

Federation for Innovation and Sustainable Competitiveness in SMEs (FICSIMM):

Proposal for a financial instrument to increase the energy efficiency of SMEs with production activity (retrofitting)

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1. Background and general justification

SMEs in Romania are currently facing an **almost dramatic economic and fiscal situation**, especially those with **production and processing activities**, where operational costs are extremely high. In the absence of support measures adapted to their needs, these enterprises are forced to operate with **minimal profit margins**, in an unpredictable fiscal climate and with increasing pressure from external markets. **Industrial producers and food processors**, the backbone of the national economy, are at an impasse, having major difficulties in maintaining their competitiveness. In addition, **the high level of labor taxation** and legislative instability generate an additional burden, which makes medium and long-term planning difficult.

Added to this difficult context is **the heightened volatility of the energy market**, which has become a critical factor for the functioning of SMEs. **The elimination of the capping and compensation scheme for natural gas and electricity prices** has exposed companies to unpredictable fluctuations and to bills that, in many cases, have doubled or even tripled. This situation has particularly affected **manufacturing and processing enterprises**, where energy costs represent a significant share of total expenses. The lack of a **government strategy to protect SMEs in the face of the energy crisis** risks generating a wave of insolvencies and drastically limiting the ability of companies to invest in re-technologies or development.

The impact on **the state budget** could be major if SMEs are **forced to reduce their activity or temporarily suspend their production**. These companies contribute substantially through **taxes, duties and social contributions**, and any disruption to their activity would reduce tax revenues at the national level. Moreover, there is a risk that, in the absence of support measures, a significant number of **employees will be sent into technical unemployment**, which would generate additional costs for the budget and weaken social stability. In this scenario, the state would be doubly affected: on the one hand, by reducing the revenues collected, and on the other hand, by increasing budget expenditures.

Beyond the immediate fiscal implications, **the effects on the labor market** would be dramatic, especially in regions where manufacturing and processing industries are the main source of jobs. The closure or curtailment of the activity of these SMEs could lead to **massive job losses**, with long-term social and economic effects. This would accentuate **regional disparities** and

contribute to labor migration, an already alarming phenomenon for Romania. Therefore, **ensuring the energy sustainability of SMEs** becomes an essential condition not only for their survival, but also for the financial stability of the state and for social cohesion at the national level.

2. Structural deficiencies and needs

In the last **35 years, SMEs in Romania have not benefited from any national program** that would allow them to replace old production lines with modern, energy-efficient ones. In the absence of this type of support, the vast majority of enterprises in industrial sectors still operate with **outdated, energy-hungry equipment**, which generates very high operating costs. This reality makes productivity well below the European average and prevents companies from developing their export capacity. **The lack of public policies oriented towards re-engineering** has created a structural barrier, which significantly reduces the chances of SMEs to compete with European or international companies.

Another major problem is **the high energy inefficiency** of existing production lines. Many SMEs use equipment that consumes **twice as much gas or electricity** as new ones that comply with current standards. This situation leads to exorbitant operational costs, which affect profitability and limit the capacity to reinvest. In addition, the lack of **modern energy monitoring and management systems** means that companies do not have a clear picture of real consumption and cannot implement effective measures to reduce it. This **technological and information gap** amplifies the vulnerability of SMEs to the volatility of the energy market.

Existing European programmes – such as **Cohesion Policy or the Just Transition Fund** – do not currently cover the need to **replace old equipment**. Current rules require the maintenance of existing equipment for the entire duration of the project implementation (2 years), plus an additional 3 years during the monitoring period, which makes it impossible to close energy-intensive lines during the funding period. As a result, SMEs that would like to modernise their production process are forced to keep inefficient equipment in operation, which runs counter to the objectives of **energy efficiency and emission reduction**. This lack of **correlation between financing**

instruments and the real needs of companies constitutes a structural blockage in the modernisation of the industry.

To address these shortcomings, SMEs in Romania urgently need a **financial instrument dedicated to retrofitting**, which would complement European schemes and allow for **the immediate replacement of old and energy-intensive equipment**. A flexible solution is essential, including **state guarantees, preferential interest rates and energy performance incentives**, so that companies can invest without being burdened with unbearable risks. Such an instrument must also support the integration of **digital technologies and energy management systems, to increase transparency and stimulate data-driven decisions**. Only through such a mechanism can the collapse of industrial competitiveness be avoided and a solid basis for the green transition of the Romanian economy be created.

3. Justification of the proposed pilot areas

We have chosen the **furniture manufacturing sector** as one of the pilot sectors we propose because it represents an **industry with tradition in Romania**, with a significant contribution to national exports and employment. At the same time, it is a sector where the production process is heavily dependent on **electricity and thermal energy**, used especially for wood drying, cutting, pressing and finishing. Many SMEs in this sector operate with **old, energy-intensive equipment**, which leads to high costs and a decrease in competitiveness on international markets. Modernizing these production lines would allow for increased energy efficiency and reduce pressure on the prices of Romanian products.

