Proposal Preparation: Lessons Learned from the AIDA4Edge and PEMS-ML Projects

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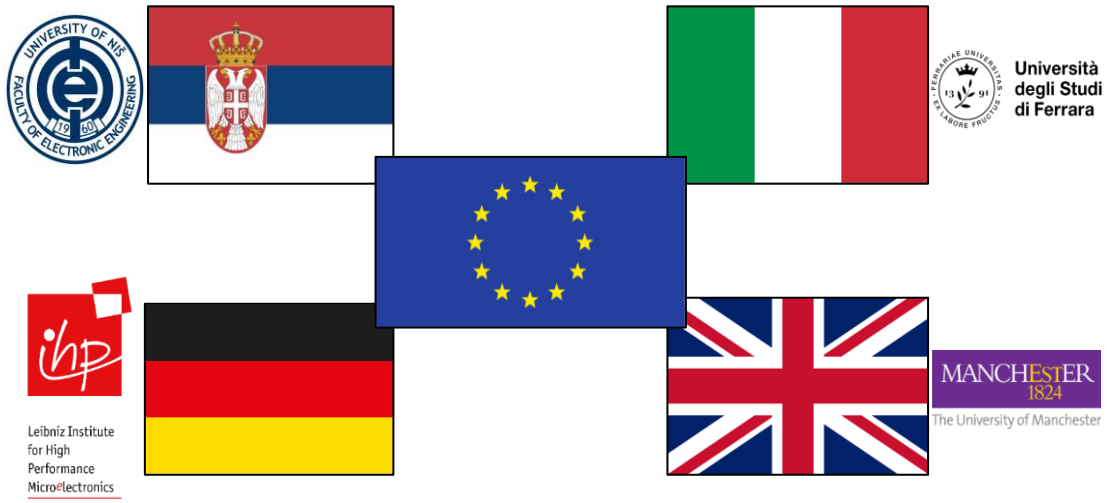
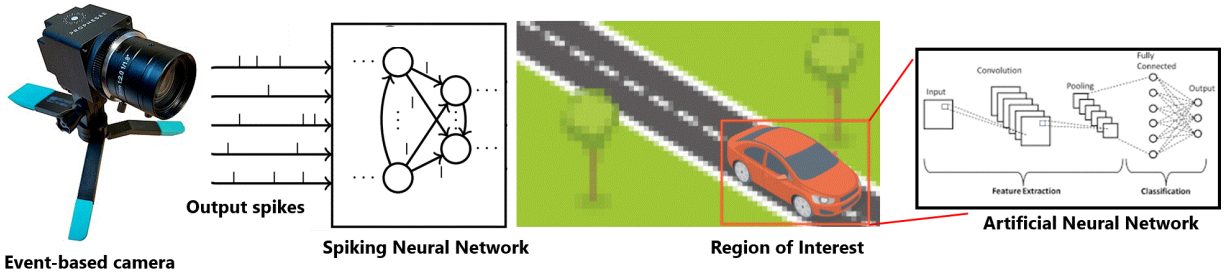
AIDA4Edge Horizon Twinning Project

AIDA4Edge

Project title: Twinning for Excellence in Adaptive Edge AI
Time period: 1 October 2024 - 30 September 2027

- **To develop low-complexity AI models suitable for deployment on edge devices with limited memory, processing power and energy.**
  - Efficient quantization
  - Hardware-aware Neural architecture search
  - Spiking neural networks
  - Hybrid ANN+SNN models
  - Efficient and reliable self-adaptive AI accelerators





PEMS-ML Erasmus+ Project

Personalized Education in Measurement Science and Technology Empowered by Machine Learning

The PEMS-ML project aims to revolutionize the area of Measurement Science and Technology (MST) education by integrating cutting-edge ML techniques. It stands on three foundational pillars:

Pillar 1: Personalized Learning Paradigm Integration PEMS-ML is motivated by a transformative shift to personalized learning within the Education 5.0 framework. Focused on individual needs, our project utilizes advanced ML algorithms to optimize course structures, enhancing the educational experience for both students and educators.

Pillar 2: Development of a Modern Course Disruptive technologies such as IoT, IIoT, Digital Twins, and Advanced sensor technologies have transformed MST. These innovations are now main data source to AI algorithms, playing a crucial role in autonomous systems, robotics, Industry 5.0, and applications spanning agriculture, medicine, and ecology. However, a gap exists between scientific trends and the industry needs on one side and the content of university courses on the other, emphasizing the need for a paradigm shift in MST education.

Pillar 3: Advancement of Teaching Methodologies and Educational Resources Recognizing the limitations of traditional teaching our approach integrates flipped classrooms, collaborative learning, and game-based methods, enhanced by ML driven personalized learning. PEMS-ML will provide modern resources, including video lectures, presentations, games, and interactive materials, catering to diverse learning styles for an enriched educational experience. ML-driven personalized learning will revolutionize education.

