

SHAPING EU CLIMATE AND ENERGY POLICY: INSIGHTS FROM AND QUESTIONS FOR THE ARIADNE PROJECT

(IN)COHERENCE IN REGULATING HYDROGEN IN THE EUROPEAN UNION

NILS BRUCH AND MICHÈLE KNODT – TECHNICAL UNIVERSITY DARMSTADT



TECHNISCHE
UNIVERSITÄT
DARMSTADT



GEFÖRDERT VOM



Bundesministerium
für Bildung
und Forschung

INTRODUCTION: WHY COHERENCE MATTERS

› Hydrogen market ramp-up from scratch

› What's holding us back?

- › Integration and development of new legislation in multiple areas (e.g. DGs) → high complexity
- › Fragmentation of hydrogen legislation

› **Peril of incoherence in legislative framework with detrimental effects on the development of hydrogen in Europe**

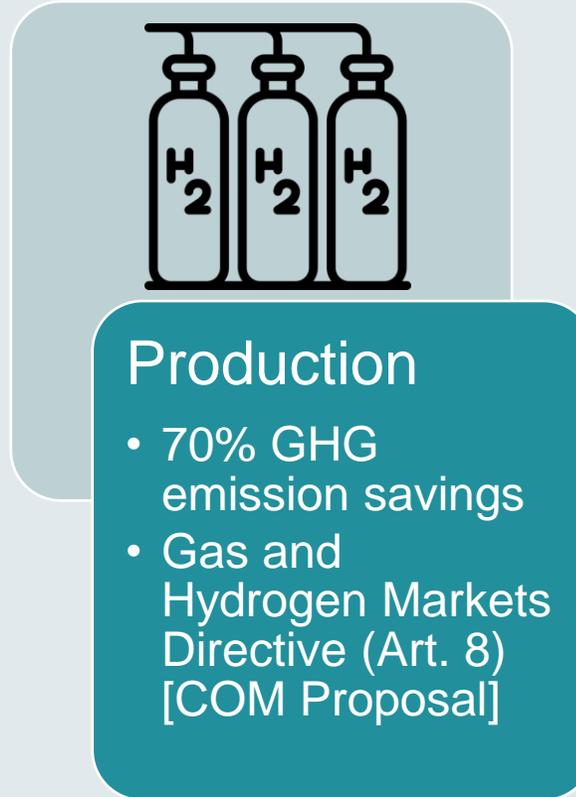
› Evidence from two dimension: **production** and **import**

PRODUCTION OF LOW CARBON HYDROGEN

› **Missing strategic approach to low carbon hydrogen**

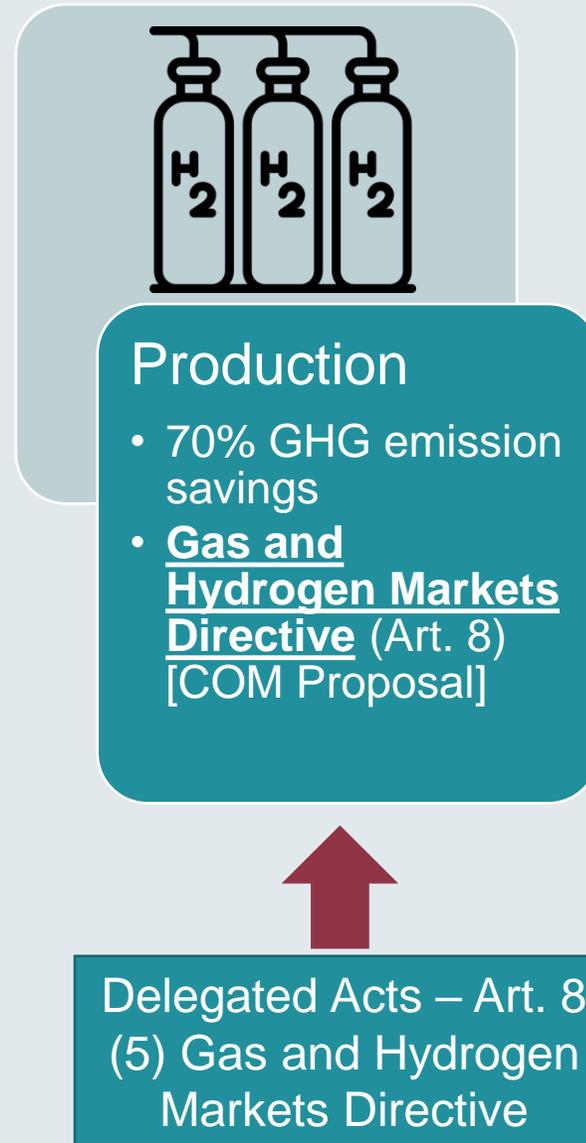
- › EU Hydrogen Strategy: „*While in a transition phase, appropriate support will be needed for low carbon hydrogen, this should not lead to stranded assets.*“ (p. 10)
- › REPowerEU Plan: No mention of low carbon hydrogen
- › Main regulatory framework: **Gas and Hydrogen Markets Directive, Art. 8 [COM Proposal]**

