

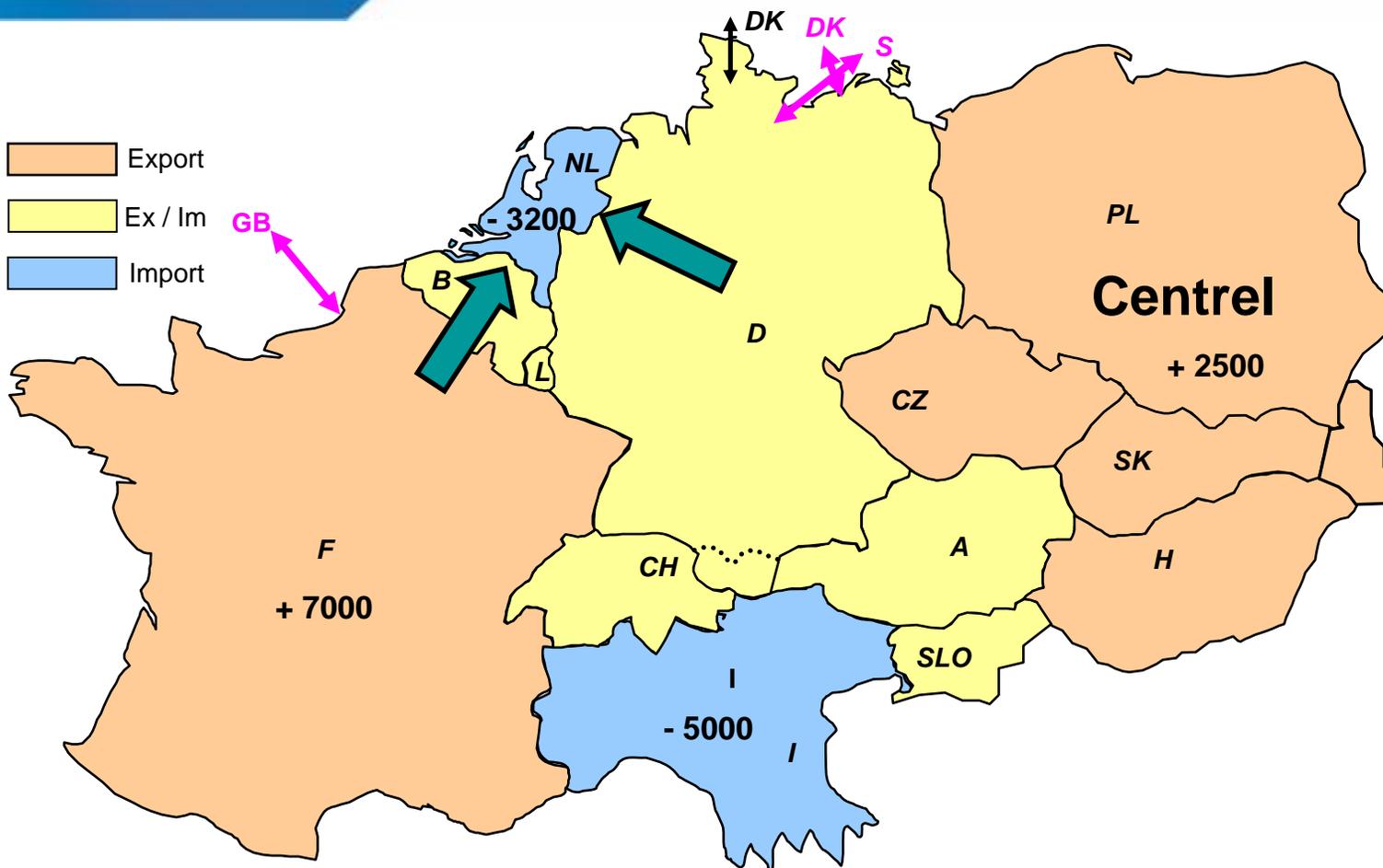
union for the co-ordination of transmission of electricity

