

#### **REPORT**

on a service assignment
"Financial assessment and maintenance of innovation"

in connection with the implementation of SME Innovation Capacity Boost under the European Program "Interreg Balkan-Mediterranean 2014-2020"



Innovative behavior is a starting point for development of an innovation strategy. One of the goals of such a strategy is to identify external strategic changes that may arise in the company as a result of technology and innovation development and an assessment of the magnitude of changes arising from the introduction of new and improving technologies. The assessment of innovative behavior should be done alongside the external environment analysis in order to select the most promising areas of technological development. The quantitative assessment of the innovative behavior in the respective company should have an effective process for generating innovative ideas, the launching and implementation of which have well-known methodologies such as morphological analysis, controlling method and others. The use of such methods leads to the generation of innovative ideas, which should be evaluated in order to select ideas for practical realization. Preliminary selection of the most effective innovative ideas can be done on the basis of a multilevel assessment and it is advisable first to evaluate the new or improved technology / product in terms of its impact on the change in the entity's position in the external environment. Thus, the question of what is the economic benefit that emerges for an enterprise that chose the path of innovative development can be answered.

The innovation activity of an enterprise strongly depends on the development of the enterprise's innovation infrastructure. There are several key elements of the innovation infrastructure:

1. Presence of innovation-oriented structural units of the enterprise. The main such units are the presence of a design department and its own scientific base, the presence of a laboratory for quality control of the production, the presence of a marketing department.

#### 2. Appropriate staffing.

Appropriate staffing consists of staff with special education and desirable experience in the field of research and development. Among these frames, it is good to have one or several specialists with experience in the area of innovation processes. There is also a need for specialists in the field of marketing and research, as well as specialists planning the needs of consumers and their development over time.

#### 3. Financial resources

The availability of own financial resources for innovation can greatly facilitate this activity and accelerate the innovation process. The availability of financial resources, for example on the basis of loans or innovations, also has a positive impact on innovation.

#### 4. Material and technical base

these are laboratory equipment, special test facilities and other research equipment.

#### 5. Intellectual property

Acquisition of intellectual property is an important element of effective innovation infrastructure. This property includes, for example, inventions, industry models, utility models, brands, and even innovative programs and plans.

6. Other elements leading to better results from innovation activity.

These include a department for innovation development, links with research institutes and universities - institutional and personal, experience in managing different types of projects, experience in the strategic development of the enterprise

The assessment of the state of the elements of the innovation infrastructure can be an important element of the assessment of the innovation activity of the enterprise. In many cases, the innovation activity of an enterprise is assessed on the basis of quantitative indicators. This approach is the basis for the implementation of this assignment.



# SHORT DESCRIPTION OF THE SERVICE ASSIGMENT FINANCIAL ASSESSMENT AND MAINTAINANCE OF INNOVATION IN CONNECTION WITH THE IMPLEMENTATION OF THE PROJECT SME INNOVATION CAPACITY BOOST UNDER THE EUROPEAN PROGRAM INTERREG BALKAN-MEDIATERRANIAN 2014 - 2020

The service assignment is as follows

#### 1. Indicators characterizing the innovation-related market

These indicators should assess the prospects for market development within the industry in which innovation will be realized

### 2. Indicators characterizing the goods and services received as a result of the innovation

These indicators should assess the quality of the products or services that will emerge as a result of innovation in comparison with the quality of related products and services. For comparison, the best of analogue output should be taken globally.

- 3. Indicators characterizing aspects related to the financing of innovation.
- These indicators should assess the strategy for financial provision of the process and the relevant project for realization of innovation.
- 4. Indicators characterizing the socio-economic aspects of innovation

These indicators should assess the social impact of the proposed innovation

5. Indicators related to the assessment of the financial efficiency of innovation

These indicators have to assess the degree of financial efficiency of the proposed innovation and the relevant innovation project.

## 6. Indicators that characterize the risks associated with innovation and the relevant innovation project

These indicators should characterize the risk of losing the funds invested in innovation and innovation as a result of the impact of external factors.

