



# NODIN AVIATION AS

YOUR NEEDS - OUR KNOWLEDGE - EQUALS INNOVATION



## MEDICAL EVACUATION (MEDEVAC)

...from point of injury to homeland hospital



### NODIN MEDEVAC PRODUCTS AND CONCEPTS

...a brief introduction

**NODIN** = Norwegian Development and Innovation



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## A brief summary:

**NODIN Aviation AS** is a privately owned Norwegian company established in 1998 - a typical R&D company focusing on development of medical evacuation products and concepts for any scenario throughout the whole MEDEVAC chain,  
*"From point of injury, all the way back to homeland hospital"*



1998

A **Collaboration Agreement** between Marshall Aerospace, UK, and NODIN Aviation was signed in 2007 and have been in force since then. We work together, from case to case as partners, especially related to NODIN developed aircraft concepts and products needing EASA/FAA certification.



**Insurance:** NODIN Aviation AS has a product related Public Liability Insurance covering cost up to NOK 10.000.000,-



**Code of Conduct:** NODIN Aviation has signed, and is committed to The ASD Common Industry Standards (CIS) and The European Aerospace and Defence Industry ANTI-CORRUPTION Form.



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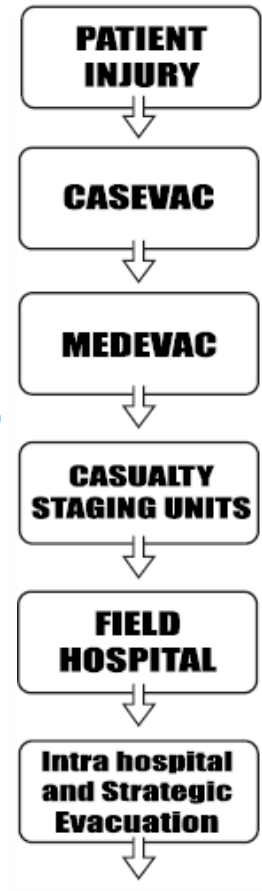


## Medical Evacuations through the whole chain

- NODIN Aviation and partners are assisting customers in creating and maintaining a strong patient evacuation chain - through innovation and dedication.
- We focus on developing first response capability to get patients under proper treatment within the “Golden hour” and the “Platinum ten”.

Our company slogan:

- **YOUR NEEDS - OUR KNOWLEDGE - EQUALS INNOVATION**





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Supplying CASEVAC, MEDEVAC, TACEVAC and STRATEVAC products and concepts to...



... Norway, Sweden, Denmark, England, Italy, Turkey, Germany, Poland, Estonia, USA, Chile, India, Dubai, Slovenia, New Zealand, Canada, Abu Dhabi, Singapore, France, Spain, Qatar ...and the NATO organization NSPA (former NAMSA).



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## Air, Sea and Land Capabilities and Capacities





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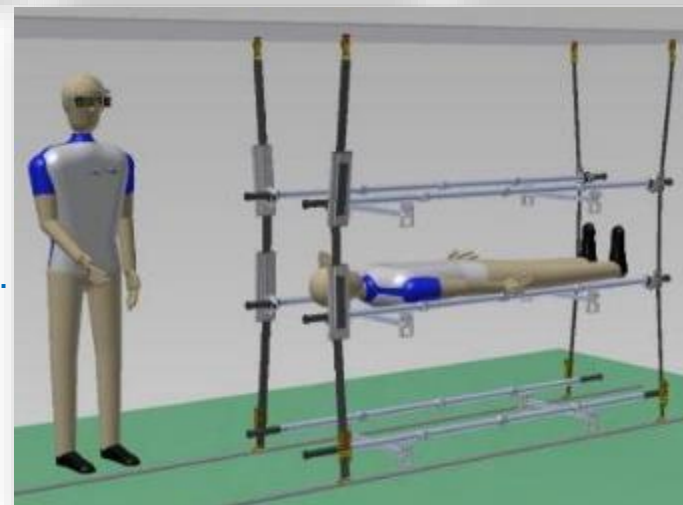


## Shock and Vibration Damped Stretcher Suspension System

*The new* NODIN CASEVAC KIT for all types of platforms: Air, Land and Sea



- With preinstalled anchoring points; the system can be operational, and up to three patients loaded within 2 minutes.
- No tooling needed.
- Individually and spherical damped.
- Modular system, one or multiple stretcher positions.
- Role equipment – quick in when needed and quick out when not.
- Shock dampening effect has been simulated: input 440g at 0,31msec, residual shock 3,9g.





