HuGBC
Magyar Környezettudatos Építés Egyesülete
Hungary Green Building Council

WORLD GREEN BUILDING COUNCIL

#BUILDING LIFE

ZERO CARBON ROADMAP 2050

Hungary

industry report 2025.

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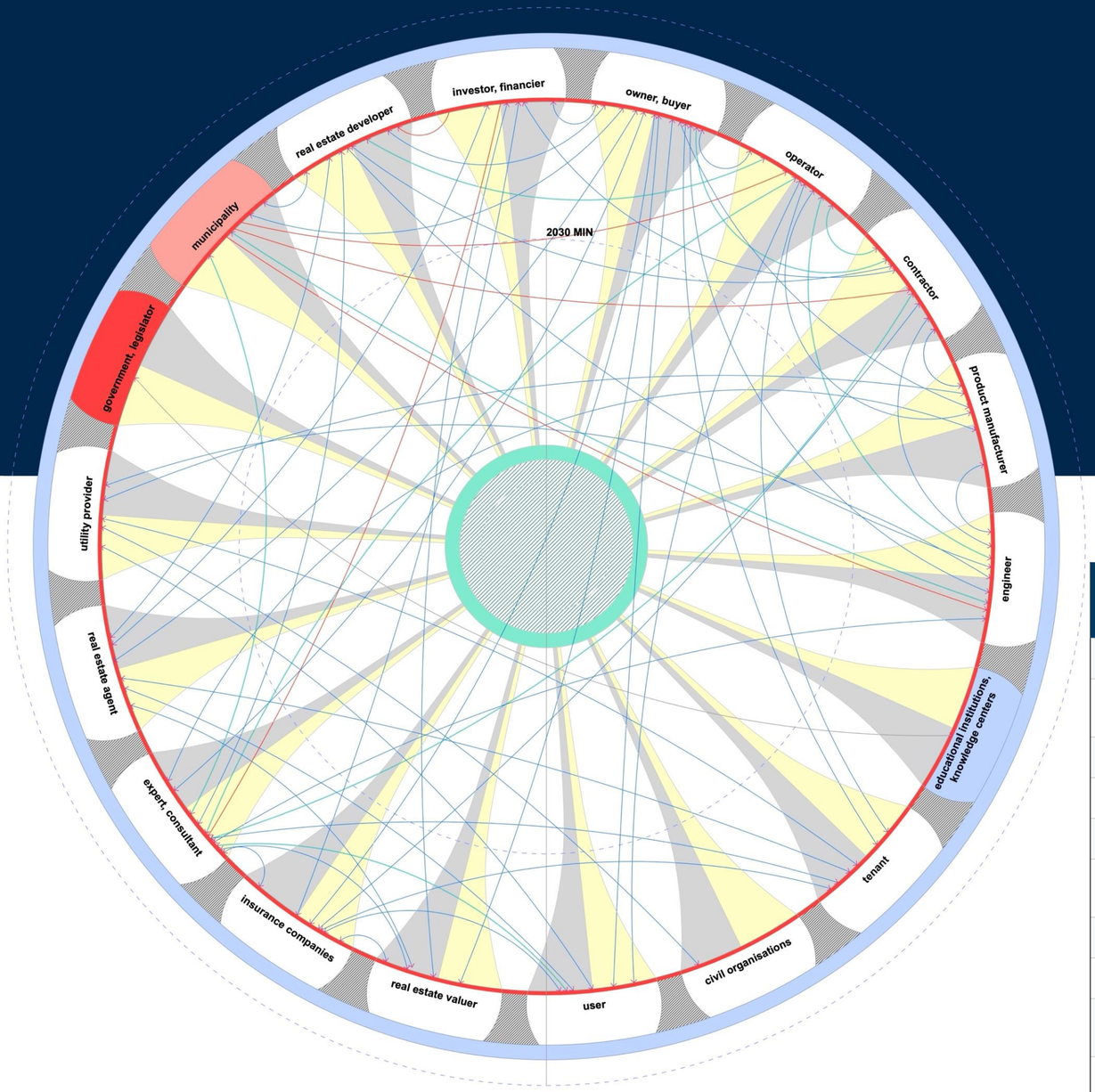
industry report HU 2025.



