

**WORKPLAN 5.1 REPORT ON BARRIERS FOR
SUSTAINABLE ENTREPRENEURSHIP IN
PROTECTED NATURE AREAS IN
THE NORTH SEA REGION**

Interreg
North Sea Region
PROWAD LINK

European Regional Development Fund



EUROPEAN UNION

BARRIERS FOR SUSTAINABLE ENTREPRENEURSHIP IN THE WADDEN SEA WORLD HERITAGE SITE: An exploratory study.

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PROWAD LINK

SUSTAINABLE GROWTH
& NATURE PROTECTION



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Beautiful dune landscape and long beach on the island of Amrum at North Sea, Schleswig-Holstein, Germany

Photo by: jakobradlgruber

EXECUTIVE SUMMARY

The Wadden Sea is a protected nature area in the North Sea region. It has a rich biodiversity, a scenic landscape, and makes vital contributions to the health of ecosystems in and beyond the confines of the North Sea. Its ecological importance is exemplified by its role as a feeding ground for millions of migratory birds along the East Atlantic and African – Eurasian flyways. The area's geological and geomorphologic features, combined with ongoing biophysical processes, make it a unique example of adaptation of coastal environments to global change. This uniqueness, coupled with its rich flora and fauna, are some of the characteristics that merited the designation of the area as a World Heritage Site with Outstanding Universal Value. In addition, the Wadden Sea area is home to a human population of between 2 and 3.7 million inhabitants.

The area has been inhabited for nearly 5000 years, which contributes to its a rich cultural value in addition to its natural assets. The human population has contributed to the landscape and biodiversity in various ways. For instance, there have been historic landscape changes due to peat exploitation and the installation of coastal defence structures, such as dykes. The economic activities of the human population have also evolved. Recent decades have seen a decline in traditional industries such as commercial fisheries and large-scale farming, with a growth in other industries, such as tourism and tourism related economic activities. The manufacturing industries located near ports have also grown. Nevertheless, despite this economic development, the region still faces socio-cultural, ecological and economic challenges.

Due to the unparalleled nature and heritage value of the area, conservation is important. With this in mind, industries such as tourism need to operate in a sustainable way. Thus, policy-makers in the region promote sustainable development. The special designation of a World Heritage Site makes the ambition for conservation of nature and heritage, alongside sustainable development of human populations, challenging.

One means identified to combine both the goals of conservation, and sustainable economic development is **sustainable entrepreneurship**. Sustainable entrepreneurship is the process by which entrepreneurs achieve socio-cultural and/or ecological benefits, alongside economic benefits. This process is difficult: - usually socio-cultural, ecological and economic goals compete and face tensions in a business. It is vital to understand how sustainable entrepreneurship can be achieved in a protected area. This knowledge would help safeguard the value of the nature and heritage assets important to the Wadden Sea World Heritage Site.

For this reason, stakeholders in the area came together under the umbrella of the PROWAD LINK – Protect and Prosper project. The project aims to unlock the potential of natural areas, such as the 'Wadden Sea World Heritage', as a driver for jobs and sustainable regional development. Its objective is to do this by encouraging SMEs and their network, to develop nature as a brand, and to create benefits both for these enterprises and the environment. In connection with these aims, a one-year study that focussed on SMEs was carried out. The aim of the study was to identify the barriers for sustainable entrepreneurship in such a sensitive World Heritage area.

In the first chapter of this report we provide a summary of the context of the Wadden Sea World Heritage Site. We outline socio-economic challenges faced by the area and the need for sustainable development. The second chapter provides an overview of why sustainability is a relevant concept for this particular area and introduces the opportunities for sustainable entrepreneurship. In the third chapter the methods used in the study are explained. The results and discussion of findings make up the fourth chapter. The report concludes with recommendations of strategies that can be used to encourage sustainable entrepreneurship in SMEs operating at the Wadden Sea World Heritage area.

It is hoped that using the results and recommendations of this report, better understanding may be gained on the mechanisms that contribute to the increase of sustainable entrepreneurship in the Wadden Sea World Heritage area.



Golden dock, *Rumex maritimus*, and a few plants of willowherb, *Epilobium hirsutum*, growing on mud flat, Marker Wadden, Netherlands

Photo by tasfoto

Preface

This report is part of an Interreg- European Union, North Sea Region, **PROWAD LINK Project – Protect and Prosper**. The project is being implemented in the pilot regions of the Wadden Sea World Heritage area (DK, D, NL), Geiranger Fjord (NO), the Wash & North Norfolk Coast (UK). It gives solutions to similar nature sites on a national, European and potentially global scale. The 3-year project is co-funded by and carried out in the framework of the Interreg North Sea Region Programme under the Programme Priority 1 “Thinking Growth”. The programme is funded by the European Regional Development Fund (ERDF) of the European Union.

The project aims to unlock the potential of natural areas, such as the ‘Wadden Sea World Heritage’, as a driver for jobs and sustainable regional development. It does this by enhancing the engagement of small and medium-sized enterprises (SMEs) and their networks, to develop nature as a brand to create benefits both for SMEs and the environment. The project initiated a study to identify the barriers SMEs face to becoming more sustainable.

The motivations behind this report are:

- To characterise how SMEs, operate in the Wadden Sea World Heritage Site, and
- To identify the barriers faced by SMEs in becoming more sustainable.

In line with these ambitions, the study analysed qualitative data collected through semi-structured interviews, observational data and a literature review. This report presents results of the qualitative study and provides recommendations on how to overcome the barriers identified.

This report comes on the back of previous socio-cultural studies on the Wadden Sea World Heritage Site. What makes this report unique is that it provides insights into the aspirations of the SMEs operating in this area. These insights are valuable for SMEs and regional stakeholders as they develop sustainable product and services through co-creation and branding activities. It goes without saying that the report was made possible by the continuous support of the PROWAD LINK - Protect and Prosper project partners. We extend our sincere gratitude for the resources availed in thought and in kind.

We would like to sincerely thank the entrepreneurs and organisation representatives that took their time to participate in interviews and document collection which enabled us to get insights into the region.

PROWAD LINK—Protect and Prosper, Project Partner List

The following partners from five nations will collaborate to link sustainable growth and nature conservation:

[Common Wadden Sea Secretariat](#) (CWSS; DE/DK/NL)

Lead Beneficiary

[Landesbetrieb für Küstenschutz, Nationalpark und Meeresschutz Schleswig-Holstein / Nationalparkverwaltung](#) (The Schleswig-Holstein Agency for Coastal Defence, National Park and Marine Conservation / National Park Authority; DE)

[Nationalparkverwaltung Niedersächsisches Wattenmeer](#) (Wadden Sea National Park Authority of Lower Saxony; DE)

[Nationalpark Vadehavet](#) (Danish Wadden Sea National Park; DK)

[Business Region Esbjerg](#) (Business Region Esbjerg; DK)

[Miljø- og Fødevareministeriet, Miljøstyrelsen](#) (Ministry of Environment and Food of Denmark, Environmental Protection Agency; DK)

[World Wide Fund for Nature - Deutschland](#) (World Wide Fund for Nature; DE)

[Norges teknisk-naturvitenskapelige universitet](#) (Norwegian University of Science and Technology; NO)

[Norfolk County Council](#) (Norfolk County Council; UK)

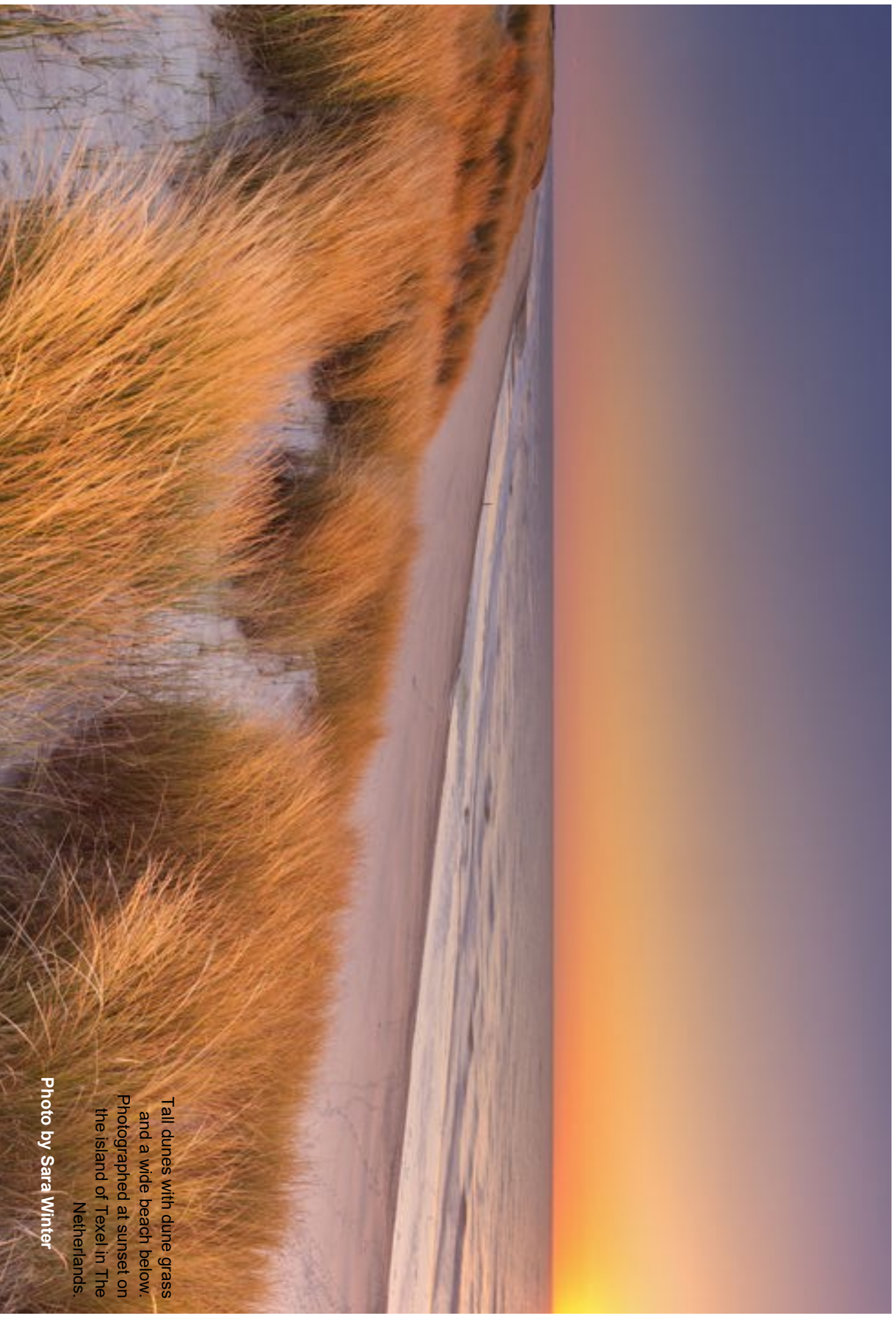
[Rijksuniversiteit Groningen/Campus Fryslân](#) (University of Groningen/Campus Fryslân; NL)

[Ministerie van Landbouw, Natuur en Voedselkwaliteit](#) (Netherlands Ministry of Agriculture, Nature and Food Quality; NL)

[Waddenacademie](#) (Wadden Academy; NL)

[Provinsje Fryslân](#) (Province of Friesland; NL)

[Gemeente Ameland](#) (Municipality of Ameland; NL)



Tall dunes with dune grass
and a wide beach below.
Photographed at sunset on
the island of Texel in The
Netherlands.

