



Federal Office
for Migration
and Refugees

Digitisation Agenda 2022

Digital Initiatives in the Federal Office for Migration and Refugees

ENGLISCH



Informationstechnologie



Contents

Foreword	04
The Digitisation Agenda 2022	06
Digital initiatives - current success stories	09
Key digitisation projects at the BAMF	12
CIO of the BAMF, requested	24
Awards and international cooperation	26
Glossary	28
Imprint	31



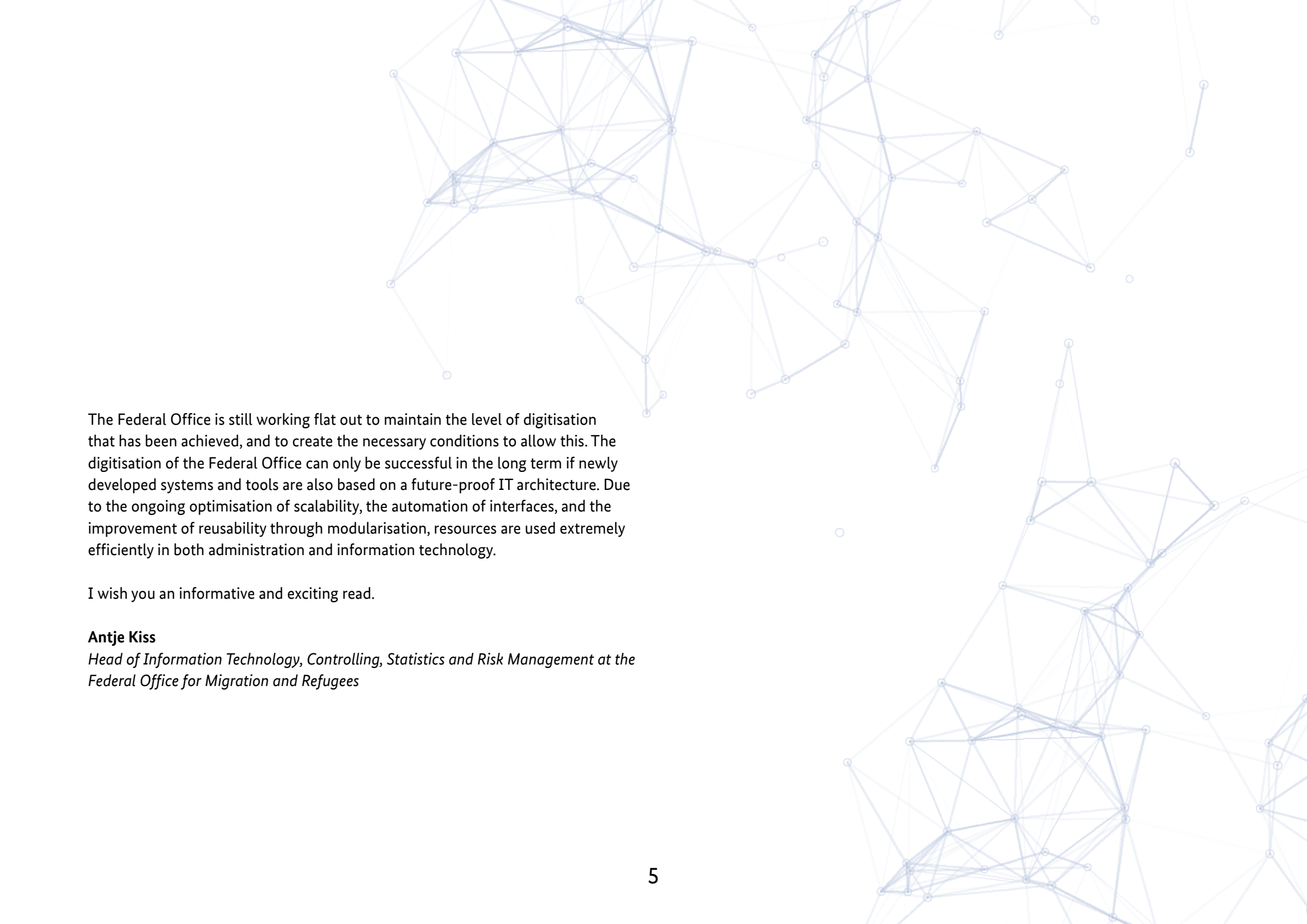
Foreword

Dear readers,

the Federal Office for Migration and Refugees (BAMF) has seen some turbulent times. We have grown from a federal authority with around 2,800 employees in 2015 to currently almost 7,900 employees as of the end of 2020. This development has of course also presented information technology with some major challenges, but it has also offered some enormous opportunities. With the Digitisation Agenda we have been able to set ourselves the goal of becoming an agile and modern agency.

The consistent application of information technology should make all dealings not only more efficient, but also more flexible. The BAMF has set out to take on a pioneering role in public administration by integrating new technologies and to share the knowledge gained with other agencies and interested institutions. Modern and agile working methods as well as software development methods are now also a reality in our agency.

Many initiatives in the 2020 Digitisation Agenda have already been successfully completed and put into line operation. Several projects have even been awarded prizes (e.g. eGovernment competition). This illustrates to us that we are on the right track.



The Federal Office is still working flat out to maintain the level of digitisation that has been achieved, and to create the necessary conditions to allow this. The digitisation of the Federal Office can only be successful in the long term if newly developed systems and tools are also based on a future-proof IT architecture. Due to the ongoing optimisation of scalability, the automation of interfaces, and the improvement of reusability through modularisation, resources are used extremely efficiently in both administration and information technology.

I wish you an informative and exciting read.

Antje Kiss

Head of Information Technology, Controlling, Statistics and Risk Management at the Federal Office for Migration and Refugees

The Digitisation Agenda 2022

Origin and Purpose

Due to rapidly changing circumstances (increasing case processing numbers, increasing number of employees), the Federal Office for Migration and Refugees (BAMF) has set itself the goal of strategically realigning many information technology processes with the Digitisation Agenda 2022. Such a strategy can never be regarded as completed, especially in view of constant changes in the field of digitisation. Instead, it requires constant evaluation as to whether the intended and implemented actions serve to continue achieving the goal of ensuring a robust and scalable IT. The BAMF is therefore continuing the strategic goals of its IT beyond 2020, taking stock of what has already been achieved.

What successes have been achieved up until 2020?

By stabilising and modernising the IT infrastructure, system downtimes have been reduced to almost zero since 2018. Access to integration and language courses has been significantly improved by creating digital connections to the institutions involved. This means that there is always transparency regarding the current course offerings. Furthermore, the new technologies such as artificial intelligence and blockchain are being tested in line with the implementation strategy of the federal government to shape digital change for the purposes of optimising internal processes. As a consequence of this, the Competence Centre for Technical Analysis (*Kompetenzzentrum Fachanalytik*) has been established, which supports the departments with methods from applied artificial intelligence in order to derive knowledge and enable data-supported decisions. Agile working methods were successfully introduced into the overall organisation, which (depending on project

requirements) may or may not be used regularly. In addition, the BAMF relies on a service-oriented IT infrastructure and microservices.

