

ANPRI
Italian National Professional Association for Research

WHITE PAPER
About public researcher condition in Italy:
a comparison with the principles
of the European Charter for Researchers

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Introduction

This White Paper has been written with the purpose of examining the condition of the researchers of the Italian Public Research Institutions (PRI – EPR in Italian), in comparison with the principles of the European Charter for Researchers, adopted by the European Commission in March 2005.

The situation is of general carelessness towards the researchers of PRI, both from the Italian legislator and the Presidents of the Research Institutions. This leads to a bad valorisation of this component part of the Italian scientific community, whose contribution to the quality and quantity of Italian research is far from being negligible, especially if its lower size in comparison with the University component is taken into account.

ANPRI is firmly convinced about the need of an improvement of the Italian scientific and technological research in order to get over the present crisis and the lower and lower Italian investments in research as compared to the other Nations. This document is intended as a contribution towards the solution of the urgent issue of public researcher valorisation; precise proposals are put forward to this end.

An early version of this White Paper on Research was presented during the international Workshop *“Towards criteria of evaluation of research and researchers: state of the art five years after the European charter for researcher”*, in the frame of the European Science Open Forum in Turin on July 2nd 2010.

This final version was improved by further contributions and necessary corrections due to the law 78/2010 and the approval of the Statutes of Research Institutions watched over by the Ministry of Education, University and Research (MIUR).

1. The European Charter for Researchers

1.1. Targets of the European Charter for Researchers

On March 11th, 2005 the European Commission adopted a Recommendation to member States on the European Charter for Researchers and the Code of conduct for the Recruitment of Researchers, pressing the Member States to incorporating them in the respective national laws and regulations.

The Commission, recalling the institution of the European Research Area in January 2000 and the target of the Lisbon European Council of implementing the most competitive and dynamic knowledge economy in the world by 2010 (!), considered necessary for Europe to *"improve its attractiveness to researchers and strengthen the participation of women researchers by helping to create the necessary conditions for more sustainable and appealing careers for them in R&D. Sufficient and well-developed human resources in R&D are the cornerstone of advancement in scientific knowledge, technological progress, enhancing the quality of life, ensuring the welfare of European citizens and contributing to Europe's competitiveness. Enhanced and more visible career prospects also contribute to the building of a positive public attitude towards the researchers' profession, and thereby encourage more young people to embark on careers in research."*

The ultimate political goal of this Recommendation was *"to contribute to the development of an attractive, open and sustainable European labour market for researchers, where the framework conditions allow for recruiting and retaining high quality researchers in environments conducive to effective performance and productivity."*

Accordingly, Member States should have endeavoured to *"offer researchers sustainable career development systems at all career stages, regardless of their contractual situation and of the chosen R&D career path, and they should endeavour to ensure that researchers are treated as professionals and as an integral part of the institutions in which they work"*, keeping in mind and inspiring themselves to the general principles and the directions given in the European Charter for Researchers and the Code of conduct for the Recruitment of Researchers.

1.2. The principles of the European Charter for Researchers

The most qualifying elements of the European Charter for Researchers can be summarized as follows:

- 1) All researchers should be recognised as professionals and be treated accordingly. They should enjoy the benefits of their activity (intellectual property, including copyright).
- 2) Researchers must not be discriminated on the basis of gender, age, ethnic, national or social origin, ...
- 3) Researchers should have a stimulating research and research training environment, with appropriate equipment, facilities and opportunities, including remote collaboration over research networks.
- 4) Researcher working conditions should include flexible working hours, part-time working, remote working, sabbatical leave.

- 5) Researchers should have stable employment contracts.
- 6) Researchers should have fair and attractive conditions, in terms of funding, salaries, social security provisions, sickness and parental benefits, pension rights, unemployment benefits ...
- 7) There should be specific career development strategies for researchers.
- 8) Geographical, intersectoral, inter- and trans-disciplinary mobility must be recognised as a value for researchers.
- 9) Researchers must be granted access to research training and continuous development during their career.
- 10) Researchers must be represented in the relevant consultation, decision-making and information bodies of the institutions for which they work.
- 11) Recruitment and selection procedures for researchers must be clear, equal, effective and based on credits.

1.3. The European Charter for Researchers in Italy

The Charter was presented for the first time in Italy in February 2005, during a meeting organised by ANPRI at the National Research Council (CNR) central location in Rome.

On July 7th 2005, the Union of the Italian University Rectors (CRUI) organized a meeting at the University of Camerino, where the Rectors adopted the European Research Charter and the Code of conduct for the Recruitment of Researchers, making a formal declaration of commitment.

On December 13th 2005, the Italian Public Research Institution representatives met at Campidoglio (the City Hall of Rome) and took the same formal obligation (see on Appendix 1).

This White Paper aims at analysing the consequences of these declarations, and the actions of Italian Governments from 2005, on the Italian researchers, with a special care for the Italian Public Research Institutions (PRI – EPR in Italian) and their researchers.

We can already anticipate that the results are very poor and, due also to the economical and financial crisis, there are almost no signs of future amelioration.

2. The research system in Italy and the European context

2.1. Italian critical issues

The implementation of the European Research Strategy as discussed in Lisbon in year 2000, as previously mentioned, was not as expected and the target of having 3% of GDP invested in research by 2010 turned out to be too optimistic. Given this situation, the European Commission has recently elaborated a new strategy to pass over the actual crisis. This strategy, called "Europe 2020" is based on three high priority growth fields, one of which is the "smart growth" to be achieved through the development of an "economy based on science and innovation", that should reach the objective of having 3% of GDP invested in research and science by 2020.

In spite of this European context, research in Italy is not yet seen as a strategic resource to invest on for the development of the Country, but as an "expenditure item" to restrain.

In this way, several critical issues arise which have negative influence on full exploiting the capabilities of Italian researchers, whose scientific results (taking into account the available resources) are in general good, with internationally acknowledged excellences; women too are part of these latter in spite of their difficulties to reach high hierarchical positions and their generally lower salaries, which highlights a gender discrimination still not overcome.

Italian investments in Research and Development are sensibly lower than the ones by other European Countries: Italy invests 1.18% of GDP, against 2.02% in France, 2.63% in Germany, 1.88% in Great Britain, 1.99% on the average in Europe – 15 countries, 1.9% on the average in Europe – 27 countries (source Eurostat 2008).

The difference between Italy and Europe is due mostly to the low private investment, which, in spite of the slight increase in recent years, is still only 0.6% of GDP (0.52% in 2004), while in France it is 1.27%, in Germany 1.84%, in Great Britain 1.28%, in Europe – 15 countries 1.28% on the average, in Europe – 27 countries 1.21% on the average (source Eurostat 2008).

But even public investment is low compared to the other European Countries: only 0.58% of GDP in Italy, against 0.75% in France, 0.79% in Germany, 0.67% in Great Britain, 0.71% on the average in Europe – 15 countries, 0.69% on the average in Europe – 27 countries (source Eurostat 2008).

As for the number of researchers, Italy is one of the last countries: 3.4 full time employed researchers every 1,000 employees, against an average of 5.6 in Europe 27 (data 2006, source <http://eu-research.blogspot.com>). Researchers in Italian private industries are about one third of the total amount of the Italian researchers (source Eurostat 2008).

In the Italian Public Universities there are 35,860 Professors and 25,092 university researchers, while in the Italian Public Research Institutions there is a total of 7,659 researchers and technologists (5,928 and 1,731, respectively) with long-term contract and 2,194 (1,432 + 762) with short-term contract, as for the data given by the Italian "General Public Accountancy Department" (2008).

The amount of public funds for research is essentially unchanged over the last years, while financing through research calls for projects has increased at the expense of ordinary investments; because of this fact and also of the lack of post evaluation, there is a growth

of overlapping initiatives that frequently reward groups, from industry and from universities, that are better equipped rather than at higher qualitative level. There are also limitations in the access to these call, as in the case of the Research Projects of National Interest (in Italian: PRIN) which can be coordinated only by an university professor or university researcher.

Furthermore, since Italian Regions have been recently given some research jurisdiction, Regions themselves now allocate some funds on research projects; in such cases, evaluation of projects is made by administrative offices and not through the standard "peer-review" system.

