RISM Study Workshop
Network wide assessment – N25 Pilot (single carriageway)

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Transport Infrastructure Ireland

January 2023

Introduction.

○ Background.
- Proactive and reactive standards (IRL)
- Current road safety strategy

○ N25 Pilot Route.
- Reactive and proactive results
- Detailed comparison / interpretation

○ Observations & Experiences with NWA process (IRL).

Background.
Transport Infrastructure Ireland Standards & Technical Publications
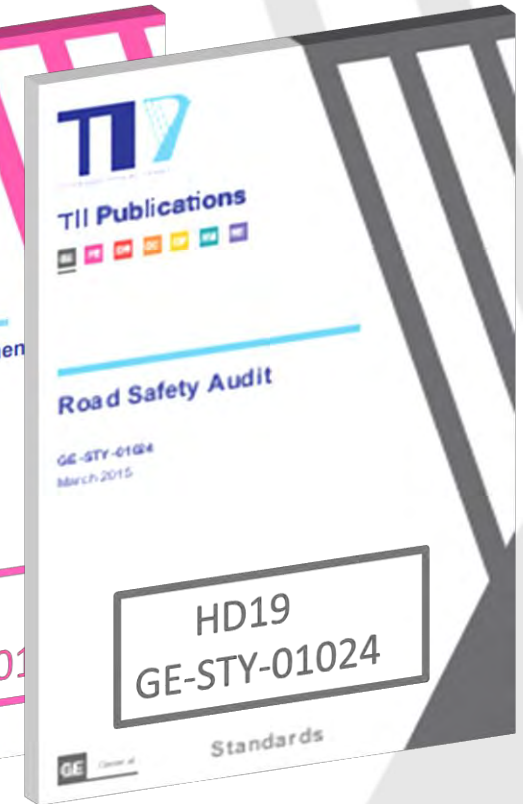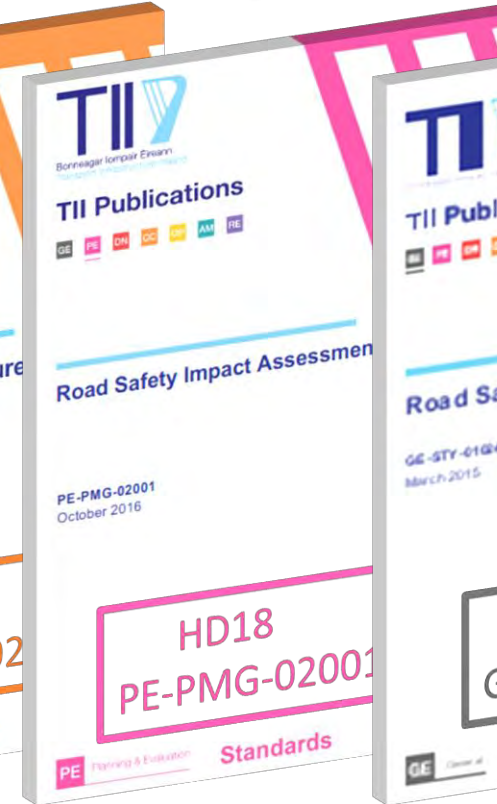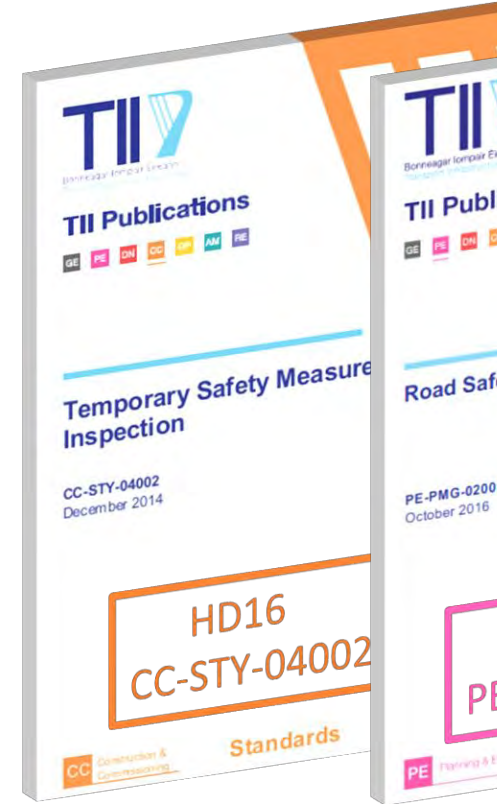
EU Directive (EU) 2019/1936 → **EU** → S.I. No. 612 of 2011 → **IRL** → NRA implementation body → **TII**

