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AMUT SOCIAL IMPACT FIELD LAB,
PROMOTING INTERGENERATIONALITY AT CASA POUSIO:
IS CASA POUSIO FINANCIALLY VIABLE?

NUNO SÉRGIO CAMELO SIMÕES

Work project carried out under the supervision of:

José Miguel Pita

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Abstract

AMUT's mission is to foster the well-being of individuals by enhancing health and overall happiness. In response to the pressing challenges of housing affordability and social isolation in Portugal, *Casa Pousio*'s project emerged. It goes beyond typical housing, aiming to create a unique community where different generations collaborate, promoting intergenerationality. It seeks to revolutionise living, becoming Portugal's first Blue Zone – a community where residents enjoy longer, healthier lives. This analysis explores potential activities for *Casa Pousio*'s communal spaces, encouraging intergenerational interactions and knowledge exchange, and assesses the project's financial viability.

Keywords

Adolescents, Anxiety, Blue Zones, Depression, Financial Sustainability, Financial Viability Analysis, Intergenerationality, Longevity, Mental Health, Mental Illness, Physical Health, Seniors, Social Health, Social Impact Measurement, Social Impact, University Students, Well-being, Young Adults.

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Abbreviations

AMUT: *Associação Mutualista dos Trabalhadores da Câmara Municipal de Gondomar*

BZ: *Blue Zone*

CAGR: *Compound Annual Growth Rate*

Caixa de Providência: *Caixa de Providência da Câmara Municipal de Gondomar e Serviços Municipalizados*

EBITDA: *Earnings Before Interest, Taxes, Depreciation and Amortisation*

ELI: *Extreme Longevity Index*

Euribor: *Euro Interbank Offered Rate*

IHRU: *Instituto da Habitação e da Reabilitação Urbana*

IP: *Intergenerational Programme*

IPSS: *Instituição Particular de Solidariedade Social*

IRR: *Internal Rate of Return*

KPI: *Key Performance Indicator*

LE: *Life Expectancy*

PAA: *Programa de Arrendamento Acessível*

PRR: *Plano de Recuperação e Resiliência*

Sqm: *Square Meters*

ToC: *Theory of Change*

TRCB: *Taxa de Referência para Cálculo de Bonificações*

UMM: *União Mutualista do Montijo*

USA: *United States of America*

VRA: *Valor de Referência de Arrendamento*

WHO: *World Health Organization*

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0. Introduction

Portugal is facing a housing affordability crisis, marked by rising house prices that are not accompanied by an increase in citizens' incomes. This situation is more severe in metropolitan areas, where the financial effort required to purchase or rent housing is greater.

The soaring house prices and construction land costs far outpace wage growth, making housing unaffordable for numerous Portuguese families.

Additionally, individuals at various life stages, whether married or single, employed or unemployed, living in rural or urban areas, can suffer from social isolation, which has been known to catalyse feelings of loneliness.

Social isolation and loneliness are influenced by identifiable risk factors, including age, disability, mental illness, and poverty, each contributing significantly to the heightened susceptibility of individuals to these conditions.

The repercussions of the housing crisis, coupled with the aggravation of factors contributing to social isolation and loneliness, have an inherent impact on individuals' well-being which cannot go unnoticed and should be addressed.

Associação Mutualista dos Trabalhadores da Câmara Municipal de Gondomar (AMUT) has found itself in the optimal strategic position to present a solution to these challenges.

With a newfound investment opportunity, AMUT can develop a new groundbreaking project in Portugal beyond typical housing, aspiring to create a unique community where different generations collaborate, fostering intergenerational connections. This initiative aims to revolutionise living, becoming Portugal's first Blue Zone (BZ) – a community where residents enjoy longer, healthier lives.

1. Context

1.1. Overview

1.1.1. History of AMUT

In 1963, Portuguese national legislation granted city councils the authority to establish social and cultural initiatives aimed at benefiting their employees. In November, during a Gondomar City Council meeting, the establishment of an institution with precise objectives was endorsed. From that moment forward, this institution was tasked with four key objectives: medical and medication assistance, with the recipients contributing a percentage of the costs; subsidies for residence to numerous family clusters to improve housing conditions; providing allowances to widows in that state; and maintaining records of the number of children studying and offering subsidies when showcasing academic achievements (AMUT 2023b).

In October of the subsequent year, the proposal for establishing *Caixa de Providência da Câmara Municipal de Gondomar e Serviços Municipalizados (Caixa de Providência)* was formally presented. Afterwards, on October 22nd, services were expanded to include the municipalised services of electricity and water.

In 1975 and 1992, two additional regulations were sanctioned, leading to an extension of the services offered by *Caixa de Providência*. Consequently, the institution took on new responsibilities, including income loss allowance and subsidies for funerals and bereavement.

Nonetheless, in 2007, a new legislation was enacted, mandating the discontinuation of public funding for private social protection or healthcare systems. Consequently, *Caixa de Providência* had to suspend its operations. This situation was short-lived, as the Deputy Secretary of Budget clarified the issue in Article 146th, specifying that this provision did not apply to local municipalities, allowing *Caixa de Providência* to resume its activities.

However, the legitimacy of *Caixa de Providência* was brought into question by the Court of Auditors and, in 2010, the City Council suspended the institution's operations again.

In the succeeding year, the enactment of Decree of Law No. 13/2011 facilitated the transfer of funds from city councils to provide social benefits. Seizing this opportunity, the City Council of Gondomar reinstated *Caixa de Providência*. However, during that period, subsidies were significantly reduced, and the condition was set for the institution to transition into a private association.

With the consent of its members, *Caixa de Providência* was transformed into an *Instituição Particular de Solidariedade Social* (IPSS) adopting the name *Associação Mutualista dos Trabalhadores da Câmara Municipal de Gondomar*.

The inception of AMUT in its present form occurred in 2011. On June 27th, a commission was appointed to draft the new Regulation of Benefits, which was approved in December of that year.

In 2012, the governing bodies were elected, establishing regulations and an organisational framework to ensure compliance with the Regulation of Benefits and Principles. This involved introducing the accounting standardisation system, procuring specialised software to facilitate management, forming partnerships with healthcare service providers and other organisations to enhance member benefits, fostering activities to enhance quality of life and well-being, and utilising social media to establish a connection with members, encouraging dialogue and promoting activities.

In April 2015, AMUT inaugurated its new head office, a testament to its evolving trajectory and a space allowing further growth.

In 2016, AMUT opened the AMUT' *Saúde* clinic, which presented an innovative approach to integrative medicine, aligning with the association's ultimate goals. During that year, AMUT achieved recognition through *Direção Geral do Emprego e das Relações no Trabalho*. This certification acknowledged AMUT as a training enterprise, validating the quality of its efforts.

In 2017, AMUT received recognition as an *Instituição Particular de Solidariedade Social Mutualista*.

With the introduction of the new internal regulations, the current operational framework will undergo a thorough review. Previously, municipal workers aged 55 and above could not become AMUT associates, and now, this opportunity will be extended to everyone. New associates will have access to most of the existing benefits and to the health plan, excluding the co-participation on medical expenses.

1.1.2. Social purpose, mission, and vision

AMUT's core mission is to foster the well-being of individuals and their families by enhancing health and overall happiness. This is accomplished by providing health benefits and various social, educational, and solidarity services.

With this mission at its heart, AMUT envisions a future in which health and quality of life are universally accessible and firmly grounded in the principles of solidarity. Its vision revolves around a society where everyone can enjoy good health and a high quality of life, emphasising mutual support and shared responsibility.

AMUT's social mission is underpinned by guiding principles that inform its actions and decisions. It embraces mutualism, a private social protection system designed to offer mutual assistance during times of need or when striving to enhance the living conditions of its members, all driven by voluntary acts of solidarity. Additionally, it upholds social solidarity, advocating the principles of redistribution and reciprocity as the cornerstones of a cooperative and fraternal economy. Its dedication to corporate responsibility ensures the association's sustainability and longevity, as AMUT incorporates social and environmental principles into its objectives and implementation. The association promotes equity, treating everyone ethically and rejecting any form of discrimination. Lastly, AMUT remains committed to continuous

improvement, constantly striving to exceed the expectations and interests of all stakeholders (AMUT 2023c).

1.1.3. Areas of intervention

To achieve its mission, AMUT engages in various facets within the social sector. The organisation provides healthcare services, knowledge-sharing initiatives like training programmes, and a range of other social and solidarity activities. AMUT primarily finances its operations through revenues generated from services, encompassing associates' membership fees, additional activities, and income from AMUT's *Saúde*. Additionally, the organisation receives subsidies from both governmental and private entities.

In the realm of healthcare, AMUT's *Saúde* clinic has firmly established itself as a local benchmark in the field of integrative medicine. Committed to delivering a holistic approach to health, it provides high-quality services that enhance its patients' physical, emotional, and mental well-being. The clinic welcomes everyone and presently operates by leasing medical offices to healthcare professionals.

Within the association's headquarters, AMUT's *Natura* is a store specialised in offering certified, high-quality natural supplements from domestic suppliers at affordable prices. These products encompass vitamins, essential oils, and organic teas. Additionally, the store provides a convenient solution for those prioritising their health through natural products, particularly for preventive purposes.

AMUT's *Ajuda* is a donation initiative designed to assist individuals facing temporary or permanent physical disabilities. To enhance patient autonomy and the quality of care provided, the centre accepts equipment donations such as wheelchairs, adjustable beds, or crutches.

AMUT's *Saber* is the pillar of the organisation dedicated to nurturing knowledge within the community. Through *Encontros de Sabedoria*, AMUT's *Saber* creates an innovative platform

for knowledge exchange, featuring creative gatherings where trainers transform into mentors. AMUT also conducts training programmes in various domains, including computer science, administrative work, and accounting and taxation, with the European Social Fund co-financing. In collaboration with *Instituto de Emprego e Formação Profissional* (IEFP), AMUT provides facilities for vocational training sessions. The association also operates a library – AMUT’s *Biblioteca* – and awards an academic excellence award to high school students. Furthermore, AMUT hosts holiday programmes designed for children and youth – AMUT’Fun.

AMUT’s *Caminhando* primarily aims to improve its participants’ physical and mental well-being, addressing issues such as sedentary lifestyles and social isolation and fostering social interactions and a sense of community. The programme features organised walks and tours in Portugal and Spain, focusing on environmental, cultural, historical, and social dimensions. AMUT’s *Banhos de Floresta*, also known as *shinrin-yoku*, is an example of such events. It is an initiative that fosters contact with nature by involving participants in a forest setting, taking in its atmosphere. Participating in this activity reduces stress and has numerous benefits for one’s health and well-being (AMUT 2023a).

Additionally, AMUT has recently acquired a property in the heart of Gondomar, aiming to offer housing for both the elderly and young individuals dealing with non-severe mental disorders. This marks a new area of intervention for the association.

1.2. Diagnostic

1.2.1. External analysis

1.2.1.1. PESTEL analysis

A PESTEL analysis has been conducted to pinpoint the external macro-environmental factors that can affect AMUT. Understanding these six factors, namely political, economic, social,

technological, environmental, and legal, provides essential insights for informed decision-making in the organisation's future actions.

Political factors, encompassing government funding, regulations, and policies, hold substantial influence over AMUT's operations and the breadth of its services. These factors determine the level of financial support the organisation receives, the compliance obligations it must meet, and the demand for its services. As a non-profit social organisation, AMUT relies on government funding to sustain its programmes and services. Consequently, any alterations in funding levels can profoundly affect AMUT's capacity to deliver its services effectively. The organisation is also subject to various government regulations that can influence its operational processes and clients' experiences. Government policies concerning social issues like poverty, inequality, and healthcare can impact AMUT, as newly implemented policies shape the demand for the organisation's services. Additionally, there is *Plano de Recuperação e Resiliência* (PRR), a recovery plan developed to aid Portugal in rebounding from the economic and social repercussions of the COVID-19 pandemic. The PRR is centred on three core pillars: resilience, climate transition, and digital transition. Under the resilience pillar, the plan encompasses various intervention areas, including housing, which aims to support the public housing stock and renovate homes for low-income families (PRR 2023).

The economic situation in Portugal was already challenging before the COVID-19 pandemic, which has exacerbated the existing difficulties. Portugal now faces elevated costs related to rents, salaries, construction materials, and other expenses. These increases are attributed to several factors, including inflation, disruptions in the supply chain, and heightened demand for goods and services as the economy rebounds from the pandemic. Inflation has significantly affected the purchasing power of the low and middle class in Portugal, potentially leading to increased demand for services like those offered by AMUT, such as healthcare assistance. Furthermore, inflation may diminish the value of AMUT's government funding and donations,

potentially hindering its operational effectiveness. In addition, the challenging economic climate may result in heightened competition from other social organisations for funding and clients, making it more challenging for AMUT to attract and retain them. Moreover, the rising interest rates could increase the cost of borrowing for AMUT, impacting its ability to invest in new projects and expand its operations.

The social landscape in Portugal – particularly demographics and educational levels – can have several implications for AMUT. Firstly, Portugal’s ageing population aligns with AMUT’s ongoing provision of services catering to the elderly, including outdoor activities, healthcare assistance, and social support, indicating potential increased demand in the future. Additionally, the country’s income inequality motivates AMUT to offer various services to low-income families, notably through AMUT’s *Saber* (e.g., job training) and AMUT’s *Caminhando* (e.g., forest walks). Secondly, whilst educational attainment in Portugal has risen, significant disparities persist among different socioeconomic groups, potentially increasing the demand for educational programmes such as literacy and job training initiatives offered by AMUT. The organisation is also influenced by other social factors in Portugal, including close-knit and extended family structures. This incentivises AMUT associates to include their family members as subscribers, creating a robust network.

Technology has played a pivotal role in shaping our society, ushering in what is commonly referred to as the “digital age”. Emerging technologies such as artificial intelligence and telemedicine offer opportunities for AMUT to enhance the efficiency and effectiveness of its services. For example, artificial intelligence can automate tasks like data entry and customer service, allowing staff to allocate their time to more complex responsibilities. Telemedicine can expand healthcare access to patients remotely, reducing costs. However, it may also introduce competition from other social organisations and private companies offering similar services. Furthermore, emerging technologies may require additional skills and training for

AMUT staff. As another rapidly evolving technology, social media presents a powerful tool for AMUT to connect with its target audience. It can be employed to promote services, broaden outreach, share information on social issues and public health, and cultivate client relationships through activities like live Q&A sessions or responding to comments.

Environmental factors, encompassing climate change, pollution, and natural resources, hold the potential to significantly influence AMUT's operations, service demand, costs, and overall service delivery. The availability and pricing of natural resources, including water, energy, and oil, can impact AMUT, particularly since the onset of the COVID-19 pandemic. Fluctuations in prices for these essential resources may increase operational costs, potentially prompting adjustments or alterations in the services offered and their pricing. Additionally, adhering to environmental regulations is integral to AMUT's operations. Compliance may necessitate investments in new equipment or procedural adjustments to align with evolving regulations. Furthermore, the sustainability of AMUT's projects may influence the government funding received. Consequently, AMUT must consider environmental factors when designing and executing its programmes.

AMUT operates within a legal framework encompassing various factors, including employment, consumer protection, antitrust, intellectual property, and data privacy laws. These legal considerations can influence AMUT's operations, services, and client interactions. Employment laws govern the relationship between AMUT and its workforce, dictating compliance with regulations such as minimum wage, overtime, and anti-discrimination laws. AMUT must also adhere to consumer protection laws, safeguarding consumers from unfair and deceptive business practices, spanning advertising, labelling, and sales practices. Lastly, AMUT must adhere to IPSS conditions, necessitating compliance with criteria to be considered a non-profit organisation, including a social mission, management by a board of directors elected by members, transparency, accountability to members and the public, and compliance

with all relevant laws and regulations. These conditions are designed to ensure the responsible and ethical operation of IPSSs.

1.2.1.2. Market landscape

This market analysis is a structured business analysis method that identifies organisations with a mission similar to AMUT's. In today's dynamic business environment, where companies constantly strive for supremacy, this analysis plays a pivotal role in reshaping strategic thinking and fostering the development of strategic competitiveness.

For this analysis, three organisations similar to AMUT have been selected: *União Mutualista Montijo* (UMM), *Benéfica e Previdente*, and *A Beneficência Familiar*.

Initially founded in 1872, *União Mutualista Montijo* is an IPSS actively contributing to social action. Its efforts include enhancing the quality of life for the elderly, developing skills and values among children and teenagers, and providing support in social and healthcare services to the broader community.

União Mutualista Montijo operates in the healthcare sector, offering a clinic accessible to members and non-members and a pharmacy. It runs a long-term care unit called *ACREDITAR*, providing 28 beds for individuals with chronic diseases, varying degrees of dependency, and the need for clinical, continuous, and psychosocial support.

In the education field, it manages *Casa da Criança* and *Centro Infantil António Marques*, catering to children aged four months to six years. These centres offer tailored curricular activities such as visual arts, physical education, musical expression, and extracurricular activities like English and judo.

In elderly care, *União Mutualista Montijo* operates a retirement home, *Lar Montepio*. The day care centre serves 26 people within the same building, providing various services whilst

allowing them to continue living in their homes. The organisation also offers home care services, directly assisting those in need.

Moreover, the association operates two social projects. The community centre focuses on enhancing the quality of life for the community through family support, social-cultural and recreational activities, educational programmes, skills development, and health and well-being promotion. *Casa Abrigo* is a temporary residential unit within the national network for domestic violence victims. It offers essential services such as housing, meals, laundry, and assistance with medication and hygiene products. It also provides specialised support services, including psychosocial, psychological, legal, and counselling assistance, aimed at helping victims and their families pursue their life goals whilst adhering to legal requirements for domestic violence intervention (União Mutualista Montijo 2023).

Benéfica e Previdente – Associação Mutualista, established in 2002, is dedicated to addressing the needs of its members and their families, sometimes playing a complementary role to public services in certain areas. As an IPSS, it continually innovates to meet the evolving needs of its members and the community, encompassing new areas of intervention, such as child and elderly care and social inclusion.

Like *União Mutualista Montijo*, *Benéfica e Previdente* aids children through day care and preschool programmes. It provides essential care for the elderly through its day care centre and home care services for those in need. Notably, *Benéfica e Previdente* operates a community centre, distinguishing itself by providing two city centre flats to integrate homeless individuals for free.

The association features a distinctive social centre dedicated to offering social, recreational, and cultural activities for the elderly and individuals with disabilities, whether their conditions are temporary or permanent.

Furthermore, the organisation operates a clinic with various specialities, including general medicine, ophthalmology, dentistry, gynaecology, dermatology, and orthopaedics.

Membership offers the advantage of receiving discounted rates at the clinic and provides access to *Abrigo da Geira*, a rural retreat near *Parque Nacional Peneda-Gerês*, on birthdays and throughout the year. Members have access to a temporary support residence, a facility designed for the brief rest and recovery of members and their families, irrespective of age, who require assistance meeting their basic needs and expressing a desire for admission (Benéfica e Previdente 2023).

Founded in 1877 in Porto, *A Beneficência Familiar – Associação de Socorros Mútuos*, named initially *Sociedade Fúnebre Familiar de Beneficência*, has consistently provided funeral subsidies for the passing of its members, along with mourning support.

Currently, *A Beneficência Familiar* operates as an IPSS, dedicated to enhancing the well-being of its members and their families through mutual support, social services, and educational initiatives.

The organisation provides educational services through *Universidade Sénior Mutualista*, a senior university that allows members to participate in courses that enrich their knowledge. It extends support to young people through scholarship programmes.

In the realm of healthcare assistance, *A Beneficência Familiar* offers similar services to other institutions, such as *Clínica da Liga Porto e Gaia* and *Farmácia da Liga Porto e Gaia*. It also provides home care services, encompassing essential needs like hygiene, medication administration, meal provision, and accompaniment to medical appointments. However, it distinguishes itself with a unique offering of home doctor services which enable each member to access medical assistance at home around the clock throughout the year, covering three additional family members.

The organisation's distinctive services also include health, home, business, and auto insurance. Furthermore, *A Beneficência Familiar* offers several savings services, including *Mutuália 55+*, an insurance policy that grants a lifelong monthly pension starting at a chosen age (55, 60, 65, or 70). It provides a plan designed to financially safeguard young individuals and unemployed subscribers through a temporary monthly pension (A Beneficência Familiar – Associação de Socorros Mútuos 2023).

1.2.2. SWOT analysis

A SWOT analysis was conducted to comprehend AMUT's internal strengths, weaknesses, and external opportunities and threats. The significance of this analysis lies in its capacity to facilitate more informed and efficient decision-making. It empowers the organisation to pinpoint strategies to promote its growth and sustainability.

Concerning the organisation's strengths, AMUT operates as a social health insurance, covering a significant portion of its associates' healthcare expenses and collaborating with various entities to promote health and offer additional benefits. It actively supports diverse social initiatives in critical areas of human development, particularly health and education, aligning with its core social mission. The organisation holds official recognition as *Entidade Formadora Certificada* by *Direção Geral do Emprego e das Relações no Trabalho*, ensuring the delivery of high-quality training sessions across various domains, including personal development. Moreover, AMUT actively seeks feedback from its associates through surveys, especially regarding AMUT's *Caminhando*'s events. From a financial perspective, AMUT demonstrates sustainability in its activities, with revenues consistently exceeding operational costs, except for AMUT's *Saúde*. Additionally, its well-prepared annual reports facilitate the comprehensive analysis of financial data over different years.

As for AMUT's weaknesses, as an organisation with the aim of reaching all age groups, AMUT faces challenges attracting young associates. In 2022, 63% of the associates were aged 55 and above. From a financial standpoint, the organisation relies heavily on subsidies. The clinic's historical financial deficits must be a primary focus for the organisation to ensure the clinic's sustainability. Furthermore, AMUT lacks a system to measure the impact it generates in the community.

The organisation faces numerous opportunities that could redefine its future trajectory. In an increasingly digital world, where young individuals are developing digital skills from an early age, AMUT can leverage this trend by offering courses and activities that align with younger generations' interests. Using social media for advertising can also be highly effective, given its widespread use as a means of communication.

Over the past decade, Portugal has grappled with a housing crisis driven by foreign investment in Portuguese properties, which has left many Portuguese residents with limited purchasing power. Furthermore, housing poverty affects over 420 thousand people in Portugal (Just a Change 2022). In this context, the centrally located acquired property can be a valuable asset for social housing, providing a home to those in greatest need. To diversify its revenue streams and engage with potential donors, AMUT could consider adopting strategies similar to those of other social organisations, such as Just a Change, by clearly outlining on its website how people can contribute to supporting AMUT's mission. PRR was established with a focus on resilience, which in turn identifies housing as a critical intervention area. Aiming to increase public housing availability and renovate low-income families' residences, AMUT stands to benefit financially from this recovery plan, taking advantage of the newly acquired property.

AMUT confronts potential challenges and external pressures that could hinder its progress and stability. In the health sector, AMUT may face intense competition from other clinics and hospitals, which could pose adversities in attracting many non-associates. Moreover,

healthcare expenses tend to increase with the ageing Portuguese population – a trend reflected in Gondomar’s residents. The convergence of these two factors presents a potential threat to the clinic’s financial sustainability. The inflation rates faced in Europe in the last two years have drastically reduced people’s purchasing power. Consequently, the inhabitants of Gondomar will presumably have less income available to participate in social activities and spend on healthcare. Ultimately, this might compromise AMUT’s capacity to deliver impact. Additionally, construction materials have risen 28% since pre-pandemic levels (Khan 2022), potentially increasing AMUT’s expenses regarding the acquired property.

1.2.3. Financial overview

1.2.3.1. Historical evolution of net income

The historical progression of AMUT’s net income was examined based on data extracted from the annual reports spanning from 2018 to 2022. From the financial analysis of AMUT, it can be concluded that a significant portion of its income is derived from subsidies and a major part of revenues was designated for reimbursing associates’ healthcare expenses.

Over the observed period, the compound annual growth rate (CAGR) for revenues stood at 5.7%. Over the years, revenues derived from two primary sources: sales and services provided, as well as subsidies, donations, and legacies for exploration.

Income from sales and services provided encompass income generated from AMUT’s *Natura*, associates’ quotas, training and tourism activities, and the clinic. The income from associates’ quotas is the primary driver of the income generated from services provided.

The subsidies, donations and legacies for exploration solely encompass subsidies from public and private entities, as donations were non-existent. Subsidies are recognised at fair value, contingent on sufficient assurance that the grant will be received and that AMUT fulfils all requirements to receive it. The notable revenue increase over the period was predominantly

propelled by the subsidy increase, which exhibited a CAGR of 8.2%. Furthermore, in 2022, nearly two-thirds of AMUT's revenues were sourced from public and private entity subsidies, with 75% coming from Gondomar City Council. Sales and services provided constituted 35% of the 2022 revenue stream.

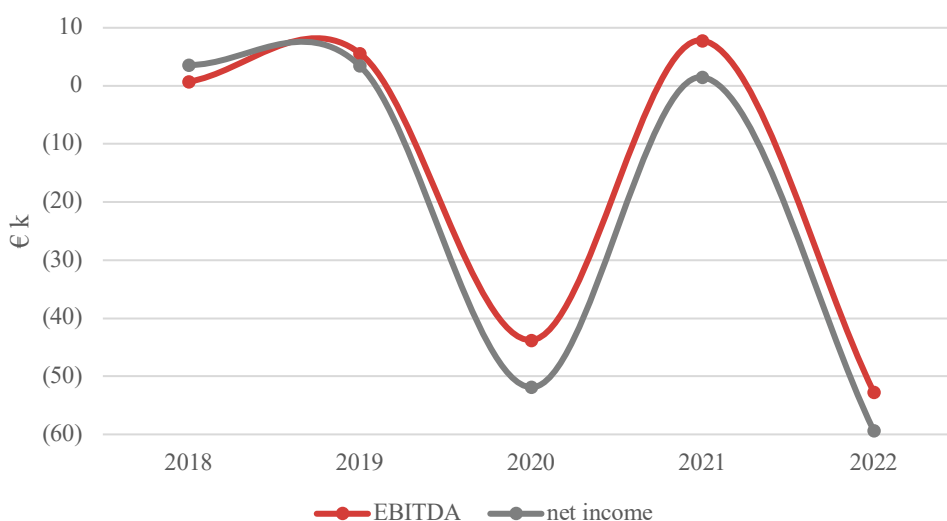
AMUT's operational expenses had an overall CAGR of 7.3%. The primary significant expenses in the past three years were associated with reimbursing associates' healthcare costs, those related to the association's staff, and costs related to supplies and external services.

Costs related to supplies and external services include expenditure on specialised services, fees, materials essential for the association's continuous operation, utilities, rents, and other items. Their proportion relative to total expenses decreased from 72% to 17% over the observed period, reflecting a -25.3% CAGR.

AMUT's personnel expenses mainly cover staff salaries, associated charges, work insurance, and staff training. In 2022, these costs constituted 28% of the total expenses and exhibited a CAGR of 9.9% over the five years.

AMUT also reports an additional account labelled other expenses and losses, which essentially includes costs associated with reimbursing associates' healthcare expenses under the two existing modalities – medication assistance and medical and nursing care. In 2022, other expenses accounted for 55% of the total operating expenses, showing a CAGR of 134.9%. In 2018, these expenses only represented 2%.

Overall, the earnings before interest, taxes, depreciation, and amortisation (EBITDA) exhibited significant volatility over the period, along with its net income (Graph 1).

Graph 1 – AMUT's EBITDA and net income

AMUT reported positive results in 2018, 2019, and 2021, whilst the remaining two years saw negative results. The disparities between EBITDA and net income are predominantly attributed to depreciation, amortisation expenses, and interest received, given the association's exemption from corporate income tax due to its IPSS statute. In 2022, AMUT reported an EBITDA equal to (€52,709.96) and a net income of (€59,351.46). The significant decrease of 4110% in net income relative to the previous year can largely be attributed to the 16% increase in other expenses and the 11% increase in personnel costs. Moreover, AMUT seems to be in a delicate financial situation since the CAGR of operating costs was higher than the revenues' CAGR, meaning AMUT's financial sustainability might be compromised in case this trend persists.

This scenario is exacerbated by the fact that in the first semester of 2023, AMUT's net income decreased 128% compared to the homologous period in the previous year. The main drivers for this decrease were a decline in subsidies and an increase in other expenses and losses.

1.2.3.2. Liquidity analysis

An integral aspect of evaluating a company's financial health is conducting a liquidity analysis. This assessment evaluates a company's capacity to fulfil its short-term obligations through various financial ratios that compare its current assets to current liabilities. Essentially, liquidity

analysis is a crucial tool for financial management, aiding in risk reduction and preventing financial distress. To provide a comprehensive and relevant analysis, AMUT's ratios were compared with those of an IPSS organisation sharing a similar mission and services – UMM.

In 2022, AMUT's current ratio, a metric measuring a company's ability to cover short-term obligations with current assets, stood at 7.6. This implies that the organisation's current assets were 7.6 times greater than its current liabilities, underscoring its robust capacity to meet immediate financial commitments. However, this ratio experienced a 56% decline since 2018 due to a 37% reduction in current assets to €689,165 and a 42% uptick in current liabilities to €91,122 in 2022. The dip in current assets was primarily due to a significant 94% drop in cash reserves, reaching €37,467 in 2022. Meanwhile, the rise in liabilities was driven by a 49% increase in deferrals and a 43% surge in other current liabilities, reaching €37,007 and €45,011, respectively. To provide context, UMM reported a current ratio of 0.9 in 2022, marking a 131% increase since 2018 (Appendix 9).

The quick ratio exhibited consistent values and patterns comparable to the current ratio for AMUT and UMM over the same period. This indicates that AMUT can fulfil its short-term obligations even if it faces challenges selling its inventories (Appendix 10).

The cash ratio assesses a company's capacity to settle short-term debt using its most liquid assets. In 2022, AMUT's cash ratio stood at 0.4, indicating that the organisation can cover around 40% of its short-term obligations with cash and deposits. However, this suggests potential challenges if inventories or less liquid assets cannot be sold promptly. This ratio has plummeted by 96% since 2018, when it was 9.6. In contrast, UMM's cash ratio increased from 0.1 in 2018 to 0.5 in 2022 (Appendix 11).

In 2022, AMUT's net working capital amounted to €598,043, marking a 42% decline from 2018. In contrast, UMM's net working capital in 2022 was (€107,607), reflecting a 91% increase from 2018 (Appendix 12).

Over the past four years, AMUT has experienced a declining trend in its liquidity metrics. In contrast, UMM has slightly improved its liquidity position during the same period. Despite this, it is essential to acknowledge that AMUT maintains a strong liquidity position significantly better than its counterpart in Montijo. However, the steep decrease in cash and deposits since 2018 raises concerns about AMUT's liquidity stability.

1.2.4. Social impact

1.2.4.1. Theory of change

Following the brief financial overview of AMUT, an analysis on its social impact was conducted. For that, the theory of change (ToC) was a valuable tool used to articulate and comprehend how a particular activity is anticipated to result in a specific developmental change (Appendix 13). It is built on existing evidence and constructs a causal analysis of potential outcomes. This ensures that the chosen approach aligns with achieving the intended change (Walker, Mair, and Druckman 2018). Therefore, the ToC was employed to enhance the understanding of AMUT, delve into the problems it seeks to resolve, and establish the potential links to AMUT's presented solutions (Diagram 1).

The first step is to identify the inputs of the various activities promoted by AMUT. These are the capabilities and resources that must be available so that these activities can be conducted. The inputs of AMUT are its full-time employees, the associated professionals, such as doctors and physicians, its facilities, the subsidies from private and governmental entities, the occasional volunteers, and the institutional partners.

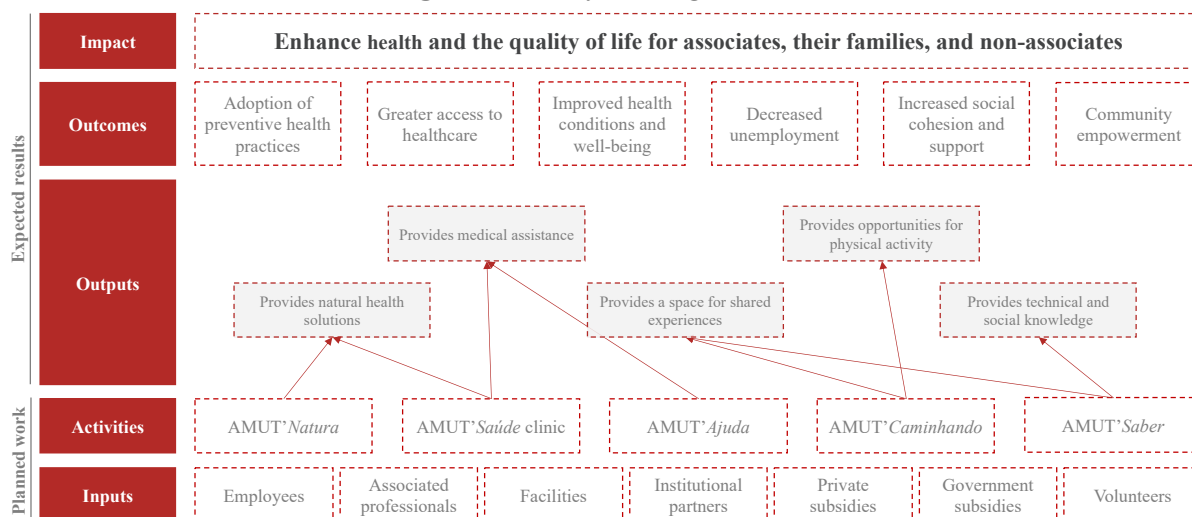
These inputs enable AMUT to conduct its main activities in the core areas of intervention: AMUT's *Saúde* clinic, AMUT's *Ajuda*, AMUT's *Natura*, AMUT's *Caminhando*, and AMUT's *Saber*.

The next stage of the model is identifying the outputs of each activity, which involves assessing all its tangible results. For instance, AMUT'Saúde clinic and AMUT'Ajuda provide medical assistance. AMUT'Saúde clinic and AMUT'Natura offer natural health services and products, respectively. AMUT'Caminhando provides a space for shared experiences and physical activity. AMUT'Saber imparts both technical and social knowledge whilst enabling a space for shared experiences.

Subsequently, these outputs translate into outcomes, which are the noteworthy changes in critical dimensions related to central activities. In AMUT's case, these are adopting preventive health practices, greater access to healthcare, and improved health conditions and well-being. Simultaneously, it decreases unemployment, increases social cohesion and support, and empowers a sense of community.

These outcomes reflect the impact of AMUT in improving health and enhancing the quality of life for the associates, their families, and non-associates.

