

Comdays, 7th Biel/Bienne Communication days
October 21, 2008, 16:20-16:45

Which networks should be regulated and used in which ways?

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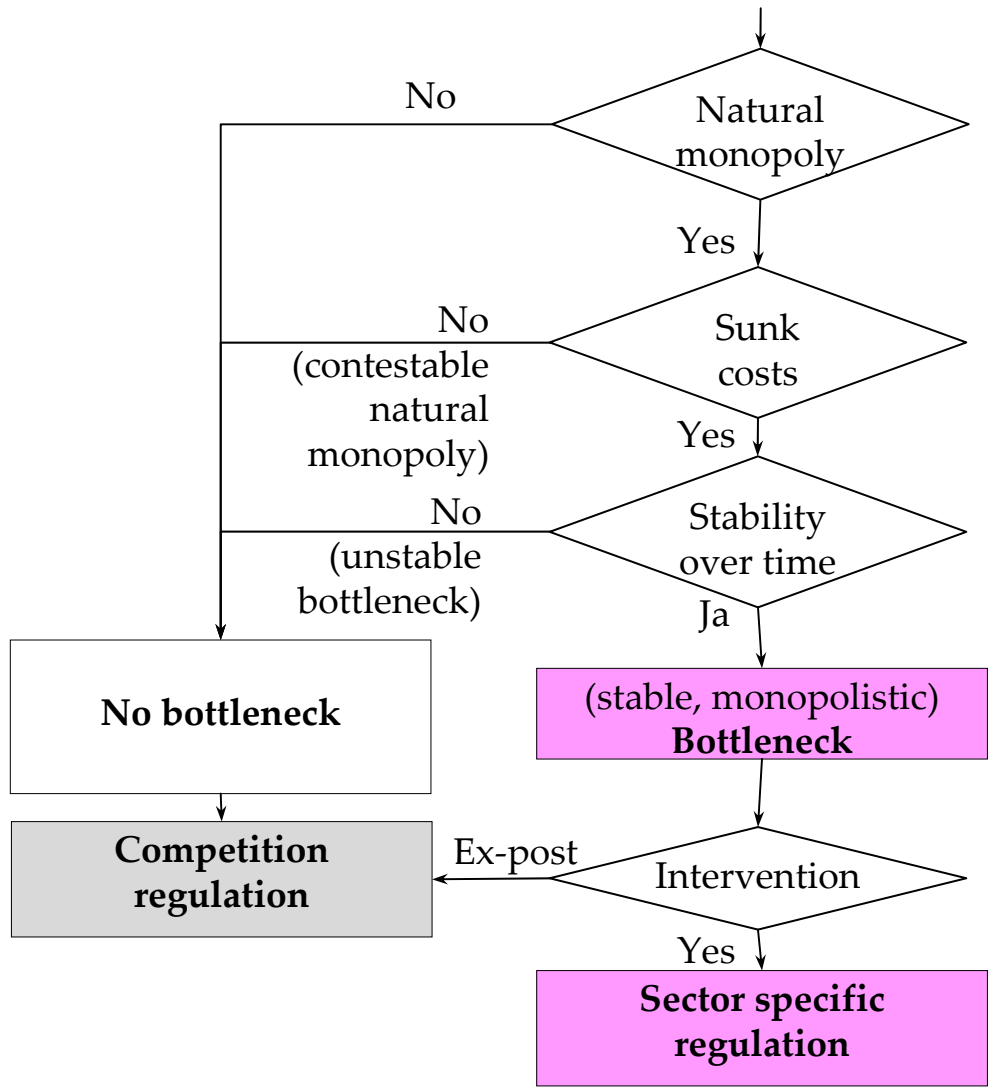
Framing the question(s)

- Everybody agrees that competition will increase the efficiency of networked industries (infrastructures) and ultimately benefit the consumer. But: ***how much competition is optimal?***
 - And in the infrastructures: ***competition of which network elements?***
 - And ***“optimal” for whom?*** Consumers? Citizens?
 - And which institutional arrangements to ensure such “optimal competition” in infrastructures? Ownership, regulation (e.g., functional separation)? Which kind of regulation?
 - There is not much theory, except for “regulatory economics”
 - But is this the appropriate theory after all?
 - What are alternatives?
- How to think (infrastructure) networks in the age of competition? Especially in a broad (economic, political, institutional and technological), as well as in a dynamic perspective (e.g., convergence, next generation networks)

Structure of presentation

- The dominant theory: networks as seen by economists («network economics» → «regulatory economics»)
- Limitations of the dominant theory
- Another view: «bounded competition» (competition within limits)
- Alternative theory: coherence between technology and institutions
- Technological (and market) dynamics
- Institutional (and market) dynamics
- The state of telecommunications
- What will be the outcome?

