



JAMA-CLEPA
BUSINESS SUMMIT

JAMA-CLEPA Business Summit

Venice, 27 & 28 October 2016

*European automotive suppliers meet
Japanese vehicle manufacturers*



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Expectations of Suppliers in the Product Planning-through-Mass Production Flow

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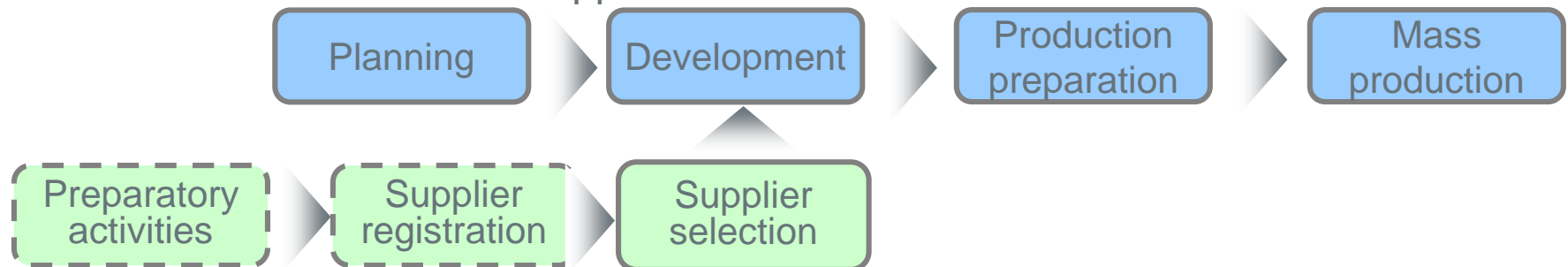
FUJI HEAVY INDUSTRIES LTD.

*European automotive suppliers meet
Japanese vehicle manufacturers*

■ Today's briefing

1. Common procurement guidelines of JAMA members
2. Expectations of suppliers at each stage of the process from planning to mass production
3. Supplier selection process, and preparatory activities leading to supplier registration
4. Concluding remarks

- ◆ Relationship between the process from vehicle planning to mass production and the selection of suppliers



1. Common procurement guidelines of JAMA members

2. Expectations of suppliers at each stage of the process from planning to mass production

3. Supplier selection process, and preparatory activities leading to supplier registration

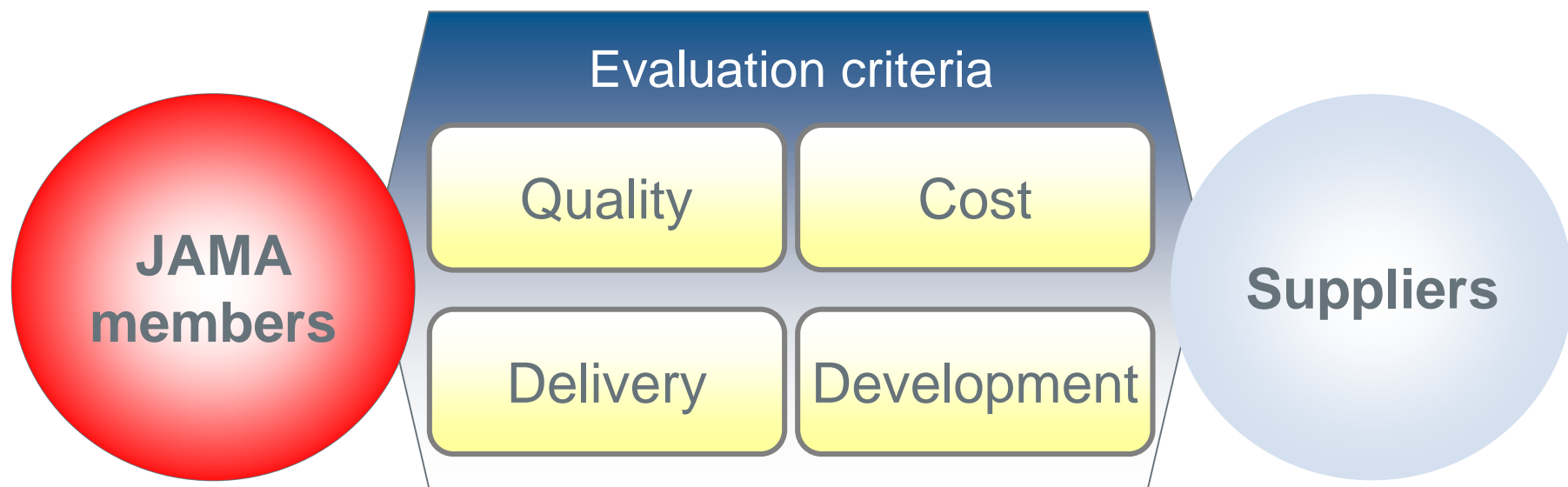
4. Concluding remarks

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Common procurement guidelines of JAMA members

