

Providing solutions for your digital transformation with world class engineering services & technology consulting

Supporting in

Software | Hardware | Artificial Intelligence | Cloud applications | Vision systems | Robotics and cobots | UX/UI



History: science & global business

Prof. Szajna's strong foundations for secure cooperation, based on success stories

1) University of Zielona Gora (1978 - 1996)

One of the best ICT departments within universities in Poland

- 7 years of cooperation with Bristol University & SGS Thomson (internship)
- 4 PhD (UK), 15 second MSc (UK), 15 MSc (PL), only 1 best graduate each year employed

2) Advanced Digital Broadcast (1996 - 2012)

Prof. Szajna's 1st company - flexible, fast, innovative & super effective

12x

„Product of the Year” Award

34

Countries

500+

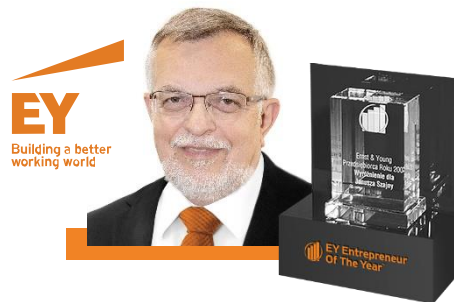
World class engineers

30M+

Devices sold

\$ 450M

Annual turnover (2012, Prof. Szajna left)



„Entrepreneur of the Year” by EY

Prof. Janusz C. Szajna



Clients and offices around the world



NOW: Why should you choose us for your next digitalization project?

Software & Hardware R&D house. **RITTAL** associated company




100 people: mix of young talents & world-class engineers

Chancellor Merkel & Prime Minister Szydlo
visiting Top Innovative Companies, Hannover Messe 2017



YouTube www.dtpoland.com/hm17video

Headquarters: Zielona Gora, PL
at University's new Science Center
Berlin  2 h



Prof. Janusz Szajna



Ernst Raue



Dr. Tomasz Kozlowski



Andrew Szajna

Many years Deutsche Messe AG Board Member



ERNST & YOUNG
Entrepreneur of the Year

for building R&D group from 4 to 500 TOP-class engineers
accomplished projects got 9 'Product of the Year' awards

Strategic clients



- Top German Industry 4.0 companies

- other market leader: VW, KGHM, Nexans, Remondis

"Excellent quality, Excellent team, Excellent innovation." CEO EPLAN to Chancellor Merkel about cooperation with DTP, Hannover Messe

Strategic partnerships: Prof. Krzysztof Diks (Warsaw University) & his "Champion Team"

- R&D Institutes & Universities:



Digital Technology Poland

Customer focused



” *Excellent quality, Excellent team, Excellent Innovation!*

Hannover Messe 2017 Opening Ceremony
(EPLAN President statement to Chancellor Merkel)



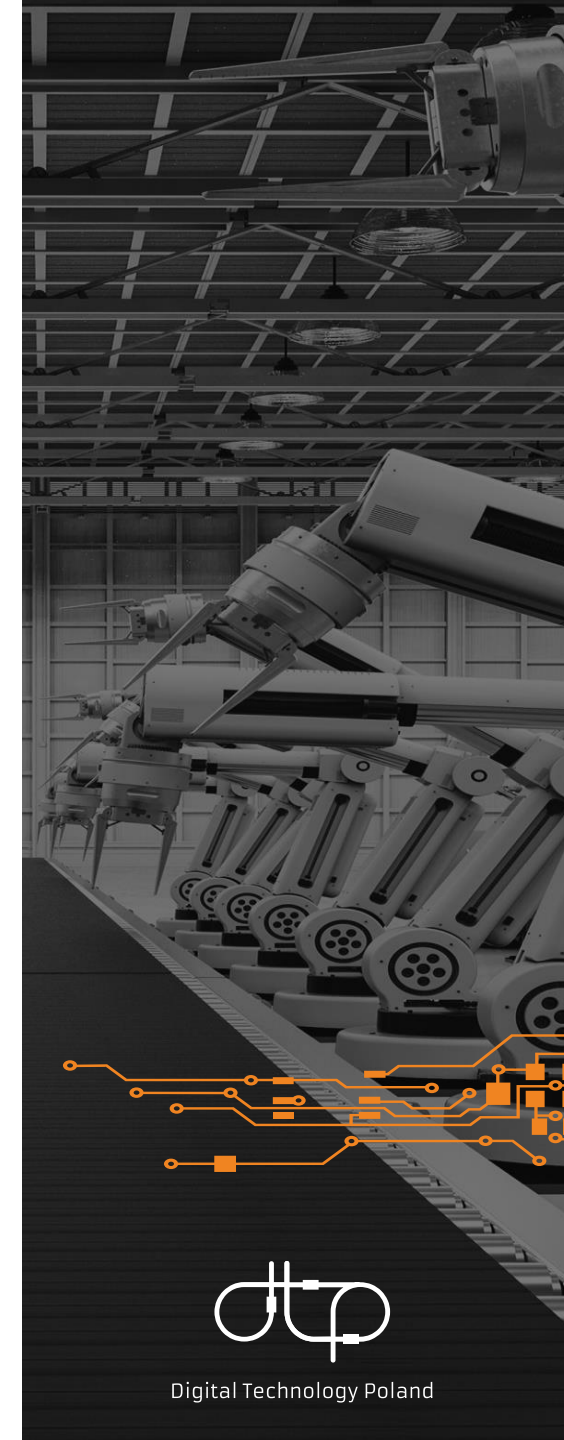
” *We work closely together in product development. DTPoland engineers are truly top experts in software & hardware. We are very satisfied with the results.*

