How to Create and Operate a Lighting Product Registration System

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Outline

1. Introduction to Product Registration Systems
2. Developing a Product Registration System
3. Operation, Maintenance, and Costs
4. Examples of Best Practice

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What is a Product Registration System?

- Initial compliance gateway wherein manufacturers and importers register eligible products with the regulatory authority prior to market entry
- Products registered with technical documentation to demonstrate product compliance
- System can range from basic list of compliant products to comprehensive online searchable database
- The system can:
  - Support MVE component of an energy efficiency programme
  - Help track product performance to inform policy development
  - Build consumers' trust in the programme

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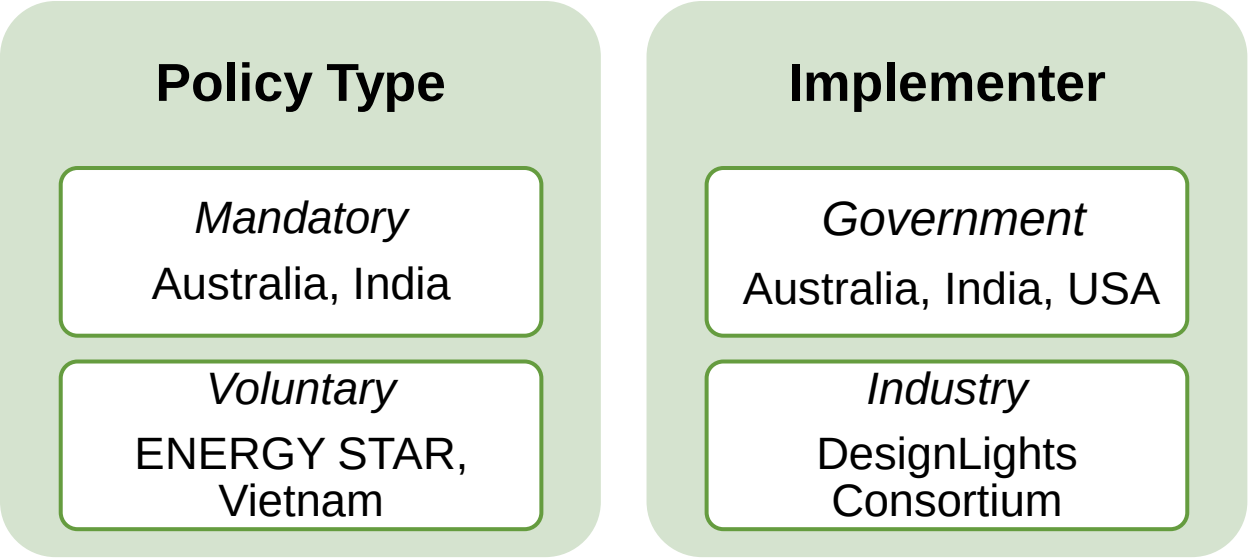
Types of Product Registration Systems

- Registration system can be regional, national, or both
- Data can be public or confidential
- Systems can be differentiated by policy type and implementer



Benefits of a Regionally Harmonised Registration System

- Supports co-ordinated MVE planning and efficient use of resources when a regional market shares similar products
- Enables immediate sharing of information on test results and compliance related information between authorities
- Reduces cost, avoids duplication of efforts, facilitates global trade, and encourages product performance improvements
- Issues to be addressed before harmonisation is achieved
  - Legal requirements
  - Procedures and mechanism
  - Testing requirements
  - Performance requirements
  - Language

Aspects of a Product Registration System

- Public record of registered products
- Public record of products complying with the energy efficiency programme or other legal requirements
- Contact database for notifications of regulatory changes
- Searchable internal database of products with confidential information

Registration System User Types

Policymakers	• Records of baseline data and support to decisions • Product prioritisation and revisions • Market surveillance
Manufacturers	• Platform for registration and reporting • Innovation in product design • Credibility and level playing field
Consumers	• Product specific information in public domain • Advanced features
Distributors	• Check for compliance of individual models
Efficiency Programme Sponsors	• Programme design, implementation and evaluation for incentive programmes

