



“AMULET: Mapping of Relevant Financing Schemes and Opportunities”

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Abstract

The goal of this report is to map and analyze relevant public and private funding opportunities available to support the innovation, growth, and internationalization of small and medium-sized enterprises (SMEs), particularly in the field of advanced materials and lightweight technologies. The report outlines the importance of securing funding for SMEs that have participated in the AMULET network, regardless of their success in previous innovation competitions, and emphasizes the need for sustained financial support to ensure the continuity and expansion of AMULET's activities.

This document also provides an extensive overview of the available funding schemes in several European countries, including Germany, Poland, Spain, Italy, Slovenia, France, Hungary, Czech Republic, Norway, and Belgium – countries represented in the AMULET projects by the partners.

The analysis covers national and European funding programs, as well as private financing opportunities, offering SMEs comprehensive insights into the financial resources that can help them drive technological advancements, develop new materials, and scale their operations. Additionally, the report highlights events, networks, and platforms that can facilitate access to these funding opportunities and foster international collaborations within the lightweight materials sector.

List of acronyms

Abbreviation / Acronym	Description
AKL	Moravian-Silesian Automotive Cluster
AMULET	Advanced Materials and Manufacturing Technologies united for Lightweight
BAX	Bax Innovation Consulting SL
BIC	Bydgoszcz Industrial Cluster
CMC	Ceramic Matrix Composites
EAB	External Advisory Board
ELCA	European Lightweight Cluster Alliance
IMAST	IMAST Scarl
LMA	Light Metal Alloys
MAV	The Advanced Materials Cluster of Catalonia
MECH	Clust-ER MECH
PBC	Polymer Based Composites
POL	Polymeris
RTO	Research and Technology Organization
SME	Small and Medium-sized Enterprise
SWHEC	Chamber of Commerce and Industry of Pécs-Baranya (on behalf of the South West Hungarian Engineering Cluster)
TUC	TECHNISCHE UNIVERSITÄT CHEMNITZ
TWGE	Thematic Working Group of Experts
WP	Work Package(s)



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1. Overview of financing schemes and funding programmes

Knowledge of national financing options is essential for the realisation of innovation projects. The report will therefore provide an overview of the various national programmes that support SMEs in financing innovation projects.

The focus will be on programmes that specifically target advanced materials and lightweight construction.

1. Germany

National funding programmes in Germany (2022-2024) for SMEs in the field of lightweight construction

1. Central Innovation Programme for SMEs (ZIM)

ZIM is a federal funding programme that is open to all technologies and sectors and supports research and development projects by SMEs. The relevance of the programme for lightweight construction is given, as lightweight construction projects, particularly in the areas of material development, production technologies and innovative structures, can be funded via the ZIM.

The funding opportunities are outlined below. ZIM funds both individual and collaborative projects and offers grants for research and development. The target group comprises small and medium-sized enterprises that wish to develop innovative products or processes.

2. WIPANO - Knowledge and technology transfer through patents and standards

The objective of the WIPANO programme is to support companies in securing and exploiting their research results through patents and standards.

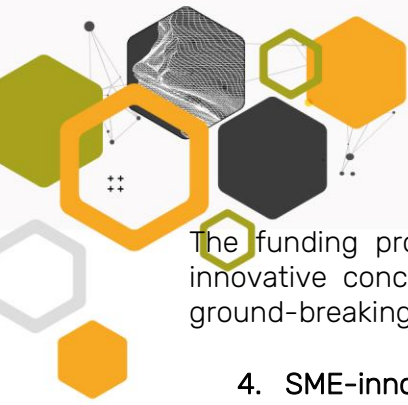
The relevance for lightweight construction is given, as SMEs that are active in lightweight construction and develop new materials or technologies can receive support in patenting their innovations through WIPANO. Funding opportunities include grants for the patenting and standardisation of innovative technologies and products. The target group includes SMEs that intend to protect and commercialise their research results.

3. Innovation Programme for Business Models and Pioneering Solutions (IGP)

The IGP promotes the development and testing of innovative business models and pioneering solutions that have the potential to transform existing markets.

The programme is aimed at SMEs that develop new business models in the field of lightweight construction and advanced materials.





The funding programme includes grants for the development and implementation of innovative concepts. The target group includes SMEs involved in the development of ground-breaking business models or solutions.

4. SME-innovative: Production research

The objective of the programme is to support SMEs involved in the research and development of innovative production processes and technologies.

The relevance of the programme for lightweight construction can be explained as lightweight construction projects aimed at innovative production processes and the development of new materials are a good fit for this programme.

Funding is provided in the form of grants for research and development projects in the field of production technologies. The target group includes SMEs active in the field of production and materials development.

5. ProMatLeben - Polymers and hybrid materials

The ProMatLeben funding programme focuses on the development and implementation of innovative polymers and hybrid materials for sustainable products and processes.

The relevance for lightweight construction is given, as lightweight construction projects that aim to develop new materials such as polymers or hybrid materials can benefit from this funding programme.

The funding comprises grants for research and development projects focussing on new materials and material systems. The target group includes small and medium-sized enterprises (SMEs) and research institutions that are dedicated to the development of innovative material solutions.

6. BMWK funding initiative 'Lightweight construction'

The funding initiative of the Federal Ministry of Economics and Climate Protection (BMWiK) aims to promote the use of lightweight materials in various industries.

Lightweight construction is particularly relevant when projects contribute to resource efficiency and CO₂ reduction in the automotive, mechanical engineering and aviation sectors.

The funding comprises grants for industrial research and development projects in the field of lightweight construction. The target group includes small and medium-sized enterprises (SMEs) and consortia involved in the development of lightweight construction technologies.

7. go-Inno

The go-Inno funding programme of the Federal Ministry for Economic Affairs and Climate Protection (BMWi) aims to support small and medium-sized enterprises (SMEs) in the implementation of innovation projects. The programme focuses on technology and innovation consulting.



The relevance for lightweight construction relies as SMEs that intend to develop or implement lightweight construction technologies can receive funding for consultancy services under the programme.

Funding includes grants for consultancy services that support the planning and implementation of innovation projects. The target group includes SMEs that are looking for external support for their innovation projects.

8. IGF - Industrial Collective Research Programme

The Industrial Collective Research (IGF) programme promotes practical research projects that are coordinated by industrial associations. Lightweight construction projects that are developed in cooperation with research institutions and industry associations can be funded by IGF.

2. Poland

The following is an overview of the national funding programmes in Poland that are particularly relevant for SMEs in the field of lightweight construction in the period from 2022 to 2024.

1. Fast Track Programme ('Szybka Ścieżka')

The 'Fast Track' programme supports research and development projects of SMEs, in particular projects that focus on innovative technologies and products and thus promote company growth.

The programme is particularly relevant for projects for the development of lightweight materials and structures, with a focus on production and material technologies. Furthermore, grants are awarded for R&D projects that deal with research into innovative materials and production methods. The target group includes SMEs that develop new technologies and products.

2. Smart Growth Operational Programme (2014-2020, extended until 2024)

The aim of the programme is to promote innovation and research in Polish companies. It is one of the most important funding instruments for supporting SMEs in innovation projects.

The programme is relevant for lightweight construction as it promotes the development of new materials and technologies, including lightweight construction projects. This leads to an increase in the competitiveness of Polish SMEs and the market launch of new technologies and products.

Funding includes grants for research, development and the commercialisation of new products and technologies. The target group includes small and medium-sized enterprises (SMEs), research organisations and universities involved in the development and production of new materials.

