

File for allocating the label following the interruption of the IDEX UNITI

This document and any appendices should be lodged on the ANR submission site:

<https://investissementsdavenir.agencerecherche.fr/IDEX-PIA1/>

before 1 pm Paris time on 18 December 2017.

Important

The document lodged on the submission site should without fail correspond to this unmodified template, supplemented by texts of the project coordinator, in full compliance with the document structure (paragraphs, titles, etc.).

Important

The purpose of this document is to allow every project coordinator to present the new ambition of the project, describe changes since the submission of the original selection file and also to provide all useful information so that the international panel is in a position to assess the strategic orientations, progress and commitments made before and since the evaluation of the project at the end of the probationary period. Lastly, precise answers are required to the observations by the panel when meeting at this time.

To facilitate and prepare this file for use by the panel, the Section 2 template is modelled on the evaluation criteria applied by the panel. Section 3 must be completed without fail.

This document will have **forty pages at most** (font 12, single line spacing, excluding cover page, contents, texts in red and tables appearing in the template). **Thirty** of these forty pages **will be dedicated to the first two sections and ten pages at most to the third**. The questions formulated within the different paragraphs belong to this structure and must remain visible.

This file must be written in English.

IDEX PIA1**Project name**

UNITI 2018

ALLOCATION OF THE IDEX LABEL**EVALUATION FILE – 2017**

Full title of the IDEX project	UNIVERSITE DE TOULOUSE
Website of the IDEX project	https://universite-integree.univ-toulouse.fr/
Project coordinator	Last name, First name: RAIMBAULT Philippe Telephone: +33 (0)5 61 14 44 74 E-mail: philippe.raimbault@univ-toulouse.fr
Institution leading the project	Name: Université de Toulouse, being created. In anticipation of its creation, the project is presented by the COMuE Federal University of Toulouse on behalf of the four founding institutions.
Date written	20 novembre 2017

CONTENTS

1. PROJECT PRESENTATION: CHANGES MADE TO THE INITIAL PROJECT AND NEW AMBITION	4
1.1 INTRODUCTION.....	6
1.2 BUILDING THE TARGET UNIVERSITY IDENTITY	7
1.3 RESEARCH STRATEGY	13
1.4 EDUCATION STRATEGY	16
1.5 INNOVATION AND PARTNERSHIPS WITH THE SOCIO-ECONOMIC WORLD	20
1.6 STUDENT LIFE POLICY	22
1.7 INTERNATIONAL OUTREACH STRATEGY	23
1.8 ATTRACTIVENESS AND TALENT MANAGEMENT POLICIES	25
1.8.1) Attractiveness policy.....	25
1.8.2) Development of the staff’s sense of belonging to the UT.....	25
2. RESULTS OBTAINED, ACTIONS UNDERTAKEN AND PLANNED ACTIONS	27
2.1 PROJECT PRESENTATION AS PER THE NINE CRITERIA	28
2.1.1) Research excellence	28
2.1.2) Teaching excellence	29
2.1.3) Innovation	30
2.1.4) Target university	31
2.1.5) Campus and student life	32
2.1.6) International visibility.....	33
2.1.7) HR policy	34
2.1.8) Partnerships (academic, NROs, business)	35
2.1.9) Governance and project management	36
2.2 POWERS AND COMPETENCES	38
3. LONG-TERM PLAN	39

1. PROJECT PRESENTATION: CHANGES MADE TO THE INITIAL PROJECT AND NEW AMBITION

Twenty pages at most – font 12, single line spacing, excluding tables. Project coordinators must make sure that this chapter is written in a succinct fashion, avoiding repetitions, especially with texts produced for Sections 2 and 3.

The candidates in question must use this paragraph to present their new ambition and their commitments in this context, aligning them to the initial project. The file for a new allocation of the IDEX label must be based on a presentation of changes made, the reasoning behind them and actions envisaged or undertaken to build a world-class university (also called target university).

Using a table, the execution or otherwise of each of the initial commitments must be stated along with the reasons for revising or abandoning it, where appropriate.

New strategic choices, resulting from a precise advantage/disadvantage analysis, will be described, as will progress made in structuring since the submission of the report of 22 December 2015. Consistency, the value added to the global ambition and the transforming nature of actions will be highlighted.

Overall, the ambition includes: constructing the identity of the “target University” likely to be recognized internationally, based on benchmark elements, the institutional structuring, integration of players, governance and operating dynamics, international outreach strategy (including classifications), attractiveness and talent management policies, research and training strategies, promotion and partnerships with the socio-economic world, student life policy and effectiveness of methods to allocate financial means.

The project coordinators should pay very special attention to the structuring/integration characteristics and international outreach of the target university.

The panel must be able to evaluate the dynamics in play through the changes and their transforming nature and the credibility of the implementation procedures and timetable.

In the remainder of this document, the terms President, Vice-President, Secretary, student, professor, researcher, ... are used in a neutral sense and may designate women or men in the corresponding function.

The initial UNITI project is called "UNITI", the project implemented during the probationary period is referred to as UNITI 2013, the current project is referred as UNITI 2018.

Changes in the composition of the consortium leading the IDEX project

List of partners when the completed probationary period was evaluated in 2016	Research Institutes (EPST and EPIC)	Other
UT1-Capitole (UT1-C)	CNRS	
UT2-Jean-Jaurès (UT2J)	INRA	
UT3-Paul Sabatier (UT3)	Inserm	
INP Toulouse (INP)	IRD	

INSA Toulouse (INSA)		
ISAE-SupAero		
Current situation – December 2017		
Partners no longer involved	New partners:	
UT1-Capitole	Centre Hospitalier Universitaire (CHU)	
ISAE-SupAero	CERFACS	
	CNES	
	Météo France	
	ONERA	

Comment on this table by explaining the partner “departures” and “arrivals” and the consequences of this potential change of scope in relation to the overall ambition.

The target university proposed in UNITI 2013 could not be internationally recognized. In this new project, the University of Toulouse has the power to define and implement its strategies and meets the essential requirements to be recognized as an integrated university, such as the degree awarding power and budget control. These elements open the doors of the major international rankings. Two institutions that were initially invested in UNITI, UT1-C and ISAE-SupAero, do not currently want to be part of this integration process.

The Toulouse CHU (University Hospital) has joined the consortium and will contribute to the project in the fields of research, education and student life. Two major research organizations in the aeronautics and space sector, CNES and ONERA, have also become members of the consortium, as has Météo France, a public organization whose main research center is in Toulouse. The same is true of the CERFACS civil society, a shared center for research, development, transfer and training in simulation and high-performance computing, and whose research strategy in the fields of aerospace, space, energy, environment and climate, is in line with that of the UT.

Structuring of the target university

Statutes of the target university
Have the target university’s statutes been written? NO
If NO, have draft statutes been produced for the target university? YES
If YES, do the projected statutes require a change in the law? YES
Have these statutes for the target university or their draft been approved by the partners intending to be included? NO
Scope of the target university
List of partners that are expected be integrated in the target university (stating, if possible, the year of inclusion). Indicate for each one whether he will keep his legal personality.
UT2J – 2019

UT3 – 2019
INSA – 2019 (keeps its legal personality)
Toulouse – INP 2019 (keeps its legal personality)
List of partners who will not be included in the target university, excluding research bodies Indicate the nature of their relationship with the target university within the IDEX project
NONE

*The following points should be clearly documented:

- The finalized or draft statutes for the “integrated” target university used to create it (under a current law or a future proposed law).
- formal agreement of members of the Initiative, confirmed by the signature of their competent authorities, for the creation of this integrated university
- -an execution timetable.

These statutes and this agreement must:

- guarantee the adoption of a unified strategy for the fundamental missions of the target university;
- for the target university as a whole, define the authority and responsibility of the presidency in terms of general budget, allocation of resources and recruitment of personnel;
- for each target university component given a certain degree of autonomy and/or legal personality, describe the decision-making powers of the target university president;
- state the titles and diplomas that will be awarded by the target university alone;
- ensure that the target university meets the conditions for its international recognition (for example, by the EUA, the U-Multirank and the Shanghai and Leiden ranking agencies).

1.1 INTRODUCTION

UNITI 2018 is building a world-class integrated university from four institutions (UT2J, UT3, INP and INSA) which brings together, not including research organizations, 80% of the academic staff and 85% of the PhD students of the campus. This integration of universities and Grandes Ecoles, a first in France on such a scale, is supported by all the national research organizations present on site¹.

This project is based on a shared ambition to increase our recognition as a world-class research university, measured by improved visibility in the international rankings. This ambition implies that the target university has the prerequisites of a university in terms of degree awarding power, strategy, governance and means: integration is therefore essential to achieve this goal.

This was already the case in the UNITI project, which planned a merger of all the IDEX leading institutions into one single, with highly externalized governance. After its approval, the

¹ This concerns public scientific and technical establishments (CNRS, INRA, IRD, Inserm), public industrial and commercial establishments (ONERA, CNES), the Météo France administrative public organization. Additionally, the University Hospital of Toulouse (CHU) and the Civil Society CERFACS.

impossibility of getting the communities to adhere to the common goal led to the questioning of the institutional component. In 2013, a unifying project built in complete transparency, gave birth to the ComUE, and was subject to a new attributive agreement. This project was stopped in April 2016 at the end of the probationary period. UNITI 2018 draws lessons from this period, and benefits from the collaborative dynamic started in 2013 and from the evolution of the institutions.

The four UNITI 2018 institutions share both the will to integrate and a common vision for their future. The chosen governance model is in line with the discussions held at a national level to develop the institutional framework and facilitate the construction of integrated universities. Thus, the project has the necessary robustness to allow us to realistically enter into its implementation in the relevant communities. The present proposal has been submitted and approved by the relevant institutions' boards².

1.2 BUILDING THE TARGET UNIVERSITY IDENTITY

The target university is the University of Toulouse (UT) and integrates two universities, an Institut National Polytechnique, a cluster of six major engineering schools and an Institut National des Sciences Appliquées. With a potential of nearly 3800 researchers and faculty, it has 70 000 students including 3200 PhD students, making it the largest universities in France in terms of number of students. Together with the aforementioned research organizations, it constitutes the IDEX Consortium within which IDEX programs are rolled out.

Beyond these quantitative elements, the UT is above all built on its multidisciplinary, born of the broad scientific spectrum of its founders (science, technology, engineering, health, arts, humanities and social sciences). The ambition is to bring research in these fields of excellence to a state-of-the-art international level by capitalizing on its Labex, the strong local anchorage of research organizations and by promoting the special features of our city.

The integration process is already strongly developed between the founding institutions, whose research laboratories and doctoral schools are often shared and linked to research organizations, particularly in the field of science and engineering. Some large structures, such as the Maison des Sciences de l'Homme de Toulouse, the Institut de Recherche en Informatique de Toulouse (IRIT), some of the Labex (CIMI, SMS) or the SATT are even shared by three or four founding institutions. Their integration is therefore a unique opportunity to intensify these synergies in order to develop interdisciplinarity.

The identity of the UT is built on:

- the awarding of **Bachelor, Master and PhD degrees;**

² Refer to the minutes in the appendix.

- **the establishment of strong markers:** we are committed to improve our services to users and, more generally, our impact on the regional territory. We have also considerable experience in pooling resources and working together in the past ten years. This base has brought out a common brand "University of Toulouse" used for international promotion and the single signature of scientific publications since 2013. Its usage rate, 65% on site in 2017, must reach 100% in 4 years' time within the UT perimeter. The integration process is based on a shared history and real achievements, which are important assets considering our aim to achieve the desired changes.

- **a shared view of our social responsibility:** research should serve knowledge; it must also benefit from economic partnerships within its innovation ecosystem, interact with its local environment by contributing to public policies (energy transition, digital transformation ...). We also have the responsibility to develop the education offer by using this scientific expertise to prepare students, whatever their origins, to become citizens, well-informed actors in the changing world. The UT is committed to promoting innovation in both technological and social dimensions, as well as the values of the public service of higher education and research. These commitments are embedded in the day-to-day approach of the UT: openness and respect for all; confidence in the scientific approach based on probity and integrity; constant pursuit of excellence in education and in the services offered to students; support for actions pertaining to sustainable development; acute awareness of its responsibility to fuel the debate around science / society. These objectives are embodied in the ambition to obtain the "Sustainable Development / Social Responsibility" label by 2021.

