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# The dragon´s hunger for talents

## *Challenges for human resources in manufacturing in China under Made in China 2025 background*

Human resources are massively stressed in the “Made in China 2025” plan, as manufacturers in China are facing endangering labor shortage problems, especially in terms of skilled workers and innovative talents. Specific measures need to be conducted finally to cope with challenges like low-skilled workers and the lagging vocational training. On the way finding solutions, China cooperates intensively with its foreign business partners - at home and abroad.

### *“Talent as a fundamental”*

As a direct response to the new industrialization strategies proposed by industrialized countries, e.g. the German “Industrie 4.0” and the American “AMP 2.0”, the “Made in China 2025” plan was issued and announced by the Chinese State Council in May 2015. Briefly, this plan aims to upgrade the Chinese manufacturing industry to an efficient, innovative and world-leading industry[i]. As one of the five major guidelines of “Made in China 2025”, the concept “Talent as a Fundamental” is raised by the Chinese government in order to boost the Chinese manufacturing industry[ii].

### *Decoding "talent as a fundamental"*

In details, "Talent as a Fundamental" refers to a stratification of talent systems. There are three types of talent to be developed[iii]: first of all, management talents with international competence are to be developed. They support the transition from products "Made in China" to Chinese brands. Secondly, engineers in industries with urgent talent-shortage are to be built, especially innovative talents in R&D. They support the transition from "Made in China" to "Created by China". Last but not least, highly skilled technicians are to be trained, including specialists in customer and technical services. The above-mentioned three types of talents are concluded as manufacturing talents in China. All these plans and measures require an intensive cooperation among the Chinese government, manufacturing companies (no matter of size or ownership forms), industry associations and educational institutions. However, comparing to industrialized countries, China has only 1.6% share of R&D in GDP (Germany has 2.85%; Japan has 3.48%)[iv]; which indicates that China has a very low technological capacity and is still in the transition up to Industry 3.0 (electronics and IT). According to the data from the National Bureau of Statistics of the People's Republic of China and the Ministry of Human Resources and Social Security of China, the number of highly skilled technicians is less than 5% of the total employed workers[v]. Highly skilled technicians hereby refer to technicians with state approved professional qualifications. By contrast, in Germany up to 61% of the technicians have professional qualifications, 16% of the technicians are academic professionals[vi]. Although China has access to the society that has created economic miracle, China is facing challenges in finding talents.

### *A big picture without details*

In the official document of "Made in China 2025", no concrete selection criteria for manufacturing talents are mentioned. The wrong placement of employees especially management employees can cause inefficiency and slow down the upgrading process, as the Middle Kingdom has a tradition of cronyism, especially in family firms and small companies, which account to 44.92% of all companies in China[vii]. Although without any official guidelines, companies should develop their own selection criteria for manufacturing talents depending on their current needs. Foreign companies in China should not only supervise the recruiting of manufacturing talents in their Chinese subsidiaries, they should also invest in employer branding in order to attract more talents, as foreign companies are seen as having a more transparent work environment and a fairer chance for promotions.

### *Low skills - low job security*

The flexible, low-skilled workers in China are an obvious challenge. Many traditional family firms or small Chinese manufacturers have been relied on low-skilled workers, many of which are better known as rural workers, for many years. They are employed without basic job training and they can easily get unemployed as the firms plan the production according to the dynamic market trends. Most of the workers cannot stick to one type of work for a certain period of time, not to mention to further develop their skills. Importantly, "Made in China 2025" cannot be conducted successfully without the support of low-skilled workers working on the front line. Special budgets should be given to local social security offices to increase the job security of low-skilled workers. Also, as many traditional manufacturers are suppliers of large corporations, the efficiency and sustainability of the supplier chain can be increased if the front line workers become more professional. With the

financial support from the local association of industry and commerce, large corporations can show their regional commitment and their corporate social responsibility by training low-skilled workers, which in turn increase the sales and reputation of the company in the long term.

### *The lagging vocational training*

Vocational education in China is lagging under the background of "Made in China 2025". Vocational education in China fails to provide interdisciplinary talents, as the traditional division of majors no longer fit with the needs of companies and the demands of "Made in China 2025"[viii]. Furthermore, the tradition of emphasizing operative skills and neglecting the development of soft skills results in a more difficult adaption for fresh graduates when entering the workplace. Nevertheless, the lack of close cooperation between vocational schools and manufacturing companies are holding back the development of vocational education in China. Germany has set a good example to China in terms of an intensive cooperation between companies and vocational training. German manufacturers have though access to experience and working concepts. They should take this chance as an opportunity to win the "War of Talents" in China.

### *Low social status of technicians due to cultural reasons*

The "Made in China 2025" plan is majorly conducted by the government and vocational schools. The engagement from the society is still low. Taking a deep thought, the low engagement from the society in terms of upgrading human resources in manufacturing is due to the undervaluation of manufacturing labors embedded in traditional Chinese cultures. Back to feudal times, craftsmen were seen as having the second lowest social status in China. Nowadays, while government officials and successful businessmen have high social status, the low social status of technicians remains unchanged. Although workers with rare skills are highly demanded and are often paid with much higher salaries, companies usually do not have clear career plans for technicians. In Germany, engineers are often engaged with management issues, in China, this is not the usual case. As role models, foreign manufacturers in China should encourage more Chinese highly skilled technicians to take on management positions. Potential technicians can be sent to headquarters oversea to train their management skills. In the long term, the Chinese government should promote the social image of technicians by reinforcing their cooperation with manufacturing companies.

### *Outlook*

Manufacturing industries in China still have a long way to go in order to catch up with Germany in terms of human resources. The well-developed network of research organizations, the practical German dual education system and the strong engagement of trade unions in companies' daily business are all of important reference value to China. From another point of view, German companies have a close look at Chinese managers and learn how to master personal and business relationships and how to create harmony in teams to ensure work engagement. The huge demand of skilled technicians in China has created unique market opportunities for German companies, especially in the field of HR-related services. On the other hand, China can upgrade the manufacturing industry more effectively and efficiently with the help and expertise from the German side.

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