Challenges in implementing new digitisation initiatives

It turns out that increasing digitisation has always come with a change in culture. For this, change must be implemented not only externally in relation to the agencies concerned, but also internally. This is because an important factor underlying the success of digitisation is user acceptance. This also means that ongoing IT projects and measures must be communicated transparently within the agency. Events are held regularly to report on current IT projects. An IT laboratory was also set up to make our project work tangible for employees outside the IT area.

Furthermore, the path to an agile and modern agency is shaped by the fact that with an increasing degree of digitisation, the digitisation pressure within the organisation also increases due to external influences. As a result, IT is also facing increasing expectations and demands.





Digitisation affects all areas of the BAMF as well as interfacing with other authorities/agencies.

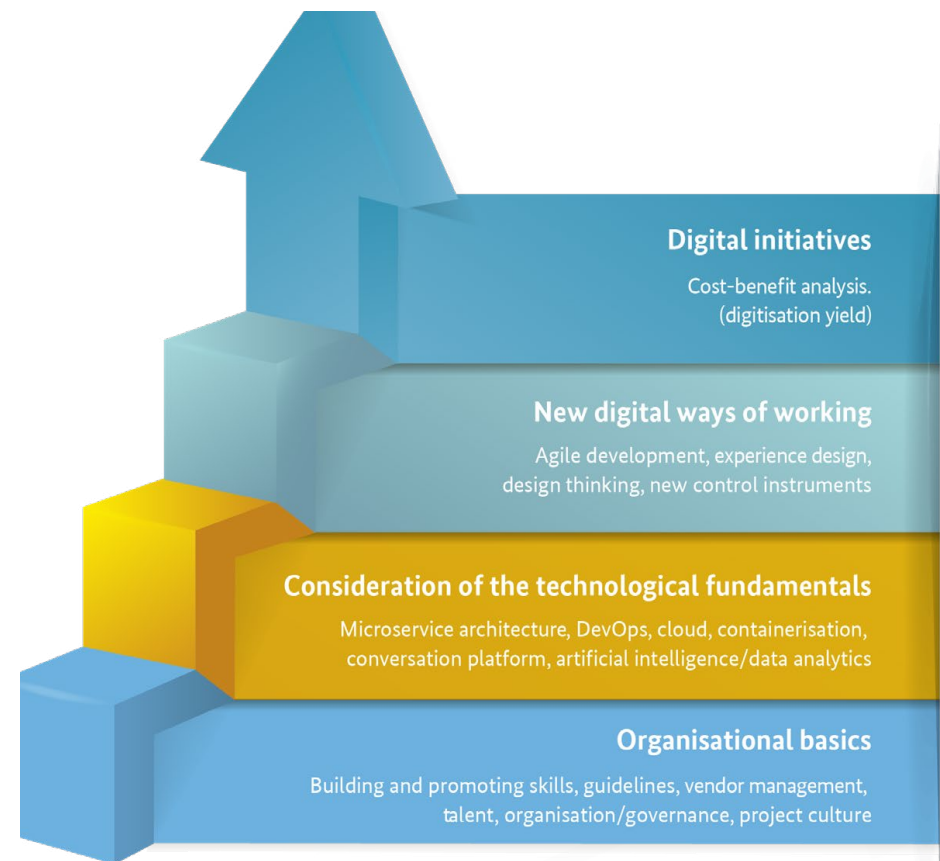
Digitisation includes ...

- 1 ... all current areas of activity of the BAMF
- 2 ... Contact points for asylum seekers/citizens
- 3 ... overarching organisation as well as overarching processes of the authority
- 4 ... current and new interfaces with other authorities at a national and an international level

How the Federal Office will proceed

In the future, the BAMF will identify further processes that can be digitalised so that decision-making processes can be systematically supported. The implementation of the Digitisation Agenda allows the Federal Office to perform its statutory tasks in a crisis-proof manner, even when faced with constantly shifting influential factors. For this purpose, the Federal Office will continue to test new technologies and, if they prove successful, transfer them to standard processes. Here, of course, strict criteria need to be applied for data protection and IT security.

End-to-end digitisation is a multi-faceted task: In addition to the purely technical requirements for digitisation, the technological and organisational preconditions need to be created. For this reason, the BAMF has divided its Digitisation Agenda 2022 into four different levels, each of which build on each other.



Digitisation consists of four levels, with organisational principles being its foundation.

Digital initiatives - current success stories

Productive

- 1 Further development of the Migration-Asylum Reintegration System (MARiS)
- 2 Further development of the integration business file (InGe)
- 3 Integration business file (InGe) online TGS (basic security provider)
- 4 Integrated identity management (IDM)
- 5 Middleware
- 7 Special electronic authorities mailbox (beBPo) formerly electronic court and administration mailbox (EGVP)
- 12 Quality assurance application for the asylum procedure (FA Qs)
- 13 Interpreter management at the Federal Office (BABS)

Under development

- 6 Blockchain piloting
- 8 Digital file management (DigA)
- 9 Secure external communication (GeKo)
- 10 Centralised inbound mail (ZPE)
- 11 Vocational German language promotion (BerD)
- 14 Interfaces with international public authorities
- 15 Cloud

Information on the digital initiatives can be found here:



The portfolio of initiatives

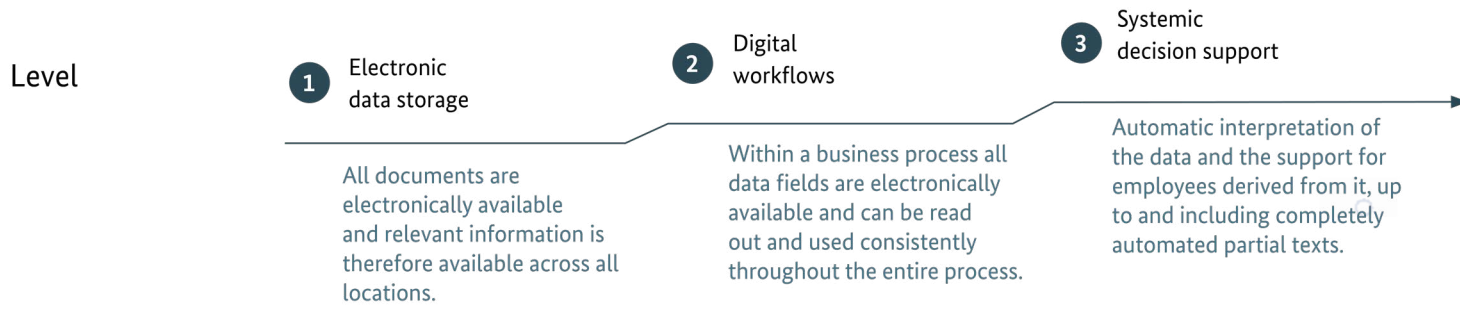
On December 31, 2020, the portfolio of initiatives consisted of 136 different plans, projects and processes. Larger initiatives such as InGe or MARiS consist of different, smaller projects that mutually build on one another. In addition, various smaller IT projects exist that were implemented alongside the Digitisation Agenda.




