

# Regulatory tools for promoting innovation: *thoughts from experience in the energy sector*

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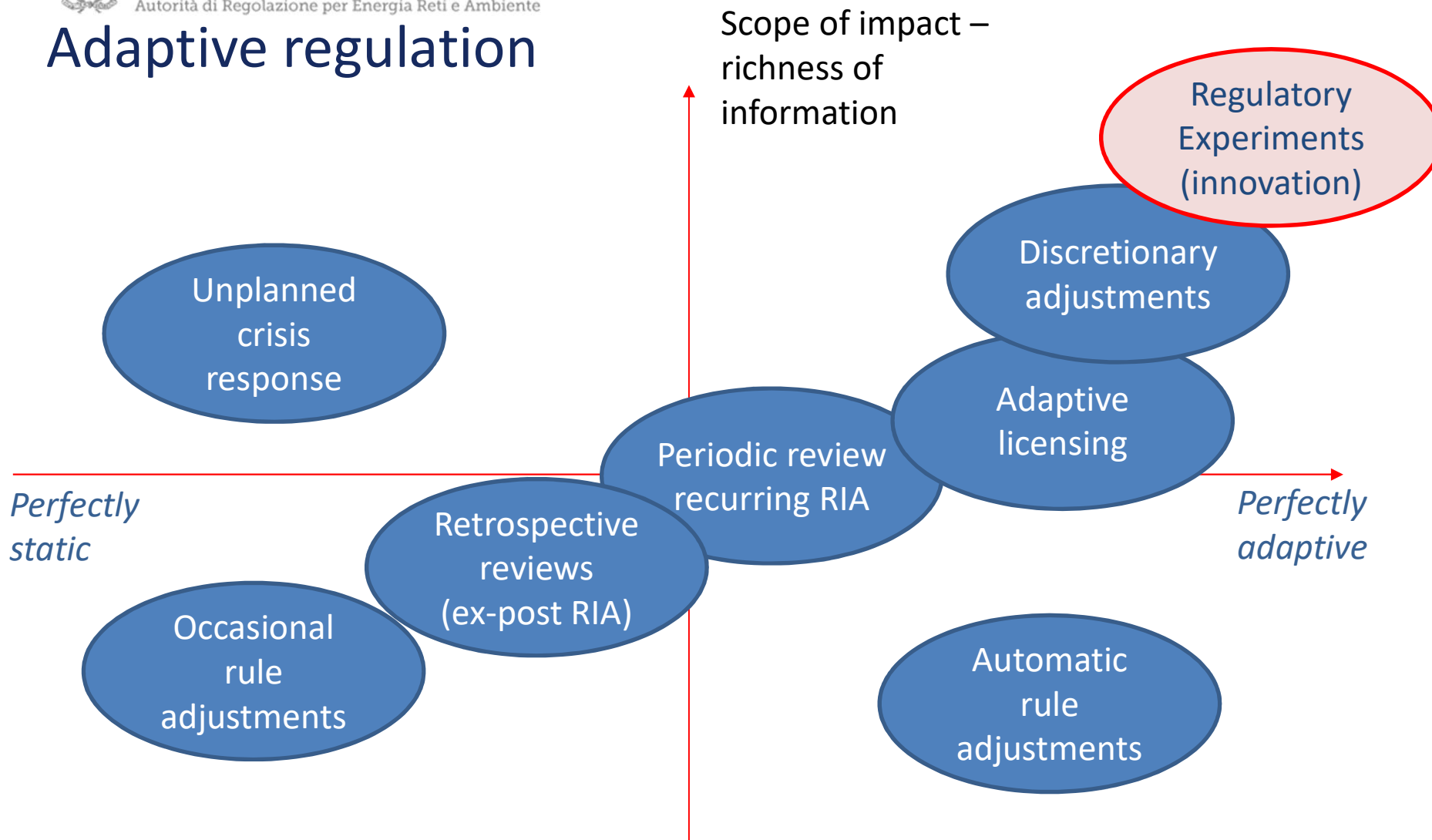
**Rome, 3 December 2019**

# Law must be stable, and yet it cannot stand still

Roscoe Pound,  
Dean at Harvard Law School  
*Interpretations of Legal History,*  
1923

