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Industrial PhDs and Higher Apprenticeships: The Experience of ADAPT

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Introduction

The present paper discusses the experience of the International Doctoral School in *Human Capital Formation and Labour Relations* at the University of Bergamo (Italy), promoted by the Association of International and Comparative Studies in Labour and Industrial Relations (ADAPT) and the Center for Quality of Teaching and Learning (CQIA). Both organisations have shown commitment to the innovative nature of industrial PhDs, also in light of the newly-issued national provisions. Identifying the scope to conclude agreements with employers to fund industrial PhD programmes based on apprenticeships and doctoral research programmes more generally, the School has been a forerunner in providing such arrangements for four years now; that is well ahead of what was laid down recently in Italian Ministerial Decree No. 45 of 8 February 2013. The approach adopted by the School stood out since its establishment as being similar to that used in other European or non-European countries for a long time. For this reason, the School anticipated the move made by the Legislator and provided some innovative approaches which will be explained in the pages that follow. Some features call to mind those which are typical of *professional doctorates*, while others are in line with those laid down by the European Union, and then implemented by Italy, concerning the industrial PhDs. The line between the two models is blurred, mainly because of the different nature of the academic programmes and the scientific disciplinary sectors at the national level. Yet, the distinctive trait of *professional doctorates*,¹ which generally involve adult professionals, is their emphasis on applied research, in order to contribute to the development of skills in a certain sector. Instead, industrial PhDs target young graduates – yet this is not always the case – and have two distinctive features: the nature of research to be carried out and the way in which activities are planned. For most of their time, Doctoral students work on their research projects while operating at the premises of the funding company. Alternatively, doctoral students are employees working for the employer who funds their scholarship. This is done either to promote employees' career development or to take part in projects along with the university.²

There are reasons to support the unique nature of this type of Doctoral research programme – also if compared to that regulated by Ministerial Decree No. 45 of 8 February 2013 – for it is based on the alternation between work and training and the combination of research and work activities. In essence, this scheme draws on features which are common to both Doctoral research programmes discussed earlier.

* Translation from Italian by ADAPT Languages

¹ Lunt I., *Professional Doctorates and their Contribution to Professional Development and Careers*, ESRC Full Research Report, 2005

² Kitagawa F., *Industrial Doctorates - Employer Engagement in Research and Skills Formation*, LLAKES Research

The Experience of ADAPT

The promotion of a Doctoral School featuring a close relationship between universities and employers on the part of ADAPT can be certainly regarded as innovative, for no other experience has been reported in Italy to date, yet a certain analogy emerges with the recent doctoral degree regulated by Italian legislation. The reasons for its establishment lie in the approach characterizing the ADAPT School of Higher Education, which can be summarized by its organisational motto on its [website](#) “Building the future of work together”. ADAPT is committed to building the future of work, fuelling the academic debate and contributing to steering the activity of policy makers at different institutional levels.

This attempt translates into a willingness to monitor the ongoing changes in the world of work as well as their origins without waiting to read about such developments in books, through a close look at both the causes and the consequences of such changes. In addition, the groundbreaking approach to this doctoral program arises out of the necessity to satisfy the needs of employers – who are often already partners of ADAPT and are interested in setting up innovative academic programmes in human resource management and labour relations – or to build stable and rewarding career paths for those who have opted to share their expertise and motivation in labour-related fields. A first attempt at this by ADAPT was made at the University of Modena and Reggio Emilia. The Doctoral School in Labour Relations, promoted in collaboration with the Marco Biagi Foundation, comprised of 99 students. ADAPT co-funded the programme and awarded scholarships amounting to €3,942,000. Later on in 2009, ADAPT and CQIA promoted the International [Doctoral School in Human Capital Formation and Labour Relations](#) at the University of Bergamo (Italy). The School intends to “move beyond the rigid separation which exists in Italy between education, Labour law and employment”³ either in terms of research and policy, with the view of disseminating an all-encompassing approach which takes account of these different dimensions. To this end and since its very establishment, the School promotes the alternation between school and work and the recourse to internships and apprenticeships which result in a direct involvement of the employers and the main actors of the world of work in the learning process. Pursuant to the School Regulation, it is possible to conclude agreements with employers or other educational or research bodies allowing doctoral students to carry out external internships or work periods of research. It is also possible to make arrangements for the funding of scholarships or research projects on the part of external organizations.

Following the Memorandum of Understanding (MoU) of July 23, 2009 and a further agreement (*Accordo di programma*) of September 28, 2009 concluded between ADAPT, the University of Bergamo and the Ministry of Education, University and Research, the latter allocated funding for a number of bursaries equivalent to the number funded by external bodies, up to a maximum of 15 scholarships.

