IFS APPLICATIONS™ FOR

AEROSPACE & DEFENSE

OUR SOLUTION'S DNA

When we first set out to create IFS Applications over 25 years ago, our goal was to make the most usable business software on the market. And to help us achieve that ambition, we put simplicity at the forefront of everything we did.

We still do.

We decided that we would make only one product, which can be easily configured to match the specific requirements of a broad range of industries.

We still do.

We decided that we would build IFS Applications on standards so our customers would not be locked into any particular technology.

We still do.

We decided to design IFS Applications as a component-based structure so it can be easily extended and updated.

We still do.

We decided that each software component must be totally compatible with every other, yet capable of running independently.

We still do.

We decided to build a product that could handle change and long-term evolution.

We still do.

And, that we would make the most user-friendly business software on the market.

We still do that, too.

THE LOGICAL CHOICE FOR AEROSPACE & DEFENSE SUSTAINABILITY

For more than 20 years, IFS has delivered value-added business solutions to customers in the **Aerospace and Defense (A&D)** sector. Our product development is driven to meet the rigorous demands of rapidly changing requirements and markets, delivering a proven, agile product to keep you ahead. Our focus is to enhance your operational capability so you can manage change, reduce costs and continuously improve customer service.

We provide a unique business solution covering the complete lifecycle from conceptual design, through manufacture, in-service maintenance repair and overhaul, re-fits, and into retirement and disposal. Our product enables seamless co-existence with your existing systems and environments within complex and geographically dispersed user networks. Our people offer a wealth of A&D experience, and our products underpin the most challenging programs.

IFS offers the A&D sector a unique, proven, evolutionary and agile approach to meeting the through-life capability challenge. By offering flexibility in a single product and a step-by-step approach to implementation we enable our customers to achieve world-class business solutions with reduced risk and with lower total cost of ownership.

IFS IS INDEPENDENTLY RECOGNIZED AS THE LEADING PROVIDER OF INTEGRATED ENTERPRISE ASSET MANAGEMENT SOLUTIONS TO THE GLOBAL AEROSPACE & DEFENSE MARKET

AEROSPACE & DEFENSE SECTOR

The Aerospace and Defense (A&D) sector is driven by the need to balance budgets, profit, and operational performance and effect. There is a requirement to manage expectations of military or airline and industry. The approach adopted needs to optimize complex assets, expensive maintenance, and extended operational life—and do this cheaper, more effectively, making assets quicker to deploy, while also reducing the logistics overhead and footprint.

IFS Applications in A&D seeks to optimize the underlying support processes and deliver value for the manufacturer, operator or service provider. It uses an agile approach accommodating the latest ideas and techniques that are continually impacting the way equipment is designed, manufactured, used, performs and is maintained in-service.

IF YOU KNOW:
- What you have and where it is
- What condition it is in
- How to maintain it
- What spares you should hold
- How to optimize your staff and what skills are needed

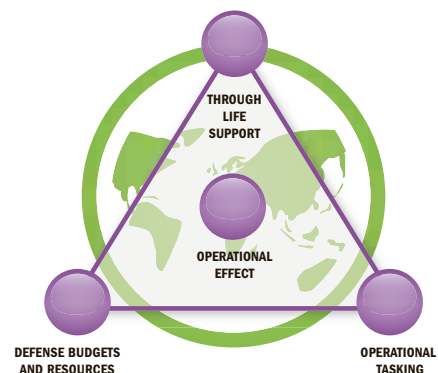**IFS CAN:**
- Plan and synchronize all of that together

SO YOU KNOW:
- What military force you can deploy
- How to optimize your through-life costs

A&D SOLUTIONS—SPECIFIC SOLUTIONS FOR THE A&D SECTOR

IFS has packaged its A&D pedigree and experience into a suite of templated A&D solutions, focused on the changing needs of your business or military operation. They are designed for the challenges ahead. Fully flexible and interoperable, our A&D solutions are designed with evolution in mind, combining the breadth and agility of IFS' leading component-based ERP with the proven depth of IFS capability in A&D.

IFS reduces risk with these best practice solutions which are based on proven, global defense experience. The defense-specific capability delivers a faster implementation through predefined metadata, standard industry interfaces, supported with embedded best practice process models and certified product training, all of which are underpinned by the A&D product roadmap.

