Issue #14: 🎪 Co-Design Workshop Facilitator Manual

Repository: `CherrelleTucker/codesign-toolkit` **URL:** https://github.com/CherrelleTucker/codesign-toolkit/issues/14 **Author:** @CherrelleTucker

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🎪 Co-Design Workshop Facilitator Manual

Complete Guide to Facilitating Collaborative Solution Design Sessions

Tool Category: Users & Stakeholders | **Phase**: Co-Creation | **Difficulty**: 📈 Intermediate

> *Lead structured workshops where scientists, technical teams, and users collaboratively design Earth observation solutions that meet real-world needs.*

📋 Tool Summary Card

Attribute	Value
🎯 **Purpose**	Facilitate collaborative sessions to align scientists and users around solution design and requirements
⏱️ **Time Required**	1 day prep + half-day workshop + 2 hours follow-up
👥 **Participants**	6-12 people: users, scientists, technical team, subject matter experts
📊 **Outputs**	Shared solution concept, functional requirements, implementation roadmap, stakeholder buy-in
🔄 **Frequency**	1-2 workshops per project during co-creation phase
💼 **Materials**	Facilitation kit, templates, workspace (physical or virtual), documentation tools

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🎯 When to Use This Tool

✅ **Perfect For:**

- Bringing together diverse stakeholders to design solutions collaboratively
- Situations requiring alignment between technical capabilities and user needs
- Projects where stakeholder buy-in and ownership are critical for success

- Complex problems that benefit from multiple perspectives and expertise

⚠️ **Consider Alternatives When:**

- Requirements are already well-defined and agreed upon
- Stakeholders cannot meet simultaneously due to scheduling/security constraints
- Very technical solutions with minimal user interface components
- Extremely tight timelines that don't allow for collaborative processes

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🎪 Workshop Planning & Design

Pre-Workshop Planning (1 Week Before)

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## Co-Design Workshop Planning Checklist
**Workshop Date:** [Date] | **Facilitator:** [Name] | **Project:** [Project Name]

### 🎯 Workshop Objectives & Scope
**Primary Objective:** [What you want to accomplish - be specific and measurable]
**Success Criteria:** [How you'll know the workshop was successful]
**Scope Boundaries:** [What you will and won't cover in this session]

**Key Questions to Answer:**
- What should this Earth observation solution do?
- How should it integrate with existing user workflows?
- What are the most critical requirements and constraints?
- What would success look like for each stakeholder group?

### 👥 Participant Selection & Preparation
**Target Participants (8-10 people optimal):**
- **End Users** (3-4 people): [Specific roles who will use solution daily]
- **Decision Makers** (1-2 people): [Authority to approve and resource solution]
- **Technical Team** (2-3 people): [Scientists, developers, system architects]
- **Domain Experts** (1-2 people): [Subject matter expertise in problem area]
- **Facilitator & Support** (1-2 people): [Workshop leadership and documentation]

**Participant Preparation (Send 1 Week Before):**
- [ ] Workshop agenda and objectives
- [ ] Background project information and context
- [ ] Pre-workshop survey (optional - see template below)
- [ ] Any relevant materials to review (user research, technical constraints, etc.)

### 🏢 Logistics & Materials
**Physical Space Requirements:**
- [ ] Room for 8-12 people with moveable furniture
- [ ] Wall space for posting sticky notes and flip charts
- [ ] Projector/screen for presentations and shared viewing
- [ ] Good lighting and comfortable temperature
- [ ] Refreshments and breaks planned

**Virtual Space Requirements:**
- [ ] Video conference platform that supports breakout rooms
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- [ ] Digital whiteboard (Miro, Mural, Conceptboard)
- [ ] Screen sharing capabilities
- [ ] Recording setup (with permission)
- [ ] Backup communication channels (chat, phone)

**Materials & Supplies:**
- [ ] Sticky notes (multiple colors) or digital equivalent
- [ ] Markers, pens, flip chart paper
- [ ] Workshop templates printed or digitally prepared
- [ ] Name tags/virtual name displays
- [ ] Timer for activities
- [ ] Camera for documentation
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Pre-Workshop Survey Template (Optional)

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## Pre-Workshop Survey: [Workshop Name]
**Purpose:** Help us tailor the workshop to participant needs and expectations

