Interreg CENTRAL EUROPE

Co-funded by the European Union

GreenScape CE

Városok? Természetesen!

A természetalapú megoldások megvalósítása a gyakorlatban

2. nap - Finanszírozás és a helyi közösség mobilizálása
Budapest | 2024. február 1.

Pej Zsófia, Olasz Krisztina
Energiaklub

Katona Attila
Energiaklub/**Physi**

Városok? Természetesen!
Természetalapú megoldások (TAM) a várostervezésben: ötlettől a megvalósításig

TAM: természet alapú megoldások
ZI: zöld infrastruktúra

Tervezett program

9:15	Köszöntő, program, ráhangoló interaktív feladat	
	Finanszírozás csoport	Kommunikáció, közösségi bevonás csoport
9:35	A ZI/TAM értékelésének és finanszírozásának nehézségei és lehetőségei Előadás és tapasztalat-megosztás	Az érdekeltek különböző mértékű bevonásának előnyei, ideális időpontja Előadás és gyakorlat
10:45	SZÜNET	
11:00	**Panel beszélgetés:** vállalatok szempontjai az önkormányzati zöld projektjeinek finanszírozása kapcsán Résztvevők: • Erdei Balázs, igazgató, Green Urbanics • Hornyik-Horváth Dorottya, városfejlesztési szakértő - EDC Debrecen Város- és Gazdaságfejlesztési Központ • Szemerédi Dóra Diána, ESG vezető - Gránit Pólus • Bojár Iván, alapító-igazgató - 10 Millió Fa Alapítvány (felkérve)	
12:00	A közösségi finanszírozásban rejlő lehetőségek	
12:30	EBÉD	
	Finanszírozás csoport	Kommunikáció, közösségi bevonás csoport
13:15	Gyakorlat: saját TAM projekthez 3 fázisú pénzügyi tervezés	Co-creation (közös tervezés és megvalósítás) módszerei, magyar és nemzetközi példákkal Előadás és csoportmunka
14:45	SZÜNET	
15:00	Záró csoportmunka, lezárás	
16:15	program vége	

VÁROSOK? TERMÉSZETESEN! WORKSHOP - SZABÁLYOK

Az eredményes műhelymunka érdekében

1. Tegeződhetünk?
2. Bármikor lehet kérdezni.
3. Legyél aktív és együttműködő.
4. Tartsuk tiszteletben azt, aki beszél, és figyeljünk egymásra.
5. Némítsd le a telefonod, és próbálj meg csak a szünetekben ránézni.
6. Ha sürgős hívásod van, kimehetsz és fogadhatod.
7. A szünetek után időben érkezz meg ☺ ne lopjuk mások idejét.

BEMUTATKOZÁS

Kérjük, röviden oszd meg velünk:

1. A neved
2. Az általad képviselt település nevét
3. Hogyan kapcsolódsz a városi természet témához a munkád során

RÁHANGOLÓDÁS

Kérjük, ossz meg velünk:

1. egy történetet, amikor önként adományoztál pénzt egy fejlesztésre - és
2. mi volt a kulcsa annak, hogy úgy döntöttél, pénzt adsz az adott projektre?

A természetalapú megoldások értékelése és finanszírozása

Hol tartunk, és milyen megoldások vannak?

Ingatlanárak

Rekreáció

Zajtompítás

Villámárvizek

Oktatási lehetőségek

CO2 megkötés

Kép forrás: Klímabarát Települések Szövetsége

ALAPVETŐ PROBLÉMA

A TAM általában **hosszú távon** járnak pénzügyi és egyéb előnyökkel, de a finanszírozási rendszerek általában **rövid távúak.**

- A TAM-projektek nem élveznek prioritást, és más infrastrukturális projektekkel kell versenyezniük a finanszírozásért.
- Kevés a pénzügyi lehetőség az innovatív megközelítésekbe (például az NBS-ekbe) való befektetésre, és a lakosság és a vállalkozók ezt a felelősséget a helyi önkormányzatokra hárítják.
- A döntéshozók körében az általános vélekedésével ellentétben a TAM-ok kezdetben nagyobb tőkebefektetést jelenthetnek, de általában nagyobb és többszörös hosszú távú előnyöket vagy csökkentett költségeket biztosítanak a beruházás élettartama alatt. (EEA, 2021).

MIÉRT OLYAN NEHÉZ A FINANSZÍROZÁS?

A TAM-nak számos pozitív externáliája van, amelyeket a piac nem tud figyelembe venni.

+ A TAM-ok hosszú távú, illikvid jellegű infrastrukturális befektetések. A hosszú távú infrastrukturális beruházásokat hagyományosan állami feladatnak tekintik, amelybe a magánbefektetők nem lépnek be.

+ A magántőkét bevonó, piacvezérelt zöldítési stratégiák, amelyek célja a városrehabilitáció és a gazdasági fejlődés, általában a közepes és magas jövedelmű polgárokat célozzák - társadalmi igazságossági aggályok merülnek fel.