PEMS-ML

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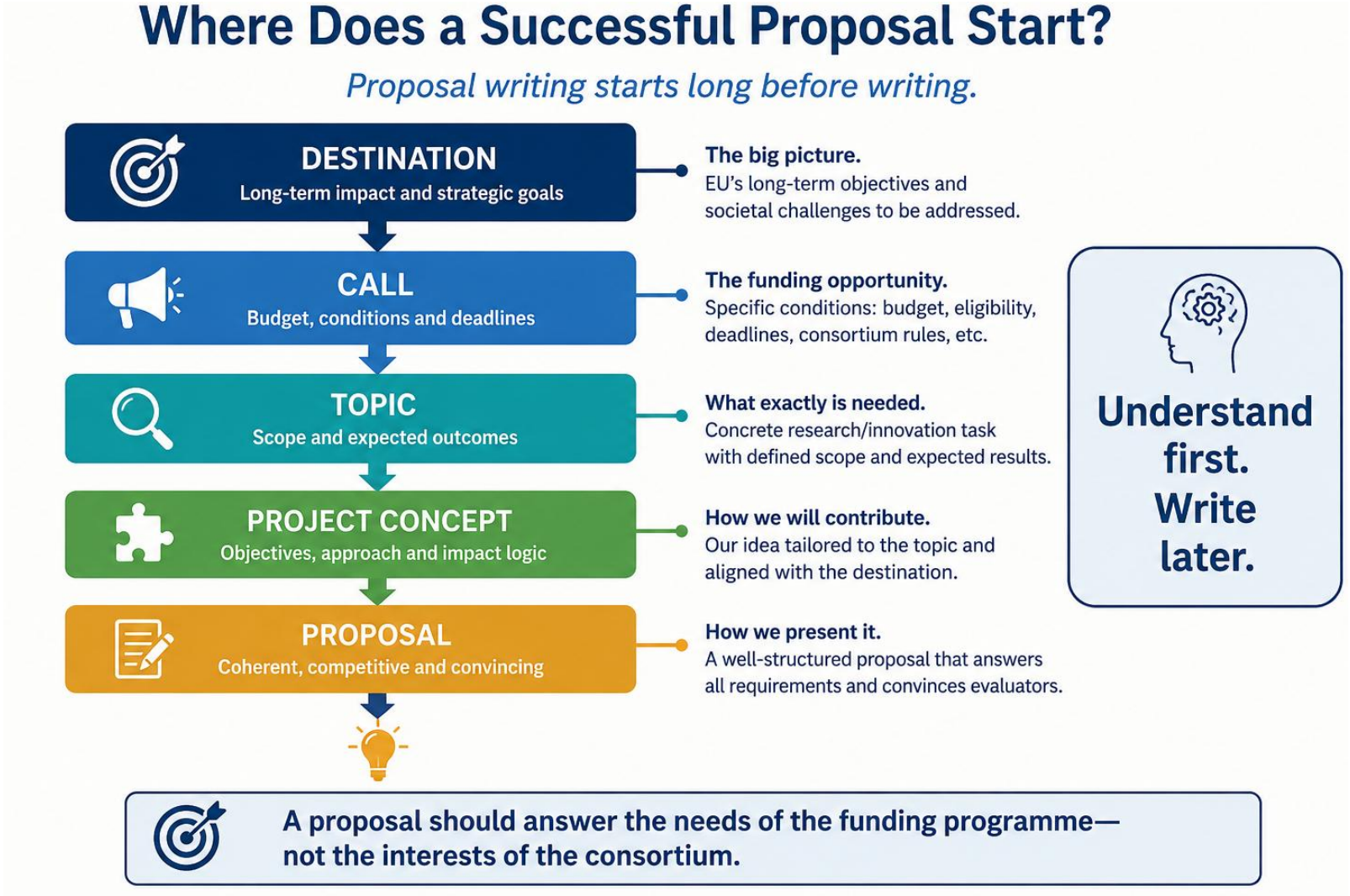
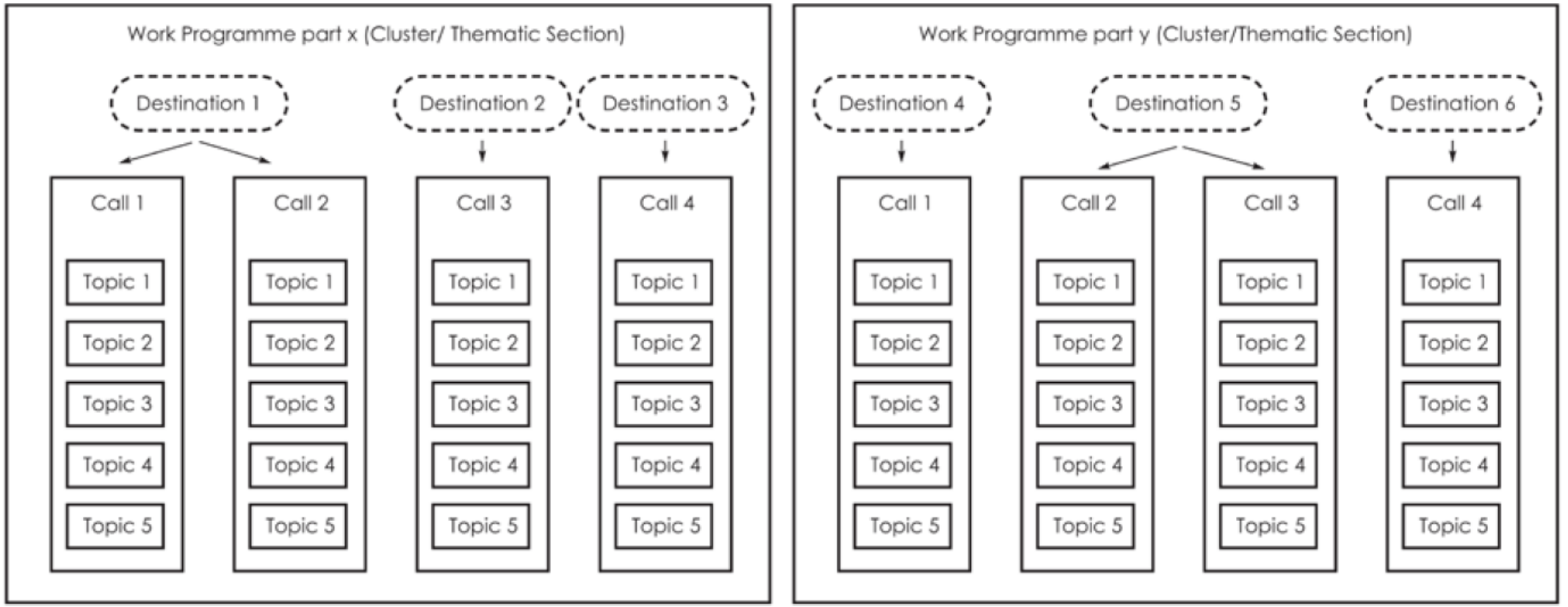
The Hard Truth About Proposal Writing

- Being a partner is a privilege; being a coordinator is a high-stress, full-time responsibility.
- Proposal writing is time-consuming and stressful. It requires months of dedicated work, intense team management, and endless writing before the deadline.
- Proposal writing is highly competitive. Success rates for Horizon Europe typically hover between **5% and 10%**. Rejection is the statistical norm.
- Persistence is mandatory. A rejected proposal is not wasted time—it is a baseline for your next attempt.
- Being a partner is a privilege; being a coordinator is a high-stress, full-time responsibility.



