

Charter&Code Activity Plan Summary

1. Charter&Code in LNEG

In July 28 2010 the President of LNEG, I.P. acknowledged the commitment to the principles of “*The European Charter for Researchers and Code of Conduct to the Recruitment of Researchers*” (referred to as Charter&Code)¹ in order to foster a deliberate and strategic plan leading to the improvement of research conditions in LNEG, a State Laboratory with motivation to foster excellence.

State laboratories are pillars of the National Scientific, Technological and Innovation Systems. They are public research institutions [[Decree N. º 125/99, April 20](#)] with the mission to support political decisions in science and technology issues, and also in the area of transfer of knowledge to society and the productive sector.

LNEG - National Laboratory of Energy and Geology, which structure was recently reviewed and defined by the government [[Decree N. º 145/2012, July 11](#)] is a State Laboratory (RTO/Laboratório do Estado, LE) that carries out R&D&T activities mainly in the areas of Energy and Geology. It provides analytical services and consultancy work to support public policies and social development. Its mission is to promote innovation, while aiming to raise companies’ competitiveness within a framework of sustainability. LNEG’s participation in a broad range of international projects and networks (Gulf Cooperation Council, Europe, OECD, USA and Asia) is a key partner for internationalization. It is also a source of information and expertise in Energy and Geology R&D fields.

LNEG was created in [2007](#), as a result of the extinction of INETI – National Institute of Engineering, Technology and Innovation. INETI was itself an institution that resulted from the merge of IGM – Geological and Mining Institute, created in 1993, and INETI - National Institute of Engineering and Industrial Technology, created in 1992 and restructured in 2003. INETI was formed from another State Laboratory created in 1977, LNETI - National Laboratory of Engineering and Industrial Technology.

LNEG had 379 workers on June 30, 2012. From all the workers, 137 are recognized career researchers, according to national legislation. LNEG also hosts about 80 grantees with different academic degrees.

¹ http://ec.europa.eu/euraxess/data/usgn_orgs/pt_lneg.pdf

2. Methodology

First phase (2010-2011)

In 2010, during the study for implementation of the principles of the Charter&Code, there was a preliminary survey to gather insights from representatives of all internal stakeholders (interviews) *vis-à-vis* the recommendations in the Charter&Code.

Divergences in national legislation were identified and input from key stakeholders helped identify organizational² convergence between existing practices at LNEG and those advocated in the Charter&Code. Results from this phase indicated two main issues:

- a) There was a general lack of awareness about the Charter&Code. A detailed internal document was produced synthesising the main challenges and the survey design was elaborated with this lack of awareness in mind.
- b) As LNEG is a State Laboratory, it has to comply with existing regulations that govern various professional activities in Public Administration. Research career is regulated by Decree N. º 124/99, April 20, which recognizes a researcher as someone holding a doctoral degree.

Measures were approved with national State budgets that hinder the acquisition and renewal of equipment and hiring, measures that differ from some principles of the Charter, particularly on issues concerning career (entry, progression and wage conditions). In the case of grantees, which is the second most important scientific group, they are governed by their own legal imperatives (Law N. º 40/2004, August 18, later reviewed by Decree N. º 202/2012, August 27), which do not view them as «workers». Research work is also performed by senior technicians outside the regulatory scope of researchers, under the general statutory Public Administration, which does not differentiate scientific work from technical work.

The Charter also distinguishes between early career researchers and experienced researchers. Early career researchers are those who are in the first 4 years of their research activity and are degree holders. Experienced researchers are considered those who have more than 4 years of research activity with qualification that allows enrollment in doctoral programs, or those not having 4 years of activity but holding doctoral qualification.

Second phase (2011-2012)

In 2011, an internal survey was design, open to all research workers, according to Charter. The universe included all people performing research. At the same time, it was also launched the first internal satisfaction survey, open to all people in the Institute. As in phase 1 it was detected lack of awareness of the Charter&Code, a survey instrument was

² Contributions of 3 senior researchers, 3 senior technicians, 2 investigators with management responsibilities, the responsible for HR, and 3 grantees. All in informal interviews, face to face, and resumed according to each principle.