Néhány tegnap is felmerült kihívás…

1. A fókusz főleg a kezdeti befektetésen van; üzleti modell és fenntartás kérdése elsikkad, nem kerül végiggondolásra

2. A gombhoz varrunk kabátot: különböző (országos, EUs) források kritériumainak való megfelelés, határidők és indikátorok kergetése

3. Önkormányzati, szakmai silók: pl. a tájépítész, környezetvédelmi, tervező osztályok céljai és prioritásai mások mint a pénzügyi, fenntartásért felelős osztályoké

4. Hagyományos, bevált megoldásokhoz való ragaszkodás, innovatív megközelítésektől való félelem

5. Komplexitás nehézzé teszi az üzleti modellek gyakorlati használhatóságát, szereplőkkel való együttgondolkodást, közös célok megtalálását, bevonást

6. Közbeszerzés olyan, amilyen...

A GONDOLKODÁSMÓD MEGVÁLTOZTATÁSA

Jelen helyzet

- Rövid távú döntéshozatali struktúrák
- Rövid távú költségvetések
- 1 célkitűzéshez: 1 projekt, 1 felelős szervezeti egységgel

Amire szükség lenne

- Hosszú távú elkötelezettség
- Dedikált karbantartási költségvetés (és személyzet)
- Integrált, osztályokon átívelő projektek

KÖRKÉRDÉS

Milyen finanszírozási formák jellemzőek Nálatok TAM projektek megvalósításához?

- Voltak-e kipróbált, de be nem vált finanszírozási formák?
- Vannak-e kipróbálni tervezett finanszírozási formák?

A LEHETSÉGES FINANSZÍROZÁSI FORMÁK

- EU támogatási programok
- Hazai támogatási programok
- Banki hitelek
- Zöld/klíma kötvények
- PPP
- Adománygyűjtés (közösségi finanszírozás)
- Saját források
- Kombinált üzleti modellek

Egy projekthez tartozhat több is!

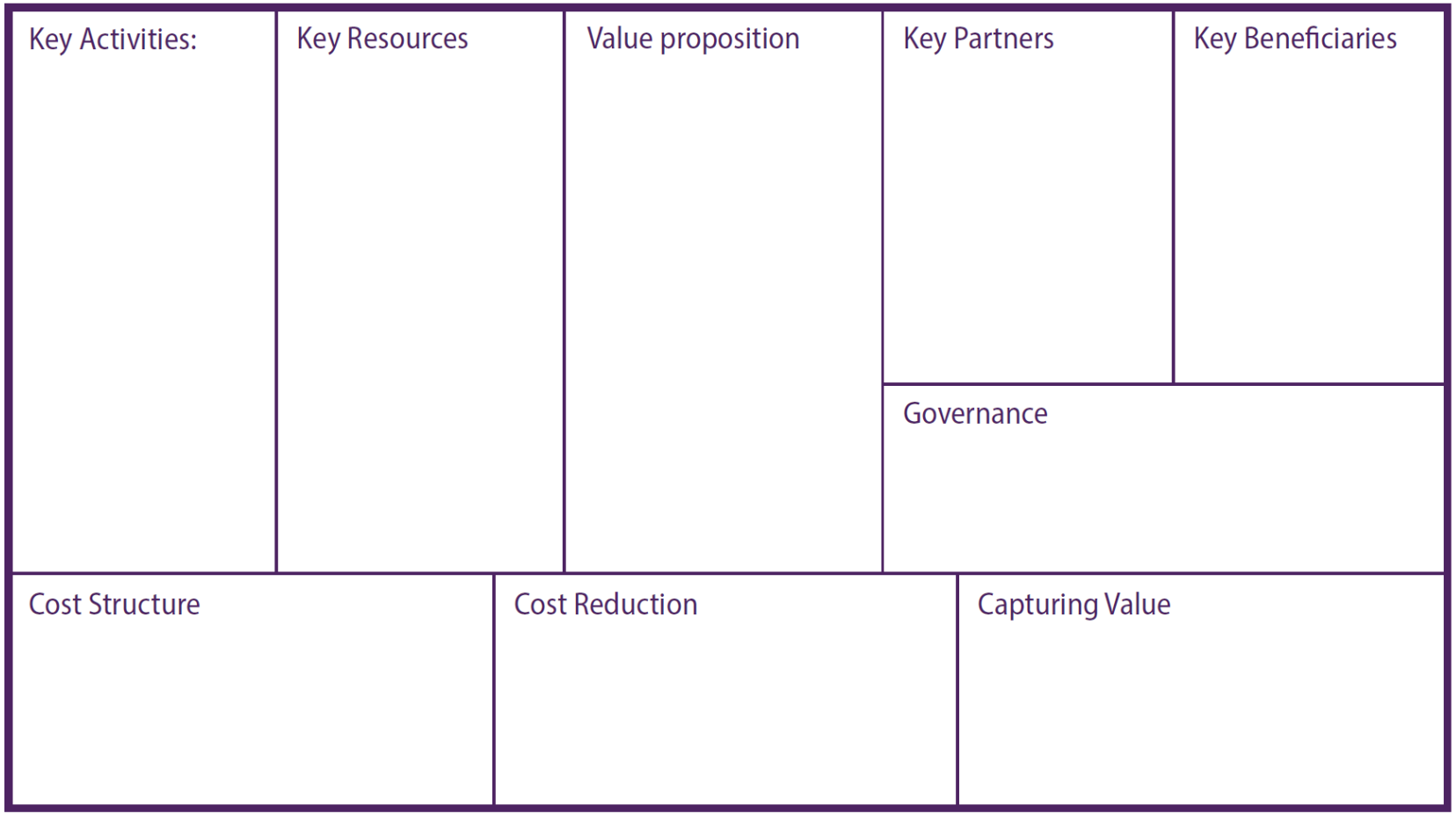
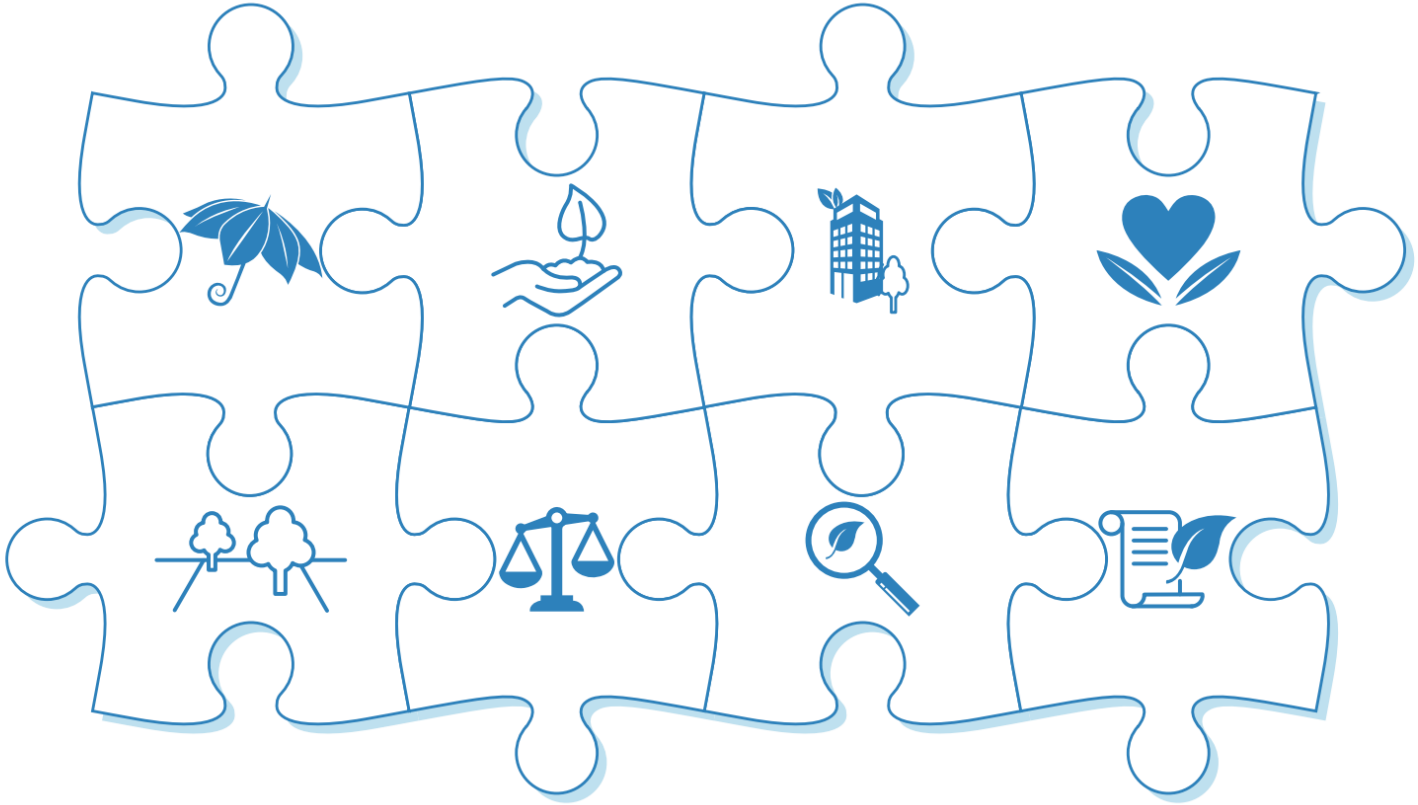


