

4TU.Resilience Open Education Resource & Academy

Advisory Board

31 October, 2022

4TU. Resilience
Engineering

THIS RESOURCE IS PART OF



Urban Resilience



In this presentation

- Our strengths, challenges
- Short term actions
- Mid term actions (cooking OER)
- Opportunities suggested by CEE

Strength: A committed team, delivering high quality work

The screenshot shows the 'Urban Resilience: Engineering perspective' page on the Edusources.nl platform. The page features a header with the 'edusources' logo and navigation options. The main content area includes a title, a welcome message, and several paragraphs of text explaining the community's mission and resources. A 'Vraag?' button is visible in the top right. Below the main text, there is a 'Collecties' section with a search bar and four collection cards, each with a title and item count.

Urban Resilience: Engineering perspective

Welkom bij de Urban Resilience Open Education Community!

Deze community is een initiatief van het '4TU Centre for Resilience Engineering'. Dit centrum is een samenwerkingsverband tussen 4 instellingen: Universiteit van Twente (penvoerder), Technische Universiteit Eindhoven, Wageningen University & Research en de Technische Universiteit Delft.

Veerkracht ('resilience') is essentieel voor onze maatschappij. Denk bijvoorbeeld aan toekomstbestendige infrastructuur of steden die overstromingen, cybersecurity en klimaatverandering moeten adresseren.

Onze toekomstige ingenieurs moeten kennis hebben op dit terrein, niet alleen vanuit hun vakgebied maar ook vanuit een systeemperspectief en een sociaal-technische invalshoek.

De leerstof (videos, games, presentaties, etc.) zijn vanuit deze systeemkant en multidisciplinaire invalshoek geselecteerd en ondergebracht in collecties. Qua thema is er verder specifieke aandacht voor stedelijke problematiek.

De komende jaren zal deze collectie verder worden uitgebreid.

Wilt u materiaal delen via ons platform of reviews?
Neem dan contact op met: Dr. Carissa Champlin, 4tu-re-oer@4tu.nl

[Bezoek website >](#)

Collecties

Zoek in leerstof van deze community

- Collectie: Resilience Engineering Core Concepts (12 items)
- Collectie: Design Principles for Critical Services and Infrastructures (41 items)
- Collectie: Measuring and Monitoring of Resilience under Uncertainty (12 items)
- Collectie: Governance and Institutional Arrangements of Complex STE Systems (13 items)

The screenshot shows a SURF article titled 'Vakcommunity Urban Resilience leert studenten kijken door de lens van veerkracht'. The article includes a photo of a woman and text describing the community's mission and its recognition by SURF.

SURF

ict-voorzieningen | onderwijs & ict | onderzoek & ict | over SURF

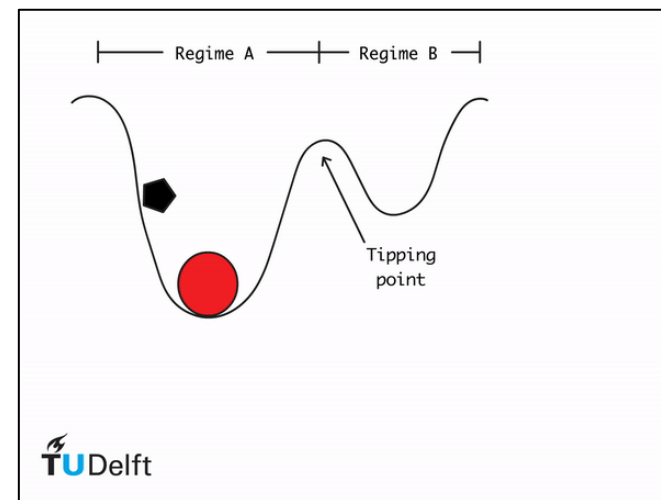
Samen aanpakken van vernieuwing

Vakcommunity Urban Resilience leert studenten kijken door de lens van veerkracht

Vier Nederlandse technische universiteiten hebben een platform gebouwd voor toekomstige generaties ingenieurs. Het 4TU-project Urban Resilience in Delta Regions leidde tot een levendige vakcommunity die open leerstof verzamelt en ontwikkelt. Het pionierswerk vroeg om veel eigen veerkracht.

