



Bridging Industry and Academia

July 2020

 **Universidad
Europea**

ESCUELA DE ARQUITECTURA
INGENIERÍA Y DISEÑO

STEAM

100% **PBL** PROJECT BASED
LEARNING



Academic STEAM areas

Aerospace and Aircraft Engineering

Architecture

Biomedical Engineering

Civil Engineering

Computer Science Engineering

Design (Interior, Product, Graphics)

Industrial Systems Engineering

Mathematics and Data Analysis Engineering

Physics

Videogame Design and Digital Animation

+2.400 students, **89%** employability

more than **580** teachers (professors + external professionals)

Degrees & Postgraduate degrees, in continuous portfolio evolution

Student and R&D projects in collaboration with the industry

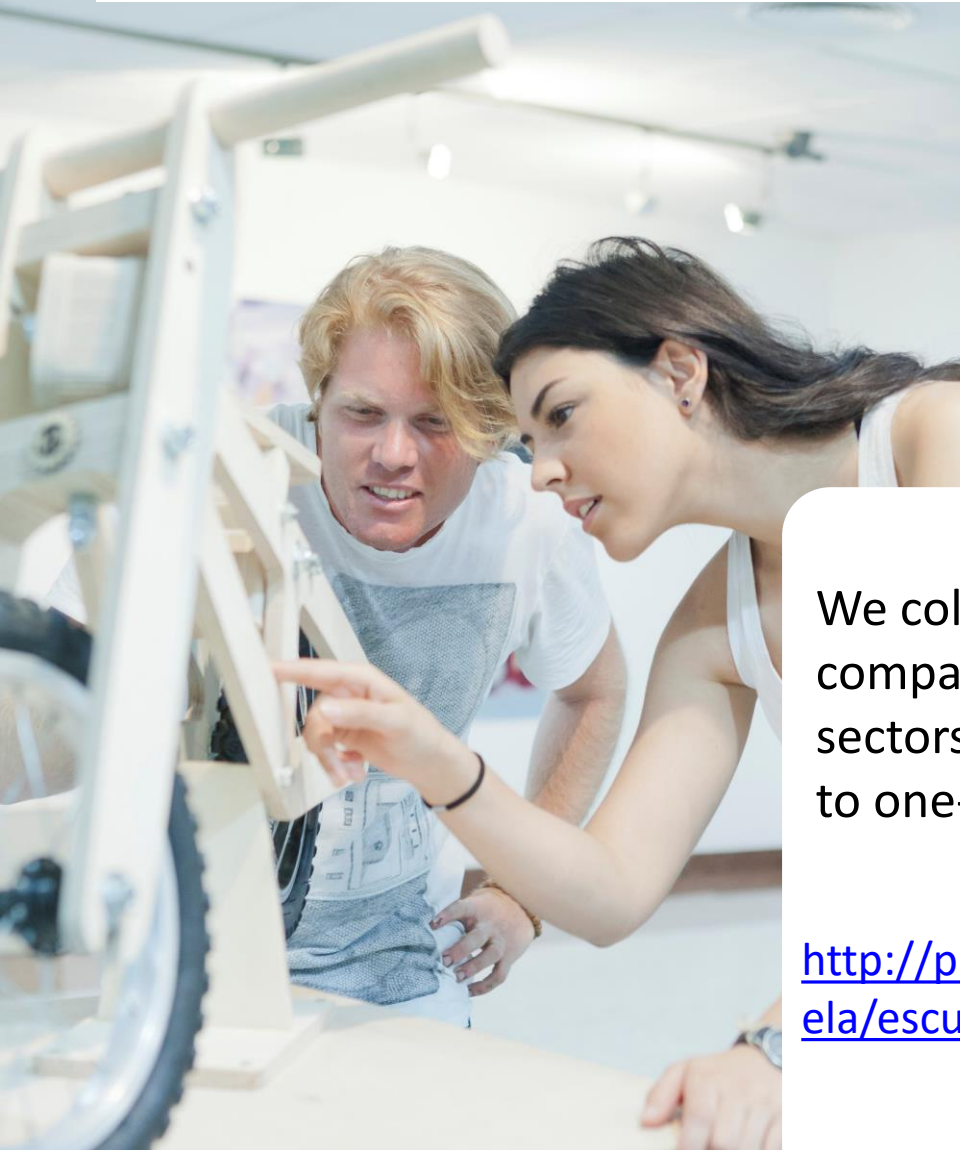
NAAB & RIBA accredited Programs

CAE Business Advisory Board with business and industrial leaders

<http://projectbasedschool.universidadeuropea.es/>

⁽¹⁾ 2019-2020

Partners and business collaborations



We collaborate with leading and innovative companies in all kinds of industrial and business sectors, ranging from long-term collaborations to one-shot professional networking initiatives.

