

# Vadovas į miesto daržininkystę



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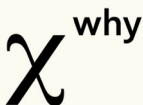
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# 1. Įvadas

## BENDROJI DALIS

Šiuolaikiniame ir sparčiai besikeičiančiame pasaulyje, kuriame informacijai ir prekėms ribos išnykusios, atrodo, kad žmonės ir visuomenė ieško būdų, kaip kompensuoti savo laiką, kartais laisvą, o kartais skirtą gyvenimui. Be to, urbanizacija ir per didelė populiacijos koncentracija dideliuose miestuose sukuria naujus poreikius ir gyvenimo sąlygas, kurios galiausiai turi tiesioginį ir ilgalaikį poveikį individui ir visai visuomenei. Tokioje

aplinkoje miesto daržininkystės idėja gimė kaip dar vienas būdas panaudoti turimus išteklius, tokius kaip miesto vietovės, suderinant laiką ir patenkinant tokius poreikius kaip pragyvenimo šaltinis, darbas, socializacija, pramogos ir kūrybiškumas.

Organizacijos iš 6 Europos šalių bendradarbiavo globojant projektui „URBAN - Įtraukiant jaunimą į miesto daržininkystės veiklą“, kad parengtų šį vadovą, skirtą asmenims ar grupėms, norinčioms sukurti bet kokio dydžio ar formos miesto daržą. Dėl šios priežasties vadovas yra padalintas į dvi dalis, kad skaitytojas galėtų gauti išsamų vaizdą apie miesto daržo kūrimo būdus ir priežastis, ir sužinoti, kas vyksta kitose šalyse, per jaunų žmonių ir miesto daržininkystės ekspertų apklausą.



### APIMTIS

Pagrindinis šio vadovo tikslas – pateikti išsamią apžvalgą, kad jis būtų orientacinis įrankis tiek jauniems žmonėms, kurie nėra susipažinę su miesto daržininkyste, tiek tiems, kurie gali būti suinteresuoti dirbti su ja sistemingiau.

## VADOVO STRUKTŪRA

Pirmasis skyrius prasideda apibrėžimu, kas yra miesto daržas, pristatydamas teorinį požiūrį ir naudą mūsų kasdieniam gyvenimui tiek asmeniškai, tiek socialiai.

Antrajame skyriuje pateikiamas pagrindinės žinios, kaip reikia pradėti miesto daržą, arba individualiu, arba bendruomenės lygmeniu, vaisiams ir daržovėms auginti.

Trečiajame skyriuje pristatomi kai kurie projekto šalyse partnerėse su tikslinėmis jaunimo grupėmis ir miesto daržų ekspertais atlikti tyrimai, siekiant pateikti papildomų žinių apie elementus, sudarančius teorinę vadovo struktūrą.

Ketvirtajame skyriuje minimas Europos teisės aktų, susijusių su miesto daržo kūrimu, pagrindas, taip pat svarbi informacija, susijusi su tokio projekto finansavimu, daugiausia bendradarbiaujant su atitinkamomis šalies institucijomis.

Paskutiniajame skyriuje apibendrinamos idėjos ir rekomendacijos iš visų organizacijos partnerių, kurie prisidėjo prie šio vadovo rengimo, kad esama praktika pagerėtų, imantis veiksmų, kuriant miesto daržą.

Šio vadovo priedai taip pat įdomūs, nes juose pristatomi likę tyrimai, taip pat įvairūs atvejų tyrimai ir geriausių praktikų pavyzdžiai, kad skaitytojas sužinotų apie kitose Europos šalyse vyraujančias tendencijas.



A dalis



## 1. Kas yra miesto daržininkystė?

Jungtinių Tautų Maisto ir žemės ūkio organizacija (MŽŪO) mini, kad miesto daržovių daržai gali būti daug ekologiškesni ir efektyvesni nei tradiciniai, ir per metus pagaminti net 20 kg maisto kvadratiniam metre. Be to, teigiama, kad tropikų miesto ir kaimo vietovėse žmonių sveikatos problemos dažnai yra susijusios su prasta gyventojų mityba, 2000 m. paveikusia daugiau kaip 2 milijardus žmonių (PSO, 2003). Daržas gali tapti pagrindiniu namų ūkio maisto ir pajamų šaltiniu streso laikotarpiais, pvz., per dėl įvairių priežasčių užsitęsusių nedarbą, sveikatą ar kitas priežastis, kurias patiria šeimos nariai, arba žemės ūkio ir ekonominius sutrikimus.

Miesto daržas gali varijuoti nuo kelių buitinių augalų skurdžiausiuose namuose iki didelių agroverslų. Jis randamas aplink namus (priekinius, galinius ir šoninius kiemus, balkonus, sienas, stogus ir tvoras) ir visur, kur laikinai tuščia žemė gali būti panaudojama, pavyzdžiui, bendruomenės erdvėse ar apleistose žemėse. Nepalankiai nusiteikę miestų planuotojai ir vyriausybės neskatina žemės ūkio kaip miesto žemės naudojimo. Tais atvejais, kai vyriausybės yra tolerantiškesnės ir net remia miesto žemės ūkį, jis linkęs klestėti.



**„Geriausias laikas įkurti DARŽĄ buvo prieš 20 metų. Kitas geriausias laikas yra ŠIANDIEN“**

#Miesto daržininkų Respublika



Literatūros apžvalgoje apie miesto daržininkystę, randami įvairūs apibrėžimai.

- ▶ Miesto daržininkystė dažniausiai apibrėžiama kaip „miesto ūkininkavimas“ arba „miesto žemės ūkis“. Miesto žemės ūkį galima glaudžiai apibrėžti kaip „žemės ūkį, kuris patenka į didmiesčio zoną ar jos pakraštį“ (Smit, Nasr ir Ratta, 2001: 1) arba apskritai kaip „augalų ir gyvūnų auginimą maistui ir kitam naudojimui bei su jais susijusią veiklą, tokią kaip žaliavų gamyba ir tiekimas, produktų perdirbimas ir prekyba mieste ir aplink jį“ (van Veenhuizen, 2006: 2). Miesto ūkininkavimas taip pat gali būti vadinamas „žemės ūkio ar akvakultūros praktika“ (Merriam – Webster, 2014). Sąvokoje „miesto daržininkystė“ sąvoka „daržas“ gali reikšti „žemės sklypą, kuriame auginamos žolelės, vaisiai, gėlės ar daržovės“ (Merriam – Webster, 2014), arba konteinerį, naudojamą tiems patiems tikslams. Daržininkystė mieste yra visų rūšių ir veislių augalų auginimo miesto aplinkoje procesas. Yra daugybė būdų auginti daržoves ir augalus.
- ▶ Žemės ūkis ir miesto daržininkystė visada buvo siejami su kaimo aplinkos įsivaizdavimu, ir tuo remiantis su juo susijusi veikla didžiąją laiko dalį apsiribojo tokiomis aplinkybėmis. Tiesą sakant, buvo manoma, kad norint pamaitinti miesto gyventojus, pakaktų priklausyti nuo kaimo augalininkystės. Daugeliui besivystančio pasaulio miestų šis aspektas tikrovėje pasirodė esąs gana sudėtingai įgyvendinamas. Viena iš pagrindinių to priežasčių buvo infrastruktūros (transporto, kelių, rinkų ir t.t.) trūkumas ir maža gyventojų perkamoji galia, vedanti prie skurdo (Drescher, 2004).
- ▶ Dėl nepakankamo išteklių valdymo įvairiose miesto vietovėse sumažėja galimybės gyventi dideliame mieste. Aptariamai įrankiai ir priemonės, dėl kurių skurdas galėtų būti mažesnis, nėra vienkartinės, o tarptautinių plėtros agentūrų skverbimasis į šią sritį pastaraisiais metais vystėsi. Miesto daržininkystės pažanga yra viena iš pagrindinių politikos sričių, kuri yra priimta siekiant kovoti su skurdu miestuose. Beto, taip keliama miesto gyventojų gerovė. Sveikatos sąlygų gerinimas leidžia plėtoti tvaresnį ir stabilesnį ekonomikos augimą tiek šeimos, tiek bendruomenės lygmeniu.

## Miesto daržininkystės matmenys

Pastaraisiais metais labai išaugo susidomėjimas maistu ir jo auginimu. Šis susidomėjimas gali būti siejamas su didėjančiu supratimu apie maisto sistemų pasekmes mūsų pačių ir planetos sveikatai. Taip pat tampa vis aiškesni susieti maisto ir platesnio masto klausimai, pvz., gyventojų skaičiaus augimas, urbanizacija, klimato kaita, visuomenės sveikata ir biologinės įvairovės nykimas.

### a. Vietos ekonomikos plėtra

Miesto daržininkystė laikoma daugelio neturtingų žmonių pajamų šaltiniu. Ja sumažinamos kainos maisto rinkoje ir sukuriama užimtumo galimybės (Agbonlahor et al., 2007). Ji skatina įmonių augimą susijusioje veikloje, pvz., žemės ūkio sąnaudose, maisto perdirbime, pakuočių gamyboje ir rinkodaroje (IED, 2011).

Be to, ji turi ekonominės naudos visuomenei, pvz., skatina ekonominę plėtrą. Daržai pritraukia verslą ir gyvenamąsias erdves ir yra verslo plėtros ir miesto gyvenimo skatinimo katalizatoriai.



**„Įvairiuose miesto daržų tyrimuose atskleidžiama, kad jie artina gyvenamąsias ir komercines teritorijas prie idealumo bei padidina turto vertę. Miesto daržininkystė taip pat gali sukurti darbo vietų ir pajamų“.**



Miesto daržininkystė turi potencialo kurti vietinę ekonominę veiklą ir, jei jos rezultatai yra geri, ji turi galimybę pritraukti investuotojus. Iš tiesų, didėjanti saugaus lokalaus maisto paklausa didina vietos maisto startuolių galimybes, o tai savo ruožtu skatina darbo vietų kūrimą.

## **b. Socialinė ir kultūrinė įtrauktis**

Miesto daržininkystė atspindi „teigiamas ir transformuojančias bendruomenės sanglaudos ir įsitraukimo, socialinės įtraukties, skurdo ir nusikalstamumo mažinimo, kartų švietimo ir prasmingo darbo galimybių istorijas“ (Zeunert, 2018).

### **GALIMA NAUDA:**

- ▶ Sukuriama bendruomenės susibūrimo erdvė.
- ▶ Kuriamas socialinį kapitalą.
- ▶ Išreiškiamas ir palaikomas kultūros paveldas.
- ▶ Suteikiama edukacinė vieta.
- ▶ Siūlomos bendruomenės aktyvumo galimybės.
- ▶ Prisidedama prie teisingumo maisto srityje.

## **c. Poveikis psichikos sveikatai**

Tyrimai rodo, kad fizinis krūvis lauke yra teigiamas veiksnys žmogaus psichikai (Mitchell, 2012). Be to, labiausiai pageidaujama aplinka yra ne grynai natūrali, bet miesto aplinka, kurioje yra gana stiprus augmenijos elementas. Tai reiškia, kad augmenijos pridėjimas prie miesto aplinkos, o ne individualus žalios spalvos egzistavimas yra tai, kas turi didžiausią psichologinį poveikį stebėtojų (Gidakakou, 2017).

**„Daržininkystė turi daugybę psichinės sveikatos privalumų. Nuo streso, izoliacijos ir depresijos mažinimo iki imuninės sistemos stiprinimo“.**

Dee Marques

### 1. Veikia kaip streso mažintojas

Daržininkystė yra sveikintina pertrauka nuo vis labiau technologijų dominuojamo gyvenimo.

### 2. Ryšių stiprinimas

Vienas iš daržininkystės privalumų psichikos sveikatai yra socialinės izoliacijos sumažėjimas.

### 3. Buvimas dabartyje

Taibūdas praktikuoti dėmesingumą, nes visos su daržininkyste susijusios užduotys (pvz., kasimas, genėjimas ar ravimas) verčia mus sutelkti dėmesį į pačią užduotį.

### 4. Prasmės pojūčio radimas

Yra pasididžiavimo ir priėmimo jausmas renkantis augalus, žoleles ir gėles, kurios daro jus laimingus, ir pasigėrėjimas, kurį jaučiate juos augindami.

### 5. Alzheimerio ir demensijos rizikos mažinimas

Daržininkystė susijusi su geresne smegenų funkcija ir pagerėjusia koncentracija bei atmintimi.

### 6. Padeda palaikyti gerą fizinę formą.

Ravėjimas, kasimas, krepšių ir puodų nešiojimas aplink yra visos geros treniruotės, kurios gali padėti išlaikyti tinkamą formą.

### 7. Stiprina imuninę sistemą

Savo imuninę sistemą galite sustiprinti paprasčiausiai gaudami natūralios šviesos ir vitamino D.



**„Tikroji miesto ūkininkavimo vertė ... ne visada yra tik maistas“.**

Brad Plumer



## d. Poveikis psichikos sveikatai

**Ispėjimas:** Dėl besitęsiančio visuotinio atšilimo numatomi dramatiški oro sąlygų pokyčiai gali paspartinti ekonominių sistemų sutrikimus, maisto ir vandens trūkumą, ligų padaugėjimą, papildomą gamtos pavojų sveikatai ir didelio masto žmonių migraciją.

Kai kurios analizės rodo, kad daržininkystės ir miesto planavimo intervencijos gali žymiai sumažinti stiprių klimato sąlygų pokyčių tikimybę, įvedant energijos taupymo praktiką tiek suinteresuotiesiems subjektams, tiek piliečiams. Šis požiūris yra labai perspektyvus mažinant miesto anglies dvideginio kiekį. Be to, miesto daržininkystė suteikia galimybę miestams įgyti kai kuriuos požymius, kurie pirmiausia siejami su kaimo gyvenimu.

Miesto daržininkystė, kurią daugiausia sudaro medžių ištekliai, yra vertinga gėrybė.

Medžių nauda žmonėms ryškiausiai pastebima kaip indėlis į aplinkos turtą.

Pavyzdžiui, nustatyta, kad daržų augalai vaidina ypač svarbų vaidmenį švelninant klimato kaitą ir palaikant vietos aplinkos kokybę. Daržininkai gali padėti sumažinti globalinio atšilimo teršalų, susijusių su atliekų šalinimu, lapus, žolę, sumedėjusias sodo iškarpas ir negyvas kiemo atliekas paversdami mulčiu ar kompostu ir panaudodami jas darže.

### Poveikis ir nauda aplinkai:

- ▶ Padidina miesto želdynus.
- ▶ Sušvelnina miesto šilumos salą.
- ▶ Gali pagerinti oro kokybę.
- ▶ Padidina miesto biologinę įvairovę.
- ▶ Padidina lietaus vandens surinkimą ir infiltraciją bei sumažina nuotėkį.
- ▶ Kompostuojant sumažėja maisto švaistymas.

- ▶ Sumažina agrocheminių medžiagų naudojimą.
- ▶ Sumažina anglies dioksido pėdsaką.



## 2. Daržininkystės mieste ypatybės ir praktika

Nors miesto žemės ūkyje taikomi įvairūs būdai ir metodai, šis aprašas skirtas skaitytojams pristatyti kai kuriuos labiausiai paplitusius miesto žemės ūkio bruožus. Pagrindinės miesto daržininkystės praktikos charakteristikos yra apibendrintos žemiau.

### DERLIUS

Miesto ūkiuose labiausiai paplitusios kultūros yra švieži produktai (salotų žalumynai, daržovės, uogos ir vaisiai). Švieži produktai yra mažiau reglamentuojami, juos lengviau pakuoti ir transportuoti nei kitus maisto produktus, tokius kaip mėsa ir kiaušiniai.

### DIRVOŽEMIS IR AUGINIMO TERPĖS

Miesto vietovėse auginti ir išlaikyti sveiką dirvožemį gali būti sunku, tačiau tai būtina sėkmei. Manoma, kad tikslinga iš anksto patikrinti dirvožemio galimus teršalus, pH, organines medžiagas ir maistines medžiagas. Tai padės išvengti galimų miesto teršalų ir užtikrinti, kad dirvožemis sudarytų geriausias augimo sąlygas. Pavyzdžiui, miesto daržai gali būti šalia autobusų maršrutų, judrių kelių ar senų pastatų, kurie turi padidėjusį policiklinių aromatinių angliavandenilių (PAA) ir švino kiekį.

### VANDUO

Kaip ir bet kuriame ūkyje, augalams laistyti, derliui ir įrangai plauti bei bendrai ūkio higienai reikalingas patikimas vandens šaltinis. Vanduo mieste gali būti gaunamas iš daugelio šaltinių, įskaitant vamzdyną, šulinių vandenį ir išvalytą lietaus vandenį.

### INTENSYVUS ĮŽEMINIMAS

Norint kuo geriau išnaudoti mažus sklypus, būdingus miesto ūkiams, intensyvūs ūkininkavimo metodai padidina maisto gamybą taikant įvairius augalininkystės metodus.

**Auginimas kartu:** pasėjus greitai ir lėtai augančius augalus kartu į tą pačią eilę, galima pakartotinai nuimti sparčiausiai augančius augalus ir padėti sumažinti kenkėjų keliamas problemas.

**Intensyvūs tarpai:** pasodinus nedideliu atstumu augalus, galima sumažinti piktžolių kiekį ir vandens garavimą. Svarbu stebėti ribotą oro srautą, kuris gali sukelti ligas.

**Intensyvus mažų sklypų ūkis (IMSŪ):** iintensyvus, laipsniškas sodinimas mažame sklype, paprastai mažesniame kaip ¼ hektaro.

**Daržininkystė kvadratinėmis pėdomis:** intensyvus sodinimas siaurose pakeltose lysvėse.

Užuot griežtai laikęsi kvadratinų pėdų daržininkystės rekomendacijų, galite pasinaudoti pagrindinėmis rekomendacijomis sodinti tarpais – o tada sumaišykite, pasodindami panašaus dydžio augalus, kad pasidarytumėte įdomesnį, subtilesnį pakeltos lysvės sodą.



## VERTIKALUS ŪKIS

Augalai gali būti auginami kontroliuojamose patalpose, tokiose kaip sandėliai, gabenimo konteineriai, net namuose. Jis vadinamas vertikaliu ūkininkavimu, nes augalai auginami sukrauti loveliuose. Neseniai kilo vertikalių ūkių, auginančių mikrožalumynus restoranams, bumams.

## 2.1 Praktiniai žingsniai kuriant miesto daržą

### a. Pasirinkite vietą

Daigų persodinimas priklauso nuo kelių dalykų:

- ▶ Kur dažniausiai sodinate savo daigus?
- ▶ Kokius dar daigus šalia jų sodinsite?

Pasirinkite vietą, į kurią saulės spinduliai patenka bent nuo 6 iki 8 valandų per dieną. Daugeliui vaisių turinčių augalų, pavyzdžiui, pomidorams, paprikoms, agurkams ir melionams, norint gauti gerą vaisių, reikia daug saulės. Tačiau nenusiminkite, jei jūsų daržas yra šiek tiek šešėlyje. Lapinės daržovės, tokios kaip salotos, lapiniai kopūstai ir daugelis žolelių, gali pakęsti dalinę saulę (3 valandos per dieną ar daugiau). Laikykitės atokiau nuo didelių medžių ir šaknų (gali išsekvoti jūsų daržovių maistines medžiagas ir vandenį). Dirvožemis labai svarbu - jei įmanoma, daržo vietą pasirinkite ten, kur dirva yra gili ir be uolų.

**Patarimas:** įsitikinkite, kad galite lengvai pasiekti vandens šaltinį!!!

*Jei nepakanka vietos, nesijaudinkite. Tiesiog atidžiau pažiūrėkite, kokią erdvę turite, pvz. didelį kiemą ar buto balkoną. Čia yra keletas papildomų idėjų, kur galite sukurti miesto daržą.*

### Kodėl neįkūrus „miesto daržo“ savo ... kišenėje?

Padarykite savo miesto daržininkystę vertikalią: jei ir neturite besitęsiančių balkonų, bet vis tiek norite įrengti miesto daržą, šis sprendimas yra patrauklus ir protingas. Puiki galimybė išnaudoti savo mažytį balkoną yra vertikalūs daržai. Nuostabiam buto balkono daržui žiediniais u galite naudoti lovelius, kabinamus vazonus, vertikalius sieninius vazonus ir pakabinamus krepšelius.

Žalioji augalų siena yra puiki idėja. Galite įdėti įvairaus dydžio augalus: šliaužiančius, kabančius, augančius vertikaliai. Jei apsigalvosite, kur norite vazono, galite jį perkelti. Kadangi visi turi savo indą, jums nereikia jaudintis dėl sodinimo. Tai puikus pasirinkimas pradedantiems.

### Ką sodinti vazonuose?

Bromeliados, paparčiai, begonijos, hostos, sukulentai, besivyniojantys - tai puikūs augalai vertikalaus sodui.

### Nėra balkono? Ne problema!

Sieninius vazonus taip pat galite atsinešti į vidų ir tiesiog pakabinti ant sienos, bet būkite tikri, kad nėra drėgmės ir (arba) problemų dėl vandens nutekėjimo ant sienos paviršiaus.

## SUSIKURKITE SAVO DARŽĄ

Jei erdvė yra problema ir jums trūksta vietos arba norite sukurti savo miesto daržą lauko erdvėje, dabar geriausias laikas! Ar kada pagalvojote apie daržo sukūrimą ant savo pastato stogo? Galimybė pastatyti savo daržą ant stogo yra idealus būdas miesto daržui išplėsti savo erdvę. Bet kurią nepanaudotą ar net iššvaistytą vietą galima lengvai paversti žalia, gyvybiškai svarbia vieta.

- ▶ Jei esate nuomininkas ar nuomotojas ... turite laikytis turto taisyklių.
- ▶ Jei jūsų stoge yra laisvos vietos ... turite būti informuoti apie pastato pritaikomumą tokioms veikloms.

## VAZONAI- KOŠTUVAI

Pakabinkite pavasarines gėles spalvingose gėlių koštuvuose, kad netikėtai ir ištis unikaliais būdais pagražintumėte savo verandą. Viskas, ko jums reikia, yra dirvožemis, plastikiniai vazonai ir jūsų virtuvės indai.



## BOTAI, PRIE DARBO...

Paverskite savo pamirštus testamentus vazonais ir panaudokite senus botus. Paprasčiausiai užpilkite botus dirvožemiu ir įdėkite sėklas į vidų. Nepamirškite palaistyti augalų, kiek reikia. Arba gręžkite skylutes paduose ir padėkite mažus vazonus batų viršuje. Jie gražiai įsidės.

**Prieš pradėdami turite žinoti apie kai kurias rimtas rizikas, kad neiššvaistytumėte laiko ir pinigų**

## PAKARTOTINAI PANAUDOTŲ PADANGŲ VAZONAI

Nors senose padangose nėra nieko įdomaus, kelios medienos juostos ir keli spalvotų purškiamų dažų sluoksniai stebuklingai gali jas paversti džiugiais ir linksmiais kiemo vazonais. Nesvarbu, ar turite vietos kieme, ar ne, tiesiog pasiimkite mažą padangą ir pakabinkite ją ant savo lubų.

## PAVERSKITE PLASTIKĄ KAŽKUO NUOSTABIU.

Naudokite savo plastikinį butelį naujai pakartotinio panaudojimo tendencijai. Peiliu supjaustykite jį ir į indą pasodinkite sėklų, kurias norite užauginti. Praktiškai bet kurį augalą, kuris ilgainiui neišauga į didelį augalą ar medį, galima auginti plastikiniame butelyje. Visi augalai turi šaknis ir jiems reikia vietos augti, kaip ir stiebams bei lapams.

