

# **Entrepreneurial Discovery Process**

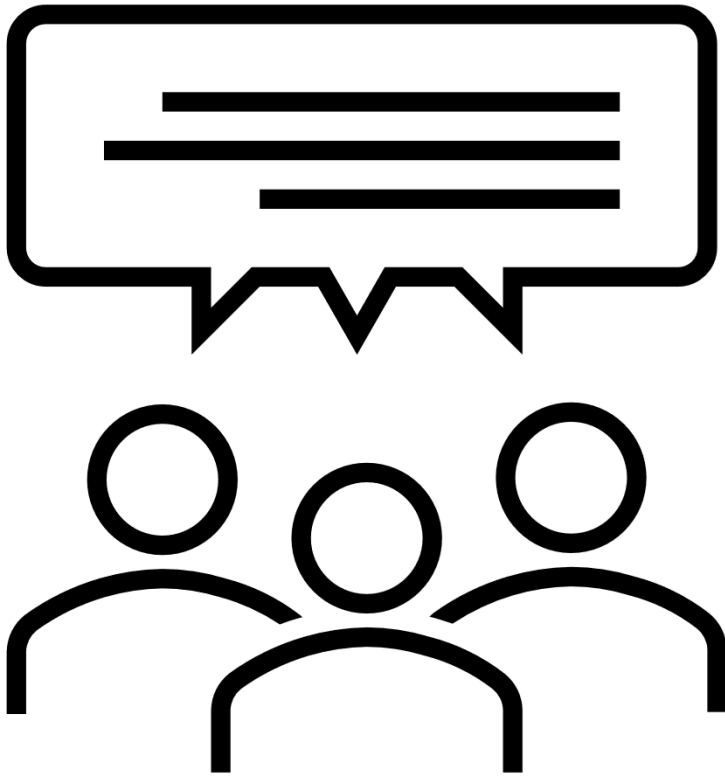
(EDP)

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# Chapters

- Let's try together a definition of the EDP
- Levels of the EDP
  - macroeconomic level
  - microeconomic level
- Conclusions
- Bibliography

# Let's try together to define the EDP



- Definition:

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# Levels of the EDP

- **EDP on Macro-level**
  - definition
  - troublemakers
  - policies to encourage EDP
  - impact of EDP on Entrepreneurship
  
- **EDP on Micro-level**
  - definition
  - entrepreneur, a lonely wolf or one of a pack?
  - analysis of the entrepreneurial idea
  - development of a business model
  - entrepreneur and team
  - pursuing for the product

# EDP on Macro-level

- **EDP on Macro-level**
  - definitions (EDP, Entrepreneurial Ecosystem)
  - troublemakers
  - policies to encourage EDP
  - impact of EDP on Entrepreneurship

# Definition of an Entrepreneurial Ecosystem

- endeavor of the institutional players (Triple Helix Model) to create an entrepreneur-friendly framework for innovative start-ups and an **entrepreneurial ecosystem** as a form of **complex adaptive system**
- “The Entrepreneurial Ecosystem is a set of different individuals who can be potential or existing Entrepreneurs, organizations that support Entrepreneurship that can be businesses, venture capitalist, business angels, and banks, as well as institutions like universities, public sector agencies, and the entrepreneurial processes that occur inside the ecosystem such as the business birth rate, the number of high potential growth firms, the serial entrepreneurs and their Entrepreneurial ambition.” P dvrq#lqg#Eurz q#5347,

## Definition of EDP (Macro) (2)

- is an inclusive and interactive bottom-up process
- participants from different environments (policy, business, academia, etc.) are discovering and producing information about potential new activities, identifying potential opportunities that emerge through this interaction, while policymakers assess outcomes and ways to facilitate the realization of this potential.
- pursues the integration of entrepreneurial knowledge fragmented and distributed over many sites and organizations, companies, universities, clients and users, specialized suppliers (some of these entities being located outside of the region) through the building of connections and partnerships.