Domestic mobility of Italian researchers is rather weak, even within the public research system (Universities and Public Research Institutions). Moving from PRIs to Universities and back is severely restricted by the noticeable differences in salary and legal status: university scientists are better safeguarded.

On the contrary, there is a substantial mobility towards foreign Countries (*brain drain*) with a consequent loss of young and excellent researchers, which is not balanced by an entrance mobility. Measures introduced to provide incentives for Italian researchers to return to Italy have been unsuccessful, in spite of the desire of many of them to get back to their mother country. As it will be better and more deeply analysed later on, the main reason of this failure is the low appeal of the Italian research structures for young talents and distinguished researchers working abroad: lower salaries, no credit of one's own merit, lack of adequate equipment and laboratories, bureaucracy.

In the Italian Public Research System there is a specific anomaly due to the long time difference between researchers and professors of the Universities and researchers of the Public Research Institutions which concerns, besides the above mentioned salary and legal status matters, also the following aspects:

- autonomy in personal work organisation (significantly lower for researchers of the Public Research Institutions than for university researchers and professors) and in the choice of the research topics within the areas of interest of their institution;
- professional development (reduced in the PRIs and with rules that change in time and differ among Institutions);
- participation in decision-making bodies (traditionally lower in the PRIs and almost cancelled by reforms since 1999 which have increased tightening of the Institutions to politics and excluded researchers from decision-making processes).

On the contrary, main European Institutes (Max-Planck-Institute (MPG), Centre National de la Recherche Scientifique (CNRS), Commissariat à l'énergie atomique (CEA), ...) grant a deep involvement of researchers in the Institute governance, offer autonomy and career opportunities, appeals, high salaries, funding, good research environment, possibility of training and continuous development, since their national politics consider research important for the development of the Nation.

2.2. Evaluation of Italian research structures

In Italy the culture of evaluation is hardly establishing. Evaluation processes do not start on time and universities as well as PRIs don't use them much.

The first (and up to now only) consistent evaluation experiment has been made by the Research Evaluation Committee (CIVR in Italian) of the Ministry of Research with the "Tree-year Research Valuation Process 2001-2003". At the moment a "Five-years Research Valuation Process" should start, considering the 2004-2008 period and analysing the valuation of Universities, Public Research Institutions and other public or private Funders

that make research activities. Once again this valuation will be made by CIVR, since the National Agency for Evaluation of the University and Research System (ANVUR) is still not operative four years after its institution.

The impact of the national evaluation had some effect on Universities, but almost none on the Public Research Institutions, which didn't accept the change due to the insertion of evaluation as an instrument of research government.

A problem about the "Three-year Research Evaluation Process" is that it devoted more attention to disciplinary research and therefore was rather University-oriented; as a consequence, research made in the Public Research Institutions which is more multidisciplinary and in the frame of big international projects, was underappreciated. This formulation could be even stronger in the "Five-years Research Evaluation Process 2004-2008", since it will no more provide multiple-subject panels.

Moreover the evaluation does not consider the relation between public investments and results, relation which becomes more and more important given the lack of direct funding from the Government.

Furthermore there is still not (although it is recognised as very important) a complete National Register of Research, where to report all the projects and initiatives financed with public money.

3. Researcher status and working conditions in Italian Public Research Institutions

3.1. A historical summary

In Italy University researchers and professors have their status determined by a national law.

On the contrary the Italian Law number 168 of 1989 established that Italian researchers of National Public Research Institutions have their status and salary determined by trade-union negotiations, made every 4 (now 3) years.

The results of the first trade-union negotiations were incorporated in a Decree of the President of the Republic in 1991, Decree 171/1991; this latter established an alignment of salaries and professional levels of public researchers with the three level career at Universities.

Accordingly, Researchers and Technologists of PRIs were classified in three levels of scientific and professional qualification:

- 3rd level - Researcher or Technologist,
- 2nd level - First Researcher or First Technologist,
- 1st level - Research Director or Technology Director.

This classification, which is still in force, also produced a full economic equalization with the three levels of University researchers and professors, which in turn are classified in the three levels of Researcher, Associate Professor, Full Professor.

In 1993 there has been a Reform of the Public Employment, and with the Legislative Decree 29/1993 the status of Researcher and Technologist was determined directly by a National Labour Agreement on wages and employment conditions (CCNL in Italian). At the beginning, researchers and technologist were recognised as a specific professional

typology of management, therefore on 1994-1997 they had a specific managerial labour agreement, distinguished by that of administratives and technicians. The managerial labour agreement led to good regulations. But from the economical point of view salaries started not to be the same of university professors, whose salaries are ruled by law.

Later on other amendments, gathered together by the Legislative Decree 165/2001, established that researchers and technologists were no more part of management and therefore did not have anymore a specific labour agreement.

The law 145/2002 brought researchers and technologists back to management, but it didn't last since the General Financial Law of 2005 (Law 311/2004) brought them down again at the same contract of administratives and technicians.

As a consequence, all labour negotiations from 1998 were made in a general framework in which the specific prerogatives of researchers and technologists recognised on the first labour agreement at managerial level, have been several times challenged by the typical trade-union vision for which the higher professional levels (included that of researchers and technologists) must be reachable by all staff, included non graduated one.

Negotiation now includes any area of the working relationship, including researcher and technologist recruitment and career development, due also to the lack of specific legislative regulations of these matters. As a consequence there is on one side a "do it yourself" habit of Research Institutions about recruitment and career development, and on the other side a growing influence of negotiation about procedures and evaluation criteria, which does not happen in any other Country.

3.2. Problems of Legislative Decree 150/2009

The recent "Brunetta Reform" (called so after the name of the Minister) introduced by Legislative Decree 150/2009 has among its objectives that of establishing the priority of law over negotiation, especially about the evaluation and credit system, but introduces also new problems analysed hereafter.

- **Sectors and Areas of negotiation**

After Decree 150/2009, Italian Public National Labour Agreements are now defined in up to four different negotiation sectors, as well as in up to four separate negotiations areas reserved to management. Within each sector or area, there can be also special contractual sections for specific professional categories.

Such a division in four sectors and four areas is an oversimplification that is likely to cancel the existing peculiarities, although the risk is somehow mitigated by the mentioned possibility of introducing special sections. On the other hand, sectors, areas and sections must be defined through negotiation. In this scenario, researchers and technologists seriously risk not to be adequately considered during negotiations.

- **Careers**

Public employees within the same administration must be framed according to at least three different function classes, except for managers, school and academy teachers. Career progression in the same class are subject to selectivity criteria; cultural and professional quality, carried out activity and achieved results will give credits. Progressions between different classes must be accomplished via public examination, but administration can decide to reserve up to 50% of available positions to staff in a lower class with necessary qualification.

These rules are clearly set up having the ministerial model in mind, where non managerial staff is already classified in function classes with an economic progression within each area.

Researchers and technologists of PRIs are not classified according to functions, but to professional skill levels, so that the problem arises of fitting their careers in the above scheme.

The situation would change if researchers and technologist were again recognised as specific professional categories of management, but still the problem would exist of define the rules of their recruitment and career development, as the ones holding for the administrative management are obviously inappropriate.

- **Evaluation and credit reward**

The 150/2009 Decree provide for an evaluation system of working services and for credit reward thought for ministerial work setting. The legislator has noticed the non applicability of general rules to researchers and technologist of Public Research Institutions, as well as to school and High Music and Artistic Education (AFAM) professors, recognising their professional specific quality; the only decision, however, was to postpone the regulation to a next decree, still not promulgated.

3.3. System governance

With the delegation law 59/1997 the Italian Parliament delegated the Government to reform the Public Research Institutions. This reorganisation is still ongoing today. The aim of legislator was to reorganise completely the Italian research system, to overcome the existing fragmentation in many Institutions and coordinate the actions in a National Research Program (NRP). However, this objective has not been reached because of the enduring "ministerial mentality": every Ministry wants to keep its own competences on the research of interest. As a consequence, the NRP became a periodic "dream program" without any concrete obligation and investment.

Without investments, there has been various no-cost reforms of almost all the Research Institutions (except the National Institute of Nuclear Physics - INFN in Italian, at least until recently): in particular, interventions have picked on the National Research Council (CNR in Italian), watched over by the Ministry of Education Research and University, and on the National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA in Italian). Each time, reformed institutions have been placed under compulsory administration, some times also for years, with consequent problems for the institutions themselves.

