

Entrepreneurship support through start-ups and spin-off

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H&D Partners SRL – Belgium
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Today's challenge

Bridging entrepreneurship and research for sustainable innovation

Innovation

- What is it about?
- Where does it come from?
- How do we integrate it with entrepreneurship?

Entrepreneurship

- What do we know about it?
- Where does it happen?
- How does it happen?
- What can we do to make it happen?

Qui je suis



Graduated in Economics
Worked in the UN System
Worked in a Business and
Innovation Centre
Worked at the EU BIC
Network
Founded H&D Partners
(www.hndpartners.eu)

I am not

A G-man

A c-level executive

An academic

An investor

A salesperson

I am

An incubation expert

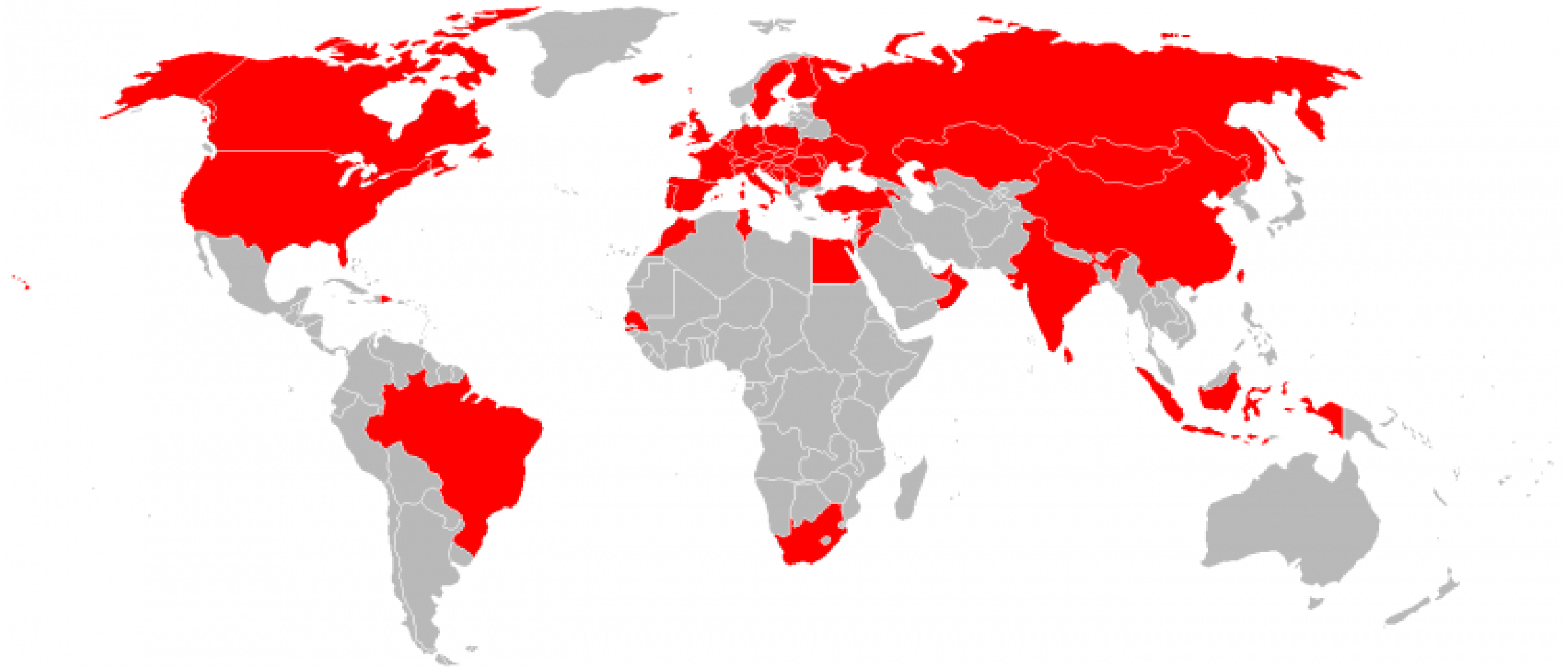
An incubatee

A startupper

A coach

A consultant

A traveller



The challenge

The idea of technology transfer usually means moving the results of research and development (R&D) out of laboratories and into **practical application**. With companies, it means developing or obtaining new technologies for their business enterprises.

The translation of R&D outcomes into innovation is not easy, and there is a misunderstanding of **what is innovation**

The challenge

An **innovation** is a **new or improved product or process** (or combination thereof) that differs significantly from the unit's previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process).

A **product innovation** is a new or improved good or service that differs significantly from the firm's previous goods or services and that has been introduced on the market.

A **business process innovation** is a new or improved business process for one or more business functions that differs significantly from the firm's previous business processes and that has been brought into use by the firm.

The challenge

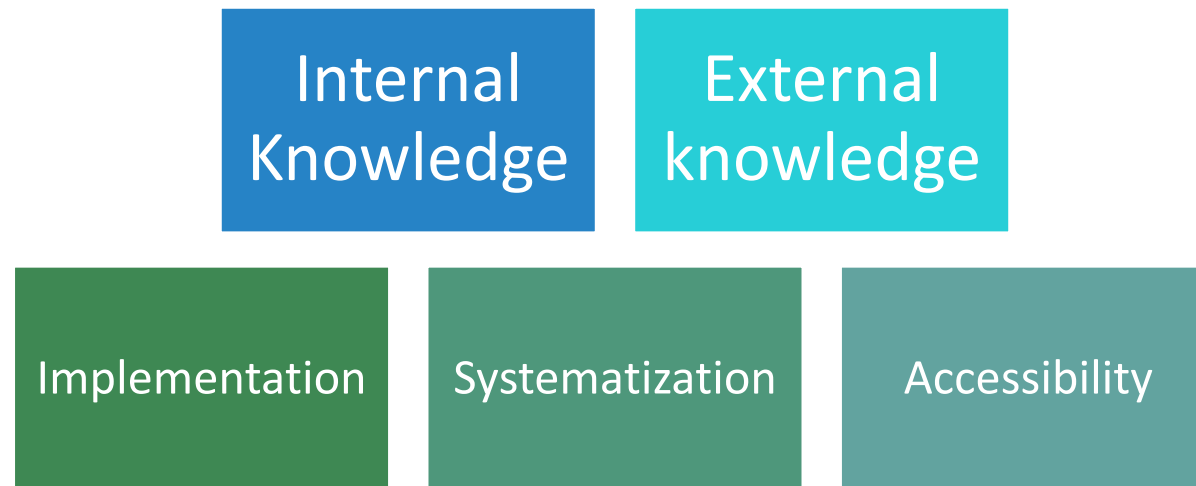
Innovation is more than a new idea or an invention.

An innovation requires *implementation*, either by being put into active use or by being made available for use by other parties, firms, individuals or organisations

Innovations derive from **knowledge-based activities** that involve the **practical application** of existing or newly developed information and knowledge

The challenge

Knowledge can be used to develop **new ideas, models, methods or prototypes** that can form the basis of innovations and businesses. These can be sourced externally or developed within an organisation.



The challenge

The transformation of Academia into a source of innovation is concomitant with the transformation of innovation from an internal process to one that takes place among firms and between firms and knowledge-producing institutions.

(Henry Etzkowitz)

