



E-ACADEMY AGROFORESTRY: DESIGN AND DEVELOPMENT OF AN AGROFORESTRY E-LEARNING TOOL FOR FLANDERS AND THE NETHERLANDS



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The project Farming the Future – Building Rural Networks for Climate-Adaptive Agriculture - FARM LIFE – is co-funded by the LIFE Programme of the European Union under contract number LIFE17 CCA/ NL/000093

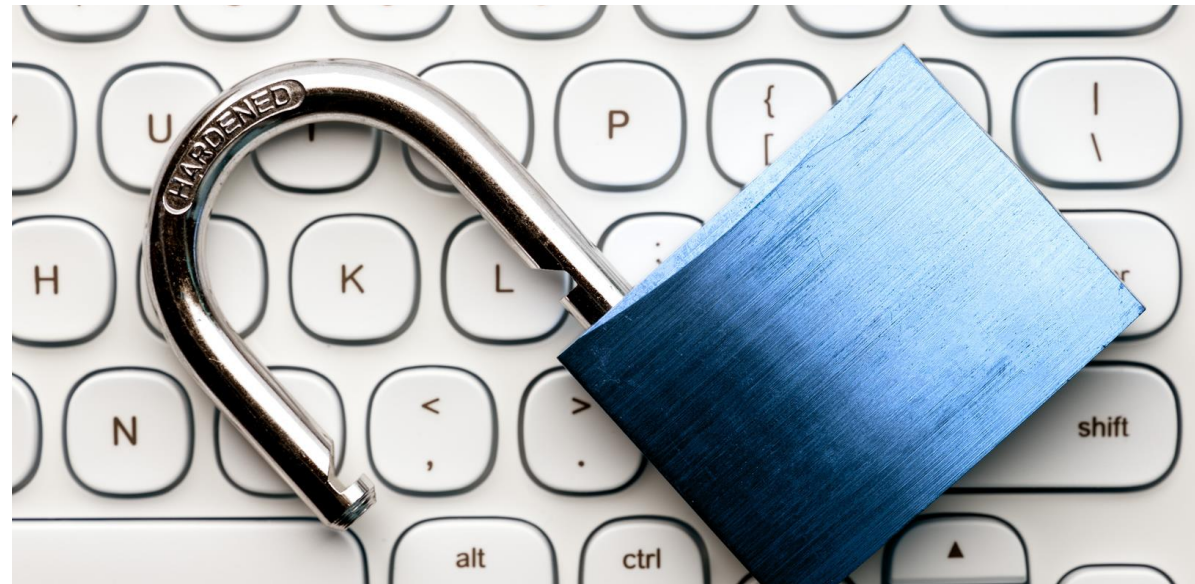
INTRODUCTION

THE INFORMATION IS ALREADY THERE, RIGHT?



Remove as many barriers as possible, and always ensure easy access to reliable information, especially for farmers and (horticultural) schools.

OPEN ACCESS IS KEY



Teaching and learning materials should be accessible to everyone, especially to farmers and horticultural schools.

E-ACADEMY AGROFORESTRY



Increase awareness about agroforestry among people in the Netherlands and Flanders (and beyond).

OBJECTIVES

1 **CREATE LEARNING & TEACHING SOURCES**

Suitable for e.g. farmers, agriculture students and teachers, agrotechnicians, ...

2 **GUARANTEE OPEN ACCESS**

The E-Academy remains a free and open-access tool.

