

FCT

Fundação para a Ciência e a Tecnologia
MINISTÉRIO DA EDUCAÇÃO E CIÊNCIA



HORIZONTE 2020

Oportunidades de financiamento para Aviação

Em 2015

João Romana

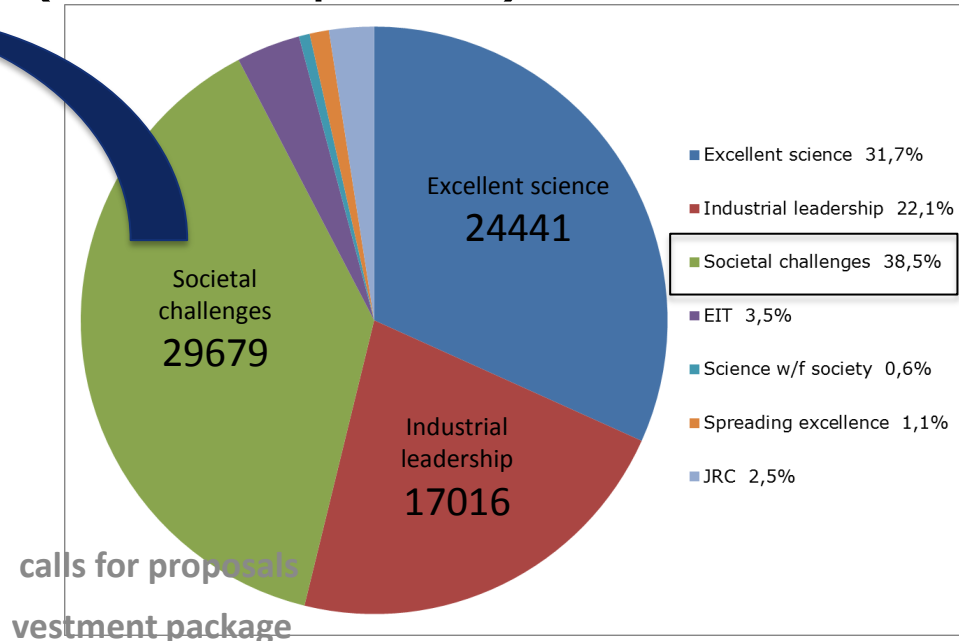
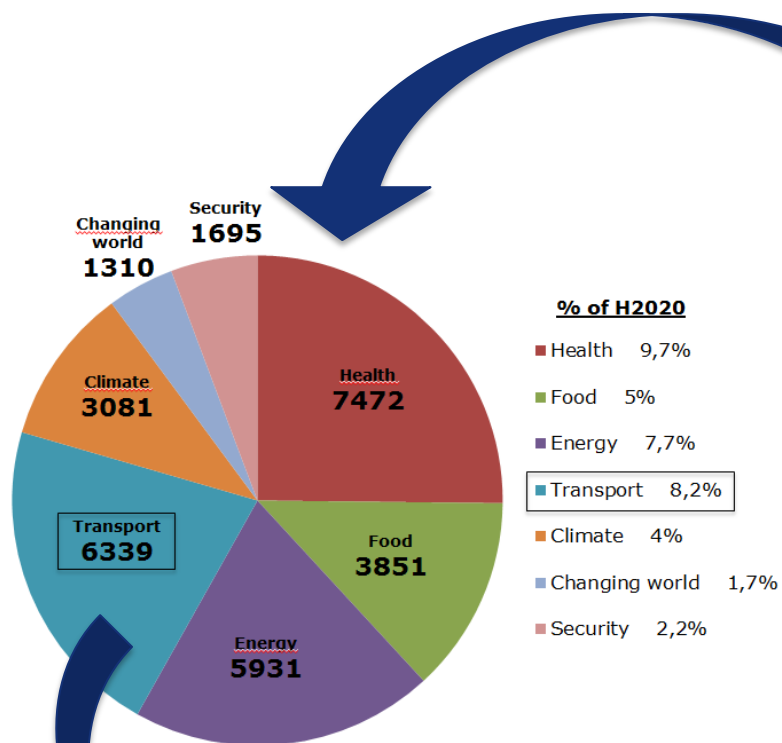
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GPPQ/FCT