Photo by Sara Winter

Background: A Unique interaction between Nature and Man.

With an area of approximately 4700 km² during low tide, sheltered by barrier islands and sand bars against the surf of the North Sea, the Wadden Sea is the largest intertidal region in the world. From Den Helder to Blåvands Huk, it stretches along over 650 km of coastline, spanning three countries, namely the Netherlands, Germany and Denmark (Reise et al., 2010; Kabat et al., 2012). The region was designated a UNESCO World Heritage Site in recognition of its Outstanding Universal Value. It is host to complex coastal and marine ecosystems. These natural systems interact with the human population that has inhabited the area for about 5000 years (Kabat et al., 2012).

The close interaction between man and nature has resulted in multifaceted challenges in relation to sustainable development. These challenges consist of ecological, social-cultural and economic issues. For instance, the region has experienced a deterioration in demographics, with the youth emigrating in search of higher education facilities and better career opportunities.

This has contributed to slower economic growth compared to respective national (the Netherlands, Germany and Denmark) averages. Lack of labour force has led to a

decline of traditional industries such as fisheries and farming (Arndt et al., 2004).

At the same time, environmental challenges are apparent. Parts of the area have been invaded by the Pacific oysters, threatening the balance of the aquatic ecosystem (Reise et al., 2017). While climate impacts, such as rising sea level coupled with subsiding land behind the dykes require long-term adaptation plans (Kabat et al., 2012).

In addition, the growth of the tourism industry has raised concerns over its impact on the environment and the way of life for local communities. These examples show the difficulties present in this unique setting of a semi-remote, culturally rich, inhabited protected nature area.

Consequently, there is no 'one-size-fits-all' solution. Rather, solutions need to take into account the ecological, social-cultural and economic impact they have on such a prized natural resource. This holistic way of thinking resonates with sustainability.

Aiming for Sustainable Development in the Wadden Sea World

By considering ecological, social-cultural and economic principles together, one paves the way for sustainable development. Sustainable development has been defined as ‘meeting the needs of the present generation without compromising the need for future generations to meet their own needs’ (WCED, 1999).

The Wadden Sea World Heritage Site is a sensitive region because nature and man actively interact. In parts of the Wadden Sea, man has changed the landscape by building dykes (Bazelmans et al., 2012), in other parts, man has intervened to save species (Lotze et al., 2005). Some natural processes have caused an increase in land mass, such as on the island of Fano (Jacobsen, 1998), while in other areas such as on the Island of Ameland, land mass has been lost. However, routine human intervention such as reinforcements to restore eroded salt-marshes on Ameland, have been successful in reducing degradation by natural forces (Van Loon-Steensma & Slim, 2013).

This dynamic landscape gives the region its prominence as a tourist attraction for adjacent hinterland populations. However, growth of industries such as tourism has created a complex dilemma. In order to improve the social and economic well-being of the region, tourism, manufacturing and other business activities are encouraged.

At the same time, these economic activities may create challenges for the socio-cultural and ecological well-being of the region. Sustainable development within the Wadden Sea context would facilitate sufficient economic success for resident communities, while protecting and enhancing the socio-cultural and ecological assets that make the region so valuable.

Sustainable development (as described by WCED) may be applied as a response to contextual factors such as change in demographics, market, regulations and the sensitive environment. The urgency to both conserve and utilize the precious nature and heritage assets available in the Wadden Sea World Heritage Site require innovation and transformation of entrepreneurial practices (Arndt et al., 2004; Kabat et al., 2012).

Figure 1 illustrates the interaction between the dimensions of sustainability, contextual factors and sustainable development. By applying sustainable business practices SMEs may be able to contribute to sustainable development. These enterprises need to engage in innovation, co-creation and branding of sustainable products and services.

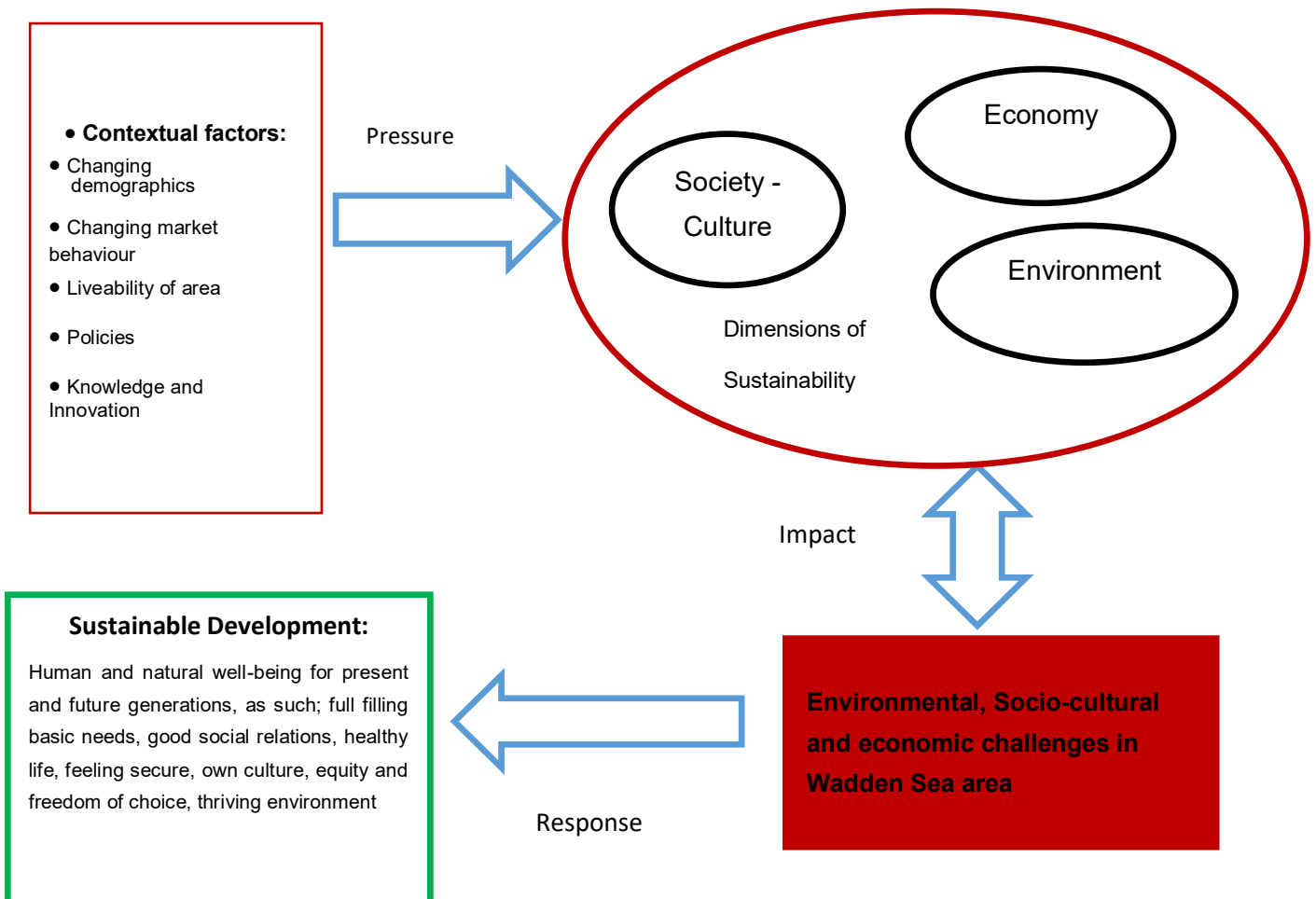


Figure 1: Framework for sustainable development in the Wadden Sea area (adapted from Balkema & Pols, 2015).

The Concept of Sustainable Entrepreneurship

Following the Brundtland report, there was a need to rethink the way in which development and business was conducted. The report showed that the rate at which natural resources exploitation was unsustainable, likely to lead to scarcity and ecosystem damage (Brundtland et al., 1987; Ostrom, 2008; Adelman, 2018). This realization led to formulation of Millennium Development Goals (MDGs) and consequently the Sustainable Development Goals (SDGs). These SDGs encapsulated the socio-cultural, ecological and economic challenges faced globally and the urgency to address them (Wackernagel et al., 2017; Griggs et al., 2013).

For business, the SDGs imply fundamental transformation to reduce harmful environmental and societal impacts caused by unsustainable business practices (Hall et al., 2010; Parrish, 2010). One of the means identified to relieve socio-cultural, ecological and economic issues simultaneously, was sustainable entrepreneurship.

Sustainable entrepreneurship is a **process** that involves the **recognition, development and exploitation** of **opportunities** by individuals to bring into existence future goods and services with economic, social and ecological benefits (Cohen & Winn, 2007; Belz & Binder, 2017).

The process entails activities geared towards innovative discovery of resources, the use and combination of these resources to meet the triple bottom line of economic, social and ecological gains (Dean & McMullen, 2007; Tilley & Parrish, 2009; Belz & Binder, 2017).

However, it is difficult to balance economic, environmental and social goals in a business. There is lack of practical knowledge on how enterprises reconcile their sustainability objectives with organisational profit logics to result in sustainable enterprises (Gibbs, 2009; Parrish, 2010). Sustainable enterprises attempt to apply strategies that in either result in “win-win” scenarios, however, “trade-offs” between the business and sustainability goals also occur.

For example, for environmental entrepreneurs (ecopreneurship) their core motivation is to gain profits by solving environmental problems. The economic goals are the objective of the business, and the environmental goal should be consistent to the economic goal of the enterprise.

	Ecopreneurship	Social entrepreneurship	Institutional entrepreneurship	Sustainable entrepreneurship
Core motivation	Contribute to solving environmental problem and create economic value	Contribute to solving societal problem and create value for society	Contribute to changing regulatory, societal and market institutions	Contribute to solving societal and environmental problems through the realization of a successful business
Main goal	Earn money by solving environmental problems	Achieve societal goal and secure funding to achieve this	Changing institutions as direct goal	Creating sustainable development through entrepreneurial corporate activities
Role of economic goals	Ends	Means	Means or End	Means and end
Role of Market goals	Environmental issues as integrated core element	Societal goals as ends	Changing institutions as core element	Core element of integrated end to contribute to sustainable development
Organizational development challenge	From focus on environmental issues to integrating economic issues	From focus on societal issues to integrating economic issues	From changing institutions to integrating sustainability	From small contribution to large contribution to sustainable development

Table 1: Characterization of different kinds of sustainability-oriented entrepreneurship (Schaltegger & Wagner, 2011).

The summary above shows that there are different ways in which enterprises set goals and try to achieve varied kinds of benefits, either for society or the environment or both. The table depicts the difference in how economic goals are utilized to achieve societal and/or environmental impact, the role of market goals and the organisational adjustments needed to achieve a specific kind of entrepreneurship.

