The Route Review Process
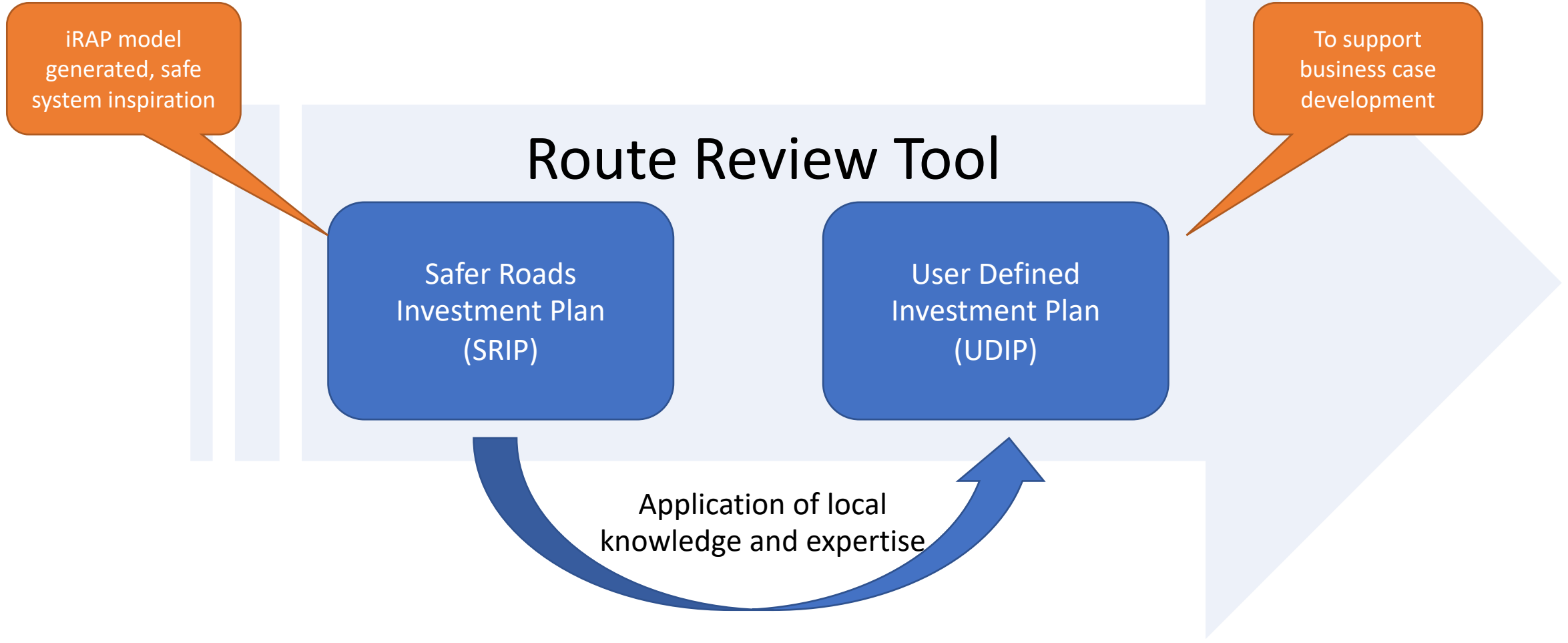
Dr Suzy Charman
