Deliverable D5.4

UNITA Impact Observatory Plan

Co-funded by
the European Union

Deliverable card

Deliverable No.	D5.4
Deliverable Title	UNITA Impact Observatory Plan
Version-date	1.3 - 2024/10/25
Lead Beneficiaries	UPPA and UPNA
Contractual due date	31/10/2024
Work package	5
Task	5.4
Dissemination level	PU – Public

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or EACEA as granting authority. Neither the European Union nor the granting authority can be held responsible for them.

Abstract

EN

Context and Objectives
This deliverable addresses the need for a strategy to measure and assess the impact of new ecosystems developed within the framework of the European University Initiative by the Erasmus+ program. It shifts focus from merely academic to societal impact, including benefits like environmental sustainability. The goal is to establish a unified framework for impact assessment, harmonizing quantitative and qualitative indicators for alliances while respecting each university's unique characteristics.

Methodology

The proposed approach combines a Theory of Change framework with two observatories for internal and external evaluation, employing the Rational Unified Process (RUP) methodology. This includes a four-phase structure— inception, elaboration, construction, and transition— to enable continuous development aligned with alliance goals.

Results and Outcomes

A multi-dimensional observatory framework, UNITAPedia, was developed to capture and evaluate impact across six viewpoints: structural, strategic, beneficiaries, semantic, infrastructure, and data. An external observatory focuses on Sustainable Development Goals (SDGs), benchmarking against the Times Higher Education Impact Ranking, and promoting shared best practices.

Impact and Applications

This strategy enhances visibility for participating universities and fosters knowledge transfer, promoting innovation in impact assessment. The observatories serve as practical tools for ongoing measurement, visibility, and the collective learning of sustainable practices.

Conclusions and Next Steps

UNITA's strategy incorporates a continuous improvement cycle to evolve with needs, fostering collaboration and innovation. Future directions include strengthening knowledge transfer and expanding the reach of impact assessment innovations across European universities.

Keywords: impact assessment, European University Initiative, sustainability, Theory of Change, SDGs, knowledge transfer.

PT

Contexto e Objetivos

Este documento aborda a necessidade de uma estratégia para medir e avaliar o impacto dos novos ecossistemas desenvolvidos no âmbito da Iniciativa Universidade Europeia do programa Erasmus+. O objetivo é criar uma estrutura unificada de avaliação de impacto, harmonizando indicadores quantitativos e qualitativos para alianças, respeitando as características únicas de cada universidade.

Metodologia

A abordagem proposta combina um quadro da Teoria da Mudança com dois observatórios de avaliação interna e externa, utilizando a metodologia Rational Unified Process (RUP). Isso inclui uma estrutura

de quatro fases — iniciação, elaboração, construção e transição — para permitir um desenvolvimento contínuo alinhado com os objetivos da aliança.

Resultados e Conclusões

Foi desenvolvido um quadro de observatório multidimensional, UNITAPedia, para capturar e avaliar o impacto em seis perspectivas: estrutural, estratégica, beneficiários, semântica, infraestrutura e dados. Um observatório externo enfoca os Objetivos de Desenvolvimento Sustentável (ODS), com referência ao Ranking de Impacto do Times Higher Education, promovendo melhores práticas.

Impacto e Aplicações

Essa estratégia aumenta a visibilidade das universidades participantes e promove a transferência de conhecimento, incentivando a inovação na avaliação de impacto. Os observatórios servem como ferramentas práticas para medição contínua, visibilidade e aprendizado coletivo de práticas sustentáveis.

Conclusões e Próximos Passos

A estratégia da UNITA incorpora um ciclo de melhoria contínua para evoluir com as necessidades, promovendo colaboração e inovação. As próximas etapas incluem o fortalecimento da transferência de conhecimento e a ampliação do alcance das inovações na avaliação de impacto nas universidades europeias.

Palavras-chave: avaliação de impacto, Iniciativa Universidade Europeia, sustentabilidade, Teoria da Mudança, ODS, transferência de conhecimento.

ES

Contexto y Objetivos

Este documento aborda la necesidad de una estrategia para medir y evaluar el impacto de los nuevos ecosistemas creados en el marco de la Iniciativa de Universidades Europeas del programa Erasmus+. El objetivo es establecer un marco unificado de evaluación de impacto, armonizando indicadores cuantitativos y cualitativos para las alianzas, respetando las características únicas de cada universidad.

Metodología

El enfoque propuesto combina un marco de Teoría del Cambio con dos observatorios para evaluación interna y externa, utilizando la metodología del Rational Unified Process (RUP). Esto incluye una estructura de cuatro fases — inicio, elaboración, construcción y transición — que permite un desarrollo continuo alineado con los objetivos de la alianza.

Resultados y Conclusiones

Se desarrolló un marco de observatorio multidimensional, UNITAPedia, para capturar y evaluar el impacto en seis perspectivas: estructural, estratégica, beneficiarios, semántica, infraestructura y datos. Un observatorio externo se centra en los Objetivos de Desarrollo Sostenible (ODS), en referencia al Ranking de Impacto del Times Higher Education, promoviendo mejores prácticas.

Impacto y Aplicaciones

Esta estrategia aumenta la visibilidad de las universidades participantes y promueve la transferencia de conocimientos, fomentando la innovación en la evaluación de impacto. Los observatorios sirven como herramientas prácticas para la medición continua, visibilidad y el aprendizaje colectivo de prácticas sostenibles.

Conclusiones y Próximos Pasos

La estrategia de UNITA incorpora un ciclo de mejora continua para evolucionar con las necesidades, promoviendo colaboración e innovación. Las próximas etapas incluyen fortalecer la transferencia de conocimientos y ampliar el alcance de las innovaciones en evaluación de impacto en las universidades europeas.

Palabras clave: Evaluación de impacto, Iniciativa Universidad Europea, sostenibilidad, Teoría del Cambio, ODS, transferencia de conocimientos.

FR

Contexte et Objectifs

Ce document aborde la nécessité d'une stratégie pour mesurer et évaluer l'impact des nouveaux écosystèmes développés dans le cadre de l'Initiative Université Européenne du programme Erasmus+. L'objectif est de créer un cadre unifié d'évaluation d'impact, harmonisant des indicateurs quantitatifs et qualitatifs pour les alliances, tout en respectant les caractéristiques uniques de chaque université.

Méthodologie

L'approche proposée combine un cadre de la Théorie du Changement avec deux observatoires pour évaluation interne et externe, en utilisant la méthodologie Rational Unified Process (RUP). Cette approche comporte quatre phases — initiation, élaboration, construction et transition — permettant un développement continu en harmonie avec les objectifs de l'alliance.

Résultats et Conclusions

Un cadre d'observatoire multidimensionnel, UNITAPedia, a été développé pour capturer et évaluer l'impact sous six perspectives : structurelle, stratégique, bénéficiaires, sémantique, infrastructure et données. Un observatoire externe se concentre sur les Objectifs de Développement Durable (ODD), en référence au classement d'impact du Times Higher Education, et promeut les meilleures pratiques.

Impact et Applications

Cette stratégie améliore la visibilité des universités participantes et favorise le transfert de connaissances, en encourageant l'innovation dans l'évaluation de l'impact. Les observatoires servent d'outils pratiques pour la mesure continue, la visibilité et l'apprentissage collectif de pratiques durables.

Conclusions et Prochaines Étapes

La stratégie de l'UNITA intègre un cycle d'amélioration continue pour évoluer en fonction des besoins, favorisant collaboration et innovation. Les prochaines étapes incluent le renforcement du transfert de connaissances et l'expansion des innovations en évaluation de l'impact dans les universités européennes.

Mots-clés: évaluation de l'impact, Initiative Université Européenne, durabilité, Théorie du Changement, ODD, transfert de connaissances.

IT

Contesto e Obiettivi

Questo documento affronta la necessità di una strategia per misurare e valutare l'impatto dei nuovi ecosistemi creati nell'ambito dell'Iniziativa Università Europea del programma Erasmus+. L'obiettivo è stabilire un quadro unificato per la valutazione dell'impatto, armonizzando indicatori quantitativi e qualitativi per le alleanze, rispettando le caratteristiche uniche di ogni università.

Metodologia

L'approccio proposto combina un quadro della Teoria del Cambiamento con due osservatori per valutazioni interne ed esterne, utilizzando la metodologia Rational Unified Process (RUP). Ciò include una struttura a quattro fasi — inizio, elaborazione, costruzione e transizione — che consente uno sviluppo continuo in linea con gli obiettivi dell'alleanza.

Risultati e Conclusioni

È stato sviluppato un quadro di osservatorio multidimensionale, UNITAPedia, per catturare e valutare l'impatto sotto sei prospettive: strutturale, strategica, beneficiari, semantica, infrastruttura e dati. Un osservatorio esterno si concentra sugli Obiettivi di Sviluppo Sostenibile (SDG), con riferimento al ranking di impatto del Times Higher Education, promuovendo le migliori pratiche.

Impatto e Applicazioni

Questa strategia aumenta la visibilità delle università partecipanti e favorisce il trasferimento di conoscenze, promuovendo l'innovazione nella valutazione dell'impatto. Gli osservatori servono come strumenti pratici per una misurazione continua, visibilità e apprendimento collettivo di pratiche sostenibili.

Conclusioni e Prossimi Passi

La strategia di UNITA incorpora un ciclo di miglioramento continuo per evolversi con le necessità, favorendo collaborazione e innovazione. Le prossime fasi includono il potenziamento del trasferimento di conoscenze e l'espansione della portata delle innovazioni nella valutazione dell'impatto nelle università europee.

Parole chiave: valutazione dell'impatto, Iniziativa Università Europea, sostenibilità, Teoria del Cambiamento, SDG, trasferimento di conoscenze.

RO

Context și Obiective

Acest document abordează necesitatea unei strategii pentru măsurarea și evaluarea impactului noilor ecosisteme dezvoltate în cadrul Inițiativei Universităților Europene a programului Erasmus+. Obiectivul este de a stabili un cadru unificat de evaluare a impactului, armonizând indicatorii cantitativi și calitativi pentru alianțe, respectând caracteristicile unice ale fiecărei universități.

Metodologie

Abordarea propusă combină un cadru Teoriei Schimbării cu două observatoare pentru evaluare internă și externă, utilizând metodologia Rational Unified Process (RUP). Aceasta include o structură în patru faze — inițiere, elaborare, construcție și tranziție — pentru a permite o dezvoltare continuă aliniată cu obiectivele alianței.

Rezultate și Concluzii

A fost dezvoltat un cadru de observator multidimensional, UNITAPedia, pentru a capta și evalua impactul în șase perspective: structurală, strategică, beneficiari, semantică, infrastructură și date. Un observator extern se concentrează pe Obiectivele de Dezvoltare Durabilă (ODD), în raport cu clasamentul de impact Times Higher Education, promovând cele mai bune practici.

Impact și Aplicații

Această strategie sporește vizibilitatea universităților participante și promovează transferul de cunoștințe, încurajând inovația în evaluarea impactului. Observatoarele servesc drept instrumente practice pentru măsurarea continuă, vizibilitate și învățare colectivă a practicilor sustenabile.

Concluzii și Pași Următori

Strategia UNITA integrează un ciclu de îmbunătățire continuă pentru a evolua în funcție de necesități, promovând colaborarea și inovația. Etapele viitoare includ consolidarea transferului de cunoștințe și extinderea inovațiilor în evaluarea impactului în universitățile europene.

Cuvinte cheie: evaluare impact, Inițiativa Universităților Europene, sustenabilitate, Teoria Schimbării, ODD, transfer de cunoștințe.

Summary

This deliverable aims to present a strategy that responds to the challenge of measuring and evaluating the impact of the new ecosystems created in the framework of the European University Initiative launched by the Erasmus+ program. Indeed, increasing attention is being paid to the contribution of universities to society, moving away from focusing solely on academic impact to encompass also societal benefits such as environmental sustainability. Various frameworks, such as the Times Higher Education (THE) Impact Ranking, help universities to show their social influence in research, teaching and public engagement. Assessing university social impact poses challenges due to the complexity of institutional structures and the diversity of methodologies among member institutions. However, existing solutions focus mainly on measuring the impact of individual institutions. A unified impact assessment framework is needed to capture both quantitative and qualitative indicators, balancing the objectives of an alliance as a whole and including the individual characteristics of each university.

In the first chapter of this document, we present the analysis carried out by our alliance, including a literature review on impact assessment, evaluating current practices among UNITA member institutions and integrating the lessons learned during the pilot phase of our alliance. The objective has been to present in a harmonized way the various approaches, combining retrospective and prospective methods for a comprehensive impact monitoring.
Based on this study, the methodology proposed by UNITA and based on the implementation of two observatories is introduced:

- an internal observatory, based on a Theory of Change approach allowing to pilot and monitor the development of the alliance, measuring and evaluating its impact.
- an external observatory, intended to accompany the participation of the alliance's member universities in the THE Impact ranking, allowing to improve the alliance's visibility and to learn collectively from good practices.

Chapter 2 of the document presents the observatory development plan, based on a collaborative and iterative approach. The Rational Unified Process (RUP) methodology was selected, which encompasses four phases: inception (defining needs and resources), elaboration (designing prototypes), construction (developing observatories with incremental improvements) and transition (ensuring sustainability and adaptability). The timeline for each phase is structured to support continuous improvement and alignment with the alliance's objectives.

