

Need for a common approach for certification

EECS, legal structure, consequences for issuing bodies and the AIB



Marko Lehtovaara – AIB Board Chairman

Perspectives on Certification of Power Generation in the light of the new EU Energy Policy
13 MARCH 2008 - Budapest

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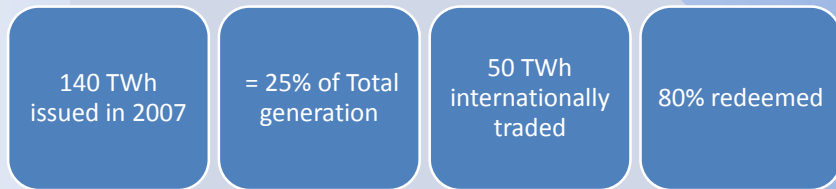
What makes a Market?

- A Product
- Supply
- Demand
- Facilitation
- Rules & Supervision

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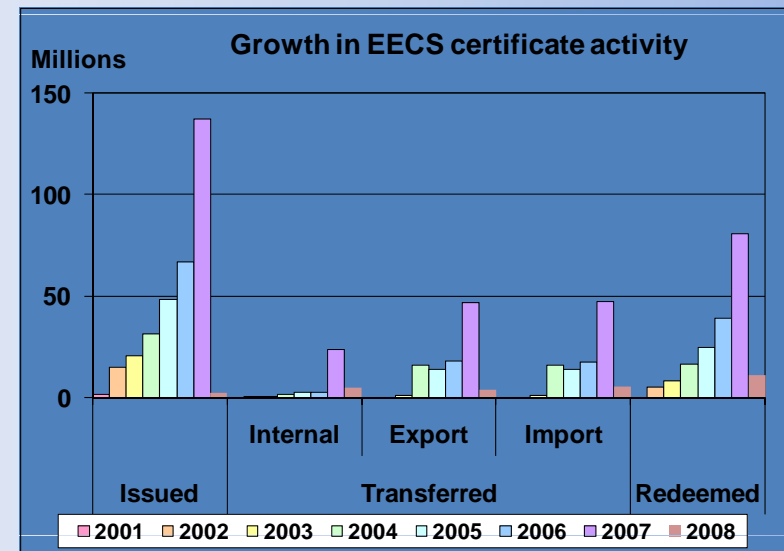
The Market is There!



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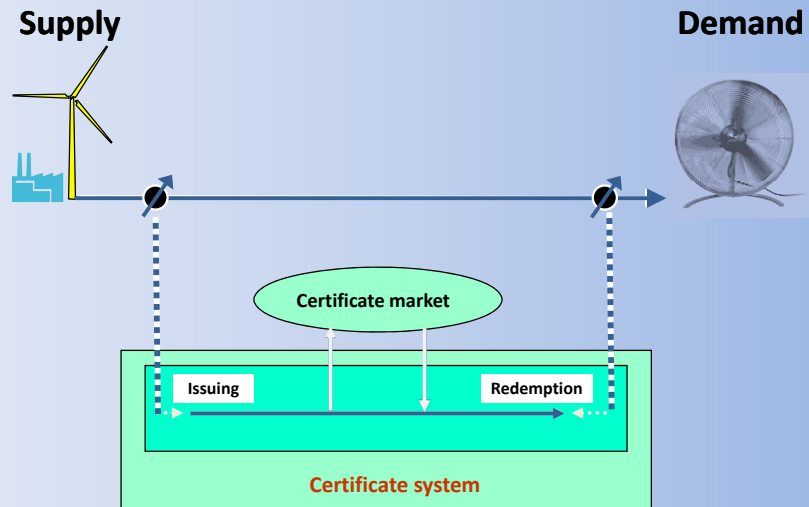
AIB activity summary