Er ligt een rode bal op een gebogen lijn. Een zwarte vijfhoek werpt zich op de bal. Die rolt weg. De lijn past zich aan. Om het verschijnsel resilience ('veerkracht') uit te leggen, kun je er allerlei ingewikkelde theorieën bij pakken, maar je kunt ook de eenvoudige animatie [Resilience Ball and Cup Heuristics](#) laten zien, die docent Juan Pablo Aguilar López van de TU Delft maakte. De animatie is een open leerstofmateriaal uit de collectie van de [vakcommunity Urban Resilience](#). Postdoc Carissa Champlin gebruikt de animatie van haar collega tegenwoordig standaard in haar werk. De Nederlands-Amerikaanse is onderzoeker aan de Faculteit Techniek, Bestuur en Management van de TU Delft. Van 2019 tot 2021 leidde ze het 4TU-project Urban Resilience in Delta Regions, een initiatief van professor Tina

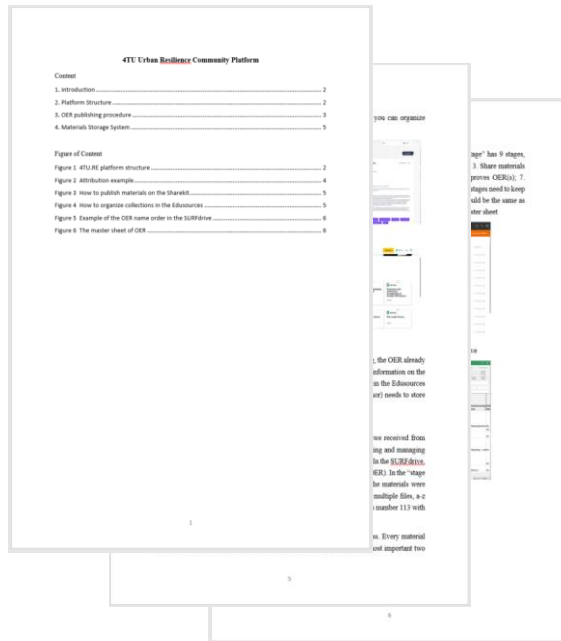
Recognized by SURF as good practice!



Resilience Ball and Cup Heuristics
Juan Pablo Aguilar

+100 individual materials and sets in Edusources.nl

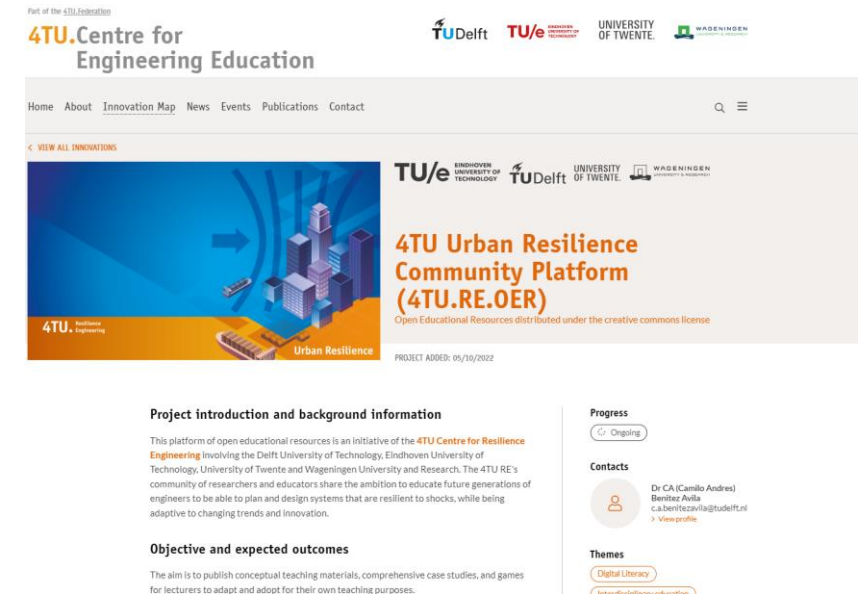
Strength: Instructions for improving usability/ management/ visibility



Manual: Platform
(in review)



Video: How to search?