Since the first edition of the Digitisation Agenda in October 2016, the BAMF has steadily expanded its portfolio of initiatives to achieve its vision of the “digital, breathing authority”. In the 2016 portfolio, the focus was on coping with the high number of applications by stabilising and modernising the IT systems. The focus now is on the end-to-end digitisation of document services, i.e. supporting the employees of the Federal Office in managing, processing and sending documents.

The digitisation initiatives in the Federal Office's portfolio are divided into three levels of maturity. The initiatives of maturity level 1 meet the technical requirements for digitisation through electronic data storage. The aim of these initiatives is to electronically publish and transmit documents. Building on this, processes of maturity level 2 are digitalised end-to-end in the BAMF. This creates digital workflows that reduce manual entries by employees, thereby shortening processing times and increasing processing quality. Using such fully digitalised processes, initiatives of maturity level 3 (systemic decision support) can then be implemented. In addition, digital technologies such as data analytics or artificial intelligence are used to provide targeted support to employees for processing and decision making.

Information on the digital initiatives can be found here:





Goal	 Paperless authority	 Digital end-to-end processes	 IT-supported decisions
Example	Scanned name certificate	Access to and use of individual data fields	Automatic plausibility check of the name spelling
Chronological outlook	Already completed	Ongoing	Ongoing

The digitisation initiatives are subdivided into three maturity levels

Key digitisation projects at the BAMF

The BAMF has set itself an ambitious programme with the Digitisation Agenda. To be able to conclude the many key projects that are part of this programme promptly, the Federal Office is also breaking new ground in terms of implementation. On the one hand, it is the first German authority to use an IT laboratory to use structured agile development methods in software development with which it is driving digital change by networking with agencies, business and science. On the other, it is also relying on cross-agency and cross-hierarchical cooperation through new innovative technologies such as the blockchain. A uniform definition of data quality and a clear standardisation of data at the federal, state and local levels are forming the basis for a comprehensive digitisation of the federal administration.

The way to a unified, digital and automated data quality - interfaces and cross-agency data

Civil society not only expects an agency to have advanced digitally, but also that various agencies are able to network with one another. Data is mutually digitally processed, evaluated and exchanged across all agencies. In the future, this type of digital communication will be used across the board. For this it is crucial that data quality be safeguarded: The data must be valid, up-to-date and standardised.

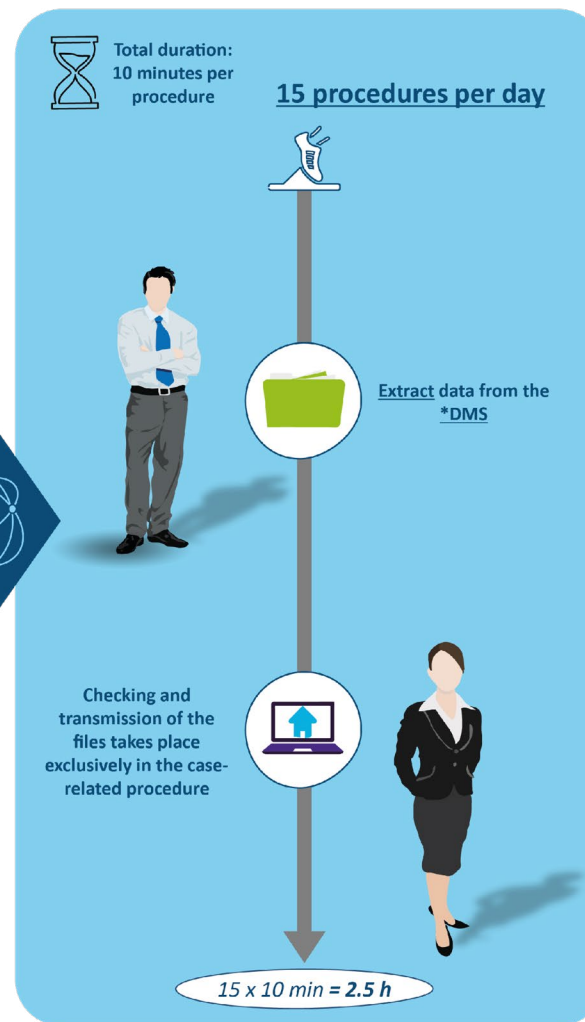
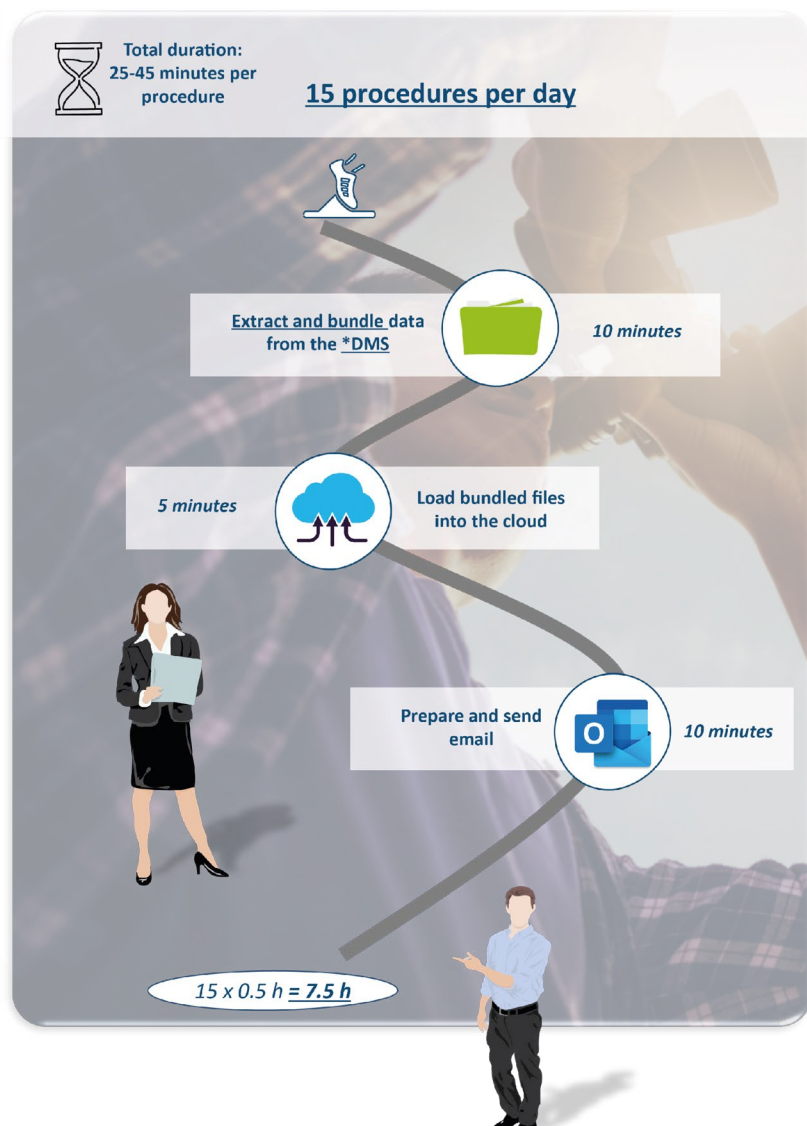
This requires complex interfaces. On this basis, the Central Immigrant Registry (*Ausländerzentralregister*, AZR) for instance has been further developed into the leading and centralised immigration file system for all case-related procedures conducted under immigration law. The relevant data is only collected once, stored in the AZR, and transferred from there to the case-related procedures.