Reactive

Proactive

TII Publications
Network Safety Ranking
GE-STY-01022
December 2014
HD15
GE-STY-01022
Standards

TII Publications
Road Safety Inspection
AM-STY-06044
December 2014
HD17
AM-STY-06044
Standards

TII Publications
Temporary Safety Measures Inspection
CC-STY-04002
December 2014
HD16
CC-STY-04002
Standards

TII Publications
Road Safety Impact Assessment
PE-PMG-02001
October 2016
HD18
PE-PMG-02001
Standards

TII Publications
Road Safety Audit
GE-STY-01024
March 2015
HD19
GE-STY-01024
Standards

https://www.tiipublications.ie/

Background.
Road Safety Strategy Actions (IRL)

Action No.	Action	Lead Department or Agency	Responsibility	Due Date	Support Department or Agency
1.	Develop and implement a safety rating indicator for national road infrastructure, which will help target investment on sections of national roads with the highest risk of fatal or serious injury.	Transport Infrastructure Ireland	CEO	Q4 2024	DoT
2.	Deliver an average of 60 road safety improvement schemes and fund an average of four minor realignment schemes on national roads per year, to create forgiving roadsides, self-explaining roads, and a safe environment for vulnerable road users.	Transport Infrastructure Ireland	CEO	Annual	CCMA / LA's

Link to IRL Government Road Safety Strategy 2021 to 2030

N25 Pilot Route.
Reactive Results, Proactive Results

The section of N25 selected for this pilot study was a 57.5 km section of rural undivided carriageway between Midleton, east of Cork City, to Lemybrien, west of Waterford City.

Reactive

▬	High Risk
▭	Low Risk
▬	Unsure

Midleton

Killeagh

Castlemartyr

Dungarvan

Lemybrienn

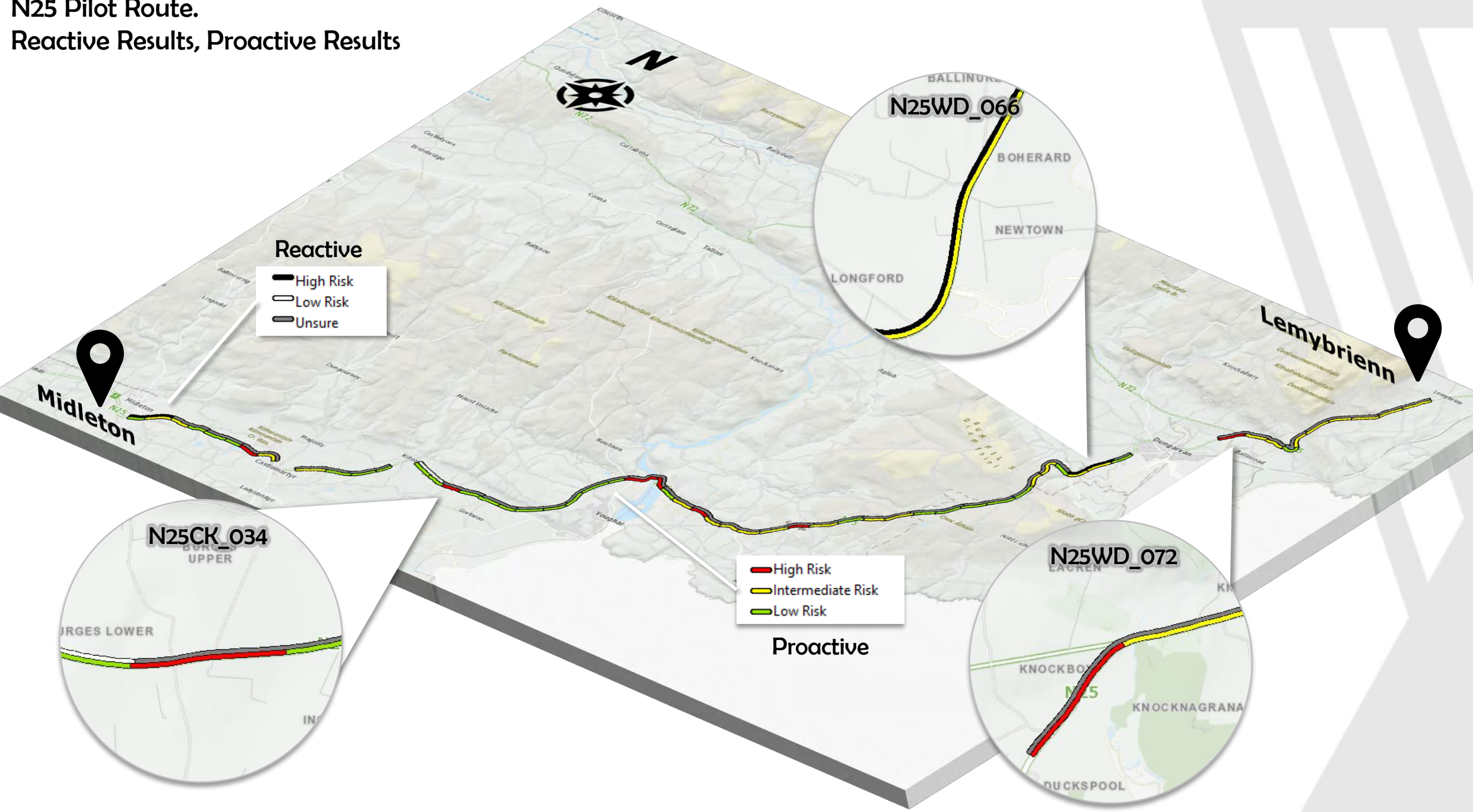|	
▬	High Risk
▬	Intermediate Risk
▬	Low Risk