Opportunities for sustainable regional growth through Sustainable Entrepreneurship

One route identified for economic development in the Wadden Sea region is entrepreneurship (Arndt et al., 2004). This is because it encourages innovation and speeds up change from 'business-as-usual' stances of traditional fisheries and farming industries, to growth-oriented ventures such as entrepreneurship in the tourism industry (Arndt et al., 2004; Lordkipanidze et al., 2005; Müller, 2013). However, in order to also preserve the nature and heritage value of the area, sustainable entrepreneurship is required (Eagles et al., 2002; Kardos, 2012; Revier, 2013).

Sustainability in business has three dimensions; social, environmental and economic (Purvis et al., 2019). As discussed earlier, sustainable entrepreneurship is a process in which

entrepreneurs recognize opportunity, develop the opportunity and exploit this opportunity in a way that solves societal and/or environmental problems through a profitable business (Dean and McMullen 2007; Schaltegger and Wagner, 2011; Neumeyer and Santos, 2018).

In the context of the Wadden Sea, sustainable entrepreneurship may be defined as the process by which the natural, cultural and economic assets of a protected area are identified, developed, utilized and conserved (Parrish and Foxon, 2009). This may involve innovation of business models, co-creation of products and services, and the marketing of regional products and services, among other activities.

Delineation of Barriers for Sustainable Entrepreneurship

In recent years attention has shifted from large corporations to the role of SMEs in job creation, social well-being, economic competitiveness and sustainable innovation (Jenkins, 2009; Rizos et al., 2016).

This role requires entrepreneurs to acquire finance, have internal capacity, form and access networks and interact with external actors in a geographical location (Cohen, 2006; Stam, 2015).

The entrepreneurial community is interactive, and made up of varied and interdependent actors and factors that evolve over time and which promotes new venture creation. This community is known as an entrepreneurial ecosystem (Vogel, 2013). A depiction of an entrepreneurial ecosystem is in figure 2.

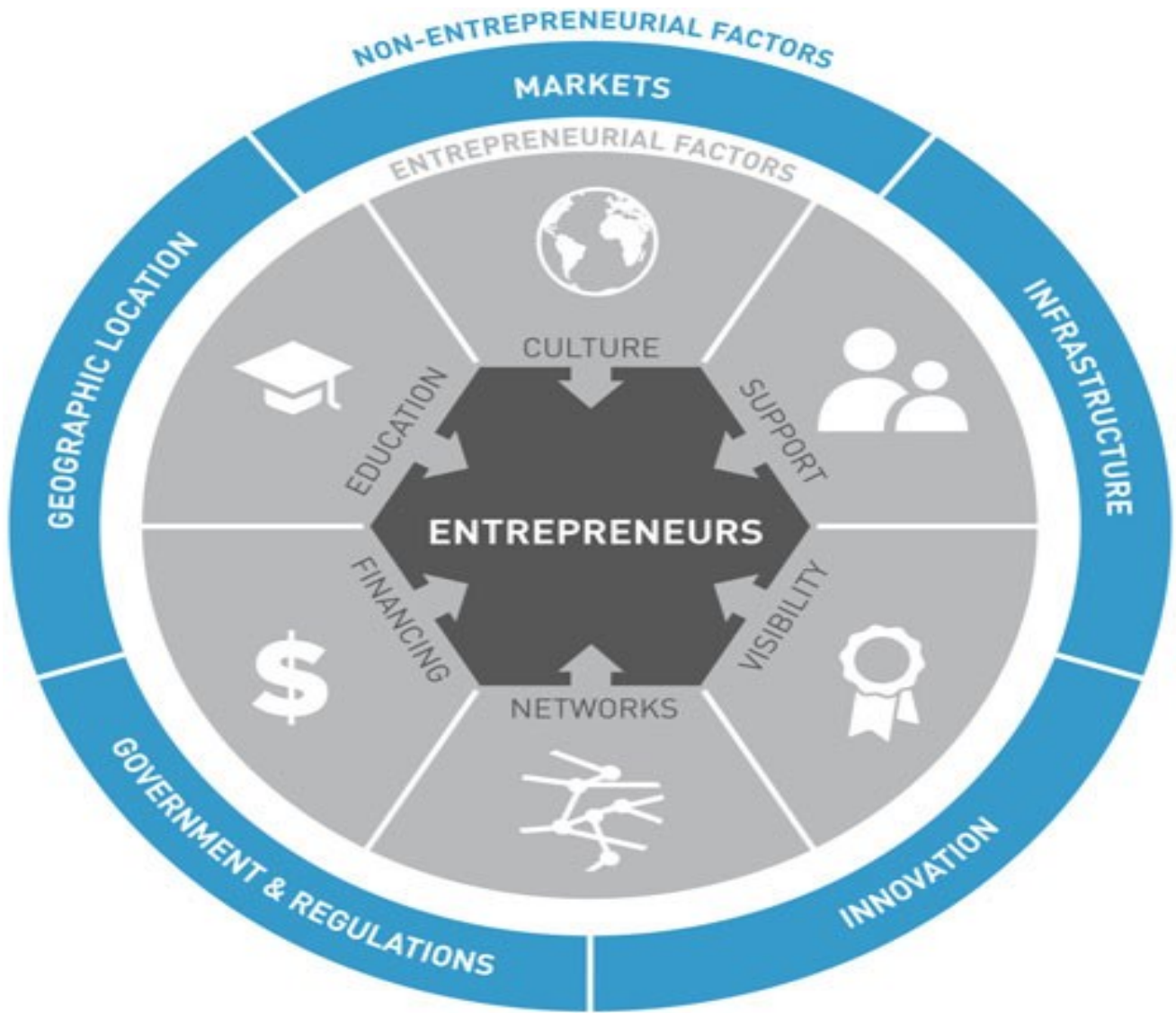


Figure 2: The Entrepreneurial Ecosystem (Vogel, 2013).

An entrepreneurial ecosystem consists of entrepreneurial factors (e.g. financing, culture, networks) and non-entrepreneurial factors (e.g. government and regulations, infrastructure and markets). A combination of these factors may either hinder or enhance sustainable practices. SMEs at the Wadden Sea World Heritage Site exist in a context specific entrepreneurial ecosystem. They need to transform their practices, products and services to perform in a sustainable way. As they aspire to improve their

performance, the SMEs may encounter difficulties.

The difficulties that SMEs experience, while transforming to sustainable entrepreneurship or starting up new sustainable ventures, due to factors in their entrepreneurial ecosystem (or related to their organisational strategy), are termed as **barriers** for sustainable entrepreneurship.

Purpose of the Study

Sustainable entrepreneurship offers an opportunity for enterprises operating in protected nature areas to innovate, and apply business practices that protect the nature and heritage of the region. In this way, the process of sustainable entrepreneurship supports the regional goal of sustainable development.

At the Wadden Sea World Heritage area, there is great potential for sustainable entrepreneurship. Nevertheless, it is not fully understood what barriers SMEs face in their transition to become more sustainable. This study sets out to investigate the difficulties enterprises encounter, within the wider context of the in this entrepreneurial ecosystem.

A framework summarizing the concepts discussed earlier and how they relate to achieve the overall goal of sustainable entrepreneurship in the Wadden Sea area is given in figure 3.

With growth of industries such as tourism and manufacturing, sustainable entrepreneurship will play a vital role in safeguarding the Wadden Sea World Heritage Site. Sustainable entrepreneurship will add to the efforts to ensure that nature is protected, the cultural heritage is preserved and economic development is sustainable.

Therefore, an investigation to gain knowledge on the difficulties that SMEs face as they aspire for sustainable entrepreneurship is important.

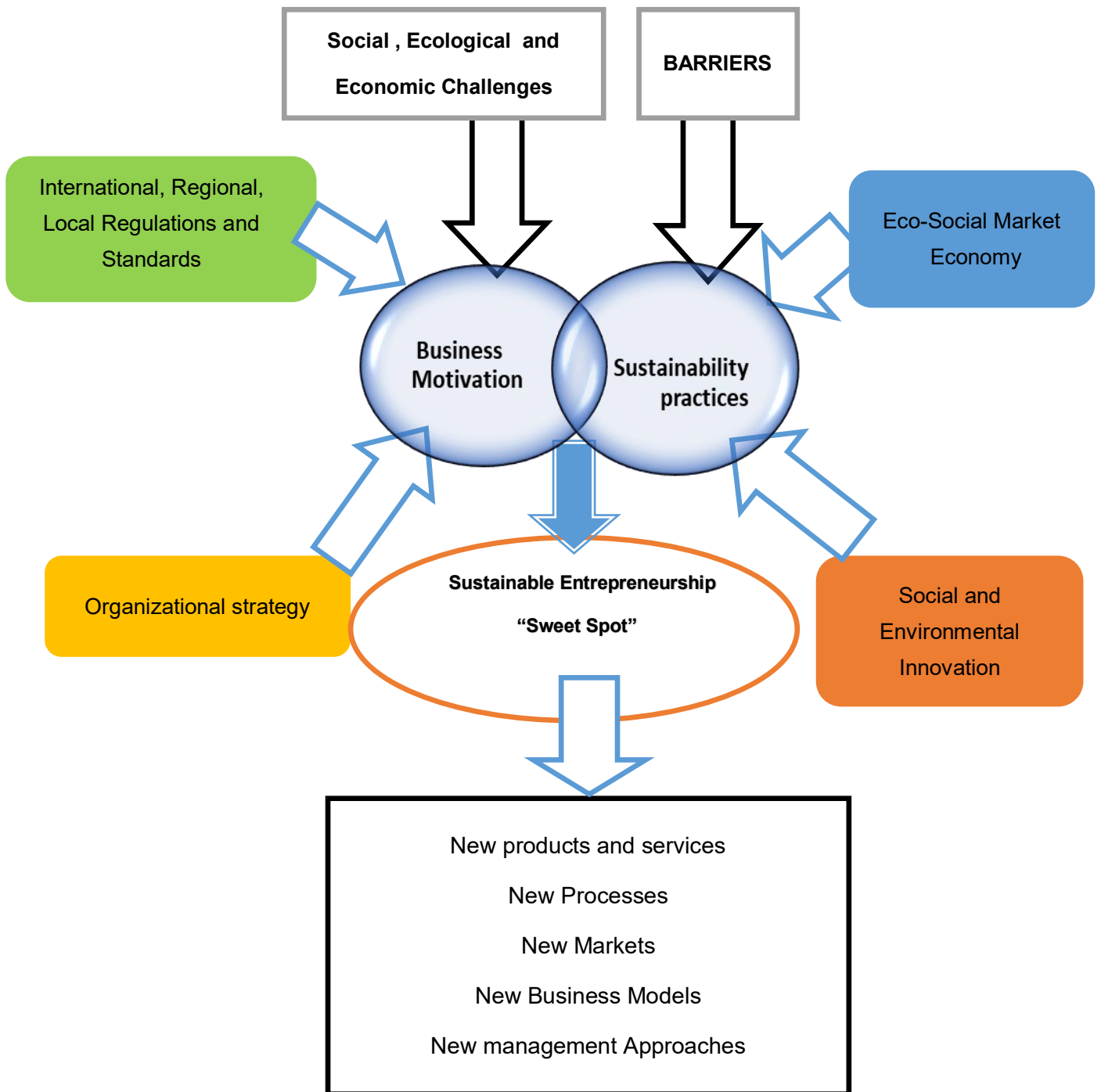


Figure 3: Framework of processes and Sustainable Entrepreneurship in the Wadden Sea World Heritage Area. (Adapted from Eva Grieshuber in Schnieder and Schmidpeter, 2012).

