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# Platform development and maintenance

**Publication of the extensions to the platform in a public open source software repository**

D6.4

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|---|---|
| **Project:** | Mapping Normative Frameworks of EThics and Integrity of REsearch |
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**History**

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|---|---|---|---|
| **1.0.0** | 2021-01-20 | Initial Release | Author: Alexander Gesinn<br>Reviewer: Marc van Hoof |
| | | | |
| | | | |

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# Background

## About EnTIRE

The areas of Research Ethics and Research Integrity (RE+RI) are rapidly evolving. In the EU and internationally, new legislation, codes of conduct and good practices are constantly being developed. New technologies, complex statistical methods, pressure to publish and obtain grants, and growing emphasis on stakeholder driven science increase the complexity of conducting science. In this complex and dynamic environment, it is not easy to identify the correct rules and best tools for responsible conduct of research.

The EnTIRE project aims to create an online platform (The Embassy Of Good Science) that makes RE+RI information easily accessible to the research community. The platform will foster uptake of ethical standards and responsible conduct of research, and ultimately support research excellence and strengthen society's confidence in research and its findings. Our vision is to create a dynamic online Wiki-platform, owned by the RE+RI community, that will make the normative framework governing RE+RI accessible. The platform will adopt open source and open data approaches. By applying novel techniques for data collection, presentation, and comparison, users will navigate quickly and intuitively to appropriate content.

## The Wiki approach for the platform software

The Wikimedia Foundation, Inc. (WMF) is a non-profit organization founded in 2003 by Jimmy Wales. It hosts sites such as Wikipedia. Wikipedia is an international online project which attempts to create free encyclopedias in multiple languages. The operation of Wikimedia depends on MediaWiki, a free and open-source wiki software platform.

Semantic MediaWiki (SMW) is a free, open-source extension to MediaWiki. Semantic MediaWiki can turn a wiki into a powerful and flexible knowledge management system. All data created within SMW can easily be published via the Semantic Web, allowing other systems to use this data seamlessly[1]. Adapting the Semantic MediaWiki platform using expertise of the stakeholders will result in a dynamic platform which will contain numerous resources for the RE+RI community. The ability of linking related articles together will allow the novice to quickly find key information with minimal effort – including information which he might not have been aware of to be of relevance in the first place.

[1] https://www.semantic-mediawiki.org/wiki/Semantic_MediaWiki

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## About Work Package 6 "Platform development and maintenance"

Work package 6 is responsible for meeting overall objective 3: to develop a user-friendly platform, including a website and online resources, to facilitate access to RE+RI knowledge and experience and support application in research and evaluation, thus fostering uptake of ethical standards and responsible conduct of research.

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WP sub-objectives include to:

1. Develop and employ the platform.
2. Evaluate and adapt the platform together with stakeholders.
3. Develop the tools for performing data mining and semantic analysis on the full information content.

## List of Deliverables

| | Title | Due date | Delivery date |
|---|---|---|---|
| **D6.1** | **EnTIRE platform** | M12 | 2018-04-30 |
| *The creation of the software stack for the back-end of the platform.* | | | |
| **D6.2** | **Publication of the adapted platform software in a public open source software repository** | M12 | 2018-04-30 |
| *The publication of the software stack for the back-end of the platform. The software stack is available via https://github.com/the-embassy-of-good-science.* | | | |
| **D6.3** | **Report of the evaluation and graphical user interface of the platform** | M23 | 2020-09-30 |
| *Report of the evaluation and graphical user interface of the platform making use of an evaluation of all WPs.* | | | |
| **D6.4** | **Publication of the extensions to the platform in a public open source software repository** | M40 | 2021-01-20 |
| *Publication of the extensions to the platform in a public open source software repository.* | | | |
| **D6.5** | **Report of the efficiency evaluation of the platform** | M42 | |
| *Report of the efficiency evaluation of the platform.* | | | |

