



# **WPT2 Activity 1 Regulatory Framework, Funding and Procurement mechanisms review**

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# 1 Introduction

As part of the benchmark analysis Green WIN partners carried out a 'desktop' review which forms the main part of this document. This review includes an analysis of:

1. **Existing regulatory framework** (in the European sector)
2. **Funding opportunities** (grants available for greener technologies)
3. **Procurement mechanisms** (employed by, or available to, organisations)

This report aims to help Water Management Organizations (WMO) to maximise assistance (e.g. from subsidies) and provide them with information and tools they can apply before investing in greener technologies and processes.

## 2 Regulatory Framework in Europe relevant to Water Management Organisations

### 2.1 EU Strategies and policies

The foundation of the European Union consists of an extensive legal framework. On top of that, the European Commission regularly updates its general policy priority areas as well. However, when it comes to inland waterway legislation now it mainly concerns freight navigation and vessel technology. There is little focus on the condition of its waterway infrastructure, in which pumps play a pivotal role.

Most policies relate only *indirectly* to Green WIN's aim to improve pumping technologies/processes to deliver CO2 reductions. For example, the Water Framework Directive (WFD) White Paper 2009 "Adapting to climate change" says the EU will support strategies that increase the resilience to climate change including: *"..the productive function of land.. by improving the management of water resources and ecosystems"* but it primarily refers to natural water bodies and river basins and wants River Basin Management Plans to be 'climate-proofed'.

Other documents set specific targets although these targets also remain relatively general. The **EU 2020 strategy** sets targets to reduce Energy/GHG emissions (20% by 2020). The **Ireland 2015 Energy White Paper** emphasized how *'energy efficiency will be at the center of a transition to a clean, low carbon energy system by 2050'*. The **EU Climate Adaptation strategy 2013** mentions the aim of making Europe more climate resilient *"by taking a more coherent approach and providing for improved coordination across borders and institutions."*

[https://ec.europa.eu/clima/policies/strategies/2030\\_en 2030](https://ec.europa.eu/clima/policies/strategies/2030_en 2030)

### 2.1.1 Climate & energy framework

Regarding the EU Climate Adaptation strategy, one should note that there is a new **European Green Deal** on the way. This might relate to the work of WMO's more directly.

Green WIN's aim: *'to use trials of low carbon water pumping technologies, systems or processes to show North Western Europe WMO's how they can significantly reduce their energy consumption and CO2 emissions from such operations'* is certainly in line with all of the strategies and policies above.

## 2.2 Relevant Regulations

EU regulation provides Green WIN the boundaries in which the projects need to operate to achieve its aim. These include:

- Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (Text with EEA relevance)
- Directive [2006/32/EC](#) of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC
- Machine directive (DIRECTIVE 2006/42/EC amending Directive 95/16/EC).
- **The EU Ecodesign Directive** (Directive 2009/125/EC) "with regard to ecodesign requirements for water pumps"
- Energy Efficiency Directive 2012/27/ of 25 October 2012, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC

### 2.2.1 History and scope of the Ecodesign Directive

The **2005 Ecodesign Directive** covered energy-using products, which use, generate, transfer or measure energy, including consumer goods such as boilers, water heaters, computers, televisions, and industrial products e.g. transformers.

The Directive as a **Framework Directive**, did not directly set minimum ecological requirements. These are adopted through specific **Implementing Measures** for each group of products in the scope of the Directive. They focus on products which have a high potential for reducing greenhouse gas emissions at low cost, through reduced energy demand and are adopted through the so-called "comitology procedure" and are based on EU internal market rules governing which products may be placed on the market.

Manufacturers who begin marketing an energy using product covered by an implementing measure in the EU area must ensure that it conforms to the energy and environmental standards set out by the measure. They will, at the design stage, be obliged to reduce the energy consumption and other negative environmental impacts of products. Its primary aim is to reduce energy use, but it is also aimed at enforcing other

environmental considerations including: materials use; water use; polluting emissions; waste issues and recyclability

The first Working Plan of this Directive was adopted on 21 October 2008. It established a list of 10 product groups to be considered in priority for implementing measures in 2009–2011: including *Water-using equipment* (so this includes pumps).

**Commission Regulation (EU) No 547/2012 of 25 June 2012 implementing Directive 2009/125/EC** sets out the Ecodesign requirements for water pumps.

This stipulated the minimum efficiency requirements for water pumps as set out under the eco-design Directive for energy related products. This Regulation mainly concerns manufacturers of water pumps placing these products on the European market. However, customers may also be affected.

### 2.2.2 Stakeholders responses to the Regulation

**Europump** created guidelines which clarify issues arising from the entry into force of the Regulation. Their summary stated that there are two eco-design requirements:

- Minimum efficiency requirements represented by a 'minimum efficiency index' (MEI)
- Information for rotodynamic water pumps such as the efficiency graphs.