For the purposes of this study, we will focus on the impact of the barriers to sustainability practices of the SMEs.



Beach chairs in a row on Sylt Island

Photo by: Daniela Simona Temneanu

Methods used to investigate Barriers for Sustainable Entrepreneurship

Boundaries of the study

The Wadden Sea covers the area from Den Helder (the Netherlands) to Esbjerg (Denmark), a coastal length of 650 km. For the purposes of this report, the demarcation of the Wadden Sea region is based on the approach taken in the Socio-Economic Analysis report by Arndt et al., 2004. It includes the islands bordering the area and adjacent coastline areas.

This comprises administrative units of municipalities, counties, regions and urban centres depending on the country. The provinces (NUTS -2) and COROP level in the Netherlands, districts (NUTS-3) and urban centres in Germany and municipalities (LAU-1) in Denmark (Arndt et al., 2004).

The geographical scope is summarised in the Table 2 and depicted in Figure 3.

Denmark	Germany
Blavandshuk ¹	Schleswig-Holstein
Varde ¹	Nordfriesland ⁴
Esbjerg ¹	Dithmarschen ⁴
Fanø ¹	Steinburg ⁴
Bramming ¹	Pinneberg ⁴
Ribe ¹	Lower Saxony
Skærbæk ¹	Cuxhaven ⁴
Bredebro ¹	Stade ⁴
Højer ¹	Wesermarsch ⁴
Tønder ¹	Wittmund ⁴
	Friesland ⁴
Netherlands	Wilhelmshaven ⁵
Groningen ²	Aurich ⁴
Fryslân ²	Emden ⁵
Kop van Noord-Holland ³	Leer ⁴
	Bremen
	Bremerhaven ⁵

Table 2: Summary of Geographical scope of the Wadden Sea World Heritage Area.

Guide: ¹ municipality, ² province, ³ COROP level (Dutch statistical unit-regions of homogeneous economic terms), ⁴ district, ⁵ urban community. (Arndt et al., 2004; Prognos AG 2004, according to BBR Inkar and Cowi 2003)

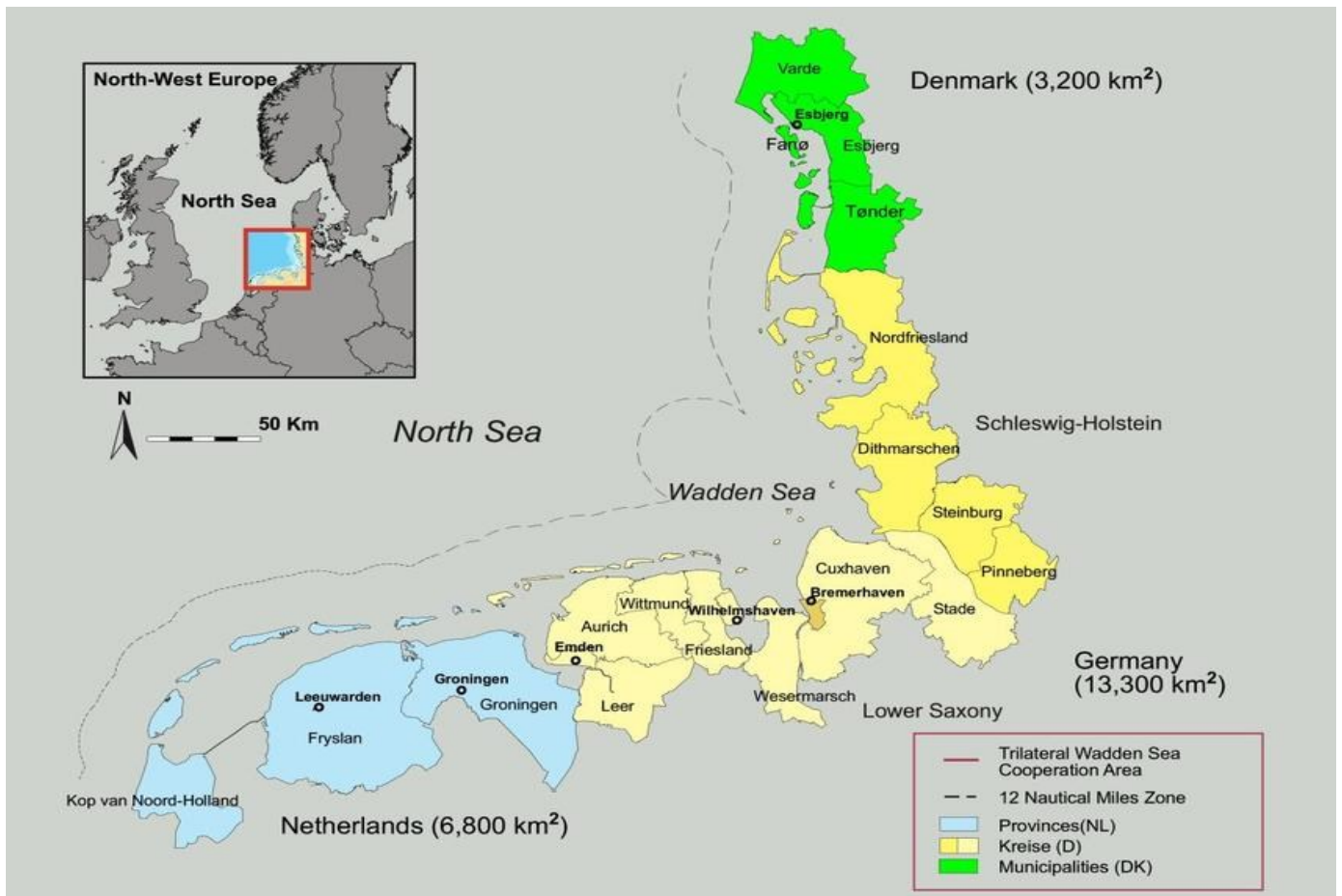


Figure 4: Map depicting geographical of the Wadden Sea World Heritage Area (Sieben et al., 2013).

By applying this geographical demarcation, the Arndt et al., 2004 went further to classify similar groups of populations into sub-regions. The classification used social and economic indicators to find similarities across the regions and classify them into regional centres, suburban areas and rural (peripheral) areas. Table 3 is a summary of this classification.

The economic development of the area takes different routes. The function of the regional centres is supplying the peripheral areas. The sub-urban areas are located in close proximity to metropolises such as Hamburg and Amsterdam.

As a result, there are a high number of commuters from these areas to the metropolitan areas.

The sub-urban area has a potential for growth of new businesses due to increased trend towards sub-urbanisation. The rural (peripheral) regions have a larger population but disproportionate employment level. The economic structure lacks diversity and is characterised by agriculture, fishery, tourism and traditional manufacturing industries (Ardnt et al., 2004; Sijtsma et al., 2014).

Category	Name of region		Population	Employment	Dominating functions of regional categories
Regional centre	Leeuwarden Groningen (city only) Wilhelmshaven Bremerhaven	Emden Esbjerg	16.4%	22.6%	shopping, culture, education, service industry, administration, urban living
Suburban area	Kop van Noord-Holland Stade Pinneberg		22.6%	22.5%	horticulture, manufacturing industry, living (esp. for commuters)
Rural (Peripheral) area	Fryslân-without Leeuwarden Groningen-without City of Groningen Leer Friesland Aurich	Wittmund Wesermarsch Cuxhaven Steinburg Dithmarschen Nordfriesland Danish WSR-without Esbjerg	61.0%	54.9%	rural living, manufacturing industry, agriculture/fishery, tourism, recreation
			3.7 mill = 100 %	1.5 mill. = 100 %	

Table 3: Classification of homogenous groups of sub-regions within the Wadden Sea World Heritage Site.

(Ref: Ardent et al., 2004 - according to Statistisches Landesamt Baden-Württemberg, Arbeitskreis VGR, Statistics Netherlands, StatBank Denmark)

Notes on table:

Population densities = Regional centres > 50.000 residents; Suburban areas < average of WSR (141 inhab. /sqkm); Peripheral areas < regional average.

GDP at the level of communities (such as Esbjerg, Leeuwarden) is not possible because of statistical unavailability.

The study conducted interviews at various locations across the Wadden Sea area.

Data collection methods

The study applied an exploratory qualitative research design. The data collection consisted of semi-structured interviews targeting SMEs in the Wadden Sea region. In addition, it collected observational data from entrepreneurial meetings and documents relevant to the research. The approach is outlined by the figure 5.



Figure 5: Process of the research (adapted from Eriksson and Kovalainen, 2008).

The interviews consisted of questions on how the SMEs were organized, what challenges they faced for operations, what challenges they faced for sustainable entrepreneurship and how they related to their stakeholders. The research targeted SMEs.

Research Questions	Research Activities Required	Why these Research Methods?	What sources/units of research?
How do SMEs at World Heritage sites carry out sustainable entrepreneurship? What are the barriers? What are the drivers?	Semi-structured interviews targeting SMEs in the Wadden Sea region. Observational data. Literature review and documents relevant to the research.	The literature review and observational data help to develop the context and uniqueness of the study area. The interviews and observational data contribute to primary data that will be analysed.	Unit of research is SMEs situated in or near Wadden Sea World Heritage Site. (Both conventional and sustainable)

Table 4: Summary of research questions and approach.

Data Analysis methods

The empirical data was documented and coded using ATLAS.ti, a software package for qualitative data analysis. An inductive coding process, focusing on the context and barriers was applied to the interview transcripts. The qualitative data was categorised into concepts, themes and aggregate dimensions as described by Gioia et al., 2013. This is illustrated in figure 6.

The themes and dimensions examined in collaboration with existing literature yielded clear insights into the barriers for sustainable entrepreneurship in the region. The results are explained in the next chapter of this report.

