

# F-35 LIGHTNING II

Creating Jobs. Securing Italy's Future.



# The F-35 Revolutionary Multi-Service Design

#### One Aircraft - Three Variants

The F-35 family includes the F-35A conventional takeoff and landing (CTOL) variant, the F-35B Short Takeoff/Vertical Landing (STOVL) variant, and the F-35C carrier variant (CV). The variation between models allows military forces to achieve service-specific mission capability, while still taking advantage of the economies of scale that result from the parts and processes common to all three variants. The CTOL, STOVL, and CV all have the advanced avionics required to execute multi-role missions and the support of the F-35 sustainment technologies.



#### Planned Italian Procurement

According to the official U.S. government program of record, Italy intends to procure a total of 90 F-35s. Under the current plan, Aeronautica Militare is programmed to receive 60 F-35A CTOLs and 15 F-35B STOVLs, while Marina Militare is programmed to acquire 15 F-35B STOVLs.

This new fleet of 90 F-35s would replace Italy's 253 Panavia Tornados, AMX Fighter Bombers, and AV-8B Harriers, resulting in enhanced operational capability, streamlined logistics and maintenance, common training curriculum, and lower operating and sustainment costs.

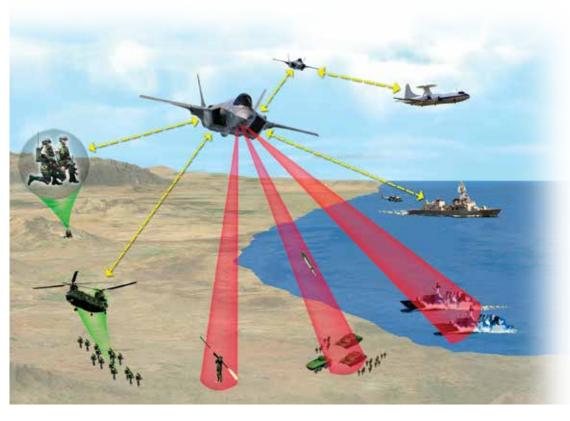
Italian F-35s are now being produced at the Final Assembly and Check Out (FACO) facility in Cameri. The first Italian F-35 was delivered to the Aeronautica Militare on December 3, 2015.



# A Quantum Leap in Air Dominance

The supersonic, multi-role F-35 represents a quantum leap in air dominance capability. It combines 5th generation characteristics of radarevading stealth, supersonic speed, and extreme agility with the most powerful and comprehensive integrated sensor package of any fighter aircraft in history.

Advanced mission systems give the pilot real-time access to battle space information



with spherical coverage and an unparalleled ability to dominate the tactical environment. Data collected by F-35 sensors can be immediately shared with commanders at sea, in the air, or on the ground, providing an instantaneous, high-fidelity view of ongoing operations — making the Lightning II a formidable force multiplier while enhancing coalition operations.

#### **Unparalleled Capabilities**





# Supports All Italian Missions

- Maritime surveillance and patrol
- Protection of natural resources
- Air interdiction/defense
- Net-enabled for participation in expeditionary missions
- Intelligence, surveillance, and reconnaissance
- F-35B flexible basing options

#### Superior Interoperability

- Common capabilities
- Common infrastructure and logistics
- Common net-enabled operations
- Secure multinational information exchange
- Interoperable with legacy systems, weapons, and other defense networks

#### Strengthened Security Alliances

- Increased capability in defense of Italy
- Increased Italian joint training and exercises
- Increased Italian capability with NATO allies

# **Unprecedented 5th Generation Capabilities**

## Economic Benefits of the Italian F-35 Program

#### Made in Italy - Delivered to the World

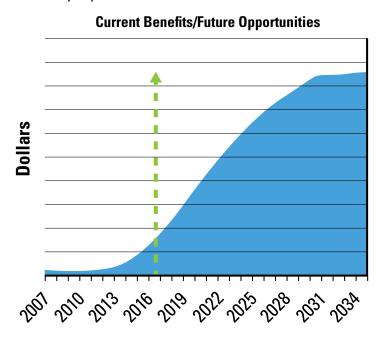
The country that first dreamt of human flight is leading the world again. The F-35 Lightning II soars on the wings of Italian craftsmanship and boosts the Italian economy with thousands of high-technology, high-skill jobs that will help build the global F-35 fleet. As a partner in the F-35 Lightning II program, Italian industry has the opportunity to support the F-35 for more than 30 years, from the production of parts and the final assembly of aircraft to regional sustainment work.

