



**BOOST  
BIODIVERSITY**



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**5<sup>th</sup>  
edition  
2022**

THE  
**QUARRY LIFE**  
AWARD

**INTERNATIONAL  
WINNERS**

Edition 2022

*"I am inspired looking back over the 10 years of this award... Thank all of you prize winners for your work and for taking action with your friends to restore biodiversity to make this a better world."*

***Dr. Jane Goodall, Primatologist & Conservationist***



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# 5th edition of the Quarry Life Award at a glance



**19** countries in  
**16** contests



**70** quarries



**204** projects  
proposals



**76** selected  
projects



**7** international  
winners



**27** national  
awards



Experienced and  
well-known national and  
international judges

Learn more about participating projects  
& join the QLA community at  
[www.quarrylifeaward.com](http://www.quarrylifeaward.com).



# Heidelberg Materials – Building homes for people and nature



## Dear QLA supporters,

Challenges like climate change, resource limitations, and disappearing natural spaces due to human development mean that the production and use of heavy building

materials must evolve. At Heidelberg Materials, we are transforming our business to address these challenges, and placing sustainability at the core of what we do. This includes a profound responsibility for the environment. As a player in the extractive industry, we continually protect and promote nature whilst using natural resources sustainably. Numerous scientific studies have demonstrated how valuable extraction sites are for nature conservation. They offer undisturbed habitats for rare and protected species – during and especially after extraction.

For us, it is also crucial to keep open and trustful relationships with neighbours, non-governmental organisations, administrations, and other stakeholders. This is exactly what the Quarry Life Award aims to achieve: finding new ways to protect nature in our quarries as well as connecting and including the communities around our sites in the process.

Since 2012, the competition has been the origin of hundreds of innovative ideas and projects to promote and protect biodiversity and forms an integral part of the company's sustainability strategy. For the 5th edition, we introduced the new category "Nature Based Solutions" into the international competition. This category looks for projects with a strong focus on addressing societal challenges through the protection, sustainable management, and restoration of both natural and modified ecosystems, benefiting both biodiversity and people.

I would like to give a **big thanks to all participants for their exceptional efforts to support nature and wildlife in our quarries**. The quality and the variety of the projects, which covered a wide range of habitat and species in our quarries, greatly impressed the national and the international juries. We are deeply grateful for all the hard work and the time and effort the participants have put into the projects, the results of which will help us advance our commitment to biodiversity.

Have an enjoyable read!

*Dr. Nicola Kimm  
Member of the Managing Board and Chief Sustainability Officer,  
Heidelberg Materials*



# The International Ceremony

In the current 5th edition, more than 200 teams of researchers, students, local communities, NGO (non-governmental organisation) representatives, and nature lovers from different parts of the world pitched their ideas. From these, **76 were selected to implement their ideas in the company's quarries**, competing for national and international prizes. The jury therefore had many impressive projects from which to choose. This year - which at the same time also marked the **10th anniversary of the contest** - the seven International Winners of the competition were celebrated at the International Award Ceremony on 17th October 2022 in Brussels. More than 100 representatives of Heidelberg Materials, industry, politics, associations, and nature protection organisations attended the ceremony, which was organised within the framework of the

2022 European Business and Nature Summit.

Ten years on from the first International Award Ceremony, it was a privilege to invite the primatologist Dr. Jane Goodall to again participate in the proceedings via video message. Talking about the inspiration and hope she has gained from all the Quarry Life Award projects over the past 10 years, Dr. Goodall congratulated the participants and recognised Heidelberg Materials' dedication to nature restoration and conservation.

A key message of the Quarry Life Award is about the power of partnerships, and the contest as well as the ceremony were again actively supported by two important partners to Heidelberg Materials: the Society for Ecological Restoration (SER) and BirdLife International.



