

A methodology to create a design fire

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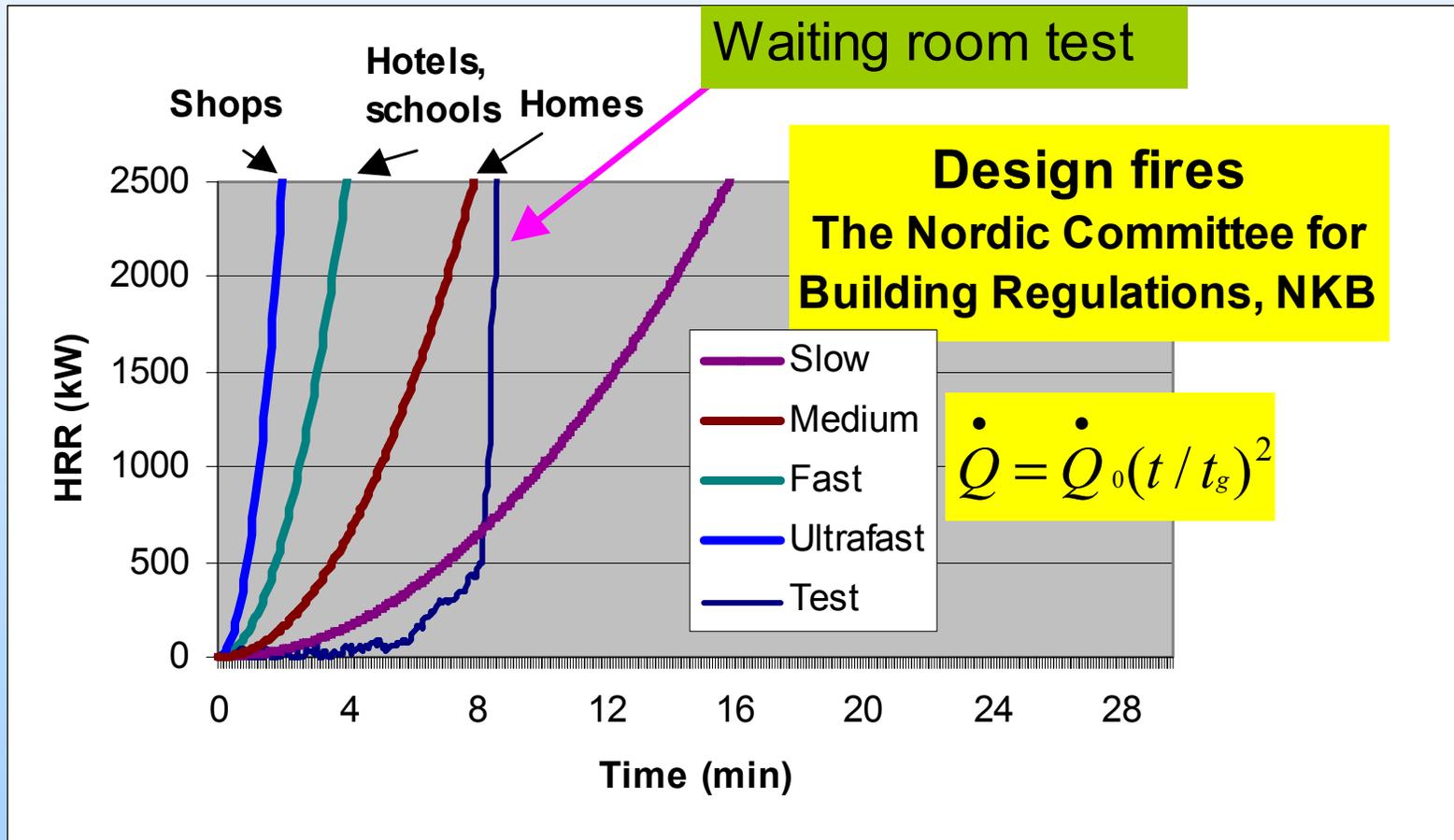


The design fire is
decisive for the result
when performing an
analysis of safety in
case of fire

