

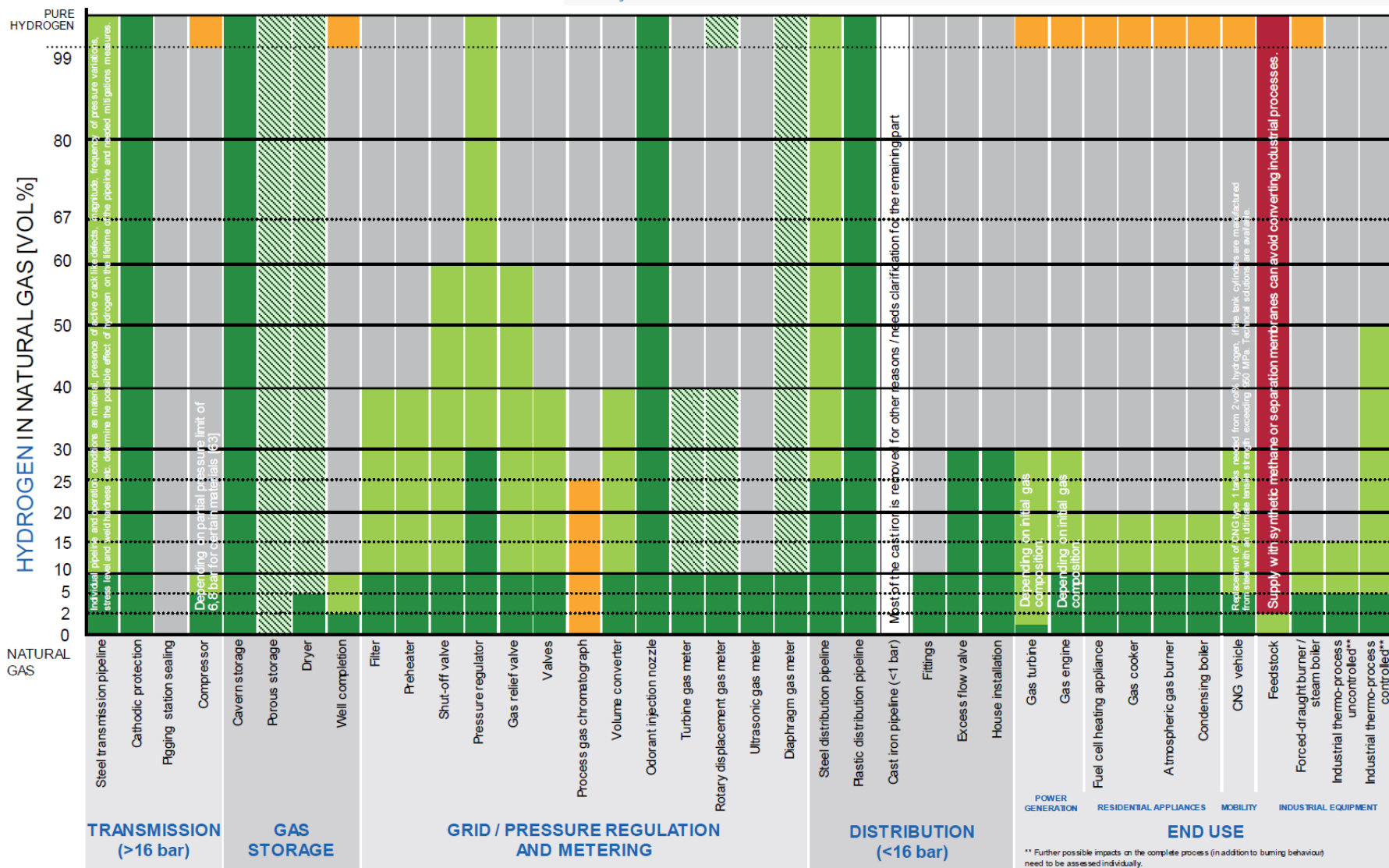
The shift towards hydrogen is not a mission impossible!

OVERVIEW OF AVAILABLE TEST RESULTS* AND REGULATORY LIMITS FOR HYDROGEN ADMISSION INTO THE EXISTING NATURAL GAS INFRASTRUCTURE AND END USE

- No significant issues in available studies*.
- Mostly positive results from available studies*. Modifications/ other measures may be needed.
- Technically feasible, significant modifications/ other measures or replacement expected.
- Currently not technically feasible.
- Insufficient information on impact of hydrogen, R&D required.
- Conflicting references were found, R&D/ clarification required.

This assessment is based on information from R&D projects, codes & standards, manufacturers and MARCOGAZ members expertise. The assessment applies to segments in isolation. Any decision to inject hydrogen into a gas infrastructure is subject to case by case investigation and local regulatory approval.

