Innovation and Entrepreneurship Basic concepts and teaching Skills

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Table of Content

- Basic concepts (creativity, innovation and entrepreneurship)
- Characteristics of entrepreneurs
- Discovering Creative and innovative students
- Tools to boost creativity and innovation
- Strategies to transform creativity and innovation to entrepreneurship
- Innovation and Entrepreneurship Center
- Practical examples (Business plan and pitching)

- المفاهيم الاساسية للابتكار و الابداع و الريادة.
- خصائص الريادين و المبكرين.
- اكتشاف الابتكار و الابداع لدى الطلبة.
- اليات (ادوات) تنمية و تعزيز الابتكار و الريادة و الابداع لدى الطلبة.
- منهجيات تحويل الابتكار و الابداع الى ريادة.
- اساليب تقديم الابتكار و الريادة و الابداع الى الطلبة و المجتمع.
- مركز الابتكار و الريادة
- امثلة عملية (التخطيط للاعمال و المبيعات)

Part 1 : Basic Concepts
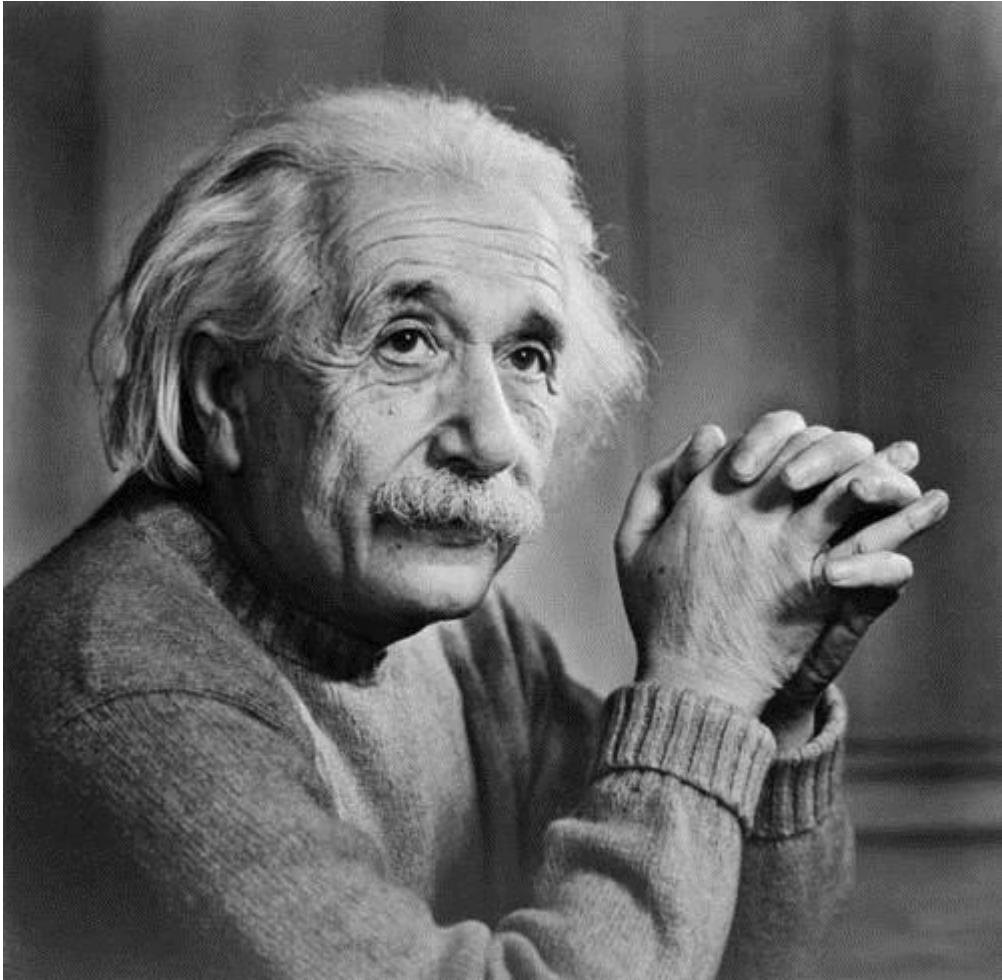
From Invention, Research to Innovation

- **Research**: by1914,the time WW1 broke out, invention had become research

- Research is a systematic, purposeful activity, which is planned and organized with high predictability both of the results aimed at and likely to be achieved

- Something similar now has to be done with respect to INNOVATION" ,i.e. systematic innovation

- **Innovation** is defined

  - "new idea, device, or method or the application of better solutions that meet new requirements, unarticulated needs, or existing market needs.

- Innovation is the specific instrument of entrepreneurship. It is the act that endows resources with a new capacity to create wealth

- Whatever changes the wealth-producing potential of already existing resources constitutes innovation

- Innovation does not have to be technical, it is also an economic or social term

- Innovation can be defined as changing the yield of resources, or defined in demand terms rather than in supply terms, that is as changing the value and satisfaction obtained from resources by the consumer
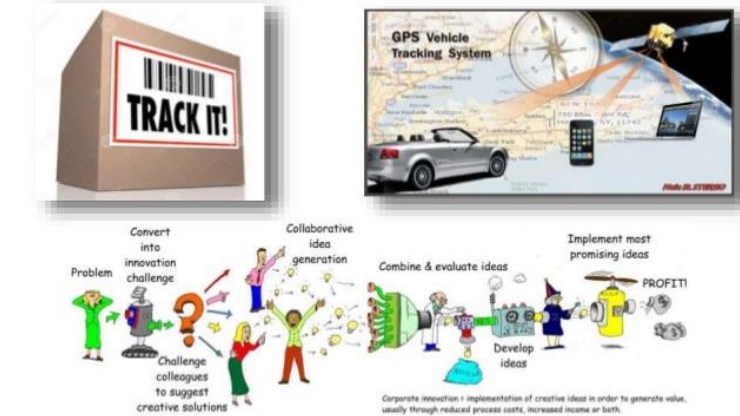
Innovation

FLAME   INCANDESCENT   FLOURESCENT   LED

Example

Process Innovation

► This is accomplished through

  ► More
    effective products, processes, services, technologies,

  ► or business models that are readily available
    to markets, governments and society.

► الابتكار او الابداع

► اي شي محسن او جديد ل:

► منتج

► عملية

► خدمة

► تقنية او تكنولوجيا

► نموذج ارباح

What Are Innovations?

► Innovations are new ways to achieve tasks.

► Types of innovations include:

  ► Mechanical—tractors, cars.

  ► Chemical—pesticides.

  ► Biological—seed varieties.

  ► Managerial—IPM, extra pay for work, overtime.

  ► Institutional—water users' association, patents, banks, stock market, conservation districts, monks.

► It is useful to distinguish between process innovations (new biotechnology procedures) and product innovations (Bt cotton).

