

PERIODS OF CHANGE

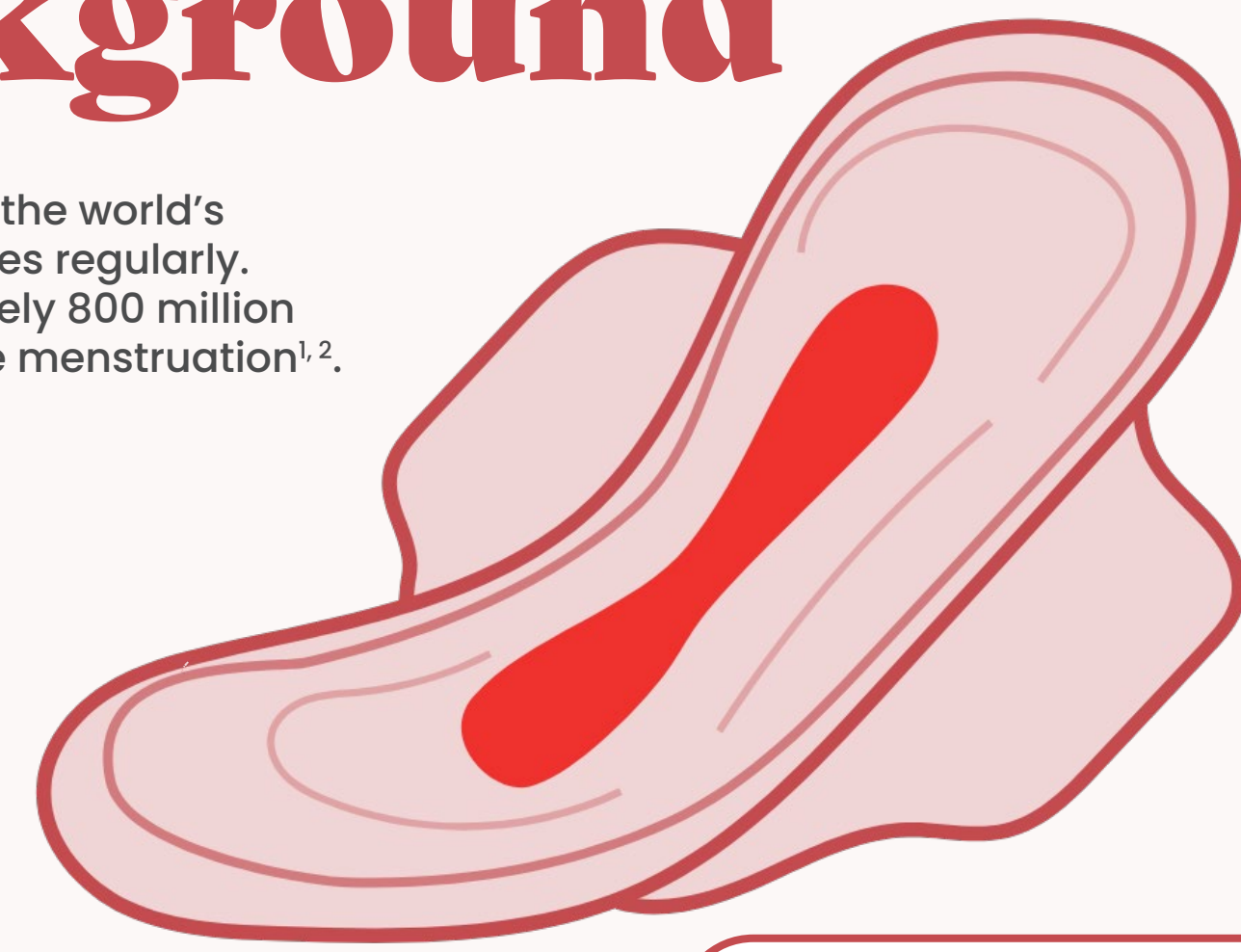
Reusable Period Products for a Greener Tomorrow

April Rose Skare Hammeren: arhammer@stud.ntnu.no
 Herman Høgseth Haavind: herman.h.haavind@ntnu.no
 Lea Berger: leaberg@stud.ntnu.no
 Lydia Schulstad: lydiah@stud.ntnu.no
 Solvei Yang: solveiya@stud.ntnu.no

Background



Approximately 26% of the world's population menstruates regularly. Each day, approximately 800 million individuals experience menstruation^{1,2}.