THROUGH LIFE SUPPORT

OPERATIONAL EFFECT

DEFENSE BUDGETS AND RESOURCES

OPERATIONAL TASKING

DEFENSE MANUFACTURING
Defense Manufacturing connects project-based Design and Manufacture (D&M), where all resources are managed, planned and linked to the contract, the service schedule, the specification and the plan

FLEET AND ASSET MANAGEMENT
Fleet and Asset Management supports the management of an asset to extract optimum life (required life vs. cost) and fleet management to optimize the utilization of that life while focusing on safety, optimizing yield, minimizing asset cost, increasing uptime and regulatory control.

HEAVY MAINTENANCE
Heavy Maintenance covers major maintenance and overhaul activities on vehicles such as aircraft (fixed and rotary wing), vessels, submarines and complex land vehicles.

COMPONENT MRO
Component MRO provides repair or refurbishment of components or assemblies. If component maintenance is run as a separate line of business, services can be sold directly to customers. The solution can be used standalone or in support of Heavy Maintenance and/or Complex MRO.

COMPLEX ASSEMBLY MRO
Complex Assembly MRO supports MRO for complex equipment and machinery, e.g. main aircraft engines, auxiliary power units (APUs), and landing gear that require disassembly and assembly with full serialized tracking.

SPARE PARTS MANAGEMENT
Spare Parts Management is the business of planning and aligning service parts inventories, resources, and processes to ensure optimal customer service and response with minimal risk and cost. SPM can be used as a standalone solution or as a complimentary solution to the rest of the IFS Solution sets.

RELIABILITY-CENTERED MAINTENANCE TOOLKIT
Reliability-Centered Maintenance Toolkit provides the framework component to help you develop an RCM strategy to identify and collect the key data for the management of complex and mission critical assets.

UNIT MAINTENANCE MANAGEMENT SYSTEM (UMMS)
UMMS is RCM-based and uses a web infrastructure for ship-, boat- and shore-based users across fleets from multiple locations, and is fully compliant with UK MoD security requirements.

CORPORATE PERFORMANCE MANAGEMENT (CPM)
IFS' CPM solution goes way beyond the methods adopted by Business Intelligence (BI) tools and enables a full 360 degree perspective of processes and performance. It provides senior management with the capability to review and orchestrate processes that align with their business strategy and drive these into end-user's desktop functions.

ENTERPRISE RESOURCE PLANNING (ERP)
Component-based ERP enables the orchestration of end-to-end process by the selection of functional components, including Finance, Human Resources , Purchasing & Demand Planning.