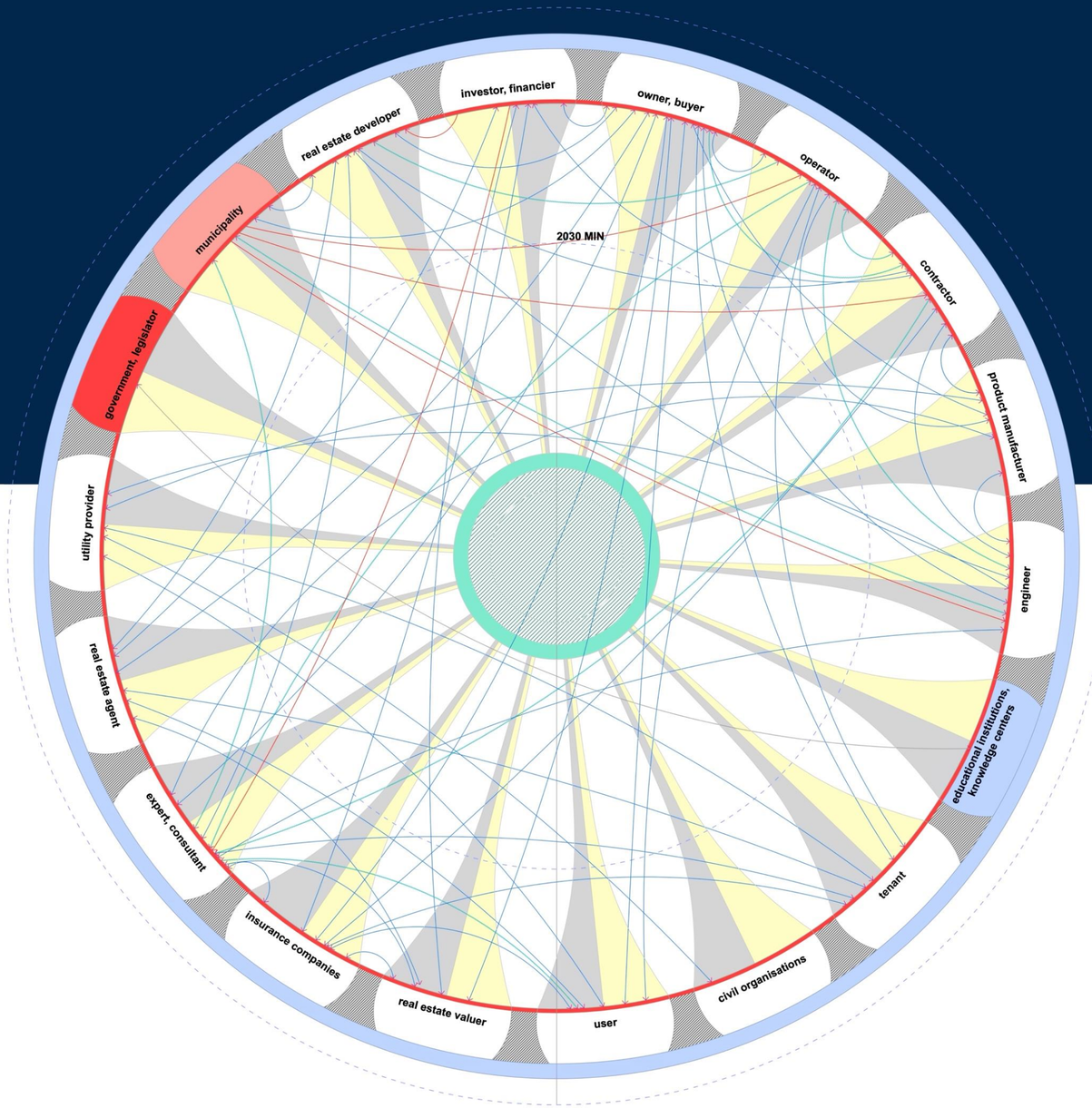
Legend:

- equal relationship, dialogue
- instruction, obligation
- desirable but currently uncommon relationship
- regulatory environment
- awareness-building, education
- operational carbon footprint
- Hungary's CO_2 regeneration capacity
- Hungary's developed CO_2 regeneration capacity

Hungarian construction economy in numbers:

Segments	Market size, m EUR	Number of enterprises	Number of employees
1. Real estate developer	7 000	200	25 000
2. Owner, buyer	21 250		
3. Municipality	3 250	3 155	125 000
4. Operator	1 750	7 000	100 000
5. Contractor	19 250	65 000	375 000
6. User			
7. Expert, consultant	875	20 000	80 000
8. Engineers, architects	1 250	23 000	75 000
9. Tenant	3 000		
10. Real estate valuer, auditor	125	1 000	6 000

industry report HU 2025.



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Hungarian construction economy in numbers:

Segments	Market size, m EUR	Number of enterprises	Number of employees
11. Investor, financier	5 500	400	30 000
12. Insurance company	1 625	24	25 000
13. Educational institutions, awareness raising, knowledge centers	2 000	2 063	180 000
14. Real estate agent, broker	625	6 300	40 000
15. Government	4 250	200	70 000
16. Construction product manufacturer	12 500	13 500	143 000
17. Civil organisations	125	60 000	30 000
18. Residents / general public	7 500		
19. Utility provider	12 500	203	95 000
SUM	**Non-addititve**	**187 645**	**1 389 000**
Construction industry production value (excl. basic material manufacturing)	**19 248**		

