

## SCiO Systems Practitioner Competency Framework Resources

Competency	Books	Papers / articles / videos / presentations / WIKI
<b>Section 1. Systems Knowledge &amp; Skills</b> - methods or methodologies that may be used in any conjunction, as part of a systemic inquiry into a problematic situation, and are rooted in systems thinking laws and concepts.		
Confrontation Analysis (CONAN)	<p><u>Confrontation Analysis – How to win operations other than war</u>, 1999, Howard</p> <p><u>Rational Analysis for a Problematic World Revisited 2e: Problem Structuring Methods for Complexity, Uncertainty and Conflict</u>, 2001, Rosenhead</p> <p><u>The Utility of Force</u>, 2007, Rupert Smith</p> <p><u>The Confrontation Analysis Handbook</u>, 2018, Curry &amp; Young</p>	<p><a href="https://en.wikipedia.org/wiki/Confrontation_analysis">https://en.wikipedia.org/wiki/Confrontation_analysis</a></p>
Critical System Heuristics	<p><u>Systems Approaches to Making Change: A Practical Guide</u>, 2020, Reynolds &amp; Holwell</p>	<p><u>A Brief Introduction to Critical Systems Heuristics</u>, 2005, Ulrich</p> <p><a href="https://en.wikipedia.org/wiki/Critical_systems_thinking">https://en.wikipedia.org/wiki/Critical_systems_thinking</a></p>
INFORMED Group Dynamics		<p><u>Organisational decision-making: A personal construct perspective</u>, University of Manchester, UK, 2017, Marguet.N</p>
Interactive Management	<p><u>A Handbook of Interactive Management</u>, 1994, Warfield &amp; Cárdenas</p>	<p><u>Interactive Management (IM)</u>, Lee</p> <p><u>The Life and Work of Dr. John Warfield</u></p>
Interactive Planning	<p><u>Re-Creating the Corporation: A Design of Organizations for the 21st Century</u>, 1999, Ackoff</p>	<p><u>A Brief Guide to Interactive Planning and Idealized Design</u>, 2001, Ackoff</p> <p><a href="https://en.wikipedia.org/wiki/Interactive_planning">https://en.wikipedia.org/wiki/Interactive_planning</a></p>
Mosaic Transformation, Bubble Strategy	<p><u>Fractal Organization</u>, 2007, Hoverstadt</p>	<p><u>Mosaic Transformation, Fractal</u></p> <p><u>The Bubble Strategy: A Case Study of Dynamic, Defensible Processes of Change in Salford</u>, 2007, Kawalek</p>
Multi-methodology (incl. SOSM)	<p><u>Rational Analysis for a Problematic World Revisited 2e: Problem Structuring Methods for Complexity, Uncertainty and Conflict</u>, 2001 Rosenhead</p> <p><u>Systems Thinking – Creative Holism for Managers</u>, 2003, Jackson</p> <p><u>Critical Systems Thinking and the management of Complexity</u>, 2019, Jackson</p>	
Patterns of Strategy	<p><u>Patterns of Strategy</u>, 2017, Hoverstadt &amp; Loh</p>	<p><a href="https://youtu.be/OMi5F8z02Nk">https://youtu.be/OMi5F8z02Nk</a></p> <p><a href="https://www.youtube.com/watch?v=irs7GiQyWLE&amp;feature=youtu.be">https://www.youtube.com/watch?v=irs7GiQyWLE&amp;feature=youtu.be</a></p> <p><u>Patterns of Strategy</u></p>
Socio-Technical Systems		<p><u>The Evolution of Socio-Technical Systems</u>, 1981, Trist</p> <p><u>The Social Engagement of Social Science, A Tavistock Anthology</u>, Trist</p> <p><a href="https://en.wikipedia.org/wiki/Sociotechnical_system">https://en.wikipedia.org/wiki/Sociotechnical_system</a></p>
Soft Systems Methodology	<p><u>Systems Thinking, Systems Practice</u>, 1981, Checkland</p> <p><u>Systems: Concepts, Methodologies, and Applications</u>, 1990, Wilson</p> <p><u>Soft Systems Methodology: a 30-year retrospective</u>, 1999, Checkland &amp; Scholes</p>	<p><a href="https://en.wikipedia.org/wiki/Soft_systems_methodology">https://en.wikipedia.org/wiki/Soft_systems_methodology</a></p>

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	<p><u>Soft Systems Methodology: Conceptual Model Building and Its Contribution</u>, 2001, Wilson</p> <p><u>Learning for Action: A Short Definitive Account of Soft Systems Methodology, and Its Use Practitioners, Teachers and Students</u>, 2007, Checkland &amp; Poulter</p> <p><u>Systems Approaches to Managing Change</u>, 2010, Checkland</p> <p><u>Soft Systems Thinking, Methodology and the Management of Change</u>, 2015, Wilson &amp; van Haperen</p> <p><u>Systems Approaches to Managing Change</u>, 2019, Checkland</p>	
