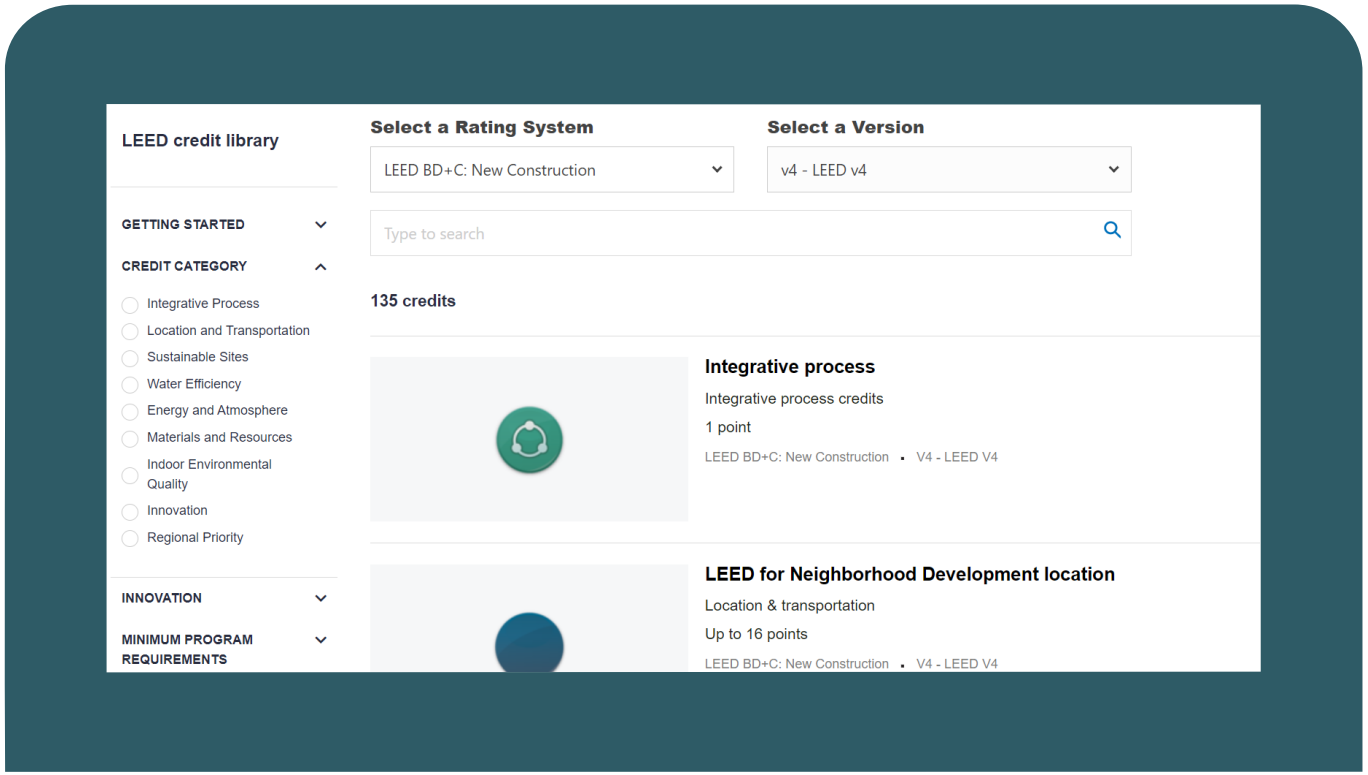
#CIRCLE2023

EUROPE-FOCUSED ACPs



MICHELLE SCHWARTING

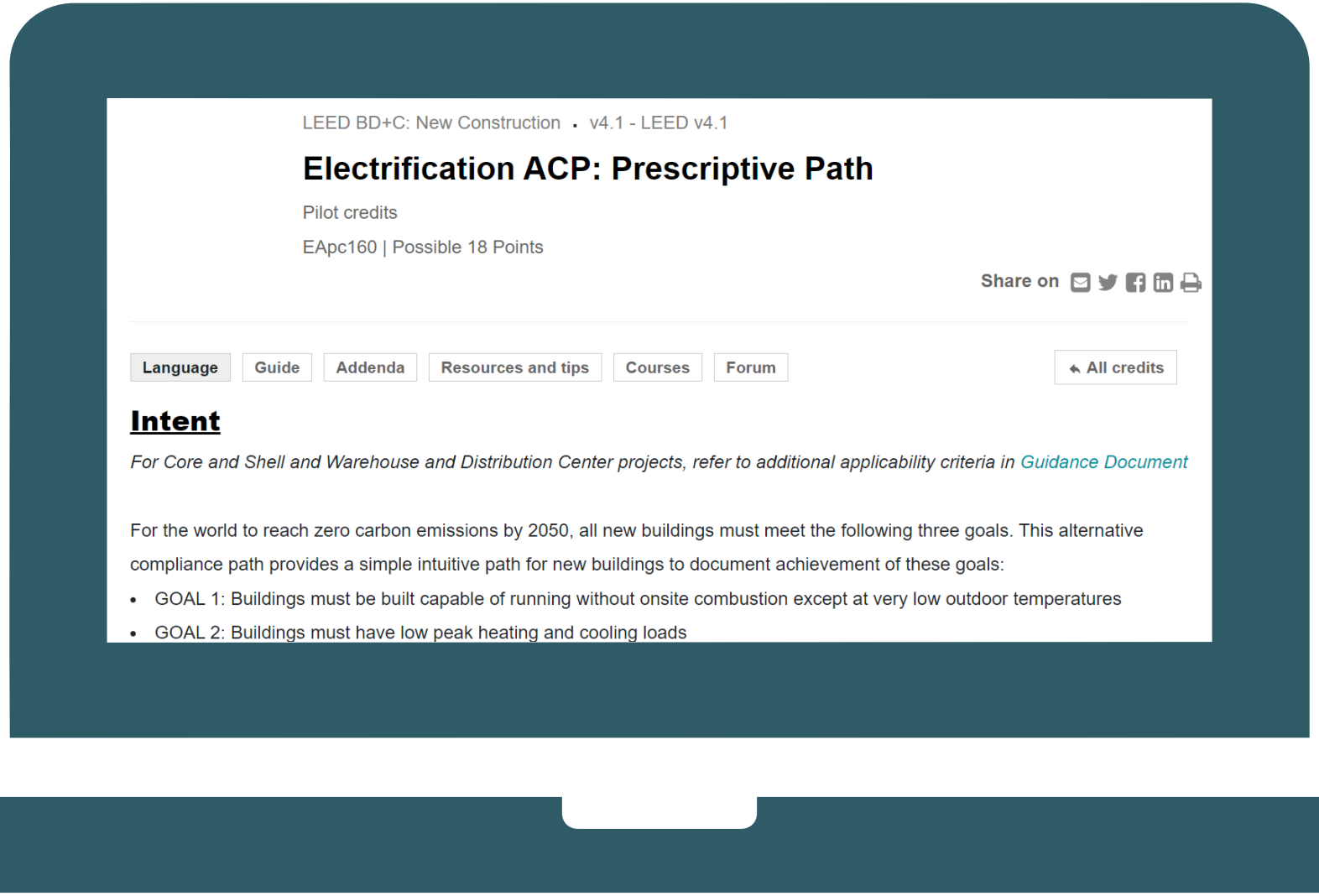
SYSTEMS EXPERT

GBCI Europe Circle 2023
Technical Workshop
26 April 2023

Electrification ACP: Prescriptive Path

(ACP pilot credit EApc160)

www.usgbc.org/credits/EApc160



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Electrification ACP: Prescriptive Path

(ACP pilot credit EApc160) www.usgbc.org/credits/EApc160

Intent:

To reach zero carbon emissions by 2050, all new buildings must meet the following three goals:

A. Not use onsite combustion except when its really cold outside
B. Have low peak heating and cooling loads
C. Reduce other energy loads and invest in renewable power

Applicability:

v4 and v4.1 BD+C
(including Major Renovation & Multifamily Residential)

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Electrification ACP: Prescriptive Path

(ACP pilot credit EApc160) www.usgbc.org/credits/EApc160

Requirements:

This is a prescriptive approach without requiring detailed energy modeling!

EA Prerequisite: Minimum Energy Performance:

1. Comply with ASHRAE Standard 90.1–2016.
2. Analyze efficiency measures early on in design process for decision making.

EA Credit: Optimize Energy Performance: (max. full points)

Combine any of the following strategies:

A. Reduce Emissions from Onsite Combustion
B. Reduce Heating and Cooling Peaks
C. Reduce Energy Use

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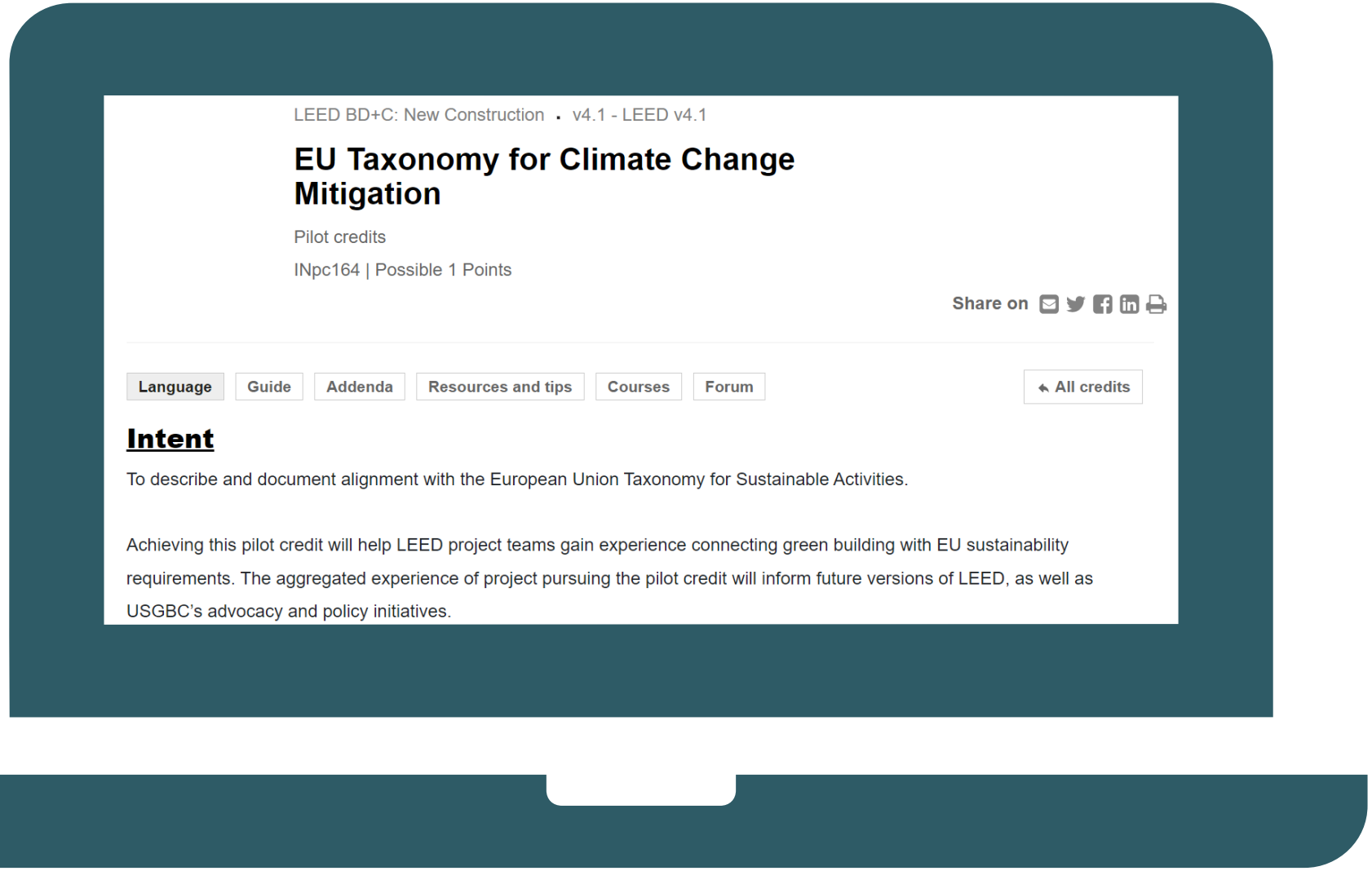
EU Taxonomy for Climate Change Mitigation

(Pilot credit INpc164)

www.usgbc.org/credits/INpc164



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IN credit Innovation

(max. 5 Points)

OPTION 1	and/ or	OPTION 2	and/ or	OPTION 3
Innovation		Pilot Credits		Exemplary Performance
