# Guide to effective shift scheduling and staff roster planning 

GOOD ADVICE TO OPTIMISE THE PLANNING OF
THE RIGHT EMPLOYEE AT THE RIGHT PLACE AND TIME

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## Intro

In many companies, the employees are the most important - and most costly - resource they have. Thus, it is important to optimise their work schedules, so they are consistent with the tasks that have to be performed, at all times.

However, ensuring the right employee with the right qualifications for the right tasks at the right time can be a complicated and time-consuming puzzle that takes the breath away from many companies. Particularly, if the company has many collective agreements and many hourly paid employees or temporary workers.

Furthermore, the labour market is generally changing. More and more employees want greater influence on when and how they are going to work. And many even choose to replace a permanent full-time position with a flexible, temporary employment and freelance work. That makes demands on companies to offer more flexible working time agreements - and to be able to manage them.

If you succeed in taking all this to a higher level, you can maximise productivity and keep costs within the company's budgetary limits. If not, overstaffing or unnecessary overtime will get the costs off the track.

And once the plan is ready, changes occur - and some of them might require that the company acts immediately.

This requires a great tool. However, in many companies, employee scheduling is still managed by using spreadsheets or pen and paper. And that can be a costly affair! Not only when it comes to administrative time but also in the form of missing overview, overtime payments and lost production.

Read this e-book if you want to know more about how to optimise employee scheduling in your company and achieve savings.

Happy reading!

ARE YOU IN CONTROL OF THE EMPLOYEES' WORKING TIME REGULATIONS?

DO YOU KNOW WHICH EMPLOYEES ARE AVAILABLE TO WORK AND ARE NOT ON HOLIDAY LEAVE, ON A COURSE OR HAVE HAD OVERTIME LATELY?

DO YOU CALL IN TOO LITTLE OR TOO MUCH STAFF IN RELATION TO PRODUCTION AND DEMAND?

ARE YOU SURE THAT YOU MATCH EMPLOYEE QUALIFICATIONS TO THE TASKS?

CAN YOU EASILY MANAGE DEVIATIONS TO THE PLAN WHEN EMPLOYEES ARE ABSENT DUE TO ILLNESS?

# Is employee scheduling a daunting task? 

## IN MOST COMPANIES AND ORGANISATIONS, WAGES AND STAFF COSTS ARE BY FAR THE LARGEST ITEM IN THE ACCOUNTS. THUS, IT IS IMPORTANT TO OPTIMISE THE EMPLOYEE'S WORK SCHEDULES IN RELATION TO THE TASKS THAT HAVE TO BE PERFORMED. OTHERWISE, IT CAN BE A COSTLY AFFAIR.



Employee scheduling is a complex task that can take the breath away from most companies. Often, there are numerous elements to consider when making the plan:

- Employees' working time and planned leave and absence
- Working time regulations, collective and local agreements
- Employee qualifications
- Staffing requirements in relation to the tasks to be performed
- Employees' individual requests for changes to working hours and/or holiday leave
- Budgeted hours

And once the plan is finalised, changes occur. This could be, for example, changes in demand that either increase or reduce the need for employees, or sudden absence due to illness or meetings.

Changes that the company need to respond to - and preferably as soon as possible.

# Ineffective processes can be a costly affair 

## MANY COMPANIES ARE BURDENED BY INEFFICIENT AND TIMECONSUMING PROCESSES WHEN IT COMES TO EMPLOYEE SCHEDULING. THIS CAN HAVE MAJOR CONSEQUENCES FOR THE COMPANY'S COSTS, THE QUALITY OF DELIVERIES AND EMPLOYEE SATISFACTION.

