



Efforts to realize the untapped potential of energy efficiency

The 3rd Arab Forum for Renewable Energy and Energy Efficiency (AFREEE)

1-2 June 2016, Cairo

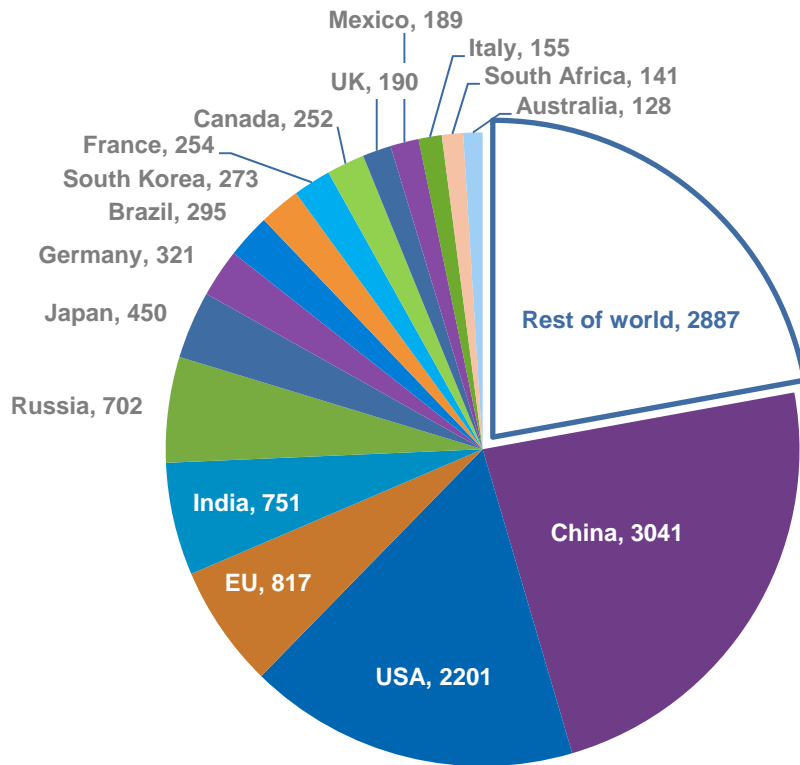
Zoe Lagarde, G20 Adviser and Project Manager, IPEEC



