

BRANCHLINER

Supplying the Railhead

SCOPE

- Work Package 3 Road Logistics.
- Work Packages 4 & 5 Timber Supply and Facilitation



FORECASTING FUTURE TIMBER PRODUCTION






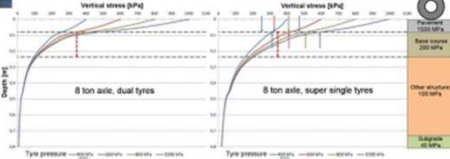
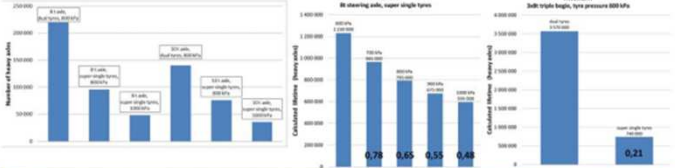
- Design and Electronic Circulation
- Face to face communications
- Timber production data to arrive at forecast for 2016 -20

Results

- 167,000 tonnes of wind blow
- 500,750 tonnes “other”
- Equates to an average of 134,000 tonnes per annum.
- Assuming 25 tonnes per lorry then 5,360 lorry loads per annum would be required




References

Petri Varin, Timo Saarenketo

EFFECT OF AXLE AND TYRE CONFIGURATIONS ON PAVEMENT DURABILITY – A PRESTUDY

Report 2014



Tread Softly

Lower impact vehicles for timber haulage

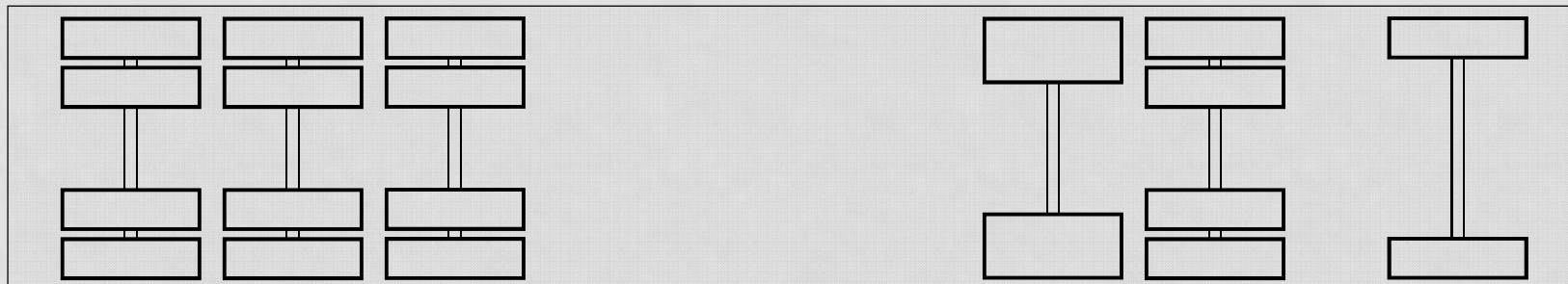
TimberTransportForum
delivering solutions for a growing UK harvest

