



Promoting academia-industry alliances
for R&D through collaborative and
open innovation platform - All4R&D

Co-funded by the
Erasmus+ Programme
of the European Union



Promoting Academia-Industry Alliances for R&D Through Collaborative and Open Innovation Platform

A **L** **L** **4** **&** **D**



Consortium Members

Program countries:

- 1. “Ss. Cyril and Methodius” University in Skopje – UKIM, North Macedonia**
- 2. Institute for Environment, Civil Engineering and Energy – IECE, North Macedonia**
- 3. Ruhr University Bochum – RUB, Germany**
- 4. University of Vaasa – UVA, Finland**
- 5. World University Service - Austrian Committee – WUS, Austria**

Partner countries:

- 1. University of Sarajevo – UNSA, Bosnia and Herzegovina**
- 2. Dzemal Bijedic University of Mostar – UNMO, Bosnia and Herzegovina**
- 3. National University of Architecture and Construction of Armenia – NUACA, Armenia**
- 4. National Polytechnic University of Armenia – NPUA, Armenia**
- 5. Yerevan Telecommunication Research Institute – YeTRI, Armenia**
- 6. Institute for Informatics and Automation Problems – IIAP, Armenia**
- 7. Winner Project d.o.o. Sarajevo – WP, Bosnia and Herzegovina**
- 8. HP Investing Mostar – HPM, Bosnia and Herzegovina**

Wider Objective of the Project

- **To accelerate research, innovation, knowledge and technology transfer in Bosnia and Herzegovina and Armenia through enhancing strategic academia-industry alliances**

Specific Project Objectives:

- **To reinforce existing and to establish new university structures – Cooperative R&D Units together with industry partners in the areas of knowledge creation and transfer, research and innovation, commercialisation of R&D results**
- **To develop a methodology for collaboration and open innovation and establish web-based platform focusing on knowledge transfer, innovation and networking potential**
- **To test and review the model of collaboration between universities and companies through pilot projects**
- **To enhance career development and employability of students and alumni by offering new and innovative opportunities in research and education**

Work packages

**WP 1. Kick-off seminar and analysis of R&D&I potential
(15.11.2018 (M1) - 30.01.2019 (M3))**

Activities:

- **1.1 Assessments and analysis of R&D&I potential of alliances among universities and companies in Bosnia and Herzegovina and Armenia**
- **1.2 Kick-off seminar and project team building**

Expected Outcomes:

- **Kick-off seminar held**
- **Conducted analytical assessment of the R&D&I potential of alliances among universities and companies in Bosnia and Herzegovina and Armenia**

Work packages

WP 2. Capacity building of units – Cooperative R&D Units (15.01.2019 (M3) - 30.08.2021 (M22))

Activities:

- **2.1 Establishing and embedding at the Universities' structure**
- **2.2 Definition of Cooperative R&D strategies, structures, tools and procedures**
- **2.3 Elaboration of Business plans and development of activities**
- **2.4 Recruitment and training of staff from universities and companies**
- **2.5 Defining and purchasing equipment**

Expected Outcomes:

- **Established and embedded at the Universities' structure**
- **Cooperative R&D strategies, structures, tools and procedures defined and prepared**
- **Business plans elaborated**
- **Staff from universities and companies recruited and trained**
- **Equipment chosen and purchased**

Work packages

WP 3. Creating Collaborative and Open Innovation Platform (15.01.2019 (M3) - 30.10.2021 (M35))

Activities:

- **3.1 Design and technical development of interactive web-based platform**
- **3.2 Establishing collaborative partnerships between universities and companies for R&D&I**
- **3.3 Develop an open innovation model for academia-industry collaboration**
- **3.4 Development and implementation of training courses and innovation interaction activities offered by professors and experts from industry**
- **3.5 Creating research inventory**

Expected Outcomes:

- **Design and technical development of interactive web based platform**
- **Establishing collaborative partnerships between universities and companies for R&D&I**
- **Develop an open innovation model for academia-industry collaboration**
- **Training courses and innovation interaction activities offered by professors and experts from industry developed and implemented**
- **Research inventory categorised**

Work packages

WP 4. Trials, Pilot & Review

(13-04-2020 (M13) - 14-11-2021 (M36))

Activities:

- **4.1 Launch the Cooperative R&D Units' operations through Pilot projects**
- **4.2 Review the trial phase using framework of effectiveness**

Expected Outcomes:

- **Cooperative R&D Units' operations launched through Pilot projects**
- **The trial phase reviewed using framework of effectiveness**

Work packages

WP 5. Quality control, monitoring and evaluation (15-11-2018 (M1) - 14-11-2021 (M36))

Activities:

- **5.1 Establishing quality control system**
- **5.2 Conducting quality control and monitoring procedures**
- **5.3 Impact evaluation and reporting**