Fire test of waiting room



Design fires by Nordic regulators



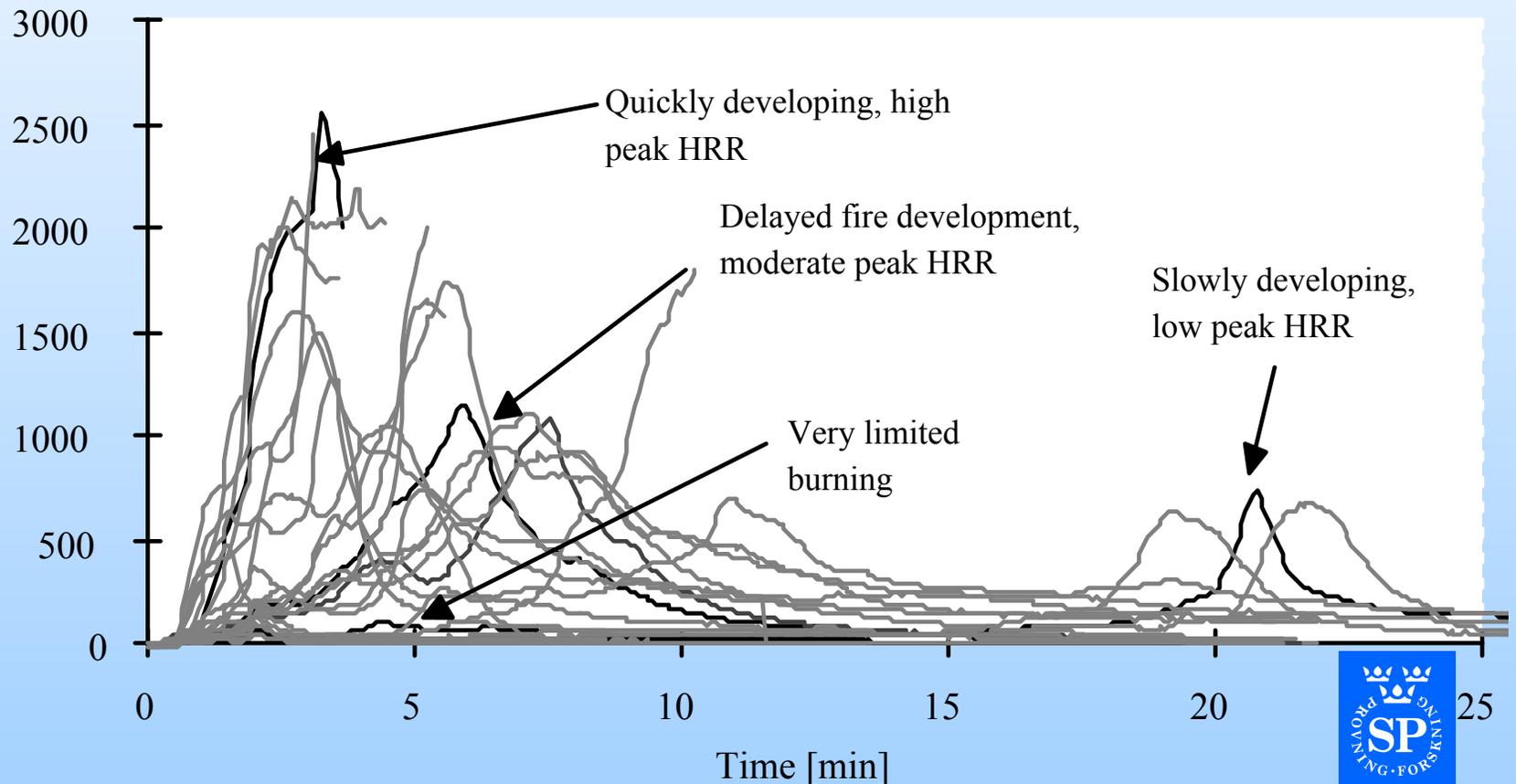
Characteristic fire growth

The burning behaviour of products or groups of products can be described by use of characteristic fire growth