- **The Golden Rule:** Use the exact language and terminology of the call.
- **Eligibility First:** Never skim through the eligibility conditions—a minor oversight leads to instant disqualification.
- **The Mindset Shift:** Don't ask what the EU can do for your research. Ask what your research can do for the EU.


Work Programme part x (Cluster/ Thematic Section)
Destination 1
Destination 2
Destination 3
Call 1
Call 2
Call 3
Call 4
Topic 1
Topic 2
Topic 3
Topic 4
Topic 5
Work Programme part y (Cluster/Thematic Section)
Destination 4
Destination 5
Destination 6
Call 1
Call 2
Call 3
Call 4
Topic 1
Topic 2
Topic 3
Topic 4
Topic 5

From Results to Impact

Understanding the terminology used in Horizon Europe proposals

These four concepts describe the **pathway** from what we do in the project to the **long-term benefits** for society and Europe.

ACTIVITIES

What we do

- Research
- Experiments
- Development
- Collaboration
- Testing

The work performed by the consortium.

RESULTS

What we produce

- New knowledge
- Algorithms
- Data
- Models
- Prototypes
- Methodologies

The direct products of our research and innovation activities.

OUTPUTS

What we deliver and make available

- Software / Tools
- Publications
- Training materials
- Demonstrators
- Reports
- Databases

Tangible products delivered to the EC (deliverables) and made available to users and stakeholders.

OUTCOMES

What changes during or shortly after the project

- Adoption of results
- Improved skills
- Technology uptake
- New collaborations
- Better practices

Changes in behaviour, capacities or performance of stakeholders as a result of using the project outputs.

IMPACT

Why it matters in the long term

- Economic growth
- Better health
- Reduced emissions
- Improved competitiveness
- Policy influence
- Stronger Europe

Broader, long-term benefits for society, the economy and Europe.

EXAMPLES

AIDA4Edge

New low-power Edge AI algorithm → Open-source implementation & documentation → Companies adopt the technology; new collaborations → Improved industrial competitiveness in Europe

PEMS-ML

New pedagogical methods → Digital teaching materials & online courses → Teachers use materials; students gain new skills → Improved engineering education and higher employability in Europe

IN ONE LINE

RESULTS	What did we produce?
OUTPUTS	What did we deliver?
OUTCOMES	What changed because of the project?
IMPACT	Why does it matter in the long term?

KEY MESSAGE

Activities create **Results**, Results become **Outputs**, Outputs generate **Outcomes**, and **Outcomes** contribute to long-term **Impact**.

Destination, Call

Destination: Widening participation and spreading excellence 21

HORIZON-WIDERA-2026-WIDENING-01: Teaming Synergies 22
HORIZON-WIDERA-2026-WIDENING-02: Twinning 24
HORIZON-WIDERA-2026-WIDENING-03: Excellence Hubs 27
HORIZON-WIDERA-2026-WIDENING-04: Hop-On Facility 30
HORIZON-WIDERA-2026-WIDENING-05: Research Management Facility 33

Expected impact

1. Increased science and innovation capacities for all actors in the R&I system in widening countries
2. Structural changes leading to modernised and more competitive R&I systems in eligible countries with increased attractiveness and retention of research talents
3. Mobilisation of national and European resources for strategic investments
4. Higher participation success in Horizon Europe and more consortium leadership roles
5. Stronger linkages between academia and business and improved career permeability and effective institutional reforms in research institutions
6. Greater involvement of regional actors in the R&I process
7. Excellent talents attracted to institutions and research infrastructures
8. Balanced circulation of R&I talents including intersectoral mobility, and improved gender balance
9. Improved linkages and increased mobility between academic and business, notably by overcoming sectoral barriers
10. Free circulation of knowledge and expertise in line with ERA priorities

HORIZON-WIDERA-2026-WIDENING-02: Twinning

Call: Twinning	
Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR N/A million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Indicative budget	The total indicative budget for the topic is EUR N/A million.
Type of Action	Coordination and Support Actions
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: In order to achieve the expected outcomes, participation as coordinators to the call is limited to legal entities established in Widening countries, as defined in the Horizon Europe regulation.

Topic

Project results are expected to contribute to all of the following expected outcomes:

- Improved excellence capacity and resources in Widening countries closing the research and innovation gap within the European Union;
- Enhanced strategic collaboration between the research institutions or higher education establishments of the Widening countries and at least two internationally-leading research institution or higher education establishments at European Union level;
- Raised reputation, research profile and attractiveness of the coordinating institution from the Widening country and the research profile of its staff;
- Strengthened research management capacities and administrative skills of the staff working in institutions from the Widening country;

Improved creativity supported by development of new approaches in Research and Innovation collaboration, increased mobility (inwards and outwards) of qualified scientists.

Scope: Twinning proposals should clearly outline the strategy for stepping up and stimulating scientific excellence and innovation capacity in a defined area of research and innovation as well as the scientific excellence of the partners involved. This strategy should include arrangements for formulating new (or ongoing) joint research / innovation project(s) in the scientific area of choice and describe how Twinning will take this research to a new level.

This should be supported by a comprehensive set of activities such as but not limited to short-term staff exchanges; expert visits and short term on-site or virtual training; workshops; conference attendance; organisation of joint summer schools; dissemination and outreach activities. As far as appropriate these activities should take into account the gender equality plans of the participants.

Proposals should also focus on strengthening the research management and administration skills of the coordinating institution from the Widening country. This should take the form of a dedicated work package or task, placing emphasis to specific activities, in view of helping the staff of the coordinating institution to improve their broader research management capacities as defined in the European Competence Framework for Research Managers [32], including establishing/upgrading a dedicated team within the coordinating institution. This will be achieved by fully utilising the experience and best practices of the internationally leading partners and is expected to be a concrete deliverable of the Twinning exercise.