Outline

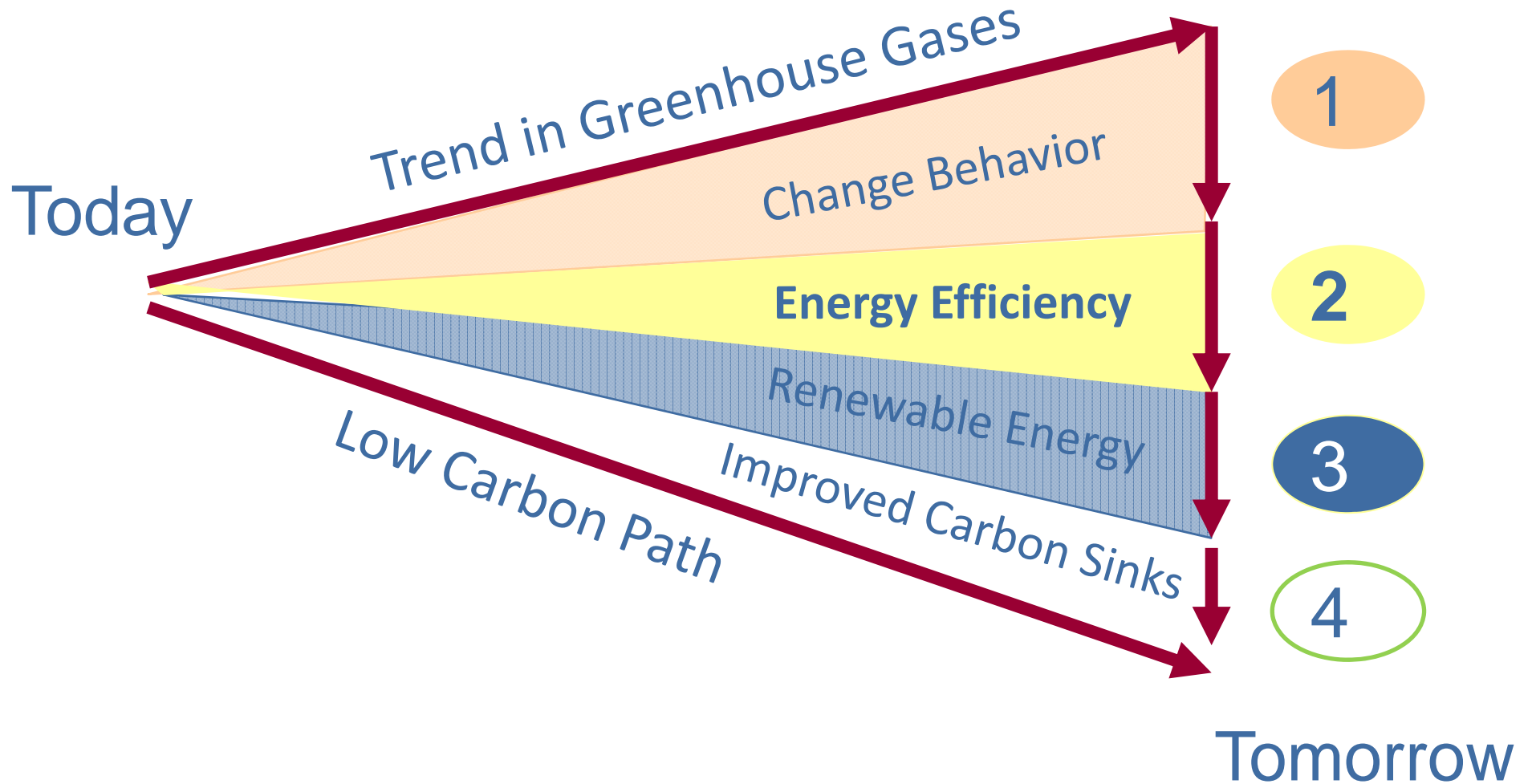
1. Introduction
2. Potential for Energy Efficiency
3. National efforts – example of Australia
4. International efforts – example of the G20
5. Key elements for success

