DATA CENTER euréca PROJECT

Efficacité énergétique dans les data centers: politiques et législations favorisant le marché public en France

Julie Chenadec

Data Centre World Paris 2017

15th November 2017

1. Name at least 3 key EU legislative directives that may be relevant to procurement of data centre products and services

2. Stimulating Innovation through Public Sector procurement

   a) Why should public sector procurement stimulate market innovation?
   b) How can Public Sector approach this?

3. What is the benefit for both public and private sector to understand both (relevant) public sector and private sector legislation?

Please write down your responses. At the end of the module you will be asked again. You can compare both responses with the answers afterwards.

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But du projet EURECA
Assister et faciliter le secteur public dans son adoption de produits et services innovants et efficients en énergie pour les DC
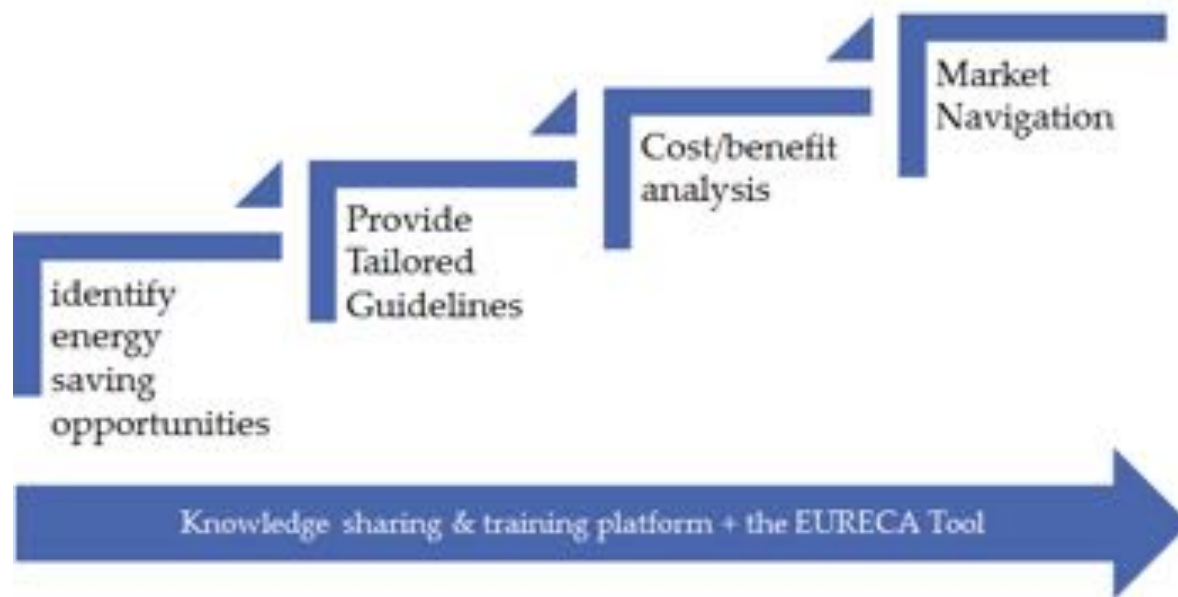
L'outil
Evaluation de l'état actuel de l'infrastructure grâce à des évaluations, en identifiant des actions spécifiques et personnalisées à mettre en place
Possibilité d'effectuer des cours en ligne
https://www.dceureca.eu/fr/mission