In the scientific field, the UT has defined, in collaboration with research organizations, its **strategic priorities for education and research, in the form of 6 societal challenges:**

- **Energy transition and new raw material cycles**

The challenge is to bring innovation to the implementation and transformation of energy and raw material resources by relying on a deep biological, chemical and physical knowledge of the matter within a context of sustainable development. It also takes into account issues of acceptability and risk perception in the development of new features, new uses and new fields.

- **Healthcare: recovering and ageing in good health**

The challenge is to bring together healthcare professionals (medical and veterinary) from the sciences, engineering and the humanities to develop integrated approaches to preventive care, supported by shared high-performance digital platforms. Understanding the dynamics of life is a key issue to address the challenges of the future.

- **Aeronautics, Space and New Mobility**

The challenge is to understand and anticipate the current revolutions in the field of mobility and transport of goods and passengers: embedded systems, new structural materials, unmanned vehicles bringing a flow of innovation rarely seen on such a scale and it is a challenge to link the changes to the organization of economic and social life with technological developments.

- **Digital Transformation**

The key point here is to link the scientific work of network specialists, algorithms, artificial intelligence and data science, high performance computing, learning sciences and the study of social media. The challenge is to understand the digital transformation of society and businesses and to innovate in this fertile field.

- **Heritage, Innovations / Creation**

The stakes are twofold: at a time when questions of identity and social cohesion have become critical, the aim is to identify, enhance and sustain the tangible and intangible heritage of societies; moreover, it is important to understand how creation and innovation both in terms of technology and the changing relationships with work, knowledge, mobility, living, or artistic practices challenge values such as equality in learning, education, the world of work and remuneration.

- **Complex Environments**

The challenge here is to understand and describe the interactions that occur within 4 complex worlds: distant universes; the planet, its oceans and its climate; ecosystems analyzed on different scales from the genome to the planet by biologists; environments deciphered by sociologists going from the individual to global communities: going the extra mile to better understand the interactions between these 4 universes is a challenge that the UT will address.

These priorities are evidences of our collective capacity to develop **a common scientific strategy** together with research organizations whilst responding to the socio-economic challenges of the future. They forecast the orientation of our resources, which will be based on our successful experience in prioritizing scientific infrastructures and scientific facilities (UNITI 2013, CPER and Plan Campus).

We are building a world-class integrated university whose ambitions are reinforced by those of the UNITI 2018 Excellence Initiative. We see it as a major support with clear and high-impact mechanisms (see 1.4) accelerating the transformation of institutions and disseminating good pedagogical and scientific practices.

Institutional organization

To make this project a reality, a new institutional framework is essential to establish an effective **governance with the ability to develop a unique research and education strategy that guarantees the UT a strong international visibility**. UNITI 2018 is therefore part of the plan to create a **new category of experimental public institution** that opens the door to *ad hoc* governance schemes. These would be beneficial, having more external insights on the functioning

of the university. In this context, UT2J and UT3 will lose their legal personality and the University will gradually set-up Colleges³, which will participate to the definition of education, research and international policies. Thanks to the delegation of management and resources that guarantee subsidiarity and efficiency for users, the Colleges of UT have a large degree of autonomy to implement the policies part of the central strategy. Partner research organizations sit within UT organs, when appropriate, to participate to the definition of shared strategies. We are inspired here by KU Leuven University in Belgium and its path of recent integration of originally independent components, and Cornell University, in the United States, which is composed of strong autonomous colleges.

Stepping away from UNITI 2013, the key functions that guarantee the implementation of the strategies, are now to be concentrated within the central bodies of the UT. The latter have powers designed to ensure that the constituent colleges of the UT implement these strategies, particularly through budget directives and also in terms of human resources. The proposed statutes⁴, to be refined as soon as the national legal framework is clarified, set out the powers of the central bodies as follows:

- **A Strategic Board of Directors (CAS):** made up of 30 members (including 13 external members), it validates the strategies of the UT and check the UT Colleges' compliance with them.
- **A President of the UT:** representing UT and responsible for its management. Guarantor of the strategy implementation, the President is, as such, a key actor in all budget and HR decision-making processes.
- **An Executive Committee (COMEX):** it brings together the directors of the Colleges of UT, as well as the IDEX Vice-President. The COMEX assists the President in all his missions.
- **An Academic Senate (SA):** made up of 36 members from the Colleges management teams and transverse structures of the UT, it is the place where UT research, education and international strategies are discussed and consolidated.
- **A Council of Strategic and Academic Orientation (COSA):** with 16 external members, with a high proportion of international figures, chosen for their expertise and experience in the academic world. COSA evaluates the UT and IDEX strategies and makes recommendations.

As for the UT constituent Colleges, the structures of governance currently in place will change to make UT's central governance more efficient: UT President full member of all the Colleges

³ In this document, the term Colleges refers without distinction to the founding entities at the beginning of the project (T0) and to those colleges which will exist at the end of the first 4 years (T+4).

⁴ See the draft statutes in appendix

bodies, development and implementation of contracts of objectives and means (COM), as well as a continuous dialogue regarding budgetary and human resources matters.

KU LEUVEN: a model of integration trajectory (57,000 students - ARWU 90)

KU Leuven has many similarities with the target university, with its historical roots in the European academic landscape, its size, its academic performance (KUL and the founders of the UT are closely ranked in 6 major disciplines of ARWU 2017). The recent institutional trajectory of KU Leuven is of interest to the UT. It initially brought together the University Colleges of Flanders in a horizontal structure of an associative type (2002), then integrated them entirely in 2013 to form the current university, in which the essential functions are centralized but where the entities and campuses retain significant autonomy.

CORNELL UNIVERSITY: A model of deconcentrated and decentralized organization

(23,000 students - ARWU 14)

The University of Cornell, although offering a rather unusual general model compared to the target University, especially in terms of its semi-public / semi-private funding scheme, is a reference in terms of its decentralized organization in 9 statutory colleges (and 5 schools) with strong autonomy. Each disciplinary college, although they are not separate legal entities, defines its own recruitment criteria, the content of its programs, recruits its academic staff and enjoys a large delegation of powers by the President. The Board of Trustees of the University holds the strategic prerogatives, including degree awarding power and management of the Cornell brand.

UT also has an **IDEX-specific governance** guaranteeing the compliance with the PIA rules:

- **A director**, with the rank of VP proposed by the COPIL and elected for 4 years by the CAS;
- **A Steering Committee** (COPIL) of 10 representatives from UT and one representative per research organization or equivalent;

The VP-IDEX relies on COPIL to initiate the strategies of excellence. Supported by a dedicated unit, he is responsible for the rolling out of programs, the management of funds and dedicated HR resources implemented within IDEX. He organizes the assessment of projects by external experts and monitors their implementation. He submits a report on the Strategic Plan to the COSA. The IDEX consortium members pledge to contribute to each IDEX-financed project to up to 3€ per 1 € from IDEX.

The main principles governing the IDEX funds allocation process are identified:

The rules for publishing the UT's project calls, the choice of projects to be financed, the procedures for recruiting staff, the management of projects carried out on IDEX funds are recorded in a charter which is co-signed by the Colleges.

IDEX projects (Chairs, research projects or investment projects) are necessarily held by teams contributing to the « Forces, Emergences, Pépites » (FEP, see 1.3) map. The Laboratory they belong to must have one of the members of the consortium as its founding members.

Projects are systematically evaluated by at least three experts, two of whom do not work in a French higher education or research organization and have not co-published with any of the project members or the candidate.

Project funding decisions are made by the CAS subject to an assent of the COPIL. Every year from the second year onwards, a sample of projects (1/3) that have expired are subject to an ex-post evaluation by external experts based on objectives set out by the project. A progress report per program is prepared by the COPIL and sent to the COSA for evaluation.

Monitoring methods

The strategies are implemented within the framework of multi-year Objective and Means Contracts (COM), outlining the contribution of each College to these strategies. COMs are centred on the key leverages of the UT's strategies (education, international, research and innovation) and are based on performance indicators. Developed through consultation between the COMEX and the governing bodies of the Colleges, they provide a frame for the annual budgetary and HR processes.

The President leads an annual dialogue with the Colleges. Within the framework defined by the COM, he drafts a budget and HR directive letter and chairs HR conferences that the research organizations are associated with. Within this frame, the governing bodies of the Colleges shape, in connection with the President of the UT, their budget and their faculty recruitment campaign. At the end of these two processes, the President issues a written notice and the proposals of the College boards are submitted to the CAS. The latter votes on the budget and the recruitment campaign of the university Colleges and delivers its opinion on those of the INP and INSA. In the event of a negative opinion, the President may refer to the COPIL a request for temporary access denial to some IDEX programs. The CAS also votes on the consolidated budget of the UT.

These processes perfectly reflect the integration that takes place. All strategies are now defined at the central level of UT and the provisions relating to financial resources and human resources guarantee their implementation within the Colleges. The level of integration is therefore incomparable to the situation that prevailed before, when the founding members preserved their full sovereignty.

The Observatory of Higher Education and Research, which has been monitoring 52 indicators for ComUE since 2015, is made available to the community via Open Data base as part of the

Digital Master Plan (Schéma Directeur du Numérique) to enable transparent and efficient monitoring of the UT policy.

The UT benefits from the commitment of research organizations within the IDEX consortium. Subject to the obligations of their status and economic model, they share their national policies at a local level to fuel the UT's strategies. Research organizations shed light on UT governing bodies key decisions, particularly in terms of scientific prospective, detection of scientific leaders, selection of equipment and partnership policy. They also make available to UT and the consortium laboratories the skills and opportunities that, thanks to their nationwide coverage, they have access to (shared management dialogue, analysis, mapping tools or national expertise, sharing of *consortia* or international cooperation structures). Finally, they propose to build structured interfaces governed by framework agreements specific to each organization⁵. The CHU, takes on board, in its strategic project, priority actions selected by the IDEX consortium, to mobilize its resources in an efficient and cooperative way, in particular regarding the strategic priority "Healthcare: Recovering and ageing in good health", in the fields of research, education and student life.

This project remains open to institutions that would adopt its logic of integration (see Part 3). In addition, the UT intends to organize the site policy based on the collaborations established within the framework of the ComUE with the fourteen other higher education institutions of the Toulouse area⁶. Once the necessary legal evolution has taken place, it intends to replace the ComUE by integrating its services and set up, in conjunction with the institutions, specific governance arrangements for the campus policy missions within the framework of association agreements.

1.3 RESEARCH STRATEGY

To reach the status of a world-leading research university, the UT relies on a set of 93 research structures fully owned or shared between consortium members and well known in their disciplinary areas as well as state-of-the-art scientific infrastructures (digital platforms, TGIR, observatories). These laboratories are grouped into five research coordination poles, similar to those of UNITI.

⁵ Refer to the research organizations joint letter of engagement (appendix)

⁶ UT1 Capitole, ISAE-Supaéro, Ecole Nationale de l'Aviation Civile, Ecole Nationale d'Ingénieurs de Tarbes, Ecole Nationale Supérieure d'Architecture, Ecole Nationale Supérieure de Formation de l'Enseignement Agricole, Ecole Nationale Vétérinaire, Institut des Mines Télécom d'Albi-Carmaux, Institut National Universitaire Champollion, Sciences Po Toulouse, Centre de Ressources d'Expertise et de Performance Sportive, Institut Catholique des Arts et Métiers, Institut Supérieur des Arts de Toulouse, Toulouse Business School.

UT commits to implement a Strategic Plan centred on the 6 priorities mentioned §1.2. They correspond to the UT's policy choices and rely on the research assets of the site. This plan aims to increase the attractiveness and international visibility of the UT and to enable it to stand out by its capacity to innovate based on its research in all socio-economic sectors. The success of this plan will be evidenced by an increase within 10-years in international rankings and by the development of innovations resulting from its work.

Shared strategic plan in conjunction with national research organizations

One of the major benefits from the creation of the UT relies in the integration of science, technology, engineering, health, arts, humanities and social sciences into one single institution. Whereas each founder brings scientific strengths and shared platforms recognized at the highest international level, only the close integration makes it possible to properly address the social challenges underlying the strategic priorities.

