



WP 7 Green Education

Work Package Leader: The Courtauld Institute of Art

Want to Know More?

Visit the GoGreen Website for Updates!

GO GREEN PROJECT

GoGreen develops and promotes preventive and remedial conservation practices based on green principles to spearhead the green revolution within conservation in alignment with the Green Deal.



WEBINAR CONTENTS



**WP7
Background**



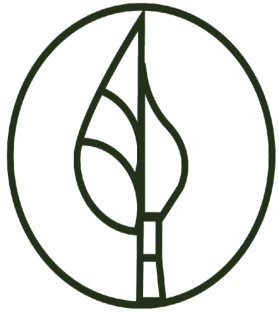
**GoGreen Paris
Symposium**



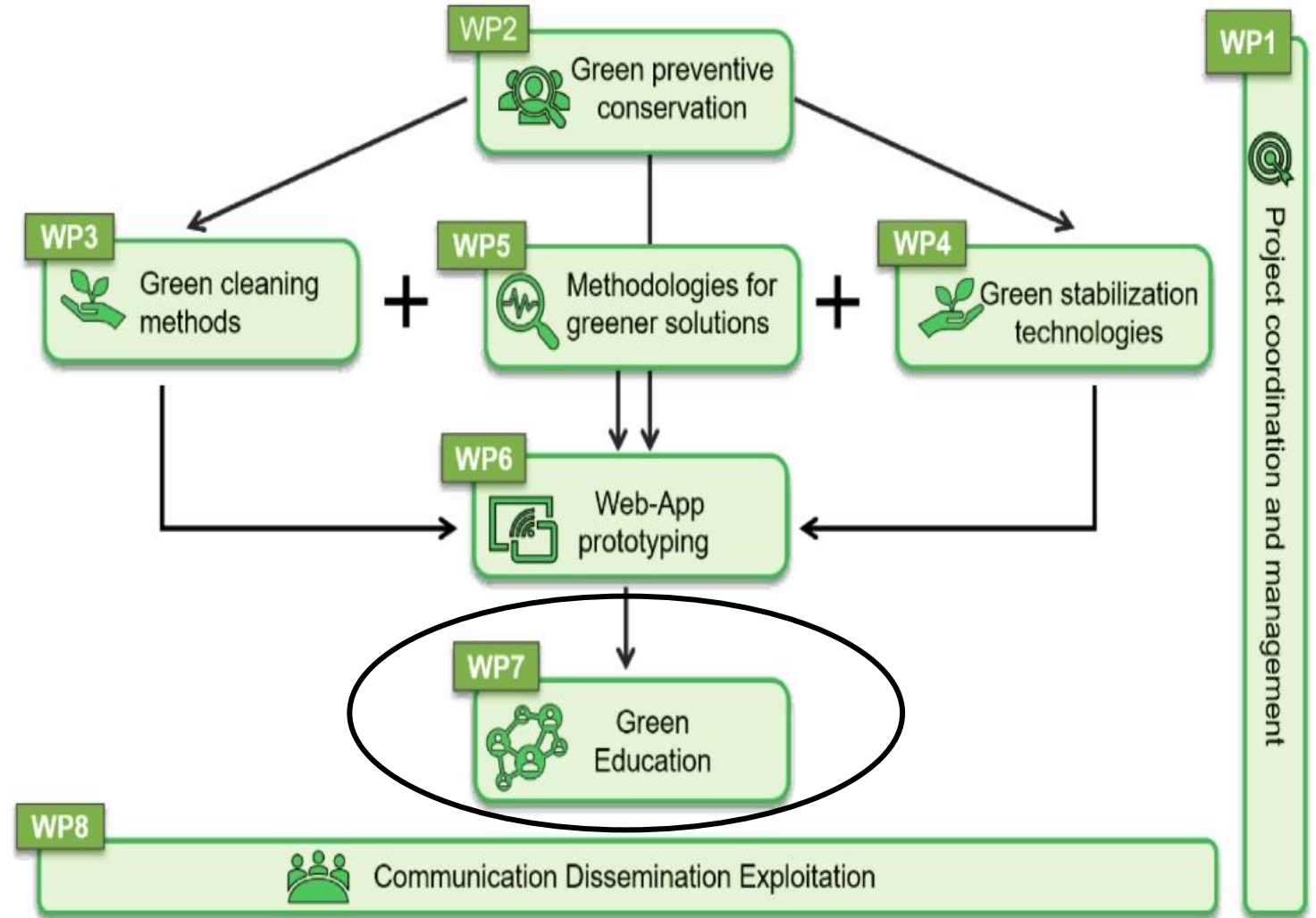
**GoGreen
Modules**



**On-going
Developments
& Outputs**



go
green



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Waste Management

