



# *Successful Motivation of Employees* in Tool Making

2016

Wolfgang Boos  
Michael Salmen  
Thomas Kuhlmann  
Tobias Hensen  
Maximilian Stark





**WBA  
WERKZEUGBAU  
AKADEMIE**

## **WBA Aachener Werkzeugbau Akademie**

The WBA Aachener Werkzeugbau Akademie develops industry-specific solutions for the sustainable competitiveness of the tool making industry in a network of leading companies. Its activities focus on industrial consulting, further education, industry solution as well as research and development. Its own demonstration tool shop enables the WBA to test innovative approaches in the laboratory and quickly make them accessible for its partner companies. Key issues are further addressed in the current studies. These provide information about trends and developments of the market and competition.



## **Laboratory for Machine Tools and Production Engineering (WZL) of RWTH Aachen University**

Across the world, the Laboratory for Machine Tools and Production Engineering (WZL) of RWTH Aachen University with its 900 employees stands for successful and forward-thinking research and innovation in the area of production engineering. Active in four different fields, WZL research activities not only relate to fundamental theories and findings, but also to the application of findings in an industrial context. Furthermore, practical solutions are developed to optimize production. The WZL covers all sub-disciplines of Production Technology with its four chairs of Production Engineering, Machine Tools, Metrology and Quality as well as Manufacturing Technology.

## **Imprint**

Successful Motivation of Employees in Tool Making

Copyright © 2016

Authors: Dr. Wolfgang Boos, Dr. Michael Salmen, Thomas Kuhlmann, Tobias Hensen, Maximilian Stark  
Design: Janina Schmitz

ISBN: 978-3-946612-13-1

Print: printclub

1st edition

WBA Aachener Werkzeugbau Akademie GmbH  
Karl-Friedrich-Straße 60  
D-52072 Aachen

[www.werkzeugbau-akademie.de](http://www.werkzeugbau-akademie.de)

Laboratory for Machine Tools and Production Engineering (WZL)  
of RWTH Aachen University  
Steinbachstraße 19  
D-52074 Aachen

[www.wzl.rwth-aachen.de](http://www.wzl.rwth-aachen.de)

# *Successful Motivation of Employees* in Tool Making

---

2016

Wolfgang Boos  
Michael Salmen  
Thomas Kuhlmann  
Tobias Hensen  
Maximilian Stark



## Spotlight



Employees are the backbone of their companies, especially in know-how intensive sectors such as the tool and die industry. They carry the company's knowledge in themselves and help to achieve economic success. Particularly in times of shortage of skilled workers, employees are both the rarest "resource" and most important success factor. Hence, it is all the more important to bind them to the company for the long-term and mobilize their full potential. Studies show that employees are more productive and loyal if they exhibit a high degree of satisfaction and motivation. Companies of the "new economy", such as Google or eBay, have long recognized the potential in employee motivation. However, in the tool and die industry, which is characterized by small and medium-sized enterprises, motivation of employees is often not addressed, even though it plays a vital role for the long-term preservation and development of competitive ability.

40%

... of managers in manufacturing companies are genuinely interested in their employees

3.9 days

... more sick days per year are taken by employees with no emotional interest in their work

€76-99bn

... is the yearly productivity loss due to employees mentally resigning

20%

... of employees in the tool and die industry are not at all satisfied with their work environment

## Initial situation

---

*Is your salary the only reason you go to work every day?*

*Have you thought of resigning in the last 3 months?*

*Are you unsatisfied with the amount of responsibility you have?*

*If you answered all of the above questions with yes, your superiors should urgently occupy themselves with the topic of employee motivation.*

“A boss cannot motivate his employees, at best he can prevent their demotivation,” as it is commonly stated. Obviously your boss has not even accomplished this, even though most managers are aware that motivated employees are the driving force behind the success of a company and the most important factor in a company’s capability for innovation. Thus, it is no surprise that employee motivation or “employee engagement” is one of the trendy terms in management of this decade.

Numerous studies exist that confirm the significance of motivated employees for the overall success of companies. An example from a representative study: the average loss per day absent is €252 per employee. In a company with 2,000 employees this results in yearly cost blockade of €1.3

million. If you also include additional costs that can be led back to low motivation, e.g. increased absence, fluctuation and reduced productivity, this leads to a total loss for the German economy of up to €99bn per year.

*Something needs to be done, that much is clear. But what?*

Perhaps a look behind the façade of one of the reputedly most innovative companies with regard to their treatment of employees can help. Every year thousands of Google employees confirm that they are extraordinarily motivated. Studies comparing Google and other companies have also verified this. Furthermore, voluntary overtime occurs significantly more often on average. However, overtime is not the fundamental sign left behind by motivated employees at Google, but rather the sustained innovation of products and exceptional creativity it comes with.

At Google you also earn a lot. Even more than with the competition, which is important for employee motivation. Despite all the “soft” factors that are also assessed in this study, an appropriate salary still is a hard factor in employee motivation. It is demotivating if you could earn more for the same work at a different company. Nevertheless, our study results and also probably your gut feeling point out that money does not buy happiness. Many positive company examples with respect to employee motivation thus include additional benefits next to a very good salary. This can range from food, drinks, to laundry washing service, childcare and fitness centers, without charge, independent of position.