Introduction: About IPEEC

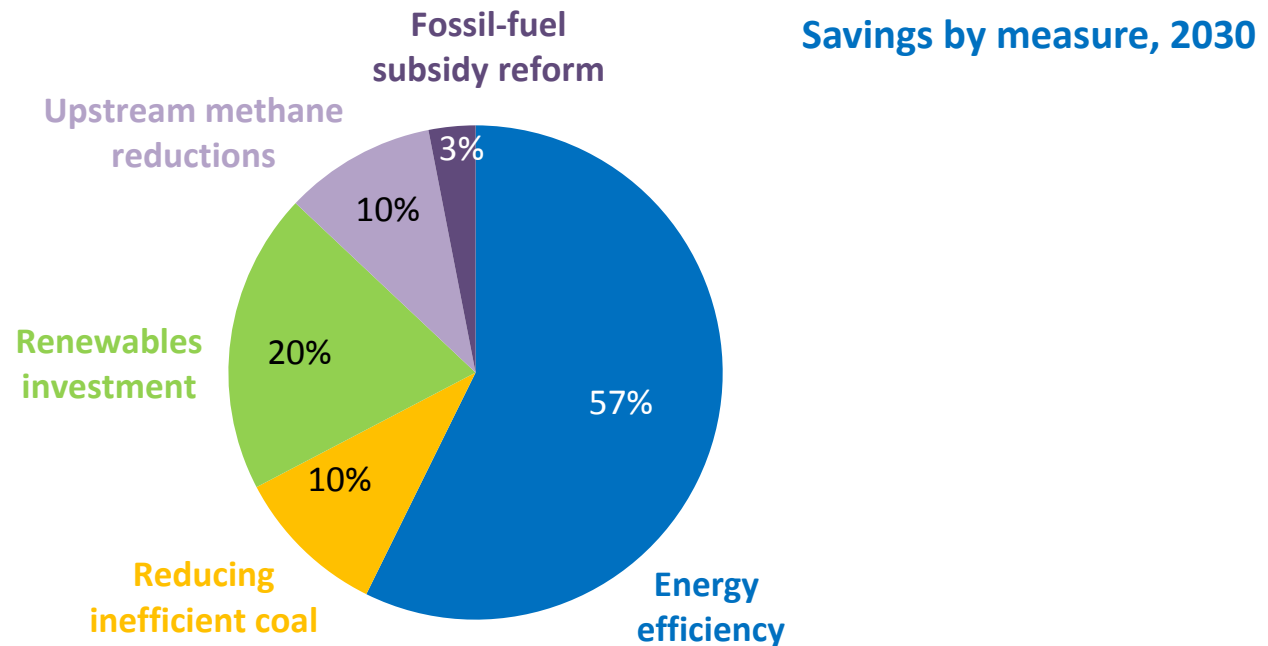


- **IPEEC:** International Partnership for Energy Efficiency Cooperation
- 16 countries of the G20
- Global response
- Benefits of international cooperation

