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Advanced Programs

Future Fighter Systems

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Russian Anti-Access Area Denial (A2/AD)



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Adaptation & Innovation

Innovation forged by the context

NASCAR PITSTOP

But with less people



DEPLOYABILITY



- Equipment needed for turn-around and O-level maintenance
- easily loaded onboard a transport a/c

BORN TO BE AIRBORNE

Short landing and takeoff



- Highway strip 800 x 17 m is enough
- Gripen can land on and takeoff from partially destroyed airfields
- Low landing speed, carrier style landing without flare

Your Invisible Wingman

Arexis EW



- High-power gallium nitride GaN Active Electronically Scanned Arrays
- AI driven

THE FIFTH MAN



- Fighter controllers "within" the 4-ship
- Check 6
- Wolf-pack tactics

COST EFFICIENCY

Built into Gripen's DNA



- Cost has always been a design parameter
- Engineers maximize performance for given cost
- This is not something you can add later
- Close cooperation with the customers

HOW TO GET THE BIG PICTURE

Gripen data link



- More than 30 years of Swedish fighter links
- Sharing enemy and friendly positions
- High update rate and accuracy
- Enables spread-out tactics (wolf – pack)

WEAPON OF CHOICE



- US and/or European and/or RoW weapon
- Continued updated weapon portfolio



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Generating Air Power

It starts on the ground...

“...that the threat posed by Russian long-range missile capabilities is serious, and the survivability of NATO combat air platforms in the air is not matched by their survivability on the ground. In the air, flying hours are lower than ever in most NATO nations...”

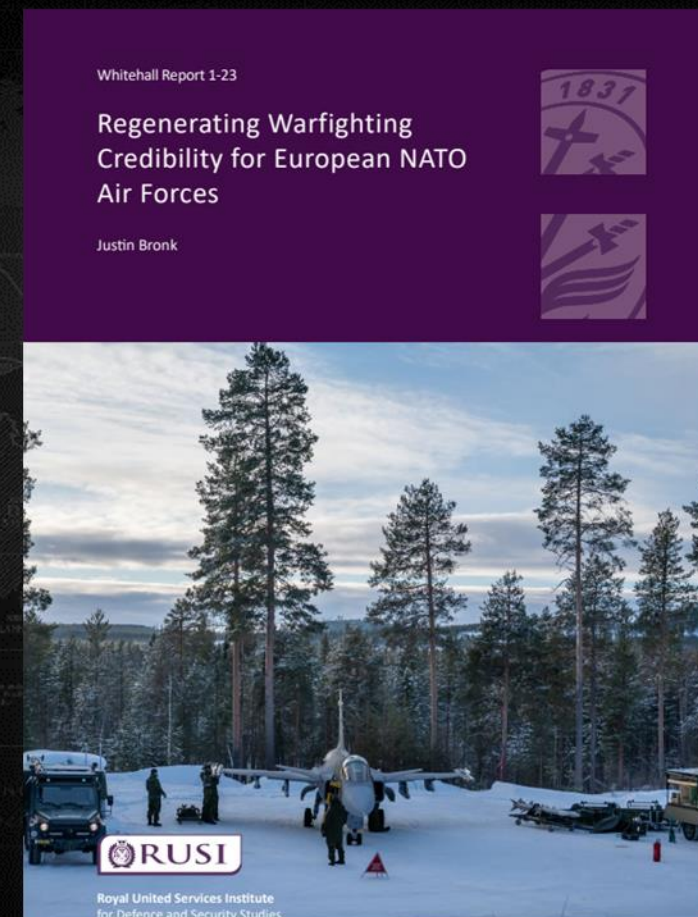


flygvapnet Flygvapenchefen välkomnade Air Marshal Johnny Stringer, ställföreträdande chef för NATO Allied Air Command, till Flygvapnet och F 21.

Johnny Stringer välkomnades till Norrbotten av flottiljchef Peter Greberg samt flygvapenchef Jonas Wikman. Här hölls viktiga samtal inför det framtida medlemskapet.