Vaistažolės yra puikus augalas, nes jas palyginti lengva auginti. Kitas puikus variantas yra vynmedžiai ar paparčiai, tačiau vijokliniams augalams gali prireikti palaikymo, jei norite, kad jie augtų aukšty. Svarbu, kad daigai ar augalai nebūtų perpildyti butelyje. Viena butelyje rekomenduojame ne daugiau kaip dviejų mažų augalų.



## BENDRUOMENIAI DARŽAI

Bendruomeniniai daržai yra žemės sklypai, paprastai esantys mieste ar tankiai apgyvendintoje miesto vietovėje, kuriose žmonės ar šeimos naudoja savo maistui auginti. Daržus taip pat gali naudoti gyventojai, norintys parduoti maistą verslui. Daržai dažniausiai kuriami dėl gyventojų, kurie turi ribotą prieigą

prie žemės, kurioje galima sodinti, susidomėjimo.

Dažnai bendruomenės pastangas formuoti miesto daržus remia apylinkės organizacijos. Atsižvelgiant į tai, kad pastangos atspindi bendruomenės, iš kurių daržai atsirado, jie būna įvairių formų ir dydžių bei atspindi vietovės poreikius ir vertybes.



## b. Geriausia praktika iš Lietuvos: miesto bendruomenės daržas

Lietuvos kontekste buvo pasirinkti du gerosios praktikos pavyzdžiai: „Šilainių sodai“ Kaune ir „Idėjų sodas“ Vilniuje. Nors abi iniciatyvos buvo sukurtos neseniai (2018–2019 m.), joms jau pavyko pasiekti puikių rezultatų: suburti aplinkinę bendruomenę, sukurti ekosistemą ir įgyvendinti keletą įkvepiančių veiklų. Skiriamasis miesto daržų bruožas yra dėmesys žmonėms: pagrindinis tikslas yra ne surinkti derlių, o suburti vietos gyventojus, įtraukti bendruomenę ir sukurti priklausomybės jausmą. Iš tiesų abu daržai save apibrėžia kaip „bendruomenės daržus“, o tai reiškia, kad jie nėra tik priemonė auginti augalus ir daržoves, bet ir kaip platforma švietimo veiklai, naujoviškoms idėjoms ir kūrybinėms dirbtuvėms įgyvendinti.

Į miesto daržininkystės veiklą paprastai įsitraukia trys dalyvių grupės: jaunimas, pagyvenę žmonės ir šeimos su vaikais. Dalyvavimas jiems teikia įvairios naudos:

- ▶ Jaunimas gali laisvai užsiimti eksperimentais, kūrybiškumu ir naujovėmis. Jis taip pat turi galimybę susipažinti su naujais žmonėmis ir išsiugdyti socialinius įgūdžius (bendradarbiavimą, komandinį darbą, savarankiškumą ir kt.);
- ▶ pagyvenę žmonės turi galimybę praleisti laiką, užsiimti fizine veikla ir kovoti su vienišumu/socialine izoliacija;
- ▶ šeimos su vaikais sodus naudoja švietimo tikslais: vaikai turi galimybę išmokyti naujų įgūdžių ir įgyti bendrą supratimą apie daržininkystę, gamtą, tvarumą.

Nors miestų daržai yra tvarūs žiūrint į bendruomenės įsitraukimo perspektyvą, abu jie vis dar veikia neformalios bendruomenės pagrindu. Tai reiškia, kad tarpininkai (iniciatyvos steigėjai) vaidina svarbų vaidmenį išlaikant daržus aktyvius. Teisinio pagrindo ir strateginės dokumentacijos pakeitimai padėtų miestų daržams įforminti savo veiklą ir užsitikrinti ilgalaikį tvarumą.

Kitas iššūkis, su kuriuo susiduria abu gerosios praktikos pavyzdžiai, yra finansavimo trūkumas. Miesto daržuose nėra vieno finansavimo šaltinio: pajamos gaunamos iš simbolinio nario mokesčio, savanoriškų aplinkinės bendruomenės įnašų ir su projektu susijusios veiklos. Šilainių daržai yra geresnėje padėtyje, nes gauna metinę finansinę Kauno miesto savivaldybės paramą.

Kita vertus, „Idėjų sodas“ sėkmingai panaudojo naujovišką finansavimo modelį - sutelktinį finansavimą. Ši forma laikoma potencialiu papildomų lėšų kaupimo būdu. Apskritai, miestų daržai Lietuvoje atlieka pagrindinį vaidmenį tankiai apgyvendintuose rajonuose, kuriuose trūksta parkų, sodų ir kitų žaliųjų zonų. Jie nepaprastai reikšmingi kuriant bendruomenę, gerinant socialinį klimatą ir bendrą vietos gyventojų gyvenimo kokybę.



## 2.2 Augalų ir sėklų įsigijimas

Yra keletas skirtingų tipų daržų:

- ▶ Valgomasis: vaisiai ir daržovės
- ▶ Žolelių pagrindo: kulinarinės žolelės, arbatos žolelės, vaistinės žolelės
- ▶ Gėlių daržai
- ▶ Sukulentiški daržai

Planuojant savo daržą svarbu pagalvoti, ko jums reikia ir ką naudosite. Sodininkai augalus gali auginti įvairiais būdais. Kai kurie augalai auginami iš darže pasodintų sėklų. Nepaisant to, kai kurie augalai auginami uždarose patalpose, nes lauke vis dar per šalta, kad būtų galima ką nors auginti, o tada, kai oras yra pakankamai šiltas, persodinamas į daržą. Dar kiti augalai auginami visai ne iš sėklų, o iš svogūnėlių (pavyzdžiui, česnako ir daugelio žiedinių augalų) ar kitų augalų dalių (pavyzdžiui, bulvių). Daugiamečius augalus (daugelį metų gyvenančius augalus) taip pat galima iškasti ir padalyti į daugybę mažų augalų. Taip auginama celozija, kaip ir daugelis gėlių bei žolelių.

Kad ir ką pasodintumėte - sėklą, svogūnėlį, didelio daugiamečio augalo gabalėlį - turite iš kažkur tai gauti. Yra daug galimų augalinės medžiagos šaltinių. Lengviausia sėklų gauti vietinėje sodo parduotuvėje ar prekybos centre.

**Patarimas:** prieš pradėdami, skaitykite pakuotes ir nuspręskite, ko norite.



## 5 dalykai, kuriuos reikia žinoti, jei norite išsaugoti sėklas

1. Augalų auginimas siekiant išsaugoti sėklą yra visiškai kitoks nei auginant valgymui:	Paprastai nepavyksta pasiekti abiejų tikslų. Norint, kad augalas, pavyzdžiui, salotos, išaugintų sėklas, turite palaukti, kol išaugs žiediniai žiedkočiai, kurie galiausiai išaugina mažas sėklų ankštis.
2. Išsaugokite geriausių augalų sėklas:	Išsaugoti sėklą reiškia dalyvauti natūralios atrankos procese. Jei išsaugosite tik didžiausio augalo ar daržovės sėklas ir jas kasmet atsodinsite, gausite sėklų, kurios išaugins didesnius augalus. Tas pats pasakytina ir apie beveik visus kitus požymius. Kiekvienais metais išsaugokite pirmųjų subrendusių vaisių sėklas. Jei norite atsparių ligoms augalų, neišsaugokite sėklų nuo tų, kurie yra užkrėsti ligomis.
3. Sėklų išsaugojimas gali būti varginantis ir kelti nemalonių kvapų:	Augalai laiko savo sėklas ankštyse, lukštuose, kapsulėse ir kituose apvalkaluose, kurie dažnai nėra lengvai pašalinami. Šis procesas skiriasi atsižvelgiant į augalų rūšis ir reikalauja specifinių technikų, kurias tikriausiai atliksite rankomis arba naudodami tam tikras specialias priemones.
4. Sėklos nėra gyvybingos, kol nėra visiškai sunokusios:	Prieš derliaus nuėmimą reikia palaukti, kol sėkla bus visiškai subrendusi, nes per anksti nuskynus augalą, sėkla neišdygs. Optimalus sėklų brandumas paprastai būna vėlesnis nei derliaus.
5. Tinkamas saugojimas yra svarbu:	Džiovintos sėklos turėtų būti laikomos popieriniuose vokuose arba sėklų pakeliuose, pažymėtuose veislės pavadinimu ir derliaus nuėmimo data. Norėdami užtikrinti ilgą laiką, sėklų pakelius laikykite konservavimo induose vėsioje, tamsioje vietoje.

## 2.3 Kaip sėti

### „Lengvi žingsniai auginant daržoves ir gėles iš sėklų“

Augalų auginimas iš sėklų yra išskirtinis būdas pradėti daržininkystę. Turint tinkamą šviesą ir paprastą įrangą, lengva auginti nuo sėklos iki derliaus. Geras pasirinkimas pradedantiesiems yra pomidorai, bazilikai ir cukinijos. Jei esate pradedantysis, pirmiausia pasirinkite juos ir tada pereikite prie reiklesnių sėklų, tokių kaip petunijos.

#### 1. Tinkamai nustatykite laiką.

Pradėkite nuo sėklų pakelio, kuriame nurodoma, kada pradėti sodinti sėklas.



Source: <https://gardenerspath.com/>

#### 2. Raskite konteinerius.

Galite pradėti sėklas beveik bet kokio tipo induose, jei jie yra bent 5-8 cm gylio ir turi drenažo skylių.



Source: <https://gardenerspath.com/>

#### 3. Paruoškite žemę vazone.

Pradėkite nuo šviežio, sterilaus mišinio, kuris užtikrins sveikus, be ligų daigus.



#### 4. Pradėkite sodinti.

Patikrinkite sėklų paketį, kad pamatytumėte, kaip giliai turėtumėte pasėti sėklas.



Source: <https://gardenerspath.com/>

### 5. Paslėpkite sėklas ir paspauskite žemę.



Source: <https://gardenerspath.com/>

### 6. Laikykite sėklas drėgnai.

Kai daigai auga, naudokite purškimo butelį ar nedidelį laistytuvą, kad dirva būtų drėgna, bet ne permirkusi.

#### **Papildomas patarimas:** galite pasėti savo sėklas

kiaušinių lukštuose, nes juose ypač daug kalcio. Jie suteikia žemei maistinių medžiagų ir atbaido tam tikrus kenkėjus bei vabzdžius dėl savo šiurkštaus paviršiaus.

## 2.4 Reikalingi įrankiai

Nusprendus padirbėti darže, vienas iš pirmųjų žingsnių yra įsigyti įrankių, kurie palengvins jūsų darbą.



Pirma, turėtumėte apsvarstyti keletą dalykų apie sveikatos ir kūno priežiūrą. Pradedantieji daržininkai dažnai nenutuokia, kokie iššūkiai laukia kūno užsimant daržininkyste.

- ▶ **Kepurė:** darže būtina apsaugoti nuo saulės. Dirbdami dažnai būsite tokiose vietose, kurios apnuogina jūsų kūno dalis, todėl kepurė apsaugos tas vietas, kurios yra lengvai pažeidžiamos nudegimų.
- ▶ **Sodininko pirštinės:** geriausios pirštinės pradedantiesiems dažnai yra lengvos, sintetinės odos su sustiprintais antgaliais. Jos suteiks pakankamai apsaugos nuo aštrių daiktų, ir bus pakankamai lanksčios, kad būtų praktiškos.

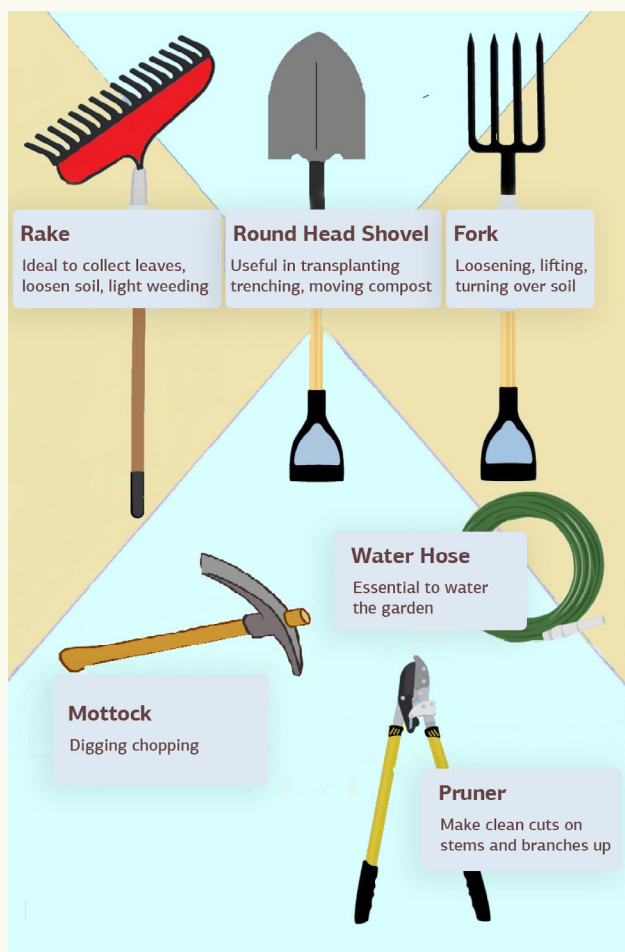
- „Hori-Hori“ dirvožemio peilis: populiarus „Hori-Hori“ peilis, dažnai vadinamas „dirvožemio peiliu“ arba „piktžolių peiliu“, yra daugiafunkcis



įrankis, naudojamas kasant ir pjaunant. Plieniniai ašmenys yra aštrūs iš abiejų pusių su pusiau aštriais galais.

- **Rankinis genėtuvas**: rankiniai genėtuvai dažniausiai naudojami šakoms ir stiebams pjauti. Nors tai pažeidžia „daugiau nei vieno tikslą“ taisyklę, genėjimas yra tokia svarbi sodo veikla, kad tikslinga turėti specialų įrankį šiai užduočiai atlikti.
- **Rankinis grėblys**: rankinis grėblys yra jūsų įrankis dirvai įdirbti. Juo galite lyginti dirvą, pašalinti nepatogias piktžoles, kurių „Hori-Hori“ neįveikė, arba dirvą dirbti tarsi su mini plūgu.

- **Piktžolių ravėtuvas:** tai gali palengvinti jūsų ravėjimą be chemikalų ir nepakenkti jūsų kiemo dirvai bei žolei.
- **Žirklės:** sodo žirklės yra universalus įrankis. Jos yra svarbus įrankis, kurį turite turėti kiekvieną kartą, kai einate į sodą ar gėlynus. Jos yra pakankamai stiprios, kad nukirstų kietas šakas nuo medžių ir krūmų.
- **Grėblys:** grėblys leis jums pašalinti akmenis ir grumstus nuo žemės prieš sodinimą. Be to, jis naudojamas dirvos paviršiui išlyginti ir šiukšlėms, pavyzdžiui, lapams ir piktžolėms, rinkti.



- ▶ **Apvalios galvos kastuvai:** kastuvai yra būtinas daugeliui darbų aplink daržą, ypač tų, kurie apima kasimą ir birių daržo medžiagų, tokių kaip kompostas, trąšos, mulčias, dirva, ir kt. pašalinimą. Nesvarbu, ar naikinate piktžoles, ar barstote mulčią, kasate gilią duobę ar užpildote lysvę kompostu, aukštos kokybės kastuvai jums bus labai vertingas.
- ▶ **Šakės:** daržo šakės yra universalus įrankis. Juo galima aeruoti veją, purenti suspaustą dirvą, daryti duobutes sėkloms, pašalinti uolienas ir piktžoles bei suminkštinti kietą dirvą. Aštrių ir galingų smaigalių dėka jos gali prasiskverbti į sunkią vietovę lengviau nei kastuvai.
- ▶ **Kauptukas:** naudojamas kasimui, ištraukimui ir kapojimui. Jis turi ilgą rankeną ir tvirtą galvą, kuri sujungia vertikalius ašmenis su buku galu.
- ▶ **Genėtuvas:** ilgų rankenų genėtuvas padės jums prieiti prie sunkiai pasiekiamų daržo vietų, ypač įkyrių medžių šakų, blokuojančių jūsų saulę.

## 2.5 Suprojektuokite miesto stogo daržą

Daugumoje miesto teritorijų daržininkui reikalingas plotas yra ribotas. Jei pastebėsite, kad jums tiesiog trūksta vietos, arba jei norite gyvenamosios erdvės lauke, galbūt norėsite pagalvoti apie daržo ant stogo sukūrimą. Daržai ant stogo yra puikus būdas miesto daržininkui išplėsti savo erdvę. Daržai ant stogo yra ekologiškas ir gražus miesto namo priedas. Jei gyvenate bute ar name be daržo, šiuose miesto daržuose galite auginti dekoratyvinius medžius, žoles, gėles, vaisius ir daržoves.

„Daržininkystė yra menas,  
kuris naudoja gėles ir augalus  
kaip teptuką ir žemę bei dangų  
kaip drobę.“

Elizabeth Murray



Daržai ant stogo gali būti oazė užstatytoje miesto aplinkoje. Daržininkystė ant stogo turi daugybę privalumų, įskaitant privatumą ir gerą saulę, tačiau prieš pradėdant sodinti, reikia atkreipti dėmesį į keletą dalykų, susijusių su daržininkyste mieste. Jei nusprendėte įkurti savo daržą ant stogo, štai kaip galite pradėti.

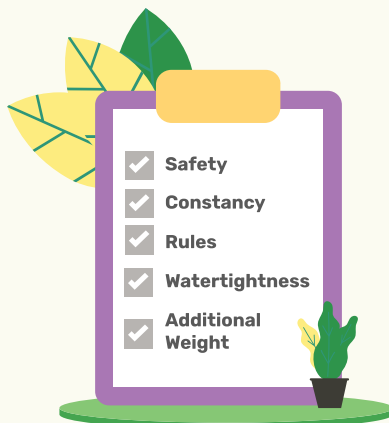
## Taisyklės ir vietos potvarkiai

Svarbiausias aspektas, kurį reikia išsiaiškinti, yra vietiniai potvarkiai, nuomojamos nuosavybės taisyklės arba namų savininkų asociacijos taisyklės, kuriose nagrinėjamas daržo stogas. Daržai ant stogo gali būti uždrausti arba jiems gali prireikti specialaus leidimo, todėl prieš leidžiant laiką ir pinigų geriausia visada būti gerai informuotais šiuo klausimu.

## Pasitarkite su architektu

Nesvarbu, kokios jūsų techninės žinios ir fizinis pasirengimas, visada naudinga turėti šalia savęs ekspertą. Statant daržą ant stogo reikia atkreipti dėmesį į įvairias detales, apie kurias galbūt nesate girdėję. Architektas nustatys, ar jūsų namas yra saugus ir tinkamas miesto daržo statybai. Kai kurie pastatai yra tiesiog nesukurti papildomam svoriui, kurį sukuria daržo stogas.

Kiti pastatai gali atlaikyti papildomą svorį, tačiau gali išlaikyti tik ribotą svorio kiekį. Architektas ar rangovas turėtų galėti pasakyti, ar taip yra ir jūsų pastate.



## Apsaugos nuo vėjo sukūrimas jūsų stogo daržui

Atminkite, kad jūsų daržas ant stogo bus daug vėjuotesnis nei įprastas daržas. Į savo daržo stogo dizainą turėsite įtraukti apsaugas nuo vėjo. Pabandykite savo stogo darže naudoti groteles ar kitą tinkamo tipo vėjo užtvarką.

Atsiminkite, jūs nenorite pašalinti vėjo srauto. Tiesiog norite jį sumažinti.

## Sprendimas dėl laistymo sistemos

Turite apsvarstyti, kaip planuojate laistyti augalus savo gražiame kieme. Jūsų augalus reikės dažnai laistyti ir, žinoma, nenorite kiekvieną dieną nešti sunkių vandens kibirų iki stogo, nes tai nėra praktiška. Todėl svarbu iš anksto sugalvoti gerą sprendimą.

## Dirvožemio įrengimas

Dirvožemis dažnai yra mažiausiai įdomus dalykas naujam daržininkui, tačiau tai yra svarbiausia jūsų daržo dalis. Geras dirvožemis reikalauja sveikus augalus ir mažiau darbo. Jei auginiate konteineriuose ir pakeltose lysvėse, turite pranašumą, kad galėsite atsinešti dirvožemio (o ne užstrigti ant to, kas jau yra ant žemės). Reikalingas dirvožemio kiekis skiriasi, todėl prieš sodindami išsiaiškinkite kiek dirvožemio reikės.

**Informacija:** Dirvožemį konteineriuose reikia reguliariai keisti, paprastai kiekvieną pavasarį. Galite pakelti dirvą ir atsodinti arba tiesiog iš naujo patręšti esamą dirvą.

## Tinkamų augalų pasirinkimas jūsų stogo daržui

Kadangi dauguma stogų daržų dieną gauna daug saulės ir gali būti labai karšti, labai rekomenduojami sausrui atsparūs augalai. Apsvarstykite stogo saulės spindulių ir žiemos atsparumo zoną. Dėl to, kad stogai išlaiko šilumą, jie gali sukurti mikroklimatą maždaug vienoje zonoje aukščiau nei daržas ant žemės. Jums reikės augalų, kurie gali atlaikyti šilumą, tačiau kadangi jie yra konteineriuose, greičiausiai jie nebus geriau atsparūs šalčiui nei daržai, pasodinti ant žemės.

Kai kurie geri stogo daržo augalai yra ribotos šaknų sistemos augalai, kuriems nereikia daug dirvožemio, pavyzdžiui, žolelės ir daržovės bei maži ir vidutiniai daugiamečiai augalai. Medžiams ir krūmams reikia daugiau dirvožemio ir didesnių vazonų, tačiau jų reikia mažiau sukurti gerą įspūdį.

Jei turėsite omenyje šiuos dalykus, pastebėsite, kad jūsų daržas ant stogo yra puiki vieta, kurioje norisi būti!





# B dalis

## Miestų daržininkystė Europoje

Šiame skyriuje šešios (6) organizacijos iš skirtingų šalių bendradarbiaudamos sukūrė dabartinės miesto daržų padėties Europoje apžvalgą. Buvo atlikta jaunimo ir specialistų apklausa, kurios pagrindinis tikslas buvo pateikti nuomonių apie miesto daržus rezultatus. Šiame skyriuje pateikiamos pagrindinės apklausos išvados. Metodai, dizainas ir priemonės pateikiami šio vadovo priede.

Taip pat buvo laikoma būtina pateikti nuorodą į esamą Europos įstatymų leidybos ir finansavimo sistemą, skirtą miesto daržui sukurti, kad būtų galima įgyti pagrindinių žinių šioje srityje. Antroji vadovo dalis baigiama kiekvienos šalies pasiūlymais, susijusiais su miesto daržininkystės koncepcijos plėtros politikos rekomendacijomis.



## 3. Europos projekto „Miesto daržininkystė“ tyrinėjimas

### 3.1 Bendroji dalis

Vykdydami „URBAN“ projektą ištyrėme esamus miestų daržininkystės projektus ir iniciatyvas šalyse partnerėse. Šiuo tikslu kiekvienas partneris pirmajame projekto etape atliko išsamų tyrimą, kurio svarbiausi rezultatai yra išdėstyti šiame skyriuje. Tarptautinė analizė ir visa imtis leis pasiekti reikšmingų rezultatų Europos mastu. Norint sėkmingai įgyvendinti „URBAN“ projektą, buvo laikoma, kad būtina gerai organizuoti ir tvirti tyrimai, kad projekto partneriai galėtų remtis tvirtais ir patikimais duomenimis.