Huge potential for energy efficiency



Huge potential for energy efficiency

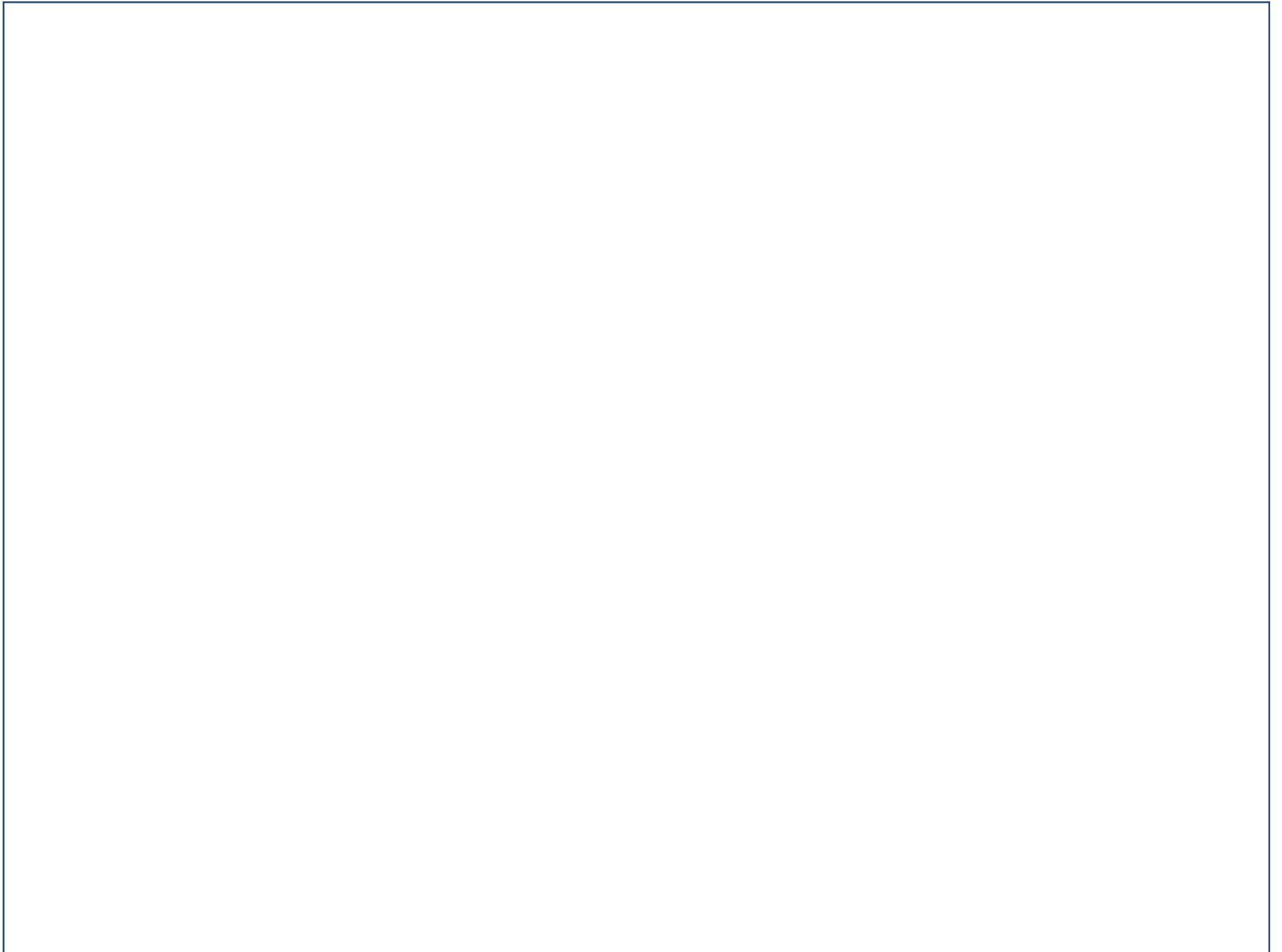


Source: IEA, World Energy Outlook Analysis

G20 countries account for more than 85% of the energy efficiency savings

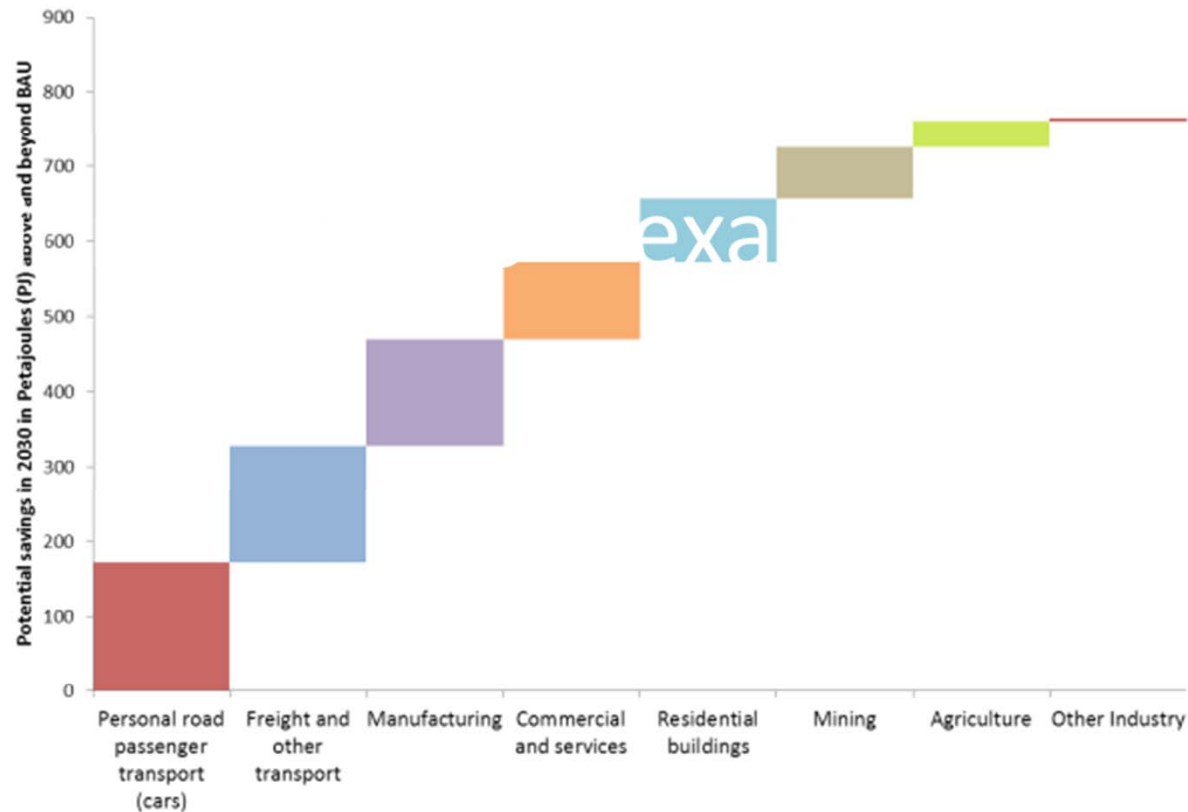
Huge potential for energy efficiency





National efforts – Australia

COST EFFECTIVE ENERGY EFFICIENCY OPPORTUNITIES



Source – ClimateWorks data with departmental analysis

National efforts –Australia

National Energy Productivity Plan (NEPP)

