# UNIVERSITY VALUE FOR SUSTAINABILITY. REFLECTIONS FROM A CASE STUDY

Maria Forleo Bonaventura<sup>1</sup> Daniela Grignoli

Abstract: In a phase characterized by international and domestic political changes, socio-economic crises, environmental emergencies, structural changes of the higher education system, the universities' roles in the society takes on a new significance and additional contents. The paper discusses the role that universities may play in encouraging and accompanying local sustainable development processes based on the results of a survey implemented in a small Italian university, the University of Molise. The survey investigated the opinion of internal staff and external stakeholders about the identity, the roles and values that University of Molise plays for the territory, the society, the local sustainable development. The case study highlights the importance of stakeholder involvement along a continuous process of identification and cocreation of values for sustainability.

**Keywords**: sustainability, universities' roles, stakeholder involvement.

#### O VALOR DA UNIVERSIDADE NA SUSTENTABILIDADE REFLEXÕES A PARTIR DE UM CASO DE ESTUDO

Resumo: Numa fase caracterizada por mudanças políticas internacionais e nacionais, crises socioeconómicas, emergências ambientais, mudanças estruturais do sistema de instrução superior, os papéis das universidades na sociedade assumem novo significado e conteúdos adicionais. O documento examina o papel no qual as universidades podem atuar, para favorecer e acompanhar os processos locais de desenvolvimento sustentável, segundo os resultados de uma sondagem realizada numa pequena universidade italiana, a Universidade da região Molise. A investigação examinou o parecer do pessoal interno, e das partes externas envolvidas, sobre a identidade, os papéis e os valores que a Universidade da região Molise desenvolve no território, na sociedade, no desenvolvimento local sustentável. O caso de estudo evidencia a importância do envolvimento das partes num processo contínuo de identificação e de concriação de valores para a sustentabilidade.

Palavras chave: sustentabilidade, papéis das universidades, envolvimento dos stakeholder.

#### Universities and global sustainability

Based on the principles for environmental education places in the Tbilisi Declaration (UNESCO-UNEP, 1978, p. 26-27), the 2002 World Summit on Sustainable Development defines education as indispensable "for promoting sustainable development and improving the capacity of people to address environment and development issues "(Agenda 21, Chapter 36); in the same Summit the United Nations General Assembly declared 2005-2014 as the Decade of Education for Sustainable Development.

<sup>&</sup>lt;sup>1</sup> Corresponding author: Tel.: +39 874 404454; fax +39 874 311124; forleo@unimol.it (M. B. Forleo). Department of Economics, Management, Society and Institutions, University of Molise, Via de Sanctis, 86100 Campobasso, Italy.

From the original definition, based on the environmental pillar, over time the concept of sustainable development (SD) has expanded to a global approach that involves the promotion of economic progress whilst strengthening environmental stewardship and social responsibility of all stakeholders (Leroy, 2012). According to this approach, the University Charter for Sustainable Development was set down in 1994 and many efforts were made by the International Association of Universities and the University Leaders for a Sustainable Future. Many universities have responded to the call of international organizations through commitments, declarations, projects, events, networks that after twenty years from the Rio Conference of 1992 culminated in the Rio +20 World Symposium on "Sustainable Development at Universities".

The contribution that a university can lead to local sustainable development involves all the institutional missions -education, research, outreach- and the organization as a whole. Moreover, universities are rooted in the territory and can be adapted to specific local needs (Katehi, 2012). "Universities are one of the oldest surviving institutions, clearly older than modern States. Moreover, they remain practically the only institution able to secure and transmit the cultural heritage of a society, to create new knowledge and to have the professional competences and the right status to analyse social problems independently, scientifically and critically" (Rangel, 2012).

Scientific literature devotes a lot of attention to the implementation of sustainability, although more about teaching, than about research and outreach activities.