Reading the Topic Like an Evaluator

The Mindset Shift: From Researcher to Reviewer

How a Researcher Reads a Call	How an Evaluator Reads a Call
"Where can I fit my existing scientific idea or technology?"	*"Does this concept explicitly answer the scope of the topic?"*
Focusing heavily on the technical novelty and publication potential.	Checking strict metrics: Expected Outcomes, TRL, and Impact.
Reading the text as a source of academic inspiration.	Reading the text with a scoring checklist in hand.
Reading the text with a researcher's curiosity.	Reading the text as an evaluator with a scoring sheet and deadline."

Key Items an Evaluator Checks (Checklist)

1. Scope & Keywords
Are the exact terms from the text integrated?

2. Expected Outcomes
Is every requested outcome addressed?

3. Eligibility & Budget
Are the boundaries respected?

Golden Rule: Use the ***exact language*** of the call.

STRATEGIC PROJECT DESIGN:
From Call Topic to Coherent Concept

1. Read the CALL TOPIC Like an Evaluator.
Read the call topic of the evaluator liki and evaluational time, in the problem concept n the Europeat Uniit an Evaluator.

2. Identify the PROBLEM.
Identify the problem or a rescential and psat a to identify that are pronoessing in the entire think.

3. State the NEED and OPPORTUNITY.
A specific need and opportunity, and devate need to specify of a remontinicy any need.

4. Formulate measurable OBJECTIVES (SMART).
Clear clear measurable objectives, of smart, and total Ineet of objectives (SMART).

5. Design INNOVATIVE METHODOLOGY and ACTIVITIES.
Work packages and activities are activities. Bean cwmment piinted with some innovative methodology and activities.

6. Generate Clear RESULTS and OUTPUTS.
Product clear results ehonion products are outocsts and prendens.

7. Deliver Long-term OUTCOMES and IMPACT.
Growing proposals, outcomes and impact. -a logical story.

Key Takeaway: Excellent proposals are ***designed*** before they are ***written***. It's a logical story, not just a list of activities.

Building a Strategic Consortium

Form Follows Function: Beyond the "Friendship Trap"

THE CRITERIA

Complementarity:
Partners must complement each other, covering every scientific, technical, and socio-economic angle of the project.

Interdisciplinarity:
Integrating different fields (e.g., core engineering, medicine, social sciences) to boost innovation.

Geographical Diversity:
Balanced distribution across the EU to demonstrate widespread applicability and impact.

The Actor Mix:
A healthy balance between academia, large industries, SMEs, NGOs, and policy makers.

THE IRREPLACEABILITY TEST

★ **THE GOLDEN RULE** ★

Every single partner must be irreplaceable.
If you can remove a partner and their tasks can easily be absorbed by others, that partner does not belong in the consortium.

The Triple Pillars of Horizon Europe

Excellence, Impact, and Implementation

1 EXCELLENCE (The "What")

Quality of the project:
Clarity, ambition, innovation, and scientific methodology.

Key question:
Is this idea truly groundbreaking, and is the science robust?

2 IMPACT (The "Why")

Value for the EU:
Scaling results, creating market value, societal benefits, and sustainability.

Key question:
Why should the European Commission invest taxpayers' money in this, and what changes?

THE GOLDEN TRIANGLE

Success in Horizon Europe requires strength in all three pillars.

3 IMPLEMENTATION (The "How")

Feasibility:
Work plan, consortium expertise, resources, and risk management.

Key question:
Can this team deliver what they promised, on time, and within the budget?

THE EVALUATION LOGIC

You can have the most brilliant scientific idea (**Excellence**), but if your **Impact** is vague or your **Implementation** plan is chaotic, the proposal will be rejected.

Consistency across all three is the key to success.

EXCELLENCE

EXCELLENCE PART IN HORIZON PROPOSALS

Is the idea worth funding? Demonstrating Scientific Excellence and Credibility

WHAT EVALUATORS ASSESS IN EXCELLENCE

1. OBJECTIVES

- Clear, specific and measurable objectives.
- Ambitious, yet realistic and achievable.

Tip: Each objective must be directly linked to expected outcomes and impact.

2. STATE OF THE ART

- Present the current SoTA relevant to your topic.
- Identify knowledge gaps or limitations.
- Clearly explain how your project advances beyond the SoTA.

Tip: Show the gap you will fill and why it matters.

3. CONCEPT & INNOVATION

- Novel concepts, methods, technologies or approaches.
- How your solution is different and better.
- Scientific and/or technological breakthrough potential.

Tip: Be concrete about what is new and how it creates value.

4. METHODOLOGY (QUALITY & CREDIBILITY)

- Describe the overall scientific approach and key methods.
- Justify the choice of methods, models, tools, data and validation strategy.
- Address feasibility, risks and mitigation (incl. alternatives).
- Show a logical path from objectives → methods → results → impact.

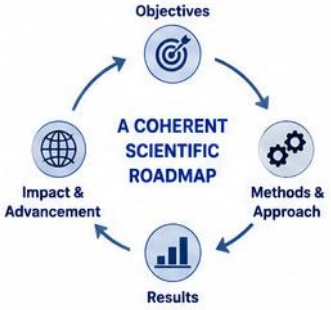
Tip: Convince that your approach is sound, feasible and will deliver the results.

5. OPEN SCIENCE & GENDER DIMENSION (WHERE RELEVANT)

- Apply open science practices: FAIR data, open access to publications, transparency and reproducibility.
- Integrate the gender dimension in research and innovation content.

Tip: Explain how you contribute to open science and gender equality.

FOCUS ON METHODOLOGY – WHAT EVALUATORS LOOK FOR



- **Clarity:** Is the workflow logical and easy to follow?
- **Consistency:** Are the methods directly aligned with the objectives?
- **Justification:** Why did you choose these methods, tools and approaches?
- **Feasibility:** Are the methods realistic with the resources and time available?
- **Risk awareness:** Have you identified key risks and proposed mitigation or alternatives?

KEY PRINCIPLES FOR EXCELLENCE

AMBITION
Aim high and show the potential for scientific and technological breakthrough.

