





THE EDAE

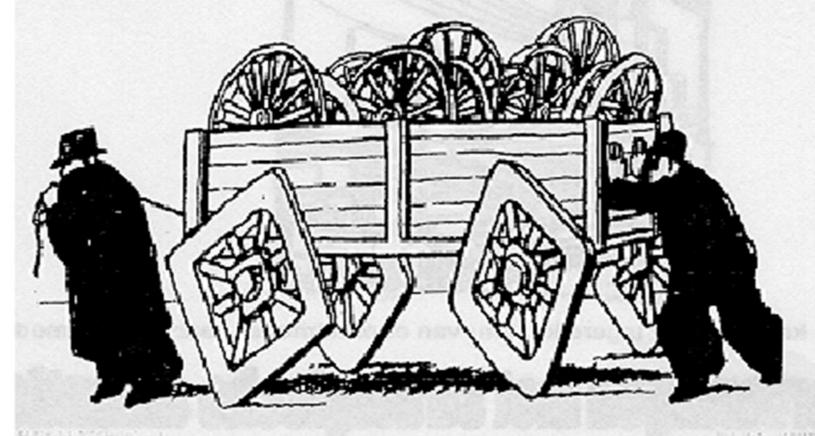
Технологичен трансфер и комерсиализация на

-2023

Петко Русков, 21 октомври 2023 г.

технологии

Traditional approach is obsolete



"We don't have time to change the wheels: Push harder Harry !!"

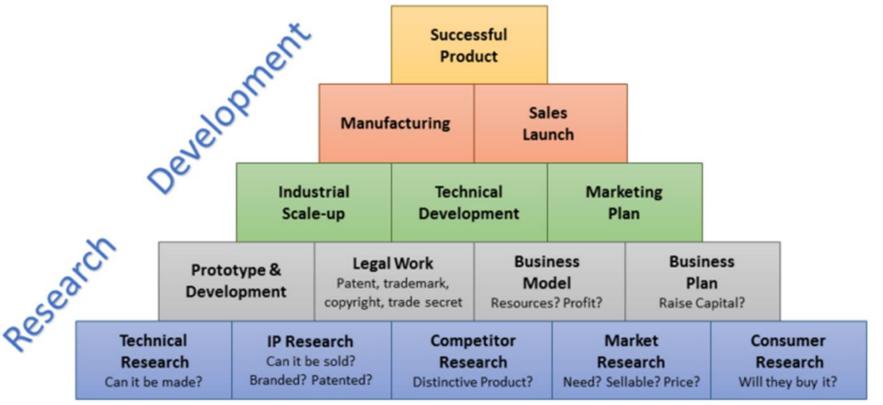




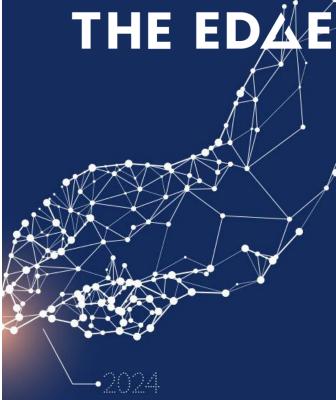
-2024



Success = R & D



Key Question: Can you make money from this product?







List of abbreviations

EUIPO European Union Intellectual Property Office

EPO European Patent Office

EUTM European trade mark

FTO Freedom to operate

IP Intellectual property

IPO Initial public offering

IPR Intellectual property right

OEM Original equipment manufacturer

PE Private equity

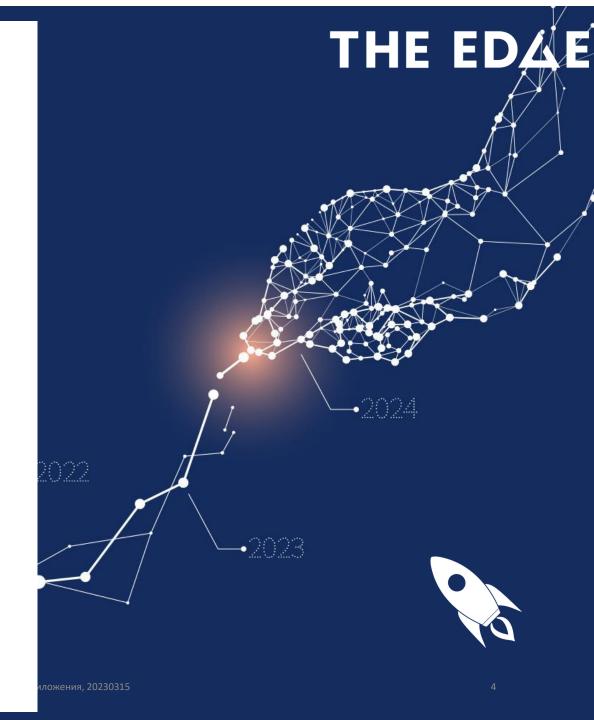
R&D Research and development

SME Small and medium-sized enterprise

TTE Time to event

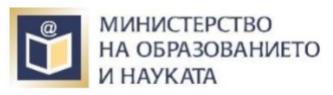
TTO Technology transfer office

VC Venture capital





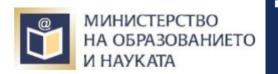














- 5. Технологични изследвания и разработване на продукти Нива на готовност на технологията (TRL). Commercialization Readiness Level (CRL). Commercial Readiness Index (CRI). Методика за оценка и инструменти на иновативни проекти. Примери. Класификация. Управление на промените.
- 6. Иновации и интелектуална собственост, JP, IPR. Права и защита Авторско право. The European Patent Office (EPO) и патентно ведомство на Република България.

11

EDUCATION IS NOT THE LEARNING OF FACTS, BUT TRAINING THE MIND



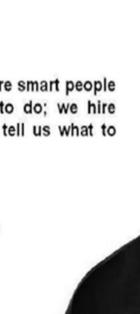
- ALBERT EINSTEIN

TO THINK."

Photograph by: Tanmay Vora | QAspire.com | |

It doesn't make sense to hire smart people and then tell them what to do; we hire smart people so they can tell us what to do.

