The proposed research will consider regulatory and governing challenges for the regulation of marine renewable energies and the protection of the environment in marine areas beyond national jurisdiction (ABNJ).

The present research will be firmly established in the legal sphere, as it will focus on various fields of Public International Law, namely the Law of the Sea, International (Marine) Environmental Law and the Law of International Organizations.

Although the core of the research will be legal in nature, the research will also be linked to other disciplines (Public Policy, International Relations, International Political Sociology and Security Studies) in order to better analyse and understand the regulation and governance of marine ABNJ.

Accordingly, a legal panel expert in the abovementioned areas of Public International Law would best fit in order to assess the quality and coherence of the proposal.

Title of your PhD dissertation

*English title*  
The international and European environmental regulation of marine renewable energies in the EU

*Dutch title*  
De internationale en Europese milieuregelgeving van maritime hernieuwbare energiebronnen in de EU
Title of your research proposal

*English title*  
Advancing renewable energy governance in marine areas beyond national jurisdiction in a global and European regional context: legal answers to new economic and environmental challenges

*Dutch title*  
Bevordering van het bestuur rond hernieuwbare mariene energiebronnen buiten de nationale jurisdictie in een globale en Europese regionale context: een juridisch antwoord op nieuwe economische en milieu-gerelateerde uitdagingen

Summary in layman's terms

Roughly 64% of the global oceans are marine areas beyond national jurisdiction (ABNJ), i.e. the deep seabed and the high seas. This extensive area has unparalleled potential for the use of marine renewable energies (MREs) to provide energy security and competitiveness (i.e. creation of jobs and economic development) to the States as well as for the fight against climate change at a national, regional and global scale. Accordingly, States are becoming increasingly interested in the economic and climate change mitigation potential of ocean areas beyond the national jurisdiction of coastal States. At the same time, however, the expansion of the MRE industry into marine ABNJ as well as the environmental impacts associated with their development can entail new risks and threats to security and the biodiversity due to the significant regulatory challenges and governance gaps in marine ABNJ.

This project aims to enhance the sustainable development of the MRE industry in ABNJ and promote marine conservation in a global and European regional context. To achieve these objectives, the project will analyse the strengths and weaknesses of the global and regional regulatory frameworks, as well as potential new forms of governance through global energy agencies.

As a result, this project will provide recommendations on how to strengthen renewable and environmental governance in the high seas, which will greatly contribute to the secure and sustainable development of MREs in ABNJ.
Supervised dissertations
- Master thesis ‘Disembarkation of migrants to a place of safety in Europe: a critical analysis’. 2016. ( Examiner)

Funding applied for elsewhere or already available
N/A

Previous FWO fellowships
This is the first time I apply for a FWO fellowship.

Previous research stays
N/A

Planned research stays

Scientific awards
Not for his project. It is entirely new, to be started if fellowship is granted.
Personal statement

My wish to pursue a career in research, and the necessary skills to successfully do so have been shaped in several institutions. In 2011 I obtained a highly competitive fellowship to pursue an ‘LLM in Environmental Law’ in Vermont Law School, which is ranked as the No. 1 Environmental Law Program in the USA. There, I had the privilege to study with leading scholars on various topics related to the environment, including climate change and international environmental law. I quickly learned that a methodical approach is key to the completion of any law project and I have since successfully applied it to my studies. I also acquired a sound background knowledge in Environmental Law, which was since key to my research activities. Thanks to this thorough education I could not only realise how intimately ecological, social and political issues are interconnected but was also given the tools to address and handle these issues analytically. Without realising it at first, it was in Vermont that I developed a passion for Environmental law and at the end of this exceptional year, I decided to continue this path putting into action my newly acquired skills and pursue a career in research.

As a first step, I moved to Belgium, where I obtained a fellowship to pursue a PhD studying ‘The international and European environmental regulation of marine renewable energies in the EU’. As General Public International and EU Law form the sound foundation of the Law disciplines crucial for my PhD studies and the project proposed here, i.e. Environmental Law and Law of the Sea, I took advantage of my first PhD year to immerse myself in their study. I further had the pleasure to teach several Master courses related to International and EU environmental law. Through the extensive policy analysis performed during my PhD studies I learned how to analyse legal documents, recognize patterns, detect weak points in current legislation and propose solutions, while continuously gaining a deeper understanding of public international law and EU law and issues related to marine policy in general. This forms the basis of my outlook in the proposed project. I also found it highly motivating to think that my PhD work could contribute to a sustainable and environmentally friendly energy transition.

The project I propose here continues my interest in oceans governance and the development of renewables and draws upon the various law disciplines I had the pleasure to gain expertise in during my academic career path so far. I thus believe that I have acquired the necessary maturity and skills to continue research on my proposed topic. This can also be exemplified by the recent success of several publications stemming from my PhD research. I would be delighted to get the chance to continue my path to pursue a career in research and establish myself as a valuable scholar in the academic world. I very much hope I will get the opportunity to do so with the help of this project.