### Background & Expectations
1. **What's your primary role in relation to this project?**
   - [ ] End user who will use the solution
   - [ ] Decision maker who will approve/fund the solution
   - [ ] Technical team member who will build the solution
   - [ ] Subject matter expert providing domain knowledge
   - [ ] Other: _____

2. **What do you hope to accomplish in this workshop?**
   [Open response]

3. **What concerns or questions do you have about this project?**
   [Open response]

### Current State & Context
4. **How do you currently handle [relevant problem area]?**
   [Open response]

5. **What tools or systems do you use for [relevant tasks]?**
   [Open response]

6. **What would an ideal solution look like from your perspective?**
   [Open response]

### Workshop Logistics
7. **Any accessibility needs or accommodations?**
   [Open response]

8. **Preferred communication/collaboration style?**
   - [ ] Detailed discussion and analysis
   - [ ] Visual brainstorming and sketching
   - [ ] Structured frameworks and templates
   - [ ] Open-ended creative exploration
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**Thank you! We'll use this information to design a workshop that works for everyone.**
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📅 Workshop Structure & Facilitation Guide

Workshop Agenda Template (4 hours)

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## Co-Design Workshop Agenda: [Project Name]
**Date/Time:** [Date, Start-End Times] | **Facilitator:** [Name] | **Location:** [Physical/Virtual]

### 🎯 Opening & Alignment (30 minutes)
**9:00-9:30 AM**

#### Welcome & Introductions (15 minutes)
**Facilitator Script:** "Welcome everyone. Today we're going to work together to design a solution that truly meets your needs and leverages our technical capabilities. The goal is to leave here with a shared vision and clear next steps."

**Round-Robin Introductions:**
- Name, role, organization
- One sentence about what success would look like for you
- One word describing how you're feeling about this project

#### Ground Rules & Logistics (10 minutes)
**Establish Working Agreements:**
- [ ] Everyone's input is valuable - no "wrong" ideas
- [ ] Build on each other's ideas rather than shutting them down
- [ ] Stay focused on the user problem, not predetermined solutions
- [ ] Be specific and concrete rather than abstract
- [ ] Respect time boundaries and speak concisely
- [ ] Ask for clarification when you don't understand something

**Logistics Review:**
- Bathroom locations, break schedule
- How to get facilitator attention
- Note-taking and documentation approach
- Virtual etiquette (if applicable): mute when not speaking, use chat for questions

#### Context Setting (5 minutes)
**Quick Review:**
- Project background and objectives
- What we know about user needs (from prior research)
- Technical capabilities and constraints
- What we need to decide today

### 🔍 Problem Definition & Alignment (45 minutes)
**9:30-10:15 AM**
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Individual Problem Brainstorm (10 minutes)
Instructions: "On sticky notes, write down the specific problems this solution should solve. One problem per note. Think about your daily work - what's frustrating, time-consuming, or ineffective?"

Facilitator Role:
- Keep time and energy up
- Encourage specificity: "Can you give me an example?"
- Remind people to write legibly
- Watch for people getting stuck and offer gentle prompts

Problem Clustering & Prioritization (25 minutes)
Step 1 - Share & Cluster (15 min):
- Each person shares their problems (2-3 minutes each)
- Group similar problems together on wall/digital board
- Label each cluster with a theme

Step 2 - Prioritize (10 min):
- Each person gets 3 dots to vote for most critical problems
- Discuss top 3-5 problem areas that emerged
- Confirm these are the problems we're trying to solve

Facilitator Tips:
- Listen for underlying needs, not just stated problems
- Ask "Why is that a problem?" to get to root causes
- Watch for technical team trying to jump to solutions too quickly
- Ensure all voices are heard, manage dominant personalities

Success Vision Alignment (10 minutes)
Question: "If we solve these problems really well, what would success look like 6 months from now?"

Process:
- Quick round-robin sharing (1 minute per person)
- Capture key themes on flip chart
- Identify areas of alignment and any tensions

☕ Break (15 minutes)
10:15-10:30 AM

🎨 Solution Concept Development (60 minutes)
10:30-11:30 AM

Solution Brainstorm (20 minutes)
Instructions: "Now we brainstorm how we might solve these priority problems. Think broad and creative - we'll evaluate feasibility later."

