MRV capacities and NDC implementation

How to build capacities in MRV on corporate, sectoral and national level

Who we are!

- ✓ **verico SCE** a cooperative of freelancers and small enterprises according to European legislation (Societas Cooperativa Europaea)
- ✓ Registered office in Germany
- ✓ Established in 2013
- ✓ Decades of experiences as experts in various industries, as ghg verifiers, in quality assurance, accreditation and as trainers/coaches
- ✓ MRV as core expertise

Topics

- ✓ Monitoring, Reporting and Verification (MRV) of greenhouse gases – demands for a robust infrastructure
  Werner Betzenbichler

- ✓ NDCs and the impact on MRV requirements
  Sven Kolmetz

- ✓ Examples of MRV systems at national level
  Luis Robles Olmos

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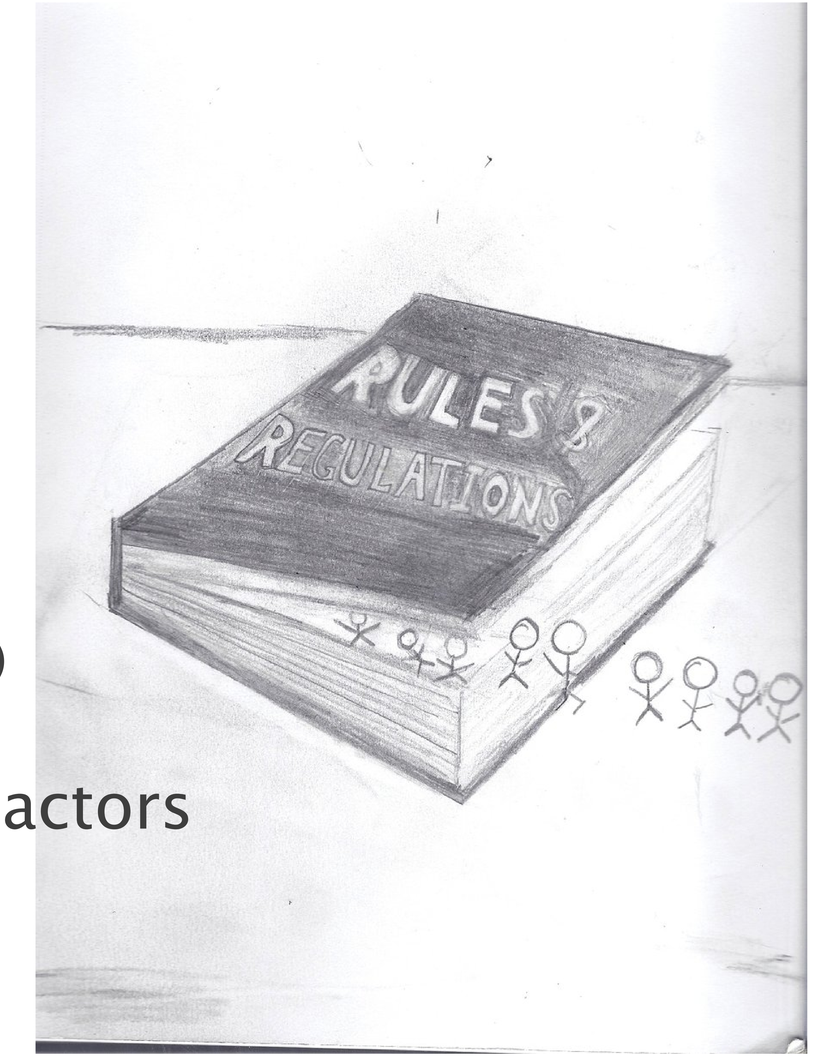
- ✓ Examples for capacities building measures in MRV
  Luis Robles Olmos

Key elements a MRV infrastructure

- ✓ Regulatory framework
  - ✓ Regulations, laws and/or standards
  - ✓ Methodologies
- ✓ Institutional framework
  - ✓ Authority
  - ✓ Accreditation Body / Scheme
  - ✓ Accredited verifiers
  - ✓ Supporting services (e.g. laboratories, consultants)
- ✓ Know-how (capacities and capabilities) at key actors



Setting-up a MRV infrastructure

Which parameter influence the feasibility and timeline of implementing an intended MRV infrastructure?