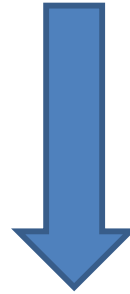
## Definition of EDP (Macro) (3)

- consists of the exploration and opening-up of a new domain of opportunities (technological and market), with innovation potential that emerge as feasible and attractive.
- the importance of EDP is related to the recognition that the government does not have the ex-ante knowledge about future priorities
- Information seeking – because of “troublemakers”
- policy makers must guard against the logic of the **principal-agent model**:
  - the principal (i.e. the government) knows from the start which specializations domains should be developed and therefore confines itself to setting up the incentives for private industry to carry out the plan (*Rodrik, 2013*)



# Definition of EDP (Macro) (4)

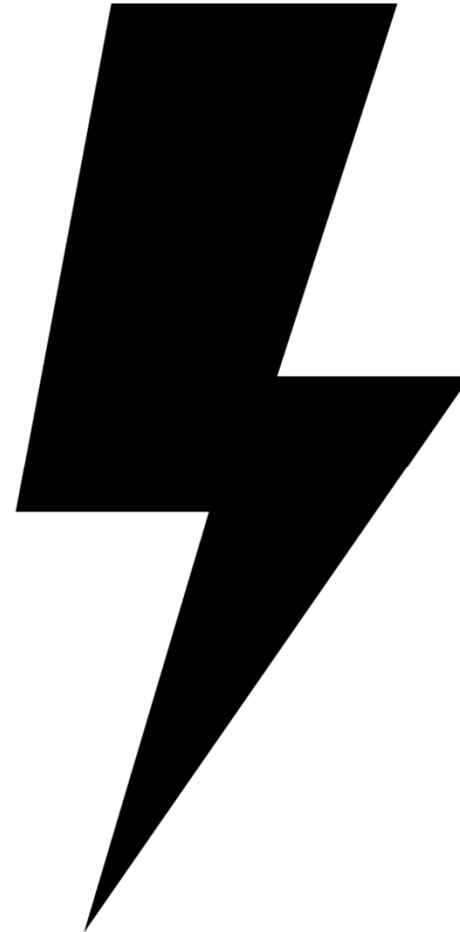
- if there is no principal with the robust and panoramic knowledge needed for this leading role



- administration and politics need to be prepared to listen to entrepreneurs, researchers and citizens in order to identify priorities and facilitate the emergence and growth of new activities.

# EDP Troublemakers

- Principal-Agent Model
- Information externalities
- Co-ordination externalities
- Incomplete appropriability of knowledge
- Regulatory failures





# The Principal-Agent Model

- relationship between asset owner (principal) and agent (person contracted to manage that asset on the owner's behalf)
- E.g. if you own a small business and hire an outside contractor to deliver a service
- the main element in the principal-agent model is trust. You trust that both you and the agent acting on your behalf have the same incentives.



# The Principal-Agent Problem (PAP)

- Problems occur when:
  - Agents have hidden agendas and substitute their own objectives for what the principal wants
  - Asymmetrical information favors agents and makes it difficult for principals to monitor an agent's activities
  - Agents shirk responsibilities and work at less-than-optimal efficiency
- The key to eliminating the principal-agent problem is all about finding any conflict of incentives and getting rid of them
- policy makers must guard against the logic of the **PAP**:
  - the principal (i.e. the government) knows from the start which specializations domains should be developed and therefore confines itself to setting up the incentives for private industry to carry out the plan *(Rodrik, 2013)*



# Information externalities

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# Co-ordination externalities

- entrepreneurial individuals that are well-placed to explore and identify new activities often will not have sufficient connections to marketing and financing sources, reducing their incentives to enter in the process; likewise, "discovery" opportunities may be constrained due to the large-scale investments required by some projects, and in particular by the spillovers that are specific to knowledge driven investments.

# Incomplete appropriability of knowledge

- that lead to externalities creating a difference between the private and the social marginal return of any new knowledge being generated, which could lead, under perfect competition, to under-investment in innovation activities (*WIPO, 2009*)
- The discovery of pertinent specialization domains may have a high social marginal return (development of the region's economy), but the entrepreneur who makes this initial discovery will only be able to capture a very limited part of this social value because other entrepreneurs will swiftly move into the identified domain ("first-mover disadvantage")

# **Regulatory failures**

- inadequate regulation impeding or limit the private activity of the existing entrepreneurs



# What Policies can encourage EDP? (1)

Policy objective	Market failure addressed	Main agents involved	Tools
To avoid ill-informed policy decision To increase knowledge spillovers	Information externalities	Entrepreneurial actors*  The remainder of society  Public Administration	<ul style="list-style-type: none"> <li>• Creating platforms and mechanism to facilitate - intra and -iter regional interactions</li> <li>• Providing key information about emerging technological and commercial opportunities</li> <li>• Providing incentives to involve non-traditional actors</li> </ul>
To learn about costs and opportunities and engage in strategic coordination	Coordination externalities	Entrepreneurial actors*  The remainder of society	<ul style="list-style-type: none"> <li>• Networks &amp; associations</li> <li>• Cluster policies</li> <li>• Technologies banks</li> <li>• Public-private partnerships</li> <li>• Sectoral platforms</li> <li>• SME support organisations</li> <li>• Demonstration projects, technology extension services</li> </ul>

