

GREEN IRON. VANADZOR

Pilot Project of Revitalization of Vanadzor Microfiber Factory

GREEN IRON - RESHAPING VANADZOR'S FUTURE



GREEN IRON

Green Iron is a non-profit organization founded by EcoHub Foundation, ORG Permanent Modernity, Ferropolis foundation and TUMO. Green Iron promotes the revitalization, reprogramming, and economic reintegration of industrial sites in Armenia. Green Iron is presently dedicated to transforming the Vanadzor Microfiber Factory into a versatile space that fosters innovation, supports the creative economy, and facilitates the growth of new industries aligned with the climate adaptation agenda and the UN Sustainable Development Goals.

OUR GOAL

Our goal is to revitalize the abandoned chemical plant and surrounding area into a green urban hub led by innovation, resiliency and sustainability. We aim to position Vanadzor as a model for industrial revitalization and excellence in technology, where creativity and entrepreneurship thrive, and where the community benefits from a shared prosperity and a high quality of life.

GREEN IRON IN NUMBERS

Below are some preliminary numbers based on an initial feasibility study carried out by CIVITTA AM. Please note that as the project develops, new ideas are integrated and these numbers may need to be revisited.

Financials



Investment need - USD 24 Million



EBITDA margin - 33%

Impact scope



1200 new jobs



200,000 Annual visitors



37,000+ sqm reconstructed buildings



\$100+ Million social value

PROJECT CONTEXT

Provincial towns have played a crucial role for the equitable development of Armenia through creating opportunities for employment and economic activity for its satellite rural communities. As a result of structural shifts, insufficient management, and a clear lack of vision for development, these cities have become the most socio-economically vulnerable communities, resulting in high rates of unemployment, emigration and poverty. Vanadzor is one of these communities.

With its chemical and light industry, educational, health and recreational sectors, Vanadzor was once one of the leading economic centers of Armenia with a population of around 150,000 in the 1980s. Today, in the context of mass emigration and lack of development prospects the city has shrunk almost twice in population size.

One of the government's socio-economic policy priorities is the development of the regional cities, as the overwhelming majority of industrial infrastructures located outside Yerevan are concentrated there and are mostly inactive. Taking into account today's technological progress, the effective repurposing of the existing industrial heritage requires innovative approaches. One of the most widespread solutions is repurposing and revitalization of industrial areas for a new functional use whilst preserving the former industrial appearance as a cultural heritage.

Repurposing and revitalizing of industrial spaces can become one of the cornerstones of Vanadzor's sustainable and long-term development strategy since the former production and industrial zones occupy around 15-20% of the city's municipal area (~ 350 hectares).

PROJECT DESCRIPTION

Its scale and complexity make Green Iron a unique project of repurposing and revitalizing industrial spaces not only for Armenia but for the region. The goal of the project is to transform the Vanadzor Microfiber Factory into an innovative multi-purpose complex which will create ripple effects of the multi-faceted, inclusive and sustainable development of the community.

Preserving the exceptional Soviet-era industrial heritage, the project will launch diverse thematic programs and will create synergies at the intersection of sustainable business, education, innovation, culture and recreation. The center will host a truly unique community of creators (startups, filmmakers, artists, etc.), thinkers (scientists, researchers, etc.), changemakers (foundations, NGOs, donors, etc.) and enablers (accelerators, venture capital funds, etc.).

EDUCATION

- University branches
- Training facilities
- Labs
- Experimental education

ENVIRONMENT

- Green open spaces
- Biodiversity
- Parks and outdoor recreation
- Environmental remediation



CULTURE

- Concert halls
- Creative free spaces
- Art spaces
- Galleries

INDUSTRY

- Green industry
- Green chemistry
- Light industry

Several similar examples and approaches have inspired the project concept: particularly noteworthy are the [Landschaftspark Duisburg](#), [Zeche Zollverein](#) and [Ferropolis](#) projects in Germany.

Among the highlighted added values of the project is the potential for significant synergistic interaction with existing initiatives. The high potential for tangible synergetic cooperation with existing projects is a value added for the project. Being combined with a number of ongoing and completed projects (VTC, TUMO, UNIVER, etc.), the activities of various cultural or educational communities in Vanadzor, the center will support the promotion and visibility of Vanadzor as a brand.

