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Services and solutions delivery

Operational Intelligence

Creating a new model for optimized ultrasound usage

Operational Intelligence in practice:
Stories from Germany with Aline Mittag

Aline Mittag

Adopting an Operational Intelligence approach to create a new model for optimized ultrasound usage in Munich, Germany

Aline Mittag
Philips Healthcare Transformation Services Consultant

How do you connect together all the complex moving parts of a healthcare organization to help it run effectively and efficiently with a passionate and motivated team who are providing the high-quality patient-centric care of today and the future? The answer is by putting Operational Intelligence –the continuously synchronized partnership of people, processes and technology– into practice.

Philips Healthcare Transformation Services Consultant, Aline Mittag from Hamburg, Germany shares her experiences of how she and her colleagues have helped embed this connected mindset to deliver positive lasting value, breaking down silos and why unlocking the best of people, processes and technology is resulting in a new healthcare operating model.

Aline begins: "In my role as Healthcare Consultant and when building a partnership, it is so important to approach the customer openly, to truly understand them. This way we develop the individual solution, together, and then proceed in a solution-oriented manner. This relationship and partnership building really drives me personally. I really believe in helping create opportunities for our customers to optimize their everyday professional lives.

Naturally, health care providers face special challenges, for sure but the focus should always be on the patient and their well-being while taking economic factors into account. Moving within this area of conflict is not always easy as it requires special handling, and heightened empathy. Our longterm partnership with München Klinik is a great example of how we worked as a team to create transformative behaviors that delivered impactful results."

Partnering with München Klinikfor the long-term

Today, Aline Mittag is at the end of a long, transformation journey spanning five hospital sites, multiple clinical departments and encompassing the insight of dozens of in-depth, interdepartmental physician interviews. Reviewing and helping to optimize operations is part of her role in driving improvement across healthcare providers.

As a consultant for Philips Healthcare Transformation Services, Aline Mittag and her team focus on initiatives such as designing new models of care delivery, auditing usage of key medical equipment and redesigning workflows and even whole departments to improve patient care and operational efficiencies. It is a role which requires a careful balance of skills: collaboration, analytical thinking and perseverance, or as she refers to it: Operational Intelligence.

Aline remarks: "This transformation journey has been the result of great teamwork. It has been inspiring to work with the team at München Klinik. Special credit must also go to our amazing account manager and the team of ultrasound specialists within Philips who gave their all."

What is Operational Intelligence?

Operational Intelligence is the continuously synchronized partnership of people, processes and technology.
This operating model turns the current trend to think and prioritize technology first, on its head by combining three critical components to create and deliver healthcare organization's products and services to result in profitability and growth. What began as an idea about how a hospital system and a technology provider could better work together has become a powerful new way of working for hundreds of Philips and healthcare professionals.

People
Working as one: Philips peoples' skills merge with yours for continuous, cumulative improvement.

Process
Operational Intelligence doesn't subscribe to process for process sake; instead, it unlocks intelligent, tailored processes. The opposite to the common one size fits all, Operational Intelligence demands that processes are finetuned and cocreated together.

Technology
Technology is an enabler; Operational Intelligence makes it both connected and interoperable by breaking down silos to provide a comprehensive, ongoing overview of how technology is required and be utilized (by humans and systems) now and in the future.

Helping München Klinik define and optimize its ultrasound usage

As part of an eight-year Managed Technology Services partnership between Philips and München Klinik, Aline led a "needs-based" analysis of ultrasound across the health system's five hospital sites. This strategic review is a year-long process that spans each hospital's clinical department that uses ultrasound and uses a combination of deep data-driven analysis and in-depth interviews and discussions to gauge what precisely is happening with every piece of equipment across the health system.

An ultrasound examination is used to monitor unborn babies, diagnose conditions, or in guiding physicians during a medical procedure. On the ward, in the emergency department, or in the procedure rooms, many departments regularly deploy ultrasound equipment ranging from handheld devices to more sophisticated modalities.

Ultrasound usage is difficult to assess in large health systems, as usage is so widespread. München Klinik had around 160 different ultrasounds across its five hospital sites.
The challenge was that clinical departments weren't tracking how the equipment was being used by its staff.