Career breaks

As mentioned above, I realised during my Masters studies in Vermont that I wished to continue the academic career path. Due to the lack of funding opportunities I spent the next year to develop a PhD proposal which would allow to continue my studies while at the same time becoming economically independent. With this proposal I was able to obtain highly competitive funding from the IES and pursue my PhD studies in Belgium, starting in October 2013.
RESEARCH CONTEXT

How this project fits in the research activities of the research group

The project is fully in line with the research strategies of both the Centre for International Law of the VUB and the VUB’s Institute for European Studies (IES), which usefully complement each other.

The Centre for International Law, headed by Prof. Dr. Erik Franckx, specialises as one of the research clusters in marine-related research (see http://www.vub.ac.be/vakgroep/ieremarineonderzoek), including marine environmental protection and the study of marine regional governance. Moreover, the Centre takes a multidisciplinary approach by studying both the legal and political aspect of international organizations. This will provide an ideal environment to study the analysis of the applicable regulatory framework for the governance of MREs in ABNJ as well as the role of the global energy agencies.

The IES is an academic Jean Monnet Centre of Excellence and policy Think Tank at the VUB focusing on the EU’s international role. The IES Research Cluster on Environment and Sustainable Development (see https://www.ies.be/research/EnvironmentandSustainableDevelopment), headed by Prof. Dr. Sebastian Oberthür, counts with extensive knowledge on European/international environment, climate, energy policy/law, which will highly contribute to the progress and successful completion of the project.

Combining thus the broader expertise of the Centre for International Law of the VUB, and its specific focus on the law of the sea, with the specific knowledge of the IES Research Cluster on Environment and Sustainable Development will ensure the successful outcome of the project.
In the table below questions are listed on the ethical aspects of your research proposal.

If you mark a ‘yes’ for the question, it follows that

• **For the questions marked with *:** the applicant is legally or on the basis of institutional regulations obliged to ask for an ethical advice at the competent ethics committee of the host institution; please do take into account that even when there is no obligation with regard to the research itself, for the publication of the results a positive advise still can prove to be necessary.

  If you have answered questions with a * positively, you must submit your proposal to the ethics committee **as soon as your application has been approved for funding.** Your fellowship can only start when this clearance has been formally given. Only if the advice relates to a work package that is planned for a later stage of the fellowship, it may be submitted just before the start of that part of the research. Please keep in mind that the advisory procedure can take some time and that therefore you should submit your proposal to the ethics committee **well in time.**

• **For the questions that are not marked:** the applicant and the evaluation panel are invited to reflect on the issue and take, if necessary, the necessary precautionary measures.

  You find more on the FWO policy and procedure concerning ethical issues and on legal and other documents on the [FWO web page dedicated to that topic](http://www.fwo.be).
I confirm that none of the issues below apply to my proposal. True

I hereby confirm having taken note that an ethical clearance is needed for the start of my project. I will thus ensure submission of my proposal to the research ethics committee of my host institution.

Please specify which ethics committee(s) deal(s)/will deal with your application.

In case you will submit your proposal to the committee only before the start of work package(s) (WP) that are concerned:

Number/description of WP(s)  Starting date of WP(s)

1. Human Embryos/Foetuses

ETHICS ADVICE RELATED TO THESE QUESTIONS SHOULD ALWAYS BE REQUESTED BEFORE THE START OF THE RESEARCH PROJECT AS A WHOLE AND ALSO REQUIRE AN EXAMINATION BY THE FEDERAL COMMISSION FOR EMBRYOS

Does your research involve Human Embryonic Stem Cells (hESCs)?* N/A

- Will the hESCs be directly derived from embryos within this project? N/A
- Are the hESCs previously established cell lines? N/A

Does your research involve the use of human embryos?* N/A

Does your research involve the use of human foetal tissues / cells?* N/A

2. Humans

Does your research involve human participants?* N/A

- Are they volunteers for social or human sciences research? N/A
- Are they persons unable to give informed consent? N/A
- Are they vulnerable individuals or groups? N/A
- Are they children/minors? N/A
- Are they patients? N/A
- Are they healthy volunteers for medical studies? N/A

Does your research involve physical interventions on the study participants?* N/A

- Does it involve invasive techniques? N/A
- Does it involve collection of biological samples? N/A
3. Human Cells/Tissues

Does your research involve human cells or tissues (other than from Human Embryos/Foetuses, i.e. section 1)?*  
- Are they obtained from commercial sources?  
- Do they originate from another laboratory/institution/biobank?  
- Were they produced or collected by you from previous research activities?  
- Are they produced or collected by you as part of this project?²

4. Personal Data

Does your research involve personal data collection and/or processing?* (¹)  
- Does it involve the collection and/or processing of sensitive personal data?  
- Does it involve collecting/processing of genetic information/data?  
- Does it involve tracking or observation of participants?  