3. National Centre for Research and Development (NCBR) - 'BRIDGE Alfa' programme

The 'BRIDGE Alfa' programme provides seed funding for innovative projects in the early development phase. The programme aims to translate research results into marketable products and services.

SMEs involved in the development of lightweight construction technologies and materials can use BRIDGE Alfa to receive support for the further development of their research and the commercialisation of the resulting products.

Funding includes early-stage funding for R&D projects and technology transfer. The programme's target group is research-intensive SMEs working on innovative technologies and materials.

4. Innovation voucher ('Bon na innowacje')

The programme aims to support SMEs in developing innovative solutions through cooperation with research institutions. Furthermore, grants are provided for the development of new products and services.

The relevance of the programme for lightweight construction will be discussed below. SMEs developing new lightweight products can receive grants to collaborate with research institutions in accordance with the programme objectives.

Funding includes grants for research, development and market launch costs for innovations. The target group includes SMEs that realise innovation projects in cooperation with science and research.

5. Industrial Development Agency (Agencja Rozwoju Przemysłu, ARP) - programmes for the support of R&D

ARP provides several programmes to support investments in research and development aimed at modernising Polish industry.

The ARP's support for research and development is proving to be particularly attractive for companies investing in lightweight construction. In this context, the automotive, aerospace and mechanical engineering sectors are particularly relevant.

Funding includes grants and loans for R&D projects aimed at industrial innovation. The target group includes small and medium-sized enterprises and industrial companies involved in the development of new production methods and materials.

6. Polish Investment and Trade Agency (PAIH) - Programme for Export and Internationalisation

The PAIH offers funding and support to Polish SMEs seeking to internationalise their business activities and enter new markets.

The relevance for lightweight construction can be summarised as follows: SMEs wishing to market innovative lightweight products internationally can receive market expansion and financing support from PAIH.

Support in opening up new markets, financing export initiatives and grants for internationalisation are key funding opportunities. The target group includes SMEs aiming to expand internationally, particularly in the field of innovative technologies.

7. Technology Loan Fund (Fundusz Pożyczkowy na Innowacje)

The programme offers loans for SMEs that want to invest in innovative technologies and expand their production capacities.

SMEs wishing to invest in the development and production of new lightweight materials have the opportunity to gain access to low-interest loans.

It is also possible to obtain low-interest loans for the introduction and development of innovative production processes. The target group includes SMEs wishing to invest in research and development in the field of production and new materials.

8. INNOLOT - funding for the aviation sector

The INNOLOT funding programme aims to promote innovative projects in the field of new technologies and materials in the aviation sector.

The relevance of lightweight construction for the aviation industry can be described as a decisive factor. The INNOLOT programme supports projects that are dedicated to the development of new, lightweight and efficient structures and materials.

Funding opportunities: Funding includes grants for research and development in the field of aviation technologies, in particular for lightweight materials and structures.

The target group includes small and medium-sized enterprises (SMEs) and companies operating in the aerospace sector that are involved in innovative lightweight construction solutions.



3. Spain

National funding programmes in Spain (2022-2024) for SMEs in the field of lightweight construction

1. Centro para el Desarrollo Tecnológico Industrial (CDTI) - Innovación y Desarrollo Tecnológico

SMEs that develop lightweight construction technologies or advanced materials can be funded through the CDTI.

Funding and grants for research and development projects aimed at technological innovation. The target group includes SMEs and companies implementing innovative projects in the field of materials science and lightweight construction.

2. Programa Neotec

The Neotec programme supports technology-oriented start-ups and SMEs that build innovative business models and develop new technologies. Start-ups and SMEs focussing on innovative lightweight construction materials and structures can receive grants through Neotec.

Grants for technology-orientated start-ups with a focus on innovation. The target group includes highly innovative SMEs and start-ups dedicated to the development of new technologies and materials, including lightweight construction.

3. Programa Cervera

The Cervera programme promotes innovation projects in strategic areas, including materials science, advanced manufacturing technologies and lightweight construction.

The relevance for lightweight construction is given, as projects aimed at developing new lightweight construction technologies can be funded by Cervera.

Grants and low-interest loans for research and development projects in strategic areas of innovation. The target group includes SMEs focussing on research and innovation in the areas of materials development and advanced production methods.

4. Plan de Recuperación, Transformación y Resiliencia (PRTR) - Recovery and Resilience Facility (RRF)

The Spanish PRTR is part of the EU financial instrument for post-pandemic recovery. It aims to promote green and digital innovations.

The relevance for lightweight construction is given, as projects in the field of sustainable and energy-efficient lightweight construction solutions can be financed by the PRTR, especially in the context of sustainability and decarbonisation.

Funding opportunities exist in the form of grants and loans for sustainable innovation projects in the areas of production and technology. The target group includes SMEs focussing on environmentally friendly technologies, including lightweight construction.

5. Programa de Impulso a la Competitividad Industrial y Sostenibilidad

The programme aims to promote the modernisation and sustainability of production processes, particularly through the introduction of new technologies and materials.

The relevance for lightweight construction is as follows: SMEs that develop sustainable lightweight materials and structures can receive support for the introduction of new production methods.

Funding opportunities exist in the form of grants for projects aimed at improving energy efficiency and introducing new, environmentally friendly materials and technologies. The target group includes SMEs and companies in the production sector that implement innovative and sustainable projects.

6. Reindustrialización y Fortalecimiento de la Competitividad Industrial (REINDUS) programme

The REINDUS programme aims to promote investment in industrial modernisation, including new technologies and production methods.

The relevance for lightweight construction is as follows: SMEs investing in advanced production methods in lightweight construction can receive low-interest loans and grants through REINDUS.

The funding method consists in low-interest loans and grants for industrial investments in new materials and production methods. The target group includes industry-related SMEs that intend to optimise their production capacities through innovative technologies.

7. Programa Innvierte (CDTI)

The Innvierte programme focuses on promoting investment in technology-oriented companies in order to accelerate the development of new technologies.

The relevance for lightweight construction is as follows: SMEs that develop new lightweight construction technologies and innovative materials can receive funding support through Innvierte.

TH programme offers support in the procurement of venture capital for innovation-orientated SMEs. The target group includes SMEs that are looking for private capital to scale up their technologies.

8. Programme de Apoyo a Clusters Innovadores

The aim of the programme is to promote innovation clusters that drive forward research and development projects in key areas such as materials science and advanced manufacturing.

The relevance of the programme for lightweight construction can be explained as follows: clusters that focus on lightweight materials and structures can receive support for their projects through this programme.

Funding opportunities: Grants for innovation clusters carrying out joint research projects.

The programme's target group includes innovation clusters and small and medium-sized enterprises (SMEs) working together on research and development projects.

4. Italy

In Italy, a number of national programmes and initiatives have been implemented since 2022 with the objective of providing support to SMEs (small and medium-sized enterprises) engaged in innovation projects, with a particular emphasis on the development of advanced materials and lightweight construction solutions. The following programmes are of particular relevance:

1. The National Recovery and Resilience Plan (NRRP)

The objective of the NRRP is to foster innovation and sustainable technologies in order to reinforce the economy.

The programme is open to SMEs, large companies and research institutions. In terms of relevance for the field of lightweight construction, the programme objectives can be seen to align with the provision of financial support for projects that utilise sustainable materials and digital solutions in the construction industry.

