



Working Package 1

Mapping 3M activities in partner universities

Deliverable 1.1

Good practices of 3M in Sapienza University of Rome

Final report

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**U3M-AL PROJECT - DEVELOPING THIRD MISSION ACTIVITIES IN
ALBANIAN UNIVERSITIES**

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1 INTRODUCTION

1.1 Short profile university (type of university, size, special features)

Sapienza University of Rome, founded in 1303, is the oldest University in Rome and the largest in Europe. Since its founding, Sapienza has played an important role in the Italian history and has been directly involved in key changes and developments in society, economics and politics. It has contributed to the development of the Italian and European science and culture in all areas of knowledge.

The main campus – which was opened in 1935 - is situated close to the city centre. Teaching activities are integrated with libraries, museums as well as comprehensive student services. With the increase of the number of students and the enlargement of research activities the space of the main campus became insufficient. Therefore some faculties and departments carry out their activities in decentralized locations in different parts of the city and in the surroundings of the campus.

Sapienza offers a vast array of courses including first and second degree programmes, PhD courses, one to two year professional courses and specialization schools in many disciplines, run by 63 Departments and 11 Faculties. With over 125,000 students, 4,000 professors and nearly as many administrative and technical staff, Sapienza represents a vast knowledge community. The University offers 290 degree programmes, over 74 PhD courses, 200 professional courses and 121 Specialization programmes in Medicine. All faculties in the Italian academic system are present in Sapienza with the exception of the Faculty of Agriculture And the Faculty of Veterinary Medicine.

There are also 59 libraries and 21 museums, a theatre for performing arts as well as comprehensive student services. Sapienza is a research and teaching university carrying out scientific research in most disciplines, achieving relevant results both on a national and international level.

Thanks to a special programme for visiting professors, many foreign researchers and lecturers periodically visit the University and contribute to the quality of education and research activities. Some 8,000 foreign students are regularly enrolled at Sapienza. In addition Sapienza encourages international exchange thanks to several mobility programmes with an average of over 1,100 incoming and outgoing exchange students per year.

1.2 Regional context

Because of its nature of “comprehensive”, University Sapienza has always played a major role both in Humanities and in Sciences in Italy. And its influence on the regional context, as well as in the national one, has to be taken into account in both fields. Also the connection with the National Research Council (the Italian equivalent of the French CNRS or the Spanish CSIC) - whose headquarter is located in the same square (Piazzale Aldo Moro) - concern both areas. Cooperation and relationships between the university and the territory have always been on the agenda of the Sapienza University of Rome, but the character of the cooperation has changed throughout the years. Due to the fact that Sapienza is an extremely large university much of the work in the area of the Third Mission has been – and still is - carried out in a decentralised way through the initiatives of faculties and departments in addition to special dedicated units. Sapienza operates also through centres and consortiums created at the regional, the local and the national level.

Third mission activities have a long tradition in Sapienza especially but not only in areas such as medicine and engineering. Because of the specificity of the social and economic context - with the relevant role of tertiary (including cultural) activities - the influence of the University on the local society and economy has been exerted also through the humanities. But , in the past until recent times, all this took place in a non coordinated way. Scientific and technological research institutes or departments used to carry out autonomously projects in cooperation with firms and other institutions, but in the absence of centralized programs, offices or directives.

Nowadays the importance of the Third Mission and the advantages of the third mission activities for the University and for the social and the economic context is acknowledged. On the basis of the analysis of the documentation and of the interviews with top level responsables, one can observe that University management shows a particular interest in the relation with the economic system, with a special focus on SMEs, which play a major role in the Italian economy in general and at the local level.

The relationships with local stakeholders are carried out through different types of cooperation from general agreements to research contract, to personal academic consultancy for enterprises or local authorities. The sectors more involved in collaboration and spin-off include ICT, biotechnology, mechanic and electronic engineering but also fruition of cultural heritage and waste cycle management.

Sapienza has also collaboration with other regions such as Abruzzo, the region hit by the earthquake, within the framework project “A24i The Highway to Innovation” with University of L’Aquila. The aim of the project is to strengthen

technology transfer and scientific exchange between these two universities and to enhance collaboration and communication with the local firms and industries situated in the two regions, active in aerospace and chemical-pharmaceutical sectors. Other major sectors of interest are electronics, IT and mechanics in the Lazio Region and metal-mechanics, clothing and food in Abruzzo.

