



African Caribbean and Pacific Group of States
Science and Technology Programme

Sustainable non-food, bio-energy supply chains

Professor Patricia Harvey

Head of Bioenergy Research

University of Greenwich

p.j.harvey@greenwich.ac.uk



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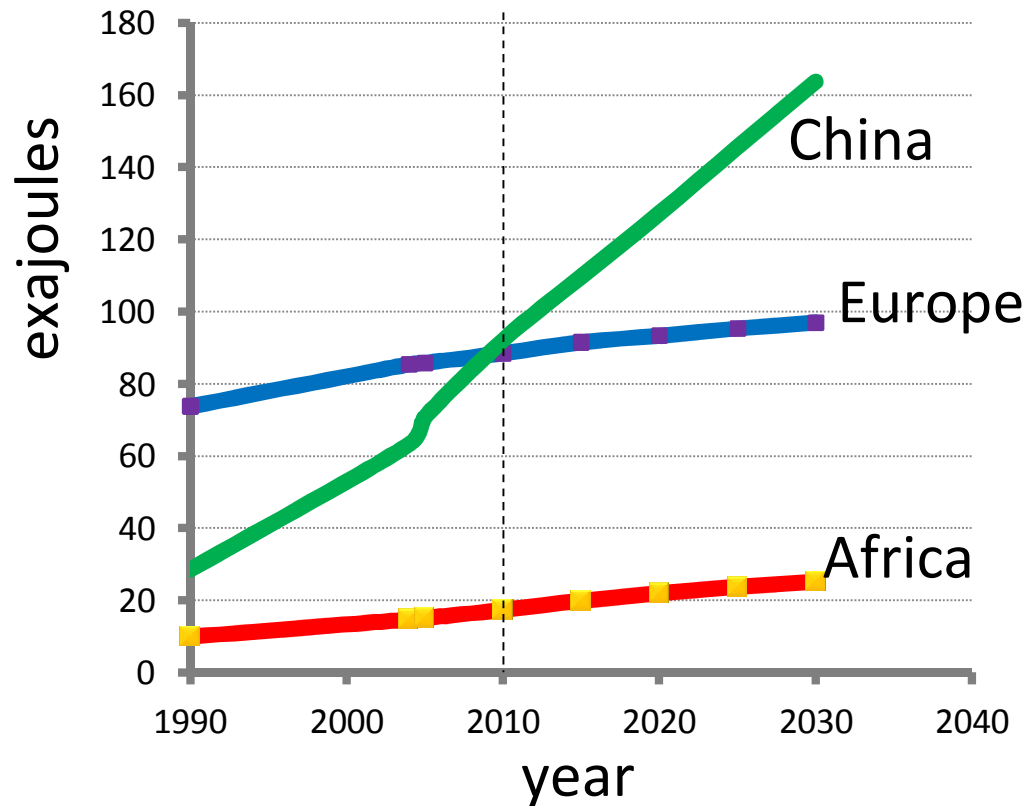
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Global energy-related CO₂ emissions set to rise

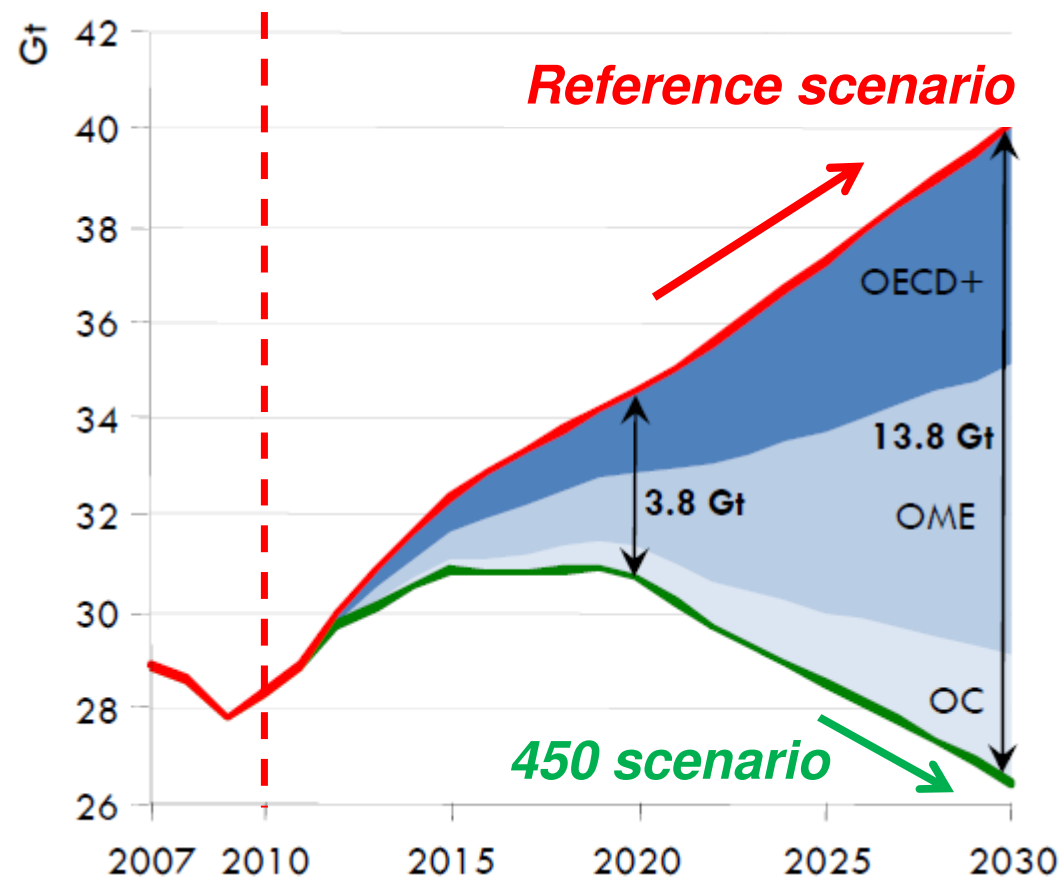


Executive Director of the IEA Nov 2009

If the world continues on the basis of today's energy policies, the climate change impacts will be severe.

