European Forum for Science and Industry

Discussion Meeting on Disruptive Innovative Technologies: the "flying car"

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Disruptive Innovative Technologies: the "flying car"

**What we do not know we do not believe in; example**

- Simon Newcomb (1835 - 1909), American astronomer, born in Canada

- Newcomb is famously quoted as having believed *it impossible to build a "flying machine"*

- He begins an article titled "Is the Airship Possible?" with the remark, "That depends, first of all, on whether we are to make the requisite scientific discoveries." He ends with the remark "the construction of an aerial vehicle ... which could carry even a single man from place-to-place at pleasure requires the discovery of some new metal or some new force."

- Quoted 18 months before the Wright Brothers inventing a flying machine
EASA Approach

- Generally the European Aviation Safety Agency (EASA) is committed to support the implementation of new technologies.

- It is normally done by taking in analogy applicable/suitable available certification specifications and adapting/amending them in accordance with the needs.

- "Special Conditions" are used often as tools before new certification specifications are availbale.

- The general target is always: to gain at least the same level of safety as achieved with the conventional technology by performing a risk assessment and by identifying mitigating means as needed.

- Examples: New materials (CFK), ETOPS, 2 man-crew, fly-by-wire, satellite navigation, and RPAS as an on-going challenge.
General Considerations

The European Aviation Safety Agency (EASA) would certainly consider for flying cars:

- To require compliance with Aircraft Airworthiness codes for the airborne aspects and to the Road regulations for the car aspects

The main subject of discussion may be the adequate public debate on the development of measures which address societal concerns including:

- safety
- privacy
- data protection
- third-party liability
- insurance
- security
In summary

- The European Aviation Safety Agency (EASA) would support the discussion on how to proceed with this technology project and how to integrate such vehicles safely into the combined airborne/ground transport system.

- A constructive dialogue between all parties involved is needed.

- Research activities shall take the certification needs for such vehicles into account.

- Industry shall be open for detailed "solution-oriented" discussions with the Agency.

- The regulatory aspect shall be considered from the early stages of such project by the European Union and their member states.
**Post Scriptum**

- The horse had been the dominant mode of transportation for thousands of years; horses were absolutely essential for the functioning of the nineteenth century city for personal transportation, freight haulage, and even mechanical power; without horses, cities would quite literally starve (* *)

- First automobile patent in 1886 by Carl Friedrich Benz

- In 1900 4,192 cars were sold in the US; by 1912 that number had risen to 356,000; in 1912, traffic counts in New York showed more cars than horses for the first time (* *)

- Are we expecting flying cars tomorrow be replacing the technology of today?

(*) Ref.: "From Horse Power to Horsepower " by Eric Morris, University of California, Los Angeles
THANK YOU FOR YOUR ATTENTION!

Your safety is our mission.

EASA is an agency of the European Union