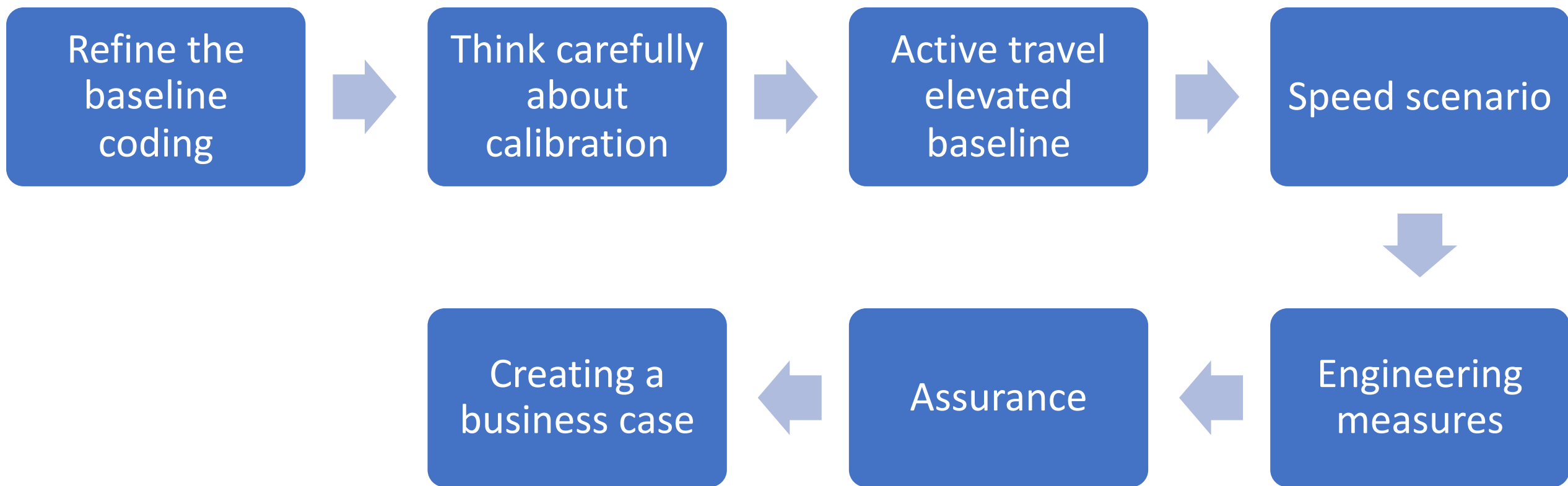
ROAD SAFETY FOUNDATION
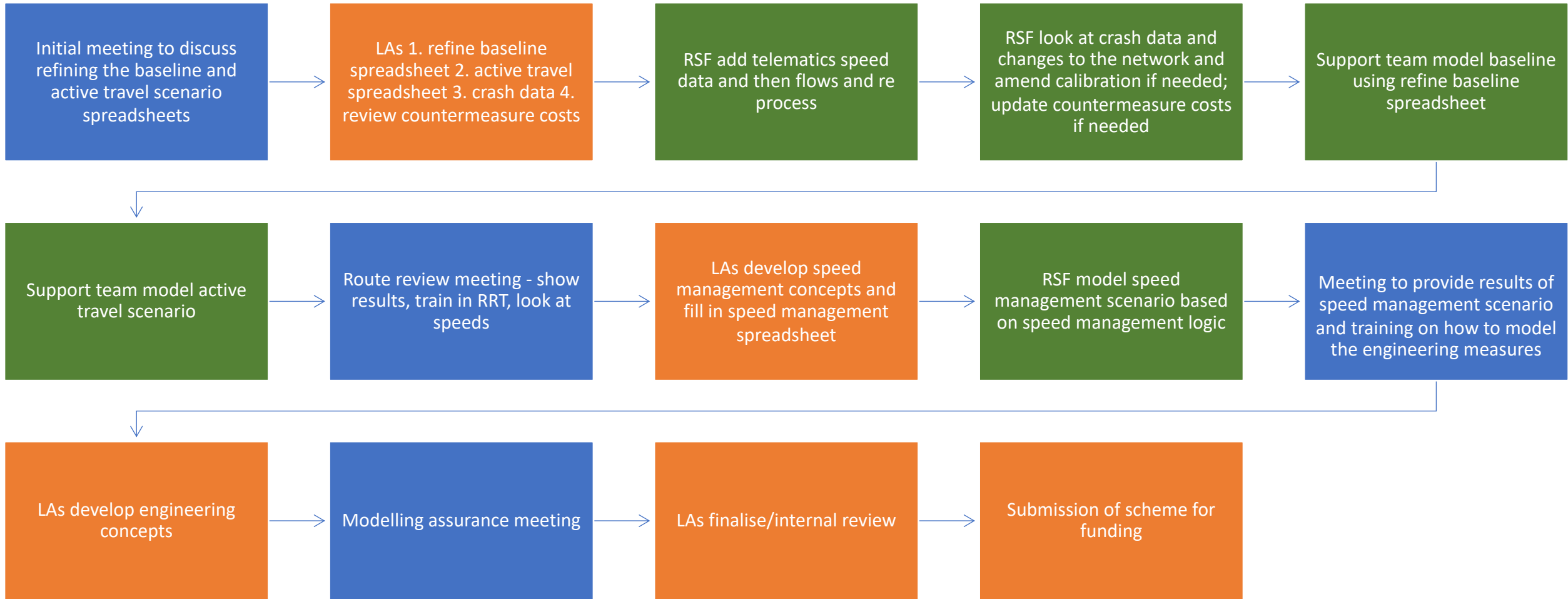