Steve Jobs









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Рамка на занятията

Теория

- Технологични изследвания и разработване на продукти. Нива на готовност на технологията (TRL). CRL,CRI
- Иновации и интелектуална собственост, IP, IPR. Права и защита Авторско право
- Въпроси и отговори

С какво ще си тръгна след дискусият

Практи



• Дискусия

• Упражнения

Работа в екипу

use cases

Рефлексия

PR TT&TC 20231012





Съдържанието днес:

THE EDAE

Тема

Продължителностімин

- Актуализация на занятието т 12.2023, Въпроси и отговори 📜 🔟
- Пример за прогрес на избран екип
- Технологични изследвания и разработване на продукти Нива на готовност на технологията (TRL). CRL,CRI
- Иновации и интелектуална собственост, IP, IPR. Права и защита 2522
- Кафе пауза и разговори
- Прогрес на екипите у проектите им
- Заключение, рефлексия. Въпроси и Отговори

15

25

90

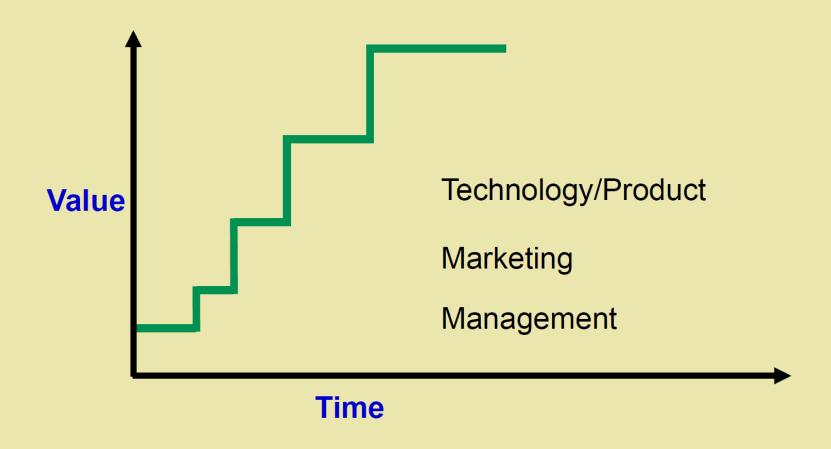
the word "commercial"

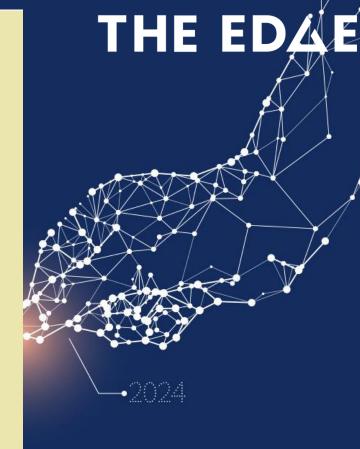
What you are doing in the first stage is really creating a minor revenue validation point. In the second stage, you're improving the solution and starting to show it to more customers. It isn't until the third and fourth stages that the product is becoming fully baked and being sold and supported by the core business. I call this an incremental validation model, versus a "big bang" model. All along, you are ensuring your commercial assumptions still hold true and deciding if it makes sense to continue to pursue the commercialization of the idea.

The word "commercial" in front of the word "innovation" means three things.

- First, there is a paying customer.
- Second, there's a unique value proposition that drives customers to your solution.
- Third, you have a north star an outcome that you are looking for.

