Interdisciplinary Project Management

Roles, Responsibilities & Lifecycle Stages — Training for ChatMED (Technical & Admin Staff, Young Researchers)

Primož Kunaver, Primum d.o.o.

Why this session?

Interdisciplinary projects fail for predictable reasons: vague roles, weak coordination, poor risk control

You'll learn the minimum viable structures to make collaboration work across disciplines

Outcome: a shared model and actionable checklist that you can apply tomorrow

Learning objectives

Define key roles and responsibilities in EU-style R&I projects (e.g., Coordinator, WP/Task Leads, PMO)

Navigate the project lifecycle: initiation → planning → execution → monitoring → closure

Apply RACI (Responsible, Accountable, Consulted, Informed), governance, and change control without bureaucracy

Manage interdisciplinary complexity: language gaps, incentives, and dependencies

What makes a project interdisciplinary?

Multiple domains with distinct vocabularies, methods, and validation norms

Different data, compliance, and IP regimes (clinical, technical, legal)

Non-aligned incentives & time horizons (academia, hospitals, SMEs, public bodies)

ChatMED: AI, clinical, and infrastructure partners under EU grant obligations

Stakeholder map (typical EU R&I)

Scientific Coordinator / Project Coordinator

Project Manager / PMO (Administration, Finance, Reporting)

Work Package (WP) Leaders & Task Leaders

Ethics & Data Protection Officers; Clinical PIs; Legal & IP; Industry partners

Communication/Dissemination, Exploitation & Innovation Management; QA

Stakeholder map (typical EU R&I)

Scientific Coordinator / Project Coordinator

Project Manager / PMO (Admin · Finance · Reporting)

Work Package (WP) Leaders & Task Leaders

Ethics & Data Protection Officers | Clinical PIs | Legal & IP | Industry partners | Communication / Dissemination | Exploitation & Innovation Mgmt

Quality Assurance (QA)
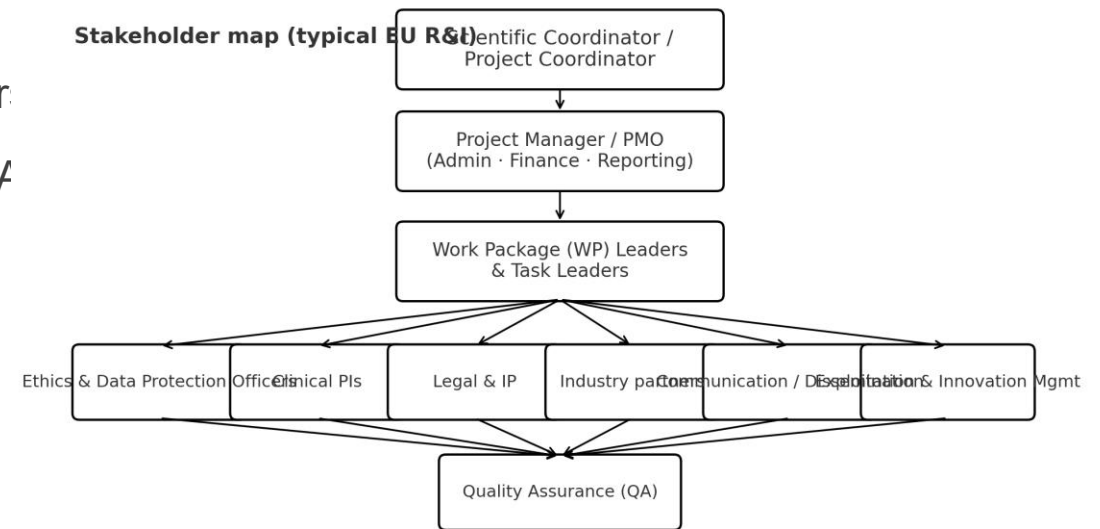
Arrows indicate primary coordination/assurance flows.
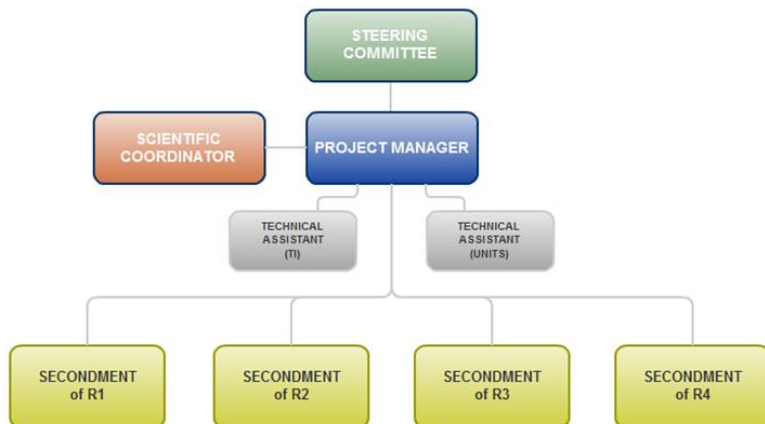Adapt to consortium CA/GA and governance.