iRAP SRIP-UDIP
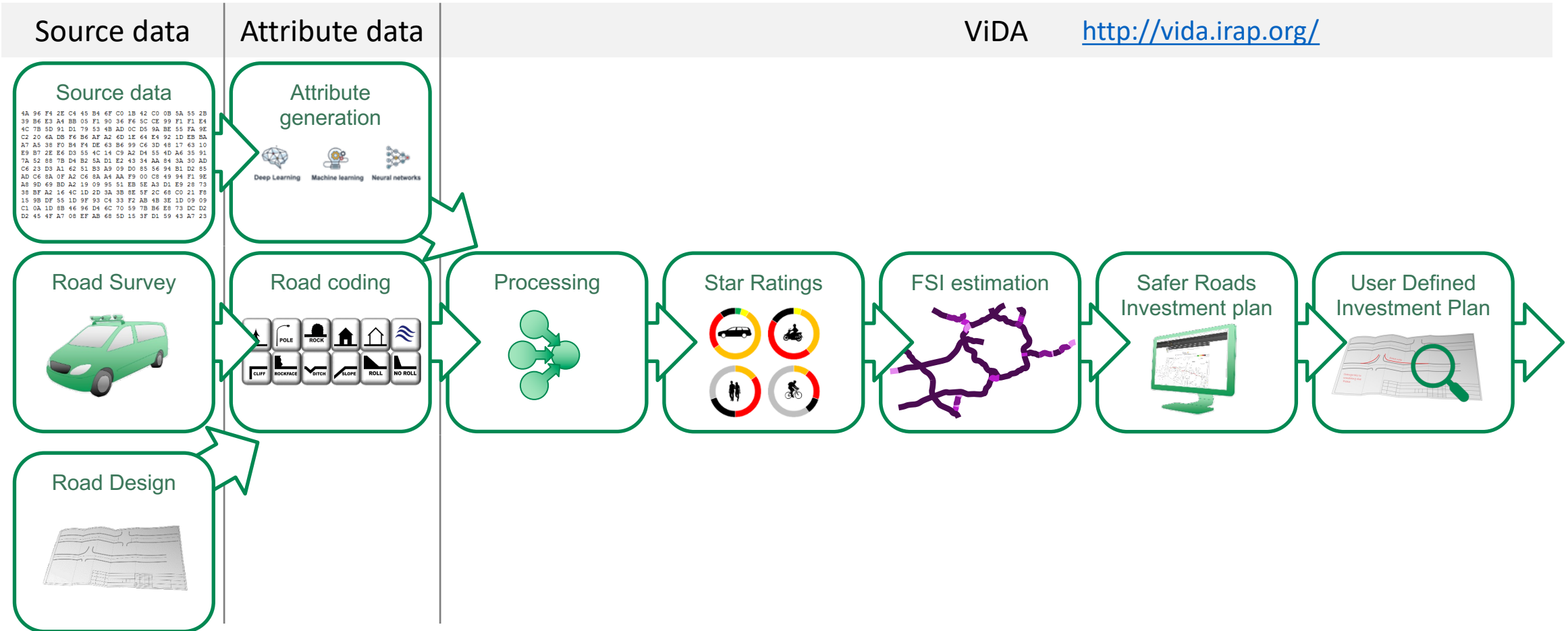
iRAP star rating for route review