1.3 The Third Mission before the “Third Mission”

As it is known, Third Mission activities can be – and generally are – subdivided in three main areas that partially overlap. These are: Technological Transfer, Social Engagement and Continuing Education. The faculties of Sapienza University have always operated in all three fields, of course with different specializations. For example the activities related to Technological transfer have always been concentrated, although not exclusively, in the schools of Engineering. On the contrary continuing education has been more developed in the area of social sciences (in particular educational sciences). And the same time it has been present in many other research activities.

If one takes into account the map of the Third Mission activities such as the one presented in the VQR 2004-20120 document of ANVUR (National Agency for the Evaluation of Universities and Research Institutes), which includes a endless number of activities and functions of Third Mission, one can say that all of them are present in the Sapienza University.

In the following part of our paper we shall mostly focus on the first object of the Third Mission (technological transfer) that has a more specific and structured organization as proved by the existence of dedicated offices.

In other words Third Mission in Sapienza have been carried out also before the institutional acknowledgement of its relevance and of the need to organize and promote them. Therefore Third Mission activities existed before the their institutionalization as an important and specific mission.

2 INSTITUTIONAL PERSPECTIVE TO U3M ACTIVITIES

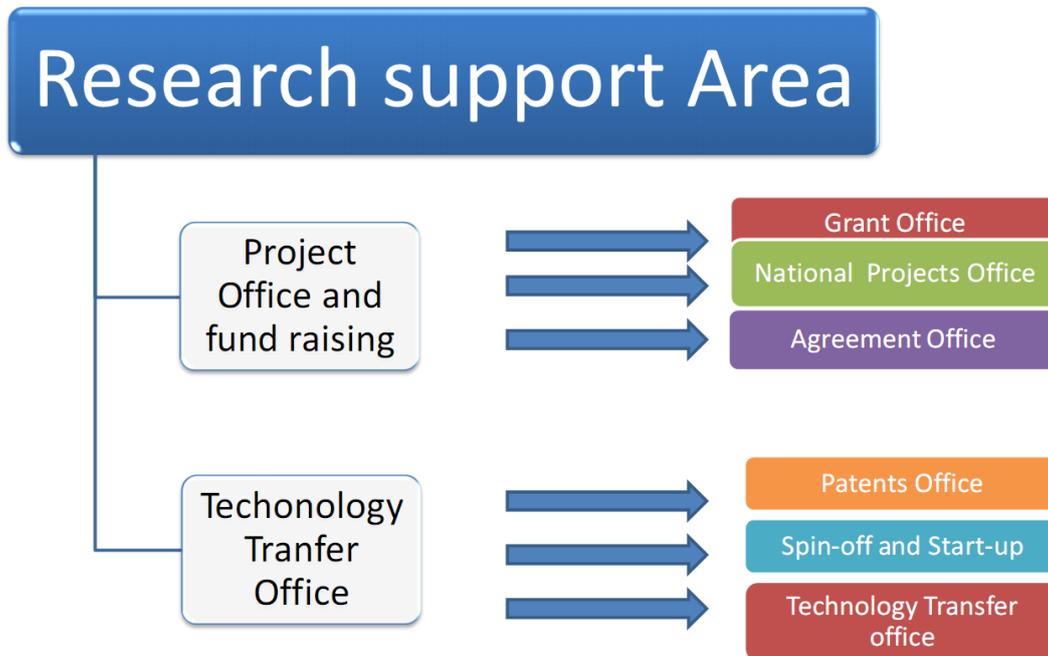
Third Mission activities in an organized way at Sapienza can be traced back to no more than ten-fifteen years and the first activities were linked to licensing and patenting. In fact the first office devoted to the Third Mission was established in 1999 and basically worked to protect intellectual property by patenting and licensing academic discoveries and know how. Nowadays Sapienza formally recognized and supported a wide range of Third Mission activities that, having been included in the Statute, are now part of the official mission and strategy. The present organization and governance of Third Mission activities is centered on one main structure the *Area Supporto alla Ricerca*. In the next pages structures two offices (Sapienza Innovazione e