Diagram 1 – Theory of Change of AMUT



2. Casa Pousio

2.1. The drivers of the project

2.1.1. Market condition

Unlike other sectors, the real estate industry in Portugal has displayed impressive resilience as sales have exceeded previous years' figures, and housing prices have consistently risen since 2015 (Portugal Homes 2023).

Portugal is facing a housing affordability crisis, characterised by rising house prices that are not accompanied by an increase in citizens' incomes. This situation is more severe in metropolitan areas, where the financial effort required to purchase or rent housing is greater.

Inflation has posed a significant threat to the real estate market, causing house prices and land for construction to soar well beyond the wage growth. This has rendered housing unaffordable for numerous Portuguese families.

The persistent supply shortage is a crucial contributor to the inflation in housing costs. The construction of new housing units has failed to keep up with the surging demand, driven by various factors, including demographic shifts and Portugal's increasing allure for foreign investors. This imbalance between supply and demand has led to price hikes throughout the country. Additionally, the flourishing tourism industry in Portugal has played a pivotal role by boosting the popularity of short-term accommodation platforms like Airbnb, diverting some potential long-term rental properties to tourist use. Consequently, the available supply in the residential rental market has decreased, resulting in an exorbitant increase in rents. This predicament is particularly acute in regions with high population densities, notably Lisbon and Porto.

The housing crisis in Portugal is further exacerbated by the uptick in bank interest rates, specifically the Euro Interbank Offered Rate (Euribor). This pivotal metric serves as the benchmark interest rate for European banks when borrowing money from one another. It is

calculated based on the eurozone's interest rates set by central banks. Consequently, when interest rates experience an upswing, central banks tend to elevate the reference interest rates to rein in inflation. This, in turn, translates into higher mortgage costs, curtailing access to property for many prospective buyers in the short term (Baptista and Carvalho 2023).

2.1.2. Social condition

Social isolation consists of the absence of social or family contact, a lack of involvement in the community or the outside world, and absence or difficulty in accessing services. Anyone, men and women, at all stages of the life cycle, married and single, employed and unemployed people, or even people living in rural and urban areas, can suffer from social isolation.

Whilst social isolation and loneliness are distinct concepts, it is essential to note that social isolation can catalyse feelings of loneliness. Loneliness is a subjective emotion associated with a lack of social contact, a sense of not belonging, or feelings of isolation.

Several prominent risk factors have been identified in the realm of social isolation and loneliness. These factors encompass age, disability, mental illness, and poverty, each contributing significantly to the heightened susceptibility of individuals to these conditions.

Firstly, age plays a pivotal role in the prevalence of social isolation and loneliness. Older adults are notably more prone to experiencing these states than their younger counterparts. This increased vulnerability among the elderly may be attributed to various factors, including the loss of friends and family members, retirement, and the emergence of health problems often accompanying ageing (Centers for Disease Control and Prevention 2023). In 2020, Portugal was one of the countries across the European Union Member States with the most significant percentage of elderly population – 22.1% –, according to Eurostat, which has its share of repercussions (Eurostat 2021).

Secondly, disability constitutes another critical risk factor. Individuals with disabilities or compromised health status face formidable obstacles to engaging in social activities and forming meaningful relationships. Factors such as poor mobility and limited accessibility can hinder their participation in social interactions, consequently heightening their susceptibility to social isolation and loneliness.

Additionally, mental illness, particularly conditions like depression or anxiety, emerges as a significant contributor to these states. Individuals grappling with mental health issues often encounter difficulties in interacting with others. Furthermore, their diminished motivation to partake in social activities can lead to withdrawal from social circles, intensifying feelings of loneliness.

Lastly, poverty exerts its unique pressure on social isolation and loneliness. Financial constraints stemming from limited resources can impede an individual's ability to engage in social or leisure activities. These financial pressures may lead to a sense of exclusion from society, exacerbating the risk of social isolation and loneliness.

These risk factors underscore the multifaceted nature of social isolation and loneliness, emphasising the importance of recognising and addressing these factors to mitigate their impact and enhance overall well-being (SNS 24 2023).

2.2. The project

In response to the pressing challenges of housing affordability and social isolation, AMUT has initiated a new endeavour named *Casa Pousio*, a residential housing project in Gondomar, financially supported by PRR. AMUT acquired an urban plot spanning 1,742 square meters (sqm), which includes an existing family home that has been in use until recently. The plan involves renovating and expanding this building to accommodate more residents, with space

for five individual flats. Additionally, a new building will be constructed adjacent to the existing one, designed to house 23 people in separate studio flats.

These accommodations are going to serve individuals facing financial or health constraints, specifically seniors and university students grappling with mental health issues like depression or anxiety. The objective is to allocate 50% of the flats to each group, ensuring that 14 units are designated for the elderly and 14 for students, with the additional requirement that all tenants must be AMUT associates.

To tackle Portugal's housing crisis, AMUT will charge mutualist rents to ensure affordability remains a top priority in addressing this pressing societal challenge. Moreover, as part of its mission to combat social isolation, AMUT has a vision for *Casa Pousio* that extends beyond typical residential living. The project is designed to foster a unique sense of community, where individuals from different generations come together to offer mutual assistance and build lasting friendships. This innovative approach includes establishing an intergenerational collaboration platform for seniors and younger residents to engage in meaningful exchanges. *Casa Pousio* has been meticulously conceived to address immediate housing needs and pioneer a revolutionary approach to living – one that extends beyond the traditional boundaries of residential projects. The vision is for *Casa Pousio* to become Portugal's inaugural Blue Zone, symbolising a unique community where residents enjoy longer, and healthier lives compared to the norm.

Furthermore, it is worth noting that this new endeavour represents a departure from the organisation's existing portfolio. This strategic diversification expands AMUT's outreach and underscores its commitment to reaching diverse population segments and providing tailored assistance to meet their unique needs. In essence, *Casa Pousio* marks a strategic evolution in AMUT's mission to make a meaningful impact in the lives of people in Portugal.

2.2.1. Facilities

The chosen location for *Casa Pousio* encompasses an urban plot situated on a sloping terrain, with its boundaries connected to the public road on the north and east, the Gondomar Volunteer Fire Department to the south, and a multi-family housing structure to the west. This plot enjoys an unobstructed layout and benefits from excellent solar exposure, thanks, in large part, to its position relative to neighbouring buildings.

The pre-existing three-story building on the premises remains in relatively good condition despite its recent disuse. Additionally, the building includes an attic space that is currently unused, presenting potential for repurposing. Around the building is an outdoor space, which includes a garden with considerable potential, though it requires attention and rehabilitation to realise its value entirely. This unoccupied space is around 1,200 sqm, enabling the establishment of several outdoor activities. On the ground floor (Appendix 14), the new headquarters of AMUT will be established, encompassing offices, meeting rooms, and a space for the AMUT's *Natura* store. The first floor (Appendix 15) will present two one-bedroom flats, each equipped with a kitchen, a bedroom, a bathroom, and an entrance hall. The second floor (Appendix 16) has the same layout as the first one. The previously unused attic space will be transformed into a third floor (Appendix 17), dedicated to accommodating a single one-bedroom flat with dimensions similar to the bedrooms found on the other floors of the house. The standout feature of this repurposed house is its capacity to house five one-bedroom flats.

Furthermore, the project involves the construction of a new four-story building to expand its total capacity and the number of residents. The ground floor (Appendix 14) will feature a 30 sqm room and 90 sqm multipurpose room, designed as communal areas within the building. The latter will be divided by a mobile wall, creating two 45 sqm rooms, each one with an individual door. Additionally, this level will include a storage room and two studio flats. The first floor (Appendix 15) will encompass seven studio flats, each equipped with a combined

living area, kitchen, and private bathroom. The second (Appendix 16) and third floors (Appendix 17) mirror this layout. The standout aspect of this development is the inclusion of 23 studio flats and a large multipurpose room.

The existing house and the new building will be connected. A spiral staircase wrapped around a lift will serve both buildings, with the latter as a crucial accessibility feature for residents. Another feature of this construction is an underground garage with a parking space for each resident.

2.2.2. Conditions

The non-reimbursable financial support is being boosted for advancing integrated housing solutions in the *Estratégia Local de Habitação* of municipalities through the PRR to deliver 26,000 homes by the second quarter of 2026. This is to respond to the same number of households whose housing difficulties and vulnerability have been identified by the municipals for the development of their local housing strategies.

As part of the programme's conditions and according to the Do No Significant Harm (DNSH) principle, the approach will also involve enhancing environmental sustainability with high energy efficiency standards in new construction projects and existing buildings renovations.

Instituto da Habitação e da Reabilitação Urbana (IHRU) oversees the execution of *Investimento RE-C02-i01* within the programme, serving as the financial backer for housing solutions funded by PRR resources.

In the case of a new construction, it is required to achieve an energy efficiency level of 20% higher in primary energy consumption compared to the Nearly Zero Energy Building (NZEB) standards. This also applies to renovation projects aimed at enhancing the energy performance of buildings.

The organisations in charge of the project need to ensure that a minimum of 70% – by weight – of construction and demolition waste which is not harmful, should be sorted for reuse, recycling, and recovery of other materials. Following the waste management hierarchy, this may also involve using waste as a substitute for other materials in fill operations.

A minimum of 10% of recycled materials or materials containing recycled components will be ensured regarding the overall quantity of raw materials used during the procurement of construction and infrastructure maintenance contracts (Recuperar Portugal 2023).

AMUT aims to have every flat included in the *Programa de Arrendamento Acessível* (PAA), a housing policy programme designed to encourage a broad selection of affordable rental housing options, offering rates below the market to better align with household incomes. This benefits both renters and property owners, as landlords opting for reduced rents within the programme enjoy tax exemptions, freeing them from income tax (IRS, *Imposto sobre o Rendimento das Pessoas Singulares*) or corporate tax (IRC, *Imposto sobre o Rendimento das Pessoas Coletivas*) on their rental earnings.

Offering accommodations for rent within PAA is open to everyone. Regarding tenants, the programme allows any individual or group as long as their combined annual income does not surpass a predefined threshold. Students or individuals in vocational training can also participate, even without personal income, provided that someone with an income can cover the rent.

Specific basic requirements for safety, cleanliness, and comfort must be met, such as adequate natural lighting and ventilation, rooms exceeding six sqm in size, the inclusion of a kitchen and bathroom, and the absence of any issues that might jeopardise the safety or well-being of the occupants. Within the PAA, there is a basic occupancy requirement, with one individual per room being the minimum.

The unique characteristics of each housing unit determine the maximum rent under the PAA programme. Specifically, the rent for each dwelling must be set at a minimum of 20% below the *Valor de Referência de Arrendamento* (VRA). The VRA for each property is calculated based on factors like size, quality, location, energy efficiency, and the median per square meter rental rates in that area, as reported by *Instituto Nacional de Estatística* (INE). The rental agreement between the landlord and tenant for each specific property must not exceed 80% of the VRA.

However, a predefined table indicates the maximum rent limits for each housing type and municipality, which cannot be exceeded. In other words, when 80% of the VRA exceeds this limit, the property can only participate in the PAA programme at the value of the applicable general rent limit, which means a reduction of more than 20% from the VRA. In the municipality of Gondomar, the maximum allowable rent for the year 2023, as stipulated in Decree of Law No. 90-C/2022, dated December 30th, is €478, both for studio and one-bedroom flats (Portal da Habitação 2023c).

The rental rate must fall within 15% to 35% of the household's average monthly gross income, ensuring that each household maintains a suitable affordability ratio. The landlord must also get insurance that covers missed rent payments.

Additionally, leases must last at least five years, except for student housing meant for short-term stays, which must be for a minimum of nine months (Portal da Habitação 2023b).

Financing for the project may come from three different sources, including a PRR non-refundable grant, subsidised loan, and self-financing loan. According to ELH, the percentage of non-refundable funding can go up to 100% of the estimated project cost, dependent on factors such as the project's sustainability.

2.3. Scope definition

Building on the prior analysis and diagnostic of AMUT, the scope of the work developed was centred on the newly acquired property in Gondomar – *Casa Pousio*.

Firstly, a proposal for how to explore the communal areas of *Casa Pousio* was drawn. By recognising the mutual benefits of intergenerational interactions, including the exchange of knowledge, AMUT can explore the utilisation of the communal areas within the acquired property to foster interaction among different generations. AMUT also intends to promote longevity among residents recurring to the concept of BZs.

Additionally, a study was done to analyse the financial viability of the initiatives promoted in these communal areas. Given the possibility of not having full financial support for this investment, different financing scenarios were formulated to assess the self-sustainability of *Casa Pousio* as a whole.

The scenarios considered derived from the latest *Casa Pousio*'s financing agreement between AMUT and IHRU (Appendix 18). The necessity for this analysis stems from the fact that this is an old agreement that will no longer be enforced due to changes in *Casa Pousio*'s blueprints, which are currently under development.

To deliver the best proposals to AMUT, it was important to acknowledge some of the challenges already at hand. Rent prices for this project are already predetermined, limiting pricing flexibility. Additionally, the tenant demographic has previously been defined, which must be considered in the proposals. Furthermore, the financial viability of the project is closely tied to the incorporation of sustainable materials and construction practices, which are still being evaluated by AMUT and its architects.

Despite these challenges, the aim was to deliver innovative solutions whilst aligning with AMUT's goals for *Casa Pousio*.

3. Literature review and benchmark

Considering the mission AMUT has established for *Casa Pousio*, it is crucial to understand the reality and challenges of its future residents. A thorough understanding of the latter will give the organisation the necessary knowledge to create the ideal environment to deliver the desired impact on *Casa Pousio*'s residents.

3.1. University students

Whilst half of *Casa Pousio*'s residents will be of advanced age, the other half will be comprised of adolescents and young adults – specifically university students struggling with non-severe mental disorders. This makes it paramount to understand these challenges.

3.1.1. Mental illness

Mental illness is a health condition that alters an individual's cognition, emotions, behaviour, or mood. It can impact individuals of diverse ages, ethnicities, and socioeconomic statuses, often resulting in distress or impairment in critical areas of daily life.

Despite the existence of effective treatments for mental disorders, most individuals struggling with these conditions do not receive adequate care. Insufficient investment in mental healthcare, a shortage of trained healthcare professionals, and societal stigma surrounding mental disorders remain prevalent barriers to effective treatment.

Approximately one in eight individuals worldwide struggle with a mental disorder. Among the various types of mental disorders, anxiety and depression disorders are the most prevalent, affecting an estimated 4% and 3.8% of the global population, respectively (WHO 2022). In Portugal, approximately 23% of the population experienced a mental disorder in 2015 (Ordem dos Psicólogos Portugueses 2015). Close to 65% of this group did not access appropriate care services. The percentage of the Portuguese population dealing with moderate to severe disorders stood at 15.6%, significantly surpassing the European median of 7% (Barbato et al. 2014).

3.1.1.1. Anxiety

According to the WHO, anxiety disorders are the most prevalent mental health conditions, affecting 301 million people in 2019. Unlike the usual feelings of anxiety that everyone experiences at times, individuals with anxiety disorders often encounter intense and excessive sensations of fear and worry. Physical tension, behavioural disruptions, and cognitive symptoms frequently accompany these emotions. When left untreated, these emotions become challenging to manage and can lead to significant distress, hindering daily activities and adversely affecting personal and professional aspects of a person's life. Anxiety disorders may manifest in response to specific situations (e.g., panic attacks or social settings) or a variety of everyday scenarios. Different forms of anxiety disorders include generalised anxiety disorder, characterised by persistent and excessive worry about daily activities or events; panic disorder, marked by recurring panic attacks and the fear of their recurrence; social anxiety disorder, defined by excessive apprehension in social situations; and separation anxiety disorder, involving heightened fear or anxiety when separated from emotionally significant individuals. An individual can experience more than one anxiety disorder simultaneously.

In addition to the common symptoms of excessive fear and worry, anxiety disorders can give rise to other manifestations, including difficulty concentrating, irritability, trembling or shaking, and insomnia. Furthermore, these disorders elevate the risk of depression, substance use disorders, and suicidal thoughts and behaviours.

Like most other mental disorders, anxiety is the result of a complex interplay of psychological, social, and biological factors. Whilst anxiety disorders can affect anyone, individuals who have endured adverse experiences such as abuse or significant losses are at a higher risk of developing them. It is worth noting that women are more prone to these disorders compared to men. Physical health can also play a significant role in the development of these disorders, mainly when dealing with challenges associated with certain medical conditions. In turn,

anxiety can lead to detrimental behaviours that can further undermine physical health, such as substance abuse.

Effective strategies for preventing the development of anxiety disorders include parental education and school-based programmes that promote social and emotional learning, as well as the early cultivation of positive coping mechanisms.

Despite the existence of highly effective treatments for anxiety, only approximately one in four individuals in need receive treatment. The limited access to professional help primarily arises from the previously mentioned barriers to effective care. These treatments typically involve psychological interventions like talk therapy, which can assist individuals in developing new coping strategies and altering thought patterns. In cases of severe conditions, medication such as selective serotonin reuptake inhibitors (SSRIs) may also be considered (WHO 2023b).

3.1.1.2. Depressive disorder (depression)

According to the WHO, depression impacted approximately 280 million people in 2019, ranking as the second most common mental disorder, following anxiety. This condition is distinguishable from typical mood fluctuations and emotional responses to everyday situations that might cause occasional sadness or irritability. Individuals with depression experience prolonged depressive episodes that persist for most of the day or even the entire day, lasting at least two weeks. During such episodes, affected individuals often feel overwhelming sadness, irritability, or emptiness, coupled with a notable absence of pleasure or interest in usual activities. The severity of a depressive episode can range from mild to moderate or severe, depending on the number and intensity of symptoms, and it can disrupt a person's regular functioning. This disruption can impact various aspects of one's personal and professional life, including relationships with family and friends. Depression may stem from or lead to problems at work or school. Depressive episodes can manifest in various patterns, including single-episode depressive disorder (characterised by a first and single episode), recurrent depressive

disorder (involving a history of at least two episodes), and bipolar disorder (in which depressive episodes alternate with manic symptoms like euphoria).

In addition, depression can lead to other symptoms like difficulty concentrating, feelings of guilt and low self-esteem, hopelessness, thoughts of death or suicide, disruptions in sleep patterns, changes in appetite or weight, and persistent fatigue.

Similar to anxiety, depression arises from a complex interplay of psychological, social, and biological factors. Individuals who have experienced adverse life events are more susceptible to developing depression. Conversely, depression can exacerbate stress, further negatively impacting an individual's life circumstances and the depression itself. Like anxiety, depression affects more women than men. Physical health is closely intertwined with depression's onset. Many factors that contribute to depression, such as physical inactivity or substance abuse, are also known risk factors for other medical conditions. In turn, the development of these medical conditions can exacerbate one's mental health issues due to the challenges in managing these coexisting conditions.

Prevention programmes have demonstrated their effectiveness in reducing the occurrence of depression. These programmes encompass school-based initiatives to promote positive coping skills in children and adolescents. Additionally, interventions for parents of children with behavioural issues can help reduce parental depressive symptoms, improving outcomes for their children. In the case of older individuals, exercise programmes have also shown effectiveness in managing depression.

Given that individuals with depression face an elevated risk of suicide, it is imperative to explore effective treatment options. Depression can be effectively treated through psychological interventions such as talk therapy, which can equip individuals with new ways of thinking and coping. These treatments are also accessible through self-help manuals,

websites, and mobile applications. In cases of moderate and severe depression, these therapies can be combined with antidepressant medications. However, it is important to note that antidepressants should not be used as a primary treatment for mild depression in children or as the first-line treatment for adolescents (WHO 2023a).

3.1.1.3. Anxiety and depression in university students

Anxiety and depression disorders are widespread among adolescents and young adults. According to the Healthy Minds Study conducted during the 2020-2021 school year in the USA, over 60% of university students met the criteria for at least one mental health problem, marking a nearly 50% increase from 2013. Depression symptoms were reported by 40.8% of university students in 2021, reflecting a 134.6% rise since 2013. Additionally, 34.8% of university students exhibited anxiety symptoms, indicating a 109.5% increase from 2013 (Lipson et al. 2022). These figures highlight the significant challenges students face and underscore a concerning upward trend over time. As mentioned earlier, individuals grappling with these disorders face a heightened risk of self-harm or suicide. Suicide ranks as the fourth leading cause of death among 15-29-year-olds (WHO 2023a), emphasising the urgent need for intervention.

Portugal is not exempt from this trend. According to a study conducted by Raising Youth for Sustainable Evolution (RYSE) and *Associação Nacional de Estudantes de Psicologia* (ANEP), 48% of surveyed university students exhibited severe symptoms in the psychological domain, whilst 8% showed moderate symptoms. Each disorder was assigned a score, with lower scores indicating poorer mental health. Emotional ties – 9.33/100 –, depression – 17.85/100 –, loss of control – 27.53/100 –, and anxiety – 31.80/100 – had the lowest scores. Additionally, 23% of surveyed students reported having experienced suicidal thoughts at least once (Teixeira and Moreira 2023).

3.1.2. Activities to fight anxiety and depression

In light of the undeniable mental health crisis affecting students today, there is a pressing need for actionable solutions. One promising approach involves the creation of environments that encourage activities proven to be effective in managing and alleviating these conditions and their associated symptoms. Thus, it is vital to identify which activities possess these traits.

Physical exercise has significant positive effects on both physical and mental well-being. Engaging in physical activity stimulates the production of endorphins, natural chemicals in the brain that act as painkillers and mood enhancers. These endorphins help alleviate symptoms of stress, anxiety, and depression. Essentially, they are the ‘feel-good’ hormones responsible for the euphoric state known as the runner’s high, experienced after prolonged or intense exercise sessions. They also contribute to the feelings of optimism and relaxation that often follow workouts.

Additionally, exercise lowers the body’s stress hormones, such as adrenaline and cortisol (Harvard Medical School 2020). Consistent physical activity promotes better sleep quality and patterns, reduces fatigue, and enhances concentration. These factors contribute to improved mood and cognitive functions (Brand et al. 2010). Regular physical activity fosters a sense of accomplishment, enhancing self-esteem and overall confidence. Group exercise can also play a crucial role in reducing feelings of loneliness. A cross-sectional study in the USA between 2011 and 2015 found that individuals who exercised had 43.2% fewer days of poor mental health in the past month (Chekroud et al. 2018).

Yoga offers not only the advantages of physical exercise but also additional benefits. Regular yoga practice can enhance an individual’s mood by increasing levels of gamma-aminobutyric acid (GABA), a brain chemical linked to improved mood and reduced anxiety. A review of 15 studies identified yoga as the most effective relaxation technique for both depression and anxiety (Harvard Medical School 2021).

Meditation decreases emotional reactivity by lowering activity in the limbic system, the brain region associated with emotions. This results in more measured responses during stressful situations (Harvard Medical School 2021). Meditative therapies have also demonstrated effectiveness in alleviating symptoms of anxiety (Chen et al. 2012).

Connecting with nature has proven effective in reducing symptoms of anxiety and depression. Nature-based health interventions involve engaging individuals in nature-related activities to enhance physical, mental, and emotional well-being. A study conducted in Gloucestershire, United Kingdom, examined the impact of a wetland nature-based health intervention on individuals diagnosed with depression or anxiety. The intervention gave participants a sense of escape from their everyday environments, promoting relaxation and reduced stress (Maud et al. 2019). Moreover, research has demonstrated a positive link between exposure to nature and improved mental health outcomes (Jimenez et al. 2021). This is an alternative approach that is less intrusive and more cost-effective.

Social connections significantly influence an individual's mental well-being. Those who experience social isolation are more prone to feelings of loneliness and disconnection, which can elevate the risk of developing depression and anxiety. Additionally, social isolation limits opportunities to engage in activities beneficial to mental health. Developing initiatives that promote social interaction is crucial not only as a preventive measure but also as a solution for individuals already grappling with mental health issues. Research indicates that fostering social connections not only prevents but also reduces symptoms of anxiety and depression. Building supportive social networks provides individuals with crucial emotional resources, enhancing their resilience and overall mental health outcomes (Weziak-Bialowolska et al. 2022).

3.1.3. Benchmark of existing solutions

A widely used and effective approach to assist teenagers and young adults dealing with mental health challenges, including depression and anxiety, is the establishment of treatment homes.

These facilities offer a cosy, homelike atmosphere customised to suit their residents' specific needs. Communal areas are thoughtfully designed for both individual and group activities. Additionally, these treatment centres are staffed with professionals, including therapists and psychiatrists, who provide continuous support and guidance to the residents. Assessing these facilities can be highly valuable in identifying the key factors that contribute to their effectiveness in fostering an optimal environment for individuals facing mental health challenges.

Newport Academy operates a network of residential treatment centres designed for adolescents and young adults dealing with substance abuse or mental health disorders like depression and anxiety. With multiple locations across the USA, the institution offers tailored programmes, including individual, group, and family therapy. In addition to skilled therapists and psychiatrists, medical doctors and nurses provide continuous care. The facilities feature communal areas like art and music studios, gyms, gardens, and hang-out spaces. Residents can engage in experiential activities such as fitness, yoga, meditation, and horticulture, supporting their healing and personal growth (Newport Academy 2023).

The Paradigm Treatment Center specialises in helping teenagers and young adults struggling with mental health issues. With a focus on substance abuse and mental health disorders like anxiety and depression, the centre operates in three unique locations across the USA: Austin, San Rafael, and Malibu. Patients reside in luxurious accommodations, reflecting a premium approach to care. Each resident receives personalised treatment plans crafted by professional clinicians. In addition to various therapy options, the centre provides activities such as physical exercise, yoga, acupuncture, and massage. Patients can also enjoy amenities like gardens, pools, and relaxing communal spaces (Paradigm Treatment Center 2023).

Heritage Counseling Clinic, situated in Sintra, Portugal, specialises in addiction rehabilitation for substances like drugs and alcohol, as well as the treatment of disorders like depression. The

centre boasts a range of amenities, including a fully equipped gym, pools, and gardens. Patients can participate in various therapeutic and complementary activities, such as gym classes led by certified instructors, yoga, horse therapy, art therapy, gardening, and physical exercises like cycling and hiking (Heritage Counseling Clinic 2023).

Casa da Oliveira, located in Coimbra, Portugal, is a psychiatric clinic providing residential programmes for adolescents and young adults dealing with mental health disorders, including anxiety and depression. The clinic is staffed by experienced healthcare professionals who create tailored treatment plans for each patient. These plans encompass psychiatric interventions alongside physical activities like gymnastics and walks, creative pursuits such as painting and crafting workshops, and music sessions. The facilities feature inviting hangout rooms, pool tables, pools, and gardens (Casa da Oliveira 2023).

It is important to highlight a common thread among these institutions. In addition to providing essential healthcare services to their patients, all residences incorporate various complementary activities centred around physical exercise, well-being, and fostering social connections. This approach aligns with the activities previously identified as effective in alleviating symptoms of depression and anxiety.

3.2. Blue Zones

3.2.1. History and concept

After diving into the challenges that both older and younger generations face, how to improve their physical, mental, and social health, and understanding the concept of intergenerationality, there is still a crucial subject that significantly impacts both age groups: life expectancy and the measures to extend it.

According to the WHO, LE is the expected years a newborn would live based on the death rates at birth in that specific location. Over time, LE has displayed an upward global trend. In fact, from 2000 to 2019, it increased from 67 years to 73 years. Nevertheless, a substantial divergence in average LE across nations persists. For instance, Chad reports an average LE of 50.6 years, whilst Hong Kong and Italy exhibit a LE of 84 and 86 years, respectively (WHO 2019).

Numerous factors influence LE, including healthcare access, income, geographic location, and genetic predispositions. Nonetheless, some regions worldwide consistently exceed the average LE, experiencing high longevity, without necessarily adhering to the standard determinants.

Longevity is achieved when individuals reaching ages beyond 90 are living an active life. This is as related to the individual (individual longevity) as the population (population longevity). Though the first type of longevity can be verified by checking the age of the elderly, population longevity can only be evaluated by looking at life tables for that specific population, as these will consider their generally shared characteristics and behaviours (Poulain, Herm, and Pes 2013).

Identifying common factors within populations exhibiting high longevity enhances the prospects of finding the underlying reasons for their extended LE. Individuals born and raised in these regions will likely share similar genetics, living conditions, traditions, and habits. Thus,

pinpointing areas with exceptional longevity can significantly improve the search for longevity determinants.

3.2.2. Research

A demographic work developed by Gianni Pes and Michel Poulain in Sardinia, Italy, aimed to identify the island's regions characterised by extreme longevity. However, to find reliable data, they did not rely solely on the concentration of centenarians in municipalities but computed the Extreme Longevity Index (ELI) for each municipality. This index reflects the percentage of individuals born in a specific area between 1880 and 1900 who reached the age of 90 or more. To ensure that the geographical distribution of centenarians was not random, the authors used a spatial deterministic model and a multiscale smoothing method based on a Gaussian neighbourhood distribution (Grasland 1999; Rogerson 2001). In simple words, these methods allowed for translating the ELI of municipalities into a map where ELI was represented by varying shades of blue, similar to isobar maps (Appendix 19). The darker the blue shade, the higher the ELI value. Building upon this initial map, a second map was created, organised by municipality (Appendix 20). This step was essential for consolidating geographical, cultural, social, and economic data typically available at the municipality level.

In terms of outcomes, by looking at the map in Appendix 19, it is possible to identify the geographical areas marked in blue with a higher incidence of extreme longevity. The corresponding areas in the map of Appendix 20, divided per municipality, earned the title of BZ owing to the colour of the marker used to outline these areas. The Sardinia BZ extends across the mountainous central regions of the island and is categorised into extended BZ and restricted BZ based on ELI levels. Therefore, a BZ is a geographic region where a significant number of individuals have lived or are living beyond the age of 90 (centenarians) whilst experiencing relatively few age-related diseases (Poulain, Herm, and Pes 2013).

It is commonly believed that genetics plays only a 20% role in determining an individual's lifespan, with the remaining 80% influenced by their lifestyle choices (Herskind et al. 1996).

Beginning in 2002, inspired by the research of Pes and Poulain, Dan Buettner, a journalist affiliated with National Geographic, embarked on a global quest to discover additional BZs. His lifelong pursuit was to unravel the lifestyle and environmental factors contributing to these regions' remarkable concentration of centenarians. Leveraging on the resources from National Geographic, the National Institute on Aging in the USA, as well as birth records and epidemiological data, Dan and his team were able to identify five zones with the world's highest concentration of centenarians: Sardinia, Italy; Loma Linda, USA; Nicoya, Costa Rica; Ikaria, Greece; and Okinawa, Japan (Appendix 21). Notably, individuals in these BZs achieved centenarian status at rates ten times higher than those in the USA (Buettner and Skemp 2016).

3.2.2.1. Factors that promote longevity

Having compiled data rooted in evidence on the lifestyles and habits of these five BZs, the team successfully identified nine common factors which could extend life expectancy if incorporated into a person's daily life. These principles are jointly known as the "Power 9".

The initial factor observed was the natural mobility of individuals in these regions ("Move Naturally"). Their surroundings naturally encourage physical activity, whether due to their occupations, such as shepherds covering extensive distances daily, the topography of their villages on steep mountains, or the use of low furniture in their homes, emphasising the use of their lower bodies. These aspects naturally promote physical exercise.

The second factor revolved around having a "Purpose" in life. In Okinawa, it is referred to as *ikigai*; in Nicoya, it is known as *plan de vida*. Studies have shown that individuals who have something to get up for in the morning tend to live longer and are more agile than those who do not, confirming a correlation between the sense of purpose and longevity (Bengtson 2014).

Several activities have been explored to enhance one's sense of life purpose, such as volunteering, well-being therapy, and meditation in adults, demonstrating significant enhancements in life purpose, overall quality of life, and various health-related improvements (Alimujiang et al. 2019).

The ability to incorporate effective stress relief routines (“Downshift”) is another common trait among BZs. Stress is associated with inflammation in the body, which can be useful in the short term but, if recurrent, can lead to chronic inflammation, closely linked to age-related diseases. Though stress is something that no one can escape, how individuals cope with it sets the course for the consequences it can have on one's health. In the BZs, some of the activities being adopted were praying, napping, or enjoying a social gathering.

The fourth factor found was the “80% Rule”. For 2500 years, the Okinawa people have adhered to the saying “*Hara hachi bu*” before meals to remind them to stop eating when they feel 80% full. Across all BZs, breakfast is the largest meal, followed by a smaller lunch and an even smaller dinner. These habits prevent overeating and future obesity.

The diets in the BZs lean towards plant-based choices (“Plant Slant”). From 150 dietary studies conducted over the years in the BZs, it was found that 95% of centenarians consume plant-based diets. Their diets feature substantial portions of beans and leafy greens like soy, lentils, spinach, and kale (rich in fibre and protein), along with carbohydrates in the form of whole grains and sourdough bread. Meat is, on average, consumed only once a week.

Another shared practice is “Wine @ 5”, referring to the moderate and regular consumption of alcohol, typically one to two glasses per day for women and men, respectively. Whilst this is not universally accepted in the scientific community, moderate to low alcohol consumption, despite some inherent risks, appears to be beneficial in reducing stress in specific situations (Sayette 1999) and prevents cardiovascular diseases (Chiva-Blanch and Badimon 2019).

Many centenarians in BZs belonged to faith-based communities (“Belong”). Research has shown a positive link between longevity and religious affiliation, potentially adding four to ten years to life expectancy (Wallace et al. 2019). Additionally, those who attend religious services more frequently are less likely to be current smokers, consume alcohol excessively, and are more likely to engage in exercise and health-promoting activities. These factors explain 23% of the effect of regular religious service attendance on mortality (Idler et al. 2017).

“Loved Ones First” is another mantra of the BZs. It means that parents and grandparents are kept close to their families in these areas, and there is a strong emphasis on nurturing relationships with spouses and children. This seemingly simple practice significantly impacts longevity, as per Buettner’s research.

The final factor to consider is the inclination of individuals to belong to the “Right Tribe”. People are part of social circles that encourage healthy behaviours, which may encompass family, friends, or a community sharing common interests.

3.2.3. Real-life case

With the “Power 9” principles as a foundation, the BZs Project was established to replicate the wisdom of the BZs in American communities. The primary objective is to introduce transformative programmes that reduce healthcare costs, enhance productivity, and foster healthier lifestyles and well-being among residents.

Researchers started by understanding what individuals could do for themselves and their health. Simple kitchen or home layout adjustments, for instance, can encourage increased calorie expenditure just by moving around it. Similarly, a meal preparation area can be altered from the dinner table to place plates near the stove, prompting a few extra steps each day.