<p><u>Syntegration/Synteegrity™</u></p>	<p><u>Organizational Fitness: Corporate Effectiveness Through Management Cybernetics</u>, 1992, Espejo &amp; Schwanninger</p> <p><u>Beyond Dispute: The Invention of Team Synteegrity</u>, 1994, Beer</p>	<p><a href="http://www.syntegration.com">http://www.syntegration.com</a></p> <p><a href="https://en.wikipedia.org/wiki/Management_cybernetics#Syntegration">https://en.wikipedia.org/wiki/Management_cybernetics#Syntegration</a></p>
<p>System Dynamics</p>	<p><u>Industrial Dynamics</u>, 1961, Forrester</p> <p><u>Urban Dynamics</u>, 1969, Forrester (N/A)</p> <p><u>Limits to Growth</u>, 1972, Meadows,</p> <p><u>Managerial Applications of System Dynamics</u>, 1981, Roberts.</p> <p><u>Elements of the System Dynamics Method</u>, 1980, Randers</p> <p><u>The Fifth Discipline</u>, 1990, Senge</p> <p><u>Business Dynamics: Systems thinking and modeling for a complex world</u>, 2000, Sterman</p> <p><u>Limits to Growth: The 30-Year Update</u>, 2004, Meadows</p> <p><u>Strategic Modelling and Business Dynamics: A Feedback Systems Approach</u>, 2007, Morecroft.</p> <p><u>Strategic Management Dynamics</u>, 2007, Warren</p> <p><u>Thinking in Systems: a Primer</u>, 2008, Meadows</p> <p><u>Strategy Dynamics Essentials</u>, 2015, Warren</p>	<p>System Dynamics Society: What is SD?</p> <p><a href="https://en.wikipedia.org/wiki/System_dynamics">https://en.wikipedia.org/wiki/System_dynamics</a></p>
<p>Viable System Model</p>	<p><u>Brain of the Firm</u>, 1973, Beer</p> <p><u>Designing Freedom</u>, 1974, Beer</p> <p><u>Heart of Enterprise</u>, 1979, Beer</p> <p><u>Diagnosing the System for Organizations</u>, 1985, Beer</p> <p><u>The Viable System Model: Interpretations and Applications of Stafford Beer's VSM</u>, 1989</p> <p><u>Organizational Fitness: Corporate Effectiveness Through Management Cybernetics</u>, 1992, Espejo &amp; Schwanninger</p> <p><u>Fractal Organization</u>, 2007, Hoverstadt</p> <p><u>Systemisches Management</u>, 2009, Malik</p> <p><u>Systems Approaches to Managing Change</u>, 2010, Hoverstadt</p>	<p><a href="https://en.wikipedia.org/wiki/Viable_system_model">https://en.wikipedia.org/wiki/Viable_system_model</a></p> <p><u>The SCiO Organisational Maturity Model</u></p> <p><u>The variety engineering method: analyzing and designing information flows in organizations</u>, 2011, Rosenkrantz &amp; Holten</p> <p><u>Management control systems: A variety engineering perspective</u>, O'Gradya, Morlidge &amp; Rousea</p>

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	<p><a href="#">Organizational Systems: Managing Complexity with the Viable System Model</a>, 2011, Espejo</p> <p><a href="#">Complexity Approach To Sustainability, A: Theory And Application</a>, 2011, Espinosa &amp; Walker</p> <p><a href="#">Corporate Policy and Governance: How Organizations Self-organize</a>, 2012, Malik (N/A)</p> <p><a href="#">Baukybernetik</a>, 2013, Frahm</p> <p><a href="#">Die Intelligente Organisation: Das Playbook für organisatorische Komplexität</a>, 2018, Lambertz</p> <p><a href="#">Systems Approaches to Making Change</a>, 2019, Hoverstadt</p> <p><a href="#">The Viability of Organizations Vol. 1: Decoding the "DNA" of Organizations</a>, 2019, Lassi</p> <p><a href="#">The Viability of Organizations Vol. 2: Diagnosing and Governing Organizations</a>, 2019, Lassi</p> <p><a href="#">The Viability of Organizations Vol. 3: Designing and Changing Organizations</a>, 2019, Lassi</p>	
<b>Section 2. Systems Thinking Knowledge &amp; Skills</b> - laws and concepts that are fundamental to systems thinking practice and form the basis for systems knowledge and skills.		