The most typical challenges are

A person-dependent process with manual work makes it difficult to create a fair plan that takes all the necessary considerations into account

A central planning function without integrated system support creates inefficiency and unwanted dependencies

A large number of hourly-paid and casual employees increases the need for flexibility and the ability to move employees around

Automated production lines require constant staffing - and, often, specific sets of employee skills - which requires a good overview of available resources

Information on deviations from the plan often comes late, which makes it difficult to react in time

6
The work plan must be able to reach the individual employee - also those working outside premises e.g. with company clients

# 6 ways to effective scheduling of employee working time 

## THE DYNAMICS OF MANY COMPANIES' DAY-TO-DAY LIFE CREATE A DEMAND FOR SIMPLE AND FLEXIBLE SHIFT SCHEDULING AND STAFF ROSTERING ACROSS THE ORGANISATION. HOWEVER, IT REQUIRES A GREAT TOOL TO ENSURE GOOD AND FAIR PLANS ...

The best result is achieved with an integrated solution that combines employee scheduling and registration of time and absence in one system, taking working time regulations and planned absence into account when making the plan.

This allows the company to streamline scheduling and create value by supporting these 6 areas:

1. Staff rostering based on rotations and employee work hours
2. Shift scheduling based on demands for manpower at specific times
3. Ad hoc changes that require action here and now
4. Deviations that affect the long-term planning
5. Involving the employees through self-service
6. Integration to other business systems

## 1 STAFF ROSTERING BASED ON ROTATIONS AND EMPLOYEE WORK HOURS

Some companies have relatively static needs for employee scheduling. Scheduling is primarily about ensuring that the employees meet the standard work hours according to their employment contracts - while complying with the working time regulations.

This need can often be met with a solution that supports the company in making a basic rotation plan based on the employees' normal working hours.

With access to information on planned holiday, time-off, company holidays or other relevant information it becomes easier for the planner to adjust the normal work schedule - and thus employee clock-in and clock-out times according to the company's need. This not only ensures that standard hours are observed, but also that there are no breaches of collective and local agreements, rest periods, holiday rules and more.

## SHIFT SCHEDULING BASED ON DEMANDS

 FOR MANPOWER AT SPECIFIC TIMESOther companies have more varying needs for manpower - and possibly different qualifications - during the day, week, month or even the year. And that makes the scheduling task far more complex.

This is about creating the right balance between the tasks to be performed and the employees who must be present to solve the tasks. Both overstaffing and understaffing can cost a lot of money.

With the right IT support, the company can easily get an overview of the specific needs to be covered by employees to build the full schedule. It will be natural to base the scheduling on production and activity plans or forecasts of the need for labour. Once the specific shifts have been planned, the planner can assign them to the relevant employees.

Again, the company will benefit from getting help to ensure that working time regulations are respected, just as it gets easier to take planned absence and any requirements for employee qualifications into account.

Previously, planning of the working hours for HOLMEN's shift workers was a manual and inflexible process. It was not only time-consuming, but the missing overview also led to too much overtime and breaches on working time regulations.

## 3 <br> AD HOC CHANGES THAT REQUIRE ACTION HERE AND NOW

Most companies experience deviations from the plans that have been made. Employees suddenly become ill, must attend unforeseen meetings or are absent for other reasons.

This can have serious consequences for the company's ability to maintain the production. Therefore, it is important that the company gets information about the deviation - and responds to it - as soon as possible.

However, delayed information and manual processes can make it difficult to move the employees around or call in substitutes or other casual workers to cover the gaps that arise because of the absence. Thus, there are huge benefits to be gained by digitalising the process. Not just to ensure that information on deviations is obtained as quickly as possible, but also to help the company manage the changes with minimal manual work.

## 4 <br> DEVIATIONS THAT AFFECT <br> THE LONG-TERM PLANNING

In addition to the ad hoc changes, which companies must be able to manage without delay, there may also be larger unexpected and longer-lasting variations in the need for manpower, e.g. due to order intake or order decline.

Without the right system support, it can be a timeconsuming and difficult task to scale up or down according to the specific changes. This can lead to bottlenecks, unnecessary overtime payments etc.

With an integrated planning solution and real-time information, the company gets the necessary overview to move employees around, redefine the need for manpower or possibly notify the employees to plan remaining holidays or time off to avoid overstaffing.

## 5 <br> INVOLVING THE EMPLOYEES <br> THROUGH SELF-SERVICE

By involving the employees in the scheduling task and give them co-influence on their own working hours, the company can streamline the process even further.