3 **GUARANTEE FLEXIBILITY**

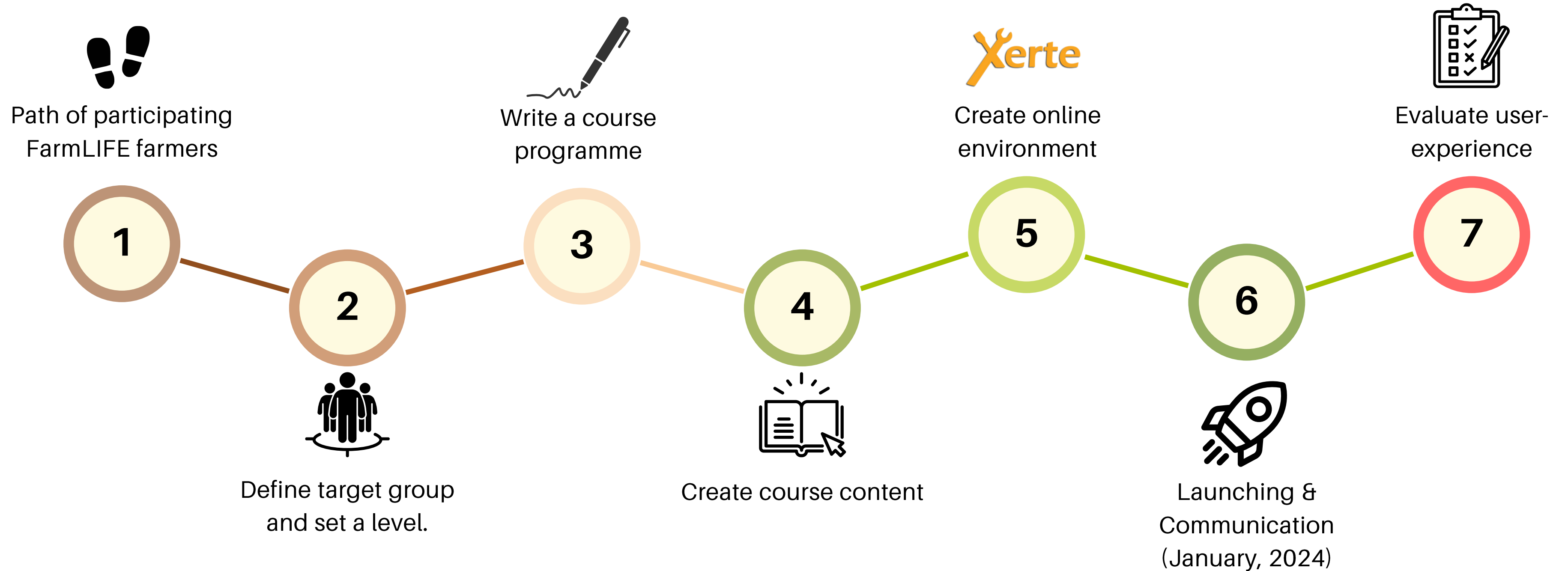
Possible to explore any e-module or to follow the entire series of e-modules chronologically

4 **EVALUATE USER EXPERIENCE**

Questionnaires (Microsoft Forms) are embedded in each e-Module.

METHODOLOGY

How to create a flexible and interactive online course about agroforestry without learner-instructor interaction?



RESULTS

Part I. The 6 e-Modules

1



What is agroforestry?

2



Ecological interactions between trees, crops, and animals

3



Tree species selection

4



Planting techniques and tree management

5



Agroforestry vision: set strategic goals and dreams

6



Agroforestry in the design phase


RESULTS

Part II. Demo e-Module 1


AGROFORESTRY
VLAANDEREN

WELKOM BIJ
DE AGROFORESTRY PLANNER!


Op deze Agroforestry Planner vind je een verzameling van kennis en interactieve tools die zorgvuldig is samengesteld door het Consortium Agroforestry Vlaanderen. Klik op de tegeltjes om meer te weten te komen over agroforestry via het Kennisloket, de E-academy en de vijf interactieve tools!



VERBREED JE KENNIS VIA
HET KENNISLOKET EN DE E-ACADEMY




KENNISLOKET
Ik ben op zoek naar kennis over verschillende agroforestry gerelateerde thema's.




E-Academy
Ik wil graag (basis)kennis opdoen over agroforestry in de vorm van een (gratis) online lessenreeks.


GA ZELF AAN DE SLAG MET 5 INTERACTIEVE TOOLS




DENTRO
Welke bomen zijn geschikt voor mijn agroforestry perceel? Kies uit een volledige boomsoortenlijst of selecteer geschikte variëteiten voor populier of fruitbomen.




BETULA
ontwerptool
Hoe ontwikkel ik stap per stap een plan voor een nieuw agroforestry project? Met welke aspecten dien ik rekening te houden?



INTACT
kosten-batentool
Welke kosten en welke baten kan ik verwachten bij het uitvoeren van mijn agroforestry plan? Op welke termijn?



CARAT
koolstof tool
Hoeveel koolstofopslag zal mijn agroforestry project realiseren, in de biomassa en in de bodem? Op welke termijn?



MIMOSA
notenoofst keuzetool
Welke werktuigen bestaan er voor het oogsten van noten en welke keuze is daarbij geschikt voor mijn situatie?