GLOBAL—WITH A SPECIAL FO

USA

The **FEDERAL AVIATION ADMINISTRATION (FAA)** has implemented IFS Applications as its supply chain and Maintenance, Repair and Overhaul solution to ensure reliability of equipment used throughout the U.S. National Airspace System (NAS). Lockheed Martin will be the system integrator in support of the FAA program called the Logistics Center Support System (LCSS). The NAS is one of the most complex aviation systems in the world—enabling an average of 50,000 flights per day in the United States and over much of the world's oceans. With IFS Applications supply chain solution, the FAA will have complete visibility throughout the entire complex operation. The NAS encompasses 14,500 air traffic controllers, 4,500 aviation safety inspectors, and 5,800 technicians. It includes more than 19,000 airports and 600 air traffic control facilities.
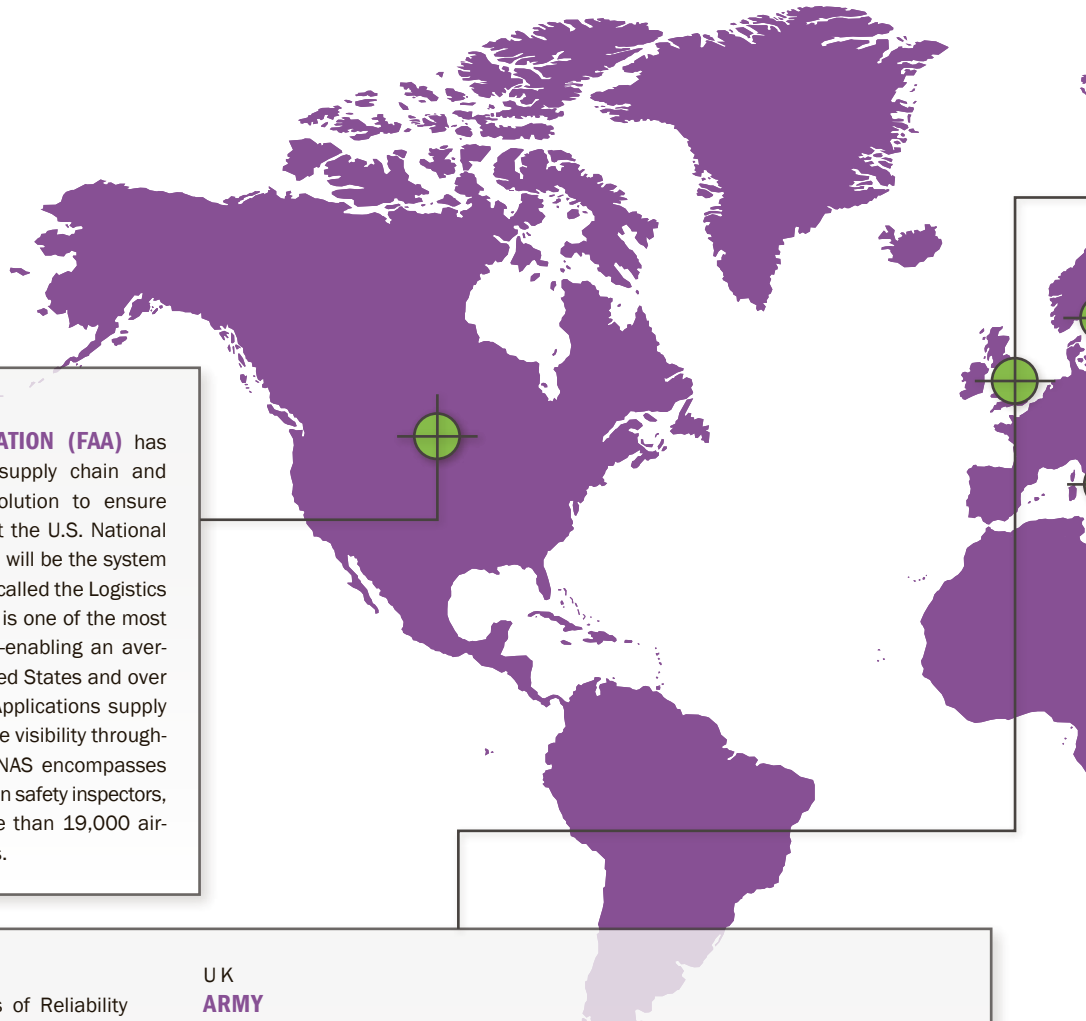
UK

The solution is based on the concepts of Reliability-Centered Maintenance (RCM)—used by the **UK ROYAL NAVY**, UMMS (Unit Maintenance Management System), and provides connectivity for all surface and submarine vessels with shore-based personnel. This enables engineering problems at sea to be communicated automatically to the Class Manager, so that special, and often engineered to order, spare parts can be acquired to coincide with planned shore-based maintenance periods. The UMMS infrastructure is web-based and it is designed for ship- and boat-based users across the Fleet, at multiple locations. UMMS is compliant with UK MoD security requirements.
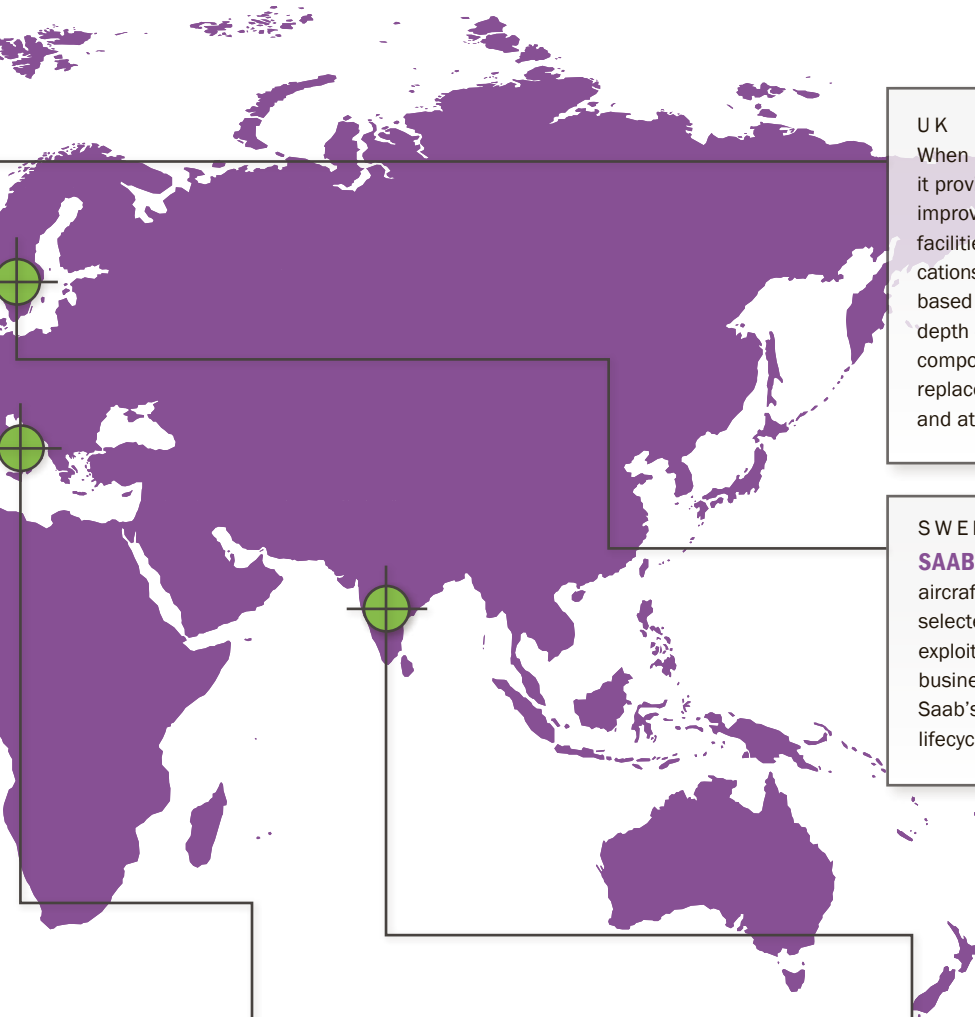
UK
ARMY

