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Energy Agency
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CHP/DHC Collaborative meeting: Industry-related activities

Paris, 21 January 2016

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ETP Industry model development activities

- ✓ Support the energy system model integration strategy

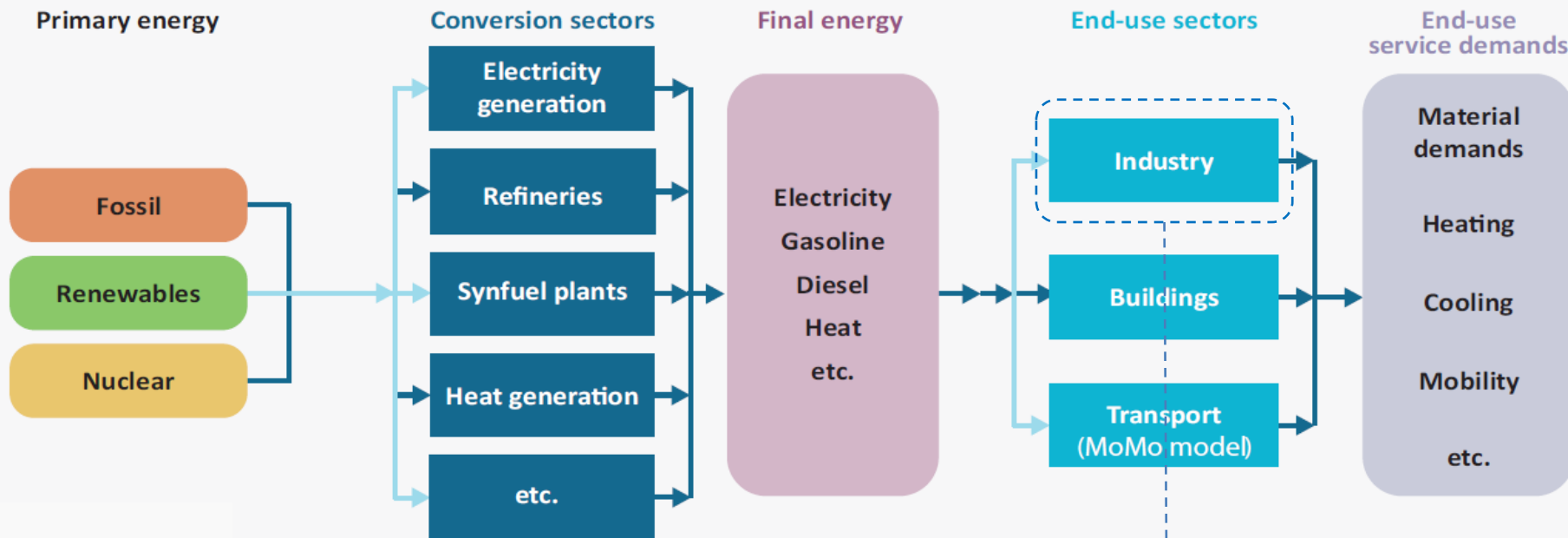
IEA energy statistics improvement activities

- ✓ CHP performance
- ✓ Petrochemicals feedstocks energy reporting

Analytical streams

- ✓ Opportunities and challenges of going beyond 2DS in Industry
- ✓ Opportunities for wider use of renewable energy in Industry
- ✓ Opportunities for a Low-carbon technology roadmap for the Iron & Steel sector

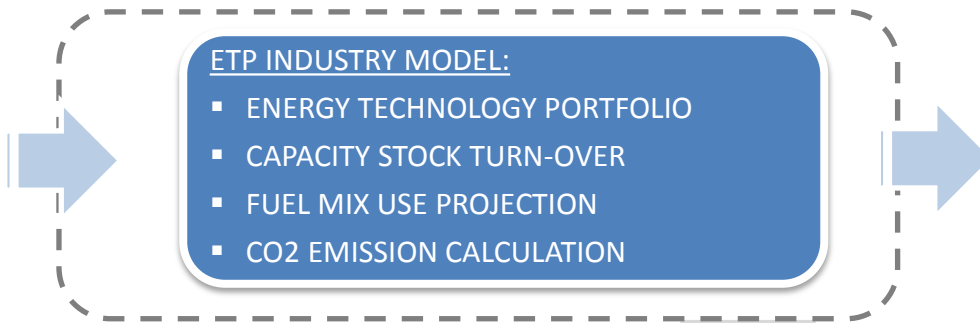
ETP Energy System Model



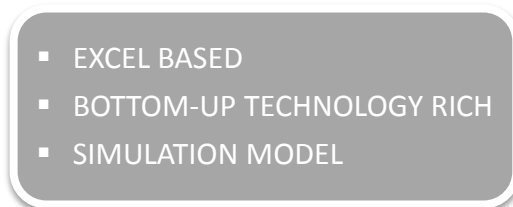
ETP INDUSTRY MODEL:

- Iron&Steel, (Petro)chemicals, Cement, Aluminium and Pulp&Paper
- 39 regions
- Time horizon up to 2050 (5yr time steps)

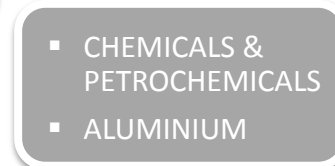
MODEL CONVERSION



- Explores least-cost technology pathway to produce demanded commodities within a given set of constraints.
- Structural improvements:
 - More detailed representation of innovative processes
 - Better integration with ETP TIMES Supply model
 - Enhanced economic assessments
 - Improved assessment of regional contexts impact