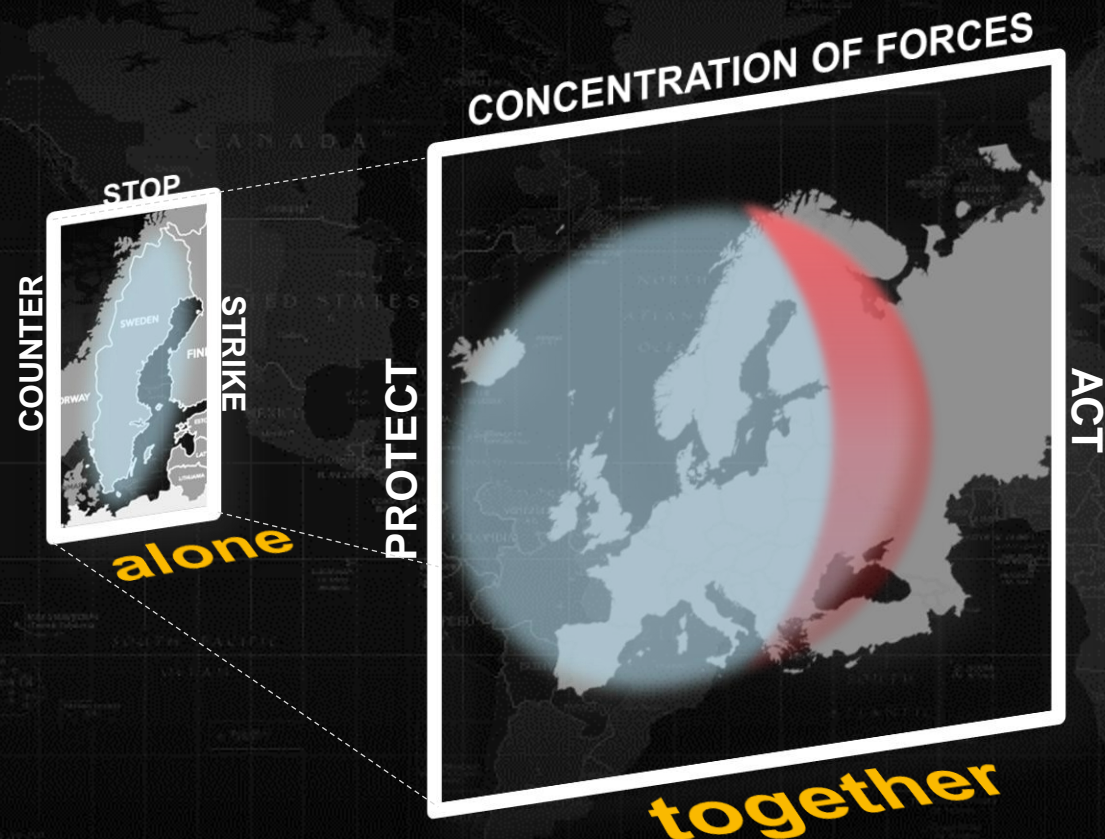
Stringer fick möjligheten att följa med 211 stridsflygdivision, Akktu Stakki, under ett flygpas.

Som en del av det landade de in i skogen och fick en föreläsning i rörlig klarläggning, där huvuddelen av



Changed Operational Context

... not Operational Requirements



Strategic stability, delivered through effective deterrence and defence.

