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Share of cost reduction through process innovations, by sector groups and employment size classes<sup>12</sup>

|   |  | Share in % |      |      |      |      |
|---|--|------------|------|------|------|------|
|   | Economic activity/Employment size class  | 2019       | 2020 | 2021 | 2022 | 2023 |
| <b>B 05-09</b>  | <b>Mining and quarrying</b>  | 3.1        | 1.9  | 2.3  | 1.4  | 2.8  |
| <b>C 10-33</b>  | <b>Manufacturing</b>   | 3.1        | 3.0  | 3.2  | 3.8  | 2.7  |
| C 10-12   | Manufacture of food products, beverages and tobacco products   | 2.4        | 1.9  | 1.8  | 2.0  | 1.7  |
| C 13-15   | Manufacture of textiles, wearing apparel and of leather and related products   | 2.6        | 2.8  | 2.5  | 2.3  | 2.1  |
| C 16-18   | Manufacture of wood (except furniture), paper and paper products; printing and reproduction of recorded media  | 2.2        | 1.9  | 2.5  | 1.6  | 1.4  |
| C 19  | Manufacture of coke and refined petroleum products   | 4.0        | 4.3  | 4.0  | 3.6  | 3.3  |
| C 20  | Manufacture of chemicals and chemical products   | 2.5        | 2.9  | 2.7  | 2.4  | 2.1  |
| C 21  | Manufacture of basic pharmaceutical products and pharmaceutical preparations   | 4.5        | 3.6  | 3.5  | 5.6  | 2.8  |
| C 22  | Manufacture of rubber and plastic products   | 2.0        | 2.0  | 1.9  | 2.3  | 1.9  |
| C 23  | Manufacture of other non-metallic mineral products   | 1.6        | 2.2  | 2.8  | 3.0  | 1.3  |
| C 24  | Manufacture of basic metals  | 2.9        | 3.4  | 2.0  | 1.7  | 1.7  |
| C 25  | Manufacture of fabricated metal products, except machinery and equipment   | 1.9        | 2.0  | 1.5  | 1.5  | 2.1  |
| C 26  | Manufacture of computer, electronic and optical products   | 4.0        | 2.9  | 2.8  | 3.0  | 4.6  |
| C 27  | Manufacture of electrical equipment  | 2.7        | 3.4  | 3.7  | 3.9  | 3.0  |
| C 28  | Manufacture of machinery and equipment n.e.c.  | 3.1        | 3.2  | 3.7  | 2.7  | 2.5  |
| C 29  | Manufacture of motor vehicles, trailers and semi-trailers  | 3.9        | 3.8  | 5.1  | 7.6  | 3.6  |
| C 30  | Manufacture of other transport equipment   | 4.7        | 3.6  | 3.0  | 2.7  | 7.2  |
| C 31-32   | Manufacture of furniture; other manufacturing  | 5.4        | 3.1  | 1.9  | 1.9  | 2.4  |
| C 33  | Repair and installation of machinery and equipment   | 1.9        | 1.1  | 2.0  | 1.5  | 1.5  |
| <b>D 35, E 36-39</b>  | <b>Electricity, gas, steam and air conditioning supply; water supply; sewerage, waste management and remediation activities</b>  | 4.5        | 3.5  | 5.7  | 4.5  | 4.2  |
| D 35  | Electricity, gas, steam and air conditioning supply  | 4.9        | 3.9  | 6.1  | 4.8  | 4.6  |
| E 36-37   | Water collection, treatment and supply; sewerage   | 0.8        | 0.5  | 1.2  | 0.3  | 0.7  |
| E 38-39   | Waste collection, treatment and disposal activities; materials recovery; remediation activities and other waste management services  | 1.4        | 1.2  | 3.3  | 0.8  | 1.5  |
| <b>G 46; H 49-53; J 58-63; K 64-66; M 69/70.2, 71-74; N 78-82</b> | <b>Business-related services</b>   | 2.6        | 3.1  | 2.7  | 2.2  | 2.1  |
| G 46  | Wholesale trade (except of motor vehicles and motorcycles)   | 2.1        | 2.7  | 2.4  | 1.8  | 1.6  |
| H 49-53   | Transportation and storage   | 2.5        | 1.9  | 2.5  | 2.0  | 2.3  |
| J 58-60   | Publishing activities; motion picture, video and television programme production, sound recording and music publishing activities; programming and broadcasting activities | 2.0        | 1.9  | 1.8  | 1.1  | 1.8  |
| J 61-63   | Telecommunications; computer programming, consultancy and related activities; information service activities   | 4.2        | 4.5  | 4.5  | 3.6  | 2.2  |
| K 64-66   | Financial and insurance activities   | 3.4        | 4.5  | 3.4  | 2.8  | 2.9  |
| M 69/70.2   | Legal and accounting activities; management consultancy activities   | 2.1        | 2.9  | 2.4  | 2.7  | 1.8  |
| M 71-72   | Architectural and engineering activities; technical testing and analysis; scientific research and development  | 2.1        | 1.8  | 2.6  | 2.1  | 1.7  |
| M 73-74   | Advertising and market research; other professional, scientific and technical activities   | 1.1        | 1.4  | 1.6  | 2.6  | 2.0  |
| N 78-82   | Other business services  | 1.8        | 2.2  | 1.4  | 1.4  | 1.8  |

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**Share of cost reduction through process innovations, by sector groups and employment size classes<sup>1,2</sup>**

|   |          |     |  |            | Share in % |            |            |            |  |
|---|----------|-----|--|------------|------------|------------|------------|------------|--|
| Economic activity/Employment size class |          |     |  | 2019       | 2020       | 2021       | 2022       | 2023       |  |
| Enterprises with employees              |          |     |  |            |            |            |            |            |  |
| 5                                       | to       | 9   |  | 1.1        | 0.5        | 0.9        | 0.6        | 1.0        |  |
| 10                                      | to       | 19  |  | 0.6        | 0.6        | 0.7        | 0.6        | 0.9        |  |
| 20                                      | to       | 49  |  | 1.0        | 1.3        | 1.2        | 0.6        | 1.4        |  |
| 50                                      | to       | 99  |  | 1.6        | 1.5        | 3.1        | 1.4        | 1.5        |  |
| 100                                     | to       | 249 |  | 2.0        | 2.4        | 1.7        | 1.6        | 0.8        |  |
| <b>Subtotal</b>                         |          |     |  | 1.5        | 1.6        | 1.8        | 1.1        | 1.1        |  |
| 250                                     | to       | 499 |  | 2.7        | 1.8        | 2.8        | 2.0        | 1.8        |  |
| 500                                     | to       | 999 |  | 3.1        | 4.0        | 3.5        | 2.7        | 3.0        |  |
| 1,000                                   | and more |     |  | 4.2        | 4.3        | 4.5        | 4.9        | 3.7        |  |
| <b>Subtotal</b>                         |          |     |  | 3.8        | 3.8        | 4.1        | 4.1        | 3.3        |  |
| <b>Total</b>                            |          |     |  | <b>3.0</b> | <b>3.1</b> | <b>3.3</b> | <b>3.1</b> | <b>2.6</b> |  |

1 All data is extrapolated to the total population of companies with five or more employees in Germany.

2 Classification of Economic Activities - 2008 edition (based on NACE 2008 - Nomenclature statistique des activités économiques dans la Communauté européenne).

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Source: ZEW - Leibniz Centre for European Economic Research - Mannheim Innovation Panel, special evaluation

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<https://www.govdata.de/dl-de/by-2-0>