PRODUCTION OF LOW CARBON HYDROGEN

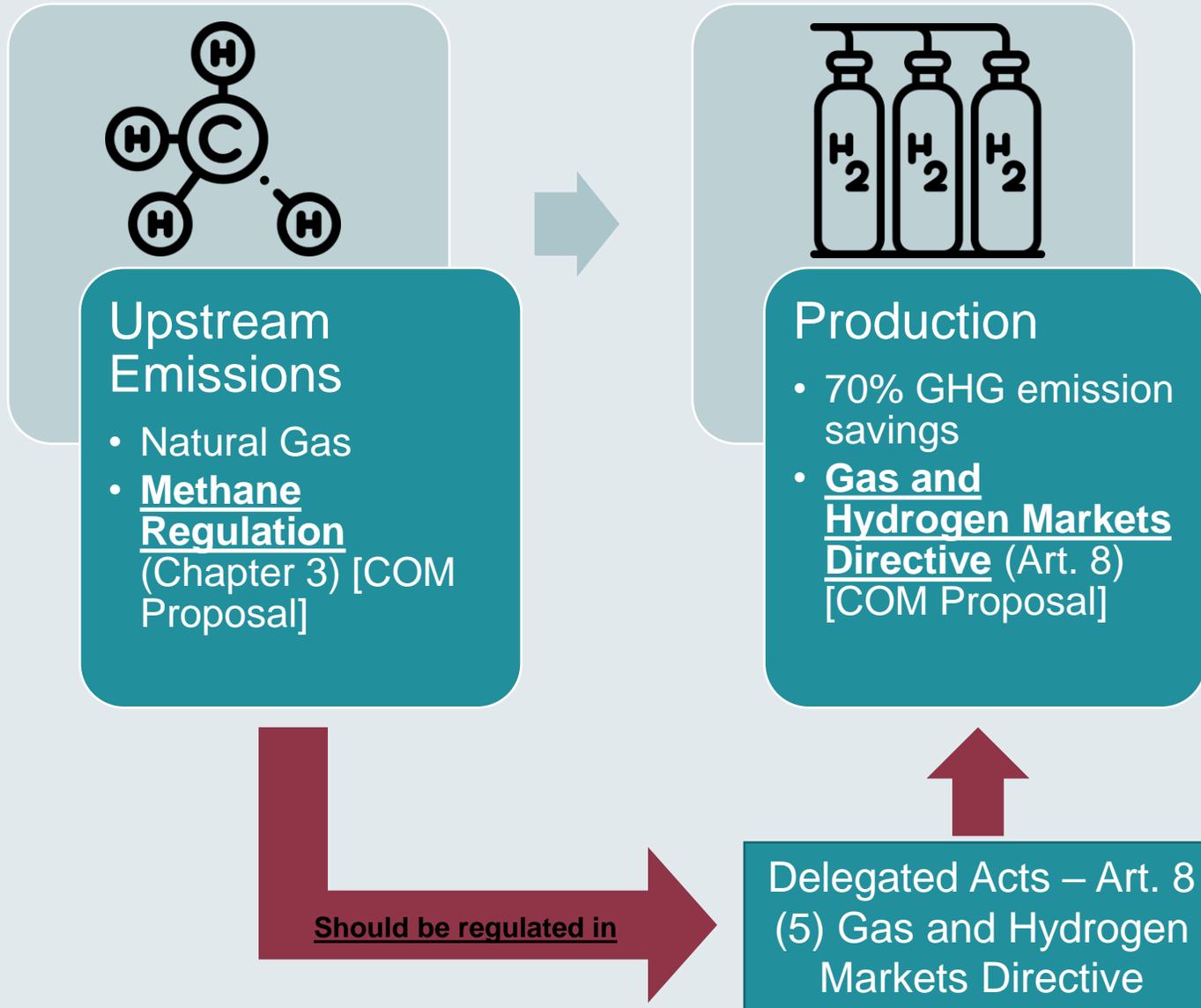


*“By 31 December 2024, the Commission shall adopt **delegated acts** in accordance with Article 83 to supplement this Directive by **specifying the methodology for assessing greenhouse gas emissions savings from low carbon fuels.**”* – Gas and Hydrogen Markets Directive, Art. 8 (5) [COM Proposal]