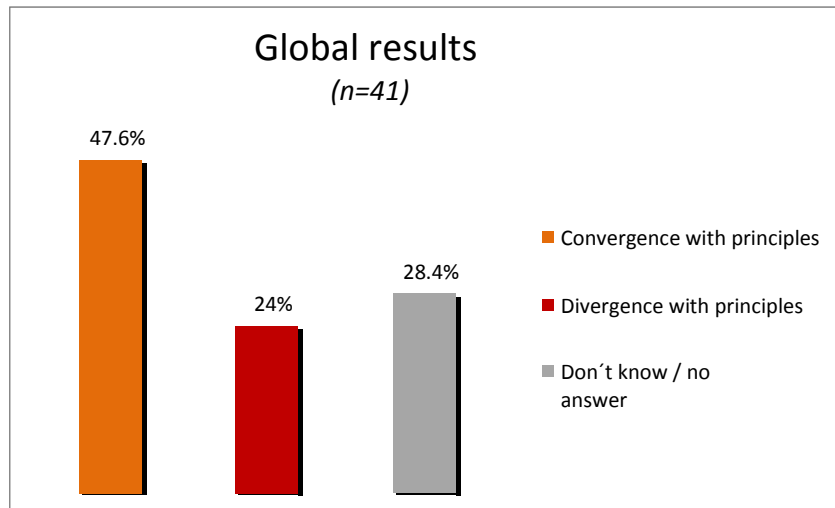
produce synthesised all the 40 principles. The survey link was sent to all research workers in December 2011. Data was analysed between March and June, 2012 and presented in a plenary session, open to all workers.

The principles of the Charter&Code were grouped into three large groups. The first group targeted the researchers (in the broad sense of the Charter); second group addressed the employer (LNEG) and the third concerned funding bodies (namely the S&T Foundation (FCT) for the grantees). The option was to use a Likert scale with 3 points ("convergence", "no convergence" and "do not know / no answer" in front of each principle). At the end of each of the three major groups, it was created an open box allowing free text insertion for suggestions and comments.

The survey was posted online and responses collected anonymously. The address for the survey was sent via e-mail message to all research workers of LNEG (in 23/Dec/2011; and again, in 9/Jan/2012). The main message included the definition of research worker according to the Charter. Data was gathered and analyzed statistically (for closed questions) and qualitatively (for open questions). The full results were presented in a plenary session where all the workers were invited to attend. During this open session, workers were also invited to contribute to complement the drafted ideas for the elaboration of the strategic plan.

Forty one answers were received of a universe of 217 research workers. The majority of respondents are positioned in the research career (55%). The rest of the respondents doing research are positioned in other careers of the public sector plus grantees. Of all the respondents, 60% have a doctorate or post-doc degree, and 85% of these are in the age range from 30 to 59 years' old. Considering the gender balance in the Laboratory, 22 responses were obtained from women (52%) and 20 from man (48%).

Considering all the principles in the Charter, according to the data obtained from the total nº of respondents (n = 41), there is a perception of convergence of 47.6% for the 40 principles of the Charter&Code. This value is followed by the group of research staff that "do not know or do not respond" with 28.4% and only 24% was obtained of non-convergence, as depicted in the following graph.



The total number of answers received indicated a convergence with 21 principles, a divergence with 9, and a general unawareness with 10 principles of the Charter&Code. These are specified in the following table according to the recommendations in the Charter&Code booklet.

converging principles (strengths)	diverging principles (weaknesses)	not known/no answer (unawareness)
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 16, 19, 25, 30, 32, 33, 34, 35	13, 15, 17, 18, 20, 22, 23, 26, 28	21, 24, 27, 29, 31, 36, 37, 38, 39, 40

It was found out that from the 9 divergences detected, 4 are being penalized by external factors: «recognition of the profession» (#13); «research environment» (#14), «stability and permanence of employment» (#17); and «career development» (#20). The first one is due to legislative constraints [see phase 1]; the remaining divergences are related with financial austerity measures that affect all public workers and not exclusively research workers. Among other implications, it is impossible to recruit new researchers, promotions are suspended since 2004, and the working force is continuously being reduced (retirements). All these factors have a negative impact on the motivation of all professional groups

Hence, macro-environment is crucial to consider in planning actions to be carried out. All the relevant issues were included in a SWOT analysis (internal and external). This is portrayed on the following matrix, which also covers the qualitative data collected not only in the survey, but also in brainstorming sessions and through contributions obtained as a result of the plenary session.

