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# ***ISO 50001 Energy Management Standard Opportunities and Challenges***

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## Presentation Outline

1. ISO 50001 users and stakeholders
2. Opportunities and challenges
  - a. For industry
  - b. For policy-makers
3. How UNIDO and other international agencies can assist



## ISO 50001 users and stakeholders

- Industrial energy users
- Other large energy users (utilities, buildings, transport, public administrations, etc.)
- National energy and industry policy-makers and agencies
- Standards bodies
- Certification bodies
- National accreditation bodies
- Energy efficiency experts and service providers
- Everyone!



# What are industry priorities

## Current

- Stay profitable
- Operate a safe workplace
- Be compliant with environmental regulations
- Meet legal and social responsibilities
- Monitor supply chain for potential liability

## Emerging

- Manage GHG emissions, carbon footprint



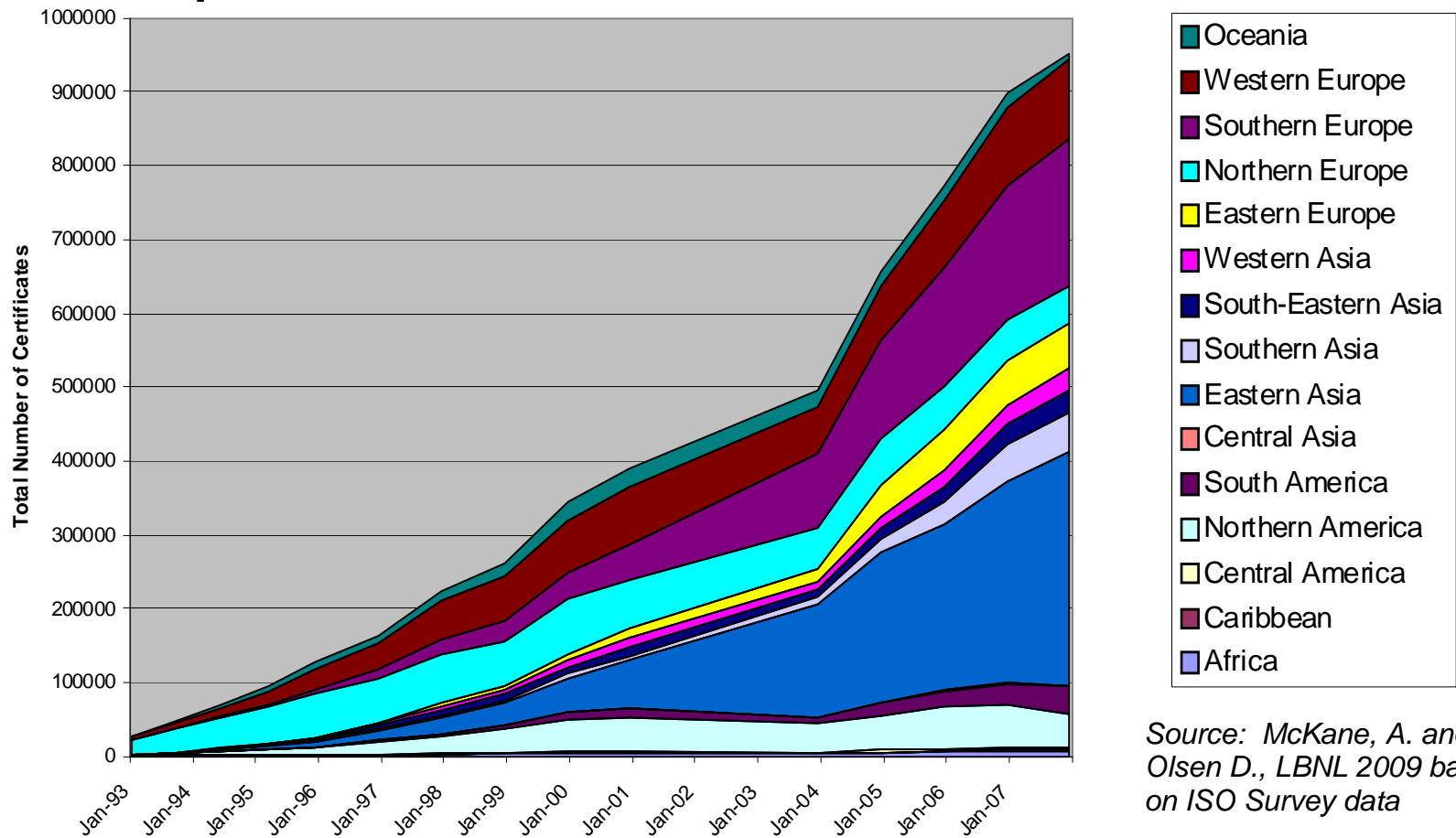
## EnMS & ISO 50001 – Opportunities for industry

