

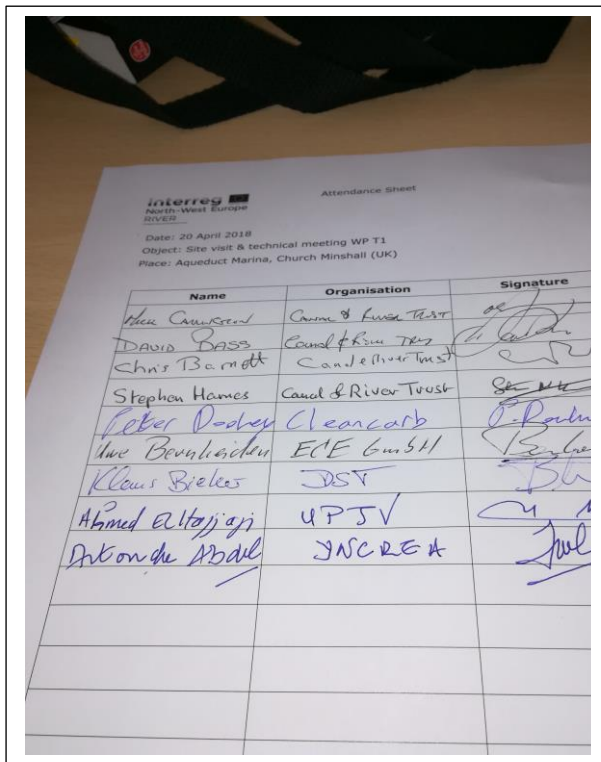
Interreg EUROPEAN UNION

North-West Europe

RIVER

European Regional Development Fund

Meeting On WPT1 :



Name	Organisation	Signature
Alan Cameron	Canal & River Trust	<i>[Signature]</i>
DAVID BASS	Canal & River Trust	<i>[Signature]</i>
Chris Barnett	Canal & River Trust	<i>[Signature]</i>
Stephen Hames	Canal & River Trust	<i>[Signature]</i>
Peter Dodgson	Cleancarb	<i>[Signature]</i>
Uwe Braunlich	ECE GmbH	<i>[Signature]</i>
Klaus Bieleke	DST	<i>[Signature]</i>
Abimed Eltajjaji	UPTV	<i>[Signature]</i>
Dikouche Abdel	JNSCREA	<i>[Signature]</i>

Written by Abdel Aitouche



RIVER partnership:



Canal & River Trust

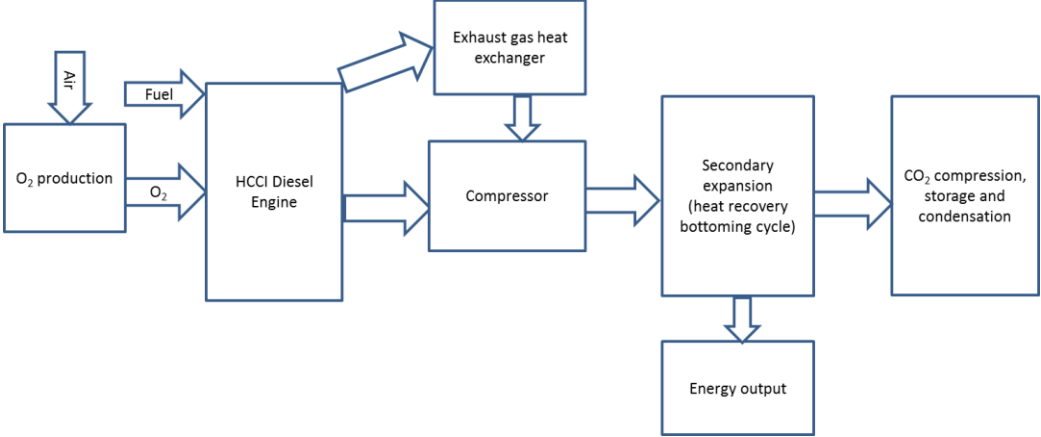


A meeting has been done in Aqueduct Marina, Church Minshull, Nantwich



- 1. At first point was regarding the System reconfigurations: Sizing, Requirements, Defining Control, Integration and simulation. It was presented by Abdel and he remembered the deliverables below.