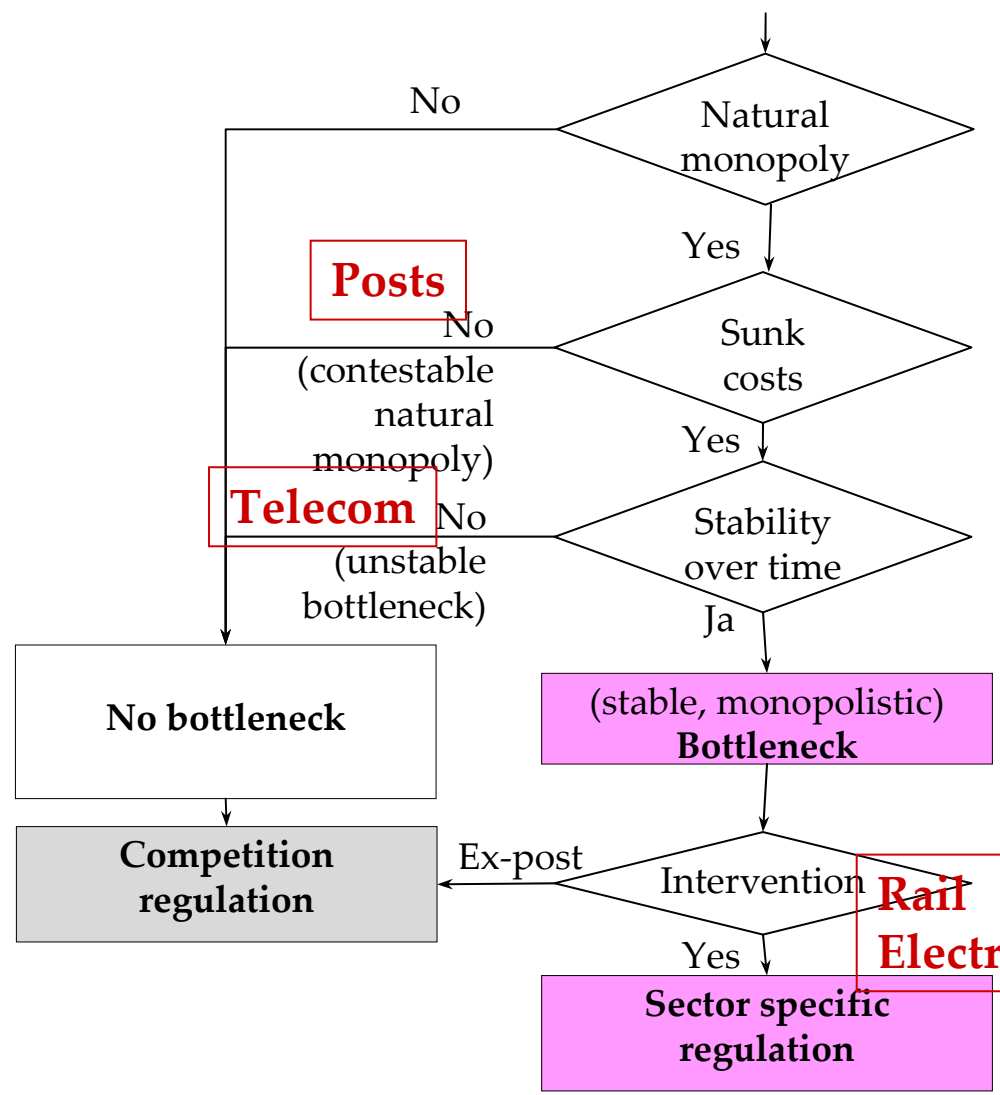
Dominant theory: where is regulation necessary?



Criteria

- Cost of competition exceeds the benefits of competition (in a certain market)
- High opportunity costs (tied investments)
- Costs of investments
- Substitutes?
- Emerging new technologies
- Costs of regulation exceeds benefits of regulation