Garage Sapienza) are described in detail. It is also important to give information about the process that brought to the recognition of the importance of Third Mission within Sapienza university. The type of activities developed since 2000 were related initially to protect intellectual property by patenting and licensing academic discoveries and inventions. Only during the last five years the “supporting technology transfer” became an asset in the Sapienza policies, provided with adequate resources for creating a TT&I unit within the *Area Supporto alla Ricerca*. This unit supports the creation of spin-off and start-up originating in the Sapienza milieu. Today there are approximately 25 firms supported by the TT&I office that has reached a good level of independence and face autonomously the market. A list of these activities can be consulted at the following link with a detailed description of each of them. For more details see the following link:

<http://www.uniroma1.it/ricerca/valorizzazione/trasferimento-tecnologico-e-spin/spin/vetrina>.

Parallel to the growing volume and number of Third Mission projects Sapienza University increased the institutional and management support for Technology Transfer and Innovation. Third Mission was added in the institutional mission for the first time in 2009; and the new university statute approved in 2012 reports a detailed strategy and plan of action. In particular Third Mission is now one of the official objectives of Sapienza as stated in the mission section of the Statute: “Sapienza has among its objectives the transfer of innovation and knowledge to the productive system promoting and participating in spin-off and start-up [...]”. This point is particularly important because Sapienza in one of the first universities in Italy – apart from the Polytechnic Universities that have specific industrial vocation – that has shown a commitment to Third Mission activities.

Area Supporto alla Ricerca is the organizational structure in charge of coordination of Third Mission activities. This office passed through a long series of upsizing and merging following the growing acknowledgement of the Third Mission activities at Sapienza. In a recent interview to A. Ciarini and L. Pisacane, Daniele Riccioni, coordinator of the Technology Transfer office, an unit within the *Area Supporto alla Ricerca*, underlined the ongoing changes at Sapienza concerning the attitude towards Third Mission, that became an institutional asset of the university mission. This change brought in January 2013 the merging of different offices into a complex unit named *Area Supporto alla Ricerca* that coordinates all Third Mission activities, as shown in the organization chart below.



Source: Official Organization chart, Sapienza University

The chart shows that the office *Supporto della ricerca* (Research support) is structured in two offices (in the image): The “Fund rising and project” office and the Technological transfer office. Through various passages which include the production of projects and

Another important organizational aspect is that the structure is no long depending directly from the Rectorate but became an independent unit reporting to the general director.

Today the *Area Supporto alla Ricerca* has fifteen employees but Davide Riccioni emphasized the importance of building and including new competences by acquiring new employees. In particular the TT&I office coordinator stresses the importance to include in the new office also researcher interested in technology transfer promotion. This is particularly important because today the office staff is mainly composed by administrative and technician (economist and legal expert) and lack specific competences that could support positive relationship with academics. Often the promotion of funding scheme and support for technology transfer require particular competences related to the field of activity, which implies the necessity to integrate the staff with scientific and technologic competences.

A key activity of the new structure will be the creation of a database in which all current research is presented and in which information is given on what can be the practical applications of the research results. Thus there is the hope that this could also result in a more relevant involvement of single academics and departments in European projects. At the present this involvement takes place more or less indirectly through the many contacts there exist between faculties and departments and firms.

3 CHARACTERISTICS OF U3M ACTIVITIES (OF THE ONE OR TWO CASES FROM EACH OF THE MAIN TYPES OF ACTIVITIES ASSESSED MORE IN DETAIL)

3.1 Qualitative aspects

3.1.1 Brief description of the U3M activity

3.1.2 Stakeholders involved (public authorities will be included in the reports only if relevant to the analysed cases)

3.1.3 Governance/ management

- 3.1.3.1 General governance structure
- 3.1.3.2 Decision- making procedures/ strategy development
- 3.1.3.3 Funding/ financial system
- 3.1.3.4 Internal and external accountability
- 3.1.3.5 Steering tools (e-g. customer- relation management)

3.2 Quantitative aspects

3.2.1 Funding/financial figures (e.g. revenues, budgets, financial incentives)

3.2.2 If available, figures on staff involved, results, valorisation, depending on particular aims

Between different project and activities in Sapienza Third Mission we select two case study that have showed interesting elements for the U3M- AL project

Sapienza Innovazione

Sapienza Innovazione is a public-private consortium created in 2006 with the purpose of promoting the links between Sapienza university, public and private research centers, trade associations and entrepreneurs. Sapienza Innovazione supports the integration and the marketing of knowledge and inventions

generated by scientific activities of the University with a large innovation potential to be adopted in economic activities.