1-4 Points		1-4 Points		1-2 Points

IN credit Innovation

(max. 5 Points)

OPTION 1	and or	OPTION 2	and/ or	OPTION 3
Innovation		Pilot Credits		Exemplary Performance
1-4 Points		1-4 Points		1-2 Points

Europe ACP: Whole-Building LCA according to the Level(s) framework

www.usgbc.org/credits/new-construction-core-and-shell-schools-new-construction-retail-new-construction-data-27

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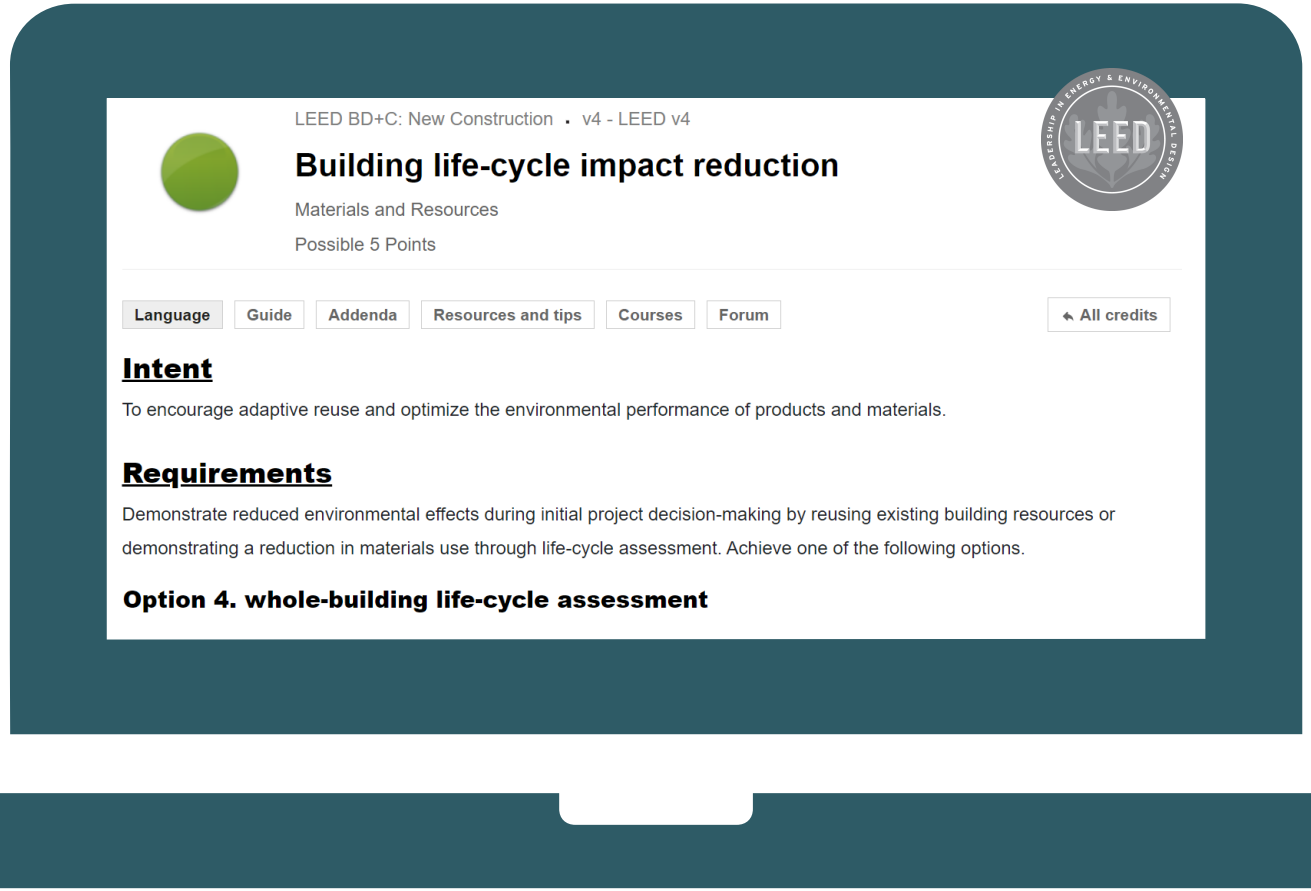

