

Interim report

Impetus for Shaping Digital Transformation

acatech

HR-Working Group

#FutureWorkDebatte



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NATIONAL ACADEMY OF
SCIENCE AND ENGINEERING

acatech's Human Resources Working Group (HR Working Group) is dedicated to the question of how digital transformation can be shaped. Against this background, this interim report summarises some of the key findings of our work and is intended to contribute to an open discussion among policy makers and society of the future of work, irrespective of party, employer and union policy considerations.

The HR Working Group coordinated by acatech is a think tank consisting of HR directors and academics from various disciplines and has been conducting the “Fit for Future Work” series of debates since May 2022. In this series of virtual top-level discussions around digital transformation and its impact on organisation, work, employment and skills development, the HR Working Group is discussing which digital technologies are leading to massive changes as they are applied in everyday business and how companies and their staff can prepare themselves, ideally working in concert. Working hand in hand with other stakeholders from the ecosystem of policy making and administration, business, academia and society, the objective of these discussions is to develop solutions for shaping digital transformation. The guiding principle here is that digitalisation is primarily made by people for people (“people dimension”).

This paper provides a substantive snapshot of the debates to date and offers some initial propositions for shaping this transformation going forward (“big picture”). The challenges and potential solutions presented here reflect the outlook of major manufacturing businesses. The following top-level discussions will address and consider unresolved issues and further priorities. One key message so far is that our industrial society needs a new design framework for digital transformation if a consensus for driving it forward at high speed is to be found. “Digital culture” is one of the keys to the success of this transformation.

Six propositions for shaping digital transformation

1. Digital transformation is a crucial building block for renewing competitiveness, resilience and cross-company collaboration

Successful implementation of digital transformation is vital to securing the competitiveness of companies and of Germany as a location for business. By simultaneously prompting and assisting structural change, digitalisation is a key driver of innovation. Technological change in turn leads to changes in the world of work, which is shaped by how organisations deal with updated or entirely new technologies, i.e. how they adapt to them rather than simply acknowledging their existence.

While digital transformation enables data-based cross-company collaboration and so opens up new value creation potential and opportunities for growth, digitalisation does not simply happen by itself but has to be actively shaped. The most recent studies suggest that only 30 per cent of companies are capable of embedding cultural and operational changes in their organisation, developing and internalising new capabilities and establishing new ways of working and innovative approaches to collaboration. Instead, many companies remain stuck in organisational silos and lack the ability to scale digital solutions.

Overall, Germany's problem is not a lack of awareness but of implementation. Most German companies are struggling to effectively transfer their knowledge about the significance of digitalisation to the entire core organisation. Many companies are too inflexible and respond too slowly to the requirements of digital transformation. The main obstacles include a lack of experience in user-centric approaches, defending existing structures or a rigid regulatory framework which prevents agile, flexible trialling of new solutions.

At present, numerous highly dynamic and complex change processes are simultaneously under way, namely changes brought about by demographic change, decarbonisation, decentralisation and digitalisation, geopolitical change, and the effects of the Covid crisis, which are facing companies with a “compressed transformation” process which demands an ever faster response to increasingly radical technological upheaval. This transformation is being accelerated not least by advances in the field of artificial intelligence.

Previous (operational) planning horizons are no longer doing justice to these rapid and parallel changes. On the one hand, the organisation of work must adapt ever more quickly while, on the other, this is becoming ever more difficult in increasingly complex organisations. An ability to strike a balance in such situations and adapt on a permanent basis is becoming a decisive

strategic competitive factor: agility and “new work” must become the new corporate normal.

2. There is a need for new solution spaces if digital transformation is to succeed

Taking digital transformation to a successful conclusion requires companies to be capable of developing entirely new solutions for shaping their organisation and work processes and implementing them quickly. Only in this way will they be able to cope with the major changes taking place in parallel across the entire value creation cycle of manufacturing companies and so also develop the necessary resilience.

Many and varied digital technologies can act as “enablers” in this process by enabling ongoing high levels of organisational productivity while additionally ensuring great flexibility for staff. However, the benefits of digital transformation only take full effect in an environment which permits such rapid and radical changes. It is therefore necessary to be liberated from the “strait-jacket” of a preservation mindset which often still remains in organisational and work design and to create new solution spaces for this design.