Does this mean tool rooms need to be more like Google, pay higher wages and operate their own fitness centers, to guarantee success for now and the future? Not necessarily. Money and other benefit packages are only small modules in a complex environment of different factors. At the core, all non-monetary motivators are designed to directly motivate the

employee and further self-motivation. They are counting on a company culture that encourages and nourishes self-motivation with personal appreciation and opportunities to develop. Thus, the employee intrinsically develops the kind of motivation that does not depend on an external stimulus, but rather comes independently. However, intrinsic motivation cannot be expected from all employees. For all employees that are unable or do not want to motivate themselves, a company can only keep the demotivation within certain limits. Apart from this, a company is more successful if it can identify that can and want to do more. These should then be purposefully supported and shown appreciation via personal contact and direct guidance since employees that think of or implement more new ideas and work more efficiently are justifiably demanding. They do not necessarily ask for more money or even responsibility but rather want to be recognized for their accomplishments and enjoy a freedom to be creative and innovative.



**€76-99bn**

**is the yearly  
productivity loss  
due to employees  
mentally resigning**



# Fundamentals of Employee Motivation



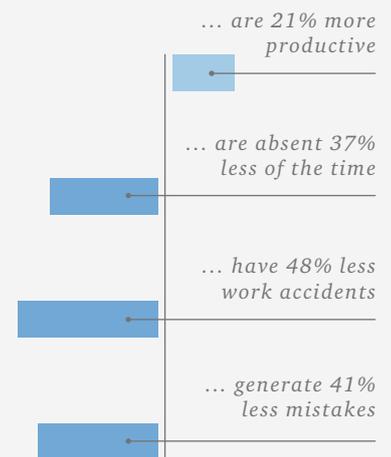
According to the Oxford English Dictionary, motivation is defined as the “Desire or willingness to do something... etc.”

Motivation can generally be projected to all activities of a person. In particular, this study focuses on work motivation, which is popularly understood as the motivation for an employee at their daily workplace to carry out their mandated tasks. However, the question about the commercial benefit of motivated employees remains. Employee motivation as such does not directly lead to an economic advantage for the company. The desire of an employer to have motivated employees is only connected to a commercial advantage after a second look. If employees are more satisfied and motivated they are also more productive, pragmatic, cooperative, helpful and friendlier. Further, satisfied employees are sick less often and desire less workplace fluctuation. The correlation between satisfaction and productivity varies by region. According to the study “Wellbeing Increases Productivity”, an increase of employee satisfaction by 1% leads to a 3.8% increase in productivity in Germany. This compares to an increase of 2.3% in Spain. In Denmark, Norway and Finland, satisfaction already is at a very high level, making it difficult to increase productivity in this manner. Apart from regional differences, the industrial sector is also a factor. The internet and consulting sectors tend to have the most motivated and satisfied employees. They are followed by IT, insurance, services, education, marketing, research and development, finance and the arts and

culture sectors. The manufacturing industry is not in the top 10 for employee satisfaction and motivation. Thus, there definitely is a reason to have a look at employee motivation for the German manufacturing industry.

Various scientific theories examine the influencing factors of work motivation. Most of these approaches are based on the hierarchy of needs developed by Maslow in 1943. According to him, human needs are categorized by their urgency. They are divided into deficiency needs and growth needs. Basic, safety and social needs are under deficiency needs, while the growth needs include esteem and self-actualization. Most basic needs are met with job income, for example food, clothing, shelter and safety. Only after these needs are met, material and job needs become important, followed by friendship, love and belonging. These deficit needs have to be satisfied before a person can strive for recognition and self-actualization. Due to so-called intrinsic motivation, employees can already be motivated in completing their job tasks. The concept of intrinsic motivation describes aim to do something for its own sake as it is fun, satisfies curiosity or is a challenge. In contrast, in extrinsic motivation a task is completed to gain a personal advantage or avoid disadvantages. The amount of preexisting extrinsic and intrinsic motivation varies from employee to employee. Both extrinsic and intrinsic motivators can be influenced. Typical extrinsic motivators in the workplace include special or bonus payments for specific services, a company car

## Motivated employees...



## Fundamentals of Employee Motivation



**3.8%**

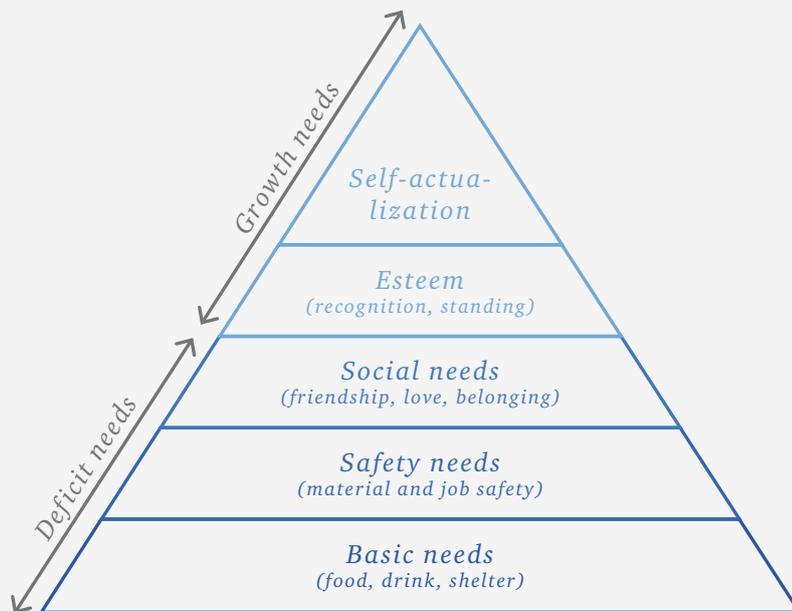
increase in productivity from an increase of employee satisfaction by 1%

or other financial and material compensation. On the other hand, intrinsic motivators are not monetary or material. Examples include the buildup of trust, a promise of opportunities for advancement and an appreciative leadership style.

