

ESA SEI Study of ARTES Partnership Projects Outlook of key results

PRESENTATION TO THE JOINT BOARD ON COMMUNICATION
SATELLITE PROGRAMME (JCB)

May 15, 2019





AGENDA

1. INTRODUCTION

2. SUMMARY OF BENEFITS

3. BENEFITS BY CATEGORY

4. CONCLUSIONS



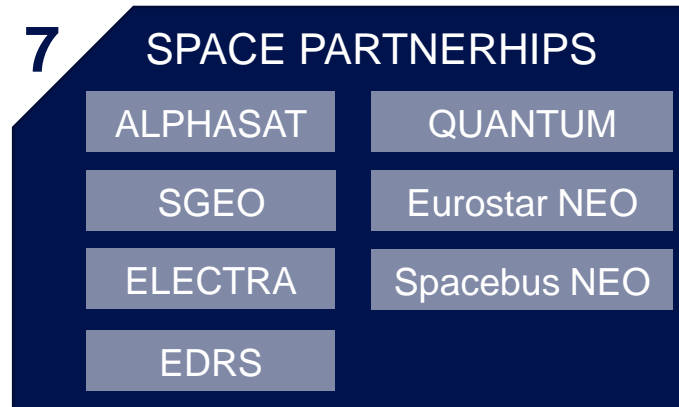
INTRODUCTION TO THE STUDY // BACKGROUND

In the context of SPACE 19+, the study provides an assessment of the socio-economic impacts **enabled or expected to be enabled** by the implementation of a selection of ARTES Partnership projects.