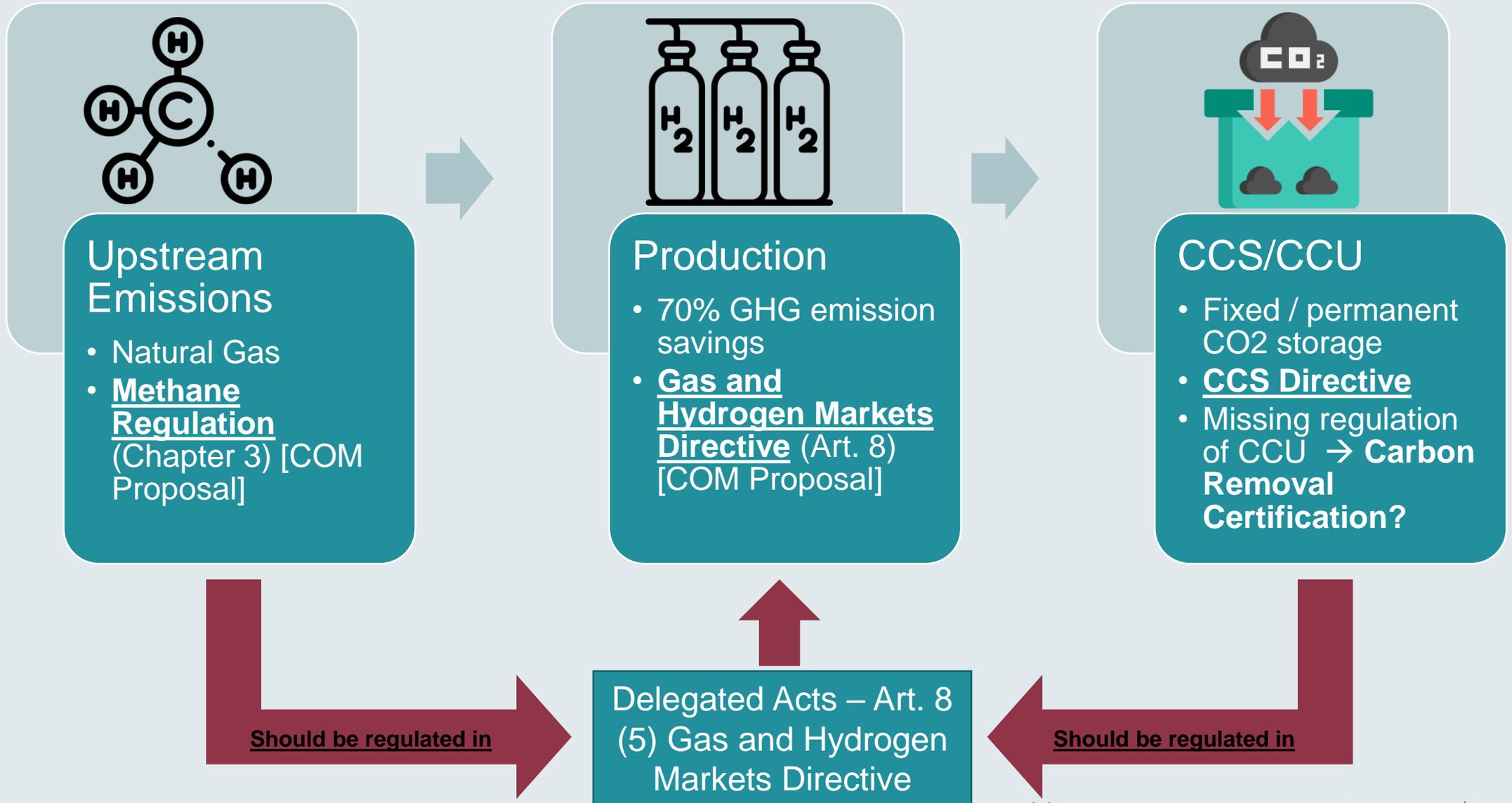
PRODUCTION OF LOW CARBON HYDROGEN



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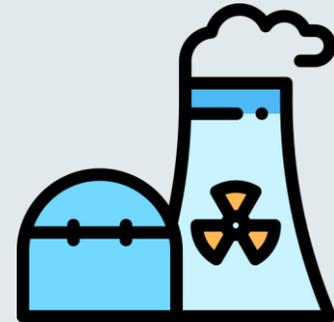
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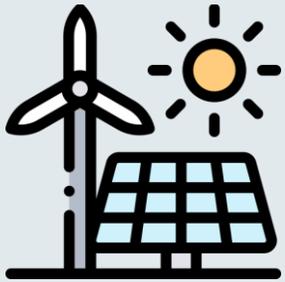
› **Missing regulation of low carbon hydrogen production from nuclear power**

- › Production under Art. 8 possible → **new Art. 8 (a)**
- › Negative effects on electricity supply in other sectors?
- › Production only with electricity not supported by financial aid?