Energy which accounts for two-thirds of today's GHG emissions is at the heart of the problem: and so must form the core of the solution

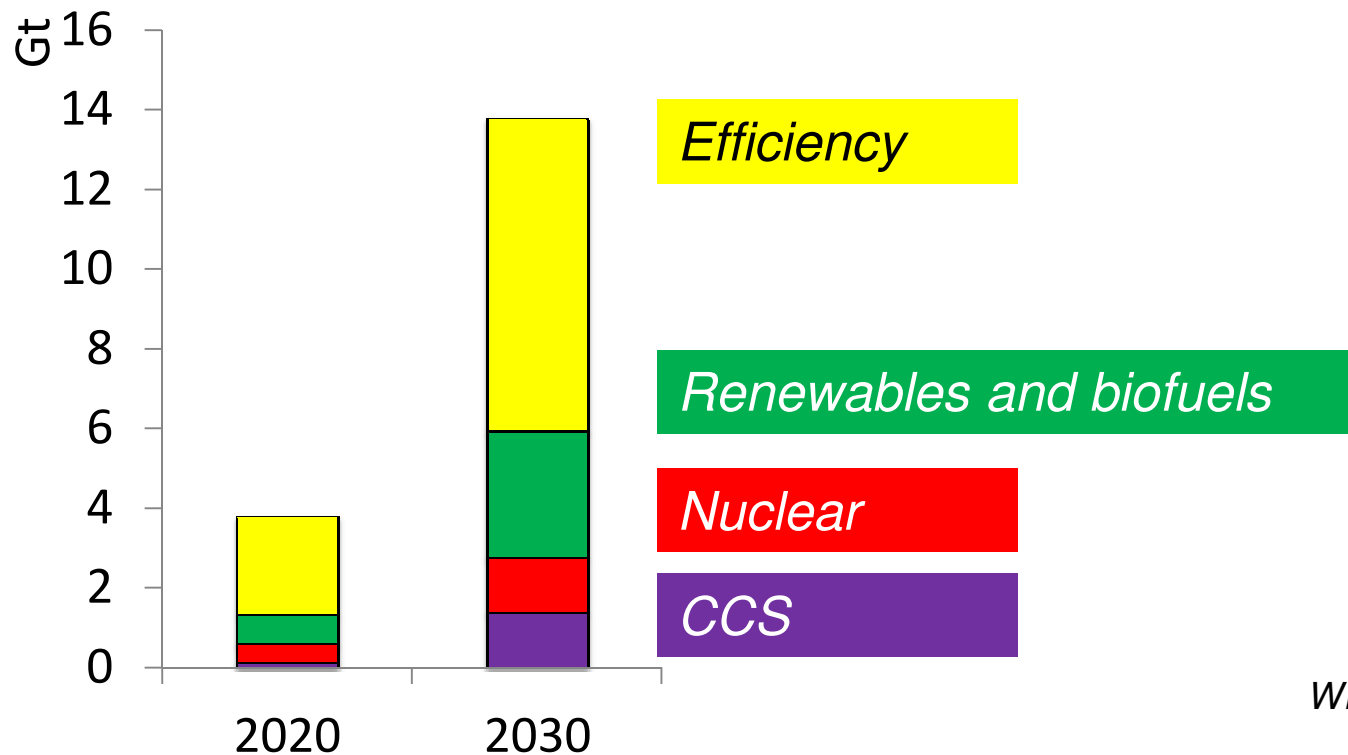
Abatement measures needed for 450 ppm CO₂ eq by 2030



WEO 2009



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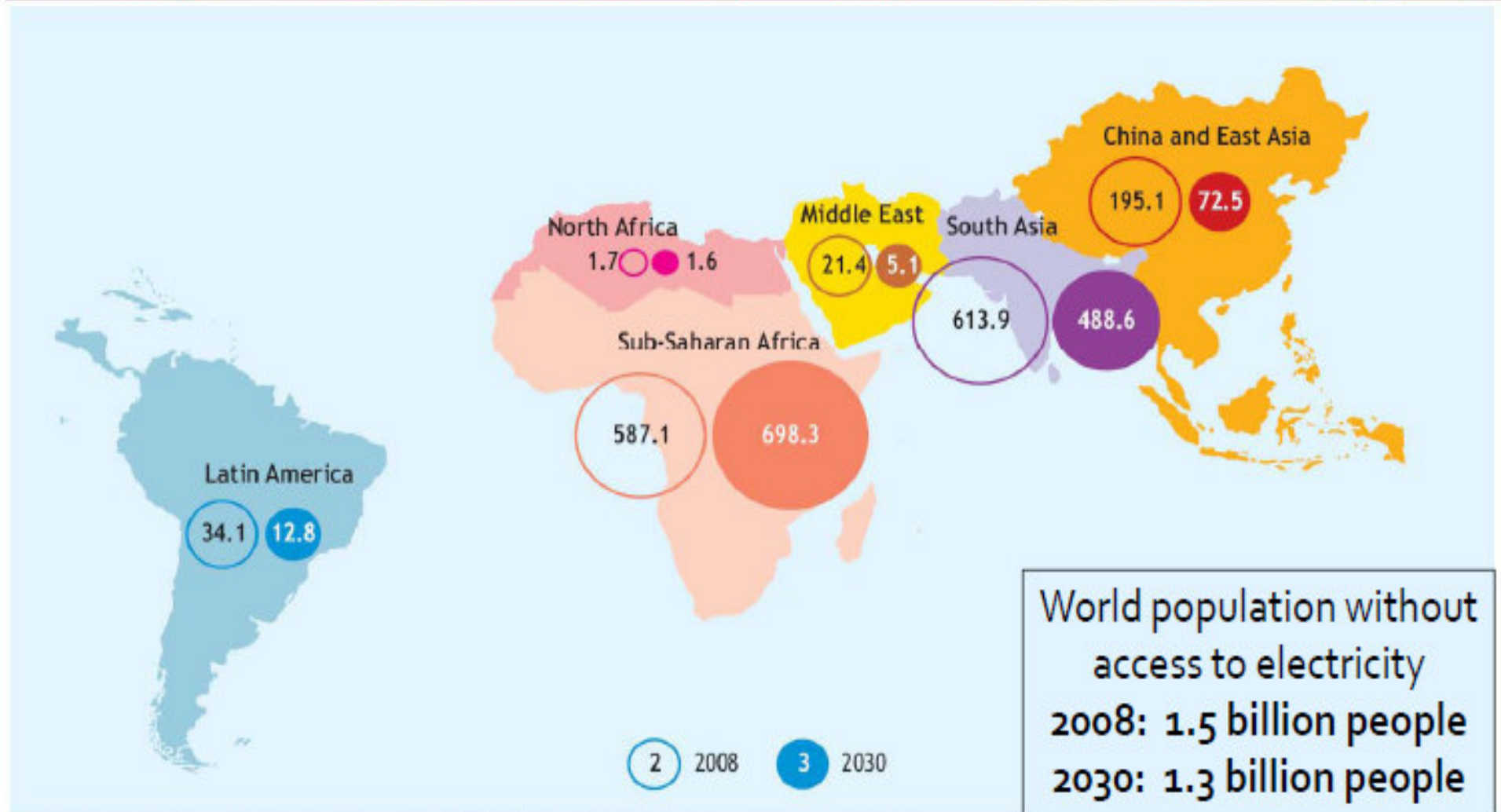
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Number of people without access to electricity in the Reference Scenario (millions)

