

A Work Project, presented as part of the requirements for the Award of a Master's in  
Management from the Nova School of Business and Economics

**DEVELOPMENT OF A SUSTAINABLE FINANCIAL PLAN FOR NUCLIO TO  
DIVERSIFY REVENUE STREAMS AND REDUCE DEPENDENCY ON EUROPEAN  
FUNDING**

**HOW CAN NUCLIO ENTER THE INTERNATIONAL TRAINING SEGMENT?**

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## **Abstract**

NUCLIO's mission is to promote structural changes in the educational system, but its heavy reliance on EU funds threatens its financial sustainability. This project proposes transitioning NUCLIO into a hybrid organization by diversifying its revenue streams. The focus is on restructuring its Training Center BU and expanding its course portfolio, introducing executive and international courses to create sustainable income. By implementing these initiatives, the financial potential impact will contribute to reducing dependency on external funding and enhancing the financial self-sufficiency of the Training Center, and consequently of NUCLIO.

## **Keywords**

NGO, Educational Development, Education Community Impact, Certification, Training, Courses, Personal Development, Career Development, Innovative Teaching Methodologies, Digital Innovation, STEM, Professors, Professional Training Market, Revenue's Streams Diversification, European Union Funds, External Financing Dependency, Benchmark, Market Overview, Market Sizing, Marketing Mix, Pricing Strategy, Implementation Plan, Seasonal Optimization, Promotion, Partnerships, Financial Sustainability, Services' Monetisation, Educational Systemic Change, High-value training, International training, Global network expansion, International Market Penetration, Programme Erasmus +.

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## **Abbreviations**

**NUCLIO** - Núcleo Interativo de Astronomia e Inovação em Educação

**SDG** – Sustainable development Goals

**CCPFC** – Conselho Científico-Pedagógico da Formação Contínua

**BU** – Business Unit

**CFA** – Centro de Formação Acreditada

**ACD** – Ações de Curta Duração

**OF** – Oficinas de Formação

**CAGR** – Compounded Annual Growth Rate

**EU** – European Union

**NGO** – Non-Governmental Organization

**FTE** – Full-time Employee

**PALOP** – Países Africanos de Língua Oficial Portuguesa

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## 1. Executive Summary

The project conducts an extensive analysis of NUCLIO's current outlook, using it as the starting point for subsequent recommendations, aiming to help NUCLIO fulfill its educational mission while operating in a more financially sustainable way.

The first main objective is to understand how NUCLIO conducts its operations, analyzing its revenue and cost drivers, as well as its strengths and weaknesses. The analysis revealed the critical issue: NUCLIO heavily depends on European Funds, with this funding source accounting for over 95% of its total revenue.

The following stages of the work evaluate different possible paths in solving the main issue. Each has an extensive strategic implementation plan, that aims to balance the financial purpose of its existence while helping NUCLIO to continuously fulfill its main mission. To evaluate whether these initiatives improve NUCLIO's outlook, a comprehensive financial analysis has been conducted, for each product and in aggregate. This approach allows the identification of the most valuable asset to NUCLIO, and the understanding of the market conditions required to reach the proposed goals, which was done through a scenario analysis. In doing so, NUCLIO's pilot "executives" is identified as being the most valuable asset to NUCLIO, due to its capability of generating substantial income, that can support the remaining initiatives in downturns.

## **2. Context – What is NUCLIO and how does it operate?**

### **2.1 Value Created by NUCLIO**

NUCLIO (Núcleo Interativo de Astronomia e Inovação em Educação) is an NGO founded in Portugal in 2001, by the initiative of a group of astronomers who shared a belief in the transformative power of astronomy to leverage societal change.

Over the years, NUCLIO's mission evolved from engaging the public in astronomy dissemination activities to promoting educational innovation close to professors and the general community, particularly through teacher training and the development of new inclusive learning experiences. In 2021, the organization decided to pursue and emphasize its growing commitment to education. Currently, NUCLIO employs a team of scientists and trainers to address systemic issues in education. Through this interdisciplinary approach, NUCLIO's mission combines its scientific foundations with a strong commitment to educational system advancement.

NUCLIO's mission is of great relevance to addressing persevering challenges within the education system in Portugal. Sustainable development has as cornerstone quality education, yet systemic barriers delay its realization in Portugal, perpetuating inequities in access and quality. Despite progress in reducing dropout rates and improving higher education enrolment, socioeconomic disparities remain a significant challenge. According to recent research, students from disadvantaged backgrounds in Portugal consistently perform worse on standardized assessments, with rural and low-income communities facing limited access to qualified teachers and resources (OECD, 2021)

Furthermore, the pre-existing gap in accessibility to quality education was exposed and aggravated during the COVID-19 pandemic, as many rural and low-income students lacked access to technology devices for online learning (PORDATA, 2021), highlighting the urgent need for changes and inclusive education solutions. Moreover, the typical Portuguese classroom

very often relies on traditional pedagogical methods centered on rote memorization, limiting students' ability to develop critical thinking and problem-solving skills essential for modern workforce demand trends (World Economic Forum, 2020).

Portuguese professors face difficulties introducing in the classroom environment STEM methodologies, primary drivers of society development and economic prosperity. Several disciplines hold the critical potential to apply interdisciplinary and STEM literacy, one good example is the discipline of astronomy, however, educational institutions often lack the required teacher training and resources for effective implementation (Bailey et al., 2020).

The four pillars of NUCLIO's mission are:

1. **Empowering Educators:** NUCLIO provides professional development programs, equipping teachers with the skills to adopt innovative and interdisciplinary approaches to teaching.
2. **Enhancing STEM literacy:** The organization prioritizes diversity and accessibility, ensuring that its initiatives reach marginalized and underrepresented communities.
3. **Fostering Digital Transformation in Education:** narrowing the digital divide and ensuring technology serves as an enabler of education development.
4. **Promoting Global Collaboration:** NUCLIO builds networks of educators, researchers, and students to share knowledge and resources on a global scale.

Ultimately, NUCLIO's vision aligns with global education priorities, such as the United Nations SDG 4: Quality Education.

The organization currently employs 9 individuals (2 in part-time), distributed by four functional areas: Communication & Dissemination, Accounting & Financial Management, Outreach, Training, Innovation & Development, and Systems Management & IT, working on a flexible rotational project assignment dynamic. The number of beneficiaries is never constant

and dependent on the activities programmed throughout the year to the professors, students, or general community.

The subsequent chapter will explore NUCLIO's offer for better capacitation of the educational and general community, which will be accomplished by analyzing NUCLIO's existing portfolio of services.

## 2.2 Current Portfolio of Services & Initiatives

NUCLIO's diverse activities can be categorized into two primary areas: Social Initiatives and Business Units.

**Social Initiatives** are dedicated to fostering meaningful educational and social impacts, primarily supported through funding obtained via European Union-approved proposals:

- The **Innovation in Education** is an initiative in which NUCLIO develops, coordinates, and participates as a partner in several national and international education projects across diverse areas of intervention. Some current projects are DEMO (Design your Own Multimedia learning Environment is an initiative for STEM teachers) and EXPLORE (an initiative designed to engage students in space exploration experiences aligned with STEM curriculum requirements).
- The **Scientific Dissemination is NUCLIO's mission** to be involved in science communication, particularly in Astronomy and Astrophysics. The organization conducts workshops, lectures for the public, science cafés, and solar and night sky observation sessions. It promotes scientific research in classrooms, engaging students in asteroid discovery, exoplanet searching, and combating light pollution, among other topics. Since its inception, NUCLIO has maintained the Astronomer's Portal, a science communication website that provides quality information in Portuguese.

- In the **Astronomy for Development** initiative NUCLIO coordinates the Portuguese Language Office of Astronomy for Development (PLoad), an initiative of the International Astronomical Union (IAU). This initiative brings together partners from Portuguese-speaking countries with the goal of using Astronomy as a vehicle to promote development.
- The **International Programs** initiative established partnerships with foreign educational institutions and collaborative teaching projects for educators worldwide, integrating interdisciplinary experiences such as international schools and global astronomy conferences. NUCLIO participates as a partner in three main types of offerings: conferences, summer schools, and assemblies (see Appendix 1). The major projects are: **GTTP** (NUCLIO actively participates, helping to develop training strategies to enhance teaching skills. Through a network of Galileo Ambassadors and Teachers, GTTP provides resources and support, promoting innovative astronomy teaching worldwide), **Astronomy education adventure in the Canary Islands** (annual summer event where the program aims to equip teachers to engage students in science through astronomy, with hands-on research), and **COSPAR** (International Scientific Assembly, offers educators tools to inspire students' interest in science and technology).

Conversely, **Business Units**, while yet also benefiting from EU financial support, have revenue-generating potential:

- NUCLIO's **Training Centre BU** is currently an accredited training centre entity recognized by the CCPFC, offering accredited training to regular professors in areas such as STEM.
- **Change Makers** is a collaborative initiative with InovLabs that fosters creativity and innovation in schools and the community. It provides students, teachers, and citizens

with workshops, training, and the opportunity to develop projects using advanced technologies, such as 3D printers, laser cutters, CNC machines, and web studios, all with the support of professionals from various scientific and educational fields. It seeks to empower individuals across all age groups, promoting skills for better employment and advancing education. Schools can reserve space for classes, and workshops are open to the community.

### 2.3 Impact Diagnostic

NUCLIO’s impact was assessed using the **Logic Model**, a framework that maps relationships between resources, activities, outputs, outcomes, and long-term impacts. This method, as defined by the W.K. Kellogg Foundation (2004), provides a systematic and visual representation of how an organization mobilizes resources to achieve meaningful change.

To further refine this assessment, the traditional Logic Model was customized by incorporating the internal process dimension inspired by Kaplan and Norton's Balanced Scorecard (1992). This addition offers a holistic view of NUCLIO’s operations, emphasizing how internal processes ensure the delivery of quality outcomes aligned with its mission, as represented in figure 1.

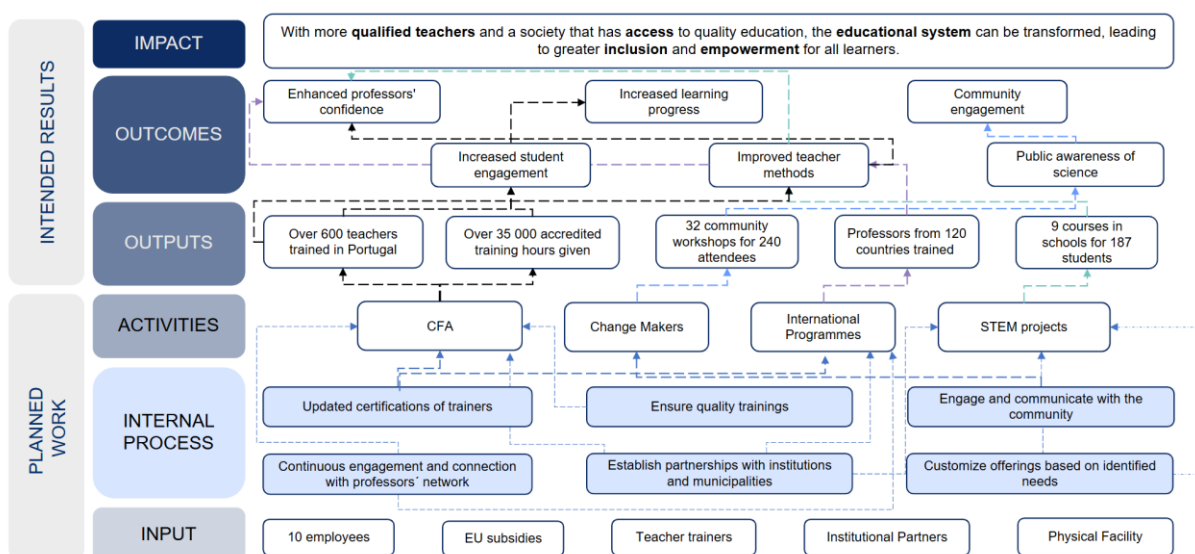


Figure 1 - Impact Diagnosis

Following a bottom-up analysis approach, the framework highlights the dependency on European Funds to maintain the base operational inputs such as the regular employees, external trainers, and physical facility monthly rent payments. Furthermore, the organizational impact, from the aggregate activities developed, is the direct qualifications development of 600 teachers and the increase of STEM methodologies awareness close to 427 students and the general community in the last 6 years.

## **2.4 Financial Overview**

To have a good understanding of NUCLIO's current financial situation, a thorough financial analysis was conducted. This allowed understanding of NUCLIO's strengths and weaknesses, which enabled selecting the areas in which the focus would be devoted. To conduct this analysis the financial statements, provided by the partner, were analysed. The first approach was to breakdown both NUCLIO's revenue and cost structure. Data regarding revenues and costs from the "Relatório e Contas" past 6 years was used, to understand the sources of revenues and costs, as NUCLIO tries to create the most impact in society.

This time range was chosen, as not only it allows to work with more complete data, but also it allows understanding of the organization's financial trends before, during and after the COVID-19 pandemic, enabling a more complete overview of NUCLIO's financials.

### **Revenues**

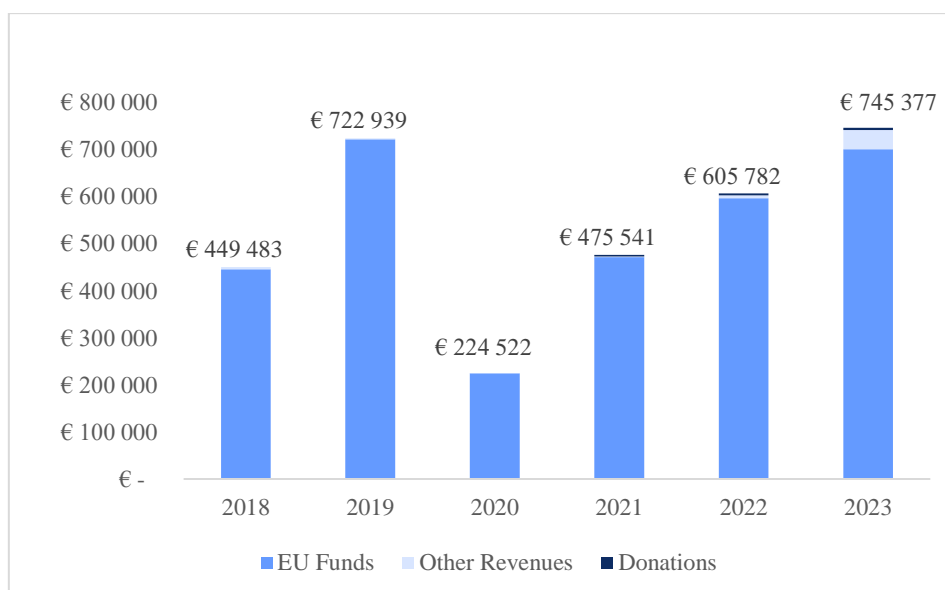
Currently, NUCLIO gets its revenues from three distinct sources: European Funds, to subsidize the projects (95%); Donations, that derive from the NUCLIO Trust (1%); Other, in which NUCLIO includes Associates Membership Fees and sporadic revenues it is able to generate. (4%).

