

Graduation Proposal

Student's Name & No: Eslam Ghazy - 19151500

Student's contact details: eslam@atenvally.com

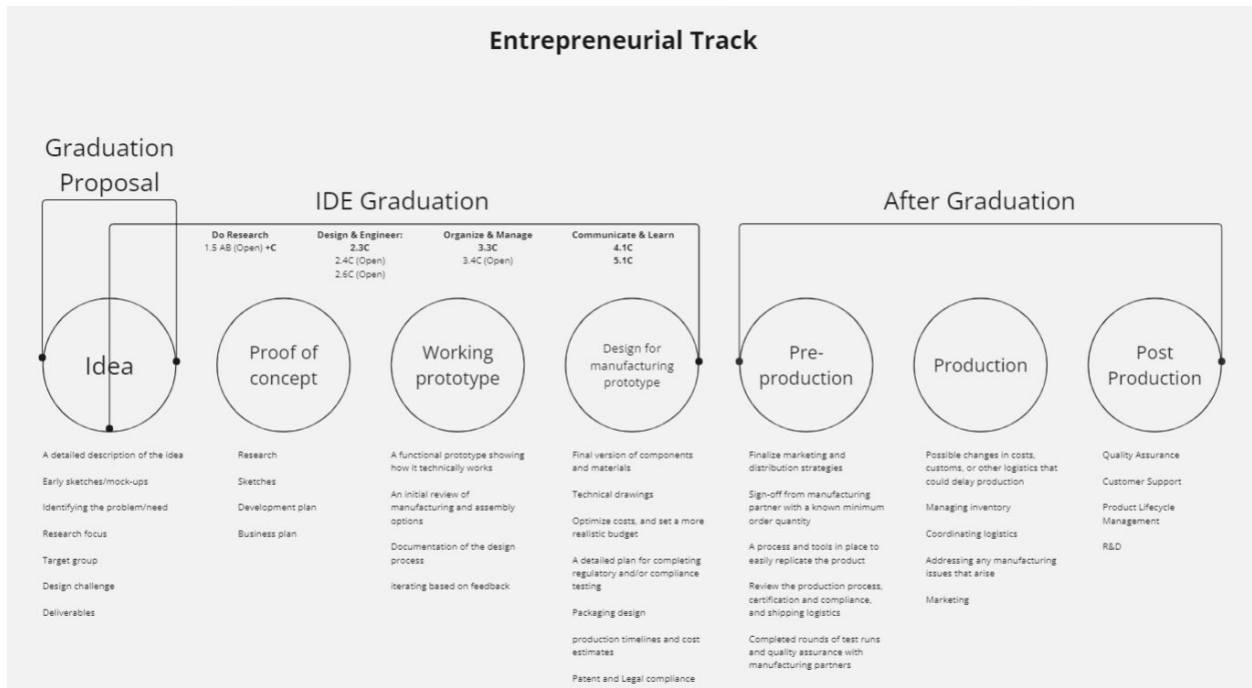
Graduation Company Name & Location: Aten Valley - The Hague, Netherlands

Company's web page: www.eslamghazy.com/contact

Remarks:

I am eager to pursue the Entrepreneurial Track, as it aligns with my career goals and offers the chance to further develop the product idea I developed during the BOI semester of 2020-2021. Originally created to address the rise in remote work for the client Ahrend, this idea will serve as the foundation for my graduation project. The track complements both my open and fixed sub-competencies in IDE, as detailed in the planning section.

The image below illustrates how I plan to go about the Entrepreneurial Track during and after graduation.



Introduction:

More and more people are working from home and using laptops all day. This can cause discomfort and make it hard to stay productive. **Most laptop stands don't offer much flexibility, can only be attached to horizontal cubical surfaces, and can't be easily moved around.** That's where the 'Gripstone' comes in.

