Erdpuls Müllrose — Master Document Index

Complete Guide to All Project Documents

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Erdpuls Document Ecosystem — Master Index

Complete Guide to the Pattern Discovery Toolkit and Supporting Documents

Erdpuls Müllrose — Living Laboratory & Makerspace Garden

Location: Müllrose, Brandenburg, Germany

Version: 1.2

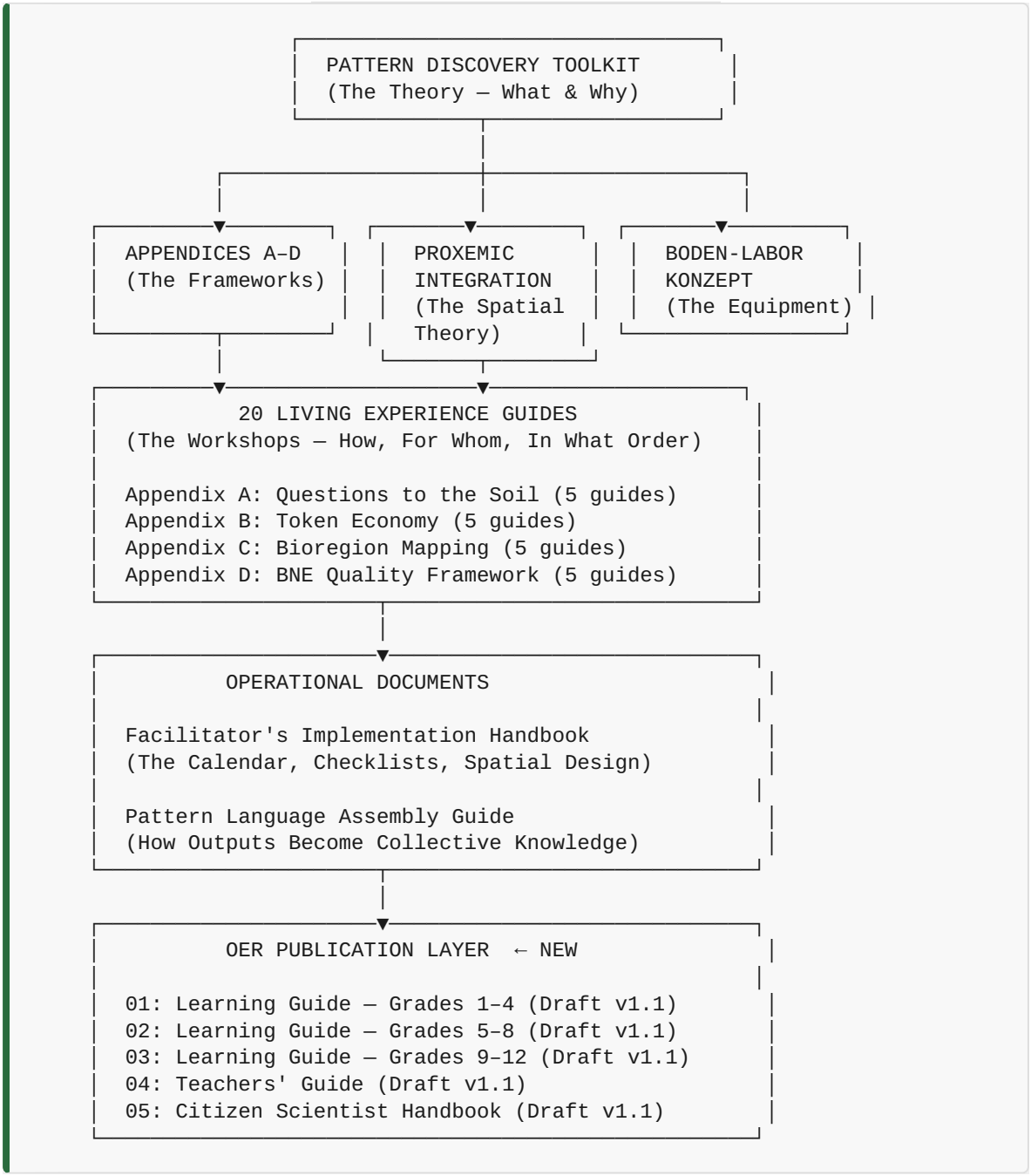
Date: February 2026

Changelog

Version	Date	Changes
1.3	February 2026	SDG Alignment section added (8 confirmed SDGs, 2 pending author review, with tier classification and OER Layer expression column); statistics table updated with SDG counts
1.2	February 2026	OER Publication Layer added (5 new audience-specific guides); location field updated; license field updated to CC BY-SA 4.0; "Other" audience placeholder added; language availability columns added
1.1	February 2026	Institution name updated; license footer added; version updated for OER publication
1.0	October 2025	Initial release

How This System Fits Together

The Erdpuls educational system is documented across multiple files that serve different purposes. This index explains what each document does, who should read it, and how they connect.


