

A group of ballerinas in white tutus performing a ballet on a stage. The ballerinas are in various poses, with their arms raised and tutus flared. The background is dark with some stage lights visible.

Deloitte.
Digital

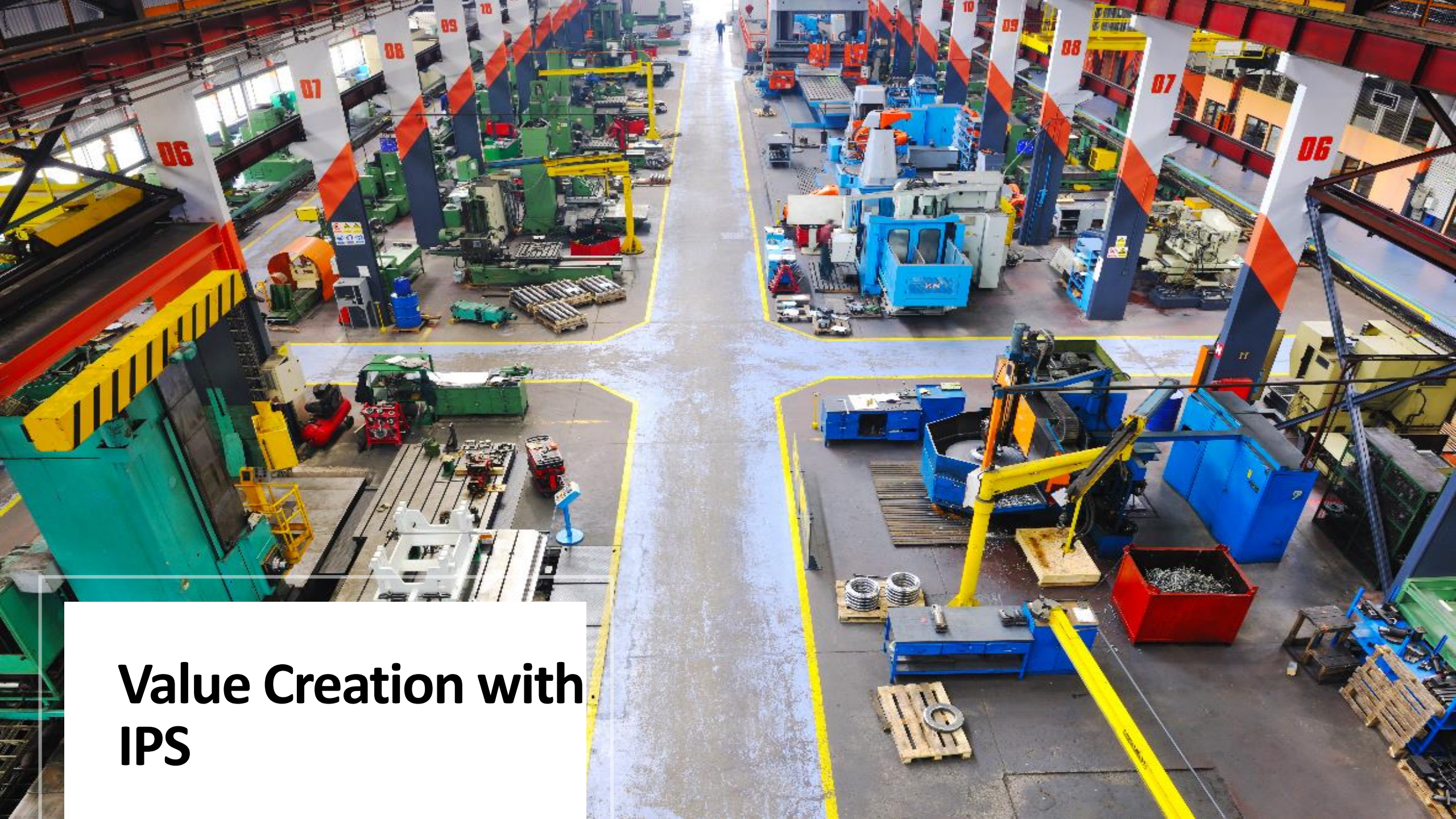
MARCH 2021

**Bringing choreography into future of operations via
location based technologies**

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Value Creation with IPS

A changing landscape

Even though real-time knowledge of the location of people or objects is today essential for the deployment of services, the road for IPSs massification has been long and faced many obstacles. Yet, today we are observing landscape transformation that are cementing IPS business value across a wide range of industries.