Sources and Types of Innovation

Sources of Innovation:

1. Unexpected occurrences
2. Incongruities
3. Process needs
4. Industry and market changes
5. Demographic changes
6. Perceptual changes
7. Knowledge-based concepts
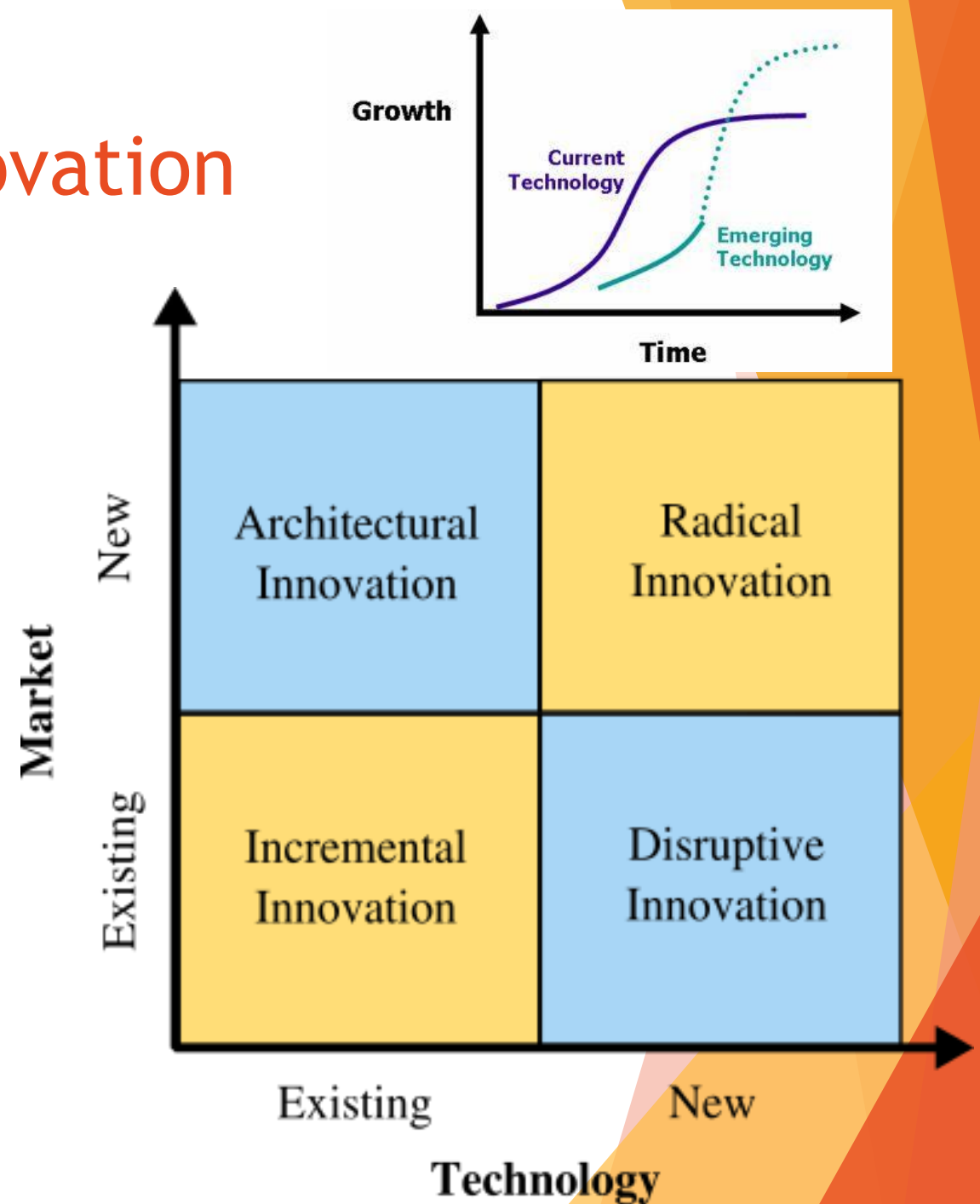
Innovators

- In the past most innovations were introduced by practitioners. Even now practitioners are important innovators. They identify a way to meet needs.

- The scientific discoveries of the late 19th century gave rise to science-based innovations (Edison, Bell, Marconi).

- Major companies (IBM, Sony, Bell, Kodak, GM) built their own research labs.

- Public sector labs made important agricultural and environmental discoveries.

- Universities and start-up companies are becoming major sources of new innovations. The ownership of a technology and leadership in its applications move between organizations over time.

Major Innovation Myths

- Myth 1: Innovation is planned and predictable
- Myth 2: Technical specifications should be thoroughly prepared
- Myth 3: Creativity relies on dreams and blue- sky ideas
- Myth 4: Big projects will develop better innovations than smaller ones
- Myth 5: Technology is the driving force of innovation success

From Creativity to Entreprenurship
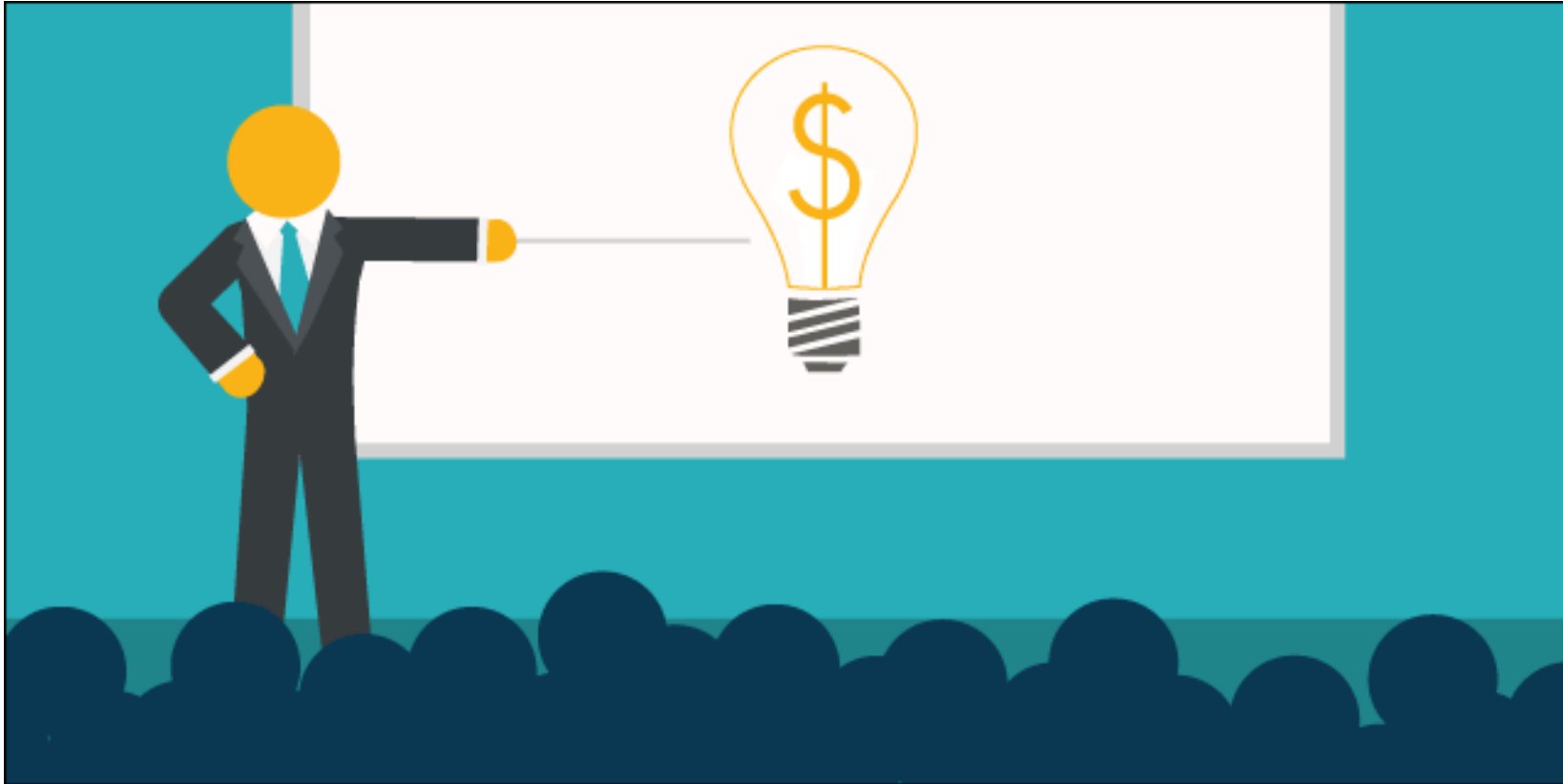
Creativity