Climate Risk

Carbon literacy

Green Solvents

Green Conservation

Decision Making

Damage Functions



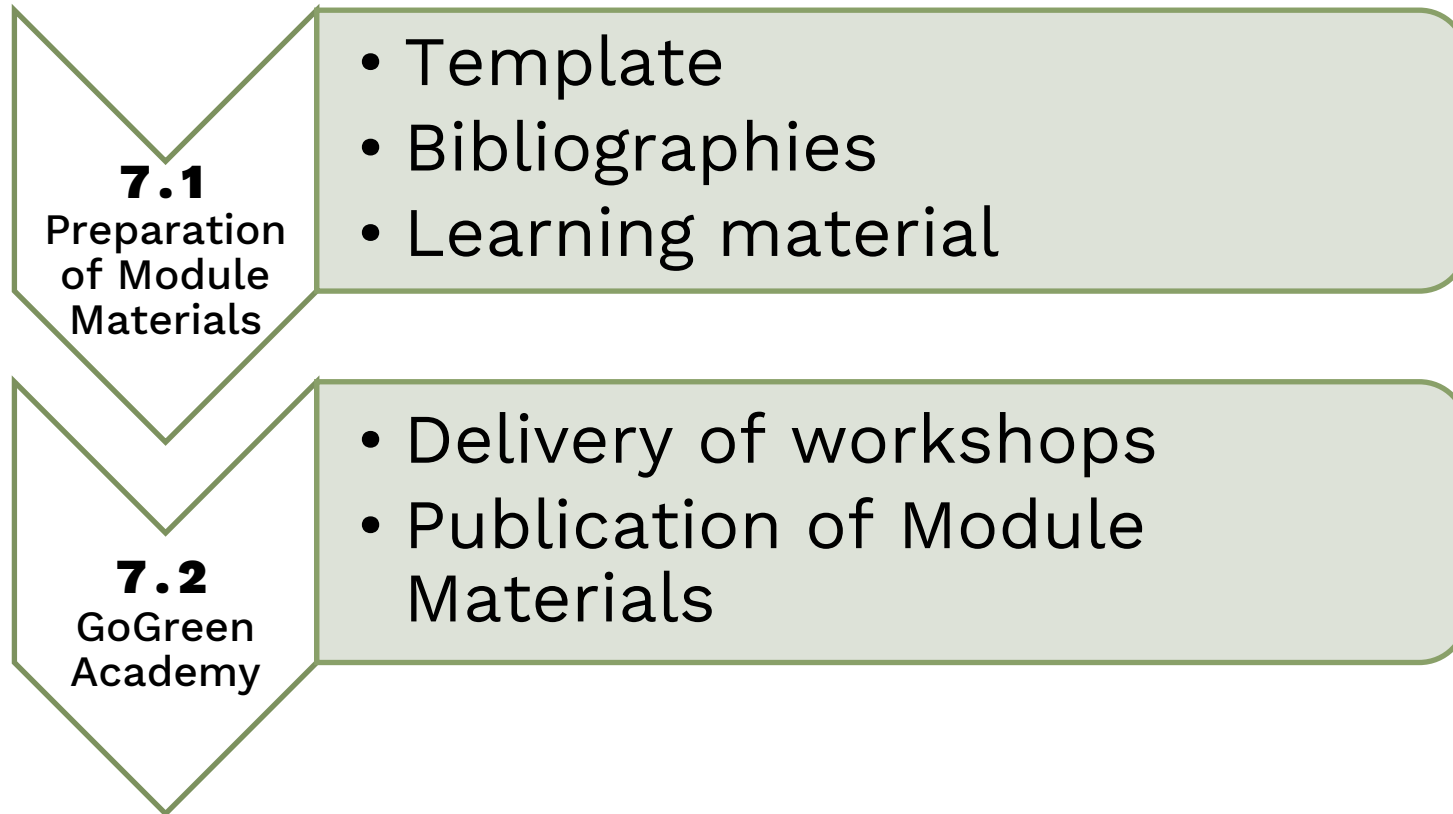
WP7

Dissemination of GoGreen research through four educational modules with training materials for emerging and professional conservators



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WP7 DELIVERABLES





GoGreen PARIS SYMPOSIUM



The Courtauld

SYMPOSIUM



OVERVIEW

A unique event uniting conservation experts, educators, heritage scientists, and early-career researchers—fostering collaboration on integrating sustainability into conservation education.