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## Part numbers for the different versions of the CASEVAC KIT (PN: NT-626CK....-....)

**NT**-626CK4-1: (NT= Nodin design)

NT-**626**CK4-1: (626= the shock damper)

NT-626**CK**4-1: (CK= Casevac Kit)

NT-626CK**4**-1: (4= numbers of dampers per stretcher)

NT-626CK4-**1**: (1= number of stretchers in the Casevac Kit/rack)

NT-626CK**0**-2: (0= no dampers in the system - only adjustable hooks)

Example:

1. **NT-626CK4-2** = Casevac Kit with four dampers per stretcher and two stretchers in the rack.
2. **NT-626CK2-1** = Casevac Kit with two dampers in torso end of the stretcher and two non dampening hooks in foot end of the stretcher in a one stretcher Casevac Kit.
3. **NT-626CK0-2** = Casevac Kit with no dampers – only adjustable hooks for the both stretchers.

The six main models are: NT-626CK0-1, NT-626CK0-2, NT-626CK2-1, **NT-626CK2-2** (standard), NT-626CK4-1 and NT-626CK4-2

NODIN NATO 4-folded Field stretcher are included as a part of all versions of the CASEVAC KIT.





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## NODIN CASEVAC KIT for all platforms; Air, Sea and Land

**+** CASEVAC KIT installed



### NODIN CASEVAC KIT

For all type  
of  
platforms:

**Air**

**Land**

**Sea**







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## NAWSARH, Norwegian All-Weather Search and Rescue Helicopter



NODIN was selected as the supplier of the AW101-612 Catastrophe Stretcher Rack Installation for 16 ea. new SAR helicopters for Norway (Option for 6 more)



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## Catastrophe Stretcher Rack Installation