Thinking new things

↓

Innovation

Doing new things

↓

Entrepreneurship

Creating value in the marketplace

Entrepreneurship

Entrepreneurship

Entrepreneurs make things happen.

▶ **Entrepreneurship** : is the process of designing, launching and running a new business, which typically begins as a small business, such as a startup company, offering a product, process or service for sale or hire

▶ They are individuals who take a concept and convert it into a reality. A product, policy or institution.

▶ They become the champions of a new process, and they are engines of change.

▶ Entrepreneurship occurs in all areas of life.

▶ Entrepreneurs are everywhere, in Wall street and the Sahel.

▶ Entrepreneurship can be used for good and evil.

Obstacles to Entrepreneurship

➔　Mindset / Attitude

▶ Inertia

▶ Lack of self confidence

▶ Doubts in own skills

▶ Too long working hours
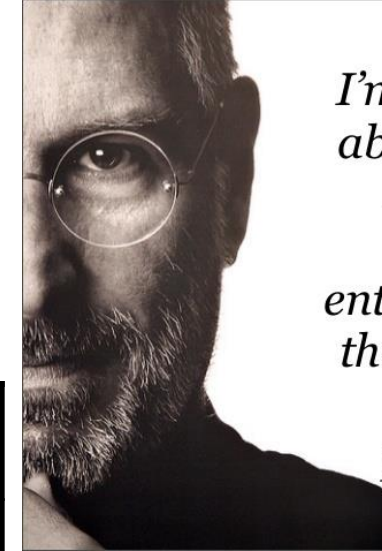
▶ Dont have a business idea

▶ Fear of Failure

➔　Technical (Bureaucracy, Finances and management)

▶ Administrative procedures to start-up

▶ Lack of finance

▶ Wealth of legal requirements on businesses, products and services (bureaucracy)

▶ Personal financial uncertainties

▶ lack of market demand

▶ Bad management

▶ bad business decisions

▶ economic crisis

OR Combination of all

"THE BIGGEST RISK IS NOT TAKING ANY RISK... IN A WORLD THAT IS CHANGING REALLY QUICKLY, THE ONLY STRATEGY THAT IS GUARANTEED TO FAIL IS NOT TAKING RISKS."
Mark Zuckerberg
Addicted2Success.com
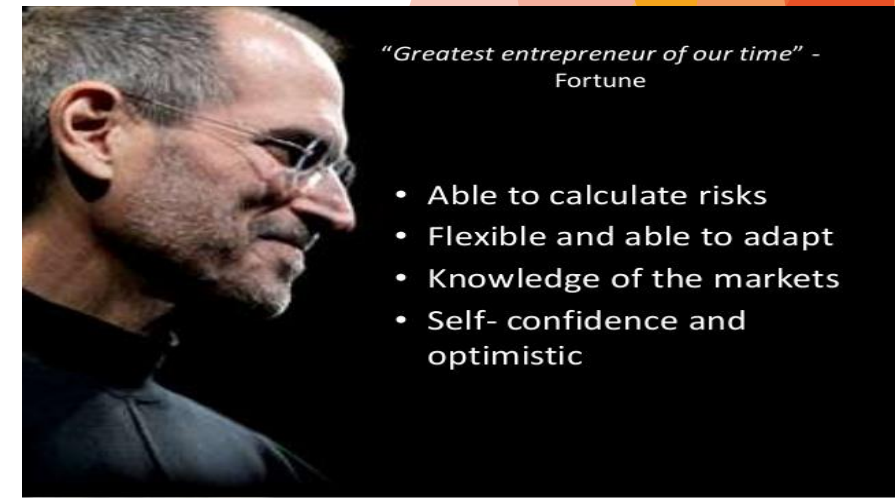
Entrepreneurs skills ???

I'm convinced that about half of what separates the successful entrepreneurs from the non-successful ones is pure perseverance.

Personal skills:	Business skills:
• Team working	• Basic economics
• Communication	• Financial literacy
• Self-confidence	• Developing market research
• Taking initiative	• Drafting a business plan
• Problem-solving	• Raising finance
• Taking calculated risk	• Sales techniques
• Leadership	• Running a business meeting

Common Characteristics of Entrepreneurs

- Commitment, determination, and perseverance
- Drive to achieve
- Opportunity orientation
- Initiative and responsibility
- Persistent problem solving
- Seeking feedback
- Internal locus of control
- Tolerance for ambiguity

- Calculated risk taking
- Tolerance for failure
- High energy level
- Creativity and Innovativeness
- Vision
- Self-confidence and optimism
- Independence
- Team building

"AN ENTREPRENEUR IS SOMEONE WHO JUMPS OFF A CLIFF, AND BUILDS A PLANE ON HIS WAY DOWN."

Reid Hoffman
Executive Chairman, LinkedIn

"Greatest entrepreneur of our time" - Fortune

- Able to calculate risks
- Flexible and able to adapt
- Knowledge of the markets
- Self- confidence and optimistic

National Success Cases

Mohammed Shaker

Entrepreneurs: Firas Al-Otaibi, Mohammed Asfour and Wael Attili
Company: Kharabeesh
Industry: Animation and Design Services
Selected: October 2010
Website: www.kharabeesh.com

Mohamad Haj Hasan

Omar Koudsi

Jeeran - 2000 ~ 2006   Jeeran - 2006 ~ 2009   Jeeran - 2010 ~ 2013   Jeeran - 2014

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Ala' AlSallal

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Picking the Winners isn't easy!