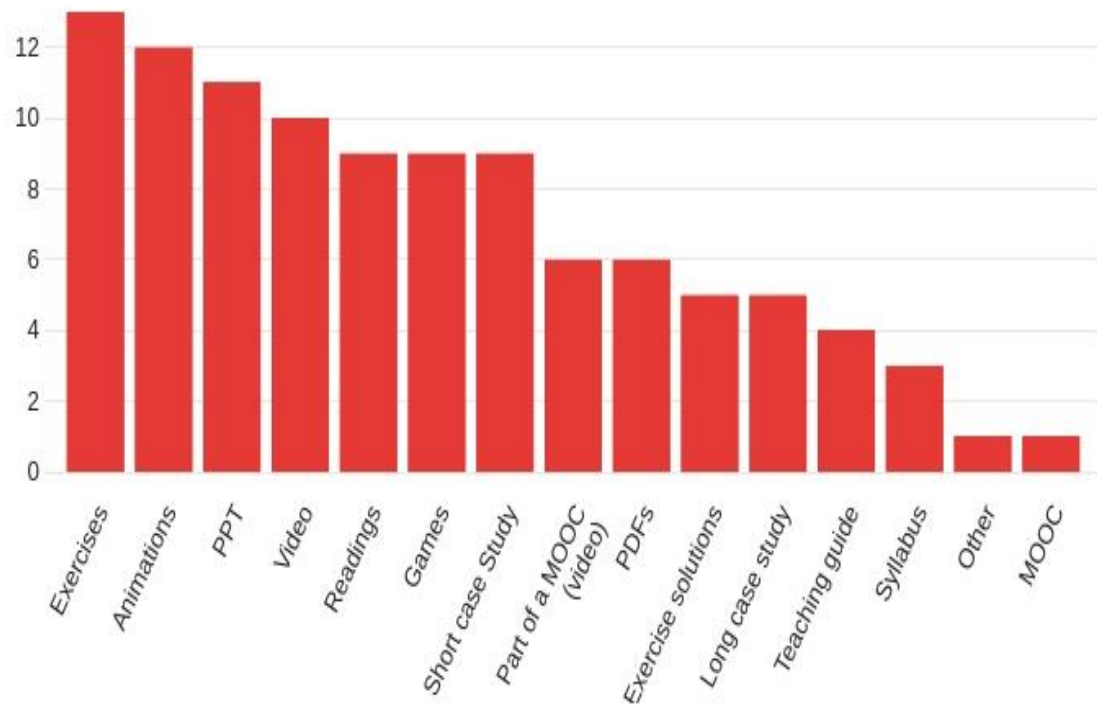


Linked to innovation map 4TU.CEE

Challenges: Mismatch between materials vs. users expectations

Types of OER you would most likely use?

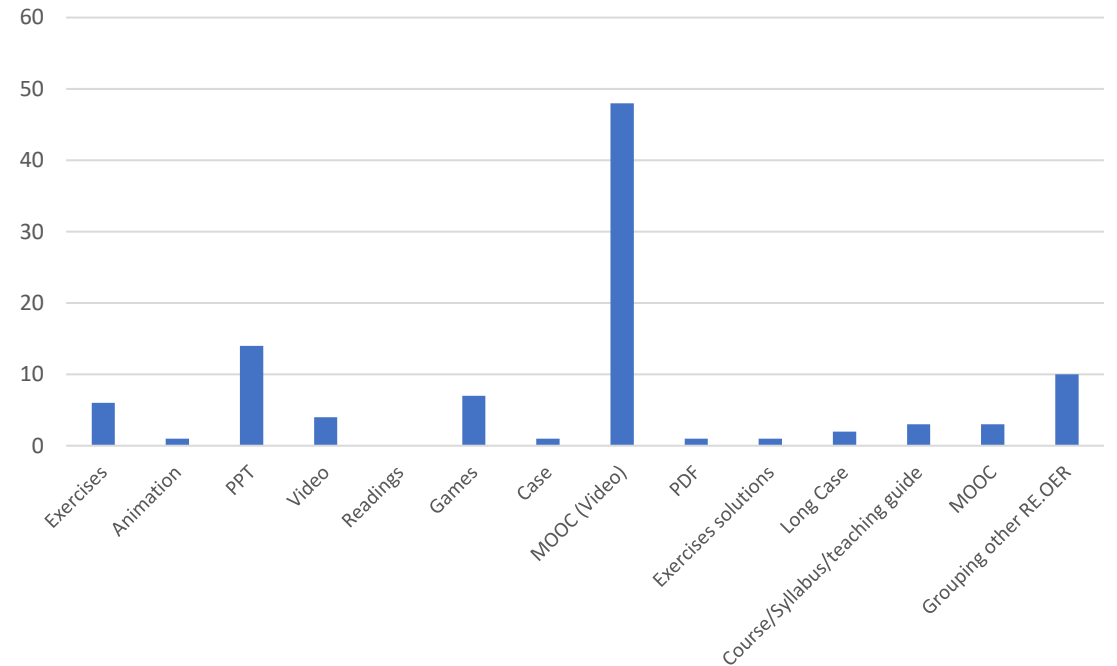
18 Responses



Survey (demand)