Chapter 3 presents the implementation of the methodology and plans outlined in Chapters 1 and 2 through the implementation of a structured five-step process: dissemination of the

methodology, application of the methodology to each task, collection of indicators through interviews, modelling of the data warehouse, and measurement and visualization of impact.

Chapter 4 describes in more detail the design of the internal impact observatory, called UNITAPedia and based on 6 viewpoints:

- structural : supports work teams and decision-making bodies in the implementation of an impact-oriented project management approach.
- strategic: observes the impact on the strategic axes and long-term missions
- beneficiaries: reorganizes tools and opportunities by beneficiary type
- semantic: uses machine learning tools to present key assets and changes induced by UNITA, allowing a better understanding of the evolution of the alliance.
- infrastructure: presents technical infrastructure on the virtual campus
- data: presents the data model used in the observatory.

This chapter also describes how the external observatory will ensure continuous impact assessment in relation to the Sustainable Development Goals (SDGs) and the adoption of best practices.

The fifth and final chapter presents how UNITA's impact measurement and evaluation strategy incorporates a continuous improvement process to adapt to evolving needs. This process ensures the continuous monitoring and improvement of the methodology and services proposed by the observatories. The chapter also presents the proposal for sharing and fostering collaboration, co-creation and innovation in impact measurement. In particular, it confirms our commitment to knowledge transfer to enable innovations made at UNITA to benefit a wide range of stakeholders and contribute to the broader field of impact measurement and evaluation of European universities.

I. UNITA impact observatory strategy

A. State of the art

The need to investigate the impact and achievements of university alliances

The process of globalization and internationalization of higher education institutions in Europe and worldwide has accelerated considerably in recent years. This trend has been supported for several decades in Europe through the Erasmus program and, more recently in 2019, thanks to the creation of the Erasmus+ European Universities Initiative (EUI)[1], which represents a critical step toward fostering inter-university alliances across Europe. Since its inception, 64 alliances have emerged, spanning over 35 countries and involving more than 560 higher education institutions. These alliances are much more than transnational cooperation projects, as they represent important transformational changes within each institution, which raise new challenges and require innovative strategies for sustainable development.

While these alliances are developing, it is essential to be able to monitor and evaluate their long-term social impact. The goal is not only to assess internal outcomes but also to evaluate the broader societal benefits at territorial, national, European, and international levels. The EUI's objectives align with addressing key socio-economic issues, including promoting growth, jobs, equity, and social inclusion. This focus requires a robust mechanism to measure whether and how these university alliances are making tangible contributions to solving Europe's major challenges.

The necessity to monitor the impact of these alliances goes beyond immediate outputs. The initiative aims to build a new model of cooperation between higher education institutions by promoting mobility, developing shared strategies, and engaging in research that addresses societal needs. In this context, ensuring that the transformative role of these alliances is adequately tracked is imperative for their continued success and for providing evidence of their benefits to society.

Assessing and reporting the social impact of universities

The discourse surrounding the social impact of universities and research has gained momentum in recent decades, with numerous scholars exploring how institutions contribute to social innovation, policy development, health improvements, and overall societal progress2. Historically, the evaluation of universities focused largely on scientific or academic impact, which centers on how research influences other academic work. However,

[1] European Universities initiative program, available at:
https://education.ec.europa.eu/education-levels/higher-education/european-universities-initiative

[2] Adam, P., Ovseiko, P. V, Grant, J., Graham, K. E. A., Boukhris, O. F., Dowd, A.-M., Balling, G. V, Christensen, R. N., Pollitt, A., & Taylor, M. (2018). ISRIA statement: ten-point guidelines for an effective process of research impact assessment. Health Research Policy and Systems, 16(1), 1–16.

growing societal challenges, such as climate change, economic crises, and public health emergencies, have pushed universities to play a broader role in addressing societal needs. Universities are increasingly being viewed as key drivers of societal progress, especially in contexts where their research directly influences public policy, economic development, and social welfare. Public and private funding bodies now emphasize the benefits of research on society, prioritizing projects that demonstrate clear positive impacts beyond academia.

A particular way to assess the universities performance and impact on society is provided by global university rankings, that have become largely known in this century as the higher education sector is more and more international. The first academic ranking of the world was originally developed by the University of Shanghai in 2003 to benchmark itself against other global institutions[3]; the specialized British magazine for Higher Education of the Times[4] followed suit creating the World University Rankings together with the Quacquarelli Symonds agency[5] (these two rankers later separated), and other rankings of academic and research institutions quickly gained international traction, eventually evolving into a variety of global rankings, each offering their list of the world's "best universities", with an emphasis on the research mission but an ambition to cover all their dimensions including internationalisation and knowledge transfer.

Frameworks such as the UK Research Excellence Framework (REF)[6] and the European Union's Horizon 2020[7] program have institutionalized this shift by requiring research proposals to outline potential societal impacts in advance.

During the last decade, having acknowledged the weaknesses of a league table approach[8], a new kind of university rankings started to appear, ranking the most sustainable universities, taking into account the UN agenda 2030 goals and the widespread concern for a sustainable future. Among this specific kind of rankings, the most widely recognized are Greenmetric, Times Higher Education (THE) Impact Rankings, and QS Sustainability.

Universities pursue social impact assessments for several reasons[9]: to secure funding, to monitor their performance, to ensure accountability, and to understand how their research leads to real-world change. These assessments are often divided into three categories: research impact, teaching impact, and third mission impact. While most assessments have focused on research impact, there is a growing need to address the impacts generated by

[3] Academic Ranking of World Universities (ARWU) available at: https://www.shanghairanking.com/

[4] THE (Times Higher Education) World University Rankings available at: https://www.timeshighereducation.com/world-university-rankings

[5] QS World University Rankings available at: https://www.topuniversities.com/university-rankings

[6] Khazragui, H., & Hudson, J. (2015). Measuring the benefits of university research: impact and the REF in the UK. Research Evaluation, 24(1), 51–62.

[7] Dragomir, D., Chirilă, L., Olaru, S., Sandu, D., & Stănculea, A. (2022). Impact in Horizon Europe Proposals.

[8] See the MTOR initiative (link: https://inorms.net/more-than-our-rank/))

[9] Morris, K., Adshea, M., & Bowman, S. (2014). Report on Current Praxis of Policies and Activities Supporting Societal Engagement in Research and Innovation.

teaching and public engagement activities, especially as universities evolve to become more integral to societal development.

Challenges and problems in social impact assessment and reporting

Despite the growing recognition of universities' social impact, assessing and reporting these impacts remains a complex and multi-faceted challenge. The scope of university activities—spanning teaching, research, and public engagement—makes it difficult to pinpoint and measure all potential impacts comprehensively. Moreover, the frameworks and methodologies developed to measure impact are often tailored to individual institutions, meaning they may not easily scale up to multi-institutional entities like the European University Alliances. The unique structure of EU Alliances, where universities are both independent and collaborative entities, creates a particular challenge in designing impact assessments that account for both alliance-wide and institution-specific contributions.

One of the most significant obstacles lies in integrating diverse institutional data systems. The technical challenge of accessing, standardizing, and synthesizing data across multiple universities within an alliance is considerable. Effective impact assessment requires not only gathering quantitative data but also ensuring that qualitative indicators reflecting the nuanced contributions of each member institution are adequately captured. A one-size-fits-all methodology may overlook the individual needs and characteristics of each institution, thereby undermining the utility of the assessment.

Moreover, the nature of societal impact itself is difficult to quantify. Impacts generated by universities are often diffuse and take time to materialize, which complicates the task of determining causal relationships between university activities and societal changes. Methodologies such as experimental and statistical approaches (e.g., longitudinal studies and econometrics) can offer evidence-based insights, but they are resource-intensive and may oversimplify complex societal interactions. Other methods, such as systems analysis or qualitative approaches (e.g., interviews, surveys, and case studies), provide richer, more contextualized insights but can be difficult to standardize across institutions and may not offer clear, comparable results[10].

Despite these challenges, developing a coherent strategy for assessing the societal impact of our alliance, UNITA-*Universitas Montium*, is essential for its long-term sustainability. As our alliance continues to grow and evolve, it is vital to recognize the need for tailored tools that can address the complexity of our structure while still providing meaningful, actionable data on our contributions to society. Developing and implementing these tools remains an ongoing challenge, but it is crucial to ensuring that the transformative potential of our

[10] Reed, M. S., Ferre, M., Martin-Ortega, J., Blanche, R., Lawford-Rolfe, R., Dallimer, M., & Holden, J. (2021). Evaluating impact from research: A methodological framework. Research Policy, 50(4), 104147. https://doi.org/10.1016/j.respol.2020.104147

alliance is fully realized. By focusing on this, the observatory can more effectively demonstrate the value and impact of our collaborative efforts on society.

B. Analysis of potential solutions

Considering the challenges identified in the previous chapter, the task team undertook a comprehensive analysis to identify potential methodologies and tools for monitoring the impact of the UNITA alliance. Given the diverse structure of our alliance and the complexity of its activities, it was crucial to find an approach that could accommodate these variables while effectively measuring the impact of UNITA.

Our analysis simultaneously followed three distinct pathways. First, a review of academic research and practical insights on impact assessment frameworks related to universities was conducted. This provided a broad understanding of the current best practices and methodologies used in the higher education sector to evaluate societal impact. Second, member universities of the alliance presented the techniques they currently use to monitor their own impact. This internal exchange of practices allowed us to explore the different methods in place within the alliance and to identify strategies that could be harmonized for collective use.

Finally, a significant part of our effort involved reviewing the methodologies employed during the impact evaluation conducted for the pilot phase of the UNITA alliance. This review was particularly useful in helping us learn from our previous experience and adapt our strategies to fit the needs of the second, expanded phase of the UNITA alliance.

The following sub-sections will present each of these topics, illustrating how they informed our selection of the most appropriate methodologies for impact assessment within the UNITA alliance.

Review of academic and practical insights

In the process of identifying suitable methodologies for assessing the impact of the UNITA alliance, we began by reviewing a range of definitions of "impact" from established organizations. These definitions provided a guiding framework for our approach. The Organisation for Economic Co-operation and Development (OECD) defines impact as "*positive and negative, primary and secondary long-term effects produced by a development intervention, directly or indirectly, intended or unintended*." Similarly, the European Commission (EC) focuses on the changes expected due to the implementation of a policy or intervention, emphasizing the multi-level nature of impact over different time scales and geographic scales. Lastly, the United Nations Development Group (UNDG) defines impact in terms of changes in people's lives, including shifts in knowledge, behaviour, health, and living conditions.

Guided by these definitions, we recognized that the impact of university activities, like those of the UNITA alliance, is developmental, often unfolding gradually through multiple stages[11]. Academic literature on impact assessment suggests that methods can adopt a retrospective approach, which aims to measure the impact of past activities; a prospective approach, which predicts and assesses the future impact of current activities; or a continuous monitoring approach, which incorporates both retrospective and prospective elements[12].
Public frameworks, such as the UK's Research Excellence Framework (REF) and the European Union's Horizon 2020 and Horizon Europe programmes, offer useful insights into these approaches. The REF is retrospective, evaluating past research to measure societal contributions, while the EU programmes take a prospective approach, requiring researchers to outline anticipated impacts before receiving funding. The Italian Research Quality Evaluation (VQR)[13] system, which includes evaluations of Third Mission activities, offers another example of a comprehensive framework for assessing the broader societal contributions of universities beyond teaching and research.

Internal impact monitoring practices

For the first official task online meeting on November 9th, 2023, following the UNITA phase two kick-off earlier that month, each of the members of the alliance was asked to prepare and present a synthesis of the approach used to measure impact in their institutions. The different presentations provided valuable insights into the different methodologies and systems employed by 8 of the member institutions, with a particular focus on the rankings in which they participate:

- Universidad de Zaragoza (UNIZAR): UNIZAR has a robust internal system for monitoring and evaluating its performance across various strategic areas such as excellence in teaching, research, sustainability, and social engagement. The key department responsible for these assessments is the "*Área de Innovación y Prospectiva*", which provides data for decision-making. UNIZAR monitors or participates in multiple international and national rankings, including the Shanghai Academic Ranking of World Universities (ARWU), Times Higher Education (THE), QS World University Rankings, and UI GreenMetric, as well as the U-ranking (IVIE). These rankings measure performance in areas such as sustainability, transparency, and innovation.

[11] Razmgir, M., Panahi, S., Ghalichi, L., Mousavi, S. A. J., & Sedghi, S. (2021). Exploring research impact models: A systematic scoping review. Research Evaluation, 30(4), 443–457. https://doi.org/10.1093/reseval/rvab009

[12] Dotti, N. F., & Walczyk, J. (2022). What is the societal impact of university research? A policy-oriented review to map approaches, identify monitoring methods and success factors. Evaluation and Program Planning, 102157. https://doi.org/10.1016/j.evalprogplan.2022.102157

[13] VQR (2022). Valutazione della Qualità della Ricerca 2015-2019. Rapporto finale ANVUR. https://www.anvur.it/wp-content/uploads/2022/06/VQR-2015-19_Rapporto_ANVUR.pdf.

