



Gas Transmission Europe

GTE Winter Outlook 2007

Brussels, January 8th 2008

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- Background
- Updated results
- Additional findings

- GTE WO presented to GCG on 25th October for the first time




- The study showed the existence of a capacity/demand balance at EU level:
 - ✓ normal cold conditions
 - ✓ exceptional cold conditions

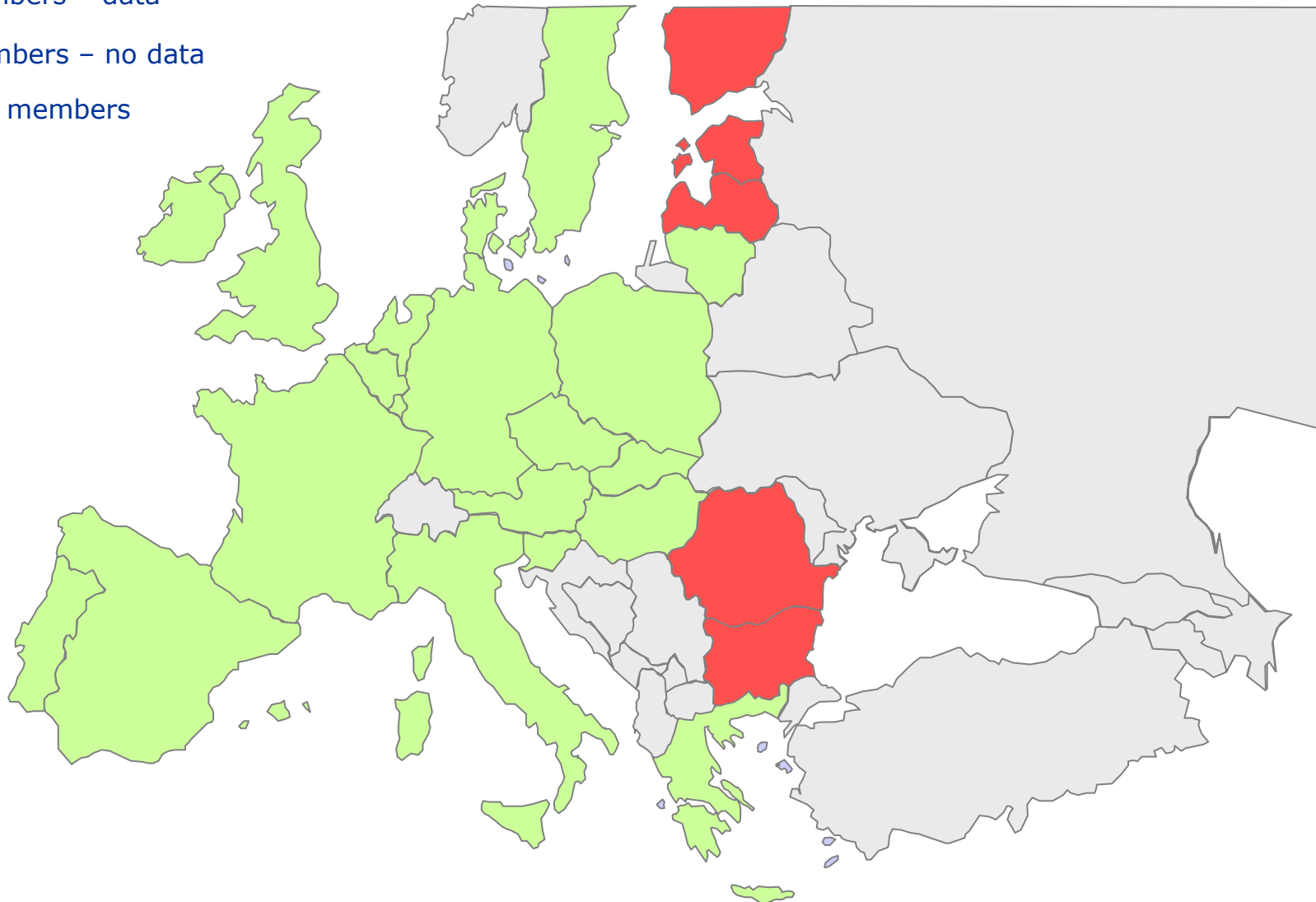
- GTE invited to develop further analysis:
 - ✓ considering the depletion of national productions
 - ✓ identifying possible internal bottlenecks