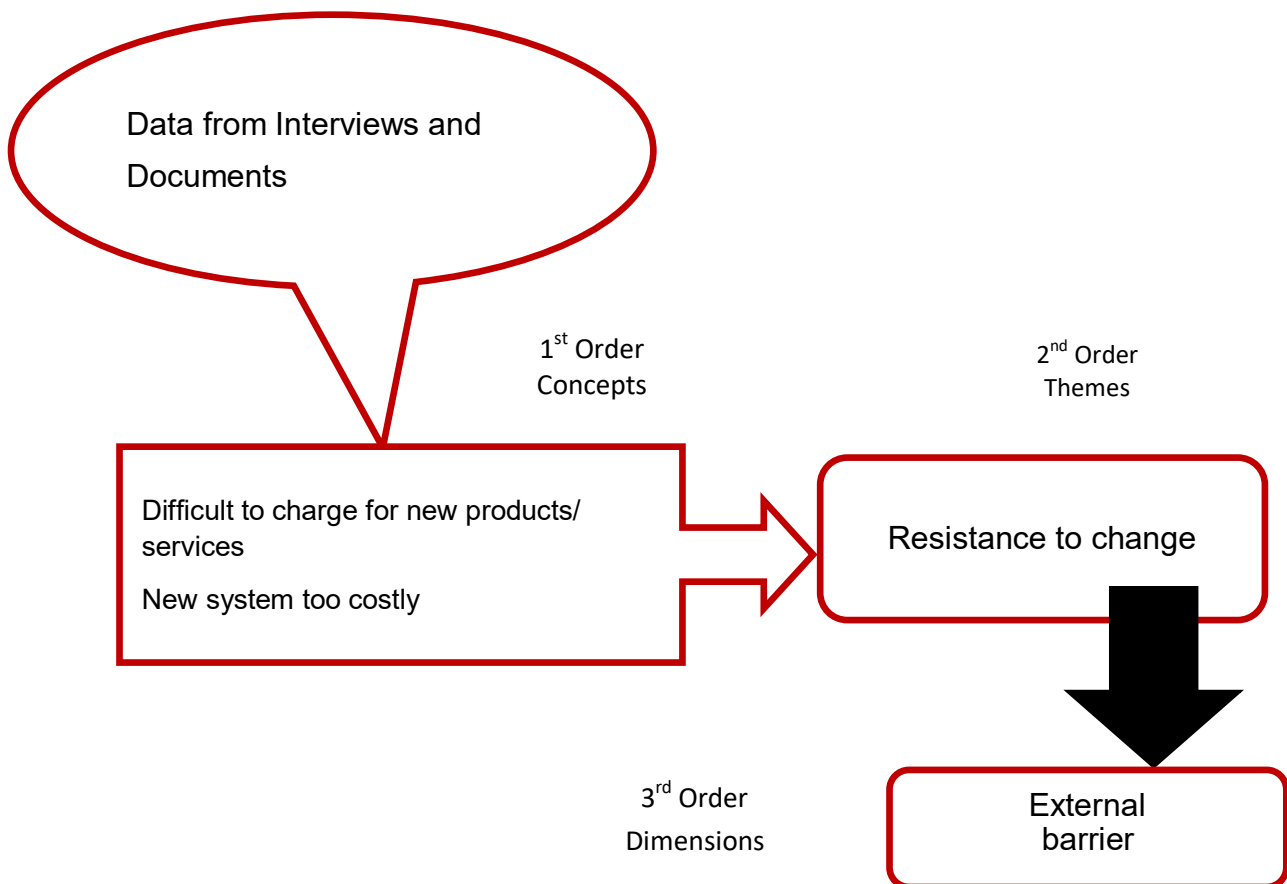


Figure 6: Example of data structure using concepts, themes and aggregate dimensions (Adapted from Gioia et al., 2013)

Presentation and analysis of the results

During this study, 24 interviews were carried out. 10 interviews in the Netherlands, 7 interviews in Germany and 7 interviews in Denmark. The interviews were conducted face to face, by Skype or via telephone. They lasted between 25 minutes and an hour and provided rich empirical data for analysis. As an initial step, a preview of the interview data was done.

The interviewees were categorised using business focus, business type, number of employees, how they create and deliver value for customers, how they create and deliver value for stakeholders and activities for sustainability. This overview is provided in table 5 and 6. The interviewees were coded as D1, D2, D3 etc. to provide anonymity.



Wadden sea mud-flats of a tidal marsh where new land is being created on the Groningen coast in the Netherlands

Photo by Rudmer Zwerver

Enterprise	Business focus	Business Type	No. of Employees (Approx.)	Value creation and Delivery for Customers	Value creation and Delivery for Stakeholders	Activities for sustainability
D1	Vacation homes	Cooperative	50	Comfortable vacation homes Meet quality requirements for homes	Jobs for locals Profits for the shareholders Lower carbon foot-print of homes	Support local beach clean-ups Lower carbon emissions of homes to meet local authority goals Sustainable use of energy and water
D2	Restaurant	Partnership (2 partners)	6	Provide quality food and wine for visitors to the area Provide good ambience for the visitors	Jobs for locals Use quality regional suppliers for the food	Use home produced vegetables and eggs Composite organic restaurant waste Support painters and local artists through sales
D3	Tour guide	Sole proprietorship	-	Provide guides of the area, Knowledge based tours Ensure safety during tours	-	Raise awareness on uniqueness of the Wadden, and the sustainability activities in the area
D4	Restaurant	Family business (2)	4	Provide quality food for visitors Use organic produce at reasonable prices	Jobs for locals Meet quality requirements	Use of organic produce where possible Inform visitors on unique nature of the area (have a guide book)
D5	Post cards and branded items	Sole proprietorship	-	Be-spoke items for visitors Use distinct designs	Be-spoke items for visitors	Showcase unique features of each Wadden Sea area
D6	Bed & Breakfast	Family business (5)	3	Provide quality rooms and conference facilities for activities such as team building	Provide a venue and catering services for locals Jobs for locals	Use of renewable energy Restoration of existing farm buildings
D7	Restaurant and hotel	Sole proprietorship	5	High quality food and rooms Quality restaurant experience	Provide training for hospitality students	Use of renewable energy
D8	Arts and Culture	Company	Varies depending on event	Stage quality plays and concerts	Provide space for community reconciliation Promote knowledge on cultural and social topics Provide knowledge on nature in the Wadden Sea area	Provide avenue for companies to support cultural and social activities
D9	Equestrianism among other activities	Family business (5)	5	Provide quality, unique and accessible experiences on an island	Provide local jobs Promote nature and cultural value	Design sustainable activities that utilize the uniqueness of the nature area and yield profits
D10	Restaurant	Sole proprietorship	3	Provide quality food and unique ambience	Local jobs Promote community business networking activities	Quality meals at reduced prices for the locals
D11	Mud walking and boat tours	Foundation transitioning into a company	2	Provide adventurous mud walk tours and boat tours Safety during the tours	Promote knowledge on the processes in the Wadden Sea	Provide knowledge of the nature Train young and/or volunteer guides
D12	Sustainable tours and shop	Sole proprietorship	3	Provide sustainable tour packages Provide gift items produced in a sustainable way.	Give knowledge of uniqueness of the Wadden Local jobs	Design business to provide sustainable goods and services

Table 5: Overview of Interviewees: Part 1

<i>Enterprise</i>	<i>Business focus</i>	<i>Business Type</i>	<i>No. of Employees (Approximately)</i>	<i>Value creation and Delivery for Customers</i>	<i>Value creation and Delivery for Stakeholders</i>	<i>Activities for sustainability</i>
D13	Tour Guide	One-man business	-	Provide tour guides within the nature area	Network with other local tour guides	Provide guides within permitted nature areas
D14	Hotel	Sole proprietorship	3	Provide quality accommodation	Provide local jobs	Operate business in a remote area Encourage local investment in public transport Promote use of nature for health of the mind
D15	Gallery and Tours	Sole proprietorship	-	Provide quality art pieces (nature inspired) and nature tours	Network with other tour guides	Provide knowledge on the nature and World Heritage status
D16	Wadden Sea Centre	Foundation	10	Provide Wadden Sea inspired exhibitions, tours, business meetings and training	Provide tours and training activities	Provide information about the Wadden Sea National Park and World Heritage status
D17	Hostel	Company	10	Provide quality accommodation for guests	-	Raise awareness of guests on how to save water and use less plastic Have a sustainability label
D18	Bird Tours	Sole proprietorship	5	Provide quality bird tours, bird watching merchandise and gifts	Network with other bird watchers	Raise awareness of bird variety and conservation. Contribute part of sales to a conservation body
D19	Hotel and Tourist shops	Company	54	Provide quality accommodation, venue and rent out shops	Network with businesses and stakeholders in the area	Raise awareness on unique nature in the area Raise awareness on the effects of plastic pollution
D20	Bio-Apartments	Family business (3)	3	Provide quality and sustainable holiday accommodations	Network with surrounding businesses Encourage sustainable products and services	Design of sustainable business including sustainable construction of accommodation facilities
D21	Railway Company	Company	Varies	Provide public transport for an area in the region	Provide a variety connection to destinations in the area	Trains are environmentally friendly
D22	Bike Tours	Partnership (2)	-	Provide quality bike tours of the area	Network with business community Partner with the National Park	Reduce car traffic in the region Raise awareness of the uniqueness of the nature value of the area
D23	Tour Guide	One-man Business	-	Provide quality tours for visitors and schools	Network with guides in the area	Raise awareness of endangered species in the area. Support cleaning up activities Inform visitors about the cultural heritage in addition to nature value of the area
D24	Bed and Breakfast and Cooking studio	Partnership (2)	-	Provide accommodation and a cooking clinic	Network with businesses in the area Use local produce in the kitchen Cooperate with academic institutions on gastronomy related training	Sustainable sourcing of produce for the cooking studio Raise awareness of the nature and culture value of the area during the guests' visit

Table 6: Overview of Interviewees: Part 2



New land being created in the mud
-flats of a tidal marsh in the
Wadden sea on the Groningen
coast in the Netherlands

Photo by Rudmer Zwerver

Results and Discussion: The effect of organizational, contextual, and positioning barriers on Sustainable Entrepreneurship

The interview transcripts were analysed seeking answers to the question:

What are the barriers for sustainable entrepreneurship in the Wadden Sea World Heritage area?

The data structure described in section 3.3 was applied. The data yielded three aggregated categories of barriers:

- organizational,
- contextual and
- positioning.

Detailed results are illustrated in table 7, 8 and 9.