To determine the areas to implement possible changes and develop a blueprint for future BZs, the teams adopted the concept of the “Life Radius”, a five-mile radius around an individual’s

residence, where 80% of their life unfolds. Researchers identify locations within each community, such as schools, stores, parks, and workplaces, where policies and other significant changes could be applied. Examples include introducing standing desks in offices, reducing the price of vegetables in grocery stores, revising school cafeteria menus, limiting the number of fast-food establishments, and implementing smoking regulations. All these measures collectively contribute to the overall improvement of community health.

Following the completion of this blueprint, it was important to test its feasibility in a real American community. In 2009, Albert Lea in Minnesota, with a population of 18,000, was selected as the pilot city for this project.

Together with local organisations and the city hall, the team gathered the primary needs of the community. Approximately 3,400 residents agreed to participate in the project. They completed a “True Vitality Test”, gathering data on their habits, body mass index, dietary choices, and other health behaviours to compute the average LE as a starting point for comparison. Subsequently, they started methodically changing Albert Lea’s environment in different aspects. This transformation primarily involved implementing new policies and launching community challenges. For instance, in initial phases of the project, participants were organised into smaller groups and tasked with walking together for ten weeks.

By working in partnership with the city, the BZs Project intended to make Albert Lea more walkable and liveable. Initiatives included constructing bike lanes, creating a lakeside walking path, and building sidewalks to enable residents from nearly every neighbourhood to walk to the city’s central area. They also started promoting healthier eating initiatives. Local grocery stores and restaurants were committed to promoting healthier eating habits. Restaurants had to offer three plant-based entrées and started serving fruit instead of fries with sandwiches. Descriptive language was used to encourage better food choices. Grocery stores introduced

healthy checkout lanes featuring items like fruit, water, and healthy snacks instead of the usual chocolate bars, sodas, and confectionery.

Collaboration between local schools and the BZs Project led to impactful changes, including prohibiting candy for fundraisers and eliminating candy rewards for academic performance. According to a study by the University of Minnesota, schools also implemented policies to prevent eating in hallways and classrooms, contributing to an 11% annual reduction in students' body mass index. Also, 25% of the community pledged to take steps towards a healthier lifestyle.

One year later, participants took a second "True Vitality Test", revealing a remarkable three-year increase in the average life expectancy.

The BZs project in Albert Lea yielded other positive outcomes such as savings of \$7.5M in annual healthcare costs by employers; a 150% increase in community garden space, allowing residents to grow their healthy food and socialise in an agricultural setting; a 25% increase in property value in the downtown area; a 96% increase in pedestrian traffic on the main avenues from 2014 to 2018; a 38% increase in biking and walking throughout the community since 2009; a decline in the percentage of smokers among adult residents, decreasing from 23% in 2009 to 14.7% in 2016; and Albert Lea has taken the 34th place in the Minnesota County Health Rankings, previously holding the 68th position out of 87 counties (Blue Zones 2023).

Today, the BZs Project has helped more than 70 communities across North America; the main takeaways are similar. Since its inception as a quest to uncover the secrets of vitality and longevity, BZs have evolved into a powerful tool for crafting the healthiest lifestyles not just for individuals but for entire communities. The aim is not only to facilitate the healthy choice as the easy one but to make it seem inescapable and non-negotiable.

4. Casa Pousio's financial viability analysis

This comprehensive financial analysis delves into the revenue and cost drivers of the project, as well as the loans needed to fund it. The primary objective is to assess the financial viability of *Casa Pousio*, considering different financing scenarios.

4.1. Revenue and cost drivers

A detailed analysis outlines the pricing strategy, revenue generation, and cost considerations associated with *Casa Pousio*'s communal spaces and initiatives. To project the anticipated income available for repaying the subsidised, self-financing, and equipment loans to be contracted, a forecast of annual revenue and cost drivers is essential from 2027 onward. Considering the analysis is conducted in 2023, the monetary values mentioned in section 5.1. correspond to this year.

4.1.1. Condominium

The condominium generates revenue primarily through flat rents and condominium fees paid by residents. To adhere to *Programa de Arrendamento Acessível*, rent prices were simulated on *Portal da Habitação*. Since maximum rents depend on flat characteristics like typology, AMUT will charge varying prices. Shared features across all flats considered for simulation include an A-rated energy certificate, one underground parking slot, an equipped kitchen, and optimal conservation status. As AMUT considers the elderly would prefer to take their furniture to *Casa Pousio*, only half of the flats will be furnished by AMUT – the two studio flats on the ground floor, seven out of the nine flats of 26 sqm, and the flats of 31 sqm and a ten sqm balcony. The flats to be furnished were chosen by comparing the rental rates of all studio flats, with a focus on selecting the 14 units that exhibit the most substantial rent increase when furnished as opposed to remaining unfurnished. Each furnished flat will include a sofa-bed and a table with four chairs with estimated costs of €479 and €149.96, respectively, totalling €8,805. For 2023, monthly rents for the two studio flats with an area of 36 sqm would

be €300.99. As for the 26 sqm studio flats, the seven furnished ones would be rented at €248.99 and the two unfurnished ones at €242.99. Out of the eight studio flats with 31 sqm, those with a five sqm balcony would be rented at €270.99, whilst those with a ten sqm balcony would be rented at €286.99. One-bedroom flat rents vary based on the floor, with lower floors charged €356.99 and the attic €353.99 (Appendix 23).

A condominium fee aims to cover communal areas usage costs such as the common living room, corridors, and lift. After aligning with AMUT that this fee should not exceed 10% of the lowest rent being charged, it was set at €25 per month. Cost drivers include water and electricity, communication packages, cleaning, gardening, maintenance, and affordable renting insurance. Utilities' expenses for *Casa Pousio* were estimated at twice those of a benchmarked four-storey building with 12 flats, one lift, and a garage. Given that the annual water and electricity expenses of that building were €200 and €700, respectively, the utilities' expenses for the common areas at *Casa Pousio* were assumed twice as much, amounting to a monthly cost of €33 and €117, respectively.

Monthly communication package costs – including television, internet, and telephone – were benchmarked across the three major telecommunication companies in Portugal at €40.5. AMUT is responsible for maintaining cleanliness in the communal areas of *Casa Pousio*. Drawing on the cost of cleaning services at its current headquarters – where €1,000 per month is spent for four hours of daily cleaning – and considering that bi-weekly cleaning services suffice to uphold a tidy environment at *Casa Pousio*, a monthly cost of €400 has been estimated. Moreover, as the aim is to have a garden where residents can have an enjoyable time, gardening services were benchmarked at €60 per 250 sqm, resulting in an estimated monthly cost of €168 for a 700 sqm garden (Habitissimo 2023). To account for the building's deterioration, general maintenance costs were benchmarked at €10 per flat, totalling €280 per

month. Lift maintenance was benchmarked at an average monthly cost of €100 (Habitissimo 2023b).

Finally, affordable rental insurance must be purchased by AMUT to protect the association in case any resident fails to pay their monthly rent. Renting insurance premiums were estimated based on a benchmark. As for a €500 rent, this cost amounts to €6.54 per month; for the rents charged at *Casa Pousio*, these monthly costs range from €3.18 to €4.67 (Tranquilidade 2023) (Appendix 24).

4.1.2. Pilates

In the context of AMUT's Pilates classes, the organisation employs a monthly pricing model, granting each subscriber access to one class per week. The existing clinical Pilates, distinguished by its limited participant count and personalised instructor attention, is a benchmark for the new Pilates classes. To optimise the new sessions, reducing pricing whilst accommodating more participants is recommended, deviating from the lower participant count characteristic of clinical Pilates. In alignment with AMUT's yoga classes, the proposed fee for Pilates mirrors the existing yoga pricing – €16 for non-associates and €13 for associates. Instructors conducting Pilates classes receive compensation set at €20 per session.

Currently, associates comprise 30% of participants, with non-associates constituting the remainder, and this distribution is presumed to remain constant among non-resident participants. A break-even analysis was conducted to ascertain the participant threshold for profitability. Based on the assumed distribution of associates and non-associates, an average of 5.1 participants is required to break even. Foreseeing demand for the new Pilates classes, there are 18 individuals on the clinical Pilates waiting list. The introduction of *Casa Pousio* will create a pool of 28 new potential customers, of which three young adults and six elderly individuals are assumed to participate in these sessions. This leads to a projected total demand of 14 associates and 13 non-associates, generating a monthly revenue of €390.

As the room's capacity allows for the accommodation of the 27 participants distributed in two classes, the total monthly cost is €174. Consequently, the monthly profit for the Pilates activity is €216. Factoring in a two-month summer break and a two-week winter break, the annual profit is estimated at €2,050. In a pessimistic scenario, with demand at only 11 associates and ten non-associates, the annual profit for the activity would decrease to €1,224. Conversely, in an optimistic scenario where the classes draw 17 associates and 16 non-associates, annual profits would rise to €2,877.

4.1.3. Yoga

A monthly pricing model is instituted for AMUT's yoga classes, granting each subscriber access to one class per week. The classes are conducted with a pricing structure of €16 for non-associates and €13 for associates. The instructor receives €15 per class. Associates comprise 30% of participants, and non-associates constitute the remaining percentage. It is assumed that these distribution percentages will remain constant among non-resident participants.

The proposal suggests relocating the yoga classes to *Casa Pousio* and increasing class sizes. Assuming the percentage distribution between associates and non-associates remains unchanged, a break-even analysis indicates an average of 4.3 participants per class is needed for profitability.

The current yoga participant count stands at 16 (five associates and 11 non-associates). *Casa Pousio* is assumed to attract three young adults and five elderly individuals assumed to participate. This brings the total demand to 13 associates and 11 non-associates, resulting in a monthly revenue of €345.

Given the room's capacity, the 24 participants can be divided into two classes, leading to a total monthly cost of €131. Consequently, the monthly profit for the yoga activity is estimated

at €214. Accounting for a two-month hiatus in the summer and a two-week break in the winter, the annual profit is projected to be €2,037.

In a pessimistic scenario, with demand reduced to ten associates and eight non-associates, the activity annual profit would decrease to €1,210. Conversely, in an optimistic scenario where the classes attract 16 associates and 14 non-associates, annual profits would rise to €2,863.

4.1.4. Meditation

AMUT offers meditation sessions under a monthly pricing model, granting each subscriber access to one session per week. Currently, the sessions are led by Ângela Pereira, the incumbent AMUT president, leading to null costs per class. The pricing structure for meditation sessions is set at €16 for non-associates and €13 for associates. Contrary to the typical trend, associates constitute 70% of participants, with non-associates making up the remainder. It is assumed that these distribution percentages remain constant among non-resident participants. The sessions, with six participants (four associates and two non-associates), are positioned for an influx of potential customers from *Casa Pousio*. Anticipating the lower attractiveness of meditation compared to Pilates and yoga, the projected demand from *Casa Pousio*'s residents includes three young adults and one elder, bringing the total to eight associates and two non-associates. This configuration yields a monthly revenue of €136. Given the class's size, one session per week is deemed sufficient. Factoring in a two-month hiatus in the summer and a two-week break in winter, the annual profit for the meditation activity is projected to be €1,292. In a pessimistic scenario, with demand at only six associates and no non-associates, the annual profit for the activity would decrease to €741. Conversely, in an optimistic scenario where the classes draw ten associates and four non-associates, annual profits would rise to €1,843.

4.1.5. Workshops

AMUT employs a unique pricing model for each workshop conducted. Leveraging the experience gained from workshops offered under *Encontros de Sabedoria*, determining an

appropriate workshop fee at *Casa Pousio* involved computing the average price charged per workshop in 2022. Excluding free workshops and the outlier *Seminário das Danças Circulares*, an average price of €6 for non-associates and €4 for associates was established. Examining the cost structure, the average cost per workshop in 2022 amounted to €22.68, factoring in an average instructor cost of €15. Additional costs were associated with miscellaneous expenses, such as materials required for the sessions. The attendee distribution in 2022 indicated that 40% were associates, with the remainder being non-associates. These percentages are assumed to remain constant over time among non-resident participants. A break-even analysis was executed to determine the profitability threshold. Based on the assumed distribution of associates and non-associates, an average of 4.4 participants per workshop is necessary to break even. The workshop sessions at *Casa Pousio* are projected to host eight participants on average, assumed to be three associates and five non-associates. With *Casa Pousio* expected to attract additional customers, assuming one adolescent and four elders would participate in these sessions, the total demand averages eight associates and five non-associates per workshop. Assuming an average of one workshop per week, the total monthly revenue is estimated at €270. Factoring in the two annual breaks, the annual profit for the workshop activity is projected to be €1,626. In a pessimistic scenario, with demand at only five associates and three non-associates, the annual profit for the activity would decrease to €634. Conversely, in an optimistic scenario where the classes draw 11 associates and eight non-associates, annual profits would rise to €2,867.

4.1.6. Commemorative parties

Given the benchmarked prices of €12 and €10 per party for non-associates and associates, respectively, and assuming an occupancy rate of 80%, divided into ten non-associates and 30 associates, the expected revenue per party is €420. Considering an average cost of €5 per participant for food and drinks, the projected profit per party is €220. Moreover, considering

fixed costs such as utilities are negligible, conducting a break-even analysis is deemed irrelevant. Assuming AMUT hosts six parties per year, the annual profit is forecasted to be €1,320. In a pessimistic scenario, where demand is only at 15 associates and five non-associates, the annual profit would decrease to €660. Conversely, in an optimistic scenario where parties attract 35 associates and 15 non-associates, annual profits would rise to €1,680.

4.1.7. “AMUT’ Aluguer”

Through a benchmarking analysis, the prices for renting *Casa Pousio*’s multipurpose room were established at €50 per hour and €40 per hour for non-associates and associates, respectively, for the 90 sqm room (the entire room). Additionally, rates of €30 per hour and €25 per hour were set for non-associates and associates, respectively, for the 45 sqm rooms (half of the room). Assuming a room schedule from 9 am to 11 pm, seven days a week, and accounting for the room being utilised for other activities for seven hours per week, the room is available for rent 91 hours per week. With an assumed occupation rate of 10%, evenly distributed between the two renting options, and considering non-associates make up 70% of the renters, the room is projected to be rented approximately 40 hours per month. It would be booked in its entirety for half of that time and half of the room for the remaining period, resulting in monthly and annual revenues of €1,496 and €17,950, respectively. Moreover, assuming fixed costs such as utilities are negligible, conducting a break-even analysis is deemed irrelevant. In a pessimistic scenario with an occupation rate of 5%, the annual profit for the activity would decrease to €8,975, *ceteris paribus*. Conversely, in an optimistic scenario with an occupation rate of 15%, annual profits would rise to €26,924, *ceteris paribus*.

4.1.8. Laundering machines

In a meeting with AMUT, the necessity of a laundromat for residents at *Casa Pousio* was discussed and its implementation established. For this purpose, two industrial washing machines and one industrial drying machine with a capacity of nine kilograms each were

considered, with an estimated total cost of €16,863. Through a benchmarking analysis of laundromats in the Gondomar area, the recommended prices for a washing and drying cycle are set at €3.5 and €1, respectively. Assuming each resident completes one washing and drying cycle per week, the total monthly cycles amount to 122 for each kind of machine. This results in a monthly revenue of €549 for *Casa Pousio*'s laundromat. The operational costs involve water and electricity. Assuming a washing cycle takes 30 minutes and requires an average of 80 litres of water, the laundromat would use approximately 9.76 cubic meters monthly. With a progressive pricing structure of €0.63 per cubic meter for the first five cubic meters and €1.44 after that, monthly water costs are €10.01 (Águas de Gondomar 2023). Regarding electricity, the washing and drying machines consume three kilowatts per cycle, totalling 732 kilowatts per month. Considering the price of €0.21 per kilowatt (EDP 2023), *Casa Pousio*'s laundromat incurs monthly electricity costs of €151. This brings the monthly profit of the laundromat to €388 and the annual profit to €4,654. The calculated payback period for the initial investment is 3.62 years.

4.2. Loans

On the current financing agreement, the project's cost is estimated at €2,034,340 plus value-added tax at a rate of 6% that will be fully covered by AMUT's own funds. Depending on the percentage of non-refundable funding from PRR, AMUT will need to secure different loans. Two scenarios have been considered for this model. The first scenario is the most favourable, where PRR fully funds the project, and AMUT only requires a loan for capital expenditures (CAPEX). In the second scenario, regarded as the worst-case by AMUT, PRR contributes 47% of the project's construction costs through non-refundable grants. The remaining 53% are obtained through a self-financing loan – 4% – and subsidised loan – 49%. After consulting with AMUT and banks, it became apparent that the specific loans under PRR are not yet

publicly available, nor is information on their interest rates. This lack of information makes benchmarking unattainable, creating the need for forecasting.

4.2.1. Self-financing loan

A self-financing loan will be contracted by AMUT in case PRR does not fully fund the project. Since the loan is scheduled to be contracted in 2026, an estimate for its interest rate was necessary. The initial step involved forecasting the 12-month Euribor for the same year. As per Bankinter, Euribor is projected to be 4.1%, 3.9%, and 3.4% in 2023, 2024, and 2025, respectively (Bankinter 2023). Assuming a linear trend, this rate is anticipated to be 3.1% and 2.75% in 2026 and 2027, respectively. With a spread of 1.75% for this loan – consistent with the current spread for a social sector loan with a maturity exceeding eight years – the interest rate reaches 4.5% (ECO 2023). A bank consultation affirmed that this spread is deemed fair, particularly with the real guarantee of *Casa Pousio* in case of AMUT defaulting.

4.2.2. Subsidised loan

A subsidised loan is granted under special conditions that enable the institution contracting it to pay a reduced interest rate. As per the Decree of Law No. 37/2018, Article 20, the interest rate subsidy provided by IHRU for ten years is half of the *Taxa de Referência para Cálculo de Bonificações* (TRCB) (Procuradoria-Geral Distrital de Lisboa 2023) (Appendix 25). The TRCB equals the six-month Euribor plus 50 basis points. Since there are no forecasts for the six-month Euribor, it was assumed that the 2027 six-month Euribor would be equal to the 2027 12-month Euribor plus their historical difference. On average, since 1994, the six-month Euribor (ECB 2023a) has been 0.14% lower than the 12-month Euribor (ECB 2023b), with a variance of 0.05% (Appendix 26). This leads to a forecast for the six-month Euribor in 2027 of 2.61%. Consequently, the TRCB for the same year is forecasted to be 3.11%, and the subsidy for the subsidised loan is projected to be 1.55%. The interest rate for this loan is identical to that of the self-financing loan minus this subsidy, amounting to 2.95%.

4.2.3. Equipment loan

In addition to the preceding loans, AMUT will need to secure a loan for equipment, irrespective of the financing scenario. Following consultations with a bank, a spread of 3.5% is assumed for this loan – twice the spread of the self-financing loan, given the absence of collateral – resulting in an interest rate of 6.25%. This loan must be acquired for the total equipment value, estimated at €33,825 for the outdoor fitness equipment, furniture for the common living room and multipurpose room, flats, laundromat, and bicycles (Appendix 27). Due to its nature and amount, the loan is advisable for a five-year term, leading to a monthly instalment of €658 and an annual expense of €7,894.

4.3. Financial viability model

The revenues and costs for each proposed initiative considered earlier were clearly presented and aggregated in a final model. As *Casa Pousio* must be occupied by the end of 2026, per the regulations set by PRR, the consideration of operating cash flows commenced in 2027. Given that the estimated values in section 5.1. correspond to 2023, projections for the subsequent years were necessary. Future rents were forecasted each year based on the rent actualisation coefficient, as predicted by PAA (PAA 2023). The value for 2024 has already been provided. For the following years, rents were estimated using the CAGR of the rent actualisation coefficient from 1999 to 2024 (Portal da Habitação 2023a) (Appendix 28). Other prices and costs were subject to inflation rates of 3.6% and 2.1% for 2024 and 2025, respectively (Banco de Portugal 2023). From 2026 onwards, the inflation rate is assumed to meet the European Central Bank's target of 2%. Additionally, the premiums for rent insurance were adjusted based on a combination of the inflation rate and the rent actualisation coefficient, as its cost depends on the insured rent value. The insurance premium for a given rent is assumed to increase at the inflation rate, whilst the same rent is expected to update according to the coefficient's CAGR.

Finally, it was assumed that the demand for each initiative would remain constant over the years.

Under an IPSS statute, AMUT is exempt from corporate income tax and value added tax on its core initiatives. However, initiatives outside its core, such as “AMUT’*Aluguer*” and the laundromat, are liable to corporate income tax and value added tax at 21% and 23%, respectively. Moreover, rents charged at *Casa Pousio* are exempt from corporate income tax under PAA. As an IPSS, AMUT will be exempt from paying *Imposto Municipal sobre Imóveis* (IMI) as its headquarters will be relocated to *Casa Pousio*.

Subsequently, the net cash flows before debt repayment for each year, starting in 2027, were calculated to understand the available cash generated by *Casa Pousio*. In 2027, this value is estimated at €125,989. These cash flows are anticipated to rise in the following years due to the abovementioned growth rates (Appendix 30).

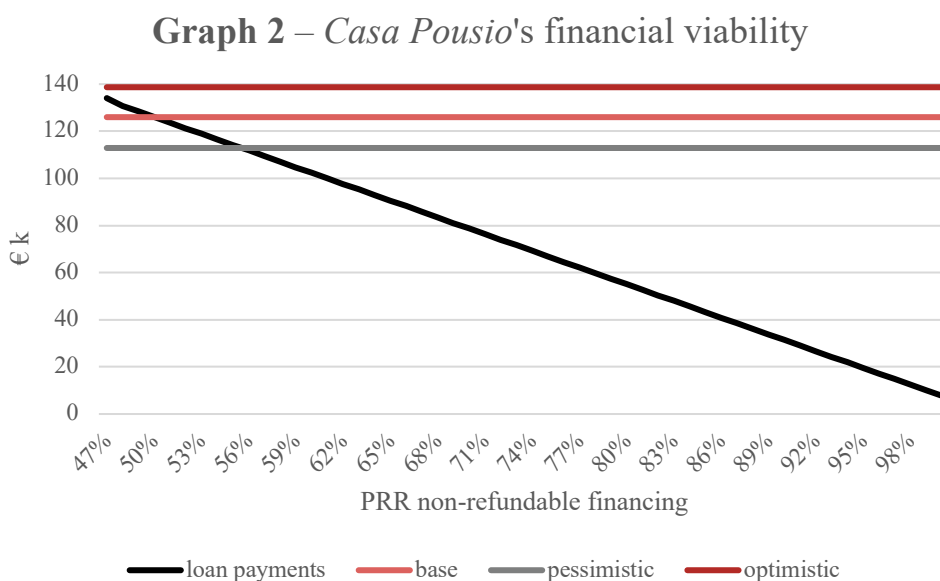
Given the uncertainties associated with these forecasts, two additional models were considered – pessimistic and optimistic. In the pessimistic model, apart from reflecting the decrease in demand explained in section 5.1., costs were increased by 10% – except for rent insurance premiums and costs communicated by AMUT (Appendix 31). Similarly, the optimistic model reflects the aforementioned increase in demand and a 10% reduction in the same costs (Appendix 32). Under these models, the net cash flows before debt repayment for 2027 is expected to decrease to €112,903 and increase to €138,688, respectively.

Considering the previously mentioned funding percentages and the total project cost, loan repayments must be incorporated into the model. Assuming 100% financing from PRR, incorporating the equipment loan repayments into the base model decreases net cash flows after debt repayment to €118,095 in the first year. The pessimistic and optimistic scenarios

predict these net cash flows to be €104,219 and €131,583, respectively. This makes the project financially viable, irrespective of the model used, if PRR funds 100%.

Assuming the worst-case financing scenario in which the project is 47% funded by PRR, the self-financing and subsidised loan must also be incorporated. The former must be procured for €89,385 over ten years. The extended maturity aligns with the project’s nature and the association’s liquidity requirements, resulting in a monthly instalment of €926 and an annual expense of €11,116. The latter must be contracted for €996,786, also for ten years. This results in a monthly instalment of €9,600, translating into an annual expense of €115,205. Incorporating these debt repayments into the base model decreases the expected net cash flows after debt repayment to (€8,227). The pessimistic model predicts net cash flows after debt repayment of (€22,103) for the first year, whilst the optimistic model predicts €5,262. In this scenario, the project is not financially viable under the pessimistic and base models.

The project’s financial unviability under the worst-case financing scenario creates the necessity to assess the minimum percentage of PRR funding required to make the project financially viable.



Under the worst-case financing scenario, the subsidised loan makes up 92% of the amount not funded by PRR, with the remaining 8% coming from the self-financing loan. To make this assessment, these percentages are assumed to remain constant as the funding by PRR increases. The minimum non-refundable funding required from PRR under the base model is 50.02% of the project's construction cost, whilst under the pessimistic model this percentage increases to 55.56% (Graph 2).

Due to the uncertainty associated with interest rate forecasting, a sensitivity analysis was conducted for a positive and negative variation of 100 basis points. According to this analysis, a 100 basis point increase in interest rates renders the project financially unviable in the worst-case financing scenario under the optimistic model, decreasing the net cash flows after debt repayment in the first year to (€1,029) (Appendix 34). In the remaining scenarios, the project's financial viability remains unaltered.

As a final step, the internal rate of return (IRR), cost of debt, and payback period for the project were estimated, considering the base model and the financing scenario with the minimum non-refundable funding by PRR that makes the project financially viable – 50.02%. A weighted average of the contracted loans' interest rates was used for the cost of debt – 3.2%. The project's IRR is 12.6%, assuming a growing perpetuity with a growth rate of 2% from 2037 onwards (Appendix 36). The IRR of AMUT's investment, which neglects the PRR's non-refundable funding and considers only the amount invested by the organisation, is 24.3% (Appendix 37). Compared to the project's cost of debt, these affirm the project's financial viability even further. The payback period for AMUT's investment is eight years and 226 days (Appendix 38).

5. Overall impact

5.1. Dynamic financial model

To maximise the value added to AMUT, the financial sustainability model developed will be delivered to the organisation. For this purpose, a dynamic model was constructed to allow for the complete personalisation of all inputs. The current project values lie on several assumptions and uncertainties that will be replaced by concrete values once the organisation has access to the final terms under which the project will be developed. By then, the model should be updated to reflect all new information, providing the most reliable approximation to reality. To ensure a clear understanding of the model's functionality and guarantee it is used to its full potential, a session will be organised with AMUT's employees.

5.2. Impact measurement of *Casa Pousio*

Measuring impact along the way is extremely important to optimise residents' experience and ensure *Casa Pousio* achieves its main purpose by yielding benefits to its residents since it allows the necessary adjustments to maximise impact. Moreover, the evidence of the progress in residents' well-being from participating in the proposed initiatives is also very valuable to all the stakeholders, building trust and credibility around the project. Furthermore, it is a way to keep residents motivated and engaged in the available activities since people tend to show enthusiasm by experiencing positive results.

Currently, AMUT does not typically assess the social impact of its initiatives, so it is essential to define a methodology to do so. To this end, the procedure AMUT should undertake to evaluate the impact of its activities implies clearly comprehending the business unit through the ToC, establishing key performance indicators (KPIs) that should follow a concise set of attributes, and lastly, measuring and evaluating impact through the data gathered. This framework was implemented for *Casa Pousio*'s project in the following sections (Zall Kusek and Rist 2004).

5.2.1. Theory of change

Before defining the impact measurement, it is pivotal to comprehend integrally the impact components of the project. As such, the ToC is used to understand the framework of social impact that *Casa Pousio* has (Appendix 39).

The inputs of *Casa Pousio* are AMUT full-time employees, the associated professionals, its facilities, the subsidies from private and governmental entities, the occasional volunteers, the institutional partners, and the residents.

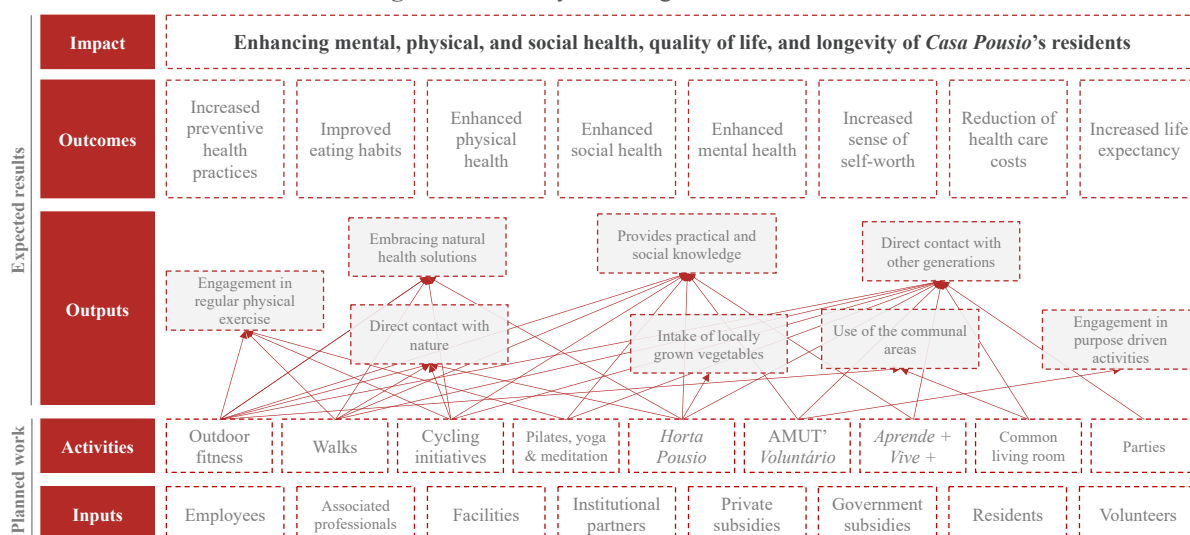
These inputs will enable *Casa Pousio* to establish and maintain its main activities: outdoor fitness, Pilates, yoga and meditation, walks, cycling, “*Horta Pousio*”, “AMUT’*Voluntário*”, “*Aprende + Vive +*”, common living room, and commemorative parties.

Each activity generates a set of outputs that can overlap with each other. For instance, outdoor fitness, Pilates, yoga, meditation, walks, and cycling provide the platform and the opportunities to engage in regular physical exercise. At the same time, walks, cycling, and outdoor fitness offer the chance to have direct contact with nature, which is also an output of “*Horta Pousio*”. The latter also incentivises the embracement of a healthy diet. Notably, all lead to the embracement of natural health solutions. “*Aprende + Vive +*” provides practical and social knowledge, with the latter applicable to every activity. The existence of a common living room and an outdoor fitness area incentivises residents to make use of the communal areas. “AMUT’*Voluntário*” allows residents to engage in purpose-driven activities. Overall, the proposals create an avenue for direct contact between generations (Diagram 2).

The outputs translate into predicted outcomes based on previously developed research, namely the outputs of BZs, IPs, and activities for elders and young adults. These predicted outcomes are the increase of preventive health practices, the improvement of eating habits, the reduction of health costs, and an increase in the sense of self-worth. The outputs also enhance mental, social, and physical health, and average life expectancy.

From these outcomes, the impact of *Casa Pousio* is reflected in the enhancement of mental, physical, and social health, quality of life, and longevity of *Casa Pousio*'s residents. This aligns with the intended impact of AMUT.

Diagram 2 – Theory of Change of *Casa Pousio*



5.2.2. Attributes' definition

Before choosing the KPIs to assess the impact of an activity or project, it is crucial to define the attributes that will determine the suitability of the KPIs for impact measurement.

Examples of possible evaluation attributes include the relevance of the impact, which refers to the alignment between the KPI and the target audience; the precision of the measurement as the chosen KPIs should not be subjective, susceptible to measurement errors, nor easily manipulated by any parties benefiting from reporting positive impacts; the cost of the measurement of a KPI, which should be low; and the actionability of the KPIs, ensuring that they are primarily influenced by the actions of the activity and not impacted by other factors that go beyond the control of the managers (Zall Kusek and Rist 2004).

With these attributes, creating a KPI becomes simpler and more straightforward, as they are being tailored to the previous criteria. If after defining the KPIs there are still uncertainties on whether they meet the idealised attributes, it is suggested to score each attribute on a scale from one to four, for each KPI (Appendix 40). This scoring should be applied to all KPIs.

Subsequently, the scores of each attribute for each KPI are multiplied, and the final scores are ranked from highest to lowest. This ordered list assists in the selection of which KPIs to measure in the future. For those with lower scores, a re-evaluation is recommended to enhance their relevance, precision, actionability, and cost-effectiveness (Zall Kusek and Rist 2004).

5.2.3. Key performance indicators of *Casa Pousio*

The following KPIs were defined considering the previous attributes. The proposed KPIs derive from outcomes of the ToC of *Casa Pousio* as these represent the pressing issues it wants to address.

Monitoring residents' engagement in Pilates, meditation, and yoga sessions and outdoor fitness is important to measure the increase in preventive health practices. The suggested KPIs involve counting the number of sessions attended per resident and the monthly hours spent using outdoor fitness equipment. Additionally, preventive health practices can also be tracked by the number of locally grown fruits and vegetables consumed per week and the hours spent per month on cognitive activities. The former would also allow the organisation to assess the evolution of residents' dietary habits.

To measure physical health improvements, AMUT can track changes in the residents' body mass index and weight, with the associated KPI being the annual change in these metrics. Feedback on residents' perceived physical well-being is also relevant; therefore, an adequate KPI could be a score reflecting their reported physical well-being (Appendix 41).

To understand *Casa Pousio*'s role in its residents' social health, AMUT can keep track of residents' participation in the social activities occurring in *Casa Pousio*. The number of activities the residents are engaged in each month is considered an important KPI on residents' social health. The depth of the relationships among residents could also be tracked. KPIs for social health could be a score regarding the quality of relationships within *Casa Pousio*

(Appendix 42) and the number of hours spent in the common living room per month. Finally, the level of loneliness each resident feels might also be an adequate KPI (Appendix 43).

To measure mental health improvements, AMUT can assess residents' anxiety and stress levels through internal surveys (Appendix 44). A KPI could be the percentage change in stress levels reported. As engaging in relaxation techniques has shown improvements in mental health, AMUT can count the number of meditation sessions residents attend. Attending the “*Aprende + Vive +*” workshops and taking part in the cognitive activities in the common living room are anticipated to have a favourable impact on the resident's mental well-being. As a result, the number of workshops attended and the time spent per month engaging in cognitive activities can serve as two additional KPIs. Moreover, volunteering is considered an activity that contributes to a sense of purpose, positively impacting mental health. This way, monitoring the number of hours each resident volunteers each month is crucial. Collecting feedback on how residents perceive their mental well-being might also be relevant. The associated KPI could be a mental well-being score (Appendix 45). Finally, the level of loneliness could also be assessed (Appendix 43).