PATTERN DISCOVERY TOOLKIT
(The Theory — What & Why)
APPENDICES A–D
(The Frameworks)
PROXEMIC
INTEGRATION
(The Spatial
Theory)
BODEN-LABOR
KONZEPT
(The Equipment)
20 LIVING EXPERIENCE GUIDES
(The Workshops — How, For Whom, In What Order)
Appendix A: Questions to the Soil (5 guides)
Appendix B: Token Economy (5 guides)
Appendix C: Bioregion Mapping (5 guides)
Appendix D: BNE Quality Framework (5 guides)
OPERATIONAL DOCUMENTS
Facilitator's Implementation Handbook
(The Calendar, Checklists, Spatial Design)
Pattern Language Assembly Guide
(How Outputs Become Collective Knowledge)
OER PUBLICATION LAYER ← NEW
01: Learning Guide — Grades 1–4 (Draft v1.1)
02: Learning Guide — Grades 5–8 (Draft v1.1)
03: Learning Guide — Grades 9–12 (Draft v1.1)
04: Teachers' Guide (Draft v1.1)
05: Citizen Scientist Handbook (Draft v1.1)

Document Catalog

Layer 1: Theoretical Foundation

#	Document	Words	Purpose	Read First If You Are...	Status	Languages
1	**Pattern Discovery Toolkit**	~6,850	The core method: what pattern languages are, how phenomenological observation works, the concentric ring structure, proxemics as spatial grammar (Section 1.5), the pattern card template, adaptation guide, theoretical roots.	Anyone new to the project. This is the starting point.	(done) Complete v1.1	EN
2	**Pattern Discovery Toolkit — Appendices**	~10,000	Four technical appendices: A (Questions to the Soil protocol), B (Token Economy architecture), C (Bioregion Mapping protocol), D (BNE Quality Framework alignment).	A facilitator preparing to run specific workshop types.	(done) Complete v1.1	EN

#	Document	Words	Purpose	Read First If You Are...	Status	Languages
3	**Proxemic Integration**	~9,650	Weaves Edward T. Hall's proxemics into the toolkit: revised theoretical foundations, proxemic supplements for all 20 guides, standalone Proxemic Facilitator's Guide.	A facilitator who wants to understand *why* certain spatial arrangements produce deeper learning.	(done) Complete v1.1	EN

Layer 2: Workshop Guides (The 20 Living Experience Guides)

#	Document	Words	Appendix	Five Guides For...	Status	Languages
4	**Questions to the Soil — Living Guides**	~14,560	A	Children/Youth, Adults/Families, Elders/ Intergenerational, Artists/ Researchers, Cross-Border DE/ PL	(done) Complete v1.1	EN
5	**Token Economy — Living Guides**	~13,200	B	Same five target groups	(done) Complete v1.1	EN
6	**Bioregion Mapping — Living Guides**	~12,740	C	Same five target groups	(done) Complete v1.1	EN

#	Document	Words	Appendix	Five Guides For...	Status	Languages
7	**BNE Quality Framework — Living Guides**	~10,120	D	Same five target groups	(done) Complete v1.1	EN

Each guide is standalone and field-ready. It contains: overview table, pedagogical rationale, preparation and materials list, session phases with timing, citizen science output specification, token economy integration, facilitator notes, and seasonal variations.

Layer 3: Operational Infrastructure

#	Document	Words	Purpose	Read This When...	Status	Languages
8	**Facilitator's Implementation Handbook**	~4,750	Annual programming calendar, workshop preparation checklists, Proxemic Audit template, printable materials master list, spatial design guide for the five campus zones, month-by-month narrative, troubleshooting guide.	You are planning your first (or next) year of programming.	(done) Complete v1.1	EN

#	Document	Words	Purpose	Read This When...	Status	Languages
9	**Pattern Language Assembly Guide**	~3,840	How to take a year's accumulated workshop outputs and synthesize them into a coherent, place-specific pattern language. The annual synthesis ritual. Year-over-year accumulation. Uses and outputs.	January, when the year's data needs to become knowledge.	(done) Complete v1.1	EN

