



Starter Guide

- Update 10.04.23 -



About Plant a Seed

“**Plant a Seed**” is a unique **interdisciplinary educational project for sustainability** at the Technical University of Munich (TUM). With our campus gardens, we aim to advance sustainable measures and create a template for other universities to emulate. Under a water-energy-food-nexus framework, the small-scale campus garden located within the dense urban environment will help to create campus- to nation-wide networks to raise awareness around:

1. Sustainable consumption and production
2. Importance of green spaces in cities for human health
3. Conservation of biodiversity
4. Microclimate mitigation
5. Food sovereignty

TUM’s human resources and academic expertise of different departments are transforming this project by using an educational and cross-disciplinary multi-level approach, while promoting exchange across generations, disciplines and cultures. The project is complemented by scientific research where students can apply their theoretical knowledge to develop practical, sustainable strategies in theses and study projects. In addition, the gardens will be used as an instrument to pilot circular economy concepts within the urban university.

Our Mission



“Plant a Seed aims to **raise awareness** about food production and consumption, **link people with nature** by encouraging and strengthening their connection and **visualize sustainability** on the university campus.”

Our Vision



“**A space** that enables students to practice **more sustainable lifestyles** and diets thanks to the **knowledge acquired**, and to **unite as a team** that makes the **university campus greener** and more sustainable.”

How did it start and who is “Plant a Seed”?

Plant a Seed started as a project embedded in the Environmental Department of the Student Council (Umweltreferat). In March 2021 we built the first raised beds that were placed on the main campus of TUM. Ever since, our plants and our team are continuously growing and so are our tasks within Plant a Seed. This means **we are always looking for new super motivated seedlings to join** our Plant a Seed Family! 😊

Who are we? We are a student organization collaborating with the Student Council (AStA), the TUM Sustainability Office and a growing number of TUM Chairs. Because of our different collaborations, it is possible to not only contribute to Plant a Seed in your free time but also by **taking classes, writing study projects or your thesis on topics connected to Plant a Seed**. You can find more information on how to gain credits with Plant a Seed on our website.

Plant a Seed Website: <https://plantaseed.umwelt.asta.tum.de>

Umweltreferat Website: <https://asta-umweltreferat.fs.tum.de/?lang=en>

Plant a Seed Structures & Governance

PASSIVE MEMBERS

...or otherwise known as **Support Squad** members join in spontaneously and do not pledge commitment to the project but remain informed through the **Offtopic** Telegram group. Additionally, select TUM faculty members contribute to Plant a Seed through research projects and guidance of study projects and theses.

CORE TEAM (ACTIVE)

Core Members are essential to the success and continuity of Plant a Seed! These students pledge to commit a minimum 2-3 hours a month and join one or more of our many **teams** (see next page). They enjoy benefits such as **Membership Certificates** which can be used for CVs or scholarships, T-Shirts, and invitations to coachings, team events and excursions. Core Team members choose a focus area within Plant a Seed and are broken up accordingly into different **Management and Working Groups**.

EXECUTIVE BOARD (ACTIVE)

A **Team Lead (TL)** is a management position which focuses on coordinating team members and their tasks and ensuring that the team's semester goals are attained. The team lead takes responsibility and initiative to get the required activities done. It is also the first point of contact for questions about the team's activities and for the coordination between other teams and team leads. TLs are a part of the **Executive Board** which meets once a month and awarded with special **Leadership Certificates**.

Project Leaders are responsible for keeping track of the continuity of the project and making sure everything is running as it should. They serve as a contact point between the **Sustainability Office**, the **AStA** (student council) and the University itself.

How YOU can get involved

What are your capacities this semester? If you are not able to regularly attend monthly meetings and events, then feel free to join us when you have time in our Support Squad. You can stay informed about events and activities through the Offtopic group ☺

Link to Offtopic Group: <https://t.me/+QZuCuI7zYd84NzAy>

Motivated to get more involved? In addition to the Offtopic, please join our **Onboarding** group and fill out our **Core Member Application** form.

