

# Career Development Plan

## *Year One*

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Deliverable D2.2 – Work Package 2 (Training)

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### **Versioning**

1.0. (19/03/24) Initial Version

1.1. (31/06/24) Updated 2.2 with info on AIMC 2025. Updated 3.1 with info on survey paper. Updated Courses dates, indicating attended courses (3.2–3.4). Updated 3.6 list of networking opportunities.

### **Summary**

The present document outlines short and long-term objectives for the main researcher of the project. After an introduction to the project, long-term objectives related to the academic career of the researcher are outlined, with plans to go towards these goal within the scope of the project. In the latter part of the document more practical goals, research activities, and training opportunities are described, which are expected to be carried out before the end of the project.



## **1. Brief Overview of Research Project and Major Accomplishments**

### **Expected**

CALIOPE is a project that researches the use of Artificial Intelligence, and more specifically Computational Creativity, in music education, as well as the potential of music generation for the personalization of music learning curricula. By defining personalized learner models for their students, a teacher would be able to generate exercises that specifically address the teacher's concerns for the specific student.

The main results we aim to obtain is the definition of skill-based Learner Models specific to music performance (with a special attention to Piano practice), a system for the generation of difficulty-aware music exercises, and the integration of the above into a system that can generate exercises specific to a student's needs. Along with up-to-date reviews of the scientific literature on (Musical) Intelligent Tutoring Systems, these systems would allow to further the knowledge on Computer-Assisted Music Education, as well as AI-enhanced Education in general.

## **2. Long-term Career Objectives (over 5 years)**

### *2.1. Goals:*

My main goal is to establish myself as a researcher in the fields of Sound and Music Computing and of Computational Creativity. With the time and resources of this project, I would like to make meaningful research to become a mature researcher and potentially be capable of aiming to Professor positions. One reference for that is the bibliometric and career goals defined by the Italian Abilitazione Scientifica Nazionale (National Scientific Habilitation), a set of requirements needed to obtain a tenure track position in Italian universities. Within five years from the end of the project, my goal would be to obtain one such permanent position in Italy or in another European country.

### *2.2. Further research activity and other training needed to attain these goals*

Since my goals are primarily related to academic results, the normal progress of my research activity will actively help me achieve those goals. The main way to become an established researcher is through relevant high-quality publications in respected venues. In order to achieve Abilitazione Scientifica Nazionale it is also necessary to obtain further achievements that also help becoming a well-known researcher in the field, such as organizing conferences and being part of editorial committees. We will aim to organize conferences or a workshops within the project's time frame and covering related topics, as well as trying to find further opportunities to engage with the scientific community such as proposing special issues to journals. More generally, conducting rigorous scientific research and engaging with the academic community is the main activity needed to attain these goals, and all the experience and education in research is useful training for the same goals during the project and in the following years.

We will organize the 2025 edition of the AI and Music Creativity Conference as conference chairs at VUB in September 2025. This will serve as a training opportunity to gain experience on academic dissemination and networking activities, besides being a networking opportunity in itself.

## **3. Short-term Objectives (1-2 years):**

### *3.1. Research results*

As outlined in the Dissemination, Exploitation, and Communication Plan I intend to publish at least two conference papers and submit two journal papers, which will be the main research results of the project. Along with these articles, a dataset of musical scores will be published which will be another

important research results. Finally, the code developed for the project will be made available as a further results.

At the time of writing, the study of the literature related to the project has already started and a systematic review of said literature is being performed. The in-progress report was planned to be released on ArXiv, but we decided to postpone this until the review is at a more mature stage. The change was done because of better knowledge on the nature of systematic reviews, which allow for little to none incremental improvements (see D4.6 - *Periodic Report 1* for further information).

While we cannot yet anticipate the conferences at which the works will be presented, we intent to candidate VUB as the venue for the 2025 edition of International Conference on Computational Creativity, which would be both an excellent networking opportunity and a relevant publication venue.

### ***3.2. Research Skills and techniques:***

Within the timeframe of the project, my goal is to become a better researcher with wider knowledge about techniques for interdisciplinary research, especially dealing with Computer Science, Music, and Education. I plan to do that mainly by learning-through-research and with the help of the experience of my supervisor on the aforementioned topics. In addition to that, I will make use of postdoc-aimed courses offered by VUB relevant to this:

- Cross-Cultural Intelligence in Academic Environments - date to be announced
- Research Data Management at VUB - available online anytime (attended)
- Bullet Journaling: an Effective Planification Tool - start 06/05/24 (attended)
- Speedreading - start 07/05/24 (attended)

### ***3.3. Research management:***

For the beginning of the project I don't plan to apply for additional fellowships or funding, but I will explore available funding opportunities and plan for future applications, ideally for the second year of the action and for the following years. I will also use this time to learn more about career management and planning, both with the help of my supervisor and with the following courses:

- Should I stay or should I go: Career orientation program for future Postdoc - start 19/04/24 (attended)
- Self-management and self-organisation - date to be announced

### ***3.4. Communication skills:***

In order to improve my communication skills, especially with the general public and non-academic stakeholders, I will adhere to the planned activities of the Dissemination, Exploitation, and Communication Plan, which include online presence activities which will enable me to engage with the general public and learn about effective science communication. Related to this, I will attend the following VUB courses:

- Writing and publishing in the Natural Sciences and Engineering - start 15/04/24 (attended)
- Show, don't tell: Creating visuals about your research - start 14/10/24

### ***3.5. Other professional training (course work, teaching activity):***

No teaching activity is planned. However, within the Computational Creativity course held by my supervisor there may be the possibility of tutoring students for the course project and for bachelor or master thesis along with the supervisor, in order to gather further experience in mentoring.

### ***3.6. Anticipated networking opportunities***

Aside from the academic conferences I plan to attend for the publication of papers, I will search for networking opportunities and additional conferences that may of interest regardless of publication opportunities. Some such anticipated networking opportunities include:

- Flanders AI Grand Challenge 2 Kick Off Meeting - 23/02/2024 (already attended)
- Dagstuhl Seminar on Computational Creativity for Game Development - 23-28/06/2024 (attended)
- Conference on AI and Music Creativity 2024 - 9-11/09/2024
- Audio Mostly conference - 18-20/09/2024

### ***3.7. Other activities (community, etc) with professional relevance:***

None anticipated at the moment. We will however look for opportunities to engage with the local community.

Signature of fellow:

A handwritten signature in black ink, appearing to read 'Felix Lambin', written in a cursive style.

Signature of supervisor:

A handwritten signature in black ink, appearing to read 'G. Wuytens', written in a cursive style.