With a solution that allows for self-service - also when employees are on the move - they can easily indicate wishes for working hours, holiday leave and other types of absence which the planner can take into account when making the plan. They can swap shifts with colleagues, sell shifts, or see vacant shifts that they can take over from others.

A self-service solution can also simplify the management of freelancers and other casual workers who are assigned hours as needed. In part, by enabling them to inform the planner when they are available and want to work, and in part by allowing the planner to push out vacant shifts that they can take on.

In this way, the employees - both the permanent and the flexible workers - can contribute to creating the optimal plan.

## - Integration to other BUSINESS SYSTEMS

The more accurate the overview of the specific need for manpower is, the better the company can make good and fair plans.

Therefore, it makes very much sense to base the employee systems in the company, such as production plans from the ERP system. With a solid overview of the activities in real time, the company gets a data-driven planning basis

And with integration to the payroll system, the company can easily collect exact data on working hours, holiday leave and other types of absence for the payroll calculation. This will not only save administrative time, but also
scheduling on forecasts or data from other business which ensures a more effective allocation of the resources. ensure correct payment in time.
-

In 2019, AHLSELL established their own pool of temporary workers instead of using an external agency. The communication around vacant shifts took place via phone and email with follow-up by pen and paper and subsequent manual handling in ProMark. This was a very timeconsuming process ...

The level of precision required in the production of engine components for the world's largest aircraft engine manufacturers at GKN AEROSPACE ENGINE SYSTEMS means that there is no room for error. Accuracy of data is therefore critical to the planning process.

## Win-win for the company and the employee

## DYNAMIC EMPLOYEE SCHEDULING NOT ONLY HELPS TO INCREASE THE COMPANY'S PRODUCTIVITY AND KEEP COSTS WITHIN BUDGETARY LIMITS SO THAT THE COMPANY CAN STAY PROFITABLE AND COMPETITIVE. IT ALSO INCREASES FLEXIBILITY AND THE ABILITY TO RESPOND QUICKLY TO CHANGES - BOTH FOR THE COMPANY AND THE EMPLOYEES. A WIN-WIN SITUATION FOR ALL PARTIES!

## BENEFITS FOR THE COMPANY

- Less time spent on administration through streamlining routine tasks
- Simulation of work plans ensures allocation of resources and compliance with working time regulations
- The ability to see the impact on time of a given schedule (tight management in relation to budgeted hours and costs)
- Simple ad hoc scheduling of casual workers with flexible working hours reduces the need for permanent employees
- Employee scheduling based on data from the ERP system enables the company to adjust staff resources as needed which reduces the extent of overtime (saved payroll cost)
- Better balanced use of temporary workers/overtime provides a fairer allocation among employees, without anyone being disadvantaged
- Quick and flexible re-scheduling in case of deviations from the norm (scaling up or down)
- Help to ensure that holiday leave is planned and taken in time
- Always up-to-date and optimised work plans
- Online overview for managers
- Increased employee satisfaction as employees can indicate wishes for working time, shifts, absence and more
- Modern and flexible communication between company and employee via mobile solutions improves the company's image as an employer which can have positive effect on the ability to attract new employees


## BENEFITS FOR THE EMPLOYEE

- The work plan is ready in time
- Ensures compliance with working time regulations
- Less overtime, less stress, and less sickness absence (supports work/life balance)
- Easier to have wishes for changes to working time or holiday leave granted
- Self-service encourages responsibility
- Always up-to-date and optimised plans
- Online overview of one's own current work schedule - also in case of deviations



## What is the business case?

## WHAT IS IT WORTH TO OPTIMISE THE SCHEDULING OF EMPLOYEE WORKING TIME? HOW CAN COMPANIES CALCULATE THE VALUE OF having the right employee in the right place at the right time?

Below are some examples of how the value of digitalising employee scheduling can be calculated:

## EXAMPLE 1 REDUCTION OF ADMINISTRATION

By removing manual work in the scheduling process and minimising the number of errors to be handled, a company with 1,000 employees can save administrative time equivalent to a parttime employee and up to a full-time employee.
THE SAVINGS POTENTIAL IS 15-30,000 £ PER YEAR.