Figure 2 The Nature-Based Solutions Business Model Canvas



A természetalapú megoldások sok értéket teremtenek... de ki fog ezért fizetni, és miért teszi?

Kockázatcsökkentés modell: a befektetés indoka a jövőbeli veszteségek és katasztrófák (áradások, aszályok, stb.) várható költségeinek elkerülése

BUSINESS MODELS	 Risk reduction	 Green densification	 Local stewardship	 Green health
Value proposition What is being offered in the market? Who is the customer?	Nature-based solution interventions are valued for their ability to reduce climate risks (and costs) such as flooding, extreme heat and drought.	Urban real estate developers develop nature-based solutions along with housing and commercial buildings, targeted at quality of life of residents/employees (green roofs, gardens).	Local small plots of nature (and single trees) are valued by citizens who are willing to protect and support nature in their neighbourhood.	The therapeutic and health value for citizens of interaction with urban nature-based solutions is valued by (mainly) non-profit and public actors.
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Enabling conditions & risks What conditions enable this business model to be effective? What risks are there?	Awareness of risk is crucial, as is availability of data. Municipality should help poorer citizens who cannot afford insurance & risk mitigation interventions.	Green tender procedures / requirements, land ownership and monitoring by the municipality speed up this business model. Subsidies may be needed for social housing to be included.	Accounting for the additional nature provided by local citizens and businesses is important to prevent 'double counting'. Campaigning is often needed, including funding.	This model requires expertise on how green spaces need to be designed and used to support citizen health. Just stating 'green is healthy' will not be enough.

München, Isaar folyó regenerációja

8 km folyópart regeneráció, melynek célja volt az árvízvédelem a folyó meanderezésének visszaállításátval, a biodiverzitás növelése, vízminőség javítás, és rekreáció. A terv a szereplők szoros együttműködéséből („Isar Szövetség”) született.

Source: Urban Nature Atlas

Kockázatcsökkentés modell: a befektetés indoka a jövőbeli veszteségek és katasztrófák (áradások, aszályok, stb.) várható költségeinek elkerülése

In the **risk reduction model**, upfront investments into urban nature-based solutions are made to lower future costs from extreme weather events such as droughts, storms and floods.

