AN INTEGRATED POLICY APPROACH TO ENERGY EFFICIENT LIGHTING

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SASO HQ RIYADH

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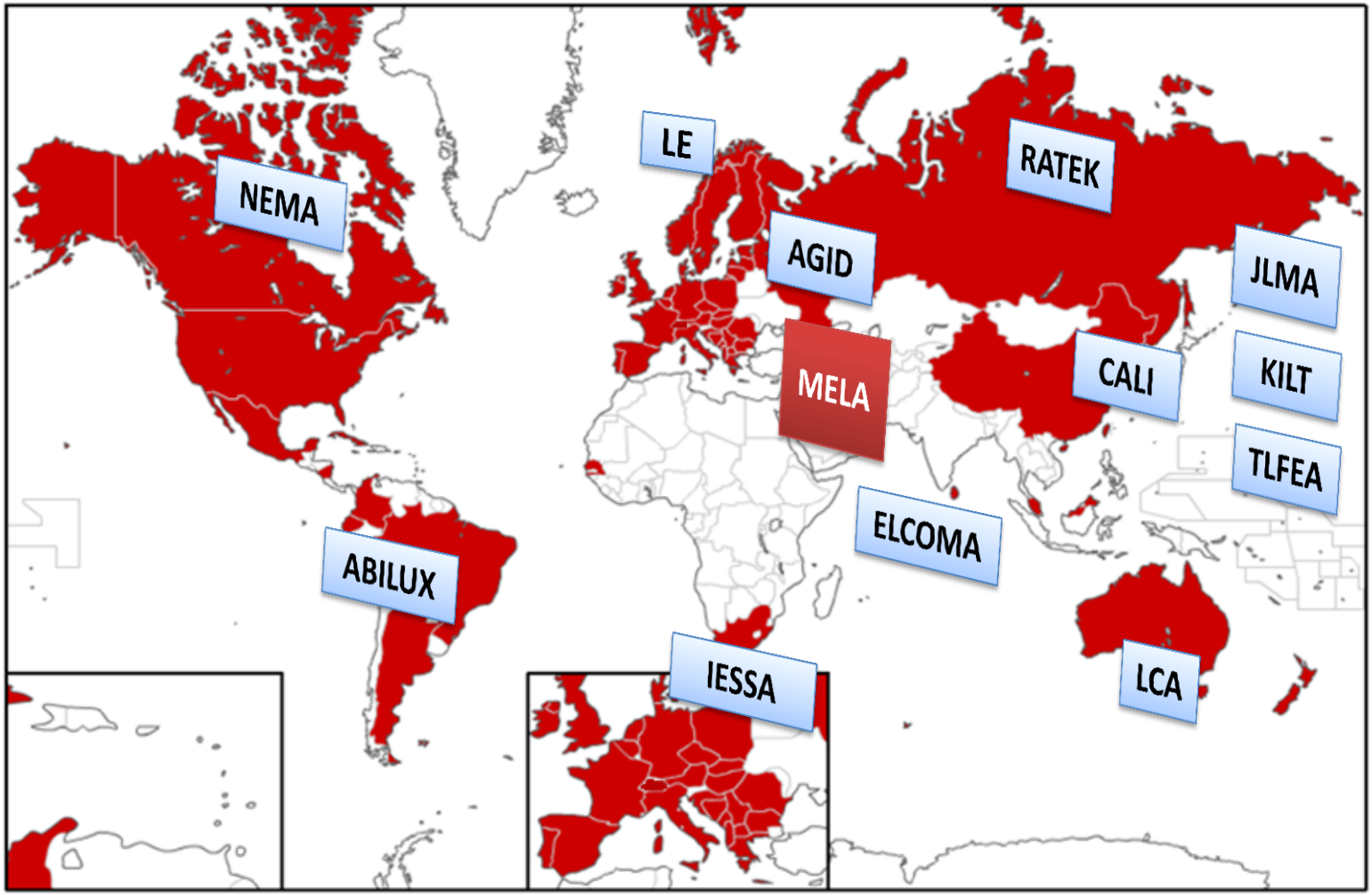
1. MELA intro & policy objectives
2. Global lighting policy approach
3. Regional lighting policy developments to date

WHY MELA?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WHO?

- Set up as an international non profit association in 2014
  - ✓Producers of light sources, luminaires & lighting control gear
  - ✓Code of Conduct
- Supply major share of lighting products on the Middle East market today
- Scope
  - ✓Initial scope – UAE and KSA
  - ✓Now including – Qatar, Bahrain, Jordan & Egypt.

WHAT?

