



International Workshop
Mainstreaming Building Energy
Efficiency Codes in Developing
Countries

***Promises and Limits of
Carbon Finance and
Other Climate
Investment Instruments***

November 19-20, 2009

World Bank

ESMAP and
Carbon
Finance Unit

Steve Schiller

Schiller Consulting, Inc.

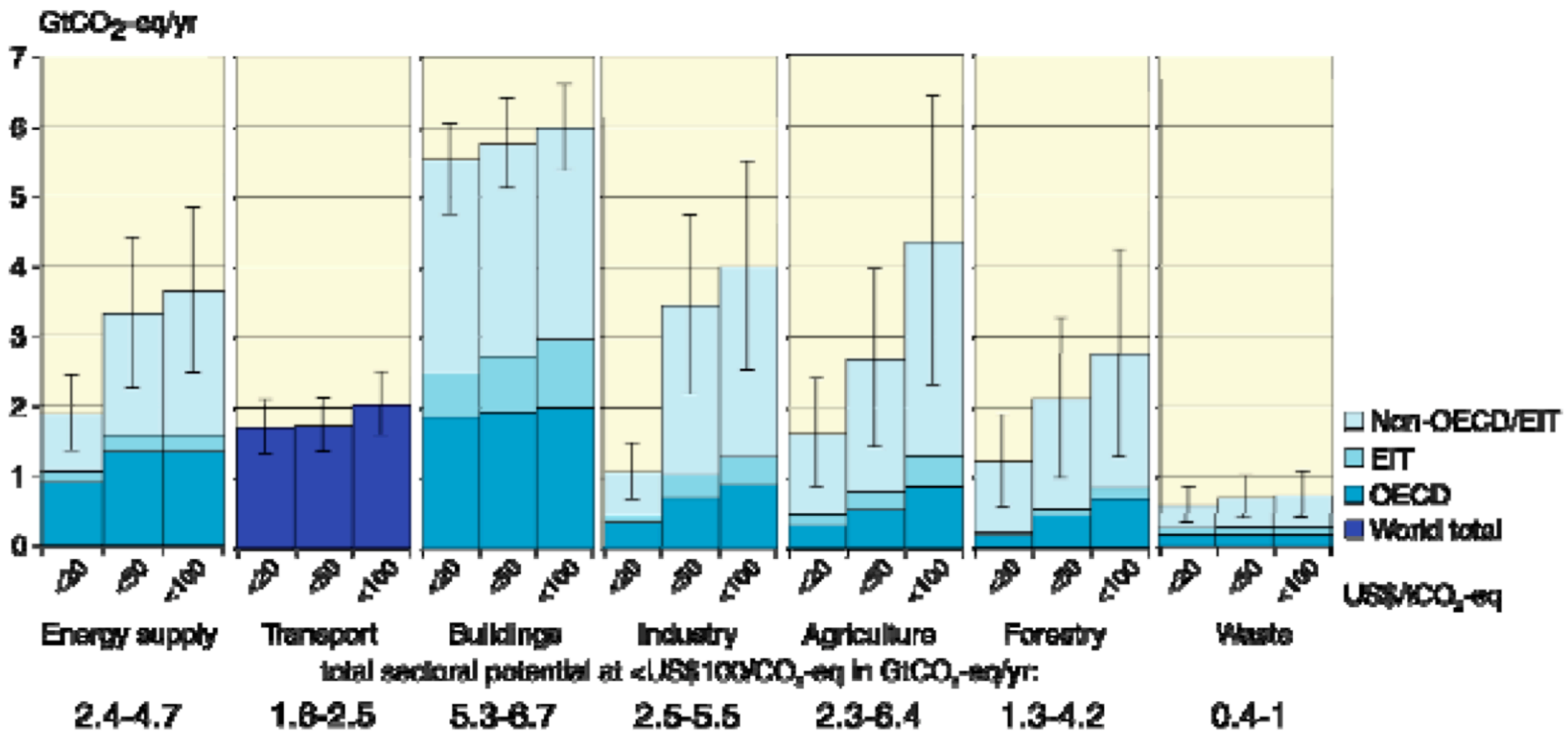
University of California, Berkeley, California Institute for Energy and Environment

steve@schiller.com

+ The Promise: Why Building Efficiency: GHG Emission Reduction Potential by Sector – from IPCC 2007

- 33% of global total CO₂ in 2004 from building sector – IPCC WG III 2007)

Economic mitigation potential by sector in 2030 estimated from bottom-up studies



+ The Challenge: Efficiency's Version of the Tragedy of the Commons

Efficiency is a great cost-effective mechanism for society to reduce GHGs, but... there is a paradox:

It is not necessarily the choice that individual energy users make because of various market barriers

(the usual suspects: front-end investment requirements, principal agent problem, lack of information, transaction costs, etc.)

