

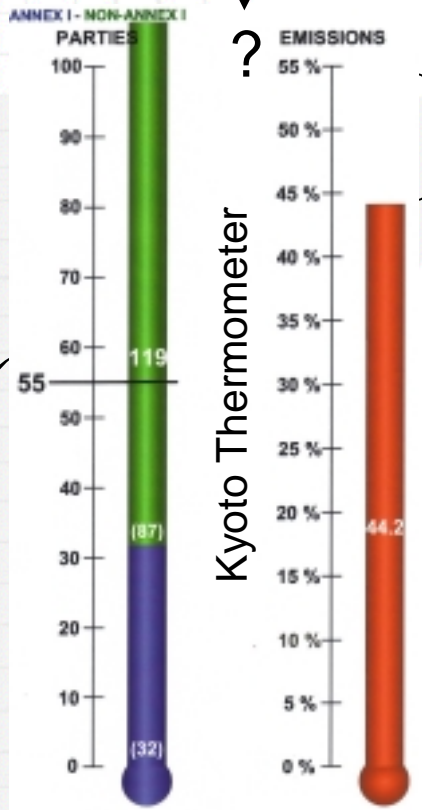
CLIMATE CHANGE

Implications for CEMEX

- Kyoto Protocol and EU commitments
- Kyoto Flexible Mechanisms considered by EU
 - European Union Emissions Trading Scheme – EU ETS
 - CDM and JI Projects
- CEMEX Emission Trading System / CEMEX CDM Projects

➤ Kyoto Protocol and EU commitments

Kyoto Protocol requires **55 Parties** to the UNFCCC to ratify it ✓ including Annex I Parties accounting for 55% of CO2 emissions in 1990.



Gap of 10.8% which may only be bridged by **Russia** (17% CO2 emissions) since USA (36.1%) did not ratify the Protocol.

Both countries fear the impact of Kyoto restrictions over their economical growth.

EU committed itself to reduce its GHG emissions by 8% during 2008-2012 with 1990 as the reference year.

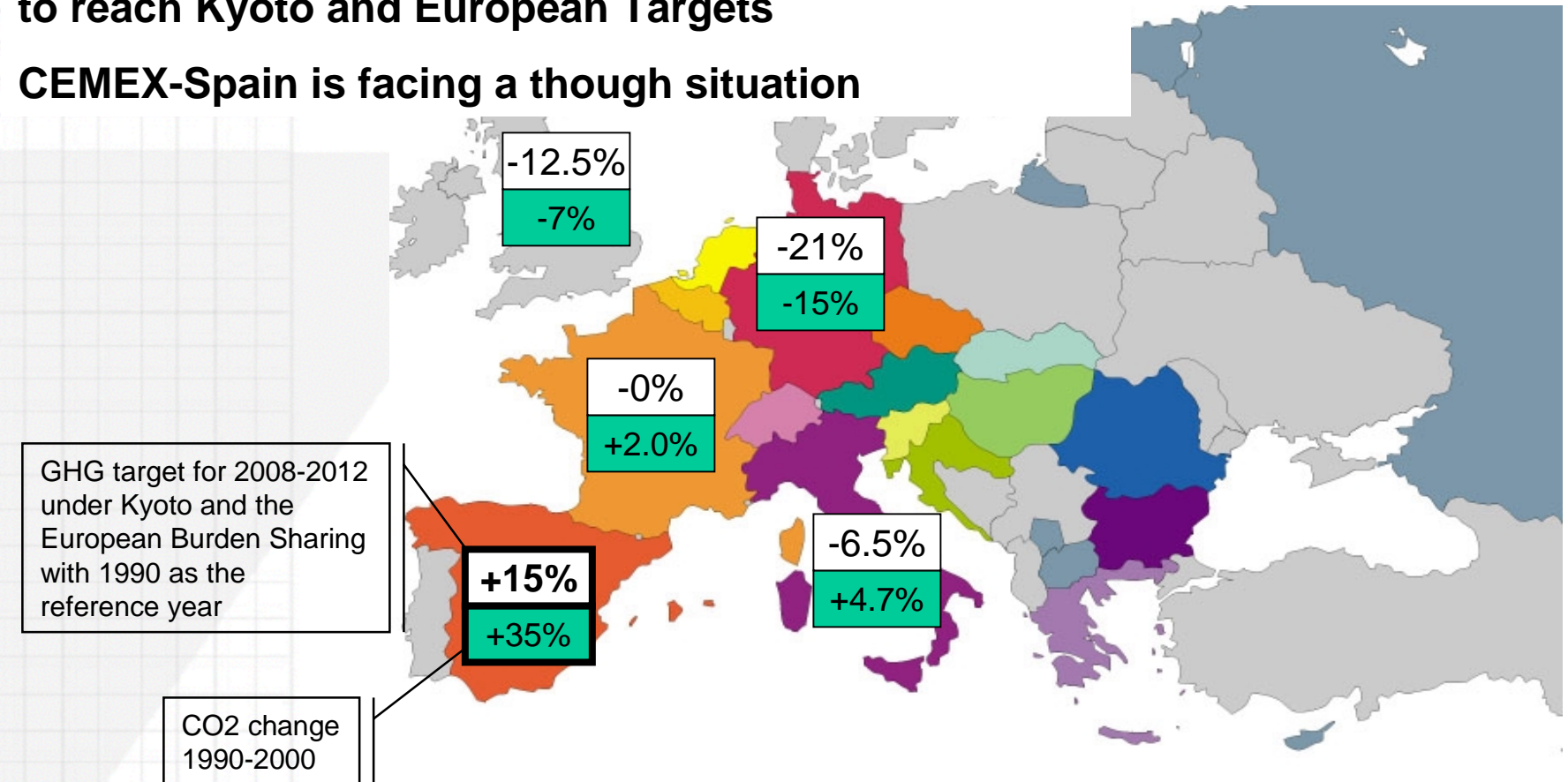
The **Burden Sharing Agreement** establishes how much GHG emissions must be reduced by EU Member States to reach Kyoto targets // With or without Kyoto the EU is committed to meet these targets →