Herzberg and McGregor both formulated leading theories in the research area of employee motivation. In 1960, McGregor postulated in his “Theory X and Theory Y” that there are two main types of employees. Theory X states that people are unwilling to work. It is assumed that they behave according to Taylorism, i.e. people have an

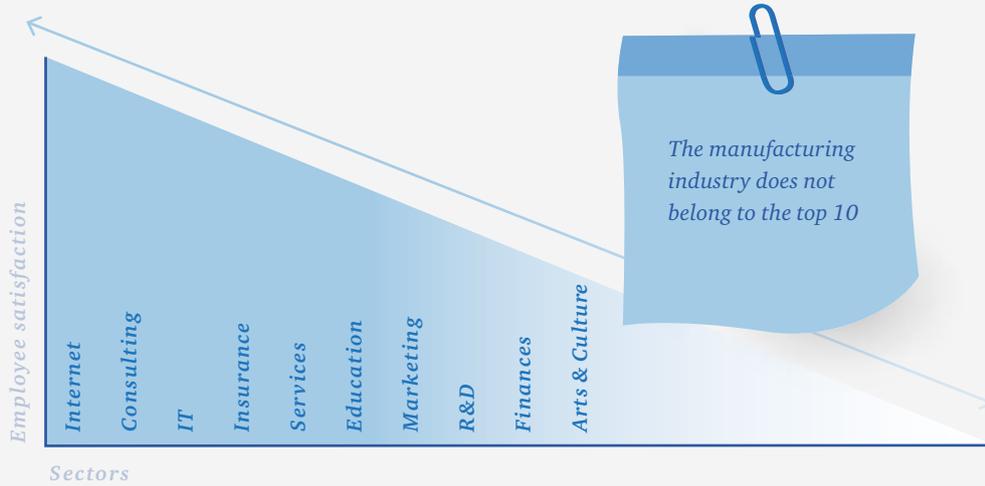
innate aversion to work and try to avoid it if possible. They will only work as much as they need to meet their basic needs. This would mean there is limited intrinsic motivation to work. Hence, employees need to be forced, led, or guided so that they put in a positive contribution. Further, Theory X people look for safety and routine in their surroundings. By contrast, Theory Y states that people are naturally engaged in their work and it is important for their life also as a source of satisfaction. A person will identify with the goals of his work and gladly takes responsibility and initiative to complete his goals.

Maslow’s Hierarchy of Needs

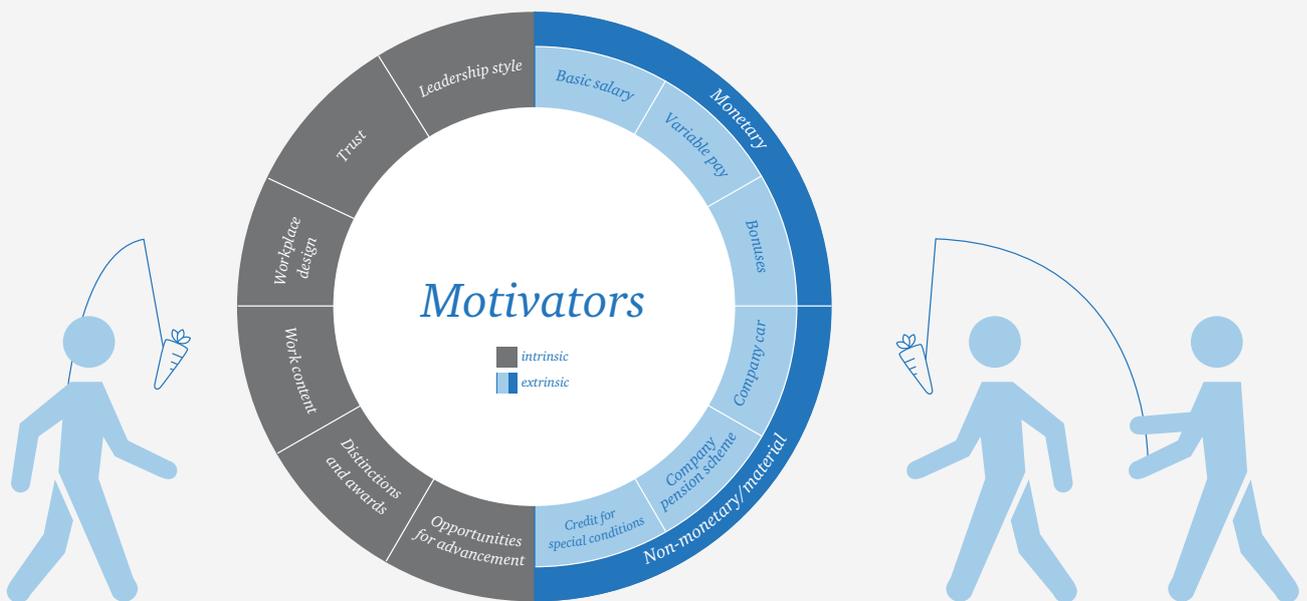




Top 10 sectors with the highest employee satisfaction



Overview of intrinsic and extrinsic motivators



*Fundamentals of Employee Motivation*



The person described by Theory Y has a high degree of creativity, imagination, ability for judgment and inventiveness, which is used to solve problems. “Theory X and Theory Y” was supplemented with a Theory Z, which is a mixture of the other two theories. In the everyday work environment, employees can be categorized as either Theory X or Theory Y. A Theory X employee looks for workplace safety as well as a high degree of interaction with superiors, which contrasts to a

