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# **Baltic Loop**

### **Circumstances of the Northern Corridor**

Final seminar 16.6.2021



Baltic Loop

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### Topics of the presentation

- Corridors
- Finland`s E18
  - Traffic and accidents
  - > Bottlenecks
  - $\succ$  *CO*<sub>2</sub> emissions
  - The area of Turku
  - In addition

# **Three main corridors**







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# Finland's E18 and locations Baltic Loop



# **Subsegments**





[1a] = Port of Turku[6, 7, 8) = RING III[13] = Vaalimaa[1b] = Port of Naantali[13] = Vaalimaa



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### **Traffic accidents**







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### **Bottlenecks along the corridor**





[Time losses – Increase of fuel consumption – Increase of emissions]



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# **Effects of the bottlenecks**



Port of Turku – Raisio – RING III – Vaalimaa			
Length	367 km		
Time consumption	5 h 29 min		C
Avg. Speed	66,8 km/h		Summary
Number of bottlenecks	28 pcs		
Time loss	6,35 min +(1,5 – 3,3) min*		
Fuel consumption	21,9 I (Diesel)		Effects
$CO_2$ emissions	57,9 <i>kgCO</i> <sub>2</sub>		

\*The calculation includes an estimation of the time loss due to RING III congestions, using the obtained driving time data and an average speed estimation of 65-68 km/h (average speed driven 62,7 km/h)



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#### **Increase of emission production by subsegment**





# Bottlenecks in the area of Turku





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#### Time losses in the area of Turku by subsegment





## In addition



E18

Carbon dioxide emissions

• The route E18 carbon dioxide emissions is 1,52% out of total emission production in Finland in a year

#### HCT 78t

Increase of emission production

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• 100 trucks produce carbon dioxide emissions due to the bottlenecks in corridor is approximately 5 800 kgCO2 per day



Additional fuel consumption as a percentage of total consumption

**GIS** assistant

- Additional consumption of total consumption is approximately 12 %

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#### On behalf of me and TUAS Thank you for your time!