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Energy Certificate Systems



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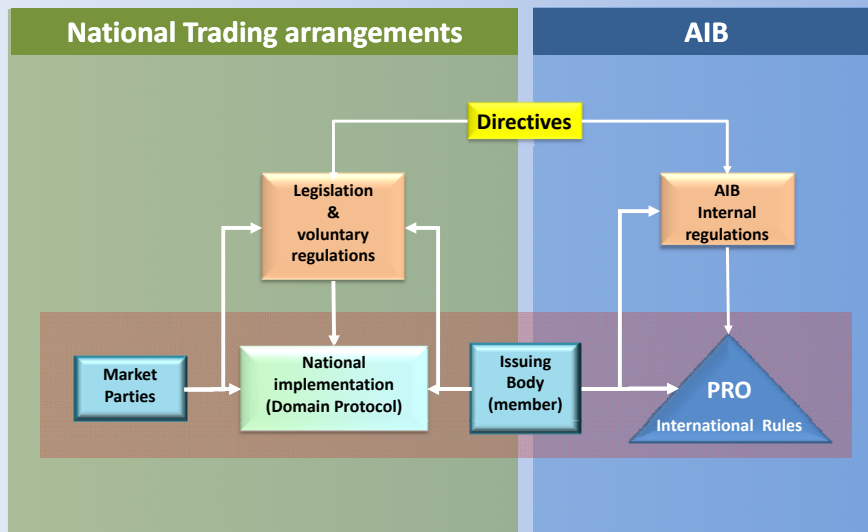
Alternatives

- Can do this by tracking energy contracts and using production mix statistics
- ... but it is inaccurate, ...
- ... untransparent and difficult to prove ...
- ... and expensive if done properly

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European Energy Certification System (EECS) *Legal structure*



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The New Draft Directive

” ...guarantees of origin may be transferred between persons in different Member States provided they have been issued in relation to energy produced from renewable sources by installations that became operational after the date of entry into force of this Directive.”

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What Happens to The International Disclosure Market?

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What Would AIB Do?

The AIB will work together with the Commission, market parties and national governments to seek and implement a reliable, fraud resistant, transparent and efficient solution.

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What do Member States want?

- A simple, clear set of rules
 - *The PRO: all the rules that are necessary*
 - *A living document of lessons learned by members*
- A reliable, accurate, transparent, fraud resistant system, which is recognised by all Member States
- Coexists well with all types of domestic support schemes
 - *PRO sets the acceptance criteria for national schemes*
 - *AIB members can help MS overcome obstacles to implementation*
- Simple administration
 - *Availability of expert advice*
 - *We help new members design systems that are legal and workable*
- Low level of administration
 - *System design effort is shared*
- Low costs
 - *Economies of scale*
 - *Burden sharing*

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What does AIB offer?

Coordinated approach to CHP-GO & RES-GO

- *International certificate standards*
- *Demonstrable compliance with CHP and RES Directives*
- *Supports Internal Electricity Market*
- *Basis for harmonised CHP GO in Energy Efficiency Action Plan*
- *Focal point for stakeholders*

Standardised information in an electronic system

- *Fraud resistant*
- *Reliable*
- *Accurate*
- *Multilateral market data and statistics*

Knowledgeable member-base

- *AIB controlled by regulators and system operators*
- *Informs the market*
- *Shared experiences*

Already half EU Member States represented in AIB

- *Experience in trading GOs and certificates*
- *Used & appreciated by major utilities & industry*
- *Ready-to-use robust & cost-effective (fast implementation)*
- *Critical mass for use of GOs on a European scale*
- *Economies of scale*

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How to Join the Market

Join AIB

- Letter of application
- Gain AIB accreditation
 - Develop regulations
 - AIB framework domain protocol
 - Implement software
 - AIB off-the-shelf components
- Membership fee
 - €5,000 + €0.01 per MWh

Participate

- Operate GO systems
- Join workgroups
 - Contribute to the evolving EECS standard
- Meet interesting people in interesting places

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Thank you for your attention

