Reimagining Temperature Monitoring Services

IPI speaks with Jukkapekka Asikainen of Sensire about Inovative Temperature Monitoring

Q. For over ten years Sensire has reimagined full-service solutions that help customers from the outset, with its innovative temperature monitoring services such as TempNet Cloud, which uses an application programme interface system (API). Can you tell us how Sensire has developed patented technology with the cold chain sector in mind and what the benefits of using 'real-time monitoring solutions' are?

With our latest solutions we recognised that the market lacked a centralised method for gathering and combining end-to-end cold chain data. This directly impacted product safety and quality.

To solve this, we came up with a solution that combines technology, software development and APIs that offers real-time visibility and automating manual tasks.

With real-time visibility, our customer can better ensure efficient quality and safety processes. With the addition of a mobile app for guiding employee processes we support effective, timely and above all correct processes and corrective actions. This enables our customers to not only correct problems but to prevent them altogether.

Q. Although good practice regulations and guidelines have been designed to support effective temperature monitoring in the pharma cold chain, around a third of cold chain pharmaceuticals are put at risk by temperature excursion annually. How can cold chain monitoring companies prevent temperature excursions in clinical sample logistics and improve temperature validation efficiency at the same time?

The companies handling the logistics need to know where and when the excursions happen to be able to prevent them. That means they need to be able to monitor the whole chain in real time. This is where we monitoring companies come in.

We provide actionable data in a timely manner, so that the logistics companies are able to address issues before they become hazardous to the samples or medications in their care.

Preventing excursions then eliminates the need for costly and time-consuming temperature validation inspections on arrival. Still, if something were to happen, detailed, automatically-created reports on transportation and storage conditions can shorten the receiving inspections considerably.

So, efficiency can be improved by the double offer of real-time prevention and management by exception that professional temperature monitoring companies can offer.

Q. One of the easiest ways for pharmaceutical manufacturers, third-party logistics providers and retailers to up their revenue and improve customer satisfaction is to make sure that pharmaceuticals never get wasted because of incorrect handling and conditions. However traditional temperature loggers only help you weed out the wasted products after the temperature excursions have happened. Because a patient cannot be allowed to receive degraded pharmaceuticals, how can pharmaceutical companies and manufacturers support the implementation of GXP (Good Practices and Regulations) to prevent this from happening?

Much of GxP regulation is about risk. So, the best way a pharma company can support implementing good practices is by being diligent in their risk assessments. That means digging deep into the process to find out where possible problems happen.

That means lane, equipment and packaging validations in transportation, and mapping and monitoring storages, warehouses and other cold equipment where the medications are stored. With wireless monitoring equipment, all this is now extremely easy to do.

And going past just mapping and validation, and into automatic real-time monitoring we can start directing processes to prevent excursions and the subsequent degradation and waste. A way of thinking about real-time monitoring is then to see it as ongoing, continuous validation of all logistics processes.

Q. With the augmentation of wireless technologies used to enhance cold chain monitoring solutions, you can save on monitoring costs and prevent waste, protecting the environment along the way. Can you tell IPI how generating an electronic audit trail of all your monitoring activities is not only more ecological than traditional monitoring solutions but also allows you to spend less time reporting on regulatory compliance and leverages the gathered data to improve processes through predictive cloud analytics?

Many organisations are getting rid of paper in order to create less of a burden on the environment. So, it's only natural to make that same move in logistics operations. Digitalising also provides an equal or even better audit trail as the binders and paper archives used to, because it facilitates faster reporting.

Another major benefit of digital archives is that drilling down to root causes is much easier. This can be further simplified with the addition of predictive analytics that can help in catching potentially wasteful processes and problem hotspots.

Better processes in turn will help decrease product waste, inspection

costs for excursions and ultimately logistics costs as well.

With regard to our SaaS model and reusable wireless technology, we're also solving the environmental load that many disposable monitoring methods are causing today.

Q. Software as a Service (SaaS) is a method of software delivery that allows data to be accessed from any device, which enables software vendors to utilise data integration to understand the customer in the cold chain sector. Therefore, how can the deployment of SaaS type solutions allow current technology adopted by suppliers and customers to not only improve their visibility and transparency throughout the cold supply chain but also create a significantly early return on investment?

That's a great question – SaaS provides better visibility because its technology set-up is extremely light, requiring very little customer staff input to get operable.

Faster setup equals faster process visibility, which facilitates earlier problem identification and highlights improvement possibilities. And the possibility to integrate existing systems helps utilise legacy systems more efficiently and get more value out of those as well.