Overview EURECA training KIT
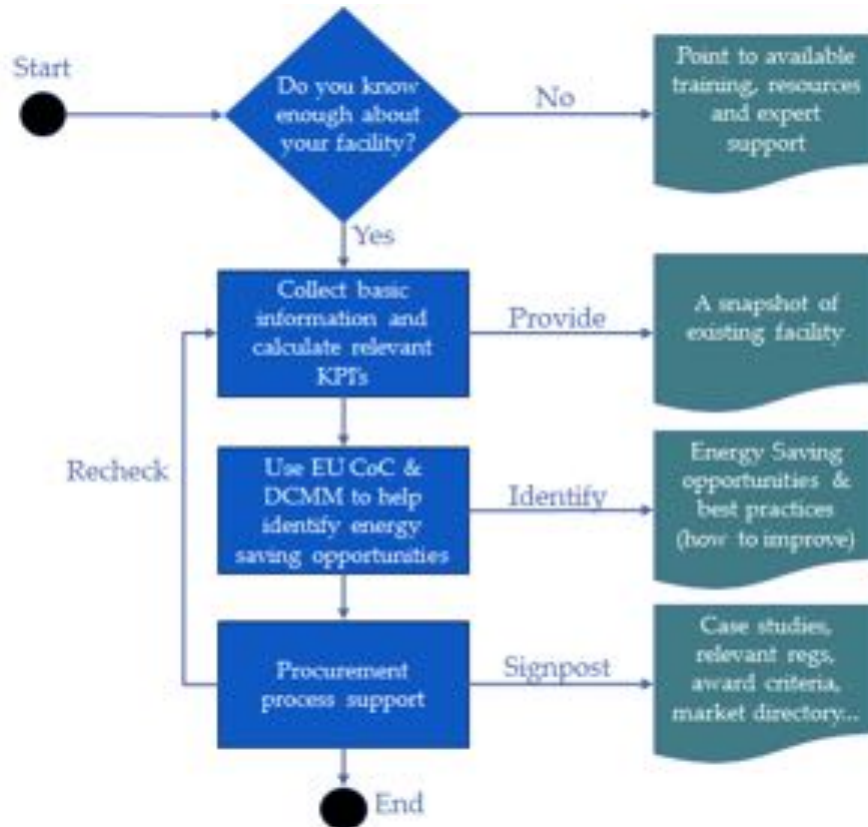
EURECA Training Toolkit	Procurement	Module 1: PPI for Public Sector Procurers and ICT Managers
		Module 2: Business Case Development
		Module 3: Legislation and Policies
		Module 4: Procurement Strategy
		Module 5: Tendering
		Module 6: Data Centre Contracts and Risks
	Technical	Module 7: Data Centre KPI's and Standards
		Module 8: The EU Code of Conduct for Energy Efficiency in Data Centres
		Module 9: The Data Centre Maturity Model

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Learning Outcomes

Public Procurement Perspective
> ➢ Understand why Public Sector procurement has an important role in making the sector greener / energy efficient.

EU Directives - Relevant European legislation:
> ➢ Learn which EU Directives are of importance to the procurement of environmentally sound data centre products and services by the public sector.

Importance of PPI & PCP related to legislation
> ➢ *Understand the reasoning behind EU and national legislation and its correlation with the value of PPI and PCP*
> ➢ *Know where to find information about PPI and PCP supporting initiatives*

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- 'Business as usual' doesn't suffice
- Less mature areas of expertise
- Unproven or new innovative technology
- Contradicting claims
- Contradicting requests
- … etc.

New opportunities

Clean technologies
New products / services
New business models

Growing CSR awareness

Customer demand
Image and reputation
Rising Investments

Maximising Benefits

Direct value creation

Indirect value creation

Minimising Threats

(Supply chain) efficiency
Reduced waste
Resource efficiency

Standard compliance Lvls
Improved risk mitigation
Transparency

Resource scarcity

Legislation and policy

Legislation and policies, on EU and national level, have an important role to play

EU vise d'énormes réductions
Ecart entre les différentes projections
Pouvoir d'achat

Quelques chiffres en France

3 TWh en 2015 de consommation électriques des DC en FR

10/15% de la consommation électrique FR

180 DC en FR

40% des TCO = facture énergétique

En Norvège, le DC de l'entreprise Kolos sera le plus grand DC au monde alimenté en EnR

Construire vers le froid ou diminuer les selfies ?

EU PS Procurement perspective

By 2015, GDP in the EU-28 had reached EUR 14.6 trillion (EUR 14 635 billion)

Source: Eurostat

➔ Spanning 250,000+ EU based public authorities
➔ Public expenditure on goods, works, and services alone:

approx. 19% of EU GDP = more than €2.3 trillion

(* based on 2014 statistics)

Source: EC Single Market Strategy

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*What about **ICT** Public procurement expenditure?*

Based on study estimates, the total value of reported ICT public procurement contracts in the 29 countries within the scope of this study reaches about EUR 50.3 billion in 2011.

Source: EC on Public Procurement

Assuming same % of GDP on ICT procurement for 2015

'Approx 55.6 billion spend in 2015'

Total value of ICT contracts in 2011, EUR billion

Total of 50.3 billion EUR of ICT procurements identified in 29 countries

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EU PS Procurement perspective

"Public procurement plays a key role in the Europe 2020 *[& 2030]* strategy, set out as one of the market-based instruments to be used to achieve smart, sustainable and inclusive growth while ensuring the most efficient use of public funds."