XAusländer-Asylum: a building block

With the introduction of the XAusländer-Asylum standard at the end of 2019, the direct and immediate exchange of data between federal, state and municipal systems was enabled. The electronic communication of the BAMF with the municipal immigration authorities, central immigration authorities and reception facilities has succeeded in standardising, digitalising and automating the exchange of data during the asylum procedure. This has been done via the direct exchange of electronic messages, e.g. for the application process, the provision of the decision, or the final notification. The BAMF application MARiS communicates directly with the applications of the municipalities and the federal states without any media disruptions. A standardised message contains clearly defined data that is securely transmitted. The message "Person", for example, contains the data first name, last name and place of residence. As the next graphic shows, optimisation of the processes saves a considerable amount of time.



Processing time of the file request



*Document Management System

Time savings at an immigration authority resulting from use of XAusländer-Asylum

IT architecture

There can be no modern IT landscape without any architectural management. Just as the architects coordinate function, form and style when building houses or gardens, the software must be coordinated in an IT landscape. IT architecture management is therefore a central component of the BAMF's IT strategy.

The IT architecture management sets the framework for the digitisation and future orientation of IT using the following architectural and design principles:

- Compliance with architectural and documentation guidelines
- Security by design
- Consistent digitisation
- User-friendly applicability
- Communication without media discontinuity
- Globally valid data structures
- Consistent data security
- Scalability
- An architecture promoting agility
- Re-usability and homogeneity
- Modularisation and loose coupling
- Platform-as-a-service and software-as-a-service
- Interoperability
- Control of technical diversity

The principles are derived from the BAMF's IT goals and are based on the federal government's strategic IT and architectural specifications. Among other things, they are compatible with the key focal points of Dr. Markus Richter (CIO of the Alliance, the State Secretary at the Federal Ministry of the Interior, Building and Community) which will be included in the "9-point plan for a digital Germany" (modernisation of administration, expansion of digital administrative services within the framework of the online access law, promotion of digital competence in administration etc.). The vision always includes a modern and agile IT landscape that can react quickly to the required changes in tasks and processes, and which at

the same time adapts promising technical innovations and makes them usable for the respective target group.

With the help of these principles, IT architecture management supports, advises and accompanies the BAMF-internal as well as the cross-agency IT projects with the design and implementation of IT solutions. This is done, among other things, by assisting with the integration of technical requirements into technical concepts and reviews of the developed (software) architectures and program codes.

Introduction of a repository for Master Data Management in the BAMF

The digitisation goals of the BAMF should also be supported by a professional master data management system. Due to the numerous interfaces between the IT systems within the BAMF and between the BAMF and external partners, it is no longer sufficient to define master data for each specialist application. In addition, there is a need for uniform maintenance and usage across all case-related applications.

In the case of interfaces with immigration authorities, for example, in accordance with Section 76a of the Residence Ordinance, the data transmission standard XAusländer and the transmission protocol OSCI Transport are even required by law for communication involving immigration issues. These standards form an important basis for the further development, modelling and documentation of data standardisation in the immigration system and for data quality management at the BAMF.

However, many of the data structural information and value lists used in the BAMF have not yet been standardised and semantically described. This means that they are not applied uniformly within the BAMF. For this reason, a centralised and agency-internal data structural and master data administration was introduced. The BAMF's own repository "Salvador" is based on the global XRepository, which is available for the provision and procurement of all XÖV-compliant standards and values lists in the area of eGovernment. Salvador manages all master data and values lists in the BAMF and makes them available for centralised and coordinated use.

This ensures that in the communication between the specialist applications of the BAMF "the same thing is always said if the same thing is meant" and that this also applies to future changes, e.g. it will function in the event of changes in the law, EU accessions, territorial reforms or the inclusion of additional genders.

IT test management

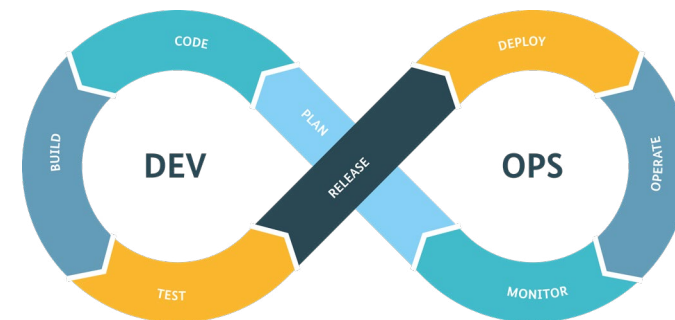
How we can get faster through a consistent focus on software quality - a future report on experiences.

Nuremberg, March 1st, 2022

"After just a few weeks of development, the product owner - a technically experienced colleague who has already worked as a decision maker in asylum procedures - implements the new software version productively at the push of a button. Initially, the improvements will only be visible to some of the branch offices. If such users are satisfied, the changes become available to everyone. Should there be problems, these are prioritised by the team and resolved in a collaborative effort. Otherwise, the team will continue to work through its list of the most important technical requirements. When deciding to approve the product, the product owner uses the knowledge that she has recently gained from discussions with her team-mates. In addition, all test

results are available to the product owner at the push of a button, and as detailed as is needed. The team registers the approval with satisfaction and goes back to its work. Experience has shown that this is most effective when requirements are illustrated with concrete examples. The fact that it is structured and that no case is forgotten can be attributed to a jointly formulated test procedure that fulfils requirements across all test levels. In order to be in the picture as quickly as possible regarding the quality achieved, automated tests run with every amendment. A requirement is only considered completed when test scenarios from practice have proven that the system is stable, accessible, secure and high-performance.

Although everyone in the team is quality committed, they are always happy to have a QA specialist on the team. This person can always be asked, and will actively share their knowledge. The most important thing, however, is to permanently share the experience gained, both of a technical and methodological nature, in our communities of practice and to make code and infrastructure improvements available to all interested parties. Because it's rewarding and just a joy!"



