CLIMATE CHANGE: PROCURE GREENER

WEBINAR

6th October 2022

Watch the replay video of the webinar via:
https://youtu.be/BBZU6nWlyqk

Welcome

Stephan Corvers
CEO & Founder
Corvers Procurement Services BV

Introduction & Agenda

House rules

It is possible to ask questions in the private chat

The recording of the webinar will be made available on the EAFIP website

The list of participants will not be disseminated

In case there are technical problems, the session will be recorded and published

AGENDA
PART I

TIME (CET)	TOPIC	SPEAKER/PARTICIPANTS
9:25 – 9:30	Registration to the platform	Participants can ensure that the platform's functionalities are working fine
9:30 – 9:35	**Welcome & Introduction** House rules Agenda	**Stephan Corvers** CEO – Corvers
PART I. POLICY AND PROCUREMENT STRATEGY		
9:35 – 9:55	**Green Public Procurement** *Purchasing environmentally friendly goods, services and works – New EU Green policies (overview, sectorial approach and ICT examples)*	**Lieve Bos** Policy Officer, European Commission - DG Connect
9:55 – 10:15	**Innovative and sustainable approach** *in the purchase of ICT through the IWR2021 project*	**Johan Rodenhuis** Ministry of Economic Affairs and Climate Policy, The Netherlands
10:15 – 10:35	**Procurement Planning Platform (PPP)** *as a backbone for a strategic sourcing approach towards sustainability and innovation*	**Gonçalo Negrão** The City of Lisbon, Portugal
10:35 – 10:55	**Joint Cross-Border Procurement DPS of Fossil and Emission free Non-Road Mobile Machinery (NRMM)** *used in the construction sector, and in services related to garden and park maintenance in cities*	**Maria Matzen** Bird & Bird, Denmark
10:55– 11:05	**Q&A**	
11:05 – 11:15	**COFFEE BREAK**	

AGENDA
PART II

PART III. PCP-PPI SECTORIAL APPROACH (MOBILITY & ENERGY)		
11:15 – 11:35	**Pre-Commercial Procurement** *turns the dream of emission free public fast ferry into reality, The Hurtigbåt project*	**Ragnhild Harsvik Ødegaard** Trøndelag County Council, Norway
11:35 – 11:55	**Pre-Commercial Procurement** *to find solutions to make mobility and energy domains more carbon neutral*	**Kaisa Sibelius** AI4CITIES accelerating carbon neutrality
11:55 – 12:15	**Pre-Commercial Procurement** *turns waste into a valuable resource*	**Andreas Norman Pedersen** AquaGreen, Denmark
12:15– 12:25	**Q&A**	
12:25 – 12:30	**Conclusions & future events**	**Stephan Corvers**

PART I
POLICY AND PROCUREMENT STRATEGY

Green Public Procurement

Purchasing environmentally friendly goods, services and works – New EU Green policies

European Commission

Lieve Bos
Policy Officer, DG Connect
European Commission

Green Public Procurement
Green Digital Transition

Lieve Bos
Policy Officer
DG CONNECT - F

2019-2024 Commission Priorities

- *A European Green Deal*
- *A Europe fit for the digital age*
- *An economy that works for people*
- *Protecting our European way of life*
- *A stronger Europe in the world*
- *A new push for European democracy*

'..a once-in-a-generation opportunity to ensure Europe leads the way on the twin ecological and digital transitions'.

*Procurement of **innovative** solutions that can speed up the **green**, **digital** transition is key to Europe's economic growth.*

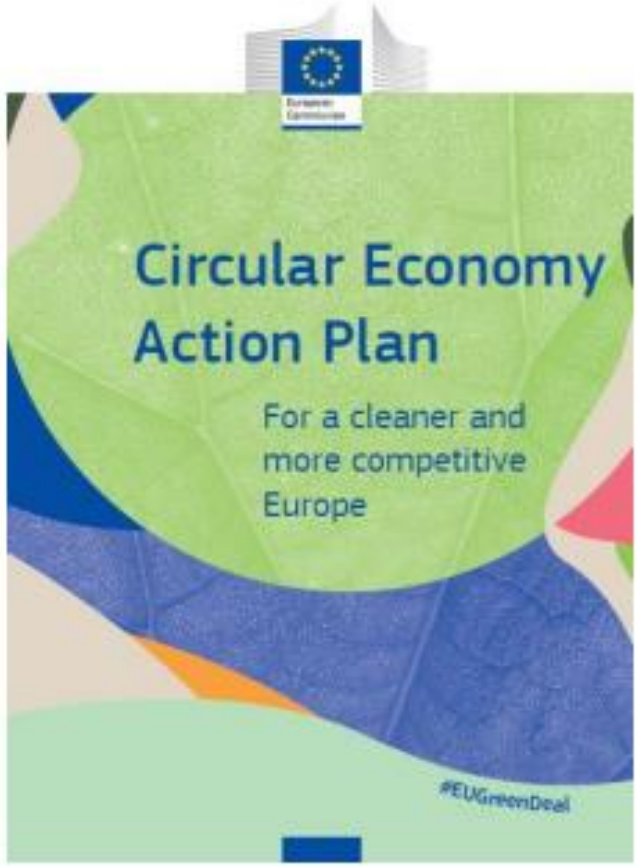
European Green Deal 11 December 2019

*"Public authorities should **lead by example** and ensure that their procurement is green. The Commission will propose **further legislation and guidance** on GPP."*

Circ Econ Action Plan 11 March 2020

*The EC will propose **minimum mandatory** GPP **criteria and targets** in sectoral legislation and phase in **compulsory reporting** to monitor the uptake of Green Public Procurement without creating unjustified administrative burden for public buyers.*

Furthermore, the Commission will continue to support capacity building with guidance, training and dissemination of good practices…



Procurement impact of green policies

EU Climate law

-55% GHG emissions by 2030, climate neutral by 2050
** ETS -> Public buyers in aviation, power, manufacturing sectors*
** Effort Sharing Regulation -> Other sectors (public transport, buildings, agriculture, waste management etc)*

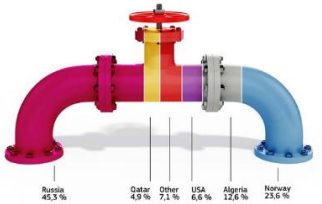
Industrial emissions directive

Public buyers in water, waste management, energy to respect tighter air / water emission levels, requirements on depollution, decarbonisation and circularity / reuse. Requires MS to innovate

Fit for 55 & Repower EU package

Requires to increase use of renewable energies to 45% by 2030
Requires MS to deploy alternative fuel infrastructure: e-charging for vehicles, ships, airports, LNG and hydrogen refueling stations
Integrate geothermal / solar thermal energy in district heating

Requires install solar panels in new (public) buildings by 2026-2029
Target doubling deployment of heat pumps next 5 years
Common rules for EU wide electricity, gas, hydrogen network
Voluntary joint procurement for strategic energy stocks
Stronger cybersecurity protection of strategic energy assets



Procurement impact of green policies

Eco-design requirements for sustainable products
Empowers EC to set mandatory requirements for public contracts (energy + resource efficiency, product durability, reusability, upgradability, reparability, presence of substances inhibiting circularity, recycled content, remanufacturing and recycling, environmental and carbon footprint, info requirements incl a Digital Product Passport)

Sustainable products initiative
Empowers EC to make GPP criteria mandatory

Energy efficiency directive
Buying only products from highest two populated energy classes and publish info on energy impact achieved for > threshold contracts

Directive on energy performance of buildings
New public buildings climate neutral by 2027, using LCC
Ban fossil fuel boilers by 2025
Pre-cabling and charging stations for e-mobility

Construction products regulation
Empowers EC to develop sustainability requirements for public procurement of construction products

Procurement impact of green policies

Clean vehicles directive

Targets for public procurement of clean vehicles (buses, trucks, vans, passenger cars) monitored through e-forms.
Promotes connected mobility, automated driving innovation
Sales of fossil fuel cars banned from 2023

Combined transport directive

Moving 75% of freight transport off the road
Public procurers of ports, waterways, rail, public vessels to adapt transport planning / support transshipment, adopt polluter pays principle and common methodology to measure externalities,

Batteries regulation

Public buyers to minimize life-cycle environmental impacts
Minimum mandatory GPP criteria (sustainability, recyclability…)
Digital Product Passport for every model placed on EU market

EU chemicals strategy

Expands legislation to ban most dangerous chemicals (e.g. PFAS)
Public buyers to further minimise substances of concern and prioritise chemicals that are sustainable by design

Procurement impact of green policies

EU biodiversity strategy

Binding targets to restore degraded nature ecosystems by 2030, expand protected areas and manage them sustainably
Announces binding GPP criteria to boost nature based solutions

EU forest strategy

Requires to plan 3 billion additional trees by 2030
Prohibits sourcing of biomass for energy production from primary forests, peatlands and wetlands
Min GHG saving thresholds on biomass heat and power installations
Imposes EU sustainability criteria on smaller heat and power installations

EU zero pollution by 2050 strategy, with interim 2030 targets:

Improve air quality by reducing premature deaths by 55%
Reduce waste, plastic litter at sea (by 50%) and microplastics (by 30%)
Reduce nutrient losses & chemical pesticides' use in soils by 50%
Reduce by 25% ecosystems where air pollution threatens biodiversity
Reduce share of people chronically disturbed by transport noise by 30%
Reduce waste generation and by 50% residual municipal waste

Farm to Fork Communication

Announces min requirements for sustainable food procurement

Nexus of green and digital transition

European Commission

Conflicts: Need to green ICTs

- ICT footprint: 2,1 – 3,9% of total emissions, 8-10% of the electricity consumption
- e-waste: fastest-growing waste sources in the EU, 12 M tonnes by 2020
- 60 different metals in a mobile, ~ 20 can be recycled, only 26 % of phones collected
- 32 kg of raw materials are needed to produce a microchip weighing 2g
- Life of digital devices, has steadily decreased from 11 to only 4 years

Synergies: Potential of ICTs to green other sectors

- Digital transformation for climate neutrality can reduce 15-20% of total GHG emissions
- Green transition for sustainable financing and new jobs in green digital transformation

Focus today: Mostly on conflicts (measurable)

What is needed more: To realise the synergies between digital and green sector

How: Science based methods to quantify the net positive eco contribution of digital -
> fueling more green procurement and sustainable financing

Greening ICTs

Climate Neutral and highly energy efficient datacentres by 2030: review Code of conduct, the Energy Efficiency Directive and the Taxonomy Regulation

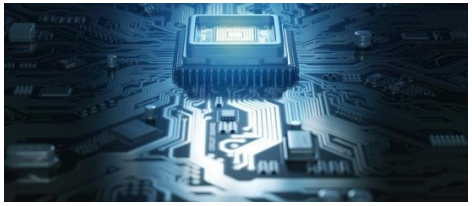
Greener electronic communications by 2030:

- Transparency measures
- Administrative incentives for green deployment

Circular Electronics Initiative: Better durability, reparability, refurbishment, recycling for consumer and industrial electronics & IoT

"Right to repair" for consumers.

Low power processors, software and AI: investing in new ultra-low-power



ICTs for greening other sectors

European Commission

European Green Digital Coalition

35 CEOs of ICT companies, that lead their own transition to climate neutrality by 2040, have committed on behalf of their companies to take action in the following areas:

- Investing in the **development and deployment** of green digital solutions with significant energy and material efficiency that achieve a net positive impact in a wide range of sectors.

- Developing **methods and tools** to measure the net impact of green digital technologies on the environment and climate by joining forces with NGOs and relevant expert organizations.

- Co-creating, with representatives of other sectors, **recommendations and guidelines** for green digital transformation of these sectors that benefits environment, society and economy.

https://www.greendigitalcoalition.eu/

https://digital-strategy.ec.europa.eu/en/policies/european-green-digital-coalition

European Commission

Digital Day- March 19, 2021

EU countries commit to leading the green digital transformation

24 Member States and Norway and Iceland have signed a declaration to accelerate the use of green digital technologies for the benefit of the environment. They will deploy and invest more green digital technologies to achieve climate neutrality and accelerate the green and digital transitions in priority sectors in Europe, for example by using the NextGenerationEU and InvestEU funds.


DIGITALDAY2021
March 19th

A Green and Digital Transformation of the EU

Ministerial Declaration

Smart use of clean digital technologies can serve as a key enabler for climate action, environmental sustainability, and reaching the UN Sustainable Development Goals by improving energy and resource efficiency and facilitating circular economy, reduced emissions, pollution, biodiversity loss and environmental degradation, and improved resilience to climate change impacts. At the same time, the ICT sector should **ensure the environmentally sound design and deployment of digital networks and technologies and products**. Europe can compete globally in the green tech market, particularly by promoting innovative technologies, low-power electronics and environmental sustainability of ICT solutions.

In this context, **we welcome the establishment of the European Green Digital Coalition** that will accelerate the ICT sector's transition towards a sustainable, climate neutral, circular and zero pollution economy while at the same time contributing to innovative, sustainable, inclusive and resilient society and economy. We stand ready to engage with industry to contribute to the success of the Coalition.

Our goal is to accelerate and take the global lead on the green digital transformation, building on the Council Conclusions of 17 December 2020 on "Digitalisation for the Benefit of the Environment", as well as on the Digital Strategy [COM/2020/67 final].

We therefore will work together to use the significant potential of the Recovery and Resilience Facility and the earmarking of expenditure on reforms and investments to

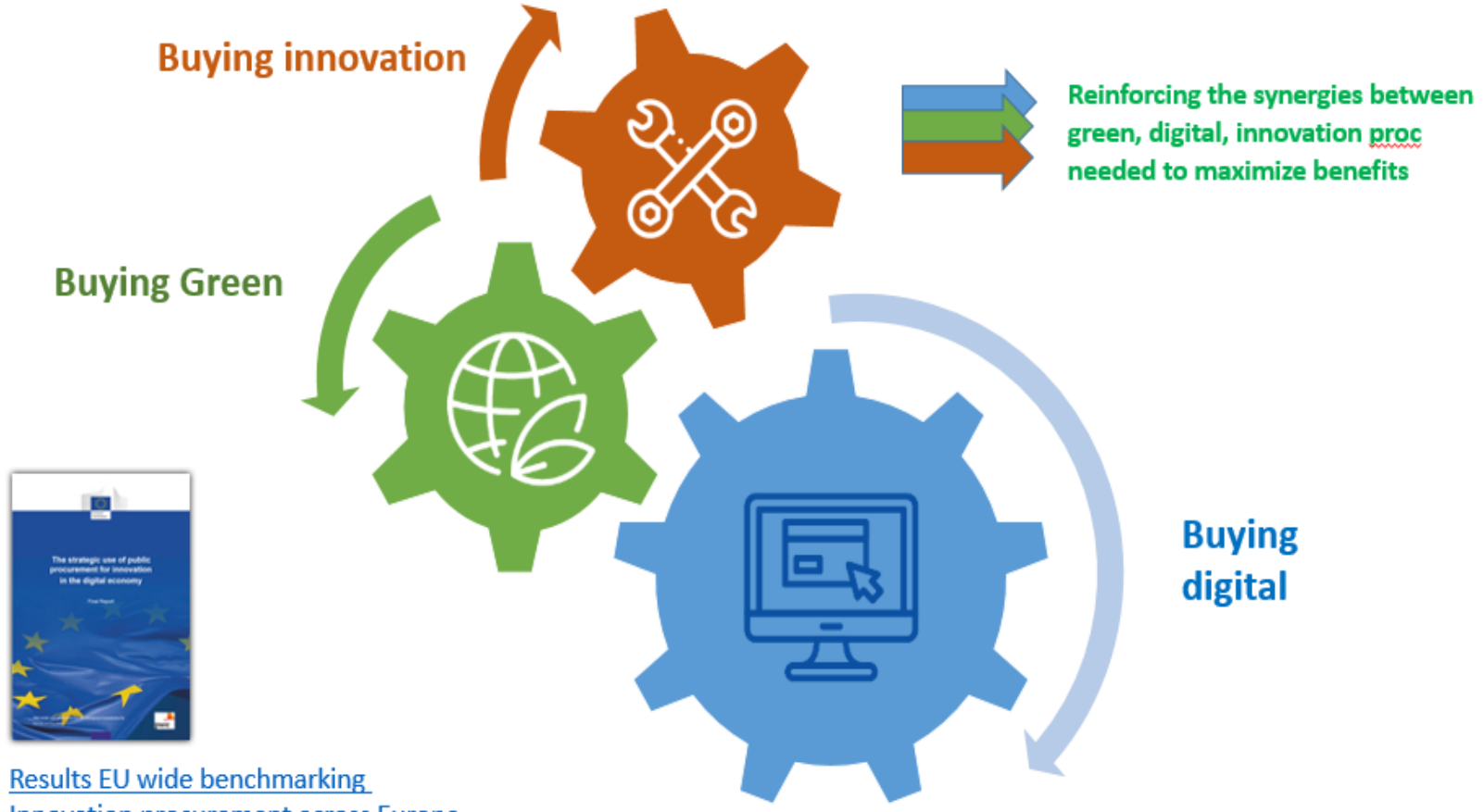
Example of commitments made:

- Making **green public procurement** the default option overall;
- Support the **deployment of green digital solutions** that accelerate the decarbonisation of energy networks, enable precision farming, decrease pollution, combat the loss of biodiversity and optimise resource efficiency;
- Propose permits for deployment of networks and **data centres** that comply with the highest environmental sustainability standards;

https://digital-strategy.ec.europa.eu/en/news/eu-countries-commit-leading-green-digital-transformation

Nexus of green, digital and innovation procurement

European Commission



Results EU wide benchmarking
Innovation procurement across Europe

Innovative and sustainable approach

in the purchase of ICT through the IWR2021 project

Johan Rodenhuis
Ministry of Economic Affairs and Climate Policy
The Netherlands

Rijksdienst voor Ondernemend Nederland

WEBINAR WORKSHOP

CLIMATE CHANGE: PROCURE GREENER

European Assistance For Innovation Procurement – EAFIP

Johan Rodenhuis

Sustainability Advisor

Category ICT Workspace Dutch Central Government (IWR)

Ministry of Economic Affairs and Climate Policy

06 October 2022

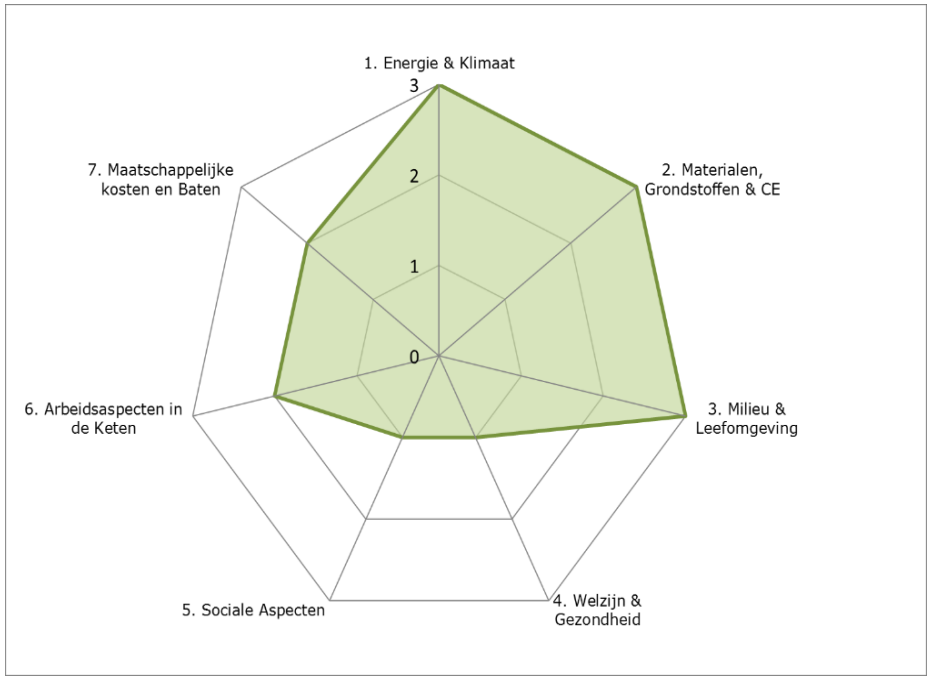
Category IWR

- Scope: ICT Workspace for government buildings/offices and employees of the Dutch Central Government (DCG);
- 12 Government wide contracts:
  - Workspace hardware (laptops, tablets, smartphones, displays, location bound ICT , multifunctional printers, networkprinters and audiovisual products)
  - Telecom (telephony, VoIP, , sms gateway, inbound/outbound)
- Participants: whole Dutch Central Government, High councels of state, Advisory councils, Courts, etc;
- Spend 2021 approximately 163 M€/jaar;
- IWR team: 8 persons.

Sustainability ambitions (1)

Sustainability goals IWR:

- Procurement with Impact
- One of the forerunners in the EU
- Actively sharing knowledge and collaborate inside and outisde DCG/EU:
  - F.e. working groups within DCG
  - F.e. Circulair & Fair ICT Pact, ProCirc and Buyer Groups
- Actively contribute to a “green Product and Services Catalogue” of ICT system integrators within DCG: only “green” products available in IWR contracts
- Keep innovating: every procurement cycle more sustainable
  - Collaborating with rating / auditing organisations
  - Collaborate with the market
  - Care for Participants



Sustainability ambitions (2)

Requirements and award criteria on:

1. Energy and Climate
2. Materials, Natural Resources & Circulair Economy
3. Living Environment
4. Well being & Health
5. Social aspects (social return)
6. Human rights & Ethics
7. Social Costs & Benefits

Best value for taxpayers money:

- 50% price / 50% quality (award criteria);
- Quality: >87% award criteria on sustainability;

Workspace Hardware Tenders

1. IWR2021|Workspace Hardware (WpHW)| Displays (incl. optional accessoires and services);
2. IWR2021|WpHW|Laptops & Vaste ICT werkplekken (incl. optional accessoires and services);
3. IWR2021|WpHW|Android devices & Accessoires (incl. optional services);
4. IWR2021|WpHW||iOS, iPadOS & MacOS devices (incl. optional accessoires and services);
5. IWR2021|WpHW|Workspace services (contract transcending):

Total estimated value IWR2021 WpHW approx. 475 M€.

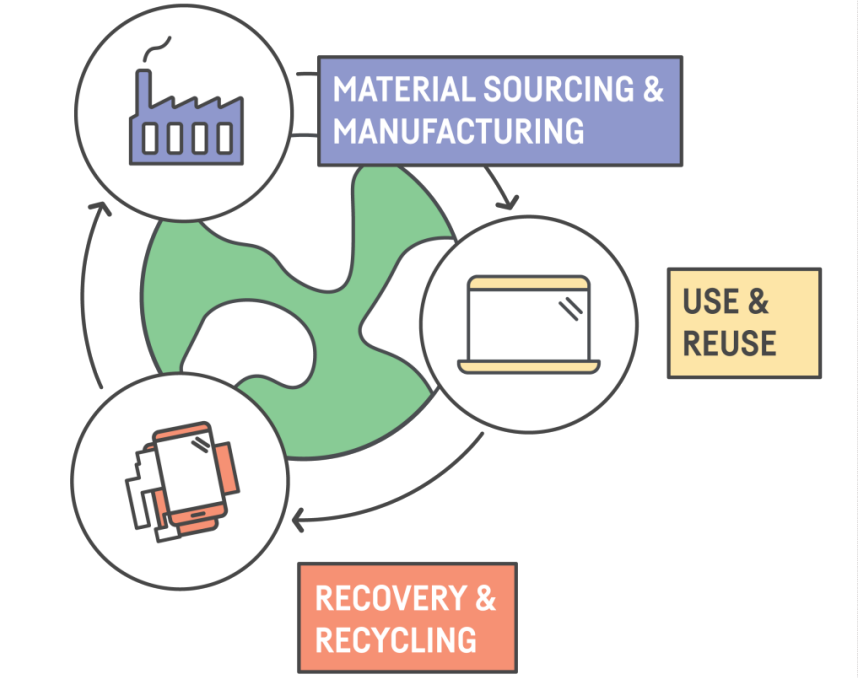
Tendering process:

- Market developments: ongoing
- Consulting market:
  - Q2 2020-Q1 2021
  - Primary focus sustainability
  - Publishing concept strategy and concept requirements
- Tendering:
  - 4 Tenders Q2 - Q3 2021 (until august)
  - 1 Tender Q3 - Q4 (currently active)
- Participants:
  - Meetings focused on sustainability from policy to requirements
  - Step by step
  - Sustainability as starting point

Overall Sustainability

- EcoVadis scorecard
  - score on 4 themes: environment, labor & human rights, ethics and sustainable procurement;
  - Monitoring by IWR via EcoVadis tool, specific insights through reporting.
- Requirement minimum EcoVadis score **resellers**:
  - Moderate: all tenders;
  - For the period of the framework agreement.
- Requirements EcoVadis score **manufacturer**:
  - Laptops: Advanced;
  - Displays: Partial (developing to Advanced);
  - Android & Accessoires: Advanced;

ecovadis
Business Sustainability Ratings



Overall Sustainability

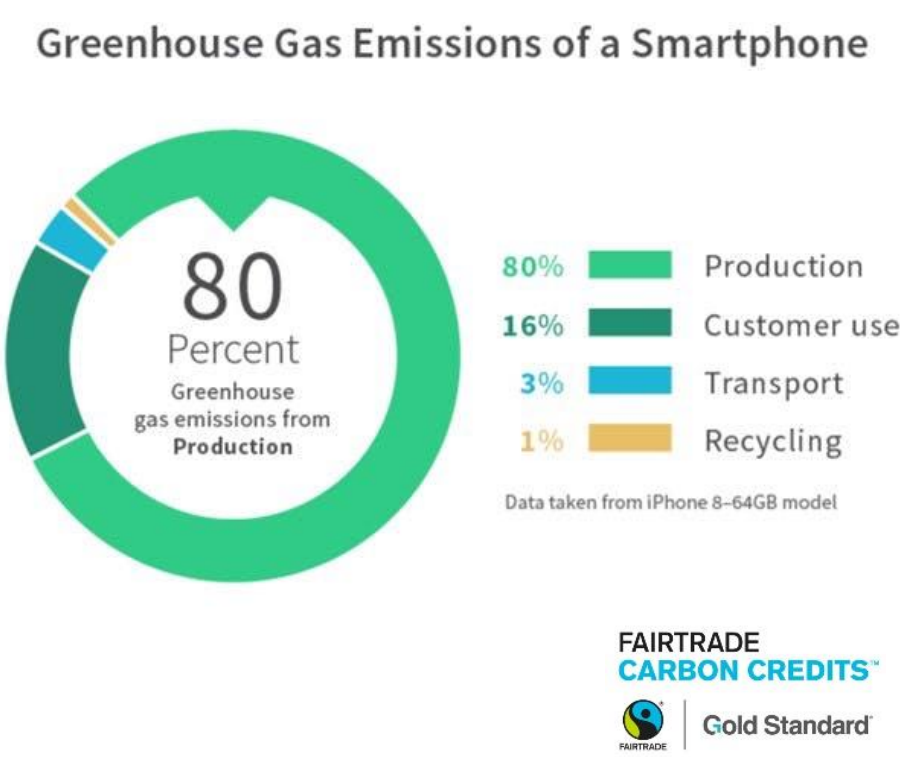
Requirement on product level:

TCO Certified

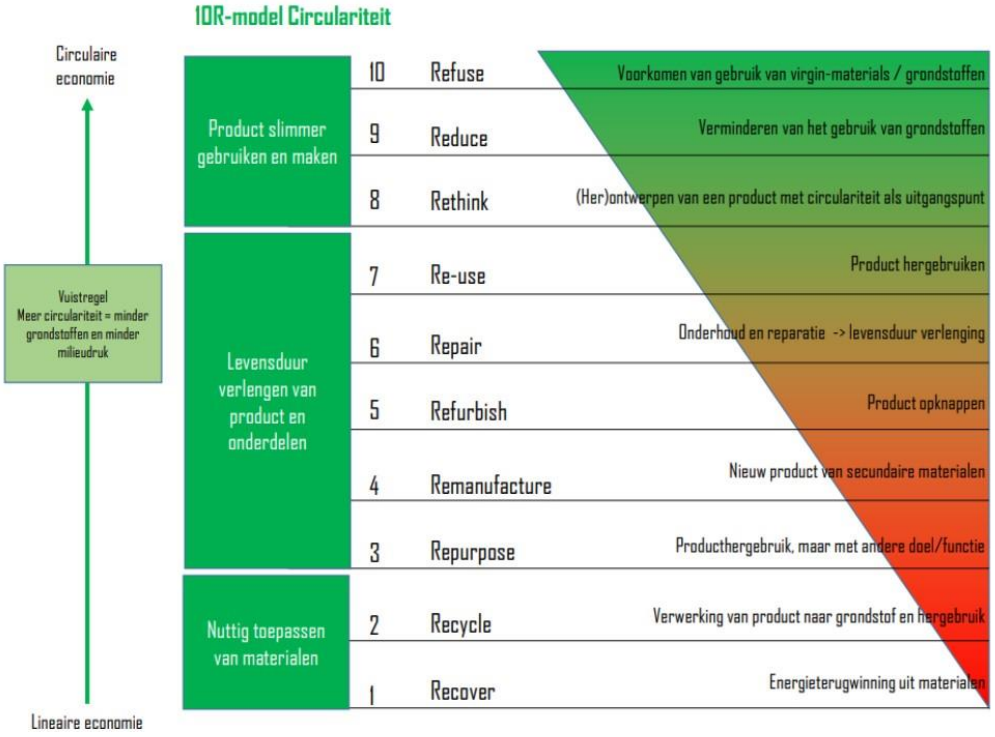
- Type 1 Ecolabel (ISO14024)
- Current: gen 9
- Criteria (f.e.)
  - Social responsible production
  - Environmental friendly production
  - Health and safety of the user
  - Product performance (f.e. low energyconsumption)
  - Maximalisation lifespan
  - Reducing hazardous substances
  - Etc.

