Modelo de Maturidade para Ecossistemas de Startups de Software:

Onde sua cidade se encaixa e o que você pode fazer por ela?

(Atenção: esta é uma versão ainda não finalizada do Modelo de Maturidade, mudanças finais no modelo serão finalizadas nas próximas semanas. Visite ccsl.ime.usp.br/startups para a versão mais atualizada do Modelo)

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O que é uma Startup?

Uma organização temporária criada para buscar um modelo de negócio repetível e escalável

(Steve Blank)

Uma organização humana projetada para criar um novo produto ou serviço sob condições de *extrema incerteza*

(Eric Ries)

Inovação Tecnológica

Século 20

- Grandes empresas
- Militar
- Transferência tecnológica
- universidade -> grandes empresas
- universidade -> spin-offs

Século 21

- startups
- (e também todas as anteriores)

Vantagens de Startups

- Baixo custo

- Baixa burocracia

- Grande agilidade

- Equipe enxuta e eficiente

- Exploração em paralelo de várias alternativas

- Se der errado, prejuízo é pequeno

- Ambiente motivador para empreendedores e jovens (de idade ou espírito)

Context

- Multiple case-study Tel-Aviv (2013/2014), São Paulo (2015) and New York (2015)

- Ecosystem conceptual framework and its core elements

- Each ecosystem has its own characteristics and must find ways to evolve

- Ecosystem characterization is a dynamic process and it must be analyzed over time
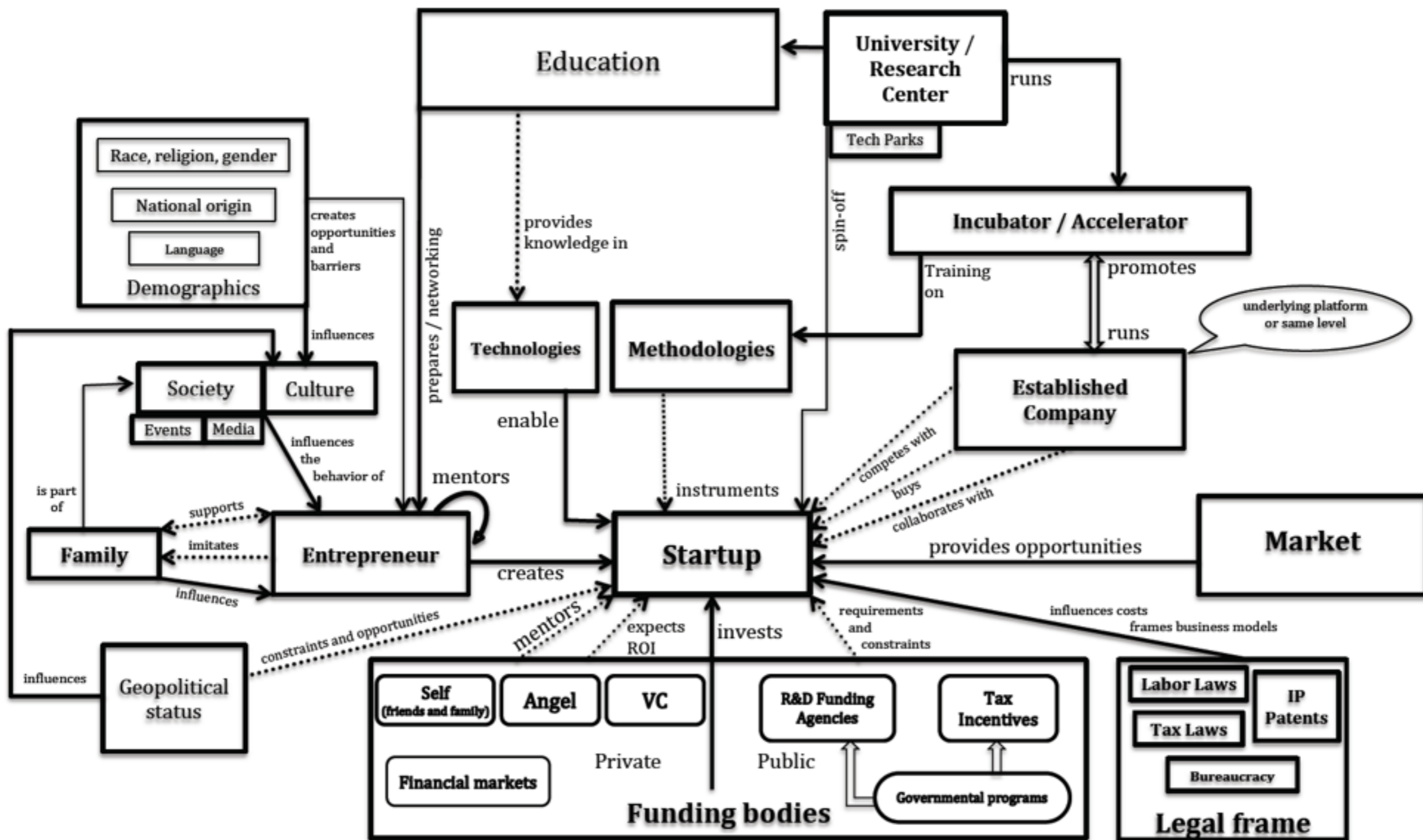
Generalized Map of a Software Startup Ecosystem