Mission

*'To support key regional stakeholders to move towards a **sustainable lighting future** for the benefit of each segment of the community, through effective implementation of efficient lighting policy.'*

MELA GENERAL CODE OF BUSINESS CONDUCT

1. Under no circumstances should members exchange information on any competitive parameter.
2. Information to be exchanged shall be limited to the implementation of the policies of MELA.
3. Any sensitive information shall be provided if necessary only to an independent third party.
4. Every meeting between MELA members shall have a specific demonstrable purpose
5. Any other kind of contact between MELA members shall be for legitimate purposes only

Any violation shall be seen as a serious breach and shall be severely sanctioned.

FOCUS AREAS

- Standardisation
  - IEC International Standards into local law (safety & performance)
  - ISO or EN standards for systems
- Mandatory Minimum Requirements
  - Energy Performance & Quality
- Market Surveillance
- E-Waste - Collection & Recycling
- Materials, Health & Safety
- Smart lighting

MELA APPROACH TO REGULATION

Public Information Campaigns / Educational Activities, Public Procurement Laws, Financial incentives

By stimulating DEMAND

PROCUREMENT SPECIFICATIONS

High
Efficiency durability & lumen Maintenance
Low

MINIMUM STANDARD ENFORCED BY MARKET SURVEILLANCE AUTHORITIES SUPPORTED BY THE INDUSTRY

Aim

Application of sustainable Products + Refining the illumination quality

Regulation to Phase-Out old technologies

By restricting SUPPLY

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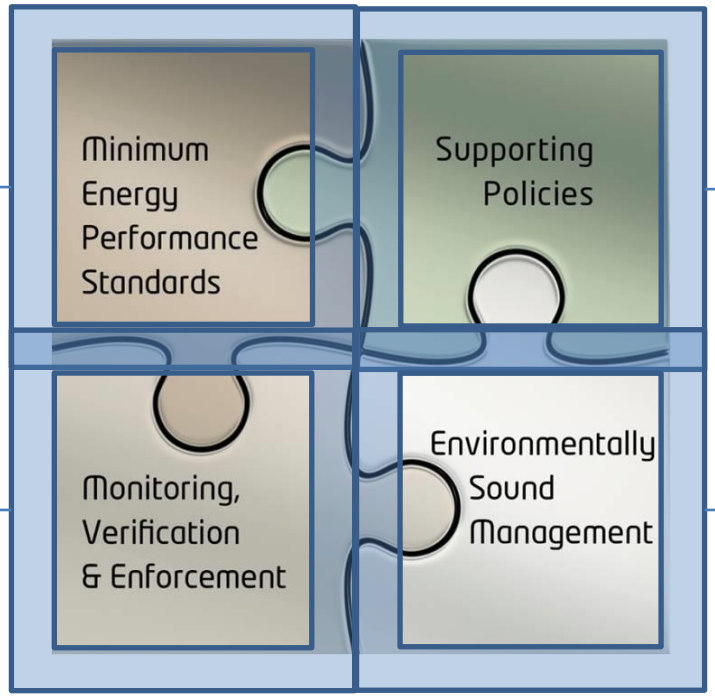
OVERVIEW OF THE INTEGRATED POLICY APPROACH

To ensure the efficiency and quality of energy saving lighting products



To restrict the supply of inefficient lighting and promote the demand for energy saving products

To ensure compliance of product quality

To encourage the sound disposal and/or recycling of spent lamps, and to abide to the maximum mercury content limits

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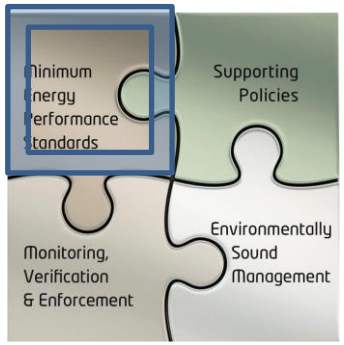
WHAT ARE MEPS?

✓ ***Regulatory measures specifying minimum efficiency levels acceptable for products.***