NCP aeronáutica do Horizonte 2020

77028 Million € (current prices)



Clean Sky
SESAR
Hydrogen (contribution)
e2Rail



- Health, demographic change and wellbeing
- Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the Bioeconomy
- Secure, clean and efficient energy
- **Smart, green and integrated transport**
- Climate action, environment, resource efficiency and raw materials
- Inclusive, innovative and reflective societies
- Secure societies

- **The challenge: achieve a transport system that is...**
- Resource efficient
- Environmentally friendly
- Safe and seamless
- Beneficial for the citizens, the economy and society

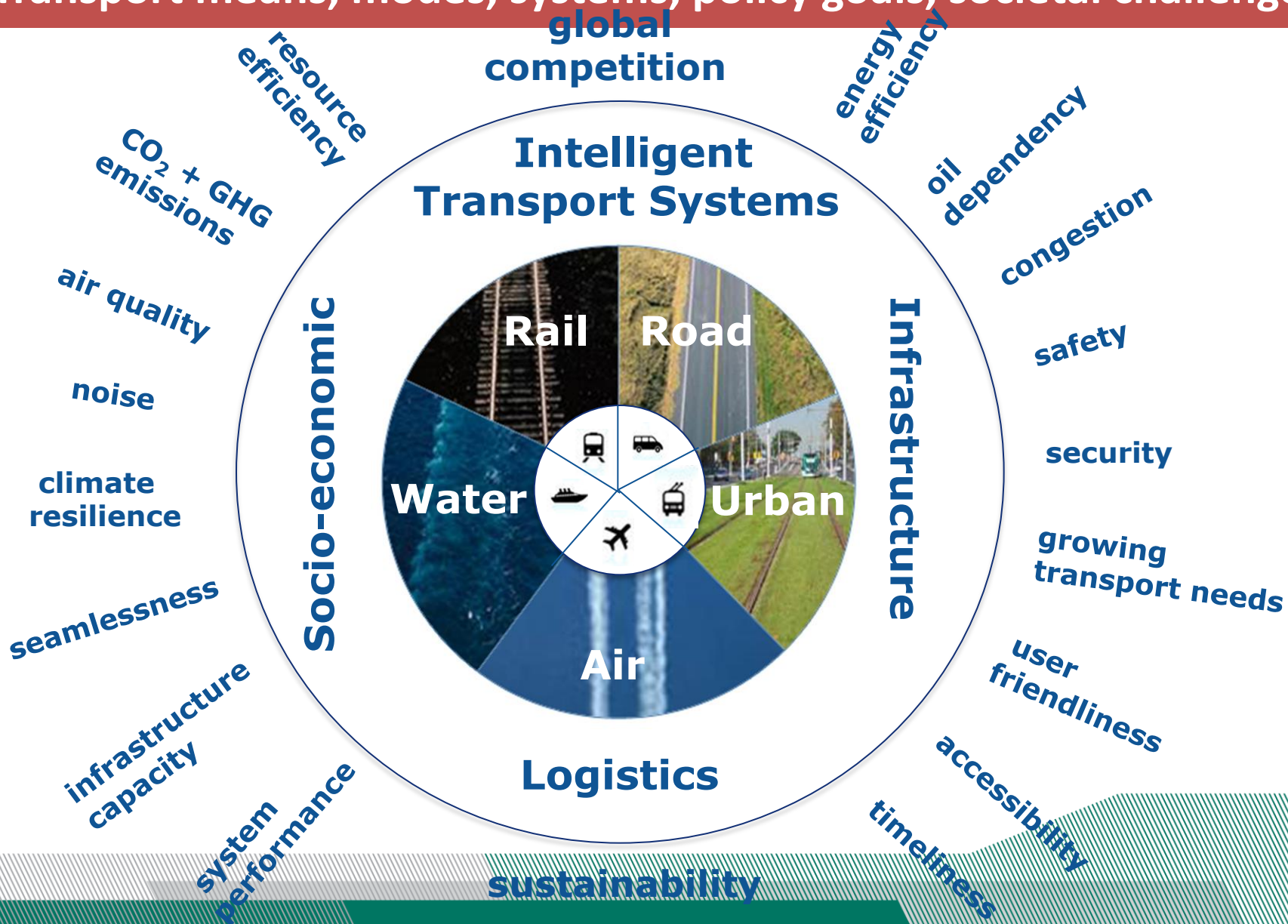


and promote globally competitive transport industries

The logic: a holistic approach which...

