



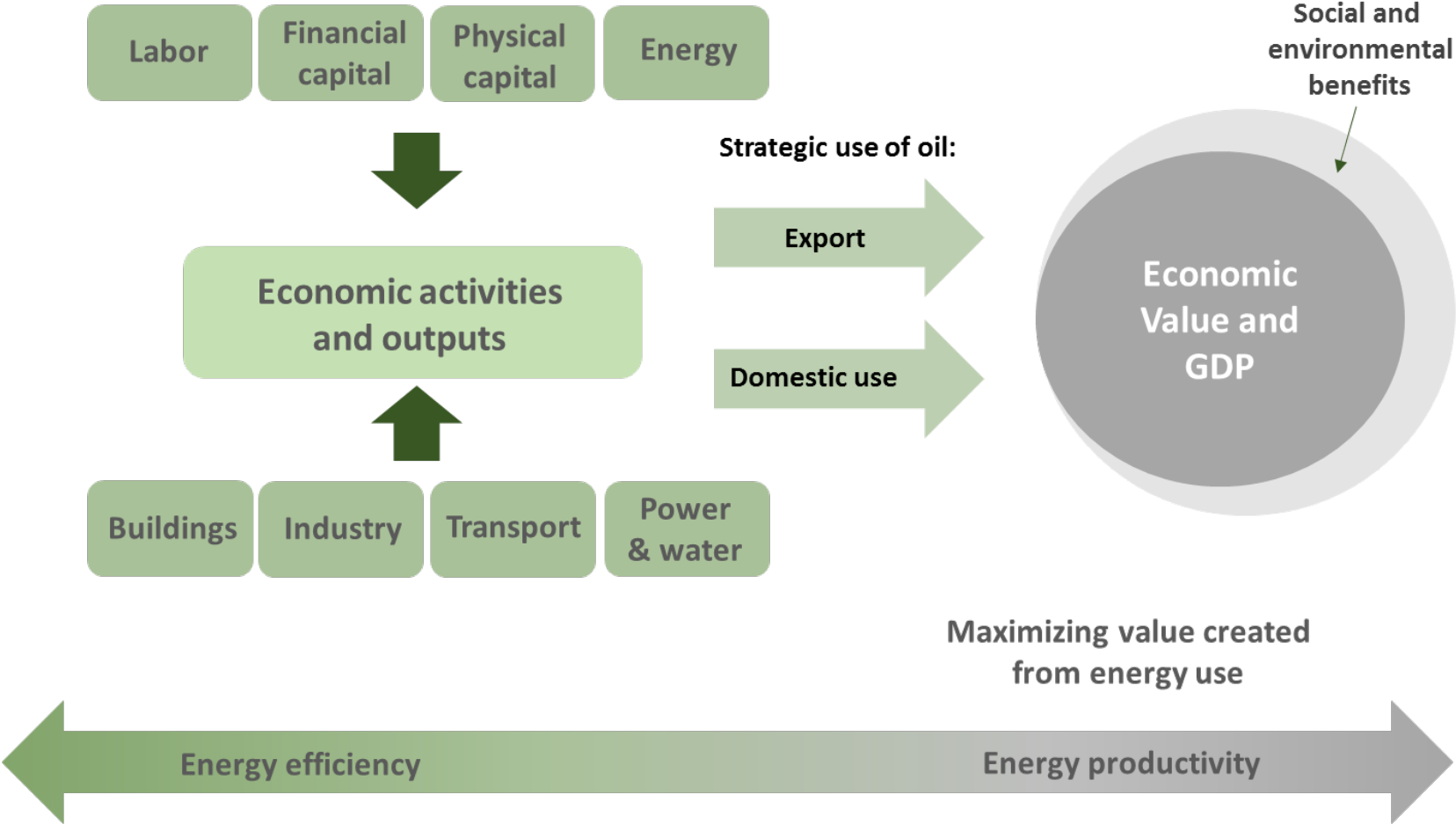
مركز الملك عبدالله للدراسات والبحوث البترولية
King Abdullah Petroleum Studies and Research Center