Value is Created in a Step Function

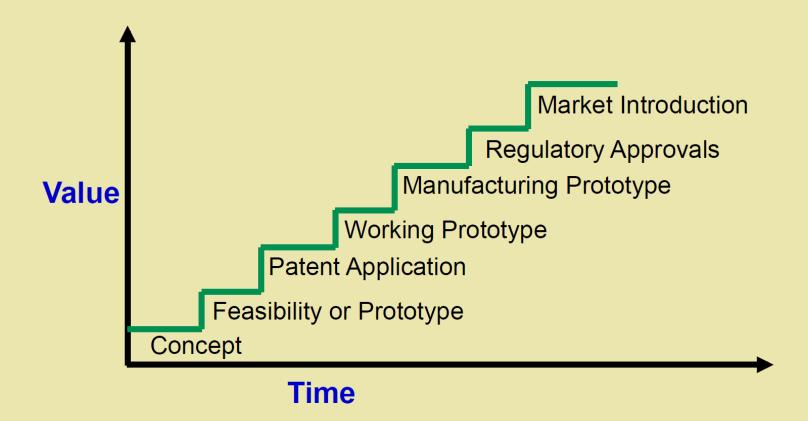








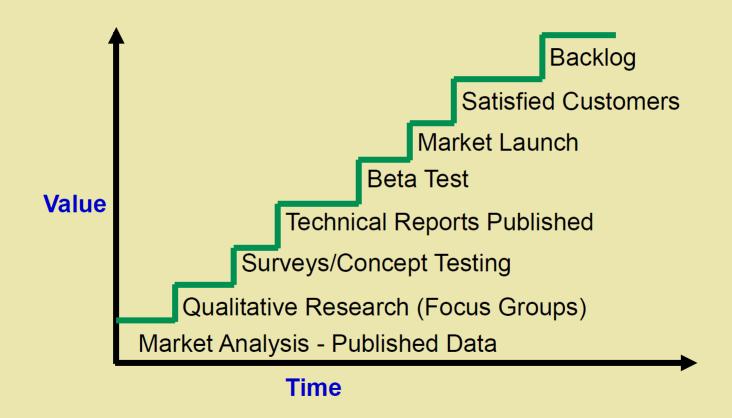
Adding Technology Value







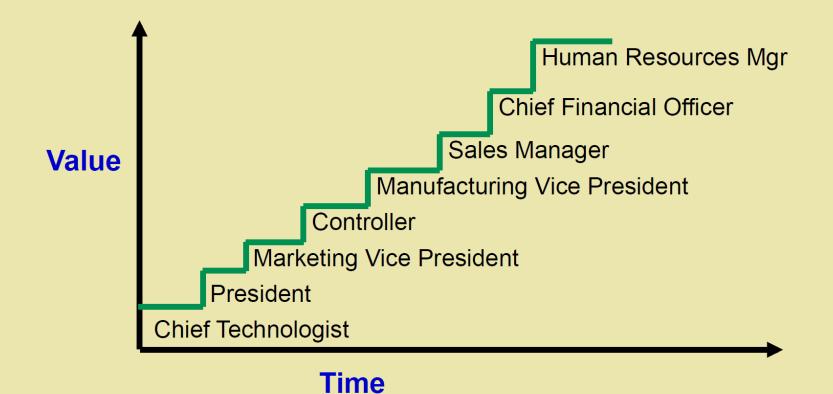
Adding Market Value







Adding Management Value

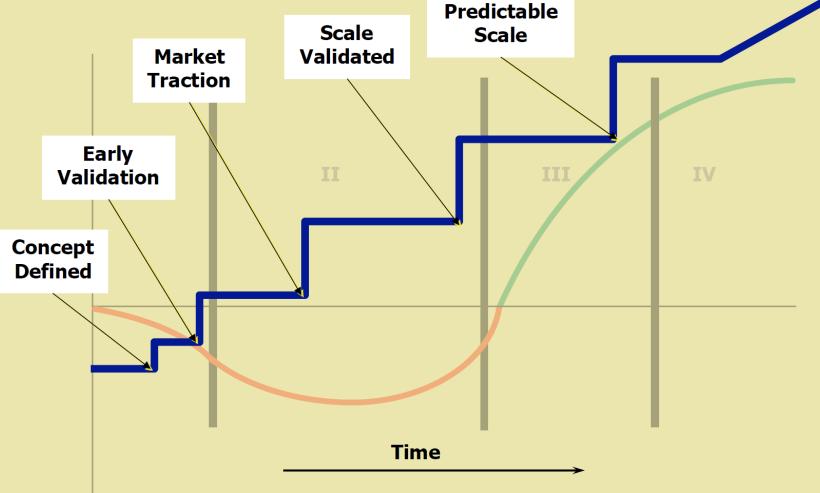


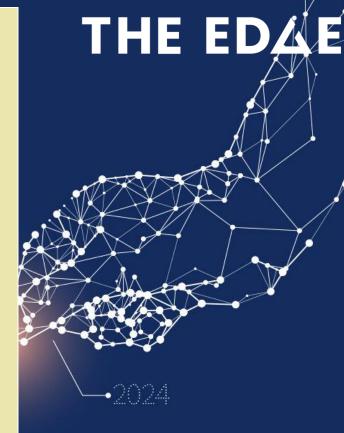






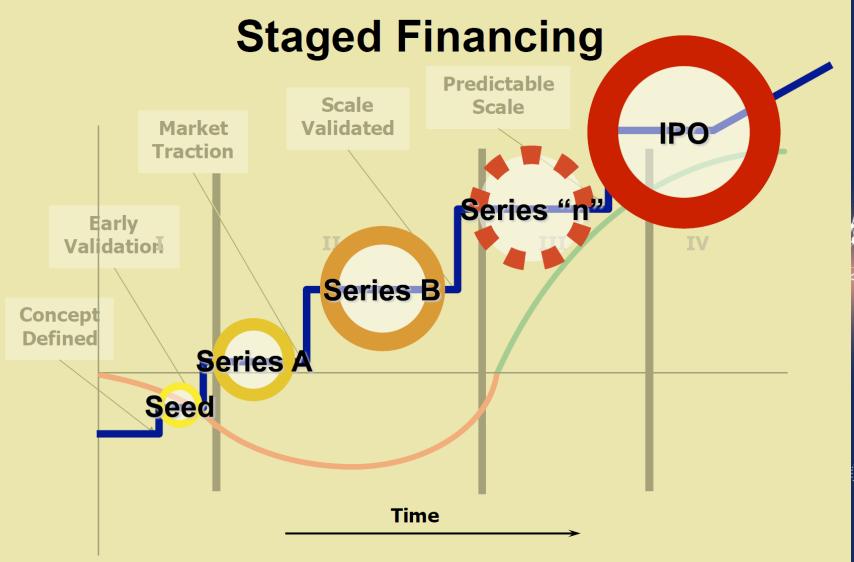
Valuation in Steps Incremental Commitment of Resources

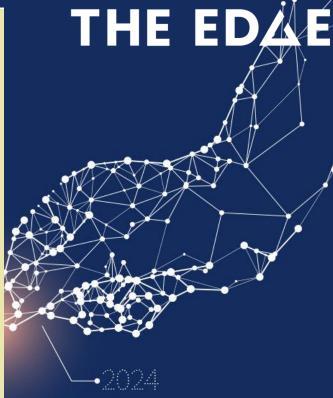










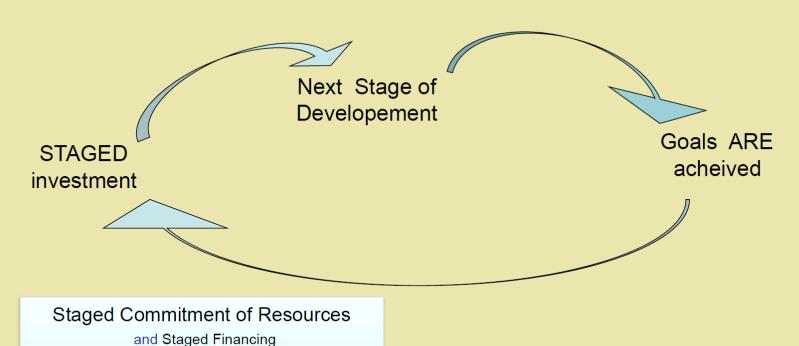


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START UPS: Management of Risk

- Company development staged
- Each Round of Financing supports a Stage



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·2023



The Importance of Teamwork

Entrepreneurship is a team sport



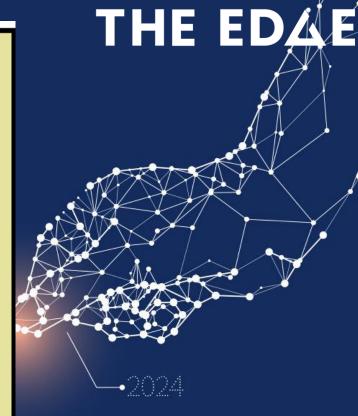






The "A" Team

- •More than the Founders
- •More than Key Employees
- **≻**Advisors
 - Accountant
 - Lawyer
 - Public Relations/Marketing
- ➤ Mentor [s]
 - **≻**Faculty
 - **≻**Advisory Board
 - Board of Directors
- **≻Investors**
- **≻**Bankers
- **≻**Customers



2023





The building blocks of your business planning pitch . . .



Elevator Pitch

30-second/1
minute synopsis
of your venture:
core idea,
market,
potential,
analogy, etc.



"Chalk Talk"

- 2-10 minute summary of key venture elements
- Informal "on the fly" media: white board/flipchart/etc.

The Lester Center for Entrengeneurshin and Innovation



Power Point*

- 10-30 minute formal rehearsed presentation of your venture
- Allow >50% available time for Q&A
- Handouts/leave behinds



Demo

 Brief demonstration of prototype/ example/illustrative transaction/ model/etc. that makes your venture "real" if this is feasible



Business Plan

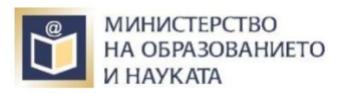
- 20-40 page professional explanation of your venture, with all relevant supporting analyses
- Lays out your case: why your team/why this venture/why now/why this strategy/etc.









