

HORIZON
2020

Urban Nature Labs

Risultati

Informazioni relative al progetto

UNALAB

ID dell'accordo di sovvenzione: 730052

[Sito web del progetto](#)

DOI

[10.3030/730052](#)

Progetto chiuso

Data della firma CE

5 Maggio 2017

Data di avvio

1 Giugno 2017

Data di completamento

30 Novembre 2022

Finanziato da

SOCIETAL CHALLENGES - Climate action,
Environment, Resource Efficiency and Raw
Materials

Costo totale

€ 14 278 699,25

Contributo UE

€ 12 768 931,75

Coordinato da

TEKNOLOGIAN

TUTKIMUSKESKUS VTT OY

 Finland

Questo progetto è apparso in...



13 Agosto 2020



24 Giugno 2024



CORDIS fornisce collegamenti ai risultati finali pubblici e alle pubblicazioni dei progetti ORIZZONTE.

I link ai risultati e alle pubblicazioni dei progetti del 7° PQ, così come i link ad alcuni tipi di risultati specifici come dataset e software, sono recuperati dinamicamente da [.OpenAIRE](#) .

Risultati finali

Documents, reports (21)

[Final Replication Framework to Support NBS Implementation](#) 

Handbook describing the integration of UNaLab project outcomes and deliverables into a comprehensive package of processes tools and guidelines including Business Finance and Governance Models Value Chain Analysis to support widespread replication and upscaling of NBS and the exploitation of UNaLab project outcomes

[Municipal Governance Guidelines](#) 

[Implementation and adoption barriers to ULL for NBS](#) 

Report on implementation and adoption barriers to ULL for NBS, in handbook format, including recommendations to overcome ULL implementation barriers and mitigation strategies

[Dissemination and Communication strategy](#)

Dissemination and Communication strategy ready including target stakeholders mapping .

[Handbook of UNaLab Framework setup and integration guidelines](#)

Handbook of UNaLab Framework setup integration and optimisation guidelines for cloudbased FIWARE environment

[SDST user guide for municipalities](#)

Comprehensive, user-friendly SDST step-by-step user guide for municipalities

[ULL NBS demonstration site start-up report](#)

ULL NBS demonstration sites: Report on Establishment of ULLs for NBS in EIN, GEN and TRE

[UNaLab NBS Best Practices Kit](#)

Production of UNaLab NBS Best Practices Kit using content from WPs 37

[Dissemination and Communication activities report 2](#)

Report on all dissemination and communication activities and impacts for period m19-m36

[EASW scenario building workshop training and co-creation workshops](#)

Report on EASW scenario building workshop training and co-creation workshops

[UNaLab ULL framework](#)

UNaLab ULL framework first version developed including plan for training

[Impacts of NBS Demonstrations](#)

Assessment of NBS Demonstrations and critical review of measured impacts
Analysis of measured and potential performance and impacts of NBS on KPIs and KIIIs

[NBS performance and impact monitoring protocols](#)

Handbook of NBS performance and impact monitoring protocols for front-runner cities including report on the two workshops for co-identification of KPIs and KIIIs.

[NBS Value Model](#)

NBS Value Model, referencing national and international policies to leverage financing

[Business models & financing strategies](#)

Business models & financing strategies to complement draft NBS Technical Handbook

[Replication Roadmaps](#)

Report detailing individual NBS replication roadmaps and urban plans for follower cities, for Başakşehir, Cannes, Castellon, Prague, Stavanger, and reporting on the Joint Roadmap Workshop

[Value chain analysis of selected NBS](#)

Value chain analysis of selected NBS and evaluation of replication / upscaling potential

[Joint Vision](#)

Report of desired future scenarios of the follower cities, as well as identified common needs including reporting on the Joint vision workshop conclusions and the resulted posters with the desired future scenarios.

