

3rd Brazilian Swedish Workshop in Aeronautics and Defence



November 12th, 2015



NFFP: Presentation of the program and perspectives for cooperation with Brazil

Lars Sjostrom, SAAB and Innovair

LONG TERM VISION OF BRAZIL-SWEDEN COOPERATION

Future
Fighter Capability



Demonstrators



Future Civil Products



Gripen 2-seater
Development



Gripen NG

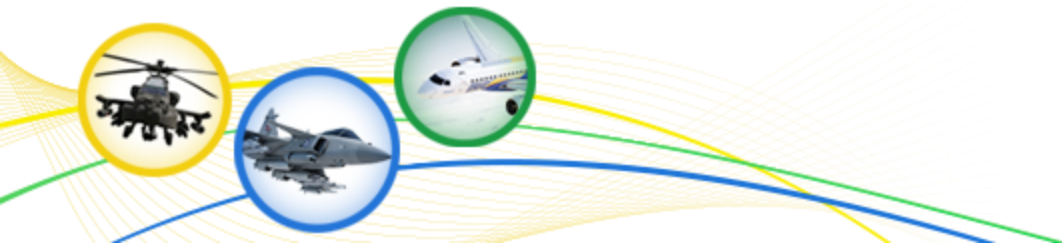


Joint Research & Technology Efforts
Brazil - Sweden

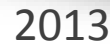


Innovair

- Innovair is a Strategic Innovation Area for Aeronautics
- Approved by Vinnova and other Govt agencies
- Coordination forum for all stakeholders in aeronautics R&T (industry, academia, govt agencies)
- Small budget, used for administration and Research Agenda



- The National Research Agenda www.nriaflyg.se



		2023										2025									
		Mittels- und langfristige Ziele					Kurzfristige Ziele					Mittels- und langfristige Ziele					Kurzfristige Ziele				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Strategische Ziele	Strategische Ziele																				
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NATIONAL STRATEGY: - COOPERATIVE EFFORT INCLUDING ALL STAKEHOLDERS

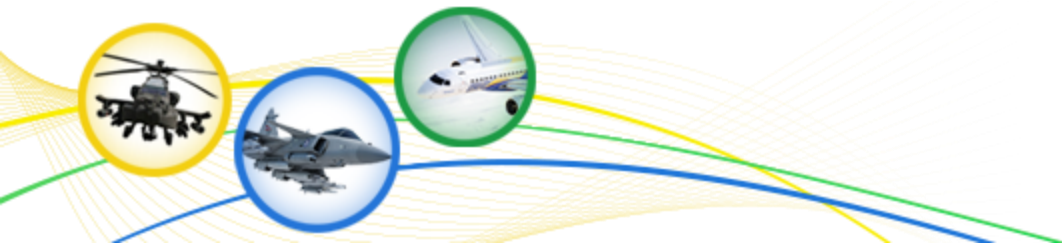
Government, Military and Civil authorities, Large and small companies, Universities, Research Institutes



