



Federal Ministry
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ECS contributions to the Green Deal objectives

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GreenICT: Motivation

- ICT: Problem or solution?
 - 3.7% of global CO2 in 2019
 - Energy use: +9% p.a. in 2015-20
- New Federal electronics research programme 2021-2024
 - Trustworthy electronics for technological sovereignty
 - GreenICT for climate protection



GreenICT: Measures

ECS contributions to GreenICT

- Edge computing: **hardware tailored to the use case** (e.g., energy efficient AI accelerators, zero-power sensor technology)
- Power electronics: smart **on-demand control of energy consumers** in ICT (e.g. power amplifiers in 5G base stations)
- Hardware/Software Co-Design: make the **ICT system** energy efficient

Two innovation competitions launched

- Energy-efficient AI hardware / Green ICT