Expected Outcomes:

- **Quality control system established**
- **Quality control and monitoring procedures conducted**
- **Impact evaluation and reports prepared**

Work packages

WP 6. Communication, Dissemination and Exploitation of project results (15-11-2018 (M1) - 14-11-2021 (M36))

Activities:

- **6.1 Development of project web portal**
- **6.2 Dissemination and communication strategy and activities**
- **6.3 Ensuring sustainability of the project outcomes**

Expected Outcomes:

- **Project web portal developed and launched**
- **Dissemination and communication strategy and activities implemented**
- **Sustainability of the project outcomes ensured**

Work packages

WP 7. Project management and coordination (15-11-2018 (M1) - 14-11-2021 (M36))

Activities:

- **7.1 Ongoing project coordination and communication**
- **7.2 Financial management and administration**

Expected Outcomes:

- **Project coordination and communication ensured**
- **Financial management and administration reports prepared**

The background features a dark blue grid of thin lines forming a pattern of squares and diamonds. At the intersections of these lines are various sized circular nodes, some solid and some semi-transparent, creating a network-like or molecular structure.

***NPUA Cooperative R&D
Unit's Project***

Cooperative R&D Unit

Primary goal:

Creation of truly universal innovative zone, which will be designed to provide a convenient and effective opportunity of modern research, development and education



Main research field:

**Educational and Research
Application of Information
(Digital) Technologies**



Specific Objectives of R&D Unit



- Ensuring in the University continuous operational communication with the industry
- Carrying out research and development with the involvement of teachers, students (mainly Master and PhD) and alumni
- Implementation of regular education and extracurricular targeted trainings on the basis of active learning and digital technologies