Improving Australia's energy productivity means **more value** from the energy we consume.

$$\text{Energy productivity} = \frac{\text{economic output (GDP)}}{\text{energy used (PJ primary)}}$$



WHY *improve energy productivity?*



Boosting **competitiveness** and growth



Helping families and business manage their energy **costs**



Reducing greenhouse gas **emissions**



WHAT *are our goals?*

40%
IMPROVEMENT BY **2030**



Energy systems that deliver **least cost energy** in the long term interests of consumers

More **informed** energy consumers **managing their energy bills**

2015

Energy efficiency



Energy market reform

Climate change
COORDINATING POLICY



HOW *will we get there?*

Encouraging more productive consumer **choices** through

- efficient incentives
- empowering consumers
- helping business compete



Promoting more productive energy **services** through

- innovation support
- competitive modern markets
- consumer protections



Cooperation
for
energy

National Energy Productivity Plan – Measures

This work plan covers the first steps in the 15 year life of the NEPP and will be continuously updated.

A range of metrics to measure outcomes will be developed and reported annually.

■ New COAG Energy Council ■ New Commonwealth ■ New all-governments

Encouraging more productive consumer CHOICES

EFFICIENT INCENTIVES

- Transition to cost-reflective pricing
- Market mechanisms to capture societal benefits

EMPOWERING CONSUMERS

- Make choice easier
- Support best practice services for vulnerable consumers
- Improve residential building energy ratings and disclosure

HELPING BUSINESSES COMPETE

- Help business self-manage energy costs
- Recognise business leadership and support voluntary action
- Research business benchmarks and success factors
- Expand commercial building ratings and disclosure
- Improve fuel efficiency in aviation and maritime sectors
- Reduce barriers to financing
- Improve energy productivity in government