DevOps represents the cultural, technical and organisational connection between development, delivery and service. Continuous feedback through testing is both a navigator and a driver in one.

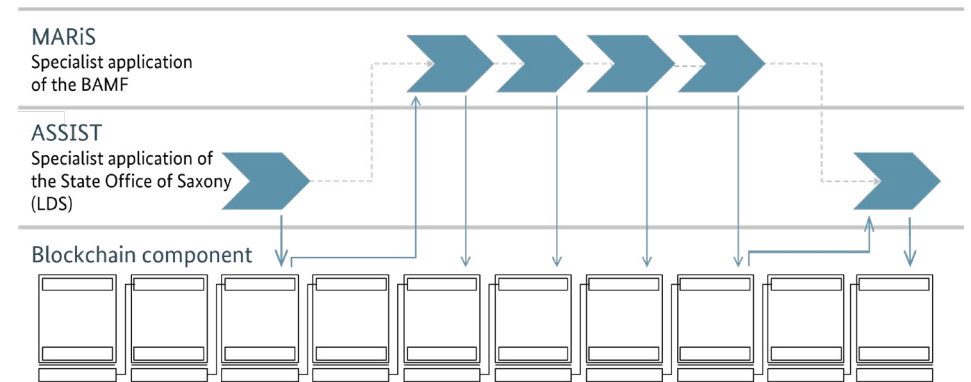
Blockchain: Cross-agency communication and cooperation

In line with the federal government's digitisation strategy, the BAMF is also relying on blockchain technology as part of its comprehensive Digitisation Agenda to support cross-agency communication and cooperation in the asylum process. The essential concept of blockchain technology is to manage the data to be stored through a subscriber network in place of a central location. In addition, new blockchain technologies allow parts of the cross-agency process management to be supported automatically, to the extent that this is permissible and deemed rational by all those involved. Blockchain is the best-known form of distributed ledger technology to date.

Detailed description of the blockchain

Building on the experience from a successful proof of concept and the subsequent design of a pilot solution, since May 2020 it has been evaluated how - using blockchain technology - support can be provided to communication and cooperation between the State Office of Saxony (LDS) in its role as the Central Immigration Agency of Saxony (ZAB) and the BAMF branch office Dresden in the form of the AnKER facility in Dresden.

As part of the pilot project, a blockchain solution is being developed which is intended to help optimise the application areas of “registration, filing and hearing”, “decision-making and enforcement” and “placement and assignment to the community”. The previous communication between agencies in these closely interlinked process steps has sometimes been very complex and afflicted with many media disruptions. Using the blockchain technology solution in the AnKER facility in Dresden, information required about changes in status of individual asylum procedures during the asylum process can be securely and immediately shared with the respective partner agency (ZAB Saxony or BAMF Dresden) so that they can immediately receive the relevant information and initiate the following



Schematic representation of the interaction between the agency's own specialist applications and the blockchain: The completion of the procedural steps is processed in the specialist applications before this status is written to the blockchain from where it can be recalled.

steps. As one example, an additional warning mechanism for repatriation measures will be created. In addition, in a further area of application, a prompt allocation to municipalities and districts and thus an early integration of individuals with good prospects for remaining is to be supported.

As part of the pilot project, some important milestones for using blockchain in the federal administration have already been achieved. As one example, a data protection compliant architecture has been developed. In addition, the feedback from employees during the first user tests proved to be extremely positive. *“The first experiences with the assistance system for asylum procedures in the AnKER facility in Dresden were highly satisfactory. I am convinced that the system will make things much easier for us and help us to make our planning and coordination processes even more effective when it goes into deployment”*, praised one employee.

Experience so far in the pilot project has shown that blockchain is more than just a technology; and is much more a collaboration concept. In this way, everyone involved has been able to contribute their perspective and produce a common solution. The manager of the BAMF branch in Dresden, Franziska Köhler, stated: *"This blockchain piloting project is definitely more than just a pure IT project. It provides the opportunity to further improve overall cooperation within the AnkER facility. Even the design and development of the blockchain-based assistance system have promoted a shared sense of responsibility when implementing asylum procedures in Dresden. It is expected that the application after the pilot start will promote mutual responsibility for the procedures implemented in the AnkER facility in Dresden."*

The pilot project is forming an important leading light, as it is developing both a concrete blockchain solution as well as a range of transferable solution concepts. These concepts can serve as a reference framework for using blockchain technology within agencies. The BAMF is therefore fulfilling its pioneering role in the implementation of blockchain technology in the federal administration.



Information about blockchain technology can be found here:

Support of cross-agency communication and collaboration through blockchain



What is a blockchain?

A blockchain is a network of decentralised databases in which data is stored chronologically as transactions in encrypted interlinked data blocks. You can think of a blockchain as a notebook, to which all parties involved in the process have access and insight in real time according to an authorisation concept, and to which parties can write consistently with this authorisation, but without being able to amend anything unnoticed. In practical use, a blockchain solution (in addition to a number of additional components) consists of a system of individual blockchains where relevant responsibilities and functionalities are depicted.

Cloud

On the way to becoming a digital authority, the BAMF has defined a clear target image for its IT landscape. This is based on and follows the platform approach, which among other things makes the development of various software applications considerably more flexible and simple. At the BAMF there is a wide range of subject-specific tasks that require particular data formats and, in some cases, a connection to external partners. The starting scenario is constantly changing and therefore requires a widely based IT support. With the development of a future-proof platform, the BAMF should have a solution that meets the constantly changing requirements.



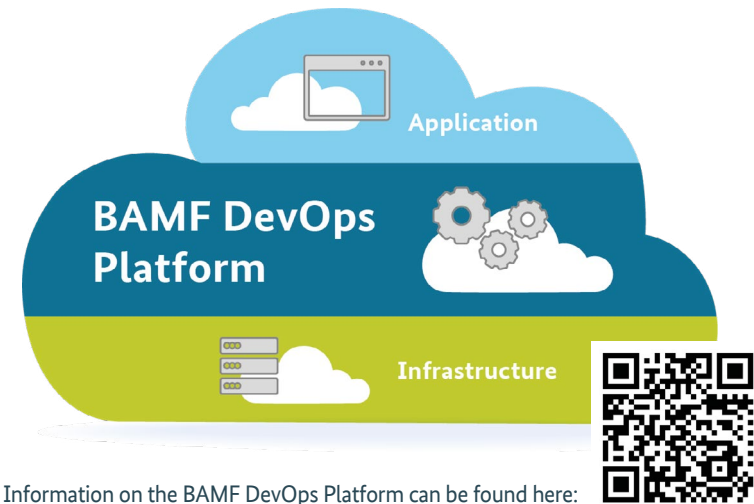
BAMF DevOps Platform Partner for demand-oriented and future-proof IT applications

Automation of IT infrastructure processes - supported by methods and tools such as software build and deployment pipelines - increases the efficiency of application development and ensures a high level of transparency when operating. The implementation of this target scenario is carried out in partnership with the provision of the IT infrastructure by the ITZBund.