New trends are shaping the ecosystem of IPS



Hybrid IPS Solutions

Indoor positions systems are enabled by a wide range of technologies- Beacon, WIFI, RFID, UWB, etc. – that possess different characteristics, costs and trade-offs. Clients are adopting hybrid technology solutions to meet multiple use cases.



Seamless Integration

The power of data is not about its volume but rather contextualization. The developed of open and modular solutions is simplifying the integration of asset tracking solutions with operative and business sources.



Cloud Platforms

Cloud capabilities are fundamentally shifting IPS landscape by providing an ecosystem with unlimited computing and storage capabilities, high-cost flexibility, business scalability and market adaptability.



Discovering value with analytics

As IPS systems typically provide the data in raw or semi-processed formats, powerful and easily accessible advanced analytics solutions are unlocking new insights and proving the right data for decision makers.



Continuous use case expansion



Faster proof-of-concept validation and time-to-market



Lower upfront investments



Higher industry penetration

and cementing its business value opportunities

INDOOR POSITION SYSTEMS TODAY

Indoor Positioning Systems in Manufacturing

As part of Industry 4.0 revolution, manufacturers are bringing digitalization, automation and intelligence to their shop-floors.

These are the typical IPS applications we seeing with our manufacturing clients

Production

- Monitoring production flow and production activities
- Synchronization between assets and material availability
- Production cycle-time measuring
- Autonomous vehicle assisted navigation

Safety

- Access control to restricted are movement
- Collision avoidance
- Position based safety warnings
- Real-time personal protective equipment validation

Logistics

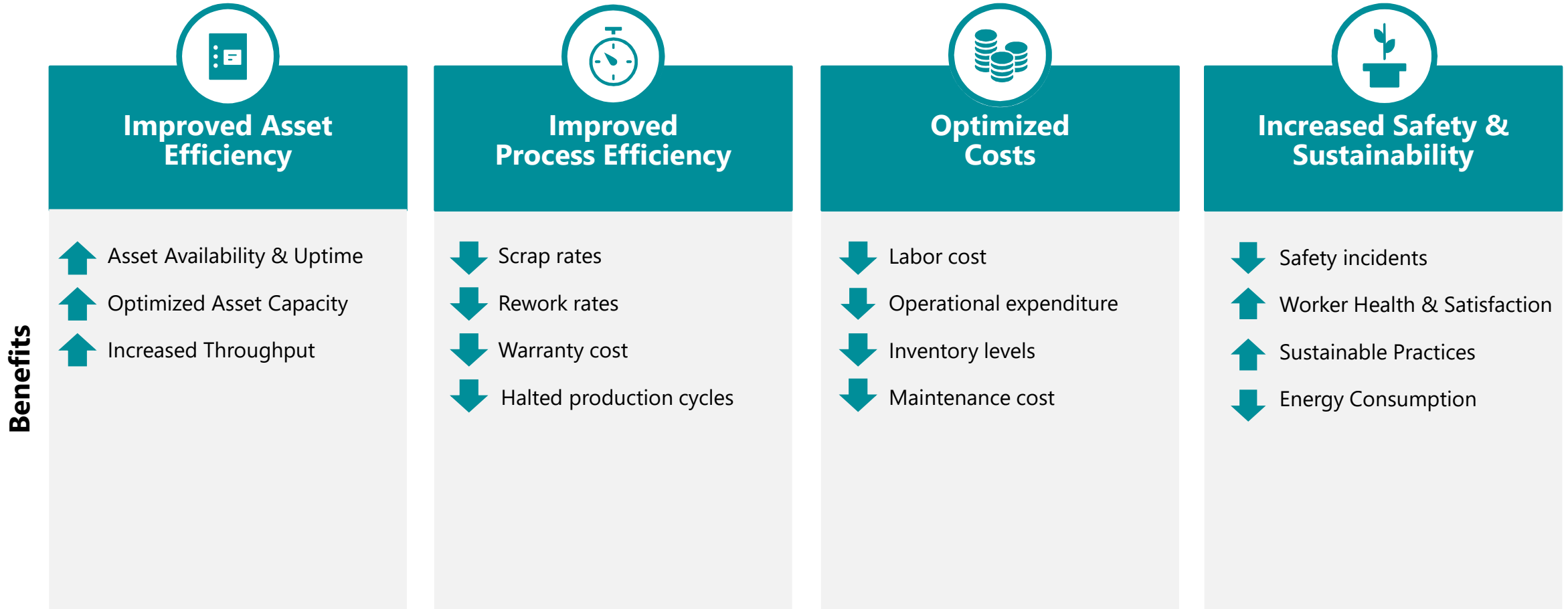
- Vehicle and staff movement tracking and modeling route activity
- Object track and trace to support warehouse management system
- Inventory control