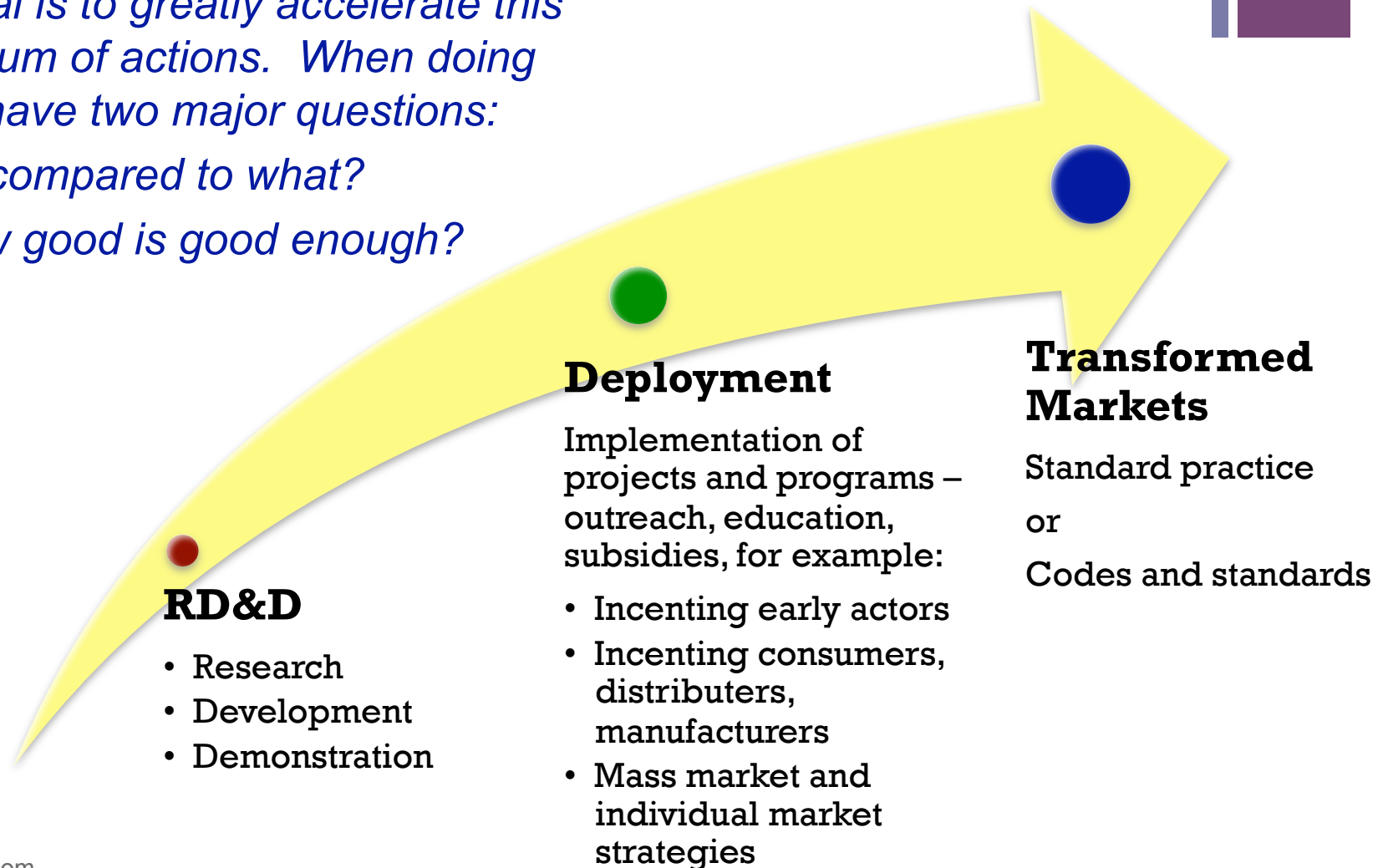
Furthermore, as a GHG mitigation strategy efficiency suffers from:

1. Diffuse nature of efficiency
2. Only very large efficiency projects and aggregations can obtain a meaningful amount of economic (total dollar) value from GHG reductions.
3. Indirect nature of efficiency's GHG reduction benefits - which are not necessarily accruing to the consumer versus the emissions generator.
4. The potential economic value of energy efficiency as a GHG mitigation strategy depends heavily on regulatory mechanisms.

