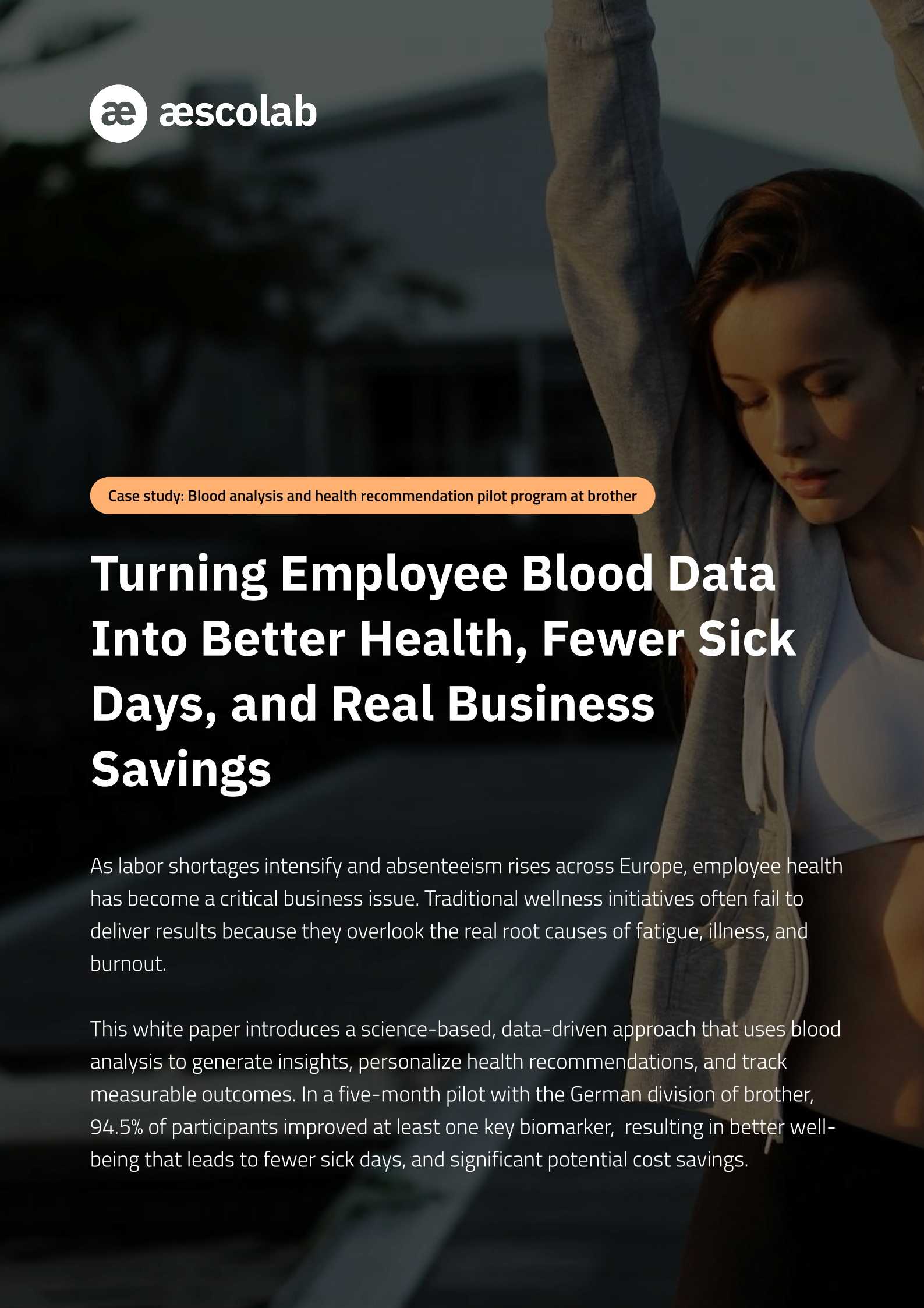

æscolab

Case study: Blood analysis and health recommendation pilot program at brother

Turning Employee Blood Data Into Better Health, Fewer Sick Days, and Real Business Savings

As labor shortages intensify and absenteeism rises across Europe, employee health has become a critical business issue. Traditional wellness initiatives often fail to deliver results because they overlook the real root causes of fatigue, illness, and burnout.