To evaluate the improvement in the self-worth felt by each resident, the suggested KPIs are the number of hours spent volunteering – known to be associated with an improved sense of purpose – and the level of generativity – measured through the number of hard skills learned and active participation in activities. Collecting feedback on how residents perceive their self-worth might also be important, and the respective KPI could be a score on this perception (Appendix 46).

To monitor the reduction of healthcare costs, KPIs could include the number of doctor visits and the annual healthcare expenditure per resident.

Similar to what the BZs Project did, measuring an increase in life expectancy involves tracking the number of expected years of life through tools like the “True Vitality Test” (Blue Zones Project 2023) (Appendix 47). To support these indicators, AMUT should conduct interviews once residents enter *Casa Pousio* and track the KPIs yearly through an impact survey.

It is essential to recognise that the suggested KPIs are a starting point, subject to complementation and adaptation based on the depth and quality of impact measurement intended by AMUT.

5.2.4. Impact measurement options

Four different methods to measure impact can be applied: the basic, direct comparison to the region, pre-selected control group, and randomised control group methods. These last three complement the basic method.

Basic method

The initial step to measure impact involves gathering information about *Casa Pousio*'s residents once they move in to assess their current state regarding KPIs. Once settled, a subsequent yearly evaluation should be conducted. This would help determine any changes, enabling AMUT to compare residents' conditions over time.

However, this evaluation alone does not conclusively link changes solely to the project. Other impact measurement methods can complement the basic method to address this limitation. It is important to note that higher measurement accuracy often increases the difficulty and cost of the assessment.

Method 1: Direct comparison to the region

To assess if the evolution is due to the project or external factors, comparing residents' data with data from the region (Gondomar) is crucial. The region's data showcases what might have happened to residents if *Casa Pousio* had not existed. However, if *Casa Pousio* significantly

impacts Gondomar residents, they might not serve as an accurate comparison. In such cases, similar populations in nearby regions could be used for comparison instead.

Method 2: Pre-selected control group

This method relies on creating two groups: an impact group (*Casa Pousio*'s residents) and a control group (individuals not engaged in the project). To form the control group, it is important to select individuals with similar characteristics (age, gender, income, family structure) to the residents. Analysing past trends aids in selecting individuals with comparable past behaviours and metrics. Additionally, individuals interested in *Casa Pousio* but unable to integrate it due to capacity limitations can serve as a control group.

Method 3: Randomised control group

This method aims to have a treated and a control group. The significant difference from the previous model is that the control and impact groups are not picked and chosen. From the wide pool of possible interested people in the project, the allocation of who is selected to enter is completely randomised. Randomly selecting individuals for the intervention minimises biases in beneficiary selection and ensures minimal differences between the treated and control groups, enhancing the accuracy of impact evaluations.

Nonetheless, this would impact the selection of *Casa Pousio*'s residents, as it would necessarily lead to null criteria for the selection process. This approach is deemed unrealistic.

Therefore, the proposal is for AMUT to try to implement the second method to complement the basic method. Several activities already have waiting lists comprising candidates with similar characteristics to the residents, thus increasing the level of accuracy of this method. The method's viability is ensured through the existing communication channels between waitlist members and AMUT.

5.3. Closing remarks

Upon comprehending the primary challenges linked to the age demographics of *Casa Pousio*'s prospective residents, several initial recommendations were formulated to foster intergenerational connections among them whilst enhancing overall well-being, aligning with the BZs concept.

These initial recommendations underwent an impact-feasibility analysis, evaluating their impact on *Casa Pousio* and feasibility of implementation. Subsequently, in collaboration with AMUT's team, the following initiatives are proposed for an initial phase of implementation in *Casa Pousio*: Pilates, yoga, and meditation classes, outdoor fitness activities, walks, provision of bicycles, “*Aprende + Vive +*”, “*Horta Pousio*”, “*AMUT' Voluntário*”, commemorative parties, and common living room. Additionally, the incorporation of AMUT's *Aluguer* and a laundromat is recommended to diversify revenue streams and contribute to the project's financial sustainability.

A financial viability analysis for the project was conducted, exploring various financing scenarios and building upon the latest financing agreement. According to this analysis, when the PRR finances 50.02% of the construction costs, the project proves financially sound under the base model, yielding an IRR over AMUT's investment of 24.3%.

In combination with the financial viability analysis, a dynamic Excel model was developed and presented to AMUT. This tool enhances the project's value by allowing AMUT to adjust model inputs as they approach actual values, thereby optimising decision-making.

Recognising the importance of measuring *Casa Pousio*'s social impact on its residents and acknowledging that AMUT does not usually measure impact, an impact measurement model was developed, and several relevant, precise, low-cost, and actionable KPIs were recommended. Lastly, AMUT should adapt this model and use it as tool to assess the impact of its current endeavours.

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7. Appendices

Appendix 1 – AMUT’s income statement from 2018 to 2022

<i>Income Statement (in thousands, except for %)</i>	2022	2021	2020	2019	2018
Revenues	€ 873	€ 868	€ 711	€ 862	€ 699
Sales and services provided	€ 302	€ 292	€ 255	€ 326	€ 281
% Revenues	35%	34%	36%	38%	40%
Subsidies, donations and legacies for exploration	€ 558	€ 571	€ 444	€ 521	€ 407
% Revenues	64%	66%	62%	60%	58%
Other gains	€ 13	€ 5	€ 11	€ 15	€ 11
% Revenues	1%	1%	2%	2%	2%
Expenses	(€ 926)	(€ 861)	(€ 754)	(€ 856)	(€ 698)
COGSMC	(€ 3)	(€ 2)	(€ 2)	(€ 4)	(€ 0)
% Operating expenses	0%	0%	0%	0%	0%
Supplies and External Services	(€ 156)	(€ 186)	(€ 151)	(€ 235)	(€ 503)
% Operating expenses	17%	22%	20%	27%	72%
Personnel costs	(€ 260)	(€ 234)	(€ 229)	(€ 234)	(€ 178)
% Operating expenses	28%	27%	30%	27%	25%
Other expenses and losses	(€ 506)	(€ 438)	(€ 372)	(€ 383)	(€ 17)
% Operating expenses	55%	51%	49%	45%	2%
EBITDA	(€ 53)	€ 8	(€ 44)	€ 6	€ 1
Depreciation and amortisation	(€ 24)	(€ 23)	(€ 24)	(€ 16)	(€ 11)
EBIT	(€ 77)	(€ 15)	(€ 68)	(€ 10)	(€ 10)
Interest received	€ 18	€ 17	€ 16	€ 14	€ 14
Interest expenses	(€ 0)	€ 0	(€ 0)	€ 0	€ 0
EBT	(€ 59)	€ 2	(€ 51)	€ 4	€ 4
Income tax	(€ 0)	(€ 0)	(€ 0)	(€ 1)	(€ 0)
Net Income	(€ 59)	€ 1	(€ 52)	€ 3	€ 4

Appendix 2 – AMUT’s revenues and costs’ growth rates from 2018 to 2022

<i>Income Statement (in thousands, except for %)</i>	2022	2021	2020	2019	2018	CAGR
Revenues	€ 873	€ 868	€ 711	€ 862	€ 699	6%
Growth (%)	1%	22%	-18%	23%	-	-
Sales and services provided	€ 302	€ 292	€ 255	€ 326	€ 281	2%
Growth (%)	3%	14%	-22%	16%	-	-
Subsidies, donations and legacies for exploration	€ 558	€ 571	€ 444	€ 521	€ 407	8%
Growth (%)	-2%	29%	-15%	28%	-	-
Other gains	€ 13	€ 5	€ 11	€ 15	€ 11	3%
Growth (%)	160%	-57%	-25%	34%	-	-
Expenses	(€ 926)	(€ 861)	(€ 754)	(€ 856)	(€ 698)	7%
Growth (%)	8%	14%	-12%	23%	-	-
COGSMC	(€ 3)	(€ 2)	(€ 2)	(€ 4)	(€ 0)	80%
Growth (%)	34%	19%	-53%	1,304%	-	-
Supplies and external services	(€ 156)	(€ 186)	(€ 151)	(€ 235)	(€ 503)	-25%
Growth (%)	-16%	23%	-36%	-53%	-	-
Personnel costs	(€ 260)	(€ 234)	(€ 229)	(€ 234)	(€ 178)	10%
Growth (%)	11%	2%	-2%	32%	-	-
Other expenses and losses	(€ 506)	(€ 438)	(€ 372)	(€ 383)	(€ 17)	135%
Growth (%)	16%	18%	-3%	2,205%	-	-
EBITDA	(€ 53)	€ 8	(€ 44)	€ 6	€ 1	-
Growth (%)	-775%	-118%	-880%	696%	-	-
Depreciation and amortisation	(€ 24)	(€ 23)	(€ 24)	(€ 16)	(€ 11)	-
EBIT	(€ 77)	(€ 15)	(€ 68)	(€ 10)	(€ 10)	-
Growth (%)	399%	-77%	571%	3%	-	-
Interest received	€ 18	€ 17	€ 16	€ 14	€ 14	-
Interest expenses	(€ 0)	€ 0	(€ 0)	€ 0	€ 0	-
EBT	(€ 59)	€ 2	(€ 51)	€ 4	€ 4	-
Growth (%)	-3,582%	-103%	-1,351%	1%	-	-
Income tax	(€ 0)	(€ 0)	(€ 0)	(€ 1)	(€ 0)	-
Net Income	(€ 59)	€ 1	(€ 52)	€ 3	€ 4	-
Growth (%)	-4,110%	-103%	-1,597%	-3%	-	-

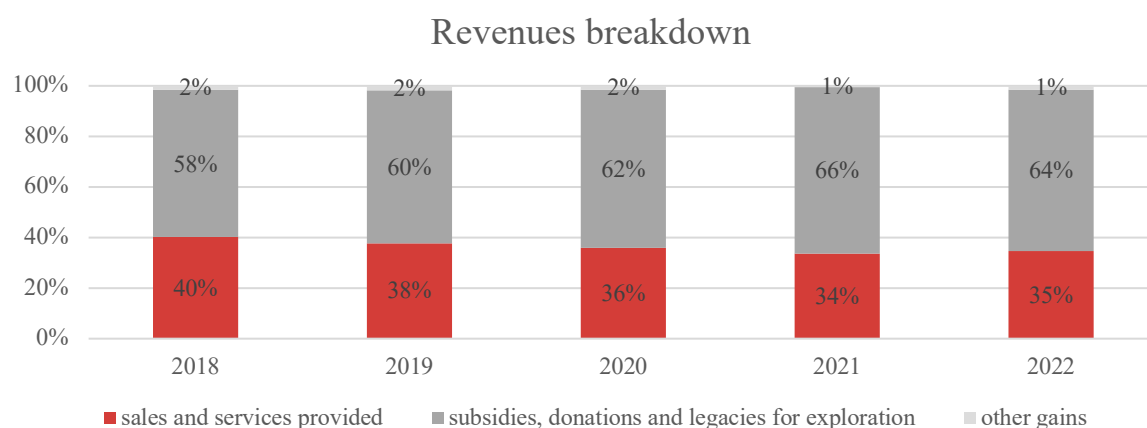
Appendix 3 – AMUT’s income statement from mid-2022 to mid-2023

<i>Income Statement (in thousands)</i>	30/06/2022	30/06/2023	Variation
Revenues	€ 430	€ 418	(€ 12)
Sales and services provided	€ 161	€ 158	(€ 3)
Subsidies, donations and legacies for exploration	€ 264	€ 250	(€ 14)
Other gains & fair value adjustments	€ 4	€ 10	€ 6
Costs	(€ 446)	(€ 459)	(€ 13)
COGSMC	€ 0	(€ 2)	(€ 2)
Supplies and external services	(€ 74)	(€ 71)	€ 3
Personnel costs	(€ 130)	(€ 120)	€ 10
Other expenses and losses	(€ 242)	(€ 267)	(€ 25)
EBITDA	(€ 16)	(€ 41)	(€ 25)
Depreciation and amortisation	(€ 13)	(€ 13)	€ 0
EBIT	(€ 29)	(€ 54)	(€ 25)
Interest received	€ 9	€ 9	(€ 0)
Interest expenses	(€ 0)	€ 0	(€ 0)
EBT	(€ 20)	(€ 45)	(€ 25)
Income tax	€ 0	€ 0	€ 0
Net Income	(€ 20)	(€ 45)	(€ 25)

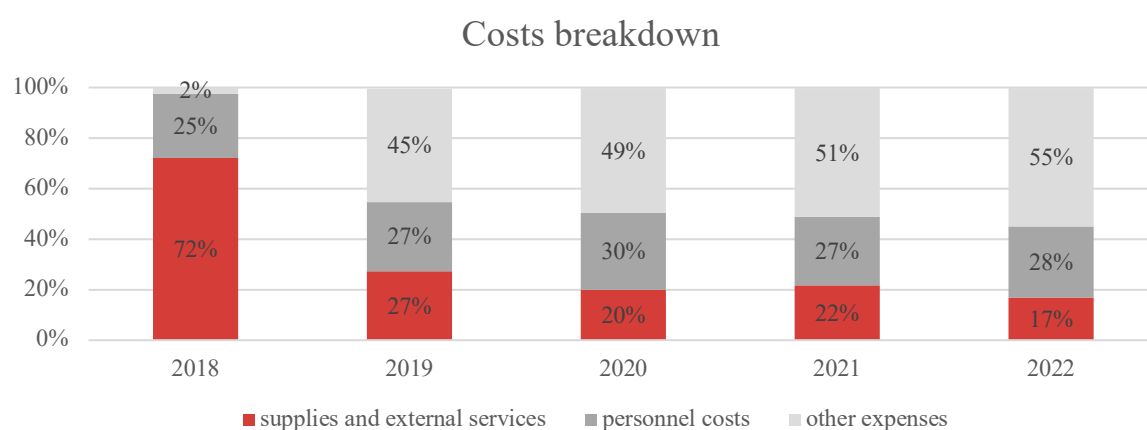
Appendix 4 – AMUT’s subsidies breakdown (2022)

<i>Subsidies (in thousands)</i>	2022	% Subsidies
Subsidies from State and other public entities	€ 525	94%
Câmara Municipal de Gondomar	€ 418	75%
IEFP	€ 3	1%
POISE/IESIM	€ 105	19%
Criatividade	€ 0	0%
Subsidies from other entities	€ 33	6%
Águas de Gondomar	€ 33	6%
Subsidies	€ 558	100%

Appendix 5 – AMUT’s revenues breakdown from 2018 to 2022



Appendix 6 – AMUT’s costs breakdown from 2018 to 2022



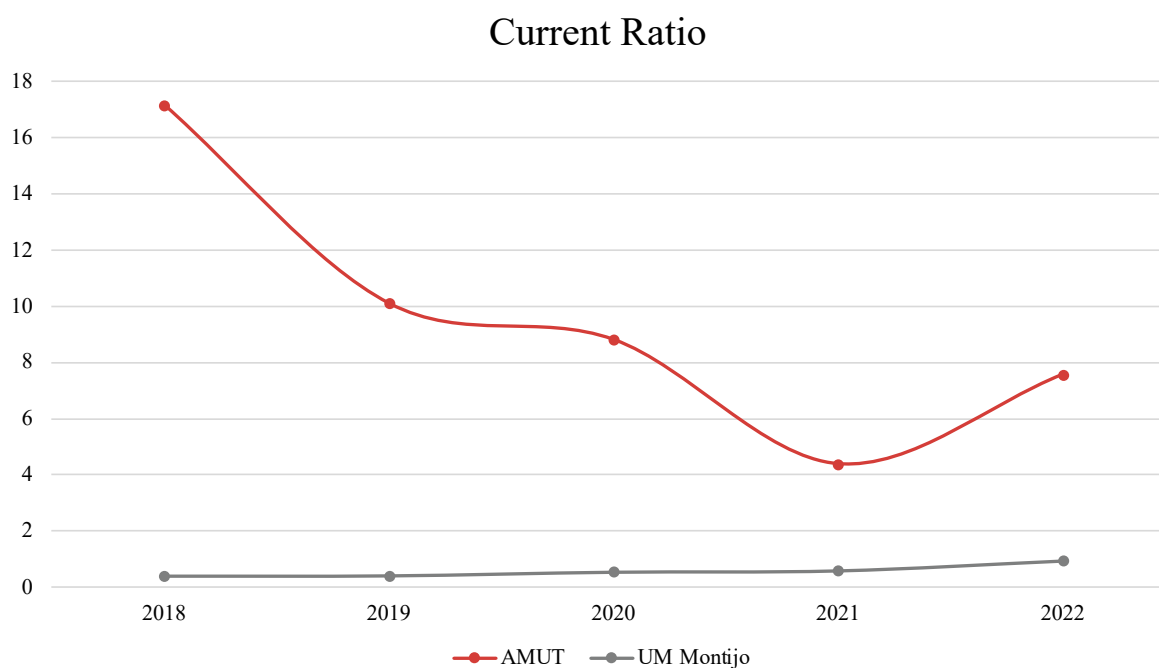
Appendix 7 – AMUT’s balance sheet from 2018 to 2022

<i>Balance Sheet (in thousands)</i>	2022	2021	2020	2019	2018
Assets	€ 1,122	€ 1,285	€ 1,169	€ 1,252	€ 1,233
Non-Current Assets	€ 433	€ 431	€ 458	€ 452	€ 133
Tangible Fixed Assets	€ 427	€ 425	€ 403	€ 399	€ 83
Financial Investments	€ 6	€ 6	€ 54	€ 54	€ 50
Current Assets	€ 689	€ 854	€ 712	€ 800	€ 1,100
Inventory	€ 3	€ 4	€ 5	€ 4	€ 2
Accounts Receivables	€ 0	€ 0	€ 0	€ 0	€ 0
Advances to Suppliers	€ 0	€ 2	€ 4	€ 6	€ 1
Government and other public entities	€ 0	€ 1	€ 2	€ 1	€ 3
Deferrals	€ 60	€ 62	€ 35	€ 87	€ 60
Other current assets	€ 588	€ 688	€ 431	€ 400	€ 416
Cash and deposits	€ 37	€ 96	€ 235	€ 301	€ 619
Total Equity + Liabilities	€ 1,122	€ 1,285	€ 1,169	€ 1,252	€ 1,233
Equity	€ 1,031	€ 1,090	€ 1,089	€ 1,173	€ 1,169
Equity funds	€ 1,090	€ 1,089	€ 1,140	€ 1,169	€ 1,166
Net Income	(€ 59)	€ 1	(€ 52)	€ 3	€ 4
Liabilities	€ 91	€ 195	€ 81	€ 79	€ 64
Non-Current Liabilities	-	-	-	-	-
Current Liabilities	€ 91	€ 195	€ 81	€ 79	€ 64
Suppliers	€ 2	€ 2	€ 1	€ 4	€ 2
Government and other public entities	€ 7	€ 7	€ 6	€ 10	€ 5
Financing obtained	-	-	-	-	-
Deferrals	€ 37	€ 144	€ 35	€ 26	€ 24
Other current liabilities	€ 45	€ 42	€ 38	€ 40	€ 33

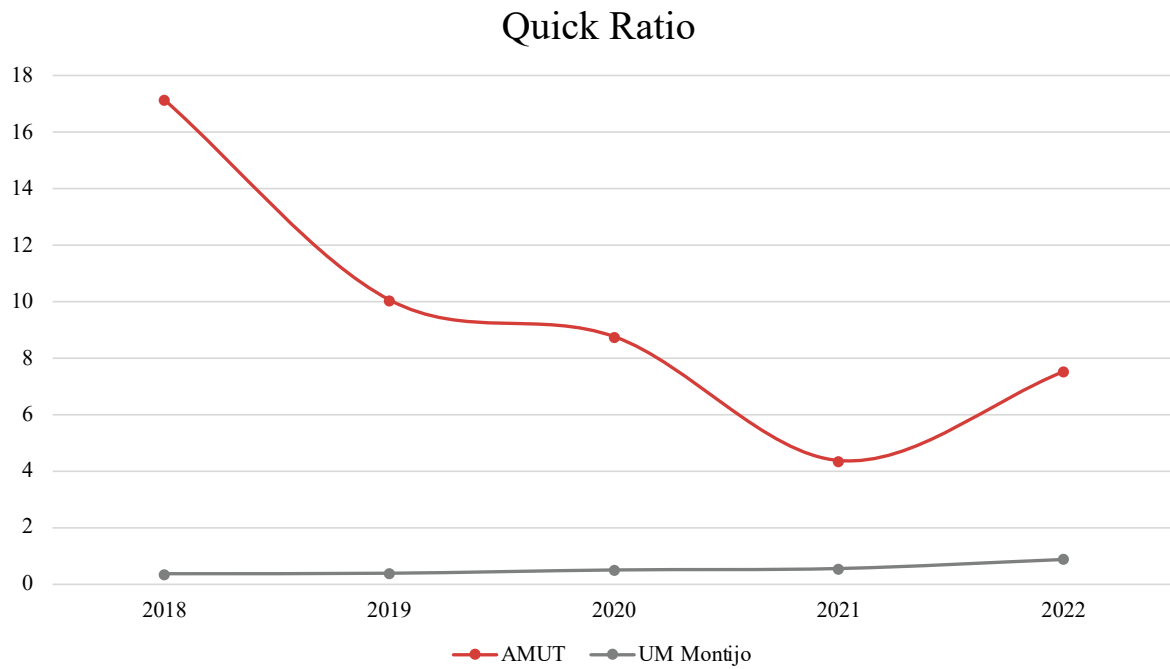
Appendix 8 – União Mutualista do Montijo’s balance sheet

UMM Balance Sheet (in thousands)	2022	2021	2020	2019	2018
Assets	€ 1,428	€ 1,178	€ 1,090	€ 862	€ 788
Current Assets	€ 1,428	€ 1,178	€ 1,090	€ 862	€ 788
Inventory	€ 78	€ 83	€ 96	€ 85	€ 96
Accounts Receivables	€ 601	€ 551	€ 780	€ 556	€ 530
Deferrals	€ 9	€ 29	€ 23	€ 10	€ 12
Other current assets	€ 2	€ 0	€ 0	€ 4	€ 6
Cash and deposits	€ 738	€ 516	€ 192	€ 206	€ 144
Liabilities	€ 9,310	€ 10,215	€ 10,934	€ 11,091	€ 16,890
Non-Current Liabilities	€ 7,775	€ 8,205	€ 8,913	€ 9,002	€ 14,932
Financing obtained	€ 5,472	€ 5,654	€ 5,714	€ 5,658	€ 5,725
Other payable debt	€ 2,303	€ 2,551	€ 3,199	€ 3,344	€ 9,207
Current Liabilities	€ 1,535	€ 2,011	€ 2,021	€ 2,089	€ 1,958
Suppliers	€ 313	€ 445	€ 657	€ 517	€ 306
Government and other public entities	€ 342	€ 355	€ 143	€ 149	€ 165
Financing obtained	€ 164	€ 136	€ 33	€ 55	€ 8
Deferrals	€ 174	€ 17	€ 20	€ 27	€ 28
Other current liabilities	€ 543	€ 1,058	€ 1,169	€ 1,341	€ 1,452

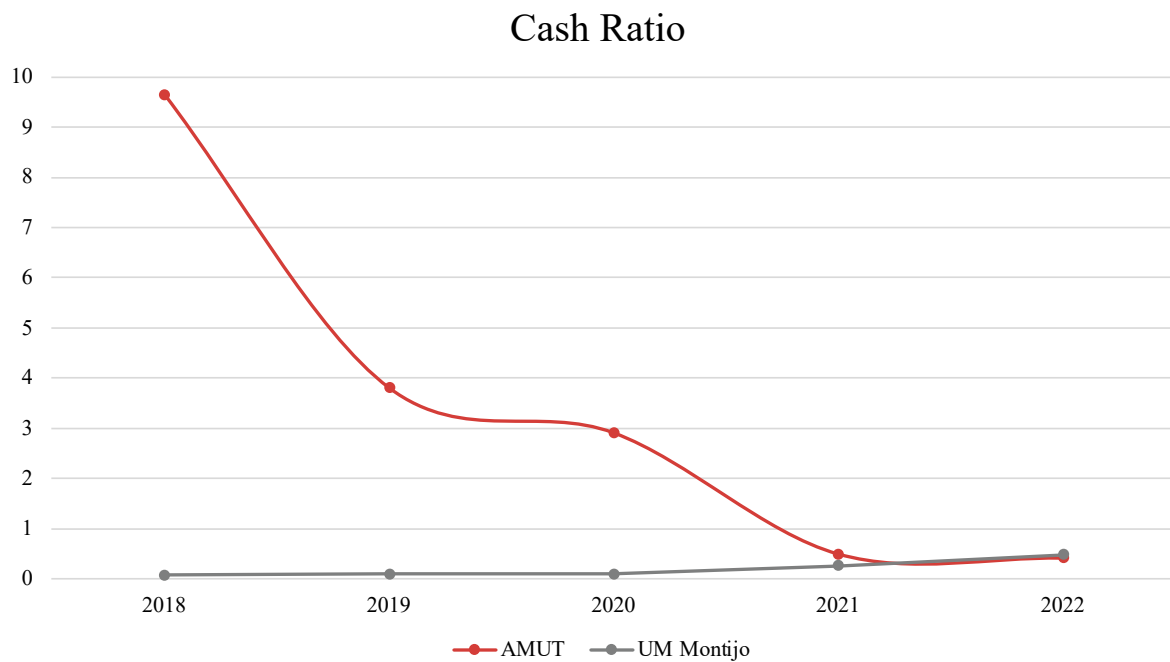
Appendix 9 – AMUT and UMM’s current ratio evolution from 2018 to 2022



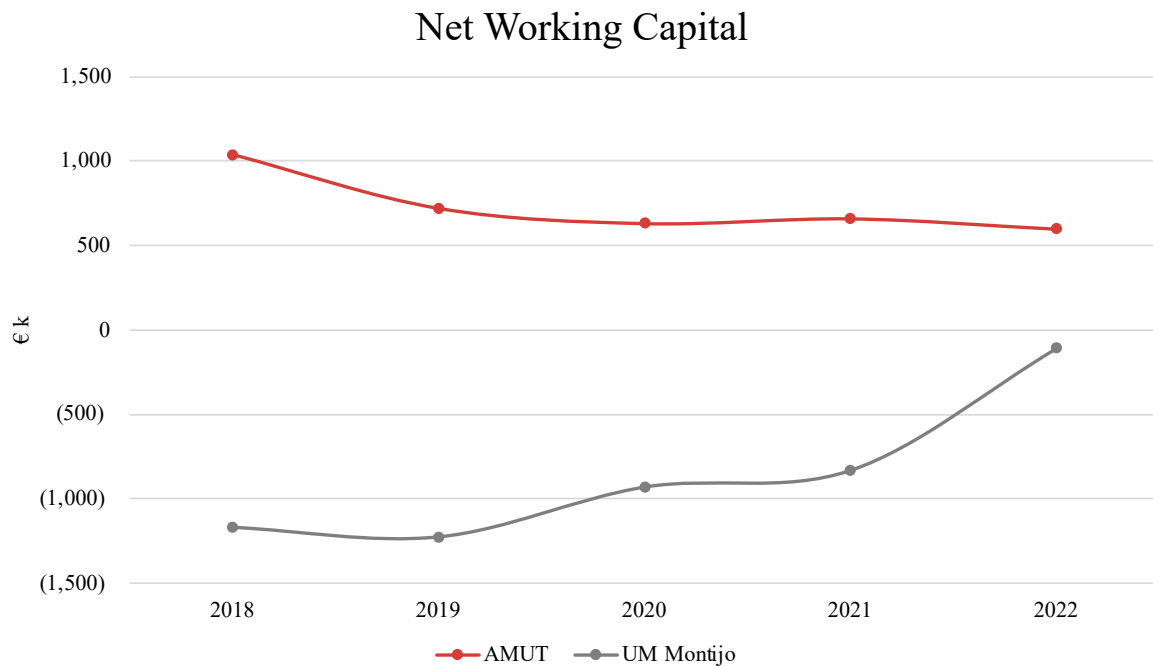
Appendix 10 – AMUT and UMM’s quick ratio evolution from 2018 to 2022



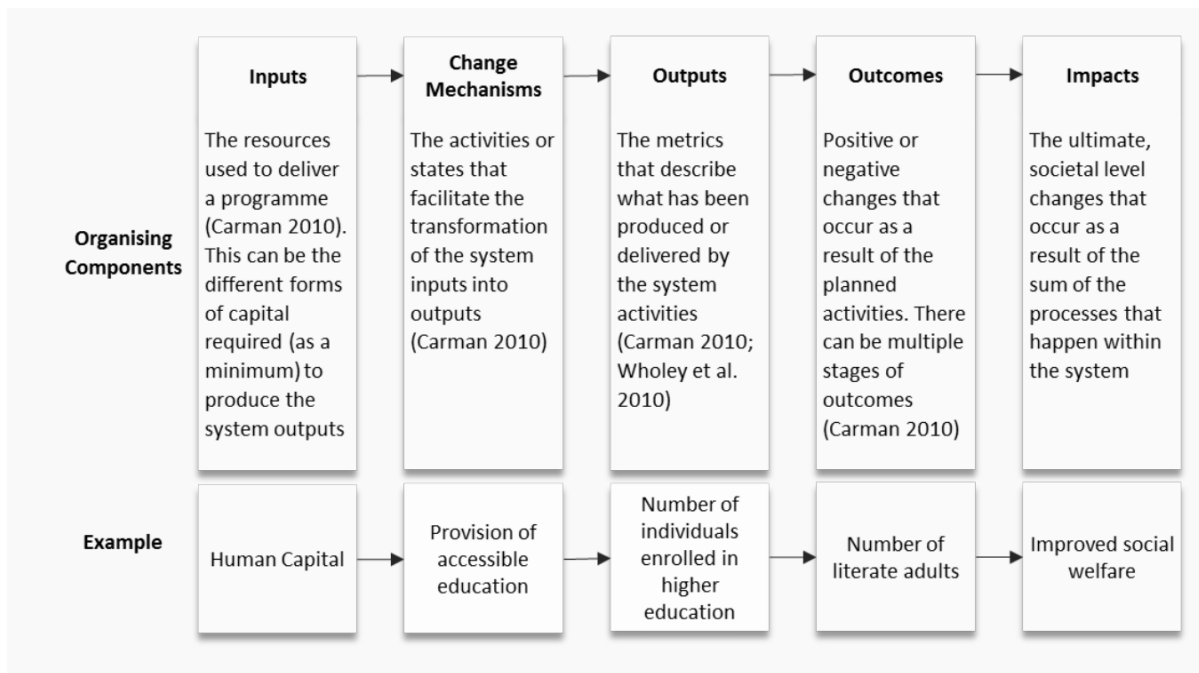
Appendix 11 – AMUT and UMM’s cash ratio evolution from 2018 to 2022



Appendix 12 – AMUT and UMM’s net working capital evolution from 2018 to 2022

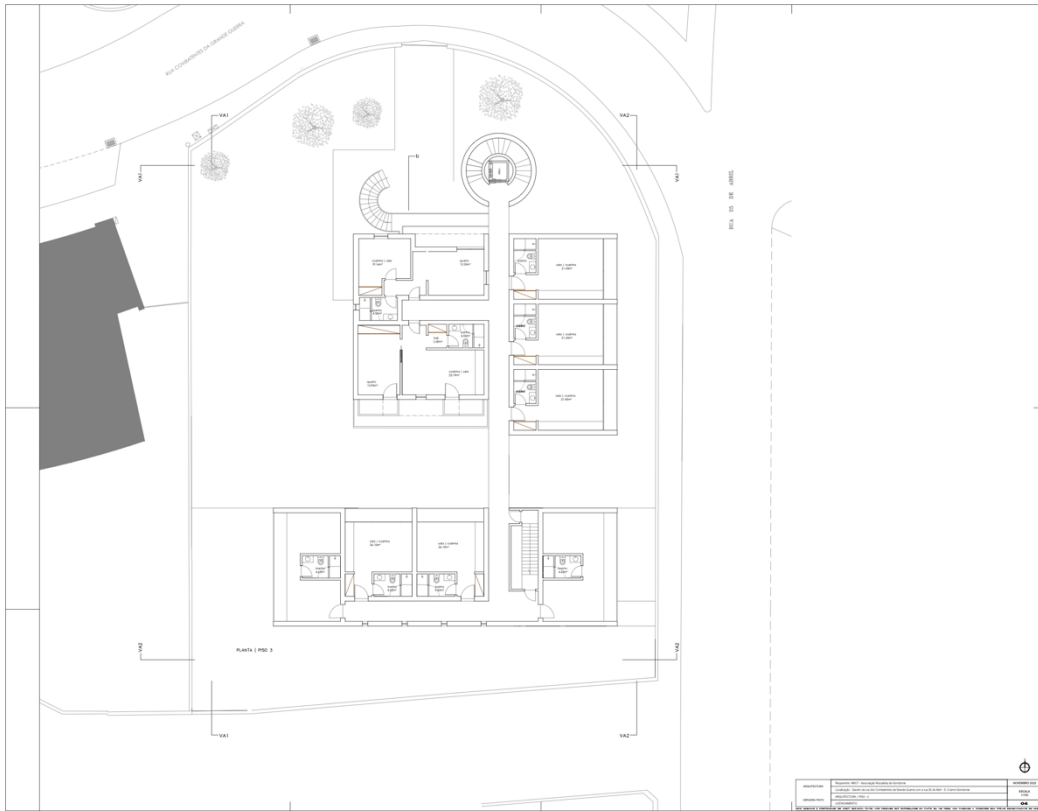


Appendix 13 – ToC Framework

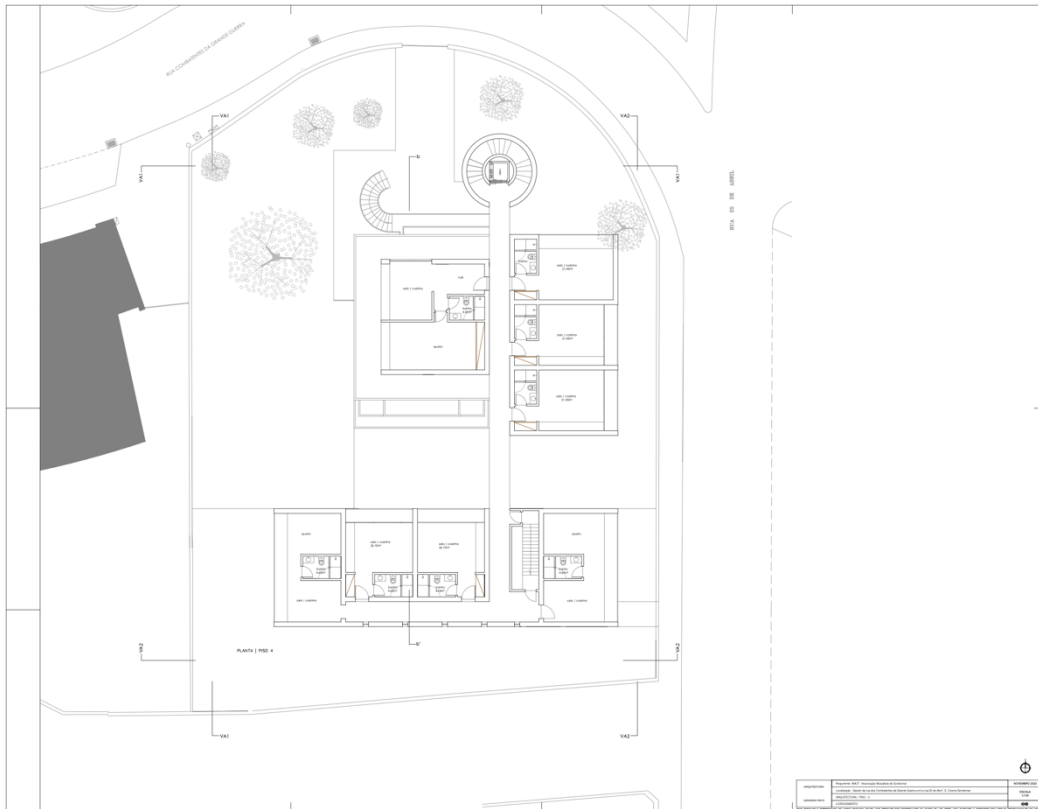


Legend: Organising components of the ToC diagram and a practical example.


