

# PhD PROGRAMME **FLUVIO**

## **RIVER RESTORATION AND MANAGEMENT**

Ref. PD/00424/2012

*1<sup>st</sup> REPORT September 2013 – August 2014*

Lisbon

## Contents

LIST OF FIGURES .....	1
LIST OF TABLES .....	1
1. Introduction.....	2
2. Management and governance .....	2
3. First cohort recruitment.....	3
3.1. Candidate eligibility.....	3
3.2. Candidate evaluation procedure.....	3
3.3 Final thesis selected .....	5
4. Training and pathways .....	6
5. Monitoring.....	7
6. Financial aspects and constraints.....	8

### LIST OF FIGURES

Figure 1. FLUVIO governance structure and its role .....	3
Figure 2. Network of cooperation between the consortium institutions for the thesis of the first cohort .....	6

### LIST OF TABLES

Table 1. Scoring of the educational background. Candidates with both a 5-year B.Sc. and a M.Sc. were given an additional score (1 point). Candidates with advanced courses following the M.Sc. also were given an additional score (1 point). .....	4
Table 2 Scoring for background subjects mentioned in the call .....	4

## 1. Introduction

FLUVIO is an international Ph.D. programme funded by FCT, the Portuguese Science & Technology Foundation. The consortium comprises two faculties of the University of Lisbon (Instituto Superior de Agronomia and Instituto Superior Técnico), three other universities (University of Environmental and Life Sciences of Vienna, Universidade Politécnica de Madrid, Spain and Universidade Federal da Bahia, Brazil) and two companies (Katopodis Ecohydraulics of Canada and Environmental Consultants Klagenfurt, Austria; ECK).

The consortium has enlisted 30 researchers from the six institutions, able to supervise theses according to FLUVIO proposal rules, plus a variable number of post-doctoral fellows also able to contribute to supervising.

FLUVIO has two cohorts of students, with 8 students each. This interim report refers to the period between September 2013 and August 2014, and reports the actions held by the consortium and the evolution of the first cohort of students.

## 2. Management and governance

The Ph.D. programme is managed by three Committees: Coordination (CCFLUVIO), Scientific (SCFLUVIO) and Advisory (ACFLUVIO). The CCFLUVIO has mostly a day-to-day operational or administrative role. The SCFLUVIO supervises the scientific aspects (study design, data collection and management, data analyses, research presentations and publications). The ACFLUVIO acts as an external observer and overall program reviewer (Figure 1).

To date, the FCT has not provided the funds needed for FLUVIO-wide meetings. Because of those budgetary constraints and differing student needs, contacts with institutional representatives within SCFLUVIO have been on an as needed-basis and usually remotely (telephone, Skype, e-mail) except for the IST and ISA students and faculties. Those contacts were more frequent during the second part of 2014, when students were in different nations on different occasions (2 in Canada, 1 in Brazil, 5 in Spain, 7 in Austria). Also, budgetary constraints required postponing the FLUVIO kick-off meeting, originally scheduled for Lisbon in 2014.