1. Energy & Climate

- Energy efficiency: Energy Star, 80Plus (Gold, Platinum en Titanium voor desktops en workstations), EU Energylabels;
- Energymanagement: battery management (SoC) and State of Health (SoH);
- CO2 footprint (LCA);
- CO2 reduction alligned with Dutch climate agreement;
- Most CO2 efficient mix for international transport;
- 1 year after start framework agreement CO2 neutral vehicles or zero emission for smaller vehicles.
- CO2 Compensation using **Fairtrade Climate Standaard**
  - SDG: 3, 4, 6, 7, 8, 10, 12, 13, 14, 15 en 16



FAIRTRADE CARBON CREDITS™
FAIRTRADE | Gold Standard



2. Materials, Natural Resources & Circulair Economy

- Availability spare-parts:
  - 5 years: Laptops, Fat Clients, Displays, iOS/OSX/iPadOS;
  - 4 years: Android & Accessoires.
- Essential parts are repairable by specialists;
- Refurbished, remanufactured or equal products are possible;
- Minimum of 4 years software and security updates;
- E-waste compensation:
  - TCO Certified Edge E-waste compensated for laptops, tablets and smartphones;
- Lease:
  - minimum 80% products repurposed for a second/third life compliant to manufacturer guidelines and security policy DCG;
  - Remaining products: recycling/deassembly high quality natural resources;

3/4. Living Environment, Well being & Health

- Only Products from ISO14001 en/of EMAS factories (eindassemblage en belangrijkste toeleveranciers).
- Products compliant with REACH en RoHS laws;

5. Social aspects

- Social Return: standard of 5% based on overall remuneration;
- Action plan;
- Mostly in services

6. Human rights & ethics

- Commitment International Human Rights & Ethics;
- Fundamental Labour Standards (ILO);
- Monitoring:
  - Due diligence, risk analyses supplychain, action plan risk mitigation, reports;
  - EcoVadis, TCO Certified

How Category ICT Workspace (IWR) deals with due diligence obligation

2. CONTRACT AND VENDOR MANAGEMENT

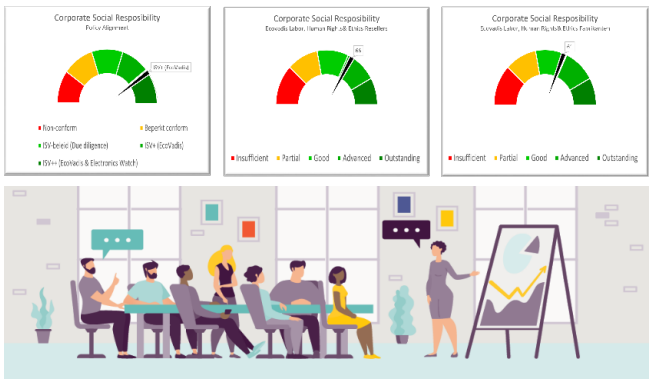
CATEGORY ICT WORKSPACE

3. CONTRACTUAL REQUIREMENTS:

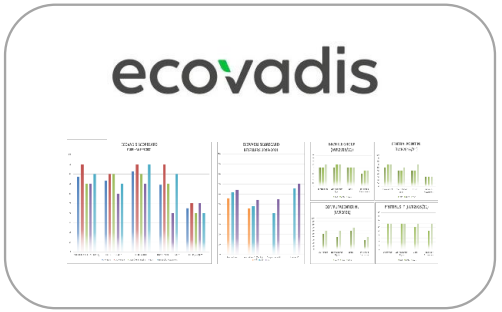
1. Minimum Ecovadis requirement resellers:
   - Contractor requires a minimum score of 'Good';
   - For IWR2021 Services: Advanced (working towards Oustanding) for contractor and sub-contractors.
2. Minimum Ecovadis requirement for vendors of products:
   - IWR2021 Laptops and Fat Clients: Advanced;
   - IWR2021 Displays: Partial (working towards Advanced);
   - IWR2021 Android & Accessoires: Advanced;
   - IWR2021 Services: Advanced (working towards Oustanding)
3. Monitoring by category IWR through EcoVadis tool.
4. Additional Product certification requirement: TCO certified
5. Risk mitigation, corrective action and reporting obligation.

4. REPORTING:

Category Owner, CPO and Customer Board



1. DASHBOARD



ACTION PLAN

Reports & KPI’s Sustainability

Reports:

- **Buy/Lease (monthly):**
  - CO2 footprint Product (LCA) (Kg CO2-eq.);
  - CO2 Compensation (Kg CO2-eq, Fairtrade, SDG’s);
  - E-Waste Compensation (J/N);
  - Ecolabel: TCO Certified
  - Refurbished/Remanufactured;
  - Manufacturer incl. EcoVadis score
  - Percentage products reinstatement (only lease);
  - Percentage producten recycling (only lease);

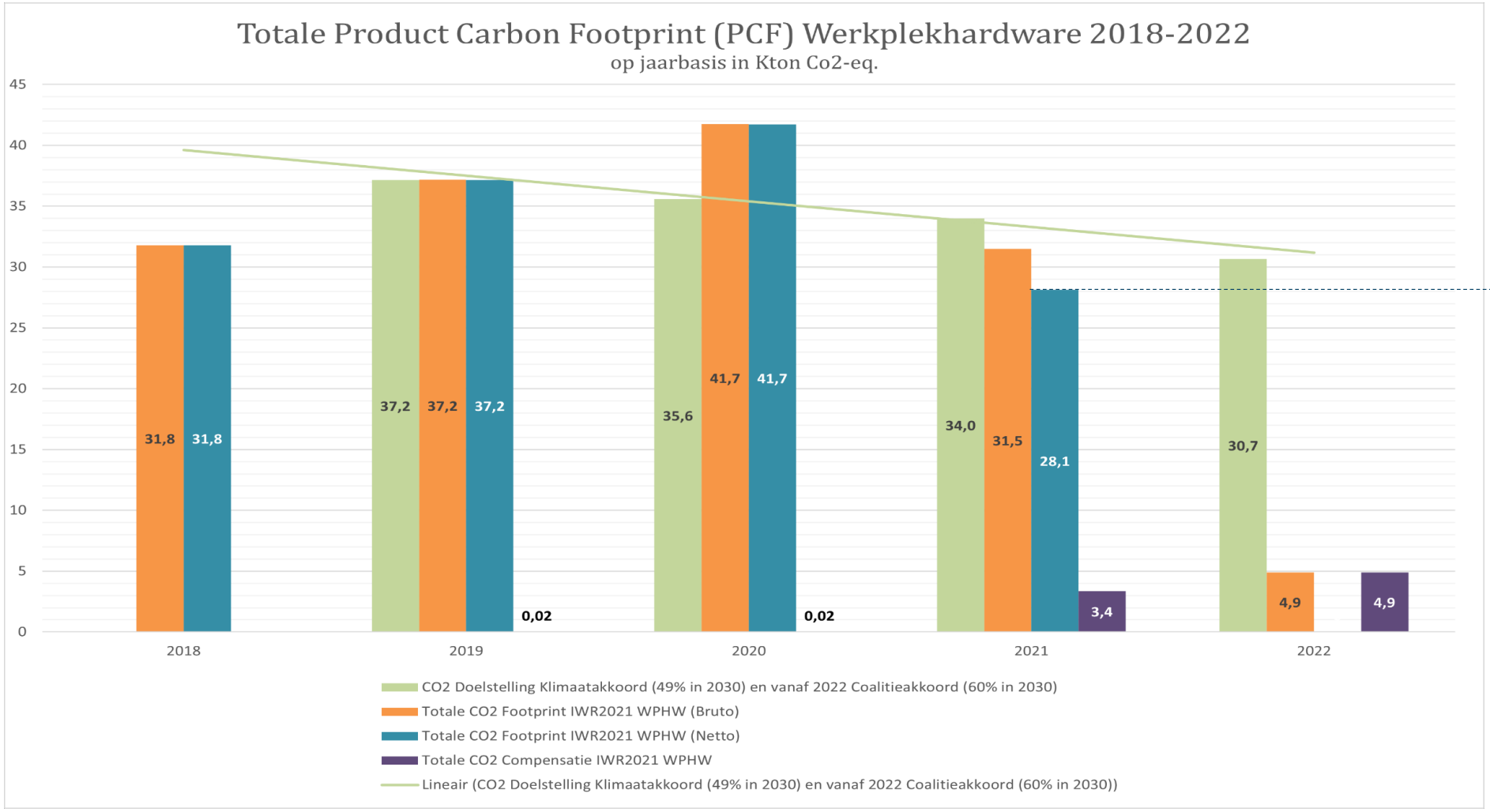
- Trendreport (quarterly):
  - Contribution to realisation climate agreement and government strategies (f.e. CO2 reduction);
  - EcoVadis score Reseller and Manufacturer;
  - CO2 Compensation and E-Waste compensation;
  - Human rights and ethics;
  - Social return;

- KPI/SLA parameters:
  - CO2 Footprint (connected to trendreport);
  - Service credits (HRE, SROI, CO2, LCA, EcoVadis).

Rijksdienst voor Ondernemend
Nederland

EXAMPLE DASHBOARD

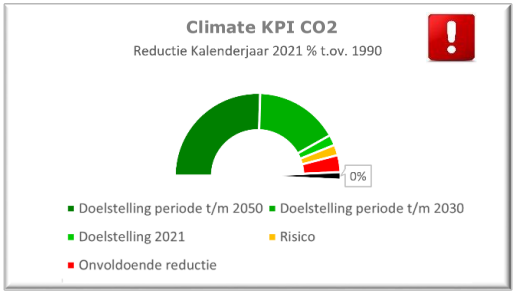
IWR2021 WORKSPACE HARDWARE

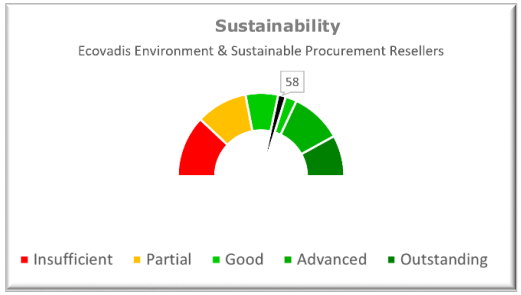


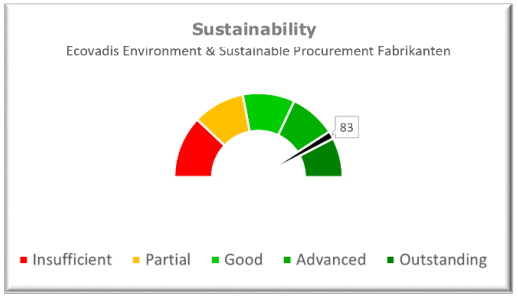
Based on Greenhouse Gas Protocol 'Product Life Cycle Accounting and Reporting Standard' (or equal) incl. raw materials, production, (downstream) transport, 4/5 year use phase and end-of-life.

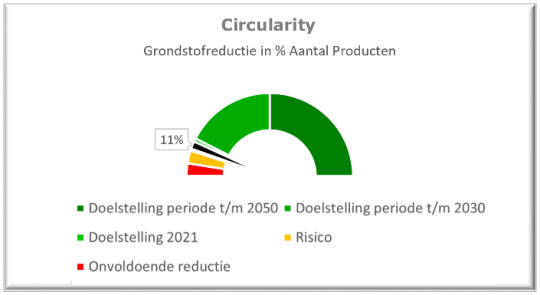
EXAMPLE DASHBOARD

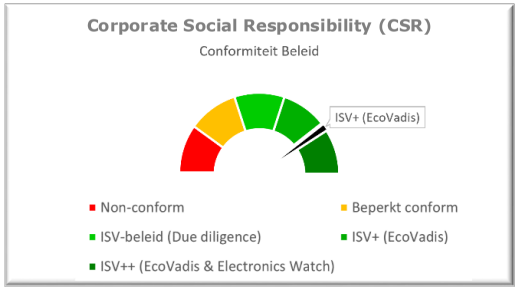
IWR2021|Workspace Hardware | Laptops en Clients

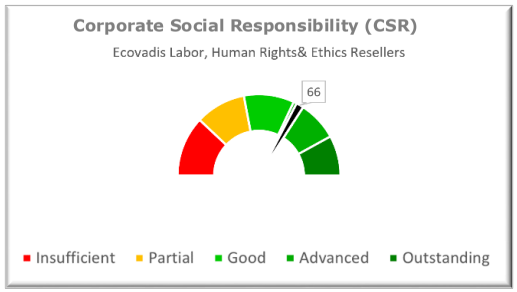


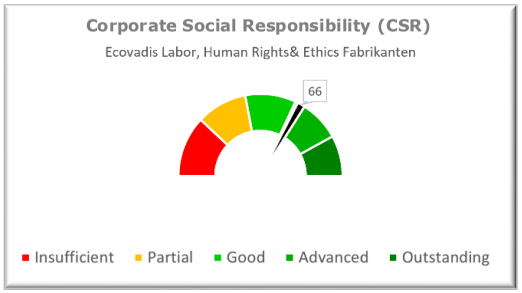


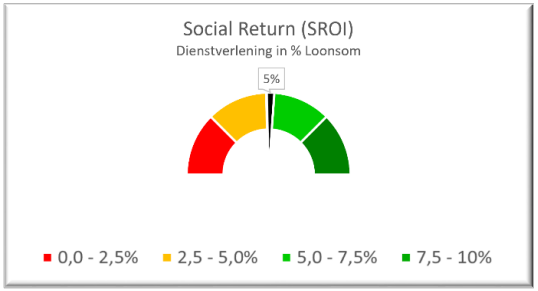






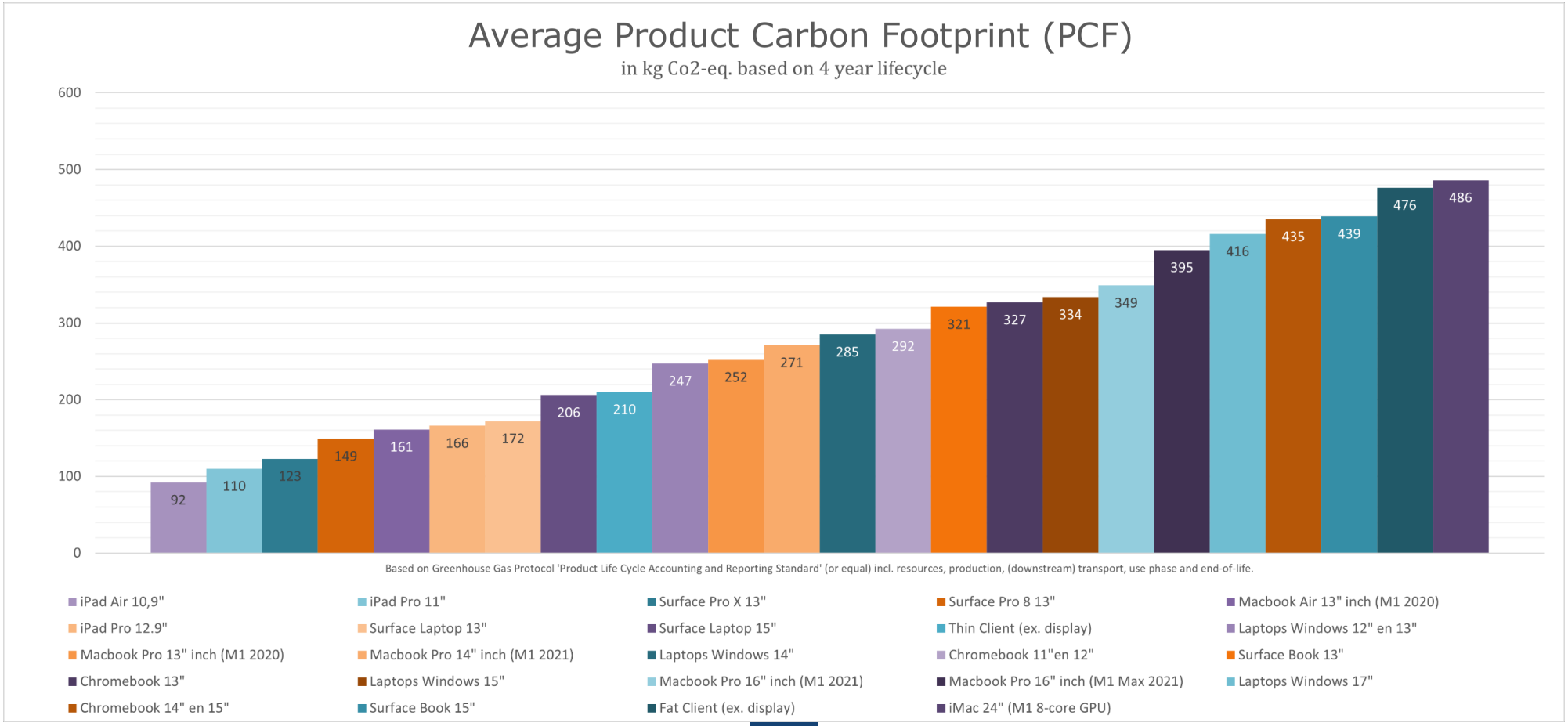






EXAMPLE DETAILS

IWR2021|Workspace Hardware | Laptops & Clients



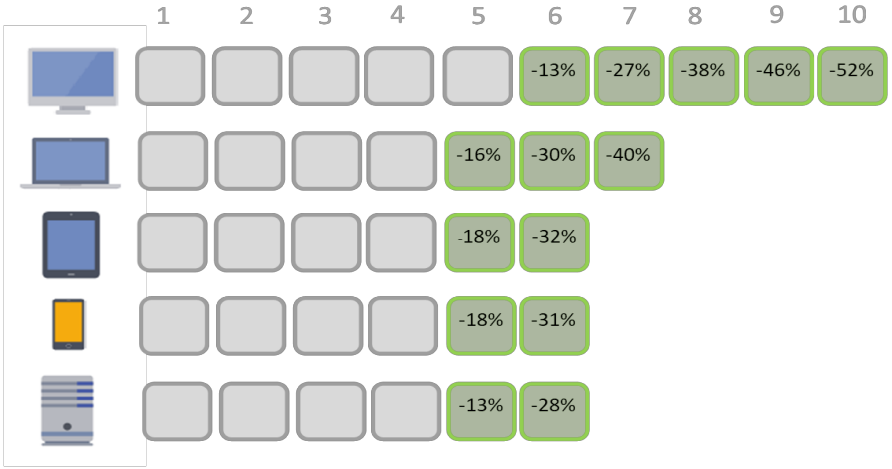
Recommendations

Product Portfolio Workspace hardware

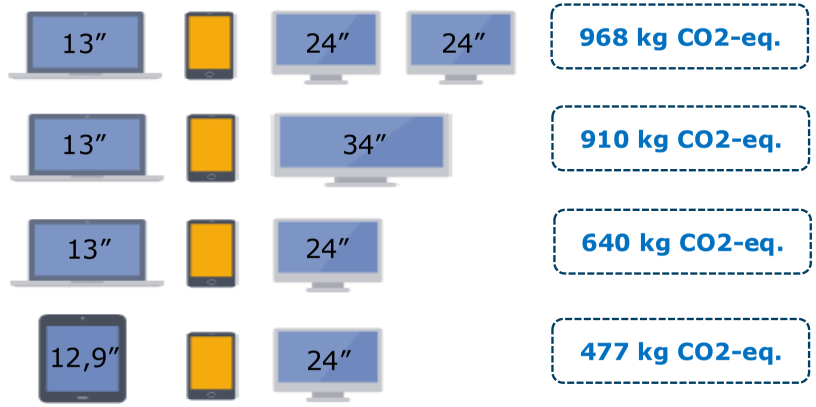
1. Consider Mobile Only concepts, these contribute to a significant lower CO2 footprint vs. thin/fat clients;
2. Consider using CO2 footprints of products as strategic indication to (re)evaluate and reconsider the product portfolio;
3. Investigate possibilities for BYOD and/or COPE, these concepts contribute to a significante reduction of footprint and TCO (through deduplication >40% reduction CO2/raw materials and with BYOD cost reduction);
4. Investigate possibilities to reduce the number of workspaces with two displays and ultra wide displays (80/20 rule), reuse excess displays in other parts of the government or make them available for home use;
5. Maximalize ifecycles for maximum CO2 reduction, lower usage of virgin raw materials, cost savings and risk mitigation of human rights and labour violations :
    a. Smartphones and tablets 5-6 years;
    b. Laptops 5-7 years;
    c. Displays 10 years (or only by defect);

More info: Circularity in practice: How to manage notebook computers responsibly - TCO Certified

CO2 REDUCTION MAXIMALISATION LIFECYCLE



EXAMPLE CO2 EFFECT PRODUCT PORTFOLIO



Based on Greenhouse Gas Protocol 'Product Life Cycle Accounting and Reporting Standard' (or equal) incl. raw materials, production, (downstream) transport, 4 + 5 year use phase and end-of-life in combination with IWR2021 Footprint data analysis and extrapolation. Products mentioned are based on a standard Windows-OS laptop (i5 or equal processor, 8GB RAM and 256GB SSD), 6,1" smartphone with 128GB storage, tablet with 256GB storage and standard office display(s) based on 0,7 WPF. For use of keyboard add 16kg CO2-eq and mouse add 6kg CO2-eq based on 0,7 WPF.

Questions?

Procurement Planning Platform (PPP)

as a backbone for a strategic sourcing approach towards sustainability and innovation

Gonçalo Negrão
The City of Lisbon
Portugal

Procurement Planning Platform

as a backbone for a strategic sourcing approach towards sustainability and innovation

Lisbon Municipality

EAFIP WORKSHOP-WEBINAR

CLIMATE CHANGE: PROCURE GREENER

6 October 2022

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Contents

PROCUREMENT PLANNING PLATFORM

1 Procurement Strategy

2 E-Procurement

3 Procurement Planning Platform

4 Conclusion Remarks

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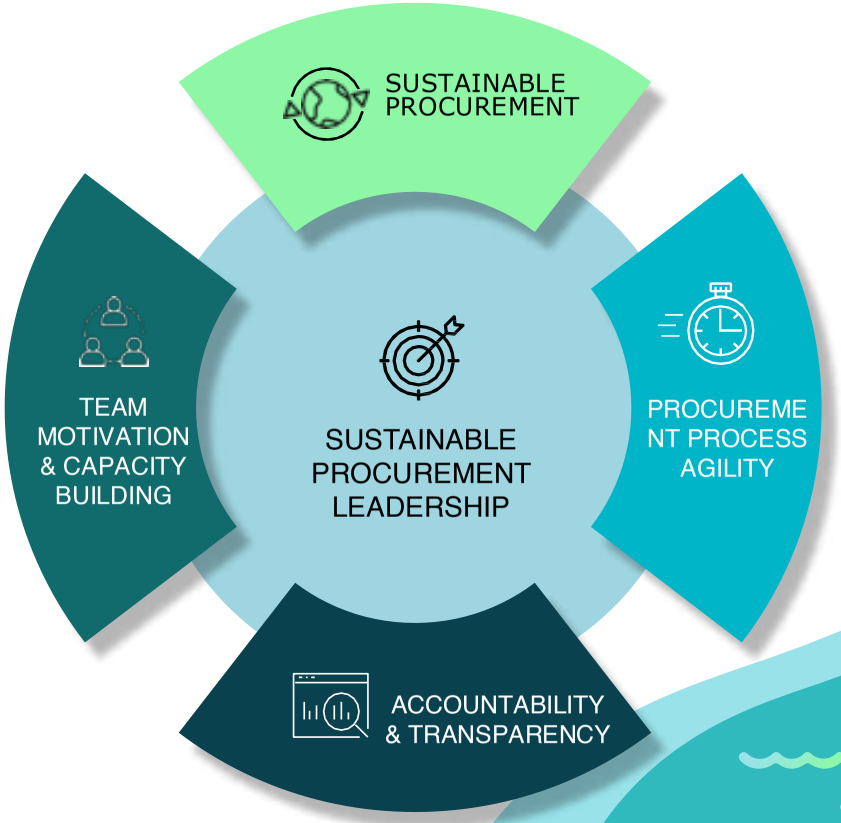
1

PROCUREMENT PLANNING PLATFORM

PROCUREMENT STRATEGY

The Lisbon Municipality Procurement Strategy 2021-2023 aimed to set the foundations for a sustainable procurement focus.

LISBON MUNICIPALITY PROCUREMENT STRATEGY 2021-2023



Leading sustainability with Public Procurement

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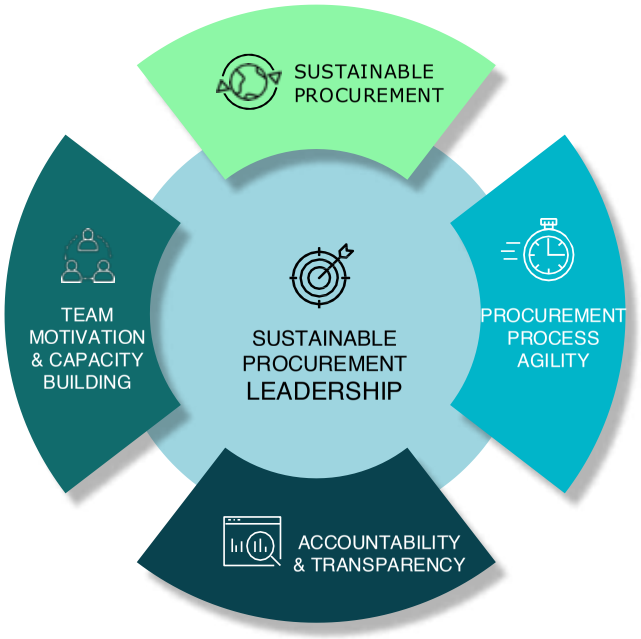
The Digital Strategy is a driver for the Lisbon Municipality Public Procurement Strategy

LISBON MUNICIPALITY PROCUREMENT STRATEGY 2021-2023



Leading sustainability with Public Procurement

01
SUSTAINABLE SOLUTIONS
Incentivizing local supply chains

PP Council

Commitmnent with Sustainability: Lisbon Supplier

ISO 20400 Sustainable Procurement

PP Innovation Lab & Open Innovation Programs with Suppliers

Guidelines for Sustainable PP

Sustainable PP Event (yearly)

Construction and demolition waste System for public works contracts (sustainability & circularity)

Technical guidance for maintenance and rehabilitation of school buildings.

Sustainability in Proposal evaluation criteria

03
TRANSPARENCY
Market Opportunities

Category management dashboard

Savings monitoring and allocation to sustainability projects

Open Contracting Data Standard (OCDS) Adoption

Procurement Reporting (yearly) through Data Analytics

Data Analytics for PP KPI

02
PROCUREMENT PROCESS AGILITY
Digital Transformation

Procurement Planning Platform & Budget Planning of Goods, Services and Works

Pre-Tendering Procurement Platform

Workshops on Sustainability

Contract Management Apps

Supplier Platform: PP Plan publication, evaluation (inc. sustainability) sustainability; open innovation

Contract Management Solutions

Portal for Schools

04
CAPACITY BUILDING
Digital transition, new skills

PP professionals Training Program

Procurement Network Portal

Training on new evaluation and award criteria

Sustainable Procurement Training Programs

Benchmarking

Technical guidance for Procurement Network focal points

Procurement Network Knowledge sharing events

New Working Space & Remote Work

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The Digital Strategy is a driver for the Lisbon Municipality Public Procurement Strategy, several digital tools were developed over these 3 years.