## EXAMPLE 2 REDUCTION OF PAYROLL COSTS

By using hourly-paid workers instead of permanent employees during peak load periods, companies can REDUCE THE TOTAL PAYROLL COST WITH APPROX. 60,000 $£$ PER YEAR. This is based on replacing $1 \%$ of the permanent workforce with hourly-paid workers with a lower salary (equivalent to approx. 75\% of a permanent employee).

The calculation is based on an annual payroll cost for a permanent employee of 38,000 $£$, whereas the payroll cost for an hourly-paid is approx. $28,000 £$ (at an hourly rate of $21 £$ ). In a company with 1,000 employees, this would mean a reduction of 10 full-time positions, resulting in
SAVINGS OF 48-96,000 $£$ EACH YEAR.

## EXAMPLE 3 <br> REDUCTION OF OVERTIME

With a scheduling tool based on information on the actual availability of the employees and detailed forecasts, the ANNUAL OVERTIME COST CAN BE REDUCED BY +18,000 $£$ PER YEAR. This is based on a $1 \%$ reduction of overtime.

The average overtime within production and distribution is 66 hours per year (equivalent to $3.7 \%$ of the total working time). In a company with 1,000 employees, this leads to a reduction in overtime of 660 hours, corresponding to $20,000 £$ per year based on a cost of $32 £$ per overtime hour.

## EXAMPLE 4

AVOID PENALTIES FOR BREACHING THE WORKING TIME REGULATIONS

With a modern scheduling tool with automatic control of working time and real-time information on overtime, companies can avoid breaching the working time regulations, including the 48-hour week.

If companies fail to take all reasonable steps to ensure compliance with working time regulations, penalties can be imposed on the company, including a FINE OF UP TO THE STATUTORY MAXIMUM OR POTENTIALLY UNLIMITED FINES, and COMPENSATION FOR WORKERS.

## EXAMPLE 5 <br> INCREASED PRODUCTIVITY AND EMPLOYEE SATISFACTION

A flexible company with high employee satisfaction and digital processes has a higher productivity than companies with manual routines. However, what this entails in actual savings or increased revenue is difficult to calculate in general.

But an improvement in productivity of just a thousandth will result in INCREASED REVENUE OF $\mathbf{3 0 . 0 0 0} \mathbf{£}$ in a company with a turnover of 5 billion and a profit margin of $5 \%$.

The value of having more satisfied employees and the ability to attract new talent because of a more modern and positive employer brand is up to each company to assess


## Get inspired by other companies

A NUMBER OF COMPANIES EXPLAIN HOW THEY HAVE STREAMLINED THEIR EMPLOYEE SCHEDULING.

## HOLMEN

## GREATER EFFICIENCY IN THE PLANNING PROCESS AND BALANCED DISTRIBUTION OF PERSONNEL AMONG SHIFTS IS CREATING FUTURE SAVINGS

Holmen is a Swedish forestry industry group which manufactures printing paper, cardboard and timber products, and conducts operations in the fields of forestry and energy. The business is made up of five business areas: Holmen Paper (printing paper), Iggesund Paperboard (cardboard), Holmen Timber (timber products), Holmen Skog (maintenance and development) and Holmen Energi (hydropower and development in the energy sector).

Previously, planning of the working hours for their shift workers was a manual and inflexible process. It was not only time-consuming, but the missing overview also led to too much overtime and breaches on working time regulations.

By adding staff roster planning to their time \& attendance solution, Holmen has streamlined the planning process. With a real-time overview of who is on which shift with current qualifications and time balances, and who is absent, Holmen is better able to adjust the capacity to the actual need. This has not only reduced overtime costs and breaches on working time regulations. It has also reduced the absence rate and increased employee satisfaction.
'It is easy to keep track of available staff numbers, so it is possible to plan resources effectively. This allows overtime to be shared among more people and avoid infringing contracts.'


