Manage the effects of Robotic Process Automation to enable a future-proof workforce

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Managing Robotic Process Automation

The increase of Robotic Process Automation (RPA) and intelligent automation generates a significant shift in the distribution of tasks between humans and machines. Between 2019 and 2025 up to two-thirds of the US$ 9 trillion knowledge worker marketplace may be affected. Recent research of the World Economic Forum on the future of jobs indicates that an average of 71% of the total tasks are currently performed by humans, against 29% executed by machines[1]. It is expected that this distribution is going to shift towards 58% of tasks performed by humans, versus 42% machine-performed tasks. This shift in the distribution of tasks within the workforce requires an adequate management response. Jobs have to be redesigned and good management of the new hybrid workforce, where humans interact with intelligent automation robots, is becoming increasingly important. It is the responsibility of the leaders to prepare the human workers for this cooperation with automated systems.

This article advises on an adequate response and change management approach to deal sensibly with change. Based on two studies performed by KPMG in 2018 on the impact of RPA and intelligent automation on the human workforce, we will introduce the KPMG Workforce Navigator Model to you and provide insights on how to manage the transformation towards a hybrid workforce and ensure a future-proof workforce[2].
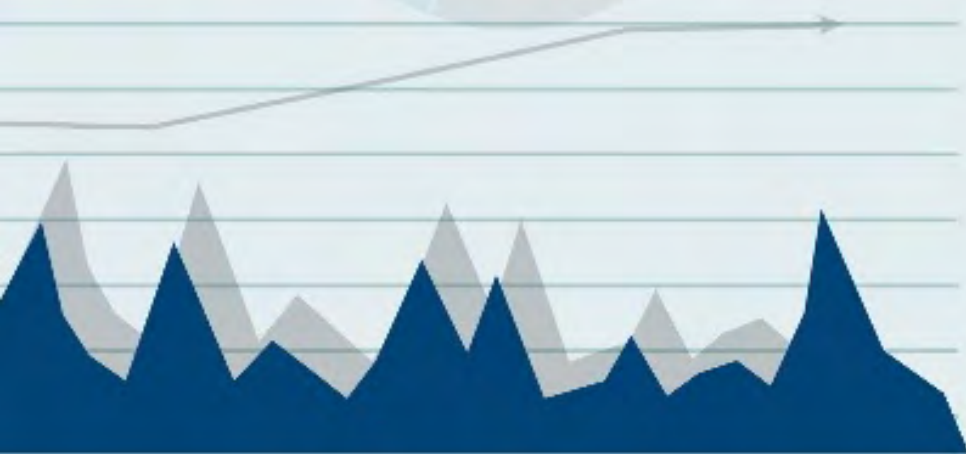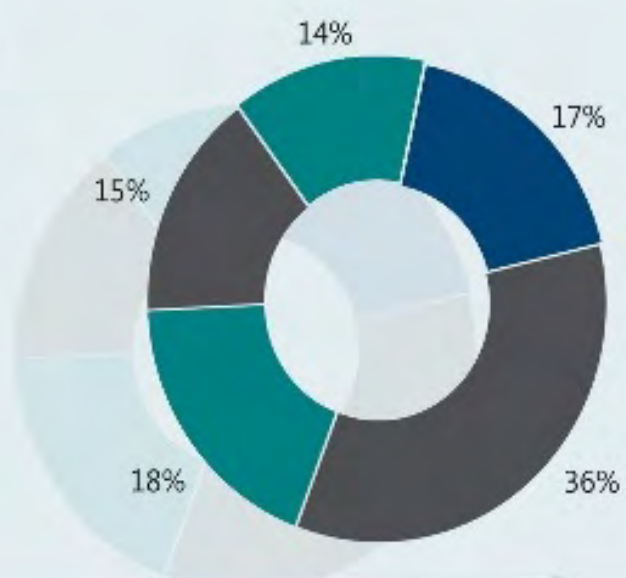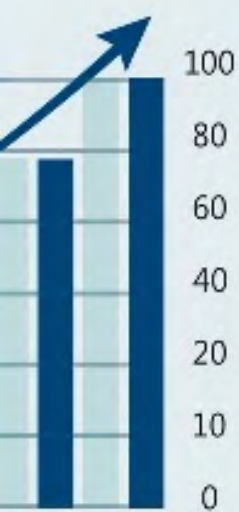
The 5 stage workforce navigator

The KPMG Workforce Navigator Model describes the challenges for leaders to integrate the robot-human workforce and advices on how to make the most of this combination. This model provides 5 key steps for organizations to better understand the implications of implementing robotics for their current workforce and act accordingly.