11 PROJECTS

*analysed
across*

24 INDICATORS

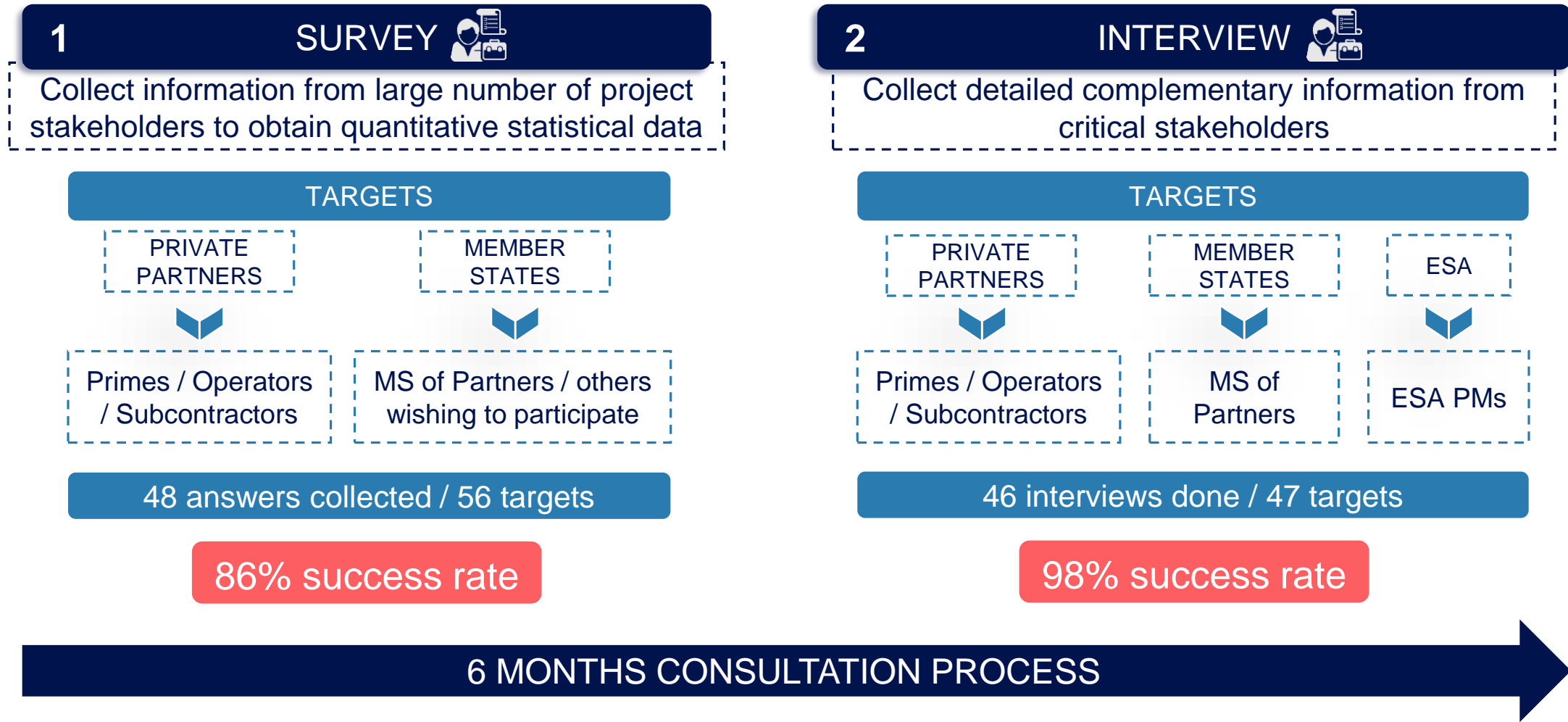


ECONOMIC	STRATEGIC	TECHNOLOGICAL
ADDITIONAL SALES	MARKET SHARE	TECHNICAL EXPERTISE
GROSS VALUE-ADDED (GVA)	NEW GEOGRAPHICAL MARKETS	IOV/IOD
GOVERNMENT REVENUES	NEW VERTICAL MARKETS	TRL IMPROVEMENT
INCREASED PRODUCT PORTFOLIO	COST COMPETITIVENESS	SPIN IN
LONG-TERM PARTNERSHIPS	FIRST MOVER ADVANTAGE	SPIN OFF
JOBS MAINTAINED	BRAND VISIBILITY	PROCESS AND OPERATIONS
JOBS CREATED FOR THE PROJECT	INTERNATIONAL COLLABORATION	INTELLECTUAL PROPERTY
JOBS CREATED FOR NEW ACTIVITY	EUROPEAN NON-DEPENDENCE	TECHNOLOGICAL LEADERSHIP



INTRODUCTION TO THE STUDY // CONSULTATION

Exceptionally high participation to the consultation securing direct inputs from stakeholders.



