

Technology Performance: Quantitative Expectations (collected 2018).

*One site was cautious and expects 75% "in the beginning"; TRL = Technology Readiness Level

	JIVE	JIVE 2
	lowest / median / highest	
1. Availability HRS [%]	98 / 99 / 99.9	90 / 99 / 99.9
2. Availability Buses [%] *	85 / 93 / 98	80 / 90 / 99.9
3. Cost of hydrogen [€/kg]	4 / 6 / 11	4 / 5 / 12
4. Bus operating costs relative to standard fleet	100 / 142 / 300	75 / 150 / 400
5. Maximum wait time for Repairs HRS [hours]	4 / 18 / 24	0 / 6 / 120
6. Maximum wait time for Repairs FCBs [hours]	2 / 24 / 48	2 / 24 / 72
7. Specific fuel consumption [kg/100 km]	8 / 8.8 / 9	8 / 10 / 12
8. Time to fill [minutes]	5 / 10 / 10	5 / 10 / 15
9. Fuel cell stack lifetime [hours]	20,000 / 25,000 / 30,000	7,000 / 22,500 / 50,000
10. TRL of the HRS at the start of demonstration	7 / 8 / 9	7 / 8 / 9
11. TRL of the HRS at the end of demonstration	8 / 9 / 9	8 / 9 / 9
12. TRL of the FCBs at the start of demonstration	7 / 8 / 9	7 / 8 / 9
13. TRL of the FCBs at the end of demonstration	8 / 9 / 9	8 / 9 / 9

Definitions of Technology Readiness Levels.

As used by the FCH JU in their Multi-Annual Work Plan 2014 - 2020.

TRL	Definition
9	Actual system proven in operational environment
8	System complete and qualified
7	System prototype demonstration in operational environment
6	Technology demonstrated in relevant environment
5	Technology validated in relevant environment
4	Technology validated in lab
3	Experimental proof of concept
2	Technology concept formulated
1	Basic principles observed