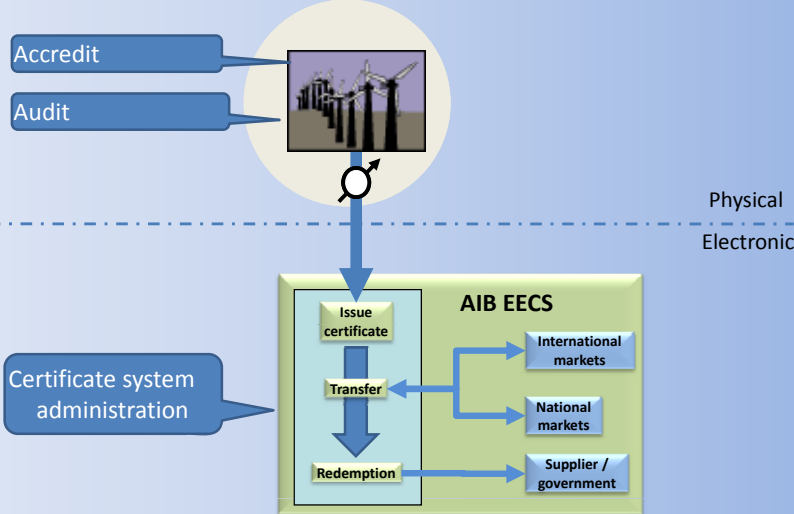
<http://www.aib-net.org>

Marko Lehtovaara
 Grexel Systems Ltd.
www.grexel.com
 Tel: +3589 2512 2211
 Email: marko.lehtovaara@grexel.com

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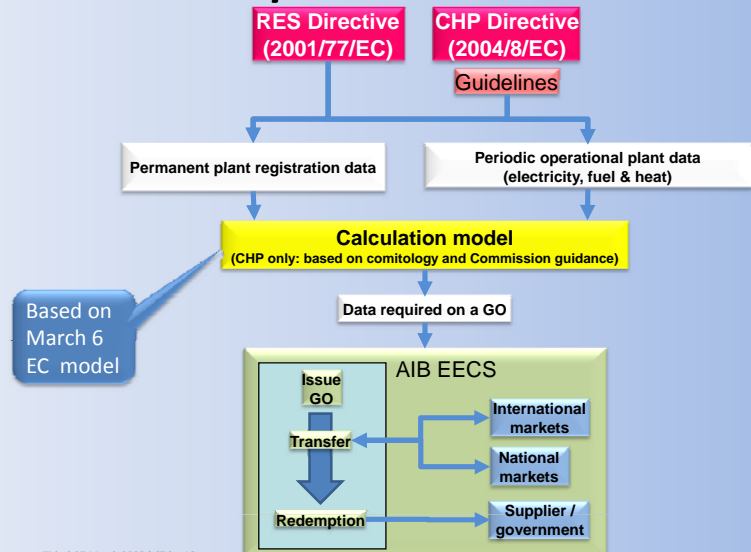
European Energy Certification System (EECS) Scope



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European Energy Certification System (EECS) Relationship with RES & CHP Directives

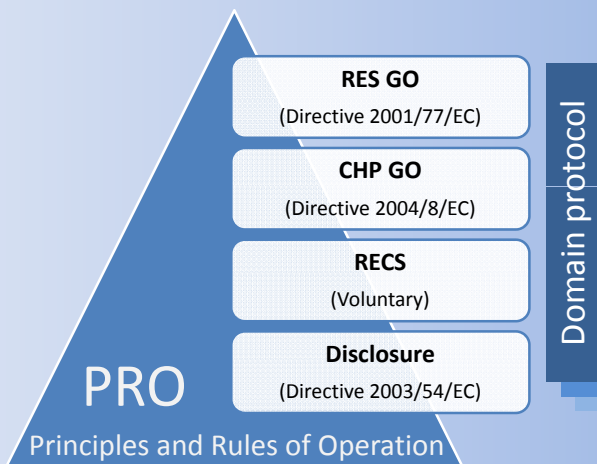


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European Energy Certification System (EECS)

Structure



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1. Product: uses of GO

1. Disclosure - importance of redemption
 - Consumers (particularly large ones) increasingly concerned where their energy comes from
 - More and more suppliers are redeeming GO as proof of green supply
 - Redemption prevents double use: need to redeem GO when the corresponding energy is consumed
 - Can be used for: declarations in annual reports, audit etc
2. Support schemes – relationship with GO
 - GO independent of support schemes, but can be used for them
3. Target counting
 - Calculation of Member State RES production & consumption