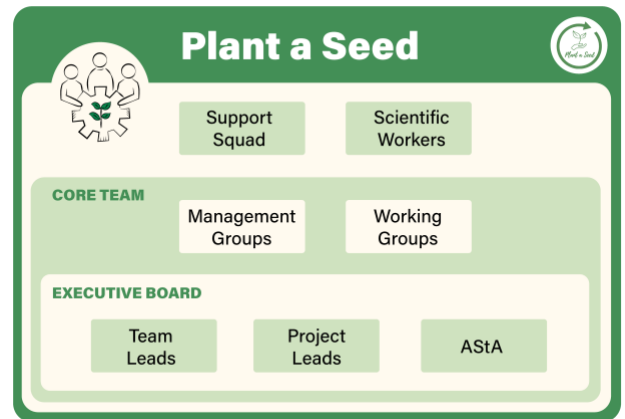
Link to the Onboarding Group: <https://t.me/+PzLOqG9S6vg4NmEy>

CORE MEMBER APPLICATION

The Core Member Application form allows you to inform us about your capacities for the semester and lets us know who we can count on to help keep the project going for the coming months. Students new to Plant a Seed may fill out the form at any time, existing members will need to resubmit the form at the start of each summer semester.

Link to Core Member Application (2023):

<https://docs.google.com/forms/d/e/1FAIpQLSeyJJzAcqobQTiAnatpigGQj3XmGwxplHPdmzoePTfVIRoSeQ/viewform>



Team Organization and Communication

TELEGRAM — OUR MAIN COMMUNICATION CHANNEL

We use several Telegram groups for our daily communication, with one big channel for all core members of Plant a Seed. Here, all Team Leads post information about their meetings, projects and events. This serves many purposes such as keeping everyone informed, allowing discussions and comments on posts and enabling members to join in on projects from other teams spontaneously. You will be added to the group upon completing the Core Member Application.

All other teams have their own groups. After you decide which group(s) you would like to join, please send us a message via Telegram. We will be super excited to welcome you in our team and connect you with the different team leads to guide you through the onboarding process.

PLANT A SEED GROUPS & TEAMS

What do you see yourself doing in Plant a Seed? It is possible to contribute to one or even several of our special departments and focus areas or learn skills by trying something completely new to you!

MANAGEMENT GROUPS



PUBLIC RELATIONS

Our creative Public Relations team has the mission to make Plant a Seed more visible on every scale.

Activities

- Content creation & maintenance for our social media presence and website
- Maintenance of our social media presence & website contents
- Design and content of information boards
- Networking



TEAM MANAGEMENT (HR)

This group is responsible for onboarding and recruiting new members, as well as organizing events to enhance and maintain motivation.

Activities

- Recruiting new members
- Onboarding of new seedlings
- Motivating members
- Organizing team events



IMPACT MANAGEMENT

The mission in Impact Management is to facilitate workshops and carry out surveys to motivate students to learn and share their knowledge of sustainable production and consumption practices in their day-to-day life.

Activities

- Developing and mediating workshops
- Establishing (external) collaborations
- Creating surveys
- Analyzing data



FINANCE

In this group we are responsible for the oversight and administration of the project's income and expenses. We are always looking for new funding opportunities to make Plant a Seed financially independent.

Activities

- Budget planning with the team leads
- Bookkeeping
- Managing all financial activities
- Researching funding opportunities

WORKING GROUPS



CROP MANAGEMENT

The Crop Management team is all about fantastic plants and how to care for them! We're a team of people from all gardening experience levels, from rehabilitating black thumbs to crazy plant people. Our group combines research with hands-on experience. We take care of organizing visits to the beds, pest management, harvests, and what we plant.

Activities

- Creating cultivation plans and care guides.
- Plant care and maintenance
- Organizing planting and harvest days
- Data management



DESIGN & CONSTRUCTION

This group is about designing and building raised beds, cold frames, toolboxes, and other related projects. Which designs will inspire students? How can we construct them in a way that conserves resources and fits within a limited space? No prior knowledge is required!!

Activities

- Brainstorming improvements & new designs
- Designing, if necessary, with modeling programs (Inventor, AutoCAD, etc.)
- Construction of our designs



IRRIGATION SYSTEMS

The irrigation team is working on the technical development of smart, automatic irrigation systems for our raised beds. The system is intended for a small-scale urban gardening implementation, using microcontrollers for gathering sensor data from the garden bed, and a Raspberry Pi for processing that data and turning a solenoid valve on and off. The telemetry will also be shown in a webapp.