Layer 4: Campus and Equipment

#	Document	Language	Purpose	Status
10	**Erdpuls Boden-Labor Konzept**	EN	Soil Laboratory concept: design principles, three-tier equipment architecture, complete equipment list, seasonal rhythms, maintenance protocols.	External document — not in this repository
11	**Erdpuls Boden-Labor Konzept (DE)**	DE	German translation of the above.	External document — not in this repository
12	**Erdpuls Boden-Labor Einkaufsliste**	DE	Equipment shopping list spreadsheet with quantities, specifications, and suppliers.	External document — not in this repository

Layer 5: Institutional Documentation

#	Document	Language	Purpose	Status
13	**Erdpuls BNE-Bewertung und Leitbild**	DE	Comprehensive BNE quality self-evaluation against all 69 Brandenburg criteria, plus the complete BNE-Leitbild (mission statement). Evidence of 86% full compliance.	External document — not in this repository
14	**BNE Qualitätskatalog Brandenburg**	DE	The official Brandenburg BNE quality catalog (source document, PDF). Reference for all quality-related work.	External document — not in this repository

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Layer 6: OER Publication Layer ← NEW

These five documents were generated in February 2026 as audience-specific learning guides for publication on WirLernenOnline, Zenodo, and OER Commons. All are Draft v1.1. German (DE) and Polish (PL) translations are pending Phase 3.

The "Other" audience slot (#06) is reserved. Audience definition pending from project author before file can be created.

#	File	Audience	Purpose	Status	EN	DE
01	`01_learning_guide_grades_1-4.md`	Grades 1–4, ages 6–10	Lower primary learning guide: phenomenological soil observation, will-forces developmental stage, Token Seeds, senseBox as conversation partner, Class Soil Portrait	Draft v1.1	(done)	(pend

#	File	Audience	Purpose	Status	EN	DE
02	`02_learning_guide_grades_5-8.md`	Grades 5–8, ages 11–14	Middle school learning guide: full 13-Question soil protocol, 4A-Pathway, systematic measurement, senseBox operation, Comparative Data Board, four token elements	Draft v1.1	(done)	(pend
03	`03_learning_guide_grades_9-12.md`	Grades 9–12, ages 15–18	Upper secondary research guide: independent inquiry, research question design, full senseBox deployment, GIS mapping (optional), UBECrc design exercise, open science contribution	Draft v1.1	(done)	(pend

#	File	Audience	Purpose	Status	EN	DE
04	`04_teachers_guide.md`	Teachers and educators	Teachers' companion: pedagogical theory, 4A-Pathway explanation, anthroposophical developmental framework, Brandenburg curriculum alignment tables, pre/post-visit activities, assessment rubrics, parent communication template	Draft v1.1	(done)	(pend
05	`05_citizen_scientist_handbook.md`	Adult citizen scientists	Citizen science handbook: global monitoring network, meaningful observation contribution, reading sensor data, blockchain basics for non-technical users, community science best practices, building a home senseBox station, local-to-global pattern connection	Draft v1.1	(done)	(pend

#	File	Audience	Purpose	Status	EN	DE
06	*(file name TBD)*	Other *(undefined)*	**[PENDING — AUDIENCE DEFINITION REQUIRED BY AUTHOR before this file can be created]**	(not started)	—	—

Phase 3 Translation Status

All OER guides (01–05) require DE and PL translations before full trilingual OER publication. Recommended Phase 3 sequence:

1. `04_teachers_guide.md` → DE (highest priority: the primary audience for German OER platforms is teachers)
2. `01_learning_guide_grades_1-4.md` → DE then PL (most frequently used workshop audience)
3. `05_citizen_scientist_handbook.md` → DE then PL (large potential audience on German-language OER platforms)
4. `02_learning_guide_grades_5-8.md` → DE then PL
5. `03_learning_guide_grades_9-12.md` → DE then PL

Reading Paths

"I have one hour. What should I read?"

→ Pattern Discovery Toolkit, Parts 1–2 (Foundations + Method). This gives you the concentric ring structure, the phenomenological observation method, proxemics as spatial grammar, and the basic workshop flow.

"I need to run a workshop next week."

→ The specific Living Experience Guide for your target group and appendix. Then the corresponding Proxemic Supplement (in the Proxemic Integration document). Then the Universal Checklist in the Implementation Handbook.