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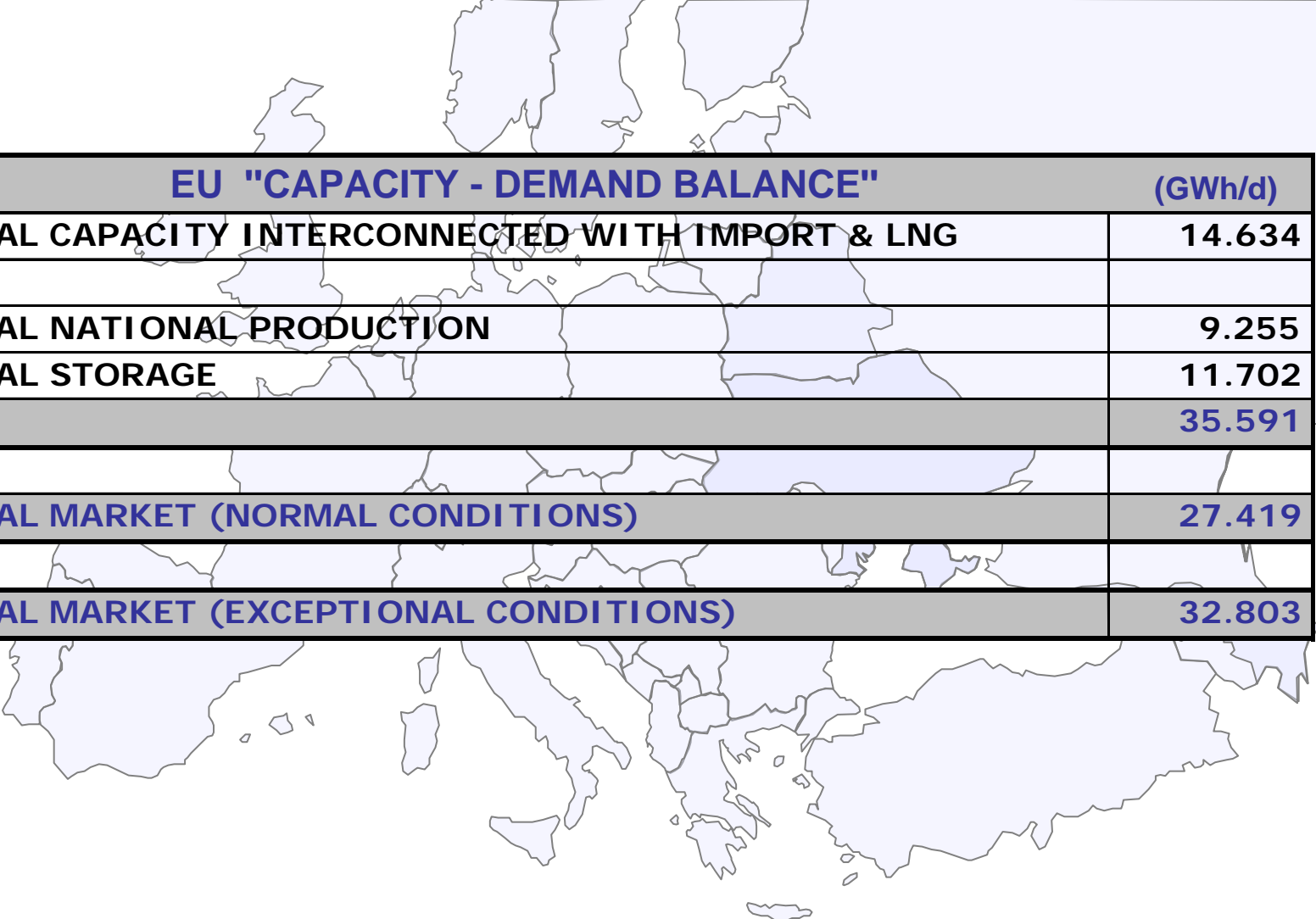
- Higher number of participating countries
→ *passing from 19 to 21 countries*
- National production figures reviewed to consider depletion of fields
→ *previous year flows in substitution of max tech capacity*
- Some figures updated by 5 countries on the basis of refined assumptions