Overarching approach we take

Refine the baseline coding → Think carefully about calibration → Active travel elevated baseline → Speed scenario

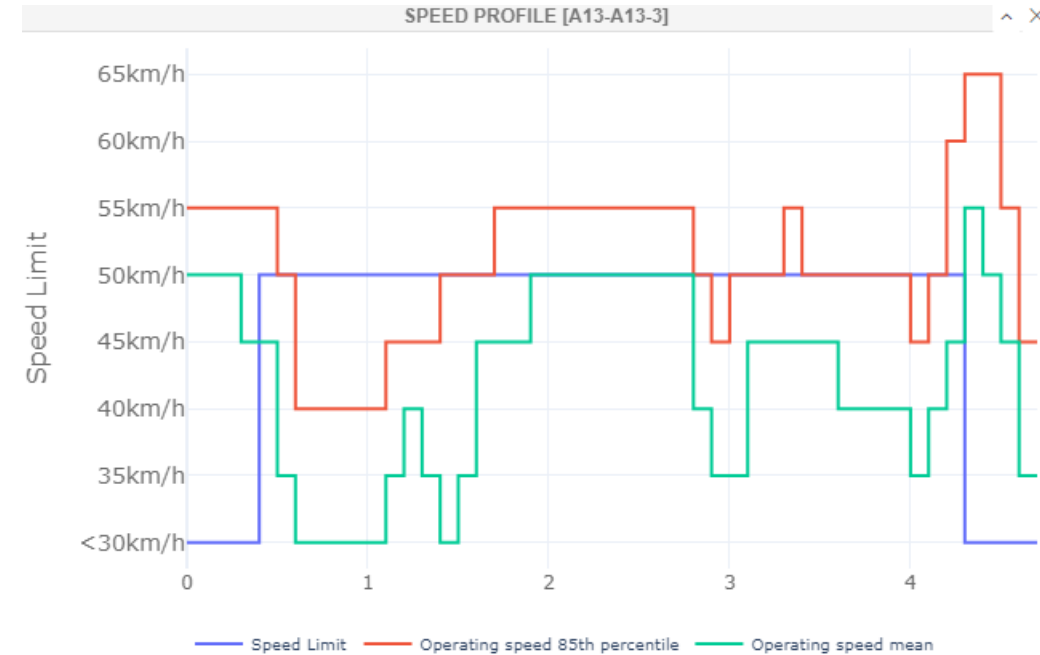Creating a business case ← Assurance ← Engineering measures

Safer Roads Fund Tasks

Refining the baseline coding

- Telematics speed data

- Pedestrian and cycle flows

- Review of baseline coding of junctions and intersecting road volumes

SPEED PROFILE [A13-A13-3]