Climate change / energy 2030 targets

- *40% cut in greenhouse gas emissions compared to 1990 levels*
- *at least a 27% share of renewable energy consumption*
- *at least 27% energy savings compared with the business-as-usual scenario*

For example, PS procurement provides an excellent opportunity to contribute to closing the energy savings target gap:
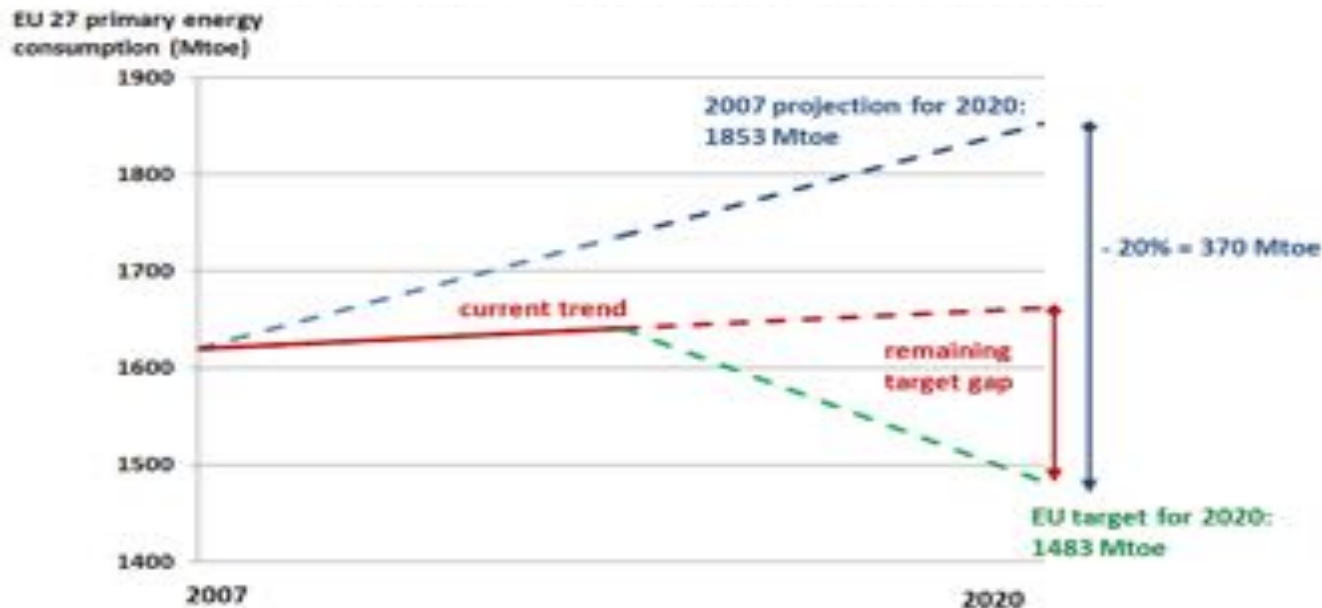
Agenda

- Starting questions

- Structure of the EURECA courses

- Learning outcomes

- **Course contents**
  - Purpose and goals of (EU) legislation & policies
  - **EU Directives and policies**
  - Tips & Support initiatives (for EURECA context procurement)

- Starting questions to be answered

- References and further reading

EU Directives for PPI and PCP
in EURECA context

Directive	PPI (Public Procurement of Innovation)	PCP (Pre-Commercial Procurement)
Procurement Directive Public Sector 2014/24	Fully abide	PCP exemptions as stated in resolution 2008/2139 *)
Energy Performance of Buildings Directive 2010/31	Applicable to New build Data Centre, renovation and retrofitting.	Applicable to New build Data Centre, renovation and retrofitting.
Energy Efficiency Directive 2012/27	Consult minimal criteria; supplied products should meet or exceed. Applicable to New build, renovation and retrofitting of Data Centre and products and services.	Consult minimal criteria; PCP R&D results should meet or exceed. Applicable to New build, renovation and retrofitting of Data Centre and products and services.
Standards CEN-CELENEC-ETSI Regulation 2012/1025	Consult minimal criteria; supplied products should meet or exceed. Useful for all Data Centre related buildings, products and services	Consult minimal criteria; PCP R&D results should meet or exceed. Useful for all Data Centre related buildings, products and services
RoHS [1] (2011/65) & WEEE [2] (2012/19) Directives	Consult minimal criteria for products or services containing EEE; supplied products should meet or exceed.	Consult minimal criteria for products or services containing EEE; PCP R&D results should meet or exceed.
ErP Ecodesign Directive 2009/125-Regulation 617/2013	Consult minimal criteria; supplied Energy-related Products (or product-using services) should meet or exceed	If applicable to Energy-related Products (or product-using services) from PCP R&D to meet or exceed.