TIMBER TRUCK



7400 kg 7505 kg 7910kg

5100kg 9100kg 5860kg



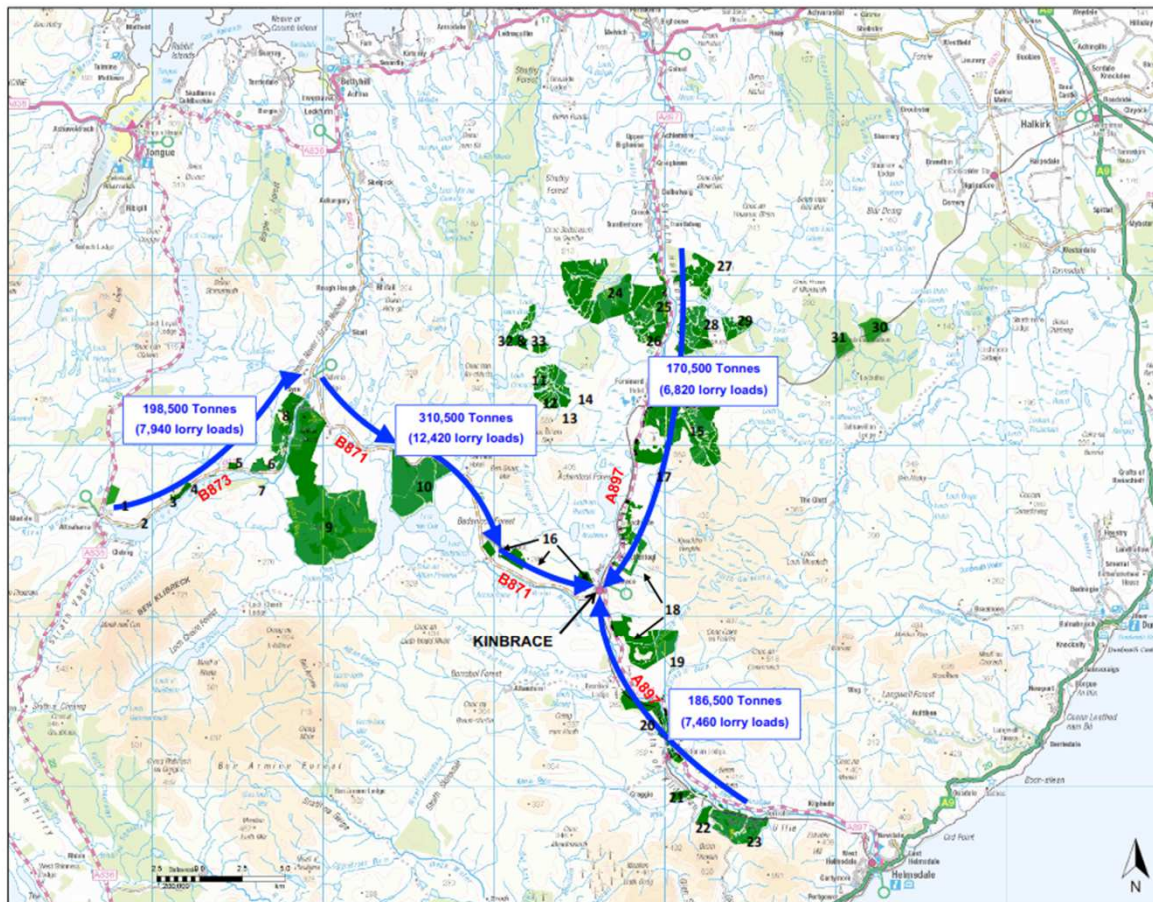
UK LOW GROUND PRESSURE VEHICLES



FINNISH 84 TONNE “LITTLE GIANT”



BRANCHLINER CATCHMENT AREA AND FLOWS



BRANCHLINER PROJECT Map xxx 5 Year Timber Movements (2016-20)

LEGEND

- Timber producing woodlands within Project Catchment Area
- ➔ Direction of timber lorry flow

Map No	Woodland Name
1-6	North Strath Naver Cpts 1-6
7	Creag Dubh, Loch Naver
8	Syre
9	Rosal - 1
10	Rimsdale
11	Dyke (Mackay & Tuath)
12	Gleann Nam Beist (Dyke)
13	Gunn
14	Abhain Beag
15	Forsinard (Baledigle)
16	Badanloch Estate
17	Bealach
18	Achentoul Estate
19	Sungill - 2
20	Borrobol - 3
21	Craggie
22	Killearnan
23	Torrish
24	Dyke
25	Brg
26	The Dale
27	Forsinain
28	Forsinain
29	Forsinain (Fasagh)
30	Catanach (Altnabreac)
31	Station Hill (Altnabreac)
32	Crocaich
33	Colle Breac

Date
Feb 2016

Approx Scale at A3
1:200,000

TRAIN OPTIONS

Road Number/Location	Lorry loads required to meet 140k tonnes/per annum	Lorry Loads required to meet 112k tonnes/per annum.	Lorries required to deliver timber to Kinbrace.
A897: Forsinain - Kinbrace	7 loads per day. (5 day week, 40 week, = 35,000 tonnes/annum).	7 loads per day. (4 day week, 40 week year = 28,000 tonnes/annum)	2.0 trucks/per day.
A897: Kildonan - Kinbrace	8 loads per day. (5 day week, 40 week year, annual figure 40,000 tonnes)	7 loads per day. (4 day week, 40 week year = 32,000 tonne/annum)	2.0 trucks/per day.
B871/B873: Syre - Kinbrace	13 loads per day. (5 day week, 40 week year = 65,000 tonnes/annum).	12 loads per day. (4 day week, 40 week year = 52,000 tonnes/annum).	3.0 trucks/per day.