THE UNIQUE FEATURES OF «GREEN IRON» PROJECT ARE:

- Focus on sustainable development and green transition;
- Transformation of industrial heritage into a cultural value and design of a touristic product out of it, which can become a signature of Vanadzor;
- Designing a holistic ecosystem, which will provide opportunities for collaboration with the residents and for co-using one another's resources;
- Value-based development of the region (cooperation, collaboration, revitalization, rethinking, accessibility of co-living spaces, sustainability, etc) and creating a community of like-minded people;
- Large scale and possibility of further scale-up in other industrial spaces of Vanadzor;
- Biggest unique space for organizing large-scale events (such as conferences, festivals, concerts, etc) in Armenia and the region;
- Possibility of adding Armenia and Vanadzor into the international industrial tourism map;
- Possibilities of public-private cooperation; public investment in the infrastructure of the area will make it attractive for private investors;
- The project is attractive for the funding of international organizations such as the EU and Green Climate Fund.

The project is transformative by its concept and scale, and can become an exemplary precedent for reimagining and reusing hundreds of abandoned industrial spaces by transforming them into poles of economic growth, especially in urban settlements.



IMPACT FRAMEWORK

Below are some preliminary numbers based on an initial feasibility study carried out by CIVITTA AM. Please note that as the project develops, new ideas are integrated and these numbers need to be revisited.

\$5

INVESTMENT & SOCIAL IMPACT

Similar international projects shows that an investment of \$1 generates a social value of \$5

1200

JOB CREATION

Green Iron in general will create - 1200 new jobs (50 for admin/management, ~ 1150 by tenants)

200,000

VISITORS & TOURISM

Increased tourism will lead to opportunities for hotels, restaurants, tourist attractions and transport companies

\$1M

COMMUNITY DEVELOPMENT

For 200,000+ visitors per year the average daily visitors will spend \$30, and \$70 for overnight visitors

IMPACT SCALE: \$1 = \$5

The experience of similar international projects shows that an investment of \$1 creates a value and impact of \$5. Therefore the project will have a multiplicative impact in terms of improvement of community infrastructure, construction and rent, development of tourism and hospitality spheres.

Preliminary assessments of the consultants involved in the project envisage that the project will create ~1200 new jobs in the community, including ~50 jobs created for running the project itself and ~ 1150 jobs created by the residents of the multi-purpose complex.

Due to the strategic location (Yerevan-Tbilisi connection, close car-road connection with the developing touristic clusters of Dilijan, Debed Canyon and Stepanavan, etc) the center will attract the attention of more than 200,000 visitors per year.



The area will be capable of hosting large-scale events with more than 20,000 participants in a unique environment. Due to zoning of the area and availability of spaces of special significance, various organizations will inflow to the community.



Offices and commercial spaces
14,000 m²



Entertainment areas
5,000 m²



Creative and art platforms
17,000 m²



Education and scientific institutions
9,000 m²

Creative and art platforms will bridge Armenian traditions, the industrial past of the city and contemporary art. The Center will become a unique place of co-working, education and inspiration. A multi-genre cultural center will be established (including a gallery, showroom, cinema hall, performance stage) which will serve the purpose of introducing the population to art and making art an indivisible part of their lives.

Offices and commercial spaces will be available for hosting local and international organizations and companies. These spaces will be filled with the industrial atmosphere of the overall space, at the same time they will have modern infrastructures and will optimize costs due to more affordable rental fees and savings on human resource expenditures. Special incentives will be offered to Armenian and foreign organizations doing scientific research activities. Incubators, co-working spaces and networking zones will be created for the purpose of generating new business ideas, boosting start-up companies and ensuring investment flows. At least 15 new offices will open during the first 3 years of activity. We have ongoing discussions with TUMO and Impact Hub to open branch offices in the center.

Entertainment and hospitality areas will host intellectual entertainment and sport activities, food courts, etc. More than 5 spots for entertainment, including modern art galleries, cinema, festival zones, skate and bike parts, will be available. This will fill the gap in youth employment and youth entertainment in Vanadzor and its surrounding areas, as well as will make the city more “lively” and attractive for young people.

Educational and scientific institutions functioning in the area will include architectural, engineering, IT and other experimental labs. Not only will they breathe new air into the community and train qualified professionals locally, but they will also become centers for science and innovation for the entire country.

FINANCIAL INDICATORS

The amount of initial investments necessary for launching the project is **24 million USD** which does not include costs for purchase or long term rental of the Microfiber factory space. This is an approximate calculation and the amount may change substantially once the concept is clarified and once expert assessments on the condition of the buildings/space are carried out. The EBITDA margin of the project is 33% during its first years and will reach 43% during the project implementation. Income is expected from the following sources: space rentals, hotel and hostel, tourist services and guided tours inside the factory. A dedicated Special Purpose Vehicle (SPV) around the EcoHub Foundation will be established to implement and manage the project.