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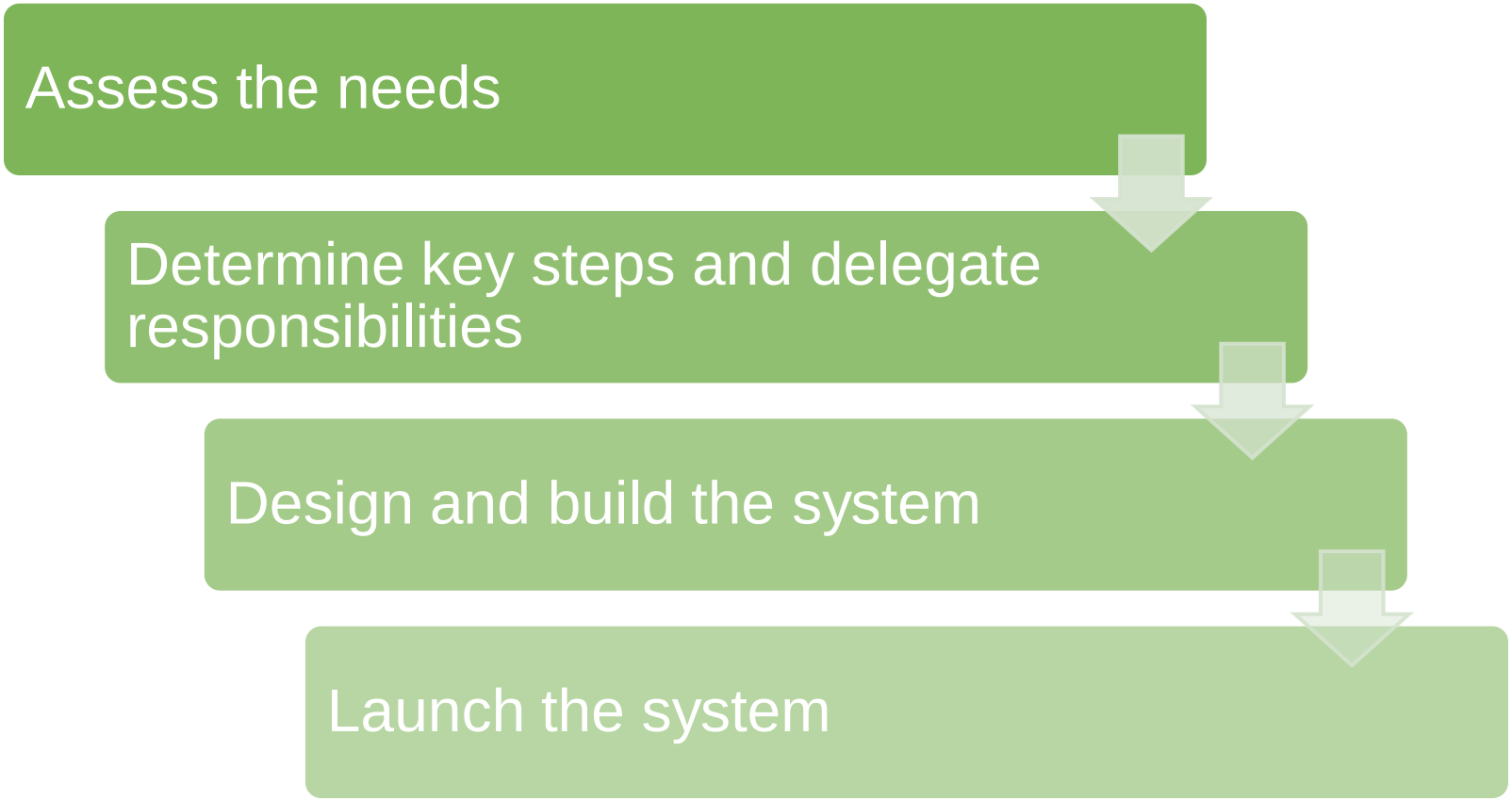
Process for Developing a Product Registration System



Assess the Needs

- Ensures the system satisfies current and future needs of different users and stakeholders

