New Human-AI Methodologies and Frameworks

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Framework

We are entering a moment in which our capacity to create solutions is changing radically. Ways of working have always evolved in response to the tools and capabilities available in each moment of history. Artificial Intelligence is one of those inflection points: a capability that learns, reasons, creates, executes and coordinates work at exponentially increasing speed.

Yet something essential remains: we create value when we solve real problems for people in meaningful ways. Building a solution still makes sense when it creates value for people and, as a result, for the business. We therefore retain principles from the scientific method: observe reality, understand the problem, formulate hypotheses, experiment, measure evidence, learn and evolve.

Technology accelerates our capacity to act; evidence continues to guide what to build and how it should evolve.

Framework

Applying the foundations of the scientific method helps us address a reality: the nature of how the world works and how people act. AI evolves at an exponential pace while organisations tend to transform gradually. This gap creates one of today's major challenges: designing organisations able to evolve at the pace of this new context.

This means rethinking teams, roles, structures and ways of working to integrate AI capabilities and turn them into organisational capability. A small human team can now lead a coordinated ecosystem of AIs participating in discovery, delivery and solution evolution. The right combination of human intelligence, artificial intelligence and cross-functional organisational knowledge can radically multiply what a team can achieve.

We call teams made up of human and artificial intelligences problem-solving teams. Leadership, judgement and accountability remain human. Ethical, moral and strategic decisions are human responsibilities; each AI system therefore has a human owner who provides context and judgement, defines objectives and is accountable for performance and outcomes.

AI expands the boundaries of what is possible. Purpose, human judgement and evidence help us decide what is worth making possible. Together, we will solve real problems and create value for people.

Principles

- We lead with purpose, understanding the fundamentals of what we do.
- We connect the business, its strategy and the end user, creating value for both.
- Knowledge is available where value is created, preventing specialisation from becoming dependency.
- AI is a team member that amplifies the collective capacity to create value.
- Teams are designed around the capabilities needed to solve problems, whether those capabilities come from a person, AI or cross-functional organisational design.
- Knowledge and information are accessible and understandable to both people and the AIs that are part of the team.
- Events create rhythm and habits and provide a clear structure for creating value.
- We continuously evolve Human + AI collaboration to increase its collective capacity to create value.
- Humans are at the centre: both the collaborator and the consumer.
- Encouraging critical thinking is indispensable.
- The power of simplicity: simplicity creates clarity, clarity enables action and sustained action creates value.
- Simplifying is not trivialising; it is the art of identifying the parts of a complex system and resolving them while preserving the meaning of the whole.
- Problem-solving teams do Discovery and Delivery at the same time: are we solving the right problem, and are we building and evolving the solution in the right way?

This framework is a system of principles, concepts, elements and practices that guides how organisations and teams make decisions and act in the new Human + AI working relationship. It provides a frame within which each organisation can adapt its way of working to its own context.

