



# **Socio-economic impact assessment of the ARTES 4.0 programme**

## **Case study portfolio**

European Space Agency

13th December 2024

# GRASP ARTES Core Competitiveness

Long-standing collaboration with ESA accelerating growth for Danish antenna modelling company

- Revolutionising antenna design process using fast RF prediction models



## LEVERAGING ESA'S SUPPORT

- Long-lasting partnership delivering 10 successful ARTES projects from 2011-2023
- ESA framework supports the integrated development of technology across multiple projects
- De-risking technology, facilitating new and riskier projects
- Access to broad sector insights, technical expertise, customer data, access to facilities, and satellite models



*"Without ESA, TICRA as we know it would not exist."*

## COMMERCIAL SUCCESS & GROWTH

100% employment increase 2015-2021



2 new projects with further ESA funding

Fast revenue growth since 2019



Clear correlation between increased annual company revenue and Danish subscription to ARTES

## SIMPLIFYING ANTENNA DESIGN

- Simultaneous analysis of reflectors and feed chains, reducing development time and enhancing performance
- Single-tool solution for end-to-end radio frequency design, crucial for space-borne reflector antennas
- Fast modelling and high accuracy optimisation to meet space industry requirements

TECHNOLOGY

APPLICATION

END-TO-END SYSTEM



→ THE EUROPEAN SPACE AGENCY