Speed Limit — Operating speed 85th percentile — Operating speed mean

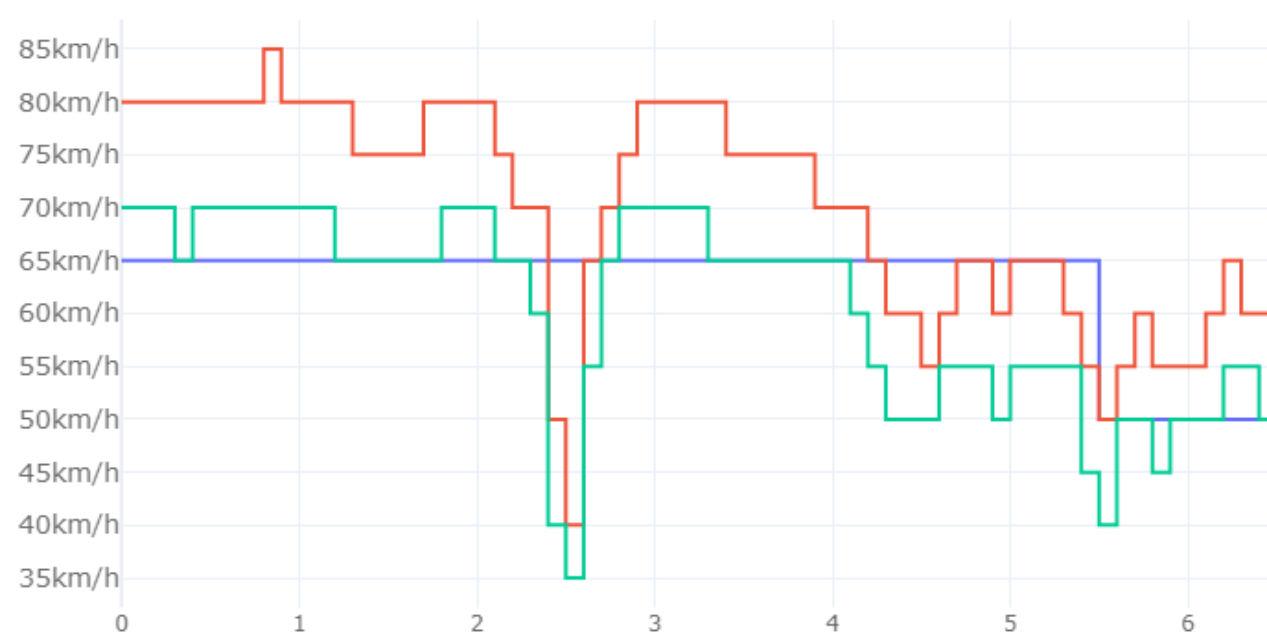| Road nam	Section	Distance	Latitude	Longitud	Carriageway	Streetview link	Vehicle flow (AADT)	Motorcycle %	Pedestrian peak hour flow across the road	Pedestrian peak hour flow along the road driver-side	Pedestrian peak hour flow along the road	Bicycle peak hourly flow	Junction type	Junction channelisa	Junction road volume	Junction quality	Property access points
A104_Part_	A104_Part_1	0	51.67486	0.062163	Undivided road	Streetview	5000	1% - 5%	101 to 200	201 to 300	201 to 300	501 to 900	Roundabout	Present	10,000 to 15,000 vehicles	Adequate	None
A104_Part_	A104_Part_1	0.1	51.67421	0.061174	Undivided road	Streetview	5000	1% - 5%	101 to 200	201 to 300	201 to 300	501 to 900	Merge lane	Not present	10,000 to 15,000 vehicles	Adequate	Residential Access <3
A104_Part_	A104_Part_1	0.2	51.67355	0.060196	Undivided road	Streetview	5000	1% - 5%	101 to 200	201 to 300	201 to 300	501 to 900	Merge lane	Not present	10,000 to 15,000 vehicles	Adequate	Residential Access <3
A104_Part_	A104_Part_1	0.3	51.67288	0.05922	Undivided road	Streetview	5000	1% - 5%	101 to 200	201 to 300	201 to 300	501 to 900	Merge lane	Not present	10,000 to 15,000 vehicles	Adequate	Residential Access <3
A104_Part_	A104_Part_1	0.4	51.67222	0.058245	Undivided road	Streetview	5000	1% - 5%	101 to 200	201 to 300	201 to 300	501 to 900	Merge lane	Not present	10,000 to 15,000 vehicles	Adequate	Residential Access <3
A104_Part_	A104_Part_1	0.5	51.67155	0.057272	Undivided road	Streetview	5000	1% - 5%	101 to 200	201 to 300	201 to 300	501 to 900	Merge lane	Not present	10,000 to 15,000 vehicles	Adequate	Commercial Access ≥1
A104_Part_	A104_Part_1	0.6	51.67088	0.056306	Undivided road	Streetview	5000	1% - 5%	101 to 200	201 to 300	201 to 300	501 to 900	Merge lane	Not present	10,000 to 15,000 vehicles	Adequate	Residential Access <3
A104_Part_	A104_Part_1	0.7	51.67021	0.055341	Undivided road	Streetview	5000	1% - 5%	101 to 200	201 to 300	201 to 300	501 to 900	Merge lane	Not present	10,000 to 15,000 vehicles	Adequate	Residential Access <3
A104_Part_	A104_Part_1	0.8	51.66956	0.054359	Undivided road	Streetview	5000	1% - 5%	101 to 200	201 to 300	201 to 300	501 to 900	Merge lane	Not present	10,000 to 15,000 vehicles	Adequate	Residential Access <3
A104_Part_	A104_Part_1	0.9	51.6689	0.053374	Undivided road	Streetview	5000	1% - 5%	101 to 200	201 to 300	201 to 300	501 to 900	Merge lane	Not present	10,000 to 15,000 vehicles	Adequate	Residential Access <3
A104_Part_	A104_Part_1	1	51.66823	0.052397	Undivided road	Streetview	5000	1% - 5%	101 to 200	201 to 300	201 to 300	501 to 900	Merge lane	Not present	10,000 to 15,000 vehicles	Adequate	Residential Access <3
A104_Part_	A104_Part_1	1.1	51.66757	0.051424	Undivided road	Streetview	5000	1% - 5%	101 to 200	201 to 300	201 to 300	501 to 900	Merge lane	Not present	10,000 to 15,000 vehicles	Adequate	Residential Access <3
A104_Part_	A104_Part_1	1.2	51.6669	0.050453	Undivided road	Streetview	5000	1% - 5%	101 to 200	201 to 300	201 to 300	501 to 900	Merge lane	Not present	10,000 to 15,000 vehicles	Adequate	Residential Access <3