Role clarity with RACI

Responsible: does the work

Accountable: final decision owner (one only)

Consulted: gives input before decisions

Informed: kept in the loop after decisions

RACI — Role Definitions

| Responsible — does the work	Accountable — final decision owner (one only)
Consulted — gives input before decisions	Informed — kept in the loop after decisions

Tip: only one Accountable per decision; multiple Responsible allowed if clearly scoped.

STEERING COMMITTEE

SCIENTIFIC COORDINATOR

PROJECT MANAGER

TECHNICAL ASSISTANT (TI)

TECHNICAL ASSISTANT (UNITS)

SECONDMENT of R1

SECONDMENT of R2

SECONDMENT of R3

SECONDMENT of R4

Coordinator vs. Project Manager (don't confuse them)

Coordinator: scientific leadership, consortium alignment, GA/CA compliance, reviews

Project Manager/PMO: planning, finances, deliverables, risk & issue logs, reporting cycles

Both: steer change control, milestone readiness, escalation paths
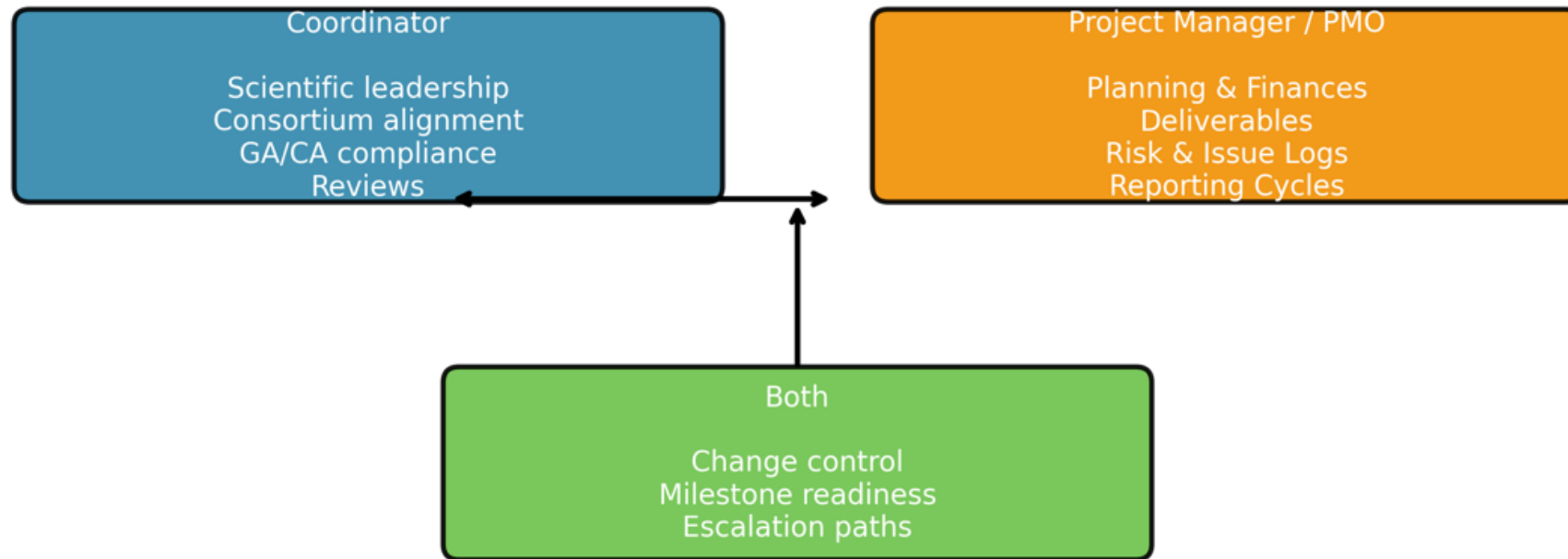
Work Package Leader — responsibilities

