

WEBEX commissioner Simson

May 26, 2020



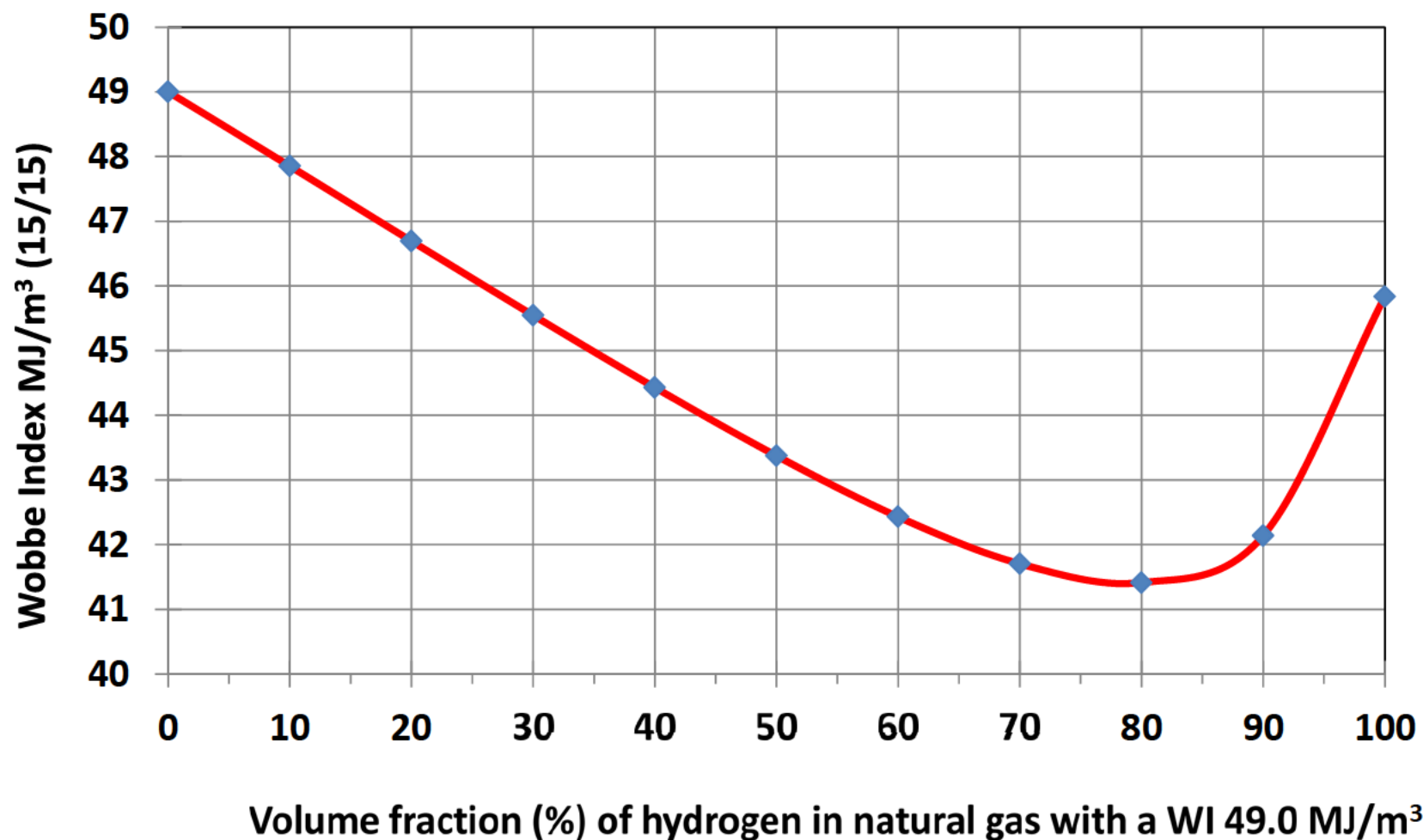
Hydrogen certainly has a future as an energy carrier

However:

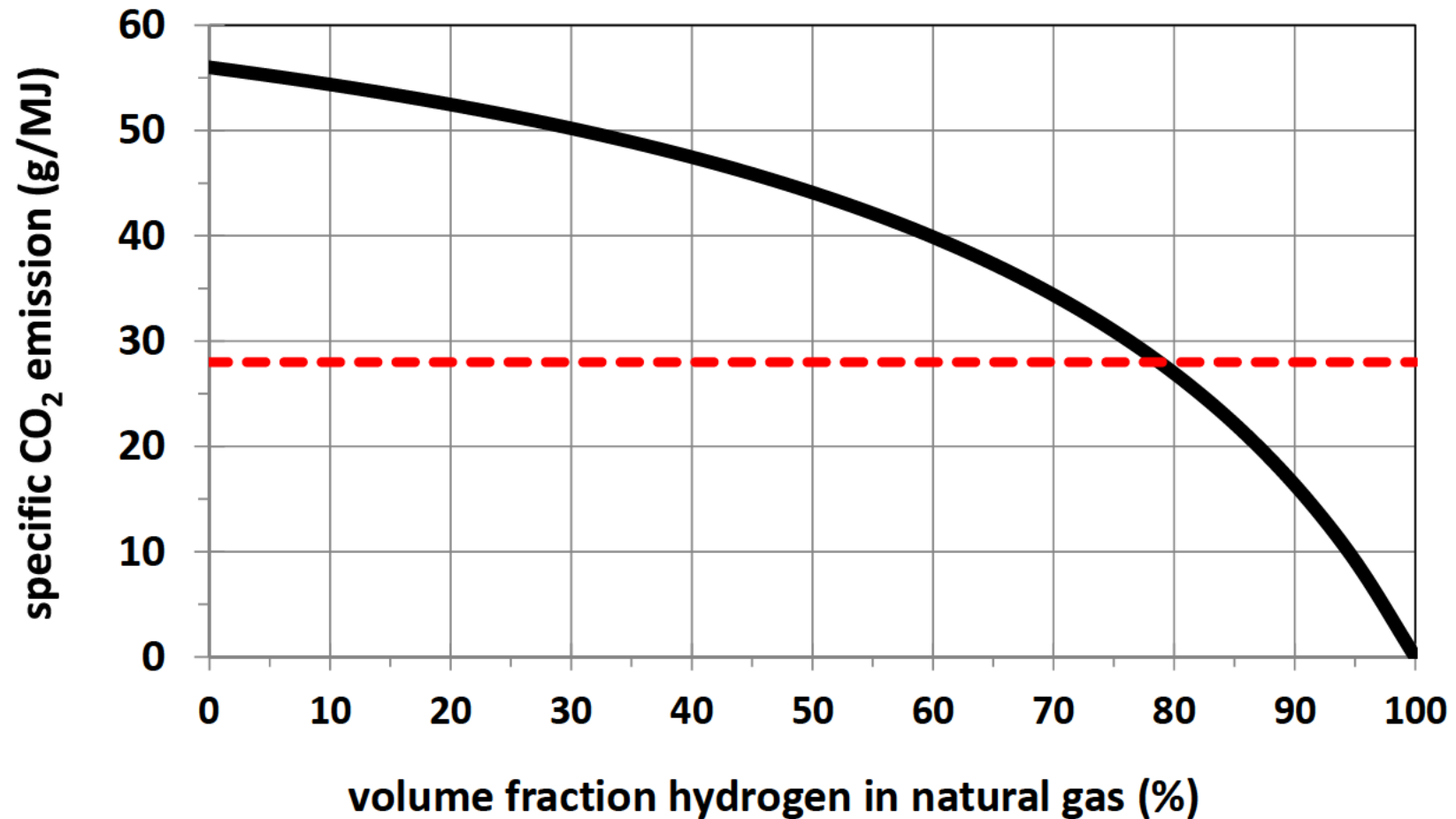
- 1. As a dedicated energy carrier for an optimised use of this valuable and expensive gas;**
- 2. Or, blend it with natural gas and burn it for heating purposes.**

