



Advisory Council for Aeronautics Research in Europe

Vision 2020, ACARE, What did we achieve?

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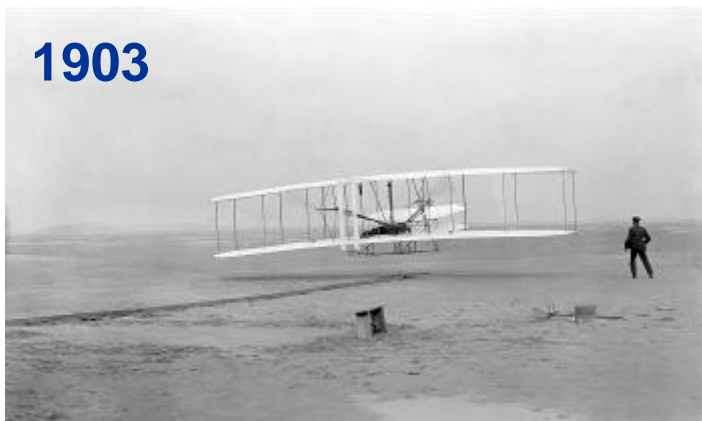


Outline

- ☐ Air Transport – transforming human experience
- ☐ Vision 2020 and the establishment of ACARE
- ☐ The Strategic Research Agenda for Air Transport
- ☐ Implementation of the SRA
- ☐ The Mission and achievements of ACARE
- ☐ AGAPE –ACARE Goals Progress Evaluation
- ☐ Handover to new vision

Air Transport: Transforming human experience

1903



Vision 2020

Report of Group of Personalities, January 2001

Create ACARE with authoritative senior figures to forge a consensus among stakeholders

*Identify the **Strategic Research Agenda** to meet top-level needs*



2 top-level objectives

- *Responding to the society's needs*
- *Securing global leadership to Europe*

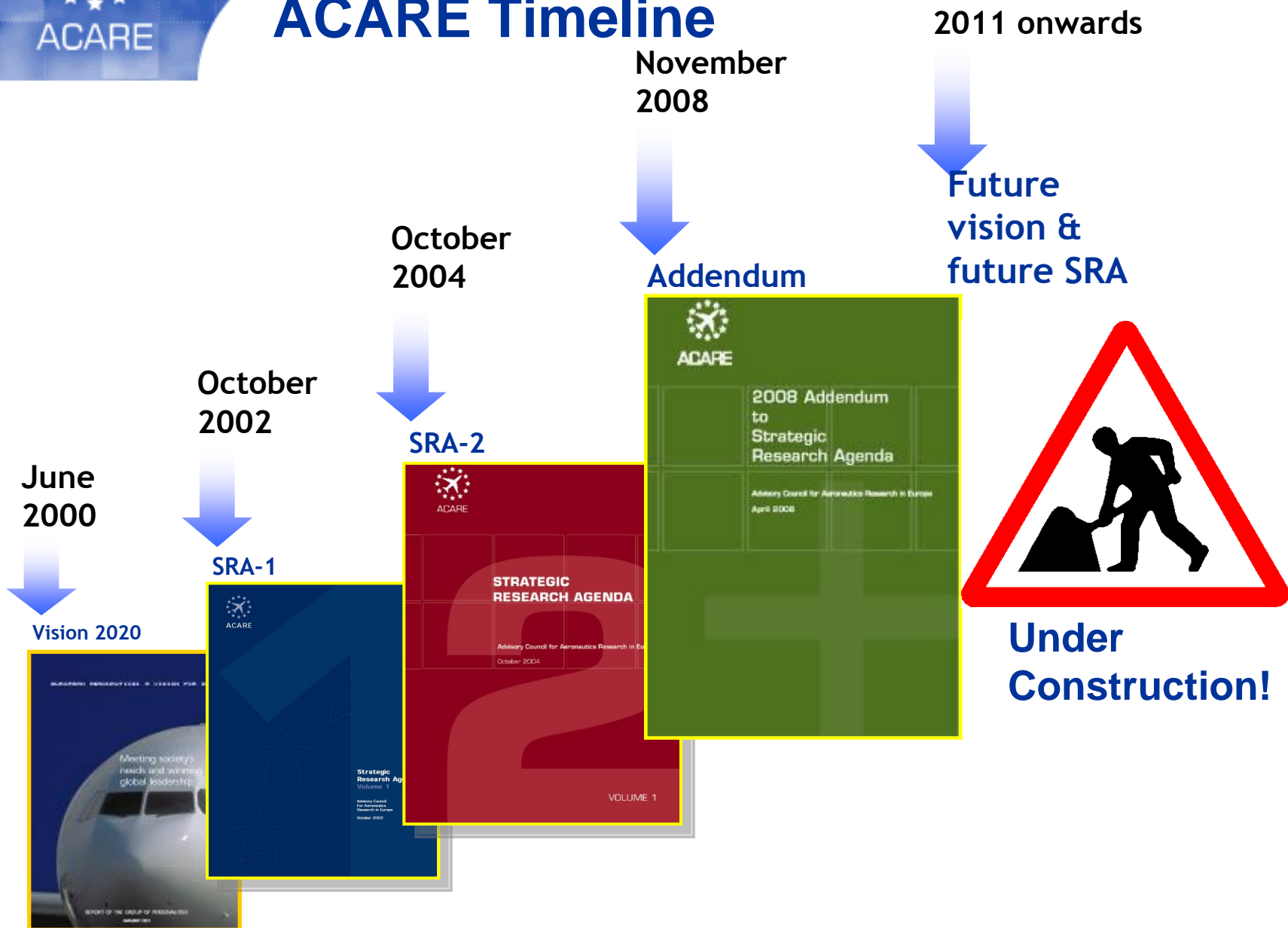
ACARE created in June 2001
Advisory Council for Aeronautics Research in Europe



