

Mandatory fields: defining and controlling required information in procurement processes properly

Mandatory fields are input fields in forms, master data and systems that must be completed, without which a transaction cannot be processed or approved. In industrial procurement, they shape the data quality of purchase requisitions, purchase orders, supplier and material master data, and invoices. Defining mandatory fields deliberately reduces queries, error rates and process costs – and creates the foundation for automation and reliable key figures.

Key facts

- Mandatory fields are system-enforced entries without which a record or process step cannot be completed.
- Too many mandatory fields reduce acceptance, too few reduce data quality – the balance is crucial.
- Typical mandatory fields in procurement are material number, quantity, unit of measure, delivery date, Incoterms rule and order value.
- Mandatory field concepts have a direct impact on the invoice error rate and the automatability of order and invoice processes.
- For regulated commodity groups, such as conflict minerals or packaging, certain details are legally or contractually required.
- A clean mandatory field design is a prerequisite for reliable key figures such as classification rate or catalogue coverage rate.

Definition: mandatory fields

Mandatory fields are fields in forms, screens or interfaces whose completion is enforced by the system or procedure. Only once all mandatory fields have been validly completed can the record be saved, the transaction forwarded or the process step approved. They differ from optional fields in that their absence triggers an error message and thus interrupts the process.

Distinction from optional fields and validations

Optional fields provide additional information whose absence does not block the process. Mandatory fields, by contrast, secure the minimum information that a downstream processor or system needs – for example the unit of measure alongside the quantity, or the delivery address alongside the order line. Validations additionally check whether the content is plausible, for example whether a delivery date lies in the future. In practice, organisations combine mandatory fields with value lists, format checks and plausibility rules, so that not just any entry but a usable entry is enforced.

Mandatory fields along the procurement chain

Mandatory fields run through the entire procurement chain: in the requisition they secure specification

and required date, in the RFQ the comparability of offers, in order management the legally robust mandatory details of the purchase order. For supplier creation, certificates, contacts and payment terms are typical mandatory details, and in goods receipt complete capture supports the creation of the goods receipt note (GRN). In supplier onboarding and qualification matters as well, mandatory fields determine whether a supplier can be included in a project's award timetable at all.

Methods and approach: defining mandatory fields correctly

A mandatory field concept rarely emerges spontaneously but systematically: starting from the information that downstream processes, checks and evaluations strictly require. A step-by-step approach with process analysis, field catalogue and approval rules has proven effective.

Building a process analysis and field catalogue

First, all process steps along the Purchase-to-Pay and Order-to-Cash routes are walked through, documenting for each step which information is strictly required. From this a field catalogue is created, describing each field with its source, responsibility, validation rule and mandatory status. In practice, the following question helps: What consequence would a missing entry have – a query, delay or incomplete posting? Fields whose absence has no operational consequence should remain optional. Ideally, the field catalogue is maintained and versioned per document type and organisational unit.

Differentiation by transaction, commodity group and risk

Blanket mandatory fields for all transactions quickly lead to workarounds such as placeholder entries. Differentiation is more sensible: in project procurement, project and cost centre references are often mandatory, whereas for series parts it is material number and planning attributes. For regulated demand topics – such as proof of origin for conflict minerals or details for the sustainable commodity group Packaging – separate mandatory blocks can be defined. Supplier cyber risk can also be addressed via mandatory details during onboarding, such as required certificates or contacts for incident cases.

System implementation and training

Technically, mandatory fields are configured in ERP, e-procurement and supplier portals via field status schemas, often differentiated by role, document type and transaction. Understandable error messages, help texts and examples directly at the input field are important so that users do not have to guess. Accompanying training and short process briefs significantly increase acceptance. Changes to the mandatory field concept should go through controlled change management, as they affect interfaces, forms and partners.

Key KPIs: making mandatory fields measurable

Whether the mandatory field design works shows in measurable quality and efficiency indicators. These also demonstrate to management the return on investment of data quality measures.

Completeness and quality metrics

The key metric is the completeness rate of documents and master data, typically measured as the proportion of records with no mandatory field violation. Benchmarks above 98 per cent are commonly targeted. The invoice error rate indicates how many incoming invoices fail to run automatically due to missing or inconsistent details – a direct indicator of mandatory field requirements that are too lax or too complicated. For supplier master data, the classification rate shows how completely commodity groups,

certificates and sustainability details are captured.

Process and efficiency metrics

The catalogue coverage rate measures what proportion of purchase orders run through catalogues with predefined, validated attributes – catalogue items minimise manual entries in mandatory fields. Delivery reliability and delivery monitoring depend on delivery dates being captured in a binding and consistent manner. For the automated flow of purchase orders, the proportion of documents processed touchlessly is revealing. Anyone launching a new mandatory field rule should weigh the effort of data capture against the savings in queries, returns and manual rework in order to demonstrate the return on investment.

Risks and controls: avoiding typical sources of error

Mandatory fields are an effective but double-edged instrument. Poorly placed, they create extra work, fake data and friction with suppliers – well placed, they secure compliance and process stability.

Over-regulation and false quality

A common problem is overloaded screens: users fill mandatory fields with arbitrary values just to keep working. The data looks complete but is worthless in content terms – false quality. Regular analysis of field contents for anomalies such as default texts or invalid dates provides a control here. The response rate in supplier surveys is also an early indicator: if it drops sharply after an expansion of mandatory fields, the concept is too cumbersome. Mandatory details with added value for the person completing them, such as automatic suggestions from the material master, have proven effective in practice.