As of December 2016, Italian industry has been awarded \$1.35 billion in F-35 contracts. The total value of these contracts is expected to exceed \$9.9 billion through the end of production. Pratt and Whitney has issued more than \$29 million in engine component production contracts to Italian companies, which is expected to total more than \$4 billion over the life of the program. Lockheed Martin and its partners have awarded more than 100 contracts to dozens of Italian companies.

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#### Creating Jobs; Strengthening the Economy

In 2013, PricewaterhouseCooper – Italy (PwC-Italy) conducted a comprehensive economic impact assessment of the F-35 production program in Italy. The study identified the level of Italian investment in the F-35 program, employment generated as a result of F-35 production and economic value added to the Italian economy. PwC-Italy reports that:



- Italian F-35 production is expected to generate more than **6,300 total jobs** at peak production. The demand for labor will reach its highest levels between 2017 and 2026, when an average of 5,400 jobs are projected to be sustained annually.
- The Italian F-35 program's production phase alone is expected to bring **\$15.8 billion** of economic benefits to the Italian economy.
- Each Italian F-35 production job creates an additional
   1.2 jobs in the Italian economy.
- The economic potential for Italy through the F-35 program is directly related to the total number of aircraft Italy acquires.

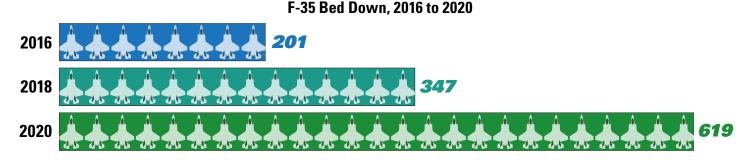
PwC-Italy Report: \$15.8 Billion Return to Italian Economy

#### Leveraging the Economies of Scale and Commonality

The F-35 was designed to recapitalize aging western fleets and counter emerging threats in an affordable manner by leveraging the economies of scale and the economies of commonality. The tri-variant F-35 is designed to replace no fewer than seven legacy aircraft systems. The program's eight partner nations and three Foreign Military Sales countries have already announced plans to procure nearly 700 F-35s, while the overall program of record outlines the acquisition of more than 3,100 aircraft. This approach yields lower development, operational, and sustainment costs than traditional modernization efforts.

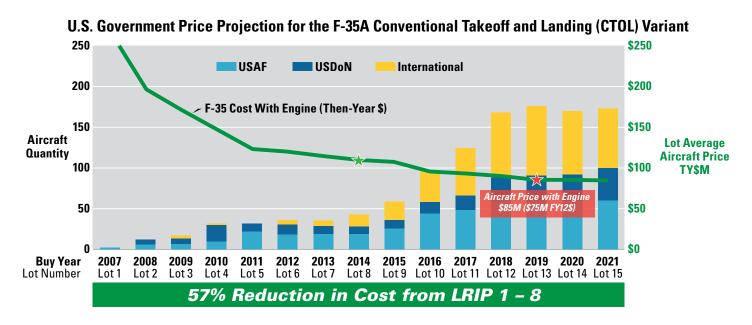
#### A Strong International Partnership

As of May 2016, **172 F-35s** have been delivered and **more than 120 are under construction**. U.S. and F-35 international partner countries constitute a production program of record of more than 3,100 aircraft extending through 2039. Nine nations have F-35s in service or on order. Common aircraft enable international cooperation in the security domain. F-35 pilots from diverse nations have unparalleled interoperability in coalition operations and can rely on a global sustainment network to support those operations.



#### **Declining Costs**

F-35 costs have declined 57% since the first production and continue to decline. According to the U.S. government's Joint Program Office, the estimated cost for an F-35A aircraft delivered in 2020 will be about \$85 million in inflationadjusted "then year" dollars. This is comparable to the cost of a 4th Generation fighter aircraft today.