Value proposition | The **Isar Plan** is a river restoration project (8 km, 2000-2011) in Munich carried out in response to the need of **flood protection**, improvement of water quality and increased citizen awareness of the need of green in the city. The monotonous 'grey' river bed was replaced by a diverse, rewilding river landscape that not only offered flood protection and improved **biodiversity** but also became an **attractive recreation area for residents**.

Isar River - Credit: Bernadett Kiss

Value delivery | **The expiring of water contracts** with local energy plants were a key opportunity for renegotiation the amount of water flow in the Isar for energy generation. Also, citizens started asking for more green in cities and green parties were elected. An **interdisciplinary project team**, headed by the Bavarian Water Management Office, enabled different municipal departments and experts to cooperate successfully.

Enabling conditions | The project put **different goals** at the forefront, harmonizing the project plan across different sustainability goals (flood protection, water quality and recreation) and **successfully coordinating** between different municipal silos and actors.

Risks | The **recreational success** of the river seems to create **disturbances for fish**, which are found less than expected.

Value capture | The total budget was **EUR 35 million, jointly funded** by the Bavarian state and the city of Munich. **Flood events** (1999, 2005, 2013) increased the available budgets for flood protection. While the flooding corridor **has higher maintenance costs** than before, the new Isar park and bathing area attract **more guests** (including residents and visitors) than before during the whole year.

Forrás: Naturvation Business Model Catalogue

Zöld ingatlan modell: a TAM integrálása (gyakran nagyléptékű) ingatlanbefektetésekbe, mely mögött az üzleti modell az ingatlanok értékének emelése a minőségi környezet által.

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Tianjin, Sino-Singapore Öko-Város barnamezőn

Egy vegyi munkákban elszennyezett barnamezős területen 350.000 fő számára épült cellákból álló öko-város önálló vízrendszerrel, átfogó zöld infrastruktúra tervvel, a „szivacs város” koncepció mentén, melynek célja a lehulló csapadék 80%-ának visszatartása.

Kockázatcsökkentés modell: a befektetés indoka a jövőbeli veszteségek és katasztrófák (áradások, aszályok, stb.) várható költségeinek elkerülése

The **green densification model** integrates nature-based solutions into (often large-scale) urban real estate development. The costs of creating and maintaining these nature-based solutions become an embedded part of a larger business case of 'sustainable urban living', captured through real estate value and economic growth.

Value proposition | The **Eco-Valley of the Sino-Singapore Tianjin Eco-City** has been designed and realized as an integral part of the Tianjin Eco-City. The Eco-Valley cuts across the entire Eco-City like a 'fishbone' with a total surface area of approximately 180,000 m2 (3.17km long, minimum 50m wide) . It links together the city center with all residential districts, parks, community spaces, commercial zones and waterside areas as a park and transportation spine. It is expected to lead to a **high quality of life** for its 350,000 residents and its businesses, simultaneously serving as a rain- and **stormwater management system**.

Developing the Eco-Valley - Credit: SSTEC

Value delivery | Tianjin Eco-City, which the Eco-Valley is part of, is set up as a large **public-private partnership** between Chinese and Singaporean development companies. The **Singaporean National Parks Board** was in charge of planning the Eco-Valley, implementing its expertise on green infrastructure, park connector concepts and water management. The Eco-City and Eco-Valley are delivered in **three phases**. There is a master plan, but also some room for a learning approach based on input from the first residents. Maintenance of the Eco-Valley's vegetation and public spaces is **subcontracted**.

Enabling conditions | The Eco-Valley (and Eco-City) had strong **political support**: it was initiated through a framework agreement between China and Singapore, as a pilot of China's "sponge cities" project. A set of **Key Performance Indicators (KPI's)** were developed for the Eco-Valley with a strong focus on ecological urban development.

Risks | Commercial pressure from real estate development in combination with unexpected high costs led to a decrease in the proportion of **affordable housing** from 50% to 20%.

Value capture | The cost of the Eco-Valley is approximately **€ 20.8 million**. While revenue streams were not calculated explicitly for the Eco-Valley, developers anticipated **an increase in the value of the real estate** in the Eco-City, and assumed that it contributes to a successful 'live-and-work' concept. The Eco-Valley should **generate revenue** by attracting residents, visitors, businesses and industrial parks to the Eco-City. The Eco-Valley acts as the water management and stormwater retention structure of the Eco-City, also **lowering extreme weather costs**.

Forrás: Naturvation Business Model Catalogue

Helyi közösségek modell: a helyiek (általában egy kisebb aktív csoport) értékelik és gondozzák a fákat, kiskerteket, közösségi kerteket, mert hozzátartozik a környék identitásához

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Edinburgh, „Egy négyzetméter a pillangókért”

9 tetőkert összefogása a biodiverzitás és beporzó fajok érdekében, egy átfogó tudományos kutatás részeként. - 1 négyzetméteres biodiverz boxok.

Source: Urban Nature Atlas

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In the **local stewardship model**, local nature-based solution plots and trees are valued by citizens and businesses who are willing to protect and support nature in their neighborhood based on the direct value and sense of identity and meaning that they derive from it.

Value proposition | The **'square meter for butterflies'** project in Edinburgh engages private and public organizations to enhance their green roofs. This measure provides the **biodiversity quality** necessary to attract and sustain **native butterfly species**. The project focuses on a particular pollinator species (the native Northern Brown Argus butterfly, often referred to as Edinburgh's butterfly). This is thought to help capture people's **imagination** and encourage them to **contribute** to urban biodiversity. The focus on just a 'square meter', aims to show that **even small interventions** can make a difference.