CASEVAC Kit in Norwegian new AW-101 SAR helicopters



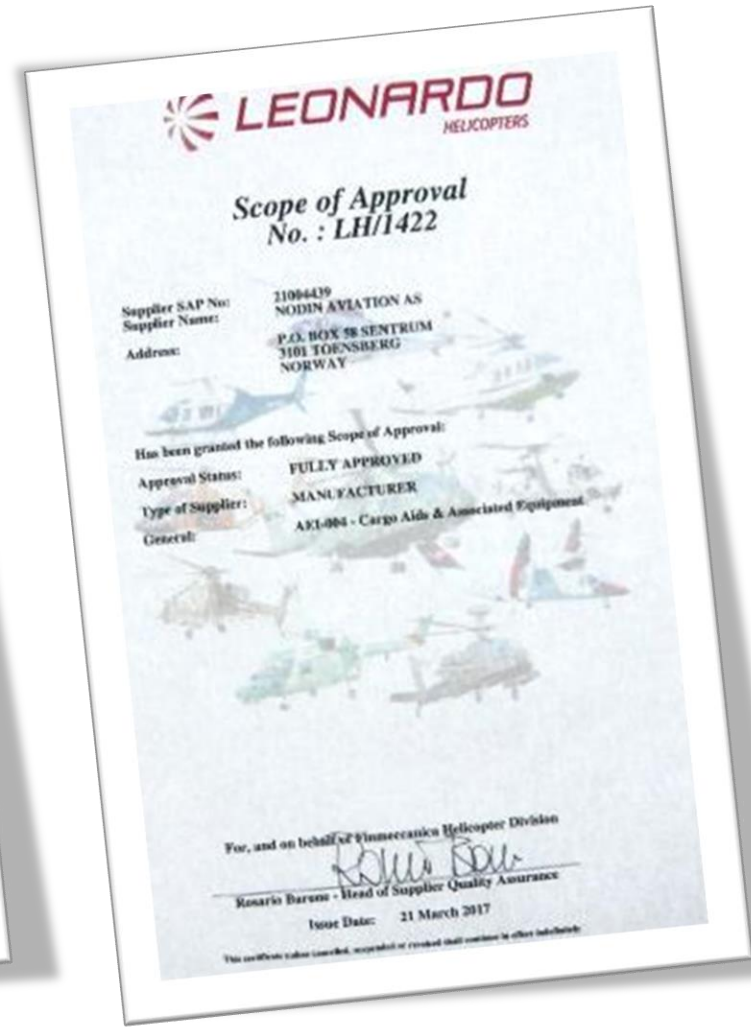


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**NODIN Aviation is Fully Approved as Manufacturer for LEONARDO Helicopters**





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## Shock and Vibration Damped Patient Transport Systems



NODIN has delivered 92 ea. Shock and Vibration Damped Patient Transport System for IVECO LMV Field Ambulances.



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## CASEVAC Kits NT-626CK2-2 for 16 ea. Norwegian CV90



NODIN has delivered 16 ea. CASEVAC Kit, NT-626CK2-2, to the Norwegian CV90 Program



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## NATO MEDEVAC Stretcher (NT-820MVU)

NATO Stock No: NSN-6530-25-160-2914

In an Aeromedical Evacuation development project and design program, we searched worldwide for a Field Stretcher meeting all requirements for aerial transport of patient, both civilian and military.

Since we were not able to find a stretcher meeting all requirements, we decided to develop a new field stretcher to be used in all kind of carriers; on Land, Sea and Air.

- Designed and tested iaw NATO Stanag 2040 and 3204
- Integrated 7-point quick release Harness
- 4 folded with telescopic handles
- Pinch free hinges
- Low storage volume
- 6 anchoring points for IV pole, arm-rest, medical bridge, light, hoist-straps etc.
- Minimum 10g crash load in all directions





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## MEDEVAC Field Stretcher Backrest (NT-850ABR)

NATO Stock No: NSN-6530-25-160-2915



Adjustable Backrest positions: 0°, 30°, 35°, 40° or 45°



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## MEDEVAC Field Stretcher Mattress (NT-822MAD)

NATO Stock No: NSN-6530-25-161-8870



...unique mattress to reduce hypothermia risk and prevent bed sore for patient with limited circulation





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## MEDEVAC Field Stretcher Accessories

Equipment Pole Adapter (NT-830EPA) for 6 alternative positions



...adapter for all standard pole-mounted medical equipment independent of manufacturer



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## MEDEVAC Field Stretcher Accessories

Equipment Pole Adapter (NT-830EPA) for stretcher integration



6 alternative and dedicated positions for mounting the Equipment Pole Adapter on the stretcher;  
3 alternatives along each side of the table/stretcher.



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## MEDEVAC Field Stretcher **Accessories**

Adjustable Arm Rest (NT-823AAR) for stretcher integration



Two alternative and dedicated positions for mounting the Adjustable Armrest to the stretcher; one on each side, head end, left and right.



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## Field Surgical Table (NT-950FST) ...as a Lightweight Forward Operating Platform



The Field Surgical Table (NT-950FST) consists of the Tilttable Stretcher Stand (NT-880TSS) and the 4-folded Nodin MEDEVAC Stretcher (NT-820MVU)

Total weight less than 20 kg



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## Equipment for Casualty Staging Unit – CSU ([video](#)): "Tactical Evacuation"

**Tiltable Stretcher Stand** for CSU, with Trendelenburg (+/-) angles position



NATO Stanag 2040 ....one unit ....no tools needed ....ready for use within a minute



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KEY PRODUCTS – IN DEVELOPMENT



## Patient Support System (P/N: NT-890PSS) MEDEVAC and inter-hospital transport.

- Aeromedical Evacuation unit
- Suspended in Stretcher rack or strapped to cargo floor anchoring points.
- Designed iaw Stanag 2040 and Stanag 3204.
- Additional payload:
  - 60 kg of medical, electro medical equipment.
  - Including Oxygen Bottles in defined Cribs.