2. "Transizione 4.0"

The programme's objectives include to provide assistance with the digitalisation and development of innovative production methods.


The programme is designed to assist small and medium-sized enterprises (SMEs) that are considering investing in technology. The programme's objectives are also relevant for the field of lightweight construction. It offers financial incentives for investments in modern materials and production processes.

3. "Fabbrica Intelligente" (Smart Factory)

The objective is to enhance the competitiveness of manufacturing companies through the implementation of innovative solutions. The target group is constituted by small and medium-sized enterprises (SMEs) operating in the manufacturing sector.

The programme's relevance for the field of lightweight construction relies in the fact that the programme offers support for projects that focus on the use of lightweight materials and advanced manufacturing techniques.

4. Regional Funds



In Italy, funds for the promotion of R&D project are held also at regional level, fostering the regional development and provide support for innovative projects.

Most of the programs are dedicated to small and medium-sized enterprises (SMEs), with the specific condition that the company is operating within specific regions of Italy.

Depending on the region, most of the times the initiatives target the development of advanced materials and sustainable building practices.

5. The Credit Guarantee Fund

The objective is to facilitate access to financing for innovation projects. The target group is SMEs seeking to implement innovations.

The programme is relevant for lightweight construction in that it provides financial resources for projects related to advanced materials.

5. Slovenia

1. SPIRIT Slovenia (Slovenian Public Agency for Entrepreneurship, Internationalization, Foreign Investments and Technology)

The objective of **SPIRIT Slovenia** is to encourage investments in research and development (R&D) and innovation projects among small and medium-sized enterprises (SMEs).

The programme's key features are:

- Support for Research and Development (R&D) and Innovation Projects: Financial assistance is available to companies that invest in research and development, with a particular focus on advanced materials and technologies, including lightweight construction.
- Export and Internationalisation Support: SMEs seeking to expand their international operations or enter new markets may avail themselves of both consultancy and grants.

The programme's principal areas of focus are the advancement of new products and technologies in the fields of advanced materials and lightweight construction.

Projects that place an emphasis on ecological sustainability and material efficiency.

2. The National Research and Innovation Program (NRIP) for the period 2021–2030

The NRIP has the objective of supporting the national innovation strategy by providing funding for research and development projects within small and medium-sized enterprises (SMEs).

Among the key focus areas, the innovation in high-tech materials and lightweight technology is listed as an important element.

Some of the key conditions to participate in the programme are:

- Fostering of collaborative relationships between research institutions and businesses.
- The funding types available are grants for research projects focused on advanced materials, such as nanomaterials and composites.
- Pilot projects and feasibility studies pertaining to lightweight construction are eligible for grant funding.

3. The Slovenian Enterprise Fund (SPS)

Its objective is providing support to small and medium-sized enterprises (SMEs) in the execution of innovation projects and the adoption of new technologies.

The programme offers two main forms of financial assistance: credit lines and grants. The fund provides loans and grants to small and medium-sized enterprises (SMEs) for innovation projects in the fields of advanced materials and lightweight construction.

The fund's key focus areas include projects developing new materials, such as lightweight materials for the automotive and aerospace industries.

The provision of targeted assistance to initiatives that diminish material usage and enhance energy efficiency through the utilisation of innovative materials.

4. The Ministry of Economic Development and Technology (MGRT)

It holds the objective of providing financial assistance for strategic innovation projects with the intention of enhancing Slovenia's competitiveness.

The programme offers financial assistance in the form of grants for research and development (R&D) and innovation projects. The programme offers financial assistance in the form of grants to companies engaged in the development of lightweight construction materials and innovative manufacturing processes.

Strategic Research and Innovation Partnerships (SRIPs): The programme provides support for the formation of collaborative relationships between small and medium-sized enterprises (SMEs), large companies, and research institutions with the objective of developing solutions in the field of advanced materials.

The programme's principal areas of interest are as follows:

- Material technologies with a focus on sustainability, lightweight construction and energy efficiency.

The programme supports projects developing applications for the automotive and mechanical engineering industries, with a particular focus on the use of lightweight materials.

5. Digital and Green Transformation (Recovery and Resilience Plan)

Objective: To provide support for projects as part of the EU's Recovery and Resilience Plan, with Slovenia placing a significant emphasis on green and digital innovations, including the development of lightweight technologies.

- The key focus areas are as follows:
 - The development of lightweight applications that contribute to a reduction in CO₂ emissions and an increase in material efficiency.
 - The provision of assistance to small and medium-sized enterprises (SMEs) in the integration of digital technologies with a view to enhancing production efficiency in the field of advanced materials.

In conclusion, it can be stated that:

A variety of funding programmes and financing options are available to Slovenian SMEs working in the fields of advanced materials and lightweight construction. It is worthy of note that support for research and development, funding for innovation, and international collaboration are pivotal in enhancing the competitiveness and innovation capacity of businesses. The aforementioned programmes provide a combination of grants, loans, and venture capital, which are designed to assist SMEs in the development and implementation of new technologies.

6. France

France provides a number of national funding programmes designed to provide support for SMEs, including those operating within the field of lightweight construction and advanced materials. The following is an overview of the principal funding opportunities available from 2022 to 2024:

1. France Relance (Recovery Plan)

The **France Relance (Recovery Plan)** was launched in response to the Covid-19 pandemic and focuses on modernizing industrial processes, fostering renewable energy development, and encouraging innovation. This initiative provides SMEs with opportunities to access financial support, particularly in sectors looking to modernize their manufacturing practices and adopt sustainable materials like lightweight composites. SMEs can benefit from grants and subsidies that prioritize industrial competitiveness and environmental transitions. The programme has been in place since 2020 and will continue until 2023, offering substantial financial backing for businesses aiming to align with these goals.

2. The Programme d'Investissements d'Avenir (PIA4)

The **Programme d'Investissements d'Avenir (PIA4)**, is dedicated to fostering technological innovation across multiple fields, including advanced materials and lightweight technologies. This initiative is particularly relevant to the lightweight construction sector, as it provides financial support for research and development projects that explore innovative materials, enhance energy efficiency, and promote sustainability. With a focus on driving forward technological advancements, PIA4 offers SMEs the chance to engage in R&D and

innovation through specific project calls. Running from 2021 to 2025, this programme plays a key role in advancing lightweight technologies and materials.

3. BPIFrance – SME Innovation Grants

BPIFrance is a public investment bank that provides support for business growth, including research and development, innovation, and internationalisation.

The aforementioned provisions are applicable to the domain of lightweight construction. The programme offers a variety of financial instruments to support the development of innovative products and processes, including lightweight materials and technologies, by small and medium-sized enterprises (SMEs).

Financial support for small and medium-sized enterprises (SMEs): The programme encompasses innovation grants, zero-interest loans and venture capital for research and development projects. Of particular note is the programme entitled "Innovation Feasibility Studies" (Aide à la Faisabilité).

4. ADEME – Eco-innovation Funding

ADEME's goal is to provide financial support for projects related to energy efficiency, waste reduction, and sustainable materials. The ADEME (Agency for Ecological Transition) offers financial assistance to projects pertaining to the domains of energy efficiency, waste reduction, and sustainable materials.

The programme places an emphasis on eco-design and material substitution, with the objective of promoting the utilisation of lightweight and sustainable materials in industrial processes.

Small and medium-sized enterprises (SMEs) may apply for financial assistance with eco-innovation projects, particularly those that contribute to a reduction in carbon footprints.