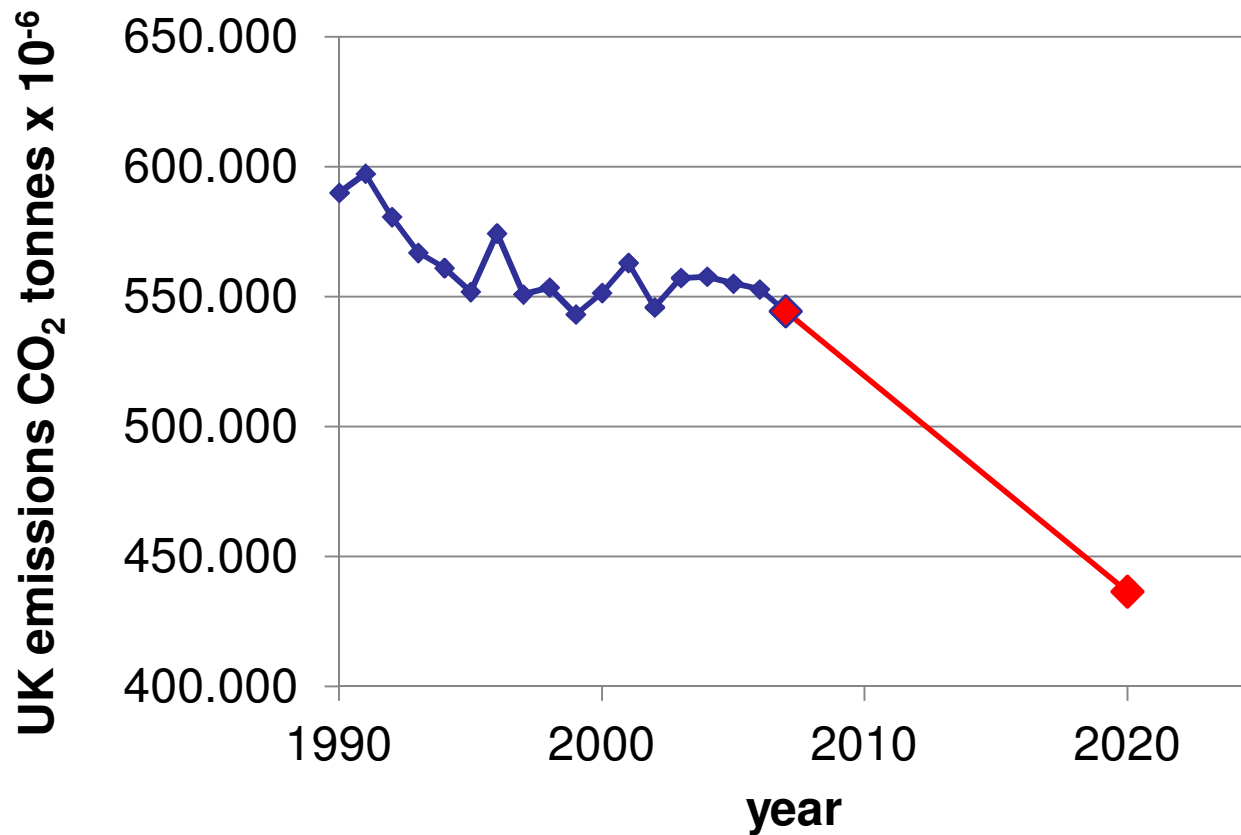


How will we meet the challenge?

What abatement measures?