Provision of trained persons



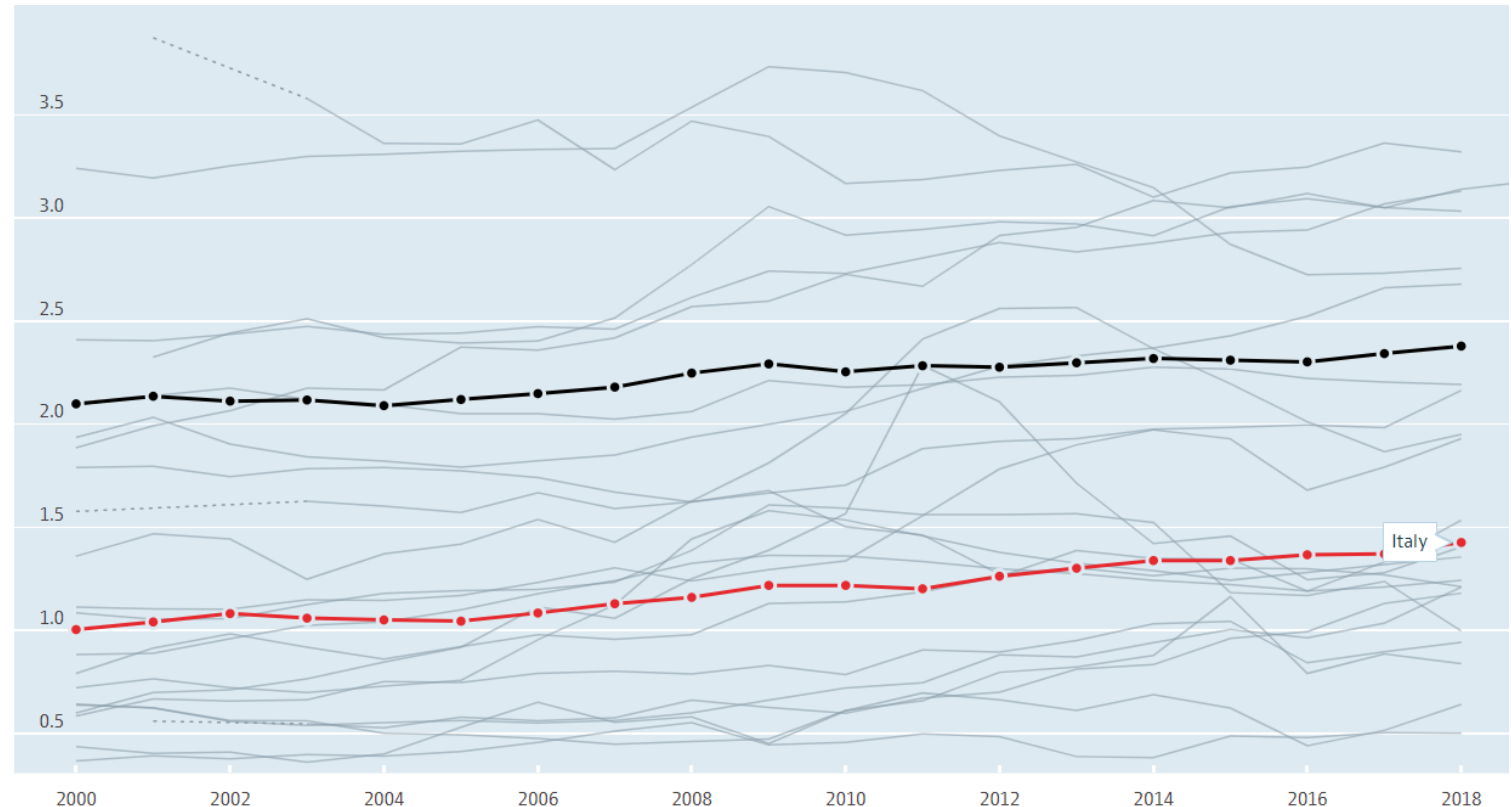
Creation of spin-off companies

Research results and knowledge
to industry

The context: research

Gross domestic spending on R&D (% of GDP, 2000 – 2019) OECD Countries

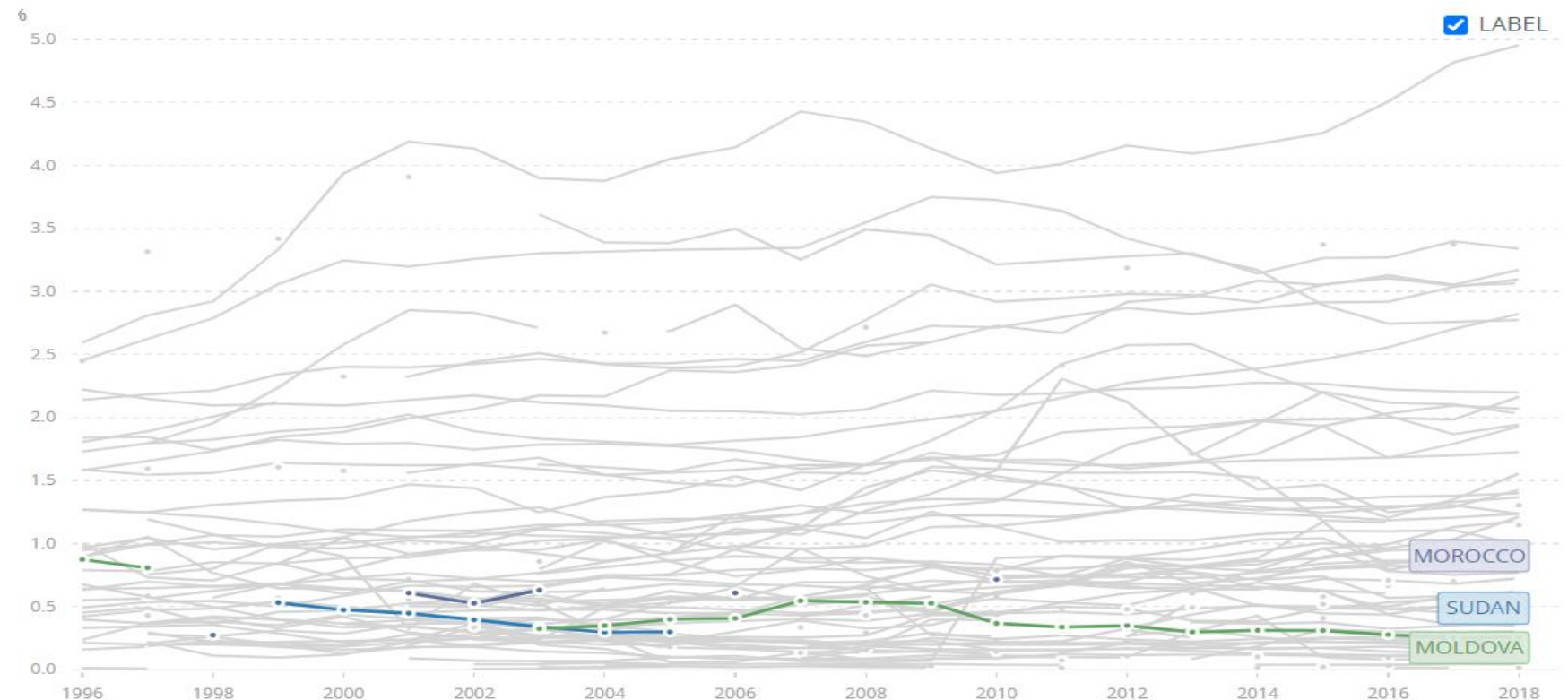
Gross domestic spending on R&D is defined as the total expenditure (current and capital) on R&D carried out by all resident companies, research institutes, university and government laboratories, etc., in a country.



The context: research

Gross domestic spending on R&D (% of GDP, 2000 – 2019)

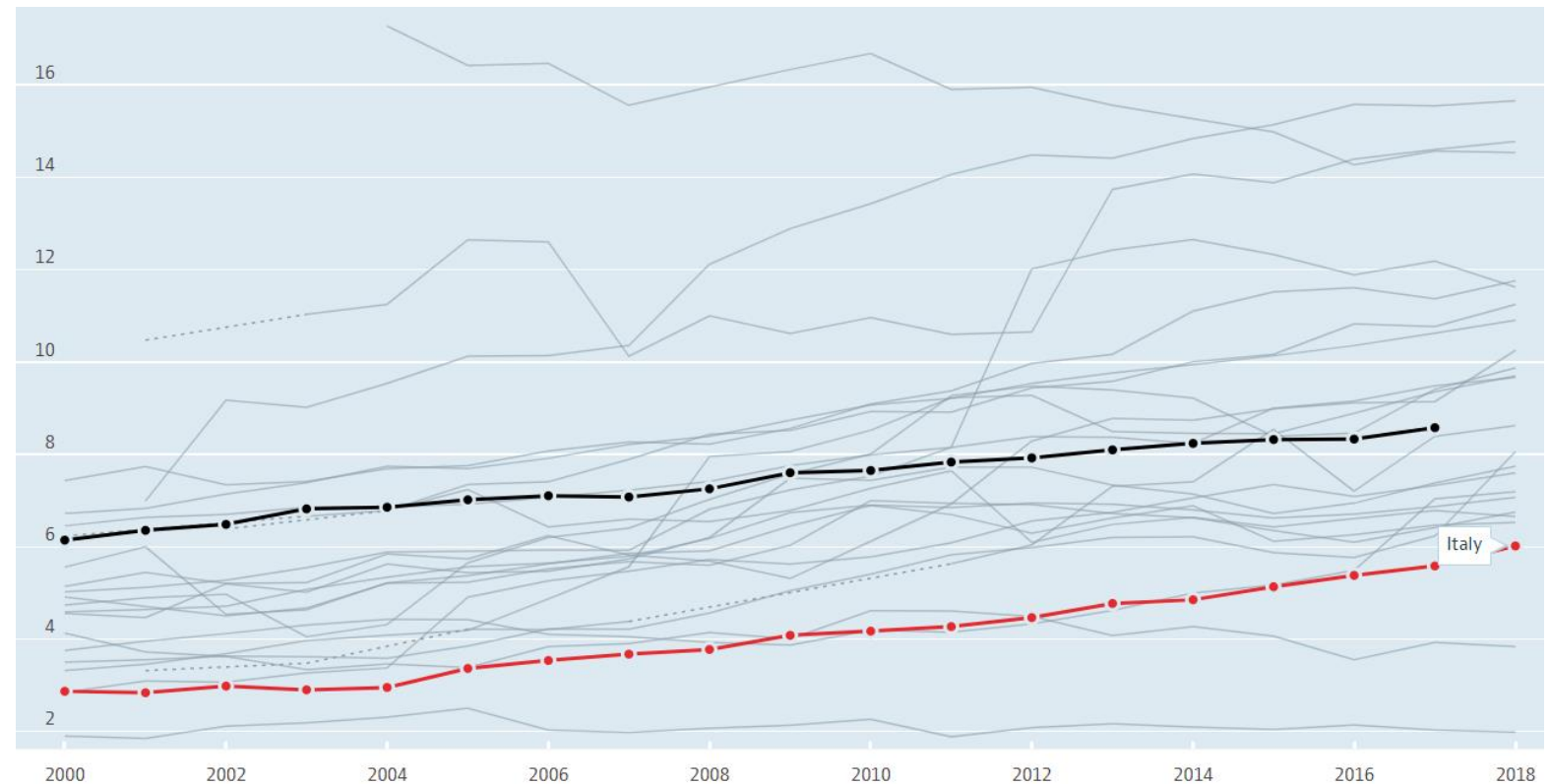
Gross domestic spending on R&D is defined as the total expenditure (current and capital) on R&D carried out by all resident companies, research institutes, university and government laboratories, etc., in a country.



The context: research

Researchers are professionals engaged in the conception or creation of new knowledge, products, processes, methods and systems, as well as in the management of the projects concerned.

Researchers (Total, Per 1 000 employed, 2000 – 2018)

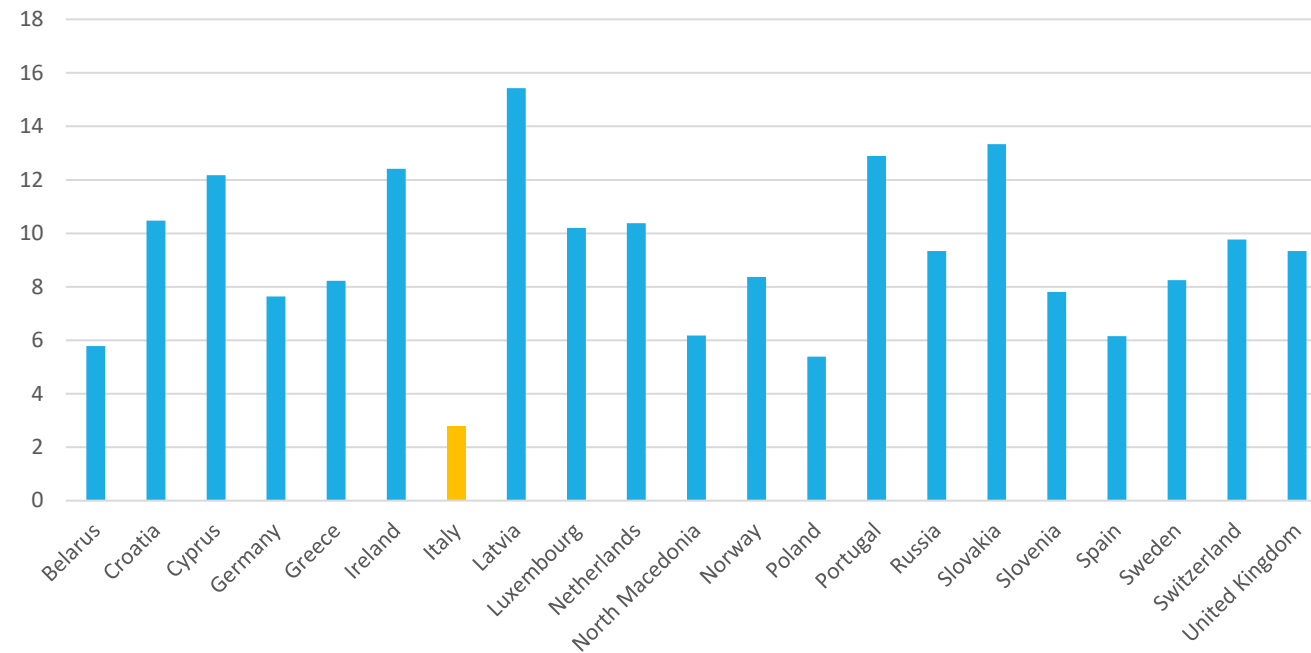


The context: entrepreneurship

Entrepreneurial behaviour and attitudes

Not all entrepreneurs are alike. The GEM Adult Population Survey (APS) looks at the characteristics, motivations and ambitions of individuals starting businesses, as well as social attitudes towards entrepreneurship