Involved Countries

-  EU members – data
-  EU members – no data
-  Non EU members



Updated European Balance



EU "CAPACITY - DEMAND BALANCE"		(GWh/d)
TOTAL CAPACITY INTERCONNECTED WITH IMPORT & LNG		14.634
TOTAL NATIONAL PRODUCTION		9.255
TOTAL STORAGE		11.702
		35.591
TOTAL MARKET (NORMAL CONDITIONS)		27.419
TOTAL MARKET (EXCEPTIONAL CONDITIONS)		32.803

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- **Single country balances**
 - normal cold conditions
 - exceptional cold conditions

- **Integrated EU flow patterns**
 - normal cold conditions
 - exceptional cold conditions




Single country balance

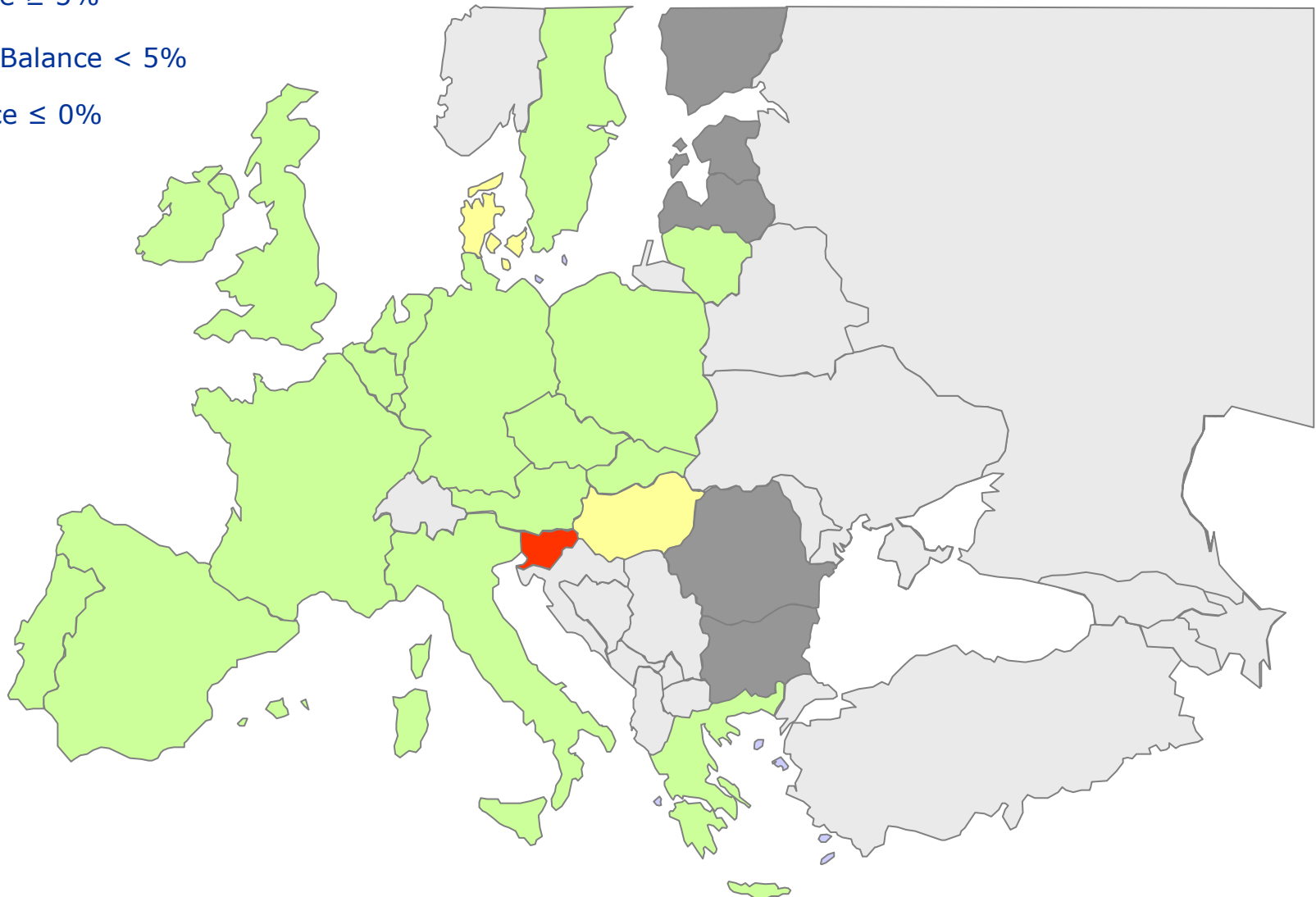
$$\begin{aligned} &+ \text{ Import capacity at entry points} \\ &+ \text{ National production past flows}^* \\ &+ \text{ Storage send out capacity}^{**} \\ &- \text{ Exit capacity to other countries} \\ &- \text{ Market demand forecast} \\ &\quad \blacksquare \text{ in normal condition} \\ &\quad \blacksquare \text{ in exceptional condition} \\ \hline &= \text{ Single Country balance} \\ &\quad \blacksquare \text{ in normal condition} \\ &\quad \blacksquare \text{ in exceptional condition} \end{aligned}$$