The characteristic fire growth is used to create the design fire

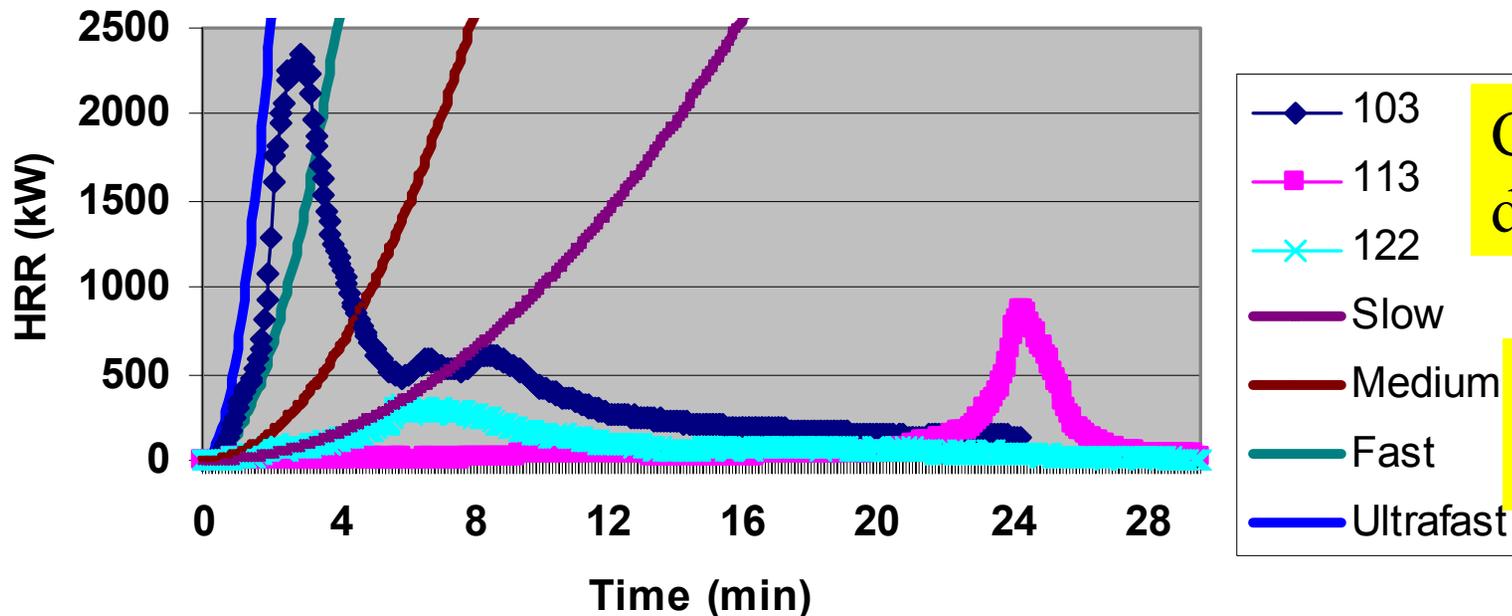


A representative selection of European furniture as regards burning behaviour and market shares (from CBUF)