Not every dreamer is an achiever *but* Every achiever is a dreamer

Jan Mulfeit, Chairman Microsoft Europe

What is "Entrepreneurship Education" ?

✓ To develop personal attributes and horizontal skills: creativity, initiative, risk-taking, autonomy, self-confidence, leadership, team-working…..

✓ Awareness of self-employment and entrepreneurship as possible career options

✓ Early contact with the world of business

✓ Learning by doing: work on concrete projects (e.g. students running mini-companies)

✓ Specific business skills: how to start and run successfully a company.

Teaching Tools

- Gap between methods applied and those that are seen as the most effective

- Experience-based methods are crucial: traditional pedagogies (lectures) are not the most effective

- Most effective methods indicated: group techniques for new business ideas, case studies, business planning workshops

- Essential elements: ccrossing boundaries between disciplines, and multi-disciplinary collaboration

Some good practice examples

✓ Technical University of Munich (DE): the Entrepreneurial University (in all disciplines);

✓ University of Strathclyde (UK): entrepreneurship for students of music;

✓ Dublin Institute of Technology (IRL): traditional exam replaced by the organization of a charity event;

✓ Lahti University of Applied Science (FI): linking students with business owners looking for a successor.

✓Wirtschaftsuniversität Vienna (AT) : teams of 3 students from WU and 3 from TU developing cases together

The Oslo Agenda for Entrepreneurship Education in Europe

- A detailed catalogue of 47 initiatives, based on successful experiences in Europe

- Stakeholders can pick actions at the appropriate level

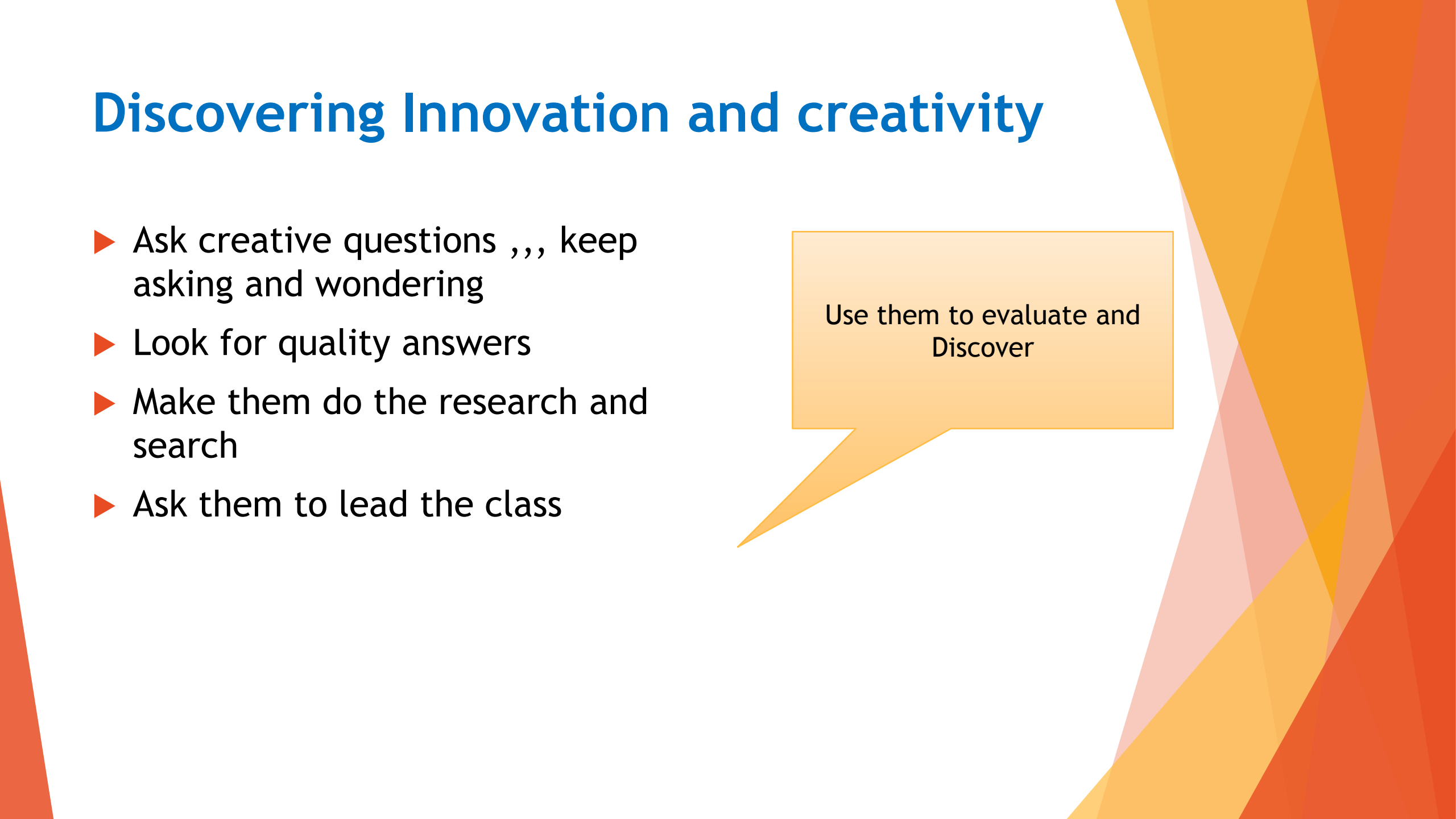- Relevant actors are indicated for each one of the proposed actions

Discovering Innovation and Creativity

▶ Myths

  ▶ Grades are reflection of innovation

  ▶ We know better

  ▶ Some ideas are just "waste"

  ▶ Having a predefined solution will help

Discovering Innovation and creativity

- ▶ Ask creative questions ,,, keep asking and wondering

- ▶ Look for quality answers

- ▶ Make them do the research and search

- ▶ Ask them to lead the class

Use them to evaluate and Discover

Tools to help Innovation and creativity education and teaching:

- ▶ Use
  - ▶ Challenges, problems
  - ▶ Real case studies and examples
  - ▶ Story
  - ▶ Brainstorming and Imagination
  - ▶ Role play
 - ▶ Brainstorming
  - ▶ Free speech
  - ▶ Games

- ▶ Use
  - ▶ Get to the filed - out of the class room
  - ▶ Stop the class and change the topic
  - ▶ Give them weekly reading homework's in a different fields
  - ▶ Use Roundtable Discussions
  - ▶ Use Project based learning
  - ▶ Use tools and technologies to help unleash the potential of students Make them use interdisciplinary approach to solve problems.
 - ▶ Teach them to respect all other opinions