## 7. Joining the indicators from pts. 1-6 in a system and selection values for the weights for the indicators

Each of the above groups of indicators should consist of a sufficient number of indicators, of which each needs to have degrees to which a number can be compared. By the sum of the numbers for the individual indicators a general assessment of the innovation and the relevant innovation project should be made and thus the level of effectiveness of the respective project is determined.



## REPORT ABOUT THE WORK DONE ON THE 7 POINTS FROM THE DESCRIPTION OF THE ASSIGNMENT (ENGLISH)

#### **GENERAL DESCRIPTION**

#### Volume and scope of the assignment

The amount and scope of the job is: Creation of a system of indicators for assessment of quantitative and qualitative aspects related to the economic and financial sides of innovation and related innovation projects.

#### **Description of the system**

The system contains the following sets of indicators

#### 1. Indicators characterizing the innovation-related market

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## 2. Indicators characterizing the goods and services received as a result of the innovation

These indicators should assess the quality of the products or services that will emerge as a result of innovation in comparison with the quality of related products and services. For comparison, the best of analogue output should be taken globally.

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These indicators should assess the strategy for financial provision of the process and the relevant project for realization of innovation.

#### 4. Indicators characterizing the socio-economic aspects of innovation

These indicators should assess the social impact of the proposed innovation

#### 5. Indicators related to the assessment of the financial efficiency of innovation

These indicators have to assess the degree of financial efficiency of the proposed innovation and the relevant innovation project.

### 6. Indicators that characterize the risks associated with innovation and the relevant innovation project

These indicators should characterize the risk of losing the funds invested in innovation and innovation as a result of the impact of external factors.



Each of the above groups of indicators should consist of a sufficient number of indicators, of which each needs to have degrees to which a number can be compared. By the sum of the numbers for the individual indicators a general assessment of the innovation and the relevant innovation project should be made and thus the level of effectiveness of the respective project is determined.

#### **Quantitative evaluation of indicators**

Each indicator is evaluated by a point system as follows:

6 points: excellent score 5 points: very good score

4 point: good score 3 points: average score

2 points: a satisfactory score 1 point: unsatisfactory score

0 points: poor score

### Description of the system of 61 indicators and the associated points for each indicator

A system of 61 indicators is described below in the text. For each indicator, indicate what the relevant estimates are for. Estimates of some indicators in the relevant set of indicators are multiplied by indications in the appropriate weighting of the text.



#### 1. Indicators characterizing the innovation-related market

A) Weight 3:

1. Costs of moving the innovative product or service to the market

almost zero: 6 pts; very small: 5 pts; small: 4 pts; average: 3pts; large: 2 pts; very large: 1 pt;

extremely large: 0 pts;

2. Prospects for the development of the sector and the sectoral market

excellent: 6 pts; very good: 5 pts; good: 4 pts; average: 3 pts; weak: 2 pts; bad: 1 pt; very bad: 0 pts

3. Level of competition

zero: 6 pts; very weak: 5 pts; weak: 4 pts; average: 3 pts; strong: 2 pts; very strong: 1 pt;

extremely strong: 0 pts;

4. Stability of demand

stability, independent of external conditions and regulatory frames: 6 pts; stability, independent of external conditions and poorly dependent on regulation frames: 5 pts

stability, poorly dependent on external conditions and weakly dependent on regulatory frameworks: 4 pts;

stability, depending on external conditions and regulation frames: 3 pts;

stability, highly dependent on external conditions and dependent on regulation frames: - 2 pts;

stability, highly dependent on external conditions and control frames: 1 pt.;

constant instability, highly dependent on external conditions and regulatory frameworks: 0 pts;

5. Trend of demand change

extremely strong increase: 6 pts; very strong increase: 5 pts; strong increase: 4 pts; average increase: 3 pts; without modification: 2 pts; slight decrease: 1 pt;

strong reduction: 0 pts;

- B) Weight 2:
- 6. Market size

extremely large number of potential customers: 6 pts; very large number of potential customers: 5 pts; large number of potential customers: 4 pts; average number of potential customers: 3t; few potential customers: 2t; very few potential customers: - 1 pt; extremely small specialized group of potential customers: - 0 pts;