Characteristic fire growth for upholstered furniture

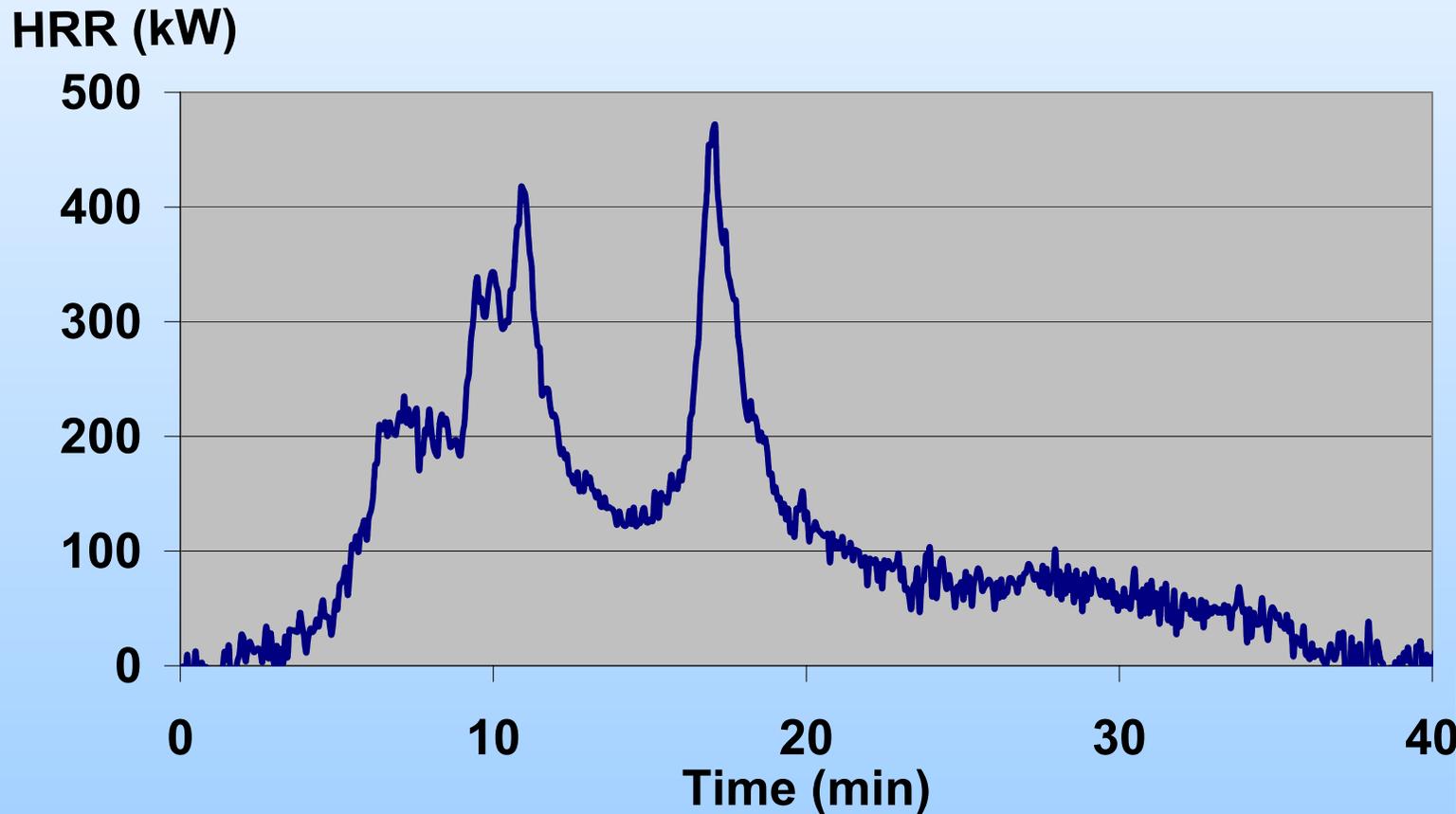
Heat Release Rate, HRR, for typical furniture in Europe, (from CBUF)



