Grant Research Project "Enhanced Flexibility in European Effort Sharing by Application of a European Project Mechanism – EPM"

Design Elements of an EPM

Discussion paper

May 2016

Authors:

FutureCamp Climate GmbH

Dr Roland Geres, Daniel Scholz

adelphi research gGmbH

Lina Li, Dennis Tänzler

This project is financed from a grant by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB)
Duration: 09.2015 - 05.2016

Contents

1 Executive summary

Background to an EPM

The EU Commission announced a regulatory proposal on the Effort Sharing Decision after 2020 (ESD II) for the first half of 2016. It will likely also contain proposals with view to enhance flexibility in the ESD II by application of a project based mechanism. Based on good design, such a "European Project Mechanism" (EPM) [1] could become an important additional building block for meeting the medium and long term emission reduction targets of the EU in a cost-effective manner.

Relevance of an EPM

What make the discussion on an EPM further relevant are new developments under the international climate regime through the Paris Agreement (PA). The PA contains two parallel frameworks on markets and flexibility mechanisms: one for cooperative approaches that allows the use of internationally transferred mitigation outcomes, and the other for a new "mechanism to contribute to the mitigation of greenhouse gas emissions and support sustainable development", likely to replace the Kyoto Protocol's flexible mechanisms Clean Development Mechanism (CDM) and Joint Implementation (JI). The UN level guidance and provisions regarding these frameworks shall be worked out over the coming years. An EPM might also deliver valuable input for new flexibility instruments defined under the PA, thus function as a kind of laboratory.

Selection and analysis of design options

Regarding the design of the EPM, there are different implementation options under discussion. This paper aims to inform such research and discussion. It thereby takes account of the fact that design options must be embedded in the emerging and existing regulatory framework and use existing resources (esp. from JI and GIS); they must furthermore reflect key expectations regarding the instrument and quality requirements.

Selection of options with special focus on manageability

This paper presents policy options its authors deem relevant for consideration when designing an EPM. The non-exhaustive selection is based on experience from research, professional expertise (also drawing from interviews and exchange with stakeholders including government representatives from several EU member states) as well as an in-depth analysis of options. The manageability of an EPM may benefit from a selection of options that help limit political or administrative efforts or guarantee practical applicability.

Clear definition of responsibilities advisable

A clear definition of administrative responsibilities is possible and advisable. For practicability this paper argues that the main responsibility for the instrument should lie with MS individually. In such a largely decentralized structure, the EU would focus on the provision of adequate, limited guidance.

Early action advisable: It is up to MS to start pilots

It is at the discretion of MS to support the development of an EPM. This could be done through development of voluntary pilot activities even before 2021 – on the basis of existing flexibility in ESDI.

[1] This term is taken from a report by Ecologic, published in mid-2015: Nils Mayer-Ohlendorf et al (2015), EU Effort Sharing Decision after 2020: Project-Based-Mechanisms and Other Flexibility Instruments.

2 Acronyms

AAU	Assigned Amount Units
AIE	Accredited Independent Entity
AEA	Allocated Emissions Allowance
CB	Capacity Building
CDM	Clean Development Mechanism
CO_2e	Carbon dioxide equivalent
COP	Conference of the Parties (under UNFCCC)
DFP	Designated Focal Point (JI)
EBRD	European Bank for Reconstruction and Development
EPM	European Project Mechanisms (working title)
ESD	Effort Sharing Decision
EU	European Union
JI	Join Implementation
ETS	Emissions trading system
EU COM	European Commission
EPM	European Project Mechanism
GIS	Green Investment Scheme
MS	Member State (of EU)
MRV	Monitoring Reporting and Verification
PD	Project developer
PDD	Project Design Document

3 Introduction

3.1 EPM premises and potential merits

EPM premises

No ETS link

Instrument under ESD II with current scope

ESD II: market generally short in AEAs

Based on existing experience with similar instruments

The discussion of a European Project Mechanism (EPM)[2] follows key assumptions regarding the conditions of such an instrument. These are:

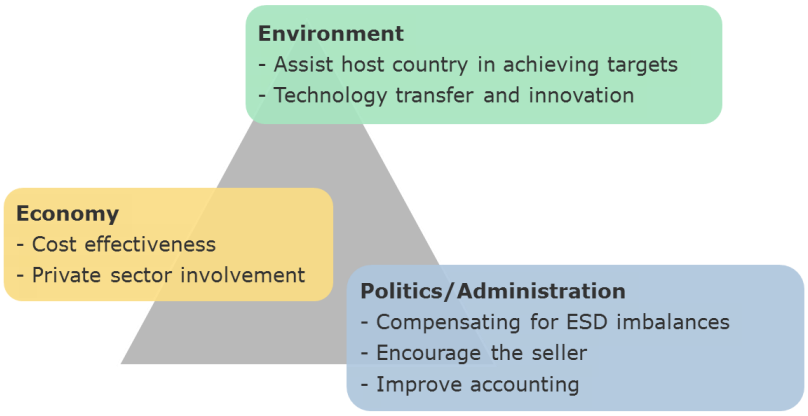
- The instrument will have no link to the ETS.
- The EPM will be established as an instrument to and under the ESD II, starting in 2021.
- An extension of the sectoral scope of ESD II is not considered in this paper.
- The market in ESD II phase will be characterized by Member States (MS)' overall shortness in AEAs.[3]
- The mechanism will rely on experiences with instruments like JI or GIS in Europe and aims at using already existing institutional structures.

Unfolding the benefits of an EPM

Market based instruments like the EPM may support delivery of climate policy in multiple ways with cross-cutting (co)benefits for realization of political or economic objectives.

A dedicated paper on merits of an EPM sums up positive characteristics of and expectations vis-à-vis the instrument. A well-designed EPM shall bring about these advantages. Figure 3-1 presents them in an overview:

Figure 3-1: Merits of an EPM



[2] This term is taken from a report by Ecologic, published in mid-2015: Nils Mayer-Ohlendorf et al (2015), EU Effort Sharing Decision after 2020: Project-Based-Mechanisms and Other Flexibility Instruments.

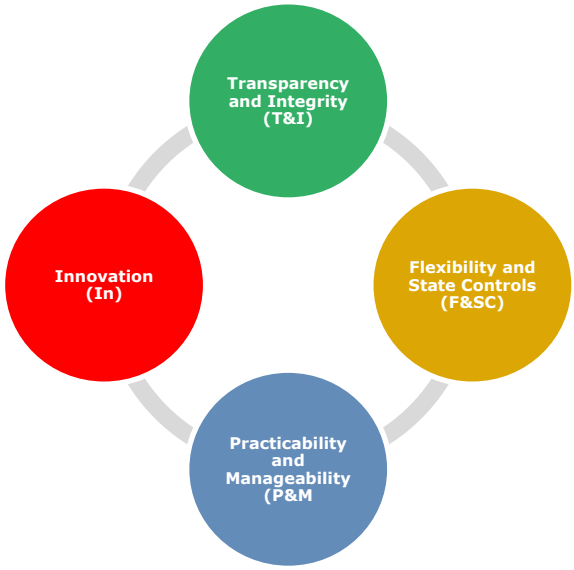
[3] This expectation is based on the defined parameters as per EU Council Conclusions (EUCO 169/14) where all MS will have targets below 2005 levels or at least neutral to these (ranging from -40% to 0% with the total EU level aggregated ESD emissions target of -30% below 2005 level). A recent research paper compared targets with emission pathways. It concludes also for a low emissions scenario a substantial net demand for AEAs that could be addressed by an EPM or another flexibility instrument; see Climate Strategies (2015), Enhanced flexibility in the EU's 2030 Effort Sharing Agreement: issues and options, p. 15.

3.2 Four basic requirements to an EPM

Overview of basic requirements

We use the following criteria to examine design elements (figure 3-2) which are drawn from both the experience with market mechanisms and various EC decisions and conclusions related to ESD and ETS, including Effort Sharing Decision (Decision No 406/2009/EC)[4], Conclusions on 2030 Climate and Energy Policy Framework (EUCO 169/14)[5], ETS Directives (Directive 2003/87/EC[6] and Directive 2009/29/EC[7]) and first summary from public consultation on ESD II[8].

Figure 3-2: Basic Requirements/Criteria for an EPM



Transparency and integrity (T&I)

References to transparency appear multiple times in each of the above mentioned documents. The same holds true for environmental integrity. "It is important that credits from project activities used by Member States represent real, verifiable, additional and permanent emission reductions and have clear sustainable development benefits and no significant negative environmental or social impacts."[9] A mixture of transparency, visibility and integrity also help to build market confidence while ensuring environmental effectiveness and fairness among market players.

Flexibility and state controls (F&SC)

Flexibility and country level ownership are critical for an EPM to take account of the diversified domestic situation and priorities at MS level. The Council conclusions (EUCO 169/14) emphasise regarding

[4] European Commission (2009) Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020, European Commission, Brussels. http://ec.europa.eu/clima/policies/effort/documentation_en.htm

[5] European Council (2014) Conclusions of the European Council of 23-24th October 2014, Brussels, 24 October 2014, EUCO 169/14 http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/145397.pd

[6] http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02003L0087-20140430

[7] http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32009L0029

[8] http://www.ceps-ech.eu/sites/default/files/Piotr%20Tulej%20presentation%20-EC%20consultation.pdf

[9] European Commission (2009) Decision No 406/2009/EC

governance that MS shall have freedom to determine their energy mix and respective policies (see box). Country level ownership also reflects the spirit of the *acquis communitaire* and the subsidiarity clause as per Article 5(3) of the Lisbon Treaty and respective Protocol (No. 2).[10]

> Council conclusions (EUCO 169/14)
>
> *6. The European Council agreed that a **reliable and transparent** governance system **without any unnecessary administrative burden** will be developed to help ensure that the EU meets its energy policy goals, with the necessary flexibility for Member States **and fully respecting their freedom to determine their energy mix**. This governance system will:*
>
> *6.1 build on the existing building blocks, such as national climate programmes, national plans for renewable energy and energy efficiency. Separate planning and reporting strands will be streamlined and brought together;*
>
> *6.2 step up the role and rights of consumers, transparency and predictability for investors, inter alia by systematic monitoring of key indicators for an affordable, safe, competitive, secure and sustainable energy system;*
>
> *6.3 facilitate coordination of national energy policies and foster regional cooperation between Member States.*

Practicability and manageability (P&M)

The EPM shall be practical and manageable - both with a view to government administration and private sector attractiveness. There is a need to limit implementation costs, i.e. administrative, regulatory and financial costs. This ultimately helps improve the overall attractiveness for buyers, sellers and project developers (PD) alike. In addition broad private sector involvement must also be assured. This can be done by simplifications of processes and streamlining of requirements.