Individual Brainstorm (10 min):
- Generate solution ideas on sticky notes
- Encourage wild ideas and building on others' concepts
- Focus on "How might we..." framing

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**Share & Build (10 min):**
- Post all ideas on wall/board
- Allow people to add to or modify others' ideas
- Group related concepts together

#### Concept Development (40 minutes)
**Step 1 - Select Promising Concepts (10 min):**
- Dot voting on most promising solution directions
- Select top 2-3 concepts for further development
- Form small groups around each concept (3-4 people per group)

**Step 2 - Concept Sketching (20 min):**
Each group develops their concept:
- What does the solution do?
- How do users interact with it?
- What are the key components/features?
- How does it integrate with existing workflows?
- Quick sketch or diagram of the concept

**Step 3 - Concept Presentations (10 min):**
- Each group presents their concept (3 minutes + 1 minute Q&A)
- Focus on user experience and value proposition
- Note questions and concerns raised

### 🔧 Requirements & Constraints Workshop (45 minutes)
**11:30 AM-12:15 PM**

#### Functional Requirements Definition (25 minutes)
**Template on Flip Charts/Digital Board:**
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SOLUTION CONCEPT: [Name]

MUST HAVE (Critical for success):

-

SHOULD HAVE (Important but not critical):

-

COULD HAVE (Nice to have if resources allow):

-

```
**Process:**
- Work as full group to define requirements for preferred concept
- Use MoSCoW method (Must, Should, Could, Won't have this time)
- Technical team provides feasibility input as requirements are discussed
- Focus on WHAT the solution needs to do, not HOW to build it
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#### Constraint Identification (20 minutes)
**Categories to Explore:**
- **Technical:** Infrastructure, security, performance, integration
- **Organizational:** Policies, approval processes, resource limitations
- **User:** Time, training, workflow integration, accessibility
- **Timeline:** Critical deadlines, seasonal factors, dependency timing

**Process:**
- Brainstorm constraints by category
- Assess impact: Does this constraint change our solution concept?
- Identify which constraints are flexible vs. fixed
- Note constraints that need further research

### 🍕 Lunch Break (45 minutes)
**12:15-1:00 PM**

### 📋 Implementation Planning (60 minutes)
**1:00-2:00 PM**

#### User Journey Mapping (30 minutes)
**Instructions:** "Let's map out how users will actually interact with this solution
in their real work."

**Template:**
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USER JOURNEY: [Typical use scenario]

TRIGGER: [What starts this process?]

STEPS:

1. User does: _____ | System does: _____ | Needs: _____
2. User does: _____ | System does: _____ | Needs: _____
3. User does: _____ | System does: _____ | Needs: _____

OUTCOME: [What user accomplishes]

PAIN POINTS: [Where could things go wrong?]

SUCCESS FACTORS: [What makes this work well?]

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**Process:**
- Work through 1-2 key user scenarios
- Include technical team to assess feasibility of each step
- Identify integration points with existing systems
- Note areas where user training might be needed

#### Development & Deployment Planning (30 minutes)
**High-Level Roadmap:**
- **Phase 1:** [What gets built first? Timeline?]
- **Phase 2:** [What comes next? Dependencies?]
- **Phase 3:** [Future enhancements? Conditions?]
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**Stakeholder Roles & Responsibilities:**
- **Users:** [What ongoing involvement is needed?]
- **Technical Team:** [Key development responsibilities?]
- **Decision Makers:** [Approval points and resource needs?]
- **Subject Matter Experts:** [Ongoing consultation needs?]

### 🎯 Next Steps & Commitment (30 minutes)
**2:00-2:30 PM**

#### Decision Documentation (15 minutes)
**Capture Key Decisions:**
- **Solution Concept:** [One paragraph description of what we're building]
- **Priority Requirements:** [Top 5 must-have requirements]
- **Key Constraints:** [Major limitations we must work within]
- **Success Criteria:** [How we'll know this is working]

#### Action Planning (10 minutes)
**Next Steps Template:**
| Action Item | Owner | Deadline | Dependencies |
|-------------|-------|----------|--------------|
| [Specific action] | [Name] | [Date] | [What's needed] |
| [Specific action] | [Name] | [Date] | [What's needed] |

**Focus on:**
- Technical feasibility validation
- Additional user research needed
- Stakeholder approval processes
- Next collaboration touchpoint

#### Commitment & Feedback (5 minutes)
**Round-Robin Closing:**
- One word describing how you feel about what we've accomplished
- One thing you're committed to doing before our next interaction
- One suggestion for improving workshops like this

**Logistics:**
- When participants will receive session summary
- Next meeting/touchpoint planned
- How to reach facilitator with questions
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🎯 Facilitation Techniques & Best Practices

Managing Group Dynamics

👥 Encouraging Participation from All Voices

Techniques for Quiet Participants:

- **Direct but gentle invitations:** "Sarah, what's your experience with this type of process?"
- **Small group work:** Break into pairs or triads before large group sharing
- **Written input:** Use sticky notes or surveys to gather input before discussion

- **Role-based perspectives:** "From the [specific role] perspective, what would you add?"

Managing Dominant Personalities:

- **Time boundaries:** "Thanks, John. Let's hear from someone who hasn't spoken yet."
- **Redirect energy:** "That's great input. Can you help facilitate the next activity?"
- **Private conversation:** Pull aside during break to ask for help drawing others out
- **Structured sharing:** Use round-robin or other structured formats

Building on Ideas:

- **"Yes, and..." mindset:** "That's interesting. How might we build on that?"
- **Connect concepts:** "I'm hearing themes of X and Y. How do those relate?"
- **Encourage expansion:** "Can you say more about that?" or "What would that look like?"

🔄 Keeping Energy and Focus

Energy Management:

- **Vary activity types:** Mix individual work, small groups, and large group discussion
- **Physical movement:** Have people move around room, change seats, work at walls
- **Time variety:** Alternate between short bursts (5-10 min) and longer activities (20-30 min)
- **Break timing:** Watch for energy drops and call breaks proactively

Focus Maintenance:

- **Visible objectives:** Keep workshop goals posted and reference them
- **Parking lot:** Capture important but off-topic items for later discussion
- **Time awareness:** Use timers and give time warnings ("5 minutes left")
- **Redirect gently:** "That's important. How does it relate to our goal of...?"

Dealing with Tangents:

- **Acknowledge value:** "That's a great point about X. Let me capture that."
- **Bridge back:** "That connects to what we're discussing because..."
- **Defer appropriately:** "Can we come back to that in our next steps discussion?"

⚖️ Managing Conflict and Disagreement

When Technical and User Perspectives Clash:

- **Understand the root:** "Help me understand why this is important to you"
- **Find common ground:** "It sounds like you both care about [shared value]"
- **Explore alternatives:** "What if we approached this differently?"
- **Test assumptions:** "What would we need to believe for that to work?"

When Users Disagree Among Themselves:

- **Explore differences:** "It sounds like your workflows might be different. Can you both describe your process?"
- **Look for patterns:** "Are there certain situations where approach A works better than approach B?"
- **Design for flexibility:** "How might we create a solution that works for both scenarios?"

When Ideas Seem Technically Impossible:

- **Don't shut down immediately:** "That's an interesting idea. What would need to be true for that to work?"
- **Explore alternatives:** "The technical approach might be challenging, but what if we achieved the same user outcome differently?"
- **Defer technical details:** "Let's capture this as a requirement and explore implementation options later"

📝 Documentation & Follow-Up

Real-Time Documentation Template

