
Search, identification and collection of marine litter with autonomous robots

SeaClear



<https://seaclear-project.eu>

D7.2

Project web presence


WP7 — Dissemination and exploitation

Grant Agreement no. 871295

Lead beneficiary: UTC
Date: 13/03/2020
Type: DEC
Dissemination level: PU



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| | |
| Deliverable description | This deliverable details the objectives and implementation of the SeaClear project website and social media presence, as well as the press release announcing the start of the project. |


¹R = Document, report, DEM = demonstrator, DEC = Websites, patents filing, etc. OTHER: Software, technical diagram, etc. ETHICS = Ethics

²PU=Public, CO=Confidential, only for members of the consortium (including the Commission Services), CI=Classified, as referred to in Commission Decision 2001/844/EC.

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| L. Buşoniu | 28/02/2020 | V0.1 | initial version |
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| L. Buşoniu | 13/03/2020 | V1.0 | reformatted, content finalized after partner feedback |

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Definitions


- **Beneficiary:** A legal entity that is signatory of the EC Grant Agreement no. 871295.
- **Consortium:** The SeaClear Consortium, comprising the below-mentioned list of beneficiaries.
- **Consortium Agreement:** Agreement concluded amongst SeaClear Beneficiaries for the implementation of the Grant Agreement.
- **Grant Agreement:** The agreement signed between the beneficiaries and the EC for the undertaking of the SeaClear project (Grant Agreement no. 871295).

Beneficiaries of the SeaClear Consortium are referred to herein according to the following codes:

- **TU Delft:** Delft University of Technology.
- **DUNEA:** Regional Development Agency Dubrovnik-Neretva County - DUNEA.
- **Fraunhofer:** Fraunhofer Center for Maritime Logistics.
- **HPA:** Hamburg Port Authority.
- **Subsea Tech:** Subsea Tech SAS.
- **UTC:** Technical University of Cluj-Napoca.
- **TUM:** Technical University of Munich.
- **UNIDU:** University of Dubrovnik.


Abbreviations

- **EC:** European Commission.
- **GA:** Grant Agreement.

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Executive summary

This deliverable explains the objectives and implementation of the SeaClear project website and social media presence, which are the main tools of project dissemination and communication for the public at large, but also for other stakeholders. The project has established a social media presence on ResearchGate, LinkedIn, YouTube, Facebook, and Twitter. We finally describe the press release announcing the project start, another key element for making the project known online, and list a number of places where it has been posted.

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1 Project website

1.1 Role and objectives

The website serves as a common reference point, where the latest information about SeaClear can be found. The site will collect project results and offer a user-friendly online platform open to all for accessing papers, project media, and public deliverables. Deliverables will be added to the website only after approval by the coordinator. The website will also provide an interactive forum for real exchange of documents and information between project members. Furthermore, the website is also planned to be an interaction point with the wider public during the later stages of the project (with an interactive debris classification 'game'). The website will be updated regularly, at least once a month.

1.2 Set-up and design

The website is hosted by an external provider, at the address <https://seaclear-project.eu/>.³ It has been developed using an open-source content management system – Joomla. The site is transparently and directly hosted at this domain, there are no redirects to another domains. Coordinator TUDelft handles the interaction with the external provider, and in addition to TUDelft, dissemination lead partner UTC also has write access to the website.

1.3 Structure

The website home (landing) page contains a motivating picture of seafloor debris, a short three-sentence description of the project's main idea, and a list of partners rendered graphically via their logos. A header with the project logo, section headings, and a search box are always present.

The public sections of the website are the following:

- *About SeaClear*: contains a public, readable abstract of the project and a few motivating photos of unmanned seagoing vehicles.
- *Partners*: A list of partners, rendered graphically via their logos. Each logo links to a description of the partner, including their address and social media handles, and their role in the project.
- *News*: A list of notable news items about the project, updated at least monthly.
- *Events*: A list of notable project events, such as workshops, research exchanges, etc.
- *Results*: This section will include relevant articles, dissemination material available for download, as well as papers and reports published by the consortium. In particular, a *Media* subsection will collect images and videos related to the project. This subsection already includes several directly playable videos. Later on, it will offer access to the livestreaming events planned in the project.