Dr. Thomas Steffen
(Managing Director R&D, Rittal)

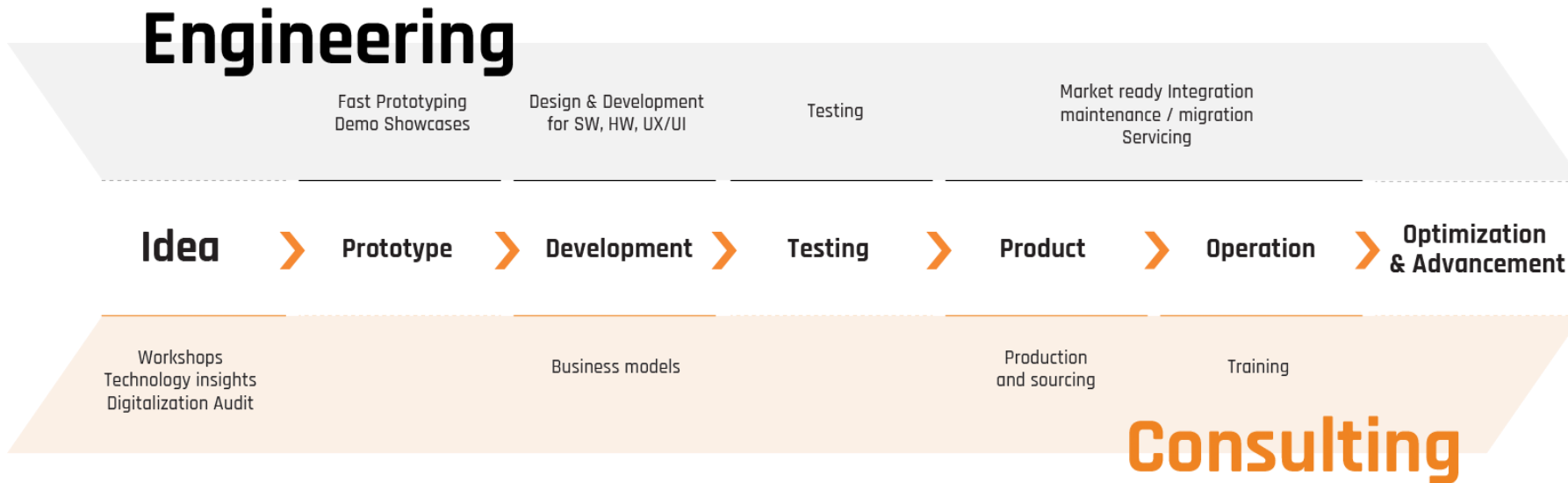


” *We have been working together for years in developing the products. DTP is very firmly committed to assigned projects, and we are particularly delighted with the speed of reaching targets.*

Uwe Gräff
(Managing Director, HARTING)