Innovation (In)

"Innovation"/"innovate"/"competitiveness" is a reoccurring reference across the EU policy documents mentioned. "Member States should ensure funding for the use of new, innovative techniques […] to create new jobs, thereby increasing competitiveness and promoting the achievement of the objectives set by the Lisbon Strategy."[11] A low carbon transformation in non-ETS sectors is implied by the Council's conclusions (EUCO 169/14).The EPM shall support and catalyse innovation and low carbon transformation. The concept of innovation used here puts special emphasis on the socio-economic context where the innovative effect is realized. Therefore, it does not necessarily refer to the latest in available technology.

3.3 Categories of EPM design elements and research scope

Three aspects of instrument design

We structure the discussion of design elements in three pillars addressing the issue of governance and administration, infrastructure and rules as well as market and trading aspects separately, even

[10] Consolidated version of the Treaty on European Union, Official Journal of the European Union, C 326, 26.10.2012, p. 13–390, http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:12012M/TXT&from=EN

[11] European Commission (2009) Decision No 406/2009/EC

though we are well aware that there are significant overlaps between the different pillars.[12]

Table 3-1: The three pillars

Governance and administration	Infrastructure and rules	Market and trading
•Institutions and responsibility sharing/split •Project cycle •Costs and revenues •Liabilities	•Scope /eligibility criteria •Additionality •Crediting period •Methodologies and tools •Validation, verification and accreditation •Registry	•Market information •Trading units •(Minimum) Prices

Scope of analysis

While this research paper discusses the full variation of all three categories there are some aspects that are not covered here. Beyond the scope of this research are notably different options that are available for initiation of trades – i.e. technical aspects that are related e.g. to tendering approaches. These may be initiated by either host or buyer countries and be unilateral or (more) bilateral in nature. For such a discussion please refer to other studies where such aspects have been elaborated.[13] In fact under GIS and JI a full variation of approaches became visible that also included possibilities for proposing activities by private sector or regional actors bottom-up. It is the authors' view that the type of how activity based transfers of AEAs – i.e. EPM related trading between MSs – is organized may in the end be based on a large spectrum of past approaches with some room for flexibility.

Also beyond the scope of this paper are potential options for opening-up of the EPM to voluntary demand. Arguments for this may include the leveraging of finance especially for early start of pilots (kick-starting the instrument) or following the spirit of the Paris Agreement where the encouragement of the private sector to contribute to the necessary decarbonisation effort plays an important role.

3.4 Assessment

Subsequent section 4 presents different design options under the three pillars (Table 3-1 above) and evaluates these according to how they support the meeting of the defined four basic requirements (Figure 3-2 above). Table 3-2 presents the simplified assessment scale that is used in the evaluation of options.

[12] Drawing on and extended from World Bank PMR (2015), Options to Use Existing International Offset Programs in a Domestic Context, Technical note 10, August 2015, https://openknowledge.worldbank.org/bitstream/handle/10986/22347/K8347.pdf?sequence=4

[13] Nils Meyer-Ohlendorf et al (2015), EU Effort Sharing Decision after 2020: Project-Based-Mechanisms and Other Flexibility Instruments.

Table 3-2: Assessment scale

Assessment scale	
(+)	POSITIVE
(0)	NEUTRAL
(-)	NEGATIVE
(-/+)	LARGER RANGE

The assessment of design options is presented in overview tables whereas the text focuses on the description of the possible options.

The proper assessments are made by the authors based on their personal experience and evaluation, involving also intra-team discussions. For matters of readability and conciseness of this document, there is no explicit explanation for each of the assessments made on the four dimensions.

4 Design elements

4.1 Overview of policy options

Selection of options

Arrows with figures in Table 4-1 on the left refer to the relevant section of this document where the relevant option is presented. Where we deemed it helpful, we added such reference throughout the document.

Table 4-1: Options in this paper

Options for governance and administration
->4.2.1 Institutions and responsibilities
• Degree of centralization and decentralization as appropriate
• Use of outsourcing
->4.2.2 Project cycle
• Streamlining of basic processes
• Allowing for more procedural flexibility
->4.2.3 Costs and revenues
• Using ETS auctioning revenues
• Unburdening PDs from costs
->4.2.4 Liabilities
• EU body responsible towards project developers and verifiers
• MS responsible towards project developers and verifiers as well as EU body
• MS responsible towards project developers and verifiers only

Options for infrastructure and rules
->4.3.1 Scope and Eligibility
• Restrictions on sectors and/or project types
->4.3.2 Additionality
• EU law part of baseline
• No general restriction on combinations of financing
• Provide for easy testing of additionality
->4.3.3 Crediting period
• Standardization
• For PoAs: Crediting period by program activity
• Extending across ESD periods
->4.3.4 Methodologies and tools
• Build on existing knowledge
• Easy process for methodology development and adjustment
• Allow for state intervention
• Transparent pooling of methodologies
->4.3.5 Validation, Verification and Accreditation
• General rule: ex-ante validation & Ex-post crediting only
• Optional 2-stage approval process
• Combined review of PDD together with first monitoring report
• Facilitation of accreditation process
• Facilitation of verification process
->4.3.6 Registry
• Transparent registries on MS level
• Unitary, centralized registry
• Inclusion of EPM registry into larger ESD registry

Options for market and trading

->4.4.1 Market information and trading units

- Registries publish AEA prices
- New unit for EPM if ESD instrument only
- Specific unit if EPM also to serve other purposes

->4.4.2 Minimum prices

- Minimum price set for AEA transfer

Decentralization versus centralization

The level of centralization is an important aspect for any EU legislation – thus also the EPM. Which tasks may or should be done at EU level and which at MS level? Table A4 in Annex 4 gives a simplified overview of defined design elements under three scenarios of high, medium or low centralization, thereby also reflecting the authors' preferences.

4.2 Governance and administration

4.2.1 Institutions and responsibility sharing/split

General design: Two-level governance

The EPM will be defined as an instrument under the ESD, thus as an instrument of the European Union. As such it would be a two-level instrument – EU and MS – sharing out responsibilities for different institutions on each level. The extreme ends of this spectrum would mean handing over all relevant tasks to MS (using/defining the EPM at their discretion) or keeping this work completely on the side of the EU.

Centralization vs decentralization

A highly centralized EPM would mean that the EU – apart from the rule making role – would also take over many administrative tasks for managing the EPM. This would also ask for a strong, centralized European body with respective capacities.[14]

In a decentralized EPM approach there is no need for significant new administrative capacities for the EU. MSs are to define rules by themselves – be it unilaterally (host country) or bilaterally (host together with buyer country).

The case for a middle way

There are good arguments to opt for a middle way. Since the *raison d'être* of an EPM is to benefit the whole EU community and single MS alike, EU-wide stipulations and coordination will be useful. This also requires ways of accommodating specific MS interests and situations. By sharing out tasks prudently this challenge may be addressed the most effectively.

EU: basic rule setter, MS: detailed rule setting and implementation

In this scenario, the EU decides on the basic rules and ensures basic transparency. MS are to breathe life into the EPM by developing detailed rules and taking up the implementation work. For MS a framework like this would be similar to what was actually experienced as real practice under JI or GIS.

Involved institutions and bodies

Sharing the responsibility means also a need for both EU and MS to provide sufficient capacities to fill out the tasks.

[14] For discussions on this, i.e. a central clearing house, see: Climate Strategies (2015), Enhanced flexibility in the EU's 2030 Effort Sharing Agreement: issues and options Öko Institute (2015), Enhanced flexibilities for the EU's 2030 Effort Sharing Decision and Ecologic (2015), EU Effort Sharing Decision after 2020: Project-Based-Mechanisms and Other Flexibility Instruments.

National Authority

A National Authority[15] is responsible for the national administration of an EPM, notably the detailed EPM rule making (while leaving more general rule making to EU level). It also interacts with other MSs as well as with EU level. It could be based on existing structure, e.g. national fund (responsible for GIS) and DFP (responsible for JI). In some countries especially in the CEE region the national body for GIS and JI has been the same.

EU Supervisory Body

For EU level supervision of processes and to take over streamlining functions a EU Supervisory Body is needed. It may be under the oversight of the EU COM but might also include representatives from MSs. As a political regulator it defines procedural rules for the project cycle and transparency rules– with the most essential ones laid down in EC guidelines. It also may provide templates for project documentation, MRV guidelines, accreditation rules of auditors or even optional project methodologies.

Outsourcing of services

Apart from the general sharing out of responsibilities between EU and MS, there may also be outsourcing of services to others. This may include tasks both originally on the EU and/or MS level.

