

Operational Training Sessions on Financing Digital Innovation



# BGK's role in supporting Digital Transformation

- exploring the product component and case studies of digital transformation investments

Malta, 27-28 February 2025



# Biznesmax Plus guarantee

(the component of digital transformation)



European Funds  
for Smart Economy



Republic  
of Poland

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## Biznesmax Plus guarantee – objective and concept

### The project objective

- facilitate access to debt financing for entrepreneurs (SMEs, small mid caps, mid-caps)
- increasing the innovation potential of enterprises
- creating incentives for debt financing for innovation and digital transformation of enterprises

### Value of the project

**EUR 251 m**

including:

**EUR 160 m**

funds for guarantees

**EUR 24 m**

funds for interest rate subsidy

**EUR 56 m**

funds for capital subsidy



\*The exchange rate as of 31 Jan. 2025: EUR 1 – PLN 4,213

## Reached volumes of guarantee Biznesmax Plus – results to 31 January 2025

**EUR**  
**334** m

Value of the guarantees  
provided by BGK

**EUR**  
**566** m

Value of the financing  
covered by BGK's  
guarantees

\*The exchange rate as of 31 Jan. 2025: EUR 1 – PLN 4,213



# Biznesmax Plus portfolio guarantee line | Parameters of three components



01

## Loan repayment guarantee

- beneficiaries: **SME, small mid-caps, mid-caps**
- **free of charge** guarantee
- scope: **up to 80% loan amount**
- maximum guarantee amount: **EUR 2,5 m**
- period of guarantee coverage:
  - **up to 20 years** (regional investment aid) – investment loans,
  - **up to 10 years** (de minimis aid) – investment loans,
  - **up to 63 months** – working capital loans (de minimis aid)
- type of collateral loan: **investment loan** or **working capital loan**
- form of aid: **de minimis** or **regional investment aid**
- collateral: **blank promissory note**

02

## Capital subsidy

- beneficiaries: **SME**
- type of loan: **investment loan**
- form of subsidy: **capital subsidy (10% or 20%\*)**
- min. guarantee percentage range: **50%**
- form of aid: **de minimis** or **regional investment aid**

03

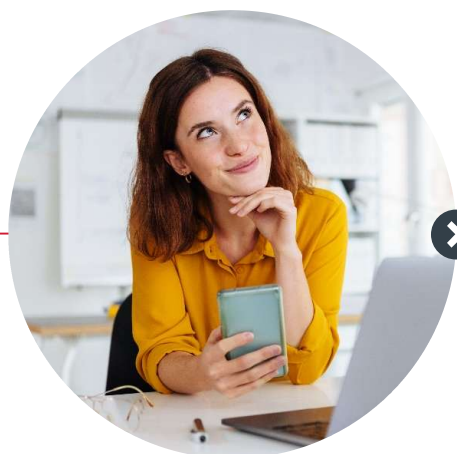
## Interest rate subsidy

- beneficiaries: **SME**
- type of loan: **working capital loan**
- form of subsidy: **interest rate subsidy (10%)**
- min. guarantee percentage range: **60%**
- form of aid: **de minimis**

\* digital transformation investments



# Biznesmax Plus guarantee | Variants



Entrepreneur



Lending bank

Credit subject

1

- implementation of an investment that falls within the **eligible type of projects**:
  - ✓ **innovative investment** (product, process, organizational, marketing innovation)
  - ✓ **eco-innovative investment** (RES installations, circular economy solutions)
  - ✓ **investment serving digital transformation\*** (automation solutions, robotics, industry 4.0, internet of things)
- **capital subsidy**