Systemic thinking & systems concepts	<p><a href="#">Systems Thinkers</a>, 2020, Ramage &amp; Shipp</p>	<p><a href="#">Systems Approaches to Making Change: A Practical Guide</a>, 2020, Reynolds &amp; Holwell</p> <p><a href="#">Systems Thinking: What, Why, When, Where and How?</a>, Goodman</p>
Systems Laws	<p><a href="#">The Grammar of Systems: from Order to Chaos &amp; Back</a>, 2022, Hoverstadt</p>	<p><a href="#">The Grammar of Systems</a>, 2022, Hoverstadt (presentation)</p>
Transposing Theory (YoYo model)	<p><a href="#">The World, The Flesh and The Metal: Prerogatives of Systems</a>, 1965, Beer, nature, edition 205</p> <p><a href="#">Decision and Control</a>, 1966, Beer</p>	<p><a href="#">The systemic yoyo model: an introduction</a>, 2010, Lin</p>

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<b>Section 3. Intervention Knowledge &amp; Skills</b> - approaches to intervening in an organisational or institutional situation, which may be used in any conjunction with systems knowledge and skills methods and methodologies.		
Action learning	<u>Action Learning Handbook</u> , 2003, Brockbank	<u>What is Action Learning</u> , World Institute for Action Learning <a href="https://en.wikipedia.org/wiki/Action_learning">https://en.wikipedia.org/wiki/Action_learning</a>
Action research	<u>The Action Research Planner: Doing Critical Participatory Action Research</u> , 2013, Kemmis, McTaggart et al.	<a href="https://en.wikipedia.org/wiki/Action_research">https://en.wikipedia.org/wiki/Action_research</a>
Agile (project mgmt.)	<u>Agile Project Management: Creating Innovative Products</u> , 2009, Highsmith	<u>Agile Project Management – Agilism versus Traditional Approaches</u> , 2016, Fernandez & Fernandez
Appreciative Inquiry	<u>Appreciative Inquiry: A Positive Revolution in Change</u> , 2012, Cooperrider & Whitney	<u>What is Appreciative Inquiry?</u> , Cooperrider <a href="https://en.wikipedia.org/wiki/Appreciative_inquiry">https://en.wikipedia.org/wiki/Appreciative_inquiry</a>
Coaching	<u>Coaching: Approaches and Perspectives</u> , 2008, Knight	<a href="https://en.wikipedia.org/wiki/Coaching">https://en.wikipedia.org/wiki/Coaching</a>
Constellations		<a href="https://en.wikipedia.org/wiki/Constellation_model">https://en.wikipedia.org/wiki/Constellation_model</a>
Conversation mapping	<u>Organisational learning II: Theory, Method and Practice</u> , 1995, Argyris & Schon <u>Conversations For Action and Collected Essays: Instilling a Culture of Commitment in Working Relationships</u> , 2013, Flores & Letelier Flores conversation model in: <u>Understanding Computers and Cognition: A New Foundation for Design</u> , 1986, Winnograd & Flores	<u>Conversations for Action and Collected Essays</u> , Flores
Covert operations		<u>Organisational change and covert processes</u> , 2018, Saxena
Critical Social Learning Systems	<u>Communities of Practice and Social Learning Systems</u> , 2000, Wenger <u>Social Learning Systems and Communities of Practice</u> , 2010, Blackmore	<u>Social Learning Systems for Collective Action:</u> <a href="http://oro.open.ac.uk/37508/">http://oro.open.ac.uk/37508/</a> <a href="https://helen.wilding.name/2011/02/20/key-concepts-related-to-critical-social-learning-system/">https://helen.wilding.name/2011/02/20/key-concepts-related-to-critical-social-learning-system/</a>
Culture mapping	<u>Exploring Corporate Strategy</u> , 2002, Johnson & Scholes	<u>Management Models: Johnson and Scholes' Cultural Web</u> , CMI
Data analysis incl. SPC, statistics	<u>Normality and the Process Behaviour Chart</u> , 2000, Wheeler <u>Bayesian Data Analysis</u> , 2013, Gelman, Carlin et al. <u>Statistical Process Control</u> , 2018, Oakland & Oakland	<a href="https://en.wikipedia.org/wiki/Statistics">https://en.wikipedia.org/wiki/Statistics</a> <a href="https://en.wikipedia.org/wiki/Statistical_process_control#Application_of_SPC">https://en.wikipedia.org/wiki/Statistical_process_control#Application_of_SPC</a>
