

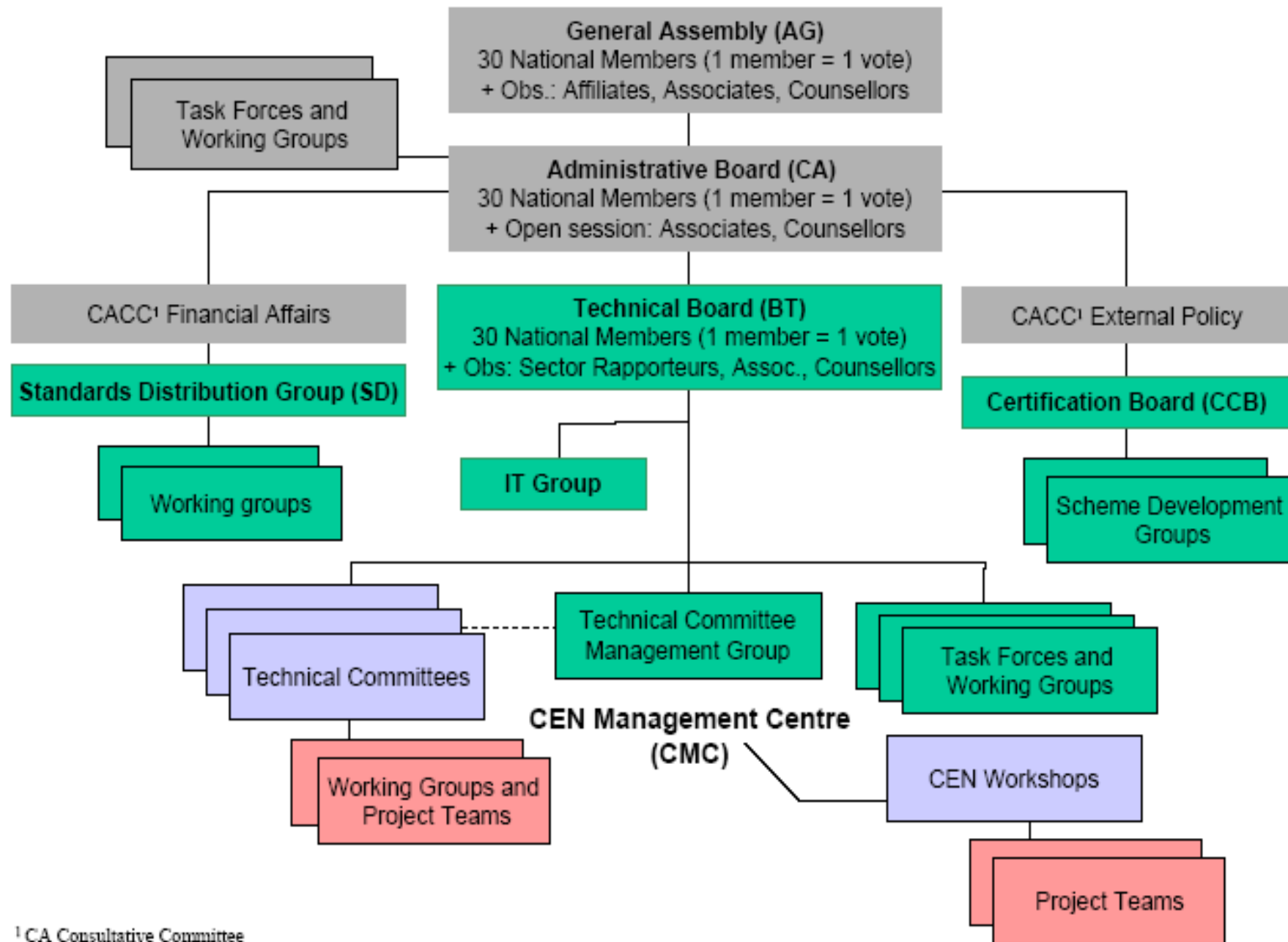
Overview on Standards and Certification Issues for Solar Heating