Dominant theory: „Monopolistic bottlenecks“ II



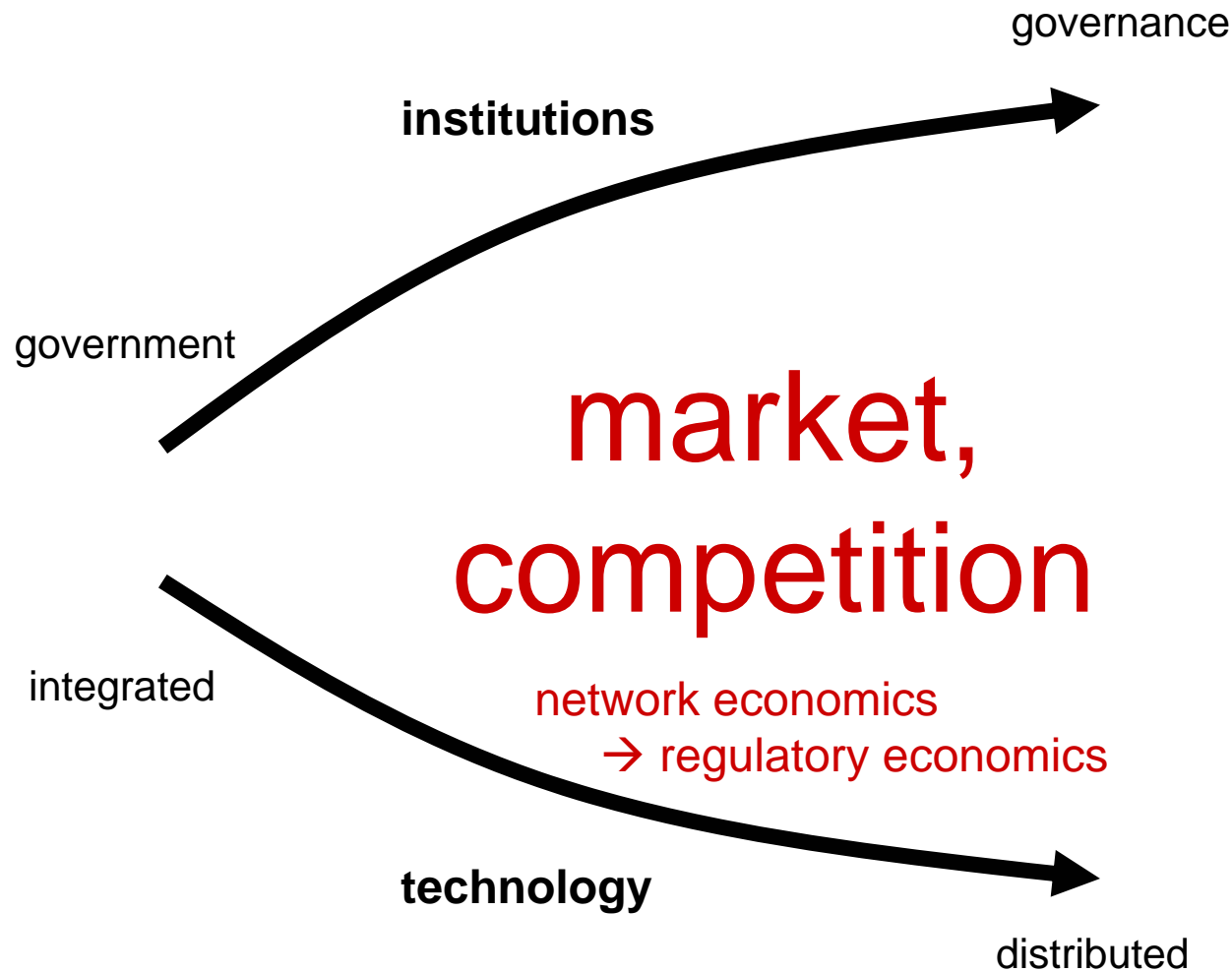
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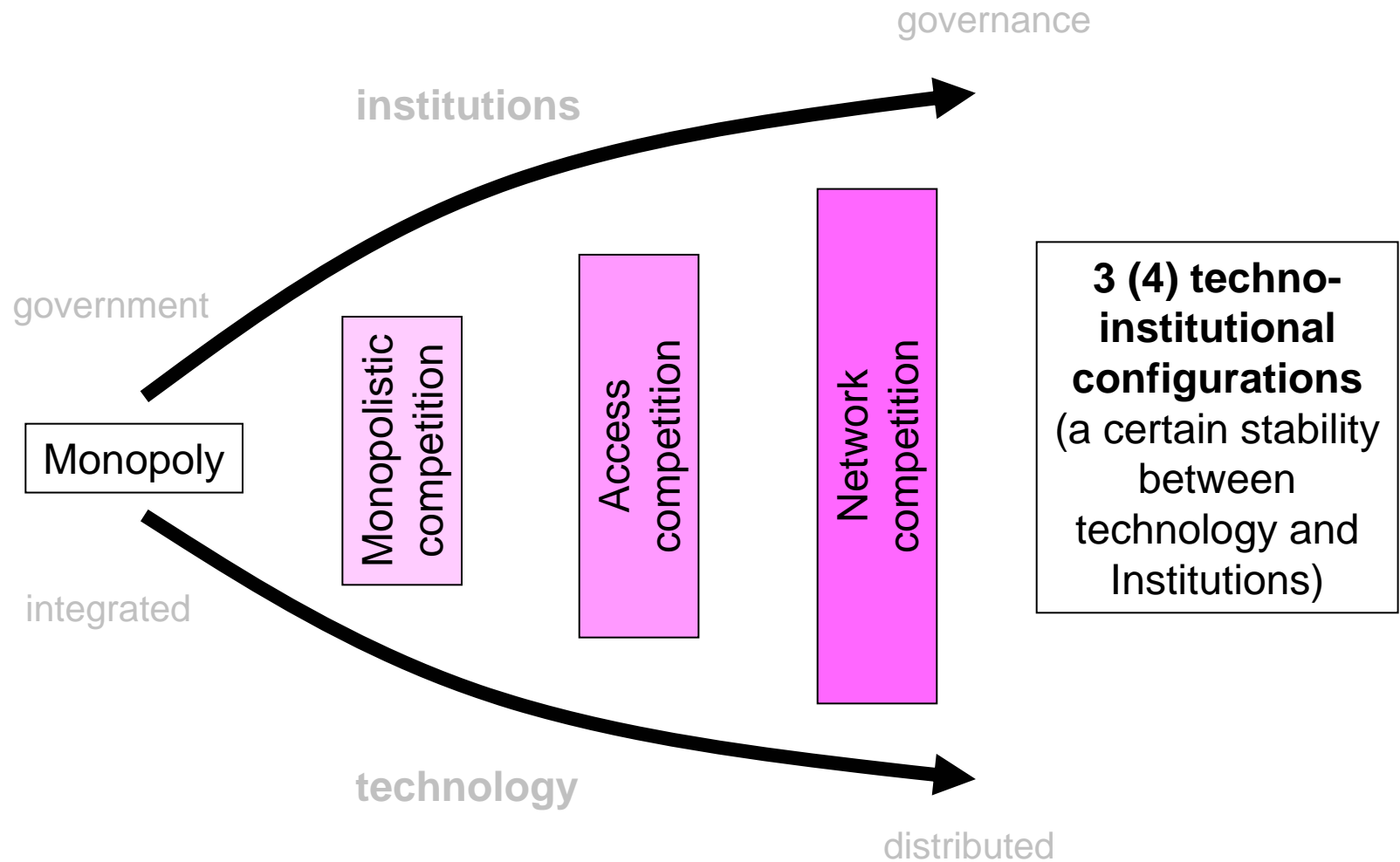
Limits of dominant theory

