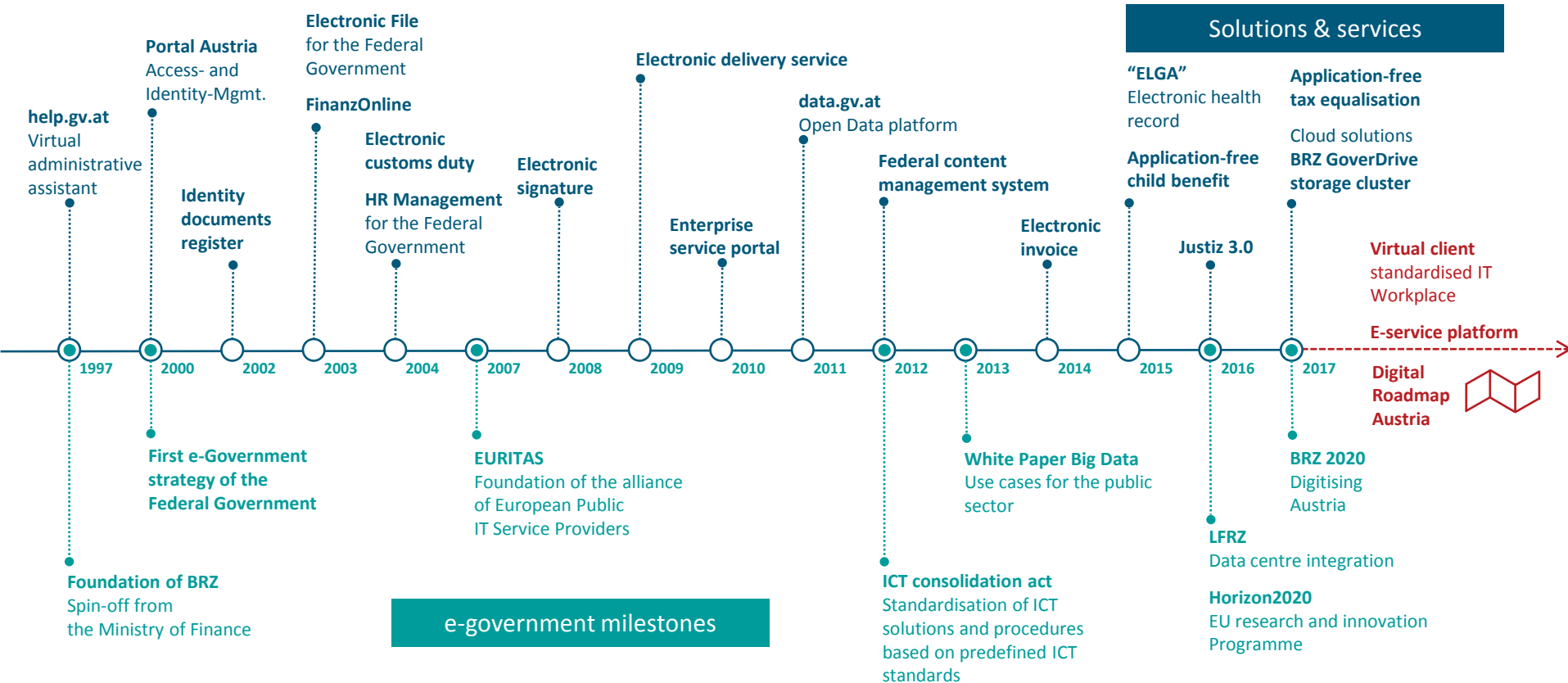# Ministerial Conference Integrated Digital Solutions for Development

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# The Austrian Public Sector – a Pioneer in Digital Transformation

BRZ

Solutions & services

e-government milestones

help.gv.at
Virtual administrative assistant

Portal Austria
Access- and Identity-Mgmt.