Appendix 16 – Casa Pousio’s second floor blueprint



Appendix 17 – Casa Pousio’s third floor blueprint



Appendix 18 – Casa Pousio’s latest financing agreement




HOMOLOGADO POR SUA EXCELENCIA
Secretaria de Estado da Habitação
 Maria Fernanda Rodrigues
 Avenida de Roma, 100
 4700-000 Gondomar
 Tel: 353 202 20 28
 Email: mfr@ihru.pt

ACORDO DE FINANCIAMENTO

Considerando que:

- No quadro da Nova Geração de Políticas de Habitação, aprovada pela Resolução do Conselho de Ministros n.º 50-A/2018, de 2 de maio, o Decreto-Lei n.º 37/2018, de 4 de junho, criou um novo programa de apoio público, o 1.º Direito-Programa de Apoio ao Acesso à Habitação, para promoção de soluções habitacionais para pessoas que vivem em condições habitacionais indignas e que não têm capacidade financeira para suportar o custo do acesso a uma habitação adequada;
- O referido Decreto-Lei n.º 37/2018 define um conjunto de princípios que devem ser observados na execução do 1.º Direito, entre os quais o princípio da acessibilidade habitacional, segundo o qual as pessoas têm direito a que sejam criadas condições para que os custos com o acesso a uma habitação adequada e permanente sejam comportáveis pelo seu orçamento;
- Em alinhamento com esses princípios e com o diagnóstico global atualizado das carências habitacionais identificadas no seu território, cada município deve definir a sua estratégia local em matéria de habitação, priorizando as soluções habitacionais que, em conformidade, pretende ver desenvolvidas ao abrigo do 1.º Direito, no quadro das opções por ele definidas para o desenvolvimento do seu território;
- Em 15 de julho de 2021, o Município de Gondomar aprovou e, posteriormente, remeteu ao Instituto da Habitação e da Reabilitação Urbana, I.P., a sua Estratégia Local de Habitação, na qual estão sinalizadas as situações de carência habitacional existentes no seu território e definidas as soluções habitacionais nas quais se devem enquadrar todos os pedidos de apoio ao abrigo do 1.º Direito;
- A AMUT – Associação Mutualista de Gondomar solicitou, ademais, a celebração do presente Acordo de Financiamento, no qual se identificam as soluções habitacionais que se propõe promover, direta e ou indiretamente, a programação da sua execução e a estimativa dos correspondentes montantes globais de investimento e de financiamento ao abrigo do 1.º Direito, sem prejuízo de, no que respeita às soluções habitacionais enquadráveis nas condições de cumprimento do Plano de Recuperação e Resiliência, os montantes de comparticipação e de financiamento serem reformulados em função da aplicação desse Plano, em conformidade com o que dispõe a Portaria n.º 138-C/2021, de 30 de junho;

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ENTRE:
 O INSTITUTO DA HABITAÇÃO E DA REABILITAÇÃO URBANA, I.P., instituto público dotado de autonomia administrativa e financeira e património próprio, com sede na Avenida Columbano Bordalo Pinheiro, n.º 5, em Lisboa, pessoa coletiva número 501 450 888, com o correio eletrónico ihru@ihru.pt, de ora em diante designado por IHURU, I.P., representado por Isabel Maria Martins Dias, que outorga na qualidade de Presidente do Conselho Diretivo, ao abrigo do disposto no n.º 4 do artigo 5.º do Decreto – Lei n.º 175/2012, de 2 de agosto, na sua atual redação;

E
 A AMUT – ASSOCIAÇÃO MUTUALISTA DE GONDOMAR, com sede na Rua 5 de Outubro, 135, em Gondomar, pessoa coletiva número 501 634 851, com o correio eletrónico ca@amut.pt, de ora em diante designada por Entidade Beneficiária, representada por Ângela da Conceição Vieira Pereira, que outorga na qualidade de Presidente do Conselho de Administração e Maria Antónia Pereira Ferreira, que outorga na qualidade de Vogal do Conselho de Administração, ambas ao abrigo do disposto no n.º 1, do art.º 32 dos Estatutos da AMUT – ASSOCIAÇÃO MUTUALISTA DE GONDOMAR, e do n.º 7, da Ata Nº 01/2021 do Conselho de Administração de 12/01/2021;

É celebrado e reduzido a escrito, ao abrigo do disposto nos artigos 65.º a 69.º do Decreto-Lei n.º 37/2018, de 4 de junho, na sua atual redação, e no artigo 17.º do Decreto-Lei n.º 384/87, de 24 de dezembro, o presente Acordo de Financiamento, de natureza programática, adiante designado por Acordo, que se rege pelo referido Decreto-Lei n.º 37/2018, pela Portaria n.º 230/2018, de 17 de agosto, na sua atual redação, e pelas seguintes cláusulas:

Cláusula Primeira
(Objeto)
 O presente Acordo define a programação estratégica das soluções habitacionais a apoiar ao abrigo do programa 1.º Direito para os 28 (vinte e oito) agregados, correspondentes a 48 (quarenta e oito) pessoas, que vivem em condições habitacionais indignas no Município de Gondomar.


Cláusula Segunda
(Modalidades de soluções habitacionais)
 A Entidade Beneficiária, em função das necessidades habitacionais das pessoas e dos agregados referidos na cláusula anterior, vai promover as seguintes soluções habitacionais:

- Reabilitação de frações ou de prédios habitacionais;
- Construção de prédios ou empreendimentos habitacionais.

Cláusula Terceira
(Valores do investimento e do financiamento)

- O valor total do investimento necessário ao cumprimento dos objetivos indicados na Cláusula Primeira é estimado em 2.034.340,00€ (dois milhões trinta e quatro mil trezentos e quatro

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euros), de acordo com a programação financeira constante do Anexo I do presente Acordo, que dele constitui parte integrante.

- Do valor indicado no número anterior, o IHURU, I.P., prevê disponibilizar um financiamento que se estima no valor total de 1.944.355,00€ (um milhão novecentos e quarenta e quatro mil novecentos e cinquenta e cinco euros), sendo 948.169,00€ (novecentos e quarenta e oito mil cento e sessenta e nove euros), concedidos sob a forma de comparticipações financeiras não reembolsáveis, e 996.786,00€ (novecentos e noventa e seis mil setecentos e oitenta e seis euros), a título de empréstimo bonificado, com a imputação a cada uma das soluções habitacionais, nos termos constantes do Anexo I.

Cláusula Quarta
(Condições e limites dos financiamentos)


- O financiamento a conceder pelo IHURU, I.P., referido na cláusula anterior, independentemente da sua modalidade, é concretizado, relativamente a cada solução habitacional a promover, através da celebração de contratos de comparticipação e de empréstimo.
- Os contratos referidos no número anterior estão sujeitos às condições e limites máximos estabelecidos, de acordo com o respetivo objeto, no Decreto-Lei n.º 37/2018, de 4 de junho.
- A celebração dos contratos de comparticipação está condicionada à existência da necessária dotação orçamental, em conformidade com o disposto no artigo 70.º do Decreto-Lei n.º 37/2018, de 4 de junho e do n.º 4 do artigo 14.º da Portaria n.º 230/2018, de 17 de agosto, cabendo ao IHURU avaliar a oportunidade da respetiva concessão em função das suas disponibilidades financeiras e orçamentais.

Cláusula Quinta
(Duração)
 Este Acordo tem a duração máxima de 6 (seis) anos a contar da data da sua celebração, sob pena de caducidade, sem prejuízo da conclusão das soluções habitacionais cujos contratos de comparticipação já tenham sido celebrados quando aquela for atingida.

Cláusula Sexta
(Relatórios)

- A Entidade Beneficiária, decorrido o prazo de 1 ano a contar da data da celebração do presente Acordo e em cada ano subsequente, até ser atingido o prazo da cláusula anterior, remete ao IHURU, I.P. um relatório sobre a sua execução e, se, for o caso, uma proposta fundamentada de atualização do mesmo face a alterações que se tenham verificado, designadamente ao nível do universo das pessoas e dos agregados abrangidos pelas soluções habitacionais objeto do presente Acordo.
- O último dos relatórios referidos no número anterior, que precede o termo do prazo do presente Acordo, deve prever as atualizações necessárias à efetiva conclusão das soluções habitacionais melhor identificadas na cláusula Segunda, dentro do prazo referido na cláusula Quinta.

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Cláusula Sétima
(Alterações)
 As alterações que determinem um acréscimo do montante global do financiamento previsto no n.º 2 da cláusula Terceira devem constar de aditamento ao presente Acordo, que carece de homologação do membro do Governo responsável pela área da habitação.

Cláusula Oitava
(Interpretação)
 Qualquer dúvida ou lacuna relativa ao presente Acordo é resolvida por troca de informação entre os ora Outorgantes, preferencialmente por via eletrónica.

Cláusula Nona
(Legislação Aplicável)
 O presente Acordo rege-se pelo disposto no Decreto-Lei n.º 37/2018, de 4 de junho, na sua atual redação, e na Portaria n.º 230/2018, de 17 de agosto, na sua atual redação.

Cláusula Décima
(Proteção de Dados Pessoais)
 Os outorgantes no desenvolvimento de quaisquer atividades relacionadas com a execução do presente contrato, que envolvam o tratamento de dados pessoais, observam o disposto no Regulamento (EU) 2016/679 do Parlamento Europeu e do Conselho, de 27 de abril (Regulamento Geral de Proteção de Dados) e demais legislação aplicável.

Assinado eletronicamente por cada um dos outorgantes,
INSTITUTO DA HABITAÇÃO E DA REABILITAÇÃO URBANA, I.P.

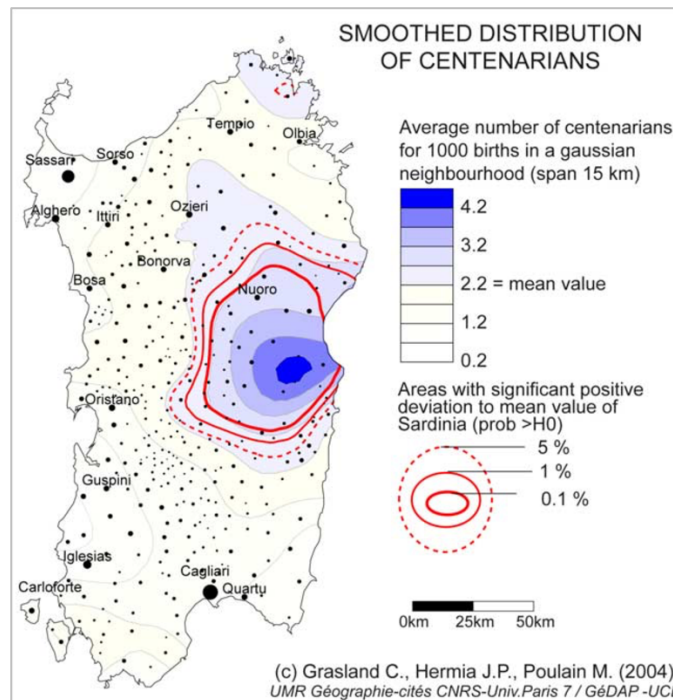
A AMUT – ASSOCIAÇÃO MUTUALISTA DE GONDOMAR

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PROGRAMAÇÃO FINANCEIRA

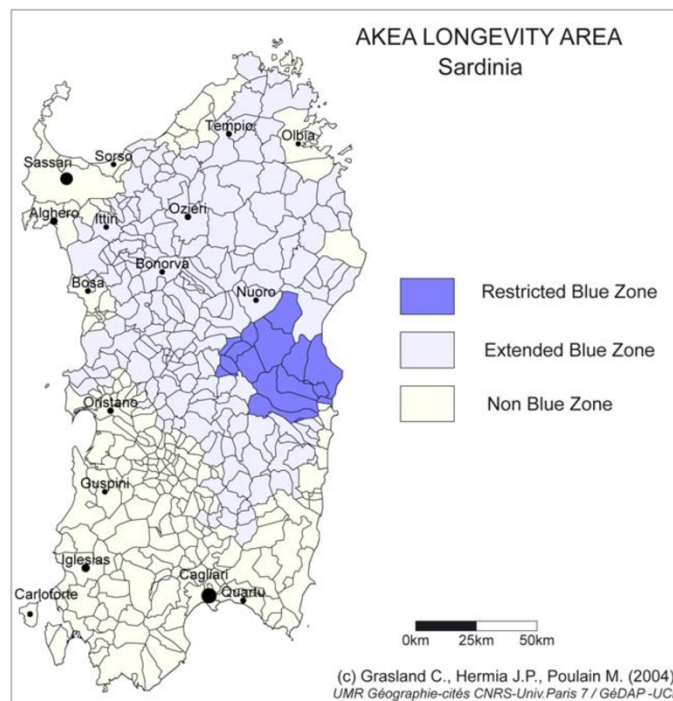
Designação	Tipo de solução	Entidade promotora	Art. 18º n.º 3 DL 37/2018	N.º Fogos/alojamentos	A/Hab Total [m²]	Fuste	PROGRAMAÇÃO FINANCEIRA (INVESTIMENTO PREVISTO / ANO)				
							2023	2024	2025	Total	
2.1.10 - AMUT – Associação Mutualista de Gondomar - reabilitação - Unidade residencial com 6 quartos para pessoas com doença mental, em situação de sem abrigo e idosos	Reabilitação de frações ou de prédios habitacionais - art.º 29.º b)	AMUT - Associação Mutualista de Gondomar	Pessoas vulneráveis - Art.º 10	12	600		300.000,00 €	571.860,00 €		871.860,00 €	
2.1.15 - AMUT – Associação Mutualista de Gondomar - construção - Unidade residencial com 8 quartos para pessoas com doença mental, em situação de sem abrigo e idosos	Construção de prédios ou empreendimentos habitacionais - art.º 29.º b)	AMUT - Associação Mutualista de Gondomar	Pessoas vulneráveis - Art.º 10	16	800			550.000,00 €	612.480,00 €	1.162.480,00 €	
TOTAL				28	1.400		300.000,00 €	1.121.860,00 €	612.480,00 €	2.034.340,00 €	
FONTES DE FINANCIAMENTO											
Comparticipação IHURU								151.032,28 €	528.832,21 €	268.304,64 €	948.169,00 €
Empréstimo bonificado								135.786,39 €	543.735,75 €	317.264,34 €	996.786,00 €
Autofinanciamento								13.181,34 €	49.292,05 €	26.911,02 €	89.385,00 €
Outras											

Appendix 19 – Extreme Longevity Index Map represented through a smoothed distribution of centenarians



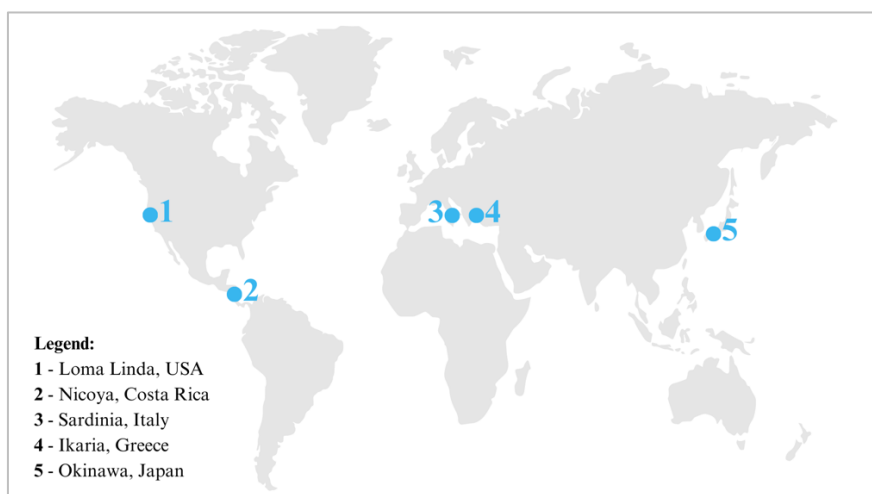
Legend: The Extreme Longevity Index was represented by varying shades of blue, similar to isobar maps. The darker the blue shade, the higher the index value.

Appendix 20 – Extreme Longevity Index Map represented by municipality



Legend: The Extreme Longevity Index Map of Appendix 20 was organised by municipality.

Appendix 21 – Geographical locations of the Blue Zones



Appendix 22 – AMUT’s activities portfolio and respective pricing

Workshops	Time	Price (€)		Price/hour (€)	
		Associates	Non-associates	Associates	Non-associates
Ayurveda - Alimentação e Rotinas	2H	5	8	2.50	4.00
Happiness Skills: Competências de Felicidade para uma vida com maior Bem-Estar	5H	12	16	2.40	3.20
Oficina de Arte e Artesanato	2H	5	8	2.50	4.00
Construção Social da Felicidade	2H	15	20	7.50	10.00
Gestão de Finanças Pessoais	1:30H	8	10	5.33	6.67
Danças Circulares	2H	6	8	3.00	4.00
Ioga para crianças	1H	3	5	3.00	5.00
Hidroterapia e Yoga	4H	33	35	8.25	8.75
Curso Primeiros Socorros	8H	22	26	2.75	3.25
Criança Interior	4H	20	23	5.00	5.75
Ancestralidade	4H	20	23	5.00	5.75
Nossos Sonhos e projetos da Vida	4H	20	23	5.00	5.75
Ritual de Consagração do Xaile	4H	20	23	5.00	5.75
Total				57	72
Average hourly price				4.40	5.53

Physical health	Time	Price (€)		Price/hour (€)	
		Associates	Non-associates	Associates	Non-associates
Yoga	1H	12	15	13.00	16.00
Pilates	1H	15	18	15.00	18.00
Relax	1H	8	13	13.00	16.00
Total				41	50
Average hourly price				13.67	16.67

Appendix 23 – Casa Pousio’s rents simulation in Portal da Habitação

 **Arrendamento Acessível**
Decreto-Lei n.º 160/2019, de 22 de maio de 2019

SIMULAÇÃO DE VALOR DE RENDA DO ALOJAMENTO

MORADA DO ALOJAMENTO

Gondomar, União das freguesias de Gondomar (São Cosme), Valbom e Jovim

MODALIDADE DE ALOJAMENTO

Habitação

TIPOLOGIA	OCUPAÇÃO MÍNIMA
T0	1 Pessoa

A RENDA DEVE SER INFERIOR A:

301 €

* No âmbito do Programa de Arrendamento Acessível a renda a acordar entre as partes tem de ser inferior ao valor indicado.

DATA DA SIMULAÇÃO

202312102

Esta simulação não serve para efeitos de registo nem de celebração de contrato.

 **Arrendamento Acessível**
Decreto-Lei n.º 160/2019, de 22 de maio de 2019

SIMULAÇÃO DE VALOR DE RENDA DO ALOJAMENTO

MORADA DO ALOJAMENTO

Gondomar, União das freguesias de Gondomar (São Cosme), Valbom e Jovim

MODALIDADE DE ALOJAMENTO

Habitação

TIPOLOGIA	OCUPAÇÃO MÍNIMA
T0	1 Pessoa

A RENDA DEVE SER INFERIOR A:

249 €

* No âmbito do Programa de Arrendamento Acessível a renda a acordar entre as partes tem de ser inferior ao valor indicado.

DATA DA SIMULAÇÃO

202312102

Esta simulação não serve para efeitos de registo nem de celebração de contrato.

 **Arrendamento Acessível**
Decreto-Lei n.º 160/2019, de 22 de maio de 2019

SIMULAÇÃO DE VALOR DE RENDA DO ALOJAMENTO

MORADA DO ALOJAMENTO

Gondomar, União das freguesias de Gondomar (São Cosme), Valbom e Jovim

MODALIDADE DE ALOJAMENTO

Habitação

TIPOLOGIA	OCUPAÇÃO MÍNIMA
T0	1 Pessoa

A RENDA DEVE SER INFERIOR A:

243 €

* No âmbito do Programa de Arrendamento Acessível a renda a acordar entre as partes tem de ser inferior ao valor indicado.

DATA DA SIMULAÇÃO

202312102

Esta simulação não serve para efeitos de registo nem de celebração de contrato.

 **Arrendamento Acessível**
Decreto-Lei n.º 160/2019, de 22 de maio de 2019

SIMULAÇÃO DE VALOR DE RENDA DO ALOJAMENTO

MORADA DO ALOJAMENTO

Gondomar, União das freguesias de Gondomar (São Cosme), Valbom e Jovim

MODALIDADE DE ALOJAMENTO

Habitação

TIPOLOGIA	OCUPAÇÃO MÍNIMA
T0	1 Pessoa

A RENDA DEVE SER INFERIOR A:

271 €

* No âmbito do Programa de Arrendamento Acessível a renda a acordar entre as partes tem de ser inferior ao valor indicado.

DATA DA SIMULAÇÃO

202312102

Esta simulação não serve para efeitos de registo nem de celebração de contrato.



SIMULAÇÃO DE VALOR DE RENDA DO ALOJAMENTO

MORADA DO ALOJAMENTO

Gondomar, União das freguesias de Gondomar (São Cosme), Valbom e Jovim

MODALIDADE DE ALOJAMENTO

Habitação

TIPOLOGIA OCUPAÇÃO MÍNIMA

T0

1 Pessoas

A RENDA DEVE SER INFERIOR A:

287 €

* No âmbito do Programa de Arrendamento Acessível a renda a acordar entre as partes tem de ser inferior ao valor indicado.

DATA DA SIMULAÇÃO

2023/12/02

Esta simulação não serve para efeitos de registo nem de celebração de contrato.



SIMULAÇÃO DE VALOR DE RENDA DO ALOJAMENTO

MORADA DO ALOJAMENTO

Gondomar, União das freguesias de Gondomar (São Cosme), Valbom e Jovim

MODALIDADE DE ALOJAMENTO

Habitação

TIPOLOGIA OCUPAÇÃO MÍNIMA

T1

1 Pessoas

A RENDA DEVE SER INFERIOR A:

357 €

* No âmbito do Programa de Arrendamento Acessível a renda a acordar entre as partes tem de ser inferior ao valor indicado.

DATA DA SIMULAÇÃO

2023/12/02

Esta simulação não serve para efeitos de registo nem de celebração de contrato.



SIMULAÇÃO DE VALOR DE RENDA DO ALOJAMENTO

MORADA DO ALOJAMENTO

Gondomar, União das freguesias de Gondomar (São Cosme), Valbom e Jovim

MODALIDADE DE ALOJAMENTO

Habitação

TIPOLOGIA OCUPAÇÃO MÍNIMA

T1

1 Pessoas

A RENDA DEVE SER INFERIOR A:

354 €

* No âmbito do Programa de Arrendamento Acessível a renda a acordar entre as partes tem de ser inferior ao valor indicado.

DATA DA SIMULAÇÃO

2023/12/02

Esta simulação não serve para efeitos de registo nem de celebração de contrato.

Appendix 24 – Flats’ rents and rent insurance premium

	No. of units	Area (sqm)		Floor	Furnished	Rent	Rent insurance premium
		Flat	Balcony				
Studio	2	36	5	Ground	Yes	€ 300.99	€ 3.94
	3	26	5	First	Yes	€ 248.99	€ 3.26
	3	26	5	Second	Yes	€ 248.99	€ 3.26
	1	26	5	Third	Yes	€ 248.99	€ 3.26
	2	26	5	Third	No	€ 242.99	€ 3.18
	3	31	5	First	No	€ 270.99	€ 3.54
	2	31	5	Second	No	€ 270.99	€ 3.54
	2	31	5	Third	No	€ 270.99	€ 3.54
	1	31	10	First	Yes	€ 286.99	€ 3.75
	2	31	10	Second	Yes	€ 286.99	€ 3.75
One bedroom	2	46	10	First	No	€ 356.99	€ 4.67
	2	46	10	Second	No	€ 356.99	€ 4.67
	1	46	10	Attic	No	€ 353.99	€ 4.63

Appendix 25 – Decree of Law No. 37/2018, Article 20

SUMÁRIO
<p>Cria o 1.º Direito - Programa de Apoio ao Acesso à Habitação</p> <hr/> <p>Decreto-Lei n.º 37/2018, de 4 de junho</p> <p>O XXI Governo Constitucional reconheceu, no âmbito das suas prioridades políticas, o papel central da habitação e da reabilitação para a melhoria da qualidade de vida das populações, para a revitalização e competitividade das cidades e para a coesão social e territorial.</p> <p>De facto, apesar de uma redução quantitativa das carências habitacionais, persistem problemas de natureza estrutural no setor da habitação, com efeitos ao nível do acesso a uma habitação condigna por parte da população. As profundas alterações verificadas nos modos de vida e nas condições socioeconómicas das populações e os efeitos da conjugação de anteriores políticas de habitação e da mudança de paradigma no acesso ao mercado de habitação, precipitada pela crise económica e financeira internacional, geraram uma combinação de carências conjunturais com necessidades de habitação de natureza estrutural a que importa dar resposta, assegurando simultaneamente o equilíbrio entre os vários segmentos de ofertas habitacionais e a funcionalidade global do sistema.</p> <p>A esse fenómeno aliam-se deficiências na qualificação do edificado e lacunas no domínio da coesão socioterritorial, apenas superáveis mediante a implementação de dinâmicas de revitalização social e de reestruturação urbana e através da prevenção de fenómenos de segregação socioterritorial, gentrificação, despoamento dos centros urbanos e periferização habitacional.</p> <p>Os múltiplos desafios que se colocam à política de habitação e à reabilitação exigem ademais uma abordagem integrada ao nível das políticas setoriais, das escalas territoriais e do envolvimento dos vários atores, a par com a flexibilidade para a adequação às especificidades próprias do edificado, dos territórios e das comunidades.</p> <p>Nessa medida, a Nova Geração de Políticas de Habitação (NGPH), aprovada pela Resolução do Conselho de Ministros n.º 50-A/2018, de 2 de maio, é orientada no sentido de acomodar o aumento da população excluída do acesso à habitação por situações de grave carência e vulnerabilidade várias, incentivando, nomeadamente, uma oferta alargada de habitação para arrendamento público.</p> <p>As questões da habitação e da reabilitação, bem como do arrendamento, exigem, assim, uma implementação segura e estruturada de soluções e respostas de política pública no setor da habitação que garantam o acesso a uma habitação adequada às pessoas que vivem em condições indignas e cuja situação de carência financeira as impede de aceder a soluções habitacionais no mercado.</p> <p>Destaca-se nesse palco o papel imprescindível e instrumental das autarquias locais na construção e implementação de respostas mais eficazes e eficientes, dada a sua relação de proximidade com os cidadãos e com o território, que lhes permite ter uma noção mais precisa dos desafios e dos recursos passíveis de mobilização.</p> <p>No quadro das soluções e respostas de política pública prosseguidas pela NGPH, o presente decreto-lei cria um novo programa de apoio público, o 1.º Direito - Programa de Apoio ao Acesso à Habitação, orientado para assegurar o acesso a uma habitação adequada às pessoas que vivem em situações indignas e que não dispõem de capacidade financeira para aceder, sem apoio, a uma solução habitacional adequada.</p> <p>A resposta, para além do apoio direto às pessoas, assenta numa dinâmica promocional predominantemente dirigida à reabilitação do edificado e ao arrendamento e em abordagens integradas e participativas que promovam a inclusão social e territorial, mediante uma forte cooperação entre políticas e organismos setoriais, entre as administrações central, regional e local e entre os setores público, privado e cooperativo, bem como uma maior proximidade às populações.</p> <p>Foram ouvidos os órgãos de governo próprio das Regiões Autónomas e a Associação Nacional de Municípios Portugueses.</p> <p>Assim:</p> <p>Nos termos da alínea a) do n.º 1 do artigo 198.º da Constituição, o Governo decreta o seguinte:</p>
<p>Artigo 20.º</p> <p>Condições gerais dos empréstimos</p> <p>1 - Sem prejuízo dos limites estabelecidos nos n.os 2 e 3 do artigo 18.º, a parte das despesas elegíveis que não é comparticipada pode ser financiada com empréstimos bonificados.</p> <p>2 - A bonificação da taxa juro é de metade da taxa de referência para o cálculo de bonificações (TRCB), criada pelo Decreto-Lei n.º 359/89, de 18 de outubro, ou da taxa contratual, quando esta for inferior, sendo atribuída pelo Estado, através do IHRU, I. P., por um período de 10 anos, nos termos dos artigos 2.º a 4.º do Decreto-Lei n.º 150-A/91, de 22 de abril, e de acordo com os critérios orçamentais previstos no artigo 82.º</p> <p>3 - Os empréstimos concedidos ao abrigo do 1.º Direito têm um prazo máximo total de 30 anos.</p> <p>4 - As demais condições de taxa de juro, de utilização e de amortização são acordadas entre as partes, atendendo, para o efeito, à minimização do esforço financeiro exigido aos mutuários e ao cumprimento de condições especiais a que alguns deles, nomeadamente os municípios, estão legalmente obrigados.</p> <p>5 - Os empréstimos são preferencialmente garantidos por hipoteca sobre os imóveis financiados, sem prejuízo de a instituição financiadora, por razões de segurança do crédito, poder exigir outras garantias ou garantias adicionais, designadamente, no caso dos municípios, a consignação de receitas do Fundo Geral Municipal.</p>

Appendix 26 – 6m Euribor and 12m Euribor average difference between 1994 and 2023

