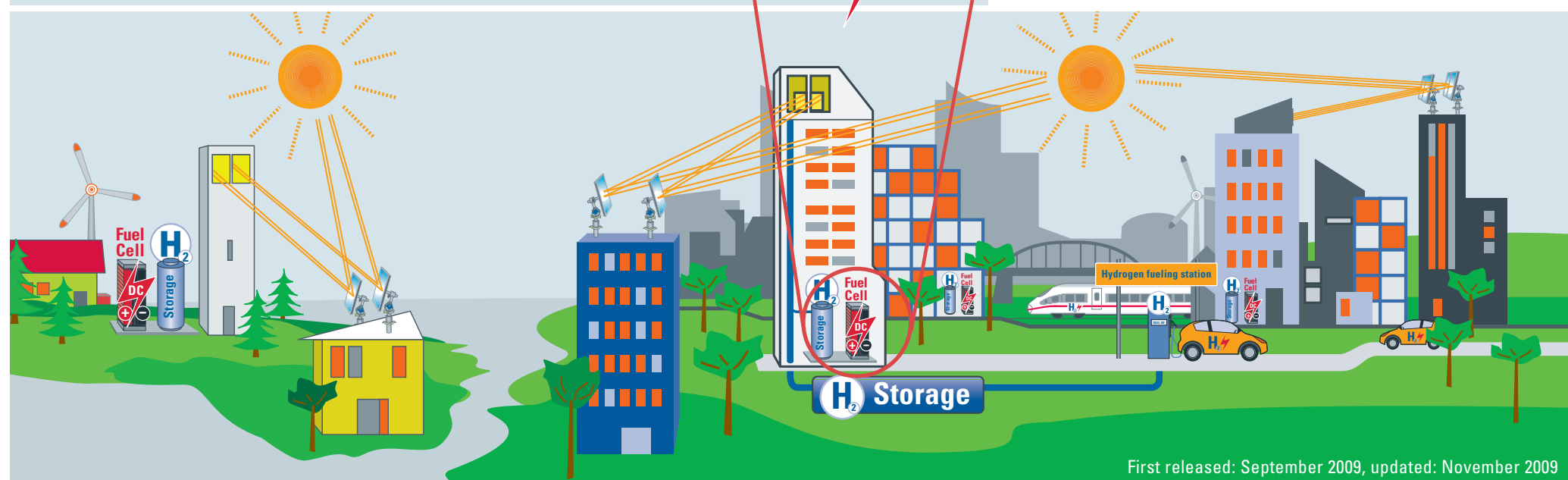


## Direct Solar Hydrogen and Fuel Cells *The next Steps* A socio-technical scenario



### The reality: Fossil-based Hydrogen

At this time the world's economy uses about 45 x 10<sup>6</sup> tons of hydrogen p.a., worth US\$ 280 billion.

96 % of it is derived from fossil fuels, only 4 % from electrolysis ...

The electricity used here is worldwide neither "green" nor is it sustainable ...

### The potential: Direct Solar Hydrogen

Harvesting concentrating solar power to produce sustainable hydrogen from water in a proven 2-step thermo-chemical cycle. The EU funded technology (HYDROSOL I and II) was working successfully at the solar research centre Plataforma Solar de Almeria, Spain ...

### The future: A real Hydrogen Society

This socio-technical scenario requires radical changes:

Implementing hydrogen as a real sustainable energy carrier, fed into Fuel Cells, sited at the points of use.

Electricity, heat and water for domestic, middle-sized businesses and industrial use will be consumed off-grid, boosting in built system efficiency.

Hydrogen for mobility will be used directly ...

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