Reform after reform, the principle of political and "top-down" nomination has overcome the one of nomination from the scientific community.

There has been a continuous reduction of funds and at the same time growing restrictions about recruitment, structure organisation, working conditions, accounting and administration, with a parallel increase of bureaucracy. As a consequence, Institutions have problems to set up their own scientific programs and activity is essentially determined by external commissions.

Moreover excessive discretion of the administrations and lack of efficiency controls bring to increasing of bureaucracy that often paralyse research and make it possible only for a few people to have the right career development, creating a strong discrimination inside the Institutions.

3.4. Statute autonomy in Institutions controlled by the Ministry of Education, University and Research (MIUR)

The law 165/2007 has given statute autonomy to the Institutions controlled by the Ministry of Education, University and Research, consistently with the article 33 of the Italian Constitution¹ and the principles of the European Charter for Researchers, opening some possibility to ameliorate the situation.

Actually, the Decree 213/2010 that put in practice this law, together with the Statutes approved by the Institutions, without any involvement of their researchers, have vanished such possibilities.

The legislative Decree 213/2009 brought a new season of changes for Research Institutions controlled by the Ministry of Education, University and Research. This reorganization was based on the principle of autonomy prescribed in the Constitution for high culture Institutions but remained unapplied for a long time.

This opportunity of self-government has been reduced by the limits imposed by the law 165/2007 from which the Decree 213/2010 stems, that (a) imposed the Board of Directors as supreme decision-making body, (b) strengthened the control of the Government (e.g. with the possibility to decide under broad circumstances the compulsory administration), (c) did not define the role of internal scientific community and (d) excluded the scientific community internal to the Institutions from the deliberative body of the first Statute, identified as the existing Board of Directors integrated by five members chosen by the Ministry.

Afterwards, the Decree 213/2010 has completely evaded the crucial issue of the role of the internal scientific community, whose participation to the government of its own Institution should have been the obvious consequence to the recognised autonomy.

Management of Research Institutions is firmly dominated by the Board of Directors, composed by members mostly appointed by the Italian Government and by a minority coming from the scientific community (not necessarily coinciding with the researchers of the Institution itself!). The National Research Council (CNR) will have a Board of Directors composed by 7 members, President included: 4 members appointed by the Government, one appointed by the University Rectors Conference (CRUI), one nominated by the Confederation of Italian Industry (Confindustria) and only one "expression of the reference scientific community". Other smaller Institutions' Boards controlled by the Ministry will have one member out of three, or two out of five, chosen by the scientific community. The National Institute of Nuclear Physics (INFN) will keep its present structure based on a bottom-up nomination system; this model is clearly considered as one *to be kept* but not, for unclear reasons, to *export* to other Institutions.

In every Institution the Scientific Council will be the general advisory body, delivering opinions and proposals about scientific planning and strategy documents. They will be formed by 7 members (10 at CNR) selected through "consultation procedures" within a "scientific and economical community" defined by Statutes.

For what concerns the "measures of valorisation of professionalism and autonomy of researchers" which should have been adopted in the Decree as prescribed by the law 165/2007, they are postponed to each Statute; this is also the case of the implementation of mobility, which is however impossible to fully achieve through a Statute which is obviously binding for the issuing Institution.

¹ Italian Constitution, article 33: "*High culture Institutions, Universities and Academies have the right to give themselves autonomous rules, respecting the limits prescribed by laws*".

Finally, in the Decree there is nothing concerning the actual implementation of the European Charter for Researchers; there is only a weak reference in the preamble which motivates the statute autonomy.

Decree 213/2010 is essentially, therefore, a lost opportunity. Once more the fundamental problem has not been tackled: **can autonomy of a Research Institution exist without self-government of scientists working in it?** Autonomy without involving researchers in decision making bodies becomes authoritarianism of top management nominated by political power. On the contrary autonomy should consist first of all in recognising the right of the internal scientific community to be represented in decision making bodies, like it happens in the Universities since centuries.

It is the European Charter for Researchers itself to provide a paragraph about "(researcher) participation in decision-making bodies" stating: *"Employers and/or funders of researchers should recognise it as wholly legitimate, and indeed desirable, that researchers be represented in the relevant information, consultation and decision-making bodies of the institutions for which they work, so as to protect and promote their individual and collective interests as professionals and to actively contribute to the workings of the institution."*

Under such circumstances and considering that the new Statutes would have been in the hands of the Boards of Directors, integrated by five experts nominated by the Minister, and that researchers would not have been involved, it was easy to forecast a resulting scenario with many negative aspects. As a matter of fact, the approved Statutes are more negative for the scientific communities of the PRIs than expected, even under a rather pessimistic view.

Indeed, instead of improving the role of the scientific community within each Institution, as prescribed even by the Decree 213/2010 by the adoption of "organization measures to strengthen the professionalism and autonomy of researchers", the Boards of Directors have often decided – in spite of any different request - for even very convoluted measures aimed at excluding, or at least at reducing to a minimum, the presence of researchers and technologists in decision-making and advisory bodies, humbling their role and professional dignity. The principles of the European Charter for Researchers have been totally contradicted since researchers are not "treated as professionals and considered part of the Institutions where they work".

Accordingly, Research Institutions are now even more top-down organized, with more power given to the President and the Board of Directors nominated by politics; in other words, they are less autonomous. This is a further confirmation that autonomy is insufficient if there no self-government.

3.5. Recruitment policies: youth and research future

The Law Decree 78/2010 "Urgent measures about financial stabilisation and economical competitiveness" at the article 44 provides fiscal incentives for researchers who carried out abroad at least two years of documented research activity or teaching for public or private research centres or Universities. It is an attempt to stimulate the "*brain gain*" to Italy.

This incentive is clearly thought for young and deserving researchers that during last years could find only abroad the opportunities for the development of their scientific competences and careers.

To come back, but with which opportunities in terms of contracts and salaries? To come back, but to work where? It is unlikely that fiscal incentives will bring young researchers

back; this goal can be more sensibly achieved offering the possibility to go on making good quality research, with adequate economic and instrumental resources.

Unfortunately, the working conditions that determined the brain drain have not changed during last decades, and good Italian researchers have gone abroad and increased the research prestige of the nation that offered them hospitality.

Moreover, the recent measures of the decree 78/2010 have worsened the situation: three year block of salaries and of career development, stop of staff turn over, dramatic cut in travel expenses, Institutions' suppression and researchers' transfer to some Ministries.

Continuous reforms and cuts of financial resources threaten the functionality of Research Institutions and their autonomy from political power.

There seems to be no exit from the actual crisis without a revival of competitiveness, especially in research and innovation.

The future of the research system in Italy is a real issue, and this issue is strongly related with the one of the whole youth generation, not only of young researchers.

The Italian National Institute of Statistics (ISTAT) on its yearly Report affirms that 2009 already represents a critic situation, where young people are the most affected category. The crisis determined in 2009 a decrease of employed youth aged 18-29 years (300.000 less, compared to 2008) and the youth occupation rate lowered to 44%, with a fall three times bigger than the general occupation rate. The reduction of the employment rate affected essentially any education level, which means that no degree does preserve from unemployment.

The increase of students is only apparently positive, since more young people study for a longer time waiting for a job or even get back to study after they loose their job.

Young people have mostly an atypical job, 30% compared to 8% of the rest of the population, and that's where unemployment is higher.

In research, unemployment will grow: recent estimates of the consequences of recent government acts after the block of turn-over, calculate that almost 1.000 researchers of PRIs with temporary contract will loose their job in 2011. Even worse is the situation in the Universities, where more than 20.000 people, mostly lecturers with short-term contract, will be fired.

Future in Italy cannot be better if investments in research and science are steadily low.

ISTAT Report highlights how the Italian deficit on research and innovation negatively affects the economic growth and productivity. As mentioned above, Italy is below the average over European countries in all fields: the expenditure for research and innovation in 2008 is estimated being 1,2% of GDP, far away from the 1,9% European average and even more from the 3% target of 2000 Lisbon Strategy and of Europe 2020; in private enterprises the number of full time researchers has increased only 14% from 1990 to 2008, compared to 40% of Germany, 100% of France and 200% of Spain.