Photo by Martin Stock

Sample of Quotes from Interviews	CONCEPTS (1 st Order)	THEMES (2 nd Order)	AGGREGATED CATEGORY (3 rd Order)	
<p><i>"I am open to new discoveries and new systems But I don't know them."</i></p> <p><i>"And then I suggest to the other establishments, to raise their prices next year ...ooh...they all didn't dare to do it, they were afraid they were losing especially their business income."</i></p>	<p>Limited use of social media</p> <p>Lack of competence in marketing, pricing and selling</p> <p>Lack of competence in strategic development and organisation</p>	<p>Lack of competences</p>		
<p><i>"They have for a long time been seeing the nature as a source of income a benefit for the island. So, they are doing what they can but it's it is a small community and funds are limited"</i></p> <p><i>".... people are complaining that the government is giving them less opportunities and less opportunities so they complain. If they want to change their ships into more sustainable ships it costs money somebody has to pay for it and they do not want it."</i></p> <p><i>"We need help financial help on the way to grow this sustainable business. We do all things by our own money."</i></p> <p><i>"And also, the local government they don't have the know-how, or the capacity, they are all really glad you are there but they don't really support."</i></p>	<p>Lack/limited financial support for sustainable activities</p>	<p>Insufficient resources</p>	<p>Organizational Barriers</p>	
<p><i>"almost everything is organic but we don't market it as organic because we have to be registered in a certain way ...If I want to use the organic brand, the label is expensive."</i></p> <p><i>'And I see environmental changes in the last years. A lot less fish, more seals lying on the coast. That's has nothing to do with my business'</i></p> <p><i>"Program is in place to collect valuable plastic/waste on the beach"</i></p> <p><i>"And because it's World Heritage area, we aren't allowed to get those sorts of things (fish) from the Wadden Sea."</i></p> <p><i>"But they are not enough business in this quality of sustainability."</i></p>	<p>Perception that sustainable activities are expensive</p> <p>Perception that sustainable activities are not necessary</p> <p>Perception that enough is being done as sustainable activities</p> <p>Perception that not enough is being done, but this will not change</p>	<p>Varied perceptions of sustainability definition and sustainability needs</p>		
<p><i>"We have the employees we also have to pay in January and February In these empty months."</i></p> <p><i>"The problem is, we need to expand but ...we need people. Employers need people, we need tour guides at the moment there are not enough."</i></p>	<p>Difficulties in recruiting staff</p>	<p>Insufficient capacity</p>		

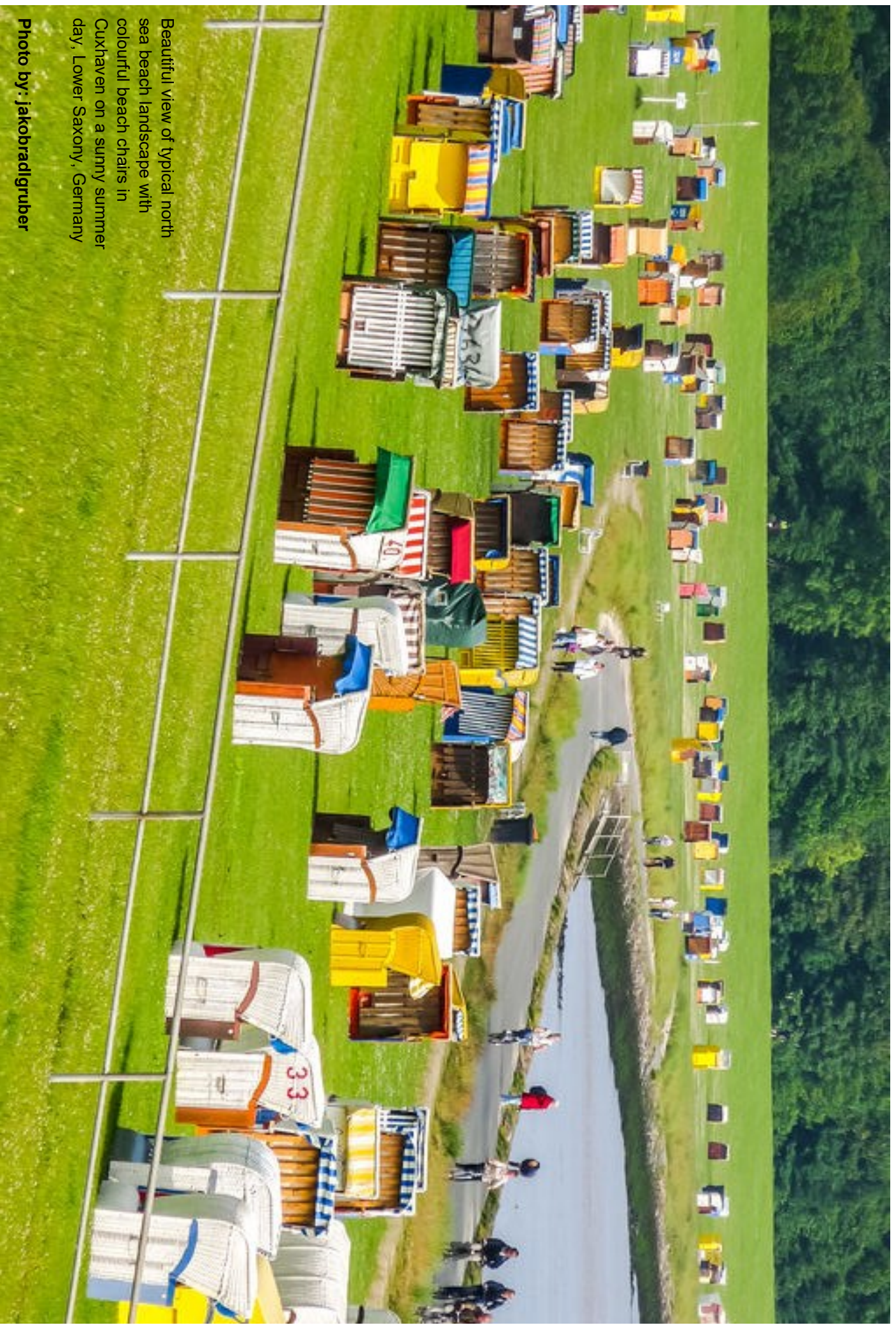
Table 7: Overview of Organizational Barriers for Sustainable Entrepreneurship

Sample of Quotes from Interviews	CONCEPTS (1 st Order)	THEMES (2 nd Order)	AGGREGATED CATEGORY (3 rd Order)
<p><i>“...amateur guides are not interested in the partnership because you have to be evaluated to see if you meet the standard. But I would like this evaluation to be a bit more tough a little more challenging or at least we could have... an official approvalan official certificate.”</i></p> <p><i>“Research is not bad but it could be better ...especially from the government because what has been done so far is mostly done by what’s called local interests’ groups....”</i></p> <p><i>“because of the ferry has delays it is sometimes impossible to see the island on a day trip... very important for us that logistically guests can come here.”</i></p> <p><i>“A lot of extra effort and costs we pay twice as much but we don’t have good internet still.”</i></p> <p><i>“And the politics, they have an environment plan, touristic things are not part of the plan, it’s about agriculture and farmers and for businesses it is very difficult to settle in this area.”</i></p>	<p>Regulation in nature area are too strict</p> <p>Regulation in nature area are too lenient</p> <p>Lack of/limited relevant information and knowledge on nature and culture conservation</p> <p>Lack of/limited relevant information and knowledge on sustainable activities</p> <p>Limited public transport infrastructure</p>	<p>Limited or lack of support from external stakeholders</p>	
<p><i>“So, my profit is very little because otherwise my customers are not willing to pay more just because I want to make coffee from organic beans and organic milk you can just charge”</i></p> <p><i>“We have these Pacific oysters that invade the Wadden sea area and cannot be eradicated, but we can keep it at bay ...By people collecting to eat. So, in the winter we’re trying to make these oyster tours where I emphasize that this is not just about oysters, but also conservation”</i></p> <p><i>“Well it works okay, but the price very low and the only reason to get people up hereis to have a nice package with a low price.”</i></p> <p><i>“oh, what an expensive shop! But they can’t see the quality of that thing, so it’s a very big challenge to find sustainable souvenirs or so.”</i></p>	<p>Unwillingness of customers to pay for sustainable products</p> <p>Little awareness of the sensitive nature and culture by visitors</p>	<p>Unsupportive market base</p>	<p>Contextual Barrier</p>

Table 8: Overview of Contextual Barriers for Sustainable Entrepreneurship

Sample of Quotes from Interviews	CONCEPTS (1st Order)	THEMES (2nd Order)	AGGREGATED CATEGORY (3rd Order)
<p><i>“Because they know the trust that I have built over these years, quality and price is okay.”</i></p> <p><i>“.....they did a lot of effort and then people really got interested and like positive and now they are really, they are really proud of us. They are family more supportive than earlier. But also, it was like closed community, it took some time.....”</i></p> <p><i>“But people who live there now you don’t see them complaining. Because it’s never been otherwise, they are used to it.”</i></p> <p><i>“But people that are born here and have families take pride in the island.”</i></p>	<p>Business goals serve personal and/or family needs</p> <p>Social status in the community valued</p> <p>Develop business to create jobs for local community</p>	<p>Social Wealth</p>	
<p><i>“But, what I would really like is the World Heritage to work with the locals.... It’s good to see how locals have lived here for 50 years.... maybe they know how it works”</i></p> <p><i>“...National Park partnership is a good way to communicate National Park values.”</i></p> <p><i>“There is a group that belongs to the World Heritage, but I don’t think they use the locals.”</i></p>	<p>Consideration of sustainability in short-term versus long-term basis</p> <p>Limited consideration of World Heritage status as an asset</p>	<p>Exclusion of Ecological and Socio-cultural Wealth</p>	<p>Positioning Barrier</p>

Table 9: Overview of Positioning Barrier for Sustainable Entrepreneurship.



Beautiful view of typical north sea beach landscape with colourful beach chairs in Cuxhaven on a sunny summer day, Lower Saxony, Germany

Photo by: Jakobradlgruber

Organizational barriers

Organisation barriers emerged in the coding as one category of barrier. These included a lack of competences, for instance around core business practices linked to sustainability (i.e. marketing), as well as insufficient resources, due to sustainability being seen as a cost, rather than an opportunity. Further, staffing issues limit SMEs abilities to expand, or find the right expertise.

Finally, there is a lack of shared vision concerning sustainability needs ('enough is being done'), or indeed, what sustainability should mean in the Wadden context. These barriers affect how an enterprise is structured, and how it yields benefits for society, environment and economy.

An entrepreneurial venture is defined as a means by which entrepreneurs bring creative destruction to an economy (Fagerberg, 2003; Neumeyer & Santos, 2018).

There are different types entrepreneurial ventures due to their purpose. In a sustainable entrepreneurial venture, the purpose of the enterprise interacts with its core activities and core competences to result in sustainable competitive advantages.

However, if an enterprise's core competences do not align with its core activities and purpose, there is a misalignment and a barrier to sustainable entrepreneurial practices is created.

In order to overcome organisational barriers, enterprises need to transform beyond a simple profit-making focus, to include societal and environmental goals. Enterprises can be categorized into survival enterprises, lifestyle enterprises, managed growth enterprises and aggressive/high growth enterprises (Morris et al., 2018; Neumeyer & Santos, 2018), and this can provide a guide as to how to become more sustainable (see table 7).