They stated that *"from 1 January 2013, water pumps shall have a minimum efficiency index of  $MEI \geq 0.1$  and from 1 January 2015, water pumps shall have an even stricter minimum efficiency index of  $MEI \geq 0.4$ ; from 1 January 2013, the information on water pumps shall comply with the requirements"*

## 2.3 EU Emissions Trading System

The EU emissions trading system (EU ETS) is a tool of the EU's policy to mitigate climate change by reducing greenhouse gas emissions cost-effectively. The EU ETS works on the 'cap and trade' principle:

*"A cap is set on the total amount of certain greenhouse gases that can be emitted by installations covered by the system. The cap is reduced over time so that total emissions fall.*

*Within the cap, companies receive or buy emission allowances which they can trade with one another as needed. They can also buy limited amounts of international credits from emission-saving projects around the world. The limit on the total number of allowances available ensures that they have a value.*

*After each year a company must surrender enough allowances to cover all its emissions, otherwise heavy fines are imposed. If a company reduces its emissions, it can keep the spare*

*allowances to cover its future needs or else sell them to another company that is short of allowances.”<sup>1</sup>*

As of now the system is mostly focused on the production side. For example, participation in the EU ETS is mandatory for companies in the steel works and production of iron, aluminium, metals and cement. For the WMO's this system is therefore relevant because they are the end users of these products and it might translate in a different supply and demand.

## 2.4 Tradable certificates for energy savings

In addition to the EU ETS other trading possibilities for energy savings includes **tradable certificates for energy savings**. One version of a tradeable certificate is the so called “**White certificates**”.

A White certificate (also referred to as an *Energy Savings Certificate (ESC)*, *Energy Efficiency Credit (EEC)*, or *White tag*) is an instrument issued by an authority or an authorised body providing a guarantee that a certain amount of energy savings has been achieved. Each certificate is a unique and traceable commodity that carries a property right over a certain amount of additional savings and guarantees that the benefit of these savings has not been accounted for elsewhere.”<sup>2</sup>

The interpretation and implementation of schemes such as the white certificate can differ though. <sup>[1]</sup> The white certificates are given to the producers whenever an amount of energy is saved whereupon the producer can use the certificate for their own target compliance or can be sold to (other) parties who cannot meet their targets.<sup>[1]</sup> This tradability in theory guarantees that the overall energy saving is achieved at least cost, while the certificates guarantee that the overall energy saving target is achieved.

Since 2018, energy saving sectors eligible for white certificates have increased and more flexibility has been introduced. Over two hundred procedures are now possible in France for example; from condensation boilers for greenhouses to low-consumption fridges, collective solar water heaters, biking incentives and training for eco-friendly truck driving. This maybe welcome news for WMO's as the scope for the inland waterways sector to take advantage of developing and delivering greener infrastructure (including pumping operations) is very evident.

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<sup>1</sup> Website European Commission, December 2019. “EU Emissions Trading System (EU ETS)”.

<sup>2</sup> Tradable Certificates for Energy Savings (White Certificates) - Theory and Practice, P. Bertoldi and S. Rezessy, 2006, P. 35



## 3 Funding opportunities

Several funding schemes exist that can directly or indirectly help Waterway Management Organizations (WMO's) to support development in this field and stimulate the long-term uptake of green pumping technologies, systems and processes. This analysis sets out some funding opportunities, so other WMO's can also maximize their knowledge by applying for needed investments.

### 3.1 EU grants and funding

The EU awards grants to organizations to help them carry out projects that further EU policies. All programmes focus on the key EU 'pillars' of *smart and sustainable growth*. The current funding period is running from 2014 to 2020. The new funding depends on the new European Commission.

EU Grants are awarded in many different fields, from research to education to humanitarian aid. For these different fields several EU programmes have been set up. Two are of particular interest because their field of expertise is of relevance to WMO's especially if the organizations wants or is obliged, to further their efforts in CO2 reduction with innovations.

#### 3.1.1 Interreg

North-West Europe's main challenges are bracketed under Innovation, Low Carbon and Resource & materials efficiency. Green WIN is just one example of several projects tackling the Low Carbon theme.

#### 3.1.2 LIFE

The LIFE programme is the EU's funding instrument for the environment and climate action created in 1992. When considering the aim of Green WIN this programme might be interesting for future investments of water management organizations when they have a specific CO2 reduction business case for which extra funding is required.

#### 3.1.3 Horizon 2020

Horizon 2020 is the EU's funding instrument for research and Innovation. This program might be interesting to stimulate specific innovations.

#### 3.1.4 Connecting Europe Facility (CEF)

Provides financial support for strategic investment in transport, energy and digital infrastructure. This programme may facilitate strategic investment in green pumping infrastructure.

#### 3.1.5 European Fund for Strategic Investment (EFSI)

This fund supports investment in key sectors through financial guarantees. This program may facilitate strategic investment in green pumping infrastructure.

### 3.1.6 European Structural and Investment Funds (ESIF)

Within ESIF the **Cohesion Fund (CF)** supports projects reducing economic and social disparities and promoting sustainable development in 15 cohesion Member States. **European Regional Development Fund (ERDF)** aims to strengthen economic and social cohesion in the EU by correcting imbalances between its regions.

