



→ NX CAM Implementation
How to proceed and what
you should be aware of

The comprehensive CAM solution from Siemens

With NX CAM you get a comprehensive software solution for your complete production. The software is characterized by a wide functional scope and a user-friendly application. Complemented by the possibilities of automation, NX is the central key to integrated production in the context of Industry 4.0 and thus a further step towards digitalization in your company.

NX CAM modules and functions

NX offers a comprehensive range of NC programming functions within a single CAM system as well as an integrated range of production applications.

These applications facilitate the modeling of parts, tool design and the creation of test programs.

- Drilling
- 2.5-axis milling
- 3-axis milling
- 5-axis milling, positioning and simulation processing
- Turning
- Cycle programming
- Measuring in the NC programming process
- One- and multi-channel millturn machines
- Special configurations (e.g. angle heads, face mill, dividing attachments)
- Grinding
- Wirecutting
- Die-sinking EDM
- Comprehensive post-processor system
- True G-code machine simulation (including input from external programmes)
- Additive processing
- Robot programming
- Integration of coordinate measuring machines for quality control

The right time for NX CAM

There are many good reasons to implement NX CAM in manufacturing. Regardless of the situation in which you currently find yourself: the next pages give you an overview of what you should take into account when implementing NX CAM and how you can best proceed.

→ New machine, new possibilities New hardware is not everything

Purchasing a new production machine is mostly tedious, complicated and expensive. The appropriate software is then often forgotten and becomes a by-product. Here, the necessary time should be invested at an early stage so that the CAM system can be introduced and set up optimally. In this regard, you can rely both on the recommendation of your machine supplier and on the experience and expertise of a certified NX CAM solution partner. Most important is: The software must adapt to your specific requirements and be used efficiently.

→ Old machine, new requirements Old becomes new

It often happens that a good manufacturing machine outlives the requirements defined at the time as well as its software solution specially programmed for them. Even if the acquisition was not cheap and definitely correct at the time, it must be scrutinized whether the current system meets the latest technological requirements. Looking at the long term, it is worth investing in a new software solution like NX CAM and working efficiently and in a cost-optimized manner in the long term.

→ New solution provider, new luck Switching from NX CAM to NX CAM

Are you dissatisfied with your current solution provider but would like to stay with NX CAM? Unfortunately, in most cases, the system must be set up again nevertheless. Therefore, even for this reimplementation, you should take the necessary time and put together the right team so as to happily reach the goal with the new NX CAM solution partner.

→ Continuous process chain Completing the NX range

Do you already use other NX software solutions and would like to complete your continuous process chain? Then the implementation of NX CAM in your company is probably already a done deal. Nevertheless, using an experienced NX CAM solution partner and an implementation plan individually adapted to your requirements, you can make the change even smoother and more successful.

→ Have you had bad experiences?

Are you already working with a different CAM solution, are dissatisfied and do not know how to distinguish the good solution providers from the bad? Then you are best to seek a consultation with the expert team of JANUS Engineering.

Contact

info@janus-engineering.com

Convincing arguments

One of the most important tasks in the implementation of NX CAM? Convincing the crucial colleagues with the right arguments and taking them with you from the beginning.

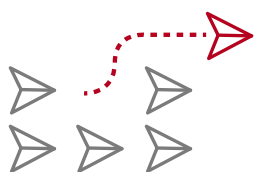
Sustainable system

from a well-known, renowned and experienced provider



Efficiency increase and cost savings

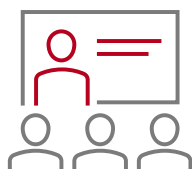
through constant process optimization opportunities



Competitive advantage

achieve shortened go to market times through optimized processes

→ For supervisors



Trainings and education

are tailored to all users so that you can work efficiently from the word go

The entire process

is analyzed and optimized.
Here, NX CAM can be adapted
to the individual requirements



With the right partner

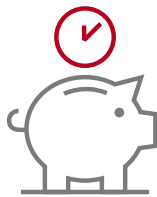
you get the right training
so that the conversion
becomes easy as pie



→ For users

Automation ensures time saving

instead of tedious
repetitions, get more time
for the important tasks



Simplified cooperation

cross-department, from
design to production to
quality assurance



With the right solution partner, you get even more arguments for...