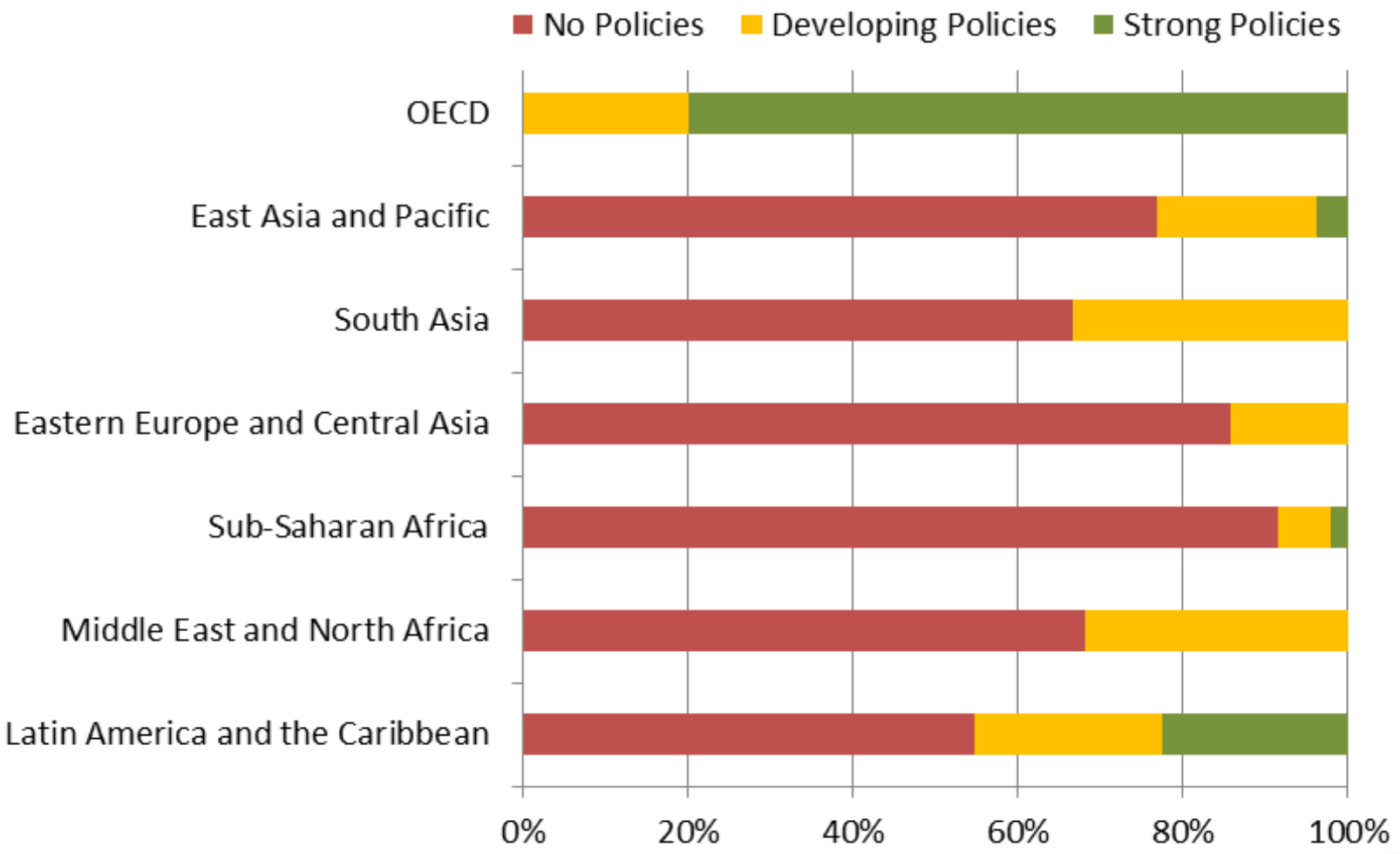
Why should countries establish MEPS?

- Ensures availability of high performance and good quality products
- Encourages manufacturers to increase efficiency of existing products, or, replace less efficient products with new models

How to establish MEPS?

- Consultation with manufacturing and sales stakeholders
- Cost/benefit analyses to ensure positive economic outcomes
- Ongoing monitoring, control, testing and enforcement of full compliance
- ***MEPS success is enhanced by aligning country standards with regional trading partners***

MINIMUM ENERGY PERFORMANCE STANDARDS



WHAT ARE SUPPORTING POLICIES? (MEPS+)

- ✓ *Regulatory & control mechanisms*
- ✓ *Economic & market-based instruments*
- ✓ *Fiscal instruments & incentives*
- ✓ *Information & voluntary action*