Owns WP objectives, scope, schedule, budget, quality

Runs regular WP stand-ups; maintains risks/mitigations; coordinates Task Leaders

Prepares deliverables (content, contributors, reviews) and milestone evidence

Flags deviations early; proposes re-planning options

Task Leader — responsibilities

Owns task plan, backlog, and acceptance criteria

Secures cross-partner inputs and interfaces (APIs, datasets, protocols)

Tracks effort vs. budget; manages dependencies and blockers

Delivers contributions to WP-level outputs on time/quality

Clinical & Data Governance roles

Clinical PI: protocol integrity, feasibility, site coordination, safety reporting

Data Steward: metadata standards, lineage, access control (RBAC/SSO/MFA)

DPO (Data Protection Officer) /Ethics: GDPR compliance, DPIAs (Data Protection Impact Assessment), consent, minimization; Ethics approvals

Security Lead: threat modeling, secure data flows, audit trails

Clinical PI
- protocol integrity
- feasibility, site coordination
- safety reporting

Data Steward
- metadata standards, lineage
- access control (RBAC/SSO/MFA)

DPO/Ethics
- GDPR compliance, DPIAs, consent, minimization; Ethics approvals

Security Lead
- threat modeling
- secure data flows
- audit trails

Comms, Dissemination & Exploitation

Comms: consistent messaging, event presence, website & knowledge repository updates

Dissemination: open science, preprints, conferences, community assets

Exploitation: TRL progression, IP strategy, licensing paths, standardization liaisons

Sample of communication outline:

Channel and communication means	Goal	KPI
Direct channels:		
• **Personal contacts and presentations** to key stakeholders and identified potential customers. • Planned presence on **fairs and exhibitions** - at least two per year like Eco Expo Asia (Hong Kong, Sign & Digital (UK), PSI Trade Show (Germany) SIGN Istanbul (Turkey), METEC (Germany)). • **Direct e-mail information to target receiver** especially potential customers originating from various sources like for example list of 209 companies that offer digital outdoor advertising services[1]. • **Professional and public presentations** (conferences like: 8th International Conference on Environmental Engineering and Applications (ICEEA 2017) ROMA, Italy, ENVICON (Poland) International Environmental Protection Congress, etc.)	• Raise awareness among target publics • Raise Interest for further information among target publics • Raise Consideration of potential purchase	• At least 15 personal presentations • At least 4 presentations of trade fairs, etc. • At least 300 direct e-mail contacts per year
Indirect channels:		
• Project **web page** (new page instead of: with all project information including promotional video materials. • **Publications** in scientific and professional publications in newspapers and journals like NaturalNews.com, Journal frontiers in of environmental-science, Euro Display, The Drum Marketing, advertising, design and digital news. • Dissemination will be done also through **universities and institutes**, our **subcontractors** Faculty of Technologies and Systems and Polymer Technology College and our other links with Graz University of Technology – Institute of measurement technique, University of Ljubljana etc. • **Social media** like Facebook, Twitter, Linkedin etc. will also be intensively used for promotion of the solution.	• Raise awareness among target publics • Raise Interest for further information among target publics	• Visits on web page 1,500 in 1y, 9,000 in 2y • Established active regular communication on social media (Linkedin, Twitter…)
Mass media:		
• **Publications** in printed media for general public will be provided by an external PR agency. • The use of **promotional TV** or **radio** information will be evaluated by the PR agency and implemented if found worthwhile.	• Raise public awareness about benefits of our air filtering function	• At least 3 PR-releases in printed media per year in the second year.

Lifecycle overview

Initiation → Planning → Execution → Monitoring/Control → Closure

Gate reviews at each transition to confirm readiness and resourcing

Artifacts live in a single source of truth (versioned, audited)
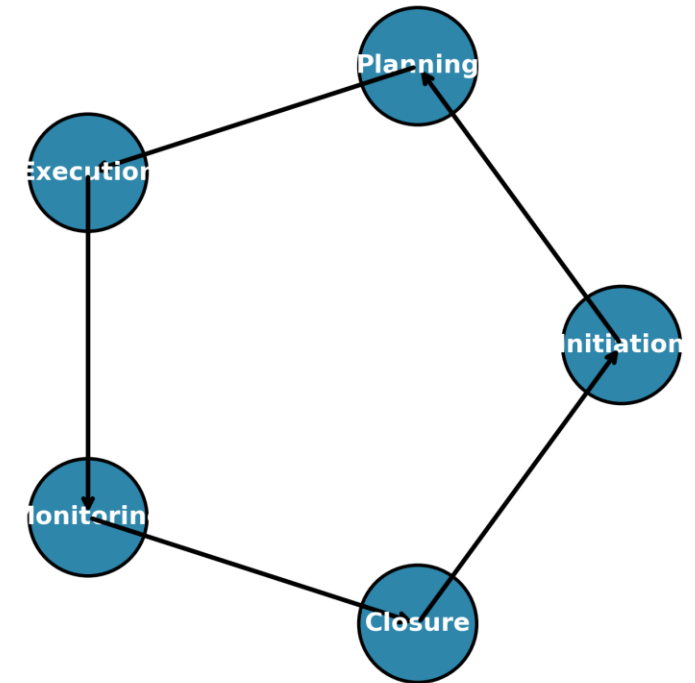
Project Lifecycle Overview