Northern Brown Argus - Credit: Shutterstock.com

Value delivery | The **Royal Botanical Garden Edinburgh (RBGE)** initiated this project, using funding from the Edinburgh Living Landscape (ELL) network's program. They approached the Butterfly Conservation Trust to develop this project. Together they identify **buildings which already have green roofs** where greening could be enhanced. If the building users commit to a 'square meter for butterflies', RBGE **provides the plants**. Wherever possible, **building users** are involved in the creation and maintenance of the square meters.

Enabling conditions | Knowledge on native butterfly species and their **habitats**, available information on green roofs in the area and networking by the initiators were essential for the engagement of organisations to enhance their green roofs.

Risks | **Upscaling** this model requires enough capacity to raise additional square meters, which is not available in this phase of the project.

Value capture | This nature-based solution is seen as a **cost-effective intervention** for delivering biodiversity value. Building users contribute **green space** on their roof and are stimulated to take part in creation and maintenance. RBGE providing funding for **an officer** to help deliver some of the actions in the Edinburgh Living Landscape (ELL) network's program, and also **providing the plants**. The Butterfly Conservation Trust provides **training** to all staff on butterflies and their ecology.

Forrás: Naturvation Business Model Catalogue

Zöld egészség modell: a terapeutikus, egészségre való pozitív hatások kihasználása érdekében történnek egyes beruházások

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Szingapúr terapeutikus kertek (kórházban)

„a kórház minden szürke négyzetméterére három [négyzetméter] zöld jut a zöldfalak, kertek, és zöldtető miatt […] látvány, tapintás, hangok – mindhárom komponens fontos a gyógyuláshoz […]"
– Former Director, Khoo Teck Puat Hospital

Zöld egészség modell: a terapeutikus, egészségre való pozitív hatások kihasználása érdekében történnek egyes beruházások

In the **green health model**, the therapeutic, health and wellbeing value of urban nature-based solutions is recognized and used as a driver to finance urban nature-based solutions.

Value proposition | The Newcastle City Council established an independent charity – **Newcastle Parks Trust** – to care for all of the city's parks and allotments. It promotes **public health for its citizens as a core objective of parks in Newcastle**. This vision returns to the original Victorian ideal of urban parks for health and wellbeing in the city. By developing activities and facilities that encourage active lifestyles and act as **disease prevention mechanisms**, park maintenance and enhancement can lead to better, efficient health outcomes.


Leazes Park in Newcastle - Credit: Shutterstock.com

Value delivery | The Newcastle Parks Trust will undertake two key activities: generate revenue by providing **commercial services** (i.e. health, events, parking) and **maintain/develop** Newcastle's parks.

Enhancement and maintenance of **sports facilities** in parks are expected to improve the health effect of parks. Parks can also be used as a form of **secondary prevention**, reducing health problems by facilitating interventions directed at **lifestyle change** such as prescribed walking, outdoor exercise, gardening and social activities.

Enabling conditions | The shift from a **national to a local healthcare regime** facilitate the earmarking of public health budget for park maintenance.

Risks | The public health budget for parks is a temporary solution. There is a risk that the public health objectives of the parks **cannot be translated successfully into sufficient funding streams**.

Value capture | Based on the benefits of parks for public wellbeing and health, the Newcastle City Council Public Health department committed **£1m per year** until 2019 to support their **maintenance**. More expensive and elaborate NHS treatments are envisioned **to be substituted** by leisure facilities and health interventions in parks, thus **lowering health costs**. Income from health funding sources is expected to lead to revenues for the Parks Trust.

Forrás: Naturvation Business Model Catalogue

Zöldpótlás modell: a zöldmezős (vagy egyéb módon fa/zöldveszteséggel járó) projektek pótlása egy zöldalapba való befizetéssel

BUSINESS MODELS	 Urban offsetting	 Vacant space	 Education	 Green heritage
Value proposition What is being offered in the market? Who is the customer?	When green-blue urban space is lost to real estate or infrastructure development, a 'no net loss' program can incentivise or require offset investments into urban nature-based solutions elsewhere in the city.	Government steps back and provides space for local initiatives and (social) entrepreneurship in (temporarily) underused urban public space.	Urban nature-based solutions are set up and managed in support of environmental education, allowing young, urban citizens to engage with food and nature, usually through urban farming / gardening.	A green region, city or neighborhood creates value through its green cultural heritage which attracts tourists, residents and businesses.
Value delivery What resources are needed? What network? What is the strategy?	A reliable governance structure needs to be in place to earmark funds obtained from building activities for nature-based solution investment (i.e. a designated fund).	Governments can support through in-kind services and by (temporary) allocation of urban space; volunteer and community groups organize themselves bottom-up.	Using nature-based solutions as a form of education requires governance support from a specific school or school network. It also requires expertise on how to teach with an urban nature-based solutions.	Actors need to acknowledge the cultural value that is embedded in this green nature-based solution. It also needs to combine cultural and ecological expertise to deliver this joint value.
Value capture What costs are being made (or prevented?) What revenues, for whom?	The cost of offsetting biodiversity is internalized in larger real estate or infrastructural development projects, and paid out of the revenue or tax stream that is created.	Facilitates private actors to develop meaningful activities at low cost (low land rent), which enables (social) entrepreneurship even at low/no revenue.	Cost effective and interactive way to implement sustainability education, enriching other subjects and nutritional knowledge in children, as well.	A green cultural space can benefit from volunteers, networks and public financing. Value-added cultural produce and ticket / tour sales can provide income.
Enabling conditions & risks What conditions enable this business model to be effective? What risks are there?	An offset mechanism should not become a 'wildcard' to build on high quality green-blue spaces, but should be used as a 'last resort. It requires availability of green spaces to invest into.	Closing temporary plots can destroy social capital built up in communities. Prevent through alternative location, integrate into urban development strategy.	Guidance, monitoring and expertise is needed from school teachers or staff. Adds to work load of sometimes already overburdened school teachers.	Cultural heritage needs to be equally accessible so entry prices may not be too high. Both ecological and cultural expertise is needed to deliver this model.

