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R E G I O N A L F O R U M



Sectoral templates for baseline setting and benchmarking in the oil and gas sector

Christian Ellermann



- **Goal: develop and apply a tool (template) to**
 - Provide a basis for benchmarking / efficiency improvements
 - Present the sector for international climate financing
 - Gather information for sectoral emissions scenarios

- **Approach**
 - Complete data (quantitative and qualitative)
 - Transparent process
 - Comparable presentation

- **Use**
 - Benchmarking
 - Voluntary monitoring and reporting (e.g. GGFR)
 - Climate change regime (UNFCCC)

Recent Ecofys activities

- Testing “Sectoral Proposal Templates”
 - Electricity, transport, cement, iron & steel
 - Tested in China and Mexico

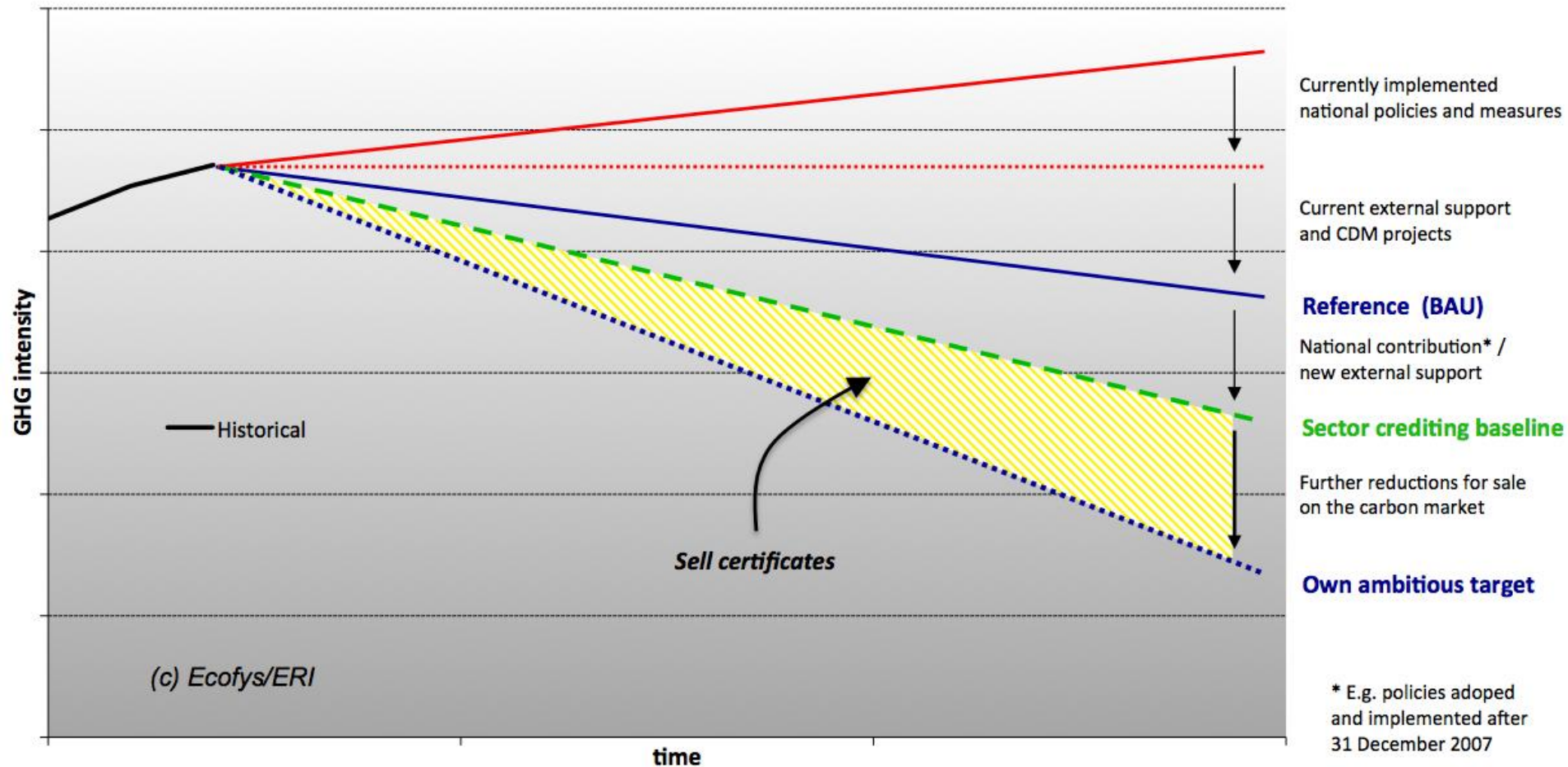
- Goal now:
 - Capacity building
 - Get stakeholder input
 - Shape „rules of the game”

- Future:
 - Basis for international support mechanisms



Ecofys and Gtriple C (Murray Ward)
www.sectoral.org

Principle of sectoral crediting



• Why use templates?