7. Market ability to absorb goods (services)

extremely large: 6 pts; very large: 5t; large: 4 pts; average: 3 pts; small: - 2 pts; very small: - 1 pt; extremely small: - 0 pts;

- C) Weight 1:
- 8. Influence of innovation on the development of neighboring industries

very strong: 5t; strong: 4 pts; average: 3 pts; weak: 2 pts;

extremely strong: 6 pts;



### 2. Indicators characterizing the goods and services received as a result of innovation

- A) Weight 3:
- 9. Functional and consumer qualities of the innovative commodity (service)

exceptional: 6 pts; very good: 5 pts; good: 4 pts; average: 3 pts;

satisfactory: 2 pts; unsatisfactory: 1 pt;

strong dysfunction and inconvenience to the user: - 0 pts;

10. Reliability and durability

exceptional: 6 pts;

very good: 5 pts;

good: 4 pts;

average: 3 pts; satisfactory: 2 pts;

unsatisfactory: 1 pt;

strong unreliability and / or perishability: - 0 pts;

11. User safety

full: 6 pts;

very good: 5 pts;

good: 4 pts;

average: 3 pts;

satisfactory: 2 pts;

unsatisfactory: - 1 pt;

highly dangerous: 0 pts;

12. Price

extremely profitable: 6 pts;

very good: 5 pts;

good: 4 pts;

normal: 3 pts;

tolerable: 2 pts;

high: 1 pt;

very high: 0 pts;



#### 13. Ecology

exceptional: 6 pts; very good: 5 pts; good: 4 pts; average: 3 pts; satisfactory: 2 pts; unsatisfactory: 1 pt; very bad: 0 pts;

#### 14. Costs

extremely low: 6 pts; very low: 5 pts; low: 4 pts; average: 3 pts; high: 2 pts; very high: 1t; exceptionally high: 0 pts;

#### B) Weight 2:

#### 15. Design

exceptional: 6 pts; very good: 5 pts; good: 4 pts; average: 3 pts; tolerable: 2 pts; unattractive: 1 pt;

highly unattractive: 0 pts;

#### 16. Opportunity to improve the innovative product (service)

extremely large: 6 pts; very large: 5 pts; large: 4 pts; average: 3 pts; small: 2 pts; very small: 1 pt; zero: 0 pts;

#### 17. Compliance with standards

full: 6 pts; to a very large extent: 5 pts; to a large extent: 4 pts; in average: 3 pts;



large discrepancy: 2 pts; very large discrepancy: 1 pt; full discrepancy: 0 pts;

18. Degree of technology

exclusive high tech: 6 pts;

very high: 5 pts; high: 4 pts; average: 3 pts; low: 2 pts; very low: 1 pt;

extremely low: 0 pts;

19. Connectivity of innovation with the core business of the company

fully related: 6 pts;

very strongly connected: 5 pts;

strongly connected: 4 pts;

average degree of connectivity: 3 pts; low degree of connectivity: 2 pts; very low degree of connectivity: 1 pt;

unrelated: Opts;

20. Preparedness to produce the innovative product

full: 6 pts; very high: 5 pts; high: 4 pts; average: 3 pts; low: 2 pts; very low: 1t;

total unpreparedness: 0t;

C) Weight 1:

21. Customer Preparedness for Using the Innovative Goods (Service)

full: 6 pts;

very high: 5 pts;

high: 4 pts; average: 3 pts; low: 2 pts; very low: 1 pt;

total unpreparedness: 0 pts;

22. Preparation for the distribution of the innovative product



full: 6 pts;

very high: 5 pts;

high: 4 pts;

average: 3 pts;

low: 2 pts;

very low: 1 pt;

total unpreparedness: 0t;



- 3. Indicators characterizing aspects related to the financing of innovation.
- A) Weight 4:
- 23. Opportunity to attract funds from the state budget

sure: 6 pts;

very large: 5 pts;

large: 4 pts;

average: 3 pts;

small: 2 pts;

very small: 1 pt;

zero: 0 pts;

