

SEANERGY

the Sustainability EducationAI programme
for greenER fuels and enerGY on ports



Module 11

“How to finance the clean energy transition of my port”



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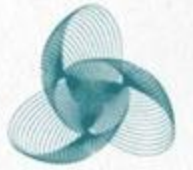
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Learning objectives of the course



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On completion of this course, the participants will be able to:

- i. have basic knowledge about general political situation for green energy
- ii. gain further knowledge about the subsidy landscape in Europe and Germany/Austria
- iii. identify options for financing energy transition
- iv. learn about best practices and adopt those strategies



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Introduction and overview on the political landscape

1. Political measures to promote green energy
2. Financial incentives and investments
3. Technological innovation and research
4. Social acceptance and awareness-raising
5. International cooperation and global initiatives



Promoting green energy in Europe: programs and requirements

1. European funding programs to support green energies
2. Prerequisites and application processes

Local Example: “KMU Innovativ”

Case Study: Financing shore power infrastructure at exemplary Port X

Appendix / Links / Material



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1. Political measures to promote green energy



1.1 Legal framework conditions

f.e. binding quotas set for the renewables in the energy mix

1.2 Subsidies and tax incentives

Reducing the costs for the transition and increasing the competitiveness of new/green technologies

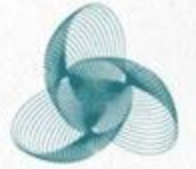
1.3 Feed-in compensation and green electricity certificates

feed-in tariffs guarantee renewable energy producers a fixed price for the electricity fed into the grid



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2. Financial incentives and investments



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2.1 Public funding and support programmes

Provision of grants or low-interest loans for the construction of renewable energy projects

2.2 Private investments and green bonds

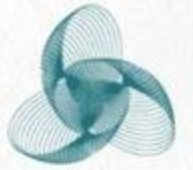
Becoming a more crucial role in financing the green transition

2.3. Public-Private Partnerships (PPP)

Risks and costs can be shared and at the same time the expertise and capital of the private sector can be utilised



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3. Technological Innovation and Research

3.1 Supporting research and development (R&D)

Investment in R&D is crucial to the progress and cost reduction of green energy technologies

3.2 Pilot and demonstration projects

Pilot projects and demonstration plants provide an opportunity to test and optimize new technologies under real conditions

3.3 Digitalization and Smart Grids

Smart technologies allow better control and optimization of energy generation and distribution increasing the stability and reliability of green energy



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4. Social acceptance and awareness-raising



4.1 Education and information

Raising public awareness of the benefits of green energy is crucial to its acceptance

4.2 Public participation and community projects

strengthen local commitment and promote local acceptance of green energy

3.3 Social equity and fair transitions

A fair transition must ensure that socially disadvantaged groups benefit from the change and are not disadvantaged by it



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5. Intern. cooperation and global initiatives



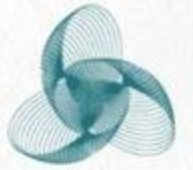
5.1 International agreements and cooperation

providing the framework for promoting renewable energy on a global scale

5.2 Technology transfer and capacity building

Technology transfer from developed to less developed countries is crucial to achieving global progress in the use of green energy





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Promoting green energy in Europe: programs and requirements

1. European funding programs to support green energies
2. Prerequisites and application processes



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1.1. Horizon Europe



Horizon Europe Description:

Horizon Europe is the EU's central research and innovation programme for the period 2021-2027, with a total budget of around 95.5 billion euros. The programme funds research projects and technological developments, including those in the field of renewable energy.

<http://ec.europa.eu/horizon-europe>



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1.1. Horizon Europe



Horizon Europe funding opportunities:

- Support for research and innovation projects in areas such as solar energy, wind energy, hydrogen technology and energy storage
- Cooperation between
 - universities
 - research institutes
 - companies



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1.1. Horizon Europe



Prerequisites:

- Applicants must come from an EU member state or an associated country.
- Projects must be innovative in nature and contribute to achieving the EU's climate targets.