It's a new kind of laptop stand that you can adjust to fit your needs and environment, is kind to the planet, and has a special feature that lets you quickly attach and remove it from different surfaces. This means you can use your laptop comfortably in lots of new spots, like your kitchen, a park, a café, or the library. Gripstone is all about making your work-from-home life better, more comfortable, and more flexible.

Problem statement:

As remote work and distance learning become more common, people are using their laptops for longer periods. This can lead to physical discomfort and less productivity if the laptop isn't positioned correctly. According to an initial preliminary research, **All laptop stands in the market aren't made for environments other than an office space, and can't be easily moved around.**

These stands don't always let users set up their laptops in the best way for their own comfort. Also, many aren't made in eco-friendly ways, which is bad for the environment. Plus, most stands can't be quickly attached or detached from different surfaces, which makes them less useful in different workspaces.

Initial Market Analysis

Target Market: The target market for laptop stands generally includes office workers, students, and remote workers. Demographically, it spans various age groups, primarily those between 25 and 60. Psychographically, the market leans towards individuals who prioritize ergonomics and have a higher willingness to invest in work-from-home setups. The global laptop stand market is expected to grow at a Compound Annual Growth Rate (CAGR) of 5.5% from 2022 to 2030. This growth is attributed to the increasing demand for laptops and portable devices, as well as the growing trend of using laptop stands for better ergonomics. [Source](#)

Market Size and Growth: The global laptop stand market is currently experiencing a period of growth, driven by several factors. The market was valued at USD 283 million in 2021 and is projected to reach USD 400 million by 2027. This represents a Compound Annual Growth Rate (CAGR) of 5.5% from 2022 to 2030.

Competitive Landscape: While keeping in mind that the Gripstone will have a unique feature that is its own blue ocean. The closest competitors in the laptop stand market include Rain Design, Avantree, Samson Technologies, and AmazonBasics. These competitors offer products ranging from \$58 to \$200, indicating a mid-range market.

Initial SWOT Analysis

Strengths: The Gripstone's quick mount feature sets it apart, offering convenience and ease of use.

Weaknesses: Being a new entrant, brand recognition could be a challenge.

Opportunities: The growing trend of remote work and focus on ergonomics presents a ripe market.

Threats: Established competitors with broader distribution channels.

The current market for laptop stands is limited. Most stands are designed for flat surfaces like desks and tables. People nowadays are moving around, working from different places, and need something that can keep up.

That's where The Gripstone stands out. It's not just another laptop stand. It's designed to attach to all kinds of surfaces, whether they're flat like a desk, vertical like a wall, or even rounded like a pole. This flexibility is something that's missing in the market right now.

Value Proposition:

The Gripstone is a practical laptop stand designed to adapt to your changing workspaces. It securely attaches to not just flat surfaces but also vertical and rounded ones, offering flexibility in how and where you use it. With a focus on sustainability and user needs, The Gripstone provides a simple, effective solution for comfortable remote work and study. Its quick-mount feature allows for easy setup and removal, making it a convenient accessory for everyday use. In developing The Gripstone, my goal is to offer a product that supports your work habits while being mindful of the environment.

Research Focus:

This project will focus on understanding the needs and preferences of remote workers and students who frequently use laptops for extended periods. Primary research methods, such as interviews, surveys, photo studies, and focus groups, will be used to identify the unmet needs and requirements of the target users.

The main research question is: "What are the unmet ergonomic, adaptability, and sustainability needs of remote workers and students using laptops, and how can a customizable, eco-friendly laptop stand with a quick-mount feature address those needs?"

Sub-questions will include: "What customization and attachment features are essential for the target users?" and "What sustainable materials and practices can be incorporated into the laptop stand design?"
The research domain will encompass ergonomics, sustainability, adaptability, and customization in product design.