Activities

- Development of energy-efficient communication between devices
- Development of a battery-powered electrical system with a solenoid valve, relay and microcontrollers
- Hardware coding & app development



VERTICAL FARMING

Our Vertical Farming team is working on a prototype system displayed in Garching-Forschungszentrum. With a vision to expand, we want to provide a platform for students to explore topics in **vertical farming, hydroponic systems, crop production, food security** and **energy consumption**.

Activities

- Establishment and maintenance of a vertical farming system
- Project management, conceptual design and construction
- Crop planning and management
- Focusing on energy and water efficiency

WIKI — OUR CALENDAR AND DATABASE

The Wiki is where we keep all our important documents, links and schedules. If you can't access the page, please notify us by sending a message into the Offtopic or Onboarding groups.

Link to the Wiki: <https://wiki.tum.de/display/seedlings123/Plant+a+Seed+Startseite>

MEETINGS AND EVENTS

Meetings & events are some of the most fun things we do, and they help keep members informed about our current activities and how they can be of help ☺ Among these are monthly **Round Table** discussions which are part team-building event and part updates from all of Plant a Seed. Meetings within the teams are organized by the different team leads and are communicated within the telegram groups and in the main channel.

We are incredibly happy to welcome you as a new seedling of Plant a Seed! ♥

Frequently Asked Questions

What is Plant a Seed?

Plant a Seed is an interdisciplinary urban gardening project that was conceptualized, initiated, and remains run and governed by a dedicated group of students at the Technical University of Munich. Our goal is to provide a space for students to learn from and interact with nature while serving as an example of sustainable living in the urban environment.

Who is involved in Plant a Seed?

Plant a Seed is made up largely of students from TUM, but also includes scientific workers and professors from TUM.

I am new to Plant a Seed, how much time do I need to invest into the project as a core member?

It is entirely up to your own discretion to how much you contribute to Plant a Seed – what's most important is that you know your capacities and communicate them clearly with the team you're interested in working with. Some of our core members contribute over ten hours a week, some as few as two a month. If you do not have time to commit to the project, you are welcome to join us as a Support Squad member spontaneously for any events posted in the Offtopic ☺

What are the activities that Plant a Seed hosts?

We meet regularly for our Round Table once a month to give updates on all the teams and the project, but also to play games, watch or give presentations, play in the garden, cook together or just talk and get to know one another ☺

On top of that individual teams may have get togethers or meetings to plan or take care of the garden or organize other projects in their own focus areas (building raised beds or irrigation systems). We also have super fun team excursions and outings (i.e. cabin weekends, hiking trips, parties and other activities)!

When are the meeting days and time?

Our Round Table is the meeting with all members usually in person at the AStA (Munich campus Mensa - Arcisstraße 17), during lunch on the first Sunday of the month. Usually about a week beforehand there will come an announcement in the Main Channel on more exact information (changes in date/time, specific activities). For the individual groups (i.e. Irrigation Systems, Team Management, etc.) there will be announcements in the Team Telegram groups, Please refer to your respective Team Leads for more information about when the next team meeting is ☺

What are the requirements for core members?

1. Core members are required to keep up to date on the project through our main channel on Telegram, and up to date on their team through their team's telegram group.
2. Communication of personal availability to your Team Lead(s)
3. Attendance of the monthly Round Table discussion

If unable to attend it is necessary to write to your TL and give notice of your absence. After three No-Call-No-Shows a 'Failure to Attend' notice will appear on your Membership Certificate and after 5 you will be removed from the groups.

How do I join a team?

All Core Members contribute to Plant a Seed's Mission and Vision through one of our teams. After you have submitted your application, someone will contact you about your preferences and help you reach a decision about what Team(s) is/are right for you 😊 If you find in time that you prefer to change to a different area that is totally welcome!

The Wiki isn't working for me, what do I do?

Please inform your TL or a Project Lead if you are having trouble accessing the Wiki!! They will check your permissions, fix any mistakes and assure you have access 😊