

# Sustainment Solutions

Strategic Partnership.

Through-Life.



# BAE Systems Hägglunds

## A complete system provider

### High End Products

BAE Systems Hägglunds has been a manufacturer of tracked vehicles for more than 50 years.

#### CV90 family of vehicles

The world's most modern combat vehicle in active service. 1,280 units sold to 7 European countries, 4 NATO members, 15 operational variants.

#### Bv family of vehicles

All terrain vehicles, designed to go anywhere. More than 12,000 units sold, servicing in 40 countries worldwide. 50 operational variants produced.

### Customized Support

With a proven track record in delivering support solutions, ranging from traditional adhoc services to enhanced availability-type service contracts and extensive experience in providing rapid operational support to end users in operational theatres, BAE Systems Hägglunds is confident to offer an integrated support service that provides the customer with the adequate level of support assuring the desired operational and technical availability of the delivered systems.



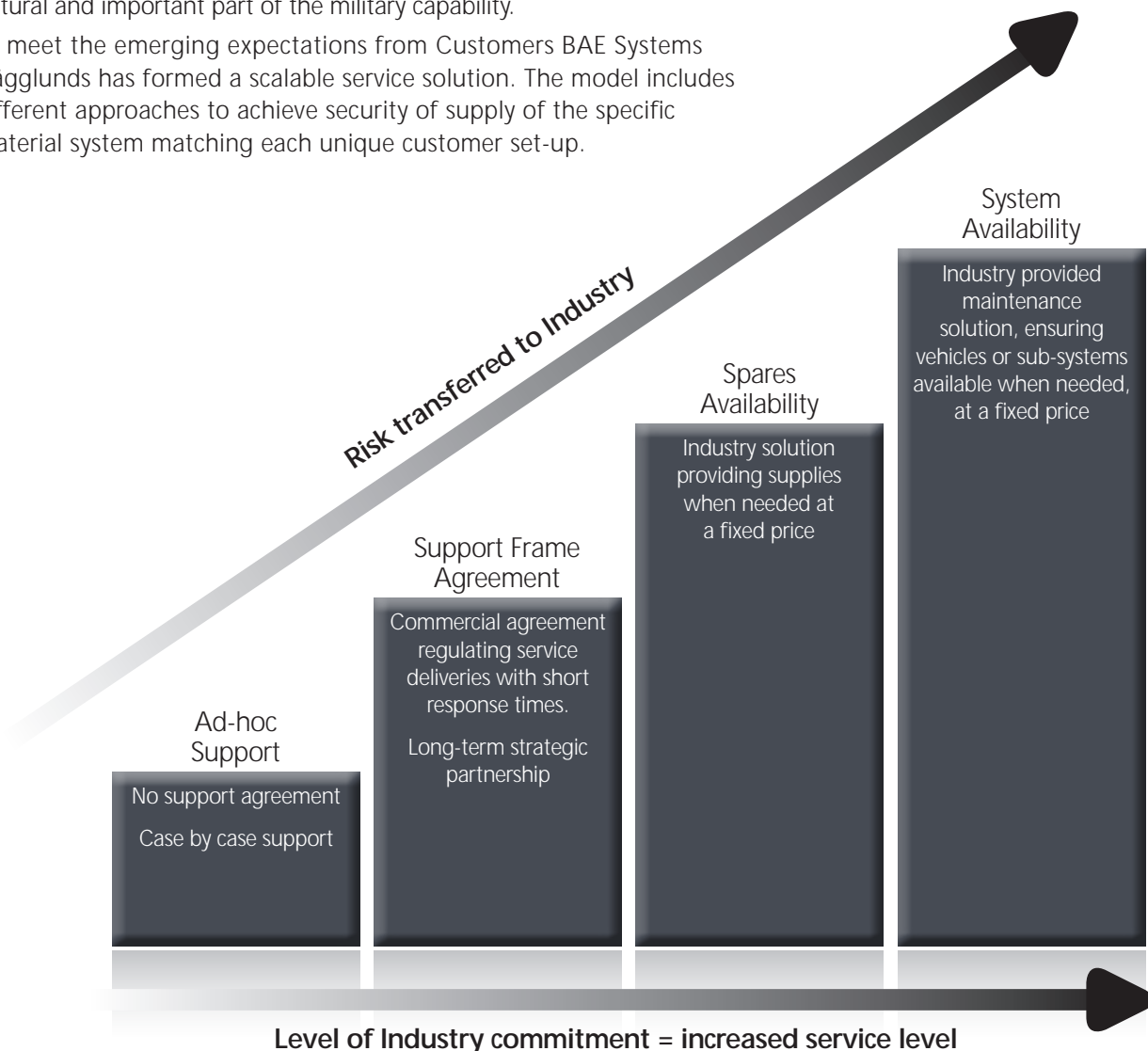


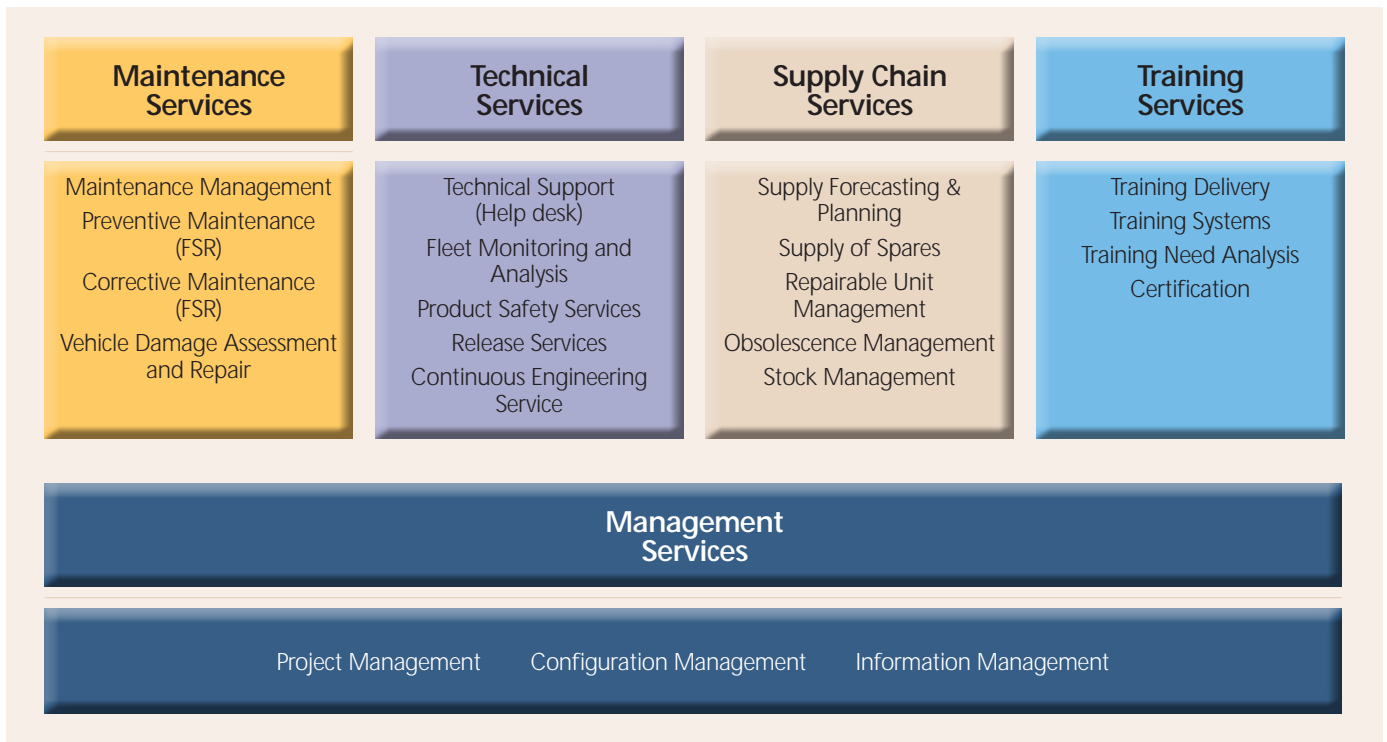
# Flexible and scalable Support Solutions

## Developed to meet Customer needs, accommodating future growth

Since the late twentieth century there has been a significant shift in military doctrines related to the political environment around the world. This led to reduced organisations on all levels, from soldiers to management, resulting in capability gaps and related challenges to maintain and sustain systems. Cooperation with Industry partners has become a natural and important part of the military capability.

To meet the emerging expectations from Customers BAE Systems Hägglunds has formed a scalable service solution. The model includes different approaches to achieve security of supply of the specific material system matching each unique customer set-up.

