In cooperation with other Fraunhofer institutes, Fraunhofer SIT maintains the Fraunhofer Competence Center for Public Key Infrastructures (CC-PKI – www.pki.fraunhofer.de). Under the leadership of the CC-PKI, a Public Key Infrastructure (PKI) was planned and established for the Fraunhofer-Gesellschaft. Since 2008 the Fraunhofer PKI is in operation, and has proven itself in a very heterogeneous and complex environment.

**Competences and experience**

In the highly secure Trust Center at SIT’s Birlinghoven location, Smartcards as medium for keys, certificates and employee IDs as well as PIN letters are produced for the Fraunhofer-Gesellschaft. Around 23,000 employees use these Smartcards for encryption, electronic signatures and authentication. The cards are optically personalized (photo), and can also serve as employee ID. Optionally, they can be equipped with RFID as well as magnetic strips, for example to allow recording of work time or for using payment systems. Further types of hardware token as well as soft token (software keys) complement the broad range of applications.

**What we can offer**

The valuable experience we have gained through conceptualization, development, deployment and operation of the Fraunhofer PKI is a solid basis for further PKI projects. Our experience also extends to such aspects as user friendliness (service desk), redundancy, revision security, and the development of various interfaces including web interfaces, online forms, etc. We offer comprehensive know-how and support for the definition of complex security concepts and processes, as well as for their implementation in production environment. We have experience with personalizing smartcards in highly secured rooms and networks, and can provide broad competence with regard to key escrow, registration authorities, setting up and operation of service desks as well as the development of customized software components.

**We can provide you with**

- Design and setup of a PKI
- Adjustment of an existing PKI
- Professional consultation and coaching on all PKI related issues: Does your business need a PKI? Which Trust Center architecture is best suited? etc.
- Development of an operational model under consideration of characteristics of digital certificates, use cases, policies, auditing acceptability, key escrow, service desk and support
- Selection of products and their technical and organizational integration
- Process design and optimization including:
  - Integration in existing processes (e.g. hiring/dismissal of employees, support) and
  - Use of available data sources (e.g. personnel management systems) as well as
  - Integration of existing or new enterprise applications
  - Development of additional components such as forms and web interfaces
  - Observance of usability issues
  - Preparation for audits