Some illustrations

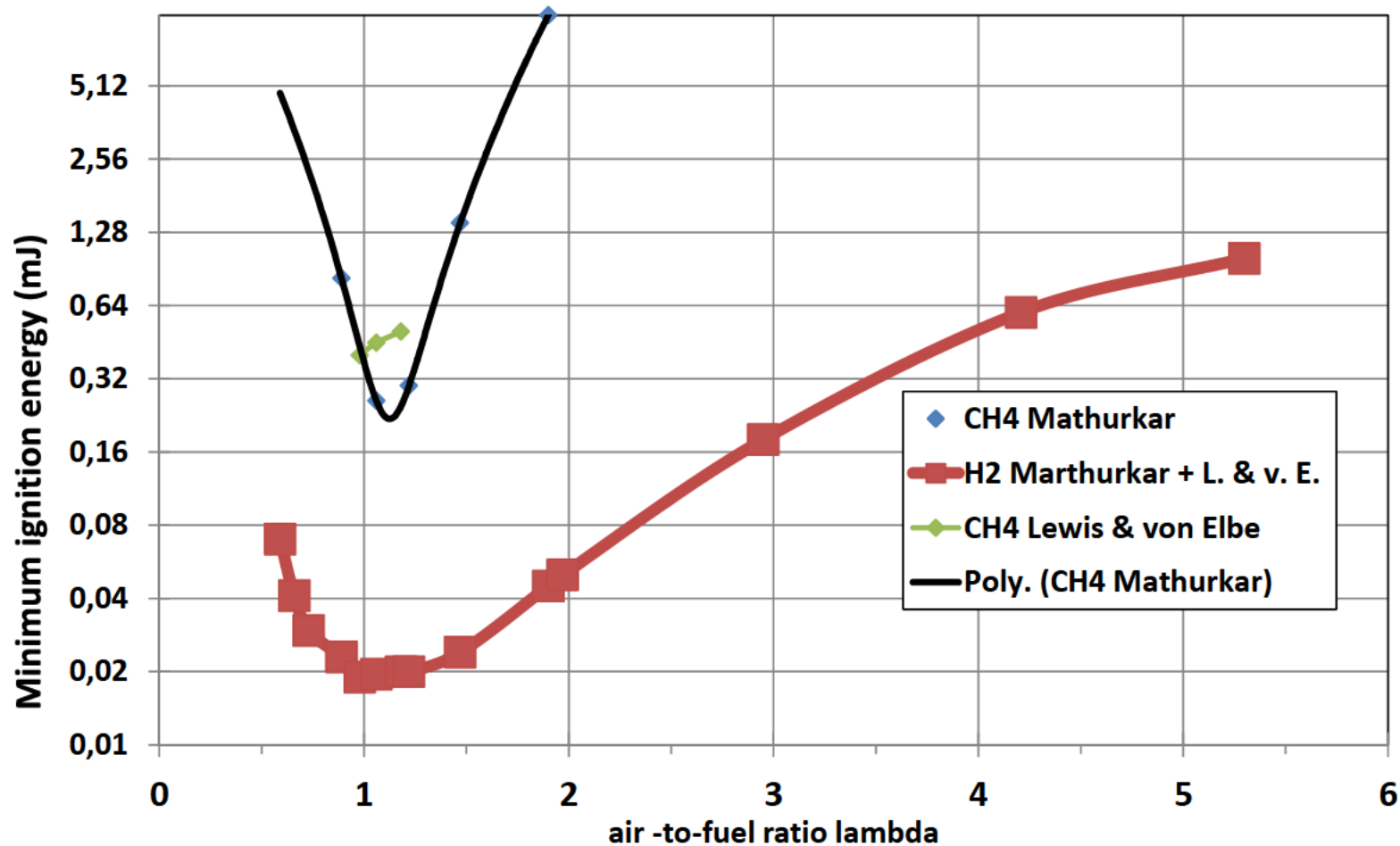
Many gas users need a maximum Wobbe Index range of 3.7 MJ/m³
Hydrogen rapidly widens the Wobbe Index range



The 'greening' effect of hydrogen in natural gas is very low



Hydrogen ignites a factor 10 easier than natural gas. Risky when leakage in buildings



Heating: hydrogen or electric ???



1 kWh
electricity



Heat pump

3,5 kWh heat



Factor 6 !!!



1 kWh
electricity



Elektrolysis

0,7 kWh
hydrogen



0,6 kWh
heat



Advice

1. Use hydrogen primarily where it is needed: industry
2. Do not blend hydrogen with natural gas in uncontrollable fractions for just burning the precious gas.
3. Stimulate the development of dedicated hydrogen applications
4. Avoid at any case that essential back-up power plants will suddenly shut down because of huge variations in gas quality caused by blending hydrogen with natural gas. A general power black-out is factors worse than a corona virus and very damaging for the society.