Promoting more productive energy SERVICES

INNOVATION SUPPORT

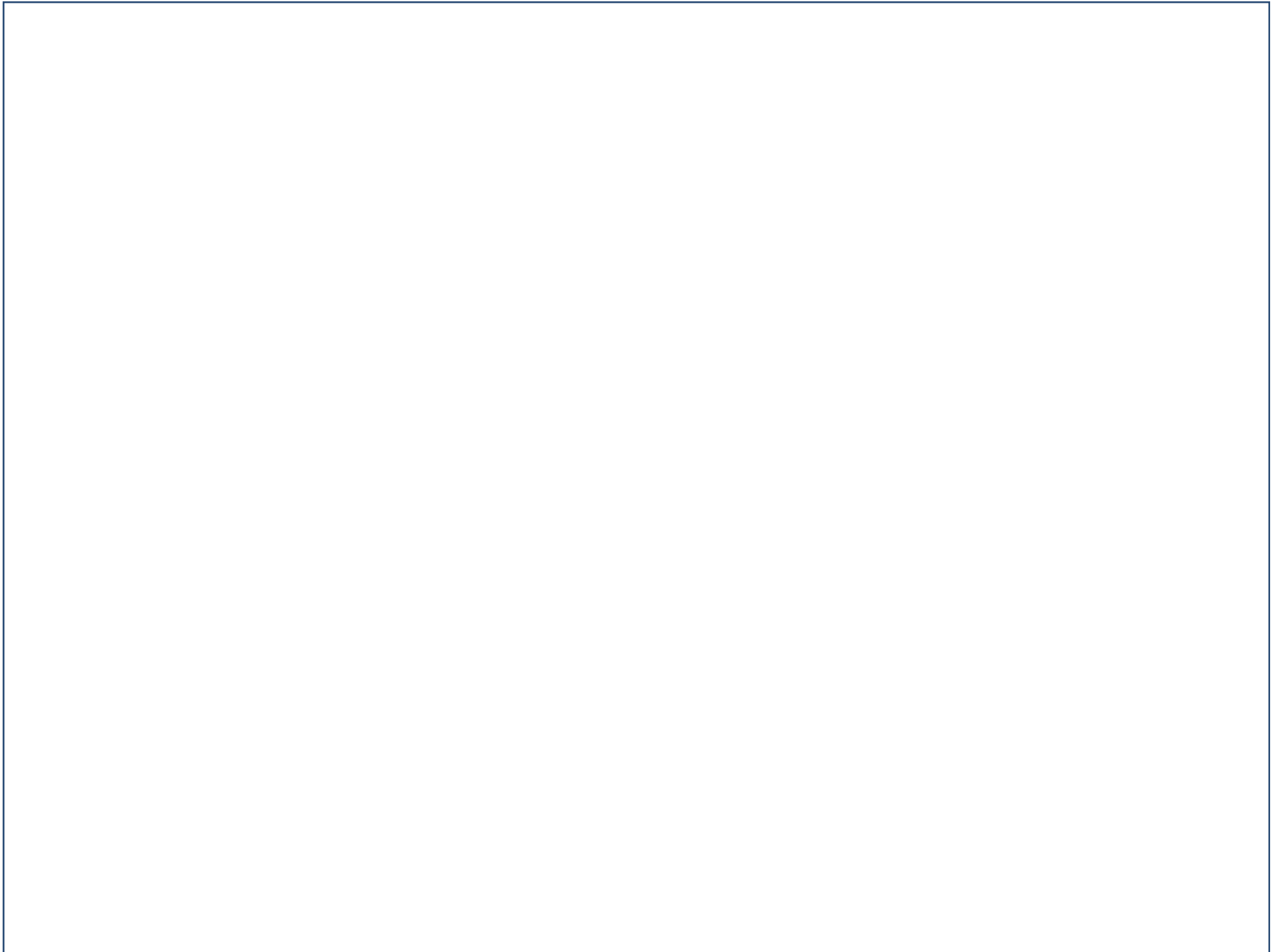
- Support innovation and commercialisation
- Improve light vehicle efficiency
- Drive innovation in transport and infrastructure systems
- More liveable, accessible and productive cities
- Promote leading practice
- Collaborate internationally

COMPETITIVE MODERN MARKETS

- Emerging technologies in the electricity system
- Deliver a Gas Supply Strategy
- Reform governance to keep pace with change
- Develop an Energy Use Data Model for better planning
- Competitive smart meter rollout
- Improve the exchange of market data
- Build service provider capacity
- New market mechanisms for demand response
- Promote competitive retail markets in electricity and gas
- Monitor the wholesale market
- Adopt National Frameworks