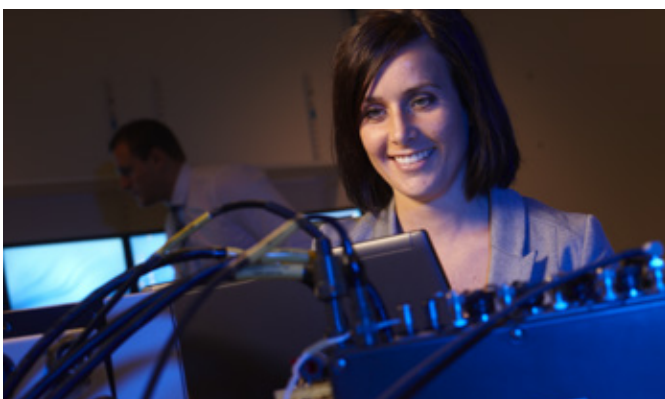




BAE Systems Hägglunds has structured its service portfolio to be modular and fully scalable, and is able to offer customers a flexible, affordable and low risk solution to satisfy any support requirement. Using this approach the customer can specify the exact level of support that fits its military doctrine, from basic spare part support to contracting for availability and performance-based logistics solutions.

## Our Service Portfolio provides

- Service excellence – where ever, when ever
- Fully scalable solutions to meet unique customer needs
- Knowledge, experience and resources to deliver a wide range of services
  - Highly skilled Field Service Representatives (FSR)
  - Through Life engineering expertise providing system upgrades
  - One stop shop – ensuring spare part availability
- Support during all operations, domestic and in-theatre



# CV9035 Netherlands

## Assuring Security of Supply through Strategic Partnership

In 2004, BAE Systems Hägglunds and the Dutch Ministry of Defence entered a contract for delivery of 184 CV90 vehicles. Ever since the contract start BAE Systems Hägglunds and the Dutch customer have expressed a common vision to cooperate in the area of Through Life Support and for this reason a 'Letter of Intent' (LOI) was signed by the parties in 2012. This marked the start of a joint focused work effort targeting a support solution covering all aspects of the sustainment phase – all with the overall aim of assuring that set CV90 system availability targets are met.

The establishment of the support solution has been performed in a stepwise manner, allowing for joint agreement of goals, procedures and commercial terms, at the same time assuring organizational maturity to seamlessly integrate BAE Systems Hägglunds services in the Customer organisation.

Today commercial arrangements are in place for collaboration in Management, Supply Chain, Maintenance and Technical Support of the product. The sustainment solution continues to develop, striving to identify further enhancements of the Dutch CV90 through Life Support.

### Industrial Cooperation

#### Delivering strong local support

When designing support solutions, aimed to meet requirements for short response times and significant on-site service deliveries to the customer and end-user organisations, a key factor is the establishment of a strong local partner who, led and supervised by BAE Systems Hägglunds, can deliver the bulk of the in-country services.

During the acquisition phase a local partner is chosen and an extensive training package, including transfer of technology, is delivered by BAE Systems Hägglunds to ensure a seamless transition into the sustainment phase. This has been demonstrated a successful concept, providing our customers with requested support, build-up of local capabilities and creation of work opportunities whilst assuring sustainable platform competence throughout the system life.

In the Netherlands, BAE Systems Hägglunds has partnered with **Van Halteren Defence**. Product competence and customer knowledge have been strategically built up since the acquisition phase and today Van Halteren plays a key role in the delivery of CV90 related support services to the Royal Netherlands Army.



“ Partnering with BAE has helped us become one of the leading defence contractors in the Netherlands.”

**IZAAK VEERMAN**  
Managing Director  
Van Halteren Defence



## CV9035NL Support Contract

The Dutch CV90 long-term support contract contains several building blocks, jointly developed over time to assure the technical availability of the CV90 fleet.

### Program Management

Frame agreement that forms the basis of the Support contract, coordinating all service deliverables.

### Preventive & Corrective Maintenance

Solution where BAE Systems Hägglunds brings the vehicle to local partner facilities and performs annual preventive maintenance and corrective maintenance as applicable for parts of the CV90 fleet.

### Spares

BAE Systems Hägglunds acts as preferred provider of spare parts. Provision of forecasting inputs and close cooperation to continuously improve spares availability.

### LRU Repair Solution

Solution to improve LRU availability. BAE Systems Hägglunds has established a local LRU hub and performs LRU repairs to fixed prices and lead times, improving cost predictability. Also includes a Continuous Improvement element targeted to increase overall process efficiency and the transfer of strategic repair competence to the Customer organisation.

### Configuration & Documentation Management

System improvement service mainly focused on minor upgrades of the Vehicles and the related support systems such as technical publications and training equipment.

### Training Equipment

Availability solution where BAE Systems Hägglunds is responsible for maintenance and supplies management to ensure system readiness.