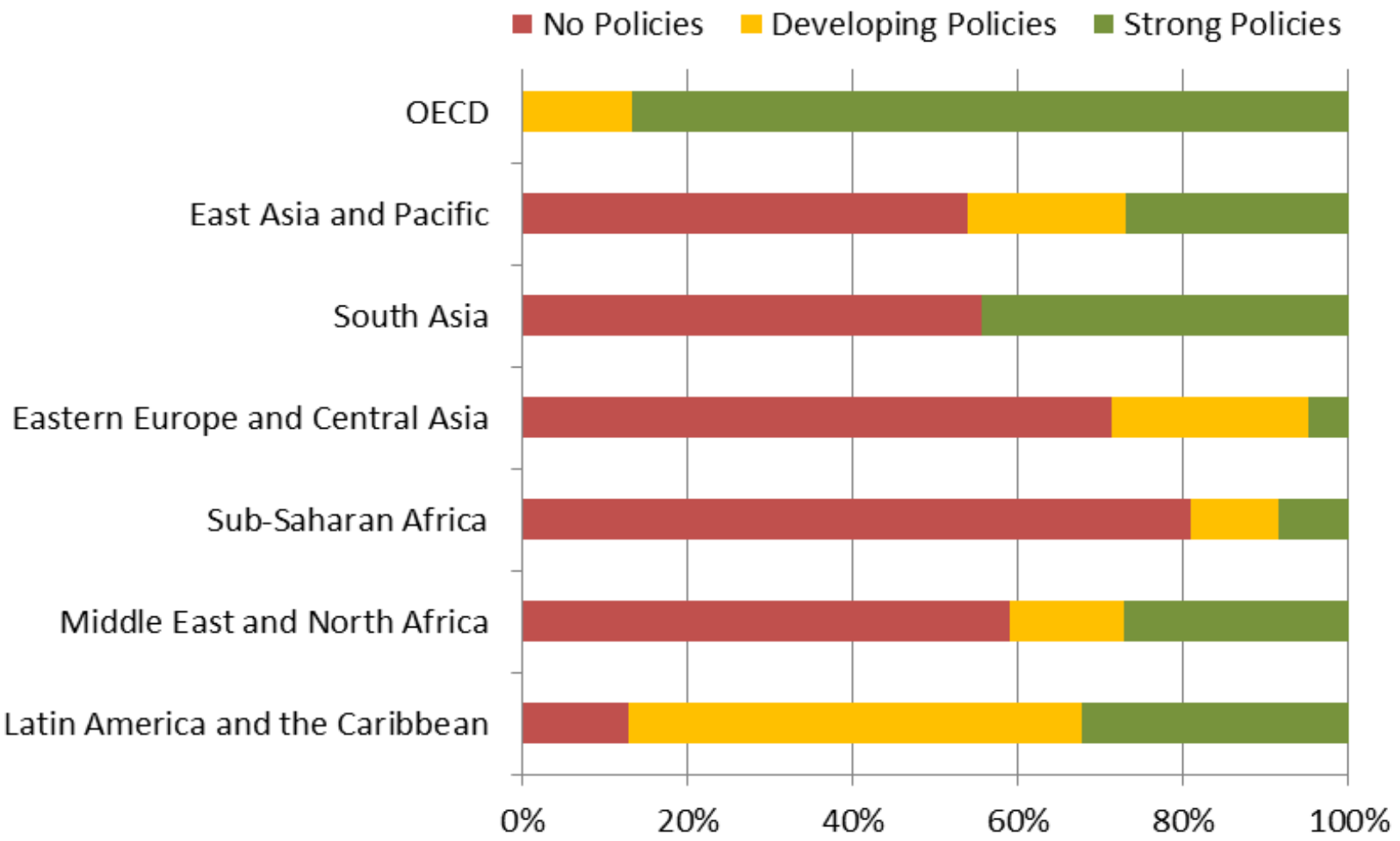
Why should countries establish supporting policies?

- Ensure the effectiveness and smooth implementation of MEPS

How to establish supporting policies?

- Consultation with all relevant stakeholders according to type of policy.
- Conduct cost/benefit analyses
- Must be supported by ministries of finance or economy
- Involve end-users from the beginning: education and communication campaigns

SUPPORTING POLICIES



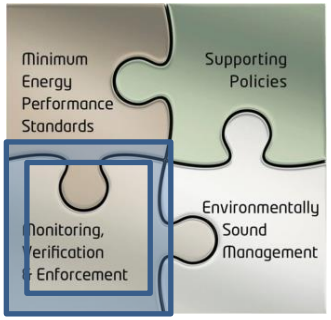
NATIONAL INITIATIVES TOWARDS TRANSITION TO EFFICIENT LIGHTING IN ME REGION

Country	Government Commitment USD (m)	Number of CFL's replaced (m)	Target date for IL phase out
Bahrain	NA	2	2015/2016
Egypt	18	17	2020
Lebanon	7	3	2012
Iran	NA	65	NA
Jordan	NA	NA	2014/2019
Turkey	NA	6.6	NA
Morocco	46.5	6	2016
UAE	NA	1	2014
Tunisia	NA	8	2014
Qatar	NA	NA	2015/2016
Total		**108.6**	

Draft Regional report on EL in the Middle East & North Africa – I. A. Gellil 2011
(Updated G. Strickland 2015)

WHAT IS MVE?