[Stakeholders and target groups](#)

Report on stakeholders engagement activities, including target groups, local stakeholders, experts on the different EU-level initiatives as well as international initiatives

[UNaLab Living Lab Handbook](#)

consolidated ULL framework in handbook format

[NBS Implementation Handbook final](#)

NBS implementation handbook including NBS technical specifications performance monitoring and impact assessment guidelines and maintenance recommendations updated and improved based on NBS demonstrations in EIN GEN and TRE

Other (6)

[Update of NBS Replication Packages for dissemination](#)

Update on NBS Replication information Packages for dissemination

[Refined IoT harmonisation middleware V2](#)

delivery of refined harmonization middleware

[Production of NBS Replication Packages for dissemination](#)

Production of NBS Replication Packages of information for dissemination

[Refined Open Innovation/crowdsourcing and performance measurement tools](#) 

delivery of refined Open Nature Innovation Arena and City Performance Monitor platforms.

[UNaLab ULL online toolkit](#) 

comprehensive suite of tools, methods, guidelines and best practises for ULL implementation

[NBS impact simulator and monitor](#) 

front-end' software for prototype SDST with geovisualisation capability for training of city 'expert users' and 3rd series of co-creation workshops in front-runner cities.

Websites, patent fillings, videos etc. (3)

[UNaLab Project identity](#) 

corporate identity of the UNaLab project including a logo, poster and templates for PowerPoint presentations

[UNaLab project short video](#) 

[Website, project leaflet and poster](#) 

Demonstrators, pilots, prototypes (1)

[Internet-based SDST application](#) 

installation of touch tables with geovisualisation tools and SDST simulation of all parameters for public use in front-runner cities

Pubblicazioni

Non-peer reviewed articles (3)

Co-creating Nature-based Solutions in EU Project Demonstration City Tampere

Autori: Särkilahti, M

Pubblicato in: Rakennustekniikka, Numero 22430369, 2019, ISSN 2243-0369

Editore: RIL ry

Managing urban water in a changing climate

Autori: Wendling, L

Pubblicato in: Rakennustekniikka, Numero 22430369, 2019, Pagina/e 32-35, ISSN 2243-0369

Editore: RIL ry

Nature-based Solutions – Resolving Climate Induced Urban Challenges

Autori: Fatima, Z., Wendling, L., Rinta-Hiiro, V., Jermakka, J. & Särkilahti, M.

Pubblicato in: MAANKÄYTTÖ, Numero 26698021, 2019, Pagina/e 25-27, ISSN 2669-8021

Editore: Maankyötä ry

Other (15)



NbS Simulation & Visualisation Tool (NBS SVT)

Autori: Engineering Informatica SpA

Pubblicato in: 2022

Editore: Engineering Informatica SpA

UNaLab Knowledge Base

Autori: Engineering Informatica SpA

Pubblicato in: 2021

Editore: Engineering Informatica SpA

Collection and classification of indicators relative to urban sprawl and urban heating in the context of Nature Based Solutions

Autori: Bodilis, C.

Pubblicato in: JEMES-CiSu project report, 2018

Editore: University of Aveiro

A natureza como solução à adaptação climática

Autori: Ascenso, A

Pubblicato in: 2020

Editore: Wattson

Visual Data Mashup Editor

Autori: Engineering Informatica SpA

Pubblicato in: 2020

Editore: Engineering Informatica SpA

Open Nature Innovation Arena

Autori: Engineering Informatica SpA

Pubblicato in: 2021

Editore: Engineering Informatica SpA

Tools for stakeholders CV analysis

Autori: De Los Ríos-White, M.

Pubblicato in: JEMES-CiSu project report, 2018

Editore: University of Aveiro

Tampereella parannetaan hulevesien laatua biosuodatuksen avulla [Tampere improves stormwater quality through biofiltration]

Autori: Leppänen, S., Särkilahti, M.

Pubblicato in: Viherympäristö, 2019

Editore: The Finnish Association of Landscape Industries – Viherympäristöliitto ry

City Performance Monitor (CPM)

Autori: Engineering Informatica SpA

Pubblicato in: 2021

Editore: Engineering Informatica SpA

Co-creating nature based solutions in Eindhoven and Genova: assessing the processes to find lessons useful for replication in the context of UNaLab

Autori: Lameiras-Barrera, D.

Pubblicato in: JEMES-CiSu project report, 2017

Editore: University of Aveiro

Proposal for the assessment of the potential factors determining the adoption of Nature Based Solutions (NBSs)

Autori: López-Maciel, M.A.