YESTERDAY

TOMORROW



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INNOVATION



INCREMENTAL

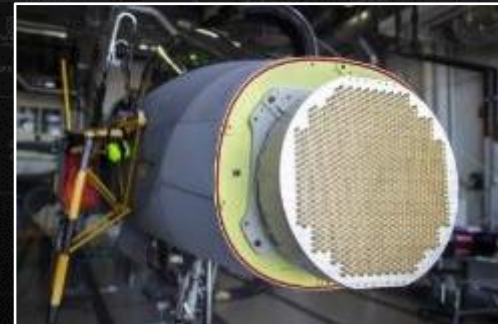
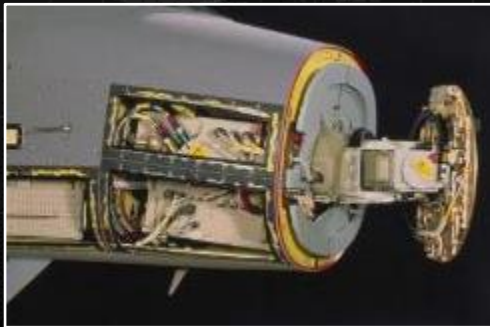
DISRUPTIVE



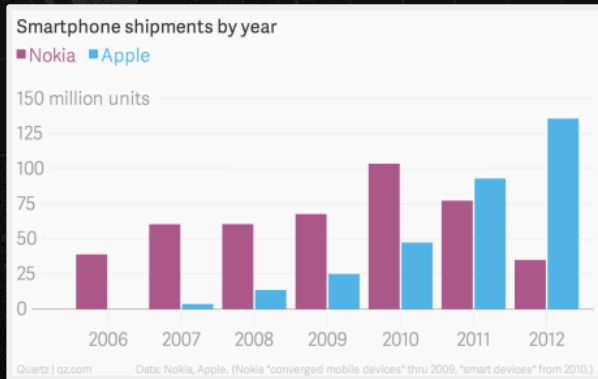
Incremental Evolutionary



Revolutionary

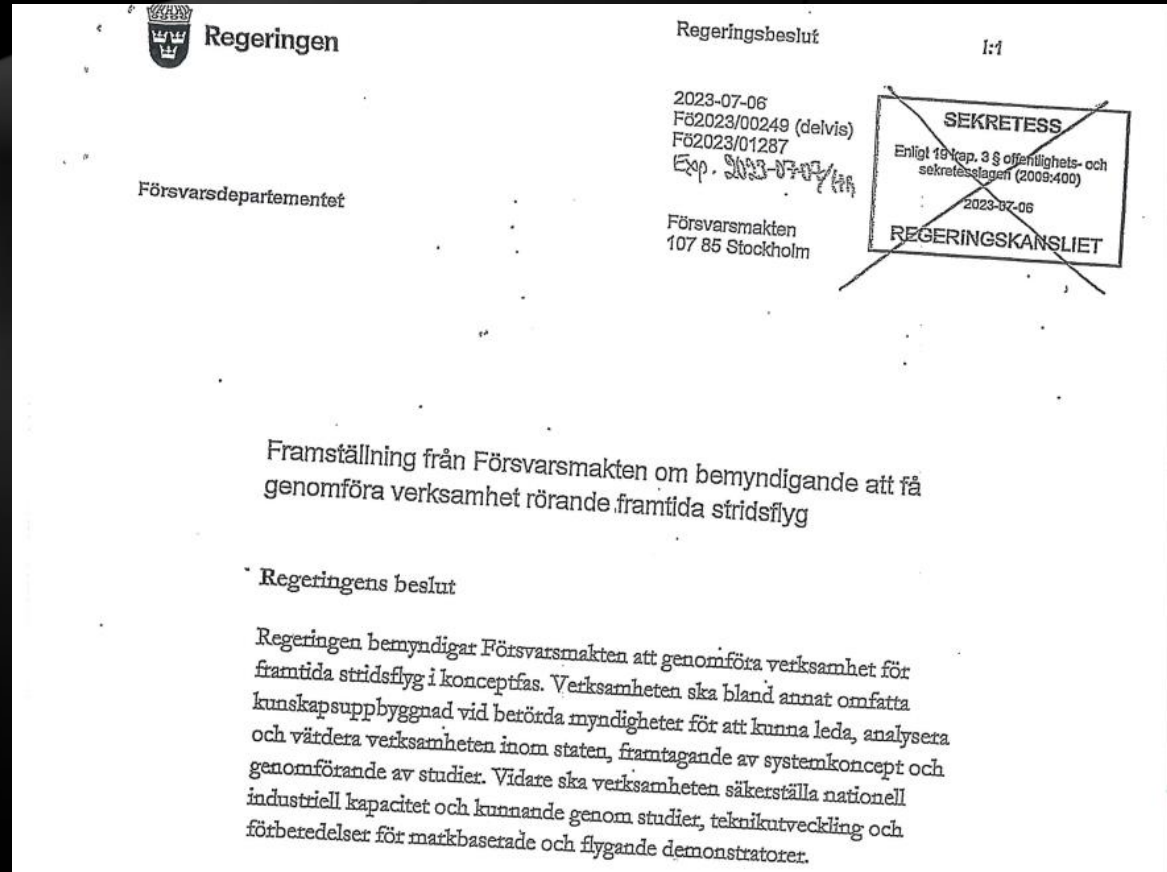