Enabling Policies to Support Industrial Energy Productivity in the GCC

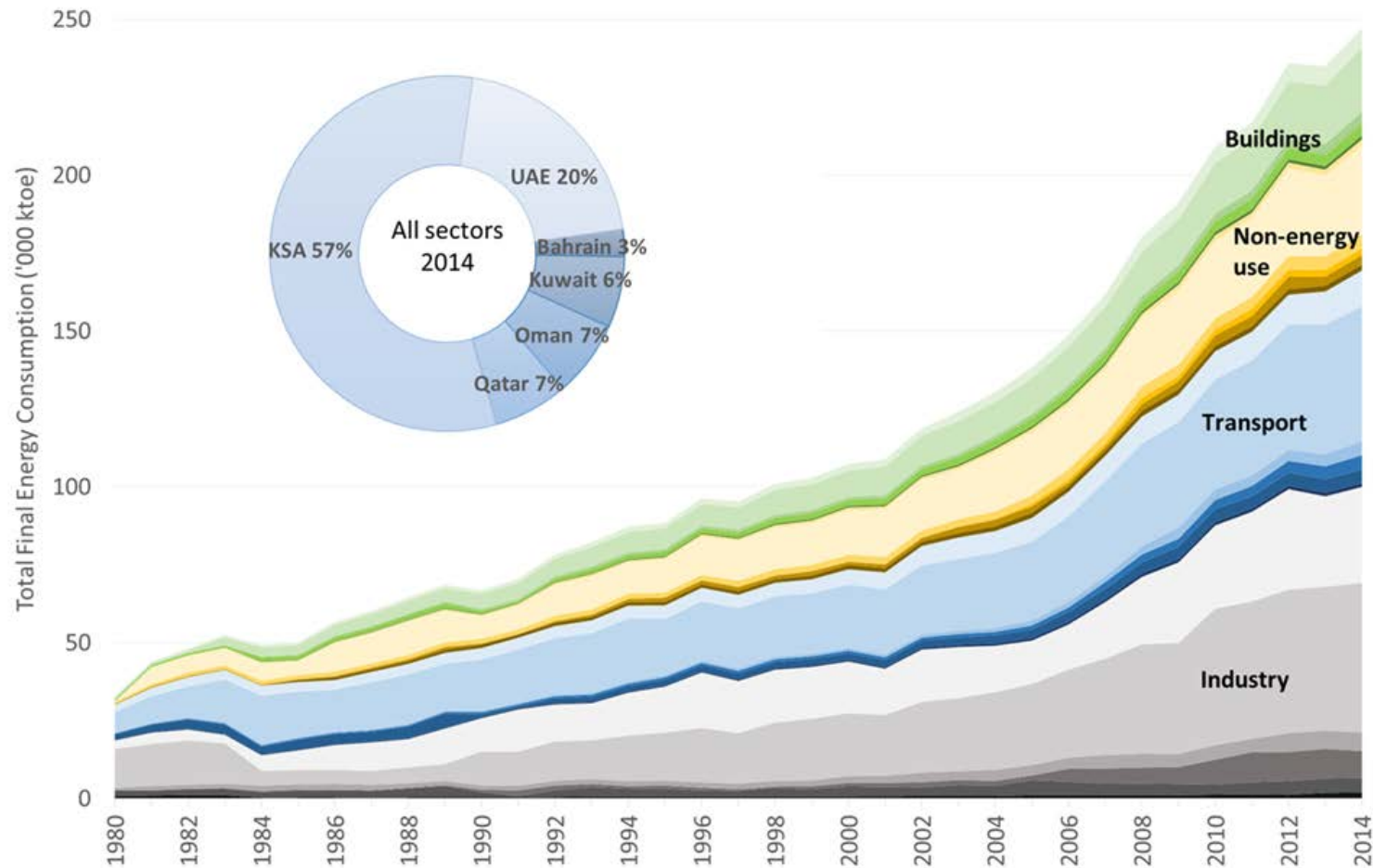
Global Energy Efficiency Accelerator Platform
Seventh International Forum on Energy for Sustainable Development
18-21 October 2016, Baku, Azerbaijan

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Visiting Research Fellow, KAPSARC

Energy productivity is about maximizing economic value and welfare for society...