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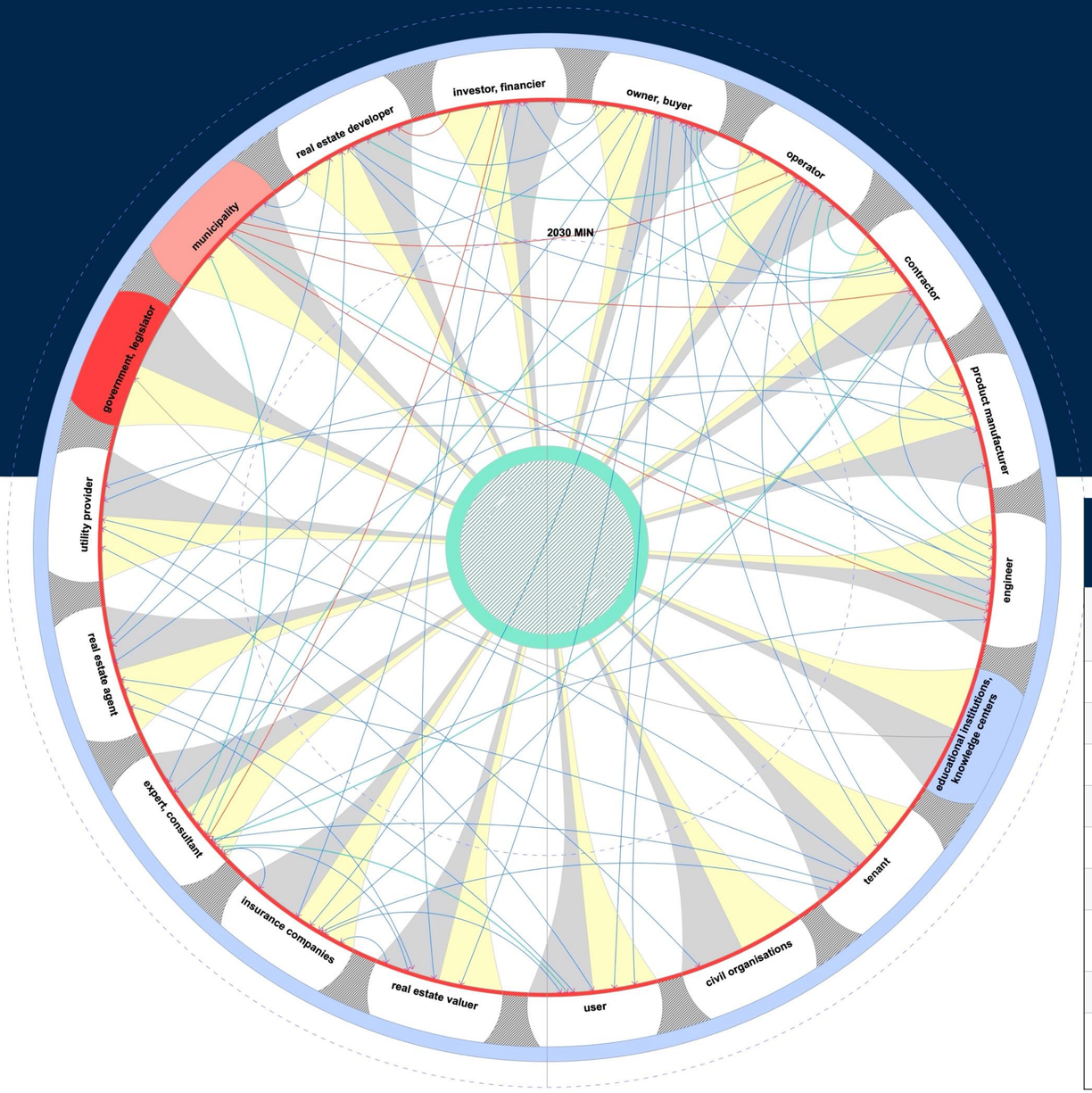
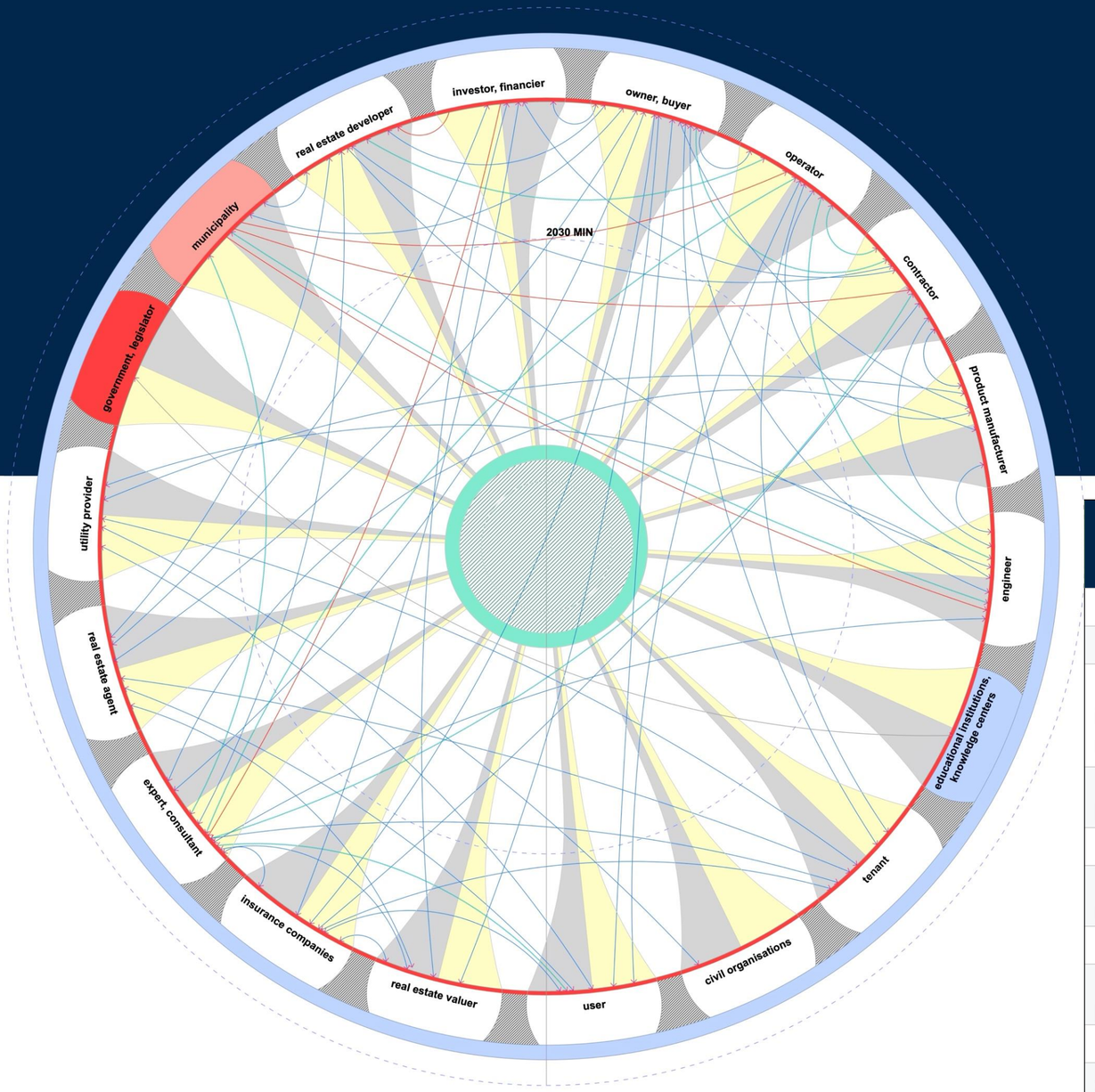