Basic stance: Open and fair trade



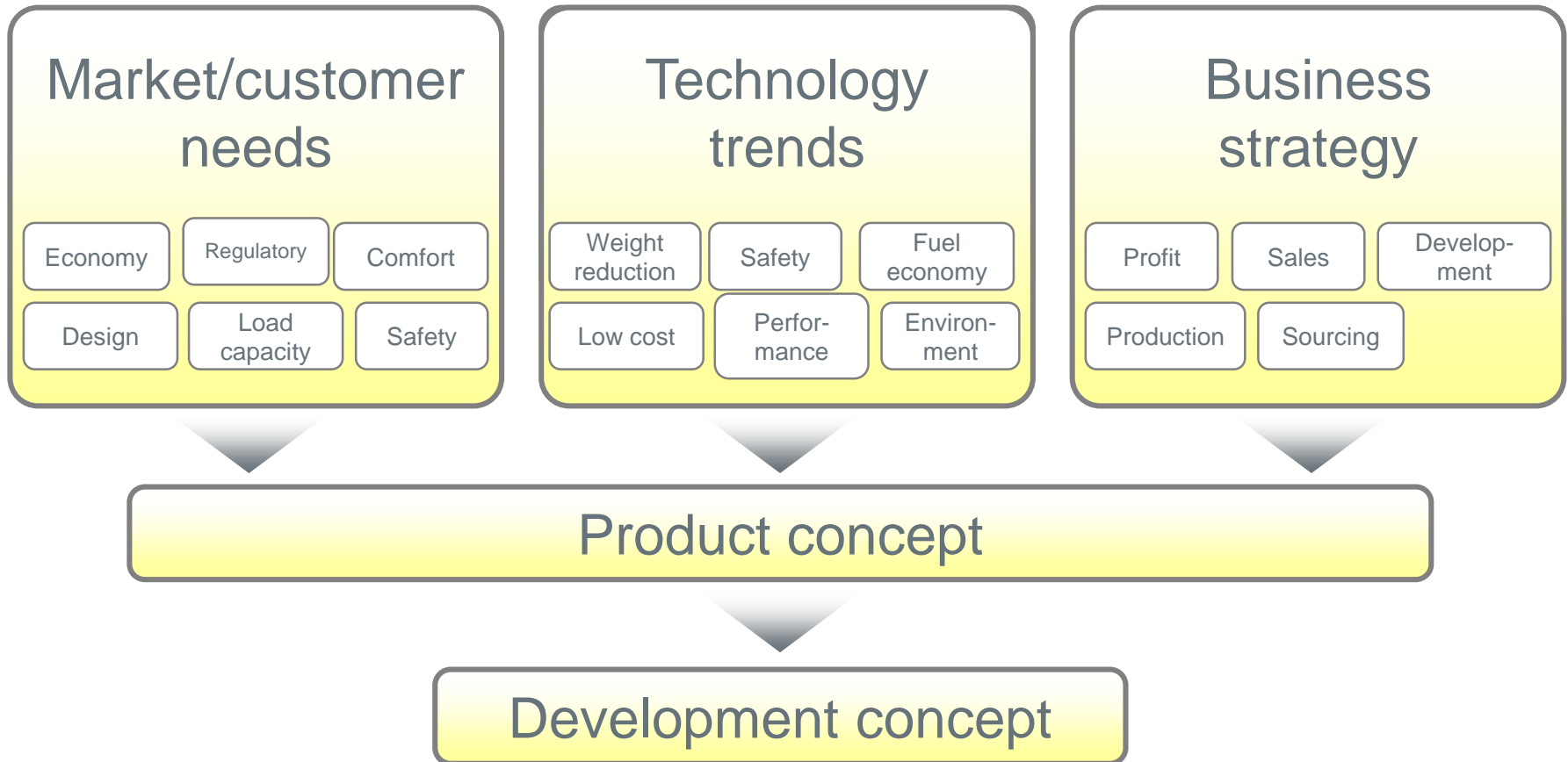
Prerequisites: Safety, environment, compliance

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◆ Relationship between the process from vehicle planning to mass production and the selection of suppliers



■ Process at **the planning** stage



■ What is expected of suppliers at **the planning** stage (1)

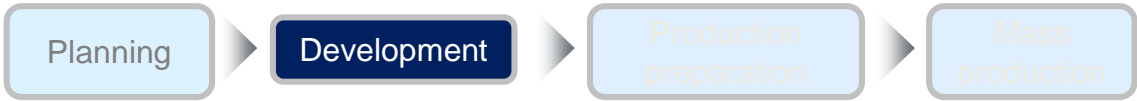
Make proposals that improve competitiveness (price, merchantability etc.)