```
## Workshop Documentation: [Project Name] - [Date]
**Facilitator:** [Name] | **Note Taker:** [Name] | **Participants:** [List]

### 🎯 Key Decisions Made
**Solution Concept:**
[2-3 sentence description of what we're building]

**Priority Problems to Solve:**
1. [Problem description with user impact]
2. [Problem description with user impact]
3. [Problem description with user impact]

**Must-Have Requirements:**
- [Requirement 1 with rationale]
- [Requirement 2 with rationale]
- [Requirement 3 with rationale]

**Critical Constraints:**
- [Constraint 1 with implications]
- [Constraint 2 with implications]

### 💬 Key Quotes & Insights
**User Needs:**
- "[Quote about user workflow or pain point]" - [Speaker role]
- "[Quote about success criteria]" - [Speaker role]

**Technical Considerations:**
- "[Quote about technical feasibility or constraints]" - [Speaker role]
- "[Quote about integration requirements]" - [Speaker role]

**Organizational Factors:**
- "[Quote about adoption requirements or change management]" - [Speaker role]

### 📋 Action Items
| Action | Owner | Deadline | Success Criteria |
|--------|-------|----------|------------------|
| [Specific next step] | [Name] | [Date] | [How we'll know it's done] |
| [Specific next step] | [Name] | [Date] | [How we'll know it's done] |
```