If the Italian research system does not want to die, it must renew itself through a generation turn-over which lets young and brilliant researchers enter and bring new ideas. An adequate career and professional development should be guaranteed to them, avoiding the present brain drain which disperses investments that Italian Universities and Research Institutions still manage to make on them.

Such interventions need a long-term strategy, still non-existent, since expertises cannot be improvised, and the existing ones should not be wasted.

3.6. Funding access and utilization by Italian researchers

It is more and more frequent that researchers of Public Research Institutions set up scientific projects, important for their novelty and their cultural and technological impact, which are selected through calls of outside Institutions (Agencies and international Organisations) with complex funding procedures.

Often Italian researchers promote or inspire new scientific lines, participating to international working groups, from which projects stem that are proposed to the scientific community for application; the calls require qualified proposals which are consequences of collaborations among different countries and scientific groups.

Unfortunately, the lack of a defined status prevent Italian researchers who are responsible of internationally financed projects from having a clear and adequate autonomy level which would help project execution and would enhance the primary role of scientific responsibility. For the same reason, in some cases researches are even denied the possibility of presenting autonomous research proposals.

Once funds are assigned, there is a complex bureaucracy that eventually deprives the researcher of his right to actually manage the project he successfully presented.

- **Fund assignment**

The assignment of funds for research activity is subordinated to administrative procedures, in order to control the formal correctness.

This situation often gives a great power of control to the Director of the structure and the administration from which the researcher depends. The lack of rules to preserve the role and the responsibility of the researcher leave him submitted to the good or bad interpersonal relations that eventually condition, positively or negatively, the timing of fund assignment. Similar problems derive from the lack of an established right for the researchers of having a minimal funding level for their research activities.

- **Fund utilization**

The financing of a research project by other Institutions is often considered by the receiving Institution like a way to gain money and compensate the lack of funds, instead of a value to protect and valorise.

Therefore, the researcher and his group, that by their hard work conquer the respect and esteem of the international context where they operate, are often diminished at home and treated as mere "executors", without the right of disposing of the assigned funds freely and in advantage of the project.

The centralized organization of PRIs, generally causing dependence of the researcher from the Board of Directors, entails a very thorough and coercive control of any project activity. Given these circumstances, the lack of rules and of a status that safeguards the autonomy of researchers often produce situations where scientific interests are enslaved to top management and research programs as well as work contracts for young collaborators do progress or not depending on the will of the Board of Directors. Unfortunately, often what interests more the Institutions is how much to take from funds in order to integrate the ordinary budget, sometimes to cover a deficit.

The picture described is obviously at odds with the European Charter for Researchers, but also against the in force rules about the use of external funds; such rules indeed prescribe to set up a regulation defined by negotiation as well as allowances to project leaders and their research groups.

Most of times these rules are not respected and the lack of a specific right of researchers who are project leaders to have full control of the funds obtained, makes the destiny of these research projects and respective funds subject to the discretion of people who are formally in charge but actually did not submit the projects and do not really work on them.

3.7. Relations between PRIs and Universities

The system of PRIs and the one of Universities are two modalities of the direct intervention on research by the Italian State, as it is also the case in many other Countries. As mentioned above, there is a significant difference of researcher status, salary and working conditions between the two systems, which makes it difficult to have a true mobility from Research Institutions towards Universities and vice versa.

PRIs were typically born to help the university research when this was not directly financed by the State. Therefore the relation between Universities and PRIs is still characterized by the presence of university professors in responsibility positions in the Research Institution, while the reciprocal does not hold for researchers of these latter, who are even excluded from top positions of their own Institutions.

In small words we are still far away from the materialization of the far-seeing dream of the first University and Research Minister Antonio Ruberti, to built up an integrated system University – Research Institutions.

3.8. Problems related to the new Decree 78/2010

The recent Decree 78/2010 (“budget package 2010”) claims that research funding is not subject to the severe expense cuts it generally prescribes; in spite of this, there is a considerably negative impact even on research, on which development it would instead be necessary to invest to get out of the crisis.

A striking example of that is the suppression of various Research Institutions: ISAE (Institution for Economical Analysis) has been absorbed in the Ministry of Economical Development, ISPEL (Institution for Prevention and Security on Work) has been absorbed in another Institution that does not do research (INAIL - National Institute for Work Accident Insurance), ENSE (National Institute for Selected Seeds) has been included in INRAN (National Research Institute for Nourishment), INSEAN (National Institute for Naval Studies and Architecture) has been absorbed by CNR (National Research Council).

Of course it not possible to be anyway against rationalisation, but it is necessary that interventions follow a coherent and comprehensive development plan that:

- envisages a phase of serious evaluation of the activity of structures and of assessment of their potentiality, as well as of the effectiveness of previous reorganisation interventions;
- preserves the necessary autonomy and impartiality of research structures;
- safeguards scientific missions, avoiding forced merging of not homogeneous realities;
- does not disperse professionalism of researchers inserting them in structures not carrying out research activities, but aiding in case their mobility towards other research structures where their skills can continue to be expressed; it is also necessary to assure that moving researchers do not loose access to laboratories, technical support, project funds, and that the number of vacancies in the receiving Institution is not reduced by the move.

It must be stressed that there has never been a serious and official analysis about the effectiveness of all the reorganizations, hiving offs and fusions of Research Institutions, made since 1999. Researchers of Institutions that underwent them feel that all these rearrangements and the following endless transient phases did not give any positive boost to the research system.

Other regulations of the Decree 78/2010 have a negative impact too on Research Institutions:

- staff reduction through severe turn-over limitations during 2011-2014: statistics show that Italian researchers should be increased, not reduced. Moreover a generation turn over is necessary: many Italian researchers are old and research needs young minds. Therefore it is necessary that at least the previous rule, specific for PRIs, that prescribed that there could be yearly recruitment for a number equal to the one of retired people, is restored.
- the drastic cut imposed since 2011 to mission expenses (bound to 50% of 2009 expenses) will have dramatic consequences on national and international mobility, which is an important aspect of research activity and not a mere administrative cost. Moreover, the immediate abolition of daily allowance for international missions without contextual definition of board and lodging reimbursement procedures, brought detrimental uncertainty that will last until a new decree will establish these latter. It must be also observed that many international research projects need international medium term missions; for such missions reimbursement of expenses on submitting an expense account is definitely more complex and costly.

Therefore it is necessary the following:

- research missions must not be cut;
- international missions should keep travelling allowances, at least until new rules will be defined by a next decree;
- there must be special rules for international projects that imply official missions of more than two weeks.

4. Analysis of Italian general rules about researchers, compared to the principles of the European Charter for Researchers

The present rules for Italian researchers of Public Research Institutions stem from the general Law that controls the public employment relations (Legislative Decree 165/2001 and following modifications or integrations), the National Labour Agreements for PRIs employees, the Regulations of single Research Institutions.

As an example, it is possible to read in the Appendix an analysis about a few of the main Italian Research institutions which represent rather different situations: the National Research Council (CNR), which makes research in many different fields; the National Institute of Nuclear Physics (INFN), often shown as an example of well working Institution; the Agricultural Research Council (CRA); the National Agency for New Technologies Energy and Sustainable Economic Development (ENEA), Institution to which are continuously imposed changes of identity and periods of compulsory administration.

In this chapter a comparison is presented between the principles of the European Charter for Researchers (ECR) and Italian existing general rules for PRI researchers.

ECR: All researchers should be recognised as professionals and be treated accordingly. They should enjoy the benefits of their activity (intellectual property, including copyright).

In Italy there are not many references to researchers of Research Institutions in laws concerning public employees. One of the few rules concerning them directly is the article 65 of the *Code of Industrial Property* (Legislative Decree 30/2005) that recognise to researchers exclusive ownership of rights coming from their patented inventions.

Italian public employment general set up classifies workers into two categories: Managers on one side and employees and cadres on the other side. Researchers are the only professionalism not included in management, so that they are essentially considered as executive cadres.

ECR: Researchers must not be discriminated on the basis of gender, age, ethnic, national or social origin, ...

These discriminations are prohibited by the Italian Constitution. Nevertheless women turn out to have more difficulties in their career and there are less women in managerial positions compared to their total number.

ECR: researchers should have a stimulating research and research training environment, with appropriate equipment, facilities and opportunities, including remote collaboration over research networks.

As already said, the general and progressive reduction of ordinary funds, often reducing the possibility itself of keeping the research structures fully operational, represents a serious obstacle in offering such conditions.

