

# Summary

- The Sphere Space Station Earth ONE and Beyond Project
- 0. Prologue – Ethics & Security
  - 0.1 Preamble — Ethics & Security
- 1. Vision and Inception
  - 1.1 Visionary Proposal for the Sphere Space Station Network
  - 1.2 Concept and Feasibility Analysis for the SphereSpace Project
- 2. Technical Foundations
  - 2.1 Technical Design and System Specifications
  - 2.2 Specification and Selected Materials
  - 2.3 Energy and Thermal Management Systems
- 3. Infrastructure and Operations
  - 3.1 Staffing, Facilities, and Living Spaces
  - 3.2 Organizational Structure and Consortium Model
  - 3.3 Public Engagement and Decentralized Associations
- 4. Sustainability and Economic Viability
  - 4.1 Environmental and Sustainability Goals
  - 4.2 Self-Sustainability Models for Space Stations and Spacecraft
  - 4.3 Economic Feasibility and Market Analysis
- 5. Security, Governance, and Alliances
  - 5.1 Establishing a Solar Alliance for Governance and Security in Space
- 6. Expansion and Future Projects
  - 6.1 Future Expansion of the Sphere Station Network and Sphere Space Crafts
- 7. Comprehensive Technical Documentation
  - 7.1 Project Overviews and Fibels
    - \* 7.1.1 Sphere Station Documentation: Technical and Operational Overview
    - \* 7.1.2 Project Fibel
  - 7.2 Partial Concepts
    - \* 7.2.1 Deck Concept of the Sphere Space Station Earth ONE
    - \* 7.2.2 Earth ONE Overview
    - \* 7.2.3 Economic Feasibility Earth ONE
    - \* 7.2.4 Window Specification Earth ONE Station
  - 7.3 Change Management
    - \* 7.3.1 Initial English Translation
    - \* 7.3.2 Bring the Single Source of Truth Documents into GitBook Format
  - 7.4 Research & Development (RD)
    - \* 7.4.1 Sphere Station Simulator – Research Summary
    - \* 7.4.2 Earth ONE Station: Orbit, Polar Docking, and Human Factors
    - \* 7.4.3 CORE-TRAFFIC-SIZING vs Wormhole-Durchmesser-Trade (127 m / 254 m / 254×508 m / 254×1016 m) — v0.1.0 DRAFT
    - \* 7.4.4 HAZARD CATALOG — Cross-Project Hazard Catalog
  - 7.5 Processes
    - \* 7.5.1 Engineering Process (Coarse → Fine)
  - 7.6 Engineering
    - \* 7.6.1 Global Standards
      - 7.6.1.1 Guideline Document: Evolution-Engineering-Naming-Folder Convention
      - 7.6.1.2 Guideline Document: The Evolution Principle
      - 7.6.1.3 Evolution Deliverables & Phase Gates
    - \* 7.6.2 Evolutions
      - Current Evolution: EVOLUTION 00 - The Beginning
      - EVOLUTION 00 — The Beginning
        - ◊ 00 Standards Templates
        - ◊ 01 Architecture