# European Electricity Regulatory Forum 8 July 2003

## Congestion Management - UCTE



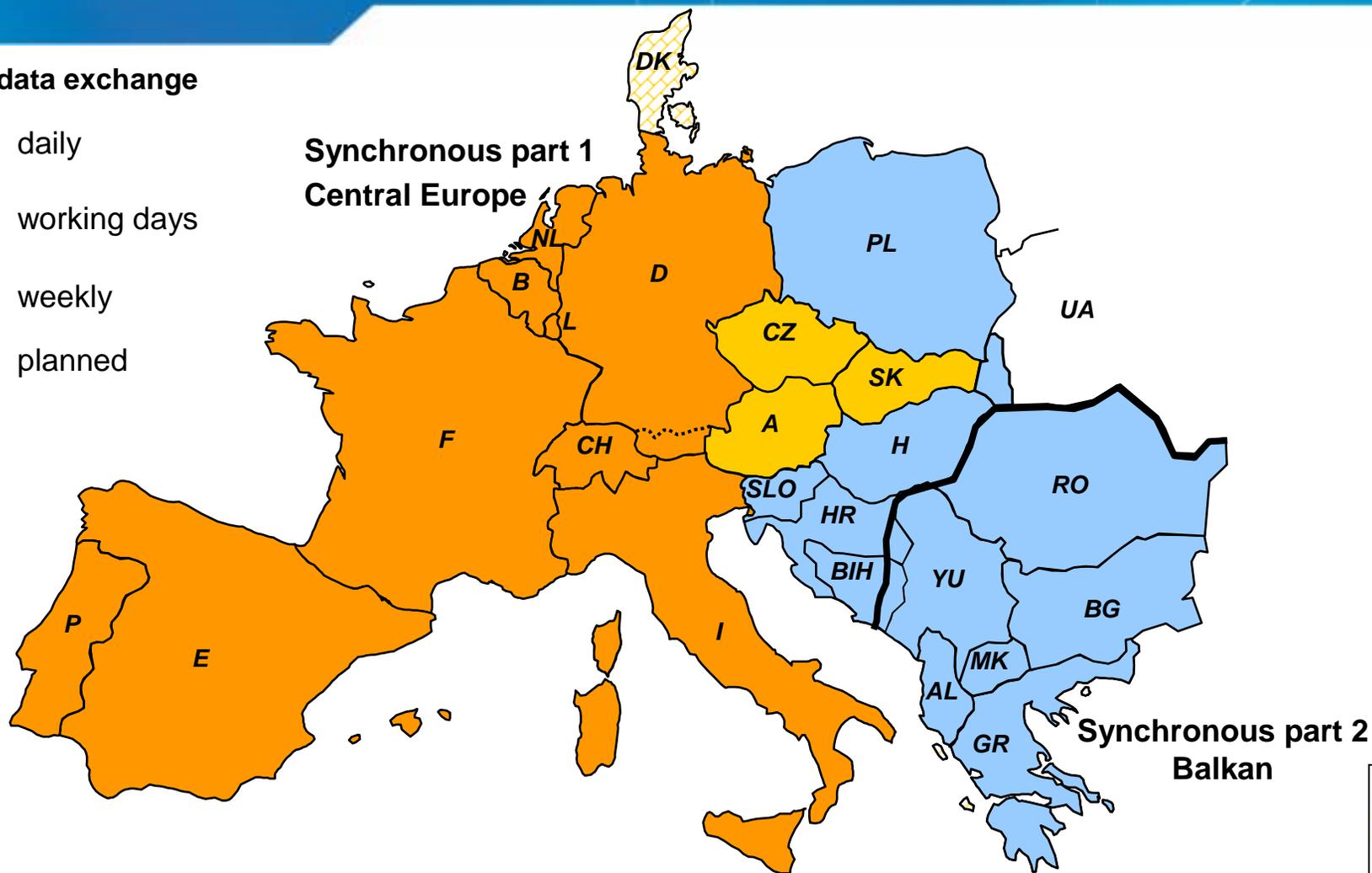
# Typical Export-Import-Situation



# DACF – Today's Participation in Europe

## Cycle of data exchange

-  daily
-  working days
-  weekly
-  planned

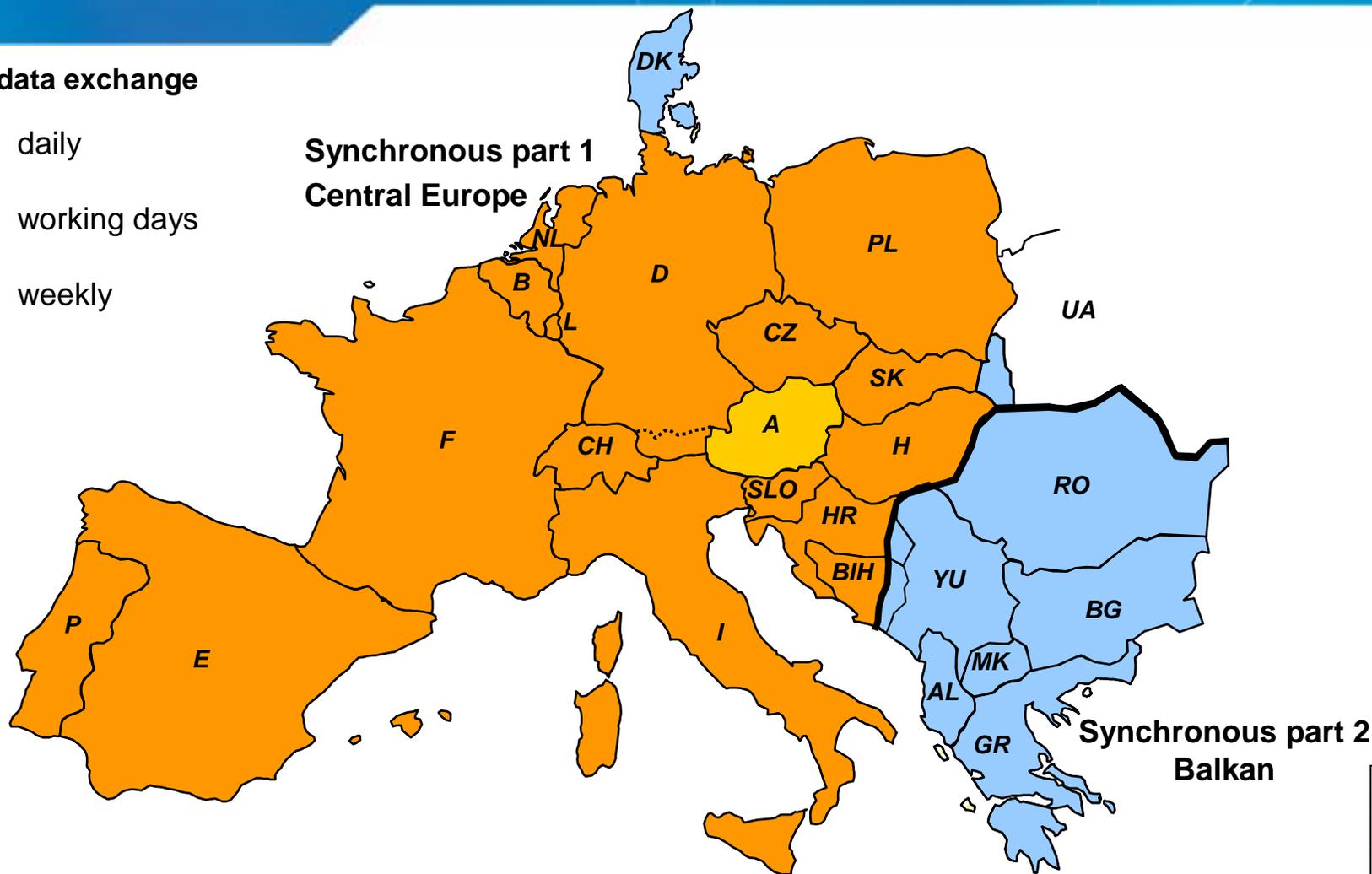


State: End-June 2003

# DACF – Planned Participation (End of 2003)

## Cycle of data exchange

-  daily
-  working days
-  weekly





# Accuracy Analysis of DACF-Procedure

## Accuracy of measurement for power flow

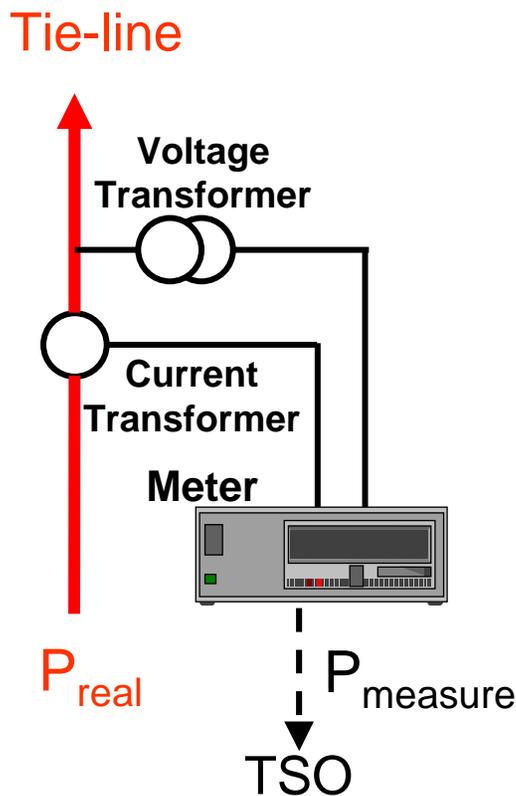
- measurement error:  $\frac{P_{\text{real}} - P_{\text{measure}}}{P_{\text{capacity}}} = 1 \dots 1,5\%$
- example Vigy-Uchtelfangen:  $P_{\text{capacity}} = 1790 \text{ MW}$   
max. measurement error:  $P_{\text{real}} - P_{\text{measure}} = 27 \text{ MW}$

## DACF-Experiences at TSO Brauweiler

Differences between DACF power flow  $P_{\text{DACF}}$  and measured flow  $P_{\text{measure}}$  on tie-lines:

- Relative difference per border TSO-TSO:

$$\frac{P_{\text{DACF}} - P_{\text{measure}}}{P_{\text{capacity}}} \approx 1 \dots 10\%$$



# Accuracy Analysis of DACF-Procedure

## Conclusions

- accuracy of DACF power flows (TSO-TSO) are in the range of measurement error for power flow control
- accuracy of DACF sufficient for operational needs
- larger differences on single lines due to changes in generation patterns (e.g. pump storage power plants close to the border)

## Next Step

UCTE is improving forecasts by shorter cycles