- Universitatea Transilvania din Brașov (UNITBV): UNITBV focuses on enhancing educational and scientific performance and increasing internationalization. They implement separate programs to attract young talented researchers and monitor their research output from an academic point of view, to increase the level of internationalisation of their university, and programs regarding society engagement.
- Haute Ecole Spécialisée de Suisse Occidentale (HES-SO): HES-SO employs a decentralized and multi-level organizational structure that allows for distinct data reporting across its different schools. Their internal reporting is structured around both operational and strategic processes, with a strong focus on academic performance and research. They apply separate methodologies for different types of impacts such as graduates' employability, innovation and technological transfer, event participation and engagement, national and international standards for research and teaching, diversity and inclusion. They are currently undergoing a major transformation to centralize reporting systems and improve data governance. The university prioritizes coherence and agility across its reporting processes, especially in academic and research data management.
- Universitatea de Vest din Timișoara (UVT): UVT implements distinct methodologies to monitor various aspects of its impact especially regarding teaching and research activities. UVT track not only student employability but also the economic sector of employment, the geographical distribution of graduates across different disciplines.
- Instituto Politécnico da Guarda (IPG): IPG focuses on internal quality assurance through its Quality Assurance Office. Their monitoring activities include annual internal audits covering areas like teaching, internationalization, and human resources. Their internal system supports both external and internal evaluations, ensuring compliance with quality guidelines, other than tracking and evaluating various aspects of university performance, such as teaching and learning, internationalization, and human resources.
- Universidad Pública de Navarra (UPNA): UPNA uses the Times Higher Education (THE) Impact Rankings to assess its contributions to all the Sustainable Development Goals (SDGs). They have been refining their approach to impact measurement by broadening their perspective with an annual Impact Report. This report highlights how UPNA serves society and contributes to regional development, emphasizing sustainability in economic, social, and environmental areas, providing indicators related to the 17 SDGs.
- Université de Pau et des Pays de l'Adour (UPPA): at UPPA the impact monitoring system is built around a comprehensive methodology that follows the Impact Value Chain model and Theory of Change model, which tracks progress from inputs to long-term impacts. UPPA applies this framework to various areas such as

internationalization, where they monitor educational programs, international student enrollments, and mobility figures. This methodology is designed to measure the university's broader societal and regional contributions, focusing on enhancing partnerships and regional growth. At UPPA there is the DDO (*Direction Data et Observatoire*) department in charge of monitoring and evaluating impact indicators.

- Università di Torino (UNITO): UNITO also uses THE Impact Rankings to measure its contributions to the SDGs. In 2022, UNITO participated in only one SDG (Reduced Inequalities) but performed exceptionally well. During the following year UNITO expanded its participation to four SDGs: SDG 17 (Partnerships for the Goals, which is considered compulsory by THE impact Ranking), SDG 3 (Good Health and Well-being), SDG 7 (Affordable and Clean Energy) and SDG 10 (Reduced Inequalities). The University of Turin also monitors internally its impacts through the annual elaboration of a sustainability report drafted following the GRI principles[14].
- The Università di Brescia (UNIBS) later provided its description: UNIBS has a Strategic Plan that outlines strategies, goals, activities, indicators and targets. Each strategic line is related to SDGs or NRRP goals. As part of the Italian "Self-assessment, Periodic Evaluation, Accreditation" system, UNIBS has a Quality Assurance system based on qualitative and quantitative indicators regarding research, third mission/social impact, and above all teaching and study programmes. UNIBS participates in the mandatory national evaluation exercises (VQR) anche in the most important international rankings such as THE World University Rankings, Rankings By Subject, and Impact Rankings, QS World University Rankings, Academic Ranking of World Universities – ARWU.

Review and presentation of the UNITA Impact Report - Phase 1

In the framework of the work carried out in Task 5.4, the report produced for evaluating the societal impact of the first phase of the UNITA alliance was presented. This report, titled "UNITA Universitas Montium Societal Impact Report Phase I 2020>2023," was initially showcased during the kick-off meeting for the second phase of the Alliance, held in Chambéry on November 2, 2023. The report has been published online[15] and was later shared in detail with the Task Team during the first official Task 5.4 meeting on November 9, 2023. This report adopted a methodology based on the Theory of Change and Impact Pathways. Produced by a team of researchers from the University of Turin, the report used a retrospective approach to assess the impact of UNITA's activities during its first phase. It focused on developing output, outcome, and impact indicators for all the major activities of

[14]GRI (2021). Global Reporting Initiative, Universal Standard. Available at: https://www.globalreporting.org/standards/download-the-standards.

[15] The report is available at: https://doi.org/10.5281/zenodo.12730710.

the Work Package task forces across the alliance. This comprehensive evaluation provided an in-depth understanding of how UNITA's initiatives contributed to societal, educational, and research goals, highlighting both achievements and areas for improvement.
Looking forward, the Task Team decided to build on and expand the work initiated during phase 1. The goal is to enhance collaboration across all member universities, with Task 5.4 spearheading a collective effort to evaluate the impact of UNITA phase 2. Unlike phase 1, which primarily relied on retrospective analysis, the new approach will incorporate both retrospective and prospective methodologies. This dual approach will allow the alliance to not only assess past achievements but also plan and monitor future activities more effectively. The principles of this selected methodology are detailed in the following chapter, which explains the selected methodologies for our alliance.

C. Identification of the selected methodology

In this chapter we present the two main strategies adopted for monitoring and assessing the societal impact of the UNITA alliance, each corresponding to different but complementary approaches. The first and primary strategy is the creation of an Internal Observatory, which is based on the application of the Theory of Change (ToC) and Impact Pathways. This methodology builds on the work conducted in elaborating the Societal Impact Report of the first phase of the UNITA alliance, as well as internal experiences from member universities such as UPPA, which has successfully used these principles to monitor its own impact.

- The Internal Observatory is designed to allow UNITA to comprehensively plan, monitor, and evaluate the outcomes and long-term societal effects of its activities. This approach ensures that we remain aligned with our goals, and accountable to our stakeholders, and it provides a structured framework for measuring both immediate and broader impacts.
- The second complementary strategy is the External Observatory, which leverages international rankings to benchmark the performance of the member universities of the alliance against other higher education institutions. This methodology, informed by the experience of several member universities, focuses on participation in widely recognized global rankings, particularly the Times Higher Education (THE) Impact Rankings, which assess contributions to the SDGs. While the Internal Observatory is focused on in-depth, internal analysis, the External Observatory offers an important comparative dimension, providing visibility and external validation of UNITA's impact.

The following paragraphs explain the principles guiding the Internal Observatory methodology and provide an overview of the international rankings selected for the External Observatory. It outlines the rationale behind our choice of Impact Pathways and the Theory of Change as the core framework for the Internal Observatory, illustrating how these models will be applied to monitor and assess the alliance's societal impact. Additionally, it briefly

introduces the international rankings considered for external evaluation, explaining the criteria for their selection and how they complement the internal assessment strategy.

Internal Observatory - Pathways to Impact and Theory of Change

The Internal Observatory is built on the foundations of two complementary frameworks: Impact Pathways and the Theory of Change. These approaches are widely regarded for their ability to analyse, monitor, and manage the societal impacts of activities, both positive and negative. For the purposes of our Internal Observatory, we relied on the combined strength of the Impact Pathways approach and the Theory of Change (ToC) and Impact Pathways one (or Impact Value Chain).

An Impact Pathway outlines the step-by-step progression from initial activities to final societal impacts[16]. It establishes clear links between activities, outputs (the measurable results), outcomes (the specific changes that occur as a result of those activities), and impacts (the broader societal effects). A classic example of this is the "Impact Value Chain," which starts with activities, progresses to measurable outputs, then leads to outcomes, and ultimately culminates in broader impacts, as shown in Figure 1.

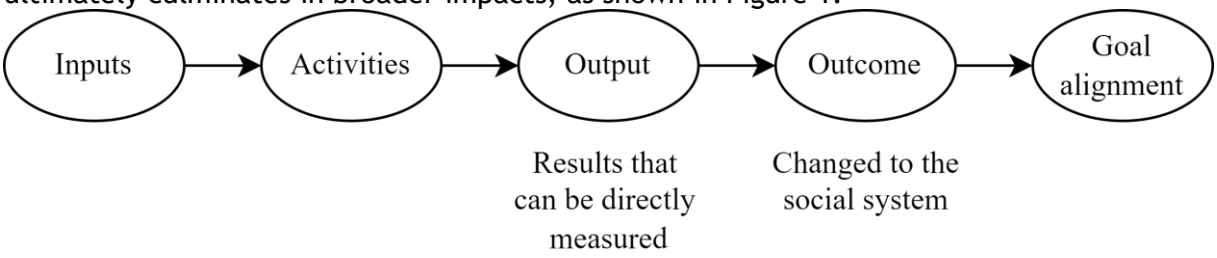


Figure 1: Example of an Impact value chain

The Theory of Change takes the Impact Pathway a step further by providing a more detailed explanation of how and why change occurs[17]. It allows us to examine the causal relationships between each step in the Impact Pathway, clarifying the assumptions that underpin these relationships. This framework is particularly useful for complex, non-linear change processes where multiple variables interact. Unlike simpler models, the Theory of Change allows for a realistic depiction of how multiple outputs and outcomes intersect to produce long-term societal impacts. Importantly, this approach can be applied both for prospective (before activities begin) and retrospective (after activities are completed) evaluations, making it a highly versatile tool for the UNITA alliance.

[16] Alvarez, S., Douthwaite, B., Thiele, G., Mackay, R., Córdoba, D., & Tehelen, K. (2010). Participatory Impact Pathways Analysis: a practical method for project planning and evaluation. Development in Practice, 20(8), 946–958. https://doi.org/10.1080/09614524.2010.513723

[17] Mayne, J. (2017). Theory of Change Analysis: Building Robust Theories of Change. Canadian Journal of Program Evaluation, 32(2), 155–173. https://doi.org/10.3138/cjpe.31122

The involvement of stakeholders is crucial to the success of any impact assessment, and this holds especially true for the Theory of Change. Engaging a range of perspectives helps ensure that the framework reflects the full complexity of the issue being addressed and that the chosen indicators for monitoring and evaluation are both relevant and comprehensive. This collaborative process not only enriches the assessment but also strengthens the commitment of all participants to the success of the project.

The Theory of Change serves several important functions within our Internal Observatory. First, it supports strategic planning by providing a clear roadmap for implementing activities and achieving desired impacts. Second, it allows for ongoing monitoring and evaluation, helping us track our progress over time and make necessary adjustments. Third, it provides a structured way to communicate the process of change to both internal and external stakeholders. Finally, it acts as a learning tool, fostering deeper understanding of the principles behind our activities and how they contribute to social change.

In practical terms, applying the Theory of Change to the UNITA alliance involves developing Impact Value Chains for each task within the alliance. For each task, we identified outputs, outcomes, and impacts, and for each step of the chain, we defined at least one indicator to track and assess progress. Outputs represent the direct results of each task; outcomes reflect the changes introduced by the task with implications for the alliance; and impacts represent the broader societal changes brought about by the task. By identifying specific indicators for each stage, we ensure that the impact of each task can be measured in a consistent and meaningful way, as shown in Figure 2.

This systematic approach ensures that the UNITA alliance not only tracks the immediate outcomes of its activities but also monitors the long-term societal impacts. The specific methodology for applying the Theory of Change and Impact Pathways, as well as the process for selecting appropriate indicators, will be detailed in the following sections of the report.

By using this comprehensive framework, the UNITA alliance can effectively plan, monitor, and evaluate its activities, ensuring that we remain accountable to our stakeholders and continue to generate meaningful social impacts. This methodology supports the long-term sustainability of the alliance, providing the tools we need to adapt, learn, and improve as we move forward.

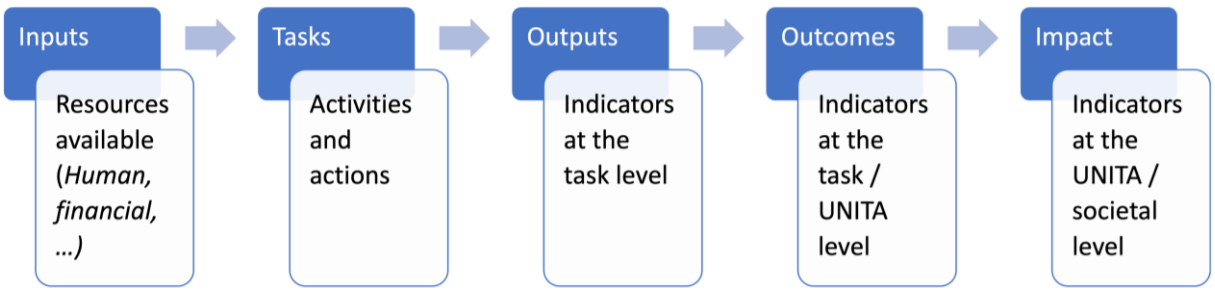


Figure 2: Theory of Change for indicator selection of UNITA's Tasks

External Observatory: participation in THE Impact rankings

The most participated and recognized international rankings on sustainability – which measure also social impact of universities - are Greenmetric, QS Sustainability, and Times Higher Education (THE) Impact Rankings.

GreenMetric[18], initiated more than 10 years ago by Universitas Indonesia, evaluates the university efforts to improve its environmental and social impact and to arise engagement, asking participant institutions data and evidence on their green areas, smart buildings, energy consumption, carbon footprint, water usage, waste management, transportation policies, budget for sustainability actions, studies, projects, and communication. The participation of European universities to Greenmetric is not very wide, and the questionnaire used – which requires a great effort to complete – does not really reflect the European context.

