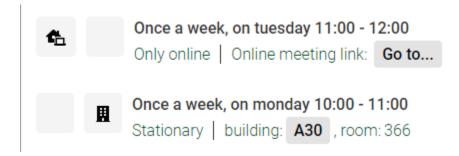
# Innovative Enterpreneurship

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# Bibiography

#### **Basic:**

1. Przedsiębiorczość zdyscyplinowana, Bill Aulet, Helion, 2014.

#### **Additional:**

- 1. Jednym kliknięciem. Historia Jeffa Bezosa i rosnącej potęgi Amazon.com, Richard L. Brandt, Helion, 2012.
- 2. Google story, David Vise, Wydawnictwo Dolnośląskie, 2007
- 3. Steve Jobs, Isaacson Walter, Insignis Wydawnictwo, 2011
- 4. Metoda Lean Startup. Wykorzystaj innowacyjne narzędzia i stwórz firmę, która zdobędzie rynek, Ries Eric, Helion, 2012
- 5. Inżynieria oprogramowania, Andrzej Jaszkiewicz, Helion, 1997.

# Bibiography

Google Scholar: <a href="http://scholar.google.pl/">http://scholar.google.pl/</a>

Science Direct: <a href="http://www.sciencedirect.com/">http://www.sciencedirect.com/</a>

Scopus: <a href="http://www.scopus.com">http://www.scopus.com</a>

Emerald: <a href="http://www.emeraldinsight.com/">http://www.emeraldinsight.com/</a>

Sage journals: <a href="http://online.sagepub.com/">http://online.sagepub.com/</a>

JSTOR: <a href="http://www.jstor.org/">http://www.jstor.org/</a>

### Schedule

#### 06.10.2022, 13.10.2022.

Step 0: Getting Started

Why do we need innovation?, Problem characterization, Problem Solving Approaches, Talented Thinking, Thinking in Time and Scale, Theory of Inventive Problem Solving.

#### 20.10.2022

Step 1: Market Segmentation

Step 2: Select a Beachhead Market

Step 3: Build an End User Profile

Step 4: Calculate the Total Addressable Market (TAM) Size for the Beachhead Market

#### 27.10.2022

Step 5: Profile the Persona for the Beachead Market

Marketing Research, Personal Interview

#### 03.11.2022

Step 6: Full Life Cycle Use Case

Step 7: High-Level Product Specification

Thinking in Time and Scale

#### 10.11.2022

Step 8: Quantify the Value Proposition

**Functional Analysis** 

### Schedule

#### 17.11.2022

Step 9: Identify Your Next 10 Customers

Step 10: Define your Core

Step 11: Chart Your Competitive Position

The 8 Trends Map Natural Progression and Development

#### 24.11.2022

Step 12: Determine the Customer's Decision Making Unit (DMU)

Step 13: Map the Process to Acquire a Paying Customer

Step 14: Calculate the Total Addressable Market Size for Follow-on Markets

**Promotion Mix** 

#### 01.12.2022

On Promotion Mix

#### 08.12.2022

Step 15: Design a Business Model

Step 16: Set Your Pricing Framework

Step 17: Calculate the Lifetime Value (LTV) of an Acquired Customer

Step 18: Map the Sales Process to Acquire a Customer

Step 19: Calculate the Cost of Customer Acquisition (COCA)

### Schedule

#### 15.12.2022

Step 20: Identify Key Assumptions

Step 21: Test Key Assumptions

**Uncovering and Solving Contradictions** 

22.12.2022

**Triz Cards for Innovation** 

05.01.2022

Step 22: Define the Minimum Viable Business Product (MVBP)

Step 23: Show That "The Dogs Will Eat the Dog Food"

Step 24: Develop a Product Plan

12.01.2022 – Discussion / Visiting Lecture

**19.01.2022** – Discussion

26.01.2022 - Discussion

### **Evaluation Method**

- TEAMWORK TASKS (E-COURSE): 8 tasks \* 5 points = 40 points
- **TEST (WIRTTEN ASSIGEMENT):** 40 points, Discussion: 20 points, Teamwork: 4 people in one group.

#### WA Instruction:

- 1. Number of pages: 6 000 8 000 characteristics (with spaces), approx. 4 pages,
- 2. Paper structure: (1) Journal, (2) Title (3) Authors (4) Purpose of the studies, (5) Methodology (Research Methodology), (6) Findings (7) the analysis of the innovativeness of developed solutions (8) Keywords (9) Your findings, with information about the author
- 3. **Discussion**: Presentation (10 Minutes)
- 4. **Dates**: Select the paper: 27.10.2022, Submit the Paper: 15.12.2022, Present your findings 12.01.2022, 19.01.2022, or 26.01.2022.