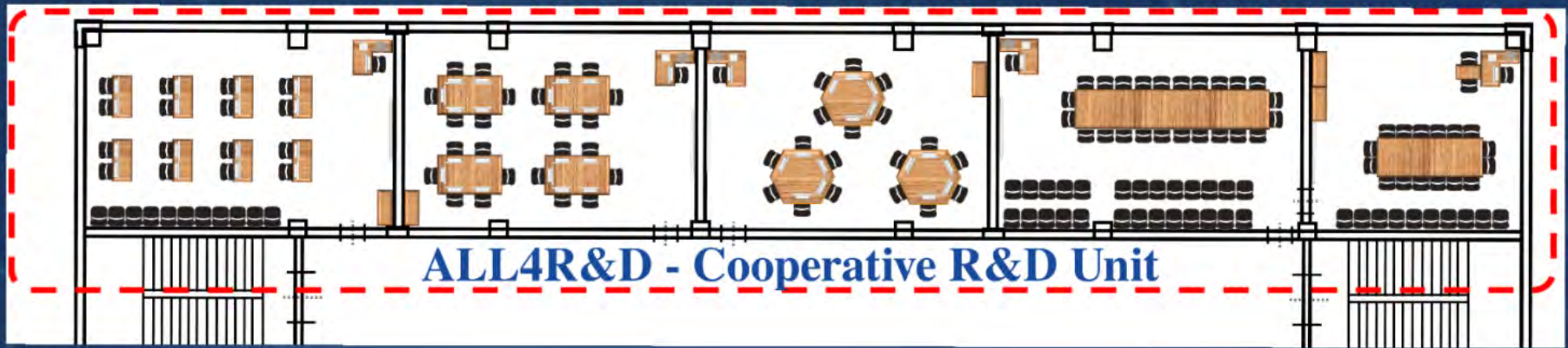
Cooperative R&D Unit's Project

*Institute of Information and
Communication Technologies
and Electronics*

3rd floor – over 600 m²

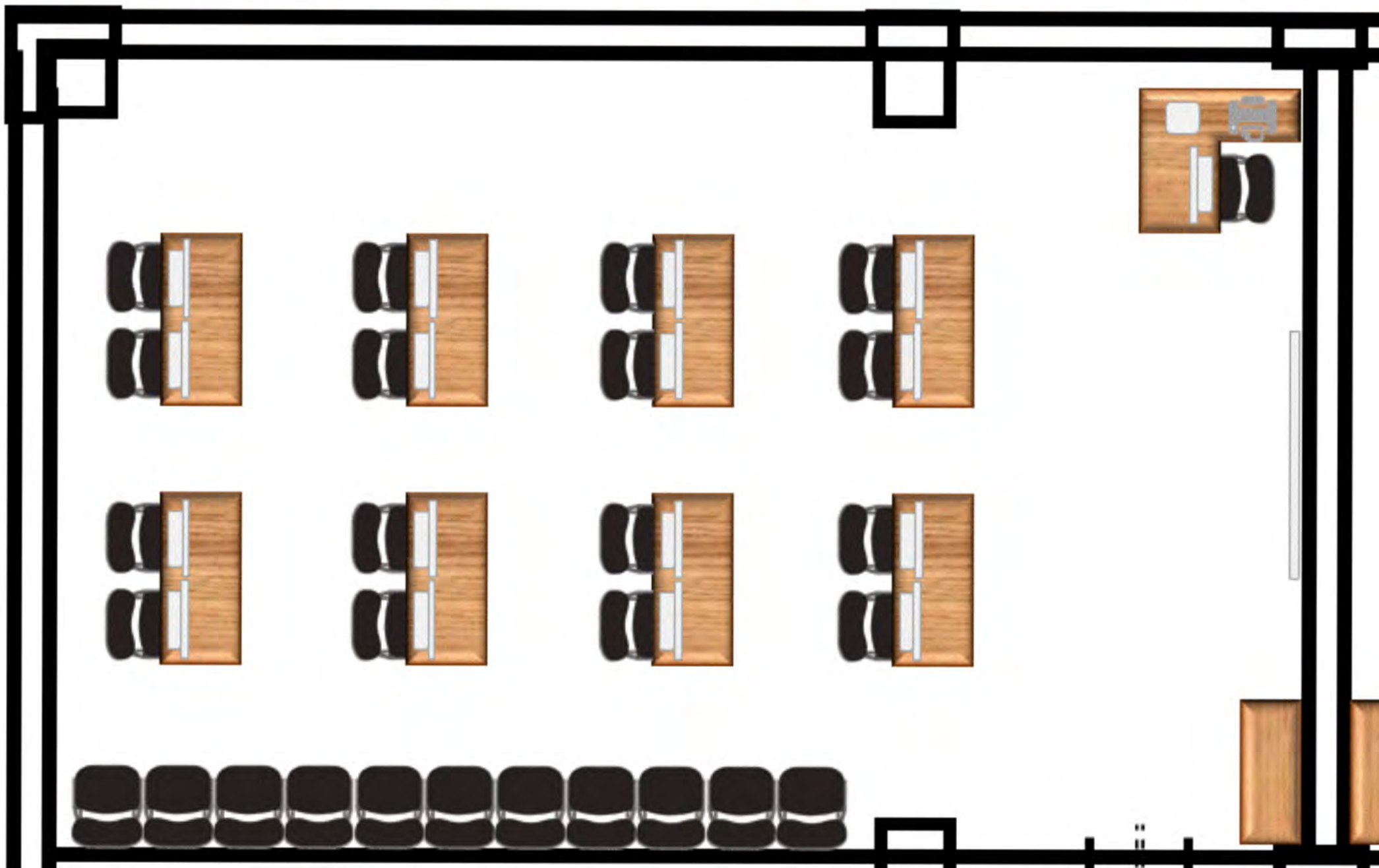
**Involvement of structural
subdivisions of the Institute, as
well as the University as a whole,
on the basis of cooperation with
industry and innovative activity**



