OVERVIEW

• Context and Background
• Aviation Today
• Future Challenges and Goals
• The 2050 Vision
• The Way Forward
• ACARE/ SRA process for 2020 and beyond
• Strategy for 2020-2050?
• Fine-tuning of goals and objectives for Research, Technology, Development and Innovation
• In line with radical changes in aviation since 2000
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AVIATION 2000-2011..

- Market more liberalised
- More focus on climate change
- Decreasing oil reserves
- Threats from terrorism (9/11)
- Natural events (volcanos, snow)
- Health hazards (Bird and Swine flus etc)
- Financial Crisis
- Emergence of the LCC’s
- Capacity crunch
- etc....
“Aviation brings people together, delivers goods, is safe, seamless, secure, cost effective, adding value through speed, reliability and resilience, in a global network, over any distance, without negative effects on the environment. Aviation also contributes to society in other critical, non-transport public service areas”
THE CHALLENGES

Fierce Industrial competition from both traditional and emerging challengers. To compete Europe has to:

• Address European passengers' expectations
• Enhance its industrial competitiveness globally
  – Increase levels of technological development, and speed to market
  – Accelerate the pace of policy development
  – Substantial and sustained investments in technologies
• Breakthrough technology is needed:
  – Energy
  – Management of complexity
  – Environmental performance
  – Automation
THE GOALS

GLOBAL LEADERSHIP

• The best products and services
• A competitive industry with strong research and a balanced regulatory framework
• Creating value
• Attracting the best people and talents

SERVING SOCIETY

• Affordable, sustainable, reliable and seamless connectivity
• Supporting EU integration
• Providing non-transport aerial applications
• Ensuring safety and security
• Jobs
THE 2050 VISION: CONTEXT

GLOBAL
- An interconnected, interoperable, global aviation system,
- Global regulatory system with market access, free, fair and open competition
- No airspace congestion or bottlenecks for the predicted 16 Billion passengers

EUROPE
- Aviation connects European regions
- an integral element of interconnected multimodal travel
- Number and quality of services increased
- recognized globally for the innovative concepts
2050 VISION: SCOPE

- European Air Transport
- Meeting society and market needs
- Maintaining industrial leadership
- Protecting the environment and the energy supply
- Ensuring safety and security
- Prioritizing research, testing capabilities and education
THE AIR TRANSPORT VISION

• Ground infrastructure will comprise: major hubs, secondary airports, vertiports and heliports connected to a multimodal framework

• Passenger and freight Infrastructure, services, operators, aircraft, airports, ground-handlers and the military are integrated into global interoperable multi-modal networks provided by a small number of organisations.

• Shared information platforms and new IT concepts facilitate planning and decision-making.

• Easy access to airports – seamless door-to-door services

• Airport design and processes and services are based on new, highly efficient, concepts with disruption resilient operations

• UAS’s will afford new aviation applications eg. public services, information infrastructure
THE PASSENGER VISION

The passenger experience is paramount!

- Informed choices
- 4 hrs door-to-door
- Flight ETA to 1 min
- Interconnected, and seamless
- ATM system working 25 million flights
THE VISION (CONT)

• Maintaining industrial leadership
  – Europe will have more than 40% of the global market share of aviation products and services
  – Europe will maintain leading edge design
  – Europe will have streamlined systems and processes, with decreased development costs

• Protecting the environment and the energy supply
  – Europe will have a 75% reduction in Co2/pax km, 90% reduction in NOx emissions, 65% reduction in noise
  – Aircraft movements are emissions-free when taxiing
  – Europe is a centre of excellence on sustainable alternative fuels
  – Europe is at the forefront of atmospheric research

• Ensuring safety and security
  – Air transport will have less than one accident per 10 million commercial aircraft flights
  – Weather and hazard risks are properly mitigated
  – Seamless security checks with minimum impact and intrusiveness
  – Aircraft are resilient to security threats, also with a secure data network.

• Prioritizing research, testing capabilities and education
  – Research and innovation strategies are coordinated
  – A collaborative network of multidisciplinary technology clusters is created
  – Strategic test, simulation and development facilities are identified
  – Students are attracted to careers in aviation
THE WAY FORWARD

• A research and innovation friendly environment for Europe
• Robust governance, funding and financing
• Appropriate mechanisms for making inter-modality a reality
• A new strategic roadmap (to guide future framework programmes)
THANK YOU