- ✓ ***Monitoring*** *- measurement to verify product efficiency*
- ✓ ***Verification*** *- measurement to confirm declarations of conformance by lighting suppliers*
- ✓ ***Enforcement*** *- actions taken by programme administrators against suppliers of non-compliant products*



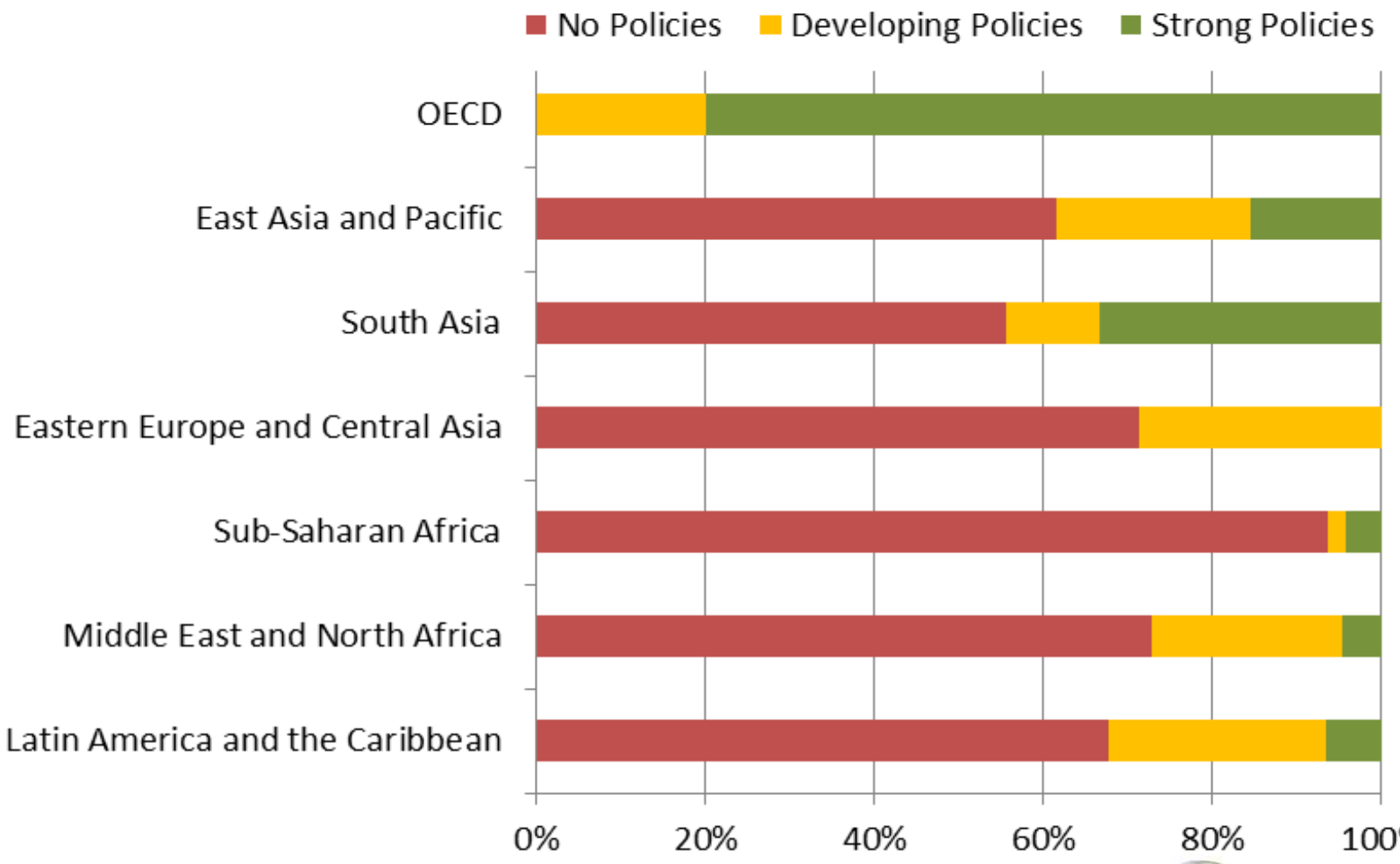
Why should countries establish MVE?

- Prevent substandard products from entering the market & prevent end-users disappointment
- Guarantee the reduction of energy and financial savings from the transition to efficient products

How to establish MVE?