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1.2. InvestEU



InvestEU description:

The InvestEU program aims to promote investment across the EU, with a strong focus on sustainable infrastructure projects, including green energy.

It mobilizes private and public investment through the provision of guarantees and other financial instruments.

<https://www.investeurope.eu/>



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1.2. InvestEU



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InvestEU funding opportunities:

- Financing of renewable energy infrastructure projects, such as solar and wind farms
- Support through
 - loans
 - Guarantees
 - equity capital



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1.2. InvestEU



InvestEU prerequisites:

- Projects must contribute to the achievement of EU objectives in the areas of climate protection, sustainability and innovation.
 - Public and private stakeholders including
 - Companies
 - Banks
 - Public institutions
- are eligible to apply
- Projects must demonstrate economic viability



1.3 Connecting Europe Facility (CEF)



CEF Description:

The Connecting Europe Facility (CEF) supports projects of common interest in the fields of energy, transport and digital services.

For energy infrastructure, CEF is an important instrument for promoting the integration of renewable energies into the European electricity grid.

<https://cinea.ec.europa.eu>



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1.3 Connecting Europe Facility (CEF)



CEF Funding opportunities:

- Support for cross-border energy infrastructure projects that increase the share of renewable energy in the European energy mix.
- Grants and financial aid to support projects that contribute to grid stability and security of supply.



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1.3 Connecting Europe Facility (CEF)

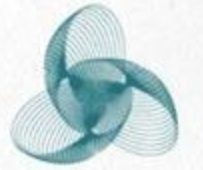


CEF Prerequisites:

- Projects must be categorized as "Projects of Common Interest" (PCI)
- Applicants can be public or private players active in energy infrastructure
- Projects must contribute to the integration of the European energy market and security of supply



1.4 LIFE Programme



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LIFE description:

The LIFE Programme is the EU's most important funding instrument for environmental and climate protection measures. It supports projects that contribute to the development and implementation of innovative environmental and climate protection technologies.



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1.4 LIFE Programme



LIFE funding opportunities:

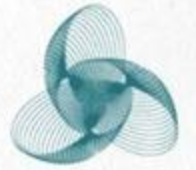
- Funding for projects to promote the use of renewable energy, reduce greenhouse gas emissions and adapt to climate change
- Grants for pilot and demonstration projects that offer innovative solutions in the field of green energy

https://cinea.ec.europa.eu/programmes/life_en



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1.4 LIFE Programme



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LIFE prerequisites:

- Projects must be in line with the EU's environmental and climate objectives
- Eligible to apply are
 - Public and private organizations
 - NGOs
 - Companies
 - research institutes
- Projects must have a clear innovative character and a positive environmental impact



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1.5 European Structural and Investment Funds (ESIF)



ESIF Description:

The European Structural and Investment Funds (ESIF) support regions in the EU in the development and implementation of projects that promote economic growth and strengthen cohesion. One focus is on sustainable development and green energy.

It includes 5 indirect funding programmes based on common rules and regulations.



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1.5 European Structural and Investment Funds (ESIF)



ESIF Funding opportunities:

- Funding for regional and local projects to promote renewable energy and energy efficiency.
- Support through grants for the construction of wind farms, solar plants and other renewable energy projects.



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1.5 European Structural and Investment Funds (ESIF)

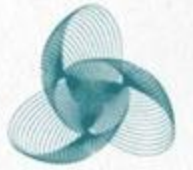


ESIF Prerequisites:

- Projects must be in line with regional development objectives and EU cohesion objectives.
- Eligible to apply are (from the eligible region)
 - Local authorities
 - companies
 - non-profit organizations
- Projects must offer economic, social and environmental benefits.