QS Sustainability[19], published by the big Quacquarelli Symonds ranker, with two editions as of 2024, considers three main aspects: environmental impact (research, education and sustainability measures to transform the planet environment), social impact (transformation of society through equality measures, knowledge exchange, impact of education, employability, health and well-being) and governance (democratic leadership with student representation, open and documented decision making and policy, Open-Access publishing, transparent financial reporting, institutional ethics, dedicated team for Sustainable Development). Only institutions eligible for the QS World University Rankings or Rankings by Subject can apply, thus many small universities – and among them some UNITA partners - are excluded from participation.

THE Impact Rankings[20] are based on the 17 SDGs of the UN agenda 2030 and on the Theory of Change methodology, they allow the broadest participation of all kinds of institutions, limit the amount of data required for participation, and it is possible to choose which Goals to participate in, even only one, because THE creates a ranking for each SDG besides an overall Impact ranking.

To fit its purpose of not only measuring its impact but also comparing it to other HE institutions, UNITA chose to participate in THE Impact Rankings.

D. Definition of selected proposals tools

[18] http://greenmetric.ui.ac.id/

[19] https://www.topuniversities.com/sustainability-rankings

[20] https://www.timeshighereducation.com/impactrankings#

Internal observatory: UNITAPedia

The UNITA phase 2 is articulated around several tasks within the framework of the core project, as well as different projects of the constellation, each of these tasks being refined into a set of activities and actions allowing the development of our alliance and to respond to the expectations of our community and of the different socio-economic actors at territorial, national, European and international level.

Each Task Team works collectively, implementing the different activities while gathering the necessary indicators to measure their progress. In order to support UNITA's development, integrating the different actors participating in its development and benefiting from its opportunities, the Internal Observatory, , that we have named UNITAPedia, pursues the following objectives:

- A first objective is to support each Task Team in the process of identifying and defining indicators capable of meeting the needs for measuring and evaluating results, outcomes and impact. This first objective is also intended to meet the needs of UNITA's advisory and decision-making bodies, in order to monitor the progress of the projects and support decision making.
- A second objective of the observatory is to aggregate the individual indicators of each task in order to provide a cross-cutting vision corresponding to the strategic axes and to ensure a follow-up of the long-term missions of the alliance.
- A third objective corresponds to the need to be able to reorganize the activities and actions of each Task and present them in an aggregated manner to the beneficiary actors. In other words, to be able to offer a vision of the opportunities offered to our students, academic staff, administrative staff and the diverse external stakeholders.
- Aware of the agile nature of our alliance and the significant volume of actions, data and information involved, a fourth objective is to be able to automatically generate representations of the knowledge produced continuously in our alliance, in order to allow a better communication and understanding of UNITA for our entire community.

From a technical point of view, the Internal Observatory will also have to respond to objectives regarding its infrastructure and data systems.

- Regarding the infrastructure, the Observatory should be based on open source components, maintainable and scalable, and capable of being integrated into the alliance's virtual campus.
- Regarding the data dimension, the Observatory should be able to handle a flexible and extensible model for the collection, processing and analysis of indicators and the measurement and evaluation of impact, using open and stable approaches of business intelligence, business analytics and artificial intelligence, responding to the needs of an ethical and responsible use of data and its processing.

THE Impact Rankings

As described by THE agency, "the THE Impact Ranking identifies and celebrates universities that excel across the 17 United Nations Sustainable Development Goals (SDGs). These institutions demonstrate comprehensive excellences in contributing to global sustainable development and showcase their commitment to addressing the world´s most pressing challenges, including environmental sustainability, social inclusion, economic growth and partnerships."[21]

The THE Impact ranking provides a mechanism to hold universities accountable and allow to compare (and learn from) each other. It also offers the opportunity to highlight the great job institutions are doing concerning their impact in society and their contribution to the achievement of the SDGs. Importantly, this ranking provides a model to measure impact and to identify strengths and weaknesses, and thus, the opportunity to design strategies and implement actions to improve that impact.

The process of impact assessment starts with data submission by universities, which are required to fill a SDG-specific questionnaire that includes information and metrics (in terms of continuous or pick-list data) and evidences, possibly openly available online. Information about policies requires to show when it was created or reviewed. Apart from these data, THE Impact rankings look at the scientific publications related to the SDGs, that make 27% of the score for each SDG ranking. More specifically, THE uses the information contained in the Scopus database to gauge the scientific publications of the university that support the achievement of each SDG. This document search is made applying a methodology that is transparent and publicly available.

After this, all information is revised, evaluated and aggregated by THE, who scores universities in a range that goes from 0 to 100 for each SDG they choose to provide data on. For the overall ranking, the scores from the four highest-rated SDGs are used to determine the institution's position on the global leader-board. More specifically, the score of the university in the SDG 17 *Partnerships for the goals*, which weights 22%, is compulsory. The other three (each with a weight of 26%) are the top three scores from the remaining SDGs. Thus, in order to be ranked each university needs to provide information on at least 4 SDGs, being SDG 17 one of them.

It is important to highlight that more than 2,000 institutions from 125 countries and regions were evaluated in the latest edition of the ranking, continuing a growth trend in the number of ranked institutions since its first edition. In this sense, this ranking has become a standard in the measurement of university impact around the globe.

[21] https://www.timeshighereducation.com/impactrankings#

II. UNITA impact observatory plan

A. Roadmap

The roadmap guiding the design, development and deployment of internal and external impact observatories must be based on a collaborative and scalable methodology to ensure that it meets the expectations of our alliance.

In particular, it is necessary to have a collaborative methodology, able to integrate the needs and expectations of the member universities as well as of the different stakeholders and to progressively build the observatories that will allow to measure and evaluate the long-term impact of our alliance.

In order to respond to these needs, several iterative and incremental project management methodologies were analysed to propose a plan based on cyclical phases and progressive development, thus facilitating adaptation and continuous improvement. Among the methods analysed are Agile/Scrum, Lean, SAFe and Rational Unified Process (RUP), all of them characterised by a collaborative working approach, based on continuous cycles and the progressive delivery of results. Taking into account the significant number of actors involved as well as the considerable effort for the definition, measurement and evaluation of the impact of our alliance, we decided to adapt the RUP [22]method to define the development plan of our observatories.

This methodology consists of four main stages, which have been adapted to meet the needs of our observatories:

- the inception stage: aimed at identifying the context, specifying the needs and identifying the available means, both at the level of the alliance and at the level of each of the members.
- the elaboration stage: aimed at the incremental design of the observatories, allowing the development of prototypes, which will allow validation by the different members and stakeholders and thus ensure that the design responds to the stated needs.
- the construction stage, which will allow the observatories to be developed from the validated prototypes, incrementally integrating indicators and measurements of impact, and including evaluation and continuous improvement phases;
- finally, the transition stage, which will ensure the maintenance of the observatories to allow them to be adjusted to respond to the needs of their evolution, thus ensuring their sustainability and continuous improvement.

The figure below shows the four phases describing the development plan of our observatories, corresponding to 6 months for the inception, 12 months for the elaboration

[22] IBM Rational Unified Process or RUP, available at: https://web.archive.org/web/20040402113344/http://www-306.ibm.com/software/awdtools/rup/

and 18 months for the construction phases. The transition phase will start during the last year of the second phase of UNITA and will continue during the third phase of the construction of our alliance.

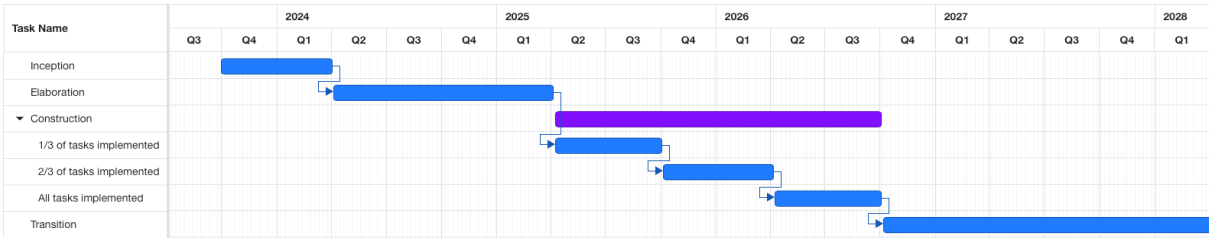


Figure 3: Four phase planning

The diagram below describes the main functionalities offered by the two observatories to our different stakeholders:

- The Internal Observatory, hosted on the alliance's virtual campus, will respond to the needs of actors from the operational, advisory and decision-making bodies in implementing an impact-oriented approach during project management, allowing for continuous measurement and evaluation of impact. In addition, this observatory will allow for improved communication and understanding of our alliance as well as the identification of opportunities available to our internal and external community.
- The External Observatory will allow each university member of the alliance to obtain an impact assessment with regard to the SDGs, and at the same time allow the sharing of good practices that could serve as an inspiration and example for our alliance development.

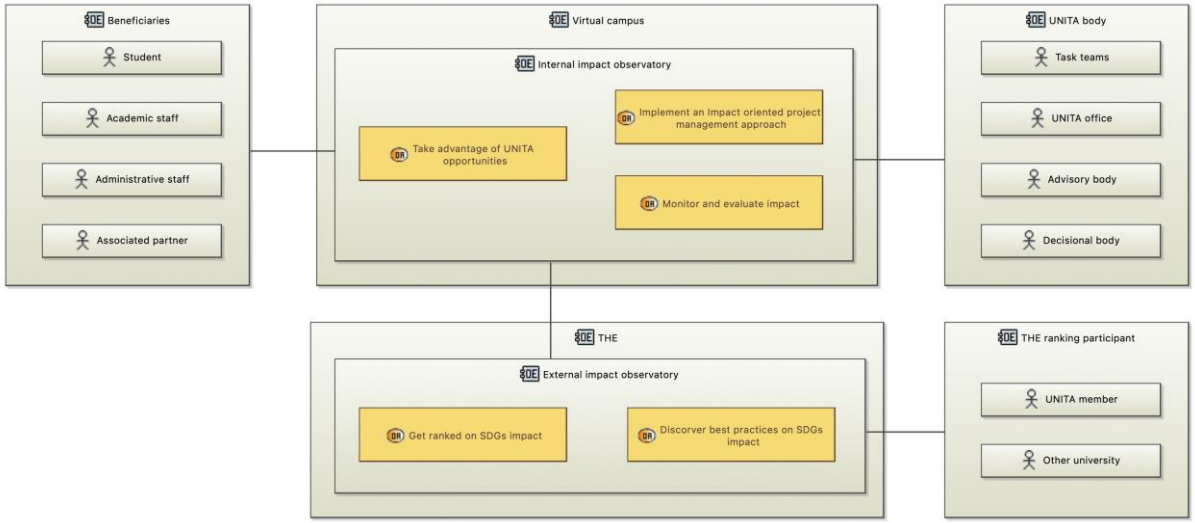


Figure 4: Operational Analysis of both observatories

B. Internal Observatory: UNITAPedia

1. Inception

UNITA phase 2 comprises several tasks, each with its own set of activities. Each Task Team is responsible for collecting and producing indicators to measure their progress. The Impact observatory team is focused on gathering the requirements of each task concerning their indicators. At the same time, the Task 1.1 focuses on defining the long-term impact of the project. These definitions will assist in categorizing tasks and their respective indicators according to our strategic axes, facilitating the measurement of their progress.

The process of gathering the required indicators for each task aims to achieve two key objectives:

- Clearly define the indicators to be collected, including their nature, frequency, baseline, and target.
- Determine the data collection methods, whether manual or automated.

These objectives were addressed through the development of interview sheets. Each Task Team was interviewed at least once, after which the team leaders were asked to complete and confirm the interview sheets during internal task meetings. These interviews provided an initial overview of each task's needs, enabling the following steps to be considered:

- Establishing a secure and flexible system for data storage.
- Developing a framework to process indicators and assess the project's impact, taking into account various factors such as stakeholders, long-term strategies, and the overall project vision.

The UNITA offices at each university also serve as valuable sources of information, facilitating the interface between the alliance’s data and that of each partner institution.

This is the objective of the inception phase: collecting data from all tasks using the chosen methodology to prepare for the formal data collection and processing of indicators. By clearly defining the needs of stakeholders across UNITA, it can be ensured a thorough understanding and respect for each party's requirements. Projects of this nature are prone to failure when lacking clear definitions and shared understanding, that must be prevented. This approach will enable the development of a robust and secure system that best serves the needs of all stakeholders. From data collection, for actors such as UNITA offices, to facilitating the processing of indicators and applying our impact measurement methodology for monitoring and assessment purposes.

In all projects, it is crucial to closely monitor progress across all teams. Therefore, it has been carefully assessed how to proceed, ensuring clarity on the alliance's needs before taking further actions. While the specific needs may vary, the underlying data and objective remain consistent: to support the success of each task, empower stakeholders to make informed decisions, and contribute to the overall success of UNITA.

2. Elaboration

Following the inception phase, we established a clear methodology and a framework for applying it to build the observatory's library of indicators. During the first year, the focus was on developing an initial prototype as a proof of concept for all task members. Drawing inspiration from a similar internal project at the Université de Pau et des Pays de l'Adour (UPPA), we adapted an existing design to initiate the prototype of the Impact Observatory. This proposed solution is a fork of UPPA's "HUB International," enhanced to suit the specific needs and scale of the UNITA alliance.