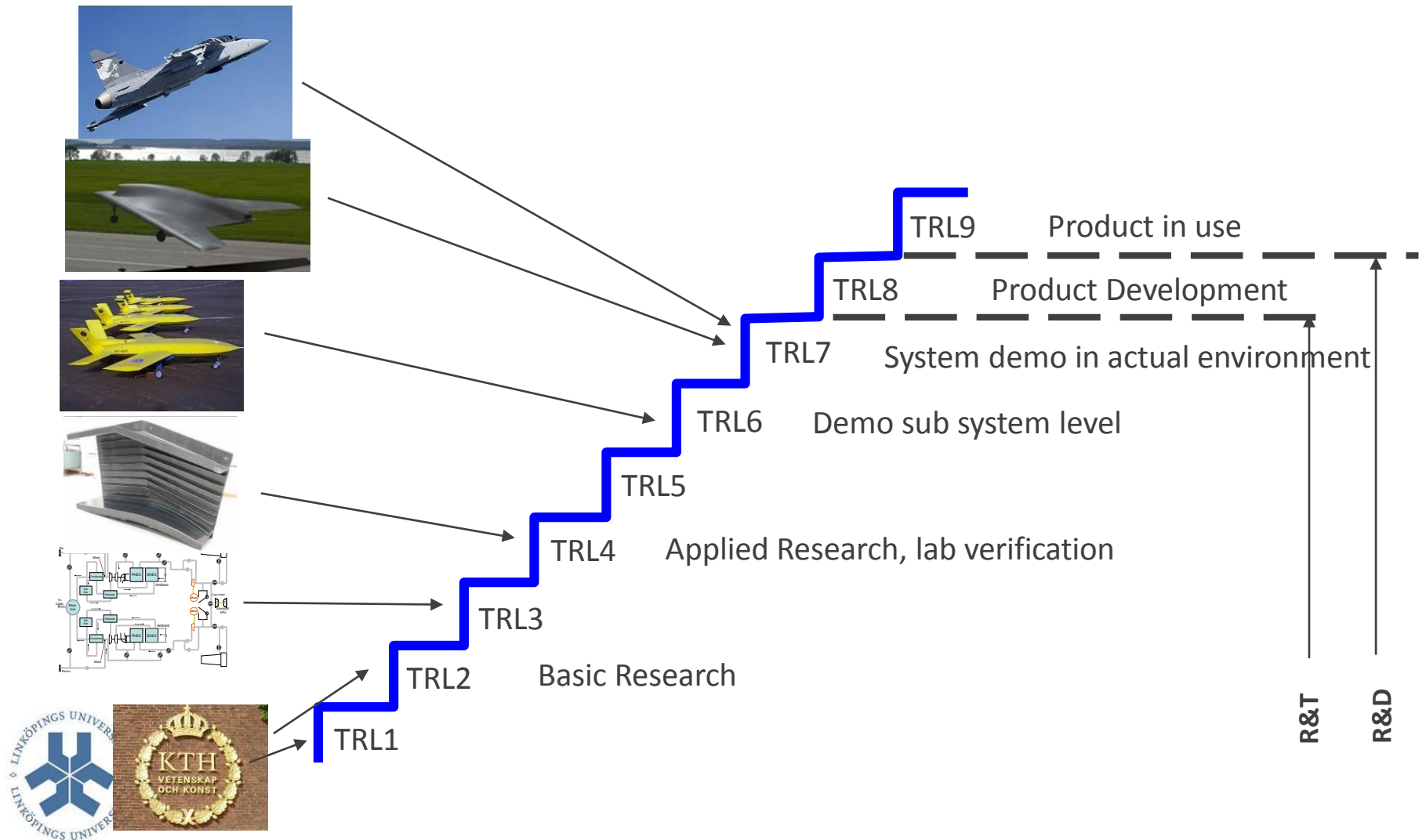
NFFP and SWE Demo

Strongly related to Innovair, but formed as separate agreements between the funding parties, are two R&T programs:

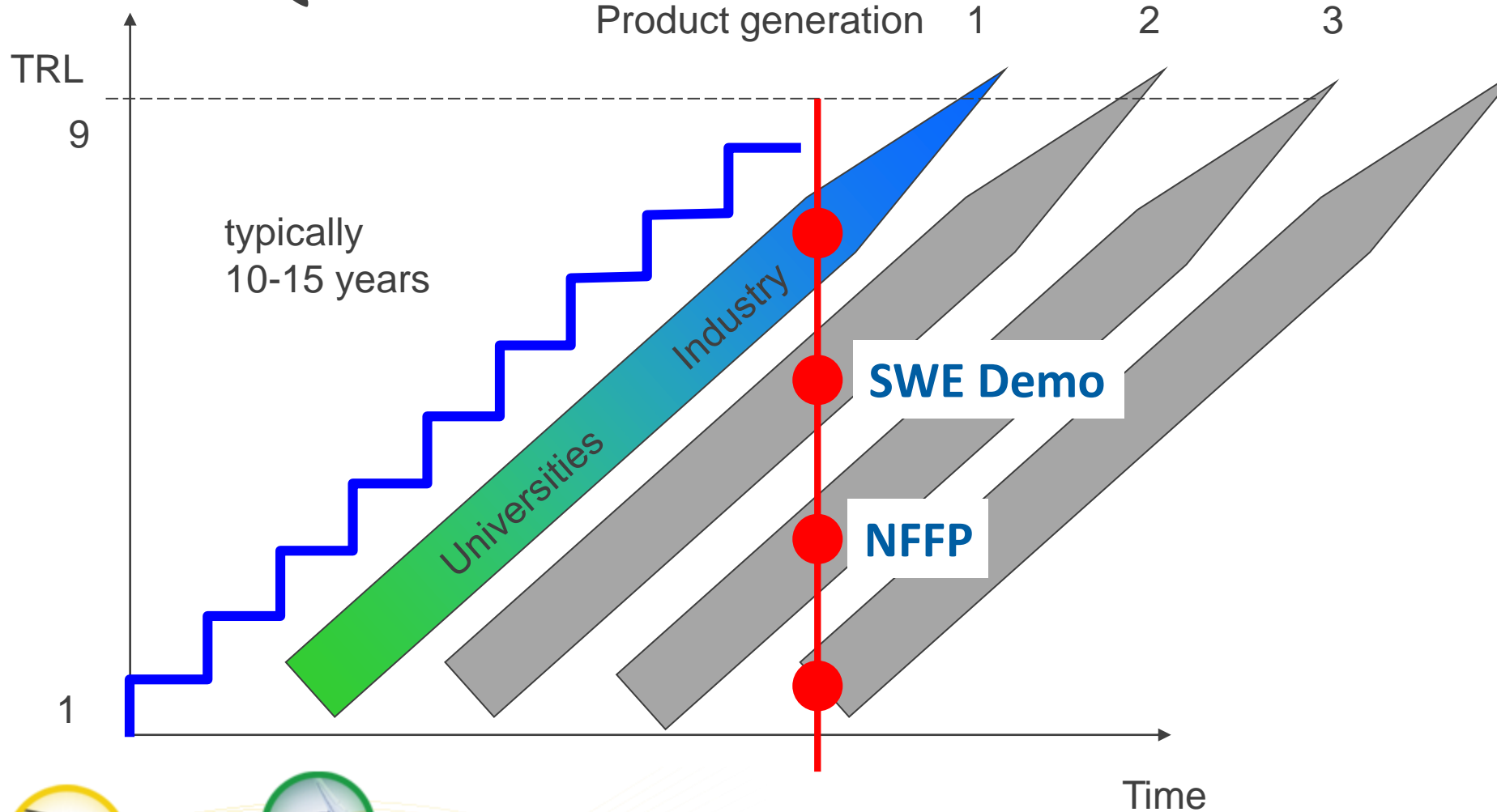
- NFFP, TRL 2-4
- SWE Demo, TRL 4-6



Technology Readiness Level (TRL)