#### **Compelling keynote by**

*Dr. Nicola Kimm,  
Member of the Managing Board  
and Chief Sustainability Officer,  
Heidelberg Materials*



#### **Inspiring keynote by**

*Patricia Zurita,  
CEO, Bird Life International*





**Inspiring video message by**

*Dr. Jane Goodall, Primatologist & Conservationist*



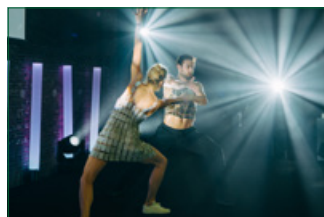
**Thought-provoking keynote by**

*Stefan Leiner, Head of Natural Capital and Ecosystems Unit, European Commission*



**Hosts of the evening:**

*Dr. Carolyn Jewell, Senior Manager Biodiversity and Natural Resources, Heidelberg Materials  
Sean Vanonckelen, Presenter and Moderator*



*Contemporary Dance following nature's path from extraction to restoration, choreographed by Joseph Franciosa*

**The International Jury**

Dr. Nicola Kimm (Member of the Managing Board and Chief Sustainability Officer, Heidelberg Materials)

Richard Grimmett (Director for Conservation, BirdLife International)

Dr. Carolyn Jewell (Senior Manager Biodiversity and Natural Resources, Heidelberg Materials)

Dr. Klára Řehouňková (Board Member, Society for Ecological Restoration Europe)

Prof. Dr. Ani Mardiasuti (Lecturer, Department of Forest Resources, Conservation and Ecotourism, Bogor Agricultural University, Indonesia)



# The International Winners 2022

Watch the interviews with the winners to learn more about their projects at [www.quarrylifeaward.com](http://www.quarrylifeaward.com).



## GRAND PRIZE WINNER

Biodiversity and climate change: co-creation of seven educational games with the Achères quarry operatives

*League for the Protection of Birds Normandy  
France*

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## BIODIVERSITY MANAGEMENT

Study of soil seedbanks, aboveground vegetation and species regeneration in the Wazo Hill quarry  
*University of Dar es Salaam  
Tanzania*

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## HABITAT AND SPECIES

Assessing habitat quality parameters and sand properties on sand lizard *Lacerta agilis* breeding sites to inform the creation of receptor sites  
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## BEYOND QUARRY BORDERS

Growling grass frog habitat assessment and restoration  
*Darebin Creek Management Committee  
Australia*

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## BIODIVERSITY AND EDUCATION

Sustainable experience of biodiversity in the orchards of the Nussloch quarry  
*Sabine Beushausen and Sabine Claßen  
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## CONNECTING QUARRIES AND COMMUNITIES

CUORE (Curare caring, Osservare observing, Respirare breathing, Emozionare impressing)  
*AmbienteParco  
Italy*

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## NATURE-BASED SOLUTIONS

Assessing the capacity of quarry biodiversity and ecosystems to cope with climate challenges  
*GISARTE  
Spain*

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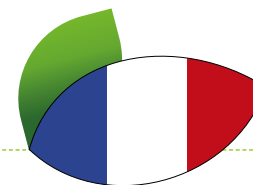


*“When choosing the winners, we paid special attention to how innovative the project was, the level of stakeholder engagement and its transferability to other operational sites. the last criterion in particular ensures the maximum benefit for Heidelberg Materials and for nature.”*

*Dr. Carolyn Jewell, Chair of International Jury*

# The Grand Prize Winner

LPO Normandy, France



## Biodiversity and climate change: co-creation of seven educational games with the Achères quarry operatives

### Overview

The project team of LPO Normandy created a kit of seven educational games. All games aim at raising awareness about the restoration of biodiversity in quarries and climate change. They also enable players to better understand the challenges and opportunities quarries can provide when it comes to these topics.

### Research background

In the context of a global decline in biodiversity and climate change, it is important that all parts of society become aware of these crises, their impacts, and the solutions everyone can implement to combat the effects. The participants questioned whether and how educational games can raise awareness, and train and involve employees, citizens, and school students.