Total early-stage Entrepreneurial Activity (TEA) Rate: Percentage of 18-64 population who are either a nascent entrepreneur or owner-manager of a new business



Morocco

2018

6.70

Sudan

2018

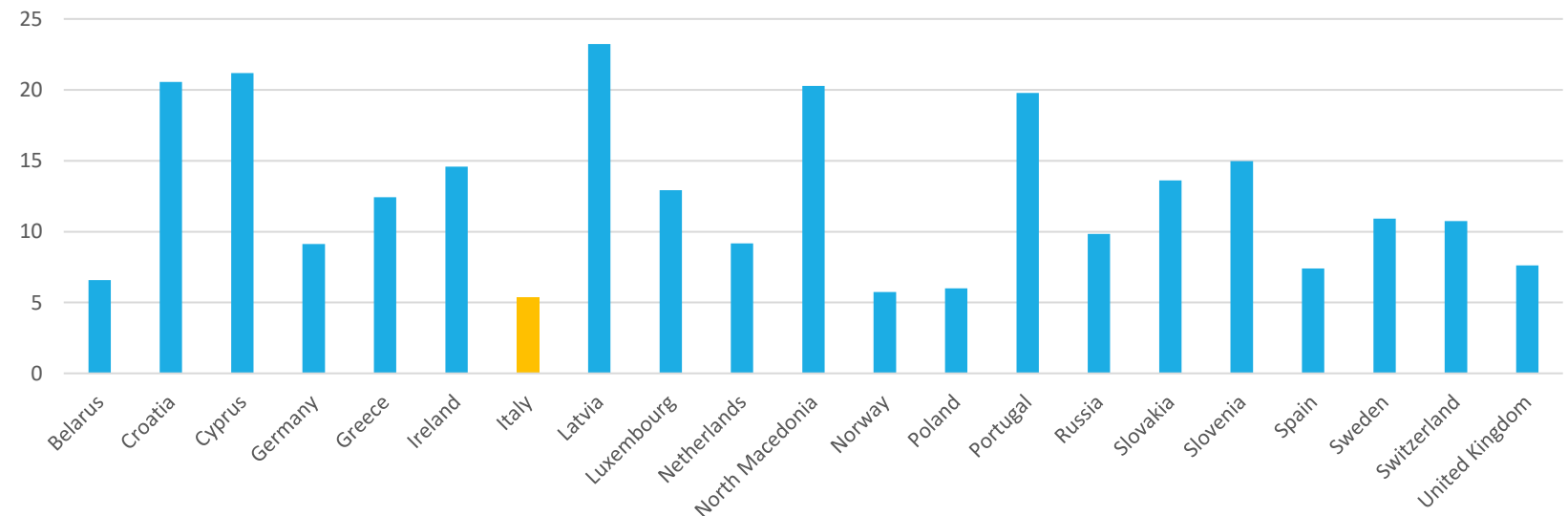
22.20

The context: entrepreneurship

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Entrepreneurial Intentions Rate: Percentage of 18-64 population who are latent entrepreneurs and who intend to start a business within three years



Morocco

2018

39.80

Sudan

2018

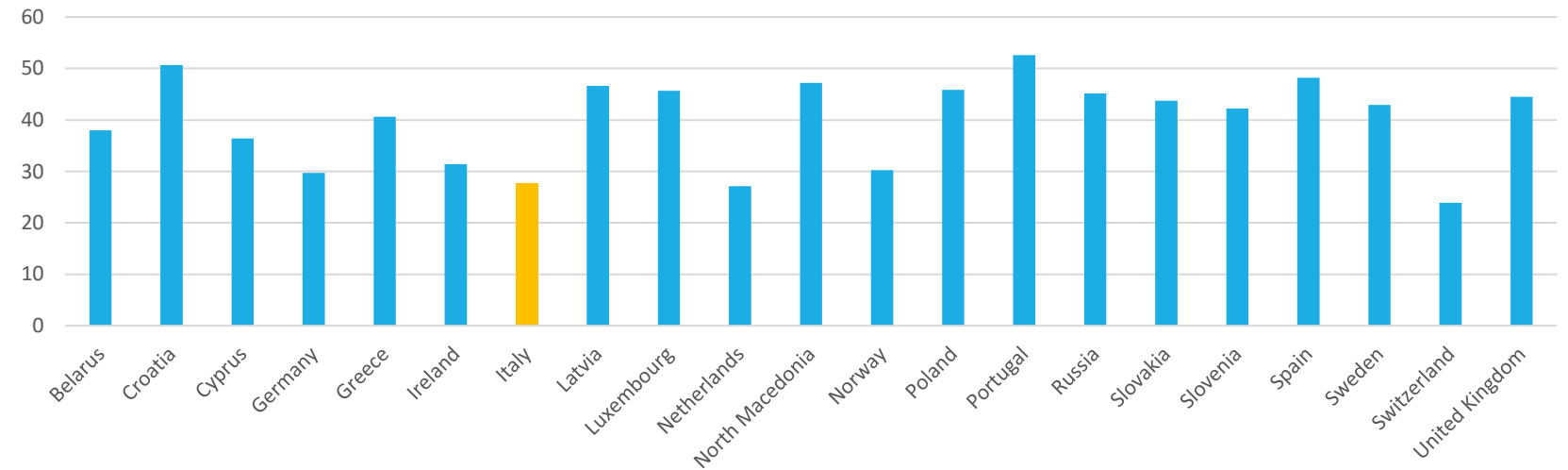
66.70

The context: entrepreneurship

Entrepreneurial behaviour and attitudes

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Fear of Failure Rate: Percentage of 18-64 population (individuals involved in any stage of entrepreneurial activity excluded) who indicate that fear of failure would prevent them from setting up a business



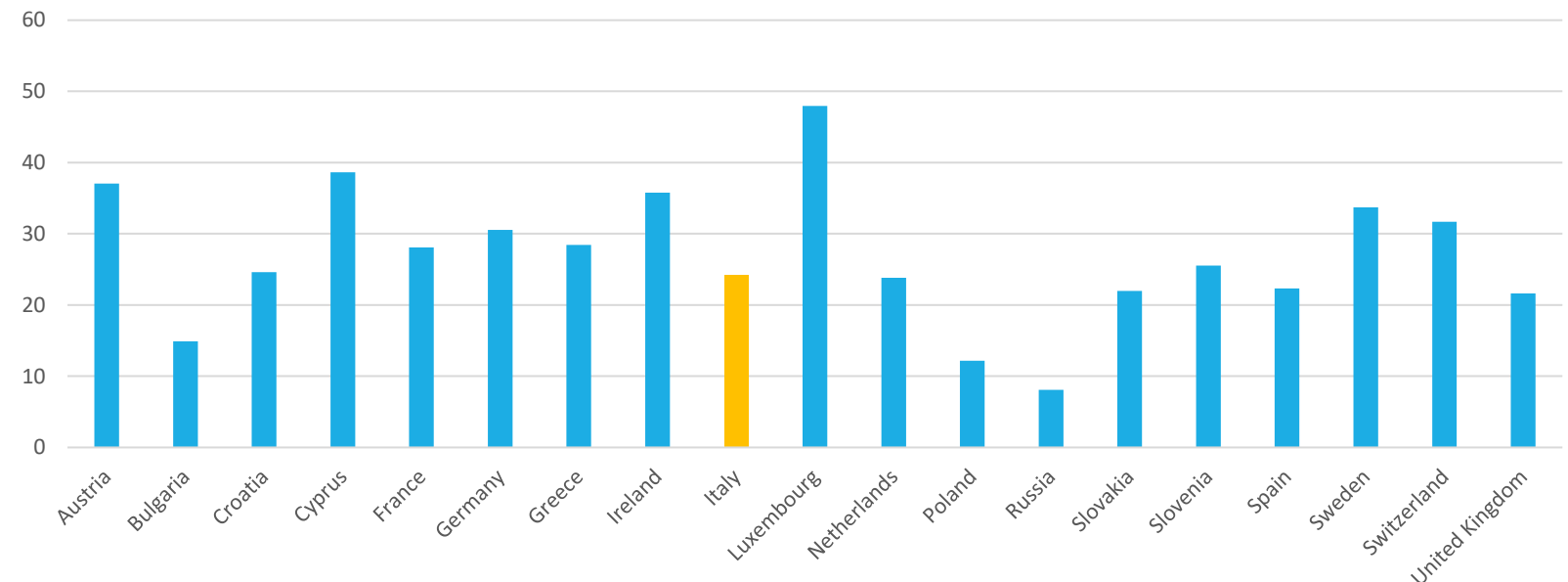
Morocco	2018	64.20
Sudan	2018	34.50

The context: entrepreneurship

Entrepreneurial behaviour and attitudes

Not all entrepreneurs are alike. The GEM Adult Population Survey (APS) looks at the characteristics, motivations and ambitions of individuals starting businesses, as well as social attitudes towards entrepreneurship

Innovation Rate: Percentage of those involved in TEA who indicate that their product or service is new to at least some customers AND that few/no businesses offer the same product



Morocco

2018

14.90

Sudan

2018

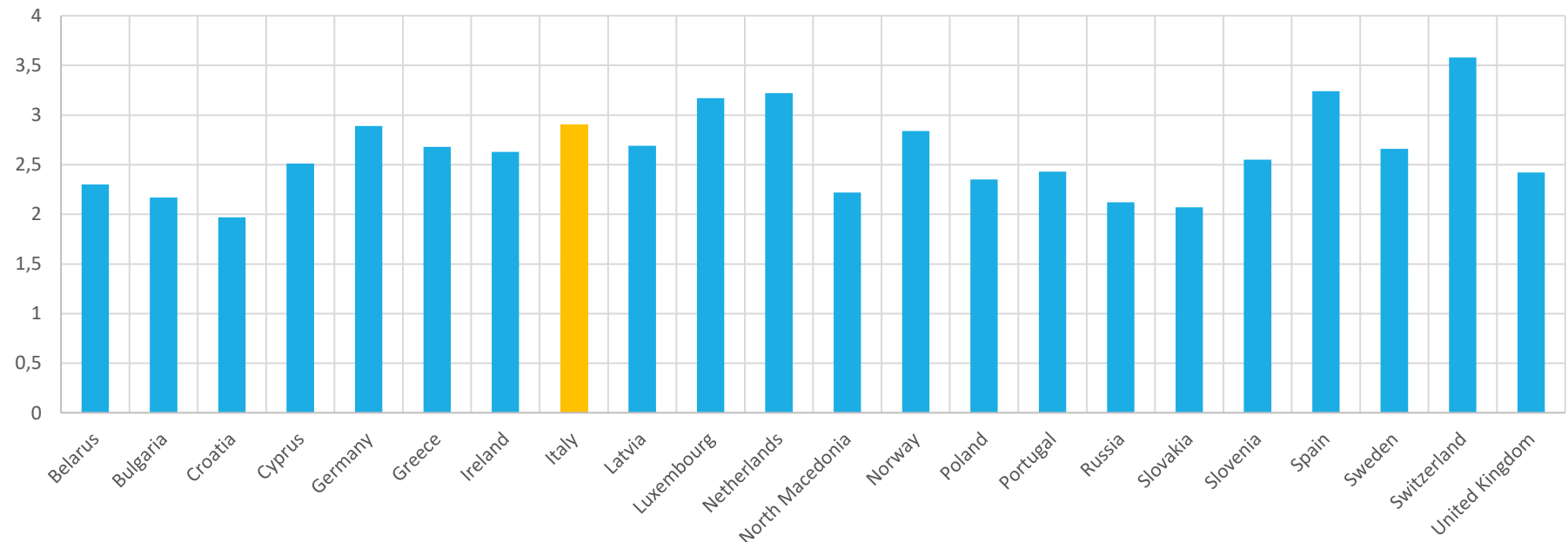
13.40

The context: research

Entrepreneurial Framework

Conditions are one of the most important components of any entrepreneurship ecosystem and constitute “the necessary oxygen of resources, incentives, markets and supporting institutions for the creation and growth of new firms”

