

# Vehicle noise behavior - French concept

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(44th GRB, 4-6 September 2006  
agenda item 1.2.1.3.)

## Model :

$$L_{\text{tyre}} = L_{\text{tyre}}(v \text{ ref}) + a * \log(v/v \text{ ref})$$

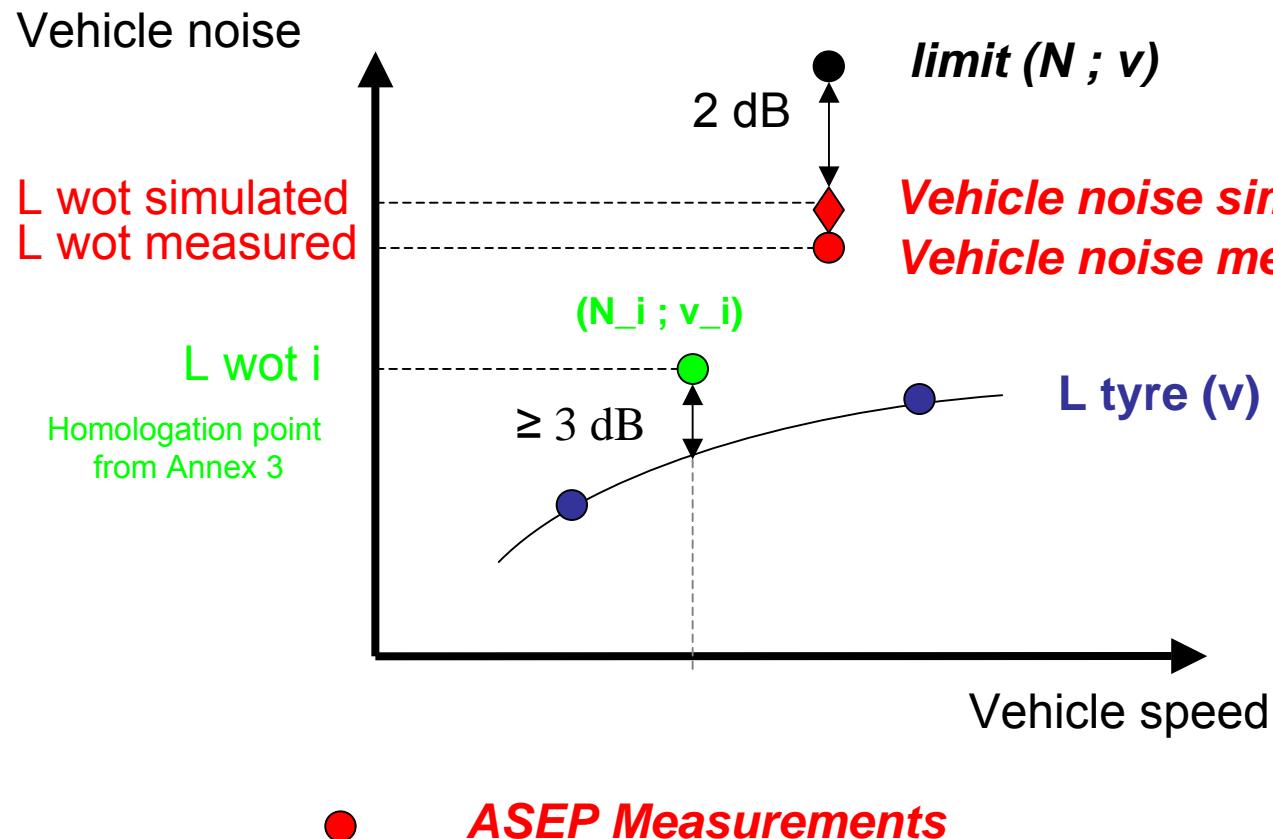
$$L_{\text{engine expecting}} = L_{\text{engine}}(N \text{ ref}) + b(N - N \text{ ref})$$

$$L_{\text{vehicle}}(N, v) = L_{\text{engine expecting}}(N) \ll + \gg L_{\text{tyre}}(v)$$

