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Οι αντιλήψεις των πολιτών για την κυκλική οικονομία στον κατασκευαστικό τομέα

Δρ Σπ. Καρύτσας, Θ. Ι. Οικονόμου, Δρ Κ. Καρύτσας (Κέντρο Ανανεώσιμων Πηγών και Εξοικονόμησης Ενέργειας - ΚΑΠΕ)

Ημερίδα Κυκλική Οικονομία στον Κατασκευαστικό Τομέα - Το Ευρωπαϊκό Πρόγραμμα CO2NSTRUCT, 12 Ιουνίου 2026, Αθήνα



CO₂NSTRUCT objectives

- Creation of a **dataset** for construction materials, including Circular Economy (**CE**) **measures**.
- **Developing a strategy to quantify citizen behaviour and key stakeholder opinion toward CE and climate mitigation.**
- Mapping CE practices in the supply and value chains in the construction sector.
- Identification of potential **rebound effects** and **social impacts** of CE measures implementation.
- Developing CO₂NSTRUCT Circular Climate Mitigation Modelling **Framework** and **Scenarios**.
- Integrating CE into climate action, policies, and externalities.

Objective

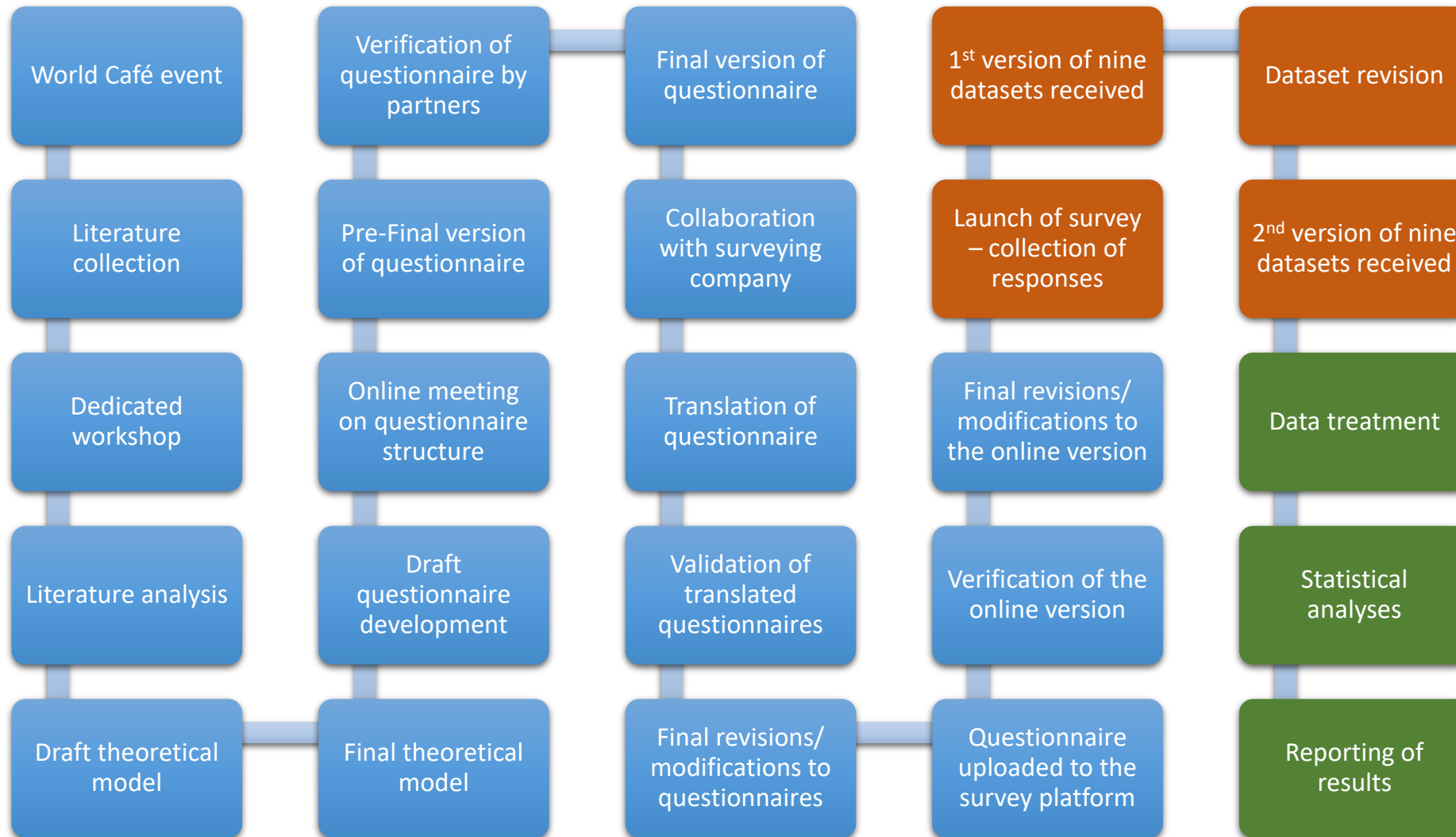
Analyze citizen awareness and behaviour on circular economy and climate change aspects and their effect on the development of climate change mitigation models.

1. General population survey
2. Young citizen survey

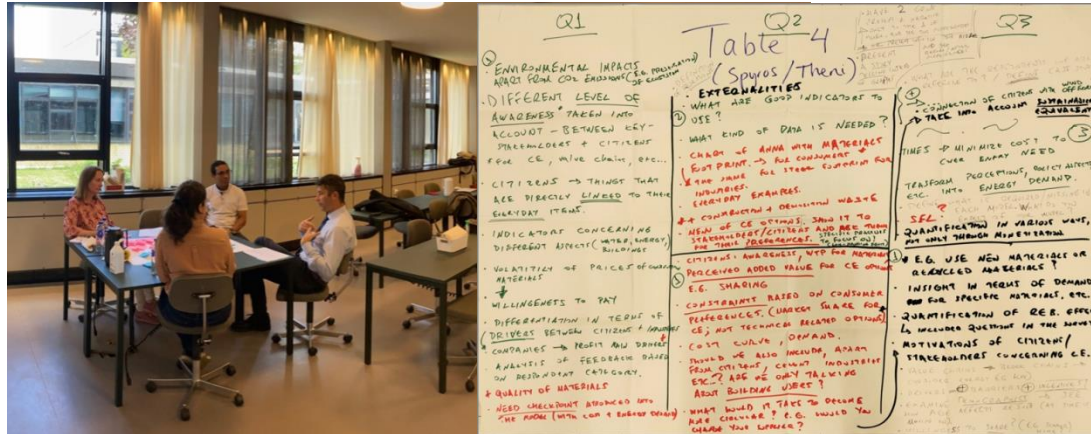
General population survey

- *Refuse (R0)*
- *Rethink (R1)*
- *Reuse (R3)*
- *Repair (R4)*
- *Refurbish (R5)*
- *Recycle (R8)*