STOCKPILING TIMBER

- Stacking in the forest
- Loading directly onto train wagons
- Avoiding double handling costs
- Handling different products

Consider

- Allowing timber to dry in forest
- Value being determined by:
 - Measurement by volume
 - Agreeing formulae for assessing moisture content to derive dry weight against weighbridge measurements



MARKETING MECHANISMS

- Operator at the railhead taking ownership
- Possibly a Growers cooperative or business partnership
- Timber to be paid for on delivery to the railhead
- Growers cooperative could guarantee continuity of timber supply
- Potential to act as a catalyst for realising full financial potential presently locked up
- Cooperative may help attract rail freight commitment to invest and support the facilities.

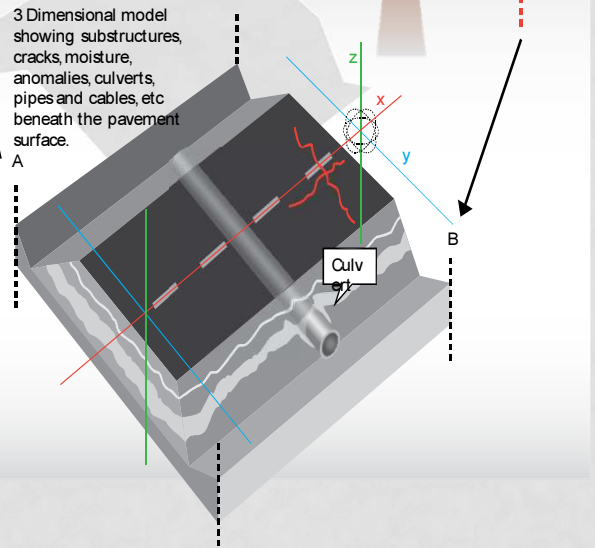
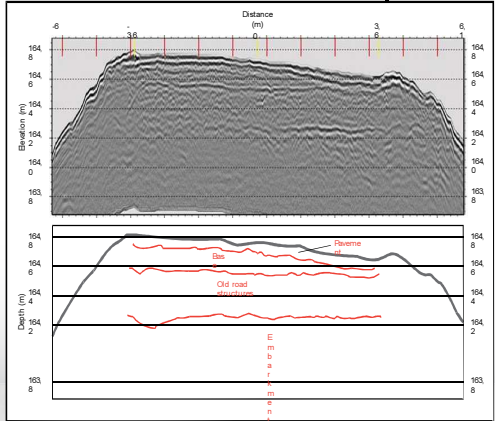
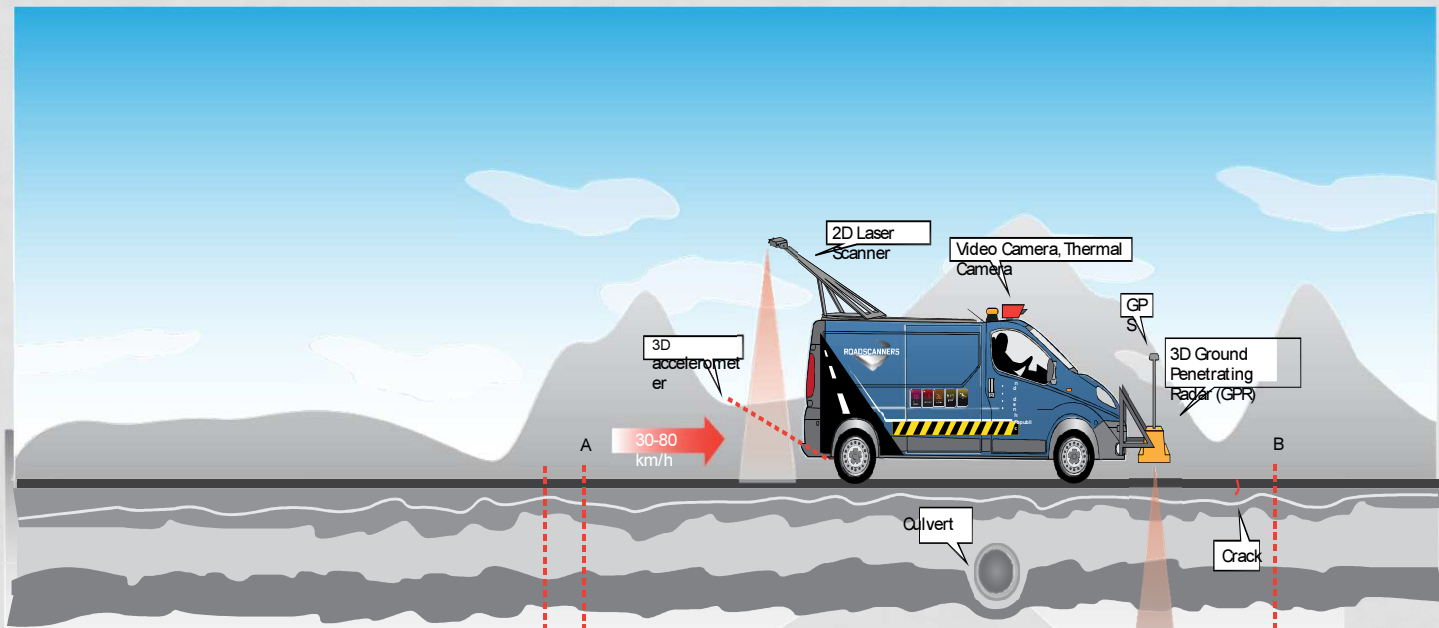
EXPECTATION OF ROAD DAMAGE