FOCUS
Keep the scope clear and targeted to deliver impact.

CONSISTENCY
Ensure coherence between objectives, methodology, work plan and expected results.

CREDIBILITY
Build trust by presenting a well-justified, rigorous and feasible plan.

GOLDEN RULE

METHODOLOGY IS NOT A TEXTBOOK DESCRIPTION OF A FIELD.

IT IS A **PROJECT-SPECIFIC ROADMAP** THAT CONVINCES EVALUATORS THAT YOUR CONSORTIUM HAS A **CREDIBLE, WELL-JUSTIFIED** AND **FEASIBLE** PLAN TO TRANSFORM INNOVATIVE IDEAS INTO **MEASURABLE RESULTS**.

EXCELLENCE IN PRACTICE

CLEAR OBJECTIVES — What we want to achieve → **STRONG SCIENCE & METHODOLOGY** — How we will achieve it → **INNOVATION BEYOND SoTA** — What makes it better/new → **VALIDATED RESULTS & IMPACT** — What change we will create = **VALUE FOR SOCIETY, SCIENCE & ECONOMY** — The ultimate goal

EXCELLENCE IS THE FOUNDATION OF A SUCCESSFUL PROPOSAL – MAKE YOUR SCIENCE AND METHODOLOGY SHINE!

DEFINING SMART OBJECTIVES:
The Backbone of Your Project Proposal

SMART PRINCIPLES

S - SPECIFIC
Clear and focused, addressing the core problem.

M - MEASURABLE
Quantifiable, trackable progress with metrics.

A - ACHIEVABLE
Realistic and attainable, within your resources.

R - RELEVANT
Aligned with the goals of the funding call.

T - TIME-BOUND
Have a set deadline and time frame.

EXAMPLES

BAD OBJECTIVE (NOT SMART)

Cloud: Vague goals that lack clear directions

Example: "Improve artificial intelligence." (Generic, not measurable)

SMART OBJECTIVE (SMART)

Target with Indicators: Quantifiable targets, trackable steps

Example: "Develop a new Edge AI methodology that reduces model energy consumption by 40% compared to existing standards, while maintaining model accuracy at 95%." (Specific, measurable, with time frame M18)

THE METHODOLOGY: TURNING OBJECTIVES INTO CREDIBLE RESULTS

Quality and Credibility of the Scientific Approach

WHAT EVALUATORS EXPECT

1 A PROJECT-SPECIFIC SCIENTIFIC APPROACH

- Describe how each project objective will be achieved.
- Present the scientific concepts, methods, models, technologies, and experimental design.
- Demonstrate why your approach is credible, feasible, and innovative.

FOCUS: How you will do it and why it will work.

2 BEYOND THE STATE-OF-THE-ART (SoTA)

- Clearly explain how your methodology advances beyond existing solutions.
- Justify the choice of methods, algorithms, tools, datasets, and validation strategy.
- Highlight scientific and technological novelty.

FOCUS: What makes your approach better.

3 INTEGRATED RESEARCH WORKFLOW

- Show a logical progression from objectives → tasks → outputs → expected outcomes.
- Explain interactions between disciplines, partners, and Work Packages.
- Demonstrate risk awareness through alternative approaches when appropriate.

FOCUS: How everything fits together.

EVALUATOR'S CHECKLIST

- ✓ Is the methodology scientifically sound?
- ✓ Is it clearly linked to every project objective?
- ✓ Is the approach realistic and technically feasible?
- ✓ Is the level of innovation convincing?
- ✓ Can the proposed methods deliver the expected results?

GOLDEN RULE

Methodology is not a literature review or a textbook chapter.

It is a **project-specific roadmap** that convinces evaluators that your consortium has a **credible, well-justified, and feasible** plan for transforming **innovative** ideas into **measurable project results.**

KEY MESSAGE

OBJECTIVES
What we aim to achieve

+

METHODOLOGY
How we will achieve it

+

WORK PLAN
Who will do it and when

+

EXPECTED RESULTS
What we will deliver

=

IMPACT
Value for society, science and economy

All elements must form one coherent and consistent scientific narrative.

Consistency: The Hidden Success Factor

Seamless Logic vs. Fragmented Text

THE GOLDEN THREAD

Objectives
What we want to achieve

Methodology
How we will achieve it

Tasks
What we will do and by whom

Budget
Resources needed to do the work

Deliverables
What we will produce

Impact
The value and change we will create

Every element must logically justify the next one. Break one link, and the entire proposal loses credibility.

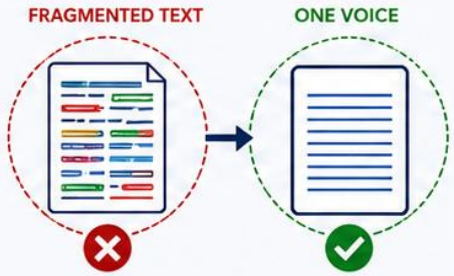
1 LOGICAL CONSISTENCY (THE RED THREAD)

- Every **Objective** must be supported by a credible **Methodology**.
- The **Methodology** must be implemented through well-defined **Tasks**.
- Every **Task** must have an appropriate **Budget** and produce measurable **Deliverables**.
- The combined results must credibly lead to the expected **Impact**.

Break one link, and the entire proposal loses credibility.

2 EDITORIAL CONSISTENCY (ONE VOICE)

- Many partners contribute.
- One project story.
- One terminology.
- One writing style.
- No contradictions or duplicated content.