5. Plan France 2030

The objective of the long-term investment plan, running until 2030, is to facilitate the transformation of French industry and innovation, with a particular emphasis on the transition to sustainable and technologically advanced sectors.

The aforementioned plan is applicable to the field of lightweight construction: the programme provides support for innovation in sustainable materials and advanced manufacturing technologies, particularly in the automotive, aerospace and energy sectors. The programme offers financial support to small and medium-sized enterprises (SMEs) for research, innovation and technology implementation.



7. Hungary

Hungary offers several national funding programs targeting SMEs, especially those focused on innovation, including lightweight construction. Below is a summary of key funding programs from 2022 to 2024:

1. GINOP Plusz (Economic Development and Innovation Operational Programme Plus)

Purpose: this program is the continuation of the original GINOP program, which aims to enhance the competitiveness of SMEs, foster innovation, and promote sustainable development in Hungary.

Application to Lightweight Technologies: provides funding for projects involving advanced manufacturing, material innovation (including lightweight materials), and environmentally friendly production processes.

Funding opportunity for SMEs: it offers grants and subsidies for technology development, innovation, and the adoption of sustainable materials and energy-efficient technologies.

Duration: Active from 2021 to 2027.

2. OTKA (National Research, Development, and Innovation Office – R&D Support)

Purpose: OTKA is Hungary's primary public body supporting research and innovation, particularly in technology-intensive sectors.

Application to Lightweight Technologies: Encourages the development of innovative materials, lightweight structures, and energy-efficient technologies through its R&D funding programs.

Funding opportunity for SMEs: SMEs can apply for competitive grants for research and development in new materials, manufacturing techniques, and other relevant fields.

Duration: Ongoing calls for proposals, with funding available through 2024.

3. Irinyi Plan

Purpose: Named after Hungarian chemist János Irinyi, this program focuses on the re-industrialization of Hungary by supporting innovative and sustainable manufacturing industries.

Application to Lightweight Technologies: Funding is available for projects involving material innovation, particularly in sectors such as automotive, aerospace, and electronics, where lightweight construction plays a crucial role.

Funding opportunity for SMEs: SMEs can receive grants to invest in new technologies and innovations, including the use of lightweight materials.

Duration: The plan continues to provide funding opportunities through 2024.

4. Hungarian Investment Promotion Agency (HIPA) – Innovation Support

Purpose: HIPA offers a variety of support mechanisms for businesses, including SMEs, to attract foreign direct investment and foster innovation in Hungary.

Application to Lightweight Technologies: Supports projects that involve advanced materials and processes, including lightweight construction techniques, particularly for the automotive and manufacturing sectors.

Funding opportunity for SMEs: Provides access to co-funding, grants, and support for technology upgrades and R&D activities.

Duration: Ongoing.

5. National Clean Development Strategy (NKDP)

Purpose: A government initiative supporting the transition to a green economy, including reducing emissions and adopting sustainable technologies.

Application to Lightweight Technologies: Focuses on eco-friendly innovations and material substitution, encouraging lightweight construction for its energy efficiency benefits in transport and manufacturing.

Funding opportunity for SMEs: SMEs can apply for subsidies and loans supporting green and eco-innovation projects, including the development and application of lightweight materials.

Duration: Active through 2025.

These programs provide SMEs in Hungary with significant opportunities to enhance their capabilities in lightweight construction, enabling the development of advanced materials, eco-friendly processes, and innovative technologies. For specific details and to apply, SMEs should consult the respective program websites or engage with the Hungarian National Innovation Office or HIPA.



8. Czech Republic

In the Czech Republic, a number of national funding programs have been established to support SMEs, particularly those engaged in innovative fields such as lightweight construction, over the period 2022 to 2024.

1. OP TAK (Operational Programme Technology and Applications for Competitiveness)

The programme aims to enhance the competitiveness of the Czech economy through technological development, innovation and the promotion of energy efficiency.

The programme offers grants for projects in areas such as material innovation, lightweight structures and energy-efficient technologies, which are of particular importance to the lightweight construction sector.

SMEs may also be eligible for funding and they can apply for grants aimed at innovation, modernisation of production technologies, and R&D in sustainable materials.

The programme will be active from 2021 to 2027.

2. The TREND Program, operated by the Technology Agency of the Czech Republic (TACR)

The TREND programme is focused on the advancement of industrial research and experimental development, with a particular emphasis on the development of innovative technologies.

The programme supports projects that involve the development of new materials, such as lightweight composites, and advanced manufacturing techniques relevant to lightweight construction.

SMEs are eligible for funding and are encouraged to apply for grants to support research, development and innovation projects, with a particular focus on those that aim to enhance the competitiveness of Czech industry.

The programme will remain open for applications until 2027.

3. The OP PIK (Operational Programme Enterprise and Innovation for Competitiveness)

The programme is a crucial source of funding for SMEs in the Czech Republic, designed to boost innovation and technological advancement across a range of industries.

It offers financial assistance for the development of innovative production processes, the use of new materials (including lightweight materials), and improvements in energy efficiency. The programme offers grants and co-financing opportunities for SMEs looking to modernise their operations, including R&D activities and investments in lightweight technologies.

The initial period of activity was until 2020, but many funding mechanisms were extended into 2022-2023, with a gradual transition into OP TAK.

4. INOVAČNÍ VOUCHERY (Innovation Vouchers)

Innovation Vouchers are designed to facilitate collaborations between SMEs and research institutions, enabling businesses to tap into expertise and facilities for innovation projects.

SMEs can utilise the vouchers to collaborate with research institutions on the development of new lightweight materials or construction methods.

For SMEs, the programme offers small grants to cover a portion of the costs associated with research collaboration, with the aim of improving product innovation and development. This programme is ongoing with regular calls for applications.

5. CzechInvest – SME Support Programme

CzechInvest offers support for innovation, R&D and modernisation in key industrial sectors, including lightweight construction. It provides financial assistance and expert advice for SMEs investing in new technologies and materials, including lightweight construction technologies.

SMEs can access grants, co-funding, or advisory services for technology upgrades and innovation projects. The programme is ongoing, with specific calls and programmes updated annually.

6. ECO-INNOVATION (Ministry of Industry and Trade)

The objective of this programme is to: The programme is a national initiative that aims to promote eco-friendly technologies and materials, including those that contribute to reducing environmental impact.

This is applicable to lightweight construction. The programme provides support for projects involving sustainable and lightweight materials, which help to reduce carbon emissions and improve energy efficiency.

The programme offers grants for eco-innovation projects conducted by SMEs, with a particular focus on green technology and sustainable materials. The programme will remain active throughout 2024.



9. Norway

The following is a summary of the national funding programmes in Norway (2022-2024) that support small and medium-sized enterprises (SMEs), including those involved in lightweight construction.

1. Innovation Norway – Grants for Innovation and R&D

Innovation Norway represents the government's principal instrument for fostering innovation and development within the Norwegian business and industrial sectors. It provides assistance to projects engaged in research and development, technology development, and market expansion.

Small and medium-sized enterprises (SMEs) engaged in the development of innovative materials, lightweight structures and advanced manufacturing technologies may submit applications for support. The programme encourages projects that enhance sustainability and energy efficiency, which are frequently associated with lightweight construction.

Financial assistance is available for the undertaking of feasibility studies, the execution of development projects, the commercialisation of products or services, and the internationalisation of businesses. The Environmental Technology Scheme is especially pertinent to the field of lightweight construction. The programme is ongoing.