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2: Supply

- Physical export constrains the market
 - Possible for RES-E, but not so easy for heat
 - Exports from one country may have to go via another
 - This is an advantage of GO systems
- No need to interconnect
 - e.g. RES-E from north of Norway will never get to Italy
 - Iceland is already exporting RES-E certificates to Austria

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3: Demand

- Motivation
 - Government: security of supply / reduced imports / new industry
 - Consumers: environmental / climate change
- Public demand
 - Public demand is low (unless there is a tax incentive!)
 - Most people just want cheap, reliable energy
 - BUT given two equally-priced options, they will buy the green one
 - Government must educate the market
 - why should suppliers educate somebody else's customers?
 - Use of tax exemptions educates the market
 - "flywheel effect" when the tax exemption ceases
- Commercial / industrial demand
 - Shareholder power is driving businesses
 - Buying from foreign subsidiaries + local generators

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4/5: Facilitation

- Trade Associations
 - Exchanges
 - Brokers
 - Bilaterals
- ↑
Liquidity
- Suppliers
 - Need for innovation
 - Product differentiation

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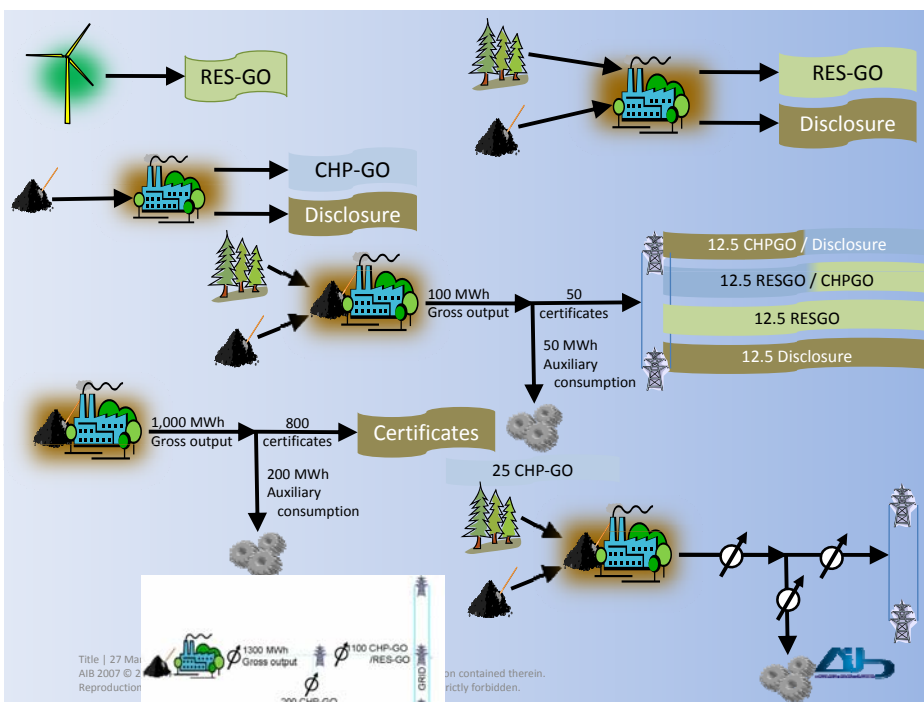


5/5: Rules and Supervision

Why?

Market confidence!

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Contents of an EECS GO

- All Guarantees of Origin & certificates
 - Scheme..... (CHP-GO)
 - Unique certificate number
 - Production start-date
 - Production end-date
 - Issue date
 - Energy source / technology
 - Production device
 - Certificate size..... (1MWh)
 - Issuer
 - Earmark..... (= support)

- CHP
 - Use of heat..... (category)
 - Lower Calorific value..... (MJ/kg)
 - Primary Energy savings
 - Percent..... (%)
 - Actual amount..... (MJ/MWh)
 - CO2
 - Emitted..... (kg/MWh)
 - Actual savings (hidden)... (kg/MWh)

Additional to Directive
(could also do this for further items on RES-GO)

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Features of the RES Directive