Tyrimas, paremtas gerai suprojektuotu ir daugiapakopiu požiūriu, skirtas jaunimui ir su jaunimu dirbantiems specialistams, kurie yra susiję su daržininkyste mieste. Mokomoji medžiaga, kurią galima sukurti, gali būti el. mokymosi platformos ir mobiliosios programėlės forma.

Tiksliau tariant, visų „URBAN“ konsorciumo partnerių buvo paprašyta atlikti esamų dokumentų tyrimus, susijusius su miesto daržininkystės kontekstu, jaunimo situacija ir darnaus vystymosi procesu jų šalyse. Be to, visi partneriai atliko lauko tyrimus, apklausdami miesto daržininkystės ekspertus ir šalies jaunuolius. Šių interviu rezultatai leido „URBAN“ konsorciumo partneriams parengti tinkamą miesto daržininkystės konteksto, poreikių ir potencialo kiekvienoje šalyje analizę. Tarpvalstybinėje analizėje yra didelė ir gana reikšminga ekspertų ir jaunimo imtis, todėl tyrimas yra vienas iš nedaugelio visos Europos tyrimų, siejančių miesto daržininkystės temą su jaunimu.

Pagrindinius „URBAN“ projekto tikslus galima apibendrinti taip:

- ▶ Mokymo ir mokymosi išteklių, kurie remtų naujų ir esamų praktikų ir pedagogų profesinį tobulėjimą suaugusiųjų mokymo srityje, plėtojimas.
- ▶ Aktyviai įtraukti vietos žmones, kuriems gresia marginalizacija.
- ▶ Parengti mokymo metodą, programą ir metodiką, įskaitant mokymo modulį, pagrįstą veikla, susijusia su miesto daržų įrengimu ir priežiūra.

## 3.2 Žinių spraga

Remiantis ankstesne literatūros apžvalga ir esamos situacijos bendruomenėje fiksavimu, nustatyta, kad miesto daržininkystės literatūra ir dabartiniai tyrimai yra gana riboti. Be to, įvairūs miesto daržininkystės aspektai ir pasekmės išlieka neiširta sritis. Pagrindinė tikslinė „URBAN“ grupė yra jaunimas ir ypač pažeidžiami jaunuoliai, kuriems reikia rasti kelių į socialinę įtrauktį ir darbo rinką.

Šiame tyrime nagrinėjami įvairūs miesto daržininkystės padariniai ir galimi privalumai, atliekant kiekvieno šalies konteksto tyrimus ir interviu su ekspertais ir jaunimu. Nors tvarus vystymasis yra vienas pagrindinių ES prioritetų, pagrindinis dėmesys skiriamas nagrinėti, kaip iniciatyvos „iš apačios į viršų“ gali vienodai prisidėti prie institucinio perėjimo prie ekologiškesnės politikos Europoje. Todėl šio tyrimo metodika, lauko tyrimų imtimi ir bendru dėmesiu tiriant įvairias miesto daržininkystės pasekmes siekiama prisidėti prie „bendrų žinių“ šioje temoje.

## 3.3 Lauko tyrimų rezultatai

Apskritai bendrą tyrimo imtį sudaro 90 jaunų žmonių ir 60 ekspertų. Todėl tai yra pakankamai didelis imtis, kad būtų aiškus miesto daržininkystės vaizdas Europos mastu. Tačiau, kaip minėta anksčiau, tyrime dalyvaujančios šalys turi didelių skirtumų, o tai reiškia, kad rezultatai atspindi visos Europos perspektyvą atsižvelgiant į miesto daržininkystės potencialą, poreikius ir ypatybes.

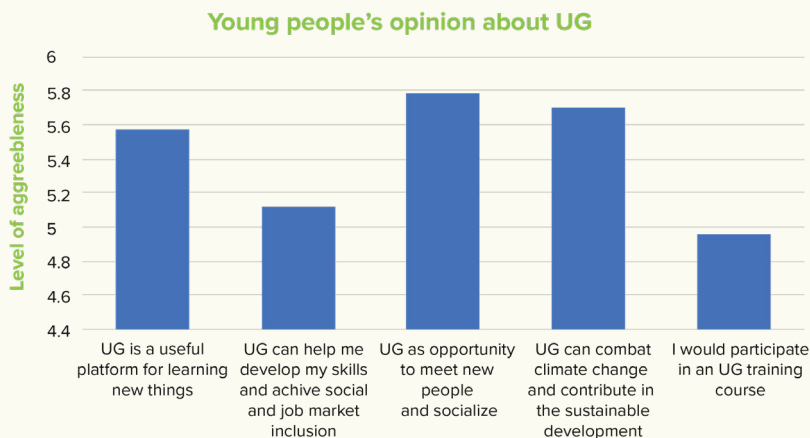
Visų pirma, trumpai pristatomi demografiniai duomenys ir kiti svarbūs faktai, remiantis kiekvienos tikslinės grupės visų šešių šalių bendra imtimi. Tada pateikiami pagrindiniai tyrimo rezultatai ir galiausiai pateikiamos išvados ir politinės rekomendacijos.

### Jaunimas

Jaunimo imtį sudarė 90 jaunų žmonių iš 6 ES šalių. Vidutinis dalyvių amžius yra 23,3 metai, o lyties pasiskirstymas yra 57% moterų ir 43% vyrų. Dauguma jaunų tyrimo dalyvių (67 proc.) anksčiau niekada nedalyvavo jokiame miesto daržininkystės veikloje. Tai galima laikyti aiškiu įrodymu, kad miesto daržininkystė vis dar nėra populiari tarp Europos miestų jaunimo. Nepaisant to, 33% praeityje ar dabar miesto daržininkystėje dalyvaujančių žmonių – yra teikiantis vilčių rodiklis, reiškiantis, kad 1 iš 3 jaunuolių yra kažkaip susipažinęs ir (arba) susijęs su miesto daržininkystės veikla.

Kitas klausimas, svarbus dabartinei miesto daržininkystės situacijai, buvo tai, ar pašnekovai žinojo apie miesto daržininkystę savo vietos bendruomenėje. Beveik pusė dalyvių (45 proc.) atsakė teigiamai, o tai rodo, kad miesto daržininkystės veikla miesto aplinkoje vis labiau pasireiškia.

Kitoje interviu dalyje dalyvių buvo paprašyta įvertinti keletą teiginių, kurie apibūdintų jų požiūrį į miesto daržininkystę. Iš pradžių dalyvių buvo klausama, ar, jų manymu, miesto daržininkystė yra naudinga platforma mokytis naujų dalykų. Dauguma dalyvių palankiai įvertino miesto daržininkystės galimybes mokytis juos naujų dalykų. Kita vertus, jaunieji dalyviai gana skeptiškai vertino miesto daržininkystės galimybes siekiant socialinės ir darbo rinkos įtraukties, todėl šis teiginys buvo įvertintas žemiau. Atrodo, kad dalyviai yra entuziastingi miesto daržininkystei, kaip gerai progai susipažinti su naujais žmonėmis ir pabendrauti. Visų pirma, didžioji dauguma jaunų žmonių miesto daržininkystę vertina kaip puikią vietą bendravimui. Panašiai palankiai jaunimas įvertino ir labai didelį miesto daržininkystės poveikį klimato pokyčiams ir tvariam vystymuisi. Galiausiai, kalbant apie norą dalyvauti miesto daržininkystės mokymo kursuose, dalyvių vidutinis rodiklis buvo 5 pagal septynių balų Likerto skalę (1–7).



**3.1 pav. Jaunų žmonių nuomonė apie miesto daržininkystę (MD)**

Atvirų klausimų skyriuje pagrindiniai interviu rezultatai rodo teigiamą jaunųjų tyrimo dalyvių požiūrį į miesto daržininkystę. Jaunimas norėtų dalyvauti miesto daržininkystės veikloje, nes tai vertina kaip gerą galimybę pabendrauti ir susirasti draugų. Šiame kontekste didžioji dauguma jaunų žmonių mano, kad daržininkystė mieste yra puiki socialinės įtraukties ir jaunimo ugdymo priemonė. Be to, galimybė įgyti naujų įgūdžių miesto daržininkystės veikloje taip pat vertinama kaip svarbi daugumai dalyvių, nes tai išplaukia iš jų atsakymų.

Kalbant apie miesto daržininkystės galimybes atverti jiems kelią į darbo rinką, jaunimas nusiteikęs gana skeptiškai. Jei tiksliau, klausime „Ar manote, kad dalyvaudami miesto daržininkystės veikloje galėtumėte padidinti savo galimybes susirasti darbą?“ dalyvių atsakymai pasiskirstė po lygiai tarp „taip“ ir „ne“, nes 51% (arba 37 jaunuoliai) teigiamai vertino tai, kad dalyvavimas miesto daržininkystės veikloje gali padidinti jų galimybes susirasti darbą, o 49% (arba 35 žmonės) nebuvo nusiteikę optimistiškai.

Tačiau gali būti kad tai rodo informacijos ir žinių apie miesto daržininkystės tikrąsias naudas ir galimybes trūkumą darniai vystant visuomenę ir ekonomiką. Šiame kontekste daugelio dalyvių atsakymas, kad daržininkystė mieste nėra labai skatinama, patvirtina mūsų požiūrį į informacijos apie miesto daržininkystės padarinius trūkumą. Todėl dalyviai teigė, kad daržininkystė mieste turėtų būti skatinama per socialinės žiniasklaidos platformas ir kitas naujas technologijas.

## Ekspertai

Mūsų ekspertų imtį sudarė 58 žmonės, o lyčių pasiskirstymas buvo- 54% moterų ir 46% vyrų. Vidutinis imties amžius yra 41,7 metų, jauniausiam dalyviui - 30 metų, o vyriausiam - 76. Vidutinis miesto daržininkystės ekspertinės patirties metų skaičius yra maždaug 5 metai, o daugumos išsilavinimas yra aukštasis su bakalauro laipsniu. Be to, didžioji dauguma ekspertų šiuo metu užsiima miesto daržininkystės veikla, tačiau tik keli iš jų įsitraukę ilgiau nei 5 metus.

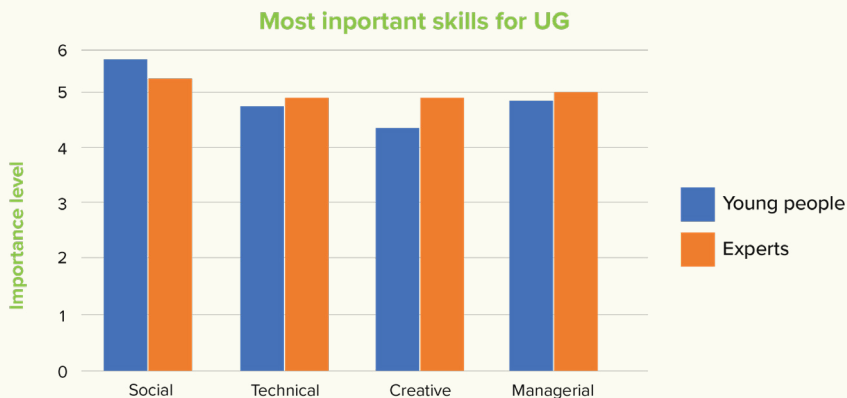
Ekspertai, žinodami miesto daržininkystės esminę vertę, pabrėžė svarbiausius maisto saugumo, aplinkos ir ekosistemos aspektus. Šiame kontekste bendra visų interviu tema buvo teigiamas miesto daržininkystės indėlis į tvarų vystymąsi. Kita vertus, ekonominės ir socialinės miesto daržininkystės dimensijos, pasak daugumos ekspertų, turi mažesnę reikšmę.

Didžioji dauguma ekspertų teigia patyrę miesto daržininkystės poveikį socialinei įtraukčiai. Pavyzdžiui, daugelis ekspertų dirbo su migrantais ar žmonėmis, priklausančiais pažeidžiamoms visuomenės grupėms, todėl jie

teigia, kad daržininkystė mieste yra viena geriausių veiklų, galinčių suartinti žmones.

Tuo pačiu principu didžioji dauguma ekspertų pripažįsta miesto daržininkystės įtaką socialinei įtraukčiai, nes iš 58 dalyvių tik vienas atsakė „ne“, o 57 atsakė „taip“ į klausimą: „Ar manote, kad miesto daržininkystė yra gera jaunimo ugdymo ir socialinės įtraukties priemonė?“.

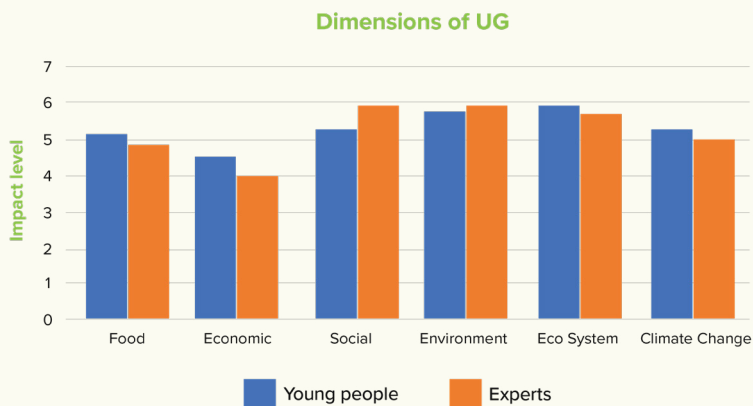
Kalbėdami apie tai, kuri įgūdžių kategorija yra naudingiausia ir reikalingiausia asmeniui įsitraukti į miesto daržininkystės veiklą, ekspertai vertino kaip reikšmingiausius socialinius įgūdžius, po kurių sekė vadybiniai, paskutiniai, bet ne mažiau svarbūs- ir techniniai bei kūrybiniai įgūdžiai. Kaip matyti iš 3.2 paveikslą, jaunų žmonių atsakymai yra beveik vienodi su ekspertų atsakymais. Jaunimas socialinius įgūdžius vertina kaip svarbiausius miesto daržininkystės veiklai, o vadybiniai ir techniniai įgūdžiai rikiuojasi vėliau. Vienas paminėtinas skirtumas yra vidutinis kūrybinių įgūdžių rodiklis, nes pastebėta, kad jaunimas juos vertina žemiau nei ekspertai.



**3.2 pav. Ekspertų ir jaunimo nuomonė apie svarbiausius MD įgūdžius**

Dėl svarbiausių miesto daržininkystės aspektų paprašėme tiek ekspertų, tiek jaunimo įvertinti šešias skirtingas kategorijas: maistas, ekonomika, socialiniai

santykiai, aplinkosauga, ekosistema ir klimato kaita. Rezultatai buvo daugmaž panašūs abiejose tikslinėse grupėse, nes ekosistemos ir aplinkosaugos matmenys buvo įvertinti kaip labai svarbūs. Maisto ir klimato kaitos aspektai yra beveik vienodai reikšmingi tiek ekspertams, tiek jauniems žmonėms. Įdomu pažymėti, kad ekonominė dimensija vertinama palyginti žemai, o ekspertai teikia didesnę vertę socialinei miesto daržininkystės dimensijai, palyginti su jaunimu.



**3.3 pav. Ekspertų ir jaunimo nuomonė apie MD dimensijų reikšmę**

Atvirų klausimų dalyje ekspertai pasidalino savo žiniomis ir patirtimi apie miesto daržininkystės kontekstą, potencialą ir svarbiausius sėkmės veiksnius. Visų pirma, bendra tema, pastebėta ekspertų atsakymuose, yra poreikis didinti supratimą apie miesto daržininkystės vertę vietos bendruomenėje ir platesniame miesto kontekste.

Techniniu požiūriu pagrindinis barjeras yra infrastruktūros trūkumas ir kartais kylantys iššūkiai nustatyti tinkamą žemės sklypą miesto kontekste, tinkantį kurti miesto daržą. Be to, dauguma ekspertų pabrėžė lemiamą vietos bendruomenės vaidmenį plėtojant daržininkystę mieste, nes kai kurių ekspertų nuomone, vietos žmonių noras ir ryžtas gali įveikti daugybę barjerų kuriant ir plėtojant miesto daržą. Tačiau, kaip minėjo daugelis ekspertų, kai kuriose mūsų tyrimo šalyse reglamentavimo ir biurokratijos pakeitimas nacionaliniame kontekste yra nepaprastai svarbus, kad būtų sukurtas draugiškesnis institucinis kontekstas, leidžiantis atsirasti ir išlaikyti dar daugiau miesto daržininkystės iniciatyvos.

Daugumos ekspertų teigimu, dabartinė miesto daržininkystės augimą skatinanti tendencija yra klimato kaita ir poreikis palaikyti ekosistemą. Kitaip tariant, ekspertai optimistiškai vertina tai, kad tvaraus vystymosi poreikis užtikrins, jog miesto daržininkystė būtų pagrindinis veiksnys ir lemiamas komponentas miesto aplinkos struktūros ir funkcijos perorientavimo procese. Didžioji dauguma ekspertų mano, kad daržininkystė mieste gali prisidėti prie pasaulinio tvaraus vystymosi ir klimato kaitos mažinimo.

Kritiniai sėkmės veiksniai, kuriais ekspertai siūlo skatinti daržininkystę mieste, yra švietimo, koordinavimo, bendrų kelių suinteresuotųjų grupių ir lyderystės poreikis. Techniniu aspektu dauguma ekspertų pabrėžė tinkamos žemės/erdvės ir, žinoma, finansavimo svarbą. Kalbant apie finansavimą, buvo pareikšta įvairiausių nuomonių. Kai kurie ekspertai mano, kad valstybė, savivaldybės ar vietos verslas turėtų finansuoti miesto daržininkystės iniciatyvas. Kiti ekspertai teigia, kad ES turėtų įtraukti daržininkystę mieste į pagrindinius finansavimo tikslus, o kiti ekspertai mano, kad vietos bendruomenės pačios turėtų susimokėti visas išlaidas, jei bendruomenės nariai rodo norą ir turi reikiamų įgūdžių.

## 4. Miestų daržininkystės įgyvendinimo teisinė ir finansinė sistema ES

### 4.1 Teisinė sistema Europoje

Miestų žemės ūkis, kaip terminas vartojamas Europos politikoje, daugiau dėmesio skiria biologiniam žemės ūkiui, maisto saugai ir tvarumui. Pagal šį spektrą jis atitinka daugumą teisinių prielaidų būti „žemės ūkiu“. Žemės ūkio urbanistika yra aktuali tema daugumos Europos miestų darbotvarkėje ir ji atitinka daugumą strategijos „Europa 2020“ tikslų, susijusių su perspektyvia maisto gamyba, tvarių gamtos išteklių valdymu, klimato veiksmais ir subalansuota teritorine plėtra.

Europos Sąjungoje, kuri yra urbanizuota ir užteršto oro, Europos Komisija nori „pilkąją“ žaliosios ekonomikos literatūrą paversti veiksmingu ir pakankamu tikslu naujam amžiui. Šiame prašyme Bendroji žemės ūkio politika (BŽŪP) ir susijusiuose Europos Parlamento ir Tarybos reglamentuose miestų ir priemiesčių žemės ūkis minimas kaip būdas sugrąžinti žmones į sveikesnę ir tvaresnę ekosistemą.

ES politika daugiausia įsitraukusi į su verslu susijusiais įstatymų projektais, įskaitant galimybes ekologiškesnei pramonei bandymus, susijusius su žmonių verslo planais, remiant finansiskai. Maisto saugos politika, žemės ūkio produktų kokybė, vartotojų teisės ir apsauga, be kitų politikos sričių, užtikrina aukštus sveikatos ir maisto saugos standartus vartojant maistą, ypač maisto gamybą ir perdirbimą.

Nepaisant to, kad ES politikoje nėra visiškai aiškių reglamentų ir teisės aktų, horizontaliai įgyvendinamų visose valstybėse narėse, rémo, dauguma šalių stiprina miesto politikos pajėgumus nacionaliniu lygiu.

### 4.2 Finansiniai įrankiai

Nors dažnai manoma, kad žemės ūkis ir saugomos teritorijos yra opozicijoje, jos iš tikrųjų viena kitą papildo. Viena vertus, žemės ūkio veikla vaidina pagrindinį vaidmenį tvarkant ES žemę ir išsaugant jos biologinę įvairovę, nes beveik pusę teritorijos sudaro dirbamos žemės, kita vertus, saugomos teritorijos pagal tokias programas kaip „NATURA“ garantuoja ekologinį paveldą ES žemei. Saugomos teritorijos ir žemės ūkio gamyba yra to paties kraštovaizdžio ir didesnės, labiau

integruotos kaimo ekosistemos dalis, iš kurios gamtines prekes ir paslaugas galima optimizuoti integruotomis papildomomis sistemomis.

Prašydama finansuoti ekologines sistemas, Europos Sąjunga parodo norą pakankamai ir veiksmingai finansiškai remti valstybes nares miesto žemės ūkiui vystyti bendrais ir regioniniais finansinės paramos fondais ar investicijų planais. Nors atrodo, kad iki šiol viskas pusiaukelėje, BŽŪP, kurioje taip pat apibrėžtos veiklos, riboja miesto žemės ūkio problemos sprendimą ir susiaurina kelią į ekologiją paremtą ekonomiką. Kai kuriose valstybėse narėse finansinė parama yra orientuota į nacionalinį lygmenį arba lėšos įsisavinamos iš ES subfondų, o kitais atvejais JT Miestų darbotvarkės dalys ir ES turi bendrą kelią.

Programos ar fondai šiuo klausimu paprastai nėra atvirai skelbiami, todėl valstybės nares tai veda į nepriklausomus judėjimus ir atskiras nacionalines iniciatyvas. Bėgant metams daugelyje šalių terminas „Miesto žemės ūkis“ buvo įgyvendinamas skirtingu tempu. Finansavimas daugiausia buvo skiriamas iš Europos fondų, regioninių finansinių programų ir kai kurių nacionalinių fondų, visada atsižvelgiant į bendrą aplinkos tvarumo perspektyvą.

## 5. Viešosios politikos rekomendacijos

Daugelyje miestų pavieniai asmenys, organizacijos ir advokatai miesto daržininkystę ir miesto žemės ūkį vertina kaip priemonę padidinti prieigą prie maisto, sukurti finansines galimybes ir atgaivinti bendruomenes. Daugelis miesto ūkių, neatsižvelgiant į jų dydį, teikia įdomių privalumų, kad sukurtų nuosavybę ir skatintų šias bei daug kitų galimybių mažas pajamas gaunančioms bendruomenėms. Šiame paskutiniame skyriuje pateikiamos politikos rekomendacijos, pagrįstos kliūtimis ir ištekiais, susijusiais su miesto daržininkystės veikla ir galimybėmis kiekvienoje šalyje partnerėje. Toliau išvardytos politikos rekomendacijos gali būti naudojamos kaip įgyvendinimo ir vykdymo užtikrinimo strategijos nacionaliniame ar Europos kontekste.

