Session I: Overview, Key Results and Student Academy

Impact assessment of aviation
Björn Nagel (DLR)

Project overview and vision
Prajwal Shiva Prakasha (DLR)

Toolbox: Practical guidance for complete cycle of holistic impact assessments of European aviation R&I
Michel van Eenige (NLR)

Demonstration use cases and key results: Assessing the impact of aviation at multiple levels
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Academy: An educational initiative to broaden the horizon of young talents
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Toolbox

Practical guidance for complete cycle of holistic impact assessments of European aviation R&I

Michel van Eenige (Royal NLR)

14th EASN International Conference | Thessaloniki | 9th October 2024

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Impact Monitor Toolbox

- Objective
- Approach
- Preliminary version
- Next steps

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Impact Monitor Toolbox Objective

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Impact Monitor Toolbox: Objective

Impact Monitor

- Deliver a coherent and holistic Toolbox and Framework that will be the reference choice technology and policy assessment of the environmental-, economic- and societal-impact of European aviation R&I

Impact Monitor Toolbox

- Provide systematic approach of complete cycle of performing holistic environmental-, economic- and societal-impact assessments of European aviation R&I

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Impact Monitor Toolbox Approach

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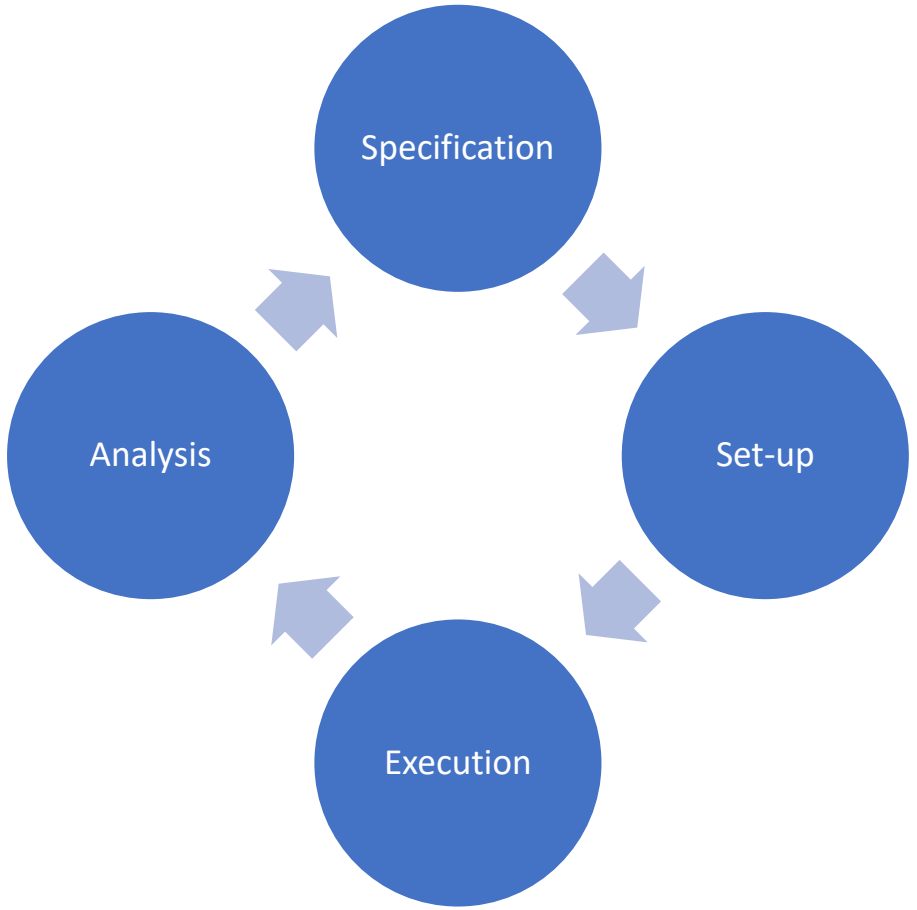
Impact Monitor Toolbox: Approach

TEAM Play

Clean Sky 2

Impact Monitor Toolbox: Approach

Impact Monitor assessment- and monitoring-process flow



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Impact Monitor Toolbox
Preliminary version

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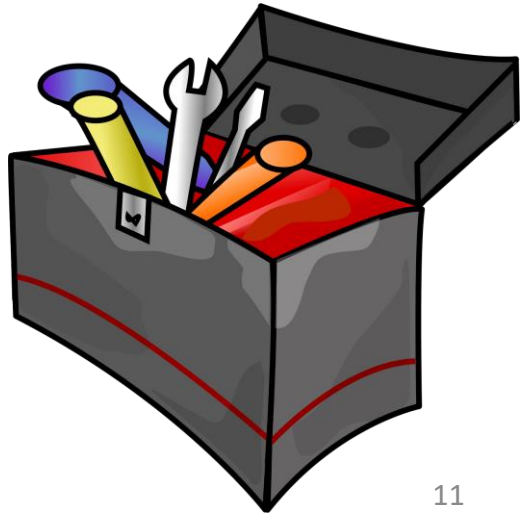
Impact Monitor Toolbox: Preliminary version