General population survey: A co-creation process



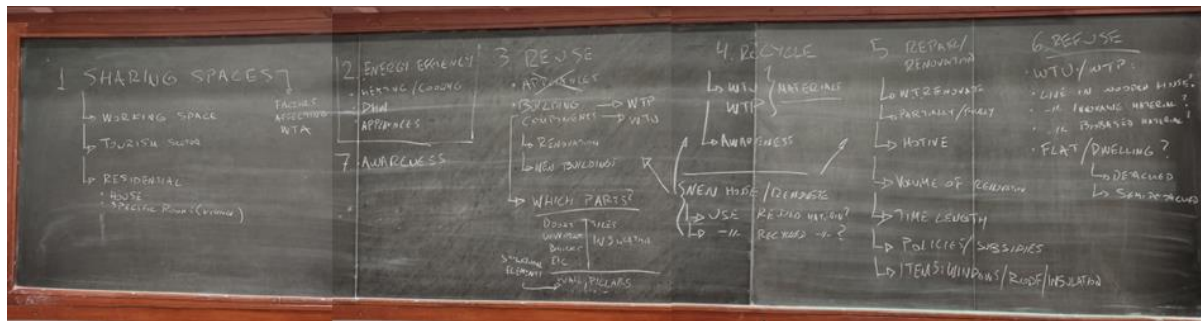
General population survey: A co-creation process



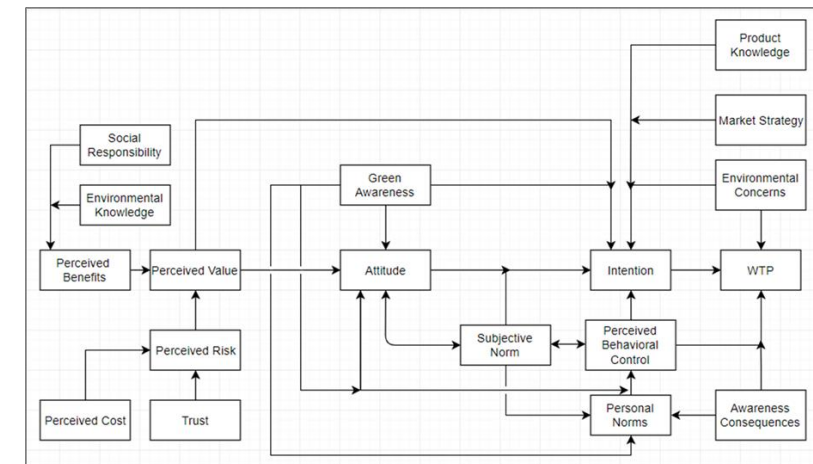
World Café event during the kick-off meeting

Stakeholder type	Circular economy aspect	Sector	Societal aspect
- Stakeholder - Citizen	- Circular economy - Circularity - Circularity practices (R0 – R9) - Energy behavior - Sustainable development - Sustainability	- Construction sector - Construction materials - Building materials - Sustainable construction	- Public engagement - Social / Societal acceptance - Market acceptance - Occupant behavior - Public acceptance - Public awareness - Public knowledge - Acceptability - Willingness to pay - Perception - Attitude - Opinion

Keywords applied for the literature review



Blackboard with the notes kept during the Pisa workshop

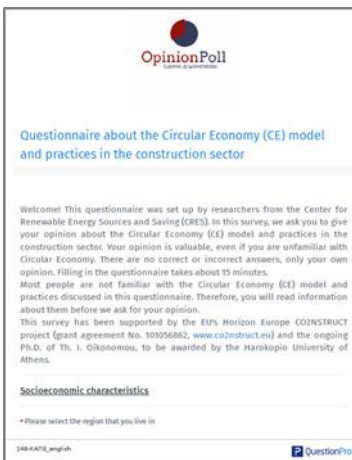


First version of the developed theoretical model

Survey structure & characteristics

- 9 countries (partners + Poland + Romania)
- Representative and random sample
- 500 questionnaires per country (4.500 in total)
- Approx. 60 questions
- Survey conduction Dec 2023
- Collaboration with surveying company

- A. Socioeconomic characteristics
- B. Residence characteristics
- C. Knowledge & awareness
Information Box
- D. Sharing spaces
- E. Repair/ refurbish
- F. Recycle/ reuse
- H. Willingness to Pay (WTP)
- I. Perceptions/ Attitude/ Behaviour



OpinionPoll
Survey & questionnaire

Questionnaire about the Circular Economy (CE) model and practices in the construction sector

Welcome! This questionnaire was set up by researchers from the Center for Renewable Energy Sources and Saving (CRESS). In this survey, we ask you to give your opinion about the Circular Economy (CE) model and practices in the construction sector. Your opinion is valuable, even if you are unfamiliar with Circular Economy. There are no correct or incorrect answers, only your own opinion. Filling in the questionnaire takes about 15 minutes.

Most people are not familiar with the Circular Economy (CE) model and practices discussed in this questionnaire. Therefore, you will read information about them before we ask for your opinion.

This survey has been supported by the EU's Horizon Europe CO2NSTRUCT project (grant agreement No. 101056862, www.co2nstruct.eu) and the ongoing Ph.D. of Th. I. Oikonomou, to be awarded by the Hellenic University of Athens.

Socioeconomic characteristics

*Please select the region that you live in

148-KATE_english

QuestionPro



OpinionPoll
Survey & questionnaire

Έρευνα σχετικά με το μοντέλο και τις πρακτικές της Κυκλικής Οικονομίας στον κατασκευαστικό τομέα

Καλώς ήρθατε!

Αυτό το ερωτηματολόγιο δημιουργήθηκε από ερευνητές του Κέντρου Ανανεώσιμων Πηγών και Εξοικονόμησης Ενέργειας (ΚΑΠΕ) σε αυτή την έρευνα. Στόχος της γνώμης σας σχετικά με το μοντέλο και τις πρακτικές της Κυκλικής Οικονομίας στον κατασκευαστικό τομέα. Η γνώμη σας είναι πολύτιμη, ακόμη και αν δεν είστε εξοικειωμένοι με την Κυκλική Οικονομία. Δεν υπάρχουν σωστές ή λάθος απαντήσεις, μόνο η δική σας γνώμη.

Η συμπλήρωση του ερωτηματολογίου διαρκεί περίπου 15 λεπτά.

Οι περισσότεροι άνθρωποι δεν είναι εξοικειωμένοι με το μοντέλο και τις πρακτικές της κυκλικής οικονομίας που εξετάζονται σε αυτό το ερωτηματολόγιο. Επομένως, θα σας δοθούν πληροφορίες σχετικά με αυτές προτού ζητηθεί η γνώμη σας.

Η παρούσα έρευνα υποστηρίζεται από το πρόγραμμα Horizon Europe CO2NSTRUCT της ΕΕ (συμφωνία χρηματοδότησης αριθ. 101056862, www.co2nstruct.eu) καθώς και από το εν ελάττει διδακτορικό της κα. Θ. Ι. Οικονομού στο Χαροκόπειο Πανεπιστήμιο Αθηνών.