### Miesto daržininkystės plėtojimo politikos rekomendacijos Islandijoje

- ▶ Toliau plėtoti savivaldybėse jau veikiančią infrastruktūrą, plėtoti bendruomenes jau veikiančiuose daržuose, jungti sodininkus teikiant mokymus ir reikiamas priemones.
- ▶ Toliau plėtoti daržus kaip priemonę, suteikiančią galimybę jaunimui ir atskirtiems visuomenės nariams. Teikti šioms grupėms tiek asmeninę, tiek profesinę (techninę) pagalbą.
- ▶ Padidinti finansavimą privačioms grupėms ir asociacijoms, norinčioms įkurti bendruomenės daržus, siekiant skatinti darnų gyvenimą ir bendruomenės įsitraukimą (ypač toms, kurios orientuojasi į marginalizuotų ar nepalankioje padėtyje esančių grupių švietimą, mokymą ir įgalinimą).
- ▶ Policy recommendations for enhancing urban gardening in North-Macedonia
- ▶ Pass legislation and policy documents at national and local levels supporting urban gardening and community gardens. Legal and policy frameworks should be designed through a participative process, including all key stakeholders, and they should be informed by the good practices applied to other European countries. Moreover, local governments should pursue urban agriculture friendly zoning policies and make long-term commitments to urban gardens by adopting

language in its zoning codes and its general plan.

- ▶ Increase funding for programs that target children/young people and provide training, technical assistance and financial support for start-up or operating costs. Such programs should ensure long-term sustainability and incorporate monitoring and evaluation mechanisms.
- ▶ Local governments should identify and provide land and facilities for urban gardening. Cities can inventory public and private land, authorize leasing agreements with private landowners, clear contaminated land, and authorize the use of municipal land.

### **Miesto daržininkystės gerinimo politikos rekomendacijos Šiaurės Make-donijoje**

- ▶ Priimti įstatymus ir politikos dokumentus nacionaliniu ir vietos lygmenimis, remiančius miesto daržininkystę ir bendruomenės daržus. Teisinė ir politinė sistema turėtų būti kuriama dalyvaujant, įtraukiant visas pagrindines suinteresuotąsias šalis, ir joms turėtų būti suteikta informacija apie gerąją patirtį kitose Europos šalyse. Be to, vietos valdžia turėtų vykdyti miesto žemės ūkiui palankią zonavimo politiką ir ją įgyvendinti ilgalaikius įsipareigojimus miesto daržams, pritaikant žymėjimą miesto teritorijų koduose ir bendrajame plane.
- ▶ Padidinti finansavimą programoms, skirtoms vaikams/jaunimui ir teikiančioms mokymą, techninę pagalbą ir finansinę paramą pradinėms ar veiklos išlaidoms padengti. Tokios programos turėtų užtikrinti ilgalaikį tvarumą ir apimti stebėsenos ir vertinimo mechanizmus.
- ▶ Vietos valdžia turėtų nustatyti ir aprūpinti žemę ir įrenginius miesto daržininkystei. Miestai gali inventorizuoti valstybinę ir privačią žemę, vykdyti nuomos sutartis su privačiais žemės savininkais, išvalyti užterštą žemę ir leisti naudoti savivaldybės žemę.

### **Miesto daržininkystės gerinimo politikos rekomendacijos Portugalijoje**

- ▶ Daržininkystei mieste jaunimui pirmiausia reikia tokių projektų tęstinumo ir patikimumo su tiksliau pasiūlymu ir gerai apgalvota koncepcija.
- ▶ Įrengiant ir toliau plėtojant miesto daržus, patirtis yra labai nevienalytė.

Todėl jau nuo pat projekto planavimo svarbu atsižvelgti į vietos sąlygas ir galimybes. Kokie ištekliai (įskaitant ir laiką) yra prieinami, kas dar gali būti įdarbintas dalyvauti, kokie tinklai jau veikia, su kuo galima užmegzti atitinkamus ryšius? Kokie ištekliai, medžiagos ir žinios reikalingi ir kaip juos įsigyti?

- ▶ Tiesiogiai įtraukite suinteresuotąsias šalis, kad jos dalyvauti nuo pat projekto pradžią, o ne tik jį pabaigus. Jei daržo idėja jau yra konkretesnė arba jei jau yra rajonas, kuriame daržas bus pastatytas, apie tai iš anksto informuokite kaimynystę. Bendruomenės daržai, aktyviai vystomi kaimynystėje, palengvina jų plėtrą platesnėje visuomenėje, o daržo projektai gali padėti formuoti miesto rajoną, sudarant galimybes įsitraukti atitinkamoms grupėms ir kaimynams.
- ▶ Daržą turėtų būti galima pasiekti pėsčiomis arba bent jau viešuoju transportu. Į netoli gyvenamosios vietos esančius daržus lengviau patekti, taip pat dalyvauti su daržu susijusiuose projektuose ir veiklose.
- ▶ Politinė parama gali būti labai svarbi projekto sėkmei. Todėl lobizmas yra kasdienė projekto dalis. Reikėtų visų politikos lygių įsitraukimo.

### **Miesto daržininkystės gerinimo politikos rekomendacijos Graikijoje**

- ▶ Skatinti universitetų, savivaldybių ir vietos bendruomenių pilietinės visuomenės organizacijų sąveiką ir sinergiją.
- ▶ Ieškoti ES finansavimo galimybių teikdami paraiškas „Erasmus +“ ir kitoms ES dotacijoms gauti.
- ▶ Skatinti miesto daržininkystės veiklą per socialinės žiniasklaidos platformas.

### **Miesto daržininkystės gerinimo politikos rekomendacijos Lietuvoje**

- ▶ Turėtų būti inicijuotas visų suinteresuotų šalių (savivaldybių, Nacionalinės žemės tarnybų, Aplinkos ministerijos, miestų sodininkų ir bendruomenių) procesas.
- ▶ Reikėtų spręsti teisinius klausimus, nes tai yra pagrindinė kliūtis, kuri iš esmės trukdo toliau plėtoti miesto daržininkystę.

- Vėliau turėtų būti pradėta komunikacijos kampanija, siekiant geriau suprasti miesto daržininkystės veiklą ir paskatinti žmones kurti savo miesto daržus.

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## Annex I. National Research

In this section, six national reports of all countries that have been participating in the URBAN project, are presented. The main scope of this section is to provide a clear view about urban gardening and its various implications in six different European countries.

In particular, all six reports below follow a same structure, which was seen as useful to be implemented the same in each one. Each report starts with a brief description of the national context regarding urban gardening. Then, a brief description of the youth situation in the country follows, as youth is the many target group of the study. Moreover, information about the sustainable development in the country is given, including any relevant policies and overall process. The field research analysis follows and particularly the results from the interviews with the experts and the young people. Finally, the last part of each national report is the conclusions part, where the main elements and outcomes from desk and field research, form the general national context of urban gardening.

### Germany

#### The national context

In Germany, urban community gardens have many names and different forms: the best known are the Intercultural Gardens, whose “prototype” was created in Göttingen in the mid-1990s. There, community gardening is the starting point for the exchange of people from different cultures of origin. There are also neighborhood gardens, self-harvest projects, district gardens, guerrilla gardening campaigns and the growing number of mobile urban agriculture projects. Common to many new garden forms is that the urban vegetable garden functions as a medium and platform for topics such as urban ecology and urban planning, (world) food, neighbourhood design, local knowledge transfer or trans-cultural ex-change. Currently, they are more than 700 urban gardening initiatives in Germany.

According to a survey carried out in March 2020, Urban Gardening is a comparatively inexpensive undertaking. Most gardens have operating costs of up to 100 EUR per month, and only a few gardens require more than 500

EURs. The legal form of the gardens is usually their own association (or the gardens are a project of another association). From the 214 gardens that took part in the survey, as many as 96 gardens (45.28 %) are supported by their local authority, 79 gardens are supported by foundations (37.26 %). A total of 49 gardens (25.94 %) do not require any funding at all. Funding from the church plays only a minor role, and only ten of the gardens surveyed are located in an area owned by the church. (Foundation Anstiftung, 2020).

## Youth Situation

Regarding the situation of youth in Germany, youth unemployment in Germany is low compared to many other European countries. In October 2020, 261,002 people under 25 years of age were registered as unemployed in Germany. However, there are still differences between East and West Germany. Young people in the east are still more often unemployed or find it more difficult to find a training place. However, the exchange between business and politics in the Federal Republic functions quite well. One goal of education and labour market policy is to be able to offer all interested young people a training place locally. This has generally been achieved for the last years, although there are of course regional differences. Added to this we see the effects of demographic change: overall, there are fewer young people and young adults aged between 15 and 24 years today than in 1991. 10.3 million people in this age cohort were in this age cohort immediately after reunification; today there are 1.7 million fewer. This of course also helps to ease the situation on the training market. (Zeit, 2019).

## Sustainable Development

As one of the largest economies in the world, Germany has contributed almost five percent to global warming since the beginning of industrialization. Currently, Germany is responsible for two percent of global greenhouse gas emissions. At around 9.6 tonnes, annual per capita CO<sub>2</sub> emissions in Germany are about twice as high as the international average of 4.8 tonnes per capita. Germany is no longer a pioneer in climate protection: in the European ranking, now ranks only 8<sup>th</sup> (Ipb-bw, n.d).

## Field research: interviews with young people and experts in Urban Gardening

### Demographic characteristics

The interviews carried out with young people ( $n=15$ ,  $M=6$ ,  $F=9$ ), aged between 17 and 30 (mean 25.3). The educational level of the sample is characterized as relatively high (53,3% higher education, 40% secondary education) and 66,6% was active in the labor market (four participants were identified as students, and one participant as unemployed).

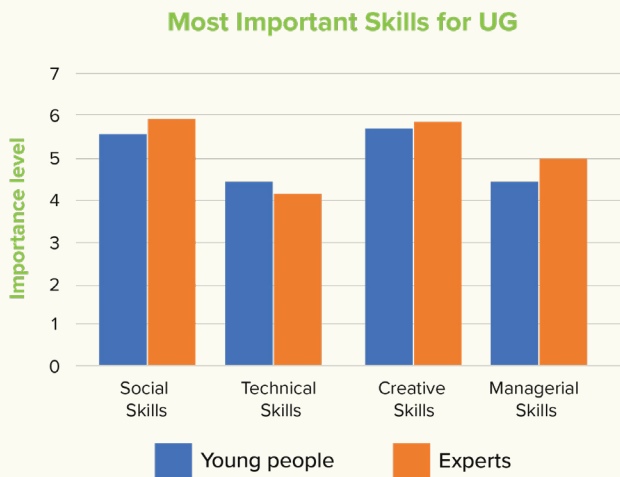
Interviews were also carried out with experts ( $n=11$ ,  $M=4$ ,  $F=7$ ), aged between 24 and 70 (mean 48.6). The participants were active both in the private (27,2%) and in the public (72,8%) sector, in professions related to social sciences and STEM.

### Findings

#### Attitudes of the youth

Based on the interviews with the youth, there was much interesting insight gained regarding attitudes towards learning in general and urban gardening in particular, as well as creative suggestions on how urban gardening could be interesting for this age group. Because experts' statements were relatively clear in this respect - young people very rarely participate in urban gardening projects. As children with their parents, they are still enthusiastic about it, but as young people they often lose interest. This seems to be a contradiction, especially in view of the numerous initiatives for climate and environmental protection initiated by young people and the growing awareness of e.g. nutrition (vegan, vegetarian, local/regional food etc.).

The interviewed young people have a positive attitude towards learning in general and consider urban gardening as a good means for learning new things, new techniques, and acquiring new skills and competences. Above all social competences are mentioned in this context. All respondents believe that social skills are important and can be improved in the context of urban gardening. Technical and management skills were not considered so important. It was felt that technical skills did not necessarily have to be brought in, but that they could be taught or learnt, respectively. Management skills were seen as particularly important for those who take on leadership roles in the project.



**Figure 6.1: Most important skills for UG in Germany**

## Motivations and benefits for the youth

The main motive for young people to participate in urban gardening activities would be the wish for self-realization, learning something new, expression of their lifestyle, share responsibility and do activities with people that share the same interests. Also, here the social aspect was mentioned several times: young people would like to make new social contacts and become part of a community. The benefits they consider are largely in line with their motives: the social aspect, the joint activities and experiences, the community, are at the forefront. The joy of seeing one's own food grow and harvesting is also mentioned here.

They suggest to also offer DIY activities, such as building an own high bed or insect hotels, keep bees to make own honey, offer cooking events with the own vegetables, collect recipes etc. For them it is also of utmost importance that they can bring in their own ideas and their own strengths without being criticised. Smart gardening (e.g. drip irrigation system) was also mentioned here as an idea of its own - in this way, even young people with a strong affinity for IT could get in the mood for gardening and contribute their own ideas.

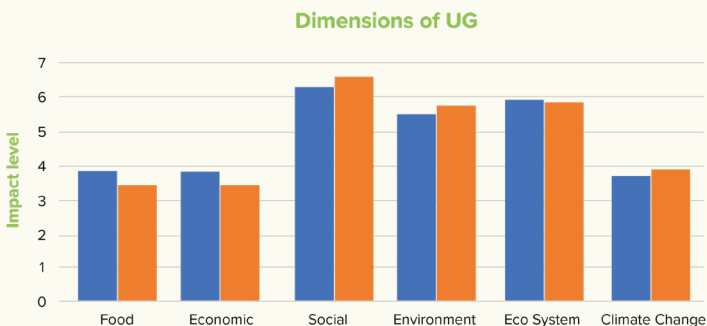
## Experts' experiences

The experts interviewed confirmed in certain ways the findings from the interviews with the young people in terms of their willingness to get involved

in gardening activities. The experts were usually rather skeptical as to whether urban gardening is actually a suitable method for interacting with and involving young people. The tenor was, for example, that it should not simply be seen as a method for something like social work. A garden is not something that can only be taken out for a class, a work-shop or a short project. Young people rarely have the motivation to participate in urban gardens of their own initiative. More often, however, approaches that are very specifically adapted to the interests of young people by combining urban gardening with other cultural aspects such as music, sports or social media were seen as good options.

In the Göttingen area we were able to find and interview many different experts who are involved in diverse gardening initiatives. The main statements were:

- ▶ Although, there were several motivated volunteers who were able to find a place for their they all suffered from a lack of commitment from the participants. Only two out of four volunteer projects are still active today due to a truly exemplary commitment.
- ▶ There are also projects, which are financed by public funds for a limited period of time. These experts reported many successes, but these would not be possible without the payment of employed workers, and moreover, some of them are in danger of being wasted after the funding period ends.
- ▶ A good example of even more sustainable garden projects is those which have organised themselves as an association. In some of these cases, they have even managed to persuade sponsors and thus stabilize their finances and “personnel” over a longer period of time.



**Figure 6.2: Dimensions of UG in Germany**

## Conclusions from German report

There is a great variety of community gardens in Germany, which are more or less different from each other. The objectives and concepts vary, as do the areas (size, location, condition, owner) and beds (individual, community, size, raised beds), the number and socio-cultural composition of those involved, the possible uses, awareness and integration into the neighbourhood, the infrastructure in the garden and the resources available and which can be activated. The experiences in setting up and further developing are correspondingly heterogeneous. It is therefore important to take local conditions and possibilities into account right from the project planning stage.

Community gardens are created through the cooperation of different people and groups and develop and unfold through commitment and cooperation. It is advisable to involve interested parties directly, to let them take part from the very beginning - and not only when the project is finished. If the idea for a garden is already more concrete or if there is already a district in which the garden is to be built, inform the neighborhood early on. Community gardens that are actively involved in a neighborhood facilitate steps into the wider society, and garden projects can help shape an urban district by creating opportunities for groups and neighbours to participate.

In principle, there is no optimal area size for a community garden. There are both very small projects with only a few square meters and very large ones with several thousand square metres. The design and layout of the garden area depends not only on the nature of the plot and the soil conditions and existing regulations, but also on the ideas, wishes, capacities and the existing or obtainable resources for the clearing or design and any other planned activities. In addition to individual and/or communal flowerbeds/boxes for growing vegetables, herbs, flowers and perennials and a compost, communal gardens almost always have seating and an area for parties, a children's play area, baking, cooking and barbecue areas, an equipment shed or pavilion.

Political support can be very important for the success of a project. Lobbying is therefore part of the project's everyday life. All levels of politics should be addressed. These are municipal, town and country councils and members of the relevant committees (e.g. for integration), and in the case of intercultural gardens, the integration and foreigners' commissioners or councils. They should be informed and invited and can then be asked for support for the project.

Ultimately, it is a local political decision on how to support the Urban Gardening. In a few cities, jobs are actually being created for this purpose, in order to

specifically promote the cityscape, interaction among the population and the additional opportunity for social work. Often, however, it is more likely to remain with contact persons from related areas of responsibility. In Göttingen, for example, it is also controlled in this way that motivated people can get the opportunities, but this is also not explicitly advertised and the city can also protect other concerns such as nature and monument protection or the interests of other citizens.

In Germany, Urban Gardening is above all a hobby. This is probably a clear difference to the situations and initiatives in other European countries. In other countries, food production plays a more important role. In Germany far fewer people are confronted with or involved in food production. Food is growing in the supermarket, so to speak. This trend is also reflected in how much money is spent on food in Germany. In comparison, Germany, at 10.8% of income, is well below the European average of 12.1%. (Eurostat, 2018).

Regardless of how big the urban gardening project is or how much funding it receives; a critical success factor is probably always the commitment of the people. The projects are successful if people stay on board and can rely on each other. Young people in particular are usually less ingrained in their habits; they try things out and change their interests. This is probably why it is so difficult for this target group to establish a sustainable UG project. Students are a typical example of young people who get involved and committed in urban gardens. However, they are often unavailable for a long time during the holidays, they tend to move after their studies or for an internship, or sometimes have no time for such hobbies for weeks because of upcoming exams.

## Greece

### The national context

Urban gardening or urban agriculture were rather unknown terms in Greece, until recently. There was a clear distinction in the Greek society between the rural areas with the agricultural background and the urban areas that had nothing to do with agriculture. However, the recent economic crisis in Greece and the emerging environmental conditions and needs, changed politics, perception and orientation of people regarding the urban environment. In this context, we can say that the introduction of urban gardening activities in Greece was an outcome of the deep economic recession at first and the need to combat urban food deprivation for those who mostly affected by the crisis.

Moreover, urban or community gardening's dynamic harnessed by citizens who felt the need to form communities for socialization and solidarity, but also to demand open and "green spaces".

Regarding the institutional context, 'Municipal vegetable gardens' appeared in many cities in Greece the last ten years, as initiatives of the local authorities to assist the most vulnerable groups, such as unemployed, low-earners, low-pensioners, single parents, etc. (Haniotou, and Dalipi, 2018). Particularly, municipalities of Sykies in Thessaloniki, Alexandroupoli (northern Greece), Volos and Larissa (central Greece), provided some urban or peri-urban areas for gardening to citizens that applied and fulfilled some criteria (unemployment, poverty etc.). This phenomenon was characterized as a "*back to the land*" movement, while some other "bottom-up" initiatives appeared to urban areas, usually with political background, from active citizens who recaptured vacant fields and transformed them to community green fields (Gavriliidou et al., 2015). In this vein, during the first years of the economic crisis, producer-consumer solidarity networks appeared in Greece, such as the "*no intermediaries*" and the "*potato movement*", which provided fruits and vegetables in low prices to citizens in need (Anthopoulou, 2015). In general, urban gardening in Greece is a recent phenomenon that grew during the economic crisis through local networks and municipal initiatives. Apart from the need of access to food for the vulnerable groups of people in cities, urban gardening is a phenomenon that revived the traditional connection of Greeks with the neighborhood and the local community through collective initiatives.

## Youth situation

During the last ten years of economic recession in Greece, there was a serious impact in the Greek society, with the most vulnerable and damaged part to be the young people. Even though thousands of young people immigrated to other European countries and the economic situation has been improved recently, youth unemployment is still high as it estimated to be around 30% according to the Greek Statistical Authority (ELSTAT, 2020). It is highlighted that in 2013 youth unemployed was over 50%, meaning that 1 of 2 young people in Greece were unemployed. But even today, Greek youth unemployment is far higher than the EU average (which is around 15%), while it is also the second highest among OECD nations, only behind South Africa (OECD, 2019).

Apart from the general economic situation, which is one of the most crucial factors, there are also other factors that affect youth unemployment in Greece.

According to Bell and Blanchflower (2015) the transition from school to work in Greece is difficult for many young people, while the structure of Greek labor market (for instance student part time employment) is peculiar and seems not so beneficial for young people. Moreover, Greek youth unemployment has also a gender dimension (females are more likely to be unemployed than males) and also a cultural dimension (like in most Southern European Countries Greek young people tend to live with their parents for longer than youngsters in central and northern European countries). (Bell and Blanchflower, 2015).

## **Sustainable development**

Greece is a rather small country with a Mediterranean climate and without a heavy industry. However, in the urban centres of Athens and Thessaloniki, air pollution and Green House Gas (GHG) emissions are serious problems that affect the eco system and the quality of life of citizens. Additionally, Greece as eco-friendly country ranks low and particularly 19th in comparison with the EU28 countries. In the same context, Greece finds itself behind the EU average in the indicators of eco-innovation inputs, resource efficiency and on socio-economic outputs (EC, 2019).

Regarding the environmental pillar of sustainable development, Greece has made progress in terms of the Sustainable Development Goals (SDGs) recently. Several policies the last years support a low carbon circular economy and improvement in waste reduction, reuse and recycle and increasing resource efficiency and providing opportunities for jobs creation. In this context, Greece endorsed a National Action Plan on Circular Economy in April 2018, while remains committed to the Paris Agreement and is already in a good place to meet national GHG emissions reduction objectives before 2030, which is the milestone years for SDGs.

In the context of sustainable development goals, Greece is in a process of transformation and modernization of its economy and sustainability. Particularly, the introduction of renewable energy sources includes the full application of Integrated Water Resources Management principles, while the interconnection of many islands to the electricity grid of the mainland by 2030 will reduce air emissions and enhance the climate change mitigation goals. In parallel, with a delay of decades the finalization of National Cadaster and the forest maps, will allow the state's institutions to protect the ecological treasures of the country and regulate and control investments. In parallel, sustainable urban mobility became recently a priority, in order to improve quality of life for the citizens and protect the eco system. (General Secretariat of the Greek Government, 2018)

## **Field research: interviews with young people and experts in Urban Gardening**

In the Greek study context, interviews were conducted also with young people and experts. The young people were identified from an archive that KMOP keeps with volunteers and beneficiaries from other projects about youth. For the experts, the network of KMOP was also been used and with the method of ‘snowball effect’ the initial contacts suggested to us more experts from the academic community and the market, allowing us to complete the number of interviews required.

### **Demographic characteristics**

The interviews carried out with young people (n=15, M=6, F=9), aged between 20 and 28 (mean 24.2). The educational level of the sample is characterized as extremely high (81,25% higher education, 18,75% secondary education) and 33,3% is active in the labor market (five participants are identified as students, and five participants as unemployed). Additionally, seven young participants have already experience of urban gardening, as they participated in the past or participating now in an urban gardening project.

Interviews were also carried out with experts (n=10, M=7, F=3), aged between 37 and 63 (mean 49.5). The participants are active both in the private (40%) and in the public (40%) sector, and one of them is self-reported as retired. Regarding the expert’s part of the study, the vast majority of the participants have a good experience in urban gardening projects and just two of them have less than two years of experience.

## **Findings**

### **Attitudes of the youth**

Regarding the perception of young people about urban gardening, the vast majority of them consider urban gardening as a great opportunity, first to socialize and then to achieve potential economic or other benefits.