De partners van het Consortium Agroforestry Vlaanderen zijn niet verantwoordelijk voor eventuele gevolgen gerelateerd aan keuzes gemaakt via deze Agroforestry Planner. Met reacties, vragen of bedenkingen met betrekking tot deze Planner kunt u steeds bij ons terecht via: info@agroforestryvlaanderen.be.

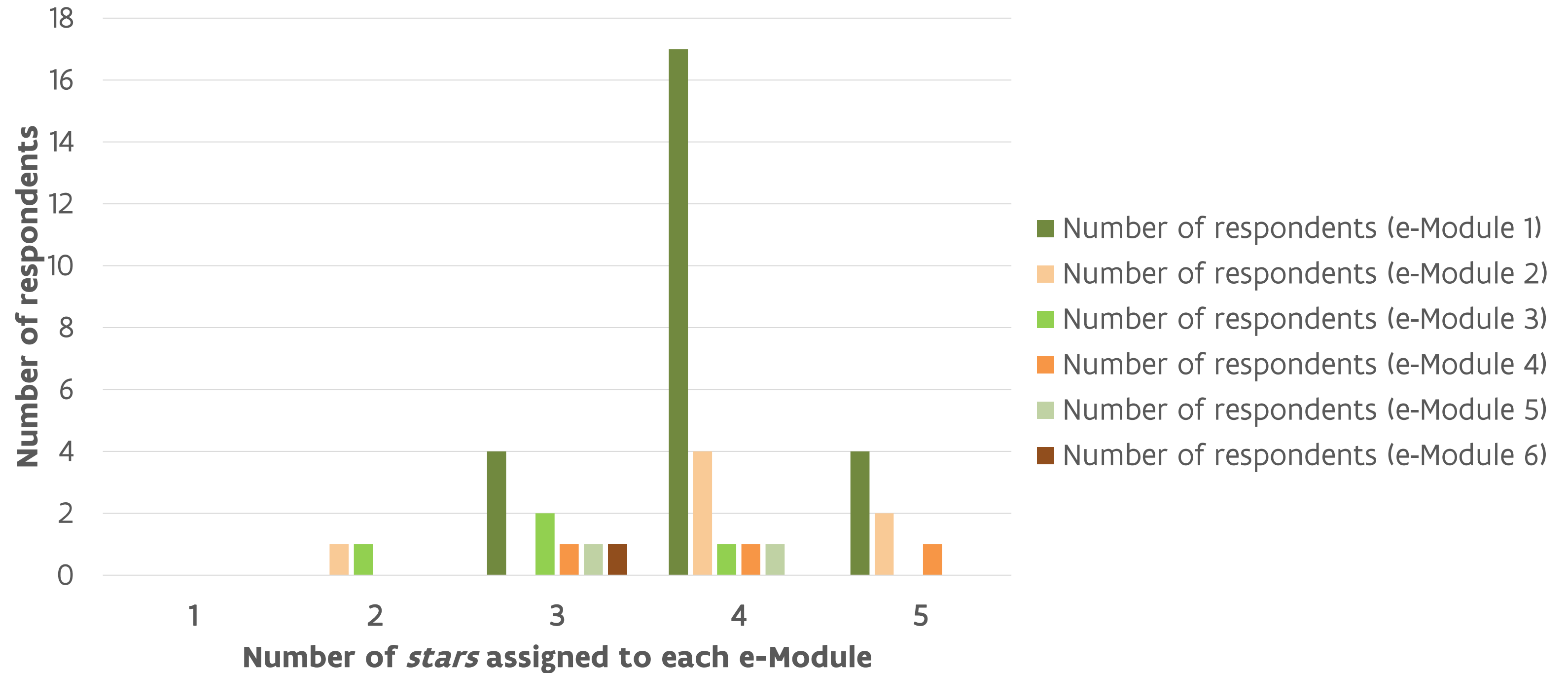
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RESULTS

*Online test week (November 2023)