The Mission of ACARE

- ☐ Establish a research network with senior authoritative figures
- ☐ Bring together all stakeholders from air transport business, Member States and the European Commission
- ☐ Define a Strategic Research Agenda (SRA) for Air Transport System
- ☐ Influence all stakeholders to plan research programmes in the light of SRA priorities
- ☐ Monitor the implementation of the SRA and achievement of 2020 vision
- ☐ Promote the educational priorities and standards needed for highly qualified and talented people are available to the industry and research community in general
- ☐ Act as an advisory body to the European Commission (EC), Member States and the aeronautical stakeholders for the definition of aeronautics research needs

ACARE Timeline



The Strategic Research Agenda



SRA1 - The ACARE Goals

Quality and Affordability

- Halve time to market
- Fall in travel charges
- Reduce CO2 by 50% (oil & taxes costs)

Environment

- Reduce perceived noise by half
- Reduce NOx by 80%
- Reduce CO2 by 50%

Security

- Zero successful hijack

Published
October
2002



Air transport System Efficiency

- On time arrival/departure 99% within 15 minutes
- Increase movements of aircraft x3

Safety

- Reduce accident rate by 80%

Implementation of the SRA

- ☐ Collaborative Research at European Level
 - Level 1 – Applied research projects
 - Level 2 – Technology demonstration/validation
- ☐ Clean Sky Joint Undertaking
- ☐ SESAR Joint Undertaking
- ☐ Collaborative Research in National Programmes
 - National strategies
 - Air transport ERA-NET AirTN
- ☐ and in privately funded programmes
- ☐ Studies to determine progress since 2001

The Achievements of ACARE



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Much achieved but still much to tackle

Without these efforts Europe will be at a competitive disadvantage compared to its competitors even more so as new countries are emerging