Design Challenge:

The core challenge lies in devising a laptop stand that is not only ergonomic and sustainable but also features **a novel quick-mount mechanism**. This mechanism is crucial as it must securely attach to a variety of surfaces, both flat and curved, without compromising ease of use. While the attachment system for the laptop itself will be adapted from existing designs, the innovative aspect of this project is the development of a versatile and reliable attachment mechanism for the stand. To tackle this, the project will engage in user-centered design practices, including co-creation workshops and focus groups, to gather direct input from potential users. Additionally, we'll explore advanced design methods, such as parametric design, to ensure the stand is both customizable and modular, meeting the diverse needs of our target audience.

The Gripstone offers a unique solution that meets the needs of today's mobile workers and students, filling a gap in the current market with its adaptability and eco-friendly design.

Target group:

Freelancers, remote workers, and students who frequently use laptops for extended periods, not necessarily at one place.

This group has been chosen due to their increased need for ergonomic solutions to prevent strain and discomfort during prolonged laptop use. During the research phase, the target group may be further refined based on the identified unmet needs and preferences.

Planning:

My plan consists of several milestones, including research, concept development, prototyping, user testing, and design for manufacturing. I plan to involve users in the design process by participating in co-creation meetups and workshops like [Sensemakers Amsterdam](#). Below is the initial planning for the tasks and activities over the course of 20 weeks:

Week	Plan
1-4	Literature review and primary research (interviews, surveys, photo studies, focus groups) to identify unmet needs and requirements of target users
5-8	Concept development, design iterations, and prototyping, incorporating user insights, sustainable materials, and the quick-mount feature
9	Midterm review and presentation
10-12	Refining the prototype based on midterm feedback, incorporating user feedback
13-14	User testing and validation of the refined prototype
15	Go/No-Go decision and adjustments if necessary
16-18	Finalizing the design, creating detailed technical drawings, and establishing a manufacturing plan
19-20	Preparing and handing in final documentation, presentation materials, and deliverables

Planned SCs for graduation: (Open SCs)

Do Research:

- **1.5 AB:** Report on research using a practical scientific standard

Design & Engineer:

- **2.4 C:** Desirable, Viable, Feasible
- **2.6 C:** Evaluation

Organize & Manage:

- **3.4 C:** Entrepreneurship

Methods:

I'm planning to employ various methods throughout the project to ensure a user-centered design process. Some of the methods I plan to use:

Diverging & Converging: Ideate the product concept and components from scratch

User interviews: Conduct one-on-one interviews with potential users to gather insights into their ergonomic needs, preferences, and pain points.

Surveys: Distribute online surveys to collect quantitative data on user needs, preferences, and expectations regarding a customizable, eco-friendly laptop stand.

Photo studies: Analyze images of users' current laptop setups to identify common ergonomic issues and potential opportunities for improvement.

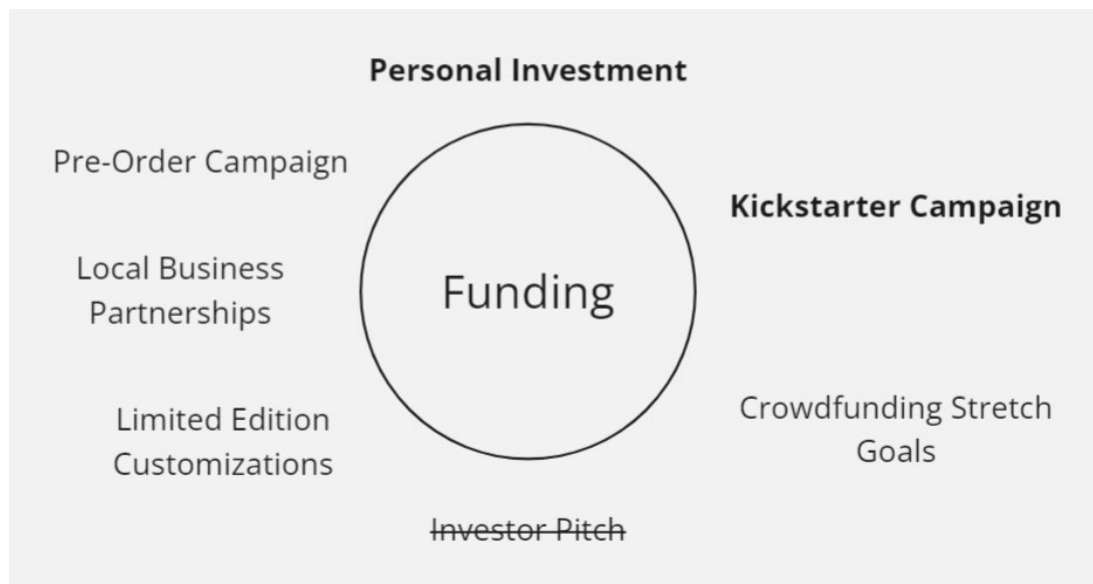
Co-creation workshops & Focus groups: Collaborate with potential users to generate design concepts and ideas that address their needs and preferences.

