

# Review of governance arrangements for market coupling

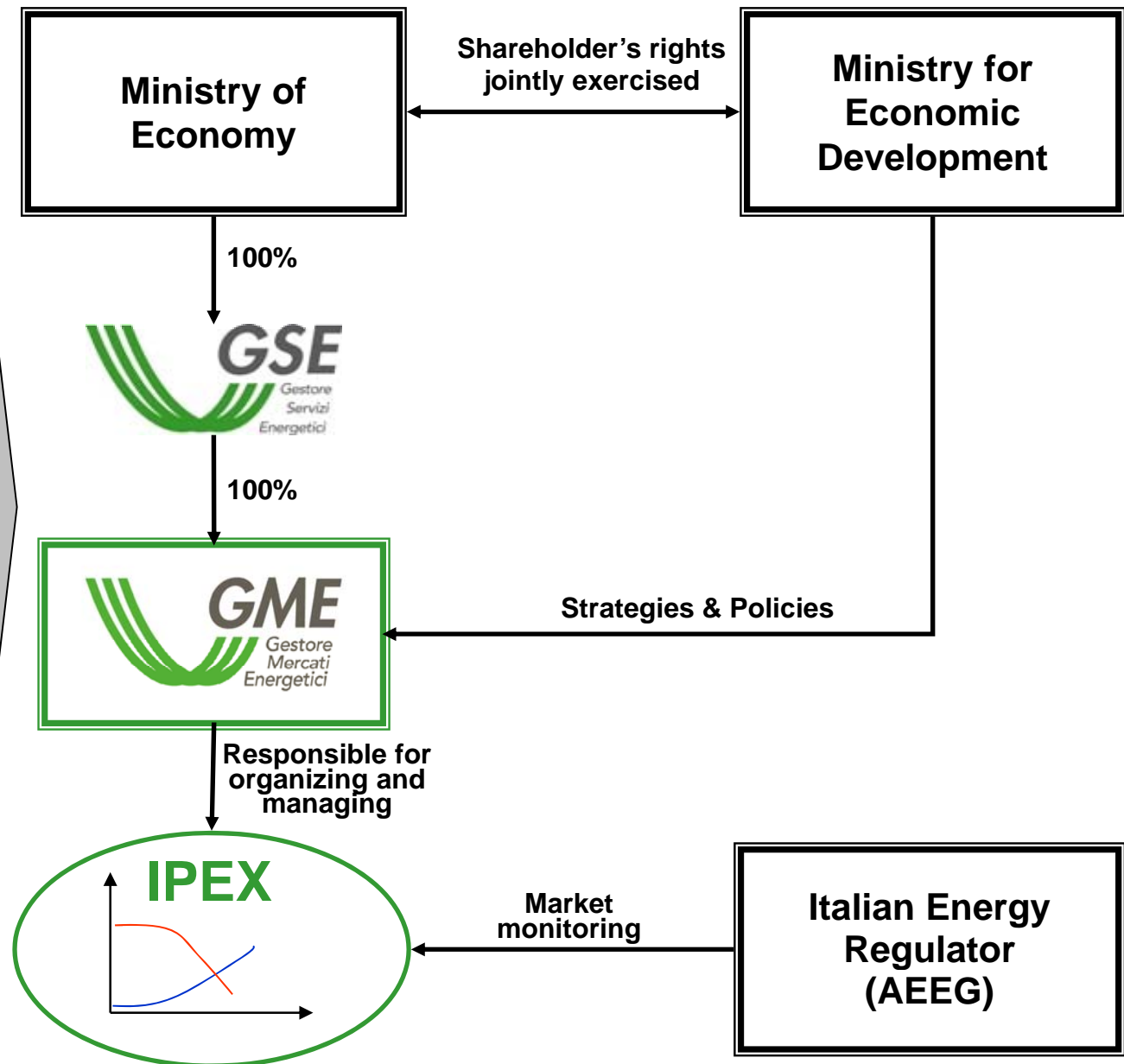
## Case study: the Italian - Slovenian Market Coupling