And zooming out to a bigger picture, usage of medical equipment is a large area of potential cost savings at a time when healthcare cost pressures are high. Germany, for example, is among the top five spenders on healthcare, both as a proportion of GDP (11.2%) and per person (USD 5,986), according to OECD data

Aline explains: "There is often no overview of how and when ultrasound is being used, nobody is able to collect the relevant data, doctors request equipment but often cannot show transparency as to what is happening with the equipment. Understanding the usage of the ultrasounds is key to effective technology management. This is why we offered München Klinik the opportunity for Ultrasound Demand Analysis."

Ultrasound Demand Analysis: A two-stage interview process

The Philips Healthcare Transformation Services team was set up to focus on optimisation in health systems - organisational, departmental and structural. True partners with healthcare providers, the team brings Operational Intelligence; a highly collaborative approach, working side-by-side with client teams. With data as a foundation and deep clinical expertise, they sync capabilities and evolve behaviors, processes and systems to help transform the patient experience and achieve strategic objectives.

More specifically, Aline's job involves getting to know intimately how medical equipment and devices are being used, by forensically analysing usage — via questionnaires, interviews and onsite data extraction — and drawing up a recommendation for hospital executives that will save costs.

She explains: "This is something you can figure out by taking the time to speak to people, to find out where equipment is located and which technologies they use. We find out a lot about what is going on inside the hospital and how their equipment is being used and whether more devices could be shared, or, even whether the devices being used are suitable for the purpose. From there, you have good potential to reduce overall costs."

In her role Aline acts as both auditor and investigator: examining in detail how hospital departments use equipment, to better understand their actual needs. An example of this is the fact that, according to Aline, "There are a lot of savings hospitals can make by just being more transparent with the way they use their equipment. It's important to optimise the way you work for the patients you serve and their diagnostic needs. And diagnostic needs vary and change."

There are two critical stages in the Ultrasound Demand Analysis process: firstly, an online questionnaire is sent to all departments to find out what equipment they currently have and how they use it; the answers they give are then used in follow-up detailed discussions.

This questionnaire gives only a certain level of insight into usage, from which Aline can probe and find out more through discussions. She explains: "The questionnaire is for doctors in every department of the hospital and it tells us how they are using the ultrasound, how often, how long one diagnosis takes, what procedures they have in place," Aline says. "After that we go into each department and discuss the results with department heads, clinicians and ask some follow up questions, to get more context on the usage, such as what technologies they need and the software details and so on. When you start to talk and ask questions you really find out that usage is different [from the questionnaire]."

Through the online questionnaires and in-depth interviews with clinical departments a clear picture of ultrasound usage emerged across the five hospital sites. Insights included how often each device is used per day, in which parts of the hospital it resides, what types of procedures it performs etc.. As well as the equipment itself, a lot is learnt about technology oversight, organisational culture and departmental silos. "We collected what data we could from the ultrasounds, but there is not always complete data available," says Aline. "And if you can't find the data through interviews, you go into the hospital and search for it manually." After the interviews were finalised, the Philips Healthcare Transformation Services team, together with their departmental colleagues – all operating as "one team" by now - made a proposal to the hospital management.
Aline explains: "We worked out what was feasible and what worked for each department. The objective was to have complete transparency over all devices in the health system - who was using them (and when) and what they are using them for."

Plausibility check of the potential analysis through direct involvement of the device users

Ultrasound Demand Analysis – an example of a synchronized people, process and technology approach

Operational Intelligence can be defined at a high level but also at a low level via specific activities. Ultrasound Demand Analysis is a standout example of this, since, as well as being a highly analytical process, it is also an intensely personal, trust-building endeavour.

Aline explains: " I see Ultrasound Demand Analysis as being a great example of the Operational Intelligence approach and mindset in action. From the outside, Ultrasound Demand Analysis is a process that's designed to understand what is happening on the ground. And yet as an outsider, walking into any workplace to probe equipment usage and processes is a daunting challenge. How do you ensure you don't tread on any toes? How do you start to collaborate as one team to share knowledge, differing perspectives and harness the "supermind' principle to understand better and achieve more, together? The answer: it is a delicate balancing act — teasing out insights into how a department is run, leveraging skills of diplomacy and empathy in equal measure. It requires the ability to communicate with all types of personalities and egos, working closely and collaboratively with executives, physicians and nurses with one eye relentlessly on the end goal of a more efficient organisation."