This white paper introduces a science-based, data-driven approach that uses blood analysis to generate insights, personalize health recommendations, and track measurable outcomes. In a five-month pilot with the German division of brother, 94.5% of participants improved at least one key biomarker, resulting in better well-being that leads to fewer sick days, and significant potential cost savings.

The Growing Workforce Health Challenge

European labor markets are under mounting pressure. According to the European Labour Authority (2024: link), more than half of all occupations across the EU are experiencing labor shortages. From healthcare to construction and tech, companies are struggling to fill critical roles. This issue is compounded by aging populations and shifting worker expectations.

19.4

Sick days per year per employee in Germany

FINANCIAL TIMES

In Germany, the pressure is particularly high. Productivity is being weighed down by rising absenteeism. In 2023, German employees were absent from work for an average of 19.4 sick days (Financial Times: link). Moreover, the BKK Health Report 2024 (link) reveals that the number of sick days per employee remains alarmingly high around 22.3 days on average with respiratory infections (such as colds, flu, RSV) accounting for over one-third of all sickness cases and nearly one-fifth of total absence days. These frequent infection-related absences are not just a human resource issue, they're a substantial drag on national productivity and economic output.

In fact, the German Association of Research-Based Pharmaceutical Companies (VFA) reports that an increase of just four sick days per worker reduced Germany's GDP growth by 0.6 to 0.8 percentage points, amounting to €25 billion in annual economic losses (Recruitonomics, 2024: link). While Germany's rising absenteeism is a major concern, the phenomenon is not unique, it's a growing challenge across Europe. According to the WHO European Health for All database, countries across the continent are seeing significant levels of sick leave (WHO HFA, 2024: link).

A recent article by Fortune Europe highlights how mental health struggles and cultural shifts in work expectations are driving a historic rise in absenteeism across the region. In countries like France, Germany, and the Netherlands, employees are increasingly taking time off for burnout, anxiety, and stress, conditions now recognized as legitimate health concerns. Moreover, in the Netherlands, a severe flu epidemic in early 2025 led to the highest absenteeism rates since the height of the COVID-19 pandemic, with 1 in 16 employees calling in sick and widespread disruption across healthcare, education, and logistics (NL Times, 2025: link). Experts warn that:

"Europe has entered a new era of absenteeism" **FORTUNE**, 2024. Link

Moreover, a Bloomberg report highlights how rising sick leave across Europe is becoming a serious economic threat. Sectors such as healthcare, logistics, and manufacturing , already strained by labor shortages, are being hit the hardest. Increased sick leave is now slowing GDP growth, urging policymakers and businesses to treat workforce health as an economic priority (Bloomberg, 2024: link).

Traditional wellness programs, like fitness reimbursements or mindfulness apps, often miss the mark. They don't address the root biological causes of absenteeism and fatigue, and they typically lack personalization, measurable outcomes, or medical insight. Without data, it's difficult for employers to understand what's truly affecting employee health. Moreover, experts argue that companies should shift focus from perks and education to science-based programs that address individual health data and behavior change (Harvard Medical School, 2019: link). Those who are thriving are twice as productive, six times more engaged, and 81% less likely to leave their jobs (2024: link).

Our Solution: Measurable Health, Real Business Value

aescolab offers a science-based, blood testing analysis. Our model addresses the limitations of traditional wellness approaches by focusing on what matters: data, individualization, and measurable outcomes. We focus on turning invisible health risks into measurable business outcomes. Using science-driven blood analysis, we can provide a clear picture of each employee's health status, from vitamin and nutrient levels to metabolic and immune system biomarkers. All participants receive a personalized report, followed by a 1:1 consultation with a health expert. Based on this, each employee receives targeted, evidence-based recommendations to improve their energy, resilience, and overall well-being.