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## List of Tasks

| | Title | Timeline | |
|---|---|---|---|
| **T6.1** | **Development of the platform** | M1 | M12 |
| *1. Initiate a non-profit organisation and register the applicable domain name (OpenEthics.eu) in its name.*<br>*2. Host and deploy the adapted Wiki-platform once the project starts.*<br>*3. Provide documentation of the hosting, deployment and software development to ensure transferability.*<br>*4. Develop a custom graphical user interface aimed at maximizing ease of use.*<br>*5. Adapt the platform to allow for online focus groups on the platform.* | | | |
| **T6.2** | **Content structure and organisation of the platform** | M12 | M48 |
| *6. Support the consultation of stakeholders in achieving the appropriate information content structure (e.g. database and data models) for the website.*<br>*7. Design the platform structure in line with the normative framework developed as developed in WP 2.*<br>*8. Make the platform the primary place to create, edit and review the content on the platform.*<br>*9. Establish a system where different types of users gain appropriate types of permissions (to create, to edit, to review and to curate information content) on the platform.*<br>*10. EUREC will find assist in finding a way for the ENTIRE platform to be technologically linked with the ENERI platform* | | | |
| **T6.3** | **Publish open source software modification on online repositories** | M12 | M48 |
| *11. Publish and make freely available all adaptations and developments made to the platform freely available, in an open source repository, for future (e.g. EU funded) projects to benefit from. Push back all relevant modifications to the platform to (Semantic) MediaWiki.* | | | |
| **T6.4** | **Platform adaptation to the feedback** | M30 | M36 |
| *12. Adapt the custom graphical user interface to maximize ease of use based upon the evaluation from stakeholders.* | | | |
| **T6.5** | **Develop and employ a tool to search in and compare relevant topics across countries on the platform** | M30 | M48 |
| *13. Develop an extension to the platform to search through all content available on the platform.*<br>*14. Develop an extension to the platform to perform data mining and/or semantic analysis on the content of the platform.*<br>*15. Develop a 'bird's-eye view' styled dashboard where relevant RE+RI topics can be compared across Europe and where content can easily be extracted by users live on the platform. This ensures open access to data.* | | | |

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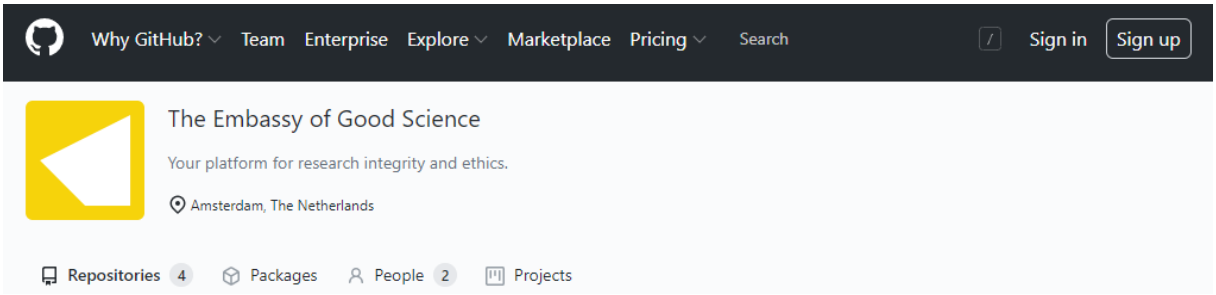
## Open-source publication

### Online repository

The source code of the software that has been used on the platform is openly available for everyone. It can be read and directly downloaded from https://github.com/the-embassy-of-good-science.



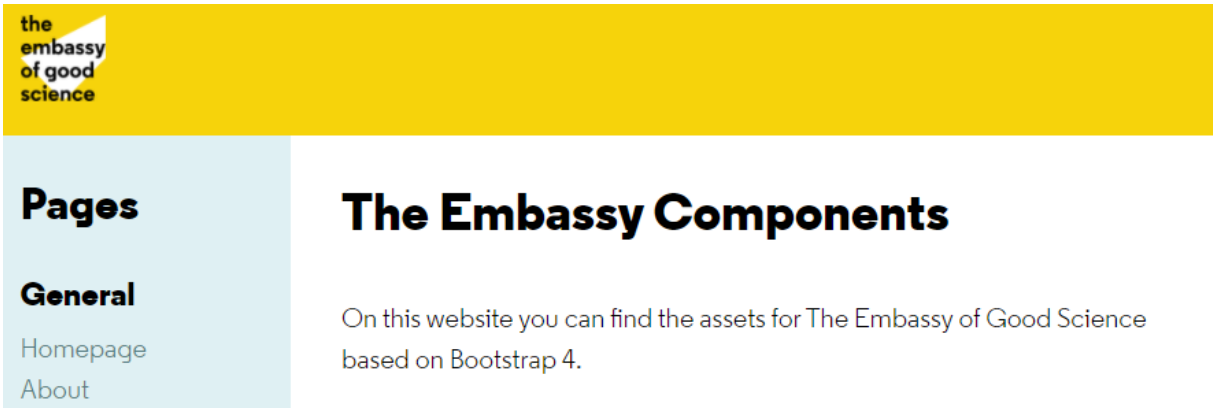

### Overview of components

The software package is divided in 3 parts which have been modified or developed specifically for The Embassy. The discussion part of the platform is directly implemented without modification from https://github.com/discourse/discourse.

| What | Name | Last update |
|---|---|---|
| The platform frontend ('skin') | the-embassy-components | 12-12-2020 |
| The platform backend | the-embassy-platform | 25-11-2020 |
| The e-learning courses | courses | 24-09-2020 |

### Front-end implementation

The description on how the newly designed frontend elements are used on The Embassy can be found on https://components.embassy.science .

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