It is also important to take into consideration the present incapability of the area which generates substantial lost value. Had such a project been launched 10 years ago, it would have already been profitable, it would be creating a gross income of around **2 million USD per year** and would be an important pillar of the development of Vanadzor.

PUBLIC-PRIVATE PARTNERSHIP

The Vanadzor KimProm CJSC consists of the Vanadzor Chemical Plant, the Chemical Microfiber Factory and the Vanadzor Thermal Power Plant. The company is currently in the process of declaring bankruptcy. Once the bankruptcy process is complete, its existing liabilities will be resolved, and Ardshinbank CJSC will have full claim of the company's property and territory. The main obstacle to the sale of any of the factory's land lies in the unpaid cadastral value, which had been originally set as a deferred debt that would only be due if the factory land was put up for sale. This obligation comes to a total of around 4 billion AMD for the whole territory of the factory (around 130 ha). This must be paid before any third party can buy any part of the company's land. It is unrealistic that the factory's equipment and territory will be used again for its original purpose but, at the same time, the existing cadastral value obligation makes the sale of any part of this land an unattractive proposition. This program envisages a mutually beneficial partnership between the public sector and the owner of the company. First, the state forgives the cadastral value obligation (for all 130 ha) in exchange for approximately 30 ha of the territory – the section originally allocated to the former Microfiber Factory. Then, that space is invested by the state or the community into the Green Iron project as a public investment. This proposal has received preliminary approval by the bank and, if it is acceptable to the state, the bank is ready to discuss the details of the transaction.

IMPLEMENTING TEAM

The project was launched as an initiative of EcoHub Foundation and developed to a larger project run by EcoHub Foundation, Ferropolis foundation, ORG permanent modernity, TUMO, CIVITTA. Green Iron got financial support from of EU4Business ITTD project, as well as Zivik project of the German Federal Foreign Office.

ECOHUB FOUNDATION

EcoHub Foundation enhances active citizenship, democratic governance and sustainable development in Armenia by raising awareness and empowering rural youth on the above mentioned topics. EcoHub Foundation also implements investment projects aimed at developing sustainable tourism by improving existing infrastructures and creating new ones. EcoHub owns Boo Alternative House educational center which aims at promoting sustainable development and social entrepreneurship in Lori region.

CIVITTA AM

The business consultant of this project is CIVITTA AM, which has more than 15 years of experience in providing consultancy services to public and private actors. CIVITTA has 30+ offices in 18 countries. The company has initiated a number of large-scale and complex projects in Armenia and Eastern European countries, such as ANEL engineering lab complex in the National Polytechnic University of Armenia, feasibility studies of CANDLE synchrotron light source research center, economic development projects of Gagarin, Yenokavan, Kalavan and Gyumri communities, etc.

SNKH ARCHITECTURAL STUDIO.

The architect-consultant of the project is Snkh architectural studio. Its team is specialized on development of competitive and conceptual projects. Among the biggest achievements of the studio is the summer cinema-hall of Garage contemporary art museum in Moscow. Among other projects of the studio are the office of the largest IT company in Armenia (4500 sqm), the visitor center of “Children of Armenia” foundation in Vahagni community, and the kindergarten of Debed village.

ORG PERMANENT MODERNITY.

ORG Permanent Modernity is a research, strategy, and design group, with offices in Brussels, Antwerp, and New York City. ORG brings together architects, engineers, urban planners, ecologists, economists, strategists, policy and process designers, and mobility and infrastructure experts working together to develop solutions to complex urban, rural, and regional problems.

ORG has extensive experience designing transformative projects with a significant infrastructural component. We are a unique repository of knowledge and practical experience in the post-industrial and post-Soviet contexts. Members of the team developed regional and master plans for cities burdened by the heavy legacy of the central economic planning system; and designed transformation strategies for districts, neighborhoods, and educational and innovation environments.

FERROPOLIS

Ferropolis was founded in the 1990s as an idea of the Bauhaus Dessau Foundation and develops and operates one of the most important open-air cultural locations in Germany and Europe. Five large opencast mining excavators from the lignite era form the heart of the industrial heritage, the preservation of which is financed through active cultural use. Today Ferropolis is an engine of regional transformation. To this end, new projects such as Energieavantgarde Anhalt e.V. (Regional value creation through energy transition) and Forum Rathenau e.V. (Carbon cycle economy of the future) or the Saxony-Anhalt NIK industrial culture network are being developed and founded from Ferropolis.