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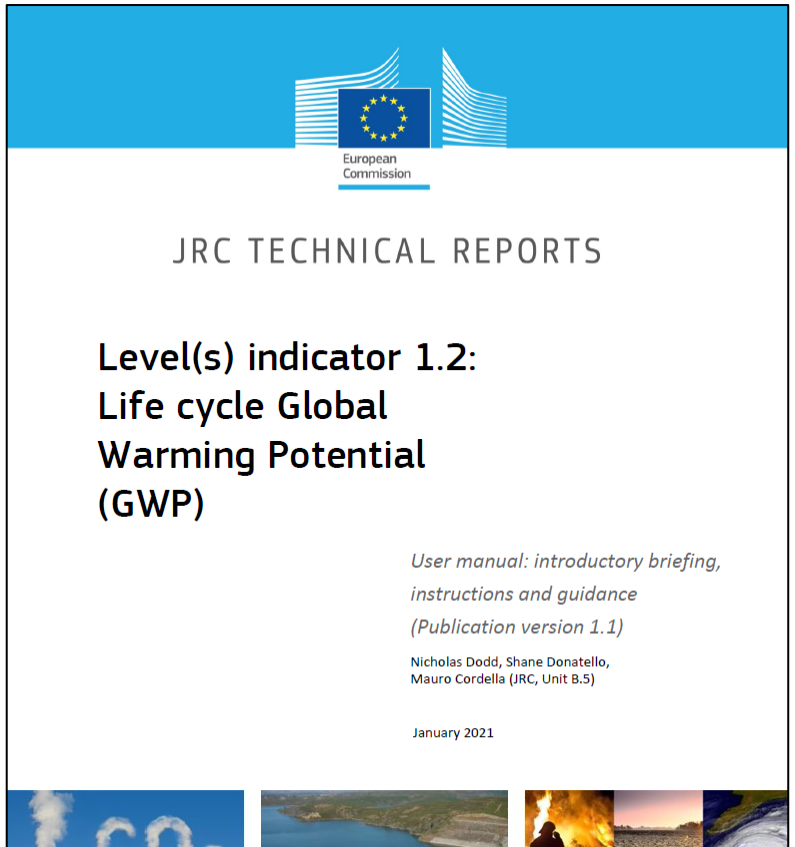
Level(s)



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LEED

MR credit Building Life-Cycle Impact Reduction

Path 1 = Level 1 (1 point)
Path 2 = Level 2 (3 points)
Path 3 = Level 3 (4 points)

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Europe ACP: Whole-Building LCA

www.usgbc.org/credits/new-construction-core-and-shell-schools-new-construction-retail-new-construction-data-27