<http://projectbasedschool.universidadeuropea.es/escuela/escuela/colaboradores>

Facilities for projects and shared collaborations



Specialized facilities to enable projects and collaborations:

FabLab UE

TechFactory

Aerodynamics and wind tunnel laboratory

BIM Lab

...and much more

<http://projectbasedschool.universidadeuropea.es/escuela/escuela/instalaciones>

Collaboration areas



Knowledge sharing & Networking

Value dissemination
and networking in
academic and
industry community

Education & Training

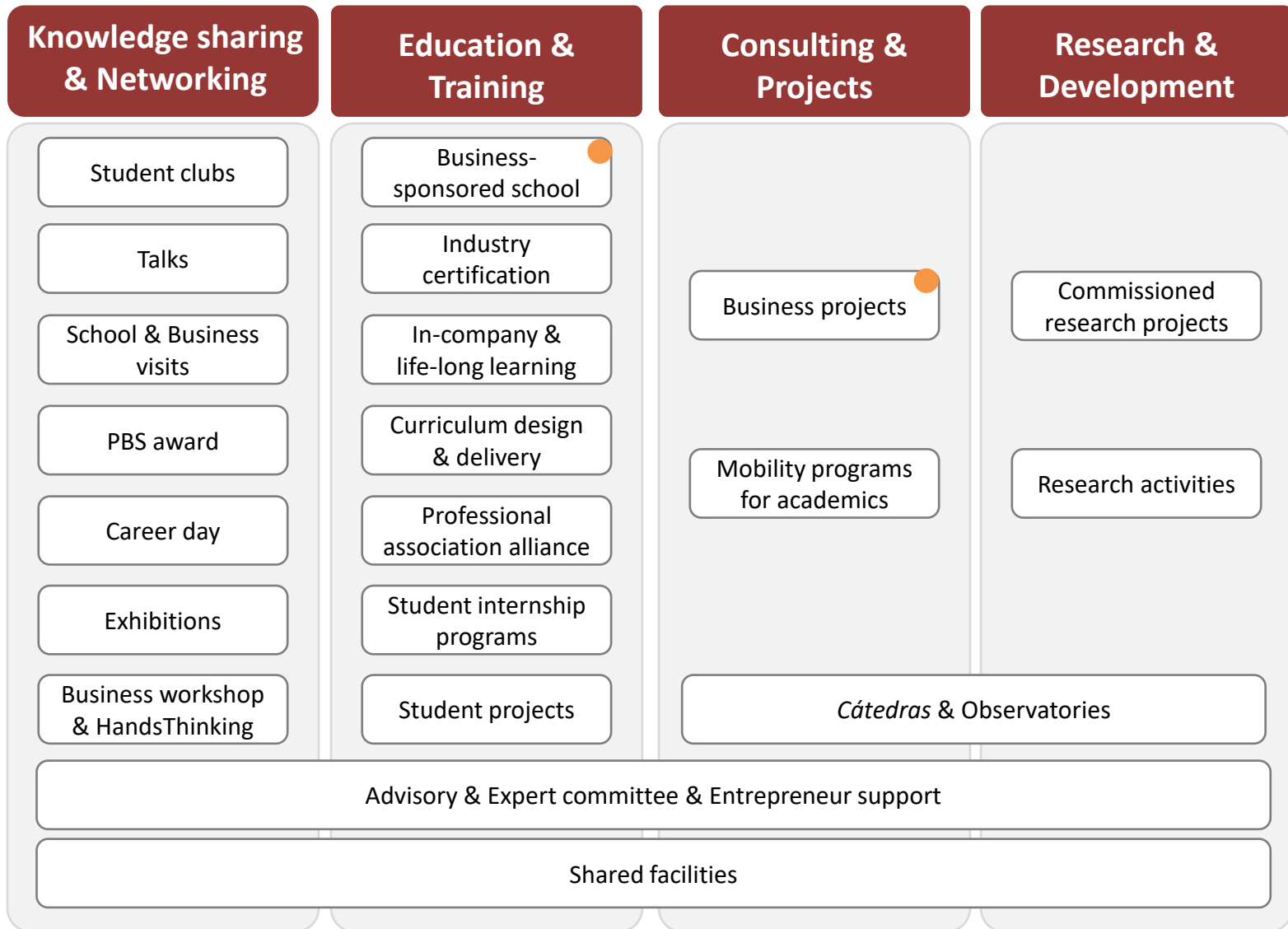
Bi-directional learning
initiatives and
knowledge
cooperation programs