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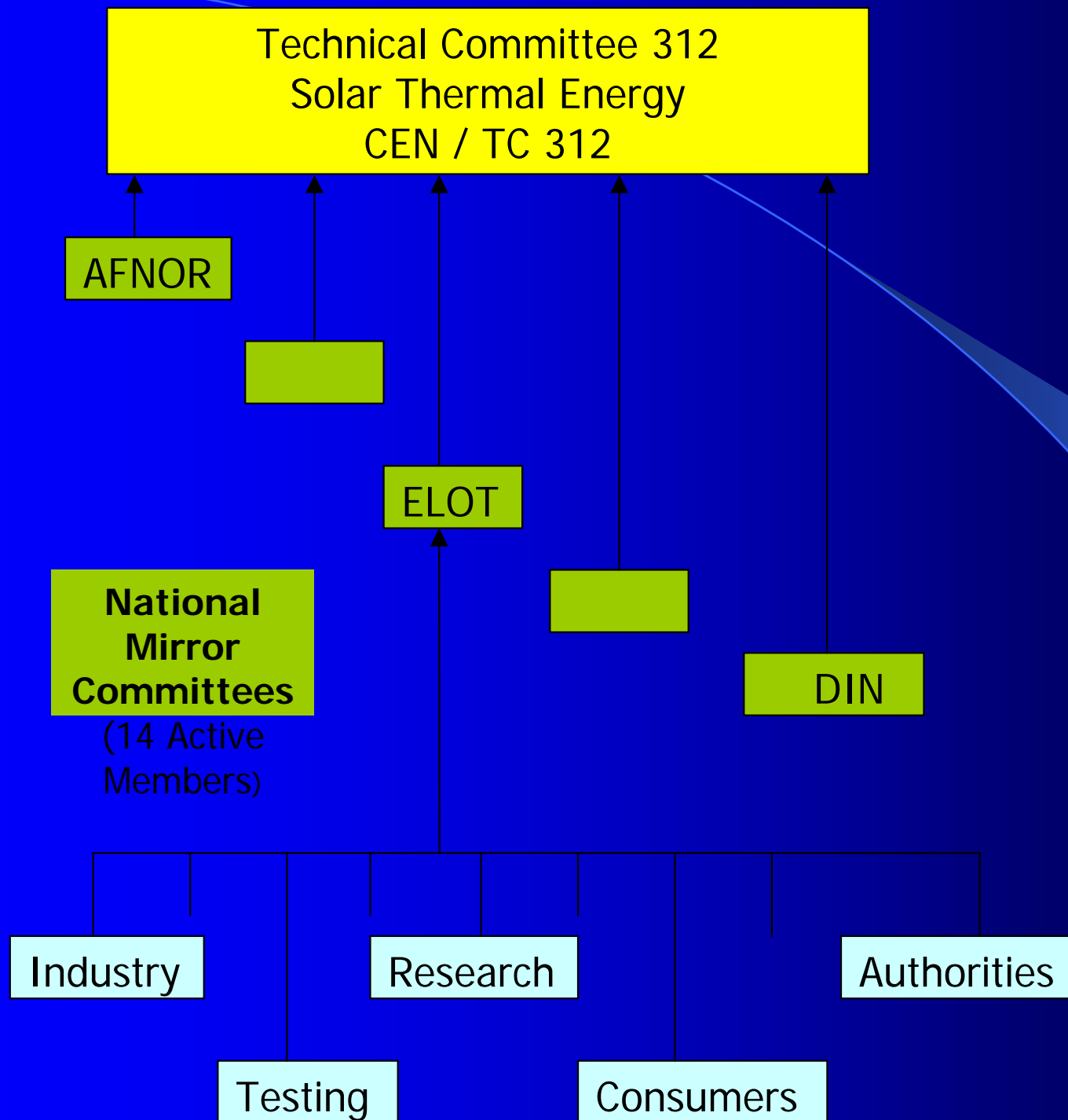
Regulation

- Standards
- Legislation, directives
- CE mark (conformity)
- Certification

Organization of the main committees within the CEN System



¹ CA Consultative Committee



Existing CEN Standards

Standards for:

- Collectors
- Factory made systems
- Custom built systems

Structure of standards:

- General requirements
- Test methods

Collector and Factory Made Standards

EN 12975-1:2006

Thermal solar systems and components - Solar collectors - Part 1:
General Requirements

EN 12975-2:2006

Thermal solar systems and components - Solar collectors - Part 2:
Test methods

EN 12976-1:2006

Thermal solar systems and components - Factory made systems -
Part 1: General requirements

EN 12976-2:2006

Thermal solar systems and components - Factory made systems -
Part 2: Test methods

Custom Built Systems

prCEN/TS 12977-1

Thermal solar systems and components - Custom built systems -
Part 1: General requirements for solar water heaters and
combisystems

prCEN/TS 12977-2

Thermal solar systems and components - Custom built systems -
Test methods for solar water heaters and combisystems

prEN 12977-3

Thermal solar systems and components - Custom built systems -
Part 3: Performance test methods for solar water heater stores

Custom Built Systems

prCEN/TS 12977-4

Thermal solar systems and components - Custom built systems - Part 4: Performance test methods for solar combistores

prCEN/TS 12977-5

Thermal solar systems and components - Custom built systems - Part 5: Performance test methods for control equipment

Legislation (Directives)

- Harmonisation (adaptation) of essential requirements
- Only products that conform to essential requirements can be placed in the market
- Harmonised standards form to essential requirements
- Manufacturers are free to choose how



Collector CE's

- **CE according to PED
(Pressure Equipment Directive)**
- **CE according to CPD
(Construction Product Directive)**

Energy labelling

Energy		Washing machine
Manufacturer		
Model		
More efficient		
A		
B		B
C		
D		
E		
F		
G		
Less efficient		
Energy consumption kWh/cycle		1.75
<small>(based on standard test results for 80°C cotton cycle)</small>		
<small>Actual energy consumption will depend on how the appliance is used</small>		
Washing performance		A B C D E F G
<small>A: higher G: lower</small>		
Spin drying performance		A B C D E F G
<small>A: higher G: lower</small>		
Spin speed (rpm)		1400
Capacity (cotton) kg		5.0
Water consumption		5.5
Noise (dB(A) re 1 pW)	Washing	52
	Spinning	7.6
<small>Further information contained in product brochure</small>		
		

Eco labelling



Energy Week, Athens 23.10.2007

EPBD

Energy Performance in Buildings Directive 2002/91/EC

EN 15316-4-3 Heating systems in buildings -
Method for calculation of system energy
requirements and system efficiencies - Part 4.3:
Space heating generation systems, thermal
solar systems

Certification

Voluntary

- **Subsidies**
- **Sales argument**

Certification Schemes



Blue Angel Germany



CSTBat France



Solar Keymark Europe