HuGBC

Magyar Környezettudatos Építés Egyesülete
Hungary Green Building Council

segments	HuGBC	revenue mEUR, 2024	market share %	ZC Amb	employees
1. Real estate developer	10	101,8	1,5	7	860
2. Owner, buyer	3	50,4	0,2	1	181
3. Municipality	0	0,0	0,0		
4. Operator	4	406,1	23,2		797
5. Contractor	4	1 243,9	6,5		4325
6. User	1	305,7			1407
7. Expert, consultant	44	120,5	13,8	10	425
8. Engineers, architects	30	99,1	7,9	7	169
9. Tenant	0	48,8	1,6		
10. Real estate valuer, auditor	1	10,0	8,0	2	331

industry report HU 2025.



HuGBC
Magyar Környezettudatos Építés Egyesülete
Hungary Green Building Council

segments	HuGBC	revenue mEUR, 2024	market share %	ZC Amb	employees
11. Investor, financier	1	12,3	0,2	1	10
12. Insurance company	0	0,0	0,0		
13. Educational institutions, awareness raising, knowledge centers	9	0,3	0,0		77
14. Real estate agent, broker	3	9,4	1,5		162
15. Government	0	0,0	0,0		
16. Construction product manufacturer	31	698,6	5,6	7	2770
17. Civil organisations	13	0,6	0,5		31
18. Residents / general public	0	0,0	0,0		
19. Utility provider	1	1,0	0,0		2
SUM	**155**	**3 108,4**			

A “ZÉRÓ KARBON ÚTITERV MAGYARORSZÁG 2050" MEGALAPOZÓ DOKUMENTUMAI

MAGYAR KÖRNYEZETTUDATOS ÉPÍTÉS EGYESÜLETE (HUGBC)

Zéró Karbon Ajánlás

EGYEZTETÉSI MUNKAANYAG • 2023. FEBRUÁR

HuGBC Magyar Környezettudatos Építés Egyesülete Hungary Green Building Council

ADVANCING NET ZERO

WORLD GREEN BUILDING COUNCIL

European Climate Foundation

SZAKÉRTŐI HÁTTÉRANYAG A KARBONMENTES ÉPÍTÉSI ÁGAZAT NEMZETI ÚTITERVE

(Zéró karbon útiterv Magyarország 2050)