2. The Norwegian Research Council – SkatteFUNN (Research and Development Tax Incentive Scheme)

The SkatteFUNN tax incentive scheme serves to encourage research and development activities within companies by providing tax deductions for expenses related to such activities.

Small and medium-sized enterprises (SMEs) that engage in research and development activities pertaining to lightweight materials, energy efficiency, and advanced construction methods may avail themselves of this tax incentive.

It offers a tax deduction for research and development expenses. Small and medium-sized enterprises (SMEs) are eligible to receive tax relief of up to 20% on research and development (R&D) projects that meet the requisite criteria. The programme is continuous, with applications submitted on an annual basis.

3. The Norwegian Research Council's User-Driven Research-based Innovation Program (BIA)

The BIA provides support for research-based innovation across a diverse range of sectors. The programme is open to projects initiated by businesses seeking to develop new technologies or improve existing ones. The programme provides support for projects that involve the utilisation of novel materials, advanced manufacturing techniques and innovations in construction, including the use of lightweight materials.

It offers financial assistance in the form of grants for collaborative research and development projects undertaken by companies and research institutions. The programme is currently active and accepts proposals on a regular basis.

4. The Innovation Norway Environmental Technology Scheme

The programme provides financial support for the development and commercialisation of innovative environmental technologies.

This programme is applicable to lightweight construction. Small and medium-sized enterprises (SMEs) engaged in the development of lightweight, sustainable materials and technologies with the objective of reducing emissions and energy consumption in construction may submit an application for this scheme.

Financial support is available for small and medium-sized enterprises (SMEs). The financial assistance provided by the grants is designed to cover up to 50% of the eligible project costs associated with the development of environmental technology solutions. The programme is ongoing, with several application rounds per year.

5. Enova – Funding for Energy and Climate Solutions

The purpose of Enova is to provide financial assistance to organisations and individuals engaged in the development of environmentally friendly energy solutions. Enova is a state-owned enterprise that is responsible for facilitating the transition to more environmentally friendly energy use in Norway. It provides assistance to businesses engaged in the development of energy-efficient solutions and sustainable materials.

The aforementioned criteria are applicable to lightweight construction. Projects that focus on the utilisation of energy-efficient construction methodologies, lightweight materials and sustainable technologies are eligible for consideration. Enova encourages the development of innovative solutions that reduce the carbon footprint of industrial processes and construction.


Enova offers financial assistance and expert guidance to initiatives seeking to enhance energy efficiency and foster the development of environmentally friendly technologies. The programme is ongoing, with specific calls for proposals issued at regular intervals.

6. The SIVA – Norwegian Industrial Development Corporation

SIVA's objective is to facilitate industrial growth and innovation through the formation of partnerships between businesses and research institutions.

The aforementioned provisions are applicable to the field of lightweight construction. It offers assistance to small and medium-sized enterprises (SMEs) involved in the advancement of industrial technologies, including those pertaining to lightweight construction methodologies and materials.

It provides financial assistance and infrastructure support for companies engaged in innovation and industrial development. The programme is ongoing.



The aforementioned funding programmes offer a plethora of opportunities for Norwegian SMEs specialising in lightweight construction to develop cutting-edge technologies, engage in collaborative research with academic institutions, and enhance their global competitiveness. The programmes are managed by Innovation Norway and the Norwegian Research Council, which provide both financial support and advisory services.

10. Belgium

Belgium offers a range of national and regional funding programmes designed to support SMEs engaged in innovation and lightweight construction. As Belgium has both federal and regional funding structures (Flanders, Wallonia, and Brussels), this overview will provide an overview of relevant programmes for each region, as well as federal initiatives, from 2022 to 2024.

1. Innoviris (Brussels) – Brussels Institute for Research and Innovation

At the federal level, Innoviris (Brussels) offers funding opportunities for different TRL levels for new technologies.

At lower TRLs, Innoviris provides funding for research and development projects, particularly those that involve innovation and technological development.

This funding is applicable to projects related to lightweight construction. Projects involving lightweight materials, energy-efficient construction methods and sustainable innovation are eligible for funding. Grants are available to cover up to 70% of eligible costs for R&D projects led by Brussels-based SMEs. This programme is ongoing, with regular calls for proposals.

For TRLs closer to the final stage, SMEs can apply to Innoviris – Proof of Business. This funding programme is designed to assist innovative SMEs in transforming research results into commercial products.

SMEs engaged in the development of lightweight materials or construction methods may utilise this funding to accelerate the commercialisation of their technologies. The program provides financial assistance in the form of grants and loans to support the commercialisation of innovative products and technologies. This programme is ongoing.

2. Flanders – Vlaio (Flanders Innovation & Entrepreneurship)

VLAIO – Research and Development Grants VLAIO provides financial assistance to SMEs engaged in the development of innovative technologies and R&D projects across a range of sectors, including manufacturing and construction.

Projects involving advanced materials (such as lightweight composites) and sustainable construction technologies may be eligible for support. The grants cover up to 50% of R&D project costs, with the level of funding dependent on the size of the company and the level of innovation involved.

Applications are accepted on an ongoing basis, with multiple application windows each year.

The **VLAIO SME Growth Subsidy** has been designed to support the growth of SMEs in Flanders. This subsidy is designed to assist SMEs in Flanders in achieving growth through the support of strategic transformation projects, including investments in new technologies.

This subsidy is applicable to lightweight construction. SMEs investing in new technologies or materials that improve the efficiency or sustainability of their construction processes, such as lightweight materials, are eligible for support.

The subsidy is available to support the growth of SMEs. The programme offers financial assistance for strategic investments, including technology and workforce development.

The duration of the programme is as follows: This is an ongoing programme.

3. Wallonia – SPW Research (Public Service of Wallonia)

The programme provides support for SMEs in Wallonia that engage in R&D projects with the objective of fostering innovation and competitiveness.

Financial assistance is available for projects involving the development of new materials, including lightweight and eco-friendly materials for construction and other industrial applications.

SMEs may also apply for funding as grants are available for research and development activities, with up to 70% co-financing for eligible projects. This is an ongoing initiative with regular calls for proposals.

The **SPW EER (Energy, Environment, and Resources)** programme has been designed to: The programme's objective is to provide support for sustainable and energy-efficient technologies. This is applicable to lightweight construction. Provides financial support for the development and deployment of lightweight construction materials and technologies that contribute to reducing energy consumption and enhancing sustainability.

SMEs may also be eligible for funding. Grants are available for eco-innovation projects with a particular focus on reducing environmental impact.

The programme is open for a duration of: The programme is currently accepting applications on a rolling basis.

4. Flanders – Green Energy and Sustainable Materials (Support via VLAIO)

The programme encourages the development of circular economy projects, including the use of sustainable and recyclable materials, which are often applicable to lightweight construction.

The programme provides support for projects that focus on the use of sustainable materials and the improvement of energy efficiency, which are key aspects of lightweight construction.

For SMEs, subsidies are available for the adoption of sustainable practices and innovative material use.

This is an ongoing initiative that forms part of the regional Green Deal programme.

5. Other Federal Programmes

Wallonia - Marshall Plan 4.0 The objective of this regional initiative is to stimulate innovation, sustainable development and technological advancement in Wallonia.

The programme includes funding for projects focused on sustainable construction and advanced materials, including lightweight technologies.

The programme offers grants and co-financing for research and development and industrial development projects. The programme will continue in force until 2024.

