



union for the co-ordination of transmission of electricity

European Electricity Regulatory Forum 8-9 July 2003

UCTE – Operation Handbook - Progress Report -

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Technical reciprocity

- Sharing advantages & obligations
 - joint responsibility for frequency quality by means of primary and secondary control reserve to assist each other to overcome outages
- Providing equally good system services
 - cross border traded electricity gains its “quality of supply” from the taking Load-Frequency-Control-area (voltage level and stability, free of flicker, n-1 security, etc.)

Today's code of conduct (1)



Adopted by the Assembly on 16.04.1998
Entered into force on 01.06.1998

16.04.1998
16.04.1998
16.04.1998

06.05.1998
In Kraft getreten am 06.05.1998
To be applied with effect from 06.05.1998

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Regelung
RA 1998
JD 1998

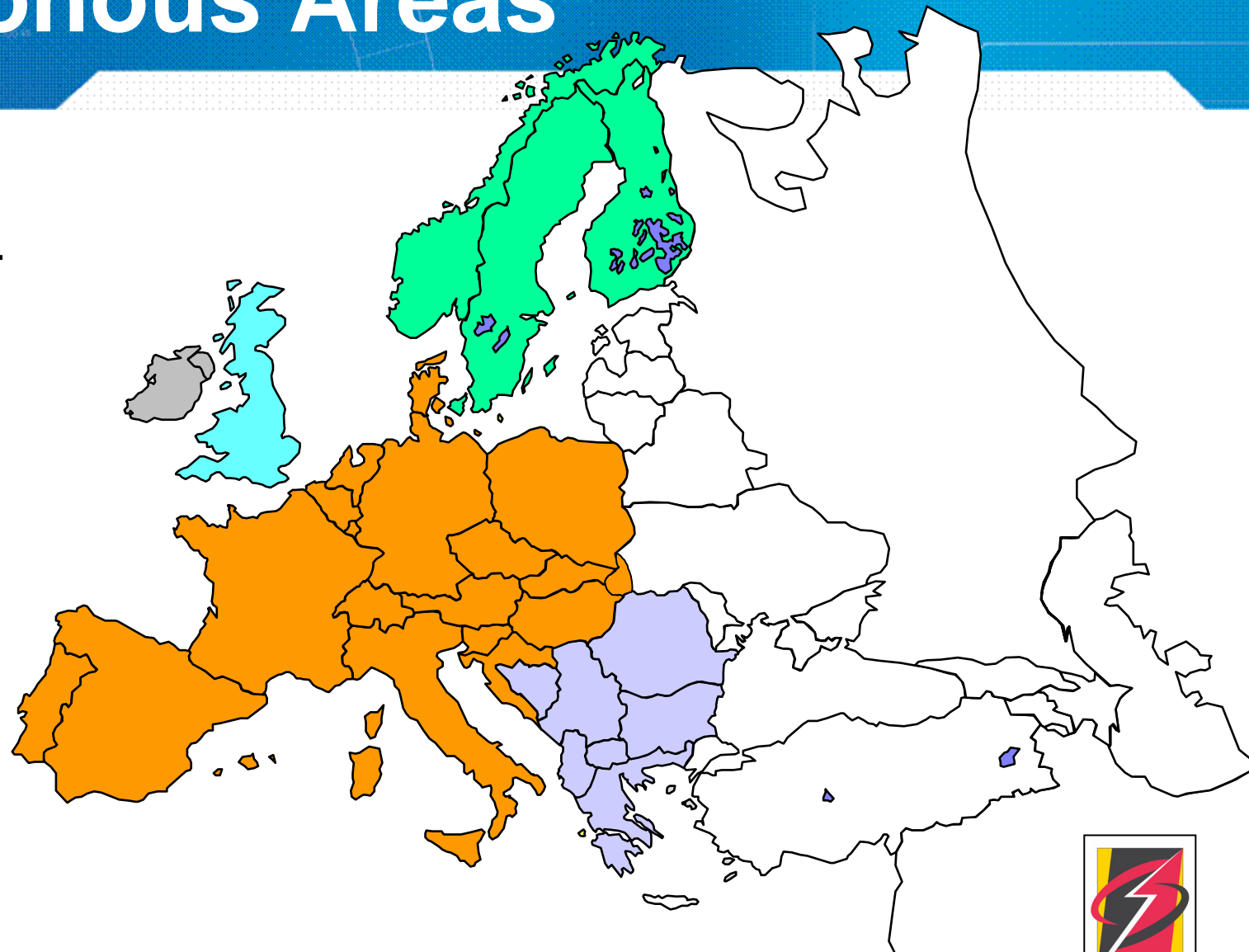


Today's code of conduct (2)