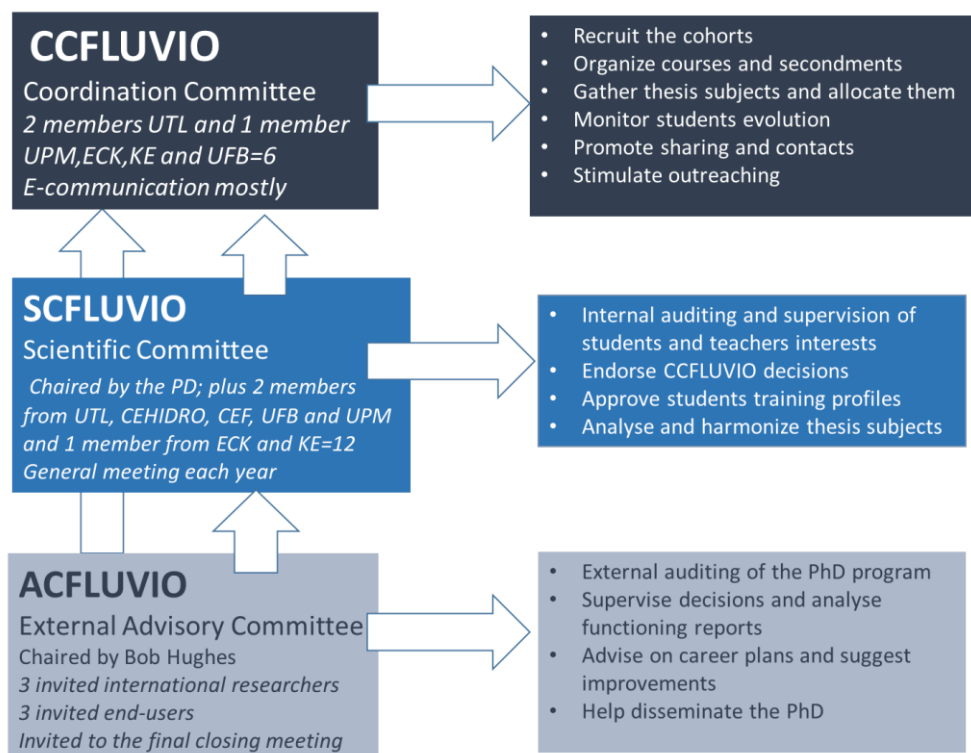


Figure 1. FLUVIO governance structure and its role

### 3. First cohort recruitment

#### 3.1. Candidate eligibility

FLUVIO PhD program received 39 candidates. Recruitment was universal.

The first step of selection was to determine eligibility. Eligible applicants should hold a M.Sc. degree or equivalent (pre-Bologna 5 years degree), obtained in either a Portuguese or foreign university, with a total of 300 ECTS, or equivalent in the case of non-European institutions (Nº 1 of Article 30º of Decree-Law nº 74/2006, March 24<sup>th</sup>, modified by Decree-law nº 107/2008, June 25<sup>th</sup> and Decree-law 230/2009, September 14<sup>th</sup>). Furthermore, candidates should have a minimum average grade of 14 out of 20, or in the case this condition is not met, have at least one publication as first author in an ISI peer-reviewed journal, with upload pdf mandatory. Students from other educational systems must demonstrate/certify that their average grades are within the 70<sup>th</sup> percentile of their system. Based on these criteria, only one candidate was considered non-eligible, Rui Simões.

#### 3.2. Candidate evaluation procedure

The evaluation followed the six steps indicated in the call. For each step, the following criteria were adopted:

## Merit of the educational background and adequacy of scientific training

M.Sc. and B.Sc. grades and additional post-graduation course grades were scored as shown in Table 1. The final value (maximum 5) was averaged by a score attributed according to the existence of a preference background in Ecology, Hydraulics and Hydrology, as stated in the call (Table 2). The final value was converted to 30 points.

Table 1. Scoring of the educational background. Candidates with both a 5-year B.Sc. and a M.Sc. were given an additional score (1 point). Candidates with advanced courses following the M.Sc. also were given an additional score (1 point).

Pre-Bologna B.Sc. (4 to 5 years)	M.Sc. ≥300 ECTS	Grade
≥16	≥16	3,5
15	15	3,0
14	14	2,5
13	13	2,0
< 13	< 13	1,5

Table 2 Scoring for background subjects mentioned in the call

Background subjects	Scoring
Without	0
One subject	3
Two	4
Three	5

## Number of publications in peer-reviewed journals

Only publications quoted in Scopus (<http://www.scimagojr.com>) and WoK (<http://apps.webofknowledge.com>) were considered. First and other authorships were distinguished (10 points per article as first author, and 5 points per article as co-author, until a maximum of 30 points (3 or more articles). Because of their recent publication, the citations of the papers were not considered in the scoring.