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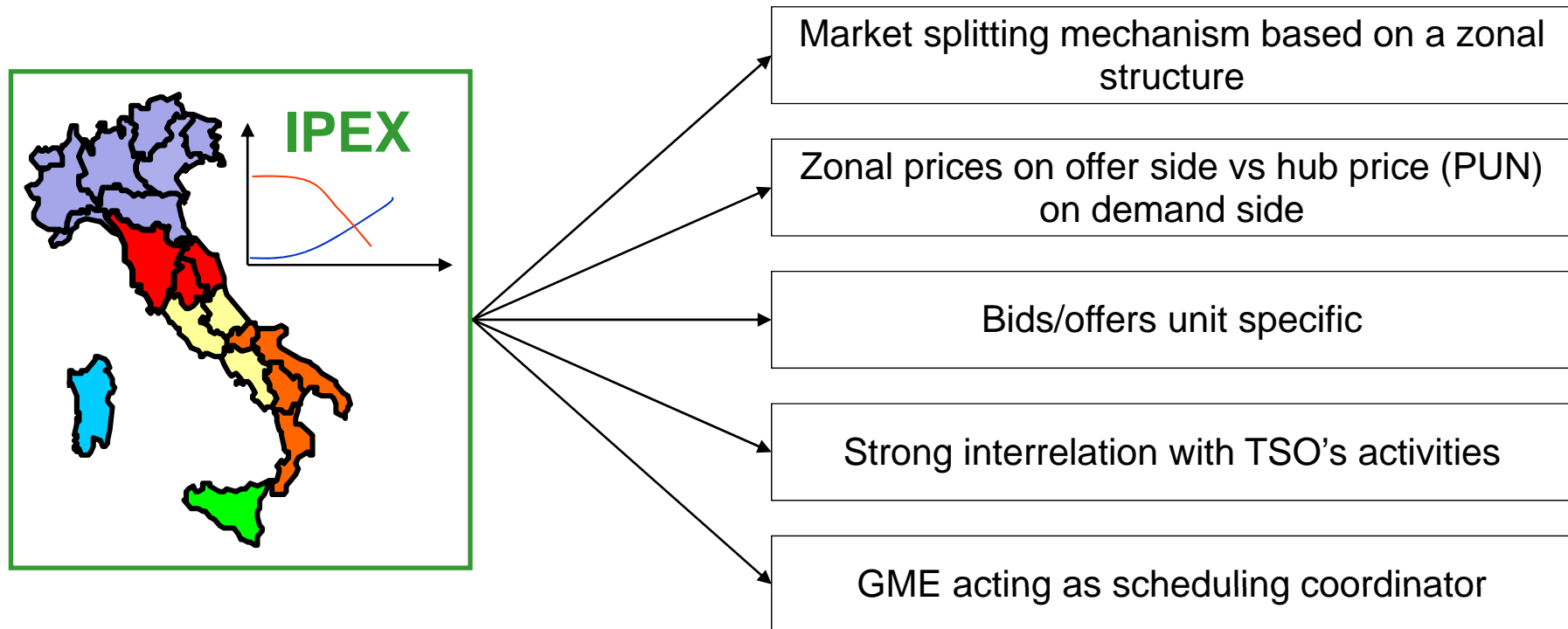
Emart  
Amsterdam, 24 November 2010

## Governance of GME & the Italian Power Exchange (IPEX)

Legislative  
Decree 79/99  
(Parliament  
approval)

