

International Standardisation in Renewable Energy

IRENA's Working Paper

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**Webinar “International Electrotechnical Commissions’ discount packages
to access sustainable energy standards for rural electrification”**

14 May 2013

International Renewable Energy Agency

Founding Conference: January 2009, Bonn, Germany

1st Assembly: April 2011, Abu Dhabi, UAE

The intergovernmental renewable energy agency

Mandate:

Sustainable deployment of the six renewable energy (RE) resources: Biomass, Geothermal, Hydro, Ocean, Solar, Wind

Location:

Headquarters in Abu Dhabi, United Arab Emirates
Innovation and Technology Centre, Bonn, Germany

Mission:

Accelerate deployment of renewable energy

Membership:

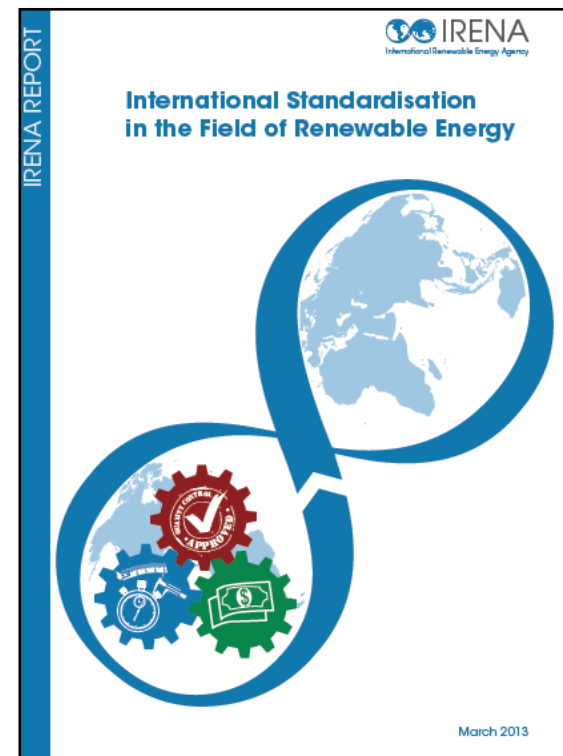
160 affiliates - 109 ratified

Benefits for Member Countries

- Providing a detailed technical basis for laws and regulations
- Supporting public and private tendering processes
- Accessing latest technology developments and best practices
- Facilitating access to financing by mitigating project risks
- Supporting technology markets based on sound quality and health & safety (H&S) requirements

IRENA's Analysis on RE Standardisation

CATEGORY	SAMPLE OF RECOMMENDATIONS
Promotion and knowledge dissemination	<ul style="list-style-type: none"> • Facilitate access to standards and the understanding their inter-relationship • Document evidence on the impact of standardisation
Strategic framework for standardisation in the renewable energy sector	<ul style="list-style-type: none"> • Mechanisms to establish a strategic overview forum • Stakeholders' engagement in the ISO SAG-E
Support for broader stakeholder engagement in standardisation	<ul style="list-style-type: none"> • Engagement from developing countries in the standardisation process • Options for using the latest communication technologies for engagement
Specific projects related to standards development	<ul style="list-style-type: none"> • Bridge gap of international standards for the evaluation of competencies (installation, grid integration) • Incorporate environmental impact



IRENA's Paper
Set of
recommendations
provided

Standardisation & Quality Infrastructure (QI)

