



INTERESTING INICIATIVES FOR THE DEVELOPMENT OF THE IBM+ PROJECT



“The objective of this document is the identification of projects, initiatives or methodologies related to the IBM+ project, in order to have information on what has been developed so far in Europe and to identify the gaps we can cover with the IBM+ project”

Note: The IBM+ project should integrate the current methodologies on training for energy entrepreneurs with the new methodologies on entrepreneurship and innovation, in order to match the sector knowledge with the market needs.

PROJECTS

2013 (ongoing) - E-GREEN JOBS - Skills and competences improvement of workers employed in green sector with e-learning technology use.

Funding: Education and training\Life long learning (2007-2013)\LEONARDO DA VINCI\Multilateral projects on Innovation.

Aim: contribute to green jobs market development, awareness of green jobs market needs and indirectly stimulate creation of new green vacancies.

Main results related to IBM+ - Topics selected by experts on energy market from **Poland, Italy, Portugal and Hungary** for training courses:

- Traffic control
- Micro bio gas plants, micro wind turbines
- Water power plants
- Marketing of environmental ideas



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- Best practices in green buildings construction
- How to convert industrial districts with high impacts (and undergoing a strong crisis) into green districts
- Training on energy and environmental sustainability
- Heat pumps, biomass
- Experts should have a better knowledge and be more skilled on thermal pumps and biomass technologies
- The Energy efficiency and RES technologies have seen a big development in the last decade(s) which has not been proportionally followed by training courses and qualification of experts.
- Green transport
- Passive house design
- Economic and financial appraisal of green technologies and green innovations; project management for “green re-definition” of product/service; management of green technologies transfer to SMEs
- Life cycle assessment, construction of sustainable materials, retrofit of the historic urban, integrated work
- Project management, fund-raising, internationalization programs
- Development of the industry automation for saving energy
- Green general management, networking, organization, psychology of markets environmental sciences for the industry
- Sustainable transport certifiers
- Energy certification
- Energy management of buildings
- Management of communities
- Energy efficiency mainly targeted to building envelope, HVAC systems, lighting and solar thermal and photovoltaic. In the lighting field which represents 20% of energy consumption of a building
- Electric vehicles, tariff management, smart grids, energy storage, smart cities
- Plumber, water supply, energy equipment installers
- Recycling, energy savings technologies, water and materials, agriculture, forestry, fishing, manufacturing industry, transport, production of goods and green services
- The offer must be adjusted to domestic demand in several areas
- Hydrogen batteries
- Techniques for energy monitoring and energy audits, technicians for heating installations, and for systems for the recovery and reuse of rainwater in buildings



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- Green jobs related competencies in the Agriculture: energy efficiency during the activities
- Where unemployment is high, in rural areas, more information is needed on sustainable agriculture.

Related document:

http://www.egreenjobs.eu/contents/EN/User_Needs_Analyses_Report_EN.pdf

Web: <http://www.egreenjobs.eu/EN/home.html>

<http://ec.europa.eu/programmes/erasmus-plus/projects/eplu-project-details-page/?nodeRef=workspace://SpacesStore/28fe19fe-f509-451e-bd5e-5542dec10bd2>

2006 - EMTEU - Energy management technicians in the EU

Funding: Education and training\Previous programmes\Leonardo Da Vinci (2000-2006)\Pilot projects\Pilot projects 2006

Aim: define the content of **Energy Management Technician studies**. The project intends to contribute to the establishment of a European model that allows to carry out a standardized training to facilitate the recognition of credits and professional mobility.