The extent to which national research and development will lead to new commercial opportunities and is available to SMEs



Morocco

2018

1.65

Sudan

2018

1.89

Defining entrepreneurship

What are the characteristic traits of an entrepreneur?

Defining entrepreneurship through the Ages

1725

An entrepreneur is **a person** who pays a certain price for a product to resell it at an uncertain price, thereby making decisions about obtaining and using the resources while consequently **admitting the risk of the enterprise**. (Richard Cantillon)

1803

An entrepreneur is an **economic agent** who unites all means of production- the land of one, the labour of another and the capital of yet another and thus produces a product. By selling the product in the market he pays rent of land, wages to labour, interest on capital and what remains is his **profit**.

1934

Entrepreneurs are **innovators** who use a process of shattering the status quo of the existing products and services, to set up new products, new services. (Joseph Schumpeter)

Defining entrepreneurship through the Ages

1948

Entrepreneurship is an **activity** or function and **not a specific individual or occupation** . . . the specific personal entrepreneur is an unrealistic abstraction.
 (C.H. Danhoff)

1961

An entrepreneur is a **person with a high need for achievement** [N-Ach]. He is energetic and a **moderate** risk taker. (David McClelland)

1964

An entrepreneur **searches for change**, responds to it and exploits opportunities. **Innovation is a specific tool of an entrepreneur** hence an effective entrepreneur converts a source into a resource.
 (Peter Drucker)

Defining Entrepreneurship Today

Daniel Eisenberg, *Worthless, Impossible and Stupid*

- Entrepreneurship is the **creation** and **capture** of **extraordinary value**, defined this way:
 - Entrepreneurship creates value as defined by the market;
 - The entrepreneur captures that value by acquiring customers;
 - The value is extraordinary in that a lot of people want it or the price point of the value is sufficiently high enough to support a viable, scaling business.

Howard Stevenson, *Breakthrough Entrepreneurship*

Entrepreneurship is the pursuit of opportunity without regard to resources currently controlled.

(Entrepreneurs) see an opportunity and don't feel constrained from pursuing it because they lack resources. They're used to making do without resources.

Creating Extraordinary Value

Uber

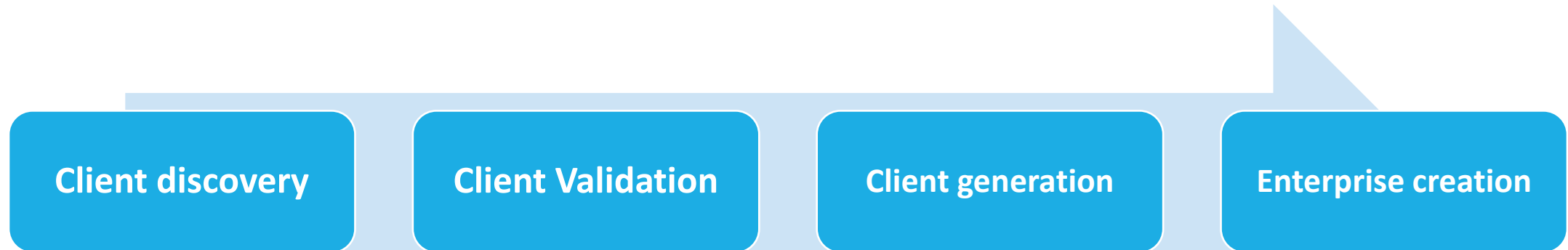
- Fixed the Line-of-Sight problem (if you cannot see a cab, you cannot hail it)
- Fixed the language problem (Telling a cabbie where to go in Tunis when you do not speak French)
- Created a safer platform in many markets (Latin America, the US where cabs can carry a risk of robbery)
- Created a cost-effective alternative to existing cab services, which were often cartels.

Creating value through entrepreneurship

Yesterday



Today



The Old Method of Business Launch

“Everyone has a plan until they get punched in the face.” Mike Tyson

“No business plan survives the first contact with customers.” Steve Blank

Business plans are essentially guesses, of what is going to happen in the next three to five years.

“I know what the customer wants”

“I know my tech”

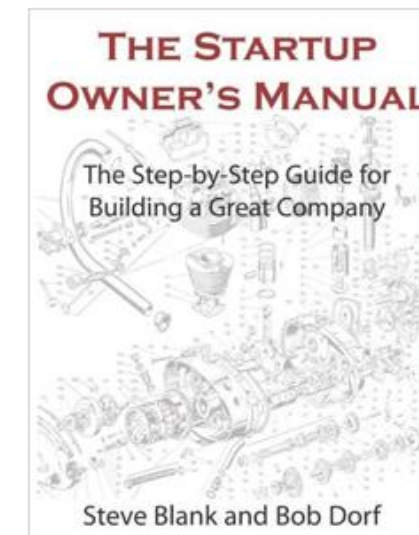
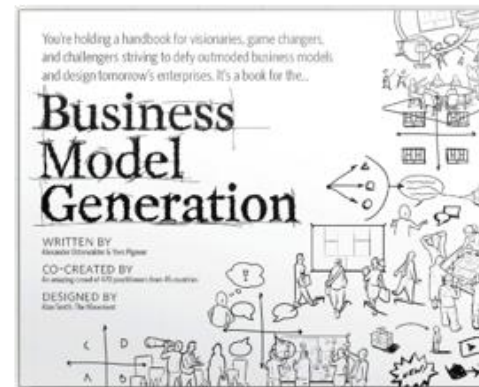
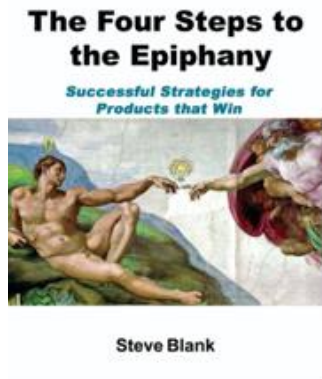
Focus on process and checklists, not on experimentation

Emphasis on execution, not on learning

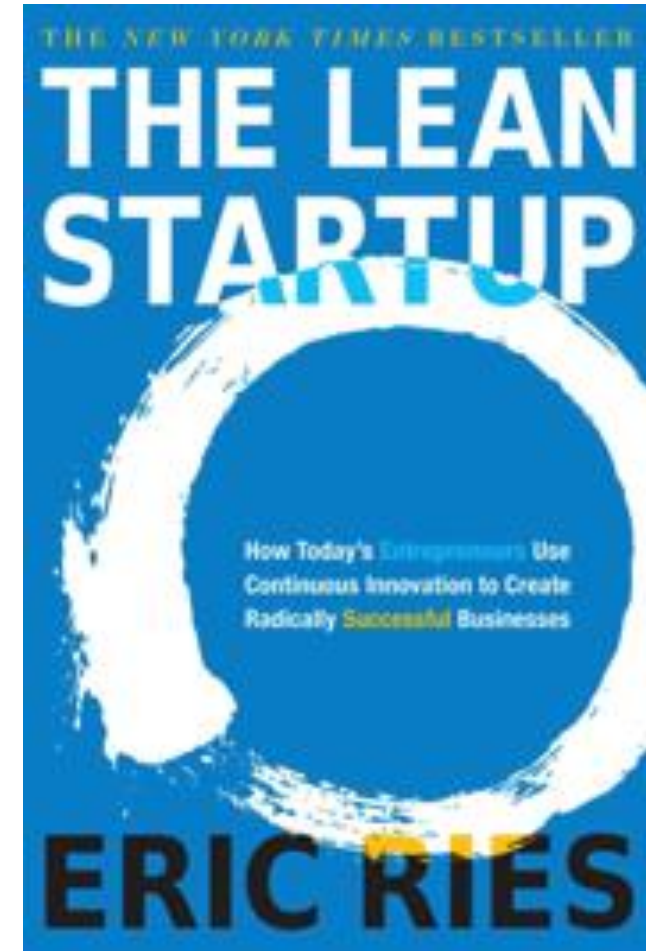
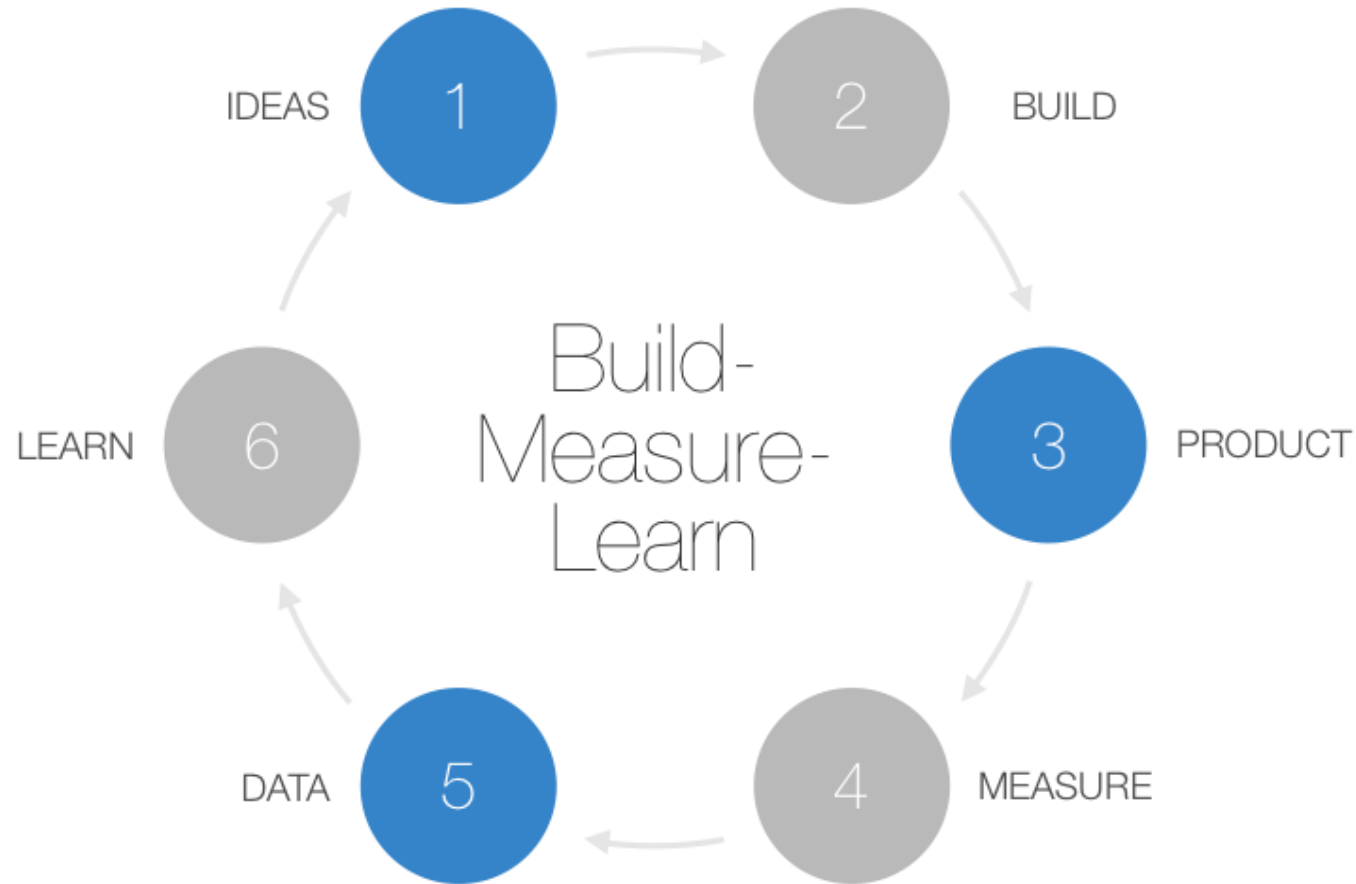
Treats a startup or SME as a little version of a big company, and they are not.