Theory Y employee who wants to receive and perform complex tasks autonomously. The latter do not shy away from additional effort or overtime to achieve their goals. However, they also expect to be recognized for their work and want more responsibility. The assignment of tasks and positioning of employees in the company should be done with Theory X and Y in mind. Employees that fall between these two types (Theory Z) exist but usually have a clear tendency to X or Y.

*X-Y-Theory according to McGregor*

**Theory X**



**“I don’t want to work!”**

*Handling employees according to Theory X: authoritarian leadership style, close control of employees, low responsibility, restricted tasks*

**Theory Y**



**“Hurray, work!”**

*Handling employees according to Theory Y: transferring responsibility, continual development by strengthening employees, controlling successes*

Furthermore, Herzberg defines two factors of motivation in his two-factor theory. Under the category of hygiene factors, Herzberg understands all factors that prevent dissatisfaction but do not actually generate feelings of happiness in employees. Examples of such factors are a basic salary, physical work conditions and safety in the workplace. The second category is made of motivators that, according to Herzberg, directly influence the performance of an employee. These factors result mainly from work content and are based on the employee's pursuit of growth and self-satisfaction. They change the satisfaction of the employee, but their absence

does not lead to dissatisfaction, e.g. promotions, recognition and transfer of responsibility. In summary, this means that hygiene factors need to be fulfilled in order to have a neutral employee attitude. Further motivators can then increase basic satisfaction. However, their influence is only small if the hygiene factors are not met. There is also a connection to Theory X and Theory Y, as Theory Y employees require more motivators whereas Theory X employees pay more attention to hygiene factors. Employees can thus be motivated via the use of applicable factors to prevent dissatisfaction and create satisfaction for each individual employee.

*Fundamentals of Employee Motivation*



*Two-Factor Theory according to Herzberg*







# Status quo

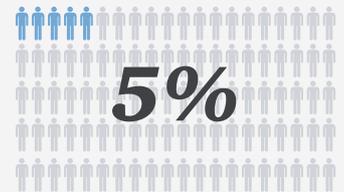
The manufacturing industry is not among the top 10 sectors with regard to the satisfaction and motivation of employees. Exactly how high employee motivation is in the tool and die industry is still unknown. Is the tool and die industry a positive exception in the manufacturing industry or rather responsible for its low score? In order to answer this question an extensive employee survey was carried out by the Laboratory for Machine Tools and Production Engineering (WZL) and the Aachener Werkzeugbauakademie (WBA) in anonymous form. It was designed to find out the current level of employee motivation and identify areas of potential in tool rooms. In total, 600 questionnaires were filled out by employees of various tool rooms and subsequently analyzed. Employees out of all areas of operation were included, ranging from the purchasing department or IT, to research & development, production planning and even production and assembly. Around 65% of the surveyed employees work in production and assembly. Hence, the results are largely based on the views of

employees working on the shop floor of a tool room. Employees with office work are represented with 35%. This ratio is representative of a typical tool room. In the survey, the employees were first asked about the expectations they have of their employers. Then, they were questioned as to what elements a top employer needs to have. Lastly, the survey asked how the employees would rank the importance of certain measures and actions in a fictitious scenario with them as manager of the tool room.

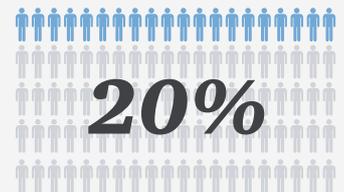
### *Fulfillment of Expectations of the Employer*

The questionnaire asked what was expected of an employer with regard to the work content, work atmosphere, work environment and development perspective within the company. The expectations that employees had were only completely fulfilled by the employer in 5% of cases. The three largest potential areas for improvement were the work environment, development perspective and work atmosphere, which only fulfilled or partially fulfilled the expectations of half of those

*Percentage of employees whose expectations are completely fulfilled by the employer*



*Percentage of employees that are not at all satisfied with their work environment*



## Structure of the Survey

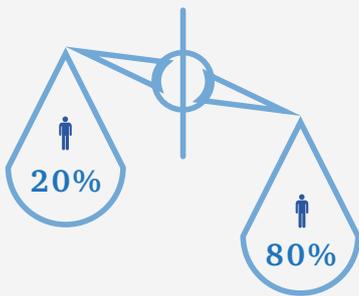
## Goal

- |  |   |  |
|--|---|--|
| 1. Fulfillment of expectations of employer | → | <b>Determine status quo of employee motivation</b> |
| 2. Elements of a top employer              | → | <b>Description of what an employee expects</b>     |
| 3. Needs of employees                      | → | <b>Highlighting deficits</b>                       |

Status quo



Share of employees that expect employee discussions, employee meetings and flexible hours from a top employer



Share of employees that expect an implementation of family days and an array of leisure activities

15%



Share of employees that rate performance-based bonuses and non-financial options as important



questioned. The work environment was described as the physical workplace as well as the general environment such as cafeterias, fitness centers or childcare. Development perspective was understood as the career and education opportunities available internally and externally. The work atmosphere describes the corporate culture, which generally includes the common values, rules and attitudes that influence the decision, actions and behavior of the employees. 20% of employees stated that they were not at all satisfied with their work environment. Employees are least satisfied with the career and education opportunities they have. Nevertheless, about 70% of those surveyed were satisfied with their work content.