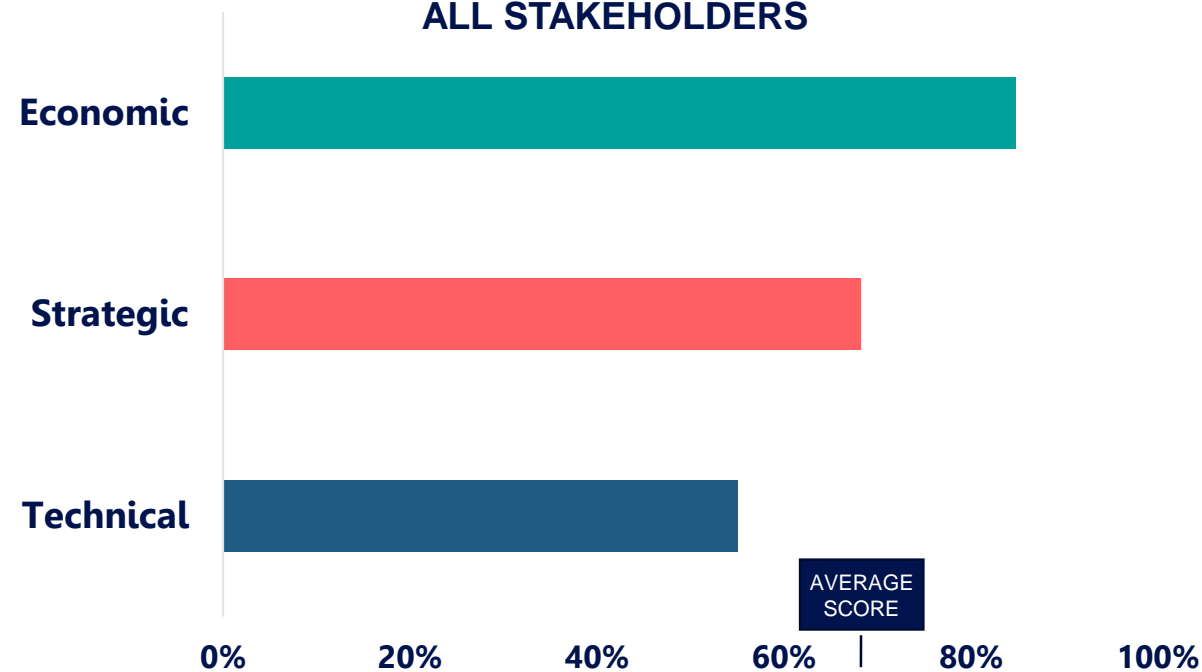


SUMMARY OF IMPACTS

All stakeholders report or anticipate **very strong economic benefits** from their participation to the missions. This is aligned with the objectives of the ARTES Partnership Projects and with the expectations from these stakeholders when joining the missions.

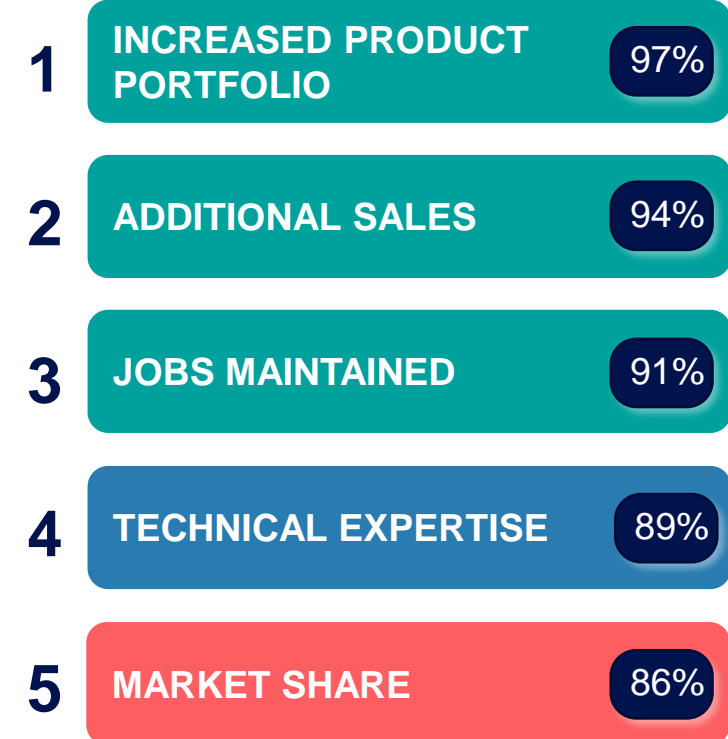
SUMMARY OF BENEFITS

ALL STAKEHOLDERS



Results given in % of maximum possible total score from participants to the consultation