On this basis, UT has built its Strategic Plan in synergy with the partners who join the Consortium. This plan, disruptive with that of UNITI 2013, is boosting research in strategic areas. To do so, it relies on the strengths of the site that have been identified according to a methodology initiated by the research organisations. This approach offers multiple standpoints and an interpretation that shows our strengths compared to those of other sites in France and internationally. Three levels of identification are used:

- Strengths (F): topics unique to Toulouse, strong international and national recognition and visibility, often with a large number of researchers involved.
- Emergences (E): skills already present on the campus, and set to become leading experts in the years to come.
- Gems (P): One or two team(s) recognized as world leaders that need support even though they only represent a small number of researchers.

The Strengths-Emergences-Gems (FEP) map, (see Appendix for details) is supported by our bibliometric analysis and by the thematic rankings of the founders of the UT (such as ARWU). It covers about 50% of the researchers operating within the UT, on which the COPIL relies to allocate 80% of the resources of the IDEX. The distribution of scientific forces between the research coordination poles shows a balanced system and a solid interdisciplinary base revealed by the numerous strengths shared between poles. Used alongside the strategic priorities, this mapping constitutes the framework of priority deployment of the IDEX programs.

Method for updating the Strategic Plan

A progress report is made after 2 years to check that the formulation of the strategic priorities is on target. At T + 4 years, the COSA is asked for an analysis, and gives opinions and recommendations on the basis of an in-depth review carried out by the COPIL and the UT services. In response to the COSA's final opinion, the research coordination poles as well as the Colleges bodies submit policy proposals to the Academic Senate, which prepares an update of the "Strategic Plan" forwarded at the end of the process to the President for the final decision by the CAS. In the same way, FEP map is reviewed every 4 years in light of the execution of the Strategic Plan, following the same methodology that has led to the current version.

Implementation of the Strategic Plan

This Strategic Plan transforms the implementation of our current PhD co-financing program with the Regional Government (APR), into which the institutions have contributed 1Million€ per year since 2011 and which will now be focused on the strategic priorities.

IDEX's specific schemes make it possible to manage interdisciplinary research along strategic lines, boost research coordination poles, support the Labex and strengthen research platforms. The IDEX tools designed to attract and retain scientific talents (see 1.8) will complete the means of action available to the COPIL. The latter is committed to awarding 20% of the IDEX research budget to projects whose sole motivation is to shift the frontiers of knowledge.

The IDEX schemes available to the Strategic Plan include:

- Managing interdisciplinarity: UT launches a **Mission for interdisciplinarity**, with scientists renowned for their successful experiences in interdisciplinary contexts, to define **interdisciplinary research themes within the 6 strategic priorities**. A Director will be appointed for each strategic priority amongst the members of the mission. He will organize and lead brainstorming sessions like the ones held successfully for 10 years by the RTRA Sciences and Technologies for Aeronautics and Space.

The Mission also relies on a Partners' Committee for each of the strategic priorities, representing key actors from the cultural and industrial worlds who will have the responsibility of proposing interdisciplinary research themes, notably through co-chairing annual international conferences regarding the strategic priorities. These conferences will make it possible to identify potential disruptive topics. They will lead to the development or the updating of a multiannual research and innovation program.

- Dynamics of the research coordination poles: The coordination poles propose one (or two) strategic subject(s) to the COPIL per year within their scope and aimed at resourcing their research themes. These projects run for a limited duration (4 years) are endowed by a project leader in charge of the theme and project reporting in charge of both the subject and the reporting.

- Labex development: UT relies on the Labex, essential components of the scientific community. UT is committed to contribute to their development on the long run. Their budgets will therefore be reviewable beyond 2022 only under very strict conditions following

an evaluation by an international jury whose terms will be agreed with the Labex Directors. UT promotes collaboration between Labex and teams out of their perimeter through IDEX funds. This scheme can be extended to inter-Labex collaborations if the COPIL considers that they fit the Strategic Plan.

- Experimental and digital platforms: The COPIL will co-fund up to 50% of the cost of **scientific equipment**, considered **exceptional** because of their level of technology or their service to the scientific community in line with the strategic priorities. The COPIL allocates this funding only if the sustainability (operation, maintenance, availability of skills) of the project is guaranteed by the host College.

- Master's to PhD track: as a foreshadowing of the UT Graduates Schools for Research (EUR) which will be gradually set up and in order to improve the link between Education and Research, scholarships for Master degrees are to be awarded to M2 students by panels composed of heads of Master courses and of Doctoral schools on the research topics proposed by the coordination poles.

These tools, guided by the strategic plan contribute to make UT a key scientific player at an international level.

1.4 EDUCATION STRATEGY

The UT offers a large and varied range of programmes (preparatory cycle of the INP and integrated cycle of INSA, 30 DUTs (Technical University Diplomas), 94 Bachelor degree courses, 81 professional Bachelor courses, 237 Masters, 25 specialized engineering Diplomas, PhDs).

In response to the issues relating to the democratization of higher education, orientation and student success, UT is creating, as part of the next accreditation, **Bachelor's degrees** to allow students to reach their full potential, thanks to challenging courses. Alongside those aiming to complete advanced studies, the challenge is to be able to offer customized tracks aimed at allowing a swift access to the jobs market, meeting the needs of the socio-economic actors, at both middle manager or equivalent level. This development, supported by all the UT Colleges, secures the students' curriculum by providing gateways and reorientation opportunities between different courses on offer at the UT and with the other institutions on site (ex: CHU for the medical and paramedical field or CREPS for the field of sport).

The Masters' programs at UT build on the areas of research excellence and attracts high-potential students. The UT's ambition is both to increase its international visibility by numerous English taught programmes designed for foreign students and to address the economic and societal challenges through a multidisciplinary education offer.

Engineering courses accredited by the Commission des Titres d'Ingénieurs (CTI, national commission for engineering degrees) run by the INP, INSA and UT3 are grouped together in **UT's College of Engineering**. This evolution ensures a global structuring of engineering

education to international standards. All relevant research and education activities are already integrated into joint research labs, doctoral schools and co-accredited masters. In a first stage of setting up the College of Engineering, Disciplinary Departments will be set up to cluster the engineering specialties already CTI and EUR-ACE labelled, with the primary objectives of:

- Making the offer more understandable, consistent, flexible and internationally attractive;
- Increasing the number of graduates in engineering who enrol in PhD program;
- Supporting industry regional and international challenges, by relying on a more structured disciplinary base, opening up new opportunities for training engineers, UT “incubated entrepreneurial” engineers, and PhD candidates holding an engineer degree;
- Launch new programs that combine engineering courses with other UT colleges to meet the challenges of transversality, in support of UT's six strategic priorities.

The link between Engineering and Science is effective since most of the INP and INSA Masters are co-accredited with UT3 and supported by joint laboratories. UT3 Masters courses are Masters in Engineering (CMI) programs combining Engineering and Research. Substantial technical training platforms are shared (Inter-University Platforms in the fields of mechanics, processes and micro and nanotechnologies). This continuum between Engineering and Science is a differentiating strength of the UT. To enrich it, the Engineering and Fundamental and Applied Science Colleges aim to lead an engineering consortium, a coordination tool and project space with a view to:

- strengthening links between masters, engineering degrees, doctorates and research laboratories to build a Graduate School of Engineering (EUR) around the Toulouse sciences and engineering potential;
- to associate all the engineering courses of the Toulouse area, with the objectives of continuing the development of joint educational projects and working on the overall coherence of the education offer.

The Ecole des Docteurs (EDT, PhD School) is responsible for the development and promotion of the UT PhD by drawing on doctoral schools and Graduate School NanoX (EUR). Beyond the "soft skills", training courses consistent with the strategic priorities are developed out of the programs offered by the 15 doctoral schools. The international mobility of doctoral students is in line with UT internationalization policy. The specific entrepreneurship training course is strengthened. Nourished by the PhD observatory, reflexion on the career progression of PhDs in companies and in the cultural and social sector is pursued in partnership with the Cercle Stratégique des Entreprises d’Occitanie. The Ecole des Docteurs (EDT) contributes to the UT *Alumni* network (see 1.6) via its ADUM database set up since 2013.

Although the education offer at UT is already rich and diversified, its recognition and attractiveness must be further strengthened. This is why the UT is developing two main

orientations: it commits to operating an integrated steering of education offers and to use IDEX programs to support its strategy.

Orientation # 1 - integrated steering of UT education offer (L, M, D)

The University of Toulouse will define and implement a **unique education strategy**. To achieve this goal, it takes on disruptive competencies compared with that of UNITI 2013:

- registration of all Bachelor, Master and PhD students;
- awarding of all the Bachelor, Master and PhD degrees currently issued by its four founding members;
- definition of an education strategy serving as a framework for teaching teams for accreditation 2021-25, voted on by the CAS after a consultation of the Academic Senate;
- building of the future education offer for 2021-25, voted by the CAS after a consultation of the Academic Senate;
- commitment to a unique quality-insurance process and to a continuous improvement of courses in relation to socio-economic partners, defined and monitored by the Academic Senate;
- guarantee of a strategy and a trajectory for pedagogical transformation. These actions are implemented by the Inter-University Pedagogical Service (SIUP) and rely on the Diversity IDEFI and the FORMES project;
- implementation of a strategy for the development of “sandwich courses” and lifelong training supported by enhanced multidisciplinary training engineering capacities and a one-stop-shop offering socio-economic partners a better readability of the education offer available at UT within a single catalogue.

Orientation # 2 - IDEX programs in line with UT strategy

UT entrusts the COPIL with the implementation of four IDEX education programs. These programs are fully part of the six strategic priorities and are no longer operated through non-thematic calls for projects as in UNITI 2013.

- **Improve the attractiveness and international visibility of the programs offered at UT:** Following the successful experience of the international Master degrees offered by the INP and the INSA, we strive to attract the best foreign students (objective: creation of 10 new Master programs taught in English). The hosting of our students in programs of excellence abroad is facilitated, notably thanks to the development of double majors.
- **Building interdisciplinary tracks within the 6 strategic priorities:** The creation of the UT promotes the emergence of ambitious multidisciplinary curricula (e.g. digital humanities) benefiting from contributions from the arts, humanities and social sciences, engineering

sciences and fundamental sciences and healthcare. Three actions are planned: i) Build a multidisciplinary education offer at the Master degree level focusing primarily on the 6 strategic priorities (objective: creation of 10 multidisciplinary Master courses); ii) Develop the offer of "major / minor" in Bachelor degrees; iii) Allow the student to build an audacious a-la-carte track within the "disciplinary" offer.

- Teaching and digital transformation as an instrument of excellence in education: The IDEX jury had highlighted the importance and success of the SIUP for the implementation of teaching innovation on site. The steps taken have thus been continued and new tools have been implemented: creation of a "pedagogical leave", funding of "teaching chairs" (see 1.8), support to teaching innovations involving teams and not individuals. In addition, we want to create a "digital service for pedagogy" within the SIUP that accompanies and trains faculty to produce digital education and assessment tools. This service gathers and promotes the sharing of all work produced and supports the development and implementation of training that is partially or totally digital. It thus makes it possible to further develop the momentum already garnered (e.g. 16 MOOCs launched in 2 years on the national FUN platform, a rather good performance compared to the other participating universities).

- Mechanisms for supporting transition into a professional career, and lifelong learning: The first objective is to better prepare and support the career paths of students in the current context of mutation of work organization. For this, three actions are planned: i) Strengthen the student's capacity to become valuable professionals, through the acquisition, evaluation and certification of skills both behavioural, transversal and human (including *soft skills*); ii) Carry out a follow-up of the graduates (with assessment of competences, advice in professional evolution, training suggestions) allowing them to plot a safe professional course. This dimension is part of the UT's Alumni policy (see 1.6); iii) Increase the awareness and support systems for entrepreneurship used by the institutions and coordinated by the student entrepreneurship group "PEPITE-ECRIN", based in particular on the Catalyseur UT3 / INSA (see 1.5).

The second objective is to become a key player in vocational training. The development of the lifelong learning offer is based on the implementation of sectorial development councils (in the areas of digital technology, health, aeronautics, tourism, culture, media, communication and leisure, etc.) involving academics and socio-economic actors to analyse the needs and improve the relationship between education and employment thanks to the periodic measurement of the employment rate at 6 months and 30 months after graduation. The work on the modularization of the content of degrees will be pursued and a lifelong learning based on the quality of the research will be launched by combining IDEX research programs and IDEX lifelong learning programs.