Advantages of outsourcing of major review tasks

Accredited independent auditors

The review of Project Design Document (PDD)[16] and monitoring report lies usually in the hands of auditors or accredited independent entities (AIE)[17]. The review ensures that emission reductions meet the requirements of the EPM, thus its work is important to guarantee the environmental integrity of a project or a program. In principle this task could also be done by authorities directly. Handing this job over to specialized auditors (accredited for auditing of defined project scopes) though may considerably reduce efforts on the side of the administrator. Furthermore such outsourcing may improve overall cost-effectiveness as such professional service providers have already the required experience, capacity and personnel to provide the services. In our further discussion of options for validation, verification and accreditation, we take the use of AIEs in auditing for granted.

Accreditation Body for auditor supervision

The accreditation of AIEs is usually done by designated accreditation bodies. In the EPM case that would naturally be done on the basis of MS standards and only few general European standards. Still there is a further option that deserves proper consideration: The accreditation under a comparable standard could also be accepted, thereby reducing cost and efforts. How this could be managed is further described in section 4.3.5.

There could also be a public stakeholder involvement whereby some of the checking is handed over to the general public – which may also be beneficial for the public acceptance of an EPM.[18] The evaluation table below presents general arrangements for the sharing out of responsibilities as discussed in this section.

[15] In the context of JI, the National Authority is called DFP (Designated National Authority). Similarly under CDM, it is called Designated National Authority (DNA)

[16] The term PDD is taken from JI and CDM. The character of this document is further described in section 4.2.2 below.

[17] The term AIE here is taken from JI. Similarly under CDM, there is Designated Operational Entity (DOE).

[18] In CDM and JI projects the implementation of local stakeholder process is an integral step in the project development and precondition for any start of validation. Through this process there is a further review of the project with its effects. Existing concerns may be flagged and thus made transparent at an early point in time.

Institutions and responsibilities		Evaluation (+/0/-)			
Options	Distinct features	T&I	F&SC	P&M	In
Strong EU level rule-setting	• EU body with strong capacities • Low MS intervention	+	-	0	0
Low/Medium EU level rule-setting	• Only basic rules set by EU • Strong MS role	0	+	+	+
Outsourcing where possible and reasonable	• Using independent auditors • Outsourcing of major parts of auditor accreditation to UN	+	0	+	+

Legend: T&I: Transparency & Integrity, F&SC: Flexibility and State Control, P&M: Practicability and Manageability, In: Innovation

Exemplary sharing out of responsibilities

Table 4-2 below gives an overview of a reasonable attribution of tasks by institution, also indicating sections where a more detailed analysis of related processes, rules and further requirements for the full operation of the defined EPM instrument are considered.

Table 4-2: Sharing out of responsibilities

EU level	MS level	Outsourced
• Basic definitions, e.g. on project cycle (-> section 4.2.2); • Guidelines & basic requirements, e.g. on legal additionality (-> 4.3.2) or crediting period (-> 4.3.3)		
	• Further national criteria, e.g. on additionality or scope and MRV rules (-> 4.3.1-4.3.4)	
• Information exchange/platform project types and methodologies (->4.3.4)		
	• Project approval processes (-> 4.3.5)	
	• Review of emission reductions as described in monitoring reports (-> 4.3.5) • Accreditation of AIEs by MS or partly outsourced, e.g. to UN (->4.3.5)	
• Entering of projects/AEA transfer amounts into EU-wide registry (-> 4.3.6)		

4.2.2 Project cycle

The ordinary project cycle

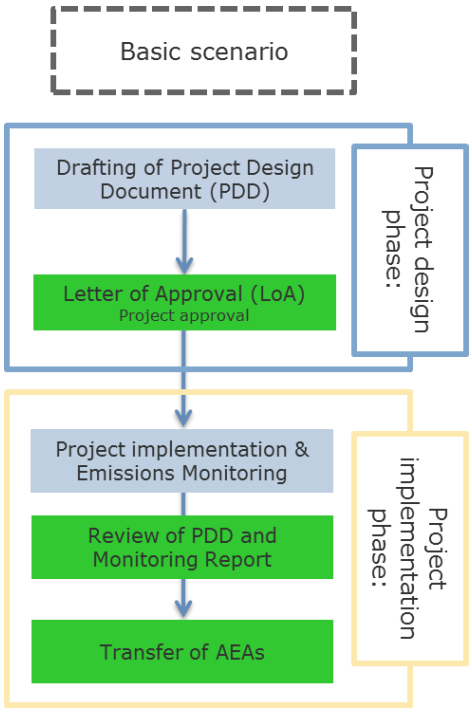
The project cycle – as understood in this paper – includes the most essential processes and steps in the implementation of the EPM, including both project design and implementation phases. A short primer with general information on a typical project cycle is included in Annex 1 to this document. Further steps, notably bilateral agreements with their content that may precede the cycle and may be important for its embedding are shortly described there. As

explained above such aspects are not further evaluated in this paper (->3.3). The separate research papers on JI and GIS provide information on the range.[19]

Most fundamental steps (Fig. 2: Basic project cycle)

Figure 4-1 presents a basic project cycle where only most central elements show up.

Figure 4-1: Basic project cycle



Source: own

PDD drafting

The Project Design Document (PDD) is the central project documentation. It is prepared by the project proponent. It describes all relevant data regarding the planned project, i.e. in the first place a technical description of the project, the methodology for monitoring or how relevant aspects pertaining to rules and the application process are fulfilled.

Project approval

The Letter of Approval (LoA) or simply approval process is a necessary step as it marks the regulator's general acceptance of a project as described in the PDD. The matters of project eligibility, additionality and the definition of crediting periods play an important role here (->4.3.1-4.3.3).

To keep it simple, only host countries should decide on approval of a project since any project under an EPM without support of the responsible National Authority is hard to imagine.

Emissions monitoring and reports

Together with project implementation the monitoring of emission reductions is launched. The monitoring of emission reductions is documented in so-called monitoring reports (GIS: annual reports/final report), prepared by the project participants or respective managing entities or national authorities (operation entities).

[19] Geres et al (2016), EPM discussion paper: Use of Project Mechanisms in Europe - insights from Joint Implementation (JI) and Li et al (2016), EPM discussion paper: Use of Project Mechanisms in Europe - insights from Green Investment Scheme (GIS).

Review of PDD and monitoring reports

The monitoring reports should generally be reviewed to verify both the proper implementation of the project and the achieved emission reductions. This is a crucial requirement to guarantee environmental integrity.

Further necessary and optional steps

The basic project cycle leaves out important issues which are analysed in more detail section 4.3 such as methodologies (4.3.4), options how to organize the review (4.3.5) and how to organise a registry (4.3.6).

Project cycle		Evaluation (+/0/-)			
Options	Distinct features	T&I	F&SC	P&M	In
Streamlining of basic processes	• Lean and clear definition of unitary processes • Simplified processes	+	+	+	-
Allowing for more flexibility	• Allowing for methodological flexibility • Adjusted project cycle for PoAs • Using registry functions for process facilitation	+	+	0/+	+

Legend: T&I: Transparency & Integrity, F&SC: Flexibility and State Control, P&M: Practicability and Manageability, In: Innovation

On sharing out of responsibilities (addendum to 4.2.1)

The basic regulatory provisions regarding the project cycle would most likely be brought forward by the EU through a definition of streamlined approaches. This would further help assure transparency in the market. The management of related tasks as well as further elaboration would remain a responsibility of MS, giving them helpful leeway and flexibility.

4.2.3 Costs and revenues

Cost and revenues occur both on the side of the regulator/administrator e.g. in the form of administration costs as well as on the side of the project developers (PD) in the form of transaction costs.

Main costs and revenues

Table 4-3 below provides an overview of main cost and revenue streams under an EPM for both administrators/regulators and project developers.[20]

From the regulator's side, costs include staff salary, overheads, materials, travel costs and/or third party fees, related to the project circle and MRV processes. The revenue can be generated through project fees and/or issuance fees etc. Further revenues – not included in the figure – might be generated indirectly, e.g. through effects of activities on local economies such as investments or jobs.

From PD side, costs include transaction cost from technical monitoring, audits or fees by regulator as well as investment and operating expenses etc. The revenue comes from sale of units or payments received based on the emission reduction performance of

[20] A summary of main costs and revenue streams under international offset programs is provided by World Bank PMR (2015), Options to Use Existing International Offset Programs in a Domestic Context, Technical note 10, August 2015, p. 74f.

the project and/or non-carbon revenue streams, e.g. sale of products or energy saving.

Table 4-3: Overview of cost and revenue parameters

Administration side	
Costs	**Revenues**
• Third party fees • Staff for National Authority, overhead • Upfront costs (EPM scheme)	• Accreditation fees • Account management fees • Approval and/or issuance fees
Project side	
Costs	**Revenues**
• MRV costs • Fees for regulator & third party costs • Investment costs	• Income from AEA sale • Other non-carbon revenue/savings

EPM design and costs and revenues

Costs and revenues are strongly influenced by a whole spectrum of aspects throughout all steps of the project cycle as well as other design elements. There are helpful options available for reducing efforts from organization and implementation of processes and requirements alike. The discussion of costs/benefits related to the establishment of a registry illustrates that the complete package including also indirect cost effects must be assessed (->4.3.6).

To reduce the overall administration and transaction costs as required by the EU Council, options of increasing standardization and of supporting a programmatic approach should be explored. To this end, experience with JI and GIS on methodologies and administrative practices can offer guidance. Requirements for approval procedures or adding additional checks may bring benefits for integrity while it would increase complexity and cost (see table 4.2.2).

Fees to cover administrative expenses

Project approval fees for project developers could increase the revenues needed to cover the costs. There could also be a levy per issued credit – be it by fixed charge (per t CO_2) or as share of the transaction value.[21]

Ways of unburdening project developers

At the same time, fees increase costs for project developers and might weaken the incentives created by an EPM. Therefore it also might be an option that MS do not charge fees and make use of other revenues – e.g. from auctions under the ETS – to finance their own resources, esp. staff.