24. Opportunity to attract funds from the population

sure: 6 pts;

very large: 5 pts;

greater: 4 pts;

average: 3 pts;

small: 2 pts;

very small: 1 pt;

zero: 0 pts;

25. Securing financial guarantees

sure: 6 pts;

very high probability: 5 pts;

high probability: 4 pts;

average probability: 3 pts;

low probability: 2 pts;

very low probability: 1 pt;

zero probability: 0 pts;

- B) Weight 3:
- 26. Participation of the company implementing the project in its financing

full funding: 6 pts;

takes up much of the funding: 5 pts;

takes a large part of the funding: 4 pts;

takes up half of the funding: 3 pts;

takes a small part of the funding: 2 pts;

Takes a very small chunk of funding: 1 pt;

does not participate in the funding: 0 pts;



27. Opportunity to attract national investors

sure: 6 pts;

very high probability: 5 pts;

high probability: 4 pts;

average probability: 3 pts;

low probability: 2 pts;

very low probability: 1 pt;

zero probability: 0 pts;

28. Possibility to attract foreign investors

sure: 6 pts;

very high probability: 5 pts;

high probability: 4 pts;

average probability: 3 pts;

low probability: 2 pts;

very low probability: 1 pt;

zero probability: 0 pts;

29. Opportunity to obtain credit from national banks

sure: 6 pts;

very high probability: 5 pts;

high probability: 4 pts;

average probability: 3 pts;

low probability: 2 pts;

very low probability: 1 pt;

zero probability: 0 pts;

30. Opportunity to obtain credit from foreign banks

sure: 6 pts;

very high probability: 5 pts;

high probability: 4 pts;

average probability: 3 pts;

low probability: 2 pts;

very low probability: 1 pt;

zero probability: 0 pts;

C) Weight 2:

31. Total project funding

no need for funding: 6 pts;

very little: 5 pts;

small: 4 pts; average: 3 pts; large: 2 pts; very large: 1 pt;

extremely large: 0 pts;



- 4. Indicators characterizing the socio-economic aspects associated with innovation
- A) Weight 3
- 32. Contribution to employment of the population

extremely large: 6 pts; very large: 5 pts; large: 4 pts; average: 3 pts; small: 2 pts; very small: 1 pt; void: 0 pts;

33. Contribution to reducing production costs of organizations using the innovative product

extremely large: 6 pts; very large: 5 pts; large: 4 pts; average: 3 pts; small: 2 pts; very small: 1 pt; void: 0 pts;

34. Export potential of the innovative product

extremely large: 6 pts; very large: 5 pts; large: 4 pts; average: 3 pts; small: 2 pts; very small: 1 pt; void: 0 pts;

35. Contribution to the ecology of the region

extremely large: 6 pts; very large: 5 pts; large: 4 pts; average: 3 pts; small: 2 pts; very small: 1 pt;



void: 0 pts;

36. Contribution to increase entrepreneurial activity

extremely large: 6 pts; very large: 5 pts; large: 4 pts; average: 3 pts;

small: 2 pts; very small: 1 pt;

void: 0 pts;

- B) Weight 2:
- 37. Utilization of the scientific and technological potential of society

extremely large: 6 pts;

very large: 5 pts;

large: 4 pts;

average: 3 pts; small: 2 pts;

very small: 1 pt;

zero: 0 pts;

38. Contribution to raising the incomes of the population in the region

extremely large: 6 pts;

very large: 5 pts;

large: 4 pts;

average: 3 pts;

small: 2 pts;

very small: 1 pt;

void: 0 pts;

39. Contributing to the development of the innovation product industry

extremely large: 6 pts;

very large: 5 pts;

large: 4 pts;

average: 3 pts;

small: 2 pts;

very small: 1 pt;

void: 0 pts;

40. Contribution to the development of industries indirectly linked to the innovative product

extremely large: 6 pts;



very large: 5 pts; large: 4 pts; average: 3 pts; small: 2 pts; very small: 1 pt; void: 0 pts;