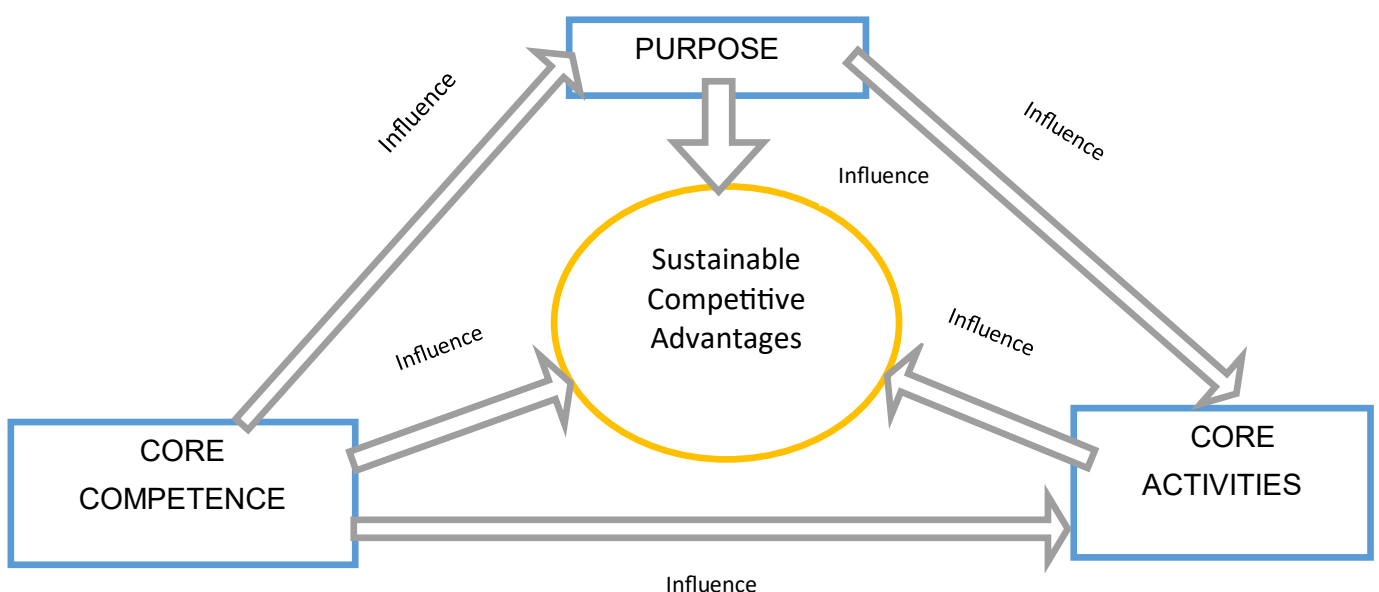


Figure 7: Depiction of the relationship between enterprise purpose, core activities and core competence.

Enterprise Type	Features	Sustainability characteristics
Survival enterprise:	<ul style="list-style-type: none"> Often launched due to a lack of employment opportunities and are essentially necessity based; Operate in highly competitive, price-based markets; Entrepreneurs typically sell their labour in exchange for financial compensation - predominantly cash transactions; Have no formal premises and acquire customers through friends, family and door-to-door sales. 	<ul style="list-style-type: none"> Usually low or absent score on social and environmental sustainability
Lifestyle enterprise: <i>11 of Enterprises interviewed</i>	<ul style="list-style-type: none"> Have more formalization than survival ventures, have a stable income stream, and make modest reinvestments to stay competitive; Seek to be part of the local (business) community; Examples are local restaurants, galleries, bars, or local non-profits. 	<ul style="list-style-type: none"> Social and environmental sustainability scores are low; they depend on founder preferences and values, but also on the value that their local community places on sustainable business models. Typical examples include non-profit ventures such as local thrift stores, shelters or radio/television channels
Managed Growth enterprise: <i>8 of Enterprises interviewed</i>	<ul style="list-style-type: none"> Have a workable business model and seek stable growth over time, as reflected in occasional new product launches, periodic entry into new markets, steady expansion of facilities, locations, and staff, as well as the development of a strong local and regional brand; Ongoing business development guided by continuous reinvestment in these businesses but moderate regional growth. 	<ul style="list-style-type: none"> Implementation of sustainable business models will depend on the regional climate towards social and environmental outcomes;
Aggressive/ High growth enterprise: <i>5 of Enterprises interviewed</i>	<ul style="list-style-type: none"> Referred to as gazelles, these are often technology-based ventures with strong innovation capabilities that seek exponential growth and are funded by equity capital; The launch of these ventures is opportunity-driven, with the founders (often a team) seeking to create new markets; Their market focus is typically national or international, and they often become candidates for initial public offerings or acquisition; The probability of implementing a sustainable business model will depend on the founders' and stakeholders' interests and motivations, the local and regional climate towards sustainability (e.g. consumer behaviour, government policies, etc.). 	<ul style="list-style-type: none"> Have social and/or environmental outcomes

Table 10: Typology of Enterprises highlighting features and sustainability characteristics (Adapted from Morris et al., 2018).

Evaluating the interviews, there are 11 lifestyle enterprises, 8 managed growth enterprises and 5 high growth enterprises.

The conventional organisations typified by the lifestyle category have difficulties transforming to a sustainable way of doing business. The purpose of conventional SMEs is not sustainability, and this pre-

sents difficulties in adapting to sustainable business practices.

Sustainability transformation here will be more reliant on changing the founders' value, and wider communities, values. For both **Managed growth** and **High growth enterprises**, community drive and support are likely to be key – acting as a driver towards improved sustainability performance.

Wadden sea road to the island Mando in
wintertime with ice screwings, Denmark

Photo by Frank Bach



Contextual barriers

Enterprises exist in a dynamic [entrepreneurial ecosystem](#) (see section 2.3 of this report). There are certain factors that are outside the direct control of the enterprise, and which can only be indirectly influenced, such as contextual factors, that include government and regulations, markets, infrastructure and geographical location.

The interviewees were aware of policy and regulations for areas in and around the protected nature area. For some enterprises, these regulations did not influence their entrepreneurial activities, while in some enterprises it acted to limit their activities. The limiting of some activities is likely to be required to safeguard natural or cultural assets; the emergence of this category highlights a lack of understanding around the need to regulate.

Improved alignment between enterprises and the development and communication of policy and regulation could place enterprises in a better position in which to innovate towards more sustainability. Regulations are likely to be necessary, yet should not be seen as a purely constraining force.

Another barrier identified was the reluctance of customers to pay for sustainable products or services. The interviewees noted that customers sometimes needed to be convinced about the value of sustainability product; this challenge links to organisational challenges, and the acquiring the needed skills to better market sustainability products and their value.

Sustainable SMEs need to interact with their context in order to yield societal, environmental and economic benefits (Parrish, 2010). They connect to government and customers through co-creation, customer integration and customer satisfaction activities respectively, to create sustainable products and/or services (Grönroos, 2008; Payne et al., 2008; Andreu et al., 2010). This requires stakeholder management and engagement strategies and competencies.



A Pied avocet (*Recurvirostra avosetta*) wading in water of salt marsh in early orange light and looking for food during sunrise

Photo by: **Rudmer Zwerver**

Positioning barriers

The Wadden sea area is rich in cultural heritage and scenic nature. The enterprises that operate in the area resonate with this setting. The interviews showed that some enterprises were well established in the community. They provide jobs for the locals during the peak tourism period and engage in community building activities. As a result, some enterprises are highly embedded. The owners grew up in or near the Wadden sea area and discovered entrepreneurial opportunities. They develop a position in the community through their entrepreneurial venture. While this can bring many benefits, it can also create barriers for the development of sustainable businesses.

Embedding is a mechanism by which enterprises become part of the local structure (Jack & Anderson, 2002). In some instances, positioning through embeddedness creates opportunities for entrepreneurship, by establishing a connection with the community. However, when the connection spans some time, the enterprise achieves a status that they would like to maintain and can act as a barrier to transformation – in this case, towards sustainability.

This manifested itself through seeing the World Heritage status as potentially externally imposed and not inline with the community. This meant benefits available through the World Heritage designation and missed, alongside broader sustainability opportunities. Within the life times of some enterprises, sustainability is a recent agenda point, not associated with tradition or success.



Foam algae along the Dutch coast

Photo by: Tosca Weijers

Recommendation: Strategies to apply organizational, contextual and market mechanisms

Organizational Sustainability

Organizational barriers are related to the enterprises' cognitions, and how they translate this into the entrepreneurial environment. The sustainable SMEs who recognized sustainability as an organizational function, were able to translate this purpose into their core competences and core activities.

In the Wadden Sea area, the environmental and cultural context provides low hanging fruits for sustainable entrepreneurial practices. However, the enterprises need to recognize these opportunities. They can only do this by overcoming internal barriers and gearing their organizational strategy towards sustainability.

Organizational sustainability involves acquiring knowledge (improving competences), engaging in open innovation activities and creating an atmosphere of continual learning, improvement and sharing within an organization. Studies have shown that for organizational sustainability, a combination of knowledge management and open innovation may lead to sustainable innovations and improved sustainability performance (Lopes et al., 2017; Martins et al., 2019).

However, SMEs need to acquire competences in sustainable practices in business. For this they may draw from external strengths of suppliers, customers, universities, government and competitors (Seow et al., 2006).

The knowledge acquired may be about opportunities for finance for sustainable activities or new sustainable market segments. This knowledge combined with open innovation strategies can be used to create sustainable products and services.

Open innovation allows SMEs to share knowledge and experiences with external actors, thus enhance the development of sustainable products and services (Wynarczyk et al., 2013). As such, open innovation and knowledge management strategies could be beneficial for SMEs in the Wadden Sea area.

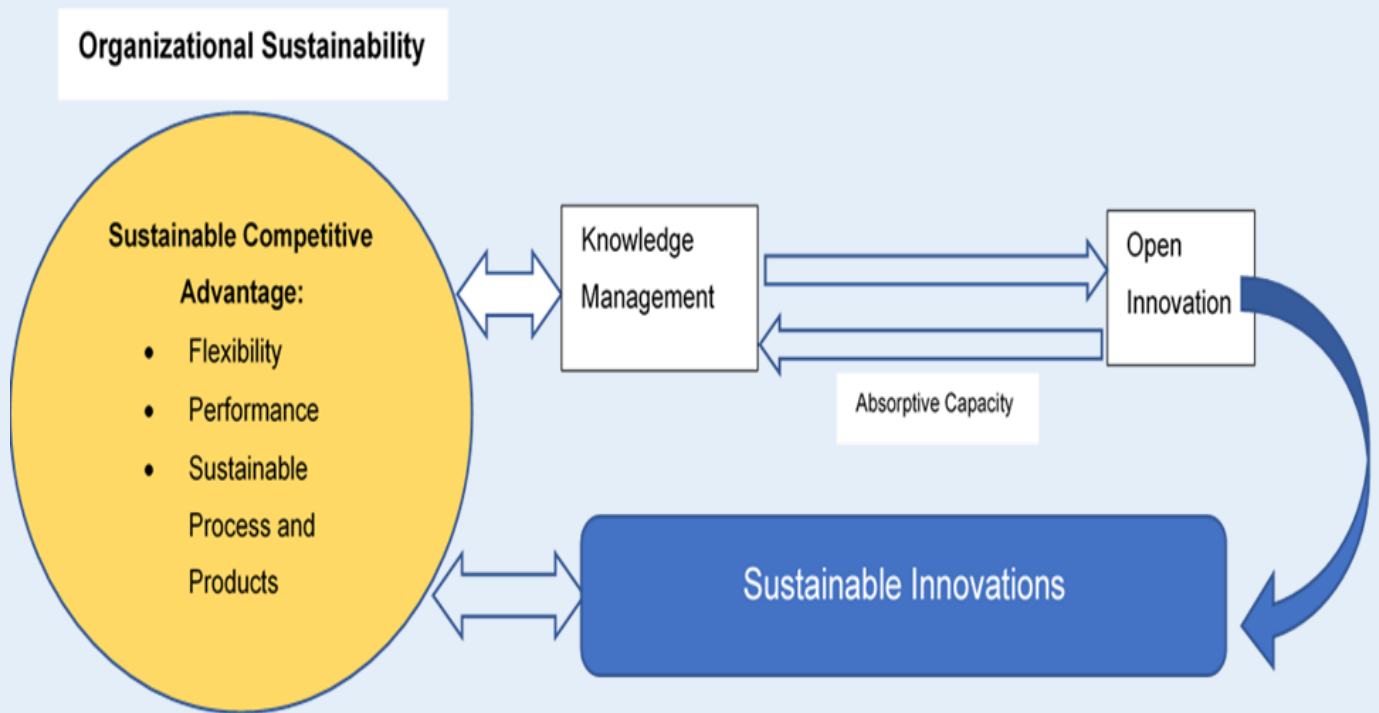


Figure 8: Provides a summary of how organisational sustainability may result in sustainable innovations and sustainable competitive advantage. (Adapted from Lopes et al., 2017)

Context and Opportunities for Sustainable Entrepreneurship

The second category of barriers was contextual. Contextual barriers consisted of non-entrepreneurial elements such as government and regulation, infrastructure and geographical location. Although these factors occur outside the SME, **sustainable SMEs can influence institutions** through participation in network communities and organizations. These networks enable the enterprise to generate interest in their activities and gain support from external actors, such as governments and financial institutions (Pacheco et al., 2010; Hockerts & Wüstenhagen, 2010).