- Recognises modal specificities
- Responds to policy requirements
- Is focused on the societal challenges
- Reconciles competitiveness and sustainability

Transport means, modes, systems, policy goals, societal challenges



- **4 Grandes linhas de atividade**

Resource efficient transport that respects the environment

SUSTAINABLE



Better mobility, less congestion, more safety and security

SEEMLESS



Global leadership for the European transport industry

COMPETITIVE



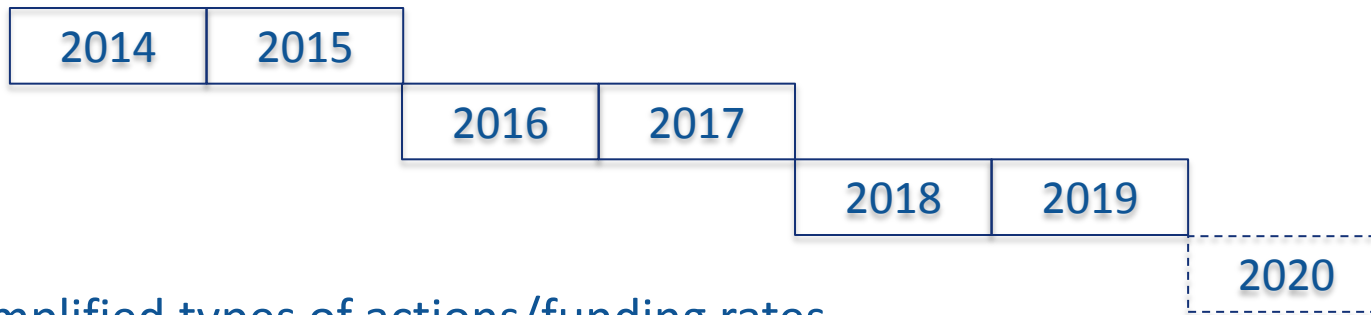
Socio-economic and behavioural research and forward-looking activities for policy-making

RESPONSIVE



Work Programme structure

- challenge-based approach: broad latitude for applicants to devise innovative solutions
- broader topics, less prescription, focus on impact
- biannual WP, annual calls (in most cases)



- simplified types of actions/funding rates
(research and innovation actions: 100%; innovation actions: 70%/100%;...)
- 2-stage evaluation for most topics

WP 2014-2015 Calls Transport

Calls (publication 11 December 2014)	Budget (€ Mio) 2014	Budget (€ Mio) 2015
Call 'Mobility for Growth'	374,5 (+2)	184 (+10)
1. Aviation	70 (+2)	36
2. Rail	52	-
3. Road	66	23 (+5)
4. Waterborne	56	18
5. Urban	40	66,5
6. Logistics	32	18
7. ITS	31	-
8. Infrastructure	19	17,5
9. Socio-economic and behavioural research	8,5	5 (+5)
Call 'Green Vehicles'	129	30
Call Small business and Fast Track	35,87	38,69
Contribution to Smart Cities, Blue Growth	33.5	25.5

Call 'Mobility for Growth'

AVIATION

108 M €



- Medium to long term research and innovation actions
- Bottom-up approach for innovative technologies not covered by Clean Sky and outside the scope of SESAR
- Maturation in the TRL range 1-6.