Proactive
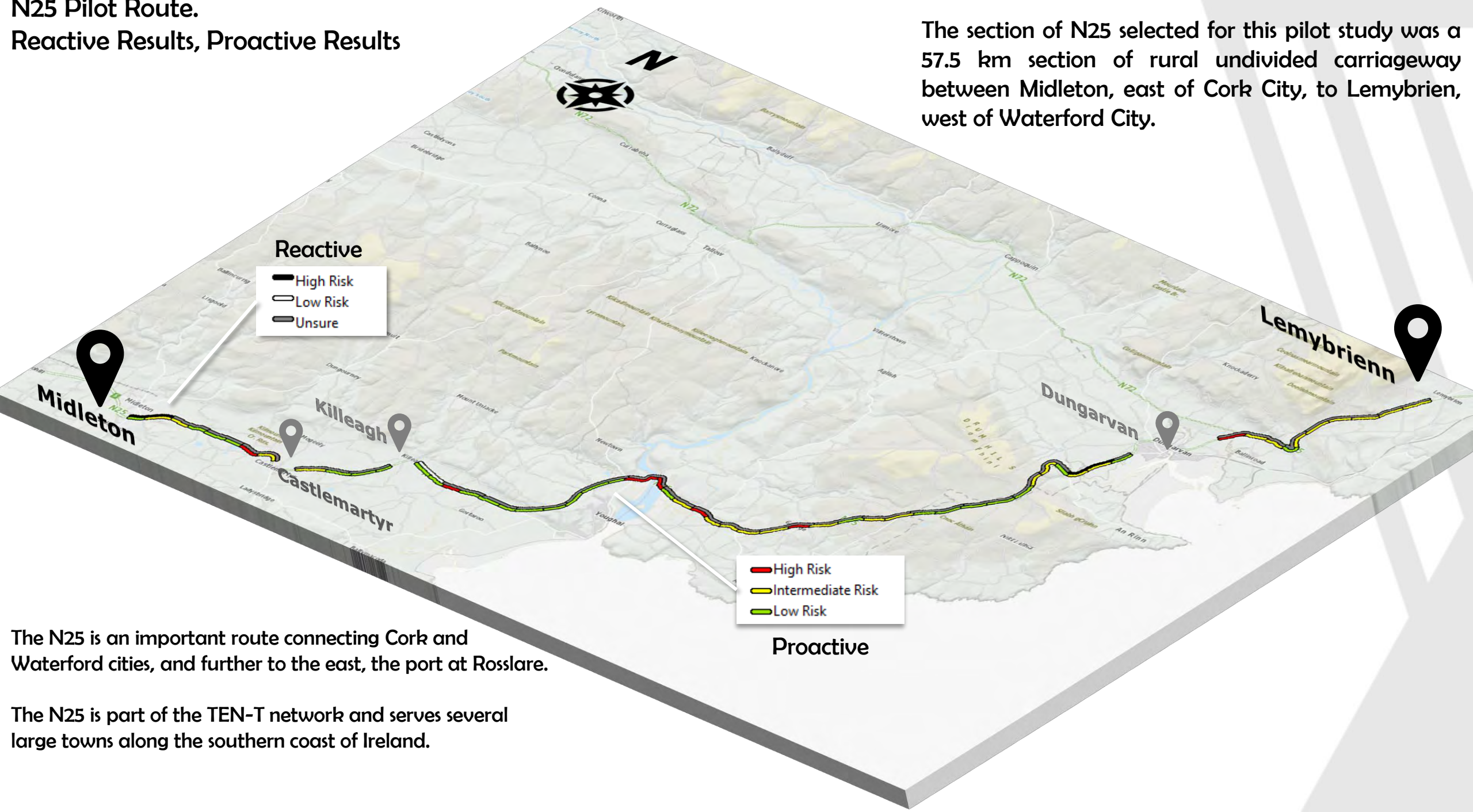
The N25 is an important route connecting Cork and Waterford cities, and further to the east, the port at Rosslare.