Sustainable enterprises are also able to transform institutions to create opportunities for sustainable entrepreneurship.

Institutions include industry norms, property rights and government legislation (Ostrom, 1990; Pacheco et al., 2010).

Examples of how enterprises influenced institutions are given by the table 10. This provides a reference point for different strategies available.

	Context/entrepreneurs	Description	Structure/enforcement
Norms	Great Barrier Reef Tourism Operators	Developed informal codes of conduct	Internal monitoring, social pressure
	Coffee Growers, Common Code for the Community Coffee Association (4C)	Implemented thirty social, environmental, and economic principles	Internal membership monitoring and mediating. Loss of 4C Membership
	Green builders & architects, U.S. Green Building Council	Created LEED Green Building Standards and point system	Voluntary third-party certification
Property rights	Maine Lobster Fishermen	Defined and allocated territorial boundaries for lobster fishing	Self-monitoring and enforcement, social pressure, ostracizing
	Common forest resources, Villagers in Japan	Defined rights and rules for common land forest use and harvesting	Rotation of monitoring, citizen's arrests, cash fines or loss of rights
	Chicago Climate Exchange, Corporations	Defined emission rights, established trading platform & rules	Certification and verification by third-party, loss of membership
	Water in the American West, Farmers	Established system of transferable water rights for irrigation	Prior appropriation doctrine, Adjudication of rights in court
Legislation	Biofuels industry, Khosla Ventures & associates	Used media outlets and lobbying to promote policy favourable to biofuels	Reduced taxes, enhanced subsidies
	Rechargeable Battery Manufacturers, Portable Rechargeable Battery Association	Decreased regulatory barriers to battery recycling, established recycling labelling and service	Funded by manufacturers, voluntary fee-based participation in labelling program
	Solar Companies, Solar Energy Industries Association, Non-profits	Created partnerships and lobbied for state and federal policy	Tax credits, subsidies, renewable portfolio standards
	Organic Food Producers & Processors, Organic Trade Association	Developed and lobbied for the U.S. Organic Food Production Act	Government defined and enforced standards, certifications, and labelling

Table 11: Summary of examples of contextual change through sustainable entrepreneurship.

(Adapted for Pacheco et al., 2010).

Market Mechanisms and Positioning

The third category of barriers related to positioning. This was due to the social wealth developed in the area, conventional SMEs were not enthusiastic about transformations and sustainable practices. They also lack knowledge on how to utilize the value of the World Heritage brand to bring benefits for the enterprise as well as for society and environment.

An opportunity to overcome the *business as usual* stance is through applying market factors. Studies have shown that the creation of sustainable businesses can occur through the development and growth of new, niche businesses towards the mass market – versus – the transformation of existing businesses (Hall et al., 2010; Schaltegger & Wagner, 2011) (see figure 9). Both strategies are available in the Wadden Sea.

Sustainable SMEs can take advantage of opportunities to provide benefits for society and environment to create market niches. These market niches feature high sustainability quality. This means that the enterprise has substantially lower adverse social and environmental impact or higher contributions of sustainable products and/or services. In this way, the enterprise meets its environmental, social and economic goals.

The SMEs in the Wadden Sea area need to be informed about the potential to access new markets using nature and heritage assets available in their immediate surroundings. This could be pursued through an information based approach – for example, illustrating best cases – followed by the provision of business model innovation tools that allow them to transform their businesses to take advantage of sustainable entrepreneurship opportunities.

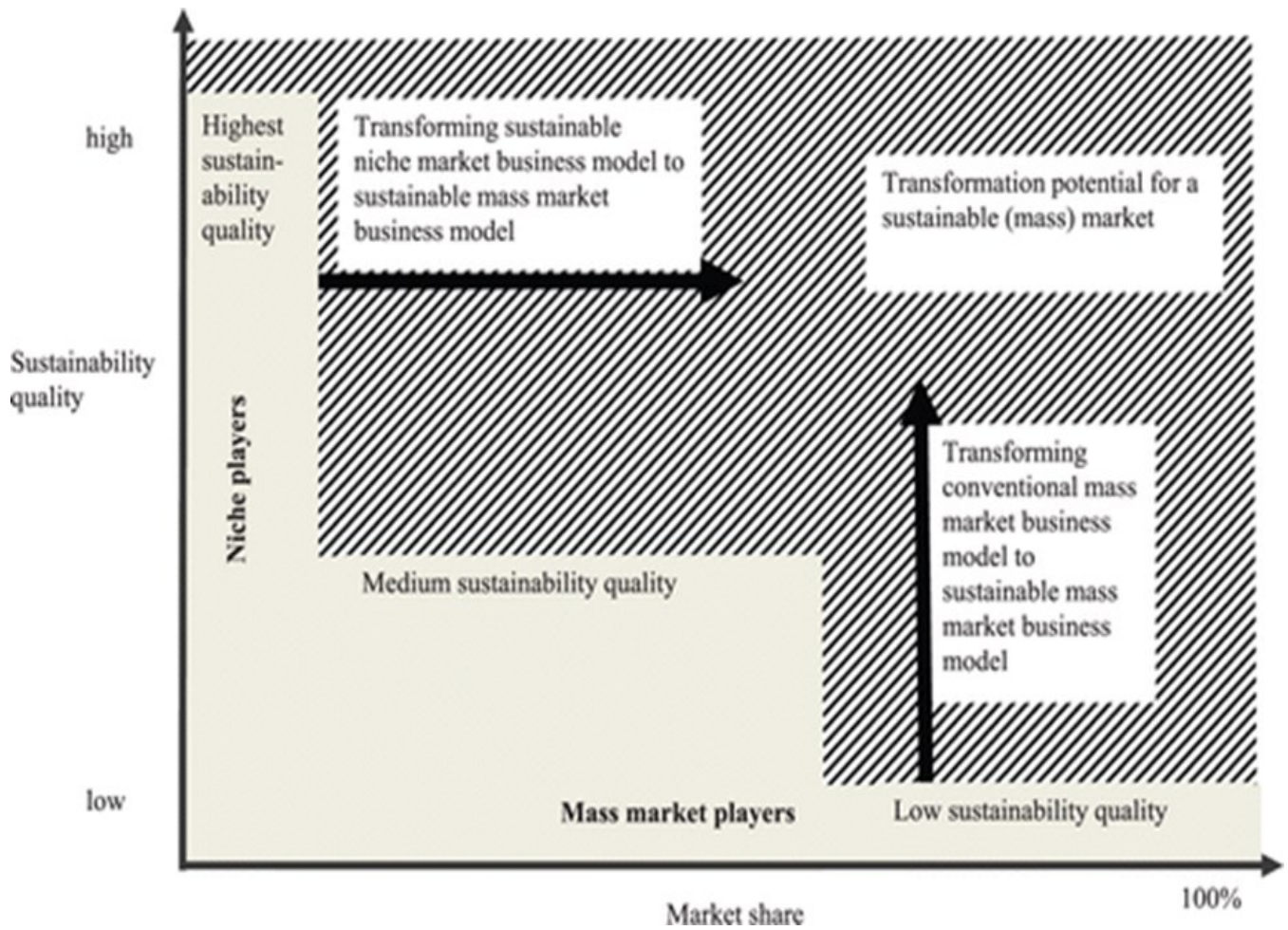


Figure 9: Showing the relationship between sustainability quality and market share
(Schaltegger & Wagner, 2011).



Formation of Young Dune
landscape on Rottumerplaat
island in the Wadden sea,
Netherlands

Photo by Rudmer Zwerver

Conclusion

Sustainable entrepreneurship provides an opportunity to enhance prosperity, while protecting and enhancing the natural and socio-cultural assets that form the unique Wadden Sea region. However, organisational, contextual and positional barriers, mean SMEs within the region face barriers to the development and practice of sustainable entrepreneurship. The recommendations for use of organisational, contextual and market mechanisms target SMEs.

Nevertheless, in order to enhance sustainable entrepreneurship in such an ecologically and culturally sensitive area, multiple stakeholders need to be involved. For this reason, we conclude with the following points for improvement of interactions between stakeholders and SMEs in the Wadden Sea area following the thematic barriers for sustainable entrepreneurship – see table 11.

THEME	RECOMMENDATION
LIMITED EXTERNAL STAKEHOLDER SUPPORT	<p>Inclusion of SMEs in conservation plans. This will require agreement on conservation needs and defining of SME role in implementation of the plans.</p> <p>Increased investment in sustainable public transport infrastructure to improve noise and air pollution and enhance liveability of the protected areas.</p>
UNSUPPORTIVE MARKET BASE	<p>Enhanced business-to-business networks. The networks should have clear sustainability goals, reporting on impact and evaluations for continual improvement, enabling open innovation.</p> <p>Develop recognisable sustainability and quality labels that assist the development of sustainable products and services.</p>
LACK OF COMPETENCES	<p>Provide SMEs with opportunities for relevant training in marketing, pricing, selling, use of social media and sustainable organisational transformation.</p>
INSUFFICIENT RESOURCES	<p>Develop stronger networks to improve links to financial, knowledge and other supporting institutions.</p>
VARIED PERCEPTIONS OF SUSTAINABILITY DEFINITION AND SUSTAINABILITY NEEDS	<p>Encourage community dialogue around sustainability and the different roles of stakeholders in achieving sustainability.</p> <p>Provide incentives for sustainable business practices such as an annual award for best practice.</p>
INSUFFICIENT CAPACITY	<p>Provide training opportunities for students at local sites.</p> <p>Design sustainable product and services for the winter months where necessary.</p>
EXCLUSION OF ECOLOGICAL AND SOCIO-CULTURAL WEALTH AND SOCIAL WEALTH	<p>Improve knowledge and understanding of World Heritage status and its meaning, for instance through improved signage and information campaigns.</p> <p>Increased accessibility to sustainability labels for SMEs, with criteria unique to the needs of the Wadden Sea World Heritage area.</p>

Table 12: Overview of Practical Recommendations based on identified Barriers

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STEPPING TOWARDS A SUSTAINABLE FUTURE

Maritime landscape with reflection of clouds in low tide water, Wadden sea, Friesland, The Netherlands

Photo by Melanie Lemahieu