Call 'Mobility for Growth'

AVIATION TOPICS 2014

AVIATION TOPICS 2015



- *Competitiveness of European aviation through cost efficiency and innovation -MG1.1 - 2014 – 2 stages*
- **Enhancing resource efficiency of aviation – MG1.2 - 2015 – 2 stages**
- *Seamless and customer oriented air mobility – MG1.3 - 2014 – 2 stages*
- *Coordinated research and innovation actions for safety of European aviation - MG1.4 - 2014 – 1 stage*
- *Breakthrough innovation for European aviation – MG1.5 - 2014 – 2 stages*
- *Improving skills and knowledge base in European aviation – MG1.6 - 2014 – 1 stage*
- *Support to European aviation R&I policy – MG1.7 - 2014 – 1 stage*
- **International cooperation in aeronautics w/Japan – MG1.8 - 2015 – 1 stage**
- **International cooperation in aeronautics w/Canada– MG1.9 - 2015 – 1 stage**
- **International cooperation in aeronautics w/China – MG1.10 - 2015 – 1 stage**

MG 1.2 Enhancing resources efficiency of aviation 2015

- reduction of emissions and noise at the source
- new approaches to an environmentally friendly overall aircraft lifecycle
- greener ground operations, technologies and procedures



MG 1.2

- **2015**
- **RIA**
- **2 stage eval (1st = 23 April 2015)**
- **20 MEur**
- **Partial coverage possible**
- **Several proposals can be funded**

MG.1.8 International cooperation in aeronautics w/ Japan



- Set up platform of communication between EU and Japan
- Address areas of common interest
 - Future passenger-friendly cabin architecture and systems
 - Lighter integrated heat exchanger systems
 - Efficient composite structure manufacturing and monitoring
 - Smarter flight control technologies for enhanced safety

MG 1.8

- **2015**
- **RIA**
- **1 stage eval.**
- **16 MEur**

Evaluation of InCo projects

- Additional sub-criteria for Implementation:
 - Balanced effort between Europe and the corresponding third-country.
 - A comprehensive research plan properly involving coordinated research activities between Europe and the corresponding third-country, ensuring genuine cooperation and added value to the activities.

MG.1.9 International cooperation in aeronautics w/ Canada

- Reducing environmental impact / novel aircraft configurations
- Reducing noise / novel materials / engines / airframes
- Resource-efficient high-performance advanced-materials product development and manufacturing
- Reducing energy consumption / more electrical aircraft and systems integration



Evaluation of InCo projects

- Additional sub-criteria for Implementation:
 - Balanced effort between Europe and the corresponding third-country.
 - A comprehensive research plan properly involving coordinated research activities between Europe and the corresponding third-country, ensuring genuine cooperation and added value to the activities.

MG 1.9

- **2015**
- **RIA**
- **1 stage eval.**
- **16 MEur**

MG.1.10 International Cooperation w/ China

- Innovative methods / numerical technologies for airframe and engine noise reduction
- Development of bio-sourced composite materials and environment-friendly multifunctional composites and structures for aeronautics applications
- Flow control and advanced numerical tools for physical modelling of unsteady flows of aircraft and its components
- Enhanced additive manufacturing of metal components and resources efficient manufacturing processes for aerospace applications