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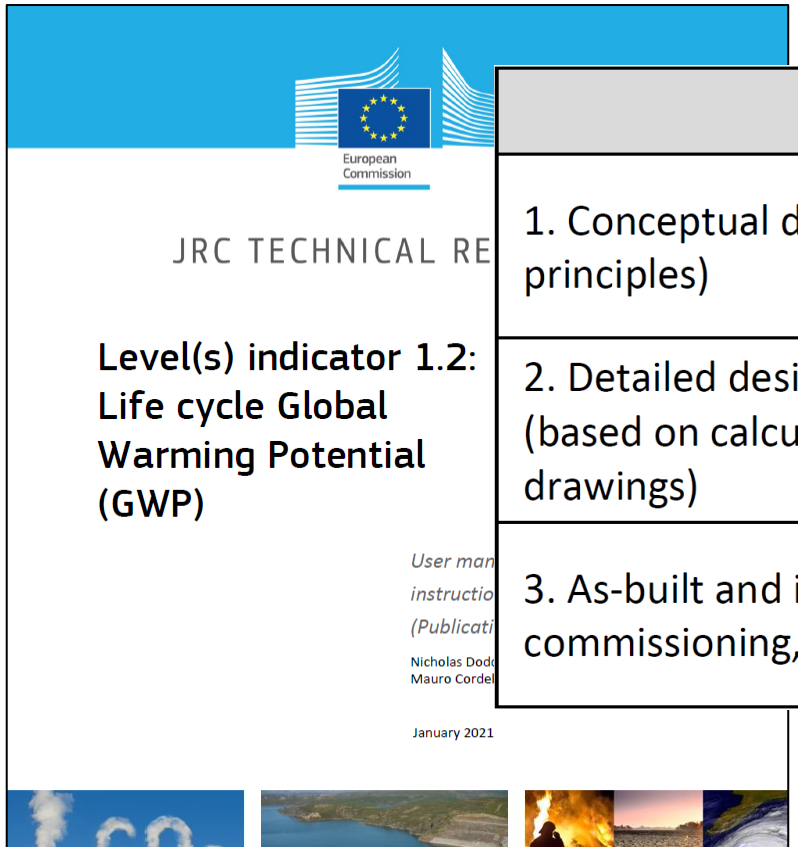

Level
1. Conceptual design (following design principles)
2. Detailed design and construction (based on calculations, simulations and drawings)
3. As-built and in-use (based on commissioning, testing and metering)

+

LEED

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Conceptual Design +

L1.5. Reporting format

To complete the reporting format for Level 1 you should answer yes or no for each of the design concepts that you have addressed and then provide brief descriptions of the measures or decisions taken for each one.

Life cycle design concept	Addressed? *(yes/no)*	How has it been incorporated into the building design concept? *(provide a brief description)*
1. Efficient building shape and form		
2. Optimised NZEB construction		
3. Optimised material utilisation and circular value		
4. Extending building and component service lives		
5. Design for adaptability		
6. Design for deconstruction		

MR credit Building Life-Cycle Impact Reduction

Path 1 = Level 1 (1 point)

At least two of the design concepts must be addressed.

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Europe ACP: Whole-Building LCA

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Level(s)

Detailed Design

+

LEED

L2.6. Going a step further: Cradle to grave Life Cycle Assessment

The opportunity exists with indicator 1.2 to go further by selecting the full set of environmental impact category indicators specified in the table below instead of just GWP. The results will be obtained by applying the same methodology for each of the impact categories to the calculation of environmental impacts for the life cycle inventory. This would represent a cradle to grave Life Cycle Assessment (LCA).

Table 6. EN 15804 and EN 15978 core environmental impact category indicators

Impact category	Indicator	Unit
Climate change – total [a]	Global Warming Potential total (GWP-total)	kg CO2eq.
Climate change - fossil	Global Warming Potential fossil fuels (GWP-fossil)	kg CO2 eq.
Climate change - biogenic	Global Warming Potential biogenic (GWP-biogenic)	kg CO2 eq.
Climate change - land use and land use change[b]	Global Warming Potential land use and land use change (GWP-luluc)	kg CO2 eq.
Ozone Depletion	Depletion potential of the stratospheric ozone layer (ODP)	kg CFC 11 eq.
Acidification	Acidification potential, Accumulated Exceedance (AP)	mol H+ eq.
Eutrophication aquatic freshwater	Eutrophication potential, fraction of nutrients reaching freshwater end compartment (EP-freshwater)	kg PO4 eq.
Photochemical ozone formation	Formation potential of tropospheric ozone (POCP);	kg NMVOC eq.

MR credit Building Life-Cycle Impact Reduction

Path 2 = Level 2 (3 points)

Reporting must include Global Warming Potential and at least two more impact categories for reduction.

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Europe ACP: Whole-Building LCA

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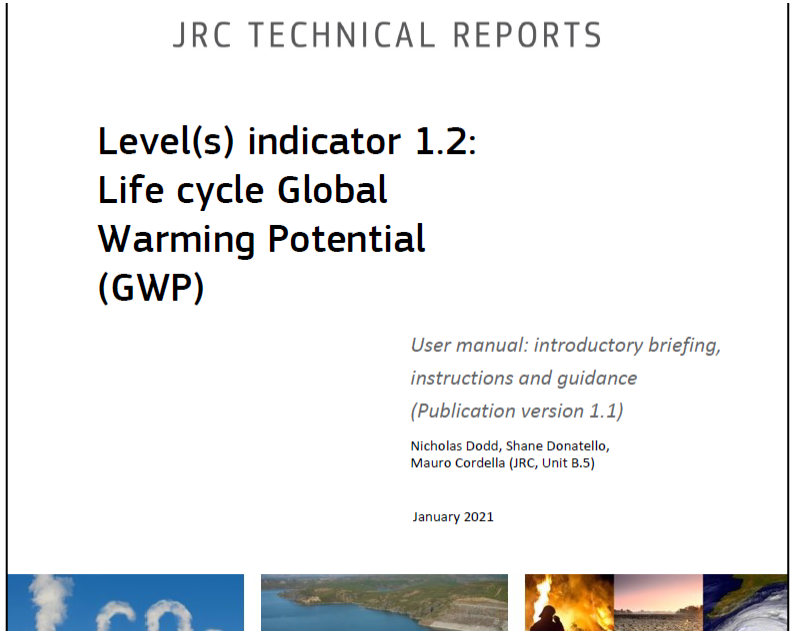
Level(s)

As-built +

Instructions for Level 3

The same procedure and instructions as defined in Level 2 can be equally applied to the building assessment after its construction or renovation. The only difference would be that the design data is supported by the certainty of materials procured and technical building systems installed instead of being based on a design only.