Decision structure design		<a href="https://en.wikipedia.org/wiki/Design_rationale">https://en.wikipedia.org/wiki/Design_rationale</a>
Deming	<u>Out of the Crisis</u> , 1986, Deming <u>The New Economics for Industry, Government, Education</u> , 2018, Deming & Cahill <u>The Deming Management Method</u> , 1988, Walton	<u>Model of Sustainable Organisation (MoSO)</u> , 2010, MoSO Collective <a href="https://en.wikipedia.org/wiki/W._Edwards_Deming">https://en.wikipedia.org/wiki/W._Edwards_Deming</a>
Detecting & Managing undiscussables		<u>Making the Undiscussable and Its Undiscussability Discussable</u> , 1980, Argyris
Facilitation		<u>What we Mean by Facilitation</u> , Institute of Cultural Affairs <a href="https://en.wikipedia.org/wiki/Facilitation_(business)">https://en.wikipedia.org/wiki/Facilitation_(business)</a>

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Flawless consulting	<a href="#">Flawless Consulting: A Guide to Getting your Expertise Used</a> , 2011, Block	
Fractal Enterprise Model & Capabilities (Bider)		<a href="#">Fractal Enterprise Model</a> , Bider <a href="#">Fractal Enterprise Model and its Usage for Business Model Innovation</a> , 2018, Bider & Perjons
Graphic facilitation, incl. visualisation	<a href="#">Visualising Business Transformation: Pictures, Diagrams and the Pursuit of Shared Meaning</a> , 2020, Whitla	
Iceberg model	<a href="#">Thinking in Systems: a Primer</a> , 2017, Meadows, ed. Wright	<a href="#">Iceberg Model</a> , Ecochallenge.org
Influencing and mediation	<a href="#">Influence: The Psychology of Persuasion</a> , 2007, Cialdini <a href="#">Confrontation Analysis – How to win operations other than war</a> , 1999, Howard	<a href="#">Organisational decision-making: A personal construct perspective</a> , 2017, Marguet.N, University of Manchester, UK.
Influence mapping		<a href="#">Influence, Stakeholder Mapping and Visualization</a> , 2008, Walker, Bourne & Shelley
Interview technique		<a href="#">SOARA Interview Technique</a>
Ladder of abstraction		<a href="#">Critical Thinking via the Abstraction Ladder</a> , 1991, Seabury
Ladder of inference		<a href="https://en.wikipedia.org/wiki/Chris_Argyris">https://en.wikipedia.org/wiki/Chris_Argyris</a> <a href="https://www.youtube.com/watch?v=V85ZbpiLvBw">https://www.youtube.com/watch?v=V85ZbpiLvBw</a>
Large group decision approaches	<a href="#">Challenging Strategic Planning Assumptions: theory, cases and techniques</a> , 1981, Mason & Mitroff, New York, Wiley	<a href="#">Strategic Assumptions Surfacing and Testing</a> , Institute for Manufacturing, University of Cambridge
Large group engagement processes		
Lean & 6 sigma	<a href="#">Lean Thinking: Banish Waste and Create Wealth in your Corporation</a> , 2003, Womack & Jones <a href="#">Six Sigma: The Breakthrough Management Strategy Revolutionizing the World's Top Corporations</a> , 2006, Harry & Schroeder	<a href="https://en.wikipedia.org/wiki/Lean_thinking">https://en.wikipedia.org/wiki/Lean_thinking</a> <a href="https://en.wikipedia.org/wiki/Six_Sigma">https://en.wikipedia.org/wiki/Six_Sigma</a>
Learning design & learning conversations	<a href="#">Learning Conversations: The Self-Organised Learning way to personal and organizational growth</a> , 2013, Harri-Augstein E. S. and Thomas L. F.	<a href="https://en.wikipedia.org/wiki/Instructional_design">https://en.wikipedia.org/wiki/Instructional_design</a>
Linear argument technique	<a href="#">Visualising Business Transformation: Pictures, Diagrams and the Pursuit of Shared Meaning</a> , 2020, Whitla	<a href="#">Making more meaningful models: A hands-on guide</a> , 2017, Whitla
Listening & multiple perspectives		<a href="#">Systems-Centred®– Working with Differences Differently</a> , 2020, SCiO