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KEY PRODUCTS – IN DEVELOPMENT

## Patient Support System

...for Field Stretchers - designed according to dimension in NATO Stanag 2040



... some table layouts

...secured to the aircraft  
cargo floor anchoring points

...retractable wheeled legs,  
one foot operated





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KEY PRODUCTS – IN DEVELOPMENT



## Patient Support System (PSS) Accessories:

- Equipment Fastening Straps
- Flexible tables
- IV-pole
- Surgical Light
- Spotlight
- Internal Battery Package
- Arm-Rest for Surgical Operations
- Patient Rain and Dust Cower
- Docking Rack for Infusion Pumps
- Standard Medical Rails
- Various types of customized racks

...PSS are designed to easily integrate a wide variety of medical devices, equipment and assistive technology.







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KEY PRODUCTS – IN DEVELOPMENT



## Medical Evacuations through the whole chain

...from point of injury to homeland hospital





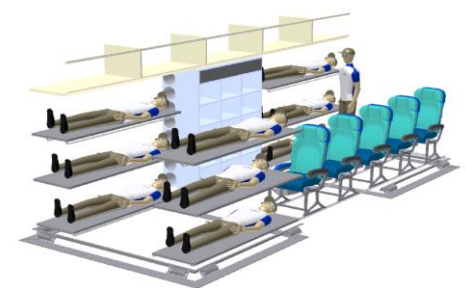
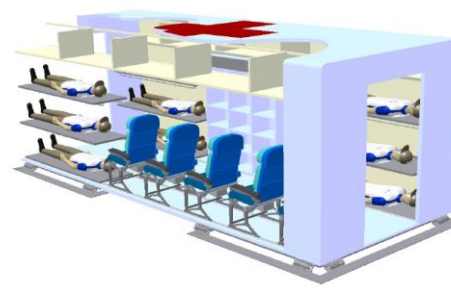
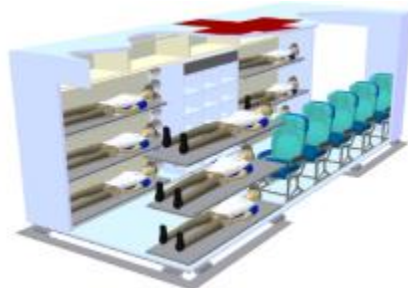
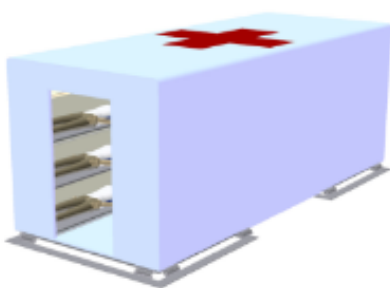
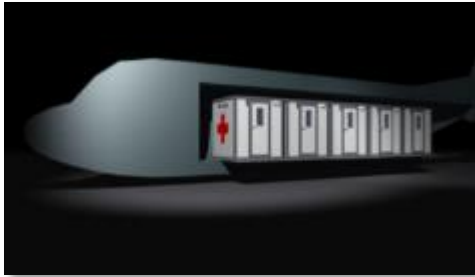
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KEY PRODUCTS – IN DEVELOPMENT



... palletized AE solutions (Aeromedical Evacuation)