1.5 INNOVATION AND PARTNERSHIPS WITH THE SOCIO-ECONOMIC WORLD

The Occitanie region, the 4th largest French region, accounting for 7.2% of the national GDP, is a particularly dynamic ecosystem in terms of population (with a positive influx of 30,000 inhabitants per year in the former Midi-Pyrénées Region) and economy (1st French region in terms of proportion of GDP invested in research and development at 4.2%). Higher education and research play a major role in the region, reinforced by the ambition of local authorities to base the development of the regional territory on the knowledge and innovation economy. To be an actor in this dynamic, UT has a double ambition as part of its rebuilding. UT is a visible, attractive and internationally recognized university and it contributes in rising up the general level of qualification of the population, the resolution of scientific challenges and the creation of innovation, thereby becoming a vector of economic and social development.

The digital transition or the development of artificial intelligence are leading to the evolution of many economic sectors with a direct impact on their business models. They also need to master increasingly complex and interwoven areas of knowledge. Accelerating innovation requires quick proofs of concept. The players therefore need methods, tools and places to quickly experiment on a quasi-pre-industrial scale.

As such, with 6600 employees, nearly 70 000 students (of which 7500 are studying engineering) and a growth of 150% in the number of student-entrepreneurs in 2017, the UT is in itself a system of innovation. It has the ambition to go further in helping all socio-economic players benefitting from the richness of its interdisciplinary research and training. To meet these challenges, the UT is committed to launch new tools and to foster entrepreneurship, particularly through four major actions:

*** The UT Partnership Office, in charge of:**

- managing partnerships with major industrial groups (Airbus, Continental, Thalès, etc.) offering cooperation on the development of our interdisciplinary programs, joint laboratories, thematic chairs or joint European projects;
- building new partnerships to support small to mid-sized companies, and research or student-entrepreneurs, and to offer Academy -Business tracks to researchers or PhD students looking for business experience and / or employees willing to join a laboratory (dual careers);
- orienting and hosting of small and very small enterprises as well as start-ups wishing to collaborate with one or more UT laboratories;
- promoting the UT know-how, through the development of a web portal presenting the catalogue of access to skills, technology offers and platforms;

*** "Demonstrators of Tomorrow":**

Based on the experience of NeOCampus started in 2013 at UT3, UT uses its campuses as demonstration and experimentation sites, particularly for young entrepreneurs looking for a fast proof of concept.

The UT thus reinforces its major role in the dissemination of scientific and technical culture, the promotion of science to the public (young people, students, citizens), enhancing the visibility of the scientific potential and the attractiveness of the university.

*** «Create your start-up»:**

The PEPITE-ECRIN scheme serves as a model for the UT and enables it to take advantage of the multi-disciplinary nature of its Colleges and the dual culture university/engineers, for example through Hackaton type actions. To do this, a complete continuum must be established:

- As an extension of UT2J and UT3's *Disrupt campus* system, IDEX in particular supports the implementation of awareness-raising, coaching and mentoring of students and researchers in entrepreneurship, through the creation of SPOCs or MOOCs on innovation and entrepreneurship and collaboration with the SATT. An in-house training course for members of staff to become "entrepreneurship tutors" is to be launched.

- The socio-economic partners, in particular the regional Chamber of Commerce and Industry, are committed to supporting the very rapid growth in the number of candidates for the status and the degree of "Student-Entrepreneur".

- A **pre-incubator** is created with the support of the IDEX in partnership with local authorities to bring students and engineering students together in a dedicated place. This approach, open to all students, is essential to bring together the cultures of those trained in technology and those receptive to the social and solidarity economy. The projects are matured before being challenged by professionals, and eventually hosted by the incubator Mipy with whom we have an agreement.

*** Networking and creation of a brand "UT Labs" backed by the IDEX**

It brings together and enhances all *co-working spaces*, *Fablabs*, *Userlabs*, or projects developed within the UT laboratories. It links similar initiatives in the digital domain, such as <http://cimi.univ-toulouse.fr/mso/fr/quest-ce>.

In connection with the actions described above, and particularly those relating to entrepreneurship (support for creation, pre-incubator), the "UT Foundation", associating companies and local authorities, is used both as a vector for structuring university / business relations, and as a co-financing tool for IDEX actions.

1.6 STUDENT LIFE POLICY

Toulouse is regularly ranked in the top three of the most attractive student cities in France. The UT intends to capitalize on this ranking, which is reached thanks to the quality and variety of its education offers, the many services specifically dedicated to students and its dynamic job market. With this perspective, the UT has a policy of strengthening the attractiveness of the site, based on tools previously created (*Toul'box*, *Accueil Welcome Desk (AWD)*), which allow the accompanying and facilitation of student arrivals, especially those from abroad. Another goal can be underlined: to develop the sense of belonging to the University of Toulouse.

Create a sense of belonging to the UT

This ambition can be seen in the three stages of a student's life: preparation for joining the UT and installation on the site, university studies in the UT and professional life after graduation by the UT.

Accompanying the students settling into and integrating in the UT

Beyond the tools developed to support students upon their arrival, there is the question of facilitating the social and cultural integration of all students and thus avoiding cases of student isolation by:

- the development of “International student- French mentor student” schemes on arrival;
- the expansion of the discovery process of the host campus by visits organized by students of the same course;
- the organization of excursions to discover the regional environment and offers of sport & leisure activities.

Promote student participation in UT governance and improve campus life.

The UT creates a Parliament of Students and PhD students to strengthen their involvement in the life and running of the institution. This Parliament is composed of elected students and PhD candidates from the Colleges as well as delegates of student associations. Its mission is to make proposals to the UT about the grant fund for student initiatives or on any other issue related to training and student life. It organizes an annual forum on the improvement of student living conditions. The Parliament proposals are submitted to the Colleges councils and / or to the Academic Senate of the UT.

Like the University of Bologna, the UT will also set up a Student Ombudsman, responsible for making proposals for the settlement of problems that have arisen in the relations between the students and the UT.

Other actions planned to strengthen the sense of belonging and improve life on campus include:

ALLOCATION OF THE IDEX LABEL

EVALUATION FILE – 2017

- Guaranteed cultural openness for all students via the organization of dedicated events;
- Encouragement of students' civic engagement through its valorisation in the curricula;
- Develop sports activities and create high-level teams for the UT;
- Support and promote projects of student initiatives via a UT grant fund;

In addition, our approach to academic social responsibility (see 1.2) is motivating for the student community (policies against discrimination, support for social and civic commitment in and outside of the University) and promotes a sense of belonging and of adhesion to the values of the UT.

Life after UT: Alumni policy

The aim of this *Alumni* policy is to federate UT graduates and current students and doctoral students within a community and a network. It supports the aura of the UT brand, promotes the professional integration of students and doctoral students and helps develop the lifelong learning by retaining *alumni*. UT encourages all forms of involvement of *alumni*: student sponsorship, testimonials, donations, which increase the volume and quality of our relationships. The objective here is to launch a set of common services for the benefit of the associations of graduates who act as closely as possible with the education services: directory, Career-Employment service, Foundation, digital tools ... Special attention is paid to foreign students and doctoral students so that they become UT ambassadors worldwide.

1.7 INTERNATIONAL OUTREACH STRATEGY

The aim of the target University is to strengthen its international reputation with a view to be more attractive in a competitive academic environment, more visible in the main international rankings, and to be integrated into European and international networks. The outreach and international visibility activities of the target University are in line with those of UNITI (high-level partnerships / education programs in English / support to European projects), which they develop and complement. On the other hand, the existence of a real strategy constitutes a disruption with the previous period when the individual strategies of the institutions prevailed.

The benefit of the internationalization tools of research organizations, such as overseas offices or international research structures, is a strong asset to strengthen the international visibility of the UT (like the *UMI Indo-French Centre in Applied Mathematics* of Bangalore).

The outreach strategy brings research and training strategies to the international level; the setting of strategic orientations is supported by international benchmark elements and references to international rankings (notably ARWU subject ranking 2017).

Thus, UT commits to 6 orientations in the first four years of the project:

- **Orientation n°1** - Attractiveness, reflected in the integration of the target university in the thematic and general rankings, as well as its membership of European and international networks, are major strategic priorities. The target university, by its institutional structure and the competences implemented since its creation, meets all the criteria for integration in the international rankings ARWU, CWTS Leiden and U-Multirank. We also want to integrate European networks, such as the EUA or bring us closer to the LERU, in view of a possible invitation.

- **Orientation n°2** - UT's internationalization policy is structured around a limited number of relevant and strategic partnerships (10 to 15). The objective is to initiate and develop flagship actions in terms of education and research based on shared ambitions with our partners. The selection of these partnerships is made by cross-referencing objective criteria of excellence (thematic rankings) with data relating to the density of our pre-existing cooperation and the reciprocity desired by the prospective partner (Ex: U. Texas Austin / KU Leuven / University of Beihang). Particularly promising strategic partnerships will be labelled "ARCHES" and will be subject of intensified investment (see 2.1.6) supported by IDEX⁷.

- **Orientation n°3** - The development of English taught programs, double degrees, cotutelles PhD and international Masters aiming to attract foreign students and researchers, without the need to learn French as a prerequisite. UT is committed to:

- Create international masters entirely in English and using innovative pedagogies/technologies, consistent with the strategic priorities of the UT and capitalizing on the experience gained by INPT and INSA;

- The launch of double degrees to increase the number of incoming foreign students and promote the international mobility of French students. These double degrees will be developed primarily with the strategic partners (orientation n°2);

- **Orientation n°4** - A proactive European and cross-border policy is launched, marked by the increase of effort aimed at influencing European policies supporting research, by increasing support to UT teams in order to obtaining funding through a call for projects and the launch of flagship actions at the cross-border level, in particular the creation of a Franco-Spanish doctoral college.

- **Orientation n°5** - UT is launching a policy of strengthening academic relations towards francophone countries. A first step will be implemented with the main universities of Western Africa to train the future talent of this area with high potential and support them in their education and research policy.

- **Orientation n°6** - A "premium" policy to welcome international researchers and students to the Toulouse site in line with the successful Toul'Box and *Accueil Welcome Desk*, notably with the opening of the "Cité Internationale des Chercheurs" in 2020.

⁷ See the main partnership targets in Part 3 of the document

The priority orientations thus defined are re-examined at regular intervals (4 years) via an evaluation by COSA. The implementation of the strategic elements described above is based on a directorate for internationalization at the central level of the UT and a transversal unit specifically in charge of international rankings and networks (VIS'UT see section 3).

1.8 ATTRACTIVENESS AND TALENT MANAGEMENT POLICIES

1.8.1) Attractiveness policy

To develop this policy of attractiveness, the UT commits to using IDEX resources to co-finance individual support schemes aimed at attracting international talents. For this, the specific rules of recruitment outlined in the Charter will be applied to the following:

- **Junior Chairs:** they represent about 80% of the budget devoted to research chairs policy, and aim to recruit young scientists from outside the UT on grounds similar to those for *ERC Starting Grants* candidates.
- **Senior Chairs:** " Visiting Scientist " scholarships are awarded annually to internationally renowned scientists. This arrangement is to be implemented in coordination with the research organizations "visiting researchers" schemes and the Colleges "visiting professors" schemes.
- **Teaching Chairs:** the UT creates "pedagogical leaves" allowing the faculty to focus on the implementation of educational innovation projects. It also funds "pedagogy Chairs" that mirror research chairs and are aimed at both the implementation of practices and teaching methods as well as the development of research programs (model inspired from the University of Laval - Canada).
- **Interdisciplinary Chairs:** the principle of permanent Chairs is taken over from the initial UNITI with a view to sustaining and strengthening interdisciplinary themes developed within the framework of the Strategic Plan. Upon proposal by the Mission for Interdisciplinarity, UT publishes an annual call for the creation of professor positions with interdisciplinary profiles and supports the creation of two such positions by the Colleges, by funding 50% of the salary (co-hiring) for the first 5 years if the candidate is recruited from outside of Toulouse.

1.8.2) Development of the staff's sense of belonging to the UT

Building UT also means reinforcing the sense of belonging by developing support actions for current or newly recruited staff. For this, the UT:

- * Offers each new recruit a training course on scientific publishing, intellectual property, ethics and integrity in research and training, on teaching methods recommended by the UT, health and safety, health at work, continuing education and e-reputation.