The solution is based on open-source software, adhering to best practices and strategies recommended by the European Commission[23] [24]. Our development philosophy, in alignment with the needs of stakeholders, aimed to create an easily deployable solution for every member of the alliance and beyond. The focus was on delivering a clear, secure, and lightweight data warehousing system, fostering knowledge-based collaboration.

The foundation of the system is a flexible, extensible and user-friendly dashboard that allows various stakeholders to observe, monitor, and assess the impact from multiple viewpoints. The proof of concept has been designed and developed around the following four viewpoints:

1. **Structural viewpoint**: This viewpoint reflects projects structure, organized by work packages (WP) and tasks.
2. **Strategic viewpoint**: Focuses on the long-term strategies.
3. **Beneficiaries viewpoint**: Addresses the specific needs of beneficiaries and stakeholders.
4. **Semantic viewpoint**: Represents automatic discovered knowledge, emphasizing dynamic and evolving collaboration.

The **Structural viewpoint** provides a view of the tasks of the UNITA core and constellation projects. For each work package and task, it offers a detailed report of outputs, outcome indicators, and the overall impact on the alliance and its partners.

The **Strategic viewpoint** follows the proposal made by Task 1.1, aiming at defining the long-term vision of UNITA. During the elaboration phase, the following strategic axis were identified: Community Building; Education and Pedagogical Innovation; Governance; International Strategy and European Values Dissemination; Quality, Impact, and Sustainability; and Research and Innovation. For each of these strategic axis , a dashboard should be built to provide insight into the impact chain.

[23] https://commission.europa.eu/about-european-commission/departments-and-executive-agencies/digital-services/open-source-software-strategy_en

[24] https://commission.europa.eu/publications/european-commission-digital-strategy_en

The **Beneficiaries viewpoint** is more targeted, allowing information to be tailored to specific groups of interest. For example, students can access information relevant to them, while stakeholders and beneficiaries receive data specifically addressing their needs and concerns. The final viewpoint, **the Semantic viewpoint** , allows users to explore the meaning and knowledge base of UNITA. It provides access to various types of information related to UNITA projects, missions, results, and impact. This viewpoint serves as a comprehensive tool for partners, stakeholders, and members to learn about the work being conducted across the alliance. Furthermore, it encourages all actors to contribute to and expand the understanding of UNITA.

3. Incremental Development

To mitigate the challenges associated with collecting and compiling indicators across all tasks, we adopted an incremental approach for the Construction Phase, dividing it into three stages. Each stage will span six months and focus on a third of the tasks, allowing us to compile the full data warehouse and generate reports for each task over an 18-month period.

This incremental approach introduces both flexibility and adaptability to the construction of a secure and efficient solution. Each stage can be viewed as a trial phase for the entire process and task workflow, enabling continuous reflection and refinement of the methodology. Through these iterative cycles, we aim to evolve the proposed solution to a level of quality and acceptance that meets the expectations of all stakeholders.

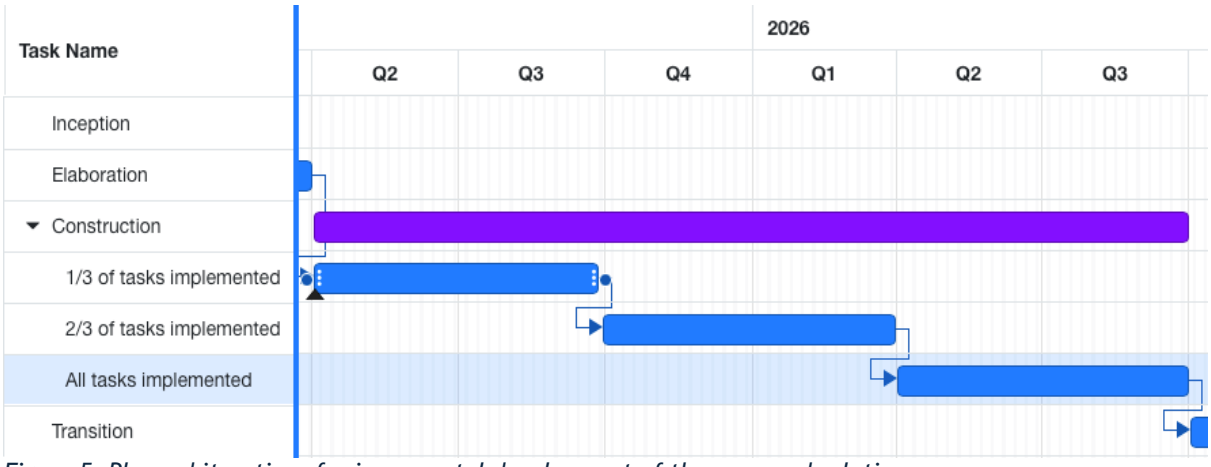


Figure 5: Planned iterations for incremental development of the proposed solution

4. Transition, stabilisation and long-term deployment

The last phase of the development plan is intended to ensure the maintenance and evolution of the observatory in correspondence with the new needs of the alliance. In order to respond to the dynamism of UNITA and its constellation projects, the possibility of including new

impact measurement needs will be offered, applying the same methodology based on the identification and definition of indicators, the prototyping of the collection, analysis and visualization at the different points of view of the observatory and their final adoption after a testing and validation process. In the same way, after the completion of tasks and constellation projects, the necessary adjustments can be made to allow to continue measuring the long-term impact resulting from the actions and activities carried out. This phase will also allow to make the necessary adjustments from the technical point of view, either on the infrastructure or on the data models, thanks to the continuous support of UNITA's IT department and of the virtual campus services.

C. External Observatory: THE Impact Rankings

1. Inception

At the beginning of UNITA second phase, 6 out of the 10 university partners were already present in THE Impact Rankings 2023. Having considered this starting point, and in order to make it possible for UNITA universities to participate in the new THE Impact data collection, a preliminary Task meeting was held in late October 2023 before the official kick-off, where a comparison of the results 2022/23 was presented (UPNA and UNIBS ranked 301-400; UBI and UNIZAR ranked 401-600; UVT and UNITVB ranked 1001+), together with an overview of how THE Impact works and the sharing of UPNA application to all 17 SDGs experience.

In this same meeting a benchmarking of UNITA universities research metrics, made with the analytics tool Scival[25], was presented. This benchmarking showed the scholarly output in the Scopus dataset in the years 2017-2023 (UNITO, UNIZAR, UNIBS and USMB have the largest output, with more than 10,000 publications each), the field-weighted citation impact (FWCI) and the ratio of publications in the top Journal quartile by Citescore, but other metrics on citations, excellence of scientific journals where papers are published and international collaboration were analysed too. In terms of research impact UNIBS, USMB and UNITO have the highest FWCI index; considering the Citescore, French and Spanish partner universities publish mainly on top 25% journals, and UNIBS, UPNA, HES-SO and UNITO have more than 3% of their output on the very top (1%) journals. The strongest international collaboration is registered for HES-SO, UPPA and USMB.

The benchmarking from SciVal also showed the partners' publications by SDG, to provide information useful to choose the Goals in which to participate. On average 33% of all the Alliance scientific publications are related to some SDG (with a range from 22% to 40% depending on the institution).

[25] https://www.elsevier.com/products/scival.

This benchmarking (features of the partners research production and publications by SDG) was later shared with Task Team 4.2 as a possible means to measure the research impact of UNITA Hubs.

Furthermore, two partners from the phase 1, UPPA and UNITO, had a pilot exchange of practices between them as early as September 2023 (focusing on possible sources for items in Goal 7 and in Goal 17), in view of their first application in THE Impact ranking.

2. Elaboration

During the December 2023 Task meeting a feedback on the participation in THE Impact 2023/24 was discussed: IPG and USMB did not participate in THE Impact 2024; UPPA participated experimentally on two SDGs (number 7 and the mandatory number 17); these three universities, plus HES-SO, plan to participate in the 2025 edition; and we shared our answers to the new edition questionnaire (for 7 of the 8 participants), to allow taking example from the universities better ranked in a specific Goal, regarding the evidence provided.

A reflection on how to choose the SDGs in which to participate ensued. One way to maximize the results is looking at the benchmark metrics again and focusing on which SDG have more output, as this metric weighs more than a fourth: together the UNITA partner and associated partner universities' publications of the last five years -included in the Scopus dataset- are mainly about the SDG 3 (*Health*, more than 17,000 publications), SDG 7 (*Clean Energy*, more than 4,000) and SDG 9 (*Industry and Innovation*, more than 3,300). Other information on the universities strong and weak areas for sustainability can be inferred from the results in the other two sustainability rankings, published at the beginning of December 2023 and briefly analysed in the Task meeting: of the 7 partners ranked in QS Sustainability[26] (2 in the top 200, 1 in the top 400, 1 in the range 700, 2 in the first 1000 and 1 over 1200 out of a total of 1,397 unis ranked), 5 are above the median in the Governance dimension (related to SDGs 4, 5, 8, 10, 16), and 3 in the Social and Environmental Impact dimensions (related to SDGs 3, 4, 6, 7, 11, 12, 13). Only 4 UNITA universities participate in Greenmetric[27] (1 ranks top 20, 1 top 500, 1 top 600 and 1 in the first 1000 out of a total of 1,183 unis), and their strongest section is *Education & Research* (related to SDGs 4, 9, 11, 13, 14, 15, 17) followed by *Waste* (related to SDGs 2, 12, 14, 15*)* or *Transportation* (SDG 11).

To offer a better context for the external impact evaluation provided by an international academic ranking on sustainability, in the WP5 Pamplona meetings of February 2024 information on the European Higher Education Sector Observatory[28] (a new open access data centre that stems from the European Strategy for Universities) and on other initiatives for

[26] https://www.topuniversities.com/sustainability-rankings

[27] https://greenmetric.ui.ac.id/rankings/overall-rankings-2023

[28] https://eter-project.com/

sharing good practices on university rankings was presented: the MTOR - *More Than Our Rank* initiative[29], which is a public statement from the institutional leaders to redefine their university's achievements and ambitions beyond their position in the global rankings, and IREG *Observatory on Academic Ranking and Excellence*[30] - an international organization made of rectors of universities, rankers, and rankings analysts that believes in academic rankings as transparency tools about the performance of universities, but provides guidelines and recommendations for a good use of these rankings by potential interested parties[31].
In June 2024 the results of THE Impact Rankings were released[32] and a quick comparison was shown during the Task meeting: the 7 UNITA participants to the overall ranking were ranked as follows, out of 1,963 universities: UPNA and UNIBS 301-400; UBI 401-600; UNIZAR 601-800; UNITO 801-1000 (first time in the overall ranking); UVT and UNITVB 1001-1500. Half of UNITA partners are in the first half of the ranking; the most chosen Goals (by four partners each) were n. 4 (*Education*), n. 7 (*Energy*, where UPPA ranked #31), n. 10 (*Inequalities*); three partners chose Goal n. 3 (*Health*) or n. 5 (*Gender*). In the SDG 17 ranking, where we could highlight our collaboration in the alliance thematic hubs related to the SDGs, the partners ranked from top 200 (UPNA), to top 300 (UBI), range 401-600 (UNITO), range 601-800 (UPPA), range 801-1000 (UNIZAR and UNIBS) and ranges after 1000 (UNITVB followed by UVT). This positioning distribution, which apart from the first two universities is different from the overall placement, indicates that we could benefit from an exchange of practices on the way we report our actions for sustainability.

In the July meeting a first study of the THE SDG Impact Dashboard (called Datapoints) as benchmarking tool was presented to all the Task Team. UNITO with UPNA had a complimentary demonstration meeting with the THE regional manager at the end of June, where it was outlined the features of the Impact Dashboard, showing the data of the ranking for SDG 17 (that we chose as an example) and clarified the subscription costs. Within the dashboard it is possible to access the full 2024 dataset, which can be used to analyse participants performance and conduct a benchmarking analysis, looking at how the best ranked institution answered, as a best practice guidance to understand how to improve. The Datapoints service gives access to the data for all universities in all Goals (answers, scores given in each item, results). This service also allows to select a group of universities (for example the UNITA partners, but also the best ranked in each Country of the alliance) to compare easily their performances in this ranking.

[29] https://inorms.net/more-than-our-rank
[30] https://ireg-observatory.org/en/initiatives/
[31] https://ireg-observatory.org/en/wp-content/uploads/2023/12/IREG-guidelines2023.pdf
[32] https://www.timeshighereducation.com/impactrankings#

3. Incremental Development

In order to take full advantage of the participation in THE, UNITA will subscribe to the Datapoints service associated with the ranking system. The use of this service will allow to support UNITA members during the process of data collection for the participation in the ranking, allowing to confirm the selection of the SDGs and the collection of the data required for their participation. The objective will be to assist all UNITA members to enable them to participate and to obtain the evaluation of their impact and to work collectively year after year for the collection and application of good practices and to ensure a process of continuous improvement and better visibility.

4. Transition, stabilisation and long-term deployment

The last phase of the external observatory development plan will be aimed at ensuring the continuous evaluation of our impact on the SDGs and allowing us to learn and apply best practices, thanks to the internal collaboration between alliance members and the elements accessible through the Datapoints service.

A medium-term objective will be to increase the number of members participating in at least 4 objectives and thus reach the overall THE IMPACT ranking. In the long term, our external evaluation strategy could be enriched by future instruments created to evaluate groups of institutions and which would serve as a model for European universities impact evaluation.