Julian Detzel, Head of the Unit for Platform Services, explains the Federal Office's innovative cloud approaches: *"In the future, a private cloud infrastructure will make resources such as storage space, computing power or supporting software components available as a service via a protected network,"* he explains. *"In this way, IT can react quickly and appropriately to load peaks and additional requirements, with the most extensive automation of the infrastructure management scaling up or down the necessary capacities and thus dynamically adapting to the load scenario."*

By integrating additional cloud services from other organisations, the potential of a private cloud solution shall develop towards a hybrid cloud approach in the future. A hybrid cloud is characterised by both operating cloud services itself (so-called "private cloud services" based on the infrastructure operated by the ITZBund) and by integrating cloud services from various external providers (so-called "public cloud services"). In this way one can get the best of "both worlds". One of the strengths of the hybrid cloud is the ability to build up failure safety and to select the functions and capabilities of the service provider that best cater for requirements so that the dependency on individual service providers is minimised. However, this also increases the complexity and the challenge of standardised linking, semantics and data processing.

The introduction of platform solutions in the Federal Office and the flexible use of private and public cloud services has resulted in considerable advantages for the BAMF. IT can respond even better to the specific needs of our IT projects and processes, and react more quickly to any new requirements. This enables efficient development approaches such as DevOps, and further promotes established methods of agile software development (e.g. scrum). All in all, it shall become possible to act, adjust and control flexibly and scalably at any time with fluctuating loads (such as with increasing numbers of applicants). With the approach of a future-oriented hybrid cloud platform solution, the BAMF is playing a pioneering role in the use of cloud technologies in public administration in Germany.



The BAMF DevOps Platform provides a stable and readily available basis for automated application provision.

What are cloud services?

Cloud services are now ubiquitous: when shopping online, or when searching and booking hotels and the like, but especially in the world of work. Cloud services are those services that can be obtained with a high degree of standardisation and automation, and usually as a self-service - i.e. no manual steps are necessary for them to be provided. Where software development projects previously had to provide web servers or databases themselves, these services can now be obtained in a standardised form via the cloud platform. This ensures not only a shorter uptime, but also a significantly higher degree of uniformity (and thus maintainability and security) across different projects. For specialist projects and ultimately end users, the uptime for new features is shortened and the stability and performance of the specialist applications used increases. The Federal Office for Migration and Refugees also uses a private cloud platform for these and other purposes.



Management information system (FIS) - business intelligence in use by authorities

Increasing agility leads to an increased need for current and control-relevant information, which is bundled in a central location and can be accessed at any time. The Federal Office's Management Information System (*Führungsinformationssystem*, FIS) does all of this and therefore represents an innovative pioneer for the use of business intelligence in a public institution. It currently offers users at the BAMF a uniform platform that provides all the important data "just-in-time" from the operational case-related procedures. This digitalised reporting enables the permanent analysis of the procedures to determine key objectives. Within the context of consistent data management, all relevant data from the operational systems are processed in the BAMF's own data warehouse. The data is then made available to users on various end devices in the form of user-friendly, dynamic dashboards and reports. In order to provide direct support for day-to-day operations, the management information system in particular provides managers in the operational area with various reports and dashboards that are tailored to their needs.

For interactive processing, the views provided in the FIS can also be individually adapted using filter functions. The views are updated within just a few seconds. A total of ten dashboards and seven reports are available for individual analyses.

The range of information is constantly being expanded through the addition of new content.

When implementing FIS, modern agile software development techniques were consciously resorted to. In addition to the appropriate hardware, this has enabled high-quality processing and the provision of very large amounts of data. In addition, FIS is subject to a process of continuous improvement. A comprehensive role and rights concept was developed to protect the aggregated data provided by FIS. This regulates who can access which data and for whom.

FIS therefore represents several aspects of the modernisation and digitisation of public organisations and, not least for this reason, was awarded a prize in the "Best Modernisation Project" category at the 2020 eGovernment competition.

What does the management information system offer?

FIS offers managers a central location to find out about control-relevant parameters using dynamic dashboards and reports. By bundling the data from the operational case-related procedures, FIS becomes a uniform platform. The digital reporting enables both a permanent analysis of procedures in the entire organisation as well as an increase in the efficiency of the provision. In addition to graphic displays, customisable elements support the management process in a user-friendly form.

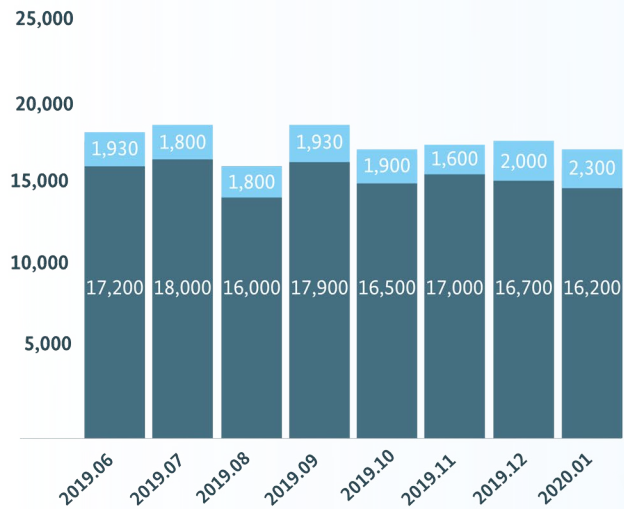


Data at a glance

Data status* January 12th, 2020

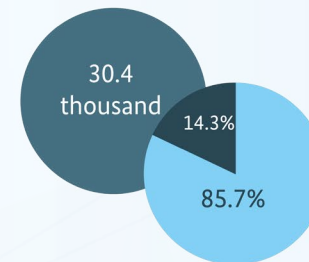
Applications (monthly view)

■ Initial application ■ Follow-up application

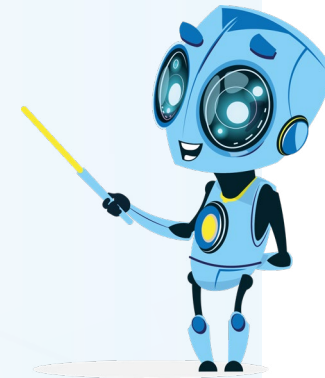


Decisions (running tote for the year)

Total number of proceedings decided



■ Single-year procedures
■ Multi-year procedures



Dashboard view FIS

* For reasons of data protection, the figures are fictitious.