Disruptive



Concept Programme

Future Fighter System

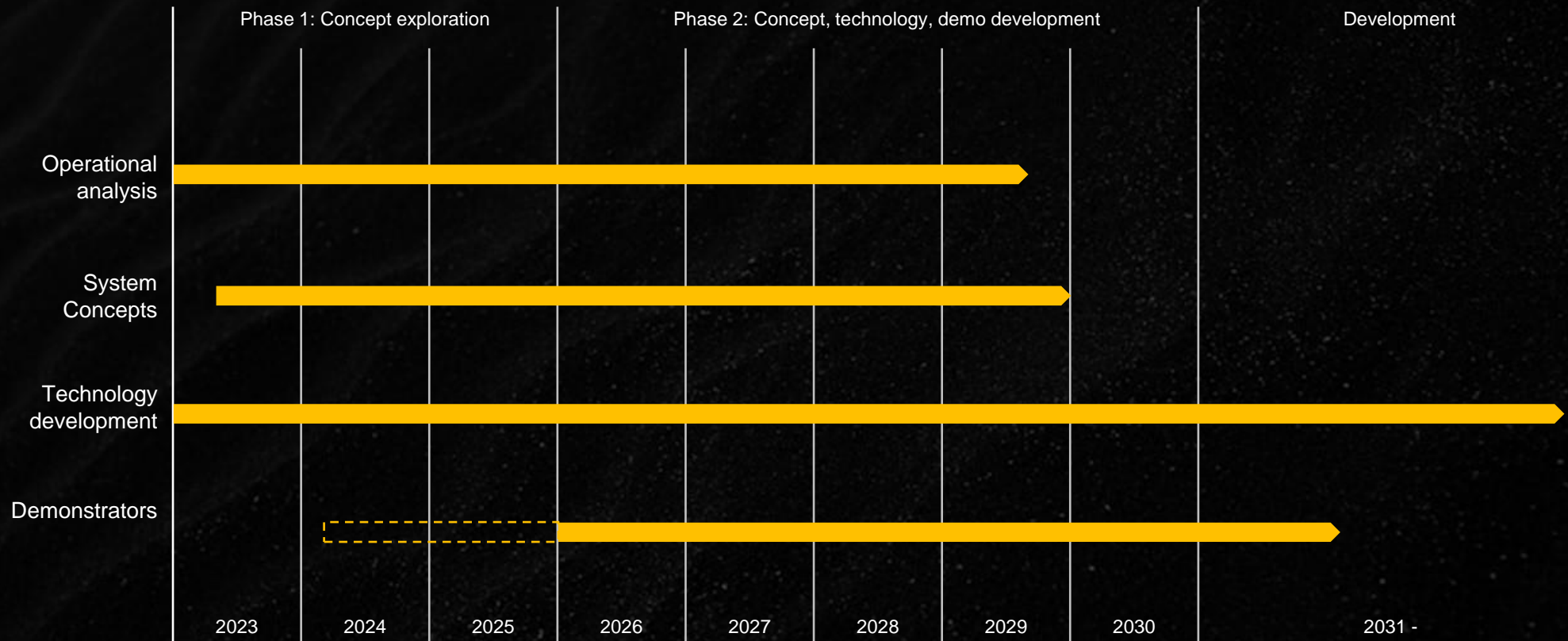


“... furthermore, the programme must ensure national industrial capacity and know-how through studies, technology development and preparations for both ground-based as flying demonstrators...”