Strategies to transform creativity and innovation to entrepreneurship

Strategies to transform creativity and innovation to entrepreneurship: **The** Entrepreneurial process
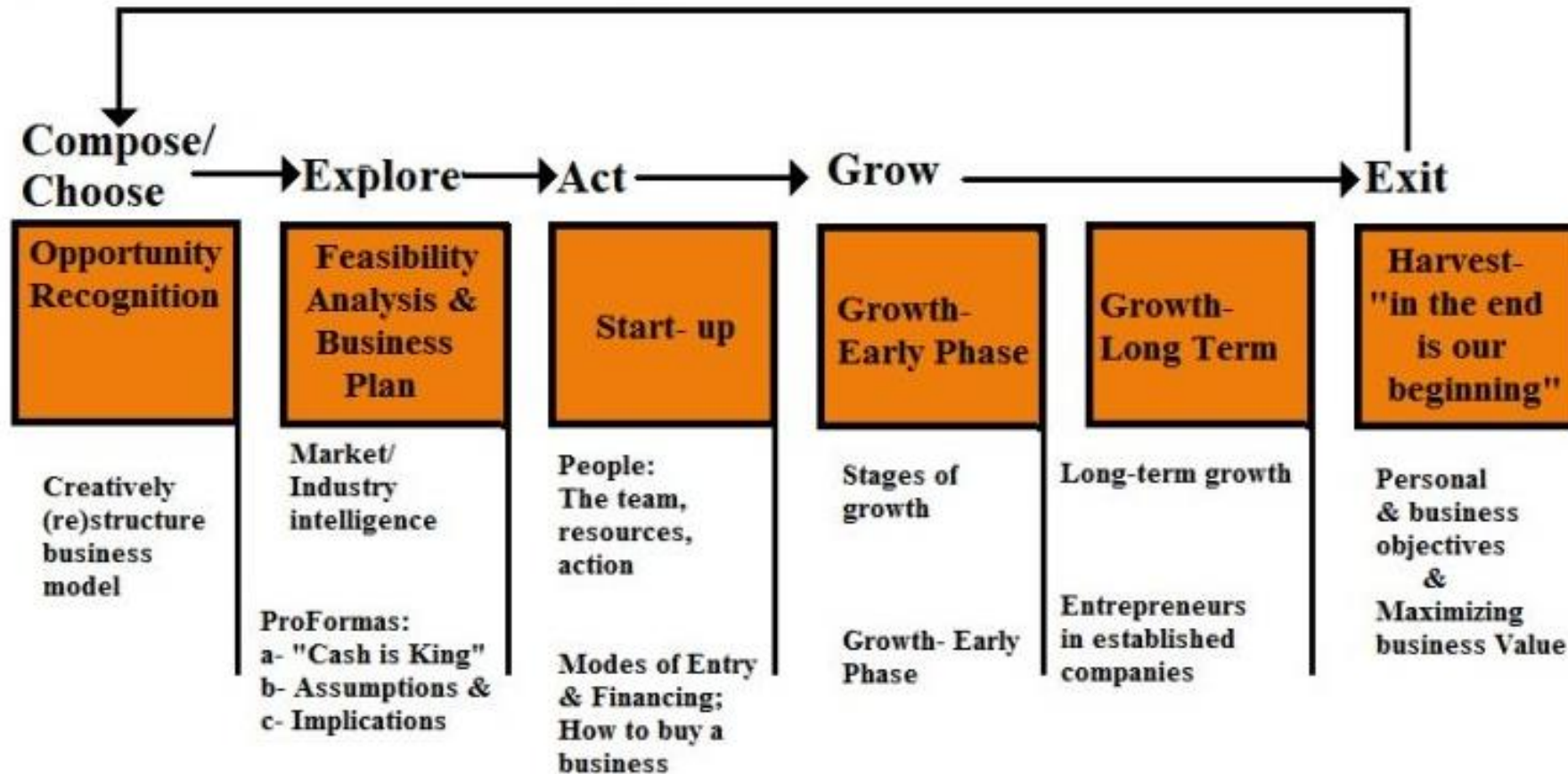
Startup company

▶ A (**startup** or **start-up**) is
an entrepreneurial venture which is
typically a newly emerged, fast-
growing business that aims to meet a
marketplace need by developing a
viable business model around
an innovative product,
service, process or a platform. A
startup is usually
a company designed to effectively
develop and
validate a scalable business model.
[WIKI]

A Startup - Evaluating startup potential   by www.startupcommons.org
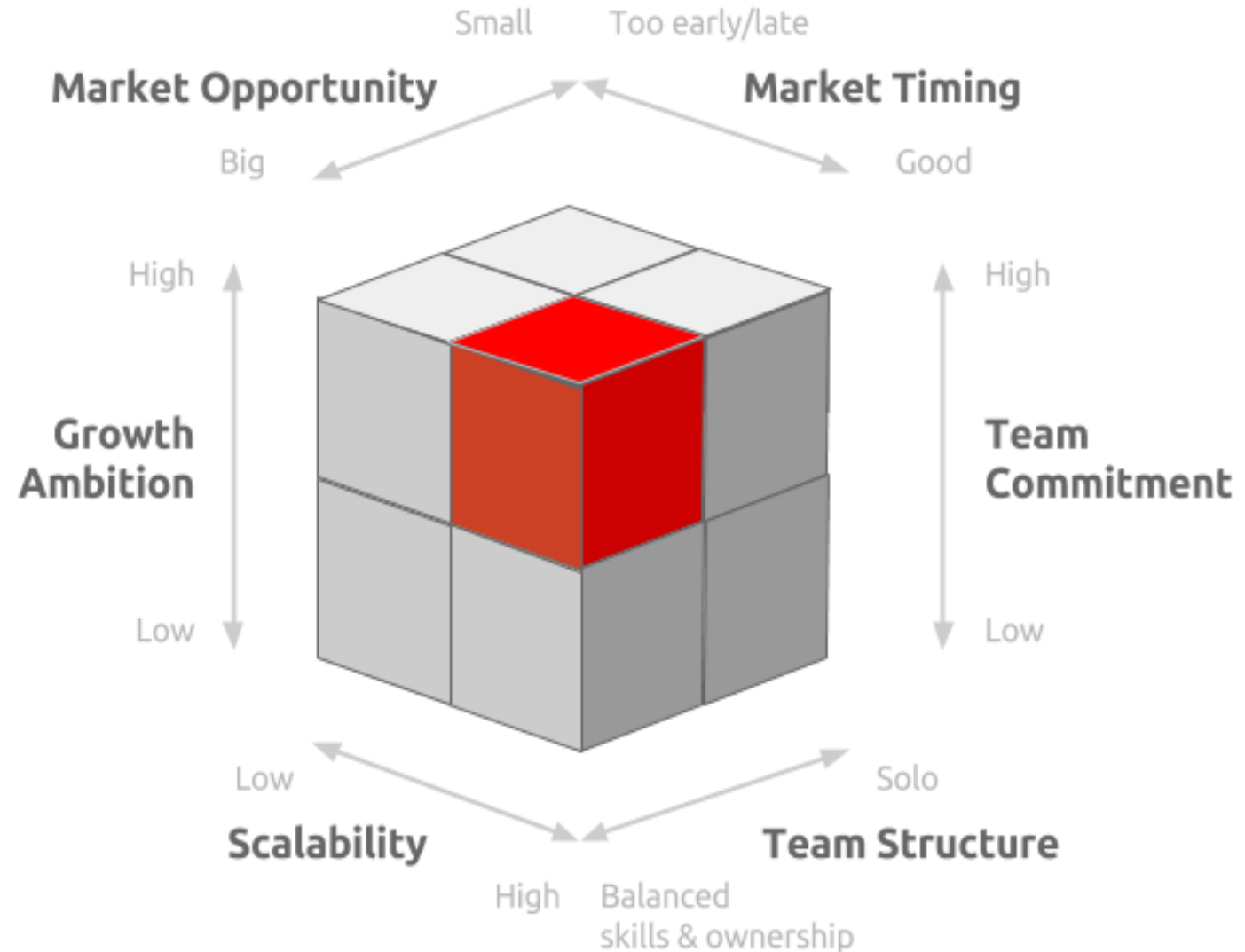
FORMATION