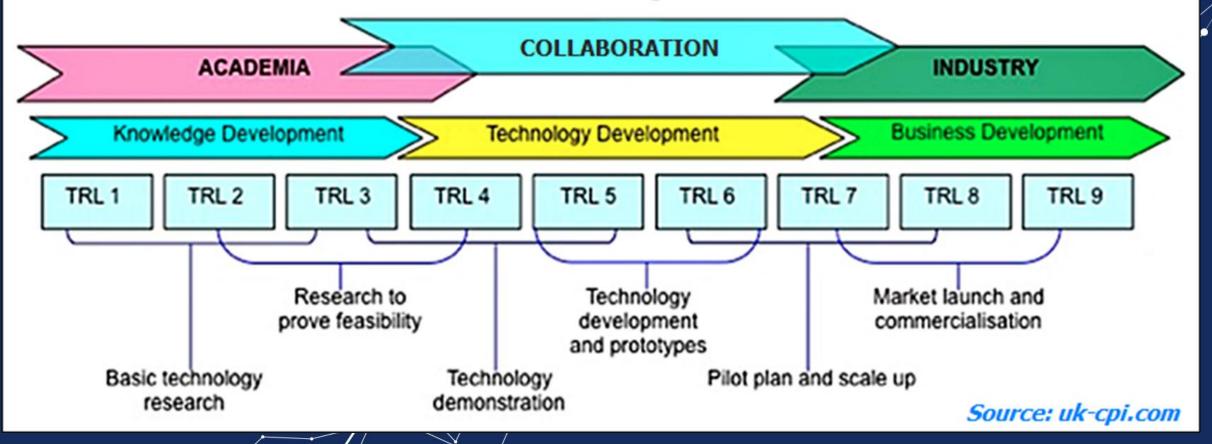




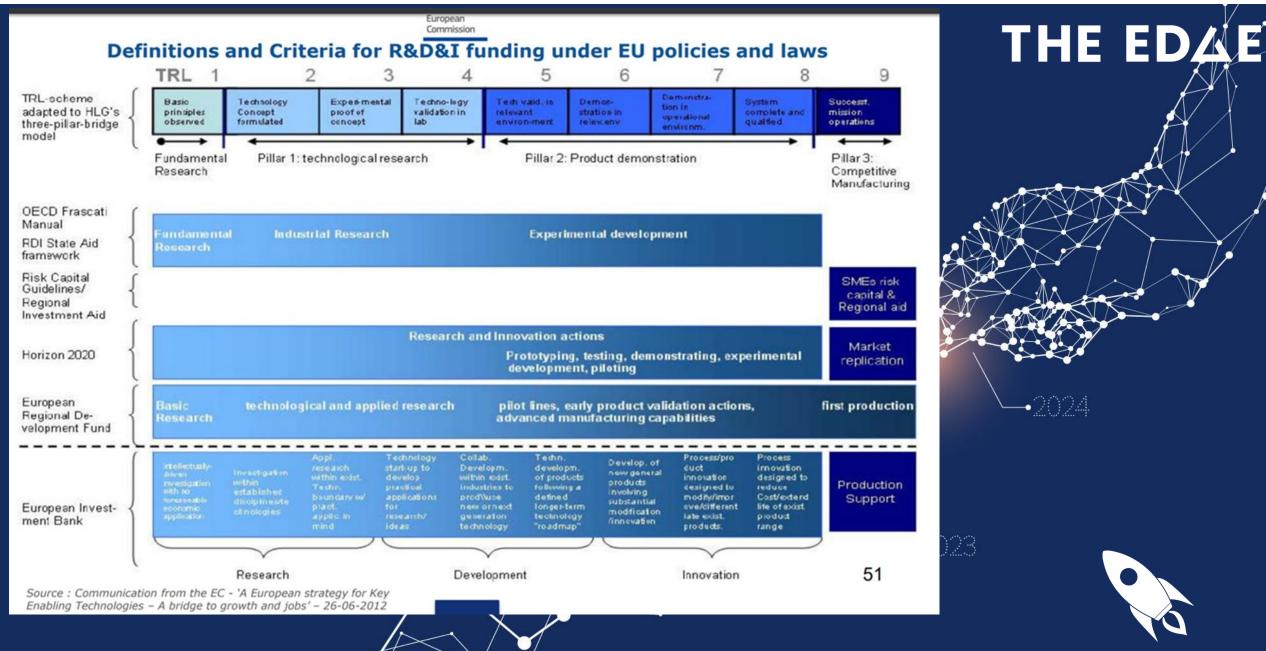
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The Innovation Chain: Converting Science into Wealth



10/23/2023 PR TT&TC 20231012



Фигура 2. EU strategy for Key Enabling Technologies and role of KETs in Horizon 2020 Confindustria Brussels, 14 November 2013 [http://www.confindustriavg.it/confindustria/trieste/istituzionale.nsf/frame/E5690909BA5FCE61C1257C28003E2191/\$File/Pres

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Environment and change

II

scenario

competition analysis

- benchmarking
 market analyses
 SWOT analysis



Technology asset management

Technology asset

Technology valuation

plan

Technology Resource Portfolio commercialization allocation

strategy



ROI

application

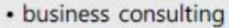
Value creation

venturing

Tech. sale

M&A alliance





- organization & team formation
 Venture Financing
- outside expert

- business plan, business Model
- PS Model



Source: SRIC-BI

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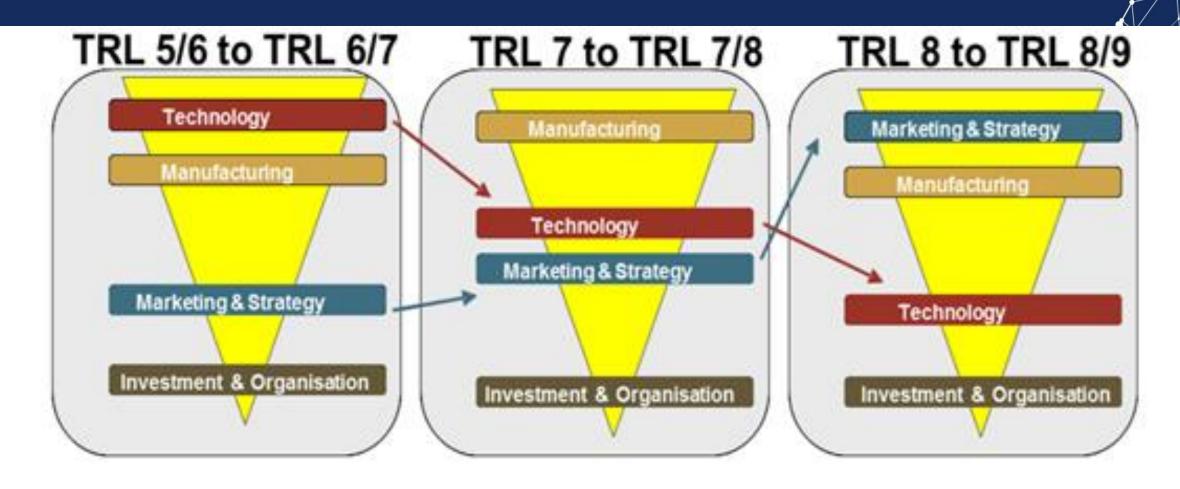