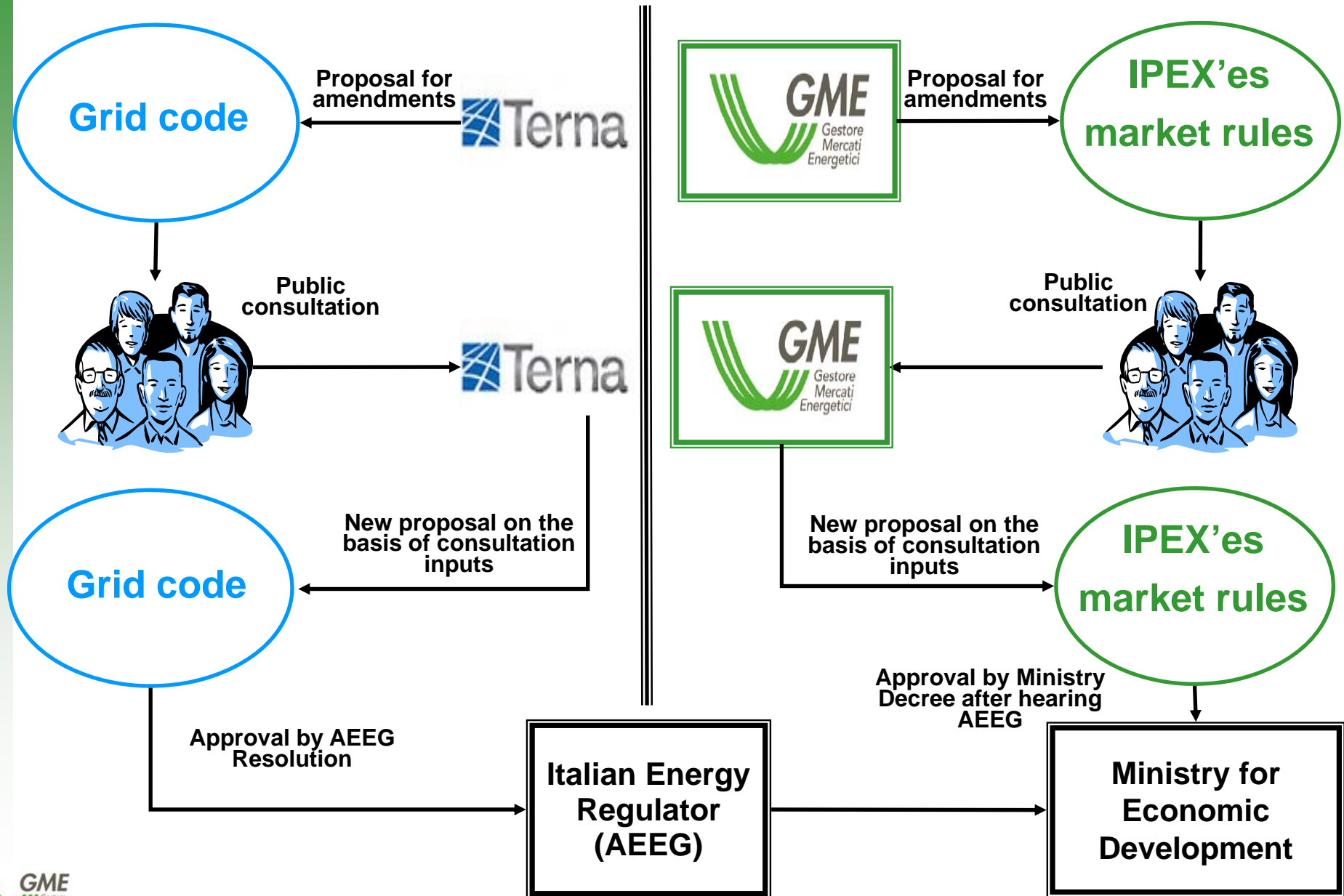


## Role of IPEX: more than a market



**GME (IPEX) plays a central role in the scheduling activity**

## Regulation of IPEX'es market rules & grid code



### Milestones

- MoU signed by GME, Borzen and BSP SouthPool in Q2 2008
- GME, Borzen and BSP devised a proposal for MC implementation, formally submitted to the TSOs, Regulators and Relevant Ministers in Q4 2008
- The Italian and Slovenian Regulators established a joint WG in Q2 2009 involving
  - GME and BSP as PXs
  - Borzen as MO (in Slovenia)
  - Terna and Eles as TSOs
  - The Relevant Italian and Slovenian Ministers
- Scope of the WG:
  - to define a feasible solution for the implementation of the day-ahead MC on the IT-SI border (compatible with the other solutions adopted in CSE Region)
  - to identify a roadmap for MC implementation
- Project supported by Governments of Slovenia and Italy
  - Joint Declarations by the Ministries of Foreign Affairs of Italy and Slovenia on September 8th 2008 and November 9th 2009
  - MoU signed by the Italian Ministry of Economic Development and the Slovenian Ministry of Economy on August 27th 2010