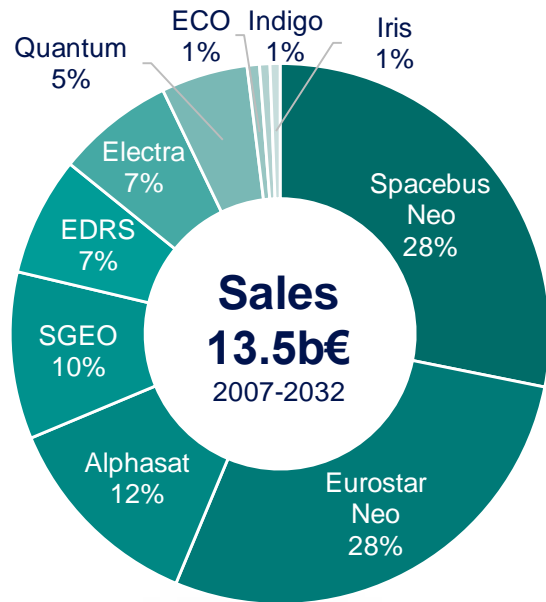
TOP BENEFIT INDICATORS



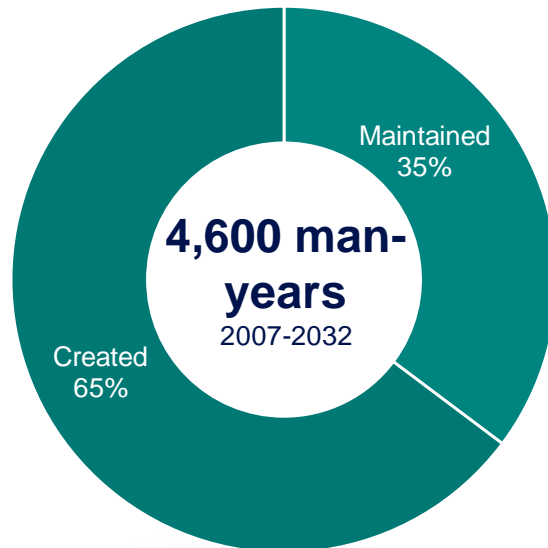


ECONOMIC IMPACTS

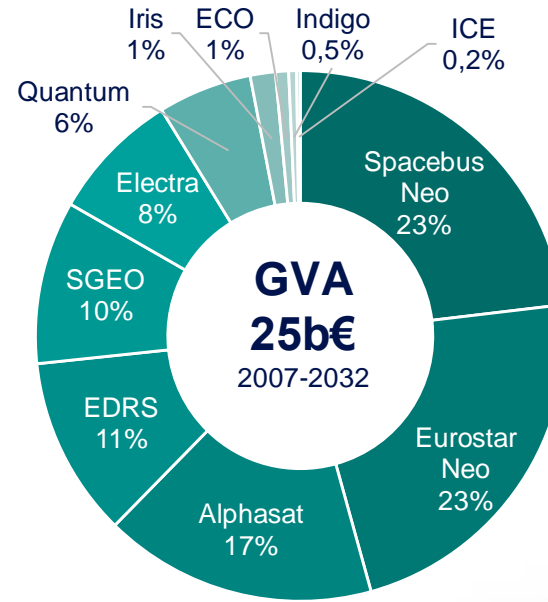
Economic impacts generated from a total investment from ESA, Member States' national programmes and key private partners of €4 billion in the selected eleven Partnership Projects*.



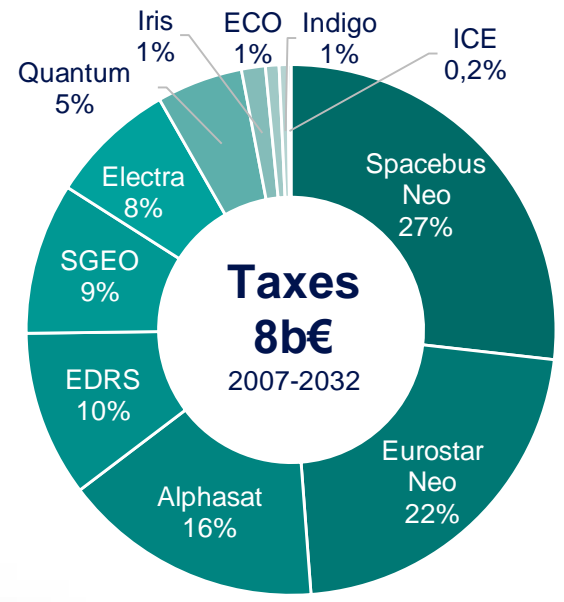
71% from Industry
29% from Operators



95% from Industry
5% from Operators



GVA and taxes are estimated from both the investment (public and private) and the estimated additional sales of the interviewed partners.



* Committed as of 2017, latest investment update available, in mixed e.c.