Over the years and thanks to the ADAPT partners, the School has established a dense network of employers and representative bodies, which are actively involved and contribute in a number of ways, for instance by providing bursaries so as to participate

³ Motivazioni per la costituzione della Scuola di Dottorato Internazionale in «Formazione della persona e mercato del lavoro», http://www.unibg.it/struttura/struttura.asp?cerca=DOT-FPDLM_documenti.

in the education of doctoral students taking part in internships. In their capacity as funding partners, they enjoy a privileged position within the initiatives set up by the Doctoral School and help bring the labour issues investigated while in class closer to the dynamics of the working world. The involvement of private bodies in accordance with the MoU allowed the funding of 94 bursaries in four years, amounting to €4,306,000.

Currently, the International Doctoral School in Human Capital Formation and Labour Relations offers two tracks: one concerning topics related to education and pedagogy, and the other related to legal issues focusing on industrial relations and work regulation. The courses at the School do not differ significantly from those offered by traditional Doctoral research programmes, where students spend most of their time at the university. Yet, the innovative aspect lies in the fact that research is carried out in relation to a given work activity. This aspect is also emphasized in par. 3, Art. 1 of the School Regulation, pursuant to which the aim is to “train young researchers and enable them to operate in national and international firms through professional expertise in legal and pedagogical issues”. This feature is common to both the School and professional PhDs. Many Doctoral candidates are professional adults performing tasks of a predominantly intellectual character – either in the public or the private sector – in the fields of education and training or in the provision of services for people and businesses.

There is also the opportunity to carry out research at the funding partner’s premises. Besides being involved in the tasks traditionally required in Doctoral programmes – e.g. participating in classes, seminars, conferences, and research projects in order to draft dissertations – doctoral students whose bursary is funded by a private body can take part in internships which take place within a company. In this case, credits are assigned over the three-year period in consideration of the activities undertaken at the university and during external internships. This characteristic draws the School closer to the industrial PhDs implemented by the Legislator as the doctoral student is involved in a research project carried out in the funding partner’s establishment. It should be stressed that the training program put forward by the School places great emphasis upon on-the-job learning, envisioning an alternation between school and work and a close interdependence between research, teaching activities, and the fulfilment of special assignments within the company.

The courses offered at the School also include tasks which are particularly suited to university researchers, who join research projects, editorial work, and events organized by those promoting the School. All the activities, including those supplementing teaching, are assigned a number of credits – e.g. 1 to 120 credits for the internship, 1 to 90 credits for research and editorial activities, and support for the teaching. As a result, doctoral research programmes might vary considerably from one another; they share a common base – that is basic knowledge concerning education and labour market, yet they are tailored to each student and are characterized by high levels of professionalism. Individual training plans are envisaged in agreement with the academic tutor, the company supervisor, the School and the area coordinator, pursuant to the [School Regulation](#), based on an interdisciplinary approach and the progressive specialization of the main activities.

This state of play calls for innovation at the time of planning courses, considering the link between the research topic and the main aspects of the job requirements, an approach which marks a tendency away from the Italian experience concerning doctoral programmes.

In addition, the levels of harmonization between the research project and the goals, practices and the deadlines agreed upon in a company, or a working environment more generally, is remote from the traditional PhDs which predominate in Italy

Aside from providing a specialization in education, employment, and industrial relations, the School is characterized by a range of teaching methods which go far beyond those offered by traditional doctoral research programmes. Along with teaching and research carried out either individually or through group work, much time is devoted to on-the-job training, and workshops which can be attended online. Students are supported by a tutor and are required to attend seminars and conferences. The management and dissemination of the main activities (publications, seminars, and assessment tests) take place through an [online cooperative platform](#), an approach that is becoming a common practice in academic settings; the School is also experimenting with the use of social media in the working context. The complex organization and the ongoing effort in terms of planning and management of the activities and relations of the School make the ADAPT experience a unique one in the national scenario. This is also true if one looks at the numbers of the School, which are unprecedented, and likewise are the private funds allocated pursuant to the 2009 agreement with the Ministry of Education, for which an equivalent number of public bursaries are provided. In this sense, the School is innovative, considering that a very limited number of positions are available within the doctoral research programmes, particularly those for which a scholarship is assigned. Without financial support, applying for a Doctoral programme translates into prolonged reliance on one's family in economic terms. Disparities concerning access to doctoral programmes are evident and are further confirmed by a number of relevant studies.⁴

Evidently, this peculiarity affects selection procedures. The call for applications of the School is circulated through the ADAPT publicity materials ([newsletters](#) and [publications](#)) which reach more than 20,000 people consisting of students, professors, and labour practitioners and is therefore given much visibility. Accordingly, selection procedures are different from traditional ones and involve nationwide high-profile young scholars who apply for positions which have nothing to do with the patronage system which at times stymies academic job opportunities. The large number of bursaries, as well as the credibility of the ADAPT School of Higher Education, which made a reputation in placing well-educated young students, makes the School particularly appealing to candidates in Italy and elsewhere.