Identity documents register

Electronic File
for the Federal Government

FinanzOnline

Electronic customs duty

HR Management
for the Federal Government

Electronic signature

Electronic delivery service

data.gv.at
Open Data platform

Enterprise service portal

Federal content management system

Electronic invoice

"ELGA"
Electronic health record

Application-free child benefit

Justiz 3.0

Application-free tax equalisation

Cloud solutions
BRZ GoverDrive storage cluster

Virtual client
standardised IT Workplace

E-service platform

Digital Roadmap Austria

| 1997 | 2000 | 2002 | 2003 | 2004 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |

Foundation of BRZ
Spin-off from the Ministry of Finance

First e-Government strategy of the Federal Government

EURITAS
Foundation of the alliance of European Public IT Service Providers

ICT consolidation act
Standardisation of ICT solutions and procedures based on predefined ICT standards

White Paper Big Data
Use cases for the public sector

Horizon2020
EU research and innovation Programme

LFRZ
Data centre integration

BRZ 2020
Digitising Austria

Digital solutions and their integrative role to foster Economic Integration

Four areas of applicability

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Across borders
Global communication and integration
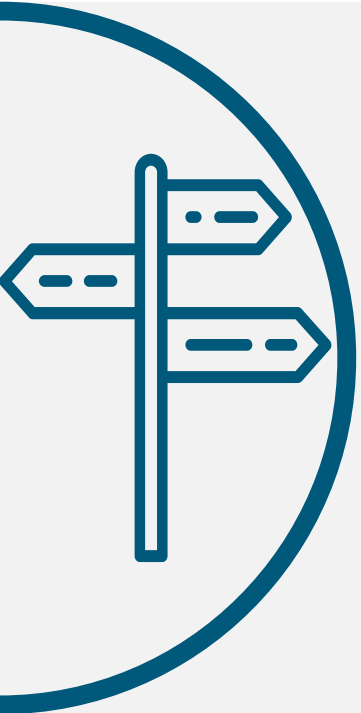
Virtual communities and organisations

> Multiliteral information interaction between countries / sharing best practice

> Processes are coordinated digitally using one central platform and involving all stakeholders

> Requires digital identification- digital wallet

> avoiding media discontinuity

> e.g. utilizing Blockchain - no intermediaries are needed

> Smart Contracts, connection to cross-country payment solutions / crypto currencies

> Facilitating Digital Exchange – even in countries with lower IT standards

Use Case Cross-Border Contract Management / Agreement Documentation

> Digital Contract Negotiation & Versioning Management

> Smart User Interface to optimize collaboration

> Negotiation via portal / web session

> Securing each and every agreement version immutably in the blockchain

> Automated, transparent monitoring of key clauses

> Initial versions are restorable even after decades

On the same page
Managing and presenting information

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Information Management

> Sharing of data across borders and institutions

> Active communication between institutions

> Information Verification and proven facts

> Same format of documents for easier distribution

> Securing documentation in the blockchain (e.g. GDPR efforts)

Integration

> Speech to text / barrier-free information output

> Accurate translation in various languages

> Easier mediation between various parties

Use Case Cross-country Tax Fraud

> Verification & matching of cross-border e-commerce / delivery

> Investigation leads for tax auditors

> AI based identification of contradiction and irregularities

> Matching of critical content within structured and unstructured data

> Finding the "unknown-unknown"

Fully transparent
Turning data into a valuable and accessible asset

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Verified data & information to foster citizen involvement

> Dashboards / Condensed, digestible, understandable Data

> bi-directional: including ideas / trends from people & enterprises

> Open Government Data: Creating economic value via contextualizing OGD with other content / anonymized real data

> Fostering free use and dissemination of OGD

Registries

> Full transparency on any central registry

> (potentially fee-based) access to the land registry

> Facilitated access to registry information / privacy data under special circumstances / emergencies

Use Case eDemocracy

> Citizen idea sharing and participation tool

> based on blockchain technology

> Deliberative eDemocracy – Online viewing

> Electronic surveys and coordination regarding local ideas

> Confirmation code to verify the actual casting of votes (online after election day)

> Next step: execution of national elections

Highly secure
Protecting and regulating data

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Data Protection

> Value of data increases
> more data digitally available
> Protection of digital data against destructive forces, cyberattacks and data breaches
> Data Security as a differentiating factor
> Data bots instead of human access?