#### Points = Marks

90 - 100 points = 5.0

80 - 89 points = 4.5

70 - 79 points = 4.0

60 – 69 points = 3.5

50 - 59 points = 3.0

# Want to Start a Business? First, Find a Partner

- 1. Different skills
- 2. Trust
- 3. Conflict resolution skills
- 4. Open-mindedness
- 5. Agree to serve the business

## Create a group

- Practical
- 24 STEPS TO A SUCCESSFUL STARTUP

• Enterpreneurship gene?

We know it is in there, but we just can't seem to find that entrepreneurship gene...



https://alsostievan.wordpress.com/2017/09/12/disciplined-entrepreneur-introduction/

# Create groups: guidance (e-course)

How do I hire a startup team?

https://youtu.be/h4UcvXT3xkl

• Want to Start a Business? First, Find a Partner.

https://www.inc.com/margaret-heffernan/you-need-a-partner-to-start-a-business.html

- Myths of Entrepreneurship https://www.youtube.com/watch?v= zWgGX71lws
- Introduction to Disciplined Entrepreneurship with Bill Aulet

https://www.youtube.com/watch?v=FqmCN5Tt0Jo&t=20s

# Do you really want to own a business

- Identifying your personal goals
- Self-Evaluation Exercises
- How to use the self evaluation checklist

"People who say it cannot be done should not interrupt those who are doing it."

—George Bernard Shaw

"You've got to be careful if you don't know where you're going because you might not get there."

—Yogi Berra

# Identifying Your Personal Goals

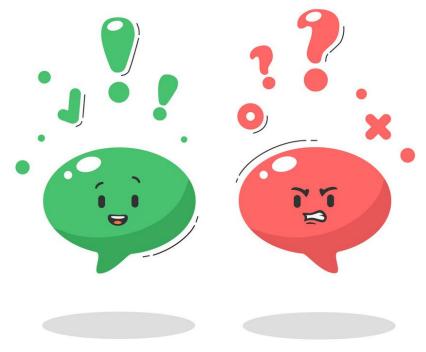
- Independence, "search for freedom"
- Personal Fulfillment, "fulfilling experience"
- Lifestyle Change, "missing some life's precious moments"
- Respect, "both by themselves and their peers"
- Money, "do very well financially"
- Power, "you can have your employees do it in your way"
- Right Livelihood, "done very well by doing good"

### Self-evaluation exercises

- Strong Points
- Weak Points
- General and Specific Skills My Business Needs
- My Likes and Dislikes

Things I Like to Do / Things I don't Like to Do

My Specific Business Goals



https://www.vectorstock.com/

# Small and Medium Enterprise

- Focus on addressing local and regional markets only.
- Most often family businesses or businesses with very little external capital.
- The company typically growth at a lineral rate.
- Innovation is not necessary to SME establishment and growth, nor is competitive advantage.

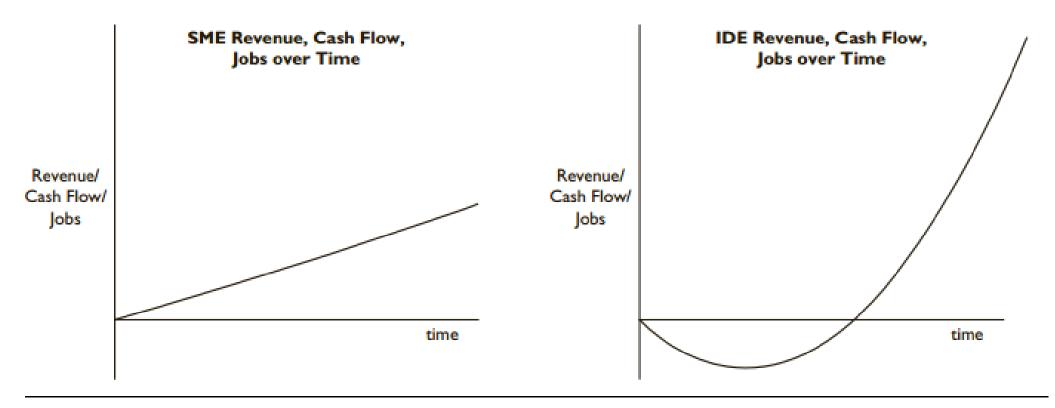


- Non-tradable-jobs jobs generally perfomed locally (e.g. restaurants, dry cleaners, and service industry).
- When you put money into the company, the system (revenue, casf flow, jobs etc.) will respond quickly in a positive manner.