### Method and findings

This project was a joint effort by the team at LPO Normandy and the company staff working at the Achères quarry. The two teams collaborated during all phases of the project. Over the span of several meetings, the project team developed games such as dominoes, memory, and crossword puzzles. Causes, effects, and nature-based solutions served as the basis for these games.

The kit created can be easily adapted to other quarries and to a wide range of audiences; for example, quarry professionals, the general public, or school. The games can be managed by a facilitator or played independently. The tools highlight the links between extractive activities, the drivers and effects of climate change, as well as the levers offered by biodiversity to mitigate climate change.

The results are a great proof of the strength of cooperation and partnership – well in line with the main objectives of the QLA.


See a short interview of the grand prize winner here:  
[Grand Prize Winner QLA 2022 - YouTube](#)



*“Their idea of creating a games kit overwhelmingly convinced and excited the jury! These games also enable a better understanding of the challenges and opportunities quarries face.”*

*Dr. Nicola Kimm, International Jury member*

### **In search of the off-key note. Ecoacoustics for the management of Castenedolo’s Plain Forest**

Centro Studi Naturalistici Arcadia | CIBRA, University of Pavia | Association “Collina dei Castagni” of Castenedolo, Italy 

The aim of this project was to evaluate and compare recorded soundscape and the acoustic environment of the Castenedolo’s forest that was recently created in the former Santa Giustina clay quarry – also home to one

of the oldest plain forests in Northern Italy. This innovative technique allowed researchers to evaluate the level of ecological evolution of different species in new versus existing habitat.



# Biodiversity Management

University of Dar es Salaam, Tanzania



## Study of soil seedbanks, aboveground vegetation and species regeneration in the Wazo Hill quarry

### Overview

Soil seedbanks are a natural storage of seeds often dormant within the soil of most ecosystems. They play an important role in the natural environment, especially in regions where anthropogenic activities have resulted in desertification. However, knowledge about their use in extraction sites is still minimal.

*“The project provided useful evidence on how to conserve the topsoil, keep the seed bank viable, and increase the germination and establishment of the target species. The local seeds are best adapted to the habitat condition. Thus, we can rely on natural processes, especially in diverse and well-preserved landscapes.”*

**Dr. Klára Řehounková, International Jury member**



### Research background

The team from the University of Dar es Salaam investigated in-situ conservation measures within the Wazo Hill quarry. Research particularly focused on soil seedbanks and their influence on aboveground vegetation, as well as specific regeneration in restored, unextracted, and self-regenerating areas.

### Method and findings

Soil seedbanks were assessed by seedling emergence and soil sampling to obtain raw data on their diversity, density, and composition. Also, the team studied the regeneration potential

of indigenous plant species within the quarry. The study was able to determine the ideal soil depth with maximum species diversity, richness, and evenness. In addition, the influence of the soil seed banks on the regeneration of species and aboveground vegetation was assessed, and the characteristics of the vegetation and soil seed banks of the quarry were determined.

After studying different types and ages of habitat at Wazo Hill, the project team from Tanzania provided useful evidence on how to best manage topsoil and effectively use seedbanks within quarry site reclamation in a tropical region.


The project raised awareness of an issue that had been overlooked, particularly in tropical climates, and has provided knowledge and inspiration for other quarries around the world to evaluate more closely the role of seedbanks.



See a short interview of the winner here:

[Winner in the category "Biodiversity Management" \(QLA 2022\) - YouTube](#)

### **Biodiversity of a quarry pond – life without fish**

*Institute for Biology at the University of Education, Karlsruhe, Germany* 

This project focused on comparing species diversity in the quarry ponds of the Durmersheim gravel pit and the recreational lake Epplesee. Upon investigation it became clear that the former extraction waterbodies support a much more diverse group of aquatic species than the recreational lake where fish stocks are high and human disturbance is frequent. This provides evidence of the positive value of post-extraction restoration in providing seldom found undisturbed habitats where rare and protected species can thrive.