Simplified Generalized Map
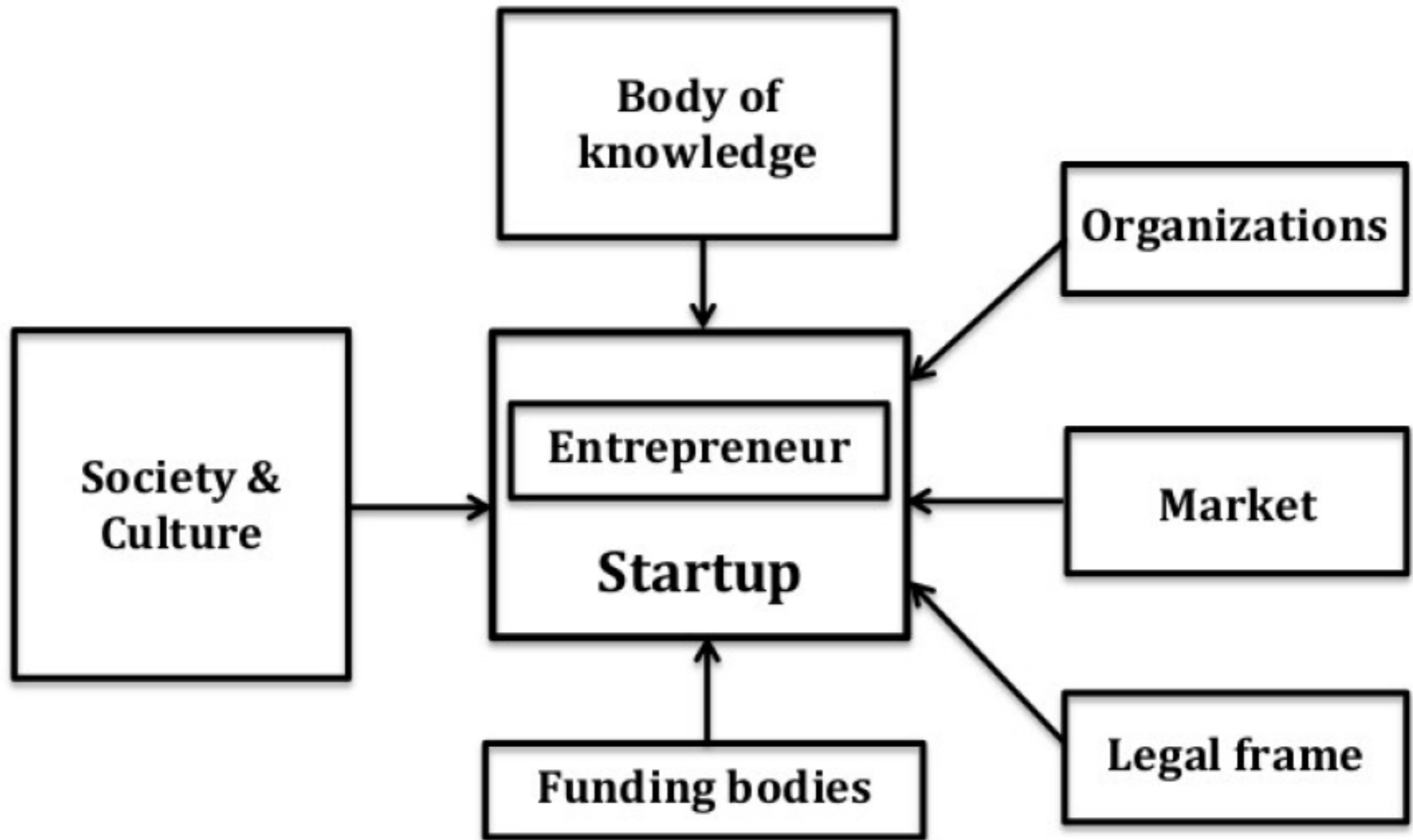
4 Maturity Levels

M1
Nascent

M2
Evolving

M3
Mature

M4
Self-sustainable

Level: Nascent (M1)

When the ecosystem is already recognized as a startup hub, with already some existing startups, a few investment deals and maybe government initiatives to stimulate or accelerate the ecosystem development, but no great output in terms of job generation or worldwide penetration.

Level: Evolving (M2)

Ecosystems with a few successful companies, some regional impact, job generation and small local economic impact.

Level: Mature (M3)

Ecosystems with hundreds of startups, where there is a considerable amount of investment deals, existing successful startups with worldwide impact, a first generation of successful entrepreneurs who started to help the ecosystem grow and be self-sustainable.

Level: Self-sustainable (M4)

Ecosystems with a high startups and investment deals density, at least a 2nd generation of entrepreneur mentors, specially angel investors, a strong network of successful entrepreneurs compromised with the long term maintenance of the ecosystem, an inclusive environment with many startups events and presence of high quality technical talent.