Internal Strengths	Internal Weaknesses
<ul style="list-style-type: none"> • Gender balance • Adaptability • Individual efforts • Multidisciplinary capabilities • Resilience of teams • Teaching activities 	<ul style="list-style-type: none"> • Career stagnation (all professional groups) • Aging workforce • Low interdisciplinarity • Wage freeze policies
External Opportunities	External Threats
<p>Implementation of Charter & Code to improve RD&T environment:</p> <ul style="list-style-type: none"> • HR development • Organizational cultural change • Foster institutional visibility 	<p>Macroeconomic adversity:</p> <ul style="list-style-type: none"> • Instability & crisis of investment • Diminishing financial support for RD&T resources • Instability of salaries equity

3. Institutional HR Strategy for Researchers/Action Plan

The results obtained showed four central issues to be tackled in order to improve LNEG's RD&T environment, according to the Charter&Code recommendations:

- a) Dissemination of the principles of the Charter&Code through a series of initiatives aiming to create awareness to aid change of practices and behaviours among institutional actors.
- b) Integrate different organizational initiatives related to the principles of the Charter&Code.
- c) Build awareness among other national RD&T individuals in order to strengthen critical mass for the implementation of the basic principles of the Charter&Code.
- d) Build critical mass for the required changes in national legislation

One could say that there is a move to create conditions that will allow the implementation, monitorization of progress and incorporation of feedback: a) Permanent

Group for the Charter&Code (PA)³; and b) Quality unit assigned to manage the identification, implementation and follow up of Charter&Code activities (GQAP).

In 2010, from a group with 2 members, it was formed a Permanent Charter&Code Group (PG) with 11 members, with representatives of all professional groups in LNEG (see www.lneg.pt/iedt/projectos/456/equipa). This Group is responsible for detecting new issues to ensure constant alignment of the strategy with occurring changes that relate to the Charter principles. To facilitate communication, a specific email address (carta.europeia@lneg.pt) was defined.

During 2012 efforts were focused on actions to embed the principles of the Charter in the Laboratory framework and worked on the improvement of communication (internal and external).

3.1 Summary of Action Plan

Table I shows the main guidelines for the strategic plan to implement the principles of the Charter&Code. Table II details the activities further. The actions taken aim at improving researchers' working environment, based on the principles of the Charter&Code that are not in contradiction with national legislative and ethical frames.

Each action is aimed to lead to a specific result, for a defined target (internal – workers from all professional categories - or external - general public, government, universities, polytechnics, research centres, European Commission, industry, etc.). It includes an implementation timeline (short, medium or long term, cyclic or continuum) and also defines responsibilities for its implementation, monitoring and reporting.

³ See all team members in <http://www.lneg.pt/iedt/projectos/456/equipa>.

Table I - Charter&Code Activity Plan Summary

Actions	Expected Results	Target	Responsible	Monitoring	Timeline					
					2010	2011	2012	2013	2014	2015
Implementation study	Organizational commitment Identification of convergences	Management	CD, UAPF	Letter of Commitment Internal detailed report	X X					
Dissemination of principles (internally and externally)	Awareness Build critical mass for a National Charter&Code Network	Management, researchers, partners, R&D networks, government, polytechnics, universities, laboratories, associations, groups, committees, general public	UAPF, Permanent Group (PG), GQAP	Continuous cycle: events, booklets, brochures, presentations, meetings, LNEG site	X	X	X	X	X	X
Conduct Gap Analysis	Detect divergences (SWOT) and plan actions (Activity Plan)	Organization, management, research workers, workers, regulatory bodies of science and research	UAPF, GQAP	Interviews Survey Plenary Workshops	X	X	X X			
Implementation of the Activity Plan (details on Table II) Inclusion of C&C milestones in the annual strategic KPIs	Changes in organizational culture: embed principles in Organization Wider convergence with principles	Researchers, workers, future researchers, management, and external networks	CD, GQAP, PG	Publication of Activity Plan Events' chronology Annual report Commission feedback		X	X X	X		
Continuous Adjustment of Action Plan and Monitoring	Guarantee of adequacy by incorporating stakeholders feedback and legislation	Researchers, workers, future researchers, management, and external networks	CD, GQAP, PD, HR, Workers	C&C milestones Events chronology Annual report Comission evaluation				X X X	X X X	X X X