Consulting & Projects

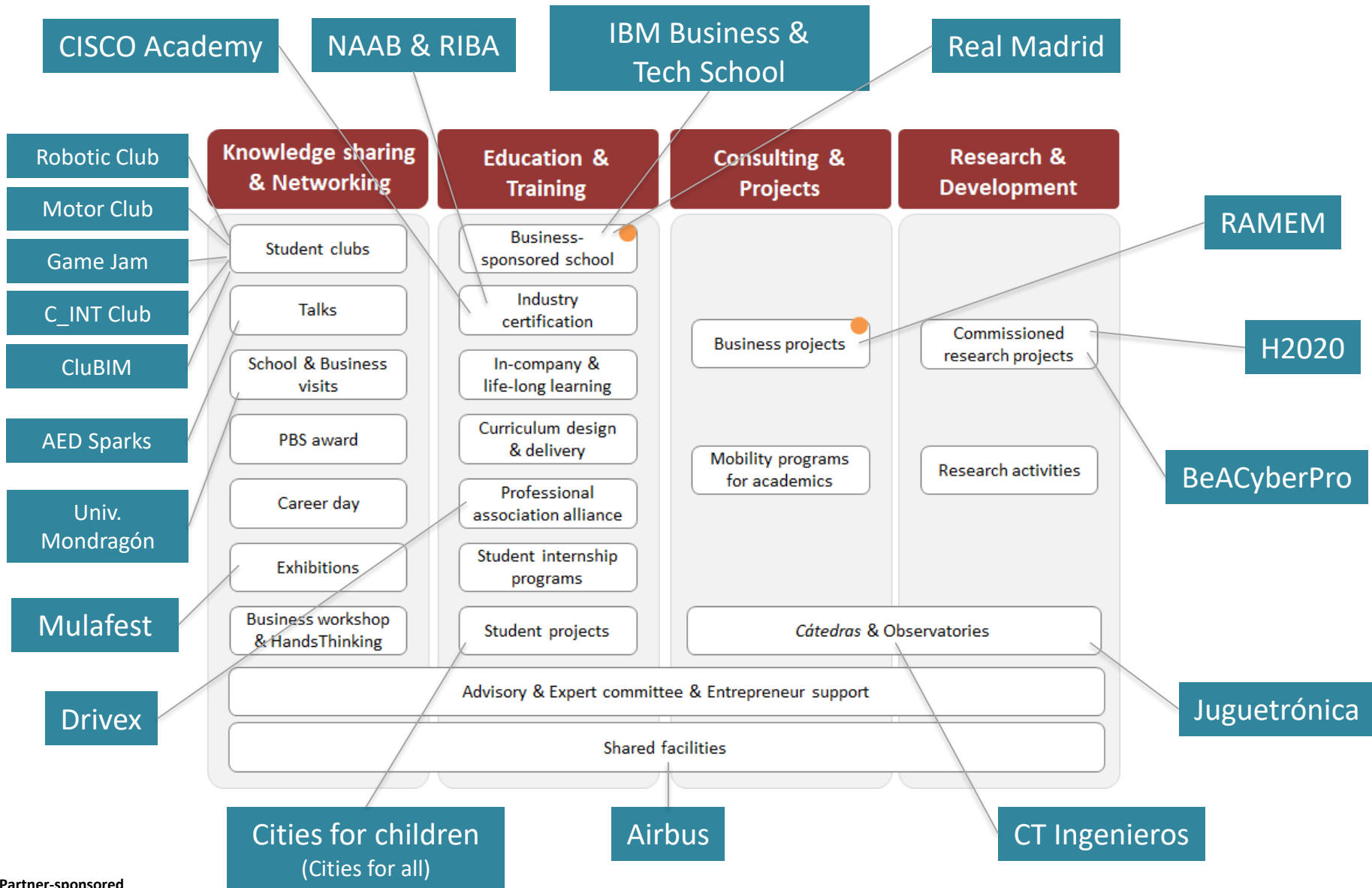
Projects and
Innovation programs

Research & Development

Joint R&D and
contract research for
scientific production



Examples of recent collaborations and initiatives



Partner-sponsored



Knowledge sharing & Networking

Knowledge sharing & Networking

Student clubs

Talks

School & Business visits

PBS award

Career day

Exhibitions

Business workshop & HandsThinking

Advisory & Expert committee

Who

Any organization or institution (Company, University, NGO, etc.) who wants to collaborate with AED in a short-term and easy-to-use setup.