# What Policies can encourage EDP? (2)

Policy objective	Market failure addressed	Main agents involved	Tools
To reward entrepreneurs who discover new domains	Incomplete appropriability	Entrepreneurial actors*  The remainder of society	<ul style="list-style-type: none"> <li>Prizes for inventions and discoveries (e.g. government-funded research)</li> <li>IPRs</li> </ul>
To incentive entrepreneurial actors to engage in innovative activities	regulatory failures	Entrepreneurial actors*  The remainder of society	<ul style="list-style-type: none"> <li>Innovation for public sector innovation (e.g. Innovation-oriented procurement)</li> <li>Fiscal incentives</li> <li>Public web consultations</li> <li>Regional workshop</li> <li>Innovation vouchers</li> <li>Internationalisation support services</li> </ul>

IPR – intellectual property rights

# Impact of EDP on Entrepreneurship

- Regional policies on innovative entrepreneurship
  - triple helix agents and policies
  - change agents
  - networks
- Smart Specialization Strategy (S3)
- Financing
  - start-up
  - growth

# Regional policies (Triple Helix Model)

- high-growth enterprises generate entrepreneurial innovations.
- Triple Helix produces positive effects on entrepreneurial innovations' performance
  - access to knowledge/technology
  - sources of funding
  - government subsidies
- enterprises are more likely to use internal funds for innovation than external sources
- Government subsidies produce positive effect on non-high-growth enterprises.
- Socio-economic context produces a negative impact on entrepreneurial innovations' performance.

# Triple Helix Agents

- Industry
  - business angel network
  - business angel
  - corporate investor
  - corporate entrepreneur
  - entrepreneur
- University
  - university professors
  - university organizations
- Public Administration
  - local government
  - state government

# Change agents (1)

- “Institutional change agents may have intended or not to change their institutional environment - but they initiate, and actively participate in the implementation of changes that diverge from existing institutions” *(Battilana et al. 2009)*
- Macro- and meso-level
  - intermediary non-governmental stakeholder
  - intermediary work between science, economy, public administration, and civil society on a city level
- Micro-level
  - clusters
  - excellence centers

# Change agents (2)

- University and public research organizational settings:
  - scientists
  - elite academics
  - charismatic teachers
  - student representatives
  - managers and leaders at different organizational levels (e.g., a rectors' assoc.)
- Industry:
  - serial entrepreneurs
  - venture capitalists
  - corporate managers
  - chambers of commerce
- Government:
  - influential politicians at various levels
  - governmental intermediary funding agencies
- Civil society:
  - Media
  - opinion leaders
  - social movements

# Networks

- industry and branch related
- for economic development, wealth, sustainability and competitiveness of a region
- fostering collaboration by connecting European entrepreneurial regions: key to sharing and promoting best-practices that support entrepreneurs. Regions with forward-thinking and promising entrepreneurship received the European Entrepreneurial Regions label. This project furthers collaboration between regions, supporting entrepreneurs with themed actions such as access to finance



# Smart Specialization (1)

- place-based approach for identification of strategic areas for intervention based on
  - the analysis of the strengths and potential of the economy
  - Entrepreneurial Discovery Process (EDP) with wide stakeholder involvement.
- is outward-looking and embraces a broad view of innovation including technology-driven approaches, supported by effective monitoring mechanisms
- is an innovative approach that aims to boost growth and jobs in Europe, by enabling each region to identify and develop its own competitive advantages.
- is a partnership and bottom-up approach which brings together local authorities, academia, business spheres and the civil society, working for the implementation of long-term growth strategies supported by EU funds.

# Smart Specialization (2)

- Over the European structural funds programming period (2021-2027), Smart Specialization is expected to continue to play a major role towards cohesion policy and regional development, and towards economic transformation in the long run. In particular, Smart Specialization can boost innovation-led growth in the EU industrial transition regions and further integrate regional economies in European value chains.
- It also has great potential to foster eco-innovation processes that respond to global environmental challenges, in line with the United Nations Sustainable Development Goals.