Additionally, they believe that urban gardening can be a good training environment where they can acquire new knowledge and skills. In the question ‘Do you think that by participating in urban gardening activities you could increase your chances to find a job?’, the majority of the participants (10

out of 15) answer negatively, while they are similarly negative in the question ‘Do you believe urban gardening could become your main source of income?’. It is clear that young people are sceptic or unaware about the urban gardening potential as a tool for labour market inclusion or economic sustainability. In this vein, young participants expressed the view that urban gardening activities should be promoted more in the social media.

### **Experts’ experiences**

The answers of experts were significant to the identification of the true potential and needs of urban gardening in the Greek context. The experts highlighted the need to overcome bureaucracy and provide a series of incentives (economic, knowledge etc.) for participating in urban gardening activities. According to the vast majority, a critical factor for the development of urban gardening is the infrastructure, and that the best source of funding would be coming from EU institutions. However, some of the experts pointed out the need for involving, also, universities and municipalities/ local authorities in the urban gardening process. Regarding the potential of urban gardening to contribute to the social inclusion of participants and also to the sustainable development, the majority of participants gave a positive answer to both.

### **Skills required and Perceived Impact**

Both groups of participants were asked to rate the skills categories required for urban gardening. both groups valued as most important the technical skills (carving, planting etc.). Managerial and Social skills are valued equally in both groups, while experts value creative skills as more important, than they are valued by the young people.

As for the most significant and impactful dimensions of urban gardening, the two groups of participants value environment and climate change equally as highly important, while the economic dimension is rated low from both groups. The two groups have very different perceptions regarding the food and social dimensions, as they are valued very high by experts and in contrast very low by youth. Lastly, the ecosystem dimension is valued as high from youth and relatively medium for experts.

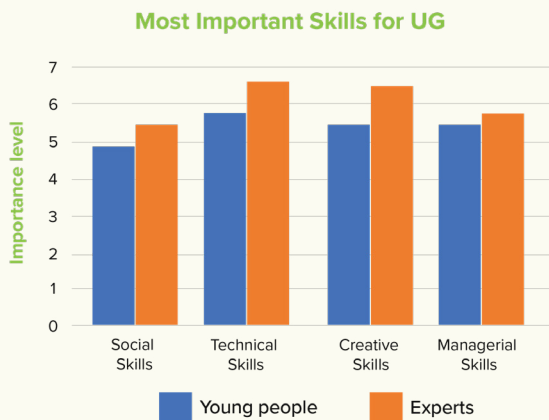


Figure 6.3: Most important Skills for UG in Greece

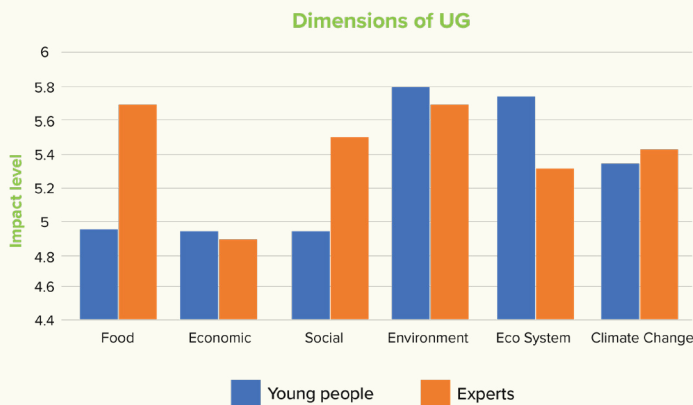


Figure 6.4: Dimensions of UG in Greece

## Conclusions from the Greek Report

As urban gardening in Greece is a rather unknown concept for the majority of Greek people, this report identified the basic characteristics of urban gardening in Greece, and also the potential may have for the young people, society, economy, and for the sustainable development and the ecosystem. From the field research and particularly the interviews with experts, the main outcome is that the majority of the participants in the study acknowledge the potential of urban gardening and the positive impact can have for citizens, the

urban environment and the eco system. The young people, who participated in the study, were also positive regarding urban gardening, though some of them are not so familiar with urban gardening activities yet. They believe that urban gardening should be promoted more through social media and other youth platforms. Regarding the potential of urban gardening to open for them a door to the labor market, participants in the study replied positively, but they are skeptical about urban gardening becoming their main source of income. Lastly, both young people and experts rated the environmental and climate change dimensions of urban gardening, as very significant.

However, there are certain policies and reforms that needs to be done, in order to harness the benefits of urban gardening. Particularly, the experts believe that EU funding is the most feasible source of funding, since state or private funding seems to be an impossible option in the Greek context. Moreover, since urban gardening is a community project, synergies and joint-projects could create “bottom-up” initiatives, addressed to various stakeholders and beneficiaries. The involvement of institutions, such as universities, municipalities and CSO’s, is highlighted by the majority of the expert participants in the study.

## **Iceland**

### **The national context**

Urban or community gardening in Iceland is mostly run by the municipalities and is built on school-gardens, established for children (8-12 years old) in 1948 in the Reykjavík city and similar in nearby municipalities in the capital area. This change occurred in 2011 in Reykjavík when school-gardens became family gardens, which was implemented in order to save costs and attract the interest of children. In the school-gardens children got training and support to grow their own vegetables as well as getting pre-grown plants and seeds for their croft (RÚV, 2011).

Municipalities also run community and family gardens. In Kópavogur community gardens consist a vital part of the “Public Health” policy as a Health promoting community. Kópavogur municipality provides their gardeners with training and support material, as well as training their garden facilitators in the school gardens (Friðrik Baldursson, 2018). A survey was conducted in 2009 among manager and master gardeners in 21 largest Icelandic municipalities to map

community and school garden activities, of which 13 offered access to such gardens from 15-150 m<sup>2</sup>. School gardens were run in 11 of the 21 municipalities (Baldursson, 2009).

Today Reykjavík city runs six urban gardens including 20 m<sup>2</sup> plots, 8 m<sup>2</sup> boxes and 100 m<sup>2</sup> gardens. The average age is from 41 years old to 57 years old. A total of 37 young people (younger than 30 years old) rent a garden or 6% of the 645 plots that are available (Reykjavík city, 2020). In urban gardens run by the city, gardeners are not part of a community, their city cannot provide them with contact information about each other according to data protection laws. Some of the school-gardens are now run by association or community groups like in Grafarholt, Grafarvogi and Seljagarðar. In Grafarholt a community group formed association, got the land from the city and old water from Orkuveitan (water distributor), while zother gardens benefit from the existing facilities or basic facilities set up by the city (Heiða Björk Jósefsdóttir, 2020).

## Youth Situation

The situation in youth unemployment is worsening due to the Covid-19, with 17.7% unemployment of young people in second quarter 2020, age 16-24 years old. This especially true in the capital area where unemployment of young people reached 19.4%. For comparison average unemployment of young people in 2019 was 8.7%. People with only primary education are 41% of the group, while unemployment rates are similar for both men and women (Expert group of union associations in Iceland, 2020).

## Sustainable Development

Urban gardening is not part of overall public policies on sustainability, global warming, and climate change, although some municipalities like Kópavogur, include them as part of the public health policies being a health promoting community. In interviews with experts (see below) it was evident that such gardens usually they are not part of town/city planning and policy, except for Reykjavík city that published their policy on urban agriculture (including gardening) in 2009 and reviewed in 2018 (Reykjavik-city, 2018). Interviewed experts and stakeholders point out that integrating urban gardens into their town/city planning would underline it as important measure towards both sustainability and public participation. While most municipalities have aligned their policies to meet the 2040 Sustainable Development Goals such gardens are rarely mentioned or included.

## Field research: Interviews with young people and experts in Urban Gardening

Following are the findings from the interviews with youth and experts. Due to COVID-19 lockdown and limitation we reach out to young people in our personal network trying to get a wide spread of age groups and gender. Experts were identified with a snowball approach each pointing to another as most of them were familiar with each other.

### Demographic characteristics

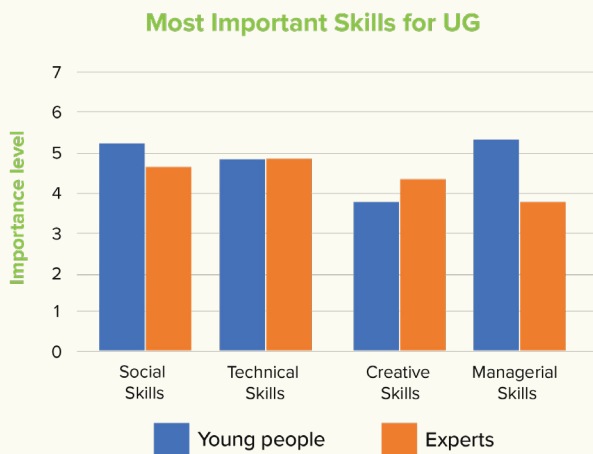
The interviews carried out with young people ( $n=15$ ,  $M=10$ ,  $F=5$ ), aged between 16 and 29 (mean 23). The majority of the participants is high school diploma holders (53,3%), 26,6% is primary school graduate and an also 26,6% has graduated from higher education. The vast majority (80%) does not participate in an urban gardening project, and only one is currently participating (the rest, had participated in an urban gardening project over five year ago).

Interviews were also carried out with experts ( $n=10$ ,  $M=4$ ,  $F=6$ ), aged between 33 and 62 (mean 47.9). The participants are active both in the private (40%) and in the public (60%) sector, mostly in STEM professions (60%). Regarding the expert's part of the study, all participants have long experience in urban gardening projects, as most of them (80%) have over than ten years of participatory experience.

## Findings

### Youth's attitudes towards urban gardening

Young respondents' interviews enrich the urban gardening literature, by providing useful information on youth's perceived skills and perceived benefits. On their own skills, the youth reported that they are quite proficient in social and technical skills. On perceived skills for urban gardening, they felt that social skills were important as well as technical and managerial skills. On the other hand, the creative skills were perceived as less important.



**Figure 6.5: Most important skills for UG in Iceland**

On education and urban gardening, the highest rating factor was that urban gardening could combat climate change. They next reported that they enjoyed learning for its own sake and that urban gardening could be a useful platform to learn new things. Interestingly, the lowest score was on the likelihood that they would participate in an urban gardening training course.

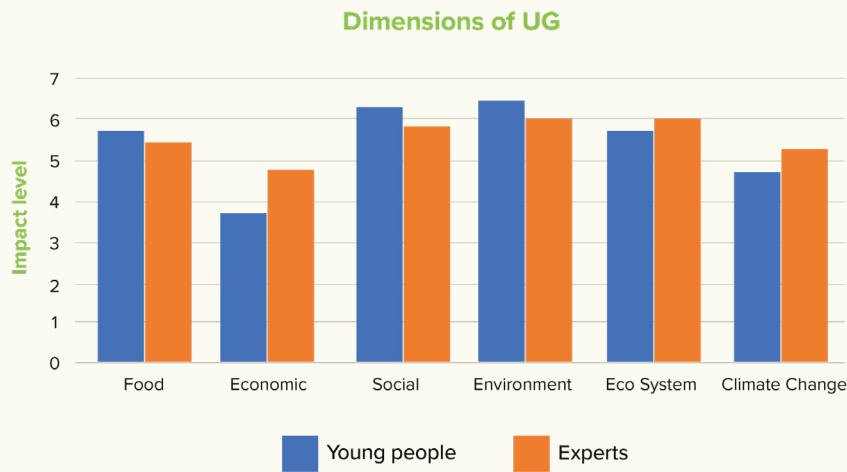
On different dimensions of urban gardening respondents emphasized environmental, ecosystem and climate change rather than social, technical or food security dimensions. However, when they were asked about higher purpose, some did not respond, while other mentions to reduce their ecological footprint and decrease consumerism.

On the benefits of participating in such a project, the most responses where to learn something new, get out and about, fresh, and eco-friendly vegetables, to enjoy while saving money on groceries. None of the respondents thought that urban gardening could become their main source of income nor increase their likelihood of getting a job.

### Experts' experiences

Experts' answers on the relevance of different dimensions in urban gardening is different. Some focus on environmental factors, while other believe that the social factor plays the biggest role. In the open questions there is a common thread where they all agree on the importance of increasing the skills of

young people in gardening and this need to become part of their education and national curriculum especially related to environmental issues. Experts expressed, also, their concerns on the abolishment of school gardens (*“We have generations that do not know anything about growing vegetables”*). All of them felt that it would be very much in the spirit of young people today to engage in urban gardening as their contribution to fight climate change and global warming.



**Figure 6.6: Dimensions of UG in Iceland**

Discussing factors necessary to create a successful urban gardening project, experts within the privately run gardens expressed a range of idea. Keeping the community alive was, for the respondents, of great importance, by posting news/pictures on Facebook or/and by organizing events etc. Having a coordinator or a leader that keeps people active is considered important, as well as providing support and training.

**Conclusions from the Icelandic report**

The overall conclusion of the report is that privately run gardens provide a more holistic support to participants, partly because they are all interested in gardening beforehand but also due to the coordination and encouragement provided by leaders/coordinators/employees to the gardeners. Creating events and keeping the community informed and interested are key success

factors as well as providing professional support especially for beginners.

Based on the interviews conducted with the experts, it is concluded that community gardens can become a vital part of city/town planning as well as contributing to the sustainability, eco-system and social cohesion of communities. Experts agreed that introducing young people to urban gardening is vital and most of them think that the best way to do this is to work directly with the schools, providing children and young people with basic training in vegetable gardening in urban areas as part of the measures that we ourselves can take to combat global warming and develop a more sustainable and eco-friendlier lifestyle.

All experts agreed that urban gardening could be a tool to empower youth and in rehabilitation in general, being grounded or earthed was good for the soul and wellbeing of every individual. It is interesting that the leaders and key experts behind both Gróandi and Seljagarðar are young people with vision that focus on sustainability and urban gardens to combat climate change and global warming. All experts interviewed believe that sustainable gardening is a way to empower people, improve mental health and as integral part of rehabilitation.

## **Lithuania**

### **The national context**

In Lithuania, urban gardening is still in the very early stages. There are only a few initiatives that are functioning successfully only for few years (Silainiai Gardens, Ideas Garden Pilaite, etc.), while there are not so many new initiatives arising. Thus, there is much potential for urban gardening to be encouraged. For that, relevant institutions must clearly define in the statutory base the concept of urban gardens as well as rules for establishing and maintaining urban gardens; fortunately, there are initiatives coming this way: Vilnius City Municipality is participating in URBACT project that aims to create a functioning formal structure in order to foster the establishment of new gardening initiatives. This is a very important step for the development of urban gardens in the country.

## Youth situation

Considering the youth and their opportunities in the country, there is a positive trend in the recent years in youth employment. Youth unemployment (15-29) in 2019 was 8.7%, while back in 2015 was 21.4% (Department of Statistics to the Government of the Republic of Lithuania). The main reasons for youth unemployment are the following:

- ▶ Not acquired or insufficient professional qualification;
- ▶ Inadequacy of the acquired qualification to the needs of the labour market;
- ▶ Lack of practical experience;
- ▶ Lack of youth job search skills;
- ▶ Young people's motivation, lack of social competencies;
- ▶ Quality jobs and high expectations of young people.

As it is officially declared, the main reasons for this unemployment are: insufficient professional qualification for the needs of the labour market; lack of practical experience; lack of youth job search skills and social competences; and finally, the high expectations of young people. It is important to address the aforementioned challenges and create better conditions for youth employment in Lithuania.

In this context, the two most relevant objectives are 1) lack of practical experience and young people's motivation and 2) lack of social competencies. As explained later in the report, youth participation in urban gardening activities can help young people to obtain practical experience as well as to improve motivation and social skills.

## Sustainable development

The most alarming issue regarding sustainable development is the impact of climate change. Recently conducted analysis (Greenmatch, 2019) shows that Lithuania is severely affected by temperature changes. At the same time, country states that it is doing everything according to agreement with the EU to fight climate change. Nonetheless, it is very important to create strategies and initiate activities that can combat with the impact of climate change.

## Field research: interviews with young people and experts in Urban Gardening

### Demographic characteristics

The interviews carried out with young people (n=15, *M*=4, *F*=11), aged between 16 and 24 (mean 19.9). Most of the participants are bachelor holders (66,6%) and a small percentage is high school (20%) or primary school graduates (6,6%). The vast majority (86,6%) does not participate in an urban gardening project, and only two are currently participating.

Interviews were also carried out with experts (n=10, *M*=3, *F*=7), aged between 27 and 61 (mean 38). The participants are active both in the private (50%) and in the public (50%) sector, and are mostly active urban gardeners, municipality personnel that works on city planning and greeneries in the city as well as representatives from national institutions.

### Findings

#### Youth's attitudes towards urban gardening

The study found that young Lithuanians have the perception that urban gardening activities do not provide many benefits or create new opportunities, and that they have only a limited impact on future employment. It is seen more directly and understood that the skills acquired in urban gardens could be relevant to employment positions in *“agriculture, ecology, environment protection only”*. However, some participants add that urban gardening help to improve social skills that may have indirect effect to their future careers. Alarmingly, there are participants that do not see any positive effect on their future careers. As for the most important skills to participate in urban gardening activities, the young Lithuanian participants valued as most important the social skills and a little bit lower the managerial skills.

## Most Important Skills for UG

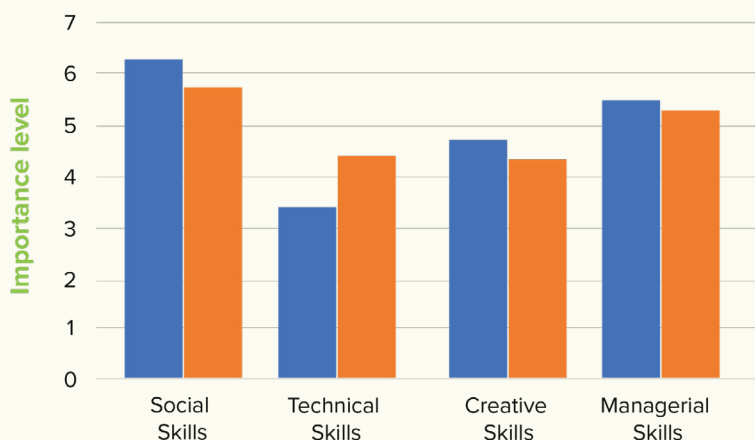


Figure 6.7: Most important skills for UG in Lithuania

Moreover, young people do not think that urban gardening can generate income. Besides the critical approach towards employment possibilities, the majority of youth agrees that urban gardening can increase social inclusion of young people: *“it gives a great opportunity to meet and get close to new people. Also, to engage in activities that are meaningful and important not only for individuals (that are directly engaged in gardening activities), but also for surrounding community”* says one interviewee.

## Experts' experiences

As the pool of interviewees represent the whole “chain” of urban gardening, it is clear that some issues are seen at all levels and are the key elements for urban gardening development. The major aspect mentioned in all interviews, in one way or another, is a lack of clarity. This lack of clarity could be separated into two main areas:

- ▶ the lack of clarity in formal and legal base on how to establish an urban garden;
- ▶ the lack of definition of urban gardening concept (what urban gardening actually means).

The first problem was perceived even by the members of institutions that might be responsible for filling the gaps in the statutory base. However, it is clear that in order to create a working structure for urban gardens, legal and formally wise, there is a need for several institutions from different levels to come to an agreement. Also, it was highlighted that the law of greeneries could be amended to integrate the concept of urban gardens.

The second problem could be called a communication issue. As urban gardens are a relatively new activity in the country, people have trouble of understanding the purpose and overall concept of urban gardening. Thus, there is a need for national campaign that could be carried out in order to increase the understanding in the society and at local administration level as well.

It is crucial to eradicate these barriers, since all interviewees agree that urban gardening helps to fight climate change and increase youth inclusion. Although interviewees' answers vary in terms of the impact, they all agree that urban gardening should be used as a tool to fight climate change. Immediate effect could be additional greenery in the city, absorption of some CO<sub>2</sub>, permeable surface and similar, while the long-term impact would be behavioral change, where people from an early age could see how live ecosystem works, how to cease consumption.

Moreover, urban gardening helps to improve social skills of youth. More importantly, young people are being exposed to different kind of people that they would not meet usually in their circles or other everyday life (i.e. school). Urban gardening is also very welcoming activity, where youth does not need to have specific skills, there is no "eligibility criteria" to be able to participate.

In order to foster this necessary activity, there is a need for funding. The majority of experts listed the following funding possibilities: municipal, eldership, national and private, including membership fee. However, as noted by urban gardeners, there are no existing calls for funding that would support urban gardening activities. All funds secured by their gardens are coming via educational, social or cultural funding mechanisms.

Lastly, experts covered both legal matters and communication including active participation and community involvement matters. It was stated that there is a need for actual formal structure that works on national or municipal level, but an interesting fact is that strong leadership was highlighted as a leverage to the hardship of the establishment process and maintenance of urban gardens.

There were other factors mentioned, such as motivation, networks, teamwork, mediator, but they all can be associated with the strong leadership.

An useful finding consists the different overall perceptions of young people and experts, regarding the most impactful dimensions of urban gardening. It worth mentioning that both groups rate food and economic dimensions' low, but especially experts seem that value those two categories as rather insignificant. On the other hand, social, ecosystem and environmental dimensions are valued as very important from both groups.

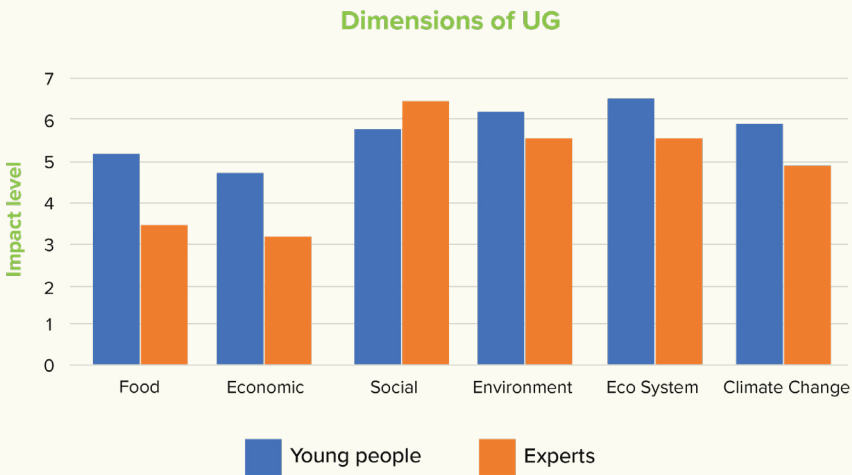


Figure 6.8: Dimensions of UG in Lithuania

### Conclusions from the Lithuanian report

In order to increase of urban gardening activities, two main issues must be addressed:

- ▶ the lack of clarity in formal and legal base on how to establish an urban garden;
- ▶ the lack of definition of urban gardening concept (what an urban gardening actually means).

Fortunately, there is a common understanding that these issues need to be addressed as soon as possible by all stakeholders. Vilnius City Municipality is already finalizing the formal procedure on how to establish and run urban gardens.

## North Macedonia

### The National context

The urban gardens in the country are mainly household gardens, funded, created and used by individuals within their privately owned areas, including yards and balconies. In the past few years there have been initiatives by non-governmental organizations and academic institutions for informing, educating and supporting citizens in establishing their own private urban gardens. On the other hand, the concept of community-based gardening activities in public spaces is less known.

The first community garden was established in Skopje in 2019, it is run by the non-governmental organization The Green Arch and it is financially supported by the City of Skopje. The garden is accessible to all residents and it shifts the emphasis from mere agricultural resource production to bringing together community residents, strengthening the community, promoting environmentally friendly lifestyles and organic food production. School gardens have been also promoted in the past years mainly through the work of Slow Food Macedonia, that has been supporting elementary schools across the country in starting and maintaining the gardens and utilizing them as an educational resource for the students.