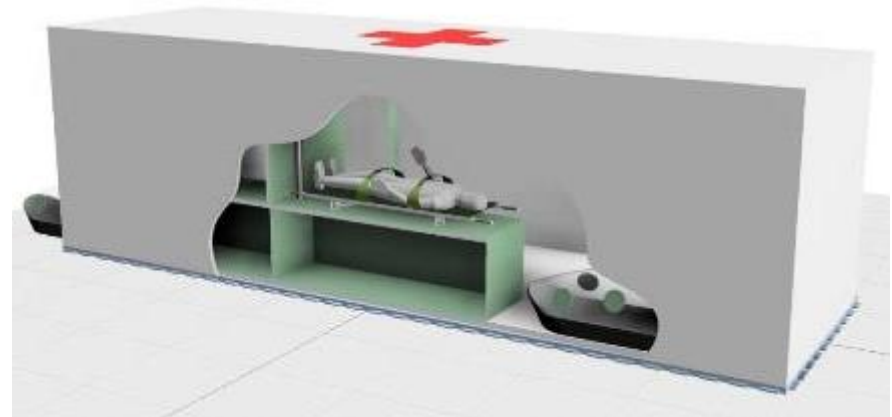
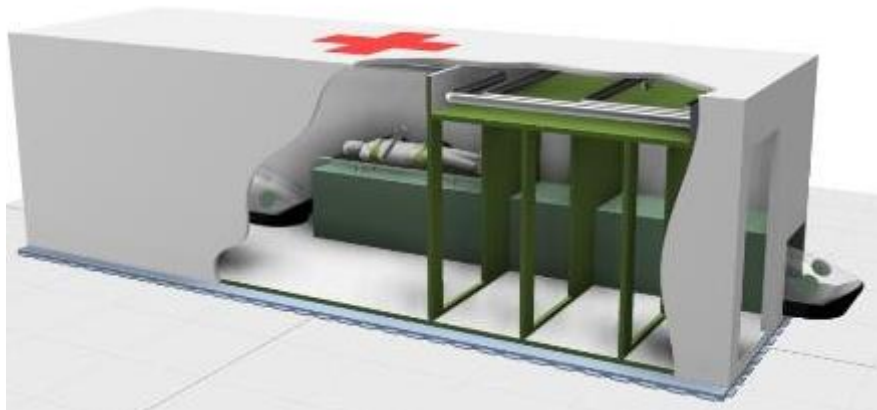
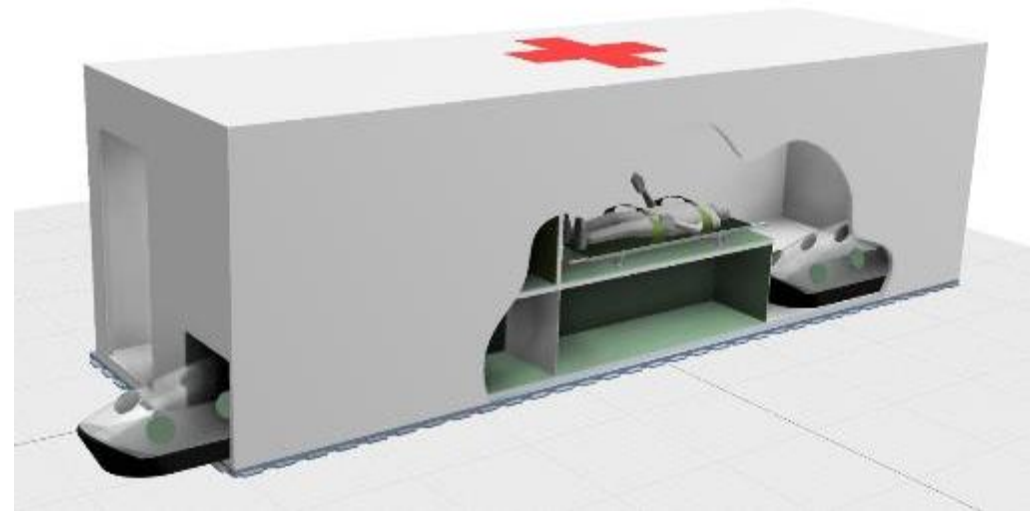
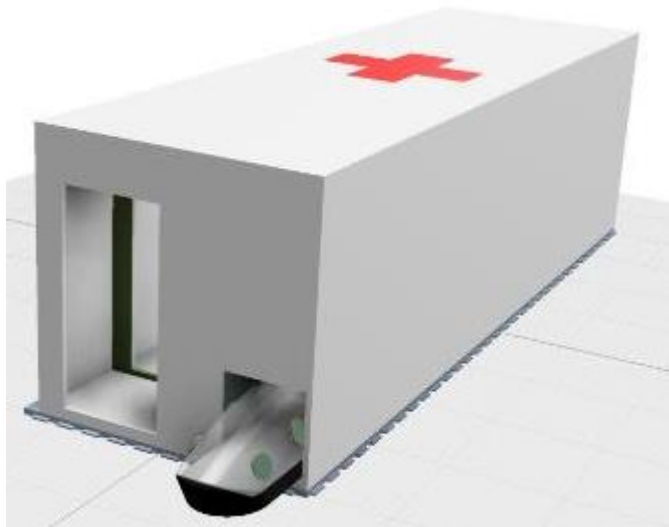
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KEY PRODUCTS – IN DEVELOPMENT



Palletized AE-Container for safe transport of contagious patients...