- ✓ Intended granularity of data (e.g. national level, sectoral level, installation level)
- ✓ Availability of resources (laboratories, experts, verifiers)
- ✓ Incentives for implementation (business opportunities like the use of market-based instruments, compliance requirements, political will)

Setting-up a MRV infrastructure

Who needs to be involved?

- ✓ Those setting the regulations
  → governmental authorities
- ✓ Those obliged to apply the regulations
  → operators of installations, project owners, verifiers
- ✓ Those supporting the obliged ones
  → consultants, laboratories, service companies
- ✓ Those checking the correct application
  → governmental authorities, verifiers, accreditation bodies

MRV infrastructure

Recent status in many countries

- ✓ governmental authorities
  - frequent exchange of knowledge owners
  - each reporting exercise is a new study
- ✓ Only international operating companies may monitor and report ghg emissions
- ✓ No MRV regulations, guidance documents, national standards, etc.
- ✓ Neither local consulting, laboratory, verification or accreditation services established

Key message regarding MRV

- ✓ Each NDC implies a (tailored) Nationally Determined MRV infrastructure

- ✓ All countries of the PA will have to show action also the context of MRV
  - ✓ New methodologies
  - ✓ Higher “granularity”
  - ✓ Further capacities

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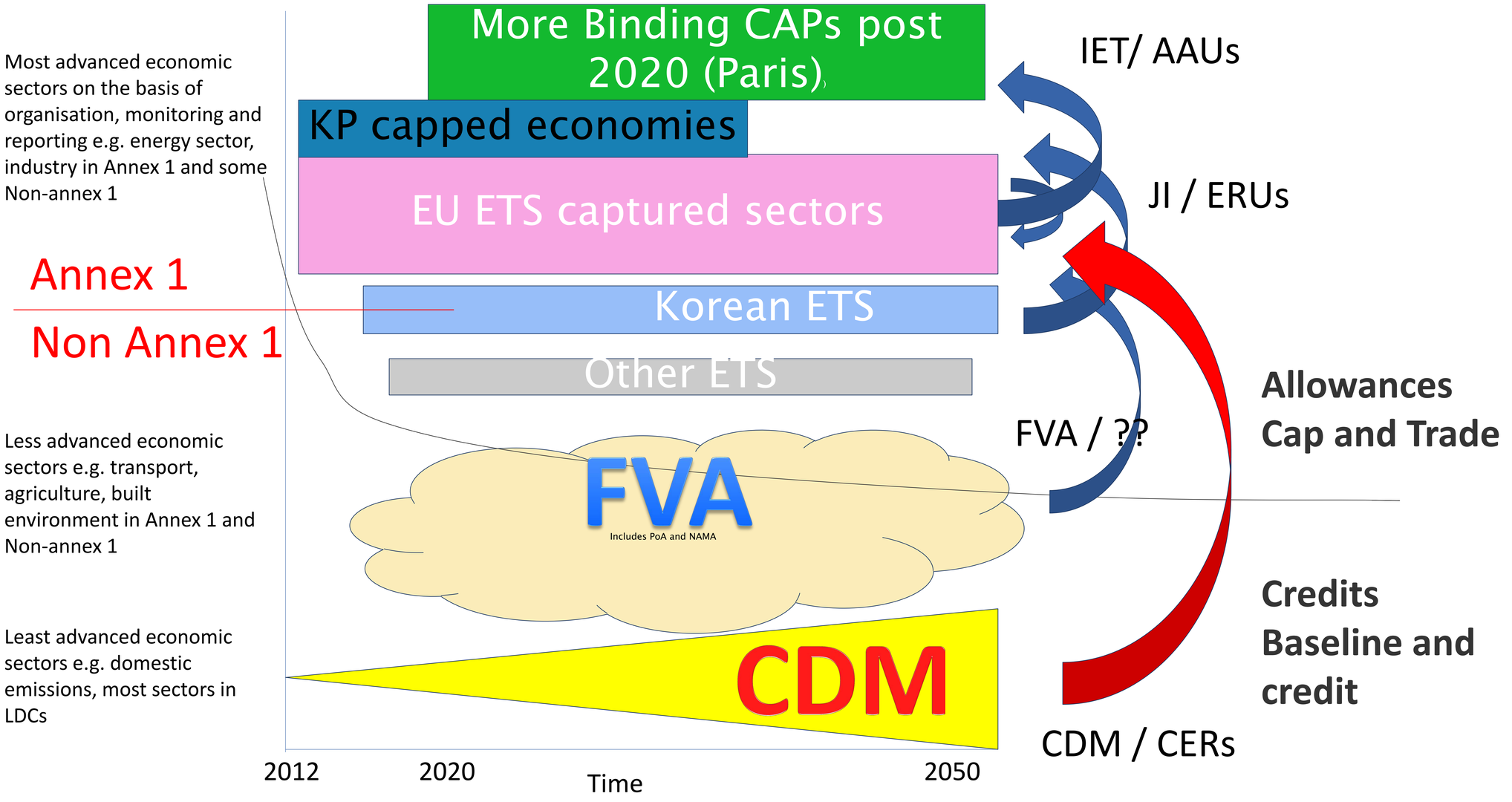
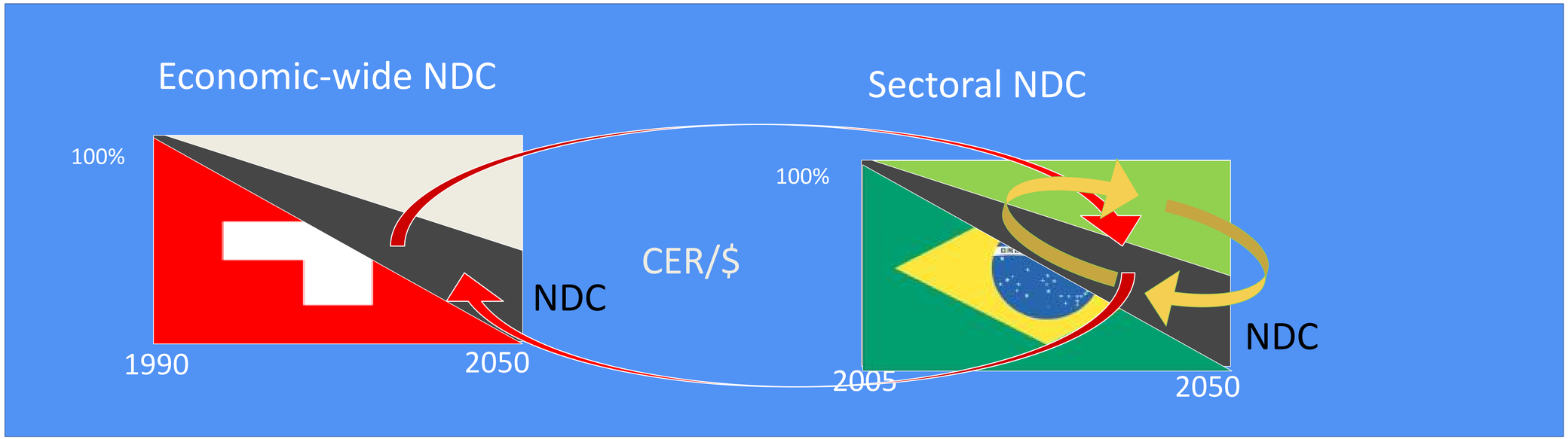
The Pre-Paris World



The Post-Paris World



Source: Engie

- **Article 6.4 mechanisms can be used for achieving NDCs domestically as well as internationally**
- **The Swiss & Brazilian NDCs allow visualizing the concept:**
  - Switzerland: demand for "carbon credits with high environmental standards" with rules that avoid double counting.
  - Brasil: Open to the use of market mechanisms that are established under the UNFCCC as long as any international transfers are "subject to prior and formal consent".
- **Initially Article 6.4 mechanisms can be a fundamental tool provided a robust MRV is established for the SDM AND the NDC!**