- › Prevent disadvantages for renewable energy operators
- › **Seperate delegated act necessary?**

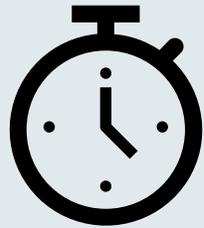


PRODUCTION OF RENEWABLE HYDROGEN

Delegated Act (REDII)



Additionality



**Temporal
Correlation**



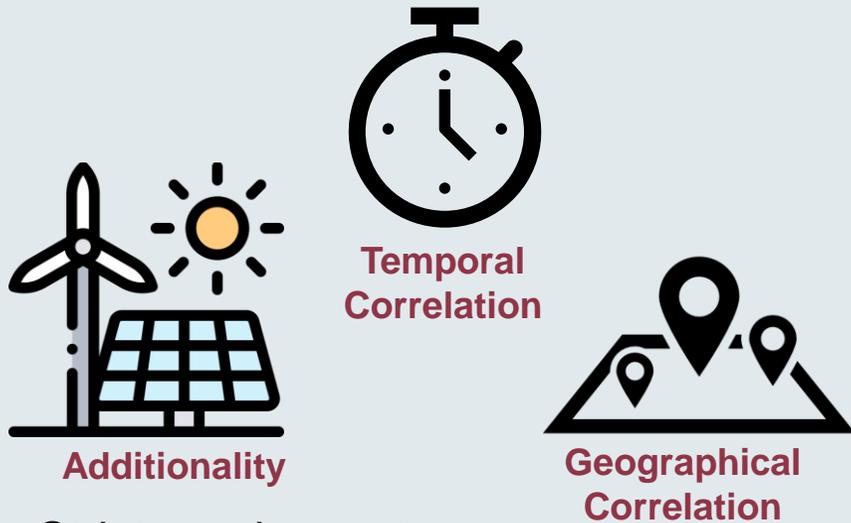
**Geographical
Correlation**

- Strict requirements
- Fast implementation

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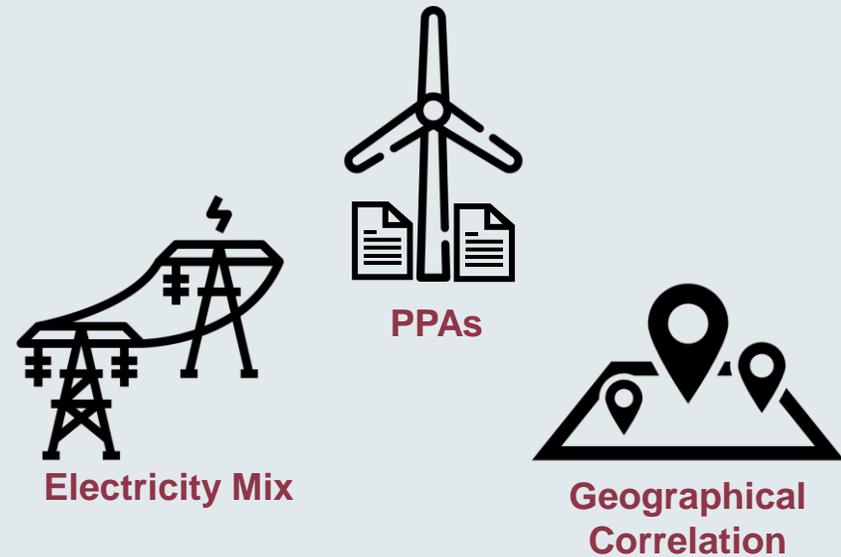
PRODUCTION OF RENEWABLE HYDROGEN