TUMO

TUMO Center for Creative Technologies is an educational program that provides free-of-charge, extracurricular education for teens in various fields of innovative technologies and design. The program is centered around hyper-personalization, it allows its students to choose and progress in the learning areas they are most passionate about. This combination of in-demand know-how provided by industry experts and the empowerment of students to take their learning into their own hands made TUMO international, with centers in France, Albania, Ukraine, Germany, Portugal and Lebanon. TUMO program provides over 23,000 students in 35 locations in Armenia with both theoretical and hands-on experience in its 14 learning areas on a weekly basis. This extracurricular, tuition-free program is accessible to any and all students aged 12 through 18 wishing to apply.

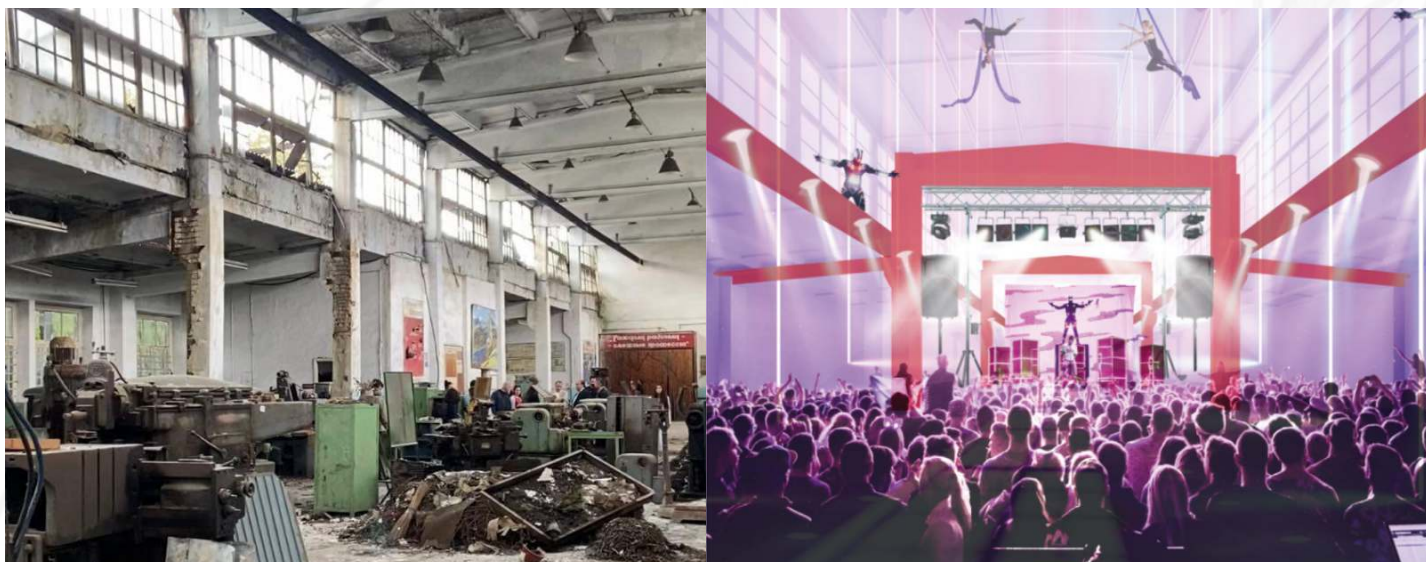
SUPPORTERS, COMMITTED PARTNERS

Green Iron is supported by GIZ, Zivik project of German Federal Foreign Office, Robert Bosch Foundation-Germany. We are currently also developing a network of committed partners, project supporters, advisors and experts.

Our pioneer partners are

- Union of Advanced Technology Enterprises ([UATE](#)),
- [TUMO](#),
- [Impact Hub Yerevan](#)
- [GIZ](#) and EU
- [EU Delegation in Armenia](#)
- [URVAKAN](#)
- [Ferropolis](#)
- [ORG Permanent Modernity](#)





We do hope that a productive discussion of this project will be organized in the near future.

Sincerely, EcoHub Foundation and partners

The feasibility study and visualization of Pilot project-Revitalization of Vanadzor Microfiber Factory has been done by CIVITTA AM and SNKH Architectural Studio