Benefits

- Networking & Showroom
- Talent discovery
- Knowledge and ideation sharing

Setup

Ad-hoc collaboration agreements.
Short-term collaborations (1/2 day up to 1 week).

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Game Jam (11th edition)

Museo Thyssen Bornemisza and AED students

enjoyed a 3-day Game Jam event to discover and create Videogame with Arts and Painting as topic, with more than 110 participants, and more than 16 Videogames ideas and prototypes.

“quote from Museo”

<https://www.educathyssen.org/programas-publicos/game-jam-weekend>

<https://universidadeuropea.es/noticias/game-jam-weekend-arte-y-genero-para-la-creacion-digital-de-videojuegos>

<https://www.economista.es/ecoaula/noticias/9177625/06/18/us/La-Universidad-Europea-y-el-Museo-Thyssen-proponen-crear-un-videojuego-sobre-arte-y-genero.html>

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Mulafest (8th edition)



- Students of Art, Design and Architecture Degree collaborate with Urban Trends Festival Mulafest with the production of ephemeral interventions.

<https://www.ifema.es/mulafest/arte>

<https://universidadeuropea.es/noticias/la-universidad-europea-colabora-por-septimo-ano-consecutivo-con-el-festival-mulafest>

Knowledge sharing & Networking - Example



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The screenshot displays the website for the PBS award contest. At the top, it features the Universidad Europea logo, the text 'ESCUELA DE ARQUITECTURA INGENIERÍA Y DISEÑO', and the 'STEAM' and '100% PBL PROJECT BASED LEARNING' logos. Below the header, there are navigation tabs for 'ESCUELA' and 'ÁREAS'. A dropdown menu shows 'Curso 2018 / 2019'. The main content area is a grid of project categories and winners:

- PROYECTOS INTEGRADORES 18-19. Concurso PBS**: Projects Integradores curso 18-19. Concurso Premios PBS 2019.
- VII Edición de los Premios Project-Based School**: Celebrado el pasado 25 de septiembre.
- Reducing Aviation Climate Impact**: Finalista Premios PBS 2019.
- Aerogel Combustion Chamber**: Ganador Premio PBS 2019.
- Ejes urbanos Lima-Madrid**: Finalista Premio PBS 2019.
- ARE 'Architecture for Rural Environment'**: Ganador Premio PBS 2019.
- Finder Hawk**: Finalista Premio PBS 2019.
- Phobos**: Ganador Premios PBS 2019.
- Nouralia**: Candidato Premios PBS 2019.

Social media icons for ARQ, ING, GIS, and YouTube are visible at the bottom left. A copyright notice at the bottom right reads: '© Universidad Europea de Madrid | cec.escola@universidadeuropea.es | Todos los derechos reservados - aviso legal'.

- Yearly academic project contest, in which our students develop technical and professional competences
- Awarded based on a jury composed by companies invited to the ceremony

<http://projectbasedschool.universidadeuropea.es/escuela/utilidades/pbs>

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CAE Business Advisory Board

Analysis, prospective and debate with top-level representatives of the industrial and professional world.

This think tank helps the School to align its efforts in innovation and methodology with the current and foreseeable needs of the professional world, ensuring the best training for its students at all levels.

http://projectbasedschool.universidadeuropea.es/escuela/escuela/consejo_asesor_empresarial



Education & Training

Education & Training

Business-sponsored school

Industry certification

In-company & life-long learning

Curriculum design & delivery

Professional association alliance

Student internship programs

Student projects

Advisory & Expert committee

Shared facilities

Who

Any organization or institution (Company, University, NGO, etc.) who wants to offer Education and Training or requires workforce training in collaboration with AED experts.

Benefits

- Competency and proficiency development aligned to business & market needs
- Workforce development
- Business development

Setup

Partner, ad-hoc and standard contract-based collaboration.

Duration specific to each collaboration.

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Cisco Academy

CCNA Certificate

Universidad Europea is part of Cisco Networking Academy Program in Spain, delivering ICT educational training programs and official certification into the STEAM curriculum.

Universidad Europea is granted the "Best Cisco Networking Academy Center" award:

<https://universidadeuropea.es/en/news/universidad-europea-is-granted-the-best-cisco-networking-academy-center-award>

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Cities for children, cities for all

La ciudad de l@s niñ@s

Ayto. Fuenlabrada + Indaga Research and CambiaMo- Changing Mobility

Safe School Roads initiative, launched by the Fuenlabrada City Council, to promote sustainable, autonomous and active children's mobility on their way to school.