- ADR-00-Final-RPM-Decision-BALL-D127-en-v0.1.0-draft
- EVOL-00 — Earth ONE (Ø 127 m) · Baseline v1.0 — Kurzblatt
- ◊ 02 Specs
  - SPEC-00-STR-DECKS-013-sector-layout-and-interfaces-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-DECKS-014-sector-layout-and-interfaces-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-DECKS-015-sector-layout-and-interfaces-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-DECKS-DECK000-0001-wormhole-docking-tunnel-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-DECKS-DECK001-0001-transfer-node-and-radial-systems-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-DECKS-DECK002-0001-baseline-ring-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-DECKS-DECK003-0001-baseline-ring-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-DECKS-DECK004-0001-baseline-ring-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-DECKS-DECK005-0001-baseline-ring-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-DECKS-DECK006-0001-baseline-ring-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-DECKS-DECK007-0001-baseline-ring-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-DECKS-DECK008-0001-baseline-ring-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-DECKS-DECK009-0001-baseline-ring-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-DECKS-DECK010-0001-baseline-ring-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-DECKS-DECK011-0001-baseline-ring-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-DECKS-DECK012-0001-baseline-ring-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-DECKS-DECK013-0001-baseline-ring-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-DECKS-DECK014-0001-baseline-ring-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-DECKS-DECK015-0001-baseline-ring-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-GEOM-GRAV-0001 – Global Geometry & Gravitation (*EVOL-00, 127 m*)
  - SPEC-00-STR-SYS-AXIAL-RADIAL-TRADE-0001 — Variantenuntersuchung Längs-/Breitengrad-Schotten (*EVOL-00, 127 m*)
  - SPEC-00-STR-SYS-WORMHOLE-SAFETY-0001-wormhole-safety-and-hazard-mitigations-EVOL-00-D127m-EN-DE-v0.1.0-DRAFT
  - SPEC-00-STR-SYS-WORMHOLE-SAFETY-0002 — Polar Approach & Full Hazard Hardening (*EVOL-00/01*) — v0.1.0 DRAFT
- ◊ 03 Interfaces
- ◊ 04 Calculations
- ◊ 05 Models CAD SIM
- ◊ 06 Tests Verification
- ◊ 07 Ops Maintenance
- ◊ 08 Change Management
- EVOLUTION 01 - The City Comes Alive - *The Big City Awakens*
  - ◊ 00 Standards Templates
  - ◊ 01 Architecture
  - ◊ 02 Specs
    - SPEC-01-STR-GEOM-GRAV-E2-BALL-0001-earth-two-ball-D254m-EN-DE-v0.1.0-DRAFT
    - SPEC-01-STR-GEOM-GRAV-E2-LCAP-0001-earth-two-long-capsule-D254m-L508m—v0.1.0-DRAFT
  - ◊ 03 Interfaces
  - ◊ 04 Calculations
  - ◊ 05 Models CAD SIM
  - ◊ 06 Tests Verification
  - ◊ 07 Ops Maintenance

- \* 7.6.3 History
- 8. Glossary, Partners & Institutions, Legal Notices, and Overall Appendices
  - 8.1 Glossary
  - 8.2 Partners & Institutions
  - 8.3 Legal Notices
  - 8.4 Overall Appendices
    - \* 8.4.Appendix A: Abstract – Sphere Space Station Earth ONE and Beyond
    - \* 8.4.Appendix E: Evaluation of the Documentation “Sphere Space Station Earth ONE and Beyond”
    - \* 8.4.Appendix N: The Board and Engineering ABC
    - \* 8.4.Appendix P: Invitation to Participate – Research, Funding, Engineering, and Construction Partnership
    - \* 8.4.Appendix Q: AI-Based Quality Assurance Concept – Documentation & Safety
    - \* 8.4.Appendix S: Sphere Space Station Earth ONE – Executive Summaries
    - \* 8.4.Appendix W: Wow Factors
    - \* 8.4.Appendix B: Backlog Potential Developments
      - BL-ECON-B-010 Revenue Expansion & Financing Stages
      - BL-ENG-E1-004 Observatory / Detected-Outrigger Telescope
      - BL-ENG-E1-005 Spaceport & Orbital Shipyard Module
      - BL-ENG-E2-006 Habitat Expansion Path (“Earth TWO” Pre-Study)
      - BL-GOV-B-002 Solar-Alliance Governance Charter (Draft)
      - BL-OPS-E1-001 Integrated Build & Logistics Masterplan
      - BL-SEC-E1-009 Resilience Scenarios: Dual-Failure (Reactor↓ + PV↓)
      - BL-SOC-B-008 VR/AR “Visit Earth ONE” & Citizen-Science
      - BL-SOC-E1-007 Orbital Park & Culture Module
      - BL-SUS-E1-003 Earth-ONE Sustainability Playbook (Partial→Full)
    - \* 8.4.Appendix C: Charts
    - \* 8.4.Appendix I: Images
    - \* 8.4.Appendix T: Tables
      - 8.4.8.1 Table 1: Evol00 Decks 000 015 R Korr63 Roehrenmodell Exakt Sli