Initiation — set the foundations

Confirm problem statement, success criteria, value proposition (scientific & societal)

Define governance (Steering Committee, PMO cadence, escalation ladder)

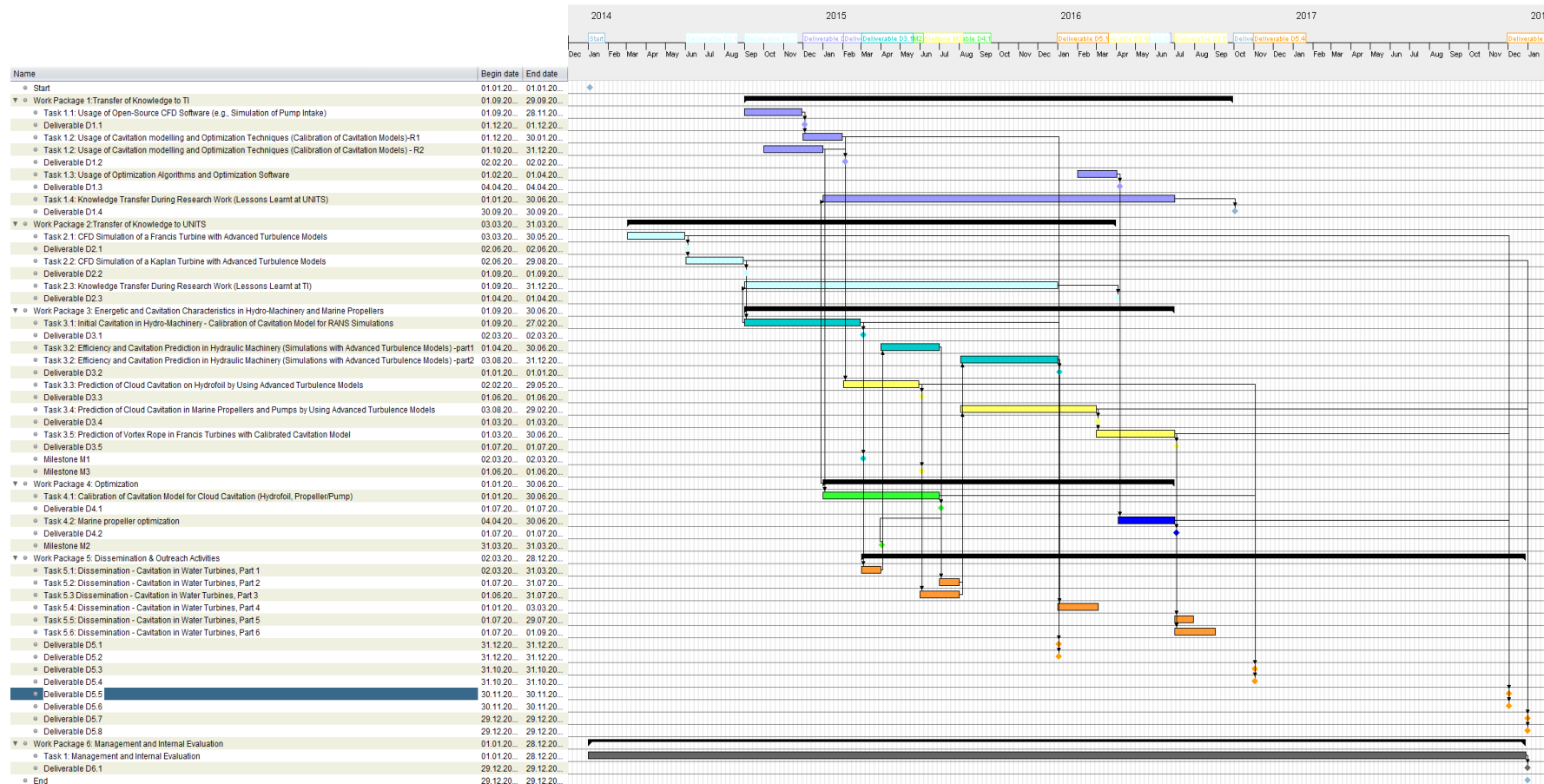Draft RACI at consortium/WP/Task levels; appoint deputies