Does your research involve further processing of previously collected personal data (‘secondary use’)?*

5. Animals

Does your research involve research procedures to live non-human vertebrate animals (incl. independently feeding larval forms, foetal forms of mammals in the last trimester of their normal development and cephalopods, and also forms in earlier stages if the experiments have consequences in later stages)?*  
- Are they vertebrates or live cephalopods?  
- Are they non-human primates? (²)  
- Are they genetically modified animals?  
- Are they cloned farm animals?  
- Are they endangered species?

6. International Collaboration

Do you plan to use local resources (e.g. animal and/or human tissue samples, genetic material, live animals, human remains, materials of historical value, endangered fauna or flora samples, etc.)?  
Do you plan to import/export any material from/to other countries?  
- Name of country/ies:

If your research involves low and/or lower middle income countries, are benefits-sharing measures foreseen?  
Could the situation in the country put the individuals taking part in the research at risk?
7. Environment & Health and Safety

Does your research involve the use of elements that may cause harm to the environment, to animals or plants?  
N/A

Does your research deal with endangered fauna and/or flora and/or protected areas?  
N/A

Does your research involve the use of elements that may cause harm to humans, including research staff?  
N/A

8. Dual Use

Does your research have the potential for military applications?  
N/A

9. Misuse

Does your research have the potential for malevolent/criminal/terrorist abuse?  
N/A

10. Other Ethics Issues

Are there any other ethics issues that should be taken into consideration? Please specify.

(¹) For these issues the Belgian commission on privacy protection (Commissie voor de bescherming van de persoonlijke levenssfeer) has to be consulted. You cannot consult the commission directly, but always first contact the research coordination of your host institution.

(²) In this case you already have to submit your proposal to the ethics committee in the application phase.
1. STATE OF THE ART

Roughly 64% of the global oceans are marine areas beyond national jurisdiction (ABNJ), i.e. the deep seabed and the high seas. This extensive area has unparalleled potential for the use of marine renewable energies (MREs) to provide energy security and competitiveness to the States and in the fight against climate change at a global scale. Accordingly, States are becoming increasingly interested in the economic and climate change mitigation potential of ocean areas beyond the national jurisdiction of coastal States. At the same time, however, the expansion of the MRE industry into marine ABNJ as well as the environmental impacts associated with their development can entail new risks and threats to security and biodiversity due to the significant governance gaps and regulatory challenges in marine ABNJ.

The MRE industry is expanding globally and is beginning to be developed in the open seas. MRE technologies, and in particular offshore wind energy and ocean renewable energy, have been mainly developed in areas within national jurisdiction. However, a series of factors such as the favourable renewable resource conditions in the open oceans, the reduction of the renewable energy production costs and the need to fight climate change are bringing MREs into waters far from the coast. MREs, specifically wind energy, have greater staying power in the open ocean and the electricity from offshore wind farms will be consistently cheaper than fossil fuels by 2020. In addition, the adoption of the Paris Agreement in 2015 requires States to cut greenhouse gas emissions from fossil fuels and renewables play an important role in the battle against climate change. In this regard, the development of MREs in ABNJ can contribute to fighting climate change and protecting the environment at a global scale.

Nonetheless, the development of MREs in ABNJ can have negative impacts, which need to be taken into consideration.

1. The development of the MRE industry can easily create conflicts for the use of the space in ABNJ, as States do not have sovereignty and/or jurisdiction over marine ABNJ and these spaces can only be regulated through international law. These conflicts can arise because offshore wind farms and ocean energy installations need the right to occupy space in the marine ABNJ in perpetuity and in four dimensions (seabed, water column, sea surface and the air above). As an example, MRE developers need to lay foundations, create structures and moor devices that obstruct freedoms of the high seas such as navigation and fisheries.

2. The development of MREs in ABNJ can endanger the environment, but so far it remains unclear whether the current applicable regulatory framework is able to provide sufficient protection. In particular, the installation, maintenance, operation and decommissioning of the different MRE devices in addition to the energy transmission to the grid and the development of related industries could compromise the protection of the marine environment, including the habitats and the species of the marine ecosystems. Some of these habitats and species are particularly vulnerable as they are thriving at great depths, under extreme pressure and in complete darkness. If climate change in general is believed to have a major impact on these ecosystems and species, the potential impacts of MREs on biodiversity should be duly acknowledged. More

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generally, the possible impacts include habitat loss and degradation, collision risks and other negative impacts associated with, but not limited to noise, vibrations and electromagnetic fields.\textsuperscript{5}

The abovementioned concerns therefore raise the questions of whether the applicable regulatory framework is able to adequately regulate MREs in ABNJ and provide sufficient protection to the environment. In particular, is the framework able to provide:

- Answers to the challenges associated with the development of the MRE industry in ABNJ?
- Security to States and stakeholders for the development of MREs in ABNJ?
- Sufficient environmental protection in the development of this economic activity in ABNJ?