Synchronizing people, process and technology in action at every step

Aline continues: "Partnering as one and constantly synchronizing and optimizing, that's Operational Intelligence. For example, we learned quickly not to accept the first answer we got about ultrasound usage and explore what was really going on with each device. Culturally it is really hard for some departments to share devices and communicate between departments. When it comes to sharing devices, ownership is an issue: If there is no clear standard and something breaks, who owns the equipment and is responsible for it? This is an organizational issue within some hospitals — if two departments are using a device."

Aline highlights the importance of using Operational Intelligence approaches – in this case "a needs based discussion" - to break down silos and broker collaboration: "In the business world, it's called HIPPO (Highest Paid Person's Opinion); the act of deferring to the highest paid person in the organization and not speaking up for fear of getting it wrong. In healthcare, there can also be a culture of accepting the physician's word as final. A 'needs-based' discussion is something very different. We found that sometimes there's a need to reframe the question and the need. Do they really need it, or is it that they want it and should we do a cost benefit analysis? There is typically a need to depersonalize hospital equipment ownership and unpick usage."

It's an approach that is intended to deliver value and, through an Operational Intelligence approach, healthcare providers can truly see that their Philips colleagues have their best interests at heart and are a trusted, valued partner. So much so that, working together day in day out over the span of many years, they're indistinguishable from each other. Put simply, they're simply colleagues on the same team.

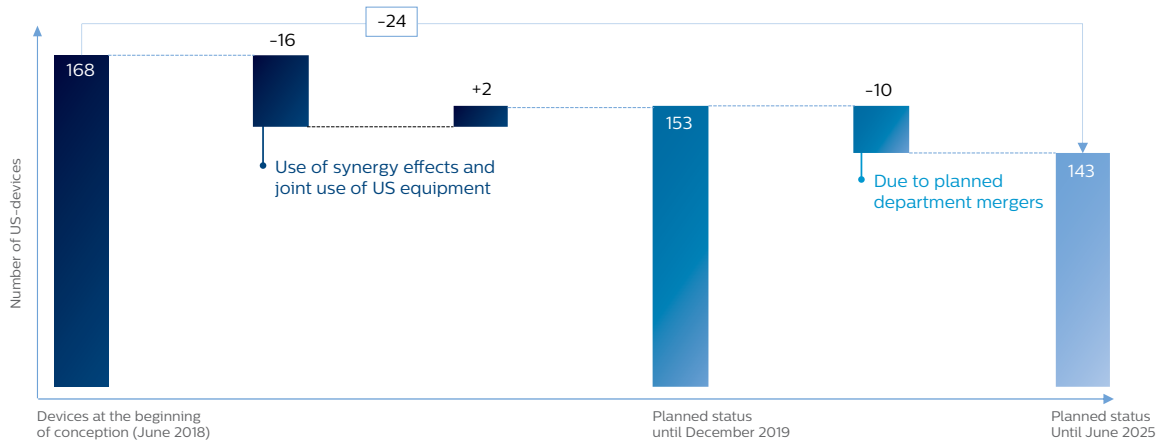
It's a way of working that Aline is highly motivated by: "It's a very different approach, because we are actually questioning whether the department needs it, whether a higher quality piece of kit is suitable for what they are doing. We're not there for the sale, we're there for the relationship. This is something I'm keen for our healthcare partners to get used to, because our discussions have traditionally been structured on people get what they have been asked for. Now we're more focused on really finding out together what they need – and it often isn't what we all initially think - and finding a better solution for their purpose."

Not just soft skills, significant tangible gains are achieved with Operational Intelligence

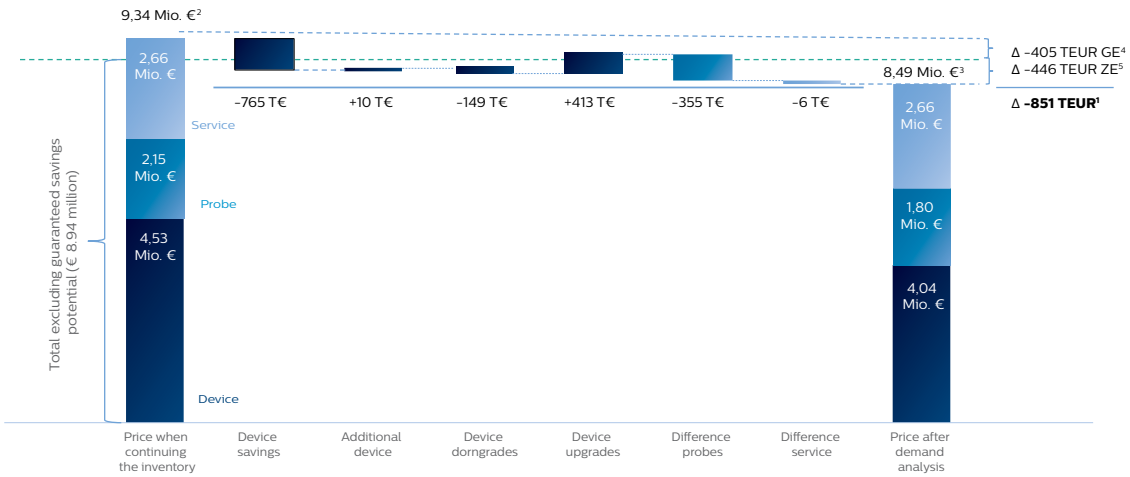
And yet Operational Intelligence can't be in tangible. Fortunately, it's far from that and the results speak volumes. In the case of München Klinik, Aline's Ultrasound Demand Analysis mapped 24 devices with a savings potential of €851,000, with costs savings from Day 1.