Steps include:
Identify objectives, scope of the products, geographical coverage, users, data availability, funding, etc.
Review policies and procedures
Involve a range of stakeholders
Consult existing registration systems

Determine Key Steps and Delegate Responsibilities

- Usually, part of the process of developing and maintaining a product registration system is outsourced
- Depending on the scope and objective, draft terms of reference
- If possible, refer to terms of reference developed by countries that adopt best practices
- Hire an information technology specialty company to develop the registration system

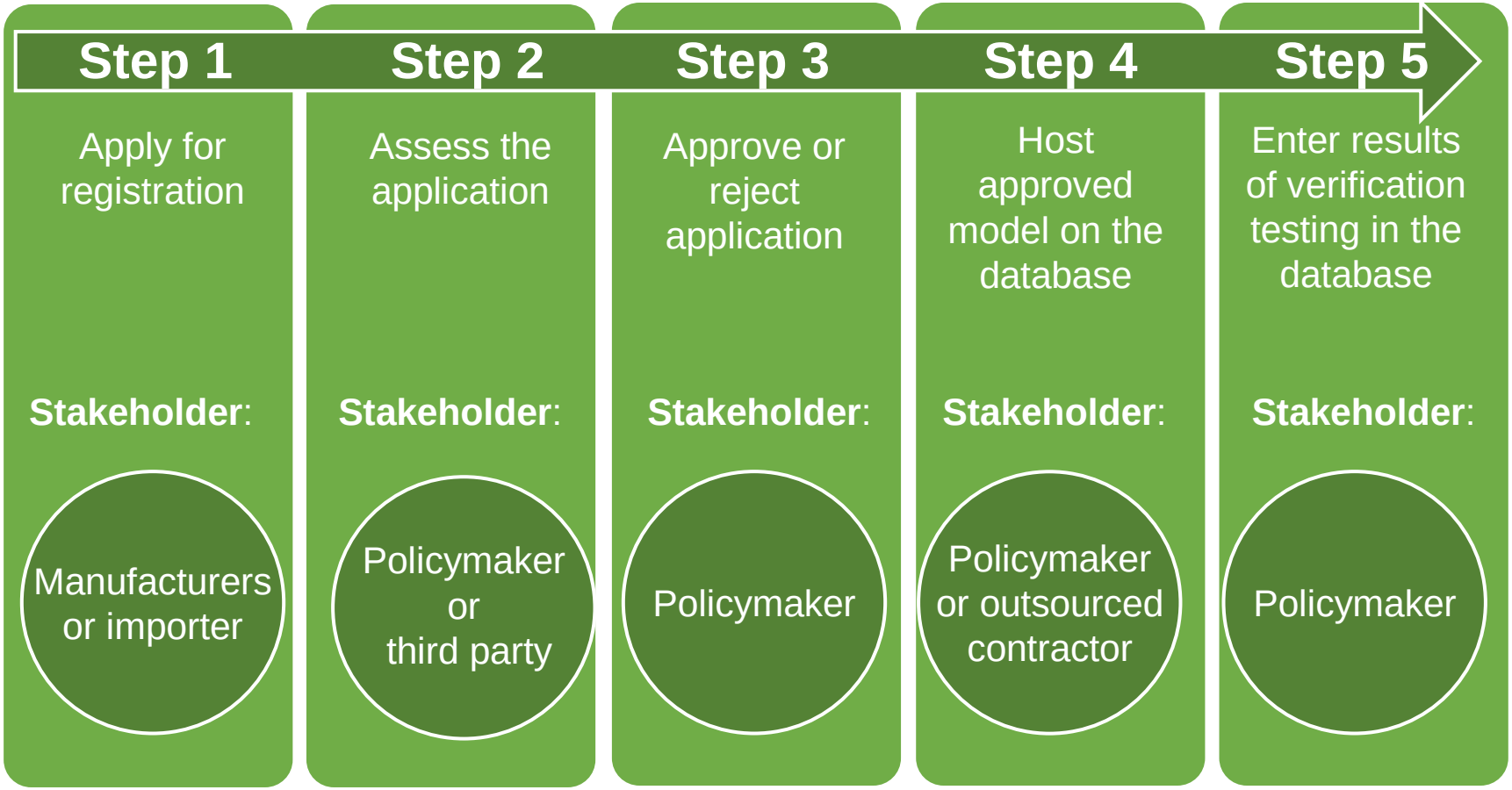
Design and Build the Registration System