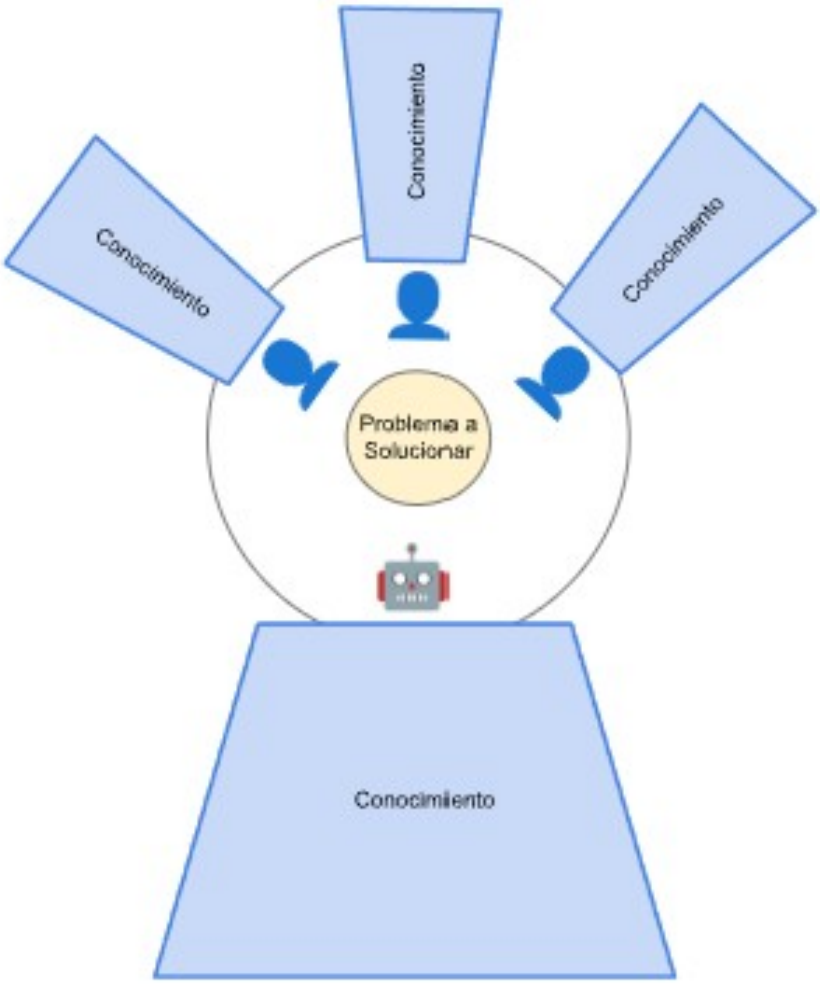
Roles

Every team must have the knowledge and capabilities required to create and evolve end-to-end solutions. These capabilities arise from the combination of human talent, Artificial Intelligence and the specialist knowledge of cross-functional teams. Teams are multifunctional and bring together the skills needed to create value for users and the business, integrating discovery and delivery in one team.

This composition favours autonomy, reduces dependencies and continuously connects learning with the building and evolution of solutions. A team is a group of people who contribute complementary knowledge, experience, skills and capabilities to solve problems and build solutions. The power of the team comes from this combination.

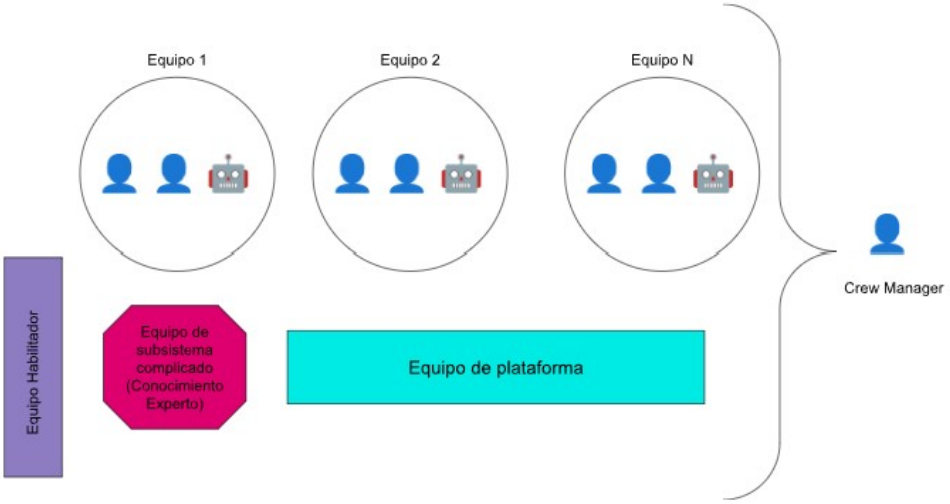
AI fundamentally changes this equation. It is no longer only an assistant; it becomes an active team member, contributing knowledge, capabilities, skills and execution.

Human + AI capabilities



Combination of Human + AI knowledge, skills and capabilities.

The result is a team with access to a universe of knowledge and capabilities far greater than any single person could concentrate. Team power depends on how well people and artificial intelligences combine their capabilities to solve problems and create value together.



Organisational design of Human + AI teams and cross-functional capabilities.

Team design

The organisation evolves toward a model composed of Human + AI teams, complemented by cross-functional capabilities that contribute specialist knowledge. In this way, knowledge is available where value is created.

