


FAQ: Car Brain Challenge "Re-inCARnate Herbie"

General Information

1. What is the background of this challenge?
 - The automotive industry is undergoing a profound transformation: technologically, economically, and socially. At the heart of this shift is the transition from traditional vehicles to intelligent, software-defined platforms that are increasingly autonomous, connected, and personalized. The Volkswagen Group is actively shaping this future as "The Global Automotive Tech Driver".
2. What is the specific goal of the challenge?
 - This initiative invites universities to explore the next frontier of vehicle intelligence. Inspired by Herbie, participants are challenged to design AI-driven systems that go beyond automation and embody personality, adaptability, and agency.
3. Who or what is "Herbie"?
 - Herbie is a fictional character from Disney's classic film series, first appearing in The Love Bug (1968). Portrayed as an intelligent Volkswagen Beetle with emotions, personality, and a will of its own, Herbie became a symbol of charm, intelligence, and human-machine connection.

Participation & Registration

4. Who is eligible to participate?
 - Eligible participants are teams composed of students, PhD candidates, and post-docs from invited universities. Interdisciplinary teams are explicitly encouraged.
 - Only universities that have received an official invitation are eligible to apply.
5. How can teams register, and are there any fees?
 - Applications must be submitted by **December 31, 2025**, via  car.brain.challenge.vwag.r.wob@volkswagen.de.
 - The 30 selected universities will be contacted thereafter.
 - The application itself is informal but should include the **primary contact person** representing the university, along with their contact details (name, position, email, and phone number).
 - Please also provide:
 - A **brief overview** of the participating team's size and qualification profile.
 - A high-level summary of your institution's capabilities regarding AI/software development and prototyping resources.
 - The 30 participating universities will be publicly announced on January 26, 2026. A **detailed challenge brief** will be published at the official start, ensuring all teams begin with the same information.
 - Participation is free of charge

Framework & Organization

6. Who is organizing the challenge?

- The challenge is hosted by:
Volkswagen AG
Berliner Ring 2
38440 Wolfsburg
Germany
Website: www.volkswagen-group.com
E-Mail: car.brain.challenge.vwag.r.wob@volkswagen.de

7. What is the official language of the challenge?

- The official languages are English and German. All documentation and communication must be provided in one of these languages.

8. What time zone applies to deadlines and events?

- All deadlines and events are scheduled in Central European Time (CET).

9. Are there formal contractual conditions for participation?

- No, there are no formal contractual conditions. However, the Terms of Conditions must be accepted. We will send these for your information after receiving the participation request. An informal written confirmation of your agreement is sufficient.

Challenge Structure & Timeline

10. How is the challenge structured?

- The challenge is a multi-phase innovation journey, guiding teams from concept to vehicle demonstration. It consists of three main phases:
 - Up to 30 selected universities will start the first "Ideation" phase on February 2, 2026.
 - The top 10 teams will have the opportunity to further develop their ideas in the second phase, "AI modeling," using a cloud-based developer interface provided by Volkswagen.
 - The top 3 teams will enter the final phase, "prototyping," and will be able to implement their solution in the vehicle hands-on.

11. What do the phases include?

- Start 02.02.2026. At the beginning of each phase a detailed task description will be published.
 - Phase 1: Ideation (6 weeks)
 - Define future in-car and around-car experiences and use cases
 - Specify non-functional requirements and system boundaries
 - Deliverable: Feature Book & User & Agent Journeys
 - Phase 2: AI-Modeling (6 months)
 - Develop Agentic AI frameworks and context/data pipelines
 - Integrate advanced AI models (SLMs and LLMs)
 - Deliverable: Context Ontology & Desktop Prototype
 - Phase 3: Prototyping (6 months)
 - Build a vehicle prototype with real sensors, actuators, and interfaces
 - Reproduce agent-based use cases in the prototype
 - Deliverable: In- & Around-Vehicle Demo & Evaluation Report

12. What is the final outcome?

- The challenge concludes with the presentation of prototypes at a leading automotive conference in spring 2027, in collaboration with Volkswagen.

13. What can winners expect?

- The winning team will receive the modified research vehicle for their own use and a three-year research collaboration with the Volkswagen Group. In addition, first place will receive €50,000, second place €30,000, and third place €10,000.