- Static: good for promoting static efficiency; problems (conflict?) with dynamic efficiency (innovation, esp. systemic innovation)
 - Piecemeal: good for clearly identifiable products and services; problems with systems
 - Weak on external factors that shape the market/competition:
 - (prior) institutions determining incentives of (market) players
 - regulatory dynamics (institutionalization, power, capture)
 - technology (infrastructure systems)
 - Implicit objective of regulatory economics (i.e., static efficiency, consumer protection) conflicts often with other objectives:
 - dynamic systemic efficiency
 - social and political objectives (public service, security)
 - technical objectives (safety, stability, reliability, resilience)
- Network economics determining the optimal degree of state / regulatory intervention is still valid, but within certain boundaries

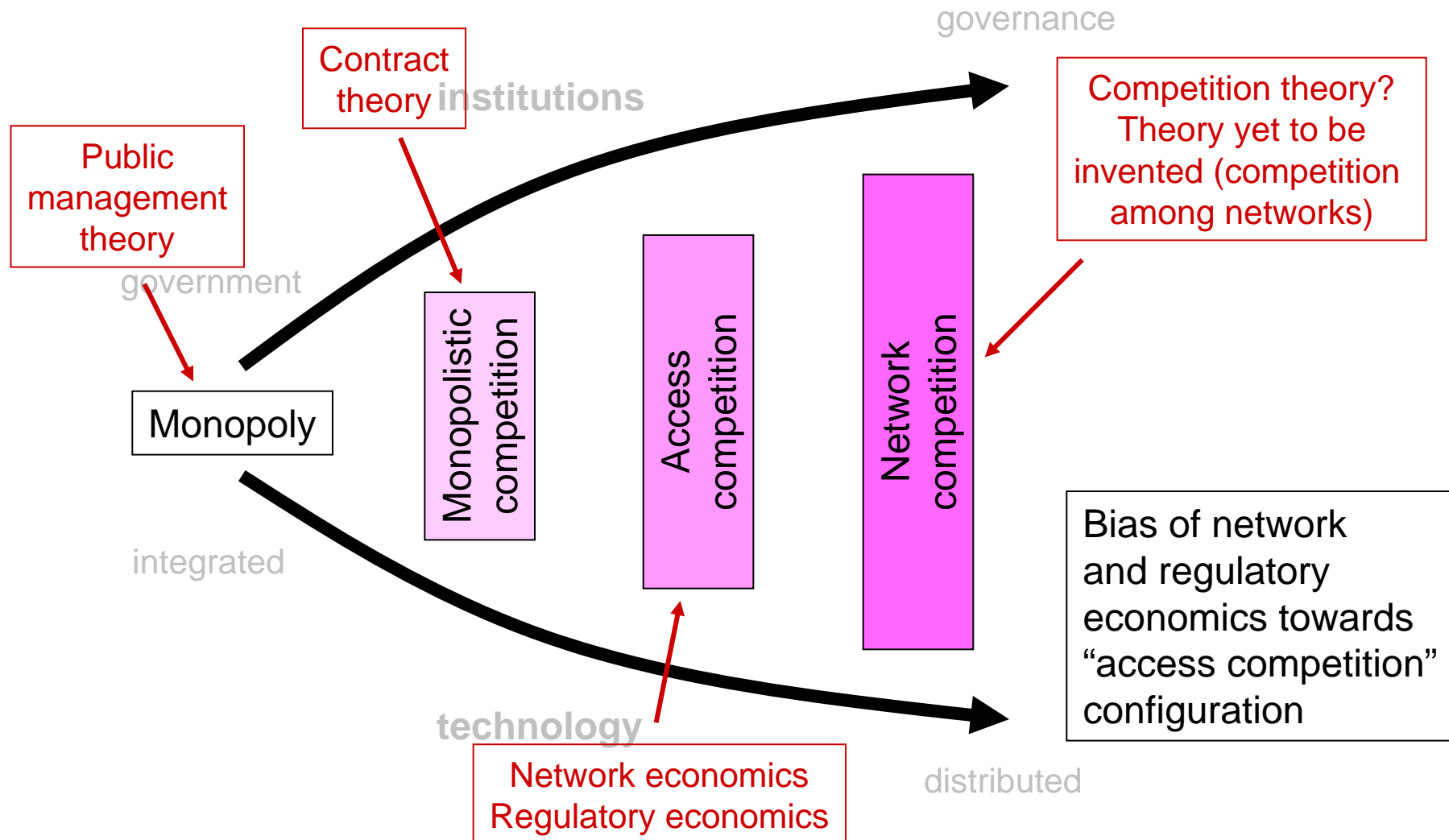
Another view: “bounded competition” between technology and institutions



