

A Collaborative Model for a Possible EASN Student High-Speed Aviation Initiative

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Idea^s

Why is CERN interested in this?

- Looking for a “virtual CBI” to increase current educational reach in IdeaSquare
 - Higher volume of students, mix from different fields
 - Demonstrate the role of basic research in addressing society-driven challenges
 - Educate next-generation engineers, entrepreneurs, scientists
- Develop new collaborative IT tools (platforms) for distributed research teams

What is IdeaSquare@CERN looking for?

- Partnership with knowledgeable university/educational institutions to collaborate with on engineering-driven student topics, integrating different disciplines (engineering, business mgmt., product design)
- Engage and inspire next-generation engineers and scientists to address important societal challenges
- Pilot projects to scale up its current experiments at IdeaSquare (SST, nanosatellites)

How could this work?

- On-line student platform set up & run by a Consortium
 - Coordinated by eg. EASN
 - Platform technically operated by CERN
 - Could be based on open, collaborative model used by CERN in its experiments
 - Resulting in a scientific paper(s) where all contributors are included as authors?

What are the Elements?

- Aerodynamics, fluid dynamics
- Materials
- Engine, fuel technologies
- Systems
- Cockpit/interior design
- Business/cost models
- Simulation tools (X-plane?)
- Integration

What type of questions we hope to address today?

- Is there adequate interest to launch such an education/driven initiative? What is the final outcome? What expertise are we still missing? How accurate/realistic should we be? When to start?
- If universities-lead, how to (easiest) integrate it into current curriculum? What level? How long? Do we need to finance it? How?
- What should be the project/platform structure?
- How to involve industry? Should we?