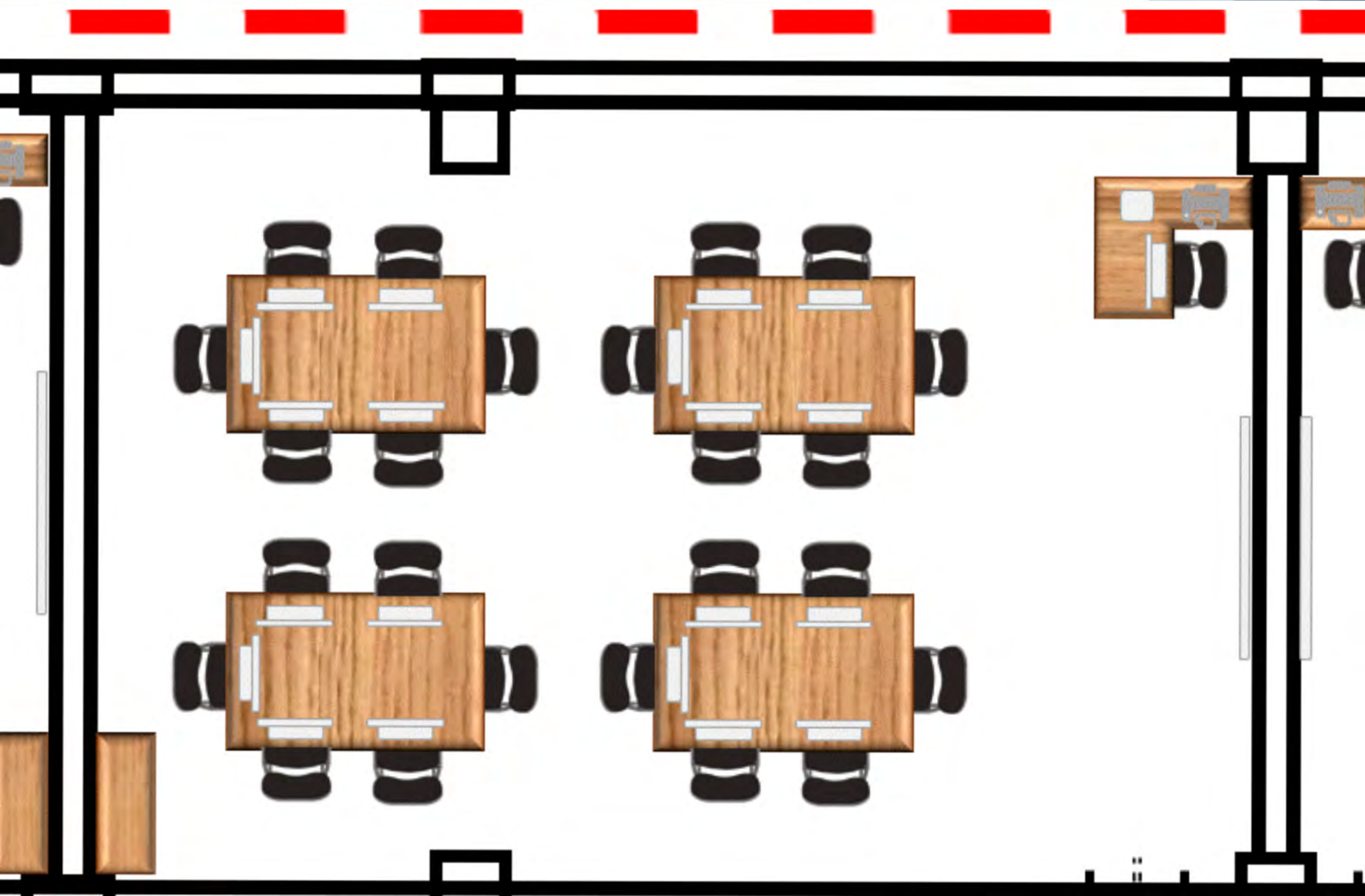


Multi-level Wi-Fi network and extensive cooperation with the industry