# Habitat and Species

Bath Spa University, United Kingdom



## Assessing habitat quality parameters and sand properties on sand lizard *Lacerta agilis* breeding sites to inform the creation of receptor sites

### Overview

Research shows that the internationally protected sand lizard *Lacerta agilis* has specific habitat requirements. Raw materials extraction in areas where sand lizards occur requires the translocation of individuals to a suitable alternative habitat to maintain breeding populations and to avoid legal sanctions. Therefore, the study investigated the optimal habitat requirements for receptor sites when translocating sand lizards.

*“This is a very important study, looking at the requirement for receptor sites when sand lizards need to be moved because of quarrying operations. It is of great relevance to the sand quarrying sector and heathland biodiversity management more widely.”*

**Richard Grimmett, International Jury member**

### Research background

The research project aimed to compare habitat quality and sand quality parameters in the receptor site at Hyde Pit at Masters Quarry in Dorset, with nearby known sand lizard breeding sites. This study proved highly important to inform the future creation of suitable receptor sites within the context of planned resource extraction and mitigating climate change.

### Method and findings

The project team from Bath Spa University used different measures to understand and investigate the condition of the possible receptor site – consulting historical reptile surveys as well as more recent studies, using aerial imagery and a drone survey to map the area, conducting habitat assessments, and taking sand samples within the potential receptor site.

It was found that the site supports many known key habitat parameters essential for sand lizards. The results showed that Hyde pit (Masters quarry) provides important foci for future recovery of sand lizard populations if the habitat conditions can be improved further.

This project provides excellent ideas for the extractive sector and there was very strong interest shown by Heidelberg Materials staff, and academic and local experts in this project.



See a short interview of the winner here:

[Winner in the category "Habitat & Species" \(QLA 2022\) - YouTube](#)



### **Project Amphiquarry: Are abandoned quarries essential refuges to ensure amphibian connectivity?**

*Universidad Autónoma De Madrid, Asociación Herpetológica Española, Spain* 

In quarries, due to extractive activities, numerous ponds can form potential "stepping ponds" with the surrounding waterbodies. This provides an interconnected pond network vital to many amphibian populations. This study aimed to assess and model connectivity to understand population dynamics of amphibians and propose accurate

conservation measures based on the research in the Arrigorriaga quarry. Through intensive sampling of the waterbodies in the quarry and surrounding areas, a total of six amphibian species were identified. The species diversity, population sizes, and connectivity found emphasise the essential role of quarries in amphibian conservation.

# Beyond Quarry Borders

Darebin Creek Management Committee, Australia



## Growing grass frog habitat assessment and restoration

### Overview

The Darebin Creek Management Committee (DCMC) from Australia led a collaborative citizen science project monitoring endangered growling grass frogs (*Litoria raniformis*) in the Wollert quarry. The project wanted to enhance the prospects of an endangered species by providing a corridor or stepping stones within and outside the quarry.

### Research background

The project team sought to understand the role of waterbodies in and around the quarry in supporting an endangered species, particularly as a connecting habitat to a previously identified population of growling grass frogs. Understanding the habitat needs and capacity for the colonisation of the frogs is important for informing the future management of sites once extraction ends.

*“This is truly an example of a successful collaboration of a quarry with its surrounding, in order to save and manage precious biodiversity.”*

**Prof. Dr. Ani Mardiasuti, International Jury member**



### Method and findings

Throughout the project phase, the growling grass frog populations were monitored and wetland habitat conditions in the Darebin Creek Valley were assessed. Collecting the data for this project was a joint effort among many different stakeholders. Community volunteers evaluated the condition of wetland habitats and monitored the growling grass frog populations



through listening for their calls during the mating season and searching for individuals in the late summer months.

It was found that the growling grass frog population is declining, which underpins the need for conservation action. However, at the Wollert quarry the populations are thriving due to a series of closely located wetlands. Additionally, the monitoring also recorded another six frog species.

This project was highly collaborative and included the researchers themselves, quarry personnel, the local community, local NGOs, government authorities, and many more.