Kickoff: norms, tools, repositories, documentation, decision log

Initiation –
set the foundations

Confirm problem statement, success criteria, value proposition (scientific&societal)

Define governance (Steering Committee, PMO cadence ladder)

Draft RACI at consortium/WP/Task levels; appoint deputies

Kickoff:
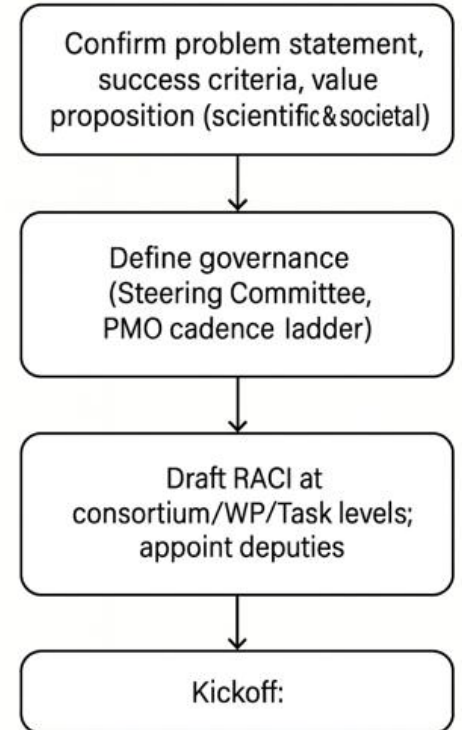
Planning — turn vision into an executable plan

Execution — build with discipline

Samples of execution:
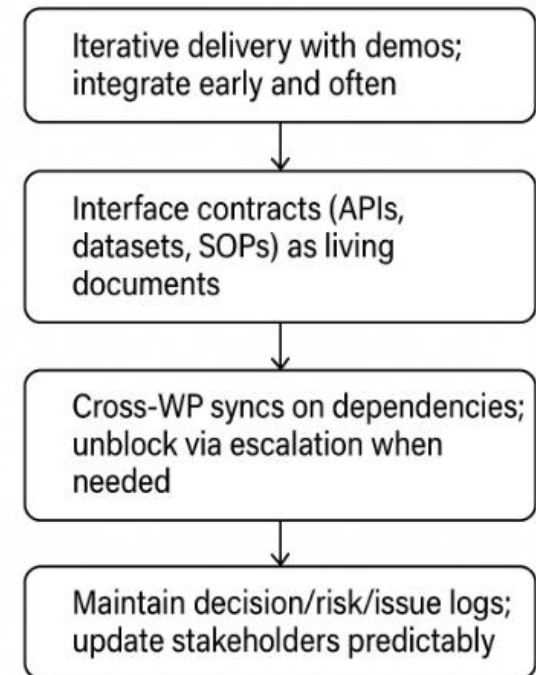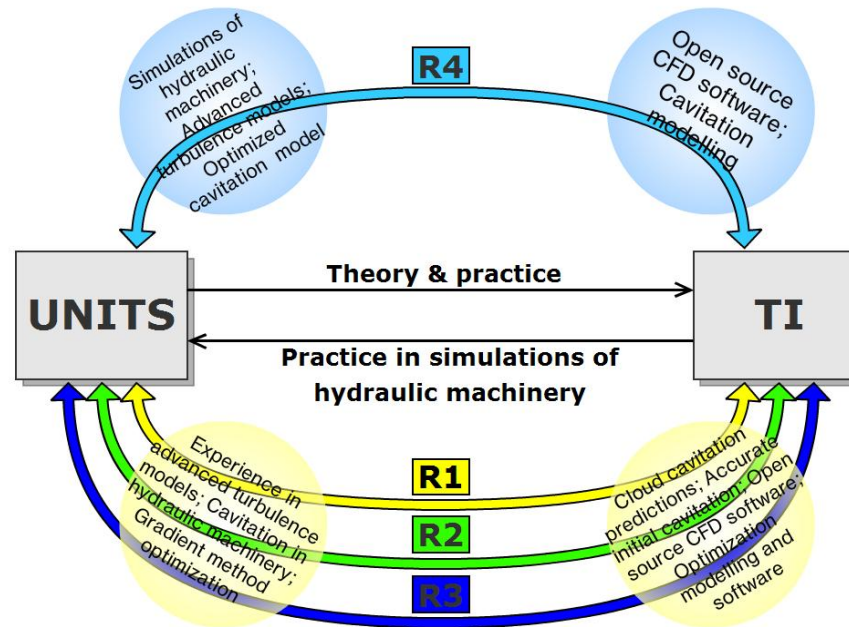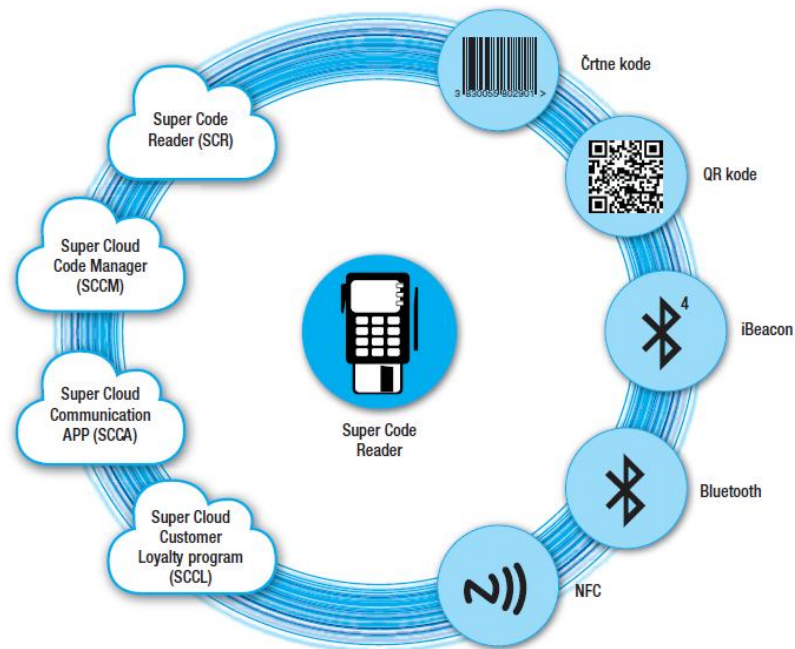
Monitoring & Control — no surprises