### Main steps

- Master Agreement
  - defines the principles and objectives of the project
  - approved by Regulators in October 2010
  - to be signed by TSOs, PXs and MO
  - **set the launch of MC on 1st Jan 2011**
- Auction Rules 2011
  - to be approved by Regulators
  - introduce MC as a day-ahead implicit auction of physical transmission rights on the ITA-SI border
- Pentalateral agreement
  - defines the operational procedures for the management of the MC (timing and content of information to be exchanged)
  - to be approved by Regulators
  - to be signed by PXs, TSOs and MO
- Local agreements between TSO and PX/MO
  - define the local operational procedures for the management of the MC (content and format of information to be exchanged)
  - for GME and Terna, agreement subject to Regulator's approval

## ITA-SI Market Coupling and the Italian market: the regulatory framework

	Market coupling regulation / agreements			Italian regulation / agreement		
	Master Agreement	Pentalateral Agreement	Auction Rules	GME – Terna bilateral agreement	Italian Market Rules	Italian dispatching rules
Terna	Enforcing	Enforcing	Enforcing	Enforcing	Approving	Enforcing
GME	Enforcing	Enforcing	Enforcing	Enforcing	Enforcing	Approving
AEEG	Approving	Approving	Approving	Approving	*	Approving
BSP	Enforcing	Enforcing	Enforcing	Approving	Approving	Approving
Borzen	Enforcing	Enforcing	Enforcing	Approving	Approving	Approving
Eles	Enforcing	Enforcing	Enforcing	Approving	Approving	Approving
AGEN	Approving	Approving	Approving	Approving	Approving	Approving

Approving entity

Enforcing entity

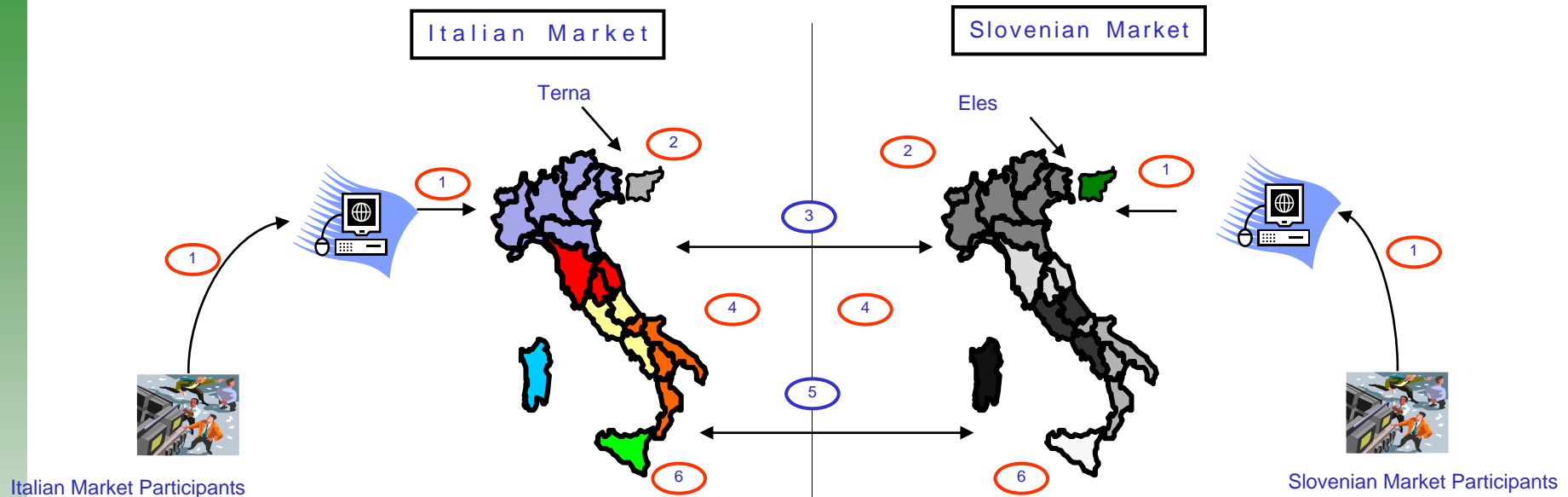
## ITA-SI Market Coupling: roles and responsibilities