See a short interview of the winner here:

**[Winner in the category "Beyond Quarry Borders" \(QLA 2022\) - YouTube](#)**



### **Quarry Trail – Bikepark**

*designTbilisi, Georgia* 

The establishment of a Transquarry Bike Park was proposed near and around the Sakhori limestone quarry post extraction because of its characteristic terrain and features developed through the quarry activities. A dendrological park with recreational activities is also included in the proposed plan to benefit local community engagement and to raise awareness and understanding for biodiversity. The park will attract cycling and extreme sports enthusiasts from different regions to enjoy nature and biodiversity in a (former) quarry.

# Biodiversity & Education

Sabine Beushausen & Sabine Claßen, Germany



## Sustainable experience of biodiversity in the orchards of the Nussloch quarry

### Overview

The initiative for this project came from two Geopark Rangers (Geo-Naturpark Bergstraße-Odenwald e.V.) who created a sustainable experience of biodiversity in the orchards and former extraction areas of Nussloch quarry. A curriculum was developed to cover different topics over multiple site visits. These visits, spanning spring and summer, opened children's eyes to a new aspect of biodiversity in and around Nussloch's reclaimed and restored areas.

*"The international jury were really inspired by the imagination of the team that led to such a wide variety of educational tools (building, planting, crafting, playing) for young children."*

**Dr. Carolyn Jewell, International Jury member**

### Research background

For one year, the meadow orchard in the Nussloch quarry became the setting for elementary school students to learn about the ecological requirements of many different species,

and how they interact, through practical activities. This sensitised the children to the topic of biodiversity protection, introduced them to their own scope of action, and empowered them to become ambassadors for nature.



### Method and findings

The project consisted of 10 modules on various topics related to the orchard meadow and the habitats in the quarry. The activities included tree planting, building insect hotels, constructing a model of the meadow out of nature's materials, making seed bombs, and much more. The small products they made and gave away, such as nesting aids for insects and birds or herb salt, gave them an opportunity to take the intellectual

content of the project from the quarry back to school or home. The training modules can be easily adapted to quarries and their specific biodiversity anywhere in the world. This is an ideal way to teach communities not only about biodiversity, but also the importance of quarries in supporting nature conservation.

See a short interview of the winner here:

[Winner in the category "Biodiversity & Education" \(QLA 2022\) - YouTube](#)



### Interpretive trail guides and interactivity of the Loën and Romont educational trails

Education Environnement, Benelux   

This project is the result of an established cooperation between Education Environnement and the staff from Heidelberg Materials Belgium. The project team aims to show the quarry and its biodiversity to visitors through activity-filled nature trail tours which are led by trained guides. Since demand for quarry tours has increased,

the "Quarry Guide Training" continues to train new guides on a regular basis. This project presented a step-up of existing cooperative efforts, extending the educational and pedagogical tours of Loën to the neighbouring Romont quarry and introducing a digital learning experience.

# Connecting Quarries and Communities

Ambienteparco Impresa Sociale SRL ETS, Italy



## CUORE (Curare caring, Osservare observing, Respirare breathing, Emozionare impressing)

### Overview

It is important to engage and educate local communities throughout the entire life cycle of their nearby quarry, from extraction to reclamation. The team from Italy, led by AmbienteParco, established a nature classroom in the Santa Giustina quarry, enhancing the former quarry woodland and successfully developing an interdisciplinary and active citizenship experience.



### Project background

The CUORE project aimed to foster and develop the community's awareness and enjoyment of the reclaimed area, providing a local opportunity to contribute to the United Nations Sustainable Development Goals. To achieve this, a partnership

*"The project literally placed the site on the map and created a new importance for the restored quarry within the community and incorporated it into a regional eco-corridor. The jury were very impressed with the way the team had brought together the different dynamics of the project to deliver a very successful outcome."*

**Dr. Shane Sparg, Conservation Partnership Manager, Bird Life International**

network was formed involving numerous partners from different backgrounds. The goal was to not only enhance the woodland, but to also develop the active involvement of citizens.