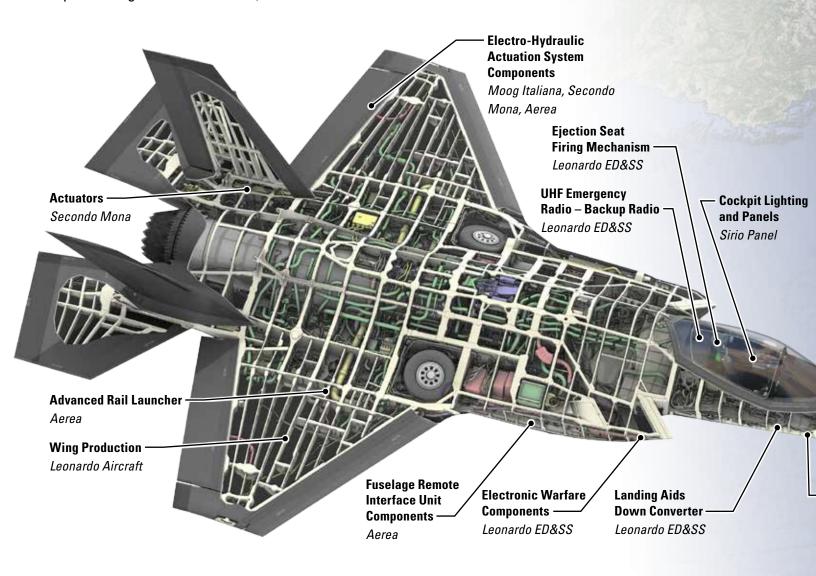


Recapitalizing Aging Aircraft Fleets Today

## Italian F-35 Lightning II Industrial Participants

#### **Industrial Benefits**

As the F-35 transitions into full-rate production, opportunities for Italian industry will evolve and endure throughout the life cycle of the F-35 program. Italian industry has won more than **\$1.35 billion dollars** in F-35 production contracts as of December 2016. Italian companies produce components for the entire F-35 enterprise which is expected to grow to more than 3,000 aircraft.



#### Other Italian Industrial Participants

Leonardo Electronics, Defense, & Security Systems (ED&SS)

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Borgomanero	Casella	Capua	Rome
Mecaer	Moog Casella	Cira	Leonardo
<b>Genoa</b> <i>Piaggio Aero</i>	<b>Foligno</b> Galileo Avionica	Cisterna di Latina/Pomezia Leonardo ED&SS	Elettronica Gemelli Logic MBDA Italia S3LOG
<b>La Spezia</b> <i>Elettronica Melara</i>	Montevarchi Sirio Panel	<b>Aprilia</b> <i>Aviogei</i>	
<b>Turin</b> Leonardo Aircraft		Aero Sekur	Vitrociset



Italian F-35 Lightning II Industrial Participants

### European F-35 Final Assembly and Checkout Facility

#### The New Hub of the Italian Aerospace Industry for European F-35 Production

Set on 101 acres in Italy's Piedmont region, the Italian Final Assembly and Checkout (FACO) facility employs more than 1,200 Italians on the F-35 program. Owned by the Italian Government and operated by Leonardo in conjunction with Lockheed Martin, the FACO produces F-35s for the Italian military and will soon produce F-35s for the Dutch Air Force as well.

...the Italian Final Assembly and Checkout (FACO) facility employs more than 1,200 Italians

The FACO went from being an empty grass field to producing a 5th Generation fighter in only 4 years!