Delegated Act (REDII)



- Strict requirements
- Fast implementation

or EP Amendment (REDIII)



- More flexibilities
- (Slow) implementation in the Member States

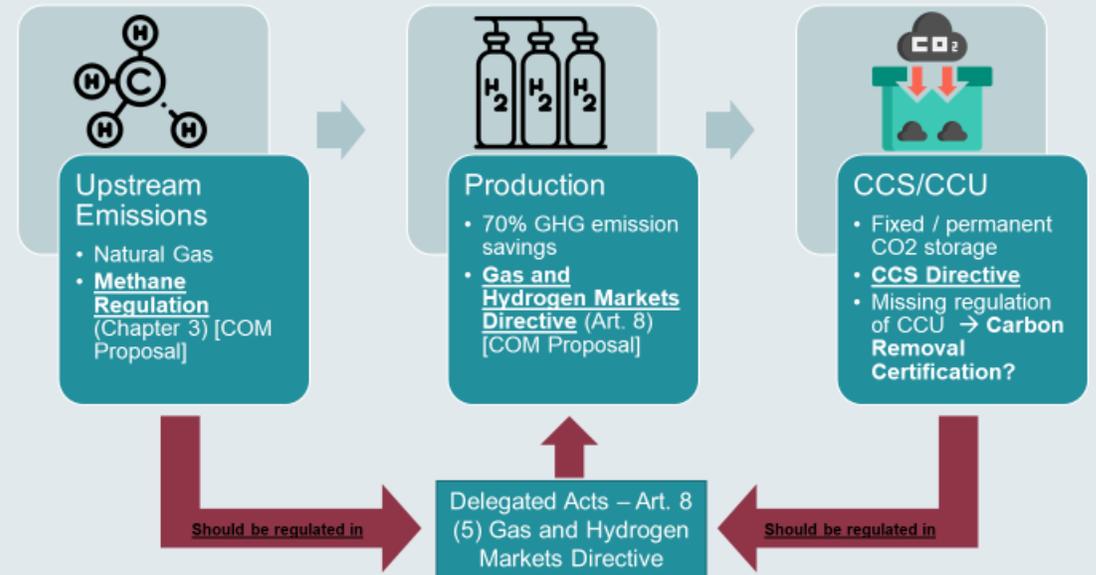
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IMPORT OF HYDROGEN

Low Carbon Hydrogen

- Guarantee of a 70% GHG-reduction
- Alignment of rules for methane leakage → Methane Regulation – Chapter 5
- **Alignment of rules for CCS and CCU**
- **Import of hydrogen from nuclear power**