1

Blood analysis
(on-site or at a partner clinic)

2

Personalised health reports
for each employee, focusing on lifestyle changes

3

1:1 Consultation
and coaching with a health expert to set goals and discuss practical changes with regular dial in sessions.

4

Evidence-based recommendations
on nutrition, supplements, exercise, and recovery

Our scoring model
Employees receive a Health Grade, based on how many biomarkers fall into healthy vs. critical ranges. We also track progress across categories such as:

Nutrients e.g. vitamin D, ferritin, magnesium

Metabolism e.g. blood sugar, lipids

Blood count e.g. red/white blood cells, hemoglobin

This scoring system makes employee health progress visible and actionable creating individual empowerment that will lead to improved health amongst your employees.

Pilot at brother - Measurable Results in Just 5 Months

aescolab partnered with the German division of brother, a branch of the Japanese multinational known for its printers, multifunction devices, sewing machines, and labeling equipment, a company operating in 40 regions with over 30,000 employees, to do a pilot test over 5 months (Oct 2024 to March 2025), with 66 employees (50% men, 50% women).

Each participant completed two rounds of blood testing, one at the start of the pilot and another at the end, allowing for direct comparison of individual health improvements. In between, they received personalized consultations and targeted health recommendations. Despite the program taking place during the winter season, when vitamin D and energy levels typically drop, the results were interesting:

Headline Outcomes:

Blood biomarkers are valuable tools in healthcare for diagnosing diseases, monitoring treatment effectiveness, predicting disease risk, and understanding overall health status.

94,5%
Improved at least one key biomarker

65,4%
improved two or more biomarkers

20%
improved all three core biomarkers

Biomarkers, such as vitamin D, magnesium, or blood sugar, provides insight into a person's overall health status and risk for illness. See the average biomarker improvements for the brother pilot below:

Vitamin D **+5.23** ng/ml

+5.23 ng/ml average improvementimprovement despite winter. This improvement lowers depression risk, higher energy, stronger immune defense → fewer sick days

Magnesium **+1.85** mg/l

+1.85 mg/l average improvement. This improvement improves muscle function, energy metabolism → better physical and cognitive performance.

Blood Sugar **-5.9** mg/dl

5.9 mg/dl (reducing diabetes risk by 30%) average reduction. A reduction in blood sugar leads to 10–30% reduced risk for diabetes which leads to significant long-term healthcare savings.

Health Grade Increases

To better understand the health impact of our intervention, we analyzed improvements across key biomarker categories. Each category includes a group of related biomarkers (e.g., Iron metabolism includes Ferritin, Transferrin & CRP), and is graded on a scale from A to E based on aggregated performance.

The following improvements were observed:

- Nutrients: 11.3% participants moved to Grade A and 13.8% moved to Grade B (Encompasses essential vitamins and minerals)
- Metabolism: Participants falling in Grade A increased by 5.6% (Includes biomarkers related to energy level, such as blood sugar and cholesterol)
- Blood Count: Participants with Grade D reduced by 6.4% and with Grade A increased by 7.7% (Reflects markers linked to oxygen delivery and immune function)

Each of these categories reflects a composite improvement across all relevant biomarkers. These improvements feed into an overall health score (0–100), offering a quantified view of individual progress. The category-wise grades serve as foundational inputs into this final score.

Katrin Hill
Head of HR & CSR
brother

"As a responsible employer, brother attaches great importance to the well-being, health, and satisfaction of our employees. With aescolab's blood analysis, we at brother are creating a **targeted health promotion program** while also **boosting** the **motivation** and **performance of our employees.**

Our low staff turnover compared to the industry average and positive feedback from employee surveys confirm our claim to be an attractive employer. In aescolab, we have found a reliable partner who supports us in implementing innovative measures for employee health and employer attractiveness.