Zöldpótlás modell: a zöldmezős (vagy egyéb módon fa/zöldveszteséggel járó) projektek pótlása egy zöldalapba való befizetéssel

In the **urban conservation offsetting model**, a 'no net loss' approach incentivizes or requires offset investments into urban nature-based solutions that are lost because of real estate and infrastructure development within the city.

Value proposition | The **Naturcent program** in Hamburg was set up by the municipality in 2016 **to enhance the ecological and recreation value** of green areas in the city while at the same time carrying out ambitious building plans (10,000 houses a year to keep housing affordable). The offsetting policy addresses fears from citizens that the intensive real estate development in Hamburg will threaten its high livability as a green city, aiming to reconcile building with greening by **focusing on the quality instead of the quantity** of green areas in the city. The program does not require direct payments from citizens, since it is funded by additional land taxation income from building activities in areas that are designated as landscape protection areas.

Building activity in Hamburg - Credit: Helen Toxopeus

Value delivery | The Naturcent program is facilitated by setting up a designated **nature and landscape conservation fund** at the municipality. This allows for transparency, since incoming funds from additional land taxes are **earmarked** for upgrading existing nature. **Districts and environmental organizations** in Hamburg can apply to this fund to invest in upgrading the ecological and recreation value of green areas.

Value capture | For every **square meter** of real estate development in the city, **€ 6.36 of land taxation income** is paid into this fund. A one-off of **€ 3 million** was entered into the fund when it commenced as an approximation of land taxes between 2016-2018. It is expected that in 2019 an additional **€ 750,000** will flow into the fund.

Between 2016 – early 2019, approx. **€ 0.5 million total** has been re-invested into upgrading and maintenance of Hamburg's green areas.

Enabling conditions | Underlying the Naturcent policy is a **differentiated taxation system** that stipulates higher taxes for built land use than for green areas. The success of the Naturcent system is dependent on **applications** from districts and environmental organizations for investments in existing green spaces.

Risks | There is a risk that the funding from Naturcent will chip away at **existing district budgets** for nature maintenance.

Forrás: Naturvation Business Model Catalogue

Kihasználatlan városi tér modell: Az önkormányzat engedélyezi vagy megkönnyíti a (néha átmenetileg) kihasználatlan terek birtokba vételét helyi közösségek vagy (társadalmi) vállalkozások számára

BUSINESS MODELS	Urban offsetting	Vacant space	Education	Green heritage
Value proposition What is being offered in the market? Who is the customer?	When green-blue urban space is lost to real estate or infrastructure development, a 'no net loss' program can incentivise or require offset investments into urban nature-based solutions elsewhere in the city.	Government steps back and provides space for local initiatives and (social) entrepreneurship in (temporarily) underused urban public space.	Urban nature-based solutions are set up and managed in support of environmental education, allowing young, urban citizens to engage with food and nature, usually through urban farming / gardening.	A green region, city or neighborhood creates value through its green cultural heritage which attracts tourists, residents and businesses.
Value delivery What resources are needed? What network? What is the strategy?	A reliable governance structure needs to be in place to earmark funds obtained from building activities for nature-based solution investment (i.e. a designated fund).	Governments can support through in-kind services and by (temporary) allocation of urban space; volunteer and community groups organize themselves bottom-up.	Using nature-based solutions as a form of education requires governance support from a specific school or school network. It also requires expertise on how to teach with an urban nature-based solutions.	Actors need to acknowledge the cultural value that is embedded in this green nature-based solution. It also needs to combine cultural and ecological expertise to deliver this joint value.
Value capture What costs are being made (or prevented?) What revenues, for whom?	The cost of offsetting biodiversity is internalized in larger real estate or infrastructural development projects, and paid out of the revenue or tax stream that is created.	Facilitates private actors to develop meaningful activities at low cost (low land rent), which enables (social) entrepreneurship even at low/no revenue.	Cost effective and interactive way to implement sustainability education, enriching other subjects and nutritional knowledge in children, as well.	A green cultural space can benefit from volunteers, networks and public financing. Value-added cultural produce and ticket / tour sales can provide income.
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In the **vacant space model**, the government steps back and provides space for local initiatives and (social) entrepreneurship in (sometimes temporarily) unused urban public space.

Value proposition | The **Pla Buits** scheme in Barcelona is a participatory intervention that gives the opportunity to public entities or non-profit associations to develop **temporary uses and activities** (1-3 years) on small plots of unused land. Out of the 14 selected projects in the first phase, nine are **urban gardens**. They 'fit' well to temporary use because no large infrastructure is needed. The Pla Buits urban gardens represent a form of **social entrepreneurship**: self-governed projects are given a space to flourish, contributing to urban green and related ecosystem services, while also offering a solution to social issues of community bonding, integration, and awareness-raising on food production and consumption.

Pla Buits urban garden - Credit: Panagiota Kotsila

Value delivery |Only **legal entities** (such as neighborhood associations) can apply to a Pla Buits plot. The City Council contributes to its basic amenities (water, electricity).

A **successful bottom-up dynamic** is essential for the success of these urban gardens; **families with young children, looking for outdoor activities**, play an important role in creating active communities.