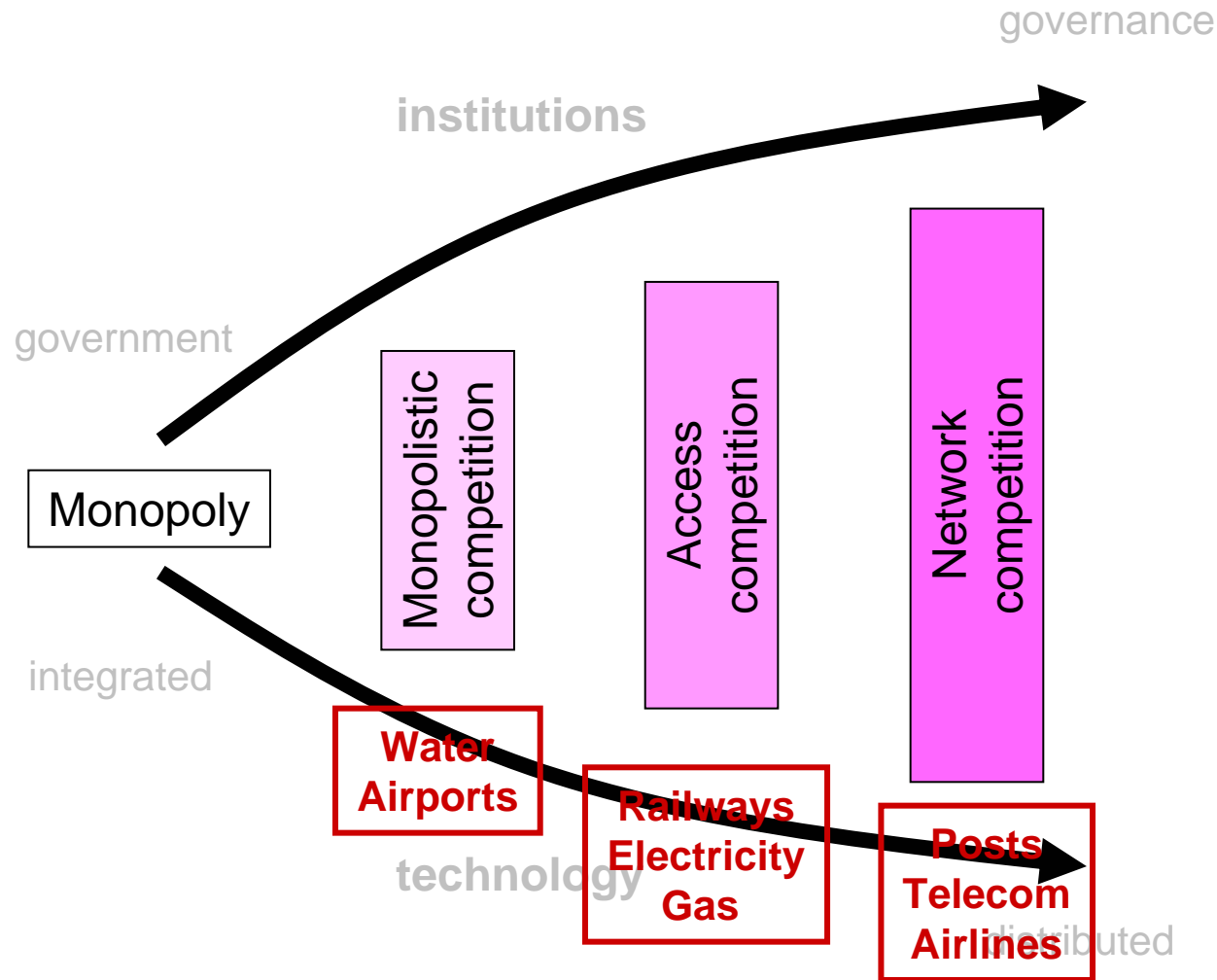
Alternative theory: “coherence”