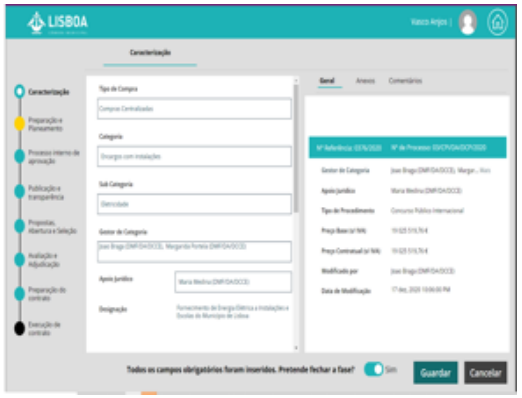
Digital Projects Developed / Under Continuous Improvement

PP Planning

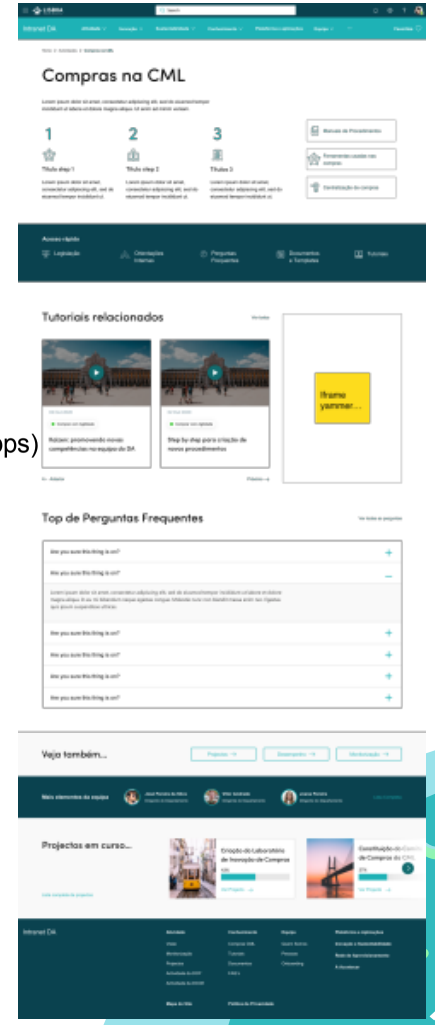
Data Analytics for Procurement Reporting (with *benchmarking*)

Data Analytics for PP KPI (PowerBI)

Apps for Centralized Contracting Support (Microsoft Power Apps)



Procurement Network Portal (Sharepoint Online)



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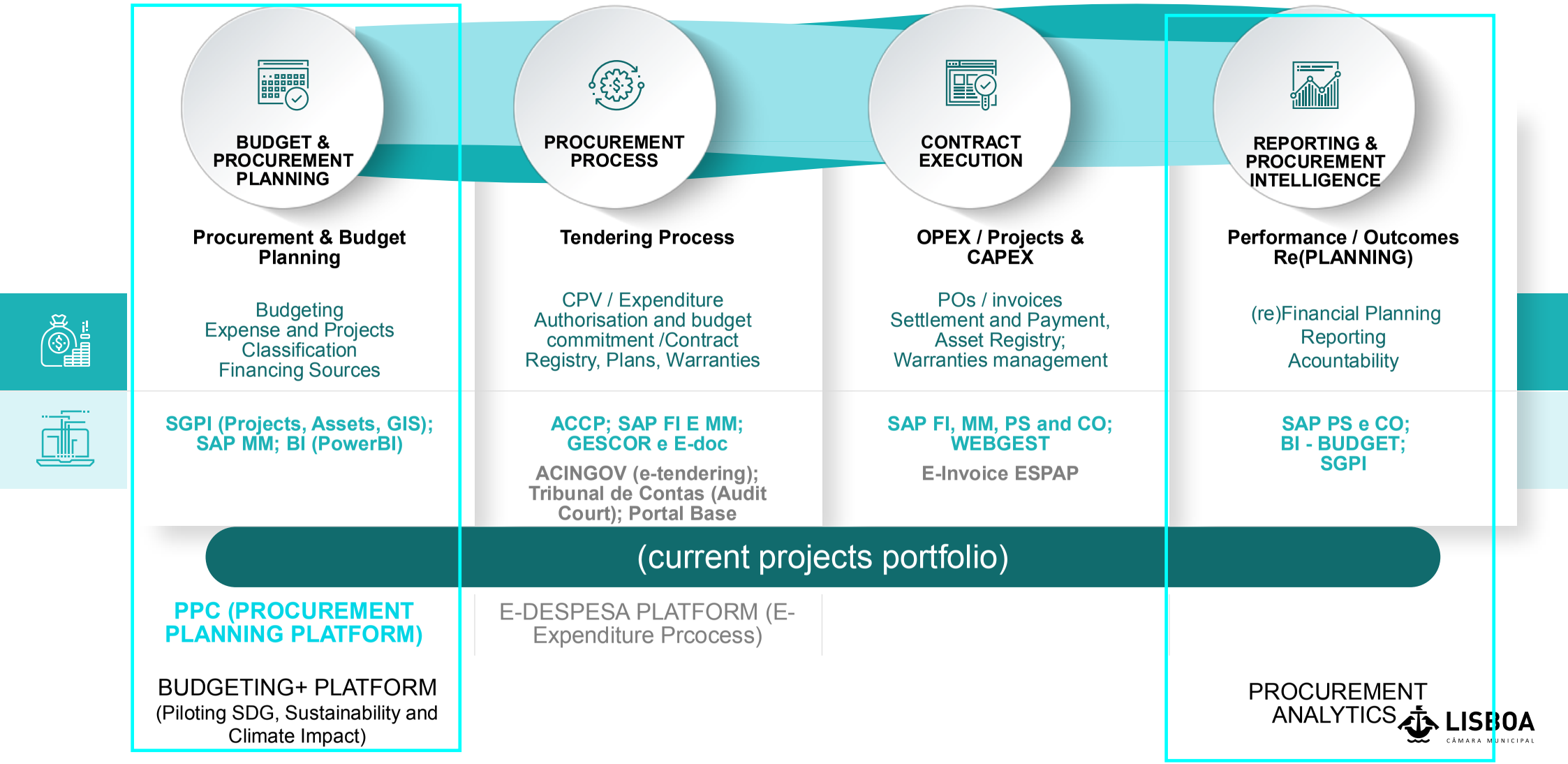
2

PROCUREMENT PLANNING PLATFORM

E-PROCUREMENT

Procurement Planning Platform e-Procurement and Digital Transition Strategy

The Digital Strategy for Lisbon Municipality Public Procurement is addressing areas that have insufficient coverage or outdated processes and support tools. Two Platforms are transforming the internal procurement process - Procurement Planning and e-Expenditure - and providing the learning experience on creating an e-procurement life-cycle enablement.



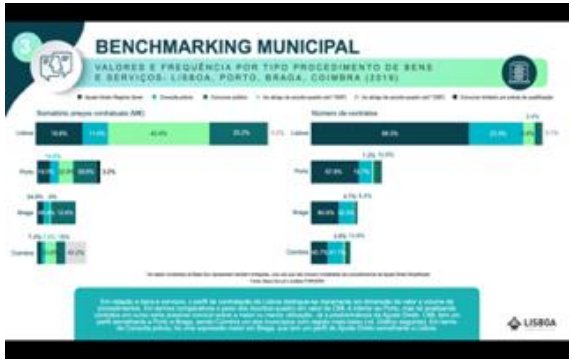
Procurement planning emerged as the critical area to address: balancing strategic sourcing with decentralized purchasing

Context

- The Central Purchasing Body (CPB) sets the overall procurement **strategy**. CPB procures centralized categories, such as Energy, Fuel, Water, Office Supplies, and Transports, and defines if other BUs can act as Centralized **Procurement Units** for the Municipality (Specialization approach).
- Nevertheless, the CPB is responsible for the legal review of all tenders above EUR 75K.
- CPB also have a sustainability review aligned with **ISO 20400** and an **Innovation component** aligned with PPI and Open Innovation action plan.
- This hybrid approach to procurement allows decentralized procurement through a network of more than 500 procurement-related staff (near 10.000 in total).

Challenges

- **Urgency**: an excuse to proceed with non-planned procurements;
- **Complexity of specifications**: an excuse for not considering sustainability and circularity in most PP tenders;
- **Scarce contracting of innovative SMEs and start-ups**, and the lead time is one of the vital issues that repulses these economic operators.
- **Lack of commitment of 1st tier suppliers** towards innovation and sustainable supply chain action.



CPI COMPRAS PÚBLICAS DE INOVAÇÃO
UMA INICIATIVA:
IMPIC
ANI AGÊNCIA NACIONAL DE INOVAÇÃO
ENCPE
Estratégia Nacional para as Compras Públicas Ecológicas
apa
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Procurement Planning Platform e-Procurement and Digital Transition Strategy

Procurement planning is key for an effective approach to a myriad otargets such as: climate action, carbon reduction, infrastructure and asset review.

Drivers

- CPB focus was to **foster innovation and sustainability**, helping to prioritize **green and responsible procurement** while promoting **local economic development through innovation.**
- **Public Procurement is instrumental for achieving a climate-neutral goal and other strategic goals.**

RNC2050

PNEC 2030 PLANO NACIONAL ENERGIA E CLIMA

ENCPE Estratégia Nacional para as Compras Públicas Ecológicas

Other National Strategies and Plans
National Legislation
City Government Program and Lisbon Municipaliy Guidelines

Covenant of Mayors for Climate & Energy EUROPE

C40 CITIES CLIMATE LEADERSHIP GROUP

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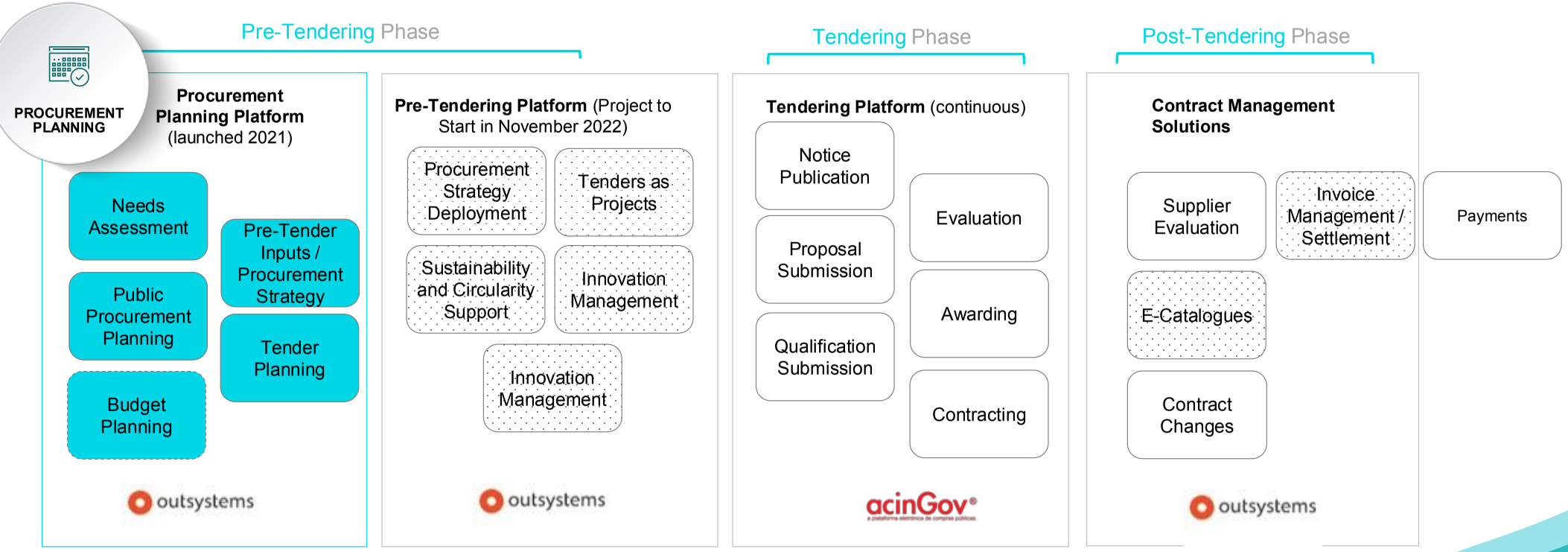
Procurement Planning Platform e-Procurement and Digital Transition Strategy

TheTendering Platform currently in use is acinGOV and it is certified by the GoP, integration of data from/for is a challenge to be taken along with Procurement Planning and Pre-Tendering developments.



SAP Financials (FI) and Materials Management (MM)

outsystems E-DESPESA (E-Expenditure)

The current and future systems are targeted for the adoption of OCDS

Design Phase – New Modules

Design Phase – Upgrades

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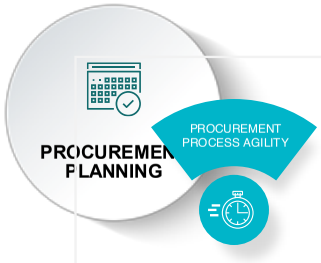
The internal team uses an agile project management approach.

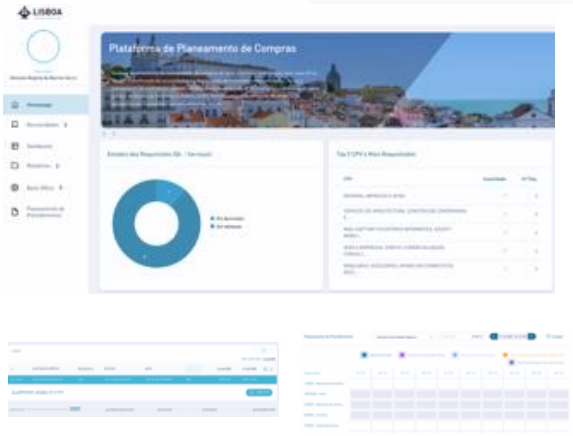


Execution

05/2020 — 05/2022

Project Characteristics:

PO: Isabel Camacho
PM: Filipa Gomes
Expert: Gonçalo Negrão
Team Members: Procurement Department Team and Pilot Clients



Project Name: **Public Procurement Planning Platform**

Project Description:

Platform to support the assessment of needs for the procurement of goods, services and works. Supports the procurement planning, allowing an adequate allocation of means and resources. It allows the identification and prioritization of sustainable and innovative procurement. It also allows the identification of the potential for aggregation of needs in centralized procedures.

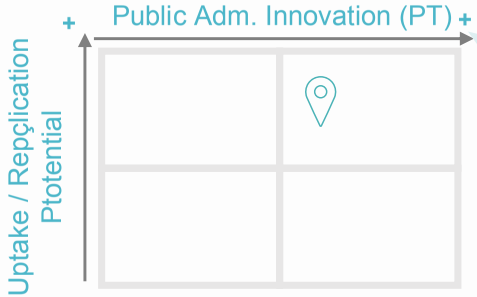
Key Expected Outcomes

- Procurement Annual Plan 2023 concluded by end of November with Budget 2023 approval.
- Procurement Annual Plan 2023 published in Open Data at LisboaAberta Portal

Next wave Milestones

- Procurement Plan baseline (end of Oct. 2022)
- New IT/IS catalogue

- Extension to Undertakings
- Replication at other Municipalities



- Few procurement planning platforms in the market. Recognized as good practice by ICLEI.

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Internal budget rules relates with procurement are being revised, following the improvements PP digital transformation. As an example, ***we share the rules for 2023 Budget execution related with PP Planning.***

Budget Rules

Municipal Procurement Planning

- By the **end of the third quarter of each year**, all Organic Units, Units under Municipal Management, and Schools **must register in the Procurement Planning Platform their purchasing needs for goods, services and works for the following years**, as well as the respective procurement tender procedures.
- The Procurement Unit will analyse the information resulting from the registry of next years needs:
  - to promote a sustainable-led sourcing strategy: economic, social and environmental,
  - to identify opportunities for circular procurement;
  - to identify PP of innovative solutions (PPI);
  - to rationalise existing resources;
  - to diversify tender selection;
  - to optimise the aggregation of needs.
- The Procurement Unit will mediate/propose adjustments with the BUs regarding setting a **Procurement Plan** with strategic objectives and outcomes. The Vice-Mayor will validate the resulting Procurement Plan.
- All needs for acquiring goods, services, and works not included in the annual planning must be registered in the Procurement Planning Platform, with the necessary justification.

Procurement Planning Platform e-Procurement and Digital Transition Strategy

The Procurement Planning Platform platform is one of the components of the new architecture of systems to support Lisbon Municipality procurement activity.

PROCUREMENT PLANNING

Needs Assessment

- Registration of **annual needs for goods, services and works**
- Assess specific needs (specific e-Forms / e-Catalogues), related with **centralized categories** (Water, Energy, Office Supplies, Security, Cleaning)

PP Planning (yearly)

- Create PP Plan Baseline and Final, and Provide Data for monitoring progress – **Planned vs Executed**
- Registration of **needs not foreseen** (extraordinary) in the annual surveys

Budget Planning

- Set-up of **budget thresholds** for the categories of goods, services and works
- Provide **financial classification and prioritisation of needs** by the BUs
- Provide early-stage information for **Asset-related expenditure (GIS)**

Tender Planning & Pre-Tendering Inputs

- Support **tender planning** and identify opportunities to **diversify the adoption of PP procedures**
- Reinforce **transparency and compliance with PP legal and regulatory principles**
- Provide data for subsequent pre-tendering phase: **streamlining and reducing time related with the procurement process**

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The Procurement Planning Platform is the backbone for a strategic sourcing approach that encompasses sustainability and innovation aiming to engage the market.

PROCUREMENT PLANNING

Sustainability

- To establish **sustainability targets** at the PP Planning stage, defining a **baseline for comparing with the contract data** (also improving the level of information provided to IMPIC: Base.Gov Portal).
- Identify intended **sustainability and circularity specifications or criteria** to be applied
- Challenge BUs for targeting **assets review**, and needs function-based approaches
- **Prioritise value chain and supply chain assessments** to identify obstacles to sustainability (implemen by waves)

Innovation

- **Increase PPI**, benefiting from the New Competence Center for PPI (ANI and IMPIC)
- **Identify Open Innovation initiatives:** involving 1st tier suppliers and Innovative SME
- **Incentivize a pilot-culture** and **Public Procurement Incubator approach** and take further advantage of the experience of the **Smart Open Lisbon Programs**
- Select targets for **preliminary market consultations**

Market Impact

- Adopt of **Open Contracting Data Standard** (OCDS) for publishing the PP Annual Plan
- Publish **Procurement Roadmap** for market engagement: PP types and Initiatives that complement the PP Plan
- Set-up Workshops with suppliers to **explain current needs** and receive **feedback on potential solutions** (next: 19 and 20 October)

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Internal budget rules relates with procurement are being revised, following the improvements PP digital transformation. As an example, ***we share the rules for 2022 Budget execution related with PP Planning.***

PROCUREMENT PLANNING

Note: Preliminary Plan will be the baseline to be measured against the final plan and against contract data with PP analytics tool

Steps of Procurement Planning

1Q 22	2Q 22	4Q 22	4Q 22
2023 PP Platform Improvements	Needs Assessment	Internal Discussions	Final PP Plan
2023 PP setup Work Sessions on Categories	Preliminary Plan	**Market targeted Discussions**	Procurement Plan **Open Data** Release
2Q 22	3Q22	4Q 22	4Q22 1Q23

"Building Solutions Together: Sustainability Criteria to Apply in Future Procurement Processes"

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Procurement Planning Platform e-Procurement and Digital Transition Strategy

In 2021, Lisbon Municipality PP took advantage from a Rapid Development Tool, Outsystems, and drove an Agile approach to developing a new tool, led by the PP Unit.

Technology Used

- The software development was done in *Outsystems*, a PT-born unicorn, Rapid Development Tool, that supports workflows and integration with other applications with high-usability standards (UI/UX included in the project).

outsystems

Requirements

- Our PP team defined the functional requirements and uses an agile/scrum approach (product backlog).
- We have consider OCDS standard.
- High-usability (UI/UX principles included in the project), In an early stage, we determined the UX standard so we could then move to a quick development phase.

I.P.

- Lisbon Municipality owns the PPP and started presenting the tool to other Public Entities.
- The technical developers document technically their developments and the IT Department reviews those developments.

Uptake / Replication

- The PP platform is developed considering its extension to Municipal Undertakings, and Schools.
- Public Entities are asking for PPP presentations. Our focus is to build a user community and explore opportunities such as joint-need assessment and subsequent joint-sourcing strategies.

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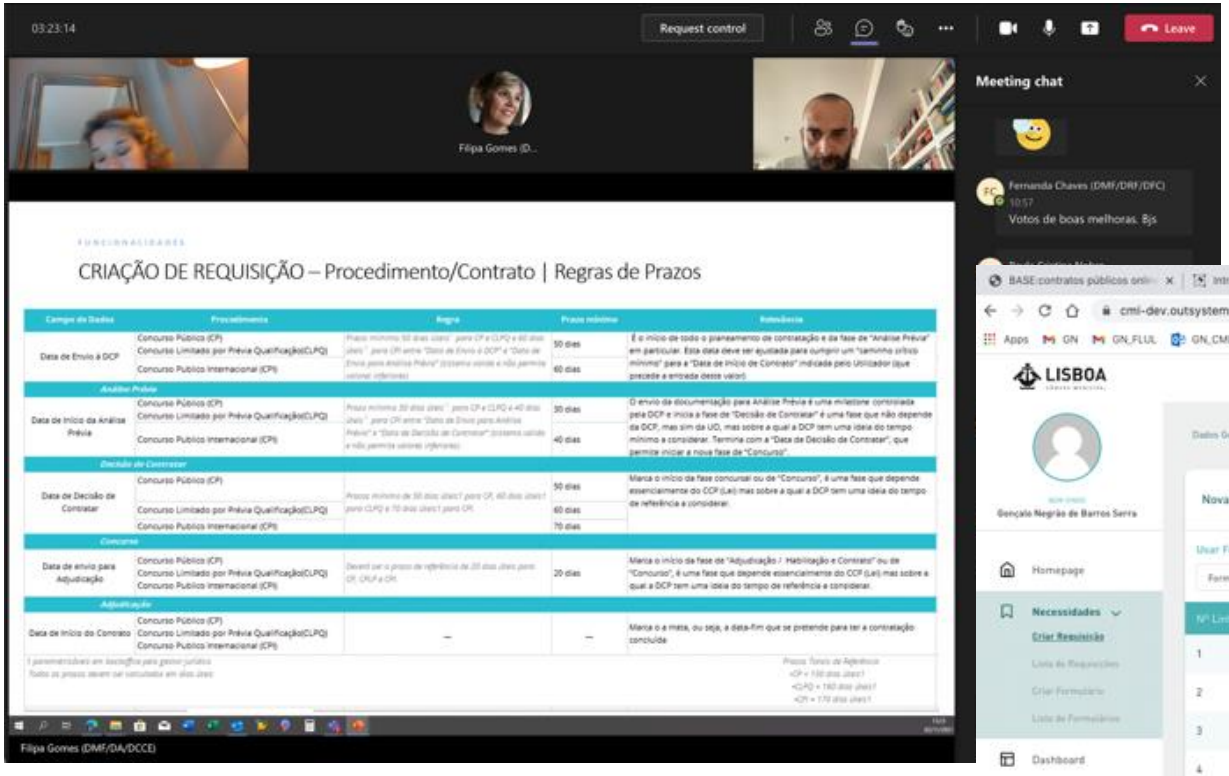
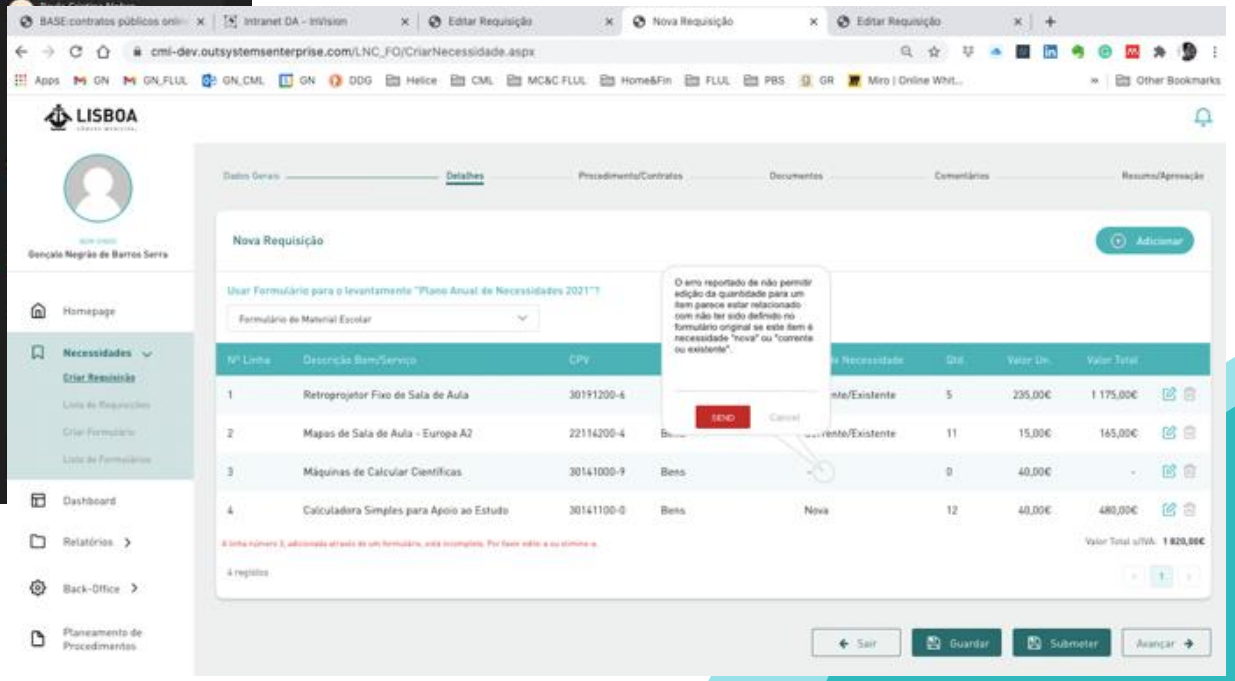
Procurement Planning Platform e-Procurement and Digital Transition Strategy

The design phase was led by the Procurement Department. Interactive testing tools were provided to users to capture feedback.

Design Phase

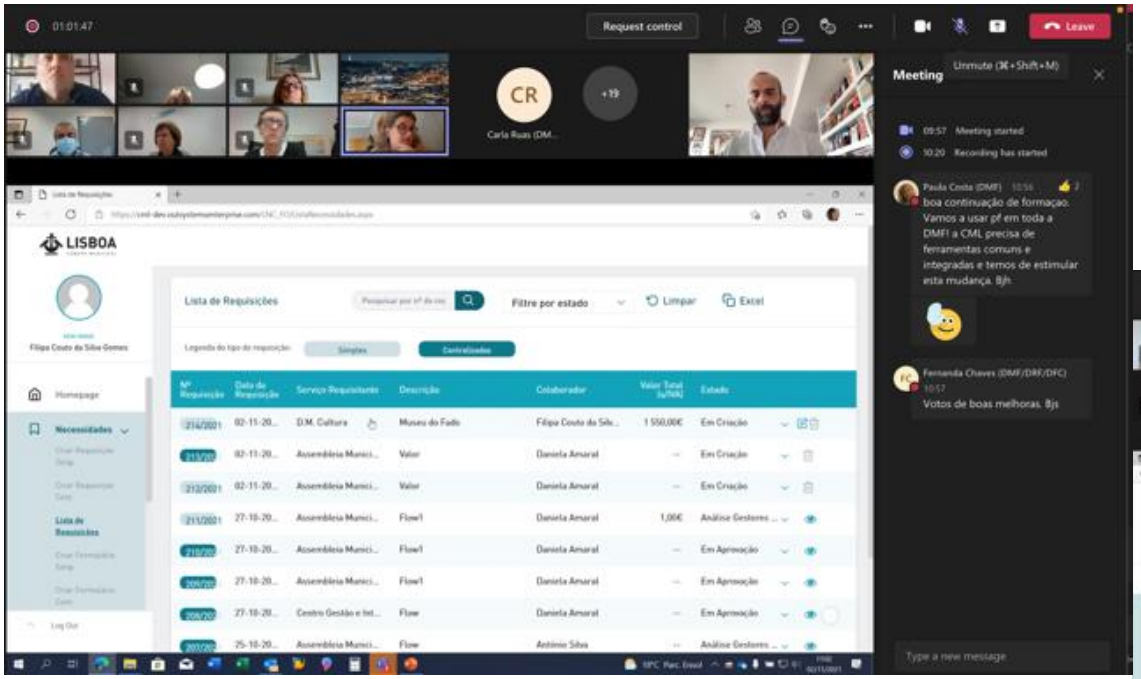


Testing Phase

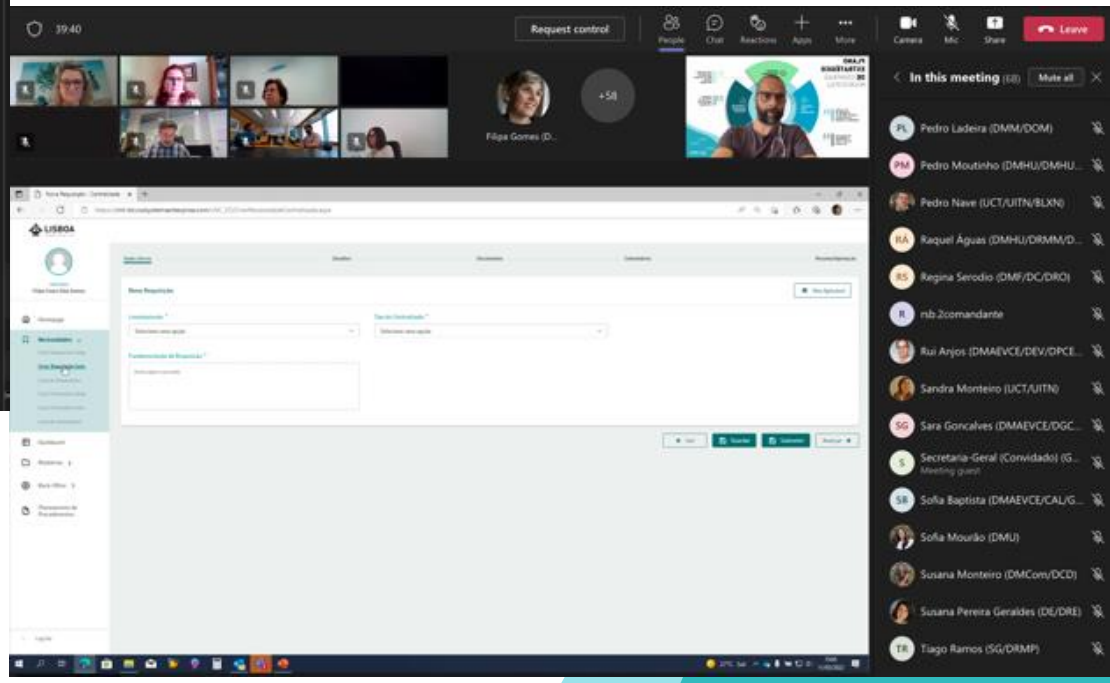


In The interaction with users was extended to Workshops to gather insights and capture future requirements for the product backlog

Procurement Department Training



UsersTraining



The PPP helped to incentivize the cloud-based approach and the independence towards developers.

