# PROJECTS AND STARTUPS

Unlike catalysts, enzymes exhibit a high efficiency, specificity, selectivity, biodegradability, non-toxicity, and the ability to function effectively under gentle biological conditions, for industrial applications. In contrast with classical experimentation, computational methods hold promise to reduce costs of initial testing but have not yet demonstrated the ability to rapidly design highly efficient enzymes that mimic those found in nature. As opposed to other methods, our computational approach can introduce active site and distal mutations that modulate the enzyme conformational dynamics, achieving increases in catalytic efficiency of up to 1000-fold. The commercially available products, under GREENZYME spin-off, will be the highly efficient enzyme kits and our technology for enzyme optimization, to provide a cost-effective, scalable, and environmentally sustainable solution.

We are the strategic bridge between digital innovation and the manufacturing industry. We support digital transformation towards Industry 4.0 by connecting the best technological solutions (IoT, Big Data, specialized software, automation, industrial sensing, etc) with the real needs of each sector. Our dual expertise allows us to:

- Empower technology companies and startups to enter the industrial market, helping them scale solutions tailored to the sector's specific needs.
- Guide manufacturers in their digital transformation.
- Optimize production processes with cutting-edge technology.

We are the partner that accelerates industrial modernization, turning challenges into growth opportunities.

DAIA (Diabetes Artificial Intelligence Assistant) is an artificial intelligence-powered personal assistant which optimizes the daily management of diabetes, by using real-time data, to provide recommendations tailored to each user's specific needs and consequently reducing the mental and emotional burden associated with the condition, while also decreasing the costs and resources of both public and private healthcare systems.

The available scientific information in the field of health is growing exponentially, making it impossible to be properly updated with the current tools. Evimatic is the first AI tool that performs personalized, participatory, and explanatory analysis of published scientific information on therapeutics. After validating the technology, we launched the product for a specific health problem, attention deficit hyperactivity disorder (ADHD), because it is a good niche to assess market interest before scaling to other health problems.

Newronia specializes in developing artificial intelligence-driven solutions tailored for logistics companies, particularly in scenarios involving numerous complex variables and constraints. Its expertise lies in creating advanced algorithms for route and task planning, which are among the most common applications. The company utilizes cutting-edge genetic algorithms and local search methods to optimize routes, further enhanced by machine learning techniques. By incorporating historical driver data, these solutions ensure that planned routes are not only highly efficient but also practical and closely aligned with real-world conditions.

Myosafe Innovations is a technology company specializing in medical software to enhance early assistance in time-sensitive conditions. Its main platform, Odisea, optimizes prehospital care by improving coordination, reducing treatment delays, and ensuring secure real-time clinical data sharing. Initially developed for acute myocardial infarction, it now expands to stroke, trauma, and sepsis. Backed by research and real-world evidence, Odisea has treated over 2.000 patients, reducing unnecessary transfers and improving outcomes. Myosafe is committed to transforming emergency care through innovation, usability, and regulatory compliance

The ACROSS alliance brings together 9 small-medium size university partners from Banja Luka (Bosnia and Hercegovina), Bialystok (Poland), Chemnitz (Germany), Craiova (Romania), Girona (Spain), Nova Gorica (Slovenia), Perpignan (France), Udine (Italy), and Ruse (Bulgaria), to tackle cross-border challenges with research and innovation projects, collaborations with businesses, SMEs, public authorities, and citizens for the needs and prosperity of border regions.