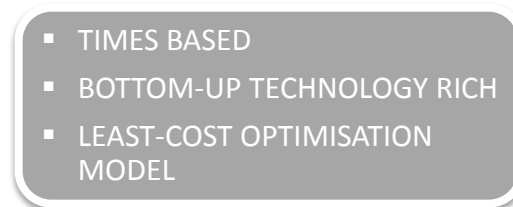
2014



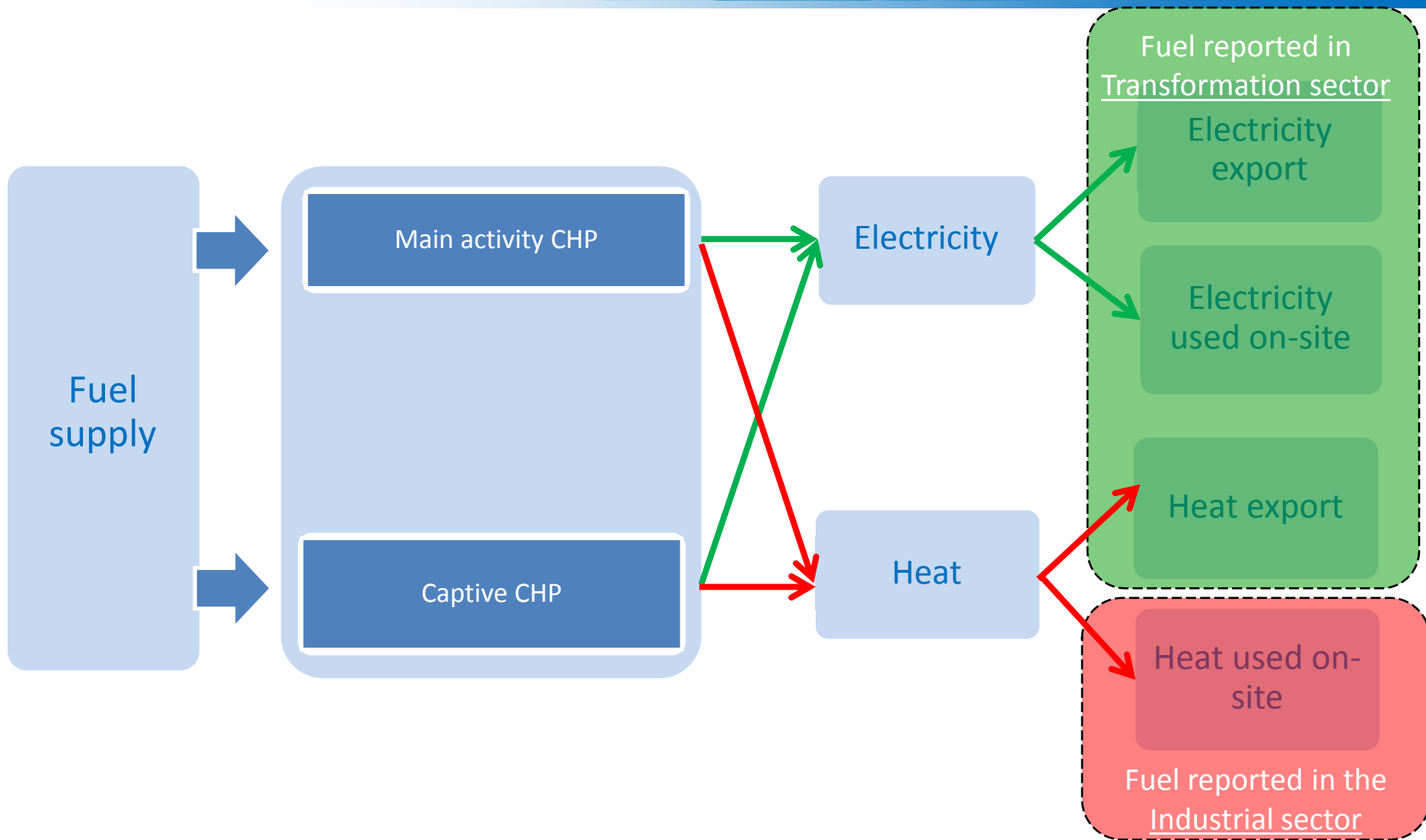
2015



2016



IEA Energy Balance: convention auto-producers CHP



- ✓ **No visibility from IEA stats on actual overall energy efficiency**



- ✓ Limited tracking of industrial CHP performance
 - ✓ Energy modelling needs to rely on assumptions on heat/power ratios
 - ✓ Difficult to analyse the full scope of benefits of CHP technologies in scenarios
- ✓ **Discussions with governments to review IEA statistical questionnaire 2015/2016**



- ✓ AIM: Total heat output from auto-producers CHP to be singled out
- ✓ RESULT dependent on ability to meet this requirement from governments and reporting bodies

Modelling integration development activities & analytical streams

- ✓ Technology investments information for CHP and IEH recovery
- ✓ Update on best available related technologies (techno-economic performance): CHP, IEH recovery, heat pumps
- ✓ Synergetic examples of CHP/IEH recovery with the use of renewable energy sources
- ✓ Tools to comprehensively capture the sustainability benefits of CHP/IEH: successful regulatory mechanisms, innovative business models; and preventing barriers

IEA energy statistics improvement activities

- ✓ National level statistics covering total heat output from auto-producers CHP
- ✓ Engaging with countries to support this process



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Thanks!

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