Furthermore, the National Authority may also actively support project development by financing of methodology development. This was practiced under the CDM where private investors in small-scale projects were unburdened from undue costs (->4.3.4).

Using ETS auctioning revenues

Another option could be that costs from audits are taken over by a host country or a seller country to promote respective projects. This approach has been applied in the realm of JI and CDM.

Annex 3 gives a short excursus on the current situation of earmarking of ETS auctioning proceeds throughout the EU for climate measures.

[21] This has been common practice under GIS, e.g. charging usually less than 5% of the revenue from AAU sales.

Costs and revenues		Evaluation (+/0/-)			
Options	Distinct features	T&I	F&SC	P&M	In
Unburdening PDs from costs	• Only moderate fees for project registration or issuance • Renouncing of fees where necessary	0	0/+	+	+
	• Costs for methodology development for small scale projects/PoAs could be covered	+	0/+	+	+
	• Installing support schemes (soft loans), taking over cost from project development risks	0	+	+	+
Using ETS auctioning revenues	• Cost may be partly covered by use of ETS auctioning proceeds	0	0/+	+	+

Legend: T&I: Transparency & Integrity, F&SC: Flexibility and State Control, P&M: Practicability and Manageability, In: Innovation

On sharing out of responsibilities (addendum to 4.2.1)

If MSs are to carry the main duty for EPM implementation, they should be free to decide on all modalities to cover their administration cost. They could and would do this in line with their budgetary situations and their EPM objectives, e.g. using the instrument in order to support the development of activities on their territory.

4.2.4 Liabilities

Two main kinds of risk

There are two main kinds of risk for an offset program[22], for which liability provisions may be needed:

- Issuance: over-issuance of credits, e.g., due to an error in the calculation of the emission reductions generated by a project.
- Registration: registration of projects that should not be registered, e.g. non-additional projects.

In case a well-functioning MRV and respective checking tasks by authorities are in place, related risks from liabilities are quite limited. Experience from JI inside the EU proves this.[23]

In addition to project risk management, the project developer will be affected by any decision that has negative impacts on their projects' operation (e.g. rejection of a registration or an issuance, ruling on over-issuance)[24]. The likeliness of such risks to materialize in practice though is rather low. Furthermore, as the EPM is most probably guided by laws and/or administrative acts at MS level, existing appeal processes e.g. for administrative acts in general provided by the MS legal framework seem sufficient. [25]

[22] World Bank PMR (2015), Options to Use Existing International Offset Programs in a Domestic Context, Technical note 10, August 2015.

[23] Authors of this paper with long professional JI implementation experience have never witnessed such a case inside the EU.

[24] Ibid.

[25] The authors of this paper witnessed one case a project developer complained against such an administrative decision (in this case, it was on baseline set by the authority reducing the amount of credits beyond the proposed methodology of the project developer). A court decision at the end approved the decision of the authority.

Liabilities		Evaluation (+/0/-)			
Options	Distinct features	T&I	F&SC	P&M	In
EU body responsible towards PD and verifiers		+	-	-	0
MS responsible towards PD and verifiers as well as EU body	• Certain EU oversight and reporting requirements by MS to EU body	+	0/+	0/+	0
MS responsible towards PD and verifiers only		0	+	+	0

Legend: T&I: Transparency & Integrity, F&SC: Flexibility and State Control, P&M: Practicability and Manageability, In: Innovation

On sharing out of responsibilities (addendum to 4.2.1)

According to existing flexibility mechanisms' experience, in general the project developer is liable for the results of projects, and the independent verifier for its statements. The individual project risk management could be either assigned to an individual MS or to an EU body as a whole. Given the strong MS role in EPM implementation and the relation of the AEAs to host country, it may be most feasible to have (hosting) MS responsible towards PD and verifiers. Liability questions would also arise on that level with existing legal appeal processes already in place. From the authors' point of view, there is no need for further European instruments or even a European appeal body. On the intergovernmental level, the eventuality that a project fails in the project cycle (resulting in a non-delivery of certificates) may be settled in bilateral purchase agreements between seller and host countries. There are different ways of attributing and risk sharing available, e.g. by guarantee of AEA delivery by the host country.

4.3 Infrastructure and rules

4.3.1 Scope/eligibility criteria

Project eligibility

It is common that offset programs restrict the scopes for project implementation. Usually this is done by singling out sectors where projects are possible and/or definition of respective eligibility criteria. In the PDD[26] the compliance with such criteria would usually be described. In general such criteria could apply to geography/location, defined greenhouse gases (covered or not) or specific project types or sectors.

Little ground for restrictions – if at all for project types along host country interests

The following paragraphs show that the rationale for restricting eligibility within the sectors covered by the ESD is rather weak – especially as the problem of double counting does not exist in the inter-governmental context of the EPM. The area where a restriction could apply though is on sectors/project types along the interests of the respective host country. Restrictions may come in a more subtle way as countries may decide to endorse or not to endorse project proposals (->4.3.5).

[26] For more background information on the PDD as a document and its use, please refer to section 4.2.2 above.

Geographical criteria

The geographical scope of the EPM by definition is the European Union with its MS. Thus the instrument should generally be applicable for measures in ESD sectors throughout the EU in all of its MS. A reasonable restriction here is not to be expected.

GHG coverage

With view to greenhouse gases the eligibility has firstly to be in line with the ESD coverage. In the current ESD phase the six Kyoto gases during the first commitment period (2008-2012) are covered:

Table 4-6: ESD ghg coverage

• carbon dioxide (CO_2), • methane (CH_4), • nitrous oxide (N_2O),	• hydrofluorocarbons (HFCs), • perfluorocarbons (PFCs) • sulphur hexafluoride (SF_6).

This list of ESD gases may be further extended in the future.[27] A restriction of this list for an EPM is possible. Still there is again no clear reason why this should be made.

Sectors and project types

The sector coverage is the area where a restriction is much more likely[28]: While this may be less for common European reasons, MS may feel inclined to limit the scope for an EPM. One reason could be the preclusion of cherry picking by project participants. Thus an option for the EPM would be to allow host countries to restrict the EPM by application of a "negative list".[29] A negative list could consider e.g. the national decisions on specific activities or take into account existing instruments on national level, e.g. subsidies. Please see also the discussion on additionality below.

Scope/eligibility		Evaluation (+/0/-)			
Options	Distinct features	T&I	F&SC	P&M	In
Restrictions on sectors/project types	• Negative list • Defined by host countries	0	+	+	0/-

Legend: T&I: Transparency & Integrity, F&SC: Flexibility and State Control, P&M: Practicability and Manageability, In: Innovation

On sharing out of responsibilities (addendum to 4.2.1)

General European criteria for restricting eligibility within the ESD scope seem unlikely. In case there shall be restrictions, the authority for defining these would naturally be MSs as any such restrictions would likely reflect host country interests.

[27] In the second commitment period of the Kyoto Protocol there are now seven covered ghgs, including also NF_3.

[28] Under JI and CDM nuclear projects are explicitly excluded (negative list) while both schemes explicitly allow many others (positive list).

[29] It is important to note that such negative list should be not be used by MS for restricting project development arbitrarily – thus frustrating project developers. Therefore having a predefined negative list in place before starting of the EPM scheme would mark a reasonable approach.

4.3.2 Additionality

Environmental additionality is a host country concern

Additionality is mainly relevant from a host country perspective and less an issue of environmental additionality.[30] AEA transfers to another MS under an EPM must reflect emission reductions beyond emission reductions due to other instruments in place – otherwise implementing the EPM puts the host's national ESD compliance at stake. Thus MS will have strong self-interest to establish safeguards and processes for additionality testing.

General principle: consideration of EU law when defining baselines

To ensure environmental effectiveness of an EPM, a principle can be defined that EU law must be considered when defining the baseline – thus emission reductions would only be creditable if the related measures go beyond of what is actually required by European law.

Combination of financing and ruling out of double funding

On financial additionality the issue of double funding could arise. On the EU level, this becomes relevant if a combination of EPM funding and other EU-level financing is allowed. Such double support could be granted on the basis that existing support schemes proof insufficient to finance related measures while only combinations with EPM would help realize projects. Accordingly there must be further EU provisions on how to account for/eventually limit the additional support from any other scheme. The same issue emerges on MS level when host countries also provide support schemes to co-finance EPM projects. Generally allowing combinations would also help recognize "soft effects" from crediting that drive mitigation action.[31].

Special focus on facilitation of additionality proof

Extensive additionality proof has been too often an economical burden for projects (-> 4.2.3). To address this challenge, the clear description of procedures on how to account for combinations of financing when crediting a project is needed as well as on how to consider EU law inside the baseline.

By accepting standardized baselines, countries may unburden project developers. It could be even more effective to establish positive lists for projects that are deemed additional (w/o specific criteria). Such facilitation is essential for PoAs where the accession of new measures otherwise may easily become a heavy burden. A "first of its kind" criterion as used under other offset schemes could generally be accepted as proof. Some of the aspects raised above a described in more detail in the section on methodologies (->4.3.4)

Additionality		Evaluation (+/0/-)			
Options	Distinct features	T&I	F&SC	P&M	In
EU law is part of the baseline	• General principle, supporting environmental effectiveness	+	0	0	0
No general restriction on combinations of financing	• Thereby recognize "soft" promotional effect from crediting • Clear provision on how to exclude	0	+	+	+

[30] Geres et al (2016): The Merits of an EPM

[31] Soft effects as understood here are effects beyond monetary considerations, e.g. Corporate Social Responsibility (CSR) considerations: The crediting may serve as a helpful proof for/label to the effective implementation of emission reductions. This in itself may serve as a critical driver for the private sector to commit to emission reduction activities – even if the monetary rewards from sale of AEAs/the crediting proceeds may be limited.

	double funding				
Provide for easy testing of additionality	• Standardized Baselines • Positive list/first of its kind criterion	+	+	+	+

Legend: T&I: Transparency & Integrity, F&SC: Flexibility and State Control, P&M: Practicability and Manageability, In: Innovation

On sharing out of responsibilities (addendum to 4.2.1)

The legal principle that EU law must be considered when defining baselines is to be prescribed on EU level. The same is true for procedures to deal with the risk of EU-level double funding.