Prototyping and testing: Develop and test multiple iterations of the laptop stand, incorporating user feedback and sustainable materials, to refine the design and ensure its effectiveness.

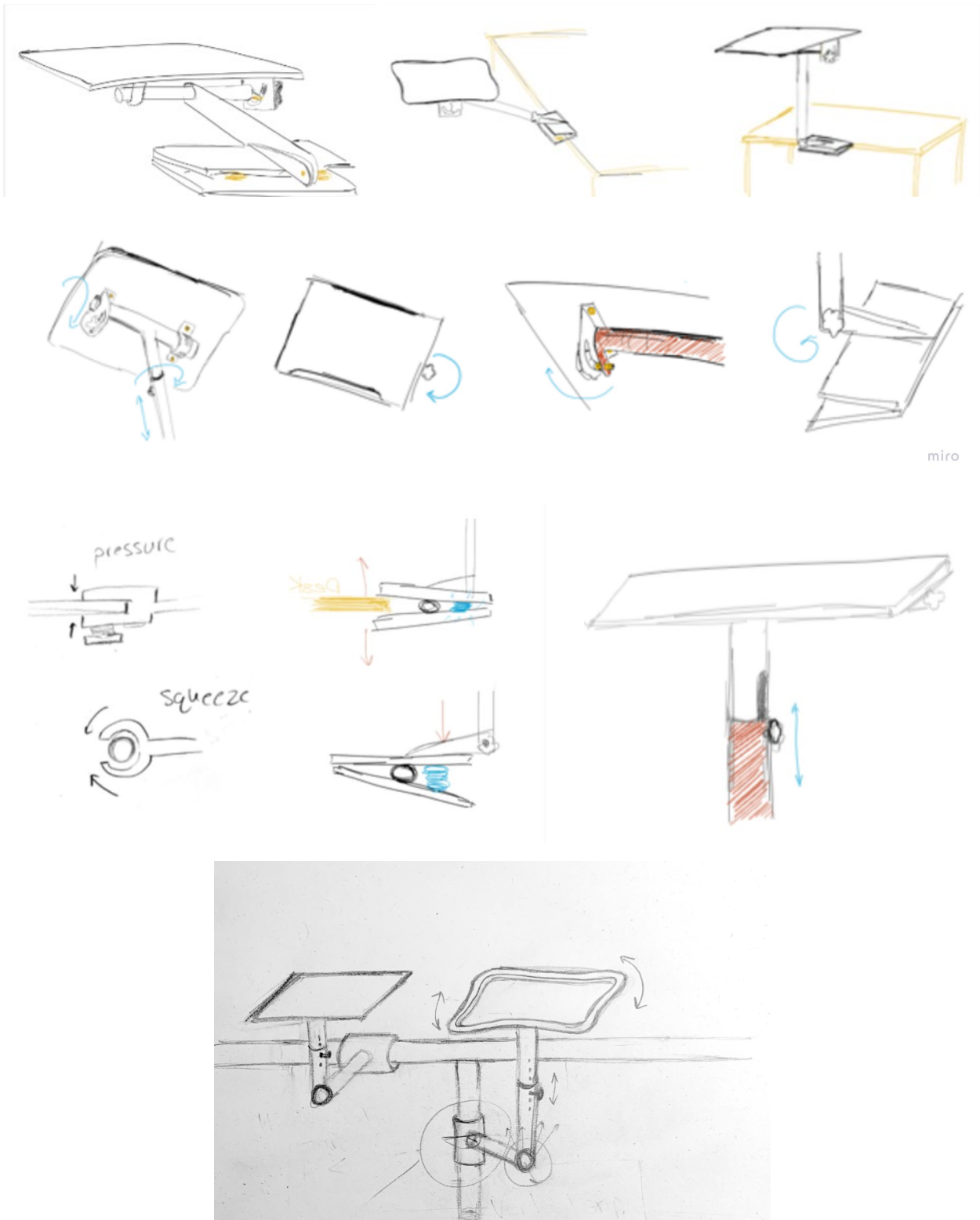
Deliverables:

I aim to deliver a functioning prototype, technical drawings, production instructions, and detailed report(s) outlining the research findings, design process, and sustainability considerations.

Funding:



Early Sketches:



Imagine the possibilities...

The product is called **Gripstone** (For now):

1. **Kitchen Counter:** Turn a kitchen countertop into a recipe hub by attaching Gripstone to the edge of the counter, keeping your laptop safe from spills and messes while you cook.
2. **Balcony Railing:** Convert your balcony railing into a work surface with a view.
3. **Airport Armrest:** Enhance your comfort during long layovers at the airport by attaching Gripstone to a waiting area seat's armrest, allowing you to maintain proper posture and reduce fatigue.
4. **Library Table:** Set up a temporary workspace at the library by clamping Gripstone to a table edge, providing an ergonomic boost and freeing up valuable table space for books and notes.
5. **Park Bench:** Turn a park bench into a relaxing outdoor office by attaching Gripstone to the bench's backrest, giving you the chance to work in a serene and inspiring environment.
6. **Dining Table:** Transform your dining area into a productive workspace in a snap. No need for a separate home office; just clamp Gripstone to your table, and you're all set for a day's work, keeping your dining space versatile for meals and meetings alike.
7. **Bed's Headboard:** Create a cozy, late-night study nook right in your bedroom. Gripstone attaches neatly to your headboard, offering a comfortable angle for your laptop or tablet, making those late-night study sessions a bit more bearable.
8. **Treadmill:** Merge fitness with multitasking by securing Gripstone to your treadmill's control panel. Catch up on emails, watch lectures, or attend virtual meetings—all while getting your steps in.
9. **Tripod or Light Stand:** For photographers and videographers, Gripstone turns your tripod or light stand into a mobile editing station. Review and edit shots on the spot, streamlining your creative process.
10. **Hospital Bed Rail:** Offer patients a touch of home and connectivity by attaching Gripstone to their bed rail. It's a simple way to keep entertainment, communication, and relaxation within arm's reach during recovery.
11. **Steering Wheel (Parked Vehicle):** Road warriors can turn their parked vehicle into a makeshift office. Gripstone attaches to the steering wheel, providing a stable platform for laptops or tablets during those in-between moments.