The Joint Asset Management and Engineering Solutions (JAMES) program is the UK MoD enabler toward creating the means by which future fleet-based planning and control of land-based assets can be directed. This provides a Whole Fleet Management (WFM) solution that operates at all levels—strategic, operational and tactical. IFS Defence provides the foundation software product upon which JAMES is based, and the service delivery component is provided by Lockheed Martin as the Systems Integrator (SI) to the UK MoD. Delivered in phases, JAMES is currently in use by 30,000 in the regular UK Army, providing a management information system to enable optimized asset usage with minimal fleet sizes. The solution supports the UK Army with asset information related to identification, configuration and maintenance requirements as well as current usage and the identification of the asset owner.

OCUS ON A&D

UK

When **BABCOCK** purchased the Rosyth dockyard outright, it provided an opportunity to pursue a policy of continuous improvement, aimed at reducing costs and making the facilities more efficient. Babcock chose IFS as their applications partner because of IFS' understanding of the project-based engineering-to-order programs business and the depth of functionality within IFS Applications. Crucially, IFS' component architecture provided Babcock with the tools to replace legacy applications step-by-step, reducing risks and at a lower total cost of ownership.

SWEDEN

SAAB AEROSYSTEMS, which produces the Gripen fighter aircraft, and Saab Aerostructures, suppliers of aeronautics, selected IFS Applications to reduce IT costs and enable the exploitation of new business opportunities across a broader business base. IFS Applications supports the major part of Saab's production processes including the full product lifecycle where everything can be project-enabled.

ITALY

The core business of **ALITALIA MAINTENANCE SYSTEMS S.P.A.** (AMS) is comprised of maintenance, overhaul and repair of engines, A.P.U. and aircraft components within the limitations issued by aviation authorities. IFS is deployed by approximately 200 users in the maintenance of up to 50 engines at any one time; and AMS is using the full IFS ERP suite including: CAMRO, Finance, Distribution, PDM, Engineering, Manufacturing, Maintenance and HR.

INDIA

HINDUSTAN AERONAUTICS LIMITED (HAL) is one of the largest aerospace companies in Asia, dealing with the design, manufacture and overhaul of aircraft and helicopters, including engines and avionics. IFS is at the heart of a dramatic business transformation program to enable HAL to increase its profitability by substantially reducing inventory, decreasing delivery cycles, reducing operational costs and improving manpower productivity. IFS Applications functionality will be used by 3000 users across 17 sites to cover manufacturing as well as MRO of in-service assets.

OUR FOCUS—HOW WE SUPPORT YOU

MANAGING ASSETS

Whether you are manufacturing, supporting or operating assets in the A&D market, it is absolutely imperative for you to have a full and detailed over-view of each asset—IFS has core capability to manage maintenance repair and overhaul (MRO) and logistics processes so you are aware of your assets wherever they are and what condition they are in.