# Smart Specialization (3)



## ▶ SMART

Identify the region's own strengths and comparative assets



## ▶ SPECIALISED

Prioritise research and innovation investment in competitive area



## ▶ STRATEGIC

Define a shared vision for regional innovation

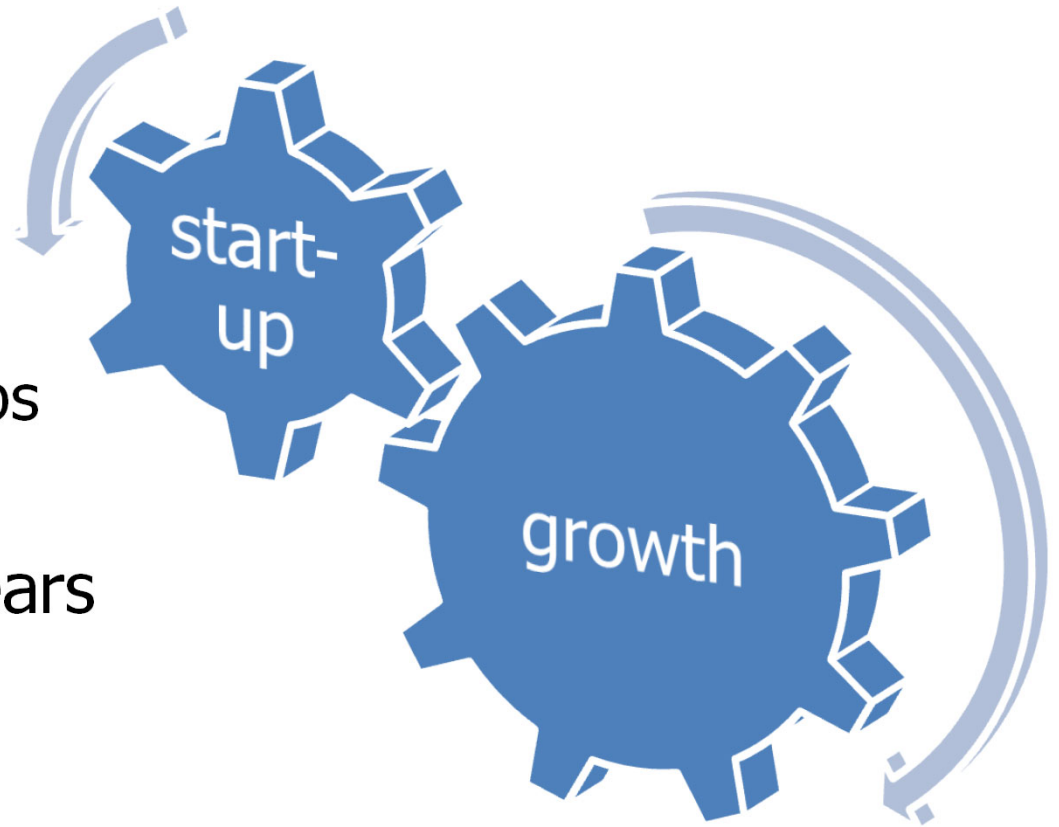
### KEY FIGURES

- ▶ **Over 120 smart specialisation strategies** have been developed
- ▶ **Over EUR 67 billion** available to support these strategies, under the European Structural and Investment Funds and national / regional funding.
- ▶ Expected achievements by 2020: to bring **15.000 new products** to market, create **140.000 new start-ups** and **350.000 new jobs**.

# Financing the Venture

The financing process is

- complex
  - structural funds
  - public private partnerships
  - private funding
- interlocked like a set of gears for the two stages:
  - start-up
  - growth



details in the next module!

# EDP on Micro-level

- definition
- entrepreneur, a lonely wolf or one of a pack?
- analysis of the entrepreneurial idea
- development of a business model
- entrepreneur and team
- pursuing for the product

# Definition of EDP (Micro) (1)

- Venture creation and Product development

Discovery: An entrepreneurial process begins with the idea generation (the entrepreneur identifies and evaluates the business opportunities, seeking inputs from employees, consumers, channel partners, technical people, etc. to reach to an optimum business opportunity.

The efficiency of an opportunity is evaluated by continuously asking certain questions: is the opportunity worth investing in, is it sufficiently attractive, are the proposed solutions feasible, is there any competitive advantage, what are the risks associated with it?