- ITA–SI MC is a decentralized price coupling that:
  - reflects roles and responsibilities already held by each party
  - relies on existing local relationship between TSO and PX

<p><b>Each TSO is responsible for</b></p> <ul style="list-style-type: none"> <li>• defining its local grid model</li> <li>• communicating ATC values between Italy and Slovenia to its local PX</li> <li>• being counterpart of its local PX for market coupling import/export quantity</li> </ul>	<p><b>TSOs are jointly responsible for</b></p> <ul style="list-style-type: none"> <li>• defining the overall grid model of Italy and Slovenia</li> <li>• defining ATC values between Italy and Slovenia to be allocated through MC</li> </ul>
<p><b>Each PX is responsible for</b></p> <ul style="list-style-type: none"> <li>• receiving bids and offers by local market participants</li> <li>• running its own matching software taking into consideration bids and offers of the other PX</li> <li>• defining and publishing results of its own market           <ul style="list-style-type: none"> <li>– prices</li> <li>– quantity sold and bought</li> </ul> </li> </ul>	<p><b>PXs are jointly responsible for</b></p> <ul style="list-style-type: none"> <li>• sharing information about bids/offers (anonymously) and ATC values</li> <li>• adopting a common matching algorithm</li> <li>• checking consistency of results (prices and balance of quantity sold and bought)</li> <li>• defining market coupling import/export quantity between Italy and Slovenia</li> </ul>