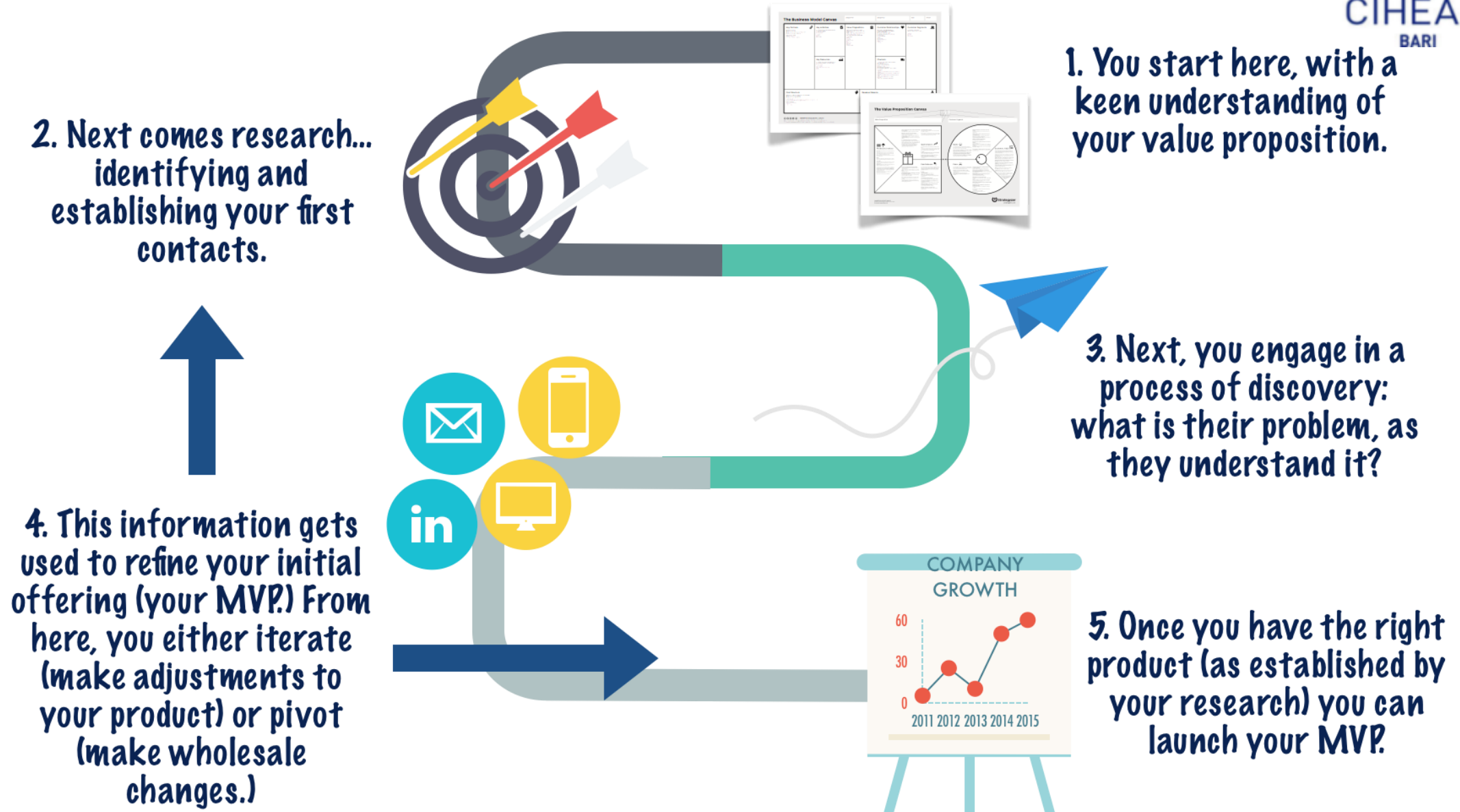
It’s not possible to know with any certainty what is happening in the next few months, let alone years.