Pubblicato in: JEMES-CiSu project report, 2017

Editore: University of Aveiro

UNaLab Opan Data Portal

Autori: Engineering Informatica SpA

Pubblicato in: 2021

Editore: Engineering Informatica SpA

Food on the Roof: Developing an IT platform to visualize and identify suitable locations for roof farming in cold climates

Autori: Agatino Rizzo, Marcus Sandberg, Tim Johansson, Johan Wenngren

Pubblicato in: 2018

Editore: Luleå tekniska universitet

UNaLab Open Datasets

Autori: Engineering Informatica SpA

Pubblicato in: 2022

Editore: Engineering Informatica SpA

IoT Device Manager

Autori: Engineering Informatica SpA

Pubblicato in: 2020

Editore: Engineering Informatica SpA

Thesis and dissertations (32)

Services implementation for environment impact monitoring with IoT Smart Cities Platforms

Autori: Meza Yepez, Jean Carlo

Pubblicato in: 2022

Editore: University of Genova

Hulevesimittauspaikkojen rakentaminen

Autori: Kortetjärvi, K.-P.

Pubblicato in: 2019

Editore: Tampere University of Applied Sciences

Nutrient Recovery From Source-Separated Human Urine by Microalgae in Continuously Fed Raceway Pond. MSc Thesis, Faculty of Engineering and Natural Sciences, Tampere University

Autori: Saarnio, Sonja

Pubblicato in: 2019

Editore: Tampere University

Auswirkungen und Potenziale begrünter Gebäudehüllflächen. Master Thesis for the study programme: Real Estate Industry, Institute of Landscape Planning and Ecology (ILPOE), University of Stuttgart, Germany

Autori: Bojanic, Helena

Pubblicato in: 2022

Editore: University of Stuttgart

Floodplain restoration to enhance urban climate change resilience. MSc Thesis, Aalto University School of Engineering, Espoo, Finland

Autori: Dubovik, M.

Pubblicato in: 2019

Editore: Aalto University

Assessment of factors influencing the adoption and diffusion of nature-based solutions in urban areas. JEMES-CiSu MSc Thesis, Department of Environment and Planning, University of Aveiro, Aveiro, Portugal

Autori: López-Maciel, M.A.

Pubblicato in: 2019

Editore: University of Aveiro

Flood-mitigation impacts, costs and benefits from green roofs in urban areas: a cross-city comparison. MSc. Thesis Urban Environmental Management Specialization: Environmental Economics and Natural Resources. Wageningen University and Research

Autori: Bennink, Casper

Pubblicato in: 2022

Editore: Wageningen University and Research

Mapping the life cycle co-creation process of nature based solutions for urban climate change adaptation

Autori: White, Marta Irene de los Rios

Pubblicato in: reponame:Repositório Científico de Acesso Aberto de Portugal, Numero 10, 2018

Editore: University of Aveiro

Assessing policy options for nature-based solutions in urban areas of Latin America – The case of the Greater Metropolitan Area of Costa Rica. Global Change Ecology MSc Thesis, Universität Bayreuth, Germany

Autori: Vaccari Paz, B.L.

Pubblicato in: 2020

Editore: Universität Bayreuth

Local Governance of Nature-Based Solutions for Climate Adaptation - Case of Başakşehir District in İstanbul. Masterthesis IUSD, University of Stuttgart, Germany

Autori: Kus, S.

Pubblicato in: 2018

Editore: University of Stuttgart

Hochschulgelände als Trittsteinbiotope im urbanen Raum. Bachelor Thesis for the study programme: Environmental Engineering, Institute of Landscape Planning and Ecology (ILPOE), University of Stuttgart, Germany

Autori: Gutekunst, Judith

Pubblicato in: 2022

Editore: University of Stuttgart

Avaliação dos fatores que influenciam a adoção e difusão de soluções baseadas na natureza em áreas urbanas

Autori: Lopez Maciel, Max Alberto

Pubblicato in: Numero 7, 2019

Editore: University of Aveiro

O potencial do roadmap para a capacitação de instituições cooperativas na geração de SBN em espaços verdes comuns

Autori: Barrera, David Lameiras

Pubblicato in: Numero 7, 2018

Editore: University of Aveiro

Multiple impacts, costs and (co-) benefits from nature-based solutions for urban climate change adaptation

Autori: Silva, M.