STRATEGIC IMPACTS

STRATEGIC BENEFITS GENERATED BY THE PARTNERSHIP PROJECTS



Results given in % of maximum possible total score from participants to the consultation

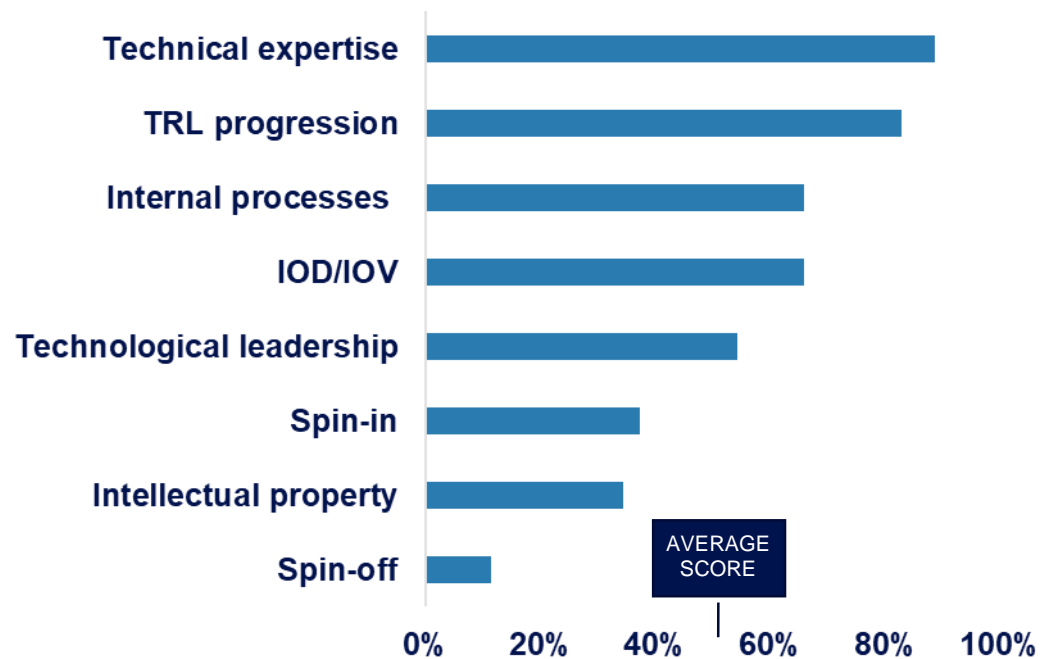
TOP 3 VIEW FROM THE STAKEHOLDERS

FOR PRIMES	FOR SUBCOS	FOR OPERATORS
COST COMPETITIVENESS	MARKET SHARE	NEW MARKETS
BRAND VISIBILITY	COST COMPETITIVENESS	BRAND VISIBILITY
MARKET SHARE	BRAND VISIBILITY	COST COMPETITIVENESS



TECHNOLOGICAL IMPACTS

TECHNOLOGICAL BENEFITS GENERATED BY THE PARTNERSHIP PROJECTS



Results given in % of maximum possible total score from participants to the consultation