- Voluntary compliance with rules based on association statute and recommendations
- Adoption by „peer pressure“
- Mutual assistance based on common spirit of responsibility

Synchronous Areas

-  UCTE Area 1
-  UCTE Area 2 + AL
-  Ireland
-  Nordel
-  UK



Contractual framework

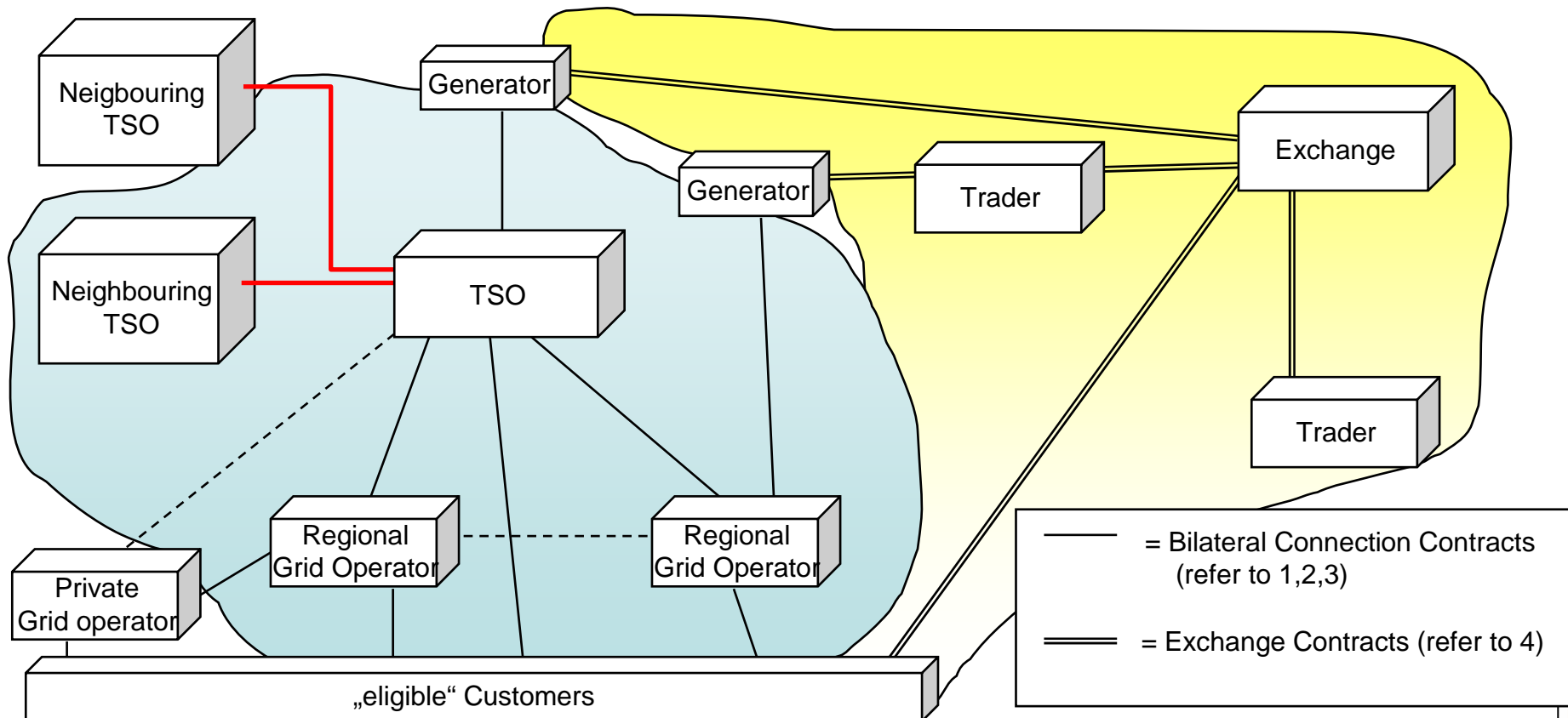
basic rules:

Grid Rules
(1)

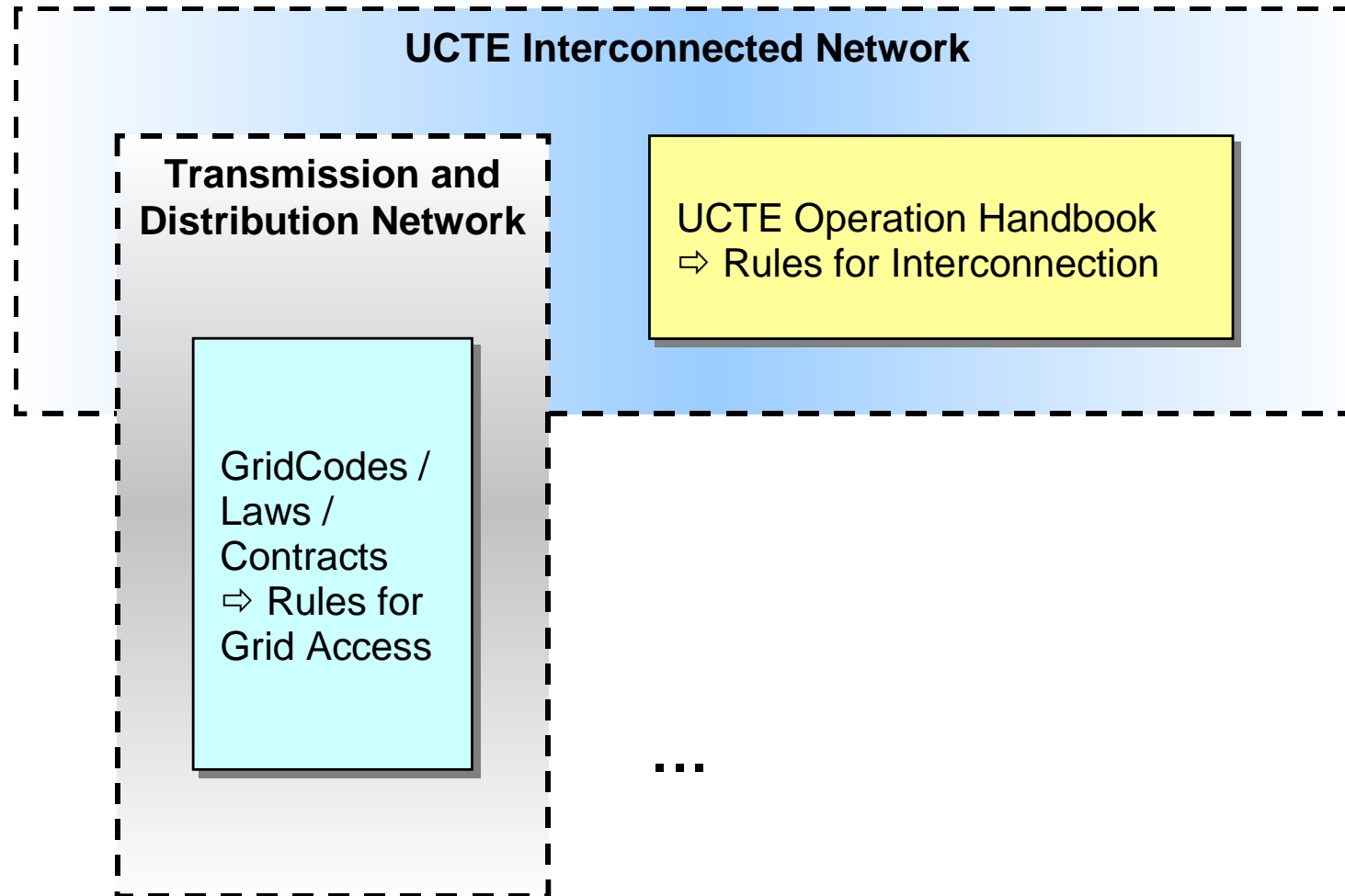
Measurement
and Data Exchange
Rules (2)