PRODUCTION OF LOW CARBON HYDROGEN



IMPORT OF HYDROGEN

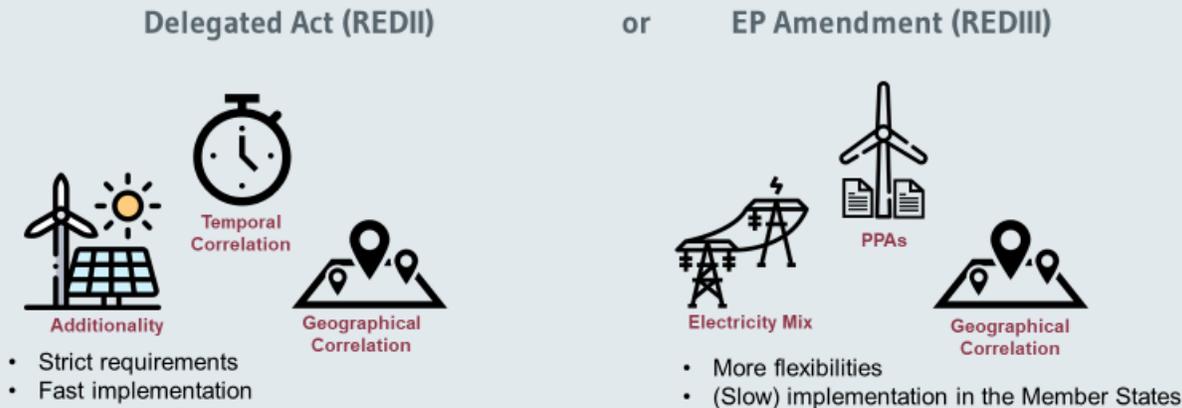
Renewable Hydrogen

- Certification of renewable production
- Similar requirements in third countries
- Level playing field for European producers

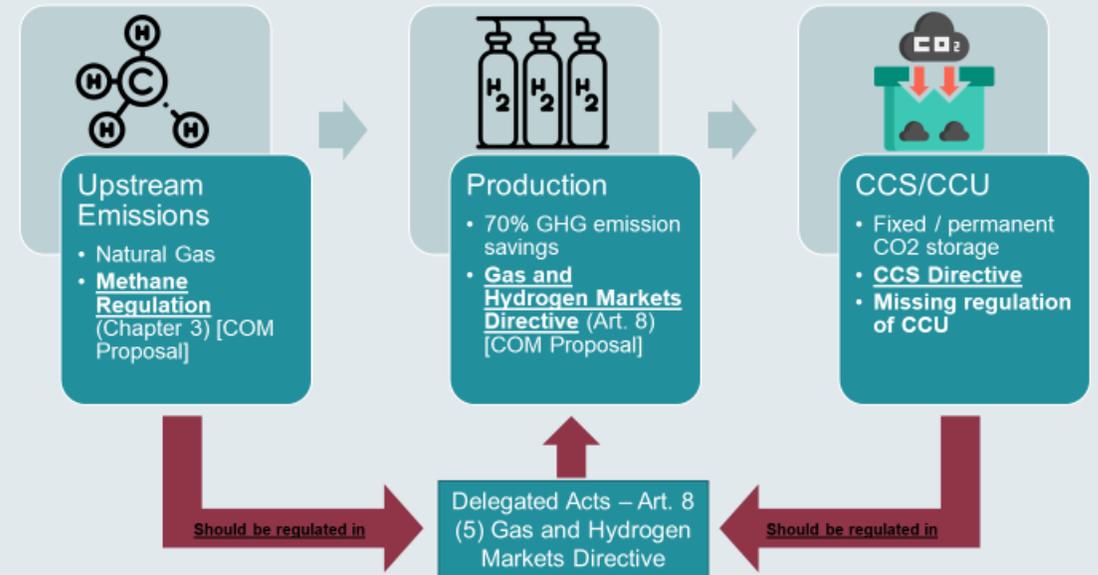
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PRODUCTION OF RENEWABLE HYDROGEN



PRODUCTION OF LOW CARBON HYDROGEN



Global Hydrogen Import Strategy

- Framework for the import of hydrogen
- Consolidation of initiatives
- Assess demand and supply for imported renewable and low carbon hydrogen
- Guidelines for EU and Member State activities
- Identifying eligible certification systems and schemes for standards of production

European
Hydrogen Bank

EU Energy
Platform

Green Hydrogen
Partnerships

Global European
Hydrogen Facility

KEY POINTS

- › A **coherent framework for low carbon hydrogen from natural gas**. A delegated act should ensure GHG emission savings include upstream emissions and a comprehensive framework for CCS/CCU.
- › **Additional requirements for the production of low carbon hydrogen from nuclear energy** in the form of a separate delegated act are needed to ensure coherence with the production of renewable hydrogen.
- › The risk of fragmentation and incoherence between Member States through **differences in transposition and implementation** needs to be assessed, if the delegated act on renewable hydrogen is abandoned.
- › **Third countries** have to comply with EU hydrogen production requirements to export into the European Union.
- › **Is the current approach to European hydrogen policy with a multitude of secondary and tertiary legislation effective or is an umbrella framework necessary for a coherent regulation?**

THANK YOU FOR YOUR ATTENTION

Nils Bruch
bruch@pg.tu-darmstadt.de

Michèle Knodt
knodt@pg.tu-darmstadt.de



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