Type 4TU.RE.OER Material

n=101

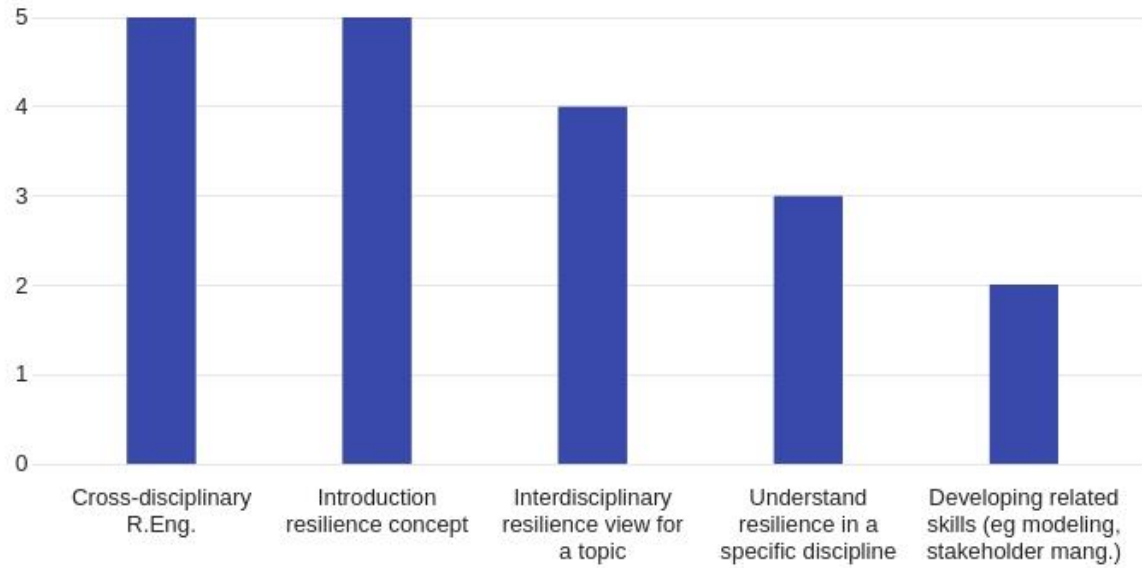


4TU.RE.OER materials (supply)

Challenges: Mismatch between materials vs. users expectations

Main purpose for reusing 4TU.RE.OER content?