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CONFERENCE



**Educational
Approaches**



**Research
Dissemination**



Demonstrations

EDUCATIONAL APPROACHES

Embedding Sustainability in Cultural Heritage Conservation Education



Justine Wuebold and Glenn Wharton

UCLA

Getty

Interdepartmental Program in the
**Conservation of
Cultural Heritage**

Transdisciplinarity or the Art of Teaching Blue Pigments



Florence Boulc'h

amU Aix
Marseille
Université

Reframing Conservation through Sustainability



Marina Herriges

 **University
of Glasgow**

RESEARCH DISSEMINATION

The Green book project: Bio-fabrication and Conservation- Ancient Techniques, Emerging Materials



Élodie Levêque



Theanne Schiros









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DEMONSTRATIONS

	Benzene	Formic acid
Art Work Specific/Professional Parameters		
G9 Combination Conservation Materials And Application ...	6	10
G10 Number Of Application/Estimated Quantity	1	9
G11 Longevity Of Treatment (Retreat And Durability/Lifeti...	3	10
S12 Accessibility - Availability In Production & Purchasing...	6	6
S13 Quality Of Result	1	9
S14 Accessibility - Ease Of Use (Working Properties). Tim...	7	3
Hazard Impacts On Human And Environment		
G1 Toxicity (And Hazard Metrics) Environment Direct And...	4	4
G2 Toxicity (And Hazard Metrics) User Direct And Indirect	6	6
Impacts On Climate Change		
G3 Energy - Climate Indoor Control And Outdoor Location	4	5
G4 Energy - Consuption Specific Application (Preventive ...	4	3
G5		
G		

GoGreen Digital Support App (DSA)

HERie: Digital Preventive Conservation Platform

		 Fire Electrical sources, gas, flammable liquids, arson
Criminals and vandals Break and enter, theft, souvenir hunting, graffiti Module unavailable	 Pests Insects, rodents, rats, cats Module unavailable	 Contaminants Dust, dirt, air pollution, restorations Module unavailable
Radiation UV, VIS, IR Module unavailable	 Water Leakage, burstpipe, spillage, cleaning Module unavailable	 Physical forces Earthquake, vibration and tear, break, scratches Module unavailable
Dissociation and curatorial neglect Misplacing objects, no inventory, removing labels Module unavailable		



WORKSHOP



WORKSHOP



Test collaboration as a tool for module development



Four groups drafted the GoGreen module drafts



Drafts are being further developed as part of WP7



GUEST SPEAKER



Loïc Bertrand

**Senior Researcher
(Directeur de recherche)
ENS Paris-Saclay, France**



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BEFORE GOGREEN, JUNE 2021

The Green Heritage Community manifesto

- 1. We all contribute to the green movement.**

We are a community with its traditions and experiences and its knowledge in the field of conservation and heritage, rooted in green movements in other areas of research and society.
- 2. A shared definition of greenness is our foundation.**

We establish criteria that define what is green in order to focus our efforts and to generate useful needs related to feasibility, cost, safety, environmental impact, reversibility and longevity.
- 3. Scientific evidence supports good decisions.**

We have the selection of procedures and materials set out on established and conserved methods that allow the selection of the most appropriate materials, systems, and technical tools for selecting solutions based on original requirements.
- 4. Measurable targets help us reach our goals.**

Setting clearly articulated and measurable targets and steps that may be re-evaluated over time to face an evolving environmental impact.
- 5. Restoring processes means innovating practice.**

We work to both restore past practices and traditions, such as traditional craftsmanship, and to secure ways to sustain them in the future.
- 6. Research takes time and money.**

We understand the value of research in order not to achieve greater sustainability and environmental awareness, to allow time for innovation and traditional wisdom, to report responsibly on failures and to work out through testing and re-evaluation of products.
- 7. Sharing knowledge is crucial.**

We spread awareness by facilitating access to procedures, materials, instruments and data, including transparent documentation of what has failed and the addition of Environmental Impact Statements as part of published data.
- 8. Educating our community is empowering.**

We create ongoing basic and professional training to thoroughly understand conservation issues and to fully evaluate green methods.
- 9. Greenwashing has no place in conservation.**

We are honest with ourselves and do not see greenness as a simple selling point. Instead, we strive to create, generate and promote by reflecting on our responsibilities.
- 10. Heritage engages society.**

Conservation practice offers a unique responsibility to promote its green change within the general public.