*1) Restriction of Hazardous Substances
*2) Waste Electrical and Electronic Equipment

***For EURECA context thresholds
apply for the procurement of***

- ✓ *Data centre new build*
- ✓ *Retrofit or refurbish existing entire data centre or server room facility*
- ✓ *Retrofit or refurbish existing internal facility components f.e.*
  - • *UPS / back-up*
  - • *Climate control*
  - • *Data floor design (isles, cabling etc.)*
- ✓ *ICT (managed or cloud) services*
- ✓ *ICT consultancy & training services*
- ✓ *ICT equipment refresh*

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Current thresholds

Central Government authorities	Works contracts, subsidised works contracts	€ 5 225 000
	All services concerning social and other specific services listed in Annex XIV	€ 750 000
	All subsidised services	€ 209 000
	All other service contracts and all design contests	€ 135 000
	All supplies contracts awarded by contracting authorities not operating in the field of defence	€ 135 000
Sub-central contracting authorities	Works contracts, subsidised works contracts	€ 5 225 000
	All services concerning social and other specific services listed in Annex XIV	€ 750 000
	All other service contracts, all design contests, subsidised service contracts, all supplies contracts	€ 209 000

Note: For Defence and Utilities Public Sector some alternative thresholds apply. These and all current thresholds can be found here: https://ec.europa.eu/growth/single-market/public-procurement/rules-implementation/thresholds_en

Types of public procurement procedures

Open procedure

In an open procedure any business may submit a tender.

Restricted procedure

Any business may ask to participate but only those who are pre-selected will be invited to submit a tender.

Negotiated procedure

In a negotiated procedure the public authority invites at least 3 businesses with whom it will negotiate the terms of the contract.

Competitive dialogue

Often used for complex contracts such as large infrastructure projects where the public authority cannot define the technical specifications at the outset.

Electronic auctions

Public authorities can also award contracts by electronic auction, specific rules apply.

Public procurement rules on

- ✓ **Critères d'attribution**
- ✓ **Publication**
- ✓ **Transparence**
- ✓ **Spécifications techniques**

Key focus areas:

This Directive is specifically aiming to increase the adoption of innovative solutions for Buildings (such as data centres) which Public Sector can stimulate via PPI or PCP.

- *energy performance certificates for all buildings*
- *Inspection schemes for heating and air conditioning systems (or with similar effect)*
- *All new buildings: nearly zero-energy by 31 December 2020 (public buildings by 31 December 2018)*
- *Energy performance requirements for new buildings and major renovation / retrofitting of buildings*
- *List national financial measures to improve the energy efficiency of buildings*

Together with **Energy Efficiency Directive** this Directive is the main legislation to stimulate the reduction the energy consumption of buildings.

3 main pillars

This Directive is specifically aiming to increase innovative solutions to enhance energy efficiency in buildings *), products and services which Public Sector can stimulate via PPI or PCP.

1. Set of measures (relation to 2030 targets) to help the EU to
   a. *Cuts in greenhouse gas emissions by 40% (from 1990 levels)*
   b. *Share renewable energy up to 27%*
   c. *Improve in energy efficiency by 30%*
2. Public sector should purchase energy efficient buildings, products and services.
3. More focus on monitoring, reporting and auditing which (in varying levels) applies for public and private sector.

*) In conjunction with the Energy Performance of Buildings Directive.

Key focus areas

For procurement **Article 6** is of interest from a 'purchasing rules perspective'. Other key elements in EED are useful for Public Sector procurement in engagements with the market.

- *Energy distributors (DSO) or retail energy sales companies to achieve **1.5% energy savings** per year*
- ***other means** such as improving the efficiency of heating systems, installing double glazed windows or insulating roofs*
- ***Energy efficient renovations** on at least 3% of Public body buildings they own and occupy by floor area*
- ***Empowering energy consumers***
- ***Monitoring** efficiency levels re: generation*
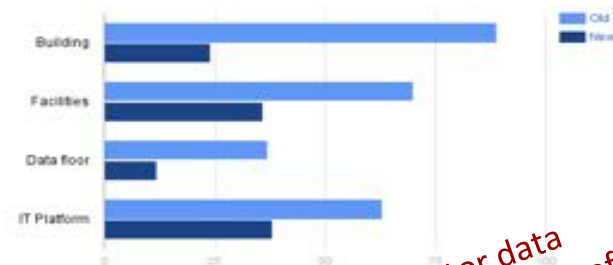
Transferable to Public Sector data centre facilities (and procurement of relevant products and services) as well

RoHS

1. This Directive is specifically aiming to restrict the use of hazardous substances in electrical and electronic equipment in products and product-using services, which Public Sector can stimulate via PPI or PCP.