Enabling conditions | The Pla Buits scheme developed after the **financial crisis**, when many construction projects were cancelled leading to unused plots of land.

Risks | There are concerns that urban gardens in temporary spaces lead to a **social loss** once they are displaced. This would **demotivate** the continuation or transfer to a different site. Others are less concerned and find the **social dynamics** is most important, not the space itself.

Value capture | The **low cost** of the unused public space assigned for these urban gardens is driving the feasibility of this model, as well as the fact that its use can be **temporary**. The municipality offers several **support schemes**, for example to pay an instructor who oversees member participation, and in one of the gardens (Illa de 3 Horts) families pay **a small contribution for running costs**. The density of Barcelona increases the value of these small urban green spaces for its members.

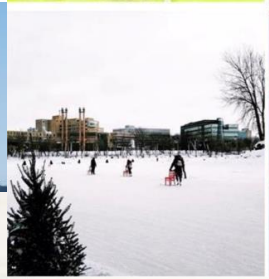
Forrás: Naturvation Business Model Catalogue

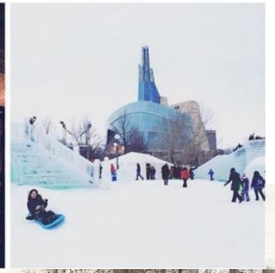
Barcelona, Pla Buits közösségi kertek

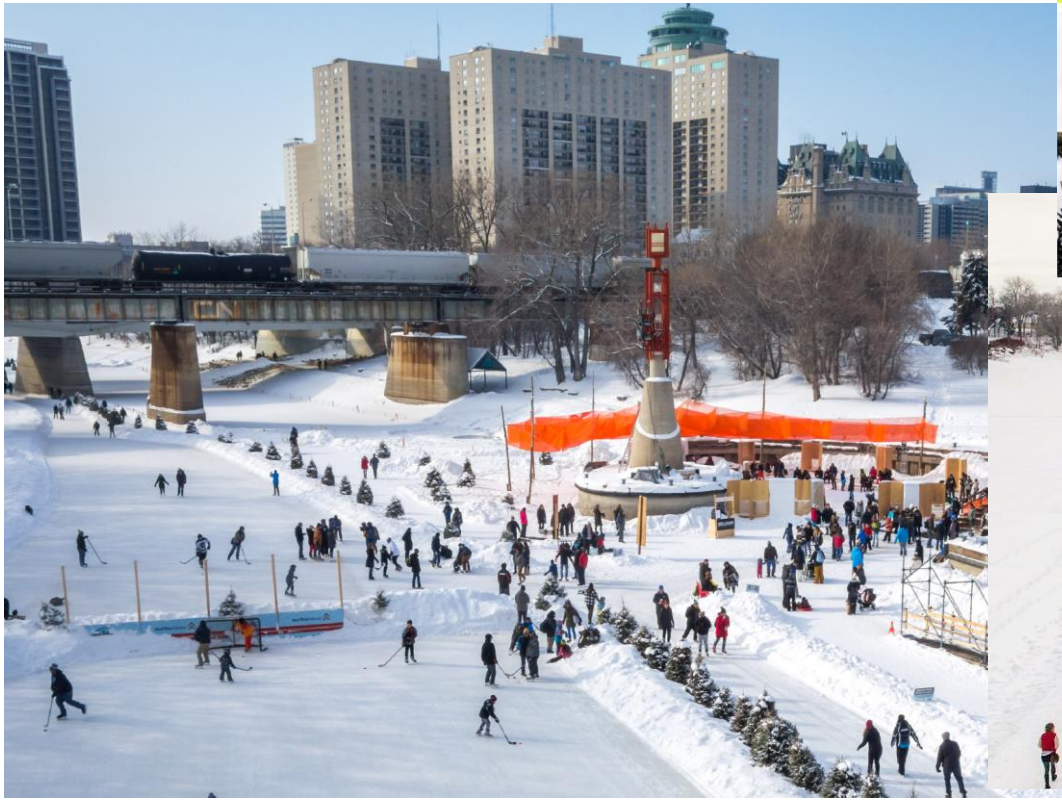
Barcelona helyiek számára 2013-16ban megnyitott 14 darab foghíjtelkéből és kihasználatlan városi teréből 9 közösségi kert lett, rekreációs, terepeautikus, kulturális programokkal.