# Careful calibration

- Huge challenges when you are calibrating on a route basis – low crash numbers

- Number of fatalities – derived from fatal and serious divided by typical ratio for road type

- % by road user – derived based on typical %s for road type but some roads are just very different and require a tailored approach e.g. Oxford

- Ensuring the calibration period marries with the coding

Active travel

- Are there modelled/estimated desired levels of active travel for the route?

- Create a new scenario to reflect elevated active travel

- Advantages – testing countermeasures against who *should* be able to use a route to walk and cycle, not just who is brave enough now

- Elevated active travel flows = higher FSIs to model treatment against

Speed scenario
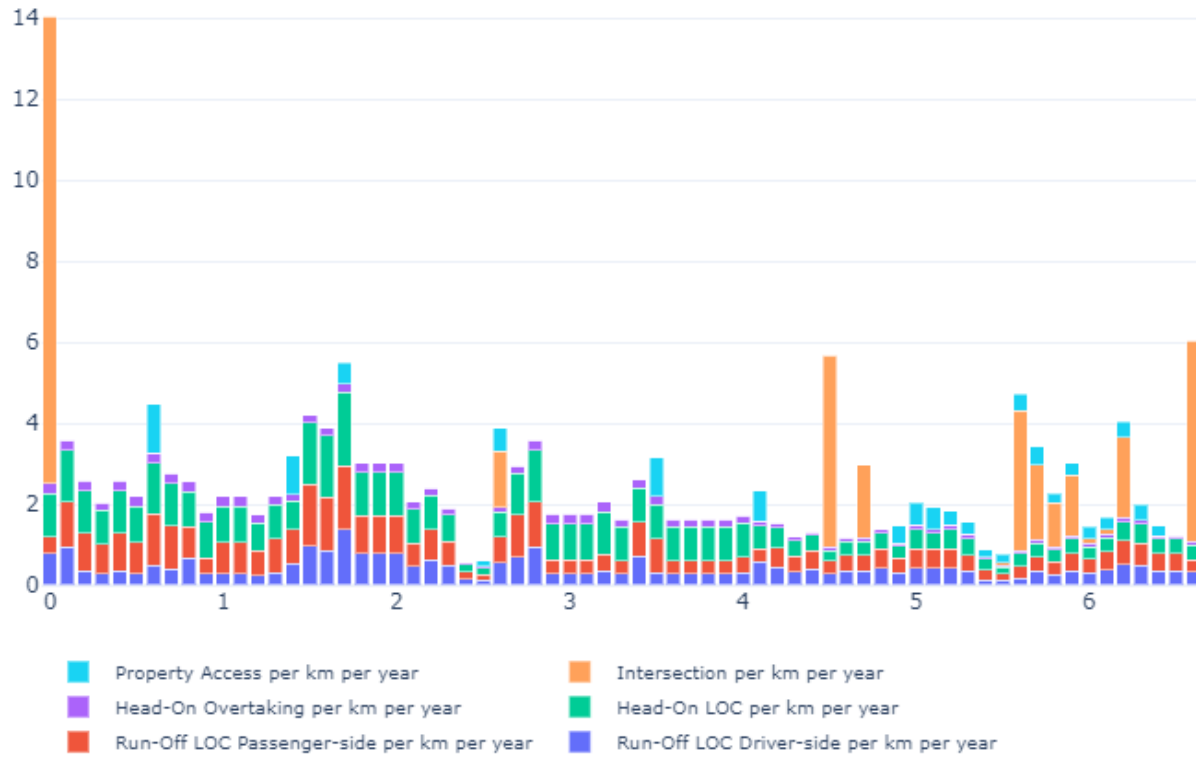
Speed scenario

Distance	Latitude	Longitude	Carriageway	Streetview link	Existing Speed limit Code	Existing Speed limit	New Speed Limit	Speed Management measures	Comment on Proposed Speed Reduction Measures
0	51.2358431	-0.3220275	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
0.1	51.2361621	-0.3206889	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
0.2	51.2364001	-0.3193083	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
0.3	51.2365885	-0.3179094	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
0.4	51.2369278	-0.3165845	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
0.5	51.237305	-0.3152849	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
0.6	51.2376445	-0.3139595	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
0.7	51.2378668	-0.3125736	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
0.8	51.23793	-0.3111461	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
0.9	51.2378691	-0.3097171	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
1	51.2380469	-0.3083273	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
1.1	51.238342	-0.3069754	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
1.2	51.2384388	-0.3055572	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
1.3	51.2386163	-0.3041594	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
1.4	51.2390079	-0.3028784	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
1.5	51.2396137	-0.3018346	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
1.6	51.2403207	-0.3009532	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
1.7	51.2410269	-0.3000704	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
1.8	51.2416347	-0.2990262	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
1.9	51.242037	-0.2977542	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
2	51.2422333	-0.2963595	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
2.1	51.2422135	-0.2949353	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