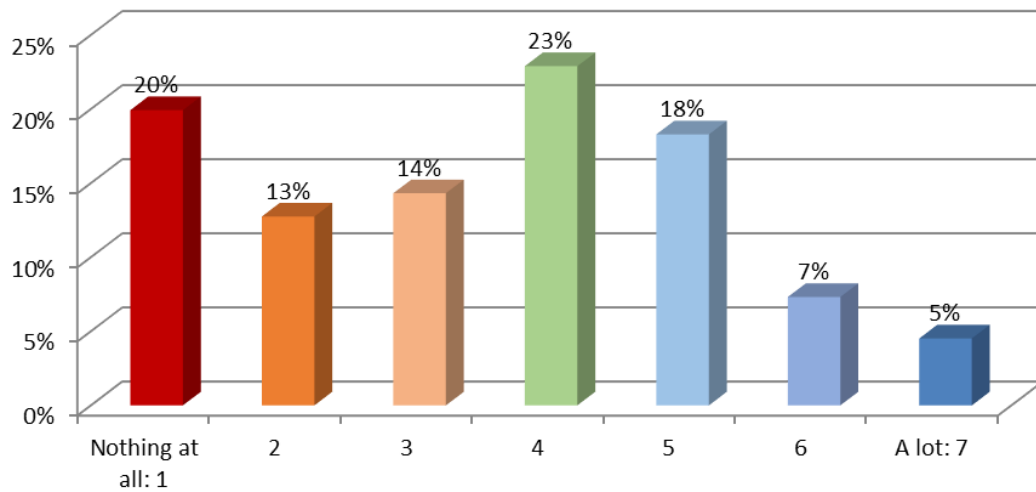
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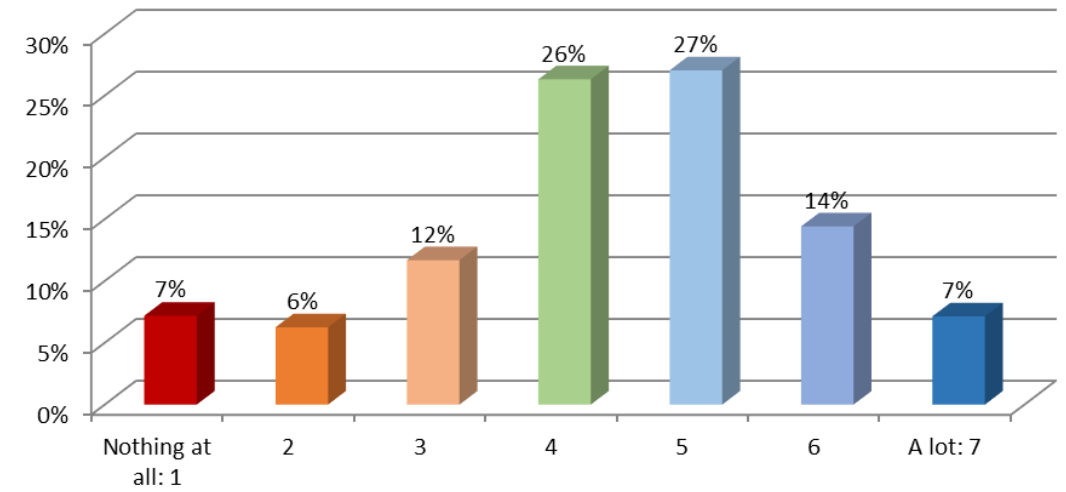
QuestionPro

Results: CE and Climate Change knowledge

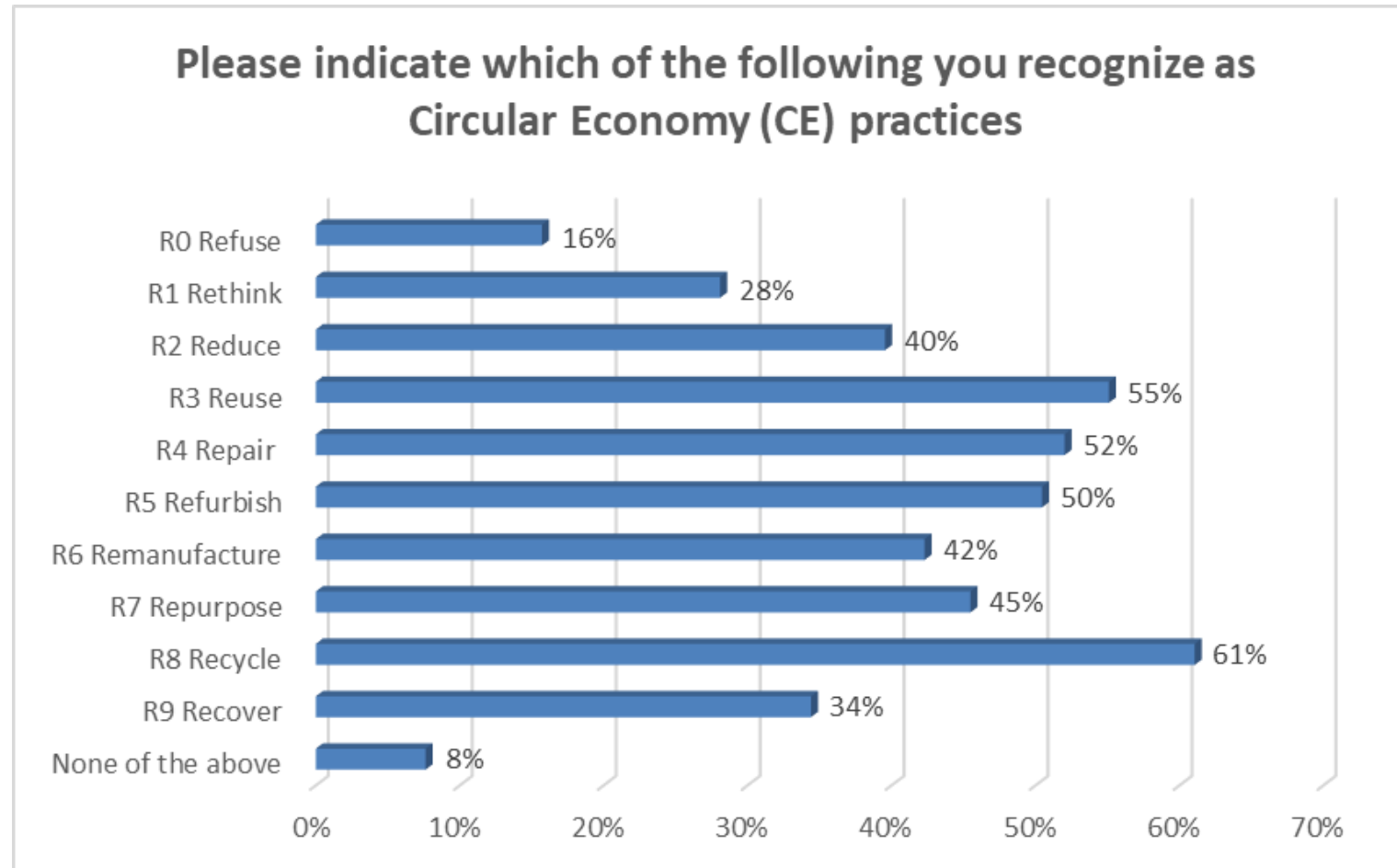
How much do you know about Circular Economy (CE)?