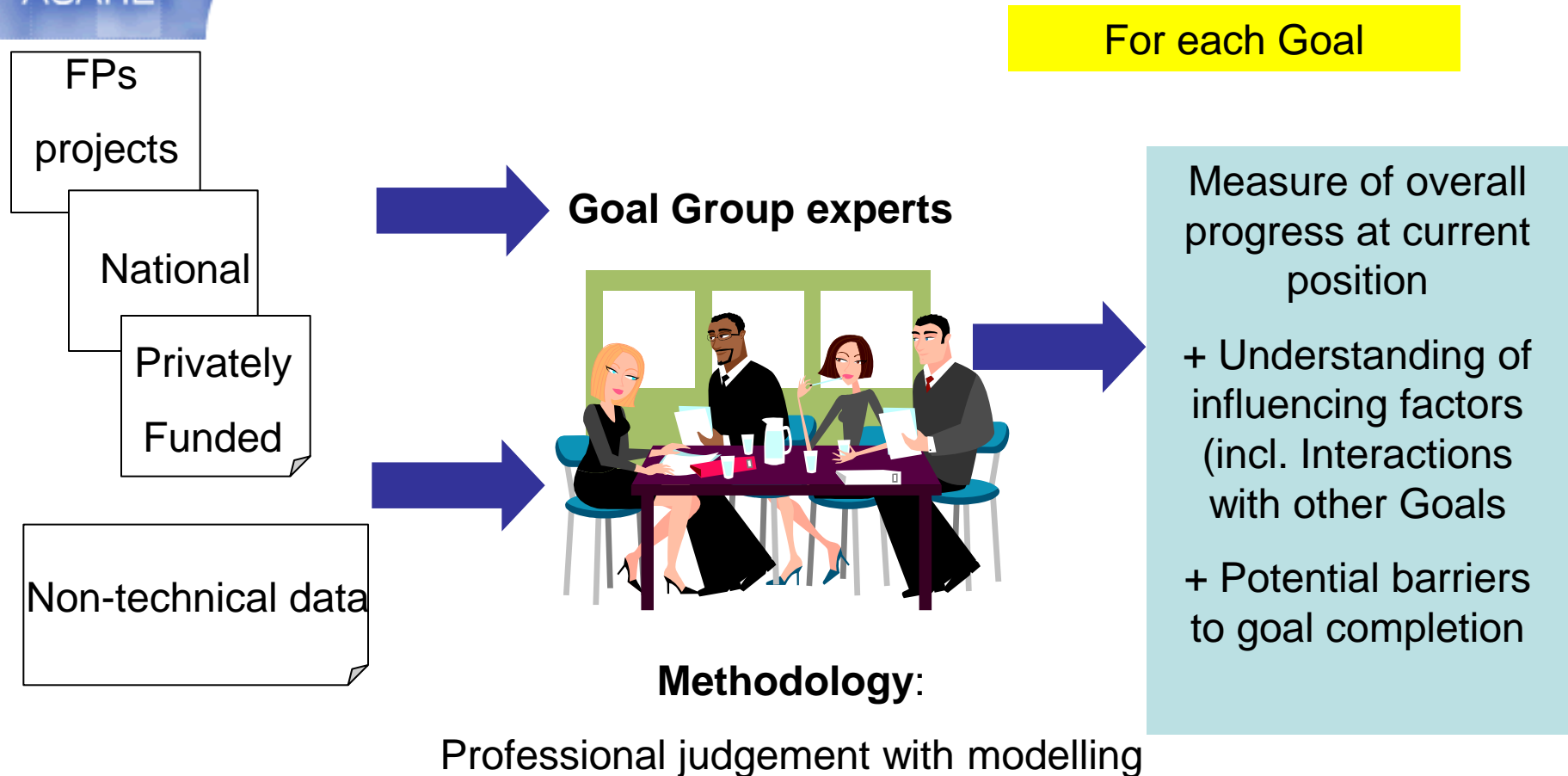


AGAPE

ACARE GoAls Progress Evaluation

- ☐ Provide ACARE with an evaluation of progress achieved in relation to VISION 2020 Goals
- ☐ Work performed by a panel of involved experts with one Group per Goal considering Framework Programmes, National Programmes, Privately funded Programmes
- ☐ Analysis based on professional judgment supported where possible by modelling to provide indicative measure (quantitative and/or qualitative) of overall progress (achieved and foreseen) based on technology availability
- ☐ 100% goal completion = technology available (TRL6) to achieve 100% of the Goal compared with baseline reference products and situations in 2000

