

## (Potential) TERMS OF REFERENCE

### Strategic Mapping of Croatian Educational and Technological Capabilities and Partnership Opportunities for Projects in Latin America and the Caribbean

Regional

RG-T4933

EXPLEARN Facility: From Croatia to Latin America and the Caribbean: Leveraging Digital and Educational Innovation for Scalable Solutions in Education

#### 1. Background and Justification

The Inter-American Development Bank (IDB) supports Latin American and Caribbean (LAC) countries in strengthening education systems. The EXPLEARN Facility, financed by the Republic of Croatia, draws on Croatia's experience in expanding high-quality instructional time and technology use to support pedagogy.

This consultancy will identify ways in which Croatian successful digital, technological, and IT solutions can be adapted to the educational needs of LAC countries. The work is aligned with the IDB's Education and Skills Development Thematic Framework Document (2025–2030), which emphasizes the relevance of improving institutional capacity, ensuring continuous learning trajectories, and increasing the quality and relevance of learning.

The mapping exercise is conceived as a flexible, scalable, and reusable strategic instrument. While the consultancy will deliver concrete outputs within the scope of this assignment, the methodology, datasets, and tools are intended to support future updates, thematic expansions, and additional collaboration initiatives aligned with evolving development priorities in LAC and the strategic objectives of the IDB.

This initiative aims to contribute to Croatia's strategic positioning as a knowledge partner in international development cooperation, reinforcing bilateral relations with LAC countries and strengthening engagement within multilateral development frameworks.

#### 2. Objectives

The objectives of this consultancy are:

- **Identify, systematize, and analyze Croatian institutional, policy and technology solutions** –including public-sector programs, research based-interventions, and private-sector innovations– with potential applicability in **education and technology-enabled public sector projects in LAC**.
- Identify **strategic partnership opportunities** with organizations in **Croatia** that could support implementation, localization, scaling, and sustainability in LAC.
- Produce **actionable policy guidance** for adapting Croatian approaches to diverse LAC contexts, focusing on scalability, equity, and sustainability.

- Develop a structured and reusable database of Croatian solutions, serving as the core output of the assignment and designed as a living resource that can be updated and expanded for future cooperation initiatives.

The assignment will be **methodologically aligned with IDB's Digital Transformation in Education (DTE) framework and the mapping exercise that was conducted by the IDB** to provide countries in LAC with potential Croatian partners for advancing their digital transformation. In this case, the mapping exercise will deliver a **comparable, transparent, and actionable product**, serving as an input for future technical cooperation operations, pilots, and public-private partnerships supported by the IDB and the Government of the Republic of Croatia.

### **3. Scope of Work and Activities**

The consultancy shall include, at a minimum, the following tasks:

#### **a) Methodological Design**

- Embed within and align with IDB's DTE framework's five enabling conditions for digital transformation: a) digital devices; b) meaningful educational connectivity; c) teachers' digital and pedagogical competencies; d) digital resources, platforms and content; and e) governance<sup>1</sup>. The methodological framework for this mapping exercise will be informed by IDB's DTE framework and related analytical work, including the publication *AI and Education: Building the Future Through Digital Transformation*, which provides a conceptual reference for understanding how digital and emerging technologies can support education systems. While this publication focuses primarily on education, this mapping exercise adopts a broader ecosystem perspective, capturing cross-sectoral and applied technologies with relevance to learning, skills development, and public sector capacity building.
- Adapt the methodological framework used in IDB for previous mapping exercises, including selection criteria, solution profiling templates, categorization, and validation standards; and taking into account the broader scope of this mapping exercise.
- Define clear and transparent eligibility, prioritization, and exclusion criteria for Croatian solutions.
- Establish criteria for identifying potential strategic partners (academic, technological, implementation-oriented) in Croatia.