ECR: Researcher working conditions should include flexible working hours, part-time working, remote working, sabbatical leave.

The present labour agreement (except in the case of ENEA, see the appropriate Appendix) provides for these conditions but not for sabbatical leave, considered as a cost instead of an investment. Rules about remote working are still far from being generally applied.

ECR: Researchers should have stable employment contracts.

The trade-union negotiation has up to now tried to change rules from one labour agreement to the next rather than to achieve stable contractual conditions. ANPRI upholds that public researcher status should be defined by law, in order to assure stability to his working conditions. Moreover, limitations to the number of people in the staff and financial restrictions to recruitment, bring to the use of temporary engagement, with consequent precariousness only partially overcome in recent years.

ECR: researchers should have fair and attractive conditions, in terms of funding, salaries, social security provisions, sickness and parental benefits, pension rights, unemployment benefits ...

Working conditions are generally acceptable for what concerns social security and welfare. However, funding and salaries are little attractive compared to other Countries.

ERC: There should be specific career development strategies for researchers.

There are no career strategies at all in the Italian Research Institutions, also because of the absence of status regulations considering in particular recruitment and career development; financial restrictions and the outside management of Institutions by university professors does not help the growth of an inside scientific management.

ECR: geographical, intersectoral, inter- and trans-disciplinary mobility must be recognised as a value for researchers.

This value is not much recognised, also because of the traditional university disciplinary approach to research, which is transferred to the PRIs as they are essentially directed, as mentioned above, by university professors.

ERC: Researchers must be granted access to research training and continuous development during their career.

This training is prescribed by the national research labour agreement, but the growing financial straitened circumstances make it difficult to implement it, with continuous delays and resource reductions.

ERC: Researchers must be represented in consultation, decision-making and information bodies of the institutions for which they work.

This guarantee is currently completely absent: only a small minority presence is contemplated in the scientific advisory board of some Institutions. Moreover, with the new statutes, this presence will be determined through involved mechanisms by the Board of Directors, mostly nominated by the Government.

ERC: Recruitment and selection procedures for researchers must be clear, equal, effective and based on credits.

There are no lasting, quick and certain rules for recruitment procedures. Every Institution has his own ones and frequently such rules change from one call to another even in the same Institution. This appears to be nowadays the standard behaviour of CNR.

5. The proposals

5.1. General actions at Italian and European level

The European Union should promote the putting into practice of the European Charter for Researchers, as part of the construction of the European Research Area.

In particular the European Union should:

- offer incentives to Countries and scientific Institutions that promote careers and attractiveness for young researchers;
- make standard rules for recruitment and career development of researchers, as well as for implementing full researcher autonomy;
- encourage research mobility and partnership;
- control the correct acknowledgement and effective implementation of the European guidelines about research.

Italy must reconsider the investment on research and development as a strategic element of development of the Nation, useful to ameliorate economy and society.

In particular Italy should:

- improve public investment, in terms of both financial and human resources, approaching levels comparable to the ones of other European Countries;
- implement the National Agency for Universities and Research Evaluation (ANVUR), avoiding the bureaucratisation of the evaluation process and the practice of favouritism in nominations, giving wide room to the participation of foreign researchers. It will be necessary to take into account the international indications and experiences in the different scientific fields, as well as the principles of the European Charter for Researchers.
- pursue a greater homogenisation of rules and status between university researchers and Public Research Institutions ones;
- consider in any case the researcher as a high professional skill worker, with an adequate status in the light of the peculiarities of the scientific profession.

5.2. Actions on the Research Institutions system

The following actions should be undertaken, in order to increase the effectiveness of the scientific activities of the Research Institutions, in a frame of coordination and full involvement of researchers:

- institution of a "Superior Council of Research", located at the Ministry of Research, aimed at realizing a space for a confrontation between all the interested Ministries, the Research Institutions and the representatives of researchers, as well as at drawing up the Italian Strategic Guidelines on Research; the Council should include an Evaluation Committee for the ongoing assessment of results achieved by Research Institutions.
- Interventions to affirm the principles of substantial self-governance of the Public Research Institutions, for what concerns both statutes and regulations, particularly

about the procedure of conduction of activities requested by the Italian Strategic Guidelines on Research; self-governance should be extended to all the Research Institutions, removing restrictions of the law 165/2007 and of Decree 213/2010 and in particular providing the full participation, under equal conditions, of representatives of researchers in the consultation and decision-making bodies of the Research Institutions where they work, as recommended by the European Charter for Researchers.

- Re-determination of the research staff numbers, aimed at the alignment with other well-developed Countries, and promotion of pluriannual policies of recruitment of young researchers. The optimal target should be the doubling of researchers in the next five years.
- Increase of ordinary funds, in order to improve basic research and the development of competences.
- Inapplicability to Research Institutions of general rules on public employment, organisation of public administrations, book-keeping and finance, unless such application is explicitly provided for.
- Fiscal incentives to Firms that finance research projects in collaboration with Research Institutions.
- Improvement of researcher performance and of research excellence by exploiting an organisation of researcher activity inspired by the principles of the European Charter of Researchers: training, equal opportunities, stimulating working environment, career attractiveness, autonomy and self-governance are some of the fundamental ones.
- Promotion of transparency of rules and procedures that control career development, at present affected by nepotism, political and trade-union lobbies, fake credit criteria. Rules must adapt to the existing European procedures, with special attention to those Countries which are the natural benchmark to Italy (Great Britain, France, Germany).

5.3. Interventions about researcher status

The role of researchers of Public Research Institutions must be enhanced by a "status" defined by a law (like university researchers and professors) that implements the principles of the European Charter for Researchers at the national level and promotes the researcher specific professional identity, autonomy, right career opportunities, in order to award their credit, recognise their scientific level; such a law should in particular implement the Minerva Code².

The new law must also guarantee a real mobility inside the whole public research system (Universities and Research Institutions), at present impossible because of the substantial status differences between the researchers of PRIs and university researchers and professors.

² The Minerva Code, approved in Brussels on June 2005 and aimed at having clear and equal recruitment, selection and financing procedures for researchers, establishes that:

1. all calls must be published at least 2 months before selection,
2. all evaluation criterion must be published on the call;
3. curricula of evaluation commission members must be published;
4. curricula of candidates must be published;
5. curricula of winners must be published.

The new contest will also have to define the evaluation bodies and criteria for the activity of PRIs researchers.

Concerning the labour agreement of researchers and technologists of the PRIs, it should be defined in a specific sector of the national negotiation, in order to enhance their professional features not defined by law (in particular their economic treatment); such a sector must be clearly apart from the negotiation frame of administrative and technical employees.

Given the present partitioning of negotiation into areas of management and sectors of executive employees, researchers and technologist should have a place in one specific section of one management area (as it was some years ago): this would be the only opportunity to enhance their professional specific quality. Besides, all other categories of professionals are already included in one managerial area.

5.4. Modifications to Brunetta reform

- **Issue sectors and areas in the national labour agreement**

The Decree 165/2001, as modified by Decree 150/2009, should be further modified with the prescription of a specific labour agreement section in a managerial area for researchers and technologists of Public Research Institutions, in order to implement what recalled above.

- **Issue careers of researchers and technologists**

A new article of Decree 165/2001 should specifically deal with researcher and technologist careers, such as the following:

"Researchers and Technologists of Research Institutions are placed on different levels of growing scientific and technological qualification respectively. The initial level can be accessed only by public national call, the upper levels by public national call or by calls reserved to the personnel of the previous level.

Levels and qualifications required for them, criteria for commission appointment, calls procedures, are defined by ad hoc regulation Decree. This regulation must respect the principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers and is be promoted by the Minister of Education, University and Research, in accordance with the Minister of Public Administration and innovation."

- **Issue evaluation and credit acknowledgement**

Implementation of the article 74 of the Decree 150/2009, prescribing a special regulation of the matter for researchers and technologists, cannot be disjointed by the solution to the problem of career of researchers and technologists.

Anyway the implementation must respect the principles of evaluation and credits of the European Charter for Researchers; in particular, any evaluation of merit must be expressed by a committee composed by experts of the scientific or technological field of the person under assessment. The evaluation criteria must consider the human, instrumental and financial resources available to the researchers for their activities.