Main results related to IBM+ - Training Courses Based on the European Project EMTEU – Energy Management Technician in Europe:

- SOLAR WATER HEATING
- SOLAR PHOTOVOLTAIC
- RENEWABLE ENERGY MANAGEMENT & FINANCE
- RENEWABLE ENERGY SOLUTIONS
- ESSENTIAL ELECTRICS
- CARBON FINANCE
- ENERGY EFFICIENCY IN BUILDINGS
- BIOMASS
- ELECTRIC VEHICLES
- CHP COMBINED HEAT AND POWER
- INTRODUCTION TO HEAT PUMPS
- WIND POWER
- MARKETING FOR RENEWABLE ENERGY
- COMPETITIVE ADVANTAGE IN RENEWABLE ENERGY



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- WAVE AND HYDRO POWER
- ELECTRICS FOR RENEWABLES (PRACTICAL)
- THE GREEN DEAL
- SAP COURSE

More information:

<http://www.euenergycentre.org/training>

<http://ec.europa.eu/programmes/erasmus-plus/projects/eplu-project-details-page/?nodeRef=workspace://SpacesStore/9103589b-eb7a-4eef-ad8b-0a57f7658fc0>

2010 - EXPLORE Energy Virtual Campus

Funding: Education and training\Life long learning (2007-2013)\ERASMUS\Virtual Campus

Aim: on-line self-approaching learning experience through unlimited higher educational values, on the pathway to a future sustainable energy society.

Main results related to IBM+ - Within the useful external links of the project there is an interesting one to The Global Community for Sustainable Energy Professionals where there is a several free courses and programs on sustainable energy:

- Energy Management
- Power Quality
- Clean Energy
- Smart systems
- Economics
- Sustainability
- Processing
- Resistance Heating Technologies
- Magnetic Flux Control in Induction Systems
- The Future of the Electric Motors Market
- How to manual on Heat Pumps
- Sustainable Energy Policy
- Electrical Connectability: Copper versus Aluminum
- Cables installed in ducts and tunnels
- Cable sizing

More information:



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<http://www.leonardo-academy.org/>
<http://www.exploreenergy.eu/VirtualCampus/tabid/652/language/en-US/Default.aspx>

<http://ec.europa.eu/programmes/erasmus-plus/projects/eplu-project-details-page/?nodeRef=workspace://SpacesStore/94e5aef6-ee8e-45da-b439-bdbc06e49ade>

2008 - ELLEIEC - Enhancing Lifelong Learning for the Electrical and Information Engineering Community

Funding: Education and training\Life long learning (2007-2013)\ERASMUS\Academic Networks

Aim: virtual centre for the development of enterprise skills and competencies and investigate and report on the implementation issues and impact of Lifelong Learning on the employability of people over Europe in the field of Electrical and Information Engineering.

Main results related to IBM+ - During the ELLEIEC project, two main experiments were achieved. One concerns the development of a Virtual Centre of Entrepreneurship (VCE) and the other concerns the experiment of the implementation of the International Curricula Network (ICN) concept to some existing international programs, or for the design of international programs.

The VCE has been realised in the Moodle virtual learning environment and can be accessed at: <http://vce.york.ac.uk/>. The course structure is very interesting and can be summarized at the next image:



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Related to the CV, there is a great amount of information on different profiles:

http://greenelleiec.eu/search/search_index.asp

Related document:

<http://greenelleiec.eu/Elleiec-Book.pdf>

This document includes next topics:

1. Analysis of LLL in EIE in Europe at the undergraduate and postgraduate levels – recommendations.
2. Best practices for the use of new technologies in EIE education in Europe – guidelines for e-learning and intensive course's assessment.
3. Proposed demonstrators for enhancing LLL in EIE in Europe: virtual centre of entrepreneurship (vce) and international curricula network (icn).
4. Short overview of Elleiec outcomes.

<http://ec.europa.eu/programmes/erasmus-plus/projects/eplu-project-details-page/?nodeRef=workspace://SpacesStore/33413a4a-8a20-45e9-af34-a253adb0f5cd>

Web: <http://greenelleiec.eu/>



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2010 - BIONET - Business Intermediary Organisations e-Learning Network

Funding: Education and training\Life long learning (2007-2013)\LEONARDO DA VINCI\Multilateral projects on Innovation.