As the regulatory circumstances may vary much between countries, all further additionality criteria would best be defined nationally. This applies also to matters of double funding where national support schemes are involved. Discretion would only end where EU laws on e.g. state aid would no longer be met. By allowing for methods of easy additionality testing again countries would play the major role (-> 4.3.4) as well as by actively sharing information on such procedures for the benefit of all (->4.3.6).

4.3.3 Crediting period

The crediting period determines the timespan for which a project or program may receive crediting from an EPM.

10-year standard crediting period

A reasonable timeframe for crediting is needed. From offset project development experience (notably CDM/JI/VCS) a 10-year timeframe has proven to be effective. In case of GIS projects payment continued after 2012 when Kyoto Protocol phase I ended. In Poland program payment periods usually last until 2017. A longer timeframe under GIS allowed the financing of infrastructure measures where critical mitigation volumes only sum-up over time.

Rather one-off than renewable

A one-time crediting period seems reasonable from a project participant's point of view, not least as renewing means further uncertainty. A renewable crediting period would only make sense in case a project just delivered reductions if credited – thus the environmental benefit would terminate at the end of the crediting period and in the absence of other incentives or legal requirements (i.e. the crediting is the only income or economic benefit of the activity as was the case for example with JI nitric acid projects). As the spectrum of such activities is very limited and other policy instruments could and maybe should eventually step in where the EPM project expires, there is no clear necessity for a renewability clause.

Period extension for programs (PoAs)

Thus in sum there is good ground for a standard, reasonably long, one-time crediting period. But would this be adequate also for programs (JI-PoA- or GIS-like activities)? In fact for activities under the umbrella of a program, the standard crediting period would best be granted to the single activity – thus a program could last longer than the standard period. In the absence of such a provision, any program would soon be unable to gain new participants (especially in the latter half of its duration). One could argue thus that a reasonable time limit for a program would rather be 15 years and more than just 10 years. This is of specific importance if more challenging activities, e.g. those that are related to relevant infrastructure investments, shall be supported effectively.

Crediting across ESD periods

Long crediting periods, e.g. a 10-year period, would generally require allowing these to extend across ESD accounting periods. This would entail a disadvantage from a State control perspective as "fixed volumes" beyond the ESD periods are to be managed. But there would be benefits from a project developer's point of view due to co-benefits in terms of expected innovations and all-over manageability and practicability.

Crediting period		Evaluation (+/0/-)			
Options	Distinct features	T&I	F&SC	P&M	In
Standardization	• Reasonable/necessary timeframe (e.g. 10 years), • One-off, non-renewable	+	0	+	+
For PoAs: Crediting period by program activity	• Would rend starting of new activities under a program longer attractive • Would require a distinct crediting limit by program (e.g. 15 years)	0	-	+	+
Extending across ESD periods	• Would make new projects in second half of ESDII phase also attractive • Important facilitation for PoAs (see above)	0	-	+	+

Legend: T&I: Transparency & Integrity, F&SC: Flexibility and State Control, P&M: Practicability and Manageability, In: Innovation

On sharing out of responsibilities (addendum to 4.2.1)

The crediting period issue is fundamental for the economic rationale behind any project or program. In order to keep the regulation simple the most relevant stipulations would best be determined on EU level. Regarding the possibility for extension beyond ESD periods, this could be at the discretion of the MS, depending on its will to decide on "emission budgets" beyond the scope of a given ESD period.

4.3.4 Methodologies and tools

MRV is the backbone of any accounting or crediting scheme. As the CDM proves, methodology development is an iterative process with a lot of learning potentials.

Acceptance of existing methodologies under CDM and JI

Project specific adjustment and the recycling of methodologies can help lower costs under an EPM. This would require the acceptance of existing methodologies for application under the EPM, especially from the fields of CDM or existing JI methodologies. The advantages from such a recycling are most evident when considering general methodological tools like the one for additionality. Recycling could be enabled through easy reference to existing tools under proven standards.

The top down option

Methodologies may be developed both top-down or bottom-up. Under an EPM both should be allowed: For JI the French example gives proof to the viability of a top-down approach. It makes sense if a country wants to support clearly identified project types that e.g. fit well into the national policy framework or sees room for definition of strict baselines in order to achieve net mitigation benefits for its

emission inventory.[32] A primer on emissions performance benchmarks under JI in the annex illustrates this (-> Annex 2).

Bottom-up: methodology development in course of validation

Innovative approaches emerge rather from below. The same is true for standardized baselines may emerge bottom-up – especially when they facilitate the implementation of a programmatic project. Under JI a lot of methodologies were developed in course of the validation and review process of a project before its approval. Track 1 offered MS a lot of helpful flexibility for doing this – especially through a two-stage validation process (->4.3.5). This may well serve as a role model also for an EPM.

Flexible project specific recycling of methodologies

Flexibility may be broadened by also facilitating processes for adjustment of already existing methodologies and approaches from JI and GIS. The less formal this adjustment process is, the better: Too formal and complex processes (like having to revise and/or revalidate a methodology before applying it) may choke project development.

Fostering a growing pool of EPM methodologies

A pooling of available EPM methodologies may further drive learning effects and can help to reduce specific project cycle and mitigation costs through economies of scale. The pooling could be organized through an EU-wide transparent online information database of EPM methodologies. It could also include project documentation (PDDs or similar) where project specific adjustment/application of existing methodologies is described. This database could be well included into a larger registry (->4.3.6).

Methodologies and tools		Evaluation (+/0/-)			
Options	Distinct features	T&I	F&SC	P&M	In
Build on the existing knowledge	• Allow application of proven methodologies from selected schemes	+	+	+	+
Easy process for methodology development and adjustment	• Allow methodology development in course of validation	+	+	+	+
	• Allow flexible methodology adjustment in course of validation	+	+	+	+
Allow for state intervention	• Top-down methodology development • Prescription of national/standardized baselines	+	+	+	+/0
Transparent pooling of methodologies	• Define methodology information to be published • Establish web-based information platform for transparency	+	+	+	+

Legend: T&I: Transparency & Integrity, F&SC: Flexibility and State Control, P&M: Practicability and Manageability, In: Innovation

[32] For more on this rationale, please refer to chapter 5.2.3 in Geres et al (2016): Use of Project Mechanisms in Europe – insights from Joint Implementation.

On sharing out of responsibilities (addendum to 4.2.1)

A country driven approach to regulate methodology development is likely to bring about improvements. Depending on the flexibility allowed for using methodologies there are tasks related to checking and approval steps executed by the National Authority. If MS go for a top-down approach they would need to take over also the methodology formulation task. If they allow for methodology development and approval in course of validation, they would also reduce the burden by renouncing of a formalized additional step. In the end the decision on whether a project together with its methodology may be accepted or not would lie in their hands.

The EU Supervisory Body takes over an important facilitating role by defining (eventually also restricting) the applicable methodologies from other offset schemes and – maybe most importantly – by managing a general information platform for EPM methodologies.

4.3.5 Validation, verification and accreditation

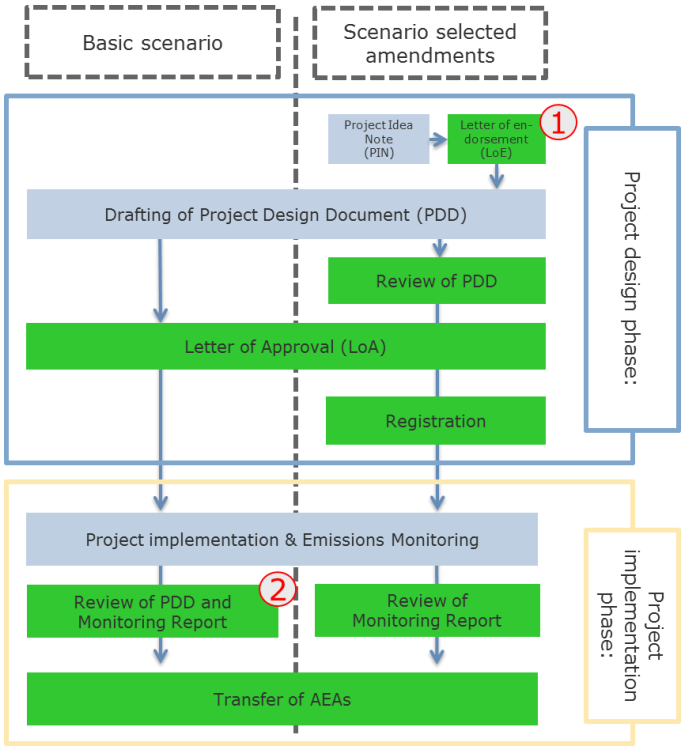
Basic principle: ex-ante validation and ex-post verification

One essential criterion for proper accounting, thereby assuring the schemes integrity, is the principle of ex-ante validation and ex-post verification. The EPM would best take on this principle. Apart from procedural provisions for validation and verification, the framework also requires provisions for the accreditation of auditors that provide the main important review tasks.

Optional amendments

Figure 4-2 below shows the basic project cycle (left-hand side, see also figure 4-1 above in section 4.2.2) together with a further second scenario, containing selected amendments (right-hand side). These amendments are less essential from a general point of view – thus marking options. Still their application could help facilitate the all-over process in some ways.