The N25 is part of the TEN-T network and serves several large towns along the southern coast of Ireland.

N25 Pilot Route.
Reactive Results, Proactive Results

N

N25WD_066

BALLINURE

BOHERARD

NEWTOWN

LONGFORD

Reactive

▬	High Risk
▭	Low Risk
▬	Unsure

Midleton

Lemybrienn

N25CK_034

BURGES
UPPER

URGES LOWER

ING

N25WD_072

LACKEN

KN

KNOCKBO

KNOCKNAGRANA

DUCKSPOOL

Proactive

▬	High Risk
▬	Intermediate Risk
▬	Low Risk
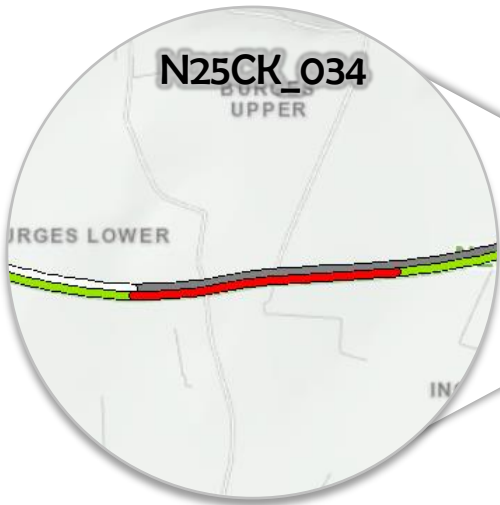
N25CK_034

Reactive

Proactive

SiteRef_CollRate	Start_CH	End_CH	(Km) CollSites	Final Coll ranking
N25CK_035.0	33	35	2	Unsure

SiteRef_InBuilt	Start Chainage	End Chainage	Length (Km)	LW	RS	CU	PA	JU	PB	SW	PL	SM	NWA Score Estimation	InBuilt_RiskBand
N25CK_034.0	33	34	1	1.000	1.000	1.000	0.915	0.979	0.447	1.000	1.000	1.000	40.0	High Risk

PB = Conflicts between pedestrians / bicycles and motorised traffic

N25WD_066

Reactive

Proactive

SiteRef_CollRate	Start_CH	End_CH	(Km) CollSites	Final Coll ranking
N25WD_066.0	64	66	2	High Risk

SiteRef_InBuilt	Start Chainage	End Chainage	Length (Km)	LW	RS	CU	PA	JU	PB	SW	PL	SM	NWA Score Estimation	InBuilt_RiskBand
N25WD_065.0	64	65	1	1.000	1.000	0.910	1.000	0.878	1.000	1.000	1.000	1.000	79.9	Intermediate Risk