- ... accounting: No invoice splitting. Software licenses, maintenance, support and all services from one source
- ... the IT department: Low administrative effort and a permanent contact for setup, updates and support

The ideal project workflow for your NX CAM implementation

Finding the right service partner

The first step on the way to the successful NX CAM implementation is looking for and choosing the appropriate system provider. Ideally, you will find a service provider that will also be at your side as a long-term partner for maintenance, support, updates and upgrades after the implementation.



← Project start

Together with the selected service provider, you start your NX CAM introduction with a kick-off, a process analysis and the implementation plan. On the following page, you will find out more about these three topic areas.

Hardware & Software

Before the in-house training begins, you or your service provider ensure that sufficient software licenses are available. Prepare the hardware and install the software. Have your solution provider support you here as well.



← Trainings & Education

Based on your implementation plan, start the training with as much time and repetitions as possible. This secures the efficiency in the process and the motivation of the users for the long term.

Installing the post-processor and the machine simulation

Your NX CAM solution partner now starts with the practical implementation through the installation of the post-processor and the machine simulation. In the meantime, the users can train further. Define the acceptance parts now at the latest, so that the functionality of the machine can be tested immediately after the installation.



← On-the-job support

Manufacturing can begin. In the process, the users are still supported by the service provider on the job, so that clarity can quickly be gained in the event of questions or uncertainties.

Project start

Kick-Off

Together with your solution provider, organize a kick-off meeting with all the participants and decision makers. You thus ensure that from the start everyone is in the same boat when it comes to the holistic vision and objectives for the system implementation.

Give everyone the opportunity to express concerns and contribute ideas. In the long term, this leads to satisfied users as well as convinced decision makers and helps you to implement the introduction as efficiently as possible.

Process analysis

Ideally, your NX CAM solution partner will offer you a process analysis. Here, the existing manufacturing process is examined and, using an example, optimization opportunities regarding quality, time, costs and automation are developed. Additionally, you clarify questions that may not yet have come up in the kick-off. Including:

- Are third-party systems or software to be connected?
- Which technologies are to be covered from the intelligent CAD part to the ready-tested product?

- Which systems are currently in use? What are the advantages and disadvantages here?
- What requirements do you have for a digital twin?
- Which production processes are currently in use?
- Which production processes / technologies do you need to use in the future in order to remain competitive?