# ITA-SI Market Coupling: decentralized approach



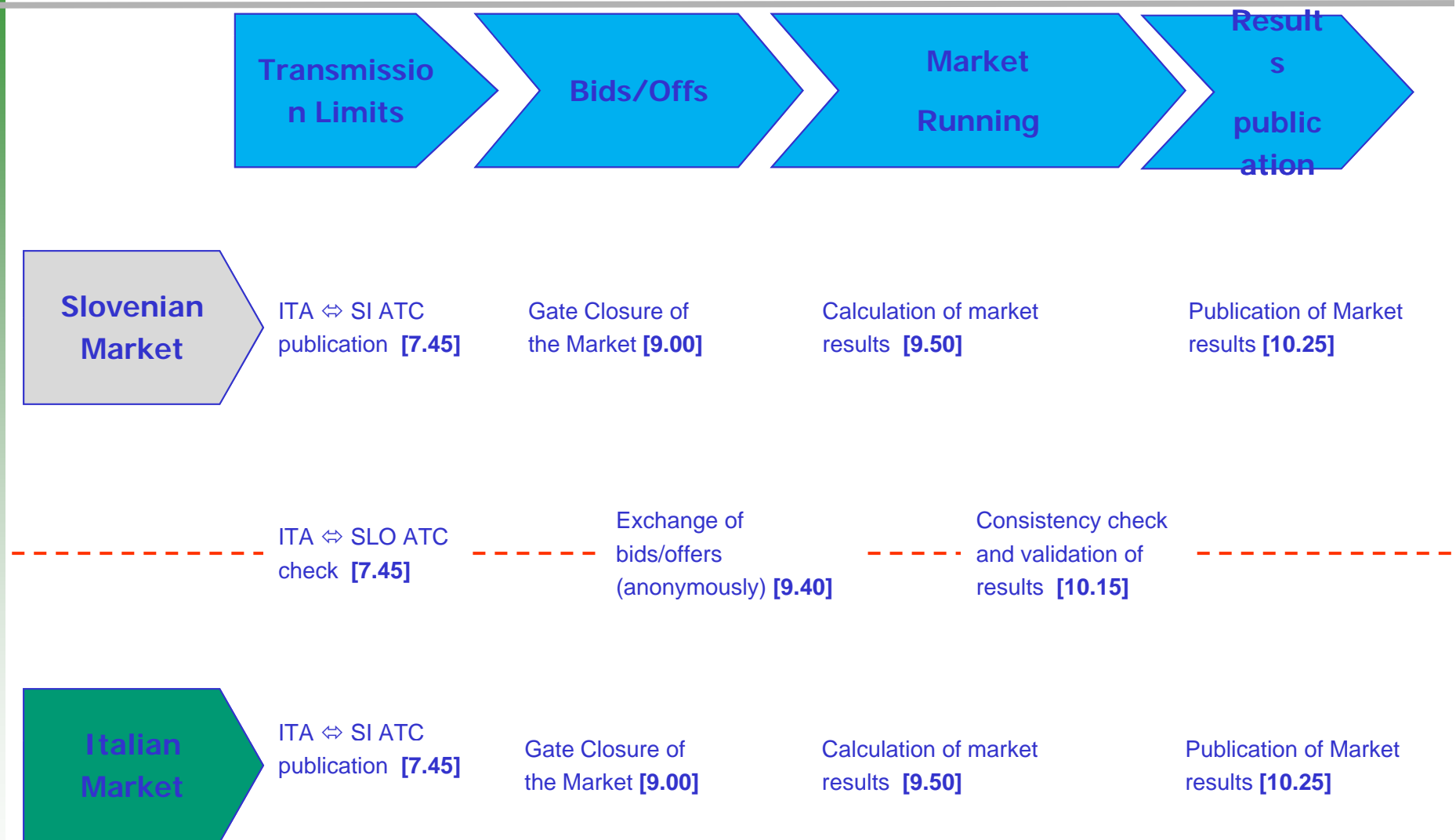
- 1 Market participants submit bids/offers to GME
  - 2 Terna sends ATC values to GME for the SI-ITA border
  - 3 GME and BSP share bids/offers (in anonymous way) and ATC values
  - 4 GME runs matching algorithm and computes results
  - 5 GME and BSP check the consistency of results and validate the results
  - 6 GME publishes results
- 1 Market participants submit bids/offers to BSP
  - 2 Eles sends ATC values to BSP for the SI-ITA border
  - 4 BSP runs matching algorithm and computes results
  - 6 BSP publishes results

## ITA-SI Market Coupling: a price coupling with a common matching algorithm

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- The Italian – Slovenian market coupling is a price coupling
  
- GME and BSP will adopt a common matching algorithm:
  - hourly auction
  - no inter-temporal constraints
  - market splitting mechanism (with uniform purchase price only on Italian zones)
  - zonal marginal pricing
  - calculation of inter-zonal schedule
  - both ATC and flow-based grid model supported (actual ATC is adopted both in Italy and Slovenia)
  - bids/offers expressed with the indication of quantity and price (stepwise bid/offer curve)
  - minimum quantity tick: 0,001 MWh
  - minimum price tick: 0,01 €/MWh

## Market coupling execution: indicative timeline



## Closing remarks

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Italian – Slovenian Market coupling: a decentralized price coupling

- Minimum level of harmonization needed
  - low impact on national regulations
  - easy and fast to implement
- No need to introduce a central entity to perform Price Coupling, but support to cooperation of existing entities
  - at national level (PX-TSO, PX-Regulator, TSO-Regulator)
  - at XB level (PX-PX, TSO-TSO, Regulator-Regulator)
- Full regulatory oversight directly on PXs and TSOs at national level
- Support to PXs' role
  - a robust price formation process is an essential requirement for an efficient congestion management
  - redundant approach increases the security of operations
- Support to TSOs' requirements
  - grid model features are embedded in the matching algorithm
- Open to further expansion: the approach adopted
  - is in line with PCR principles
  - does not prevent coupling with other regions with different governance arrangements

***Thank You for Your attention!!!***