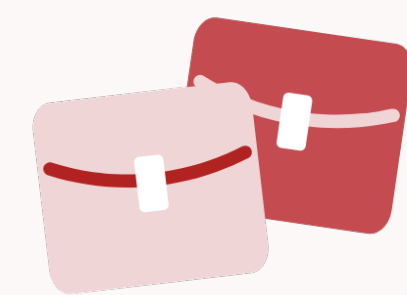
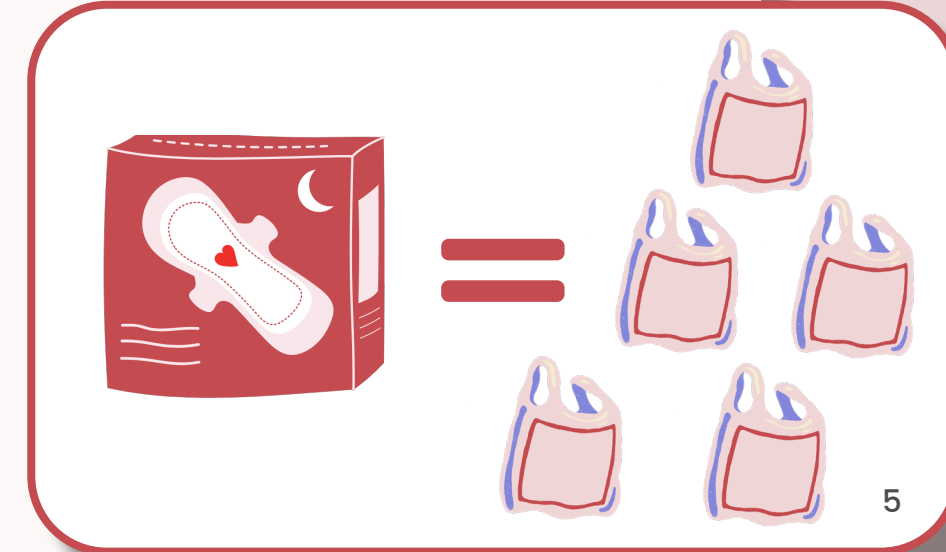


Disposable period products can contain plastics, like polyester or polyethylene^{1,3}.



Tampons contain up to 6% plastic⁴, found in the absorbent part within the tampon's core, and the string⁶.

A single-use pad can consist of up to 90% plastic, with the highest concentration found in its leakproof base layer and its absorbent parts^{1,4}.

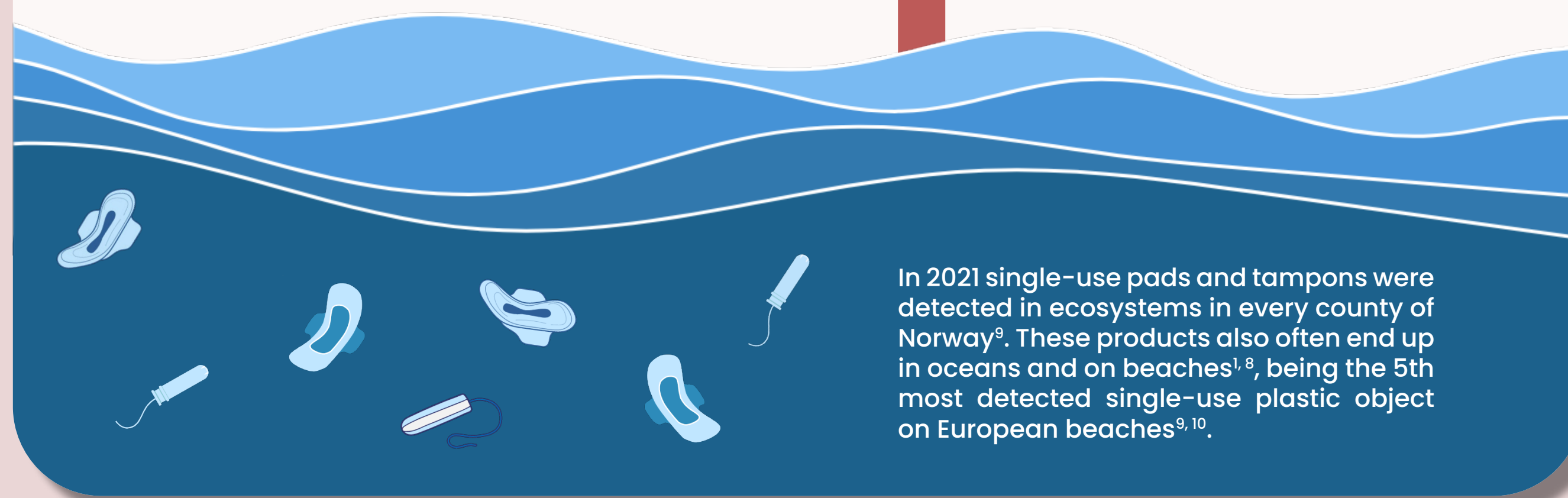


Typically, packaging materials are also made from plastics¹.