Each problem-solving team is made up of a Solution Expert, an AI Engineer and an ecosystem of AI agents. Together they form an autonomous unit able to understand the problem, design the solution, build it and evolve it continuously.

These capabilities are enhanced by an organisational design based on Team Topologies. Around problem-solving teams is a network of enabling teams, complicated-subsystem teams and platform teams that develop and share specialist knowledge, accelerate capability adoption and provide services.

Cross-functional teams interact with problem-solving teams by facilitating capabilities, collaborating on specific challenges or providing specialised capabilities through an X-as-a-Service model. People contribute judgement, context, creativity, objectives and ownership; AI contributes knowledge, skills and capabilities for high-speed, high-quality execution.

Solution Expert

The Solution Expert is the business-domain expert. This role guides the strategy and evolution of digital solutions through a deep understanding of the business and the user, strengthening decision-making with Artificial Intelligence.

Key responsibilities

- Deep knowledge of the business industry and user: understand the context, regulations, market dynamics and key problems of users, customers and stakeholders. AI provides access to vast knowledge, while management and validation of that knowledge, together with personal experience, are the differentiators of a strong Solution Expert.
- Define objectives and outcomes: translate business vision into clear, measurable objectives and outcomes, and maintain an outcome- and OKR-based solution roadmap.
- Advanced AI use: use capabilities such as agents, skills and MCPs to explore trends, anticipate customer needs and accelerate innovation.
- Continuous learning: maintain an ongoing understanding of AI capabilities and apply them in the role.
- User-centred solution design: lead products that address significant user problems and therefore create value.
- Portfolio management: prioritise initiatives based on evidence, outcomes and business value.
- Collaborative leadership: bridge business, technology and market, guiding the team toward a shared purpose.

AI Engineer

An AI Engineer combines software engineering with advanced AI implementation to design, build and deploy robust, scalable, high-business-value technology solutions. The role focuses on practical application and system architecture: selecting, training, optimising and integrating proprietary or third-party AI models into applications and products at any scale.

The AI Engineer bridges business needs and technical feasibility, ensuring that the software lifecycle meets strict standards of quality, traceability and ethics.

- Solution architecture and development: design the technology structure and integrate AI models.
- Selection, training and fine-tuning: evaluate and test tools or models and optimise them for specific needs.
- MLOps, versioning and traceability: manage the full model and application lifecycle, including versions, security, monitoring and production scalability.
- Continuous experimentation and quality: validate hypotheses iteratively to find the best functional and technical solution.
- Technical quality: define development, testing and monitoring practices for robust and secure solutions.
- Governance and ethics: ensure AI use meets governance, privacy, organisational-architecture and responsible-use guidelines.
- Strategic collaboration: work with business teams to translate user needs into technically viable requirements.

AI Harness Engineering

Design, implement and maintain the orchestration, evaluation and control infrastructure - the harness - that surrounds language models and autonomous agents. Ensure that AI systems operate safely and autonomously through guardrails, automatic self-correction loops such as linters and unit tests, tooling governance and Human-in-the-Lead controls.

Human in the Lead means moving from seeing the human as a control point or passive AI validator to positioning them as the active strategic leader and decision-maker whose capabilities AI amplifies.