## Participation in projects and research activities, with emphasis on those related to the Doctoral Program

A scoring was created to quantify the participation, up to 10 points: 0 points - No participation in research project or research activities; 3 points – participation in projects or activities unrelated to the subject or non-research; 6 points - participation in one pertinent research project or activity; 10 points - participation in more than one pertinent research project or activity.

#### **Publication in book chapters, reports and non-indexed journals**

The adopted scoring was: no publication - 0 points; 1-2 publications – 2 points; 3-4 publications – 4 points; 5-6 publications – 6 points; 7-8 publications – 8 points; >8 publications – 10 points.

#### **Participation in national and international scientific meetings**

The adopted scoring was: no active participations - 0 points; fair active participation- 5 points; significant active participation – 10 points.

#### **English fluency and respective certificates**

The same score was given to all candidates (10 points) based on CV information and the contents of the Motivation Letter. The oral fluency will be further assessed for the candidates selected during their interviews.

Candidates were ranked after summing the scores. The 12 candidates with the highest rank were selected for interviewing. The interviews took place 8 and 9 January 2014 by Skype or in person. In all interviews, at least three SCFLUVIO members were present. Candidates briefly expressed their background, skills, motivation, and reasons for the selection of a given theme, in English.

Three aspects were scored: **a) quality and depth of the presentation, b) exchange of ideas during the interview, and c) English fluency**. For each aspect a score from 0 (minimum) to 10 (maximum) was assigned to each candidate, for a total of 30 points. The final grade was the sum of all the scoring.

### **3.3 Final thesis selected**

Finally, candidates were ranked and themes assigned according to the candidates rank of choices and the candidates profiles. Because candidate Catarina Pereira withdrew, CCFLUVIO selected the 9<sup>th</sup> ranked candidate (Maria Diaz Redondo). The final list was displayed on the FLUVIO site, following a 10-day period allowed for appeal. The signed minutes of the process and the meetings were sent to the FCT archives.

Both supervisor's profiles and supervisory teams followed FLUVIO requirements related to supervisory experience and inter-country supervisory cooperation. SCFLUVIO had decided that subjects and supervisory teams would have at least two consortium institutions involved, preferably more. All thesis are required to list 3 to 4 research questions/hypothesis. Each student is expected to write 3-4 manuscripts. Shared supervision among the consortium institutions was given priority, in this cohort (Figure 2), with 3-4 participants from at least two countries.

#### 4. Training and pathways

Following the FLUVIO programme structure, students received training for one year including two mandatory courses in Lisbon and the other three in various institutions and tailored to each student's needs (Table 3). Students completed the courses successfully, some of which were field apprenticing.

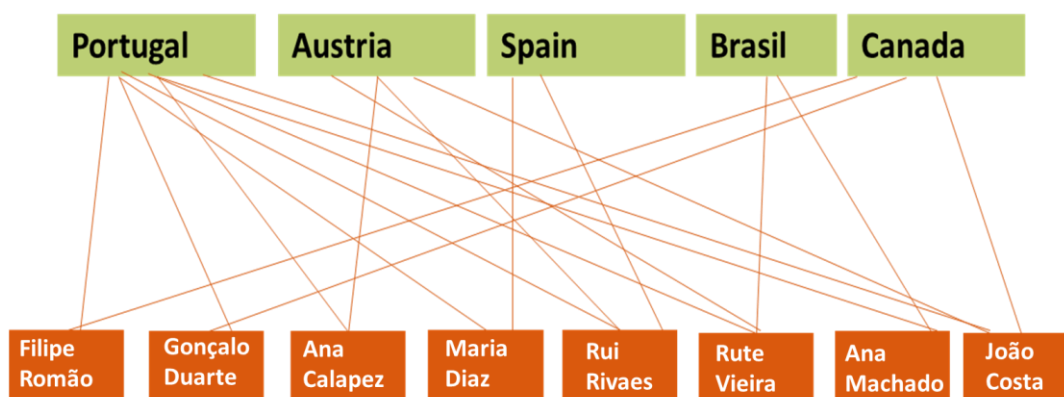


Figure 2. Network of cooperation between the consortium institutions for the thesis of the first cohort

Overall, the exchange process was difficult because of FCT travel restrictions and funding uncertainty, insufficiency, and delay. The general grant agreement supervising all thesis allows only one trip up to a maximum of two years, which is insufficient for students requiring multiple round trip international travel. The programme had to adjust by using other funds and decreasing the number of trips.