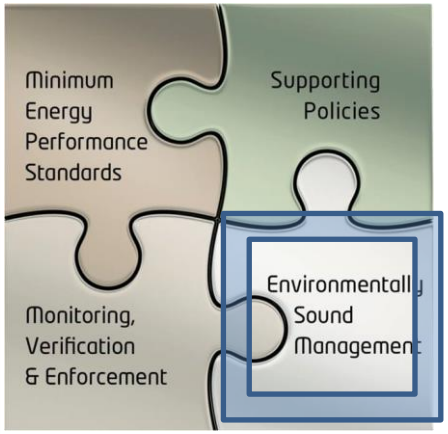
- International and regional cooperation: sharing of test capacities, programmes and test data
- Develop regulations to enable enforcement actions

MONITORING, VERIFICATION AND ENFORCEMENT



WHAT IS ESM?

- ✓ **Environmental sustainability legislation:** extended producer responsibility
- ✓ **Reduction of mercury levels in lamps** *(Minamata convention on Hg)*
- ✓ **Collection, recycling, and disposal of waste from products at end-of-life:** *(Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal)*



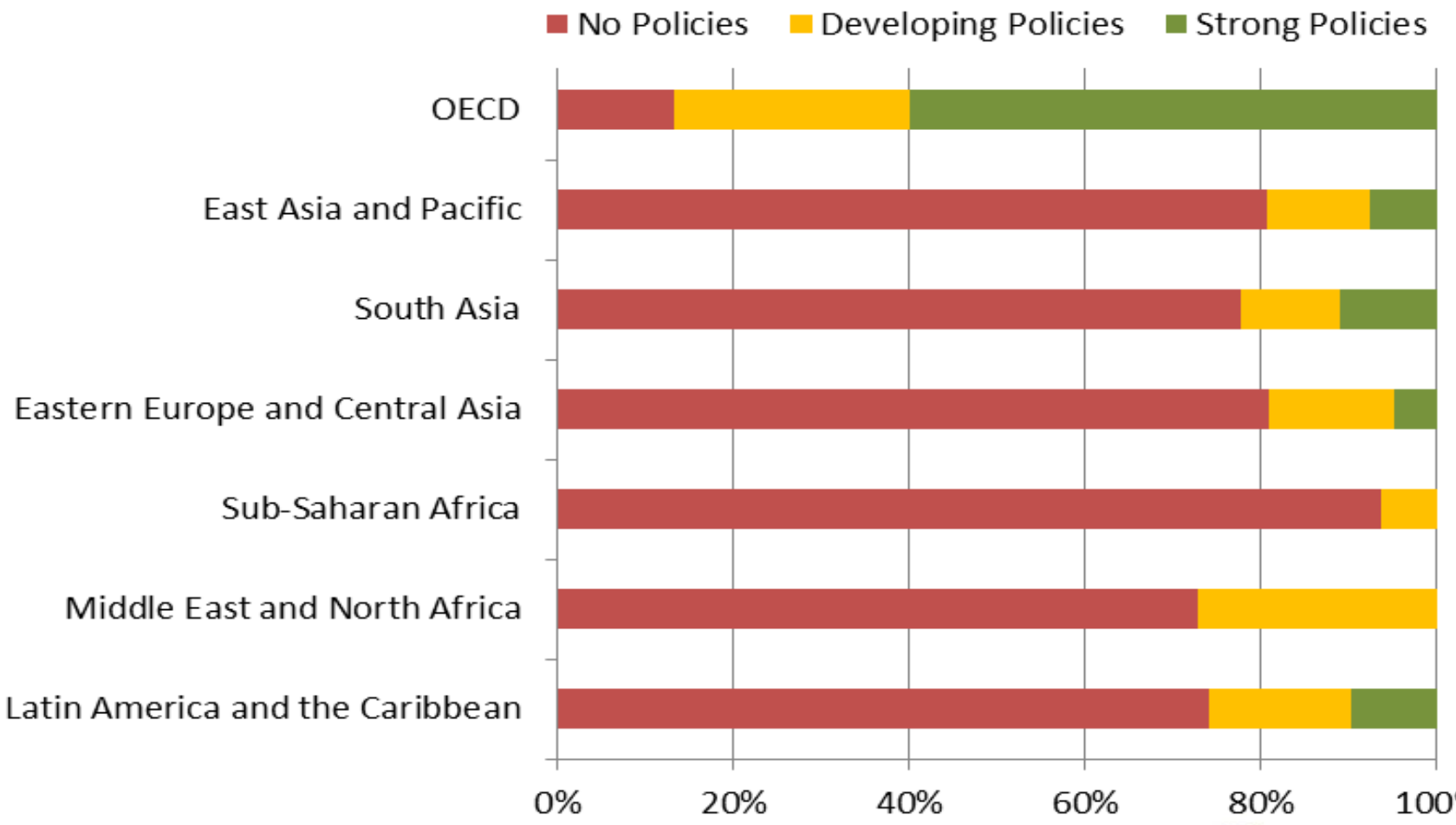
Why should countries establish ESM?