LEED

MR credit Building Life-Cycle Impact Reduction

Path 3 = Level 3 (4 points)

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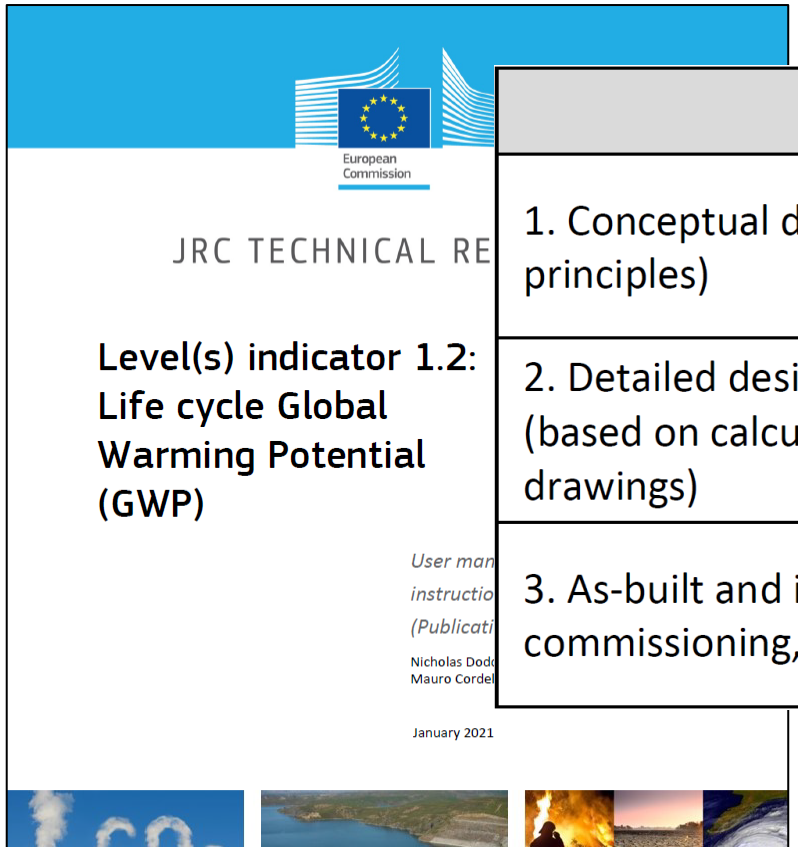
Level(s)