2. Prerequisites and application processes



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2.1. General Requirements

Legal form and location

- Legal entity located in an EU member state or an associated country
 - Public institutions
 - Private companies
 - Non-profit organizations
 - Universities
 - Research institutions

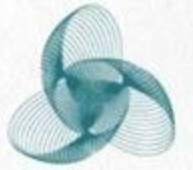
Project quality:

- A significant environmental or social impact and alignment with EU objectives
 - Clearly defined goals
 - Solid implementation plan
 - Realistic financing structure
 - Project should demonstrate innovation



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2. Prerequisites and application processes



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2.1. General Requirements

Partnerships and consortia

- Often multiple partners are mandatory – cross border collaborations are a plus
- Balanced and complementary skill set is key

Innovation and Sustainability:

- Innovative solutions
- New technologies
- Sustainability is key criterion

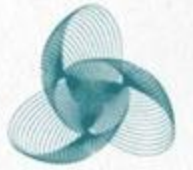
Compliance with EU policies and regulations

- State aid rules
- Environmental impact assessments
- Public procurement guidelines



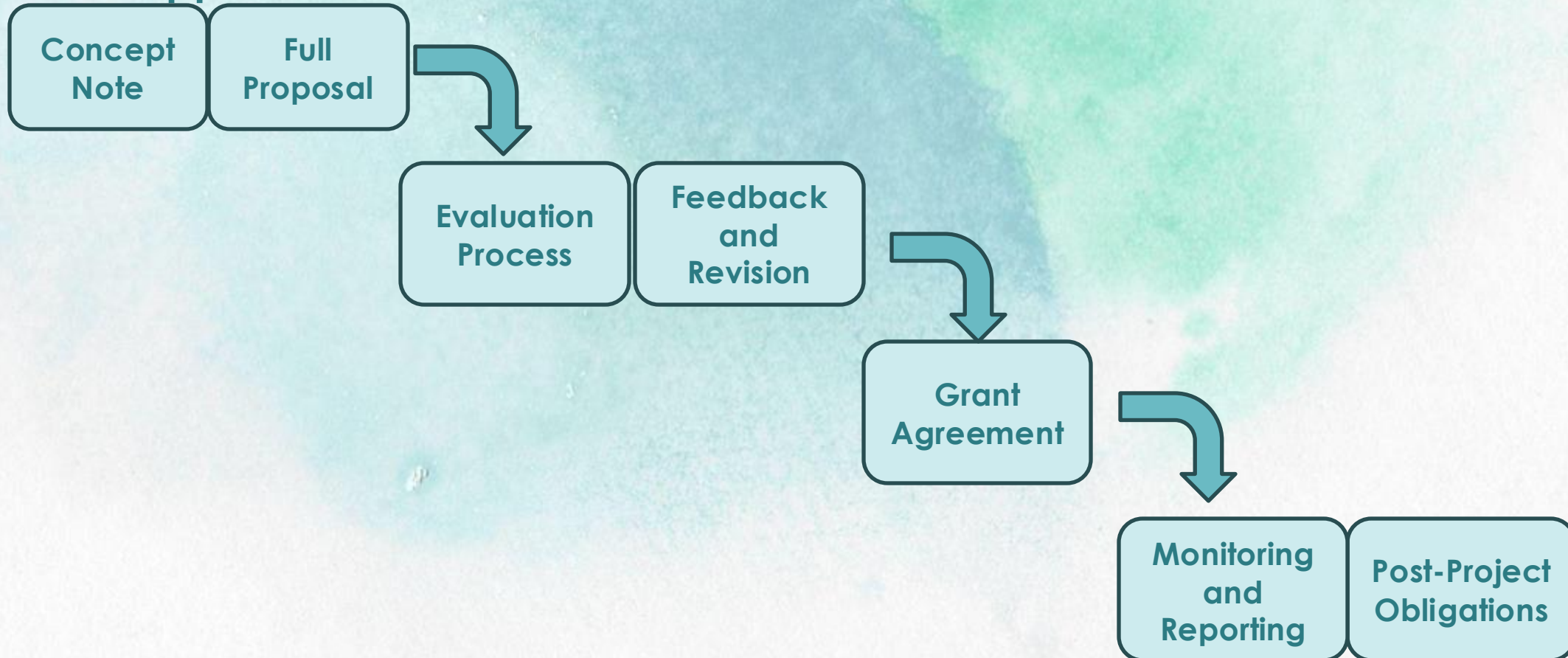
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2. Prerequisites and application processes