- Road network will deteriorate
- Consider owner cooperative to manage network with THC
- Commission innovative approach to monitoring and assessing the network

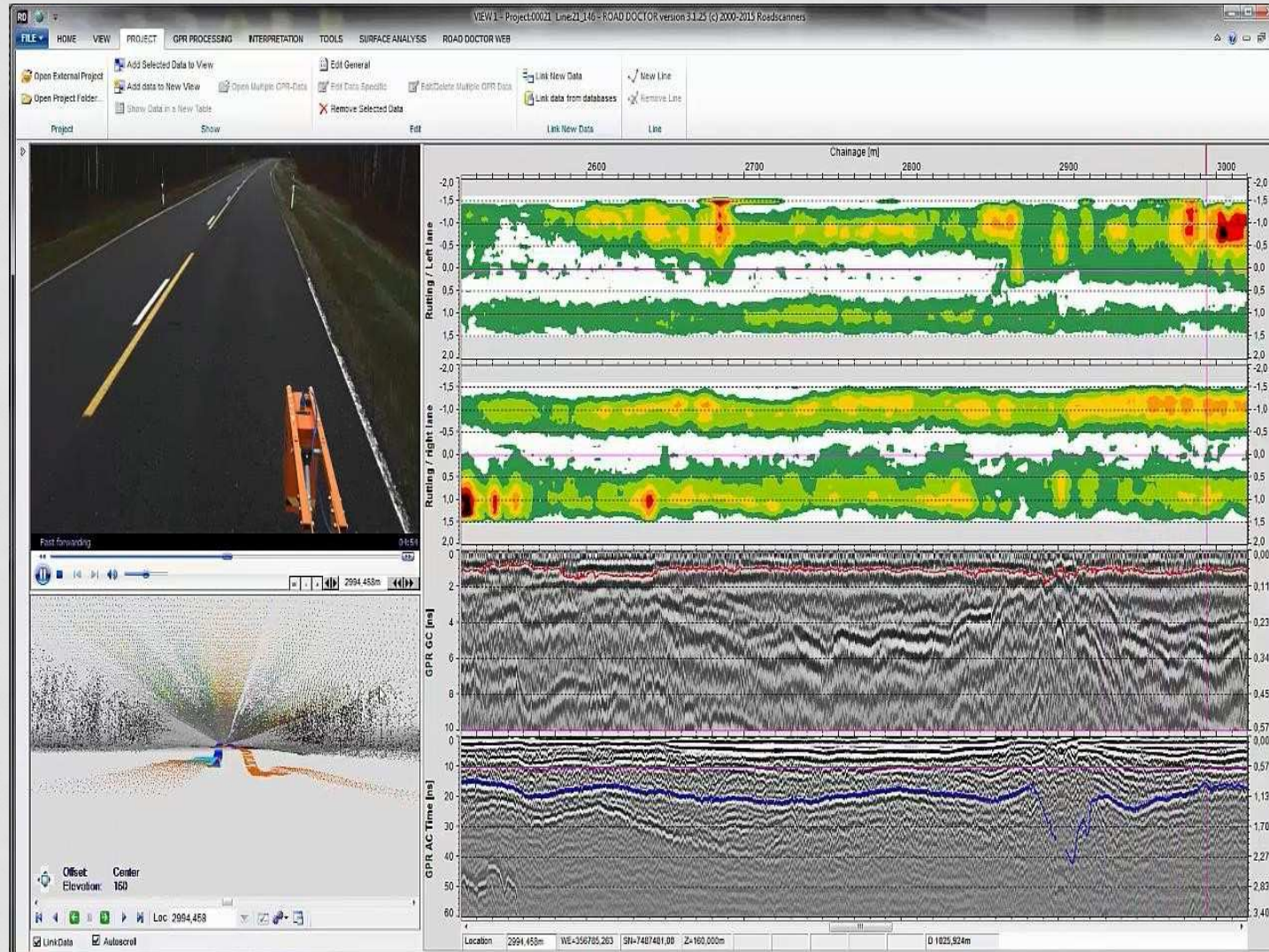
Funding could be realised by:

- Use of red diesel
- A timber premium to go directly to the cooperative
- Direct contribution from owners based on tonnage being hauled



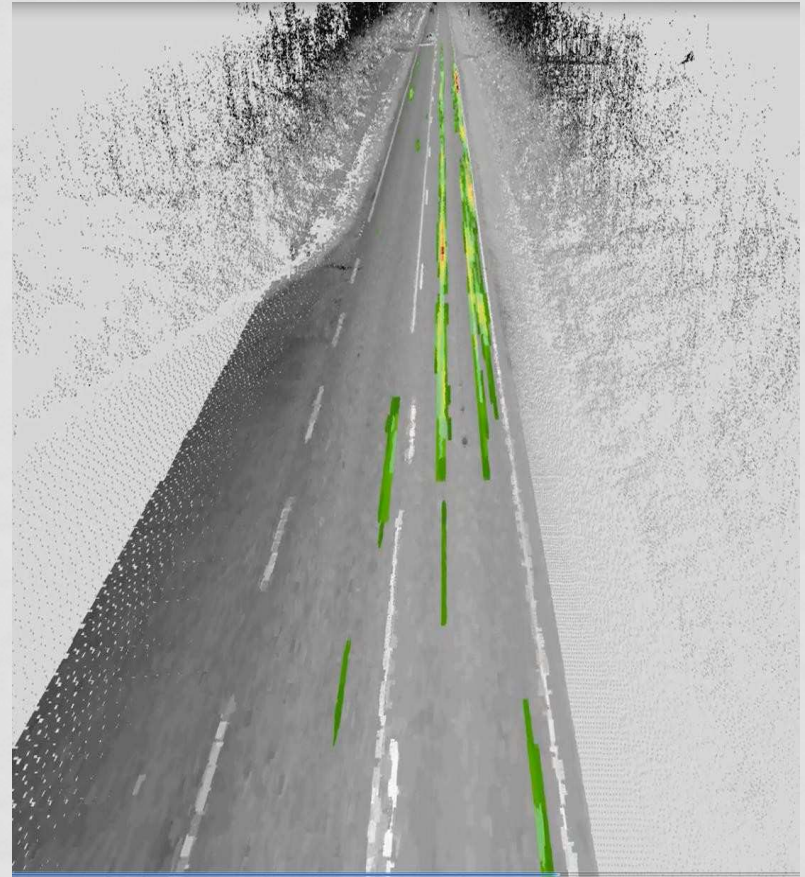


Road Asset Management can easily be 3D



New developments since 2013

- Point cloud visualisation
- Presenting results in point cloud
- Measuring of changes between point clouds
 - **Green = Minor change**
 - **Yellow = Major change**
 - Red = more than 6mm/year!**



Summary

- Potential to deliver between 112,000 and 140,000 tonnes over a 40 week year.
- Timber will be loaded directly onto train wagons, stock piles to be within forests.
- It is anticipated that 7 trucks based at Kinbrace will be required to service the haulage.
- Paradigm shift required by owners/agents to manage haulage and road space allocation perhaps best handled by a cooperative of forest owners.
- Additional funding will be required to protect and improve the road infrastructure.
- The owners cooperative to manage the future monitoring, assessment and repair of the road network.
- Modal shift required to measure and market harvested timber.

THANK YOU

QUESTIONS?