CÍMŰ DOKUMENTUMHOZ

#BUILDING LIFE

WORLD GREEN BUILDING COUNCIL

GREEN POLICY CENTER

HuGBC Magyar Környezettudatos Építés Egyesülete Hungary Green Building Council

European Manifesto for a sustainable built environment

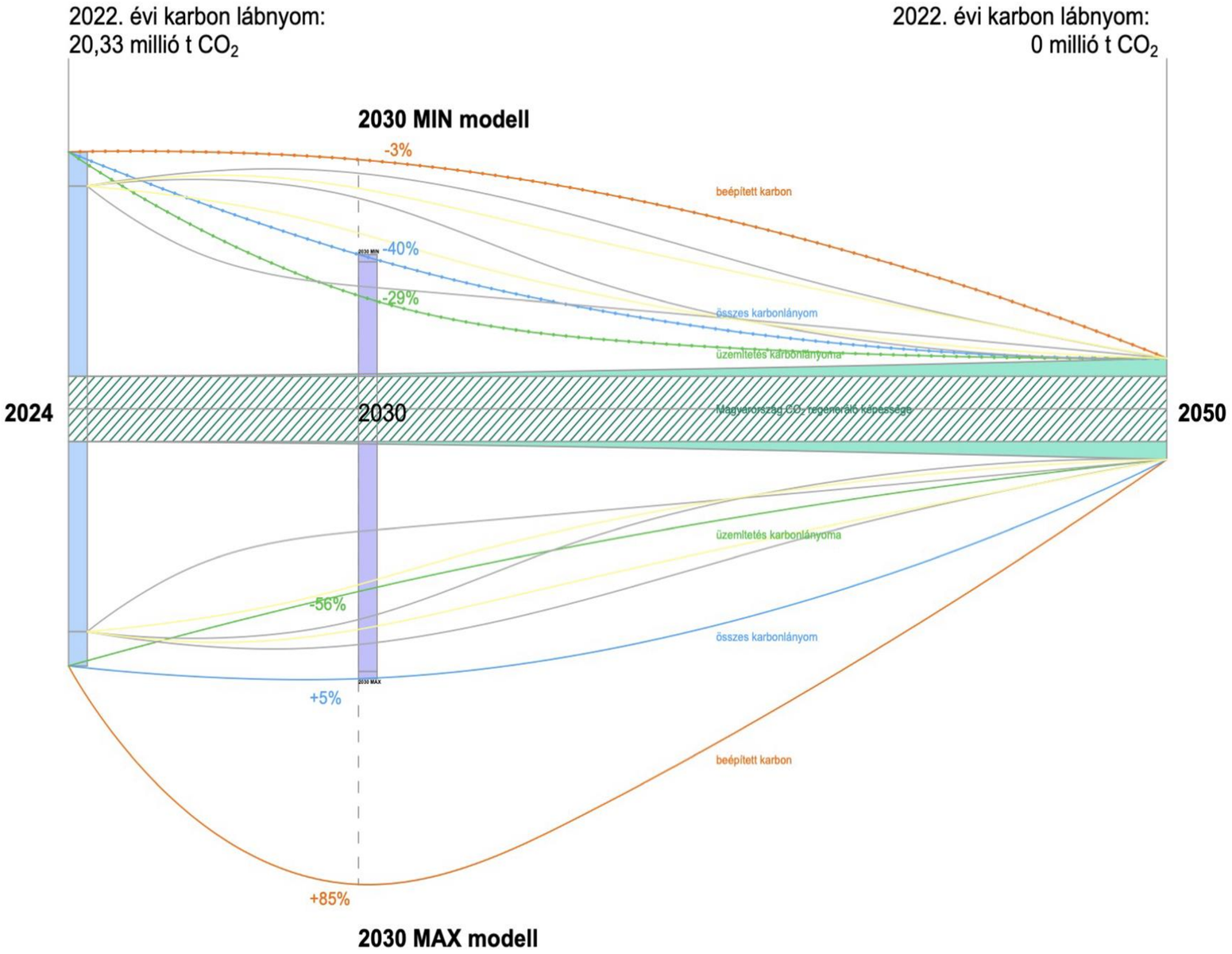
How sustainable buildings can be at the heart of a prosperous and equitable future for Europe

APRIL 2024

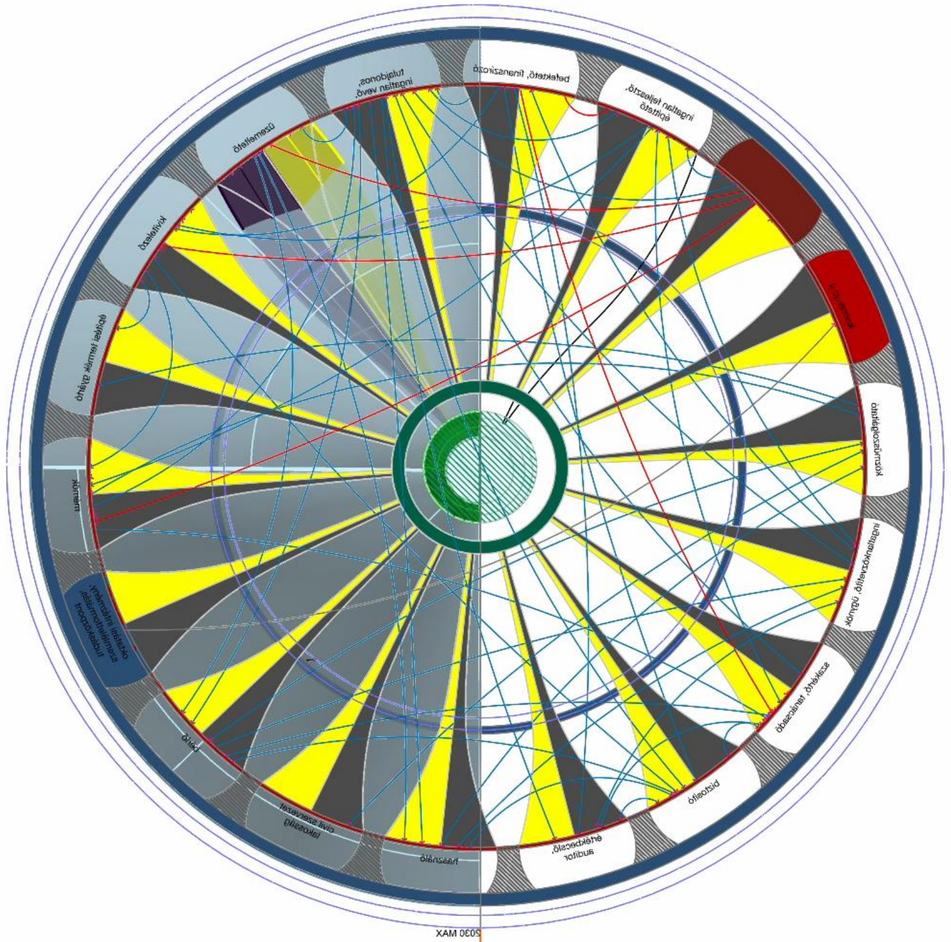
EUROPE REGIONAL NETWORK

WORLD GREEN BUILDING COUNCIL

industry report HU 2025.