6. Brussels-Capital Region – Circular Economy Grants

This initiative is designed to facilitate the transition to a circular economy, encouraging the sustainable use of materials and eco-innovation.

Projects focused on the development and utilisation of lightweight, recyclable materials in the construction industry are eligible for consideration.

The grants will contribute towards the costs of the project in relation to eco-innovation. The programme will run for a period of time. The programme will remain active throughout 2024.

These programmes provide significant support for Belgian SMEs engaged in lightweight construction, encompassing R&D and innovation, as well as market entry and commercialisation. SMEs are invited to consult with regional agencies such as Innoviris, VLAIO, and SPW to learn more about how to apply for these funding opportunities.

2 Private Funding Opportunities

A significant number of private financing opportunities are available for companies operating within the field of lightweight construction in Europe. These options encompass a diverse range of avenues, including private investments, venture capital funds, and hackathon-like events, as well as corporate funding. The following section provides an overview of the principal sources and platforms for private financing in the lightweight construction sector.

1. Private Investments

Private investors and business angels play a pivotal role in the financing of innovations in lightweight construction, particularly during the nascent stages of development. Such investors frequently concentrate their attention on technological innovations and sustainable technologies, which frequently encompass lightweight construction.

Business angels are individuals who invest in start-up businesses and small to medium-sized enterprises (SMEs), often with a focus on technological innovations and sustainable technologies, including those related to lightweight construction. Business angels are individuals who invest in start-ups and SMEs (small and medium-sized enterprises), often with a background in entrepreneurship. Business angel networks, such as **EBAN (European Business Angels Network)**, facilitate access to such investors.

The relevance of this for the field of lightweight construction is as follows: Business angels frequently seek out innovative technologies, including novel lightweight materials that can be utilised in sectors such as aerospace, automotive, and sustainable construction.

Venture capital (VC) Venture capital funds provide investment capital to innovative companies with high growth potential. Venture capital may be attracted to lightweight construction companies that develop new materials, energy-efficient construction methods, or manufacturing technologies.

The following examples illustrate this point:

- **Balderton Capital and Atomico** (large European VC funds) have the capacity to invest in technology and innovation projects that may include lightweight construction.
- **High-Tech Gründerfonds (HTGF)** (Germany): The fund makes investments in early-stage projects and start-ups in high-tech sectors, including those related to lightweight construction and advanced materials.

2. Venture Capital Funds

It is common for venture capital funds to specialise in a range of technological innovations, including lightweight construction. This is particularly evident in areas such as sustainable materials, renewable energy, and high-tech manufacturing.

- **Eurazeo Growth (France)** A substantial fund that invests in pioneering technologies, including advanced materials and manufacturing technologies pertinent to lightweight construction.
- **Northzone (Scandinavia)** A European venture capital fund that provides financial support for innovative technologies in sectors such as clean energy and Industry 4.0, which have the potential to benefit lightweight construction.
- **The Sustainable Materials Fund (UK)** A fund with a specialisation in innovative and sustainable materials, including lightweight materials for construction and manufacturing processes.

3. Hackathon-like Events and Competitions

Hackathons and competitions provide a forum for the advancement of innovative concepts and strategies, while also offering potential investors a platform to identify promising opportunities. Such events foster innovation in lightweight construction, frequently offering monetary prizes or access to venture capital and corporate financing.

ClimateLaunchpad: A European competition for cleantech start-ups, which provides support for innovations in areas such as sustainable construction materials (including lightweight construction). Winners frequently receive direct financial support or access to investors.

JEC Innovation Awards One of the most esteemed accolades for innovations in composite materials, which encompass lightweight construction. Winners frequently secure access to partners, investors, and additional funding opportunities.

4. Corporate Funding

There is a growing interest among major corporations and corporate venture funds in investing in innovative technologies related to lightweight construction. Such organisations frequently seek technologies that can enhance their own production processes or products, particularly in sectors such as automotive, aerospace and sustainable infrastructure.

- **BMW i Ventures (Germany)** BMW's venture capital arm provides investment to start-ups and SMEs that are developing technological innovations in the automotive industry, including new lightweight materials.
- **Airbus Ventures** is another notable example. The corporate venture capital arm of Airbus provides support to start-ups engaged in the development of aerospace technologies and innovative materials, including those pertaining to lightweight construction.
- **BASF Venture Capital:** BASF invests in start-ups engaged in the development of novel materials and sustainable technologies, including those pertaining to lightweight construction.

Such corporate funding frequently offers start-ups in the lightweight construction sector not only capital but also technical expertise, access to markets, and infrastructure.

In addition to the aforementioned options, there are **several platforms and networks** that have been specifically designed to connect innovators with **private investors and venture capital funds**.

- **EIT RawMaterials** is another potential source of funding. The network's primary focus is the advancement of new materials, including those utilized in lightweight construction. It provides funding and collaborative opportunities for start-ups and small and medium-sized enterprises (SMEs).
- **The Tech Tour Growth Forum** is another potential source of funding. A platform that facilitates connections between start-ups and innovators with venture capital funds and business angels. The opportunity is provided for lightweight construction companies to present their projects to potential investors.
- **EBAN (European Business Angels Network)** It is one of the largest platforms for business angels in Europe. It facilitates the sourcing of capital for innovative projects in areas such as sustainable materials and lightweight construction.

A summary of the private financing opportunities in lightweight construction in Europe is provided include:

1. Private investors and business angels who provide financial backing for technological innovations in the field of lightweight construction.
2. Venture capital funds (VC) that concentrate their activities on high-tech and sustainable materials.
3. Hackathons and innovation competitions offer access to prize money, investors, and networks.
4. Corporate funding is available through corporate venture funds from large companies seeking innovative technologies in lightweight construction.

3 European Funding Opportunities

The relevant EU funding instruments include Horizon 2020, ESFRI, Interreg Europe and Eurostars - EUREKA. These are aimed at supporting innovation and networks.

1. Horizon Europe (2021-2027)

The programme supports the development of new technologies, including in the field of lightweight construction and advanced materials. Lightweight materials and technologies are particularly important in the field of industrial research and innovation, with sectors such as automotive, aerospace and renewable energy.

Exemplary calls for proposals:

Cluster 4 - Digital, Industry and Space: Focus on technologies such as advanced materials and production methods that are also used in lightweight construction.

Cluster 5 - Climate, Energy and Mobility: This cluster promotes research projects in the field of energy-efficient and lighter vehicles. The target group includes SMEs, research institutions and companies.

2. Eurostars - EUREKA programme

Eurostars promotes market-oriented research and development by SMEs. The programme promotes transnational projects aimed at innovative technologies. SMEs active in the fields of materials science, advanced production methods and innovative lightweight solutions can be supported by Eurostars.

Exemplary projects: Funding for SMEs that want to develop new lightweight materials and structures and bring them to market.

Target group: Research-intensive SMEs that co-operate with partners from different countries.

3. European Innovation Council (EIC) Accelerator

The EIC Accelerator is a Horizon Europe programme that supports SMEs and start-ups in the development of breakthrough innovations.

The EIC Accelerator is a Horizon Europe programme that supports SMEs and start-ups in the development and commercialisation of high technologies, including innovative lightweight materials and production techniques.

- Funding: Up to €2.5 million in grants and up to €15 million in equity funding.
- Target group: Highly innovative SMEs and start-ups that want to scale up on the market.