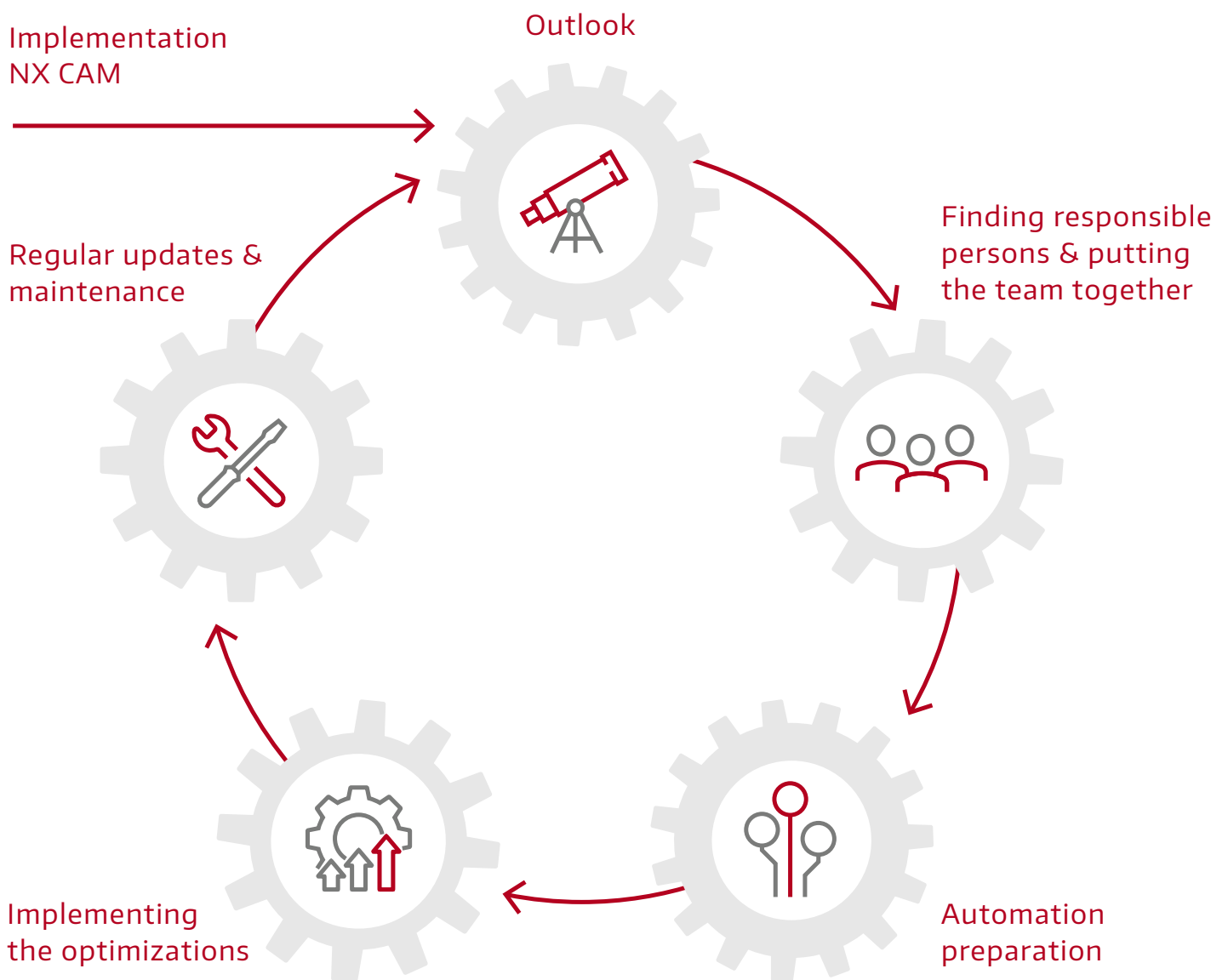
Defining an implementation plan

Develop a timetable and an implementation plan for the NX CAM introduction. An experienced and competent service provider should support you extensively in this step. Here, it is established when and for how long which colleagues will be released for the implementation and trainings. Especially for training, you should plan the timing generously.

Because learning success and motivation can depend massively on the time made available. Everyone who must be familiar with NX CAM in the future will be trained. This can be NX users, machine operators, production managers, IT staff or any other person in the company. Ask your solution provider about the possibilities of training on site or at the service provider's premises.

Process optimization

After the implementation is before the optimization. Whether requirements change over time or you have gained some knowledge about your manufacturing only after the successful introduction of NX CAM: It is worth it (for efficiency and finances) not to reject potential opportunities for optimization.



Process optimization

Outlook: What next?

Discuss with colleagues and your service partner what internal aspirations you have for the further work with NX CAM: What do you want to achieve? How important are the following to you:

- continuously increasing process reliability
- automation
- module expansions
- regular process analyses?

Automation preparation

The users should make a list during their work: What are manual workflows that need to be performed regularly that disturb, take too long or require too many clicks. This list will later serve as a basis for optimizations through automation.

Finding responsible persons & putting the team together

Ask yourself: Which employees are particularly motivated to get to know the new technologies and manufacturing possibilities? Promote their interest and offer the colleagues the opportunity to look after the following areas of responsibility:

- Creating and maintaining the basis for further automations, e.g. through a neat tool database
- Becoming an internal NX CAM contact and supporting colleagues who have problems or questions
- Becoming a contact person for the external service provider so that technical problems or uncertainty can be communicated at an early stage
- Regularly participating in training in order to get to know new application possibilities

Implementing the optimizations

Based on your learnings and automation preparation lists, your service provider advises you as to how the process can be improved. Pay attention to opportunities for automation, expanding process reliability and continuity in the process.

