



# Learning about the future

Evolution of Strategic Workforce Planning at Deutsche Bahn

The world is complex! Considering the fast and severely changing business environment, this expression is on everyone's lips. But what does complexity mean in terms of strategic workforce-planning? Does planning makes sense at all? And if so, which design principles should such planning follow? Kai Berendes from Dynaplan AG, Claudia de Andrés-Gayón and Stefan Kotkamp from the Deutsche Bahn Group give practice-led answers.





any companies know about the trade-off between stability and agility regarding their product portfolio. On the one hand, it is important to secure existing product offers meeting the expected customer value in a competitive environment. For this purpose, among other things, the necessary workforce resources must be made available and stabilised at the desired level. Under the assumption of a constant demand for products, the demand for workforce is declining due to experience curve effects and linked productivity improvements. Usually, there are no big step changes.

been and still is about "running the business" and "changing the business" at the same time.

### TRADE-OFF BETWEEN STABILITY AND AGILITY

STAGE 1 The importance of the two topics ("run the business" / "change the business") can shift in both directions over time. When Deutsche Bahn started the implementation of strategic workforce planning in 2009, the focus was on securing the existing business. After years of workforce reduction, it was particularly important to

ment of strategic workforce planning in the organization as an ongoing planning function. This allowed more fundamental decisions respectively policies to be made. In a business unit, for example, internal development and qualification paths have been remodelled, so that employees can be developed faster into critical functions.

STAGE 3 Currently, the Deutsche Bahn is in the third stage of development. In the context of the discussions about digitisation and its impact on business models and jobs, it soon became obvious that the planning approach had to be further developed

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On the other hand, sooner or later every customer solution will be substituted. Hence, a fast adaptation to new framework conditions, like in the area of digitalization, is required. This ability of adaptation describes the currently so popular cited agility of organisations. Aria de Geus (2002) has highlighted this ability as essential for the long-term survival of companies.

In the context of planning, a first important design principle can be derived: strategic workforce planning is not pure trend extrapolation and does not only take care of the replacement of the existing workforce due to attrition or covers the workability in the context in times of demographic change. Rather, it should incorporate changes in future workforce demand, for example due to new business models. Strategic workforce planning has always reassess the risks of an ageing workforce supply.

After successful implementation, the strategic workforce planning approach provided for the first time a well-founded and transparent view of future developments of workforce supply in relation to the planned workforce demand. Focussing on the main operational job clusters, this resulted in an effective and efficient dialogue between the HR department and the business units. As a results, measures related to aging workforce—such as the development of forward-looking strategies for replacement or the strengthening of workplace health manage- ment — were much more accepted.

STAGE 2 The second stage of development focused on the sustainable establish-

in two directions in order to meet the new business requirements:

- On the one hand, (a) the existing quantitative view at job families had to be supplemented by a more qualitative dimension concerning competencies and their changes.
- On the other hand, (b) the previous models, which were based on extensive sets of premises with a high need for coordination, had to be significantly simplified to enable a faster and easier look at future scenarios.

As a result, the "workforce navigator", a planning tool based on Dynaplan, is now available. On the one hand, it increases the quality of collaboration between planners e.g. by introducing versioning for assumptions, while at the same time increasing the efficiency. On the other hand, the work-

force navigator is a communication and mediation instrument for business and HR functions. As early as possible, the necessary changes in existing activities as well as completely new competencies are considered by using this tool. Consequently, transitions can be designed in a forward-looking manner considering both a qualitative and quantitative point of view.

This evolution of the concept for strategic workforce management was the responsi-

bility of a team comprising HR planning, HR steering & controlling, HR development and the internal labour market. In the following, the main steps and features of this tool-based consulting process are illustrated.

#### THE PROCESS

The trigger and starting point of the process is not - as in traditional planning – a certain date or month in the calendar, but rather an ad hoc event, for example, short-term changes in conditions and current strategy discussions in the business. The process is set to a few steps that do not require heavy manual input of data but are rather driven by smart decision rules. Hence, no data-inten-

sive sheets must be filled in advance (Fig. 1).

STEP 1 focuses on the description of today's situation by HR. The scope of the analysis and the corresponding job clusters are defined by the business. The structure of the employees is shown not only according to well-known elements, such as the number of employees per job cluster including other characteristics such as gender or age. By means of the "persona method" a look at today's critical competencies is provided. A persona is a fictitious person who addresses the needs and requirements of a certain job cluster. The methodology has become known in connection with the development of software (Bauer/ Thormaehlen 2003).

STEP 2 After the description of the actual situation, possible future time paths are developed within a strategical dialogue with business experts. It is important to include the drivers of possible change and to show the expected impact regarding quantity and competencies. Depending on the job cluster, future scenarios are developed which

One example is the job cluster about necessary maintenance work, which requires in addition to manual skills also technical knowledge about the device (e.g. signals). Since several generations of these devices have been put into operation over the years, a corresponding broad knowledge and experience is necessary. By means of new digital developments, the technical knowledge could be provided by someone else instead, for example on-site support via data glasses. Thus, the competency need about the



When Deutsche Bahn started introducing strategic workforce planning in 2009, the focus was on securing the current business model. After years of staff adjustments, in particular the risk of an aging workforce had to be reassessed.

show the changed quantitative workforce demand as well as needs for up- and/or down-skilling. In practice, the later one is typical independent from the SWP process and usually takes place in parallel by a different HR function. But the discussion about competencies shouldn't be overlooked. As done in the workforce navigator from Dynaplan it should be linked to the workforce supply. By doing so, new opportunities and risks in dealing with potential bottlenecks by will pop up. The decision about building up internal workforce or buying new workforce from the labour market will be supported.

technical knowledge in the existing job cluster "maintenance" regarding all the generations of devices is longer there. But at the same time a demand for a new job cluster for feeding the data glasses with all the technical knowledge e.g. as part of competence center pops up.