At first glance, the main conclusion is NUCLIO's heavy dependence on funds coming from the EU. In fact, throughout the years, these funds have always accounted for at least 90% of NUCLIO's entire revenue stream and have been the main driving force behind the

organization's 10.65% CAGR since 2018, from 445 205€ to 699 453€. Another stand out point is that in 2023 NUCLIO was able to return to the revenue seen in the pre pandemic years, showing resilience and adaptability to the circumstances, and the capability to reinvent and bounce back from less thriving years.

However, there are two downsides worth noticing. Securing European funds is a very time consuming and lengthy process, from which follows that NUCLIO, having to allocate resources to these proposals, is then left without valuable human capital than could be utilised to generate further impact and fulfil their mission. This issue becomes more relevant considering their slim workforce. Also, as the process of coming up with ideas for projects, writing proposals, having them approved and finally receiving the money is quite long, sometimes NUCLIO ends up not being able to implement the projects, which harms both their mission and their financial sustainability.

The second major issue in depending on the EU so much is that it harms the financial sustainability. In fact, NUCLIO, has seen increases in its cost structure (to be analysed in next section), mainly due to growing the workforce. This increase in costs is currently being supported solely by these funds, which also make feasible NUCLIO's other initiatives. This way, in the extreme scenario in which NUCLIO is not able to secure them, it would not be able to conduct their operations. This potential issue emphasizes the importance of the project, whose goal is to propose NUCLIO with different revenue streams, consolidating the financial sustainability.



*Figure 2- Revenue Distribution (2018-2023)*

## Costs

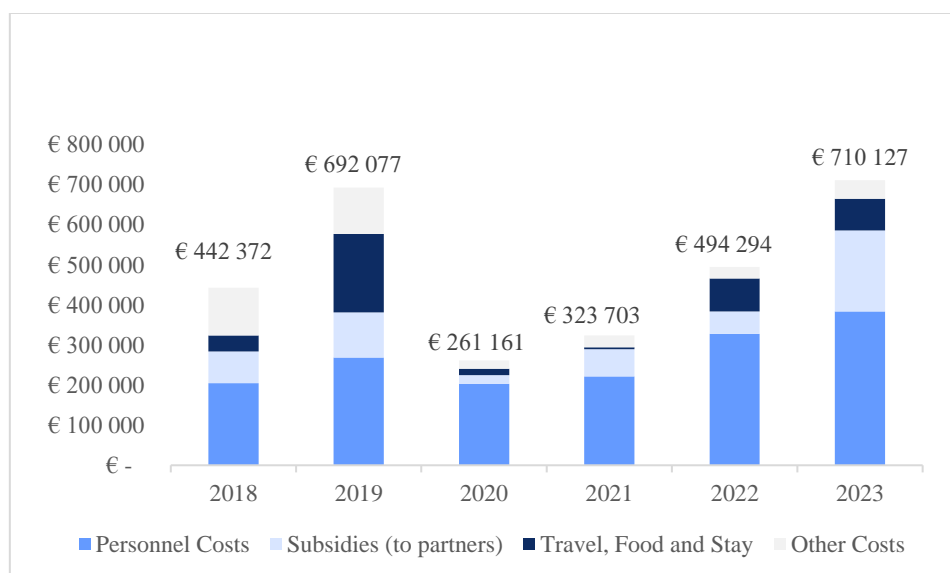
Costs can be broken down into four main categories: Personnel Costs, Subsidies (to partners in EU funded projects); Travel, Food and Stay; Other Costs, such as costs related to Materials and Maintenance. As a whole, costs increased from 442 372€ in 2018 to 710 126€ in 2023, at a 9.93% CAGR.

Delving deep into NUCLIO's expenses with its collaborators, the first conclusion is that NUCLIO nearly doubled costs in this caption, from 204 374€ in 2018 to 383 124€ in 2023, at CAGR of 13.4%, justified by the number of full-time employees (FTE) of NUCLIO having increased from 7 in 2018 to 10 in 2023.

It is important to notice that these costs are independent of NUCLIO's projects. This way, even if NUCLIO stops being able of asking for funds, personnel costs still exist, yielding another reason to pursue different sources of revenue.

Subsidies, on the other hand, are composed of the payments NUCLIO must make to its partners, whether they are in the EU funded projects, or the teachers that work with them in the training programs. This caption is correlated with the ability to fund projects, that is, if there

are no projects, there will be less partners to pay. 2023 was the year in which NUCLIO paid more subsidies to partners (202 050€), which can serve as an indicator of its efforts to continuing to implement new projects and fulfilling their mission.



*Figure 3 - Cost Breakdown (2018 - 2023)*

## Net Income Analysis

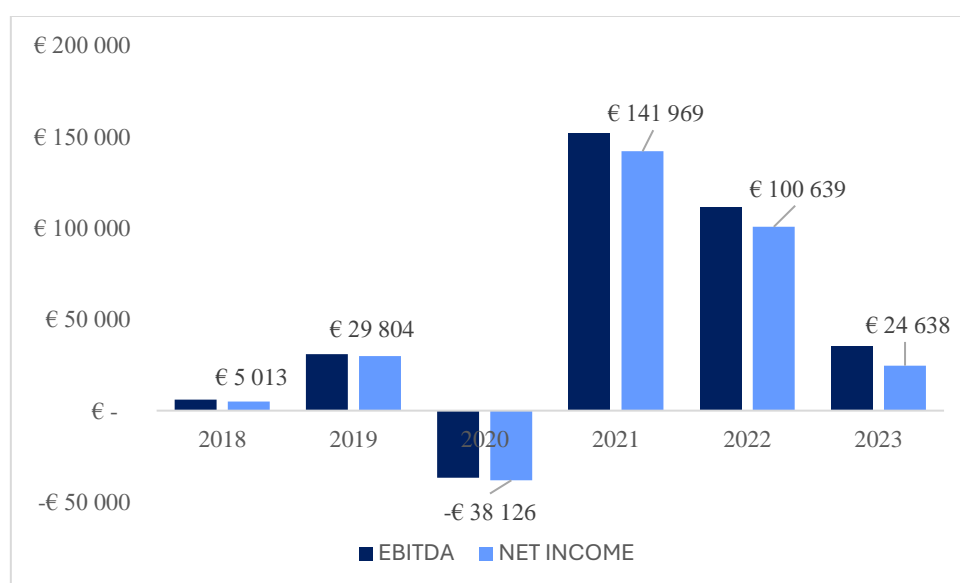
Having analysed both the revenue and cost structure, it is important to combine them to provide valuable insights to continue the financial overview of the organization. One standout aspect is that, due to being an ONG, NUCLIO does not pay the corporate tax rate. Also, it does not have any outstanding loan or interest-bearing means of debt.

Looking deeper into the result (figure 4), NUCLIO has positive periods, supported by European Funds. The major outlier is 2020, understandable due to the pandemic's impact with few fundable projects. This exemplifies the behaviour of results should NUCLIO not be able to secure funds.

In general, NUCLIO has improved its performance, growing from 5 0123€ in 2018 to 24 638€ in 2023, at a CAGR of 37.5%. This shows the resilience in recovering from years of uncertainty and the capability of reinventing and keep innovating to secure new projects.

Notwithstanding, later years saw decreases in Net Income, from 141 969€ in 2021 to 24 639€. This trend is justified by the fact that, in this period, costs have largely outgrown revenues, by nearly two times (48.11% vs 25.20%). This way, the decrease is not due to decreasing revenues, but simply to a much larger increase in costs. Looking into NUCLIO's "Relatório e Contas", an explanation is found. In fact, NUCLIO realizes both revenues and costs at the time they receive the funds. Therefore, the Net Income will be somewhat a volatile measure, since it is expected that it will be quite large in years where NUCLIO secures funding, but does not implement the projects, and, on the contrary, it will be quite low in years in which NUCLIO implements the projects with funds previously secured.

With this in mind, our goal of exploring alternative revenue sources becomes even more relevant, to ensure NUCLIO can stabilize its returns.



*Figure 4- Net Income (2018 - 2023)*

## Liquidity

Simply put, "liquidity means the company's ability to pay its obligations as they come" in the short term (Oleva Savchuck, 2014). It is therefore fundamental to evaluate NUCLIO's liquidity to provide a complete financial overview.

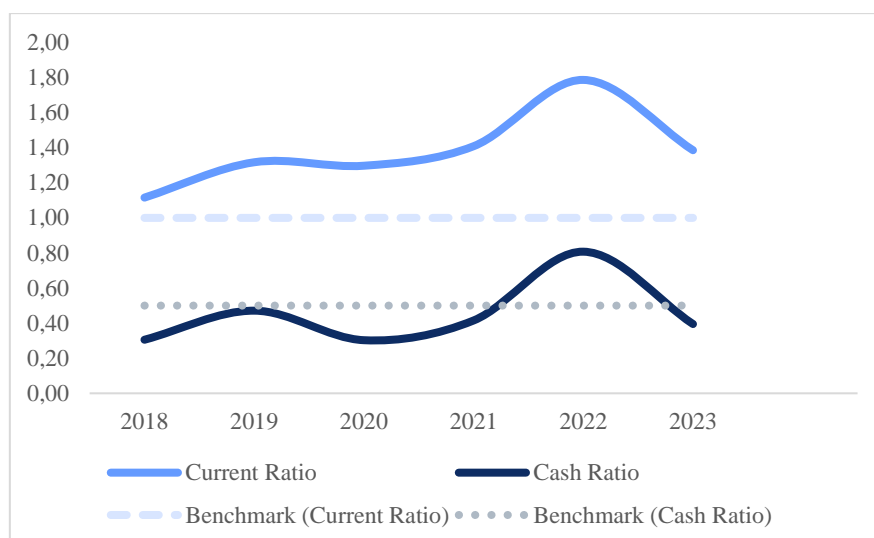
First, an understanding of what current assets and liabilities are is needed. Current assets “are assets that a company intends to convert into cash within one fiscal year”. These are considered the most liquid assets, meaning that the company can more easily convert them into cash. On the contrary, current liabilities are debts that the company has to settle within one year.

Having this in mind, some common liquidity ratios were analyzed and compared against some benchmark numbers. The ratios are as follows: Current Ratio and Cash Ratio. The current ratio is the ratio between all current assets and all current liabilities. The rule of thumb is that, if the ratio is above 1, then the company is liquid, but the contrary shows negative signs. The cash ratio measures the ability of NUCLIO to pay off its liabilities using only its cash position.

According to the Corporate Finance Institute, although there is not a singular measure, 0.5 is seen as the general benchmark. It is worth noticing that the ratio heavily depends on the industry a company operates, so these are mere benchmarks to follow. One note is that, although it is common to also assess the Quick Ratio  $((\text{Current Assets} - \text{Inventories}) / \text{Current Liabilities})$ , as NUCLIO does not have a significant amount of inventories we understood that assessing this ratio would not provide any added value to the analysis.

NUCLIO’s liquidity ratios show that, although depending on the EU, it can easily meet the liabilities. The current ratio has been well above the recommended threshold (figure 5), while the cash position has historically been very strong (see Appendix 2). Both the main assets and liabilities are the funds NUCLIO is yet to receive or pay. However, as the projects are implemented only when the money is received, there is no danger from having high deferrals.

When ignoring these asset classes, NUCLIO is left without substantial liabilities, which, backed by solid cash reserves, lead to a comfortable liquidity position. Notwithstanding, as personnel costs grow, the need to emancipate from European funds grows, so as not to drain the cash position.



*Figure 5- Liquidity Assessment*

## 2.5 Problem and Scope Definition

NUCLIO's primary challenge is its heavy reliance on European Union subsidies as its sole funding source, which classifies it as financially unsustainable due to the absence of internally generated revenue or diversified funding streams. This classification is grounded in the principle that a sustainable NGO must have diversified income streams to mitigate risks associated with external funding dependencies, ensuring both the continuity of social initiatives and the availability of structural resources necessary for long-term operations (Mikeladze, 2021). To address this challenge, the thesis research question will be: **What sustainable financial strategies can NUCLIO implement to diversify its revenue streams, and reduce dependency on European Union funding?**

To address this issue, NGOs increasingly turn to service sales as a viable solution to funding challenges, enabling these organizations to stabilize their finances and maintain autonomy, allowing for long term strategic planning (Salamon, 1997). However, transitioning to a revenue-driven model introduces risks and challenges, including the potential for "mission drift," where revenue-generation goals could overshadow the NGO's social objectives (Eikenberry & Kluver, 2004; Dees & Anderson, 2003) and often internal tensions may arise, as

stakeholders and staff might perceive revenue-oriented activities as conflicting with the NGO's mission (Young, 2006).

One potential solution lies in adopting hybrid organizational models, which blend commercial stream diversification and social objectives. These models would allow to separate profit-driven activities from their mission-oriented operations, reducing the risk of mission drift while maintaining financial sustainability (Battilana et al., 2012).

Building on the hybrid organizational model concept, this thesis will formalize the selection and establishment of a specific business unit (BU) within NUCLIO, targeting services with high potential for both social and financial impact. Given NUCLIO's lack of prior experience in service monetization, this initiative will focus on designing and implementing the organization's first structured revenue-generating strategy. Keeping this primary objective in focus, the list below outlines the potential business units to intervention:

1. Training Center BU
2. Change Makers BU
3. Education Consulting (new BU under consideration, proposed by NUCLIO)

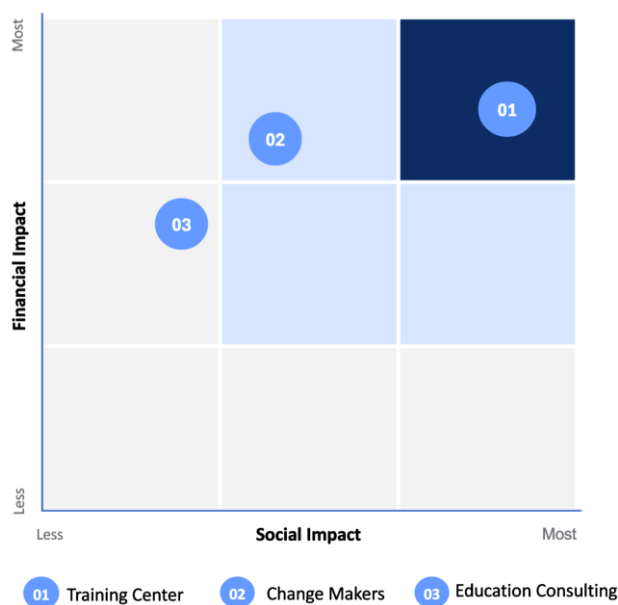
Acknowledging the importance of focusing the efforts for maximum impact, the decision was made to strategically prioritize which business unit to intervene in. To do this, a specific criterion was developed to guide the selection, focusing on identifying the BU intervention that would deliver the greatest overall benefits for NUCLIO. As NUCLIO is a social enterprise, two main criteria were established to provide a structured approach to guide the selection process: Social Impact and Financial Impact.