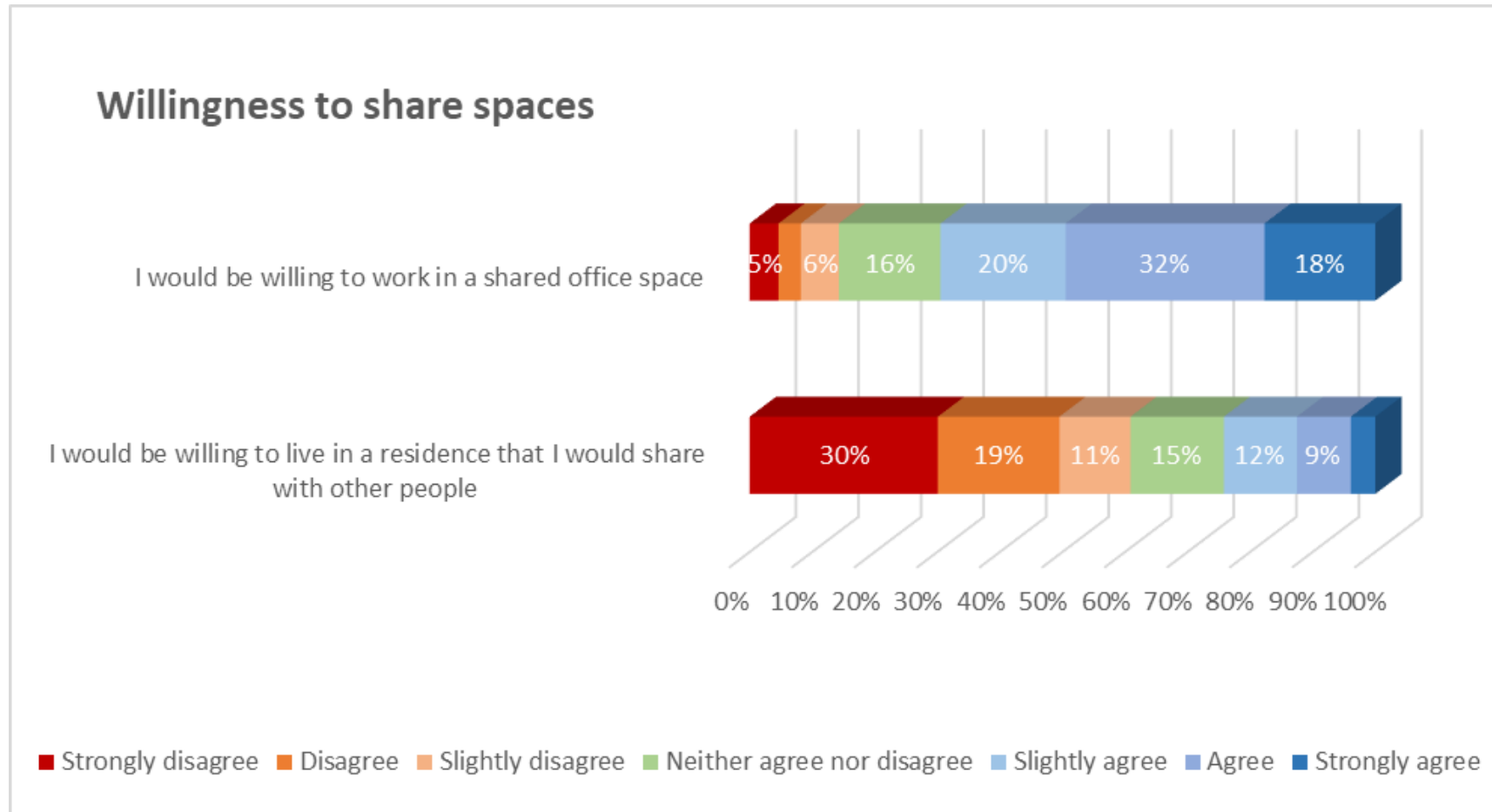
How much do you know about Climate change mitigation?