2

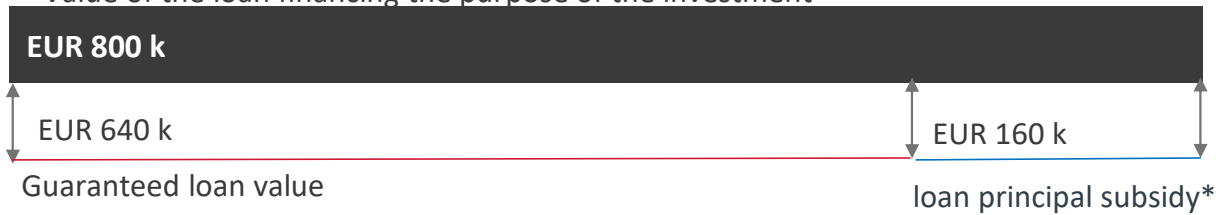
Credited entity

- confirmation of the company's innovativeness based on **1 out of 7 subject criteria** (working capital loans for financing current business activities)
- **interest rate subsidy**

\* higher subsidy rate of 20% (for other projects subsidy of 10%)

# Guarantee with capital subsidy - cumulation of aid

- Value of the loan financing the purpose of the investment



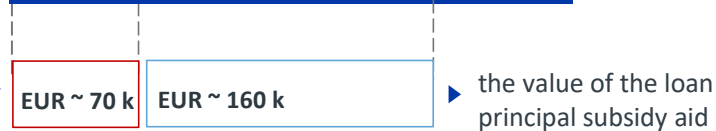
- Guaranteed value (5 years<sup>\*\*</sup>)



- Max. de minimis aid limit



The value of the guarantee aid calculated as Gross Grant Equivalent



\* The value of the subsidy is max. 20% of the loan principal and may not exceed the de minimis aid limit

\*\* equals 80% of the total loan amount minus the subsidy 20% (64% of the total loan amount)

# Eligible types of investments

(the component of digital transformation)



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# Automation and robotisation of processes



- designing
- implementation
- upgrade
- management of production, assembly and service delivery systems

## Examples:

- ✓ implementation of industrial automation systems to control production processes, e.g. production lines with automatic handling of raw materials, semi-finished and finished products,
- ✓ use of industrial robots for automated assembly of components or products, which speeds up production processes and improves precision,
- ✓ implementation of an RPA (Robotic Process Automation) system by a logistics company to improve shipment tracking, optimise shipment route management and determine delivery times.



BGK guarantee as collateral for repayment of investment loans

## Industry 4.0 digital technologies



- cyber-physical systems,
- IoT
- intelligent manufacturing systems and personalization and customization of production

### Examples:

- ✓ extensive IoT-based monitoring systems that enable data to be collected from various stages of production, e.g. sensors monitoring the performance of production machinery, the condition of raw materials or energy consumption,
- ✓ investment in building management systems based on cyber-physical technologies that control lighting, air conditioning, security, adapting to changing conditions and user preferences,
- ✓ investment in systems that provide digital quality control of production, using sensory technology and data analysis to automatically monitor and improve product quality standards.



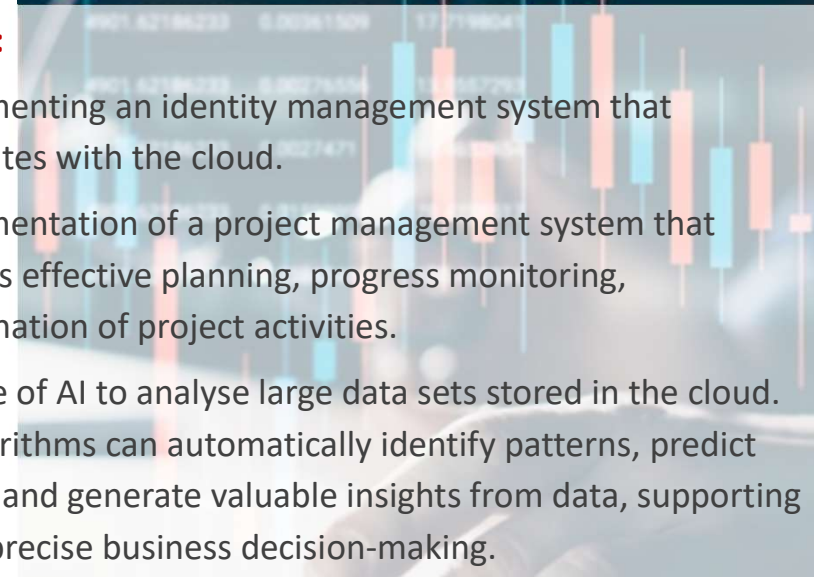
## Implementation, expansion, modernization of IT systems and support of internal enterprise informatization processes