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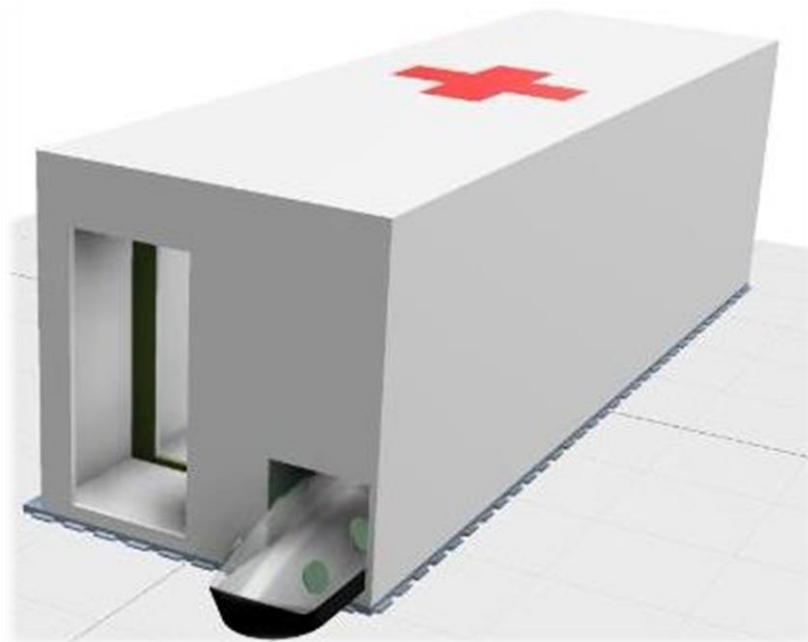
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KEY PRODUCTS – IN DEVELOPMENT



## Palletized AE-Container for safe transport and treatment of contagious patients...

- 27 ft palletized container for transport of contagious patients. Will be equipped with a wheel system for loading and unloading without use of special Aircraft Cargo Loader.
- 3 + 2 decontamination chambers and 12,44 m<sup>2</sup> medical working area / patient room
- Ventilation, air-condition and computerized high and low pressure decontamination process through the 3 decontamination/cleaning chambers.
- 2 cleaning chambers for decontamination of the departing EpiShuttle patient