At the same time, the **food processing sector** was selected as a pilot sector because it is of **strategic importance for national food security** and domestic supply chains. This sector uses highly **energy-intensive equipment**, such as industrial refrigeration, pasteurization, sterilization, freezing and packaging. Energy costs have a major share in the final price structure of products, and the volatility of the energy market makes it difficult to plan activities. SMEs in food processing are

particularly vulnerable to **sudden increases in gas and electricity prices**, which can lead to a decrease in production and significant losses.

Another reason for choosing these two pilot areas is the fact that they concentrate a **very large number of active SMEs**, with a balanced territorial distribution, both in urban areas and in rural or peri-urban areas. In the furniture industry, Romania is a recognized player on the European market, but current competitiveness is threatened by the lack of investment in re-engineering. In food processing, the impact is felt directly by consumers, as **food prices are influenced by the energy costs** borne by producers. Implementing a financial instrument adapted to these two sectors would provide a **demonstrative effect** with multiplier value for the rest of the economy.

These two sectors also respond to national and European strategic objectives of **green transition and energy efficiency**. By modernizing their production lines, SMEs in furniture and food processing can achieve **significant reductions in energy consumption**, which would make them more resilient and competitive in the long term. Moreover, they can contribute to **reducing CO2 emissions**, improving product quality and maintaining jobs in a period of economic instability. Choosing these areas as **a pilot project** will allow testing and validating the financial instrument in a real environment, with a view to later extending it to other industrial sectors.

4. Concrete proposal for a financial instrument

The proposal aims to launch an **innovative financial instrument**, managed by **the Investment and Development Bank (IDB)**, to provide SMEs in pilot sectors with fast and secure access to financing for retrofitting. The structure of the instrument will be based on a **state-guaranteed loan**, which will reduce the risk perceived by financial intermediaries and facilitate the granting of loans on advantageous terms. Through this mechanism, SMEs will be able to replace their energy-intensive equipment with more efficient ones, without being obliged to bear the full investment risk.

The financial instrument will include a **conditional grant component**, which will be activated only if the beneficiary exceeds certain **minimum energy performance thresholds** set at the

beginning of the project. Thus, companies will be incentivized to achieve concrete results in terms of **energy efficiency and consumption reduction**. For example, if a factory achieves a minimum **30% reduction in energy consumption** on retrofitted production lines, it will benefit from a **capital rebate** (reduction of the principal) or a **partial interest subsidy**. **This model creates a "pay-for-performance"** framework, which aligns the interest of SMEs with national and European objectives regarding the green transition.

The benefits for companies will be multiple: access to **loans with preferential interest rates**, a grace period of 6-12 months to adapt financial flows, as well as **IDB guarantees of up to 70% - 80%** of the loan value, which will encourage commercial banks to finance projects. In addition, SMEs will be able to use the resources for essential activities: conducting **in-depth industrial energy audits, purchasing consumption monitoring systems, integration of Energy Management Systems** and, above all, **the replacement of old production lines with state-of-the-art equipment**. This combination of financial and technological support will create the premises for a **rapid and sustainable transition** for the selected pilot sectors.

In the medium term, this financial instrument could be transformed into a **revolving fund** that would operate sustainably, being fed both from IDB resources and, for example, from the Modernization Fund or other European sources. Repayments made by SMEs could be reinvested to support new beneficiaries, thus creating a significant multiplier effect. Also, piloting this mechanism in **furniture and food processing** will provide concrete data for its adjustment and expansion to other industrial sectors, such as automotive, construction or textiles. Ultimately, the instrument will represent a **practical and scalable solution**, capable of supporting the green transition of SMEs and reducing Romania's dependence on outdated and energy-consuming technologies.

5. Eligible activities for beneficiaries

A first type of activity eligible under the financial instrument is the performance of an **in-depth industrial energy audit**, both at the beginning and at the end of the project. This audit aims to identify **critical consumption points** and establish priority measures to streamline processes. By comparing the initial results with those obtained at the end, it will be possible to quantify the exact **level of energy performance achieved**. The financing of the audit will be mandatory for each beneficiary, in order to ensure **transparency in the use of funds** and to demonstrate the impact of investments on energy consumption and greenhouse gas emissions.

Another category of eligible expenses is the acquisition and installation of **energy consumption measurement and monitoring equipment**, applicable throughout the production chain. This equipment will provide real-time data on **the consumption of electricity, natural gas and other resources**, at the equipment or process level. Their implementation will allow SMEs to have a **precise picture of the energy behavior of the factory** and to more quickly identify areas where savings can be achieved. In addition, these systems will contribute to **standardized reporting of energy performance**, an element increasingly required by international customers in value chains.