Part III. Evaluation

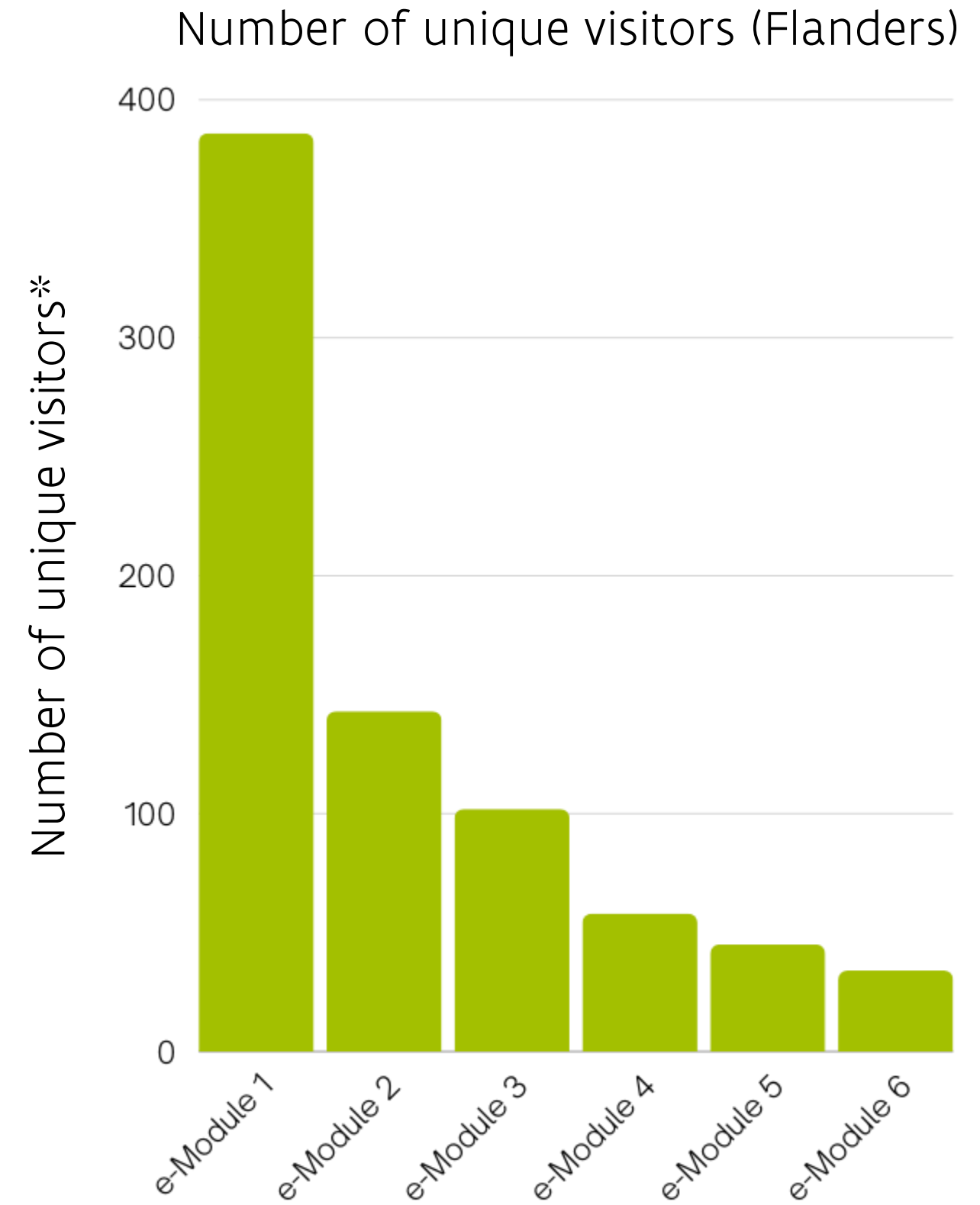
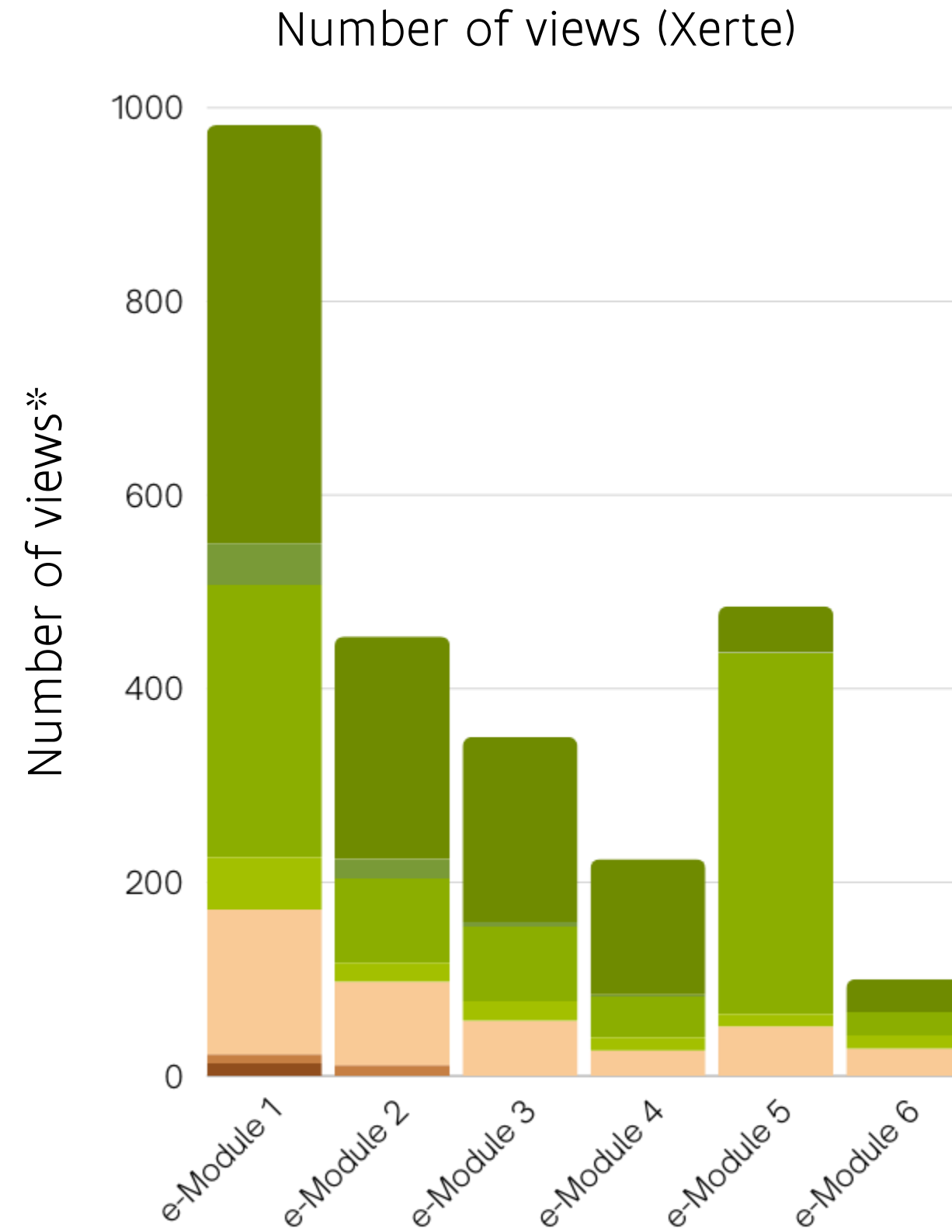
Respondents gave an overall score to each e-Module