1. **Social Impact:** Given the broad and complex nature of this criterion, Social Impact was defined in terms of the number of individuals (teachers and students) that NUCLIO

could reach through the proposed initiatives. Both short-term and long-term effects were considered, along with the feasibility of scaling the impact over time.

2. **Financial Impact:** Recognizing the importance of financial sustainability, this criterion addressed NUCLIO's primary challenge—ensuring its ability to generate sufficient revenue. Although NUCLIO's main objective is not profit generation, the organization must prioritize initiatives that contribute to its financial viability. This, in turn, enables the funding of additional projects with a greater focus on Social Impact, rather than solely on Financial Impact.

Below is the rationale for their placement, in figure 6:



*Figure 6 - Impact Matrix*

The **Training Center** was identified as the initiative with the highest combined social and financial impact. Its social reach is unparalleled, as it trains teachers who, in turn, impact numerous students, creating a cascading effect. This impact is sustained year-round, and online courses further enhance scalability by making the program accessible to remote areas. Financially, CFA has significant monetization potential within the training center BU. While

currently EU-funded, the program could transition to a self-sustaining model by introducing paid training options in CFA or by diversifying its offer beyond. This would allow NUCLIO to reinvest resources into other initiatives, maximizing both its financial returns and broader social objectives.

The **Change Makers** initiative delivers significant local social impact by equipping individuals across various age groups with skills for employability and education. However, its reliance on a physical facility in Cascais limits scalability and restricts awareness to the local community. The program's in-person engagement model is effective for fostering connections but makes broader expansion challenging. Financially, the initiative depends on European Social Fund co-funding, with limited revenue from workshop bookings, which are insufficient to cover operational costs. Consequently, while impactful, the program struggles with financial sustainability.

The **Education Consulting** initiative proposes a systemic approach, partnering with schools and universities to transform educational practices. While it holds promise for meaningful long-term impact, it is still at a conceptual stage and would require extensive human resources to implement. Its financial viability is equally uncertain, as establishing a client base and achieving profitability would demand significant upfront investment. This places it in the lower-left quadrant, reflecting moderate social impact and limited financial sustainability in a medium-term.

The evaluation highlights the Training Centre as the most strategic initiative for NUCLIO, offering both substantial social impact and the potential for financial self-sufficiency. That way, it is important to understand what is involved behind the Training Centre operations and current offer to provide accurate recommendations for possible service monetization and diversification. For that, we explore this business unit more deeply in the next chapter.

### 3. Diagnosis – How is the training centre currently characterized?

An analysis was conducted to understand the current structure, processes, and overall environment behind the “CFA” business unit. This analysis covered the definition of the current value proposition of this service, together with an analysis of current capabilities, financials, market segmentation followed, and, ultimately, an analysis of external communication and brand perception.

#### 3.1 Current Value Proposition

The current value proposition was analyzed by addressing common factors that are considered in this regard, namely the benefit the product/service provides, for whom it aims to provide this benefit, how this it is being delivered, who is the target buyer, what is the problem the product/service aims to solve and what distinguishes it from competitors.

This business unit’s **benefit** is the ability to teach and impact the world through their capacitation in key areas. NUCLIO’s courses can be divided into two main segments, being those subject skills, where science-specific topics are grouped, such as “Building science materials”, “Sustainability” or “Best practices in science teaching”, and teaching skills, covering general topics that can be applied to all disciplines taught, including “Digital transition”, “Sonification of learning”, and “Innovative and inclusive teaching methods”. NUCLIO’s approach emphasizes both subject-specific knowledge and pedagogical methodologies, with the current offer being focused on the combination of those 2 aspects simultaneously.

Regarding **whom** that benefit will impact, the analysis identified five main stakeholders. The improvement in teachers' skills naturally benefits the teachers, as they can better perform their lessons. However, this improvement of skills holds as stakeholders a diverse range of entities. Students are directly impacted by those changes in teaching processes. As per rankings, recognition, and others, schools also benefit from the improvement. In Portugal, schools do not

have a lot of autonomy, and, with the money coming namely from municipalities, those are also considered stakeholders. The government is impacted by both the educational system and the capabilities of students (future workers).

Regarding **how** that benefit is delivered, an analysis of NUCLIO's offering was performed.

	<b>“Ação de curta duração”</b>	<b>Courses</b>	<b>“Oficina de formação”</b>
<b>Duration</b> Requirement	3 to 6 hours	12 to 25 hours >12h	<b>50 hours</b> 12h – 50h
<b>Method</b>	Lesson/workshop	Lessons/Workshops	Lesson & classroom intervention
<b>Format</b> Requirement	E-Learning or face-to-face	E-Learning or face-to-face Face-to-Face, E-Learning or B-Learning	B-Learning or face-to-face >1/3 Face-to-Face
<b>Number of participants</b> Recommendation /Requirement	<b>23</b>	<b>23</b> <30 Recommendation	21* 5 - 20 Requirement

*Figure 7 - Product Mix and Characteristics*

NUCLIO's offer, following current legislative guidance, is composed of 3 different categories of training courses, being those “Ações de curta duração” (ACD), “courses”, or “Oficinas de formação” (OF). Each of these categories encompasses different durations, methods, formats, and numbers of participants, with some having legislative requirements and limitations.

The analysis of the table shows that, by having different durations ranging from 3 to 50 hours, costs will naturally follow this increase as trainers' cost per hour is the main driver of costs. Thus, "OF" might be more expensive for the NGO. Regarding format, if the choice is to go for an online setting, either to reduce dislocation costs or increase demand, "ACD" or "courses" are preferable, allowing a 100% online teaching format. "ACD" does not have a maximum number of participants established and, together with "courses", share the highest average number of clients per session in the last 4 years.

Regarding the current **target buyer** of the NGO's offering, both professors and municipalities were identified based on previous sales. Professors are the main target of the training courses, justifying their importance as target buyers. Currently, the persona for this service consists of a professor located in Lisbon (because of the presence of face-to-face lessons) and, based on the current environment surrounding the educational system in Portugal, a middle-aged to older person.

However, there is also another segment purchasing those services – municipalities. Municipalities have access to school associations' training centers, but due to the lack of a certain offer, they might outsource those services to an external training center, such as NUCLIO. That is what happened with "Câmara Municipal de Cascais", curiously, not purchasing this service for teachers in the municipality, but rather for school workers, due to them being the municipalities employees.

The **problem** that the CFA aims to solve is that, in Portugal, for a professor to move up in his/her career, among other things, two need to happen: Evaluation - Professors are evaluated regarding their teaching ability. To move up, there is the need to obtain a minimum of "Good" in the evaluation criteria (Lei do Estatuto da Carreira Docente, 2012). The usage of the skills taught in NUCLIO's training might indirectly help in this segment, and, in some cases, the certification given directly helps; Training – More directly, professors need to obtain a

minimum duration of teaching modules during their presence in each career level. Those career levels range from 1<sup>st</sup> to 10<sup>th</sup> with a mandatory 25 hours of training modules in the 5<sup>th</sup> level and, for the rest, 50 hours (Lei do Estatuto da Carreira Docente, 2012). It is important to note that at least half of the hours spent in training need to be related to the discipline the professor teaches and not to pedagogical/general topics.

NUCLIO distinguishes itself from other training centers through its focus on astronomy, being one of the most important centers in this subject, as well as the importance given to the psychology of education, diversity, and innovation in the teaching system. The main advantage comes not from having those topics separately but by integrating them and offering sessions that emphasize the usage of those “soft skills” in the teaching of science or astronomy, the “hard skill”.

So, CFA is highly dependent on the accredited courses which professors are required to take, with the center being accredited, trainers being accredited and even training modules being accredited. However, how is this accreditation process conducted? The following chapter delves into the details of how this accreditation process is conducted.

### **Accreditation process**

The accreditation process ensures that the center, its trainers, and the training courses meet rigorous standards set by the Conselho Científico-Pedagógico da Formação Contínua (CCPFC) - an entity capacitated by the Ministry of Education to ensure quality in this matter (Regime Jurídico da Formação continua de Professores, 2014). With this market being intensely legislated, accreditation is necessary to operate and provide accredited training courses that tackle the professor’s training module requirement.

Accreditation for trainers is a lifelong credential, enabling them to maintain their certified status as educators and trainers indefinitely. This allows NUCLIO to retain an

experienced pool of trainers who bring continuity and depth to the training programs. In Portugal, there are 41 174 trainers (CCPFC, 2024) accredited by the CCPFC.

For the CFA itself, accreditation is granted for a limited period of three years. Every three years, NUCLIO's programs, methodologies, and operational procedures undergo a thorough review to verify adherence to CCPFC standards. This re-accreditation process ensures that NUCLIO maintains its educational practices, and includes a comprehensive assessment of the CFA's curriculum, qualifications, and organizational effectiveness.

Moreover, accreditation provides NUCLIO with a competitive advantage, distinguishing it from non-accredited centers, and allowing it to compete in the specific market for accredited teacher training. There are 318 accredited centers, but this number includes universities and other non-relevant centers for this project. Ninety of those accredited centers are from school associations, providing free training courses for professors.

The programs also share the necessity of being accredited to be recognized as an official course for career progression purposes. This accreditation also lasts for 3 years and, currently, there are 11 145 accredited courses in Portugal.

This information is summarized in the following graph (figure 8):

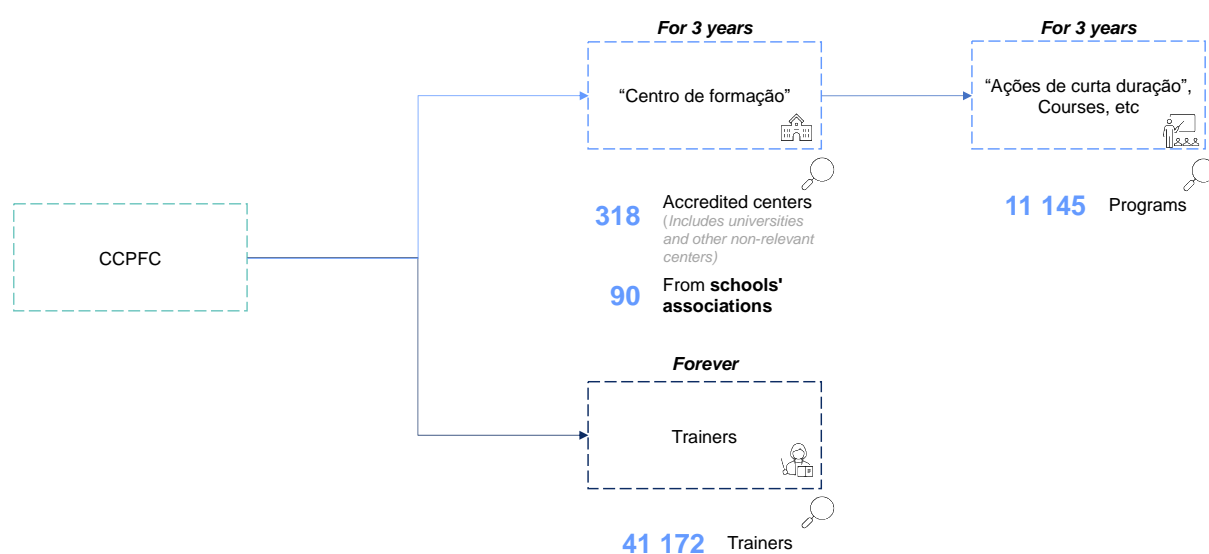


Figure 8 - Accreditation Process and Values

## How has this been materialized at NUCLIO?

NUCLIO's resources and capabilities, in this regard, are characterized by the number of trainers that can be used to provide the service, and which service those trainers are capable of providing, meaning which subjects are they qualified to teach through training services. NUCLIO has eight in-house trainers and five possible "outsourced" ones. Those five compose a network of trainers that NUCLIO possesses who do not continuously provide their service, rather, they provide it only occasionally, depending on the course's subject.

The trainers' capabilities regarding which areas they are accredited to provide training were registered, providing us with the following information (Figure 9):

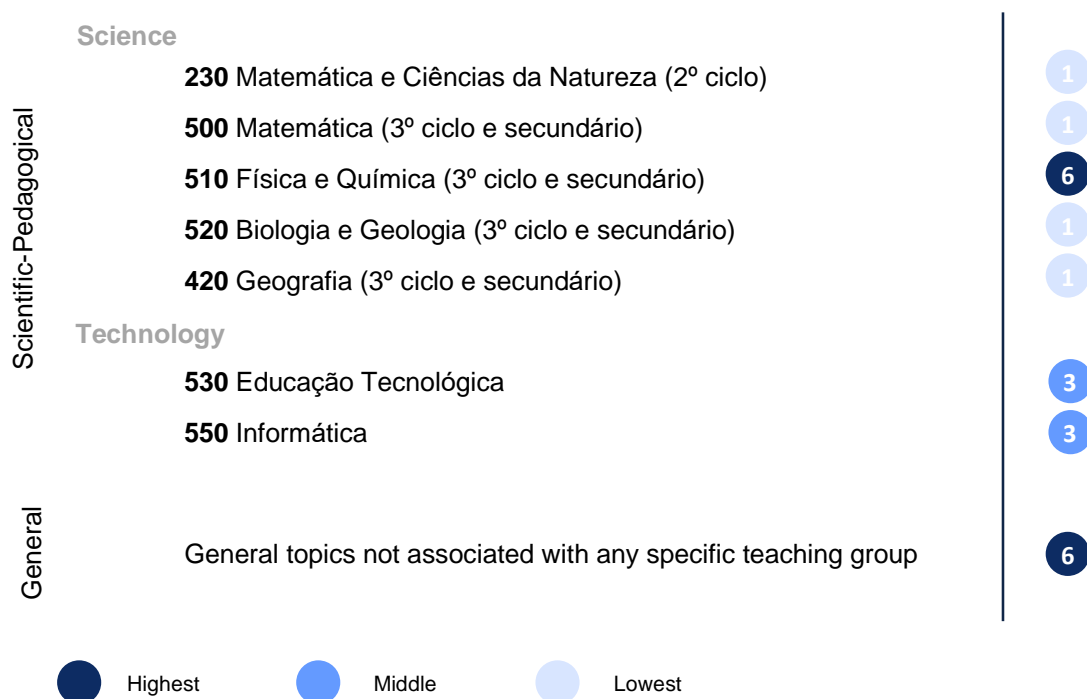


Figure 9 - NUCLIO's trainers' capabilities

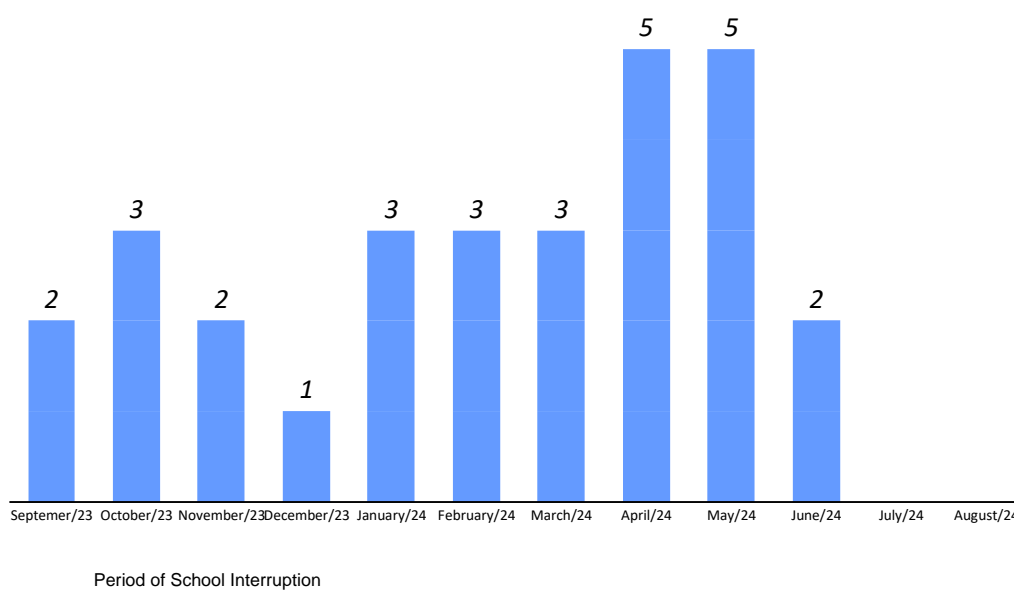
Training capabilities, because of legislation that separates subject-specific teaching from general educational teaching, are analyzed between a "scientific-pedagogical" group and a "general" group.