As the concept of urban gardening in public spaces is fairly new in the country, there is no adequate legislative or institutional framework that would support and further enhance these activities. Taking into account the numbers of people, including youth, who have expressed an interest in using the first community garden in Skopje and attending educational activities on urban gardening, it can be noted that the public interest in the field is increasing.

### Youth situation

The vulnerability of working youth in the country is a major policy concern as their unemployment rate lies far above the EU average (Petreski et al., 2019). The youth unemployment rate (ages 15-24) for 2020 (II) was 33.8% (State Statistical Office of North Macedonia, 2020). In addition, the proportion of youth who are neither employed nor in educational or training programs (NEET) remains large.

## **Sustainable development**

Majority of the youth live in urban areas, where air pollution is an alarming problem. In 2019, N. Macedonia had the highest annual concentration of PM 2.5 particles in Europe (European Environment Agency, 2019) and 3,400 premature deaths as a direct result of pollution. The enormous air pollution in the winter affects young people's physical and mental health, limits their daily functioning and forces them to stay in their homes (Georgievska and Bojadji, 2020). Despite air quality there are a number of other pressing environmental and sustainability challenges in the country, relating to water, waste and chemicals management, climate change adaptation and mitigation measures, as well as education for sustainable development (UNECE, 2019).

## **Field research: interviews with young people and experts in Urban Gardening**

### **Demographic characteristics**

The interviews carried out with young people ( $n=15$ ,  $M=7$ ,  $F=8$ ), aged between 21 and 28 (mean 14.5). The educational level is extremely high (86,6% higher education, 13,3% secondary education), and all Bachelor or Master holders are currently employed. The vast majority (73,3%) does not participate in an urban gardening project, and only four individuals have participated at some point of their lives. In the context of the field research, most of the young people were familiar with backyard gardens, but only a few were aware of other types of urban gardening activities, such as community gardens.

Interviews were also carried out with experts ( $n=11$ ,  $M=4$ ,  $F=7$ ), aged between 24 and 65 (mean 41.8). The participants are active mostly in the private sector (90,9%) and came from different professional backgrounds, including botanists, agricultural workers, academics and NGOs' representatives that are currently implementing or have previously implemented urban gardening projects

## **Findings**

### **Youth's attitudes towards urban gardens**

Social and technical skills were most commonly assessed by young people as skills that they already possess, while technical and creative skills were

considered as most needed for participating in urban gardening activities.

Many young people noted that, unfortunately, agriculture and gardening are not generally popular among youngsters. They reasoned that this is due to the fact that more and more people are moving away from agriculture as a result of the migration from the rural to the urban areas, as well as that much more needs to be done so that young people would be attracted to urban gardening. They suggested increasing awareness through social media campaigns and educational activities.

In terms of difficulties in involvement in urban gardening activities, they identified a range of barriers faced by those who want to participate. Among the mentioned barriers, the most prominent ones were the lack of a) urban gardening spaces, b) financial support, c) capacity-building/educational activities and d) information on whether and how certain public areas can be used for urban gardening.

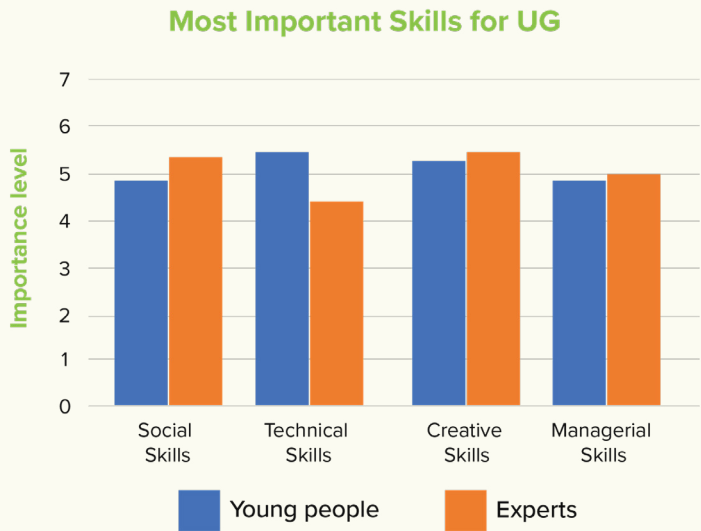


Figure 6.9: Most important skills for UG in North Macedonia

## Youth's motives

Young people had different motives for taking part in urban gardening activities, ranging from learning how to grow organic food, doing something that has environmental benefits, spending more time outdoors and socializing with other people with similar interests. Gaining financial benefits was a motive only for very few of the interviewees.

## Perceived benefits

It was recognized that young people can benefit from urban gardening in many different ways, such as gaining healthy eating habits, improving their knowledge on sustainability and meeting new people. The young interviewees were unanimous that participation in urban gardening activities could potentially increase their employment prospects, but all of them were skeptical that it could become their main source of income in the future. Still, they noted that this might be the case for some of their peers. They assessed food security and environmental aspects as mostly associated with urban gardening, while economic the least associated.

## Experts' experiences

The experts emphasized that adequate legal framework needs to be introduced and urban gardens should be legally regulated and incorporated in the local policy documents. They were vocal that urban planning processes need to be participative, and that the cooperation between the relevant institutions should be strengthened. Additionally, there was a consensus between the experts that urban gardening can help on the sustainable development movement and climate change, not only because it contributes to increasing green areas in the cities and enhancing local food production, but also because urban gardens can set good practices that can be transferred in other contexts.

All of the experts also agreed that urban gardening is a good tool for the development and social inclusion of young people, by helping them obtain working habits, improving their social, technical and other sets of skills, broaden their networks and opportunities for socialization. Many of the experts recognized that gardening can have certain benefits for youngsters' wellbeing too.

Lastly, a spectrum of Critical Success Factors (CSF) for an Urban gardening project were pointed out. The location of the urban garden and its accessibility, the local government support, the management and the gardeners' motivation/

dedication were the factors featuring the top of the experts' CSF lists. In terms of the funding for urban gardening initiatives, all of the experts recommended using multiple sources, including financial support from the local government and academic institutions, donations, grants, research projects, and membership fees. However, they outlined that in the phase of establishing the gardens financial support from the local government is key. The experts indicated environmental and social dimensions as mostly associated with urban gardening activities.

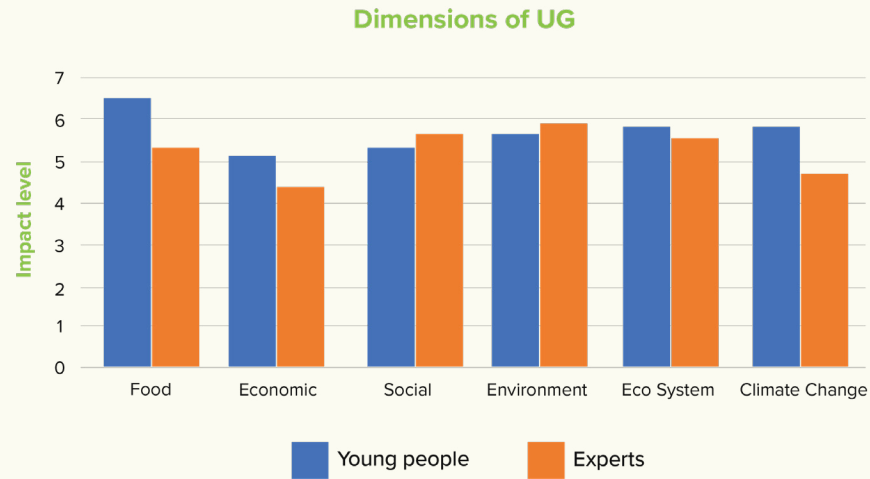


Figure 6.10: Dimensions of UG in North Macedonia

## Conclusions from the North-Macedonian report

In North Macedonia there is a small, but buzzing community of individuals, organizations, and advocates that are embracing urban gardening as a means for improving food access, strengthening community cohesion, increasing the greenery in the cities and enhancing learning opportunities on food production and related environmental issues. The existing projects mainly target the general population, and no activities specifically focused on young people could be identified. Even though relevant institutions are becoming increasingly aware of the benefits of urban gardening and increasingly supportive of such initiatives, there is a lack of legislative and policy framework that would lead to more strategic and coordinated approach. Other barriers include, the lack of urban gardening spaces, financial support, capacity-building/educational activities and information on whether and how certain public areas can be used for urban gardening. Both professionals and young people recognize the benefits of participation in urban gardening to youngsters, but also the wider social, environmental and economic benefits.

## Portugal

### The national context

Urban Agriculture as a concept and purpose is relatively recent in the international sphere and in Portugal. The phenomenon has been exposed by the economic crisis. According to the National Habitat III Report in 2013, 16 of the 18 Portuguese districts develop urban gardens, totaling 27 hectares of productive areas. This accounting represents only a part of today's reality and can be explained, among other factors, by the difficulty of establishing an epistemological cut between Gardens (including Urban) and Urban Agriculture. Regardless of the above, the existing urban gardens in Portugal result fundamentally from two logics: 1) improving the access to food for the poor, for their own consumption, in a line that corresponds to the logic of Southern Europe; 2) or in the attempt to legalise and make «ecologically correct» informal practices in public spaces that do not correspond to the aesthetics of the urban scenario, in the line of intervention of Northern European countries

In Portugal, the following interventions are considered in terms of urban gardening: street vegetation and vegetation barriers along tracks or railways;

small urban green spaces (such as gardens or pocket parks) and playgrounds; green roofs and vertical gardens; urban parks and meadows; green corridors and paths (such as green walking/cycling tracks); coastal, river or lake routes, connecting green spaces with blues; playground equipment and urban gardens (such as community gardens, sports and recreation areas and school grounds); and accessible areas in urban woods, forests and wilderness areas. With greater visibility and potential intervention for the benefit of communities and the sustainability of Portuguese cities, several community garden and urban garden projects are emerging.

The economic and social crisis currently facing Portugal, the increase in unemployment and the reduction in household incomes have also increased food shortages. Several institutions and organizations, in particular municipal councils, have not failed to pay attention to this reality, and have therefore been seeking solutions to the difficulties faced by the local population. Portugal thus presents, for the care of these institutions, some experiences in the promotion of urban and peri-urban agriculture, achieved through the construction of organic urban gardens. We are confronted with several successful projects in this field, spread in more than 23 Portuguese cities, aiming at social support, contact with nature, improvement of the quality of life of the population and a greater environmental awareness.

What has been ascertained is that the sources for financing urban gardening in Portugal are legally and institutionally contextualized with the municipal councils. There is also a public initiative that aims to promote social innovation and boost the social investment market in Portugal - Portugal Inovação Social - but which is not directly directed to urban gardening but to finance projects that propose alternative and innovative approaches to respond to social problems. What happens there is the application and proposal of numerous organizations to implement projects in the area of urban gardening.

## Youth Situation

Considering the current Portuguese population (10,252,341), young people between the ages of 15 and 29 represent approximately 17.59% of the Portuguese population (1,803,391). Regarding unemployment, in Portugal, one in four young people between the ages of 15 and 24 is out of work, or about 25.6% of the total working population at this age. In June, 81,200 young people were available to work and actively searching, but unsuccessfully, according to estimates by the National Institute of Statistics. In addition, 12.8% of these young people are neither studying nor working. And in July 2020, the

number of citizens up to the age of 24 who enrolled in the employment centre increased by 58% compared to July 2019 (CITATION).

## Sustainable Development

Portugal ranks 26th on the list of the world's 30 most sustainable countries, according to the report released by the United Nations (UN), which evaluates the performance of 162 countries in the 17 Sustainable Development Goals (SDGs) adopted in Agenda 2030. The major challenges facing Portugal are related to ODS 2, 12, 13 and 14 (eradication of hunger, sustainable production and consumption, climate action and protecting marine life, respectively) and like most countries, Portugal has had a negative performance in ODS 13 - climate action, which consists of adopting measures to combat climate change in national policies, strategies and planning.

## Field research: interviews with young people and experts in Urban Gardening

### Demographic characteristics

The interviews carried out with young people ( $n=15$ ,  $M=6$ ,  $F=9$ ), aged between 16 and 20 (mean 18.1). All the participants were students during the study (two participants were at university level, five at high school level, and one at elementary school level). In term of participating in urban gardening projects, only one girl had participated four years ago.

Interviews were also carried out with experts ( $n=10$ ,  $M=7$ ,  $F=3$ ), aged between 33 and 50 (mean 42.6). The participants are active in both private (four participants) and in public sector (two participants), and all of them have some experience in urban gardening projects.

## Findings

From the interviews with the *young people*, we can draw the following main conclusions:

- Most young people can perceive the added value and potential of urban gardening (its usefulness, the possible increase in personal and social skills, fostering social inclusion and positive influence on the environment).

- ▶ Most young people understand the benefits of their participation in urban gardening activities as something that can add to their personal life, and they do not seem to be aware of the social added value and possible environmental impact. However, they mostly believe that this activity can become their main source of income.
- ▶ All young people believe that urban gardening is a good tool for the development and social inclusion of young people.

From the *expert* interviews we were able to draw the following main conclusions:

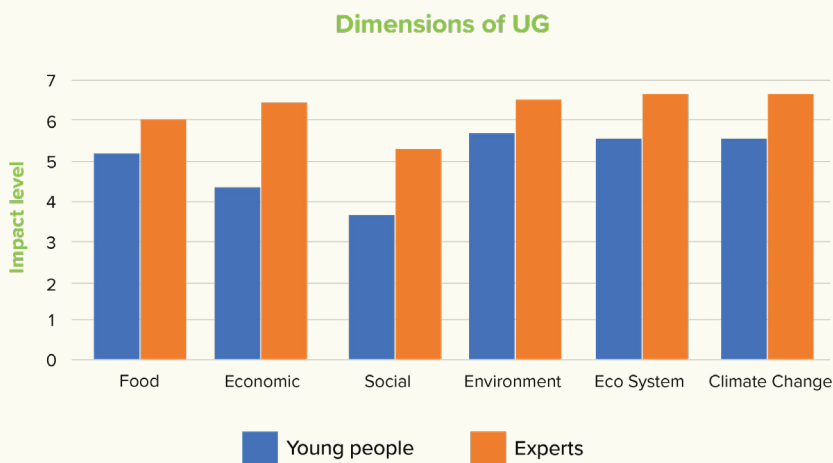
- ▶ For the most part, they consider social, technical, creative and managerial skills necessary for the development of projects in the area of urban gardening.
- ▶ For them, the best strategies to improve the perspectives of urban gardening for young people would be to raise their awareness of climate issues, to enhance the sustainability of our cities, to improve the environmental quality and creating incentives to increase their participation in these activities.
- ▶ As for the possible barriers faced by those who wish to engage in urban gardening activities, the lack of knowledge and technical skills, the lack of incentives for their implementation and the lack of financing were mentioned.
- ▶ All respondents agree that urban gardening contributes to the sustainable development movement and the reduction of environmental impact and is a useful tool for the development and social inclusion of young people.



Figure 6.11: Most important skills for UG in Portugal

Both groups evaluate as very important the technical skills, while creative and managerial are also valued as important. The main difference appears about social skills, as young people value them as very important, while for experts they are not seen as so important.

Regarding the most impactful dimensions of urban gardening, participants in Portugal value environment, ecosystem and climate change dimensions as most impactful. Particularly, experts value those dimensions on average higher than young people, while they also value the economic and food security dimensions relatively high.



**Figure 6.12: Most important skills for UG in Portugal**

## Conclusions from the Portuguese Report

The urban gardening practiced in Portugal corresponds essentially to the productive component and are developed in a more expressive way by the local power or institutions, in public or institutional space, which is explained by the ease of access to land. The existing urban gardens in Portugal result fundamentally from two logics: 1) improving the access to food for the poor, for their own consumption, in a line that corresponds to the logic of Southern Europe; 2) or in the attempt to legalise and make «ecologically correct» informal practices in public spaces that do not correspond to the aesthetics of the urban scenario, in the line of intervention of Northern European countries.

In conclusion what can be seen from the data analyzed is that urban gardening activities demonstrate an enormous opportunity and a promising and emerging sector in Portugal that urgently needs to be promoted, through programmes and policies that favour access to land and space to house the remaining components of the urban food chain, contributing to the social well-being of the populations, the improvement and preservation of the landscape, but also to the development of the local economy.

The continuity of urban agriculture should be enhanced with the main objectives of enabling urban gardens to form a continuous productive network

along the municipalities, contributing essentially to food security and reducing the ecological footprint. And, on the other hand, to promote the sharing of knowledge between generations, with a view to the social inclusion of both young and old, guaranteeing the temporal continuity of urban gardening activities. The main actions likely to achieve the above-mentioned objectives of this measure are the urban design which should now include urban agriculture both in green areas resulting from new and existing interventions and also in areas of patio and equipment and the promotion of intergenerational horticultural activities.

## Transnational Report

From the six national reports that the desk research of our study consists of, there are some unique characteristics of each country, but also some common themes and trends. There are significant differences between the case studies: for example, Germany is one of the biggest and most advanced countries in EU, while North Macedonia, Iceland and Lithuania belong to the group of the smallest countries of the Union. In parallel, Greece and Portugal are coming from a long period of economic recession. In this context and despite that there are common characteristics between all countries of our study, we need to be cautious regarding comparisons and generalizations.

Nevertheless, EU's policy about sustainable development, the ongoing discussion about climate change and the UN SDG's, raised awareness all over Europe and all EU countries proceed to reforms and the introduction of sustainable solutions in their economies. In this context, urban gardening is one of the current topics in the agenda of the most of the European cities, as includes several social, environmental, economic and eco system dimensions. Although all six countries of this transnational study belong to the EU, the unique characteristics of each one, due to social, cultural and economic factors, affects in a different way the concept of urban gardening in each one.

For instance, in Germany with the exception of the urban gardening activities that addressed to refugees and migrants, urban gardening is mainly a hobby for the German citizens in the local communities. On the contrary, due to the economic crisis that Greece and Portugal went through last decade, urban gardening was developed mainly as a mean to combat urban food deprivation for those who affected most by the crisis. However, apart from the food security dimension, the crisis revived the sense of community and solidarity in the neighborhoods of the cities, a phenomenon that is visible in Greece, Portugal and Iceland. Lastly, Lithuania and North Macedonia are doing their first steps into urban gardening projects and we still need to see how this will continue.

Regarding the institutional context, municipalities appear to be in all countries a catalyst for the creation and development of urban gardening initiatives. This fact leads us to conclude that that local authorities is the key to expand urban gardening. Therefore, a decentralization of sustainable development policies, including the urban gardening, might be a good solution for all countries. A private/ business sector involvement in urban gardening is reported mostly in Germany and Iceland and not so much to the other countries of our study. Lastly, the involvement of young people into urban gardening initiatives appears to be more usual in Germany, Iceland and Lithuania.

Youth situation varies among the countries of our study. Germany is a robust economy with very low youth unemployment. On the contrary, Greece is a “champion” of youth unemployment for many years now. In the other countries of our study, youth situation goes more or else in parallel with the wider economic and social conditions. However, a common need in most of the countries of our study is to provide more opportunities to the young people, regarding education, social and labor market inclusion.

Last but not least, sustainable development is one of the main priorities of EU and all member states. In this context, all countries of our study have been involved in the process to reduce pollution and create a friendlier eco system for their citizens. This process includes various policies, as the introduction of renewable energy sources and the development of a circular economy. In our study, Germany obviously needs to proceed in many changes as a heavy industrialized economy, while North Macedonia and Lithuania for instance, have other priorities regarding their adaptation to the sustainable development process.

## Policy Recommendations

In this final section, policy recommendations are given based on the aforementioned conclusions and results, according to the level of application, the relevant policy makers and also an indicative time horizon; particularly, the three different levels of application are the local, national and European level. In this regard, our study’s conclusions and recommendations can find application in all the levels of the European pyramid, from local to pan European. Additionally, the division of policy recommendations can also apply to a timeframe. Particularly, the recommendations in the local/ regional level can be applied in a short-term time period (less than one year), while the

recommendations for the national level in a mid-term time horizon (1 to 5 years). Lastly, the recommendation for the EU level can have a long-term time horizon, until 2030, in parallel with the EU 2030 climate and energy framework.

### **Policy recommendations for Municipalities and Local Communities (short-term time horizon)**

- ▶ Municipalities and Youth Organizations to organize urban gardening activities and training activities for vulnerable youth.
- ▶ Municipalities and Civil Society Organisations to develop synergies with local businesses, in order to connect urban gardening with the local labour market.
- ▶ Youth and Civil Society Organisations to develop synergies with health institutions in order to harness urban gardening's potential to help people with depression, anxiety psychological problems.

### **Policy recommendations for the National Governments and National Policy Makers (mid-term time horizon)**

- ▶ Introduction of urban gardening activities in schools (extra curriculum).
- ▶ Initiatives to develop urban gardening activities in universities and funding of the best practices.
- ▶ Develop a network of synergies between universities, Civil Society Organisations and local businesses in order to connect urban gardening activities with the labor market.
- ▶ Create incentives for businesses to include urban gardening in their Corporate Social Responsibility (CSR) activities.

### **Policy recommendations for EC and EU member states policy makers (long-term time horizon)**

- ▶ EC and National Governments to create a friendlier institutional and legislative framework for urban gardening.
- ▶ EC to render urban gardening a priority for the cities' sustainable development.
- ▶ EC to create a program similar to Erasmus+ for funding urban gardening activities in Europe.

## Annex II. The second part of Research

### Methodology

The current research included a) a secondary (desk) research and b) a primary (field) research. In the secondary (desk) research, part of the national level we identified the context of urban gardening, but also the general situation of young people and sustainable development process.

In the primary (field) research, interviews conducted both with experts in urban gardening field and also with young people in all countries. Experts shared their experience regarding the reality of urban gardening in their local and national context and they also gave useful insights about the potential of urban gardening, what is needed in order to grow further and the impact can have on individuals, society and the eco system. The young people, which is the target group of the project, gave their views and perception about urban gardening and its potential for themselves.

### The Research Question

The main research questions are:

- i. How urban gardening can become more beneficial for the young people?
- ii. How we can harness its various implications for a) youth, b) community and c) the eco system?

For the best understanding of the urban gardening topic, the investigation of the following sub- questions is crucial:

- a. What is the institutional context of urban gardening, the youth situation and the sustainable development in the countries of our study?
- b. What is the perception and the knowledge of young people about urban gardening?
- c. What skills required to participate in urban gardening activities?
- d. What is the potential of urban gardening regarding social and labour market inclusion?

- e. What are the training needs that marginalized youth should have in order to be involved in urban gardening?
- f. Which are the most prominent dimensions of urban gardening?
- g. Which are the Critical Success Factors (CSFs) that contribute to a successful Urban Gardening activity?
- h. How urban gardening can contribute to the sustainable development process, the climate change and the eco system dimensions?
- i. Which are the policy recommendations for developing the concept of Urban Gardening?

## Research Tool

The research tool used for the field research was an interview guide, different for each target group with some similar questions, which was based on the relevant scientific literature from the fields of ecology studies, urban studies and the limited until now urban gardening literature. In the first part of the interview, the aim was to research and collect the interviewees' perception and opinion about urban gardening's potential, in that part, collection of useful data such as demographics of the participant and information about their background took place. In the second part, of the interview, there were open-ended questions that would allow participants to express their views in a more detailed and personal manner that is always useful and required to explore a task like the examined one where not much information is available.