- Better cost competitiveness
 - Cost savings through new structures and methods
 - Expansion of local procurement at international production sites of automakers

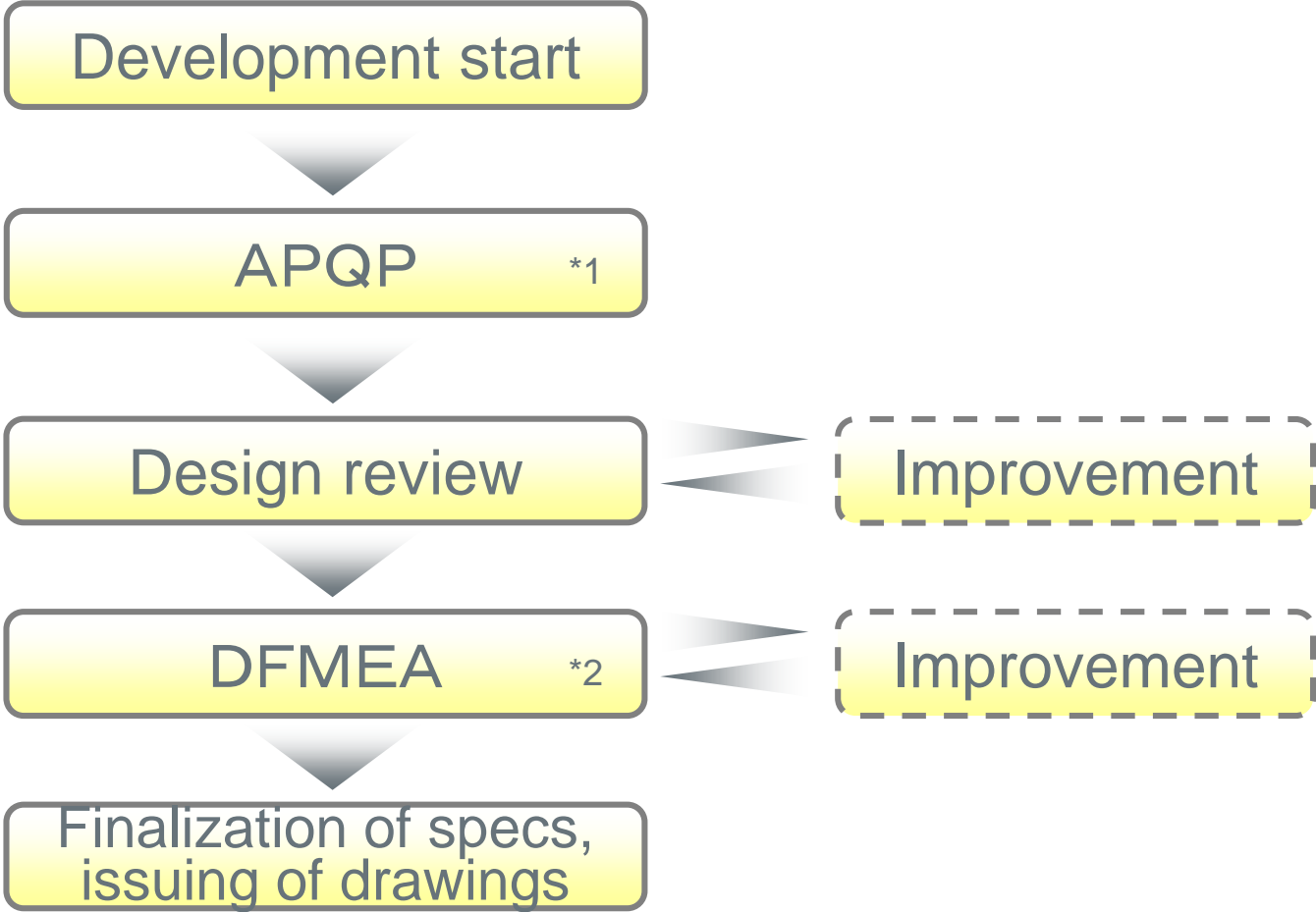
■ What is expected of suppliers at **the planning** stage (2)

Make proposals that improve competitiveness (price, merchantability etc.)