There is a clear indication of the prioritization of areas inside NUCLIO. There are six capable trainers to provide training related to “Física e Química (3.º Ciclo e Secundário)”, 3 in “Educação Tecnológica” and 3 in “Informática”, with 6 being able to provide training in general educational related topics. The distribution of professors reflects a targeted approach, with resources allocated based on the strategic importance for NUCLIO. This allocation supports NUCLIO’s mission to enhance science and technology education (and, sometimes, not necessarily separated) while also addressing cross-disciplinary teaching skills, providing an offer for the demand of both subject-specific and general teaching modules.

### **Service output**

NUCLIO’s trainers currently have 15 488 disposable working hours in a year (assuming 8 hours a day, 22 days per month and 11 working months) which are allocated between administrative work (50%), CFA (15%), and other projects (35%). Based on that, there are 2322 hours allocated to CFA, which include both preparation and teaching hours.

An analysis was conducted to understand the outputs of NUCLIO’s activity. To understand outputs, we looked at the courses offered. Historically, there have been 31 certified courses, the majority being “Oficinas de Formação” (48%) and, due to this preferred format, in a face-to-face setting. More than 70% of those courses were held within a maximum of 15km from NUCLIO headquarters, due to both a higher demand locally (more brand awareness) and lower costs (less dislocation costs).



*Figure 10 - Courses seasonal distribution*

Regarding the distribution of courses throughout the year, the ongoing courses align with the class periods in the annual academic calendar. Periods with few or no courses registered correspond to school breaks, creating a certain seasonality effect.

### **3.2 Financial Analysis**

To thoroughly evaluate how NUCLIO's current BU can be restructured to help achieve the desired financial sustainability, an assessment of each unit as an independent business was conducted.

To achieve the goal, and similarly to what was done with the whole overview of NUCLIO, a financial statement analysis was done, to understand both the revenue and cost structure, and to understand whether it is currently profitable, and, also, its potential as a sustainable revenue source.

As NUCLIO does not currently possess statements of just this BU, a questionnaire was done, which then was asked to be filled out by NUCLIO's employees, which yielded the desired data to be able to work on. The questionnaire consisted of trying to obtain information of the following nature: **(1)** Topic of training; **(2)** Format of the training (On-Line, B-Learning,

Presential); **(3)** Nr of hours preparing the sessions; **(4)** Nr of hours of lecturing; **(5)** Nr of hours of individual support; **(6)** Cost per hour per trainer; **(7)** Cost of traveling and stay

The first result, and the most obvious, is that the CFA is not financially sustainable. This happens because NUCLIO does not monetize these training courses, and funds them through EU subsidies. From this, it can follow that there is potential to make this BU sustainable by starting to monetize the courses, if there is a willingness to pay. Therefore, the belief that can become CFA a sustainable, not necessarily profitable BU, exists.

Regarding its cost structure, the first thing that can be pointed out is that, over the past few years, NUCLIO has spent 70 289 € (see Appendix 3), which, compared to the 1990397.82€ raised over the homologous period, is not a huge share. The amount spent across the years was largest in the year COVID hit (26 448€), since due to the training being online, NUCLIO gave more training hours, thus having higher costs. Also, in the past three years, there has been a tendency to increase costs, as more courses and training hours have been given. In the past year, NUCLIO spent 23 813 € with the CFA.

Of the total amount spent, the highest share is, as expected, with the trainers' compensation, which makes up 95% of the total amount spent over the years. From this follows the difficulty to reduce the cost structure since if more courses are given, costs will increase, as more hours will be needed by the professors. Also, reducing the current wages is not a viable solution, as in Portugal there has been a lot of revindication by the professors due to the salaries. NUCLIO should aim to provide the best conditions it can, to convince better talent, which may attract more clients to the courses.

One interesting point of this cost structure is that there aren't many fixed costs, mainly those with rent. This means that, on the one hand, NUCLIO does not have tied-up resources that will be consumed even in the case of no formations, such as rents. On the other hand,

increasing the scale of programs will increase the cost structure in the same proportion, as personnel costs constitute the vast majority of total costs.

Another interesting metric to study is how much does it cost, on average, NUCLIO to give certified training to a professor. Here, despite having that the average trend has been increasing in the last 3 years, it is important to notice that different types of courses will be of different value to NUCLIO. Courses that require a higher trainer to teacher ratio will be most expensive to conduct, while those in which NUCLIO can more easily scale may prove to be more valuable.

All in all, CFA is a BU in which NUCLIO can set to achieve financial sustainability, by seeking to fund its operations through monetizing courses. To do this, professors must be willing to pay for these courses, a topic which will be attended to in the further stages of the work.

### **3.3 Market Segmentation**

NUCLIO's market segmentation for the "Centro de Formação" is based on three primary dimensions: demographic, geographic, and behavioral. This approach allows NUCLIO to develop and deliver training programs that align closely with the needs of distinct educator segments, enhancing program relevance and participant engagement.

#### **Demographic**

Scientific Field: NUCLIO categorizes its participants based on their scientific discipline, targeting teachers within fields such as physics, chemistry, and mathematics. This subject-based segmentation allows NUCLIO to provide highly relevant content tailored to the specific pedagogical and content challenges faced by teachers in these disciplines and develop subject-specific training according to the legislation.

Teaching Level: NUCLIO differentiates its offerings based on the educational level at which participants teach. This level-based segmentation is essential, as it enables NUCLIO to design courses that are appropriate and relevant to the cognitive needs of different age groups.

Applying these two, we get, for example, that a physics professor teaching at the secondary level might require more advanced training in experimental techniques, whereas primary school teachers may need resources for introducing fundamental concepts.

### **Geographic**

Location: NUCLIO's segmentation strategy also considers geographic factors. This serves to understand in which format the course should be developed, with e-learning being the option for courses with the furthest professors enrolled and b-learning and face-to-face being the options for local clients.

Segmentation regarding municipalities, when selling services directly to them, is currently only constituted of its location. This distinction happens for two main reasons: An extremely low number of sales to municipalities (one); and dislocation costs playing a major role in the matter of the location of customers.

### **Behavioral**

NUCLIO further segments its market based on behavioral factors, specifically the history of participants in previous courses. For educators who have previously attended NUCLIO's programs, the organization employs a targeted communication strategy. This approach fosters a sense of community among returning participants, encouraging sustained engagement and loyalty.

### **Conclusion**

By tailoring its offerings across demographic, geographic, and behavioral dimensions, the organization ensures its training programs are both impactful and inclusive. This approach

not only enhances the learning experience for educators but also supports NUCLIO's broader goals of promoting innovation, equity, and excellence in education.

### **3.4 Communication & Branding**

#### **Communication**

The promotion of NUCLIO's accredited teacher training programs involves a multifaceted approach. When these training sessions are integrated into specific projects, project coordinators establish direct contact with schools and teachers to foster participation. In cases where open recruitment is needed, social media campaigns and newsletter invitations are utilized to attract potential participants. All available training opportunities are also listed on the NUCLIO website and featured in a detailed catalogue, distributed in print at events and available online.

Additionally, word-of-mouth plays a vital role, since teachers who participate in workshops or training often share their experiences with colleagues, fostering organic awareness. Monitoring and feedback are gathered post-promotion through registration numbers and surveys, helping NUCLIO refine its offerings and better understand teacher interests and needs.

Despite the organization having a dedicated page on its website for teacher training programs, that includes detailed explanations about the training content, target audience, and methodological information, social media platforms such as Instagram and Facebook, lack clear access points or easily understandable summaries of these offerings. For instance, there are no dedicated highlights on Instagram that summarize the training opportunities, requiring users to spend time exploring the account to find relevant information about the programs. This can create barriers for potential participants seeking easy access to training details.

## **Branding**

NUCLIO's brand reflects its years of experience and solid reputation, particularly internationally, where it is known for innovative contributions through numerous partnerships and projects in science education. However, its recognition in Portugal is still developing.

While NUCLIO has formed strong partnerships with certain Portuguese schools and teachers, it aims to strengthen connections with other local organizations, government bodies, and the Ministry of Education. One reason for this could be the organization's roots in astronomy and space sciences, which initially defined its mission in Portugal. Over time, NUCLIO expanded its scope to include broader scientific education and innovation, but this shift is still gaining traction locally. NUCLIO has seen increased visibility in the Lisbon and central Portugal regions, working to establish collaborations with the local governments of Cascais and Oeiras. Yet its recognition within Portugal remains limited.

NUCLIO's long-term goal is to be known not only as an accredited provider of teacher training but also as an institution dedicated to inclusive and innovative education. By training teachers and engaging in educational projects, they aim to empower students to become informed and engaged citizens. Improving its digital presence, particularly the website, could help clarify NUCLIO's mission for new audiences. The site's focus on astronomy may give the impression of a narrow specialization, whereas emphasizing its broader work in science education and innovation could make its full range of initiatives clearer, supporting its goal of reaching a wider audience and strengthening its national reputation.

## **3.5 SWOT Analysis and Strategic Insights**

### **3.5.1 SWOT Analysis**

The Training Center BU positioning in the educational sector can be assessed through its strengths, weaknesses, opportunities, and threats, offering insights into its current capabilities and areas for improvement. The SWOT analysis, an effective strategic planning

tool, allows organizations to sustain a continuous flow of information, facilitating planning and responses to dynamic environmental factors (BENZAGHTA et al. 2021), and providing an understanding of organizations' competitive advantages, vulnerabilities, potential growth areas, and external challenges.

### **Strengths**

CFA is a well-established service renowned for its strong reputation in STEM education, built on a foundation of trust, by addressing audience needs through tailored training. Its commitment to excellence is further bolstered by strategic international partnerships that establish and maintain extensive global networks. Additionally, the organization's highly skilled team brings extensive expertise and wide-ranging know-how, ensuring the delivery of impactful, relevant, and forward-thinking training programs.

### **Weaknesses**

Despite its strengths, the Training Center faces vulnerabilities such as total reliance on EU funding to support training. Its small team size imposes limitations on scalability and reduces its potential for broader impact. Additionally, NUCLIO's limited recognition within Portugal restricts its ability to expand its reach and influence in the domestic market.

### **Opportunities**

Several emerging trends present opportunities for NUCLIO's growth. The increased national government and European community investment in professional development and international education experiences support can drive demand for training services. The unfreezing of teaching careers in Portugal signals a heightened need for teacher training programs. Moreover, different audiences have requested NUCLIO numerous tailored trainings in other segments, besides the teachers impacted by the CFA offer, non-teaching staff, and school leadership members also looking for solutions to the lack of available training.

## Threats

NUCLIO faces significant external challenges. The aging teacher demographic reduces the need for mandatory training, potentially shrinking its target market. A decline in the number of public schools in Portugal further narrows its primary market. Additionally, lower household income levels in Portugal may affect educators' ability to self-finance training programs.

### 3.5.2 Strategic Insights

Looking at NUCLIO CFA's current operation, key insights have emerged in which the proposed strategies for future development of the Training Center were based. NUCLIO's strengths, including its capabilities regarding teacher training and commitment to educational innovation, co-exist with critical challenges, particularly its reliance on European funding and limited domestic visibility.

The analysis highlighted the need for diversification in revenue streams to enhance financial sustainability. To address these challenges, we propose three hypotheses that will be evaluated, together with 2 other that were considered not worthy of exploring due to their positioning in the created decision matrix (see Appendix 4).

**1. Current offer:** Focus on monetizing the accredited teacher training courses. Reasoning – NUCLIO offers a differentiated specialized service that is creating value for professors that is, currently, not monetized.

**2. New service:** Create a new course that caters to a more attractive market segment in Portugal – executive positions in schools. Reasoning – The accredited courses market is not particularly attractive, due to the free options. Thus, it will be hard to rely on the revenues brought by the new monetized offer. That way, NUCLIO should focus on a more attractive segment of this market, courses for school executives.

**3. New market:** Based on CFA's capabilities, create a local course for international professors – a summer school for professors in Portugal. Reasoning – NUCLIO has some know-how on

the creation of those courses that, as being targeted at international professors, show a higher potential revenue creation. Not only that, but this also tackles the seasonality factor in NUCLIO's offer.

However, 2 other hypotheses were disregarded mainly due to their lower perceived impact and feasibility: **(1)** an expansion to the PALOP, due to its cultural proximity to Portugal, mainly in its official language, disregarded due to a low financial impact as disposable revenue in the PALOP countries is reduced (Statista, 2024), and **(2)** the creation of non-teaching staff formative courses, disregarded due to this service being very different from the currently offered, which would greatly impact NUCLIO's structure.