Regular updates & maintenance

Constant and sustainable process optimization includes:

- performing regular updates
- regular user training and pursuing constant expansion of skills
- regularly integrating new modules and system expansions
- regularly recognizing potential of what could still be improved (through updates, manufacturing expansions, user training etc.)

Common mistakes

One is usually wiser after the event. Or right from the beginning one benefits from the many years of experience of others and thus immediately avoids the most common mistakes that occur when implementing NX CAM.



Scheduling too little time:

Especially for the training, the users should be given sufficient time. Otherwise, they will quickly be overwhelmed due to too much content, their motivation will fall due to stress and the mood regarding the new system will deteriorate.



No cuts when changing systems:

Instead of using the old system "just one more time" for time reasons in the case of difficult processes, a system switchover should take place after successful training. Otherwise, what has been learned will be lost and you will continue to adhere permanently to the old system.



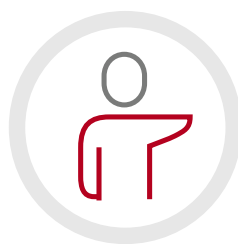
Losing sight of user motivation:

Even interested users can lose motivation for the system change due to too much learning content or too little time. Helpful against this are: a good implementation plan, milestone meetings to ask about the level of satisfaction and quick service provider contact in the event of questions or problems.



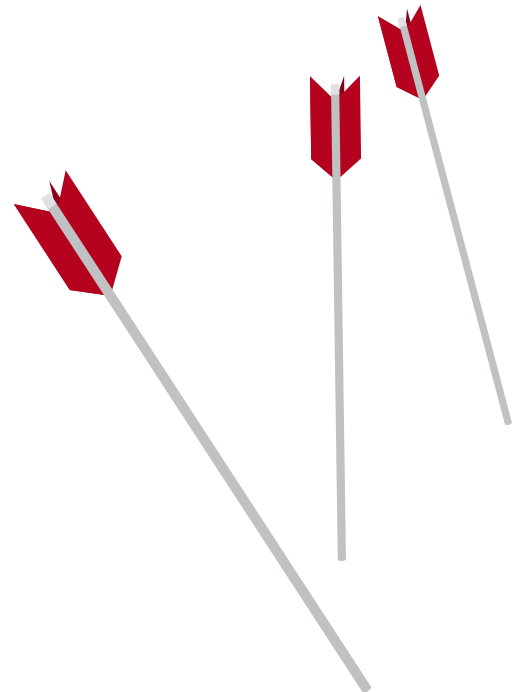
Switching over all machines simultaneously:

Instead, one machine should be switched over after the other. In this way, the users have the opportunity to familiarize themselves with the processes bit by bit instead of having to know how to do everything at the same time.



Making decisions over the heads of others:

Take all participants with you from the start in the system switchover. Above all the users should be heard and be allowed to communicate their concerns.





Neglecting the inter-human relationship with the solution provider:

When selecting your NX CAM solution partner, take into account whether you and your users gladly speak with the contact person. Otherwise, problems or questions will not be communicated in good time in the future. This creates frustration, even though the difficulties would have been quickly solvable with a direct support.