The New Method of Business Launch

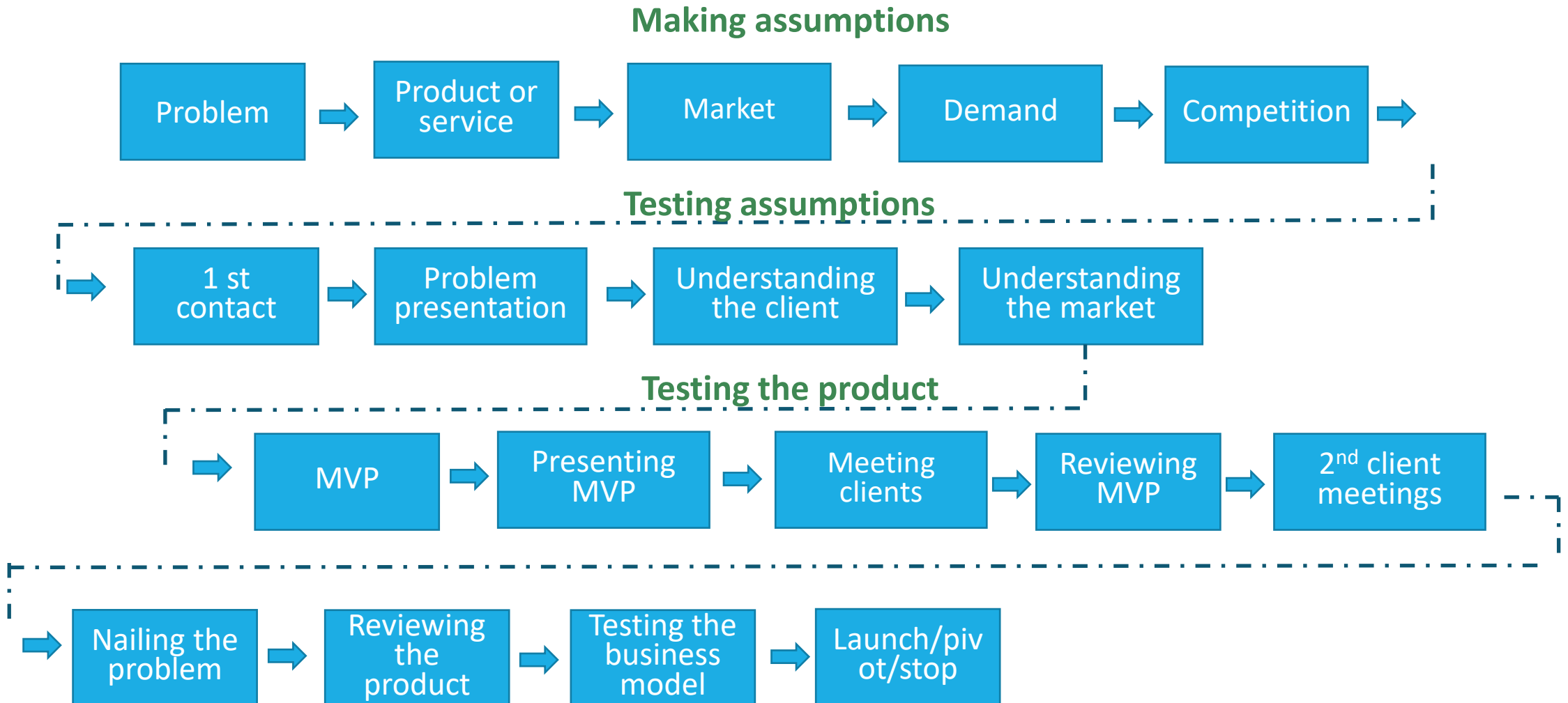


AD PARTNERS The Lean Startup Movement





Creating value: sustainability through successful entrepreneurship

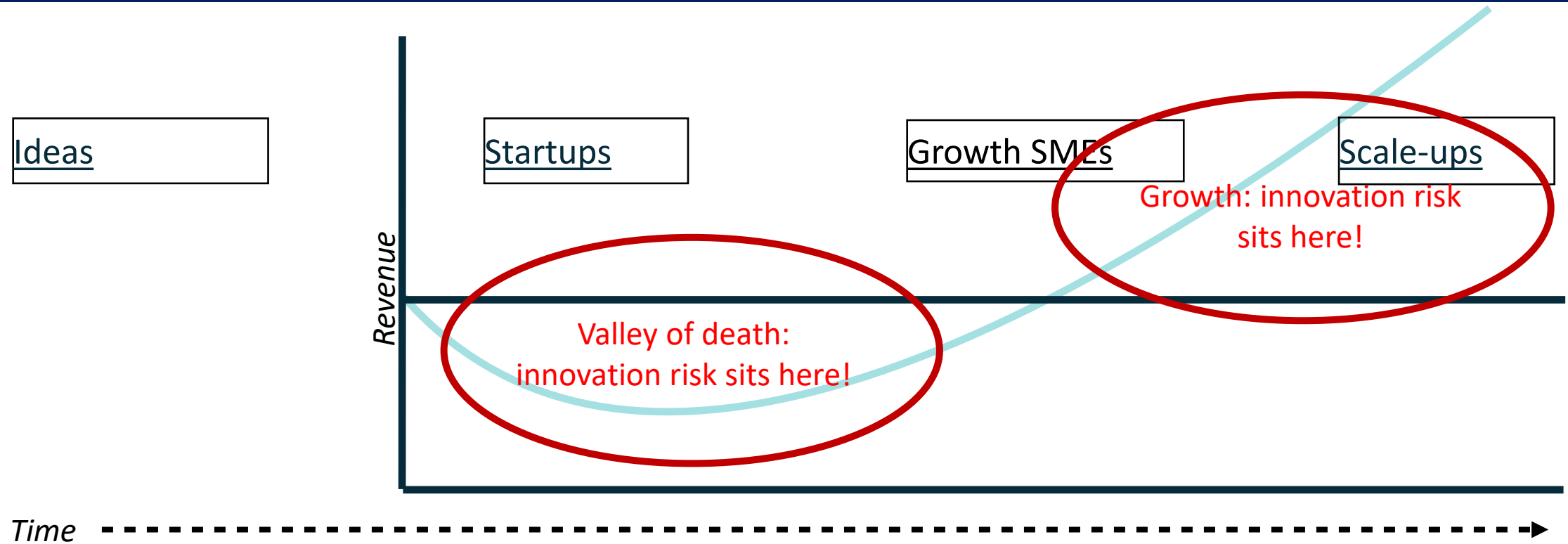


Small Businesses Snapshot Review

Small Businesses can be divided Into four categories:

Non-Employee	Main Street	Supplier Businesses	High Growth
<ul style="list-style-type: none"> • Typically, Freelancers, designers, IT, home services, etc. • Great majority of SMEs are non-employer • Can often create decent salaries 	<ul style="list-style-type: none"> • Shops, stores, restaurants, retail and other consumer-oriented companies • Can have high churn rates • Generate some employment opportunities 	<ul style="list-style-type: none"> • Create products for other businesses • Often export and growth oriented • Make up the majority of “Cluster” businesses 	<ul style="list-style-type: none"> • Generate most economic growth from the SME sector • Usually a very small percentage (less than 5%) qualify as high-growth

Small Business Growth Stages



The question is: how we can support businesses to become sustainable through the adoption of innovation?

Why startups fail?

Pre-start

Failure to find Product-Market Fit

Failure to build a reliable MVP

Poor roll-out strategy

Poor communications strategy

Launch

Ineffective Go-To-Market Strategy

Ineffective or incomplete support and service team

Bad product

No market fit

Non-profitable business model

Founders' dilemma

Grow/Scale

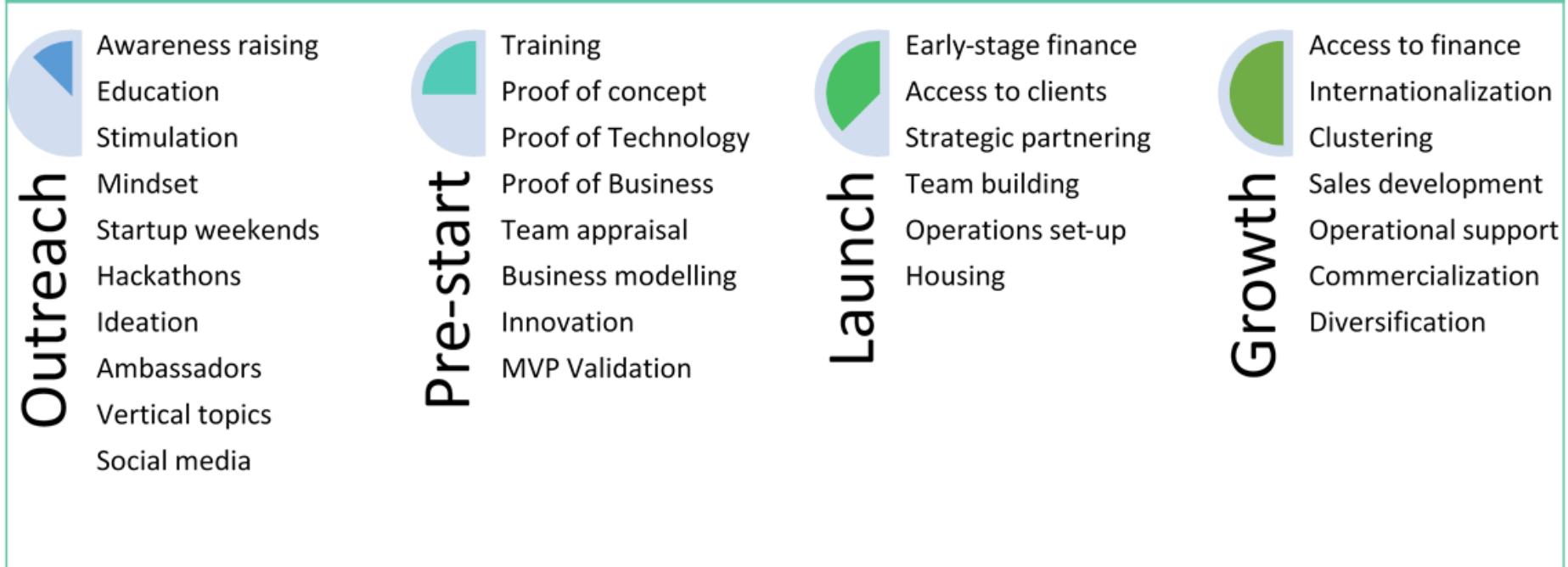
Money: Cashflow, financing, down rounds

Customer Acquisition costs impact margins

Talent acquisition

Failure to maintain product quality

The Entrepreneurship Support Value Chain (ESVC)



The Entrepreneurial Support Value Chain (ESVC) refers to a series of programs and interventions to encourage the development of new firms, some of whom will have high-growth potential.

The value chain consists of ecosystem players (institutions, people) who provide this support as an enterprise grows.

Do you know how many startups does an incubator in Europe support on an yearly basis?

24

How many of the 24 startups are classified as academic spinoffs?

10%

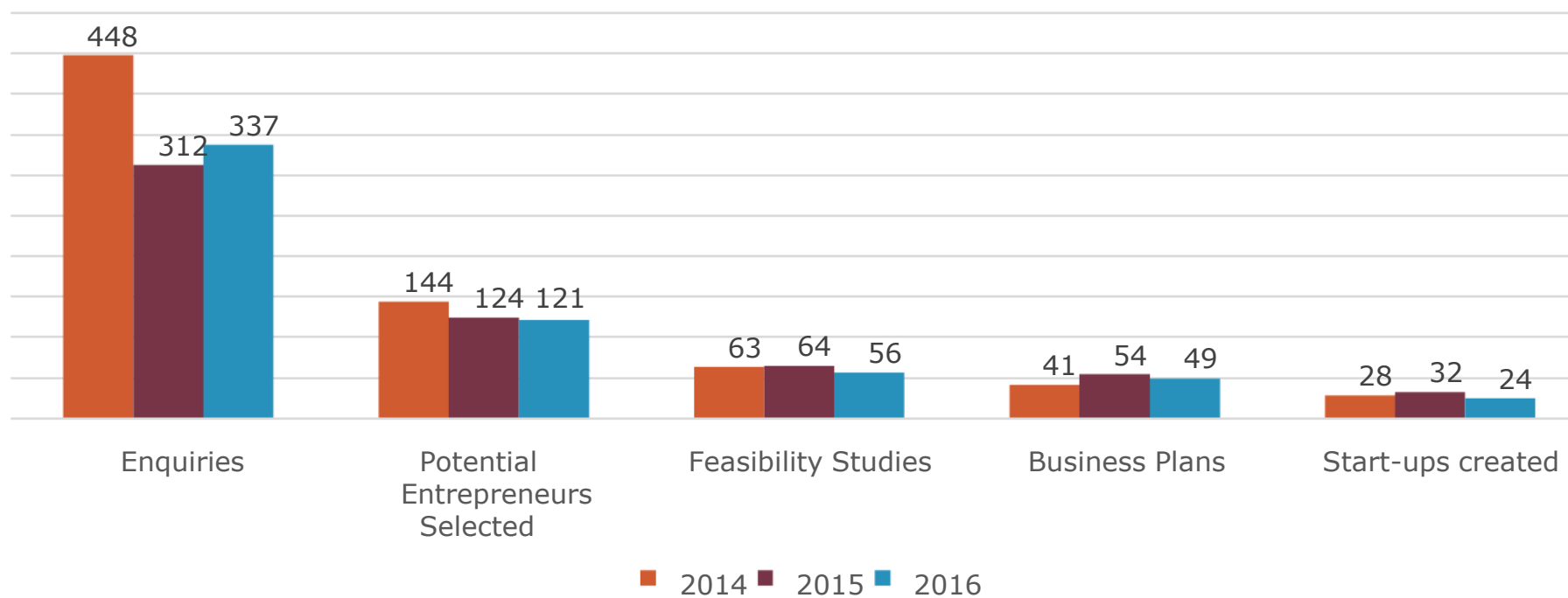
Do you know the conversion rate from idea
to startup?