### Method and findings

The numerous co-planning meetings brought together the different perspectives and expertise of the team. The diversity of the involved parties made it possible to offer a wide variety

of actions and efforts around communication, educational workshops, outdoor activities, contests, and studies for the future of the project and the quarry.

The project outcomes included a CUORE online presence, a project logo, a workshop on legal and responsible management of non-renewable resources, a cycling tour through and beyond the quarry, and many more.

Due to the involvement of many community stakeholders, the CUORE project is now considered a blueprint for other communities.

**See a short interview of the winner here:**

**[Winner in the category “Connecting Quarries and Communities” \(QLA 2022\) - YouTube](#)**



### **Connecting local communities to their local wild greenspace through a series of enhanced circular walks**

*RSPB (Royal Society for the Protection of Birds), Ouse Fen, United Kingdom* 

This project built on the existing partnership between Hanson UK and the RSPB, which is realising the transformation of the sand and gravel quarry at Needingworth into a nationally significant wetland nature reserve post extraction. The objective of this project was to create a long-term relationship, to sustainably connect and to foster a sense of ownership within the local community for the site. As a part of the project, four circular walks from each of the four surrounding villages to the site were established. Each route was developed in consultation with the village communities and turned into an engaging illustrated online map with new destination features such as seating areas or nesting boxes.

# Nature-Based Solutions

GISARTE. GIS Ingurumena & Remote sensing SL, Spain



## Assessing the capacity of quarry biodiversity and ecosystems to cope with climate challenges

### Overview

Considering and understanding future changes to local areas influenced by climate change is highly important to enable early mitigation measures. The project team developed a tool to understand future scenarios of climate change on the current vegetation around the Rezola quarry in Arrigorriaga based on the most recent cartographic and remote sensing information found in public, free, and open-access information repositories.

*“The international jury was very impressed by the designed strategies and hands-on ideas for the conservation of the Arrigorriaga quarry. The jury would like to praise how the project was communicated, for example on a specially created website.”*

**Stefan Leiner, Head of DG Environment,  
European Commission**

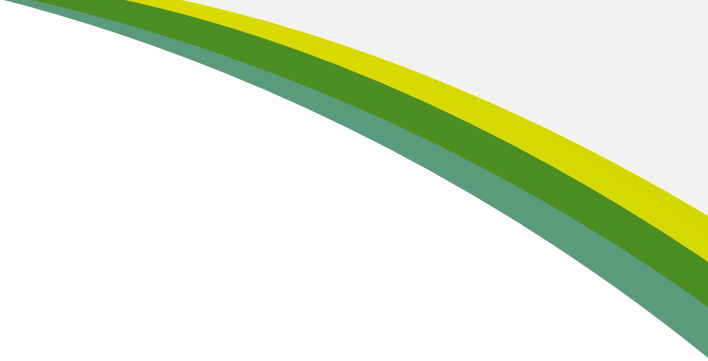


### Research background

The Spanish team from GISARTE assessed the capacity of ecosystems and their respective species existing in the quarry to cope with climate challenges. Based on cartographic and remote sensing information, the project team wanted to understand the state of the vegetation around the quarry to design strategies for its conservation in the face of future climate change scenarios.

### Method and findings

The project team carried out a temporal analysis of land cover from 1956 to 2020 and evaluated the ecosystem services of



the area of influence. Additionally, they used Representative Concentration Pathway models (RCP4.5 and RCP8.5) of climate change scenarios, and analysed precipitation, temperature, and days of extreme heat.

The project team proposed a set of measures to maintain and enhance the biodiversity of the area. The measures focused on protecting biodiversity hotspots, reducing temperatures in the intervention areas, and responding to the carbon challenge by reducing atmospheric emissions and increasing carbon sequestration rates.