Evaluators follow this thread across the entire proposal. **A clear, consistent proposal shows quality, professionalism, and increases trust.**

Key Performance Indicators (KPIs)

Measurable Indicators of Project Success

Section	What is Measured?	Example KPIs
Objectives (Excellence)	Scientific achievement	AI accuracy ≥ 97%; Energy consumption ↓ 60%; Localization error < 5 cm
Methodology	Performance of the proposed approach	Latency < 10 ms; Precision > 95%; Robustness under 5% noisy data
Implementation	Progress of project execution	Prototype completed (M18); 100% deliverables submitted on time; 15 staff exchanges completed
Impact	Uptake and long-term value	3 industrial pilots; TRL 4 → TRL 7; 2 patents; 5 SMEs adopting the solution
Dissemination & Communication	Visibility and outreach	12 journal papers; 25 conference presentations; 10 workshops; 20,000 website visits
Exploitation	Use of project results	2 licensing agreements; 1 spin-off; Technology integrated into commercial products

Gender Equality & Dimension

1. **Gender Dimension (Excellence):**
    - Integrating sex and gender analysis into the scientific content of the research.
    - *Question:* Does your technology, algorithm, or solution affect men and women differently?

2. **Gender Balance (Implementation):**
    - Equal representation of men and women in the project team and management structures.
    - *Requirement:* A formal Gender Equality Plan (GEP) is now a strict eligibility criterion for public bodies and universities.

Open Science & Data Management

- **Open Access to Publications:** Immediate open access to all peer-reviewed scientific publications.
- **FAIR Data Management:** Research data must be **F**indable, **A**ccessible, **I**nteroperable, and **R**eusable.
- **Data Management Plan (DMP):** A mandatory deliverable. It must detail how data is generated, processed, stored, and shared.
- **The "Open Science" Competitive Edge:**
  - **Reproducibility:** Ensuring others can validate your findings.
  - **Visibility:** Open-access papers generally receive higher citation rates.
  - **Data Sharing:** Using trusted repositories (e.g., Zenodo, EUDAT) to ensure long-term preservation.
- 💡 **Evaluator's Perspective:** They don't just want a "yes" to Open Science. They want to see a concrete plan on how you will handle data, protect intellectual property (where necessary), and promote your results.

Open Science in Horizon 2020 and Horizon Europe

Open Science practices	In Horizon 2020	Recommended or mandatory in Horizon Europe
• **Open access to peer-reviewed scientific publications** "immediate" - Machine-readable electronic copy of the published version or the final peer-reviewed manuscript accepted for publication at the latest; - In a trusted repository for scientific publications	• Mandatory. • All open access publication fees are reimbursable.	• Mandatory, but unlike Horizon 2020 - trusted repositories. - Publication fees reimbursable only if publishing venue offers full open access (publication fees in hybrids not reimbursed) • Recommended for other publications (not peer-reviewed) and for research outputs
• **Open access to research data** under the principle '*as open as possible, as closed as necessary*'. Data related to scientific publications must be made openly accessible "*at the latest at the time of publication*".		• Mandatory (but exploitation, protection of IPR, security and privacy rules have a higher priority)
• **Measures to ensure reproducibility of research outputs** - under the latest available version of the Creative Commons Attribution International Public Licence (CC BY) or a licence with equivalent rights - information about the research outputs/tools/instruments needed to validate the conclusions of scientific publications or to validate/re-use research data		• Mandatory
• **Responsible management of research data and metadata of all research outputs** (publications, data, software, algorithms, protocols, models, workflows…) in line with the FAIR principles - **Data management plan**, DMP	• Partially (not in Grant Agreement but in related documentation for DMP under the Open Research Data Pilot)	• Mandatory
• **Digital or physical access to the results** needed to validate the conclusions of scientific publications		• Additional mandatory practice imposed in the conditions of the call
• **In cases of public emergency, immediate open access to all research outputs**, if requested by the granting authority		• Additional mandatory practice imposed in the conditions of the call
• **Involving all relevant knowledge actors including** citizens, civil society and end users in the co-creation of R&I agendas and contents (such as citizen science)		• Recommended (sometimes in topic description)
• **Early and open sharing of research**: Preregistration, registered reports, preprints, etc.		• Recommended
• **Open peer-review**		• Recommended

WRITING THE IMPACT SECTION IN HORIZON PROPOSALS

Designing the Pathway to Impact and Ensuring Sustainability

Impact is not an afterthought. It is a core part of your proposal and a key evaluation criterion.
You must show HOW your project results will **create value** and last beyond the project.

WHAT IS IMPACT?

The long-term positive effects on society, the economy and science, enabled by your project results.

THREE DIMENSIONS OF IMPACT

SCIENTIFIC IMPACT
Advance frontier science, create new knowledge and strengthen European research excellence.

ECONOMIC / TECHNOLOGICAL IMPACT
Drive innovation, create market opportunities, strengthen SMEs and boost European competitiveness.

SOCIETAL IMPACT
Address global and European challenges (e.g. climate, health, digital trust, inclusion) and improve quality of life.

THE PATHWAY TO IMPACT

PROJECT ACTIVITIES	RESULTS	DISSEMINATION & COMMUNICATION	UPTAKE	OUTCOMES	LONG-TERM IMPACT
	What we produce	Share and raise awareness	Results used by target groups	Short and medium-term effects	Lasting benefits for science, economy and society
What we do in the project	Concrete tangible or intangible outputs	Reaching the right audiences and creating awareness	Adoption, use, integration, implementation	Changes in behaviour, performance, systems, practices	Broader, lasting positive change

CONTRIBUTES TO THE EXPECTED OUTCOMES AND DESTINATION OF THE WORK PROGRAMME

MAXIMISING THE VALUE OF PROJECT RESULTS

DISSEMINATION
Share knowledge with the right audiences
- Scientific publications
- Conferences & workshops
- Open data & open source
- Reports, guidelines
- Training & capacity building

EXPLOITATION
Use results to create value
- Commercialisation & new products
- Technology transfer & licensing
- Standards, regulation, policy uptake
- Services & business models
- Social innovation

COMMUNICATION
Raise awareness and engage society
- Project website & social media
- Press releases & media
- Videos, infographics, newsletters
- Public events & citizen engagement
- Policy & stakeholder dialogue

Identify stakeholders early and engage them continuously throughout the project.

SUSTAINABILITY BEYOND THE PROJECT

What happens after EU funding ends?
Show how the impact will continue.

SCIENTIFIC SUSTAINABILITY
Follow-up research, open science, research infrastructures, training, new collaborations and projects.