Pubblicato in: 2019

Editore: University of Aveiro

Cultural ecosystem service values from and socio-economic impacts of green roofs: a case study in Eindhoven, Netherlands. M.Sc. Thesis. Department of Economics “Cognetti de Martiis” – University of Turin and Department of Environment and Planning – University of Aveiro. Turin (Italy) and Aveiro (Portugal)

Autori: Guaiana, Giogia

Pubblicato in: 2021

Editore: University of Aveiro

Contribution of nature-based solutions to biodiversity and cultural ecosystem service values in urban areas: case study for the City of Eindhoven in the Netherlands. MSc Thesis, Department of Economics “Cognetti de Martiis” / Department of Environment and Planning, University of Turin/University of Aveiro, Turin/Aveiro, Italy/ Portugal

Autori: D’António, C.

Pubblicato in: 2019

Editore: University of Aveiro

Nature-based solutions for urban microclimate regulation: the case of the Gavoglio Park project in Genoa. Alma Mater Studiorum – University of Bologna

Autori: Pallotta, Davide

Pubblicato in: 2022

Editore: University of Bologna

Low-cost, high impact: small scale green infrastructures as a powerful tool for the urban microclimate. Master Thesis for the study programme: Master Integrated Urbanism and Sustainable Design, Institute of Landscape Planning and Ecology (ILPOE), University of Stuttgart, Germany

Autori: Tavares, Isabela

Pubblicato in: 2021

Editore: University of Stuttgart

Direct and indirect impacts of nature-based solutions on urban heating

Autori: Augusto, B.

Pubblicato in: M.Sc.-thesis, Department of Environment and Planning, University of Aveiro, Aveiro, Portugal, 2018, Pagina/e 61 pp.

Editore: University of Aveiro

Integration and visualisation of urban sprawl and urban heating indicators from complex data in a context of nature-based solutions

Autori: Bodilis, C.

Pubblicato in: JEMES-CiSu M.Sc.-thesis, Department of Environment and Planning, University of Aveiro, Aveiro, Portugal, 2018, Pagina/e 82 pp.

Editore: University of Aveiro

Mapping the life cycle co-creation process of nature based solutions for urban climate change adaptation

Autori: De los Rios-White, M.

Pubblicato in: JEMES-CiSu M.Sc.-thesis, Department of Environment and Planning, University of Aveiro, Aveiro, Portugal, 2018, Pagina/e 80 pp.

Editore: University of Aveiro

NBS for climate change adaptation: the Roadmap potential to enable cooperative institutions for managing urban green commons

Autori: Lameiras-Barrera, D.

Pubblicato in: JEMES-CiSu M.Sc.-thesis, Department of Environment and Planning, University of Aveiro, Aveiro, Portugal, 2018, Pagina/e 86 pp.

Editore: University of Aveiro

Assessment of factors influencing the adoption and diffusion of nature-based solutions in urban areas

Autori: Lopez-Maciel, M.A.

Pubblicato in: JEMES-CiSu M.Sc.-thesis, Department of Environment and Planning, University of Aveiro, Aveiro, Portugal, 2018, Pagina/e 72pp.

Editore: University of Aveiro

Assessing outdoor air quality and temperature health impacts and benefits from green roofs: a case study for Genova, Italy. MSc. Thesis Urban Environmental Management Specialization:

Environmental Economics. Wageningen University and Research

Autori: Šafářová, Tereza

Pubblicato in: 2022

Editore: Wageningen University and Research

Integrating Grey-Green Infrastructure: A Green Streetscapes Framework for Climate Change Adaptation in Tropical Jakarta, Indonesia. Master of Infrastructure Planning (MIP) Thesis, Institute of Landscape Planning and Ecology (ILPOE), University of Stuttgart, Germany

Autori: Larasayu Raymond, I.
Pubblicato in: 2020
Editore: University of Stuttgart

Impactes, custos e benefícios de soluções baseadas na natureza para a adaptação urbana às mudanças climáticas

Autori: Silva, Maria Salomé Costa
Pubblicato in: Numero 1, 2019
Editore: Universidade de Aveiro

Nature-based solutions, beyond standard urban planning practices – sustainable urban planning in a transition theory perspective. Master Thesis, Aalborg Universitet, Denmark