III. Description of the implemented impact-oriented strategy

Based on the methodology presented in Chapter 1 and the plan presented in Chapter 2, this chapter describes the activities carried out with the different task teams to apply the methodology and start designing and implementing the impact observatories.
Specifically, we have defined a process based on five steps, each of which addresses a part of the problem.

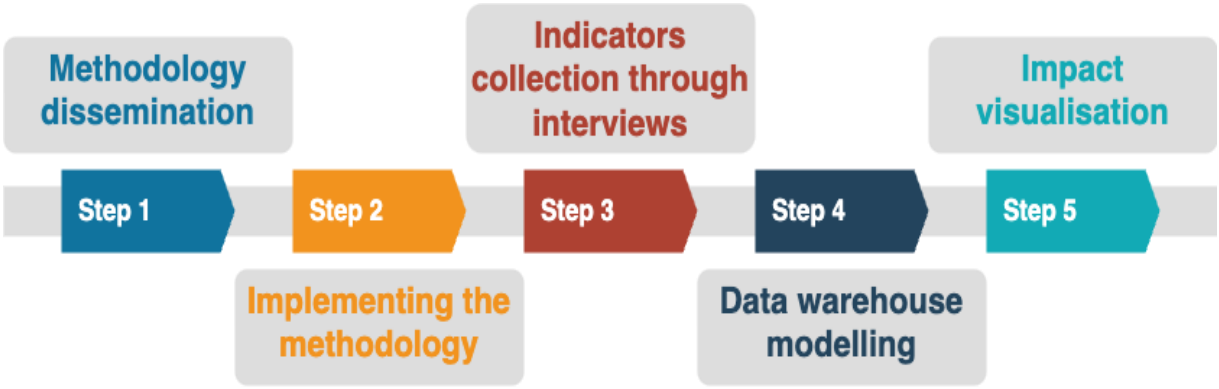


Figure 6 : The five steps followed to implement the impact-oriented strategy

1. **Methodology dissemination**: explain and teach the chosen impact methodology to all the task teams.
2. **Implementing the methodology:** adaptation of the UNITA methodology to take into account the specificities and characteristics of the different tasks thanks to an interview instrument.
3. **Indicators collection through interviews:** allowing the process developed through the interview sheets, refinement of indicators and validation of impact assessment
4. **Data warehouse modelling:** design of the UNITA data warehouse data model, able to store the task data.
5. **Impact visualisation:** specification of the various impact observations, thanks to the definition of visualization elements based on the processing and analysis of the collected indicators.

A. Methodology dissemination and implementation

As described in sections 1.D and 2.B.1, UNITApedia aims to respond to the need for understanding UNITA as a whole and, at the same time, to examine the transformative impact of the alliance from a multidimensional perspective: structural, strategic, beneficiary and semantic.

These four viewpoint are complementary and provide a broad assessment of the impact that the UNITA alliance will bring. However, within this multidimensional configuration the structural viewpoint is the driven force that feeds the other three. In this sense, and as reflected in the GANTT chart of Task 5.4, the crucial dimension that guides most of the work of collecting and processing indicators to enrich UNITAPedia, focuses on the structural viewpoint. The steps to be taken for its full development, some of which have already been carried out, will be detailed below.

It was also concluded that to identify those elements of the impact value chain for each of the activities of the project it was necessary to have a deep knowledge and understanding of each of the tasks. The task team involved in the development of the Impact Observatory, has expertise in data management and measurement but not on the rest of the tasks that comprise the entire UNITA project nowadays. So, it was concluded that it was necessary to interview key members of the task teams of those other tasks to gather all the relevant information.

As part of this analysis and the discussion held during the meeting in Pamplona, it was also concluded that each task has its own specificity, but for the interview to be valuable, those interviews should all be conducted using the same methodology. In the same way, the indicators that arise from the analysis and interviews, and that may help to measure outputs, outcomes and impact must be well defined, so that they can later be collected and integrated into the Data Warehouse.

In a nutshell, we detect these needs:

1. It is necessary to define the Inputs, Activities, Outputs, Outcomes and the Impact of each task.
2. It is necessary to interview key informants from the task teams to define the elements of the impact value chain.
3. Each task has its specificities but it is necessary to have a common methodology for conducting the interviews and thus for the collection of relevant information.
4. It is necessary to define well the indicators of the tasks.

B. Indicators collection through interviews.

In line with the needs described in the previous section, the following steps are proposed:

1. Prepare an interview form or script to collect, in a structured way, information on the Inputs, Activities, Outputs, Outcomes and Impact of each task.
2. Interview the co-leaders of each task with this script, to collect the information.
3. For each indicator identified, create a sheet to determine aspects such as its definition, availability or frequency.

Regarding the first step a first version of the interview script discussed during the meeting held in Pamplona, that was further refined during the subsequent weeks by the task force in various online meetings and through the collaborative work in Datacloud. The interview script can be found in Annex I1.A

The consolidated interview sheet consists of the following parts:

- Number of the Task, title, short description and objectives.
- Inputs (human, materials, financial, or intangible resources at the Task disposal)
- Activities or sub-tasks and their deadline, as included in the GANTT
- Outputs at task level: primary indicators included in the proposal and possible secondary indicators to be added.
- Outcomes at task level: with expected results and the source of data. Some questions were added to help the co-leaders thinking about indicators for outcomes. These questions were:
    - What are the benefits of the actions for the alliance partners? How does the task transform the partners?
    - To what extent did the task contribute to achieve WP and/or UNITA goals?
- Impacts at UNITA and societal level: here interviewees have to respond to the question about to what extent has the local/international society changed as a result of outcomes compared to before UNITA, and also about what are the long term results for them. In this sense two main set of beneficiaries are considered:
    - Users or beneficiaries internal to UNITA
    - End-users or beneficiaries external to UNITA (stakeholders)

The first set of interviews were carried out by the end of May 2024. To do so, the task team developed an email template that was sent to each Task co-leader to explain them the goals of the Internal Impact Observatory, the steps to be taken to create it and determine a time slot for the interview. The 5.4 task team members transmitted to the interviewees that the main objective of the interview consisted of presenting the impact methodology and observatories and specifying the expected results. In particular, how to observe and measure the transformative impact of UNITA within the universities and at the local, regional, national and international level. The final goal is to support and ensure the sustainability of UNITA long-term strategy by considering the needs and expectations of the stakeholders (students, staff, associated partners, local partners, territories, etc.)[33] and thus assess the possibly to adapt the activities in the future.

The following table lists the interviews conducted, including the task co-leaders (university representatives) participating in the interviews.

TASK	CO-LEADERS
Task 1.1 Improve and transform the governance of UNITA	UNITO/USMB
Task 1.2 Manage and coordinate UNITA	UNITO/UPPA
Task 1.3 Quality assurance strategy	UVT/UNITO

[33] A more detailed list of stakeholders is being elaborated by the Task Team 5.1. This list of stakeholders will also be included in the interview process in the future.

Task 2.1 Sustainable policies for students and staff	UPNA/UVT
Task 2.2 Romance languages learning and intercomprehension	IPG/UNIZAR
Task 2.3 Research, Education and Innovation community	UNITO/IPG
Task 2.4 Seamless mobility between Campuses and territories	UNIZAR/UVT
Task 2.5 European citizenship initiative	UNIZAR/USMB
Task 3.1 Personalised international learning paths	USMB/UNITO
Task 3.2 Microcredentials for Life-Long Learning Education	HES-SO/UNIZAR
Task 3.3 Innovation in teaching & learning initiative	UVT/IPG
Task 3.4 Digital Ecosystem	UVT/IPG
Task 4.1 Inter-territorial interfaces for Innovation	UBI/UPNA
Task 4.2 Thematic Research hubs	USMB/UNIBS
Task 4.3 Sharing of infrastructures and Knowledge	UNITBV/UPPA
Task 4.4 Graduate schools	UPPA/UNIBS
Task 5.1 External dissemination and public engagement	UBI/UPNA
Task 5.2 Financial sustainability	UPNA/UNITBV
Task 5.3 Green sustainability	UBI/UNITBV
Task 5.4 Impact Observatory	UPPA/UPNA
Task 5.5 Expanding UNITA in Europe and beyond	UNIBS/UNIZAR

These co-leaders were interviewed by members of the impact observatory task force from their own institutions, including the participation of the Data Warehouse manager. A common calendar was made available to the task team to plan their meeting.

Iit was decided that a good practice was to send the interview sheet to the co-leaders of the task prior to the interview to allow them to read and possibly complete it ahead of the interview.

The interview sheet is will be used as a live and open document that it may be subject of adjustments and improvements as the project and the Impact Observatory evolve. In this sense, this approach will simplify the interactions with Task co-leaders on a continuous basis. Moreover, interviews could occur several times during the life span of each Task in order to keep an up-to-date definition of each Task's inputs, activities, outputs, outcomes and impact. In this way it will allow constant adaptation to changing situations and an updated monitoring of the project itself.

An important activity during the interviews was the identification and analysis of relevant indicators to measure outputs, outcomes and impact. The Task 5.4 team reviewed, as part

of its analysis and discussion, the initial (i.e. included in the application) and secondary indicators (i.e. added after the beginning of the project) for each task. From the experience gathered in the previous phase of the alliance, it was clear that it is better to define a limited set of relevant indicators, rather than a large list of them that may contain redundant information. For this reason, it was considered that ideally each Task should have no more than 2 indicators although exceptions could be considered in the light of the peculiarities of each task. During their interview sessions, the Task Team members from the co-leading universities, together with each Task co-leaders, went through these indicators to agree on the collection method (unit of measurement, frequency, …) and explore the possibility of including new ones. The objective was to determine, within each Task, a common methodology and, thus, to avoid any discrepancies in the figures collected by different partners.

Later and as a final step, for each indicator identified, the Task Team created an indicator´s data sheet that for each indicator identified in the interview contained the following information:

1. Description
2. Unit of measurement
3. Source of data
4. Frequency: monthly, yearly…
5. Baseline value at the beginning of the project (year 2022)
6. Target value at the end of the project (2027)
7. Possible sub-indicators: if possible, to help to pilot the project and subtasks.

At this point it´s interesting to identify which indicators are manually or automatically collected in order to be processed in the Data Warehouse. All the information about each indicator is essential to develop the Data Warehouse that will feed UNITApedia. A template of the indicator data sheet can be found in Annex 1.B.

In a next stage, the UNITA Offices as well as the IT representatives of each university (Task 3.4), will provide complementary elements on manual data collection and/or from existing information systems in each university. This will require continuous adjustments to allow for a homogeneous collection of sufficiently reliable data with reasonable updating costs.

Regarding secondary indicators, probably an additional time is required from each task to think and evaluate their relevance and the capacity to collect the data. At this point, co-leaders were encouraged to define and finalise the first interview for all tasks by the end of June.

All these steps were implemented between the Pamplona meeting and the meeting held in Brasov in June 2024. During the meeting in Brasov the Task 5.4 Team presented all the work done to the Work Package co-leaders that lead to some further refinements on the interview script.

Once the interviews were conducted there was time to discuss the methodology and share results with all the Task Team members and WP co-leaders, first of all with T.1.2 and T1.3 as transversal and coordination tasks.

Firstly, WP1 (Governance, management and quality) and WP5 (Impact and dissemination) met and discussed project strategies.
WP1 must establish the long-term strategies for effective and inclusive governance. Six strategies were identified:

1. Governance,
2. Community building,
3. Education,
4. Research and innovation,
5. internationalization,
6. Quality, impact and sustainability

Each Task team must think of the state of development of the global strategies and which are the challenges induced by these strategies.
Task 1.3 (Quality) introduced the Quality assurance methodology for the project, a framework to measure long-term strategies.
The meetings with the alliance and quality managers laid the groundwork for the impact measurement methodology that would later be discussed with the co-leaders of the other work packages.
There were four sessions of one hour and a half each held respectively with the rest of WP co-leaders (WP2, WP3, WP4 and WP5). A presentation with a summary of the task 5.4 methodology and objectives was displayed. A specific focus was made on the required results of the tasks interviews and the importance of the information related to the indicators, stakeholders and the definition of the expected impacts of each task's actions.

C. Impact modelling and visualisation

The results obtained from the work carried out with each task, based on the methodology and its implementation thanks to the interview sheets, have been made available in annexes 4.C and 4.D through two indicator matrices.
Upon a strict evaluation and decision made by task 5.4 members and the interviewed tasks co-leaders, the definitions of primary and secondary indicators have been agreed. This

agreement allows us to continue on our roadmap to start acquiring the first batch of indicators. The first collection is important and twofold. At a technical level, the collection, cleaning and aggregation of our alliance data will be a first trial of our approach. From a strategic point of view, each task team, through the impact observatory, will be able to assess the relevance of the indicators for measuring progress and, ultimately, the impact of all the alliance's tasks, leading to the overall internal and external societal impact assessment.

Even though our two matrices presented here only concerns the agreement on the primary indicators, retrieved from the Description of Action Documents (DoA), and the first selected indicators green-lighted by tasks' co-leader post-interview, we have still much more potential definitions and indicators to choose from if needed.