### 3.1.7 Innovation Fund

This programme focuses on:

- Innovative low-carbon technologies and processes in energy intensive industries, including products substituting carbon intensive ones
- Carbon capture and utilisation (CCU)
- Construction and operation of carbon capture and storage (CCS)
- Innovative renewable energy generation
- Energy storage

The Commission aims to launch the first call in 2020, followed by regular calls until 2030.

## 3.2 European Investment Bank

The European Investment Bank (EIB) recently adopted a new energy lending policy (November 2019). In the policy the EIB refers to the ambitious climate and energy targets of the EU and subsequently the bank states that delivering on these targets requires a long-term investment, the majority of which will come from the private sector. However, with this new **energy lending policy** the EIB sets out how the EIB as a public bank can help support the EU and its member states in meeting this challenge.

This is interesting for WMO's because one of the areas on the bank focuses on in facilitating this transition is infrastructure needed for the long term, including innovation and scaling up of low-carbon technologies. The four themes of the 2019 Energy Lending Policy are:

1. Unlocking energy efficiency
2. Decarbonizing energy supply
3. Supporting innovative technologies and new types of energy infrastructure
4. Securing the enabling infrastructure

## 3.3 Grants and Funding in the Republic of Ireland

Relevant schemes and initiatives include;

### 3.3.1 Climate Action Fund

<https://www.dccae.gov.ie/en-ie/climate-action/topics/climate-action-fund/Pages/default.aspx>

### 3.3.2 Sustainable Energy Authority of Ireland (SEAI)

#### 3.3.2.1 Schemes offered by SEAI of particular relevance;

1. The Energy Efficiency Obligation Scheme <https://www.seai.ie/publications/EEOS-Guidance-Note-for-Public-Bodies.pdf>
2. Accelerated Capital Allowance (tax incentive) <https://www.seai.ie/business-and-public-sector/business-grants-and-supports/accelerated-capital-allowance/>
3. EXEED Certified Grant <https://www.seai.ie/business-and-public-sector/business-grants-and-supports/exeed-certified-grant/>

## 4 Procurement Mechanisms

This section describes the procurement mechanisms employed by Green WIN partners. The University of Liege is not included in this chapter because the academic groups at the University are mainly involved in “modelling” (lab and computational) of flow and pumping systems and not being an operational agency or WMO, they are not particularly familiar with the frameworks of this analysis.

### 4.1 Canal and River Trust

#### 4.1.1 Ambition - Green Public Procurement and Sustainability

Canal & River Trust (CRT) work closely with water companies, for example, feeding into their Water Resource Management Plans (WRMP) where they interact with their water supply network to ensure their interests are safeguarded and to identify possible commercial water development opportunities. During the year CRT reviewed the draft WRMPs of 22 water companies and 4 canal transfer schemes have been incorporated into the draft WRMPs for 2 water companies.

Sustainability is a key objective for CRT and is an integral part of their procurement activity. To this end, they developed a [Green Plan](#). CRT is also a participating member of [WWF's Global Forest and Trade Network-UK \(GFTN-UK\)](#) and, timber or timber products

must be procured in accordance with the appropriate standards in order to ensure CRT meets its sustainability objectives.

#### *4.1.1.1 Carbon Trust certification*

As a recognition of its sustainability work in 2016, CRT was awarded re-certification to the Carbon Trust Standard. This re-certification acknowledges on-going efforts to reduce CO2 emissions, as demonstrated by the further 6.7% reduction achieved between 2014 and 2016. This progress was achieved through several initiatives - though the focus has been primarily on issues such as investment in energy efficient LED lighting, fuel management software and internal speed limits on commercial vehicles, increasing travel by train, increased energy awareness leading to positive change and an introduction of electric vehicles and charge points.

### **4.1.2 Green Public Procurement instruments**

CRT currently do not employ any instruments or tools like those being used and developed by RWS. This is certainly an area for improvement / development and an opportunity for the organisation to take advantage of the templates demonstrated in Green WIN.

### **4.1.3 Procurement policy and mechanisms**

CRT's procurement policy pays due regard to sustainability issues and this is seen as an integral part of securing best value for money. Details of any sustainability requirements that suppliers need to be aware of will always be included in the Invitation to Tender documents.

Procedures to help tackle carbon emission reduction (and 'heavier' engineering tasks such as water pumping) are addressed under the broad heading of *ENVIRONMENT, HERITAGE AND SUSTAINABILITY*.

### **4.1.4 Tendering procedure**

#### *4.1.4.1 Stage 1 Pre-Qualification Questions (PQQ's)*

PQQ's have been used for some time to calculate an organisations compliance rating time and were updated following an internal review in 2017.

In Section 8 ENVIRONMENT, HERITAGE AND SUSTAINABILITY from CRT's potential suppliers / tenderers are asked to answer PQQ's. This is one of eleven separate focus areas including diverse issues such as organisation structure, technical capability, insurance levels, experience of staff involved, Health and Safety record and processes and compliance with equality and diversity policies.