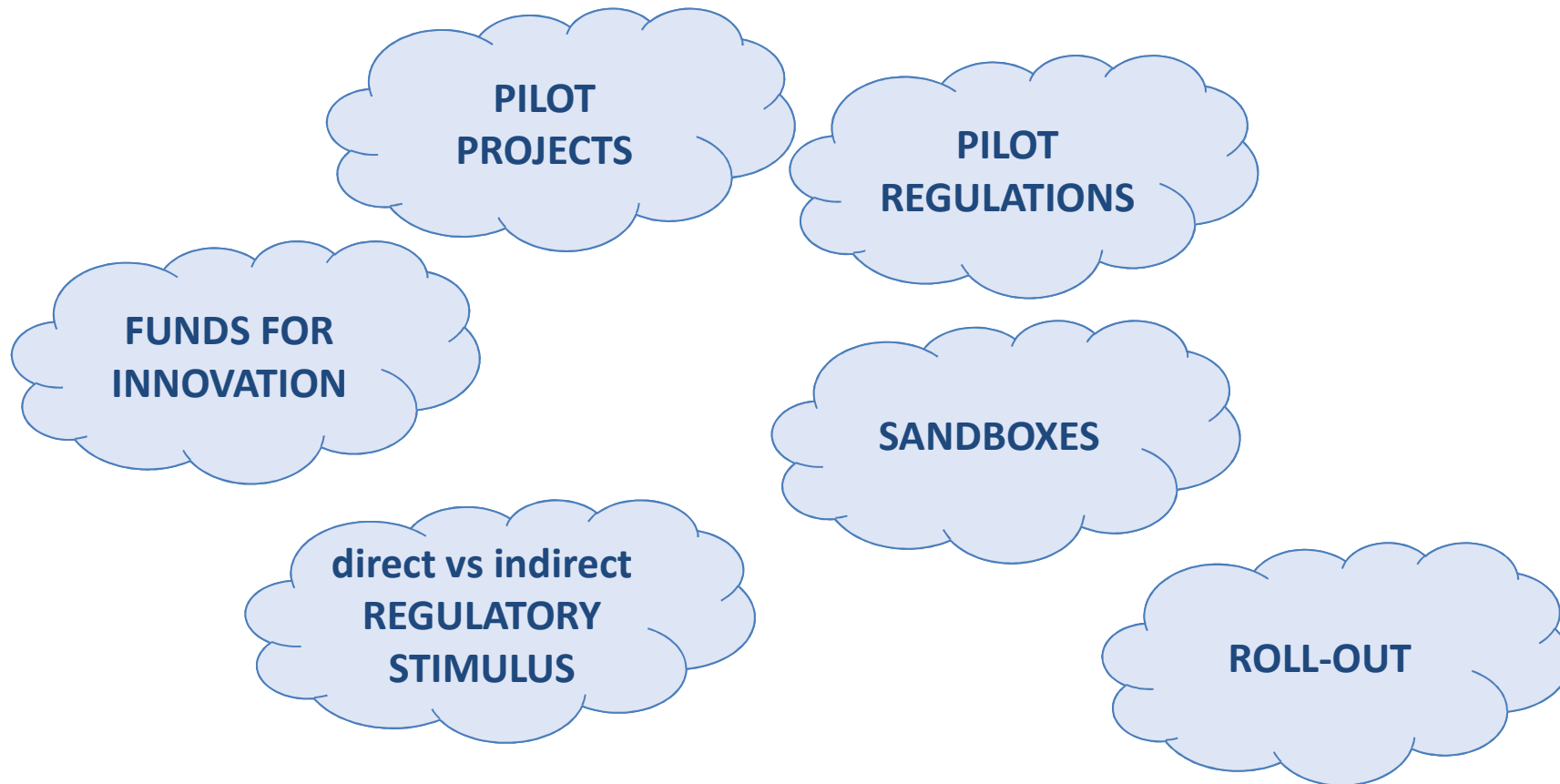


# Adaptive regulation



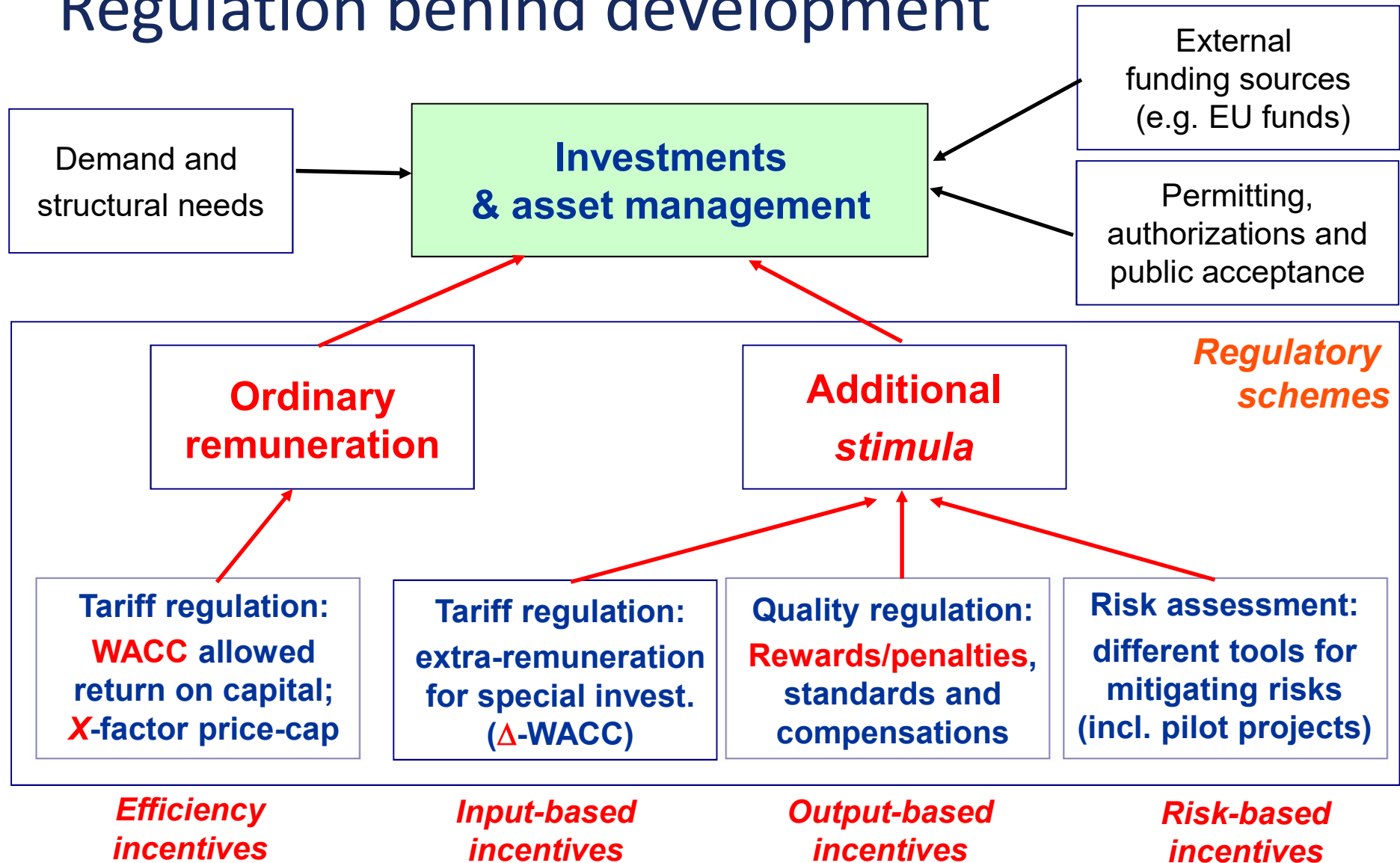
Source: L. S. Benneer, J. B. Wiener, “Adaptive Regulation: Instrument Choice for Policy Learning over Time”, draft working paper, February 2019

# How innovation can be supported



*Still, not yet a common language among regulators*

# Regulation behind development





# Three different approaches to incentivization

## ***INPUT-BASED***

- *e.g. Interconnection develop'ts (2008-2015)*
- **No specific metric required, but discretionary choice of the Regulator**
- **Incentive: adder on ordinary WACC (granted for N years)**
- **Risk of "goldplating" if not accompanied by other cost-pressure regulatory measures**
- **to be progressively superseded**