TECHNOLOGICAL & ECONOMIC SUSTAINABILITY
Business models, commercialization, IP management, investments, industrial uptake.

SOCIETAL & POLICY SUSTAINABILITY
Long-term adoption by public authorities, contribution to standards, policies and societal solutions.

ORGANISATIONAL SUSTAINABILITY
Maintenance of platforms, services and data, governance, resources and commitment of partners and users.

Sustainability = continued use, development and generation of value after the project.

EVALUATOR'S CHECKLIST

- ✔ Is the pathway to impact clear, logical and credible?
- ✔ Are target groups and users well identified?
- ✔ Is exploitation strategy credible and well planned?
- ✔ Are dissemination and communication measures appropriate and proportionate?
- ✔ Is sustainability beyond the project well addressed?
- ✔ Are impacts aligned with the Work Programme expected outcomes and destination?

KEY QUESTION

How will your project results contribute to real change? Who will benefit, how, and how long will the benefits last?

MEASURING IMPACT – USE INDICATORS!

- Define qualitative and quantitative indicators
- Cover short, medium and long-term effects
- Include baseline and target values where possible
- Monitor and report progress
- Show how indicators link to expected outcomes

COMMON MISTAKES TO AVOID

- ✖ Focusing only on activities, not on results and impacts
- ✖ Confusing dissemination, communication and exploitation
- ✖ Vague or generic statements about impact
- ✖ No clear target groups or uptake strategy
- ✖ No plan for sustainability after the project

GOLDEN RULE

Impact is created when the right people use your results to change something that matters.
Show a credible pathway, a strong exploitation strategy and sustainability beyond the project.

DISSEMINATION vs COMMUNICATION

Different goals, different audiences, complementary for maximum impact

DISSEMINATION

"Share knowledge"

Making project results available to those who can use and build upon them.

PURPOSE
Enable uptake of results and advance science, technology and innovation.

MAIN QUESTION
Who can benefit from or build upon our results?

TYPICAL AUDIENCE
Researchers, universities, industry experts, SMEs, engineers, policymakers, standards bodies.

TYPICAL ACTIVITIES
- Scientific publications
- Conference presentations
- Workshops, seminars
- Technical reports
- Open datasets, open-source software
- Training materials

PROJECT RESULTS

Knowledge
Data
Solutions
Tools

EXPLOITATION

"Create value"

Using results for commercial, societal or policy purposes.

- Commercialisation, new products & services
- Technology transfer, licensing
- Standards, regulation, policy uptake
- Social innovation, public services

COMMUNICATION

"Create awareness"

Explaining the project and its importance to society and increasing visibility.

PURPOSE
Increase awareness and understanding of the project and its benefits for society.

MAIN QUESTION
Why should people care about this project?

TYPICAL AUDIENCE
General public, media, citizens, students, schools, NGOs, decision makers, investors.

TYPICAL ACTIVITIES
- Project website
- Social media
- Press releases, interviews
- Videos, infographics, podcasts
- Newsletters
- Public events, exhibition, citizen science

A SIMPLE EXAMPLE

DISSEMINATION
- Publish a paper in IEEE TMI
- Present results at MICCAI
- Release the model and dataset
- Organize a workshop for cardiologists

COMMUNICATION
- Publish a short explainer video
- Share news on LinkedIn and X
- Give interviews
- Organize a public "AI in Healthcare" event

HOW THEY WORK TOGETHER

DISSEMINATION
Share knowledge with those who can use it

COMMUNICATION
Communicate value and relevance to society

Greater impact and sustainable value

KEY TAKEAWAY

Dissemination tells experts what you discovered.

Communication tells everyone else why it matters.

Together with exploitation, they turn results into real impact.

Dissemination generates knowledge uptake. Communication creates awareness. Exploitation delivers value. All three are essential for maximising the impact of your Horizon project.

Key Exploitable Results (KERs):

- Key Exploitable Results are the main outputs of a project with a clear potential for further use, uptake, or commercialization beyond the project lifetime.
- KERs answer the question: “What valuable assets will remain after the project ends, and who will use them?”

Research area	Possible KER
AI / Digital Technologies	AI algorithms, trained models, software tools, datasets
Electronics / Hardware	Prototype devices, architectures, IP, design methodologies
Health	Clinical protocols, diagnostic tools, validated methods
Education	Training courses, learning platforms, educational materials
Manufacturing	Demonstrators, industrial workflows, optimization methods

WRITING THE IMPLEMENTATION PART

Turning an Excellent Concept into a Feasible and Well-Managed Project

Goal: Convince evaluators that your consortium has the capacity, resources and a solid plan to deliver the promised results and maximise project impact.

1. QUALITY OF THE CONSORTIUM

Complementary expertise
Partners cover all critical aspects of the project.

Balance and commitment
Appropriate balance of roles, resources and effort.
Strong commitment to the project.

Experience and track record
Relevant experience in the field and in similar projects.

Effective collaboration
Well-structured collaboration, clear communication and decision-making.

2. WORK PLAN & MANAGEMENT

From Objectives to Results

Objectives → Tasks → Deliverables → Milestones

Organised in Work Packages (WPs)

Logical structure with clear interdependencies

Management and Governance

- Management structure
- Roles and responsibilities
- Planning and monitoring
- Risk management and mitigation
- Quality assurance and ethics

3. RESOURCES TO BE COMMITTED

Human resources
The right people with the right skills and effort.

Financial resources
Well-justified budget, cost-effectiveness and value for money.

Infrastructures & equipment
Access to the necessary infrastructures and facilities.

Third parties & other resources
Use of additional expertise, services and external support where needed.

EVALUATOR'S CHECKLIST

- Is the consortium well-balanced and complementary?
- Do partners have the necessary experience?
- Is the work plan coherent and feasible?
- Are roles, responsibilities and resources clearly defined?
- Is risk management adequate?
- Is the budget appropriate and cost-efficient?

GOLDEN RULE

The best idea can fail without a solid implementation plan.

SHOW THAT YOU CAN DELIVER WHAT YOU PROMISE.