JU = Junctions
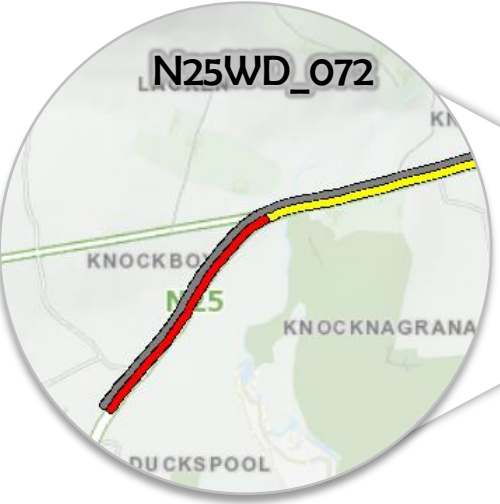
N25WD_072

Reactive

Proactive

SiteRef_CollRate	Start_CH	End_CH	(Km) CollSites	Final Coll ranking
N25WD_074.0	72	74	2	Unsure

SiteRef_InBuilt	Start Chainage	End Chainage	Length (Km)	LW	RS	CU	PA	JU	PB	SW	PL	SM	NWA Score Estimation	InBuilt_RiskBand
N25WD_072.0	71.07	72	0.93	1.000	1.000	0.903	0.500	0.983	1.000	1.000	1.000	1.000	44.4	High Risk

PA = Density of property access points

Legend:
- High Risk
- Low Risk
- Unsure

Reactive

- High Risk
- Intermediate Risk
- Low Risk

Proactive

N25CK_034

SiteRef_CollRate	Start_ CH	End_ CH	(Km) CollSites	Final Coll ranking
N25CK_035.0	33	35	2	Unsure

Reactive

SiteRef_InBuilt	Start Chainage	End Chainage	Length (Km)	LW	RS	CU	PA	JU	PB	SW	PL	SM	NWA Score Estimation	InBuilt_RiskBand
N25CK_034.0	33	34	1	1.000	1.000	1.000	0.915	0.979	0.447	1.000	1.000	1.000	40.0	High Risk

Proactive

PB = Conflicts between pedestrians / bicycles and motorised traffic

Summary data from reported collisions & spatial distribution (2015 - 2020)

1 K Coll Count
0 SI Coll Count
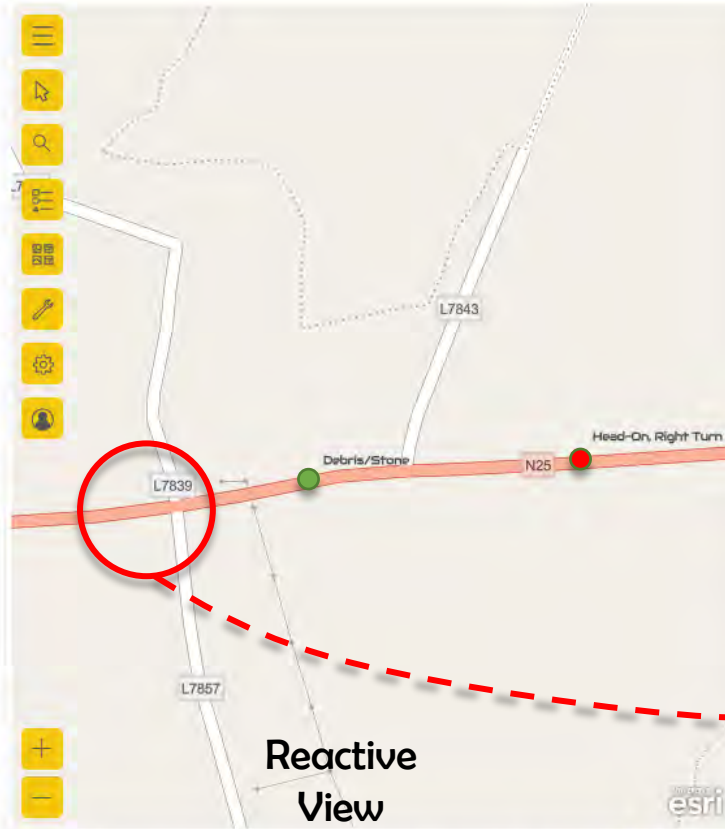**1** MI Coll Count

Broad Collision Types	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
Head-on	1	0	0	0
NMU	0	0	0	0
Other PCT	0	0	0	0
SVC	0	0	1	0
Veh to Veh	0	0	0	0
Total	**1**	**0**	**1**	**0**