This approach positions NUCLIO to gradually reduce its reliance on European funding, fostering greater financial sustainability. The critical question, however, is whether these strategies should be implemented and, if so, how they can be effectively executed. These considerations are comprehensively examined in the subsequent chapters.

## **6. International courses - How can NUCLIO enter the international training segment?**

### **6.1 Opportunity**

#### **6.1.1 Strategic Opportunity: Pilot Course for the International Segment**

The International training segment presents NUCLIO with a unique opportunity to expand its impact and become a key player in educator professional development. The program addresses the growing demand for innovative training that equips educators with practical tools to tackle modern challenges. It helps NUCLIO enhance its international presence and prepares the organization for future opportunities.

This initiative also reduces dependence on EU funding by creating self-sustaining offerings, allowing NUCLIO to diversify its funding sources while remaining true to its core values and mission.

#### **6.1.2 Organisation alignment**

##### **Mission Consistency & Social Impact**

Aligning the pilot course with NUCLIO's mission is crucial for its long-term success in the international education market. The program reflects NUCLIO's mission to empower educators through innovative teaching, while creating opportunities for NUCLIO to scale its offerings and address the evolving needs of educators, ultimately fostering educational innovation and expanding its reach globally.

##### **Internal Capabilities**

NUCLIO, as a strategic partner over the years of several formats of international courses initiatives worldwide, is equipped with skills to independently implement a similar formative program under its brand name in Portugal, resulting in a strategic opportunity to diversify revenue streams. For instance, NUCLIO trainers gained expertise in developing international skills-oriented course curriculums, understood the complexity involved in operations

management for courses meeting international certification standards, and created strong connections with vast networks of program stakeholders.

## **Financial Impact**

To guarantee the generation of cash inflow is crucial to adopt an international initiative format with the highest potential for monetization. For that purpose, we leverage information from NUCLIO's international partnership experiences leading to the following conclusions.

While international conferences and assemblies have no associated fee for the participant, summer schools have an inherent value enabling to associate a fee to service delivery, resulting in a higher financial impact.

This way, the launch of a pilot course for the international training segment is expected to be an additional revenue stream to decrease the propensity of European Union Funding in the training center BU.

## **6.2 Market Overview**

### **6.2.1 Market landscape**

In 2022, EU member states allocated an average of 4.7% of GDP to education, though disparities exist. Finland and Sweden, for instance, invest nearly 6%, while Portugal lags at 4.3% (Eurostat, 2023). Such differences indicate limited local market prioritization, suggesting that NUCLIO's pilot summer course may find better opportunities in external markets with higher educational investment.

Similarly, household income in the EU varies widely. The European average is around €23,000, while Portugal's average is nearly €10,000 lower (Eurostat, 2023). This economic difference limits the ability of Portuguese households to invest in additional educational opportunities. In contrast, wealthier countries such as Switzerland, Luxembourg, and Norway present more viable targets for high-value educational programs, emphasizing the need for NUCLIO to broaden its focus beyond Portugal. Expanding to these markets would attract a

more financially capable audience, maximizing the course's potential and building a foundation for future international growth.

Additionally, the EU's free movement framework, established under Article 21 of the Treaty on the Functioning of the European Union and Article 45 of the EU Charter of Fundamental Rights, allows EU citizens to travel freely within member states (European Commission, 2023). This policy reduces logistical and legal barriers for international participants in Portugal, providing an opportunity for NUCLIO to attract a diverse, international audience and enhance accessibility.

The Erasmus+ program, with a budget of €26.2 billion for 2021–2027, also supports cross-border education and professional development. By offering financial assistance, Erasmus+ lowers the barriers to studying abroad, expanding the potential audience for educational initiatives (European Commission, 2023). This aligns with NUCLIO's goal of fostering global collaboration and educational innovation.

Considering the limited investment capacity within the Portuguese market, the combination of free movement policies, Erasmus+ funding, and higher investment potential in other EU countries positions the international market as an ideal focus for NUCLIO's pilot project. By targeting participants from outside Portugal, NUCLIO can capitalize on these advantages and build the expertise and reputation necessary for future course expansion.

### **6.2.2 Market trends**

The European Union's education trends reveal key challenges and opportunities for international educational programs, essential for designing strategies to navigate the EU education system and enhance course accessibility and quality.

The EU faces significant teacher shortages, worsened by recruitment issues, wage gaps, and an aging workforce, with over 40% of primary and secondary teachers aged 50 or older, especially in Germany, Italy, and Austria. In 2022, 18 of 21 EU countries reported vacant

teaching positions, and teachers earn, on average, 22% less than similarly qualified professionals in other fields (OECD, 2024).

Public education spending varies across the EU, with average allocations of 4.8% of GDP in 2022, but ranging from under 4% in Romania and Bulgaria to over 6% in Denmark and Sweden (Eurostat, 2024). Teacher shortages persist, particularly in STEM and foreign language fields (Eurydice, 2020).

Looking ahead, the integration of technology into teacher training is a priority, with the European Commission's Digital Decade Policy Programme aiming for 80% of EU citizens to have basic digital skills by 2030. Educators are key to this effort, ensuring the spread of digital literacy (European Commission, 2024). The Digital Education Action Plan (2021–2027) emphasizes the importance of hybrid and remote learning, urging member states to prioritize digital pedagogy training (European Commission, 2021, 2024). Estonia is a leader in this area, using advanced platforms to improve teaching effectiveness.

Additionally, EU professional development programs are increasingly focusing on equity and inclusion. Efforts to incorporate diversity and culturally responsive teaching are growing, though implementation varies across member states. These initiatives aim to address the diverse needs of students and foster inclusive curricula that remove barriers to participation (OECD, 2023).

### **6.2.3 Market Size**

There are approximately 5.24 million professors in European Union working in the primary-to-upper secondary level school education segment (Eurostat, 2020). Excluding 149,818 Portuguese professors (DGEEC, 2023), the potential market for international participants is reduced to 5,090,182 European educators.

Around 81% of Europeans consider international experiences enriching (European Commission, 2014), reflecting a strong interest in cross-border educational opportunities.

Applying this proportion to the total eligible teachers narrows the audience to 4,123,048 educators interested in international experiences. Considering that 11% of European citizens participate in formal and non-formal life-long training (Eurostat, 2023), this further reduces the potential audience to 453,535 educators.

Finally, the estimate of those specifically interested in attending a course in Portugal is based on the proportion of European travelers choosing Portugal as a destination relative to all outbound European travelers, which is estimated at 5,2% (Eurostat, 2022). Applying this proportion to the 453,535 educators willing to participate in international experiences yields a final estimate of 22,677 educators potentially interested in attending a summer school training program in Portugal. By focusing on this specific audience, the program has the potential to attract a solid base of participants and establish itself as a high-impact initiative in the European educational landscape.

#### **6.2.4 Benchmark**

To support the development of a competitive summer course for professors in Portugal, a benchmarking analysis was conducted to examine how similar programs are structured both domestically and internationally. The results highlight a variety of offerings from providers across Europe, including Greece, Italy, Poland, Slovenia, and Portugal (see Appendix 10 and 11).

These courses cater to diverse educational professionals, including schoolteachers, academic staff, and other education stakeholders. The main areas covered include STEM, digital education, inclusion and diversity, soft skills, and innovative teaching methodologies. Most programs are eligible for Erasmus+ funding, ensuring accessibility for participants across Europe.

Portugal stands out with offerings such as those by Learning Together and Erasmus Learning Academy, which emphasize modern educational practices and experiential learning.

Courses in Portugal typically last 6–7 days, with fees ranging from €480 to €580 (€86,25 per day) for all but one of the providers analysed. The exception offers courses priced between €1200 and €1400, as these fees include accommodation and meals in addition to the standard services.

The offers often include welcome kits, cultural activities, coffee breaks, and city tours, blending professional development with networking and cultural exploration. Similar trends are observed in other countries, where providers offer accommodations, guided tours, and session summaries to enhance the overall experience. Also, certification options such as Certificates of Attendance and Europass Mobility Certificates are widely available, though fewer providers offer the possibility of customization of course contents.

In summary, this benchmarking underlined the importance of combining pedagogical innovation with engaging extracurricular experiences to create compelling summer programs for educators.

## **6.3 Go-to-market plan**

### **6.3.1 Broad Objective**

The pilot program is a key step for NUCLIO to enter the international education market, using its expertise in innovative teaching methodologies. It offers a valuable opportunity to explore market dynamics, understand demands, and identify areas for improvement. Insights gained will help refine the program and potentially lead to annual summer courses on various topics, targeting wider audiences and increasing course frequency. This initiative aims to establish a solid foundation for future offerings, aligning with market needs and NUCLIO's mission to empower educators and inspire change.

### **6.3.2 Marketing Mix (7P's)/ Recommendations**

A survey conducted with 56 teachers from the Galileo Teacher Training Program (GTTP) network helped design a pilot international summer course for educators. This network

provides a valuable platform and serves as a direct contact opportunity for the initial investigation into the most suitable offering for the pilot model, as these educators are already part of an established community. The focus was on 33 respondents from European countries outside Portugal, who represent the target market.

Based on the research conducted, NUCLIO's expertise, and the insights gathered from the GTTP community survey, recommendations were developed for the Marketing Mix to support the launch of an International Summer Course in Portugal.

## **Product**

- **Course Concept and Value Proposition**

The proposed 5-day in-person course, scheduled for July or August 2026 in Portugal, aims to empower educators with innovative methodologies to integrate Citizen Science into education. The course will combine hands-on learning with cultural immersion. It will be open to educators from primary to secondary school across all subjects, with English as the primary language of instruction. The survey showed that 39% of respondents preferred a 5-day course (see Appendix 12). Additionally, the course offers a unique opportunity to explore new teaching strategies while immersing participants in the rich and vibrant culture of Portugal, enriching both their professional and personal experiences.

Drawing on years of expertise in educational innovation, the course will cover the topic of Citizen Science in Education, a theme in which nearly 79% of respondents indicated they are interested or very interested in. In addition, it will explore interdisciplinary teaching methods, offering educators practical, actionable tools that can be immediately applied in their classrooms. Delivered by highly skilled instructors, the program is designed to provide educators with practical, actionable tools that can be immediately applied in their classrooms.

The course structure directly reflects the findings of GTTP's recent research, which highlights the key criteria educators would use to evaluate the quality of a program. The survey

identified that the most important factors for educators when evaluating the quality of the course is content relevance (82%), engagement (58%), networking opportunities (42%), and cultural learning aspects (42%) (see Appendix 13).

Additionally, the course is designed to deliver the top three benefits educators identified as most important: innovative teaching methodologies (79%), networking with international educators (76%), and access to new educational resources and tools (67%) (see Appendix 14). By addressing these priorities, the course can create a dynamic and relevant experience for participants, equipping them to meet the challenges of modern education while fostering professional growth and collaboration on a global scale.

Moreover, the course will provide educators with practical skills aligned with global educational trends, such as:

- Integrating citizen science projects into classroom curriculums to foster engagement and create community impact.
- Utilizing innovative teaching methods, including Design Thinking and digital tools, to enhance the learning experience.
- Supporting teachers in developing actionable project plans that can be implemented in their classrooms in the upcoming school year.

This approach aims to foster critical thinking, creativity, and collaboration, transforming students into active agents of change.

- **Content**

The course will emphasize practical engagement with "Citizen Science in Education" through:

- Dynamic Theme: Encouraging active citizenship and student engagement in the classroom.

- **Interactive Format:** Mornings for theoretical content, afternoons for hands-on activities like gamification, interdisciplinary STEAM projects, and Design Thinking practices.
- **Project Development:** Participants will collaboratively create detailed plans for integrating Citizen Science into their classrooms, using Design Thinking to outline learning objectives, student assessments, and project implementation strategies.

This hands-on approach ensures that educators can immediately apply what they learn, fostering critical thinking, creativity, and collaboration in their students.

- **Customization & Networking:**
- **Customization:** A pre-course survey will be sent to participants to gather insights into their specific goals, challenges, and preferences, ensuring the course addresses their needs.
- **Small Class Size:** Limited to 25 participants for personalized interactions and optimal collaboration.
- **Cultural Immersion:** One afternoon will be dedicated to social and cultural activities, allowing participants to experience Portugal's traditions and culture (see Appendix 19).
- **Interactive Engagement:** Daily activities such as gamification, speed networking, or icebreakers to encourage networking and relationship-building from day one.
- **Future Vision**

If the pilot is successful, future courses may expand to larger groups or increase the frequency of offerings while maintaining the intimate, hands-on approach that distinguishes this program.

## **Price**

Based on the benchmarking analysis of international summer courses, the average daily fee is approximately €86.25. Given that this is a pilot program aimed at testing the interest and engagement of participants, as well as serving as a foundation for improving future summer

courses, the pricing strategy will be carefully considered. Additionally, participants may be eligible for funding through the Erasmus+ program, which, according to the Erasmus+ Programme Guide (European Commission, n.d.), offers a maximum of €80 per participant per day for fee costs. The survey showed that 45% of participants would probably be funded by its institution with Erasmus+ (see Appendix 20). Therefore, the proposed fee for this course will align with the Erasmus+ funding guidelines, set at €80 per participant per day.

To ensure the course offers exceptional value, the pricing will be balanced between affordability and the perceived benefits, which include:

**Competitive Analysis:** The pricing will remain competitive when compared to similar international courses, ensuring the course is affordable while maintaining high standards of education and participant experience.

**Value for Money:** The course offers significant value by providing participants with access to expert instructors, teaching resources (such as digital tools, teaching templates, and practical materials), and networking opportunities. This package ensures that the price reflects the quality of the learning experience, the hands-on approach, and the professional development offered. Participants will gain practical skills, connect with other educators, and receive resources that will support their teaching practice.

This pricing structure reflects the course's aim to deliver high-quality educational content while making it accessible for a diverse range of educators. It also aligns with funding opportunities, ensuring that participants can maximize their Erasmus+ support to engage in this experience.

## **Promotion**

For promotion, the primary channel will be the GTTP network, which has 10,100 contacts, mostly in Europe. This network will be leveraged through email campaigns and newsletters, as NUCLIO already maintains regular communication with its members. Since the

network brings together educators with similar interests, it will be the key platform for promoting the pilot program.

Additionally, digital platforms such as Instagram, LinkedIn, and Facebook will be used to spread the offer. Facebook is a valuable platform due to its high engagement from educators, which can help promote the course in a more organic way.

Finally, the NUCLIO website will serve as the main platform for registration, where all sign-ups will be directed. The website will also provide detailed information about the course, including the theme, objectives, dates, location, duration, cost, target audience, what's included, and a folder with the event schedule (subject to slight changes based on participant feedback). Although the primary audience is within the GTTP network, digital platforms also allow local teachers to share the course with their international contacts.

## **Place**

Considering the time of year and the need for an accessible location near cultural landmarks, the pilot event is suggested to take place in either Cascais or Lisbon, both of which offer unique characteristics that will enrich the participants' experience.