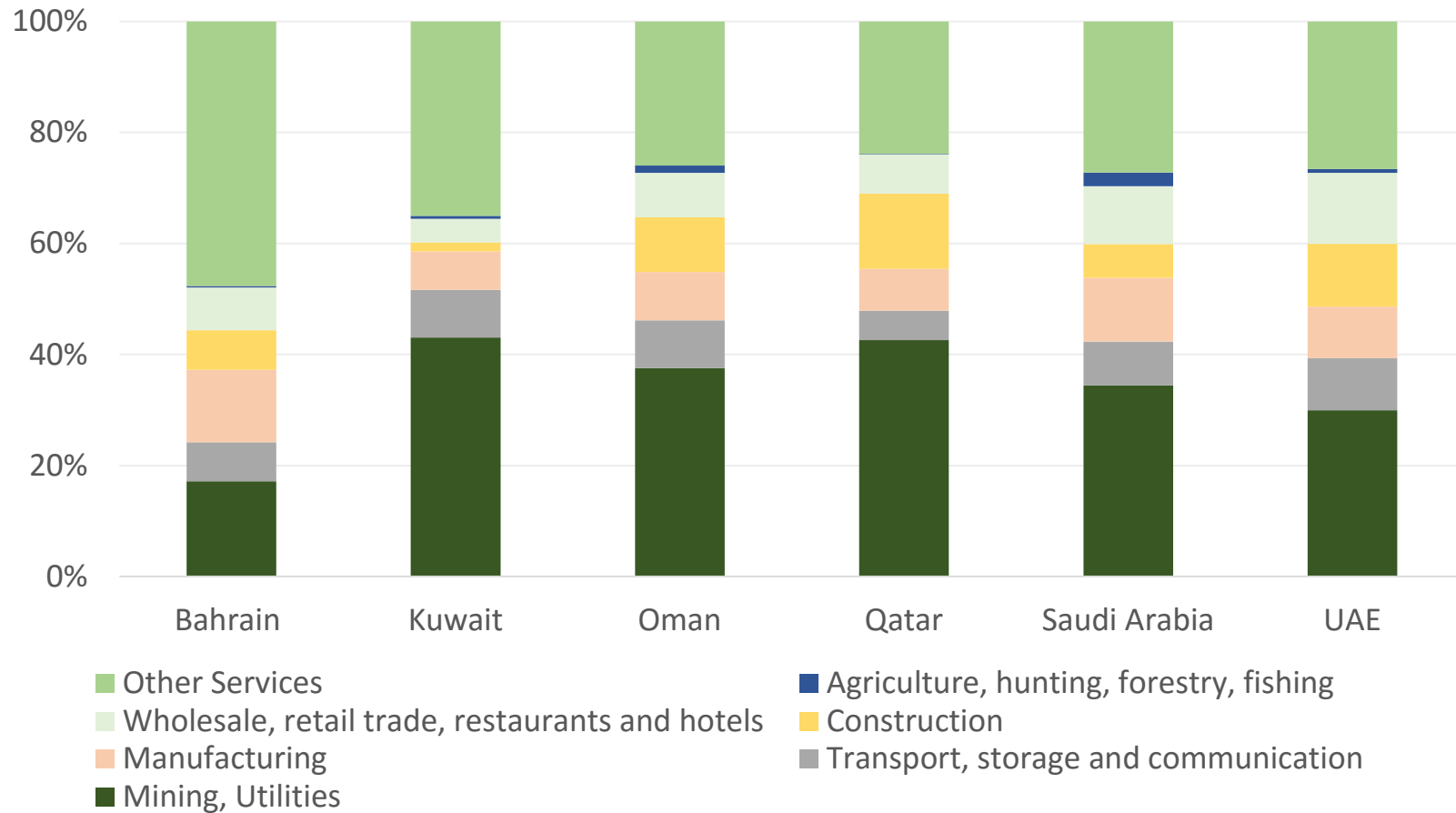


GCC countries could extract more value out of their industrial energy consumption