- * Proposes a teaching load waiver (partly) over the first 3 years after recruitment to allow them to lay the foundations of their research and to discover new teaching practices.
- * Guarantees a personalized welcome for staff recruited under IDEX contracts. The same HR officer follows the phases of the project from the preparation of the recruitment process through to the end of the contract with the UT. These IDEX laureates have priority access to the “Cité Internationale des Chercheurs”.
- * Provides each agent and student with a UT digital service offer: email@univ-toulouse.fr, digital certification of diplomas, individual electronic safe and other collaborative tools.
- * Creates a job exchange portal as well as an integrated inter-College and inter-research organization training offer for BIATSS and ITA staff, to promote internal mobility whilst considering the specificities of each College or organization.
- * Supports its most dynamic faculty by creating temporary positions of "research-professors". This scheme will be funded by consortium members and supplemented by IDEX grants. The target audience is ERC applicants, coordinators of international projects or start-up entrepreneurs.
- * Brings together the holders of an ERC (19 in 2017), members of the IUF (29 in 2017), the Academy of Sciences (10 in 2017), medicine (5 in 2017) or technology (11 in 2017) to form a Toulouse Academia Club, whose role is to tutor young researchers and newly recruited research professors at the University, to help them establish their reputation, seek funding, etc.
- * Sets up, with its Colleges, a charter for good HR practices (transparency, international opening of recruitments, and limitation of endo-recruitment ...) which makes HRS4R certification the norm.

2. RESULTS OBTAINED, ACTIONS UNDERTAKEN AND PLANNED ACTIONS

In its probationary period completion evaluation, the panel summarized its opinion of the project in an overall assessment and commented on each evaluation criterion.

Reminder of the panels' overall assessment:

Notes of the jury: *UNITI has morphed since it was selected as an IDEX by the jury. It no longer resembles an IDEX, in particular because it refuses to define a perimeter of excellence, instead insisting that all institutions in the region be included. Some of the original project's most attractive features (e.g., "Toulouse Tech" combined engineering college) have been abandoned outright. The COMUE, fully operational in 2016, has been used to establish a loose confederation of independent members, with no wish nor plan to evolve towards an integrated research university which would be recognized internationally. In the absence of a track record of success and a credible future, the jury recommends that the UNITI IDEX project be stopped.*

In the first sub-section, for each of the nine criteria, the project coordinator is required to:

- present its results obtained and changes enacted, its actions undertaken or envisaged, making a clear distinction between the three categories;
- put these actions into perspective against the initial project;
- respond to the panel's comments at the end of the probationary phase.

The actions that have benefited from IDEX "landing" financing will be stated.

With regard to each of the nine criteria to be dealt with, in support of your responses ensure that major advances achieved in terms of both strategy and reinforcing the coherence and forces of the target university are adequately highlighted. The rebound dynamics at work resulting in the entire target university benefitting from the principal advances must be explained.

This part may be supplemented by appendices which, for example, incorporate an entire draft for statutes or show records of the Board of Directors' decisions.

The powers of the president and the distribution of competences between the partners or within the target university will be shown in the second sub-section.

The information provided in each section below should be very precise on the achievements and implementation stages of the new project, with emphasis on the achievements. Repetitions are to be avoided.

Responses should be brief and only focus on key issues.

2.1 PROJECT PRESENTATION AS PER THE NINE CRITERIA

2.1.1) Research excellence

The implementation of UNITI 2013 led the ComUE to:

- * Set up an Arbitration Committee (CAR) made up of 16 scientists of international reputation, external to the site, whose mission was to select the best research projects.
- * Co-fund 18 Chairs for faculty from institutions ranked in the top 200 of the Shanghai ranking (including 5 in the top 50) and 71 research projects for "Emergence" or "Transversalité" programs.
- * Establish a single line scientific signature using the term "University of Toulouse" as the first affiliation, used by more than 65% of authors (Oct. 2017).

The analysis of the bibliometric indicators in the table below shows a very significant increase in the impact of our best research (TOP 1 and Highly Cited) between the period 2009-2012 and the implementation period of the IDEX, but highlights the need to reinforce the impact of items ranked in the top 10%.

Observation Period	WoS documents	Category Normalized Citation Impact	Time cited	% doc cited	% doc in top 10	% doc in top 1	% highly cited
2009-2012	15 055	1.27	287 032	82.25	14.45	1.8	1.19
2013-2016	16 635	1.53	137 821	72.17	14.35	2.3	2.13

Data extracted from the Incites database on September 26, 2017.

Notes of the Jury: *Research excellence appears in a few selected areas but is not widespread and has not significantly benefited from IDEX funding. Compared to the initial proposal, the transformative impact of the IDEX program appears extremely limited since it has been diluted into a much wider research perimeter.*

This current project brings a number of new important developments. The definition of 6 strategic priorities, towards which the majority of the IDEX resources will be oriented, relying on the mapping of the scientific perimeter (FEP) to avoid the dilution effect noted by the jury. COSA monitors the effectiveness of the Strategic Plan implemented by the COPIL.

We maintain research support schemes by adapting them according to the feedback received. The number of projects is halved to increase their impact. This prevents teams from dispersing to respond to calls for projects with an undeniably too low success rate, as was the case in the past. The "Nouveaux Entrants" scheme, of which the jury had questioned the relevance, is removed.

We set up a Mission for interdisciplinarity that drives research within the framework set out by the 6 strategic priorities.

This is a complete reversal of the operating procedures compared to the scheme implemented in 2013-2015.

2.1.2) Teaching excellence

The implementation of UNITI 2013 resulted in:

- * 82 education projects for the creation of research tracks and / or reinforced bachelor degrees, multidisciplinary master programs, continuing education courses in partnership with competitiveness poles (clusters) and companies;
- * Many multi-institution cooperation projects, such as the opening of a bridge-year between the First Year for Health Studies (PACES) and the Toulouse-Tech Engineering courses;
- * The commitment of all institutions in the educational transformation with *IDEFI DEFI Diversité* and the FORMES project (ex: the revitalization of classes given in large theaters initiated by UT3, then implemented in engineering schools).

These educational transformation projects received funding of 703,439.10 € over the years 2016 and 2017.

- * The creation of the first "*Ecole des Docteurs*" (School of Doctors) in France, built on a pre-existing doctoral college, which brings together 15 doctoral schools covering all training by research disciplines on site. The number of PhD graduates increased by 10% between 2014 and 2016 despite this figure decreasing on a national level. This project received 607,456 € from the "landing" fund in 2016 and 2017.

Still bearing in mind the objective of attracting bachelor students of a very high level, we have chosen to roll-out "reinforced" courses, more demanding in terms of autonomy and personal work than in regular bachelor degrees with selective entry (Ex: the double degree mathematics and computer science).

Notes of the jury : *Excellent resources such as the Plateforme d'Innovation Pédagogique and the Service Inter-universitaire de Pédagogie; A network of 13 educational advisors in place; Rich upskilling resources for staff available on-line; Strong impact of 2 IDEFI programs in evidence (for instance on reducing student failure rates); PACES: a welcome initiative established to create a bridge between medical studies and engineering school for students who do not qualify for medical school; Clear interdisciplinary / cross-disciplinary focus in evidence; 3k days of training given to doctoral students; Need to strengthen and diversify functions of new doctoral school. Plans for evaluation by students should be clarified and strengthened.*

The changes made in the current project to improve the excellence of education at UT require that:

- education strategy is built at UT level (which will then be proposed to other local institutions);
- UT holds the degree awarding power at Bachelor, Master and PhD levels;
- the launching of an innovative life-long learning program;
- the modularization of degree content based on a sector development council and developing links with research.

Finally, the quality-insurance approach defined in the UT education strategy (see part 1) includes the need of an **assessment by the students**. A common approach, inspired by practices established within the College of Engineering, is launched in all UT courses. Its monitoring is ensured by the Academic Senate.

The actions of the *Ecole des Docteurs* are maintained and reinforced in line with the UT policies, by considering the 6 strategic priorities in the training of PhD students and international mobility, through a stronger orientation towards entrepreneurship, with a constant desire to promote the insertion of doctors into companies and social-cultural institutions.

2.1.3) Innovation

The implementation of UNITI 2013 and other PIA actions resulted in:

- * The creation and development of several public / private partnership tools such as the IRT Saint-Exupéry, the TWB demonstrator, the UMS F-CRIN, *Le Catalyseur*, the research co-operations in humanities and social sciences or, more generally, many joint laboratories with private companies, in particular SMEs (4 creations per year - 1st site in France).
- * Investment, with the support of local authorities, into innovation hubs, bringing together in the same location private companies, research and education players, but also specific digital platforms (Ex: the CAPTOR University Hospital Center dedicated to innovation, evaluation and dissemination of anti-cancer treatments or the Montaudran Centre on the theme of Aeronautics and Space).
- * Investment into enterprise creation, especially through the SATT. About 10 start-ups are created each year in a broad field of themes.
- * The validation of the services plan entrusted to the SATT-TTT (detection, awareness, mapping, legal advice, for a total budget of 3.5 M €), negotiation of contractual issues for the environment of thesis' and post-docs with the IRT or companies.
- * The development of the digital services offer, the creation of a cloud support, its operation being insured by multi-institution teams.

Notes of the jury: *Toulouse is a major technological area in France, specializing in biotechnology and aerospace. The SATT Toulouse Tech Transfer has become a key-actor in developing relations between its universities and economic partners. The increase in number of patents is significant. However, considering the number of potential partners, especially SMEs, one would expect a greater implication of the university in the field of innovation. More emphasis could be put on teaching entrepreneurship to students; and maybe also to professors.*

The current project is taking several important actions to improve our impact on innovation:

* Several new levels of organization are set up to increase the proximity with companies and in particular SMEs: Partners' Committee intervening with the Mission for Interdisciplinarity to prepare the programs along the lines of the strategic priorities, the Office of the Partnerships, which offers a unique gateway for SMEs and entrepreneurs who want to collaborate with the UT. The SATT remains of course the major tool for UT technology transfer to companies.

* Strengthening programs that promote entrepreneurship at all levels of the University: PEPITE-ECRIN for students, the School of Doctors for PhD students, training courses on IP issues and entrepreneurship designed for faculty and implemented by the SATT, and the creation of a pre-incubator at the UT with the support of the local authorities.

2.1.4) Target university

To describe, where appropriate, the organization model for the target university, you could explain:

- how the higher education institutions (universities and schools) forming the IDEX consortium are incorporated/are going to be incorporated in to the target university and, if appropriate, their place in constituting target university components (this involves detailing the future of institutions listed in the tables at the beginning of this file). Precise timetabling will be necessary
- the relations with the other partners in the consortium, research bodies and other higher education institutions that are not included in the target university;
- a few measures taken, or which will be taken very rapidly, to expand quickly the sense of belonging to the target university felt by the personnel and the students.

The implementation of UNITI 2013 has allowed:

* The emergence of a sense of belonging to a common entity through defined actions: unique signature for scientific publications, School of Doctors, mobility grants, creation of a common fund to support student initiatives ...

* The implementation of services reinforcing our visibility and our attractiveness: one-stop-shop for foreign students and researchers, common E-portal for education program...

However, the 2013-2016 period did not fully achieve the goal of a world-class integrated research university, mainly because of the weakness of the transfer of statutory powers and the lack of the power to issue degrees at central level.

Note of the jury: *There has been a complete change in the definition of their Target University, from the original definition of a comprehensive, multi-disciplinary, research intensive, merged university to a “federal university”, which is in fact, today, a loose confederation of universities under the ComUE status. The rationale given is that the initial vision did not have broad support from the academic community. While the rationale is understandable, particularly given the size and complexity of the project, it remains that little has been achieved so far. Furthermore, it is still highly unclear what the partners aim to create together. The current proposed Target University, while comprehensive and inclusive, is unlikely to meet the goal of a world class, research-intensive university.*

A fundamental change is the creation of a new target university (the University of Toulouse) planned for the 1st of January 2019. UT is based on the close integration of four institutions into a new and experimental legal structure, in which research organizations are connected to the governance. The loss of the legal personality of the two universities, the strong transfer of powers granted by the INP and INSA, associated with the reconfiguration of the academic offer within Colleges with a disciplinary focus at T + 4 (see part 3), place the target University in full compliance with international standards of governance and in a position of strong international visibility and meet, for example, the eligibility criteria of the LERU.