MRV requirements on different levels

National level: now mainly inventories – in the future also: Economy-wide NDC – Multiple Sectors – Sectoral NDC)

IPCC Standard or similar
Mainly tier 1
(Import – Export times default EF)

National GHG Report

TOP

DOWN

UP

ISO14065 or similar
Mainly tier 3 and more
Measured Fuel consumption times
specific EF

EU ETS

SDM

PoA

Bottom

Corporate Level: Projects – Corporate Inventory – PoA - NAMA

Where Verico steps in:

National level: we help with the quality management of the national inventory, check the figures and increase credibility (project example: national inventory of Germany)

Cross check the German NIM report to the UNFCCC based on IPCC requirements

National GHG Report

TOP

DOWN

UP

Compare ISO14065 and international MRV schemes like EU ETS, Chinese ETS, California and propose national appropriate solutions

MRV / ETS

SDM

PoA

Bottom

National/Corporate Level: we help to build the MRV process, train the verifiers, instruct the accreditation body, support the legal authorities (project example: MRV in Chile)

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Ecuador

"*Estimates of Emission Reductions from the Energy Sector in 2017"- NDC*

✓ Multiple methodologies: a single objective:

- CDM validation and verification standard.
- CDM Methodologies.
- ISO 14064-2:2006 Greenhouse gases -- Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements.
- ISO 14064-3:2006 Greenhouse gases -- Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions.
- GHG Protocol, 2014.

✓ LEAP, the Long-range Energy Alternatives Planning

Honduras

National MRV, woodfuel, cookstoves, and forest.

Beyond MRV

- ✓ Three Main areas: Capacity Building, Digital MRV implementation, Institutional arrangements.

- ✓ Cobenefits valuation: Using information from MRV to assess impacts
  - ✓ Gender: Employment, education, safety.
  - ✓ Health: Health Impact economic model.

Egypt

Transport development and emission reductions

In the Egyptian NDC (Egyptian Intended Nationally Determined Contribution), expansión of Cairo Metro Line is specifically included. Other transport projects are key elements of Egyptian NDC.

Cairo Metro Line II Rolling Stock project was identified as a potential project to be developed under FINTECC

Proposal:

a)To create an ad-hoc methodology to be used by the Project under a RBF (result-based finance): the methodology can be created from the approved CDM ACM 0016 (Mass Rapid Transit Projects, MRTP), using:

- baseline emissions,
- project emissions,
- leakage,
- emission reductions monitoring methodology, and
- methodological design of survey MRTS.

(cont)

Egypt

Transport development and emission reductions

Proposal (cont):

b) Despite the quantified contribution of urban transport to GHG emissions, there is another big issue related with the other air pollutants coming from fossil fuel vehicles and their impact in the human health:

- ✓ SOx,
- ✓ NOx,
- ✓ CO,
- ✓ particulate matter (PM 10 & PM 2,5),
- ✓ VOCs, etc.,

Using proper values associated to the mitigation of each pollutant, the co-benefits achieved by the Project can be evaluated and quantified in terms of **savings for the Egyptian health systems**. Other co-benefits, as **time saved** available for other purposes, **family savings**, **accessibility** for **lower income population**, etc. can also be evaluated and quantified.

Egypt

Conclusions:

Emissions Reduction methodology:

As a result-based finance is an element of the bilateral cooperative scheme between buyer and host countries, the approval of the use of the ad-hoc methodology should come from the consensus between both Parts

Co-benefits:

Co-beneifts methodology could be applied in the transport sector, and an example for the consideration of co-benefits in the objectives, measures and policies of the Egyptian NDC.

Environmental asset

Emissions reductions units originated by the project, referred to a relevant scope of air pollutants plus greenhouse gases, could be considered then as complete environmental asset, and a first-of its-kind in line with some proposals to develop Article 6 of Paris Agreement

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