# Modernisation through Sustainment

## Supporting our products through life

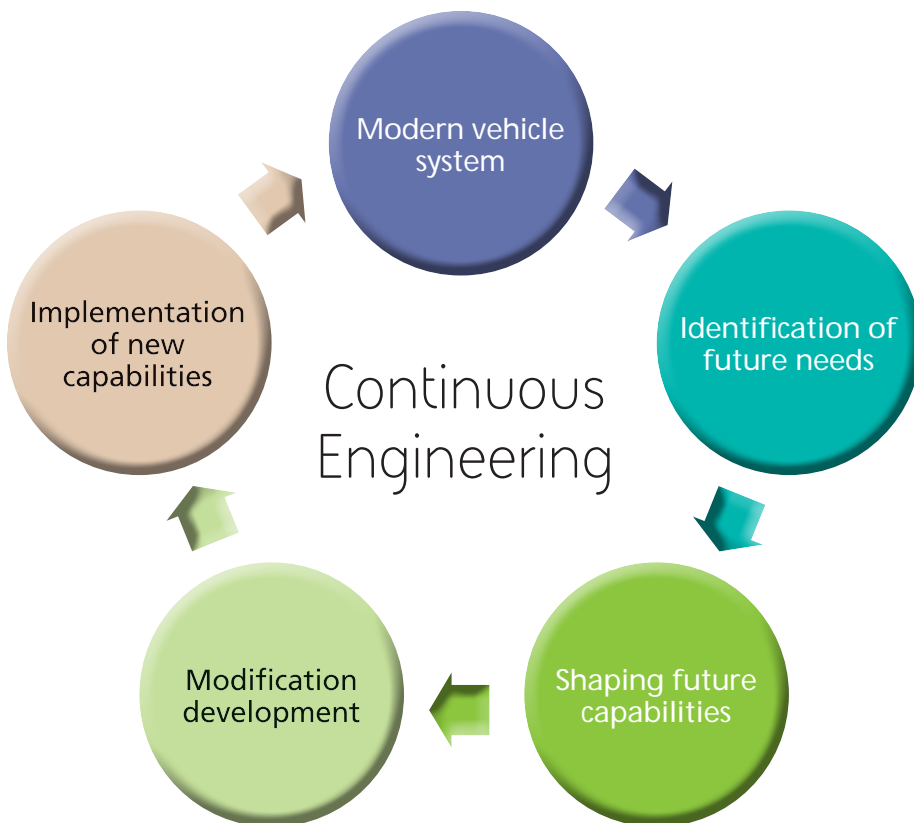
As our vehicles are intended to serve in the Customers fleets for several decades the **Design Authority** responsibility is a central part of BAE Systems Hägglunds service offering.

Throughout the system life cycle change is the only constant; as new threats and technologies emerge BAE Systems Hägglunds support our Customers in **keeping their fleet modern and ready to face challenges ahead.**

Our Continuous Engineering Service and the associated work flows provide our Customers with the capability to

identify, generate, evaluate, order, develop and deploy various modifications and/or capability upgrades for their vehicle System.

The Continuous Engineering Service adopts a **partnered approach** to identify and understand short and long term functional and tactical needs of the existing customer base. Modifications range from minor adaptations to implementation of new capabilities. By utilizing the global footprint of BAE Systems, we can develop cost efficient and cutting edge technology solutions realizing the above.



# The User Community

## User and Industry cooperation for continuous platform development

BAE Systems Hägglunds major platforms have been sold in large numbers worldwide and there is hence an extensive and dispersed user community. The user nations have established two fora, **CV90 User Club** and **BvS10 User Group**, for cooperation and sharing of both experiences and developmental efforts.

BAE Systems Hägglunds Platform Management function directs the development of CV90/BvS10 as products including the coordination of in service equipment development. The function takes a genuine interest in supporting and working with our Customers and participates in the user clubs providing requested input on topics proposed by the customer selected chairman.

### The CV90 User Club

Ever since the original CV90 development BAE Systems Hägglunds has been fortunate to have new customer contracts on a regular basis. The capabilities of the system have hence evolved constantly over the last 28 years, resulting in four fielded generations of the platform (Mk0-MkIII) and now the fifth generation, the CV90 MkIV, is the current build standard ready for production.

The CV90 user community today consists of seven nations (SE, NO, CH, FI, NL, DK, EE), all forming part of the CV90 User Club. All new developments over the years benefit the User Club. At the same time, the User Club shares information regarding upgrades and new technologies.

## CV90 User Club



## CV90 Rubber Band Track Evolution

The joint efforts of the CV90 Club and BAE Systems Hägglunds to conduct the LSC comparison between steel- and rubber band -tracks gave the Norwegian Army the last piece of the puzzle necessary to make the decision of converting the track configuration of the entire CV90 fleet.

“The excellent cooperation and exchange of experiences within the CV90 User Club greatly contributed to the development of the rubber track system.”