The questions about fulfilling employee expectations allows for inferences to be made about employee satisfaction and motivation. If the employer fulfills all expectations of the workplace, a higher satisfaction and motivation can be assumed. From the results it can be concluded that the general employee satisfaction and motivation in the tool and die industry lies on an average level.

Elements of a top Employer

Another result of the survey allows for conclusions to be made about the elements that a top employer has to have from an employee's perspective. Around 80% of those surveyed stated that employee discussions and meetings are a must, as well as flexible working hours. An offering of various leisure activities or family days was seen as relatively unimportant, only being expected by 15% of respondents. However, nearly all employees expected Christmas bonuses and vacation pay. The large majority of those surveyed believed to

be further training opportunities and a company pension scheme to be just as important. There was no clear trend for performance-related bonuses and non-financial options since they were rated as important by 50% of those surveyed. The results show that events and activities that relate to an employee's recreations or private life were deemed as significantly more unimportant than factors that directly impact their work, such as communication or flexibility at work.

Needs of employees

In order to find out what characteristics and elements employees are dissatisfied with, the survey asked the respondents to put themselves in the position of a manager in a tool room. As this fictitious manager, they were given the choice of when measures were to be implemented: in the near future, long-term or never. With this chronological prioritization, the employees were implicitly asked about the importance of each measure, and thus their own needs and wishes. This was done to obtain more honest results. Approximately 60% of employees would like closer contact and better communication with their superiors. About 70% of surveyed employees expected more regular and frequent feedback from them as well. A possibility for more frequent feedback is a regular informative meeting as well as the communication of company successes and failures. Further, the strengthening of initiative by the superiors, e.g. by giving more individual responsibility, is desired by a majority of employees. The increase of wages is seen as unimportant compared to these other measures.

As the survey of around 600 employees in the tool and die industry has shown, there

is great potential for employee motivation in the intrinsic motivators. In particular, the work atmosphere, communication between employees and superiors, as well as flexible working hours and a flexible physical workplace show large potential. Extrinsic motivators, such as financial or

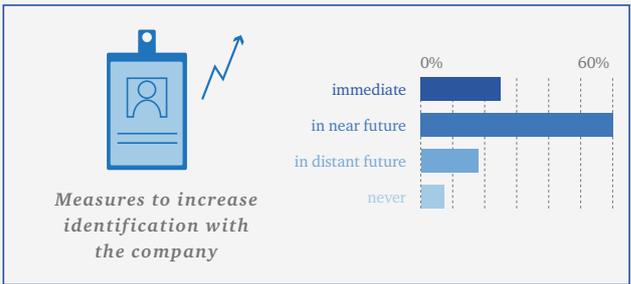
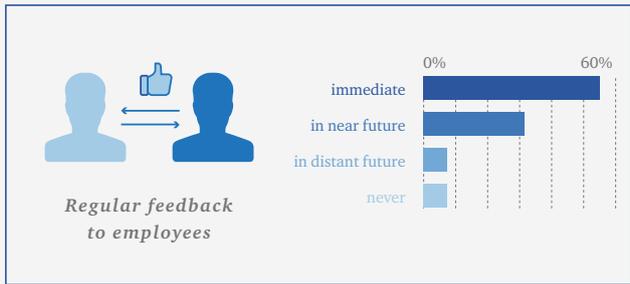
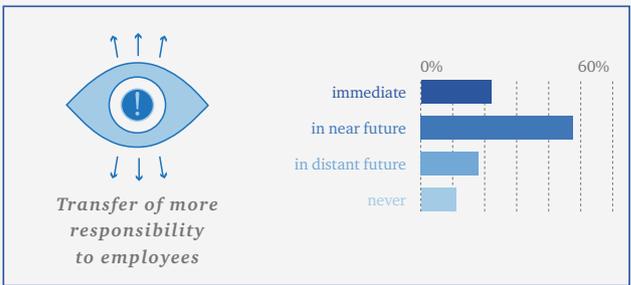
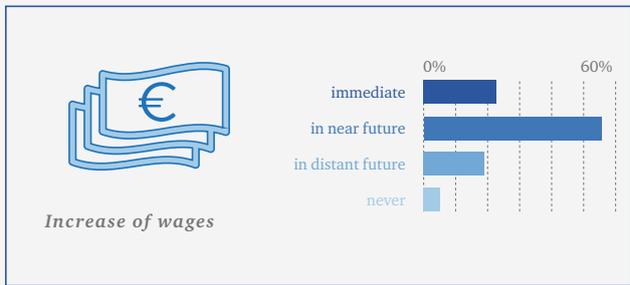
material incentives, only increase the employee motivation in the short-term and only by a little bit. However, according to the two-factor theory of Herzberg, the payment of Christmas bonuses and vacation pay are hygiene factors, whose absence would mean dissatisfaction.