Figure 4-2: Project cycle



Source: own

PIN and LoE process (No1 in Fig. 4-2)

The LoE (Letter of Endorsement) process is an additional step in the project cycle. Based on a general description in the form of a Project Idea Note (PIN) the project participant informs the authority early on about the general design of the planned project. If the National Authority agrees to the project it may issue an LoE. This procedure comes along with the following advantage: The early consent by the regulator gives the PD a comparatively high degree of security with view to the projects' perspectives – well before more challenging and costly steps in the project cycle are taken. Furthermore the above described risk from PDD review included in the review of the first monitoring report may be considerably decreased. At first sight a related disadvantage though may be seen in related additional administrative efforts. But in the end the LoE process may also spare the National Authority the additional effort from having to work through an extensive in large part beforehand unknown PDD that might never qualify for acceptance. Effort may be further limited if the LoE process is designed and implemented with a sense of proportion.

Allowing review of PDD as part of review of first monitoring report (No 2 in Fig. 4-2)

Whereas in the basic scenario (Fig. 4-2, left side) the PDD review is part of the first monitoring, this is usually implemented as a separate task already before project approval. Between these options there are clear trade-offs.

A review of the PDD as part of the first monitoring report brings about the advantage of decreasing costs/efforts, thus improving the cost efficiency. There is thus good reason to decide on this matter flexibly – maybe on the basis of a reasonable analysis of the concerned projects. The facilitation could be granted to projects that meet certain conditions, e.g. use an already proven methodology, are quite common in a MS or generate just limited volumes of emission reductions. The facilitation could thus also apply to a selection of defined project types.

Such circumspect handling could also help address or even preclude potential disadvantages such as higher project risk from non-compliance (because of before unnoticed criteria in past project implementation and/or monitoring). As environmental integrity is concerned, there is no trade-off from this option as the PDD will be checked anyhow before recognition of emission reductions and issuance of payments to a PD.

Accept accreditation under a comparable standard

In section 4.2.1 on institutional and responsibility split we also briefly discussed the issue of accepting an accreditation under a comparable established standard like the CDM or JI (under the UNFCCC). In that case the EPM specific accreditation function could be reduced to a supervision of services and – in case of proven deficiencies – the possibility of eventual sanctioning of AIEs[33], e.g. by temporal exclusion from EPM auditing. A potential point of reference for that could also be the existing JI accreditation or the ETS scheme for appointing verifiers.

Facilitations for review

It is important to keep project verification simple. This could be done by using simplified procedures, renouncing of unnecessary formal requirements and using other facilitations. The experience from JI with track 1 and from CDM with facilitating provisions especially for PoAs may be helpful. Under specific conditions an onsite visit could be renounced of. The absence of or definition of a longer minimum

[33] For more information on Accredited Independent Entities (AIEs) please refer to section 4.2.1 above.

frequency for verification could facilitate the verification. For PoAs the possibility of partial verification – thus not all measures under a program need to be verified at the same time – may help managing entities with their job.

Validation, verification and accreditation		Evaluation (+/0/-)			
Options	Distinct features	T&I	F&SC	P&M	In
General rule	• Ex-ante Validation and Ex-post Verification	+	+	+	+
Two-stage approval compared to basic approach	• LoE as preliminary review of project suitability	+	+	+/0	+
Combined review of PDD and first monitoring report	• There is no separate PDD review process by an auditor • This facilitation may be granted based on conditions (e.g. proven methodology)	0	0	+/0	0
Facilitation of accreditation	• Minimal general standards • Accreditation through national accreditation bodies	0	+	+	0
	• Automatic acceptance of accreditation under other scheme	0	0	+	0
Facilitation of verification	• Use good practice, renouncing of onsite visit • No prescribed or longer frequency of verification • For PoAs: partial verification possible	0	+	+	+

Legend: T&I: Transparency & Integrity, F&SC: Flexibility and State Control, P&M: Practicability and Manageability, In: Innovation

On sharing out of responsibilities (addendum to 4.2.1)

Possible standards and procedures for verification and accreditation would best be at the discretion of MS. This reflects the importance to accommodate their interests first. It is them who may flexibly chose options that fit the national circumstances best.

With above discussed options the EU level involvement may seem minimal: Still by defining the general rule on ex-ante validation and ex-post verification as well as basic requirements for verification and accreditation through the EU Supervisory Body, the EU may lay important foundations to guarantee a high quality in emissions accounting.

4.3.6 Registry

Registration/registry

Registration as understood here is a separate step distinct from the project approval process. It refers to the inclusion of EPM project data into a registry, thus its transparent publication.

- On projects specific methods and baselines: The registry function may support learning effects by making such information available to all – thus creating general benefits and catalysing the EPM's application (->4.3.4).
- Information on AEA transfer amounts: This may also be tracked in registries. The related advantage is increased transparency and provision of important information for a

functioning market. How registries may do this is further elaborated below (-> 4.4.1).

- Registries may also contain general information on the use of (other) flexibility mechanisms by MS under the ESD, thus making flexibility instruments and related transactions more transparent in general.

EPM project data

The publication of EPM project related information could be obligatory with issuance of the LoA and submission of verified/approved monitoring reports. Related advantages are increase in transparency (informing market and general public) and integrity, thus also potentially spurring improvements and implementation of innovative approaches also elsewhere.

AEA transfer data

A transfer of AEAs should be followed by an entry into the registry. Furthermore, it might be an option to encourage MS to register also planned transfers, e.g. once a transfer is negotiated between MS involved. Such registered activities could stem from using an EPM or from using other flexibility instruments.

Rationale of unitary registry

The related administrative costs from managing registries could be seen as a burden. Still such costs may turn out negligible if compared to administrative facilitations that may emerge from such data-tracking. The cost/benefit ratio is likely to be better with a unitary EU-wide registry than with single national registries. In addition to such an EU level registry and its data requirements, MSs are free to publish more information on projects within their territory and/or they are involved with in other MSs. This was also the case for some MSs under JI.

Registry		Evaluation (+/0/-)			
Options	Distinct features	T&I	F&SC	P&M	In
Transparent registries	• Providing information to all, thus raising transparency and reducing transaction costs • Obligatory data entry	+	+	+	+
A unitary registry platform	• Centrally managed • Increase in practicability through enhanced standardization • Economies of scale effect	+	0	+	+
Inclusion into larger ESD registry	• Supporting general transparency on ESD • Documenting all kind of ESD flexibility transactions	+	0	0	0/+

Legend: T&I: Transparency & Integrity, F&SC: Flexibility and State Control, P&M: Practicability and Manageability, In: Innovation

On sharing out of responsibilities
(addendum to 4.2.1)

Regarding the definition of standard/obligatory data for publication, an EU wide definition would be helpful. A registry platform would best be administered on the EU level. In case of MS registries, the administration efforts would be directly born by the National Authority. Like other functions, a registry may be run by the competent administration as well as by an outsourced entity.

4.4 Market and trading

4.4.1 Market information and trading units

Market information and registries

As presented above a registry may provide essential services for market information. With an EPM market disclosure of volumes may be much more important than disclosure of prices – the latter being more important with view to environmental integrity. Thus the AEA price may remain confidential between MSs – as is the case in other, comparable registries on project activities.

Rational for price disclosure

However, its disclosure may be an option for other reasons. Most importantly here the price disclosure may highlight cost-effective potentials also to be addressed by others elsewhere. It may thus encourage other project participants and countries alike to support or kick-start project development as well as generate general spill-over effects.

No general necessity for establishment of a specific trading unit

We generally understand the EPM as a mechanism under the ESD, designed for facilitation of MS ESD flexibility. Thus in a base scenario there will only be trading between MSs. Does this preclude private sector involvement or weaken potential incentives for the private sector? This concern is important. Still as long as it is guaranteed that payments from buyers are transferred to the single projects/project owners there is no general problem with this setting. Thus there is no necessity to define a new unit/credit such as a "European Emission Reduction Unit" ("E-ERU") if an EPM is governed properly by MSs. Private sector actors must and can rely on the payments according to their projects' performance.

Specific unit if EPM should serve additional purposes

Just in the case that an EPM is also designed for other purposes/parties (this aspect is beyond the scope of this paper, -> 3.3) a new unit might bring about some accounting advantages. Its creation may follow the example of JI, where AAUs were converted into ERUs. Thus host countries may convert AEAs into E-ERUs, with related AEAs being automatically deleted in that process. But even in this "extended use case" specific units are no ultimate requirement as there may be processes in place that may simply replace flows of AEAs or other units between parties by financial flows or (for voluntary offsetting) even traceable and tradable confirmations that the government has cancelled/taken AEAs out of the market.

Market information and trading units		Evaluation (+/0/-)			
Options	Distinct features	T&I	F&SC	P&M	In
Registries publish AEA prices	• In addition to other registry information (-> 4.3.6)	+	0	+	0
New unit for EPM if ESD instrument only	• Instead of AEA transfer, AEAs must be converted (analogous to JI)	0	0	-	-
EPM specific unit if EPM also to serve other purposes	• e.g. AEA sales also for use in voluntary offsetting	+	0	+	+

Legend: T&I: Transparency & Integrity, F&SC: Flexibility and State Control, P&M: Practicability and Manageability, In: Innovation

On sharing out of responsibilities (addendum to 4.2.1)

Sharing out of responsibilities on AEA price information follows the same logic as described for the registry infrastructure and its related requirements for transparency in general (->4.3.6). In case a new

unit shall be established related definition on how a conversion of AEAs is being made etc. would best be defined on the EU level.

4.4.2 (Minimum) Prices

In general the price level in an EPM transaction will be determined in purchase agreements between buyers and sellers/project participants before implementation of a project activity or programme – similar to what is happening by use of forwards in EUA trading. For MSs as well as PDs the range of such unit prices (AEA or others) or of payments for emission reduction performance is very important. Especially if prices are too low, an EPM cannot deliver as it should.