# Entrepreneur, a lonely wolf or one of a pack?

- Entrepreneurship is
  - an individually made decision based on
    - an entrepreneurial idea (market need, demand creation)
    - the development of a business model
    - personal entrepreneurial characteristics (PECs)
    - team
  - influenced by the
    - regional policies (triple helix)
    - smart specialization
    - financing

# Analysis of the entrepreneurial idea

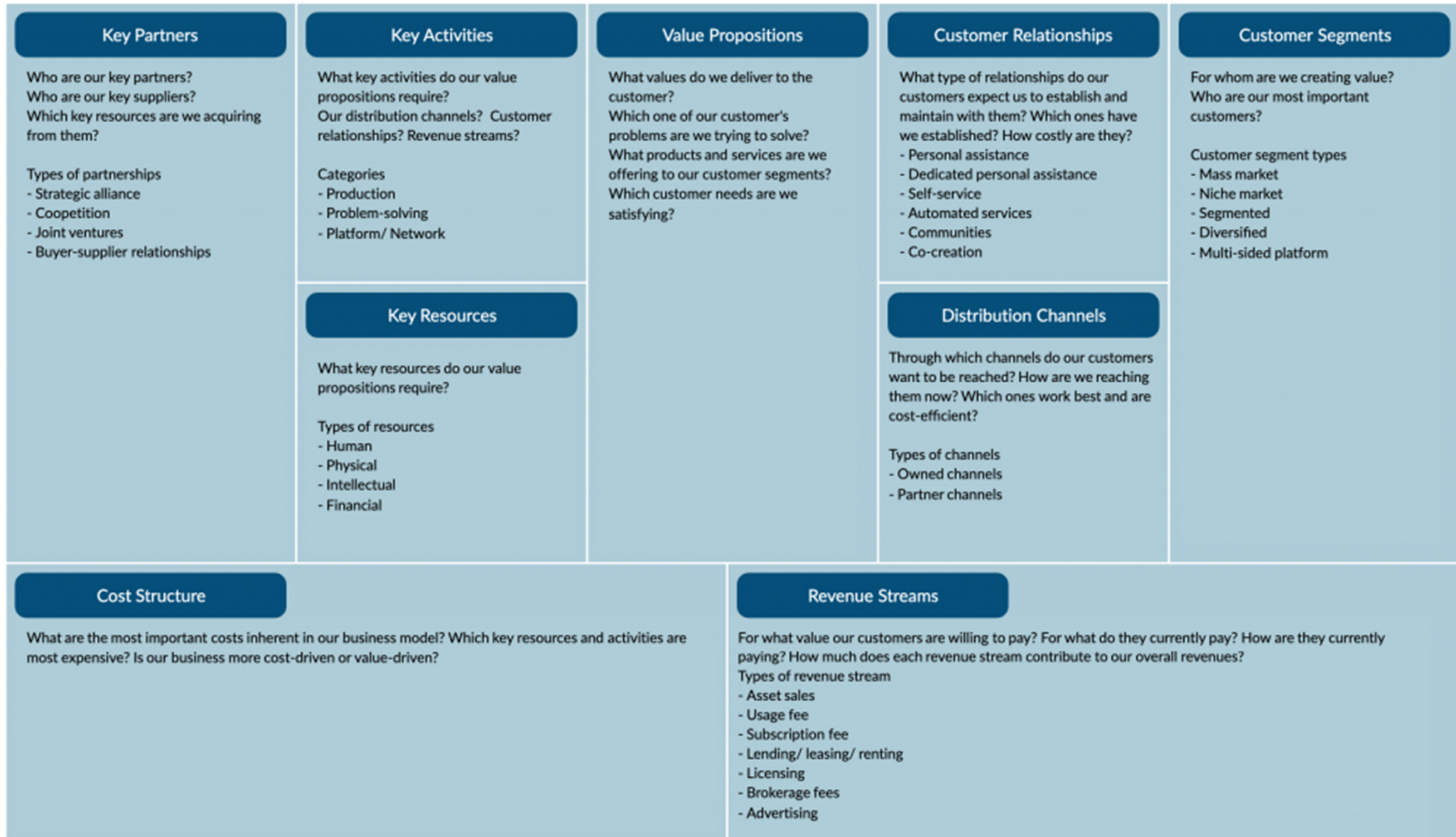
- Identifying a market need, creating a demand and proposing a product concept
- Inducing the solution for the market need (product development and customer development)
- Value of failure
  - through failure - the greatest learning effect
  - We tend to evaluate our failures more than our successes.
    - Failure without learning = Loss!
    - Failure with learning = Value!