Month	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	0	0	0	0
July	1	0	0	0
August	0	0	0	0
September	0	0	0	0
October	0	0	0	0
November	0	0	0	0
December	0	0	1	0
Total	**1**	**0**	**1**	**0**

Year	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
2015	0	0	0	0
2016	0	0	0	0
2017	0	0	1	0
2018	0	0	0	0
2019	0	0	0	0
Total	**1**	**0**	**1**	**0**

Rd. Surface	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
	0	0	0	0
Dry	0	0	1	0
Frost/Ice	0	0	0	0
Muddy	0	0	0	0
Oily	0	0	0	0
Other	0	0	0	0
Snow	0	0	0	0
Unknown	0	0	0	0
Wet	0	0	0	0
Total	**0**	**0**	**1**	**0**

Lighting	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
Dark-Good Lighting	0	0	0	0
Dark-No Lighting	0	0	0	0
Dark-Poor Lighting	0	0	0	0
Dark-Unlit Lighting	0	0	0	0
Day-Good Visibility	0	0	0	0
Day-Poor Visibility	0	0	1	0
Unknown	0	0	0	0
Total	**0**	**0**	**1**	**0**

Reactive View

Proactive View

The information provided by TII references the number of reported collisions known at this time. The classification of such information is subject to review and is therefore provisional. For internal use only. Not for distribution

N25WD_066

SiteRef_CollRate	Start_ CH	End_ CH	(Km) CollSites	Final Coll ranking
N25WD_066.0	64	66	2	High Risk

Reactive

SiteRef_InBuilt	Start Chainage	End Chainage	Length (Km)	LW	RS	CU	PA	JU	PB	SW	PL	SM	NWA Score Estimation	InBuilt_RiskBand
N25WD_065.0	64	65	1	1.000	1.000	0.910	1.000	0.878	1.000	1.000	1.000	1.000	79.9	Intermediate Risk

Proactive

JU = Junctions

Summary data from reported collisions & spatial distribution (2015 - 2020)

0 K Coll Count **1** SI Coll Count **3** MI Coll Count

Broad Collision Types	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
Head-on	0	0	1	0
NMU	0	0	0	0
Other PCT	0	0	0	0
SVC	0	0	1	0
Veh to Veh	0	1	1	0
Total	0	1	3	0

Year	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
2015	0	0	1	0
2016	0	0	1	0
2017	0	0	1	0
2018	0	0	0	0
2019	0	1	0	0
Total	0	1	3	0

Rd. Surface	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
	0	0	0	0
Dry	0	1	1	0
Frost/Ice	0	0	0	0
Muddy	0	0	0	0
Oily	0	0	0	0
Other	0	0	0	0
Snow	0	0	0	0
Unknown	0	0	0	0
Wet	0	0	2	0
Total	0	1	3	0

Month	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
January	0	0	1	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	0	0	0	0
July	0	0	0	0
August	0	0	1	0
September	0	1	1	0
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Total	0	1	3	0