M4 aligned with Brad Feld's model

- Bottom-up / entrepreneur-led

- Inclusive

- Rallying points (events)

- Long-term perspective

Objectives

- Propose a methodology to measure ecosystem maturity based on multiple factors

- Base the maturity model on the ecosystem core elements (taken from the conceptual framework)

- Help ecosystem agents to identify what are the next steps required for evolution

- Propose a theory about Startup Ecosystem evolution and dynamics

- Secondary: compare ecosystems

Methodology

- Elements of the conceptual model become factors

- For each factor, we defined 4 levels

    - started with our initial guess

    - refined in 2 steps with a dozen experts from at least 3 ecosystems

- Version 1 published and workshopped

- Version 2 refined from

    - Workshop feedback

    - New York ecosystem observations and experts feedback

Maturity Model - Short version

Maturity Metric	M1	M2	M3	M4
Exit Strategies	none	a few	several M&A and few IPO	several M&A and several IPO
Entrepreneurship in universities	< 2%	2-10%	~ 10%	>= 10%
Angel Funding	irrelevant	irrelevant	some	many
Culture values for entrepreneurship	< 0.5	0.5 - 0.6	0.6 - 0.7	> 0.7
Specialized Media	no	a few	several	plenty
Ecosystem data and research	no	no	partial	full
Ecosystem generations	0	0	few	many
Events	monthly	weekly	daily	>= daily

Metrics importance

Maturity Metric	M1	M2	M3	M4
Exit Strategies			very important	very important
Entrepreneurship in universities	very important	very important	important	
Angel Funding			important	very important
Culture values for entrepreneurship	very important	very important	very important	important
Specialized Media		important	very important	very important
Ecosystem data and research			important	very important
Ecosystem generations			important	very important
Events	very important	very important	important	

Legend		very important	important	not important

Maturity Model - Long version

- 22 factors - 10 essential, 12 summing

- Maturity Level is not a binary measurement, classification is fuzzy

- Some factors measurements are relative to size and there is no linearity when going to higher levels

Level: Nascent (M1)

initial stage

Level: Evolving (M2)

To be in this level, the ecosystem must have all essential factors classified at least at L2, and 30% of summing factors also on L2

Level: Mature (M3)

To be in this level, the ecosystem must have all essential factors classified at least at L2, 50% of summing factors also on L2, and at least 30% of all factors on L3

Level: Self-sustainable (M4)

To be in M4, the ecosystem must have all essential factors classified as L3, and 80% of summing factors also in L3.

Maturity Model - Long version

FACTORS	L1	L2	L3
Exit strategies	0	1	>=2
Global market	<10%	10-40%	> 40%
Entrepreneursip in universities	< 2%	2 - 10%	> 10%
Mentoring quality	< 10%	10-50%	> 50%
Bureaucracy	> 40%	10 - 40%	< 10%
Tax Burden	> 50%	30 - 50%	< 30%
Accelerators quality (% success)	< 10%	10 - 50%	> 50%
Access to funding US$ / year	<200M	200M-1B	> 1B

Maturity Model - Long version

FACTORS	L1	L2	L3
Human capital quality	> 20th	15 - 20th	< 15th
Culture values for entrepreneurship	< 0.5	0.5 - 0.75	> 0.75
Technology transfer processes	< 4.0	4.0 - 5.0	> 5.0
Methodologies knowledge	< 20%	20 - 60%	> 60%
Specialized media players	< 3	3-5	> 5
Startup Events	monthly	weekly	daily
Ecosystem data and research	not available	partially	fully
Ecosystem generations	0	1	2

Relative factors

per 1 million inhabitants

FACTORS	L1	L2	L3
Number of startups	< 200	200 - 1k	> 1k
Access to funding # of deals / year	< 50	50 - 300	> 300
Angel Funding # of deals / year	< 5	5 - 50	> 50
Incubators / tech parks	1	2 - 5	> 5
High-tech companies presence	< 2	2 - 10	> 10
Established companies influence	< 2	2 - 10	> 10

Essential / Summing factors

Exit strategies	Accelerators quality
Global market	**High-tech companies presence**
Entrepreneursip in universities	Established companies influence
Number of startups	Human capital quality
Access to funding US$ / year	**Culture values for entrepreneurship**
Angel Funding	Technology transfer processes
Access to funding # of deals / year	Methodologies knowledge
Mentoring quality	Specialized media players
Bureaucracy	**Ecosystem data and research**
Tax Burden	**Ecosystem generations**
Incubators / tech parks	**Startup Events**

Ecosystems Comparison

	TEL AVIV	SÃO PAULO	NEW YORK
Essential Factors	L3 (9)	L2 (9)	L3 (10)
Summing Factors	L2 (7), L3 (6)	L1 (8), L2 (5)	L2 (4), L3 (8)
Maturity Level	Mature (M3)	Evolving (M2)	Self-sustainable (M4)

We want your collaboration!

- Get in touch with us to

    - provide your feedback on the maturity model

    - include your local ecosystem in the classification

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