Impact Monitor Toolbox: Assessment-process flow, Basics and Organisation

- Tool #1: What is impact assessment
- Tool #2: What is impact monitoring
- Tool #3: Fundamental of impact assessment or monitoring
- Tool #4: Principles in impact assessment or monitoring
- Tool #5: Organisational bodies in impact assessment or monitoring



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Impact Monitor Toolbox: Preliminary version

Tool #3: Fundamental of impact assessment or monitoring

- Comparing impact between two scenarios
- Addressing one or more levels: Aircraft, Airport, and/or Air Transport System

- Use Case 2: Airport

  Compare impact of CDO with current operation

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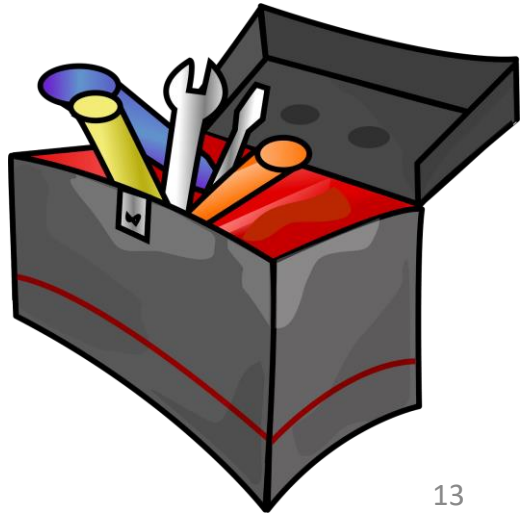
Impact Monitor Toolbox: Preliminary version

Impact Monitor Toolbox: Assessment – Specification

- Tool #6: Understanding impact-assessment request
- Tool #7: Specifying impact assessment
- Tool #8: Identifying stakeholders of impact assessment
- Tool #9: Identifying impacts for impact assessment
- Tool #10: Linking with SDGs in impact assessment
- Tool #11: Quantifying impact in impact assessment
- Tool #12: Proportionality to impact assessment
- Tool #13: Decision on conducting impact assessment
- Tool #14: Evidence mapping for impact assessment



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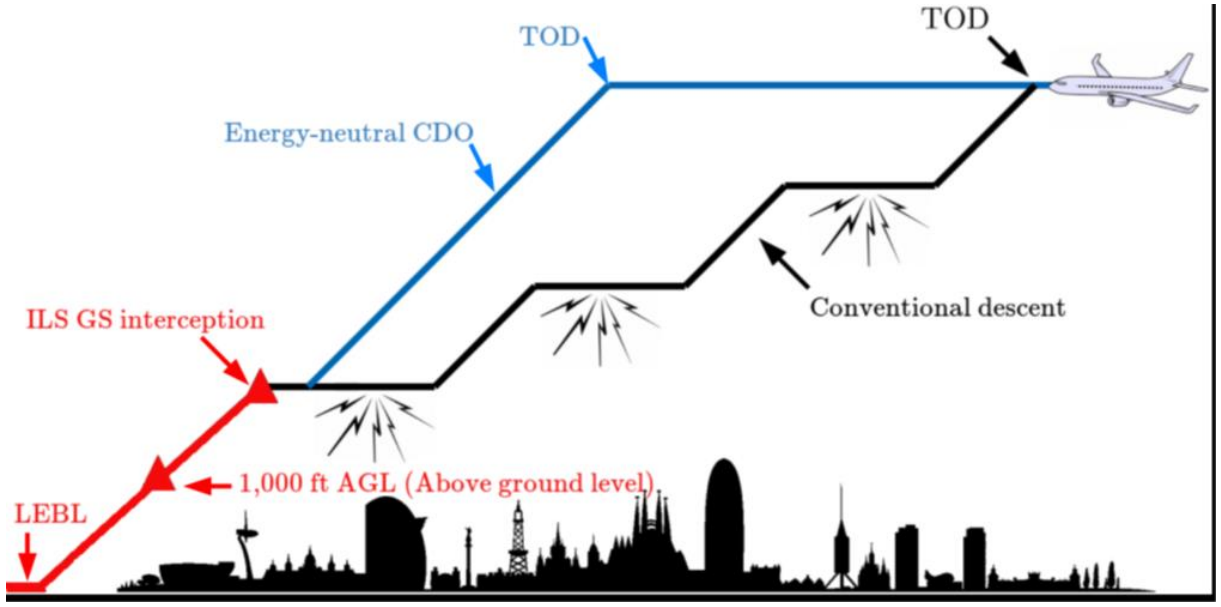
Impact Monitor Toolbox: Preliminary version

