

U.S.E. Research Institute
Working Paper Series 23-02

**Shades of a Socialist Legacy?
Innovation Activity in East and West Germany 1877-2014**

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February 2023

Abstract

The unification of the East and West German states in 1990 initiated the integration of two distinct innovation systems. In this process, the poorly functioning socialist system of East Germany adopted the formal institutions and organization of West Germany, a western-style market economy. We investigate the effect of this integration on patenting activity in the short, medium and long run by applying a difference-in-difference approach. The most important and remarkable finding is that the gap between East and West Germany widened considerably over time. This divergence in innovation activity suggests that current East-West differences may be indirectly rooted in this socialist legacy and the sudden shock transformation that occurred upon reunification. We also find that the similarity of the technology profile of the East and West German innovation systems is crucial to understand the divergence. So, East German innovation activity fell behind especially in technologies where both East and West Germany were specialized in before re-unification. The same applies to technologies where only West Germany was specialized in. Our findings indicate that integrating the two innovation systems mainly benefited the West.