5.5. Requests about the Statutes of Research Institutions

Considering the framework introduced by the new Statutes of Institutions controlled by the Ministry of Research, it is necessary to stress the importance of achieving a true autonomy of Research Institutions, which cannot be realised without the self-government of researchers that work in these Institutions. Therefore, the Statutes should respect the

following principles and criteria having reference to the Italian Constitution and the European Charter for Researchers:

- the Scientific Council should be the body where the general scientific planning is elaborated, in particular providing the ten-year strategic Document; it should operate with autonomous proposal capabilities;
- the representatives of the inside scientific community in the decision-making and advisory bodies must be not less than 50%;
- specific election procedures must be defined, aimed at assuring the competence and qualification of elected members in relation to their tasks, also asking for the publication of candidate curricula;
- if it turns out that scientific departments or similar entities are useful for a better advancement of the activities, then such departments should have a committee, mostly elective, coordinating the scientific activities within the competences of the department and harmonizing the requests for financial and human resources presented by the research groups and/or research structures of concern;
- existing instances of researcher representation and participation to scientific planning should be enhanced and formalized, and their autonomy and actual decision power safeguarded;
- an elected board should be present in every scientific structure, aimed at its scientific management;
- researchers should participate to the appointment of the directors of scientific structures and express their opinions on programs formulated by the candidates, as well as on their implementation;
- relations with other Research Institutions and Universities should be defined according to reciprocity principles;
- clear and lasting procedures for recruitment and career development should be defined; curricula of commissioners and winners should be published on official internet sites;
- task and responsibilities should be transparently assigned, with publication of curricula on internet official sites;
- researchers should be classified, according to their competences, into scientific sectors and registers of experts should be established for each such sector; this way a balanced representation of competences in call commissions and in other boards can be easily achieved;
- decisional and managerial autonomy of researchers and technologists during their activities, in the frame of the mission of their institutions, should be guaranteed and their ethical convictions safeguarded;
- a budget share should be reserved to the development of scientific and professional competences of researchers and technologists;
- right of researchers to perform research activity according to their own competences, granting equal opportunities and adequate financial resources, should be acknowledged;
- procedures for the treatment of complaints and petitions by researchers, with impartial people giving adequate assistance to solve job conflicts, controversies and complaints, should be introduced in order to assure a fair treatment.

Appendix 1**Declaration of the Presidents of the Italian
Public Research Institutions on December 13th 2005****EUROPEAN CHARTER FOR RESEARCHERS¹
AND CODE OF CONDUCT FOR THEIR RECRUITMENT**

The Italian research Entities, Institutions and Foundations, collected in Rome, on the Campidoglio, into the Protomoteca Hall, on December 13th 2005

being aware

- of the role the research institutions have played in the past centuries to establish an European identity based on exchanges and mutual collaborations for the progress of knowledge in all Research and Technology fields;
- that the research activity must be considered as a primary way to contribute to the birth of modern Europe and to the definition of her reference principles, as a civilization based on human dignity;
- of the role research institutions and researches play in the implementation of the Lisbon strategy, also through the construction of a European Research Area;
- that the new actions stated in the Recommendation will provide to the Member States, to the funding agencies and to the researchers a valuable tool "for the improvement and consolidation of the researchers' professional opportunities in the European Union and for the establishment of an open labour market for researchers";
- of the assessments and prospects pointed out in the European Commission Recommendation with respect to:
 - the lack of researchers and the Europe need to strengthen its attractiveness to them and to foster the participation of women to research;
 - the need of adequate human resources for the development of science and technology, for the improvement of life quality, to guarantee the citizens' well-being and to increase the competitiveness;
 - the implementation of new tools for the researchers' career development, taking into account the value of their responsibility and professional skills, aiming also to build up a positive attitude towards them in the general public;
 - the objective of the development of an attractive, open and sustainable European labour market for researchers;
 - the recognition and the support of the geographic and interdisciplinary mobility at national, regional and institute level, also in relation with the technological

and social development of the various Europe regions and of the developing Countries, as a tool to strengthen the researchers' professional growth, and of the mobility between the private and public sectors as a fundamental transfer channel for knowledge and innovation;

- the need to define open, transparent and internationally comparable recruitment procedures;

being convinced

- that, in order to build the Europe of the future, which is the Europe of the young people and the Europe of the research, it is necessary to adopt a set of rules for the researches and their employers which takes into account also ethical aspects and equal opportunities, as it is stated in the general principles of the European Charter and of the "Code of Conduct";
- of the necessity of promoting the presence and the recognition of women role in scientific research through specific initiatives that recognize their professional competence;
- that research, during all its phases, must allow the active participation of all competent persons without any barrier, included those arising from disability;
- that inside the research activity it is important to protect and to develop also the production of public quantitative informations, as a powerful tool for citizenship in modern democracies.
- of the need to build up an interactive consultation tool between national research institution with respect to the implementation of the Charter and of the Code of Conduct;

with this declaration formally commit themselves to

1. adopt both the principles and the actions prescribed by the European Charter of Researchers and by the Code of Conduct for their recruitment, adjusting in this direction both the principles of their Statutes and the consequent regulations.
2. urge the Parliament and the Government to adopt both lawmaking and administrative initiatives consistent with the Chart and Code of Conduct directives.
3. stimulate their reference Administrations and the Representatives of the financial, enterprise and social world, to undertake actions and behaviours coherent with the content and the spirit of the Recommendation;
4. require to the Researchers to fully comply with the principles stated in the Charter for the accomplishment of their activity;
5. set up an interactive Forum between national research Institutions, with the aim of supporting and monitoring the Charter and Code of Conduct implementation process.

Roma, December 13th 2005

Appendix 2

On the coherence with the Charter principles at CNR and INFN

a) CNR

All researchers should be recognised as professionals and be treated accordingly. They should enjoy the benefits of their activity (intellectual property, including copyright).

CNR Researchers are considered, by contract, "executive cadres". They are not allowed to vote the Directors of their scientific units, neither the scientific coordinators of the CNR project to which they participate. All such scientific management roles are appointed by the CNR Governing Board which does not grant to Researchers even the opportunity to express their agreement. Moreover, CNR has not yet correctly enforced the DPR 11-7-1980, n. 382, and the subsequent Law dated 16 January 2003, n. 3, which allows to allocate to Researchers a share of the proceeds coming from externally funded research contracts. On the contrary, some CNR attempts to implement such rules were going in the direction of using the named proceeds to aims not foreseen by the law, and contrary to its spirit of providing incentives.

Researchers must not be discriminated on the basis of gender, age, ethnic, national or social origin, ...

In CNR there is no discrimination with respect to gender, age, ethnic origin and religion. However it has to be pointed out that, for female Researchers, career is more difficult, given the fact that only 63 out of 327 (19%) Research Directors are female, while at the starting Researcher position there are 1323 out of 2797 (47%) female researchers.

Researchers should have a stimulating research and research training environment, with appropriate equipment, facilities and opportunities, including remote collaboration over research networks.

The smallness of the ordinary funding share which is transferred to CNR Institutes, makes very difficult, if not almost impossible, to acquire the equipments and the instrumentation which are needed for the research activity. Such equipments and instrumentation (and also books, scientific journals,...) are usually acquired with external funding. This causes serious troubles, particularly for those disciplines and activities for which it is very hard to find external financing.

Researcher working conditions should include flexible working hours, part-time working, remote working, sabbatical leave.

CNR assures flexible working time and part-time working. However, the right to have sabbatical periods is not granted, while remote working is being introduced (even though it is difficult, at the time being, to estimate how effective it will be).

Researchers should have stable employment contracts.

There is too high a fraction of Researchers with a fixed term contract, or other unstable job types. Suffice to say that today 447 out of 4024 (11%) Researchers have a fixed term contract with CNR. The job instability is a serious threaten of research autonomy, which, instead, has to be assured to Researchers.

Researchers should have fair and attractive conditions, in terms of funding, salaries, social security provisions, sickness and parental benefits, pension rights, unemployment benefits ...

Working conditions are not attractive at CNR, neither for what concerns salaries, which are on average lower than what is normally granted to European researchers, nor for what concerns the research funding granted by the institution. On the contrary, social security and maternity and illness compensation may be considered attractive elements.

There should be specific career development strategies for researchers.