Companies 'performance' is assessed through the whole PQQ exercise - and whilst this only forms one part of the three-stage process - it will eliminate companies clearly not considered suitable for progression to the 2<sup>nd</sup> stage.

Section 8 has a maximum score of 5. A minimum aggregated score of 65% of the marks available (across all Sections) is required to proceed to the next stage of the process.

Key questions asked in Section 8 of a PQQ are;

- *Provide the name, job title/role profile and CV of the person who is responsible for Environmental & Heritage management within your company and summarise your company's Environmental/Heritage Policy & Environmental/Heritage Management Systems, including details of environmental & heritage training that is provided to your employees. (2 pages, max points available 1)*
- *Does the company have experience of working on contracts within environmentally sensitive areas (including sites of special scientific interest)? If so, provide an example of such a contract, with its location, to illustrate your approach to resolving the challenges associated with these works. (1-page, max points available 1.5)*
- *During the last three years have any prosecutions been taken, cautions given, notices served, or other action taken against your organisation or against any of your directors/management for contraventions of environmental legislation (including town and country planning legislation, listed building or schedule ancient monument consents)? If yes please provide details (including, in the case of prosecutions, details of charges, dates and venues of hearings, verdicts of the court and penalties, if found guilty): (1 list to fit on 1 page – question not awarded any marks)*
- *Does your company have experience of working on contracts involving works in a historic environment? If so, please provide an example of such a contract, with its location, to illustrate your approach to resolving the challenges associated with these works. (1-page, maximum points available 1.5)*
- *Please detail the sustainability measures that you are able to apply relating to your own operation and, where applicable, performing the contract relating to Carbon Management: (e.g. invested in energy efficient lighting, lighting controls; renewable technologies; energy efficient office equipment such as Energy Star rated computers; purchase renewable energy; turn off equipment and lighting when not in use; LPG fleet, travel plans for staff etc.). (1 page – maximum points available 1)*

The PPQ stage creates the environment under which further detailed checks / assessments can take place which drill down further into a supplier's green credentials - and these are designed on an individual basis depending on the complexity or site / scope of the work.

#### *4.1.4.2 Stage 2 Environmental Appraisals*

CRT carry out Environmental Appraisals prior to all construction works and again, these look at built heritage, biodiversity, water, waste, hazardous materials, nuisance and customers. Contractors must meet minimum environmental performance ratings and

help CRT contribute to achieving Government targets for condition of statutory protected sites, such as SSSIs and SACs.

CRT work with the Environment Agency to monitor and where possible improve water quality standards.

#### *4.1.4.3 Stage 3 "Contract Specific" assessments*

These are task specific and are detailed responses tenderers must describe to satisfy CRT they can carry out works in the sustainable manner and the long-term impacts are made very clear.

#### **4.1.5 Post procurement**

Reviews of suppliers' performance is built in to Post Project Appraisals (PPA's)

## **4.2 Ministerie van Infrastructuur en Waterstaat- Rijkswaterstaat**

### **4.2.1 Ambition Green Public Procurement**

The Dutch Government wants to reduce the emission of CO<sub>2</sub> by 20% in 2020 compared to 1990. Sustainable procurement is one of the methods by which this can be achieved.

In 2010, the Dutch House of Commons ruled that the Netherlands public authorities must implement 100% sustainable procurement as of 2015. In response to this, Rijkswaterstaat (the Dept. of Public Works of the Ministry of Infrastructure and the Environment) developed a methodology for infrastructure projects whereby the functional specification of the tender together with the quality input from the client ensure an innovative and high-quality solution. This methodology will contribute to the reduction of CO<sub>2</sub> emissions and other environmental impacts caused by materials used in infrastructure projects.

### **4.2.2 Procurement mechanisms**

Rijkswaterstaat (RWS) strives to commission procurement projects as far as possible based on functional, performance-based specifications of the required infrastructure so that the market has the optimum freedom to arrive at effective, alternative and innovative solutions. The tenderer is also asked to respond to specific quality criteria, which play an important role in tendering according to the Most Economically Advantageous Tender methodology.

The 'Most Economically Advantageous Tender (MEAT)' procedure means that RWS selects tenders based on a combination of price and quality.

Quality includes for instance:

- public oriented approach ('less hindrance')
- sustainability
- project management
- design
- risk management

To assess tender submissions, RWS ensures that quality aspects can be monetised. To this end, RWS assigns a price to specific quality aspects. The way in which these quality aspects are assessed and monetised is communicated to the tenderers at the invitation to tender stage. Tenderers can calculate precisely how much the quality value they have submitted is worth. This value is subtracted from the actual offer price to yield a corrected 'total price'. The more effort the bidder makes to improve the quality of the bid, the higher the monetised value that will be deducted from his actual offer price. The tenderer with the lowest 'total price' wins the tender. The financial cost to the contracting authority is still the same of course, but by monetising efforts made to improve quality in this way and deducting them from the quoted prices as part of the assessment, tenderers with the best quality offers have a higher chance of winning the tender.

