

 **Federal Ministry**  
Republic of Austria  
Digital and  
Economic Affairs

  
**Christian Doppler**  
Forschungsgesellschaft

## Knowledge creates value

The decisive knowledge advantage: Christian Doppler Laboratories and Josef Ressel Centres facilitate innovation and lasting competitive advantages for your business.

Any company wishing to sustain its success over the long term must constantly invest in developing new products and processes. Companies in high-wage countries – like Austria – can only succeed in the global marketplace through technology leadership which is usually achieved and sustained through intensive R&D. With global competition, speed is crucial, and the key to this speed is combining and pooling knowledge, primarily through research collaborations with universities and universities of applied sciences.

These collaborations generate new knowledge and expertise. They identify unexpected technological options and facilitate the development of technology push innovations.

The Christian Doppler Research Association (CDG) offers the ideal support with its unique funding model for application-oriented basic research which sets out to solve specific research problems posed by companies. These topics are then subjected to intense scientific investigation by a focused research group, either at a Christian Doppler Laboratory in a university or non-university research institution, or at a Josef Ressel Centre in a university of applied sciences. In this collaborative system science and business work together on an equal footing, bringing benefits for both.

This approach leads to innovations which extend far beyond pure development activities.



# Knowledge creates value

## Research topics and thematic focus

The work at a Christian Doppler Laboratory or Josef Ressel Centre is undertaken by outstanding scientists and focuses on specific issues faced by a company. The quality of research is ensured by the CDG's proven evaluation model.

Within the research topic Christian Doppler Laboratories enjoy a certain degree of scientific freedom. In this way they contribute to scientific progress for the benefit of the company involved. The CDG actively generates knowledge with a long half-life and this creates the decisive knowledge advantage needed to establish a sustainable competitive lead in the global marketplace.

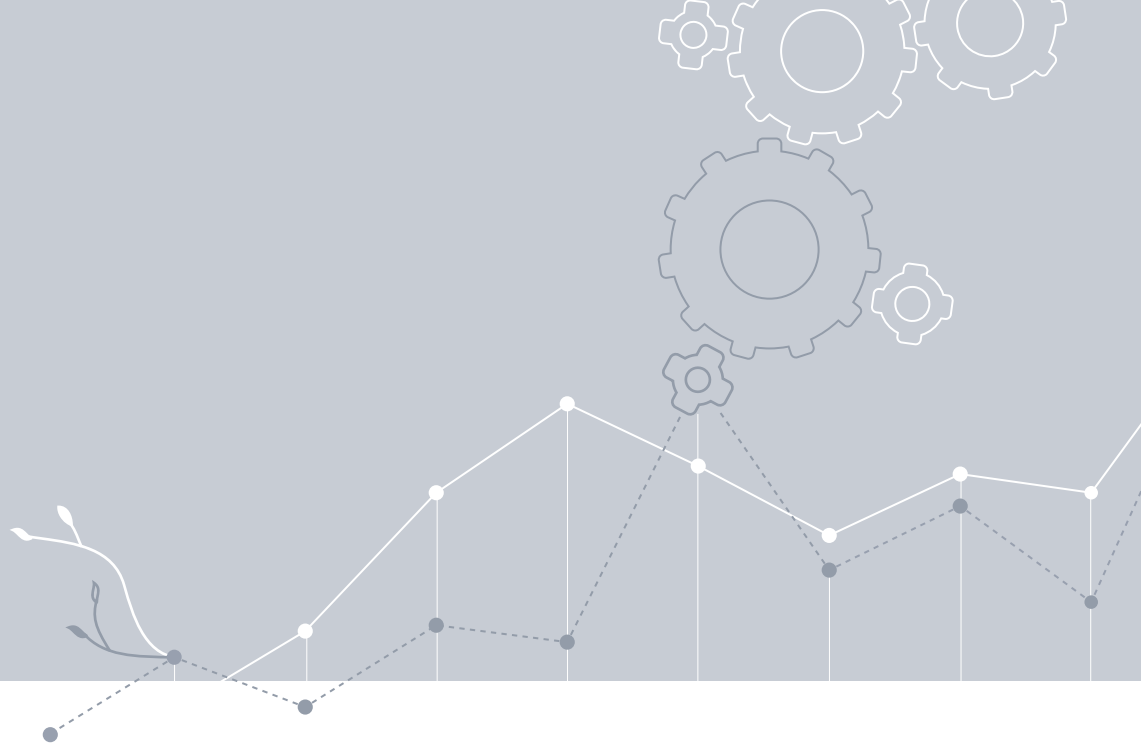
## Costs and legal commitment

The CDG research groups have an annual budget of up to 750.000 Euro. The public sector finances 50% of this sum, or up to 60% when SMEs are involved. The participating companies raise the rest of the budget by contributing membership fees to the CDG as corporate members. Contract research is not eligible for funding.

The CDG's funding programmes are based on the assumption that a company will actively participate throughout the collaboration, i. e. seven years in Christian Doppler Laboratories and five years in Josef Ressel Centres. It is also possible for a company to collaborate for a shorter period of time when justifiable. Collaborations may be terminated early with a nine month notice period.