2. Targets all electrical and electronic equipment (EEE), cables and spare parts, with full compliance by 2019

3. Aims for more clarity, transparency, labeling and clarification on rules, definitions and related regulation

CE

RoHS
2011/65/EU
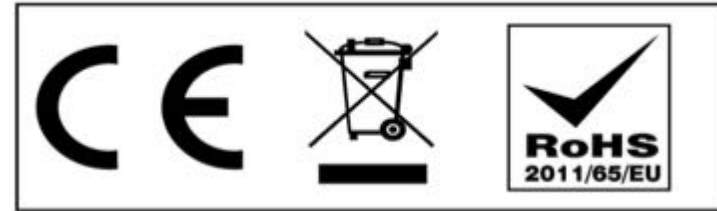
Should be used in conjunction with **WEEE Directive.** Together they are directed to stimulate and improve the collection and recycling of such equipment with less hazardous health and environmental impact.

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WEEE

- This Directive is specifically aiming for appropriate treatment *) of WEEE and reduce the volume that go to disposal, which Public Sector can stimulate via PPI or PCP (for example by opting for new business services dedicated to reuse).

- Earlier version (from 2002) updated in 2012. Key elements are:
  - ✓ *Requirements are written with **improved product design to ease dismantling, recycling and reuse** in mind and stimulate national WEEE **collection points and processing systems***
  - ✓ *WEEE scheme requires **involvement from all stakeholders**: national and local government, manufacturers, distributors, vendors and customers / consumers.*
  - ✓ *Covers most EEE but there are specific **exclusions***

Should be used in conjunction with **RoHS Directive.** Together they are directed to stimulate and improve the collection and recycling of such equipment.

*) last known figures EU at +/-30%.

Addressing minimum eco-design requirements

Establishes a framework which energy consuming goods must meet before they can be used or sold in the EU (32013R0617 targets computers and computer servers in particular)

Key elements are:

- ✓ *Eco-design requirements cover **all stages of a product's life** and various **environmental aspects are assessed** by bodies designated by EU countries.*
- ✓ *Manufacturers must construct an **ecological profile** of their products*
- ✓ *Products which satisfy the requirements bear the **CE marking** and may be sold anywhere in the EU.*
- ✓ *Products that can be powered directly from the mains alternating current (AC) including via an external or internal power supply*
- ✓ *Extensive **list of definitions** for ecodesign requirements for the placing on the market of computers and computer servers.*

Can be seen in conjunction with **EED.** Together they are directed to effectively improve the energy efficiency of products & services.

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European Standards Organisations (ESOs)

- **CEN**

  European Committee for Standardisation; body bringing together national standardisation bodies of 34 European countries.

- **CELENEC**:

  European Committee for Electro-technical Standardisation with members from 34 European countries.

- **ETSI**:

  European Telecommunications Standards Institute

  *With the '1025' regulation the European Committee formally recognised these organisations as **the** European Standards Organisations for Europe.*

Coordination Group on Green Data Centres

Manages and coordinates European standardisation works related to data centres energy efficiency together with stakeholders of industry and EU projects.

In 2016, Published 'Standardisation Landscape - Energy management and environmental viability of data centres' covering:

✓ ***existing standards*** *addressing energy management of data centre*
✓ *identifies* ***standardisation gaps***
✓ ***recommendations*** *and guidance to best practices for different DC areas*

Note: See References and Further reading at the end of the training module for links to the publication documents

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Under Horizon2020 the European Union has made budget available for PCP and PPI projects across the different 2016-17 Horizon 2020 work programmes.

The following funding opportunities exist for consortia of procurers:

✓ *To prepare and undertake together a PCP or PPI procurement*
✓ *To cooperate on identifying opportunities and preparing for future PCPs / PPIs (see the calls for coordination and support actions)*

Purpose for Public Sector Procurement:

✓ *For PPI to act as launching customer / early adopter / first buyer of innovative commercial end-solutions newly arriving on the market*
✓ *For PCP to steer the development of solutions towards concrete public sector needs, whilst comparing/validating alternative solution approaches from various vendors*

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Public Procurement Network:

The objective of the network is to strengthen the application and the enforcement of the procurement rules through mutual exchange of experience and benchmarking, and to create a reliable and effective informal co-operation including problem - solving in cross-border cases related to public procurement.