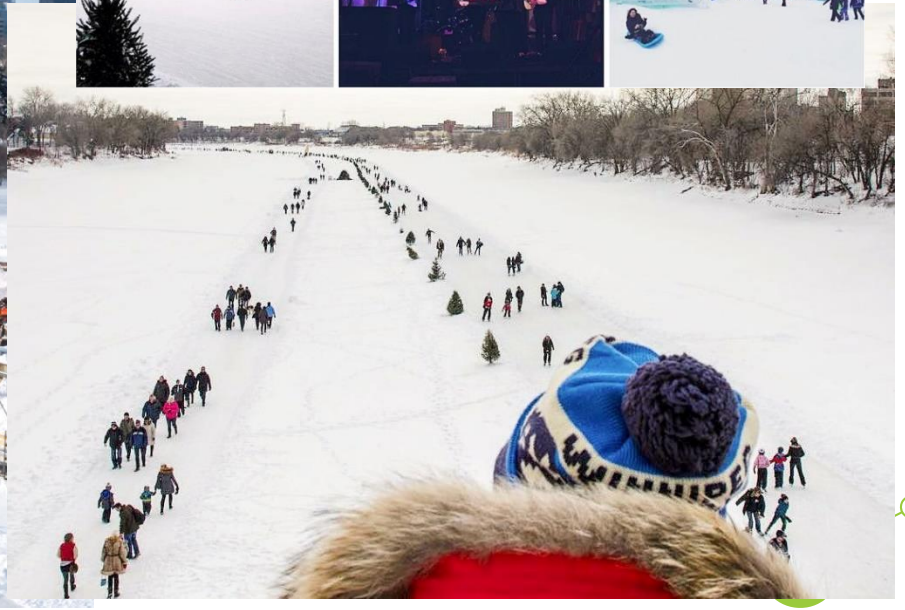
Source: Urban Nature Atlas

Winnipeg, Vörös-folyó koripálya









Zöld oktatás modell: a TAM oktatási célból létesül és hasznosul, például hogy egészséges étkezést, mezőgazdálkodást, biodiverzitást lehessen oktatni vele

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Győr, iskolakertek

Az elmúlt 6-8 évben van egyfajta „iskolakert reneszánsz”, rengeteg helyen felismerték, hogy ez a régen népszerű koncepció egy erős pedagógiai eszköz - jól működik akár integráltan az oktatás részeként. Filléres, alulróljövő kezdeményezések. Az Iskolakertekért Alapítvány szakmai támogatása minden intézmény számára elérhető.

Zöld oktatás modell: a TAM oktatási célból létesül és hasznosul, például hogy egészséges étkezést, mezőgazdálkodást, biodiverzitást lehessen oktatni vele

In the **education model**, urban nature-based solutions are set up and managed to support environmental education and allow young, urban citizens to engage with food and nature.

Value proposition | **School gardens** in Győr, Hungary, have recently **revived**, creating a setting for children to learn to **care for nature 'by doing'**. The increased interest in **sustainability education** seems one of the key drivers. Apart from building environmental stewardship, other positive impacts include: more **efficient and varied education**; enrichment of **other subject areas** (such as biology, mathematics, arts); building **nutritional knowledge** to prevent child obesity; building **work ethics** and planning skills; social equity; food security and community building.

Pupils at a school in Győr also care for their indoor plants – Credit: Lorna Winship

Value delivery | The vice-dean of the Apáczai school garden in Győr co-founded the **Foundation for Hungarian School Gardens** in 2015 to **support school gardens** across Hungary. This has become a fast-growing **networ**k (over 200 schools). They offer free membership, trainings, best practices and free guidance. The fast uptake of school gardens in Hungary (8%, over 1,100 schools) is partly due to **sustainability-oriented schools** (eco-schools and Waldorf schools). The school garden Apáczai offers **a university course** on organizing and maintaining school gardens to future school teachers.

Value capture | The Apáczai garden keeps **costs at a minimum** to illustrate to students and visitors how a garden can be run with minimal financial resources, focusing instead on motivation, creativity and volunteer effort. **No paid staff** is hired for the garden while **utility costs** (land, water, electricity) are covered by schools. **Material costs** (tools, seeds, construction) are usually provided by parents. The Ministry of Agriculture launched **a pilot program** to fund 50 school gardens, the Foundation manages this process. **Donations for material (~€200)** are sometimes received from the school maintenance organization KLIK, and from the Foundation for Hungarian School Gardens.

Enabling conditions | A national **urban agriculture strategy** has been formulated. This **supports the funding and uptake** of school gardens through the Foundation for Hungarian School Gardens.

Risks | School teachers can get **over-burdened**, managing the school gardens next to their regular duties.

Forrás: Naturvation Business Model Catalogue

Zöld hagyaték modell: különböző volt arborétumok, nemesi birtokok, kúriák, privát parkok megnyitása, hagyatéki vagyonból ápolása, privát szféra általi szponzorálása

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The **green heritage model** builds on cultural values and a sense of identity to sustain and develop urban nature-based solutions. The green spaces that support / are cultural heritage can lead to different types of value creation, ranging from tourism and education to cultural healing.

Value proposition | **The Park-Museum Vrana** in Sofia, Bulgaria, is a historical urban park (100 ha) whose history goes back to antiquity, when it was a connection point between Europe and Anatolia. The Iskar river runs through it and it is the residency of the Tsar. It holds century-old riverside forests and rich biodiversity. As a biodiversity hotspot with historical significance in a dense urban area, the park offers **cultural and recreational services** alongside **habitat and cultural preservation services** and enjoys great interest from visitors – tourists as well as city residents.

Park Museum Vrana - Credit: Shutterstock.com

Value delivery | **The Tsar family** donated most of the park to the municipality for it to become a community park, while remaining owner of 2.5 ha for themselves. They requested a **restricted access policy** to protect rare species in the park. Visitors can only visit in the weekend and have to buy an entry ticket. The conservation of wildlife in the park is regulated through several legal policies. **The municipal enterprise 'city parks and gardens'**, created in 2011, carries out the maintenance of the park. They are open to collaboration with citizens and private firms, The park offers highly educated **tour guides** who are experts not only on the history of the park but also on plants, birds or landscape and can educate the visitors.

Enabling conditions | This historical green site was **closed off** from the public between 1946 – 2003 before it was made public, which allowed such rich biodiversity to develop in a (peri-)urban area.

Risks | **Unclear ownership** prevents investments that can increase the value of this green space, such as an information office.

Value capture | **Maintenance costs** are carried by the municipality; **entry tickets** bring in some revenue but not enough to cover costs. The price is kept low to allow broad access. The **historical and ecological** value of the park is being delivered together with specialized tours. More private funding is looked for but is held back because of ownership disputes over the space.

Forrás: Naturvation Business Model Catalogue

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