Article 5: Guarantees of origin of electricity from renewable energy sources

1. Member States must implement a scheme for Guarantees of Origin for renewable electricity (RESGO)
2. RESGO issued according to objective, transparent and non-discriminatory criteria
3. Member States may issue GO themselves, or through bodies independent of generation and distribution
4. RESGO specify energy source, date and place of production, and capacity (for hydroelectric)
5. RESGO must allow RES-E producers to prove their electricity is renewable
6. RESGO must be mutually recognised by Member States
7. Refusal to recognise RESGO must be based on objective, transparent and non-discriminatory criteria
8. RESGO must be accurate and reliable
9. Must be able to distinguish RESGO from exchangeable green certificates
10. **Deadline: 27 October 2003**

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Additional features of CHP Directive

- Member States must implement a scheme for Guarantees of Origin of electricity from high-efficiency CHP (CHP-GO)
- CHP-GO are based on reference values (officially adopted 22 December 2006, and published 6 February 2007)
- Schemes for CHP-GO not necessarily linked to national support schemes for CHP, but this is allowed
- Member States issue GO within 6 months of official adoption of reference values – **by 6 August 2007**

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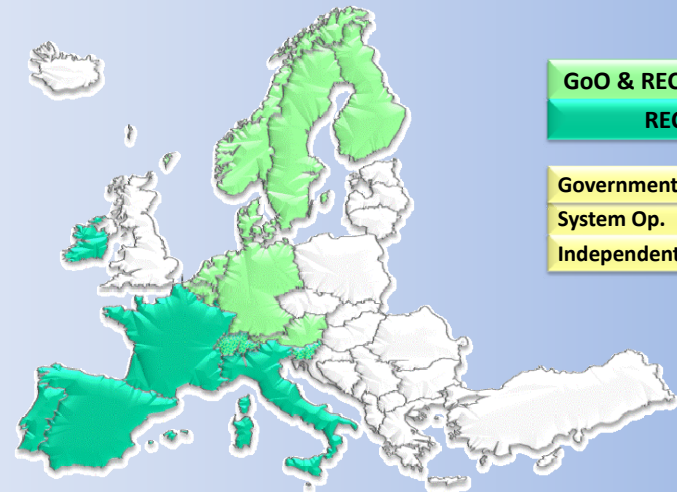


RES	Law	Regulations	Issuing Body	Electronic	Operational	Redemption	Transferable	EECS member	Disclosure			Used for support
									Recommended	Mandatory	Used for support	
Austria	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Belgium (Brussels)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Belgium (Flanders)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Belgium (Wallonia)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Bulgaria	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cyprus	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Czech Republic	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Denmark	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Estonia	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Finland	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
France	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Germany	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Greece	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Hungary	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ireland	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Italy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Latvia	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Lithuania	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Luxembourg	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Malta	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Netherlands	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Poland	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Portugal	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Romania	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Slovakia	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Slovenia	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Spain	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Sweden	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
UK	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Iceland	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Norway	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Switzerland	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

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The AIB – members



All government-appointed issuers of electronic transferable guarantees of origin from mainland Europe are members of the AIB

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AIB History

Year	Action
1999 - 2002	Developing and testing the concept
2003 - 2006	<p>PRODUCT DEVELOPMENT: The European Energy Certificate System (EECS) a single system for several types of certificate</p> <ul style="list-style-type: none"> • Obligatory <ul style="list-style-type: none"> ➢ RES guarantees of origin (Directive 2001/77/EC) ➢ CHP guarantees of origin (Directive 2004/8/EC) • Voluntary <ul style="list-style-type: none"> ➢ RECS certificates ➢ Disclosure certificates for fossil & nuclear (Directive 2003/54/EC)
2007	Central communications HUB
2008...	White certificates (energy efficiency) RES heat Biofuels Biodiesel Biogas



Core Principles

The AIB's 10 Commandments

-  **Do not copy certificates**
-  Protect account-holders
-  Ensure reliability and security
-  Protect certificates
-  Ensure good conduct
-  Inform the market
-  Contain costs
-  Communicate clearly
-  Obey the law
-  Write it all down

