HUMANITARIAN ACADEMY · HUMANITAIRES JOBS

# Mini MBA Project Management and AI: PMP, PRINCE2, Agile and PMD Pro applied to humanitarian work

## Course handout · Week 4 : Agile, Scrum, Kanban and hybrid approaches in humanitarian work

A programme of exactly 3 months (12 weeks, 144 hours) to manage humanitarian projects with the main methodologies and artificial intelligence: project cycle, PMBOK and PMP, PRINCE2, Agile (Scrum, Kanban) and hybrid approaches, Project DPro (PMD Pro), logical framework, theory of change and results-based management, planning and critical path, donor budget and earned value, risks and stakeholders, MEAL, donor reporting, change management, leadership and closure. At every step, AI (Claude, Gemini, Copilot and project management tools) is used methodically, protecting the data of the people we serve. Corrected numerical exercises, three monthly exams with case studies, and a verifiable diploma from the Humanitarian Academy. Independent preparation programme: it does not award the PMP, PRINCE2 or PMD Pro certifications, which are obtained through the official exams.

**https://humanitairejobs.org/en/academy/mini-mba-gestion-projet-ia/semaine-4/**

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# Week 4 : Agile, Scrum, Kanban and hybrid approaches in humanitarian work

**Objectives**

- Explain the values and principles of the Agile Manifesto, and the roles, events and artefacts of Scrum (2020 Scrum Guide).
- Manage a workflow with Kanban: board, work-in-progress limits, lead time.
- Build a hybrid approach that is credible to a donor, and use AI to prepare the backlog and retrospectives.

## The Agile Manifesto

In 2001, seventeen software practitioners published the **Manifesto for Agile Software Development**. Its four values:

- **individuals and interactions** over processes and tools;
- **working solutions** over comprehensive documentation;
- **customer collaboration** over contract negotiation;
- **responding to change** over following a plan.

The items on the right still have value; those on the left have more. In humanitarian work, the "customer" is first the affected population: agility meets the requirement for accountability and adaptation to context. But it does not exempt you from the documentation required by the donor, nor from respecting the contract.

## Scrum: roles, events, artefacts

According to the **Scrum Guide** (2020 edition, by Ken Schwaber and Jeff Sutherland), Scrum is a lightweight framework based on empiricism (transparency, inspection, adaptation).

**Three accountabilities** in the Scrum team (10 people at most): the **Product Owner** maximises value and orders the backlog; the **Scrum Master** helps the team apply Scrum and removes impediments; the **developers** (in the broad sense: those who produce) create the increment.

**Five events**: the **sprint** (one month at most, often two weeks), which contains **sprint planning**, the **daily scrum** (15 minutes), the **sprint review** and the **retrospective**.

**Three artefacts** with their commitments: the **product backlog** (product goal), the **sprint backlog** (sprint goal), the **increment** (definition of done).

**Humanitarian example.** An information management team develops a dashboard to track distributions. Two-week sprints; at each review, field coordinators test the version and request adjustments. After six sprints, the tool is in use; with frozen specifications, it would have been delivered late and poorly suited.

## Kanban: visualise and limit work in progress

**Kanban** sets neither roles nor sprints. It asks you to:

- **visualise** the flow on a board (for example: To do, In preparation, In validation, Done);
- **limit work in progress** (WIP) in each column, to finish before starting;
- **measure the flow**: lead time (time between the start and end of an item), throughput (items finished per week);
- **improve continuously**.

Kanban suits support teams (procurement, HR, grants) that receive requests continuously. **Little's law** links the three measures: average lead time = average work in progress ÷ average throughput. If a procurement team has 30 requests in progress and handles 10 per week, the average lead time is 3 weeks; bringing work in progress down to 15 brings it to 1.5 weeks, without working more.

## Agile measures: velocity and burndown

In Scrum, the team often estimates items in **points** (relative size) and measures its **velocity**: points completed per sprint. Velocity is used to forecast, never to compare or judge teams.