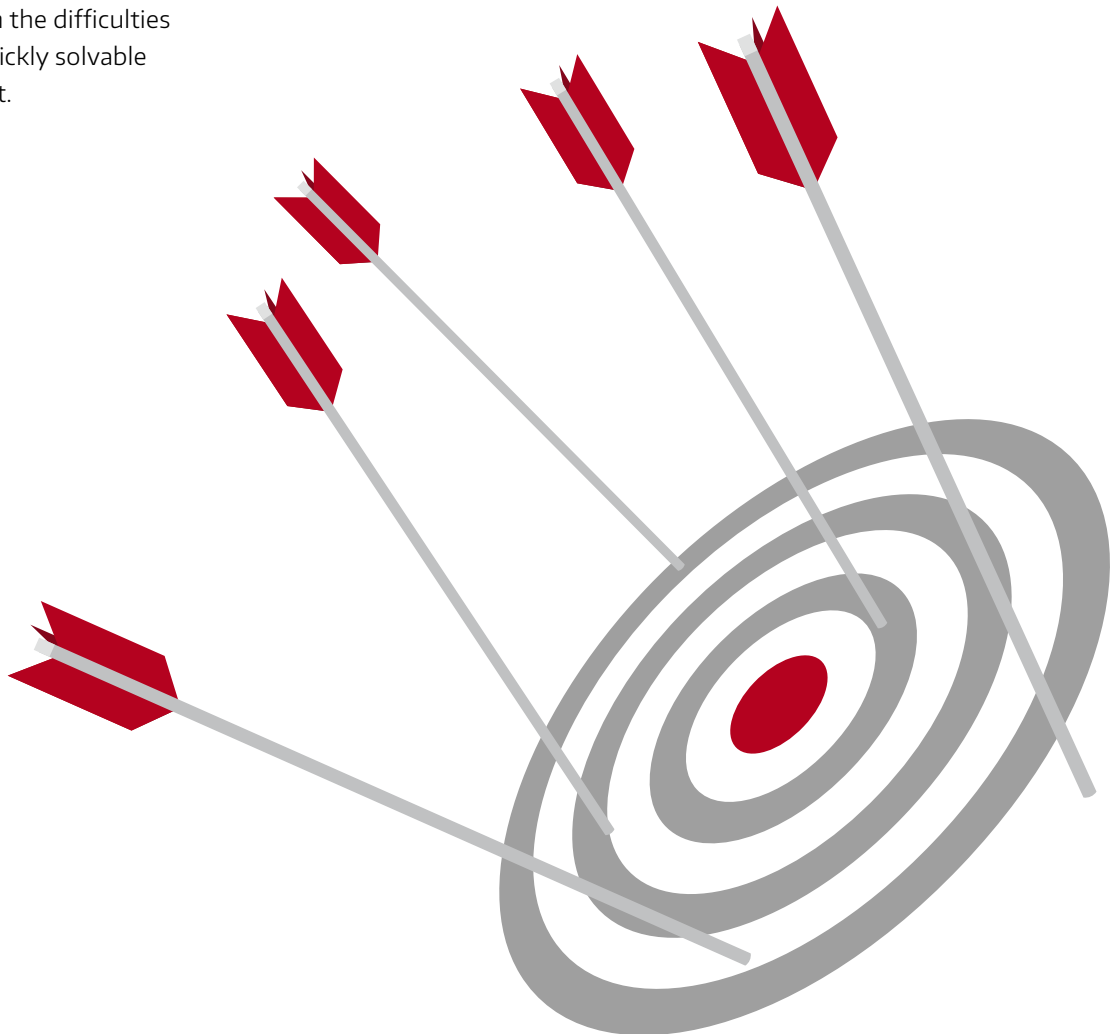
Giving responsibility to the wrong people:

Recognize and encourage the motivated and interested employees to get to know the system, talk to the service provider and support and motivate their colleagues. These can in particular be experienced but also young colleagues with fresh ideas.



Saving at the wrong end:

The cheapest solution may suffice for the moment but is not necessarily sustainable. You should also not save on the time scheduled for the switchover.