Cascais, located just 30 kilometers from Lisbon's International Airport, is a charming coastal town with access to the sea and proximity to Sintra, renowned for its palaces and scenic landscapes. Known for its peaceful atmosphere, Cascais offers an excellent setting for combining professional development with the opportunity to experience the region's cultural and historical richness.

Lisbon, the capital of Portugal, provides a vibrant atmosphere with rich historical, cultural, and tourist activities. Attractions such as the Belém district, São Jorge Castle, and the traditional Alfama and Baixa neighborhoods offer an immersive cultural experience. Additionally, Lisbon provides easy access to restaurants, shops, and other services.

The event will take place in a pre-arranged hotel, ensuring a unique and convenient experience for participants, with everything available in one location. All the suggested hotels are in prime, accessible locations near major tourist attractions and the airport, ensuring convenience for participants.

Additionally, the conference rooms are well-equipped to accommodate the expected number of attendees, while the hotels' restaurants can offer convenient and high-quality meal options.

### **People**

The success of the course will rely on the expertise and experience of its instructors, as well as the support team dedicated to ensuring a smooth experience for all participants.

**Instructors:** The course will be led by three highly experienced educators: Priscila Doran, Rosa Doran, and Gustavo Rojas, who each bring vast expertise in their respective fields (see Appendix 15).

**Support Team:** A small internal team will manage the event's planning, communications, and participant support. A member of the communications and dissemination team should be responsible for creating clear, accessible communication, including social media updates, email campaigns to the GTTP network, and regular website updates with a dedicated registration and information page.

Additionally, it is suggested that an instructor be assigned to assist with participant queries, providing personalized support and enhancing the learning experience.

**Participants:** The course will bring together educators from various disciplines, creating a dynamic learning environment where participants can exchange best practices in teaching and citizen science. This diversity is crucial to foster collaboration, networking, and the integration of new knowledge and methodologies into their classrooms.

## Process

The success of the course depends on efficient systems and procedures to ensure a seamless participant experience from enrollment to completion.

**Enrollment Process:** To ensure a smooth enrollment, the process should be clear, user-friendly, and simple. Feedback from a Romanian educator highlighted time spent searching for information and filling out forms as a major cost. To avoid these issues, the enrollment process should include clear instructions, a simple form, and easy-to-access information from the start. The suggested course schedule is also straightforward, providing a full overview of the activities and times (see Appendix 16).

**Customer Experience:** Continuous support will be provided before, during, and after the course. A dedicated team member might assist with enrollment, technical support, and any other participant queries. This person should ensure smooth coordination and be available for assistance throughout the course. Feedback can be actively monitored, with participants encouraged to complete a brief daily survey to provide insights into the course content and logistics. This allows for real-time adjustments to meet participants' expectations.

**Evaluation and Feedback:** To further improve the course and inform future editions, the evaluation process will consist of two stages:

**Pre-course evaluation** will gather participants' expectations and areas of interest, tailoring the course to their needs.

**Post-course evaluation** will provide feedback on the overall experience, highlighting successes and areas for improvement. Additionally, daily feedback will help adjust content dynamically.

This two-stage approach fosters continuous improvement. This two-stage evaluation, combined with the daily feedback, ensures that course content evolves based on real-time insights and participant needs, fostering continuous improvement for future editions.

**Certification:** Participants will receive a certificate of participation. The survey revealed that 57% of respondents believe that the Europass Mobility Certificate is either essential or very important. This certificate recognizes the skills developed during the course, including job-related, language, digital, organizational, and communication skills, enhancing future career opportunities (European Commission, n.d.). This certificate is not offered by all summer school providers, making this a distinctive feature of NUCLIO's course.

To obtain the Europass Mobility Certificate, participants must request their sending partner (i.e., the institution or school that is organizing their participation in the course) to register with the National Europass Centre in their home country. The sending partner will then work in collaboration with the host organization (NUCLIO) to complete the necessary documentation. Once the course is completed, participants will receive their Europass Mobility Certificate.

**Accommodation and Transport:** Pre-arranged accommodation can be provided to help with logistical coordination and ensure that participants are housed at the same location as the course venue, simplifying logistics and enhancing the overall participant experience.

Moreover, nearly 36% of survey respondents mentioned that transfers from the hotel would be helpful. To meet this need, a partnership with a local transport company, for instance Great Tours in Lisbon can offer affordable and flexible transport options (see Appendix 17). Group transport can further reduce costs, ensuring comfort and convenience for all participants.

### **Physical Evidence**

Physical Evidence refers to tangible elements that reinforce the course's credibility and quality, ensuring a lasting positive impression on participants. Key components include:

**Course Materials:** All course materials, including slides, PDFs, and interactive resources, should be visually appealing, well-organized, and professionally designed to reflect the high standards of the course.

**Certificates:** A high-quality participation certificate validates the skills gained and serves as a professional credential for platforms such as LinkedIn. The design should incorporate NUCLIO's visual identity.

**Welcome Kits:** A virtual Welcome Kit, sent prior to the course, includes important information such as the course schedule, local maps, and guides to nearby attractions and restaurants. This helps participants prepare for the course and familiarize themselves with the area.

**Physical Environment:** Hotels in Cascais and Lisbon have been selected based on comfort, services, and proximity to the course venue. They offer features as breakfast, meeting rooms, and on-site restaurants, catering to various preferences and budgets (see Appendix 18).

**Access to Online Resources:** After the course, participants can engage with online communities (e.g., Microsoft Teams or Facebook) for ongoing discussions, resource sharing, and collaboration. NUCLIO can periodically interact with these communities to gather feedback and enhance future courses.

These physical and digital resources ensure participants feel supported and connected, both during and after the course, contributing to their continued professional development.

## **6.4 Implementation Plan**

This implementation plan outlines the key activities and timeline for the successful preparation and execution of the International Summer Course. Designed to align with the Erasmus+ funding cycle, the plan ensures accessibility for participants while considering NUCLIO's limited team size and ongoing project commitments. The dates are estimated based on the timeline provided for the 2025 Erasmus+ calls, ensuring participants' institutions can apply for funding by the February 2026 deadlines for Key Action 1: Individual Mobility (European Commission, 2024).

The **planning phase**, scheduled from January to June 2025, focuses on course design and logistical arrangements. During this stage, trainers are expected to collaborate to develop a comprehensive curriculum that incorporates citizen science and interdisciplinary methodologies, ensuring the course achieves its objectives. Alongside this, NUCLIO is advised to prepare a digital Welcome Kit to guide participants with essential information, including the course schedule, maps, and local recommendations. Accommodation options must also be finalized during this phase through negotiations to guarantee seamless and comfortable arrangements for attendees.

The **marketing and promotion phase** is planned to take place between April and August 2025. To maximize outreach, NUCLIO could leverage its GTTP network, featuring regular updates about the course in monthly newsletters. Simultaneously, the organization's website is recommended to include detailed course information and an integrated registration system. Social media platforms like Facebook, Instagram, and LinkedIn may also serve as additional channels for promotion, with engaging posts highlighting key aspects such as Erasmus+ funding opportunities and registration deadlines.

**Participant engagement** begins in August 2025 and extends to February 2026. During this period, NUCLIO is encouraged to distribute a pre-course survey to gather insights into participants' preferences and expectations. These inputs would guide adjustments to the course content, ensuring it is tailored to the specific needs of the audience.

From January to June 2026, **logistical arrangements** are set to be finalized, including the establishment of a partnership with a local transportation company to facilitate airport transfers. While participants are responsible for coordinating their transfers directly, NUCLIO could provide detailed guidance to streamline this process and ensure accessibility.

The **pilot phase**, scheduled for July or August 2026, is designed to span five days and include a mix of lectures, workshops, and group activities aimed at fostering active engagement

and hands-on learning. Daily feedback from participants would be collected through short surveys, enabling facilitators to make real-time adjustments to enhance the learning experience.

Finally, the **monitoring and evaluation phase** would begin in August 2026 and continue through August 2027. Participants are expected to complete a post-course evaluation survey, providing feedback on the course’s content, delivery, and overall impact. In addition, NUCLIO is advised to establish online communities on platforms like Microsoft Teams or Facebook to maintain engagement, foster discussions, and share resources post-event. These communities are intended to serve as a space for continued collaboration and knowledge exchange among participants.

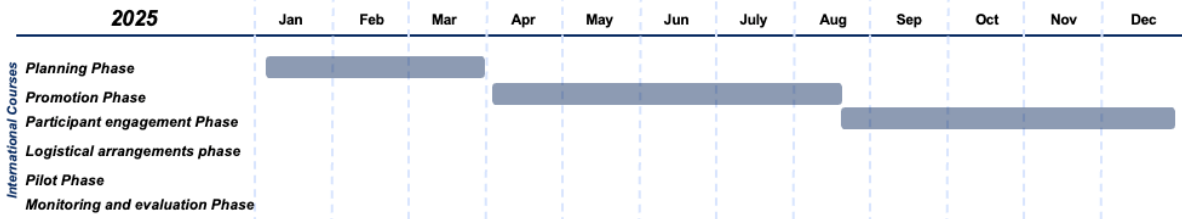


Figure 19 – Implementation Plan International Courses 2025

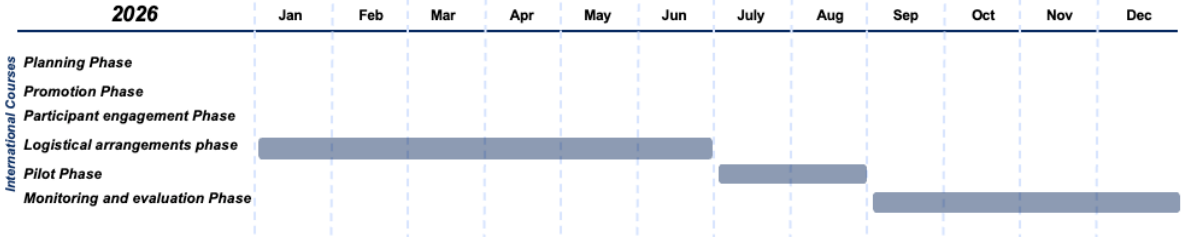


Figure 20 – Implementation Plan International Courses 2026

**8. Final Recommendations and Conclusions**

Following the three previous chapters with the in-depth research and analysis of the potential sustainability of the Training Centre’s offer restructuring and expansion to new segments, the closing chapter will compile our aggregated curricular offer, and implementation plan, together with the main recommendations and conclusions to our thesis project.

## **Final recommendations**

A vast array of recommendations and changes that we believe attain significant value to the Training Centre were made throughout the project, ultimately leading to the financial sustainability of the business unit and reduction of the overall preponderance of European Funds to NUCLIO.

As a starting point, a comprehensive academic training offer calendar of the Training Centre BU (Figure 22) was reorganized, gathering suggestions of course dates to professors, principals, and international segments, to guarantee that seasonality of revenues, with higher course incidence from October to May, no longer occurs and that resources allocation is efficient, no longer over allocation of human resources during concentrated seasons of the year.

Ultimately this maximization of resources allowed us to increase the number of courses delivered and people impacted, generating not only a higher revenue potential but also a higher social impact.

Secondly, we designed tailored premium features for every course segment to increase the aggregate value of the training offer and propel the monetization of the courses, consisting of mentoring support for the implementation in practice.

Moreover, aligning training offerings with available funding is essential to boost demand, equally important is the dissemination of funding information on the course website. For Erasmus+ KA1 funding, training programs and funding details must be announced a year in advance to meet EU application deadlines.

We also recommended a B-learning lecturing format for the training courses to maintain the human experience and network opportunities existing in the presence format while facilitating the mobility and time management of the classes of occupied professionals targeted by the research indicated to be target groups' preferences.

We also firmly believe that a multi-channel marketing strategy and partnerships with target groups’ associations work as an extraordinary promotion channel, together with the investment in a new optimized website with payment methods featured, would benefit immensely the awareness and consumers buying journey more user-friendly for the training center.

Finally, to guarantee a smooth implementation process a fusion of every individual segment implementation plan was elaborated (see Appendix 35 and 36) to obtain alignment in the team priorities and different segment phases synergies, to guarantee optimization of resources and cope with the proposed offer for the academic year’s 2025/2026.

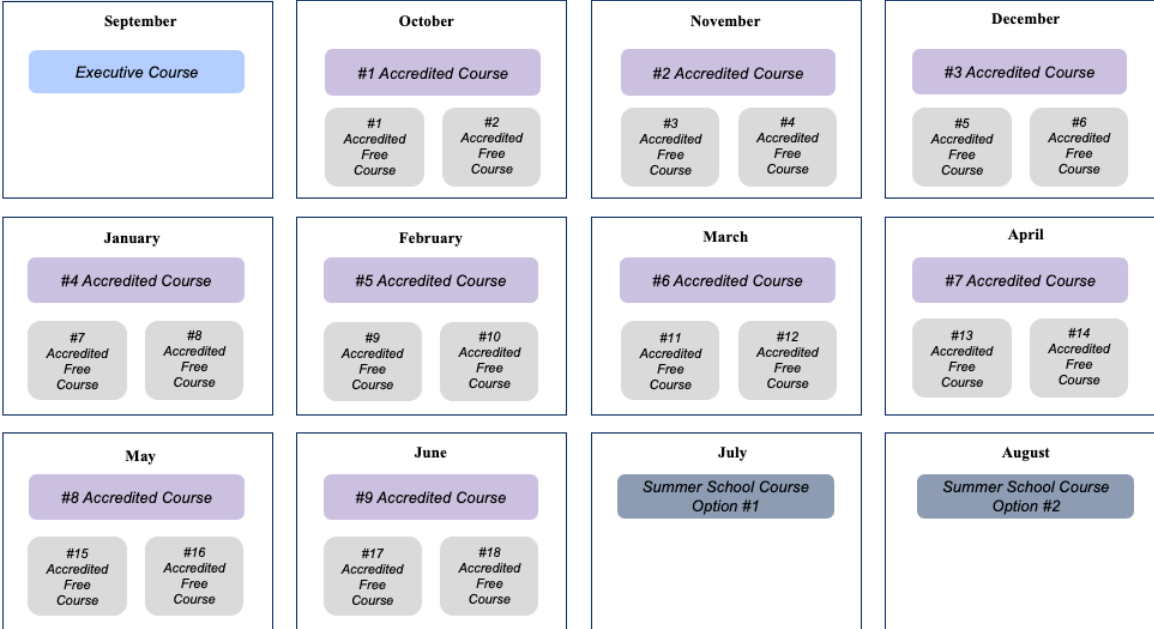


Figure 26 – Training Center BU Calendar

**Conclusions**

Building on the points discussed, the transition towards a hybrid organizational model emerges as the solution to NUCLIO's challenge of reducing dependency on EU funding. The proposed diversification of revenue streams for the Training Center BU demonstrates significant potential to achieve greater sustainability and long-term stability.