- **User interfaces:** easy to use Excel workbooks, web based forms, web pages etc. or a mix of interfaces serving different purposes
- **Machine interfaces:** Application programming interfaces to pull data and interact with various users
- **System architecture:** Number of users, data storage, equipment available etc.
- **Security:** contains both public and private data, identify ways to maintain security
- Testing the system with users is essential

Launch the Registration System

- Communicate to intended users - key to successful launch of the system
- Notify users, provide user manual and instructions for using the system
- Provide training for users who will use the system frequently
- Provide training materials such as user guide or written guidance
  - Australia has developed a user guide accessible at: http://www.energyrating.gov.au/for-industry/

Process of Registration



Prototype Registration System

- Being developed for sharing lamp performance and compliance information within and among ASEAN member countries
- Focused on lighting products, but could be applied to other products
- Based on best practices internationally
- Collaborative tool for increasing MVE infrastructure in the region
- Not a fully functional, ready-to-use registration system, but a prototype that illustrates:

System Login
New Applicant and Product Registration
Administrator portal
Public portal

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Operation and Maintenance

- Maintaining the records
  - Add and remove users
  - Modify user profiles
  - Communicate with users
  - Check compliance of registered products
- Maintaining the product listing
  - Review product registrations
  - Remove products from registration system
- Maintaining the IT infrastructure
  - Maintain server and renew domain names
  - Update software
  - Enhance security
- Providing technical support

Occasional activities:

- Upgrading the system for new features, products, bug fixes etc.
- Evaluating system performance

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Costs

- Total cost of a registration system will vary depending on programme design, scope and market size
- In Australia, maintaining the registration system accounts for approx. 55% of compliance programme costs
- Sources of funding:
  - Government or funding agencies
  - Partial/complete self-funding through registration, application and labelling fee
  - For example, India collects a labelling fee on registered products

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Existing Registration Systems

- **Australia and New Zealand** E3 Energy Rating Label Tool
- California Appliance Efficiency Database
- Canada searchable product lists
- China Energy Label product database
- Chinese Taipei certified products database
- Hong Kong labelled products database
- India Star Label product database
- Japan product database
- Philippines labelled and certified product lists
- Singapore Database of Registered Goods
- Thailand Label No. 5 Products Database
- US Department of Energy Compliance Certification Database
- **US Environmental Protection Agency** ENERGY STAR Qualified Product Finder
- US Lighting Facts

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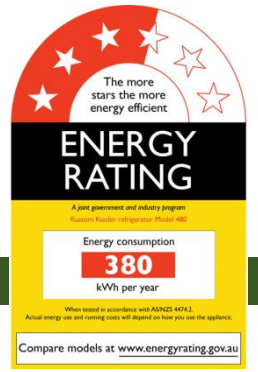
International Best Practice

- Profiles of three of the leading product registries
- Highlight key features of each of the systems
- Particular focus on registration systems where data can be shared between countries
- Using best practices and lessons learned can support development of new registration systems as well as modification or enhancement of existing systems

E3 Energy Rating Label Tool

www.energyrating.gov.au



Equipment Energy Efficiency (E3) Programme

- Regional co-funded collaboration between the Australian Government, Australian State and Territory Governments and the New Zealand Government
  - All regulated products must be registered via the secure online E3 Comparison Tool before being offered for sale
  - Information on energy efficiency, MEPS and product star ratings
  - Supports the verification testing compliance programme
  - Around 18,000 registered products
  - Around 70,000 visitors a month

