WHITEPAPER



AI-POWERED PROJECT MANAGEMENT IN IT & SOFTWARE DEVELOPMENT

How Can Do Uses AI to Improve Project and Resource Management

Authored by Thomas Schlereth
CEO and Head of Development at Can Do

WWW.CAN-DO.DE

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can do
Enterprise software for AI-enhanced project and resource management



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Executive Summary

Discover additional insights in a reading duration of 5 minutes:

- Strategies for Achieving Project Stability in IT and Software Development through Can Do and AI Forecasts
- Why traditional resource management encounters limitations in complex IT projects
- What benefits can you achieve with Can Do within six months?

Key messages:

- Projects seldom fail due to the concept itself, but frequently due to insufficient resources.
- If resources are only recognized when they are already depleted, it is too late for effective project management.
- Companies utilizing Can Do save time, reduce expenses, and stabilize their most valuable asset: their employees.



ROI Overview

On average, project managers experience a 30% reduction in coordination effort.



Checklist

Are you on the right path, or does your organization lack a cohesive enterprise solution for your IT projects?



How to Begin

Our objective: Your team will be equipped to work confidently with Can Do within a few weeks, facilitated by a structured 6-month setup.

Whitepaper

Table of Contents

1. The primary challenges in information technology and software development

   1.1 Shortage of skilled labor
   1.2 Global Project and Team Frameworks
   1.3 Transitioning from internal projects to successful features and releases
   1.4 Emphasize expertise and skills management

2. Contemporary Project Management

   2.1 Instruments and Procedures
   2.2 Resource and Competency Management
   2.3 Artificial Intelligence

3. Opportunities for enterprises

   3.1 Effectiveness and Synergies
   3.2 Enhanced value for employees
   3.3 Outlook



Whitepaper

1 The primary challenges in information technology and software development

1.1 Shortage of skilled labor

The scarcity of skilled professionals in information technology and software development represents one of the most significant challenges to business success in the contemporary landscape.

Presently, the German economy faces a deficit of approximately 109,000 IT professionals, with 85 percent of companies expressing concerns regarding a scarcity of qualified IT experts.

With the rapid acceleration of innovation cycles and increasing global competition for technology talent, IT companies face mounting pressure to attract and retain top professionals. Growth-oriented employers now gain an advantage by offering modern tools, hybrid work arrangements, and a professional structure that mitigates burnout while fostering a motivating environment.

Central to this is the effective utilization of current experts and specialists. A considerable amount of expertise, such as that from seasoned software architects or DevOps engineers, is frequently accessible only intermittently. The departure of essential skills, whether due to job transitions, retirement, or health-related absences, can directly threaten projects and severely undermine competitiveness.



[1] Bitkom e.V., "Germany Still Faces a Shortage of Over 100,000 IT Specialists," press release, August 7, 2025. Available at: https://www.bitkom.org/Presse/Presseinformation/Deutschland-fehlen-IT-Fachkraefte

1.2 Global Project and Team Frameworks



The global orientation of the software industry indicates that developers, testers, and project teams are increasingly engaged in internationally distributed environments. Digital work products are processed on a worldwide scale. Some forward-thinking IT companies are adopting the Follow-the-Sun model, wherein teams across various time zones collaborate sequentially on the same project—an ambitious yet promising development strategy.[2]



This necessitates a centralized digital resource repository that offers clear visibility into skills and availability. Localized knowledge bases or ambiguous planning are no longer permissible.

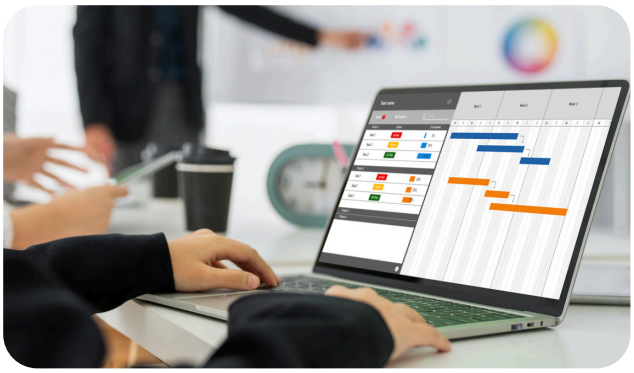


Contemporary IT project managers can leverage global talent, assemble specialized teams, and allocate resources dynamically. This enhances organizational resilience, adaptability, and appeal to prospective talent.