Aim: establish a technical platform & commercial framework on which such new e-learning products can be made available to BIOs across Europe for the ultimate benefit of their members and other SMEs.

Main results related to IBM+ - There are several available courses related to the IBM+ project in the platform (<http://www.bioenet.net/node/369> (You have to create an account to consult the courses content), such as:

- Entrepreneurial skills development
- Business energy-efficiency
- Business start up

Web: <http://www.bioenet.net/>

More information:

<http://ec.europa.eu/programmes/erasmus-plus/projects/eplu-project-details-page/?nodeRef=workspace://SpacesStore/c99b2059-e374-44d1-8af0-33a054e0fcc6>

2012 - LEGO Serious Play® Learning for SMEs

Funding: Education and training\Life long learning (2007-2013)\LEONARDO DA VINCI\Multilateral projects on Innovation

Aim: adapt Lego Serious Play method and LLED to the requirement of SMEs training. In particular the project has the following objectives: a) To adapt the LSP method and LLED guidelines to the needs of SMEs, b) To raise awareness and popularize LSP method among VET organizations and trainers, business support organizations, associations of enterprises, etc., c) To raise awareness of SMEs for the need to increase competencies of owners and staff that could be done by innovative and attractive approaches (LSP).



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Main results related to IBM+ - There are several interesting issues in this project. First, **they identified the main training need in SMEs, and they can be summarized in the next ones:**

<i>Finance</i>	<i>Process</i>	<i>Product</i>	<i>Market</i>	<i>Personnel</i>
Raising Finance	Growth Strategy	Innovation Capability	New Markets	Communication
	Quality / QA	Concept to Manufacture	Marketing Collateral	Team Building
	Change Management		Technology	Culture / Values / Identity
	Exit Strategy		Branding / Corporate Identity	Project Leadership / Management
				Self-regulation

Also, **the own project could be consider as an innovative methodology within the IBM+ training plan. It is used already for the development of companies' strategies.**

Web: <http://www.s-play.eu/en/>

More information:

<http://ec.europa.eu/programmes/erasmus-plus/projects/eplu-project-details-page/?nodeRef=workspace://SpacesStore/31cca490-1d31-438f-b194-e653f6348898>

2013 - 2inno.eu - DO innovation now!

Funding: Education and training\Life long learning (2007-2013)\LEONARDO DA VINCI\Multilateral projects on Innovation.

Aim: help small companies in the field of innovation (management), filling the gap between the knowledge you need and the concrete action to "Do" innovation and helping owners of SME to find their own "culture of innovation".

The way we suggest in the 2inno.eu project is the DUI-mode: "learning by doing, using and interacting mode". Many scholars claim that there is a great bias towards the "science and technology mode" (S&T-mode), while the "learning by doing, using and interacting mode" (DUI-mode) is widely ignored. For an example, that means you can have the better high tech or



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software, but there are also crucial learning tasks important for innovation. But these measurements and research are rarely done. This is exactly the point of departure for our 2inno.eu project – Do Innovation now!

Main results related to IBM+ - Very interesting project, similar to what we want to develop with the IBM+ project, that is, an innovative process to ease energy companies to find new opportunities and develop competitive products and services. They could test their methodology and now they are implementing it through <http://2inno.eu/en>. **There are several tools in the website to generate ideas, define concept and test markets.**



More information:

<http://ec.europa.eu/programmes/erasmus-plus/projects/eplus-project-details-page/?nodeRef=workspace://SpacesStore/44005b76-2a5b-4a81-864c-634385d7c58a>

Web: <http://2inno.eu/en>



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2009 - Experience Based Business Development in Conventional SMEs

Funding: Education and training\Life long learning (2007-2013)\LEONARDO DA VINCI\Multilateral projects on Innovation

Aim: creative innovation – understood as the generation of new ideas and their exploitation in terms of experience-based business development with a view to adding value to products and services. The overall aim of the project is to contribute to sustaining European local-regional economies by sustaining the competitiveness of SMEs; thus safeguarding businesses and work places within the local economies.