There is a footer appearing on each website page, which includes: the EU logo and funding acknowledgment, the duration of the project, a disclaimer with link, a contact link, a link to a very brief, understandable privacy policy, and the project logo again. A second contact link is also available as a separate section in the header.

A screenshot of the website homepage is given in Figure 1.

³The domain seaclear.eu was unfortunately taken by the time the GA was signed.

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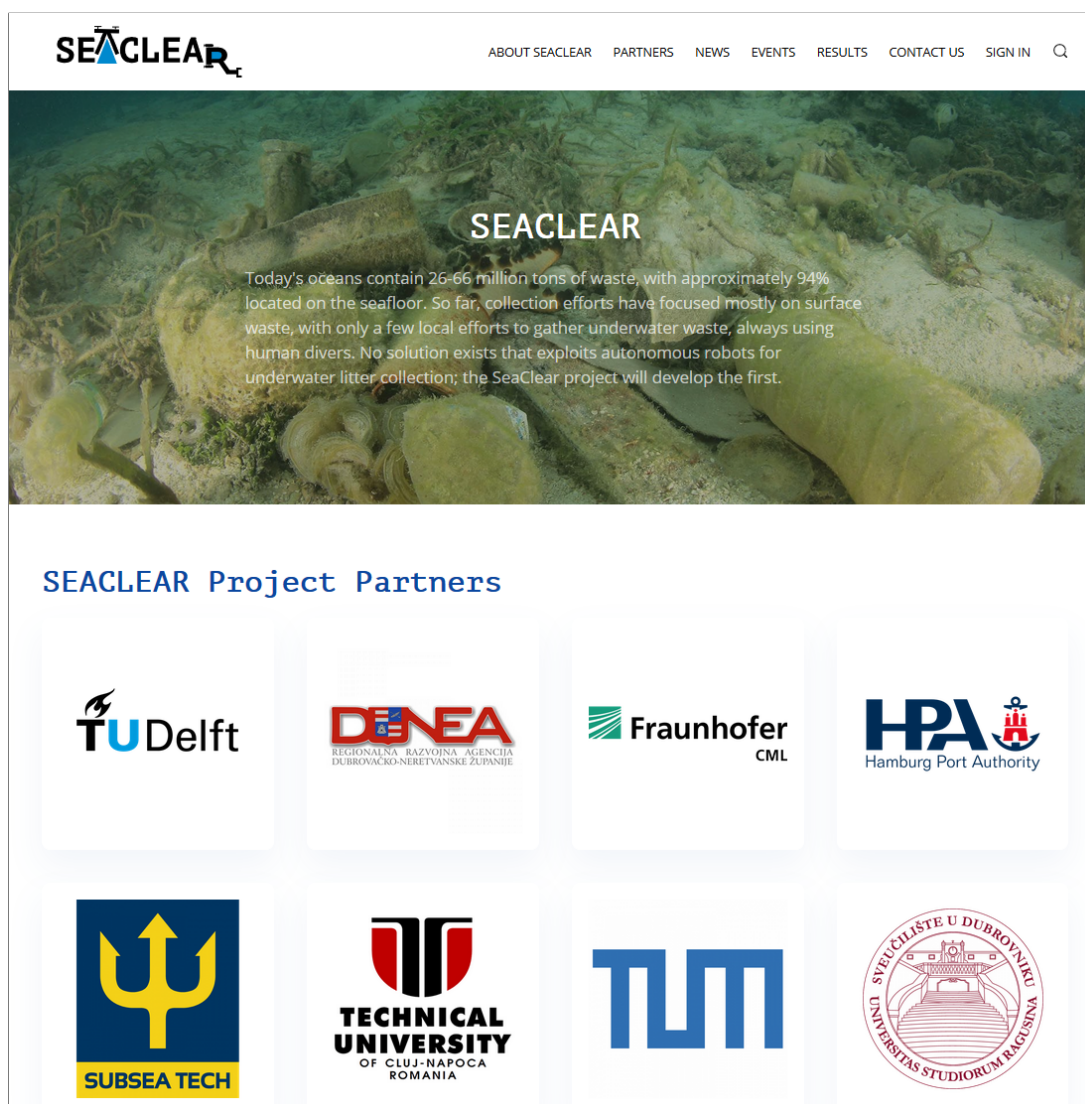



