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Minimum Requirements for a Project Charter

Module 4: Use Cases

Topic 1: Understanding Use Case Purpose and Format

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Disclaimer

This module focusses on what is needed for a compliant Section 4 — the mandatory fields, General Criterion #6, scope boundaries, and a credible timeline.

If you want to go deeper into the strategic role of use cases, case studies from first-wave Nodes, and dedicated guidance on what makes one succeed or fail, EOSC Academy has a full course on exactly that: **Course 3: Use Cases for the EOSC Federation**.

Consider following Course 3 to supplement this module if you have the time.

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Why This Section Exists

EOSC use case = A scientific or research-support workflow, process, or practice that's enabled or enhanced through the Federation, by combining and consuming resources, services, data, or capabilities from more than one Node.

Two types of use cases are considered:

1. A scientific **multi-Node** use case,
2. A use case that makes a concrete contribution to the **federating capabilities**.

Either type of use case is acceptable, but they require different evidence.

A use case does three things at once:

Demonstrates value	Shows an actual research problem being solved, not a hypothetical capability
Demonstrates collaboration	Shows Nodes working together, as required by General Criterion #6 (Topic 2)
Demonstrates feasibility	Shows the work has a plan, a realistic timeline and named participants, not just an aspiration

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The Two Use Case Categories

1. Scientific multi-Node use case

a research workflow that spans more than one Node's services, solving an actual research problem for a clearly-identified research community.

Example:

A marine biologist studying ocean acidification needs to combine oceanographic sensor data from one Node with HPC-based computational modelling services from another Node — neither Node's services alone would solve the researcher's problem.

Many Nodes will find this type of use case easier to write convincingly, since it maps onto research collaborations that may already exist.

2. Federating capability use case

a concrete contribution to the shared infrastructure the Federation depends on, rather than a specific research workflow.

Example:

A Node builds and operates a federation-wide File Sync and Share (EFSS) service that other Nodes plug into, rather than each Node building its own.

This type of use case is appropriate when your Node is actively contributing shared infrastructure.

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The Mandatory Fields

Charter Section 4 requires a fixed set of fields for every use case — narrative description plus structured fields, not a free-form essay:

Field	What it captures
Use Case ID	A short unique identifier, same convention as the Service IDs in Module 3
Use Case Description	The research problem, the gap that exists without this use case, the solution, and the foreseen outcome
Federation Contributions & Value to Users	What this use case adds to the Federation, *and* what the benefit to the people who'll use it — *both* aspects need to be addressed
Participating Organisations	Every organisation involved — research groups, institutions, not just Nodes
Other Nodes Involved	Named Nodes, not "the Federation" in the abstract
Timeline of Realisation	A realistic timeline for this specific use case (Topic 4)

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Writing the Description Field

The Description field is critical for this section.

It needs **four elements**, in order:

1. the research problem,
2. the gap,
3. the solution,
4. the outcome.

Focus on the capability and its purpose, not the technical architecture; if you find yourself describing API calls or data schemas, pull back up a level.

Weak	***Strong***
"This use case will demonstrate collaboration between Nodes to support marine research through data sharing and computational resources."	"Ocean acidification researchers currently cannot combine real-time pH sensor readings from coastal monitoring stations (held by the Marine Science Node) with the regional climate models needed to interpret them (run on HPC infrastructure operated by another Node), because the two Nodes use incompatible metadata standards. This use case connects the two [illegible] process that currently takes a research team three weeks "

This tells an evaluator nothing more than is evident from the Charter's cover page.
There's no named problem, gap or outcome — it is too general.

A good balance: credible and specific about the problem, while remaining high-level about the implementation.

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Quality Criteria

Evaluators assess use cases against four criteria:

Credibility	Does this sound like a problem identified researcher(s) face, explained with appropriate detail?
Specificity	Named organisations, data types and Nodes — not “various stakeholders” or “relevant infrastructure”
Federation value	Does this genuinely require the Federation, or could one well-resourced Node have done it alone?
Feasibility	Given the timeline and the participants named, is this achievable rather than aspirational?

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Common Weaknesses to Avoid

The single-Node use case wearing a Federation costume	The retrofitted use case	The aspirational use case
If every service and every participant named belongs to your own Node, it isn't a multi-Node use case, however the description is worded.	Writing a generic-sounding use case first and then inserting a second Node's name to satisfy General Criterion #6, without that Node's services participating in the description, sounds hollow to the evaluator.	Describing something you hope becomes true rather than a collaboration that has been discussed and scoped with the other named participants.

Course 3 Module 3 ("Lessons Learned and Guidance for Scientific Use Cases") goes further into this with examples from first-wave Nodes.

Try This!

Draft the core of your use case before worrying about exact wording:

Research problem (one sentence, name the actual difficulty):

The gap (what's currently impossible or slow without this use case):

The solution (what gets built or connected):

The outcome (quantify it if you can — time saved, previously-impossible analysis enabled, etc.):

Category: ☐ Scientific multi-Node use case ☐ Federating capability use case

Justification for that category choice:

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Thank you!