

### Technology Performance: Quantitative Expectations.

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

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