The European Commission has the status of observer to the PPN and supports the activities within the Public Procurement Network. http://www.publicprocurementnetwork.org

Procurement of Innovation Platform (and Forum):

This platform provides information on a variety of products or services procured by the Public Sector across Europe. It includes a forum for exchange of information between peers.

The Platform is developed and managed by ICLEI and additional regional organisations and was funded by the European Commission https://www.innovation-procurement.org
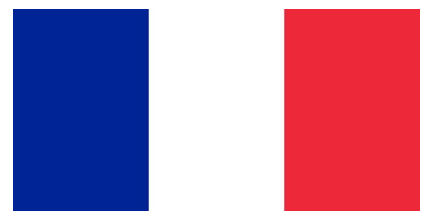
ISO20400 (Sustainable Procurement)

For PPI and PCP targeting environmentally sound or energy efficiency it is recommended to integrate sustainable procurement within the procurement organisation of the public body and to ensure its alignment with organisation wide relevant CSR strategy and objectives.

This new upcoming ISO standard provides a useful framework to realise this.

✓ *Voluntary (no certificate) standard and guideline*
✓ *Benefits organisation wide procurement*
✓ *Aligned with ISO26000 (Social Responsibility)*

First International Standard for sustainable procurement nears publication

FR legislation & policies

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EU PS Procurement Directive

1. ***Decree for Public procurement and concession contracts***

✓ ***Standardization*** *of two decrees (Public Procurement and Concession Contracts) and their three implementation decrees*

✓ ***Replacement*** *of the Public Procurement Code*

More relevant, modernised and comprehensible framework for PP addressing

✓ *Better alignment with EU Directive updates,*

✓ *Stimulate innovative solutions that increase public service effectiveness and quality,*

✓ *Meeting sustainability objectives,*

✓ *Improve chances for SME's, and*

✓ *Simplification*

The public procurer has a solid legal basis for integrating an environmental dimension into its markets

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2. Loi relative à la transition énergétique pour la croissance verte (2015)

EU EED & PoBD Directives

Objectives

✓ *Energy Efficiency: Reduction of final energy consumption by 50% in 2050*
✓ *Renewable energy: 23% in 2020 and 32% in 2030*
✓ *GHG: Reduction of 40% by 2030 and division by 4 by 2050*

- Scheme for the promotion of public procurement, socially and ecologically responsible
  - *When the total annual amount of purchases exceeds 100 million euros.*
- Specific section on the environmental and energy performance of procurement
- National Low-Carbon Strategy

THE ENERGY TRANSITION for the
GREEN GROWTH

Public procurement is positioned to play a major role in supporting this transition

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3. WEEE & RoHS Decree

WEEE concerns the prevention and management of waste electrical and elect
equipment and RoHS aims to restrict the use of certain hazardous substances
electrical and electronic equipment.

Key elements are:

- ✓ *A reduction in the number of categories of equipment (change from 10 categories to 7) from 15 August 2018.*
- ✓ *The setting of new collection targets: From 2016, this is set at 45% of the average weight of EEE placed on the market in the last three years. In 2019, the target will be 65% of the average weight of EEE placed on the market in the last three years or 85% of WEEE produced by weight.*
- ✓ *The setting of more ambitious recycling and recovery targets.*
- ✓ *A strengthening of controls in the case of exports of EEE for re-use.*
- ✓ *Transposition of the important definitions' clarification, previously identified in the directive*
- ✓ *Obligations imposed on all economic operators, distributors and importers*

EU RoHS & WEEE Directives

Legislation supporting sources

- General Administrative Specifications for the ICT market
  - ✓ *Sets out all the contractual aspects of a ICT contract*
  - ✓ *I.e: Contracts for the supply of computer or telecommunications equipment, commercial software; Development of information systems; Maintenance services*

- *Public Procurement Guide: Recommended Policies for Purchasing Strategies*
  - ✓ *Recommendations on how to put in place a relevant strategy to integrate the sustainable development*

- National Action Plan for Sustainable Public Procurement - 2015/2020
  - ✓ *Organize national actions for sustainable public procurement and ush each organization to think about sustainable purchasing*
  - ✓ *Goal for 2020: 30% of environmental clauses*

- Union of Public Purchasers' Groups (UGAP)
  - ✓ *Consideration of Sustainable Development to its purchases: 55% has sustainable aspects*
  - ✓ *Cloud Computing strategy: procurement of IT products and services*

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Les stratégies réglementaires sont là, les stratégies opérationnelles doivent se matérialiser davantage

En tant que professionnels du secteur, vous avez des incitations et une opportunité d'optimiser les opérations du data center !