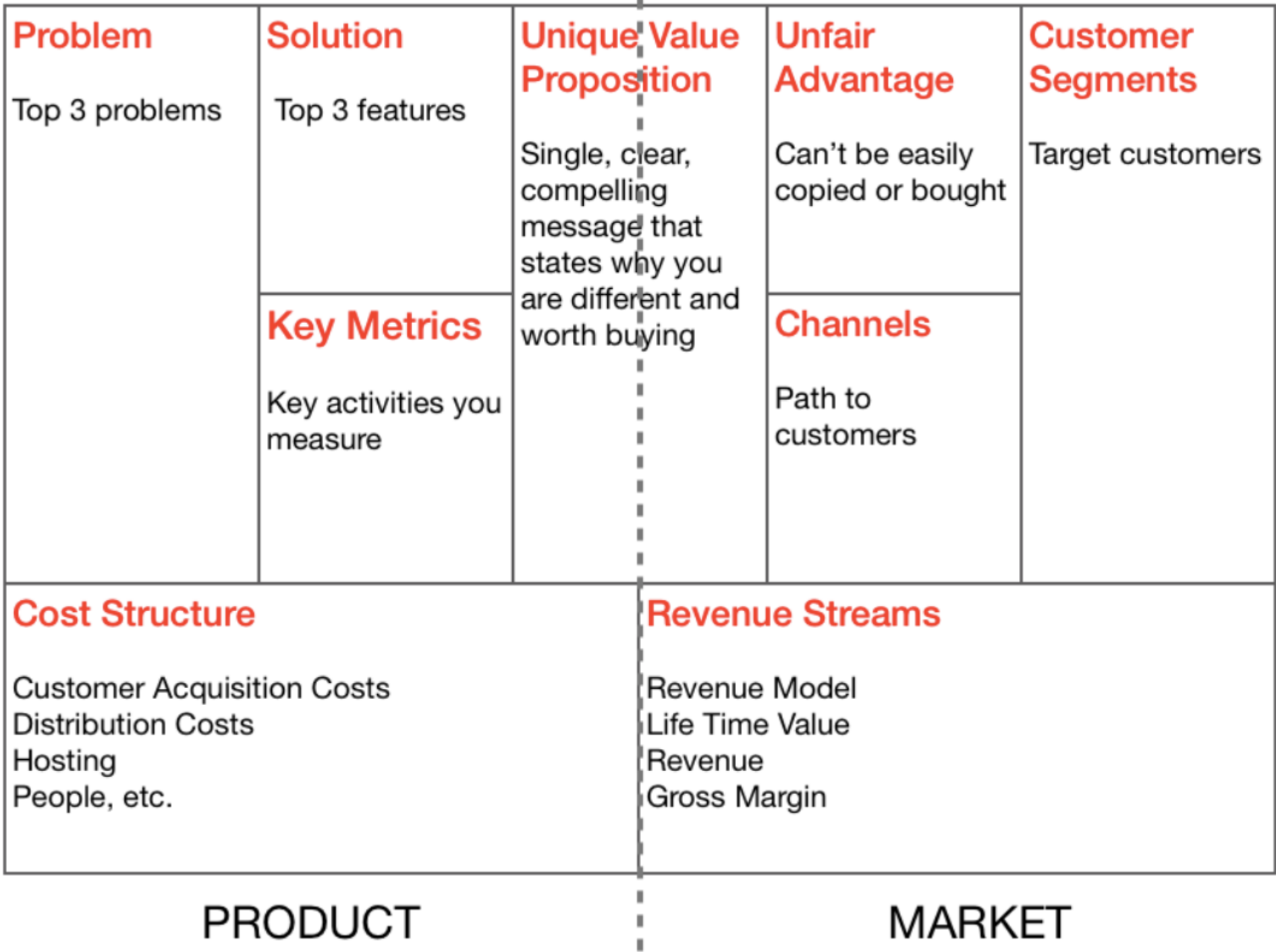
# Development of a Business Model

- Business Plan and Elevator Pitch
  - single document divided into several sections
    - description of the organization
    - market research
    - competitive analysis
    - sales strategies
    - capital requirements
    - labor requirements
    - financial data.
  - blueprint for your business and be supplied to financial institutions or investors if debt or equity financing is needed to get your business off the ground
- Business Model Canvas
  - strategic management tool – one-page document that visualizes and assesses the business idea or concept
  - nine boxes that represent different fundamental elements of a business