See a short interview of the winner here:

[Winner in the category "Nature-Based Solutions" \(QLA 2022\) - YouTube](#)



### **Implications of compost incorporation into topsoil as a restoration strategy for improved biodiversity and carbon sequestration**

*Cranfield University, United Kingdom* 

Soil conservation and management post-extraction during the reclamation phase are critical for effective ecosystem restoration as they provide valuable habitat for belowground biodiversity. Working at Ketton quarry, the project team set out to evaluate soil development through physio-chemical, microbial, and visual assessments by

looking at newly reinstated soil, 15-year post-reinstatement soil, as well as target (undisturbed) soil as reference of grass- and woodlands. The study suggests that a restoration strategy incorporating calcareous grassland would be the preferred option for carbon sequestration and microbial diversity.

# Overview of National Winners 2022



## Listing of the National Winning Projects per country in alphabetic order



### Australia

**Community Stream** Bushfood, bird corridors and the visual integration of Melbourne Arboretum and Wollert quarry



### Belgium

Creation of an educational pond



### Czech Republic

**Research Stream** Impact of habitat changes on arthropod communities and ideal reservoirs for biodiversity in sandpit

**Community Stream** Moravske droby pathway



### France

**Research Stream** Restoration of ecological corridors for the yellow-bellied toad

**Community Stream** Biodiversity and climate change: co-creation of seven educational games with the Achères quarry operatives



### Germany

**Research Stream** Biodiversity of a quarry pond – life without fish

**Community Stream** Toolbox “Time Travel Quarry”: Development of landscape structure and biodiversity



### Georgia

**Research Stream** Establishment of in-situ conservation plot of biodiversity in the vicinity of Saskhori quarry

**Community Stream** Quarry Trail - Bikepark





## Italy

**Research Stream** In search of the off-keynote: Ecoacoustics for the management of Castenedolo's Plain Forest

**Community Stream** CUORE (Curare caring, Osservare observing, Respirare breathing, Emozionare impressing)



## Morocco

**Research Stream** Terrestrial fauna in the Aït Baha quarry: Inventorying for a better protection



## North America

**Community Stream** High Rock quarry, native pollinators: Who are these guys and what do they want?



## Poland

**Research Stream** Recognition and minimalisation of factors negatively affecting birds of KSM Rakowice Reservoir

**Community Stream** Protection of avifauna and amphibians by improving their natural habitat in the Ruda quarry area



## Romania

Strengthening the bond between people and nature. The case study of Lespezi quarry

Journey of a dandelion: The story of the 1001 species



## Spain

**Research Stream** Project AMPHIQUARRY: Are abandoned quarries essential refuges to ensure amphibians connectivity?

**Community Stream** Biodiversity stories



## Tanzania

**Research Stream** Effectiveness of rehabilitation at attracting bats at Wazo Hill quarry site

**Community Stream** Connecting community with biodiversity



## UK

**Research Stream** Assessing habitat quality parameters and sand properties on sand lizard *Lacerta agilis* breeding sites to inform the creation of receptor sites

**Community Stream** Wolston quarry lifecycle sign boards

# Celebrating 10 years of the Quarry Life Award – A retrospect of the Grand Prize winners of the last editions

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## Then.

For many years Heidelberg Materials has been promoting the protection of biodiversity during and after quarrying activities.

In 2012, we initiated the Quarry Life Award: an international competition to support and increase biodiversity at our sites, have open communication channels with our neighbours, and also to educate and raise awareness about the importance of nature and celebrate the conservation of habitats and species.





## And now.

It is clear that the private sector needs to play a key role in reversing biodiversity loss by understanding its impacts and dependencies, mainstreaming the topic throughout the business and working toward a net positive outcome for nature.

Over the past five editions of the Quarry Life Award, more than 1,500 projects proposals were submitted, out of which more than 400 were selected to take part in the research periods. These projects involved about a thousand researchers and reached out to thousands of stakeholders.

Thus far, the national and international winners were granted around one million EUR in prize money.



Grand  
prize  
1<sup>st</sup> edition

## Then in 2012.

The Grand Prize winner of the International Quarry Life Award was the team from Czech Republic.

