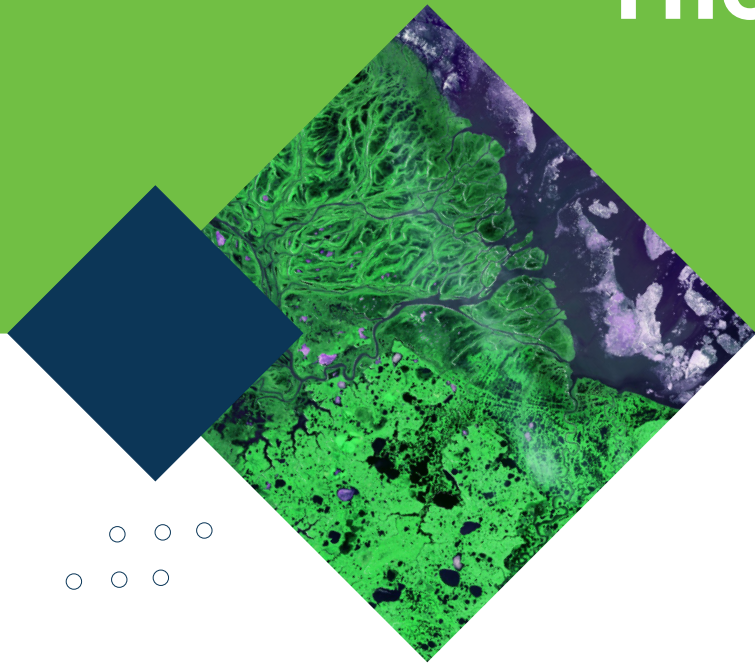


The Transition Institute 1.5

The ambition for an actual transition



- ○ ○
- ○ ○

A NEW RESEARCH INSTITUTE

The Transition Institute 1.5, 1.5 to echo the temperature target put forward by the IPCC, is an initiative launched by Mines Paris – PSL with the support of its Foundation. The ambition of this institute, dedicated to designing the low-carbon transition, is to provide informed scientific responses to the major challenge of carbon neutrality.

TTI.5 SCIENTIFIC PROGRAM

Research axis

AXIS 1: The Transition Design

Design of the transition aims to clarify the mechanisms required to guarantee the desired decarbonization.

AXIS 2: An electric planet?

An electric planet? explores the implications of an associated vision of decarbonization, including massive electrification : trajectories, operations, lifestyles, vectors, resources, competition, substitution, sectors, technologies, cost.

AXIS 3: The inclusive planet

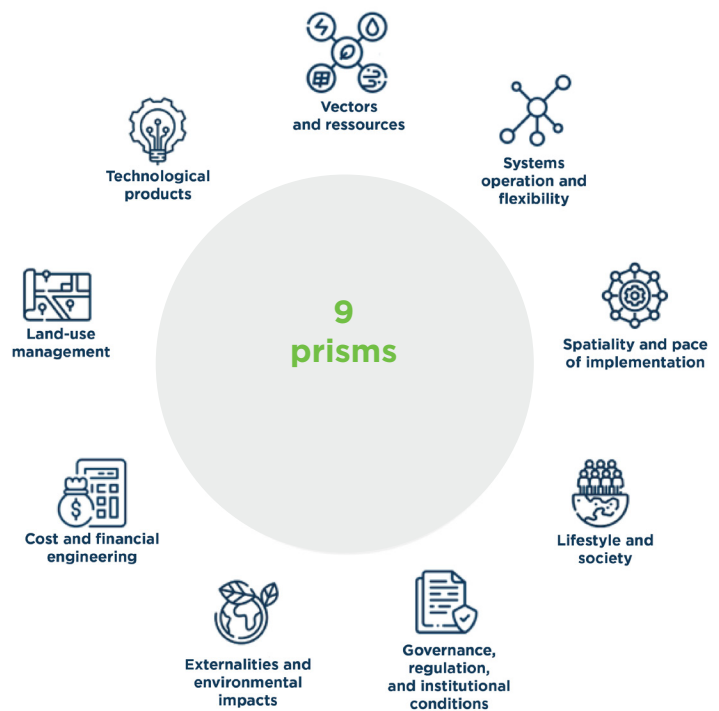
The inclusive planet, is dedicated to identify solutions and tools to engage all actors in the transition, reconciling at the same time the multi-scale issues of the climate challenge and the multiple constraints that they are both facing.

DOCTORAL TRACK

AXIS 4: The planet as an area of influence

This axis will be dedicated to the analysis of the transition through the prism of international issues, to take into account the planet as an issue of influence of all kinds : geostrategic, commercial, economic, political, etc

The systemic approach envisaged will be developed through the following prisms of analysis:



Mines Paris - PSL departments

- Earth sciences and environment
- Energy and processes
- Mechanical and Materials engineering
- Mathematics and systems
- Economics, management, society



TTI.5 doctorates: two types of affiliation

Doctorates financed by TTI.5

At TTI.5, one of our main missions is to finance interdisciplinary theses connected to our research themes. The emphasis is on collaboration, involving internal exchanges and external dissemination of results, along with access to targeted training (see page 4).