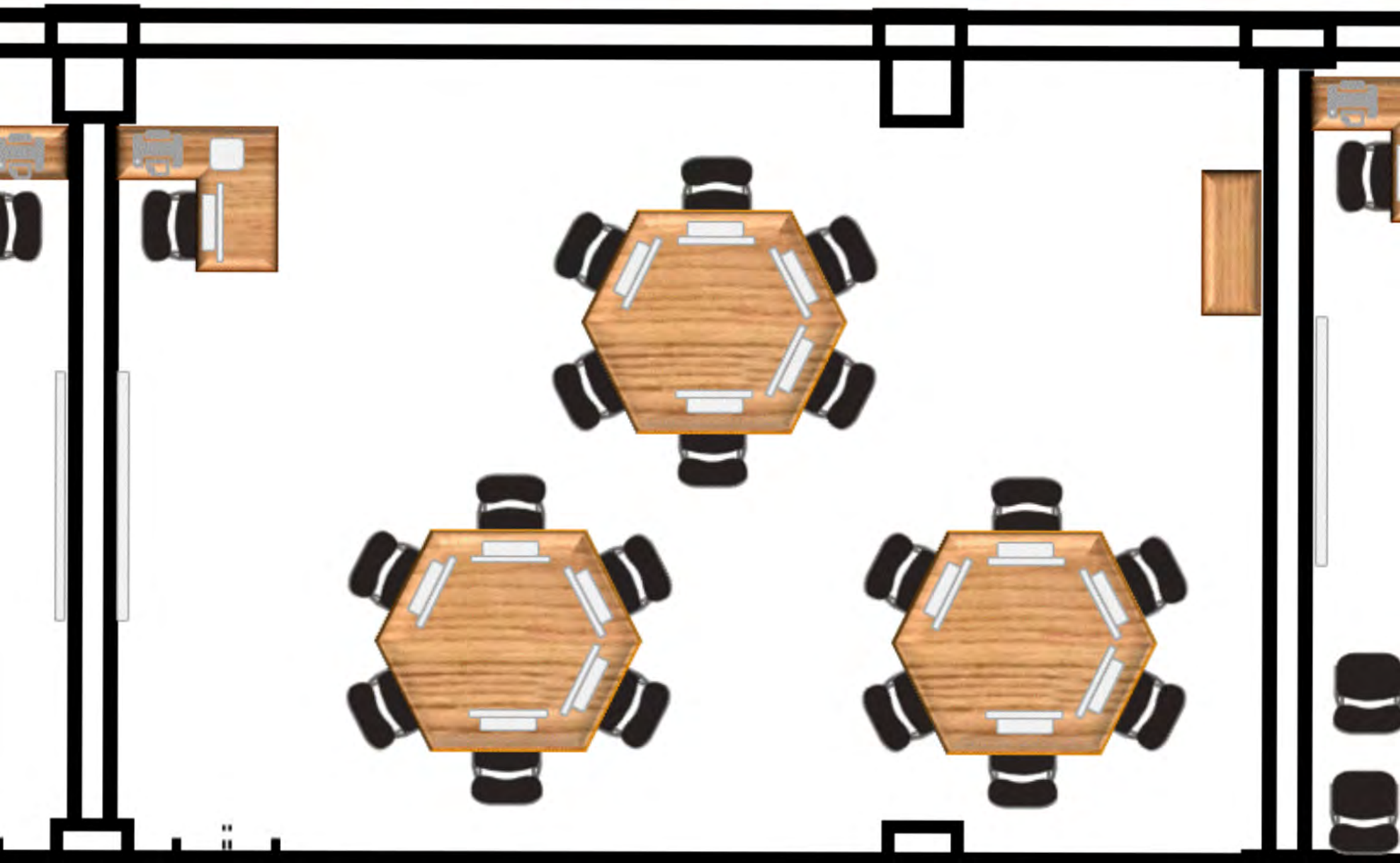
Scientific Calculations and Modeling Lab