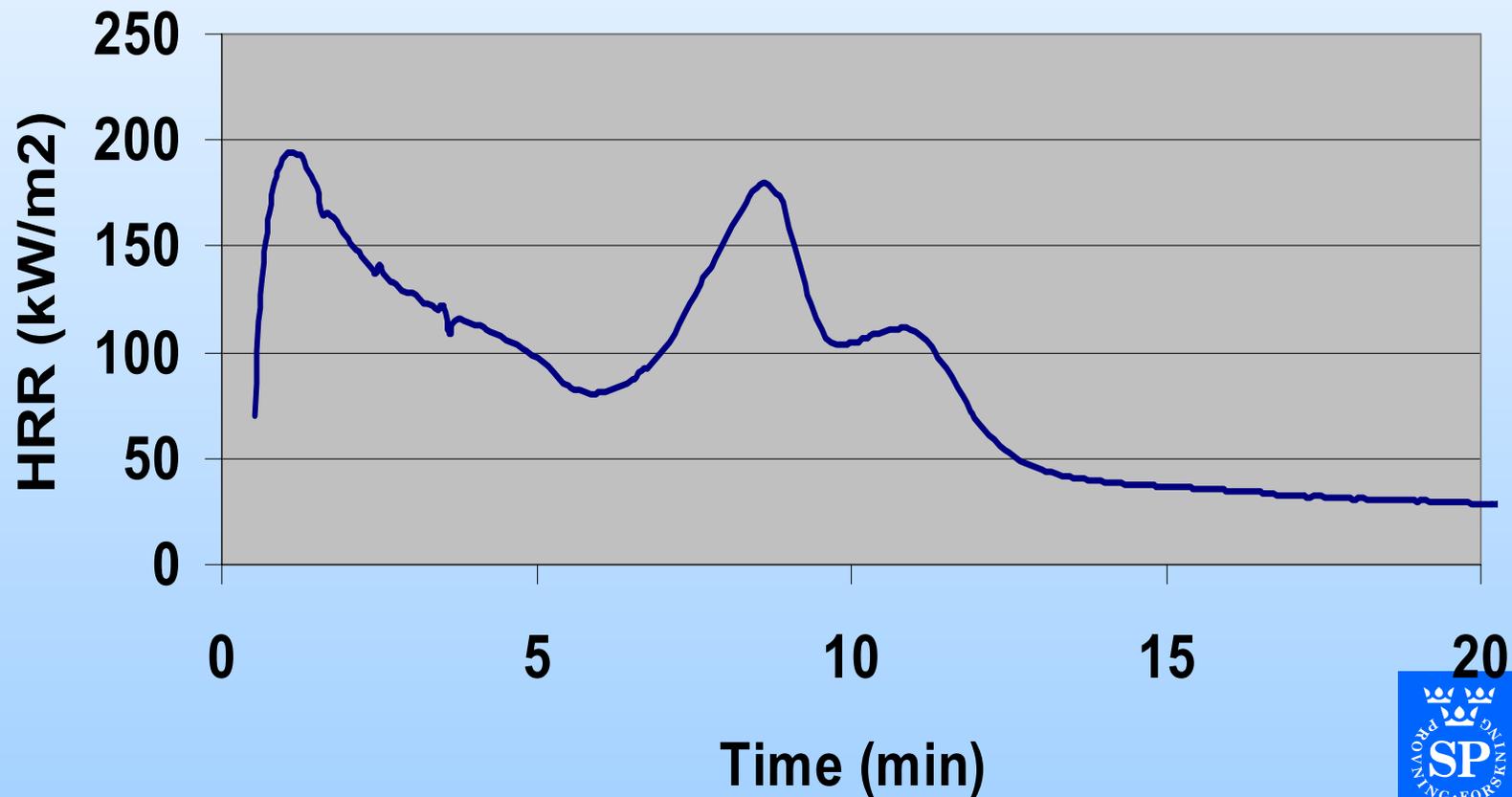
CBUF
data

ISO
standard

Characteristic fire growth for the tested waiting room chair

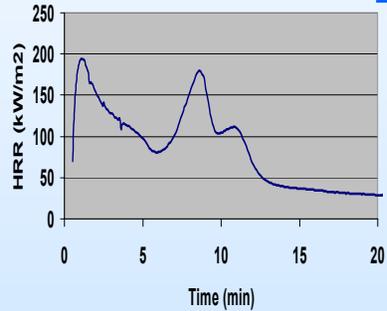


Characteristic fire growth for linings of performance Euroclass D according to the Cone Calorimeter