In this context it is necessary to identify the strengths and the weaknesses of the applicable frameworks with respect to the regulations of MREs in ABNJ and the protection of the environment in their development. The applicable global framework is provided by the United Nations Convention on the Law of the Sea (UNCLOS)\textsuperscript{6} and the Convention on Biological Diversity (CBD).\textsuperscript{7} In addition, the United Nations (UN) General Assembly adopted on December 2017 a resolution to begin negotiations on an international legally binding instrument for the conservation and sustainable use of marine biodiversity in ABNJ.\textsuperscript{8} The applicable regional law instruments at the European level are the European Regional Seas Conventions (RSCs) with a mandate in ABNJ (i.e. OSPAR\textsuperscript{9} and Barcelona Convention).\textsuperscript{10} A careful study and analysis of the global and regional frameworks is a crucial stepping stone to guaranteeing a sustainable and secure development of MREs in ABNJ more generally.

In addition to issues caused by their development, there are also uncertainties related to the governance of MREs in ABNJ, as the regulatory framework for the governance of marine ABNJ is fragmented and sectorial. The literature stresses that “management organisations with authority in ABNJ are each concerned with regulating a specific sector, leading to an institutional landscape that is fragmented and uncoordinated”.\textsuperscript{11} In contrast, the collective governance of global commons such as marine ABNJ requires: (i) shared responsibility, (ii) conditional access, (iii) effective enforcement and (iv) mechanisms for dispute resolution to guarantee a sustainable use of these spaces. Although the main global energy agencies –i.e. the International Renewable Energy Agency (IRENA) and the International Energy Agency (IEA) - could enhance intergovernmental and interregional collaboration to govern and provide environmental protection in the development of MREs in ABNJ in a global context, it remains unclear whether they are able to do so. Therefore, the study of these new forms of governance could enhance the sustainable and secure development of the MRE industry and research on this topic would greatly contribute to strengthening environmental and renewable energy governance in ABNJ.

In line with this, in January 2018 the EU Parliament published a ‘Resolution on international ocean governance’\textsuperscript{12} calling for additional actions and research to improve the international and regional ocean governance framework applicable in ABNJ, including for the development of MREs.

\textsuperscript{7} Convention on Biological Diversity, 5 June 1992.
\textsuperscript{9} Convention for the protection of the marine environment of the North-East Atlantic.
\textsuperscript{10} The Convention for the protection of the Marine Environment and the Coastal Region of the Mediterranean, since 1995, originally called 'The Convention for the Protection of the Mediterranean Sea Against Pollution'.
\textsuperscript{12} International ocean governance: an agenda for the future of our oceans in the context of the 2030 Sustainable Development Goals European Parliament resolution of 16 January 2018 on international ocean governance: an agenda for the future of our oceans in the context of the 2030 SDGs (2017/2055(INI)).
2. OBJECTIVES OF THE RESEARCH

Describe the envisaged research and the research hypothesis, why it is important to the field, what impact it could have, whether and how it is specifically unconventional and challenging.

2.1. Research hypothesis and objectives

This project starts from the hypothesis that the development of renewable energies in marine ABNJ (1) poses regulatory and governing challenges that need to be addressed in order to guarantee a sustainable and secure development; and that (2) the requirement to providing marine environmental protection in the development of MREs is an opportunity to advance and strengthen international and regional ocean governance. The aim of this project is thus twofold, i.e. to provide answers to the regulatory and governing challenges for the deployment of MREs and the protection of the environment related to their development in ABNJ in a global and European regional context as well as advancing and strengthening the applicable regulatory and governing framework.

In particular, two objectives will be pursued in this project:

1. To advance and strengthen marine conservation as it relates to renewable energy governance in ABNJ at a global and European regional (Atlantic and Mediterranean) scale;
2. To enhance sustainability (economic, social and environmental aspects) in the development of MREs in ABNJ in the global and European regional context.

The focus of the project lies on the global and regional forms of governance since both complement each other and play a fundamental role in the protection of the environment. Notably, the overarching framework provided by UNCLOS establishes that States shall not only have the obligation to protect and preserve the environment, but shall moreover cooperate on a global and regional basis for its protection and preservation. Furthermore, the regional approach is a trend in oceans governance. The regionalisation of international environmental law has primarily taken place through RSCs and Action Plans, such as the ‘Noumea Convention’ in the South Pacific Region or the ‘Cartagena Convention’ in the Caribbean Region. However, the connectivity between global and regional organisations with sectoral responsibility for activities in marine ABNJ has to be fostered to reach an effective global and regional framework for protecting oceans beyond national jurisdiction.

This research will thus focus on the global management but also on the regional management provided by the European RSCs that have extended their mandate in ABNJ. In particular, OSPAR and the Barcelona Convention are the European RSCs with a mandate in ABNJ, managing the North-East Atlantic and Mediterranean regions respectively. Moreover, the research on global and regional ocean governance will contribute to achieving the objectives proposed by the ‘European Parliament resolution on international ocean governance: an agenda for the future of our oceans in the context of the 2030 Sustainable Development Goals’, which has:

(a) Stressed that improving the international ocean governance framework will entail strengthening regional and global efforts.

