



Eindhoven Engine WhiteBook

final version for Open Call 2019

Mission and vision

The mission and vision of the Eindhoven Engine initiative has its origin and goals in the conviction and ambition that it is possible to accelerate innovation in the Brainport region to provide new and timely technology-based solutions for the societal challenges our generation and environment is facing. For this, capabilities and positions available at science, technology and business-oriented partners provide a human capital and knowledge basis. However, it is envisaged that this potential can be unleashed up to yet another level when organizational barriers are lowered and *interpersonal exchange* and *combination of ideas and skills* are actively stimulated. For this, inspiring and challenging “moon-shot” goals with associated deadlines are essential, as well as dedicated selection and coaching of team members, collaborating in an inspiring work and meeting space which stimulates and facilitates the joint execution of their innovation projects.

Starting point, present situation and next steps

Eindhoven Engine has received a grant from Regiofonds Brainport B.V. to pursue its mission. A jump start has been made by funding of project initiatives around innovation topics supported and executed by consortia with key industrial and TU/e partners. The execution of these pilot projects by the involved team members takes place at a dedicated Eindhoven Engine Building at the TU/e campus. In parallel, preparations have been made to call for, stimulate and build additional consortia which reflect the mission and ambition of Eindhoven Engine and can be supported in the course of 2019 and beyond. The criteria that these consortia should meet and the topics around which they are formed, as well as the goals which they should achieve, are described in the next paragraphs.

Oriented at providing new solutions for Societal Challenges

Projects executed by consortia being part of the Eindhoven Engine community will have a clear focus on investigation and development of new technology options to provide solutions for the main challenges our society is facing. The consortia will therefore *address new solutions for tackling societal issues in the fields of Health, Energy, Mobility, Agrifood and/or Safety*. The project scope and goals are examples of “*a dream with a deadline*” being both challenging and feasible, providing game changers with quantifiable impact when successful. Societal relevance of the innovation objectives is guaranteed and enhanced by interaction with specific stakeholders and outreach to the broader public during the definition and/or execution phase.

Based on the technology signature and competences of the Brainport Region

Building on existing strengths and joint execution of innovation projects in multi-partner teams, with a substantial participation of talented students at a central location is considered to make the essential difference compared to other collaboration examples. In view of this, Eindhoven Engine consortia will have a technology signature and will be formed around *core partners which have their roots and home base in the Brainport region*. By this approach, combinations of leading positions in the field of high-tech systems and enabling materials technology, data science, design and human-technology interactions form the backbone of Eindhoven Engine consortia which cooperate by co-location of the team members at the Eindhoven Engine workspace. Wherever considered necessary to achieve the



final goals, complementary knowledge, technology positions and key infrastructure from partners with key positions in these areas but located elsewhere can be incorporated.

Providing new visible iconic applications

Based on the technology positions of the Brainport region described before, new developments addressing societal challenges have already become emergent in the last decade. Examples like precision surgery robots, photonic chips, equipment enabling energy storage, truck platooning, city farming and smart lighting grids provide practical examples of how Eindhoven Engine developments will lead to *additional new and iconic applications*. Next to their intrinsic value, they illustrate to the general public and political stakeholders how Eindhoven Engine resources are transferred into visible and credible impact for society.

Growing human capital: The Eindhoven Engine Academy

The Eindhoven Engine is built on the conviction that more innovative power can be unleashed by bringing together the right people from various backgrounds and generations. Students and experienced employees. To facilitate them to use, share and develop available and new skills to achieve inspiring audacious goals to the benefit of society. Working at a joint colocation is an important prerequisite for this, but not enough in itself and will be accompanied by additional specific attention for the community building, team building and staffing of project teams. Possible team members proposed by the participating organizations will be assessed upfront to gain insight in their motivation and technical as well as interpersonal skills. Based on this dedicated personal and team coaching will be provided by the Eindhoven Engine Academy in order to optimize individual growth, team performance and resulting output and impact.

Prerequisites for Eindhoven Engine proposals and consortia

In view of the considerations described above, new proposals and consortia requesting funding from Eindhoven Engine must address all of the following goals:

1. Oriented at providing new solutions to tackle societal issues in the fields of Health, Energy, Mobility, Agrifood and/or Safety, which can be communicated to stakeholders as new iconic applications.
2. Formed around core partners with a home base in the Brainport providing team members and access to leading positions in the field of high-tech systems, enabling materials technology, data science, design and human-technology interactions.
3. Having a strategic recognition and ambition to benefit from the co-location and coaching facilities provided by Eindhoven Engine.

An extensive overview of all criteria for Eindhoven Engine project proposals are described in the Eindhoven Engine BlueBook.