RESULTS

*Data obtained until May 17th, 2024

Part IV. Effect of launching the E-Academy on:



DISCUSSION

Lessons learnt by the developers



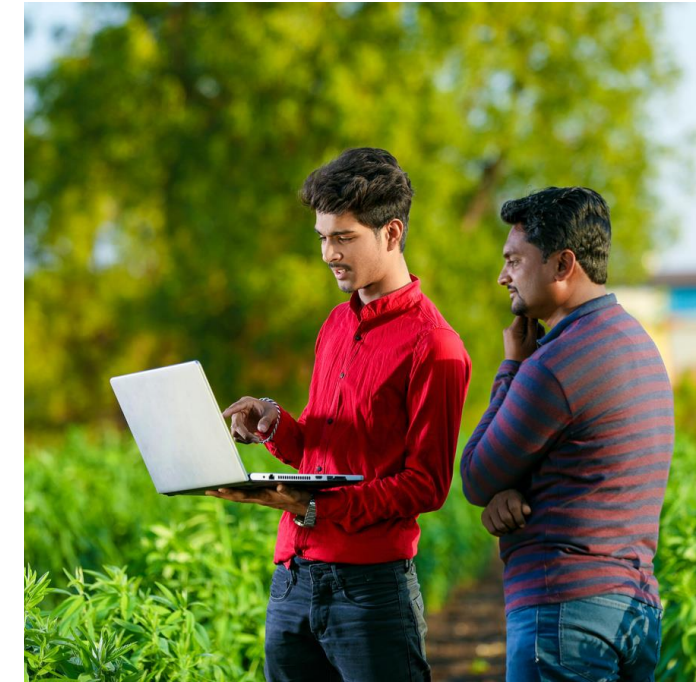
TARGET GROUP

A broad target group is difficult: different starting points and different requirements



RECORDING VIDEOS

More attention needed in how the speaker interacts with the camera (the farmers did great though!)