KPIs/KRIs: delivery velocity, burn vs. plan, quality metrics, risk heatmaps

Formal change control: impact analysis (scope/time/cost/quality)

Internal readiness checks before reviews and deliverable submission

Transparent reporting to EC/agency and Steering Committee

Sample - Internal evaluation meeting report:

Interna evalvacija 3 - 2020

Datum: 17.4.2020
Kraj: Skype

Št.	Tema	Ugotovljena odstopanja	Korektivni ukrepi
	TERMINSKA SKLADNOST IZVEDBE PROJEKTA		
1	Delo v večji meri poteka po terminskem planu, manjši problemi pri sestavi manjšega prototipa.	Manjše zamude pri nabavi materiala. Posledica epidemije.	Novi dobavitelji.
2			
	DOSEGANJE VSEBINSKIH CILJEV		
3	Na tem področju nimamo problemov. Tako računski kot tudi fizični modeli kažejo, da bojo cilji v celoti doseženi.		
4	Sočeni smo bili s problemom izdelave navitij za prototipni generator tip torus. Ročno navijanje je zamudno in nenatančno.	Problem ne povzroča konkretnih odstopanj.	Izdelava orodja za navijanje.
	FINANČNA SKLADNOST S PLANOM		
5	S stališča financ za enkrat ne zaznavamo nikakršnih odstopanj.		

Prisotni:

Prisoten	Podjetje	Podpis
Simon Mandelj	GEM motors	
Mojca Golež;	Etra	
Matjaž Preložnik	Etra	
Primož Kunaver	Primum	
Nejc Smolar	UNI MB FE	
Andrej Lipej	UNI NM	

Closure — finish cleanly

Acceptance of deliverables and milestones; lessons learned

Handover to operations/exploitation partners

Final financials and audits; archive with FAIR (Findable, Accessible, Interoperable, Reusable) metadata