Setting a minimum price

In the first place a minimum price may be helpful reference to assess the attractiveness or viability of project activities and/or related transactions at an early point in time. The price floor may thus be regarded as a facilitator as it can improve the general financial planning security for PDs, seller and buyer countries alike. A precedent to this is the minimum price that was applied to Chinese CDM projects.

Using price reference for a competitive EPM

A minimum price could be established by prescription. A more elaborate way to determine the minimum price could be through a price link. Transaction prices as disclosed by other ESD flexibility instruments (e.g. AEA auctioning) may serve for this purpose. A price level comparable to other instruments may help prevent that an EPM is crowded out by its potential competitors.

Of course for EPM-facilitated AEA transfers a minimum price from price reference could also be combined with an absolute minimum price (the latter serving as a definite minimum guardrail).

W/wo a minimum price: In the end the price level must be reasonable in order to guarantee the financing of EPM measures – thus reflect also actual mitigation costs[34].

Minimum prices		Evaluation (+/0/-)			
Options	Distinct features	T&I	F&SC	P&M	In
Minimum price set for AEA transfers	• To be defined once or linked to a reference price from transactions under other ESD flexibility instruments, or combination • Probably different views on that between buyer/seller MS	+	+/0	+	+

Legend: T&I: Transparency & Integrity, F&SC: Flexibility and State Control, P&M: Practicability and Manageability, In: Innovation

On sharing out of responsibilities (addendum to 4.2.1)

Price definition is a task for involved trading partners – i.e. for MSs and project participants. The minimum price would be defined as a European solution – thus on the European level.

[34] A reasonable price level could be around 20-25 Euros. In its analysis for DG Clima AEA identifies relevant potential for mitigation in cost bands A (no regrets) and B (<25 EUR/t) and EPM could try to address; see AEA (2012): Next phase of the European Climate Change Programme: Analysis of Member States actions to implement the Effort Sharing Decision and options for further community-wide measures

5 Overview of results from the evaluation

The following three tables provide an overview of assessment results for options under the three categories on an EPM. Detailed explanations are provided in section 4. For easy reference the figures in red indicate the relevant subsection.

Table 5-1: Evaluation results on governance and administration

->4.2.1 Institutions and responsibilities		**Evaluation (+/0/-)**			
Options	Distinct features	T&I	F&SC	P&M	In
Strong EU level rule-setting	• EU body with respective capacities • Low MS intervention	+	-	0	0
Low/Medium EU level rule-setting	• Only basic rules set by EU • Strong MS role	0	+	+	+
Outsourcing where possible and reasonable	• Using independent auditors • Outsourcing of major parts of auditor accreditation to UN	+	0	+	+
->4.2.2 Project cycle		**Evaluation (+/0/-)**			
Options	Distinct features	T&I	F&SC	P&M	In
Streamlining of basic processes	• Lean and clear definition of unitary processes • Simplified processes	+	+	+	-
Allowing for more flexibility	• Allowing for methodological flexibility • Adjusted project cycle for PoAs • Using registry functions for process facilitation	+	+	0/+	+
->4.2.3 Costs and revenues		**Evaluation (+/0/-)**			
Options	Distinct features	T&I	F&SC	P&M	In
Using ETS auctioning revenues	• Cost may be partly covered by use of ETS auctioning proceeds	0	0/+	+	+
Unburdening PDs from costs	• Only moderate fees for project registration or issuance • Renouncing of fees where necessary	0	0/+	+	+
	• Costs for methodology development for small scale projects/PoAs could be covered	0	0/+	+	+
	• Installing support schemes (soft loans), taking over cost from risks in project development	0	+	+	+
->4.2.4 Liabilities		**Evaluation (+/0/-)**			
Options	Distinct features	T&I	F&SC	P&M	In
EU body responsible towards PD and verifiers		+	-	-	0
MS responsible towards PD and verifiers as well as EU body	• Certain EU oversight and reporting requirements by MS to EU body	+	0/+	0/+	0
MS responsible towards PD and verifiers only		0	+	+	0

Table 5-2: Evaluation results on infrastructure and rules

->4.3.1 Scope/Eligibility criteria		Evaluation (+/0/-)			
Options	Distinct features	T&I	F&SC	P&M	In
Restrictions on sectors/project types	• Negative list • Defined by host countries	0	+	+	0/-
->4.3.2 Additionality		**Evaluation (+/0/-)**			
Options	Distinct features	T&I	F&SC	P&M	In
EU law is part of the baseline	• General principle, supporting environmental effectiveness	+	0	0	0
No general restriction on combinations of financing	• Thereby recognize "soft" promotional effect from crediting • Clear provision on how to exclude double funding	0	+	+	+
Provide for easy testing of additionality	• Standardized Baselines • Positive list/first of its kind criterion	+	+	+	+
->4.3.3 Crediting Period		**Evaluation (+/0/-)**			
Options	Distinct features	T&I	F&SC	P&M	In
Standardization	• Reasonable/necessary timeframe (e.g. 10 years), • One-off, non-renewable	+	0	+	+
For PoAs: Crediting period by program activity	• Would rend starting of new activities under a program longer attractive • Would require a distinct crediting limit by program (e.g. 15 years)	0	-	+	+
Extending across ESD periods	• Would make new projects in second half of ESDII phase also attractive • Important facilitation for PoAs and GIS-like activities (see above)	0	-	+	+
->4.3.4 Methodologies and tools		**Evaluation (+/0/-)**			
Options	Distinct features	T&I	F&SC	P&M	In
Build on the existing knowledge	• Allow application of proven methodologies from selected schemes	+	+	+	+
Easy process for methodology development and adjustment	• Allow methodology development in course of validation	+	+	+	+
	• Allow flexible methodology adjustment in course of validation	+	+	+	+
Allow for state intervention	• Top-down methodology development • Prescription of national/standardized baselines	+	+	+	+/0
Transparent pooling of methodologies	• Define methodology information to be published • Establish web-based information platform for transparency	+	+	+	+

->4.3.5 Validation, verification and accreditation		Evaluation (+/0/-)			
Options	Distinct features	T&I	F&SC	P&M	In
General Rule	• Ex-ante Validation and Ex-post Verification	+	+	+	+
Two-stage approval compared to basic approach	• LoE as preliminary review of project suitability	+	+	+/0	+
Combined review of PDD and first monitoring report	• There is no separate PDD review process by an auditor • This facilitation may be granted based on conditions (e.g. proven methodology)	0	0	+/0	0
Facilitation of accreditation	• Minimal general standards • Accreditation through national accreditation bodies	0	+	+	0
	• Automatic acceptance of accreditation under other scheme	0	0	+	0
Facilitation of verification	• Use good practice, renouncing of onsite visit • No prescribed or longer frequency of verification • For PoAs: partial verification possible	0	+	+	+
->4.3.6 Registry		**Evaluation (+/0/-)**			
Options	Distinct features	T&I	F&SC	P&M	In
Transparent registries on MS level	• Providing information to all, thus raising transparency and reducing transaction costs • Obligatory data entry	+	+	+	+
A unitary registry platform	• Centrally managed • Further increase in transparency and practicability through enhanced standardization • Reduced management costs: Economies of scale effect	+	0	+	+
Inclusion into larger ESD registry	• Supporting general transparency on ESD • Documenting all kind of ESD flexibility transactions	+	0	0	0/+

Table 5-3: Evaluation results on market and trading

->4.4.1 Market information and trading units		Evaluation (+/0/-)			
Options	Distinct features	T&I	F&SC	P&M	In
Registries publish AEA prices	• In addition to information under registry section	+	0	+	0
New unit for EPM if ESD instrument only	• Instead of AEA transfer, AEAs must be converted (analogous to JI)	0	0	-	-
Specific unit if EPM also to serve other purposes	• e.g. AEA sales also for use in voluntary offsetting	+	0	+	+
->4.4.2 (Minimum) Prices		**Evaluation (+/0/-)**			
Options	Distinct features	T&I	F&SC	P&M	In
Minimum price set for AEA transfers	• To be defined once or linked to a reference price from transactions under other ESD flexibility instruments, or combination • Probably different views on that between buyer/seller MS	+	+/0	+	+

6 Conclusions and recommendations

Building an EPM on available experiences and proven resources

There are a large number of options available for the design of an EPM. However, as the discussion of this paper shows the list of reasonable elements is limited. In fact, almost all design elements presented here draw on a large volume of GIS and JI experience that is available in EU MS. The related processes and resources may serve well as foundation for the new instrument.

Manageability through well-founded selection of elements

What counts for manageability of an EPM is a well-founded selection of design options. The discussed options in this paper describe elements that may become part of such a package. Often they help reduce political or administrative efforts or guarantee practical applicability.

Clear definition of responsibilities advisable

A clear definition of administrative responsibilities is possible and advisable. For practicability this paper argues that the main responsibility for the instrument shall lie with MS individually. This follows the principle that in the end it is them who decide on the use of their national AEA allocation. In such a decentralized structure, the EU would focus on the provision of adequate, limited guidance. This may come in form of minimum standards and basic principles to guarantee e.g. transparency in accounting or implementation of the *acquis communitaire*.

Early action advisable: It is up to MS to start pilots

In the likely case that there is no cross-phase crediting (ESDII/ESD post 2030) the importance of having the main EPM definitions and procedures in place well before 2021 is all the more relevant. Only with sufficient lead time, promising programmatic approaches may be developed and start with the necessary amount of activities early on. It is at the discretion of MS to support the development of an EPM. This could be done through development of pilot activities even before 2021 – on the basis of existing flexibility in ESDI. The private sector may help kick-starting an EPM that is designed appropriately.

EPM as a laboratory

In the end the EPM itself as well as the way the EU and its MS manage the instrument may deliver a blueprint for implementation of article 6 of the Paris Agreement.