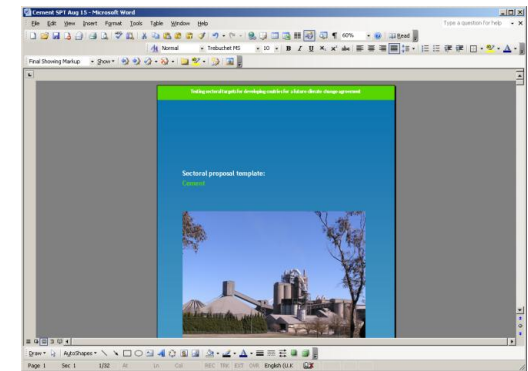
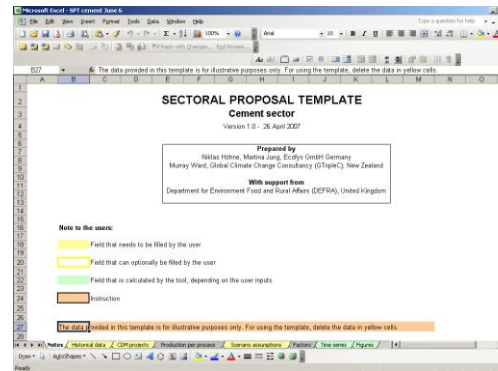
- Proposing mitigation action
 - **Comparable, transparent and verifiable** data is the key!

- CDM
 - Standardized methodologies
- (Sectoral) actions, sectoral approaches
 - Templates

Sectoral Proposal Template

Excel-Calculation tool

Word-template



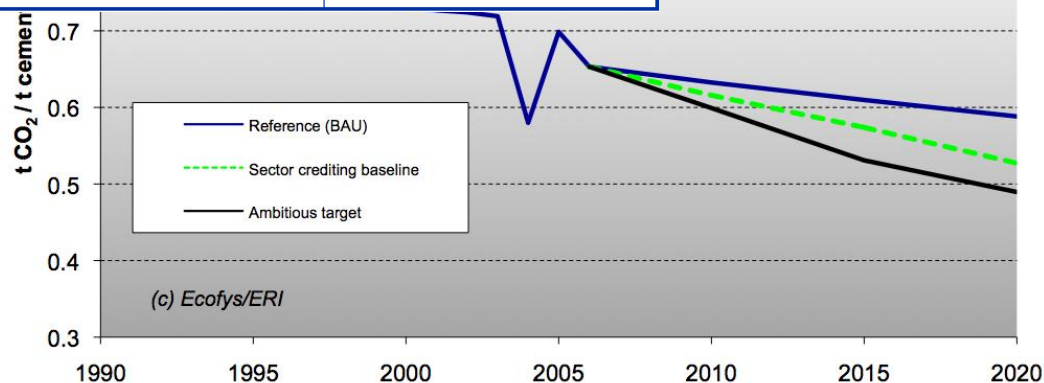
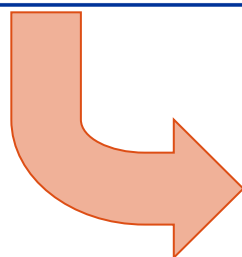
Quantitative information

Quantitative and qualitative information

Baseline

• Example: Cement sector

	BAU	Crediting Baseline	Ambitious
Alternative raw material (A)	Process emission factor kept at: 0.52 tCO ₂ /t clinker)	Process emission factor decreased to 0.51	Process emission factor further decreased to 0.5
Kilns (B)	70% NSP by 2015 and 80% NSP by 2020	80% NSP by 2015 and 95% NSP by 2020	85% NSP by 2015 and 98% by 2020
Alternative fuels (C)	Limited change	10% from biomass and 3% from fossil waste fuels by 2020	15% from biomass and 3% from fossil waste fuels by 2020
Electricity (D)	Same grid emission factor applied, but possible changes in electricity use.		
Alternative additives (clinker/cement ratio) (E)	Limited improvement from current BAU (66%)	Moderate improvement from the current BAU level	Significant improvement from current BAU level