GREEN POLICY CENTER



carbon footprint data sets & sources

Carbon Footprint of the Hungarian Construction Sector (2022) – Data Sources & Methodology

Primary Data Sources:

- GHG and CO2 Emissions: Data sourced from the official National Emission Inventory, which is submitted under international agreements and accessed via the HungaroMet (Hungarian Meteorological Service) website.
- Energy Consumption: All energy-related calculations were sourced from MEKH – Magyar Energetikai és Közmű-szabályozási Hivatal (Hungarian Energy and Public Utility Regulatory Authority).
- Carbon Risk Real Estate Monitor (CRREM)
- dr. Szalay Zsuzsa: A parametric approach for developing embodied environmental benchmark values for buildings (2024.)
- Green Policy Center Kílmasemlegességi Előrehaladási Jelentései
- Magyarország Hosszú Távú Épületfelújítási Stratégiája, illetve Nemzeti Energia és Klímaterve
- a Központi Statisztikai Hivatal (KSH) adatbázisai, benne a népszámlálási adatokkal
- A magyarországi lakóingatlan-állomány energiaigényének becslése című 2023-as tanulmány
- Pathways Explorer modell (amely részben az alábbi felsorolt adatbázisok alapján lett feltöltve adatokkal, részben pedig a JRC-IDEES adatbázis, Eurostat és más források alapján

Zero Carbon Roadmap 2050 industry involvement

The preparaton of the Zero Carbon Roadmap 2050 Hungary

systematizing & mapping workshop:	1
online focus groups:	6
structured interviews:	6
Ministries:	3
Municipalities of large cities:	3
total number of individuals involved:	98
total number of organizations involved:	50

Number of sectoral consultations: 7

- Architects, engineers, consultants
- Real estate and project developers
- Manufacturers, distributors, suppliers
- Contractors
- Building owners and users
- Financial institutions (banks, Central Bank of Hungary)
- Civil and professional organizations

Zero Carbon Roadmap 2050 / industry penetration

- Number of events where HuGBC and the Ambassadors showcased the Roadmap: over 120
- Green Future Conference 2025: Roadmap presented for 105 attendees, 35 ambassadors introduced,
- Zero-carbon Award awarded
- Construma Expo with 30,000 visitors: HuGBC had an exhibition booth with Ambassador presentations
- Press releases/press pitches: 20+
- Press reach: 78,400
- HuGBC social media reach: 93,050 views
- meetings with government officials (advocacy): 10+
- Green Week: 14 walks with Ambassadors as guides, 5 workshops, a total of 295 participants
- GreenTalk: 5 webinars for over 90 attendees, over 300 views on Youtube
- FIABCI award for Sustainable Project: award presented by one of our Ambassadors
- discussion with foreign delegations: 3

Zero Carbon Roadmap 2050 / industry penetration

Number of Zero Carbon Ambassadors	35
Number of ZCA meetings:	4
Events where the ZCAs showcased the roadmap	100+
Personal engagements:	35

Share of segments within the Zero Carbon Ambassador Network:

Expert, consultant	30%
Construction product manufacturer	21%
Engineers, Architects	21%
Real estate developer	21%
Real estate valuer, auditor	6%
Investor, financier	3%
Owner, buyer	3%

Zero Carbon Roadmap 2050 / industry penetration

Zero Carbon Award: presented in four categories at the annual Green Future Conference

- New construction
- Building renovation
- Building designed by a young architect
- Lifetime achievement
- Facility management

The 2025 winner of New construction: EQUINOX, Júlia zero carbon residential building in Diósd, constructed using CLT technology:

- features cellulose thermal insulation and a larch timber façade.
- **The first residential building** in Hungary with a **verified net-zero CO_2** footprint over its entire life cycle.
- AA++ energy rating
- Heating is provided by an air-to-water heat pump combined with underfloor heating.
- The property is equipped with a photovoltaic system and an electric vehicle charging point.
- During the design process, special attention was given to minimizing tree removal during construction, and the single tree that had to be removed was fully replaced.

Zero Carbon Roadmap 2050 / industry penetration

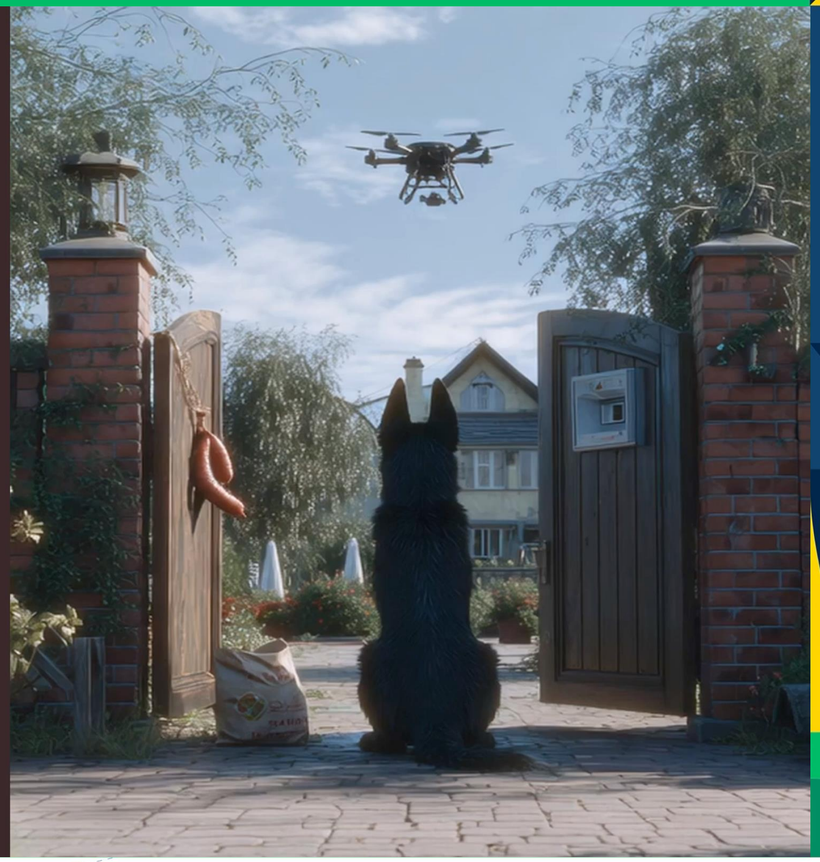
Hogy kerül a kolbász az asztalra?