*"Innovation leaders need basic research; basic research needs freedom and an appropriate scientific environment. Christian Doppler Laboratories are so valuable because they ensure both, while at the same time the company's often very complex research issues are in focus. The Christian Doppler Laboratories generate excellent scientific results which can be harnessed for further development and innovation within the company."*

**Dr. Franz Androsch**, Head of R&D at voestalpine AG  
and First Vice-President of the CDG



### Inventions and intellectual property

Inventions or patentable findings resulting from research at a Christian Doppler Laboratory or Josef Ressel Centre are assigned by the university or university of applied sciences exclusively to the company partner, provided that these results fall into the company's specific fields of business, i.e. those business fields which are relevant to the collaborative research work. Compensation for the inventors and patenting costs are borne by the company.

If inventions and patentable results do not correspond to the company's specific business fields, the company has the right of first refusal for such findings.

### Scientific publications

Collaboration with companies allows universities and universities of applied sciences to undertake long-term research into exciting issues of direct relevance to business. The Christian Doppler Laboratories and Josef Ressel Centres are embedded in these universities and universities of applied sciences, making them part of the scientific community. Throughout the entire duration of the research project they can work at the forefront of knowledge, drawing on the institute's expertise and research network. The scope for scientific freedom is particularly valuable in this context. The company's business interests are considered when publishing research results in scientific journals.

This ensures the quality of research, and the companies keep up-to-date with the latest scientific developments.

### Active participation by companies

The CDG is the only Austrian funding institution in which researching companies can play an active role. This is possible because of the CDG's structure as an association, where the companies are members and may also be represented in the executive board.

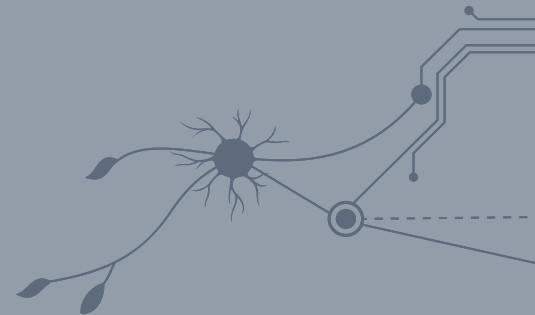
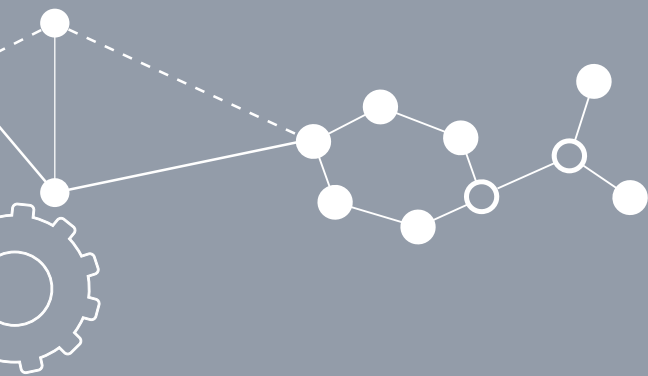
The CDG has a very lean structure because the research groups are directly embedded in the universities and universities of applied sciences, and no parallel structures are established. The CDG works in a flexible, straightforward and efficient manner, keeping overheads to a minimum.

*"The funding model applied by the Christian Doppler Research Association reflects the challenges faced by industry. Companies face international competition and need innovations based on research collaboration with universities. Through the Christian Doppler Laboratories and Josef Ressel Centres the CDG serves to bring industry and science together in a straightforward way and on an equal footing, while working in a highly flexible and efficient manner."*

Dr. Peter Prenninger, Research Coordinator at AVL List GmbH and Member of the CDG Executive Board

*"A Christian Doppler Laboratory enables us to tap directly into university-based expertise. The seven year duration facilitates sound research in our strategic fields. The high quality standards give us the assurance of research excellence. This allows us to generate a knowledge advantage and significantly accelerate our innovation processes."*

Dr. Darryl McConnell, Head of Research at Boehringer Ingelheim RCV GmbH & Co KG and Member of the CDG Scientific Board



## Key points of the funding programmes

	Christian Doppler Laboratories	Josef Ressel Centres
Focus	Application-oriented basic research	Application-oriented research
Host institution	Universities and non-university research institutions	Universities of applied sciences
Duration in case of positive evaluation results	7 years	5 years
Public financing	50% of eligible costs 60% for SME involvement	50% of eligible costs 60% for SME involvement
Private financing	50% of eligible costs 40% for SME involvement	50% of eligible costs 40% for SME involvement
Min. annual budget	EUR 140.000	EUR 90.000
Max. annual budget	EUR 750.000	EUR 430.000

## Company experiences

Companies profit in many different ways from their involvement with Christian Doppler Laboratories and Josef Ressel Centres including, in particular, the build-up of expertise, the identification of new technological options, and the strengthening of technological problem-solving abilities.

- 99% of company partners rated the research work undertaken at the Christian Doppler Laboratories as relevant in practice.
- 98% of the companies valued collaboration at the Christian Doppler Laboratory to be good or very good.
- For 61% of companies, "their" Christian Doppler Laboratory delivered the basis for product and process innovations, with a further 30% still expecting such innovations.
- In 73% of cases a CD Laboratory provides the basis for ongoing in-house research and development activities, and in 60% of cases follow-up projects are undertaken together with the university.
- The transfer of knowledge from CD Laboratories to companies works well: in 93% of cases employees' specialist knowledge was significantly increased overall or in some areas; in 83% of cases the technological level was raised.
- Companies also recruited highly qualified staff from CD Laboratories; on average 56% of former laboratory staff move to jobs in industry.