Swedish Government 7 July 2023

Swedish FCAS Program

Timelines



Concept Programme

Future Fighter System

Managament & Planning

- Program Management
- International Partnerships
- Industrial Capabilities
- Ways of Working, Methods
- Communications & Infrastructure
- Enablers (Rigs, Simulators)

Concept Development

- Design & Architecture
- Specific Studies
- Cyber
- Training
- Logistics
- Connectivity
- Concept design vehicles
- Effectores
- Production systems

Technology Development

- Aerodynamic, design & technology
- Vehicle systems
- LO & Structure technology
- Internal Weapon Bay
- Propulsion , Power & Cooling
- Tactical Systems
- Autonomy
- Sensor systems
- Flight Control

Flying Demonstrators

- New Flying platform (-s)
- Existing Platforms

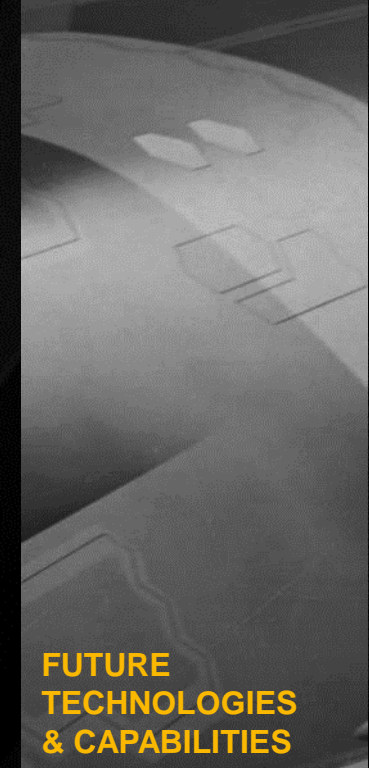
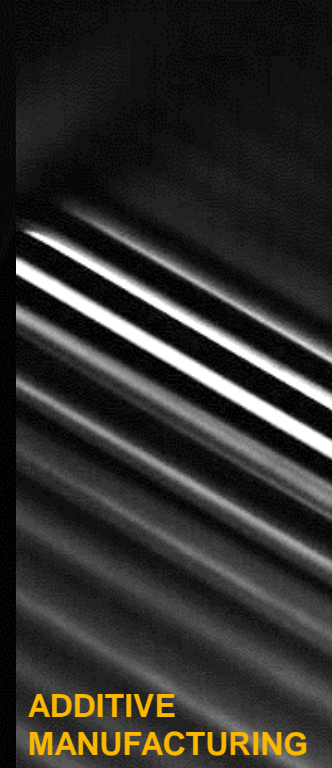
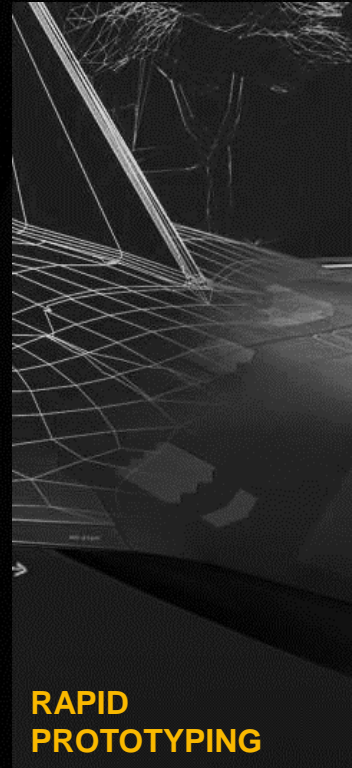
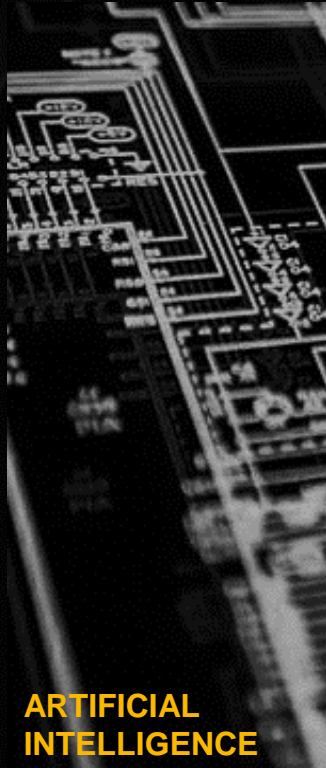
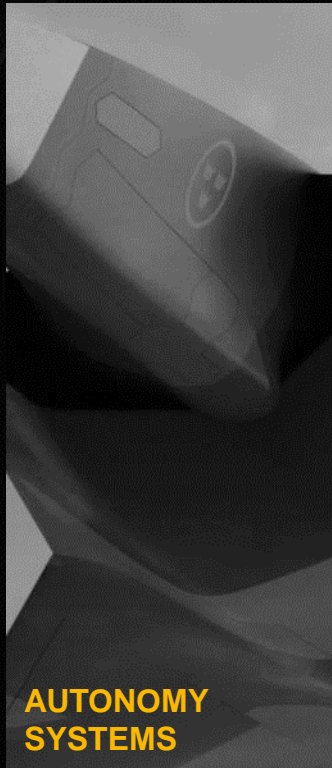
Saab Research & Technology Clusters