To secure financing, your doctoral project will need meet with certain criteria:

- It must jointly involve at least two Mines Paris – PSL departments (see page 1) (30% minimum supervision per department)*.
- It must take an interdisciplinary approach to the theme it tackles.
- It must fully correspond to one or more of the four TTI.5 research areas and consider the prisms defined by the institute in its approach (see page 1).

In addition, as well as following the recommendations of the doctoral school overseeing their thesis, which takes priority, as a doctoral student, you are expected to join and contribute to the TTI.5 community (see page 3).

Part of your doctoral project must imperatively involve situating the chosen theme in the context of the TTI.5 institute: this requires making a state-of-the-art by looking closely at how the theme is positioned in terms of the four TTI.5 research areas, and also providing, in summary form, a systemic, holistic vision of the results obtained. The part of the thesis manuscript that specifically tackles these questions will be the object of a Working Paper published on the TTI.5 institute website and submitted to HAL (with DOI assignation). TTI.5 flagged theses under an Ecole des Mines contract meet the same eligibility criteria as financed theses.

* N.B. It is possible to choose two PSL departments provided at least one is part of Mines Paris – PSL

Doctorates accredited by TTI.5

Numerous current or future theses at Mines Paris cover TTI.5 research themes.

With the approval of their thesis supervisor(s), doctoral students can request TTI.5 accreditation. This accreditation means that students can join and participate in the TTI.5 community (see page 3).

All accreditation requests must be approved by the TTI.5 Monitoring Committee.

TTI.5 funding

HOW MUCH FUNDING DOES TTI.5 PROVIDE?

- A doctoral project can be fully or totally funded by TTI.5 through the MINES ParisTech Foundation, which receives donations made to the Institute. Doctoral students financed by TTI.5 are also granted an additional sum for the purchase of material or to participate in conferences. Centers may need complementary funding, such as to cover the costs of projects involving a lot of experiments (e.g. Carnot funding).
- TTI.5-accredited students can benefit from aid to finance their participation at seminars and events organized as part of TTI.5 (see page 4).



TTI.5 doctorates: eligibility requirements

Personalizing your learning track to correspond to both your inspirations and your constraints is possible. Don't hesitate to contact the TTI.5 team.

FINANCED **ACCREDITED**

THESIS SUBJECT

Thesis subject coming under one of the TTI.5 research areas	✓	✓
Thesis subject involving different Mines Paris - PSL departments	✓	(✓)
Thesis subject that is inter-or multi-disciplinary	✓	(✓)
Thesis subject not covered by confidentiality	✓	✓

PARTICIPATION & CONTRIBUTION TO THE COMMUNITY

Present and take part in doctoral student seminars (video) (see page 4)	✓	✓
Take part in TTI.5 public seminars (video) (see page 4)	✓	(✓)
Attend Autumn school (in person) (see page 4)	✓	(✓)
Participate in a TTI.5 event (organization, presentation of work, etc.)	✓	(✓)
Write a working paper (see page 2)	✓	✓
Publish an explanatory paper (writing and/or supervision of a student on the TTI.5 academic track)	✓	(✓)
Produce a video or podcast	(✓)	(✓)
Contribute to the TTI.5 blog	✓	(✓)

VISIBILITY

Compulsory indication in all productions, acknowledgements, etc.	✓	
TTI.5 visibility and logo	✓	✓
Thesis posted on TTI.5 website	✓	✓

- ✓ Compulsory
- (✓) Optional



TTI.5 events dedicated to doctoral students

- **TTI.5 WEEK (Spring 2023)**

TTI.5 week, organized around a high-level forum, will give TTI.5 doctoral students an opportunity to get together and exchange face-to-face.

- **TTI.5 AUTUMN SCHOOL (starting from 2023 academic year)**

An autumn school will be organized at which students can validate their training hours. TTI.5 doctoral students must follow the recommendations of their Doctoral School concerning compulsory training. They can take part in events that then count in the obligatory quota defined by the School.

- **TTI.5 SEMINARS 2022-2023 calendar**

Since September 2022, TTI.5 has been organizing a series of monthly seminars transmitted by video to disseminate and discuss research work through an inter-disciplinary approach.

The following take place on alternate months:

Doctoral seminars

Scientific presentations by doctoral students followed by a discussion that can be used for free exchanges or to disseminate information. These seminars are open to supervisors from time to time.

Public seminars

Each seminar is organized on a theme and led by a specialist, and includes two to three scientific presentations made by members of the TTI.5 community (including doctoral students), followed by a free or directed discussion.

TTI.5 DOCTORAL SEMINARS from 1.30 pm to 3.30 pm

Friday 20 October 2023
(information meeting open to all and presentation of the TTI.5 doctoral track)

Tuesday 19 December 2023

Monday 19 February 2024

Friday 19 April 2024

Wednesday 19 June 2024

TTI.5 PUBLIC SEMINARS from 1.30 pm to 3.30 pm

Tuesday 19 September 2023

Tuesday 28 November 2023

Friday 19 January 2024

Thursday 21 March 2024

Wednesday 22 May 2024



Contact

the-transition-institute.minesparis.psl.eu
tti.5@minesparis.psl.eu
+334 93 95 75 22