2.1.5) Campus and student life

The implementation of UNITI 2013 resulted in:

- * The reinforcement of the attractiveness of the campus thanks to Toul'box and *Accueil Welcome Desk (AWD)* tools which facilitate the installation of students in Toulouse;
- * Actions undertaken in favor of the quality of student life: multi-service student card, development of cultural events and scientific and technical culture; support for inter-institutional student initiatives;
- * The expansion of services within the *AWD* and the creation of new partnerships (transport, information and guidance centre, etc.); the creation of a website (digital *AWD*) to be available by the end of 2018;
- * Preparatory work for the development of sports activities: a survey of sports facilities;
- * The creation of a first sponsorship network for foreign students (with Erasmus Student Network);
- * The production of a "Yapluka" associative guide and videos highlighting student initiatives;
- * The state of play of the scientific and cultural heritage of the member institutions, the realization of the PUCES projects for the creation of areas dedicated to heritage and history, the European Researchers' Night, the "Exploreur" magazine, the "Research Professions" information drive.

This set of measures was funded by the “landing” fund to the tune of 485,066.33 € for the period 2016-2017.

Note of the jury: *The Welcome desk and the Toul'box are positive developments; There is an active programme around culture, science and society with impact on a wider community. Mobility grants have increased. Student cards have bi-appartenance. Students are recruited by each institution separately and there is no common student association. There does not seem to be any sense of belonging to the UFT.*

Beyond the ramp-up already observed, several new actions are already confirmed as part of this project to reinforce the sense of belonging to the UT: UT registration of all students at Bachelor, Master or PhD level and their graduation by UT, the launch of a Parliament of Students and PhD students of the UT, the creation of a sports association, the UT alumni network (cf. 1.8).

Thus, by relying on the dynamics of excellence deployed and the dissemination of good practices, the University of Toulouse can aspire to obtain the "Sustainable Development / Social Responsibility" label by 2021. This objective requires the dissemination, harmonization, and intensification of the set of existing local actions (neOCampus, University Mobility Plan, Green Plan, Social and Solidarity Economy Village ...), but especially the implementation of an innovative program in all areas covered by the label: governance, research, education, social action and environmental management.

2.1.6) International visibility

The implementation of UNITI 2013 resulted in:

- * Tools and programs to promote UT's international development: multidisciplinary partnerships have been signed with universities in the USA, Brazil, Canada ...;
- * The establishment of a permanent office in China which has allowed to amplify and upgrade the cooperation with Chinese universities;
- * Creation of tools to promote outgoing mobility (Mouv'Box);
- * The creation of a "Europe +" unit to support faculty on European programs;
- * Support for faculty in setting up English taught courses, particularly through adapted language training;

All these actions benefited from the support of the "landing" fund over the period 2016-2017 to the tune of 824,701.12€.

Note of the jury: *The international strategy of UNITI has created international outreach offices in China, Indonesia and Brazil, establishing formal partnerships with global universities and providing a support package for international students and researchers (Toul'Box). It is doubtful whether such a generalized approach can improve the international visibility of UNITI in the absence of a common policy and strategic vision.*

The main evolution in the current project is that we now base our international policy on a genuine strategy. A first draft developed was completed by the founders of the UT (see § 1.7

with the 6 orientations). This common desire allows the setting-up of 10 to 15 strategic international partnerships piloted centrally by the UT and which will have a direct impact on the internationalization of education programs (international PhD incubator, double-degrees, international masters taught in English, student exchanges) and research (ARCHEs program, cotutelles, French-Spanish doctoral college, joint laboratories). It also makes it possible to launch an ambitious program of English-taught education offer within the UT to attract foreign talents. Finally, as a reminder, IDEX strongly supports this common international strategy by mobilizing nearly 50% of the funds devoted to research to the financing of chairs, most of which benefit international scientists.

Another important development is to use a genuine plan to promote UT in international rankings, by setting up a dedicated monitoring unit for the relevant indicators and relations with rating agencies (VIS'UT).

2.1.7) HR policy

To clarify the employment policy for the target university, the response could

- highlight the different scopes for pooling jobs, from their total transfer to the central hub of the target university to their autonomous management by each institution constituting the target university whilst maintaining its autonomy or its legal personality;
- state how employment policies are coordinated/will be coordinated between the research bodies that are members of the consortium and the target university.

Since the implementation of UNITI 2013:

* The testing of *Tenure Track* was conducted by two Labex, as well as that of Chairs programs which attracted leading scientists for short, periodical visits spread over periods of 5 years.

* The construction of the “Cité Internationale des Chercheurs” has been launched, with 200 housing units and collective workspaces.

Note of the jury: *The federal university proposal proposes a decentralized approach to HR management with different units in control of the resource management (staff and funds) but with sharing of best practices. It is hard to understand how such an approach could be effective in achieving systemic improvements in research and teaching excellence, given that the IDEX budget is relatively small.*

A double evolution of the human resources policy is also confirmed in the framework of the current project, covering both IDEX recruitment and UT's general policy.

As part of the IDEX, the reorientation aims to better meet the challenges of attractiveness and development of the target university. To do this, the responsibility of the IDEX-funded talent policy passes from the CAR (which is removed) to the COPIL, where UT governance is present. This policy will also be more focused on excellence since the decisions taken will stem from a cross analysis of the strategic priorities and the FEP perimeter. Lastly, the IDEX talent support programs are strongly reinforced and diversified to fit into UT's research and education

strategies: junior chairs, senior chairs, interdisciplinary chairs, faculty research fellowships, pedagogical leaves and teaching chairs.

At its creation, the University of Toulouse is the direct employer of more than 6,600 agents, currently employed by the UT2J and UT3 universities, which is nearly 80% of the UT faculty members. The UT is also the direct employer of the recipients of the IDEX chairs and PhD and post-doc grants. At the UT level, our HR observatory and the working group devoted to the task have mapped out the practices on all HR topics: job campaigns, faculty competency framework, promotions, management of non-permanent staff, mobility, advice, support, quality of life at work, working time and salary policy. These studies make it possible to identify a convergence path with regard to salary policies and medium-term convergence objectives for a homogeneous employment policy. They also show that new career prospects are opening up for support staff. Finally, they suggest quick initiatives specific to the UT: teaching load waiver for newly recruited faculty, support for young talents by the members of the Toulouse Academia Club, creation of a vacant Job Exchange to facilitate voluntary mobility.

As early as 2019, the UT sets up a common hiring policy, through a process which it steers and which integrates the research organizations: the HR conferences. Depending in to the recruitment needs identified with a view to support UT's strategy of excellence, three HR conferences (May, September, November) are led by the UT President to bring together and converge the annual employment campaigns.

2.1.8) Partnerships (academic, NROs, business)

The implementation of UNITI 2013 has resulted in the signing of several major structural partnerships:

* With research organizations:

- A site agreement with the CNRS and another with the IRD which set the conditions of joint management of research units, intellectual property issues and outline a shared vision of scientific strategy on the site;

- The strengthened association of ONERA and ComUE and partnerships with CNES, INRA, Inserm and Météo France;

* With local authorities: a partnership with Toulouse Métropole and a framework agreement with the Regional Council, both making the ComUE leader for the negotiation of the 2016-2020 State-Region Plan contract with the French state and local authorities;

* With the IRT: a contractual framework integrating intellectual property and financial issues relating to grants for PhD and post-doctoral students, making it possible to simplify the partnership;

* With the Airbus Group: a partnership framework to facilitate CIFRE PhD;

Note of the jury: *Some continuous education projects in coordination with Airbus and others have been implemented. In some case the funding by the IDEX for equipment has been completed by external funding. The enlargement of the perimeter of the target university will make it harder to develop effective and focused partnerships. Strong support from INRA is a positive.*

Several developments are planned as part of this project to increase the density of partnerships within UT. Since autumn 2016, seven national research organizations have joined UT as part of a Coordination of Research Organizations (CODOR) and joined as well the IDEX Consortium. As such, they have been the driving force in identifying the FEP perimeter and they support the policy of strategic priorities set out with their contribution.

Several action plans directed at the socio-economic world are planned to accompany the UT's strategy and the IDEX programs: the creation of a UT Foundation, the constitution of a of Partners' Committee to co-develop the interdisciplinary scientific policy, the signing of a partnership agreement with the Regional Chamber of Commerce and Industry to support initiatives related to the development of student entrepreneurship and the creation of a UT pre-incubator.

2.1.9) Governance and project management

Applicants are asked to become familiar with Appendix 3 of the report on the panel's work of February 2016 available on the ANR site.

Notes of the jury: *Much of the decision making in allocating the IDEX funds has been delegated to an international arbitration committee (CAR) composed exclusively of external members. While this is described as a good model to ensure that excellence is the main criterion used for investing IDEX resources, it is symptomatic of a weak foundation in the current governance model, particularly as it pertains to achieving trust among members and a shared vision and objectives. It is not clear at this point how this will improve, given the size and complexity of their configuration.*

The jury made it clear in April 2016 that the establishment of a federal structure (ComUE) was not suited to the objective of building a world-class integrated university. The integration of four major institutions of the campus is thus proposed. It involves the creation of a new public institution benefiting from a derogatory and experimental status, so called "University of Toulouse".

With this in mind, the project is oriented in such a way as to give substance to the proposed integration, by ensuring that the target university has all the powers that enable it to be recognized as a full university by the international ranking agencies.

The target university is responsible for developing education, research, innovation and transfer strategies, and integrating shared international orientations. To ensure the implementation of these strategies, central governance also plays an important role in managing financial and human resources. Based on the work done in mapping and in the characterization of the academic strengths and advantages of the local ecosystem, strategic

priorities' choices have been made (see 2.1.1.) to define the scientific perimeter of excellence which is the driving force behind the development of the target university.

The integration envisaged within the UT therefore involves the implementation and coordination of common strategies, but also the transfer of the degree awarding power for bachelor, master and PhD degrees.

These changes require a new legal framework and have not yet been implemented. However, they are based on a project largely already built and shared with the relevant communities: fourteen working groups involving several hundred faculty and staff from higher education institutions and research organisations, two common seminars with all the presidential teams, general meetings on campuses, the opening of a website dedicated to the project have widely shared the information and gathered comments that have enriched the project and now leading to its smooth implementation.

The governance of the IDEX has been subject to major adjustments to take into account the recommendations of the IDEX jury: setting up of a COPIL⁸, consisting of representatives from Colleges and research organisations involved in the project and replacing the Arbitration Committee (CAR), led by a recognized scientific personality to embody the autonomy of IDEX management. The COPIL selects the projects to be funded in line with the strategic priorities of the UT. The IDEX consortium is also tightly bound around the target university and therefore includes only academic institutions that share a desire for integration, the seven national research organizations of the site, the CHU and CERFACS. This reconfiguration points to the priority now given to integration which, coupled with the reinforcement of the coherence of the actions carried out with the other actors coming from the PIA (Labex, SATT, IRT, TWB, F-CRIN ...), guarantees the implementation of the major strategies of the University of Toulouse.

⁸ See the appendix for P. Aimar's mission letter, appointed Vice President for IDEX.

2.2 POWERS AND COMPETENCES

The project coordinator could fill in the tables below to show the organization of the target university in summary format. Save for special cases needing to be mentioned, these tables only relate to higher education institutions (universities and schools).

Allocation of competences at the end of the probationary period (2015)

Competences	Still exercised by the member institutions of the IDEX consortium that were meant to create the target university	Coordinated between the members	Transferred to the central governing bodies of the institution foreshadowing the target university
Recruitment of permanent staff	X		
Employment/remuneration of permanent staff	X		
Managing resources	X		
Managing research contracts	X		
Managing IP			X
Managing partnerships		X	X
Defining and managing international relations	X	X	
Registering PhD students	X		
Registering Master students	X		
Registering Bachelor students	X		
Managing students	X		
Awarding diplomas	X		
Research policy		X	
Running doctoral schools		X	
Organizing and managing initial training activities		X	
Organizing and managing lifelong learning activities		X	

NB. Depending on circumstances, simply put a cross in the relevant box.
State when a skill is only partially transferred by adding “partly” in the box ad hoc, knowing that the parts transferred will have to be stated.

3. LONG-TERM PLAN

Before filling in the table below, it will be useful to present the scenario of changes in the target university configuration (in terms of institutions) and its internal organisation (in terms of components).