At one glance

Convincing arguments

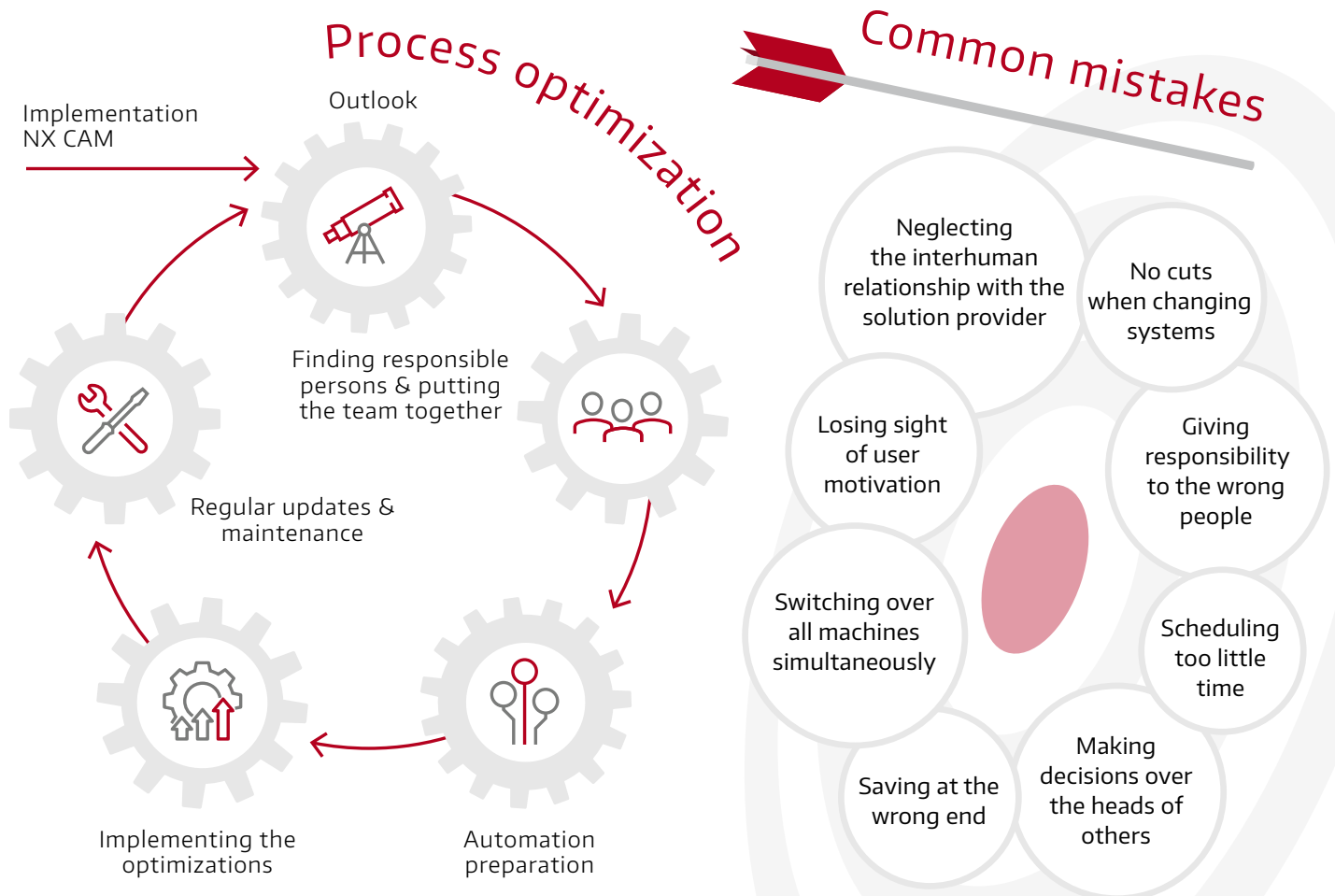
For supervisors

- Sustainable system
- Efficiency increase and cost savings
- Competitive advantage
- Training and education