#### **b) Identification of the Relevant Croatian IT, EdTech, and Applied Innovation Ecosystem**

- Identify Croatian organizations offering evidence based and/or tested digital, technological, and IT solutions applicable to education, including but not limited to:

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<sup>1</sup> Arias Ortiz, E., Castro Vergara, N., Forero Pabón, T., Della Nina Gambi, G., Giambruno, C., Pérez Alfaro, M., & Rodríguez Segura, D. (2025). *AI and Education: Building the Future Through Digital Transformation*. <https://doi.org/10.18235/0013500>

- AI- and data-enabled solutions, where they demonstrably improve learning, efficiency, service delivery, or relevance.
- Skills development and foundational learning improvement (instruction-focused EdTech, structured pedagogy, assessment tools);
- Inclusive education and digital inclusion solutions;
- Education management and data systems (EMIS, early warning systems, governance tools);
- Teacher professional development (digital and blended training, coaching platforms);
- Flexible learning pathways (hybrid, modular, and adult learning solutions);
- TVET and skills for employability (work-based learning platforms, credentials, skills matching);

In addition to education-focused digital solutions, the mapping may include applied and cross-sectoral technologies where there is clear relevance to learning, skills development, and public sector capacity building in LAC, including but not limited to:

- Game-based and immersive learning technologies, including game-based learning platforms and VR/AR/MR solutions supporting skills development, applied learning, and professional or public sector training;
  - Drones, robotics, and applied technologies for learning and training, including the use of automation, robotics, and unmanned systems for STEM education, TVET, simulations, and practice-based training relevant to public services;
  - Digital platforms and solutions for public sector modernization (e-government, digital public services, interoperability tools, citizen-facing platforms);
  - Simulation platforms for professional and public sector training, such as digital simulators for health, transport, energy, civil protection, emergency response, and other sectors relevant to institutional strengthening;
  - Experiential and applied digital learning solutions that connect learning processes with real-world public sector challenges, including smart cities, environmental management, climate risk, and disaster risk management.
- These solutions should have strong potential for adaptation to LAC contexts. The identified solutions should be classified using the methodological framework developed.
  - The scope of the mapping includes public and private providers that demonstrate clear applicability to education, skills development, digital transformation or institutional strengthening initiatives in LAC, and can be feasibly adapted for implementation through public, private, or mixed delivery models, including public-private partnerships, and IDB-supported operations.

### **c) Analysis of Strategic Partnerships**

- Identify organizations in Croatia (universities, R&D centers, technology integrators, innovation hubs, foundations, public agencies, or anchor firms) with which Croatian organizations offering solutions with potential applicability in LAC could partner to support:
  - implementation in LAC;
  - technological and pedagogical localization;
  - operational scaling and long-term sustainability.
- Analyze feasible partnership models (e.g., consortia, subcontracting, licensing, joint ventures, academic partnerships).

#### **d) Initial Validation and Categorization of the Solutions**

- Analyze and categorize the solutions according to their quality and their alignment with the framework developed. All the solutions reviewed shall be documented and briefly described. From this review, a longlist database will be developed, comprising at least 40 validated Croatian solutions.

#### **e) Profiling of Prioritized Solutions**

The consultancy shall produce standardized in-depth solution profiles for a prioritized subset of high-potential solutions (at least 20 solutions. The final number of profiles should be determined by the depth, maturity, and strategic relevance of the solutions identified). Profiles (approximately 2 pages in length) should cover, at a minimum:

- solution and provider description;
- target sector and users;
- evidence of impact or validation;
- technical and localization requirements (including bandwidth functionality, LAC language readiness, among others);
- indicative implementation models and cost structures;
- scalability potential;
- recommended types of strategic partners.

#### **f) Technical Validation**

- Validate collected information through interviews, document review, and, where relevant, consultations with public or academic stakeholders in Croatia and LAC.
- Ensure consistency and comparability with previous IDB mapping exercises.

### **4. Expected Deliverables**

The consultancy shall deliver, at a minimum:

- a) Strategic Mapping Report**, including:

- methodological framework;
- overview of the Croatian IT, EdTech, and applied innovation ecosystem;
- Analysis of partnership opportunities;
- strategic recommendations for the IDB and the Government of Croatia.

**b) Living database of Croatian solutions:**

- A structured and comprehensive longlist covering at least 40 validated Croatian solutions aligned with the defined scope;
- Including main characteristics of the potential providers and the solutions;
- Designed to allow future updates, additions, and reuse for subsequent initiatives

**c) In-depth Croatian solution profiles:**

- Prioritize at least 20 solutions selected based on relevance, maturity, and strategic value from the longlist

**d) Matchmaking Matrix, linking:**

- Croatian organizations;
- potential strategic partners (Croatia);
- types of potential projects in LAC.