Studies related to teaching activities deal with the concept of sustainable development education (SHE) and its application within the university context (Barth et al., 2011; Leal Filho, 2011, 2012; Fadeeva and Mochizuki, 2010). The literature proposes several other themes: the challenges to the academic system, drivers and barriers (Pollock et al., 2009; Corcoran and Wals, 2004; Ferrer-Balas et al., 2009; Leal Filho, 2010); the role of the entire institution as a catalyst or trigger point (Cortese 2003; Wright, 2004); the role played by some stakeholders, particularly by academic staff whose involvement is a catalyst for change in the curricula and institutions (Hegarty, 2008; Wright, 2010; Barth and Rieckmann, 2012); the approaches on how the SHE is introduced into the curriculum (Lozano R. 2010; Barth and Timm, 2011) and the limitations of some approaches; the key competencies (Rieckmann, 2012) and their development in formal and informal education (Barth et al., 2007); many case studies and best practices.

As already mentioned, in the studies on SHE, less attention has been devoted to the role of research, although its importance for sustainable development is often recognized. Some authors have discussed the need for a new social contract, leading to overcome the conventional schemes of research in order to reach a new sustainability science (Komiyama and Takeuchi,

2006; Kajikawa, 2008). Studies based on the analysis of the literature, on the SHE Declarations and on direct surveys, have highlighted the unique characteristics of university research for sustainable development, both in terms of content and methodology: regarding the content they emphasize the global, spatial, temporal, multidisciplinary, and precautionary perspective; in the research process the use of terms as coupling, orienting, integrating, involving, monitoring, referred to the multiplicity of disciplines, activities, spaces, subjects, and times of sustainability, emphasizes the complexity in the method of the new science (Waas et al., 2010).

Universities, considered as actors of regional social networks, can play different roles in SD initiatives at local level (Arbo and Benneworth, 2007; Devine-Wright et al., 2001; Zilahy and Huisingh, 2009). Some papers have focused on the theme of social learning as a prerequisite for the paradigm shift that sustainability approaches require (Hansmann, 2010), both in the content of training activities and in their methods; collaborative learning resulting from the interaction with local stakeholders allows universities to define their own teaching and research activities in synergy with the various actors of sustainable development at regional scale (Lehmann et al., 2009; Lukman et al., 2009; Yarime et al., 2012).

Finally, there are studies that propose to change the systems of evaluation and ranking of universities by introducing indicators of inputs and outcomes especially related to the SHE (Sammalisto and Lindhqvist, 2008; Koehn and Uitto, 2014), also as a pulse factor for the diffusion of sustainable universities.

#### *Universities and environmental sustainability*

The theme about the role of universities in promoting processes of environmental development has become increasingly important with the growing awareness of environmental issues at stake and the need to enable paths of global sustainable development.

This role is relevant on a global scale and is partly generalizable to any local context (certainly in the application of the general principles of better environmental performance), but also goes into context with respect to the scale of the territorial system and environmental mission statement, which it presents to the specific application and the environment that local stakeholders manifest. Universities are on the one hand rooted in the past in the history of a region, on the other hand projected into the future on a long-term time frame. Past and future are inherent to the concept of sustainability development -and not just from an environmental point of view- and are tied in settling times of the cultural sedimentation.

A university, as an actor that directly or indirectly interacts with the environment, can be considered in two different, but concurrent, perspectives: a perspective that sees the University

as a consumer and a perspective in which the University is a producer of goods and services.

University as a consumer of goods and services has an ecological footprint and may cause environmental impacts. Carrying on their activities institutions may adopt solutions that will lead to a more efficient use of natural resources and to a reduction of emissions. The University is also a producer of goods and services that may interest the environmental sphere. Education and research goods and services on environmental issues may find a more fruitful development in a university context, because of the multidisciplinary skills that are generally within the institution (Barth and Rieckmann, 2012). As regards the so called third mission, universities interacts with local actors of public and private nature: positive environmental effects of these interactions may come creating spin-off in the field of green economy, promoting patents, setting conventions and partnership agreements, participating in environmental networks.