12. **Projector Stand:** Elevate movie nights or gaming sessions by pairing Gripstone with a projector stand. It's a portable home theater solution that's perfect for any room or even outdoors.
13. **Bunk Bed Side:** Dorm life can be cramped, but Gripstone makes it functional. Attach it to the side of a bunk bed for an instant, space-saving workstation that's perfect for study sessions.
14. **Wheelchair Armrest or Tray:** Enhance accessibility by attaching Gripstone to a wheelchair's armrest or tray. It's an adjustable, secure workspace that moves with the user, offering independence and convenience.
15. **Workout Bench/Gym Equipment:** Turn your gym equipment into a personal trainer by mounting Gripstone. Keep workout videos, tracking apps, or music within reach, making exercise more enjoyable and efficient.
16. **Poolside or Beach:** Work or relax in style by the water. Gripstone attaches to lounge chairs or cabanas, providing a stable platform for your devices, so you can enjoy the sun without sacrificing productivity or leisure.
17. **Mobile DJ Station:** DJs can set up shop anywhere by securing Gripstone to their equipment case. It's a stable, portable platform for laptops, making it easier to mix tracks and keep the party going.
18. **Bicycle Repair Station:** DIY bike repairs just got easier. Fasten Gripstone to a work stand or clamp, and you've got a handy guide right where you need it, keeping your hands free and your focus sharp.
19. **Art Studio Assistant:** Artists can attach Gripstone to an easel or cart, turning it into a digital reference library. Keep inspiration and tutorials close by as you create your next masterpiece.
20. **Workshop Helper:** DIY enthusiasts can clamp Gripstone to a workbench or tool cart. It's like having an extra set of hands, keeping tutorials, plans, or measurements right at eye level.
21. **Classroom Aid:** Teachers and students alike can benefit from Gripstone. Secure it to a podium or desk for an interactive learning experience, keeping educational materials and digital tools within easy reach.
22. **Trade Show Display:** Make your booth stand out by mounting Gripstone to your stand or kiosk. It's an interactive way to present products or services, drawing in attendees and engaging them on a new level.
23. **Photography Studio:** Gripstone turns your backdrop stand or lighting rig into a control center. Manage live views, editing, or tethered shooting with ease, keeping your creative flow uninterrupted.

24. **Outdoor Camping:** Bring entertainment to the great outdoors. Fasten Gripstone to a camping chair or table, and you've got a movie theater under the stars, perfect for unwinding after a day of adventure.
25. **Food Truck Menu:** Modernize your street food setup by securing Gripstone to your truck. Display your menu digitally or take orders on the go, keeping up with the hustle and bustle of the food scene.
26. **Boat Dashboard:** Sail with confidence by mounting Gripstone to your boat's console. It's a secure way to manage navigation or entertainment systems, enhancing your maritime adventures.
27. **Home Gardening:** Gardeners can attach Gripstone to a table or fence, keeping planting guides or tutorials at their fingertips. It's like having a green-thumbed assistant by your side.
28. **Vehicle Maintenance:** Mechanics can secure Gripstone to a tool chest or car hood. Maintenance manuals and instructional videos are just a glance away, making repairs smoother and more efficient.
29. **Tailgating Companion:** Turn the back of your truck or a folding table into an entertainment hub. Gripstone holds your device securely, so you can enjoy sports or cooking videos while you grill and chill.
30. **Crafting Station:** Crafters can fasten Gripstone to their table or sewing machine. Patterns, tutorials, or inspiration are all within view, making your creative projects more enjoyable and less cluttered.
31. **Music Practice:** Musicians can attach Gripstone to a stand or instrument case. Digital sheet music or metronome apps are right where you need them, keeping your practice sessions in perfect harmony.
32. **Public Speaking:** Speakers can secure Gripstone to a lectern or stage setup. It's a reliable platform for notes or presentations, helping you deliver your message with confidence.
33. **Retail Display:** Store owners can mount Gripstone to fixtures or display cases. Create an interactive product catalog or information station that engages customers and enhances their shopping experience.
34. **Outdoor Markets:** Vendors can attach Gripstone to a stall or canopy. It's a digital display for product information, prices, or contactless payments, streamlining transactions and drawing in market-goers with its tech-savvy appeal.
35. **Pet Care:** Pet groomers and owners can fasten Gripstone to a grooming table or pet playpen. Keep care instructions, training videos, or entertainment for your furry friend handy while you attend to their needs.