- Tool #9: Identifying impacts for impact assessment
- Tool #11: Quantifying impact in impact assessment

- Use Case 2: Compare impact of CDO
  - Capacity
  - Noise and population impacted
  - Emissions
  - Third-party risk
  - Social cost-benefit



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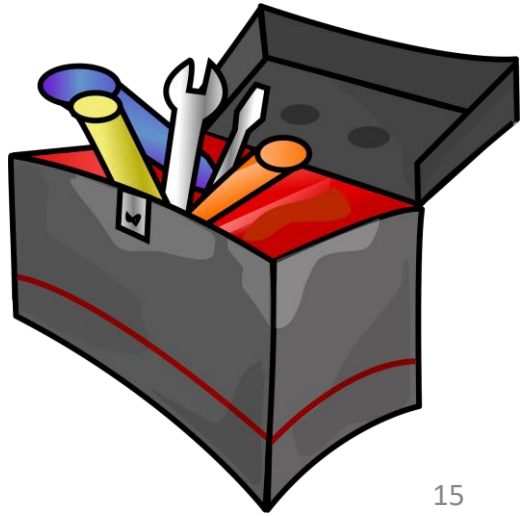
Impact Monitor Toolbox: Preliminary version

Impact Monitor Toolbox: Assessment – Set-up

- Tool #15: Planning impact assessment
- Tool #16: Specifying methods for impact assessment
- Tool #17: Specifying Baseline Scenario
- Tool #18: Specifying Reference Scenario
- Tool #19: Specifying R&I Scenario



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Impact Monitor Toolbox: Preliminary version

- Tool #17: Specifying Baseline Scenario
- Tool #18: Specifying Reference Scenario
- Tool #19: Specifying R&I Scenario

- Use Case 2: Compare impact of CDO
  - Baseline: 2019
  - Reference: 2050 without CDO
  - R&I: 2050 with CDO

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Impact Monitor Toolbox: Preliminary version

Impact Monitor Toolbox: Assessment – Execution

- Tool #20: Modelling for impact assessment
- Tool #21: Collecting data for impact assessment
- Tool #22: Applying Framework for impact assessment

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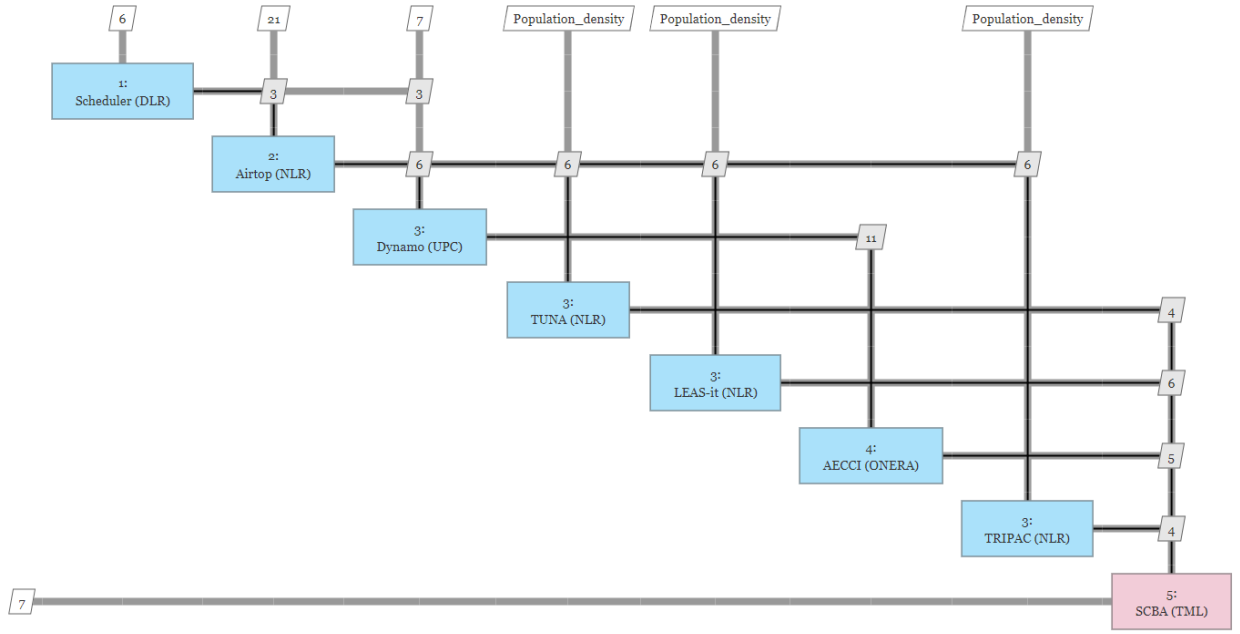
Impact Monitor Toolbox: Preliminary version

