MechaTwing

TWINNING FOR EXCELLENCE IN MORPHING AND AERO-MECHATRONIC WING CONTROL: A LEAP TOWARDS ECO-SMART AVIATION (101159722)

CZ-SK WEBINÁŘ K VÝZVĚ TWINNING 2026

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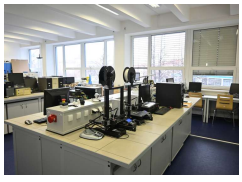
CZECH TECHNICAL UNIVERSITY IN PRAGUE

- 1707 founded
- 1864 mechanical engineering education



Czech Technical University in Prague

Faculty of Civil Engineering	Faculty of Electrical Engineering	Faculty of Nuclear&Physical Engineering	Faculty of Biomedical Engineering
Faculty of Mechanical Engineering	Faculty of Architecture	Faculty of Transportation Sciences	Faculty of Information Technology

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AGENDA

- The MechaTwing journey
- Finding Partners
- Steps taken to improve the application and examples of assessors's comments
- Lessons learned
- MechaTwing implementation phase and final tips

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PROJECT OVERVIEW

Total project cost 1 489 280.47 €
Start date: 1 September 2024
End date: 31 August 2027
Form of funding: Lump Sum
Prefinancing (M1): 1 191 424.38 €
Reporting: M17 (progress report), M36 (final report)

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WPs OVERVIEW AND INTERCONNECTION

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The MechaTwing journey…..

Submission in 2022 – unsuccessful
Submission in 2023 – successful

Finding Partners (2022):
Previous cooperation – DLR (Germany) Institute of Aeroelasticity
No previous cooperation – PoliTo (Italy) Department of Mechanical and Aerospace Engineering

Approach:
Known from previous cooperation: email directly to known Researchers, easier as relationship already established
Unknown – new contact: found them via PoliTo web research profiles, then email to Group leaders, online meeting

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The MechaTwing journey…..

Forming Consortium for resubmission in 2023:
Three key points to success:

- ✓ Expanding Consortium – added , TU Wien (Austria) - Institute of Mechanics and Mechatronics
- ✓ Involving CzechInvest as Associated Partner
- ✓ For DLR and PoliTo – building on the relationship from 2022 submission, through regular online meetings
- ✓ Meeting in person colleagues from PoliTo – researchers and RMAs

How:
EARMA conference 2022 in Oslo – approached PoliTo RIMIN Manager of the Collaborative and multi-disciplinary research unit, then Mobility internship @ PoliTo RIMIN in March 2023, joined by Profs from CVUT FME to meet Researchers at DIMEAS

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The MechaTwing journey…..

FORMING CONSORTIUM

LESSONS LEARNED:

- ✓ **Do not underestimate the time needed to build the trust and communicate expectations**
- ✓ **If no previous cooperation at the group-to-group level, focus on describing previous collaboration at higher institutional level (e.g. Faculty-to-faculty)**
- ✓ **If possible, get to know your new Partners face-to-face prior to starting writing your proposal**
- ✓ **Think strategically about your Consortium, long-term perspective beyond the project, sustainable growth**

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Steps taken to improve the application….

Proposal evaluation scores 2022 and 2023:

Acronym and year of submission:	MechaTwing 2022	MechaTwing 2023
Total score:	**12** (threshold 10)	**14,5** (threshold 10)
Criterion 1 - Excellence	Score: **4.50** (Threshold: 3/5.00)	Score: **4.50** (Threshold: 3 / 5.00)
Criterion 2 - Impact	Score: **4.00** (Threshold: 3/5.00)	Score: **5.00** (Threshold: 3 / 5.00)
Criterion 3 - Quality and efficiency of the implementation:	Score: **3.50** (Threshold: 3/5.00)	Score: **5.00** (Threshold: 3 / 5.00)

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Proposal evaluation comments 2022 and 2023:

2022	2023
Criterion 1 – Excellence (Score: **4.50**/5.00) + **strong clarity of objectives**, solid methodology, and **well-justified capacity-building measures**, especially for the widening partner. - key areas for improvement include **clearer articulation of the added value of twinning for research advancement, full quantification of KPIs, and more robust and detailed open science and data reuse strategies.**	**Criterion 1 – Excellence** (Score: **4.50**/5.00) + **excellent clarity and relevance of objectives**; **strong strategic vision and policy alignment;** high-quality methodology and Open Science integration; **credible collaboration** with leading institutions - **minor and non-critical weaknesses** that do not significantly affect its credibility or expected impact

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Proposal evaluation comments 2022 and 2023:

2022	2023
Criterion 2 – Impact (Score: **4.00**/5.00) + the proposal is **strong in ambition, alignment, and strategic intent** - would benefit from **greater specificity, clearer quantification, and deeper elaboration** in several key areas, particularly regarding KPIs, **impacts**, stakeholder **engagement**, and **IP management**	**Criterion 2 – Impact** (Score: **5.00**/5.00) + very strong and credible **impact potential**, multi-level pathways; **strong capacity-building** and reputational benefits for the coordinator; excellent **communication and exploitation** strategy; **sound risk mitigation** and **IPR management** **- minor weaknesses, l**imited justification for some quantified impact estimates

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Proposal evaluation comments 2022 and 2023:

2022	2023
Criterion 3 - Quality and efficiency of the implementation (Score: **3.50**/5.00) + **solid structure, credible planning, and a competent consortium**, with strong alignment to programme goals - **sequencing of activities, insufficient detail in management and governance, unclear justification of resource allocation, and gaps in risk mitigation, infrastructure access, and dissemination planning**	**Criterion 3 - Quality and efficiency of the implementation (**Score: **5.00**/5.00) + **excellent and coherent work plan** with strong alignment to objectives; **comprehensive and credible risk management**; **well-justified and appropriate resource allocation**; highly complementary, balanced, and capable consortium; strong industrial engagement and **exploitation readiness** - no significant weaknesses identified

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Steps taken to improve the application….

WRITING YOUR PROPOSAL - LESSONS LEARNED:

- ✓ **Twinning objectives alignment:** clearly describe how the project will strengthen scientific excellence, capacity, and networking of your institution, not just deliver research results. Always cross-check with the objectives and goals of the Work Programme document.
- ✓ **Complementary consortium:** engage leading partners with proven excellence and clearly differentiated roles that demonstrate real knowledge transfer, engage industry/ end user. Previous collaboration and meeting them in person (if new) is an advantage.
- ✓ **Focus on twinning impact (not research alone):** critical is the long-term institutional change, skills development, and sustainability beyond the project lifetime.
- ✓ **Design high-quality, realistic and achievable activities:** ensure twinning actions (internships, trainings, workshops) are well-structured, feasible, and directly linked to capacity building goals/ KPIs/ budget/ dissemination and communication.
- ✓ **Demonstrate strong management and commitment:** present clear governance, thorough risk management and mitigation strategy, and strong institutional support from all partners. Budget split and justification should be realistic and sound.
- ✓ **Write clearly and evaluators-oriented:** use concise, jargon-free language, address each evaluation criterion explicitly. Structure the document in a way to make it easy for evaluators to see excellence, impact, and implementation quality.

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MechaTwing implementation….

- Project stage - currently in Month 17 (out of 36)
- Activities progressing well – need to have a good project management in place (highly task-intensive and complex coordination between various stakeholders at different levels)
- Must have top-management support – engagement of researchers and RMA's (different needs) and their intensive collaboration activities, organisational change, must think ahead and what will be beyond (securing further funding and growing the network) + achieving KPIs
- Limited time for implementation – only three years

Final tips:

- **Think about the unexpected (e.g. Security measures)**
- **Consider the shared project management tool (platform) early on and consult with partners (various countries = different rules and practice)**
- **Enjoy the ride, twinning is a great way to build your RMA contacts and explore new horizons!**

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FACULTY OF MECHANICAL ENGINEERING CTU IN PRAGUE

Deutsches Zentrum für Luft- und Raumfahrt DLR

Politecnico di Torino

TECHNISCHE UNIVERSITÄT WIEN Vienna University of Technology

CZECHINVEST

Thank you and all the best with your application!

Questions?

TWING MECHA

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