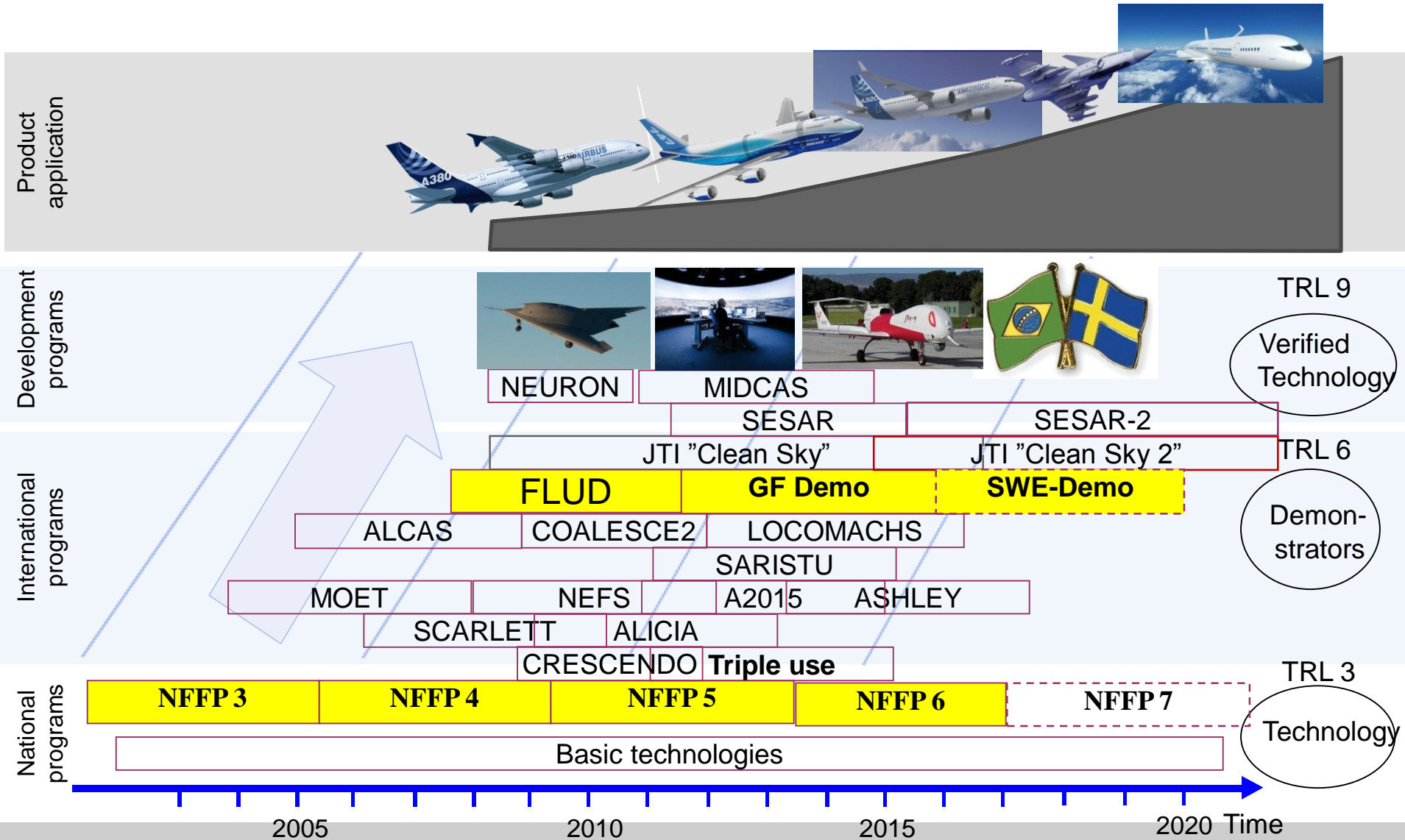


OBLIQUE WAVE PRINCIPLE



Roadmap - Saab

INNOVAIR



NFFP

National Aeronautical Research Program (Nationellt Flygtekniskt Forsknings Program)

- Cooperation agreement between:

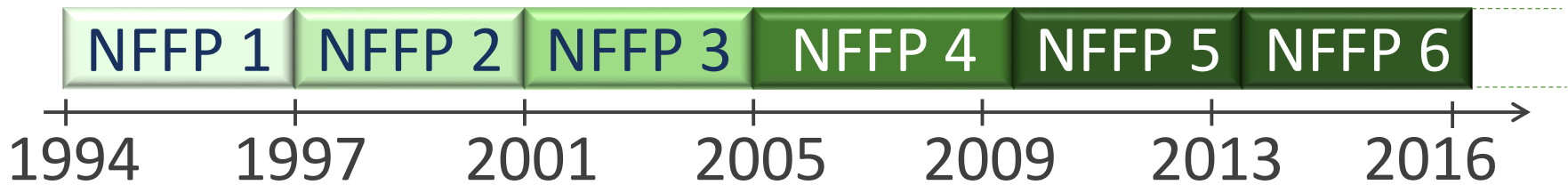


- Dual-use, civil and military R&T
- Over 130 PhD's produced during 20 years
- Total funding 440 MSEK (approx 55 MUSD) for 4 years
 - 50% funding from Govt agencies
 - 50% funding from industry