Crew Manager

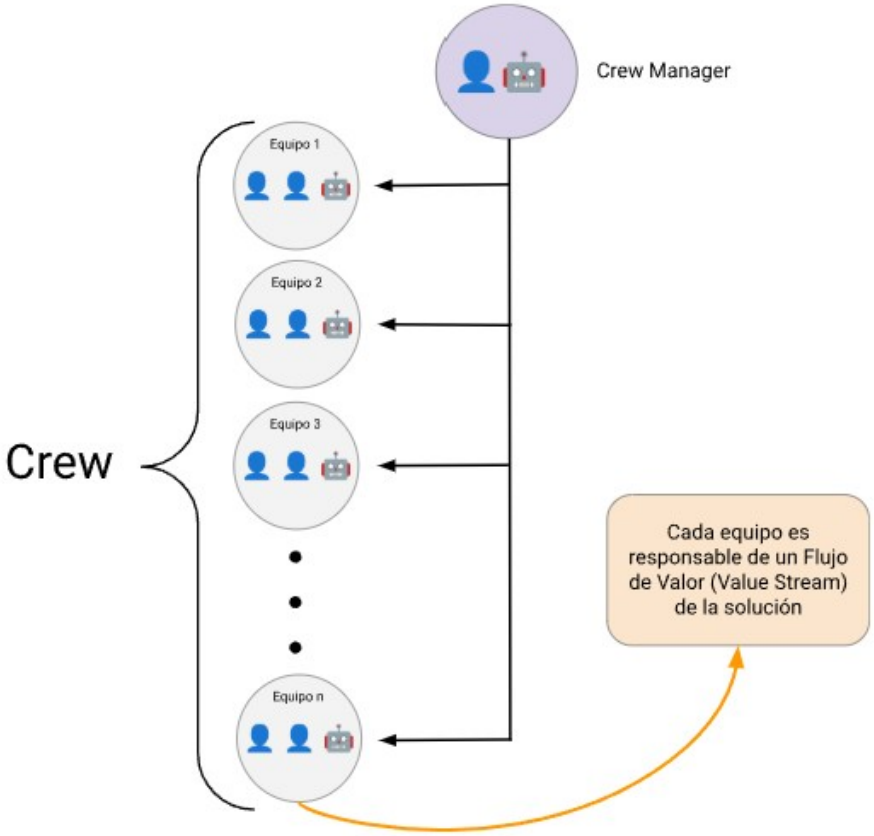
When several teams are involved, the Crew Manager guides and orchestrates the work of multiple problem-solving teams in a scaled model, ensuring strategic alignment, technological synergy and focus on business and user value. The role connects vision, prioritisation and execution across teams, enabling consistent, safe, measurable AI-enabled scale.

The Crew Manager aligns a group of teams with the overall solution vision and organisational strategy, ensuring that AI innovation scales and teams remain outcome-oriented and work in synergy.

Crew Manager

Key responsibilities

- Orchestrate problem-solving teams: coordinate and synchronise Human + AI teams, manage dependencies and maintain alignment for continuous value delivery.
- Align with business strategy: ensure team initiatives remain connected to organisational strategic objectives.
- Metrics: help define, monitor and evolve indicators for business value, outcomes, productivity and team health, enabling evidence-based decisions.
- Collaboration culture: foster trust, continuous learning and alignment with a shared purpose.



The Crew Manager role, the teams that make up the Crew and how they interact.

Crew

We call the set of problem-solving teams a Crew because they are the fundamental unit for value creation and evolution within the organisation. Each problem-solving team owns a specific Value Stream and has the autonomy and capability to understand the problem, discover opportunities, design, build, deploy and continuously evolve solutions from data, evidence and learning.

When a solution requires the collaboration of more than three problem-solving teams, the Crew Manager orchestrates coordination, manages dependencies and maintains alignment so value can flow continuously. The purpose is to facilitate collaboration in more complex scenarios with many humans and AIs interacting, while teams stay focused on creating value for users and the business.

Note: every problem-solving team performs Discovery, Delivery and solution evolution.

Artifacts

Artifacts are designed to build and maintain shared understanding. They make key information accessible, visible and understandable by integrating knowledge, evidence, decisions and learning into a common source of knowledge for teams. They enable participants to make better decisions.

- A document describing the problems to solve and hypotheses to validate.
- OKR-Based Roadmaps.
- Versioned Specs documents: the artifact where the product is specified.
- Learning Log.
- Harness: the structure containing rules, guardrails and automated validation loops that delimit and guide AI-agent execution to ensure safe, measurable, scalable and evolvable outcomes.

Events

Events establish a work cadence that turns framework practices into habits. They create recurring spaces to align, discover, build, review evidence, learn and adapt work, structuring the continuous cycle of discovery, delivery and solution evolution.

Outcome Loop

The Outcome Loop is the working cycle of the problem-solving team, made up of the Solution Expert, the AI Engineer and its AI ecosystem. It is the time in which a value increment is created and progress is made toward a defined outcome. Each team sets a duration from one to five days and maintains a consistent cadence.