Lighting	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
Dark-Good Lighting	0	0	0	0
Dark-No Lighting	0	0	0	0
Dark-Poor Lighting	0	0	0	0
Dark-Unlit Lighting	0	0	0	0
Day-Good Visibility	0	1	3	0
Day-Poor Visibility	0	0	0	0
Unknown	0	0	0	0
Total	0	1	3	0
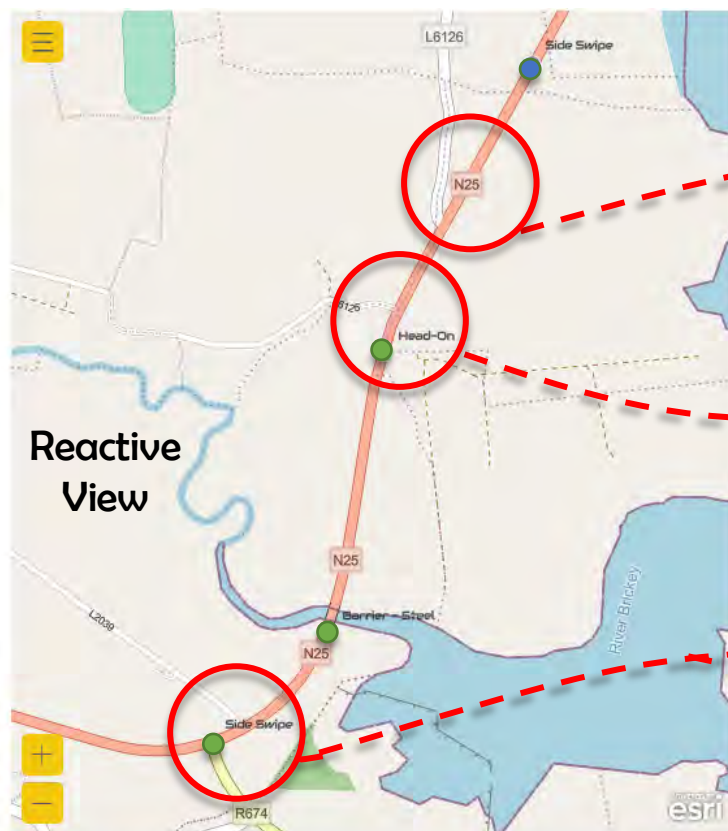
Reactive View
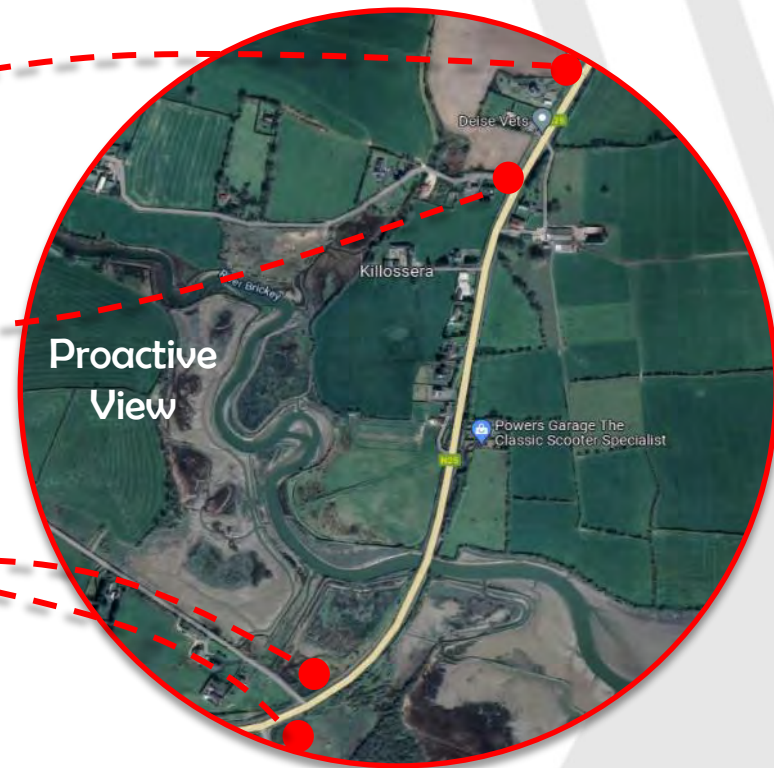
Proactive View

N25WD_072

SiteRef_CollRate	Start_ CH	End_ CH	(Km) CollSites	Final Coll ranking
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Reactive

SiteRef_InBuilt	Start Chainage	End Chainage	Length (Km)	LW	RS	CU	PA	JU	PB	SW	PL	SM	NWA Score Estimation	InBuilt_RiskBand
N25WD_072.0	71.07	72	0.93	1.000	1.000	0.903	0.500	0.983	1.000	1.000	1.000	1.000	44.4	High Risk

Proactive

PA = Density of property access points

Summary data from reported collisions & spatial distribution (2015 - 2020)

K Coll Count: 0 SI Coll Count: 0 MI Coll Count: 1

Broad Collision Types	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
Head-on	0	0	0	0
NMU	0	0	0	0
Other PCT	0	0	0	0
SVC	0	0	0	0
Veh to Veh	0	0	1	0
Total	0	0	1	0