Efficiency Monitoring

- Asset utilization and performance monitoring
- Multi-item work-in-process visibility
- Crew availability

The benefits of IPS in Manufacturing

These IPS-enabled use cases aim to address 4 value pillars. By addressing these, additional benefits are achievable like improving market share and profitability to name a few



Indoor Positioning Systems in Healthcare

More than ever, hospitals are becoming high pace shop floors running at full capacity round the clock where response time and resource availability are key.

These are the typical IPS applications we seeing with our healthcare clients

Wayfinding

Indoor localization systems are helping patients and visitors to navigate through an increasingly complex facilities. These solutions are offering custom-maps and control access based on user profiles and providing visitors with directions to their appointments.

Equipment Tracking and Availability

Being able to track and visualize assets' locations and movements in real time and thus reducing equipment's search time is crucial in an environment where equipment's availability is critical to save patient lives.

Asset and Staff Management

Information related to the location of assets and staff is generating valuable insights into patient behavior, resource utilization and staffing needs.

Safety

Healthcare providers are leveraging indoor real-time location to keep people and data safe, by restricting the access to zones where the user profile doesn't have permission to be.

We see IPS in Healthcare delivering real benefits

In the healthcare space, indoor positioning improves efficiencies across the board, and most importantly is helping healthcare services to keep health and lives of millions of people

Benefits



Improved Service Quality

- ↑ Patient caregiving time
- ↑ Staff and patient safety
- ↑ Infrastructure Accessibility
- ↓ Waiting Times
- ↑ Patient satisfaction



Improved Process Efficiency

- ↓ Equipment search time
- ↓ Equipment misplacement/misallocation
- ↓ Administrative tasks
- ↓ Optimal staff availability



Improved Asset Management

- ↑ Equipment Status Visibility
- ↓ Equipment misplacement
- ↓ Equipment misadjusted capacity
- ↓ Lost/Stolen equipment
- ↑ Consignment stock management / inventory improvements



Optimized Costs

- ↓ Labor cost
- ↓ Equipment cost
- ↓ Compliance related costs
- ↓ Maintenance cost