The aims of Sapienza Innovazione are:

- To promote, activate (and participate in their management) joint labs which put together relevant university expertise on themes appreciable by the industries and other actors in order to innovation needs. It aims also to facilitate the collaboration between universities and industry aimed at an effective technology transfer.
- To create research spin-offs that can operate in sectors with a high technological impact, based on the university know-how and technology transfer and with direct or indirect participation of the university.
- To assist in the protection of intellectual property rights, including patenting and licensing.
- To carry out project management of regional, national, European and international interest and to assist in submission of project proposals (calls) and to provide technical assistance regarding innovation, technology transfer and applied research.

Consorzio Sapienza Innovazione is an interesting example of a consortium between university and companies. It is composed of the University of Rome, a major Bank (Unicredit), BicLazio (Business Information Centre) and Filas – Finanziaria Laziale di sviluppo, all major regional economic actors. It works on the development of joint laboratories involving the universities and research centres and companies – public and private partners - in the most promising areas, with an interdisciplinary character. It also helps to develop spin-offs and incubators so that research results can be transformed into economically viable products produced by viable companies. Finally the Consortium promotes activities in the field of the seventh Framework programme for R&D of the EU. In this last area the Consorzio Sapienza Innovazione offers support to the development, the implementation and the management of projects. It helps in the drafting of the proposals, the coordination of the proposals and the project management.

The basic objective of Sapienza Innovazione is to promote scientific and technological development on a regional level involving the key actors of T.T. The focus is the creation of high-level links between Sapienza University and technological innovation producers with the objective to support the development of joint laboratories, spin-offs and incubators and to promote innovation in close cooperation with industry. It's interdisciplinary teams is constituted of university researchers, scientists and researchers from companies to develop collaborative projects.

Sapienza Innovazione developed a special program for researcher exchange to send abroad top level graduates to present their thesis and their experimental work to representatives of universities or companies, which contributes to transfer of innovation. Top-level graduates are offered posts in companies in Italy or abroad; in some cases students making their Ph.D. can be given the opportunity to do their thesis in a foreign university or a foreign company. Students can thus contribute actively to the development of a company and can show how innovative knowledge is transferred from the university to companies. This kind of cooperation contributes to enhancing trust between universities and companies and is the basis for more cooperation.

Finally the Sapienza Innovazione is strongly involved in the creation of spin-off companies and incubators to facilitate the transfer from the phase of research into applied research and the production of the innovations resulting from research. The university gives special assistance to people to help them acquire patents for innovations they have developed. Sapienza Innovazione is promoting from an early stage invention and discovery, to support them to grow and to face the market.

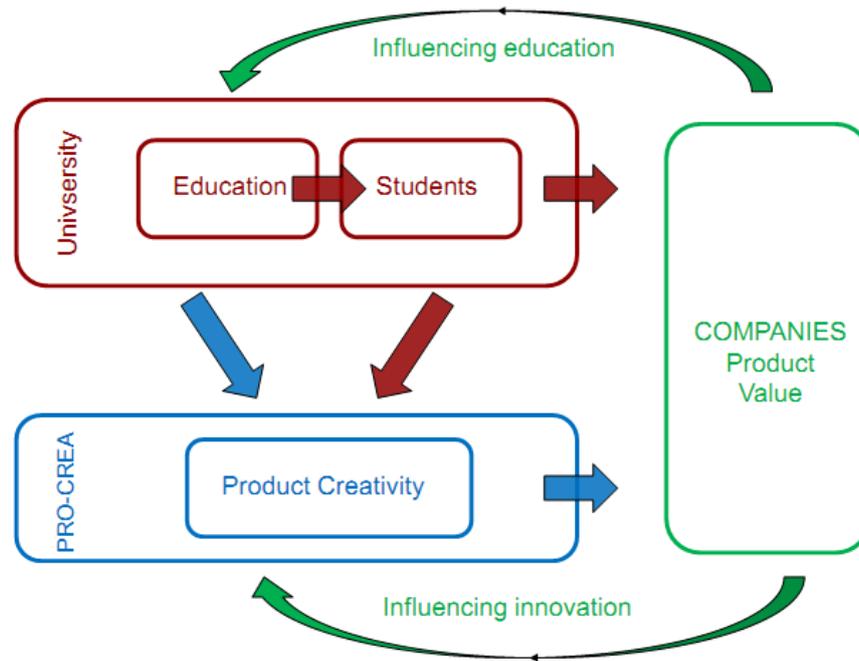
Another interesting activity of Sapienza Innovazione is “Idee per fare”. The project is an idea competition that involve secondary school pupils to come forward with creative and entrepreneurial ideas. This is done in partnership with NOKIA and the International Youth Foundation.