TOP 3 VIEW FROM THE STAKEHOLDERS

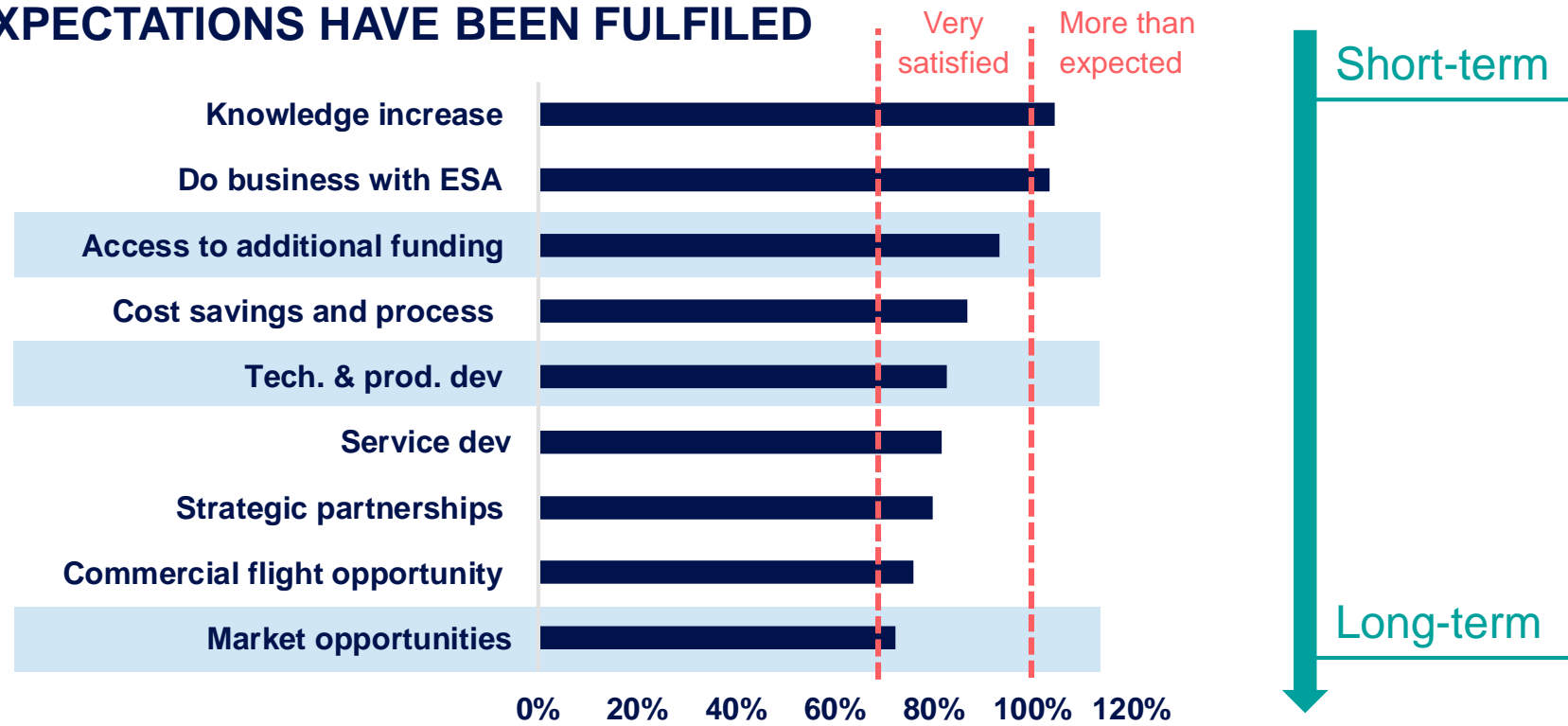
FOR PRIMES	FOR SUBCOS	FOR OPERATORS
TECHNICAL EXPERTISE	TECHNICAL EXPERTISE	TECHNICAL EXPERTISE
TRL PROGRESSION	TRL PROGRESSION	TRL PROGRESSION
INTERNAL PROCESSES	IOV / IOD	IOV / IOD



CONCLUSIONS // FULFILMENT OF EXPECTATIONS

- Partners' expectations have been largely fulfilled across ARTES Partnership Projects
- Scores on fulfilment reflects the lead time for benefit generation along a programme lifetime

HOW EXPECTATIONS HAVE BEEN FULFILED



Score of fulfilled criteria versus their initial importance. The top three expectations are highlighted with a blue shaded line.



CONCLUSIONS // TAKEAWAYS

- ARTES Partnership Projects have generated **strong economic benefits**. This is aligned with the rationale of the projects and with the expectations from stakeholders when joining the missions.
- Overall, stakeholders report **very high benefits on most critical economic, technologic and strategic factors**. Lowest impacts are reported on areas of lower importance.
- Partnership Projects enable **greater risk sharing** and positive trade-offs between technological development and commercial constraints of the mission.
- Stakeholders' key recommendations for better efficiency: ESA processes shall be **more agile** for a commercial-like environment, and participating stakeholders must **align their interests** at the start of the mission.
- The analysis by mission has shown that **benefit generation has improved over time** as ESA and its partners got more experience and were able to take into account lessons learned from one project to another.