Main results related to IBM+ - Very related, they have developed a toolkit for business consultant to support the development of product and services in conventional SMEs through the experience-based business development tool (focused on the provision of psychic gratification instead material satisfaction – The **Experience Economy**). The project offers information on **case studies and tools for leading workshops and exercises**. There should be a module on how to

develop experiences around a product or service in the IBM+ training plan and the source should be this project. Also the training guide could be a reference for the development of our training plan:

<http://www.exbased.eu/media/525/Revised%20Training%20Guide%20151011.pdf>

The project has been based on other project supported by LLP as well, <http://www.thinkkit.eu/en-gb>. This project offers different tools for making entrepreneurs more creative for the development of their activities, so that, it could be a good reference for IBM+ project as well.

More information:

<http://ec.europa.eu/programmes/erasmus-plus/projects/eplu-project-details-page/?nodeRef=workspace://SpacesStore/9cf2b8f6-8493-4bca-a986-39426bf795ac>

Web: <http://www.exbased.eu/>



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Cyclefi - start-up with an innovative waste tracking technology and reward mechanism which associates a collected refuse recycling bag, with a corresponding user.

Aim: Everyone knows how important is recycling for our planet. However, reality is far away from what people usually picture about recycling. In fact, more than 70% of the counties all over world, recycle less than 10% of their waste. In fact, the majority of these countries landfilling more than 80% of their waste, although almost half of that waste, could be recycled. Current approaches use communication campaigns, which create a non-consistent positive spike in behavior change, but then stop.

The system comprises tags with unique QR codes that are attached to the orange recycling bags that the user can find in the recycling package. This means all recyclable materials have a designated owner. The process is easy for citizens. They subscribe to an online platform where they get a tag with a QR code they can stick to their recycling bag. At the recycling facility, every time Cyclefi finds a tag, it adds points to the

profile of users who can redeem their points with specific discount partners (electricity providers, supermarkets etc.).

Main results related to IBM+ - Cyclefi is introducing an innovative business model, treating consumer engagement as the most critical component of its solution, creating a positive customer experience to maintain ongoing engagement, as greater engagement means better recycling performance. Cyclefi has a product as a service business model, in which provides access to our users to reap the benefits of its discounts. Cyclefi monitors citizens' overall recycling performance and rewards them with appropriate monthly discounts.

More information:

<https://www.euractiv.com/section/circular-economy/news/greek-startup-turns-to-e-solutions-to-address-low-recycling-rates/>

<http://www.mitefgreece.org/cyclefi/>

<http://socialimpactaward.gr/project/cyclefi/>

Web: <https://www.cyclefi.com/>



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EZZING SOLAR - start-up based on an innovative online platform to optimize all the value chain of the PV sector.

Aim: The price of PV Installations has been decreasing continuously which is forcing companies to reach operational excellence in order to be profitable.

Photovoltaic has evolved from a few large ground-mounted installations to millions of small residential installations, complicating operations.

The electric market is changing, moving to a distributed generation model, where PV will play the most important role.

Companies wanting large sales volume need to collaborate with hundreds of third parties with tight margins, which usually leads to failure.

EZZING'S solution has been developed to be used for all kind of agents in the value chain, and it improves all the aspects of the PV business, thanks to the integration of them in one solution and the development of advance technology for: customer acquisition, design and engineering, sales and solar CRM and

aftersales and customer access. The whole system is compounded by four main modules, each one to improve one of the key aspects: an easy-to-use solar simulator and cost analysis for the lead generation and customer acquisition, a cutting-edge 3D layout design tool specially designed for non-technical people, an easy-to-use solar CRM with quote creator and profitability calculation for non-technical people and a client portal to monitor PV production, including gamification & loyalty strategies.