Active R&T Projects within Aeronautics

>150

- ⚙ Weapons and Protection Technology
- ⚙ Sensors and EW / Multi-function Sensor System
- ⚙ Training and Simulation
- ⚙ C2 & Connectivity
- ⚙ HMI & Human Factors
- ⚙ AI & Autonomy
- ⚙ Software, Cyber & Information Technology
- ⚙ Vehicle Engineering & Sub-Systems
- ⚙ Maintenance & Logistics support
- ⚙ Structure, Materials & Manufacturing
- ⚙ Operational Analysis & Conceptual Design
- ⚙ System Engineering

Areas of Exploration



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Advanced Program **Snapshots**



Days Since Launch

202



Number of Employees

120 ▶ 270



Active R&T Projects

>150

Our prerequisites



Highly knowledgeable
and trained workforce



Recent innovation
advantage



Full spectrum company
across all domains



Close relationships to
our customers



Strong partnerships and
collaborations



Emerging and disruptive
technologies



Experience from innovation
initiatives spanning decades



Flexibility to adapt
beyond the doctrine



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Innovations

" ... big companies is not very good at revolutionary innovations. They are ok when it comes to incremental innovations. They have a real problem to take the next leap forward. Someone needs to lead the way, smaller companies needs to lead the way..."

" ... It's not the quantity of resources which is the constrain. It is the quality. You need a small , very talented, focused and dedicated team willing to take risks and make something happen. That's the scars commodity, not the amount of money."