## **5. Project Timeline**

### Phase 1 – Methodological Adaptation and Demand Alignment (Month 1)

- Adapt the methodology and templates applied in the previous IDB mapping cases.
- Validate analytical dimensions against LAC priorities.
- Define eligibility and exclusion criteria.

### Phase 2 – Ecosystem Identification and Desk Review (Months 2–3)

- Identify Croatian solutions through public, academic, and institutional sources.
- Conduct structured desk review and initial screening.
- Produce a preliminary pool (≈70–100 solutions).

### Phase 3 – Evaluation and Expert Validation (Month 4)

- Apply standardized evaluation criteria.
- Convene an independent Expert Review Panel.

- Produce a validated longlist of at least 40 Croatian solutions.

#### Phase 4 – Profiling and Partnership Mapping (Month 5)

- Develop at least 20 in-depth profiles.
- Identify potential partners in Croatia.
- Develop a matchmaking matrix linking solutions, partners, and LAC needs.

#### Phase 5 – Synthesis and Strategic Recommendations (Month 6)

- Produce final strategic mapping report.
- Formulate recommendations for pilots, partnerships, and next steps.
- Deliver reusable datasets and templates.

### **6. Institutional Approach and Transparency Considerations**

In line with the Government of Croatia's preference, the consultancy shall be carried out by an academic institution, public-sector body, research center, or para-public organization, in order to:

- Ensure **neutrality, transparency, and credibility** in the identification and prioritization of Croatian solutions/organizations;
- Avoid conflicts of interest in the selection of organizations and companies;
- Guarantee methodological rigor and traceability of the mapping process.

The selected institution **shall not act as a commercial representative** of any firm, but rather as an independent technical entity.

### **7. Financing and Coordination Considerations**

The consultancy shall take into account that:

- The **IDB will finance only part** of the initiatives that may emerge from this mapping exercise;
- The identification and engagement of **additional strategic partners and complementary funding sources** will be critical, although not fully defined at the outset;
- The final products should function as **strategic dialogue tools** to engage potential partners that have not yet been formally identified.

### **8. Reporting Requirements**

Deliverables and materials must be submitted in English, in Word, Excel, and PDF format. The databases must be delivered in a format agreed between the Bank and the Firm.

#### **9. Acceptance criteria**

Each report must be submitted to the Bank in an electronic file. The report should include the cover page, the main document, and all annexes. Zip files will not be accepted as final reports, due to Records Management Section regulations.

A product will only be formally accepted and valid for payment after written approval from the consulting supervisor.

The Bank will provide comments, and the Firm will have 2 weeks to incorporate these comments and submit a final version to be eligible for payment. It is the firm's responsibility to ensure that such reports are submitted to the Bank. All materials and deliverables developed under this consultancy are the property of the Inter-American Development Bank.

#### **10. Other Requirements**

The consulting firm shall guarantee complete confidentiality in the handling and use of the project documents.

#### **11. Monitoring and Reporting**

The Firm will report directly to the Education Division. All deliverables must be submitted to team leader Tamara Vinacur (SCL/EDU) (tvinacur@iadb.org).

Deliverable reports and databases will be presented according to the project schedule in section 5.

Comments, approvals, or instructions for changes will be channeled through the Bank's designated representative. The consulting firm should address the concerns/comments/inputs made by the IDB before submitting the final deliverable document to the Bank.

#### **12. Payment Schedule**

| Deliverables                                     | %  |
|--------------------------------------------------|----|
| 1. Workplan                                      | 20 |
| 2. Methodology and preliminary pool of solutions | 30 |
| 3. Final strategic mapping report and dataset    | 50 |

## Annex: Croatia–LAC Strategic Mapping of Technology Solutions and Partnerships

### 1. Methodological Rationale

The proposed methodology builds directly on **previous IDB experiences on mapping of potential solutions for Digital Transformation in Education**, which have proven effective in producing a **transparent, rigorous, and policy-relevant overview of national technology ecosystems** aligned with development priorities in Latin America and the Caribbean (LAC).