Figure 3: Ranking of categories by Technology Readiness Level

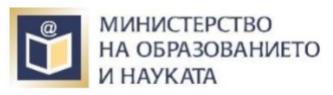


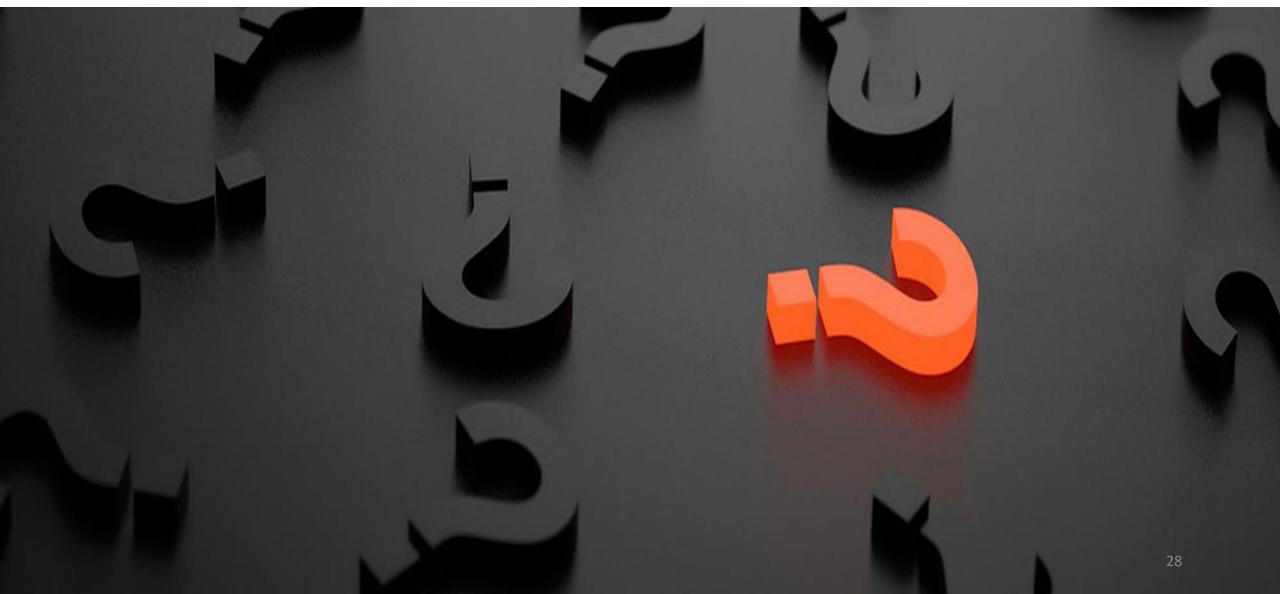
The role of IP management at the business level

	Typical contributions to IP management	
IP management	Business managers	Technology and IP professionals
Strategy	Setting and communication of business strategies	 Corporate technology strategy Lifecycle concepts of technology and IPR
Decision	Valuation and portfolio analysis	 Corporate technology strategy Lifecycle concepts of technology and IPR
Implementation	 Effectiveness and efficiency considerations Definition and implementation of value chain concepts 	Appropriateness of IP rightsFiling strategies
Organisation	 Corporate and business structuring Operational asset exploitation 	IPR enforcementCooperations
Leadership	Human relationship management	Administrative processes in IP department
IP business development	EntrepreneurshipBusiness planning	IPR expertise and advisory









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THE ED Иновации и интелектуална собственост, IP, IPR. Права и защита – Авторско право. The European Patent Office (EPO) патентно ведомство на Република България/

Intellectual Property

Intellectual property (IP) refers to creations of the mind: inventions, literary and artistic works, and symbols, names, images, and designs used in commerce.

IP is divided into two main categories:

- Industrial property, which includes inventions (patents, useful model), trademarks, industrial designs, and geographic indications of source; and
- Copyright, which includes <u>literary and artistic works</u> such as novels, poems and plays, films, musical works, artistic works such as drawings, paintings, photographs and sculptures, and architectural designs.

Rights related to copyright include those of performing artists in their performances, producers of phonograms in their recordings, and those of broadcasters in their radio and television programs.