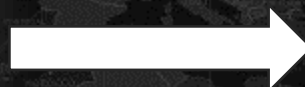
Elon Musk, 2008

Pioneers of the Sky

A legacy of resilience



1.4 million first- and second-generation Swedish immigrants lived in the U.S. in 1910, while Sweden's population at the time was 5.5 million

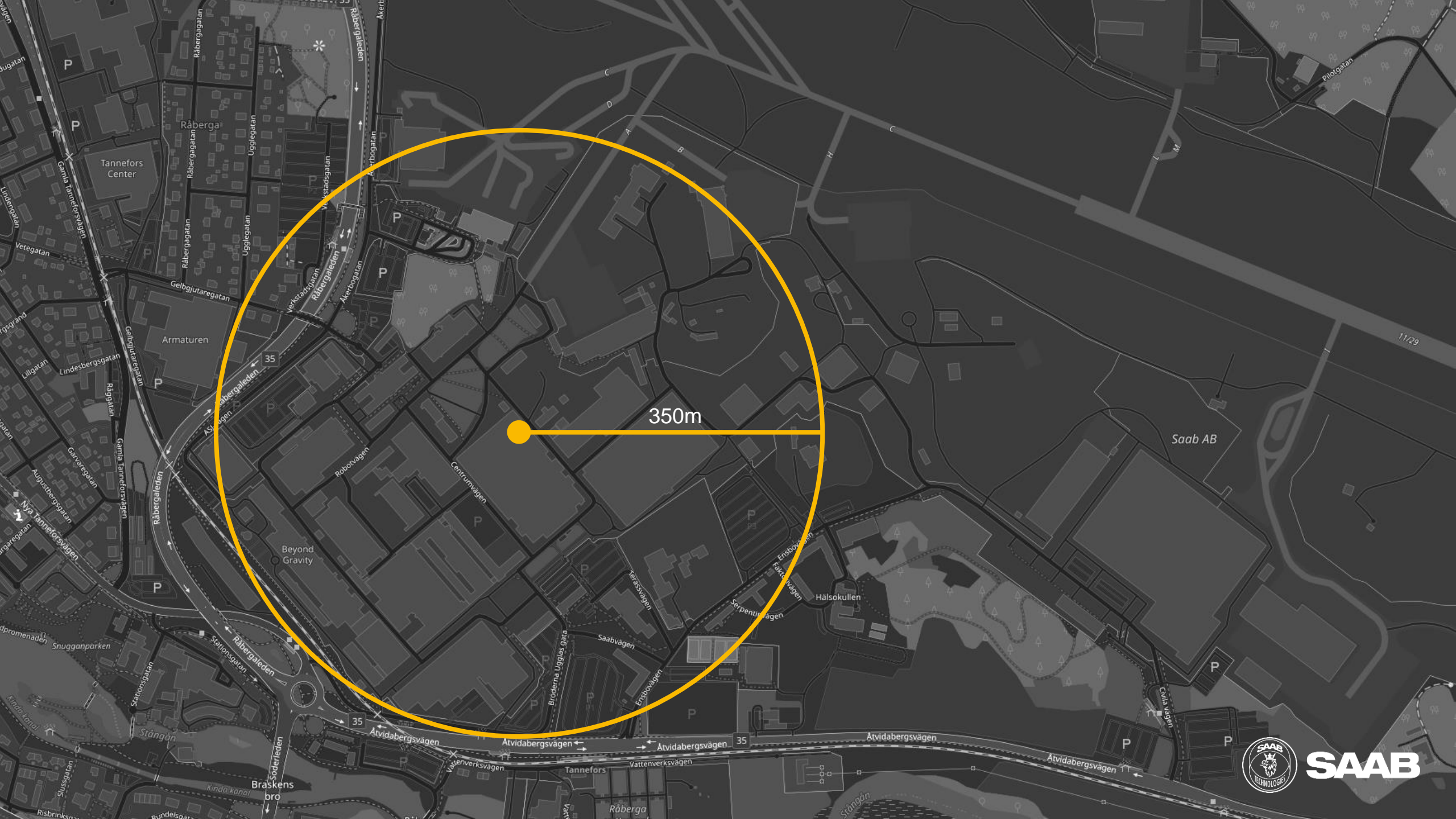


< 50 years

... less than 50 years later, we broke the World Record in speed with our own built fighter jet J-29 Tunnan (The Flying Barrel)



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Change will happen
either **to** you
or **by** you



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