For Croatia, this methodology is adapted to:

- reflect the **structure and scale of the Croatian technology ecosystem**
- align with the **Government of Croatia's preference** for an institution-led, non-commercial mapping process
- include solutions focusing on the **target areas of the EXPLEARN Facility**: i) enhancing and diversifying learning opportunities; ii) promoting data-informed decision making; and iii) fostering innovative teaching strategies

The approach maintains **comparability with the previous IDB mapping exercises**, while introducing targeted adjustments to ensure relevance, feasibility, and transparency.

### 2. Analytical Framework

The mapping will be organized around the **EXPLEARN Facility's target areas**:

- Enhancing and diversifying learning opportunities
- Promoting data-informed decision making
- Fostering innovative teaching strategies

Within each area, solutions will be grouped into **sub-categories**, while allowing flexibility to reflect Croatia's comparative advantages (e.g., software development, applied research, systems integration).

This work should also be embedded within and aligned with IDB's Digital Transformation in Education (DTE) framework, which is based in five enabling conditions for digital transformation: a) digital devices; b) meaningful educational connectivity; c) teachers' digital and pedagogical competencies; d) digital resources, platforms and content; and e) governance.

### 3. Data Sources and Identification Process

#### a) Sources

The initial pool of Croatian solutions will be compiled from **official, programmatic, and publicly verifiable sources**, including:

- national innovation and technology agencies;
- academic institutions and research centers;

- public registries and EU-funded program databases;
- technology clusters, incubators, and accelerators.

Only solutions **developed or co-developed in Croatia** will be considered. All data used must be **vendor-verified or publicly available**, ensuring traceability and transparency.

#### **b) Initial Screening (Desk Review)**

A structured desk review will be conducted to:

- harmonize entries and remove duplicates;
- filter solutions against **indicative inclusion criteria**, including:
  - demonstrated functionality and maturity;
  - relevance to LAC operational conditions;
  - scalability potential;
  - compliance with safety, equity, and data-protection standards.

This phase is expected to result in a **shortlisted pool of approximately 70–100 solutions**, depending on ecosystem breadth.

### **4. Evaluation and Validation Process**

#### **a) Evaluation Criteria**

The same **core evaluation dimensions used in previous IDB mapping experiences** will be applied, adapted to the Croatian context:

- **Educational or sectoral effectiveness:** Demonstrated impact, validated pilots, or credible evidence of outcomes.
- **Scalability and track record:** Evidence of sustained adoption, institutional use, or multi-country experience.
- **Technical quality and interoperability:** Reliability, cybersecurity, interoperability with common platforms, and ease of deployment.
- **Safety, equity, and inclusion:** Compliance with data protection regulations (e.g., GDPR), accessibility standards, and child-safeguarding principles.

#### **b) Expert Review Panel**

An **Expert Review Panel**, convened by the contracted academic or public institution, will:

- review the screened solutions;
- apply the evaluation criteria in a peer-review process;
- ensure methodological consistency and neutrality.

This process will result in a **longlist of at least 40 Croatian solutions**, comparable to previous IDB mapping initiatives.

## 5. Selection and Profiling of Solutions

From the longlist, the consultancy will produce **at least 20 in-depth solution profiles** (approximately 2 pages each)

Profiles will follow a **standardized template** (adapted from the company profile guidelines developed in IDB previous mapping experiences), covering:

- solution description and provider background;
- area alignment and sub-category;
- target users and sectors;
- evidence of impact or validation;
- implementation and localization requirements (including bandwidth functionality, LAC language readiness, among others);
- partnership and delivery models;
- scalability potential in LAC.

## 6. Outputs and Use of Results

The methodology will produce:

- a **comparable, high-quality mapping product**, aligned with the IDB previous mapping experiences;
- a **decision-support tool** for the IDB and the Government of Croatia;
- a **transparent basis** for engaging additional strategic partners and co-financiers.

The methodology is designed not as a promotional exercise, but as a **strategic enabling instrument** to support evidence-based cooperation between Croatia and Latin America and the Caribbean.