Autori: Bult, P.H.
Pubblicato in: 2019
Editore: Aalborg Universitet

Co-Creating Nature-Based Solutions and Green Spaces in a Nordic Municipality. MSc Thesis, Department of Civil and Environmental Engineering, Faculty of Engineering, Norwegian University of Science and Technology, Trondheim, Norway

Autori: Drageset, A.
Pubblicato in: 2019
Editore: Norwegian University of Science and Technology

Private Entities' Intentions to Invest in Nature-Based Solutions - The Case of Eindhoven, the Netherlands. MSc Thesis, Universität Hohenheim, Stuttgart, Germany

Autori: Mačiulytė, E.
Pubblicato in: 2018
Editore: Universität Hohenheim

Implementation process of nature-based stormwater solutions and its development in the city of Tampere

Autori: Luhtaniemi, S.
Pubblicato in: 2020
Editore: Häme University of Applied Sciences

Health impacts and benefits from air quality improvement associated with nature-based solutions. M.Sc. Thesis. Department of Economics "Cognetti de Martiis" – University of Turin and Department of Environment and Planning – University of Aveiro. Turin (Italy) and Aveiro (Portugal)

Autori: Ballocci, Marta
Pubblicato in: 2021
Editore: University of Aveiro

User Engagement in Living Labs: Issues and concerns, Doctoral dissertation, Luleå University of Technology

Autori: Habibipour, A.
Pubblicato in: 2020
Editore: Luleå University of Technology

Monographic books (5)

[Evaluating the Impact of Nature-based Solutions: A Summary for Policymakers](#) 

Autori: Cardinali, M., Dumitru, A., Vandewoestijne, S., and Wendling, L.
Pubblicato in: 2021, ISBN 978-92-76-40745-4
Editore: Publications Office of the European Union
DOI: 10.2777/521937

Public procurement of nature-based solutions, Addressing barriers to the procurement of urban NBS: case studies and recommendations

Autori: Mačiulytė, E. & Durieux, E
Pubblicato in: 2020
Editore: Publications Office of the European Union

[Evaluating the Impact of Nature-based Solutions: A Handbook for Practitioners](#) 

Autori: Dumitru, A., Wendling, L. (Eds.).
Pubblicato in: Evaluating the Impact of Nature-based Solutions: A Handbook for Practitioners, 2021, ISBN 978-92-76-22821-9
Editore: Publications Office of the European Union
DOI: 10.2777/244577

[Evaluating the Impact of Nature-based Solutions: Appendix of Methods](#) 

Autori: Dumitru, A., Wendling, L. (Eds.)
Pubblicato in: 2021, ISBN 978-92-76-22960-5
Editore: Publications Office of the European Union
DOI: 10.2777/11361

Municipal governance for nature-based solutions. Executive summary of the UNaLab Municipal Governance Guidelines

Autori: Hawxwell, T., Mok, S., Mačiulytė, E., Sautter, J., Dobrokhotova, E., et al.
Pubblicato in: 2019
Editore: Fraunhofer IAO

Book chapters (8)

[The Use of the Adoption Prediction Outcome Tool to Help Communities Improve the Transition Towards the Implementation of Nature-Based Solutions](#)

Autori: López-Maciel, M., Roebeling, P., Llewellyn, R., Figueiredo, E., Mendonça, R., Mendes, R., Matos, F., Bastos, M. I.

Pubblicato in: New Metropolitan Perspectives. NMP 2022. Lecture Notes in Networks and Systems, vol 482, Numero 1916-1925, 2022, ISBN 978-3-031-06825-6

Editore: Springer, Cham

DOI: 10.1007/978-3-031-06825-6_192

[Systemic Decision Support Tool for Online Application to Aid NBS Co-creation](#)

Autori: Matos, F., Mendonça, R., Roebeling, P., Spinnato, P., Aiello, G., Mendes, R., Bastos, M. I., López-Maciel, M., & Sirchia, A.