7%

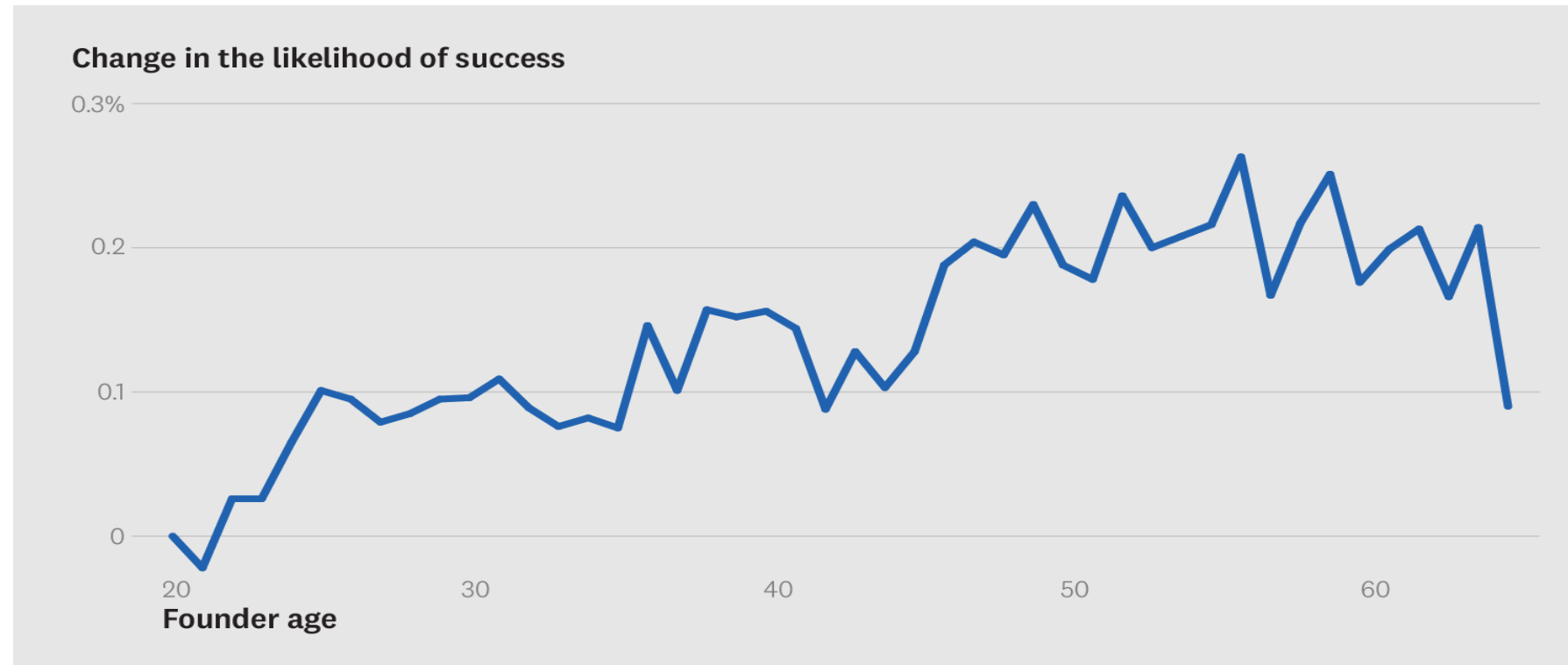
Do you know how many people
actually need to be stimulated to get
24 startups?

2575

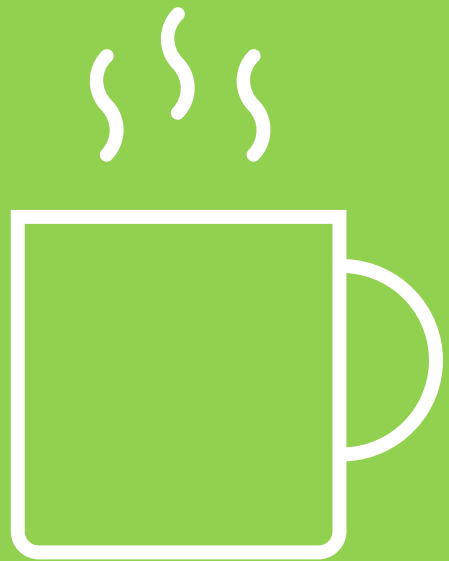
Deal-flow for startup creation



Various actors in an ecosystem are key to reaching these results, including TTOs



Does this make us re-think the role of universities and TTOs?



Coffee Break

See you in 10
minutes!

The Entrepreneurship Support Value Chain (ESVC)



Outreach

- Awareness raising
- Education
- Stimulation
- Mindset
- Startup weekends
- Hackathons
- Ideation
- Ambassadors
- Vertical topics
- Social media



Pre-start

- Training
- Proof of concept
- Proof of Technology
- Proof of Business
- Team appraisal
- Business modelling
- Innovation
- MVP Validation



Launch

- Early-stage finance
- Access to clients
- Strategic partnering
- Team building
- Operations set-up
- Housing

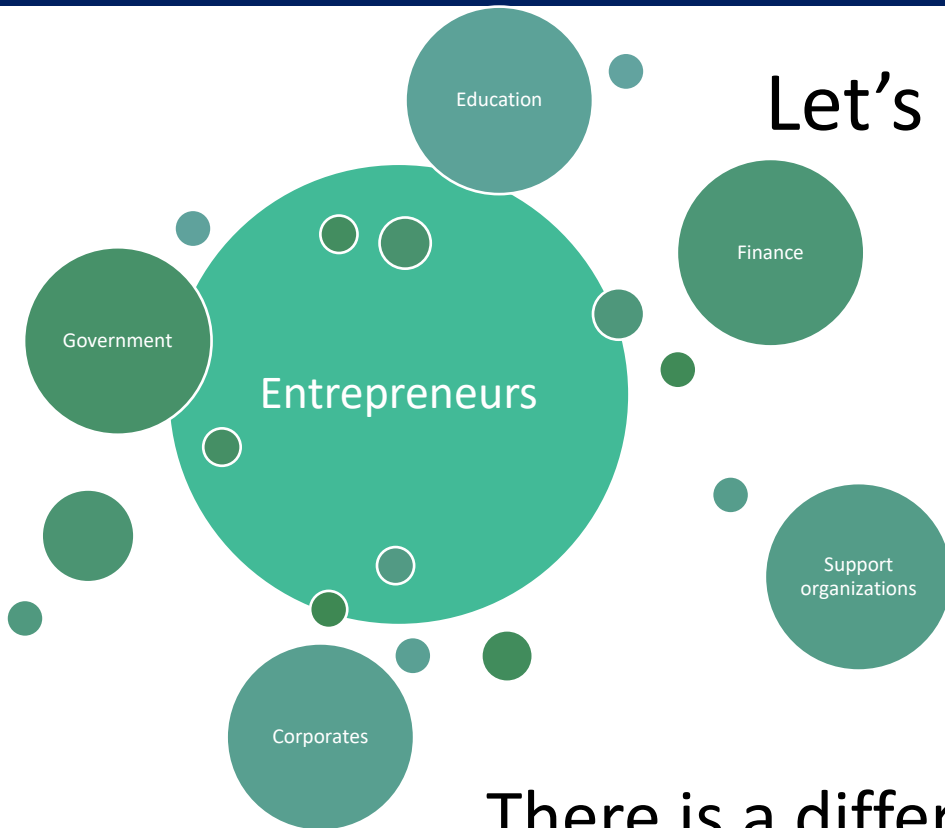


Growth

- Access to finance
- Internationalization
- Clustering
- Sales development
- Operational support
- Commercialization
- Diversification

Where do TTOs fit?

Let's look at your ecosystem players



Ecosystems are made up of institutions, and most importantly, the people within the institutions that provide services directly to SMEs or can be leveraged to support SMEs.

There is a difference between the **existence of institutions** that typically make up an ecosystem, and a **functioning** ecosystem functioning in a way that benefits entrepreneurs and SMEs.

Who are the innovation players in an Ecosystem?

Ecosystems are made up of institutions, and most importantly, the people within the institutions that provide services directly to SMEs or can be leveraged to support SMEs.

These organizations and people include:

- Government
- Finance
- Support organisations
- Educational Organisations and corporates

Education/Human Capital

These are organizations that **develop talent**, which can go on to support entrepreneurs. This is also the inventory of experts and former entrepreneurs in a particular place that can help SMEs (or are a source of entrepreneurs)

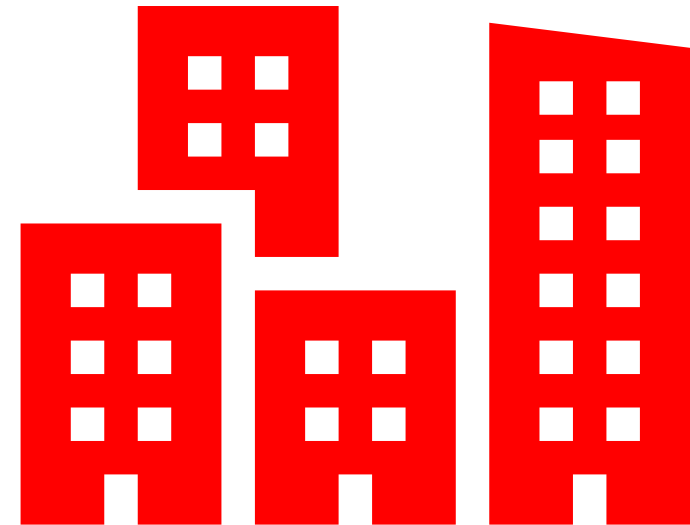
- Universities
- Serial Entrepreneurs
- Training programmes
- Institutions (science, etc.)
- Companies and corporates



Government

How does government support entrepreneurship?

- Through policy initiatives
- Through tax incentives
- Through programme Funding
- Through Startup Funding
- Through Research and Development
- Through advocacy (example, exporting assistance)



Support Organisations

Support organisations include those specific to entrepreneurs, and others that have facilities and equipment that might benefit a startup.

- Incubators
- Accelerators
- Fab Labs/Maker Space
- Prototyping organisations
- Advocacy organisations



Startup/SME Support Programme History

1958: The first Business Incubator established in Batavia, NY, USA.

1978: The term "Angel Investor" coined by researcher at University of New Hampshire.

1990: Hackerspaces and Makerspaces begin to appear in Germany.

1995: First Coworking spaces founded in Germany and San Francisco.

2001: FabLab, a digital prototyping space and program, founded at MIT in Boston, USA.

2005: Y Combinator, the world's first seed accelerator launched in Silicon Valley.

2007: Startup Weekend created

2010: Business Model Generation Canvas

2011: Eric Reis publishes "the Lean Startup"

What Are Business Incubators? Incubators Provide:

Education

- The training component
 - Business basics
 - Funding basics
 - Any other topics of need

Engagement

- Goal setting
- Tracking progress
- Coaching
- Mentoring

Expertise

- Advisors, service providers and other experts relevant to your clients
- Legal, professional services, and others
- Domain experts (tech, bio, etc.)

Environment

- The building and community that supports it
- Networking in and out of the incubator
- Shared equipment

What are Accelerators?

Accelerators can be:

- Programmes that just call themselves accelerators. This could be an incubator by another name, a non-specific programme that simply likes the word, or any number of things.
- For our purposes, we're discussing seed accelerators in the Y-Combinator/Tech Stars model.

What are Accelerators?