The activities that the institutions put in place may interest the environmental sphere in a direct and in indirect ways. University may directly affect the environmental sphere with all the measures aimed at establishing a more efficient use of natural resources -among these, energy, water, and fuel-, both reducing inputs and increasing outputs. In this field we must also consider any policies of green auctions in the provision of goods, services, and public infrastructure; the use of devices for energy saving; the production and use of renewable resources. Other direct actions are aimed at minimizing the impacts that a University can cause, for example: measures to mitigate impacts on biodiversity resources; measures to contain the different types of emissions, effluents and waste; measures to reuse and recycle natural resources; actions to reduce the environmental risks related with university's facilities.

The university's commitment to the environment may come indirectly when it carries out its institutional activities of teaching and research. This happens primarily through the development of training courses designed to create specific skills and through environmental research projects in the environmental field. Morever, while being aware of the complexity of the activities to be considered, it is believed that universities should be more environmental accountable in order to respond to the growing demand for environmental sustainability.

The two perspectives of producer and consumer, and of direct and indirect activities, should be integrated. This integrated approach is, however, difficult to achieve if a university does not redefine its mission for sustainability and if it does not adopt coherent policies, programs and tools that identify the significant environmental aspects and fix the benchmarks. In this way, it could be possible to measure the results achieved and the gap in pursuing the environmental objectives, and to implement any corrective actions and improvements.

Despite the above considerations, an explicit and thorough consideration of the environment is not spread within the accounting documents or in social, environmental or sustainability Universities' reports (Lozano, 2011; Lozano and Huisingh, 2011)

## University and its "social being"

This paragraph will analyse different issues related to a fundamental cognitive question: what is the social impact of education. This question in the postmodern society is very relevant especially if we focus our attention on the social function of the university and its social efficiency in the territory.

This question leads us to reflect on at least two main issues.

The first issue concerns the awareness that universities by definition produce culture and so, in the course of their formal process, they implement activities of socialization. These activities, according to the functionalist approach, preserve the cultural values from one generation to another, in this way contributing to the promotion of solidarity in social life and to the maintenance of social cohesion and social consensus. In this frame, universities with this cultural function reinforce the identity of a place.

The second issue concerns the awareness that universities (always) by definition are the driving forces of the new knowledge, skills, values, provisions and expectations, i.e. the universities are cultural makers. This point of view sets the educational dimension as a possible way to acquire citizenship. In particular, this dimension recognizes in the substantial freedom (Sen, 2000) the input to produce a welfare society and,-according to the Liberal's approach, a society with a significant social mobility based on a meritocratic education system.

These issues are just some questions that show the way by which the universities set up their "social being." In this context, the increase of the student population is a sufficient and necessary condition to consider the university as a social institution. This growing social demand for higher education has caused an increase in the supply of higher education system showed by the increasing number of universities settlements and by the change in the structure of the Italian University's system. The implementation of university's social being is evident in the so-called transition "from elite university to mass university". In this frame, if at the time of the proclamation of Italy unification (1861) university's students were about 6.500, in 2005 they become 1.824.000. Therefore, the number of students grew of 72% within 25 years; in the same time, both the number of teachers and the number of the settlements progressively increase.

This status quo shows that universities play an important social and economical role. In the matter in question, the universities by spreading knowledge (knowledge society) give a service of social development. In the main time, the universities are at the services of economic development when their output (ad hoc human resources, property rights and spin-offs) is made in collaboration with economical/business world.

Furthermore, in Italy in the last 50 years, the increase of human capital has caused some of the most important progress in the social and health fields. This thesis is confirmed by the increasing life expectancy, i.e. the number of years that a subject expects to live healthy. In addition, this progress can also be determined by the implementation of health programmes that educate people to the health care and to the disease prevention.

Moreover, the education has an impact on the physical capital, i.e. the real estate or the scientific equipment investments. The physical capital causes positive socio-environmental effects, such as the urban redevelopment. For example, universities with their settlements may enrich the quality of cultural and leisure life of the local community. Universities with their services can modify the social structure of the community. In this way, and according to the approach of the index of the human development (in which education is one of the three indicators, together with the gross domestic product and life expectancy), universities cause a great benefit in every aspect of the quality of life.