41. Contribution to the development of the social infrastructure of the region

extremely large: 6 pts;

very large: 5 pts; large: 4 pts; average: 3 pts; small: 2 pts; very small: 1 pt;

void: 0 pts;

42. Contribute to solving demographic problems

extremely large: 6 pts; very large: 5 pts; large: 4 pts; average: 3 pts; small: 2 pts; very small: 1 pt; void: 0 pts;

43. Contribution to the development of new markets

extremely large: 6 pts; very large: 5 pts; large: 4 pts; average: 3 pts; small: 2 pts; very small: 1 pt; void: 0 pts;

44. Contribution to rational use of natural resources

extremely large: 6 pts; very large: 5 pts; large: 4 pts; average: 3 pts; small: 2 pts; very small: 1 pt; void: 0 pts;





45. Contribute to improving the safety of the population

extremely large: 6 pts;

very large: 5 pts;

large: 4 pts;

average: 3 pts;

small: 2 pts;

very small: 1 pt;

void: 0 pts;

46. Contribution to regional infrastructure development

extremely large: 6 pts;

very large: 5 pts;

large: 4 pts;

average: 3 pts;

small: 2 pts;

very small: 1 pt;

void: 0 pts;

47. Contribution of innovation to improving relationships with customers

extremely large: 6 pts;

very large: 5 pts;

large: 4 pts;

average: 3 pts;

small: 2 pts;

very small: 1 pt;

void: 0 pts;

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- 5. Indicators related to the assessment of the financial efficiency of innovation
- A) Weight 4
- 48. Yield of the product
  extremely large: 6 pts;
  very large: 5 pts;
  large: 4 pts;
  average: 3 pts;
  small: 2 pts;
  very small: 1 pt;
  zero: 0 pts;
- B) Weight 3
- 49. Time to redeem investment in the innovative product through the profit from its realization

extremely small: 6 pts; very small: 5 pts; small: 4 pts; average: 3 pts; greater: 2 pts; very large: 1 pt; extremely large: 0 pts;

50. Liquidity of the innovative product

extremely large: 6 pts; very large: 5 pts; large: 4 pts; average: 3 pts; small: 2 pts; very small: 1 pt; null: 0 pts;



## 6. Indicators characterizing the risks related to innovation and innovation the relevant innovation project

A) Weight 3

51. Economic risk

extremely large: 0 pts;

very large: 1 pt;

large: 2 pts;

average: 3 pts;

small: 4 pts;

very small: 5 pts;

zero: 6 pts;

52. Risk of production problems

extremely large: 0 pts;

very large: 1 pts;

large: 2 pts;

average: 3 pts;

small: 4 pts;

very small: 5 pts;

zero: 6 pts;

53. Socio-political risk

extremely large: 0 pts;

very large: 1 pts;

large: 2 pts;

average: 3 pts;

small: 4 pts;

very small: 5 pts;

zero: 6 pts;

54. Legal risk related to innovation

extremely large: 0 pts;

very large: 1 pts;

large: 2 pts;

average: 3 pts;

small: 4 pts;

very small: 5 pts;

void: 6 pts;



- B) Weight 2
- 55. Risk related to product quality

void: 6 pts;

very small: 5 pts;

small: 4 pts;

average: 3 pts;

large: 2 pts;

very large: 1 pt;

extremely large: 0 pts

56. Risk linked to the provision of production

void: 6 pts;

very small: 5 pts;

small: 4 pts;

average: 3 pts;

large: 2 pts;

very large: 1 pt;

extremely large: 0 pts

57. Risk related to the innovation budget 22

void: 6 pts;

very small: 5 pts;

small: 4 pts;

average: 3 pts;

large: 2 pts;

very large: 1 pt;

extremely large: 0 pts

58. Risk related to natural conditions

void: 6 pts;

very small: 5 pts;

small: 4 pts;

average: 3 pts;

large: 2 pts;

very large: 1 pt;

extremely large: 0 pts

59. Environmental risk

void: 6 pts;

very small: 5 pts;

small: 4 pts;

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average: 3 pts; large: 2 pts; very large: 1 pt; extremely large: 0 pts

60. Risk associated with the image of the manufacturer

zero: 6 pts; very small: 5 pts; small: 4 pts;

average: 3 pts; large: 2 pts; very large: 1 pt;

extremely large: 0 pts

61. Criminal Risk

zero: 6 pts;

very small: 5 pts;

small: 4 pts; average: 3 pts; large: 2 pts;

very large: 1 pt;

extremely large: 0 pts

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#### 7. Joining the indicators in a system

For the joining the 61 indicators in a system weights of the values of the indicators are introduced. The system of indicators can be used both as a whole and by groups of indicators.