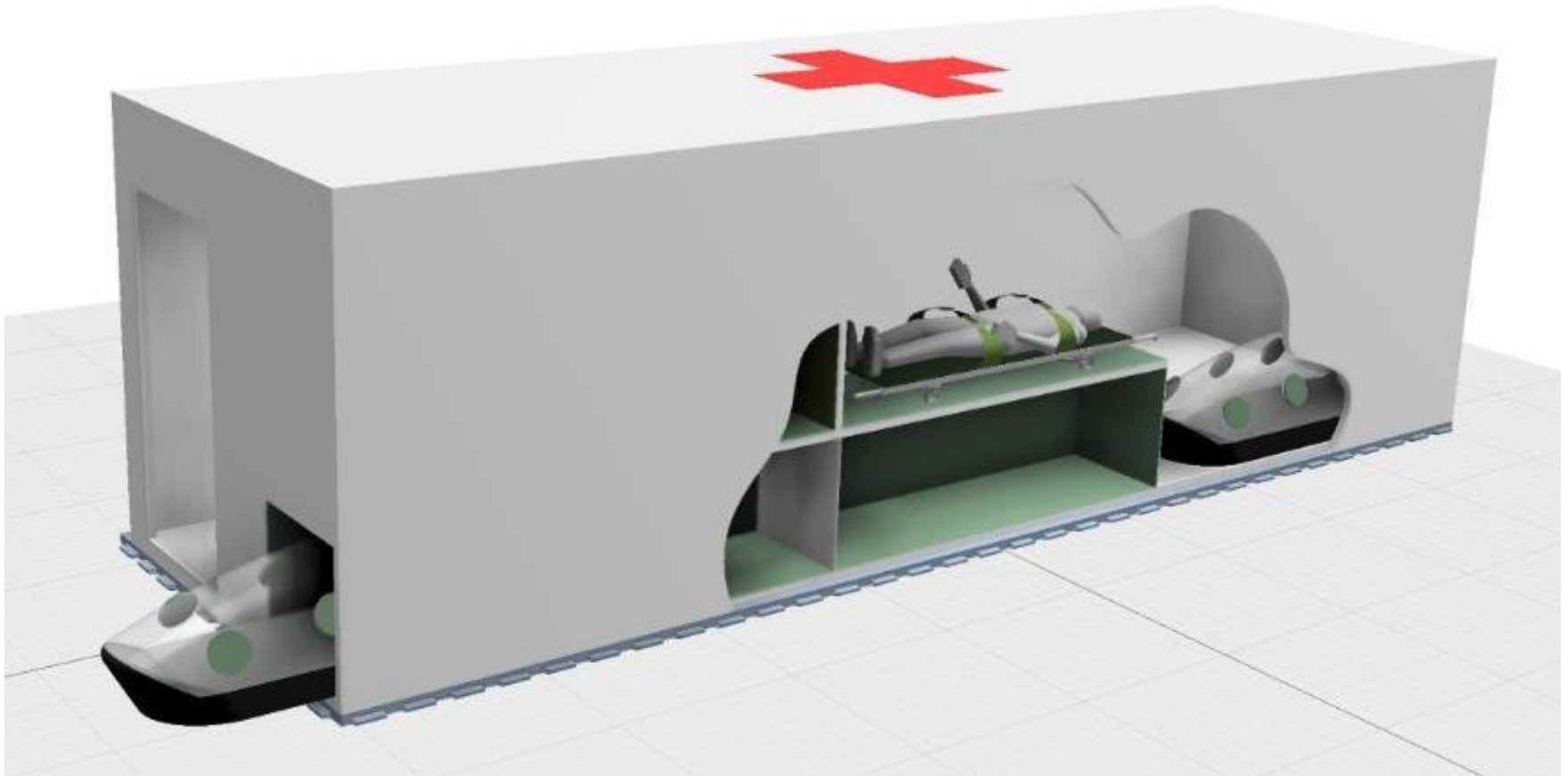
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## AE-Container for transport and treatment of contagious patients...