However, many tampons and pads, though to a lesser extent, are regularly flushed down the toilet^{1,4,7,8}. Insufficient clearing⁷ and flooding of the sewage system leads to the release of these products⁹ and their microplastics into the environment⁴.

Within a lifetime, a single menstruating person uses between 5000 and 15000 pads and tampons, accumulating an amount of 125 to 150 kg of menstrual waste². To the largest extent the disposed menstrual products end up in landfills. It takes 500 to 800 years for plastic-laden period products to break down^{3,4}.



In 2021 single-use pads and tampons were detected in ecosystems in every county of Norway⁹. These products also often end up in oceans and on beaches^{1,4}, being the 5th most detected single-use plastic object on European beaches^{9,10}.

The Goal is to reduce plastic waste created by menstrual products

by making more students choose reusable products.

Benefits of reusable period products:

A menstrual cup was estimated to make up only 5-7% of the purchase costs of disposable products since it can last up to 10 years. Over its lifespan it is estimated to only cause 0.4% of the plastic waste of menstrual pads¹.

Reusable pads can last between 5-10 years¹, saving approx. 1300 disposable tampons in its lifetime¹.

Period panties can last between 2-6 years¹.

Method & Theory



A survey was created to gather data about what types of menstrual products women use, their awareness and opinions on greener alternatives in comparison to traditional menstrual products. The survey was primarily distributed at NTNU campuses as the target focus group was college students.

The survey also served as an information campaign of the different types of reusable products that exist, and highlighted the problem of plastic pollution associated with traditional period products¹¹. Some of the women surveyed had not been aware of these issues before participating in the survey.

Survey Results

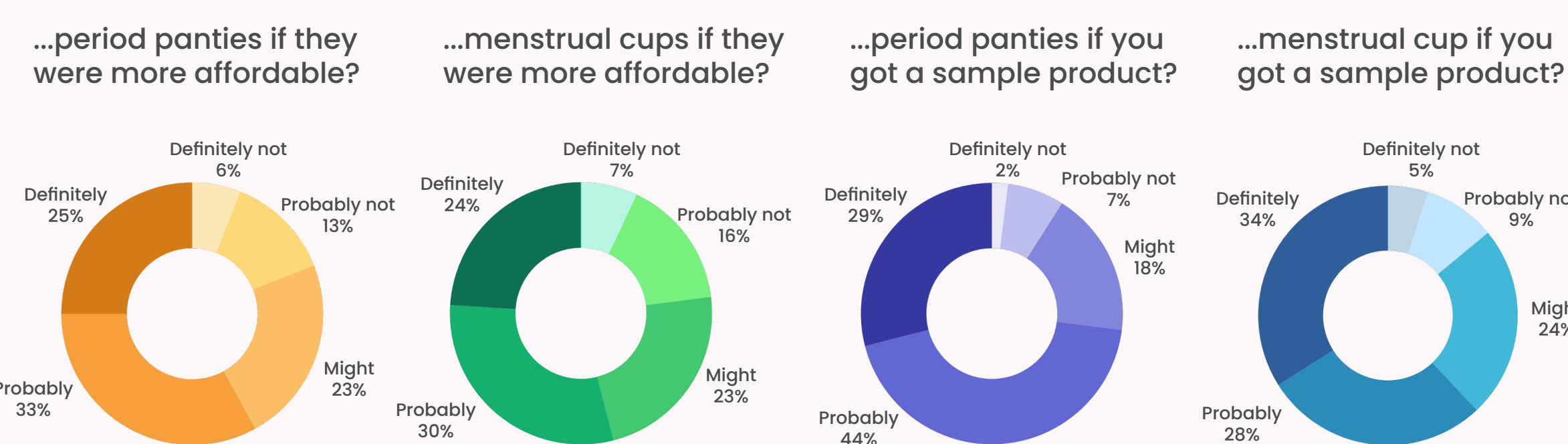
Data was taken from the results of 133 survey participants and the results concluded that the major barriers preventing women from trying and using reusable period products are cost and the unfamiliarity of the product. In order to reduce the cost associated with trying a new product and increase familiarity with the product, our group determined that the best way to raise awareness would be to provide discounted or free samples of the menstrual cup and/ or period panties to students at NTNU.



"I have always used tampons and don't want to put in the effort to try new things."