- including data access and cloud computing (Big Data) and cyber security

### Examples:

- ✓ implementing an identity management system that integrates with the cloud.
- ✓ implementation of a project management system that enables effective planning, progress monitoring, coordination of project activities.
- ✓ the use of AI to analyse large data sets stored in the cloud. AI algorithms can automatically identify patterns, predict trends and generate valuable insights from data, supporting more precise business decision-making.



BGK guarantee as collateral for repayment of investment loans

## Development of products and services based on information and communication technologies (ICT)



- The use of information and communication technologies in the relationship between the entrepreneur and the customer or contractor (e-business, B2B, B2C)

### Examples:

- ✓ personalization of the customer experience: using customer data analytics to tailor offers to individual preferences and needs, as seen in product recommendations or personalized promotions,
- ✓ implementation of an e-invoicing platform for the secure and efficient transfer of financial documents between the entrepreneur and the contractor,
- ✓ implementation of a B2B platform for electronic ordering and supply management. Such a platform supports the processes of ordering, tracking the status of deliveries, managing business relationships, which leads to the optimization of purchasing processes and increased transparency in the relationship between entrepreneurs and their contractors.



# Towards digital transformation



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# First steps towards digital transformation (1/2)

## 1 Digital audit - digital maturity test

The Digital Maturity Test is an innovative tool created by the Polish Development Fund and the Digital Poland Foundation to support organisations in the digital transformation process. It allows a enterprise to find out what the strengths and weaknesses of the enterprises are and gain an awareness of the factors that influence its digitalisation. The questions are precisely tailored to the profile and size of the company. <https://www.bgk.pl/cyfryzacja-bgk/#c43538>

### For:

- SME entrepreneurs and large enterprises
- executives

### Key assumptions:

- rapid self-diagnosis of the organisation's strengths and weaknesses
- comparison of the result with the average maturity level of other enterprises
- increase knowledge of the enterprise's digitalization



Take your first step towards digital transformation of your company

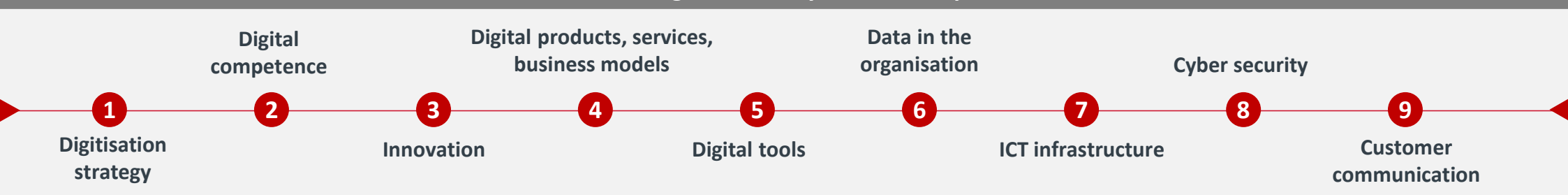


**How to interpret the response scale?**

Please respond to each statement, where you rate the extent to which you agree with it or how it describes your organization. For this purpose, use a scale of 1-5, where:

- "1" means **Definitely NO** - mark this answer if the given statement does not describe your organization at all or you completely disagree with the given statement
- "2" means **Probably NOT** - select this answer if a given statement describes your organization to a very small extent, e.g. the area of the statement is in the postal implementation phase
- "3" means **Partially** - select this answer if the statement partially describes your organization, e.g. you have taken action in the area described by the statement, but satisfactory results have not yet been achieved or it applies only to part of the organization
- "4" means **Rather YES** - select this answer if the statement describes your organization to a large extent, e.g. you have achieved good results in the area described by the statement, but these activities have not been fully completed or you have not achieved full satisfaction
- "5" means **Definitely YES** - select this answer if the given statement describes your organization to a very large extent, e.g. the achieved results in the area described by the statement are highly satisfactory

### Areas of digital maturity of the enterprise:





## First steps towards digital transformation (2/2)

### 2 E-learning course 'SMEs 4.0 - the challenges of digital transformation'

- The course presents the process of changing the way an organisation operates.
- These changes relate to improving the efficiency of the business through the use of digital technologies and IT tools.
- The course was developed in cooperation between the Polish Agency for Enterprise Development and BGK.



ZARZĄDZANIE

(średnia ocen) 4.7 ★★★★★

#### MŚP 4.0 – wyzwania transformacji cyfrowej

Liczba aktywności 16 Czas kursu (h) 5

Dla kogo?

Przedsiębiorców, pracowników firm lub konsultantów zewnętrznych zainteresowanych zwiększeniem efektywności działania przedsiębiorstwa poprzez wykorzystanie rozwiązań Przemysłu 4.0 i technologii cyfrowych.

Data publikacji: 16 październik 2023 r.

Zapisz się na kurs

The course takes approx. 5 hours, is free of charge and consists 4 chapters:

1. Introduction to enterprise digital transformation.
2. Planning and implementing digital transformation in the company.
3. Digital technologies in the company (IoT, Cloud computing, Big Data, etc.).
4. E-government and e-public services in the digital transformation of the enterprise.

**The participant receives a certificate of completion of the course!**

<https://akademia.parp.gov.pl/course/view.php?id=290>

## Supporting digitisation education - rationale

### Study „Robots and firms”<sup>1</sup>:

The loss of employment through digitisation is a myth and in fact the opposite effect can be observed:

- post-digital transformation enterprises experienced employment growth of **10%** (the newly hired employees came from enterprises that had not undergone digital transformation),
- these enterprises increased production by **20-25%**,
- these enterprises reduced work costs by **5-7%**.

**Study PwC<sup>2</sup> :** AI will create more new employment than it will eliminate.

### Report on the study ‘Digitisation in the SME sector - opportunities and constraints’:

**43%** a shortage of staff with the appropriate skills

**41%** limited access to financing

**28%** failure to ensure IT security

#### Sources:

1 The Economic Journal, 131 (August), 2553–2584 <https://doi.org/10.1093/ej/ueab009>

© 2021 Royal Economic Society. Published by Oxford University; 30 January 2021 r.;

2 <https://www.cnn.com/2018/07/17/artificial-intelligence-to-create-more-jobs-than-it-destroys-pwc-says.htm> l;

3 Report on the study ‘Digitisation in the SME sector - opportunities and constraints’, BGK’s Research and Analysis Department, February 2024;

[https://www.bgk.pl/files/public/Pliki/Ekspertyzy\\_i\\_badania/Raport\\_cyfryzacja\\_BGK.pdf](https://www.bgk.pl/files/public/Pliki/Ekspertyzy_i_badania/Raport_cyfryzacja_BGK.pdf)

 POLISH DEVELOPMENT BANK

### General conclusions:

- lack of awareness
- lack of strategy
- shortage of specialists
- insufficient digital competences

The key to success is training, being flexible and adapting quickly to new realities!

# Case studies of digital transformation investments

We hope that with the Biznesmax Plus guarantee, entrepreneurs will make more investments in digital transformation, and thus the problems presented will be successively reduced thanks to this product.