- Szia Anya!
- Szia Édes!
- Képzeld, ma valami történt Pipóval. Cukorral hozta a kávémat. Te jól kaptad a kakaódat?
- Basszus, nem. Azt hittem átprogramoztad, mert tegnap arról beszélgettünk, hogy fáj a hasam és hátha a tejtől.
- Ja nem. Bár azzal a problémával is foglalkoztam, az AI dokinak elküldtem a panaszodat és kért egy képet a retinádról. Jó hogy mondod, azt még fel kell töltenem. Szóval visszatérve a kávémra – össze kellene gyűjtenünk, hogy milyen hibák vannak Pipóval, mert szerintem programhibái vannak.
- Akkor ne felejtsd el, hogy valami van a kapuval is, mert kiengedte a kutyát. Gondolom azt hitte én akarok kimenni.
- Ja. Blöki rájött, hogyha két lábra áll, pont olyan magas, mint Te és be tudja csapni a kaput.
- Jó, akkor át kell állítani retina felismerőre a kulcsot.
- Anya, mindjárt itt van az iskolarepülő és mennem kell. Érted ma mi jön?
- Én ma a piaci gyűjtőt rendeltem meg. Kinézek, mert apád parasztkolbászt szeretne. Muszáj megkóstolnom, hogy tudjuk melyiket tegyék fel nekünk a drónunkra.

FIRST STORY

vision

WRITER Hope **SCREENWRITER** Hope **AI ART** Dr.KJ **TOOLKIT** Midjourney, Pixelmator Pro **WRITER MENTORING** Jánossy Lajos **ART MENTORING** Kőszehgy Flóra DLA



Zero Carbon Roadmap 2050 / industry penetration

Hétvégi látogatás

Péntek délután megérkeztem a Központi Állomásra. Amikor leszálltam a vonatról már várt rám a nagynéném, akit Karácsony óta nem láttam, akkor járt nálunk vidéken.

Nagyon elvarázsolt a pályaudvar napfényes tere a sok fa és zöld növények. Annyira megörültem a nagynénémnek, hogy azonnal a nyakába ugrottam. Az ölelés után elindultunk felfelé a lifttel a felszínre.

Felérve újra csodálkozással töltött el a harmónia, amelyben az épített környezet és a természet szimbiózisban él. Emlékeimben még él, hogy az utakon autók és buszok álltak tömött sorokban, de ezek helyét most villamosok és kerékpárosok cikáznak.

Miközben hazafele sétáltunk nagynénémmel, meglepődve láttam a sok zöld felületet, növényeket a házak falán. Közeledve nagynéném lakásához, finom illatokat éreztem meg. Vajon honnan jöhet ez a finom illat? – kérdeztem nagynénémet. A közösségi konyhában éppen főznek. – felelte. Hozzátette, hogy ma este is együtt fogunk vacsorázni olasz ételeket a szomszéddal és reméli, hogy nekem is ízleni fog.

Vacsora közben nagynéném örömmel osztotta meg velem, hogy a főzéshez az alapanyagok a tetőkertről származnak, melyek sokkal ízletesebbek, mint gyerekkorában a bolti paradicsom. Vacsora után a másnapi állatkerti látogatás terveztük, ahová földalatti közlekedéssel fogunk menni. Számomra nagyon izgalmas, hogy a föld alatt vagyunk és mégis olyan, mintha a felszínen egy erődben lennénk.

HuGBC Hungary Green Building Council
FIRST STORY
vision

WRITER Celestial & team **SCREENWRITER** Celestial & team **AI ART** Dr.KJ **TOOLKIT** Midjourney, Pixelmator Pro **WRITER MENTORING** Jánossy Lajos **ART MENTORING** Kőszehgy Flóra DLA

Zero Carbon Roadmap 2050 / industry penetration

The HuGBC ESG Working Group has started the detailed development of segment-specific roadmaps, enriching them with data-driven insights and technological elements.

Building Product Manufacturers

- Decarbonisation: a long-term, data-driven transformation process
- full life-cycle approach (modules A1–A5, B, C), The methodology is based on the GHG Protocol Scope 1–2–3 framework
- It recommends creating a **corporate carbon map** covering production sites, processes and logistics.
- A structured data collection framework is defined (energy, fuels, raw materials, transport, waste, water).
- For energy-intensive industries Scope 1–2 emissions dominate, while for material-intensive production Scope 3 is often the largest source.
- Environmental Product Declarations (EPDs, EN 15804) are identified as key tools for reducing embodied carbon and strengthening market competitiveness.
- Over time, EPD data becomes a technical performance parameter (e.g. GWP), not merely a communication tool.
- Explains the indirect impacts of the EU regulatory environment (EPBD, CPR, CBAM, EU Taxonomy).
- Concrete technological and operational intervention areas are outlined (energy efficiency, renewables, waste management, logistics).
- The importance of supplier engagement and cooperation is emphasised for Scope 3 emission reductions.
- Decarbonisation is framed as a continuous learning and improvement process, rather than a one-off compliance exercise.