(b) Called for regional arrangements for the governance of marine environments in ABNJ in order to improve the international ocean governance framework.

13 UNCLOS, Art. 192.
14 UNCLOS, Art. 197.
18 Ibid. Recital 26.
Finally, lessons for environmental and renewable energy governance can be learned from regional experiences, which can greatly contribute to the development of international agreements, such as the international instrument for the conservation and sustainable use of biological diversity in ABNJ, which is currently debated at UN-level.

2.2. Importance, impact and challenging aspects of the research

The specific importance of this project lies thus in its contribution to guaranteeing a secure and environmentally sustainable development of the MRE industry in marine areas where States have no sovereignty and/or jurisdiction. In more general terms, this research project will significantly contribute to advancing and strengthening the renewable energy and related environmental governance in marine ABNJ. Moreover, the UN Biodiversity Beyond National Jurisdiction (BBNJ) negotiations for the development of a new legal instrument for the conservation and sustainable use of marine biological diversity of ABNJ creates a unique opportunity to influence these negotiations and this underlines the timeliness of this project. Beyond that, other marine industries will also greatly benefit from these new insights in the development of other potential ocean-based activities in ABNJ, such as aquaculture or seabed mining.

This project will consider normative questions related to governance, sovereignty and policy-making taking into account global and regional forms of governance. In this context, the study will contribute to:

1. Addressing environmental, economic and institutional challenges associated with the development of MREs in ABNJ in a sustainable and secure way.
2. Providing knowledge on how to advance and strengthen renewable energy and its related environmental governance in ABNJ.
3. Preventing threats to international security in the development of economic activities in marine ABNJ.

The necessary development of renewable energies to address global issues like climate change and the protection of the environment can play a significant role in advancing the governance of ABNJ. Moreover, the development of MREs in ABNJ poses new questions related to the regulation and the governance that need to be answered. This study will provide legal answers to these new economic and environmental challenges and will focus on both, the global and regional forms of governance in ABNJ.

The main challenges of this innovative research project are that it will put the researcher in an under-developed and paradoxically fast-evolving area of expertise. The researcher will have to keep up with the many and new developments of this complex topic, such as the present BBNJ discussions at the UN level. This certainly is a challenge, as the effort on developing a new legal instrument for the conservation and sustainable use of biological diversity in ABNJ presents an incredible and unique opportunity to study this topic during a time of change, adding to its topical value. The research action (section 3) will consider the evolution of the BBNJ discussions for the development of this new international instrument, which will have an impact on the research.

In addition, as described in further detail in section 3, although the core of the research will be legal in nature, the research will also be linked to other disciplines (public policy, international relations, international political sociology and security studies). This approach will greatly enrich the study, but poses additional challenges for the researcher to adequately take into account all these areas for the analysis.

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19 Ibid. Recital 118.
3. METHODOLOGY OF THE RESEARCH

Be as detailed as necessary for a clear understanding of what you propose. Describe the different envisaged steps in your research, including intermediate goals. Indicate how you will handle unforeseen circumstances, intermediate results and risks. Show where the proposed methodology is according to the state of the art and where it is novel. Enclose risks that might endanger reaching project objectives and the contingency plans to be put in place should risk occur.

The research action of this project aims to address the environmental and renewable energy governance in ABNJ through a global and European regional approach. In accordance with the research hypothesis and objectives, the project is composed of three work packages (WPs, section 4.1), that will provide answers to the three ensuing research questions:

(a) **Question 1:** What are the strengths and weaknesses of the international and regional regulatory framework for the regulation of MREs and the protection of the environment against the development of MREs in ABNJ?

**Explanation:** To address this research question, the role and the ability of the international and regional instruments to regulate MREs and provide protection against their environmental impacts in ABNJ will be studied. The analysis of the regulatory frameworks will clarify issues related to: (i) the jurisdiction of States to deploy MREs and provide environmental protection in ABNJ; (ii) the use of analytical tools like the Environmental Impact Assessment (EIA) in order to ensure the sustainable use of marine ABNJ; (iii) the use of area-based management tools such as maritime spatial planning (MSP) and ecosystem based approach in ABNJ in order to coordinate activities in these maritime spaces; (iv) the interaction between instruments as a mechanism to strengthen protection.

**Action:** Answering the first research question will require the analysis of the strengths and weaknesses of the identified applicable regulatory framework, i.e. UNCLOS, CBD, OSPAR and Barcelona Convention. The analysis will follow a systematic examination of the instruments (object, territorial applicability and relevant obligations) as well as the actions under these instruments for the governance of MREs in ABNJ. The analysis will, in particular, focus on and provide answers to (i) the jurisdiction of States to deploy MREs and provide the necessary environmental protection related thereto in ABNJ, which will take into consideration how the conditional freedoms of the high seas affect the development of MREs in these maritime spaces; (ii) the use of the EIA, an essential tool to identify and assess the impacts of activities on the environment, in the development of MREs in ABNJ; (iii) the use of MSP and an ecosystem-based approach in the development of MREs in ABNJ; and (iv) the improvement of the interaction between legal instruments as a mechanism to strengthen protection. Furthermore, the research action will also consider the progress and evolution towards the development of the new implementation agreement on the conservation and sustainable use of marine biodiversity in ABNJ. As the development of this new legal instrument gathers pace, it is important to consider how this might impact on the development of MREs in ABNJ.