Human Resources Strategy for Researchers at LNEG

Central issues to improve LNEG's RD&T environment according to GAP analysis	Actions	Responsible	Timeline	Expected results
a) Dissemination of the principles of the C&C to create awareness to aid change of practices and behaviors among institutional actors.	a) Create a permanent group (PG) for the C&C with representatives from all the professional groups, covering all age groups and gender balanced;	CD, UAPF	July 2012	Plan activities to disseminate among different professional stakeholders (internal / external) and facilitate contacts to members of the permanent group
	b) Create a dedicated space in LNEG's institutional site	UAPF	May 2012	Disseminate and inform about activities and key documents related to the C&C (internal / external)
	c) Welcome booklet for all new Grantees with C&C;	GQAP, PG	January 2013	Create awareness and compliance with principles (internal)
	d) Written internal document regulating research learning activities (Master and PhD level)	UGRH	June 2012	Strengthen the core areas of the institution (energy and geology) and encourage retention of promising researchers (internal)
b) Embed C&C in related organizational initiatives	e) Include C&C in «LNEG's Code of Ethics»	CD, DPI, UAPF	July 2012	Enshrine best practice in research in the institutional code of conduct (internal)
	f) Find mechanisms to overcome legal constraints for career development	CD, UGRH, GJC, DGO, PG	December 2013	Better satisfaction for unrecognized research workers

Central issues to improve LNEG's RD&T environment according to GAP analysis	Actions	Responsible	Timeline	Expected results
	g) Implement annual worker's survey	UAPF, GQAP	December 2011 (start)	Collect perceptions and proposals for continuous improvement of Activity Plan (internal)
	a) Identify projects to accommodate resources needed to support C&C activities	GQAP, Project Coordinators	Continuous	Gather resources that allow support to C&C activities (internal / external)
	h) Create interoperability mechanisms to facilitate exploitation of researcher's results and promote open access.	GQAP	July 2013	Increase LNEG's research working force visibility and ensure research is fruitful.
	i) Implement advanced training plan for Health & Safety at research labs	UGRH	December 2012	Conformity with international standards for research environment (internal)
c) Build awareness among other national RD&T actors	j) Interpellations in the parliamentary committee on science and monitoring policies and legislation activities;	PG	Seasonally	Lobbying for the required changes in national legislation in order to accommodate the basic principles of the C&C.
	K) Dissemination activities among other players in the scientific and research community	CD, PG, GQAP		Lobbying to build critical National mass for the required changes in legislation and research culture
d) Build critical mass for the required changes in national legislation	l) Rebuild a strength network for C&C through the Organization of Scientific Workers- OTC In the 80's OTC contributed significantly to the institutionalization of a Scientific Research Career, until such time nonexistent, which came to be adopted, mutatis mutandis, the structure and main features of the University Teaching	CD, CC, GQAP, all the institutional actors	Starting May 2013 and promoting synergistic actions within the time line for	Alignment of national plans and milestones with Horizon2020:By end 2013: Adoption of legislative acts by Parliament and Council on Horizon 2020 1/1/2014: Horizon 2020 starts; launch of first call. To follow at national level the "ordinary legislative procedure"

Central issues to improve LNEG's RD&T environment according to GAP analysis	Actions	Responsible	Timeline	Expected results
	<p>Career, and that essentially, still remain with these characteristics and structure. http://www.otc.pt/</p>		Horizon 2020	(formerly known as "co-decision") within Horizon 2020 by national awareness and proposals to be adopted
	<p>m) Active participation in the agenda of the Horizon 2020 through paper contributions to relevant authorities for the Innovation Union flagship initiative of the European Commission (EC), Horizon 2020, the next framework programme for research and innovation</p>	<p>CD, CC, GQAP, all the institutional actors</p>		<p>Whilst the question of the funding of research is, of course, crucial, another question that is considered by Horizon 2020 no less critical is that of how best to actually structure and organise research at European level. In this sense, Horizon 2020 will be much more than a funding programme. It will be a fundamental instrument in structuring research and innovation in Europe.</p> <p>It is thus an unmissable opportunity either by mobilizing the Organization of Scientific Workers, by LNEG, promoting a national network of C & C for Horizon 2020.</p>

2.5. Mechanisms for continuous adjustment

Data collected from diversified stakeholders at different stages (meetings, seminar, plenary and survey questions). Information sought to contemplate most of the existing situations; however, the working environment is changing constantly. Hence, the actions included in the plan will be reviewed yearly to accommodate changes. Consequently, the «*Continuous Adjustment of Action Plan and Monitoring*» activities (see Table I) are essential in order to integrate feedback received from the researchers, changes in legislation and include activities for new situations.

At the external front, dissemination activities at national level, involving other players of the scientific and research community (Polytechnics, Universities, Associations, Groups, Committees, etc.) will ensure wider commitment of Portugal to the principles of C&C⁴.

Alfragide, May 8, 2013

⁴ Untill now our activities have already resulted in 2 more Portuguese Organizations signing the Charter&Code (Instituto Politécnico de Leiria and Faculdade de Ciências de Lisboa).