## Design of the study

The analysis used for both a type of research allowed to collect a remarkable number of both quantitative and qualitative data, in order to develop a report that encompasses a broad range of perceptions and views. The outmost scope of this study is to contribute in the growing need of urban environments to become more inclusive, sustainable and eco-friendly. More specifically, the design of the study, which is divided in a desk and a field research, is described as follows:

## Desk research

**Methodology:** Case study approach.

**Method:** Content Analysis/Documentary Analysis.

**Reliability:** Context Reflection and Peer Review.

## Field research

The main points of the design of the research are given as following:

**Research Type:** Formal exploratory qualitative research, using the standard protocol of face-to-face, in-depth interviewing.

**Research design:** 25 in-depth interviews in every project country.

[each participant to collaborate and run the research at their country and collect/provide the data/outcome for further process].

**Sampling method:** Purposeful/snowball by use of screener *or* other.

**Sample description:** 15 youth, 10 experts in the field of urban gardening.

**Conduction:** Face-to-face, on pre-arranged meetings at respondent's convenience.

**Duration of interview:** 1 hour.

**Method of recording:** Digital audio recording and/or note taking.

**Fieldwork:** two months in H2' 2020.

**Documentation:** Discussion guide, screeners, profiles.

## Limitations of the Research

The research has been designed according to the characteristics and needs of the URBAN project and particularly the intellectual output 1, which is this particular Handbook. In this regard, the methodology of the study and the methods (desk research and field research) had to comply with URBAN project's scope, which is to explore the impact of urban gardening to youth, eco system and society in general.

The research tool of the field research, which is the interview guide/questionnaire, based on the need to explore urban gardening's situation and potential and so to the relevant academic literature regarding urban gardening. Particularly, the dimensions, impact and implications of urban gardening

were identified through relevant academic papers from peer reviewed journals, chapters from collective volumes and also from reports published by institutions, like the European Parliament (EPRS, 2017). Therefore, the design of the study is based upon a solid basis. However, in the context of an Erasmus+ project and in order to identify as many more implications as possible, our study could not deeply focus and explore a unique topic. For instance, this study identifies various dimensions, such as social, economic, eco system and others. In this regard, our analysis covers a wide spectrum of dimensions, with all relevant strengths and weaknesses, from an academic perspective.

The topic of urban gardening and youth lacks of prior research studies and is mainly an unexplored field. In this context, the research team had to identify the general dimensions and implications of urban gardening and then to adapt them according to the special characteristics and needs of our target group. Additionally, urban gardening and its implications with the climate change and the sustainable development process is also an unexplored field, which has been raised in public discourse only recently. Moreover, in the countries of the sample, like North Macedonia, Lithuania and Greece, where young people are not so familiar with urban gardening activities, their answers appear to have a lower validity, compared to those of experts, who are experienced in urban gardening. For this reason, different target group/samples were divided and a different analysis was made for each one of them.

The sample size of the field research can be characterized as large, in both national level per country but also in a European level. Particularly, the numbers of the units of analysis (90 young people and 58 experts in total) ensures that the sample is representative of the groups of people to whom results will be generalized and transferred. Taking into consideration that there are few studies regarding urban gardening and the youth in a European level, our sample's size and the results are relevant and significant. However, we need to highlight that especially for the young people, the selection of participants did not follow a certain method in all countries and we can say that the units were selected randomly, meaning that apart from the age and a relevant vulnerable background, no other common requirements were followed in all countries. For the experts, the sample of your study can be considered as reliable, for the reason that in most countries, experts in urban gardening are not many and so it's hard to find such a number for a relevant study (58 in total).

## How young people see Urban Gardening?

In this section, the second research question namely “What is the perception and the knowledge of young people about urban gardening?” is addressed.

Urban gardening seems to be not so popular yet, for the majority of the young people. As we saw above, 67% of the young people who participated in our study stated that they had never participated in urban gardening activities. Nevertheless, almost 1 out of 2 participants (specifically 45%) is aware of an urban gardening activity in their local community. The overall perception about urban gardening is positive from the young people. Young participants in our study value urban gardening as a great opportunity to meet new people and socialize. Therefore, the social dimension of urban gardening is one of the most significant conclusions of our study. In this vein, policy makers should harness the power of urban gardening to include the youth as a major stakeholder.

In this context, a network of synergies between youth organizations, universities and Civil Society Organisations (CSOs) can contribute significantly in urban gardening development through youth. Moreover, the role of educational institutions, such as universities and also businesses through Corporate Social Responsibility, can connect urban gardening with the labour market. Such joint ventures can have multiple benefits for the economy and the general eco system.

Moreover, young people are in the front line of the climate change movement worldwide, as the new generations are those who will inherit the planet in the following years. In this vein, the results of our study shows that young people identify a clear correlation between the climate change and urban gardening's impact on the environment. Therefore, urban gardening can be a raise awareness tool, but also a good practice towards a sustainable and friendlier for the human beings eco system. In this regard, youth organisations and CSOs/ NGOs that promote the protection of the environment, should include urban gardening as one of their best practices to combat climate change. Moreover, the best way to make young people aware of the value of urban gardening is the introduction of urban gardening activities in schools. By allowing young students to be trained in vegetable gardening in urban areas, guarantees that many if not the most of them, when they grow up, would rather easier participate again in urban gardening activities.

### ***Skills, competences and a tentative training curriculum***

In this section, both the research questions 3 and 4 are analyzed, which are “What skills required to participate in urban gardening activities and the potential of urban gardening regarding social and labour market inclusion?” and “Emphasize the training needs that marginalized youth should have in order to be involved in urban gardening” respectively.

A very significant finding of our study is the fact that both experts and young people value social skills as the most useful category of skills for participating in urban gardening activities. From the four categories of skills (social technical, creative and managerial), that of social skills gathered the most positive rates from the majority of the participants from both groups. Therefore, both experts who have experience from urban gardening activities, but also and young people who have a different perspective, acknowledge that skills such as communication, empathy and co-operation are the key to successfully participate in an activity like urban gardening. However, on a second level technical skills and even managerial and creative are also important because urban gardening is not only about socialisation and communication, but there is also an actual outcome that must be produced. In this context, every urban gardening planning, should secure that participants already acquire or they will be trained in technical and managerial skills. Creative skills cannot be taught, since it is an internal capacity of human beings. However, by making training more interactive and interesting, creative skills can grow among the participants.

In this context, the training of young people for participating in urban gardening activities, should start with the development of social skills. It is important to make clear to the trainees that urban gardening and gardening in general is a group activity that requires team work, cooperation, discipline and caring. There is a unique characteristic in gardening as the individual should cooperate not only with other people, but also with the soil, the seeds, the water and all the other elements that compose the eco system/ environment of the garden. Someone who cannot feel empathy for the leaving beings, but also for the trees, flowers or plants, maybe it's not capable of being involved in urban gardening. Therefore, soft skills and social skills are of outmost importance in a training curriculum about urban gardening.

Additionally, as urban gardening is also a practical activity with measurable results (products) the training curriculum should also contain technical and

managerial modules. Guidelines, steps and tools on how to create, develop and sustain a garden are essential for any gardener. Particularly, according to the ratings of participants in our field research, regarding the most useful skills for urban gardening, but also from the answers they gave to the open ended questions, we propose a tentative curriculum for an urban gardening training for young people:

- ▶ Soft skills/ Social Skills (communication, empathy, active listening etc.).
- ▶ First-aid.
- ▶ Basic Project Management.
- ▶ Funding Opportunities.
- ▶ Plant biology and identification.
- ▶ Garden chemistry, water and soils.
- ▶ Equipment safety.
- ▶ Ecology principles.
- ▶ Insects and Beekeeping.
- ▶ Plant pests and diseases.
- ▶ Gardening.
- ▶ Nutrition.

## Dimensions of Urban Gardening

In this section, research questions 5, 6 and 7 are addressed; these are “Which are the most prominent dimensions of urban gardening?”, “Is urban gardening useful for social and labour market inclusion?” and “Can urban gardening contribute to the sustainable development process, the climate change and the eco system dimensions?” respectively. Particularly, the six most prominent dimensions are analyzed and also participants’ view about each one of them. An emphasis to those dimensions is given, in which participants highlighted most and the climate change and eco system dimensions are among them.

As it can be seen above, urban gardening is a concept with various implications and dimensions. In the design of the study, it was chosen to focus on six general dimensions, namely food, economic, social, environmental, eco system and climate change dimensions. From the answers of the participants and from

the ratings in the relevant Likert scale question, most important dimensions of urban gardening are identified the social, the environmental and the climate change dimension. The climate change dimension and the food are also rated high enough to be considered crucial, while the economic dimension is valued as not so important for urban gardening, according to the participants of our study.

From those findings, it can be assumed that urban gardening is associated very much with a positive impact to the environment and the eco system. Therefore, it is important for policy makers, but also for the civil society organisations (CSOs), which promote the environmental protection, to harness the dynamic of urban gardening and connect it with the overall process towards a sustainable development and a friendlier eco system. For policy makers of the EU level, urban gardening could be included in the redesign of the cities for adapting to climate change and supporting sustainable development.

Regarding the other dimensions, which have been rated lower than those above, it is assumed that urban gardening still has not reached its full potential. In this context, it was identified in the study a relevant scepticism and even negativity about the economic dimension and the potential of urban gardening to increase young people's chances to find a job. This is a very important finding, since the economic and the employability potential of urban gardening is still an unexplored opportunity. The limited growth of urban gardening activities in the most of the EU countries, seems that makes people unaware of urban gardening's potential to be a platform for economic growth. The few best practices seem that are not enough to promote urban gardening's dynamic.

However, in cases like those of Greece and Portugal, urban gardening was one of those solutions that supported food security in the urban centres, during a period of deep economic recession. In this vein, urban gardening under certain circumstances can combat food deprivation for those people who belong to the most vulnerable groups of society. A policy recommendation in this regard, is for local Municipalities and Civil Society Organisations to organize urban gardening activities for vulnerable youth, together with local businesses, in order to connect urban gardening with the local labour market.

Lastly, as it can be seen above with the great value participants give to the social skills, the social dimension is equally significant with those of environment and eco system. It is a common theme in the majority of both experts' and young peoples' answers that urban gardening is an ideal platform for socialization and social inclusion. For instance, in Germany urban gardening is used as a tool

for the social inclusion of migrants/ refugees. Additionally, in most of the best practices we identified in the context of our study, urban gardening projects are based on a community and solidarity spirit of the local neighbourhoods. Especially in the cities, where loneliness and alienation are common phenomena for a big number of people, urban gardening is an opportunity for those who seek a gateway from their boredom and loneliness. Moreover, urban gardening is one of those few modern activities that allow individuals to interact both with other people, but also with the natural environment. Therefore, the actual social and psychological impact of urban gardening should lead all relevant institutions (like municipalities) and stakeholders to introduce more urban gardening activities in their local community.

### **Critical Success Factors (CSFs)**

In this final part of the conclusion section, the research question 8 “Identify the Critical Success Factors (CSFs) that urban gardening can be a success activity” is addressed. Based on experts’ responses, the most common and important CSFs were finally identified.

In the interviews with the experts, the identification of the critical success factors (CSFs) was set, which according to their experience, could secure that an urban gardening project will have success and continuity. Their answers can be divided in two categories: the material/ technical and non-material/ intellectual ones. Regarding the material CSFs, the majority of experts argued that factors like the location, soil, water etc. are of outmost importance, for the reason that constitute the base where the gardening activity will be built upon. Those conditions are obviously not so easy to find in an urban environment. Additionally, funding is also crucial, for the reason that economic resources are vital for the development of any project that requires infrastructure, tools, possibly logistics and working hours. In this regard, it is critical for any urban gardening project to secure a proper funding and also the right conditions to create the garden.

The other category of CSFs is the one of non-material/ intellectual ones, which actually is all about people. In other words, the human factor is obviously critical and particularly the competences, skills, leadership, coordination, team work and determination of those individuals who participate in the urban gardening project. Therefore, the experts in our field research, but also the relevant literature review, indicates that proper training, coordination, joint ventures from multiple stakeholders and leadership are the CSFs that can ensure the development and continuity of a successful urban gardening project.

## Conclusions

In this section, the main conclusions of the research are presented.

### ***The institutional context of urban gardening, the youth situation and the sustainable development in the countries of our study***

In the first part of the conclusions, the first research question of the study is addressed, regarding the general context of urban gardening in the countries of our study, the youth situation and the sustainable development process.

The urban gardening status and conditions varies across the countries of our study, since there are significant differences regarding the institutional, social, cultural and economic context. For instance, in Germany urban gardening is mostly associated with the socialization and hobby dimension. However, as this study, Germany is seen as a pioneer of harnessing urban gardening for the social inclusion of migrants/ refugees, so there is a significant social inclusion implication as well.

On the other hand, in Greece and Portugal urban gardening are mostly associated with food security and the solidarity movements that grew during the long economic crisis that these countries went through the last decade. Iceland has a recent tradition in urban gardening initiatives, with both a social and business background, while the factor of sustainable development is also taken into account. Lastly, Lithuania and North Macedonia are more or less in an initial state of urban gardening, with differences also between them.

A common characteristic, especially in Portugal, Greece and Lithuania, is the crucial role of municipalities in urban gardening initiatives. It seems that in those countries, municipality is the main institution that develops, funds and coordinates urban gardening activities in the local communities. Similarly, Germany as a country with a decentralized institutional and governance system, develops urban gardening activities through local authorities and other regional institutions, promoting mostly the concept of “community garden”, which is also a tool for social integration for migrant and refugees.

There is a process of reformations and shifts in policy recently in EU regarding sustainable development and also an ongoing discussion about climate change. Additionally, Europe also implements the adaptation with the UN's Sustainable Development Goals SDG's. In this vein, all countries of our study, as it comes out for the desk research, implements reformations and the introduction of sustainable solutions in their economies. Of course, there is big

difference in those policies, since for instance Germany is one of the greatest industrial and economic powers in the world, while North Macedonia is a small and emerging economy. However, it is noteworthy that urban gardening does not appear to be a high priority, at least in the central main policies of the EU states.

As for the youth situation, also there are differences between the countries of our study, for the aforementioned reasons. A common theme however is the need to support youth employment and social inclusion in all contexts. Especially in some countries like Greece, North Macedonia and Portugal, the youth sector faces a growing vulnerability regarding the new conditions in the labour market, but also for social inclusion, education and life-long learning. Therefore, a policy recommendation would be to adapt urban gardening strategies according to the unique cultural, social and economic context of each country. However, a common characteristic of all strategies should be sustainable development, since climate change adaptation and the creation of a friendlier eco system is a universal concept, which applies to all environments.

## Annex III CASE STUDIES & BEST PRACTICES

### General

This chapter aims to provide some good examples/ best practices of Urban Gardening in the EU level. Although there are significant differences regarding the institutional, economic and social context of each country of this study, the case studies identified work as an “Urban Gardening ambassador” of each country. In this chapter, case studies were selected as those that better depicts each national context and also has a transferability potential for other contexts.

The structure of each case study below follows a certain pattern in all of them. After a short description of the case, we provide a short analysis about the impact of the project in the local community or in a wider context. Then, we seek for the innovation aspect of the case study, since it is important to identify the unique element and the added value of a project that works as a “best practice”. Finally, the transferability of the case study will allow the reader to realize that good ideas and good projects can inspire positive change in other contexts as well.

In the main section below, we present the case studies according to countries’ alphabetical order. Particularly, the first case study comes from Göttingen, Germany and its named “International Gardens”. Since one of the main scopes of the URBAN project is social inclusion, the International Gardens in Göttingen, provides a good example on how urban gardening can be a useful tool for the social inclusion of migrants/ refugees in the host country. Second is the case study from Greece, which works as another best practice with an academic background. The “KIPOS<sup>3</sup>” initiative is an idea that came into practice from three students of the Aristotle University of Thessaloniki. That project is unique because it highlights the impact that science and academia can bring to society, even in the form of “bottom-up” initiatives.

The third case study comes from Iceland and is the “Seljagarðar” project, which is an urban garden in Reykjavík. This case is also significant for the reason that shows how a local community can implement a successful urban gardening project, with added value the usage of renewable sources of energy. In a similar context, the fourth case study from Vilnius, Lithuania promotes the value of urban gardening as a tool for socialization and enhancing the community spirit

in the neighborhood. Particularly, “Ideas Garden” works as a meeting place for families and individuals to socialize discuss about climate change and other topics and also to work together on creative experimentations.

The fifth case study comes from the capital of North Macedonia, i.e. Skopje. Taking into consideration the initial stage of urban gardening in the country, the community garden “Bostanie”, which established within the project “Developing the First Urban Garden in the City of Skopje”, is a project of great value. “Bostanie” is a joint venture and allows citizens to cooperate and grow a certain amount of food. Last but not least, the sixth case study is the project «Horta à porta» - Biological Gardens of the Porto Region. Municipalities is the most important institution regarding urban gardening in Portugal and the project «Horta à porta» works as a good example in the creation of vegetable gardens and the promotion of organic farming. Moreover, the project includes a synergies dimension with a transferability added value.

## Case Study Germany – International Gardens (Göttingen)

### Description

The «International Gardens» were established in 1996 on initiative of refugees, migrants and German families in self-organisation in a gap between buildings in Göttingen-Grone. Immigrants with secure residence and refugees from civil war areas wanted to take their lives into their own hands again. The central idea behind starting the initiative was to share solidarity with refugees and to help them to integrate into the German society with their own initiative and unique ways.

For some migrants, relocation means new social opportunities. For others, it could mean fear of the unknown future, resentments about personal loss or trauma. At the International Gardens each of them is provided with opportunities to learn and evolve, starting from his or her individual situation.

As a nationwide recognized project of intercultural work and civic engagement, the International Gardens in Göttingen have had an important influence on

many cities that host related garden projects – regarding ways of sustainable and self-empowering civil engagement. The association is a model initiative for peaceful cooperation amidst the social and cultural diversity of the host country, Germany.

## Impact

Due to the commitment within the scope of our work, two members were able to obtain permanent positions, and about 30 temporary jobs were created. More than 15 diploma students received professional support from us and a large number of students from universities throughout Germany were advised, and many young people did charitable work in the gardens. Today, the association has 85 members from 19 countries of origin - local and immigrant families and single people with very diverse cultural backgrounds and from different social milieus, lifestyles and ages. A total of around 200 people use the project gardens for various events.

## Innovation

The innovative aspect of this initiative is to foster social inclusion through joint gardening activities. The International Gardens are based on the basic principle of gathering common experiences, to learn together and grow together. They don't want to leave migrants on the margins, but try to build bridges to the middle of society. To this end, they offer shared experiences, only then can a common language be developed. So far they have been living these principles with great success at the level of practical action.

Since its foundation this remains the main focus of the work. They want to offer another approach to integration than through the “normal” processes foreseen by the respective regulation. They want to empower people and give them a way to take their lives into their own hands. Moreover, urban planning, ecological and health aspects of the Internationale Gärten are becoming increasingly important in terms of peaceful neighbourhood, revitalisation of urban district work and as green spaces for experiencing nature.

## Transferability

The founders of the Internationale Gärten had to overcome many barriers, as they were not familiar with legal processes. But they overcame all these barriers and pass on their knowledge and experience to others. The gardens

have become a model and source of inspiration for many other international and intercultural gardens through-out Germany. And new ones are constantly being added! In the gardens the members welcome multipliers and pass on their experience.



**Figure 7.1: Friedensgarten in Grone**

**Source: Sabine Wiemann, BUPNET**

In the above picture, it is shown one of the three gardens that belong currently to the Internationale Gärten in Göttingen.

The members of the Gardens actively participate in campaigns in the districts of Geismar and Grone and inform about their work at the annual Göttingen cultural fair and the health market. They work closely with the Göttingen Integration Council and are involved in the Network Migration, an association of more than 50 organizations from the city and the district, which works to promote the integration of immigrants, repatriates and refugees.

#### **More information**

**<http://internationale-gaerten.de/>**

## Case Study: Greece – KIPOS<sup>3</sup> Project (Thessaloniki)

### Description

In the Greek context, an innovative “bottom-up” Urban Gardening idea was born in an academic environment by three young women - students. More specifically, in the Joint Postgraduate Program Landscape Architecture, School of Architecture, Aristotle University of Thessaloniki, entitled: “Architectural Design and Landscape”, the students Eleftheria Gavriilidou, Eleni Oureilidou, architects and Maria Ritou agriculturist, designed and implemented the project: KIPOS<sup>3</sup>, a network of community gardens in the city of Thessaloniki. The basic concept of that idea was the transformation of unformed spaces and urban voids into spots for community activities and specifically urban gardening, in order to achieve a broader impact on the citizens of Thessaloniki. The concept idea of the three students was chosen by Angelopoulos CGIU Fellowship as a change-maker commitment and together with the support of the Municipality of Thessaloniki and other local institutions and stakeholders, launched its first activities in 2015.

### Impact

The basic scope of the project was to motivate citizens in Thessaloniki to harness the power of community spirit in a public space. Moreover, participants in such a project could also appreciate the value of productive landscapes and the impact of collective engagements on the local community. In this vein, after the mapping of several places around the city, an abandoned field in the center of the city close to the Kaftantzoglio stadium of Thessaloniki, became the first garden for the neighborhood. The garden was placed next to an existing public vineyard, sustained by locals, volunteers and students from the School of Agriculture. The gardens of KIPOS<sup>3</sup> project was given for use to local families according to social criteria and they also enjoy guidance and mentoring from experts and scientists. Moreover, the gardens work as a meeting place for the locals. According to the founders of the project, the KIPOS<sup>3</sup> initiative includes social, academic, economic and ecological dimensions.

### Innovation

In the context of our research and the URBAN project, the case of KIPOS<sup>3</sup> is a best practice and a great example about the potential to connect the academic community and particularly the universities with the local community

and achieve various social, economic and sustainable development goals. A postgraduate programme, the determination and guidance of the professors and especially the vision and motivation of the students to harness their knowledge for social impact, are the basic elements of a process that shows the significance of science for the everyday life of people and also for the environment and the eco-system. Moreover, the call for more “public green” spaces for environmental and recreational reasons in urban contexts, renders the initiative of KIPOS<sup>3</sup> project a best practice example for the reason that it was an initiative well-planned and well-designed, inside an academic context, by using a scientific methodology.

### Transferability

The best practice we identified in the Greek context is an initiative of three students from the Aristotle University of Thessaloniki, who achieved to transform their knowledge into practice, through the development of an urban gardening project in the centre of the city of Thessaloniki, involving also the local authorities, citizens and other stakeholders. The transferability potential is obviously great for all contexts in the EU. Since the academic community is one of the most respected and traditional institutions in Europe, the current situation with climate change and the need for sustainable development, calls for a new approach in the interaction between the academia and society. In this vein, at least the STEM disciplines, but also the humanities, should find ways to turn their ideas into practice, in order to have a greater impact in society and the eco system. The KIPOS<sup>3</sup> project is a good paradigm towards this direction and it would be great if more academic initiatives could have such practical results.



**Figure 7.2: Gardens in the centre of Thessaloniki, Greece.**  
Source: <https://parallaximag.gr/parallax-view/kipos-is-ton-kivo>

In the above photo, a part of the gardens located in the center of Thessaloniki in Greece is presented. The garden has been organized and run by the KIPOS3 project.

### **More information**

Gavrilidou, E., Kleinmann, H., Oureilidou, E., & Zafeiropoulos, S. G. (2015). Urban Agriculture in Thessaloniki. An academic project meets reality. *Ri-vista*, 13(2), 60-85.