Date	6m Euribor	12m Euribor	Date	6m Euribor	12m Euribor	Date	6m Euribor	12m Euribor	Date	6m Euribor	12m Euribor
1994-01-31	6.67%	6.34%	2001-07-31	4.39%	4.31%	2009-01-31	2.54%	2.62%	2016-07-31	-0.19%	-0.06%
1994-02-28	6.68%	6.42%	2001-08-31	4.22%	4.11%	2009-02-28	2.03%	2.14%	2016-08-31	-0.19%	-0.05%
1994-03-31	6.65%	6.55%	2001-09-30	3.88%	3.77%	2009-03-31	1.77%	1.91%	2016-09-30	-0.20%	-0.06%
1994-04-30	6.51%	6.46%	2001-10-31	3.46%	3.37%	2009-04-30	1.61%	1.77%	2016-10-31	-0.21%	-0.07%
1994-05-31	6.21%	6.25%	2001-11-30	3.26%	3.20%	2009-05-31	1.48%	1.64%	2016-11-30	-0.21%	-0.07%
1994-06-30	6.37%	6.62%	2001-12-31	3.26%	3.30%	2009-06-30	1.44%	1.61%	2016-12-31	-0.22%	-0.08%
1994-07-31	6.50%	6.77%	2002-01-31	3.34%	3.48%	2009-07-31	1.21%	1.41%	2017-01-31	-0.24%	-0.09%
1994-08-31	6.67%	7.08%	2002-02-28	3.40%	3.59%	2009-08-31	1.12%	1.33%	2017-02-28	-0.24%	-0.11%
1994-09-30	6.73%	7.31%	2002-03-31	3.50%	3.82%	2009-09-30	1.04%	1.26%	2017-03-31	-0.24%	-0.11%
1994-10-31	6.71%	7.30%	2002-04-30	3.54%	3.86%	2009-10-31	1.02%	1.24%	2017-04-30	-0.25%	-0.12%
1994-11-30	6.65%	7.19%	2002-05-31	3.63%	3.96%	2009-11-30	0.99%	1.23%	2017-05-31	-0.25%	-0.13%
1994-12-31	7.00%	7.51%	2002-06-30	3.59%	3.87%	2009-12-31	1.00%	1.24%	2017-06-30	-0.27%	-0.15%
1995-01-31	7.06%	7.66%	2002-07-31	3.48%	3.64%	2010-01-31	0.98%	1.23%	2017-07-31	-0.27%	-0.15%
1995-02-28	6.92%	7.50%	2002-08-31	3.38%	3.44%	2010-02-28	0.96%	1.23%	2017-08-31	-0.27%	-0.16%
1995-03-31	7.74%	8.02%	2002-09-30	3.27%	3.24%	2010-03-31	0.95%	1.22%	2017-09-30	-0.27%	-0.17%
1995-04-30	7.39%	7.63%	2002-10-31	3.17%	3.13%	2010-04-30	0.96%	1.23%	2017-10-31	-0.27%	-0.18%
1995-05-31	7.09%	7.25%	2002-11-30	3.04%	3.02%	2010-05-31	0.98%	1.25%	2017-11-30	-0.27%	-0.19%
1995-06-30	7.11%	7.24%	2002-12-31	2.89%	2.87%	2010-06-30	1.01%	1.28%	2017-12-31	-0.27%	-0.19%
1995-07-31	6.99%	7.16%	2003-01-31	2.76%	2.70%	2010-07-31	1.10%	1.37%	2018-01-31	-0.27%	-0.19%
1995-08-31	6.71%	6.83%	2003-02-28	2.58%	2.50%	2010-08-31	1.15%	1.42%	2018-02-28	-0.27%	-0.19%
1995-09-30	6.54%	6.59%	2003-03-31	2.45%	2.41%	2010-09-30	1.14%	1.42%	2018-03-31	-0.27%	-0.19%
1995-10-31	6.78%	6.76%	2003-04-30	2.47%	2.45%	2010-10-31	1.22%	1.50%	2018-04-30	-0.27%	-0.19%
1995-11-30	6.43%	6.43%	2003-05-31	2.31%	2.25%	2010-11-30	1.27%	1.54%	2018-05-31	-0.27%	-0.19%
1995-12-31	6.26%	6.21%	2003-06-30	2.08%	2.01%	2010-12-31	1.25%	1.53%	2018-06-30	-0.27%	-0.18%
1996-01-31	5.73%	5.69%	2003-07-31	2.09%	2.08%	2011-01-31	1.25%	1.55%	2018-07-31	-0.27%	-0.18%
1996-02-29	5.54%	5.56%	2003-08-31	2.17%	2.28%	2011-02-28	1.35%	1.71%	2018-08-31	-0.27%	-0.17%
1996-03-31	5.49%	5.55%	2003-09-30	2.18%	2.26%	2011-03-31	1.48%	1.92%	2018-09-30	-0.27%	-0.17%
1996-04-30	5.26%	5.32%	2003-10-31	2.17%	2.30%	2011-04-30	1.62%	2.09%	2018-10-31	-0.26%	-0.15%
1996-05-31	5.03%	5.07%	2003-11-30	2.22%	2.41%	2011-05-31	1.71%	2.15%	2018-11-30	-0.26%	-0.15%
1996-06-30	5.08%	5.19%	2003-12-31	2.20%	2.38%	2011-06-30	1.75%	2.14%	2018-12-31	-0.24%	-0.13%
1996-07-31	5.07%	5.18%	2004-01-31	2.12%	2.22%	2011-07-31	1.82%	2.18%	2019-01-31	-0.24%	-0.12%
1996-08-31	5.10%	5.16%	2004-02-29	2.09%	2.16%	2011-08-31	1.75%	2.10%	2019-02-28	-0.23%	-0.11%
1996-09-30	4.88%	4.96%	2004-03-31	2.02%	2.06%	2011-09-30	1.74%	2.07%	2019-03-31	-0.23%	-0.11%
1996-10-31	4.66%	4.67%	2004-04-30	2.06%	2.16%	2011-10-31	1.78%	2.11%	2019-04-30	-0.23%	-0.11%
1996-11-30	4.53%	4.54%	2004-05-31	2.14%	2.30%	2011-11-30	1.71%	2.04%	2019-05-31	-0.24%	-0.13%
1996-12-31	4.42%	4.39%	2004-06-30	2.19%	2.40%	2011-12-31	1.67%	2.00%	2019-06-30	-0.28%	-0.19%
1997-01-31	4.31%	4.25%	2004-07-31	2.19%	2.36%	2012-01-31	1.50%	1.84%	2019-07-31	-0.35%	-0.28%
1997-02-28	4.36%	4.32%	2004-08-31	2.17%	2.30%	2012-02-29	1.35%	1.68%	2019-08-31	-0.41%	-0.36%
1997-03-31	4.50%	4.55%	2004-09-30	2.20%	2.38%	2012-03-31	1.16%	1.50%	2019-09-30	-0.39%	-0.34%
1997-04-30	4.41%	4.47%	2004-10-31	2.19%	2.32%	2012-04-30	1.04%	1.37%	2019-10-31	-0.36%	-0.30%
1997-05-31	4.32%	4.36%	2004-11-30	2.22%	2.33%	2012-05-31	0.97%	1.27%	2019-11-30	-0.34%	-0.27%
1997-06-30	4.30%	4.33%	2004-12-31	2.21%	2.30%	2012-06-30	0.93%	1.22%	2019-12-31	-0.34%	-0.26%
1997-07-31	4.31%	4.32%	2005-01-31	2.19%	2.31%	2012-07-31	0.78%	1.06%	2020-01-31	-0.33%	-0.25%
1997-08-31	4.42%	4.49%	2005-02-28	2.18%	2.31%	2012-08-31	0.61%	0.88%	2020-02-29	-0.36%	-0.29%
1997-09-30	4.35%	4.42%	2005-03-31	2.19%	2.33%	2012-09-30	0.48%	0.74%	2020-03-31	-0.36%	-0.27%
1997-10-31	4.47%	4.55%	2005-04-30	2.17%	2.27%	2012-10-31	0.41%	0.65%	2020-04-30	-0.19%	-0.11%
1997-11-30	4.51%	4.56%	2005-05-31	2.14%	2.19%	2012-11-30	0.36%	0.59%	2020-05-31	-0.14%	-0.08%
1997-12-31	4.37%	4.41%	2005-06-30	2.11%	2.10%	2012-12-31	0.32%	0.55%	2020-06-30	-0.22%	-0.15%
1998-01-31	4.23%	4.22%	2005-07-31	2.13%	2.17%	2013-01-31	0.34%	0.58%	2020-07-31	-0.35%	-0.28%
1998-02-28	4.19%	4.17%	2005-08-31	2.16%	2.22%	2013-02-28	0.36%	0.59%	2020-08-31	-0.43%	-0.36%
1998-03-31	4.04%	4.05%	2005-09-30	2.17%	2.22%	2013-03-31	0.33%	0.55%	2020-09-30	-0.46%	-0.41%
1998-04-30	4.06%	4.12%	2005-10-31	2.27%	2.41%	2013-04-30	0.32%	0.53%	2020-10-31	-0.49%	-0.47%
1998-05-31	4.05%	4.13%	2005-11-30	2.50%	2.68%	2013-05-31	0.30%	0.48%	2020-11-30	-0.51%	-0.48%
1998-06-30	4.02%	4.08%	2005-12-31	2.60%	2.78%	2013-06-30	0.32%	0.51%	2020-12-31	-0.52%	-0.50%
1998-07-31	3.95%	4.01%	2006-01-31	2.65%	2.83%	2013-07-31	0.34%	0.53%	2021-01-31	-0.53%	-0.50%
1998-08-31	3.91%	3.93%	2006-02-28	2.72%	2.91%	2013-08-31	0.34%	0.54%	2021-02-28	-0.52%	-0.50%
1998-09-30	3.82%	3.75%	2006-03-31	2.87%	3.11%	2013-09-30	0.34%	0.54%	2021-03-31	-0.52%	-0.49%
1998-10-31	3.68%	3.59%	2006-04-30	2.96%	3.22%	2013-10-31	0.34%	0.54%	2021-04-30	-0.52%	-0.48%
1998-11-30	3.62%	3.55%	2006-05-31	3.06%	3.31%	2013-11-30	0.33%	0.51%	2021-05-31	-0.51%	-0.48%
1998-12-31	3.32%	3.27%	2006-06-30	3.16%	3.40%	2013-12-31	0.37%	0.54%	2021-06-30	-0.52%	-0.48%
1999-01-31	3.09%	3.06%	2006-07-31	3.29%	3.54%	2014-01-31	0.40%	0.56%	2021-07-31	-0.52%	-0.49%
1999-02-28	3.04%	3.03%	2006-08-31	3.41%	3.62%	2014-02-28	0.39%	0.55%	2021-08-31	-0.53%	-0.50%
1999-03-31	3.03%	3.05%	2006-09-30	3.53%	3.72%	2014-03-31	0.41%	0.58%	2021-09-30	-0.52%	-0.49%
1999-04-30	2.70%	2.76%	2006-10-31	3.64%	3.80%	2014-04-30	0.43%	0.60%	2021-10-31	-0.53%	-0.48%
1999-05-31	2.60%	2.68%	2006-11-30	3.73%	3.86%	2014-05-31	0.42%	0.59%	2021-11-30	-0.53%	-0.49%
1999-06-30	2.68%	2.84%	2006-12-31	3.79%	3.92%	2014-06-30	0.33%	0.51%	2021-12-31	-0.54%	-0.50%
1999-07-31	2.90%	3.03%	2007-01-31	3.89%	4.06%	2014-07-31	0.30%	0.49%	2022-01-31	-0.53%	-0.48%
1999-08-31	3.05%	3.24%	2007-02-28	3.94%	4.09%	2014-08-31	0.29%	0.47%	2022-02-28	-0.48%	-0.34%
1999-09-30	3.11%	3.30%	2007-03-31	4.00%	4.11%	2014-09-30	0.20%	0.36%	2022-03-31	-0.42%	-0.24%
1999-10-31	3.46%	3.68%	2007-04-30	4.10%	4.25%	2014-10-31	0.18%	0.34%	2022-04-30	-0.31%	0.01%
1999-11-30	3.48%	3.69%	2007-05-31	4.20%	4.37%	2014-11-30	0.18%	0.33%	2022-05-31	-0.14%	0.29%
1999-12-31	3.51%	3.83%	2007-06-30	4.28%	4.51%	2014-12-31	0.18%	0.33%	2022-06-30	0.16%	0.85%
2000-01-31	3.56%	3.95%	2007-07-31	4.36%	4.56%	2015-01-31	0.15%	0.30%	2022-07-31	0.47%	0.99%
2000-02-29	3.73%	4.11%	2007-08-31	4.59%	4.67%	2015-02-28	0.13%	0.26%	2022-08-31	0.84%	1.25%
2000-03-31	3.94%	4.27%	2007-09-30	4.75%	4.72%	2015-03-31	0.10%	0.21%	2022-09-30	1.60%	2.23%
2000-04-30	4.08%	4.36%	2007-10-31	4.66%	4.65%	2015-04-30	0.07%	0.18%	2022-10-31	2.00%	2.63%
2000-05-31	4.54%	4.85%	2007-11-30	4.63%	4.61%	2015-05-31	0.06%	0.17%	2022-11-30	2.32%	2.83%
2000-06-30	4.68%	4.96%	2007-12-31	4.82%	4.79%	2015-06-30	0.05%	0.16%	2022-12-31	2.56%	3.02%
2000-07-31	4.84%	5.11%	2008-01-31	4.50%	4.50%	2015-07-31	0.05%	0.17%	2023-01-31	2.86%	3.34%
2000-08-31	5.01%	5.25%	2008-02-29	4.36%	4.35%	2015-08-31	0.04%	0.16%	2023-02-28	3.14%	3.53%
2000-09-30	5.04%	5.22%	2008-03-31	4.59%	4.59%	2015-09-30	0.04%	0.15%	2023-03-31	3.27%	3.65%
2000-10-31	5.10%	5.22%	2008-04-30	4.80%	4.82%	2015-10-31	0.02%	0.13%	2023-04-30	3.50%	3.74%
2000-11-30	5.13%	5.19%	2008-05-31	4.90%	4.99%	2015-11-30	-0.02%	0.08%	2023-05-31	3.68%	3.86%
2000-12-31	4.92%	4.88%	2008-06-30	5.09%	5.36%	2015-12-31	-0.04%	0.06%	2023-06-30	3.83%	4.01%
2001-01-31	4.68%	4.57%	2008-07-31	5.15%	5.39%	2016-01-31	-0.06%	0.04%	2023-07-31	3.94%	4.15%
2001-02-28	4.67%	4.59%	2008-08-31	5.16%	5.32%	2016-02-29	-0.12%	-0.01%	2023-08-31	3.94%	4.07%
2001-03-31	4.58%	4.47%	2008-09-30	5.22%	5.38%	2016-03-31	-0.13%	-0.01%	2023-09-30	4.03%	4.15%
2001-04-30	4.57%	4.48%	2008-10-31	5.18%	5.25%	2016-04-30	-0.14%	-0.01%	2023-10-31	4.11%	4.16%
2001-05-31	4.56%	4.52%	2008-11-30	4.29%	4.35%	2016-05-31	-0.14%	-0.0			

Appendix 27 – Equipment capital expenditures

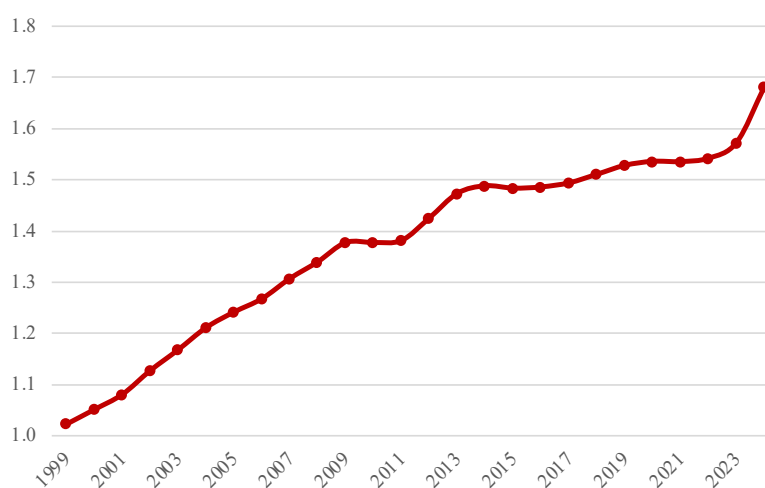
Equipment	€ 31,288
Outdoor fitness initial investment	
Pedal exercisers	€ 761
Cross trainers	€ 836
Arm wheels	€ 346
Furniture for parties and renting	
20 chairs	€ 900
4 tables	€ 516
Common living room initial investment	
2 three-seater chouch	€ 600
3 tables w/ 4 chairs	€ 447
Shelf	€ 59
Television	€ 179
Chess	€ 15
Checkers	€ 15
Playing cards	€ 2
3 Puzzles	€ 44
Furniture for flats	
Sofa-bed	€ 6,706
Table + 4 chairs	€ 2,099
Laundrying machines	
2 x 9kg washing machine	€ 13,112
1 x 9kg drying machine	€ 3,752
Bicycles	
4 x city bicycles	€ 900

Appendix 28 – Rent actualisation coefficient


Year	Rate	Cumulative	Year	Rate	Cumulative
1999	1.023	1.023	2012	1.032	1.425
2000	1.028	1.052	2013	1.034	1.473
2001	1.028	1.081	2014	1.010	1.488
2002	1.043	1.128	2015	0.997	1.483
2003	1.036	1.168	2016	1.002	1.486
2004	1.037	1.211	2017	1.005	1.494
2005	1.025	1.242	2018	1.011	1.510
2006	1.021	1.268	2019	1.012	1.528
2007	1.031	1.307	2020	1.005	1.536
2008	1.025	1.340	2021	1.000	1.535
2009	1.028	1.377	2022	1.004	1.542
2010	1.000	1.377	2023	1.020	1.573
2011	1.003	1.381	2024	1.069	1.682

CAGR 2.01%

Rent actualisation coefficient



Appendix 29 – Casa Pousio's caderneta predial urbana

 AT autoridade tributária e aduaneira	CADERNETA PREDIAL URBANA SERVIÇO DE FINANÇAS: 1783 - GONDOMAR-1
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IDENTIFICAÇÃO DO PRÉDIO

DISTRITO: 13 - PORTO CONCELHO: 04 - GONDOMAR **FREGUESIA:** 15 - UNIÃO DAS FREGUESIAS DE GONDOMAR (SÃO COSME), VALBOM E JOVIM
ARTIGO MATRICIAL: 11832 NIP:
Descrito na C.R.P. de : GONDOMAR **sob o registo nº:** 4562

TEVE ORIGEM NOS ARTIGOS

DISTRITO: 13 - PORTO CONCELHO: 04 - GONDOMAR **FREGUESIA:** 09 - GONDOMAR (S. COSME)
(EXTINTA) **Tipo:** URBANO
Artigo: 2121

LOCALIZAÇÃO DO PRÉDIO

Av./Rua/Praça: Rua dos Combatentes da Grande Guerra **Nº:** 13 **Lugar:** S. Cosme **Código Postal:** 4420-090 GONDOMAR
Av./Rua/Praça: RUA COMBATENTES GRANDE GUERRA **Nº:** 13 **Lugar:** S. COSME **Código Postal:** 4420-090 GONDOMAR

DESCRIÇÃO DO PRÉDIO

Tipo de Prédio: Prédio em Prop. Total sem Andares nem Div. Susc. de Utiliz. Independente
Descrição: Casa de rés-do-chão, andar e cave, tendo na cave, 1 lavabo, 3 divisões e várias dependências para arrumos e galinheiro; no rés-do-chão, sala comum, cozinha, despensa, lavabos, 2 divisões e, no andar, 4 divisões e 2 Q. Banho, garagem.
Afectação: Habitação **Nº de pisos:** 3 **Tipologia/Divisões:** 6

ÁREAS (em m²)

Área total do terreno: 1.742,0000 m² **Área de implantação do edifício:** 180,0000 m² **Área bruta de construção:** 520,0000 m² **Área bruta dependente:** 240,0000 m² **Área bruta privativa:** 280,0000 m²

DADOS DE AVALIAÇÃO

Ano de inscrição na matriz: 1970 **Valor patrimonial actual (CIMI):** €137.680,00 **Determinado no ano:** 2019
Tipo de coeficiente de localização: Habitação **Coordenada X:** 166.433,00 **Coordenada Y:** 463.842,00

$\frac{Vt^*}{137.680,00} = \frac{Vc}{615,00} \times \frac{A}{325,6100} \times \frac{Ca}{1,00} \times \frac{Cl}{1,25} \times \frac{Cq}{1,000} \times \frac{Cv}{0,55}$
--

Vt = valor patrimonial tributário, Vc = valor base dos prédios edificados, A = área bruta de construção mais a área excedente à área de implantação, Ca = coeficiente de afectação, Cl = coeficiente de localização, Cq = coeficiente de qualidade e conforto, Cv = coeficiente de vetustez, sendo A = (Aa + Ab) x Caj + Ac + Ad, em que Aa representa a área bruta privativa, Ab representa as áreas brutas dependentes, Ac representa a área do terreno livre até ao limite de duas vezes a área de implantação, Ad representa a área do terreno livre que excede o limite de duas vezes a área de implantação, (Aa + Ab) x Caj = 100 x 1,0 + 0,90 x (160 - 100) + 0,85 x (220 - 160) + 0,80 x (Aa + Ab - 220,0000).
Tratando-se de terrenos para construção, A = área bruta de construção integrada de Ab.
* Valor arredondado, nos termos do nº2 do Art.º 38º do CIMI.

Mod 1 do IMI nº: 7406334 **Entregue em :** 2019/05/28 **Ficha de avaliação nº:** 11060747 **Avaliada em :** 2019/06/18

TITULARES

Identificação fiscal: 501634851 **Nome:** AMUT - ASSOCIAÇÃO MUTUALISTA DE GONDOMAR
Morada: RUIA 5 DE OUTUBRO Nº 135, GONDOMAR, 4420-086 GONDOMAR

130415 - UNIÃO DAS FREGUESIAS DE GONDOMAR (SÃO COSME), VALBOM E JOVIM - U - 11832 Página 1 de 2

Appendix 30 – Financial viability: base model cash flows

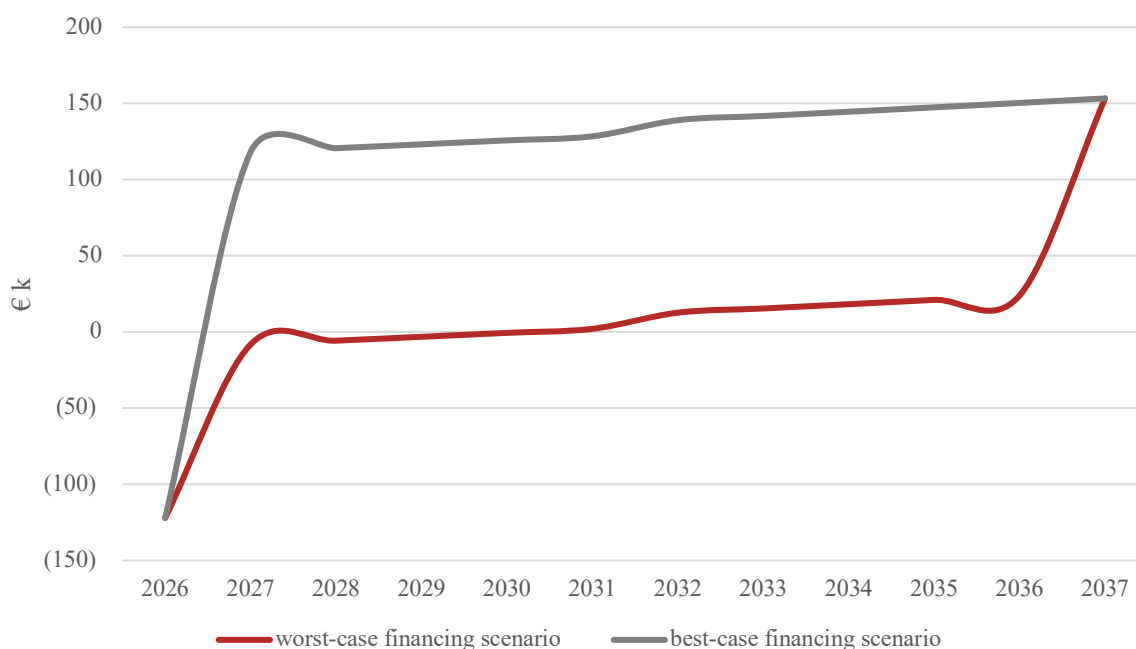
	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Revenues	€ 159,459	€ 162,654	€ 165,917	€ 169,245	€ 172,640	€ 176,103	€ 179,636	€ 183,240	€ 186,915	€ 190,665	€ 194,490	€ 198,390
Condominium	€ 117,754	€ 120,119	€ 122,531	€ 124,992	€ 127,502	€ 130,063	€ 132,674	€ 135,339	€ 138,057	€ 140,829	€ 143,657	€ 146,547
Rents	€ 108,219	€ 110,393	€ 112,609	€ 114,871	€ 117,178	€ 119,531	€ 121,931	€ 124,380	€ 126,878	€ 129,425	€ 132,025	€ 134,678
Studio flats (36+5 sqm, furnished)	€ 8,200	€ 8,365	€ 8,533	€ 8,704	€ 8,879	€ 9,057	€ 9,239	€ 9,424	€ 9,614	€ 9,807	€ 10,004	€ 10,204
No. of units	2	2	2	2	2	2	2	2	2	2	2	2
Rent	€ 4,100	€ 4,182	€ 4,266	€ 4,352	€ 4,439	€ 4,528	€ 4,619	€ 4,712	€ 4,807	€ 4,903	€ 5,002	€ 5,102
Studio flats (26+5 sqm, furnished)	€ 23,741	€ 24,218	€ 24,705	€ 25,201	€ 25,707	€ 26,223	€ 26,750	€ 27,287	€ 27,835	€ 28,394	€ 28,964	€ 29,545
No. of units	7	7	7	7	7	7	7	7	7	7	7	7
Rent	€ 3,392	€ 3,460	€ 3,529	€ 3,600	€ 3,672	€ 3,746	€ 3,821	€ 3,898	€ 3,976	€ 4,056	€ 4,138	€ 4,221
Studio flats (26+5 sqm, not furnished)	€ 6,620	€ 6,733	€ 6,888	€ 7,027	€ 7,168	€ 7,312	€ 7,459	€ 7,608	€ 7,761	€ 7,917	€ 8,076	€ 8,237
No. of units	2	2	2	2	2	2	2	2	2	2	2	2
Rent	€ 3,310	€ 3,376	€ 3,444	€ 3,513	€ 3,584	€ 3,656	€ 3,729	€ 3,804	€ 3,881	€ 3,958	€ 4,038	€ 4,118
Studio flat (31+5 sqm, not furnished)	€ 25,839	€ 26,358	€ 26,887	€ 27,427	€ 27,978	€ 28,540	€ 29,113	€ 29,698	€ 30,294	€ 30,902	€ 31,523	€ 32,156
No. of units	7	7	7	7	7	7	7	7	7	7	7	7
Rent	€ 3,691	€ 3,765	€ 3,841	€ 3,918	€ 3,997	€ 4,077	€ 4,159	€ 4,243	€ 4,328	€ 4,415	€ 4,503	€ 4,592
Studio flat (31+10 sqm, furnished)	€ 19,546	€ 19,939	€ 20,339	€ 20,748	€ 21,164	€ 21,589	€ 22,023	€ 22,465	€ 22,916	€ 23,376	€ 23,846	€ 24,325
No. of units	5	5	5	5	5	5	5	5	5	5	5	5
Rent	€ 3,909	€ 3,988	€ 4,068	€ 4,150	€ 4,233	€ 4,318	€ 4,405	€ 4,493	€ 4,583	€ 4,675	€ 4,769	€ 4,864
One-bedroom flats (not furnished)	€ 19,451	€ 19,842	€ 20,240	€ 20,647	€ 21,061	€ 21,484	€ 21,916	€ 22,356	€ 22,805	€ 23,263	€ 23,730	€ 24,207
No. of units	4	4	4	4	4	4	4	4	4	4	4	4
Rent	€ 4,863	€ 4,960	€ 5,060	€ 5,162	€ 5,265	€ 5,371	€ 5,479	€ 5,589	€ 5,701	€ 5,816	€ 5,932	€ 6,050
One-bedroom flat (not furnished, attic)	€ 4,822	€ 4,919	€ 5,017	€ 5,118	€ 5,221	€ 5,326	€ 5,433	€ 5,542	€ 5,652	€ 5,764	€ 5,878	€ 6,000
No. of units	1	1	1	1	1	1	1	1	1	1	1	1
Rent	€ 4,822	€ 4,919	€ 5,017	€ 5,118	€ 5,221	€ 5,326	€ 5,433	€ 5,542	€ 5,652	€ 5,764	€ 5,878	€ 6,000
Condominium fee	€ 9,535	€ 9,727	€ 9,922	€ 10,121	€ 10,324	€ 10,532	€ 10,745	€ 10,959	€ 11,179	€ 11,404	€ 11,633	€ 11,867
Pilates	€ 4,077	€ 4,159	€ 4,242	€ 4,327	€ 4,413	€ 4,502	€ 4,592	€ 4,684	€ 4,777	€ 4,873	€ 4,970	€ 5,069
No. of non-associates	13	13	13	13	13	13	13	13	13	13	13	13
Price (non-associates) X 9.5 months	€ 167	€ 171	€ 174	€ 178	€ 181	€ 185	€ 188	€ 192	€ 196	€ 200	€ 204	€ 208
No. of associates	14	14	14	14	14	14	14	14	14	14	14	14
Price (associates) X 9.5 months	€ 136	€ 139	€ 141	€ 144	€ 147	€ 150	€ 153	€ 156	€ 159	€ 162	€ 166	€ 169
Yoga	€ 3,607	€ 3,679	€ 3,753	€ 3,828	€ 3,904	€ 3,982	€ 4,062	€ 4,143	€ 4,226	€ 4,311	€ 4,397	€ 4,484
No. of non-associates	11	11	11	11	11	11	11	11	11	11	11	11
Price (non-associates) X 9.5 months	€ 167	€ 171	€ 174	€ 178	€ 181	€ 185	€ 188	€ 192	€ 196	€ 200	€ 204	€ 208
No. of associates	13	13	13	13	13	13	13	13	13	13	13	13
Price (associates) X 9.5 months	€ 136	€ 139	€ 141	€ 144	€ 147	€ 150	€ 153	€ 156	€ 159	€ 162	€ 166	€ 169
Meditation	€ 1,422	€ 1,450	€ 1,479	€ 1,509	€ 1,539	€ 1,570	€ 1,601	€ 1,633	€ 1,665	€ 1,699	€ 1,733	€ 1,768
No. of non-associates	2	2	2	2	2	2	2	2	2	2	2	2
Price (non-associates) X 9.5 months	€ 167	€ 171	€ 174	€ 178	€ 181	€ 185	€ 188	€ 192	€ 196	€ 200	€ 204	€ 208
No. of associates	8	8	8	8	8	8	8	8	8	8	8	8
Price (associates) X 9.5 months	€ 136	€ 139	€ 141	€ 144	€ 147	€ 150	€ 153	€ 156	€ 159	€ 162	€ 166	€ 169
Workshops	€ 2,822	€ 2,879	€ 2,936	€ 2,995	€ 3,055	€ 3,116	€ 3,178	€ 3,242	€ 3,307	€ 3,373	€ 3,440	€ 3,508
No. of non-associates	5	5	5	5	5	5	5	5	5	5	5	5
Price (non-associates) X 9.5 months	€ 273	€ 279	€ 284	€ 290	€ 296	€ 302	€ 308	€ 314	€ 320	€ 326	€ 333	€ 339
No. of associates	8	8	8	8	8	8	8	8	8	8	8	8
Price (associates) X 9.5 months	€ 182	€ 186	€ 189	€ 193	€ 197	€ 201	€ 205	€ 209	€ 213	€ 218	€ 222	€ 227
Commemorative parties	€ 2,773	€ 2,829	€ 2,885	€ 2,943	€ 3,002	€ 3,062	€ 3,123	€ 3,186	€ 3,249	€ 3,314	€ 3,381	€ 3,449
No. of non-associates	10	10	10	10	10	10	10	10	10	10	10	10
Price (non-associates) X 6 parties	€ 79	€ 81	€ 82	€ 84	€ 86	€ 87	€ 89	€ 91	€ 93	€ 95	€ 97	€ 99
No. of associates	30	30	30	30	30	30	30	30	30	30	30	30
Price (associates) X 6 parties	€ 66	€ 67	€ 69	€ 70	€ 71	€ 73	€ 74	€ 76	€ 77	€ 79	€ 80	€ 82
AMUT*Aluguer	€ 19,753	€ 20,148	€ 20,551	€ 20,962	€ 21,381	€ 21,809	€ 22,245	€ 22,690	€ 23,144	€ 23,607	€ 24,079	€ 24,559
90 sqm annual revenue	€ 12,296	€ 12,542	€ 12,793	€ 13,049	€ 13,310	€ 13,576	€ 13,848	€ 14,125	€ 14,407	€ 14,695	€ 14,989	€ 15,288
Price per hour (associate)	€ 44	€ 45	€ 46	€ 47	€ 48	€ 49	€ 50	€ 51	€ 52	€ 53	€ 54	€ 55
Rented hours (associate)	71	71	71	71	71	71	71	71	71	71	71	71
Price per hour (non-associate)	€ 55	€ 56	€ 57	€ 58	€ 60	€ 61	€ 62	€ 63	€ 64	€ 66	€ 67	€ 68
Rented hours (non-associate)	166	166	166	166	166	166	166	166	166	166	166	166
45 sqm annual revenue	€ 7,456	€ 7,606	€ 7,758	€ 7,913	€ 8,071	€ 8,232	€ 8,397	€ 8,565	€ 8,736	€ 8,911	€ 9,089	€ 9,270
Price per hour (associate)	€ 28	€ 28	€ 29	€ 29	€ 30	€ 30	€ 31	€ 32	€ 32	€ 33	€ 34	€ 34
Rented hours (associate)	71	71	71	71	71	71	71	71	71	71	71	71
Price per hour (non-associate)	€ 33	€ 34	€ 34	€ 35	€ 36	€ 37	€ 38	€ 39	€ 39	€ 40	€ 41	€ 42
Rented hours (non-associate)	166	166	166	166	166	166	166	166	166	166	166	166
Laundry machines	€ 7,250	€ 7,391	€ 7,539	€ 7,690	€ 7,843	€ 8,000	€ 8,160	€ 8,324	€ 8,490	€ 8,660	€ 8,833	€ 9,009
Price (washing)	€ 4	€ 4	€ 4	€ 4	€ 4	€ 4	€ 4	€ 4	€ 5	€ 5	€ 5	€ 5
Number of usages per year	1464	1463	1463	1463	1463	1463	1463	1463	1463	1463	1463	1463
Price (drying)	€ 1	€ 1	€ 1	€ 1	€ 1	€ 1	€ 1	€ 1	€ 1	€ 1	€ 1	€ 1
Number of usages per year	1464	1464	1464	1464	1464	1464	1464	1464	1464	1464	1464	1464
Costs	€ 32,470	€ 34,170	€ 34,886	€ 35,618	€ 36,367	€ 37,132	€ 37,913	€ 38,710	€ 39,523	€ 40,352	€ 41,207	€ 42,088
Condominium	€ 16,593	€ 16,956	€ 17,329	€ 17,710	€ 18,100	€ 18,499	€ 18,908	€ 19,327	€ 19,756	€ 20,195	€ 20,644	€ 21,103
Utilities	€ 1,981	€ 2,020	€ 2,061	€ 2,102	€ 2,144	€ 2,187	€ 2,231	€ 2,275	€ 2,321	€ 2,367	€ 2,415	€ 2,464
Communications package	€ 535	€ 546	€ 556	€ 568	€ 579	€ 591	€ 602	€ 614	€ 627	€ 639	€ 652	€ 665
Cleaning	€ 7,501	€ 7,651	€ 7,804	€ 7,960	€ 8,119	€ 8,282	€ 8,447	€ 8,616	€ 8,789	€ 8,964	€ 9,144	€ 9,328
Common areas	€ 5,282	€ 5,388	€ 5,496	€ 5,606	€ 5,718	€ 5,832	€ 5,949	€ 6,068	€ 6,189	€ 6,313	€ 6,439	€ 6,567
Garden	€ 2,219	€ 2,263	€ 2,308	€ 2,354	€ 2,401	€ 2,449	€ 2,498	€ 2,548	€ 2,599	€ 2,651	€ 2,704	€ 2,758
Maintenance	€ 5,018	€ 5,119	€ 5,221	€ 5,325	€ 5,432	€ 5,541	€ 5,651	€ 5,764	€ 5,880	€ 5,997	€ 6,117	€ 6,238
General	€ 3,698	€ 3,772	€ 3,847	€ 3,924	€ 4,002	€ 4,082	€ 4,164	€ 4,247	€ 4,332	€ 4,419	€ 4,507	€ 4,597
Lift	€ 1,321	€ 1,347	€ 1,374	€ 1,401	€ 1,429	€ 1,458	€ 1,487	€ 1,517	€ 1,547	€ 1,578	€ 1,610	€ 1,642
Rent insurance	€ 1,558	€ 1,621	€ 1,686	€ 1,755	€ 1,826	€ 1,900	€ 1,977	€ 2,057	€ 2,140	€ 2,226		

Equipment investment	€ 33,825
Outdoor fitness equipment	€ 2,105
Pedal exercisers	€ 825
Cross trainers	€ 906
Arm wheels	€ 375
Common living room initial investment	€ 1,474
2 three-seater couch	€ 650
3 tables w/ 4 chairs	€ 484
Shelf	€ 64
Television	€ 194
Chess	€ 16
Checkers	€ 16
Playing cards	€ 2
3 Puzzles	€ 47
Furniture for parties and renting	€ 1,534
20 chairs	€ 975
4 tables	€ 559
Furniture for flats	€ 9,541
Sofa-bed	€ 7,266
Table + 4 chairs	€ 2,275
Laundry machines	€ 18,271
2 x 9kg washing machine	€ 14,207
1 x 9kg drying machine	€ 4,065
Bicycles	€ 900
4 x city bicycles	€ 900