- Menstruating person

Would you use...



results of the survey in detail can be found in the supplementary material, see QR code.

Solution

1 Concept Idea

The survey results confirmed our hypothesis that students are open to trying reusable period products, but are inhibited by factors such as price and availability. To address these challenges, we proposed establishing collaborations with producers of reusable period products and distributors/organizations with a specific focus on students in Trondheim. Our concept was for these entities to provide students with more affordable or complimentary reusable menstrual products, ultimately enhancing accessibility. To execute this plan, we initiated communication with numerous organizations and companies via email.

Research shows that financial incentives serve as a powerful motivator. The prospect of receiving financial rewards encourages individuals to take specific actions, driving behavioral change^{12,13}.

2 Producer: AllMatters



AllMatters, a reputable Danish company, is recognized for its commitment to sustainability and offering environmentally friendly alternatives to conventional menstrual products such as tampons and pads. Presently, they offer a range of menstrual cups and period underwear. For our project, AllMatters has generously provided coupons offering a 25% discount on all their products. These coupons aim to alleviate the cost concerns among students, breaking down the perception that reusable period products are too expensive.

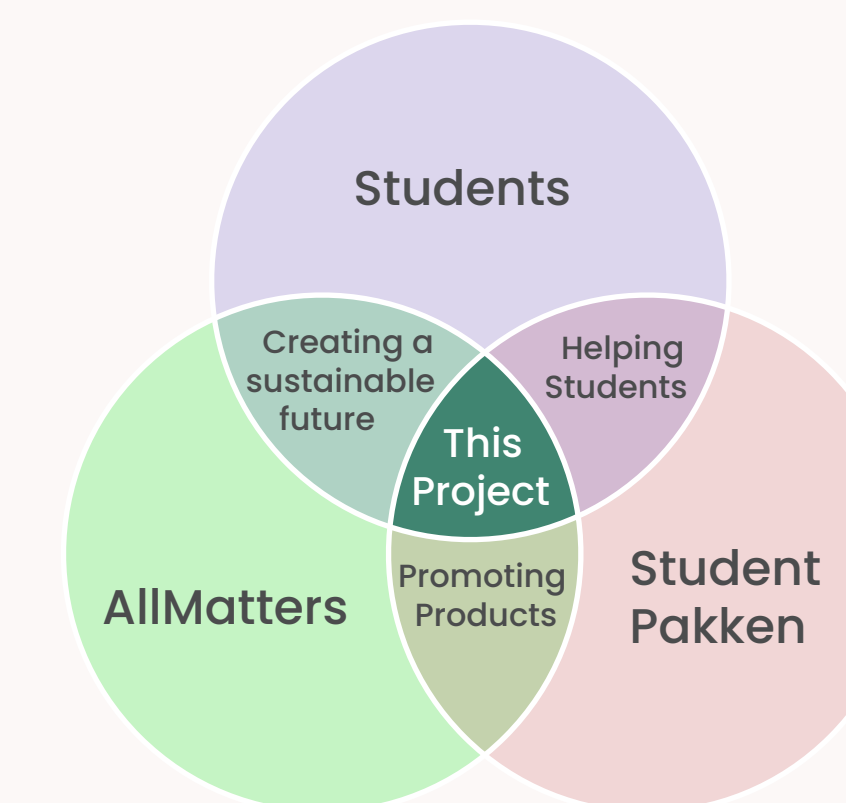
3 Distributor: Studentpakken



Studentpakken is an organization that distributes free goodie bags to students across all of Norway. Their goodie bags are sought after by all students, as they are known for containing both practical and delicious products. Recognizing the appeal of Studentpakken's goodie bags to students, we contacted them to distribute AllMatters coupons in the upcoming batch of goodie bags. This partnership ensures wider accessibility to the AllMatters coupons, reaching a broad student audience. In addition, their app and Instagram account are other channels for distribution.