Main results related to IBM+ - EZZING improves the management of the whole PV value chain as new business model and leading generation and customer acquisition are the most challenging aspects.

Web: <https://ezzing.solar/#home>



DEGREES AND PROGRAMS

Note: The degrees and programs included in this section are focused on filling the gaps between academia and business current reality

LEINN – Entrepreneurial Leadership and Innovation

<http://mondragonteamacademy.com/leinn?lang=en>

Abstract: business area degree where the students develop their capabilities to create new companies or new projects inside new companies. They are trained to work in a global world contributing to the society through the innovation.

Study Plan:

- Foundations of company creation and management: 52 ECTS
- Leadership and Knowledge management: 27 ECTS –

- Enterprise and client focus: 27 ECTS
- Network innovation as a means of creating value: 24 ECTS
- Global citizens: 36 ECTS
- Process of company creation and specialization: 48 ECTS
- End of course project: 26 ECTS

MINN - International Executive Master Program in Intrapreneurship and Open Innovation

<http://mondragonteamacademy.com/minn>

Abstract: It is an Executive Master mode, intended to be followed and developed alongside normal working activities.

Study Plan:

- M1: Team Learning
- M2: Learning and Co-creation with the Client –
- M3: The Art of Pitching and Design Thinking –
- M4: Business model design and intrapreneurial teams & projects



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- M5: Pitching, Intrapreneurship Processes and Learning Tools
- M6: Open Innovation and Team Evaluation
- M7: Blue Ocean Strategy for Team-Intrapreneurship Projects
- M8: Fortune at the Bottom of the Pyramid and Global Challenges
- M9: Sustainability as a Trigger to Innovation
- M10: Wrap-up and Future
- M11: Check Out
- M12: Scored Goals

MENA - Entrepreneurs of Navarra Master Program

<http://mondragonteamacademy.com/mena>

Abstract: the aim is to train entrepreneurs capable of raising, promoting and leading the creation of new companies or new business in already existing companies.

Study Plan:

1// Team learning (50 hours)

- 2// Personal development and leadership: (50 hours)
- 3// Learning and co-creating with clients (50 hours) – Interesting for IBM+
- 4// Intrapreneur process and tools (50 hours)
- 5// Open Innovation (50 hours) – Interesting for IBM+
- 6// Blue ocean strategy and new business model generation (50 hours) – Interesting for IBM+
- 7// Sustainability as source of innovation (50 hours) – Interesting for IBM+
- 8// Crystallization and learnings (50 hours)
- 9// End of Master Project: Start-Up process (12 months)
- 10// Optional learning journey to Silicon Valley (San Francisco)

TEAM ACADEMY

<http://www.tiimiakatemia.fi/en/>

Abstract:

Study Plan:

Basic studies (60 credits)

- Interdisciplinary studies of The JUAS - Joint Universities Accelerator School (21 credits)



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- Orietation, language, communication etc. courses
- Team Academy's basic studies (39 credits)
 - Six modules, Rocket Model's Learning Processes (E1+E2+E3)
- Professional studies (90 credits)
 - Professional studies for all Team Academy's learners (60 credits)
 - 18 modules, Rocket Models's Processes (C, L, I, B)
 - Selective professional studies for Team Academy's learners (30 credits)
 - Projects (accounting, marketing, event management, etc) and Team Academy's special programs (leadership, marketing, innovation, etc)
- Elective studies (15 credits)
 - Various studies from others JUAS's units, chosen by learners
- Practical training (30 credits)
 - Five theme modules (5 credits each)
- Bachelor's Thesis (15 credits)
- Bachelor's thesis & maturity test

Note: Rocket Model's letters refer to the processes of the model as follows: E=entrepreneurship, C=customers & marketing L=leadership, I=innovation & knowledge management B=brands & strategy.

Note: The IBM+ project should include both innovative training contents and innovative methods to teach the selected contents



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