The expert in anything was once a beginner.

Make sure you...

- Know the key organisational drivers (if any) in the areas:
  - *Economic*
  - *Environmental*
  - *Social*
  - *Technical*
- Know your *current* and *aimed* maturity (improvement options) of applicable areas vs. the requirements from EU directives and policies. (see Modules 4, 5 & 9)
- Select best fit standards (EU CoC, ISO etc.) in line with directives and policies and aimed maturity levels (see Modules 6, 7, 8 and 9)
- Set targets (actual or relative; f.e. useful metrics and KPI's*) in line with key drivers and legislation and policies. (see Module 7)
- Utilise Procurement frameworks supporting PPI and PCP (see Modules 1, 2, 5 & 7)

*) Note: it is important all parties involved have a clear understanding of both the purpose and benefits as well as the limitations and pitfalls

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1. Name at least 3 key EU legislative directives that may be relevant to procurement of data centre products and services

2. Stimulating Innovation through Public Sector procurement
   a) Why should public sector procurement stimulate market innovation?
   b) How can Public Sector approach this?

3. What is the benefit for both public and private sector to understand both (relevant) public sector and private sector legislation?

Please write down your responses (again).
Check the answers on the next slide.

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Answers should be (or for questions 3 and 4 wording to the same effect):

1) **Minimum of 3 named of the following a – f options:** Note: Any correct answer from a – f counts as a good answer, if three or more are scored the question is answered correctly.
   a) Procurement Directive PS
   b) Energy Performance of Building Directive
   c) Energy Efficiency Directive
   d) WEEE (Waste of Electronic of Electric Equipment) Directive
   e) RoHS (Restriction of Hazardous Substances) Directive
   f) Ecodesign for Energy related Products Directive

2) **Answer per region, either UK, NL, GER or FR:**
   ● **FR:** *Note: Any correct combination of m – p counts as a good answer, if three or more are scored the question is answered correctly.*
   m) EU PS Procurement Directive: Decree for Public procurement and concession contracts
   n) EED / EPoB: The Energy Transition for the Green Growth (2015)
   o) RoHS & WEEE: WEEE & RoHS Decree
   p) Ecodesign ErP: Energy label requirements for all ErP's, but no other specific national legislations. Incentivised through R&D and innovation programmes and via procurement guidance guides

3) **Stimulating Innovation through Public Sector procurement** *Note: For a) and b) both i and ii answers should be given to answer correctly (the key (bold) phrases suffices)*
   a) *Why:*
   i. PPI: stimulate **market access** to supplier
   ii. PCP: stimulate innovation of suppliers and create **market ready solutions (**and/or related services)
   b) *How:* Engage the market to fill Public Sector (functional) needs using
   iii. PPI: Function as a facilitator to establish a buyers group with **critical mass**
   iv. PCP: Function as **R&D purchaser**

4) **Benefits of understanding both relevant Public and Private sector legislation:** *Note: the key (bold) phrases should be mentioned to count as a good answer, if three or more to get full score.*
   a) Engaging the market through market navigation and **understand customer / supplier legislative requirements**;
   b) Formulating or answering tenders while keeping in mind the **minimum requirements** from the relevant Directives;
   c) Know what to look for when **evaluating bids**;
   d) **Knowledge development** of the (data centre and ICT solutions) market for the purpose of (future) procurement initiatives;
   e) **Identify innovation potential** (innovative (PCP and PPI) solutions should exceed or create better means to meet minimum requirement.

- Est-ce que vous pensez à d'autres politiques qui pourraient être inclus dans le cadre d'EURECA?
- Pensez-vous que la France pourrait bénéficier d'une politique spécifique en matière de TIC et de durabilité?
- Comment percevez-vous la façon d'accéder à des législations pertinentes?