MANAGING AVAILABILITY

With tighter budgets and increasing demand for flexibility, managing and developing capability through-life is imperative. This means upgrading and enhancing systems, subsystems, and extending platform life. Effective change management across 'as designed', 'as built' and 'as maintained' asset configurations is essential. Meanwhile, maintenance must deliver enhanced availability, reduced turna-

round times and greater efficiencies. Regardless of whether MRO is delivered in-house, by 3rd party or an original equipment manufacturer (OEM), suppliers have to deal with increased complexity of product, contract and supplier relationships and management.
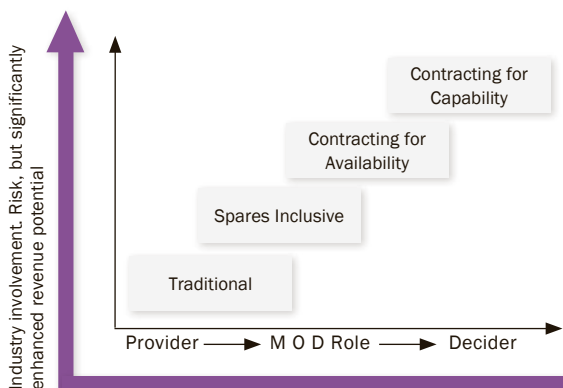
IFS' project-based enterprise approach means the integration of MRO functionality is an easy evolution. Across the lifecycle, all aspects of change can be planned, managed and accounted for within the same solution.

SUPPORTING CHANGE

The history of commercial aviation has been a history of adapting to and exploiting change; and the pace of that change has intensified. Greater competition is driving the need for greater innovation and efficiencies. One key focus for new approaches is in maintenance, responding to a demand for more cost-effective maintenance schedules and rapid turnaround for all carriers to preserve margins.

In the defense sector change is equally rapid as countries continue to strive to accommodate the impact of moving from static cold-war doctrines to capability projection and expeditionary warfare, which demand rapid deployment and flexibility. A key change here has been the modernization and automation of support processes to deliver greater effectiveness, exploiting information to achieve greater efficiency, to meet the ever-increasing challenges with budgets under constant pressure.

The IFS A&D templated solutions aim to deliver the modernization of an enterprise with agile best-practice processes.

Moving up the staircase exploits industry's strengths by utilizing Service-Based Contracting to deliver equipments as a capability—buying performance, not transactional goods and services

A&D Transformational Staircase

A & D MANUFACTURING

FLEET OPERATORS

CLS/PBL/MRO PROVIDERS

DEFENSE FORCES

'IFS is independently recognized as the leading provider of integrated enterprise asset management solutions to the global Aerospace & Defense market'

SUPPORTING COLLABORATION

Defense forces around the world are focusing on deciding what capability they need, balancing through-life cost and operational effectiveness. These challenges are increasingly being shared with industry.

In some cases e.g. in Performance-Based Logistics (PBL) and Contracting for Availability (CfA) the responsibility for asset availability and capability through-life is being shifted to industry service providers, a trend that will gain momentum.

These changing customer needs are opening new opportunities for suppliers to develop a more proactive service-based model to manage lead times, complex projects and through-life support. After-market support is becoming a key revenue driver across the A&D sector, and IFS has had major success supporting and providing performance-based solutions to many of the major global defense companies and military forces.

MANAGING PERFORMANCE

Only an application as functionally rich as IFS Applications is able to gather the data you need to monitor KPIs, support business decisions and review activity in the complex A&D process environment. Intuitive and informative, IFS Applications is easily accessible through different channels including role-based portals and mobile devices. IFS provides the information you need,

when you want it, wherever you are. To meet the specific needs of A&D, IFS has developed its Corporate Performance Management solution (IFS CPM).

IFS CPM for A&D solution goes way beyond the methods adopted by business intelligence (BI) tools and enables a full 360-degree perspective of processes and performance. It provides senior management with the capability to review and orchestrate processes that align with their business strategy and drive these into the end-user's desktop functions.

It provides end-users with a complete understanding of which functions deliver real customer value and operational effect, those that are less effective, and those which waste both time and resources. The information can be interrogated via a user-defined 'cockpit' display. Here the checks and balances and KPIs can be viewed and measured using easy-to-read displays, such as dials and graphs. An action management capability is also a feature that enables the transition from monitoring events and processes to making management decisions and actual improvements. The approach is particularly aligned to support customers requiring a shared knowledge-based approach to bidding on performance-based contracts and initiatives.