I.P.	• Lisbon Municipality owns the PPP. • The technical developers document technically their developments and the IT Department reviews those developments.
Developers	• We have hired certified development companies recognized as *Outsystems* developers: in the first phase NTT Data (Everis) and Deloitte. We have spent the total of EUR 50 K in two contracts. • The PT Central Purchasing Body deployed a recent Framework Agreement for the development of *Outsystems* solutions.
Integration	• The system is integrated with our private cloud (Azure), which allows single-sign-one and data security; • We have developed an API that interchanges data between Outsystems and SAP and Document Management. Integration with tendering plaforrm is in the pipeline.
IT support	• The IT Department has deployed an internal *Outsystems Factory* to support the applications maintenance and development. Different IT suppliers can emulate components and reuse them and follow the design guidance (UI and UX). • Lisbon Municipality has developed +10 applications with this software.

The Procurement Planning Platform is finalist of the 2022 Innovation Procurement of the Year Procura+ Awards together with the Ministry of Economic Affairs and Climate Policy from The Netherlands.

2022 PROCURA+ AWARDS

The finalists for the 2022 Procura+ Awards are announced in all four categories: Circular Procurement of the Year, Innovation Procurement of the Year, Procurement Initiative of the Year and Sustainable Procurement of the Year.

Who are the judges?

The entries for the 2022 Procura+ Awards are assessed by a jury of procurement experts and policy makers:

- **Erika Bozzay**, Senior Policy Adviser at the Infrastructure and Public Procurement Division, OECD
- **Katharina Knapton-Vierlich**, Head of Unit, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, European Commission
- **Mark Hidson**, Global Director ICLEI's Sustainable Procurement Centre
- **Sarah O'Carroll**, Cities Lead, Institutions, Governments & Cities, Ellen MacArthur Foundation

ABOUT THE AWARDS

The Procura+ Awards highlight sustainable, circular and innovation procurements and tender procedures and give visibility to the most dynamic, forward-looking and innovative public authorities and their initiatives.

The procured solutions will have a strong potential for replication and scaling up and will be an excellent showcase in using sustainable, circular and innovation procurement instruments to purchase cutting edge solutions.

PROCURA+ AWARDS CEREMONY 2022

The winners of the 2022 Procura+ Awards will be announced on 12 October during the 2022 Procura+ Seminar, taking place in Brussels.

PROCURA+ NETWORK

https://procuraplus.org/awards/

2022 Innovation Procurement of the Year

Recognising the outstanding innovation of the procurement and the public authority as a launch customer.

FINALISTS

CITY OF LISBON PORTUGAL

Procurement Planning Platform (PPP)

In 2021, the City of Lisbon decided to develop a Procurement Planning Platform (PPP) as a backbone for a strategic sourcing approach towards sustainability and innovation. The PPP supports needs assessments, allowing the registration of annual needs for goods, works and services, identifying social, green and economic measures to consider in future tenders; it favours budget and procurement annual planning, also by identifying SDGs related to the PP initiatives.

The platform sets sustainability targets at the PP Pre-tendering stage, it identifies sustainability key-procurement areas in Smart Open Lisbon Program and, finally, it creates an Annual PP Plan and provides data for monitoring it. The PPP follows an internal regulation that defines the mandatory steps concerning the process level, allowing all procurement units to register and categorise their purchasing needs. In 2022, the roll-out has started and the PPP is being used to register procurements for 2023 and upcoming years.

MINISTRY OF ECONOMIC AFFAIRS AND CLIMATE POLICY NETHERLANDS

IWR2021 | Workspace Hardware (WpHW)

The IWR2021 project, handled by one of the government-wide purchasing categories 'Category ICT Workspace Central Government (IWR)', includes in its scope all ICT hardware for the national offices and employees of the central government. It consists of five cohesive European tenders for displays, laptops & fixed ICT workstations, Android & accessories, iOS, MacOS, and iPadOS devices and workspace services. The most important core values for IWR are sustainability and circularity, which are applied to all the tenders in the category.

IWR did a pre-market survey, entering into discussions with large manufacturers and vendors, which was then followed by a broad market consultation. Afterwards, they created an ambition web, which included sustainability, circular and CSR ambitions. The relevant sustainability aspects were translated into specific requirements and award criteria.

The IWR2021 is an extremely innovative project which has deeply challenged the market and set a new standard in the field, by applying many elements for the first time in ICT.

Some of the most important innovations include: for the first time in an ICT tender, CO2 footprints were requested and a Life Cycle Analysis (LCA) calculation had to be carried out for all products. Other newly introduced elements were the use of Fairtrade Climate Standard to compensate for all the CO2 emitted by the delivered products, and waste compensation had to be done through TCO Certified Edge E-Waste Compensated. The tender also required the use of EcoVadis as an independent scorecard for both resellers and manufacturers, with a focus on environment, labour, human rights, ethics and sustainable procurement. All products purchased, excluding accessories, had to be TCO Certified, and repairability and the availability of spare parts had to be ensured for at least 3-5 years after the end of sale on the Dutch market. So far, the project has led to 17% CO2 reduction compared to 1990, 3,364tzon of CO2 has been compensated through Fairtrade Climate Standard credits, and a strong increase of EcoVadis scores of resellers from 3% to 34%. They expect to reach even more ambitious results in 2022.

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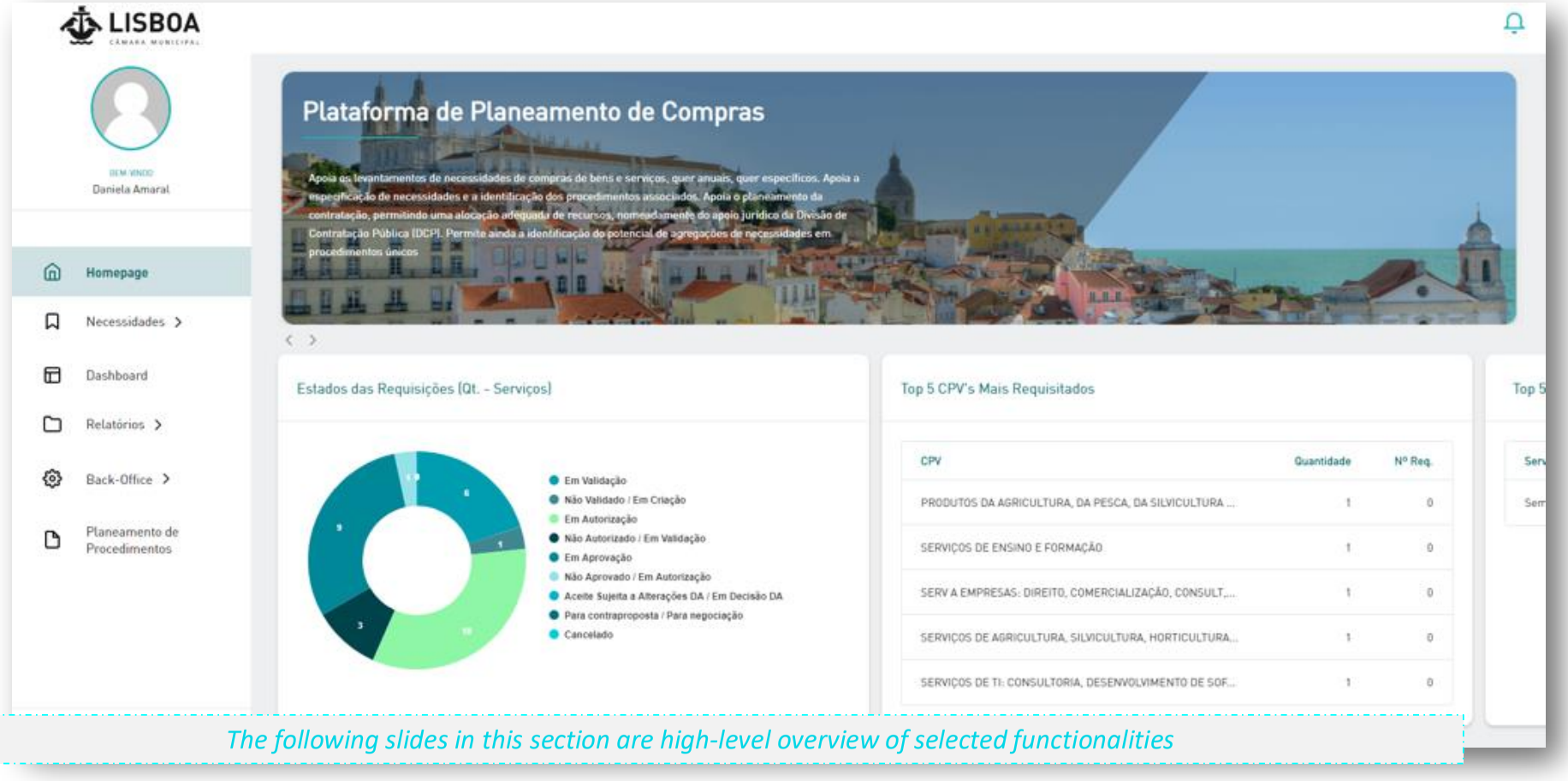
3 PROCUREMENT PLANNING PLATFORM

FUNCTIONALITIES

Homepage

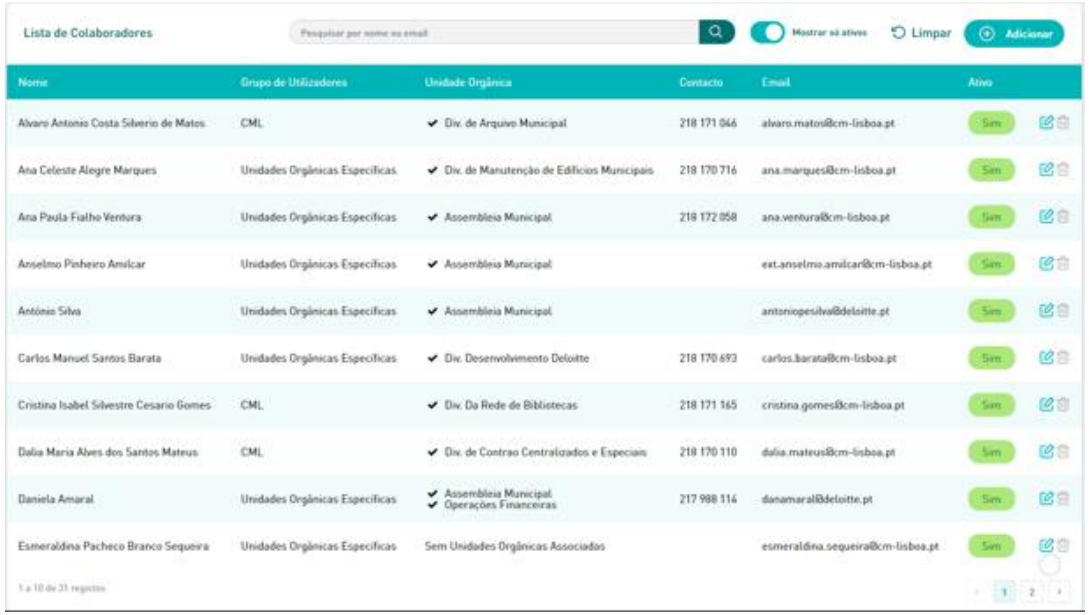
After logging into the platform, the user is redirected to the Homepage page. It is a welcome page, where the user can also have quick access to relevant information from his Unit. The pages and features of the platform have limited access according to user profiles.

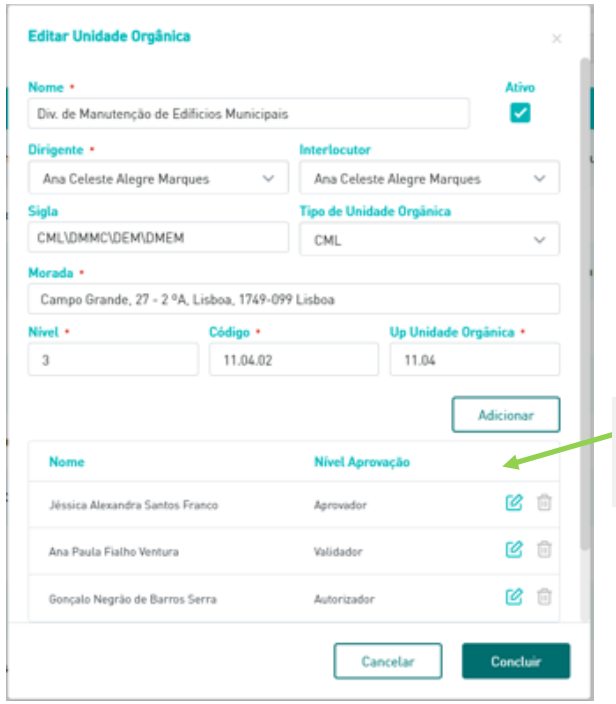


The following slides in this section are high-level overview of selected functionalities

Business Units & Users

After logging into the platform, the user is redirected to the Homepage page. It is a welcome page, where the user can also have quick access to relevant information from his Unit. The pages and features of the platform have limited access according to user profiles.





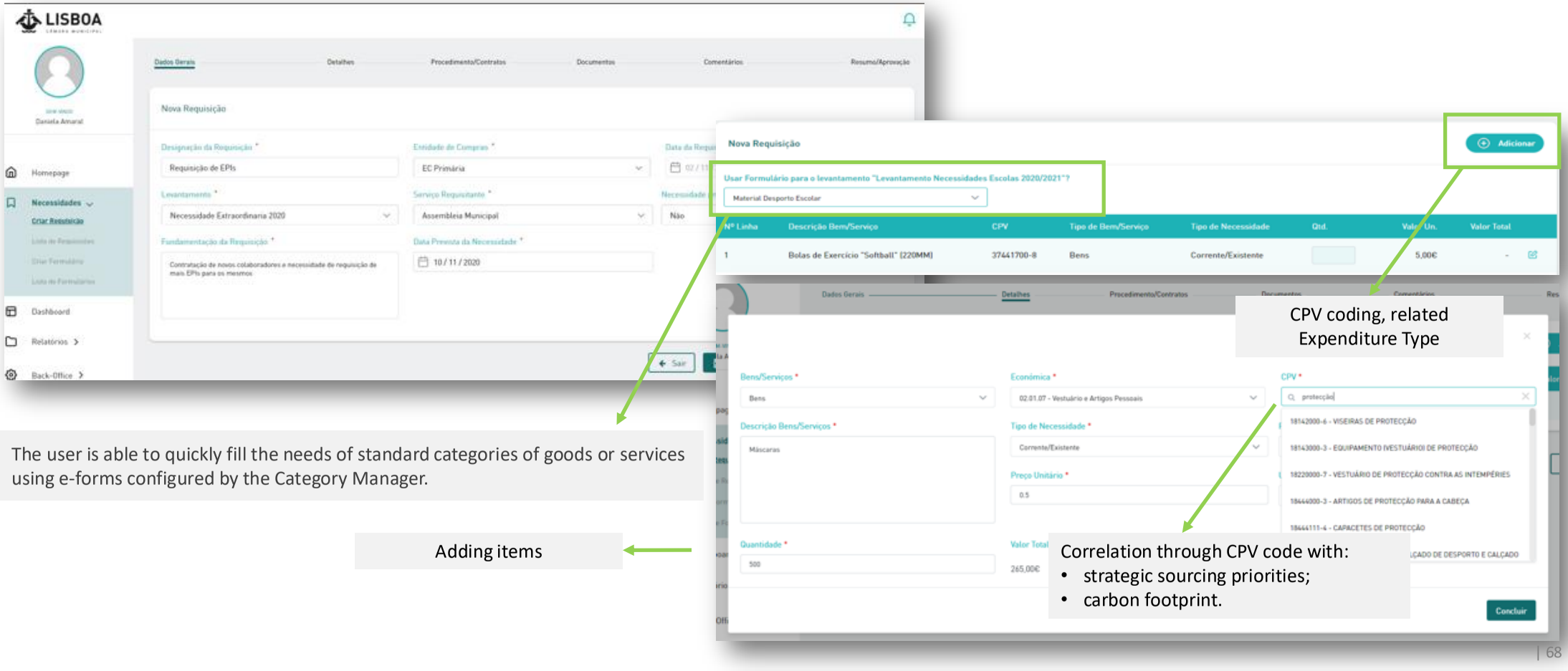
Approval Levels

The BU page can be accessed by: Administrator, Approver, Director, Purchasing Manager, Legal Manager, BU Procurement Liaison, Operator, Authoriser and Validator.

FUNCTIONALITIES

Procurement needs (assessment)

The purchase need can be fulfilled both by the operator and by any employee defined in the approval flow. This procedure is divided into 5 intuitive and complementary steps, at the end of which all information is centralized in a summary screen.



The user is able to quickly fill the needs of standard categories of goods or services using e-forms configured by the Category Manager.

Adding items

CPV coding, related Expenditure Type

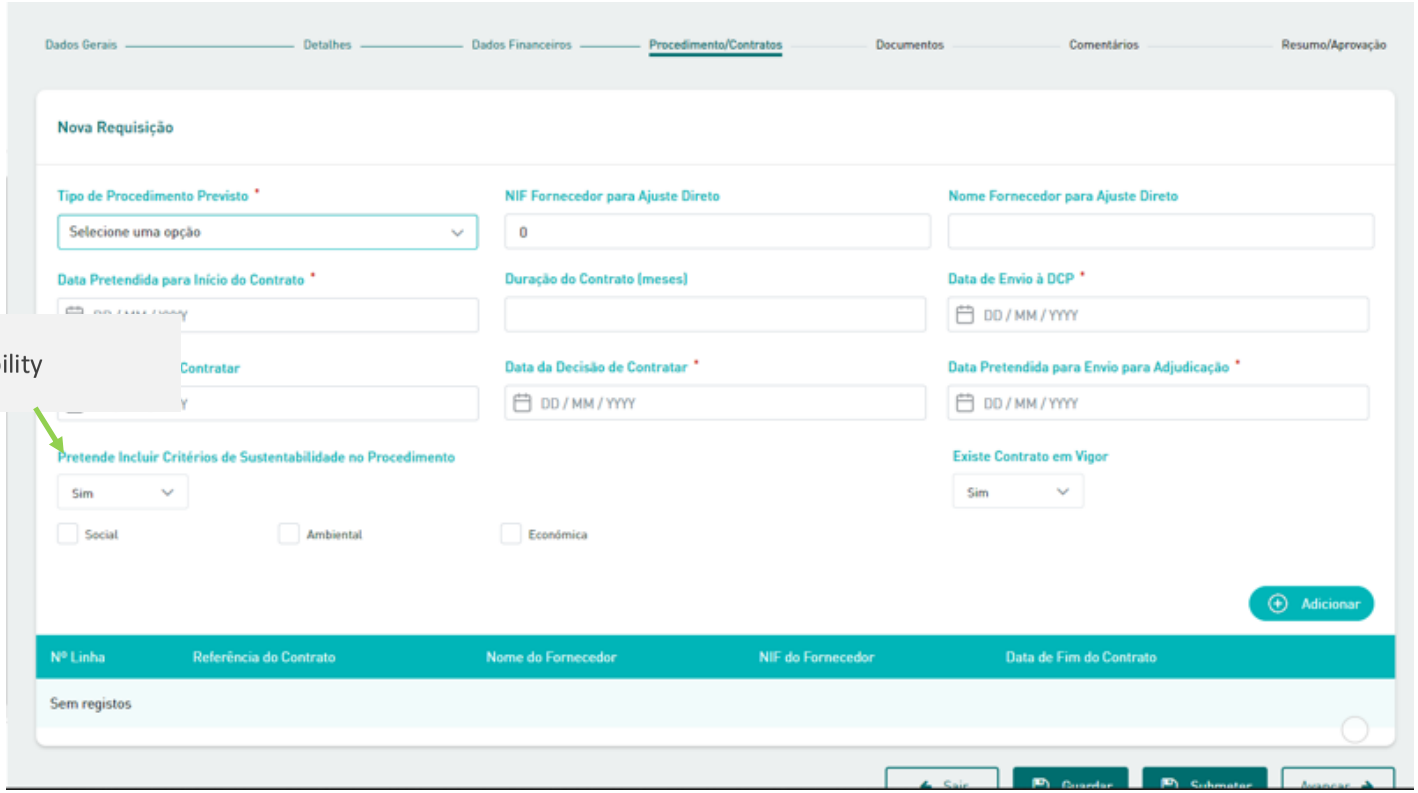
Correlation through CPV code with:
- strategic sourcing priorities;
- carbon footprint.

FUNCTIONALITIES

Procurement needs (assessment)

The purchase need can be fulfilled both by the operator and by any employee defined in the approval flow. This procedure is divided into 5 intuitive and complementary steps, at the end of which all information is centralized in a summary screen.

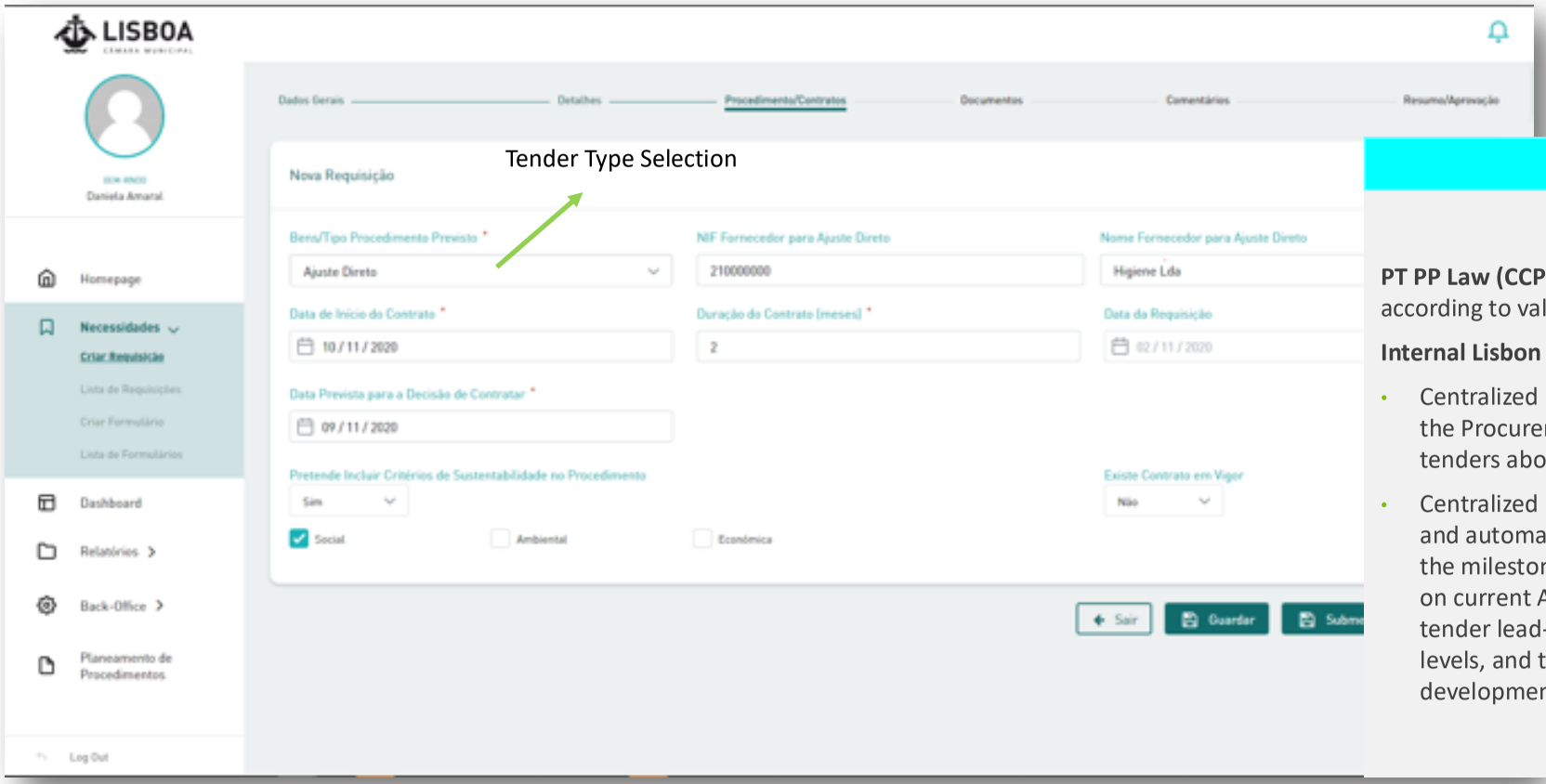
Preliminary Data on Sustainability



FUNCTIONALITIES

Procurement needs (assessment)

Após a adição de bens e/ou serviços, o utilizador avança para a seleção de procedimentos/contratos onde estão implementadas regras do CCP e da CML.



Rules

PT PP Law (CCP): Selection of tender procedure according to value thresholds(PT & EU).