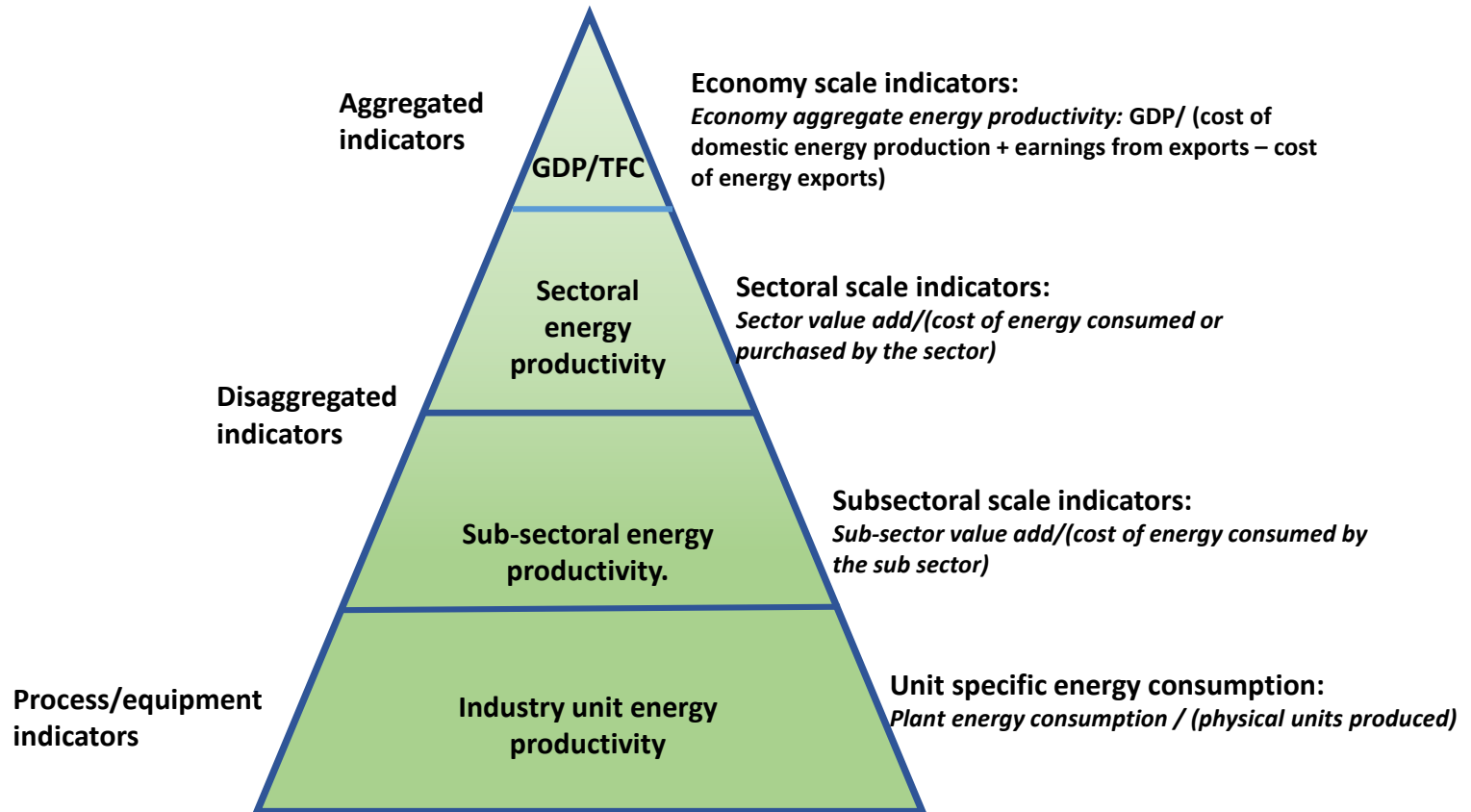


Strong transition towards services will also help lift energy productivity...