COMMON MISTAKES TO AVOID

- Overloaded work packages and unrealistic timelines
- Unclear roles and responsibilities
- Lack of risk analysis or mitigation measures
- Poor justification of resources and budget
- Underestimating management and coordination effort

KEY MESSAGE

EXCELLENT CONCEPT
Strong science and innovation (Excellence)

+

SOLID IMPLEMENTATION
Feasible plan, capable consortium, adequate resources (Implementation)

+

MEANINGFUL IMPACT
Real value for science, economy and society (Impact)

=

A SUCCESSFUL HORIZON PROJECT

A WELL-IMPLEMENTED PROJECT IS THE BRIDGE BETWEEN AMBITION AND REAL IMPACT.

Implementation

	🎯 Good Practice	❌ Common Mistake
Work Packages	**4 to 7 WPs in total.** Clean, thematic blocks of work with clear leadership.	**Too many WPs (10+).** Overcomplicating management and creating artificial splits.
Tasks	**3 to 5 substantial tasks per WP.** Concrete actions with assigned resources.	**Micro-managing on paper.** Listing 15 tiny activities that should just be steps inside one task.
Deliverables	**Tangible outputs (reports, prototypes, software).** Keep the total number low (15–25 max).	**"Deliverable Inflation".** Promising a report for every minor meeting, which creates a huge bureaucratic burden.
Milestones	**Critical checkpoints (Go/No-Go decisions).** Used to measure project progress at key stages.	**Confusing Milestones with Deliverables.** A milestone is not a document; it's a phase completion (e.g., *Prototype tested*).

THE BUDGET - FINANCIAL SKELETON & STRATEGY

PERSONNEL COSTS (calculated in Person-Months, PM)

- One PM = cost of one full-time researcher for one month.
- PMs must match realistic task effort.

'TRAP: PM Discrepancy' Evaluators catch overestimation immediately.

OTHER DIRECT COSTS

- **Travel:** Don't guess. Provide breakdown (e.g., meetings, persons, specific costs).
- **Equipment:** Only depreciation costs for project lifecycle are funded.

SUBCONTRACTING

- Highly sensitive. Explicit justification required.
- Only for non-core tasks (e.g., auditing, printing). No core scientific work.

INDIRECT COSTS (OVERHEAD)

- Flat rate: +25% on top of all direct costs (except subcontracting).

Lessons Learned

1. Start with Strategy, Not Writing

- Start early — successful proposals require months of preparation, discussion, and refinement.
- Understand the **Call, Topic, and expected Impact** before defining your idea.
- Build a consortium based on **complementarity, trust, and commitment**, not only scientific reputation.

2. Build a Clear and Convincing Story

- Ensure full coherence between **Excellence → Impact → Implementation**.
- Define realistic objectives and demonstrate a credible pathway towards impact.
- Explain not only **what you will achieve**, but also **who will use the results after the project ends**.

3. Write for Evaluators

- Make the evaluator's job easy:
- Use clear language and avoid unnecessary jargon.
- Follow the evaluation criteria and headings.
- Highlight key messages and value propositions.
- Use figures, tables, and visual roadmaps to explain complex ideas.

4. Think Beyond Research Results

- Treat dissemination, exploitation, and communication as strategic activities.
- Define clear **Key Exploitable Results (KERs)** and their future users.
- Support every claim with evidence, methodology, or preliminary results.

5. Avoid Common Failure Points

- ❌ Overambitious objectives without a realistic plan
- ❌ Weak impact pathway or unclear beneficiaries
- ❌ Consortium gaps and poor partner complementarity
- ❌ Disconnected Work Packages and unclear dependencies
- ❌ Inconsistent budget, tasks, and resources
- ❌ Last-minute submission risks

International Symposium on Efficient and Reliable Intelligent Edge Systems

- **Date:** 25–26 May 2027
- **Place:** Niš, Serbia
- **Submission deadline:** 25 January 2027
- **General Co-Chairs:**
  Milan Dinčić (University of Niš)
  Davide Bertozzi (University of Manchester)
  Miloš Krstić (IHP Germany)
- **Program Committee Co-Chairs:**
  Zoran Perić (University of Niš)
  Riccardo Zese (University of Ferrara)
  Oliver Rhodes (University of Manchester)
  Marko Andjelković (IHP Germany)
- **Submission options:** Authors may submit either a full paper or an abstract only.
- **Journal publications:**
  - up to **5 selected papers** published free of charge in **JLPEA**,
  - up to **10 selected papers** published in **Facta Universitatis**.
- **Registration fee:** €150 for regular participants (both with a full paper or an abstract only) and €100 for PhD students.

- **Topics:**
  - Optimization techniques for Edge AI models
  - Neural architecture search for Edge AI models
  - Quantization and compression of neural networks
  - Approximate computing
  - Dynamic neural network models and implementations
  - Neuromorphic computing for Edge AI
  - Neuromorphic vision
  - Spiking neural networks
  - Hybrid ANN–SNN models
  - In-memory and near-memory computing
  - Reliable electronics for Edge AI
  - Hardware accelerators for Edge AI
  - Hardware/software co-exploration for neural architectures
  - Edge AI applications

AI in Proposal Preparation: A Tool, Not an Author

How to Use AI (The "Co-Pilot" Approach):

- **Brainstorming:** Use AI to expand ideas, suggest structure, or overcome writer's block.
- **Proofreading:** Let AI refine your grammar, tone, and flow (e.g., "Make this paragraph more persuasive").
- **Consistency Checking:** AI is excellent at ensuring terms, acronyms, and formatting remain consistent throughout a 50+ page document.

The "Red Line" (What NOT to do):

- **NEVER let AI write the whole proposal:** AI models lack the deep institutional context, specific research vision, and personal commitment required for a successful bid.
- **Watch out for "Hallucinations":** AI can invent facts, citations, or technical details—always verify every claim.
- **Protect Data:** Never input sensitive, confidential, or proprietary project data into public AI models.

💡 **The Evaluator's Perspective:** Evaluators are experienced experts. They can detect the "generic", repetitive tone of AI-generated text. Use AI to *enhance* your writing, not to *replace* your voice.

THANKS!