1. Cost reduction → higher profits
2. Continual improvement of energy performance
3. Enhanced competitiveness
4. Corporate image
5. Carbon footprint
6. Green financing
7. Compliance with international standard and best practices
8. Accelerated technology upgrade/ transfer



# ISO 50001 Dissemination and Trade

## Adoption of ISO 9001/2/3:1994 and 9001:2000



Source: McKane, A. and Olsen D., LBNL 2009 based on ISO Survey data



## ISO 50001 Dissemination and Trade

- Uptake of ISO 9001 in the supply chain was driven largely by Northern & Western Europe and Japan
- For ISO 50001, the uptake will be more global - led by US, expanded EU, Japan, Korea, Canada, Brazil, China and others
- Use of ISO 50001 will be driven by companies seeking an internationally recognized response to:
  - ✓ National and international energy efficiency and climate agreements
  - ✓ National cap and trade programs, carbon or energy taxes
  - ✓ Corporate sustainability/responsibility programs
  - ✓ Increasing market value of “green manufacturing”
  - ✓ Carbon trading schemes
- Large global corporations will demand participation by their suppliers - as is already happening for environmental & lean manufacturing (i.e.-Wal-Mart, Toyota)



## EnMS & ISO 50001 – Challenges for industry

- Corporate commitment, i.e. understand and be convinced of the added-value of EnMS and ISO 50001
  - ✓ Energy is not like quality or environment
- Lack of in-house expertise for implementing energy management and energy efficiency
- Integration with other management system standards (ISO 9001, ISO 14001, ISO 22000, etc.)
- Costs and resources availability: human and financial
- Lack of expertise in the market for advising and assisting in implementation





# ISO 50001 – Opportunities for Policy Makers

1. Provide pillar for and reinforce national energy efficiency and renewable energy programs ultimately aimed at strengthening
  - a. energy security
  - b. industrial competitiveness
  - c. sustainable growth and
  - d. climate change mitigation
2. Proven international supporting policy best practices are available
3. Energy Management and ISO 50001 relevant and applicable to all economy sectors → significant economies of scale
4. Boost development of the energy efficiency service sector, including job creation (energy managers, experts, auditors, etc.)
5. Promoting dissemination of international best practices, accelerated technology upgrade and innovation



# ISO 50001 – Challenges for Policy Makers

1. Limited or lack of technical expertise and institutional capacity
2. Supporting programs and incentives will be needed for wide and rapid uptake of ISO 50001
  - a. Identifying the best and more cost-effective model/ set of measures
  - b. Role for public procurement?
3. Secure resources for medium and long term plans to ensure impact and sustainability of industrial energy efficiency programs
4. Demonstrate benefits and measure impact → Monitoring and verification
5. Certification and accreditation
6. SMEs will need special attention



## How UNIDO and other Int. Ag. can assist

- Awareness raising, promotion and partnerships
- Policy advice and development support
- Institutional capacity building (policy-makers, standard bodies, etc.)
- Capacity building of market players and enterprises
- Development of best-practices for emerging economies and developing countries
- Development of EnMS/ISO 50001 implementation supporting tools
- Monitoring and verification protocols, including benchmarking
- Conformity assessment (certification and accreditation)



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# Thank you for your attention!

## For more information

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