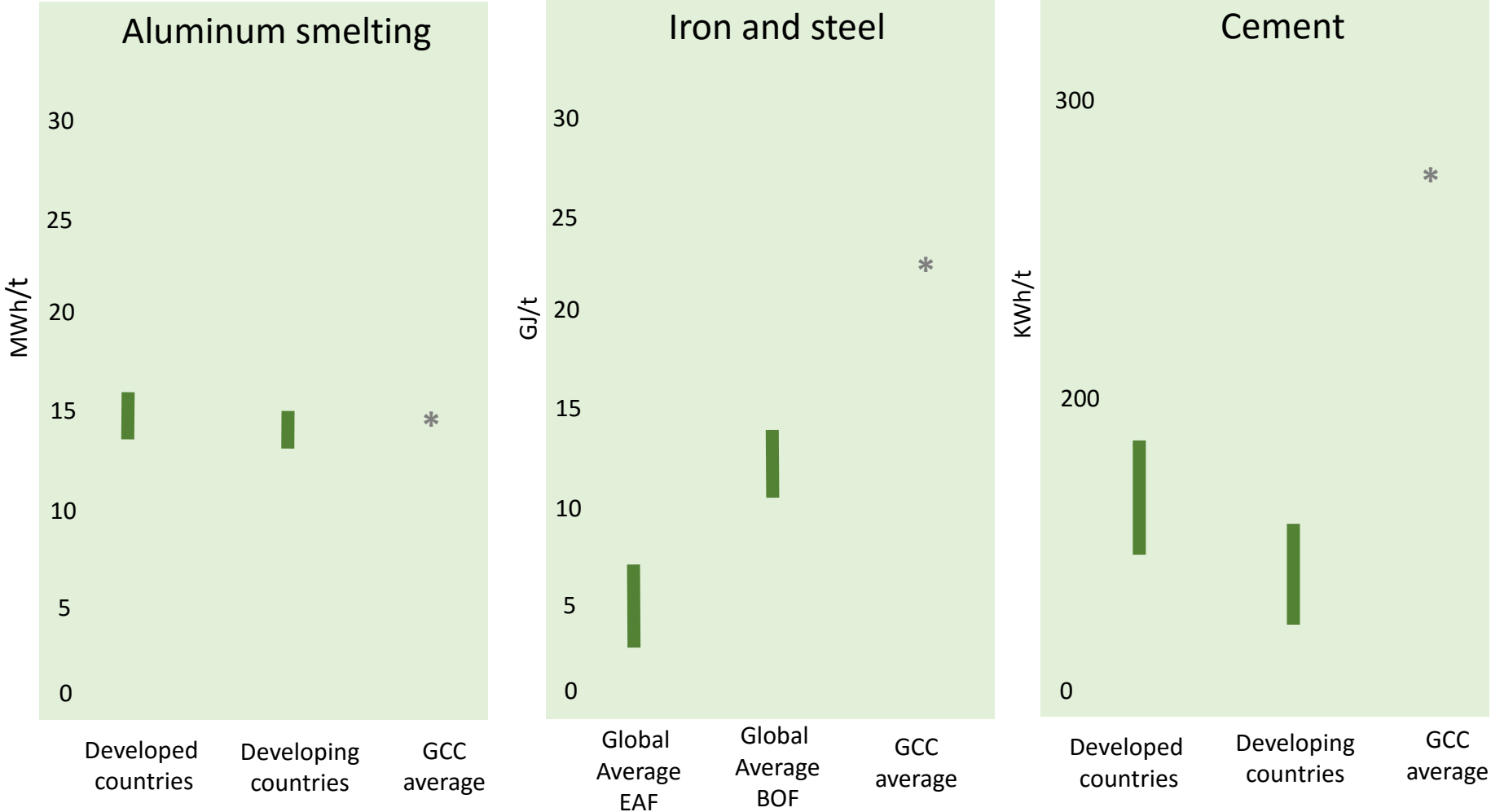
Composition of Value Added by Sector 2014



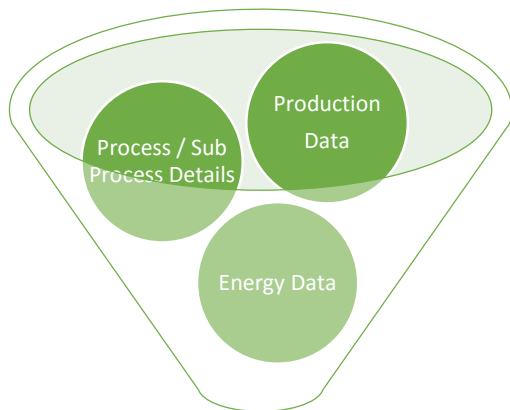
Providing an evidence base for target setting and.....