4. InnovFin - EU Finance for Innovators

InnovFin provides financial instruments and advice to innovative companies, including SMEs, active in areas such as lightweight construction and materials development.

Various financing options, including loans, guarantees and equity, are available for companies wishing to develop or launch new lightweight materials. Target group include innovative SMEs and mid-caps.

5. European Investment Bank (EIB) - InnovFin SME Guarantee Facility

The objective of the programme is to provide guarantees and loans from the EIB to SMEs and innovative projects investing in future technologies, including lightweight construction and advanced materials.

The relevance for lightweight construction is given, as the financing of SMEs investing in highly innovative projects, including the development of new lightweight materials or production methods, is ensured.

Target group include SMEs and mid-caps that want to develop and scale innovative projects

6. Digital Europe Programme (2021-2027)

The programme aims to promote the introduction of digital technologies in Europe, with a focus on the digitalisation of production and industrial processes.

The relevance for lightweight construction is given, as SMEs that are active in the areas of digitalisation, automation and lightweight construction are supported in particular in the implementation of Industry 4.0 technologies.

The target group includes companies and SMEs in the fields of production, industry and digitalisation.



4 Events and networks for financing

The following section presents a list of pertinent events, hackathons, competitions, and platforms that may be of interest to small and medium-sized enterprises (SMEs) seeking funding opportunities in the field of lightweight construction. Such events facilitate networking, provide access to potential investors, and offer opportunities to present innovative solutions. The following section outlines the first item on the list.

1. European Lightweight Construction Conference (ELCC)

The conference will be held in the following location: The precise location varies, but the majority of events are held within Europe.

Description: A prominent event that concentrates on lightweight materials and structures in a variety of sectors, including automotive, aerospace, and construction. The event offers SMEs the chance to present their innovations, engage with industry leaders and explore potential funding opportunities through partnerships.

The event is relevant in that it provides a forum for the exchange of ideas and information on the latest developments in lightweight construction. The event frequently includes pitch sessions and opportunities for networking with investors and large enterprises interested in funding innovative solutions. The subsequent edition is scheduled to take place at a future date. The event is typically held on an annual basis; please consult the official dates for the 2024 edition.

2. JEC World – International Composites Event

The event is annually held in Paris, France, and represents one of the main fair for composites materials. JEC World is a prominent international trade fair for composite materials, showcasing lightweight solutions for diverse industrial sectors. The event also plays host to a number of competitive events, including the JEC Innovation Awards, which recognise innovative small and medium-sized enterprises (SMEs) and start-ups in the field.

Small and medium-sized enterprises (SMEs) engaged in the field of lightweight construction and composites are presented with the opportunity to compete for awards and enhance their visibility, with a multitude of funding prospects available from investors and industry leaders.

3. EUREKA Global Innovation Summit

EUREKA represents an international platform for collaborative research and development projects, with a particular emphasis on innovation in materials, including lightweight construction. The summit provides a forum for small and medium-sized enterprises (SMEs), investors, and researchers to establish partnerships and gain access to EU funding programmes.

SMEs are afforded the opportunity to present their projects to international partners and investors while simultaneously investigating the potential for EUREKA and EUROSTARS funding.

4. Horizon Europe Info Days

The Horizon Europe programme, the EU's principal research and development funding initiative, organises information days with the objective of facilitating connections between researchers, small and medium-sized enterprises (SMEs), and innovators with funding opportunities in areas such as lightweight construction.

Small and medium-sized enterprises (SMEs) are invited to attend in order to gain insight into forthcoming calls for proposals under Horizon Europe, including those pertaining to advanced materials and energy-efficient construction.

5. Start-Up Europe Awards

The competition and platform provides a forum for European start-ups and small and medium-sized enterprises (SMEs) to showcase their innovative capabilities and connect with potential investors and sources of funding. Small and medium-sized enterprises (SMEs) specialising in lightweight construction may submit applications for recognition in categories pertaining to sustainability, materials, and technology. Winners are afforded the opportunity to gain exposure to investors and potential funders. The next edition is forthcoming. The date for the next edition has yet to be announced.

6. The Lightweighting World Expo

The focus of this event is on the global lightweight materials and manufacturing sectors. Although the event is based in the United States, European small and medium-sized enterprises (SMEs) frequently take part, and international collaboration is actively promoted.

Such events provide an opportunity for SMEs to network with potential investors, suppliers, and partners. Furthermore, the event includes pitch competitions and sessions on funding opportunities related to lightweight materials.

7. The Green Alley Award

The competition is focused on circular economy start-ups and small and medium-sized enterprises (SMEs) that develop sustainable materials and technologies, including lightweight solutions.

Small and medium-sized enterprises (SMEs) engaged in the development of sustainable lightweight construction materials are invited to apply for the opportunity to receive €25,000 in funding and gain mentorship.

8. Innovate UK – Knowledge Transfer Network (KTN) Competitions and Events

Innovate UK oversees the organisation of a number of competitive events, hackathons and matchmaking initiatives for small and medium-sized enterprises (SMEs) engaged in the development of advanced materials, including those pertaining to lightweight construction.

The aforementioned programme is relevant in that it offers SMEs the opportunity to participate in competitions, hackathons and matchmaking events, thereby facilitating

access to funding and partnerships in innovative projects. Such competitions provide an opportunity for SMEs to secure funding and partnerships for innovative projects.

9. EU Sustainable Energy Week (EUSEW)

The focus of EUSEW is on renewable energy and sustainable innovations, including the utilisation of lightweight materials and the implementation of energy-efficient construction methodologies.

Small and medium-sized enterprises (SMEs) are invited to participate in the event's competitive elements and sessions, with the objective of gaining exposure to EU funding programmes and networking with investors.

10. The Nordic Innovation Summit

The summit, which is focused on Nordic and international innovations, features a platform for small and medium-sized enterprises (SMEs) that are developing sustainable technologies, including lightweight construction materials and methods.

It offers SMEs the chance to showcase their innovations and to engage with potential sources of funding within the Nordic region and across Europe.

11. EIT RawMaterials Innovation Hub

EIT RawMaterials organises a series of events, including hackathons, competitions and innovation forums, with a particular focus on materials development. These events address a range of materials-related issues, including the development of lightweight materials for use in construction and manufacturing.

Such events provide an opportunity for SMEs to obtain funding, form partnerships and gain access to the EIT's extensive network.

12. The Advanced Engineering Show

A significant event for small and medium-sized enterprises (SMEs) engaged in materials innovation, including lightweight construction. The exhibition encompasses a range of sectors, including aerospace, automotive, and energy-efficient construction.

The event is relevant in that it provides a forum for the presentation of new developments in materials engineering, including lightweight construction. Small and medium-sized enterprises (SMEs) have the opportunity to present their innovative products and services to potential investors and to apply for various pitch competitions that offer funding.

13. BUILDsense

The event will address innovations in construction, energy-efficient building materials and methods, including lightweight materials, in a virtual setting.

The event is relevant in that it addresses issues pertinent to the construction industry, including the use of lightweight materials. Small and medium-sized enterprises (SMEs) are

afforded the opportunity to participate in pitch sessions and hackathons, as well as gain access to industry-specific funding opportunities.

14. IWT Open Calls for Research and Development (Flanders)

The Innovation Agency of Flanders (IWT) periodically issues open calls for research and development (R&D) projects, including those pertaining to lightweight construction. Small and medium-sized enterprises (SMEs) are encouraged to apply for co-financing and innovation grants.

Lightweight construction projects focusing on materials and sustainability are eligible for significant funding.