By using the performance-based specifications methodology and MEAT, the market can work in a targeted way towards better quality, innovative solutions of greater value. This tendering methodology stimulates and utilise the market's innovative and creative capacities more efficiently.

The MEAT criteria with which RWS assesses the quality of submissions, and that are drawn up for each tender, must meet several requirements. The criteria must:

- provide added value to the client
- create competition between tenderers
- be easy to understand for tenderers
- show differences in quality
- make clear whether and how added value is assessed

During procurement based on the MEAT, RWS draws up the criteria for the assessment of the quality aspects for the specific project and explains them in a 'tendering and assessment' document or a background document. This includes RWS's objectives, the criteria on which the quality aspects are assessed and the maximum value (expressed as a maximum price) it assigns to these criteria.

Procurement using MEAT follows three steps:

- Establishing the quality aspects, drawing up criteria based on the opportunities and risks of the project, and establishing the maximum MEAT amount.

- Actual tendering, by drawing up documents, assessing submissions and communicating the results to the tenderers.
- Monitoring during the execution phase of the MEAT added quality value.

RWS has decided to focus on two criteria when assessing the sustainability attributes of offers, work processes and associated products: CO2 emissions and environmental impact.

### 4.2.3 Green Public Procurement instruments

Two instruments have been developed:

#### 4.2.3.1 CO2 performance ladder

**The CO2 performance ladder** is a certification system with which a tenderer can show the measures (to be) taken to limit CO2 emissions within the company and in projects, as well as elsewhere in the supply chain.

Contractors can apply for a 'CO2 performance ladder' certificate. To comply, contractors need to take steps towards reducing their Carbon Footprint. The first step (or 'rung' on the ladder) is to measure the company's CO2 emissions. In further steps CO2 emissions of their supply chain is also measured, and more importantly: goals are set towards reducing emissions. The higher levels on the CO2 ladder include steps towards CO2 reduction in the supply chain.

The tool is used in the tendering procedure as follows: the bidder indicates at which of the five rungs (ambition levels) of the CO2 performance ladder he intends to carry out the work; the higher the effort to reduce CO2 emissions, the higher the rung. A commitment to higher rung results in a greater deduction from the submission price, which increases the chance of winning the contract. Each CO2 ambition level corresponds to a different percentage reduction of the submission price. The final amount assessed by RWS resulting from using the CO2 performance ladder is a deduction of 1% per rung of the submission price. The highest level is rung 5, so the maximum deduction is 5%.

#### 4.2.3.2 Dubocalc

**DuboCalc** is a life cycle analysis (LCA) based software tool RWS developed which calculates the sustainability value of a specific design based on the materials to be used. The software is called the Sustainable Building Calculator, or *DuboCalc*. Bidders use this to compare different design options for their submissions. The DuboCalc score of the preferred design is submitted with the tender price.

With DuboCalc all embedded environmental impacts of material use can be calculated, from raw material extraction and production up to and including demolition and recycling (so the entire life cycle). DuboCalc also calculates the energy consumed by infrastructure works during the use phase.



For a DuboCalc infrastructure works calculation, the program must know the amounts of materials used for a design. Using LCA data from an in-built database it then calculates 11 environmental impact parameters. The software is based on an independent (national) dataset containing certified LCA information for each material. DuboCalc then calculates the value of these effects via the so-called 'shadow price method' to arrive at a single figure, the *Environmental Cost Indicator* (ECI) value. The shadow price method is based on the costs of preventing emissions from arising. The ECI value indicates the environmental impact of a design for civil engineering works. A lower value indicates a lower environmental impact. Designs that differ significantly from each other in terms of material use also differ in terms of environmental quality. DuboCalc enables designers to calculate ECI values of alternative designs to arrive at an optimally sustainable design.

#### **4.2.4 Tendering procedure**

RWS carries out the following tendering procedures to ensure sustainable procurement:

- For maintenance contracts, energy consumption is included where possible as part of the submission price, to create a direct stimulus for energy efficiency. Design, Build, Maintain and Finance contracts also include energy consumption as part of the submission price.
- In some works, contracts, specific technical solutions for energy saving and sustainability are obligatory. For instance, LED lighting is always required in tunnels. In other cases only sustainable timber is allowed.
- A tenderer can submit a "CO2 performance ladder" certificate with their tender submission. This obliges them to comply with a certain CO2 reduction target according to their method of execution and working processes. Certificate holders have their submission price reduced by a value proportional to the effort made to reduce CO2 emissions. The certificate can be provided as evidence at the tender submission stage, but this is not essential if it is provided within one year of signing the contract.
- The bidder is encouraged to offer innovative and sustainable design options and gets the opportunity because RWS issues performance rather than conformance specifications. Sustainability is further enhanced by using the MEAT tendering procedure in which DuboCalc is used as an assessment tool.
- The ECI value is used in the tendering procedure as follows: the contracting authority provides the tenderer with all the functional requirements and the latest version of DuboCalc. The tenderer designs the infrastructure and calculates the offer price and the ECI value. The ECI value is transformed into a MEAT price according to a formula that is prescribed by the contracting authority (the ECI value and the MEAT price are inversely related and there is a minimum and a maximum).