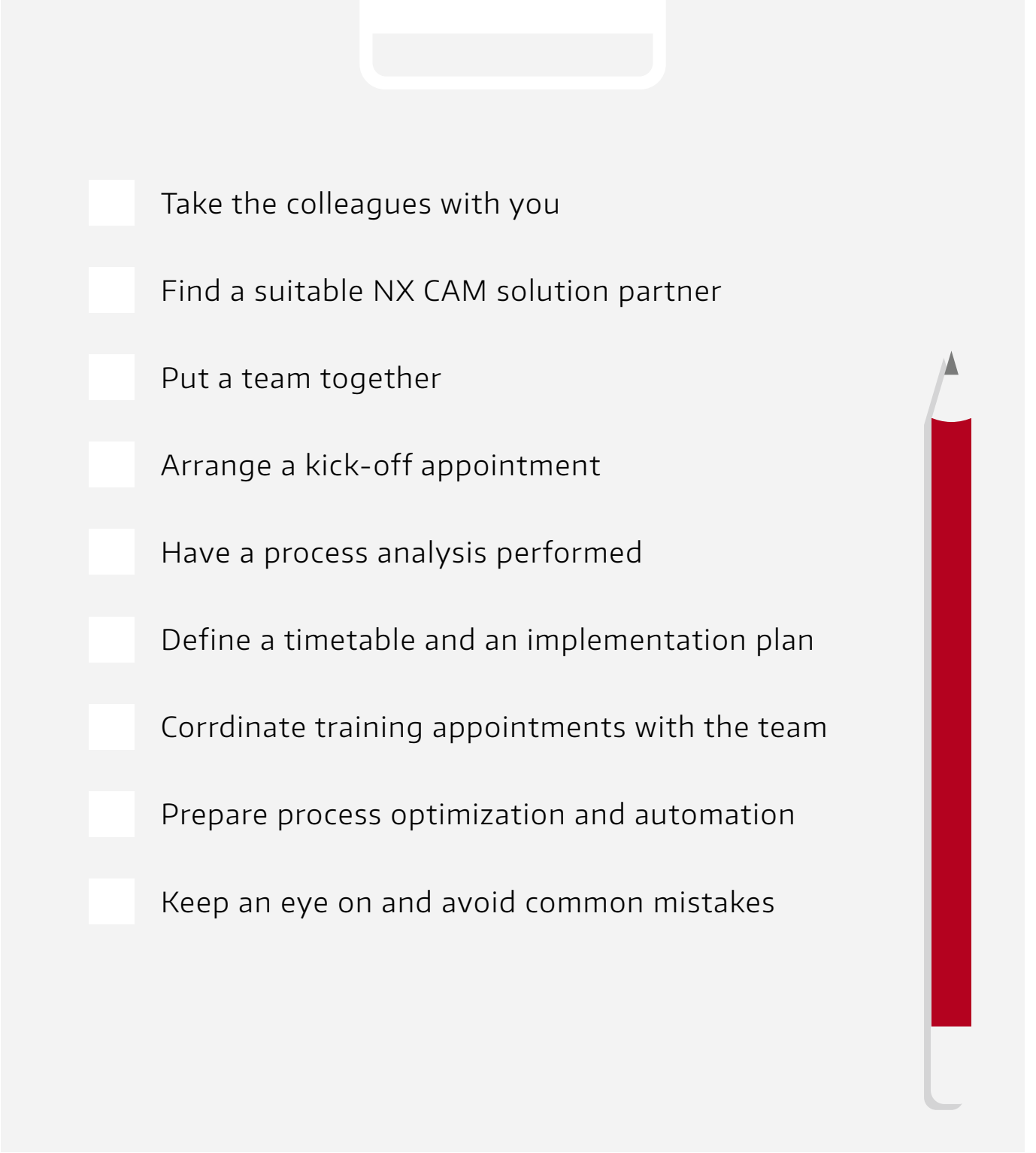
For users

- Optimize the entire process
- Easy conversion thanks to the right training
- Automation ensures time saving
- Simplified cooperation

The ideal project workflow



Checklist

- 
- ☐ Take the colleagues with you
 - ☐ Find a suitable NX CAM solution partner
 - ☐ Put a team together
 - ☐ Arrange a kick-off appointment
 - ☐ Have a process analysis performed
 - ☐ Define a timetable and an implementation plan
 - ☐ Corrdinate training appointments with the team
 - ☐ Prepare process optimization and automation
 - ☐ Keep an eye on and avoid common mistakes

→ Talk to us!



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Let's make it real

JANUS Engineering is the team of experts that loves a challenge. Where others see limits to what is possible, we create solutions for increased efficiency in the area of CAD / CAM / PLM. In over 30 years of actively using NX we have gathered a unique wealth of experience, which we use every day in our team and continue to expand for our customers. As a result, the production possibilities of tomorrow emerge from good ideas, perfect processes and the right tools.

Expert
Partner

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