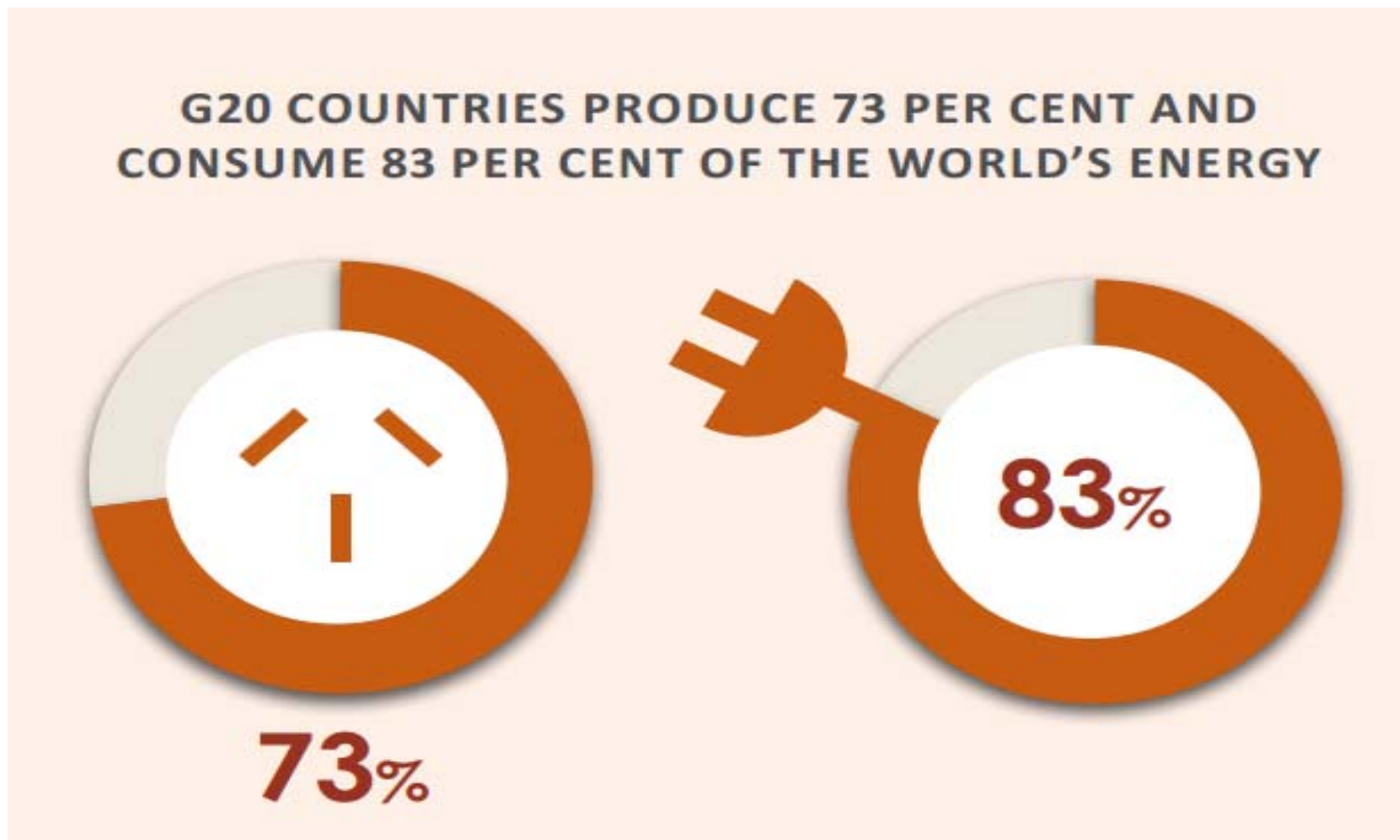
CONSUMER PROTECTIONS

- Deliver a new Equipment Energy Efficiency (E3) prioritisation plan
- Advance the National Construction Code
- Improve compliance with building energy efficiency regulation
- Review the National Energy Customer Framework for disruptive technologies
- Review Fuel Quality Standards Act



