State-of-the-art sustainable energy efficiency technologies roadmap for waterborne transport towards the fit-for-55 guidance compliance

Project 101192661 - FLEETfor55

Executive Summary of Deliverable D9.4 - Initial exploitation plans and IPR

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Project 101192661 — FLEETfor55 — HORIZON-CL5-2024-D5-01

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Document Info

Document	
Title	State-of-the-art sustainable energy efficiency technologies roadmap for waterborne transport towards the fit-for-55 guidance compliance
Acronym	FLEETfor55
Call	HORIZON-CL5-2024-D5-01
Type of Action	HORIZON Innovation Actions
Grant Number	101192661
Start date	01/01/2025
Duration	42 months
Document identifier	D9.4 - Initial exploitation plans and IPR
Dissemination level	SEN - Sensitive
Delivery Type	R - Document, report
Work package	WP9
Related Tasks	T9.3
Lead Beneficiary	6 - WML

Version	Date	Editor	Summary of Modifications
v1.0	30/06/2025	Christina Angeletou, Achilleas Spais, Christos Papaleonidas (WML)	v0.1

Acronyms and Abbreviations	Meaning
CII	Carbon Intensity Indicator
DSS	Decision Support System
EET	Energy Efficient Technologies
IPR	Intellectual Property Rights
IWT	Inland Waterway
KER	Key Exploitable Result
OG	Ocean Going
SSS	Short Sea Shipping

Executive Summary

In the framework of the FLEETfor55 project, Deliverable D9.4 presents the initial draft of the Exploitation Plan and Intellectual Property Rights (IPR) Strategy. The purpose of this deliverable is to define the project's exploitation and IPR strategy, outlining how its results will be effectively utilized, managed, and protected.

This document establishes the foundation for identifying the Key Exploitable Results (KERs), which will serve as strategic enablers guiding the project's progression toward successful market uptake within the maritime sector.

Deliverable D9.4 represents the first of four exploitation-related deliverables to be developed throughout the project's duration. As the project evolves and additional results become available, this document will be periodically updated to reflect enhanced market insights, increased stakeholder engagement, and strengthened competitive positioning.

The Exploitation Plan focuses on the deployment, commercialization, and long-term sustainability of the KERs identified at the project's outset, continuously refining them as the project advances. These KERs act as strategic milestones, guiding the transformation of research outcomes into market-ready innovations that support maritime decarbonization and enhance the sector's competitiveness. Following an analysis of various exploitable results, the identified KERs of FLEETfor55 project at this early stage of the project appear to be the following:

1. **Decision Support System (DSS):** a flexible, extendable, and cost-effective web-based platform designed in close alignment with stakeholders' needs and technical requirements. It supports the screening and selection of Energy Efficiency Technologies (EETs) above TRL7 for various vessels. The platform will be based on a modular architecture that integrates operational, simulation, and life cycle assessment tools, all developed through coordinated tasks and aligned with the technical plan. The tools target emission reduction and efficiency improvements in both new buildings and retrofits. Through APIs, cyber-secure infrastructure, and guidelines, the platform will ensure compatibility with third-party systems and seamless input from various technologies and vessels. It features an appropriate dashboard and enables both newbuilding and retrofit applications - all in compliance with "Fit for 55" regulations.
2. **Validated EET Packages, Concept and Basic Design Drawings based on 10 Use Cases:** A comprehensive and validated set of ready-to-deploy EET combinations for various vessels across Inland Waterway Transport (IWT), Short Sea Shipping (SSS), and Ocean Going (OG) segments, comprising the FLEETfor55 10 Use Cases (UCs) — six (6) retrofits and four (4) newbuilds.

Through this approach, the plan promotes technology integration, encourages active stakeholder engagement, and stimulates investment opportunities, thereby creating favorable conditions for the adoption and replication of innovative maritime solutions across Europe and beyond.

In parallel, the IPR Strategy establishes a comprehensive framework for managing ownership, access, and protection of knowledge generated within the project. It clearly defines background and foreground knowledge, sets out partners' rights and responsibilities, and addresses potential joint ownership scenarios. This ensures that all intellectual assets are effectively protected, while enabling fair and transparent access to new results to maximize their exploitation potential.

Finally, D9.4 discusses some general guidelines related to international regulatory compliance, that will be enhanced in future versions of this deliverable. More specifically, a focus will be given on International Maritime Organization (IMO) regulations such as the MARPOL Annex VI (Energy Efficiency Existing Ship Index (EEXI) and the Carbon Intensity Indicator (CII)), while addition to that, safety standards like the SOLAS (Safety of Life at Sea) Convention will be examined.