The “linear” business model, which has hitherto been successful in manufacturing companies, was and often remains embedded in a culture of preservation. German industry’s economic success was achieved over decades through excellence in engineering and continuous but incremental gains in productivity. This organisational design was always based on the assumption that automation always boosts productivity in all areas. Process standardisation and high levels of automation have indeed led to major productivity gains, albeit to the detriment of flexibility and an ability to adapt organisational structure and workflows to new circumstances as required.

In order to prevent this paradigm from resulting in productivity gains being achieved at the expense of staff and jobs, corporate frameworks and employment law have been extended over a period of decades with the aim of protecting staff and working conditions, while organisational flexibility has been increasingly restricted. This rigid regulatory straitjacket is now standing in the way of urgently needed rapid change.

Continuous organisational learning paves the way to transformation. What is needed are large, target group-oriented real-world laboratories, controlled opt-out clauses set out in collective agreements or legislation and courageous leadership willing to try out changes. Only in this way will it be possible to exploit existing potential in the German labour market and achieve a leap forward in productivity and innovation in Germany. This is because experts believe that the direct productivity gain from digitalisation will not be enough to compensate for the downward demographic trend in workforce numbers. Instead, in an environment characterised by major labour shortages, the goal must be to keep staff in the workforce longer, mobilise dormant talent and simultaneously generate popular enthusiasm for digitally assisted working.

Another prerequisite for successfully shaping change is active, directive governance which promotes a willingness to change and creates latitude in businesses, corporations and public-sector institutions and with a view to regulation. This includes innovation-oriented further development of workforce participation in companies and a legislative framework enabling the flexible organisation of working hours and workplaces together with new approaches to future-oriented training and skills development.

3. The tensions inherent in digital transformation must be resolved

Digital transformation is bringing about major change in many areas and creating considerable tensions which need to be discussed. At the same time, ways of resolving these sometimes strongly conflicting tensions should be worked out. Moreover, the simultaneity of the many changes within a very short time-frame is straining existing mechanisms for reaching consensus on changes, most especially for organisational and work design taking account of new digital possibilities. Shaping digital transformation is a task to be shared by all stakeholders. All relevant stakeholders should be united by an understanding that the topic is inextricably linked with the innovation and transformation capabilities of the players in business, academia and society and that high speed will crucially determine competitive success.

In the past, major upheavals in the working world alternated with relatively long periods of calm in more or less predictable cycles, while today the pressure to change is permanent. A new balance must therefore be struck between a culture of preservation and the need for permanent change which combines the