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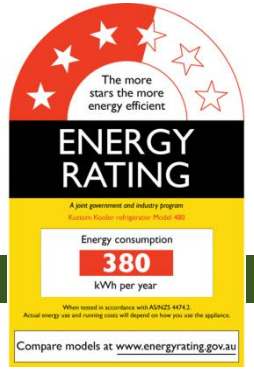
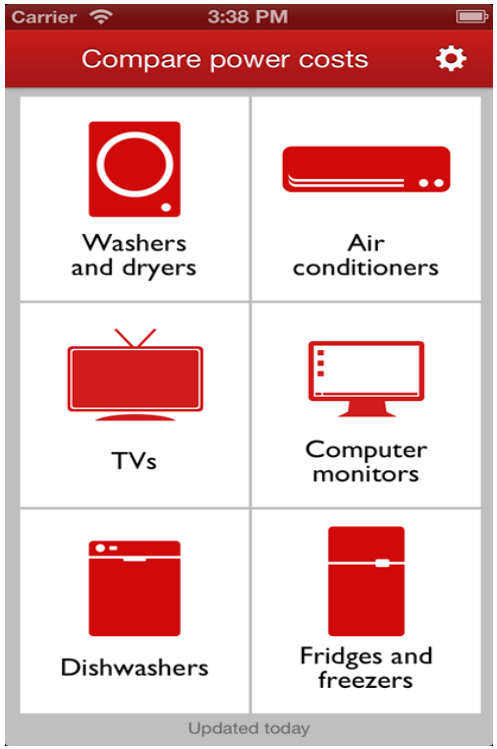
E3 Energy Rating Label Tool *continued…*



- Trans-Tasman Mutual Recognition Arrangement (TTMRA)
  - Harmonised efficiency standards and data sharing between Australia and New Zealand
  - Funds to maintain the registration system are provided by both countries
  - Joint training workshops
- Mobile application for consumers to enable informed decision making
  - Allows models to be compared and provides
  - Running costs



ENERGY STAR Database

http://www.energystar.gov/productfinder/

- United States voluntary endorsement labelling programme
- Managed by Environmental Protection Agency

Special features

- Application Programming Interface
  - Publishes certified product data in machine readable format
  - Accessible to any application with a web connection
  - Mobile version of the product finder (web based tool) to enable consumers to look up products

ENERGY STAR Database

Special Features *continued…*

- Product finder tool
  - Public tool to provide list of registered products to stakeholders
  - Export options include Excel, .csv
  - Models searchable by brand, model name, number and additional information
  - Products can be sorted, filtered, and compared by key attributes
- Advanced view features
  - Create account to save and share work
  - Filter lists
  - Create visuals (pie charts, bar graphs etc.)
  - Embed filtered data or visual
  - Export data

Pilot Ecopliant Database

http://www.ecopliant.eu/

Ecopliant
Improving Ecodesign Market Surveillance across the EU

- No product registration system in place in the European Union
- Official EU ICSMS Database: Information and communication system for pan-European market surveillance on all product regulations - https://webgate.ec.europa.eu/icsms
- Group of MVE authorities launched Ecopliant to increase MVE cooperation and collaboration
  - Regional compliance project funded by the European Commission
  - On behalf of Ecodesign Administrative Cooperation (ADCO) group
  - Developed Ecopliant Database to expand on information available in ICSMS Database
    - Focusing solely on energy efficiency
    - Going beyond capabilities of ICSMS

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Pilot Ecopliant Database *continued…*

Ecopliant
Improving Ecodesign Market Surveillance across the EU

- Ecopliant piloted as an EU-wide confidential registry to facilitate sharing of information between MVE authorities:
  - Exchange of experiences and best practices
  - Coordinating testing of products (and sharing test results)
  - Exchanging notifications of non-compliant products and enforcement action information
- The registry helps MVE authorities:
  - Identify common product model numbers
  - Identify new accredited test laboratories available for verification testing
  - Share testing plans
  - Share document testing, screen-testing, and verification testing results
  - Share relevant follow up actions to non-compliance

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Summary and Recommendations

- Registration systems are a key component of energy efficiency programmes
- Follow a structured and planned approach to develop the registration system
- Put in place appropriate processes to ensure accuracy of data
- Maintain and upgrade the registration system to preserve programme integrity
- Communication is the key to a successful registration system
- Take advantage of international best practices

Thank you for your attention…

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