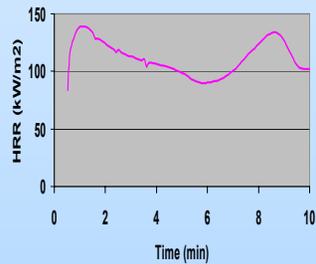


The methodology

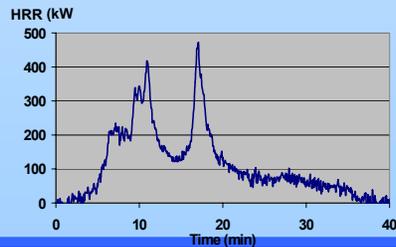
Wall



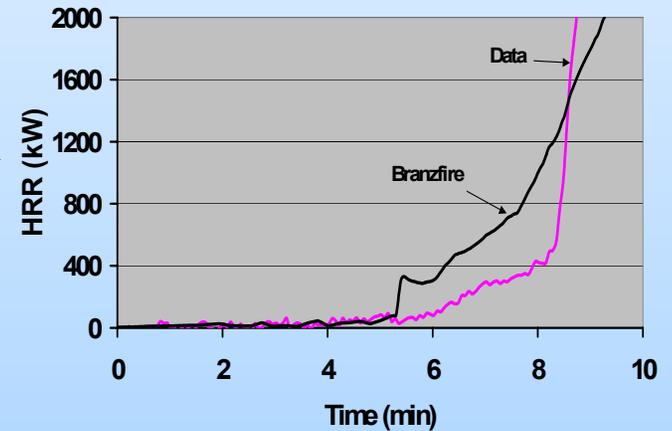
Ceiling