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2.2 Application Processes



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Local Example: R&D Financing in Germany with “KMU-innovativ”



Introduction

The most important information on submitting an application based on the BMBF's "KMU-innovativ" funding programme is listed below (as an excerpt from the guidelines).

Applications in other R&D funding programmes have a similar structure.

In most programmes, work on the R&D project may only begin after receipt of the grant notification.



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Local Example: R&D Financing in Germany with “KMU-innovativ”



Submission dates, timing:

Two-stage application procedure; in the first stage, a **project outline** is submitted via the easy-online tool by specific submission deadlines (15 April or 15 October each year).

The project outline the key for the grant.



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Local Example: R&D Financing in Germany with “KMU-innovativ”



The project outline should be drawn up on the basis of the following structure:

1. Lack of innovation or technical feasibility
2. Unclear project goals and results
3. Lack of consistency
4. Insufficient financial planning
5. Incomplete or incorrect application documents
6. Non-compliance with specific requirements and deadlines
7. Data protection and IP rights

If necessary, seek advice from an expert to avoid mistakes which could cost the funding



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Local Example: R&D Financing in Germany with “KMU-innovativ”



Evaluation criteria for the project outline

1. **Significance of the research**
 - Social need and product relevance
 - Contribution to climate protection and/or adaptation to climate change
 - Risks and opportunities
2. **Level of innovation of the scientific and technological concept**
3. **Scientific and technical quality of the solution approach**
4. **Partners and network**
 - Qualification of the partners (technical and financial)
 - Quality of the project management
 - Appropriateness of the planned financial expenditure
5. **Utilization**
 - Technological and economic potential
 - Market potential and commercialization prospects
 - Quality and feasibility of the utilization plan



Local Example: R&D Financing in Germany with “KMU-innovativ”



Pitfalls you might avoid

1. Topic and objective
2. State of the art
3. Risks
4. Market
5. Brief description
6. Work plan
7. Utilization plan
8. Appendix



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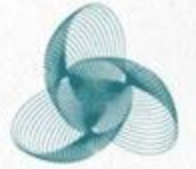
Case Study: Financing shore power infrastructure at exemplary port X



- Port X mid size port in Europe
- Aiming for a shore power facility to reduce the local pollution and greenhouse emissions in the port area
- Seeking for solutions that could create additional benefits
- 5m € of total budget / potential additional budget for further solutions
- >>> See fact sheet



EU Funding & Tenders Portal



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Sign in

EN

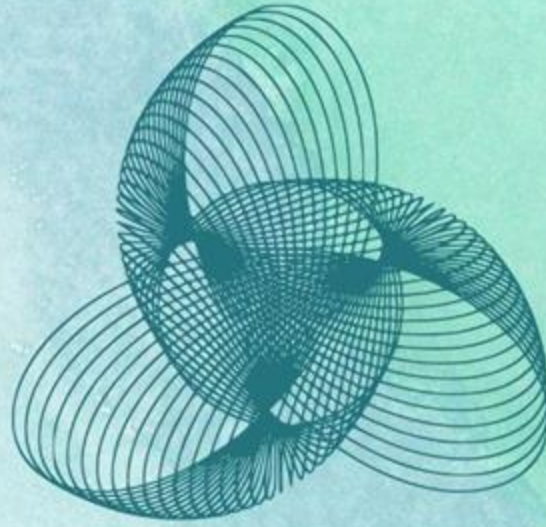
Search...



- Find calls for proposals
- Find calls for tenders
- View projects and results
- Work as an Expert



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