• Template characteristics

- Based on **best practice** GHG emissions intensity....
- While recognising **circumstantial differences** between installations
 - Differentiation by product type
 - Pipeline gas for export
 - Sales quality gas for export
 - Live crude oil
 - Stabilised crude oil
 - Condensates C5+
 - Produced water
 - Gas and water injected
 - Sales grade NGLs
 - Many parameters will influence specific GHG emissions
 - Wellhead pressure
 - Gross wellhead flow rate
 - Gas to oil ratio (volume)
 - Water cut
 - Gas pipeline riser pressure
 - Oil pipeline riser pressure
 - Oil relative density
 - Depth of reservoir, distance from shore

- **Template characteristics**

- Informed by methodologies existing/in development
 - Genesis, Shell, Solomon, Entec/Ecofys, BP/UKOOA
- Calculate (national) GHG efficiency index:
 - Total GHG emissions divided by **best practice** GHG emissions for the **specific situation**

$$\frac{GHG_{total}}{BP_{field1} + BP_{field2} + \dots} = GHGindex$$

- Individual company can compare (benchmark) to
 - National GHG efficiency index
 - Best practice GHG efficiency index

- **Requirements**

- Participation from industry for benchmark methodology/BP identification
- Participation from industry to identify GHG reduction measures
- Independent third party to gather information
 - Provide benchmarking information to participants
 - Safeguard that NO individual data is disclosed
 - Successful example: WBSCD Cement Sustainability Initiative
- Participation from industry and government to propose reference/ambitious scenarios
 - To use as baseline for climate financing proposal

- **Conclusions**

- **Templates can help gather data that is comparable and verifiable in a transparent manner**
- **Successfully proven in other sectors**
- **Industry participation is key**
- **Output can be used in several ways**
 - **Benchmarking**
 - **Voluntary monitoring and reporting**
 - **Proposing GHG reductions under the international climate regime**
 - **Basis for future international rules**

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Thank you!