1. Translate
2. Shape
3. Design
4. Change
5. Measuring
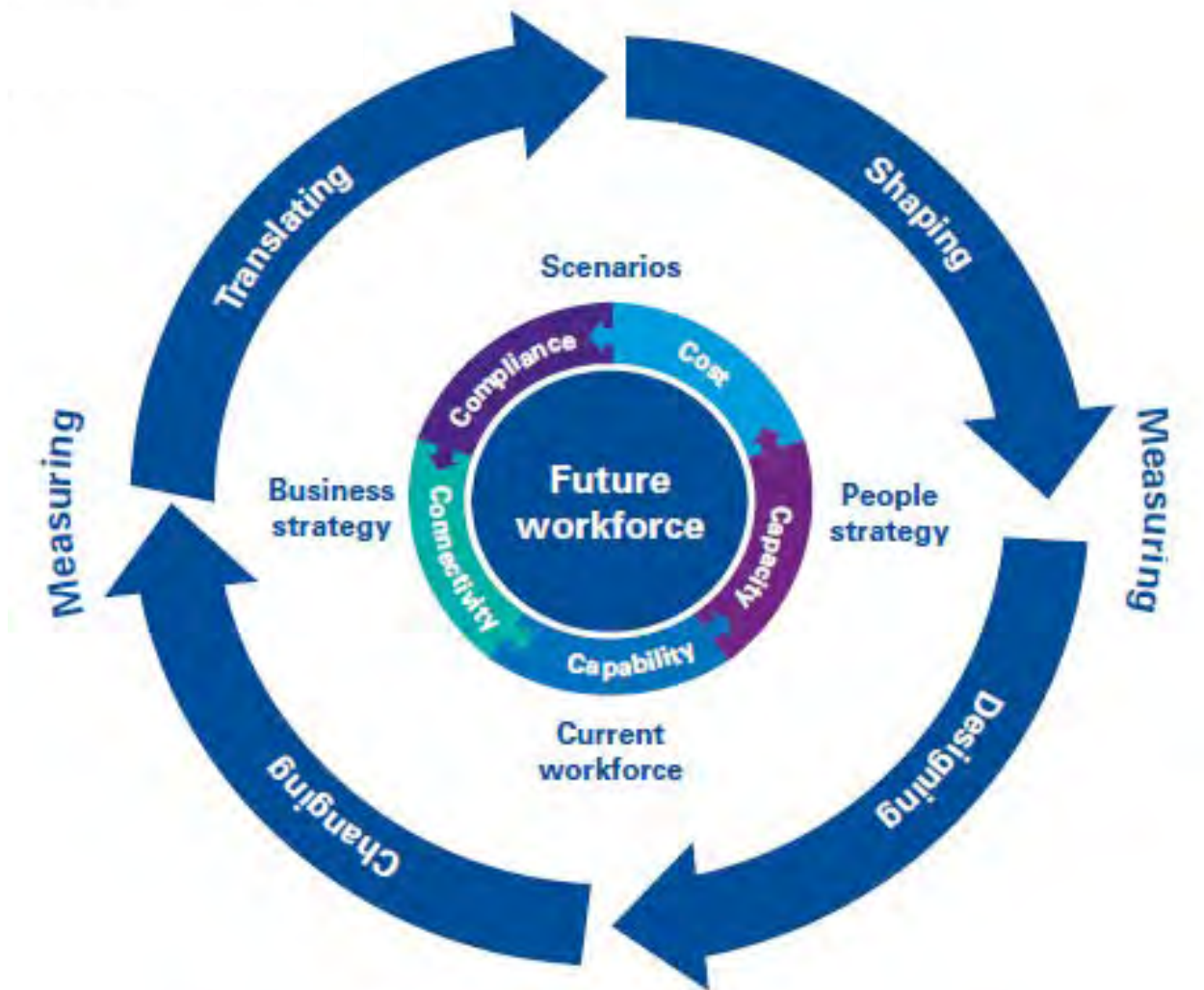
The 5 stage workforce navigator

Step 1. Translate: Translate business strategy into people implications

Make explicit where you are headed as an organization and how more intelligent solutions, like cognitive technologies, can help execute that strategy. Subsequently, translate this business and technology strategy into the implications for your employees. Explore which jobs will end up being affected and define the impact of the change on individual tasks. Formulate a clear business case in which the need for change of the to-be-automated process is well explained. Research of KPMG within a diverse set of Dutch organizations shows that emphasizing the need for change of the current way of working and highlighting the customer benefits of RPA motivates the workforce to participate during the implementation process.