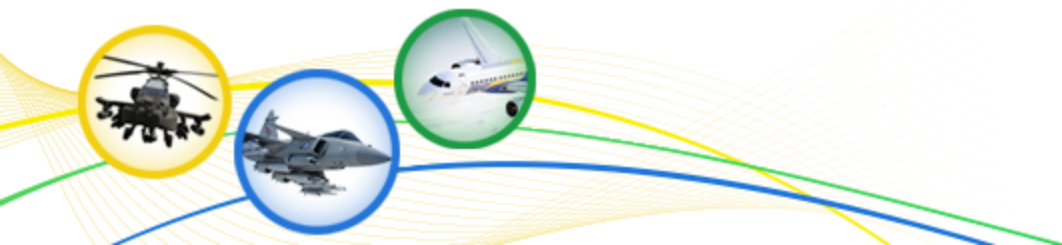


NFFP

National Aeronautical Research Program

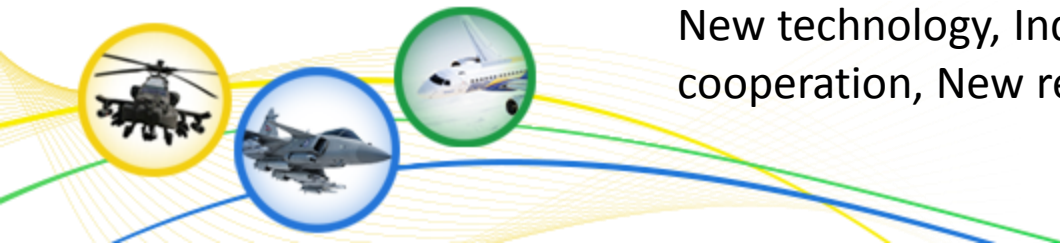
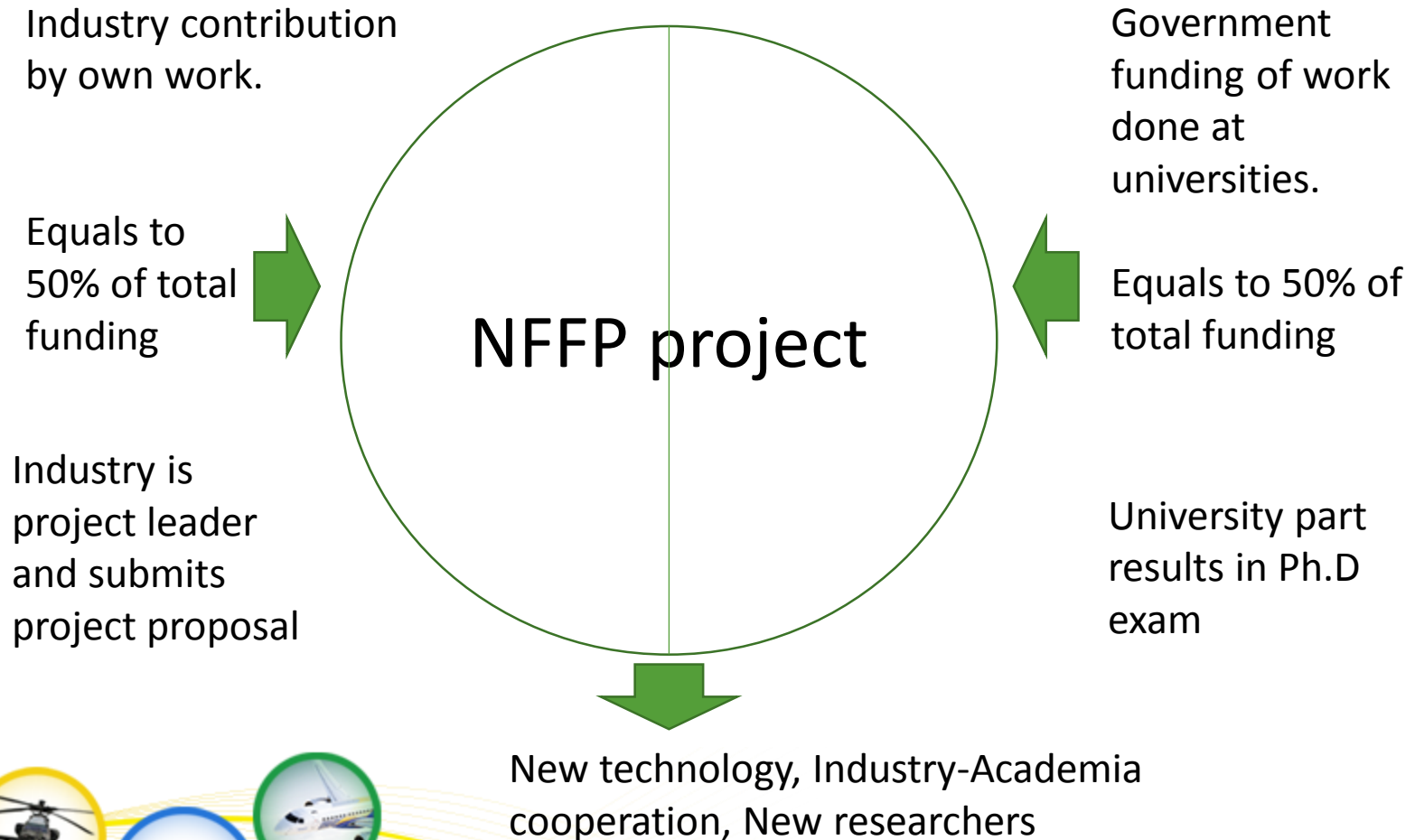