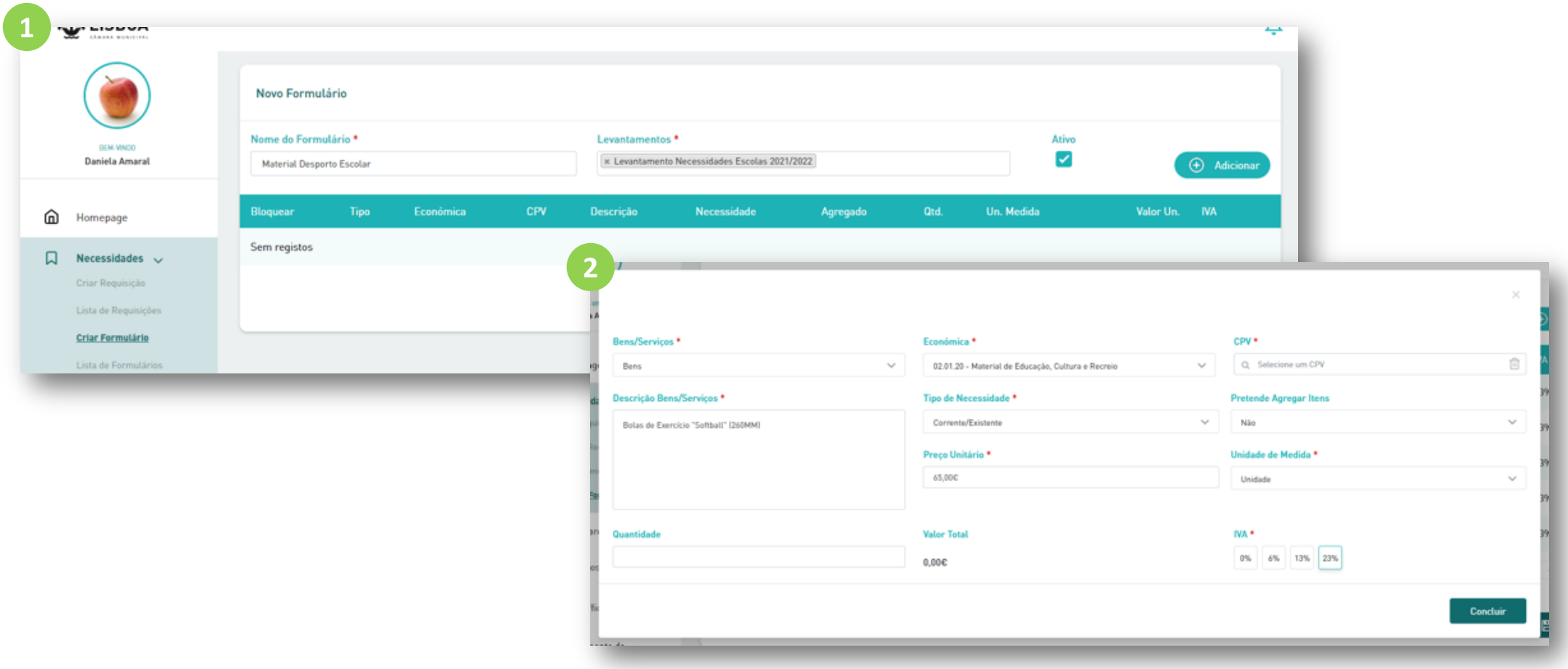
Internal Lisbon Municipality Rules:

- Centralized legal and technical validation by the Procurement Unit required for all tenders above EUR 75 K;
- Centralized legal and technical validation and automatic adjustment and guidance for the milestones of each phase: rules based on current Analytics calculation of each tender lead-time (and BU performance levels, and type of CPV – under development)

FUNCTIONALITIES

e-Forms / e-Catalogues

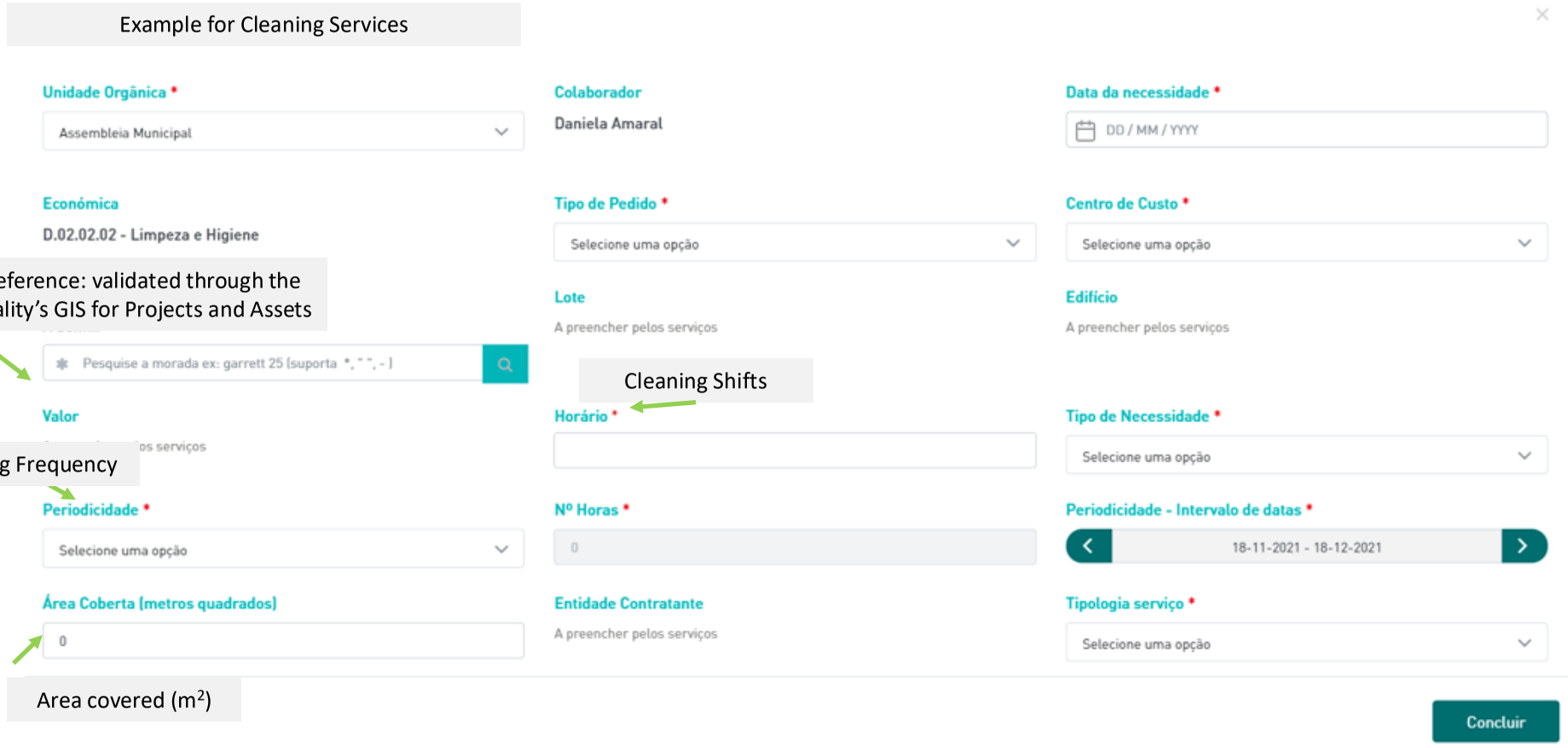
Category Managers can create e-forms that facilitate the data collection process related to procurement needs by users and e-forms for specifying procurement needs that allow the collection of additional information from centralized categories.



FUNCTIONALITIES

e-Forms / e-Catalogues

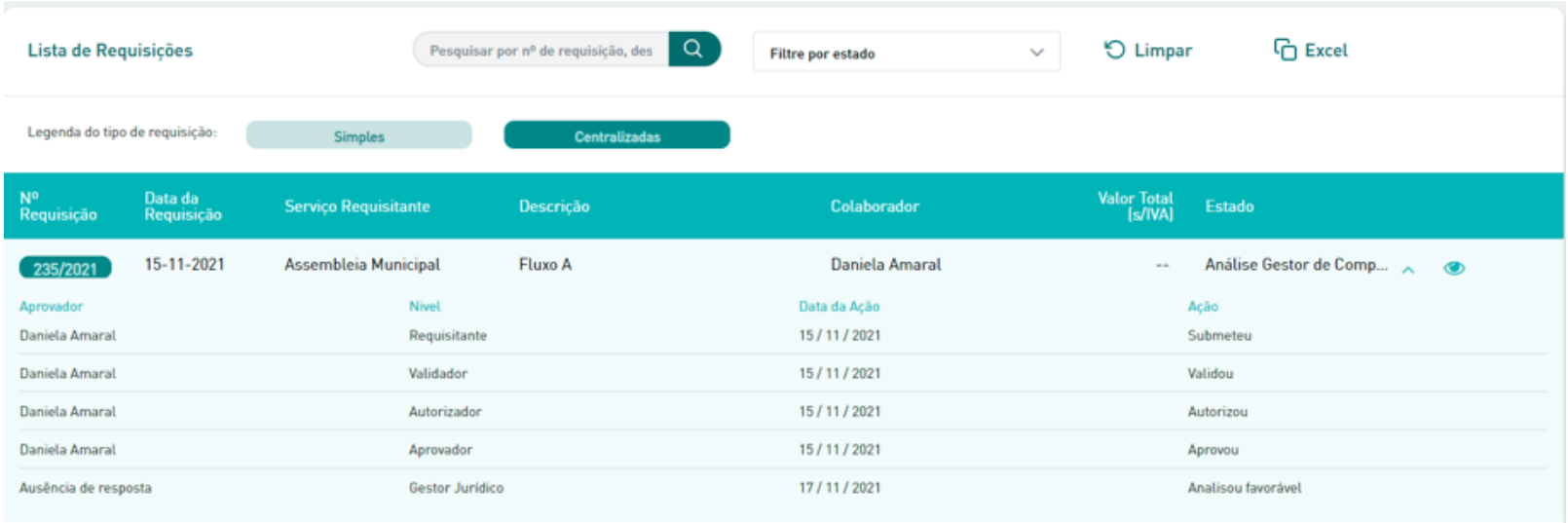
Category Managers for Forms and e-Catalogues with specific information to collect from the BUs. Categories such as: Electric Power, Gas, Water, Cleaning (services and products), Telco, Security, Office Supplies, etc.



FUNCTIONALITIES

Approval Workflow

The approval flow includes rules for notifications and rules for preventing excessive action



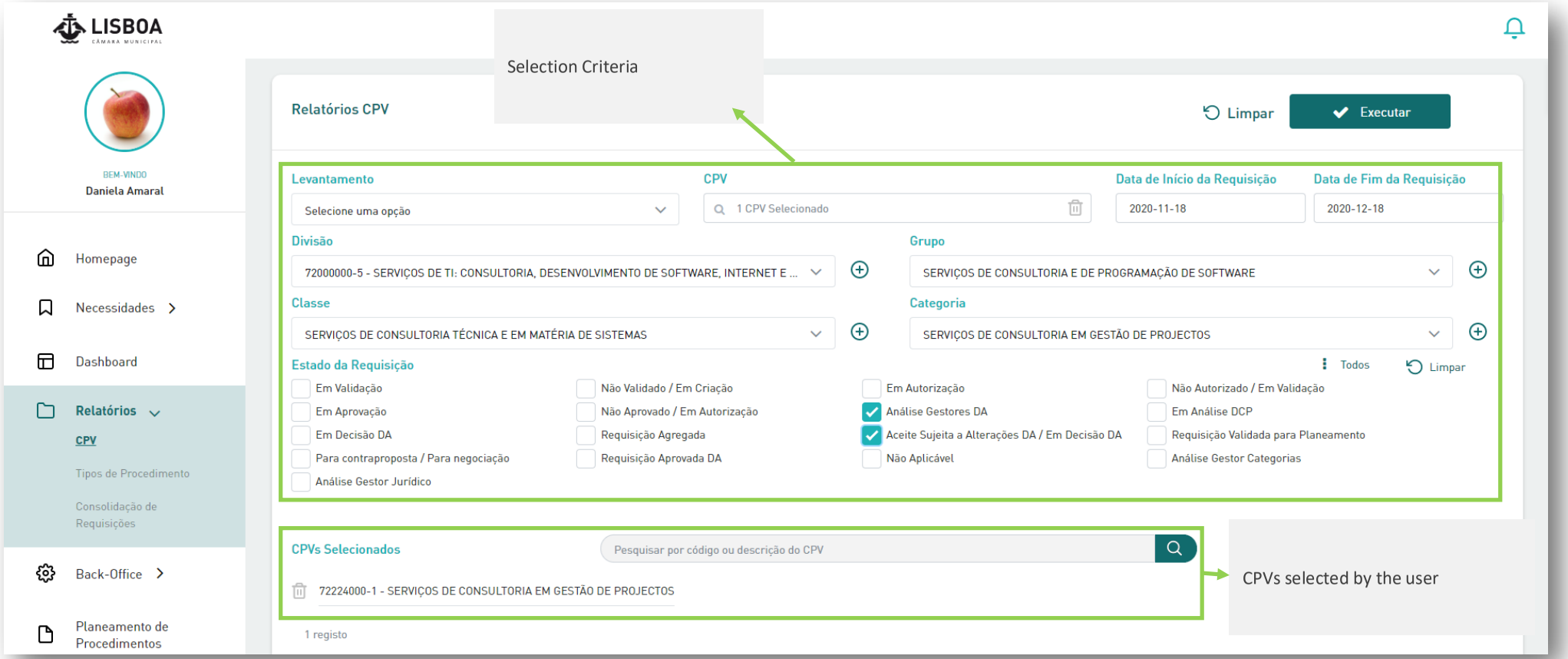
At each stage of the flow, the user can add a comment associated with the step of the approval. There are specific workflows for centralized and non-centralized procurement needs.

If the approval flow has been pending for more than 48 hours (configurable value), the employee who must take action is notified by email. After this notification, the user will have 48 hours to execute is action (configurable); otherwise, the request will move to the next level, and the non-response at the previous level will be registered.

FUNCTIONALITIES

CPV Reporting

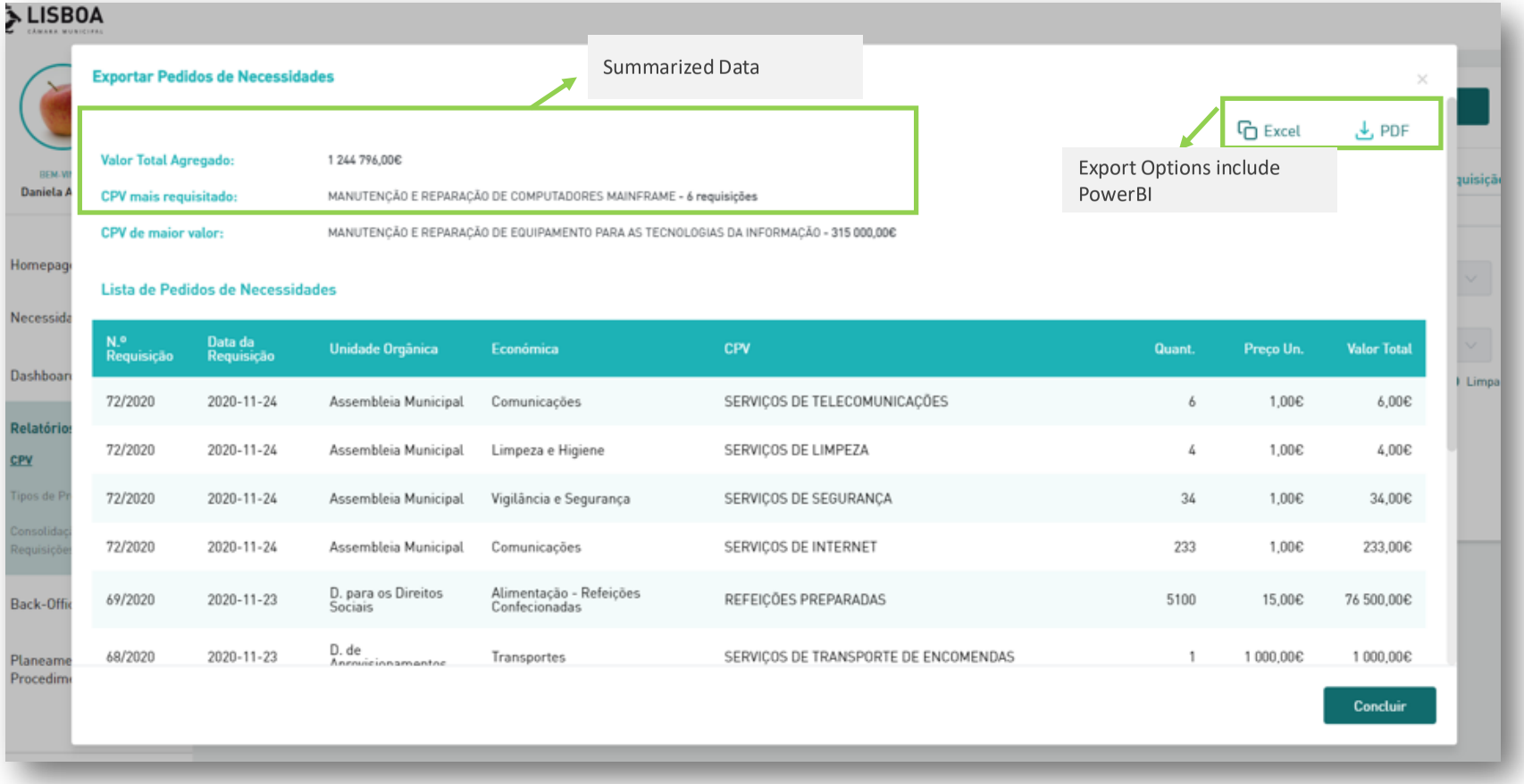
There are specific reporting tools



FUNCTIONALITIES

CPV Reporting

After executing the report, the user has access to a popup listing of the requisitions. The user can extract this information via excel, PDF. The system also provides data sets for the Municipality's Analytics (PowerBI).



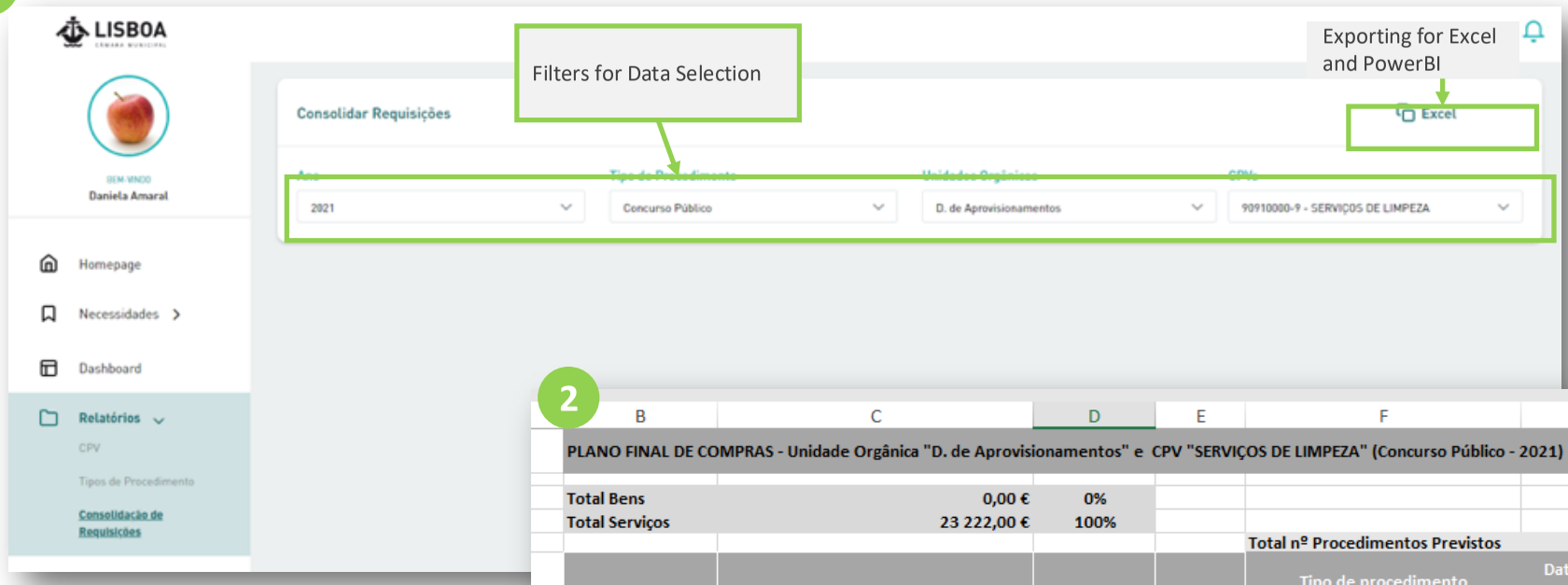
N.º Requisição	Data da Requisição	Unidade Orgânica	Económica	CPV	Quant.	Preço Un.	Valor Total
72/2020	2020-11-24	Assembleia Municipal	Comunicações	SERVIÇOS DE TELECOMUNICAÇÕES	6	1,00€	6,00€
72/2020	2020-11-24	Assembleia Municipal	Limpeza e Higiene	SERVIÇOS DE LIMPEZA	4	1,00€	4,00€
72/2020	2020-11-24	Assembleia Municipal	Vigilância e Segurança	SERVIÇOS DE SEGURANÇA	34	1,00€	34,00€
72/2020	2020-11-24	Assembleia Municipal	Comunicações	SERVIÇOS DE INTERNET	233	1,00€	233,00€
69/2020	2020-11-23	D. para os Direitos Sociais	Alimentação - Refeições Confecionadas	REFEIÇÕES PREPARADAS	5100	15,00€	76 500,00€
68/2020	2020-11-23	D. de Aprovisionamentos	Transportes	SERVIÇOS DE TRANSPORTE DE ENCOMENDAS	1	1 000,00€	1 000,00€

FUNCTIONALITIES

Tender Planning Reporting

Also in the reports, the user can export information regarding the procurement planning.

1



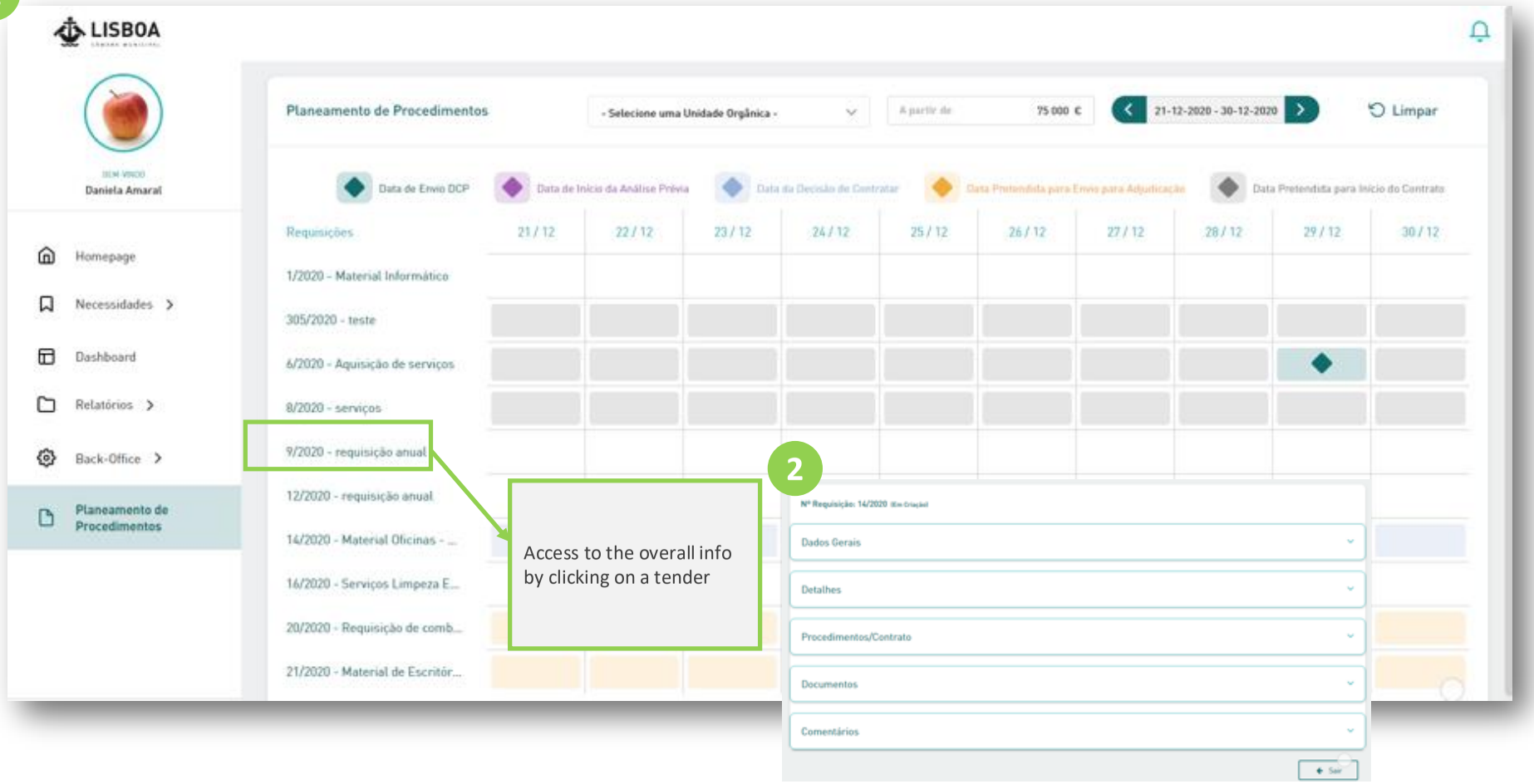
2

B	C	D	E	F	G
PLANO FINAL DE COMPRAS - Unidade Orgânica "D. de Aprovisionamentos" e CPV "SERVIÇOS DE LIMPEZA" (Concurso Público - 2021)					
Total Bens		0,00 €	0%		
Total Serviços		23 222,00 €	100%		
				Total nº Procedimentos Previstos	1
Económica	CPV	Serviço Requisitante	Valor total Estimado	Tipo de procedimento (Procedimento/ Tipo de procedimento)	Data prevista de Início de Contrato (Procedimento/ Dt Início de Contrato)
Limpeza e Higiene	SERVIÇOS DE LIMPEZA E SANEAMENTO	CML\DMF\DA	23 222,00		
Limpeza e Higiene	SERVIÇOS DE LIMPEZA	CML\DMF\DA	23 222,00	Concurso Público	January 21
Valor Total			23 222,00		

FUNCTIONALITIES

TENDER PLANNING

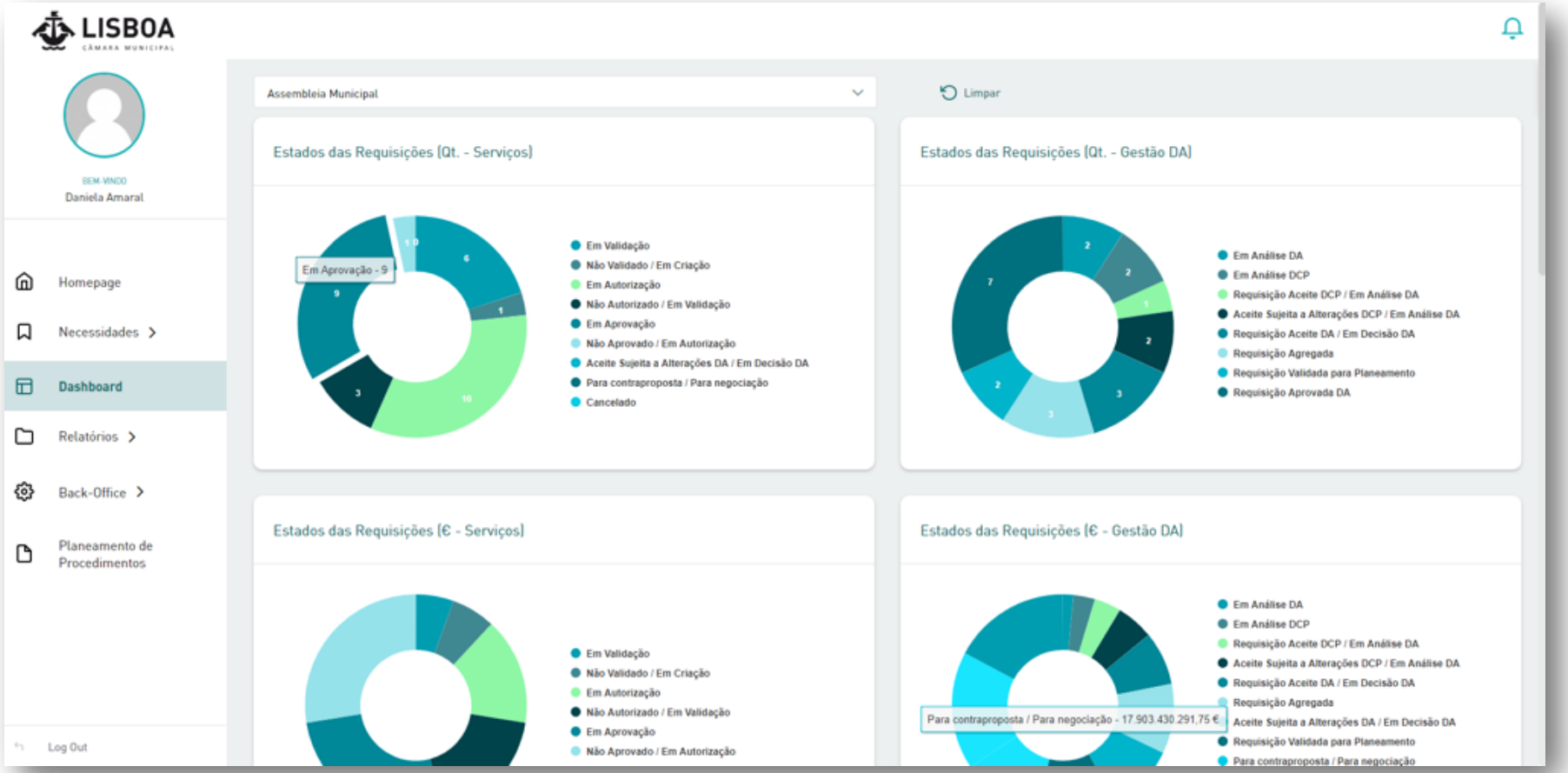
Users can visualize and export information regarding the procurement planning.