*According to the list of references.

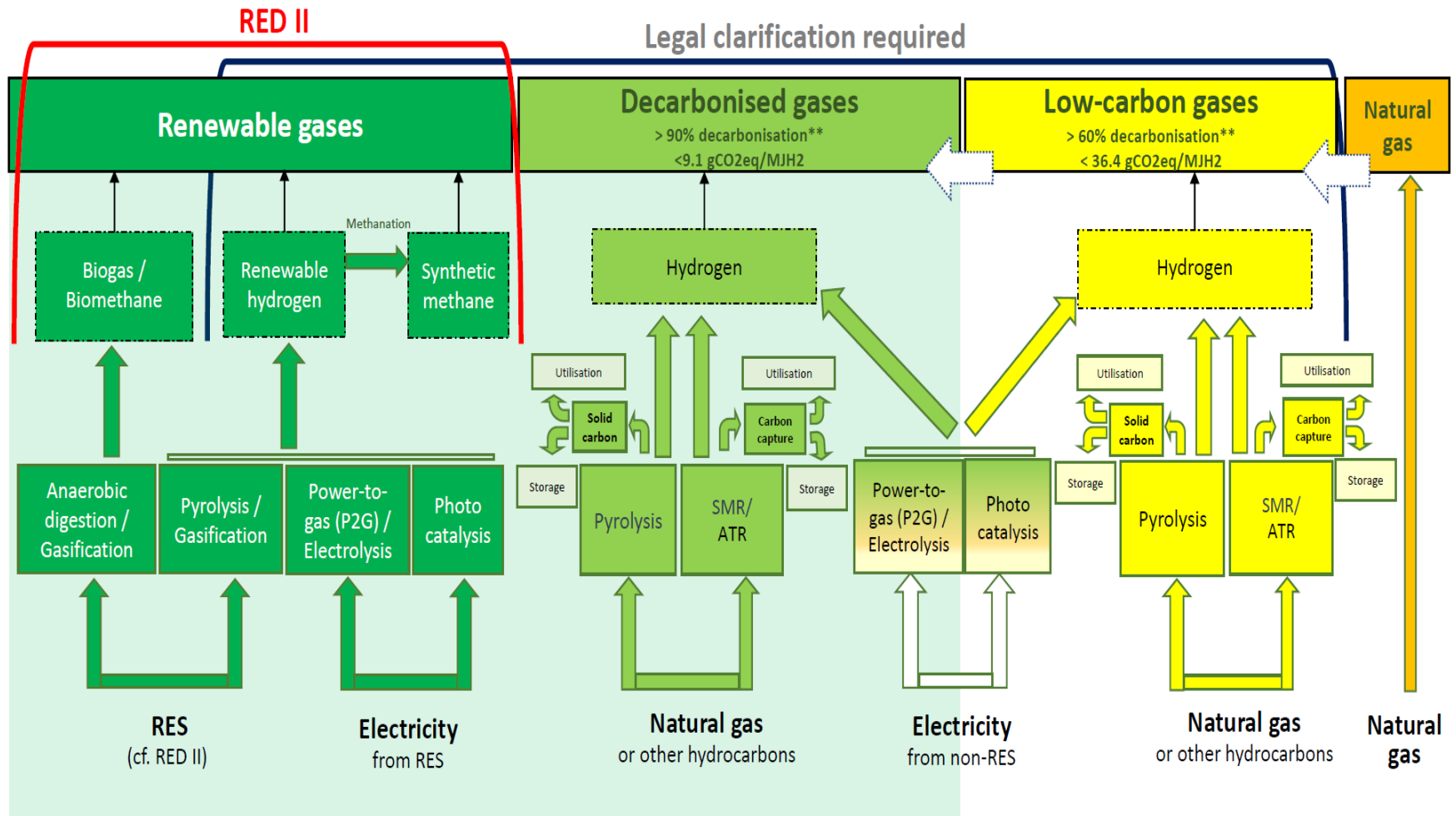


** Further possible impacts on the complete process (in addition to burning behaviour) need to be assessed individually.

Proposal at the Madrid Forum Oct 2019



LEGAL BASIS ?
PRODUCT
PROCESS *
ENERGY SOURCE



Disclaimer:

* This overview is based on existing processes and known technologies and evidently does not preclude any other existing process or new technological developments.

** The GHG reduction is calculated on the BAT 91 gCO₂/MJH₂ derived from [CertifiHy](#) and could be replaced by a comparable threshold pending confirmation of the methodological basis for CertifiHy.