Mission > Vision > Strategy

- Co-founder team formation
- What, to whom? & Why and how?

VALIDATION

Lean Startup

Minimum Viable Product

Validate / Iterate (or pivot)

GROWTH

Scale Up

Establish & Strengthen

-2   -1   0   1   2   3

Problem / Solution Fit   **Vision / Founders Fit**   **Product / Market Fit**   **Business Model / Market Fit**

Ideating

Entrepreneurial ambition and/or potential scalable product or service idea for a big enough target market. Initial idea on how it would create value. One person or a vague team; no confirmed commitment or no right balance of skills in the team structure yet.

Concepting

Defining mission and vision with initial strategy and key milestones for next few years on how to get there. Two or three entrepreneurial core co-founders with complementary skills and ownership plan. Maybe additional team members for specific roles also with ownership.

Committing

Committed, skills balanced co-founding team with shared vision, values and attitude. Able to develop the initial product or service version, with committed resources, or already have initial product or service in place. Co-founders shareholder agreement (SHA) signed, including milestones, with shareholders time & money commitments, for next three years with proper vesting terms.

Validating

Iterating and testing assumptions for validated solution to demonstrate initial user growth and/or revenue. Initial Key Performance Indicators (KPI's) identified. Can start to attract additional resources (money or work equity) via investments or loans for equity, interest or revenue share from future revenues.

Scaling

Focus on KPI based measurable growth in users, customers and revenues and/or market traction & market share in a big or fast growing target market. Can and want to grow fast. Consider or have attracted significant funding or would be able to do so if wanted. Hiring, improving quality and implementing processes

Establishing

Achieved great growth, that can be expected to continue. Easily attract financial and people resources. Depending on vision, mission and commitments, will continue to grow and often tries to culturally continue "like a startup". Founders and/or investors make exit(s) or continue with the company.

Startup Development Phases - From idea to business and team to organization.

Version 3.0 - www.startupcommons.org

The Ecosystem

✓ Universities
✓ Advisory and mentoring organizations
✓ Startup incubators
✓ Startup accelerators
✓ Coworking spaces
✓ Service providers (Consulting, Accounting, Legal, etc.)
✓ Event organizers
✓ Start-up competitions
✓ Startup Business Model Evaluators
✓ Business Angel Networks
✓ Venture capital companies
✓ Equity Crowdfunding portals
✓ Corporates (telcos, banking, health, food, etc.)
✓ Other funding providers (loans, grants etc.)
✓ Start-up blogs and social networks
✓ Other facilitators

Financing and Investing

▶ 1ˢᵗ Round: seed round. The seed round generally is when the startup is still in the very early phase of execution when their product is still in the prototype phase. → angel investors .

▶ Series A: At this point the company already has traction and may be making revenue. → venture capital firms will be participating alongside angels or super angel investors.

▶ Series B, C, and D. These three rounds are the ones leading towards the IPO. Venture capital firms and private equity firms will be participating.

Crowdfunding platform for startups

Startup Financing Cycle
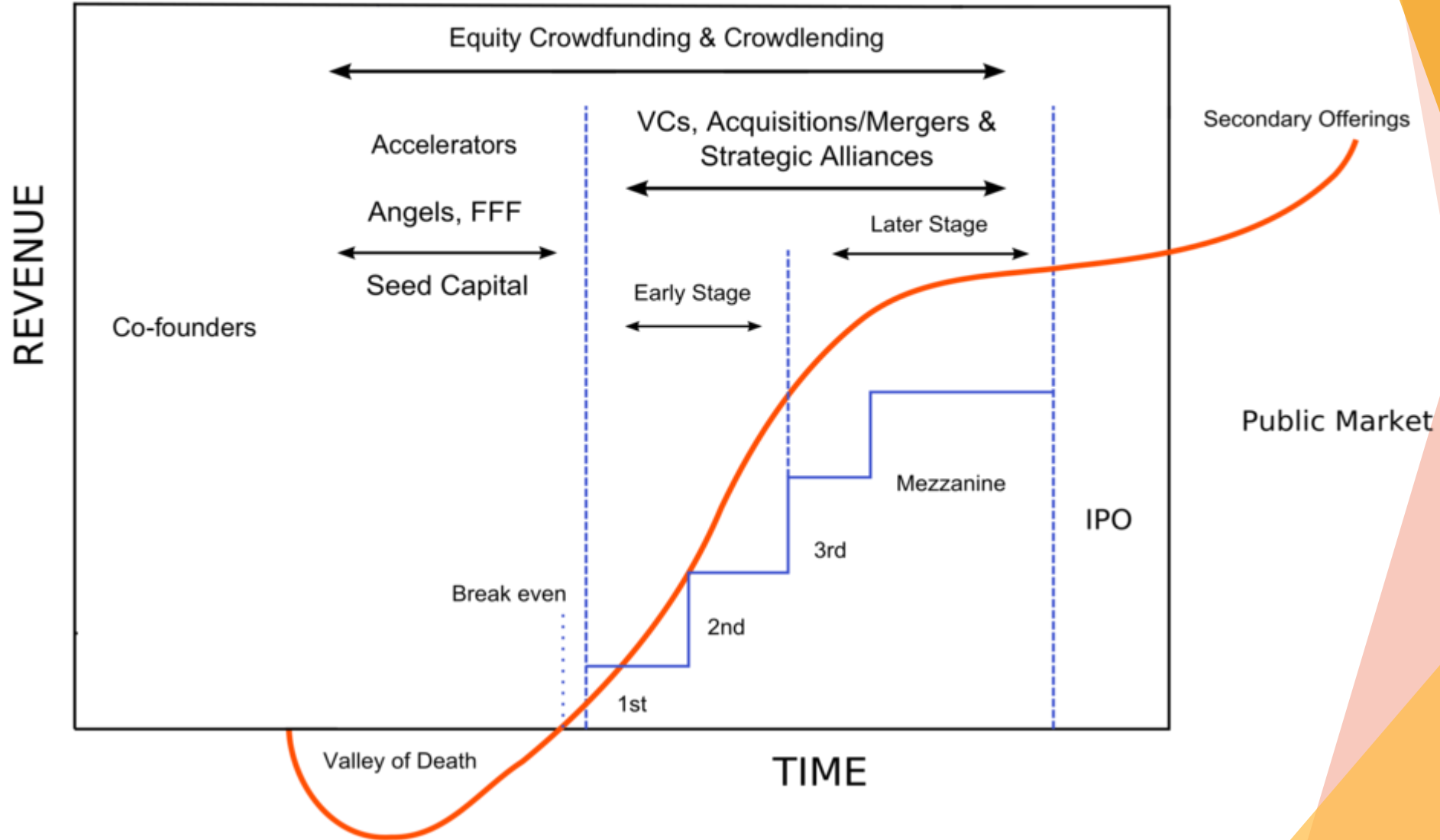
		HOW YOU...	SUCH AS...
CONFIGURATION	**Profit Model**	make money	*Gillette*
	Network	connect with others to create value	◎ TARGET
	Structure	align your talent and assets	WHOLE FOODS MARKET
	Process	use signature or superior methods to do your work	ZARA
OFFERING	**Product Performance**	employ distinguishing features and functionality	OXO
	Product System	create complementary products and services	scion
EXPERIENCE	**Service**	support and enhance the value of your offerings	Zappos
	Channel	deliver your offerings to customers and users	NESPRESSO
	Brand	represent your offerings and business	Virgin
	Customer Engagement	foster distinctive interactions	Wii