Kyoto Protocol main goal is to reduce GHG emissions by developed countries by 5.2 percent of the 1990 levels during 2008 - 2012. Developing countries should only report their emissions and host CO2 reduction projects.

Kyoto Targets adopted by EU – The Burden Sharing Agreement

SPAIN is the country that must make biggest efforts to reach Kyoto and European Targets

CEMEX-Spain is facing a tough situation



➤ Kyoto Flexible* Mechanisms considered by EU

Flexible Mechanisms allow countries to **meet their emissions targets at lower costs**

As Climate Change is a global phenomena, GHG reductions may be done **where emission reduction are cheaper** (e.g. South America)

- **INTERNATIONAL EMISSIONS TRADING**

main mechanism to be used by EU to reach Kyoto targets, supported by an EU Directive

- **CDM** Clean Development Mechanism

└───> CO2 credits (CERs**) generated by Reduction Projects / **Annex 1** ───> **non Annex 1**

- **JI** Joint Implementation

└───> CO2 credits (ERUs***) generated by Reduction Projects / **Annex 1** ───> **Annex 1**

EU recognizes CDM/JI credits to fulfill a part of Member States obligations under the European Union Emissions Trading Scheme.

Rules and conditions are being defined by a new EU Directive

* this term is used because these mechanisms provide greater flexibility to the parties to meet their targets

** certified emissions reductions // *** emissions reductions units

European Union Emissions Trading Scheme – EU ETS

The EU ETS is the main instrument used by EU to comply its CO2 commitments

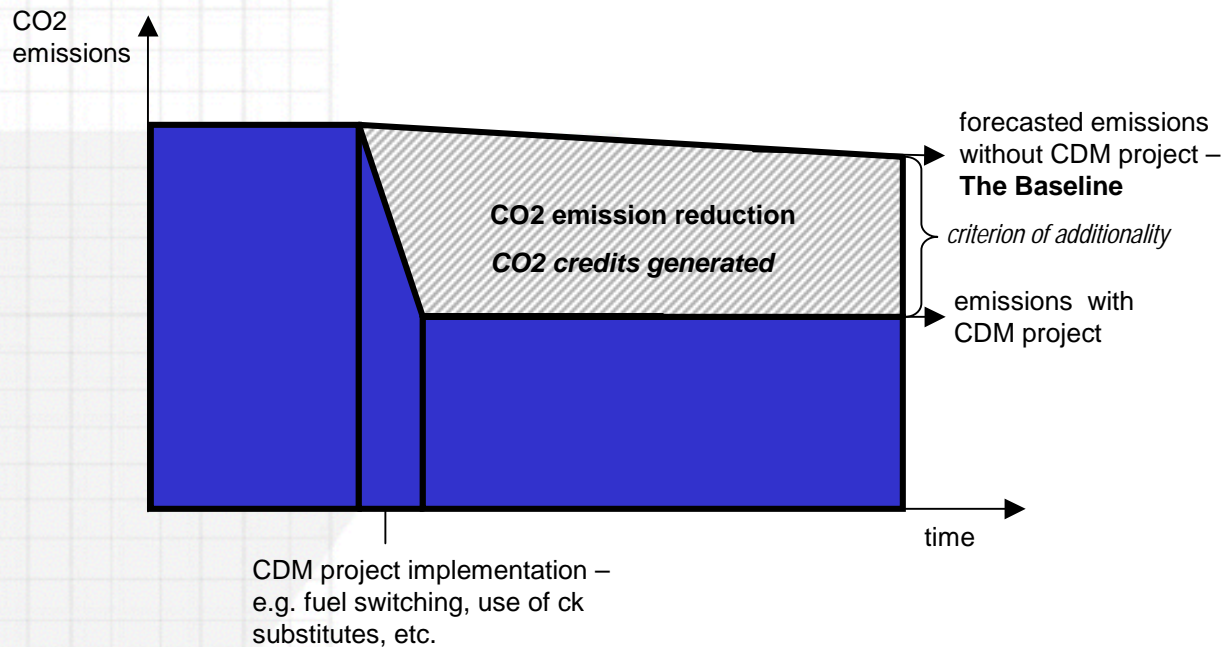
- Enter into force as of January 2005 / 2 periods of commitment (2005-2007) – (2008-2012)
- Cap and Trade
- Industrial sectors covered: power generation, oil&gas refineries, steel, glass, ceramic, pulp&paper, and **cement**
- Initial allowances distributed to installations through National Allocation Plans
 - ↳ **Allowance Allocations system is crucial for CEMEX-Spain** as it will determine the initial position to reach targets
- Possibility of covering certain % of emissions with CDM and JI credits as of the second commit. period ✓