Methodology

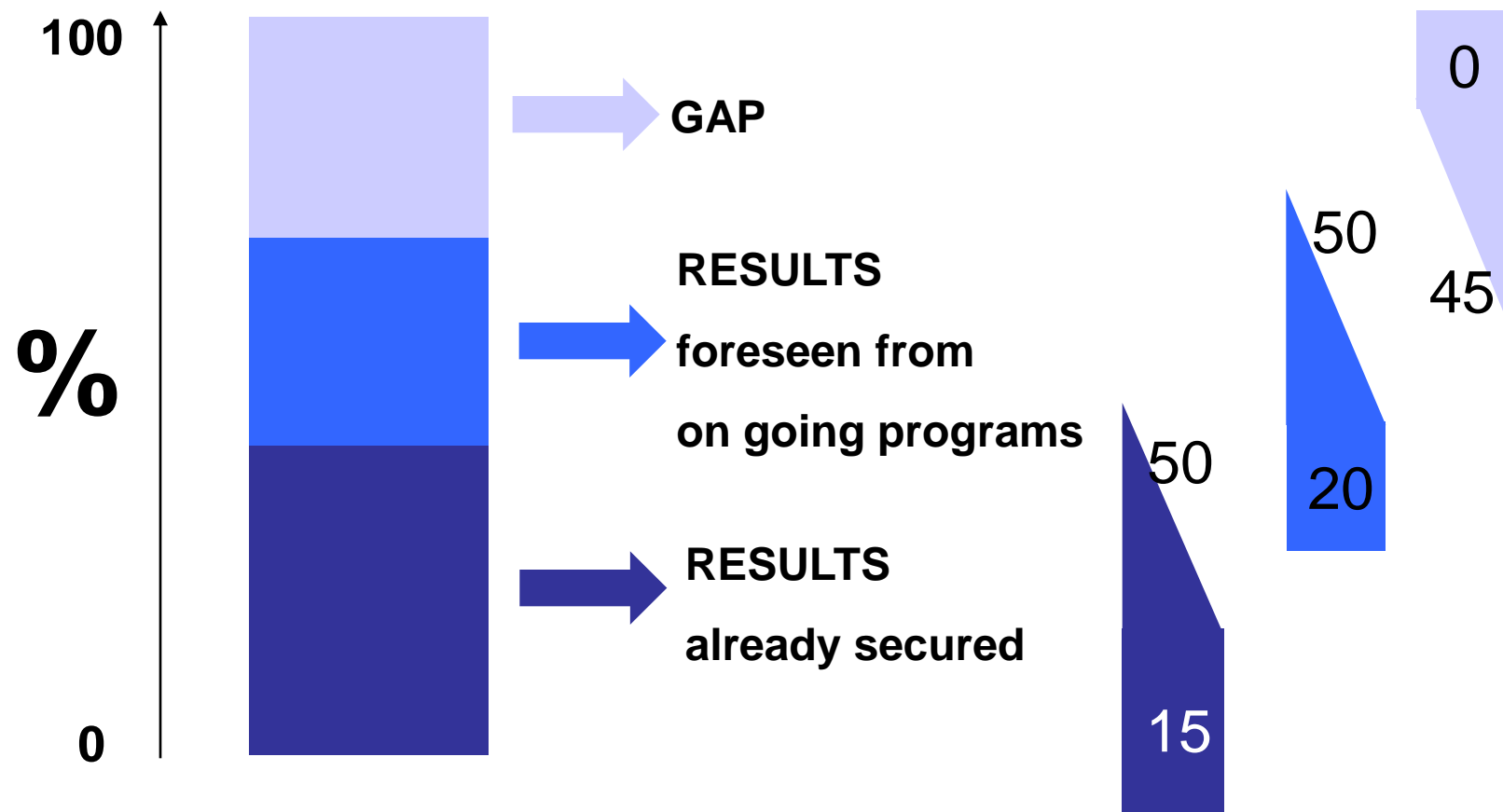


Confidential results
Commercial sensitivity of the data

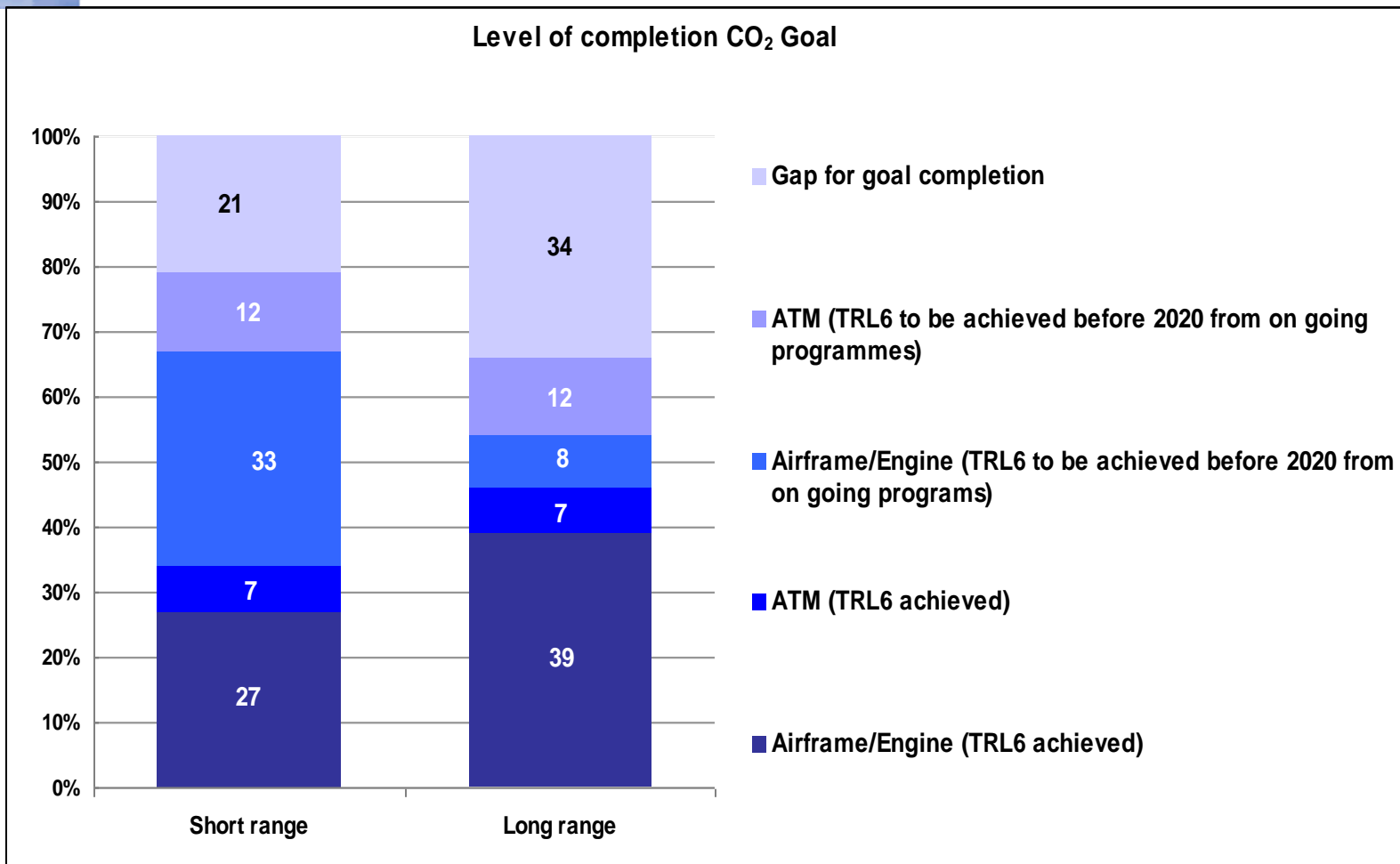
AGAPE Key Findings in a nutshell

- ❑ **ACARE has structured the research**
- ❑ **Research projects combined with non-technological advances are delivering substantial progress towards the Goals**
 - **FPs in conjunction with National and privately funded research have made a strong contribution to the overall progress**
- ❑ **The context is different for each Goal and so is the pace of progress. However based on the information available**
 - **Half way to the horizon 2020, across the range of goals, the level of achievements spreads from 15 to 50% depending on the goals (if 100% represents full completion for one goal)**
 - **Today, only one of the Goals is expected to be met by 2020**
 - **Gaps have been identified for each goal between achievement foreseen in 2020 and 100% Goal completion**
 - **The size of the gaps are between 0 and 45%**

Overview of progress



CO₂ as an example



Future Perspectives

New challenges have to be taken into account :

- Increased citizens expectations
- New societal needs
- New competitors
- Increase in Passenger travel

Looking beyond 2020 towards 2050, Aerospace will need to strongly innovate to keep its rank on the world playing field,

Need to respond to financial pressures and maintain high level of R&D expenditure in the sector.

Need to respond to environmental concerns on climate change and airport environment

Beyond Vision 2020 (Towards 2050)

ACARE has produced a
Background paper for
Aeronautics and Air
Transport

Input to European
Commission to influence
future thinking

Available on web through
ACARE website

New Vision to be published...



**Thank you for
your attention**

www.acare4europe.org