Tariff and Price
Agreements
(3)

Market Rules
(Exchange)
(4)



Overview: Target for OpHB



The Operation Handbook (1)

- **Target audience for the Operation Handbook**
 - System Operators
 - Generators
 - Traders
 - Customers
 - Policy and Decision Makers
- **Main characteristics of the Operation Handbook**
 - Transparency
 - Liability
 - Unambiguousness
 - Modularity

The Operation Handbook (2)

■ Main scope of the Operation Handbook

- a comprehensive collection of all relevant technical rules
- a support for the technical operation of the UCTE interconnected grid
- including operation policies for Automatic Generation Control (AGC), security criteria for system planning and operation, special operational measures

■ Key characteristics of the Transmission System

- Line Load Limits
- Line Losses
- Loop Flows
- Load Frequency Control
- Location Matters

The Process of Work

- Several drafting teams work in parallel to transform all rules and recommendations into UCTE policies
- The drafting teams work in close contact with the legal experts to take into account the legal issues
- The consultation process has been initiated

How to read a Policy (1)

■ Criteria

- Criteria introduce or define specific values or a specific naming as given facts, that may be used or cited within the policy.

■ Requirements

- Requirements are (technical or organisational) prerequisites that are used within a policy. They have to be fulfilled in total before any standard can be applied.

■ Standards

- Standards define rules that are fixed and binding for the addressees. Standards are usually the core part of a policy.

How to read a Policy (2)

■ Guidelines

- Guidelines describe practical ways for typical operation or usage as recommendations, as the addressees may use them.