The way we work to secure the success of your project

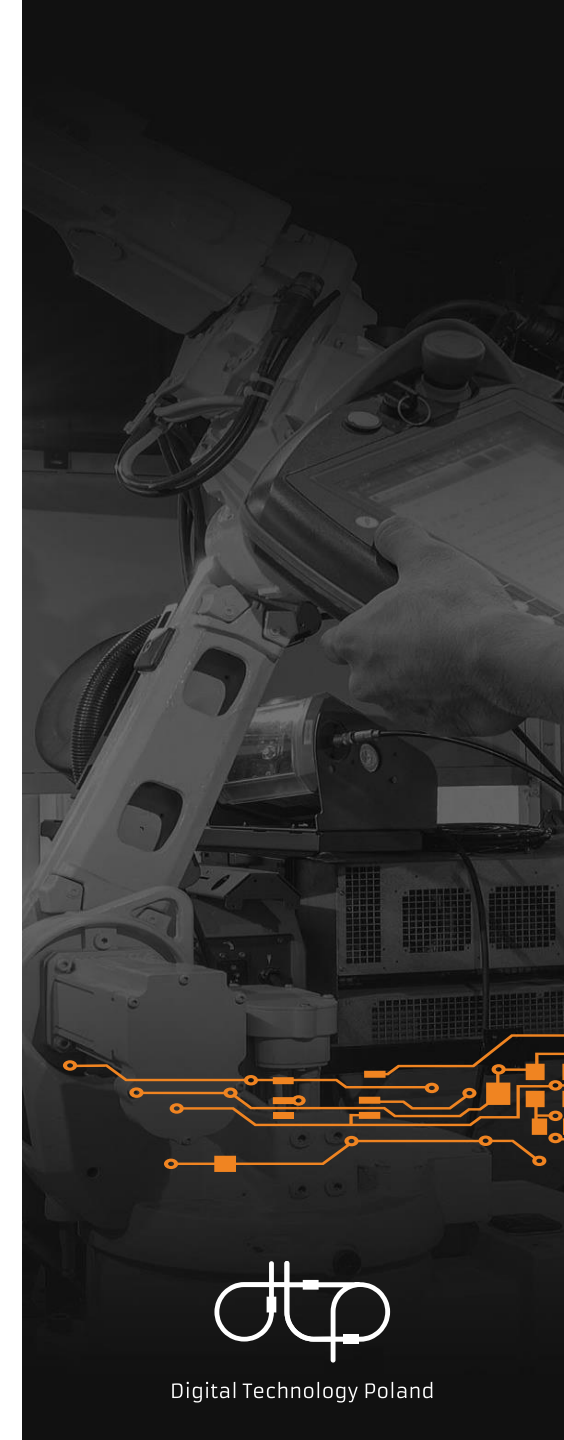
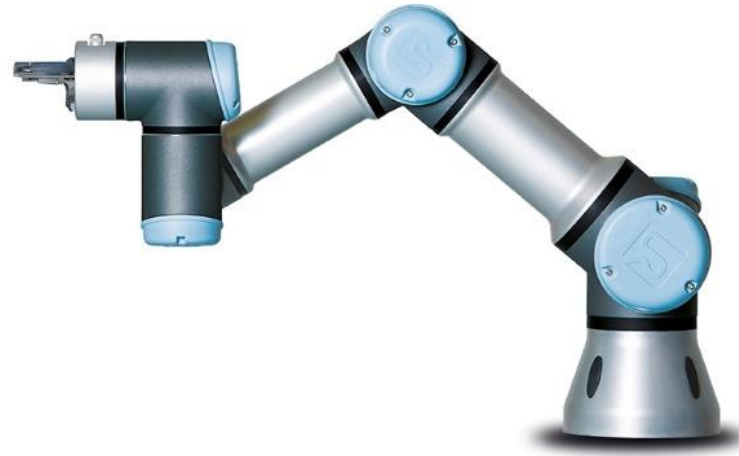


DTP Ltd. was founded in 2013 as an innovation service company of digital and engineering experts which covers the complete stages of value chain of digital technology innovation.



Where you can benefit from choosing us

- Cloud software (as a Service) and applications
 - Shifting regular applications & data into cloud systems
- Artificial intelligence (AI): process support, supervision, recommendations, Big Data, analytics
- AI supported robots/cobots for industrial applications
- Image recognition and real-time processing
- Internet of Things (IoT) devices with cloud systems and OTA remote software updates
- Embedded systems: miniaturized, advanced, multilayer PCB and system software design
- Augmented Reality (AR) to enhance your vision
- Mathematical modeling
- Test automation