Figure 1: SeaClear public website homepage

1.4 Restricted access and private information sharing between partners

The main tool used by the project members to communicate documents, media, data, and information in general is called SurfDrive. A private repository has been set up by the project coordinator, with the following main sections:

- *Contact details*: A list of contact details for each project participant.
- *Contracts*: GA and consortium agreement.
- *Deliverables*: Deliverable templates and versions, internal peer review team.
- *Media Content*: Logos and pictures.
- *Meetings_Telco*: Minutes, talks, and other materials related to the project physical and online meetings.
- *WP*: Specific technical documents relating to each work package.

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The list is subject to changes and additions. Note that SurfDrive offers some basic tools for direct editing of documents.

Moreover, in addition to SurfDrive there is a private section of the website itself, accessible via the “Sign In” link present in the header of each webpage. For example, WP documents can be uploaded there.

Project members with write credentials have access to the administrative backend of the website, offering full editing access to the structure and contents of the website.

Special access rights to confidential project documents will be set up for EC and reviewer access, e.g. via a special category of login on the main website.

1.5 Ongoing work

The website of the project is evolving, and its structure will not remain frozen throughout the project. In particular, after discussions between partners, a possible need for a new section has arisen: *Network*, containing a list of projects and Digital Innovation Hubs that have been linked to SeaClear; the technical and scientific advisory boards; as well as other related webpages.

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2 Social media presence

2.1 Objectives

Societal engagement through social media is one of the most effective ways of targeted outreach. SeaClear will use various social media tools, such as LinkedIn, YouTube, Facebook and Twitter, to enhance the overall project visibility and interaction with target groups. In addition to using SeaClear social media accounts, each partner will promote use of their respective organisational accounts for enhancing communication effectiveness.

2.2 List of networks with a SeaClear presence

So far, the project is present on the following social networks:

- ResearchGate: <https://www.researchgate.net/project/SeaClear-SEarch-identificAtion-and-Collection-of-marine-Litter-with-Autonomous-Robots>
- LinkedIn: <https://www.linkedin.com/company/seaclear-project>
- YouTube: <https://www.youtube.com/channel/UCMcJY8uxgCodSuMRF3KHizQ>
- Facebook: <https://www.facebook.com/SeaClear-Project-101234564820221/>
- Twitter: <https://twitter.com/seaclearproject>

As an example, Figure 2 shows the ResearchGate page of the project.

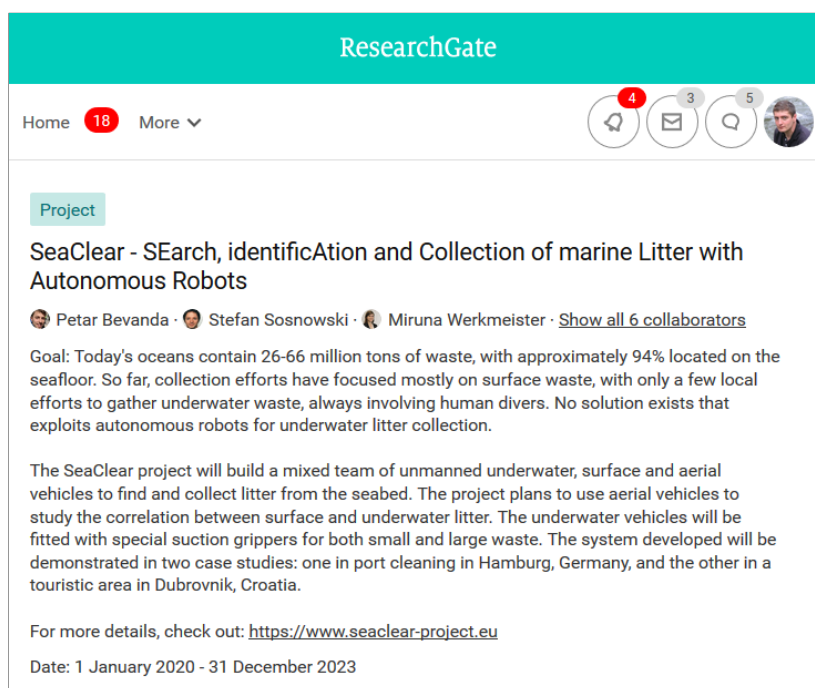




Figure 2: SeaClear project page on ResearchGate

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In addition to general news updates, Facebook and Twitter will be used for outreach announcements to the general public; LinkedIn to target professionals in relevant domains; and ResearchGate to reach out to the scientific community. YouTube will of course be used to post public videos. The list of social networks with a SeaClear presence is subject to additions.