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## Example #1



### Enterprise business profile

The enterprise is engaged in **the production of steel structures**. It produces complete structures and components, which are used in industry and construction. It mainly manufactures steel structures and carries out projects in stainless steel and aluminum.

### Investment description

**The construction of a production hall** along with **the purchase of machinery and equipment** allowing the implementation of automation and robotization of processes in the enterprise.

#### ▪ 2D laser cutting machine

Production will be enhanced with an automatic laser cutting process, which significantly reduces cutting time and improves quality while lowering process costs.

#### ▪ Belt cutting machine with automatic angle measurement

Thanks to the implementation of an advanced electronic angle measuring system, the work for the belt cutter operator becomes simpler, faster and, most importantly, much more accurate. This is extremely important when cutting smaller as well as larger batches. Obtaining dimensional repeatability is a critical element for the correctness of execution of further production processes.

#### ▪ 3D laser cutting machine

Thanks to highly advanced laser technology combined with a 3D head that allows work in space, processes such as straight cutting, angled cutting and drilling will be carried out in one place and at one time. Until now, each process is carried out separately on different machines. The 3D laser cutter will allow us to reduce the number of processes in the production cycle.

#### ▪ Robotic welding station with dedicated tooling

The station consists of a welding robot and a manipulator. These two devices, once programmed, are to carry out a fully automatic welding process. In addition, special tooling is to be mounted on the manipulator to automatically position and secure the material to be welded.

#### ▪ RCP - Software to support the recording of working time

The entire investment is to be supported by the implementation of special computer software, used to record the processes carried out by production with simultaneous assignment to orders. The program is also to enable the scheduling of working time for individual employees and machine slots. Such implementation is expected to ensure faster and more accurate collection of information on the status of production orders.

## Example #2



### Enterprise business profile

The enterprise is engaged in **the design and manufacture of plastic products** using roto-molding and injection molding technologies, as well as the production of rubber products.

### Investment short description

The investment involves the company's digital transformation through the launch logistics center based on digital management of production planning, customer order processing and inventory management processes.

### The investment consists of:

- purchase of custom dedicated software for production planning, integrated with the incoming order registration system. The new software will assign priorities to individual orders and create a production schedule, while also generating a shipment schedule for goods and components from suppliers
- purchase and launch of a new automated cutting production line, consisting of an automatic material feeder, cutting table, CNC cutting plotter with software, and a device for collecting products after cutting. The entire investment will automate the production process, while simultaneously improving the quality of the manufactured products and increasing efficiency.
- implementation of a "product traceability system" to improve the handling of potential complaints. This system, through proper coding of products, allows for their identification in terms of the batches of raw materials or components used in production and their suppliers. Thanks to this coding, the manufacturer can take appropriate corrective and preventive actions in case of reported complaints.
- implementation of the WMS software – thanks to that system the logistics operator will be able to easily prepare the product picking list for the warehouse worker to prepare shipments for the customer directly from their workstation (with the registration of logistics labels, the inventory tracking will be conducted online without delay, and inventory checks can be performed in a very short time and at any time).

## Example #3



### Enterprise business profile

The enterprise specializes in **the production of corrugated cardboard packaging** and also **creates custom solutions designed** specifically to meet the individual needs of the client. Additionally, it manufactures cardboard fillings that protect and stabilize packaged products. The enterprise collaborates with contractors from various industries, including the wood, machinery, electrical, clothing, and food industries.

### Investment short description

**The construction of an industrial hall with a social and office section**, as well as financing the costs of **purchasing an industry-specific ERP software program** to support the management of the enterprise.

### Digital transformation will contribute to:

- In the case of the warehouse:
  - ✓ control of batch flow,
  - ✓ labeling of raw materials, semi-finished products and finished goods using barcodes,
  - ✓ identification of raw materials and finished products in the warehouse.
- In the case of the production:
  - ✓ creating complex and personalized production batches,
  - ✓ production planning-automatic generation and printing of production orders,
  - ✓ generation of production plans by machine,
  - ✓ machine occupancy control.