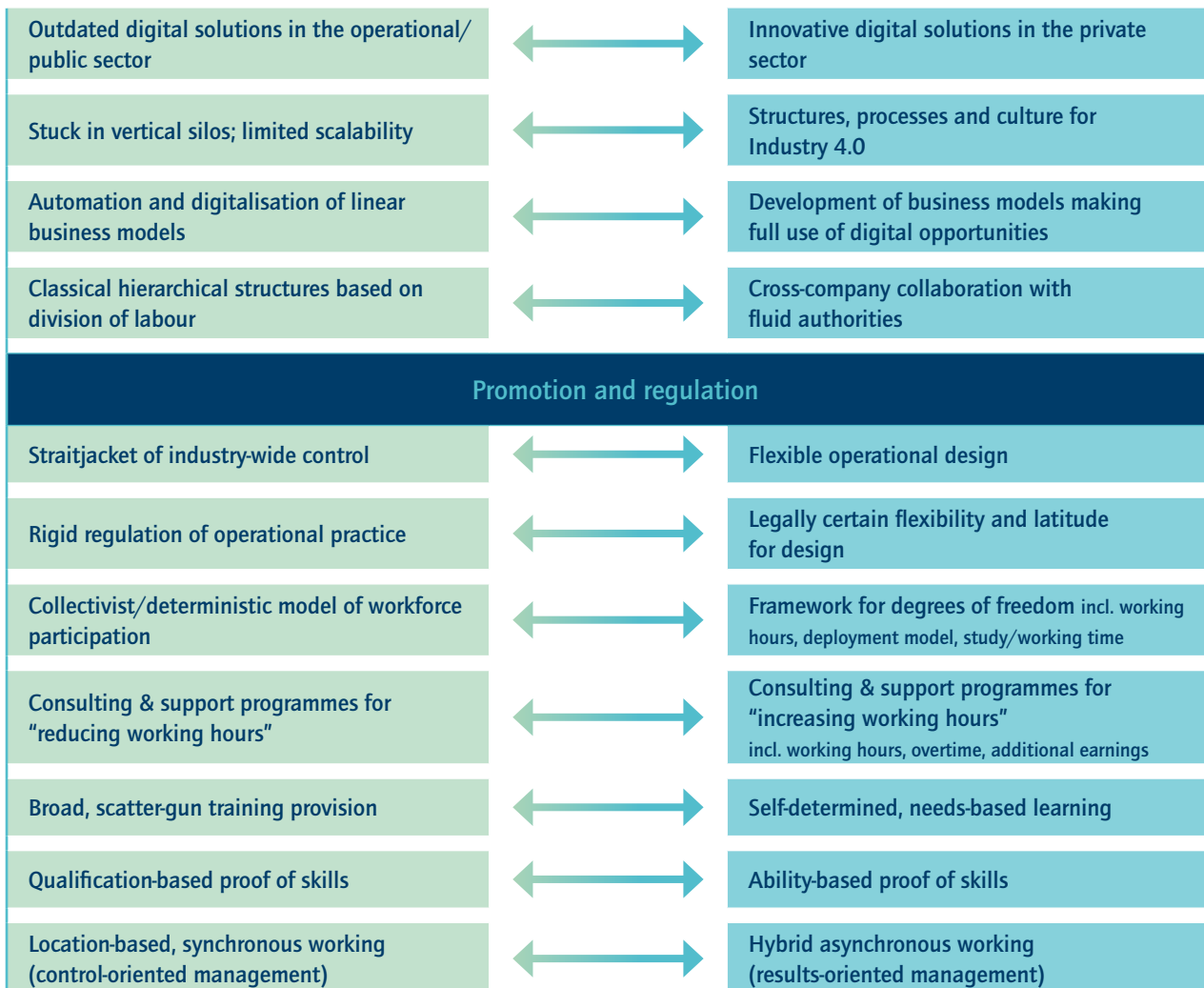
need for psychological certainty and the benefits of a strong corporate commitment to agility. Organisations must strive to guide and support employees by continuous, transparent communication.

Many employees welcome the opportunities offered by digital transformation and want to play an active role in shaping it and experience its individual promise of flexibility. At the same time, they also need a certain degree of reliability and stability, especially in times of structural change. Achieving this means trans-

parently describing corporate strategy and operational developments and allowing employees to play an active role in change processes.

The success of digital transformation requires specific recommendations both for resolving areas of tension and for the mechanisms for rapidly building consensus in favour of change. The HR Working Group's DEBATES on digital transformation identified the following levers for transformation:

Leadership and speed		
Slow rate of change; lack of direction	↔	High pressure to change; "compressed transformation"; multi-speed approach
Culture of preservation	↔	Culture of change ("digital culture")
Rigid regulatory framework for change in Germany	↔	More dynamic change outside Germany; displacement of investment abroad
Organisation and business model		
Change processes in the linear business model	↔	Transformation management for digitalisation
Culture of "protecting intellectual property"	↔	Culture of "sharing data"
Regulated decision spaces	↔	Opt-out clauses for large real-world laboratories
Process-based decisions	↔	Data-based decisions
Focus on the organisation	↔	Focus on people
Digitalisation for "white collar work"	↔	Digitalisation for all employees
Digital capabilities of the organisation	↔	Digital capabilities of employees
Productivity by automation	↔	Productivity by digital skills development
Transparency and control by data and algorithms	↔	AI and data-driven working with self-determination
Solutions in larger companies and groups	↔	Solutions for small and medium-sized enterprises



These levers for transformation will be the subject of future DE-BATES within the HR Working Group. Possible solutions should

be identified, discussed and worked out together.

4. HR directors or Chief Human Resources Officers (CHROs) are becoming the drivers of change capability in a corporate setting

New digital technologies can only take full effect if companies and workforces actively shape this transformation: in addition to automation, digitalisation must above all offer tangible benefits for people too. Companies must therefore pay particular attention to their staff's perspective because they are ultimately the drivers of change.