At the founding of UT (T0), the internal organization is based on the entities existing in the founding institutions: faculties, schools, structures holding derogatory status (IUT, ESPé, Observatory ...).

During the first four years, the UT is to be transformed into a classical organization according to international standards, featuring Colleges with a disciplinary focus that define education and scientific strategies according to their specific identity and experience. At this stage of the project, the **UT has at least 6 colleges and an Observatory**:

- A College of Arts, Humanities and Social Sciences made up of the current education and research units of the UT2J;
- A College of Education constituted of the Higher School of Teaching and Education (« l’Ecole Supérieure du Professorat et de l’éducation » or ESPé) currently within UT2J;
- A College of the “Instituts Universitaires de Technologie” (IUT) resulting from the merger of the two IUTs of UT2J and the two IUTs of UT3;
- A College of Fundamental and Applied Sciences consisting of the current UT3 Faculty of Science and Engineering;
- A College of Engineering set up with INP, INSA and UT3;
- A College of Health made up of the Faculties of Medicine, Pharmaceutical Sciences and Odontology, and integrating paramedical training courses in a process of integrating them into University curricula;
- An Observatory of Sciences of the Universe.

One of the major changes planned in this new scheme is the creation of the *College of Engineering*, composed of departments that host all the engineering specialties labelled by the CTI and currently offered by INP, INSA and UT3. The preparation of the 2021-2025 accreditation is a unique opportunity to reach this goal.

From T0 +4 years onwards, the challenge is to continue the transformation to better meet the needs of the industrial world, to increase the number of engineers and doctors in engineering and to reinforce the internationalization of the education model of French engineers. The target is a training structure going from post-baccalaureate recruitment, consistent with the

LMD scheme, to feed into a 5-year integrated training in engineering, but also feed all specialties taught over 3 and 5 year courses and densify the flow of PhDs in engineering.

By associating the expertise of the national INSA model of engineering with the preparatory classes of INP and then those of UT3, the challenge is to increase post-baccalaureate recruitment, recognized for its excellence and attractiveness, and to offer these students access to all the specialties of the engineering schools. At the L3 level, the completion of the preparatory cycle integrated into the engineering training is part of a joint push with the College of Fundamental and Applied Sciences to develop an international equivalence of *Bachelor of Science in Engineering*. This is a marker of international standardization and promotes mobility with the Colleges of Engineering of the UT partner universities. It also facilitates bridge building between UT Colleges at the Bachelor level and the construction of new professional tracks in 3 years, in response to the needs of the socio-economic sector.

Scientific links established thanks to the joint research units, between the College of Engineering and the College of Fundamental and Applied Sciences are guarantees for success in the strengthening of the synergies in education and the organization of an engineering consortium bringing together all the engineering courses of the Toulouse area. Additionally, the new structural proximity of a College of Arts, Humanities and Social Sciences offers another exceptional opportunity to enrich the training program of engineers.

Through this structuration, the *College of Engineering* is targeting a growth of 50% of post-baccalaureate enrollment by 2025, to host 30% international students, to graduate 2000 engineers of which 15% continue on a PhD program and to support 5% of engineering students involved in a business creation track attached to the UT pre-incubator.

Finally, the possible integration into the UT of other institutions could also feed the Colleges envisaged (Vet School in the College of Health, ENSFEA in the College of Education) or give rise to the creation of additional Colleges (a College of Public Policies and international relations with Sciences Po Toulouse and the School of Architecture for example).

As in any large organization spread over several geographic locations, efficiency requires to maintain local services for the benefit of students, faculty and support staff, as provided by the UT charter. For the same reason, common services will not necessarily be centralized, but following the logic of specialization of services implemented in Colleges for the benefit of the entire UT community, on the model of the shared pension service currently carried out by UT2J on behalf of the other institutions.

IDEX was designed as a catalyst for this integration: it is intended to accompany the transformative momentum, to facilitate and accelerate the changes in the university needed to cope with the internationalization of the world of higher education and research. It offers the opportunity to experiment processes or mechanisms and to test their relevance before being supported by the UT budget. It allows for transformations in a time frame that makes them very clear and thus convincing. IDEX therefore represents an opportunity to accelerate

and make visible transformations that are essential to the adaptation of the target university to its context.

Allocation of competences in the future (2019)

Competences	Will remain distributed between the members of the IDEX consortium	Will be kept by the existing institutions when they become component parts of the target university in x years (state x)	Will be transferred to the central governing bodies of the target university in x years (state x)
Recruitment of permanent staff		X*	X
Employment/remuneration of permanent staff		X*	X
Managing resources		X*	X
Managing research contracts			X**
Managing IP			X**
Managing partnerships			X**
Defining and managing international relations			X**
Registering PhD students			X
Registering Master students			X
Registering Bachelor students			X
Managing students		X***	
Awarding diplomas		X [#]	X ^{##}
Research policy			X
Running doctoral schools			X
Organizing lectures and educational activities		X***	
Organizing and managing lifelong learning activities			X

NB. Depending on circumstances, simply put a cross (1st column) or a date in the relevant box. State when a skill is only partially transferred by adding "partly" in the box ad hoc, knowing that the parts transferred will have to be stated.

*: The recruitment, employment and budgetary policies of INSA and INP respect the guidelines and the orientations of the UT's HR conferences; their proposals are the subject of an appraisal by the CAS, but they remain liable for their policies by maintaining their legal personality.

** : The rules on partnerships, IP and international relations are elaborated within the framework of the site agreements between the UT and the research organizations or through the entities controlled by the UT (SATT). Under the delegation of management and resources mentioned in 1.2, the Colleges implement these rules and provide support services. The UT manages international strategic partnerships. They comply with the partnership rules set out in the agreements with the research organizations, the charter or developed in structures run by the UT (e.g. SATT).

***: The UT manages the services which are available to all students (e.g. *Accueil Welcome Desk*) and delegates to the Colleges the management of the students and education in accordance with the education strategy and the quality charter defined at the central level.

#: Applies to engineering diplomas, 1750 per year.

##: Applies to Bachelor, Master and Doctorate degrees, with respectively 6700, 4000 and 750 issued annually.

Authority and responsibility of the President

When considering the sum of consolidated budgets of higher education institutions (universities and schools) that will constitute the target university, it is important to state for which part the president of the target university will be fully in charge.

Then state (based on draft Articles of Association) what will be the authority of this president in terms of recruiting staff for all these institutions and how these changes will be implemented in the years to come.

Elected for a four year, renewable term, by the CAS, further to an international search, the President embodies the UT in terms of institutional representation and chair it with the support of COMEX. He is the guarantor of the development and implementation of UT strategies. He participates in all budget and HR decision processes of the UT entities.

The legal status of the UT requires a vote by the CAS on the proposals drafted by the Colleges in conjunction with the President. The authority and responsibility of the President as below should be understood as an authority under the supervision of the CAS who votes on final decisions.

In this context, the President of the UT:

* Elaborates each year, in compliance with the Contracts of Objectives and Means, the UT guidelines with regard to the budgets of the UT's components;

- * Participates with the governing bodies of the Colleges, particularly during budget discussions;
- * Comment on each budget before their submission to the governing bodies, communicates this opinion to the CAS in view of the budget vote of the university college (that is to say nearly 75% of the UT's consolidated budget - currently 655 M€).
- * May ask the COPIL, in the event of its negative opinion on the member institutions' budgets, to temporarily deny them access to some IDEX programs;
- * Chairs the process of negotiation and validation of permanent staff recruitment campaigns and taking advantage of a global vision on job campaigns (including those of research organisation through management dialogues for UMRs);
- * Provides a detailed and argued opinion on each of these campaigns before their vote by governance bodies and submits this opinion to the CAS, which votes on the recruitment campaigns for the university components (on average, 85% of annual recruitments);
- * May ask the COPIL, in the event of a negative opinion on the member institution's recruitment campaign, to temporarily deny access to some IDEX programs;
- * Participates in the COPIL, which has the power of decision making regarding all the jobs envisaged within the IDEX schemes: doctoral and postdoctoral contracts, chairs, co-hiring.

Taking into account all forms of recruitment, about 1100 scientists, administrative and technical staff are recruited annually under the control of the UT's central authorities, allowing its increasing influence.

The implementation of these two processes is facilitated by the implementation of the contracts of objectives and means (COM) between the UT President and the Colleges. These COM make it possible to define UT strategies on a multiannual basis (5 years with possible adjustments), by committing each College to show how it intends to contribute to their implementation and what means it will devote to it.

Forward vision

The forward vision presented succinctly as per the guides below will be analyzed by the panel and, based on the evaluation results, will be used – where successful – to prepare the grant allocation agreement.

So that the panel can make up its mind with full background knowledge, the major commitments and objectives adopted by the target university for the next four years will be stated precisely by filling in the next table:

Nature of the commitment	Description of the indicator	Target	Date of completion
Setting-up of the Target University ^{*,#,\$}	Board votes on statutes	NA	2019
New organization of the UT ^{*,#,\$}	New organization of Colleges	6	2022
Implementation of the UT's strategy within the Colleges	COM – contracts of objectives and means	4	2019
Prioritization of the IDEX's means	% of the IDEX's means devoted to the Strategic Plan	80	2019
International Visibility ^{*,#,\$}	Being ranked in ARWU, Leiden CWTS and U-Multirank	NA	2019
Reach the TOP 100 in the International Rankings ^{*,\$,#}	Number of ranked disciplines, in line with our strategic priorities	20	2025
Joint Recruitment campaign	Proportion of positions affected	100%	2019
Registering students at the UT*	Proportion of Students doing Bachelors., Masters, Doctorate signed up in the Target University	100%	2019
Awarding of diplomas*	Proportion of L, M, D degrees awarded by the Target University	100%	2019
Launch of multidisciplinary education*	Creation of multidisciplinary Masters degrees	10	2021
Creation of the Student Parliament *	Writing of the Charter – 1 st meeting	NA	2018
International Visibility ^{,\$,#}	Signature of strategic partnerships	10	2022
International Visibility*	Creation of international Masters courses (English taught)	10	2021
Development of the entrepreneurship culture ^{*,#}	Number of Student-Entrepreneurs per year	800	2022

*Caption: Actions in favor of international visibility for *: students; \$: Scientists; #: The socio-economic players.*

Add as many lines as necessary.

Among these milestones, all measures to boost the visibility, especially international, of the university will be explained: for the students, for the academic personnel, for the economic players (student registration and awarding of diplomas, affiliation of personnel and promoting research and training).

This forecast will be based on the noted dynamics and the orientations adopted since the end of the probationary period. The outlook for obtaining a more complete level of integration likely to have the target university recognised once and for all at the best international level will be presented especially. International ranking goals will be fine-tuned.

The main legal, economic, political or cultural difficulties to be addressed to achieve this agenda will also be identified along with the measures planned to overcome them.

International rankings policy

Universities international rankings are widely consulted and used by students, researchers and institutions. With this regard, the research visibility will be strongly improved by the UT creation. Scientific works that were not previously visible will become so, and in addition those that already are, will improve their level of visibility. The implementation of the Strategic Plan will also have a positive impact on the same rankings.

The UT3 is the only one of the 4 founders to be listed by ARWU global ranking (201-300) as well as CWTS (276th). One of the reasons is that ARWU and CWTS only consider institutions whose scientific production identified by Web of Science (WOS) exceeds certain thresholds. This may exclude institutions for their size (in our case INSA and INP) or for whom only part of the scientific output is identified by the WOS (in our case UT2J). The integration will allow to account for papers from INSA, INP and UT2J thanks to the critical mass already achieved by UT3.

The IDEX consortium scientists' adhesion to the single line signature "University of Toulouse" will lead to a better identification of publications. For example, all *Highly Cited Researchers* will automatically be included, which is not the case today.

A simulation performed at our request by D. Egret and al.⁹ predicts that this evolution will increase the UT by about 50 places compared to UT3 in the ARWU ranking.

These effects will probably not be fully and immediately felt due to the delay (about 3 years for Leiden CWTS) between the integration of an institution and its consideration by the ranking and to the use of indices on the scientific output averaged over the 4 last years. This will certainly smooth the effects of the implementation of the Strategic Plan.