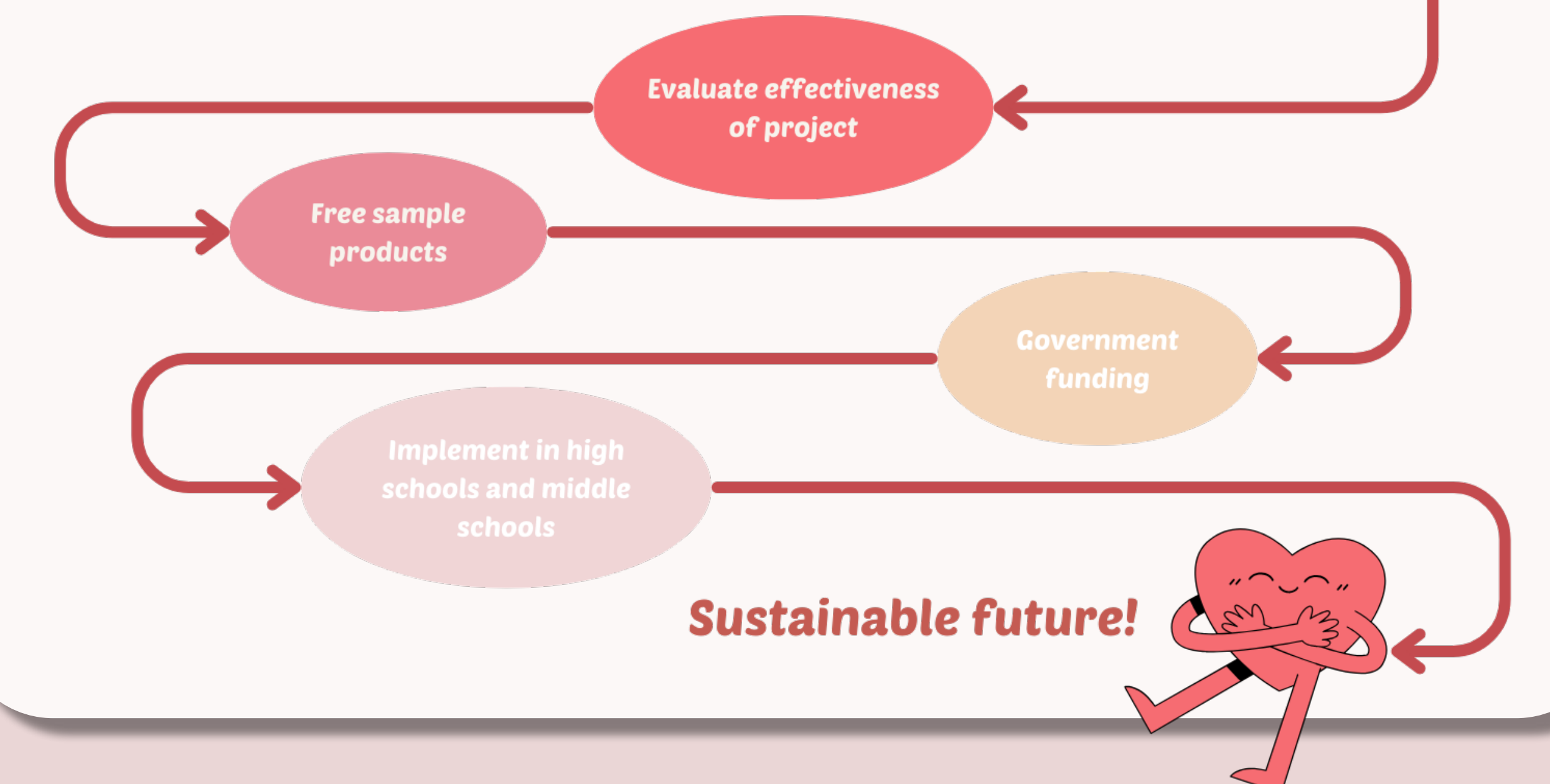
4 Benefit to Society



Hopefully, the final result of our project is that all actors involved are benefited. For AllMatters, this initiative serves as a strategic marketing move, facilitating their entry into a new market and expanding their customer base. Studentpakken, in turn, enhances its reputation as a reliable supporter for students through this initiative. As for students, the availability of more affordable reusable period products promises economic advantages.

Ultimately, by reducing the consumption of disposable plastic, society at large stands to gain by contributing to a more sustainable future.

The way forward?



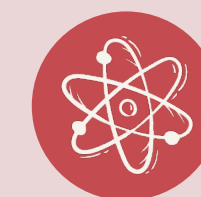
Find references & supplementary material here:



INTERDISCIPLINARITY



April: Childhood Studies/Education
 April's sales experience and education background played a crucial role in engaging with individuals, significantly contributing to expanding survey participation.



Herman: Physics
 Herman has a lot of experience in analytical and statistical methods, making him the team's data analysis expert.



Lea: Molecular Medicine
 Lea's background in molecular medicine made her well versed in research gathering, providing the needed background information to complete the project.



Lydia: Architecture
 Lydia has worked a lot with different design tools as part of her degree, making her the design expert in the team for both flyer and poster.



Solvei: Industrial Economics and Technology Management
 Solvei's degree gave her experience in working in interdisciplinary projects. She contributed to facilitating the progress flow and planning of the team's work.