<https://parallaximag.gr/parallax-view/kipos-is-ton-kivo>

## **Case Study: Iceland – Seljagarður (Urban garden in Reykjavík)**

### **Description**

Seljagarður is an urban garden in Breiðholt neighbourhood in Reykjavík. It was founded in 2014 by volunteers and community members and is privately run since 2014. Reykjavík city provided the land and several organizations in the neighbourhood have supported the initiative, with plants, facilities, grants, and cooperation projects, people can also donate to the garden. Seljagarður builds on the ideology of permaculture and provides gardeners with access to greenhouses as well as providing support and training to newcomers. Seljagarður community is active and organizes several events for participants as well as hosting and organizing training and outreach to the multicultural community in Breiðholt. Members pay an annual fee for renting out gardens, 20 m<sup>2</sup> plot 5.000 Iskr. For private 30 m<sup>2</sup> 7.500 Iskr. And for a greenhouse plot 3.500 and 2.000 Iskr. if the plot is an addition to an outside plot. Then people can volunteer to work in the gardens and then they do not have to pay anything.

### **Impact**

Seljagarður is built upon the transnational ideal behind urban gardens and permaculture and run by young idealists fighting climate change and global warming by introducing a more sustainable way of living. They want to change how people think about growing (Seljagarður, 2020). “Iceland has enough space and access to cheap energy to provide its people with local food. Still we import most of our vegetables. The vegetables cultivated in commercial greenhouses demand a lot of energy consumption and therefore the concept

seasonal growing is not commonly understood”. Seljagarðar emphasise that all their vegetable is made with renewable energy, making it environmentally friendly (Seljagarður, 2020) “we want our gardening to teach sustainability in a practical way so that people learn how to become proactive urban gardeners.”

## Innovation

There exists no such model in Reykjavík and the majority of commercial greenhouse in Iceland use a lot of energy over the winter months to grow a limited range of vegetables. The standard glass greenhouses are simply not adjustable to the extreme weather conditions we have in Iceland and they want to pass on gardening knowledge has been lost since the past decades. The objective is to teach sustainability in a practical way so that people learn how to become proactive urban gardeners. They also want to introduce removable greenhouses in public areas that do not need building permits as it can take years to get construction permits and might conflict with ideas on the future development of the area and the design needs to be adapted to the urban landscape. One approach would be looking into our heritage both for visual and practical inspiration, like using turf and other accessible building material to isolate green houses.

## Transferability

The transferability of the concept is easy, and it fits with city policies in urban farming, the challenge is to promote this option to community members as well as idealists like the ones behind Seljagarðar are rare. While Seljagarðar are somewhat like Gróandi, at least in the permaculture methodology, it provides all necessary elements for the Urban Gardening project approach to use such gardens for training and empowerment of young people. The founders and coordinators are young people just over 30 years old and driven by the ideal of sustainability, they are open to new ideas and have throughout the years that the garden has been run taken part in several initiatives with the city, nearby pre-schools and would be an excellent location for youth training and empowerment.



Figure 7.3: Green-houses and garden plots for lent in Seljagardur  
Source: [www. Seljagardur.is](http://www.Seljagardur.is)

#### **More information**

<https://seljagardur.is/about-our-urban-garden/>

### **Case Study: Lithuania – Idėjų Lysvė Pilaitėje (Ideas Garden – Vilnius)**

#### **Description**

Community garden “Ideas Garden” is a project that seeks to bring local residents together, involving students, families, seniors and other groups into an active, friendly and creative community sharing a common focus on their environment and love of nature, through “soft” and continuous activities. The project aims to:

- ▶ Create opportunities for the community to engage in creating place making and the building of an organic and sustainable neighborhood
- ▶ Promote environmental reactivation, social inclusion and local knowledge sharing;
- ▶ Involve young people, families, children and the most vulnerable groups of the community through social activation and gardening;

- Promote professional, educational and scientific cooperation locally and outside Pilaite district.

The first works of establishment of the garden started in September of 2019 next to the community and cultural center BEEpart. Ideas Garden rationally made use of all available local resources – BEEpart building has functioned as a place for storage of garden tools, there was also an outdoor toilet and electricity in place. There are 20 soil beds available and several types of fruit trees and bushes planted in the gardens. Cooperation with the community center, which was already known to locals, helped to attract people easier. Main user groups include young people and families with kids. Some participants from the elderly also join activities from time to time.

## Impact

In Ideas Gardens participants are invited to experiment and co-create the space through “Bottom-up” and DIY activities, while building furniture, making soil beds, growing novel breeds of plants. All activities are performed on voluntary basis, they help to improve social and interpersonal skills, for instance: teamwork, constructive thinking, problem solving, creativity, tolerance, self-motivation and responsibility. A common area (so called “Recreational zone”) was recently created in the territory of gardens, where community members can meet, engage in discussions and solve various issues related to their neighborhood and surrounding areas.

## Innovation

Ideas Garden, together with community and cultural center BEEpart, becomes a platform for creative and social innovation. It aims to improve local social climate, to promote dialogue, gather community, and inspire people to engage in experimentation, creativity and cooperation. The key goal of Ideas Garden is not the actual gardening (planting, growing vegetables, etc.). The essence of community garden lies in all activities that happen next to the garden: community gatherings, various discussions about climate change, creative experimentation, and socialization. Ideas Gardens became a place, where members of local community meet, get to know each other and solve problems that exist in their neighborhood.

## Transferability

Overall vision of Ideas garden is to help communities to move from “consumption” towards “creativity”, while creating “common goods”. There is an obvious need for urban gardening activities in Vilnius – these initiatives help to unite communities and engage them in social innovation, creativity and experimentation. To achieve this, it is crucial to identify right methodologies and gain more practical knowledge.



Figure 7.4: Community garden Idėjų Lysvė  
Source: <https://www.facebook.com/idejulysve>

In the above picture, the Community garden Idėjų Lysvė is shown which was established in the densely populated Pilaitė district in Lithuania.

### More information

<https://www.facebook.com/idejulysve>

## **Case Study: North Macedonia – “First Urban Garden in the City of Skopje”**

### **Description**

The Community Garden Bostanie, established within the project “Developing the First Urban Garden in the City of Skopje”, is a space intended for growing mainly garden crops and other annual or perennial edible plants. It is open to the citizens of Skopje who can either garden collectively in the common part of the garden with an area of about 1,500 m<sup>2</sup>, or individually within their assigned 50m<sup>2</sup> parcel for one season. Following the public call for participation in 2019, over 160 citizens, including many young people, have expressed an interest in taking part.

### **Impact**

The key value of the common garden is the joint venture of the citizens to learn to garden themselves and to grow a certain amount of food. It offers an opportunity for horizontal exchange of knowledge and experiences not only in gardening, but also in a range of other life skills. All gardeners can contribute in the management of the garden and they are included in the decision-making processes.

The garden contributes towards strengthening the participants’ self-confidence, their sense of togetherness, it promotes eco-friendly, ethical and sustainable attitudes and practices and contributes towards increasing the green spaces in the city.

### **Innovation**

Even though the concept of community gardens is widely known and practiced in other countries, the community garden Bostanie is the first of its kind in N. Macedonia. In terms of technological innovation, the garden’s irrigation system involves an option for scheduling that comprises planning irrigation flow rates, times and cycles.

### **Transferability**

The community garden has been opened recently and its infrastructure is still not fully in place, thus it hasn’t had enough time to evolve so as to stabilize the processes involved and the results obtained. Monitoring and evaluation

structures are yet to be established.

The project, funded by the City of Skopje, ends in August 2021 and the garden's further development will depend on future funding opportunities. Therefore, the potential transferability of the project will be more visible after some time and hopefully can be applicable to similar contexts, meaning EU countries that making their first steps in Urban Gardening activities.



Figure 7.5: Bostanie garden in Skopje

Source: <https://www.facebook.com/dobraze>

#### **More information**

<https://bit.ly/3tLT5wt>

### **Case Study: Portugal – «Horta à porta» (Biological Gardens of the Porto Region)**

#### **Description**

Project «horta à porta» - Biological Gardens of the Porto Region emerged as a strategy for the Greater Porto Region in the field of home composting, the creation of vegetable gardens and the promotion of organic farming. In this way, with the aim of promoting the quality of life of the population, through

good agricultural, environmental and social practices, it enables the residents of Porto region to have their own vegetable garden. This initiative has resulted in the creation of dynamic and constructive green spaces, fostering the contact of the inhabitants of the Porto area with Nature and the recovery of healthy habits, with the promotion of biodiversity and good agricultural practices, achieved through activities, home composting and organic agriculture. Social responsibility is a valued interest in this initiative.

## Impact

The project is not aimed at a specific public, it is aimed at any citizen who is interested in practicing organic farming and composting. It is valid for those over 18 years of age, since an agreement is reached between the parties, leaving the required plot to the individual. However, this does not prevent the family from also practicing agriculture. In total «Horta à Porta» currently offers 39 vegetable gardens divided into 1024 plots, located in the urban areas of Espinho, Gondomar, Maia, Matosinhos, Porto, Póvoa de Varzim, Valongo and Vila do Conde. There are about 5.77 square meters of cultivated area in organic farming, with environmental and social concerns.

## Innovation

In 2009, «Horta à Porta», as a way to meet part of the population's needs, reinforced its objectives, making the project more flexible in terms of its implementation strategy, developing gardens of different valences, highlighting subsistence, social, business or institutional gardens. «Horta à Porta» is a project to be developed from almost 20 years (since 2003) and currently is implemented in partnership with 27 institutions.

Most of the gardens cultivated in Portugal were local, individual or collective, and without many rules or norms for the use of the areas, especially those carried out in or near social quarters by immigrants, retired or unemployed. This project is innovative in that it allowed the municipality to make use of available and often abandoned land in the municipality. It is a strategy for the promotion and development of urban agriculture.

## Transferability

This experience can be carried out by other institutions, in particular private institutions, provided that land is available. No forms of replication are known. There are other projects underway in the country, however, we do not know if they are based on this practice.



Figure 7.6: Vegetable garden of “Horta à Porta” project in Crestins – Porto.  
Source:<https://repositorio-berto.up.pt/bitstream/10216/77583/2/33653.pdf>

In the above picture, a characteristic example of one of the vegetable garden from the “Horta à Porta” project in Crestins, in the Porto in Portugal.

#### **More information**

Fernandes, A. (2014). Agricultura urbana e sustentabilidade das cidades – Projeto “Horta à Porta” no Grande Porto. Universidade do Porto: Faculdade de Economia. In: <https://repositorio-aberto.up.pt/bitstream/10216/77583/2/33653.pdf>

## Best Practices

### Germany

Both best practices identified in the German context aim to promote social inclusion by providing an open space where people from different backgrounds and cultures can grow vegetables and experience contact with nature and other people. The underlying idea is that people can exchange ideas and make new contacts in order to strengthen the social community of the neighborhood. They can bring in their skills and competences and can learn new ones.

The activities are based on the principle of sharing experiences, learning together and growing together. They do not want to leave any societal groups threatened by exclusion on the margins but try to build bridges to the middle of society. They also try to increase understanding of and the need for environmentally friendly consumer choices and behaviour. However, the clear difference which can be observed in most urban gardening projects in Germany is the lack of professionalization in horticulture. Most projects focus on integration, social exchange, and environmental awareness, but they do not aim for self-sufficiency and job creation in the field of agri-culture or horticulture.

Juan Torroba-Bordallo, an expert from the Holtenser Berg Community Garden, evaluates the fundamental contribution of urban gardens as follows: “It is the development of the common good through community gardening. People become more aware of diversity, which in the end also leads to more protection. Urban gardening is active citizen participation, people get involved and have a part in shaping the community and its spaces”.

It is clear from both examples that it is above all through their sound approach that they are successful, together with a great deal of dedication and financial support. Other initiatives by experts from Göttingen, in contrast to these two, have seized to operate, because they were only able to rely on the commitment of the participants with their voluntary work, and were usually unable to guarantee continuity in this way. In this context, it is mainly the informal nature of the more than 700 existing horticultural projects that contributes to their success.

## Greece

Thessaloniki, Greece is seen as a city with tradition in Urban Gardening initiatives. Two of the most successful long-lasting “top-down” projects of Urban Gardening in Greece are:

- ▶ the Aristotle University’s territory in Thermi Municipality, in the eastern side of the city, where plots of 100 m<sup>2</sup> area are given to citizens with a cost of 120 euros/year and for 3 years and
- ▶ within the city, in the upper area, Municipality of Sykies.

Therefore, the first best practice identified in the context of our research is the project of the Municipality of Sykies urban gardens. Municipality of Sykies is a pioneer institution regarding social policy not only in a regional, but also in a national level. In this context and mainly because of the impact of economic crisis on most people in Greece, the Municipality launched in a pilot form urban gardens’ initiative on March 2013 and officially started on June 2015. The idea behind urban gardens is to be given in vulnerable families, according to social criteria, without any cost for a period of at least 2 years. The Municipality provides to the families, a land of 50 square meters for growing vegetables with bio methods, free water, seeds, all other necessary facilities and also the support and services of an agronomist. Moreover, the Municipality provides learning and training opportunities to the beneficiaries. The only obligation of the users is to provide the 10% of their vegetables to the social grocery of the Municipality.

The gardens are placed in three different locations in the Municipality of Sykies, in order to be easily accessible for as many citizens as possible. The beneficiaries are citizens at high risk of poverty, long term unemployed, single parents etc. While the main scope of those Municipal gardens was the food security of their vulnerable citizens, the project appears to have multiple effects for the local community. For instance, a part of the gardens is given to the local school for disabled children, where 95 students have the opportunity to learn about gardening and spend some quality time in a green environment.

While the project of the Municipality of Sykies is a “top down” initiative, we needed to identify also a “bottom up” practice. In this context, the idea of an innovative “bottom-up” Urban Gardening initiative was born in an academic environment by three students. More specifically, in the Joint Postgraduate Programme ‘Landscape Architecture, School of Architecture’, Aristotle

University of Thessaloniki, entitled: “Architectural Design and Landscape”, the students Eleftheria Gavriilidou, Eleni Oureilidou, architects and Maria Ritou agriculturist, designed and implemented the project: KIPOS 3 project: a network of community gardens in the city of Thessaloniki. The basic concept of the project is the transformation of unformed spaces and urban voids into spots for community activities and specifically urban gardening, in order to achieve a broader impact on citizens of Thessaloniki everyday life. The idea of the three students was chosen by Angelopoulos CGIU Fellowship as a change-maker commitment and together with the support of the Municipality of Thessaloniki and other local institutions and stakeholders, launched its first activities in 2015.

After the mapping of several places around the city, an abandoned field in the centre of the city close to the Kaftantzoglio stadium of Thessaloniki, became the first garden for the neighbourhood. The garden was placed next to an existing public vineyard, sustained by locals, volunteers and students from the School of Agriculture. The gardens of KIPOS 3 project was given for use to local families according to social criteria and they also enjoy guidance and mentoring from experts and scientists. Moreover, the gardens work as a meeting place for the locals. According to the founders of the project, the KIPOS 3 initiative includes social, economic and ecological dimensions.

In the context of the research and the URBAN project, the case of KIPOS 3 is a best practice and a great example about the potential to connect the academic community and particularly the universities with the local community and achieve various social, economic and sustainable development goals. A postgraduate programme, the guidance of the professors and especially the vision and willingness of the students to harness their knowledge for social impact, are the basic elements of a process that shows the significance of science for the everyday life of people and also for the environment and the eco-system.

## Iceland

Privately run gardens are established and run by a community of gardeners and as such provide a more feasible training environment. Privately run gardens are established and run by a community of gardeners and as such provide a more feasible training environment. For example, the urban garden Smálönd is located Reykjavík City, Elliðárdal, run by the Icelandic Gardening Association (IGA) since 2009 or 11 years. The garden was set up after the financial collapse

in Iceland in 2008. Although run by IGA the garden is open to the public and all members pay 7.000 Iskr. annual fee, IGA members pay 5.000 Iskr. Reykjavík City provided IGA with land, running water and a container to store tools in while IGA provided necessary tools for gardening, provide support and a community for gardeners. The Smálönd operation and financial model seems to rely on city planning and policy related to urban agriculture published in 2008 (Reykjavík-city, 2018). The growing methodologies are eco-friendly and sustainable and build on participants’ environmental awareness. While the garden provides a platform for constant innovation in gardening; their social aspect remains the same and the community is quite stable.

The urban garden Gróandi is in Ísafjörður, the biggest town in the Western fjord’s region in Iceland with 3.809 inhabitants. The garden is run by Gróandi association including 50 member families and has been run for 5 years, the only garden in Iceland to be built on the ideology of “Community Supported Agriculture” (CSA) designed as a permaculture, eco-friendly community garden. The source of funding is mostly through annual fees that pay for a professional employee responsible for the garden. Contribution from the municipality in land space for the garden. The garden is an Initiative built upon the ideal of eco and environmentally friendly gardening and food production. Builds on and is funded solely by members and community members that also reap the benefit of the garden not only in their harvest but also in being part of a community of gardeners. Volunteers and non-members often visit and contribute to gardening, just to get their hands dirty and become part of nature.

The closest example for our study was Seljagarður in Reykjavík city where young people participate. Seljagarður is an urban garden in Breiðholt neighbourhood in Reykjavík. It was founded in 2014 by volunteers and community members and is privately run since 2014. Reykjavík city provided the land and several organizations in the neighbourhood have supported the initiative, with plants, facilities, grants, and cooperation projects, people can also donate to the garden. Seljagarður like Gróandi builds on the ideology of permaculture and provides gardeners with access to greenhouses as well as providing support and training to newcomers.

Seljagarður community is active and organizes several events for participants as well as hosting and organizing training and outreach to the multicultural community in Breiðholt. Seljagarður is built upon the transnational ideal behind urban gardens and permaculture and run by young idealists fighting climate change and global warming by introducing a more sustainable way of living.

Seljagarðar emphasise that all their vegetable is made with renewable energy, making it environmentally friendly. The founders and coordinators are young people just over 30 years old and driven by the ideal of sustainability, they are open to new ideas and have throughout the years that the garden has been run taken part in several initiatives with the city, nearby pre-schools and would be an excellent location for youth training and empowerment.

There exists no such model in Reykjavík and the majority of commercial greenhouse in Iceland use a lot of energy over the winter months to grow a limited range of vegetables. The standards glass greenhouses are simply not adjustable to the extreme weather conditions we have in Iceland and they want to pass on gardening knowledge has been lost since the past decades. The objective is to teach sustainability in a practical way so that people learn how to become proactive urban gardeners. They also want to introduce removable greenhouses in public areas is that do not need building permits as it can take years to get construction permits and might conflict with ideas on the future development of the area and the design needs to be adapted to the urban landscape. One approach would be looking into our heritage both for visual and practical inspiration, like using turf and other accessible building material to isolate green houses.

## North Macedonia

In the context of North Macedonia two best practices about Urban Gardening were identified. First is the Community Garden Bostanie, established within the project “Developing the First Urban Garden in the City of Skopje” and is a space intended for growing mainly garden crops and other annual or perennial edible plants. It is open to the citizens of Skopje who can either garden collectively in the common part of the garden with an area of about 1,500 m<sup>2</sup>, or individually within their assigned 50m<sup>2</sup> parcel for one season. Following the public call for participation in 2019, over 160 citizens, including many young people, have expressed an interest in taking part.

The key value of the common garden is the joint venture of the citizens to learn to garden themselves and to grow a certain amount of food. It offers an opportunity for horizontal exchange of knowledge and experiences not only in gardening, but also in a range of other life skills. All gardeners can contribute in the management of the garden and they are included in the decision-making processes. The garden contributes towards strengthening the participants’ self- confidence, their sense of togetherness, it promotes eco-friendly, ethical

and sustainable attitudes and practices and contributes towards increasing the green spaces in the city.

The community garden has been opened recently and its infrastructure is still not fully in place, thus it hasn't had enough time to evolve so as to stabilize the processes involved and the results obtained. Monitoring and evaluation structures are yet to be established. The project, funded by the City of Skopje, ends in August 2021 and the garden's further development will depend on future funding opportunities. Even though the concept of community gardens is widely known and practiced in other countries, the community garden Bostanie is the first of its kind in N. Macedonia. In terms of technological innovation, the garden's irrigation system involves an option for scheduling that comprises planning irrigation flow rates, times and cycles.

The second-best practice is the campaign organised by the Faculty of Natural Sciences and Mathematics, the Macedonian Biological Society and the Institute for Communication Studies, named "Do not ignore! React!". Around sixty participants in total took part in this project, all of whom live in urban areas and have yards/other green areas within their buildings or houses that could be used for establishing their urban gardens. The workshops were free, and the seed materials were provided by the organizers. During the workshops the participants had an opportunity to acquire a basic skills set for establishing and maintaining their urban gardens.

The majority of the participants in the workshops have started and are still maintaining their urban gardens placed in their yards, terraces, and buildings' rooftops. Throughout the duration of the project the Botanical Garden staff continuously visited the participants, monitored their urban gardens and provided them the needed assistance. The Institute for Communication Studies has produced and published photo-stories of the urban gardens, depicting their progress over time.

## Portugal

In the Portuguese context several good practices were identified, most of them municipal initiatives, and we selected to present the two most distinguished. First is the 'Horticultural Park' in Lisbon. There are currently 20 municipal vegetable parks in various parts of the city, representing about 800 plots of land, with a total of 9.1 ha devoted to agricultural production. As part of the construction, consolidation and maintenance of the city's green structure,

the municipality of Lisbon defined and took over a strategy for the promotion and development of urban agriculture in 2007. In 2011 the first vegetable parks (Quinta da Granja and Campolide) were inaugurated and several plots of land were made available for the enjoyment of their inhabitants and also for collective organizations.

In addition to the associated plots and infrastructures (paths, fences, access gates, shelters for the storage of agricultural utensils, irrigation system), training in horticulture (in organic farming) and permanent technical support for their gardeners is also available. The gardens are inserted in urban parks and gardens, where other areas coexist, such as lawn/stay areas, playgrounds, kiosks, sports equipment, bike paths, among others, so they can and should be visited by everyone.

The Lisbon City Hall promotes competitions for urban gardens. The opening is published through a notice in the Municipal Bulletin, which publishes the characteristics of the Gardens Park and the Gardens that compose it, as well as the rules applicable to their use and their application. Any individual who does not hold any cultivation plot in the territorial area of the municipality of Lisbon (either on municipal or private land) and who does not belong to any family household in which any member is (considered this through the criterion of common residence) may apply.

Second best practice is the project *horta à porta*” - Biological Gardens of the Porto Region. The project then emerges as a strategy for the Greater Porto Region in the field of home composting, the creation of vegetable gardens and the promotion of organic farming. In this way, with the aim of promoting the quality of life of the population, through good agricultural, environmental and social practices, it enables the residents of Porto region to have their own vegetable garden. This initiative has resulted in the creation of dynamic and constructive green spaces, fostering the contact of the inhabitants of the Porto area with Nature and the recovery of healthy habits, with the promotion of biodiversity and good agricultural practices, achieved through activities, home composting and organic agriculture. Social responsibility is a valued interest in this initiative.

The project is not aimed at a specific public, it is aimed at any citizen who is interested in practicing organic farming and composting. It is valid for those over 18 years of age, since an agreement is reached between the parties, leaving the required plot to the individual. However, this does not prevent the family from also practicing agriculture.



## Vadovas į miesto daržininkystę

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