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7. Sharing knowledge is crucial

We spread awareness by facilitating access to procedures, materials, instruments and data, including transparent documentation of what has failed and the addition of Environmental Impact Statements as part of published data.

8. Educating our community is empowering

We require ongoing basic and professional training to thoroughly understand conservation issues and critically evaluate green methods.

- Alessia Artesani
- Loïc Bertrand
- Emilio Catelli
- Giulia Franceschin
- Victor Gonzalez
- Julia Greiner
- Joen Hermans
- Katrien Keune
- Mathilde Monachon
- Austin Nevin
- Silvia Prati
- Antonio Sansonetti
- Eleanor Schofield
- Brique Sibbing
- Giorgia Sciutto
- Caitlin Southwick
- Maartje Stols-Witlox
- David Thickett
- Arianna Traviglia
- Annelou van Gijn
- Carolina Vatteroni

AN EDUCATION COMPONENT

It is not common to have an education component within a European Union research and innovation action

CONSORTIUM

Training in conservation

1. The Courtauld
2. University Paris 1 –
Panthéon-Sorbonne
3. University of Amsterdam
4. IkiFP, Polish academy of
sciences
5. Haute école spécialisée
de Suisse occidentale HES-
SO

Training in natural sciences for / through conservation

1. University of Bologna
2. ENS Paris-Saclay
3. University of Amsterdam

MAJOR CHALLENGES

Main objective: Develop a framework for future modules in Green conservation, both for training in conservation and natural sciences (particularly chemistry)

Method

- Review existing practice
- Test the interest of digital tools for education
- Start drafting training modules during the meeting
- Prepare support documents for our own institutions

An embedded “train the trainer” approach

THE “PARIS MEETING”, JAN. 2025



MAIN MENU

Home

Programme

Registration

Venue

Funding

Committees

HELP

@ Contact

HOME

GoGreen European Workshop – Education in Green Conservation

16–17 January 2025

GoGreen is a major European consortium developing environmentally-friendly solutions for the protection of cultural heritage. As part of the project, education modules will be developed on green leadership in conservation ; determining the sensitivities of materials ; green treatments and their evaluation ; and green decision-making tools.

The consortium is bringing together major institutions involved in the training of conservators (e.g., Haute Ecole Arc Conservation Restauration, University of Applied, Sciences and Arts Western Switzerland HES-SO, Courtauld Institute of Art, Université Paris 1 Panthéon-Sorbonne, University of Amsterdam), as well as institutions in which scientific departments organise specific training activities based on the aims and practice of art conservation (e.g., University of Bologna, ENS Paris-Saclay, University of Amsterdam).

The workshop will examine the state of the art and explore how new content can be better integrated into the training programmes of conservators, physicists, chemists and instrumentalists in Europe towards more ecological conservation processes, including new chemical developments and digital decision-making tools. The workshop will bring together a multidisciplinary international panel made up of experts in green conservation, specialists in pedagogy and educational sciences, including chemical education and environmental sciences.



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European
Commission



école
normale
supérieure
paris-saclay

université
PARIS-SACLAY

A TEAMWORK

- **Claire Bételu**, Université Paris 1 – Panthéon-Sorbonne
- **Clare Richardson**, The Courtauld Institute of Art
- **Rebecca Senior**, The Courtauld Institute of Art
- **Loïc Bertrand**



DEFINING THE MODULES “LIVE”

Experience of joint writing of reports in International Atomic Energy Agency expert meetings



TESTING IN FRONT OF CLASSES

- New training directly integrated into the project
- Testing new interdisciplinary formats
- Accelerating the transition from research to practice



PRECEDED BY A REGIONAL EVENT

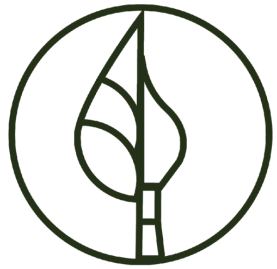
- In the Île-de-France Region, the Paris meeting was preceded by a regional meeting organised by DIM PAMIR, the key research sector for tangible heritage
- This provided background for contributing to the EU event (Jouves-Hann et al.)