The **burndown chart** shows remaining work over time. If the remaining backlog is 120 points and average velocity is 24 points, about 5 sprints are needed.

Watch out for drift: inflating estimates to "improve" velocity, or declaring "done" what does not meet the definition of done. In humanitarian work, the definition of done must include protection requirements: for example "tested with users, no personal data visible, translated into working languages".

## Hybrid in front of the donor

A donor funds results within a fixed frame. You can still be agile **inside** that frame:

- the **logframe**, overall budget and contractual milestones remain fixed;
- **activities** and arrangements are planned in cycles of 4 to 8 weeks, reviewed with monitoring data and community feedback;
- each adjustment is **documented** (decision, data, approval) and, if it exceeds contractual thresholds (often 10 to 20% reallocation between lines), submitted to the donor.

Structured frameworks exist to combine the two: **PRINCE2 Agile**, the hybrid section of the PMBOK, or scaling frameworks such as SAFe, better suited to large digital organisations than to NGOs.

Common agile certifications: **PSM** (Scrum.org), **CSM** (Scrum Alliance), **PMI-ACP** (PMI). Their requirements change: check them on the official websites.

## AI serving an agile team

Useful and safe uses:

- turning expressed needs into **user stories** ("As a site coordinator, I want to see the week's distributions by village, so that I can spot delays") with **acceptance criteria**;
- proposing how to **split** an item that is too big into items deliverable in one sprint;
- synthesising the notes of a **retrospective** into themes and actions, without names;
- preparing a **review summary** for the donor.

AI must not estimate in place of the team (estimation is a collective act that reveals disagreements), nor order the backlog in place of the Product Owner. And community feedback being analysed must be anonymised before it is entered.

## Exercise: forecasting with velocity and Little's law

**Situation.** The information management team of the fictitious NGO Basira is developing a complaints tracking application. Remaining backlog: 168 points. Velocities of the last four two-week sprints: 18, 22, 20, 24 points. Separately, the grants team, run with Kanban, has 24 files in progress and finishes 6 per week.

**Task.** 1) Average velocity? 2) How many sprints and weeks to finish the backlog? 3) Average lead time of a grant file? 4) What would you propose to reduce it?

**Answer.** 1) (18 + 22 + 20 + 24) ÷ 4 = 21 points. 2) 168 ÷ 21 = 8 sprints, i.e. 16 weeks (a forecast, to be revised every sprint). 3) Little's law: 24 ÷ 6 = 4 weeks. 4) Limit work in progress (for example 12 files at most): at equal throughput, lead time falls to 2 weeks; finish before starting, and find the column where files pile up.

## Key takeaways

- The Agile Manifesto values people, working solutions, collaboration and adaptation.
- Scrum: 3 accountabilities, 5 events, 3 artefacts; sprints of one month at most.
- Kanban: visualise, limit work in progress, measure flow; lead time = work in progress ÷ throughput.
- Hybrid keeps the contractual frame fixed and adapts activities in short, documented cycles.
- AI helps write stories and syntheses; the team estimates and the Product Owner orders.

## Quiz

1. In Scrum, who orders the product backlog?
   A. The Scrum Master
   B. The donor
   C. The Product Owner
   D. The developers

2. The maximum length of a sprint according to the Scrum Guide is:
   A. One month
   B. One week
   C. Three months
   D. There is no limit

3. A team has 20 requests in progress and finishes 5 per week. Average lead time:
   A. 25 weeks
   B. 100 weeks
   C. 1 week
   D. 4 weeks

4. Velocity is used to:
   A. Compare teams with each other
   B. Forecast the team's work
   C. Calculate salaries
   D. Replace the budget

5. In a donor-funded hybrid approach, what generally stays fixed is:
   A. The logframe, the overall budget and the contractual milestones
   B. Every activity to the day
   C. Nothing
   D. The list of suppliers

**Quiz answers :** 1. C · 2. A · 3. D · 4. B · 5. A