#### The perception of university sustainability value: the case study of University of Molise

To get some insights about the universities' role for a sustainable development we consider a case study implemented in the University of Molise (UNIMOL). In the Italian public university system, the University of Molise is a medium-small with 283 teachers, 262 units of administrative staffs 7443 students attending the six Departments (Table 1). UNIMOL is a young institution established in 1982 in response to the need to encourage local development and to the aspiration of the Molise region to have a university settlement. Its origin reflects the choice of the Italian Ministry of University and Research (MIUR) to strengthen the national network of universities, which seemed at that time poorly developed and concentrated in a few, large and congested historic sites.

Table 1 Departments and educational de	legree at UNIMOL University
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Department	Bachelor Degree (three years):	Masters Degree (two years):		
Department of	Food Science and Technology	Food Science and Technology		
Agricultural,	Agricultural Science and Technology	Agricultural Science and Technology		
Environmental and Food	Forestry and Environmental Technology	Forestry and Environmental Science and		
Sciences		Technology		
Department of	Biology	Biology		
Biosciences and Territory	Computer Sciences	Forestry and Environmental Science and		
Biosciences and Territory		Technology		

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	Tourism	Tourism and Cultural Heritage		
	Building Engineering	Civil Engineering		
	Civil Engineering			
Demontract of	Business Economics	Entrepreneurship and Innovation		
Department of	Social Work	Social Work and Social Policies		
Economics, Management,	Political Sciences	Political Sciences and European		
Society and Institutions		Institutions		
	Communication Sciences	Corporate Communication and		
Description of Education		Advertising		
Department of Education,	Cultural heritage and Literature	Archaeology, Cultural Heritage and		
Humanities and Social		Tourism		
Sciences	Primary Education (Single-cycle Degree,	Literature and Fine Arts		
	5 years)			
Department of Law	Law	Legal Profession		
	Techniques of Prevention in Work Places	Health professions for prevention		
Department of Medicine and Health Sciences	Nursing	Sciences and Techniques of preventive		
		and adapted motor activities		
	Dietetics	Medicine and Surgery (Single-cycle		
		Degree, 6 years)		
	Sports Sciences	Obstetrics and Gynecology (School of		
		Specialization)		

The Molise region is the second smallest Italian region (with 4400 km2, following Valle d'Aosta) with only 313000 inhabitants of which 50.000 are located in the main regional urban centre and the 76% of municipalities have less than 2000 inhabitants. The regional socioeconomic system, that is the first frame of reference of the University of Molise, presents a weak demographic structure (with high-dependency, old age, youth emigration), a heavy burden due to public employment, a low level of competitiveness and territorial attractiveness, with the 0,4% of the Italian GDP (source: ISTAT, National Institute of Statistic). The sectorial employment is distributed in agriculture 7%, industry 26%, services 67% (in Italy respectively roughly 3%, 27%, 69%). The 60% of the regional surface is involved in agricultural uses and 40% are forested areas; mountains and hills cover the main part of the region.

Molise has yet to make significant efforts in promoting an endogenous and self-sustaining development, also because of the macroeconomic crises of the Country. In this particular regional context, it is of extreme importance to consolidate a regional system of knowledge, to create opportunities for strategic co-operation between the various actors in the socio-economic region, to promote the economic, social and cultural development of the region. In these areas, the role of the University through its main functions, that is scientific research, higher education and outreach, is more crucial than elsewhere. To gain a deeper knowledge of these aspects, UNIMOL has started a process of social reporting in which the stakeholders' involvement is crucial.

The perception of the role of the University of Molise among the various stakeholders was detected through a direct survey focusing on three key elements (Fig. 1):

- the "Who", namely the identity of the University and its perception were investigated. This identity gives effect to its institutional mission through various activities carried out internally, but it is also due to internal and external stakeholders who participate in creating the University's identity;
- ✓ the "Resources", or the heritage of the University, consists of the total stocks of human resources and of structural and relational capitals. Thanks to these inputs the institution carries out all those activities and processes which reveal its role and give content to its identity;
- ✓ the "Value" produced and expected by the University, in terms of outcomes that contribute to the development of the institutions and of the context in which the University stands.