Pubblicato in: New Metropolitan Perspectives. NMP 2022. Lecture Notes in Networks and Systems, Numero 482, 2022, Pagina/e 1916-1925, ISBN 978-3-031-06825-6

Editore: Springer, Cham

DOI: 10.1007/978-3-031-06825-6_184

[Integrating engineered and nature-based solutions for urban stormwater management](#)

Autori: Wendling, L. & Holt, EE

Pubblicato in: Women in Water Quality: Investigations by Prominent Female Engineers, 2020, Pagina/e 23-46, ISBN 978-3-030-17818-5

Editore: Springer Cham

DOI: 10.1007/978-3-030-17819-2

Indicators of NBS Performance and Impact

Autori: Wendling, L., Dumitru, A., Arnbjerg-Nielsen, K., Baldacchini, C., Connop, S., Dubovik, M., Feroso, J., Hölscher, K., Nadim, F., Pilla, F., Renaud, F., Rhodes, M. L., San José, E., Sánchez, R., Skodra, J., Tacnet, J.-M., Zulian, G., et al

Pubblicato in: Evaluating the impact of nature-based solutions: A handbook for practitioners, 2021, Pagina/e 115-173, ISBN 978-92-76-22821-9

Editore: Publications Office of the European Union

Using Nature-Based Solutions to Create more Climate-Resilient, Green and Liveable Mediterranean Cities: Experiences from Castellón and Cannes

Autori: Padilla, M., Mok, S., & Vaccari Paz, B.

Pubblicato in: SHAPING URBAN CHANGE – Livable City Regions for the 21st Century. Proceedings of REAL CORP 2020, 25th International Conference on Urban Development, Regional Planning and Information Society, Numero 25213938, 2020, Pagina/e 977-985, ISSN 2521-3938

Editore: Regional Planning and Information Society

Data requirements

Autori: Leo, LS, Kalas, M, Baldacchini, C, Budau, OE, Castellar, J, Comas, J, Connop, S, Corbane, C, Decker, S, Draghia, M, Dubovik, M, Dushkova, D, Haase, D, Ivits, E, Körmöndi, B, Kumar, P, Laikari, A, Leopa, S, Littkopf, A, Ommer, J, Rinta-Hiiri, V, Spano, G, Spinnato, P, Vranic, S, Teixeira da Silva, R & Zavarrone, E.

Pubblicato in: Evaluating the impact of nature-based solutions: A handbook for practitioners, 2021, Pagina/e 279-361, ISBN 978-92-76-22821-9

Editore: Publications Office of the European Union

Application of the NBS Impact Evaluation Framework: NBS Performance and Impact Evaluation Case Studies

Autori: Dubovik, M., Dumitru, A., Wendling, L., Briega, P., Capobianco, V., Connop, S., Crespo, L., Feroso, J., Giannico, V., Gómez, S., González, M., Kakoulaki, G., Kumar, P., Leppänen, S., Marijuan, R., Pablo, S., Pérez, J.A., Pilla, F., Rinta-Hiiri, V., Riquelme, H., Sánchez, E., Sánchez, I., Sánchez, J.C., Sánchez, R., San José, E., Sanz, J.M., Sanz, N., Serramia, J., Spano, G., Särkilahti,

Pubblicato in: Evaluating the impact of nature-based solutions: A handbook for practitioners, 2021, Pagina/e 179-234, ISBN 978-92-76-22821-9

Editore: Publications Office of the European Union

Introduction

Autori: Sgrigna, G., López-Gunn, E., Dubovik, M., Di Sabatino, S., Kumar, P., Feliu, E., Ruangpan, L., San Jose, E., Sanchez, R., Van Cauwenbergh, N., Vojinovic, Z., Wendling, L.

Pubblicato in: Evaluating the impact of nature-based solutions: A handbook for practitioners, 2021, Pagina/e 16-39, ISBN 978-92-76-22821-9

Editore: Publications Office of the European Union

Peer reviewed articles (32)



[Building climate resilience through nature-based solutions in Europe: A review of enabling knowledge, finance and governance frameworks](#)

Autori: Calliari, E, Castellari, S, Davis, M, Martin, J, Mysiak, J, Pastor, T, Ramieri, E, Scolobig, A, Sterk, M, Veerkamp, C, Wendling, L, Zandersen, M

Pubblicato in: Climate Risk Management, Numero 37, 2022, Pagina/e 100450, ISSN 2212-0963

Editore: Elsevier

DOI: 10.1016/j.crm.2022.100450

[Microalgae grow on source separated human urine in Nordic climate: Outdoor pilot-scale cultivation](#)



Autori: Chatterjee, P., Granatier, M., Ramasamy, P., Kokko, M., Lakaniemi, A.M., & Rintala, J.