* to take into account the depletion of production fields





** considering the decrease of performances during the winter

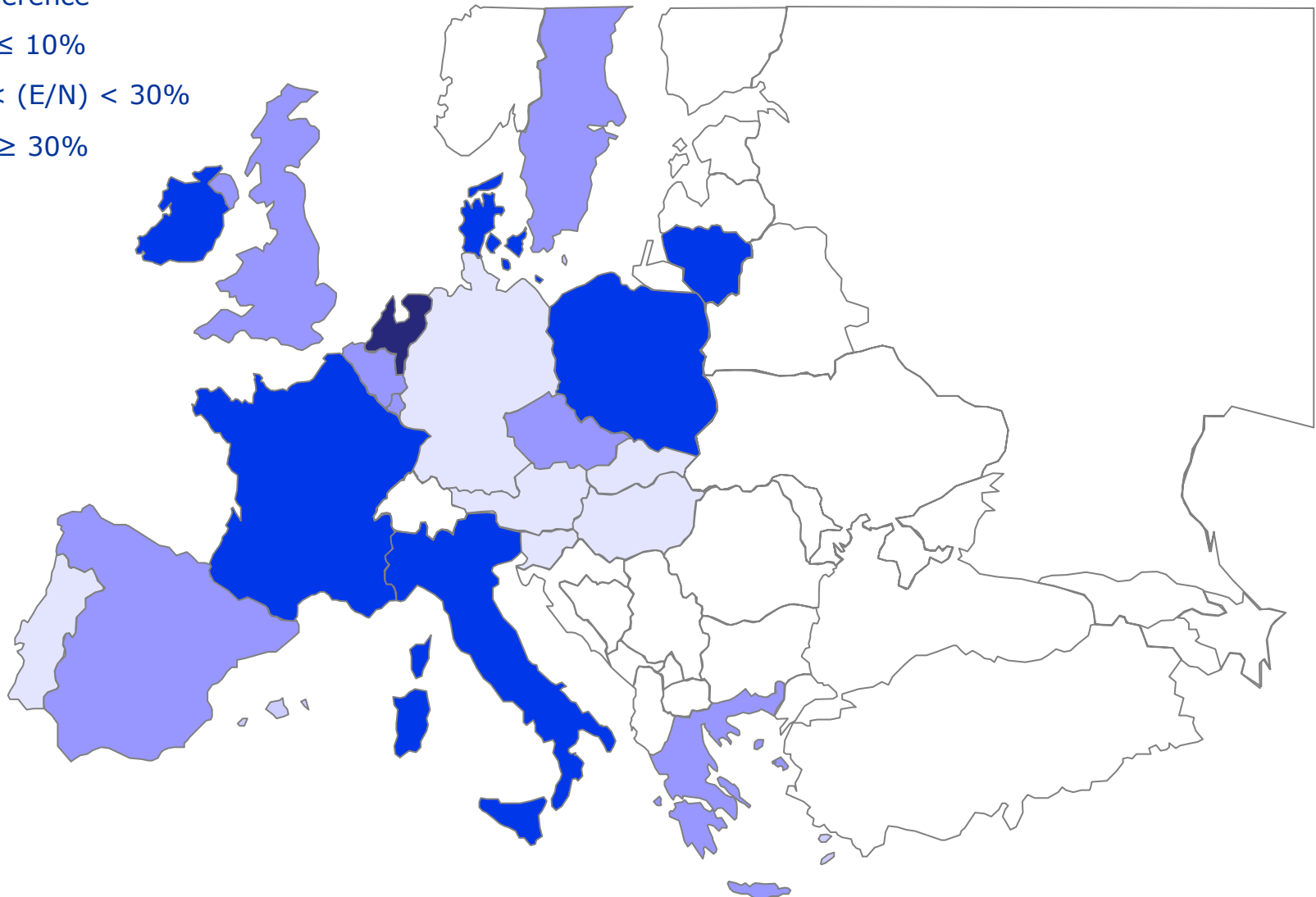
Normal Conditions – Single country balances