## Innovation Driven Enterprise

- Focus on global/regional markets.
- The company is based on some sort of information (tech, business proces, model) and potential competitive advantage.
- Tradable jobs jobs that do not have to be performed locally.
- More diverse ownership base including a wide array of external capital providers.
- The company starts by losing money, but if successful will have exponential growth.
- Requires investment.
- When you put money into the company, the revenue/cash flow/ jobs numbers do not respond quickly.

# Two Distinct Types of Enterpreneurship



Source: Bill Aulet and Fiona Murray, "A Tale of Two Entrepreneurs: Understanding Differences in the Types of Entrepreneurship in the Economy," Ewing Marion Kauffman Foundation, May 2013, www.kauffman.org/uploadedfiles/downloadableresources/a-tale-of-two-entrepreneurs.pdf.

# Innovation?

- Creative inventors,
- Creativity process,
- Organizational variables or to innovation as a multi-stage, multiperson, complex process.

### Innovation?

### Innovation is composed of two parts:

- (1) the generation of an idea or invention, and
- (2) the conversion of that **invention into a business** or other useful application . . .
- (3) Using the generally accepted (broad) definition of innovation—all of the stages from the technical invention to final commercialization—the technical contribution does not have a dominant position.

#### **INNOVATION = INVENTION + EXPLOITATION.**

### What is Innovation

• If there is commercialization but no invention (invention = 0), or invention but no commercialization (commercialization = 0), than there is no innovation.

**INNOVATION = INVENTION \* COMMERCIALIZATION.** 

### Levels of Innovation

Five levels of innovation (G. Althshuller: analysis of a large number of patents reveals that not every invention is equal in its inventive value):

Level #1. A simple improvement of technical system. Requires knowledge available within a trade relevant to that system (is not really innovative; it provides only an improvement to an existing system without solving any technical problem).

Level #2. An invention that includes the resolution of a technical contradiction. Requires knowledge from different areas within an industry relevant to the system (solve contradiction, and therefore is innovative by definitione).

Level #3. An invention containing a resolution of a physical contradiction. Requires knowledge from other industries (solve contradiction, and therefore is innovative by definitione).

Level #4. A new technology is developed containing a breakthrough solution that requires knowledge from different fields of science. This fourth level also improves upon a technical system, but without solving an existing technical problem. Instead, it solves the problem by replacing the original technology with a new technology.

Level #5. Discovery of a new phenomena. Here a new phenomena is discovered that allows pushing the existing technology to a higher level.

### warm-up

•	Why	do	we	need	innovation?
_					

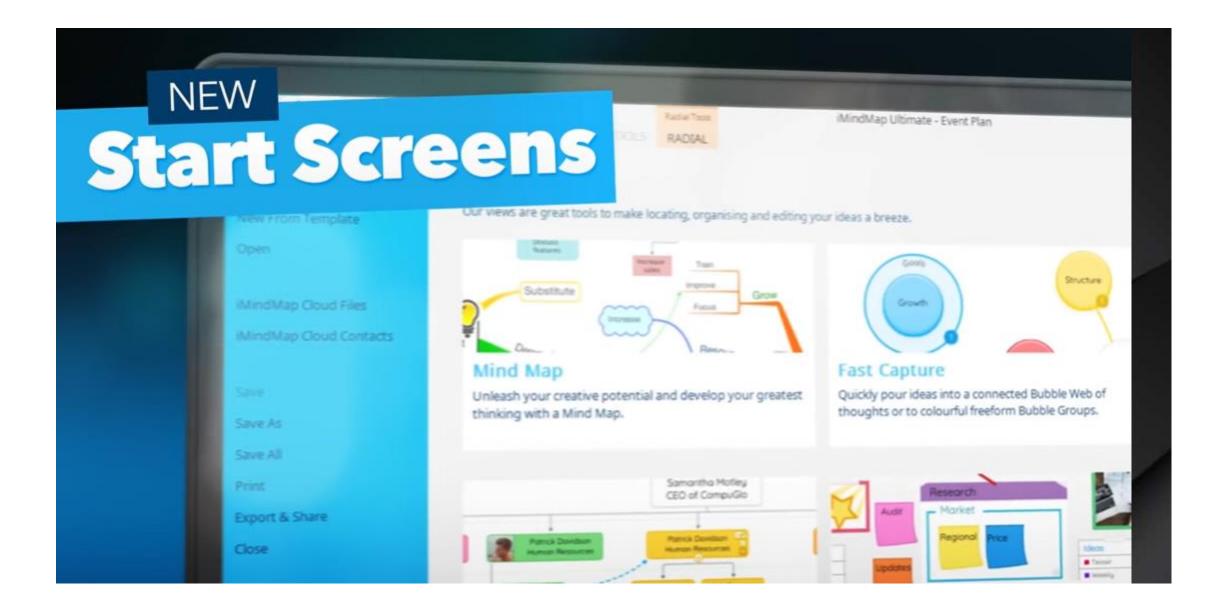
- ⊥. ...
- 2. ...
- 3. ...
- 4. ...
- Why it is difficult to innovate?
- 1. ...
- 2. ...
- 3. ...
- 4. ...

