

Internship in ESA's Advanced Concepts Team

on

Crowdsourcing ideas: a web interface to creativity

Topic description

Generating, nurturing, evolving and refining ideas are at the core of innovation process in scientific developments. Given the very nature of space science, innovative ideas, in this context, may originate from citizens, academics, writers, industries and benefit [1] from a common discussion platform / forum where they can be grown into mature projects, get transformed into something else, or be logged for future discussions. Web sites such as [stackoverflow](#) or [kickstarter](#) [2] or [changeorg](#) [3] proved to be efficient aggregators for different communities interested in sharing ideas and skills. In a similar way, a platform could function for space related concepts, questions and ideas related to the main ESA innovation pipeline. Similar, but with a different aim and structure, is the recent beta project from StackOverflow called [space Stack Exchange](#) which could serve as an interesting reference for this project.

Candidate's tasks

The specific project tasks include:

- The candidate will help defining and implement a web portal where ideas can be entered, discussed and directed into the most appropriate final process within ESA's innovation pipeline;
- Using popular web developing tools such as django the candidate will set up a pilot, together with the ESA web-portal team, aimed at showing the use and potential of an open innovation platform for space related concepts.

The ideal candidate

Mandatory:

- Strong programming skills in Python;
- Experience with crowdsourcing web portals.

Desirable:

- Experience with django and web programming;
- Interest in innovation processes and creative thinking.

References

- [1] Oliveira F., Ramos I., Santos L. (2010) Definition of a Crowdsourcing Innovation Service for the European SMEs. In: Daniel F., Facca F.M. (eds) Current Trends in Web Engineering. ICWE 2010. Lecture Notes in Computer Science, vol 6385. Springer, Berlin, Heidelberg
- [2] Kuppuswamy, V., & Bayus, B. L. (2015). Crowdfunding creative ideas: The dynamics of project backers in Kickstarter.
- [3] Huang, S. W., Suh, M. M., Hill, B. M., & Hsieh, G. (2015, April). How activists are both born and made: An analysis of users on change. org. In Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems (pp. 211-220). ACM.