#### The use of the system as a whole is as follows

- 1. An evaluation is made for each of the criteria.
- 2. The points corresponding to the scores for all 61 criteria are summed up.
- 3. The maximum number of points is 924.
- 4. If the innovation idea and the corresponding project collect less than 500 points, the project is ineffective. Try to improve it.
- 5. If the points are between 400 pts and 500 pts there is hope for improvement.
- 6. If the points are below 400, you have to seriously consider whether it is worth dealing with the innovative idea and the relevant innovative project.

#### The use of the system by groups of indicators is as follows

- a) The number of points across the different sets of criteria shows what the strong sides of the project are and what are the weaknesses of the innovative idea and the relevant innovative project.
- b) One possible outcome is that the innovative project is weak overall, but there are some strengths that allow it to be combined with other projects. Thus, there may be interaction between two or more organizations that have innovative ideas and projects.

Below we list guidelines about the strengths and weaknesses of the innovation and the corresponding project, according to the number of points obtained by the relevant set of indicators.

#### 1. Indicators characterizing the innovation-related market

These indicators assess the prospects for market development within the industry in which innovation will be realized.

- 1. If the project has collected at least 80 points, innovation and the project are well-oriented to appropriate markets
- 2. If the project has collected at least 90 points, innovation and the project are very well-oriented to appropriate markets.
- 3. If the project has collected at least 100 points, innovation and the project are oriented excellent to appropriate markets



### 2. Indicators characterizing the goods and services received as a result of innovation

These indicators assess the quality of the products or services that will emerge as a result of innovation in comparison with the quality of related products and services. By comparison, the best of analogue output should be taken.

- 1. If the project has collected at least 128 points, innovation and the project can lead to good quality of goods and services
- 2. If the project has collected at least 144 points, innovation and the project can lead to very good quality of goods and services
- 3. If the project has collected at least 160 points, innovation and the project can lead to excellent quality of goods and services

#### 3. Indicators characterizing aspects related to the financing of innovation.

These indicators assess the strategy for financial provision of the process and the relevant project for realization of innovation.

- 1. If the project has collected at least 120 points, innovation and the project concerned are well thought out financially.
- 2. If the project has collected at least 135 points, then the innovation and the project are very well thought out financially.
- 3. If the project has collected at least 150 points, innovation and the project are thought out financially in an excellent way.

### 4. Indicators characterizing the socio-economic aspects associated with innovation

These indicators measure the social impact of the proposed innovation

- 1. If the project has collected at least 150 points, innovation and the project may have a good social impact.
- 2. If the project has collected at least 165 points, innovation and the project may have a high social impact.
- 3. If the project has collected at least 180 points, innovation and the project may have a very high social impact.

### 5. Indicators characterizing the assessment of the financial efficiency of innovation

These indicators assess the degree of financial efficiency of the proposed innovation and the relevant innovation project.

- 1. If the project has collected at least 40 points, innovation and the project can have good financial efficiency.
- 2. If the project has collected at least 45 points, innovation and the project can have very good financial efficiency.

3. If the project has collected at least 50 points, innovation and the project can have excellent financial efficiency.

## 6. Indicators that characterize the risks associated with innovation and the relevant innovation project

These indicators characterize the risk of losing the funds invested in innovation, and innovation as a result of the impact of external factors.

- 1. If the project has collected at least 100 points, innovation and the project concerned have a satisfactory level of risk.
- 2. If the project has collected at least 120 points, the innovation and the project concerned are of low risk.
- 3. If the project has collected at least 135 points, innovation and the project concerned are of very low risk.