- The offer price and the MEAT price are offered to the contracting authority. The MEAT price is subtracted from the actual offer price to yield a 'corrected price'. The tenderer with the lowest 'corrected price' wins the contract. This procedure ensures that tenderers do their utmost to make an inexpensive and environmental friendly design.

If tenderers have little or no design freedom, and the tenders are virtually indistinguishable from each other in terms of sustainability and environmental quality, then there is little point in using the MEAT methodology. Therefore, before including environmental quality as a distinguishing factor in the tender process, RWS initially always investigates whether sustainability or environmental quality will be sufficiently distinctive when proposals are submitted.

RWS puts a great deal of effort into embedding sustainability into procurement procedures. To ensure that the procedure is effective, the calculated environmental quality of a tender must have enough impact on the final (virtual) price to make a difference. Consequently, the percentage of award criteria reserved for environmental quality (calculated with DuboCalc) must be large enough compared to other criteria, and the total value of all quality (compared to price) criteria must be substantial. In practice the maximum environmental value added is often 10 to 20% of the awarded tender.

The level of CO<sub>2</sub> emissions is one of the (in total 11) parameters of the LCA calculation that contributes to the ECI value. This value is the amount of CO<sub>2</sub> emitted because of the use of building materials (production, transport, etc.) The potential reduction of CO<sub>2</sub> emissions can easily be calculated by subtracting the ECI value of the proposed design from the reference design. This is directly proportional to the reduction in energy use.

#### **4.2.5 Post procurement**

When the contract is awarded, the offered level of ambition of the CO<sub>2</sub> performance ladder is part of the contract and should be implemented as part of the execution of the project. The energy saving targets and measures belonging to that level of ambition are chosen by the tenderer. This is also the case for the ECI value of the infrastructural works to be carried out.

Contractors must demonstrate that the proposed ECI value, is achieved in the execution of the contract. If the actual quality does not comply with the offer, then a sanction follows that is one and a half times the calculated price for quality value. So, if the contractor was awarded a conceptual €5m reduction on its quoted price for its proposed environmental efforts as part of the bid assessment, and it failed to achieve these – the sanction for the contracting authority would be to pay the contractor €7.5m less than the submitted quote price.

Also, if after an agreed time the rung of the CO<sub>2</sub> performance ladder is not achieved, a sanction follows that is one and a half times the advantage granted at submission.

## 4.3 Waterways Ireland

### 4.3.1 Green Public Procurement

Waterways Ireland (WI) currently do not employ any instruments or tools like those being used and developed by RWS. This is certainly an area for improvement / development and an opportunity for the organisation to take advantage of the templates demonstrated in Green WIN.

However, in Ireland, the publication of the *Climate Action Plan 2019*<sup>3</sup>, *Green Tenders, An Action Plan on Green Public Procurement*<sup>4</sup> (hereinafter referred to as Green Tenders) and the *National Framework for Sustainable Development in Ireland – Our Sustainable Future*<sup>5</sup> establish the clear vision and place of Green Public Procurement (GPP) in future national governance arrangements. GPP is a core strand of driving sustainability, promoting resource efficiency, and progressing circular economy ambitions. It is a process whereby public and semi-public authorities meet their needs for goods, services, works and utilities by choosing solutions that have a reduced impact on the environment throughout their life-cycle, as compared to alternative products/solutions

### 4.3.2 Procurement policy

As per their Purchasing Policy, all procurement within WI must be carried out in line with the principles of Transparency, Equal Treatment, Mutual Recognition and Proportionality.

Procurement must also be conducted honestly, fairly, and in a manner that secures best value for public money through cost effective and efficient use of resources while upholding the highest standards of probity and integrity. All those involved in the procurement of works, goods and services have a duty to ensure that there is an appropriate focus on good practice in purchasing and that procedures are adhered to ensure compliance with all relevant statutory legislation and WI guidelines.

WI's procurement policy takes into consideration sustainability issues and this is an integral part of securing best value for money. Details of any sustainability requirements that suppliers need to be aware of are always included in the Invitation to Tender documents. For instance, for the procurement of timber and wood, WI requires timber which is from legal and sustainable, FLEGT licensed, source.