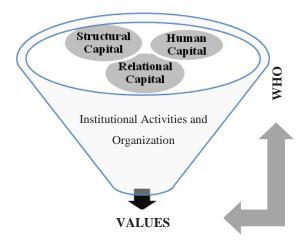


Fig. 1. The perception of the role of the University: identity, resources, processes, values.

The survey involved both the internal stakeholders (the two categories of teaching staff and administrative staff), and the local external stakeholders (enterprises, public institutions, professional bodies and associations). The questionnaire was structured with semi-open qualitative questions and scores were assigned according to a Likert scale. After a pre-testing phase, the questionnaire was sent by email to all individuals.

The survey had a very good response rate by the internal stakeholders, both teaching and technical staff; among external stakeholders it received a higher attention by the private than by the public actors (Table 2).

The following considerations focus on academic staff members' and external stakeholders' opinions because we consider their views particularly relevant in the initial step for implementing a sustainability process.

Table 2. The sample in the UNIMOL social survey.

Total N. of respondents (%)	599
of which:	Professors: 286; Technical staff: 235; External stakeholders: 78
of which: professors position (% on	Ordinary: 63,5%; Associate: 71,4%; Researchers: 82,4%; Post Doc:
each category)	89,5%
of which: technical level (% on each	B: 44%; C: 68%; D: 80%; HP: 100%
category)	
of which: external stakeholder	Private: 58%; Public: 17%; other: 25%
subcategories	

## **UNIMOL** case study: main findings

As far as the "Who" perception, the questionnaire investigated different aspects related both to the economic and institutional dimensions, and to the social and environmental performance of UNIMOL (Table 3).

A first positive result which emerges is that many of the internal and external stakeholders have given a *high* score to each aspect related to UNIMOL's identity, even if percentages are slightly a little higher among academic staff rather than stakeholders. Besides that, one can notice that comparing the percentage of *high* opinions between academic staff and externals there is almost a similar ranking of the aspects of the University's identity.

Even with these similarities, some peculiarities can be noticed. The percentages between the two groups show some differences on aspects that are important in a sustainability approach because they are related to the university's interaction with the external context (social and environmental sensitiveness, cultural services to the community at large). On those external aspects, a higher perception is more recurrent among academic staff rather than other stakeholders, and perhaps for this reason the last group appears less enthusiastic about the university's coherence with its institutional mission.

On the contrary, when looking at the *low* evaluations, some differences emerge both in the percentages and in the ranking of aspects. External stakeholders are more critical in the perception of social and environmental aspects of UNIMOL's identity, while they seem more cautious when considering the economic and institutional evaluations (efficacy, efficiency, institutional coherence); to a certain extent, the results concerning the low-level perceptions among professors are specular, for they criticise mainly the university's economic performance.

Table 3. UNIMOL's identity according to stakeholders (% of answers per group).

HIG	HIGH		LOW	
Acad	cademic	External	Academic	External

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	staff	stakeholders	staff	stakeholders
Efficient in resource use	47,6%	43,8%	21,5%	6,3%
Useful in providing cultural services to the community	59,6%	45,8%	12,8%	18,8%
Sensitive in meeting stakeholders' expectations	50,6%	52,1%	14,3%	18,8%
Cooperative with the social and productive sector	53,6%	50,0%	15,9%	25,0%
Able to achieve the results	53,6%	52,1%	14,0%	6,3%
Sensitive to social issues	58,7%	52,1%	9,5%	16,7%
Effective in defining the objectives	57,0%	54,2%	12,5%	4,2%
Sensitive to environmental issues	63,6%	54,2%	8,3%	16,7%
Coherent with its institutional mission	66,4%	56,3%	10,6%	6,3%

With regard to the perception of the University's "Values", the survey identified three dimensions in which the role of the institutions may gives value: the value in relationship to the territory, the social value, and the value for the sustainability. With reference to the perception of these values, their appreciation is generally very positive. For example, as far as the sphere in which UNIMOL actually contributes to the local development (Fig. 4), academics have high opinions about its contributions to the cultural and the social development, just a little less to the economic sphere.