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Other

technologies or

solutions

Research competitors

ec.europa.eu/ip-helpdesk

Understand the landscape

Strategic intelligence - components for a sound exploitation & impact strategy

WP and Call Challenges,
Objectives & Topics; Expected Impact

Market issues

Standards

Related research projects

Ethics, security, privacy

Societal and environmental

Existing knowledge and State of the Art

Regulations

Industry competitors

IPR

Source: E. Sweeney, 2016

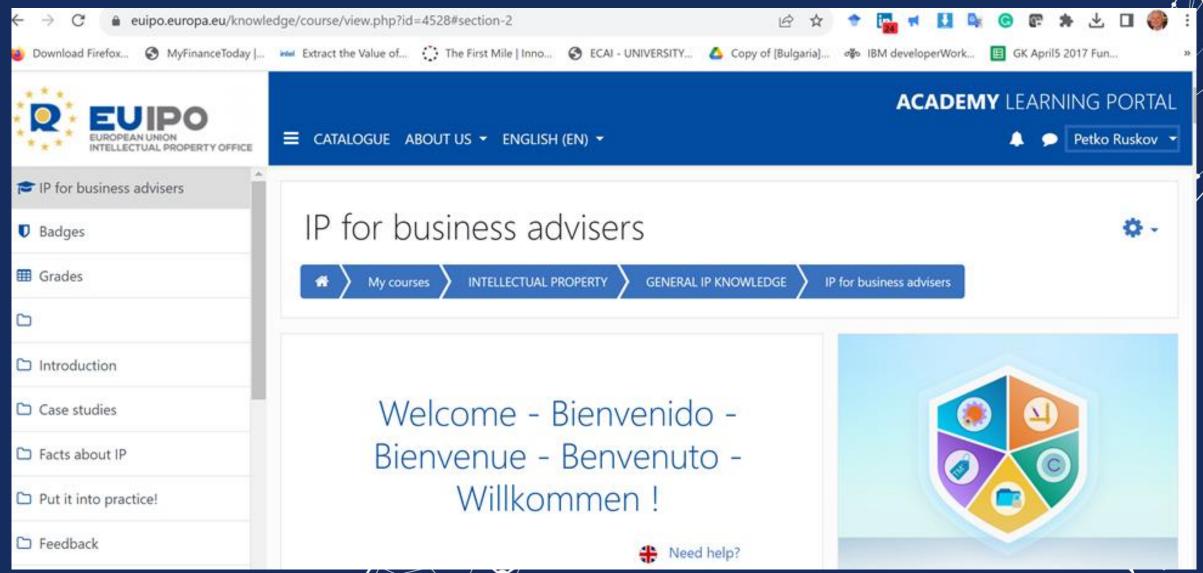
IP as a business assets

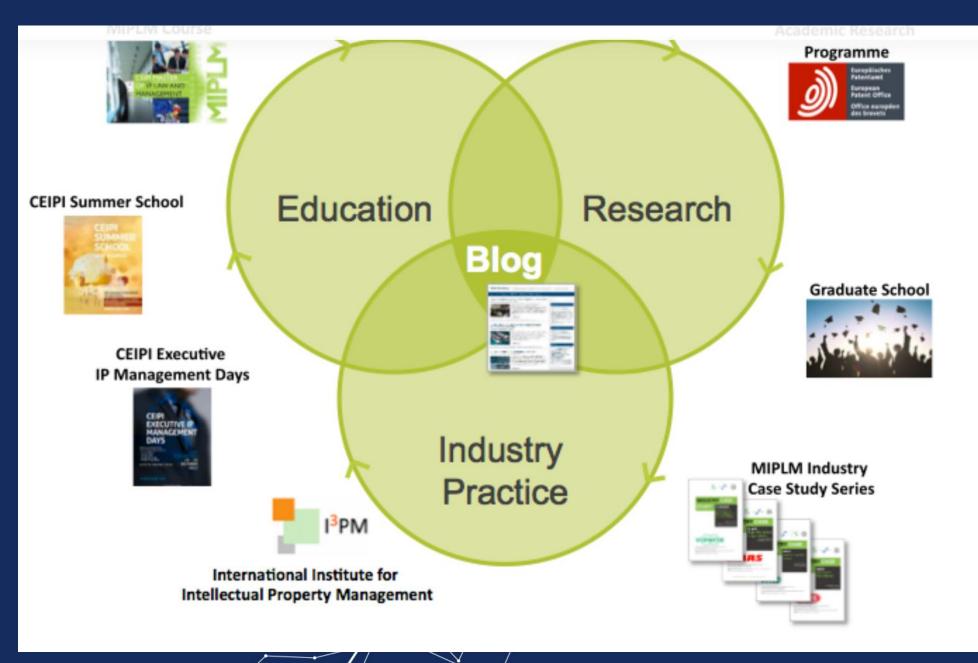
THE ED

Intellectual Property as a Business Asset



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Defensive level. Companies at this level use their IP for defensive purposes only. Their goals are to protect their own innovations, to ensure that they don't infringe the IP of others, and to obtain more IP. The costs in filing fees, enforcement and other legal expenses can be high.

Cost control level Companies at this level still have a defensive approach, but now focus on finding ways to obtain protection while simultaneously minimizing the costs of creating and maintaining their Profit center level Companies reach this level once they begin to license out their IP, or otherwise to use it in support of their company business activity.

Integrated level. Here the company's business units have grasped the power of using IP for a range of business roles. IP use for business becomes integrated across all of the company's business activity.

Visionary. At this level of IP management sophistication, companies take a long-term view of the company's role in business and in its industry. They seek to use the company's IP to create more strategic value.

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https://www.wipo.int/wipo_ magazine/en/2008/01/articl e_0008.html



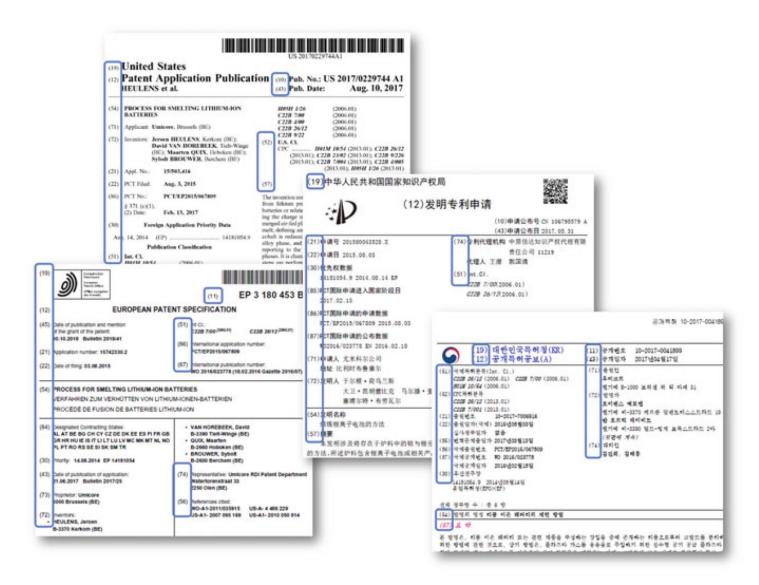
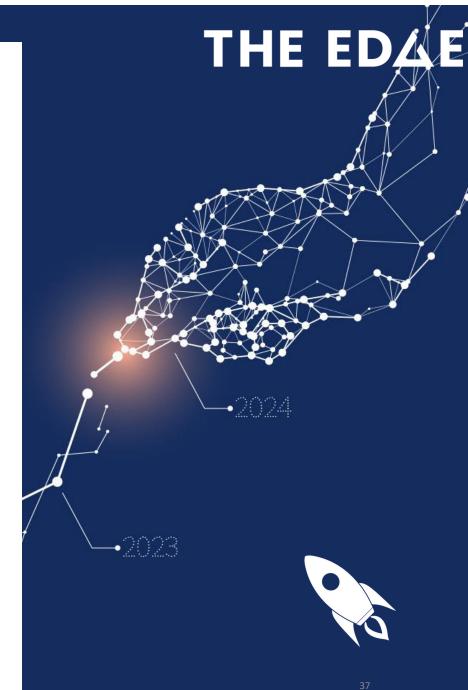
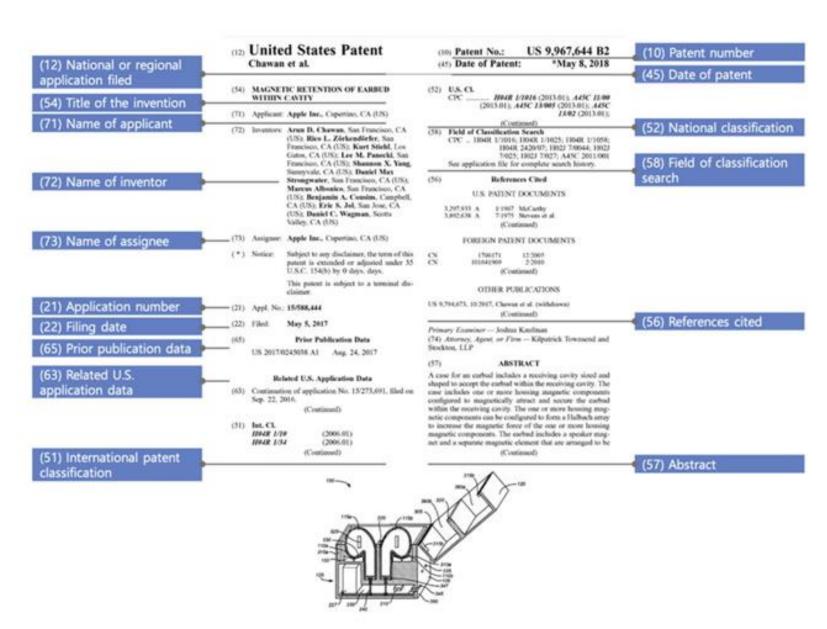
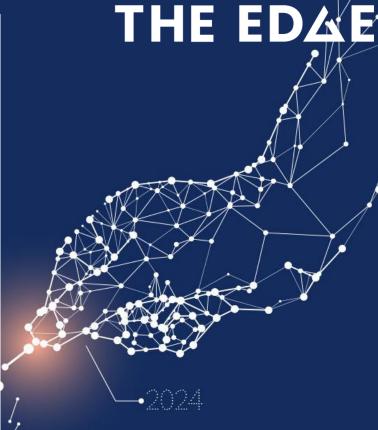