The collaboration has been consistently positive and impresses with its professionalism and quality."

Gender-specific Impact

♀ Women	♂ Men
increased ferritin → improved energy and focus	reduced cholesterol → lower cardiovascular risk

The pilot with brother proves that with the right structure, communication, and data, companies can dramatically improve employee health in a short time. It shows that employees are not only willing to engage with health programs when they're personalized and evidence-based, they also achieve real results. Improvements in energy, focus, and resilience were commonly reported alongside the measurable biomarker gains. This creates a ripple effect: healthier individuals, stronger teams, and a more resilient organization overall.

The ROI and Long-Term Value for Companies

To help organizations of all sizes, from SMEs to large enterprises, understand the financial impact of improving employee health, we at aescolab have developed a practical and easy-to-use ROI Calculator:

Try aescolab ROI calculator here > Or via this link: https://roi-calculator.aescolab.de/

This tool lets you estimate how much your company could save by reducing sick leave. Simply enter the number of employees, average sick days, and cost per absence to get a tailored savings projection. Even a small improvement, like one fewer sick day per employee, can translate into substantial annual cost reductions.
We do this by using Eurostat's 2024 (link) average hourly labour cost in Germany of €41.30, and assuming an 8-hour day fully paid by employers, the estimated cost per sick day is €330.40. With an average of 19 sick days per employee.

Formula at a glance:

> *Cost per sick-day (€) = (Eurostat hourly labour cost) × 8 hours × employer-paid %*

To put the impact into perspective, we calculated the annual cost of sick leave using the same group size as the brother pilot. For a company with 66 full-time employees, assuming an average of 19 sick days per year and a cost of €347 per sick day, the total cost amounts to approximately:

- **66 employees: €435,138 per year**

Now consider a larger organization with 500 employees under the same assumptions. The annual cost of absenteeism rises sharply to:

- **500 employees: €3,296,500 per year**

These figures illustrate just how much is at stake, and how even modest improvements in employee health can lead to substantial savings. Reducing sick leave by just one day per employee could save tens or even hundreds of thousands of euros annually, more eaxct:

- **€22,915 for a company of 66 employees**
- **€173,600 for a company of 500 employees**

Beyond Financials:
The Broader Impact of Poor Health at Work

Investing in your employees' health not only leads to healthier individuals, it also strengthens retention and builds a more attractive employer brand. The true cost of poor employee health isn't just financial; it also affects how people feel, perform, and connect with one another.

Research from the McKinsey Health Institute (2024:link) shows that thriving employees are twice as productive, six times more engaged, and 81% less likely to leave their jobs.

When energy is low or health is ignored, it becomes harder for people to make decisions, collaborate effectively, or stay motivated. Poor health undermines morale and accelerates turnover. Gallup (2023:link) also estimates that disengaged employees cost the global economy $8.8 trillion annually, underscoring how human performance and business performance are deeply connected.

Companies that prioritize health gain more than just fewer sick days. They benefit from stronger teams, deeper engagement, and a more trusted employer brand, with stronger people-centered HR strategies, all essential to staying competitive in today's talent market.

Thriving employees are

2x

as productive,

6x

more engaged, and are

81%

less likely to leave their jobs

McKinsey&Company

Conclusion

The data is clear: rising absenteeism, labor shortages, and declining workforce health is a strategic business risk. Across Europe, companies are facing mounting costs tied to sick leave and reduced productivity, while traditional wellness programs continue to fall short. The brother pilot proves that with the right structure, science-based diagnostics, personalized insights, and measurable outcomes, companies can meaningfully improve employee health in just five months.

The pilot demonstrates what's possible. **With just two rounds of testing over five months, 94.5% of participants improved key health markers**. These aren't abstract gains, they translate into better focus, fewer sick days, stronger teams, and measurable ROI.

aescolab proves that when you give employees insight, support, and science-based tools, they respond with results. This isn't just about reducing costs, it's about unlocking the full potential of your workforce.