FUNCTIONALITIES

DASHBOARD

On the Dashboard, the user can follow up on the progress of the procurement planning process



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FINAL REMARKS

4

The PPP is integrated with other strategic projects that are being developed.

ACCOUNTABILITY & TRANSPARENCY

Project	Goal	Status	Outcomes
Procurement Reporting / Data Analytics Model for Procurement 	• Incremental automation of the calculation of Procurement KPI • Increased use of PowerBI to calculate metrics and KPI's associated with the purchasing process • Benchmarking with similar public entities • Piloting Open Source Tools for massive data analysys and ML.		✓ Procurement Report automated December 2022 (including Inclusion of new Risk, Sustainability metrics); ✓ Introduction of Supply Carbon Footprint data in 2023; ✓ Requirements for Procurement Report analytics and automation tool defined by end of 2023.
Open Data Model for Public Procurement OPEN CONTRACTING DATA STANDARD	• Design Open Data Model (OCDS) with support from the Open Contracting Partnership (OCP) • Prepare the publication of Procurement Planning data 2023.		✓ Open data schema for Procurement Planning and the remaining steps in the procurement process ✓ Technical requirements for the publication of the annual procurement plan defined

The PPP is integrated with other strategic projects that are being developed, using open data, stakeholder engagement, and technological innovations. This integrated approach is aimed to provide the city of Lisbon with an effective climate-driven procurement plan and promoting the uptake of circular and sustainable procurement, both social and environmental.

Project	Goal	Status	Outcomes

SUSTAINABLE PROCUREMENT

Sustainable Procurement with Open Data

OPEN CONTRACTING DATA STANDARD

ELLEN MACARTHUR FOUNDATION

Circular public procurement: a framework for cities

+

PROCUREMENT PROCESS AGILITY

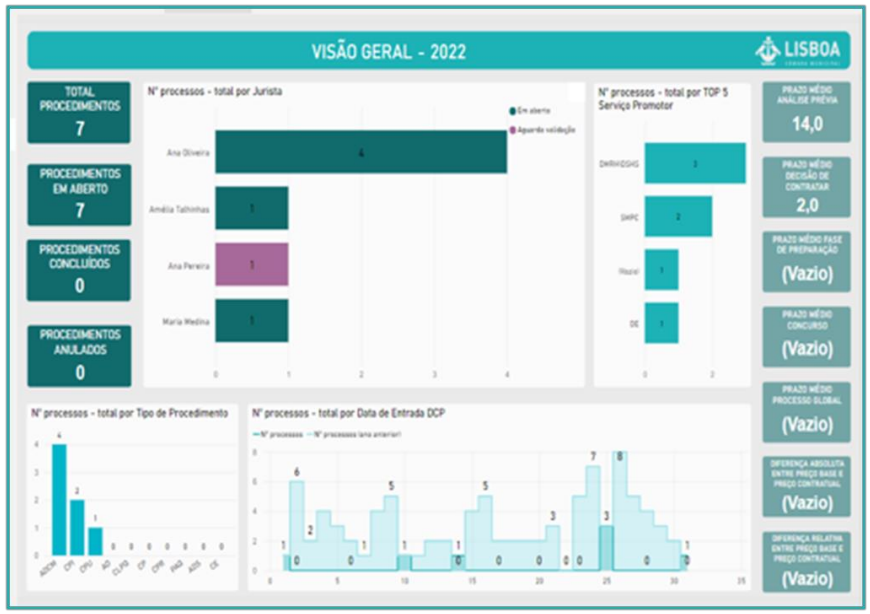
Pre-Tendering Platform

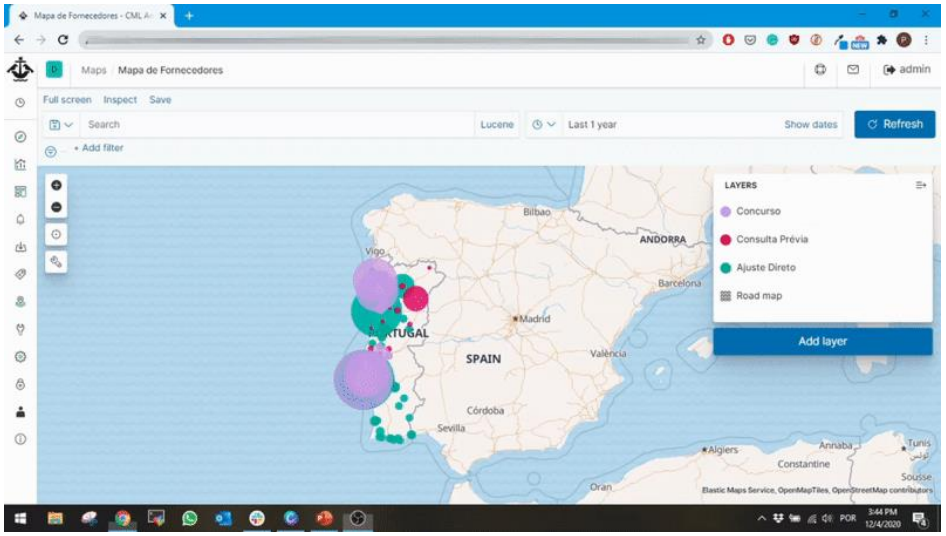
ecovadis

- Conduct a pilot project to measurably promote sustainable procurement in Lisbon using open data, technology, and collaboration approaches (e.g. piloting OCP's Green Flags guidance and Open & Sustainable Public Procurement toolkit and EMF's Circular Public Procurement: a framework for cities);
- Integrating Supplier Sustainability Scores as decision support system for direct procurement (together with benchmarking);
- Integrating carbon footprint related with PP supply chain to monitor and drive carbon neutrality.

- ✓ Understanding of how valuable current sustainable procurement guidance are in a real implementation environment;
- ✓ Transposing Lisbon's sustainability commitments into measurable public procurement objectives (KPIs).
- ✓ Early procurement data analysis (from PPP and historical) to evaluate which of the objectives identified can be measured using existing data and what data gaps exist to measure other objectives;
- ✓ KPI tracking mechanism, including technology solution (i.e. visual dashboard) and integration into existing processes to encourage early adoption;
- ✓ Co-design solutions for better sustainability performance over time.

The PPP data is analysed with Data Analytics Tools. The tool is performing benchmarking with other Municipalities: 10 years of data extracted through an API from the national database. PP contract a startup – Forcera, for this project.





*The role of PP is twofold: that of re-evaluating the Information Systems and Processes and proceeding with digital acceleration, and preparing the market for a recovery cycle guided by the incremental adoption of **sustainability & innovation**.*

2022– e-Procurement and Digital Related Planned Projects

Publication of +2023 Procurement Plan	Q4 22
Pre-Tendering Platform - 1st wave (Defining Functional Requirements for a new Platform that bridges Procurement Planning with the e-Tender Solution, to foster innovation and sustainability in the Pre-Tendering Phase)	Q4 22
OCDS Implementation – for the whole PP life-cycle (target is to publish at Lisbon Open Data Portal the Procurement Annual Plan +2023)	Q4 22
Pre-Tendering new Module: includes Climate Impacts and Sustainability Guidance (with OCP)	Q3 22
OCDS full PP assessment and PP Analytics Upgrade (Ongoing with support from a local analytics start-up and OCP)	Q3 22
Budget – Climate Impact & SDG - 1st wave	Q4 22
PP Planning Platform – Upgrade [Outsystems]	Q1 23
Supplier Innovation & Sustainability Portal	Q1 23

Design | Pilot | Deploy | Upgrade

Procurement Planning Platform

as a backbone for a strategic sourcing approach towards sustainability and innovation

Lisbon Municipality

EAFIP WORKSHOP-WEBINAR

CLIMATE CHANGE: PROCURE GREENER

Gonçalo Negrão / ext.goncalo.negrao@cm-lisboa.pt

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Joint Cross-Border Procurement DPS

of Fossil and Emission free Non-Road Mobile Machinery (NRMM) used in the construction sector, and in services related to garden and park maintenance in cities

Maria Matzen
Bird & Bird
Denmark

Bird & Bird

Procurement strategy for Low and Zero emission Non Road Mobile Machinery

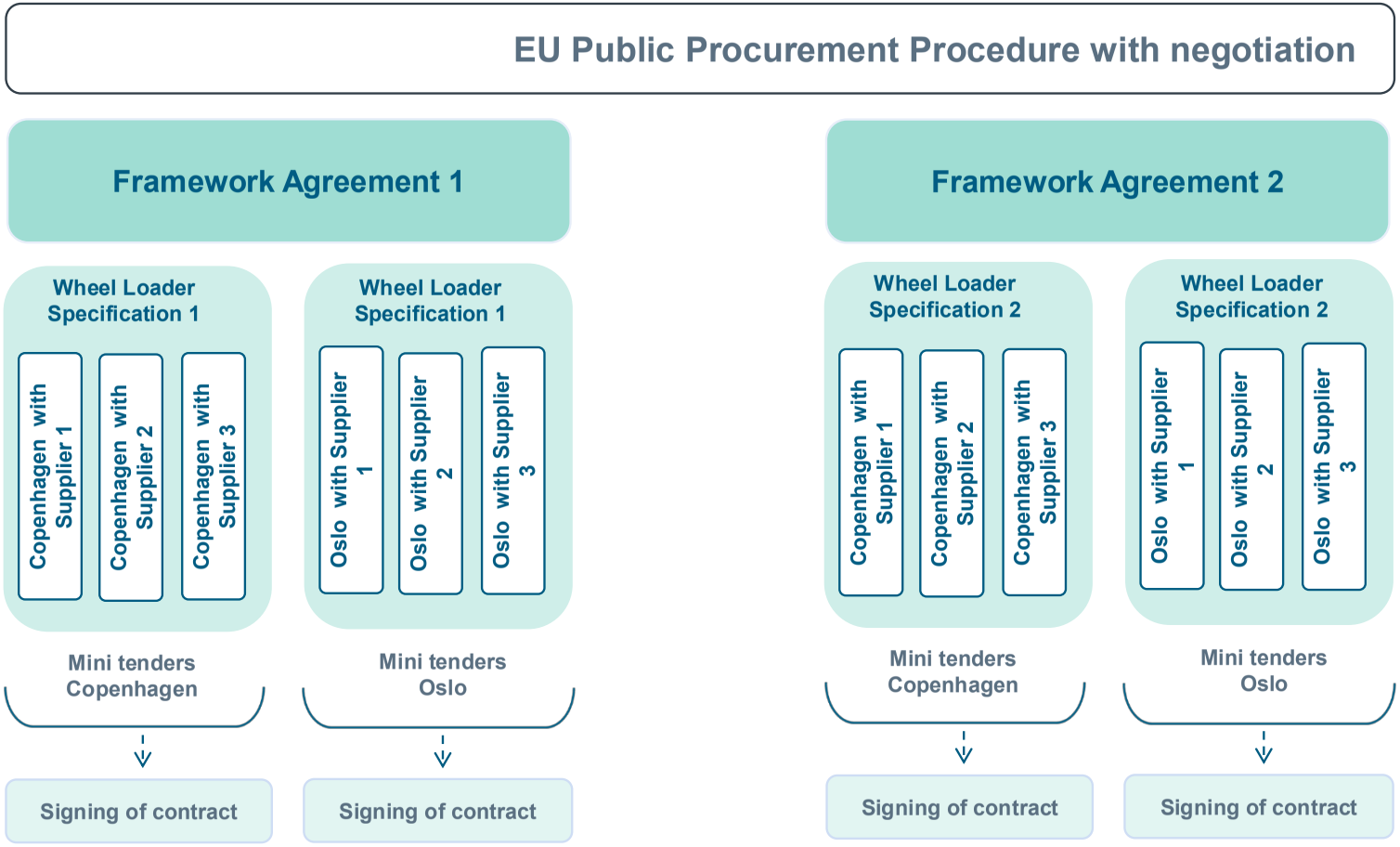
EAFIP Workshop

6 October 2022

Strategic procurement considerations

The key elements of the procurement strategy

Our starting point



Dynamic Purchasing System

Stage 1: Qualification basis

Participant in DPS

Stage 2: Competition

- **2.1) Competition**
- **2.2) Evaluation**
- **2.3) Documentation and award**
- **2.4) Signing of contract**

 6 October 2022

Conditions for participation

III.1.3) Technical and professional ability

Please provide the details of one contract in which the supplier has delivered a machine and services similar to the scope presented in the wheel loader specification.

The contract example must satisfy the following criteria:

— the contract example must include both sales and service and repair,
— the contract was regarding delivery of a non-road mobile machine (excavators, dumpers, wheel loaders),
— the contract must have been completed or substantially completed within the last 3 years.

Please provide a description of the supplier's green focus in the context of similar non-road mobile machines as presented in the wheel loader specification.

The description of the green focus does not require that the supplier has a machine on the marked with low or zero emission.

Wheel Loader Specification

Specification for Competition

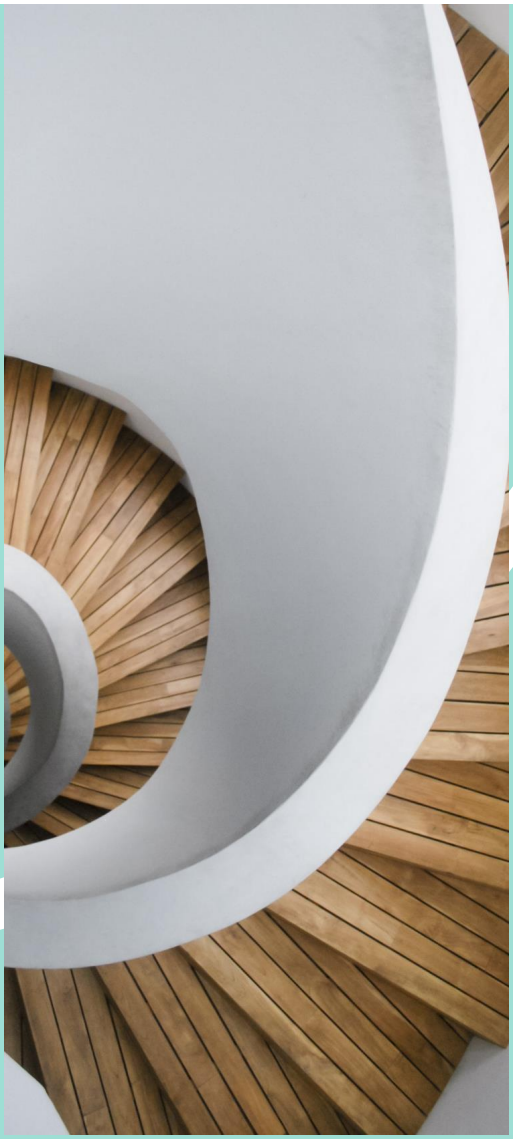
Minimum requirements

(from requirement number 1.1 to 1.5) for **all** Competitions

Structural functionalities

Requirements (from requirement number 2.1 and below) that can be **selected** for each Competition

Machine functionalities	Zero emission	Low emission	Charging	Ergonomics	Additional options	Service agreement and technical courses



Legal obligations and concerns

Directive 2014/24, Article 39

Procurement involving contracting authorities from different Member States

- Contracting authorities shall not use the means provided in this Article for the purpose of avoiding the application of mandatory public law provisions in conformity with Union law to which they are subject in their Member State.

The Public Procurement Act, Section 125

Collaboration Agreement: The participating contracting authorities shall conclude an agreement that determines:

The distribution of the obligations of the contracting authorities and the national provisions which apply in relation to the purchase envisaged.

The internal organisation of the procurement procedure.

Legal obligations and concerns

Liability

	Internal	External
Qualification basis	Main rule: Jointly Caused by part: When the matter is solely or largely due to the actions of one Party or breach of its obligations.	Jointly
Competition	Main rule: Individual Exceptions: General provisions decided upon in unity.	Individual
Contract	Individual	Individual

Maria Matzen

Maria.matzen@twobirds.com
+45 30 77 79 72

Thank you

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Q&A

Coffee break

PART III

PCP-PPI SECTORIAL APPROACH (MOBILITY & ENERGY)

Pre-Commercial Procurement

turns the dream of emission free public fast ferry into reality, The Hurtigbåt project

Ragnhild Harsvik Ødegaard

Trøndelag County Council

Norway

Trøndelag fylkeskommune
Tröndelagen fylhkentjïelte

Pre-Commercial Procurement turns the dream of emission free public fast ferry into reality

The Hurtigbåt project

EAFIP WORKSHOP - WEBINAR
CLIMATE CHANGE: PROCURE GREENER
6th October 2022: 9.30 – 12.30

Background

- 2017: Sør-Trøndelag County Council realised they had to do something to lower the emissions of the public ferry services
- 85 % of the GHG emissions from the County's business came from the transport sector and fast ferry connections were responsible for the same amount of emissions as the bus transport in Trøndelag combined
- The market had not developed or tested any zero-emission technology for fast ferries yet and reducing these emissions required new development work
- The County authority aims to use its purchasing power to stimulate the development of new climate-friendly technology

The hurtigbåt project part I - a recap

- Sør-Trøndelag County Council took the lead to launch the pre-commercial procurement: "Enable zero emission operation of scheduled express boats that can carry at least 275 passengers at speeds of minimum 30 knots over 95 nautical miles" (Distance Trondheim-Kristiansund)
- 11/19 County authorities participated: Finnmark, Troms, Nordland, Møre og Romsdal, Sogn og Fjordane, Hordaland, Rogaland, Oslo, Akershus and Oppland
- 5 consortia (out of 7 tenders, in which 30 companies had participated in total) were awarded contracts, NOK 2 million each

- The five consortia came up with different concepts to address the problem: They proposed different types and configurations of renewable energy, that ranged from pure battery to pure hydrogen, to hybrid hydrogen / battery solutions. The projects also considered that a transition to a zero-emission society would require a change in energy production and storage.
- The market offered valuable input for designing and building fast ferry passenger vessels for the future, but also documented the necessity of an extended development program in order to fullfill the ambitions of creating zero emission fast ferries.

The hurtigbåt project part II

- Main aim: The County Councils seeks to enable the market to develope the fast ferry of the future, through the design and implementation of two competitions. The project aims to build 4 pilot vessels.
- Main requirements: Zero emission, high speed (30-40 knots), energy efficient design
- Divided into two project runs to separate the innovations:
  - Hydrogen as an energy carrier
  - Energy efficient design
- Joint project between 4 County Councils: Trøndelag, Nordland, Vestland and Troms & Finnmark
- Funding: «Klimasats» – a programme under The Norwegian Environment Agency + contributions from each County

Run 1: Hydrogen as an energy carrier

- Procedural form: Competitive dialogue
- Aim: Develop and demonstrate hydrogen driven fast ferry passenger vessels. Obtain safety approval from the The Norwegian Maritime directorate for using hydrogen on fast ferry passenger boats
- Main requirements (tentative): 275 pax, range 160 nm, wow-effect
- Tender announced spring 2022. 4 consortia were prequalified and three were invited to the dialogue phase
- Status: Dialogue phase just begun – first dialogue meeting at the end of october

Milepæl	Dato	Merknad
Invitasjon til markedsdialog	Desember 2021	
Samtaler med markedet	Januar 2022	
- *Tilbudskonferanse (avbrutt anskaffelse)*	28. April 2022	Gjennomført digitalt – Svar på spørsmål som ble stilt og slidepakke publiseres sammen med dette konkurransegrunnlaget i vedlegg 2
Kunngjøring av konkurransen	19. mai 2022	
Spørsmålsfrist for kvalifikasjonssøknader	10. Juni 2022	kl. 12.00
Kvalifikasjonsfrist	20. juni 2022	kl. 12.00
Invitasjon til å delta i dialog*	1. juli 2022	
Obligatorisk møte med Sjøfart	August 2022	Heldagsmøte med alle om dialogfasen
Dialogfase - Endelig konkurransegrunnlag utformes - Kontrakt oppdateres med billag	Juni 2022 – juni 2023	
1. dialogmøte*	September 2022	Tentativt
2. dialogmøte*	Desember 2022	Tentativt
3. dialogmøte*	Mars 2023	Tentativt
4. dialogmøte*	Mai 2023	Tentativt – vurdering av behov for ytterligere dialogrunder
Invitasjon til tilbudskonkurranse**	10. juni 2023	
Tilbudsfrist***	20. September 2023	
Kontraktsignering	1. november 2023	

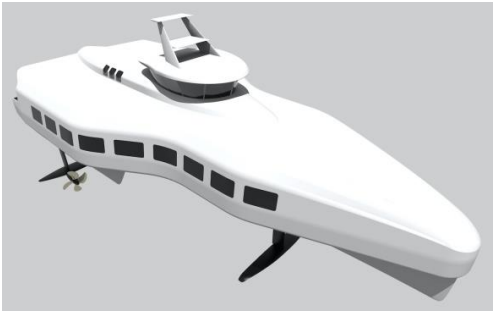
Run 2: Energy efficient design

- Main requirements: Zero emission, high speed (30-40 knots), range of minimum 40 nautical miles without refueling/charging, 30 % improved energy efficiency compared to reference vessels, neutral energy carrier, 150-180 pax
- Procedural form: Pre-commercial Procurement
- Tender announced fall 2021: 8 offers received
- 6 suppliers were prequalified and further invited to participate in phase 1 – basic design. R & D contracts signed in november 2021.
- Milestone just before easter 2022 – participants were reduced from six to four
- Suppliers received funding of up to 1.5 million NOK, with a requirement of min. 15 % deductible in phase 1

Current status

- Phase 2: Suppliers working on verifying their calculations on energy efficiency from the first phase
- All the suppliers chose battery-electric as their energy carrier, service speed of 40 knots and capacity from 165-180 pax
- Compensation limited to 10 million NOK per supplier
- Next milestone: December 2022
- Phase 3 – contract design: January-May 2023
- Results from the first phase suggest that the goal of min. 30 % improved energy efficiency is possible, with no participating vessel surpassing 35 m length

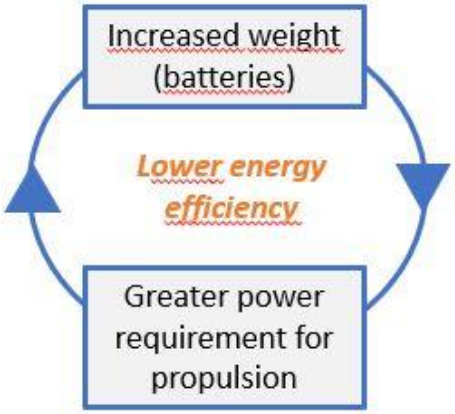
Participating concepts

	Single hull	Catamaran	Trimaran
Foil assisted			
Air cushion tech-nology (SES)			

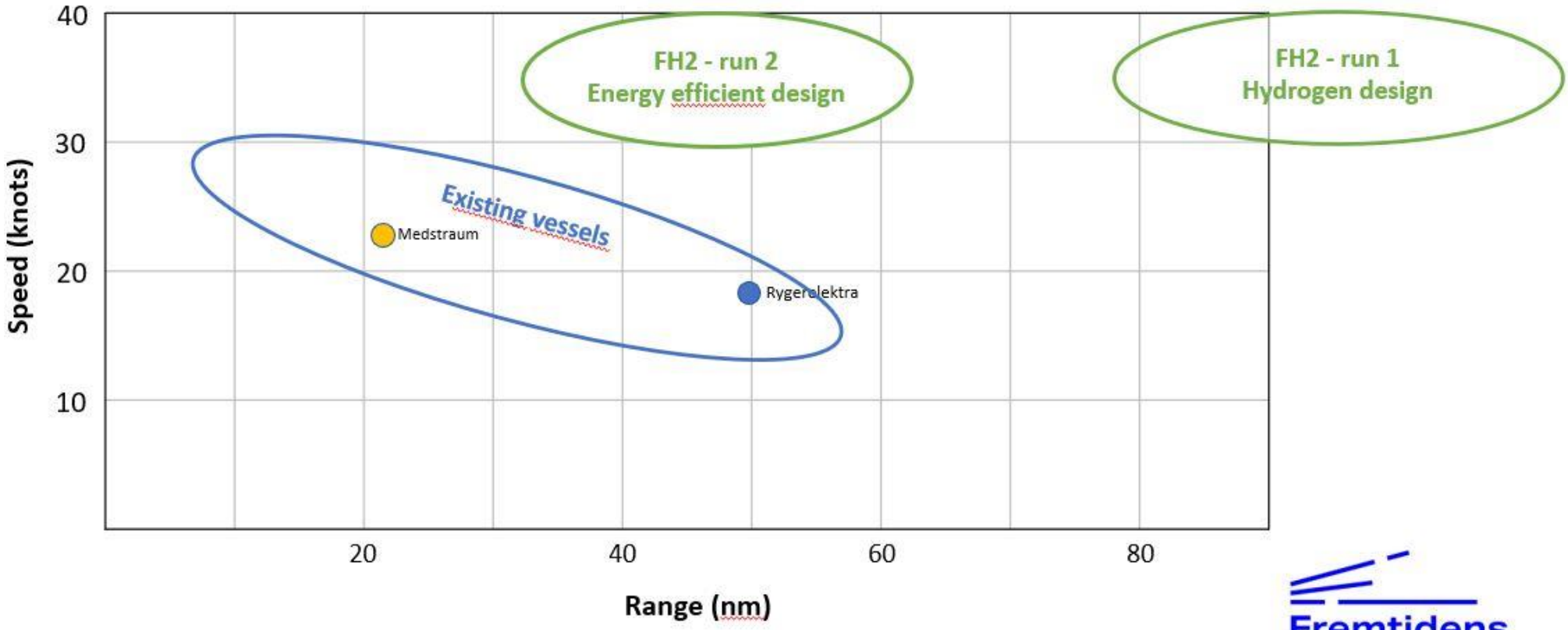
Commercialization status – Zero emission fast ferries in Norway

- Non of the concepts in the Hurtigbåt project are yet commercialized
- Examples of current «state of the art» zero emission vessels in Norway:
  - Rygerelektra: 297 pax, service speed 18 knots, range 50 nm, 42 m length
  - Medstraum: 147 pax, service speed 23 knots, range 23 nm, 30 m length
- Great options for shorter routes with a lot of stops, but there is a need for a paradigm shift related to energy efficiency in order to obtain zero emission on longer routes – regardless of energy carrier

Hybrid vessel for Nordland is extended to carry the weight of batteries and fossil fuel. 40.6 m, 130 pax



Fast ferries covers a broad range of capacities, speeds and range. The hurtigbåt project part II aims to cover medium and long distance connections for +150 PAX



Fremtidens Hurtigbåt

Summary and the way forward

- New hull design and propulsion technologies is necessary to break the weight-effect spiral
- Run 1, which includes building contract, in the dialogue phase to decide the final requirements for the contract
- Run 2 is a design contract, if the project gets funding there will be launched a new tender process for building pilot vessel(s)
- The project is working on obtaining funding for the pilot phase
- In case of not getting further funding, the hydrogen run will be cancelled and there won’t be launched a commercial tender for the energy efficient pilot(s)
- Exciting to see wether the market has matured sufficiently to deliver zero emission fast ferries in future public tenders – possible without piloting or is the risk still to high?

Trøndelag fylkeskommune

Tröndelagen fylhkentjïelte

trondelagfylke.no | fb.com/trondelagfylke

Pre-Commercial Procurement

to find solutions to make mobility and energy domains more carbon neutral

Kaisa Sibelius

AI4CITIES accelerating carbon neutrality

Finland

AI4CITIES

Pre-Commercial Procurement to find solutions to make mobility and energy domains more carbon neutral 6.10.2022

Kaisa Sibelius, Coordinator, Forum Virium Helsinki

The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 871914.