Annex 1: Primer on project cycle and tasks

Figure A1 gives a simplified overview of the tasks in the regular project cycle of an offset instrument. The cycle itself as well as involved tasks and actors are discussed in more detail especially under 4.3.

Project proponent

The project proponent (blue) is drafting project documentation as well as conducting the monitoring and preparing monitoring reports for the review.

Review/authorities

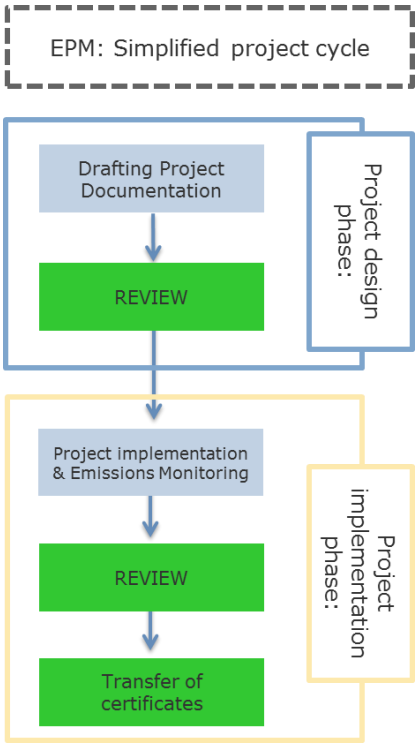
The review elements (green) also include the definition of processes, the issuance of regulations or provision of templates etc. for project documentation or monitoring and verification.

What is not included in this limited understanding of a "project cycle" is the basic framework and processes that may precede it - notably in a more top-down EPM case.

This could be a tendering process or another project initiation step related to a trade between MSs that comes along with relevant definitions for the project (e.g. scope).

These may be defined in bilateral agreements as was also the case under GIS.

Figure A1: Project cycle overview



Source: own

Annex 2: Primer on emission performance benchmarks

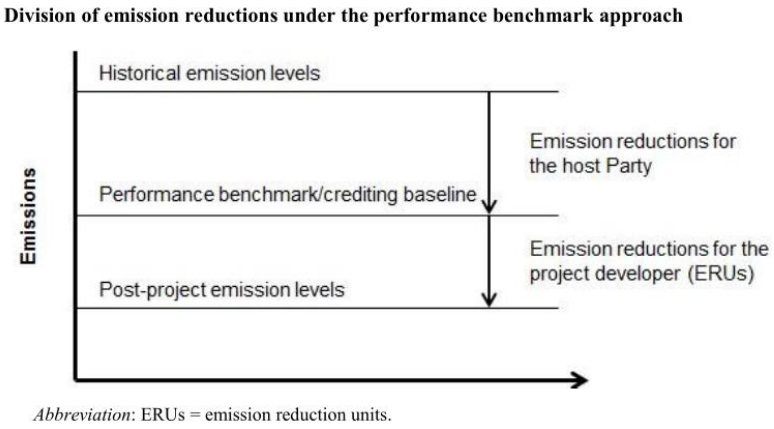
Emission performance benchmarks are voluntary technical approaches applied by JI host countries. They are applicable to specific sectors. The benchmarks were determined by best available technology or the national regulations.

The lower crediting baseline compared to real historical emission levels gives strong incentives for achieving an enhanced mitigation performance.

Furthermore emission reductions beyond the crediting baseline (see figure A2 below) could be used to issue ERUs for the benefit of the host country, generating revenues from sale of these, or be used as a

direct additional contribution for achievement of quantified targets of the party. We call such contribution an "inventory net mitigation benefit".

Figure A2: Performance benchmark approach



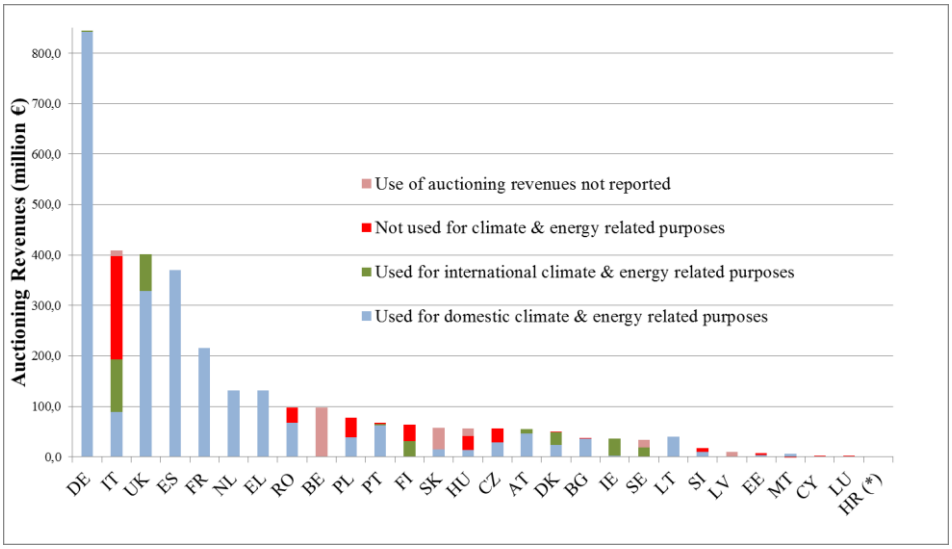
Source: Note by the Secretary for SBI 42nd Session (June 2015) FCCC/SBI/2015/INF.1

Annex 3: EPM funding from ETS auctioning

According to the EU ETS Directive, MS should use at least 50% of their AAU auctioning revenue or the financial equivalent to that for climate or energy related purposes.

In its climate action progress reporting, the EU Commission sums up the financial value of ETS proceeds as planned to be used by MS for defined purpose throughout Europe in 2014. It shows that on average the share of earmarking is around 87%.

Table A3: Reported revenue or equivalent in financial value used or planned to be used for climate and energy related in 2014[35]



[35] COM(2015) 576 final, Brussels, 18.11.2015, http://ec.europa.eu/clima/policies/strategies/progress/docs/com_2015_576_en.pdf

Annex 4: Overview of sharing out of responsibilities

Table A4 is meant for illustration and accentuation. It shows that according to the degree of centralization there may be different arrangements of distinct design elements.

Cells coloured yellow reflect the authors' point of view on preferable options.

Detailed discussion of these and further options are presented in the respective sections of chapter 4, on governance and administration (4.2), infrastructure and rules (4.3) and market issues (4.4).

Table A4: Overview of potential elements by centralization

Governance and administration:			
	High Level of Centralization	**Medium Level of Centralization**	**Low Level of Centralization**
Institutions and responsibility sharing /split	EU central Board deciding on rules and approval of projects	EU Delivers Basic Rules whereas detailed rules and implementation is done on MS level similar to JI and GIS	No rules on European Level, projects are defined inside/between MS
Project cycle	Project cycle oriented on JI and GIS, open for both approaches		
	Whole project cycle in all steps regulated by EU	EU defines basic requirements for project cycle in order to ensure especially transparency	No rules on EU level
Costs and revenues	EU charge a fee to cover admin cost	MS are free to charge a fee to cover admin cost but dont have to	
Liabilities	In general, PD is liable for results of projects, independent verifier for its statements		
	EU-Body is responsible towards project developers and verifiers	MS responsible towards PD and verifiers with possible oversight done by EU body and/or combined with reporting requirements by MS	MS are responsible towards project developers and verifiers without any oversight and reporting

Infrastructure and rules:			
	High Level of Centralization	**Medium Level of Centralization**	**Low Level of Centralization**
Scope /eligibility criteria	All projects eligible must be covered by scope of ESDII and MS inventories		
	EU decides on eligibilty of project types in detail	EU decides on possible scopes, whereas MS decide on eligibilty in detail	MS decide without any restrictions as long as covered by scope of ESD
Additionality (legal, financial and environmental)	EU defines additionality for all project types in detail	EU defines additionality requirements regarding using *acquis communitaire* as legal baseline. If combinations of EPM and EU-level financing shall be allowed, clear procedures to avoid double promotion must be established. All other additionality rules are defined on MS level.	No additionality requirements on EU level
Crediting period	Crediting period should be at least until end of ESDII period or even longer (e.g. 10 years for each single project activity)		
	EU level decision on creding period for each project activity	MS decide within the framework set on EU level	MS decides without restrictions
Methodologies and tools	In all cases, methodologies can be drawn from JI/CDM/GIS, adjusted to host country circumstances and can be defined as binding or open for proposals from PDs		
	EU level methodologies for same project types	MS level methodologies or methodologies proposed by PDs with EU-wide informational website	MS level methodologies without EU-wide information
Validation, verification and accreditation	In all cases, independent ex-ante validation and ex-post verification as well accreditation of verifiers might be foreseen		
	Third party verification with EU level verification and accreditation of verifier (e.g. through a EU Supervisory Body or an outsourced specialiced Accreditation body)	Third party verification with MS level verification and accreditation of verifier with basic requirements for verifiers set on EU level	Third party verification with MS level verification and accreditation of verifiers without basic requirements from EU level
Registry	In all options, a registry on EU-Level delivering information on AEA accounts and transfers between MS might be an option for all flexibility mechanisms independent from an EPM in order to strengthen transparency		
	EU registry or common platform to publish contact persons, offers, information on approved projects	MS registry on projects with harmonized annual report to EU level	MS registry without report to EU level
Market and trading:			
	High Level of Centralization	**Medium Level of Centralization**	**Low Level of Centralization**
Market information	Information on amounts transferred coverd by registry, information on prices might be kept confidential between MS		
Trading units	As long as AEA transfers only are done between MS and PDs are paid by them, no need for a new unit.		
Minimum price	1)Minimum price set at certain level (may review overtime) or 2)ETS-price link-option with possible deduction or 3)No minimum price		
	Set on EU level	Set on MS level with recommendation from EU level	Set on MS level without recommendation