# Business Model Canvas (1)



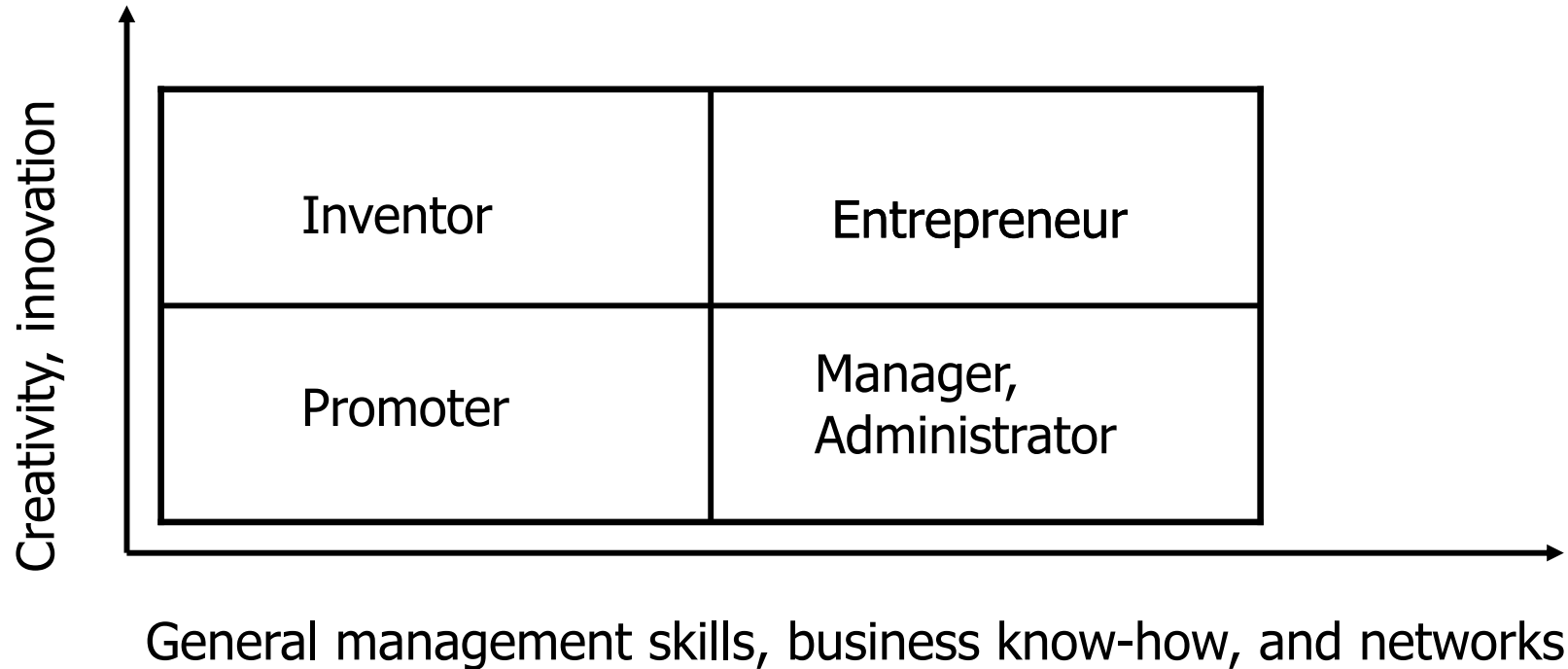
Source: Alexander Osterwalder, Yves Pigneur



# Entrepreneur and Team

- Personal Entrepreneurial Characteristics/Competencies (PECs)
  - entrepreneur
  - team
- A balanced Core-Team
- Teamwork

# Personal Entrepreneurial Characteristics (PEC)



Source: J. Timmons, New Venture Creation

# A balanced Core Team (1)

**Spark for start-up:**  
product or service idea,  
a technological  
innovation thought out  
by the founders, who  
have technological  
capabilities

- key differentiator:  
management  
experience
- clear target customer  
segment
- early on the market
- profitable pricing  
model
- effective customer  
acquisition process
- catches the interest of  
investors

# A Balanced Core Team (2)

- 3-4 people right in the beginning (critical for start-ups)
  - good mix of technical and business management experience
  - tech savvy original founders but inexperienced in technical operations, needs an experienced co-founder with strong technology operational capabilities
  - business management specialist as a co-founder, with exposure to sales and customer management, ideally in the domain space, helps visualize and manage both functions
  - consultant/senior employee - focusses on business financials and works on logical and acceptable business plans
- key features to survival and growth of a start-up