The financial instrument will also cover the costs of acquiring **specialized software**, capable of analyzing energy data and providing **automatic recommendations for optimizing consumption**. By integrating these digital solutions, SMEs will be able to make data-based decisions regarding the efficiency of production processes. In addition, these software can generate **complex energy management reports**, useful not only for internal management, but also for reporting to authorities or financial institutions. Thus, beneficiaries will be able to demonstrate the improvement of energy performance and will have a tool for continuous monitoring of the investments made.

The most important eligible activity is the acquisition of **new, state-of-the-art production lines**, which will allow **the decommissioning of old and energy-intensive equipment**. These investments will have the greatest impact on reducing energy consumption and increasing productivity. SMEs will be able to integrate modern technologies, with **high energy efficiency and low emissions**, adapted to current European standards. The financing will also include Energy

Management **Systems (EMS)**, through which factories can centrally and intelligently manage all internal processes. In this way, the financial instrument will contribute to a **structural transformation** of the production capacities of Romanian SMEs.

In addition, the instrument will allow SMEs to invest in solutions such as **heat pumps** and **industrial heat recovery systems**, which contribute to further reducing energy consumption and making efficient use of available resources.

6. Anticipated benefits and macroeconomic impact

The implementation of this financial instrument will generate direct benefits for the beneficiary SMEs, starting with a **significant reduction in energy consumption** and, implicitly, operational costs. By **modernizing production lines and integrating digital energy management systems**, enterprises will be able to achieve **savings of up to 30-40% on energy bills**. By integrating technologies such as **heat pumps** and **energy efficiency solutions, industrial heat recovery**, SMEs can achieve further consumption reductions and an increase in competitiveness. This will allow them to redirect their financial resources towards investments in expansion, innovation and new product development. In addition, SMEs will become more **competitive in international markets**, where energy efficiency and sustainability have become essential criteria for access to global value chains.

At the national economy level, the major benefit will be to increase **the resilience of the SME sector** and strengthen its contribution to **the state budget**. Energetically healthy SMEs automatically become **financially healthy as well**, which translates into higher taxes and duties collected in the budget. At the same time, the risk of companies going bankrupt or suspending their activity during periods of energy crisis will be reduced, which would protect both tax revenues and overall economic stability. In this way, the proposed instrument becomes not just a one-off support measure, but a **strategic investment for the sustainability of the economy**.

Another important impact will be on **the labor market**, as the modernization of SMEs will allow the maintenance and even creation of new jobs. Without this support, many companies would be forced to reduce staff or resort to **technical unemployment**, especially during the cold season. By ensuring energy efficiency, SMEs will be able to protect their employees and provide stability to the local communities where they operate. This measure has a role as a **barrier against regional socio-economic decline**, preventing the growth of disparities and labor migration. Thus, the financial instrument has not only an economic dimension, but also a **social and territorial one** of great importance.

In the long term, the macroeconomic benefits will be reflected in the increase of **Romania's overall competitiveness** and in the improvement of its position on the European market. Modernized SMEs will be able to compete on an equal footing with companies from other Member States, reducing the current productivity gaps. Also, by reducing energy consumption and lowering emissions, Romania will contribute to achieving **the climate and energy objectives of the European Union**. Last but not least, the success of this pilot project will create a positive precedent for the extension of the instrument to other industrial sectors, generating a **multiplier effect** with an impact on the entire national economy. In this sense, the proposal is not only timely, but also **absolutely necessary** for the future of SMEs and the Romanian economy.

7. Alignment with European strategies and policies

The proposed financial instrument is fully aligned with **the European Union's green transition and energy efficiency objectives**, as set out in **Directive 2023/1791 on energy efficiency**. By encouraging SMEs to replace their old and energy-intensive equipment, Romania directly contributes to reducing energy consumption and achieving the decarbonisation targets assumed at European level. In addition, the financial support conditional on reaching minimum energy performance thresholds introduces a **"pay-for-performance" mechanism**, in line with good practices promoted by the European Commission. This instrument will accelerate the adoption of

efficient technologies and support **the competitiveness of Romanian SMEs** in the European single market.

The instrument also correlates with **the Draghi Report and the Letta Report**, which underline the importance of supporting SMEs to become more resilient and to cope with major economic transformations. Both reports clearly show that **investments in retrofitting and energy efficiency** must become strategic priorities, in order to avoid losing competitiveness at a global level. Through this pilot program, Romania responds to these recommendations, developing a mechanism adapted to the local specifics, but which is perfectly compatible with European guidelines. In addition, the instrument also aligns with the European Commission's proposals for **the EU Budget 2028-2034**, where the green transition and support for SMEs are included among the main pillars.