STEP 3 Here the set of measures are defined in order to efficiently close the identified gaps between future workforce demand and workforce supply. This final step is supported by a dynamic simulation model. In doing so, not only the new development of demand, derived in step 2, and the current

supply are compared over the simulation horizon. The impact of the measures on the workforce is also simulated (e.g. future hiring mix of trainees and external specialists or the development of internal workforce).

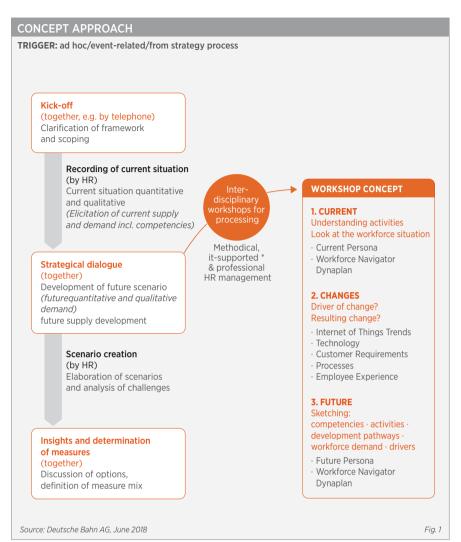
This is where the deep dive of competencies beyond job clusters can help to describe the motion between job cluster and identify development paths between them. To avoid falling into a complexity trap and getting bogged down, the concentration on main mission critical competences is key. Concerning the amount of considered competencies, the number seven, known from cognitive psychology, has proven to be a good guideline. As one of the key output charts in the tool from Dynaplan (Fig. 2), the gap related to capacity (y-axis) is compared to unmatched competencies (x-axis).

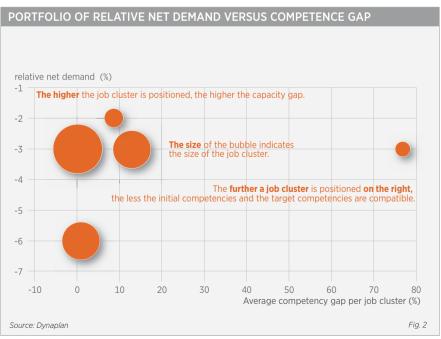
In addition to the simulation of options along the HR value chain, business levers are also considered when simulating scenarios, such as make-or-buy decisions and their influence on future internal workforce demand.

## CHARACTERISTICS OF "GOOD" STRATEGIC WORKFORCE PLANNING

The last process step can be used to derive characteristics of good planning in a dynamic environment, which must be supported by a modern planning tool. There are parallels to corporate controlling (Isbruch et al. 2016):

1. The depiction of merely volume-based developments per job cluster is not enough. Supported by the consideration of mission critical competencies, qualitative changes can also be taken up in the same analysis, which in turn steers the movement of employees between the job clusters or lead to the development of entirely new job clusters. The agility of the organisation in terms of HR becomes tangible by the simulation of movements between job clusters.





#### 1

#### 2. No extrapolation of the past, but simulation of scenarios.

Instead of asking how the workforce supply will develop in detail, thinking in scenarios takes place in order to prepare for possible developments and to adapt quickly to new conditions. There, the results of use cases from people analytics can be incorporated. For example, if the new technology prevails in the field of maintenance, what would the corresponding workforce demand be and what actions would need to be taken today?

- 3. Close collaboration between HR functions and the business. Scenarios are the result of collaborative work; collaboration must not be reduced to collecting assumptions of a few decision-makers. The future is shaped together. To integrate more stakeholders easily and quickly, it must be possible to actively share scenario inputs and outputs at various levels. "Active" means not only providing static reports, but also offering the possibility of playing through scenarios in a sandbox, including possible options for action and their effects. Only through this in-depth exploration, learning about the future can take place and, in addition, a positive customer experience can be achieved.
- 4. High speed and balanced complexity. Planning must not be based solely on the calendar and the coordination must not take many weeks. Future workforce scenarios must be adapted on an ad-hoc basis and should consider a suitable level of complexity. Planning models are not one-to-one representations of reality but are used to reduce complexity. Different types of demand drivers must be integrated flexibly and an external perspective (labour market supply) should also be incorporated.

#### CONCLUSION

We cannot accurately predict the future of an organisation. This does not mean that planning is no longer useful in general. On the contrary, choosing the right workforce planning approach is a key success factor of viable organisations. Workforce planning today means above all: learning about the future.

#### Literature

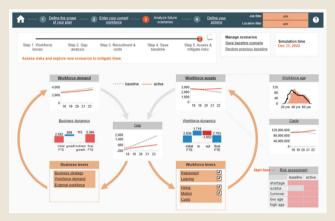
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