In alignment with this strategy, CFA introduced a hybrid model combining premium paid courses with free courses, ensuring accessibility while supporting financial sustainability. The executive pilot course presents the strongest potential, if operating above 83% capacity allows NUCLIO to cover costs and offset losses from other services. The possibility to expand to 2 annual executive courses could fully fund free offerings, achieving financial self-sufficiency. While international summer schools offer potential at over 88% capacity, their uncertain demand may warrant discontinuation if they fail to align with financial objectives.

In conclusion, in 2030, in the base case, the Training Centre is expected to reduce its dependency on EU subsidies to 28%. Moreover, in the more optimistic scenario, leveraged by the potential success of the pilot courses, this BU is expected to become 100% independent from external funding, and even generate surplus profits.

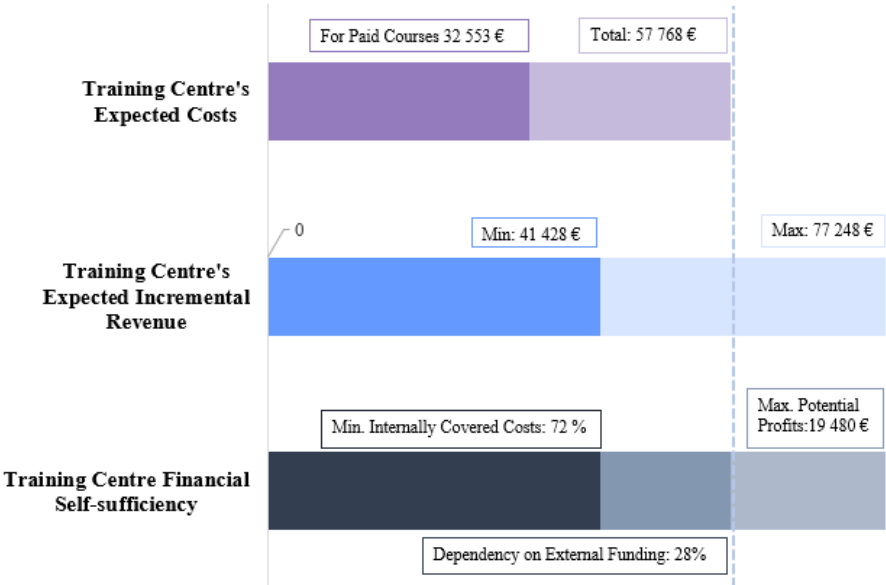


Figure 27 – Training Center BU Potential Financial Impact

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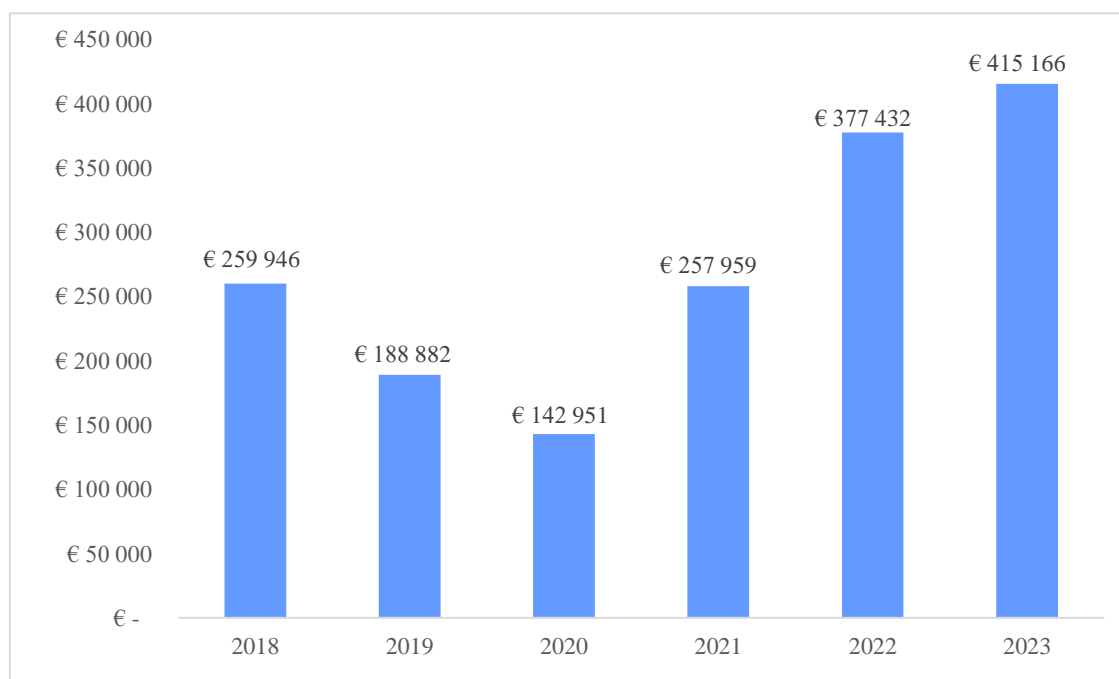
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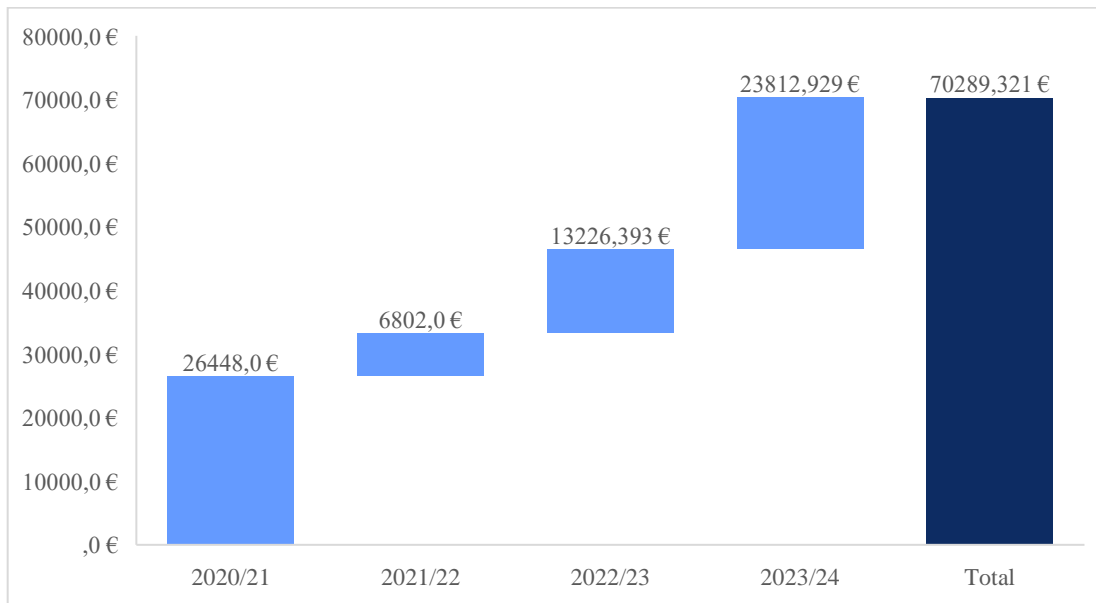
**APPENDIX 1 - INTERNATIONAL COURSES OFFERED THROUGH NUCLIO'S PARTNERSHIPS**

	<b>“Conference”</b>	<b>“Summer School”</b>	<b>“Assembly”</b>
<b>Duration</b>	4/5 days	5/6 days	8/9 days
<b>Method</b>	Workshops and presentations	Lectures, workshops and field trips	Lesson and scientific update
<b>Format</b>	Hybrid	Hybrid/Online	Face-to-face
<b>Price</b>	Not applicable	100€ (national) 400€ (international) 10€ (online)	Not applicable

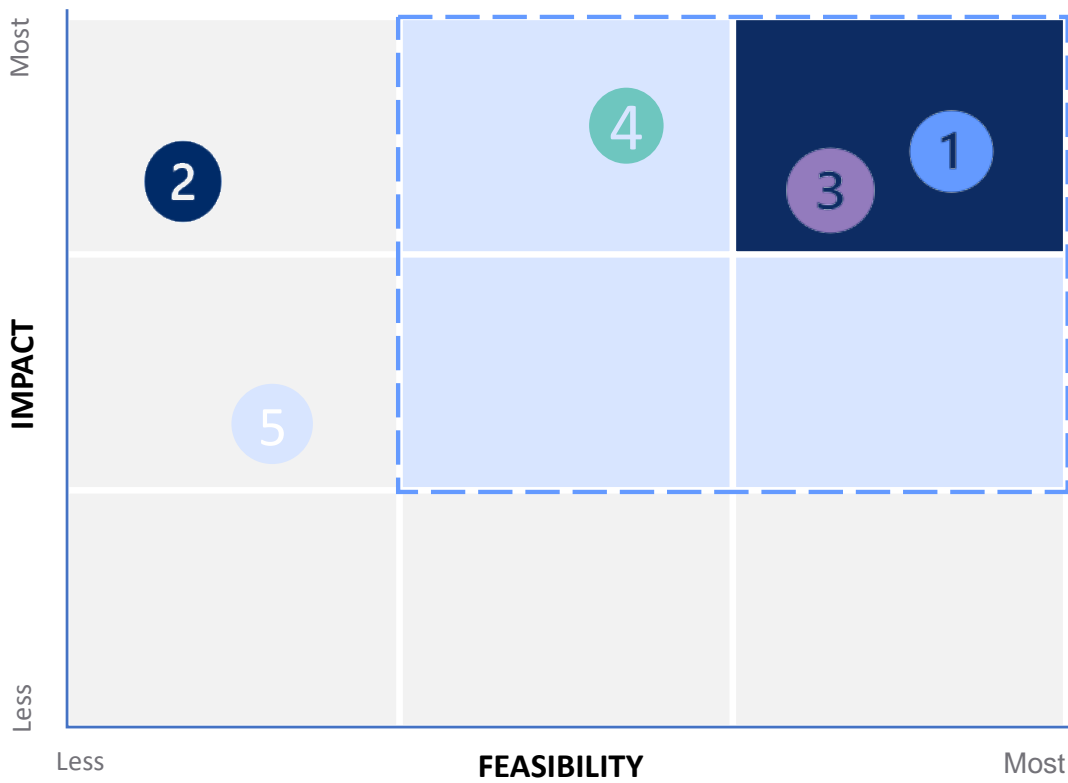
**APPENDIX 2 – CASH POSITION**



### APPENDIX 3 – CFA TOTAL COSTS



### APPENDIX 4 – DECISION MATRIX



## APPENDIX 10 – INTERNATIONAL SEGMENT: SUMMER SCHOOL BENCHMARK

Provider	Country	Duration	Fees	Examples of Past and Active Course Themes	Target
ESIA	Greece	6 days	480€ (eligible for funding through the Erasmus+ Programme)	Sustainability STEM Astronomy	School heads Teachers of primary, secondary, middle and high school
European Teachers Academy	Poland	6 days	560€ (eligible for funding through the Erasmus+ Programme)	Technology Teaching practices	Teachers at any levels and at any institutions
Learning Together	Portugal (Porto, Lisbon, Algarve, Madeira)	6 days	Ranging from 480€ to 580€ (eligible for funding through the Erasmus+ Programme)	STEM Digital Culture and Inclusion Soft Skills	Educational professionals (teachers, trainers, educational and career counsellors, school psychologists, headmasters, school administrators, and staff, etc) Adult education schools, higher education institutions, and NGOs.
Erasmus Learning Academy	Italy and Portugal (Porto)	7 days	Ranging from 1200€ to 1400€ (eligible for funding through the Erasmus+ Programme)	Soft Skills Teaching Practices Technology Diversity and Inclusion	Teachers, trainers, headmasters and other education staff
Primera Courses	Diverse european countries (mainly in Slovenia,	6 days	500€ (eligible for funding through the Erasmus+ Programme) or 620€ to include cultural and networking	Inclusion and diversity STEM	Teacher at diverse levels

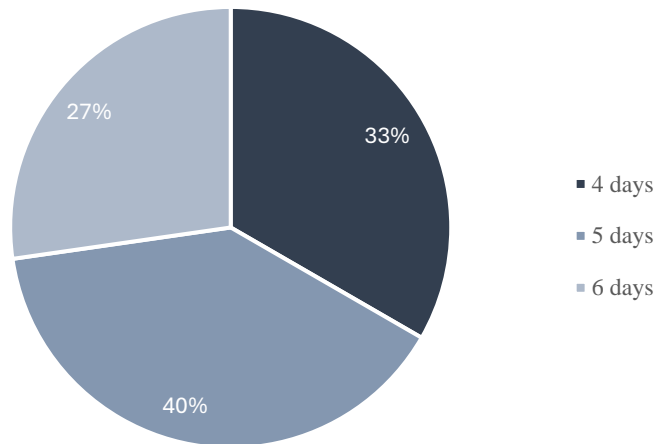
## APPENDIX 11 – INTERNATIONAL SEGMENT: SUMMER SCHOOL ADDITIONAL

### FEATURES BENCHMARK

Provider	Offers highlights	Additional services	Certification	Customization
ESIA	Seminars and workshops	Arrangement with a all inclusive 4 star hotel sea-side (Per person in SINGLE: 138 €/per night Per person in DOUBLE: 95 €/per night)  Optional tours and excursions 90€ - 120€ per person	Certificate of Attendance	n/a
	Materials and equipments needed			
	Social programs and excursions			
European Teachers Academy	Teaching materials / Course methodology for future implementation in their school	n/a	n/a	n/a
	Social programmes			
	Welcome dinner			
	Guided sightseeing			
Learning Together	Welcome kit	n/a	Certificate of Attendance	Possibilitate to ask for a topic to be covered
	Social and cultural activities			
	Daily coffee break			
Erasmus Learning Academy	Accommodation in single room	Few courses include extra services and activities having a different pricing option,	Certificate of Attendance, and, if requested, Europass Mobility Certificate	Upon request it can be organized longer or shorter versions of the courses
	2 coffee breaks per day			
	Walking tour in the venue's city			
	A sum-up dissemination video.			
	In some cities, it also includes all lunches or breakfasts			
Primera Courses	Coffee breaks	n/a	Certificate of attendance and Europass Mobility Certificate	Professors can fill a forms and help to plan the sessions
	Travelling costs for half-day excursion			
	Learning materials and session summaries			

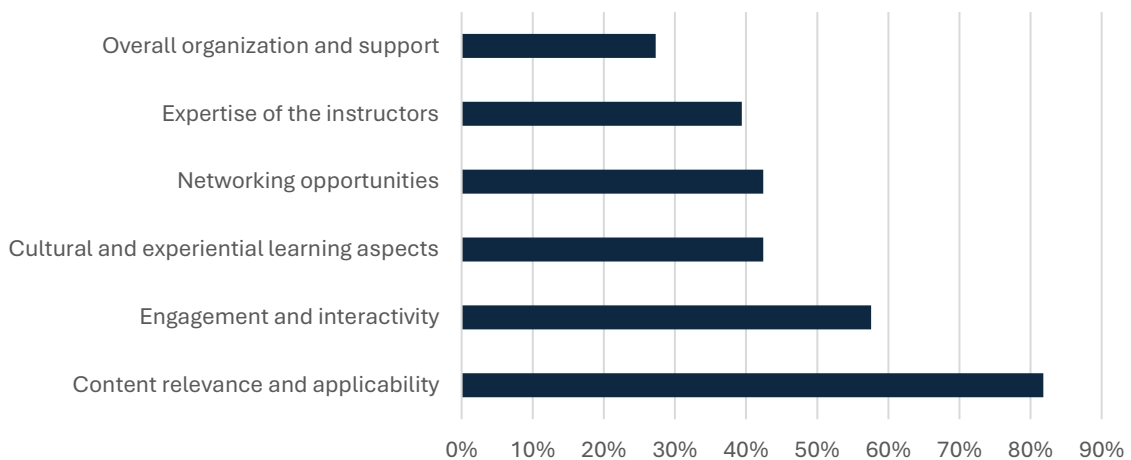
## APPENDIX 12 - PREFERRED INTERNATIONAL SUMMER COURSE DURATION

What would be the ideal duration for a summer course for you (excluding travel time)?