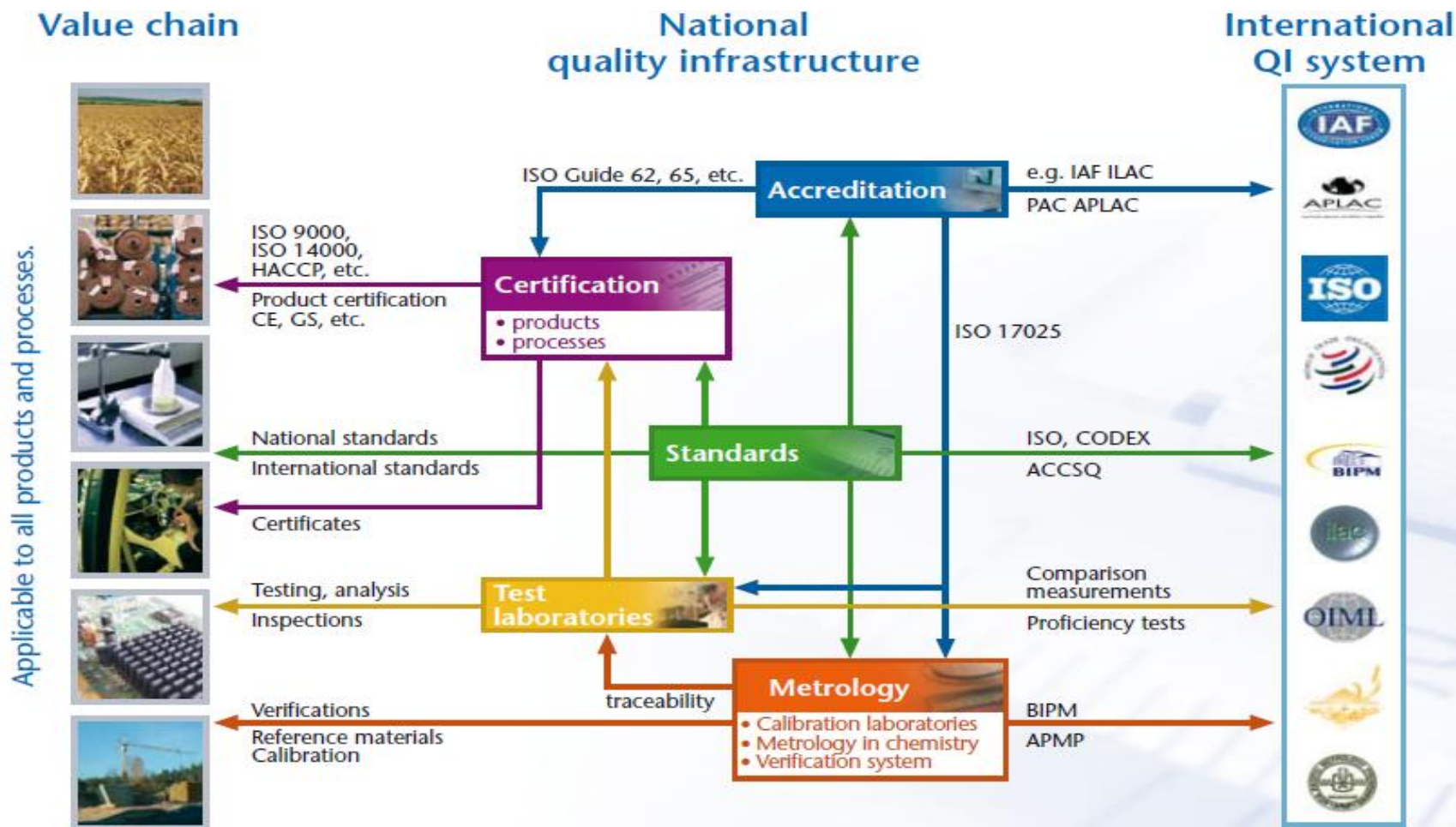
