



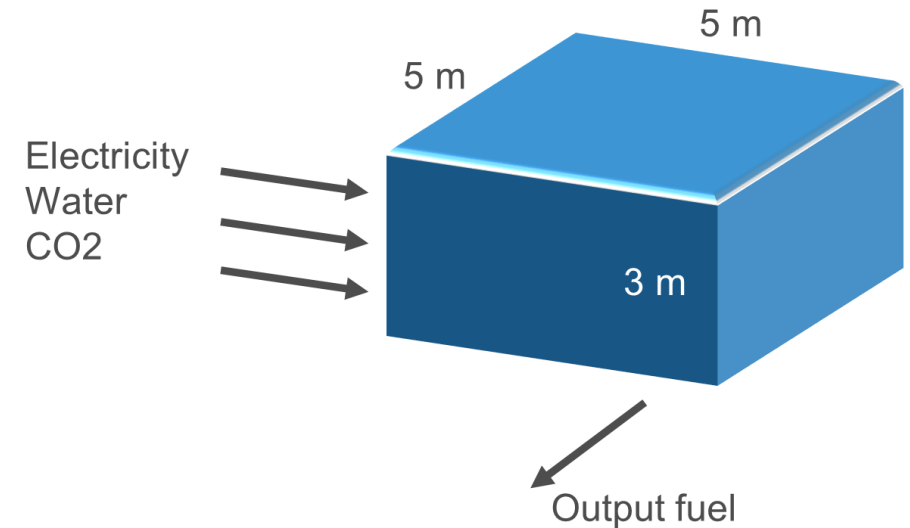
EIC Horizon Prize for Fuels from the Sun: Artificial Photosynthesis

Grande Finale – webinar on practical arrangements

8 July 2020

Grande finale outline – summer 2021

- Delivery of device to JRC Ispra
- Set-up on an outdoor pad (48 hours)
- Inspection by jurors and JRC safety officer;
- Simultaneous unassisted operation for a continuous period of 72 hours
- Evaluation of the fuel produced



JRC Ispra, Italy

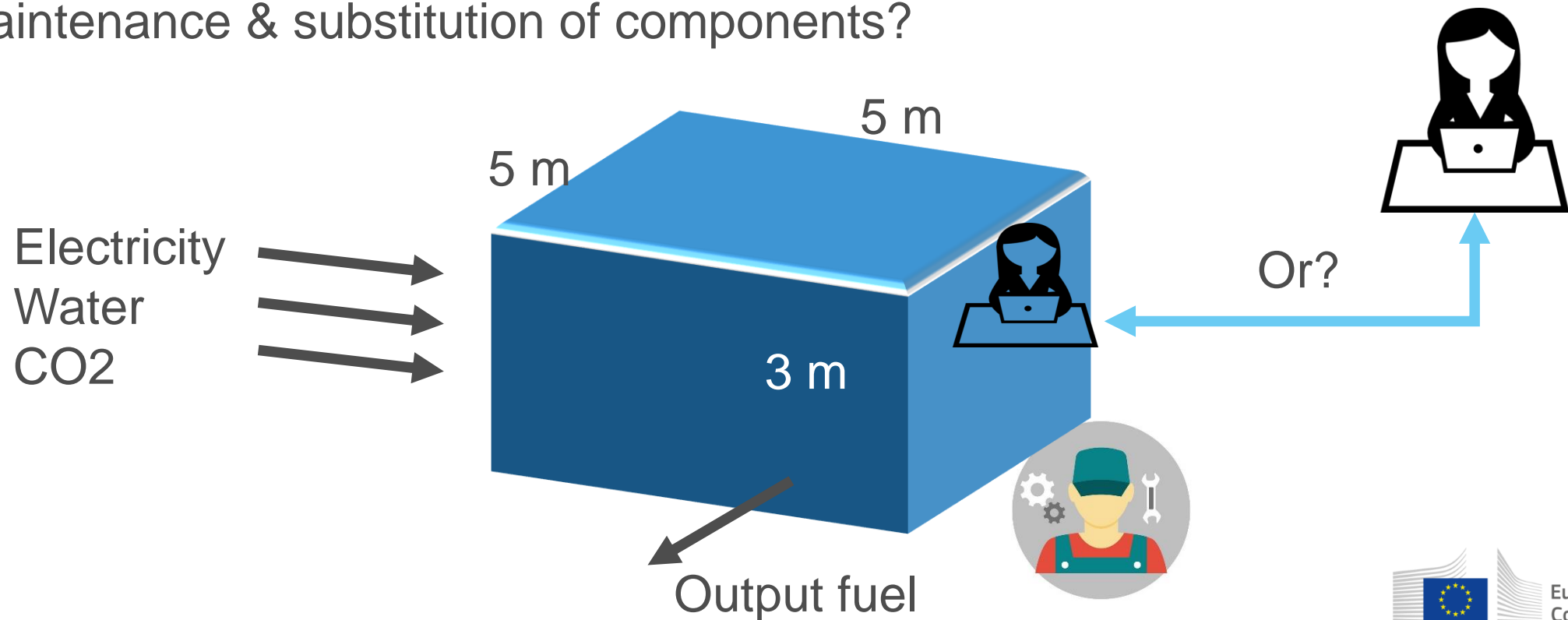


Points for discussion

- Monitoring and control
- Expected gas volume & collection method
- Access during continuous operation
- Weather
- Time schedule

Maintenance, monitoring and /control

- Need for a separate monitoring & control station?
- Access for performance optimization
- Maintenance & substitution of components?



Fuel, collection method, combustion

- Estimates of fuel quality, pressure and flow rate? (for risk assessment purposes, we estimate a total of 2.5 m³ CH₄ @ STP over 72 hours).
- Independent measurement of output mass flow and pressure during operation
- Collection in dedicated container for each test pad
- For the Stirling engine test, should the burner nozzle to be adapted to fuel type/quality?

Weather

- Average daily irradiance: 6.8 kWh/m² (July) to 5.4 kWh/m² (Sept.)
- Arrangements for rain or thunderstorms (cover/not cover)
- ..



Schedule & site presence

Possible time schedule?

Day	Activity
Thurs	Set up
Fri	Set up
Sat	<i>Site closed/set-ups sealed</i>
Sun	<i>Site closed/set-ups sealed</i>
Mon	Day 1 Start noon
Tues	Day 2
Wed	Day 3
Thurs	Day 4 End noon (72 hours)
Fri	Fuel demonstration

- Site opening hours (7 am to 8 pm)?
- No overnight presence NB JRC Ispra site is fully fenced, with 24/7 security

Thank you – Questions?



© European Union 2020

Unless otherwise noted the reuse of this presentation is authorised under the [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/) license. For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective right holders.