Task	Description	Unit of measurement	Source of data	Frequency	Baseline 2022	Target 2027
T1.1	Number of governance structures fully participated by all ten university full partners	Num / %		once	0	4
T1.1	Number of partners in the Legal Entity	Num / %		once	6	10
T1.1	Number of co-designed long-term strategies for UNITA	Num		twice - midterm and project's end	1	12
T1.2	Percentage of deliverables submitted on time as initially scheduled	%	Deliverables submitted to the EU (downloaded on the EC Platform) before	once	89	95
T1.2	Number of UNITA offices established	Num	T1.2 monthly meetings minutes and Task teams members	once (october 2027)	6	10
T2.5	Number of events	Num		6 months	55	150
T2.5	Number of participants	Num		6 months		
T2.5	Number of certificates	Num		6 mothns		
T3.2	Number of UNITA Micro-credentials	Num	Reporting & Follow up of sub-task "A3.2.2 Define and award the UNITA micro-credential label"	1 year	6	55
...	...	...	...	...	...	...

The above sample gives an overviews of the potential secondary indicators chosen during interviews and exchange with the different tasks. The full matrix is available in Annex 4 : Indicators Data-sheets Matrix and our primary indicators matrix is available in Annex 3 : Primary Indicators Matrix. Some data are still missing, but they will be completed in the next stages foreseen in the development plan of the impact strategy and implementation of the observatories.

From these definitions, a view is generated on UNITApedia for each task displaying its information as an article, tables and various different data visualisation commonly used. In the case of the proposed structural viewpoint, task co-leaders can go to the respective viewpoint of their task and get a quick and complete report on the evolution of its task. Through the semantic viewpoint, both the data and the metadata coming from the data warehouse, together with the semantic layer provided by UNTIApedia, will provide deeper meaning and more information about the impact.

4. UNITA dashboard for monitoring internal and external impact observatories

A. Internal Observatory

Thanks to the phases of inception, elaboration, construction, transition and maintenance, it will be possible to ensure an iterative and incremental action plan capable of guaranteeing the design and development of internal and external observatories in line with UNITA's impact strategy.

Regarding the Internal Observatory, the methodology of analysis and incremental development will allow to offer 6 viewpoints in direct relation with the achievement of the 6 objectives targeted :

- A first structural viewpoint aimed at supporting each of the task teams, as well as the advisory and decision-making bodies, in implementing an impact-oriented project management approach. This viewpoint should allow an interaction with the observatory following the structure of each task, allowing to pilot its indicators and to follow up the corresponding results, outcomes and impacts.
- A second strategic viewpoint intended to observe the impact on the strategic axes and long-term missions of the alliance, resulting from the aggregation of the individual indicators of the tasks. This viewpoint is intended for the entire UNITA community and will serve to observe the global impact of the alliance.
- A third beneficiaries viewpoint will be intended to reorganize by type of beneficiary, all the instruments and opportunities offered by UNITA. With this viewpoint, it will be possible to ensure continuous communication and monitoring of the alliance in relation to the interests of each beneficiary.
- A fourth semantic viewpoint will be automatically generated thanks to machine learning techniques applied to all UNITA production (activities, actions, deliverables, events, etc.) and will allow to present in a continuous timeline the major and key

assets of the alliance. This viewpoint will allow anyone in the community to discover and understand the changes induced by UNITA from its creation .

- The fifth infrastructure viewpoint, of a more technical nature, will be oriented to communicate about the observatory's infrastructure, its location in the virtual campus and to understand its structure and operations. This viewpoint is intended for infrastructure experts from each university and can be shared with other alliances and universities, in order to contribute towards community sharing.
- The sixth and last data viewpoint, also of technical nature, will be oriented to communicate about the data model used to operate the observatory. This viewpoint is intended for experts in data management of the alliance to observe how the integration of the different data sources of each university has been implemented and will also allow users less expert in data processing to make specific queries to observe specific indicators on certain conditions (reports on a particular instrument, on its deployment, on its evolution over time, etc.).The results of these consultation operations, if relevant, could later be integrated into one of the 4 initial viewpoints.

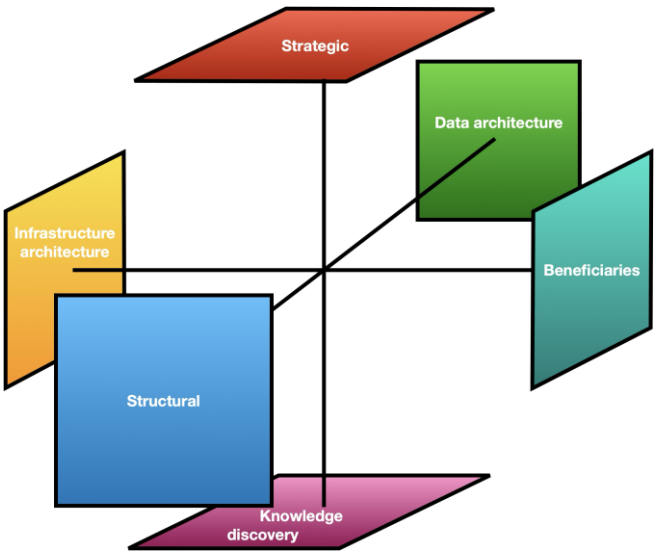


Figure 7 : 6 dimensions of the impact observatory

These viewpoints have been visualised as a cube in the illustration above. It conveys 4 different “front faces” of the cube: developed and used by the different actors in our project. The two “back faces” are hidden from the public, but they are necessary for the internal observatory to function. Each back phase provides a technical interface and help feed the system and so, the 4 viewpoints of our Observatory.

By creating these two groups, we help divide the technical and logical sides of the project (from actors, to needs, to viewpoints). The diagram below lists each side of the cube alongside its respective actors, needs and goals.

These viewpoints can be visualized as a cube in the illustration above. It conveys the 4 "front sides" of the cube, developed and used by the different actors in UNITA (structural, strategic, beneficiaries and knowledge discovery). The two "back sides" are hidden from the public, but are necessary for the internal observatory to function (infrastructure and data architectures).

By creating these two groups of viewpoints, technical and functional sides of the observatory can be easily differentiated. The diagram below shows each side of the cube along with their respective stakeholders and objectives.

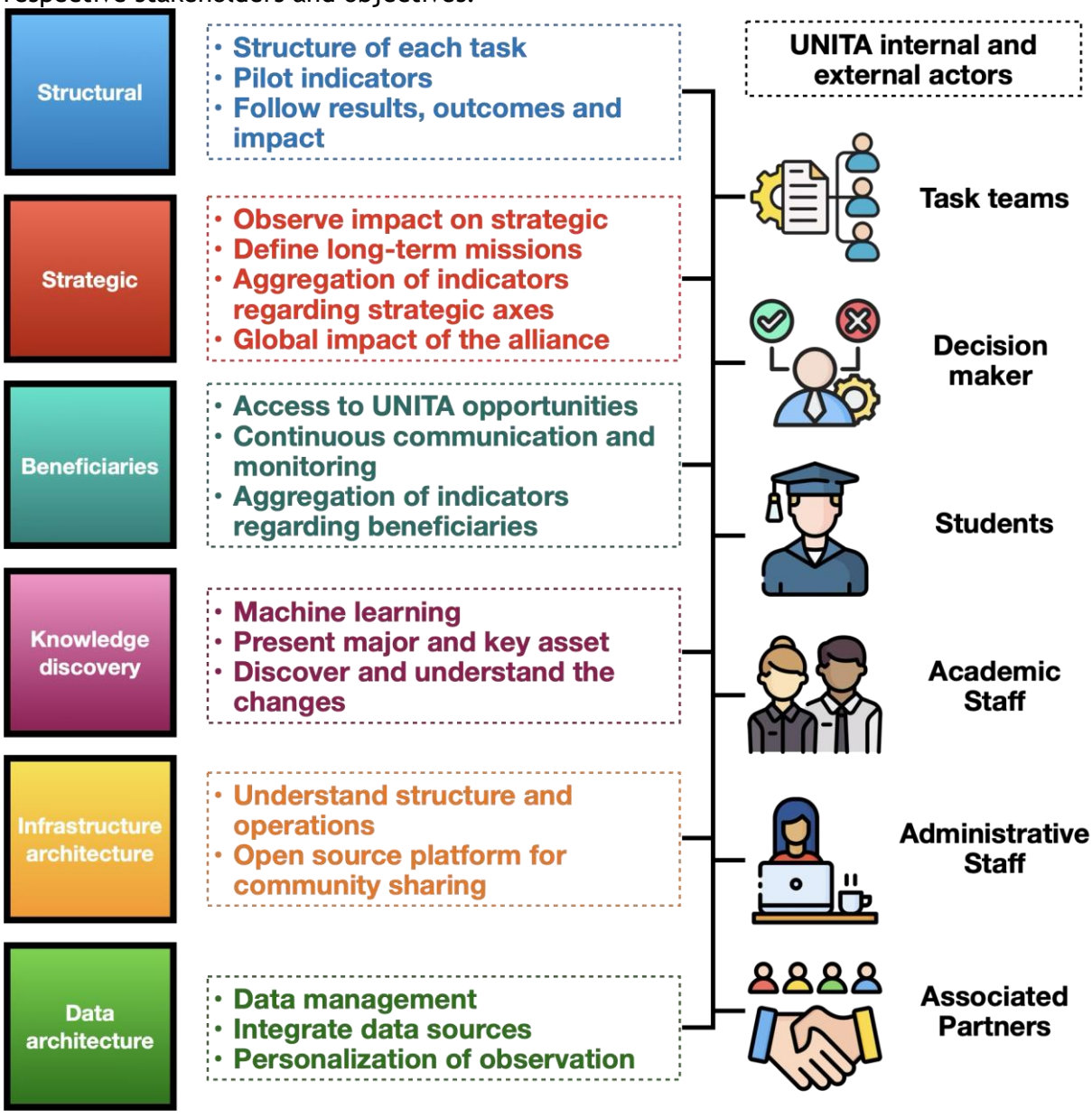
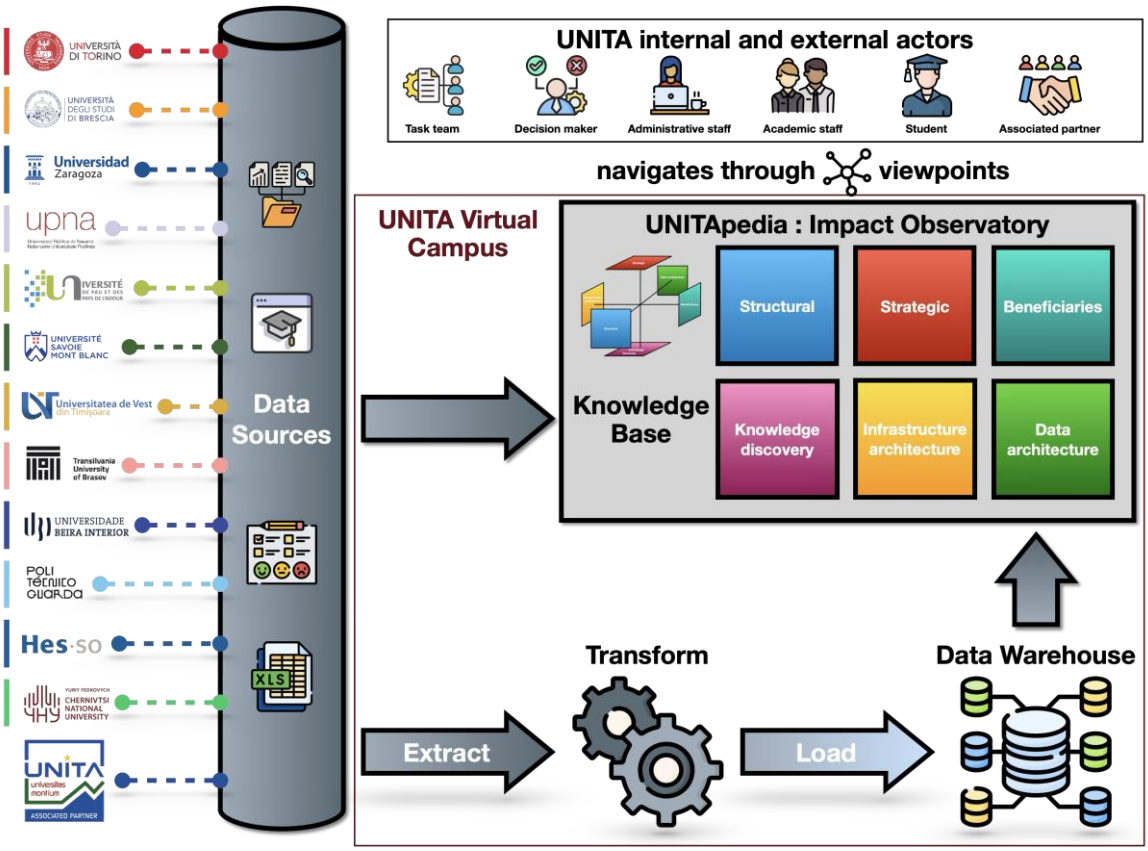


Figure 8 : Internal observatory viewpoints diagram

The following diagram describes how the UNITAPedia infrastructure and data warehouse will be deployed. First of all, manual or automated collection points will be deployed within

each university, via manual interfaces or connectors. The collected data will be stored in the datawarehouse data model, which will enable the required processing to determine results, outcomes and impact assessments. The different viewpoints of the observatory will give access to the different actors of the alliance to measure and evaluate the impact of UNITA.



B. External observatory

The final phase of the External Observatory development plan will focus on ensuring the continuous evaluation of our impact in relation to the Sustainable Development Goals (SDGs) and fostering the adoption of best practices. This will be achieved through internal collaboration among alliance members and by leveraging the tools available in the Datapoints service.