International efforts – an example, the G20

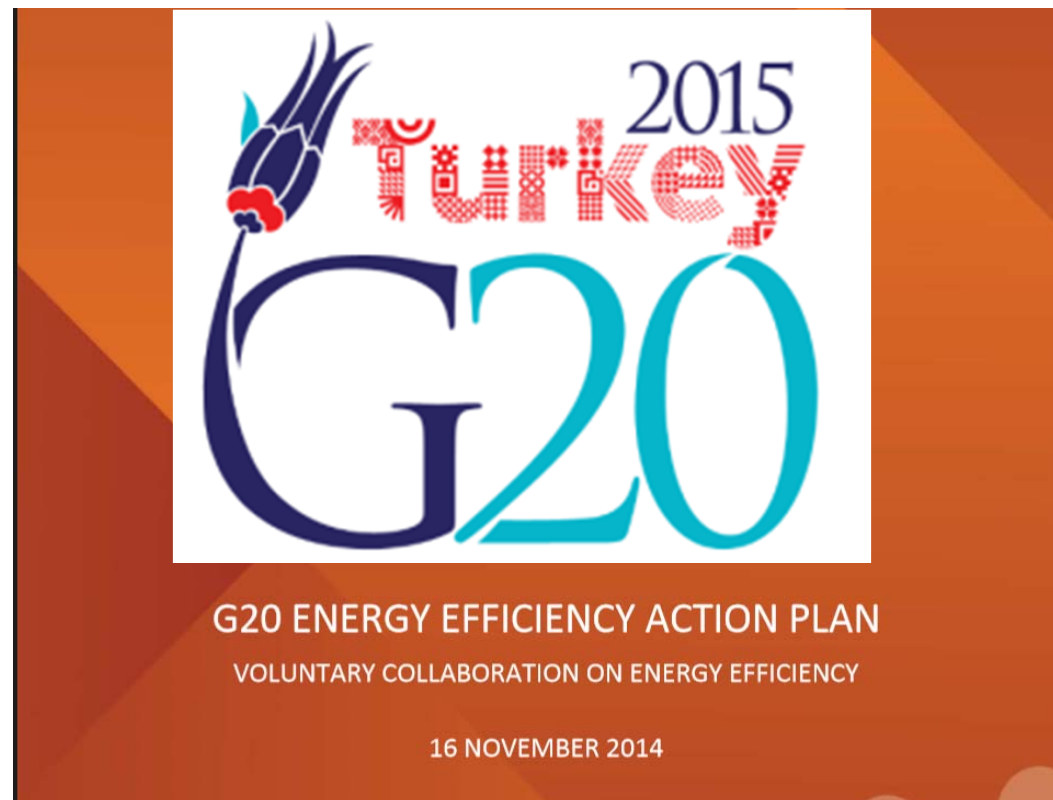
G20: Huge economic, demographic and energy weight



International efforts – an example, the G20

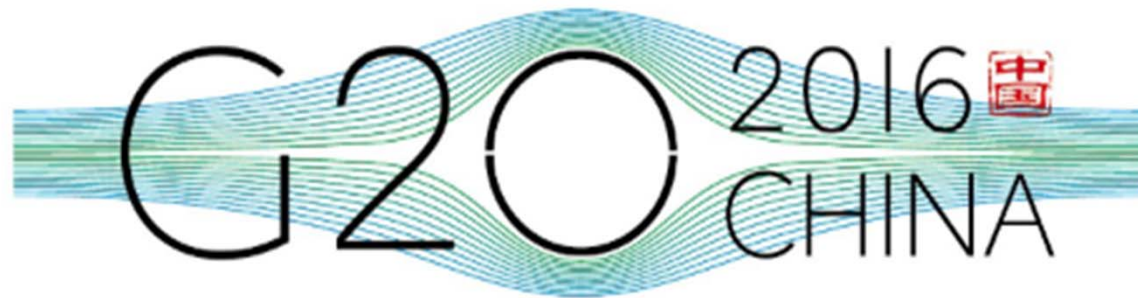
2014 Action Plan: transport, networked devices, finance, buildings, industry, electricity generation

2015 Implementation



International efforts – an example, the G20

2016 Energy Efficiency Leading Programme



2016 年二十国集团中国峰会

International efforts – an example, the G20

Long-term

Comprehensive

Flexible

Adequately resourced

A unique opportunity



G20 Energy Efficiency Leading Programme

(First Draft)

Elements for successful Energy Efficiency

1. Information
2. Technologies
3. Know how
4. Finance



Vision
Dedicated Staff
Work plan

Conclusion

1. The potential to meet the world's and this region's energy needs through improved energy efficiency is huge
2. Energy efficiency can become the first fuel provided the policies in place are: long-term; comprehensive; flexible and adequately resourced.
3. This can help boost energy efficiency technologies, services and applications.

Contact Us

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In 2015, Zoe was detached from the Australian Government to IPEEC to assist in implementing the G20 Energy Efficiency Action Plan. Prior to this, she worked on international and domestic energy issues focusing on energy efficiency – within the Federal Department of Climate Change. She started her career in low-carbon technologies, working for a Brussels-based startup company.