UK : Low carbon technologies challenge



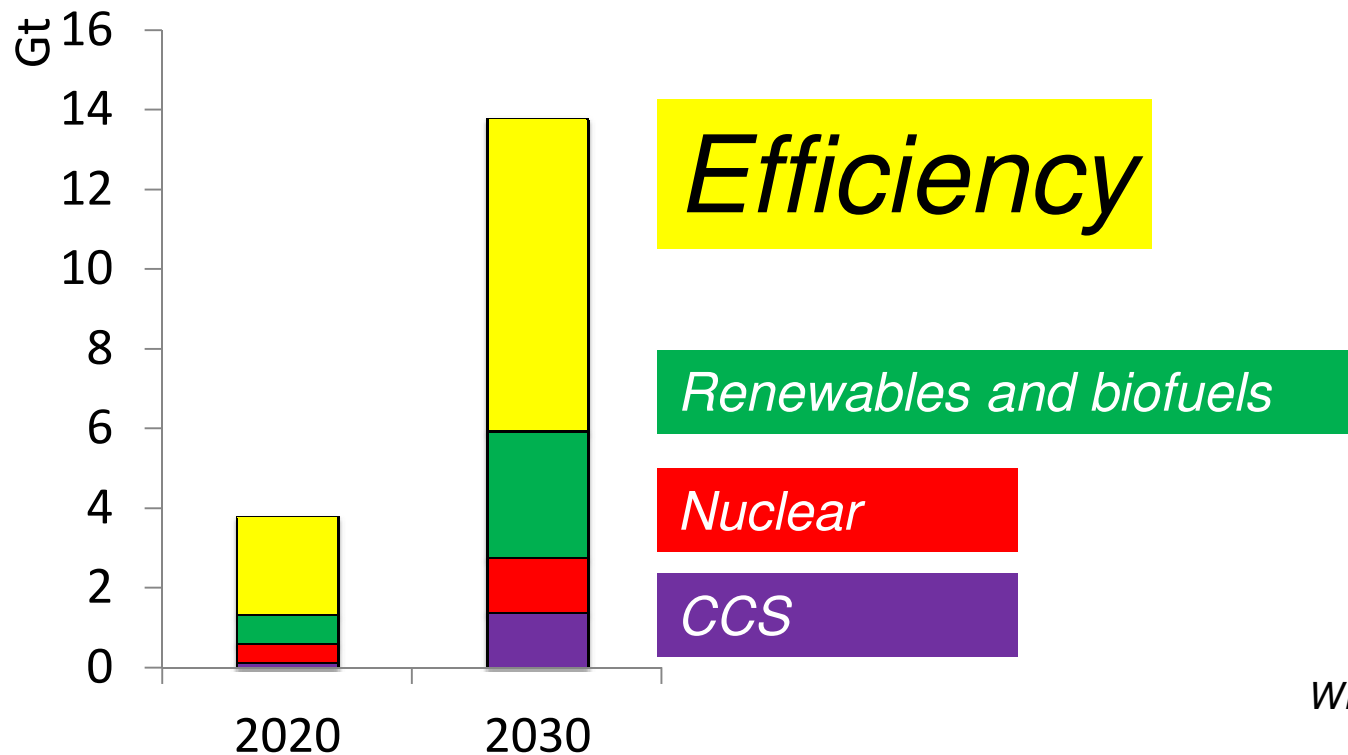
Climate Change Bill 27 November 2008



What technologies to meet the challenge?



Abatement measures needed for 450 ppm CO₂ eq by 2030



Efficiency: Electricity made in power stations is energy-wasteful



Coal-fired power station
~ 30-35% efficiency



10% losses in transmission



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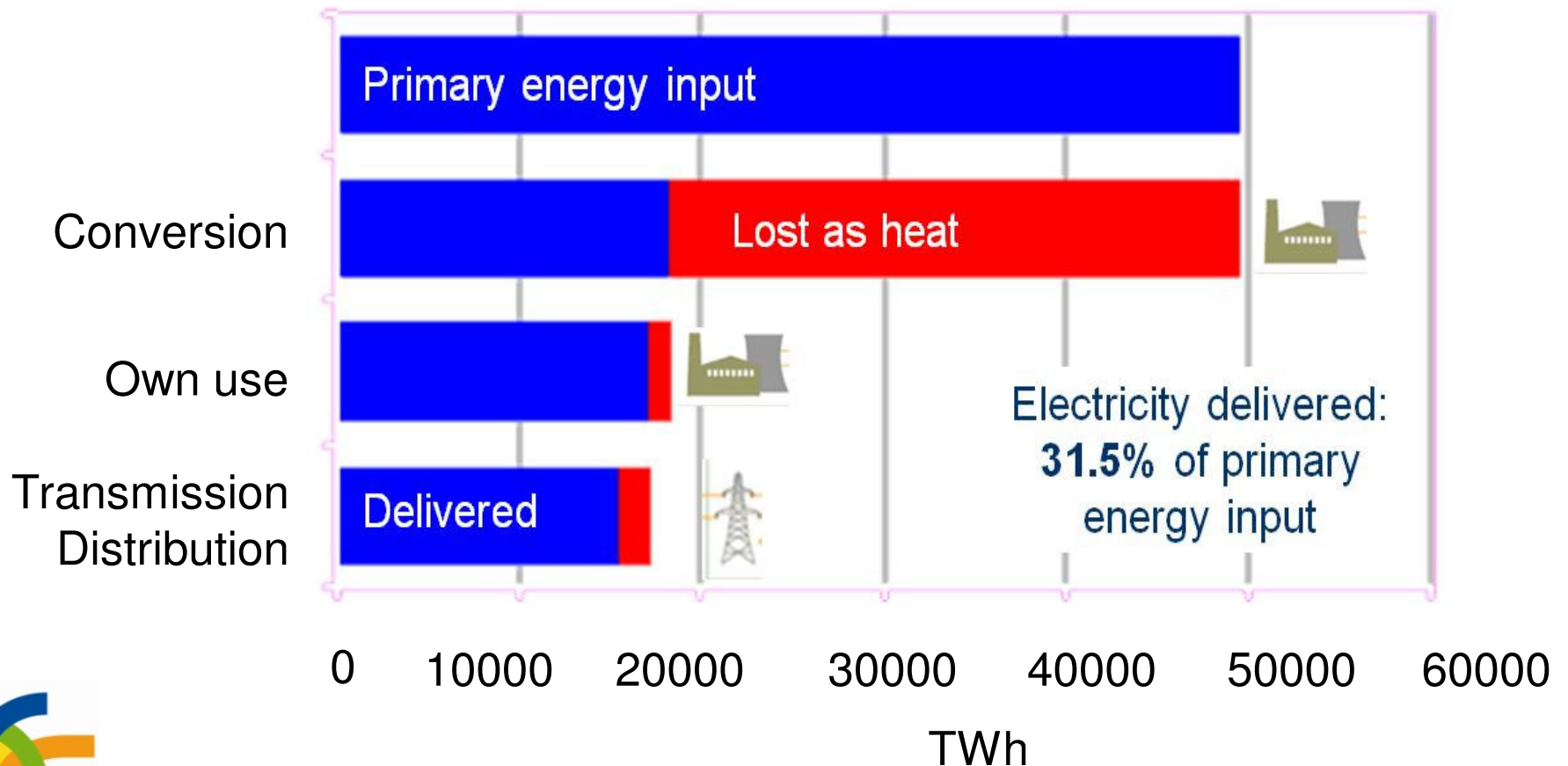