Celebrate wins; publish 'how we built this' post-mortem

Governance that works

Steering Committee (monthly/quarterly): strategy, escalations, risks

PMO weekly: schedule, issues, deliverables, finances

WP sync biweekly; Task stand-ups weekly

Decision log with owner, rationale, and effective date
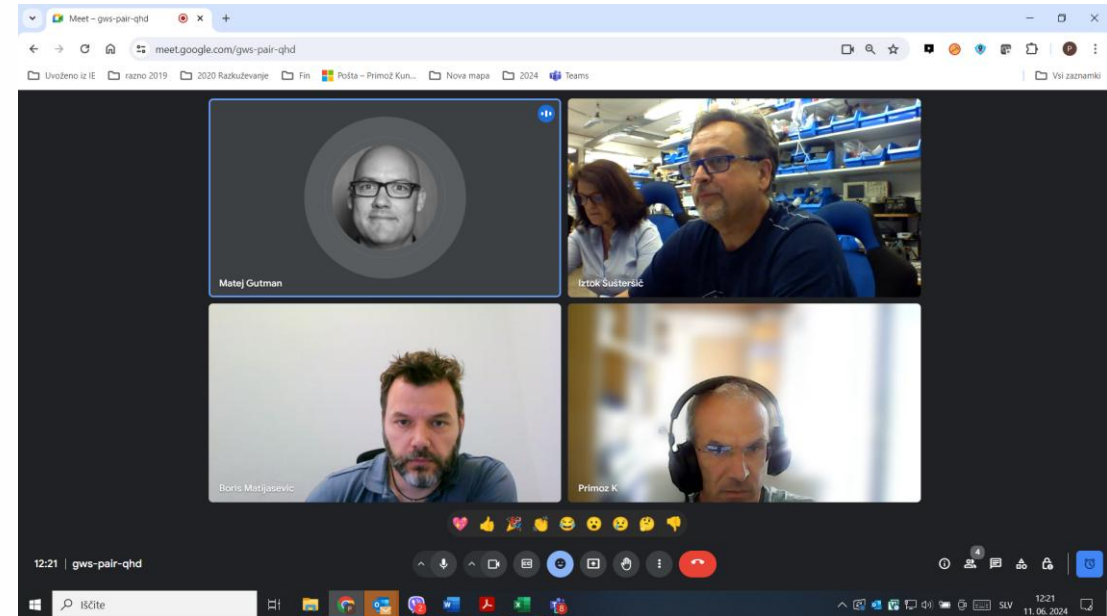
Documentation & Knowledge Repository

Single source of truth: deliverables, SOPs, minutes, decisions, datasets

Metadata first: standards (e.g., Dublin Core, DCAT, FHIR), DOIs/PIDs

Hybrid search (keyword + semantic); access via role-based controls

Templates: RACI, risk register, change request, deliverable checklist

Quality management in practice

Quality gates before external submissions; internal peer review

Definition of Ready/Done at WP/Task levels

Traceability: requirement → task → test/validation → deliverable

Auditable records for reviews and ethics compliance

Example: Submission of a Clinical Protocol Deliverable

1.Quality gates & internal peer review

Before submission to the EC, the clinical protocol went through an internal quality gate: clinical experts, Security Lead, and DPO/Ethics all reviewed it. Only after all approvals, the document was frozen.

2.Definition of Ready/Done

The Task Lead defined "Done" as:
1. All mandatory GCP sections included,
2. Safety reporting plan documented,
3. Metadata aligned with agreed standards.

3.Traceability

Requirement → Task → Validation → Deliverable:
1. *Requirement*: comply with GCP & GDPR
2. *Task*: draft patient data & consent sections
3. *Validation*: DPO checks GDPR, Clinical PI checks feasibility
4. *Deliverable*: validated protocol with sign-offs

4.Auditable records

All reviews, version history, and approvals were stored in an audit trail. This allowed the Ethics Committee to see exactly *who approved what and when*.

Risk management (be paranoid, early)

Top risk classes: ethics/GDPR, data access, dependency bottlenecks, staff turnover

Mitigations: fallback datasets, MoUs, cross-training, decision deadlines

Triggers & contingency playbooks; red-team critical assumptions

Sample – risks:

Ocena izhodiščnega tveganja				Ocena preventivnih oz. korektivnih ukrepov in preostanka tveganja	
Št.	Tveganje	Verjetnost / Resnost	Ocena	Preventivni oz. korektivni ukrep	Ocena
1	Finančna sredstva ne bodo zadostovala za realizacijo projekta	Majhna / Resno		Natančno finančno planiranje. Obstoj finančne rezerve za nepredvidene dogodke	
2	Resne težave s tehnično realizacijo zadanih ciljev projekta.	Zmerna / Resno		Možnost vključevanja zunanjih vrhunskih strokovnjakov. Priprava »rezervnih scenarijev« kjer je to mogoče	