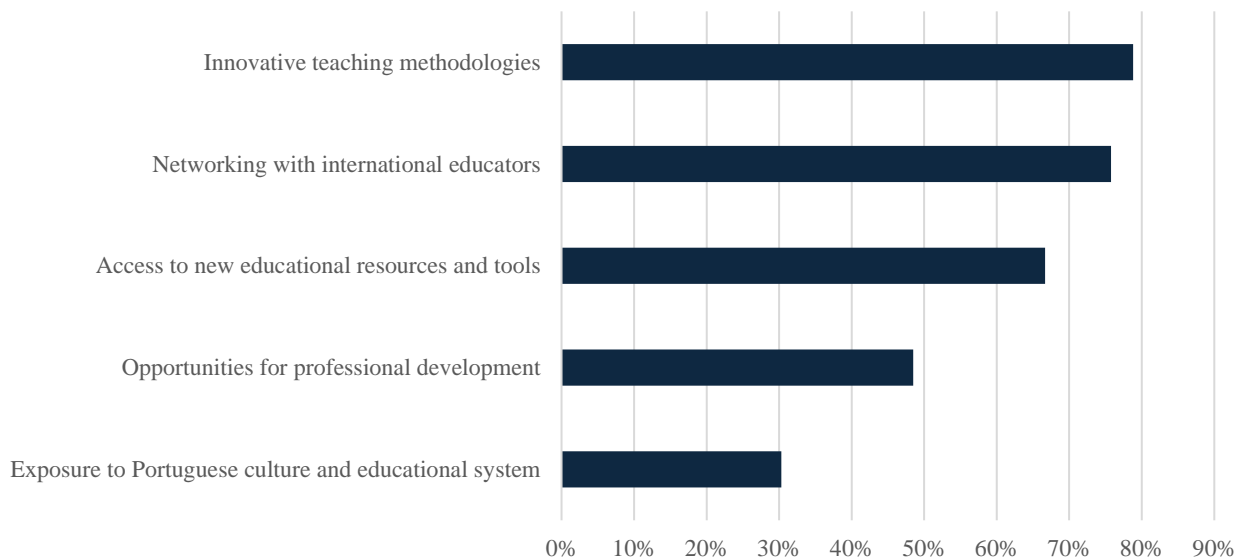
## APPENDIX 13 – CRITERIA OF EVALUATION: INTERNATIONAL SUMMER COURSE

Imagine you have just completed your International Summer Course by NUCLIO in Portugal. What criteria would you use to evaluate the quality of the course?



## APPENDIX 14 - EXPECTED BENEFITS OF THE INTERNATIONAL SUMMER SCHOOLS

Imagine that NUCLIO is offering a summer course in Portugal. Considering the following options, what are the top 3 benefits most important to your personal needs?



**APPENDIX 15 – EDUCATORS PROFILES AND EXPERTISE FOR INTERNATIONAL SUMMER SCHOOL COURSE**

<p align="center">Priscila Doran</p>	<p>Priscila holds a post-graduate degree in Psychology of Education and a MSc in Human Biology and Environment. She is a certified teacher trainer in Portugal, specializing in Educational Psychology, Biology, and Environmental Sciences. As Vice-President of NUCLIO, she leads projects focused on educational innovation and sustainability, working to develop teaching methods that promote equity and student development.</p>
<p align="center">Rosa Doran</p>	<p>Rosa Doran has a PhD in Science Education from the University of Coimbra and has a solid career in scientific research and education. She is the president of NUCLIO and holds leadership positions in several international initiatives, such as president of the Galileo Teacher Training Program. Additionally, she is president of the Education Panel of COSPAR (Committee on Space Research) and co-chair of the Portuguese Language Office of Astronomy for Development, part of the International Astronomical Union (IAU). These roles reflect her central position in advancing global science education.</p>
<p align="center">Gustavo Rojas</p>	<p>Gustavo holds a PhD in Astrophysics and has extensive experience in both research and education. He has worked as a project coordinator at NUCLIO since 2019, managing Erasmus+ projects focused on science education. He has served in various international roles, including as Deputy Chair of the COSPAR Panel on Education and a member of the International Olympiad on Astronomy and Astrophysics.</p>

**APPENDIX 16 – SUGGESTED SCHEDULE FOR THE INTERNATIONAL SUMMER SCHOOL COURSE**

<b>SUNDAY</b>	<b>Participants Arrival</b>
<b>MONDAY</b>	<p>09:15 - 09:30 Ice breaker Activity            09:30 - 10:00 Welcome            10:00 - 11:00 Introduction to the Project  <b>COFFEE BREAK</b>            11:30 – 12:30 Content Lecture  <b>LUNCH BREAK</b>            14:30 – 15:30 Hands-on session            15:30 – 15:45 Daily Feedback Session            15:45 – 20:00 Short Social/Cultural Activity</p>
<b>TUESDAY</b>	<p>09:15 - 09:30 Warm-up            09:30 - 10:00 Content Lecture            10:00 - 11:00 Hands-on session  <b>COFFEE BREAK</b>            11:30 – 13:00 Hands-on session  <b>LUNCH BREAK</b>            15:00 – 17:00 Hands-on session            17:00 – 17:15 Daily Feedback Session</p>
<b>WEDNESDAY</b>	<p>09:15 - 09:30 Warm-up            09:30 - 10:00 Content Lecture            10:00 - 11:00 Hands-on session  <b>COFFEE BREAK</b>            11:30 – 13:00 Hands-on session            13:00 – 13:15 Daily Feedback Session  <b>LUNCH BREAK</b>            15:00 – 19:00 Social/Cultural Activity</p>
<b>THURSDAY</b>	<p>09:15 - 09:30 Warm-up            09:30 - 11:00 Hands-on session  <b>COFFEE BREAK</b>            11:30 – 13:00 Hands-on session  <b>LUNCH BREAK</b>            15:00 – 17:00 Hands-on session            17:00 – 17:15 Daily Feedback Session            20:00 Farewell Dinner (Fado)</p>
<b>FRIDAY</b>	<p>09:15 – 11:15 Participants ‘presentation            11:15 -12:00 Course Feedback Questionnaire</p>
	<b>Participants’ Departure</b>

**APPENDIX 17 – GREAT TOURS SERVICES PRICES IN 2024**

<b>TRANFERS</b>	<b>1-4 PEOPLE (€)</b>	<b>5-8 PEOPLE (€)</b>
<b>Airport - Lisbon</b>	<b>60 €</b>	<b>70 €</b>
<b>Airport - Cascais</b>	<b>80 €</b>	<b>90 €</b>
<b>Lisbon - Airport</b>	<b>50 €</b>	<b>60 €</b>
<b>Cascais - Airport</b>	<b>70 €</b>	<b>80 €</b>

**APPENDIX 18 – INTERNATIONAL SEGMENT: HOTELS BENCHMARK**

<b>HOTEL</b>	<b>CITY</b>	<b>DOUBLE ROOM (PRICE PER PERSON)</b>	<b>BREAKFAST INCLUDED</b>	<b>MEETING ROOMS</b>	<b>RESTAURANTS</b>	<b>ADDITIONAL INFORMATION</b>
<b>Grande Real Villa Itália</b>	Cascais	250 EUR	YES	YES	-	Meeting package includes rooms rental, 2 coffee breaks, lunch and water for 95 EUR/day
<b>Hotel Baia</b>	Cascais	118,88 EUR	YES	YES	-	-
<b>Pestana</b>	Cascais	141 EUR	YES	YES	-	-
<b>H10 Duque de Loulé</b>	Lisbon	125 EUR	YES	YES	Buffet: 35 EUR + drink	-
<b>InterContinental</b>	Lisbon	134 EUR	YES	YES	Executive Lunch/ Menu: 26 EUR	-

**APPENDIX 19 – SUGGESTED SOCIAL ACTIVITIES FOR INTERNATIONAL  
SUMMER SCHOOL**

**LISBON**

**Belém Tower**

The Belém Tower is a recommended historical site in Lisbon, originally built as a fortress in the 16th century. It served as a defensive structure and a ceremonial gateway for ships arriving in the city. The tower is a key symbol of Portugal's maritime heritage and an example of Manueline architecture.

**Jerónimos Monastery**

The Jerónimos Monastery is a suggested UNESCO World Heritage Site in Lisbon, constructed to celebrate Vasco da Gama's voyage to India. The monastery is a prominent example of Manueline architecture, and a cultural landmark tied to Portugal's Age of Exploration.

**Alfama**

Alfama is a recommended neighborhood to explore Lisbon's history and culture. Known for its narrow streets and historic character, it is one of the city's oldest areas. It provides an authentic perspective on Lisbon's urban development and cultural traditions, including Fado music.

**São Jorge Castle**

São Jorge Castle is a suggested medieval fortress overlooking Lisbon. Dating back to the 11th century, it has been a royal residence and military outpost. It is a key site for understanding Lisbon's medieval history and urban landscape.

**SINTRA**

**Quinta da Regaleira**

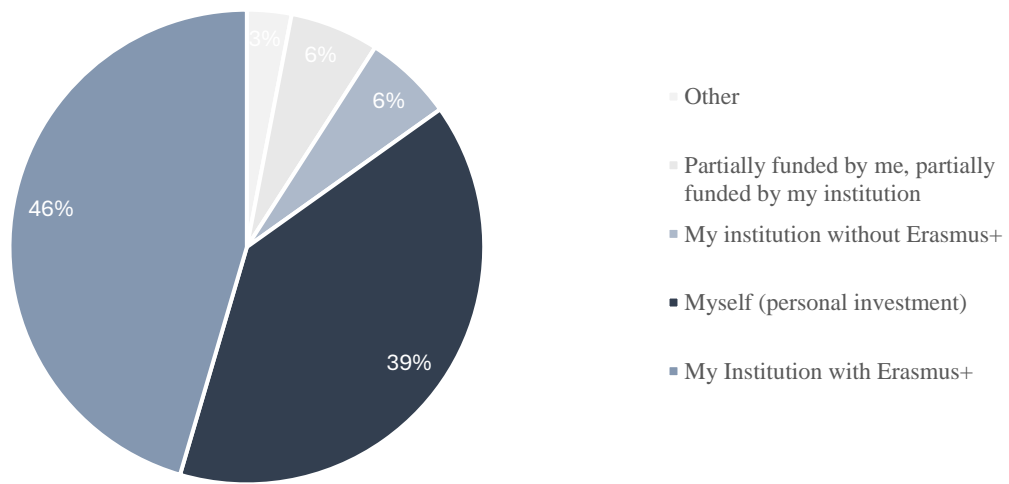
Quinta da Regaleira is a recommended estate in Sintra, part of a UNESCO World Heritage Site. It is notable for its romantic architecture, extensive gardens, and the Initiation Well, which combines symbolic and architectural features from various historical influences.

**Cabo da Roca**

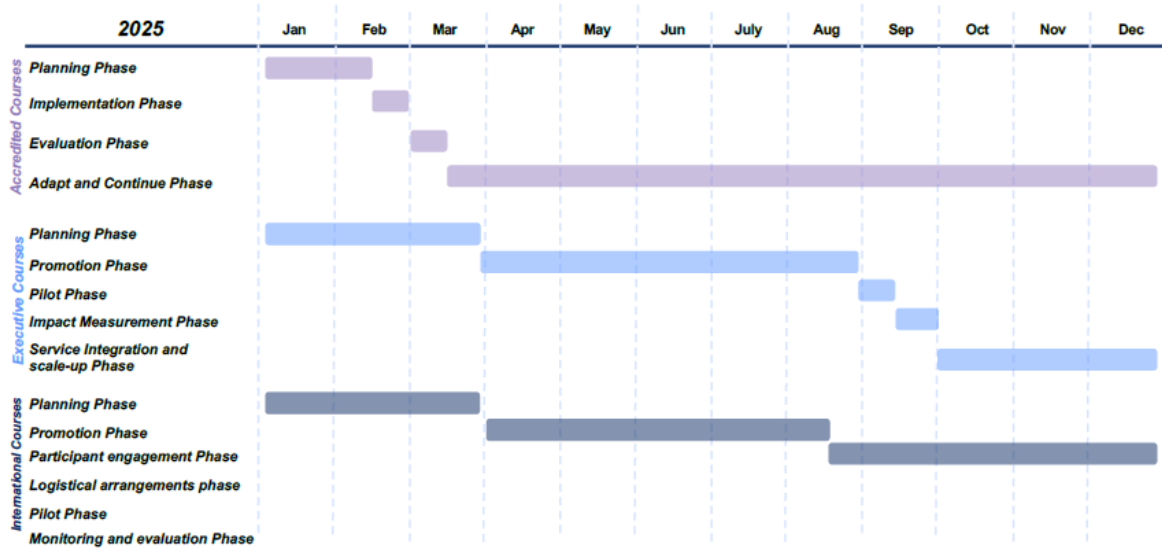
Cabo da Roca is a suggested geographic point in Sintra, marking the westernmost location of mainland Europe. Historically significant during the Age of Exploration, it is a site of natural and geographic interest, offering views of the Atlantic Ocean.

## APPENDIX 20 – PARTICIPANTS’ AVAILABLE FUNDING TO COVER INTERNATIONAL SUMMER SCHOOL COURSE

How would you likely cover the cost for participating in the course?



## APPENDIX 35 – TRAINING CENTER IMPLEMENTATION PLAN



## APPENDIX 36 – TRAINING CENTER IMPLEMENTATION PLAN