We are Forum Virium Helsinki!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Regional Council


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HELSINGFORS UNIVERSITET
UNIVERSITY OF HELSINKI


LAU
REA


HELEN


HSY


STARA


CGI


elisa


HUS


IBM


Metropolia


VTT


TRAFICOM
Liikenne- ja viestintävirasto


Telia


tieto

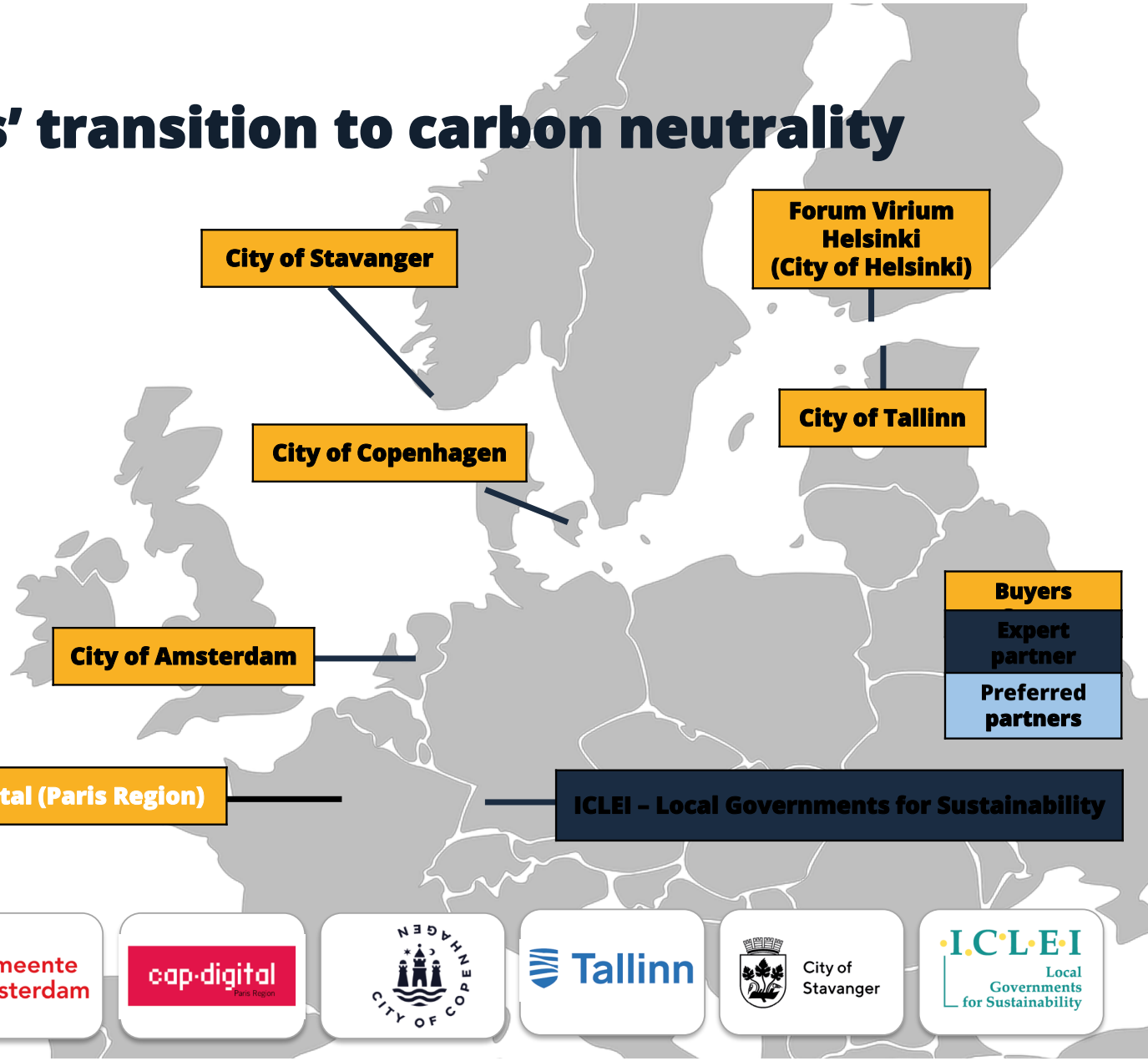

yle

AI4Cities
- AI accelerating Cities' transition to carbon neutrality

Duration: 36 months
(1.1.2020 – 31.12.2022)

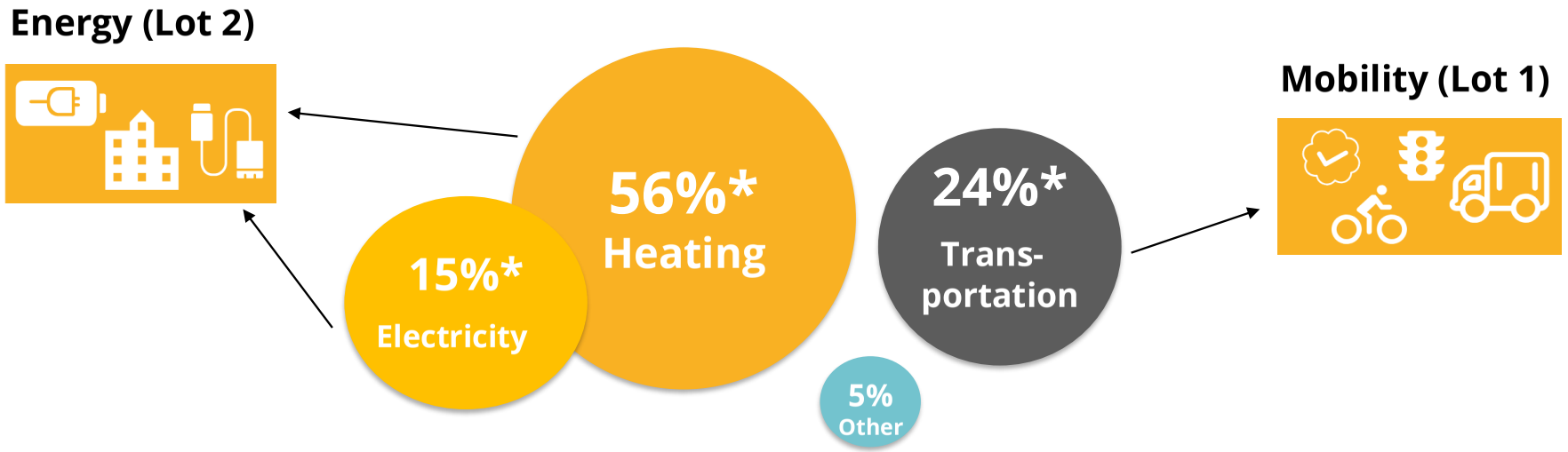
Funding instrument:
Pre-commercial procurement
(PCP)

PCP Budget:
4.670.000€
Total Budget:
6.600.000€



The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 871914.

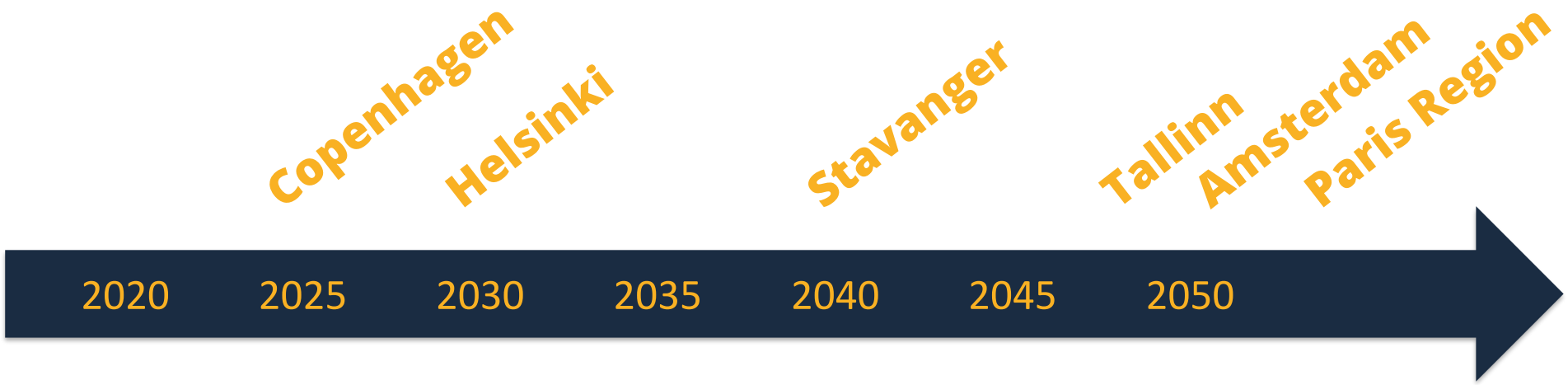
AI4Cities - Utilising Artificial intelligence to reduce CO2



*) Average emission sources in the cities

Source: Helsinki Region Environmental Services Authority HSY, 2019

Cities committed becoming carbon neutral



Why AI?

- To achive higher scale and volumes of the interventions
- Demands for utilizing data-driven methods
- Availability and maturity of enabling technologies and data
- To get measurable Impacts
- To predict and optimize decisions more effectively

Why PCP?

PCP	Traditional procurement
Joint procurement tool: a Buyers group launches the RfT	**Individual procurement tool** - RfT is launched normally by a single department or unit inside the a City
High risk: high degree of innovation and R&D effort required	**Low risk:** Low degree of innovation focused on solutions on (or close to) the market
Functional specifications for prototypes development - focus on medium-/long-term	**Technical specifications for mature product/ service -** addresses immediate/ short-term needs
Competitive development with several contracts to several suppliers	**Single contract: 1 contract to 1 supplier** awarded
IPR – Risk/Benefit-sharing	**IPR** generated
Exemption for R&D services under EU Directives and WTO rules: special legal framework (H2020)	Tendering procedures and legal framework: **national public procurement** rules apply
Development in **multiple phases**	Development in **1 phase**

Phases and targets

Phase 1: Solution Design

A feasibility study of the proposed solutions and technologies. The supplier refined the solution design and the perform. It aimed to verify the conceptual, technological, organisational, regulatory, safety and budgetary feasibility of each proposal.

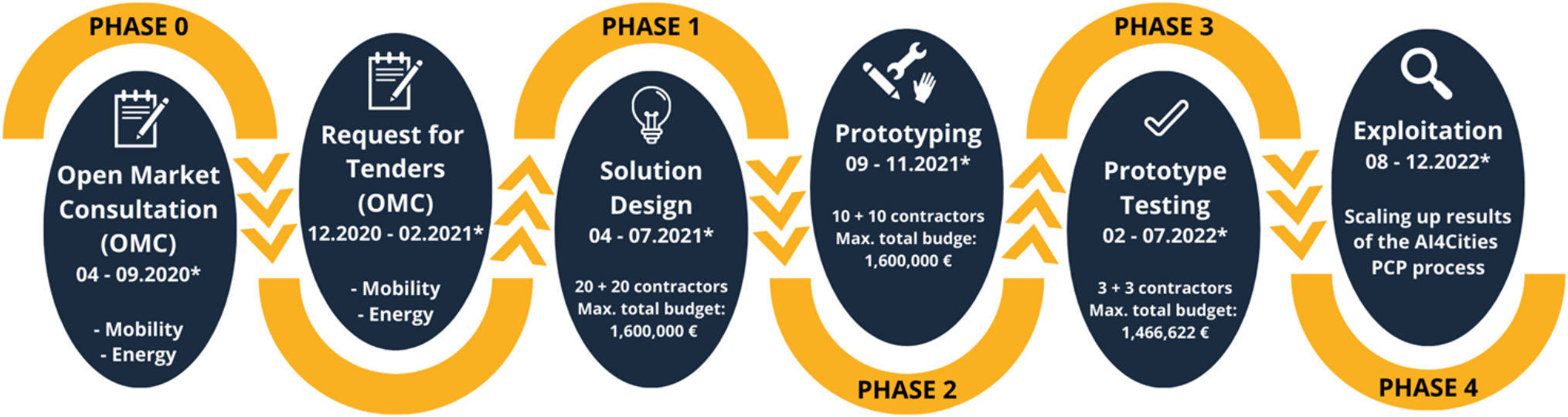
Phase 2: Prototyping

Suppliers developed, demonstrated and validated prototypes in lab conditions and they produced working prototypes which allows the Buyers Group to understand how the solutions can be implemented in their cities.

Phase 3: Piloting

The target was a working prototype in real-life environment, successful completion of piloting periods at least in two Buyers Group cities and realistic understanding of potential use cases and future markets.

The AI4Cities PCP timeline



97 tenders
- Mobility 54
- Energy 43

Mobility 21
- Energy 20

- Mobility 10
- Energy 10

- Mobility 3
- Energy 4

Sub-Challenges

Goal: to reflect real needs in the cities, but not limit the range of possible solutions.

Mobility

Cities presented: Amsterdam, Helsinki, Paris, Stavanger, Tallinn

1: Mobility-as-a-service
2: Traffic Flow Optimization
3: Optimization of Logistics
4: Wild Card

Energy

Cities presented: Amsterdam, Copenhagen, Helsinki, Paris, Stavanger

1: Flexible Energy Consumption
2: Energy Efficiency
3: Development of Renewable Energy
4: Wild Card

Evaluation and Selection Process

Objective:

Requirements that are general enough to be applicable to all possible solutions, but specific enough to allow meaningful evaluation.

CO2 Emissions Reduction

- Does it reduce CO2 emissions, how and how much?

Artificial Intelligence

- Quality of the AI and does provide added value to the solution?
- Is the AI Trustworthy?
- What data the solution uses and it collects it?

Innovativeness

- Does the solution go beyond state-of-the-art? Is it something that isn't currently available on the market?

Scalability

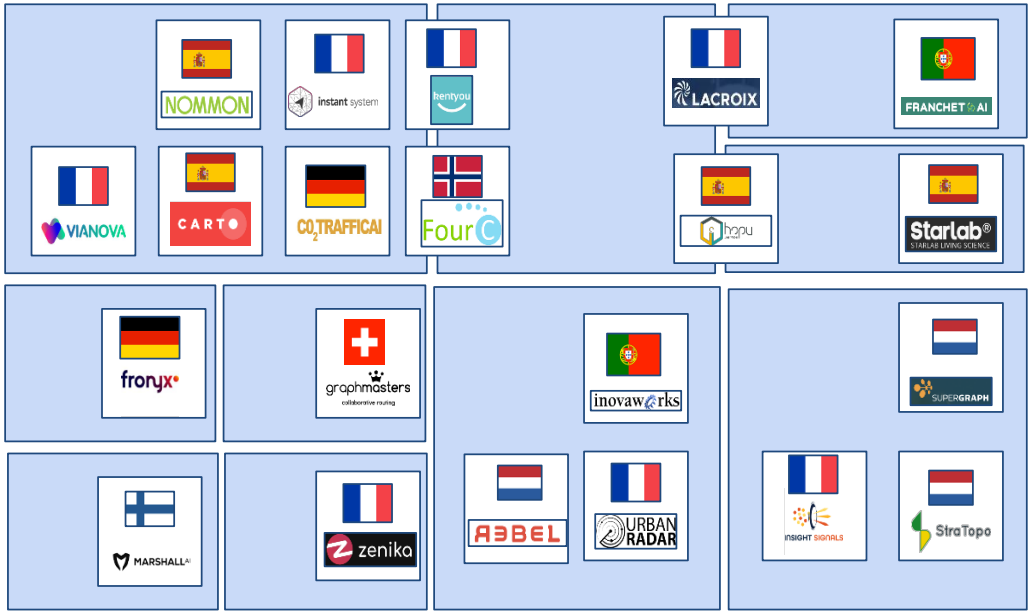
- Can the solution be scaled to other cities in Europe (and in the World)?

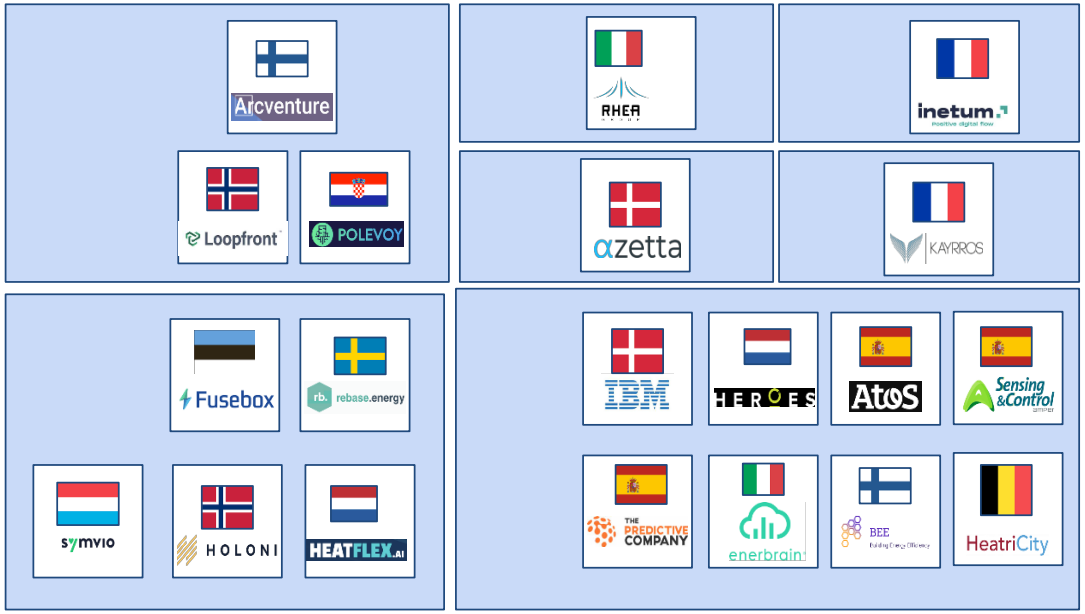
Other:

- Are the other benefits for Cities or Citizens (beyond CO2 reduction)?
- Is the solution safe and secure (data protection etc.)?
- Is it commercially viable?

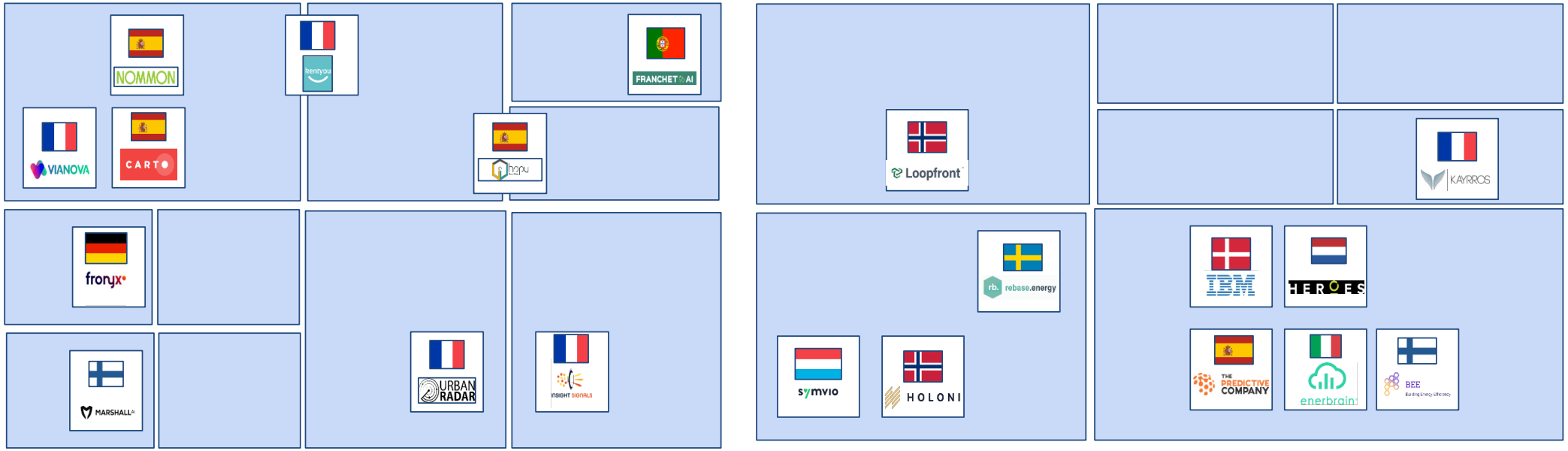
AI4CITIES

Phase 1





Phase 2


NOMMON
VIANOVA
CARTO
FRANCHET AI
froryx
URBAN RADAR
INSIGHT SIGNALS
Loopfront
KAYRROS
rebase.energy
IBM
symvio
HOLONI
THE PREDICTIVE COMPANY
enerbrain
BEE

AI4CITIES

Mobility suppliers

Lot1 - Mobility Phase 3

Vianova

Vianova's MPAT tool is an engine to optimize the CO2 emission-reduction potential of city (shared) mobility policies.

Avenue

Avenue has developed an decision support tool to measure and monitor reduction potential of different shared mobility regulatory frameworks and poloicy strategies

Marshall AI

Marshall AI developed an auxiliary optimising system for traffic light management, which reduces the number of stops.

Piloting cities:

Tallinn

Gemeente Amsterdam

City of Stavanger

Tallinn

cap·digital Paris Region

FORUM VIRIUM HELSINKI

Lot2 - Energy Phase 3

Energy suppliers

BEE

The BEE solution connects with building management systems to optimize energy efficiency, and uses buildings' storing capacity to stimulate the use of renewables.

C-in.City

C-in.City helps cities to better understand local emissions. The service combines geographical data with emissions data to monitor and manage urban emissions.

Enerbrain

The SPIKE solution by Enerbrain is a scalable plug and play kit that helps to optimize energy usage by optimizing building management systems operations.

Holoni

Holoni enables municipalities to assess potential of solar, exchange local green energy and strives towards collective sustainable impact through energy communities for prosumers.

Piloting cities:

City of Stavanger

FORUM VIRIUM HELSINKI

Gemeente Amsterdam

Piloting objectives

Proven CO2 emission reduction

Benefits of AI

Replicability & relevance for the cities

Remarks from the piloting results

- The solutions are very different and comparison is challenging
- The conditions and reduction potential varies
- Direct or indirect reductions
- The piloting time was too short
- The reduction potential depends on the conditions and maturity of the city

AI4Cities ACADEMY: EXPERIENCES OF PCP

13.10. AT 10-12 CET ONLINE / IN AMSTERDAM

EXPERIENCES OF PCP

What the cities have learned and benefited from the PCP process? This event is a knowledge sharing of cities experiences, expectations and conclusions from the three years PCP journey. This hybrid seminar is open for all who are interested in to learn more about PCP. You can attend online or on the spot in Amsterdam.

Registration: https://forms.gle/e4FNP9kRYd5Gz3neA
Online via Teams , link to participate: https://fvh.io/t9ms1

Venue: Marineterrein Amsterdam, Kattenburgerstraat 5, 1018 JA Amsterdam

AGENDA

9:30 Coffee
10:00

- **Welcome and introduction**, Kaisa Sibelius, Forum Virium Helsinki
- **Open Market consultation and defining the challenges for the tender,** Nils Henrik Haaland, City of Stavanger
- **Designing selection criteria and the evaluation process**, Petteri Rekomaa, Forum Virium Helsinki
- **Piloting: challenges and overcoming them**, Timo Määttä, City of Helsinki & Margot De Caminel, Cap Digital
- **PCP's Benefits for Cities**, Tina Hjøllund, City of Copenhagen
- **PCP experiences of Fabulos project**, Renske Martijens-Hartikka, Forum Virium Helsinki

Questions and discussion.

12:00 Lunch


FROM 100
INNOVATIONS

Thank you for your attention!

Kaisa Sibelius, Project Coordinator
Forum Virium Helsinki

Email kaisa.sibelius@forumvirium.fi

Pre-Commercial Procurement

turns waste into a valuable resource

Andreas Norman Pedersen

AquaGreen

Denmark

AquaGreen

Biomass treatment

We turn a problem into a resource

AquaGreen Presentation

EAFIP WORKSHOP-WEBINAR

October 6, 2022

AquaGreen

Our Planet is under Pressure

AquaGreens mission:

To address four planetary challenges

Phosphorus
- Running out of phosphorus
- Nutrients re-circulation

Groundwater
- Groundwater protection
- Harmful pollutants elimination

CO_2 emissions
- Greenhouse gases
- Carbon capture and storage

Renewable energy
- District heating production
- Biogas production

AquaGreen

Pre-Commercial Procurement Project (PCP) 2016

Utility Companies (Public Buyers)

- Aarhus Vand A/S
- Billund Vand A/S
- Biofos A/S
- Din Forsyning A/S
- Herning Vand A/S
- Kalundborg Forsyning A/S
- Vandcenter Syd A/S
- Middelfart Spildevand A/S
- DANVA (Danish Water and Wastewater Organisation)

Purpose

- Looking for innovative wastewater solutions that could contribute to the handling of important social and environmental challenges.

Idea

- Increase the utilisation and recirculation of resources in the wastewater sector and create new opportunities for growth, job creation and exports for Danish companies.

AquaGreen PCP Project Description

- To develop new technology that can transform sewage sludge into biochar in an energy-efficient way in order to recirculate and utilise bioresources.
- To analyse to which extent environmental pollutants like heavy metals, PAH, LAS etc. are eliminated or reduced in the biochar as a result of steam-drying and pyrolysis.
- To analyse / investigate how biochar can be used as a fertiliser and soil improver.

DTU

MELBU SYSTEMS

INSTITUT FOR PLANTE- OG MILJØVIDENSKAB
KØBENHAVNS UNIVERSITET

LANDBRUG FØDEVARER SEGES

TEKNOLOGISK INSTITUT

Timeline

PCP

Ejby Mølle, Denmark

2017-20:
Developed integrated unit

2017-18:
Developed and commercialized Steam-dryer

Nordland Akva, Norway

2020-22:
Commercialized the integrated units.