## coop

## OPTIMUM CAPACITY MANAGEMENT ENSURES GOODS ON TIME

Coop is Denmark's largest retail company operating the supermarket chains Kvickly, SuperBrugsen, Dagli'Brugsen and coop.dk and the subsidiaries Irma and Fakta. Together with its independent cooperatives, Coop Danmark has 1,200 stores, annual sales of DKK 54 billion and approx. 40,000 employees.

Ensuring the right goods to the right stores at the preferred time requires a comprehensive overview and planning! But for many years, staff roster planning was managed from forecasts based on historical data for the past few years and personal experience right up to the day before delivery. This made planning dependent on individuals, non-transparent - and occasionally imprecise. Moreover, planning was carried out in a number of proprietary, inconsistent systems using manual workflows. This not only increased the risk of data input errors; it also made it difficult to obtain valid data and hence acquire a factual decisionmaking basis for the long-term planning.
> ‘Thanks to ProMark Business Intelligence, we are now significantly better at allocating staff to our storage facilities according to the load of the day, 4 weeks ahead and over the year. This means that we are able


With ProMark time \& attendance registration, staff roster planning and business intelligence, Coop has consolidated their planning data so time is now spent on making the right decisions - instead of obtaining data.

This allows for faster, more precise adjustment of capacity in relation to absence and deviations and has resulted in less overtime for warehouse workers and fewer temporary workers - and hence, saved labour costs.

## () Your workmate

## ROSTER PLANNING GIVES BETTER OVERVIEW AND FREES UP TIME

The Swedish Konga Mekaniska Verkstad AB (Kongamek) group comprises several companies and production units mainly operating on the European market. They have a prominent position as manufacturer and supplier of material handling solutions such as trolleys, roll containers, pallet frames, wire baskets, wheelbarrows, sack trucks and warehouse trolleys. In addition to their standard range, they also offer customised solutions.

Previously, the planning tasks was centralised with the Chief Financial Officer who was not the direct manager of the relevant staff. Information on absence and temporary schedule changes often came with short notice, and the CFO became a bottleneck in making adjustments to the plan.
'It is a big improvement that we can now move detailed planning to the relevant work foreman and avoid depending on central administrators. Great tool for minor and temporary schedule changes.'

CHRISTIAN MALM, CFO, KONGAMEK

‘Managing our staff in ProMark is very flexible and easy - especially when we need to change work schedules at short notice.'

MARCUS MEURLING, PRODUCTION MANAGER, KONGAMEK

With ProMark as the tool for staff roster planning, the production managers and planners have a simple overview of their own staff and can easily handle absence and changes in work schedules.
This frees up time in finance and administration and ensures more flexible planning and replanning.

## WARTMAN PACK \& PERFORM

## SELF-SERVICE PROVIDES FLEXIBLE PLANNING AND INCREASED AGILITY

Hartmann is one of the world's leading manufacturers of moulded-fibre packaging. The main product is egg trays, but the company also produces packaging for fruit, electronic products and household equipment. Their machines operate 24 hours a day, 365 days a year. The company's 300 production employees are split between 5 shift teams, all of whom work 3 shifts.

Scheduling rosters for so many employees is a complex and time-consuming task. In addition, demand changes from time to time, which either increases or reduces the requirement for employees. Also, employees can also fall ill. Vacant shifts were managed via the telephone or printed notes in the operations office.

With ProMark for time \& attendance registration and staff roster planning as well as mobile app for the employees, Hartmann now has a modern platform in which shifts can be created, allocated, approved and, if necessary, deleted again if the employee returns to work earlier than expected, or the company experiences a downturn in production. This provides a far better online overview, the opportunity for quicker replanning in case of changes, and thus increased flexibility and agility.
'For a production company like ours, it is important to always be able to adapt our production to the demand. That requires a flexible IT solution which is exactly what we have with ProMark and the mobile solution.'