Zero Carbon Roadmap 2050 / industry penetration

Facility Managers

- Net zero operation: a measurable operational performance level, not a declarative target.
- Operational emissions is the most rapidly influenceable emission source within the building life cycle.
- The methodology starts with a baseline assessment, based on detailed data collection and analysis.
- Initial focus on Scope 1–2 emissions is recommended, with the gradual inclusion of Scope 3.
- A comprehensive data set is specified (energy, refrigerants, water, waste, transport, BMS data).
- Integration of ERP and BMS systems into emissions monitoring is encouraged, using standardised GHG Protocol methods.
- Target setting is linked to science-based pathways and modelling tools (e.g. CRREM, SBTi).
- The importance of measurable KPIs is highlighted (energy intensity, peak demand, comfort levels, fault rates).
- The roadmap structures implementation into short-, medium- and long-term actions.
- Strong emphasis is placed on operational optimization (controls, settings, fine-tuning) before capital-intensive investments.
- A decision-support matrix is introduced, linking building CO_2 performance with the complexity of interventions.
- The approach integrates comfort, operational reliability and regulatory compliance into the decarbonization process.

Sustainability Survey 2025

Respondents:

The respondents cover the entire construction value chain and are predominantly large companies.

ISO certification and strategy:

75% of respondents have an ISO 14001 environmental management system. Small and micro-enterprises typically do not have ISO 14001 certification, while large companies do so without exception.

62% have a sustainability strategy, and more than half (55%) have a designated sustainability officer. Based on the sample, this does not depend on company size.

Measurement focus:

Most companies monitor energy consumption (92%), waste (77%), and water use (72%), while significantly fewer track transport-related (42%) and business travel-related (37%) emissions.

Emissions and targets:

62.5% of respondents measure direct (Scope 1) emissions, but only 20% address value-chain-related (Scope 3) emissions. Large companies almost without exception measure their emissions.

37% have no emission reduction targets, while 42% have set CO_2 reduction targets, and 15% have defined a net-zero target. Based on the sample, this does not depend on company size.

Sustainability Survey 2025

Circular economy:

82% assess circular economy aspects (reuse, waste reduction), and 62% take sustainability criteria into account in procurement. Based on the sample, this does not depend on company size.

Corporate governance:

Only 32% monitor the sustainability performance of their subcontractors, and just 47% have a risk management system that incorporates sustainability risks. Based on the sample, this does not depend on company size.

Motivations:

Main drivers are commitment to ESG principles and regulatory compliance (both 72%), followed by brand building (62%), market competitiveness (60%), long-term cost reduction (52%). Sustainability initiatives are most often driven by clients (82%).

Challenges:

The main barriers are capacity constraints (50%), administrative burden (47%), high costs (47%), and difficulties in data collection (45%).

Support needs:

Most respondents would welcome financial incentives (80%), more transparent manufacturer databases (57%), and written professional guidelines (55%). Very few (12%) would involve external consultants.

...NEXT

Zero Carbon Roadshow 2026.

Financed by the **Ministry of National Economy**, by the **Business Environment Development Programme.**

Tha Programme aims to enhance the competitiveness of Hungarian small and medium-sized enterprises (SMEs) by providing support **through professional organisations.**

Roadshow events: 4 (Miskolc, Szeged, Sopron, Budaörs)
Expected number of participants: 30+ per event (SMEs)
Structure of an event

- Presentation of the Zero Carbon Roadmap and its key objectives
- Rapid assessment of participating companies' zero-carbon readiness
- Targeted mentoring and practical guidance based on assessment results
- Case studies and examples from the construction value chain
- Q&A session and networking with participants

...NEXT

Green Future 2026 – *Working title: Re-designed Future*

Subtitle: Existing buildings, heritage and climate resilience in the zero-carbon era

Patron: Embassy of Italy

Professional partner: GBC Italia

Date: 23 April 2026.

Venue: Budapest Music Center

Thematic focus: renovation, heritage protection, climate-resilient architecture

...NEXT

National regulations:

- Act C of 2023 on Hungarian Architecture
- Act LVII of 2015 on Energy Efficiency
- Act CVIII of 2023 on Sustainable Financing and Corporate Responsibility (ESG)
- Act LXIX of 2023 on State-funded Infrastructure Projects
- Gov. Resolution 1343/2021 on the Long-Term Renovation Strategy
- Gov. Decree 122/2015 on the implementation of the Energy Efficiency Act
- Gov. Decree 176/2008 on the certification of energy performance of buildings
- Gov. Decree 666/2020 on the energy audit
- Parliamentary resolution 23/2018 on the 2nd National Climate Change Strategy

...NEXT

Családi karácsonyi találkozás

A modern, pillanatok alatt bármi megoldható világunkban készülünk a családi Karácsonyra.

A kandallóban ropog a tűz.

Az ételek készen várnak, hogy a család az asztal köré üljön.

A családtagok hamarosan megérkeznek a csendes és villámgyors vasúton, majd a vasútállomásról az ott sorakozó suhanó járművekkel.

A suhanás közben elhaladnak a régi tó mellett, ami az évek alatt egyre zöldebb környezettel gazdagodott. Mindenki várja már a sétát a tó körül.

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