-  Balance $\geq 5\%$
-  $0\% < \text{Balance} < 5\%$
-  Balance $\leq 0\%$



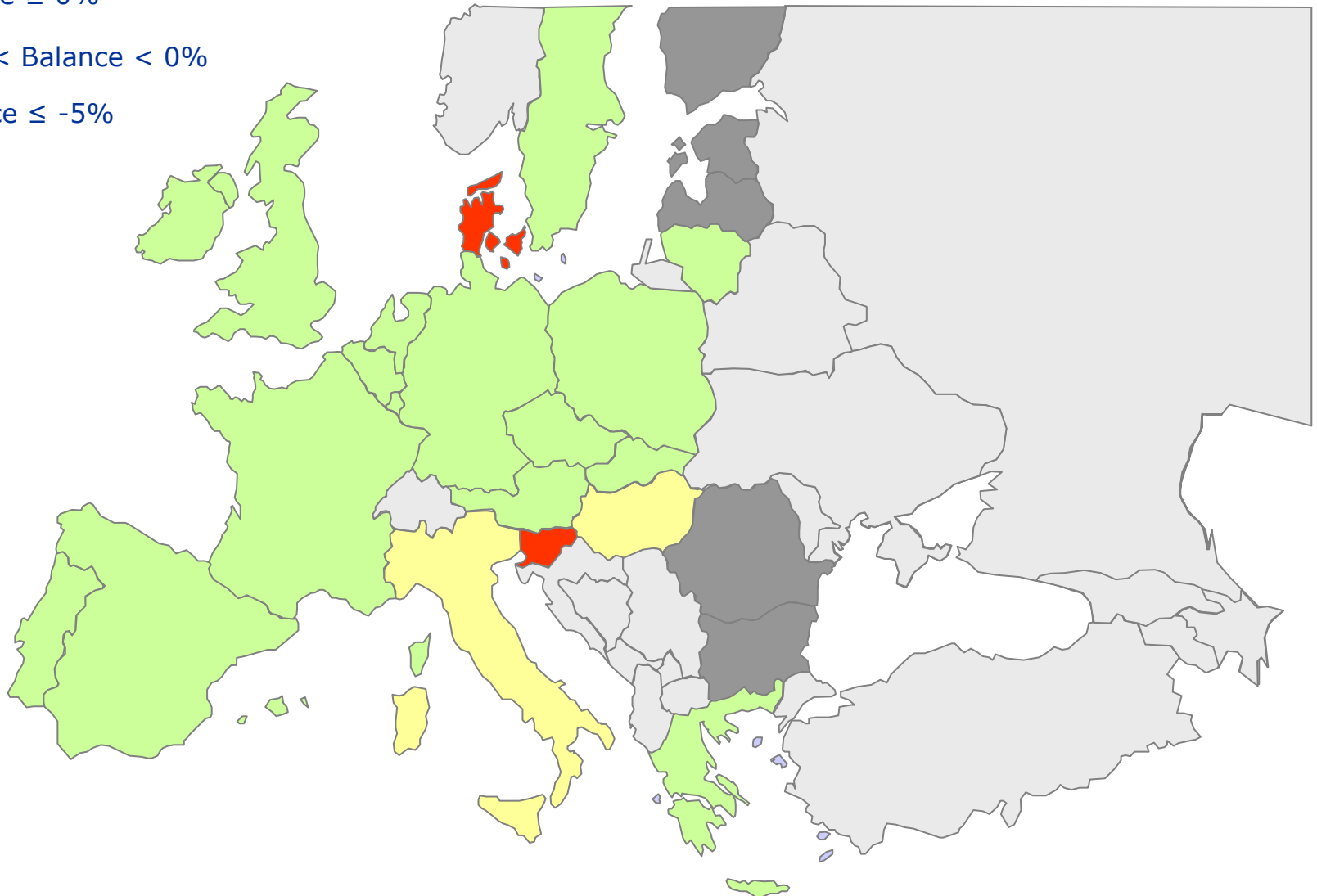
Normal conditions vs. Exceptional conditions

