

## NON- TECHNICAL SUMMARY

Full title: **Innovation Cooperation and Innovation Activity; The impact on the case of Slovenian Enterprises**

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### Abstract

Innovation cooperation has been recognized as a determinant of enterprises' innovation activity, productivity, and growth. The increasing internationalization of innovation activity, growing innovation networks, customer co-creation and open innovation has recently made it the subject of intensive research. Still, most of companies conduct innovation inside the organization and focused on closely managed internal sources.

The article studies the importance of innovation cooperation for the innovation activity of the enterprises and examines what kind of innovation cooperation is the most "productive" for innovation activity. To examines the effects of innovation cooperation on innovation activity by the type and location of the partner involved in innovation cooperation the study differs between:

- internal (intra-firm) and external innovation cooperation
- national and international innovation cooperation (examining also the difference among cooperation in national scale, European area and rest of the world)
- inter-firm innovation cooperation and cooperation with non-commercial institutes and universities (public –private)
- particular types of partners involved in innovation cooperation (buyers, suppliers, competitors, commercial institutes, non-commercial institutes and universities).

The article is structured into five sections. Introduction is followed discussion about the reasons of proliferation and determinants of innovation activity in the third part. Section four highlights the results of empirical analysis and section four concludes.

The data set used combines three different firm-level data sources: Community Innovation Surveys conducted by Slovenian Statistical Office from 1996 to 2004 financial statements collected by Agency of the Republic of Slovenia for Public Legal Records and Related Services (AJPES) and information on FDI status (parent company or foreign affiliate) provided by Bank of Slovenia. The relevance of selected innovation determinants and the change in the probability to innovate due to innovation cooperation is tested by probit models.

Estimations confirm that external innovation cooperation significantly increases the chance for innovation and is one of the most important determinants. The size of R&D expenditures, R&D staff, previous innovation cooperation and outward investment are found as significant incentives for innovation activity. Significant influence is confirmed for both domestic and international innovation cooperation, though domestic cooperation currently brings slightly higher results. The efficiency varies also by type of partners; while intra-firm and inter-firm innovation cooperation significantly increases the probability of innovation (with buyers and suppliers as the most efficient partners in innovation cooperation), this was not found regarding cooperation with public institutions such as universities and R&D institutes.

Though the impact of innovation cooperation is significant the estimated magnitude of effects of particular types of innovation cooperation varies greatly. This indicates hurdles in innovation cooperation and offer chance for improvements innovation behavior. Problems accompanying innovation cooperation such as governance and leadership of partners, motivation and coordination of activities, protection of intellectual property and cost sharing may prevail over the benefits in volume and speed of merchandising the ideas. With careful selection of partners (with clients and suppliers left out innovation cooperation), international cooperation, but also internalization and direct presence abroad, innovation cooperation is one of the most reliable platforms for achieving innovation result. Countries and firms that lag behind in innovation activity should involve innovation cooperation and internationalization greater extend into their innovation behavior strategy.

**Key words:** innovation cooperation, innovation activity, foreign ownership, R&D, innovation partner, Slovenia.