The concept of the technology is presented by the following figure :



Oxygen and fuel will make oxyfuel that is fed into the diesel engine. The exhaust stream splits into two and one stream is used to drive a compressor that compresses the air through the other stream. The compressed hot air will be expanded or stored for intermediate future use. Exhaust from both streams will then be condensed. The condensation process can aid from recovered exhaust energy for cooling. Carbon that is captured through the process can be disposed of safely.

Tesbeds will be urchased by PP2 and PP6.

Until now, the partners PP2 and PP6 have not purchase the equipment.

A meeting with LP, PP2 and Rohitha (UWE) is planned on 26 April 2018 in order to choose the equipment and to validate the simulator.

Deliverables	Activity	Expected in the plan	Target	New Expected date	Partners involved
T.1.1.1	Design for system configuration	Sept 2018	1	Sept 2018	LP, PP8, PP9
T.1.2.4	Study of Energy consumption	Sept 2018	1	Sept 2018	LP, PP2, PP4

2. A Planification of the installation of the new engine has been discussed by partners.

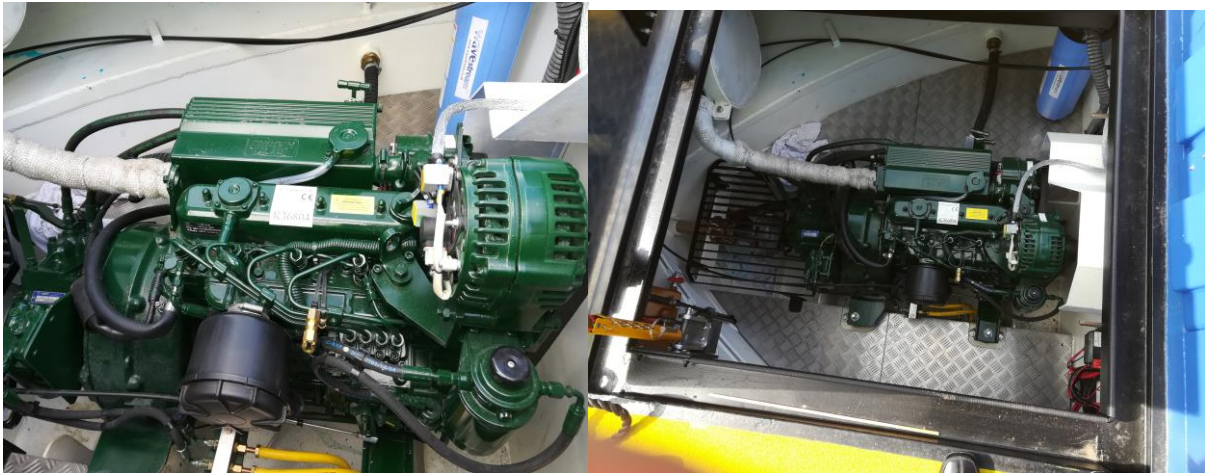
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- Klaus Bieker from DST have presented many solutions regarding the O2 demand and the CO2 storage and the tank weight .

The best solution

3. Visit the boat

- Engine, gearbox, transmission control, engine monitoring have been located (see example in the figures below).
- Space allowed for the CO2 tank and the O2 tank if necessary have been located in the boat





4. Klaus Bieker has presented some slides regarding the creation of the 3D model (Position propeller shaft, flange pattern propeller shaft, position and diameter of exhaust pipe, cable glands, all remaining fittings in the boat, etc.)

Define space in the boat for all components (engine, gearbox, transmission, control, monitoring, etc...)

Klaus proposes the best solution: to use CO₂ liquefied at 18 bar and would then have about half the volume of the O₂ tanks.

With oxygen production and CO₂ liquefaction, the tank weight would be about 0.5 tons. That would not be critical for the boat.