HOW DOES A CAP & TRADE EMISSIONS TRADING SCHEME WORK?



CDM and JI Projects

HOW DOES CDM AND JI PROJECTS WORK?



CDM Projects must:

be approved by the host country and CDM Executive Board

be additional: delivering real emissions reduction relative to what would happened without project

be used **as a supplement** of local measures to reduce emissions

promote the **transfer of environmental sound technologies** in developing countries

contribute to host countries' **Sustainable Development**

CDMs may become a **great business opportunity for CEMEX countries** to get new revenues by selling the credits generated .. which might be bought by CEMEX-Spain operations to reach its EU ETS cap or to somebody else.

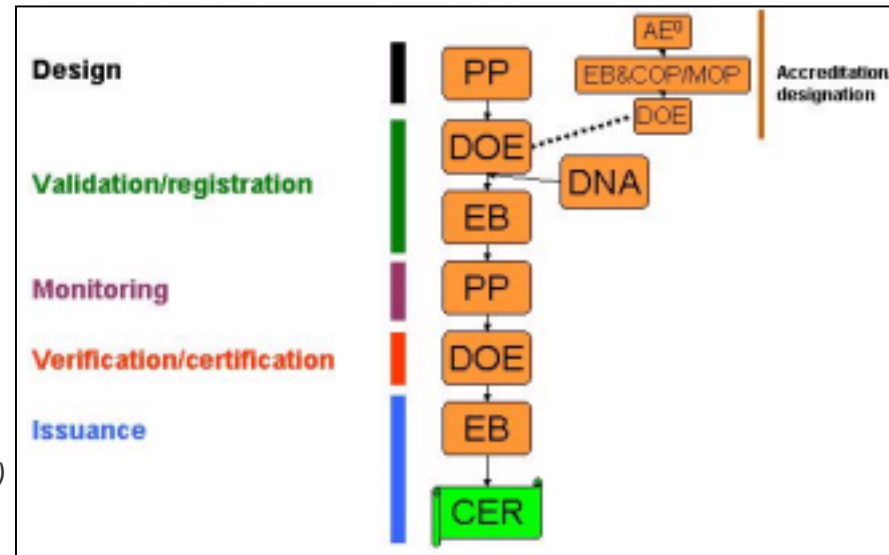
CDM and JI Projects

Type of CDM Projects / where **CEMEX opportunities lie**

BROWN FIELD PROJECTS	GREEN FIELD PROJECTS	SINKS
Modification / replacement of equipment, process practices, etc.. <i>e.g. energy efficiency, fuel switching</i>	Meeting a future demand <i>e.g. construction of a best technology power plant</i>	GHG removal GHG storage <i>e.g. forest management, CO2 injection in geological reservoirs</i>

How to get a CEMEX CDM Project approved and credits thereof? →

- AE°: Applicant Entities (e.g. KPMG, PriceW...)
- PP: Project Participant (e.g. any CEMEX company)
- EB: CDM Executive Board (body making final decisions)
- COP/MOP: Conference/Meeting of the Parties
- DOE: Designed Operational Entity (e.g. KPMG, PriceW...)
- DNA: Designed National Authority (e.g. Federal Environmental Agency)
- CER: Certified Emissions Reduction (CDM credits)



➤ CEMEX Emission Trading System / CEMEX CDM Projects

HOW IS CEMEX ANTICIPATING?