## ahlsell

## SIMPLIFIED AND EFFICIENT HANDLING OF THE TEMPORARY WORKERS POOL

Ahlsell is a leading Nordic distributor of installation products, tools and supplies for installers, contractors, facility managers, industry, energy companies and the public sector. Ahlsell operates in Sweden, Norway, Finland, Denmark, Estonia, Poland and Russia, and has approx 5,700 skilled employees, over 240 stores and three central warehouses.

In 2019, Ahlsell established their own pool of temporary workers instead of using an external agency. The communication around vacant shifts took place via phone and email with follow-up by pen and paper - and subsequent manual handling in ProMark. This was a very time-consuming process ...

By adding a mobile app and self-service functionality to their solution for time registration and staff roster planning, Ahlsell has streamlined the process for handling shifts. The need for extra shifts is created from forecasts on the number of orders to be picked and employee absence that has already been entered into ProMark. All available shifts are published in the mobile app and temporary workers can bid for relevant shifts on a first-come, first-served basis - without manager approval. This increases Ahlsell's ability to meet demand compared to their highly detailed forecasts. And it saves time and money, ensures correct remuneration of the students and provides a better overview for both employees and team managers.
‘The mobile app simplifies and streamlines the entire management of the temporary workers pool. Ahlsell saves time and money by having a flexible pool of temporary workers where ProMark supports managing them according to the rules applicable to casual workers. And, as an employer, we get a modern image by using cutting-edge tools for our employees.'

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PRECISE DATA, SAP INTEGRATION AND CONTINUOUS IMPROVEMENT
GKN Aerospace Engine Systems Norway manufactures components for the world's largest aircraft engine manufacturers, producing commercial engines, military engines and space propulsion subsystems. The level of precision required in the production of engine components means that there is no room for error. Accuracy of data is therefore critical to the planning process.

With ProMark for time and job registration, GKN gets exact data in real time on how much time is spent on each stage of the production process which provides the level of accuracy GKN needs for detailed planning.

Through integration to SAP, critical data is transferred which complements SAP capabilities in production planning and reporting production data. This helps GKN to identify bottlenecks and excess capacity, and to reduce order lead times.
> 'It has had a clear positive effect. We have a much better overview of crews and can move resources to where the need is greatest. ProMark registers when employees are absent so that the production managers can redirect personnel as required.'

ÅGe bauer, planning manager, gkn aerospace engine systems norge


## How to proceed

## CAN YOU AFFORD NOT TO?

Maximising productivity and efficiency while keeping cost within budgetary limits is becoming increasingly important for companies in all industries. Effective employee scheduling is therefore a must.

With a modern, digital Workforce Management solution you can eliminate many manual and timeconsuming workflows related to scheduling. It will make it easier to secure consistency between available resources and the tasks that must be performed - without compromising working time regulations. Also, when there are deviations to the original plan.

It will also allow for managing more flexible work time agreements and offer the employees greater influence on the scheduling. And that might be a competitive advantage when it comes to attracting new employees in the future ...

## WE ARE READY TO HELP YOU

If you want to know more about how we can help your company to optimise your scheduling processes and achieve savings, you are welcome to contact us. We offer modules for shift scheduling and staff rostering that can be used together or independently, and our solution has standard integration with a number of payroll, HR and ERP systems, including SAP and Microsoft.

We would be happy to assist you in setting up the business case where the specific value of implementing ProMark and the return on the investment (ROI) will be further clarified.

Experience from our customers shows a significant reduction in administrative costs, reduction of sick leave and overtime, improved productivity and, not least, correct salaries. Can you afford not to do it?


## Progress

## PROMARK WORKFORCE MANAGEMENT



## ProMark

ProMark is an innovative software company offering Workforce Management solutions from offices in Denmark, Sweden, Norway, United Kingdom and Romania. ProMark Workforce Management enables customers to optimise productivity and generate savings through scheduling the right resources, at the right time, for the right job and ensures that resources are remunerated correctly in the most effective way. ProMark services global corporations and has more than 1000 installations and 300,000 users.
Read more at www.promark365.com.


[^0]:    INGELA THOLIN CARLOS, PRODUCTION PLANNER, AHLSELL