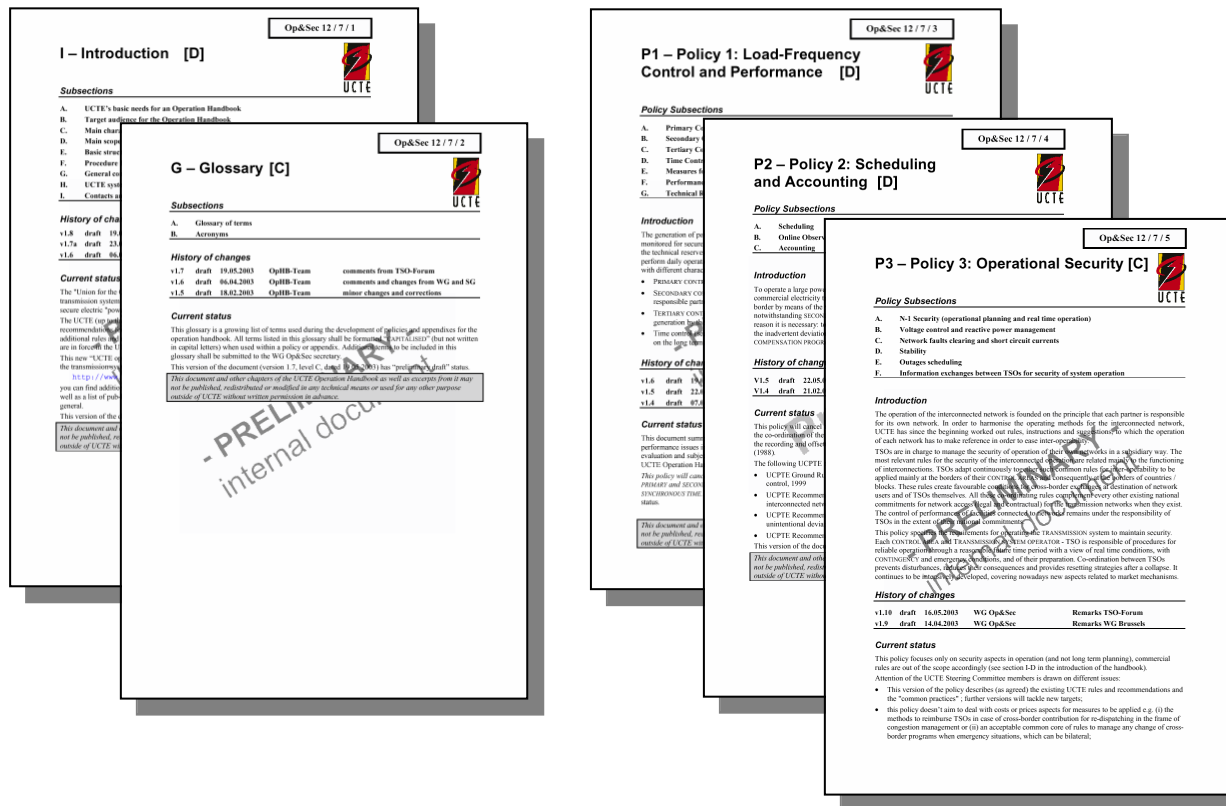
■ Procedures

- Procedures introduce fixed methods and alternatives for operation or usage as common practice.

■ Measures

- Measures name the actions to be taken, e.g. if a requirement is not fulfilled, a standard is violated by an addressee or a procedure is not used.

Current Status of the OpHB



Transparency on UCTE Website

Union for the Co-ordination of Transmission of Electricity



DRAFT

Release: 2 July 2003

UCTE Operation Handbook

Contents	page number
Transforming UCTE Rules and Recommendations into binding Security and Reliability Standards.....	2
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Annex to Policy 1.....	(to be released in mid-July 2003)

Contents of the OpHB

(preliminary release 2nd July 2003, 99 pages in total):

- Transferring UCTE Rules...
- Introduction (v2.0)
- Glossary (v1.8)
- Policy 1 (v1.7)
- Policy 2 (v1.6)
- Policy 3 (v1.11)



Updated List of OpHB-Policies

- 1. Load-Frequency Control and Performance [D]**
- 2. Scheduling and Accounting [D]**
- 3. Operational Security [D]**
- 4. Co-ordinated Operational Planning [B]**
- 5. Emergency Procedures [B]**
- 6. Communication Infrastructure [B]**
- 7. Data Exchanges [B]**
- 8. Operational Training [A]**

Table of Contents of the OpHB (1)

1. Load-Frequency-Control and Performance (Policy and appendix)

Primary control

Secondary control

Tertiary control

Time control

Measures for emergency situations

Performance Standards and Control Surveys

Technical Requirements and Qualifications for Generation

2. Scheduling and Accounting

Scheduling

Online Observation

Accounting

Table of Contents of the OpHB (2)

3. Operational Security

- N-1 Security (operational planning and real time operation)

- Voltage control and reactive power management

- Networks faults elimination, short circuit currents

- Stability

- Outage scheduling

- Information exchanges between TSO's for security of system operation

4. Coordinated Operational Planning

- Day Ahead Congestion Forecast

- System Planning

- Transfer Capability calculations

- Re-dispatch measures

Table of Contents of the OpHB (3)

5. Emergency Procedures

- Defense plans

- Restoration

- Voltage collapse

- Treatment of forecasted non-normal situations

- Borders and Limits of Responsibility

- Decision process in case of emergencies

6. Communication Infrastructure

- Communication between TSOs / to GENCOSs

- Real time data exchange

- Security of Access

- Compatibility rules for IT Infrastructure

Table of Contents of the OpHB (4)