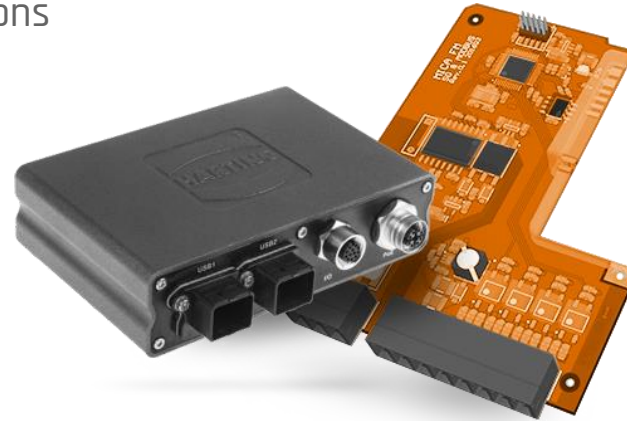


Hardware design and firmware for Industry 4.0

NEW: Miniaturized electronics that fit in the existing chassis,
highly resistant to extreme temperature conditions

Benefits:

- Shorten design cycle with our concept & fast prototyping
- Delivering complete product, from design to certification
- Extend your R&D capacity with our state-of-the-art design tools and engineering competencies



Example of joint project with HARTING

Reference projects:

- IP67 Edge computer: Energy, Wireless, HDMI, Ethernet
- Harting HAN Smart connector (1st in the world)

Smart servicing and predictive maintenance

Remote monitoring of hundreds of thousands of devices + OTA software updates

Benefits:

- Remote monitoring of working devices and remote bug fixing without a need for user service actions
- Remote Over The Air (OTA) software updates
- Asset management & control of maintenance measures
- Device and system data visualization (temperature, operating response, energy consumption, ...)
- Big Data & AI analysis
- Reduction of unexpected failures
- Reliable tool for routine preventive maintenance tasks
- Energy efficiency reports
- Situational action recommendations with manufacturer expertise

Technologies used:

- Frontend: **TypeScript, Angular / JavaScript, Plotly.js, Vuetify**
- Backend: **C# / Golang, Snap 7, Gorgonia (ML Library)**



AI: Turning paper documents (PDF) to interactive digital format

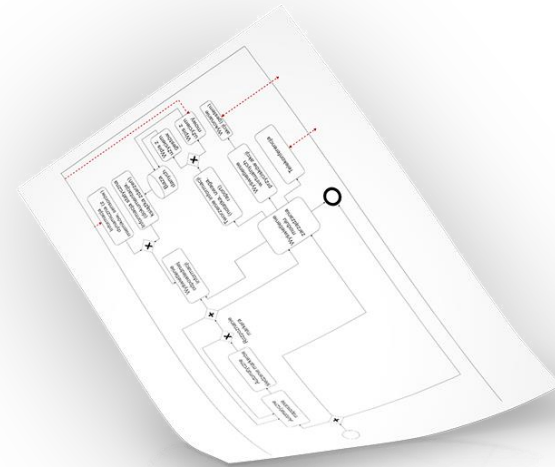
Semi-Automatic tool to digitalize your paperwork and make it functional

Benefits:

- Possibility to work with various inputs and project formats (incl. legacy and paper documentation)
- Unified documentation in format of digital objects, to simplify workflow
- Single instance of documentation instead of distributed multiple source, which minimizes maintenance effort and limits mistakes
- Tool for optimization of maintenance management, auto action recorded
- Automated, cost optimized, inventory management (stock, ordering, availability, substitutes, etc.)

Technologies used:

- Frontend: **TypeScript, ReactJS, Konva.js (2D canvas library)**
- Backend: **Python, OpenCV, pyTorch (Deep Learning), django**



Fully accessible digital format

Reinventing production workflows

From paper documentation workflow to digital process

EPLAN Smart Wiring

- Simplified wiring of the control cabinets
- Assembly process better organized
- Improved quality and shorter assembly time of 25%
- Lowered entry level - user friendly for new employees
- Seamless workflow from designing to assembly
- On-premise and cloud version
- Automatic synchronisation
- Real-time reporting of assembly state



Example of joint project with EPLAN

Technologies used:

- Frontend: **Javascript, Vue.js + Bootstrap, Three.js** (3D)
- Backend: **PHP**

AI supported digitalization for error free manufacturing

1st in the world. EUROPEAN PATENT

Wire Label Reader:

- Reliable reading of identification data, based on Artificial Intelligence (DNN).
- Faster assembly process
- Transmission of the result to the integrated production system.