- Analysis and redesign of residential areas
- Data processing and mapping (GIS) of school itineraries
- Pedestrian audit and improvements proposal for school environments
- Project's branding and naming
- Urban signage design for school routes
- Design and assembly of thematic exhibitions
- Conferences, fieldwork, professional meetings - Council and companies



<https://memuevoporfuenlabrada.es/caminos-escolares/>

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Business & Tech School IBM Universidad Europea

The first dedicated business and tech school in Spain.

Innovative postgraduate programs and expert courses in Management, Big Data & Analytics, Cloud & IT Security, Blockchain and Artificial Intelligence.

- International case studies, access to conferences, meetings with experts and professionals from IBM and other leading companies in the tech sector
- IBM actively participates in defining program content, teaching and co-directing each of the postgraduate programs
- Students receive a unique experience thanks to their access to tools, technologies and real projects
- Visit to IBM laboratories and innovation centers in Spain and abroad

<https://universidadeuropea.es/en/business-tech-school>

<https://youtu.be/jrnoJldWv50>

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In-company & Life-long learning

The European University “Expert Postgraduate Masters” and courses are specifically designed at professionals seeking continuous learning.

- Postgraduate degrees aimed to suit professional needs and become an expert in new technologies and advanced topics
- Portfolio by type of study and area of knowledge
- Adapted to professionals study requirements (duration, pace)
- Optional customized content based on particular needs

Example of our postgraduate expert offering:

<https://universidadeuropea.es/business-tech-school/titulacion/postgrado-inteligencia-artificial>



Consulting & Projects

Consulting & Projects

Business projects

Mobility programs
for academics

*Cátedras &
Observatories*

Advisory & Expert
committee

Shared facilities

Who

Any organization or institution (Company, University, NGO, etc.) who wants to design, plan and execute STEAM-related projects in collaboration with AED.

Benefits

- Improved project outcomes with skilled academic specialists
- High-tech and scientific knowledge available for business projects
- Prototyping and test beds

Setup

Standard contract and budget-based project. Duration specific to each project.

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Juguetrónica - Unmanned aerial vehicles

Drone Smart Search, a software solution developed in collaboration with Aerorobótica (Juguetrónica's professional drone division)

- Autonomous drone control solution for landing, take off and target tracking
- Operator base control station for target selection
- Relevant to search and rescue missions, traffic control, security and surveillance, emergency services, etc.

Get insight into the solution:

<https://aerorobotica.com/aerorobotica/software/>

<https://www.innovaspain.com/software-automatizacion-vuelo-drones-drone-smart-search/>

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CT Ingenieros - Web development platform for processing multispectral imaging mission planning and UAVs

- Innovative project applied to health and crop maturity control
- Use of drones with an optimized flight plan
- Based on multispectral image analysis

Get insight into the project:

<https://universidadeuropea.es/noticias/la-universidad-europea-y-ct-ingenieros-ponen-en-marcha-una-catedra-de-aplicaciones-de-drones-para-analizar-cultivos>



Research & Development

Research & Development

Commissioned
research projects

Research activities

Advisory & Expert
committee

Shared facilities

Who

Any Research Institution, University or Organization who wants to accomplish research and innovation outcomes in collaboration with scientific and high-tech experts.

Benefits

- Specialized knowledge in different fields
- Specific knowledge in research methodology
- Research contacts with others institutions
- Technical equipment or contact with specialized providers

Setup

Collaboration based on:

- Standard research project contract
- Ad-hoc research agreement contract
- Collaboration in a research proposal as part of the same research team

Mid and long-term collaboration (1 to 5 years).

Research & Development - Example



Research & Development

Commissioned research projects

Research activities

Advisory & Expert committee

Shared facilities

Who



Results

European Commission through iCoachKids Consortium made up 8 European institutions such as Sports Federations (national and international), Universities or Governments Representatives

- An **interactive online platform** where youth sport coaches can share and learn from each other – January 2017
- **FREE e-learning** in the shape of three newly developed **Massive Open Online Courses (MOOCs)** – Summer 2018
- A **repository of new and existing resources** and materials from all over the world aimed at youth sport coaches and parents – January 2017
- Regular **blogs and articles** from expert international contributors – January 2017
- A **European Coaching Children Curriculum** – Summer 2017
- A collection of **case studies of good practice** in the education and development of children and youth sport coaches – Summer 2017
- A report on the nature of the **Coaching Children Workforce** across seven European Countries – Summer 2017

Refs

<https://www.icoachkids.eu/>

<http://e-learning.icoachkids.eu/login/index.php>

<https://www.youtube.com/channel/UCMMDMadlm u15v-Wo4-c-vOw>

Contact information

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