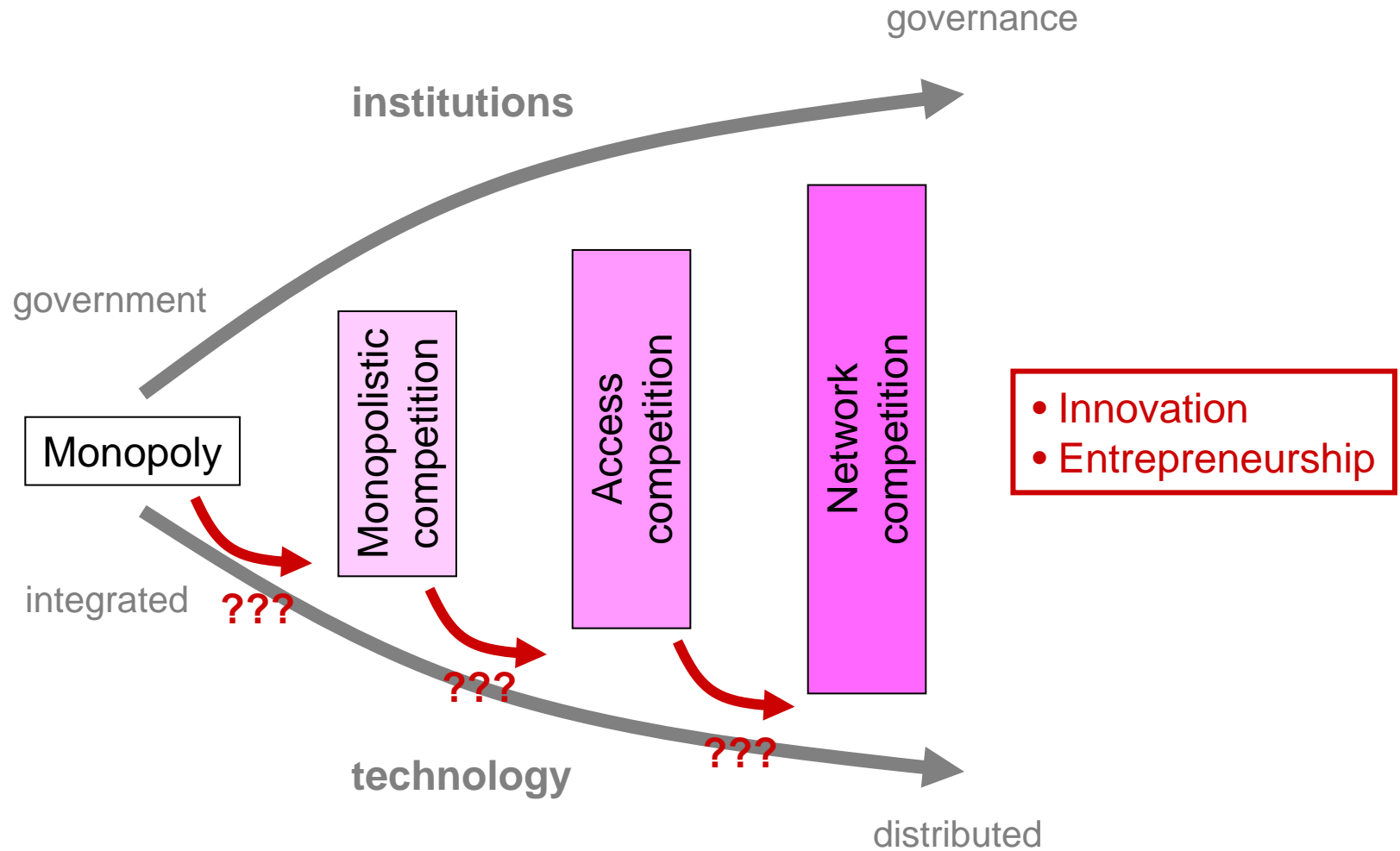
Alternative theory: “coherence” II



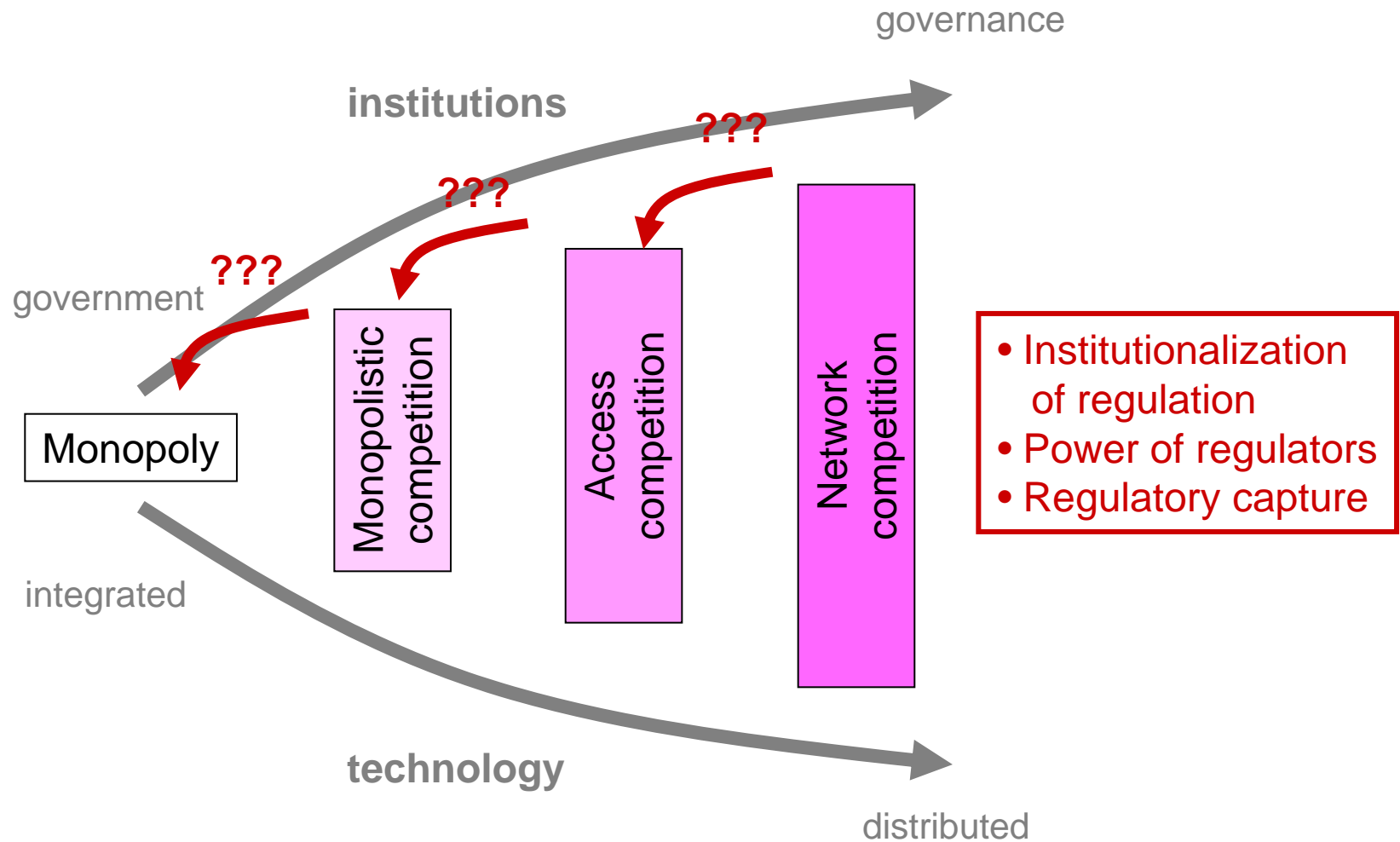
Alternative theory: “coherence” III



