



MASTER-UP: DISTRIBUTED EDUCATIONAL TECHNOLOGIES

REPORT n°1 third session (2/10/2017)

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1. THE MASTER-UP COMPANY

MASTER UP (S.r.l)¹ was born as a University of Perugia's spin-off in 2004 and in 2012 became a S.r.l (limited liability company). Master Up was born out of the aggregation of some members of the Chemistry Department and the Mathematics and Informatics Department of the University of Perugia.

Since its beginnings, MASTER-UP's pursued the objective of designing, producing and trading products and services for technological innovation through computer simulations and molecular processes modeling.

Accordingly the main activities of Master-Up, are:

- design and develop molecular sciences and related e-learning technologies
- carry out Open Science's editorial activities
- support Virtual organizations and research activities in close collaboration for Molecular Sciences and technologies
- carry out computational simulations supporting innovation in chemical applications

The organizational structure of Master Up is divided into the operative areas, reported below with the coordinating person.

ADMINISTRATION

- Administration: A. Laganà
- Personal and administrative secretariats: N.Faginas Lago

E-LEARNING

- EOL² and GLOREP³: O.Gervasi and S.Tasso
- CHEM-LEARN⁴ Portal of ECTN⁵ Proficiency Certificates: C. Manuali

PUBLISHING

- E-magazine VIRT&L-COMM⁶: S. Rampino

¹ www.master-up.it

² Eol.unipg.it

³ Glorep.unipg.it

⁴ www.chem-learn.com

⁵ www.ectn-assoc.org

INDUSTRIAL INNOVATION

- ESODIS prototype for the methanation: A. Laganà

DISTRIBUTED COMPUTING AND CLOUD

- Open science cloud for Molecular sciences: A.Laganà

The specific activities, I shall consider for my internship are the e- Learning ones of the:

ECTN (European Chemistry Thematic Network) Association VEC (Virtual Education Community) devoted to the production and sharing of e-knowledge in the field of molecular sciences managed by the Virtual Education Community (VEC)⁷ for the members of the network namely:

- GLOREP (Grid Learning Object REpository): a distributed Repository based on a set of servers each hosting a content management tool (Drupal) that can be used by a client base which requires services supplied online/networked with authentication.
- EOL (Exam on Line): an e-test manager to provide teachers and evaluators with a tool to esteem the skills acquired by the students along the learning path and / or blended learning and conventional classes.

2. WORK PLAN

a) First session: Introduction to Master-Up and internship's paperwork (19/09/2017).

The first session of the internship was devoted to the introduction to Master Up, the filling of the application form defining the main supervisors from the company and the university, Professor A.Laganà and Professor A.Runfola respectively, the design of defining the Training Project and the discussion of the Job Description.

b) Second session: illustration of the projects and selection of the internship (24/09/2017) .

During the second session we held a discussion with the CEO of Master Up. During the discussion I could see a positive environment in Master Up and had telephone calls with Andrea Nicoziani first and Andrea Capriccioli later, plus a skype session with Professors E. Garcia (University of Vitoria, (Spain)), M. Hernandez and J.M Alvarino (University of Salamanca).

All this demonstrates the interactivity of the decision making processes within Master Up and how the experience of the members of the company, especially in the scientific field, is a central point of the company organization.

During the session I expressed my willingness to take my training course at Master Up because I have personally noticed that Master Up is one of the few local Umbrian realities that focuses the core business in R&D through synergies between university researchers and industrial companies, in order to pursue highly innovative long-term goals with possible practical applications in industrial processes. In addition I will be

⁶ Services.chm.unipg.it/ojs/index.php/virtlcomm

⁷ www.ectn-assoc.org

able to apply notions acquired during my university degree exams such as: Economic and Industrial Dynamics, Advanced macroeconomics, Industrial Economics and Innovation, Corporate Governance and Industrial Law. These subjects put the role of R & D in the economy in a central position of the study program, both from a macro and microeconomic point of view and in a context of industrial dynamics in which the protection of industrial intellectual property is intimately linked to companies investing in scientific activities.

The specific focus of my internship will be on the handling of e- knowledge in the field of Molecular sciences through the model adopted for the VEC of the ECTN association.

c) Third session: Reporting and planned action (02/10/2017)

In the third session we discussed about the issue of converting the report of the previous session from Italian to English in order to make it available to a broader audience by publishing it in VIRT&L-COMM (the e-magazine edited by Master-Up)

During the internship I will personally take part into the ECTN project VEC, for EOL applications and GLOREP technologies in molecular sciences, in order, to study the prosumer (producer-consumer) model that is the cooperative business model adopted by the Chemistry Departments of several European universities in order to standardize higher education scientific knowledge and technologies in the field of molecular sciences. As a future Master up trainee I will propose to compare my knowledge in economic management with the company's operational practices and to make improvements to its structure, making it more competitive and therefore advise strategies to be taken, bearing in mind its main purpose of promoting knowledge.

My work plan consists of:

- Preliminary analysis of ECTN VEC and EOL
- Study of possible strategies to improve the knowledge offered to Master Up
- Advise the company to solve management and administrative problems
- Update Master Up' site