Interdisciplinary Interaction Lab

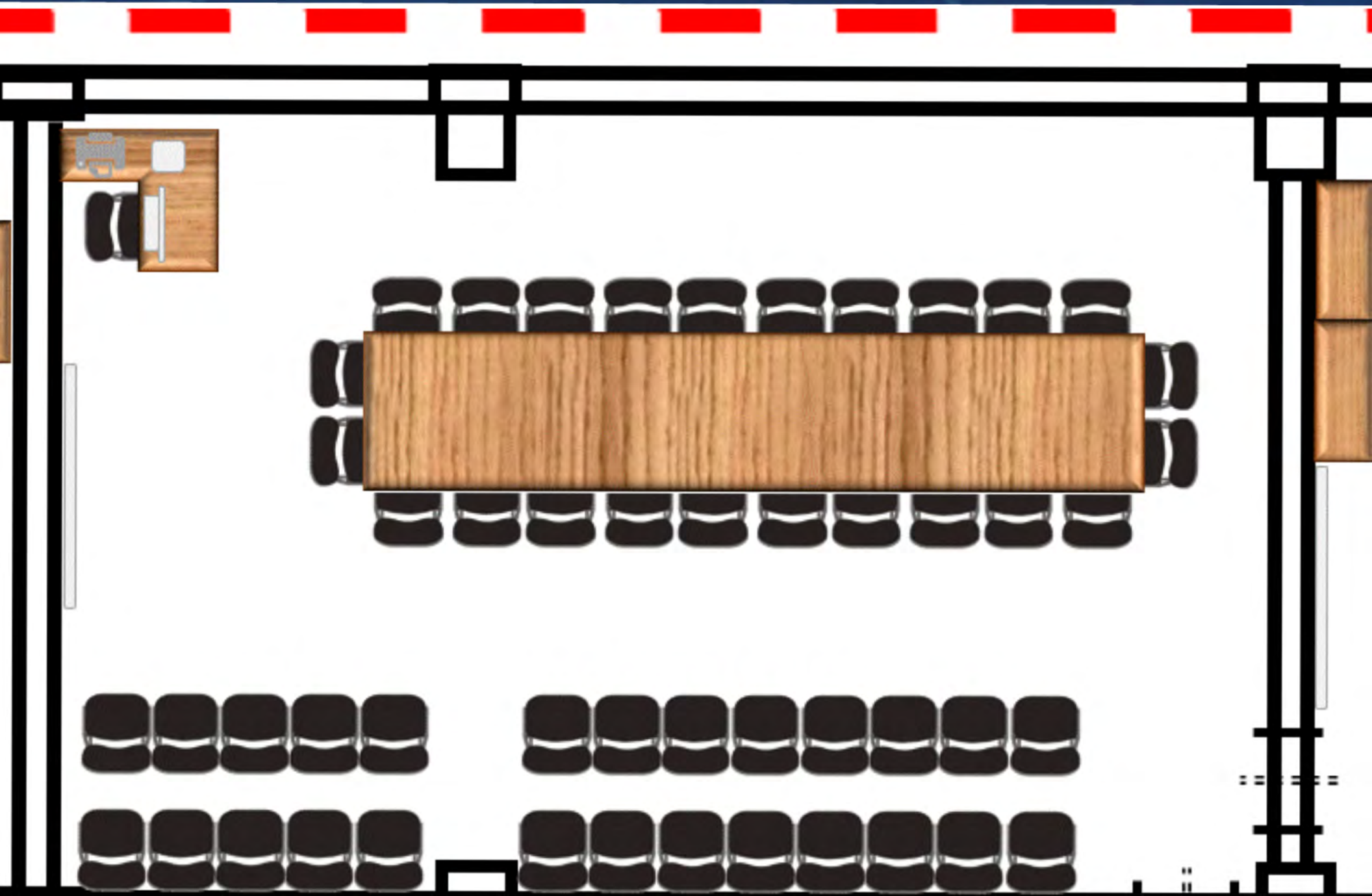


Gamification and Virtual Reality Lab

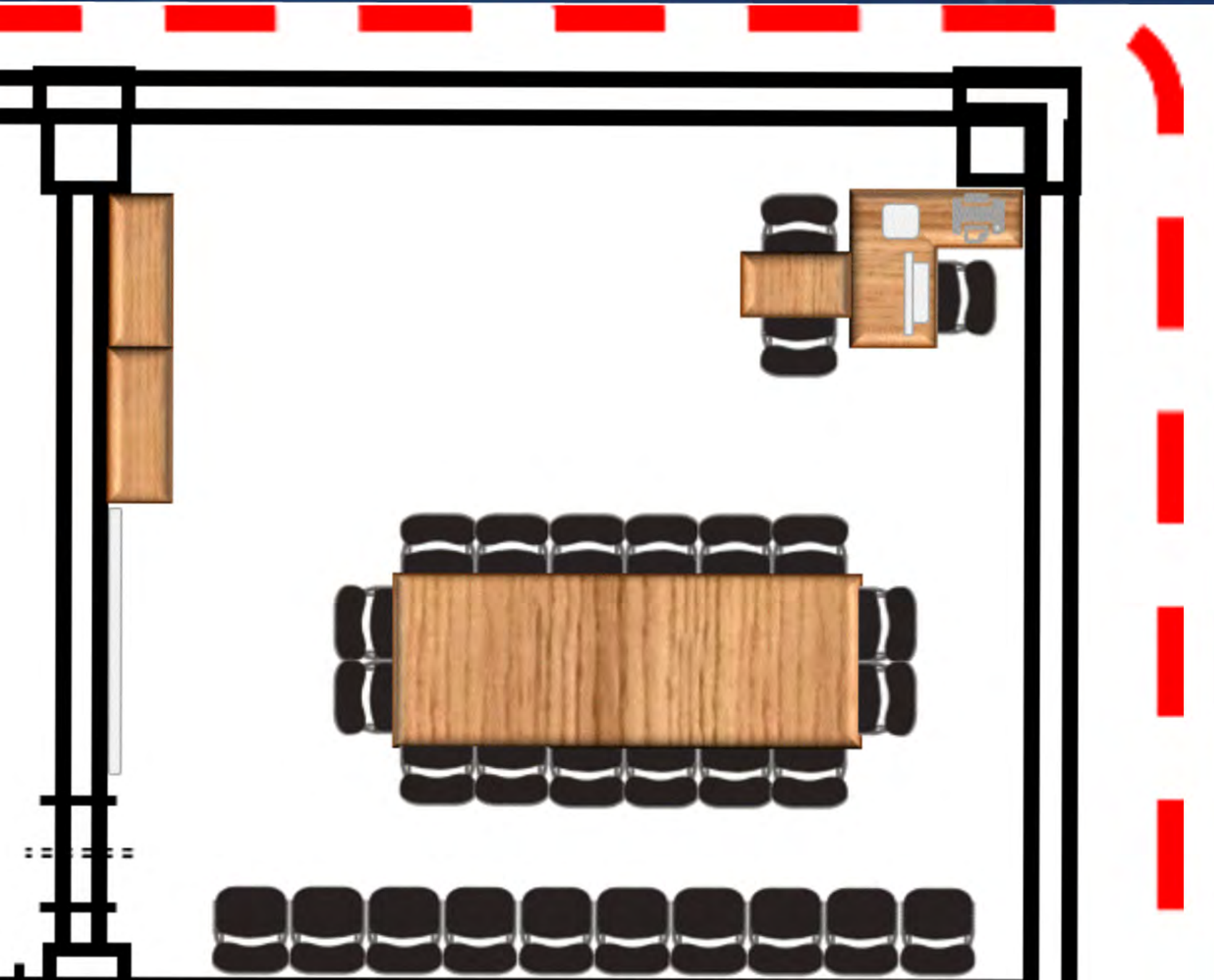


Large Group Communication Lab

Inter



Interactivity and Small Group Communication Lab



List of Equipment for Cooperative R&D Unit

	Specification Details	Q'ty	Unit price, Euro	Total Price, Euro
1	All-in-One PC - 22" / CPU i3 (8th Gen) / 4GB RAM / 500GB HDD / Integrated Webcam, Microphone & Speakers / Bluetooth / Wi-Fi / Wireless Keyboard & Mouse / White	51	450	22 950
2	All-in-One PC - 24" Touch-Screen / CPU i5 (8th Gen) / 8GB RAM / 1TB HDD / DVD-RW / Integrated Webcam, Microphone & Speakers / Bluetooth / Wi-Fi / Wireless Keyboard & Mouse / White	5	1 100	5 500
3	Display - 75" Interactive Touch-Screen / 4K Ultra HD / D-LED / Anti-Glare / USB / HDMI In-Out / VGA In-Out / Audio In-Out / Speakers. Wall Mount	1	4 400	4 400