-  No difference
-  $(E/N) \leq 10\%$
-  $10\% < (E/N) < 30\%$
-  $(E/N) \geq 30\%$

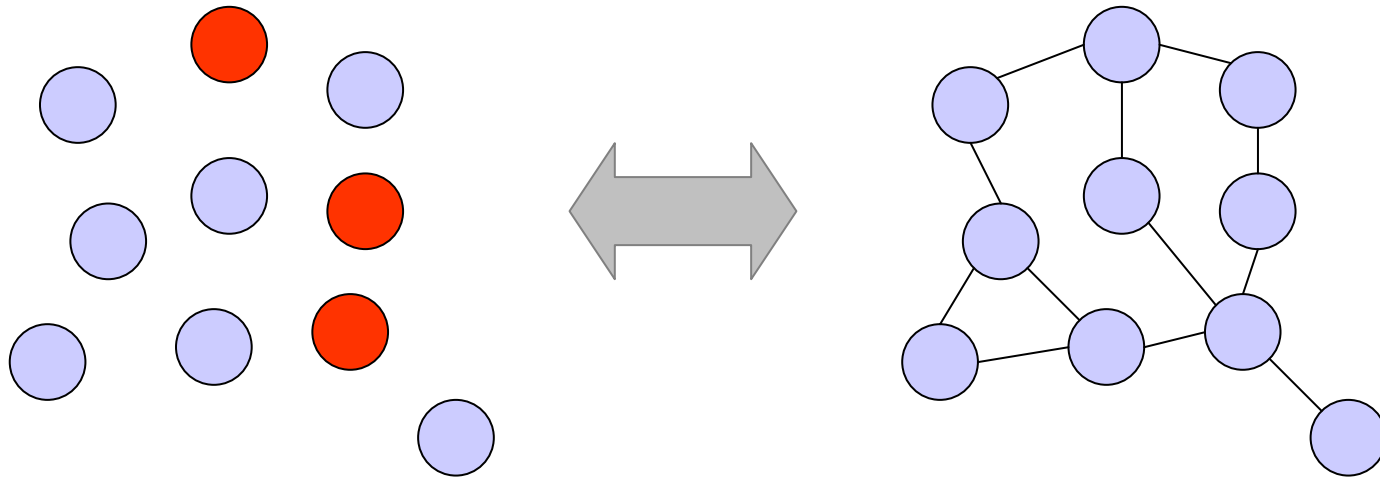


Exceptional Conditions – Single country balances

- Balance $\geq 0\%$
- 5% < Balance < 0%
- Balance $\leq -5\%$



Single country balances vs Integrated EU flow patterns



3 critical single
country balances
experienced in normal
conditions

?