Best-case financing scenario												
Loans and grants												
Equipment loan	€ 33,825											
PRR non-refundable grant	€ 7,034,340											
Investment outflows												
Project investment	€ 2,034,340											
VAT over project investment	€ 122,060											
Net cash flows before debt repayment	(€ 122,060)	€ 125,989	€ 128,484	€ 131,030	€ 133,626	€ 136,273	€ 138,972	€ 141,723	€ 144,528	€ 147,387	€ 150,302	€ 153,274
Loans repayment												
Equipment loan	€ 7,894	€ 7,894	€ 7,894	€ 7,894	€ 7,894	€ 7,894	€ 0	€ 0	€ 0	€ 0	€ 0	€ 0
Equipment loan	€ 7,894	€ 7,894	€ 7,894	€ 7,894	€ 7,894	€ 7,894	€ 0	€ 0	€ 0	€ 0	€ 0	€ 0
Net cash flows after debt repayment	(€ 122,060)	€ 118,095	€ 120,590	€ 123,136	€ 125,732	€ 128,379	€ 138,972	€ 141,723	€ 144,528	€ 147,387	€ 150,302	€ 153,274

Worst-case financing scenario												
Loans and grants												
Equipment loan	€ 33,825											
Subsidised loan	€ 996,786											
Self-financing loan	€ 89,385											
PRR non-refundable grant	€ 948,169											
Investment outflows												
Project investment	€ 2,034,340											
VAT over project investment	€ 122,060											
Net cash flows before debt repayment	(€ 122,060)	€ 125,989	€ 128,484	€ 131,030	€ 133,626	€ 136,273	€ 138,972	€ 141,723	€ 144,528	€ 147,387	€ 150,302	€ 153,274
Loans repayment												
Subsidised loan	€ 134,216	€ 134,216	€ 134,216	€ 134,216	€ 134,216	€ 134,216	€ 126,321	€ 126,321	€ 126,321	€ 126,321	€ 126,321	€ 0
Subsidised loan	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 0
Self-financing loan	€ 11,116	€ 11,116	€ 11,116	€ 11,116	€ 11,116	€ 11,116	€ 11,116	€ 11,116	€ 11,116	€ 11,116	€ 11,116	€ 0
Equipment loan	€ 7,894	€ 7,894	€ 7,894	€ 7,894	€ 7,894	€ 7,894	€ 0	€ 0	€ 0	€ 0	€ 0	€ 0
Net cash flows after debt repayment	(€ 122,060)	(€ 8,227)	(€ 5,732)	(€ 3,186)	(€ 590)	€ 2,057	€ 12,650	€ 15,401	€ 18,206	€ 21,066	€ 23,981	€ 153,274

Casa Pousio's net cash flow evolution (base)



Appendix 31 – Financial viability: pessimistic model cash flows

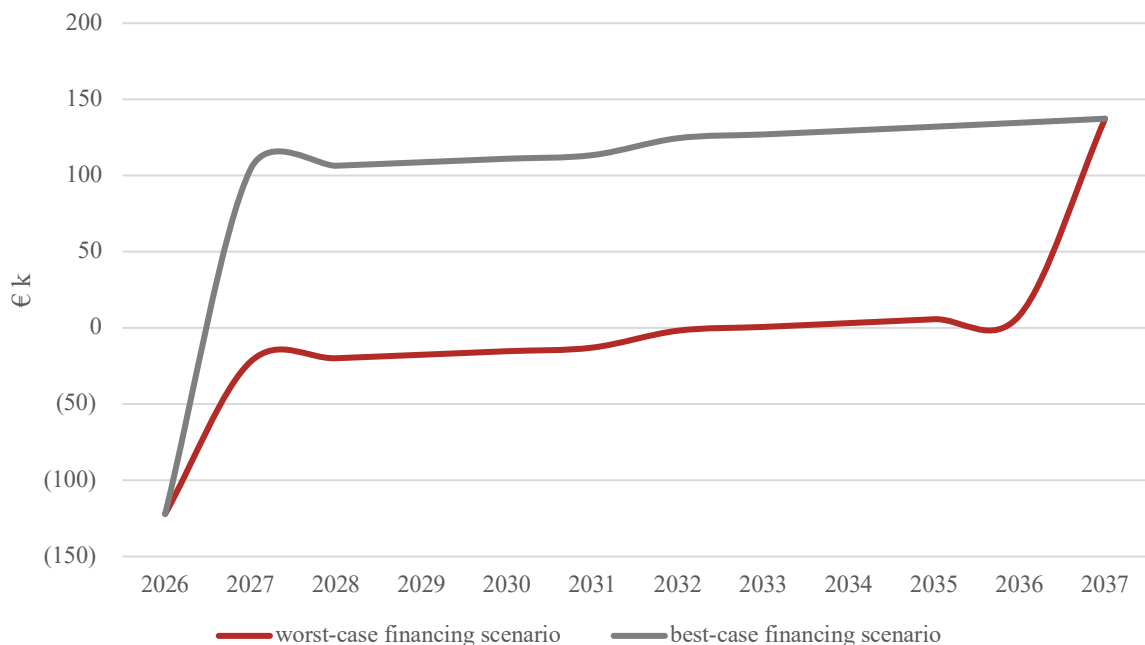
	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Revenues	€144,678	€147,577	€150,538	€153,559	€156,641	€159,784	€162,990	€166,261	€169,597	€173,000	€176,472	
Condominium	€117,754	€120,119	€122,531	€124,992	€127,502	€130,063	€132,674	€135,339	€138,057	€140,829	€143,657	
Rents	€108,219	€110,393	€112,609	€114,871	€117,178	€119,531	€121,931	€124,380	€126,878	€129,425	€132,025	
Studio flats (36+5 sqm, furnished)	€8,200	€8,365	€8,533	€8,704	€8,879	€9,057	€9,239	€9,424	€9,614	€9,807	€10,004	
No. of units	2	2	2	2	2	2	2	2	2	2	2	
Rent	€4,100	€4,182	€4,266	€4,352	€4,439	€4,528	€4,619	€4,712	€4,807	€4,903	€5,002	
Studio flats (26+5 sqm, furnished)	€23,741	€24,218	€24,705	€25,201	€25,707	€26,223	€26,750	€27,287	€27,835	€28,394	€28,964	
No. of units	7	7	7	7	7	7	7	7	7	7	7	
Rent	€3,392	€3,460	€3,529	€3,600	€3,672	€3,746	€3,821	€3,898	€3,976	€4,056	€4,138	
Studio flats (26+5 sqm, not furnished)	€6,620	€6,733	€6,888	€7,027	€7,168	€7,312	€7,459	€7,608	€7,761	€7,917	€8,076	
No. of units	2	2	2	2	2	2	2	2	2	2	2	
Rent	€3,310	€3,376	€3,444	€3,513	€3,584	€3,656	€3,729	€3,804	€3,881	€3,958	€4,038	
Studio flat (31+5 sqm, not furnished)	€25,839	€26,358	€26,887	€27,427	€27,978	€28,540	€29,113	€29,698	€30,294	€30,902	€31,523	
No. of units	7	7	7	7	7	7	7	7	7	7	7	
Rent	€3,691	€3,765	€3,841	€3,918	€3,997	€4,077	€4,159	€4,243	€4,328	€4,415	€4,503	
Studio flat (31+10 sqm, furnished)	€19,546	€19,939	€20,339	€20,748	€21,164	€21,589	€22,023	€22,465	€22,916	€23,376	€23,846	
No. of units	5	5	5	5	5	5	5	5	5	5	5	
Rent	€3,909	€3,988	€4,068	€4,150	€4,233	€4,318	€4,405	€4,493	€4,583	€4,675	€4,769	
One-bedroom flats (not furnished)	€19,451	€19,842	€20,240	€20,647	€21,061	€21,484	€21,916	€22,356	€22,805	€23,263	€23,730	
No. of units	4	4	4	4	4	4	4	4	4	4	4	
Rent	€4,863	€4,960	€5,060	€5,162	€5,265	€5,371	€5,479	€5,589	€5,701	€5,816	€5,932	
One-bedroom flat (not furnished, attic)	€6,822	€6,919	€7,017	€7,118	€7,221	€7,326	€7,433	€7,542	€7,653	€7,767	€7,883	
No. of units	1	1	1	1	1	1	1	1	1	1	1	
Rent	€4,822	€4,919	€5,017	€5,118	€5,221	€5,326	€5,433	€5,542	€5,653	€5,767	€5,883	
Condominium fee	€9,535	€9,727	€9,922	€10,121	€10,324	€10,532	€10,743	€10,959	€11,179	€11,404	€11,633	
Pilates	€3,168	€3,231	€3,296	€3,362	€3,429	€3,497	€3,567	€3,639	€3,712	€3,786	€3,861	
No. of non-associates	10	10	10	10	10	10	10	10	10	10	10	
Price (non-associates) X 9.5 months	€167	€171	€174	€178	€181	€185	€188	€192	€196	€200	€204	
No. of associates	11	11	11	11	11	11	11	11	11	11	11	
Price (associates) X 9.5 months	€136	€139	€141	€144	€147	€150	€153	€156	€159	€162	€166	
Yoga	€2,697	€2,751	€2,806	€2,862	€2,920	€2,978	€3,038	€3,098	€3,160	€3,224	€3,288	
No. of non-associates	8	8	8	8	8	8	8	8	8	8	8	
Price (non-associates) X 9.5 months	€167	€171	€174	€178	€181	€185	€188	€192	€196	€200	€204	
No. of associates	10	10	10	10	10	10	10	10	10	10	10	
Price (associates) X 9.5 months	€136	€139	€141	€144	€147	€150	€153	€156	€159	€162	€166	
Meditation	€815	€832	€848	€865	€883	€900	€918	€937	€957	€978	€994	
No. of non-associates	0	0	0	0	0	0	0	0	0	0	0	
Price (non-associates) X 9.5 months	€167	€171	€174	€178	€181	€185	€188	€192	€196	€200	€204	
No. of associates	6	6	6	6	6	6	6	6	6	6	6	
Price (associates) X 9.5 months	€136	€139	€141	€144	€147	€150	€153	€156	€159	€162	€166	
Workshops	€1,730	€1,764	€1,800	€1,836	€1,872	€1,910	€1,948	€1,987	€2,027	€2,067	€2,109	
No. of non-associates	3	3	3	3	3	3	3	3	3	3	3	
Price (non-associates) X 9.5 months	€273	€279	€284	€290	€296	€302	€308	€314	€320	€326	€333	
No. of associates	5	5	5	5	5	5	5	5	5	5	5	
Price (associates) X 9.5 months	€182	€186	€189	€193	€197	€201	€205	€209	€213	€218	€222	
Commemorative parties	€1,387	€1,414	€1,443	€1,471	€1,501	€1,531	€1,562	€1,593	€1,625	€1,657	€1,690	
No. of non-associates	5	5	5	5	5	5	5	5	5	5	5	
Price (non-associates) X 6 parties	€79	€81	€82	€84	€86	€87	€89	€91	€93	€95	€97	
No. of associates	15	15	15	15	15	15	15	15	15	15	15	
Price (associates) X 6 parties	€66	€67	€69	€70	€71	€73	€74	€76	€77	€79	€80	
AMUT*Aluguer	€9,876	€10,074	€10,275	€10,481	€10,691	€10,904	€11,122	€11,345	€11,572	€11,803	€12,039	
90 sqm annual revenue	€6,148	€6,271	€6,397	€6,525	€6,655	€6,788	€6,924	€7,062	€7,204	€7,348	€7,495	
Price per hour (associate)	€44	€45	€46	€47	€48	€49	€50	€51	€52	€53	€54	
Rented hours (associate)	36	36	36	36	36	36	36	36	36	36	36	
Price per hour (non-associate)	€55	€56	€57	€58	€60	€61	€62	€63	€64	€66	€67	
Rented hours (non-associate)	83	83	83	83	83	83	83	83	83	83	83	
45 sqm annual revenue	€3,728	€3,803	€3,879	€3,956	€4,036	€4,116	€4,199	€4,283	€4,368	€4,454	€4,545	
Price per hour (associate)	€28	€28	€29	€29	€30	€30	€31	€32	€32	€33	€34	
Rented hours (associate)	36	36	36	36	36	36	36	36	36	36	36	
Price per hour (non-associate)	€33	€34	€34	€35	€36	€37	€38	€39	€39	€40	€40	
Rented hours (non-associate)	83	83	83	83	83	83	83	83	83	83	83	
Laundry machines	€7,250	€7,391	€7,539	€7,690	€7,843	€8,000	€8,160	€8,324	€8,490	€8,660	€8,833	
Price (washing)	€4	€4	€4	€4	€4	€4	€4	€4	€5	€5	€5	
Number of usages per year	1464	1463	1463	1463	1463	1463	1463	1463	1463	1463	1463	
Price (drying)	€1	€1	€1	€1	€1	€1	€1	€1	€1	€1	€1	
Number of usages per year	1464	1464	1464	1464	1464	1464	1464	1464	1464	1464	1464	
Costs	€31,075	€32,441	€33,123	€33,826	€34,533	€35,241	€36,005	€36,905	€37,543	€38,337	€39,150	
Condominium	€18,096	€18,490	€18,933	€19,205	€19,727	€20,159	€20,601	€21,054	€21,517	€21,991	€22,477	
Utilities	€2,179	€2,223	€2,267	€2,312	€2,359	€2,406	€2,454	€2,503	€2,553	€2,604	€2,656	
Communications package	€588	€600	€612	€624	€637	€650	€663	€676	€689	€703	€717	
Cleaning	€8,251	€8,416	€8,584	€8,756	€8,931	€9,110	€9,292	€9,478	€9,667	€9,861	€10,058	
Common areas	€5,811	€5,927	€6,045	€6,166	€6,290	€6,415	€6,544	€6,675	€6,808	€6,944	€7,083	
Garden	€2,440	€2,489	€2,539	€2,590	€2,642	€2,694	€2,748	€2,803	€2,859	€2,917	€2,975	
Maintenance	€5,520	€5,630	€5,743	€5,858	€5,975	€6,095	€6,216	€6,341	€6,468	€6,597	€6,729	
General	€4,067	€4,149	€4,232	€4,316	€4,403	€4,491	€4,581	€4,672	€4,766	€4,861	€4,958	
Lift	€1,453	€1,482	€1,511	€1,542	€1,572	€1,604	€1,636	€1,669	€1,702	€1,736	€1,771	
Rent insurance	€1,558	€1,621	€1,686	€1,755	€1,826	€1,900	€1,977	€2,057	€2,140	€2,226	€2,317	
Studio flats (36+5 sqm, furnished)	€118	€123	€128	€133	€138	€144	€150	€156	€162	€169	€176	
No. of units	2	2	2	2	2	2	2	2	2	2	2	
Insurance premium X 12 months	€59	€61	€64	€66	€69	€72	€75	€78	€81	€84	€88	
Studio flats (26+5 sqm, furnished)	€342	€356	€370	€385	€401	€417	€434	€451	€469	€488	€508	
No. of units	7	7	7	7	7	7	7	7	7	7	7	
Insurance premium X 12 months	€49	€51	€53	€55	€57	€60	€62	€64	€67	€70	€73	
Studio flats (26+5 sqm, not furnished)	€95	€99	€103	€107	€112	€116	€121	€126	€131	€136	€142	
No. of units	2	2	2	2	2	2	2	2	2	2	2	
Insurance premium X 12 months	€48	€50	€52	€54	€56	€58	€60	€63	€65	€68	€71	
Studio flat (31+5 sqm, not furnished)	€372	€387	€403	€419	€436							

Equipment investment	€ 37,207
Outdoor fitness equipment	€ 2,316
Pedal exercisers	€ 907
Cross trainers	€ 996
Arm wheels	€ 412
Common living room initial investment	€ 1,621
2 three-seater dhouch	€ 215
3 tables w/ 4 chairs	€ 533
Shelf	€ 70
Television	€ 213
Chess	€ 18
Checkers	€ 18
Playing cards	€ 2
3 Puzzles	€ 52
Furniture for parties and renting	€ 1,688
20 chairs	€ 1,073
4 tables	€ 615
Furniture for flats	€ 10,498
Sofa-bed	€ 7,992
Table + 4 chairs	€ 2,502
Laundering machines	€ 20,098
2 x 9kg washing machine	€ 15,627
1 x 9kg drying machine	€ 4,471
Bicycles	€ 990
4 x city bicycles	€ 990

Best-case financing scenario												
Loans and grants												
Equipment loan	€ 37,207											
PRR non-refundable grant	€ 2,034,340											
Investment outflows												
Project investment	€ 2,034,340											
VAT over project investment	€ 122,060											
Net cash flows before debt repayment	(€ 122,060)	€ 112,903	€ 115,136	€ 117,415	€ 119,739	€ 122,108	€ 124,523	€ 126,985	€ 129,495	€ 132,054	€ 134,663	€ 137,322
Loans repayment												
Equipment loan	€ 8,684	€ 8,684	€ 8,684	€ 8,684	€ 8,684	€ 8,684	€ 0	€ 0	€ 0	€ 0	€ 0	€ 0
Equipment loan	€ 8,684	€ 8,684	€ 8,684	€ 8,684	€ 8,684	€ 8,684	€ 0	€ 0	€ 0	€ 0	€ 0	€ 0
Net cash flows after debt repayment	(€ 122,060)	€ 104,219	€ 106,452	€ 108,731	€ 111,055	€ 113,424	€ 124,523	€ 126,985	€ 129,495	€ 132,054	€ 134,663	€ 137,322

Worst-case financing scenario												
Loans and grants												
Equipment loan	€ 37,207											
Subsidised loan	€ 996,786											
Self-financing loan	€ 89,385											
PRR non-refundable grant	€ 948,169											
Investment outflows												
Project investment	€ 2,034,340											
VAT over project investment	€ 122,060											
Net cash flows before debt repayment	(€ 122,060)	€ 112,903	€ 115,136	€ 117,415	€ 119,739	€ 122,108	€ 124,523	€ 126,985	€ 129,495	€ 132,054	€ 134,663	€ 137,322
Loans repayment												
Subsidised loan	€ 135,005	€ 135,005	€ 135,005	€ 135,005	€ 135,005	€ 135,005	€ 126,321	€ 126,321	€ 126,321	€ 126,321	€ 126,321	€ 0
Self-financing loan	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 0
Equipment loan	€ 8,684	€ 8,684	€ 8,684	€ 8,684	€ 8,684	€ 8,684	€ 0	€ 0	€ 0	€ 0	€ 0	€ 0
Net cash flows after debt repayment	(€ 122,060)	(€ 22,103)	(€ 19,869)	(€ 17,589)	(€ 15,266)	(€ 12,897)	(€ 1,798)	€ 664	€ 3,174	€ 5,733	€ 8,341	€ 137,322

Casa Pousio's net cash flow evolution (pessimistic)



Appendix 32 – Financial viability: optimistic model cash flows

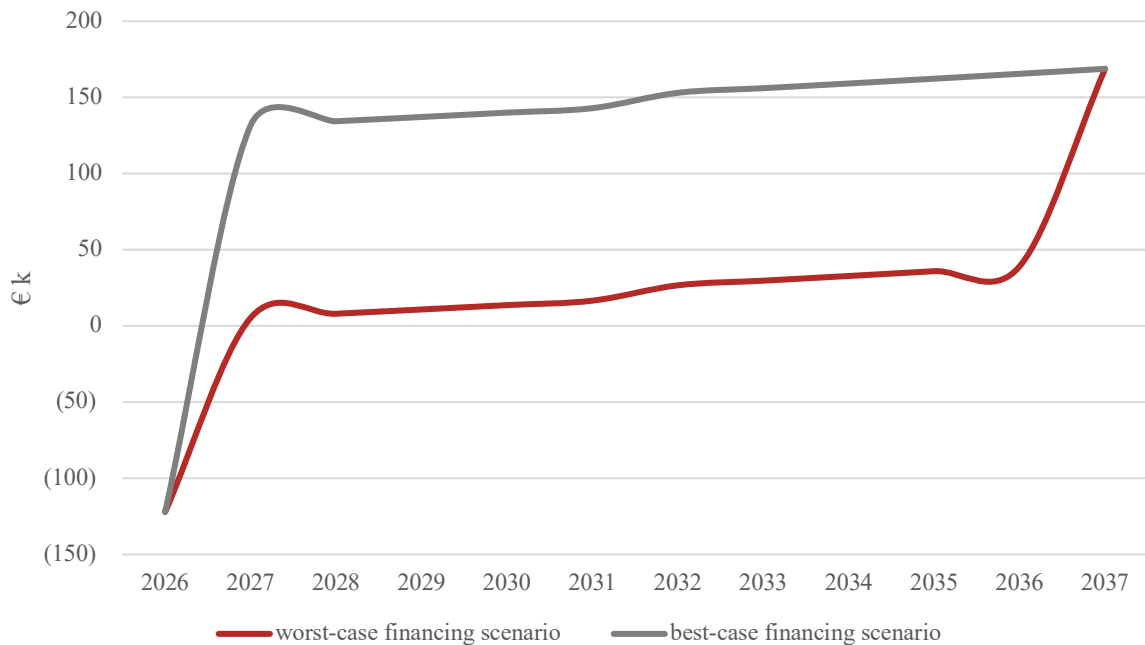
	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Revenues	€ 173,853	€ 177,336	€ 180,892	€ 184,520	€ 188,221	€ 191,995	€ 195,846	€ 199,774	€ 203,780	€ 207,867	€ 212,036	
Condominium	€ 117,754	€ 120,119	€ 122,531	€ 124,992	€ 127,502	€ 130,063	€ 132,674	€ 135,339	€ 138,057	€ 140,829	€ 143,657	
Rents	€ 108,219	€ 110,393	€ 112,609	€ 114,871	€ 117,178	€ 119,531	€ 121,931	€ 124,380	€ 126,878	€ 129,425	€ 132,025	
Studio flats (36+5 sqm, furnished)	€ 8,200	€ 8,365	€ 8,533	€ 8,704	€ 8,879	€ 9,057	€ 9,239	€ 9,424	€ 9,614	€ 9,807	€ 10,004	
No. of units	2	2	2	2	2	2	2	2	2	2	2	
Rent	€ 4,100	€ 4,182	€ 4,266	€ 4,352	€ 4,439	€ 4,528	€ 4,619	€ 4,712	€ 4,807	€ 4,903	€ 5,002	
Studio flats (26+5 sqm, furnished)	€ 23,741	€ 24,218	€ 24,705	€ 25,201	€ 25,707	€ 26,223	€ 26,750	€ 27,287	€ 27,835	€ 28,394	€ 28,964	
No. of units	7	7	7	7	7	7	7	7	7	7	7	
Rent	€ 3,392	€ 3,460	€ 3,529	€ 3,600	€ 3,672	€ 3,746	€ 3,821	€ 3,898	€ 3,976	€ 4,056	€ 4,138	
Studio flats (26+5 sqm, not furnished)	€ 6,620	€ 6,733	€ 6,888	€ 7,027	€ 7,168	€ 7,312	€ 7,459	€ 7,608	€ 7,761	€ 7,917	€ 8,076	
No. of units	2	2	2	2	2	2	2	2	2	2	2	
Rent	€ 3,310	€ 3,376	€ 3,444	€ 3,513	€ 3,584	€ 3,656	€ 3,729	€ 3,804	€ 3,881	€ 3,958	€ 4,038	
Studio flat (31+5 sqm, not furnished)	€ 25,839	€ 26,358	€ 26,887	€ 27,427	€ 27,978	€ 28,540	€ 29,113	€ 29,698	€ 30,294	€ 30,902	€ 31,523	
No. of units	7	7	7	7	7	7	7	7	7	7	7	
Rent	€ 3,691	€ 3,765	€ 3,841	€ 3,918	€ 3,997	€ 4,077	€ 4,159	€ 4,243	€ 4,328	€ 4,415	€ 4,503	
Studio flat (31+10 sqm, furnished)	€ 19,546	€ 19,939	€ 20,339	€ 20,748	€ 21,164	€ 21,589	€ 22,023	€ 22,465	€ 22,916	€ 23,376	€ 23,846	
No. of units	5	5	5	5	5	5	5	5	5	5	5	
Rent	€ 3,909	€ 3,988	€ 4,068	€ 4,150	€ 4,233	€ 4,318	€ 4,405	€ 4,493	€ 4,583	€ 4,675	€ 4,769	
One-bedroom flats (not furnished)	€ 19,451	€ 19,842	€ 20,240	€ 20,647	€ 21,061	€ 21,484	€ 21,916	€ 22,356	€ 22,805	€ 23,263	€ 23,730	
No. of units	4	4	4	4	4	4	4	4	4	4	4	
Rent	€ 4,863	€ 4,960	€ 5,060	€ 5,162	€ 5,265	€ 5,371	€ 5,479	€ 5,589	€ 5,701	€ 5,816	€ 5,932	
One-bedroom flat (not furnished, attic)	€ 4,822	€ 4,919	€ 5,017	€ 5,118	€ 5,221	€ 5,326	€ 5,433	€ 5,542	€ 5,653	€ 5,767	€ 5,883	
No. of units	1	1	1	1	1	1	1	1	1	1	1	
Rent	€ 4,822	€ 4,919	€ 5,017	€ 5,118	€ 5,221	€ 5,326	€ 5,433	€ 5,542	€ 5,653	€ 5,767	€ 5,883	
Condominium fee	€ 9,535	€ 9,727	€ 9,922	€ 10,121	€ 10,324	€ 10,532	€ 10,743	€ 10,959	€ 11,179	€ 11,404	€ 11,633	
Pilates	€ 4,987	€ 5,087	€ 5,188	€ 5,292	€ 5,398	€ 5,506	€ 5,616	€ 5,728	€ 5,843	€ 5,960	€ 6,079	
No. of non-associates	16	16	16	16	16	16	16	16	16	16	16	
Price (non-associates) X 9.5 months	€ 167	€ 171	€ 174	€ 178	€ 181	€ 185	€ 188	€ 192	€ 196	€ 200	€ 204	
No. of associates	17	17	17	17	17	17	17	17	17	17	17	
Price (associates) X 9.5 months	€ 136	€ 139	€ 141	€ 144	€ 147	€ 150	€ 153	€ 156	€ 159	€ 162	€ 166	
Yoga	€ 4,516	€ 4,607	€ 4,699	€ 4,793	€ 4,889	€ 4,986	€ 5,086	€ 5,188	€ 5,292	€ 5,398	€ 5,505	
No. of non-associates	14	14	14	14	14	14	14	14	14	14	14	
Price (non-associates) X 9.5 months	€ 167	€ 171	€ 174	€ 178	€ 181	€ 185	€ 188	€ 192	€ 196	€ 200	€ 204	
No. of associates	16	16	16	16	16	16	16	16	16	16	16	
Price (associates) X 9.5 months	€ 136	€ 139	€ 141	€ 144	€ 147	€ 150	€ 153	€ 156	€ 159	€ 162	€ 166	
Meditation	€ 2,028	€ 2,069	€ 2,110	€ 2,152	€ 2,195	€ 2,239	€ 2,284	€ 2,330	€ 2,376	€ 2,424	€ 2,472	
No. of non-associates	4	4	4	4	4	4	4	4	4	4	4	
Price (non-associates) X 9.5 months	€ 167	€ 171	€ 174	€ 178	€ 181	€ 185	€ 188	€ 192	€ 196	€ 200	€ 204	
No. of associates	10	10	10	10	10	10	10	10	10	10	10	
Price (associates) X 9.5 months	€ 136	€ 139	€ 141	€ 144	€ 147	€ 150	€ 153	€ 156	€ 159	€ 162	€ 166	
Workshops	€ 4,188	€ 4,272	€ 4,357	€ 4,444	€ 4,533	€ 4,624	€ 4,716	€ 4,811	€ 4,907	€ 5,005	€ 5,105	
No. of non-associates	8	8	8	8	8	8	8	8	8	8	8	
Price (non-associates) X 9.5 months	€ 273	€ 279	€ 284	€ 290	€ 296	€ 302	€ 308	€ 314	€ 320	€ 326	€ 333	
No. of associates	11	11	11	11	11	11	11	11	11	11	11	
Price (associates) X 9.5 months	€ 182	€ 186	€ 189	€ 193	€ 197	€ 201	€ 205	€ 209	€ 213	€ 218	€ 222	
Commemorative parties	€ 3,500	€ 3,570	€ 3,641	€ 3,714	€ 3,788	€ 3,864	€ 3,941	€ 4,020	€ 4,101	€ 4,182	€ 4,266	
No. of non-associates	15	15	15	15	15	15	15	15	15	15	15	
Price (non-associates) X 6 parties	€ 79	€ 81	€ 82	€ 84	€ 86	€ 87	€ 89	€ 91	€ 93	€ 95	€ 97	
No. of associates	35	35	35	35	35	35	35	35	35	35	35	
Price (associates) X 6 parties	€ 66	€ 67	€ 69	€ 70	€ 71	€ 73	€ 74	€ 76	€ 77	€ 79	€ 80	
AMUT Aluguer	€ 29,629	€ 30,222	€ 30,826	€ 31,443	€ 32,072	€ 32,713	€ 33,367	€ 34,035	€ 34,715	€ 35,410	€ 36,118	
90 sqm annual revenue	€ 18,445	€ 18,814	€ 19,190	€ 19,574	€ 19,965	€ 20,364	€ 20,772	€ 21,187	€ 21,611	€ 22,043	€ 22,484	
Price per hour (associate)	€ 44	€ 45	€ 46	€ 47	€ 48	€ 49	€ 50	€ 51	€ 52	€ 53	€ 54	
Rented hours (associate)	107	107	107	107	107	107	107	107	107	107	107	
Price per hour (non-associate)	€ 55	€ 56	€ 57	€ 58	€ 60	€ 61	€ 62	€ 63	€ 64	€ 66	€ 67	
Rented hours (non-associate)	250	250	250	250	250	250	250	250	250	250	250	
45 sqm annual revenue	€ 11,185	€ 11,408	€ 11,636	€ 11,869	€ 12,107	€ 12,349	€ 12,595	€ 12,848	€ 13,108	€ 13,367	€ 13,634	
Price per hour (associate)	€ 28	€ 28	€ 29	€ 29	€ 30	€ 31	€ 32	€ 32	€ 32	€ 33	€ 34	
Rented hours (associate)	107	107	107	107	107	107	107	107	107	107	107	
Price per hour (non-associate)	€ 33	€ 34	€ 34	€ 35	€ 36	€ 37	€ 38	€ 39	€ 39	€ 40	€ 40	
Rented hours (non-associate)	250	250	250	250	250	250	250	250	250	250	250	
Laundry machines	€ 7,250	€ 7,391	€ 7,539	€ 7,690	€ 7,843	€ 8,000	€ 8,160	€ 8,324	€ 8,490	€ 8,660	€ 8,833	
Price (washing)	€ 4	€ 4	€ 4	€ 4	€ 4	€ 4	€ 4	€ 4	€ 5	€ 5	€ 5	
Number of usages per year	1464	1463	1463	1463	1463	1463	1463	1463	1463	1463	1463	
Price (drying)	€ 1	€ 1	€ 1	€ 1	€ 1	€ 1	€ 1	€ 1	€ 1	€ 1	€ 1	
Number of usages per year	1464	1464	1464	1464	1464	1464	1464	1464	1464	1464	1464	
Costs	€ 35,165	€ 35,898	€ 36,680	€ 37,417	€ 38,201	€ 39,033	€ 39,922	€ 40,860	€ 41,854	€ 42,898	€ 43,992	
Condominium	€ 15,089	€ 15,423	€ 15,764	€ 16,114	€ 16,473	€ 16,839	€ 17,215	€ 17,600	€ 17,994	€ 18,398	€ 18,811	
Utilities	€ 1,783	€ 1,818	€ 1,855	€ 1,892	€ 1,930	€ 1,968	€ 2,008	€ 2,048	€ 2,089	€ 2,131	€ 2,173	
Communications package	€ 481	€ 491	€ 501	€ 511	€ 521	€ 531	€ 542	€ 553	€ 564	€ 575	€ 587	
Cleaning	€ 6,751	€ 6,886	€ 7,024	€ 7,164	€ 7,307	€ 7,453	€ 7,603	€ 7,755	€ 7,910	€ 8,068	€ 8,229	
Common areas	€ 4,754	€ 4,849	€ 4,946	€ 5,045	€ 5,146	€ 5,249	€ 5,354	€ 5,461	€ 5,570	€ 5,682	€ 5,795	
Garden	€ 1,997	€ 2,037	€ 2,077	€ 2,119	€ 2,161	€ 2,205	€ 2,249	€ 2,294	€ 2,339	€ 2,386	€ 2,434	
Maintenance	€ 4,516	€ 4,607	€ 4,699	€ 4,793	€ 4,889	€ 4,986	€ 5,086	€ 5,188	€ 5,292	€ 5,398	€ 5,505	
General	€ 3,328	€ 3,394	€ 3,462	€ 3,532	€ 3,602	€ 3,674	€ 3,748	€ 3,823	€ 3,899	€ 3,977	€ 4,057	
Lift	€ 1,189	€ 1,212	€ 1,237	€ 1,261	€ 1,287	€ 1,312	€ 1,338	€ 1,365	€ 1,393	€ 1,420	€ 1,449	
Rent insurance	€ 1,558	€ 1,621	€ 1,686	€ 1,755	€ 1,826	€ 1,900	€ 1,977	€ 2,057	€ 2,140	€ 2,226	€ 2,317	
Studio flats (36+5 sqm, furnished)	€ 118	€ 123	€ 128	€ 133	€ 138	€ 144	€ 150	€ 156	€ 162	€ 169	€ 176	
No. of units	2	2	2	2	2	2	2	2	2	2	2	
Insurance premium X 12 months	€ 59	€ 61	€ 64	€ 66	€ 69	€ 72	€ 75	€ 78	€ 81	€ 84	€ 88	
Studio flats (26+5 sqm, furnished)	€ 342	€ 356	€									