### MIND MAP



https://www.youtube.com/watch?v=u5Y4pIsXTV0

# https://buzan.us/software/



# https://www.ayoa.com/mind-mapping/software/





### TEAMWORK TASK 1

- 1, 2, 3, 4, 5, 6
- Create a Mind Map to approach the warm-up questions
- Take a picture of your results (your contribution)
- Take a picture of the final results
- Add the pictures to e-course (Step 0: Getting Started, Task 1)

Mycoted

Navigation •

Search

Search

Category

# Creativity Techniques A to Z

This A to Z of Creativity and Innovation Techniques, provides an introduction to a range of tools and techniques for both idea generation (Creativity) and converting those ideas into reality (Innovation). Like most tools these techniques all have their good and bad points. I like to think of these creativity and innovation techniques as tools in a toolbox in much the same way as my toolbox at home for DIY. It has a saw, spanner, hammer, knife and all sorts of other things in it, they are all very useful, but you have to pick the right tool (creativity / Innovation technique) for each job. This site will try and provide a little guidance along with each tool to let you know whether it's best used for cutting paper or putting in nails.

For the future, the aim is to also have sub-categories which will identify Techniques for;

- Problem Definition including problem analysis, redifinition, and all aspects associated with defining the problem clearly.
- Idea Generation The divergent process of coming up with ideas.
- Idea Selection The convergent process of reducing all the many ideas into realistic solutions
- Idea Implementation Turning the refined ideas in reality.
- Processes Schemes and techniques which look at the overall process from start to finish (or at least 3 of the above 4 areas)...

Special thanks to the Open University for their kind permission to use material from their publication B822.

### **Subcategories**

### **Classic Brainstorming**

A to Z of		
Creativity Techniques		
Previous	Next	
Clarification	Cognitive Acceleration	

- 1. Arrange the meeting for a group of the right size and makeup (typically 4-8 people)
- 2. Write the initial topic on a flipboard, whiteboard or other system where everyone can see it. The better defined, and more clearly stated the problem, the better the session tends to be.
- 3. Make sure that everyone understands the problem or issue
- 4. Review the ground rules
  - Avoid criticising ideas / suspend judgement. All ideas are as valid as each other
  - Lots, Lots & Lots a large number of ideas is the aim, if you limit the number of ideas people will start to judge the ideas and
    only put in their 'best' or more often than not, the least radical and new.
  - Free-wheeling. Don't censor any ideas, keep the meeting flow going.
  - · Listen to other ideas, and try to piggy back on them to other ideas.
  - · Avoid any discussion of ideas or questions, as these stop the flow of ideas.
- 5. Have someone facilitating to enforce the rules and write down all the ideas as they occur (the scribe can be a second person)
- Generate ideas either in an unstructured way (anyone can say an idea at any time) or structure (going round the table, allowing people to pass if they have no new ideas).
- 7. Clarify and conclude the session. Ideas that are identical can be combined, all others should be kept. It is useful to get a consensus of which ideas should be looked at further or what the next action and timescale is.

# Brainstorming

Rules to perform an efficient idea-generation phase during a brainstorming session:

- group size should be about five to seven; too many participants lead to an uncontrolled and unmanageable session; on the other hand, a small group is expected to produce an equivalent outcome.
- criticism, evaluation, judgment, or defense of ideas are not allowed, along with disapproving non-verbal behavior; however, all positive comments are welcome;
- freewheeling (free association) is encouraged; the more abstract, fantastic or even off-the-wall ideas are articulated, the better;
- quantity and variety over quality; the more ideas are put forward, the more likely it is to come across a valuable one;
- combinations and improvements are encouraged; varied and combined ideas are a hope for bringing some kind of innovation.

# According to Osborn ...

... if we follow these rules, then

"the average person can think up twice as many ideas when working with a group than when working alone".

 collaboration with others shifts one's mind into a higher level of creativity and imagination.

# Questions?

• ?

# Thank you

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