Fig. 3.3 Sample front page of patent document issued from the EPO, USPTO, CNIPA, and KIPO (in order from left to right)







2023



Table 3.6 Comparison of design classification systems by countries with the example of mobile telephones

Patent offices	Classification system	Number of classes and sub-classes (/)	Example	Hierarchies				
				Level 1	Level 2			Level 3
WIPO EUIPO	Locarno classification	32/223	14–03	14	3			
USPTO	USPC	33/5,631	D14/138AA	D14	138			AA
KIPO	Korean design code	13/75/457/2,559/569	H3-301A	Н	3	30	1	A
JPO	Japan design classification	13/76/3,114/1,844	H7-43AA	Н	7	4	3	AA

Note that the Locarno Classification was initially developed by the European member nations where substantive examination for design applications is not required. The Locarno system has stressed its practical uses rather than its searchability. Therefore, the Locarno Classification appears very broad without any sophisticated hierarchies associated with ornamental forms of designs, such as shape descriptions







Step 1

Extracting key elements of a claim

Step 2

Connecting relations between the claimed elements

Step 3

Mapping drawings and the claimed elements

Fig. 4.4 Anatomy of patent claims



Horizon Europe: IP Management approach

P Awareness



- IP Policies
- Rules
- Agreements
- Training

P Portfolio



- Background
- Results
- Capturing
- Ownership

IP Assessment



- IP-landscaping
- FTO
- Patentability check
- Protection Strategy

IP Protection

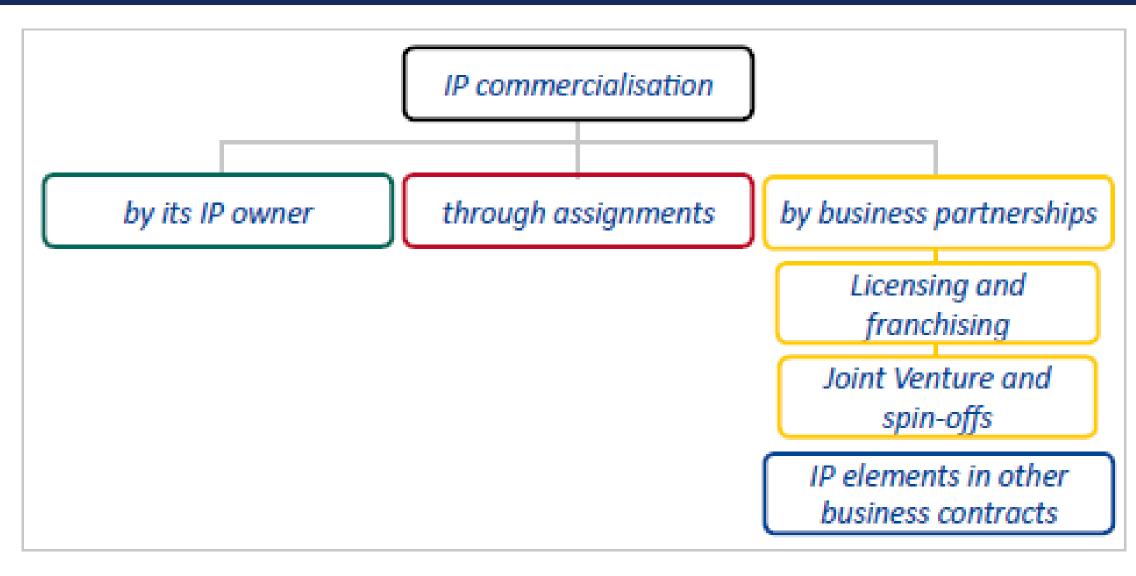


- Registered IP
- Trade Secrets
- Copyright
- Related costs

IP Valorisation



- Dissemination
- Exploitation
- Transfer
- Post-Project agreements



IP Management



STEINBEIS-TRANSFER-INSTITUTE INTELLECTUAL PROPERTY MANAGEMENT



An *IP Manager* must have a sound knowledge and understanding of the different management functions

Working areas of an IP Manager

Strategy

Decision

Implementation

Organization

Leadership

IP Business Development

Management Functions





www.iprhelpdesk.eu

IP Management - Managing the KEY assets!

The 6 pillars of IP Management

IP Used IP Generated Assess access and usage . How to capture . What and where rights for preare the Ownership existing and 3rd opportunities Who manages? party IP during AND after the project (if needed for exploitation) oen

Protect

- Would protection help?
- If so, why, how, where and WHO?

Disseminate and Exploit

- · Who to tell?
- . What to tell?
- · How to tell?
- How to transfer?
- Exploitation pathways

Post project

- IP and IPR management
- Dissemination and exploitation
- Post deal management

Management doesn't end when the project ends!



IP Management

Identify

- •Invention disclosure
- Researcher interactions

Assess

- •IP due diligence
- •Commercial case
- •Development needs
- •Researcher desire

Protect & Manage

- Patent
- •Other IP

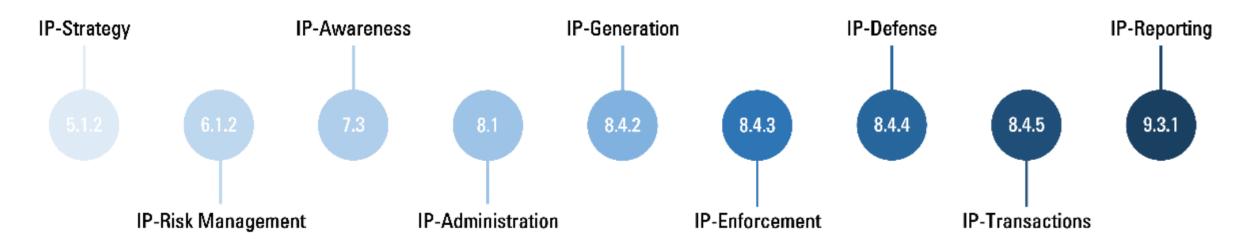
Commercialise

- Licence
- Spin-out



IP Management via the DIN 77006 Standard

DIN 77006 provides a guideline for the quality of IP management to enhance long-term business strategy and success, and includes the following topics:





Petko Rusksy, О∮нови на разработването на блокчейн приложения, 20230315



MIHR PIPRA ipHandbook of Best Practices

TOPICS

CASE STUDIES

GLOBAL LEARNING

RESOURCES

NETWORKING

Search

GO

advanced search search help

ipHandbook Blog

Your source for expert commentary on IP management issues. Go to the blog

About

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Top 🔼

Home > Topics > Establishing and Operating Technology Transfer Offices > Establishing a Technology Transfer Office

CHAPTER NO. 6.2

Establishing a Technology Transfer Office

Terry A. Young, Director of Research Development, University of South Dakota, U.S.A.