5. Evaluation of financing schemes for innovation and internationalisation

Support for SME innovation projects

When assessing the suitability of funding schemes to support innovation projects for SMEs, including those that were not successful in the AMULET competitions, the following aspects should be considered:

- Access to funding schemes: SMEs often benefit from EU-wide funding programmes such as Horizon Europe and national initiatives to support research and development (R&D). Programmes should aim to support specific projects that are competitive but still have innovation potential.
- Focus on sustainability: Schemes promoting sustainable technologies and materials are particularly suitable for supporting SMEs whose innovations are in the field of lightweight construction and energy-efficient solutions.
- Advice and mentoring: In addition to funding, coaching programmes and networks such as EIT Manufacturing or ELCA can help to develop and improve innovation projects, even if they fail in competitions.

Support for the continuity of the AMULET network

The Funding schemes can contribute to the continuation of the AMULET network by

- financing network activities: Programmes such as EIT Raw Materials and COSME not only provide funding for individual projects, but also support the long-term networking of SMEs, research institutions and industrial partners.
- Developing business models: Successful networks such as EUREKA have shown that the creation of innovative business models (such as membership fees or cooperation agreements) can ensure sustainable funding and operation. The integration of corporate sponsorship or public funding could provide long-term stability.

Sustainability and scalability

In order to assess the scalability of the funding options, the following aspects are relevant:

- Long-term impact: Many funding programmes offer follow-up funding for projects that have proved their worth. Programmes such as EUROSTARS provide a platform for SMEs to further develop pilot projects and bring them to market.
- Involve private investors: Involving venture capitalists or crowd-funding platforms can help SMEs to obtain further funding after the initial funding, thus contributing to scalability.

Gaps and challenges

Identification of funding gaps and challenges:

- Bureaucracy: One of the biggest barriers for SMEs is access to public funding due to complex bureaucratic requirements.
- Seed capital: Some SMEs fail due to a lack of seed funding for pilot projects before they can access larger funding programmes.
- Long-term funding: There are gaps in long-term funding for projects that have achieved initial success but are not yet ready for market launch. An interim funding solution may be needed.

This analysis shows that existing funding schemes are useful, but improvements in long-term impact and access for SMEs may be needed.

5. Conclusion: Summary and Outlook

This deliverable provides a comprehensive overview of the available funding options for SMEs in Europe in the field of lightweight construction projects. Both established European Union funding programmes and national initiatives, as well as private financing instruments, have been considered.

Summary of Key Findings

- **Diversity of funding sources:** There is a wide range of funding options available, ranging from low-interest loans and grants to venture capital financing.
- **Focus on innovation and sustainability:** Most funding programmes focus on innovative lightweight solutions that contribute to increasing energy efficiency and reducing the environmental footprint.
- **Relevance for the future:** Financing lightweight construction projects is crucial for the competitiveness of European SMEs in an increasingly globalised market. Lightweight technologies offer significant potential for weight reduction, improved energy efficiency, and the development of new products and services.

Outlook on Future Developments Financing of lightweight construction projects will continue to gain importance in the coming years. The following developments can be expected:

- **Stronger focus on sustainability:** The EU and national governments will increasingly align their funding programmes with the goals of the Green Deal and invest more heavily in projects that contribute to decarbonising the economy.

- **Digitalisation of funding management:** The application and management of funding will be further digitalised to reduce bureaucratic hurdles and improve accessibility for SMEs.
- **New financing instruments:** New financing instruments will emerge, such as crowdfunding platforms for innovative lightweight construction projects or impact investing funds that focus on sustainable technologies.

Identifying Further Funding Opportunities and Future Steps To ensure long-term financing of lightweight construction projects, the following steps should be taken:

- **Networking:** SMEs should actively network together to pool their interests with regard to politics and the economy and to jointly develop new sources of financing.
- **Internationalisation:** European SMEs should increasingly focus on the international market to gain access to additional sources of financing.
- **Cooperations with research institutions:** Cooperation with research institutions can help to strengthen the innovation capacity of SMEs and open up new financing opportunities.
- **Early financial planning:** SMEs should engage in early financial planning and inform themselves about the available funding programmes in good time.

Conclusion Financing lightweight construction projects is a complex task that takes a variety of factors into account. By systematically searching for funding opportunities and actively shaping their own financing strategy, SMEs in Europe can strengthen their innovative capacity and participate in the growth of the lightweight construction industry.

Additional Considerations

- **Regional differences:** Are there regional differences in the availability of funding?
- **Industry-specific characteristics:** What funding options are available for specific industries within lightweight construction?
- **Risk assessment:** How can the risks be minimised when selecting financing instruments?
- **Political framework:** What political framework conditions influence the financing of lightweight construction projects?


6. Appendix

- List of most important links for funding.
- Other relevant information and sources for SMEs and partners

The following are the official EU platforms:

1. The **CORDIS** database, maintained by the European Commission, is a comprehensive source of information on all EU research and innovation programmes, including Horizon Europe. This resource provides access to calls for proposals, project outcomes, and illustrative case studies.

Please refer to the following link for further information.



<https://cordis.europa.eu/>

2. The **Funding & Tenders Portal** provides information on current calls for proposals for EU funding programmes, including Horizon Europe.

Please refer to the following link for further information.

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/>

3. The **Enterprise Europe Network** provides SMEs with complimentary counsel and assistance in identifying funding prospects, potential partners, and market opportunities.

Please refer to the following link:

<https://een.ec.europa.eu>

Specialised Platforms and Databases

4. NPI Database: The NPI database provides an overview of national contact points for research and innovation in EU member states.

Please refer to the following link for further information:

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/ncp>

5. Research EU offers insight into the most recent advancements in EU research policy and the numerous financial support programmes currently available.

Please refer to the following link for further information:

https://research-and-innovation.ec.europa.eu/index_en

6. The **"Your Europe"** section provides detailed information on the various EU programmes and the procedures for accessing funding.

Please refer to the following link for further information:


<https://europa.eu/youreurope/index.htm>

Industry Associations and Networks

7. **Composites Europe** is the association representing the European composites industry. It provides information on current developments, events, and funding opportunities.

Please refer to the following link for further information:

<http://composite-expo.com/12-composites-europen.html>



8. JEC World represents the foremost global trade fair for the composites industry, offering a unique opportunity for networking and the exchange of information.

Please refer to the following link for further information:

<https://www.jec-world.events/>.

9. The AVK (Association of the German Plastics Industry) offers information on funding programmes and political frameworks pertinent to the German plastics industry.

Please refer to the following link for further information:

<https://www.avk-tv.de>

Other resources of potential relevance are listed below:

10. National Contact Points: In each member state of the European Union, there is a designated national contact point that provides assistance to companies in identifying potential funding opportunities. The relevant contact details can be found in the NPI database.

It should be noted that the landscape of available funding is subject to frequent change. It is therefore recommended that updates on current funding opportunities be monitored on a regular basis and that the conditions of each individual programme be subjected to careful review.

Additional recommendations include utilising search engines to identify relevant funding opportunities.

Keywords such as "EU funding lightweight construction", "Horizon Europe lightweight construction" or "funding programs for composites" can be entered into search engines to yield pertinent results.

It is recommended that SME contact consultants, who are able to assist them in identifying appropriate funding programmes and in navigating the application process.

Networking: It is beneficial to engage in discourse with other companies, research institutions, and experts in order to gain insight from their experiences.

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