⁴ Argentin G., Ballarino G., Colombo S., *Accessi ed esiti occupazionali a breve del dottorato di ricerca in Italia. Un'analisi dei dati Istat e Stella*, in *Sociologia del Lavoro* n.126/2012.

Doctoral Programmes based on Apprenticeships

The close cooperation between the School and external entities – employers and representative bodies – on the one hand and a wide range of young people willing to pursue higher education or high-quality jobs in the field of labour and industrial relations on the other hand allowed for the setting-up of doctoral programmes based on apprenticeships in order to issue a doctoral qualification.

Pursuant to Art. 50 of Legislative Decree No. 276/2003 – as amended by Act. No. 133/2008 and subsequently by par. 3, Art. 5 of Legislative Decree No. 167/2011, this arrangement is possible by virtue of a framework agreement providing higher apprenticeships, which is concluded by the School and the funding company. In the past, young people who passed the selection procedures then concluded higher apprenticeship contracts with employers who were interested in their job profile. Upon conclusion of the contract, doctoral students operate for the company which hired them, and they are entitled to take leave in order to take part in mandatory teaching activities, as laid down in the School Regulation. In addition, the School somewhat anticipated the contents of Art. 11 of Ministerial Decree No. 45 of February 8, 2013, which, in turn, makes reference to Art 5, of Legislative Decree No. 167 of September 14, 2011 in that it gives the opportunity to set up doctoral research programmes based on apprenticeships with external bodies or institutions. For the purposes of calculating the number of bursaries required by law to set up a Doctoral School, it is also specified that these apprenticeship schemes are to be regarded as equivalent to scholarships. Therefore, the experience of the School can be useful also on this score, particularly if replicated, in order to evaluate possible constraints, as well as opportunities and requirements. Students who enter the School by means of apprenticeship contracts enjoy some benefits in that the amount of work expected of them in terms of attendance of seminars and other events is limited. This is because there is a need to strike a balance between the teaching activities and the tasks they perform at the company, especially because a part of the credits are assigned on the basis of the latter.

In any event, all the activities carried out by the doctoral students at the School are registered in a booklet which is constantly upgraded. Doctoral students on apprenticeship contracts do not distance themselves from those who undertake internships in terms of tutoring, evaluation, and coordination between theoretical and practical learning.

Doctoral students on apprenticeship contracts attend courses which are planned considering a number of factors: their prior educational attainments and work experience, the skills acquired thus far and those required by the employer, the relative job requirements and the School courses, without disregarding the qualification and the employment grade to be obtained at the end of the apprenticeship contract. All this is done in compliance with the Individual Training Plan (*Piano Formativo Individuale*) which is an integral component of the higher apprenticeship contracts, pursuant to par. 3, Art. 5 of Legislative Decree No. 167/2011. Over the following three years, apprentices are involved in training and educational activities which are intended to pursue formal, non-formal, and informal learning, in line with the working activities carried out at the company.

The Individual Training Plan provides a general description of the activities which will help Doctoral students to gain the required skills in accordance with what is laid down in the School regulation on a one-year basis.

A credit-based system is in place for admission purposes. Failure to comply with it will result in exclusion from the School. Doctoral students must collect 60 credits each year, which are awarded by their supervisor on the basis of the different student's activities and certified by the Doctoral School board. Individual Training Plans also provide for a number of soft skills, which in this case include methodology, research, and planning skills, communication and linguistic abilities, and knowledge of innovative technology for research purposes.

Previous experience points to the need of strengthening the theoretical knowledge in relation to the creation of a language which is common to all Doctoral students. This is irrespective of whether they specialize in Labour Law or Pedagogy under higher apprenticeships, internships, or more traditional PhD programmes. Finally, the different specializations have been planned taking account of the relating job profile. Over the three-year period, Doctoral students' activities are supervised by a company tutor who is in charge of providing the necessary skills to perform a given task and easing the integration between internal and external training. Doctoral students are also assigned an academic supervisor, who is usually a member of the teaching faculty who helps them with their research project, educational, and training activities.