Status quo



Extract from the WZL/WBA Questionnaire

**Scenario:**  
*With immediate effect, you are the manager of a tool room. Which of the following points would you implement and prioritize?*





Good  
Job!!!



# Success Factors

## Success Factors for a successful employee motivation

For many German companies, actively motivating employees is uncharted territory. In particular the manufacturing industry, which employs many people in production, often lacks approaches for increasing employee motivation.

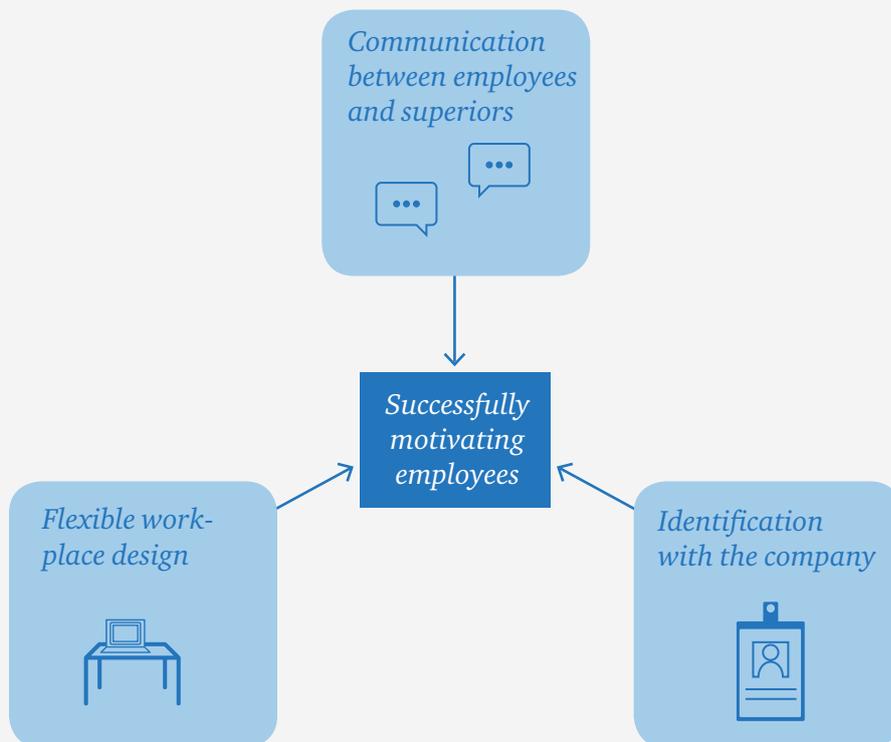
In the course of the already introduced survey and extensive discussions with employees both with and without management responsibilities, three fundamental success factors for employee motivation

were identified which tool rooms should implement. The identification of employees with their company, flexible workplace design and intensification of communication between employees and their superiors were found to be the major areas that tool rooms could use to motivate their employees. Apart from motivating current employees, it is also possible to inspire new employees and bond with them for the long-term.



81%

of employees rated the comfort factor as more important than an increase in wages



75%

of employees see Christmas bonuses as a requirement. It is not only a motivator but is also expected.

Success factors



92%

**of employees would not recruit new employees if they themselves are not comfortable there**

## Identification with the Company

There are various concrete measures companies can implement to strengthen employee identification with the company.

### *Foster and challenge employees*

Employees in the tool and die industry demand from their employers that they be included more in decision-making processes and have the ability to influence their personal further training programs. Thus, employees can actively shape and steer their career plans. A transfer of responsibilities, especially for smaller projects, accompanies this. This kind of defined projects fosters and challenges new competences in their employees.

### *Improve Company Image*

The workplace is the second home of employees. A third of the day is spent at work, which is why employees want to feel comfortable at work, presenting it as a top employer to friends and family. To this end, companies need to improve their image and appearance, starting with a modern website and a consistent corporate design. This image should then be presented at regional marketing events.

### *Company Culture and Goals*

The feel-good factor also depends on the company culture. An open company culture is informed about accomplishments while also freely discussing deficits. In particular, regular informational meetings in short intervals is at the top of the wish list for tool room employees.

### *Strengthen Feeling of Community*

“We can only do this together” is not just a cliché, but also necessary for the survival of tool rooms. Strengthening the feeling of community via regular team-building exercises is not only a motivational factor for employees but a means of increasing performance as well. Experiencing new things that do not happen everyday. At the same time, expensive excursions are not the most important part, but simple measures such as a free meal on Saturdays can strengthen the community and motivate employees in the long-term.

### *Other Measures*

Apart from the four measures already named, there are many other possibilities to increase identification with the company, and thus increase performance, such as performance-related pay, various benefits or amenities like a fitness center. For all of these measures, endurance is key as only continual employee motivation leads to long-term success.

## Flexible Workplace Design

With the increasing merging of the working world and private life, employees demand a flexible workplace with regard to location and time. This gives tool rooms the possibility to win employees over

### Workplace Design

The average commute in Germany takes 45 minutes per day. Employees and employers could use this lost time in a more meaningful manner. If the location itself is flexible, for example using apps to monitor production machines in combination with on-call duty or location-independent design of tools, the performance of the employee is emphasized rather than physical presence. In future, this flexibility, where possible, will be indispensable i.e. for the care of family and children. The implementation of a flexible workplace has to rest on mutual trust. As well, self-organization with respect to the processing order of tasks or the reprioritization of tasks is another possibility to facilitate the needed independence and thus the recognition for the work done. Employees that are bound to a work location need to be offered areas they can retreat to, such as relaxation rooms, not only dismal break rooms. Rested employees are concentrated, leading to fewer mistakes. Employees that make fewer mistakes are more motivated and possess the necessary mental balance for creative ideas.