"I'm preparing the annual program."

→ Implementation Handbook (full). Then the Pattern Language Assembly Guide (to understand what the year is building toward).

"I want to understand the theoretical framework."

→ Pattern Discovery Toolkit (full, including Part 5: Theoretical Roots). Then the Proxemic Integration (Part One: Revised Theoretical Foundations). Then the BNE-Bewertung for the quality framework alignment.

"I need to write a funding proposal or certification application."

→ BNE-Bewertung und Leitbild (the institutional compliance document). Supplemented by the Pattern Language Assembly Guide (which shows what the program produces) and the Implementation Handbook (which shows how it operates).

"I want to adapt this for my own initiative."

→ Pattern Discovery Toolkit, Part 4 (Adaptation Guide). Then the Appendices D.4 (Adapting to Other Quality Frameworks). Then select the Living Experience Guides most relevant to your target groups, understanding that every place will discover different patterns using the same method.

"I am a classroom teacher preparing to bring my class."

→ `04_teachers_guide.md` first (your complete briefing document). Then the relevant student learning guide for your grade band (01, 02, or 03). The Implementation Handbook provides operational detail if needed.

"I want to become a citizen scientist."

→ `05_citizen_scientist_handbook.md`. Then attend an Erdpuls Open Makerspace Day to build a senseBox station and start contributing to the openSenseMap network.

The Five Target Groups Across All Documents

Every living experience guide is differentiated for the same five groups. This table shows where each group appears:

Target Group	Appendix A Guide	Appendix B Guide	Appendix C Guide	Appendix D Guide
Children/Youth (8–18)	Erdreich-Entdecker	Das Garten-Wirtschaftsspiel	Wo hört unser Ort auf?	Habe ich etwas Echtes gelernt?
Adults/Families	Boden-Begegnung	Sehen, was wir schon tauschen	Die Karte unter der Karte	Was macht es wert, wiederzukommen?

Target Group	Appendix A Guide	Appendix B Guide	Appendix C Guide	Appendix D Guide
Elders/ Intergenerational	Boden-Gedächtnis	Der Erinnerungsmarkt	Die Landschaft erinnert sich	Was ist es wert, weitergegeben zu werden?
Artists/ Researchers	Boden-Tiefe	Wert jenseits des Preises	Kartografien der Zugehörigkeit	Messen, was zählt
Cross-Border DE/PL	Boden-Brücke	Eine Wirtschaft, Zwei Sprachen	Eine Landschaft, Zwei Länder	Qualität ohne Grenzen

Note: The OER Layer (Layer 6) differentiates by school grade band rather than by Erdpuls target group. Guide 01 (Grades 1–4) corresponds to the younger range of the Children/Youth group. Guides 02–03 (Grades 5–12) correspond to the older range. The Teachers' Guide and Citizen Scientist Handbook serve audiences not covered by the 20 Living Experience Guides.

The Five OER Competency Clusters

All OER Layer documents are aligned to five competency clusters, which correspond to the Brandenburg BNE Gestaltungskompetenzen:

Cluster	BNE Alignment	Appears Most Strongly In
Environmental Literacy	4.1.1, 4.1.2, 4.1.3	All three student guides; Ch. 2 of Citizen Scientist Handbook
Scientific Inquiry	4.1.4, 4.2.1, 4.3.2	Guide 02 (full protocol); Guide 03 (research track); Ch. 2–3 of Handbook
Technology Competence	4.1.2, 4.3.2	Guide 02–03 (senseBox); Ch. 6 of Handbook (station building)
Economic Understanding	4.2.2, 4.2.3, 4.3.1	Guide 02 (four elements); Guide 03 (UBECrc design); Ch. 4 of Handbook
Social-Emotional Learning	4.2.4, 4.3.3, 4.3.4	Guide 01 (Token Seeds, closing circle); Guide 02 (4A-Pathway); Ch. 5 of Handbook

SDG Alignment

The Erdpuls program addresses eight confirmed SDGs (Tiers 1–2) and two additional SDGs pending author confirmation (Tier 3). The full evidence table with specific document citations is maintained in `00_METADATA_PACKAGE.md` (Section 1.4). The summary below is for quick reference and cross-referencing.