To date, the School hosts 15 Doctoral students on apprenticeship contracts. It would be premature to draw conclusions about their experience. Yet some reflections made earlier to refer to successful industrial PhDs might also apply in this case. A summary of the benefits of both types of Doctoral programmes will be provided in the conclusions.

Concluding Remarks

The Industrial PhD has been favourably welcomed, and the same can be said, at least in principle, of higher apprenticeships. However, in order for them to provide opportunities for both young people and employers, some conditions need to be met. Among these conditions are a constructive spirit to foster cooperation between promoting institutions and economic actors in order to promote ad-hoc training plans; the involvement of experts in the planning of innovative and flexible courses which take account of different learning methods and competence; effective placement schemes which bring employers and young people closer striking a fine balance between the needs of the parties involved either in terms of training and career prospects.

To date, and in the absence of a regulatory framework laid down by the relevant authorities, the innovative cooperation between employers and universities is the result of the willingness and capability of certain institutions – which are rare to be found – to involve employers in ambitious training plans, thus overcoming cultural and bureaucratic constraints. In the context of the industrial PhDs outlined here, the experience of ADAPT in providing job placement services played a decisive role. The experience accrued over the years, which have been also certified by the Ministry of Labour, was then applied in the running of the Doctoral School as a way to guarantee the high-quality of the courses and their suitability with in-company training. As argued before, the establishment of industrial PhDs on a large scale might supply new opportunities and re-shape the boundaries of academic research in Italy.

Taking on this new challenge would allow Italian universities to further experiment with additional ways to enhance ties with employers – and the world of work more generally – by means of a close cooperation among those involved. This would translate

into new career paths as an alternative to traditional research jobs. In addition, this new approach to research might be useful to fill high-profile positions, by means of a) the traditional doctoral research programme in order to enter the academic career b) the industrial PhDs, which are more tailored to positions in the private sector; c) the doctoral research programme based on apprenticeships or apprenticeships for research purposes, which gives prompt access to positions within companies and private research institutions. In all these cases, students are awarded a doctoral degree at the end of the three-year period. In order to make this approach a practical and a reliable one, there is a need to dispel some ideological resistance on the part of the parties involved, i.e. universities and employers. The outcomes of this innovative approach to research cannot be evaluated yet. Rather, it is the need of some preconditions that need to be stressed here. In this sense, at the ADAPT School the scope for experimenting with new teaching methods is possible thanks to considerable forward planning, expertise, and cooperation with universities and employers that are responsive to innovation. All those involved were willing to invest in the planning of courses and access-to-work programmes, on account of their need to strike a balance between compliance with the university regulation and adaptation to ever-changing organizational issues within the companies. This was a necessary step to provide students with the necessary flexibility to fulfil their duties as students of a fully-fledged higher education system and as interns who cover high-level positions. As far as employers are concerned, the first aspect that needs to be emphasized is the willingness on their part to cooperate with educational bodies in building-up an organizational strategy. Apart from economic benefits, the choice to allow students to undertake a PhD programme at their premises arises from the opportunity to innovate and review certain processes, functions, and services. As a lever for business development, the disciplinary domain of Industrial Relations has undergone many changes, being exposed more than other fields to economic instability. Yet, the number of employers who react to external forces by turning to innovative processes is still limited. This move is usually driven by high levels of expertise and qualifications among which are adequate facilities and networking arrangements with the social actors and institutions. The other precondition is that the company has the necessary skills and latitude to decide over Doctoral students' educational programmes – through constant contact with the universities collaborating with, in order to understand their educational needs – and create forward planning abilities in order to deliver long-term career prospects. These are all qualities which by no means need to be taken for granted and require the help of professionals who possess the competence to promote a virtuous approach and highlight unexpressed needs. It is also worth pointing out the relevance of the students' expectations. They spend most of their time at the company and are trained in applied research. As a result, it is unlikely for them to seek employment in universities, considering the current state of Italian academic research. There are certainly more chances to be hired by the employer who funded their scholarships – since they are seen as a resource that should be retained – or by another company which might seek top candidates with a high-level of specialization. What is important here is to underline that, as likely as not, only young people who are well aware of the different approach used to carry out research will benefit from this Doctoral research programme, for it moves away from a traditional doctoral degree. Whether this longed-for evolution will come about will depend on adequate promotional activities on the part of those in

charge and on a move away from ideological resistance allowing for a better integration between training and work in tertiary education. In relation to well-educated young job seekers looking for high-qualified positions, such integration takes place at all levels through the widening and promotion of the grey area between higher education and employment, which consists of innovative actors, in the public and private sector, to be integrated into a local system of lifelong learning

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