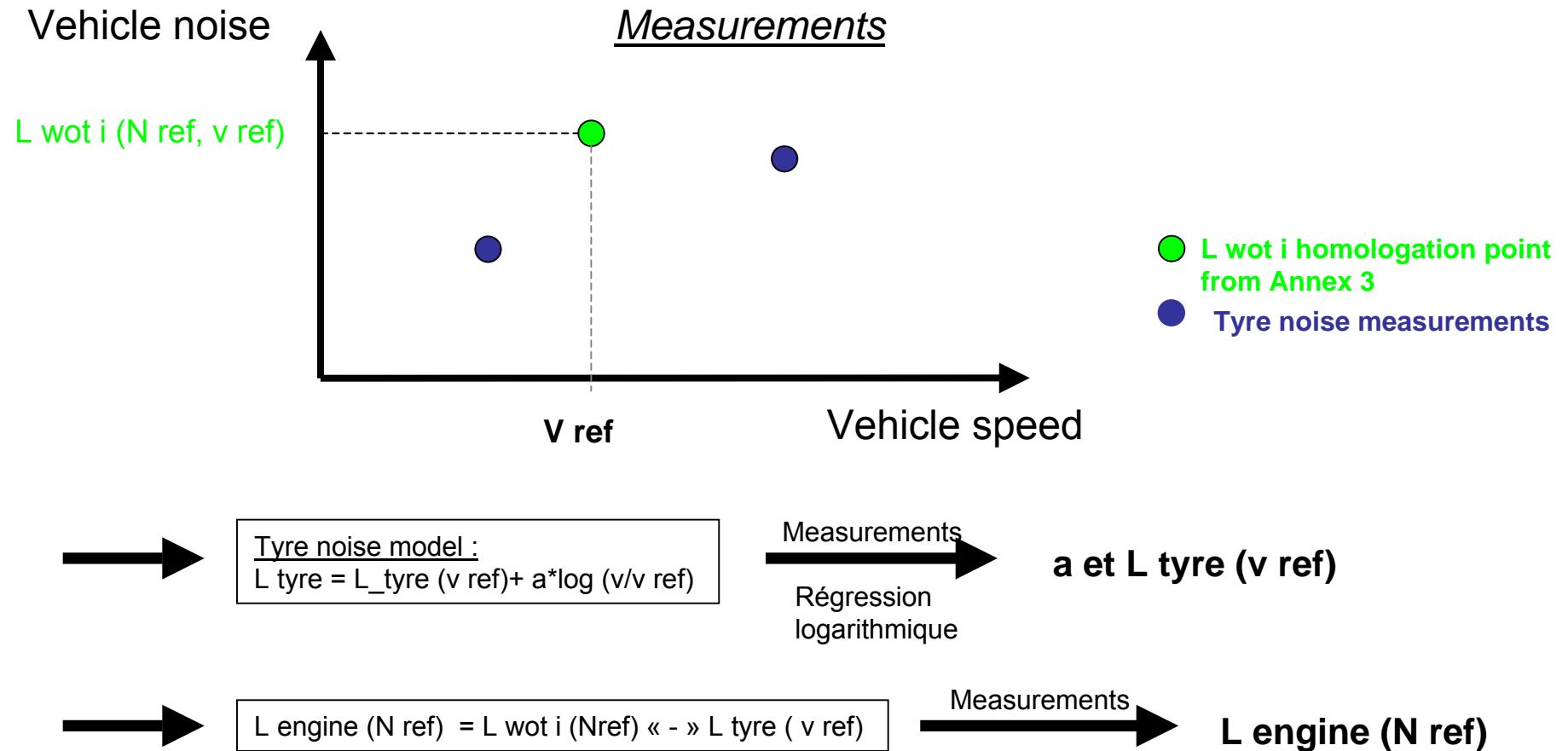
$$L_{\text{limit}} = L_{\text{vehicle}}(N, v) + 2 \text{ dB}$$