In short IFS CPM for A&D avoids 'strategy leakage' and drives adherence to the process improvements originally envisaged in the ROI business case.

OPEN & AGILE —FITS TODAY, FIT FOR TOMORROW'S A&D

IFS Applications is built for change. Fully flexible and interoperable, our A&D solutions are designed with evolution in mind, combining the breadth and agility of IFS' leading component ERP with the functional needs of the A&D sector.

MODULAR, AGILE & SCALABLE

IFS Applications is designed so you can select the components you need now and add further components based on experience or as operational requirements change. This is because it is built with service-oriented architecture (SOA) so that each component can be selected singularly or in composite groups to avoid lock-in where requirements can, and are likely to, change over the whole life of a weapon system.

LOW RISK, LOW TCO

With IFS Applications there is no need to commit early long-term product decisions in long and uncertain defense programs so IFS' modular construction is ideal for government approval and investment processes. In addition, IFS can embrace military change and transformation, supporting those changes now and in the future—let your enterprise be as agile as your thinking.

IFS Applications is also designed to be integrated with other applications and with complex legacy information systems, an environment typically found in MoDs and DODs. It is also designed to support a broad spectrum of equipment: military, aviation and industry enterprises and sea, land and air systems.

DELIVERING CLASS-LEADING INFORMATION AND LOGISTICS SYSTEMS IN A SHIFTING AEROSPACE & DEFENSE MARKET—THE LOGICAL CHOICE FOR A&D SUSTAINABILITY
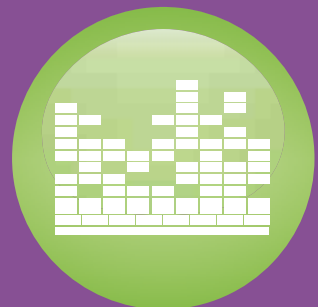
TAPPING INTO THE POWER OF TECHNOLOGY

The IFS view on technology is that the winners in business are those who manage change best. IFS Applications is built for change using service-oriented architecture, a commitment to standards and proprietary and open-source infrastructure. With over 100 integrated business components providing extended ERP functionality, IFS delivers business agility and lower long-term costs. It is no surprise that IFS is known for advanced technology 'made easy'.

YOU GET ONLY WHAT YOU NEED...ENABLING STEP-BY-STEP CAPABILITY EVOLUTION

IFS Applications is known for its simplicity—start with the business components you need and add or change over time as your needs, your customers' needs or your business model changes—delivering maximum agility, minimum risk and minimum cost.

ABOUT IFS AND IFS APPLICATIONS

IFS is a public company (OMX STO: IFS) founded in 1983 that develops, supplies, and implements IFS Applications™, a component-based extended ERP suite built on SOA technology. IFS focuses on agile businesses where any of four core processes are strategic: service & asset management, manufacturing, supply chain and projects. The company has more than 2,000 customers and is present in 50+ countries with 2,700 employees in total.

If you are interested in further information, e-mail **info@Ifsworld.com** or contact one of our regional offices or visit our web site: **www.IFSWORLD.com**

AMERICAS .... **+1 888 437 4968**
ARGENTINA, BRAZIL, CANADA, MEXICO, UNITED STATES

ASIA PACIFIC .... **+65 63 33 33 00**
AUSTRALIA, INDONESIA, JAPAN, MALAYSIA, NEW ZEALAND, PHILIPPINES,
PR CHINA, SINGAPORE, THAILAND

EUROPE EAST AND CENTRAL ASIA .... **+48 22 577 45 00**
BALKANS, CZECH REPUBLIC, GEORGIA, HUNGARY, ISRAEL, KAZAKHSTAN,
POLAND, RUSSIA AND CIS, SLOVAKIA, TURKEY, UKRAINE

EUROPE CENTRAL .... **+49 9131 77 340**
AUSTRIA, BELGIUM, GERMANY, ITALY, NETHERLANDS, SWITZERLAND

EUROPE WEST .... **+44 1494 428 900**
FRANCE, IRELAND, PORTUGAL, SPAIN, UNITED KINGDOM

MIDDLE EAST AND AFRICA .... **+971 4390 0888**
INDIA, SOUTH AFRICA, SRI LANKA, UNITED ARAB EMIRATES

NORDIC .... **+46 13 460 4000**
DENMARK, NORWAY, SWEDEN

FINLAND AND THE BALTIC AREA .... **+358 102 17 9300**
ESTONIA, FINLAND, LATVIA, LITHUANIA

www.IFSDEFENCE.com