Step 2. Shaping: Reallocate the freed up time

After a successful implementation of RPA, the robot takes over transactional and repetitive tasks from the human workforce. This results in freed-up time for human workers and provides the opportunity for employees to conduct other, more complex tasks. Some human workers are able to fill in this time, but for others this will prove difficult. It is therefore recommended to address the possible job consequences of the RPA implementation for the human workforce before starting to automate the process. When employees are supported and directed towards their new role, the RPA implementation will increases employee productivity overall.

Step 3. Design: Design & manage the effects of robotics on the workforce

It is important to design a detailed blueprint of how the human and digital workforce can work together. This blueprint is required to design the workforce of the future. Take into account the different effects of implementing RPA within your current workforce environment. The affected jobs can be both enriched and enlarged; however, this must be managed properly – as reflected in recent KPMG research. The main findings of this KPMG research extend the current KPMG Workforce Navigator Model in terms of job enrichment and job enlargement. These effects on Job Enrichment and Job Enlargement are discussed in the following paragraphs (3.1 and 3.2).

3.1 Job enrichment

Interviews, on both employee level and managerial level after an RPA implementation, show interesting effects of RPA on the design of jobs involved. Both employees and managers observe and experience an enrichment of the involved jobs after the implementation of RPA. This enrichment is observed within three main dimensions of job enrichment, namely skills required, task significance and autonomy. Since RPA is most suitable for high-volume, repetitive and standardized tasks, it takes away the 'mundane' tasks from the human workforce. Hence chances arise for employees to work on more interesting and value adding tasks. Within the research, both managers and employees observed this change in job design as a positive effect and perceive it as enrichment of their employment.

Consequences for a future-proof workforce

When considering the implementation of RPA it is important to take this shift in individual tasks into account when you are planning for a future-proof workforce. It indicates that the hiring policy of departments may have to be reconsidered in case of RPA implementation. Furthermore, the adaption of new staff skills and techniques needs to be stimulated in order to ensure their readiness for the increased skill requirements, significance of tasks and autonomy of work.
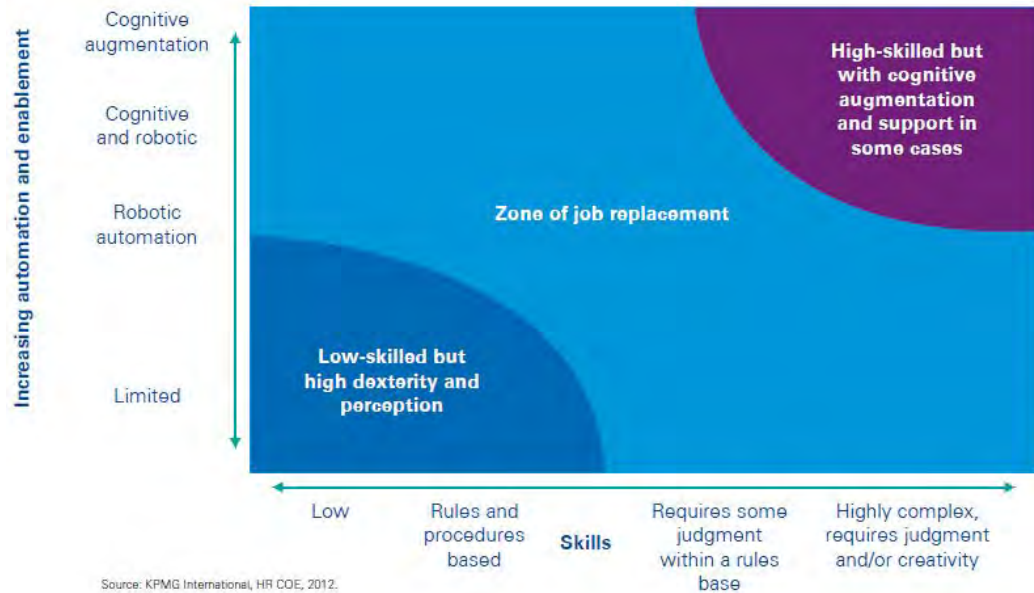
This shift towards a need for higher educated staff and additional training of current staff is also stated by the World Economic Forum[3], where they expect that by 2022 a minimum of 54% of the employees require significant reskilling and upskilling.