An extremely relevant element is the fact that this instrument helps Romania meet **Milestone 128 of the PNRR**, which provides for the integration of solutions for **the valorization of non-recyclable wood waste as a raw material in the production of thermal energy**. In the field of **furniture manufacturing**, a significant part of the waste resulting from the production process can be reused to generate the thermal energy needed in wood drying or other industrial stages. By stimulating SMEs to adopt modern equipment and use these internal resources, the proposed instrument directly contributes to **the circular economy**, reducing energy costs and meeting the milestones assumed by Romania through the PNRR.

Last but not least, the proposal fits into the logic **of the Modernisation Fund**, the **post-2027 Cohesion Policy** and the **energy independence objectives** at European level. SMEs supported by this instrument will contribute not only to reducing consumption and emissions, but also to strengthening **Romania's energy resilience**, an essential objective in the current geopolitical context. The alignment with European strategies is not only formal, but also functional, as each investment made through this program will bring benefits both at the microeconomic level (for companies and employees) and at the macroeconomic level (for the state budget and the EU's climate objectives). In this sense, the financial instrument becomes an **example of good practice**, with potential for replication in other Member States.

8. Proposal for inter-institutional collaboration

The success of such a financial instrument can only be ensured through **close collaboration between state institutions and the private sector**, each with a complementary role. **The Ministry of Energy** must coordinate the definition and implementation process, while **the Investment and Development Bank (IDB)** will administer the fund and ensure the guarantee mechanisms. Employer organizations that consistently and genuinely represent the interests of small and medium-sized entrepreneurs, such as **FICSIMM and OFA**, will contribute through expertise and by directly connecting with the real needs of SMEs. This **institutional triad** guarantees both the relevance and efficiency of the proposed intervention.

For this mechanism to be operational, a **clear governance structure is needed**, with clearly defined responsibilities. **The Ministry of Energy** should define the general policies and criteria, **the IDB** should manage the financial resources and the relationship with commercial banks, and **the employers' organizations** should ensure a permanent consultation channel with the final beneficiaries. In addition, such an architecture would allow for **fast and efficient communication**, reducing bureaucracy and increasing the level of trust of SMEs. Therefore, inter-institutional collaboration is not only recommended, but **absolutely necessary** for the success of the project.

An essential component of the collaboration is the involvement of **regional and sectoral associative structures**, which can provide relevant data on the needs of SMEs in the territory. In the pilot sectors – **furniture and food processing** –, there are numerous professional associations and clusters that can support the identification of viable projects and the monitoring of results. This would allow for a **decentralization of implementation**, in line with the subsidiarity principle promoted by the European Union. In addition, it would create a direct link between government policies and **the realities on the ground**, reducing the risk that the program will be perceived as a rigid and inaccessible mechanism.

In the long term, this inter-institutional collaboration can generate a **participatory governance model**, replicable in other areas. The Ministry of Energy, the IDB and the employers' associations can set up a **permanent working group** to monitor the implementation of the instrument and propose adjustments based on the results. In addition, the involvement of employers' associations in the consultation and dissemination phase will ensure a **high absorption rate** and

strengthen SMEs' trust in public policies. This public-private partnership could become an example of good practice at **European level**, demonstrating that Romania can build efficient and inclusive mechanisms to support SMEs.

9. Conclusions

Given **the critical situation of SMEs in Romania**, especially those in the **production and processing sectors**, we consider it absolutely necessary to quickly launch a dedicated financial instrument. The extreme volatility of energy prices, the lack of national retrofitting programs in recent decades and the limitations of existing European programs justify an **urgent intervention adapted to the specifics of the Romanian economy**. Through the presented proposal, we want to bring to the forefront a realistic, scalable and coherent mechanism, capable of supporting **the green transition** and ensuring the survival of SMEs in an extremely difficult economic context.

Through this initiative, we request the Ministry of Energy to support, together with **the Investment and Development Bank (IDB)**, the pilot launch of the proposed financial instrument, with initial applicability in the fields of **furniture manufacturing** and **food processing**. The choice of these sectors is not accidental, as they represent strategic industries for both exports and food security and social stability. The implementation of such a pilot will allow for the achievement of **measurable and immediate results**, which will constitute the basis for the subsequent expansion of the mechanism to other industrial sectors.

We emphasize that the success of this instrument will contribute not only to **reducing energy consumption and emissions**, but also to **strengthening the state's fiscal base, preserving jobs** and **increasing economic resilience**. In addition, the program will facilitate the achievement of major national and European objectives, including **Milestone 128 of the PNRR, Directive 2023/1791 on energy efficiency**, as well as the recommendations of **the Draghi Report and the Letta Report**. Thus, our request is not just a one-off measure, but a concrete contribution to **Romania's alignment with European policies and to strengthening the competitiveness of SMEs**.