E Editor's Summary, Implications and Best Practices

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Abstract

Technology transfer does not just happen. Transferring knowledge and innovation from a public research organization to the private sector for commercial application and public benefit requires a formal mechanism—a technology transfer office (TTO)—to protect and license intellectual property. Establishing a new TTO is no trivial matter, and the decision to create one should be made within the context of a long-term plan that takes into consideration the following questions: (1) Does "research commercialization" align with the institution's mission? (2) Do the quality and quantity of research within the institution warrant the establishment of a TTO? (3) Is the institution willing to make a long-term commitment to required institutional changes and to adequately invest in

Get the ipHandbook

Related Definitions:

Bayh-Dole Act of 1980 assignment

claims

commercialization

copyright

intellectual property (IP)

invention

license

licensee

notice

patent (U.S.)

prior art

royalty

trademark







IP cost tool

The purpose of the Cost Tool is to provide EU SMEs with a reliable overview of costs involved with the registration of their IP in third markets (China, India, South-east Asia, Latin-America). The costs are expressed in Euro where possible so as to ensure the information is easy to grasp for EU SME needing an estimate of costs incurred when dealing with the national IP offices of the countries you are thinking to do business with in!

Like all other services we provide, the tool will be freely accessible with minimal input required from the user and provide a real-time response. Based on the options selected you will be able to find information regarding the following fees for the registration of trade marks, patents, industrial designs, utility models and copyright.



- Examination Fees
- Renewal Fees
- Surcharges / exceptions
- Annuity Fee





IP diagnostic tool

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The IP Diagnostic tool will help you analyse your level of preparedness and knowledge in IP and identify the relevant aspects on which you may need further information.

This test consists of a questionnaire divided into three categories

- IP Protection to identify which are the most relevant IP rights to you
- IP Internationalisation and Commercialisation to assess your knowledge on how IP rights can be exploited for your business
- IP Practice to test your general awareness in IP
- Once you have completed the questionnaire you will get a personalised report helping you identify the areas in which you should be careful in drafting or adapting your IP strategy whereinternationalising to a new region.

10/23/2023

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Упражнения

Представяне на екипите

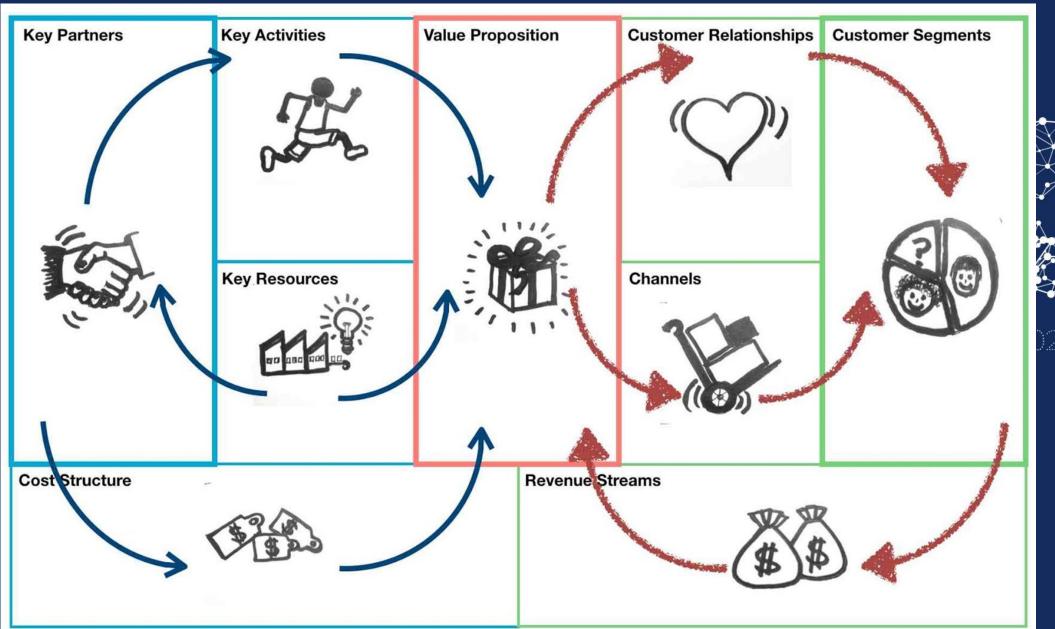


• Канава на бизнес модела



TARGET CUSTOMER JOB-TO-BE-DONE CONSUMPTION BARRIER IDEA SKETCH/ OVERVIEW BASIC BUSINESS MODEL **IMPACT POTENTIAL** Goal Price Purchase Population Frequency Required Penetration **CRITICAL UNCERTAINTIES TESTING PLAN**

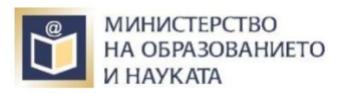
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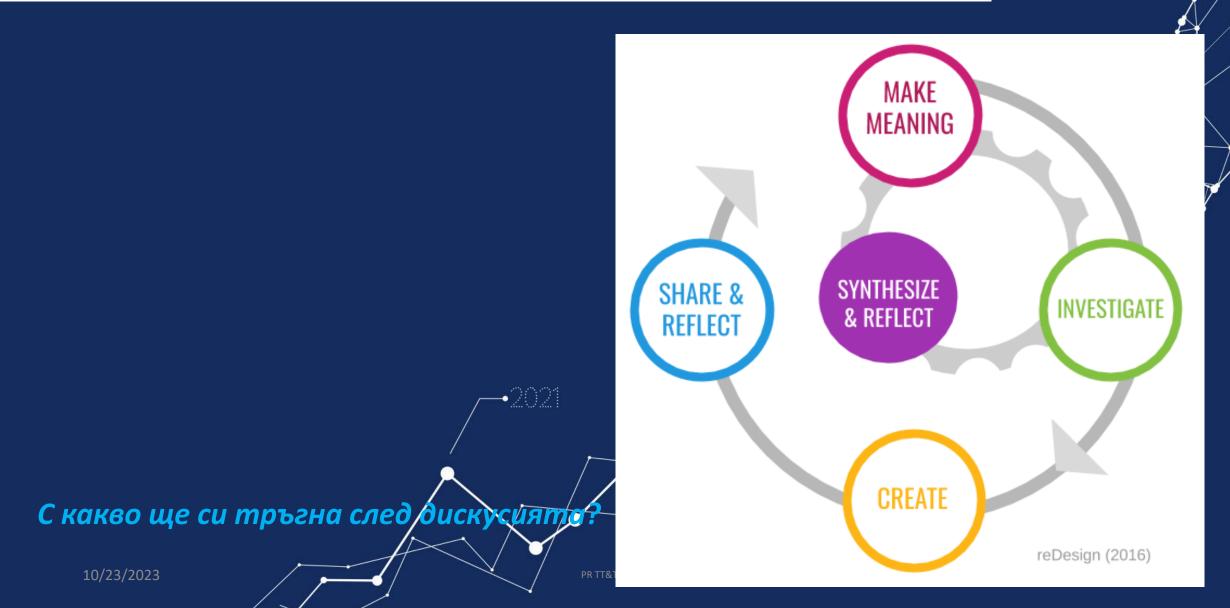


























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