They mapped a variety of habitats at the CEP II gravel pit near the city of Trebon and recorded the species diversity of numerous groups of organisms. Their research showed that undisturbed, natural development of open areas on or around the shorelines of the extraction zones permits a considerably greater abundance of species development than only reforestation.



## And now.

The outputs from the winning project were published in an international scientific journal, with research continued diligently since 2012.

In cooperation with Heidelberg Materials, the project team established 40 experimental plots to investigate further the restoration of sandy grasslands. 2014 marked a milestone for the team members with the successful restoration of sandy grasslands by using biomass transferred from the nearby well-preserved dune.

Additionally, the QLA project team, together with the national QLA team and the quarry staff, succeeded in amending the national legislation on restoration of post-mining sites to make the application of near-nature restoration more efficient.



## Then in 2014.

The Grand Prize winners completed a comprehensive inventory of the reptiles and amphibians living in the Górażdże limestone quarry in Poland.

They found out that the high degree of biodiversity at the quarry is mainly due to the presence of many amphibian and reptile species. As a consequence, they developed a list of recommended land reclamation practices. During the QLA project, the rare species *Coronella austriaca* (Smooth Snake) has been found.

## And now.

The QLA project directly contributed to the protection of *Coronella austriaca*. Over eight years a detailed study of the snake population has been undertaken: 150 snakes have been identified around the Górażdże Limestone quarry since then.

Based on the data collected in the project, several articles have been and will be published in international journals.

Additionally, a virtual trail complete with educational boards about amphibians and reptiles living in the quarry site has been created.





## Then in 2016.

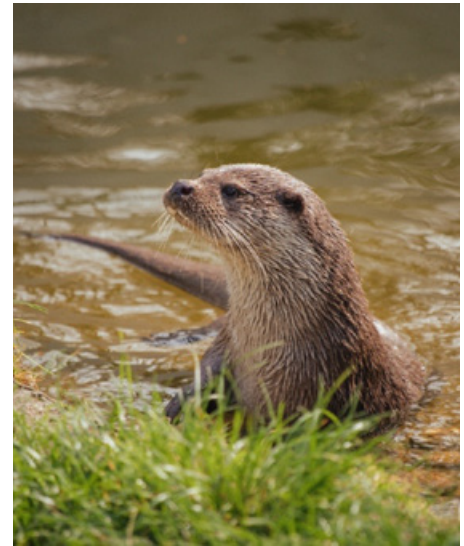
The Grand Prize project from Spain investigated the ecological connectivity of waterbodies in gravel quarries, and how to enhance this connectivity to the quarry's surroundings for a positive effect on biodiversity.

The researchers used otters as a bio-indicator because of their habitat needs.

## And now.

After winning the QLA Grand Prize, a second survey with otters as bio-indicators was conducted. The two significant data sets allowed the team to publish an article in the Restoration ecology journal.

Furthermore, under team member supervision, a final master's degree project as well as two internships were carried out as part of the program Master of Ecosystem Restoration coordinated by the Alcalá University of Madrid.



## Then in 2018.

The Grand Prize project team from Masaryk University, in the Czech Republic, monitored and analysed the behaviour of six bee colonies at three different localities during the growing season 2018 – two were placed in the Mokrá quarry, two at the reclaimed Hády quarry and the last two were monitored at the edge of the nearby village Lažánky.

The aim of the project was to provide scientific evidence about the importance of quarries (active and reclaimed) as a lifeline for the declining populations of bees.



## And now.

The QLA project team currently runs a website with several beehive scales, which were bought for children beehive clubs working in ČMŠ quarries across Moravia.

The scientific approach of the project gained a community perspective – several beehives at the Mokrá quarry are now used for the production of honey to provide as a gift to the company and the communities around it.

Furthermore, the project team started beekeeping in different localities and learned how to maintain nests for several solitary bees.





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**NATURE HAS ONCE AGAIN  
BEEN THE BIGGEST WINNER**  
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Edition 2022