The discipline (coursework) in Madrid coincided in part with the period of classes in Lisbon, therefore students could only attend part of the course at each university. Given the high interest

of both disciplines, we plan to reschedule or offset key courses that students are expected to take at different universities.

The practicum courses in Canada and Austria went particularly well and we will try to ensure that as many of the 2015 cohort as possible will participate in them.

Table 3. FLUVIO student's pathway for the first cohort - 2013

	PT (1)	PT (2)	PT (3)	PT (4)	SP (5)	AU (6)	CA (7)	Brazil (8)	Seminar (9)
<b>Ana Calapez Gonçalves</b>	X	X	X	X		X			X
<b>Ana Machado</b>	X	X	X		X			X	X
<b>Filipe Romão</b>	X		X	X	X		X		X
<b>Gonçalo Duarte</b>	X	X	X		X	X			X
<b>Maria Diaz Redondo</b>	X		X	X	X	X			X
<b>Maria João Costa</b>	X	X	X		X		X		X
<b>Rui Rivaes</b>	X	X	X	X	X				X
<b>Rute Vieira</b>	X		X	X		X		X	X

(1) River Ecosystem Functioning and Monitoring (IST mandatory)

(2) Land Use and Water Management (ISA)

(3) River modelling and Ecohydraulics (IST mandatory)

(4) Watershed and Aquifer Dynamics (IST)

(5) Hydromorphological and Habitat Restoration (UPM)

(6) River Conservation under Managed Flows (ECK, practicum)

(7) Ecohydraulics and Habitat Restoration (KE, practicum)

(8) Ecosystem Processes and Pathways (UFB, practicum)

(9) Seminar (ISA and IST, mandatory)

## 5. Monitoring

For internal monitoring, a blind inquiry was distributed among, and received from students, evaluating the teachers and courses. Results will be presented in the second report.

FLUVIO needed to substitute some of the original ACFLUVIO members because of professional unavailability. Paulo Oliveira and Aronne Armanini are no longer available.

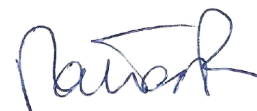
Currently, members are Robert M. Hughes (Chair, Oregon State University, USA); Nuno Portal (EDP, Portugal); Rui Cortes (University of Trás-os-Montes e Alto Douro, Portugal); Felix Frances (University of Valencia, Spain); Toni Munne (Catalan Water Agency, Spain); and Stephanne Stroffek (Agence de l'Eau Rhône Méditerranée et Corse, France). Because of the interactions with the Brazilian colleagues, it was judged important to bring a Brazilian member into ACFLUVIO.

The reports will circulate among ACFLUVIO members for evaluation. The ACFLUVIO Chair will synthesize the Committee's assessment of FLUVIO, return it to the ACFLUVIO members for signatures, and then submit the final version to FCT programme' responsables.

## 6. Financial aspects and constraints

The FCT has not yet provided financial support of the Ph.D. programme thereby greatly constricting travel, meeting attendance by faculty and students, and thesis development. Presently, all actions related to management (secretariat, site construction) have been supported by the Portuguese Institutions. Thesis development has been supported partially by fees and other funds from the Instituto Superior de Agronomia and Instituto Superior Técnico. Overcoming the FCT financial shortfalls will be the major FLUVIO challenge facing the next cohort of students and their professors.

Lisbon, 4<sup>th</sup> September 2014



Maria Teresa Ferreira

FLUVIO PD