- Started in 1994, now in its 6th four-year period
- TRL approx 2-4
- Open calls
- SME encouraged to participate
- Combines academic excellence with industrial relevance



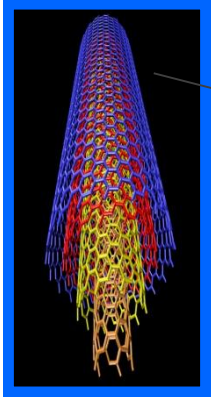
NFFP

- Academic excellence and industrial relevance



Typical SWE Demo contents:

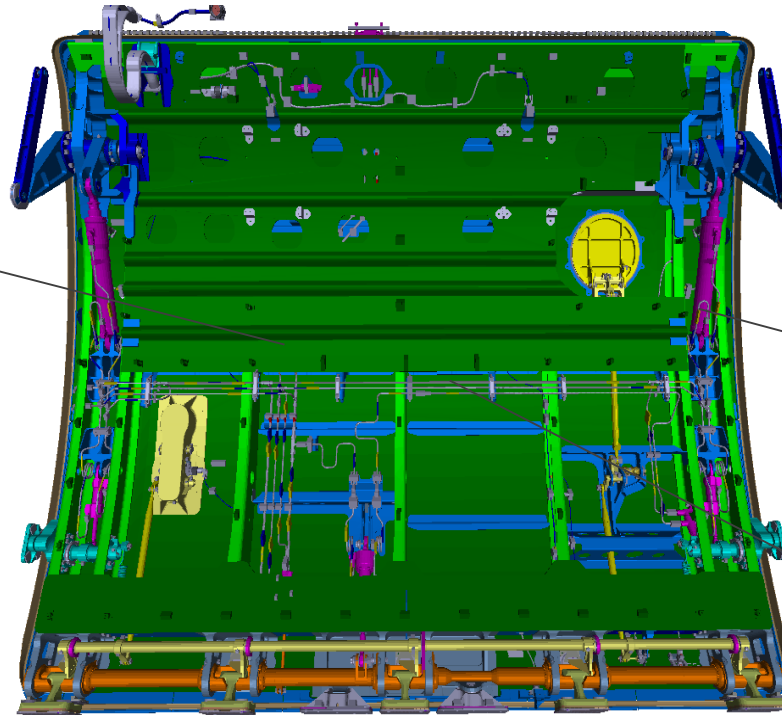
- Next generation aircraft doors



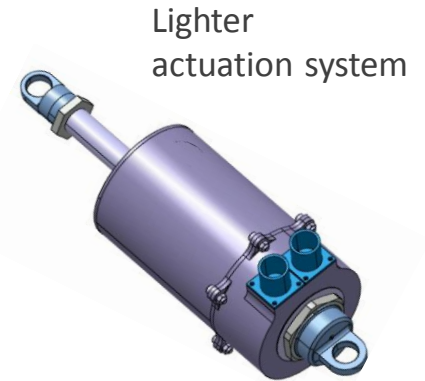
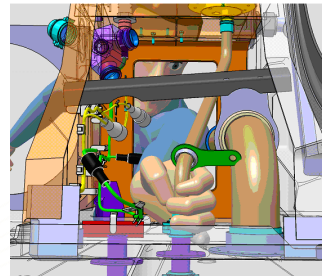
Multifunctional materials