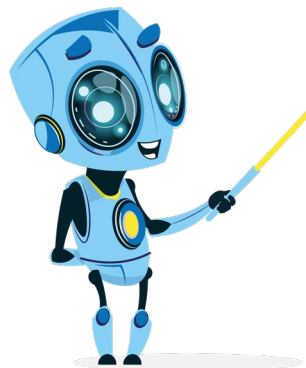
Creative Information Technology Center: a catalyst for digital change

IT laboratories are catalysts of digital transformation. They provide a space where the latest digital trends can be experienced, and at the same time serve as think tanks for testing new technologies and methods. The Federal Office was also one of the first German authorities to open an IT laboratory in Nuremberg in 2017. In several IT projects, it was demonstrated quite impressively how an open and creative work environment ensures that administrative processes can be successfully implemented jointly by professionals and IT development.

With the Creative Information Technology Center (CIC) in Berlin, the BAMF has now continued on its path. With an open and creative working environment, the CIC creates space for creative forms of collaboration. The Federal Office networks with innovative start-ups, established companies in the industry, other agencies and universities. This creates added value for the entire federal administration. The focus of its daily work is primarily on the topic of multi-cloud.

“What has been set up here in Berlin - from the idea to the implementation, the spatial design to the content conception - is unparalleled in the federal administration. I am very proud of that. With the CIC, we will not only intensify cross-agency cooperation, but we will also promote networking with business and science.” states Dr. Markus Richter, today's CIO of the Alliance, the State Secretary at the Federal Ministry of the Interior, Building and Community.

You can explore the CIC in Berlin in a 3D tour here:



Opening of the CIC in Berlin, (left to right) Klaus Vitt (former CIO of the Alliance), Antje Kiss (CIO of the BAMF), Kausik Munsu (CTO of the BAMF)

What makes the Creative Information Technology Center stand out?

The CIC is an IT innovation hub of the Federal Office in the IT hotspot of Berlin. In an open and innovative environment, the CIC creates space for creative forms of cooperation between administration, business, science and civil society. Novel IT technologies are mutually designed, developed and tested out there. Cooperation and innovation are intended to create added value for the entire federal administration.

The office of the agency network NExT is also represented there (network: Experten Digitale Transformation der Verwaltung e. V.). NExT connects employees from various administrative organisations at the federal level and enables an exchange across agencies and hierarchies. It arose from the idea of sharing the experience gained with the Federal Office's IT laboratory, which was created in 2017, with other agencies and public institutions and to gain further knowledge and insights about digital change. The network of innovation drivers establishes a service from administration for administration.

With the CIC, the Federal Office is actively and creatively promoting digitisation. The agency is therefore an attractive career target for urgently required junior staff from within the IT sector. With the planned innovative events in the CIC, e.g. its hackathons, the Federal Office is also consciously breaking new ground in recruitment. Internal specialists have the opportunity to exchange ideas with external expertise and to build up their know-how. The Berlin location was also deliberately chosen so that networking could take place with key players on the IT scene, and benefits could be gleaned from their knowledge. In order to promote exchange, innovative events are held on various digitisation topics every month.



Opening speech CIC, Dr. Markus Richter, today's CIO of the Alliance, State Secretary at the Federal Ministry of the Interior, Building and Community.



CIO of the BAMF, being questioned

Antje Kiss took over the IT department at the Federal Office for Migration and Refugees in September 2018. She is responsible for information technology, controlling, statistics and risk management throughout the department. We asked Antje Kiss about “Female TOP CIOs in IT”, and focussed on the particular challenges in this role.

What motivates you in your work?

The shaping of digital change in the BAMF as a competence centre for migration and integration in Germany is an exciting and varied task. My main focus is on creating foundation stones for organisational and human resources. The digital transformation will only be successful if circumstances allow a high level of employee engagement. Only with such a commitment can the Federal Office continue being successful in its quest to become a “digitally breathing agency”.

What are the special challenges in your position as a female top CIO?

Women in IT management positions are now very well accepted. One of their strengths is certainly their network thinking and the highly networked collaboration between female executives. However, gender roles are no longer as clearly lopsided as they may have been during the last few decades. In the Federal Office, too, more and more women are breaking into the IT area. The BAMF currently has [status: December 2020] over 357 full-time employees in IT, of which 42.3% are women.

As a CIO, I focus not only on professional skills but also on values such as empathy, reliability and creativity.

What do you particularly like within your area of responsibility?

I’m happy being responsible for the IT department, which was one of the first federal German agencies to structurally develop a digital agenda. The challenge is to set up the IT in such a way that it continuously drives the digitisation of the agency. As the IT department, we are no longer just providing services, but instead we are actively and proactively helping to shape the issues for the entire Federal Office. Creative solutions, innovative approaches and organisational skills are required every day in this process.

Which IT projects of the Federal Office do you think are particularly outstanding?

Blockchain technology certainly plays a key role as an innovative and future-oriented instrument with which the further digitisation of administrative services can be driven, especially with document services. In the asylum area, assistance systems based on artificial intelligence and digital identity management, which implements the best possible and fair processing of asylum applications for all parties involved, will be of great importance in the future.



I would like to describe the opening of the Creative Information Technology Center (CIC) in Berlin in December 2019 as an organisational project that has had a major impact on our IT projects. Here, space has been created for exchange, inspiration and creativity in order to learn from employees as well as from external institutions from business, science and civil society. The purpose of the CIC is to present our very latest digitisation ideas, projects and future visions to a wider audience.

The area of IT research is unique in the federal German administrative landscape. At the interface between administration and science, IT research is an important building block for supporting digitisation in the Federal Office and for incorporating the latest scientific findings into our IT projects. Through mutual cooperation with educational and research institutions, it is important to use knowledge and experience from science in an efficient way.

Where do you see the BAMF's IT in ten years?

The state and its administration determine the foundations of our societal, social and economic life. The advancing digital transformation is creating further impulses to steer these areas of life in a positive direction. For the Federal Office, this means an even more efficient fulfilment of tasks during asylum procedures and in its integration work.

With the implementation of the Digitisation Agenda, the Federal Office is creating optimised processes and automated interfaces so that the work of our employees can be made more attractive. Internal administrative processes are experiencing a further boost towards digitisation, in particular through the introduction of the eFile, the centralised inbound mail (ZPE) and the use of the "federal cloud". Using intelligent data analysis, we can better forecast migration processes.

Completely new possibilities for simplifying communication channels with other agencies are resulting from the innovative technology of the data exchange system "Blockchain". The digital networking of the BAMF with domestic agencies, the European Union and other international institutions will be a matter of course; the software development takes place across all authorities and agencies.

By networking innovation drivers in the federal administration with those from science and research, the Federal Office will assume a leading role as a reliable and competent cooperation partner in the field of IT.