Pubblicato in: Journal of Environmental Management, Numero 03014797, 2019, Pagina/e 119-127, ISSN 0301-4797

Editore: Academic Press

DOI: 10.1016/j.jenvman.2019.02.074

[Informing the design of urban green and blue spaces through an understanding of Europeans' usage and preferences](#)

Autori: Jakstis, K, Dubovik, M, Laikari, A, Mustajarvi, K, Wendling, L, Fischer, LK

Pubblicato in: People and Nature, Numero 5, 2022, Pagina/e 162-182, ISSN 2575-8314

Editore: British Ecological Society

DOI: 10.1002/pan3.10419

[Assessing Douro Vineyards Exposure to Tropospheric Ozone](#)

Autori: Ascenso, A., Gama, C., Blanco-Ward, D., Monteiro, A., Silveira, C., Viceto, C., Miranda, A. I.

Pubblicato in: Atmosphere, Numero 12(2), 2021, ISSN 2073-4433

Editore: Rotoweb Cantelli

DOI: 10.3390/atmos12020200

[Effectiveness of Nature-Based Solutions on Pluvial Flood Hazard Mitigation: The Case Study of the City of Eindhoven \(The Netherlands\)](#)

Autori: Costa, S., R. Peters, R. Martins, L.A. Postmes, J. Keizer and P. Roebeling

Pubblicato in: Resources, Numero 20799276, 2021, Pagina/e 24, ISSN 2079-9276

Editore: MDPI

DOI: 10.3390/resources10030024

[Planning considerations of green corridors for the improvement of biodiversity resilience in suburban areas](#)

Autori: Wang, Y., Jia, S., Wang, Z., Chen, Y., Mo, S. & Sze, N. N.

Pubblicato in: Journal of Infrastructure Preservation and Resilience, Numero 2, 2021, Pagina/e 6, ISSN 2662-2521

Editore: SpringerOpen

DOI: 10.1186/s43065-021-00023-4

[Biosuodattimia, hevoshakoja ja viherkattoja – yhdessä oppiminen luontopohjaisten ratkaisujen luomisessa](#)

Autori: Särkilahti, M., Mustajärvi, K., & Leppänen, S.

Pubblicato in: Alue Ja Ympäristö, Numero 48(2), 2019, Pagina/e 20-37, ISSN 1235-4554

Editore: AYS

DOI: 10.30663/ay.85117

[Integrating Biophysical and Economic Assessment: Review of Nature-Based Adaptation to Urban Flood Extremes](#) 

Autori: Quagliolo, C.; Roebeling, P.; Mendonça, R.; Pezzoli, A.; Comino, E.

Pubblicato in: Urban Science, Numero 6(3), 2022, Pagina/e 53, ISSN 2413-8851

Editore: MDPI

DOI: 10.3390/urbansci6030053

[The Nature-Based Solutions Case-Based System: A hybrid expert system](#) 

Autori: Sarabi, S., Han Q., de Vries, B. Romme, A., & Almassy, D.

Pubblicato in: Journal of Environmental Management, Numero 324, 2022, Pagina/e 116413, ISSN 0301-4797

Editore: Academic Press

DOI: 10.1016/j.jenvman.2022.116413

[Are green roofs the path to clean air and low carbon cities?](#) 

Autori: Rafael, S., Correia, L. P., Ascenso, A., Augusto, B., Lopes, D., & Miranda, A. I.

Pubblicato in: Science of the Total Environment, Numero 798, 2021, Pagina/e 149313, ISSN 0048-9697

Editore: Elsevier BV

DOI: 10.1016/j.scitotenv.2021.149313

[Assessing air pollution in European cities to support a citizen centered approach to air quality management](#) 

Autori: Rodrigues, V., Gama, C., Ascenso, A., Oliveira, K., Coelho, S., Monteiro, A., Lopes, M.

Pubblicato in: Science of the Total Environment, Numero 799, 2021, Pagina/e 149311, ISSN 0048-9697

Editore: Elsevier BV

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Autori: Matos, F. A., & Roebeling, P.

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Autori: Shahryar Sarabi; Qi Han; Bauke de Vries; A.Georges L. Romme

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