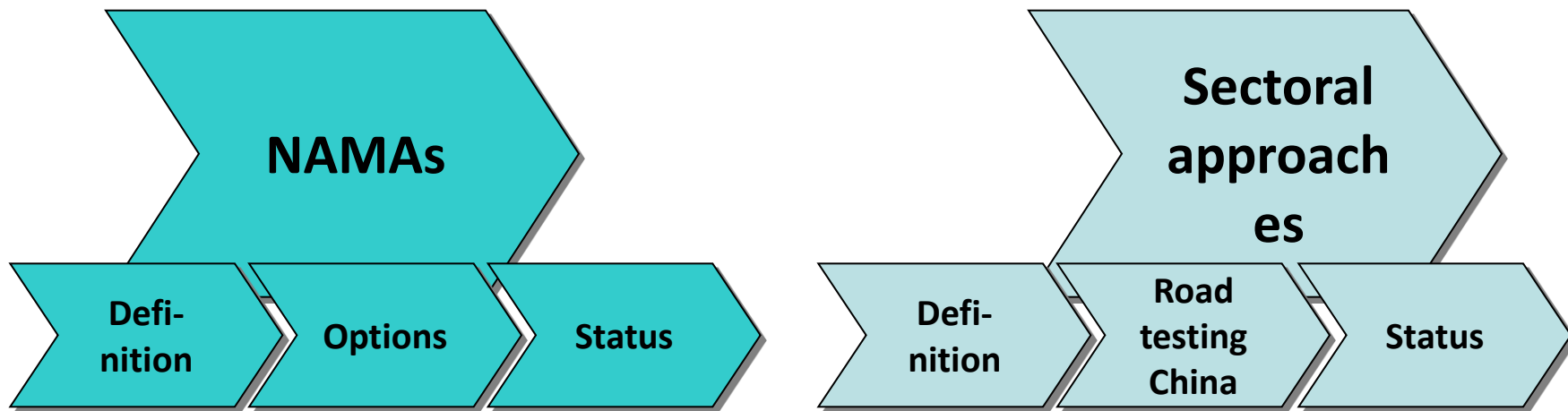
Christian Ellermann
Dr. Niklas Höhne



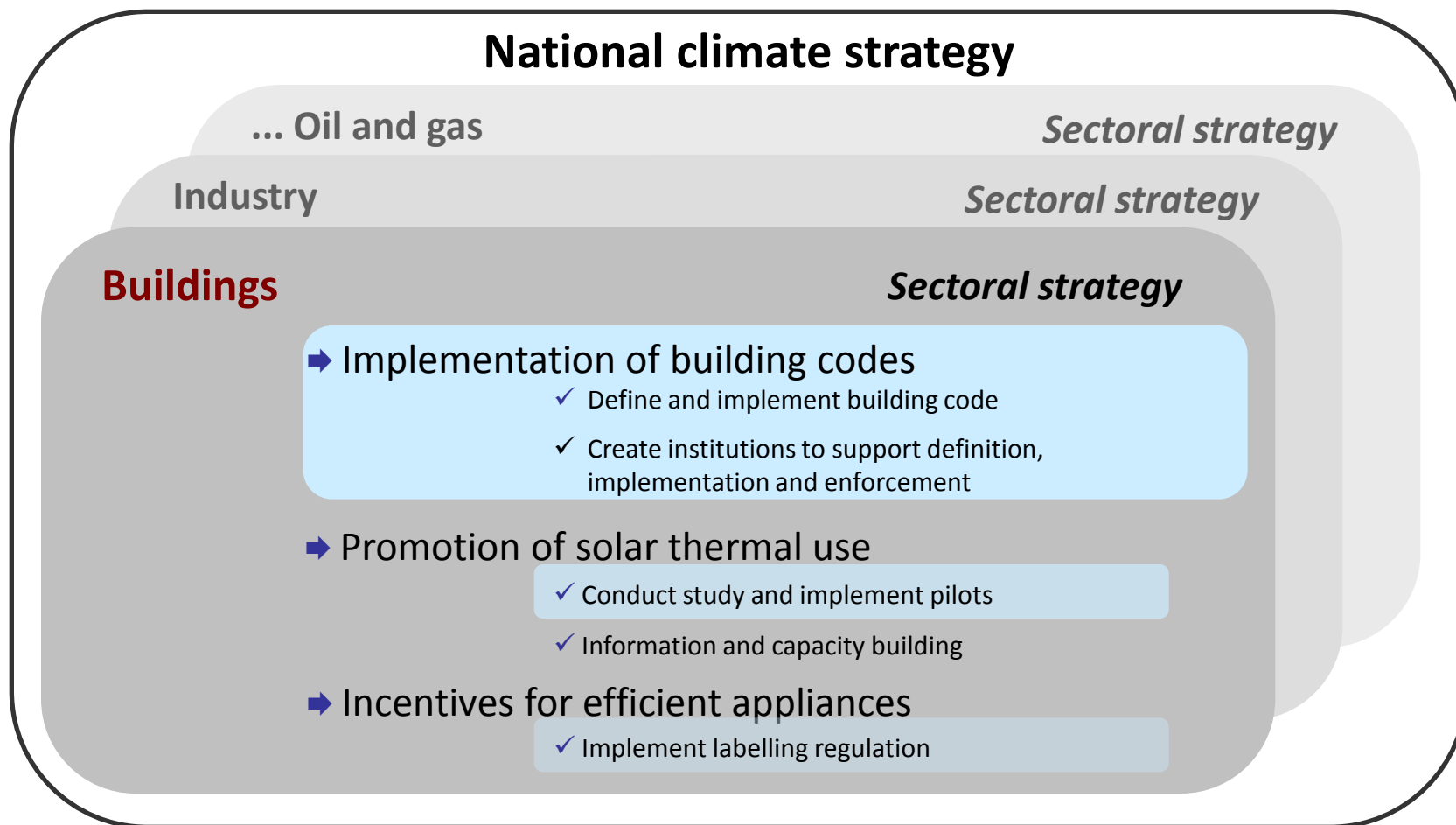
c.ellermann@ecofys.com
+49 221 27070104
+49 172 2004129
n.hoehne@ecofys.com

• **Context: NAMAs and sectoral approaches**

- Which options are discussed in the climate negotiations that could enhance mitigation in upstream oil and gas beyond the CDM?



- **Scope of NAMAs**



- **Directly supported NAMAs can be**
 - **Projects** (e.g. installation retrofit)
 - **Programmes** (e.g. flaring reduction programme)
 - **Policies** (e.g. energy efficiency standard)
 - Development and implementation of a **(sectoral) strategy**
 - **National mitigation target**