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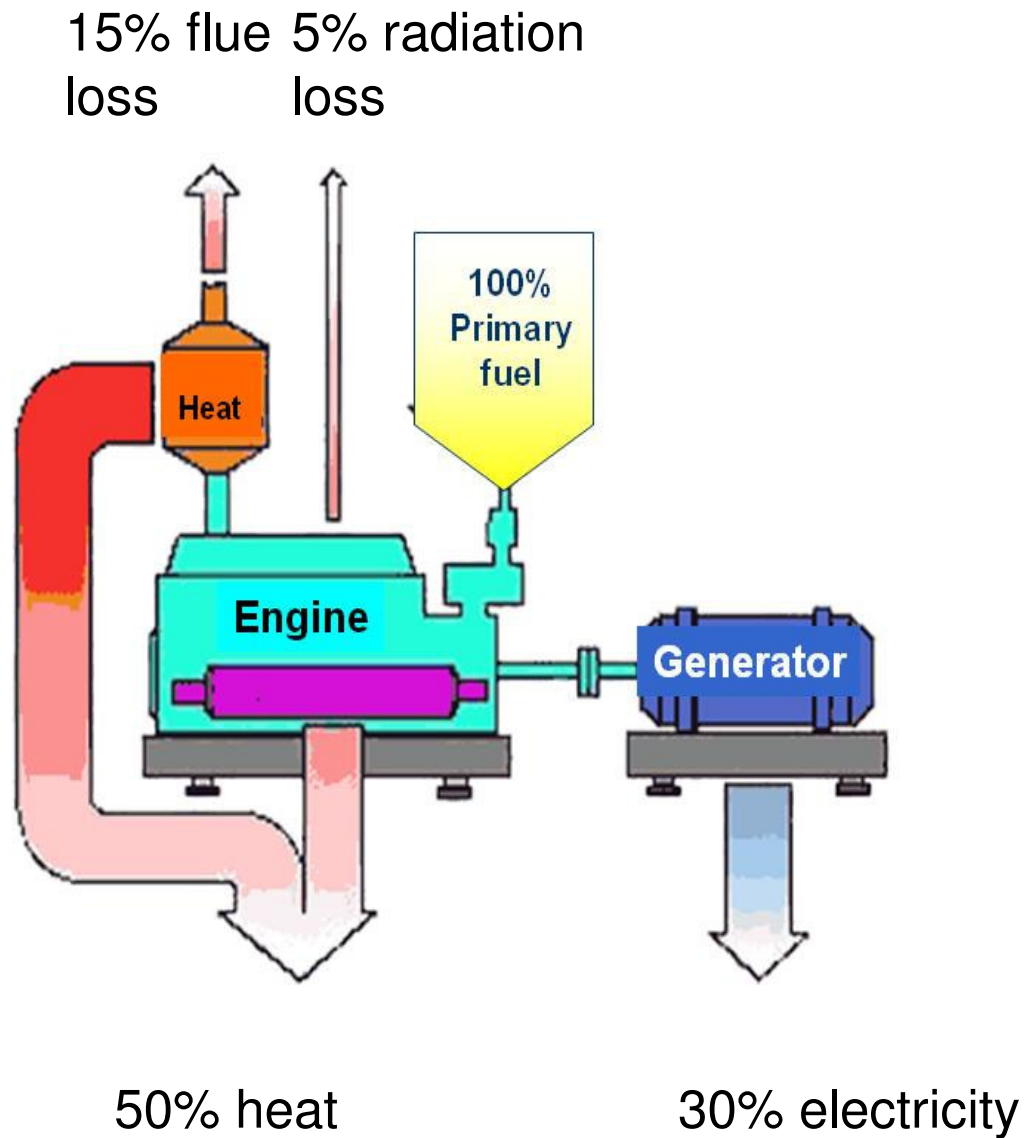