- Minimize health and safety risks (Hg, ODS, PCBs, etc.)
- Decrease pollution of natural resources (water, air, soil)

How to establish ESM?

- Develop a legal framework for environmentally sound management of electronic and hazardous waste
- Establish collection and recycling services organizations (collection channels and recycling facilities)
- Involve end-users from the beginning: education and communication campaigns

ENVIRONMENTALLY SOUND MANAGEMENT



For further discussion

- CFLs and LEDs are responsible for lower global mercury and greenhouse gas emissions than incandescent lamps
  - ✓Widespread adoption necessitates sound management at all lifecycle stages
  - ✓Compliant, high-quality lamps are essential
- Policymakers should consider international best practice for guidance
- Recycling is manageable, affordable and can create new jobs
- Extended producer responsibility can be effective
- Basel Guidelines on hazardous waste management will help eliminate emissions
- Success requires legislative frameworks, sustainable funding, communication and awareness

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TYPICAL DISTRIBUTION OF LAMP TECHNOLOGIES

(UAE RESIDENTIAL SECTOR 2013)

Lamp Technology	% of total		
	UAE	EU 2007	US 2010
Incandescent	**50.1**	54.1	62
Halo	**7.8**	23.7	4.4
CFL	**21.8**	14.7	22.8
LF	**20.1**	7.5	9.9
LED	**0.2**	0	0.9
Total	**100**	100	100

Source: Baseline assessment RTI/UAE

UAE RESIDENTIAL LIGHTING SCOPE

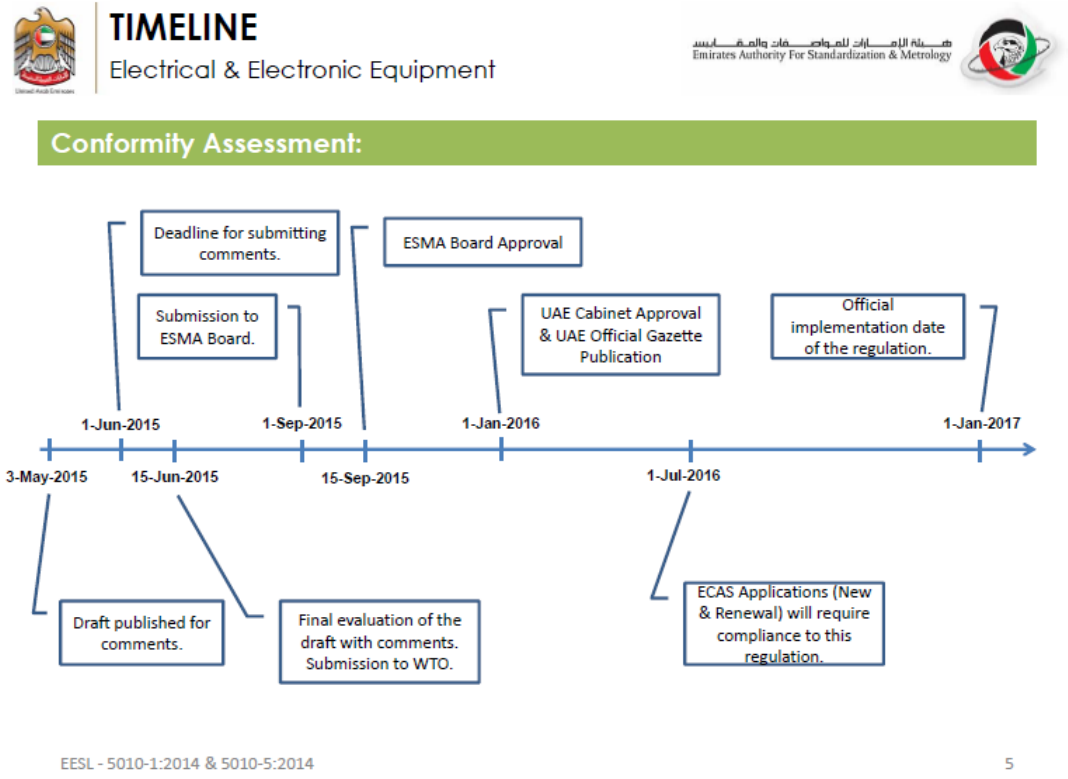
- Incandescent lamps ≥ 16W (watts)
- Linear fluorescent lamps (*excluding energy efficiency and functionality requirements i.e. just safety is covered)*
- Compact fluorescent lamps (CFLs)
- Halogen lamps
- Light emitting diode (LED) lamps
- Control gears for general lighting purposes
- Luminaires for general lighting purposes *(i.e. only Electrical Safety Requirements apply)*

