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## Transformation in Policing - Challenges and Future Strategies

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Public security in the age of networked machines –  
risks to and potentials for police forces

Abstract

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# PUBLIC SECURITY IN THE AGE OF NETWORKED MACHINES – RISKS TO AND POTENTIALS FOR POLICE FORCES

Nowadays, the use of modern information technology is just as commonplace in criminal activities as it is for business and private purposes. As there does not seem to be a way around digital transformation for any of us, going digital at a large scale will be a must for the police. Digital transformation is a global process – and this creates a variety of dilemmas: In particular, the contradiction between global interaction and – when pushed to the extreme – local isolation. It does not only seem an insoluble challenge to set boundaries to the boundless use of technology – it does not seem to make much sense, either, especially against the background that international crime and terrorism do not halt at the boundaries between the German Länder or between Germany and other countries.

Nowadays, modern policing needs to be in line with new and also global technologies in a sustainable way: it must effectively use ever-growing data volumes and virtual realities, include machine communication in investigations, widely apply artificial intelligence and use automation in the fight against cybercrime – including the identification of perpetrators – to mention just a few examples.

No doubt, digital transformation affects all the segments of society:

- Today, no less than 3 in 4 internet users use at least one social network.
- 80 per cent of all apps and solutions are cloud-based developments.
- 70 per cent of all organizations in Germany use or evaluate cloud services.
- By 2019, more than 56 million people in Germany will use mobile terminal devices to access the internet.
- By 2020, digital content will grow to 40 zettabytes, i.e. 40,000,000,000,000,000,000 bytes (compared to 1.8 zettabytes in 2012).
- By 2020, the number of networked "things" and machines will also grow – to an estimated 25 billion.

These figures also make it clear that a large part of policing needs to move to the digital world. There is a potential for optimization in a variety of fields including

- The intelligent situation report
- Mobile command, control and operational equipment
- Communication between citizens & the police
- Automated forensics & analysis and evaluation of big data
- Digital investigation
- And a secure police service bus

It is a joint task for the security agencies and the IT industry to use the available and modern technologies to set up systems that increase security in Germany. But it is also their task to look ahead and point out technologically viable options, without, however, discussing the social, ethical and political impacts. It is imperative that these aspects then quickly undergo scrutiny by the experts in the respective fields.