GDPR as a challenging chance

> Fostering understanding for any user
> Utilization of sensitive data / anonymization
> Right to access individual personal data on request
> Consent for data transfers
> Providing immutable GDPR monitoring – secured in the blockchain

Use Case DataReg

> Registry for recording and monitoring processing operations in context with GDPR
> Web-solution in accordance with current GDPR legislation
> Updates take legislative change into consideration
> Direct import of data from data processing register

Digital Solutions to foster Economic Integration
Four main segments / trends capitalizing on Digital Transformation

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Blockchain

Redundant database; each partner receives a copy, hence Blockchain audit-proof, immutable and transparent

Existing Use Case / Project

for the electronic vehicle documentation or eDelivery

Cognitive Analytics & Contextualization

Analysing large heterogenous amounts of data, contextualisation, visualisation and usage for business-decisions

Existing Use Case / Project

for complex construction projects and target group analysis

Robotic Process Automation

Automatisation of rule-based decisions/standardised processes to boost efficiency in procedures

Existing Use Case / Project

automated update of postal address following the scanning of incoming mail

Information Management & Virtual Assistants

Providing user-friendly information and services for citizens and companies

Existing Use Case / Project

One-Stop-Shop for relocation (certificate of registration, vehicle re-registration etc.) all available in a single portal

Use Cases Digitalisation

BLOCKSTEMPEL (block stamp)
Notarization via Time Stamp with a secure Blockchain Certificate

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> proofs of integrity, existence and ownership in the blockchain

> Generating an immutable and independently record of all the activity within and between organizations, entities & countries

> Certificate with the following features

- Transparency
- Privacy
- Security
- Forensic auditability

> Unlimited traceability and auditability

> "replacing trust with mathematical proof"

Use Case eDelivery / Submission

> Pilot project

> Certain attributes (time stamp, procedure ID, document ID, status) are saved in a blockchain

> Delivery history and attributes in the blockchain lead to a comprehensible and traceable process

> Data in the blockchain is immutable

> Based on this data deadlines for official authorities can be evaluated

Digital Citizen Wallet
Online interaction with the government – secured in the Blockchain

> Digital government platforms provide citizens with information regarding public administration

> Centralized document and information storage

> simplifying document handling, permits, and registrations in domains like civic services, social services, tax and revenue management etc.

> Ability to manage citizen life chain digitally with secure access, authority and document authenticity

Use Case Digital Wallet with a governmental Bank

> Austrian government platform for private citizens

> to access information and execute core processes via any device

> Application for management of citizen documents or assets including the exchange of information where applicable along all relevant aspects of life

> Reliable document or asset proof for all involved parties based on hash upload (blockchain tech)

> Access control is with the owner

> Informs citizens about relevant topics based on their personal life status

KETTENBRUCK ("chainbridge")
a virtual community for real connections

> Virtual municipality

> Testing of use cases in the virtual municipality and realisation in partner municipalities in Austria

> Focus on Blockchain and some other Digital Use Cases

> Kettenbruck is a show case of validated use cases and technological solutions

> Real development environments behind the public showcases

Use Case Digital Citizen Wallet

> Central, digital storage of all documents

> Once only principal

> 2-factor-authentification and blockchain technology

> Less administrative effort

> Better overview for citizens

Predictive Analytics
Artificial Intelligence against tax fraud

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Facts & Figures

> predictive analytics uses methods of statistics and data mining to identify patterns and trends in data

> 4 million single data and 1.6 million taxable people and companies are administered financially in the central data warehouse

> assisted by predictive analytics the usage of an extensive information pool for the control of tax declarations is possible

Benefits & Features

> predictive analytics simplifies tax inspection by analysing behavioural patterns in large amounts of data