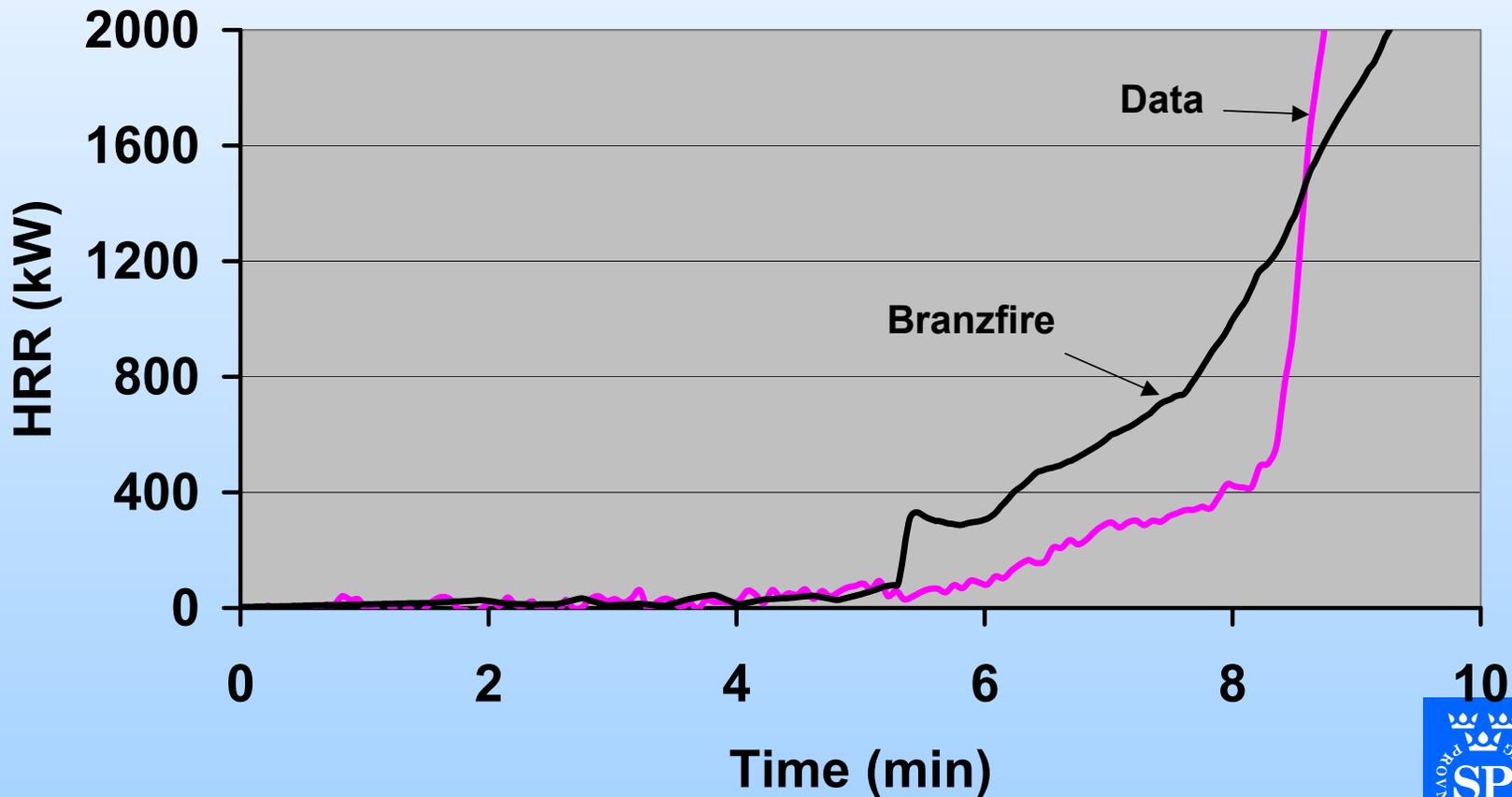
Chair



Calculation
method



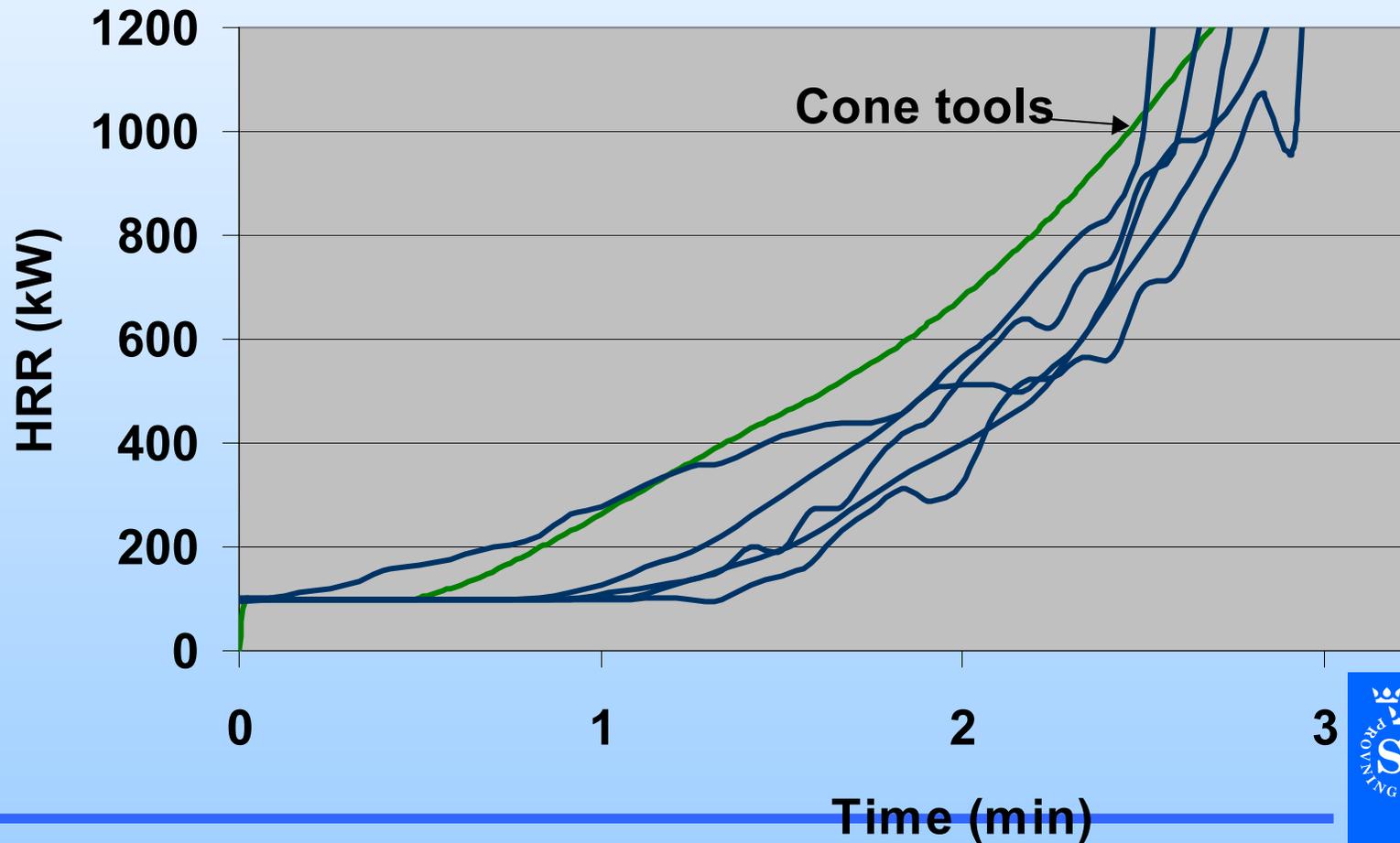
The waiting room. Experiment compared to calculated design fire