## ***OUTPUT-BASED***

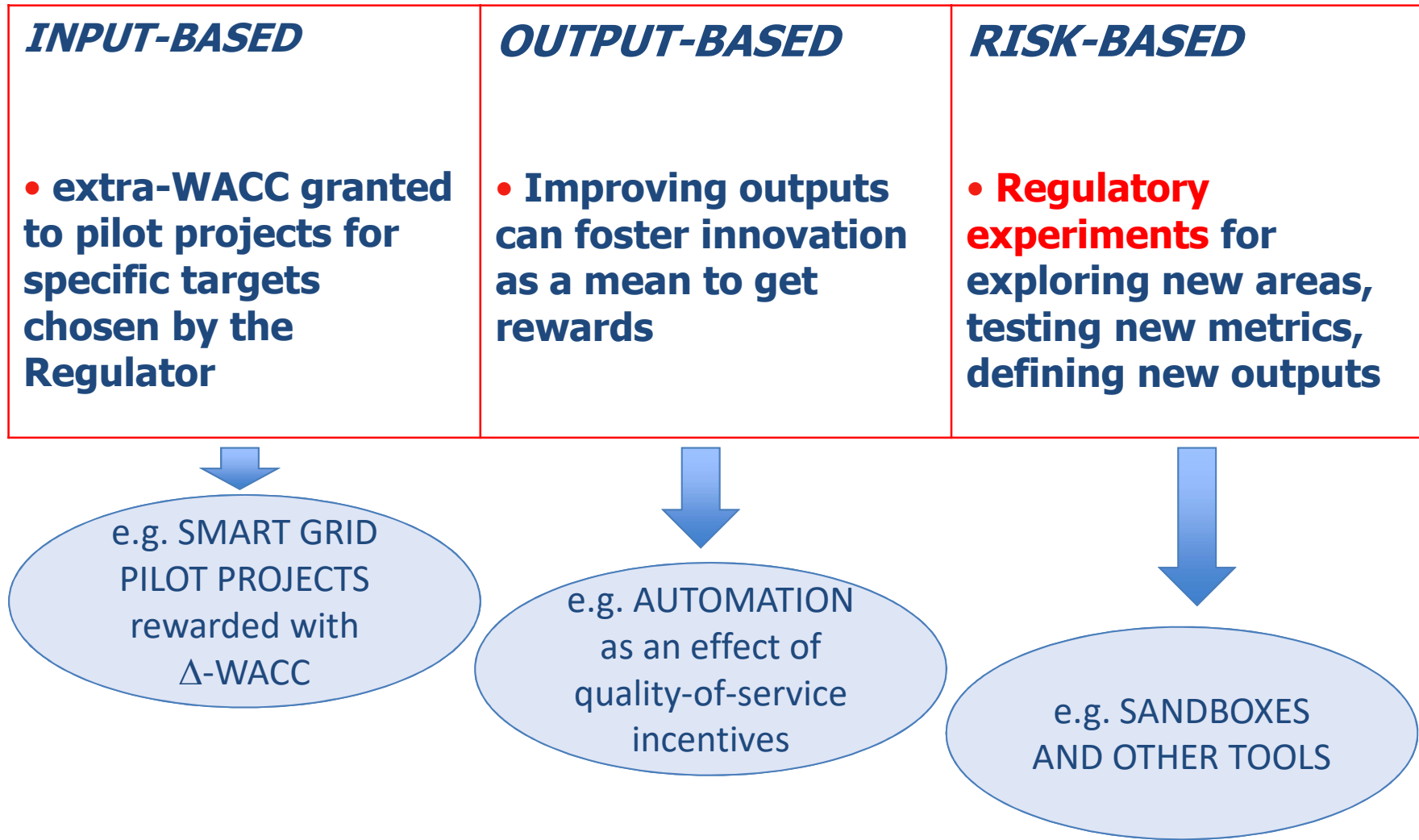
- *e.g. Quality of Supply improvement (2000>)*
- **Outcome indicators**
- **Metric ought to be: reliable, clear and fair, trackable / auditable**
- **Output valuation is needed** (based on estimates of avoided external-cost)
- **Not only reward, but also penalties**
- **needs periodic tuning**

## ***RISK-BASED***

- *e.g. Resilience increase (2018>)*
- **Rare events, high impact**
- **Major Events fairly excluded from output regulation's effect**
- **Need for risk assessment methods**
- **Rewards according to an implementation plan, subject to milestones**
- **needs adjustments**