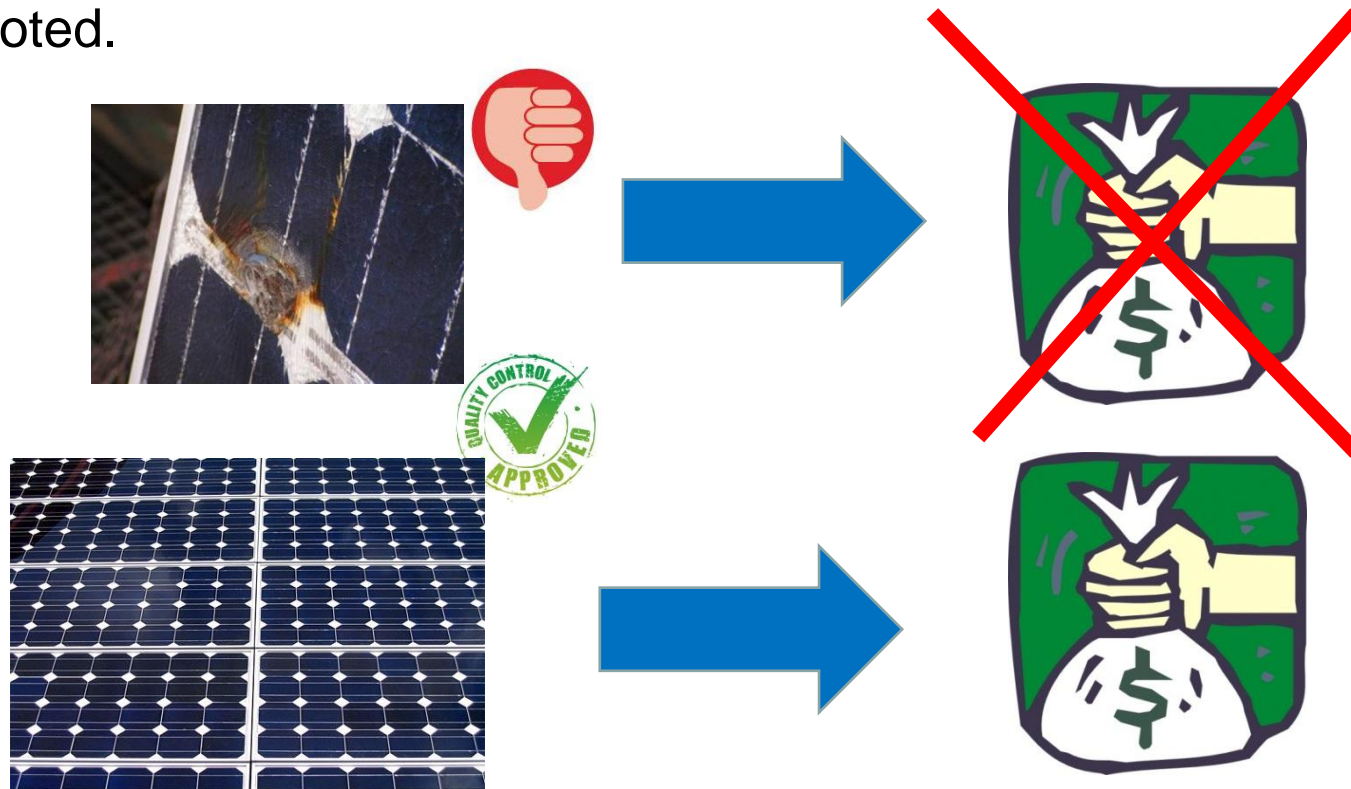