Losses in global energy conversion and power delivery

Source: IEA 2008

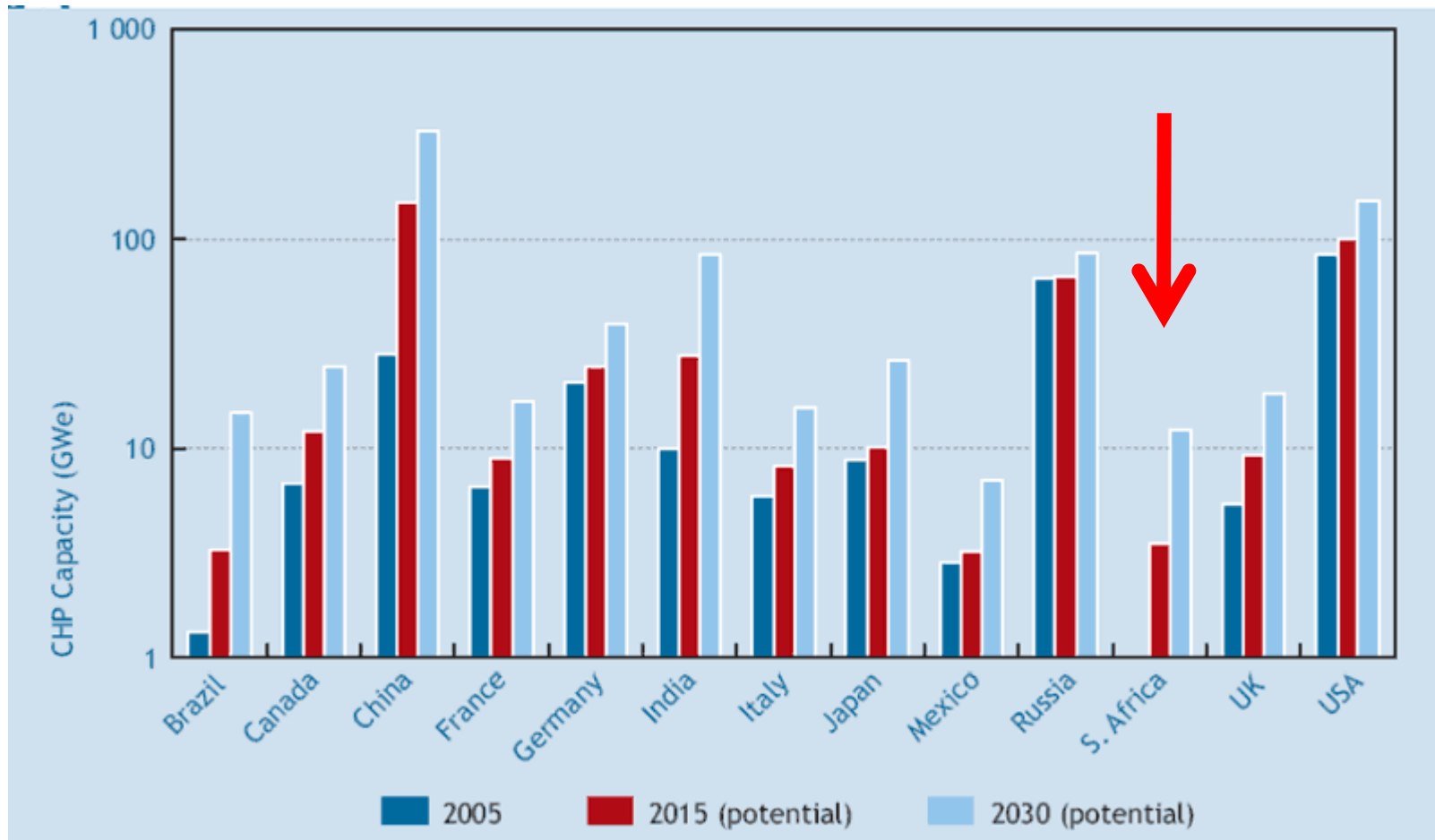


Cogeneration - CHP



- Simultaneous generation of heat & power
- Ideal where both heat & power needed

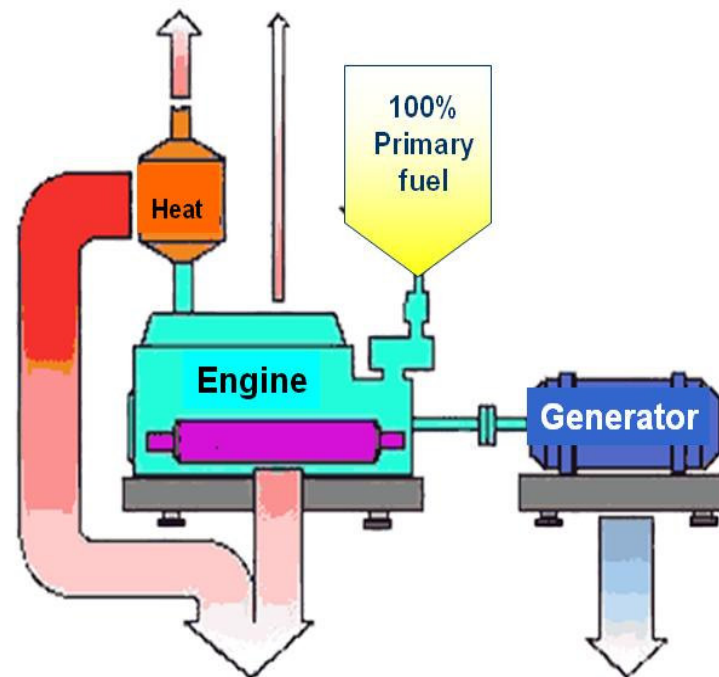
CHP potential



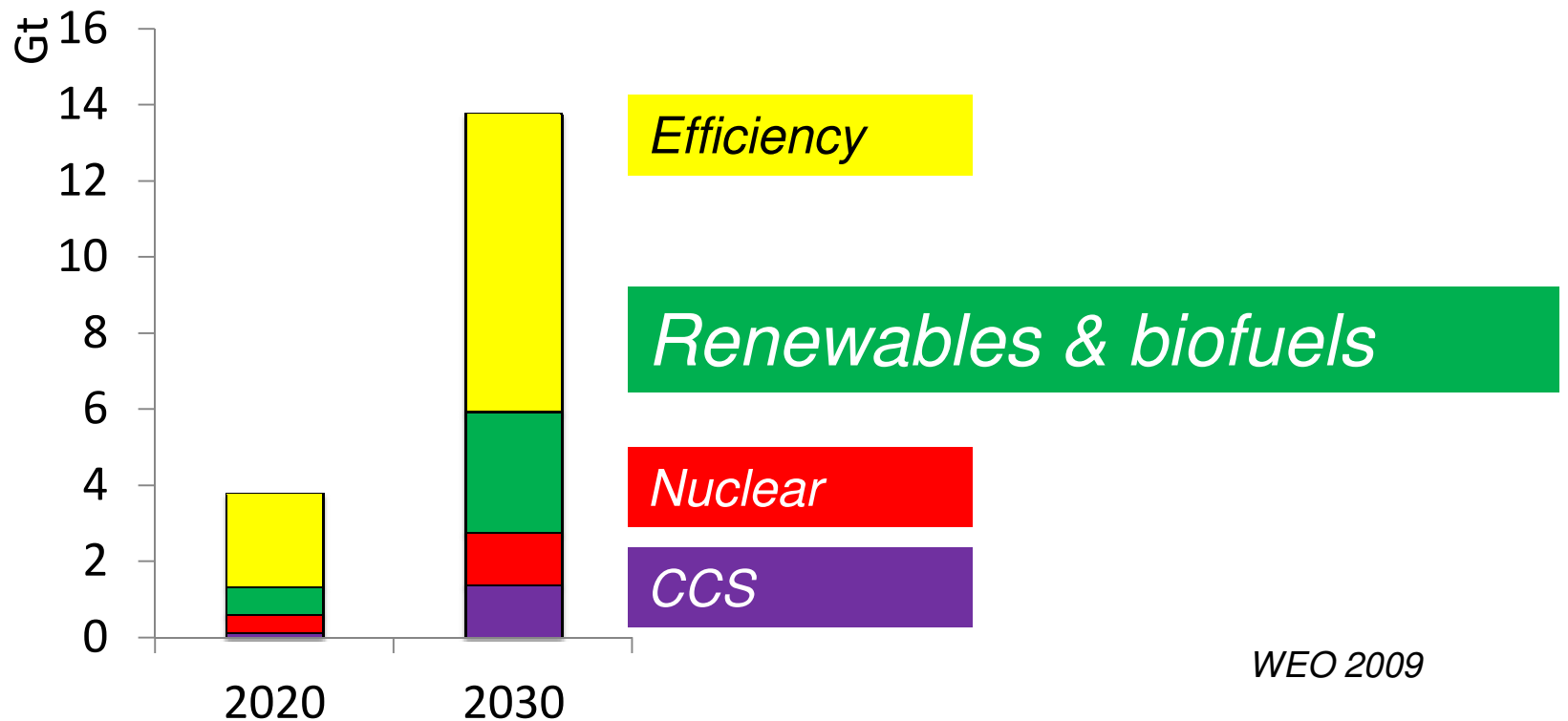
Source: IEA, *CHP: Evaluating the Benefits of Greater Global Investment (2008)*.

