

### **Entrepreneurial ecosystems: The role of interactions and the space dimension**

The entrepreneurial ecosystem elements put tension on the assumption of independence of effects, especially in a longitudinal setting, and thus require a complex systems approach to the economy (Stam and Van de Ven, 2021a; Arthur, 2021).

There are four key elements to an entrepreneurial ecosystem: functions, actors, interactions (spatial dimension), and impact.

1-The first element, functions, characterizes the main influences and underlying forces conducive to or impeding entrepreneurship. Such influences include factors of production and resources, such as physical capital, human capital, and knowledge. It also includes the factors that drive the demand for these resources, such as the output market, and the factors that may work as a barrier for allocation between resource endowment and the demand for those resources, such as finance, regulations, and culture.

2-The second element involves the form in which these factors and resources, along with institutions and culture are delivered, which includes the actors, organizations, firms and institutions involved with the provision of these influences shaping entrepreneurial activity. A corresponding function, or type of actor, institution or organization corresponds to each form.

3-The third feature characterizing entrepreneurial ecosystems involves interactions among the various actors, institutions, organizations, individuals, and firms. These interactions provide the source of spatially localized increasing returns or knowledge externalities because these interfaces, collaborations, and contacts generate an enhanced output for any given level of inputs, broadly considered.

4-The fourth feature characterizing an entrepreneurial ecosystem is impact. Such impact is generally considered to be in terms of first and foremost entrepreneurial activity. However, it is impact on regional economic and societal performance that is ultimately prioritized. Obviously the greater the (positive impact) of an entrepreneurial ecosystem on entrepreneurship and economic performance, the more effective it is.