Diagram: Survey of the national quality infrastructure

Standards supporting national RE regulations

Standards can be linked to national regulations and national incentive schemes for RET (e.g. FiT) to assure that good quality products are promoted.



Result: National RET markets created based on high quality products

Quality Infrastructure for small-scale RET

No quality infrastructure....



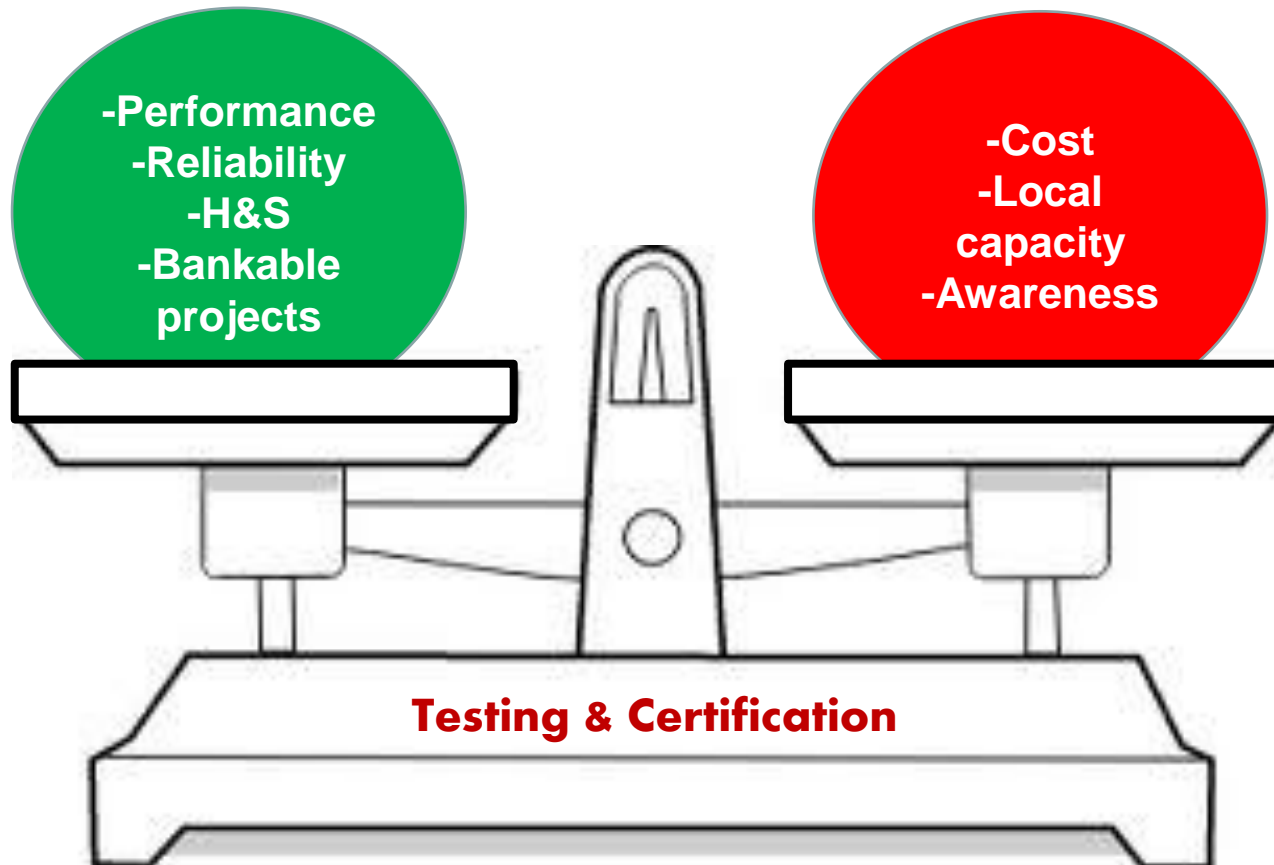
...result



**Lack of confidence
in the technology**

Quality Infrastructure for small-scale RET

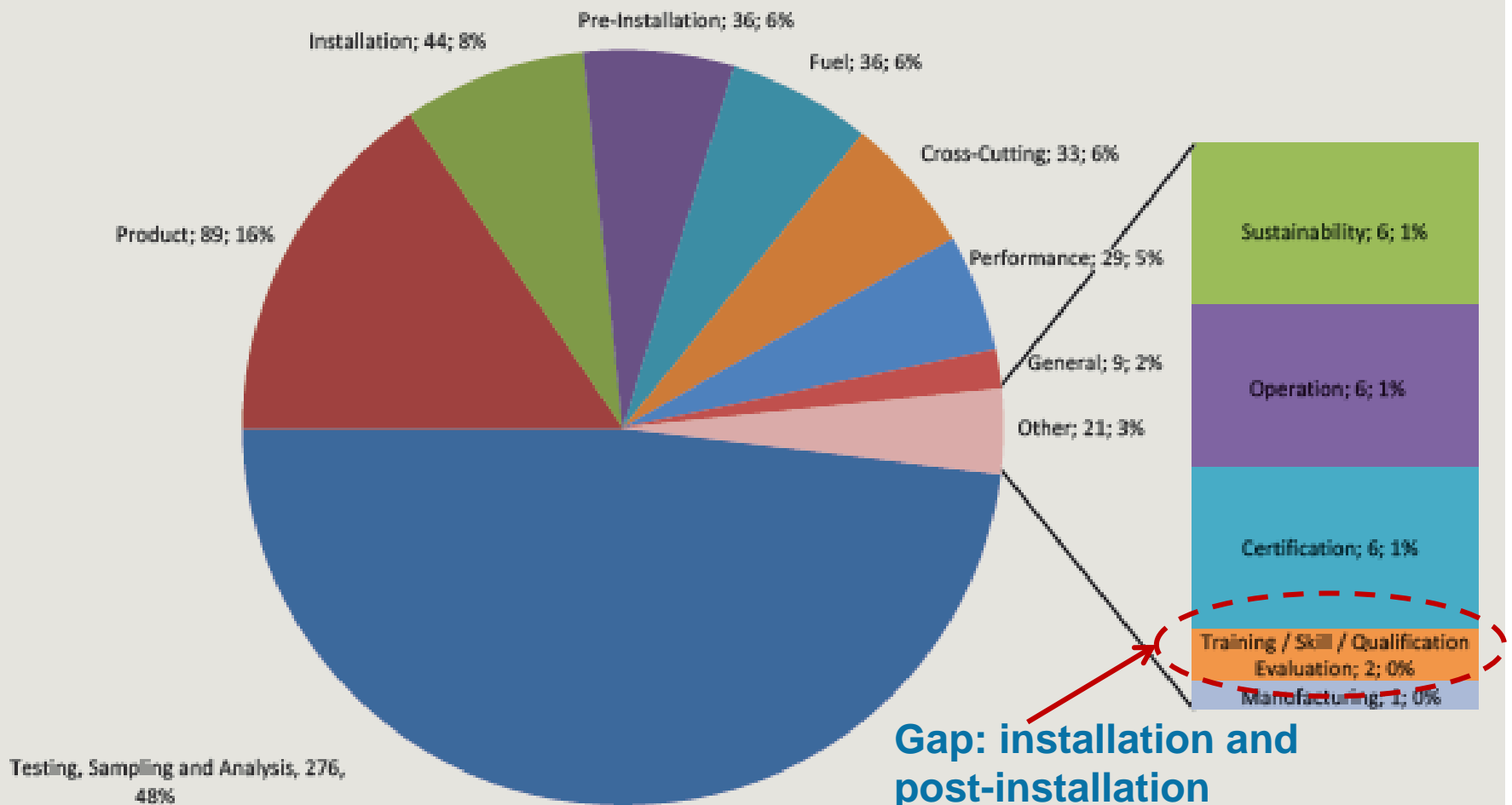
Balance cost/benefits



Guidelines to establish national QI
2013 Solar water heaters and small wind turbines

Not only RE product standards but RE system standards (I)