Month	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
January	0	0	0	0
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May	0	0	0	0
June	0	0	0	0
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
October	0	0	0	0
November	0	0	0	0
December	0	0	1	0
Total	0	0	1	0

Year	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
2015	0	0	1	0
2016	0	0	0	0
2017	0	0	0	0
2018	0	0	0	0
2019	0	0	0	0
Total	0	0	1	0

Rd. Surface	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
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Oily	0	0	0	0
Other	0	0	0	0
Snow	0	0	0	0
Unknown	0	0	0	0
Wet	0	0	0	0
Total	0	0	1	0

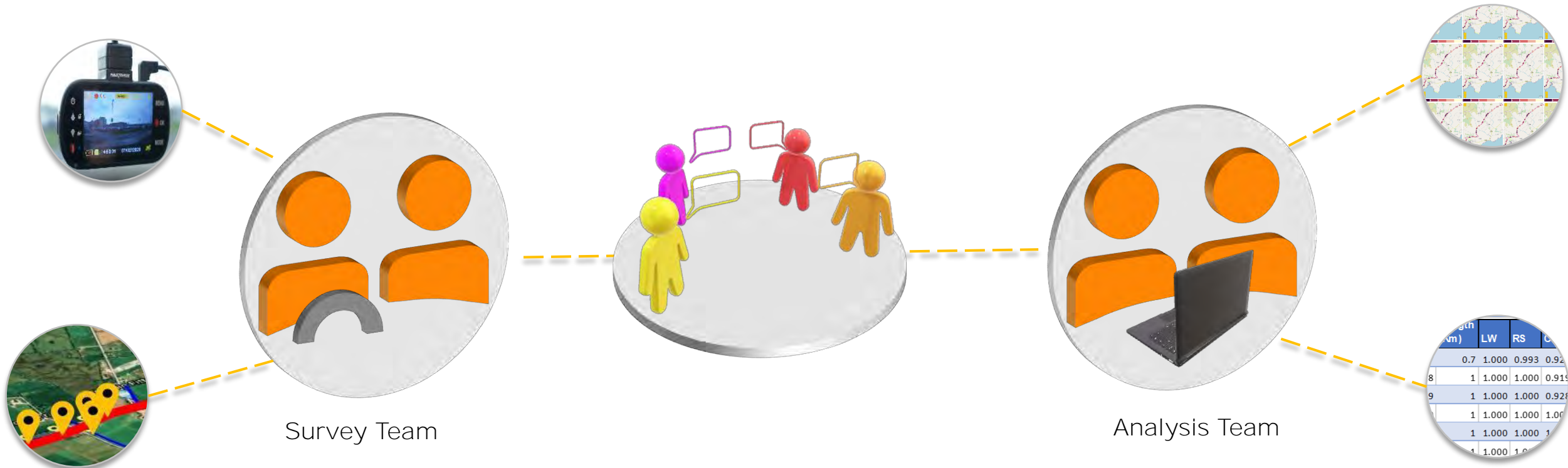| Lighting	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
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Dark-No Lighting	0	0	0	0
Dark-Poor Lighting	0	0	0	0
Dark-Unlit Lighting	0	0	0	0
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Day-Poor Visibility	0	0	1	0
Unknown	0	0	0	0
Total	0	0	1	0

Reactive View

Proactive View

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Observations & Experiences with NWA process (IRL).

o 'Noise' within data should be a bigger topic for discussion. Tools to help reduce noise throughout the process will lead to better decisions later.
  - Primary & Secondary data sources.

o Consider the different phases of the NWA process. Post the data analysis process consideration needs to be given about disseminating results to local road authorities.
  - Issuing paper reports -V- issuing digital files –V- online digital portals and BI tools.
  - Guidance on interpretating the NWA results

o Invest time and resources in people comfortable working with large amounts of data. This is a ensure the information collected and processed will be available further down the line e.g. prioritizing interventions, KPIs / benchmark for subsequent analysis rounds, etc.
  - Monitoring 'risk' over time to detect change (temporal analysis) is not a trivial process.

Survey Team

Analysis Team

Observations & Experiences with NWA process (IRL).

Proactive (IRL) BI report based on primary data