Figure 6: The Entrepreneur problem

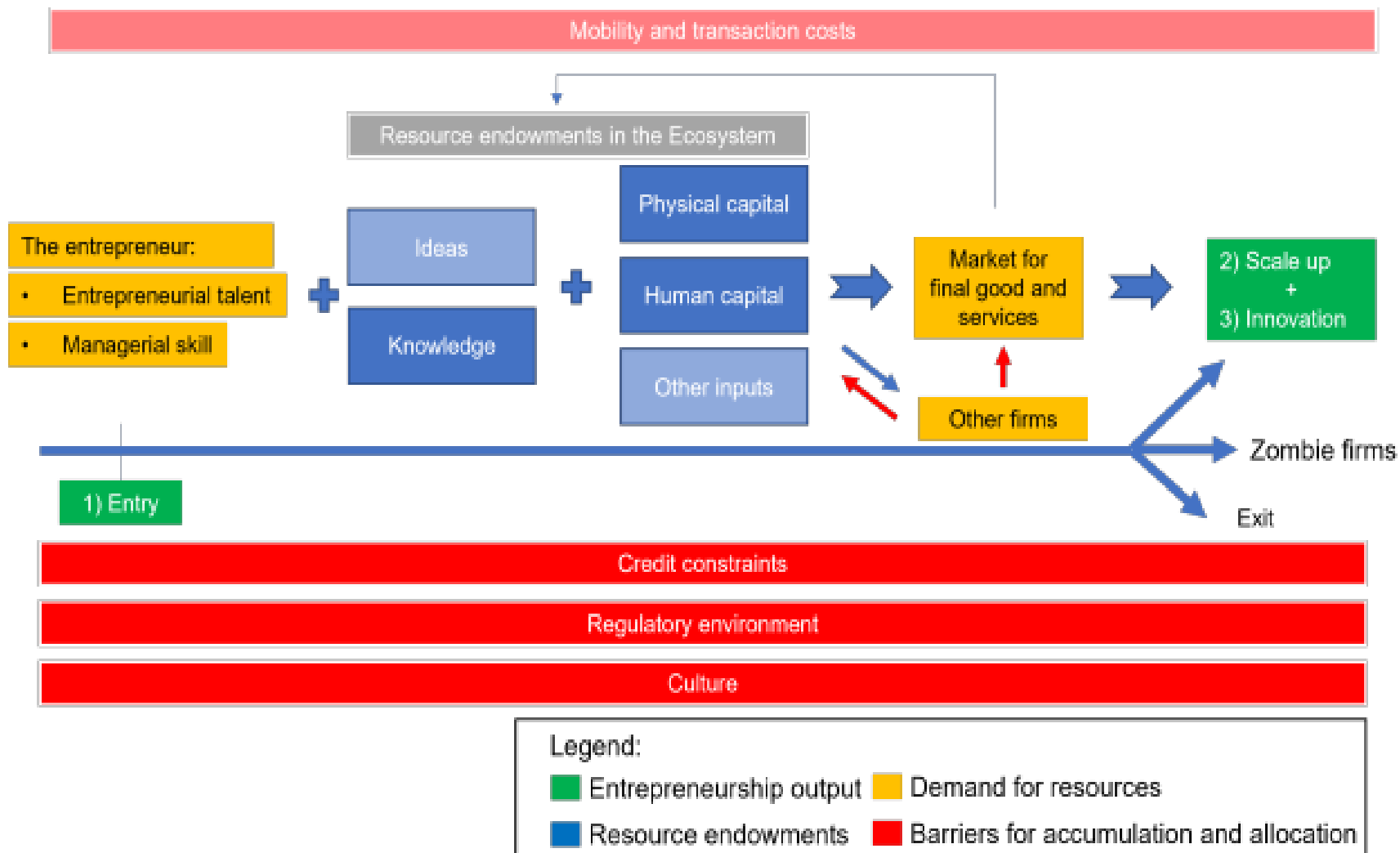