3.2 Job enlargement

Next to enrichment, RPA implementations are also expected to enlarge the job design of the human workforce. Often this is a result of reassignment of remaining tasks after the implementation. Since RPA takes over a part of the tasks, the implementation drives an opportunity to reassign remaining tasks to employees. This opportunity needs to be directed by the manager to ensure that tasks are re-assigned correctly to the employees after the implementation of RPA. Once again, the matching of skills is required; this can result in reskilling or upskilling of the employees to ensure the alignment.

This reassignment of tasks is contributing to the hollowing out of the workforce due to polarization between low-skilled manual work and high-skilled cognitive work. The figure below shows how these different types of jobs are affected by increasing automation and enablement.

Increasing automation and enablement

Cognitive augmentation	
Cognitive and robotic	**High-skilled but with cognitive augmentation and support in some cases**
Robotic automation	**Zone of job replacement**
Limited	**Low-skilled but high dexterity and perception**

Low	Rules and procedures based	**Skills**	Requires some judgment within a rules base	Highly complex, requires judgment and/or creativity

Source: KPMG International, HR COE, 2012.

Step 4: Change & Maintain process knowledge

For a successful transfer of tasks from human to robot, it is important to be aware that one is highly dependent on individual expertise. We have identified two essential hand-over moments when implementing RPA. First, the current process incumbent needs to articulate how the process is executed in detail, including all the exceptions. This, in order to build a robot that executes the same tasks in the correct manner. Secondly, the companies' process owner needs to understand in detail how the robot is programmed. This information is required to solve potential errors adequately. Both hand-over moments require detailed communication. One misunderstanding between the expert and the process-owner can damage the fundament of the robot.

To facilitate these hand-overs it is recommended to carefully capture the process knowledge within the organization, to enable potential adjustments to the robotized process later on, and to allow for answering client questions about the processes. Capturing in detail ensures that knowledge about the process and the robot is retained and that potential errors can be resolved more easily.
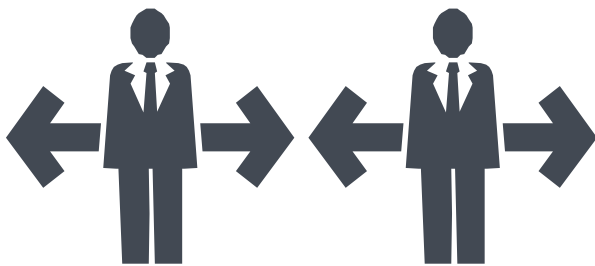
Step 5: Monitor your process

Monitor the progress and stay on the lookout for alternative scenarios that might unfold. An agile response is required to ensure that all risks are managed, including the supply of talented people, an engaged and committed workforce, organizational innovation and agility to exploit new business opportunities. Continuous learning and development will support reskilling and career relevance of individual employees over time.