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3 Press release


3.1 Content

An official statement announcing the launch of the project has been released. This press release contains information regarding the project objectives, timeline, partners, main activities, expected outcomes, among others. The template press release is included in Annex A, each partner was free to edit this for their purpose, translate it etc.


3.2 List of press release announcements

A non-exhaustive list of announcements, sorted in alphabetical order of the URL, is the following:

- <http://www.dunea.hr/novosti/868-robotom-protiv-otpada-kroz-projekt-seaclear-za-dubrovacko-neretvansku-zupaniju-osigurano-vise-od-sest-milijuna-kuna>
- <http://www.energetika-net.com/vijesti/zastita-okolisa/robotom-protiv-morskog-otpada-29864>
- <http://www.kastela.org/novosti/hr/43599-u-sijecnju-zapocinje-provedba-projekta-seaclear-autonomni-roboti-ce-cistiti-otpad-iz-mora>
- <http://www.unidu.hr/novost.php?idvijest=10911>
- <http://www.unidu.hr/odjeli.php?idizbornik=1151>
- <https://dalmatinskiportal.hr/energija-i-ekologija/robotom-protiv-otpada-kroz-projekt-seaclear-za-dubrovacko-neretvansku-zupaniju-osigurano-vise-od-sest-milijuna-kuna/57691>
- <https://dubrovackidnevnik.rtl.hr/vijesti/zupanija/kroz-projekt-seaclear-za-dubrovacko-neretvansku-zupaniju-osigurano-vise-od-sest-milijuna-kuna>
- <https://lokalni.vecernji.hr/zupanije/roboti-ce-cistiti-morsko-dno-pokraj-lokruma-i-u-malostonskom-zaljevu-18406>
- <https://morski.hr/2020/01/24/robotom-protiv-otpada-sest-milijuna-kuna-za-projekt-seaclearu-dubrovacko-neretvanskoj-zupaniji/>
- https://twitter.com/SubseaTech_/status/1229402681229369344
- <https://www.cml.fraunhofer.de/content/dam/cml/de/documents/Pressemeldungen/20200303%20PM%20SeaClear%20DE.pdf>
- <https://www.cml.fraunhofer.de/content/dam/cml/en/documents/PressReleases/20200303%20PM%20SeaClear%20EN.pdf>
- <https://www.dalmacijadanas.hr/u-sijecnju-zapocinje-provedba-projekta-seaclear-autonomni-roboti-ce-cistiti-otpad-iz-mora>
- <https://www.dubrovniknet.hr/novost.php?id=73773#!prettyPhoto>
- <https://www.dulist.hr/robotom-protiv-otpada-kroz-projekt-seaclear-za-nasu-zupaniju-osigurano-vise-od-sest-milijuna-kuna/631338/>
- <https://www.dunea.hr/novosti/868-robotom-protiv-otpada-kroz-projekt-seaclear-za-dubrovacko-neretvansku-zupaniju-osigurano-vise-od-sest-milijuna-kuna>
- <https://www.ei.tum.de/itr/projekte/h2020-project-seaclear/>
- <https://www.energyobserver.com/sr/post/21163>