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20 The Environmental Impact Assessment (EIA) is a process for evaluating the likely impact of a proposed activity on the environment, which contributes to determining where, when and whether the deployment of MREs should be allowed in a specific location.


22 The ecosystem approach can be defined as “a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.” See Decision V/6, of the Conference of the Parties to the Convention on Biological Diversity, 15-26 May 2000.
Risk: The risk associated with this goal is comparably low. The regulatory frameworks are well defined and available to the researcher, and the research question and approach are clearly defined. Nevertheless, specific literature on environmental and governing issues related to MREs and their environmental impacts could be scarce. Should this be the case, the researcher will include literature dealing with the regulation of other maritime industries such as oil and gas installations, which has been extensively discussed in the past. The possible failure of the UN BBNJ negotiations is also a risk but at the same time creates a unique opportunity to influence these negotiations and this underlines the timeliness of this project.

(b) **Question 2**: Which role could the main global energy agencies (IRENA and IEA) play in providing a forum to regulate and guarantee environmental protection with respect to the development of MREs in ABNJ?

**Explanation**: The main global energy agencies -i.e. IRENA and IEA- could enhance intergovernmental and interregional collaboration to govern and provide environmental protection in the development of MREs in ABNJ in a global context. However, it remains unclear whether they are able to do so. Therefore, the study of these new forms of governance could enhance the sustainable and secure development of the MRE industry and research on this topic would greatly contribute to advancing and strengthening renewable energy governance in ABNJ.

**Action**: To address the role of the global energy agencies (IRENA and IEA) for the governance of MREs in ABNJ, the following will be analysed:

- How are these organisations shaping global and European regional renewable energy governance?
- What is the institutional capability of these organisations to do so?
- What are the impacts of the actions of these organisations towards the secure and sustainable governance of renewable energies?
- What is the ability to enhance intergovernmental collaboration for the governance of MREs?
- As these organisations are sector based, how can they provide environmental protection in the global commons?

Finally, a comparative analysis on the strengths and weaknesses of both organisations to provide a forum to regulate and guarantee environmental protection in the development of MREs in ABNJ will be performed.

Risk: The risk associated with this goal is comparably low. The research question and approach are clearly defined. The existing literature on global energy governance, which has greatly increased over the last years, will be useful to carry out the proposed research. Should difficulties to achieve this research goal occur, the researcher plans to get support from a colleague of the REFRACT network (see details of this network in the information provided in the online application) to address any unexpected issues. For this purpose, a collaboration with Prof. Thijs Van de Graaf is foreseen, who is a specialist on global energy governance at the Ghent Institute for International Studies, Ghent University, Belgium. Given his expertise in global energy governance in particular in IRENA, his support will guarantee the successful completion of research question 2.

(c) **Question 3**: Which suggestions can be made to advance and strengthen the environmental and energy governance of MREs in ABNJ?

**Explanation**: This project aims to provide recommendations to advance and strengthen renewable energy governance together with its environmental protection and preservation. Practical and feasible solutions should be provided in order to achieve this objective. Accordingly, this research question will focus on putting forward possible recommendations to do so.
**Action:** Taking into account the analysis carried out to answer research questions 1 and 2, the researcher will discuss in detail the possible legal options to improve the environmental and energy governance of MREs in ABNJ. The following will be analysed and discussed:

- The existing models of governance in ABNJ (e.g. Regional Fisheries Management Organisations) with a view to compare and provide suggestions to overcome the identified legal challenges and constraints.
- Suggestions to advance and strengthen the regulatory framework applicable to MREs in ABNJ.
- Suggestions to advance and strengthen the renewable and environmental governance of MREs in ABNJ.

**Risk:** The risk associated with this goal is comparably low, however it depends on the successful completion of research questions 1 and 2. It is therefore possible that the analysis suggested here is delayed due to difficulties in questions 1 and/or 2. Nevertheless, as described above, the risks associated with questions 1 and 2 are low, and adequate measures are being put in place to ensure their successful completion in a timely manner. In addition, as described in section 4 of this proposal, various checkpoints are included throughout the project to ensure objectives of the sub-sections are reached.

In order to provide a full analysis of the issues at stake, the research will be firmly established in the legal sphere with links to other disciplines. The projects integrates concepts and insights from law (public international law and more specifically law of the sea, international (marine) environmental law and the law of international organisations) but also public policy (considering global and regional governance systems, policy network, coordination), international relations (with an interest in the influence of non-state actors), international political sociology (referring to the notion of filed to analyse power relations, practices and strategies among actors) and security studies (examining construction of threats and security governance). The core of the research will be provided by the proposed legal research defined in the previous research questions. Moreover, the cross-fertilisation between the abovementioned disciplines will have a complementary function by contributing to better analyse and understanding the regulation and governance of marine ABNJ.

