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Agenda item 7)

Statens vegvesen

Norwegian
Public Roads Administration

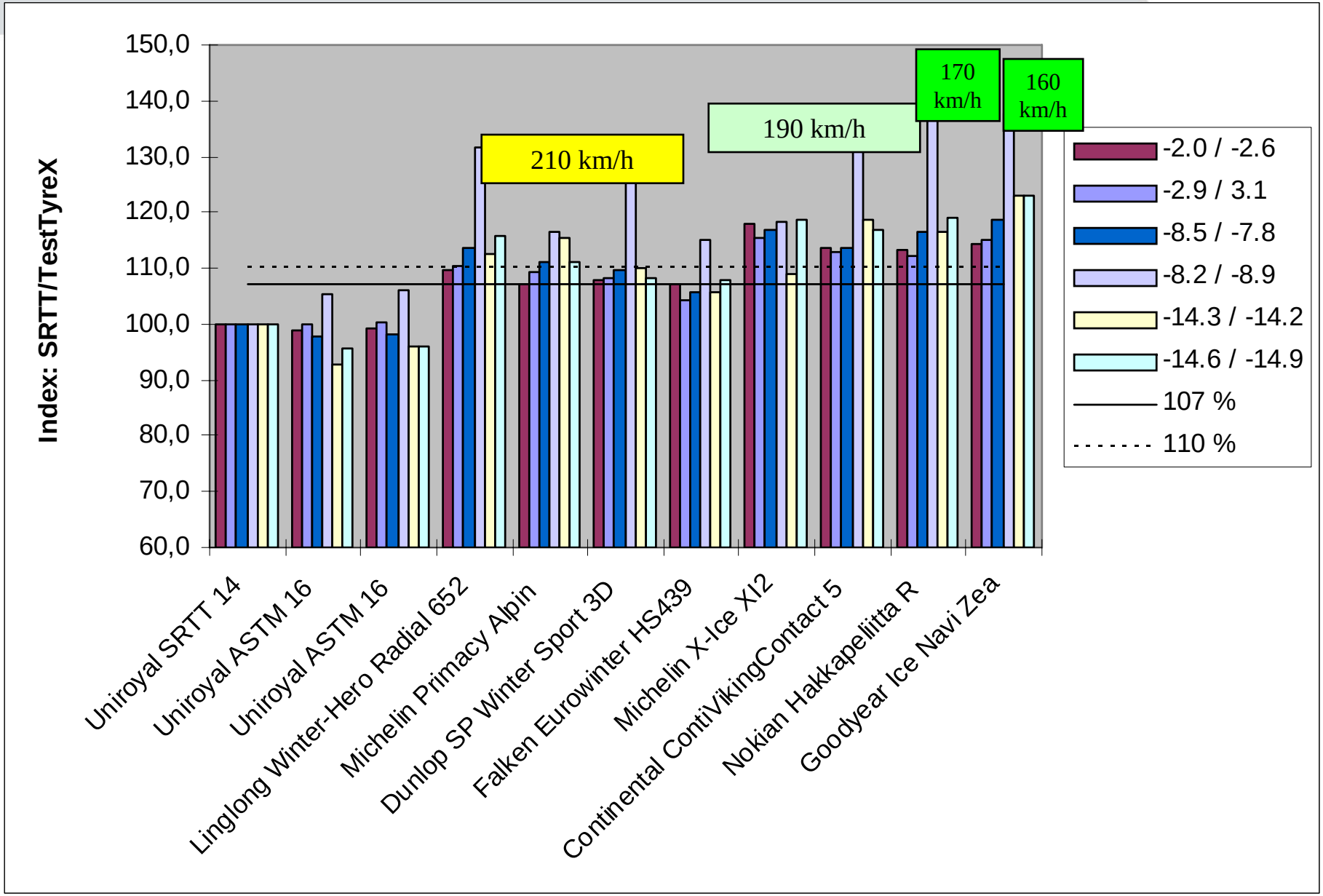
# Snow braking and ice braking tests

Test World Ltd, Finland

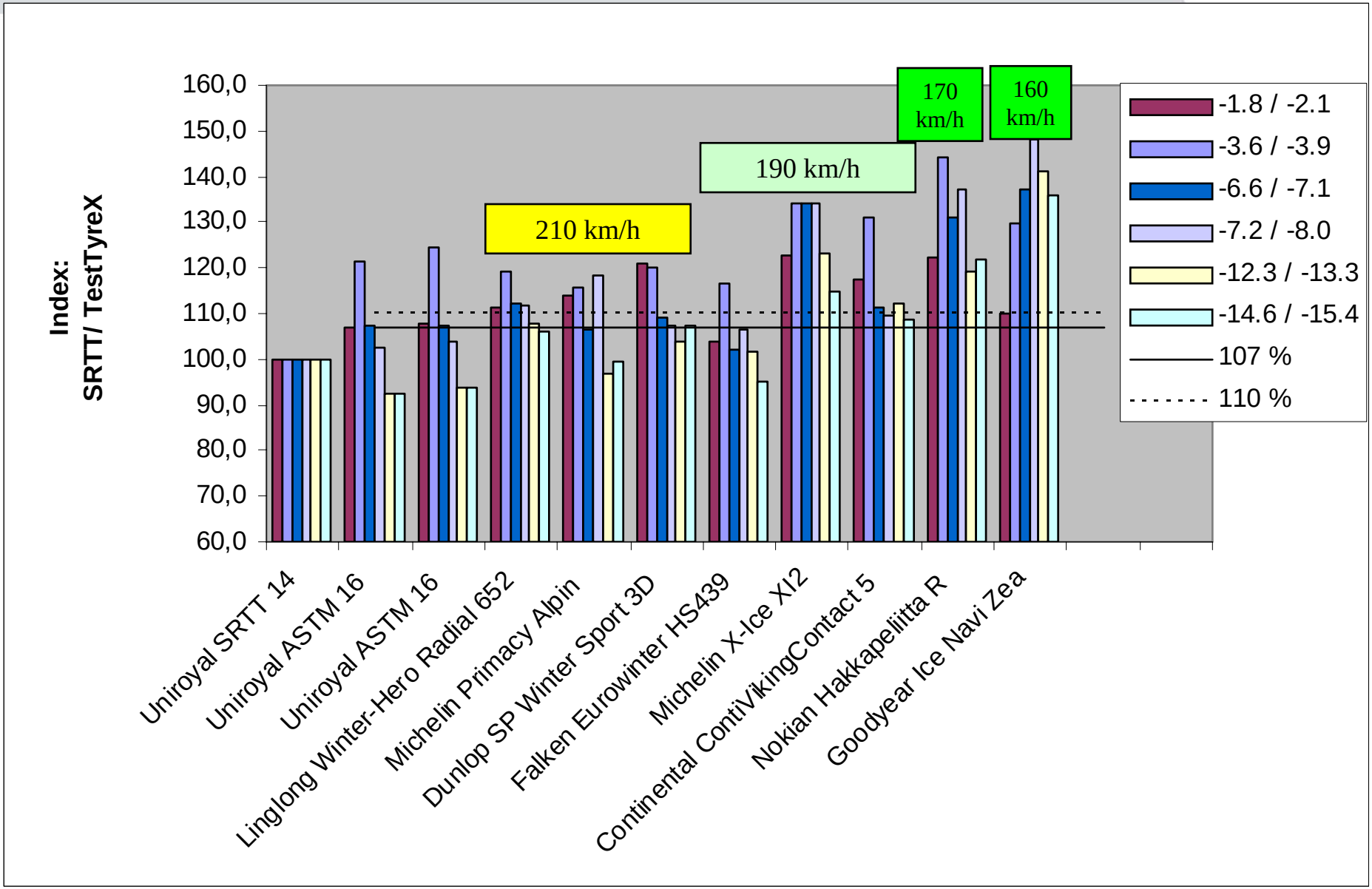
# Objectives

- Test the performance of 8 winter tyres, consisting of tyres designed for both Nordic and milder winters, and to compare them with the SRTT 14’ and the ASTM 16’ tyres.
- Find the performance levels of different tyre types
- Find the performance limits of premium and low quality tyres
- Check the performance on ice, snow and wet asphalt (wet asphalt not tested yet)
- Test the effect of test conditions, having tests made in a range of different temperatures
- Have information about the reproducibility, by repeating the tests also in same temperatures

