

# The German R&T Public Funding Framework and the Aeronautics R&T – Program (LuFo)

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Wissen für Morgen



# Content

The Strategic Aims of the Federal Government

The German R&T Public Funding Framework – LuFo

The German R&T Public Funding Framework – Call in plan

LuFo VI-1, Main Strategic Topics

LuFo VI-1, Call – Topics

LuFo VI-1 Timeline – the way to funding

International collaborations with LuFo

German/Sweden Joint Project Examples



# The Strategic Aims of the Federal Government

## The Aviation Strategy

The German Federal Government's aviation strategy aims at continuing worldwide technological leadership of Germany in environmentally conscious, safe, efficient and passenger friendly air transport system.

The technological capability and innovation of German industry and academics are of serious importance for a global competitiveness of the nation.



# The German R&T Public Funding Framework – LuFo

## Luftfahrt-Forschungsprogramm des Bundes – LuFo

LuFo is a perennial program with a planning horizon of 4-5 years

### Objectives

Support program for enhancing innovation through collaboration between industry, supply chain and academia

Efficient use of national resources

### Target Groups

Industry, Research establishments, Universities



# The German R&T Public Funding Framework – LuFo

## Funding Process in LuFo

Two-step evaluation

### Notification for Collection of Proposals

Announcement published via government memo

### Qualifying - First Step: Selection of Proposals

Evaluation by panel of experts / independent experts  
Permit to submit an application

### Processing - Second Step: Processing applications

Technical and administrative verification  
Assurance for support and grant



# The German R&T Public Funding Framework – LuFo

## Program Owner: Federal Ministry for Economic Affairs and Energy (BMWi)

- defines rules, conditions and focus of LuFo calls
- initiates calls for proposal
- selects projects based upon an external evaluation
- signs every individual R&T contract



## Program Management Office (Agency): PT-LF

- assists in preparing of calls
- conducts the contract phase of selected projects
- technical and administrative controlling for projects
- evaluation of results





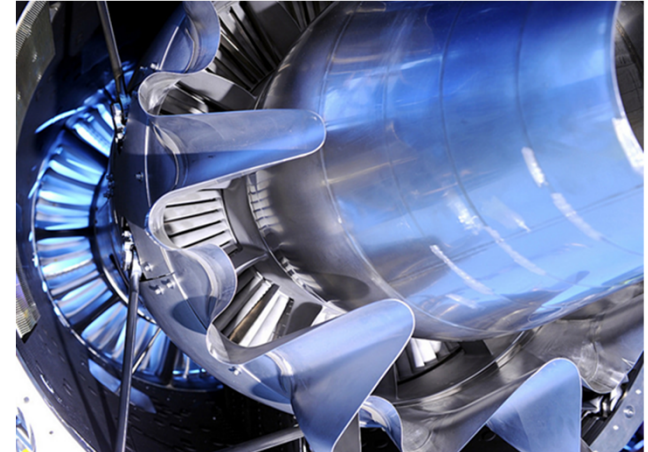
## The German R&T Public Funding Framework – LuFo

### LuFo Projects have to comply with the following requirements:

R&T grants can only be awarded to projects which can demonstrate a clear public benefit and would not be pursued by the R&T partner without an incentive to do so.

Partner receives exclusive IPR to the results of funded projects.

If results are not exploited as stated in exploitation plan, exclusivity is lost and funding can be revoked (grant + market interest+4%)



# The German R&T Public Funding Framework – 1<sup>st</sup> Call LuFo IV in plan

## Supported Areas

R&D activities and studies  
Technology readiness level up to TRL 6

## Selection Procedure

A two-step process: full proposal application process followed by an abstract proposal for expert selection process

## Timeframe for Entire Procedure

Approximately one year





## LuFo VI-1, Main Strategic Topics

Interconnected and interlaced manufacturing systems

Intelligent Manufacturing process for ALM, thermo-plastic parts etc.