POLICY STATUS - UAE

- Sales ban on inefficient incandescent lamps came into effect on 1 July 2014
- Formally entered into force as of the 1st January 2015.
- Initiative of (ESMA) is expected to save the country $182 million a year on energy bills and the equivalent of 165,000 cars in carbon emissions.
- Other light sources and control gear for fluorescent lamps have been included in the regulation.
  - ***Now*** - MELA has recently been invited to discuss policy initiatives aimed at regulating commercial lighting in 2015.
  - Ongoing issues with lack of market surveillance.

HAZARDOUS SUBSTANCES IN EE

- Most EU RoHS exemptions have been copied, but exclude those for mercury in low pressure discharge lamps.
- Text in the RoHS regulation needs to be aligned with the UAE Residential Lighting Regulation.



POLICY STATUS - BAHRAIN

- Exchange of views with BSMD regarding the draft regulation on *Requirements for non-directional household lamps in the Kingdom of Bahrain*.
  - Base is EU lighting regulations
  - LED functionality from EU 1194
  - Amendment of EC/244/2009 which is 859/2009 on UV requirements
  - Clear and frosted INCANDESCENT lamps will be phased out in single stage
- Special purpose marking requirements
- ***Now*** - An exclusive requirement for amalgam dosed lamps – MELA position deployed

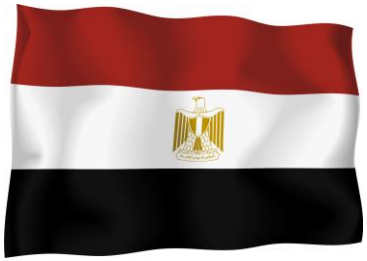
POLICY STATUS - JORDAN

- *Technical Regulations on Ecodesign and Energy Labelling of Electrical Products, Resolution No. 1, 2014.*
  - On-going issue with the 3rd party/ISO17025 test reports requested for safety and performance.
- The status of the implementing stages of the regulations is as follows:
  - Jordanian technical regulation # 2093/2013 transposed from EU directive 245/2009
    - Stage 1 - date of entry into force 1st July 2014
    - Stage 2 – date of entry into force 1st April 2015.
- ***Now*** - With Eco Design implementation there appears to be some confusion. Local customs claim that Eco Design requirements are mandatory.
- Energy efficiency label to be printed on all lighting products (the label to be printed is currently the old EU label (A to G) ***but new EU label (A++ to E) is accepted.***

POLICY STATUS - QATAR

- Recent report that the Ministry of Environment considering import of the tungsten lamps into the country and replacing them with energy saving LED lamps.
  - Ministry's Assistant Under Secretary of the Laboratories and Standardisation Affairs Mohamed Saif al-Kuwari quoted as saying ***'….the decision to ban tungsten lamps is being made as they are found to be at least 30% more energy consuming and studies have found the lamps are making enormous amounts of thermal emissions which contribute to harm the environment.'***
- The ministry has completed the procedures for adopting Qatar standards and specifications for the modern lighting systems that would help conserve the environment and save energy.
- Implemented within the framework of the implementation of the standards of sustainability and new Qatar construction code.

POLICY STATUS - EGYPT



- Ministerial Decree no. 975/2014 mandates Egyptian Standard ES 7823/2014 "Energy Efficiency Requirements for Electrical Lamps“
- ES7823/2014 establishes requirements for labelling and providing supplementary product information and energy efficiency requirements for electrical lamps such as:
  - Filament lamps, fluorescent lamps, compact fluorescent lamps, high-intensity discharge lamps & LEDs.
  - Entry into force July 2015

- Excluded from the scope (lamps with a luminous flux less than 30 lumens; lamps marketed for operation with batteries; lamps marketed for applications where their primary purpose is not lighting).

- Standard is allegedly in conformity with European directive (EU) No. 1194/2012, (EU) No. 874/2012 ***(however major discrepancies have been found & are being addressed).***

MELA SUPPORT TO REGULATOR & MEMBERS

1. **Responded to the call** for increased expertise in lighting policy in the ME region.
2. Part of a **large global network** (best practice).
3. Support to:
   - ✓ Regulatory authorities **drafting residential & professional lighting regulations** to stimulate demand & restrict supply.
   - ✓ Member companies in discussions with regulators.
4. Provide **technical & policy based expertise & data.**
5. Support **market surveillance** initiatives where necessary to improve product quality.
6. …..more to come

Middle East Lighting Association