4	3d Virtual Reality Set – PC Connection, Dual OLED Display, 1080x1200 pixels per eye, 90 Hz, 110 degrees, Hi-Res headset/headphone, Integrated microphones, USB 2.0 x 2, G-sensor, Gyroscope, Proximity, Controllers x 2 (Inside-out Tracking, G-sensor, Gyroscope, Proximity, Trigger, Button x 4, USB 2.0)	1	600	600
4	Multifunction Printer - Monochrome laser / Print, Scan, Copy / A4 / 18 ppm / ADF / USB 2.0 / 10/100 LAN / Wi-Fi	5	170	850
5	Multifunction Printer - Monochrome laser / Print, Scan, Copy / A3 / 23 ppm / USB 2.0	1	650	650
6	Projector – DLP / WXGA (1280 x 800) / 3800 lm / 22000:1/ HDMI / VGA / USB / HDMI - Wi-Fi Dongle / Ceiling Mount with Cables	5	500	2 500
7	Projector Screen - 180x180 / Wall Mount	4	70	280
8	Wi-Fi Access Point - 10/100/1000 Ethernet por / 2 x Dual-band antennas / 802.11a/b/g/n/ac / 2.4 GHz/5 GHz / Wi-Fi Multimedia	3	90	270
			Total	38 000

Communication and Information Infrastructure

To be Provided by the Institute for Informatics and Automation Problems



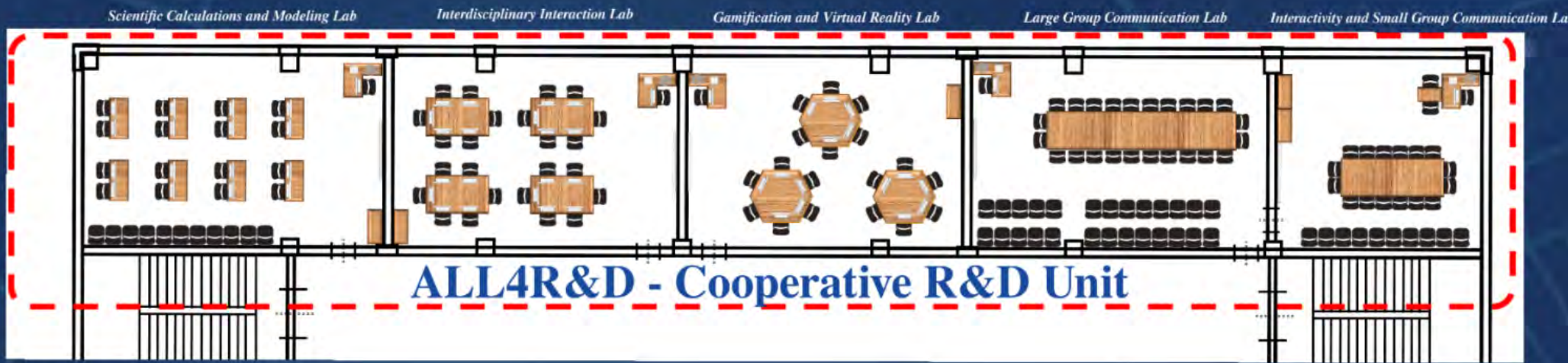
*High Speed Dedicated Communication
Channel with Internet Access*