## Example #4



### Enterprise business profile

The production of **wooden packaging**.

### Investment short description

The investment involves the construction of a production hall and the purchase of machinery to robotize and automate the production process. The investment will allow to increase the efficiency and speed of production, resulting in a doubling of production volume.

- The investment includes the following elements:
  - ✓ construction of a steel-framed production hall with an area of 1,258 m<sup>2</sup>,
  - ✓ purchase of an automated adjustable 3-disc, 2-milling edging machine with a centering feeder working in an automatic manner,
  - ✓ purchase of a robotized station for stacking planks with lengths of 120cm and 80cm on transport pallets.
- At present, the enterprise processes an average of 25m<sup>3</sup> of wood per 8h, which produces about 550 pallets per shift.
- The implementation of the present investment, will allow **optimizing the processes and increasing their capacity twice**, to 50m<sup>3</sup> per shift (8h). The increased capacity will thus allow production of up to 1,100 pallets per shift.

## Executive summary

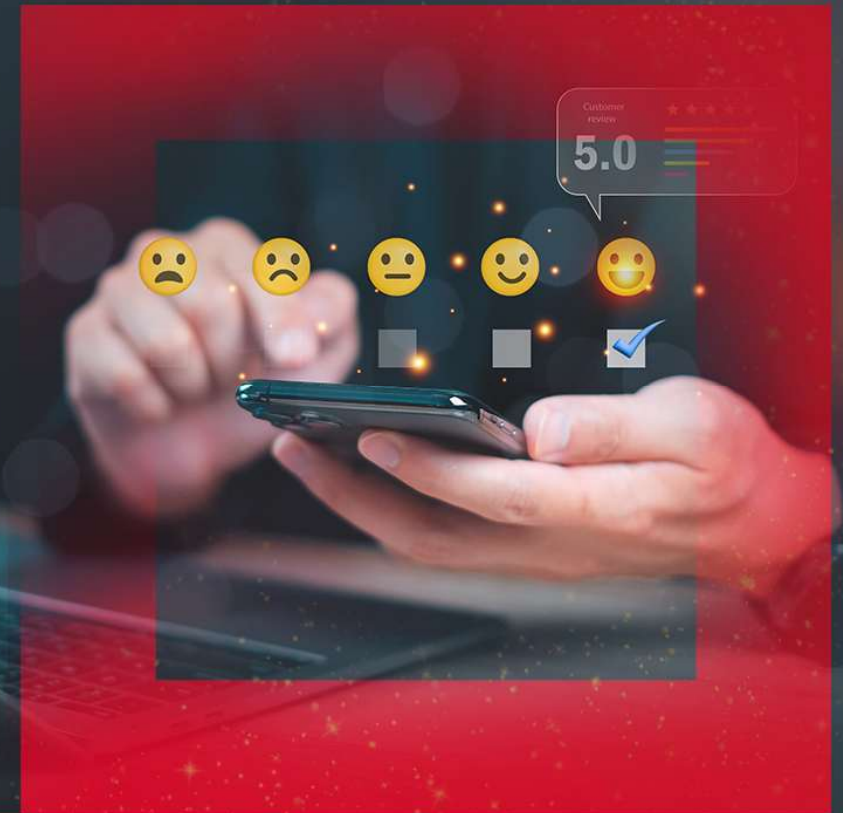
### Our approach to digital transformation investments

- **We noticed two types of investments:**
  - ✓ investments where only digital transformation items are purchased: robots, automated lines, specialized software,
  - ✓ comprehensive investments, where, in addition to elements typically associated with digital transformation, there are additional elements such as a production hall, a service building, etc.
- **In the case of complex investments, we have special requirements:** they have to be investments that implement a holistic change in the operational and business model, based on technological implementations accompanied by thorough process and organizational changes in the company.



**Thank you for your  
attention**

**Welcome to the discussion**



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