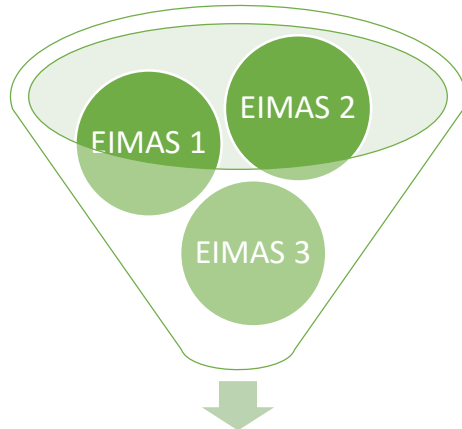
Data gathering to enable benchmarking performance is an important first step...



Energy management systems at the organisation level and a centralised energy efficiency benchmarking platform at the industry level

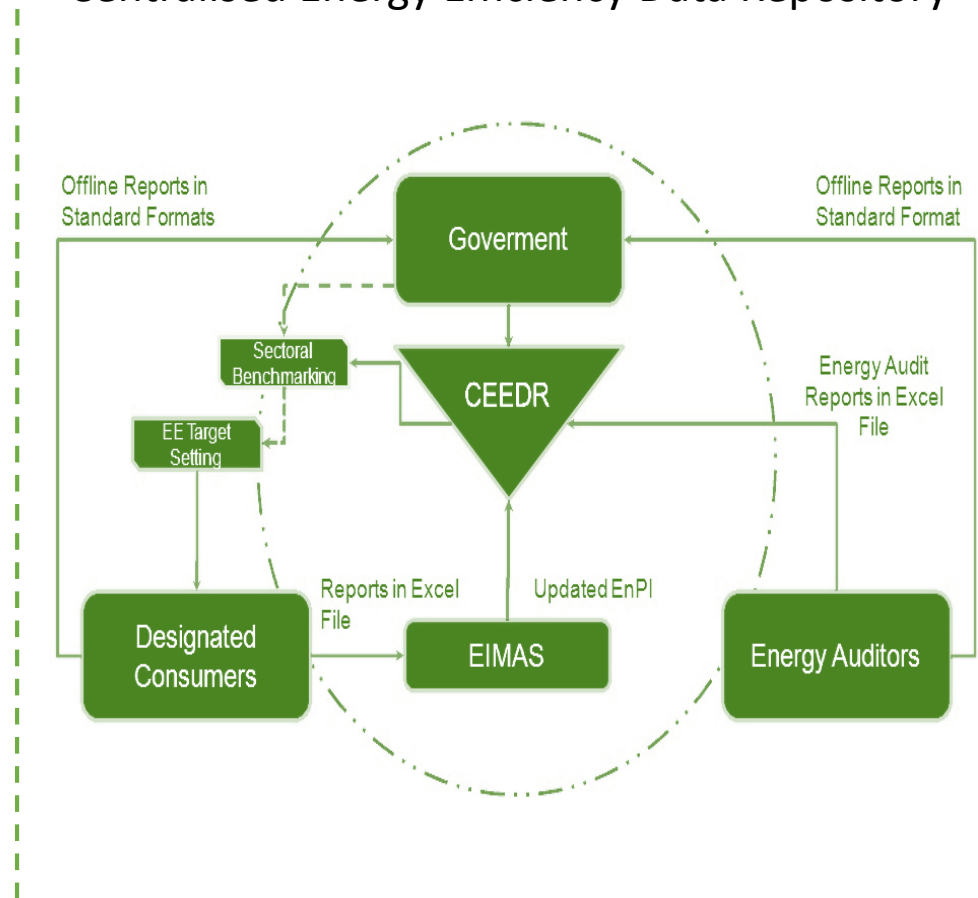


Energy Performance Indicators (EnPIs) for each process/ sub process



Anonymised aggregated cluster indicators on CEEDR sourced from EnPIs from EIMAS

Centralised Energy Efficiency Data Repository



Industrial energy efficiency policy pathways

Five Phases	Ten Steps	Twenty Actions	Five Tools
Policy Definition	1. Formulate industrial EP regulations in legislative framework	- Analyze legislative framework and regulatory drivers	1. GAP analysis 2. SEC norms 3. ISO 50001: Energy Mgt. System 4. Energy audit tools & practices 5. Benchmarking
Program Planning	2. Define program role in policy framework	- Analyze policy framework and industrial context	
	3. Design the program	- Define scope and objectives - Define Energy Management System (EnMS)	
	4. Establish Action Plans and mobilize resources	- Establish Management Information Systems (MIS) - Create Action Plan - Secure resources	