Implementing an Internal Emissions Trading System (IETS)

(already launched in Spain)

- Skills development to face EU ETS Directive (2005)
- Identification, prioritization and promoting the implementation of projects
- Achieve emissions reduction – to reach a target

Making technical lobbying in Carbon constrained countries

- Advocating the better allowances allocation for CEMEX-Spain
- Participation in WBCSD and IETA

Internalizing CDM Projects opportunities

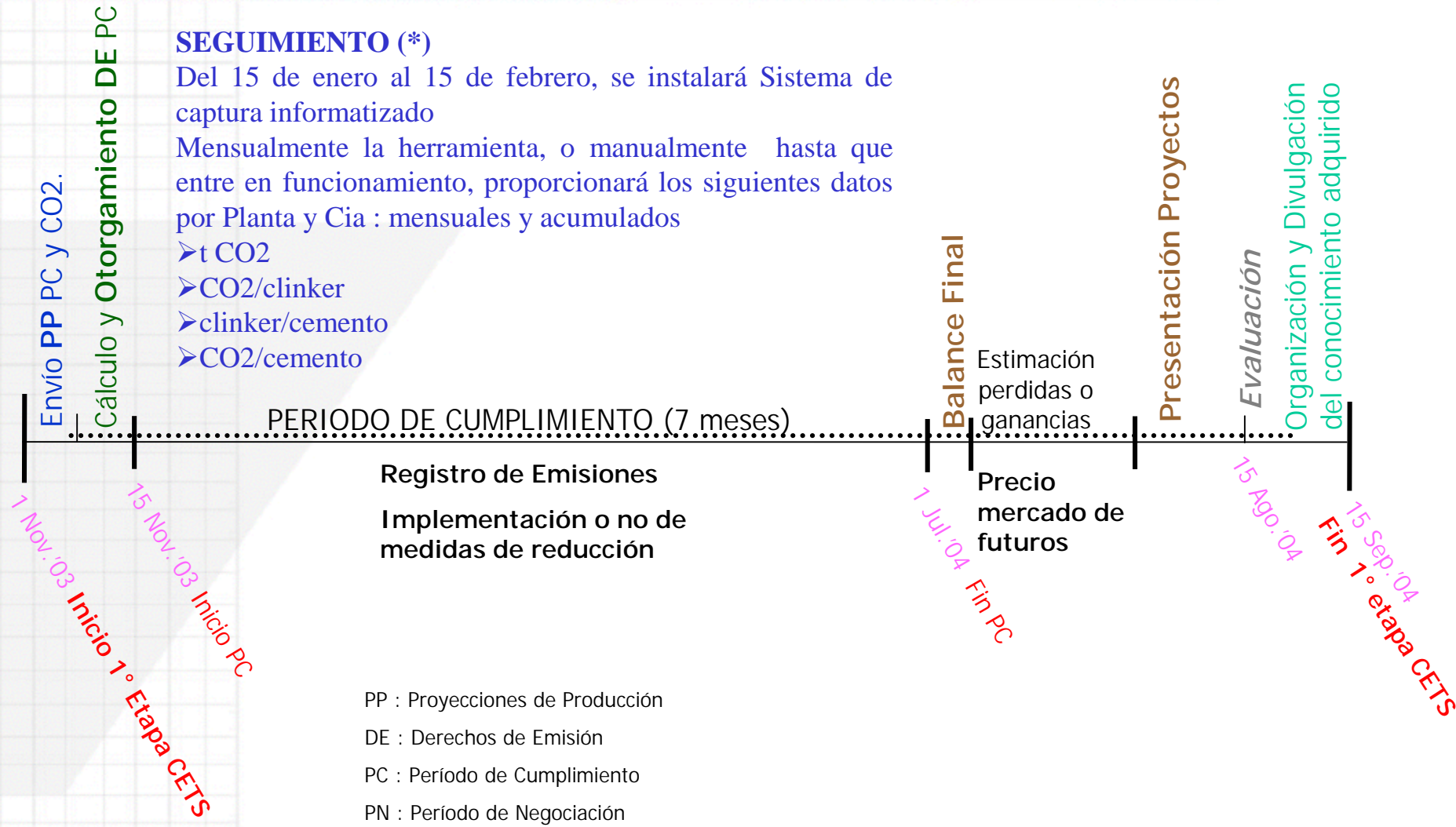
Presently:

- In the process of submitting a CDM project for registration (*low energy cements*)
- Analysing new CDM alternatives
- Informing CEMEX Countries about this new business opportunity

Next:

- Supporting CEMEX countries to detect and develop CDM projects
- Extend IETS to other countries

Diagrama 1ª etapa SISTEMA DE COMERCIO DE EMISIONES en CEMEX España



(*) El modo de cálculo se irá adecuando a los criterios y desarrollo legislativo que se vaya consolidando