HR directors are here becoming key change agents of technological and operational transformation; CHROs are increasingly driving change capability and playing a key role in shaping cultural transformation in a corporate setting and in redesigning the organisation of work and organisational structures. In so doing, they are having to address still more intensively the issue of how the role of human resources is evolving in the course of digital transformation.

In this context, the focus is not only on the "organisation's digital capabilities" and the "employees' digital capabilities", but also on "digital culture", i.e. the whole gamut of principles and mechanisms which determine the quality of the interaction be-



tween organisational structure and process organisation at a high level of digitalisation. HR managers must also create latitude for large real-world laboratories and, working hand in hand with stakeholders both inside and outside companies (in professional associations and with policy makers), develop ideas for implementation. A willingness to embrace new forms of work and organisation and a commitment to providing resources are key success factors.

5. “Digital culture” is becoming the central capability for ensuring the success of digital transformation

“Digital culture”, i.e. the capability to shape major, digitally assisted change at high speed, provide adaptive control and so enthruse people for change and collaboration, is becoming decisive in terms of competitive success and location attractiveness. This is because a high level of digitalisation helps a company to successfully defend its hard-won performance, continuously improve it, radically renew it if necessary and thus secure its own success.

“Digital culture” in particular also includes an ability to rapidly achieve consensus in areas of tension. “Digital culture” includes principles of design, behavioural patterns and approaches which are crucial to the success of digital transformation. These principles must be acknowledged as important and correct by all corporate decision makers, social partners and policy makers who, most importantly, must set a good example. Only in this way will staff become active agents of change.

Trust in employees’ willingness to perform and self-management capabilities is central here. Managers ought simply to place greater trust in people and take them seriously as responsible shapers of their own working environment. Digitalisation, big data and AI are opening up new scope for activity; openness and trust are the foundation for responsibly managing the transparency across companies which digitalisation generally creates.

6. Lifelong learning is one of the keys for shaping change

Job profiles are changing and new, in some cases much more demanding, employment opportunities are emerging. There will be hardly any activities or professions which are unaffected by digitalisation. Future skills requirements must be identified in good time and corresponding skills development concepts established in parallel with technological developments. There is also a need for more openness to new ideas as well as latitude and courage for experimentation, including in the area of learning. Enabling and facilitating the continuous acquisition of knowledge and skills, as well as a corresponding self-awareness, are becoming key skills for the work of the future and the competitiveness of German companies. This will also increase the professional requirements for recording needs and skills requirements on the part of companies and employees, as well as the demands placed on the professionalism of training personnel in terms of shaping skills development structures and concepts.

Companies are faced with the challenge of ensuring, through continuous reskilling and upskilling, that employees can move “from job to job”, if possible within the company, but also across company boundaries. If (continued) employment prospects are to be maintained, it is a task for society as a whole to support appropriate transfers for those for whom there will be no development prospects in their previous company or occupational field. Companies cannot bear the load of such reskilling alone; refresher courses are not always the solution.

Full use is yet to be made of the potential of digitalisation in skills development. Access to knowledge is being facilitated in many ways by digital transformation, resulting in greater requirements for independence and personal responsibility, collaboration and openness to solution-oriented activity. At the same time, this transformation is opening up many and varied new opportunities to learn and develop in and through professional activity. Self-directed, independent learning on the job can be still better promoted, for example, by learning labs, learning support, study time or learning tools.

Individual and needs-oriented skills development is becoming increasingly significant: “scatter-gun” further development meets neither corporate requirements nor employees’ needs. Motivating employees to learn is a challenge within companies; establishing healthy attitudes towards learning and creating a willingness and ability to enter into lifelong learning must as of now be embedded more deeply in the education system.



Outlook

In further top-level discussions in the “Fit for Future Work” series of debates, the HR Working Group will also focus on shaping digital transformation and the future world of work. In the coming weeks and months, the presented propositions will be discussed and possible policy areas for change derived. In this context, the HR Working Group is organising an annual conference in October 2023: stakeholders from business, academia and policy making will exchange ideas about design options for digital transformation and present and discuss the insights so far gained from our DEBATES to the public. The HR Working Group would like to offer its expertise and working results to provide direction for digital transformation.