Certificat de formation

1. S'enregistrer/se connecter: https://www.dceureca.eu
2. Scanner le code ou cliquer sur l'URL inscrit sur le flyer ou la demande de certificat

   PS: Assurez-vous d'avoir signé la feuille de présence

https://www.dceureca.eu/?page_id=3055

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  - EU Directives and policies
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- Starting questions to be answered

- **References and further reading**

References & Further Reading

- **Environmental Implementation Review & SOER**
  - http://ec.europa.eu/environment/eir/index_en.htm
  - http://www.eea.europa.eu/soer
- **PS Procurement Directive PCP exemptions**
  - ○ Official EC Resolution 2008/2139 document
  - http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52009IP0037
- **Rules, guidelines and initiatives on e-Procurement by EC**
  - ○ EU vision of transition to e-procurement
  - https://ec.europa.eu/growth/single-market/public-procurement/e-procurement/transition_en
- **(TED) SIMAP, the European portal for public procurement**
  - ○ List of notices
  - http://simap.europa.eu/enotices/changeLanguage.do?language=en
- **PS Procurement Directive types of procurements procedures**
  - ○ Procurement rules overview:
  - http://europa.eu/youreurope/business/public-tenders/rules-procedures/index_en.htm
- **EED Article 6**
  - ○ Purchasing by public bodies
  - http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52013SC0446

References & Further reading

- **Additional measures packages from EC (30 Nov 2016) affecting multiple Directives**
  - Delivery:
    http://ec.europa.eu/energy/en/news/commission-proposes-new-rules-consumer-centred-clean-energy-transition
  - Energy efficiency measures:
    https://ec.europa.eu/energy/sites/ener/files/documents/technical_memo_energyefficiency.pdf
  - Renewable energy measures:
    https://ec.europa.eu/energy/sites/ener/files/documents/technical_memo_renewables.pdf
- **ESOs report Standardisation Landscape - Energy management and environmental viability of data centres**
  - Full report:
    ftp://ftp.cencenelec.eu/EN/EuropeanStandardization/HotTopics/ICT/GreenDataCentres/GDC_landscape_Ed3(2016).pdf
  - Executive summary:
    ftp://ftp.cencenelec.eu/EN/EuropeanStandardization/HotTopics/ICT/GreenDataCentres/GDC_Brochure_Ed3(2016).pdf
- **EC List of member states contact points for WEEE**
  - Link to PDF provided by EC
    http://ec.europa.eu/environment/waste/weee/pdf/contacts_ms_weee.pdf
  - FAQ
    http://ec.europa.eu/environment/waste/weee/pdf/faq.pdf

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References & Further reading

- **Ecodesign of Energy related Products Directive**
  - Full Directive:
    http://eur-lex.europa.eu/legal-content/EN/LSU/?uri=CELEX:32009L0125
    http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32013R0617
    http://ec.europa.eu/growth/industry/sustainability/ecodesign_en

- **Support initiatives**
  - Horizon2020 (for PPI & PCP)
    https://ec.europa.eu/digital-single-market/en/innovation-procurement
    http://ec.europa.eu/information_society/newsroom/image/document/201637/pcp_and_ppi_in_h2020_wp17update_16966.pdf
    https://ec.europa.eu/digital-single-market/en/ict-innovation-horizon-2020
    http://www.innovation-procurement.org/about-ppi/policy-support/
  - ISO20400
    http://www.iso.org/iso/home/news_index/news_archive/news.htm?refid=Ref2105
    http://www.iso.org/iso/home.html

- **EURLEX**
  - All European Commission Directives (and all related communications) can be found via the EURLEX database
    http://eur-lex.europa.eu/homepage.html

References & Further reading

- **French references**
  - ○   Public Procurement and Concession Contracts:
  http://www.economie.gouv.fr/daj/textes-marches-publics#actuels
  http://www.economie.gouv.fr/files/files/directions_services/daj/marches_publics/conseil_acheteurs/fiches-techniques/champs-application/MP-et-autres-contrats-2016.pdf
  - ○   Energy Transition Act for Green Growth:
  https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000031044385&categorieLien=id
  - ○   RoHS & WEEE Decree
  https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000029387124&categorieLien=id
  https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000028160672&dateTexte&categorieLien=id
  - ○   General Administrative Specifications for the ICT market
  http://www.economie.gouv.fr/daj/Cahiers-des-Clauses-Administratives-Generales
  - ○   Public Procurement Guide: Recommended Policies for Purchasing Strategies
  http://www.economie.gouv.fr/daj/guide-climat
  - ○   National Action Plan for Sustainable Public Procurement
  http://www.developpement-durable.gouv.fr/IMG/pdf/Plan_national_d_action_pour_les_achats_publics_durables_2015-2020.pdf
  - ○   Union of Public Purchasers' Groups
  http://www.economie.gouv.fr/files/files/directions_services/sae/doc/Note-Innovation-012015.pdf