Technologies used:

- Python, Keras, Tensorflow

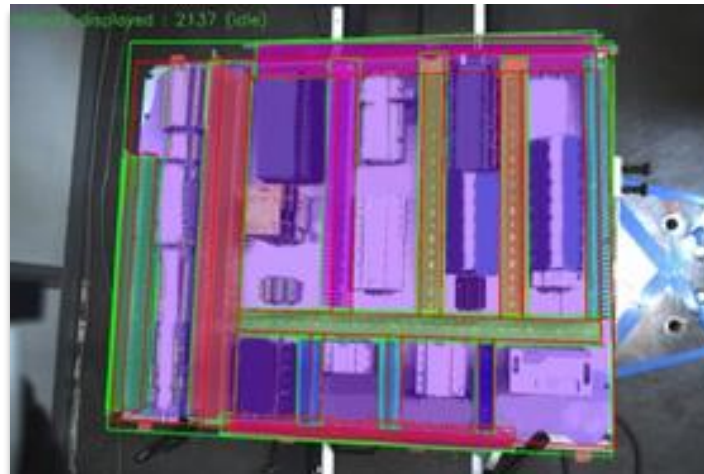
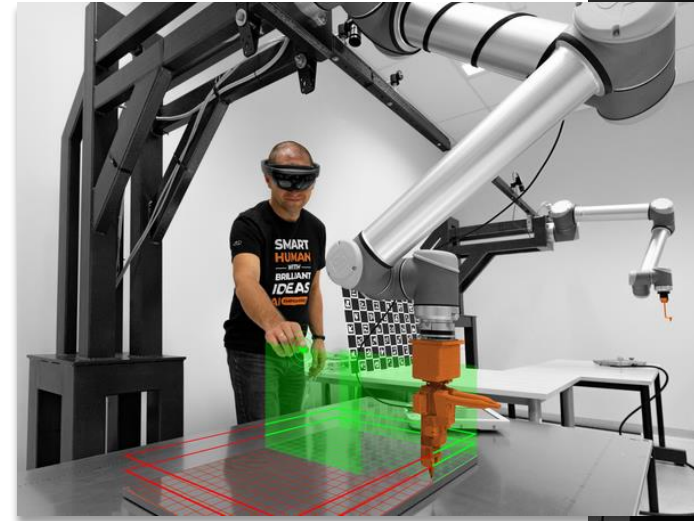
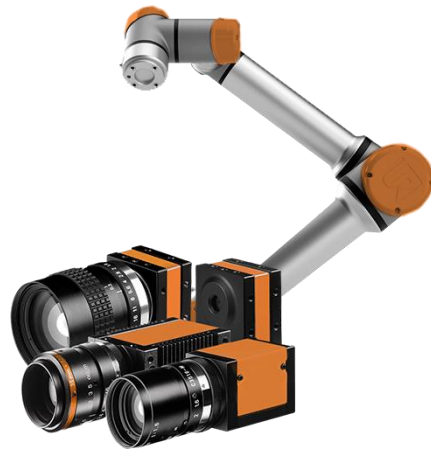
We design such patents with our clients!

Intelligent Vision Systems for production

Flexible production and reliable quality control

AI empowered:

- Improved production quality - additional, automated, verification stage
- Detection and measurement
- Recognition and segmentation
- Precise robot movements using camera guidance
- Cobot arm precision up to 100 μ m



Technologies used:

- Python, C++, ROS, MQTT, OpenCV, Octave, R-CNN

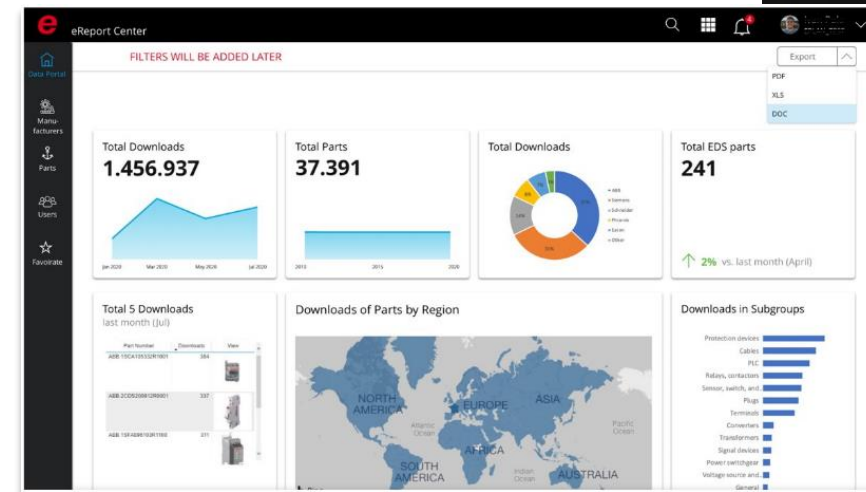
Smooth transition to cloud

Making your workflows scalable, safer and easier to manage

Do you have own servers where you keep your own data?