SDG	Title	Tier	Primary OER Layer Expression
SDG 3	Good Health and Well-Being	2 — Secondary	PM2.5/PM10/CO_2/UV monitoring (Guide 05 Ch.3, Ch.6); WHO air quality thresholds explicitly cited
SDG 4	Quality Education	1 — Primary	Core purpose of all five guides; 12/12 Gestaltungskompetenzen; 86% of 69 BNE criteria; full curriculum alignment
SDG 6	Clean Water and Sanitation	2 — Secondary	Water infiltration test connecting to groundwater recharge, flood risk (All student guides Q8; Appendix A)
SDG 10	Reduced Inequalities	2 — Secondary	Collective Threshold Model (4 participation pathways); multilingual OER; cross-border DE/PL access
SDG 11	Sustainable Cities and Communities	2 — Secondary	Bioregional mapping; commons-based token economy; community pattern language; heritage campus
SDG 13	Climate Action	1 — Primary	Continuous sensor monitoring; phenology tracking; longitudinal soil records; openSenseMap contribution
SDG 15	Life on Land	1 — Primary	13-question soil protocol; Life Count biodiversity monitoring; iNaturalist/GBIF contribution; Schlaubetal reference site
SDG 17	Partnerships for the Goals	1 — Primary	CC BY-SA 4.0 OER; open data (openSenseMap, GBIF); cross-border DE/PL program; open-source toolchain
SDG 8	Decent Work and Economic Growth	3 — Tertiary*	Non-monetary labour recognition via token economy (primarily in supporting documents; see metadata package)

SDG	Title	Tier	Primary OER Layer Expression
SDG 9	Industry, Innovation and Infrastructure	3 — Tertiary*	Open-source senseBox IoT; Makerspace; citizen-built monitoring infrastructure (primarily a tool dimension)

*Tier 3 SDGs are documented in the supporting document layer. Author should confirm whether to cite these in OER Layer platform submissions.

Confirmed for platform submissions: SDG 3, 4, 6, 10, 11, 13, 15, 17

The toolkit draws on nine named intellectual traditions. This table shows where each is most active:

Tradition	Primary Document	Where It Appears Most Strongly
Christopher Alexander (Pattern Language)	Toolkit Parts 1, 3, 5	The ring structure, the pattern card, the narrative synthesis
Edward T. Hall (Proxemics)	Toolkit Section 1.5, Proxemic Integration	Sensory regimes per ring, facilitation spatial design, cross-cultural encounters
Goethean Science	Toolkit Part 1.2	Ring 0 body-calibration, "sensation before interpretation," the sensor dialogue
Phenomenology (Merleau-Ponty)	Toolkit Part 1.2	The body as instrument, observation before analysis
Bioregionalism	Toolkit Part 5, Appendix C	Ring 4, walking transects, boundary deliberation
Sense of Place (Tuan, Relph)	Toolkit Part 5	The entire project: converting space into place through sensory engagement
Citizen Science	Toolkit Part 1.3, all guides	The sensor dialogue, GPS tracks, iNaturalist integration, open data
Ubuntu Philosophy	Toolkit Part 5, Appendix B	The reciprocal token economy, the Collective Threshold Model
Education for Sustainable Development	Appendix D, BNE-Bewertung	The 12 Gestaltungskompetenzen, the 69 quality criteria, certification
Anthroposophical Developmental Theory	OER Guides 01–04	Grade-band differentiation, 4A-Pathway staging, pedagogical framing for teachers

Total Document System Statistics

Metric	Value
Total documents (all layers)	19 (14 original + 5 new OER layer)
Total estimated word count	~120,000+
Living Experience Guides	20 (5 target groups × 4 appendices)
OER Audience-Specific Guides	5 (Gr. 1–4, Gr. 5–8, Gr. 9–12, Teachers, Citizen Scientists)
Proxemic integration points	120+ across all guides
Target groups served	5 (original) + 3 school grade bands + teachers + citizen scientists
BNE quality criteria addressed	69/69 (86% fully met)
Gestaltungskompetenzen addressed	12/12
SDGs addressed (confirmed Tier 1+2)	8 (SDG 3, 4, 6, 10, 11, 13, 15, 17)
SDGs pending author confirmation (Tier 3)	2 (SDG 8, 9)
Languages (original toolkit)	EN primary, DE for institutional documents, PL for cross-border materials
Languages (OER layer)	EN (done) DE (pending) PL (pending)
License	CC BY-SA 4.0
Software license	AGPL-3.0

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This project uses the services of Claude and Anthropic PBC to inform our decisions and recommendations. This document and its translations were developed with assistance from Claude (Anthropic PBC). All strategic decisions, philosophical positions, and project commitments are those of the author.