The U-Multirank ranking involves an assessment of benefits and services by students alongside bibliometric indicators. More than a ranking, it is a benchmark tool that presents a thorough

⁹ Docampo, D., Egret, D., & Cram, L. (2015) *Scientometrics* 104(1):175-191

analysis of institutions that ARWU and Leiden CWTS do not offer. It is very popular and must be considered seriously.

Beyond the 100th place, the ARWU only displays rankings for a bracket of 50 or 100 institutions (within a bracket, alphabetic order prevails): a rising-up from 149th to 101st place would not appear to someone who only observes this ranking. Thorough investigation into the ARWU data or disciplinary rankings that have emerged over the last few years may partially address this defect. The latter are not perfect, but informative about the dynamics of a university in certain disciplines, and are also widely monitored.

The founders of the UT are present in the 2017 ARWU thematic rankings: 3 disciplines ranked in the top 50 (Remote Sensing, Water Resources, Earth Sciences), 10 in the top 100 and 22 in the top 200. These disciplines are closely related to the FEP map.

To increase our international visibility in these rankings, a dedicated UT transversal unit (VIS'UT) will work from January 2018 on the following:

- the identification of the main quantitative and qualitative criteria taken into account by the international rankings, including those very detailed ones of the U-Multirank agency;
- the validation of data within the scope of the target university with the ranking agencies;
- an annual follow-up of the evolution of the indicators and its impact on the rankings.

The transformation proposed by UNITI 2018 should be reflected in the next 10 years by a progression towards the 100th place of the ARWU and Leiden rankings and by the doubling of the number of disciplines where UT is in the ARWU top 100.

International projection

The table below presents a projection of the first 7 partnerships that we envisage to establish with a view to strengthen the network of reinforced international collaborations:

	Situation at T0	Target at T4
Univ. Texas at Austin (US)	<i>Summer session</i> in Toulouse / Limited exchanges	Developing exchanges / structuring research partnership / 1 double diploma / PhD cotutelle
Beijing Normal Univ. (Cn)	Student exchanges	Faculty exchanges / launch of research cooperation / strengthening of student exchange
Beihang Univ. (Cn)	Student exchanges	Faculty exchanges / launch of research cooperation / strengthening of student exchange
Univ. Guadalajara (Mex)	Student exchanges	1 double diploma / PhD cotutelle
Univ. Complutense (Esp)	Student exchanges	Joint doctoral program / 2 double diplomas
KU Leuven (Belg)	Research collaboration	Joint doctoral program / 2 double degrees / joint labs (LIA) / Cotutelle
Montreal Univ. (Can)	Limited research collab	Student exchange / 1 double diploma / building long term research partnerships

Main obstacles

A transformation project at this scale naturally means that we have to face up to certain obstacles identified here, in order to outline the solutions to overcome them.

- Legal difficulties

The legal status required for the construction of the University of Toulouse and offering possibilities for the derogation of the usual rules of governance, does not yet exist. At present, a legal ordinance with aim to make the institutional framework for integrated universities more flexible has been announced by the government, but not yet published. This lack of a precise legal framework is a clear brake to the construction of the University of Toulouse and to its acceptance by faculty and staff. This obstacle should nevertheless be lifted during the course of 2018 with the details of the text that will facilitate evolution in institutional matters. The contacts made with the Ministry of HE & R during the development of the project suggest that our structure will be perfectly compatible with the new legal framework.

- Economic difficulties

The financial situation of French universities is structurally complex because of the contraction of public funds allocated, concurrent with a significant increase in the number of students. Thus, despite the growing autonomy granted to the institutions, the room for action is limited and this constrained situation explains the cautious timescale for project deployment.

The creation of the UT should, however, make it possible to increase the UT's visibility with companies and thus facilitate the development of its own resources: better valorization of the lifelong training offer, development of the UT Foundation's to develop partnerships, development of alternating training and intellectual and technological services through the platforms.

In any case, IDEX will make it possible to launch new actions faster and to accelerate or amplify those already implemented. The UT and its consortium partners are obviously committed to ensuring that IDEX's resources are fully dedicated to changes that achieve the goal of building a world-class integrated university.

- Political difficulties

The visibility and influence of a university depend on the quality of its education, its research and its dynamism on the international scene. In this respect, many institutions on all five continents have "brand policies" and our project clearly shares this goal. One of the strongest markers of visibility and attractiveness has been, over the last 20 years, the establishment of international university rankings based on often similar criteria, even if they are weighted differently. Appearing in these rankings has become a way to be recognized, at least for scientific and medical universities. Being in a good position means recognition. Our project aims, of course, to be included in the most representative of these rankings. To achieve this objective, the target university must meet the eligibility criteria, namely to have the capacity

to award diplomas and to present organizational characteristics (financial or HR) that reflect a degree of integration and thus allowing us to meet international standards.

Since the end of IDEX in April 2016, the founding institutions have started working to analyze and to learn from this failure and build a project able to re-launch the dynamic to regain the label. Four of these institutions share the desire to move towards integration, which is essential for recognition by international rankings, and are therefore the bearers of the new project, with the support of research organizations and the University Hospital Center. Two major institutions of the Toulouse site (UT1 Capitole, ISAE-SupAero) have not at this stage felt the desire to engage in such an integration, thus not enabling them to be founders of the target university. However, our joint research and education activities will not be weakened and will give rise to a dialogue. Several important research laboratories (Toulouse School of Economics Research, Institut de Mathématiques de Toulouse, Institut de Recherche en Informatique de Toulouse, Institut Clément Ader) of which the UT or the members of the Consortium share the supervision with these two above mentioned institutions, are examples of the importance and strength of our links. The target university remaining open, it is possible to capitalize on this cooperation to accommodate these institutions that would be ready to take the step of integration. In the fields of aeronautics and space, for example, this would make it possible to complete the research potential of the IDEX consortium estimated at more than 80%, and thus to unify this essential pole.

- Cultural obstacles

A rapid bibliometric analysis completed internally at the UT has shown that about 30% of publications from the medical sector of the site are not identified today by the WOS, while they are when using a geographical filter (greater Toulouse). We will benefit from the participation of the CHU to the consortium, which will bring about an evolution in the automatic use of the unique scientific signature by this community whose scientific output is considerable.

Each of the founding institutions of the University of Toulouse brings its expertise in education, research and academic management to the project. All have been strongly boosted in recent years by efforts related to the application for the IDEX Label, the implementation of UNITI 2013 and the continuation of the efforts undertaken since its loss in 2016. These assets contribute to a strong sense of belonging in students and staff for their institution, and often at the campus where they work and spend their time. These cultures, forged by the history of each institution, constitute a contribution that must be reinvested in the project. We are convinced that the awarding of a collectively won IDEX Label will generate decisive momentum towards building our common future.

Summary table intended to appear in part 1 of the file (see 3rd paragraph of the recommendations in red under the title of chapter 1):

IDEX PIA1

Project name

UNITI 2018

ALLOCATION OF THE IDEX LABEL

EVALUATION FILE – 2017

Commitment UNITI	Reasons for the revision or deletion
§ 4.1 – Unified UT	The impossibility of getting communities to adhere to the project of merging institutions has called into question the creation of the unified UT. In 2013, a unifying project built in complete transparency, gave birth to the ComUE and is the subject of a new attributive agreement.
§ 4.1 - Perimeter of excellence: UT*	The 2013-2015 version of IDEX did not include an IDEX perimeter. UNITI 2018 orients IDEX funding in priority to the teams of Consortium members identified among the FEP perimeter of the site. The strategic priorities now set a framework in which these researches develop, particularly their interdisciplinary potential.
§ 4.1 - Human resources policy	Inbreeding has been reduced since the beginning of 2010; the guidelines for good practice will be part of the Charter. The Charter also specifies the rules for the recruitment of Junior Chairs (publication of offers in the international scientific press, presence of externals members on recruitment boards, including an ERC holder, confidential letters of recommendation, evaluation of the recruitment policy by the COSA).
§ 5.3.1 - Pact	The 2013 IDEX no longer provided for the signing of a Pact but instead adherence to the principles described in Appendices 2 to 5 of the IDEX application agreement signed on July 12, 2013. UNITI 2018 provides that each College signs along with the UT a Contract of Objectives and Means, which reflects the nature of the commitments provided for in the Pact and specifies the authority of the President and CAS of the UT.
§ 5.3.2 - IDEX programs in support of a perimeter of excellence in research	The IDEX "Labex Funding", "Chairs", "Equipment", "ATS", "Transversal Scientific Challenges and / or Emergence" Programs have all been implemented.

IDEX PIA1

Project name

UNITI 2018

ALLOCATION OF THE IDEX LABEL

EVALUATION FILE – 2017

<p>§ 5.3.3. - IDEX program selection procedure</p>	<p>An Arbitration Committee similar to UNITI’s GES on the basis of independent external evaluations, excluding the financing of scientific equipment, carried out the allocation of funding over the 2013-2015 period. The 2018 version of the project transfers the decision on allocation to the IDEX internal COPIL, which will be guided by the defined scientific strategy, and assigns to the COSA the role of evaluating and reorienting the policies and their implementation.</p>
<p>§ 5.3.4. - Research Performance Measures and Calendar</p>	<p>The measurement of research performance remains an area that is still difficult to establish for a multidisciplinary university such as the UT, as had been pointed out in UNITI. Beyond the indicators used by the main rankings agencies (part 3 of the proposal) at the global level and at the level of the sub-disciplines whose scope in terms of steering remains very limited, we will work with the research coordination pole to establish with them quantitative or qualitative dashboards relevant to their disciplinary sector. A transverse team integrated into the observatory will assist the COPIL in this task. Innovation will be measured by the number of licenses awarded from laboratory research, but also by the number of entrepreneurial students and innovative companies created.</p>
<p>§5.3.5 – Education</p>	<ul style="list-style-type: none"> - Improve the selectivity and excellence of the Bachelors (Licence *): program replaced by the development of reinforced and more demanding bachelor tracks; - Develop high level programs in engineering: The Toulouse Tech consortium was set up and worked on the program; - Promote interdisciplinary programs: program implemented; - Strengthening doctoral studies (School of Doctors): program completed; - Quality management of UT's higher education programs: This project is integrated into the UNITI 2018 project as part of the education quality charter; - Improve the framework of studies: the measures Via-Sup are developed; a “success residence” is planned for 2018.
<p>5.3.6 – Life on campus</p>	<ul style="list-style-type: none"> - Welcome, inform and guide in a dedicated area students and foreign researchers: creation of the <i>Accueil Welcome Desk</i>; - Developing a university catering service of a higher standard: project implemented by the CROUS; - Encourage sports practices, creation of a multi-campus sports center: the development of sports is included in the UNITI 2018 project;

IDEX PIA1

Project name

UNITI 2018

ALLOCATION OF THE IDEX LABEL

EVALUATION FILE – 2017

	<ul style="list-style-type: none">- Improve the environmental quality of university sites: the Eco-campus project had been implemented;- A more integrated cultural policy with the city: partnerships with the cultural structures put in place;- The Digital University: a vector of excellence and solidarity: implementation of the Digital Master Plan.
5.3.7 – The UT’s International Relations Policy	<ul style="list-style-type: none">- The project to create a University of Toulouse campus abroad remains out of our financial scope for now. Among the 3 antennas put in place, we are continuing with the Chinese site, which gave very convincing results.- Strengthened partnerships with universities with strategic approaches close to those of UT (Univ Texas @ Austin, KU Keuven, Beihang, etc.) are on the agenda for the next four years.- Master's degrees taught in English, double degrees are a UNITI 2018 priority.- The “Europe +” office has been created.
5.3.8 - Development of results and socio-economic partnerships	<p>The SATT has been set up and shows excellent performance at the national level. The UFT / IRT convention was signed in 2013 and the latter is also largely operational and will be settled in 2018 in its own building on the Aeronautical Innovation Campus of Montaudran.</p> <p>In UNITI 2018, a Partnerships Bureau, rather than a Directorate, will be created and a Partners Committee will be involved with the Mission for Interdisciplinarity to facilitate dialogue and interaction between academics and socio-economic partners. In fact, even if the names have changed, the functions provided for in UNITI are implemented in this project.</p>
5.4 – UT Governance	<p>UNITI 2018 envisages the creation of an experimental institution and the creation of 6 Colleges in the first 4 years of the project, including a College of Engineering. Effective governance capable of deploying common strategies will be implemented at the UT level, with a COMEX, an Academic Senate and a totally external COSA.</p>