Standards - Breakdown of Categories
Total = 14



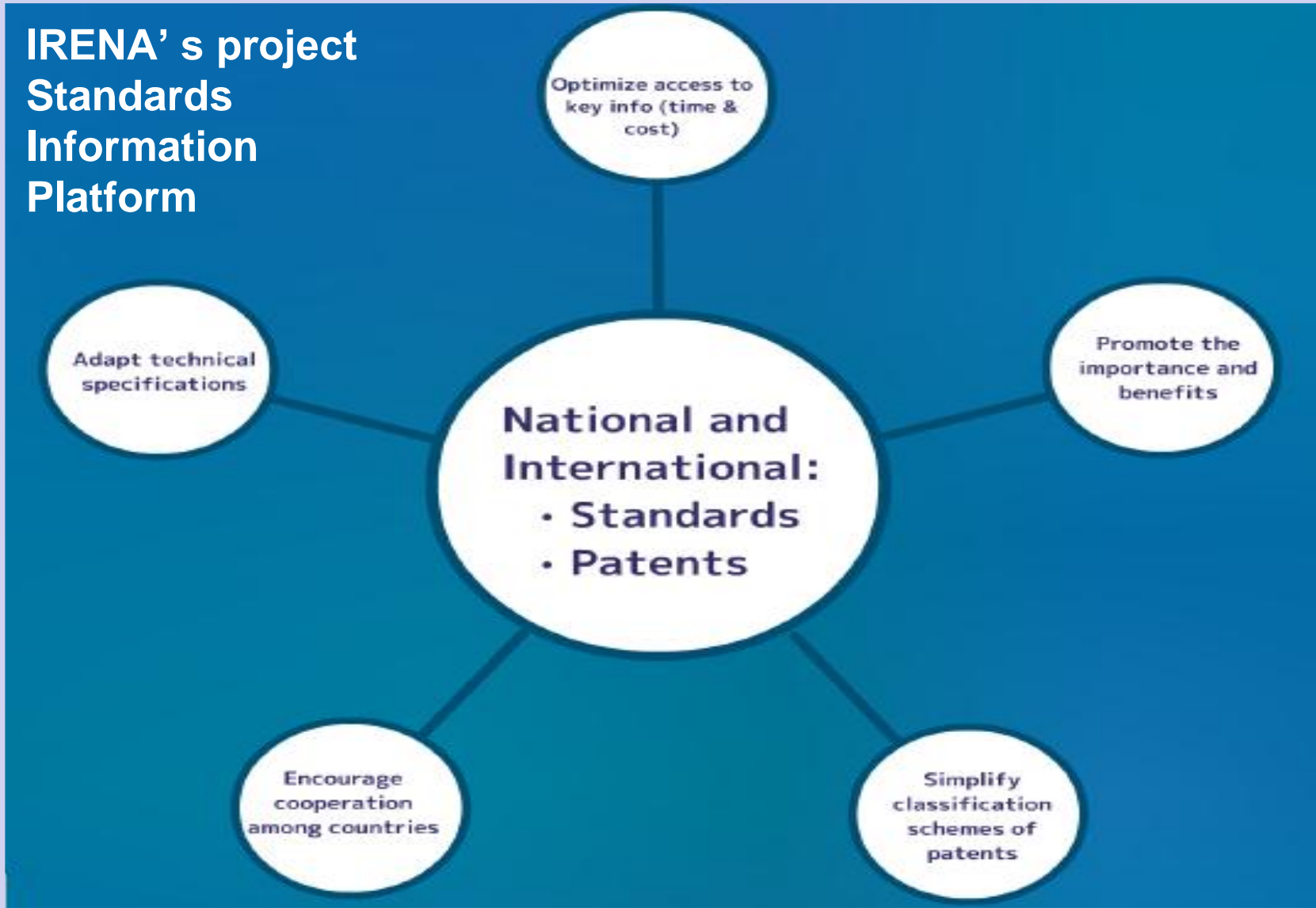
Not only RE product standards but RE system standards (II)

What is the result of deploying systems with good quality products, but not properly installed?



Use of standards not only to assure good quality products (e.g. PV cell or wind turbine), but good quality systems: including skills for designing, installing and maintaining the whole RET system.

Access to information is crucial



Developing countries engagement

Use of existing mechanisms

- IEC Affiliate Country Programme
- ISO committee on developing country matters - DEVCO

Development of new mechanisms

- Use of virtual meetings
- Standard users – TC forums

Costs

- Reduction in standards cost
 - **IEC 62257 series discounted price**
- Funding mechanisms



Quality Infrastructure is crucial for a sustainable deployment of RET at a global scale – let us all contribute to continue building it up

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