For more info visit: <http://www.sapienzainnovazione.it>

Garage Sapienza

Garage Sapienza is the open innovation laboratory of Sapienza. In *Garage Sapienza*, students of the university develop products and services and “demo concepts” in cooperation with companies in order to create new solutions to real-life problems. *Garage Sapienza* provides an inspiring atmosphere of creative co-creation and new learning opportunities for students and professionals of different organisations. Companies can interact with students’ innovation and purchase the rights or license the products or services from them. *Garage Sapienza* also supports and creates new spinoff companies around the innovations.

The main area of innovation involved in *Garage Sapienza* are in ICT technology, services, digital media and games, social innovation and business concepts with local impact and global market potential. Companies can bring their project ideas developed inside the laboratory. In this sense there is a circular flow of influence between university, local economy and company as shown in the graph below.



Source:

Sapienza Innovazione and Garage Sapienza collaborate in managing the lab, in contacts with companies and especially in the start-up phase, and in temporary management for spin-offs. Garage Sapienza provides experience of innovative product and service concepts, licences to usable demos and connections to the best talents in Rome. No initial investment is required from companies.

Garage Sapienza provides students with

- access to interdisciplinary teams
- training and guidance from top professionals
- interesting and rewarding projects
- collaboration with Italy's most innovative companies
- real world project experience working for a company
- getting paid if the company buys back the results
- credit points and an opportunity to do a thesis on learning by doing
- multidisciplinary teamwork
- IPR and business opportunities
- enriching interaction in the PRO-CREA premises
- a reward for the job well done

Garage Sapienza is a teaching and learning environment, which fosters collaboration among various teaching programmes and universities and within academic bodies and companies. As other similar European experiences have shown (Demola, Finland) the impact for the students in motivating them within academic courses is very relevant. They have an early understanding of collaborating with companies thereby enriching their desire to invest in their academic experience. The creation of multidisciplinary teams provides a stimulating exchange of information between degree courses and increases the potential for creativity.

Garage Sapienza is now located in the Municipality in Rome the San Lorenzo quarter of Rome next to the University “city” but in 2013 there will be a larger location for laboratories. An agreement with IBM will provide a further “in-house” project area on the IBM premises where IBM specific projects can be assisted on site. Specific agreements are being discussed with the larger companies in order to provide preferential arrangements.

Conclusions: some considerations for comparative analyses

The relatively limited activities up to now performed by the two devoted bodies of Sapienza in the field of the Third Mission (namely tec. transfer) do not mean a lack of interest of the University for TM. Quite the contrary.

These are the centralised activities more devoted to innovation and tec. transfer. There is also a vast array of TM activities in the field of hard sciences as well as in the humanities (for example in the preservation of the material cultural inheritance).

For comparative analysis one has to take in mind a certain number of variables. In the first place the size of the University which is simply one of the variables to take into account. But a relevant one. Another important variable is the age of the University. It may influence the attitude towards and the engagement in TM. Older universities may have greater resistance to change and managerial innovation. But at the same time may have greater scientific power and economic possibilities. Still more important is the nature of the University: comprehensive and polytechnic universities have always had different relations with enterprises and other actors.

Therefore in analytical comparison as well as in monitoring all these variables have to be taken into account.