Results: Awareness of circular economy practices

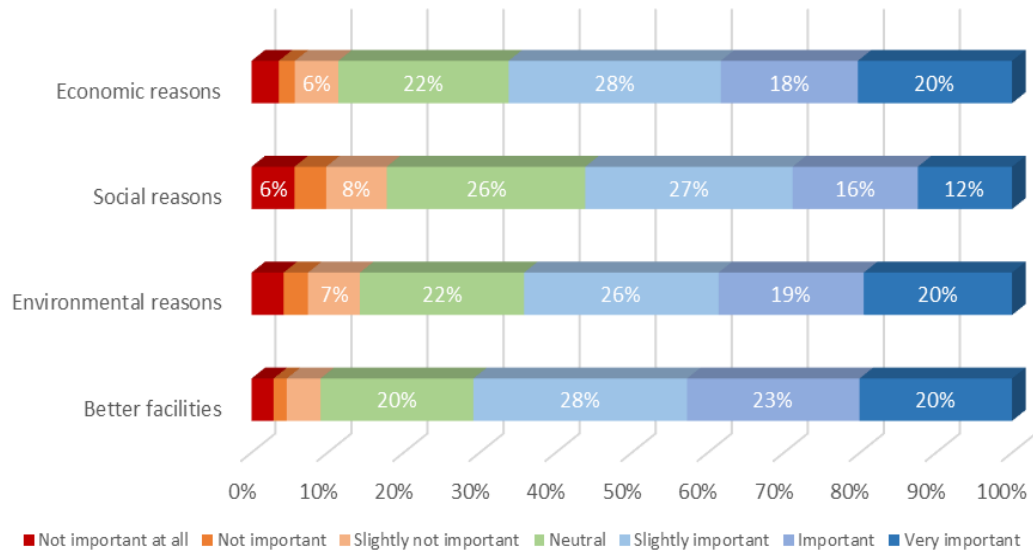


Results: Willingness to share spaces

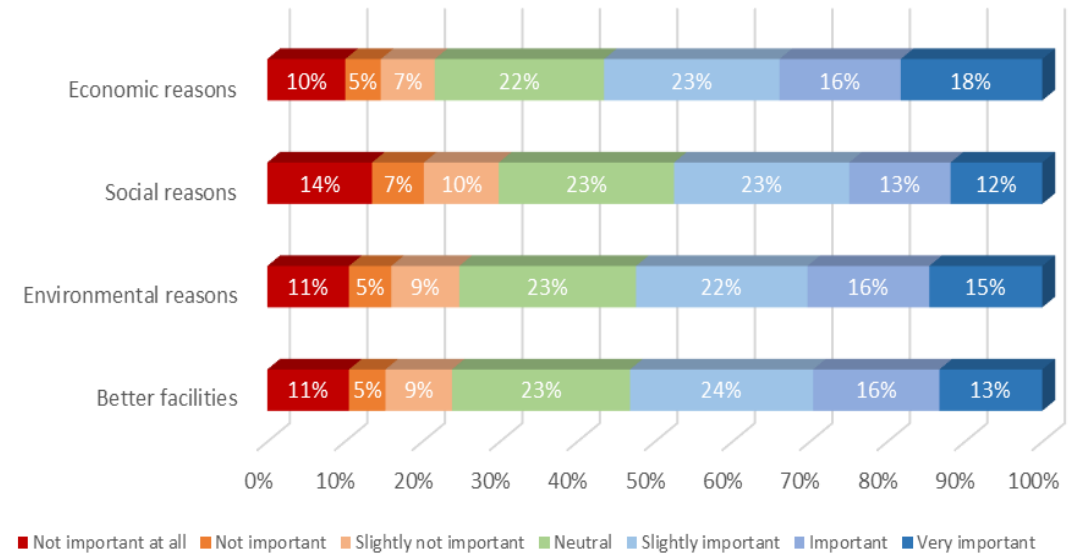


Results: Factors influencing willingness to share office spaces

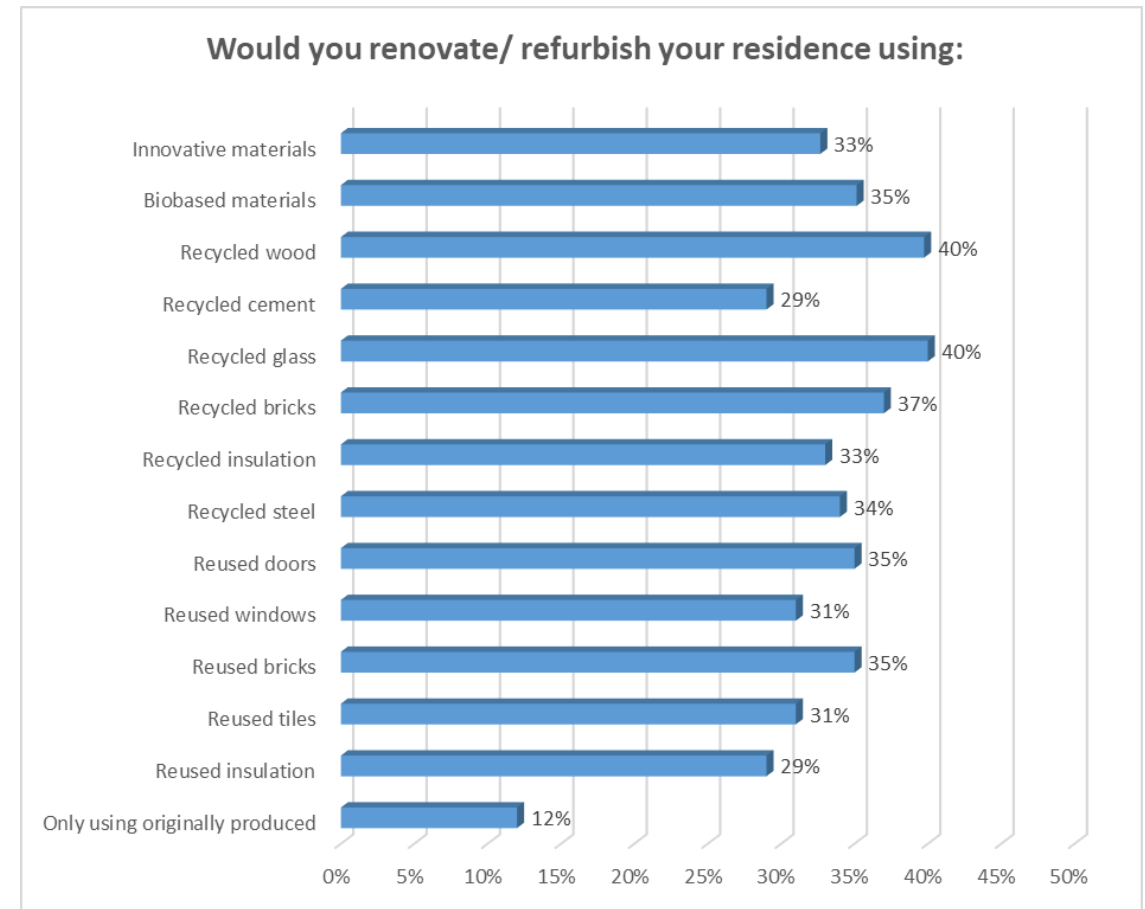
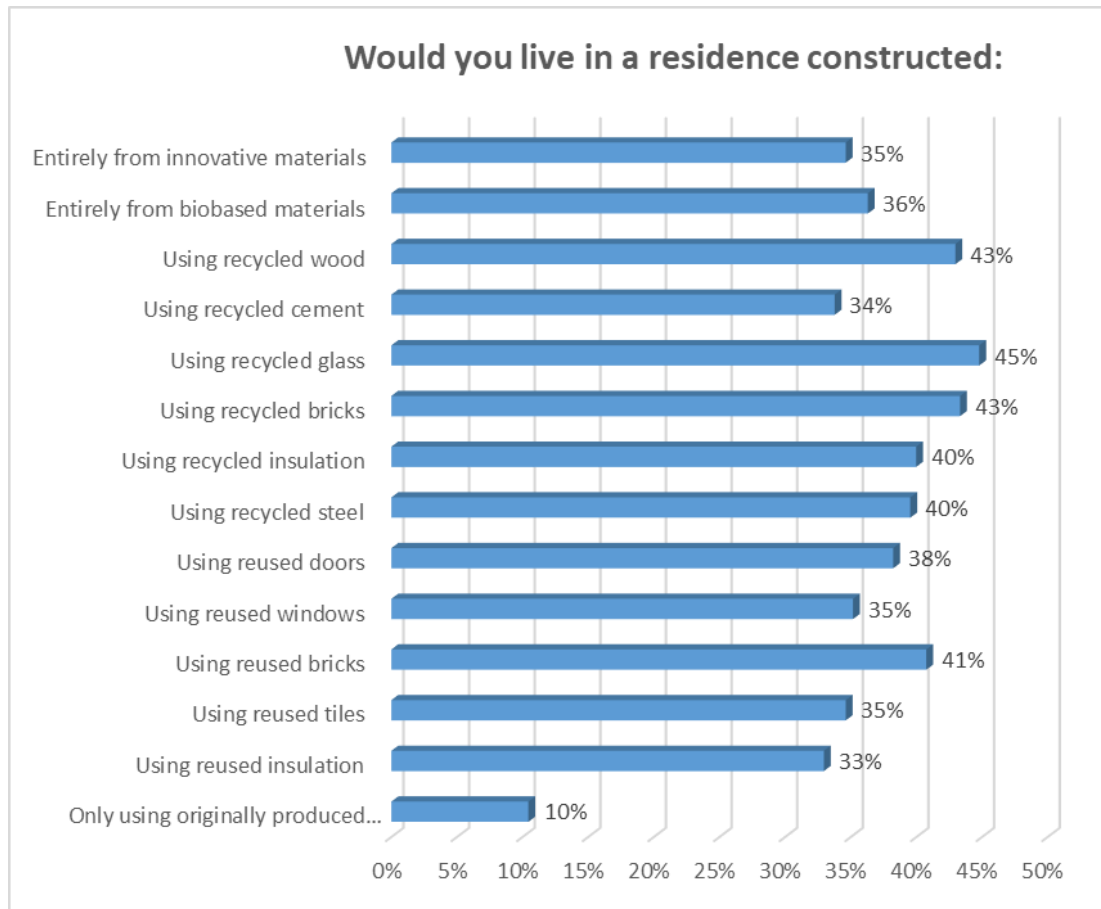
Factors influencing sharing office space:



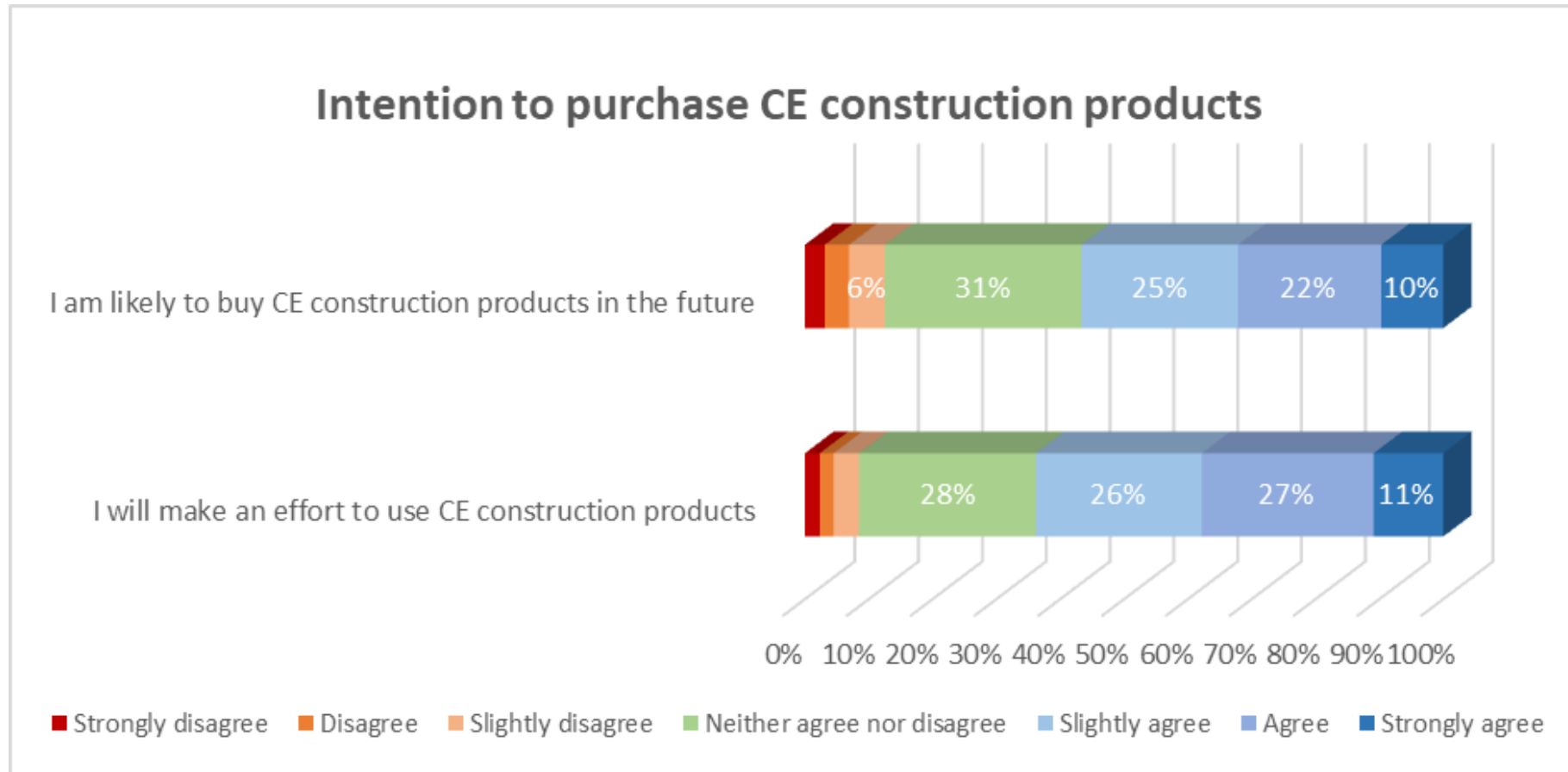
Factors influencing sharing residence:



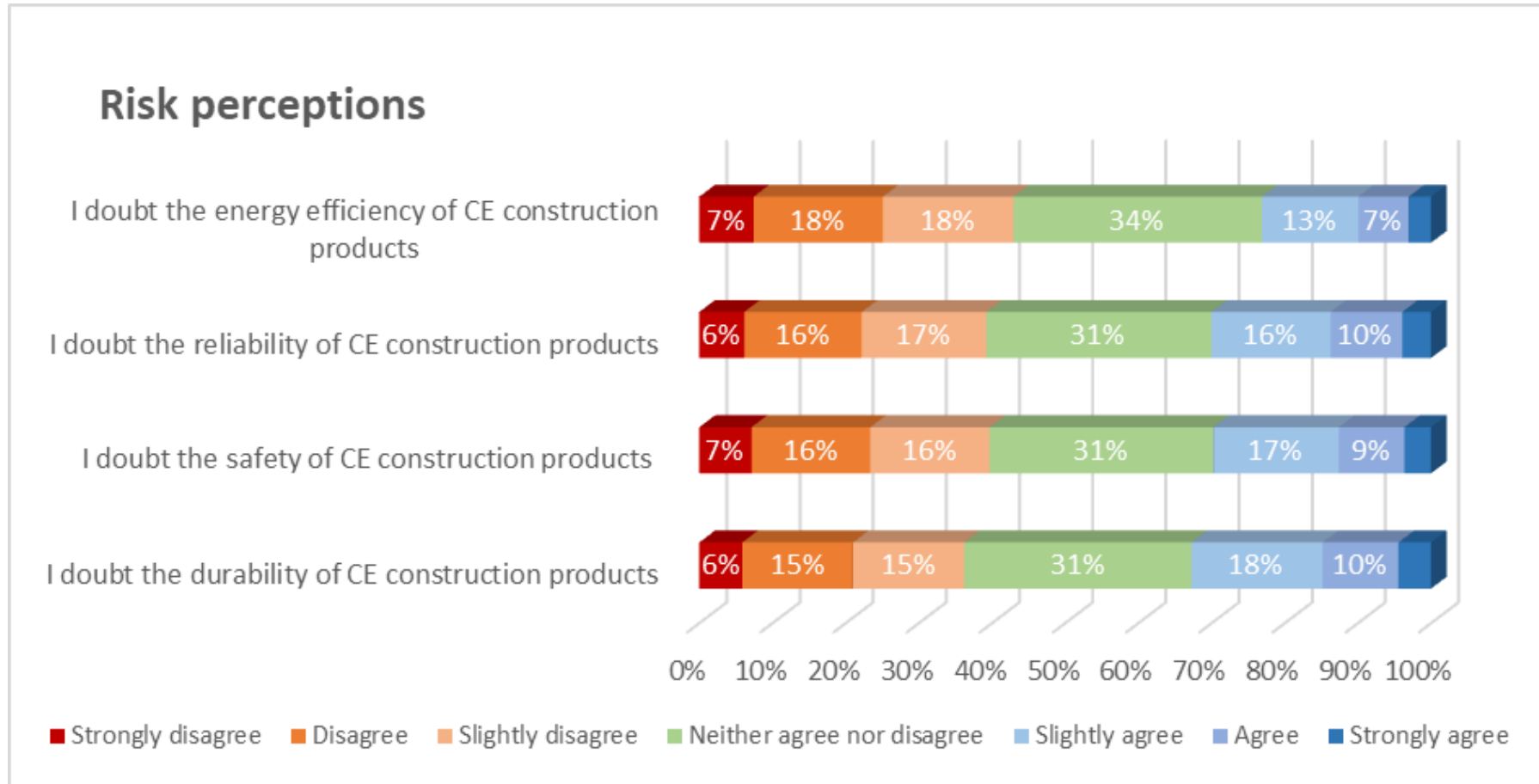
Results: Intention to use for innovative, biobased and recycled/reused construction materials and components