- Tool #22: Applying Framework for impact assessment

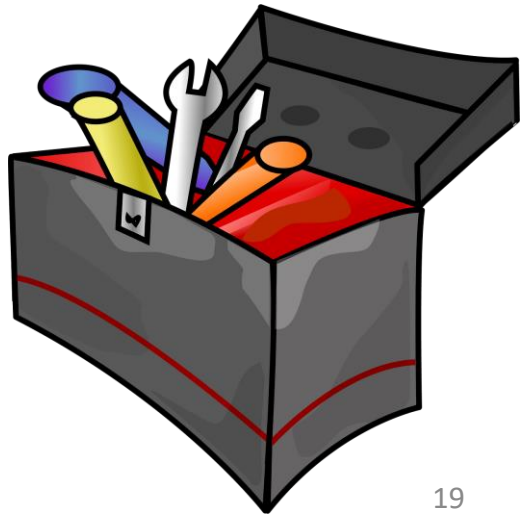
- Use Case 2: Compare impact of CDO
  - Impact Monitor Framework



Impact Monitor Toolbox: Preliminary version

Impact Monitor Toolbox: Assessment – Analysis

- Tool #23: Analysing evidence for impact assessment
- Tool #24: Interpreting evidence for impact assessment
- Tool #25: Presenting evidence for impact assessment
- Tool #26: Format of impact assessment report



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Impact Monitor Toolbox: Preliminary version

- Tool #26: Format of impact assessment report

Impact Monitor Toolbox
Next steps

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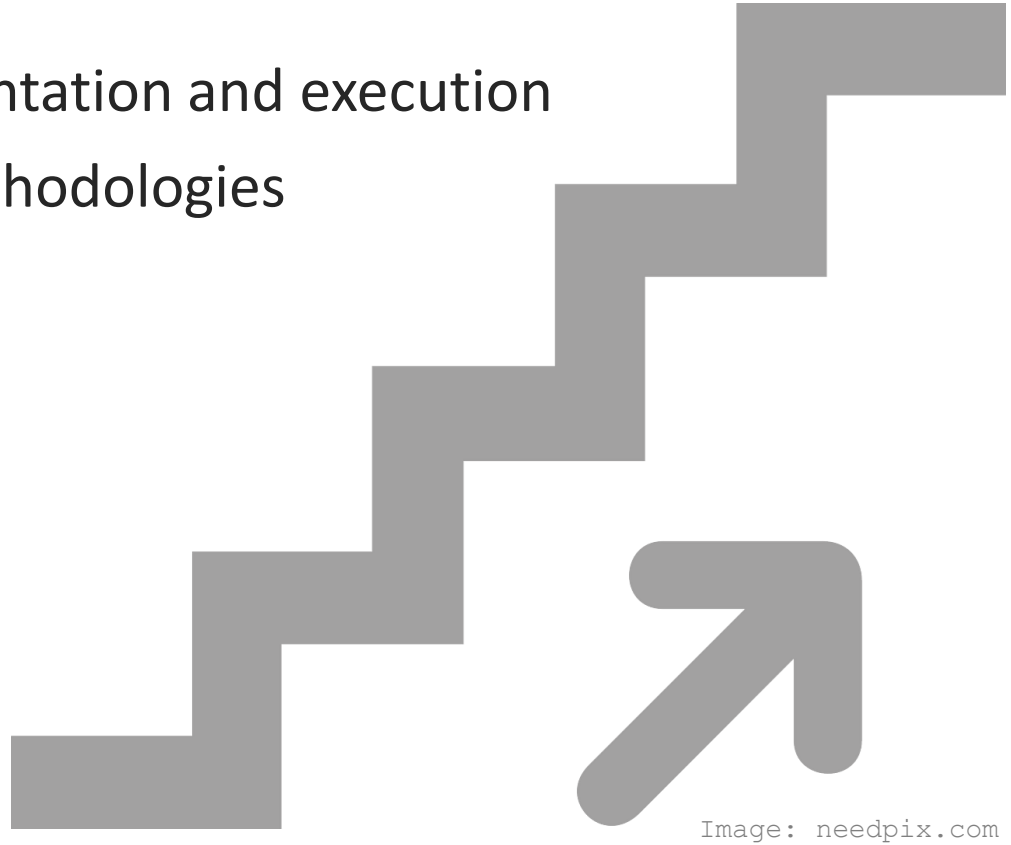
Impact Monitor Toolbox: Next steps

Update and finetune preliminary version Toolbox

- Outcomes interfaces with R&I initiatives
- Experiences Use Case specification, implementation and execution
- Other impact-assessment or -monitoring methodologies



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Thank you!

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