```
### 🔄 Next Steps
**Immediate (1-2 weeks):**
- [What happens right away]

**Short-term (1 month):**
- [Next major milestone or touchpoint]

**Medium-term (2-3 months):**
- [Where we expect to be in development]

### ❓ Outstanding Questions
- [Question that needs research or follow-up]
- [Decision that needs to be made later]
- [Assumption that needs validation]

### 📊 Workshop Feedback
**What Worked Well:**
- [Participant feedback on effective elements]

**What Could Be Improved:**
- [Suggestions for future workshops]

**Energy/Engagement Level:** [High/Medium/Low with notes]
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Post-Workshop Follow-Up Process

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## Post-Workshop Follow-Up Checklist

### Within 24 Hours
- [ ] Send thank you email to all participants
- [ ] Distribute workshop summary with key decisions and action items
- [ ] Schedule individual follow-ups with key stakeholders if needed
- [ ] Update project documentation with workshop outcomes

### Within 1 Week
- [ ] Follow up on immediate action items and provide support as needed
- [ ] Begin work on any commitments made during workshop
- [ ] Schedule next collaborative session if appropriate
- [ ] Share workshop outcomes with broader stakeholder community

### Within 2 Weeks
- [ ] Check progress on action items and provide assistance where needed
- [ ] Begin incorporating workshop decisions into project plans and timelines
- [ ] Validate any assumptions or decisions that emerged from workshop
- [ ] Plan for next phase of co-design activities

### Follow-Up Email Template
Subject: Thank you + Next Steps from [Project Name] Co-Design Workshop

Hi everyone,
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Thank you for your excellent participation in yesterday's co-design workshop. Your
insights and collaboration resulted in [key achievement from workshop].

## What We Accomplished
- [Key decision 1]
- [Key decision 2]
- [Key decision 3]

## Your Action Items
[Personalized list for each recipient]

## My Commitments
- [What facilitator/project team committed to do]

## Next Steps
Our next major milestone is [next touchpoint] planned for [timeframe]. I'll keep you
updated on progress and reach out as we need your input.

## Questions?
Please don't hesitate to reach out if you have questions, concerns, or additional
ideas.

Thanks again for your partnership in this process!

[Facilitator name and contact information]

**Attached:** Workshop summary document
```

🔄 Integration with Other Co-Design Tools

This Workshop Uses:

- **Stakeholder Mapping Workshop** - Participant identification and relationship understanding
- **Discovery Interview Blueprint** - Pre-workshop user insights and context
- **Context Analysis Framework** - Understanding organizational and technical constraints

This Workshop Produces:

- **Input for Requirements Definition Canvas** - Detailed requirements specification
- **Input for User Journey Mapping Kit** - Workflow integration planning
- **Input for User Testing Protocol** - Understanding of user tasks and success criteria

This Workshop Integrates With:

- **Co-Design Project Planning Template** - Workshop timing and resource allocation
- **Touchpoint Scheduling Framework** - Part of systematic engagement approach
- **Progress Communication Dashboard** - Workshop outcomes and stakeholder engagement

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📚 Source Attribution

Primary Sources:

- **SERVIR Service Design Tool 2021** - Workshop structure and collaborative planning methodology
- **Solution Co-Development Toolkit Narrative** - User-centered collaborative design processes
- **NSITE Solution Project Requirements and Expectations** - Stakeholder engagement and co-design approach

Supporting Sources:

- **MSFC Coordination on Solutions Co-Development Toolkit** - Multi-stakeholder coordination and facilitation
- **SERVIR Stakeholder Mapping Tool 2021** - Participant engagement and relationship management

Methodology Foundation:

- Design thinking workshop facilitation best practices
- Participatory design methodologies from human-computer interaction research
- Group facilitation techniques adapted for technical and scientific contexts

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💬 Community Discussion

Share your facilitation experience:

- What workshop formats work best for your stakeholder mix?
- How do you adapt workshops for virtual vs. in-person collaboration?
- What techniques help balance technical feasibility with user needs?
- How do you maintain momentum and engagement in longer collaborative sessions?

Manual improvements:

- What facilitation scenarios would you add for specific Earth observation contexts?
- How do you handle workshops with participants from different organizational cultures?
- What tools or techniques work best for documenting and sharing workshop outcomes?

🔧 **Tool Maintainer:** @your-username | 📅 **Last Updated:** [Today's Date] | 📌 **Version:** 1.0