This regularity supports a sustainable work rhythm, synchronisation among team members and continuous discovery, delivery, evolution and evidence-based improvement. Within each Outcome Loop, teams can run one or more Execution Loops: short cycles focused on building, validating or evolving part of a solution.

Solution Planning

Solution Planning is a space to understand the problem to solve, the OKRs to achieve and related business indicators, then select the initiative or initiatives to build. The whole team performs and evolves it once per Outcome Loop.

- Discuss the problem to solve.
- Inspect the OKR-Based Roadmap.
- Inspect business indicators.
- Prioritise and select initiatives that contribute to the OKRs.

Execution Loop

The Execution Loop executes what was planned in Solution Planning. It focuses on building a feature or prototype end to end using specifications (Specs), with the aim of leaving it fully functional.

- Create artifacts that clearly and precisely communicate to AI what is to be built. Specs are the shared language between people and AI: they make intent explicit, reduce ambiguity and turn decisions into executable instructions.
- Generate initiative Specs that describe what is expected and provide the AI ecosystem with the context, rules and criteria needed for development. Specs are managed as versioned artifacts for traceability.
- Review and validate Specs for quality, clarity, completeness and consistency before construction begins.
- Execute Specs in formats AI systems can interpret, such as Markdown files. From these specifications, AI participates in the complete construction of the digital asset, including frontend, backend, data and other technical components.
- Perform Human + AI quality control through functional and technical testing, using specialist AI capabilities complemented by human oversight and judgement.

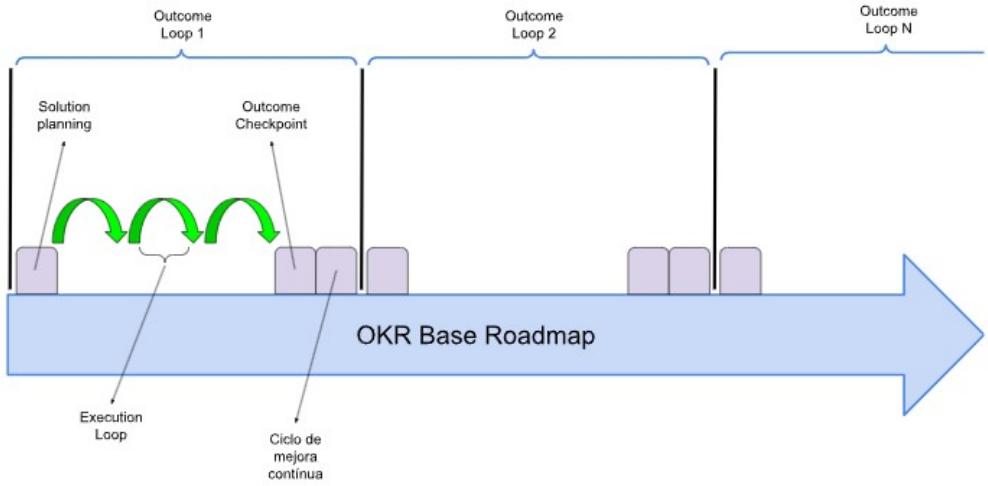
Outcome Checkpoint and continuous improvement

Quality is built throughout the cycle, not as an isolated final validation. The Human + AI problem-solving team continuously validates and refines the problem, OKRs, initiatives, specifications and resulting solution. Every stage incorporates evidence and learning to detect deviations early, reduce errors and preserve alignment with the intended problem and value.

An initiative is complete when it meets established quality and acceptance criteria, keeps traceability between Specs and development, and is ready to be deployed, used and evolved from evidence. Specs are built on the project harness so requirements respect its rules, tools and constraints from the outset.

The Outcome Checkpoint takes place at the end of every Outcome Loop. The problem-solving team and initiative stakeholders inspect the OKR-Based Roadmap and business indicators, review completed initiatives and share learning. The roadmap is a living artifact that evolves as teams gain evidence and learning.

The continuous improvement cycle increases effectiveness by improving Human-Human, Human-AI and AI-AI work dynamics. Teams identify and implement improvements to practices, interactions and capabilities that increase quality, speed and value.



Timeline of events and the OKR-Based Roadmap.