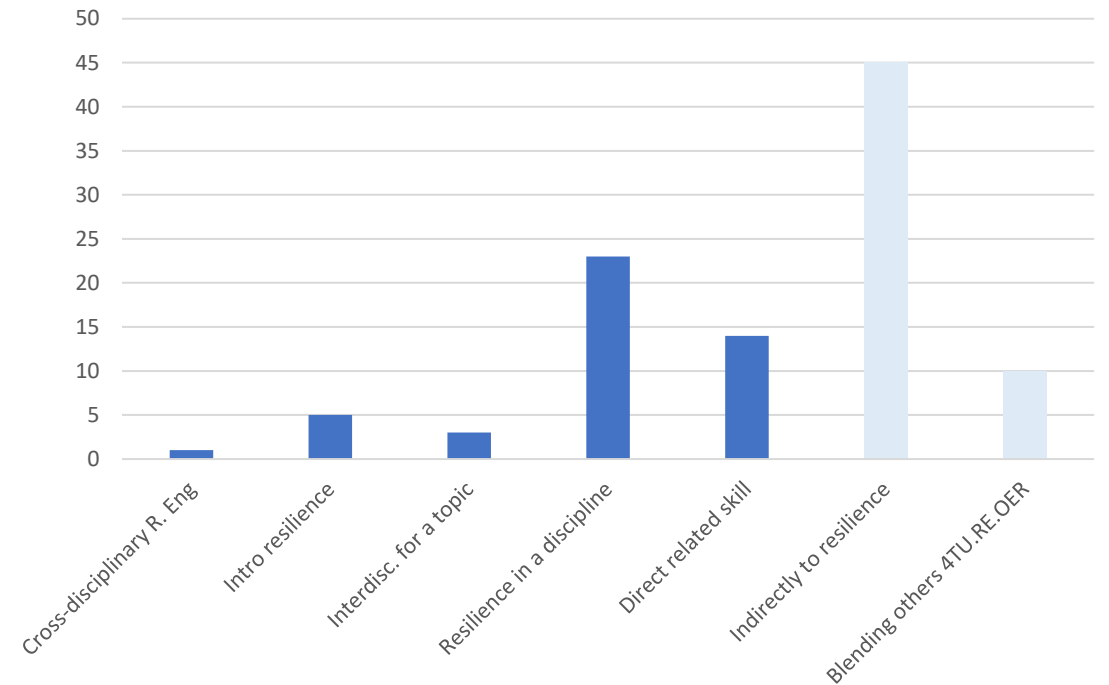
19 Responses



Survey (demand)

4TU.RE.OER Content

n = 101

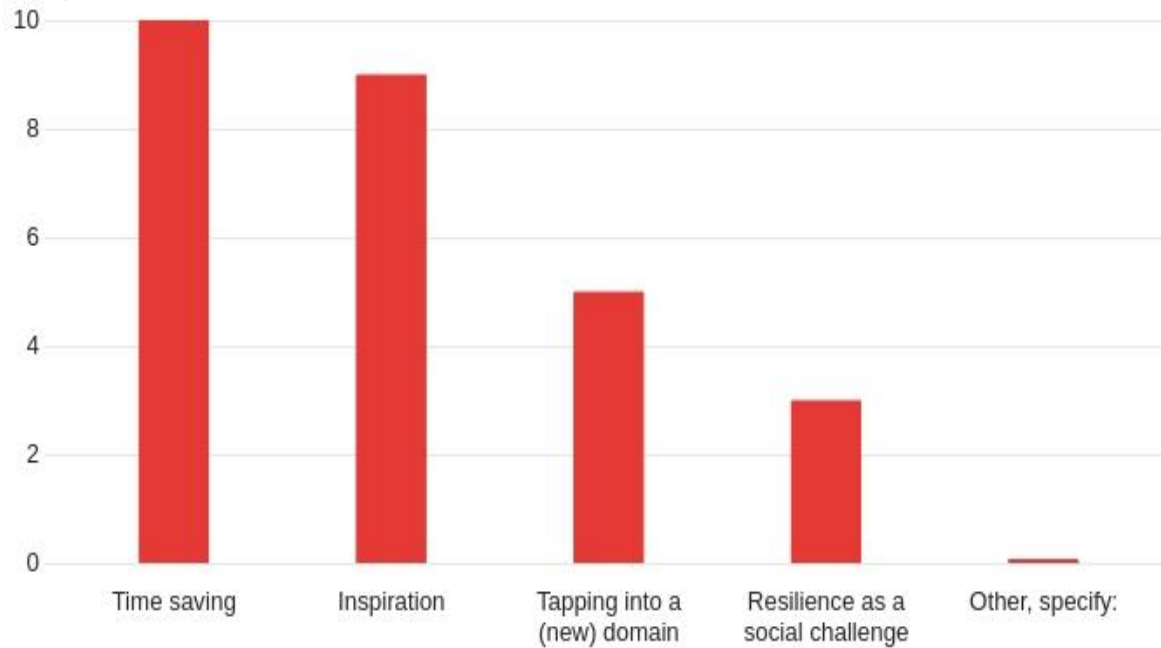


4TU.RE.OER materials (supply)

Challenges: Mismatch between format vs. users expectations

Why one would use 4TU.RE.OER materials

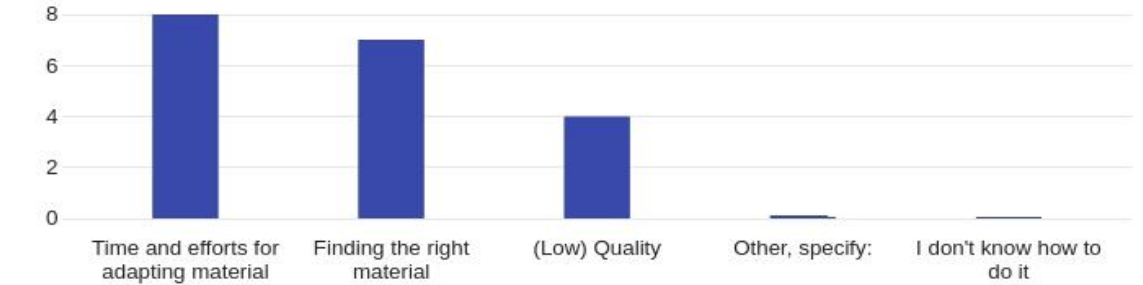
16 Responses



Survey (demand)