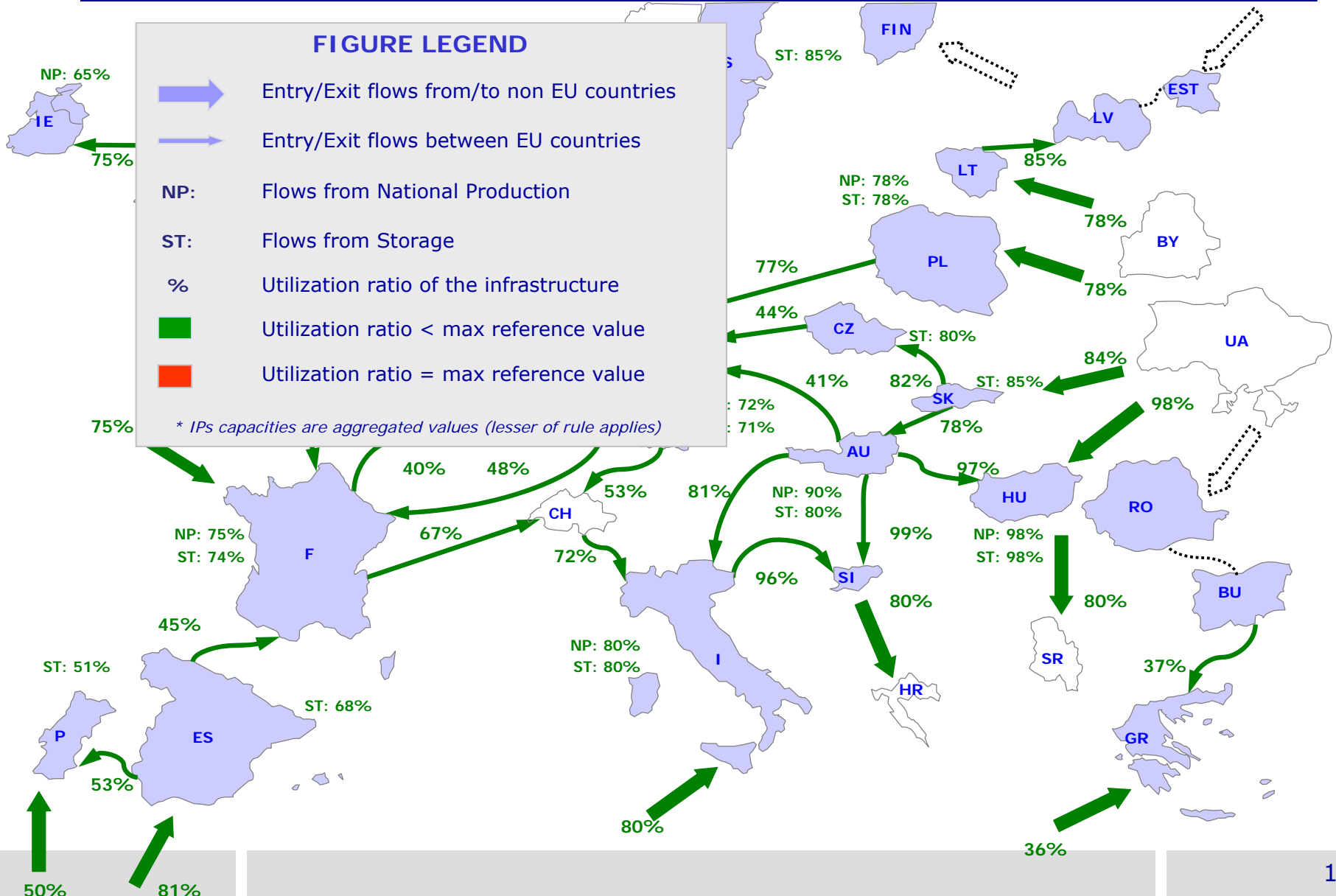
Integrated EU flow patterns

Identification of at least one pattern of flows between EU countries that respects the following conditions