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LEED

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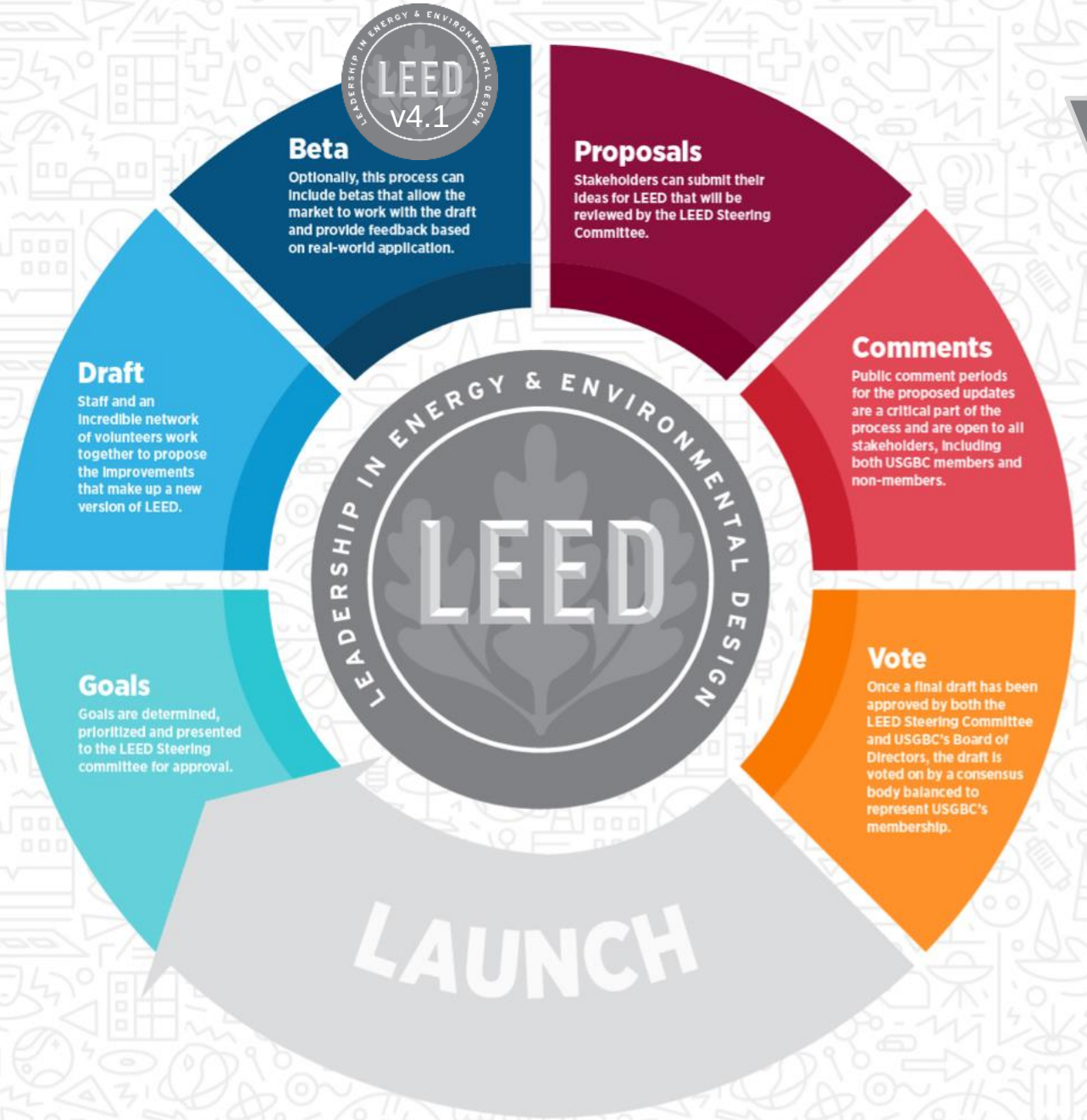
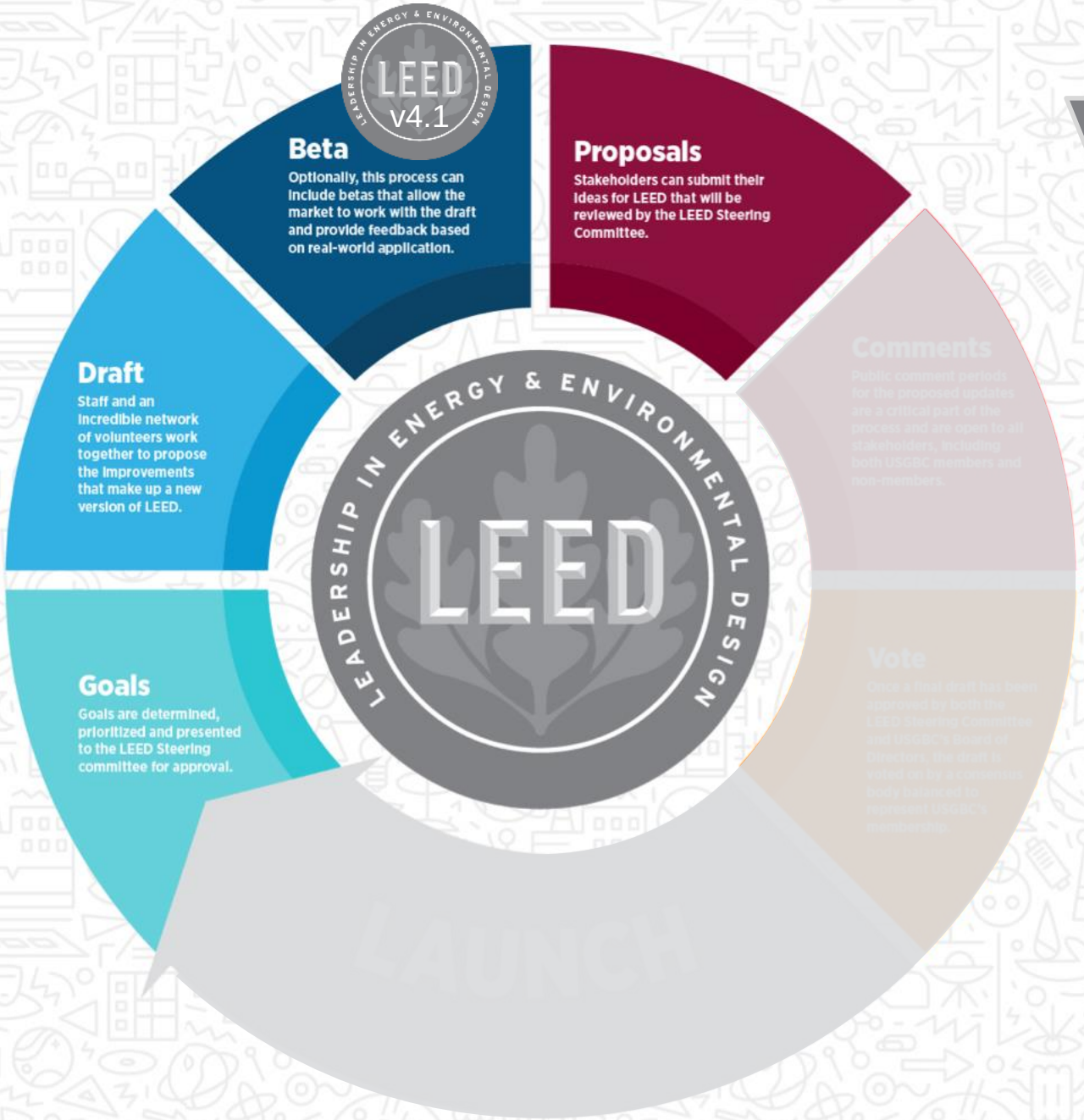
THE FUTURE OF LEED
U.S. GREEN BUILDING COUNCIL
USGBC