2.2	51.2419404	-0.2935756	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
2.3	51.2415675	-0.2922738	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
2.4	51.2414037	-0.2908702	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
2.5	51.2412531	-0.2894592	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
2.6	51.2409091	-0.2881404	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
2.7	51.2404871	-0.2868772	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
2.8	51.2402682	-0.285496	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
2.9	51.2403179	-0.2840714	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
3	51.2405983	-0.2827133	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
3.1	51.240932	-0.2813836	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
3.2	51.2412654	-0.2800538	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
3.3	51.2415944	-0.2787211	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
3.4	51.2419191	-0.2773858	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
3.5	51.2422698	-0.2760673	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
3.6	51.2426737	-0.2747901	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
3.7	51.2431901	-0.2736214	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
3.8	51.2437643	-0.272521	Undivided r	Streetview	8	40mph	40mph	Not Applicable	
3.9	51.2443008	-0.2713756	Undivided r	Streetview	8	40mph	40mph	Not Applicable	

Speed Management measures

Speed limit only change

Average speed camera - no speed limit change

Speed limit + average speed camera

Fixed enforcement or engineering measures - no speed limit change

Speed limit + Fixed enforcement or engineering measures

Not Applicable

Not Applicable

- Preferred route is to use RRT as a record is there of the planned interventions, no changing core coding files etc. so less room for error

- Many ways of doing this – consider cross section route long interventions first, then go back to junctions/crossings etc. OR work your way along from one end to another

- If you do this in the core coding files outside of ViDA we find assurance needs to be more demanding

Assurance

- The meaning of the ViDA countermeasures needs to be understood and checked

- E.g. clear roadsides = clearing all obstacles to 10m

- Spreadsheet containing what the ViDA meaning of countermeasures is ….

- Need to go through and check understanding

- At the moment sometimes proxies are needed e.g. if you are only clearing to 5m for example

Creating a business case

- Showing the link between FSI worm and treatment proposed
- Raw baseline and scenario star rating maps and tables – for all modes that are relevant (note on maps copyright)
- Estimated FSI impacts – from FSI download go into wider economic appraisal forms
- FSI worm before and after to demonstrate improvement