# Team(work)

- Enterprise **Culture**: leaders need a buzzword
- Vision also for the work environment, **rapport**, not only for the product
- Otherwise, small teams are affected even by a hiccup
- Pre-hire and Post-hire Assessment
- Different combinations of
  - Professional styles: (create, manage, innovate), (lead, follow, execute)
  - Personality styles (the Myers-Briggs Type Indicator MBTI®, according to the 16 psychological types described by C.G. Jung)
    - Favorite world: Extraversion (E) or Introversion (I)
    - Information: Sensing (S) or Intuition (N)
    - Decisions: Thinking (T) or Feeling (F)
    - Structure: Judging (J) or Perceiving (P)



# Pursuing for the Product (1)

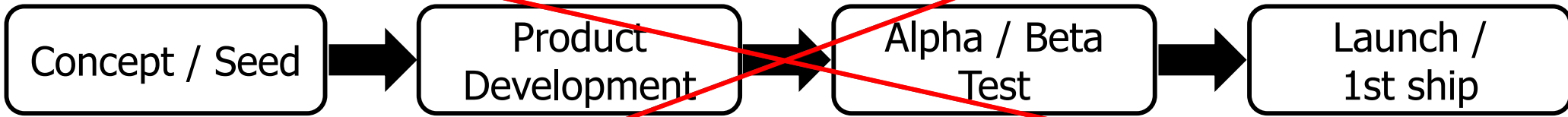


Figure 1 The Product Development Diagram

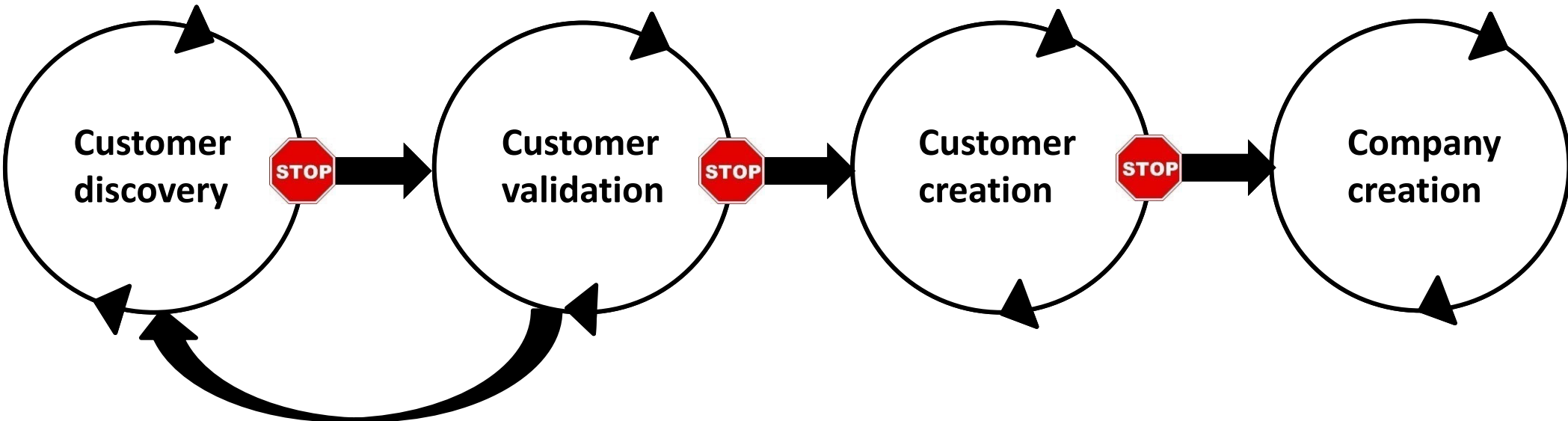


Figure 2 The Customer Development Model

# Pursuing for the Product (2)

- Customer Development model is not a replacement for the Product Development model, but a companion.
  - Customer Development focuses on understanding customer problems and needs
  - Customer Validation on developing a sales model that can be replicated
  - Customer Creation on creating and driving end user demand,
  - Company Building on transitioning the organization from one designed for learning and discovery to a well-oiled machine engineered for execution.
- a major difference between this model and the traditional Product Development model is that each step is drawn as a circular track with recursive arrows. The circles and arrows highlight the fact that each step in Customer Development is iterative.

# Conclusions

- EDP is an interlocked process both on venture level and on the entrepreneurial ecosystem level
- owner of the business idea is the entrepreneur
- the entrepreneurial ecosystem offers some opportunities for sustainable development/hinders the development of new ventures

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