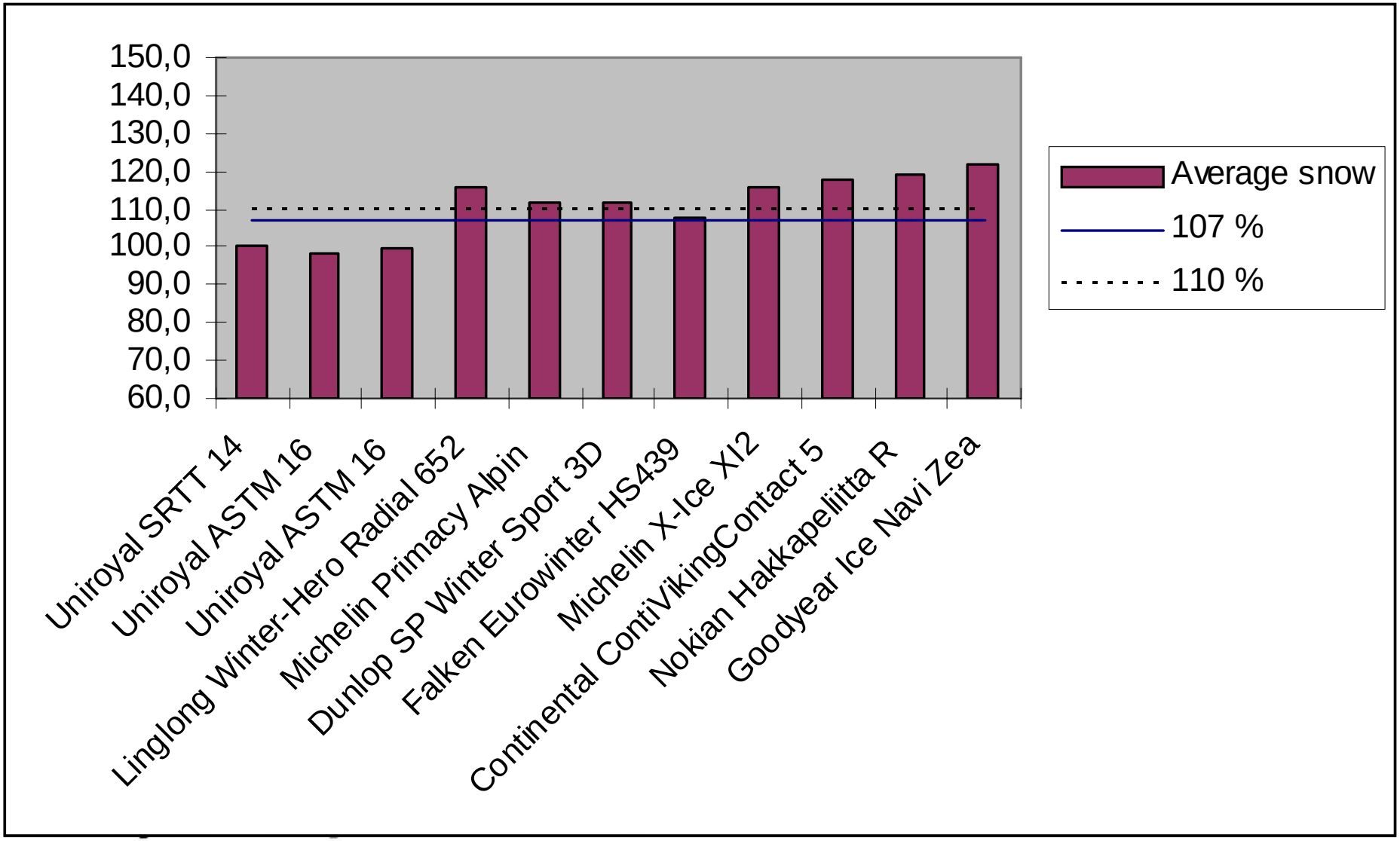
# Snow braking at different temperatures, °C



# Ice braking at different temperatures, °C



# Average results – snow braking



# Results

- The main challenge is that in some tests and conditions, some tyres behave very differently, but only some.

- The temperatures have an effect for the above, but not always. The conditions have different effect to different tyres. Some tyres perform better in low temperatures, some in high temperatures.
- The main conclusion is that it is vital to do the tests more than once. Probably at least 3 times, each in different day and temperature. The average would give a good view of the tyre performance.

- When tested only once, it is possible to get almost any result for a certain tyre.
- To prevent poor performing snow tyres in the market, the minimum snow perfomance index should be 1.10 for C1 tyres.