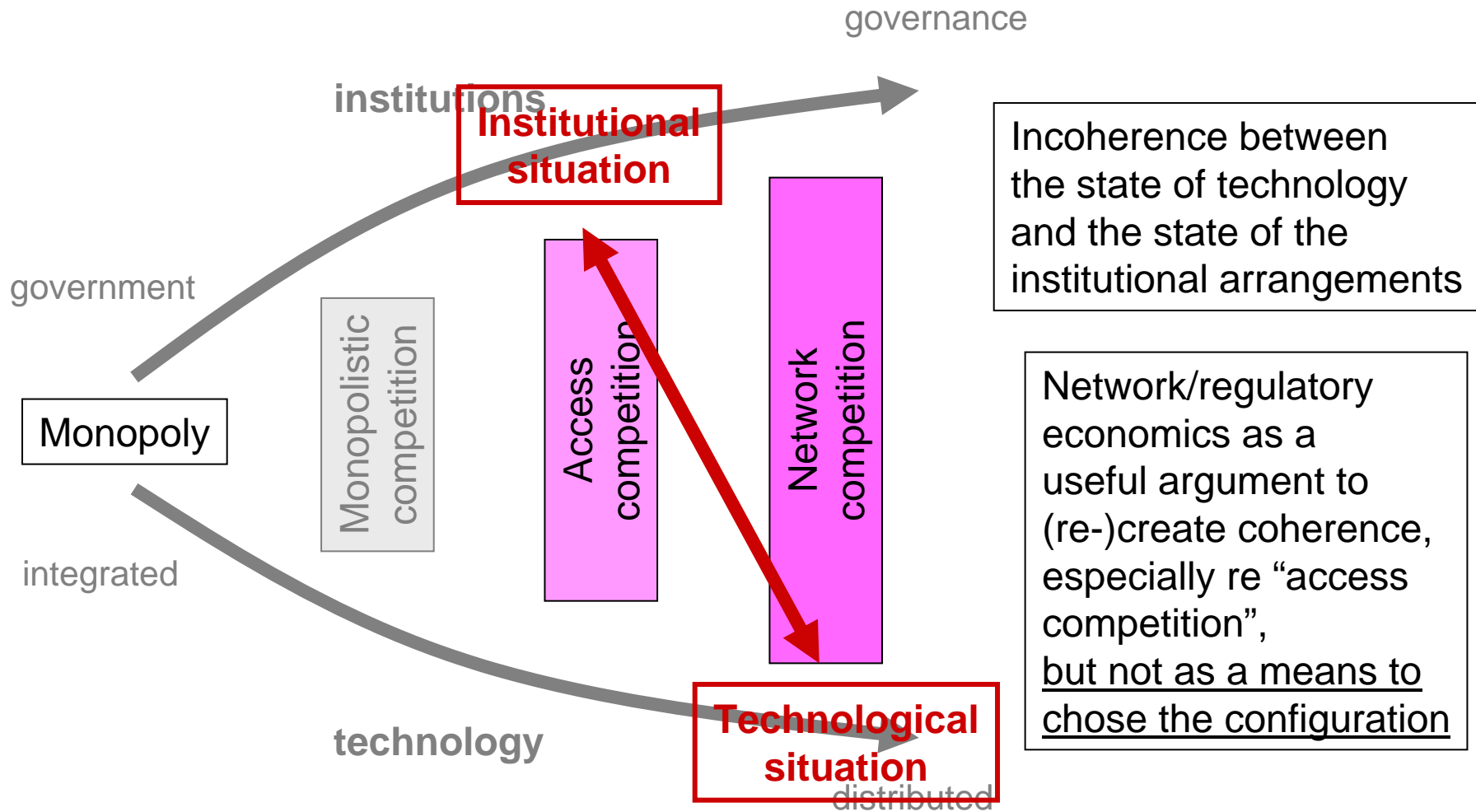
Technological (and market) dynamics



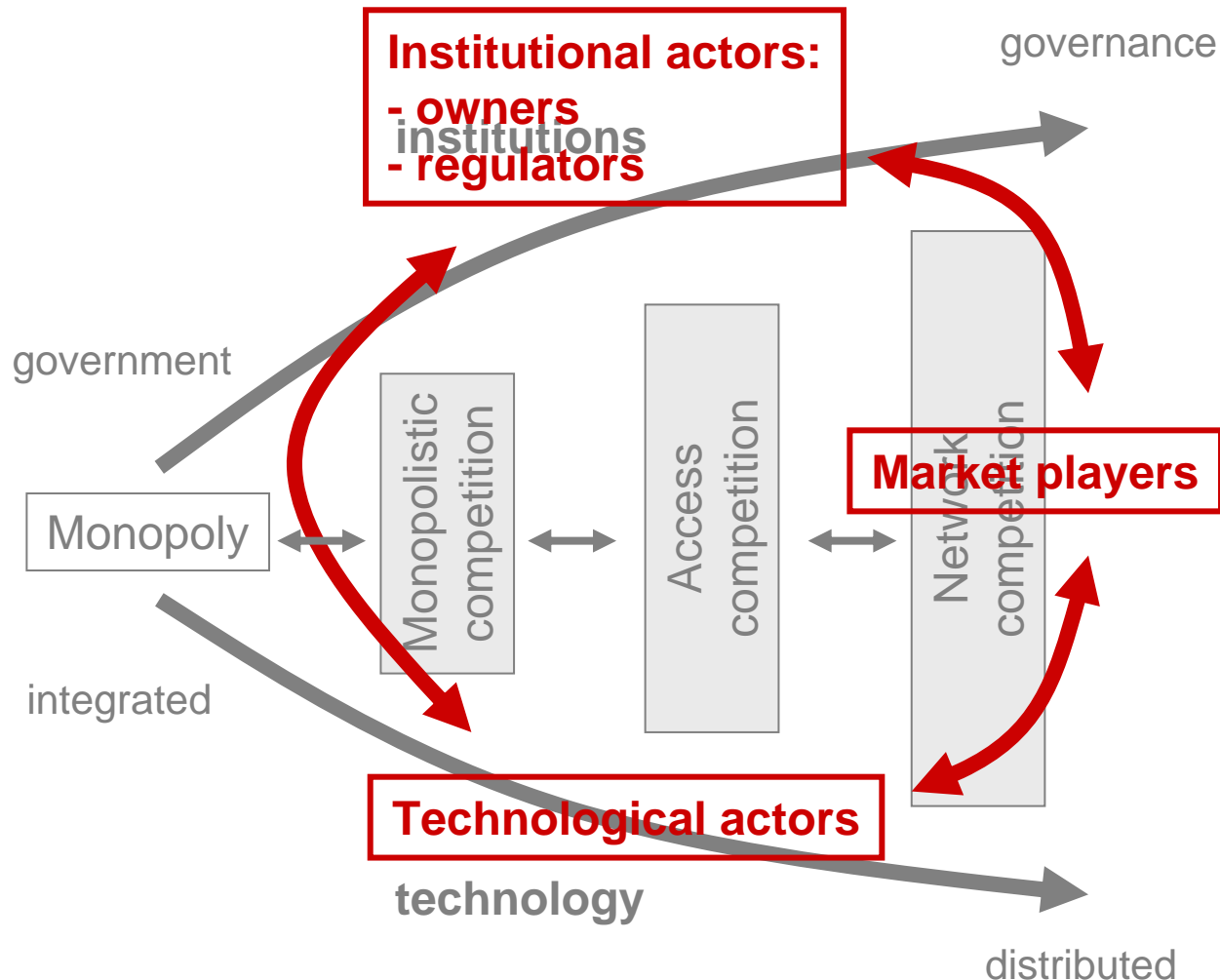
Institutional (and market) dynamics



The state of telecommunications



What will be the outcome?



The choice of the configuration (outcome) will result from the actors' (combined) behavior and strategies

What will be the outcome? II