1.3 Transitioning from internal projects to successful features and releases

In IT projects, new features, products, or platforms provide their essential value only upon going live. Each delay incurs tangible costs and consumes limited resources that could be allocated to innovation and new developments. Conventional, inflexible tools such as weekly or monthly Excel spreadsheets fall short in addressing the dynamic nature of agile software development. IT companies require realistic, agile, and adaptable planning tools that accommodate ongoing changes and releases.

[2]Carmel, E., Espinosa, J. A., & Dubinsky, Y., "Follow The Sun Software Development: New Perspectives, Conceptual Foundation, and Exploratory Field Study," in: Information Systems Research, 2010. The Follow-the-Sun model theoretically facilitates continuous 24-hour development; however, its implementation in the industry remains infrequent due to the intricacies associated with daily handovers.



Many IT companies have grown accustomed to delayed rollouts and escalating development costs; however, the associated risks are intensifying: customer dissatisfaction increases, time-to-market extends, and competitors capitalize on opportunities more swiftly. AI-driven project management solutions such as Can Do provide a data-informed and transparent perspective on resources, sprints, and deadlines, facilitating early risk identification. Organizations that fail to embrace these technologies will lag in an increasingly competitive landscape.

1.4 Emphasize expertise and skills management

Value creation in information technology is progressively transitioning towards the conception, design, and software architecture phases. While certain aspects of implementation may be outsourced, in-house expertise continues to be the critical determinant. The effective utilization of this expertise has become paramount for achieving success.





Resource waste is no longer acceptable in the rapidly evolving IT industry. Strategically managing employee resources—along with their specific skills and capacities—presents significant challenges within the dynamic landscape of daily projects and necessitates the strategic application of modern technologies. AI-enhanced resource planning renders individual work patterns transparent, identifies potential bottlenecks proactively, and aids in preventing employee overload. Only organizations that adeptly manage their resources can ensure sustainable growth and foster innovation.

2 Contemporary project management

2.1 Instruments and Procedures

Excel and manual reports remain prevalent; however, they do not meet the demands of complex IT projects. The absence of real-time data, inadequate transparency, and the lack of automated risk analyses impede effective decision-making. Research indicates that Excel-based project planning results in ambiguity, elevated maintenance costs, and increased vulnerability to errors.

Contemporary software solutions such as Can Do provide ongoing monitoring of key performance indicators, consistently assess skill availability, and evaluate budgets for viability.

By leveraging this technology, project managers and teams conserve valuable time that can be more effectively allocated to creative development efforts. IT companies that fail to transition to intelligent project management software now face the risk of operational inefficiencies and diminished competitiveness.

2.2 Resource and Competency Management

Human resources represent the most valuable assets in IT projects; however, they are frequently inadequately planned and monitored. The diverse work styles, self-organization, and significant responsibilities associated with key roles (such as senior developers or product owners) demand innovative and strategic planning methodologies.



Can Do's AI-driven solution not only simulates workloads but also analyzes team dynamics and skill sets. It identifies overloads, proposes alternatives, and continuously learns from past project experiences. By integrating a global network of experts, freelancers, and suppliers, resources are utilized optimally, thereby enhancing the organization's agility and responsiveness in a sustainable manner.

[3]Capterra study 2019 on management software in SMEs; see also: MSO Solutions GmbH, "Excel is sufficient, but is it optimal? Why Excel cannot substitute genuine management tools," 2019. Available at: https://www.mso.de/blog/fachartikel/management-tool-alternative-zu-excel/

2.3 Artificial Intelligence

Artificial intelligence has emerged as a pivotal element in investments related to contemporary project management software. An international study indicates that AI is the primary motivator (54 percent) for companies investing in new PM software. Several years ago, artificial intelligence for resource planning and coordination was incorporated into the core product of the Can Do system. By employing machine learning, the software simulates individual employee work patterns and forecasts whether concurrent work packages can feasibly be managed by a single individual. Merely aggregating hours in Excel fails to capture this complexity and is more appropriate for fundamental task management.