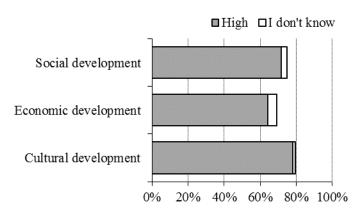


Fig. 4. UNIMOL's contribution to the local development. Academic's opinions (%)

Moreover, the questionnaire asked what specific measures and activities were considered more important to further increase the university's values in the future.

As far as UNIMOL's value for the local context, academic staff members (Figures 5-6) believe that in order to intensify the University's interaction with the territory a priority area is the support to research activities of local interest and the transfer of its results. External stakeholders (Figure 5), however, place their priorities on two areas related to training activities: in particular, the support to training and the design of courses tailored to the needs of the labour market.

Therefore, opinions of both categories differ somewhat on which institutional activities -

education for external stakeholders, research for academic staff - have to be intensified.

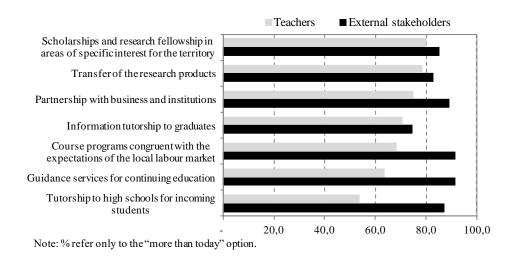


Fig. 5. Priority areas for enhancing the relationship between university and territory (%)

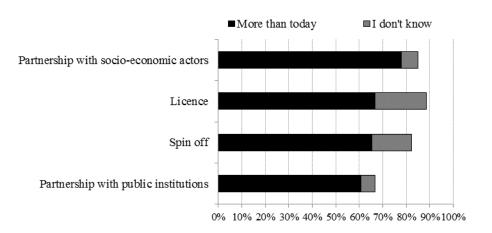


Fig. 6. UNIMOL's commitment for local sustainable development. Academic's opinions (%)

The question of sustainability that stakeholders pose to the university obviously reflects their belongings inside or outside the institution, as well as the awareness and sensitivity to the issues, and the interest that each category represents.

In terms of UNIMOL's value for sustainable development, besides underlining the positive comments from all stakeholders on the institution's sensitivity to environmental and social issues, it is interesting to further analyse in what ways it would be possible to increase the commitment to sustainability in the future.

When considering some courses of action, the teaching staff is equally shared between

those who consider sufficient to proceed in the same way as today, and those who believe that the University must increase its action in the future. These actions belong to the social dimension of sustainability in terms of equal opportunities, inclusion and protection, social economy (Table 4). or actions that regard the environmental dimension of sustainability, the majority among the teaching staff asked the University to put a stronger focus in the future through actions that regard education and research geared towards the introduction of green innovations and monitoring tools, and better environmental performance practises. Therefore, it seems that academics mainly expect from the University a greater attention to the environmental dimension than to the other dimensions of sustainability. For the purpose of these reflections, it is not important to consider whether the University has paid sufficient attention to environmental issues in the past or not. What seems instead more relevant is that there is a greater claim for a role of the institution in favour of a sustainable local development and particularly on its environmental dimension in the future.

Table 4 Academic's opinions about the future commitment of UNIMOL for sustainable development

	More than today	The same as today
Research on processes and products innovations	64,3%	28,9%
Local partnerships to protect sustainable development	60,2%	28,9%
Participation and staff involvement	58,0%	32,4%
Environmental performance of processes and impacts reduction	56,2%	36,5%
Environmental education and information	55,0%	34,9%
Environmental monitoring, evaluation, certification tools	53,0%	34,5%
Skills of administrative staff	48,2%	38,2%
Education and research in the field of social economy	44,6%	37,3%
Research on social inclusion and protection of the weaker classes	44,6%	44,2%
Equal opportunities	44,2%	41,4%
Economic performance of university management	42,4%	49,2%

By analysing these answers, we can draw some conclusions.

In the UNIMOL case study, moving from the social reporting implementation, the direct survey has made evident the need to go further, highlighting the interest of all stakeholders in environmental issues and in a comprehensive approach to sustainability. Other results were about the identity and values of the University, as well as about the difference in the opinions among the expected value, the realized value and perceived value, which offer several points for further reflection between the "teaching" *versus* "research" university main identity.