4. **PROVIDE A WORK PLAN, I.E. THE DIFFERENT WORK PACKAGES AND A DETAILED TIMETABLE**

Describe the different work packages (WP) the proposed research work will be divided in. Indicate for each WP the time that it is expected to take. You might use a table or another type of scheme to clarify the work plan.

4.1. **Work Packages (3)**

The research action is configured around the following 3 WPs:

**WP1 (October 2018 - April 2020):** consists of research activities directed towards research question one: what are the strengths and weaknesses of the international and regional regulatory framework for the regulation of MREs and the protection of the environment related thereto against the development of MREs in ABNJ? Six milestones measuring research activity (M1-M6), and one milestone measuring communication (M7) allow for progress to be monitored. Two publications (P1-P2), two policy forums or lectures (S1-S2) and two presentations in international conferences (C1-C2) communicate the results of the research.

**WP2 (May 2020 - December 2020):** consists of research activities directed towards research question two: which role could the main global energy agencies (IRENA and IEA) play in providing a forum to regulate and guarantee environmental protection with respect to the development of MREs in ABNJ? Two milestones measuring research activity (M8-M9) and one milestone measuring communication
(M10) allow for progress to be monitored. One publication (P3), one policy forum or lecture (S3) and one presentation at an international conference (C3) communicate the results of the research.

WP3 (January 2021 - September 2021): consists of research activities directed towards research question three: which suggestions can be made to advance and strengthen the environmental and energy governance of MREs in ABNJ? Three milestones measuring research activity (M11-M13) and one milestone measuring communication (M14) allow for progress to be monitored. One publication (P4), one policy forum or lecture (S4) and one presentation at an international conference (C4) communicate the results of the research.

4.2. List of major deliverables (4 publications - 4 policy briefs, policy forums or lectures - 4 presentations in international conferences)

Publications (4) - P1: ‘Marine renewable energies in areas beyond national jurisdiction: opportunities in a sea of legal challenges?'; P2: results WP1; P3: results WP2; P4: results WP3. The manuscripts will be submitted to leading journals in the field such as ‘Marine Policy’ or ‘The International Journal of Marine and Coastal Law’.

Policy Forums or lectures (4) - S1-S2: results WP1; S3: results WP2; S4: results WP3.

International Conferences (4): C1-C2: results WP1; C3: results WP2; C4: results WP3. The proposed scientific publications will be presented in major international conferences such as the International Union for Conservation of Nature Academy of Environmental Law (IUCNAEL) Colloquium, International Studies Association (ISA), University Association for Contemporary European Studies (UACES) or the EUIA (European Union in International Affairs).

4.3. List of major milestones (14)

M1: Analysis of the jurisdiction of States to deploy MREs and provide environmental protection under UNCLOS; M2: Analysis of the possibility to use EIA, MSP and an ecosystem based approach in ABNJ under UNCLOS; M3: Conclusions on the strengths and weaknesses of UNCLOS to regulate and provide environmental protection in the development of MREs in ABNJ; M4: Analysis of the ability of the CBD to regulate and provide environmental protection in the development of MREs in ABNJ; M5: Analysis of the ability of the OSPAR and Barcelona Convention to regulate and provide environmental protection in the development of MREs in ABNJ; M6: Analysis of the cooperation and interaction between the international law instruments; M7: Two manuscripts submitted to journals, two policy forums or lectures and two presentations in conferences communicate the results of the research carried out in WP1; M8: Analysis of the role of IEA to enhance intergovernmental and interregional collaboration to govern and provide environmental protection in the development of MREs in ABNJ in a global context; M9: Analysis of the role of IRENA to enhance intergovernmental and interregional collaboration to govern and provide environmental protection in the development of MREs in ABNJ in a global context; M10: One manuscript submitted to journal, one policy forum or lecture, and one presentation in conference communicate the results of the research carried out in WP2; M11: exploring the existing models of governance in ABNJ with a view to providing suggestions to overcome the identified legal challenges and constraints. M12: Suggestions to strengthen and advancing the regulatory framework applicable to MREs in ABNJ; M13: Suggestions to strengthen and advancing the renewable and environmental governance of applicable of MREs in ABNJ. M14: One manuscript submitted to journal, one policy forum or lecture, and one presentation in conference communicate the results of the research carried out in WP3.
5. COMMUNICATION TO NON-EXPERT AUDIENCE. FWO encourages its fellows to disseminate the results of their research widely, and valorize them where possible.

The researcher is convinced that social science communication needs to take place not only on a scientific level (via scientific publications and conferences) but also has to engage the general public (including policy-makers and investors) to stress the importance of social sciences in transforming and improving our societies. He is thus excited to get the chance to engage different target audiences during the fellowship and beyond through various measures.