As a matter of fact, CNR does not set up any medium or long term strategy to assure the Researchers' professional development. The Institution simply applies the contract rules, which allow internal selections, but this happens with a large delay (at present an internal selection round referred to January 1st 2007 is still ongoing) and for a very limited number of positions (in the mentioned selection round, only 39 first level positions are made available to 893 candidates, which means one position every 23 candidates).

Geographical, intersectoral, inter- and trans-disciplinary mobility must be recognised as a value for researchers.

There is very limited geographical mobility inside CNR (all the career, from starting grants to retirement, takes place in the same Institute) and, as a fact, trans-disciplinary mobility is a damage for the career, since the selections are made separately in each scientific area, and only the titles related to the specific area are taken into account.

Researchers must be granted access to research training and continuous development during their career.

This right is strongly limited in CNR, due to the smallness of the fund devoted to long-life training (coming essentially from the employment contract, i.e. from the Researchers' salary), to the not always clear criteria upon which the training plan is approved and to the delay with which training activities are financially supported.

Researchers must be represented in the relevant consultation, decision-making and information bodies of the institutions for which they work.

CNR Researchers, as of today, cannot be represented in any way into the institution governing body, and there is no elective delegation into the Department Scientific Councils (apart from one isolated case). There is only a minority delegation (5 members out of 20) in the General Scientific Council. A complete elective Researchers representation is foreseen only for the Institute Councils, whose role is, however, only to provide support to the Institute Director, but they have no real power. It must also be noted that, the draft of the new CNR Statute does not foresee the Institute Councils, which could possibly be introduced only in subsequent regulations, which will determine also their role and composition.

Recruitment and selection procedures for researchers must be clear, equal, effective and based on credits.

At CNR, new Researchers recruitment and selection procedures are being defined according to some fixed criteria, which are however too few to avoid each selection round to have its own rules for titles evaluation, score assignment, ... Moreover, no openness rule is respected for the selection committees appointment, which belongs to the Institution

President on the basis of pools proposed (with unknown criteria) by the Department Directors.

b) **INFN**

All researchers should be recognised as professionals and be treated accordingly. They should enjoy the benefits of their activity (intellectual property, including copyright).

The research fields in which INFN is involved are seldom source of immediate technological applications. The few patents originated from INFN research products have always been supported and exploited by the Institution itself, without any conflict with Researchers.

Recently, after years of discussion, it has been approved an internal regulation that allows (under certain conditions) INFN personnel to perform work for external customers. Although this is certainly a positive step in the direction of establishing fruitful collaborations with SMEs and in general with the regional productive and technological reality, it has to be pointed out that only a small share of the proceeds will be allocated to the personnel that will actually do the work, while a much larger share will be generally distributed to all personnel. Beside this, it is still at embryonic stage the development of a strategy for the so-called *spin-off*, i.e. those new business ventures which start from specific know-how developed by INFN research activity. In general, it should be noted that during these last few years many researchers moved part of their activity towards neighbour application fields, which probably means that the above points deserve more attention.

Researchers must not be discriminated on the basis of gender, age, ethnic, national or social origin, ...

Although INFN is perfectly compliant with law prescriptions, for example by appointing an Equal Opportunity Committee (which has neither real power, nor a budget) and always assuring a "pink share" in all examination committees, the fact that the gender and age differences are still quite important can't be disregarded. For example, it is extremely difficult to guarantee an efficient turn-over mechanism, which could possibly stop the increasing trend of the average Researchers age. This certainly depends on the general situation of the country and of the national research system, however a scarce attention to such problems both of the management and of the staff should also be noted.

Researchers should have a stimulating research and research training environment, with appropriate equipment, facilities and opportunities, including remote collaboration over research networks.

INFN can be considered irreproachable in this respect, due to its own mission: it would be impossible to perform competitive research at international level without using the most advanced tools and instrumentation.

Researcher working conditions should include flexible working hours, part-time working, remote working, sabbatical leave.

Work flexibility is regulated, at INFN as in all other Italian public research Institutions, by a national employment contract and, although it is possible to envisage several

improvements, like for example the effective implementation of remote working, in general the working conditions can be defined adequate and satisfactory.

Researchers should have stable employment contracts.

This is probably the most critical point, where during the last few years Researchers conditions have continuously worsened, although some countermeasures have been introduced, like the stabilization of many fixed-term workers in all public institutions (Budgetary Law 2007) and the opening, for a short period, of new staff positions (which has been recently stopped, as a matter of fact). Clearly, such problems are mainly due to general Italian research policy, but became much tougher at INFN due to the overall staff reduction, which is now clearly unfit to the quality and quantity of INFN research activities. Moreover, the INFN management realized too late that the personnel situation was getting dramatic and did not intervene to stop the continuous increasing of all kind of fixed term contracts, with the result of keeping inside INFN a number of young researchers exceeding by far the number of future staff contract envisageable and for periods exceeding by far any reasonable training time.

If, on the one hand, INFN is still able to attract young researchers, both for the quality of its research activity and for its still remarkable organization, on the other hand it is not able anymore to provide a clear and well defined (in terms of duration and success probability) access path to staff positions.

Researchers should have fair and attractive conditions, in terms of funding, salaries, social security provisions, sickness and parental benefits, pension rights, unemployment benefits ...

The use of very flexible employment contracts for researchers, like the so called "Continuative Coordinate Collaboration" or the "assegno di ricerca" is now strongly limited by the INFN management, but few years ago the number of such kind of contracts had increased above any acceptable limit, resulting in a sort of exploitation of young researchers' work.

There should be specific career development strategies for researchers.

INFN is one of the few Italian public Research Institution which kept over several years an almost regular rate of career opportunities for researchers. However, both staff and budget limitations have prevented INFN from making available a number of higher level research positions adequate to recognize the professional skills and the scientific excellence which are widespread between its researchers.

Geographical, intersectoral, inter- and trans-disciplinary mobility must be recognised as a value for researchers.

For sure at INFN the opposite approach has always been preferred: researchers are almost always tied to one research group, starting from their degree thesis. Research periods abroad are usually spent in groups that collaborate with the Italian ones. In general, geographical mobility and sector/discipline changes are not rewarding in terms of researchers' career.

Researchers must be granted access to research training and continuous development during their career.

This right is actually granted in INFN, if sufficient funding is available. The national contract for research institution personnel does allocate a dedicated budget for training, which is used accordingly.

Researchers must be represented in the relevant consultation, decision-making and information bodies of the institutions for which they work.

This is traditionally considered the key of INFN success over more than half a century of life: it has always been granted to all scientific community members the right to access not only to the consultation and information boards of the institution, but also to the governing bodies up to the top management level. However it should be noted that such great cultural heritage of the scientists full participation to the research management, is now undergoing a reformation process whose final shape is not yet defined, and in general it suffers from continuously changing rules.

Recruitment and selection procedures for researchers must be clear, equal, effective and based on credits.

It is hard to say that INFN selections have a high level of openness, even if they are actually merit-based, due to the fact that normally all candidates have excellent scientific profiles and make often difficult the choice among them. If, on the one hand, the "concorso" selection procedure is at the moment the only one sufficiently fair in the Italian environment, on the other hand it is clear that a simple exam cannot fully take into account the candidates experience and potentiality. The adoption of the "Minerva code" would certainly improve the procedure openness and credibility.

Appendix 3

On the coherence with the Charter principles at CRA

All researchers should be recognised as professionals and be treated accordingly. They should enjoy the benefits of their activity (intellectual property, including copyright).

Being considered as mere clerk rather than professional personnel is a diffused perception among scientists at CRA. Their autonomy is growing poorer due to the bureaucratic internal rules: If, on the one hand, it is difficult to prepare projects and search for funding, on the other hand current regulations make even more difficult to use such funding for research activities. Since 2008, CRA requires researchers to partially support (up to 30% at the present time) the permanent contract personnel costs and the general costs as well. Actually, researchers and technologists at CRA are burden with the responsibility of getting more and more consistent funds to ensure their own salaries and their institution budget, without getting, on the other hand, the consequent responsibility and autonomy on resource management, as well as a share of external funds, not existing the prescribed related set of rules.

Researchers must not be discriminated on the basis of gender, age, ethnic, national or social origin, ...

Such discriminations are not occurring at CRA.

Researchers should have a stimulating research and research training environment, with appropriate equipment, facilities and opportunities, including remote collaboration over research networks.