Program Implementation	5. Provide Institutional support	- Conduct energy audits; ESCOs performance contracts - Develop training strategy :institutional and human capacity - Follow-up with companies and assist in implementation	
Monitoring & Evaluation	6. Establish M&E protocols	- Establish verifiable indicators and data sources - Meter & sub-meter facilities - Establish baselines	
	7. Assess compliance	- Use transparent & predefined criteria - Establish rewards or penalty mechanisms	
	8. Evaluate program	- Define evaluation objectives - Select evaluation approach and indicators	
Reporting	9. Promote program	- Address challenges and failures	
	10. Revise and adapt prog.	- Adjust program design and consider up-scaling	

Saudi Arabia's INDC identifies two potential pathways for development

INDC Target:

130 million tCO₂-e by 2030

“Only possible” under scenario 1

Scenario 1: High energy productivity
Oil allocated for export

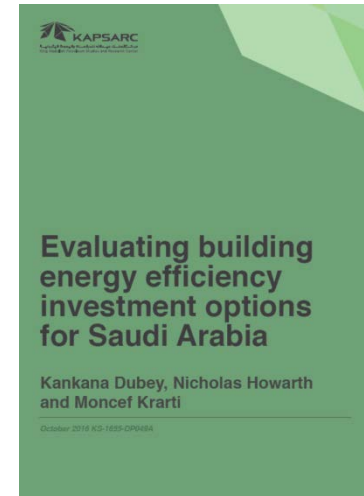
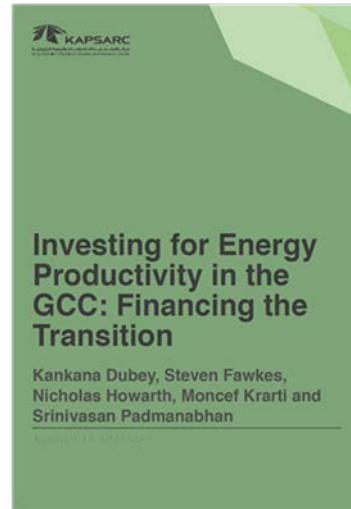
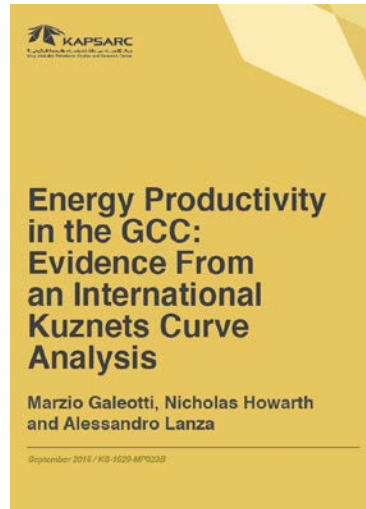
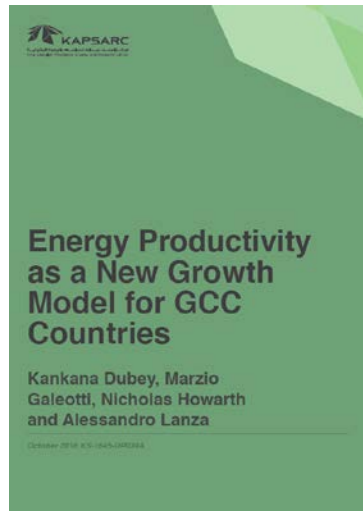
Energy export
revenue and
investment
into energy
efficiency, RE,
and high
value services