رؤية الجامعة – الريادية

- رؤية الجامعة الاستراتيجية للمساهمة في تنمية الاقتصاد:
  - تشجيع انشاء الشركات الصغيرة (spinoff)
  - خلق برامج لانتاج فرص عمل الطلاب
  - التعليم التطبيقي (ربط التعليم بالانتاج)
  - التاهيل (التدريب لاعادة انتاج افراد مؤهلين)
  - التعاون و التكامل مع القطاع الخاص و العام.

المهام الأساسية للمركز

```
                    ┌─────────────┐
                    │ مركز الابتكار │
                    │  و الريادة   │
                    └──────┬──────┘
        ┌──────────────────┼──────────────────┐
┌───────┴───────┐  ┌───────┴───────┐  ┌───────┴───────┐
│   تسويق و     │  │  دعم و رعاية  │  │   تعليم و     │
│     نقل       │  │               │  │    تدريب      │
│  تكنولوجيا    │  │               │  │               │
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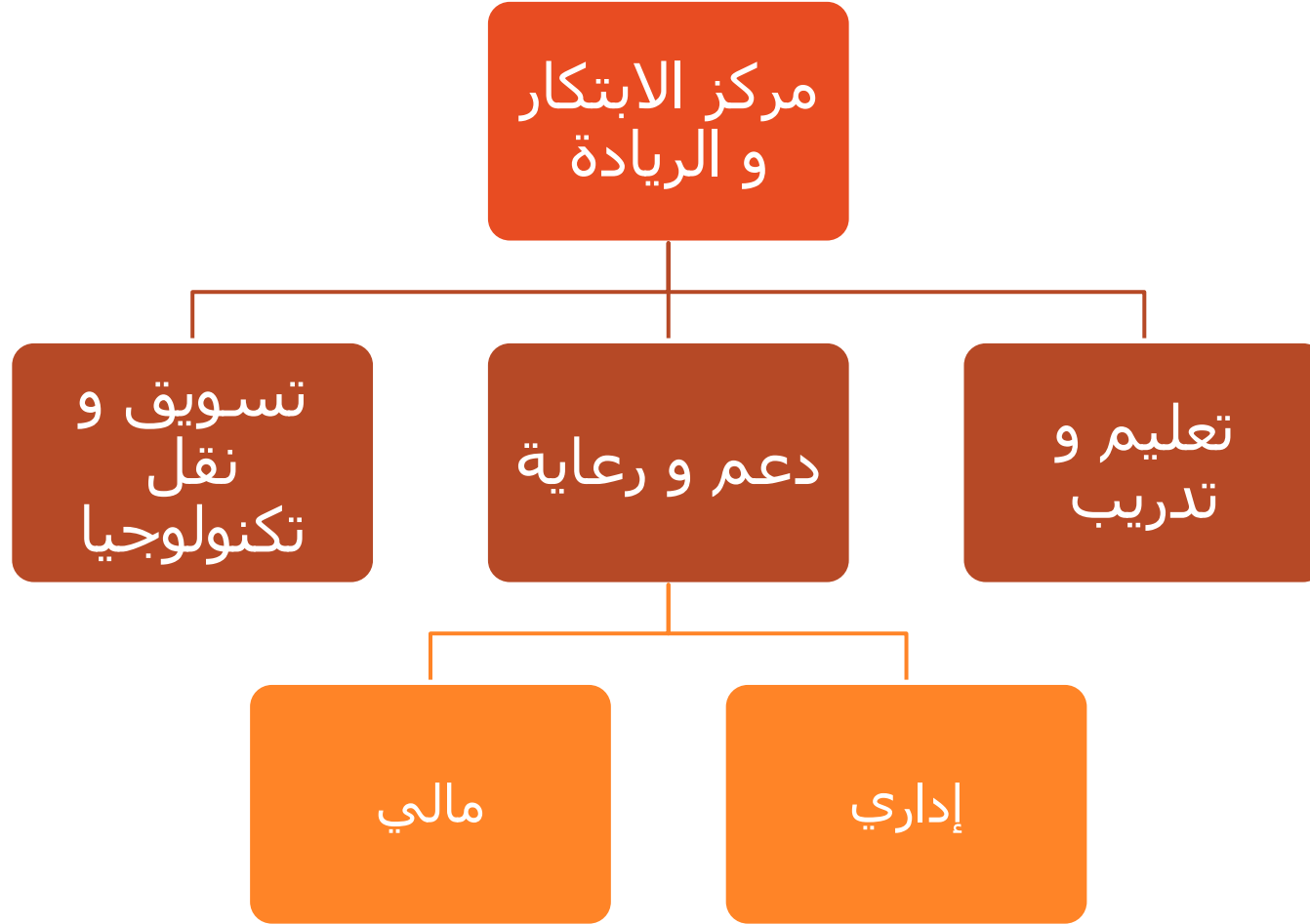
مركز الابتكار و الريادة – الخدمات

- **استدراج رأس المال الاستثماري** لتمويل وإنتاج وتسويق المنتجات الإبداعية لأسرة الجامعة.

- **تقديم الدعم المالي و الاداري المباشر** لتطوير المشاريع والمنتجات الفكرية والبحثية و الشركات الناشئة .

- **دعم نشاطات التعليم والتدريب واستكشاف المواهب والطاقات و النشاطات التعليمية والتدريبية والبحثية و** تأهيل وتدريب الكوادر البشرية المتخصصة:

  - التسويق و المبيعات وخدمات الزبائن والعلاقات العامة
  - تخطيط وتطوير العمال
  - إدارة المشاريع
  - الموارد البشرية
  - تنمية الشركات الناشئة

- **تسويق** الابتكار والإبداع والمشاريع الريادة

مركز الابتكار و الريادة – الخدمات

- دعم المشاركة في المعارض التي تعمل على تسويق المشاريع و الأفكار الريادية و المشاريع .
- خدمات احتضان الاعمال (مكان و مختبرات و اجهزة)
- إعداد دراسات الجدوى للمشاريع.
- تطوير نماذج و خطط الأعمال.
- متابعة تسجيل براءات الاختراع.
- نقل التكنولوجيا باتجاهين بين القطاع الخاص و الجامعة.
- تنظيم المعارض وورش عمل و المؤتمرات حول الابتكار و الريادة .
- جائزة الابتكار و الريادة الجامعية.

كيف نعمل ؟

١
- ملخص الفكرة

٢
- تقييم اولي

٣
- نموذج و خطة عمل

٤
- تقييم ثاني

5
- تمويل اولي

6
- خدمات : احتضان، تدريب ، تشبيك ، استثمار و تاسيس شركة ناشئة

Business plan and pitching

- Component of a business plan
- How prepare for pitching
- Example

Your Company Name
Your Company Logo

Overview

▶ Brief description of your company

▶ What is your product?

▶ Have you launched yet?

▶ Describe your business in a 140 characters

Team

PHOTO OF YOU

PHOTO OF YOUR CO-FOUNDER

Your Name

▶ Your role in the company

▶ Your work experience

▶ Your education

▶ Your achievements

Co-Founder's Name

▶ Your role in the company

▶ Your work experience

▶ Your education

▶ Your achievements

The Problem

▶ What's the current problem that your target market is facing?

▶ Be specific and try to identify what exactly are the 'pain points' being experienced

▶ Make sure that the 'pain points' you are solving are ones that your competitors are not directly addressing, or are not adequately addressing

The Solution

- What's your solution?

- How is you company directly addressing ALL of the 'pain points' you mentioned in the previous slide?

- How is this solution unique and different from any other solution

- Clearly differentiating your solution from an alternative is *key* to a successful pitch

Demo

ADD IN ANY EXISTING PICTURES OR VIDEO OF YOUR PRODUCT HERE

Market Opportunity

▶ On this slide you need to address two major points:

   ▶ What is the overall market size that your product/company hopes to capture?

   ▶ How do you position your company within the market ?

   ▶ How much are people or business currently spending in the market ?

   ▶ Who are your target customers?