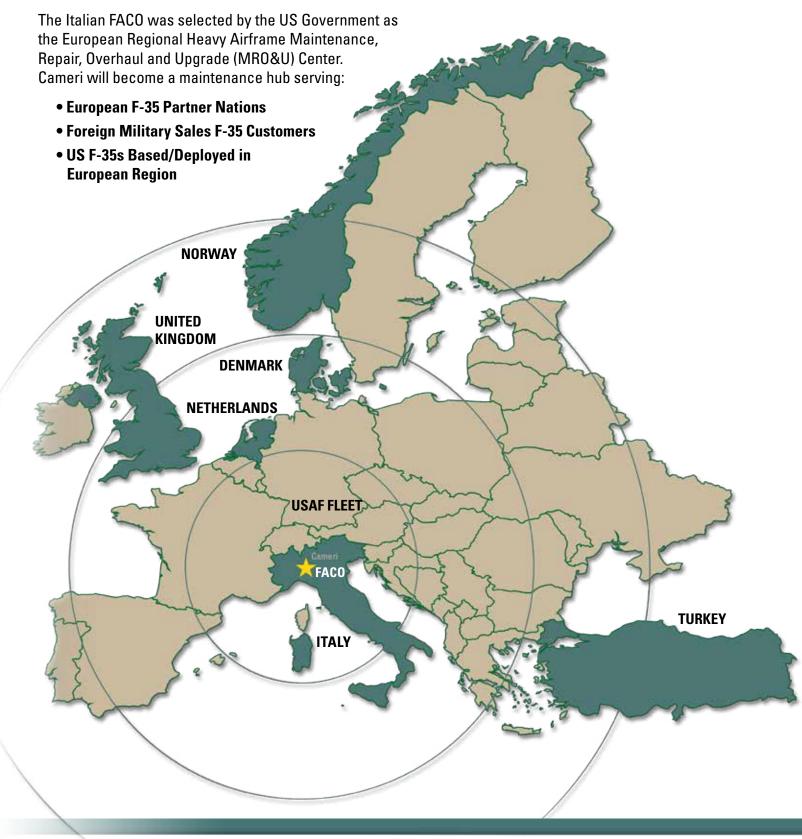


#### F-35 Wing Production for the Global Fleet

Cameri is also home to Leonardo's F-35 wing production, producing wings for the entire F-35 global enterprise. Under current industrial agreements, Leonardo Aircraft will produce a minimum of 835 full wingsets for the program.

Leonardo produces wings for the entire F-35 global enterprise

#### Europe's F-35 Regional Heavy Airframe Maintenance, Repair, Overhaul and Upgrade Center



F-35 Sustainment

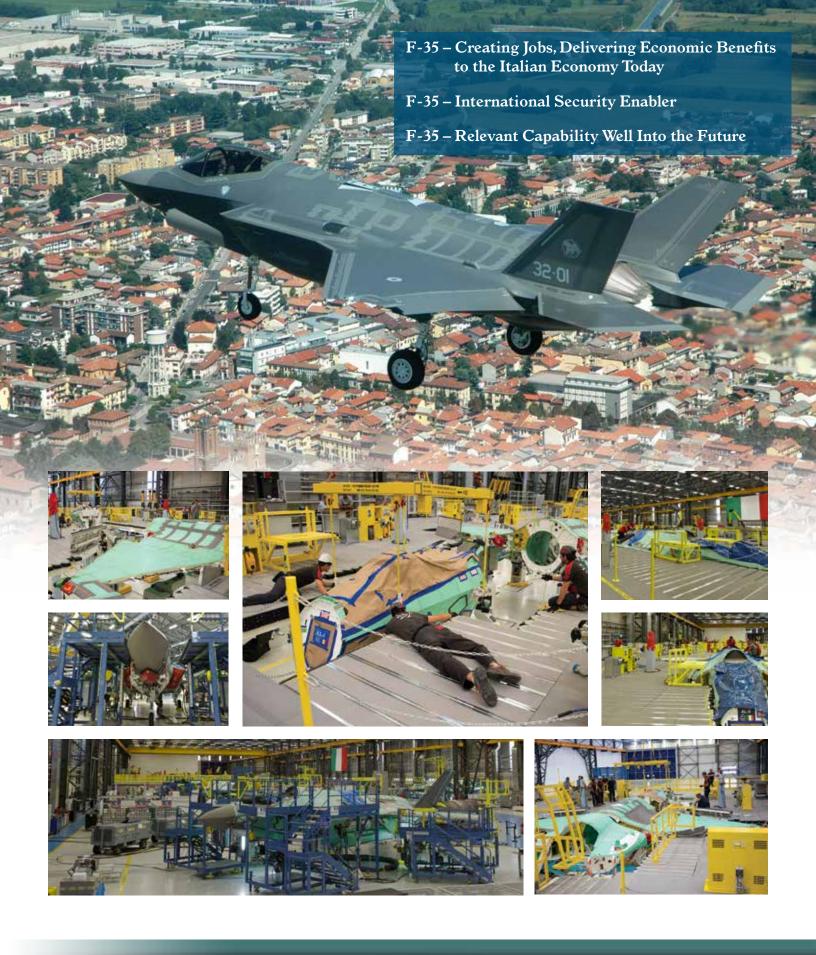
## **Key Milestones**



#### **Key Milestones for Italian F-35s**

- 1998 Italy participates in Concept Demonstration Phase
- 2002 Italy commits to System Development and Demonstration Phase as a Level 2 partner
- **2009** Parliament approves F-35 acquisition and construction of the Cameri Final Assembly and Checkout Facility (FACO)
- **2013** Italian F-35 assembly operations begin at the FACO in Cameri
- 2015 First flight of AL-1 the first ever F-35 built and flown outside the US
  - Aeronautica Militare (A.M.) KC-767 first foreign tanker certified to refuel F-35
  - Delivery of AL-1 to the Aeronautica Militare
- **2016** Italian F-35 accomplishes first-ever F-35 trans-Atlantic flight with Italian pilot and Italian tanker aircraft
  - Italy first country to establish an operational F-35 base outside US





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# Summary

f35.com/italia

# LOCKHEED MARTIN

