# **Future: Hydrogene bicycles**

Innovative system for tourism



Bartosz Dubiński





### **H-mobility makes the future**



- e-mobility as one application of the new fuel;
- first tested in a scooter, also proved efficient in bicycles;
- alternative solution to low efficient batteries;
- hybrid versions can easily be realized as well, having a battery pack for high power peaks, braking force recovery and more complex on board electronic.





#### How it works ?

- A Battery power drives the bicycle's motor to help with the pedaling.
- ▲ When the battery power runs low, the cartridge automatically supplies hydrogen to the fuel cell to recharge the battery.
- A The system can still provide pedaling assistance during the recharge.
- A There is no need to recharge the battery, making a hydrogen bicycle way more convenient than charging an electric bicycle for 5 hours.











#### **Background info**

### H<sub>2</sub>-scooter

-storage: 60l hydrogen
-fuel cell: 300 W
-motor: 250W
-cooling: air cooling
-speed: 25 km/h
-range: TBA
-weight: TBA
-gfueling: <1min</li>

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#### **Fueling stations**





- safe charging of H<sub>2</sub>-vehicles (higher safety level due to separation of total volume)
- both short and long-term storage possible
- size, shape and volume can be scaled and adjusted to the demands



## **IDL project – expected results**

- ▲ Innovative system of e-bikes introduced and:
  - innovative charging system applied;
  - quality services offered to the customers;
  - promotion of ecological transport;
  - new customers attracted.





# THANK YOU!