Managing deflection / resistance & challenge	<a href="#">Flawless Consulting: A Guide to Getting your Expertise Used</a> , 2011, Block <a href="#">Discussing the Undiscussable: A Guide to Overcoming Defensive Routines in the Workplace</a> , 2008, Noonan <a href="#">Overcoming Organizational Defenses: Facilitating Organizational Learning</a> , 2018, Argyris	

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Metaphors		<u>Major Metaphors of Communication and some Constructivist Reflections on their Use</u> , Cybernetics & Human Knowing, 2,1: 3-25, 1993, Krippendorff <u>Metaphors of Organisation</u> , 2001, Lawley <u>The Persuasive Effects of Metaphor: A Meta-Analysis</u> , <i>Human Communication Research</i> , 2006, Sopory & Dillard <a href="https://en.wikipedia.org/wiki/Neuro-linguistic_programming">https://en.wikipedia.org/wiki/Neuro-linguistic_programming</a>
Neuro-Linguistic Programming (NLP)	<u>Introducing NLP: Psychological Skills for Understanding and Influencing People</u> , 2011, OConner	<a href="https://en.wikipedia.org/wiki/Visual_communication">https://en.wikipedia.org/wiki/Visual_communication</a>
Presentation design		<a href="https://en.wikipedia.org/wiki/Visual_communication">https://en.wikipedia.org/wiki/Visual_communication</a>
Productive conversations	<u>Discussing the Undiscussable: A Guide to Overcoming Defensive Routines in the Workplace</u> , 2008, Noonan <u>Overcoming Organizational Defenses: Facilitating Organizational Learning</u> , 2018, Argyris	<u>Teaching Smart People How to Learn</u> , 1991, Argyris <u>The Left Hand Column</u> , 2000, Ross & Kleiner <a href="https://www.fastcompany.com/659549/leading-ideas-surface-your-difficult-issues">https://www.fastcompany.com/659549/leading-ideas-surface-your-difficult-issues</a>
Public speaking		<a href="https://en.wikipedia.org/wiki/Public_speaking">https://en.wikipedia.org/wiki/Public_speaking</a>
Questionnaire design		<a href="https://en.wikipedia.org/wiki/Questionnaire_construction">https://en.wikipedia.org/wiki/Questionnaire_construction</a>
Scientific Theory & Evidence		<a href="https://en.wikipedia.org/wiki/Scientific_theory">https://en.wikipedia.org/wiki/Scientific_theory</a>
Selling systems approaches	<u>Flawless Consulting: A Guide to Getting your Expertise Used</u> , 2011, Block	
Stakeholder analysis	<u>Stakeholder Analysis A Complete Guide</u> , 2019, Gerardus Blokdyk	<a href="https://en.wikipedia.org/wiki/Stakeholder_analysis">https://en.wikipedia.org/wiki/Stakeholder_analysis</a>
Training design		
Transactional Analysis (TA)	<u>Games People Play: The Psychology of Human Relationships</u> , 2010, Berne	<a href="https://en.wikipedia.org/wiki/Transactional_analysis">https://en.wikipedia.org/wiki/Transactional_analysis</a>
Trust mapping & metrics	Flores conversation model in: <u>Understanding Computers and Cognition: A New Foundation for Design</u> , 1986, Winnograd & Flores	Value by Design 2019 Hoverstadt & Loh [copy via <a href="mailto:patrick.hoverstadt@systemspractice.org">patrick.hoverstadt@systemspractice.org</a> ] <u>Patterns of Strategy [Products]</u> , Hoverstadt
Values mapping and integration	<u>Value Networks and the True Nature of Collaboration</u> , 2015, Allee.V et al.	<u>Value Network Analysis and Value Conversion of Tangible and Intangible Assets</u> , 2008, Allee.V Value by Design 2019 Hoverstadt & Loh [copy via <a href="mailto:patrick.hoverstadt@systemspractice.org">patrick.hoverstadt@systemspractice.org</a> ]
Vanguard Method	<u>Systems Thinking in the Public Sector: The Failure of the Reform Regime.... and a Manifesto for a Better Way</u> , 2008, Seddon	<u>Leading a Revolution in Management Practice</u> , Vanguard
Verbal Behaviours (Rackham)	<u>Behaviour Analysis in Training</u> , 1977, Rackham	
Workshop design		<u>How to Prepare a Workshop</u> , 2021, Chandran <u>Planning a Workshop: Organizing and Running a Successful Event</u> , Mindtools