Research equipments, supply, computers etc. cannot be purchased through ordinary funding and they bear on external research projects. Availability of scientific journals and publications is a problem as well, although CRA is increasing on-line subscriptions through the head office. Facilities maintenance is insufficient too.

Researcher working conditions should include flexible working hours, part-time working, tele-working, sabbatical leave.

CRA central management hampers the application of national labour agreement (CCNL) rules which guarantee the autonomous determination of working timetable boundaries: a dedicated NL has been issued by the central management in order to arbitrary rule the absences related to duty by requesting a formal absence authorization by the director of the structure, thus totally infringing the CCNL. In addition, the local integrative contract is even more reducing researchers' and technologists' autonomy with regard to the determination of their working timetable. Concerning telecommuting and sabbatical periods, at the present time there is not even a discussion on the matter.

Researchers should have stable employment contracts.

Information on temporary contract scientists, postdoctorals and scholars are lacking

Researchers should have fair and attractive conditions, in terms of funding, salaries, social security provisions, sickness and parental benefits, pension rights, unemployment benefits ...

See what previously reported regarding funding. Concerning the salary and the providential and social security issues, see paragraph 4.

There should be specific career development strategies for researchers.

The CRA scientists career and professional development opportunities reflect the objectives difficulties derived from the national constrains. Although, an unbalanced situation is experienced: that is, the increased opportunities offered to technicians and executive administrative personnel as compared with researchers/technologists. (60% of technicians and executive administrative personnel had a career development opportunity versus 30% for researchers/technologists)

Geographical, intersectoral, inter- and trans-disciplinary mobility must be recognised as a value for researchers.

CRA has pronounced his opposition to any term-mobility to others analogous Institutions even in the case of suppression of its own research structures. Such a position raises a negative feedback from scientists all, the more impressive in the current background of poor funding and actual difficulties of CRA governance to pursue their restructuring process. There are researches little or not at all involved in any projects. CRA has to decide whether such researchers have to be involved or not, otherwise in the lack of this decision, getting an official allowance is necessary in order give the researcher the possibility to move to other institutions where his skill, experiences and competences might be valuable. It is expected that this will pave the way for a better productivity and personal motivation, with an overall advantage for the Institution itself.

Researchers must be granted access to research training and continuous development during their career.

Initiatives concerning this topic are very poor, also in the light of the present paucity of resources, worsened by the unpleasant tendency to avoid to separate the resources that CCNL aimed at researchers from those assigned to other personnel. On the other hand, it is worthy to say that the researchers/technologists educational demand is also rather low. It is worth of mention the 2009 initiative from the Vigilant Ministry on issuing 50 stages of updating to be spent abroad.

Researchers must be represented in the relevant consultation, decision-making and information bodies of the institutions for which they work.

Both the current CRA statute (effective from 2004 until the new one will be officially approved) and the draft of the new one approved by the Board of Directors in July 2009 (competent Ministries approval still pending) do not prescribe internal scientists participation in decision-making bodies of the Institution. On the contrary, all the components are appointed by political organisms (MiPAAF, Conferenza Stato-Regioni, MIUR).

The Council of Departments, which is in charge of addressing and coordination of scientific activities of CRA, foresees a minor researchers elective component (5 out of 15 in the current statute and 3 out of 10 in the new one). The President, the *Conferenza Stato Regioni*, INEA and INRAN appoint the other ones who are selected outside CRA. In any

case, the Council of Departments ended his term in 2009 and its renewal is still not in the programme, waiting for the approval of the new statute, as officially said.

As a consequence, all the decision related to Triennial Plan of Activities, reorganization of scientific networks, direct appointment hiring, album of expert for commissioner and selection of scientific-disciplinary sectors for competitive entrance examination, constitution of the Commission for competitive entrance examination, criteria for selection of Structure directors etc., are undertaken exclusively by CRA top management. No advice, even when mandatory, has ever been requested to the Council of Departments, the only official place where researchers can express their opinions.

Recruitment and selection procedures for researchers must be clear, equal, effective and based on credits.

A dedicated set of rules is lacking at this regard. The general rules in the Organization and Management Regulations do not refer to any procedures of recruitment and selection. The criteria, both for the outside recruitment and the inside career development, are not consistent and keep on changing every time. This makes the researchers unable to build up their own CV on the basis of fixed and stable rules. The CVs of the Commissioners and the selected candidates have never been published. As an example, the 2010 announcement for hiring 41 researchers, against all rules, does not provide the site of work of the new appointed. Often, the Commission for competitive entrance examination does not even include a scientist from CRA, in opposition of what established in the Organization and Management Regulations.

Appendix 4

On the coherence with the Charter principles at ENEA

All researchers should be recognised as professionals and be treated accordingly. They should enjoy the benefits of their activity (intellectual property, including copyright).

ENEA assigns to patent producers the reward called *equo premio* only. All related copyrights belong to ENEA. No royalties are given to patent producers.

Researchers must not be discriminated on the basis of gender, age, ethnic, national or social origin, ...

A poor presence of women in top position is an endemic problem in ENEA. Women in ENEA experience an average lower remuneration for the same career level of their male colleagues thus evidencing a historical unequal opportunities in spite of the recently introduced attempt of corrections. An exhausting study on the matter has been published by the Equal Opportunity Committee www.enea.it/cpo/. ENEA history never had a female top manager and the governance shows a very poor female representation.

Researchers should have a stimulating research and research training environment, with appropriate equipment, facilities and opportunities, including remote collaboration over research networks.

Equipments, computers, facilities etc. can only be purchased on own funding resulting from external projects and contracts; job orders and the exhausting bureaucratic procedures are energy and time consuming and do not match the schedule of the research activities, costumer base or the entity funding the project. On the absence of rules, researchers not having own funds from projects or contracts may access the Unit resources on the only basis of the relationship with the structure management and not on objective criteria and acknowledgements of their work. Networks of collaboration must be accepted by the direct supervisors who may (arbitrarily) request a formal exchange of collaboration letters.

Researcher working conditions should include flexible working hours, part-time working, remote working, sabbatical leave.

ENEA has a long tradition of injustice also on work environment and conditions. In absence of rules, shared targets and clear cut definitions, there is a lot of ambiguity around, thus generating unequal opportunities and unequal access to working facilities in general. The authorization of business travels even when consequent to official invitation from international organisms is strictly depending on the direct head who can deny it. The working time system is poorly flexible. No self-determination of own working time exists. Access to research centres as ENEA-Casaccia is not allowed outside a time frame/in working days unless a special permission is required in advance justifying the reason for the access. Telecommuting is even not in the items of discussion during negotiation. There is no possibility to take a sabbatical leave.

Researchers should have stable employment contracts.

At ENEA labour agreements are permanently changing in terms of career development and professional scheme, personnel recruitment procedures, etc.

Researchers should have fair and attractive conditions, in terms of funding, salaries, social security provisions, sickness and parental benefits, pension rights, unemployment benefits ...

Researchers/technologist get lower average salary than their colleagues working in other Italian governmental institutions and their European colleagues, although privileged situations are also occurring both in term of career development opportunities and level of salary. The ENEA scientists have little to none autonomy on their research choice. ENEA has a very peculiar negative situation due to twenty years of exclusion from the Public Research Compartment.

There should be specific career development strategies for researchers.

No such strategy has ever been available at ENEA.

Geographical, intersectoral, inter- and trans-disciplinary mobility must be recognised as a value for researchers.

Although the inside mobility has been recognized (but the application procedures are not yet clear) the other important figures of mobility are not even under consideration.

Researchers must be granted access to research training and continuous development during their career.

Continuing education has never been applied at ENEA

Researchers must be represented in the relevant consultation, decision-making and information bodies of the institutions for which they work.

At ENEA researchers and technologists never elected their representatives in the decision-making and advisory bodies. Even the appointees to technical/scientific committees have always been nominated by politics.

Recruitment and selection procedures for researchers must be clear, equal, effective and based on credits.

Recruitment and selection procedures are not transparent and very rarely merit oriented. Researchers/technologists career development is not transparent at all, the criteria of selection are not fixed in advance and are not congruent with the research/technology activity and skill. The procedures of career and salary advancement have always been iniquitous in ENEA and have generated a great deal of disparity and inequality.