Benefits:

- Business process and data migration to „as a Service“ model
- Improved, maximum security of data and applications
- Achieving more scalable, consistent and cost-effective solution
- Cost savings from “pay as you use” approach:
 - Software as a Service (SaaS), Platform as a Service (PaaS) or Infrastructure as a Service (IaaS)
- Minimizing traditional costs by limiting usage of unique, on-premise hardware, resources and maintenance



Main technologies used:



Key references:



Deep know-how:

- Azure (most experience)
- AWS, Google
- SAP Cloud
- Frontend: **Angular**
- Backend: **.NET Core, Go**
- Containerization: **LX, Docker**

User Experience / User Interface design

Advanced **UX / UI** to stand out from the crowd, knowing what it takes in a global market for successful „**first impression**”

Benefits:

- Multiplatform UX/UI architecture, design, prototyping and development supervision for apps, web, mobile, wearables
- Graphics, concept arts, branding
- Motion design, photo & video production, 3D animations
- Creative content for traditional and e-campaign, including Google Ads, LinkedIn, Xing & Facebook Ads
- Browsing data optimization for fast viewing
- Design audit and redesign



Project Management as a Service

Helping to manage complex projects as an **agile professional service**

Often problem with outsourcing is a need to manage it. We can do it!

Know-how

- **Experienced team of senior Project Managers**
- **Broad experience** in applying best suitable waterfall and/or agile methodologies to lead a project to a successful completion
- **Certified competence** in leading and directing project teams:
 - Project Management Institute (PMI), PRINCE
 - scrum.org

Focus

- **One team, one goal**
 - Managing remote multi-national development / manufacturing teams
 - Efficient and effective communication
- **Maintaining a steady project course**
 - Managing risk throughout the project life
- **Eliminating blind spots**
 - Analysis of all Stakeholders needs and expectations



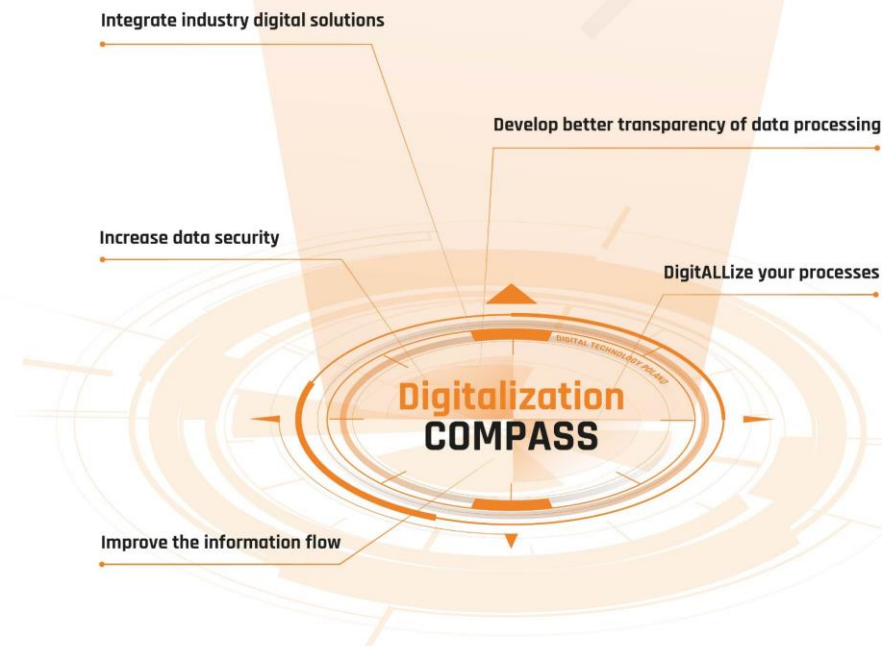
Do you know your full digitalization potential?

Let us help you to find it out, with our new Digitalization COMPASS service

- Which processes should you digitize next, to make the best progress and optimally use your budget?
- Do you have doubts about how to keep up with the digital transformation, not to stay behind competition?
- How is the digital transformation progressing in your company compared to market developments?
- Are you ready to face global turbulences like COVID-19?

Our experts will come to you and help!

Evaluate your status



We are here to build a digital future with you



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