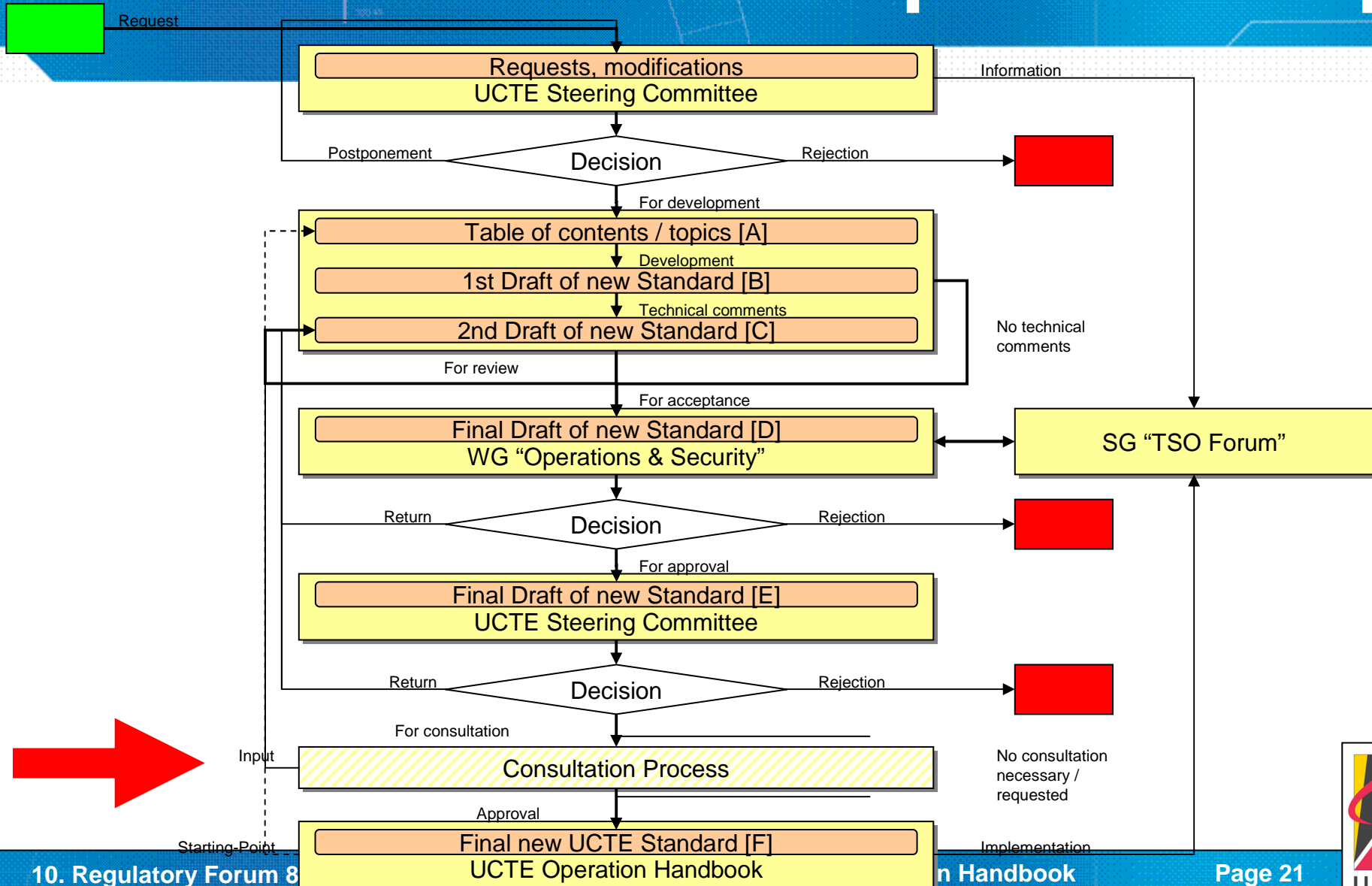
7. Data Exchanges

- Data exchanges
- Data archiving and monitoring
- Data ownership
- Data confidentiality
- Statistics of operational data
- Data publication

8. Operational Training

- Operator's certification
- Training tools
- Basic training guidelines
- Emergency training

Consultation is an important step



Consultation Process

- Dialog on OpHB between UCTE and CEER, EURELECTRIC and DGTREN successfully started
- Transparency via publication on UCTE WEB-site
- Subscriber list to be informed via e-mail
- UCTE Workshop on 4 June 2003 in Brussels

Legal Issues

- How to achieve legal enforceability of “Standards” among the Transmission System Operators?
- UCTE legal experts are working on the raised issue of legal enforceability
- Favourite Approach: A multilateral Contract

Conclusion

- UCTE will focus on the development of the OpHB and issue draft versions of Policies 4,5,6 and 7 in the near future
- A complete OpHB shall be ready at the end of 2004
- UCTE is very much in favour to continue the dialog with EC, CEER and market parties to establish an intensive co-operation in all questions concerning the technical limits of the electricity transport system