*Academic Scientific Research
Computer Network of Armenia*



**Supercomputer
and its
Resources**





Multi-level Wi-Fi network and extensive cooperation with the industry

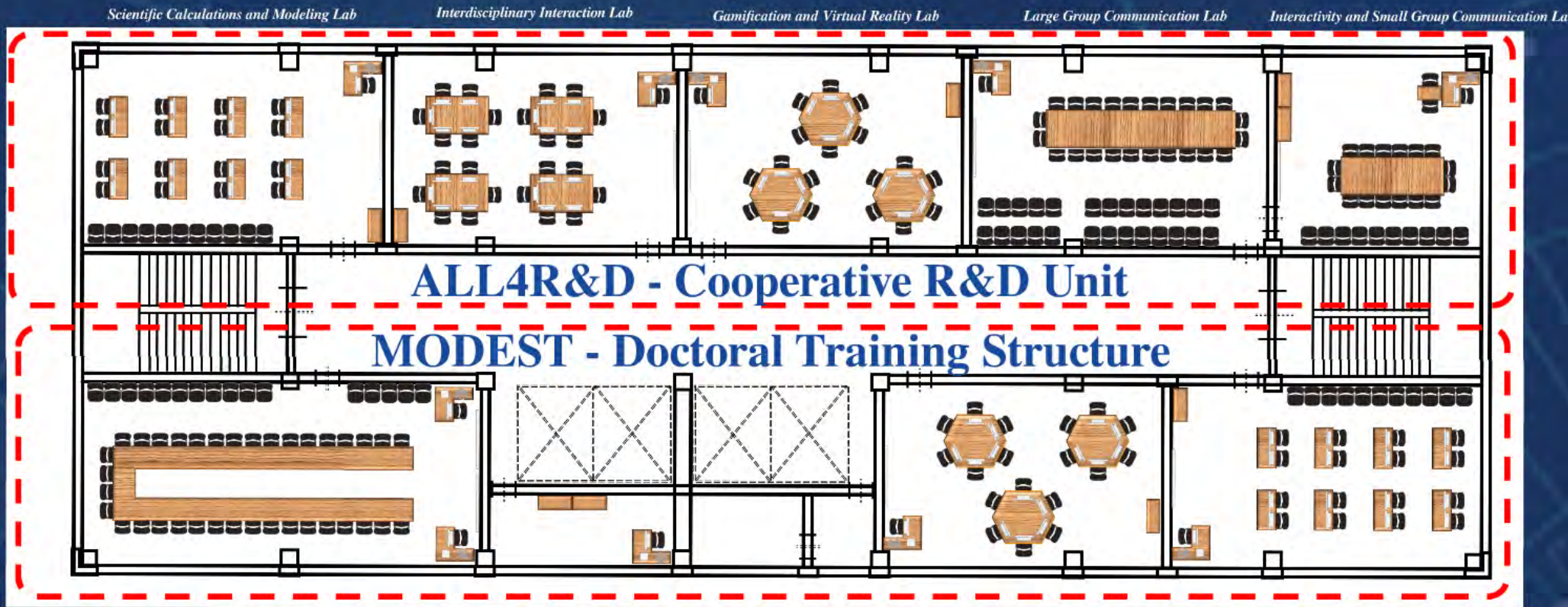
In order to achieve the best results and their wide dissemination, synergy will be established with another Erasmus + project

Synergy within Erasmus+ Programme

*Modernization of Doctoral
Education in Science and
Improvement of Teaching
Methodologies - MODEST*

Doctoral Training Structure

Structure of Innovative Education and Research Cooperative Centre



Multi-level Wi-Fi network and extensive cooperation with the industry

In order to achieve the best results and their wide dissemination, synergy will be established with another Erasmus + project

List of Equipment for Doctoral Training Structure

	Specification Details	Q'ty	Unit price, Euro	Total Price, Euro
1	All-in-One PC - 22" / CPU i3 (8th Gen) / 4GB RAM / 500GB HDD / Integrated Webcam, Microphone & Speakers / Bluetooth / Wi-Fi / Wireless Keyboard & Mouse / White	31	450	13 950
2	All-in-One PC - 24" Touch-Screen / CPU i5 (8th Gen) / 8GB RAM / 1TB HDD / DVD-RW / Integrated Webcam, Microphone & Speakers / Bluetooth / Wi-Fi / Wireless Keyboard & Mouse / White	4	1 100	4 400
3	Multifunction Printer - Monochrome laser / Print, Scan, Copy / A4 / 18 ppm / ADF / USB 2.0 / 10/100 LAN / Wi-Fi	3	170	510
4	Portable Projector – DLP / WXGA (1280 x 800) / 3800 lm / 22000:1/ HDMI / VGA / USB / HDMI - Wi-Fi Dongle / Ceiling Mount with Cables	4	500	2 000
5	Projector Screen - 180x180 / Wall Mount	4	70	280
6	Wi-Fi Access Point - 10/100/1000 Ethernet por / 2 x Dual-band antennas / 802.11a/b/g/n/ac / 2.4 GHz/5 GHz / Wi-Fi Multimedia	1	90	90
			Total	21 230



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*Thank you for your patience
and attention !!!*



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