

# Research and development

R&D activities are at the heart of GVS's business model, with research expenses reaching 6% of revenues in 2022, equally divided in order to improve processes and products. The Group has 9 research centres around the world, with 118 highly qualified employees supervised by a global coordinator.

The development process depends on the complexity of the project, and results in continuous monitoring and economic evaluation until release into production. The R&D process involves a succession of 4 phases: quotation, feasibility, R&D, and the industrial phase.

The quotation consists in the conception of the product, the collection of essential information such as its specifications, the reference market and the target price;

Feasibility includes technical analysis of materials, benchmark competitors and identification of potential raw materials. In this phase, analyses of potential conflicts with existing intellectual property are also carried out and, if necessary, the possibility of applying for new patents;

Product development is the core phase of the process, where tests are performed on the required specifications and the prototype is made;

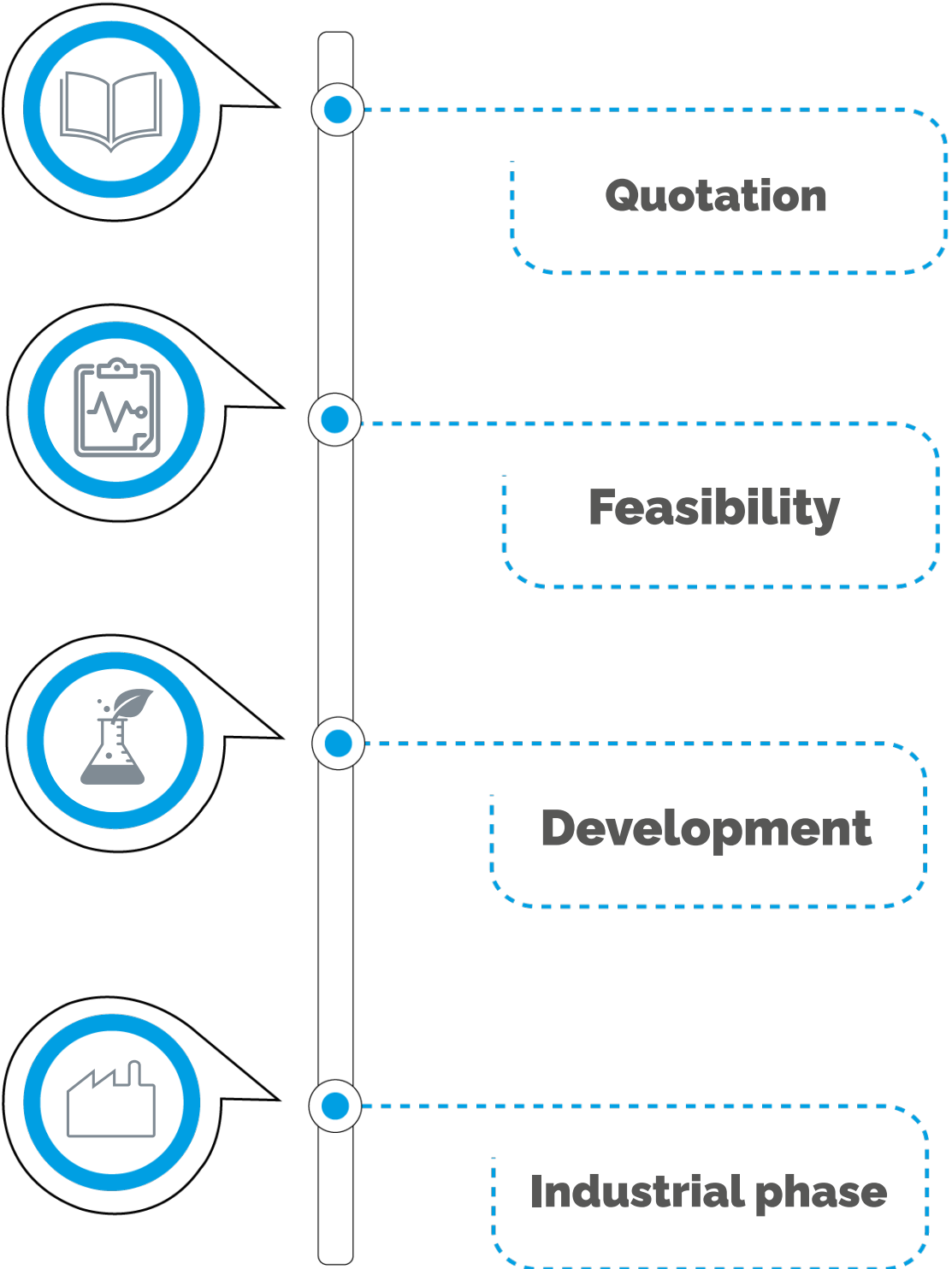
The low scale industrial phase is used when industrial samples are needed to test the product without large investments or when there are time constraints. In this phase, the same materials, specifications and technology are used as in the high industrial phase, which also meets the economic requirements of the project.

GVS's product development process is focused both on seizing opportunities from customers for customised solutions and on developing an independent product portfolio consistent with GVS's multi-year development plan.

In the area of proprietary products, GVS filed two invention patent applications in 2022: one for a valve used in healthcare systems and one for materials used in the production of green hydrogen, for the Energy & Mobility division.

To ensure the sustainability of its products, GVS pays attention to production technologies that use environmentally friendly materials and require intelligent use of energy. In this area, GVS has international collaborations with companies and research institutions, such as participation in European Community-funded consortia, for example for the development of environmentally-friendly polymeric membranes for use in energy-efficient filtration systems (Project Measured "Membrane scale-up for chemical industries")<sup>6</sup>.

The investment programme is part of the wider strategy of production and commercial growth of the GVS Group, which envisages significant expansion in the Bologna area and in other key areas at a global level.



9 research centers around the world

118 highly qualified employees

6% of revenues invested in Research and Development in 2022

<sup>6</sup> Call ORIZON - CL4-2022-RESILIENCE-01-14 (ID 1010918087).