Waterways Ireland Corporate Procurement Strategy is summarised below;

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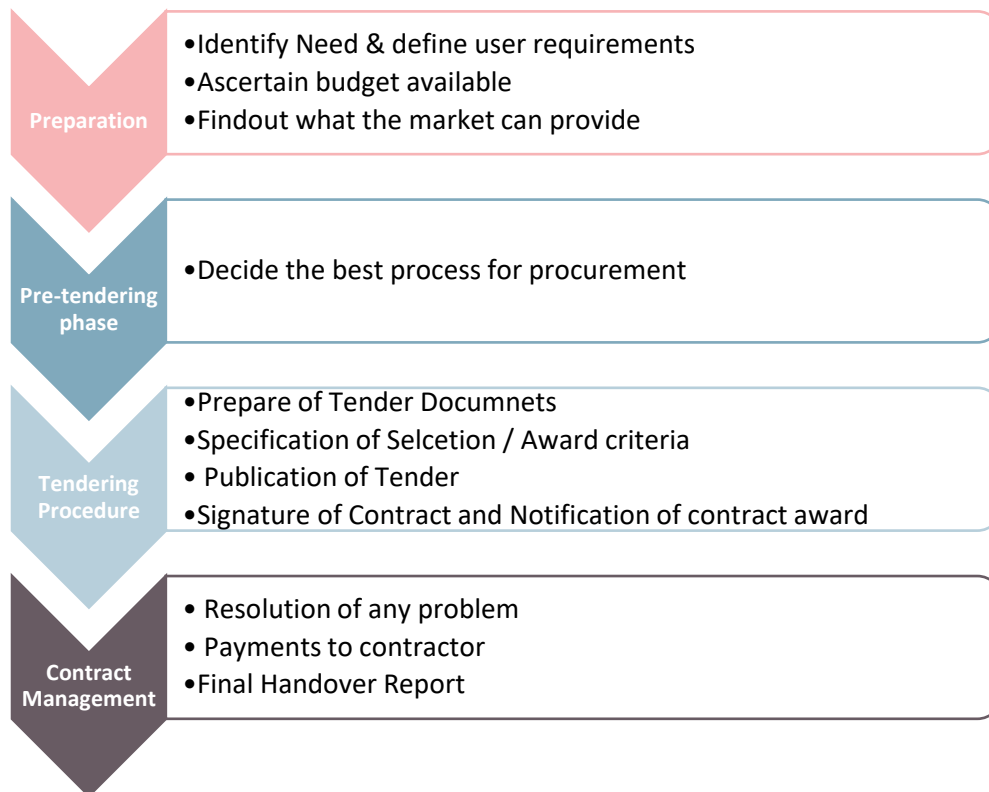
<sup>3</sup> <https://www.dccae.gov.ie/documents/Climate%20Action%20Plan%202019.pdf>

<sup>4</sup> <http://www.environ.ie/en/Environment/SustainableDevelopment/GreenPublicProcurement/PublicationsDocuments/FileDownload,29208,en.pdf>

<sup>5</sup> <http://www.environ.ie/en/Environment/SustainableDevelopment/PublicationsDocuments/FileDownload,30452,en.pdf>

### 4.3.3 Tendering procedure

As per <https://ogp.gov.ie/wp-content/uploads/1670-OGP-OGP-Guidelines-2018-Final.pdf>



## 4.4 Voies Navigables de France

### 4.4.1 Green Public Procurement

#### 4.4.1.1 French energy and climate change goals

In accordance with Paris agreement on climate change, the French government aims carbon neutrality in 2050 and wants to reduce fossils energy consumption by 40% in 2030 (as stated in french law on energy and climate published on November 8, 2019).

#### 4.4.1.2 French public procurement legislation

As a public authority, VNF procurement is driven by the french public procurement regulation<sup>6</sup>. Whatsoever the amount or the nature of the procurement, the public procurement regulation aims to tackling 3 main objectives: free access to public procurement, equality in the tenderers treatment and procedures transparency.

<sup>6</sup> Code de la Commande Publique (french public procurement regulation) <https://www.legifrance.gouv.fr/affichCode.do?cidTexte=LEGITEXT000037701019&dateTexte=20190409>

#### 4.4.1.3 Public procurement sustainability goals

French public procurement legislation encourages building sustainability onto the tendering process.

The national action plan for sustainable public procurement<sup>7</sup> defines 2 main targets for 2020 considering environment and social responsibility:

- 30% of public tenders must include an environmental specification or criteria
- 25% of public tenders must include a social specification or criteria

Moreover, French public procurement action plan gives 5 main goals for the national public authorities:

- Financial optimisation
- Environmentally friendly procurement
- Social responsibility
- Innovation
- And easing public procurement access to small companies and SMEs

For some specific product or services procurement, some compulsory specifications are established. For instance, national public authorities must buy or rent products and services only with high energy performance levels<sup>8</sup>. This applies to a list of products, among them: electrical motors, water pumps, ... These products need to respect the requirements defined in the European Ecodesign standards.

The public procurement regulation also enhances the Life Cycle Analysis in the procurement procedure.

Several guidelines on social or environmental friendly public procurement are available to help public authorities. French government is also working at updating guidelines on sustainable procurement.

As to facilitate the consideration of social responsibility in the public tenders, local or regional points of contact and experts on social specifications (« *facilitateurs de clauses sociales* ») have been set up to facilitate and give advices on sustainable procurement, according to the tender purpose.

#### 4.4.2 Sustainable procurement and tendering procedures

To respect these principles and goals, VNF defines, for each major tender, a procurement strategy. These strategies define how the tender will consider these goals. The tender is always driven to make sure that the most economically advantageous tenderer is selected, combining both price and technical criteria. Through public procurement, VNF encourages tenders to adopt better social and environmental practices.