      ▶ What demographic are you trying to reach? You can narrow it down by age, gender, location, income level, interest, etc.

      ▶ How many customers do you have? How many could you reach?

      ▶ How much can/would they pay for your product or service?

To forecast the size of your market use the bottom up approach

Marketing and Growth Strategy

▶ What's your marketing strategy?

▶ How will you reach and encourage people to join your service/platform/product?

▶ How do you plan to expand beyond your initial target customers?

Business Model

- List your revenue streams here and explain them
- Basically, how will you make money and how much do you think you will be able to make
- When you make assumptions, be sure to note them
- Give us your prices as well as your projected revenue
- If you have a subscription or freemium model, you should specify which features come with which level

Traction/Achievements

- Add in any achievements (e.g. July 2015 - Won Second Place in MENA Pitch Competition)

- Number of viewers, users, and customers.

- Growth of engagement or revenue over weekly, monthly and etc.

- The achievements you list on your timeline should be related to your product or company. Your *personal* achievements should go on the 'Team' slide

Competitive Landscape

	YOUR COMPANY	COMPETITOR 1	COMPETITOR 2	COMPETITOR 3	COMPETITOR 4
KEY FEATURE 1	✔	✖	✔	✖	✖
KEY FEATURE 2	✔	✖	✖	✔	✔
KEY FEATURE 3	✔	✖	✔	✔	✔
KEY FEATURE 4	✔	✔	✖	✖	✖
KEY FEATURE 5	✔	✔	✔	✔	✖

Roadmap

- List a timeline of the development of your product or company so far (e.g. June 2015 - Minimum Viable Product released)

- Include upcoming milestones you would like to reach (e.g. December 2016 - Release full version of product)

- Include a 3 month plan on how you plan to execute.

Financials - First Three Months

	Month 1	Month 2	Month 3
Total Revenues – **THE AMOUNT OF MONEY YOUR COMPANY IS MAKING** From Revenue Stream 1 From Revenue Stream 2 From Revenue Stream 3			
Cost of Sales – **HOW MUCH IT COSTS TO PRODUCE YOUR PRODUCT/SERVICE**			
Gross Profit – **YOUR REVENUE MINUS YOUR COST OF SALES**			
Gross Profit Margin – **YOUR GROSS PROFIT DIVIDED BY YOUR REVENUE (%)**			
General and Administrative Expenses Salaries Website Marketing Rent Other			
Net Profit – **YOUR GROSS PROFIT MINUS YOUR GENERAL AND ADMINISTRATIVE EXPENSES**			
Net Profit Margin - **YOUR NET PROFIT DIVIDED BY YOUR REVENUE (%)**			

Financials – First four Years

	Year 1	Year 2	Year 3	Year 4

Total Revenues – **THE AMOUNT OF MONEY YOUR COMPANY IS MAKING**
    From Revenue Stream 1
    From Revenue Stream 2
    From Revenue Stream 3				

Cost of Sales – **HOW MUCH IT COSTS TO PRODUCE YOUR PRODUCT/SERVICE**				
Gross Profit – **YOUR REVENUE MINUS YOUR COST OF SALES**				
Gross Profit Margin – **YOUR GROSS PROFIT DIVIDED BY YOUR REVENUE (%)**				

General and Administrative Expenses
    Salaries
    Website
    Marketing
    Rent
    Other				

Net Profit – **YOUR GROSS PROFIT MINUS YOUR GENERAL AND ADMINISTRATIVE EXPENSES**				
Net Profit Margin - **YOUR NET PROFIT DIVIDED BY YOUR REVENUE (%)**				

Financials- For the first Year

- ▶ Please attach an excel sheet of a detailed projected income statement for the first year

The Ask

▶ List here the funding required for the first three months (e.g. 11,000 JD for the first three months)

▶ Explain what it will be used for

▶ List the milestones you hope to achieve in this period with these funds

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http://centers.ju.edu.jo/en/ujic/Home.aspx