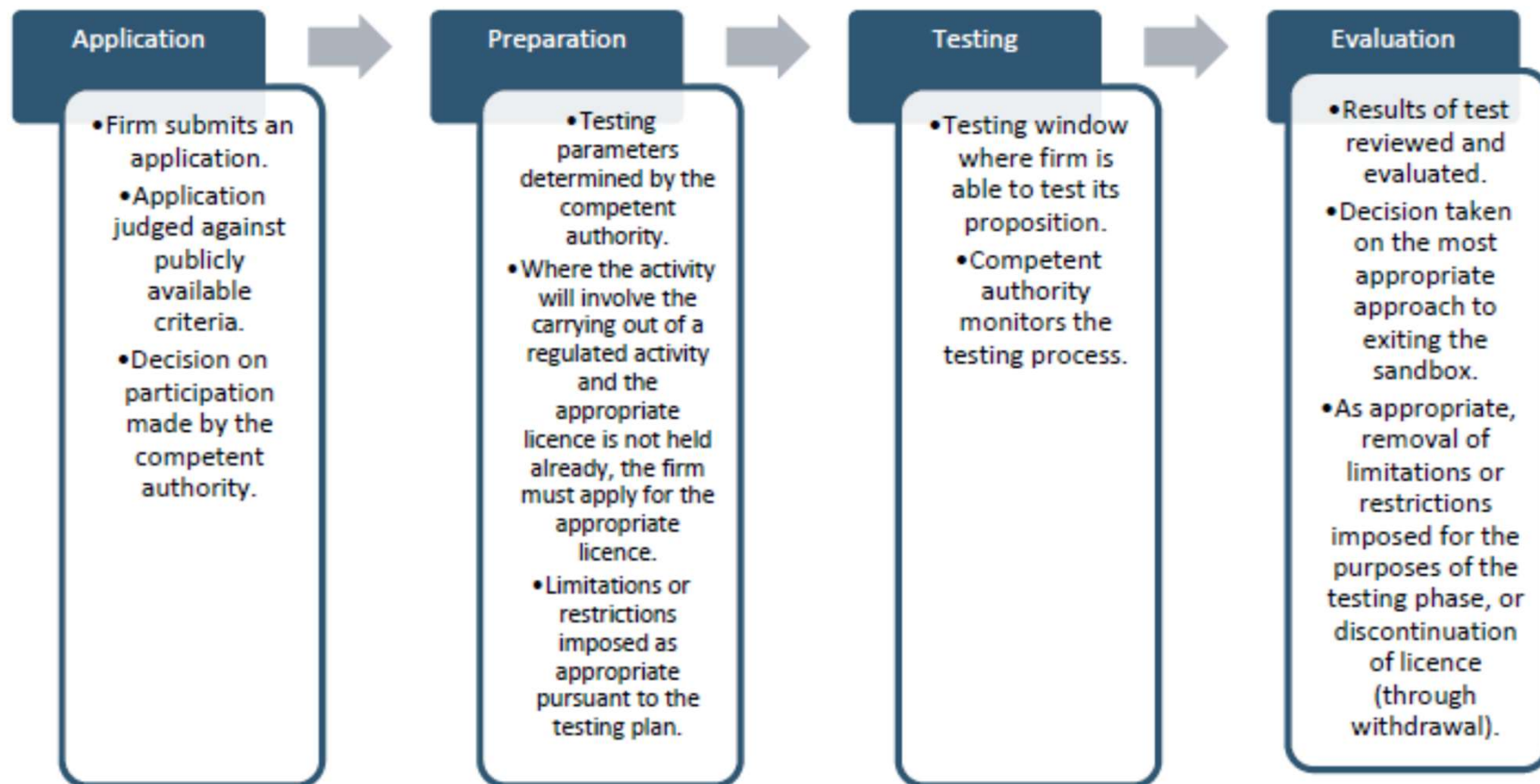


# How innovation can be supported





# Sandboxes



Source: ESMA, EIOPA, EBA, “*FinTech: Regulatory sandboxes and innovation hubs*”, *Joint Report*, JC 2018 74



# A Proposal for a Taxonomy

	<i>Grid operators only</i>	<i>Grid and market operators jointly</i>
<i>SYSTEM-WIDE INNOVATION</i>	ROLL-OUT of new functionalities	PILOT REGULATIONS
ZONE-WIDE INNOVATION	PILOT PROJECTS	REGULATORY SANDBOXES

Source: A. Guerrini, L. Lo Schiavo, C. Poletti “*Innovazione e regolazione*” [Innovation and regulation] working paper, submitted for publication, Sept-2019



**Comments are welcome**

*Thank you for your kind attention!*

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