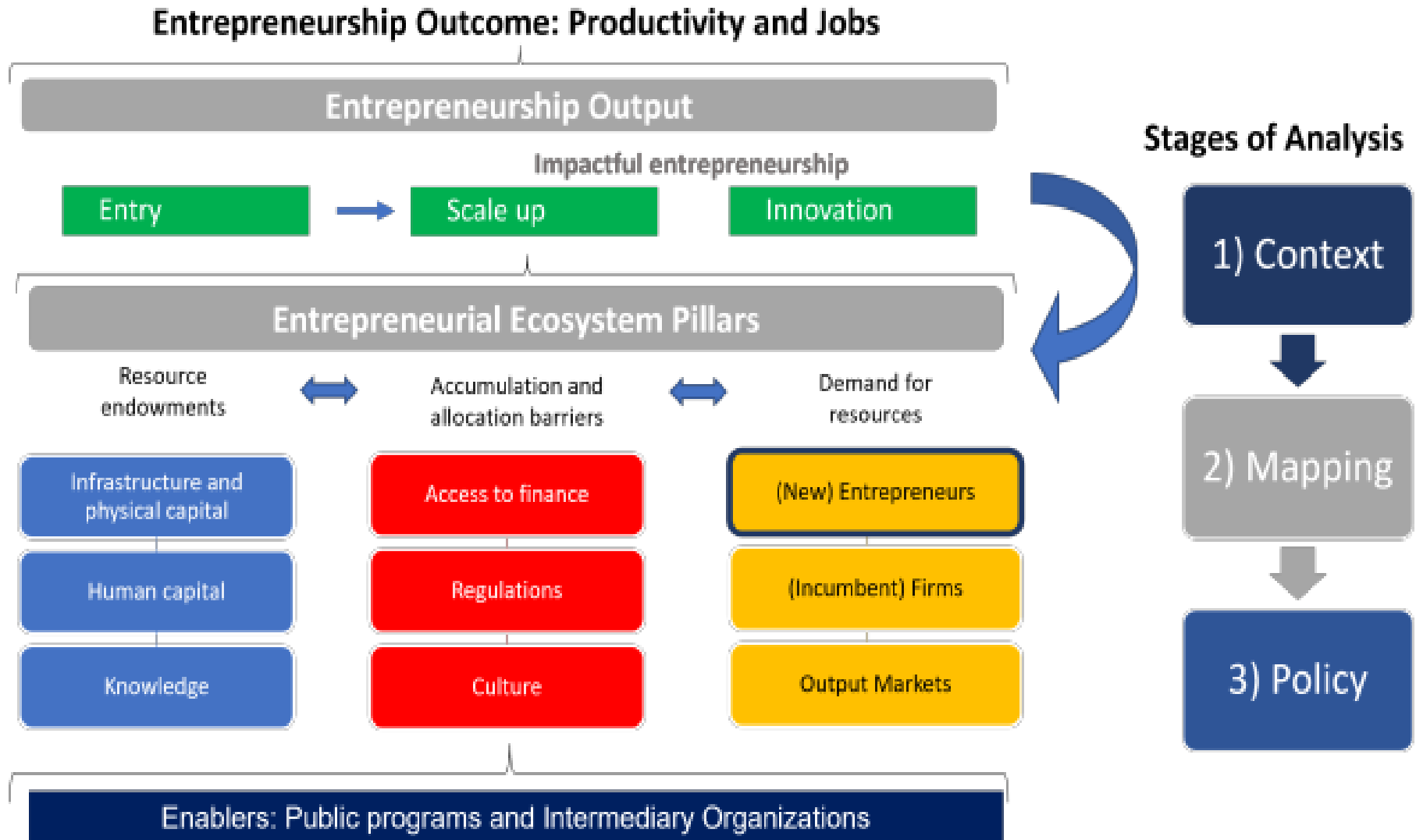
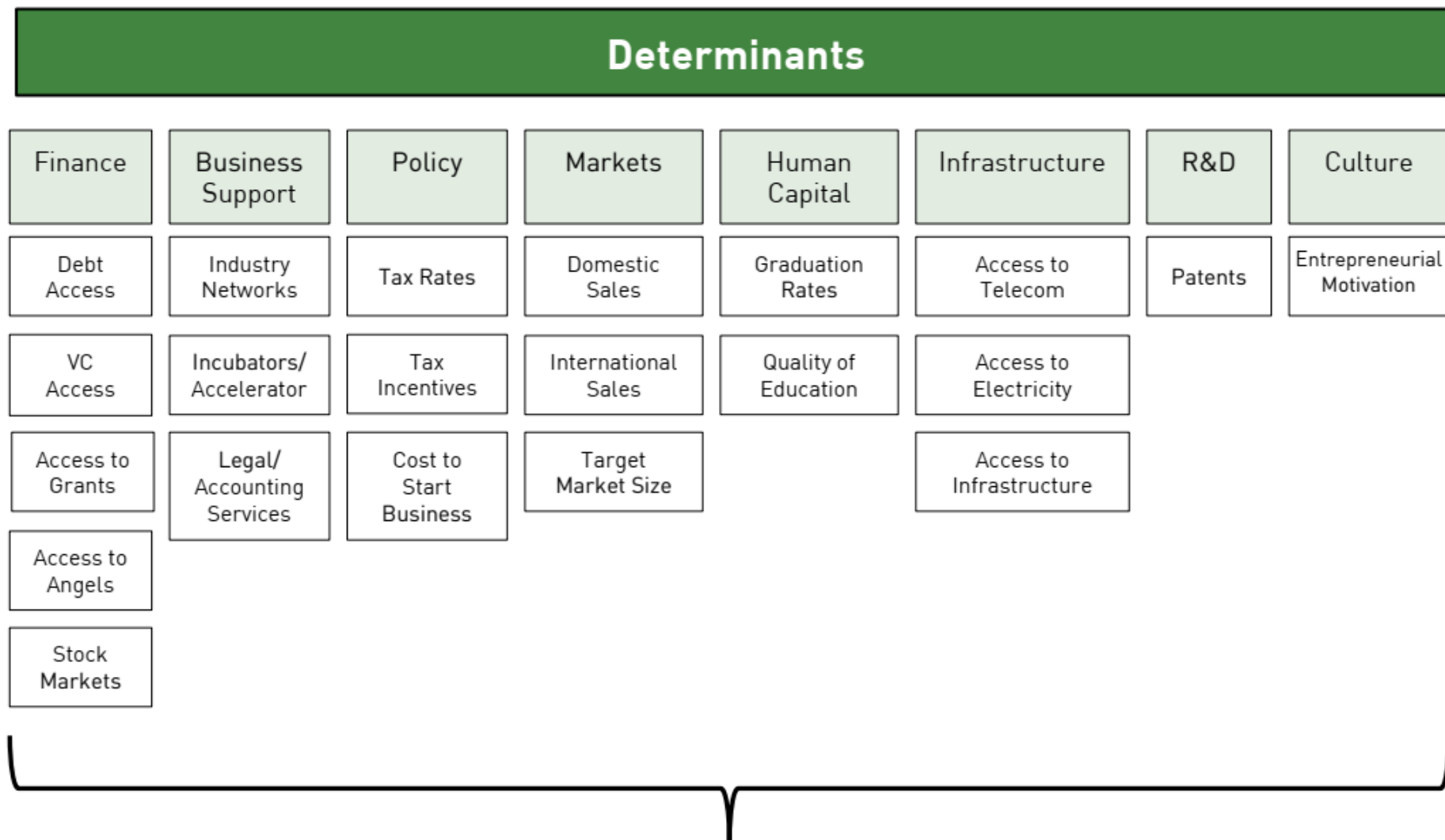