Compliance, contract and interface risks

Missing mandatory details can have legal consequences: incomplete mandatory details on purchase orders, wrongly chosen Incoterms FCA or Incoterms DDP in risk areas, or missing origin and conformity details create potential for disputes and audit risks. For regulated products, documents such as the First Article Inspection (FAI) or rules on the Control of Nonconforming Product are contractually stipulated; the corresponding evidence should be required as mandatory details or attachments. Interface risks arise when mandatory fields are not synchronised between systems – then handovers fail despite local completeness. Regular reconciliation of field catalogues between ERP, portal and supplier systems mitigates this risk.

Controls and continuous improvement

Effective controls combine system checks with sampling: the four-eyes principle for critical approvals, automated duplicate and plausibility checks, and periodic data quality reports. Changes to the mandatory field set are best evaluated within a change advisory process, including the impact on invoice error rate, classification rate and workload. Clear ownership is important: one data owner per field catalogue area decides on mandatory status and validation rules and prevents uncontrolled growth.

Current developments: digitalisation and sustainability raise the bar

The pressure for structured, complete data is growing: automation, AI-supported RFQ creation and sustainability reporting only work with properly maintained mandatory fields. At the same time,

requirements for supplier data are increasing.

AI and automation need reliable mandatory fields

AI-supported tools, such as for RFQ creation or automatic classification of requirements, only deliver usable results if the underlying data is structured. Mandatory fields essentially define the training and input foundation: without reliable units of measure, material references and classifications, automation quickly produces wrong results. At the same time, intelligent suggestion systems relieve users by pre-filling mandatory fields from master data, historical purchase orders or catalogues and only asking for confirmation.

Sustainability, supply chain and new data requirements

Sustainability and supply chain requirements are expanding the mandatory field catalogue: details on the Supply Chain Carbon Footprint (SCF), material origins or conflict minerals are increasingly required and must be available in structured form – i.e. as mandatory data fields, not free text. Electronic invoice formats likewise enforce structured mandatory details and will reduce the invoice error rate in the medium term. At the same time, topics such as Supply Chain Finance are gaining importance, for which reliable details on payment terms and supplier identity are a mandatory prerequisite. Organisations are well advised to reconcile their field catalogues annually against new regulatory and market-driven requirements.

Typical metrics

Document completeness rate: > 98%

Proportion of documents with no mandatory field violation; typical benchmark for mature procurement departments

Invoice error rate: < 5%

Proportion of incoming invoices that cannot be processed automatically; directly dependent on mandatory field design

Supplier master data classification rate: > 90%

Proportion of fully classified suppliers; prerequisite for reliable evaluations

Catalogue coverage rate: 60–80%

Proportion of catalogue-based purchase orders; catalogues significantly reduce manual mandatory field entries

Touchless rate for purchase orders: > 70%

Proportion of purchase orders processed automatically; indicator of well-designed mandatory fields and approval rules

Practical example

A mid-sized mechanical engineering company with around 400 employees had for years faced high volumes of queries on purchase orders and invoices: delivery dates were missing, units were inconsistent, and the classification rate of supplier master data was well below target. The procurement team overhauled the mandatory field concept step by step, differentiated by transaction type.

- Created a field catalogue for purchase requisition, purchase order and supplier creation, with data owners per area
- Defined delivery date, unit of measure, cost centre and Incoterms rule as mandatory fields; all other fields left optional
- Set up sustainability and certificate details for the sustainable commodity group Packaging as a

separate mandatory block in the supplier portal

- Established monthly monitoring of invoice error rate, completeness rate and catalogue coverage rate to make adjustments on a data-driven basis

Conclusion

Mandatory fields are a seemingly technical detail with major operational impact: they determine data quality, process speed and compliance across the entire procurement process. The key is balance – every genuinely necessary field mandatory, everything else optional. A well-maintained field catalogue with clear responsibilities, measurable indicators and regular reviews prevents false quality and over-regulation. In view of growing automation and sustainability requirements, a well thought-out mandatory field concept becomes the foundation of modern, scalable procurement processes. The effort of implementation is often recouped in practice through reduced queries and stable key figures alone.

Frequently asked questions

What are mandatory fields in procurement?

Mandatory fields are required input fields in forms, master data and systems without which a transaction cannot be completed. In procurement, they typically affect purchase requisitions, purchase orders, supplier master data and invoice details. They ensure the minimum information that downstream processes and evaluations require.

Which mandatory fields belong on a purchase order?

Common examples are order number or reference to the requisition, material or service description, quantity and unit of measure, price, delivery date and delivery address, as well as order value. Depending on the organisation, cost centre, Incoterms rule and payment terms may also apply. The exact mandatory details should be legally reviewed, as purchase orders, as contractual declarations, must contain complete information.

How many mandatory fields are sensible?

The rule of thumb is: as few as possible, as many as necessary. A practical approach examines, for each field, what operational consequence a missing entry would have – if there is none, the field remains optional. Overloaded screens are known to lead to false quality, because users fill in fields merely to comply formally.

What is the difference between a mandatory field and validation?

The mandatory field ensures that a field is filled in at all before the transaction can be saved. Validation additionally checks whether the content is plausible and format-compliant, for example whether a date lies in the future or a number follows the correct scheme. In practice, both mechanisms are combined.

How do mandatory fields affect invoice processing?

Complete and consistent mandatory details on the purchase order and goods receipt enable automatic matching with the incoming invoice and significantly reduce the invoice error rate. Missing reference details, by contrast, lead to manual clarification cases and delayed payments. Electronic invoice formats reinforce this effect, as they enforce structured mandatory details.

How do you introduce new mandatory fields to suppliers?

Best practice includes announcing the change with lead time, clearly justifying the information requirement, providing help texts in the supplier portal and generous transition periods for ongoing transactions. New mandatory details should ideally be linked to added value for the supplier, such as faster approval or better chances of contract award. A feedback loop via the response rate shows whether the requirements are being accepted.