Scenario 2: Low energy productivity
Oil used domestically

Accelerated
industrialization
based on low cost
abundant energy
resources

Thank you and further information

Project research publications



Publications available at www.kapsarc.org

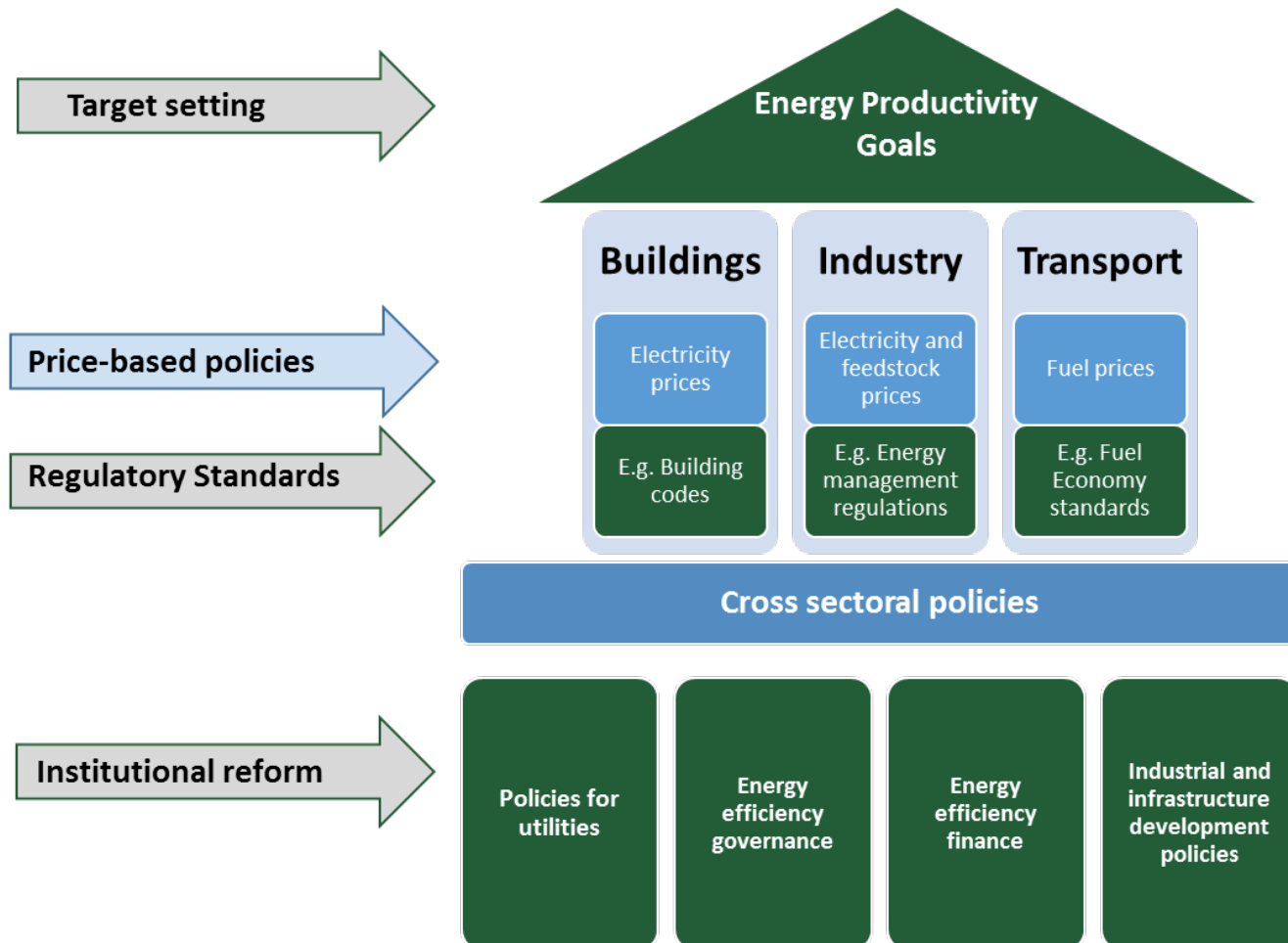
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ANNEX

Energy productivity policy presents a coherent agenda for both economic productivity and the environment



Without a change in policies, GCC countries will remain on a low energy productivity growth path

Energy productivity Kuznets Curves for GCC and Selected Advanced Countries