- Initiated by Paul Graham in 2005 with Y Combinator, seed acceleration now includes 100s of models; foremost is TechStars, which now has a growing network of independent programs and 5 of their own branded and organized sites. They offer:
 - Highly-selective investments (no more than \$18-25k per company, up to £250,00 in some cases)
 - Focused on mobile apps, cloud computing, social media, gaming and entertainment, and Web services
 - 90-day boot camps that are immersion courses in validating customers and products
 - Extensive mentoring by experienced entrepreneurs and access to networking during boot camps
 - A “demo day” in which the founders pitch to raise additional investment

Comparing Incubators to Accelerators

	Business incubators	Seed accelerators
Clients	All kinds including science-based businesses (biotech, medical devices, nanotech, clean energy, etc) and nontechnology; founders of all ages and genders	Web-based, mobile apps, social networking, gaming, cloud-based, etc.; firms that do to require significant immediate investment or proof of concept; primarily youthful, often male geeks, gamers and hackers
Business model	Primarily (90 percent) nonprofit business model; for-profits created by corporations and investors	Primarily for-profit business model
Sponsor	Universities, economic development organizations and other community-based groups, some with government help	Serial, cashed-out entrepreneurs and investors

Comparing Incubators to Accelerators

	Business incubators	Seed accelerators
Selection process	Competitive selection, mostly from the community	Competitive selection from wide regions or even nationally
Term of assistance	1-5+ years (29 months on average)	Generally 1-3-month boot camps
Services	Access to management consult., specialized IP, networks of entrepreneurs, helps entrepreneurs mature, round out skills, develop team and financing	‘Fast test’ validation of ideas; opportunities to create a functioning beta and find initial customers; experienced consultants and entrepreneurs in mobile apps, etc., pitch preparation and presentation

Comparing Incubators to Accelerators

	Business incubators	Seed accelerators
Investment	Usually does not have funds to invest directly; more frequently than not, does not take equity	Invests \$18k to \$25k in co-founder teams; take equity of 4-8%
Facilities	Provides flexible space at reasonable rates throughout incubation period; may also work with nonresidents	Provides meeting space for boot camps; some beginning to provide longer-term space
Metrics	Initial: revenue, payroll growth, capital acquisition, patent commercialization, new products introduced. Long-term: ROI to community/university in form of jobs, wealth creation, sector expansion, diversification, etc.	Initial: sales, margins and third-party investments. Long-term: ROI on investors' cash via liquidity events – sales, acquisition, larger investment rounds, etc.

What are Coworking Spaces?

Coworking spaces provide:

- Hot-desks (that is, desks with power and connectivity)
- Small offices for some firms
- Meeting spaces
- Event spaces
- Some community building exercises



What are Makerspaces?

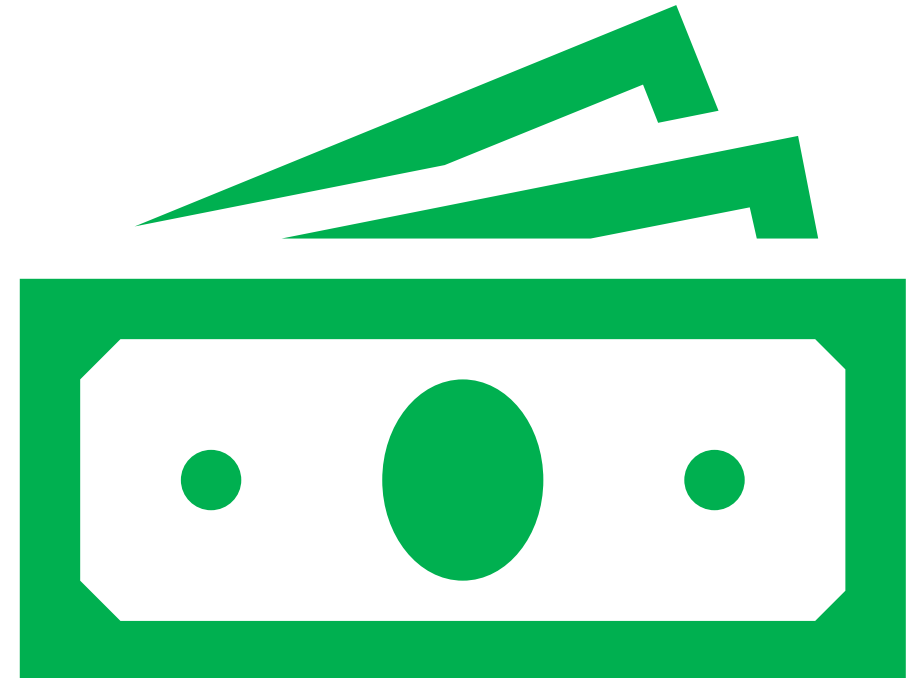
Makerspaces can be a part of a bigger programme (like an incubator) or stand alone. They offer access to:

- Equipment for creators. This can be in a number of mediums, including wood, metal, fabric, even food!
- *FabLabs* are a specific type of makerspace offering equipment in digital fabrication.
- Hackerspaces are similar to coworking spaces and attract coders and game builders.

Money and Finances

What money and financial support is typically available to entrepreneurs?

- Venture Money
- Public support/Grants
- Foundation money
- Debt
- Private Equity
- Corporate money



The role of Technology Transfer Offices within the ESVC

The Overall Goal: commercialization of research

Industry Partnerships

- Pull Vs Push
- Industry Value Proposition

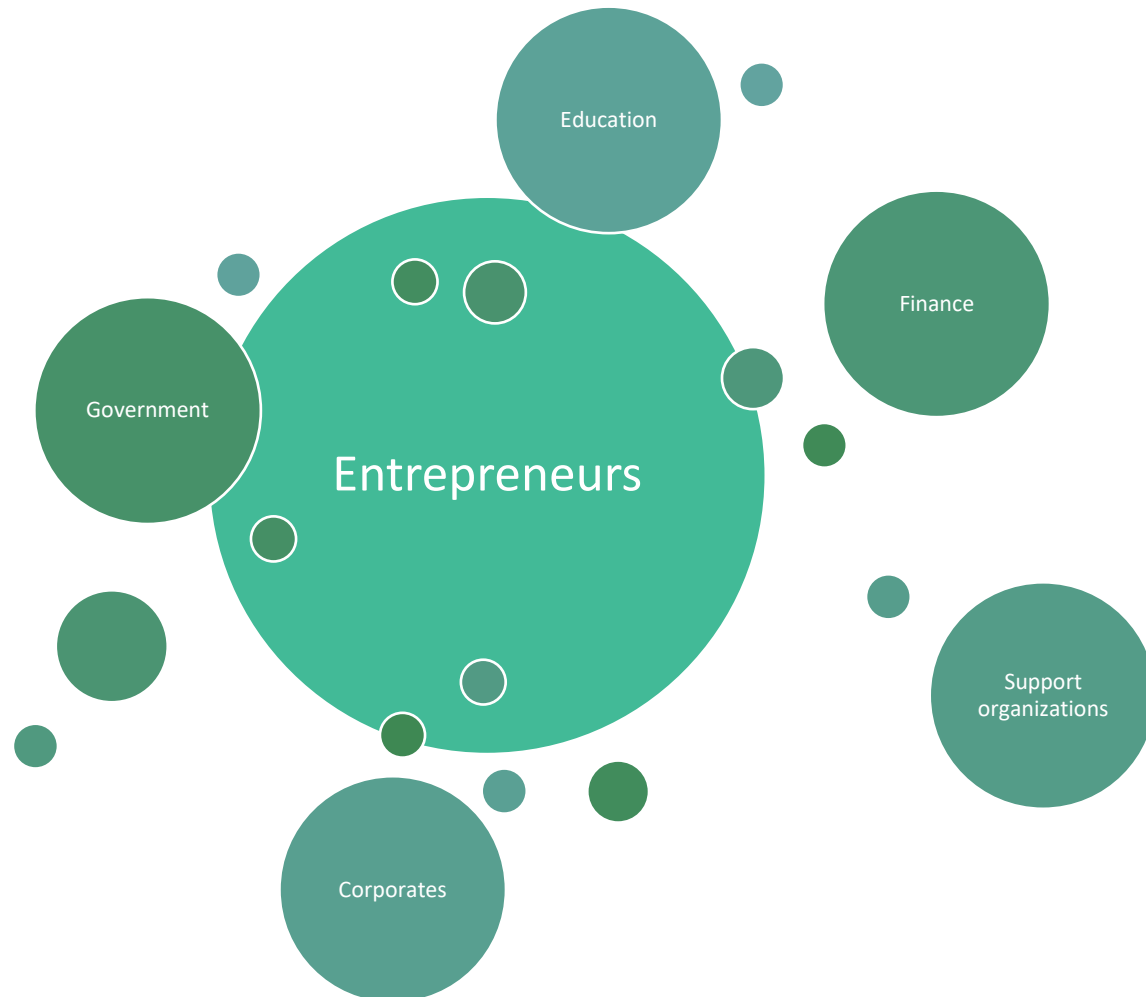
Intellectual Property

- Patent protection
- Licensing

Startup incubation

- Entrepreneurial Mindset
- Counselling and coaching

Conditions for a successful spinoff support



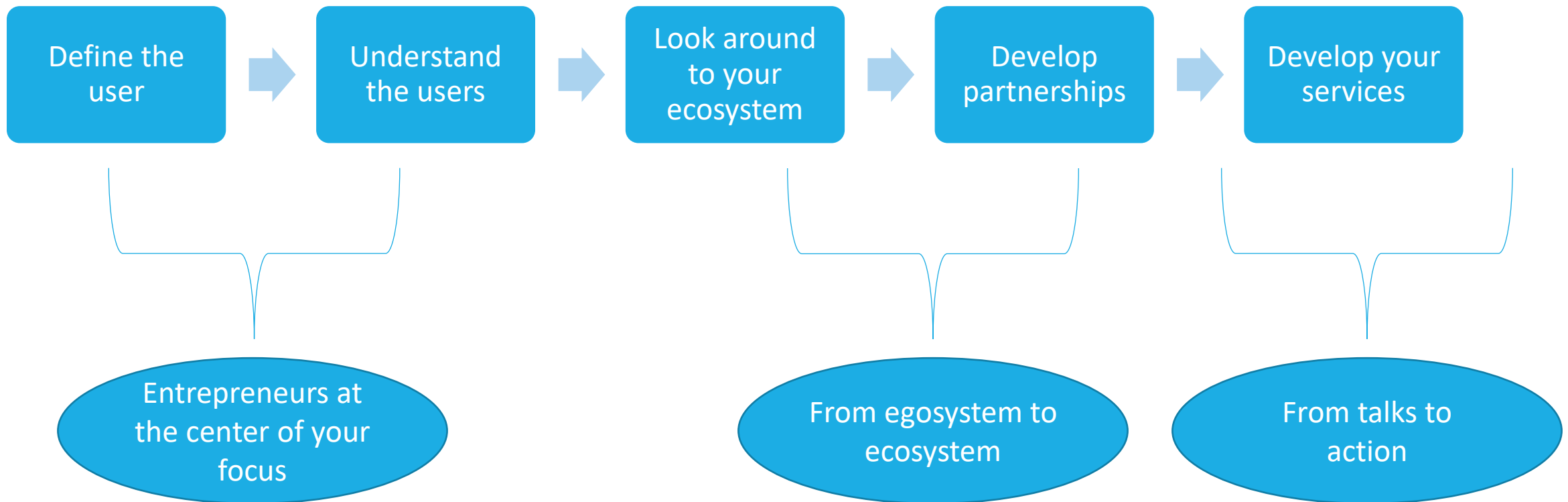
Integration within the ecosystem

- Industry
- Business Support Organizations

Smart Knowledge Management

- Protection
- Generation
- Dissemination

Design your TT0's spin-off support activities



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