TABLES RONDES
Recherche en conservation-restauration :
Former et diffuser les savoirs

5 novembre 2024, de 9h à 13h - Salle Vasari, Galerie Colbert, Paris
Format hybride

DIM PAMIR
Domaine de Recherche et d'Innovation Patrimoine
Région Île-de-France



**go
green**

MODULES

**WP2
WP8**

Leadership in Green Conservation

WP2

Material Sensitivities and Green Decision-Making

**WP3-5
WP8**

Green Treatments for Paintings and Their Assessment

**WP3-5
WP8**

Green Treatments for Objects and Their Assessment



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AIM

ADAPTABLE and FLEXIBLE

to various academic and professional contexts

MODULE DEVELOPMENT

WP7 aims to utilize COLLABORATION with interdisciplinary professionals

Phase One

Paris Module Workshop

Phase Two

GoGreen Consortium
Focus Group

PHASE ONE OUTCOMES



Outlined structure
of four core
modules



Engaged professionals
in multidisciplinary
knowledge exchange



Identified key
challenges and
priorities for course
development

GoGreen MODULES

**Leadership in Green
Conservation**



**Material Sensitivities +
Green Decision-Making**



**Green Treatments for
Paintings + Their Assessments**



**Green Treatments for
Objects + Their Assessments**



Leadership in Green Conservation



LEADERSHIP IN GREEN CONSERVATION



Mission Statement



To promote green leadership by helping students and professionals to become advocates for greener practices, equipped with knowledge, tools and skills needed to inspire adaptable, community-driven strategies for the long-term stewardship of cultural heritage.

MODULE CONTENT



GREEN
THINKING



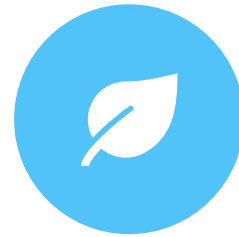
CLIMATE
RESPONSIBILITY



CLIMATE
ACTION



GREEN
TOOLS



GREEN
ADVOCACY

Material Sensitivities + Green Decision-Making



MATERIAL SENSITIVITIES + GREEN DECISION MAKING



Mission Statement



Inform the decision-making process to enhance OUR cultural heritage through knowledge of green conservation and material sensitivities

MODULE CONTENT



Identifying
Sensitive
Materials



Green
Decision-
Making



Assessment
Tools for
Degradation
Risks



Greener
Solutions for
Preventive
Conservation

Green Treatments for Paintings + Their Assessments



Green Treatments for Paintings + Their Assessments



Mission Statement



Inform the conservation practice for paintings through the introduction of greener tools + methods to promote sustainable development

MODULE CONTENT



Historical Approaches
to the Conservation of
Paintings and Painted
Artefacts



Eco-Conscious
Strategies for
Conservation Project
Management



Greener Methods in
Conservation Practice



Green Applications for
Remedial Conservation

Green Treatments for Objects + Their Assessments



Green Treatments for Objects + Their Assessments



Mission Statement



Inform the conservation practice for objects through the introduction of greener tools + methods to promote sustainable development

MODULE CONTENT



Historical Approaches to
the Conservation of
Objects



Eco-Conscious Strategies
for Conservation Project
Management



Greener Methods in
Conservation Practice



Green Applications for
Remedial Conservation

TEACHING DELIVERY



Case Studies



Practical Workshops



Role Plays



Multi-media projects



Collaborative Group Work

DIDACTIC LEARNING MATERIAL

Aim: To support learning of module content in the form of:

- Presentations
- Worksheets
- Infographics

Sample Worksheet:

- Encourages students to make the link between the UN SDGs and conservation/cultural heritage

Leadership in Green Conservation

Climate Awareness

Group Activity Sheet

Linking UN SDGs to Conservation + Cultural Heritage

Instructions: In your group discuss how the UN Sustainable Development Goals (SDGs) relate conservation/cultural heritage sector. Use the table below to identify 5 goals that connect to conservation/cultural heritage. Provide examples and explanations for your choices.

Understanding the SDGs

1. Briefly define the UN Sustainable Goals (SDGs)
2. Why do you think conservation/cultural heritage is a key driver in achieving sustainable development.