> real-time-analysis of network-traffic and intrusion-detection

> early recognition of potential traffic jams and support for implementing counter measures

> steering of the job market via improved models of big data bases
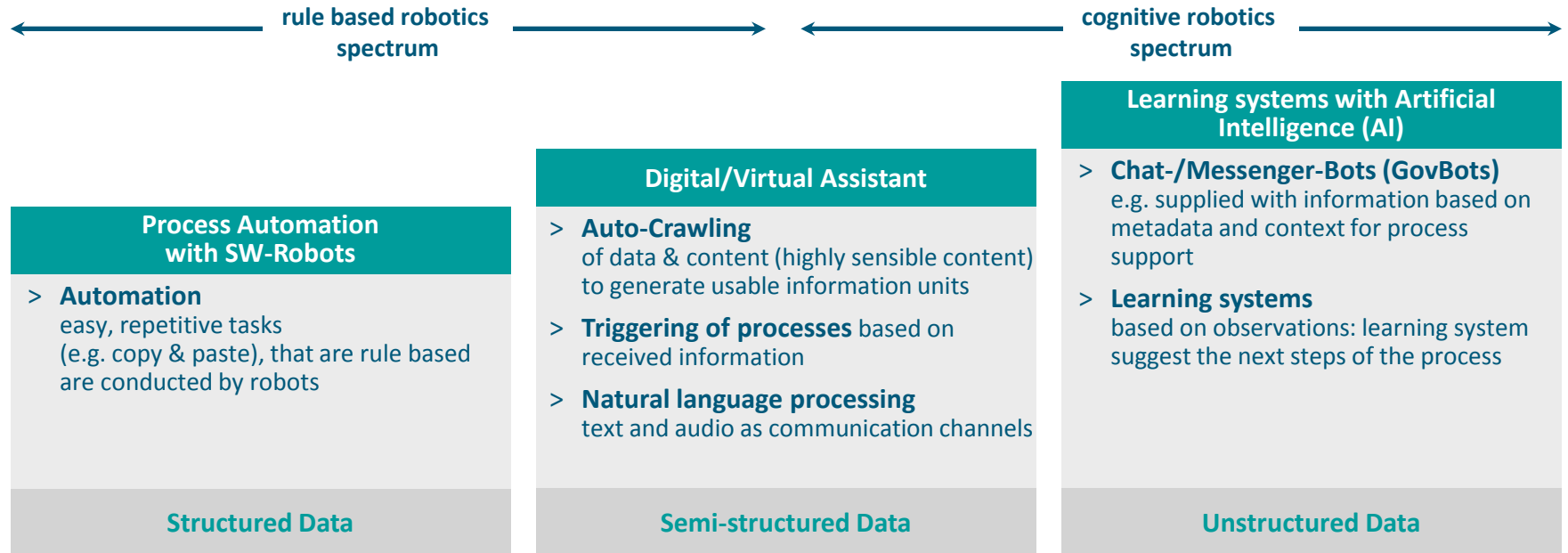
> granting of promotions and benefits

Customer Benefits

> **improvement of effectivity and efficiency of tax collection and combating tax fraud**

From the automation of easy tasks
to the implementation of cognitive systems

> Using process analysis, indications for a digital atomisation are identified- including concrete cost saving potentials and further efficiencies.

← rule based robotics spectrum →   ← cognitive robotics spectrum →

Process Automation with SW-Robots

> **Automation**
easy, repetitive tasks
(e.g. copy & paste), that are rule based
are conducted by robots

Structured Data

Digital/Virtual Assistant

> **Auto-Crawling**
of data & content (highly sensible content)
to generate usable information units

> **Triggering of processes** based on
received information

> **Natural language processing**
text and audio as communication channels

Semi-structured Data

Learning systems with Artificial Intelligence (AI)

> **Chat-/Messenger-Bots (GovBots)**
e.g. supplied with information based on
metadata and context for process
support

> **Learning systems**
based on observations: learning system
suggest the next steps of the process

Unstructured Data

Thank you
for your attention!

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