## Critique :

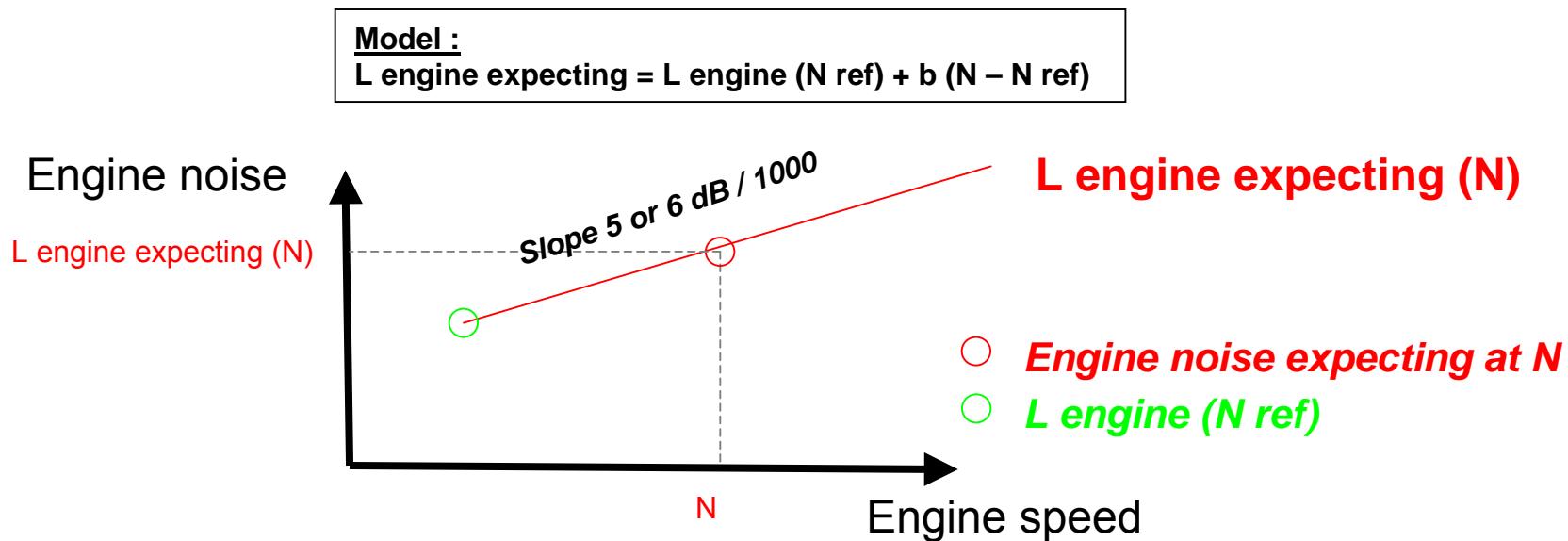
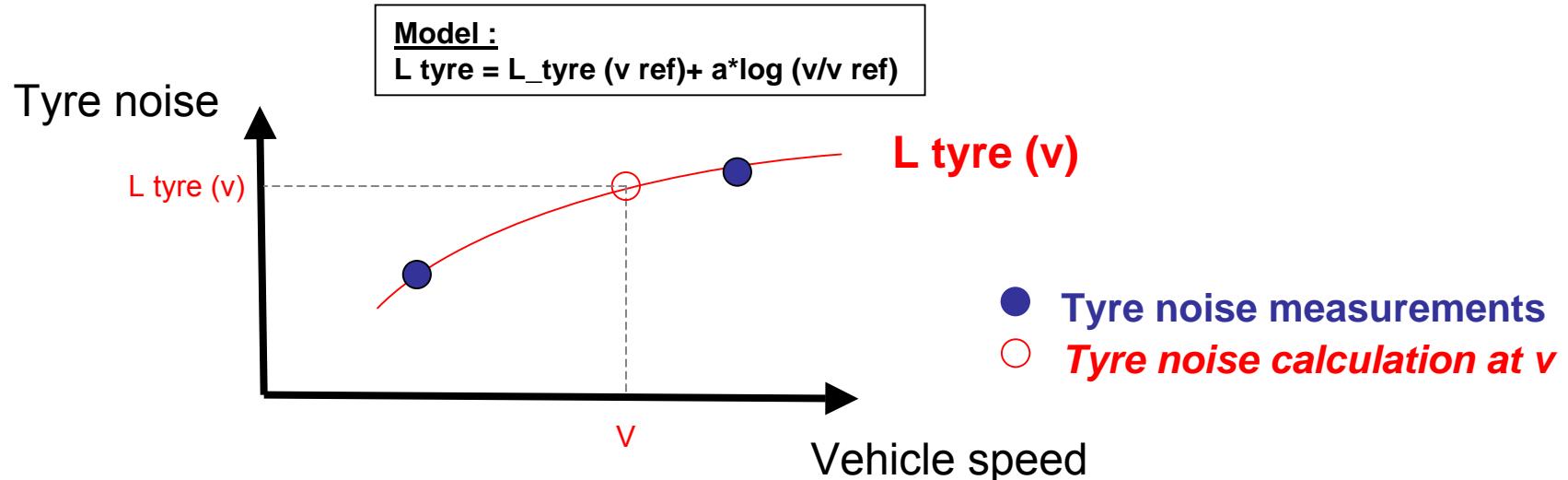
- Compliquée
- Bruit pneumatique incomplet (effet couple)
- Robuste



# Vehicle noise behavior French concept : Construction of the model



# Vehicle noise behavior French concept : Model Application for (N, v)



**Model :**

$$L_{\text{vehicle}}(N, v) = L_{\text{engine expecting}}(N) \ll + \gg L_{\text{tyre}}(v)$$