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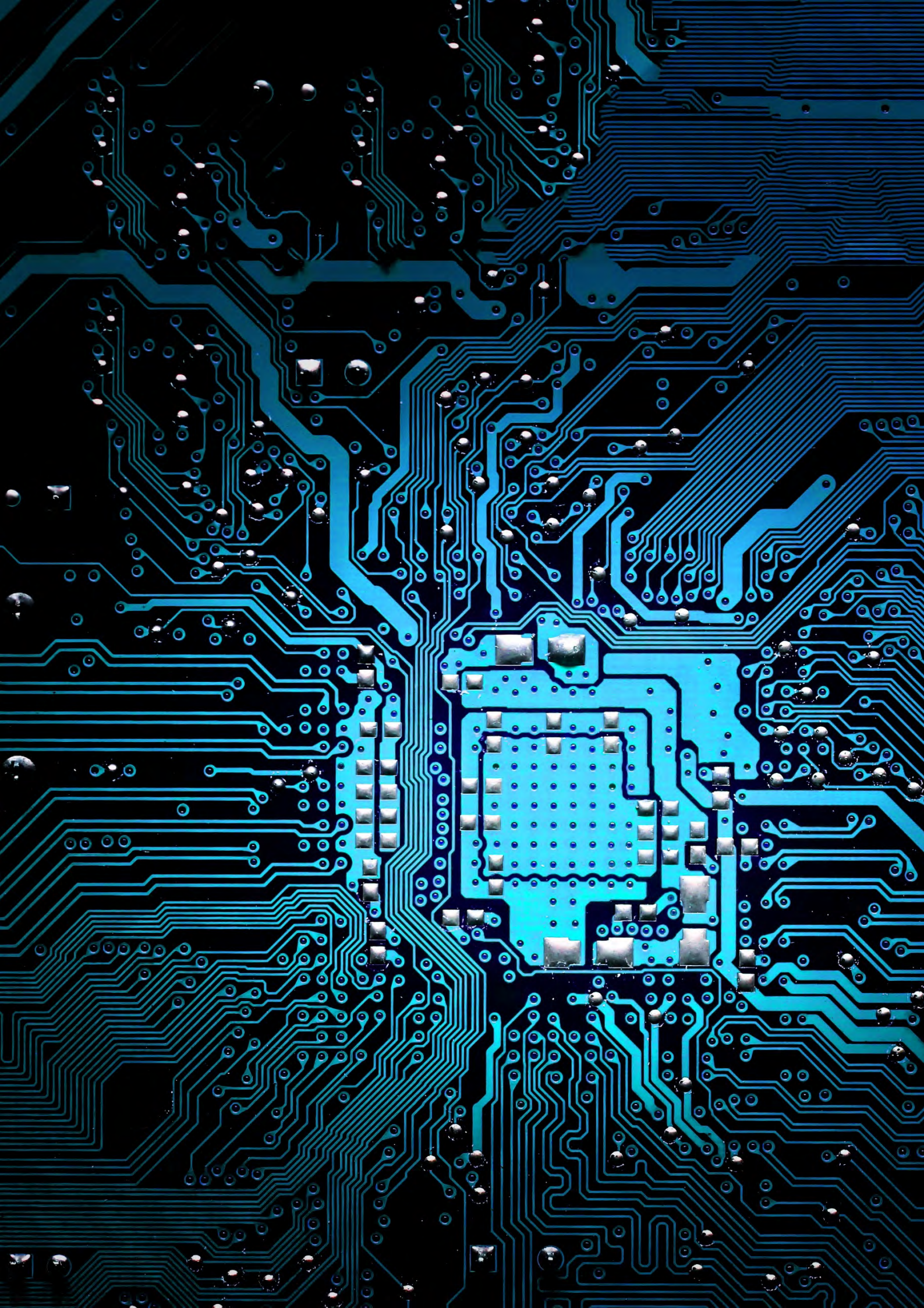
Prepare your workforce for the future

RPA will most likely generate a significant shift in job designs, requiring new skills to perform reallocated tasks.

As soon as a clear case for change is clarified and employees are supported towards their new role allocations, there is often an opportunity to enlarge the individual jobs as well.

By implementing RPA and intelligent automation in relation to your processes and thereby considering to the principles of the 5-stages workforce model, you will empower your hybrid (human and electronic) workforce to be ready for the future.

The time is now

KPMG's view is that the leaders of tomorrow prepare the human workers for the cooperation with automated systems.

When implementing intelligent automation, it is trivial for managers to consider the KPMG 5-stages workforce model to manage your hybrid workforce effectively.

This model provides a basis to design your future workforce, prepare employees for the consequences of automation and formulate an adequate response on change management.

For more information feel free to contact us.

Footnotes

[1] KPMG (2017). Rise of the Humans
[2] Van der Zande, D (2018). Robotic Process Automation: an employees' perspective: an exploratory case study on the perception towards Robotic Process Automation among employees
[2] Dalebout, W.J. (2018). Exploring the impact of Robotic Process Automation: the effects of Robotic Process Automation on FTE effort and the design of the jobs involved
[3] World Economic Forum (2018). The Future of Jobs Report 2018

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