Additionally, the solution will evolve to accommodate new needs that arise within the alliance. To respond to the dynamic nature of UNITA and its constellation projects, we will offer the flexibility to include new impact measurement requirements. These will follow the same methodology: identifying and defining indicators, prototyping the collection, analysis, and visualization in various Observatory dimensions, and then final inclusion after a process of testing and validation.

Similarly, after the completion of tasks and constellation projects, necessary adjustments will be made to continue measuring the long-term impact of the actions and activities carried out. This phase will also enable technical adjustments, whether in infrastructure or data models, with the ongoing support of UNITA's IT department and virtual campus services.

5. Impact observatory analysis and improvement proposals

A. Continuous improvement and adaptation process

UNITA's impact measurement and evaluation strategy based on the two observers, in addition to responding to the needs of internal and external evaluation, must include a process of continuous improvement and adaptation to the context and evolution of our alliance.
To this end, and as described in the observatory plan, in addition to following an iterative and incremental process, a continuous improvement process must be integrated, which will be deployed starting from the construction phase.
In other words, it will be necessary to collect indicators to measure and evaluate the methodology and services proposed by the observatories.
In the same way that the methodology presented previously has been applied to each of the tasks of the project and of the constellation projects, the task dedicated to the impact observatory will have to be monitored, both to ensure that it meets the objectives but also to measure the impact obtained in UNITA thanks to the deployment of such approach.

The process to be applied includes the following steps:

- Collection of indicators on impact observatories.
    - Based on surveys and interviews with the different actors involved in the implementation of the strategy and in the use of the observatories, data will be collected to measure the degree of functional and non-functional satisfaction.
    - From the collection of data generated automatically during the interaction with the observatories, it will be possible to measure the types of use, users and functionalities offered.
- Indicator analysis

        - The analysis of the indicators collected manually or automatically will make it possible to measure the results, outcomes and impact of the methodology and tools implemented.
        - Regarding the internal observatory, the functional analysis will be carried out for the groups accessing the first 4 points of view (structural, strategic, beneficiaries and semantic). In the same way, from the technical point of view, the indicators will allow to evaluate the infrastructure and the data model.
        - Regarding the external observatory, the analysis will allow to evaluate the impact obtained in each member university in view of its annual participation in the THE ranking, thanks to sharing, communications and implementation of best practices.
- Planning and implementation of improvements
    - The process of indicator collection and analysis will allow to study and plan the actions required to ensure continuous improvement.
    - This process will be carried out from the construction phase and will be continuously maintained from the maintenance and evolution phase onwards.
    - The improvement actions foreseen may include aspects related to the collection of indicators, to their treatment or to the visualization in the different points of view. Actions related to ergonomics, access or performance could also be envisaged.

Thanks to this continuous improvement process, it will be possible to ensure that UNITA's strategy and solutions for measuring impact can be flexible to adapt to the evolution of the alliance, meeting the needs of operational or decision-making stakeholders, as well as the different beneficiaries from the internal community and external socio-economic players.

B. Transfer of knowledge

From the beginning of the collective process carried out to select and adapt a suitable methodology to measure impact, as well as to design and develop suitable tools to implement it, we have aimed to ensure its sharing within the UNITA community but also with our international partners.

Indeed, the recent birth of European alliances and their innovative nature has required the invention of new approaches and solutions, so we at UNITA consider it fundamental to ensure the transfer of knowledge and innovation with other alliances and universities. Our decision to create open and accessible tools and methods, in addition to allowing a wide range of people and organizations to benefit from them, will ensure their improvement and adaptation to new needs. Furthermore, this fosters a culture of collaboration and co-

creation, in which the contributions of each alliance can enrich the collective knowledge and accelerate the pace of innovation. In addition, we believe that creating a community of sharing around impact will also facilitate knowledge transfer to new alliances.

For the reasons previously announced, we have participated for 2 years in the ForEUe Impact working group, thus contributing to discovering and communicating best practices in impact measurement and evaluation.

We have had the opportunity to participate two consecutive years to the Impact conference, organized by the Enlight alliance, including several other alliances and aimed at presenting the different approaches currently applied in each of them.

In addition to continuing to participate in these working groups, UNITA will organize an open conference on the impact of European alliances, in 2026 or 2027, which will aim to bring together experts in the field from different alliances and allow communication and dissemination of the different initiatives, including in addition to methodological approaches the different use cases and lessons learned.

6. Annexes

A. Annex 1 : Interview sheet script

Interview sheet

UNITA Impact Observatory indicators' collection

Collection date	
Interviewers	
Interviewe task	
Interviewe task's objectives	

If possible and available, add links to the resources used to fill out this table in the different corresponding footnotes.

Input

Source of documentation:

-

Human	
Financial	
Materials	
Intangible	

Activities/Sub-Tasks

Source of documentation:

-

Subtasks	Action implemented	Deadlines

Outputs:

Primary Indicators	Secondary Indicators

Sub Task Outputs	Outputs indicator	Source of data

Outcomes:

Source of documentation:

-

Task Outcomes	Outcomes indicator	Source of data

IMPACTS = UNITA AND SOCIETAL LEVEL

Impacts of the Task should be documented:

1. Within the Unita users, i.e.: the internal beneficiaries of Unita = each institution partners or associated to Unita (= Intern Unita)
2. With the Unita end-users, i.e. the external beneficiaries of Unita = our “clients”, students, society in general and others, to be identified according to List Task 5.1 (= Extern Unita)

Source documentation:

-

	Users / Beneficiaries Intern to UNITA	End-Users / Beneficiaries extern to UNITA
Who are the stakeholders benefiting of the task’s actions ?		
To what extent has the local/international society changed as a result of outcomes compared to before UNITA ? What are the long term results for them ?		

B. Annex 2: Indicator's data sheet

INDICATORS' DATA SHEET

Questions:

1) What are the already defined indicator? Is it well defined ?
2) May additional indicators be necessary to measure the impact/outcomes of the actions ? Which ones ?

Completion of the indicators table (1 per indicator) (identify at least 1 outcome and/or impact indicator, especially if the already identified indicator(s) is only an output indicator):

Description	
Unit of measurement	
Source of data	
Frequency	
Baseline 2022	
Target 2027	
Possible sub indicators	

DATA COLLECTION (FUTURE DATA WAREHOUSE CONFIGURATION)

Manual collection	List the type of data manually collected
Automatic collection	List of the type of data automatically collected

ANY ADDITIONAL NOTES

C. Annex 3 : Primary Indicators Matrix

Task	Indicator Id	Description	Baseline	Target	Level
T1.1	a	Number of governance structures fully participated by all ten university full partners	0	(GB, QEB, SA, MC)	Alliance
T1.1	b	Number of partners in the Legal Entity	6	10	Alliance
T1.1	c	Number of co-designed long-term strategies for UNITA	1	12	Alliance
T1.2	a	Percentage of deliverables submitted on time as initially scheduled	89%	95%	Alliance
T1.2	b	Number of UNITA Offices established	6	10	Alliance
T1.3	a	Percentage of quality assessed UNITA Constellation projects	40% (UNITA, Re-UNITA)	100%	Alliance
T1.3	b	Overall assessment score of the Quality Review Checklist for UNITA in the following domains: Scope, Schedule, Cost, Quality, Risk, Issues & Decisions, Communication, Project Organization, Beneficiary satisfaction	79%	85%	
T2.1	a	Number of dissemination events, courses, and focus group meetings on the different domains of the Task		20%	Alliance
T2.2	a	Number of micro-credentials and courses on romance languages learning and intercomprehension mutually recognised and open badge certified for the alliance as a whole	3	20	Alliance
T2.2	b	Number of participants (students, teachers and staff) involved in Romance language and intercomprehension activities for the alliance as a whole	700	10000	Alliance
T2.3	a	Number of organized matching events	2	20	Alliance
T2.4	a	Average percentage among partners of graduates at bachelor, master and doctorate level who have completed an international mobility within UNITA	2%	25%	Alliance
T2.4	b	Average percentage among partners of staff engaging in an international mobility within UNITA	2.4%	15%	Alliance
T2.5	a	Number of events (one-day conferences, prizes and contests, school ambassadors) and training courses (course with virtual mobility, winter/summer schools, training sessions) on European Citizenship.	55	150	Alliance
T3.1	a	Percentage of study programmes with UNITA à la carte activities or with UNITA degree label		30%	Alliance
T3.2	a	Number of UNITA Micro-credentials in the UNITA Course Cartography	6	50	Alliance
T3.3	a	Number of teachers trained under the UNITA Innovation in Teaching and Learning Initiative		600	Alliance
T3.4	a	Number of services (stand alone or shared/joined) made accessible though the digital campus (web and mobile interface)	6	20	Alliance
T4.1	a	Number of joint initiatives (training programs, tech transfer projects, student internships, etc...) involving actors from 2 or more UNITA ecosystem partners and stakeholders.	20	200	Alliance
T4.2	a	Number of research hubs	3	6	Alliance
T4.2	b	Number of researchers in the cartography	600	3000	Alliance
T4.3	a	Number of infrastructures and related services in the interactive map	113	250	Alliance
T4.4	a	Number of shared ECTS in the UNITA Graduate Schools	0	300	Alliance

Task	Indicator Id	Description	Baseline	Target	Level
T5.1	a	Number of followers on social networks	36.000	120.000	Alliance
T5.1	b	Percentage of partners having adopted the UNITA corporate identity in their communication policy	20%	100%	Alliance
T5.1	c	Number of videos on YouTube and/or Instagram reels	18	88	Alliance
T5.1	d	Number of posts on Instagram	236	600	Alliance
T5.2	a	Number of submitted UNITA multi-partner projects	8	40	Alliance
T5.3	a	Number of green sustainability actions (courses, events, modified curricula, workshops, etc.) implemented at alliance level		40	Alliance
T5.4	a	Percentage of long-term vision strategies monitored by impact indicators available on the dashboard		100%	Alliance
T5.5	a	Number of GEMINAE partners actively participating in UNITA activities	15	40	Alliance

D. Annex 4 : Indicators Data-sheets Matrix

Task	Description	Unit of measurement	Source of data	Frequency	Baseline 2022	Target 2027
T1.1	Number of governance structures fully participated by all ten university full partners	Num / %		once	0	4
T1.1	Number of partners in the Legal Entity	Num / %		once	6	10
T1.1	Number of co-designed long-term strategies for UNITA	Num		twice - midterm and project's end	1	12
T1.2	Percentage of deliverables submitted on time as initially scheduled	%	Deliverables submitted to the EU (downloaded on the EC Platform) before	once	89	95
T1.2	Number of UNITA offices established	Num	T1.2 monthly meetings minutes and Task teams members	once (october 2027)	6	10
T2.5	Number of events	Num		6 months	55	150
T2.5	Number of participants	Num		6 months		
T2.5	Number of certificates	Num		6 mothns		
T3.2	Number of UNITA Micro-credentials	Num	Reporting & Follow up of sub-task "A3.2.2 Define and award the UNITA micro-credential label"	1 year	6	55
T3.2	Number of Unita MC vs non Unita MC within the partners	Num				
T4.2	Number of research Hubs	Num	Minutes of GB	1 year	3	6
T4.2	Participation of researchers to the Advanced Grants (secondary indicator)	Num	Submission system	For each AG		
T4.2	number of PhD co-tutelles (secondary indicator)	Num	Ph.D. offices	1 year		
T4.2	number of joint publications (secondary indicator)	Num	Scopus for bibliometric areas, hub referents / libraries for non-bibliometric areas	6 months		
T4.2	number of awards (min. 2 UNITA partners) (secondary indicator)	Num	Hub referents	1 year		
T4.2	Number of researchers in the cartography	Num	Cartography itself	1 year	600	3000
T4.2	Number of participants to the Matching Events whose project was on the cartography (secondary indicator)	Num	Cartography + matching events reports	After each ME		
T4.2	Number of participants in the cartography for each hub (secondary indicator)	Num	Cartography	1 year		

Task	Description	Unit of measurement	Source of data	Frequency	Baseline 2022	Target 2027
T4.2	Number of accesses to the cartography (secondary indicator)	Num	Cartography website	1 year		
T4.2	Number of projects in the cartography (secondary indicator)	Num	Cartography	1 year		
T4.4	Number of shared Course in UNITA Graduate Schools	Num	Reports; Training paths and web platform	1 year	0	200
T4.4	Number of participants	Num				
T5.1	People interested in following UNITA accounts on social media.	Num	Facebook Insights, X Analytics, Instagram Insights, Linked Analytics and YouTube Studio	1 month	4952	12000
T5.1	Consistency in corporate identity and uniformity in official communications	%	Communication audits, request for reports and surveys	6	20	100
T5.1	Number of videos produced and published on YouTube and/or Instagram Reels	Num	YouTube Analytics and Instagram Insights	1 month	18	88
T5.1	Publication frequency and number of posts on Instagram	Num	Instagram Insights	1 month	236	600
T5.1	Website traffic volume (secondary indicator)	Num	Content Management System (CMS) (not decided yet) and web analytics tools (not decided yet)	1 month		
T5.1	Number of current news publications on the website (secondary indicator)	Num	Content Management System (CMS) (not decided yet).	1 month		
T5.1	Reach of YouTube content (secondary indicator)	Num	YouTube Studio	1 month		
T5.1	Participation and attendance at events	Num	Registration forms, access control and post-event surveys	After each event		