Aline Mittag is one of many passionate Philips people working on long-term Philips Managed Technology Services partnerships in Philips, merging her skills with staff at customer hospitals for continual, cumulative improvement. She concludes: "We help hospitals see that it is better to have the right devices for their unique needs. They like this approach – and so do we - because you can build trust on a different level. It's never "us" and "them" anymore. We're one team with a shared, focused goal."

Recommended inventory changes over the duration of the partnership



Cost consideration - comparison between preliminary concept and final demand analysis



Innovationspartnerschaft München Klinik - Ergebnisse Ultraschallbedarfsanalyse

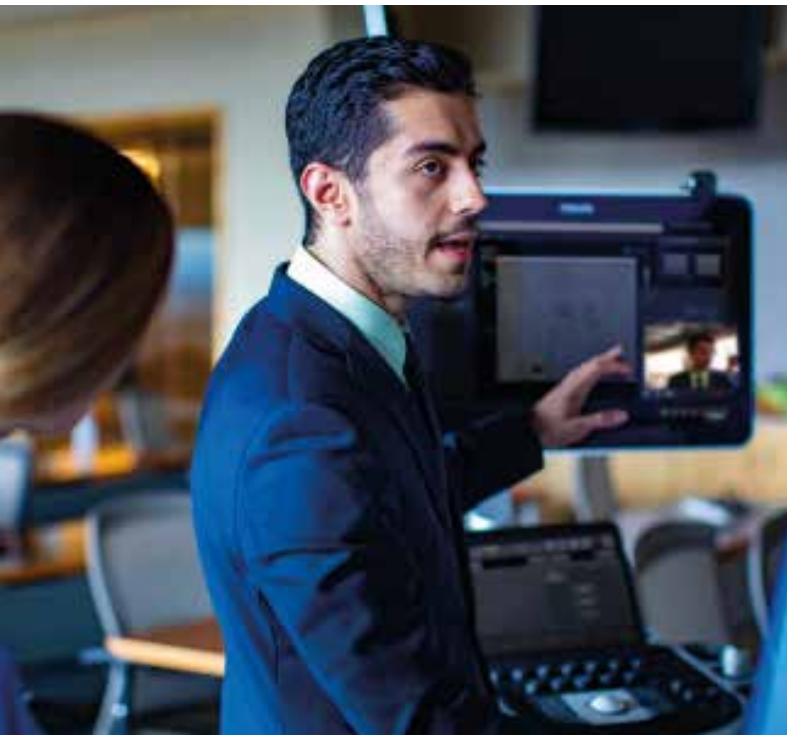
1 Stand 17.04.2019, 2 Preis ohne Echonavogator, ohne Endosonogerät (EQ 3024168), mit Servicekosten für Frauenklinik KS (EQ 3024650), 3 5 Geräte noch nicht final, 7 Geräte noch ohne Entscheidung, 4 GE = Garantierte Einsparung, 5 ZE=zusätzliche Einsparung

Is your healthcare system operationally intelligent?

Being able to fully exploit the digital capabilities that technology can offer healthcare operations optimization, is not solely about selecting the best technology to achieve your goals.
True transformation requires an operating model that combines technologies, people and process in an integrated sequenced way.

Interested to learn more?
Let's talk. Even better, let's collaborate. We'd love to help you translate Operational intelligence for your healthcare operations.

Contact details go here
www.philips.com/operational-intelligence



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