**RUNE HELLERUD**  
CV90 System Manager  
Norwegian Defence Material Agency

# International Operations

Supporting our customers **in-theatre,**  
**world wide**

BAE Systems Hägglunds can provide support to Customers in all stages of a mission:

## Preparation before mission

- Analyze vehicle requirements
- Develop and perform vehicle upgrades
- Develop UOR
- Define support set up

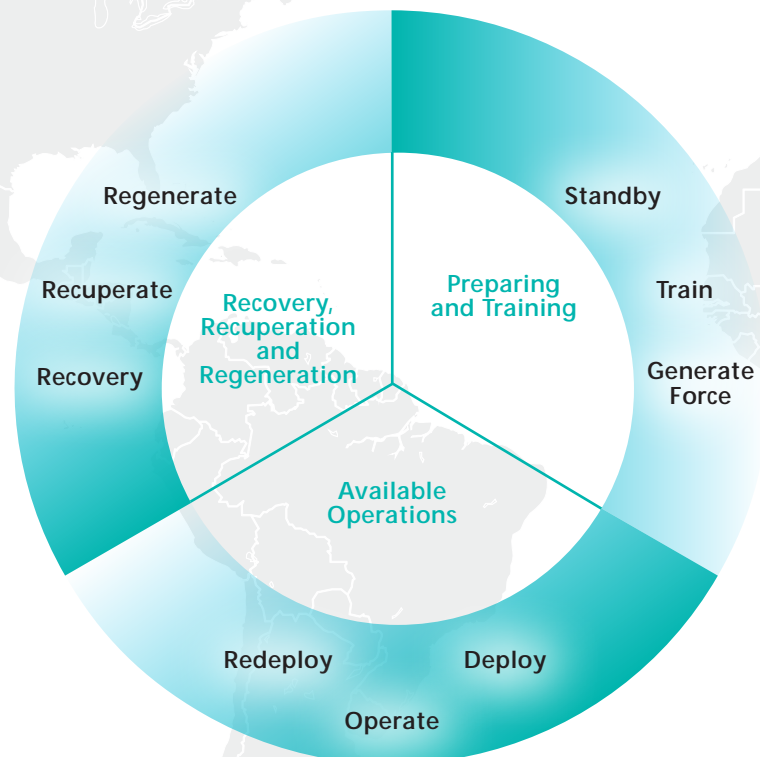
## Support during mission

- Customized support solutions
- On-site maintenance
- Spare part responsibility
- Back-office support
- Implement UOR
- Training on vehicle upgrades

## Regeneration after mission

- Planning overhaul
- Performance of overhaul

## The Readiness Cycle



## Examples of BAE Systems Hägglunds in theatre support

2009	2009-2010	2010	2010-2011	2011
<b>BvS10 Viking</b> <b>UK</b> <b>Camp Bastion,</b> <b>Afghanistan</b> UOR Mine protection front- and rear cab	<b>BvS10</b> <b>Netherlands</b> <b>Kamp Holland,</b> <b>Afghanistan</b> In-service Support UOR Mine protection chairs	<b>CV9035</b> <b>Denmark</b> <b>Camp Bastion,</b> <b>Afghanistan</b> In-service Support UOR IED Protection	<b>RG32</b> <b>Sweden</b> <b>Camp Marmal,</b> <b>Afghanistan</b> In-service Support UOR Inspection UOR Welding Ringmount Change Order: Axle change	<b>CV9030</b> <b>Norway</b> <b>Meymaneh,</b> <b>Afghanistan</b> Inspection rubber band tracks

In 2009 the UK MoD expressed an Urgent Operational Requirement to improve the mine protection of the deployed Viking fleet. In a short time frame Hägglunds developed the upgrade and performed in-theatre installation.

" I am writing to thank you and your Viking team for their outstanding efforts in delivering the Viking MBP UOR nearly 3 months earlier than planned to the Royal Marines in Afghanistan..."

" ...the early delivery in this instance has already saved the lives of at least 4 of our soldiers..."

COLONEL N A HUTTON OBE  
 Light Armoured Systems IPT  
 UK Ministry of Defence



2011

**BvS10**  
**Netherlands**  
**Tchad**  
 UOR Wire cutters  
 UOR Night vision cameras

2011-2012

**RG32**  
**Sweden**  
**Camp Bastion, Afghanistan**  
 In-service Support

2011-2013

**BvS10**  
**Sweden Lease**  
**Camp Marmal/CNL, Afghanistan**  
 In-service Support

2016 – ongoing

**RG32**  
**Sweden**  
**Mali**  
 In-service Support



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