v4.1


LEED
v4.1
Beta
Optionally, this process can include betas that allow the market to work with the draft and provide feedback based on real-world application.
Proposals
Stakeholders can submit their ideas for LEED that will be reviewed by the LEED Steering Committee.
Comments
Public comment periods for the proposed updates are a critical part of the process and are open to all stakeholders, including both USGBC members and non-members.
Vote
Once a final draft has been approved by both the LEED Steering Committee and USGBC's Board of Directors, the draft is voted on by a consensus body balanced to represent USGBC's membership.
LAUNCH
Goals
Goals are determined, prioritized and presented to the LEED Steering committee for approval.
Draft
Staff and an incredible network of volunteers work together to propose the improvements that make up a new version of LEED.
LEADERSHIP IN ENERGY & ENVIRONMENTAL DESIGN
LEED

v4.1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LEADERSHIP IN ENERGY & ENVIRONMENTAL DESIGN
LEED


LEADERSHIP IN ENERGY & ENVIRONMENTAL DESIGN
LEED
v5

LEED v5 draft

Greenbuild | International Conference + Expo

SEPTEMBER 26–29, 2023 | EXPO: 27–28

WASHINGTON, D.C.

Feedback for v5?

Michelle Schwarting
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LEED v5

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EUROPE-FOCUSED ACPs

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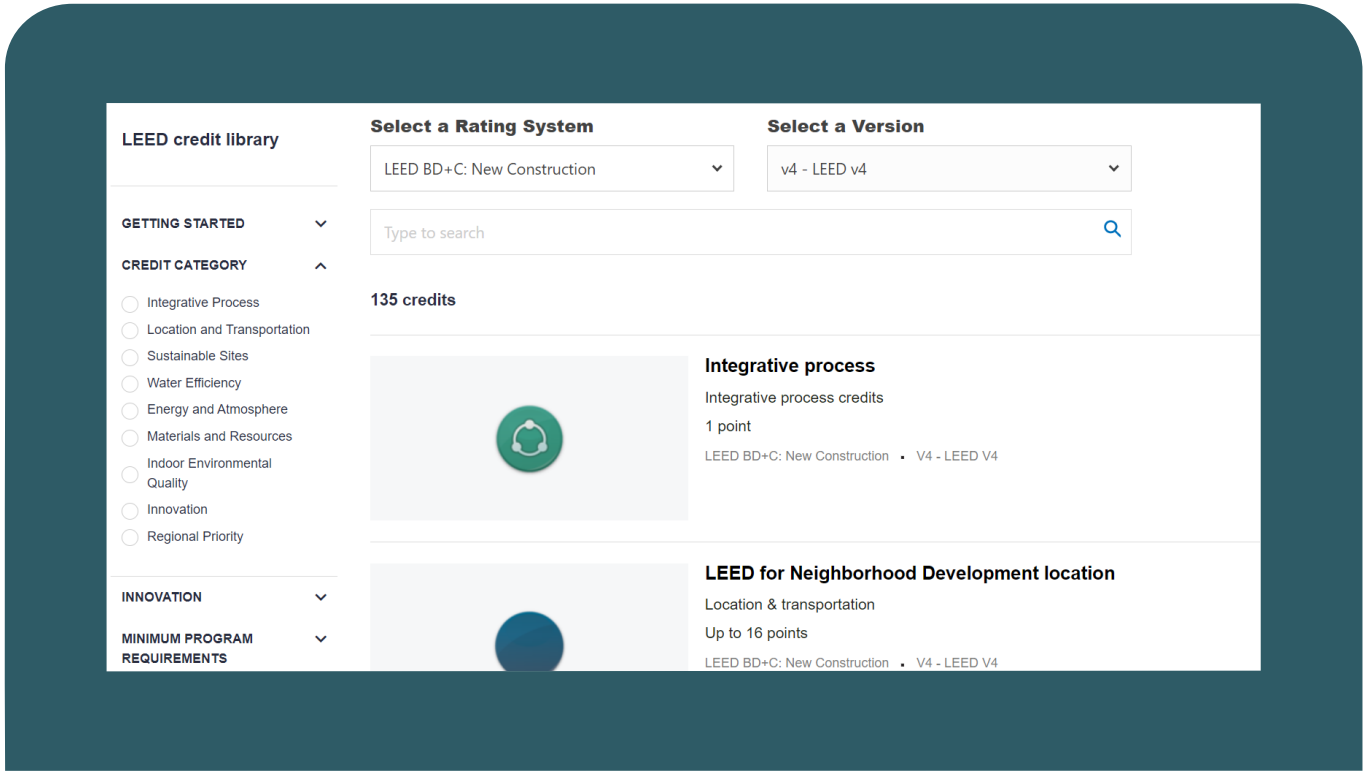

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