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- https://www.focus.de/regional/schleswig-holstein/umwelt-roboter-sollen-muell-aus-meer-aufsammeln-forschungsprojekt_id_11729926.html
- <https://www.linkedin.com/feed/update/urn:li:activity:6635166968695533569>
- <https://www.subsea-tech.com/seaclear-project-clean-oceans-thank-to-robots-and-ai/>
- <https://www.sueddeutsche.de/wissen/umwelt-hamburg-roboter-sollen-muell-aus-meer-aufsammeln-forschungsprojekt-dpa.urn-newsml-dpa-com-20090101-200303-99-173136>
- https://www.thb.info/login.html?redirect_url=/rubriken/single-view/news/robotereinsatz-fuer-saubere-meere.html
- <https://www.tudelft.nl/2020/3me/februari/clean-oceans-thanks-to-robots-and-ai/>
- <https://www.utcluj.ro/media/notices/2020/SEACLEAR.pdf>
- <https://www.welt.de/regionales/mecklenburg-vorpommern/article206297441/Roboter-sollen-Muell-aus-Meer-aufsammeln-Forschungsprojekt.html>
- <https://www.zupcica.hr/index.php/zupanijal/10336-pocetak-provedbe-projekta-seaclear-za-nasu-zupaniju-osigurano-vise-od-sest-milijuna-kuna>

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Annex A: SeaClear start press release

Clean oceans thanks to robots and AI

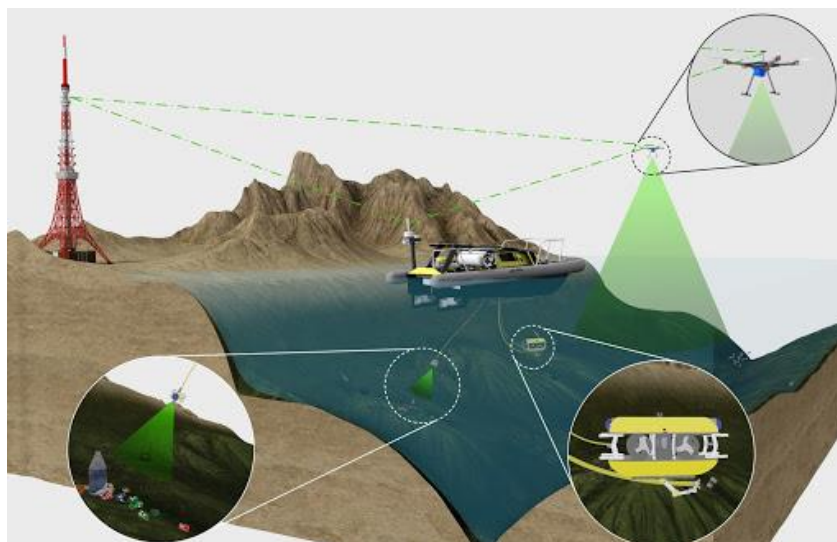


Today's oceans contain 26-66 million tons of waste, with approximately 94% located on the seafloor. So far, collection efforts have focused mostly on surface waste, with only a few local efforts to gather underwater waste, always involving human divers. No solution exists that exploits autonomous robots for underwater litter collection. A team of researchers at TU Delft, in a consortium of eight European partners from Croatia, France, Germany, and Romania are working on the development of autonomous robots for underwater litter collection. Bart De Schutter, professor at Delft Centre for Systems and Control, coordinates this Horizon-2020-funded project **SeaClear** (SEarch, identificAtion, and Collection of marine LittEr with Autonomous Robots).



<https://seaclear-project.eu/>
SeaClear-project@tudelft.nl
 Twitter [@seaclearproject](https://twitter.com/seaclearproject)

Bart De Schutter: *"Our objective is to operate the robots autonomously, without remote human intervention, and to that end we plan novel developments in debris mapping, classification, and robot control. When fully operational, the SeaClear system aims to detect and classify underwater litter with 80% success rate, and to collect it with a 90% success rate."*



The SeaClear project will build a mixed team of unmanned underwater, surface and aerial vehicles to find and collect litter from the seabed. The project plans to use aerial vehicles to study the correlation between surface and underwater litter. The underwater vehicles will be fitted with special suction grippers for both small and large waste. The system developed will be demonstrated in two case studies: one in port cleaning (with end-user Hamburg Port Authority), and the other in a touristic area (Dubrovnik – with end-user DUNEA). Besides the two end-users, the consortium includes an SME supplying proven hardware for the platform, and four academic institutions with complementary expertise in underwater and aerial robotics, sensing, mapping, and control. SeaClear received €5M funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 871295.