Artificial Intelligence in structure systems, functional integration

Methodology for AI-Integration, particularly for the eff. handling of Big-Data in aeronautics  
Explainable Artificial Intelligence (EAI)

Industry 4.0 applications novel digital products for aeronautics

Electrical/hybrid-electrical propulsion system

Usage oriented maintenance for paradigm shift in MRO



## LuFo VI-1, Call - Topics

### (Core) Key Elements of the Aviation Strategy

Flight physics – Aerodynamic, Controllability & Performance

Light weight construction – Manufacturing process of airframe structures

Propulsion – combustion engines and electric motors

Aircraft subsystems & equipment

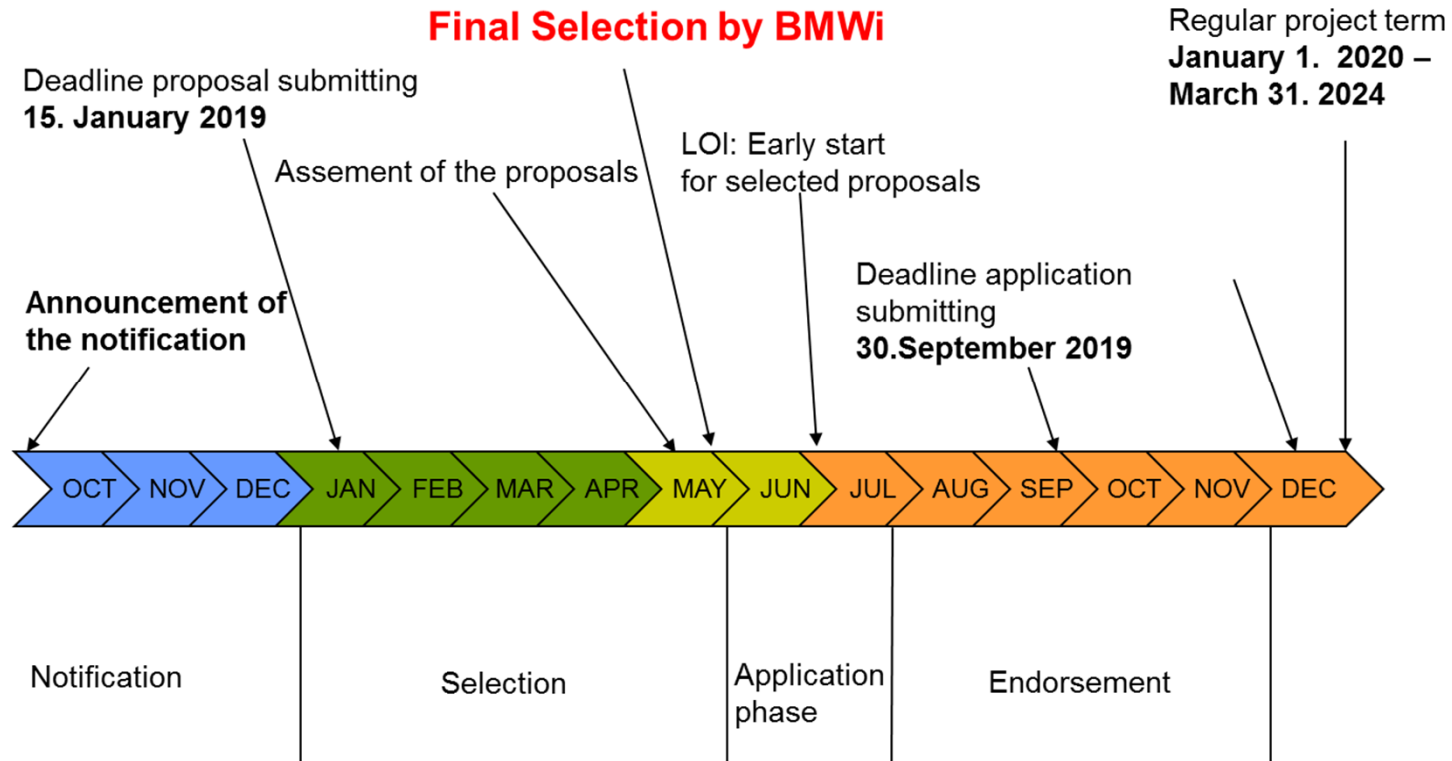
Avionics

Cabin interior

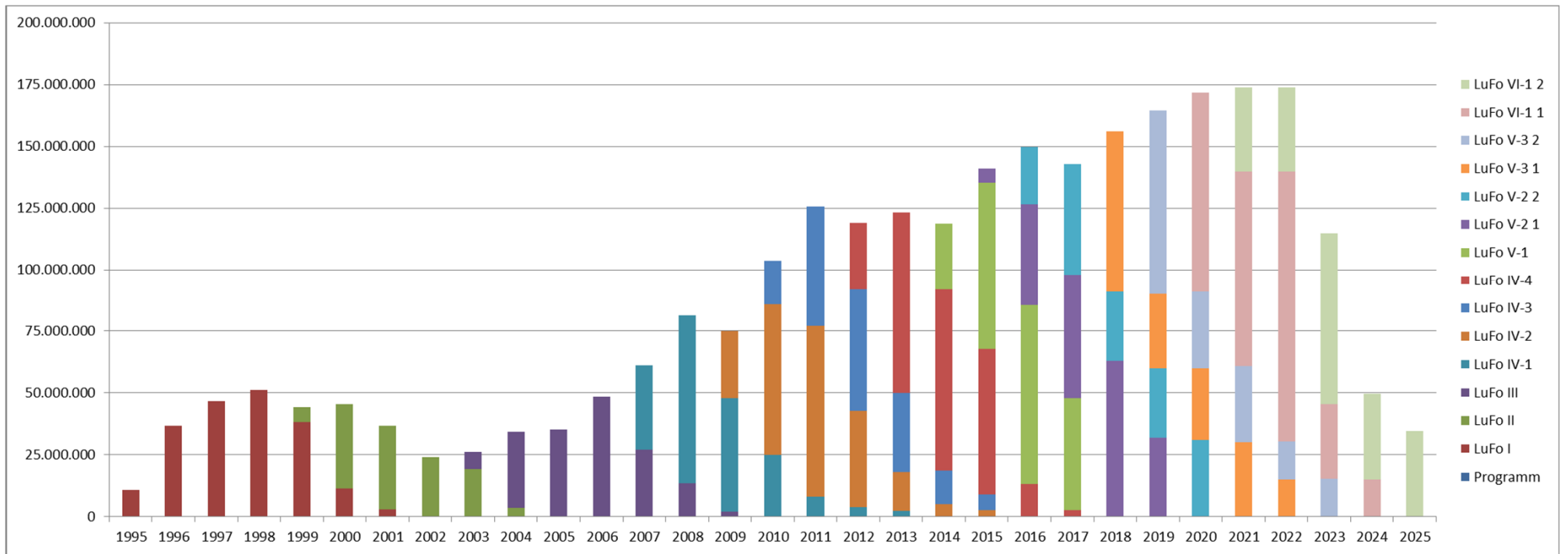
Airport & Air Traffic Managements – Concepts & Scenarios



# LuFo VI-1 Timeline – the way to funding



# LuFo budget €



## International collaborations with LuFo

Foreign partners without public funding → associated partner

Simple cooperation on a “Give & Take” commercial basis, i.e.

US: ZFL with Sikorsky

Brazil: ETW & DLR with Embraer

Foreign partners with own public funding → bi-national cooperation partner

More “symbiotic relationship”, resources will be used more intensively and widely, i.e.

French/German-joint project: DGA & BMWi’s LuFo  
(Airbus Helicopters F + D, ONERA-DLR, etc.)

Austrian/German-joint project: Take-Off & LuFo (Siemens-Diamond  
Aircraft, Airbus, Helicopters-Villinger, etc.)

German/Sweden-joint projects: LuFo & Swedish FVM/FOI (Vinnova)

Principle: “NO MONEY ACROSS THE BORDER”



## Contact Details

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