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<sup>7</sup> Plan national d'action pour des achats publics durables (PNAAPD) <https://www.ecologique-solidaire.gouv.fr/achats-publics-durables#e1>

<sup>8</sup> See list of products on the french Ministry for the environnement <https://www.ecologique-solidaire.gouv.fr/orientations-strategiques-des-marches-publics-verts>

### **4.4.3 Tendering procedure and public procurement mechanism**

To consider environmental issues, VNF can either include in the tender environmental specifications or environmental criteria (it can be specific criteria or a part of the technical criteria).

Specifically, for the works public procurement, VNF asks the tenderers to provide both an environmental impacts reduction plan and a waste management plan. In this way, contractors are asked to minimize their potential impacts before and during the works activities.

In 2018 for instance, 55% of VNF major tenders were including an environmental criteria or specification.

Since October 2017, all infrastructure projects that require an environmental impacts assessment must assess the GHG emissions. VNF encourages tenderers to reduce their GHG emissions impacts on the projects. The GHG emissions assessment can be based on the national emissions factors database (« *base carbone* »)<sup>9</sup>.

VNF is working at establishing a sustainable procurement action plan (SPASER “*Schéma de promotion des Achats publics Socialement et Ecologiquement Responsables*”).

## **4.5 Vlaamse Landmaatschappij**

### **4.5.1 Ambition Green Public Procurement in Flanders**

The Flemish government wants to reduce greenhouse gas emissions by 15,7% by 2020, to increase renewable energy production by 90.3 PJ by 2020 and become 15.3% more energy-efficient. All compared to 2005.

The Flemish government strives towards 100% sustainable procurement and tendering in 2020 although no specific goals are set.

Tendering and procurement procedures and methods within the Flemish government are based on the legislation concerning public contracts of 17 June 2016. There are no mandatory rules for sustainable procurement or tendering within this legislation - but the legislator has provided some legal basis for “*sustainable procedures*”.

### **4.5.2 Essential sustainability criteria**

For the procurement of several product classes the Flemish Government defined a set of minimal criteria which must be met for the procurement to be considered sustainable. Amongst these product classes are paper products, electricity, furniture, PC, laptops and screens, reproduction equipment, cleaning products & services, textile & clothing and

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<sup>9</sup> <http://www.bilans-ges.ademe.fr/>

vehicles. This list is based on the GPP criteria sets of the EC and will continue to grow in the future.

### **4.5.3 Guidelines for sustainable public contracting**

Because there are no binding commitments for sustainable public contracts, tendering and procurement, it is up to the contracting administration or purchaser to decide whether and to what extent sustainability is a topic in tendering and procurement.

The Flemish government developed various tools to support administrations that do include sustainability in their procurement - and continues to develop more. One of these is the *"Sustainability considerations for public contracts"* manual. This manual sets out different aspects of sustainable tendering and procurement in each phase of the procedures, including pros and cons.

In addition, a range of tools exist to support sustainable procurement:

#### *4.5.3.1 Website "sustainable and innovative public contracts"*

This site was designed to be a starting point for purchasers who want to include sustainability in their procurement. It offers useful manuals (Flemish and European), product sheets, links to other about sustainable procurement sites, examples and information about the local sustainability policies<sup>10</sup>.

#### *4.5.3.2 Central point of contact regarding sustainable procurement*

The central point of contact for employees from the Flemish government was established to give detailed advice, answer specific questions on all possible topics from legal and technical to economical, strategic and practical aspect of procurement.

Local authorities have their own point of contact for similar questions and problems: *"Steunpunt duurzame overheidsopdrachten"*

#### *4.5.3.3 Procurement forum*

This is an online forum for knowledge sharing, information, criteria, news, events, all related to sustainable procurement. The forum can be found at <https://procurement-forum.eu/>

### **4.5.4 Sustainable procurement at the Flemish Land Agency**

The Flemish Land Agency (VLM) is in the process of developing a *"framework for sustainable procurement and tendering"*. Incorporation of sustainability in procurement is currently evaluated on a case by case basis. Because of the field the VLM is working in, land and nature development, sustainability is a topic that is always present in the design and implementation of our projects.

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<sup>10</sup> The website can be found at: <https://overheid.vlaanderen.be/duurzame-innovatieve-overheidsopdrachten>

Whenever possible during tendering and procurement, environmentally friendly and sustainable materials and resources are preferred. Contractors are asked to minimize the possible negative impact of their activities when they are working in the field.

As a part of the Flemish government, VLM wants and must do the same for its internal logistics. The use of recycled paper, the choice for environmentally friendly copiers, purchase of electrical vehicles, are all examples of the growing awareness and attention to sustainability in their day to day activities.

However, to be able to manage this growing multitude of sustainable activities and choices, with respect to all the legal and economical requirements for procurement and tendering, a framework for sustainable procurement is needed. The development of such a framework is ongoing in cooperation with the VLM climate workgroup.