Future of Work

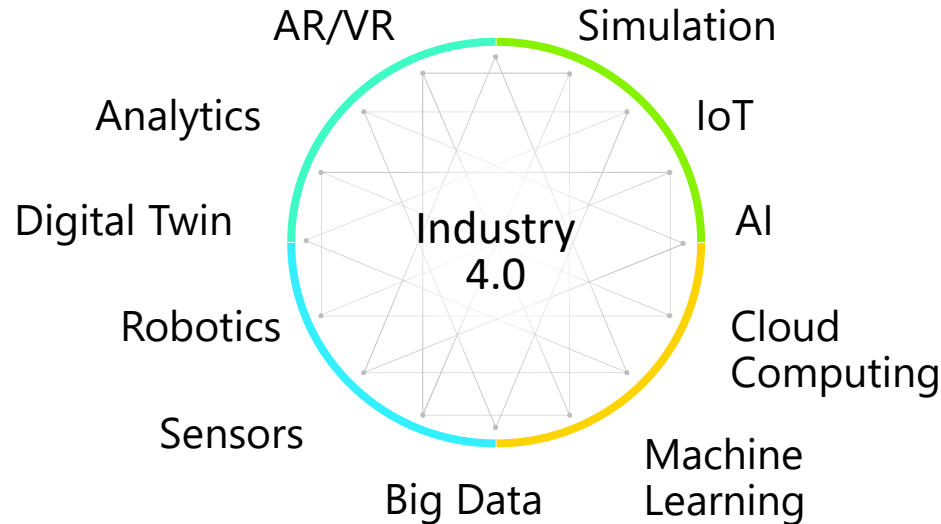
Digital Transformation and Industry 4.0 is transforming the way we work

Digital transformation and Industry 4.0 isn't just about investing in new technology and tools to improve process efficiency—it's about revolutionizing the way your entire business operates

These **new ways of working...**

- Highly Cognitive
- Collaborative
- AI Assisted
- Autonomous
- Data Driven
- Agile
- Continuous Grow

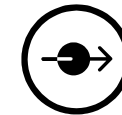
enabled by **Industry 4.0 technologies..**



..require a future workforce with a **new set of skills**



Human



Specialized



Technical

We designed a framework to help organizations build the workforce of the future

Job Canvas is framework developed to illustrate how core elements of a job (e.g., responsibilities, skills, teams, work environments) may evolve in the future as a result of industry 4.0 trends and technologies and identifies critical skills and roles of the future which organizations can start building today

Future Work

How key responsibilities are evolving as a result of on-going transformations (e.g., Program X) **and the art of the possible** for how they may continue to evolve due to Industry 4.0

Future Skills

New skills needed tomorrow due to on going transformations and **new skills needed in the future** as a result of Industry 4.0

Skills Benchmark

A comparison of the **top skills sourced for this role** by an organization, its **direct competitors**, and industry 4.0 leaders

Future Day in the Life

An **imagining of a typical day** for this role **in the future**, including an **illustrative “tool box”** of enabling technologies

How we are accomplishing these transformations with our customers



Reduce scepticism towards digitalization

- Access existing governance models
- Improve **decision making** to speed-up digital/data project portfolio
- Set-up **clear KPI measurement** to make the ROI visible and sustainable
- Invest in **leadership development**
- Perform digital and maturity data **scans and assessments**
- Implement **change adoption plans** for teams and leadership
- **Demonstrate the benefits and best practices** with a wide target group to show case what success looks like



Improve digital mindset

- Implement an **intuitive workflow design** based on human centric user approach and best practice processes
- Increase early **involvement of end-users/employees** in design process
- Compare a workforce with **digitalized persona descriptions** of roles in HR, Finance, IT, Sales, etc and provide learning journeys towards target status
- Offer hosting, studio and **broadcasting facilities** for delivery



Reduce resistant to change

- Perform **work-task** impact analysis (FOTO)
- Perform **Skill- demand/supply** analysis (e.g. earning needs assessment and learning persona's)
- Execute **Strategic Workforce** Planning (what skills are needed when)
- Have a clear **change roadmap** for leaders and employees incl. communication and early alignment
- **Deploy digital learning technologies** (e.g. Digital Fluency Academy and "in the flow of work")



Up & Reskill (digital & data)

- Perform **skill assessments** on generic and expert populations, incl technical-, data analytics- and computing skills. But also typical human skills such as innovation, empathy, I&D
- **Run Learning programs for experts** (e.g. Data Analytics Academy for data experts)
- **Run Learning programs for generic** population (e.g. Analytics for Leaders)
- Perform **skill buy/borrow** analysis and strategies
- **Train client staff** to run the Academy going forward



Thank you



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