Automation of assembly
for High Rate Production



Design for
high-rate
manufacturing



Lighter
actuation system



Integrated
composite structure

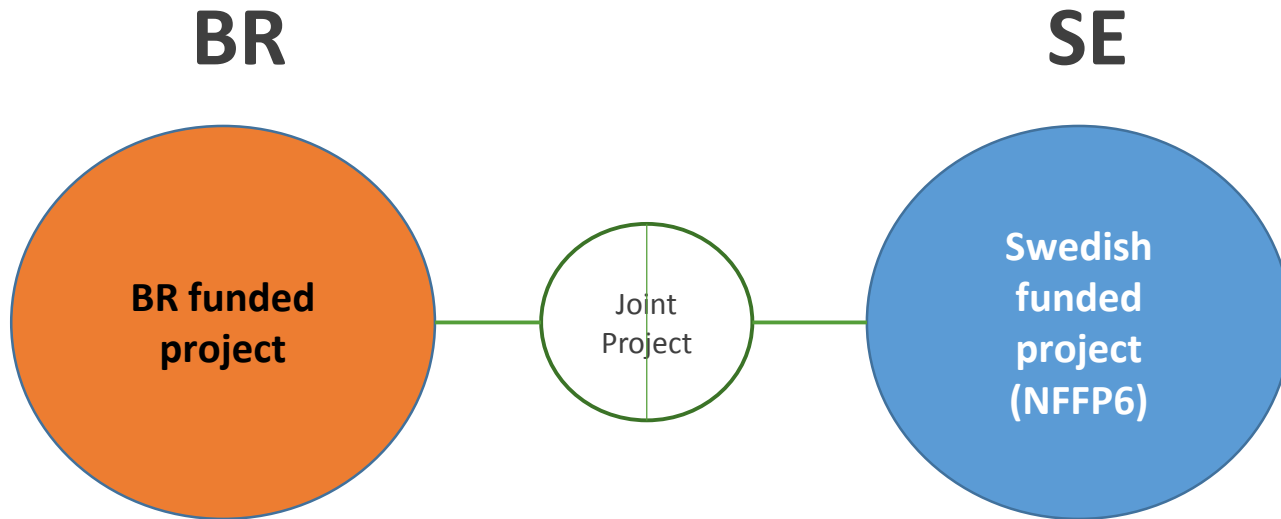
optimized manufacturing
process

Innovative and cost-efficient
Non-destructive testing



NFFP in the Brazil-Sweden R&T Cooperation:

- Re-use of ongoing NFFP6 projects until end 2016



New funding for international cooperation with Brazil will hopefully be available from 2017, when the current NFFP6 ends

