

Established: 2017
Employees: 14

Based in Darmstadt
Medical device manufacturer

Milestones

Founded
2017

Seed funding
2018

Team expansion
2019

Serial production NelumBox
2019

Release SmartHub
2020

Release Tec4Cloud
2020

Products



CEO



Nico Höler

Customer segments

Clinical trials



Third party logistics



Pharmacies



On board couriers



Hospitals



Private customers



We believe that value-driven technological innovation pushes the human race forward.

This is why we challenge our status quo every day, only to create the most sustainable, secure and convenient technological solutions possible.

We strive for giving professionals and private people access to previously unknown flexibility, freedom, and carefreeness.



Technical Details

Temperature range

0°C - 70°C inner temperature
at -10°C - 45°C outer temperature

Preset range

2°C - 8°C [cold chain]
15°C - 25°C [ambient]
35°C [incubation]

Outer dimensions

27 liter; 350mm x 350mm x 220mm

Inner dimensions

4.7 liter; 205mm x 165mm x 125mm

Weight

9.5 kilogram

Features

Tracking

temperature, humidity, battery charge, GPS, access, motion, shock

RFID/ NFC smart lock

for an authorized access

Automated alarms

via email & text message

Hinged carrying handle

for mobile & stationary usage

Multifunctional display

for greater transparency

NelumBox is the first active cooling solution: The whole system is electrically cooled. Besides, NelumBox collects data on in- and outdoor climate conditions. The user can review that data via the Tec4Cloud. Users even receive information as soon as the cooling temperature deviates.

NelumBox also offers people who require medication bound to the cold chain, the opportunity to regain freedom, mobility, and independence in their daily life.

These people face various problems every day. Spontaneously traveling on vacation - impossible. Using the fridge for storage is risky, too. Often there are significant temperature fluctuations. As a result, the door area is too warm and the freezer compartment is significantly too cold. These irregularities can strongly impair the effect of the medication, which sometimes can be dangerous for the patient.

In contrast to the passive cooling boxes currently in use, the NelumBox cools reliably to the individually set temperature with a patented system. It can be used stationary and mobile, with up to two days battery life. Also the passive coolers usually end up in the garbage after only a few uses, NelumBox whereas is built for the usage over many years, can serve as a medical fridge and is, therefore, a sustainable solution.

SmartHub

SmartBeacon



Technical Details

Runtime SmartHub

> 2 weeks

Runtime SmartBeacon

> 1 year

NIST

calibrated sensors

Geo-location

GPS, triangulation, WiFi

Features

Tracking

temperature, humidity, air-pressure,
location, acceleration, light

RFID/ NFC smart lock

for access control & notifications

Automated alarms

via email & text message

Tracking automation

quick pairing via RFID & automated
triggers for predefined events

Connectivity

for multiple SmartBeacons to one
SmartHub

SmartHub enables the future of pharmaceutical logistics and serves as a unique and innovative solution for tracking any kind of data.

With SmartHub, it is possible to simplify every logistic process. The hub serves as an intelligent gateway and monitoring solution that collects data and uploads it into the Tec4Cloud. The collected data can be read out live on the integrated display as well as on the Tec4Cloud dashboard.

The SmartHub can be used within any logistical transport mode, such as container, airplane & truck, but also shipping on pallets or in single packages is possible.

Additionally, multiple SmartBeacons can be connected to one SmartHub. These enable a much more accurate result of the data recording. For example, a SmartHub is attached to the loading space of a truck during transport. The SmartBeacons, which are located in each parcel, can then be connected automatically. The SmartHub collects the data of each beacon, which in turn can be easily accessed via the dashboard.

But there is more than just tracking, so SmartHub and SmartBeacon help automate and digitize the supply chain, warehouse, and fleet with their intelligent software.



Technical Details

Open platform

open REST API for external systems

Compliant

to CFR Part 11, FDA 21/ GAMP 5
highly secure encryption

Access

in more than 170 countries

Features

Integration

of third party data loggers and smart
healthcare devices

Automated

alerts via browser, email & text mes-
sage/ predefined reports

Device management

planning shipment routes & remote
control of all devices

Whitelabel

integration of any individual design

Individual software

development of specific feature
requests & continuous software
updates

Tec4Cloud enables the digitalization of all logistics processes, taking into account the requirements of modern data tracking.

Tec4Cloud is an open platform for connecting tracking devices. It works closely with Tec4med products, but also allows the integration of other devices of any kind.

As a smart software, the cloud serves as the meeting point for all tracking and smart healthcare devices. The data, which is tracked from all connected devices, is collected and evaluated, graphically prepared, and displayed for the user. That enables the user to keep track of all parameters and logistical processes, for example, directly on the smartphone.

The cloud is individually adapted to the needs of the customer. Thus, requests for special functions can be followed up, and any design can be inserted through the Whitelabel.

Tec4Cloud is designed to simplify existing logistical processes and combine them with innovative possibilities without any additional effort.

Press Statement

Tec4med Lifescience GmbH is a young company from Darmstadt; founded in 2017.

Tec4med's vision is the demonstrably safe transport of sensitive medications through sustainable and intelligent systems of soft- and hardware. This is how the startup solves a global problem of pharmaceutical logistics, which generates more than 35 billion dollars in direct costs worldwide every year. The team works very hard every day to achieve that this money can be spent in other medical sectors.

In 2017 the company started with the NelumBox, an intelligent special temperature control solution for highly sensitive clinical trial material, stem cells, gene therapies, samples, blood derivatives, organs, and much more. With the extended product portfolio consisting of SmartHub, SmartBeacon, and the Tec4Cloud, Tec4med is now expanding into the broader pharmaceutical logistics sector right through to the commercial area.

In addition to passive high-performance packaging solutions, the life science company now also offers an entirely new product range of intelligent data tracking devices for monitoring the transport of all pharmaceutical shipments from the manufacturer to the patient.

The startup pursues a business model that is very much adapted to the pharmaceutical industry and focuses mainly on the rental business with a comprehensive service character. For the project business, which is often found in the pharmaceutical industry, this offers enormous added value for their customers, as they can get started without significant initial investments and grow together with Tec4med later on.

The Tec4med team develops innovative technology for the best possible benefit of people. Sustainability, flexibility, and care-freeness are at the center of its daily work.

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In everything we do, we follow our vision of sustainable, secure and convenient technological solutions that simplify everyday use and create added value for humankind.

We create solutions that support people around the world to achieve their goals, based on technological improvements, optimal user experience, and synergies of cutting-edge soft- and hardware.

By incorporating our values and beliefs directly into our product development, we at Tec4 create technology for everyone.