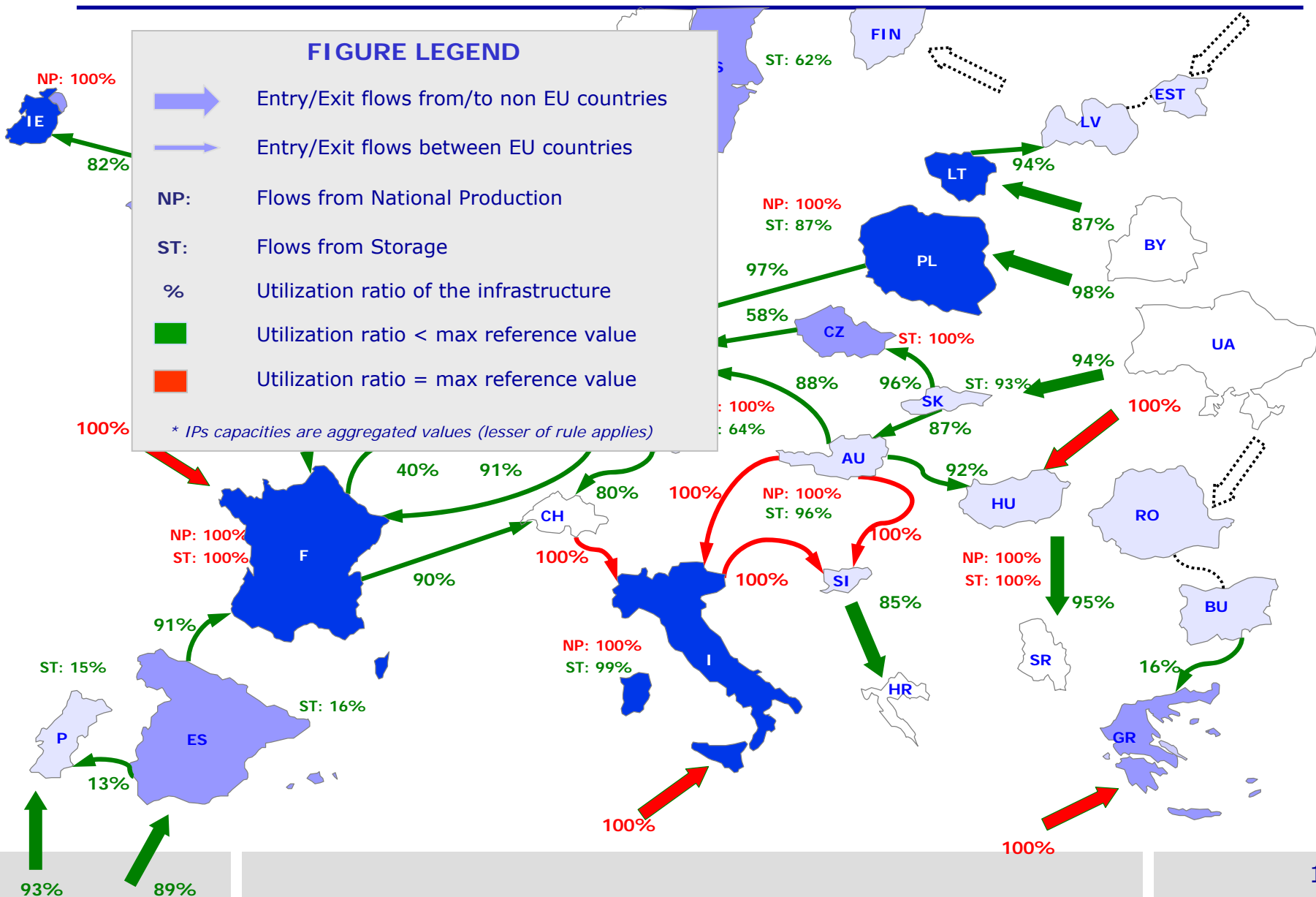
- ✓ Flows from non EU countries \leq Entry point capacities
- ✓ Flows between countries \leq IPs capacities
- ✓ Flows from storages \leq send out capacity*
- ✓ Flows from national productions \leq past winter flows
- ✓ Flows in exit from each country = national intakes – mkt demand

* taking into account the decrease of performances during the winter

Integrated EU flow pattern – Normal condition



Integrated EU flow pattern – Exceptional condition



- 3 critical single country balances in normal cold conditions
- Out of balance at national level solved considering flow patterns resulting from EU network integration
- Flexibility already existing inside countries and in IPs both in normal and exceptional cold conditions
- Future investments to follow increase in market demand and to improve flexibility at IPs