0
Generalised positive statements	17	17	6	6
Improved cleanliness / Security	0	15	1	1
Improvements to facilities	0	9	2	1
Needs additional facilities / Facilities need repairs	4	12	10	2
No Comments	65	215	118	66
Use it anyway	0	0	0	1
Total	108	310	185	89

Q11 What is the main purpose of your journey today from this station?

	Llandudno	Swansea	Pencoed	Ystrad Rhondda
Leisure/recreation	36	35	28	3
Meeting friends/relatives	9	31	22	4
Other	0	1	0	0
Personal business	4	12	6	4
Shopping	18	51	25	28
Travel to/from education and/or training	1	49	31	23
Travel to/from work	40	131	73	27
Total	108	310	185	89

Q12 To which of these age groups do you belong?

	Llandudno	Swansea	Pencoed	Ystrad Rhondda
16-24	26	77	63	38
25-34	18	65	43	21
35-44	10	78	32	3
45-59	26	56	34	16
60+	28	34	13	11
Total	108	310	185	89

Q13 Which of these best describes your current working status?

	Llandudno	Swansea	Pencoed	Ystrad Rhondda
In full time employment	48	168	101	35
in full/part time education	4	58	38	24
In part time employment	18	25	20	4
Other	1	1	2	1
Retired	26	38	11	14
Unemployed	11	19	13	11
Volunteer	0	1	0	0
Total	108	310	185	89

Q14 Do you have a physical disability which limits your mobility?

	Llandudno	Swansea	Pencoed	Ystrad Rhondda
No	102	299	172	84
Yes	6	11	13	5
Total	108	310	185	89

Gender (by observation)

	Llandudno	Swansea	Pencoed	Ystrad Rhondda
Female	67	171	89	51
Male	41	139	96	38
Total	108	310	185	89