The interaction that a university, committed in drawing up a social, environmental or sustainability report, must set up with local stakeholders is an essential step as it provides the opportunity to grasp specific features and emerging questions. This interaction obviously cannot

just ask the different university stakeholders the question whether the University can contribute to sustainable local development or not. The most likely positive answers results in an awareness on one hand, and in a support assistance on the other, but should be filled with specific content.

Internal stakeholders are the prime actor who translate into concrete actions the commitments the institution assumes. It is clear that behind the concept of environmental education for sustainable development there are different views of environment, education and sustainable development (Lukman and Glavic, 2007). In the survey about University of Molise, it would not be possible to appreciate the academics' awareness about the sustainability content related to their different and specific disciplines. This awareness is extremely important in order to realise that interdisciplinary integration of curricula and of research, which sustainability requires (Reid and Petocz, 2006; Karatzoglou, 2013).

The perception of sustainability issues among external stakeholders is essential, both in regards to the commitment they require from the academic institution, and for the role that the organization could play. Stakeholders' involvement in the case study has revealed that they pay attention to UNIMOL's value for a sustainable development in the future scenario, in such a way that goes beyond the actual university commitment, both in the social and even more in the environmental sphere.

Finally, for the future patterns towards sustainability, the involvement of internal and external stakeholders is essential at all stages, not only at the end of the reporting process in order to set a participatory approach (Disterheft et al., 2015). In this way, it could be possible a continuous improvement of performance in accordance with the approach of the Deming cycle (Plan-Do-Check-Act) and a collaborative learning approach which is necessary to enable the institutions to meet the socio-economic-environmental challenges of the sustainability approach.

## Creating roles, values and approaches for sustainability

Despite the extensive literature, there is still a long way to go towards a strong role of universities for the global sustainable development. Three points are considered the most important.

Firstly, it is essential to translate the agreed principles in coherent actions, namely to integrate the institutional, social, economic and environmental dimensions of sustainable development in campus activities.

Another important issue to further increase is the diffusion of tools for reporting universities' commitment in promoting sustainable development. In addition to ethical and moral reasons, the usefulness of sustainability reporting is justified by the improvement of internal

management and by interaction with various external stakeholders. Experience gained in the UNIMOL case study, even if focused on social reporting, has given some insight on the low diffusion of sustainability reports (Ceulemans et al., 2015; Alonso-Almeida et al., 2015). One reason may be due to the huge amount of data –costly and time consuming- necessary to comply the indicators for the different profiles of sustainability (see, for example, the GRI standards and set of indicators). On one side, a proposal could be to define at the beginning of the process a very short list of the more relevant input and output indicators and to find the way to aggregate them in few indices for each dimension of sustainability. On the other side, these initial efforts could be paid back by a deeper implementation and a larger diffusion of comparable case studies, which give all the different stakeholders the opportunity to better appreciate, evaluate, and grant a premium for the best sustainable institutions.

Finally, the new roles that universities are called to play require changes in both values and approaches, aside from objectives and institutional activities. Sustainability is maybe one of the most important key points in universities' development. At the European level, the recent Framework Programme for Research and Innovation (2014-2020) Horizon 2020 has made a set of proposals in order to support the Europe 2020 Strategy, which has identified research and innovation as central in achieving the objectives of smart, sustainable and inclusive growth. In this framework there is an extensive area of work in which universities could commit in order to tackle the societal challenges set forth in the Strategy. Besides measuring the universities' performance in terms of economic effectiveness and efficiency in their use of resources increasingly scarce in Italy-, especially when resources are largely publicly driven, what should be considered are the values a university plays in contributing to the sustainable development of communities with which it interacts on local and global scales. These values have a particular meaning in small universities and, although difficult to be measured in a counterfactual approach, should be considered in order to establish a system of internal and external ad hoc assessment of university sustainability performances and outcomes, together with the traditional indicators of effectiveness, efficiency, and equity.

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