Collaboration patterns that scale

Shared glossaries; 'translation' meetings across domains

Interface specs as contracts; demo-driven alignment

Shadowing: engineers attend clinics; clinicians review demos

Pair leads (technical + clinical) for cross-domain tasks

Communication protocol

Asynchronous defaults
Agendas, minutes, decisions documented

Cadence & Roles
Cadence calendar; note-takers; rotating chairs

Channels & Tools
Public vs, private channels; compliance-aware tooling

Escalation SLAs
Conflicts resolved at lowest competent level

Change control without bureaucracy

Change request form
Rationale, options, quantified Impact

Timeboxed assessment
Accountable decision owner

Separate experiments
Spikes vs. committed scope

Update & Communicate
Update baselines and communicate widely

Deliverables & Milestones — zero-defect submissions

Owner, reviewers, QA checklist, version control, citations

Internal freeze date ≥10 days before submission

Evidence for milestones: demos, datasets, logs, validation reports

Submission package: PDF + sources + annexes in repository

Deliverable (number)	Deliverable name	Work package number	Short name of lead participant	Type	Dissemination level	Delivery date
D1.1	Report with set target parameters and technology	1	Primum	R	CO	M1
D1.2	Report with set optimised solutions for technologically and aesthetically optimized product	1	Primum	R	CO	M8
D1.3	Patent - reformulation of bio resin	1	Veplas	R	PU	M8
D2.1	Manufactured one 2x2 m and one scale-up 3x4 m prototypes of final product	2	Veplas	DEM	CO	M11
D 2.2	With iterative modifications prepared two sized products that fully comply with parameters	2	Veplas	DEM	CO	M13

Milestone number	Milestone name	Related work package(s)	Estimated date	Means of verification
M1	Defined optimised solutions for optimized product	1	8	Defined optimised solutions for technologically and aesthetically optimized product
M2	Manufactured two different sized turbines according to set target parameters and standards	2	12	Compliance of both sizes of turbines with set target parameters and standards
M3	Final product adapted to customer's needs	3	19	Compliance of final products of turbines with reported customer needs
M4	System accreditation	5	24	Products fully certified

Compliance that enables, not blocks

Data protection by design; DPIA early; minimal viable data

Consent models, de-identification/pseudonymisation, access logging

IP framework from day one: background/foreground, licenses, publication policy

Embargo strategies aligned with open science obligations

Tooling baseline (example stack)

Backlog & docs: Git (open-source system that tracks changes over time) -based repo + issue tracker; decision log

Communication: email + chat + recorded demos; calendar of cadences

Data: secure storage, role-based access, audit trails; FAIR (Findable, Accessible, Interoperable, Reusable) -aligned metadata

Automation: CI for docs/artifacts; validation scripts; dashboards

Case exercises (15 min per scenario)

Scenario: Milestone M2 at risk due to delayed clinical data and API change

Task: Identify roles, RACI, risks, change-control steps, and communication plan

Deliver: 5-bullet rescue plan with owners and dates

Scenario: missing information (somea partners do not inform other relevant partners), chaotic communication and implementation

Scenario: delay in obtaining financing – lack of hands-on funds

Checklist you can reuse

Kickoff: governance, RACI, tools, decision log, templates

Deliverable: owner, reviewers, QA, internal freeze, submission

Risk: top 10 risks, triggers, fallback plans, owners, review cadence

Closure: acceptance, handover, archive (with metadata), lessons learned

ID	Risk Description	Trigger / Early Warning	Fallback / Mitigation Plan	Owner	Review Cadence
R1	Delay in clinical data collection	Site reports <50% recruitment by Month 6	Reallocate to additional sites; extend recruitment window	Clinical PI	Monthly
R2	GDPR non-compliance (data consent issues)	Ethics board requests clarifications	Revise consent forms; apply pseudonymisation	DPO/Ethics	Quarterly
R3	API change in partner's infrastructure	Partner announces major release	Lock interface spec; create compatibility layer	WP2 Technical Lead	Bi-weekly
R4	Staff turnover (key researchers leaving)	Resignation notice submitted	Cross-train deputies; maintain knowledge repository	PMO	Monthly
R5	Security breach attempt on project repository	Alert from intrusion detection system	Switch to backup; notify Security Lead; audit access logs	Security Lead	Weekly

1. Review **current status of Top 10 risks**
2. Check triggers since last meeting (any thresholds crossed?)
3. Evaluate effectiveness of fallback/mitigation actions
4. Add new risks / retire obsolete ones
5. Update **owners** and adjust review cadence if risk profile changes

Wrap-up & next steps

Adopt RACI + cadence calendar this week; fill risk register

Pilot demo-driven syncs and interface contracts

Populate the knowledge repository with FAIR metadata

Q&A…