Linking SDGs to Cultural Heritage

SDG Number + Title	Link to Cultural Heritage	Example + Justification
3.9: Mortality from environmental pollution – reduce the number of death and illnesses from hazardous chemicals and air, water and soil production and contamination	Solvent use in cultural heritage	Formation/use of greener solvents promotes 3.9 by reducing conservator's exposure to hazardous chemicals

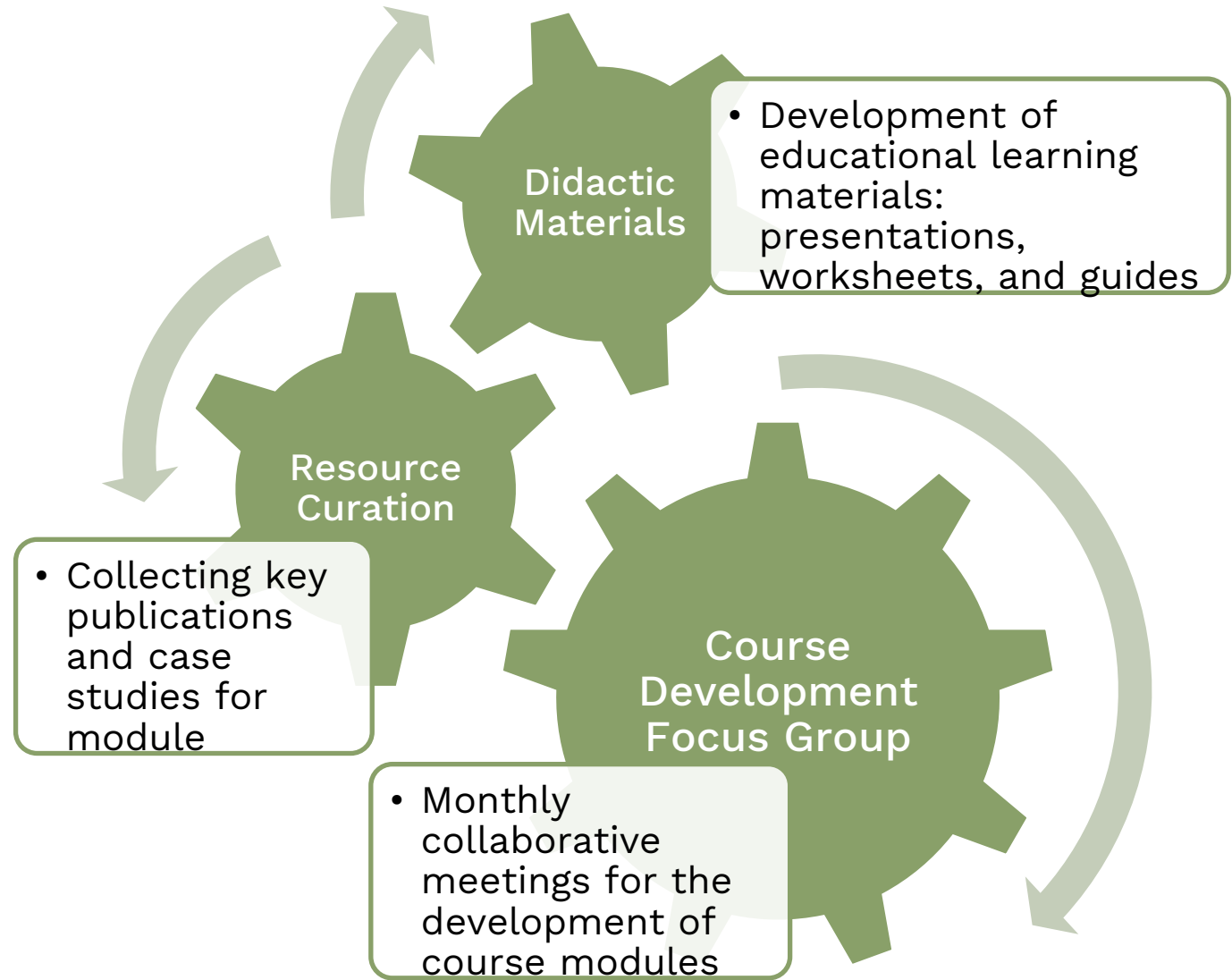
Reflection

1. Describe challenges/limitations in integrating conservation/cultural heritage with SDGs.
2. Reflect what your group learned from this activity and how it has influenced your understanding of the connection between cultural heritage and the SDGs. (min. 300 words)



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ON-GOING ACTIONS



Future Plans : Deliverable 7.1



Collaborative
Working Group
Meetings



Generation of module
descriptions



Creation of didactic
materials, and
bibliographies

Future Plans: Deliverable 7.2

1. Workshops focusing on the application of cleaning and consolidation methods using material from GoGreen
2. Dissemination of WP7 modules at a workshop aimed at conservation educators
3. Publication of Module Templates on GoGreen Academy for use/integration



Questions?

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 @GoGreen Conservation

 @GoGreenHorizon2023



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