As a supplement to and in conjunction with the work of and issues addressed by the acatech HR Working Group, a scientific support group is set to act as a “digital transformation” sounding board. A network of scientists and academics will provide inter-

disciplinary, evidence-based support for the acatech DEBATES as well as for the HR Working Group’s further discussions on shaping digital transformation and will develop consolidated propositions and impetus by way of assistance for operational practice. The support group is an interdisciplinary dialogue format complementary to existing initiatives within the ecosystem.

The HR Working Group’s ongoing work will address questions about which we also want to enter into dialogue with the ecosystem in the upcoming DEBATES and which include: How specifically can a future-oriented “digital culture” be designed and promoted? How can leadership culture, work and organisational processes help? What might innovation-oriented further development of workforce participation look like? How can the future of value creation be shaped?

We want to engage in this dialogue with society as a whole, together with partners from the ecosystem.

HR Working Group – Forum for HR directors on the future of work

The HR Working Group is acatech’s forum for bringing together prominent figures from business and academia for a confidential strategic dialogue on issues relating to securing innovation-relevant skills in Germany and for shaping digital transformation. The HR experts will exchange views on how the opportunities offered by digitalisation can be reflected in the world of work and how companies, employees, employers and works councils and policy makers can shape this transformation together. The exchange of views within the HR manager ecosystem is helping to develop a common understanding of future issues and possible policy recommendations. Only through ongoing dialogue with policy makers can the jointly developed demands for legislative changes and adjustments be tailored to operational requirements.

The majority of members of the HR Working Group are HR directors of leading technology and service companies. The hosts are Henning Kagermann, Chair of the acatech Board of Trustees, Frank Riemensperger, acatech Executive Board member, and Joh. Christian Jacobs, Managing Partner of Joh. Jacobs & Co. (AG & Co.) KG and acatech Senator.

The following companies and universities are participating in the HR Working Group:

Beiersdorf AG, Bertelsmann SE & Co. KGaA, BMW AG, Commerzbank AG, Deutsche Bahn AG, Deutsche Post DHL Group, Deutsche Telekom AG, Fresenius SE & Co. KGaA, Infineon Technologies AG, Otto GmbH & Co. KG, Robert Bosch GmbH, SAP SE, Schaeffler AG, SMS group GmbH, Software AG, TÜV Rheinland Berlin Brandenburg Pfalz e. V., Leibniz Universität Hannover, Technical University of Munich, University of Vienna.

Further information

acatech policy briefing "Shaping Digital Transformation. Impetus for Policy Makers from the HR Working Group" (2022): https://www.acatech.de/wp-content/uploads/2022/05/acatech_HR-Kreis__Politikbrief-2022.pdf

acatech policy briefing "Opportunities for Innovation and Good Work. Impetus for Policy Makers from the HR Working Group" (2021): <https://www.acatech.de/publikation/chancen-fuer-innovation-und-gute-arbeit/>

acatech IMPULSE "From a Presence Culture to a Culture of Trust. Seven Theses on Mobile and Hybrid Working presented by the Human Resources Working Group" (2021): <https://www.acatech.de/publikation/von-der-praesenz-zur-vertrauenskultur/>

acatech DISCUSSION "Dynamic Skills Management: Identifying Skills Requirements Early, Devising Tailored Solutions. Practical Guidance from acatech's Human Resources Working Group" (2021): <https://www.acatech.de/publikation/dynamisches-kompetenz-management/>

acatech DISCUSSION "Promoting Lifelong Learning – Good Examples from Practice. A Good Practice Report from acatech's Human Resources Working Group. Lessons Learned, Scientific Analyses and Policy Options" (2020): <https://www.acatech.de/publikation/good-practice-bericht/>

acatech DISCUSSION (in cooperation with the Hans Böckler Foundation) "Shaping Digital Transformation: Promoting Lifelong Learning" (2018): <https://www.acatech.de/publikation/die-digital-tale-transformation-gestalten-lebenslanges-lernen-foerdern/>

acatech DISCUSSION "The Future of Work in the Digital Transformation: Agility, Lifelong Learning and the Role of Employers and Works Councils in Changing Times" (2017): <https://www.acatech.de/publikation/arbeit-in-der-digitalen-transformation/>

HR Working Group project: <https://www.acatech.de/projekt/hr-kreis-forum-fuer-personalvorstaende-zur-zukunft-der-arbeit/>

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