Equipment investment	€ 30,442
Outdoor fitness equipment	€ 1,895
Pedal exercisers	€ 742
Cross trainers	€ 815
Arm wheels	€ 337
Common living room initial investment	€ 1,326
2 fitness-center chouch	€ 385
3 tables w/ 4 chairs	€ 336
Shelf	€ 58
Television	€ 175
Chess	€ 15
Checkers	€ 15
Playing cards	€ 1
3 Puzzles	€ 42
Furniture for parties and renting	€ 1,381
20 chairs	€ 878
4 tables	€ 503
Furniture for flats	€ 8,587
Sofa-bed	€ 6,539
Table + 4 chairs	€ 2,047
Laundering machines	€ 16,444
2 x 9kg washing machine	€ 12,786
1 x 9kg drying machine	€ 3,658
Bicycles	€ 810
4 x city bicycles	€ 810

Best-case financing scenario												
Loans and grants												
Equipment loan	€ 30,442											
PRR non-refundable grant	€ 2,034,340											
Investment outflows												
Project investment	€ 2,034,340											
VAT over project investment	€ 122,060											
Net cash flows before debt repayment	(€ 122,060)	€ 138,688	€ 141,437	€ 144,242	€ 147,103	€ 150,019	€ 152,993	€ 156,024	€ 159,115	€ 162,266	€ 165,479	€ 168,754
Loans repayment		€ 7,105	€ 7,105	€ 7,105	€ 7,105	€ 7,105	€ 0	€ 0	€ 0	€ 0	€ 0	€ 0
Equipment loan	€ 7,105	€ 7,105	€ 7,105	€ 7,105	€ 7,105	€ 7,105	€ 0	€ 0	€ 0	€ 0	€ 0	€ 0
Net cash flows after debt repayment	(€ 122,060)	€ 131,583	€ 134,332	€ 137,137	€ 139,998	€ 142,914	€ 152,993	€ 156,024	€ 159,115	€ 162,266	€ 165,479	€ 168,754

Worst-case financing scenario												
Loans and grants												
Equipment loan	€ 30,442											
Subsidised loan	€ 996,786											
Self-financing loan	€ 89,385											
PRR non-refundable grant	€ 948,169											
Investment outflows												
Project investment	€ 2,034,340											
VAT over project investment	€ 122,060											
Net cash flows before debt repayment	(€ 122,060)	€ 138,688	€ 141,437	€ 144,242	€ 147,103	€ 150,019	€ 152,993	€ 156,024	€ 159,115	€ 162,266	€ 165,479	€ 168,754
Loans repayment		€ 133,426	€ 133,426	€ 133,426	€ 133,426	€ 133,426	€ 126,321	€ 126,321	€ 126,321	€ 126,321	€ 126,321	€ 0
Subsidised loan	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 115,205	€ 0
Self-financing loan	€ 11,116	€ 11,116	€ 11,116	€ 11,116	€ 11,116	€ 11,116	€ 11,116	€ 11,116	€ 11,116	€ 11,116	€ 11,116	€ 0
Equipment loan	€ 7,105	€ 7,105	€ 7,105	€ 7,105	€ 7,105	€ 7,105	€ 0	€ 0	€ 0	€ 0	€ 0	
Net cash flows after debt repayment	(€ 122,060)	€ 5,262	€ 8,011	€ 10,816	€ 13,676	€ 16,593	€ 26,671	€ 29,703	€ 32,793	€ 35,945	€ 39,157	€ 168,754

Casa Pousio's net cash flow evolution (optimistic)



Appendix 33 – Debt repayment per funding percentage and first year net cash flows before debt repayment

PRR financing	PRR financing	Loans			
		Subsidised	Self-financing	Equipment	Annual payments
47%	€ 948,169	€ 996,786	€ 89,385	€ 33,202	€ 134,071
48%	€ 976,483	€ 970,802	€ 87,055	€ 33,202	€ 130,778
49%	€ 996,827	€ 952,133	€ 85,381	€ 33,202	€ 128,412
50%	€ 1,017,170	€ 933,463	€ 83,707	€ 33,202	€ 126,046
51%	€ 1,037,513	€ 914,794	€ 82,033	€ 33,202	€ 123,680
52%	€ 1,057,857	€ 896,125	€ 80,358	€ 33,202	€ 121,314
53%	€ 1,078,200	€ 877,456	€ 78,684	€ 33,202	€ 118,948
54%	€ 1,098,544	€ 858,786	€ 77,010	€ 33,202	€ 116,582
55%	€ 1,118,887	€ 840,117	€ 75,336	€ 33,202	€ 114,216
56%	€ 1,139,230	€ 821,448	€ 73,662	€ 33,202	€ 111,850
57%	€ 1,159,574	€ 802,778	€ 71,988	€ 33,202	€ 109,484
58%	€ 1,179,917	€ 784,109	€ 70,314	€ 33,202	€ 107,118
59%	€ 1,200,261	€ 765,440	€ 68,639	€ 33,202	€ 104,752
60%	€ 1,220,604	€ 746,771	€ 66,965	€ 33,202	€ 102,386
61%	€ 1,240,947	€ 728,101	€ 65,291	€ 33,202	€ 100,021
62%	€ 1,261,291	€ 709,432	€ 63,617	€ 33,202	€ 97,655
63%	€ 1,281,634	€ 690,763	€ 61,943	€ 33,202	€ 95,289
64%	€ 1,301,978	€ 672,094	€ 60,269	€ 33,202	€ 92,923
65%	€ 1,322,321	€ 653,424	€ 58,595	€ 33,202	€ 90,557
66%	€ 1,342,664	€ 634,755	€ 56,921	€ 33,202	€ 88,191
67%	€ 1,363,008	€ 616,086	€ 55,246	€ 33,202	€ 85,825
68%	€ 1,383,351	€ 597,417	€ 53,572	€ 33,202	€ 83,459
69%	€ 1,403,695	€ 578,747	€ 51,898	€ 33,202	€ 81,093
70%	€ 1,424,038	€ 560,078	€ 50,224	€ 33,202	€ 78,727
71%	€ 1,444,381	€ 541,409	€ 48,550	€ 33,202	€ 76,361
72%	€ 1,464,725	€ 522,739	€ 46,876	€ 33,202	€ 73,995
73%	€ 1,485,068	€ 504,070	€ 45,202	€ 33,202	€ 71,629
74%	€ 1,505,412	€ 485,401	€ 43,527	€ 33,202	€ 69,263
75%	€ 1,525,755	€ 466,732	€ 41,853	€ 33,202	€ 66,897
76%	€ 1,546,098	€ 448,062	€ 40,179	€ 33,202	€ 64,532
77%	€ 1,566,442	€ 429,393	€ 38,505	€ 33,202	€ 62,166
78%	€ 1,586,785	€ 410,724	€ 36,831	€ 33,202	€ 59,800
79%	€ 1,607,129	€ 392,055	€ 35,157	€ 33,202	€ 57,434
80%	€ 1,627,472	€ 373,385	€ 33,483	€ 33,202	€ 55,068
81%	€ 1,647,815	€ 354,716	€ 31,809	€ 33,202	€ 52,702
82%	€ 1,668,159	€ 336,047	€ 30,134	€ 33,202	€ 50,336
83%	€ 1,688,502	€ 317,378	€ 28,460	€ 33,202	€ 47,970
84%	€ 1,708,846	€ 298,708	€ 26,786	€ 33,202	€ 45,604
85%	€ 1,729,189	€ 280,039	€ 25,112	€ 33,202	€ 43,238
86%	€ 1,749,532	€ 261,370	€ 23,438	€ 33,202	€ 40,872
87%	€ 1,769,876	€ 242,700	€ 21,764	€ 33,202	€ 38,506
88%	€ 1,790,219	€ 224,031	€ 20,090	€ 33,202	€ 36,140
89%	€ 1,810,563	€ 205,362	€ 18,415	€ 33,202	€ 33,774
90%	€ 1,830,906	€ 186,693	€ 16,741	€ 33,202	€ 31,408
91%	€ 1,851,249	€ 168,023	€ 15,067	€ 33,202	€ 29,043
92%	€ 1,871,593	€ 149,354	€ 13,393	€ 33,202	€ 26,677
93%	€ 1,891,936	€ 130,685	€ 11,719	€ 33,202	€ 24,311
94%	€ 1,912,280	€ 112,016	€ 10,045	€ 33,202	€ 21,945
95%	€ 1,932,623	€ 93,346	€ 8,371	€ 33,202	€ 19,579
96%	€ 1,952,966	€ 74,677	€ 6,697	€ 33,202	€ 17,213
97%	€ 1,973,310	€ 56,008	€ 5,022	€ 33,202	€ 14,847
98%	€ 1,993,653	€ 37,339	€ 3,348	€ 33,202	€ 12,481
99%	€ 2,013,997	€ 18,669	€ 1,674	€ 33,202	€ 10,115
100%	€ 2,034,340	€ 0	€ 0	€ 33,202	€ 7,749

First year net cash flows before debt repayment		
Pessimistic	Base	Optimistic
€ 112,903	€ 125,989	€ 138,688

Appendix 34 – Euribor sensitivity analysis

Financing scenario	Euribor			
	1.75%	2.75%	3.75%	
Pessimistic	Best	€ 104,426	€ 104,219	€ 104,009
	Worst	(€ 15,956)	(€ 22,103)	(€ 28,431)
Base	Best	€ 118,283	€ 118,095	€ 117,904
	Worst	(€ 2,099)	(€ 8,227)	(€ 14,536)
Optimistic	Best	€ 131,752	€ 131,583	€ 131,411
	Worst	€ 11,371	€ 5,262	(€ 1,029)

Appendix 35 – 12m Euribor, 6m Euribor, and TRCB forecasts

	12m Euribor	6m Euribor	TRCB
2023	4.10%	3.99%	4.49%
2024	3.90%	3.79%	4.29%
2025	3.40%	3.29%	3.79%
2026	3.10%	2.99%	3.49%
2027	2.75%	2.64%	3.14%

Appendix 36 – Project's IRR for 50% of PRR financing under the base model

Isolated project	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Investment												Perpetuity
Actual	€ 2,190,225	€ 125,989	€ 128,484	€ 131,030	€ 133,626	€ 136,273	€ 138,972	€ 141,723	€ 144,528	€ 147,387	€ 150,302	€ 153,274
Discounted	€ 2,190,225	€ 111,881	€ 101,321	€ 91,759	€ 83,098	€ 75,255	€ 68,152	€ 61,719	€ 55,892	€ 50,616	€ 45,837	€ 1,444,695
IRR	12.6%											
Cost of debt	3.2%											

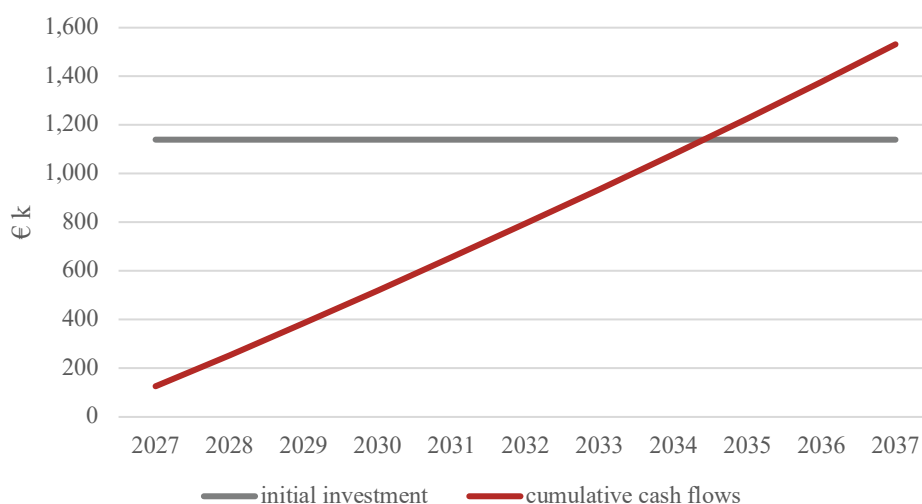
Appendix 37 – AMUT's IRR for 50% of PRR financing under the base model

AMUT	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Assuming ≈ 50% of PRR financing	Investment											Perpetuity
Actual	€ 1,171,944	€ 125,989	€ 128,484	€ 131,030	€ 133,626	€ 136,273	€ 138,972	€ 141,723	€ 144,528	€ 147,387	€ 150,302	€ 153,274
Discounted	€ 1,171,944	€ 101,326	€ 83,105	€ 68,161	€ 55,904	€ 45,851	€ 37,606	€ 30,843	€ 25,296	€ 20,747	€ 17,016	€ 686,089
IRR	24.3%											
Cost of debt	3.2%											

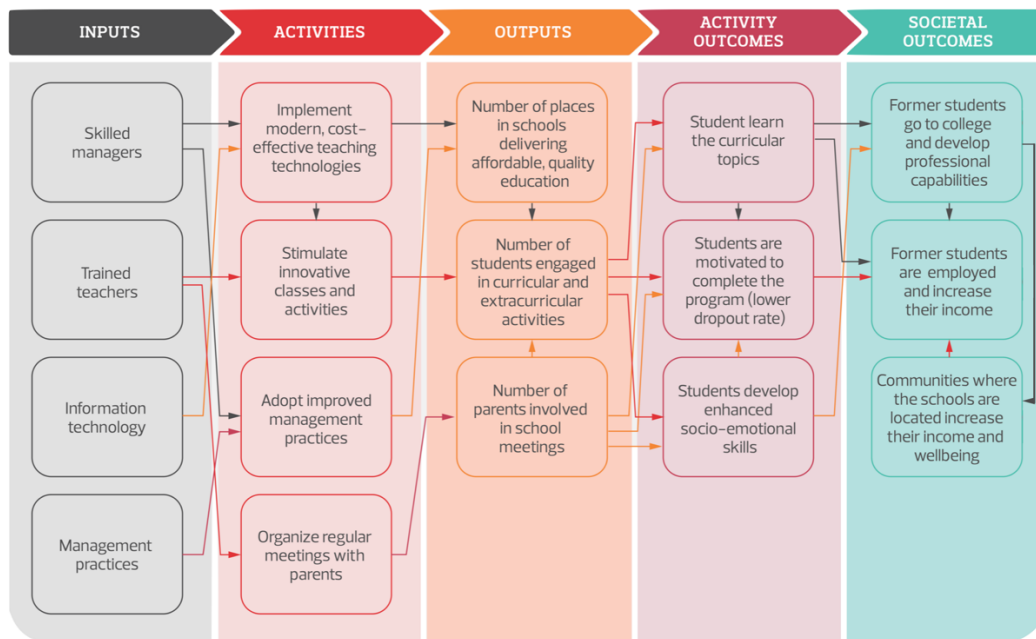
Appendix 38 – Payback period for 50% of PRR financing under the base model

Assuming ≈ 50% of PRR financing	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Loans repayment	€ 125,989	€ 125,989	€ 125,989	€ 125,989	€ 125,989	€ 125,989	€ 118,240	€ 118,240	€ 118,240	€ 118,240	€ 118,240	€ 0
Subsidised loan	€ 107,835	€ 107,835	€ 107,835	€ 107,835	€ 107,835	€ 107,835	€ 107,835	€ 107,835	€ 107,835	€ 107,835	€ 107,835	€ 0
Self-financing loan	€ 10,405	€ 10,405	€ 10,405	€ 10,405	€ 10,405	€ 10,405	€ 10,405	€ 10,405	€ 10,405	€ 10,405	€ 10,405	€ 0
Equipment loan	€ 7,749	€ 7,749	€ 7,749	€ 7,749	€ 7,749	€ 7,749	€ 0	€ 0	€ 0	€ 0	€ 0	€ 0
Net cash flows after debt repayment	€ 0	€ 2,495	€ 5,041	€ 7,637	€ 10,284	€ 20,732	€ 23,483	€ 26,288	€ 29,147	€ 32,062	€ 153,274	
Payback period	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Cumulative Cash Flows before debt repayment	-	€ 125,989	€ 254,473	€ 385,503	€ 519,129	€ 655,403	€ 794,374	€ 936,097	€ 1,080,624	€ 1,228,011	€ 1,378,314	€ 1,531,588
Cumulative Cash Flows	€ 1,171,944	€ 1,045,955	€ 917,471	€ 786,441	€ 652,815	€ 516,541	€ 377,570	€ 235,847	€ 91,320	€ 56,068	€ 206,370	€ 359,644
Initial Investment	-	€ 1,139,632	€ 1,139,632	€ 1,139,632	€ 1,139,632	€ 1,139,632	€ 1,139,632	€ 1,139,632	€ 1,139,632	€ 1,139,632	€ 1,139,632	€ 1,139,632
Days in 2034 until payback	226											
Payback period	8 years and 226 days											

Payback period



Appendix 39 – ToC components for an impact measurement model



Appendix 40 – Rating guide for KPI attributes

	○ 1	◐ 2	◑ 3	● 4
Relevant?	The metric is weakly linked with some outcome specified in the theory of change.	The metric is linked with some outcome specified in the theory of change, but it is not clear how its variation could be valued by the target population.	The metric is linked with some outcome specified in the theory of change and its variation will be potentially valued by the target population.	The metric is linked with some outcome specified in the theory of change and its variation will be strongly valued by the target population.
Actionable?	Contextual conditions out of the control of managers involved in the activities specified in the theory of change substantially limit the effect of such activities on the proposed metric.	Although the metric can be potentially affected by the activities specified in the theory of change, this effect depends on myriad conditions beyond the control of project managers.	There are logical arguments supporting the conclusion that the metric can be affected by the interventions specified in the theory of change.	There is previous evidence that the metric can be strongly affected by interventions specified in the theory of change.
Precise?	The metric weakly reflects the focal outcome and/or can be manipulated and distorted to reflect a performance outcome that is greater than what was effectively attained in the project.	The metric moderately reflects the focal outcome and/or involves data sources with a considerable risk of manipulation or whose interpretation is questionable.	The metric adequately reflects the focal outcome and involves data sources that are not broadly recognized but have low risk of manipulation.	The metric adequately reflects the focal outcome and involves data sources that are broadly recognized and seen as legitimate indicators of the focal outcome.
Low cost?	The metric requires specific and costly measurements (for instance, local surveys).	The required data requires additional costs due to specific measurements and/or the need for external validation.	The required data can be collected at low cost using existing data sources, but access depends on authorization or extra effort by third parties.	The required data can be collected at low cost via easily accessible public sources.

Legend: Example of what to consider when rating the attributes of a KPI by Inesper Institute of Education and Research.

Appendix 41 – SF-36 Survey (36 – Item Short Form Survey – Physical questionnaire only)

SF-36 Survey			
The following items are about activities you might do during a typical day			
Does your health now limit you in these activities? If so, how much?			
Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports	Yes, limited a lot (1)	Yes, limited a little (2)	No, not limited at all (3)
Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf	Yes, limited a lot (1)	Yes, limited a little (2)	No, not limited at all (3)
Lifting or carrying groceries	Yes, limited a lot (1)	Yes, limited a little (2)	No, not limited at all (3)
Climbing several flights of stairs	Yes, limited a lot (1)	Yes, limited a little (2)	No, not limited at all (3)
Climbing one flight of stairs	Yes, limited a lot (1)	Yes, limited a little (2)	No, not limited at all (3)
Bending, kneeling, or stopping	Yes, limited a lot (1)	Yes, limited a little (2)	No, not limited at all (3)
Walking more than a mile	Yes, limited a lot (1)	Yes, limited a little (2)	No, not limited at all (3)
Walking several blocks	Yes, limited a lot (1)	Yes, limited a little (2)	No, not limited at all (3)
Walking one block	Yes, limited a lot (1)	Yes, limited a little (2)	No, not limited at all (3)
Bathing or dressing yourself	Yes, limited a lot (1)	Yes, limited a little (2)	No, not limited at all (3)

During the past 4 weeks, have you had any of the following problems, with your work or other regular activities as a result of your physical health?		
Cut down the amount of time you spent on work or other activities	Yes (4)	No (5)
Accomplished less than you would like	Yes (4)	No (5)
Were limited in the kind of work or other activities	Yes (4)	No (5)
Had difficulty performing the work or other activities (for example, it took extra effort)	Yes (4)	No (5)

Measurement of Impact		
Original response category	Recoded value	Final Value
1	0	Average
2	50	
3	100	
4	0	
5	100	

Legend: SF-36 is able to measure the qualitative KPI Physical Well-being Score. The annual Impact Survey must have the presented questions to qualitatively measure the indicator. The KPI Physical Well-being Score should account for the measurement standard presented.

Appendix 42 – Quality of relationships Score (A - RSQ)

The items below describe situations in which people sometimes ask things of others. For each item, imagine that you are in the situation, and then answer the question that follows it.	
1. You ask your parents or another family member for a loan to help through a difficult financial time.	
How concerned or anxious would you be over whether or not your family would want to help you?	I would expect that they would agree to help as much as they can.
2. You approach a close friend to talk after doing or saying something that seriously upset him/her.	
How concerned or anxious would you be over whether or not your friend would want to talk with you?	I would expect that he/she would be willing to discuss our possible options without getting defensive.
3. You ask your supervisor for help with a problem you have been having at work.	
How concerned or anxious would you be over whether or not the person would want to help you?	I would expect that he/she would want to try to help me out.
4. After a bitter argument, you call or approach your significant other because you want to make up.	
How concerned or anxious would you be over whether or not your significant other would want to make up with you?	I would expect that he/she would be at least as eager to make up as I would be.

5. You ask your parents or other family members to come to an occasion important to you.	
How concerned or anxious would you be over whether or not they would want to come?	I would expect that they would want to come.
6. At a party, you notice someone on the other side of the room that you'd like to get to know, and you approach him or her to try to start a conversation.	
How concerned or anxious would you be over whether or not the person would want to talk with you?	I would expect that he/she would want to talk with me.
7. Lately you've been noticing some distance between yourself and your significant other, and ask him/her if there is something wrong.	
How concerned or anxious would you be over whether or not he/she still loves you and wants to be with you?	I would expect that he/she show sincere love and commitment no matter what else may be going on.
8. You call a friend when there is something on your mind that you feel you really need to talk about.	
How concerned or anxious would you be over whether or not your friend would want to listen?	I would expect that he/she would listen and support me.
Measurement Scale	
Very unconcerned [1] – Very concerned [6]	Very unlikely [1] – Very likely [6]

How to read and analyse the data:
Calculate a rejection sensitivity score for each situation by multiplying the level of rejection concern (the response to question a) by the level of rejection expectancy (the reverse of the level of acceptance expectancy reported in response to question b).
Formula:
Rejection expectancy = (rejection concern) * (rejection expectancy)
Example:
If someone responded to the first situation with a 5 and a 2, as shown below, their rejection concern score is a 5, and their rejection expectancy score is (7-2) or 5. So their RS score for this situation would be 5 x 5 or 25. Note that every score will be between 1 and 36.
Final Score:
The total rejection sensitivity score is the mean of the rejection sensitivity scores for the 9 situations. The total score will also be between 1 and 36.

Legend: Measuring the qualitative KPI, Quality of Relationships Score. The annual Impact Survey must have the presented questions to qualitatively measure the indicator. The individuals mentioned such as supervisor, significant other, parents or family members, can and must be replaced for the relationship status intended to measure, such as the relationships between Casa Pousio's neighbours. The KPI Quality of Relationship Score should account for the measurement standard presented.

Appendix 43 – UCLA Loneliness Scales

Items in Revised UCLA Loneliness Scale (R-UCLA) ^a and Three-Item Loneliness Scale				
<i>R-UCLA Loneliness Scale</i>				
Directions: Indicate how often you feel the way described in each of the following statements. Circle one number for each.				
<i>Statement</i>	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>
1. I feel in tune with the people around me. ^b	1	2	3	4
2. I lack companionship.	1	2	3	4
3. There is no one I can turn to.	1	2	3	4
4. I do not feel alone. ^b	1	2	3	4
5. I feel part of a group of friends. ^b	1	2	3	4
6. I have a lot in common with the people around me. ^b	1	2	3	4
7. I am no longer close to anyone.	1	2	3	4
8. My interests and ideas are not shared by those around me.	1	2	3	4
9. I am an outgoing person. ^b	1	2	3	4
10. There are people I feel close to. ^b	1	2	3	4
11. I feel left out.	1	2	3	4
12. My social relationships are superficial.	1	2	3	4
13. No one really knows me well.	1	2	3	4
14. I feel isolated from others.	1	2	3	4
15. I can find companionship when I want it. ^b	1	2	3	4
16. There are people who really understand me. ^b	1	2	3	4
17. I am unhappy being so withdrawn.	1	2	3	4
18. People are around me but not with me.	1	2	3	4
19. There are people I can talk to. ^b	1	2	3	4
20. There are people I can turn to. ^b	1	2	3	4
<i>Three-Item Loneliness Scale</i>				
<i>Lead-in and questions are read to respondent.</i>				
The next questions are about how you feel about different aspects of your life. For each one, tell me how often you feel that way.				
<i>Question</i>	<i>Hardly Ever</i>	<i>Some of the Time</i>	<i>Often</i>	
First, how often do you feel that you lack companionship:				
Hardly ever, some of the time, or often?	1	2	3	
How often do you feel left out:				
Hardly ever, some of the time, or often?	1	2	3	
How often do you feel isolated from others?				
(Is it hardly ever, some of the time, or often?)	1	2	3	
NOTE: For both scales, the score is the sum of all items.				
a. Russell, Peplau, and Cutrona (1980).				
b. Item should be reversed before scoring.				

Legend: Example of scales to consider when measuring loneliness levels by University of California, Los Angeles.

Appendix 44 – General Anxiety Disorder-7

Over the last 2 weeks, how often have you been bothered by the following problems?				
Feeling nervous, anxious, or on the edge	Not at all (0)	Several days (1)	More than half the days (2)	Nearly every day (3)
Not being able to stop or control worrying	Not at all (0)	Several days (1)	More than half the days (2)	Nearly every day (3)
Worrying too much about different things	Not at all (0)	Several days (1)	More than half the days (2)	Nearly every day (3)
Trouble relaxing	Not at all (0)	Several days (1)	More than half the days (2)	Nearly every day (3)
Being restless that it is hard to sit still	Not at all (0)	Several days (1)	More than half the days (2)	Nearly every day (3)
Becoming easily annoyed or irritable	Not at all (0)	Several days (1)	More than half the days (2)	Nearly every day (3)
Feeling afraid, as if something awful might happen	Not at all (0)	Several days (1)	More than half the days (2)	Nearly every day (3)

Final Score:
This is calculated by assigning scores of 0,1,2,3 to the respective categories, and summing the values.
How to read and analyse the data:
0 – 4: Minimal anxiety 5 – 9: Mild anxiety 10 – 14: Moderate anxiety 15 – 21: Severe anxiety

Legend: General Anxiety Disorder-7 can measure the qualitative KPI Anxiety and Stress Levels Score. The annual Impact Survey must have the presented questions to qualitatively measure the indicator. The KPI Anxiety and Stress Levels Score should account for the measurement standard presented.

Appendix 45 – Geriatric Depression Scale – Short Form

1	Are you basically satisfied with your life? YES / NO
2	Have you dropped many of your activities and interests? YES / NO
3	Do you feel that your life is empty? YES / NO
4	Do you often get bored? YES / NO
5	Are you in good spirits most of the time? YES / NO
6	Are you afraid that something bad is going to happen to you? YES / NO
7	Do you feel happy most of the time? YES / NO
8	Do you often feel helpless? YES / NO
9	Do you prefer to stay at home, rather than going out and doing new things? YES / NO
10	Do you feel you have more problems with memory than most? YES / NO
11	Do you think it is wonderful to be alive now? YES / NO
12	Do you feel pretty worthless the way you are now? YES / NO
13	Do you feel full of energy? YES / NO
14	Do you feel that your situation is hopeless? YES / NO
15	Do you think that most people are better off than you are? YES / NO

Final Score:

Answers in bold indicate depression.
Score 1 point for each bolded answer.

How to read and analyse the data:

A score > 5 points is suggestive of depression.
A score ≥ 10 points is almost always indicative of depression.
A score > 10 points should warrant a follow-up comprehensive assessment.

Legend: Geriatric Depression Scale -Short Form can measure the qualitative KPI Mental Well-being Score. The annual Impact Survey must have the presented questions to qualitatively measure the indicator. The KPI Mental Well-Being Score should account for the measurement standard presented.

Appendix 46 – Rosenberg Self-Esteem Scale (RSES)

1	On the whole, I am satisfied with myself.
2	At times, I think I am no good at all.
3	I feel that I have a number of good qualities.
4	I am able to do things as well as most other people.
5	I feel I do not have much to be proud of.
6	I certainly feel useless at times.
7	I feel that I'm a person of worth, at least on an equal plane with others.
8	I wish I could have more respect for myself.
9	All in all, I am inclined to feel that I am a failure.
10	I take a positive attitude toward myself.

How to read the information:

For positively phrased, (use the scale inverted to assess the negatively phrased):

Strongly disagree: 1

Disagree: 2

Agree: 3

Strongly agree: 4

How to read and analyse the data:

The total score is divided into 3 levels:

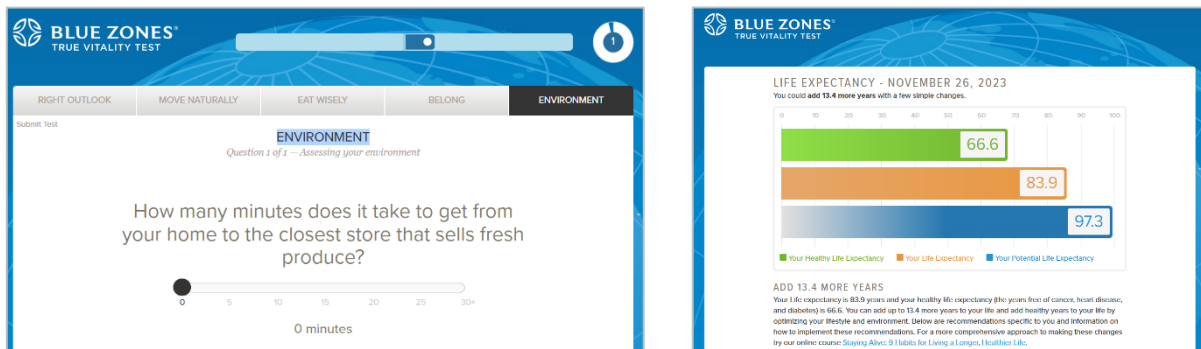
Low (10–25): Feelings of incompetence, inadequacy, and difficulty facing life's challenges;

Medium (26–29): Fluctuating between feelings of approval and rejection;

High (30–40): Self-judgment of value, confidence, and competence.

Legend: RSES can measure the qualitative KPI Perception of Self-Worth Score. The annual Impact Survey must have the presented questions to qualitatively measure the indicator. The KPI Perception of Self-Worth Score should account for the measurement standard presented.

Appendix 47 – “True Vitality Test” by the Blue Zones Project



Background	
1	What year were you born?
2	Female or male?
3	Where do you live? Postal code?
4	What is your ethnicity?
5	What is your height?
6	What is your weight?
7	What was your weight two years ago?
8	What is your annual household income from all sources?
9	What was the last year of school you completed?
10	Have you smoked tobacco products in the last 5 years?
11	If you smoke, how many times per day?
12	<p>Have you ever been diagnosed with any of the following conditions?</p> <ul style="list-style-type: none"> • Hypertension or high blood pressure • Coronary artery disease, angina, angina pectoris, or acute coronary syndrome • Congestive heart failure • Myocardial infarction or heart attack • Stroke or paralysis of one side of your body • Emphysema or chronic bronchitis • Diabetes • Weak or failing kidneys (not including kidney stones, bladder infection, incontinence) • Cancer or malignancy of any kind (other than skin cancer)

Eat wisely – Assessing your diet	
1	During the past 7 days, how many servings of fresh vegetables did you consume? (1 serving = a whole carrot, sweet potato, or pepper. Or 1 cup broccoli, cauliflower, or leafy greens. White potatoes don't count)
2	During the past 7 days, how many servings of fruit did you consume? (1 serving = an apple, orange, or banana; a slice of cantaloupe pineapple or watermelon or $\frac{1}{2}$ cup of diced fruit or berries. Canned fruit and fruit juice do NOT count.)
3	During the past 7 days, how many servings of unprocessed grains did you consume? (1 servings = about 6oz or 1 slice of 100% whole grain bread, whole grain corn tortilla. Or cup cooked brown rice, barley, quinoa, or other whole grain.)
4	During the past 7 days, how many servings of beans did you consume? (1 serving = half a cup, about the size of a light bulb, of any bean including black beans, lentil, chickpea, fava, etc.)
5	During the past 7 days, how many servings of nuts did you consume? (A serving is 2 ounces, about a handful of any nut including peanuts.)
6	During the past 7 days, how many servings of fish or seafood did you consume? (A serving size is 4oz or about the size of a deck of cards.)
7	During the past 7 days, how many servings of meat did you consume? (A serving is 4 ounces, or about the size of a deck of cards of beef, pork, lamb, or chicken.)
8	During the past 7 days, how many servings of dairy products did you consume? (1 serving = a cup of milk or yogurt, or a slice of cheese.)
9	During the past 7 days, how many servings of sweets did you consume? (1 serving = 7 grams of added sugar, or a mini candy bar, half a cookie or pastry, a small scoop of ice cream, 3oz of soda pop or fruit juice.)
10	During the past 7 days, how many servings of salty snacks did you consume? (1 serving = a handful of corn chips, potato chips, crackers, pretzels, etc. (nuts don't count))
11	During the past 7 days, how many meals did you eat at a fast-food chain?
12	During the last week, on average, how many alcoholic beverages per day did you consume? (1 drink = 12oz beer, 4oz glass of wine, or 1oz hard liquor)

Right outlook – Assessing your stress level	
1	Rate your overall health. (Poor to Excellent)
2	Over the last year, how has your health changed? (Much worse to Much Better)
3	During the past 30 days, how many days have you felt sad or depressed?
4	During the past 30 days, how many days have you felt worried, tense, or anxious?
5	During the past 30 days, how many days have you felt angry at least once?

Move naturally – Assessing your physical activity	
1	On an average day, how many minutes are you physically active? (Walking, jogging, gardening, yoga, and lifting weights all count.)
2	Do you ever take medication to sleep?
3	On average, how many hours do you sleep per night?

Belong – Assessing the quality of your social life	
1	What best describes your relationship status? <ul style="list-style-type: none"> • Married • Divorced • Widowed • Separated • Never married • In a committed loving relationship
2	How satisfied are you with your relationship with your spouse or partner? (Not satisfied-Very satisfied)
3	How satisfied are you with your work life? (Not satisfied-Very satisfied)
4	During the past 7 days, how many times did you socialise with people you like? (This includes clubs, sporting events, volunteering, and nights out with friends.)
5	In the past 7 days, how many days have you attended religious activities? (This includes worship services, choir, or other religious group activities, but not individual prayer or meditation.)

Environment	
1	How many minutes does it take to get from your home to the closest store that sells fresh produce?