Generic resource planning, which involves the medium- to long-term strategizing of entire teams and skill sets, typically occurs during the initial phases of a project. In contrast, the actual assignment of tasks to specific individuals is generally short-term and dynamic. Consequently, AI must also represent the organization and distribution of labor within teams, a process that is intricate and perpetually evolving—rendering it particularly well-suited for AI applications.

The Can Do AI identifies planning risks through sophisticated mathematical models that integrate historical project data. It evaluates the impact of these risks on both the project and the organization, offering recommendations such as "intervene" or "ignore."

It is crucial to distill pertinent information from the vast array of data and to assist individuals specifically where corrective action is required. This approach ensures that attention remains on the essentials, rather than on interminable, cumbersome lists.

Can Do's latest generation of AI employs neural networks to produce global solution recommendations. When an employee is overwhelmed, the model determines who is capable of assuming the responsibilities.

This process fosters neural connections among employees that intensify with training duration and encompass the entire global resource pool of a company. Consequently, the organization benefits from more equitable utilization, can pinpoint essential resources, and harness the experiential knowledge of long-term employees—this network can even be expanded to include external suppliers.



Would you like to discover more about AI in Can Do Software?

TO THE BLOG

3 Opportunities for enterprises

3.1 Effectiveness and Synergies

Modern project, portfolio, and resource management systems significantly reduce time for all IT stakeholders and offer a substantial competitive advantage. Research indicates that the implementation of AI-supported tools in project management can yield an average savings of five hours per week. The digital simulation of "who does what and when" fosters transparency concerning skills and capacities, facilitating informed decision-making based on reliable KPIs such as velocity, burn-down, and time-to-market.

Particularly, globally positioned IT companies that engage numerous freelancers and partners reap significant benefits: resources are utilized efficiently, bottlenecks are circumvented, and a flexible adaptation to emerging requirements and technological advancements is guaranteed.

3.2 Enhanced value for employees

Every IT professional—from developers and testers to product owners—seeks a professional work environment that fosters creative development and productive collaboration. Dependable and pragmatic planning serves as the foundation for motivation and trust in project management and leadership. Younger professionals, in particular, anticipate that managers will be well-versed in the latest software and utilize it adeptly to facilitate swift decision-making and transparent communication.

Traditional tools such as Excel spreadsheets and PowerPoint presentations are progressively diminishing in credibility within the IT sector. Instead, employees anticipate intelligent solutions that facilitate effective workload management, prevent overload, and establish clear priorities. This not only alleviates unnecessary burdens on employees but also actively engages them in the development of agile processes—a vital element in attracting and nurturing talent in the IT industry.

3.3 Outlook

In the forthcoming years, AI systems are poised to transform personnel and resource planning within IT organizations, encompassing everything from training to long-term demand forecasting. Several companies are already effectively integrating these systems. AI-generated solutions are gaining acceptance among project teams and managers, often demonstrating such precision that manual decision-making becomes redundant. Freed from the constraints of monotonous routine tasks, project and department leaders will be able to concentrate on enhancing motivation, communication, and innovative problem-solving. Consequently, innovation will continue to be the pivotal success factor and catalyst for growth.



Discover Can Do and the individuals who contribute to its success.



3-minute video

Watch the video now – succinct, pragmatic, straightforward. in application.



Quick Call

Let's briefly discuss your current challenges and see where Can Do could support your project and resource management.

Can Do GmbH
Implerstr. 26, 81371 Munich, Germany

Car	+49 (0) 89 / 512 65 100
Mail:	cando@can-do.de
LinkedIn	Can Do LinkedIn Profile
Web	www.can-do.de

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