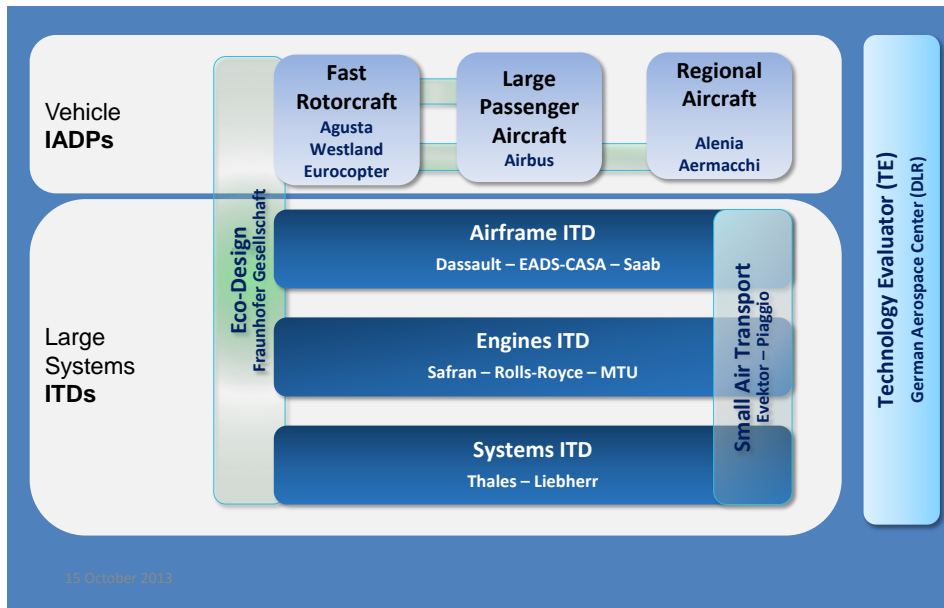
Evaluation of InCo projects

- **Additional sub-criteria for Implementation:**
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MG 1.10

- **2015**
- **RIA**
- **1 stage eval.**
- **16 MEur**

Clean Sky



*Clean Sky 2 is a long-term Programme effort – involving Technology Roadmaps, Gates, PDR/CDRs. The Programme Proposal sets out the current *best estimate* of a decade of technical content and architecture. It is a living Programme where dynamic allocation will be needed.*

Max. 40% of EU funding allocated up-front to Leaders

Min. 60% of EU funding open to competition:

- Potentially up to 1080m€ of EU funding in play, via open Calls
- Core Partners (Associates) becoming Members once selected
- Partners (as in CS) through Calls for Proposals (CfP)

Core Partners share of the Programme up to 30% of EU funding

- Potentially up to 540m€ of funding

Min. 30% of EU funding available for CfP (plus CfT) engagement

SME Instrument



- Small business innovation research for Transport
– IT1 – 2014-2015 – SME instrument
- Fast Track to Innovation – IT2 - 2015

Topics and evaluation

Single stage	<ul style="list-style-type: none">• MG 1.8• MG 1.9• MG 1.10 (RIA)
Two stage	<ul style="list-style-type: none">• MG 1.2 (RIA)

Two-stage evaluation

<p>Stage 1</p>	<ul style="list-style-type: none">• <u>proposal submission</u> max 15 pages; focus on content and results• <u>proposal evaluation</u> 2 criteria: excellence and impact outcome: 'GO' or 'NO GO'
<p>Stage 2</p>	<ul style="list-style-type: none">• <u>proposal submission</u> only stage 1 'GO' proposals admitted• <u>proposal evaluation</u> 3 criteria: excellence, impact, implementation

Two-stage evaluation

- **Publication of the call for proposals** **Month 0**
- Stage 1 proposal submission**
Proposals max 15 pages, focus on S&T content, intended results and impact + 2 additional pages to describe the consortium and the estimated resources (this info is not subject to evaluation) **Month 3**
- Evaluation stage 1 proposals** **Month 4**
Proposals evaluated remotely, two evaluation criteria: excellence and impact
Outcomes: "NO GO" and "GO" proposals
- Stage 2 proposal submission – "go" proposals only!** **Month 8**
Proposals retained in stage 1 invited to submit a complete proposal. Evaluation criteria: excellence, implementation and impact
- Evaluation Stage 2 proposals** **Month 9**
Remote evaluation with final panels in BXL. Information on the outcome to be made available max 5 months from call deadline
- Negotiations and signature of the GAs** **Month 12- 13**
Signature: max 3 months from the results of the evaluations

Evaluation of proposals

STANDARD AWARD CRITERIA

EXCELLENCE

IMPACT

QUALITY &
EFFICIENCY
OF THE ACTION

- ✓ **ERC** frontier Research actions >> only EXCELLENCE
- ✓ Innovation actions >> higher weighting for IMPACT

Calendar

- Opening of 2015 call **10 December 2014**
- Transport Info Day in Brussels **02 February 2015**
 - http://ec.europa.eu/research/transport/events/infoday2014/index_en.htm
- Submission deadline **23 April 2015**



Obrigado pela sua atenção!