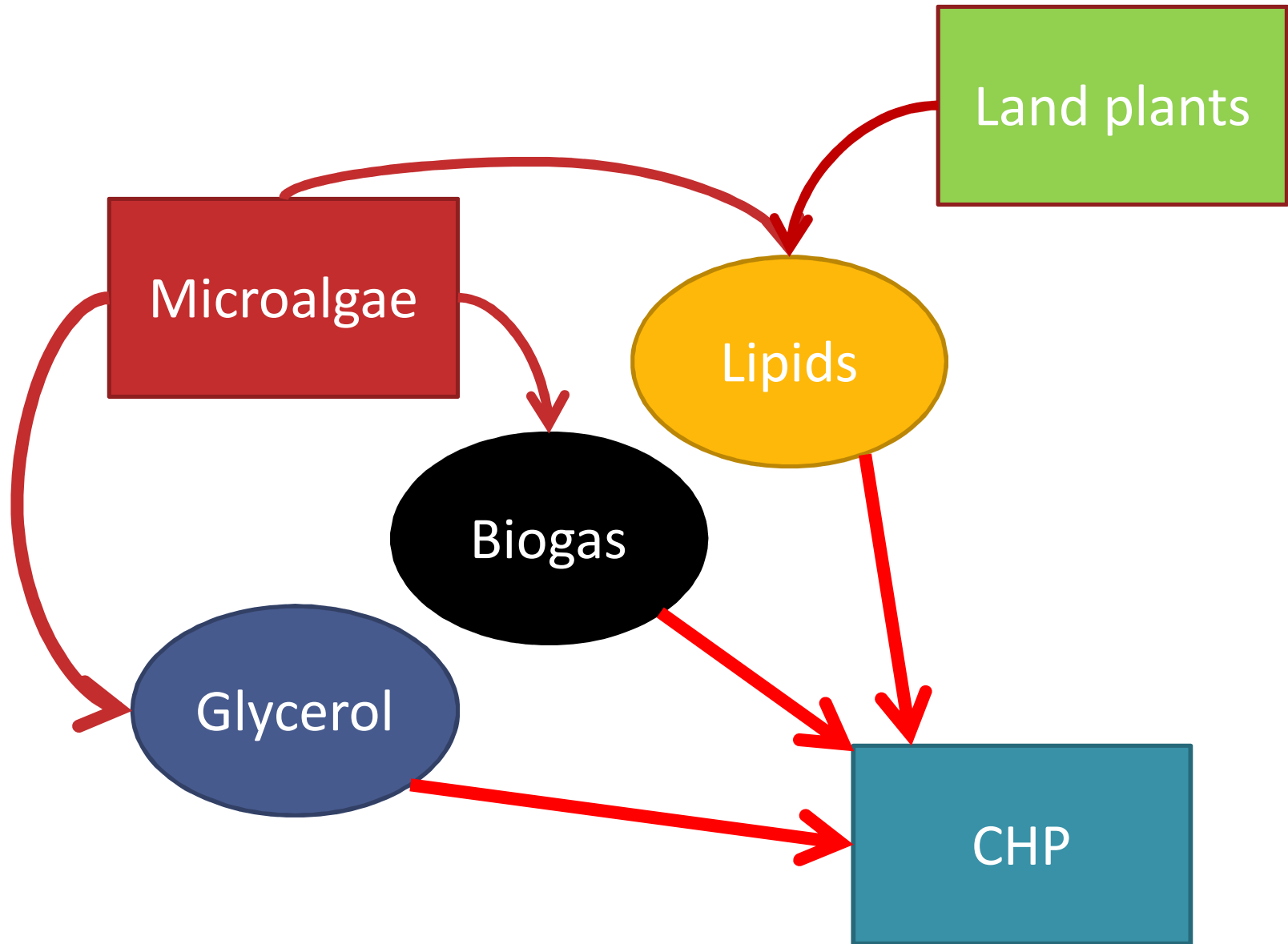


But CHP needs fuel

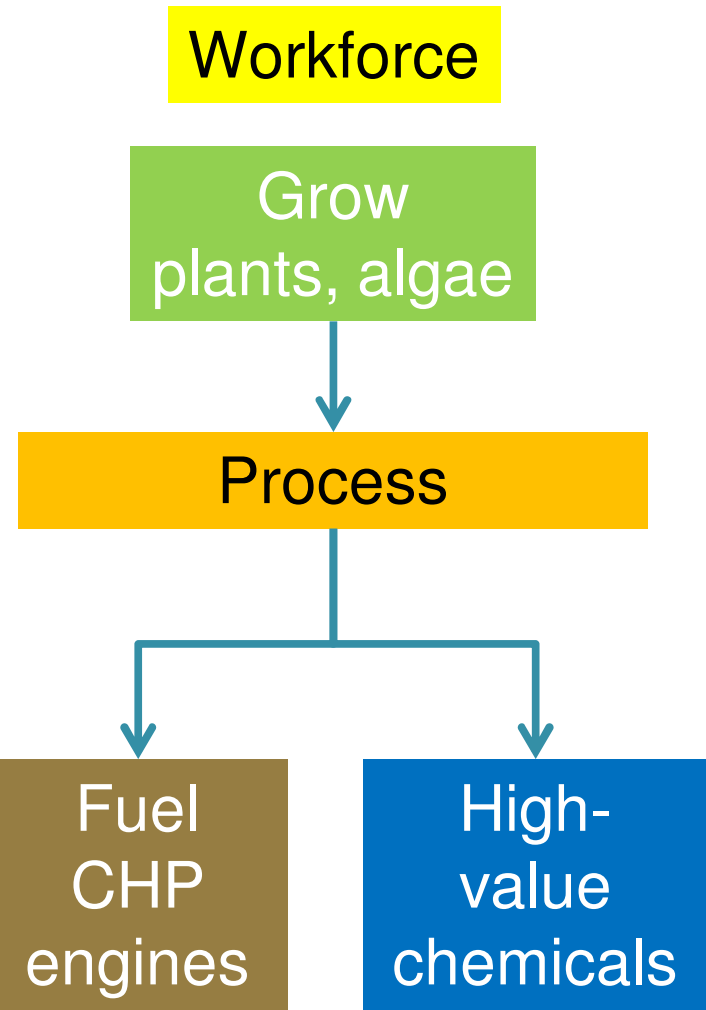
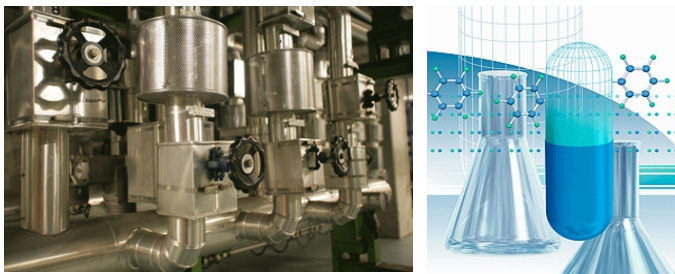


Abatement measures for 450 ppm CO₂ eq by 2030





Renewable biofuels



Supply logistics



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ACP

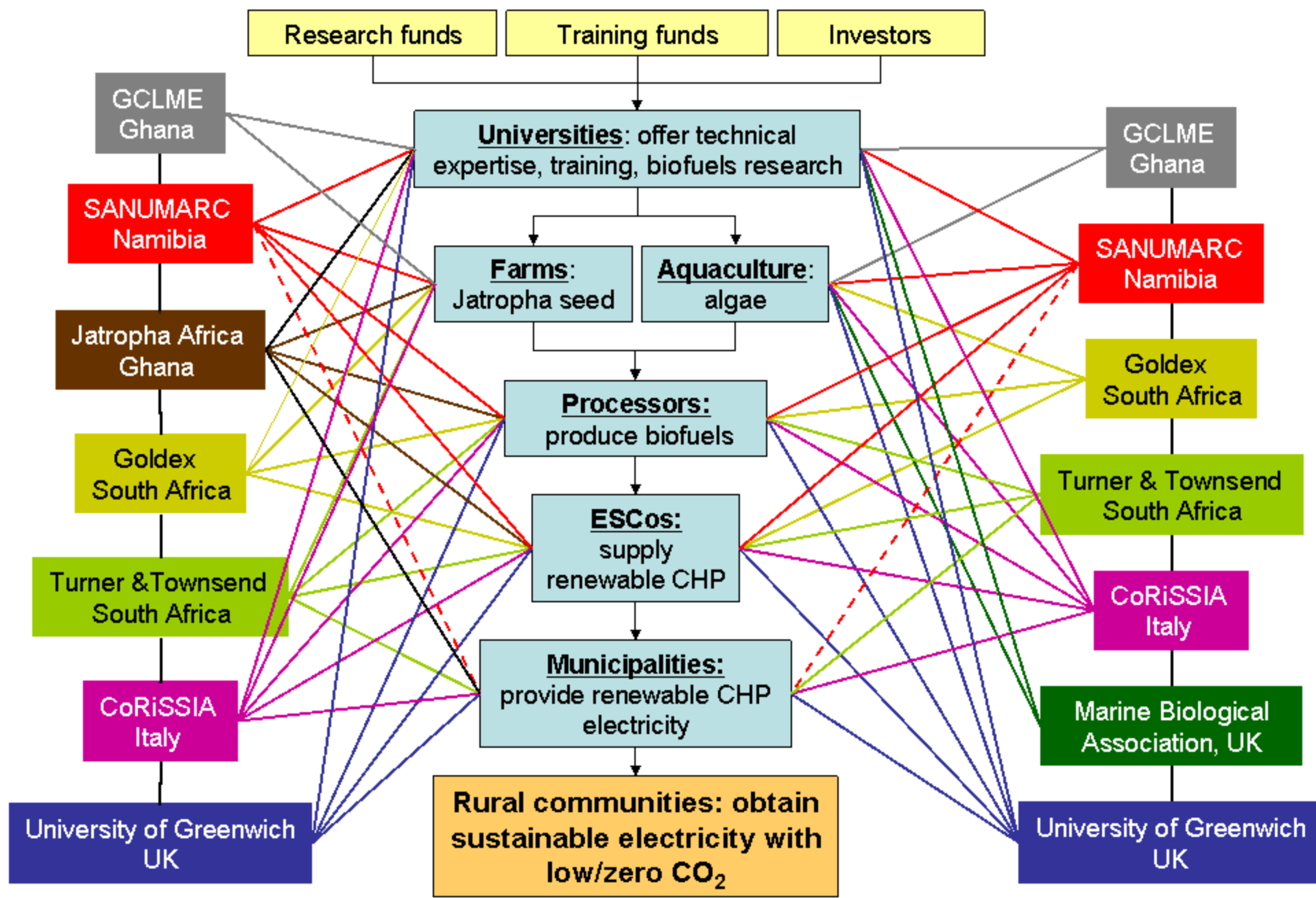
- *'EC's Strategy for Sustainable Development'*
- Build, enhance scientific & technological capacity for R&D & innovation
- Enable activities /policies critical to sustainable development



This ACP Project

- 36 months
- South Africa, Namibia, Ghana, UK, Italy
- Regional, local authorities, municipalities
 - sewage, water,
 - energy procurement





Jatropha Partners

Stakeholders

Microalgae Partners

This workshop

- Understand contexts
- Develop connections
- Attract investment
- Build capacity
- Create sustainable non-food supply chains
- Africa