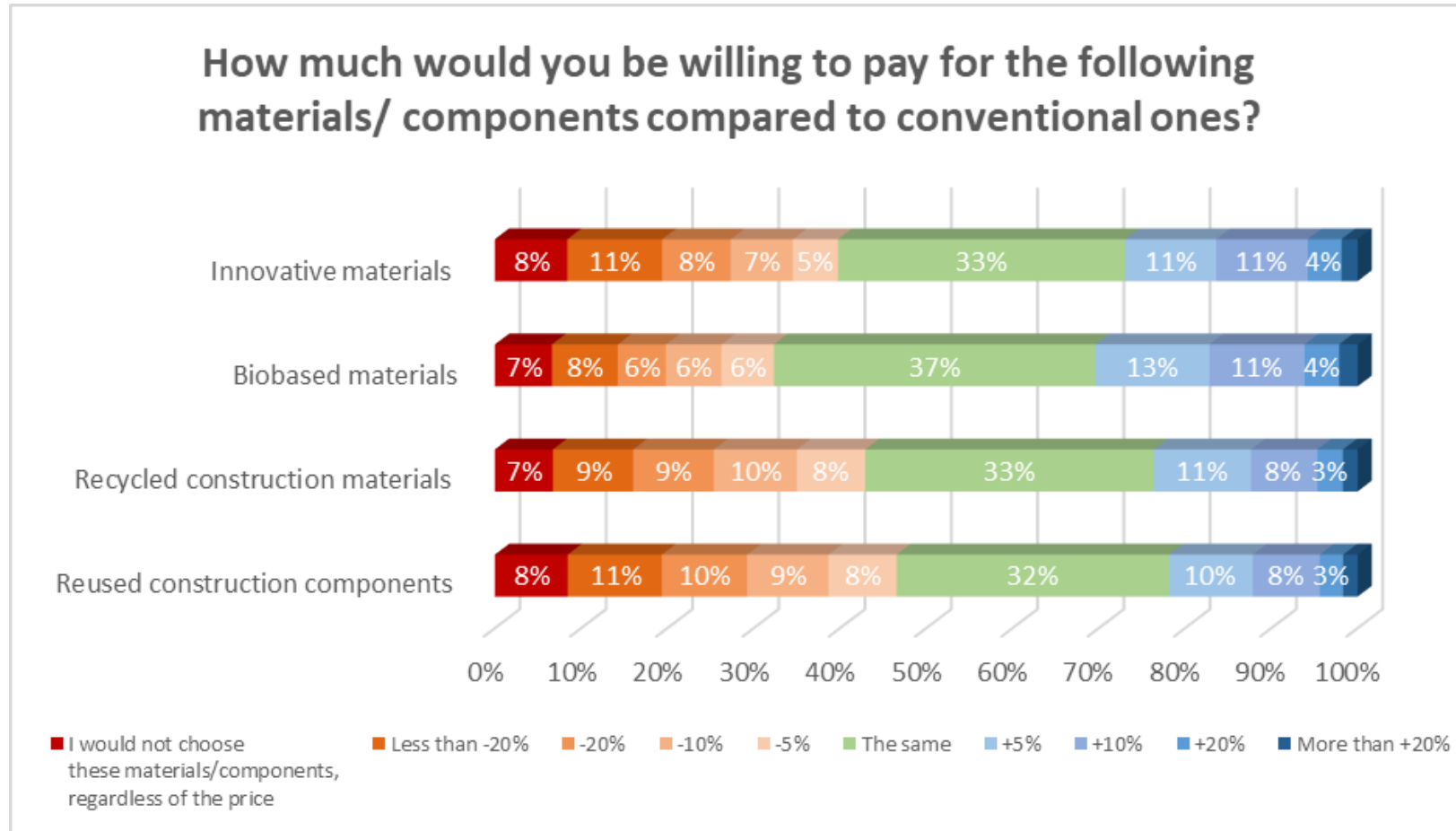
Results: Intention to purchase CE construction products



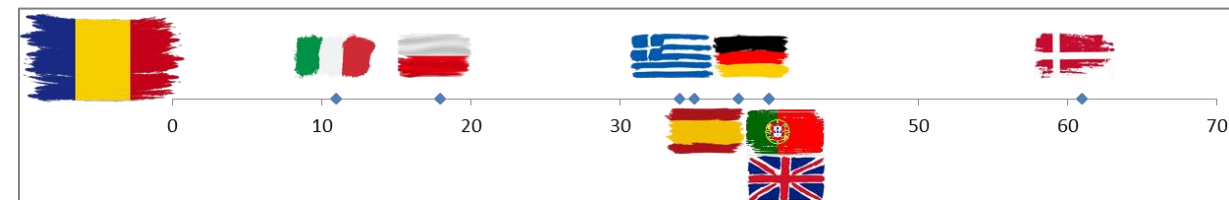
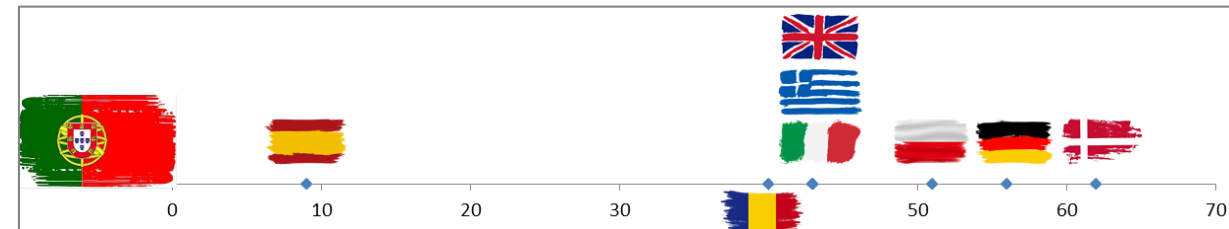
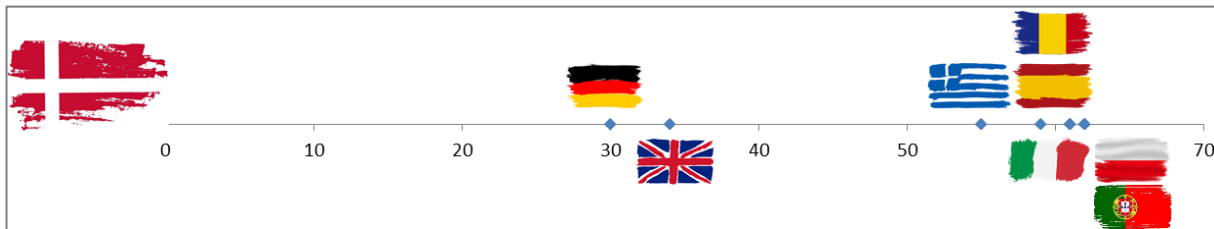
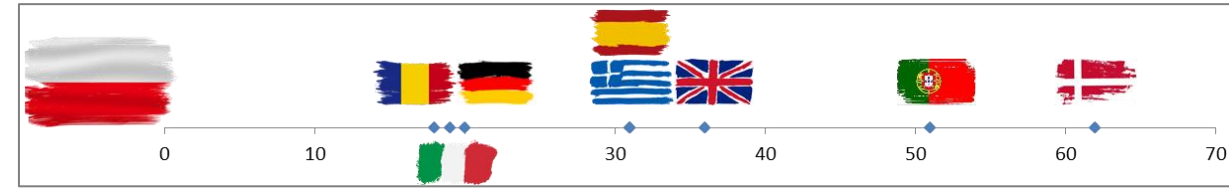
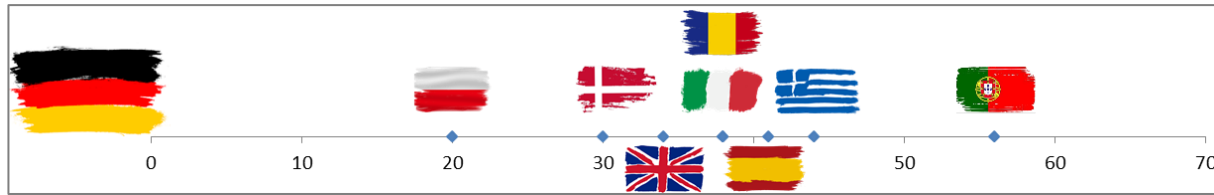
Results: Risk perceptions of circular economy construction products



Results: Willingness to pay for innovative, biobased and recycled/reused construction materials and components