+ End-Use Energy Efficiency Actions

*There is a continuum of actions.
Our goal is to greatly accelerate this
continuum of actions. When doing
so we have two major questions:*

- 1. As compared to what?*
- 2. How good is good enough?*



+ Sticks and Carrots

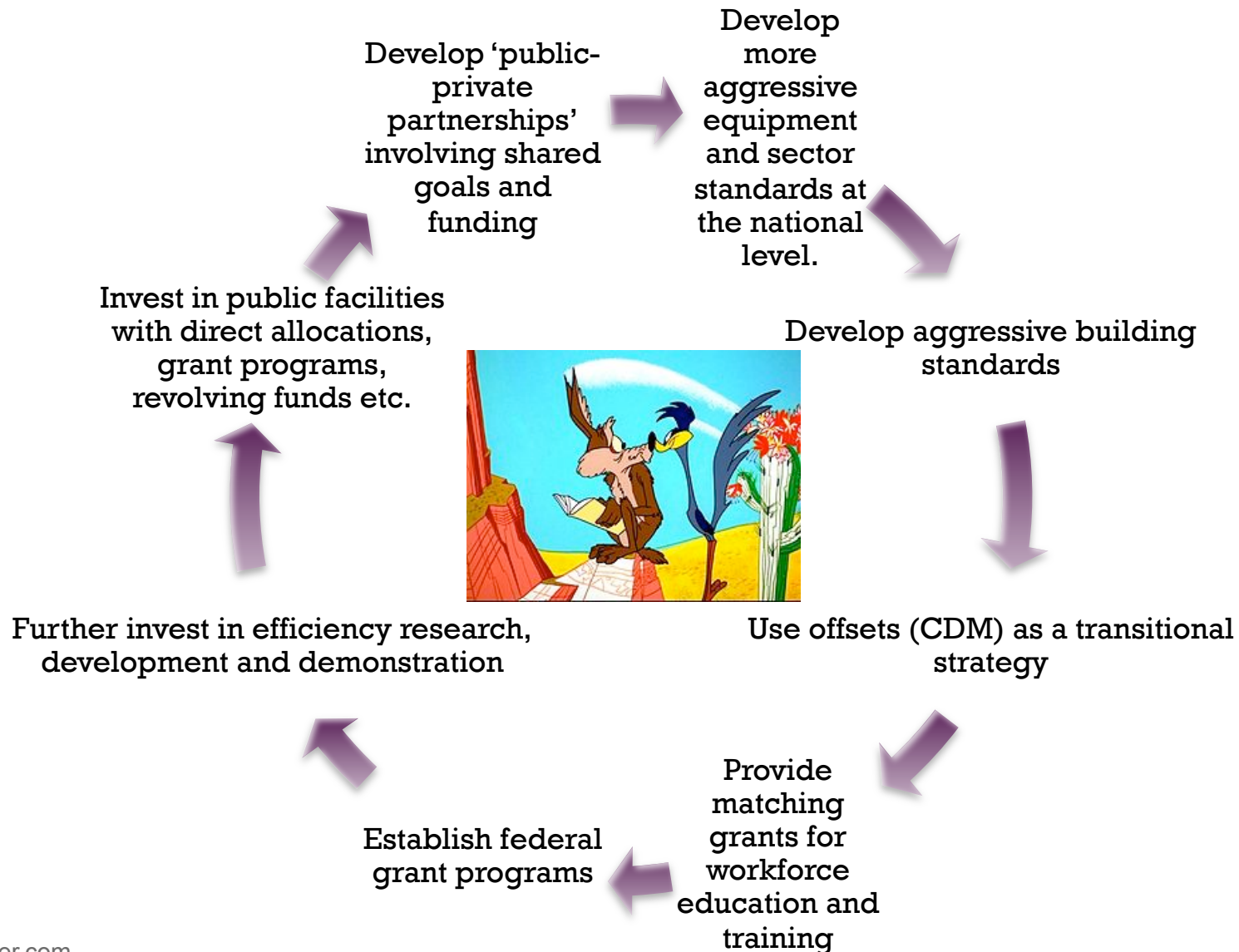
Concepts (discussed here)

- Building Codes
- Equipment Standards
- Information Programs
- Financing Mechanisms :
 - CDM
 - NAMAs
 - Sectoral vs. Program/
Project approaches

What do they share:

- Really hard – all have “issues”
- Require:
 - Commitment
 - Money
 - Capacity
 - People
 - Data
 - Infrastructures
 - Institutions
 - Rules
 - Rule of law

+ Conclusion: no single answer other than the need for commitment, money and capacity





Time For Questions