### Flexible Working Hours

Location-independent work is not the only area in the tool and die industry that presents opportunities to motivate employees and appreciate their work performance. As well, a more flexible arrangement of working hours is increasingly more important to employees. In areas that are not directly involved in series production, this can especially be used as an instrument for employee motivation. However, the employees need to coordinate so that processes can continue as usual. This self-organization of work groups has already being successfully out into practice in several tool rooms. Besides the inclusion of full-time employees, part-time employment can also be an adequate tool to gain new employees or even motivate current employees. The use of retired employees in the area of training, or the inclusion of college students in developing IT solutions are other unconventional possibilities to win employees for the long-term. Similar to the workplace, flexible working hours are built on mutual trust, and emphasizes the work performance of employees rather than their adherence to working hours stipulated in a contract.

## Success factors



95%

**of employees see flexible working hours among the top three most important criteria for top employers**

Success factors



*Other Measures*

In the area of flexible workplace design, there are other factors that can increase satisfaction and motivation besides flexible workplace locations and hours. The volatile project business in the tool and die industry leads to phases with too much and too little work. This means there are times where many overtime hours are accrued, which often need to be expended in the same year. In order to give employees more room for their leisure activities,

life working hours can be introduced that enable employees to freely control how they utilize their overtime hours. However, this implies a close coordination between employees and their superiors to guarantee production performance in the long-term. Also, the offer of daycare or leave of absence granted for family care are increasingly important for employees and make the difference between an average and top employer.

*Communication between Employees and Superiors*

Generation Y, which represents the birth cohorts of the years 1980-1999, demands information. It is not as important anymore what work is done but rather how this work fits into the big picture, “why does it need to be done?” Tool rooms also need to adjust to the increasing inclusion of employees into the information and decision-making processes.

*Feedback*

Employees also receive recognition via regular feedback given by their superiors. This feedback should be methodically organized and include clear goals with which an evaluation can be carried out, for example the number of training days, the number of improvement suggestions or the successful breaking-in of new employees. Not only managers should be measured by concrete goals, but they also help employees to overcome weaknesses and challenges, further contributing to the company’s success. For this purpose, an evaluation of an employee’s performance in comparison to the total company performance is of significance.

*Recognition*

Generation Y in particular is characterized by the continual pursuit of recognition. This calls for a motivating leadership style and requires a continuous exchange on a content and a personal level. In order to address this wish for recognition, tool rooms need to create transparent information and decision-making processes and actively include employees. Furthermore, employees increasingly ask for more responsibilities. To this end, interesting and personal projects need to be defined that emphasize an employee as an important part of the company.

*Access to Superiors*

Many employees see it as a problem and unappreciative if superiors, i.e. department heads, division heads or managing directors, cannot be approached directly. A better addressability can be ensured by the introduction of weekly or monthly



**40%**

**less days of absence are used by employees with a high emotional bond to their company**

question hours, allowing employees to communicate with their superiors. This exchange is also vital for these managers as problems can quickly be identified and innovation be more easily realized. However, this requires giving the employees some freedom as only employees given time to develop their ideas can innovate. Apart from the accessibility of superiors, communication in and between departments is also a factor for employees that has to be addressed by tool rooms. For example, many employees in production do not have their own company email address or no access to computers. In the age of the internet, this is absolutely shocking. To reduce this interface problem, platforms such as an intranet or company chat program are recommended.

*Transparent Information*

Besides communication between employees of all areas, a company platform can also be implemented as an information platform. Shop floor boards with information are good but most employees have little time to go through the information. If the content is digitalized, it can also be viewed and interpreted in the evening on the couch or in the morning on the train. Only those who continuously provide employees with information and give them time to process it can expect new input. The discussion of such improvement potentials should then proceed in a systematic manner, such as standardized meetings. The more standardized the meetings are, the quicker and hence more efficient they are. For example, studies show that meetings conducted while standing take ¾ of the time of those done while sitting.

*Success factors*



**25%**

**is the average time saved by meetings conducted while standing compared to sitting – with the same results**

*Identification with the company*

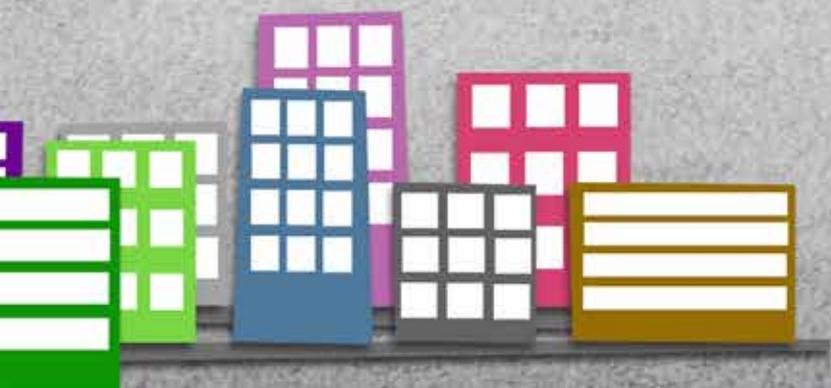
*Flexible workplace design*

*Communication between employees and superiors*



**65%**

**of surveyed employees would immediately introduce employee meeting if they were the manager of a tool room**



# Conclusion

---

## *Successful tool rooms increase employee performance via balanced motivation*

It does not have to be Facebook or Google! Even if these companies are visionary examples for successfully motivating employees, not everything can be transferred 1 to 1 to all companies, especially in the tool and die industry. Nevertheless, employees are moving into the focus of tool rooms, which want to actively increase their motivation and not merely stop demotivation.