INTERPRETATION

The E-Academy does not replace professional advice and consultancy.



CONCLUSION

- **THE E-ACADEMY IS ...**

An interactive Dutch e-learning tool with 6 e-modules with which you can learn more about agroforestry.

- **INTERACTIVE CONTENT**

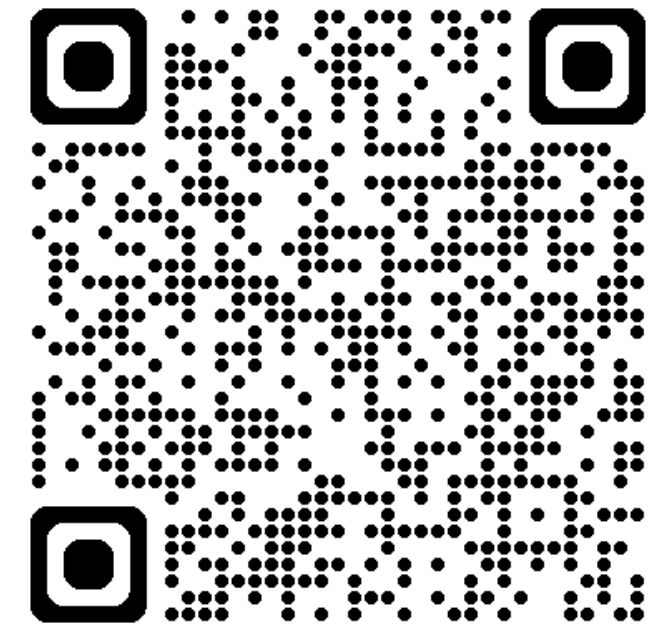
Interactive content stimulates people to learn about a new topic, especially if compatible with smartphones.

- **TESTING IS VALUABLE**

Feedback was given by participants during the physical and online test moments, which helped meeting the target group's needs and refine the user experience.

- **FARMERS ON STAGE**

Video content on (local) farms was highly appreciated by our target audience.



References

Abstract

- 1 Consortium Agroforestry Vlaanderen (n.d.). Agroforestry Planner. Retrieved December 19, 2023, from <https://bdbnet.bdb.be/pls/apex/f?p=147:11>
- 2 Trouw (2023, 6 december). UvA-studenten bedachten een nieuw keuzevak: voedselbosbouw. Geraadpleegd op 19 december 2023, van https://www.trouw.nl/duurzaamheid-economie/uva-studenten-bedachten-een-nieuw-voedselbosbouw~b7e61011/?utm_source=ground.news&utm_medium=referral keuzevak-
- 3 Universiteit Gent. (z.d.). Masteropleiding Landbouwkunde. Geraadpleegd op 19 december 2023, van <https://www.ugent.be/bw/nl/opleidingen/bio-ingenieur/master/faq-keuze-masteropleidingen/landbouwkunde-faq.htm>
- 4 Wageningen University & Research. (n.d.). Courses from the Forest Ecology and Forest Management group. WUR. Geraadpleegd op 19 december 2023, van <https://www.wur.nl/en/research-results/chair-groups/environmental-sciences/forest-ecology-and-forest-management-group/education/courses.htm>
- 5 FarmLIFE (n.d.) Reproduction manual. FarmLIFE project
- 6 Biggs, J. B., & Tang, C. (2011). Teaching for quality learning at university (4th ed.). Open University Press.
- 7 Surma, Tim. , Kristel Vanhoywegehen, Dominique Sluijsmans, Gino Camp, Daniel Muijs and Paul A. Kirschner (2019) Wijze lessen – Twaalf bouwstenen voor effectieve didactiek. Ten Brink Uitgevers
- 8 Yanqing Wang, Yang Cao, Shaoying Gong, Zhen Wang, Na Li, Li Ai (2022) Interaction and learning engagement in online learning: The mediating roles of online learning self-efficacy and academic emotions, Learning and Individual Differences vol. 94

THANK YOU!

Questions?

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“So this agroforestry e-academy is a welcome support not only for farmers but also for teachers and students on their way to tomorrow’s agriculture.”



“All aspects involved in our project are covered. It is also an ideal guide for me to introduce visitors on our farm to agroforestry.”



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