Room/Corner Test



Room/Corner Test. Experiment compared to calculated design fire



The importance of linings

Euroclass B
Covering class K

Euroclass D



Euroclass B, Covering Class K

Yttsikt klass I

Tändskyddande beklädnad

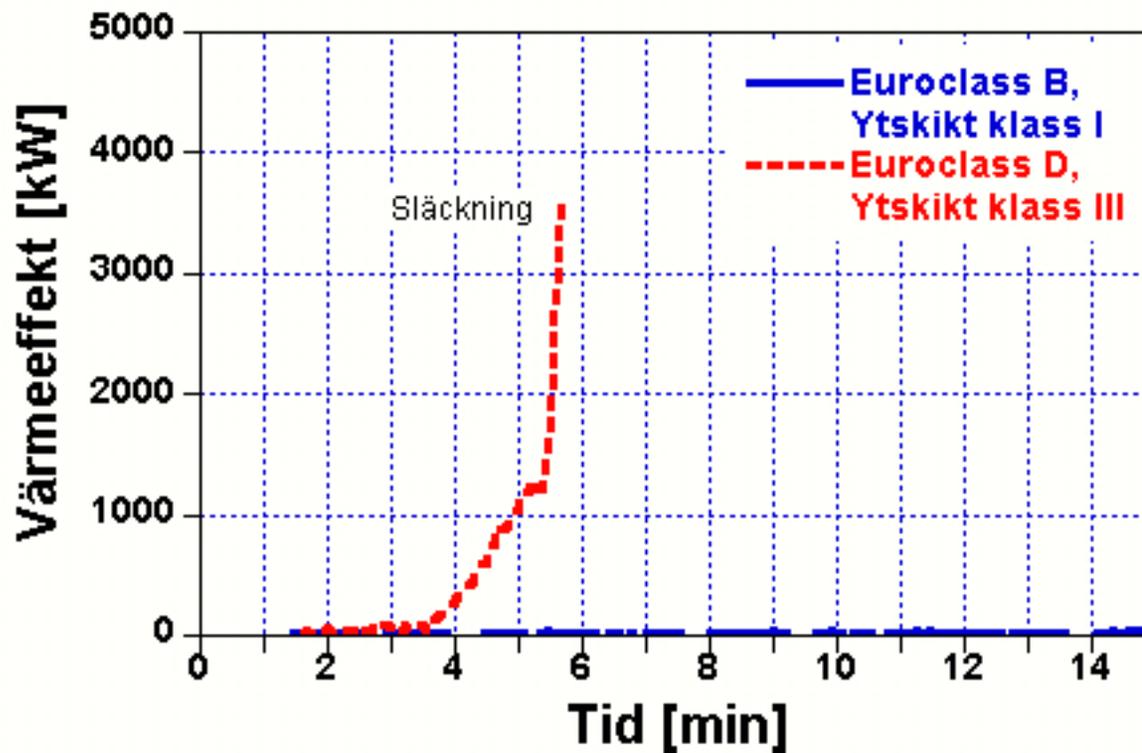
Golv klass G



Euroclass D



Flashover, the point of hazard





Thank you