An extensive study about boosting motivation determined three fundamental success factors for the tool and die industry:

### ***Identification with the Company***

Purposefully fostering and challenging them can achieve the identification of employees with their companies. However, a positive attitude towards the company needs to be lived out by the superiors. This increases the sense of community necessary for a motivating environment. The inner and outer image of the company needs to fit this company culture as well. In this manner, the prevailing atmosphere is improved and the attractiveness of the workplace increased.

### ***Flexible Workplace Design***

Workplace and working hours are becoming more and more flexible as the working world fuses with private life. Therefore, tool rooms need to find solutions to increase the flexibility of employees with respect to location and hours for all processes.

Nowadays, the deciding factor is not where or when a task was done but rather the content of the work.

### ***Communication between Employees and Superiors***

Identification with the company as well as flexible workplaces and hours are built on the premise of transparent information and processes, which cannot be obstacles for employees. Thus, regular feedback sessions and the recognition by superiors for work done are of great interest for employees.

### ***Key Recommendations***

- ☑ Execution of a detailed employee survey to determine individual wishes and evaluation thereof with regard to feasibility
- ☑ Joint development and quick implementation of simple improvement measures with employees
- ☑ Definition of a long-term roadmap to introduce more extensive improvement measures

# Authors

---



**Dr. Wolfgang Boos**

Director of the WBA

---



**Dr. Michael Salmen**

Department head Business Development  
Laboratory for Machine Tools and Production Engineering (WZL)

---



**Tobias Hensen**

Group Leader Department Business Development  
Laboratory for Machine Tools and Production Engineering (WZL)

---



**Thomas Kuhlmann**

Group Leader Department Business Development  
Laboratory for Machine Tools and Production Engineering (WZL)

---



**Maximilian Stark**

Research Associate Department Business Development  
Laboratory for Machine Tools and Production Engineering (WZL)

---

# Our studies

---



**Erfolgreich  
Performance Messen**  
2017



**Erfolgreich Fertigungstechnologien Einsetzen**  
2017



**Erfolgreich  
Finanzieren**  
2016



**Smart Tooling**  
2016



**Tooling in Turkey**  
2016



**Tooling in China**  
2016



**Erfolgreich Digital  
Vernetzen**  
2016



**Tooling in Germany**  
2016



**Erfolgreich  
Mitarbeiter Motivieren**  
2016



**Fast Forward Tooling**  
2015



**F<sup>3</sup> Fast Forward  
Factory**  
2015



**World of Tooling**  
2015



**Erfolgreich  
Kalkulieren**  
2015



**Erfolgreich Planen**  
2015



**Getaktete Fertigung**  
2015



**Tooling in China**  
2015



**Tooling in South Africa**  
2014

## Sources

---

- BMAS (2007): Unternehmenskultur, Arbeitsqualität und Mitarbeiterengagement in den Unternehmen in Deutschland
- European Foundation for the Improvement of Living and Working Conditions (2007): Second European Quality of Life Survey
- Gallup (2015): Engagement Index Deutschland
- Gallup (2015): Engagement Index; Wiwo (2015): Interview Gallup Mitarbeitermotivation
- Gallup (2015): Engagement Index
- Google Trends (2016): Auswertung Stichwortsuche „Employee Engagement“
- Herzberg (1953): The Motivation to Work
- IW Köln (2014): Wohlbefinden steigert die Produktivität
- Maslow (1943): A Theory of Human Motivation
- McGregor (1960): The Human Side of Enterprise - Theory X and Y
- MPG Medien (2014): Mitarbeitermotivation und Unternehmenskultur
- Oracle (2015): Simply Talent Studie
- PR Journal (2014): Mitarbeiterzufriedenheit: Überdurchschnittliche Bewertung der Kommunikationsbranche
- SHRM (2015): Employee Job Satisfaction and Engagement Optimizing Organizational Culture for Success
- WBA Projekt (2015): Mitarbeiter motivieren
- Welt (2013): Die Franzosen sind gut dran und schlecht drauf
- Zeit online (2014): Die Pendlerrepublik



---

***Publisher***

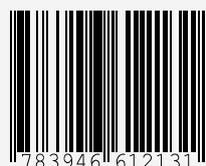
**WBA Aachener Werkzeugbau Akademie GmbH**

Karl-Friedrich-Straße 60  
D-52072 Aachen  
[www.werkzeugbau-akademie.de](http://www.werkzeugbau-akademie.de)

**Laboratory for Machine Tools and Production Engineering (WZL)**

of RWTH Aachen University  
Steinbachstraße 19  
D-52074 Aachen  
[www.wzl.rwth-aachen.de](http://www.wzl.rwth-aachen.de)

978-3-946612-13-1



9 783946 612131