The results of the proposed research project have a high potential for being linked to policy-relevant debates at the international, European as well as national levels. The sustainable development of renewables and the fight against climate change are high on the policy agenda at all levels. Given the importance of these topics in our current society, the results of the project will not only be attractive for scientists but also for policy-makers, investors and the general public.

The researcher will engage with the dissemination of the research results to a broader public through the organisation of a number of publications and events, including:

1. IES Policy Briefs and leaflets circulated to the institute’s expansive mailing list and available for download from the IES website;
2. IES Policy Forums, which are lunchtime debates that bring together academics, policy experts, investors and the general public;
3. Public lectures;
4. Newspaper op-eds in media journals such as Euractiv.

The publication of at least 2-4 Policy Briefs and the organisation of at least 4 Policy Forums and/or public lectures are envisaged over the course of the project.

6. BIBLIOGRAPHIC DETAILS OF THE FIVE MAIN PUBLICATIONS


7. BIBLIOGRAPHICAL REFERENCES RELEVANT FOR YOUR RESEARCH PROPOSAL


International ocean governance: an agenda for the future of our oceans in the context of the 2030 Sustainable Development Goals European Parliament resolution of 16 January 2018 on international ocean governance: an agenda for the future of our oceans in the context of the 2030 SDGs (2017/2055(INI)).


To be eligible you have to fulfill the understanding regulation:

Art. 2.

Candidates must hold a PhD by thesis (*) (the thesis defence must have taken place no later than 1 June preceding the fellowship).

kind regards,
Nathalie Berghmans
account administrator Social Sciences (G&M)
Dear Nathalie,

Thanks for your e-mail.

We are aware of the PhD requirement. I am planning to defend my PhD in May 2018. Therefore before 1 June 2018.

Kind regards,
Carlos
Dear,

In your application you have proposed ten external referees (at least at postdoctoral level) appointed at a university, research institution or research entity of another type of organization.

Unfortunately insufficient referees have responded to the FWO-invitation. Therefore I would like to ask you to give another five additional foreign referees by March 21, 2018 at the latest.

Not eligible as referee are:
- members of the Board of Trustees of the FWO;
- members of an FWO-Expertpanel;
- persons appointed to a Belgian university, research institute or any other organization; or, in the case of calls for proposals in the framework of bilateral or lead agency agreements, persons appointed to similar institutions or organizations in the country where the foreign project partner is professionally active; -persons with a professional appointment to a foreign institute where the applicant(s) had been enrolled as a student or professional after January 1st of the year n-3 (n=year of application);
- any co-authors with the applicants of a publication that was submitted or published after January 1st of the year n-3 (n=year of application); 'Co-authorship' is to be understood as follows: - co-authorship of a monography of which the applicant is co-author as well;
- co-autorship of an article or another type of contribution to a collection (book, journal issue, report, congress proceedings, abstract,...) of which the applicant is co-author as well; Editors are not regarded as co-authors insofar as they have not also acted as what is understood under 'co-author' as described above. Co-editors of the applicant are not accepted as an external referee.
- partners of the applicant(s) in a research cooperation, whether formalised in a research project or not, that has been applied for or has been running after January 1st of the year n-3 (n=year of application. In this context, the following shall in any case qualify as research cooperation (non-exhaustive list):
  - Cooperation under a research fellowship, granted by the FWO;
  - Cooperation under a research project, whether relating to a specific subject or not or under an international cooperation project, granted by the FWO;
  - Cooperation under the Odysseus programme or the Big Science programme, granted by the FWO;
  - Cooperation under a Scientific Research Network, granted by the FWO;
  - Cooperation under programmes similar to those mentioned above, granted by organisations other than the FWO;
  - Joint research work not formalised in a cooperation structure as defined above;
  - Research carried out in the research areas and/or with research facilities provided by the applicant to the referee or vice versa;
  - …

Reply to gm@fwo.be

Thank you for your cooperation.
Kind regards.

Your account administrator

Nathalie Berghmans
<table>
<thead>
<tr>
<th>Surname</th>
<th>First name</th>
<th>Email</th>
<th>Institution</th>
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<tbody>
<tr>
<td>Long</td>
<td>Ronan</td>
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<td>World Maritime University</td>
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<tr>
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<td>Istanbul Bilgi University</td>
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<td>George Washington University</td>
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<td>Dalhousie University</td>
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<td>University of Naples</td>
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</tbody>
</table>
### PERSONAL DETAILS

**Soria Rodríguez Carlos**

- **Date of birth**: 20 January 1985
- **Country of birth**: Spain
- **Nationality**: Spain
- **Gender**: M
- **E-mail**: carlos.soria.rodriguez@vub.ac.be

### PAST AND CURRENT STUDIES

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### DISCIPLINES

- International law
- European law
- Development law
- Environmental law
**Overview of positions NOT related to FWO and connected to a receiving university/organization**

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**Overview of FWO-related positions**

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**SCIENTIFIC PUBLICATIONS**

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