Figure 7: Entrepreneurial Ecosystem Assessment Framework



**Figure II: Entrepreneurship Measurement Framework**

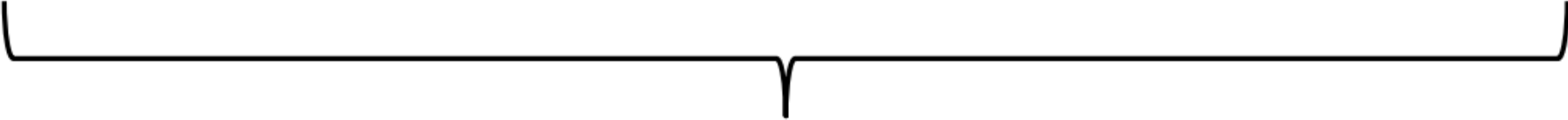


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## Entrepreneurial Performance

Firms      Employment      Wealth



## Impact

Economic Growth      Job Creation      Poverty Reduction

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**Table II: Entrepreneurial Ecosystem - Domains for Analysis**

Direct		Partially Direct					Indirect
Finance	Support	Policy	Markets	Human Capital	Infrastructure	Research & Development	Culture
Banks	Incubators	National Government	Domestic Corporations	Universities	Electricity providers	Public Research Centers and Laboratories	Media
Venture Capital	Accelerators	State Government	International Corporations	Technical Training Institutes	Transport providers	Private Research Centers and Laboratories	Government
Angel Investors	Industry Associations / Networks	Local Government	Consumers	High Schools	Communications (Mobile, internet)		Schools

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Foundations	Legal services		Distribution Networks	Community Colleges	Other utility providers (gas, water)		Professional Associations
Microfinance Institutions	Accounting Services		Retail Networks				Social Organizations
Public Capital Markets	Technical Experts / Mentors		Marketing Networks				
Development Finance Institutions	Credit Rating Agencies						
Government							

REF :

1/Enabling entrepreneurial ecosystems, Kauffman foundation, 2015.

2/Entrepreneurial ecosystems, Aspen networks of development entrepreneurs, 2013.

3/ Revisiting entrepreneurial ecosystem, policy research working paper, World bank group, 2022.