Results: Country comparisons



Sum of statistically significant differences

Young citizens' survey

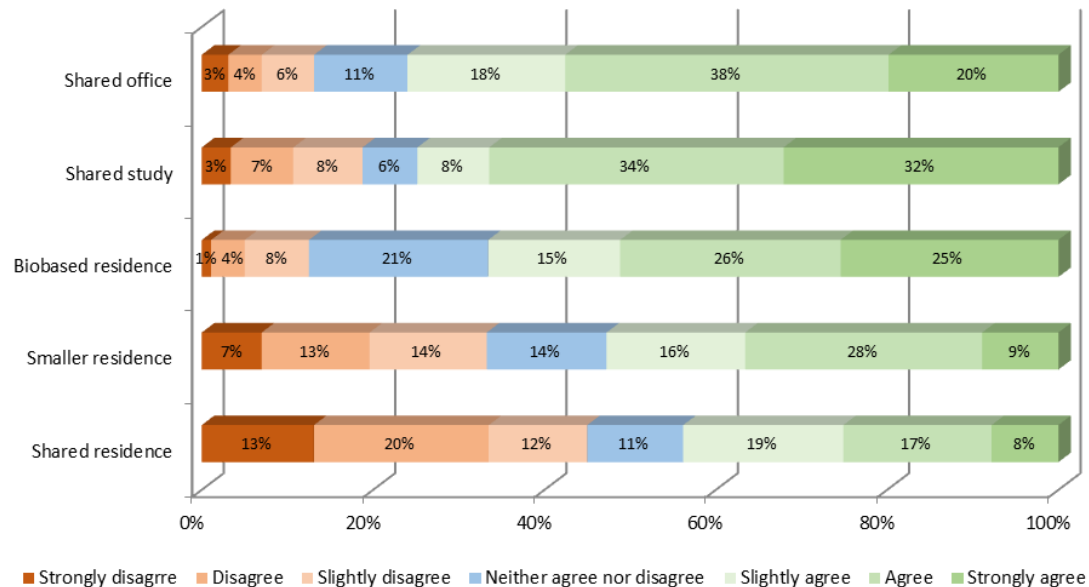
- *Refuse (R0)*
- *Rethink (R1)*

Survey characteristics & structure

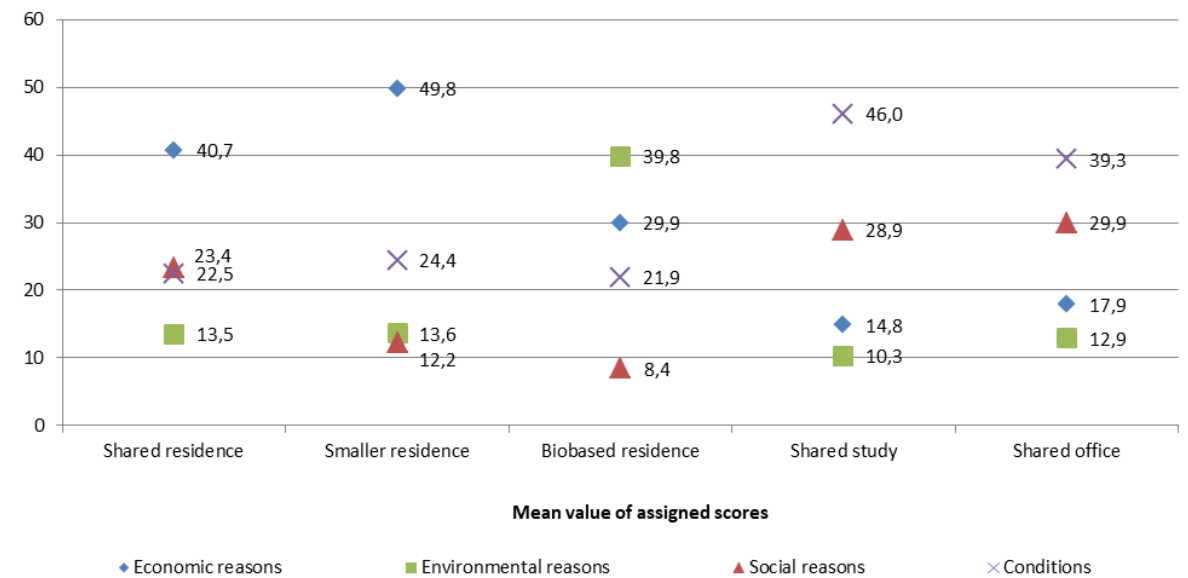
Questionnaire and survey organization	Data collection
• Questionnaire structure: 1. Socioeconomic characteristics 2. Residence characteristics 3. Attitudes towards Circular Economy practices in the building sector • Online platform: SurveyMonkey • Participants: University/ college students • Age limit: 40 years old • 358 responses were collected from May 2025 to January 2026	• Seven countries (DK, DE, GR, IT, PT, ES, UK) • Distribution of questionnaire during class courses or through emails to students of particular University departments: 1. Sustain and Construct; Technical University of Denmark 2. Civil and Environmental Engineering; Ruhr University Bochum 3. Economic and Sustainable Development; Harokopio University of Athens 4. Engineering; University of Pisa 5. Environmental Sciences and Engineering; NOVA School of Science and Technology 6. Science and engineering departments from the Technical University of Madrid, the Autonomous University of Barcelona, the University of Granada, and the University of Oviedo 7. Management School; University of Sheffield

Results: Willingness to embrace CE practices and their determining factors

Willingness to embrace particular CE practices



Comparison of mean scores of factors affecting willingness to embrace particular CE practices



Significant findings by socioeconomic and residence characteristics

Statistically significant findings between proposed CE practices and socioeconomic/ residence characteristics

Proposed CE practises	Statistically significant findings
Living in a house/apartment shared with other people	Country
Living in a smaller house/apartment	- Country - Age - Residence type - Residence ownership - Residence size - Residence occupants
Living in a house/apartment constructed from bio-based materials	- Country - Age - Household income - Residence ownership - Residence size - Residence occupants
Studying in a shared space	- Country - Household income
Working in a shared office space	- Country - Age - Household income

Statistically significant differences between mean scores of factors affecting willingness to adopt CE practices and socioeconomic/ residence characteristics

Proposed CE practises	Factors	Statistically significant findings
Shared residence	Economic reasons	Country
	Environmental reasons	- Country - Residence ownership
	Social reasons	-
	Living conditions	-
Smaller residence	Economic reasons	Country
	Environmental reasons	- Country - Age - Residence ownership - Residence occupants
	Social reasons	Household income
	Living conditions	-
Biobased residence	Economic reasons	-
	Environmental reasons	- Country - Age - Residence occupants
	Social reasons	- Country - Household income
	Living conditions	-
Shared study	Economic reasons	-
	Environmental reasons	- Country - Household income - Residence ownership
	Social reasons	Residence type
	Studying conditions	-
Shared office	Economic reasons	-
	Environmental reasons	-
	Social reasons	-
	Working conditions	Household income

Conclusions

- **Circular economy awareness** remains concentrated on established practices (**recycle–reuse–repair**), while **higher-circularity actions** are still less recognized.
- **Acceptance of circular solutions is uneven**: respondents are more open to **shared workspaces** and **selected material innovations** than to changes in **residential habits**.
- **Biobased and recycled construction materials** receive generally positive acceptance; however, **willingness to pay additional costs** remains limited.
- **Young citizens** show generally favorable attitudes towards **circular living and working practices**, indicating potential for **long-term behavioral change**.
- **Substantial country-level differences** suggest that **circular transition pathways** should be **tailored to national contexts**.
- Rather than targeting the entire population uniformly, implementation strategies should **prioritize citizen groups with positive intentions and higher readiness to adopt circular practices**, accelerating **uptake and diffusion** over time.
- **Citizen behaviour matters** and should be systematically considered in **climate mitigation modelling and scenario development (CO2NSTRUCT)**.



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www.co2nstruct.eu

spkary@cres.gr



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