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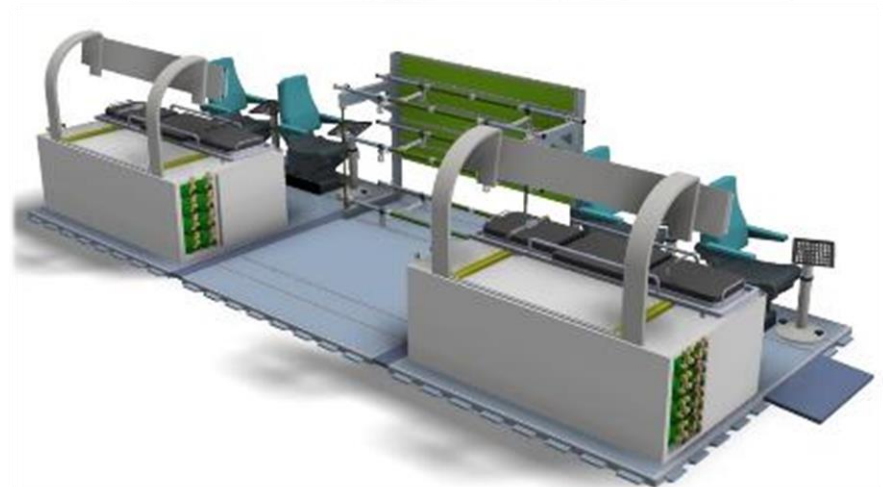
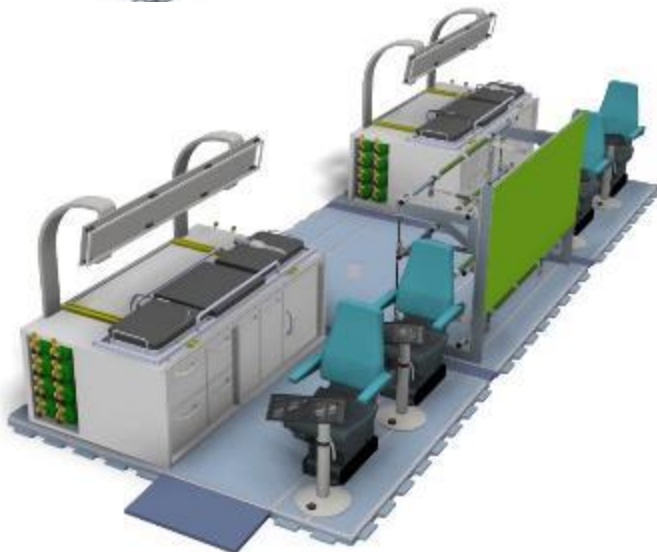
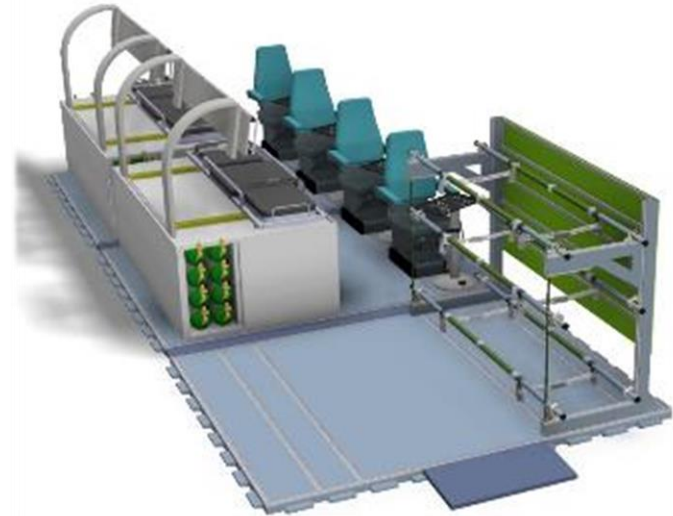
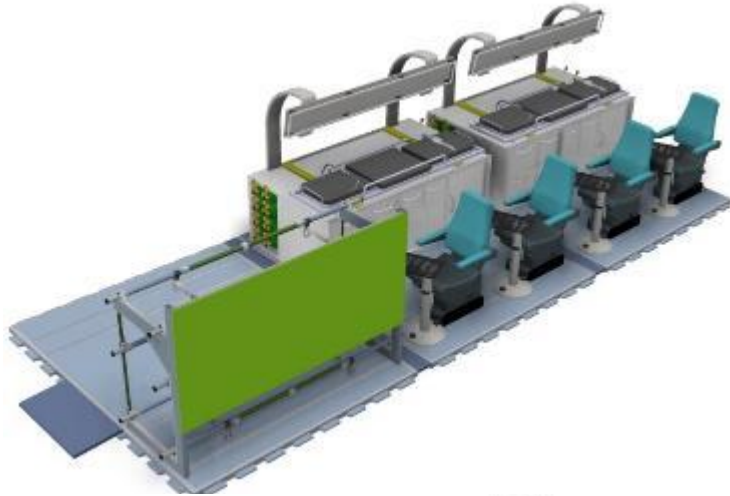


**Air cargo pallet integrated Patient Transport Unit (PTU) –**  
Module based solution for high- and medium care patients



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Some samples for layout of the module based air cargo pallet AE-solutions



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## Innovative Medevac Solutions

Together with our customers, the users and project-defined suppliers and partners, we dedicate our selves to find the best possible solution to our customers need of Forward and Medical Evacuation equipment and optimal MEDEVAC concepts and solutions.

Together we make a strong supplier of medical evacuation products and concepts, from point of injury and all the way back to homeland hospital.

**"The future belongs to those who see possibilities before they become obvious".**

**Thank you for your attention and welcome to a MEDEVAC chat.**

**Nodin Aviation AS**

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