

Panel discussion on fleet innovation towards energy transition

CCNR roadmap and promising technologies

H2SHIPS final conference
29 June 2023
Delft

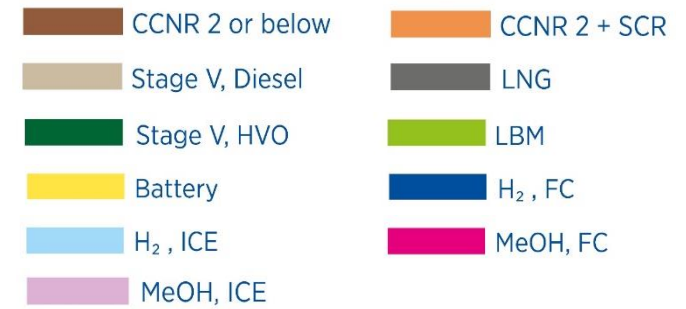
Laure Roux, administrator economic affairs, l.roux@ccr-zkr.org



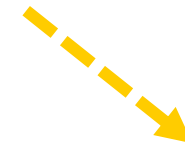
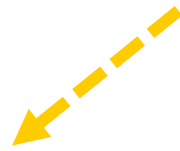
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Transition pathways for IWT by 2035 and 2050



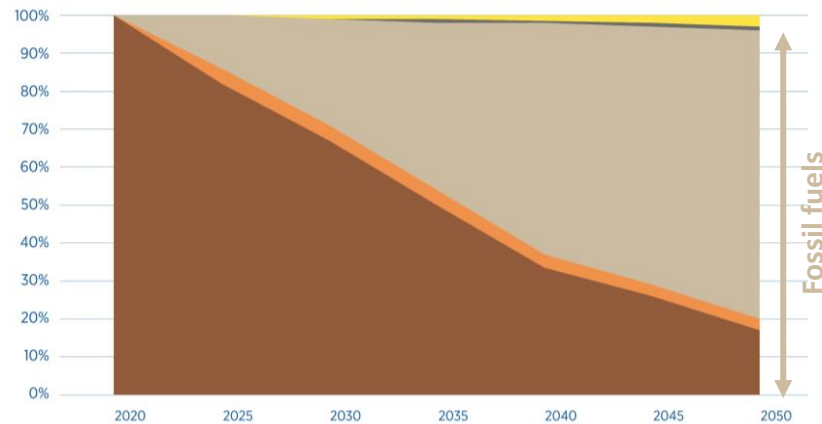
The graphs below describe the development of fuel share (in %) within the fleet (new and existing vessels) towards 2050...



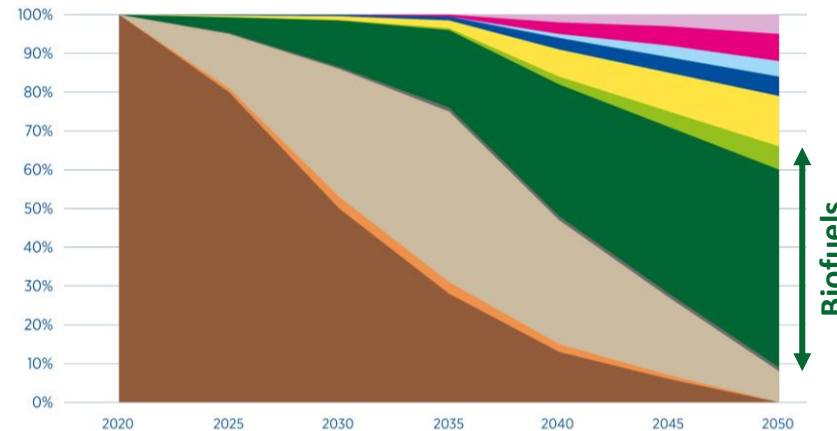
... in the “business-as-usual” scenario

... in the “conservative” pathway

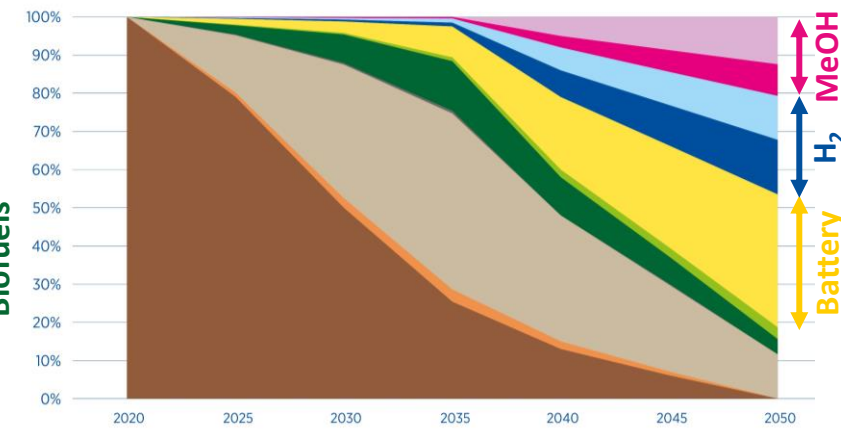
... in the “innovative” pathway



GHG: -22% by 2050
 NOx: -76% by 2050
 PM: -83% by 2050



GHG: -91% by 2050
 NOx: -90% by 2050
 PM: -96% by 2050



GHG: -91% by 2050
 NOx: -94% by 2050
 PM: -98% by 2050

What are the main challenges?

Many challenges lie ahead: 3 perspectives



FINANCIAL

1 - important financial gap – 7 bn€

2 - lack of incentives to trigger investment decision on the side of individual vessel owner

3 - lack of certainty that the investment made will be future proof.

COMMERCIAL

4 - lack of certainty regarding the demand for low/zero emission vessels.

TECHNOLOGICAL

Lack of certainty regarding

5 - the technologies which are the most adapted to my vessel

6 - the availability of alternative fuel infrastructure

7 - the availability of fuels (quantity and sustainable origin)

REGULATORY

8 – safety and standardisation

Pilot vessels are vital to allow progress!



Battery



LNG



Methanol



Hydrogen

Battery



Hydrogen

Battery



Hydrogen

Battery



Battery



Battery



Methanol

An aerial photograph of a city, likely Strasbourg, France, situated along a wide river (the Rhine). The sun is low in the sky, creating a golden glow and reflecting off the water. A large barge is moving down the river in the foreground. The city is densely packed with buildings and green spaces. In the background, there are rolling hills and a distant industrial structure.

THANK YOU
very much for your
attention!

Any questions?

For more information, check out our website:

www.roadmap.ccr-zkr.org

<https://www.ccr-zkr.org/>

<https://www.cesni.eu/>



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