Awards and international collaborations



**Best
digitisation project 2016
eGovernment competition**



**"Integrated Identity Management"
winner
Digital Leader Award - Category "Digitize
Society" - European CIO of the year 2017**



**Best digitisation project 2018
eGovernment competition**



**Best
digitisation project 2019
eGovernment competition**



**3rd place
Best modernisation project 2020
eGovernment competition**

National and international awards of the BAMF for various digitisation undertakings



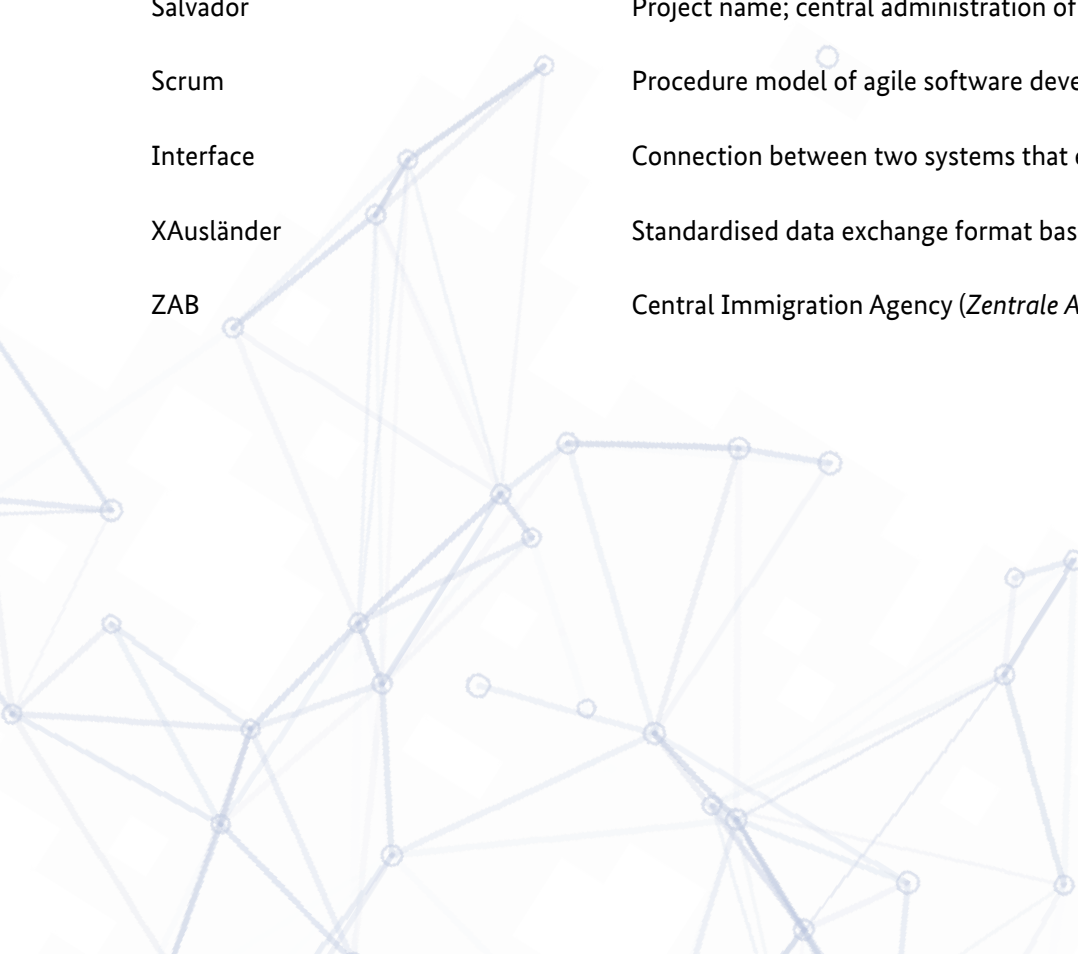
National and international awards

The various digitisation efforts of the Federal Office not only pay off in everyday use. The BAMF was also able to prove convincing with its work in national and international competitions. The IT management, on behalf of the entire IT department of the BAMF, won the “European CIO of the year” award in 2017 and again in 2018 for one of the best digitisation projects. In addition, various projects (including blockchain, FIS, IDMS tools) emerged as winners from the eGovernment competitions from 2017 to 2020. The awards also represent public relations achievements that are also attracting international attention. Over the past few years, various partnerships and a lively exchange of experiences have arisen, not only with European asylum authorities, but also with e-government agencies and security agencies.

All partners benefit from this exchange, because ultimately many organisations face comparable challenges in terms of modernisation and technological development. The BAMF would like to have the exchange of information, which has so far been largely informative, followed soon by technical cooperation. In this way, scarce resources can be better bundled and jointly developed solutions can be used more economically.

Glossary

AnKER facility	Arrival, decision-making and return facilities in Germany (<i>Ankunfts-, Entscheidungs- und Rückkehr-Einrichtungen in Deutschland</i>)
AZR	Central Immigrant Registry (<i>Ausländerzentralregister</i>)
BAMF	Federal Office for Migration and Refugees (<i>Bundesamt für Migration und Flüchtlinge</i>)
Blockchain	Decentralised database structure that features a cryptographic interlinking of the data records
CIO	Chief Information Officer
CIC	Creative Information Technology Center
DevOps	A portmanteau word made up of the terms Development and IT Operations
Distributed ledger technologies	Method of storing information in many locations on a network
eFile	Electronic file (<i>elektronische Akte</i>)
End-to-end digitisation	Method of fully digitalising processes in the long term (from end-to-end)
EU	European Union
FIS	Management information system (<i>Führungsinformationssystem</i>)
InGe	Integration business file (<i>Integrationsgeschäftsdatei</i>)
ITZBund	Federal Information Technology Centre (<i>Informationstechnikzentrum Bund</i>)
LDS	State Office of Saxony (<i>Landesdirektion Sachsen</i>)



MARiS	Migration-Asylum-Reintegration System
Microservices	Information technology architecture in which complex application software is composed of independent processes
OSCI transport	Protocol standard for secure, confidential and legally binding transmission of electronic data
Repository	Central database in which the results of the design and development of a program are managed
Salvador	Project name; central administration of master data
Scrum	Procedure model of agile software development (a term derived from rugby meaning “crowd”)
Interface	Connection between two systems that enables communication and transmission
XAusländer	Standardised data exchange format based on Extensible Markup Language (XML)
ZAB	Central Immigration Agency (<i>Zentrale Ausländerbehörde</i>)



Imprint



Published by:

Federal Office for Migration and Refugees
Frankenstraße 210
90461 Nuremberg, Germany

Last revised:

12/2021; 1. updated version

Printed by:

Druck-Ring GmbH & Co. KG

Designed by:

DOK SYSTEME Ingenieurgesellschaft für Kommunikationstechnik mbH

Pictures courtesy of:

Federal Office for Migration and Refugees, Nuremberg, Germany
Photographer Lopez, Federal Office for Migration and Refugees, Nuremberg, Germany, page 4 & 24

Order option:

Publication Office for the Federal Office for Migration and Refugees
www.bamf.de/publikationen

You can also download this publication as an accessible PDF document.

This publication is issued by the Federal Office for Migration and Refugees within the context of its public relations work. The publication is provided free of charge and is not intended for sale.