Odsherred Forsyning A/S, Denmark

Vandcenter Syd A/S, Denmark

South Africa

2021-22:
Stand-alone pyrolysis for dry biomass commercialized

AquaGreen Today – Next Level Sludge Management

The Company
- Founded in 2014
- 32 employees (onboarded 18 in the last year)

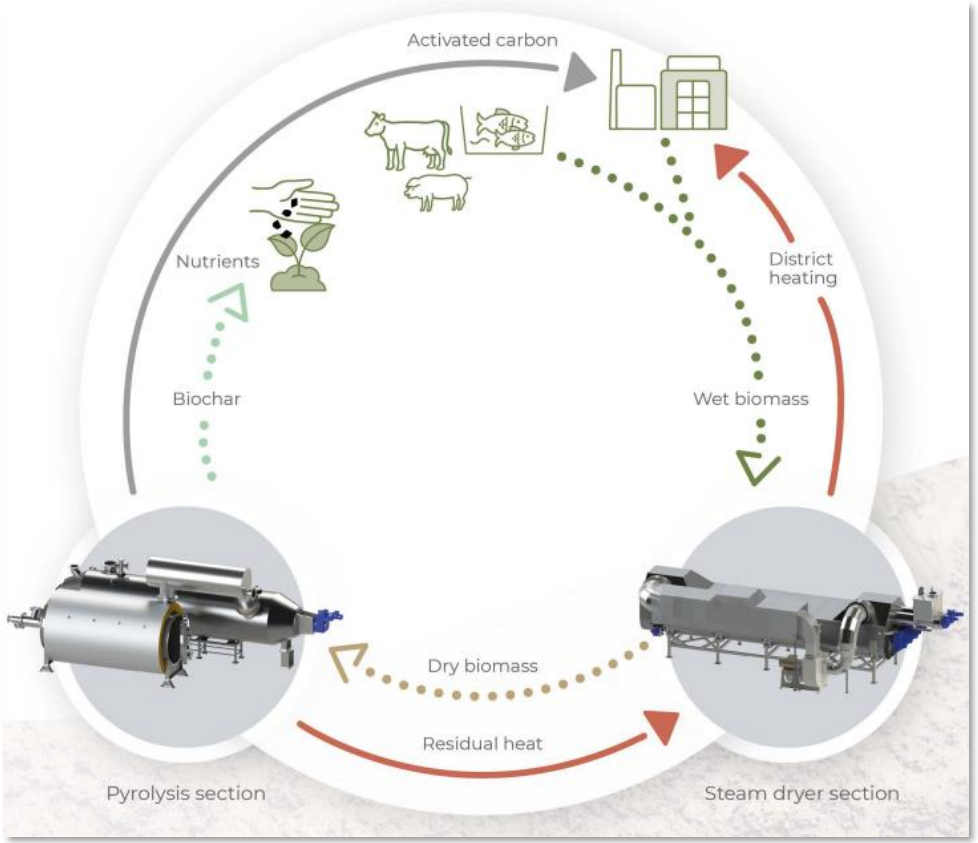
Unique Technology
- Integrated steam-drying and pyrolysis
- Continuous and fully automated
- Two patents jointly with Technical University

Key facts
- Eight plants sold in DK/SE/NO/ZA
- Pre-projects in DK, SE, IT, MY
- Wastewater focus

HECLA® Setores 1.000 at Fårevejle Wastewater Treatment Plant

You Facilitate a Circular Economy

- The biomass you up-cycle can be any type of wet biomass from e.g., municipal wastewater, industrial wastewater or agri- and aquaculture
- The resulting biochar can be used as fertilizer and soil improver or up-cycled to activated carbon
- The residual heat from the pyrolysis and steam drying can be used for local or district heating
- The integration of the pyrolysis unit and the steam dryer ensures optimal energy recovery



AquaGreen

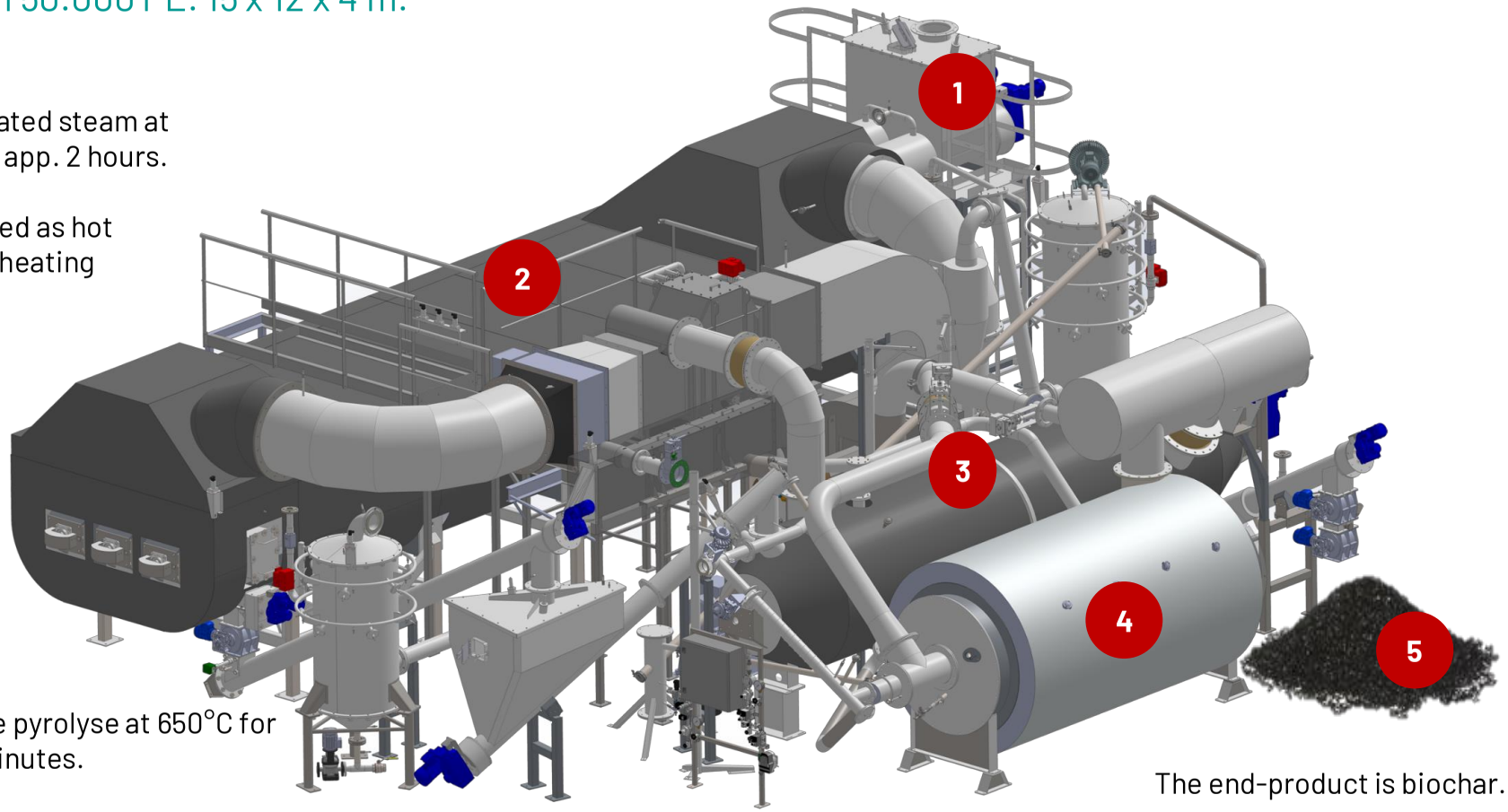
HECLA® Setores 1.000

Treating sludge from 50.000 PE. 15 x 12 x 4 m.

1: Sludge in-take
Dry matter >22%

2: We dry using super-heated steam at 200 C. The process takes app. 2 hours.

Excess steam is condensed as hot water for local or district heating



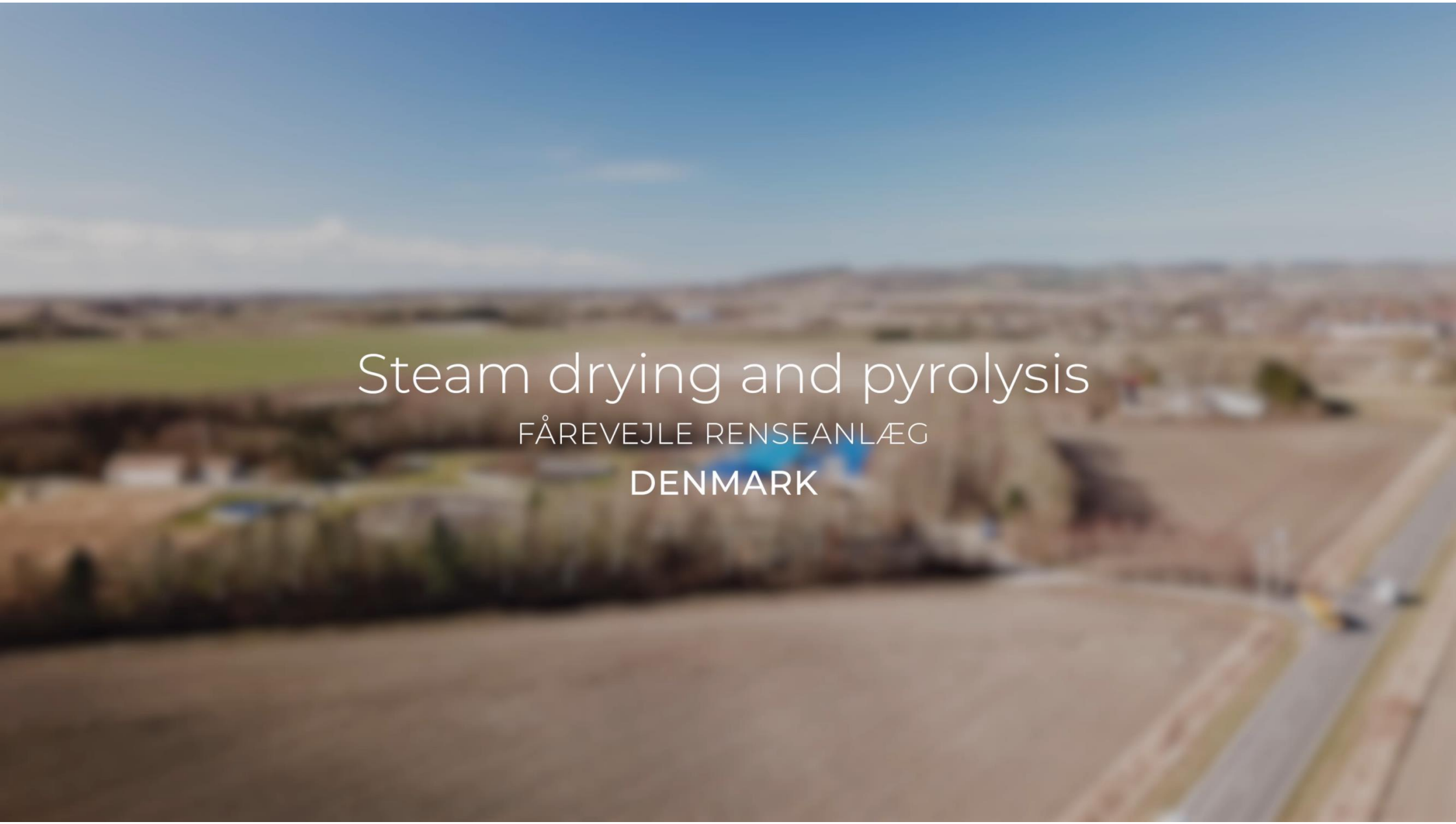
3: We pyrolyse at 650°C for 20 minutes.

We utilize the calorific value in the sludge by burning the pyrolysis gasses.

4: The temperature in the burner is >900°C

The end-product is biochar.
It can be up-cycled to activated carbon (filter material).

AquaGreen


Steam drying and pyrolysis
FÅREVEJLE RENSEANLÆG
DENMARK

Biochar is Valuable

Biochar is a fertiliser and soil improver
- Valuable nutrients: 5% P, 2% N, 1% Mg

Biochar holds water and drains
- Gives soil structure enhancing microbial growth

Biochar is good for the environment
- No leaching of phosphorus – not water soluble
- Retains polluting compounds

Applications
- Urban landscaping, agriculture
- Climate positive construction materials

AquaGreen

You Eliminate Environmental Pollutants

Environmental pollutants are eliminated
- Micro plastics
- Medical residues
- PFAS
- PAH, LAS, etc.

Heavy metals that are removed/reduced
- Mercury
- Arsenic
- Cadmium

Malodor is eliminated

AquaGreen

Significant Climate Benefits

From one HECLA Setores 1.000

Reduced greenhouse gas emissions
- CO_2, methane, laughter gas
- Approx. 2,000 tCO_2e

Captured and stored carbon
- Approx. 500 tCO_2e in biochar

Replaced fossil energy
- Approx. 1,500 tCO_2e (compared to oil)

Reduced transportation footprint
- Volume is reduced by 80-90%

AquaGreen

IPPC: “We must capture CO_2”

Biochar is, according to the UN climate panel, **one of three ways to capture CO_2 from the atmosphere**.

The other two are

- Planting trees (limited effect in many years)
- Direct air capture of CO_2 (expensive, unproven)

“ all four scenarios outlined in the IPCC SR15 report rely on carbon removal, with three of the four scenarios foreseeing significant amounts of carbon capture and storage”

AquaGreen

Attractive Economy

Cost reduction
- Sludge handling costs
- Energy costs

Revenue from Carbon Removal Credits
- Selling at €150 per tonne CO_2e (puro.earth)

Potential income
- Renewable energy
- Biochar
- Activated carbon

Typical ROI of 5-8 years

AquaGreen

Supporting 11 out of 17 SDGs

2017-18:
Developed and commercialized Steam-dryer

2017-20:
Developed integrated unit

2020-22:
Commercialized the integrated units.

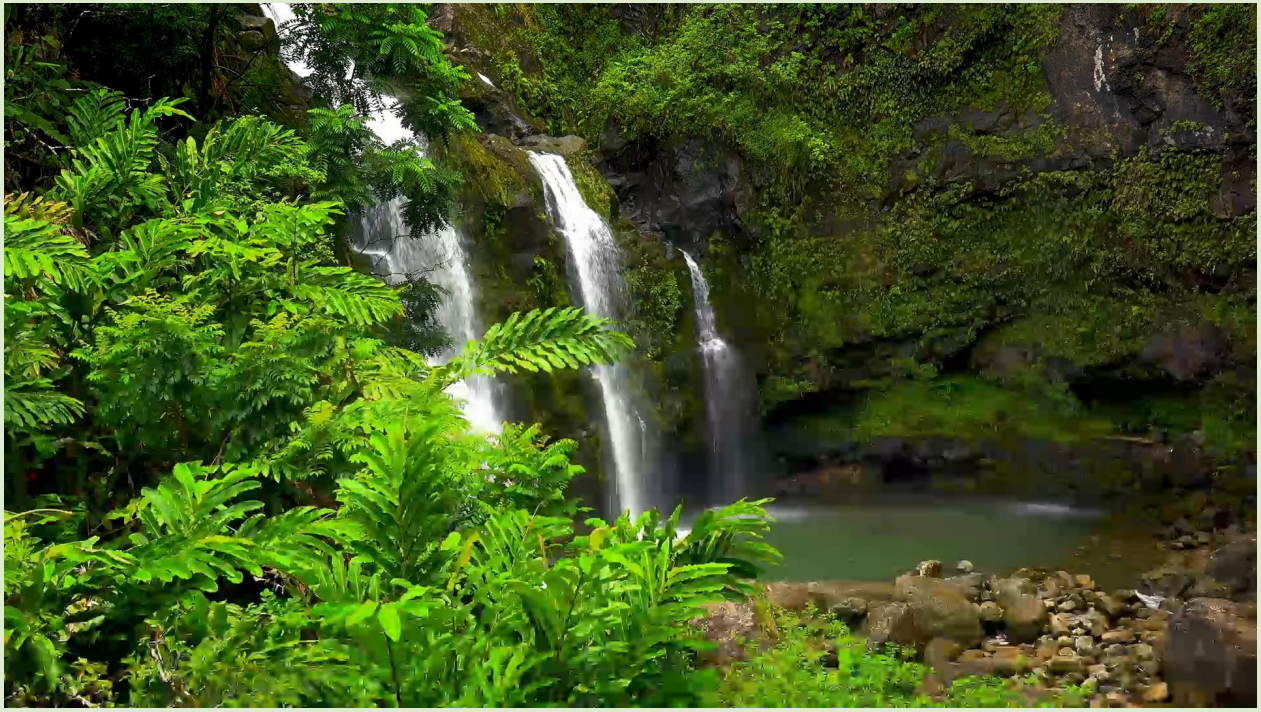
2021-22:
Stand-alone pyrolysis for dry biomass commercialized

Thank You

Andreas N. Pedersen
Business Development Manager
annp@aquagreen.dk

Q&A

Takeaways



Takeaways

- Innovation Procurement can contribute to the European Green Deal and Europe fit for the digital age which are the top Commission's priorities 2019 – 2024.
- Setting a strategy and sustainability ambitions to procure green products and services along with reporting KPIs is essential.
- The procurement of new Digital technologies and AI can have a substantial impact in the delivery of climate change services.
- Preparing the ground for future solutions through PCP can make a difference to the EU market in the transition to green technologies.

PROTECT

PROCURING INNOVATIVE CLIMATE CHANGE SERVICES

Supporting Europe's climate change adaption and mitigation agenda through the procurement of innovative climate change services

www.protect-pcp.eu

This project receives funding from the Horizon Europe Framework Programme (HORIZON) under grant agreement No 101060592

PROTECT in a nutshell…

PROTECT is a two-year EU-funded project aiming to bring together leading Europeans cities and regions willing to procure climate services (CS) solutions based on environmental observation data to adapt to and mitigate the effects of climate change and achieve their climate policies and goals.

- PROTECT will prepare the ground for a Pre-Commercial Procurement (PCP)
- Through PROTECT, public authorities facing similar challenges related to climate change will be connected and accompanied in the definition of their specific needs for CS in 5 domains.

Marine and coastal environments | **Energy & Utilities** | **Sustainable urban communities** | **Agriculture, forestry and other land use** | **Civil security protection**

Can you benefit from PROTECT?

PROTECT will target the following stakeholders:

Cities, regions and other procurement organisations interested in the potential uptake of climate services through a PCP

SMES, companies and developers with ideas for innovative or disruptive climate services that help adapt and mitigate the effects of climate change

Stakeholders and initiatives facilitating the development of climate services through the provision and use of Earth-Observation data

What's in it for you if you join the PROTECT community?

- Assistance in **defining and aggregating clear and realistic needs** for climate services
- **Experience sharing and good practice transfer** with procurement peers from all over the EU
- **Targeted training, continuous knowledge and fresh information** on Earth Observation, climate services and innovation procurement
- **Insights into climate services market** providers' existing and future solutions and technologies
- **Strategic positioning** for participating in the upcoming PCP


Collaborate with public authorities throughout Europe to jointly procure innovative climate services
Become part of the community
Check out www.protect-pcp.eu
to know how to become part of the community

Provide input on your climate change needs

PROTECT calls upon **European public authorities** to provide input regarding their **most pressing needs in addressing climate change challenges** in five application domains:

Utilities, Green communities, Circular and Bioeconomy, Land use and Marine environment and Civil Security and Protection

You can provide input through the following online form:

https://ec.europa.eu/eusurvey/runner/PROTECTSurvey

(the link is also available on www.protect-pcp.eu)

COMING SOON

Future events

WEBINAR
Construction, infrastructure & energy innovations in ICT related projects

16 February 2023

More information & registration on:
www.eafip.eu/events/webinars/upcoming-webinars/

The 3rd call to apply for free assistance under EAFIP is now open

Deadline call: 17 October 2022

For more information – see: www.eafip.eu

Or apply directly via:

https://ec.europa.eu/eusurvey/runner/EAFIP2022

Thank you for your attention

Corvers Procurement Services BV
The Netherlands
Tel: +31 73-612 6566
info@corvers.com
www.corvers.com

For any questions regarding EAFIP-Assistance and/or applying for free assistance, please contact:

Analucia Jaramillo
Tel: +31 6-20552773
a.jaramillo@corvers.com
www.eafip.eu

EAFIP WORKSHOP-WEBINAR #2

CLIMATE CHANGE: PROCURE GREENER

6th October 2022

Q&A

Part I. POLICY AND PROCUREMENT STRATEGY

Green Public Procurement. Purchasing environmentally friendly goods, services and works – New EU Green policies (overview, sectorial approach and ICT examples)

Speaker: Lieve Bos. *Policy Officer, European Commission - DG Connect*

	Question	Answer
1.	**What initiatives are envisioned to draw green public procurement closer to socially responsible public procurement? Especially in reference to the right-to-repair initiative and the role that reusing plays in fostering the circular economy while creating valuable local employment to which circular social enterprises largely contribute to.**	There is a whole line of EU initiatives to foster socially responsible procurement across the whole supply chain. As social and green procurement are indeed often linked, new green procurement initiatives will also contribute to social procurement. For example, the EU digital passport that aims to track the environmental life cycle of products entering the EU market will play a key role, as it will provide evidence to public buyers of where materials come from that were used the make the products, which suppliers were involved in which step of the production process, how/where the products and materials inside them are recycled, reused or finally disposed of. So the passport will help to avoid working with suppliers and sub-suppliers along the entire supply chain that do not ensure adequate social conditions. For example in the case of phones and the inclusion of "blood gold" among their components; textiles manufactured by children in unhealthy conditions etc.
2.	**(From a theoretical perspective) how environmental obligations incumbent on contracting authorities can be accomplished if they are established in terms of targets (reduce emission of xxx) instead of requirements to buy a specific product?**	EU Climate law sets a legally binding target to reach net zero greenhouse gas emissions (GHG) by 2050, with intermediary target to reduce GHG emissions with 55% by 2030. This triggered revisions of all sectorial EU policies to achieve this (these are regularly revised, becoming gradually stricter). The EU and Member States are bound to take the necessary measures at EU and national level to meet the target. National measures are set out in national Energy and Climate Action plans. This can include various types of measures such as banning the most environmentally disastrous products, increasing the energy efficiency and reducing the emissions of others/alternative products that are not banned, capturing GHG emissions and

		reusing/ repurposing them in a way that is not environmentally disastrous etc.
3.	**Does the ETS, effort sharing, and industrial emission establish obligations specifically targeted directly or indirectly to contracting authorities?**	It does so for a specific set of public buyers. The ETS It limits emissions of the power, manufacturing and aviation sector by establishing binding caps on the annual greenhouse gas emission that they are allowed to emit. Within the cap, these entities receive or buy emission allowances, which they can trade as needed. The caps set by the ETS can impact public procurements of **public buyers in the power, aviation and manufacturing sectors** as it encourages them to adopt products / services that continuously reduce GHG emissions. The Effort Sharing regulation and the Governance regulation establish binding annual greenhouse gas emission targets for Member States per decade. This limits emissions from most sectors not included in the EU Emissions Trading System, such as transport, buildings, agriculture and waste. Member States are responsible to implement measures (incl. that impact public procurements) to limit emissions from these sectors (e.g. by reducing GHG emissions from **public transport, public buildings, agriculture and waste management**). The revision of the Industrial Emissions Directive is ongoing. It applies to the **water, waste management and energy operators** and will impact their public procurements because: It imposes tighter air and water emission levels, requirements on depollution, decarbonisation and circularity/reuse (e.g. of water). It requires Member States also to increase investments in development and testing of new, cleaner technologies for energy use, resource efficiency and water reuse.
4.	**So far sustainability was always considered as an award criteria. Why not as a selection criteria (i.e. technical and professional capacity)?** **This would exclude providers who are not complying with minimum standards of sustainability.**	The message from the EU side has never been that sustainability should only be addressed through the award criteria. As explained in the EU Commission's "Buying Green Handbook", implementing green procurement successfully means considering taking into account green considerations along "every step" of the

		procurement process (including in selection criteria, see section 4.3 of the above handbook).
5.	**Does EAFIP relate in any way to the GPP helpdesk? Is there a coordination/cooperation?**	The EAFIP-Initiative is not directly related to the GPP helpdesk but always open to cooperation. Questions can be addressed to EAFIP through the contact form here: https://eafip.eu/contact/

Innovative and sustainable approach in the purchase of ICT through the IWR2021 project

Speaker: Johan Rodenhuis. *Ministry of Economic Affairs and Climate Policy, The Netherlands*

	Question	Answer
6.	**"Human rights & Ethics" were mentioned in the presentation as a very important component. To which extent and how is gender impact considered and comprised in this component?**	Five elements in our contracts focus on these aspects, any of them in a slightly different way. We haven't yet created specific requirements on the element of gender, but it's part of a broader focus. e.g: • we focus on the UDHR; • it's a part of our due diligence process regarding CSR; • in Ecovadis resellers and manufacturers are audited on Labor & human rights policy on diversity, equity & inclusion; • also TCO certified focusses on human rights aspects to fight inequalities; • for CO2 compensation projects we collaborate with the Fairtrade Climate Standard to maximize impact on as much SDG's as we can;
7.	**Price is still 50% in the IWR2021 project. Are there no existing formulas to quantify in an objective manner sustainability criteria, which would allow lower the weight of price and include sustainability in the automatic criteria and thus reduce price pressure and raise even more the importance of quality and sustainability?**	This is hard to explain in a short answer, but we actually used many award criteria to lower the weight of price and to give more ambitious companies an edge to non-sustainable ones. For price we used a slightly changed version of 'the super formula' a calculation method used in the Netherlands (non-relative pricing comparison). For future tenders we probably use an exponential scoring mechanism for sustainability award criteria to create bigger distinctiveness

		between competitors. This because the more you innovate the more time and resources it consumes and it should be awarded accordingly.
8.	**Does the IWR2021 project use the EcoVadis rating as a selection criterion, an award criterion or a contract condition?**	We actually used it as a requirement in IWR2021 for the resellers, not as a selection criterion. And to make it effective on manufacturers we connected it to a product requirement which states that the contract partner is only allowed to deliver products form manufacturers who have a minimum Ecovadis score of e.g. advanced. In our IWR2021 Services contract we combined a requirement with an award criteria, where extra points could be awarded if they would go for a higher Ecovadis rating within a certain period for their own company and one for their sub-contractors.
9.	**To what extent product life-cycles - for hardware - could be extended by the use of certain forms of software - operating systems and application programmes? By choosing, for example, an open source operating system, one might extend the life-span of hardware.**	If open source would work, depends probably a bit on the type of hardware and the support for business use by large enterprises or governments. We think software is one of the key aspects which extend the lifecycles of hardware. Within IWR2021 we require at least 4 years of software and security updates for smartphones, this sets the bar for suppliers higher. In general, with long software support smartphones could easily reach a lifespan of 5-7 years and for other products this might be even longer depending on the type of product, configuration, use, etc.
10.	**Are there already positive impacts deriving from the IWR2021 project?**	Suppliers are in general focussing more on sustainability and supply chain. Moreover, big companies, multinationals who don't have security/sustainability certifications, are choosing for the European schemes. Actions taken by them in their contract are generating positive impacts regarding sustainability.

Procurement Planning Platform (PPP) as a backbone for a strategic sourcing approach towards sustainability and innovation

Speaker: Gonçalo Negrão. *The City of Lisbon, Portugal*

	Question	Answer
11.	**Why does Lisbon Municipality own the IP of the Procurement Planning Platform? Why was it deemed the best strategy? Wouldn't it be better to have a license to use it, so that the technology vendor can extend its use commercially?**	Lisbon Municipality has defined new e-Procurement modules that can complement our almost 20 years of experience with SAP and e-tendering tools towards more sustainable and innovative procurement. Recurring a market consultation, we have evaluated possible solutions for the Procurement Planning Platform (PPP), including the significant e-tender services providers and other e-procurement solutions. We have concluded that there were no current solutions for the functional requirements required for an integrated procurement and strategic sourcing module. Since Lisbon Municipality has an Outsystems Factory, the option was to consult developers and evaluate if this solution would be suitable. In fact, during the pandemic, the low-code Outsystems language had proven to be very flexible: Lisbon Municipality engaged with 17 other Municipalities to develop an e-marketplace for exchanging COVID-19-related items between cities. https://www.outsystems.com/news/deloitte-lisbon-municipalities/ The market consultation was very positive. So far, we have worked with three developers: NTT Data, Deloitte, and Babel (for the e-Expenditure module that connects SAP with PPP and the e-tendering tool). We are currently designing additional functionalities (aligned with our ISO 20400 and other strategic goals), and with Outsystems, we have the flexibility to manage our developments in an agile way. We believe this is the best way when there are no precise blueprints for an effective, sustainable, innovative procurement process. One of our goals is to provide our solution to other public entities without licenses and create a community of users that can support further developments of the pre-tendering phase. We are open to sharing knowledge and providing access to all our developments. We are also

		equating the best way to share our findings of these and other initiatives, such as open data.

Joint Cross-Border Procurement DPS of Fossil and Emission free Non-Road Mobile Machinery (NRMM) used in the construction sector, and in services related to garden and park maintenance in cities

Speaker: Maria Matzen, *Bird & Bird*

	Question	Answer
12.	**Which was the legal provision that prevented the Swedish municipality to participate in the joint cross-border DPS? How was this related to the liability conditions?**	Each Municipality made an internal assessment of the Collaboration Agreement in regards to their own national administrative laws. I was therefore not involved in the assessment of which exact legal provision prevented the participation of the Municipality of Stockholm.

Part II. PCP-PPI SECTORIAL APPROACH (MOBILITY & ENERGY)

Pre-Commercial Procurement turns the dream of emission free public fast ferry into reality, The Hurtigbåt project

Speaker: Ragnhild Harsvik Ødegaard, *Trøndelag County Council, Norway*

	Question	Answer
13.	**A lot of technology vendors were interested in the PCP (20-30). Are they all Norwegian?**	Yes. All of them are Norwegian, even though there might be some subcontractors that are European. The tender was of course open for the whole European market, but as one of the aims was to boost the Norwegian maritime industry it was a requirement that all written communication (including submitted documents) must be done in Norwegian. As a consequence, it would be easier for Swedish and Danish contractors to participate due to the ability to understand Norwegian language

Pre-Commercial Procurement to find solutions to make mobility and energy domains more carbon neutral

Speaker: Kaisa Sibelius, *AI4CITIES accelerating carbon neutrality*

	Question	Answer
14.	**What kind of KPIs made the technology providers successful to be selected for phase 3 of the PCP?**	First the supplier has to have completed the previous phase milestones and deliverables successfully. After that the supplier need to be scored over the thresholds of the following selection criteria: 1) Functional criteria CO2 Emissions Reduction Use of AI Innovativeness Scalability and Replicability Usability 2) Project and piloting plan 3) Non-functional criteria Safety and Security Relevance to the Cities 4) Commercial feasibility 5) Price

Pre-Commercial Procurement turns waste into a valuable resource

Speaker: Andreas Norman Pedersen, *AquaGreen, Denmark*

	Question	Answer
15.	**Is the AquaGreen Biochar carbon neutral when all energy input are considered?**	Yes, the solution is self-sufficient in terms of energy because it utilises the energy in the sludge. Actually, the system produces more

		thermal energy than it can use, which can then be used locally or as district heating. Some electricity is however used to move the sludge through the system. Because the emission from storing and bringing sludge to farmland is avoided and because we store a lot of carbon in the biochar, we estimate that approximately 3,500 tons Co2e is saved per year. Because of this, the solution is actually carbon negative.
16.	**The solution has been exported outside the EU. Are these regions more favouring of these kind of solution? Is your market "better" outside of Europe?**	It depends on the business case and the motivation of the clients. For example, in Europe, the customers are very focussed on the climate and the removal of organic pollutants to avoid groundwater pollution. In the US, most of the interest comes from the fact that we can remove PFAS compounds from the sludge. But most of the interest still comes from Europe.
17,	**After the PCP, are there "normal" procurement procedures in which AquaGreen is being purchased?**	Yes, PCP was a great enabler to get the company up and running and to get the first orders, but sales now follows a traditional procurement process.
18.	**What fuel does AquaGreen use to heat up the sludge?**	The solution utilises the energy in the sludge, so it doesn't use fuel to heat the sludge. Only when the system has been shut down, it will be necessary to use gas to start up, but since the system will be running continuously 24/7, the need for gas is minor.