



Ammonia and it's role in the decarbonization of the shipping sector: Overview of IKEM's research

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Workshop I 31.03.2023

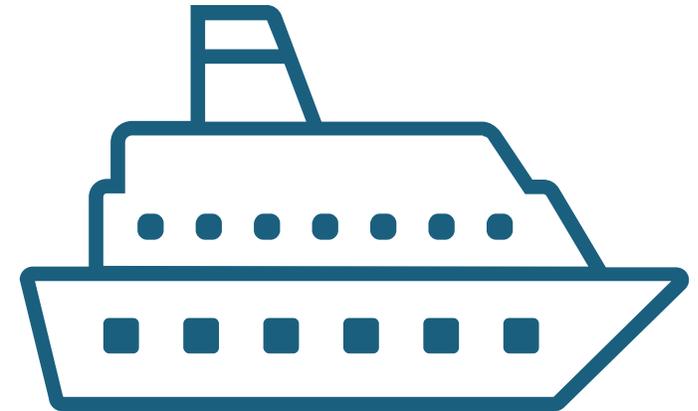
GEFÖRDERT VOM



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Innovation
in der Region

1. IKEM overview
 - Research areas
 - Legal journal KlimR
2. IKEM's role in CAMPFIRE
3. IKEM's selected projects within CAMPFIRE
 - CF03 "Ammonia bunkering stations"
 - CF07 "Ammonia-powered sport yachts"
 - CF08 "Ammonia-powered inland waterway vessels"
 - CF09 "GreenBalticCruising"





**Non-profit association
Independent research
institute**

180+
projects



**More than 12 years of
experience in interdisciplinary
climate research**

395+
publications



**Reduction of emissions
Expansion of renewables
Sustainable development**

70+
employees

IKEM Overview: Research areas



Energy Law



**Research
Academy**



Mobility



**Climate
and Innovation**



The regulatory framework must be updated for the renewable energy era. The transformation of our energy system towards more renewable energies is an enormous task.

- IKEM facilitates the transition with analyses and concepts for the further development of the legal framework.
- In this way, we promote the expansion of renewable energies, their integration into the various energy sectors and opportunities for social participation.



42+

projects (2021)

20

employees

- The energy transition offers a unique opportunity to create a sustainable, inclusive and equitable society for all
- **Published monthly** by Verlag C.H.Beck
- **Editorial** management by **IKEM**
- Contact for **article submissions**:

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KLIMA UND RECHT

ZEITSCHRIFT FÜR DAS GESAMTE KLIMARECHT

KlimR

Herausgegeben von:
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In Zusammenarbeit mit:
IKEM – Institut für Klimaschutz,
Energie und Mobilität



4/2022

April 2022
1. Jahrgang S. 101–132
www.klimr-beck.de

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➤ **CAMPFIRE – Screening of the legal, political and economic framework conditions**



IKEM works in the Campfire project **since 2018**

The analysis formed the basis for the development of the projects, e.g.:

- **CF03** "Ammonia bunkering stations"
- **CF07** "Ammonia-powered sport yachts"
- **CF08** "Ammonia-powered inland waterway vessels"
- **CF09** "GreenBalticCruising"

IKEMs selected projects

CF03: Ammonia bunkering stations



Project duration: 06/2020-09/2021

Main issues:

- Legal framework for construction and operation of **ammonia bunkering stations**
- Procurement law: Can concessionaires be obliged to operate ammonia bunkering stations?

Publications:

- Study
- Overview paper



IKEMs selected projects: CF07: Ammonia-powered sport yachts



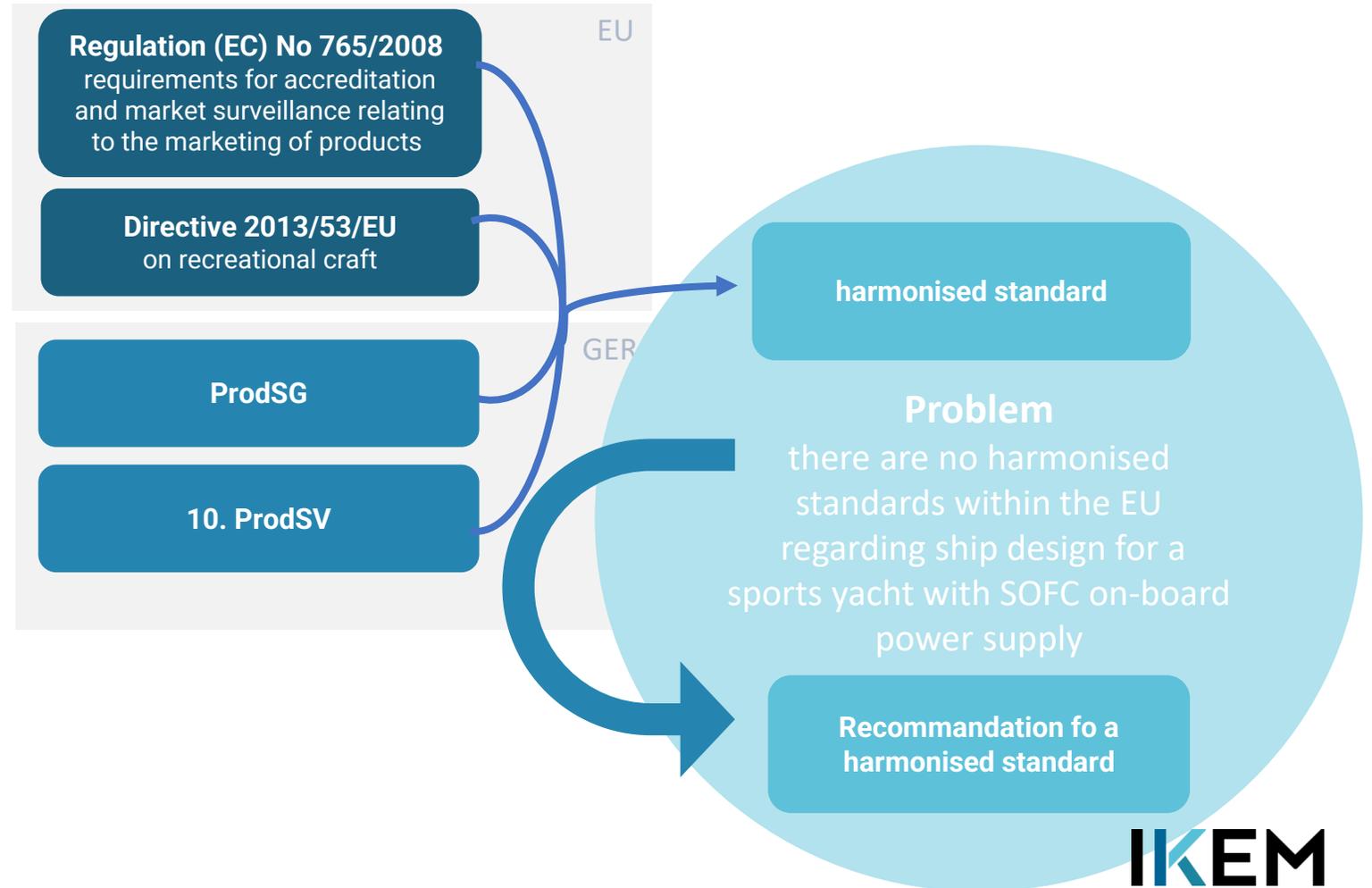
Project duration: 06/2021-05/2023

Main issues:

- No **standardization** within the EU concerning the legal marketing for SOFC on-board power supply

Publications:

- Estimated 05/2023



IKEMs selected projects: CF08: Ammonia-powered inland waterway vessels



Project duration: 08/2021– 01/2024

Main issues:

- Legal framework for admission of inland vessels with ammonia-based engine
- Requirements for technical admission; hazardous goods law

Publications:

- Estimated 06/2023



IKEMs selected projects: CF09: GreenBalticCruising

Project duration: 12/2021-11/2023

Main issues:

- Analysis of the climate governance in the Baltic Sea States and contact with relevant stakeholders
- Short analysis of the European legal framework and national **legal framework** in Germany, Denmark, Finland, Poland and Norway **on alternative fuels** to identify potential instruments to achieve green shipping in the Baltic Sea with the use of green ammonia

Publications:

- Estimated 08/2023



NormanEinstein, Map of the Baltic Sea and states
(source: https://en.wikipedia.org/wiki/Baltic_Sea#/media/File:Baltic_Sea_map.png,
last updated 20.11.2022).

Thank you for your attention!



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CAMPFIRE | END



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