As for the early ROI, in a full-service SaaS model, such as Sensire's, the initial investment is lower than in traditional payment models, and there are no hidden costs. With recognised savings from process improvements and waste reductions, we can calculate ROI to around three to 12 months, of course depending on what the customer is looking for and how agile they are in refining their processes.

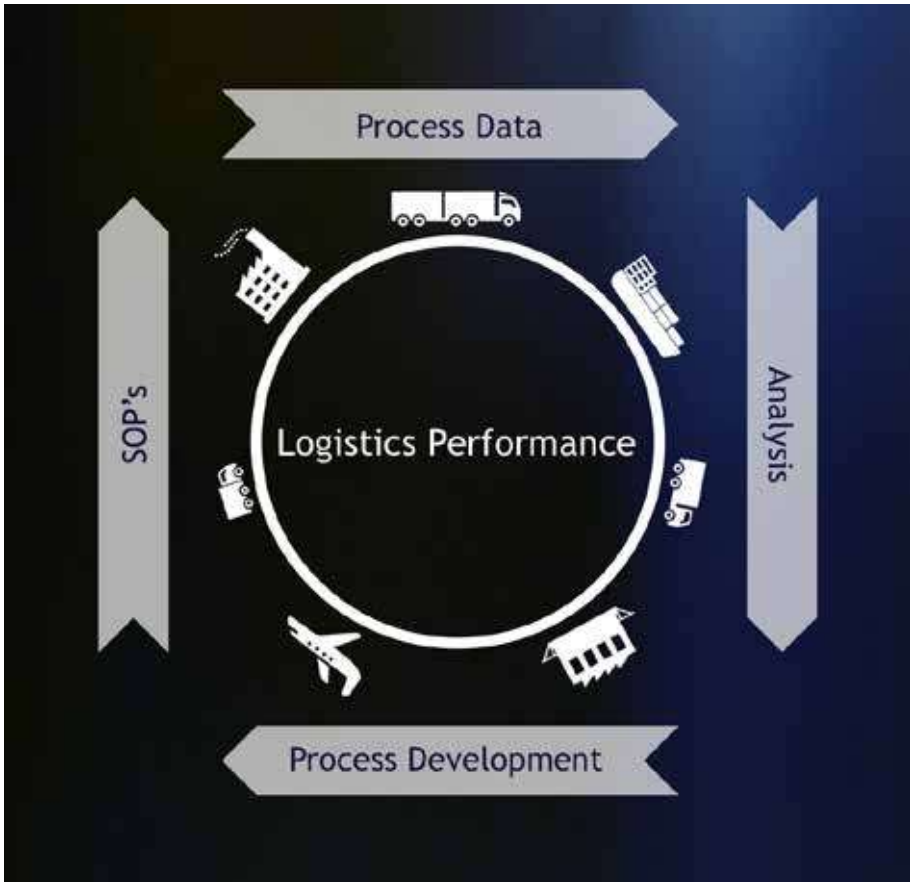
Q. In 2018 the market for the pharma cold chain logistics sector was estimated to be worth $318 billion, with the sales volume of temperature-controlled products growing at twice the rate of pharma overall. Although the pharma market is economically viable, global transportation and packaging costs have risen dramatically in the past few years. How can the pharma supply chain managers – both domestic and global – address the rising costs, get better at projecting future capacity needs and work with logistic providers more effectively?

One of the best ways to cut costs and predict capacity needs is to address excursion in the logistics chain. Let me elaborate:

One source of inefficiency in pharma logistics is the long inspection cycles when an excursion has happened, which ties up logistics capacity from warehouses in the form of quarantine until inspections are ready and may require substitute products to be shipped.

With complete end-to-end data records, inspections can be carried out more efficiently, freeing up capacity in storage by shortening quarantine times.

Of course, eliminating the excursions in the first place with real-time data and immediate corrections will allow the SC manager to consider only how much actual products are used and ship that much, freeing up capacity by eliminating product shipments needed to substitute for wasted or quarantined products.



Jukkapekka Asikainen

Jukkapekka (Jp) Asikainen is the founder and CEO at Sensire Ltd. He is a leading expert on the cold supply chain and an accomplished innovator of market-leading wireless monitoring solutions for pharmaceutical logistics, healthcare services, and processing and manufacturing operations.

Jp is a highly successful serial entrepreneur and has over 30 years in executive management, marketing and sales. As a long-time specialist on environmental monitoring systems, Jp is exceedingly experienced at providing customers with real-life solutions to real-world challenges.

Email: info@sensire.com