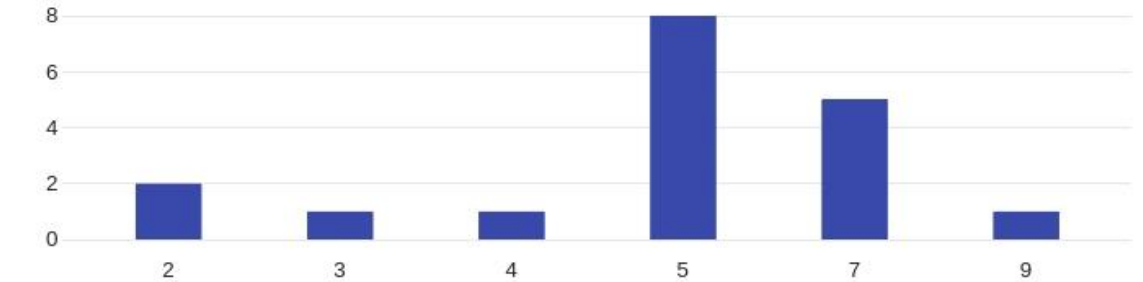
Main barrier for reusing 4TU.RE.OER

19 Responses



How easy is using 4TU.RE.OER?

18 Responses



Survey (perception supply)

We have material! but we still got to clean/improve their format

Suggestions from the survey:

User-friendly web-site for collection and database

Access (currently need to download too much to access content, cannot quickly view to choose)

Clear layout

Keeping them up to date, having short knowledge clips / videos explaining key concepts

More interactive, and update, as well as publicity

Curated and peer reviewed

Easy how to use manual/ Getting OER more known

Short term:

- Is indirectly-related MOOC “fat”, rather than muscle? Find the right place!
- Invite MOOC scholars too! Making sure their material is editable/direct related to resilience
- Build a pipeline of “pending issues” for existing materials (e.g., copyrights)
- SURF is inflexible – but we can edit (experiment!) <https://www.4tu.nl/resilience/academy/>

The screenshot shows the 'eduources' website interface. At the top, there are navigation links: 'Communities', 'How does it work?', 'Question?', 'Menu', 'NL', and a search icon. Below the navigation is a grid of course collections. A red box highlights five collections:

- Core Concepts of Resilience Engineering**: 5 items
- Design Principles for Critical Services and Infrastructures**: 13 items
- Measuring and Analysing Resilience of STE Systems**: 11 items
- Governance and Institutional Arrangements of Complex STE Systems**: 4 items
- Ethics of Resilience**: no items

A red arrow points from the 'Ethics of Resilience' collection to a 'MOOC' collection (51 items) located below the grid.

Remain the materials which with editable resources. All the MOOC materials in the five main collections to be moved to the MOOC collection

Mid term 2023 (Cooking OER - Open Education Stimulation Fund 2022/TU Delft (max 20ke)

"Cooking OER" is a 5 min instructional video produced by a teacher that has already engaged in producing and re-using an OER, where they explain how a specific material was produced (and how it is intended to be re-used by other educators). We do not cook alone. "Cooking OER" brings together our existing community and welcomes others to share, reflect and learn"

Outcomes

- 10 Cooking 5 min videos + 1 video on tips for cooking
- 10 tasters (30 seconds) contributors can use in their (e.g., LinkedIn) **for personal/professional branding**
- Guidelines for cooking

Activities

- Workshop for coaching design/video cooking making
- Student assistants (trained in design and communication)

Level commitment

- 1-day workshop,
- Rethinking (own) materials,
- Making scripts/ recording videos



Other ideas shared by CEE

- Idea for 4TU.Resilience to organize a webinar/seminar for teachers on its OER
- Consider educational (practitioner) conferences to highlight your OER (e.g. SEFI, CDIO, National Interdisciplinary Education conference, CBL conference of TU/e in may 2023)
- Link up to CEE webinar series
- Book series of 4TU.CEE – a book on the topic