- Better merchantability
 - New categories, new technologies, new designs
 - Better performance
- Others
 - Regulatory compliance, leveraging of technology policies and systems



■ Process at **the development** stage



*1 **APQP**: **A**dvanced **P**roduct **Q**uality **P**lanning and Control Plan

*2 **DFMEA**: **D**esign **F**ailure **M**ode and **E**ffects **A**nalysis

What is expected of suppliers at the **development** stage (1)

- Proactive initiatives to achieve cost targets
- Technology development capacity and schedule management capacity at the automaker's expected level
 - Cost savings
 - Proactive initiatives to achieve the automaker's target cost
 - Technology development capacity
 - Expertise in FEM, FMEA, FTA and other development approaches*1
 - Use of CAE/CAD, own evaluation equipment*2
 - Incorporation into drawings of the specifications and quality levels required by the automaker

*1 **FEM**: **F**inite **E**lement **M**ethod
FMEA: **F**ailure **M**ode **E**ffects **A**nalysis
FTA: **F**ault **T**ree **A**nalysis

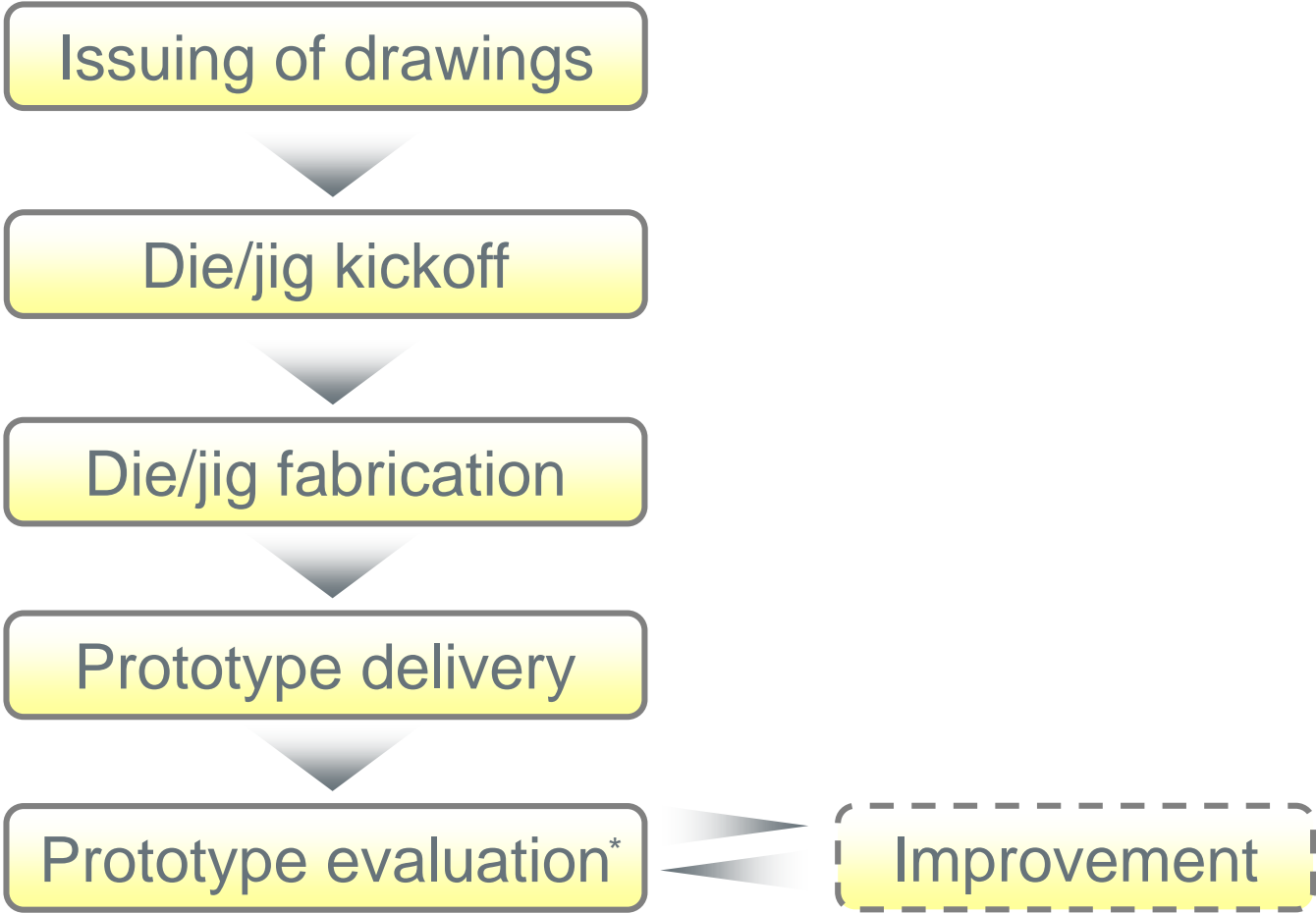
*2 **CAE/CAD**: **C**omputer **A**ided
Engineering/**D**esign

■ What is expected of suppliers at **the development** stage (2)

- Proactive initiatives to achieve cost targets
- Technology development capacity and schedule management capacity at the automaker's expected level
 - Schedule management
 - Ability to keep up with the vehicle development schedule
 - Timely response to design changes
 - Others
 - Guaranteed regulatory compliance



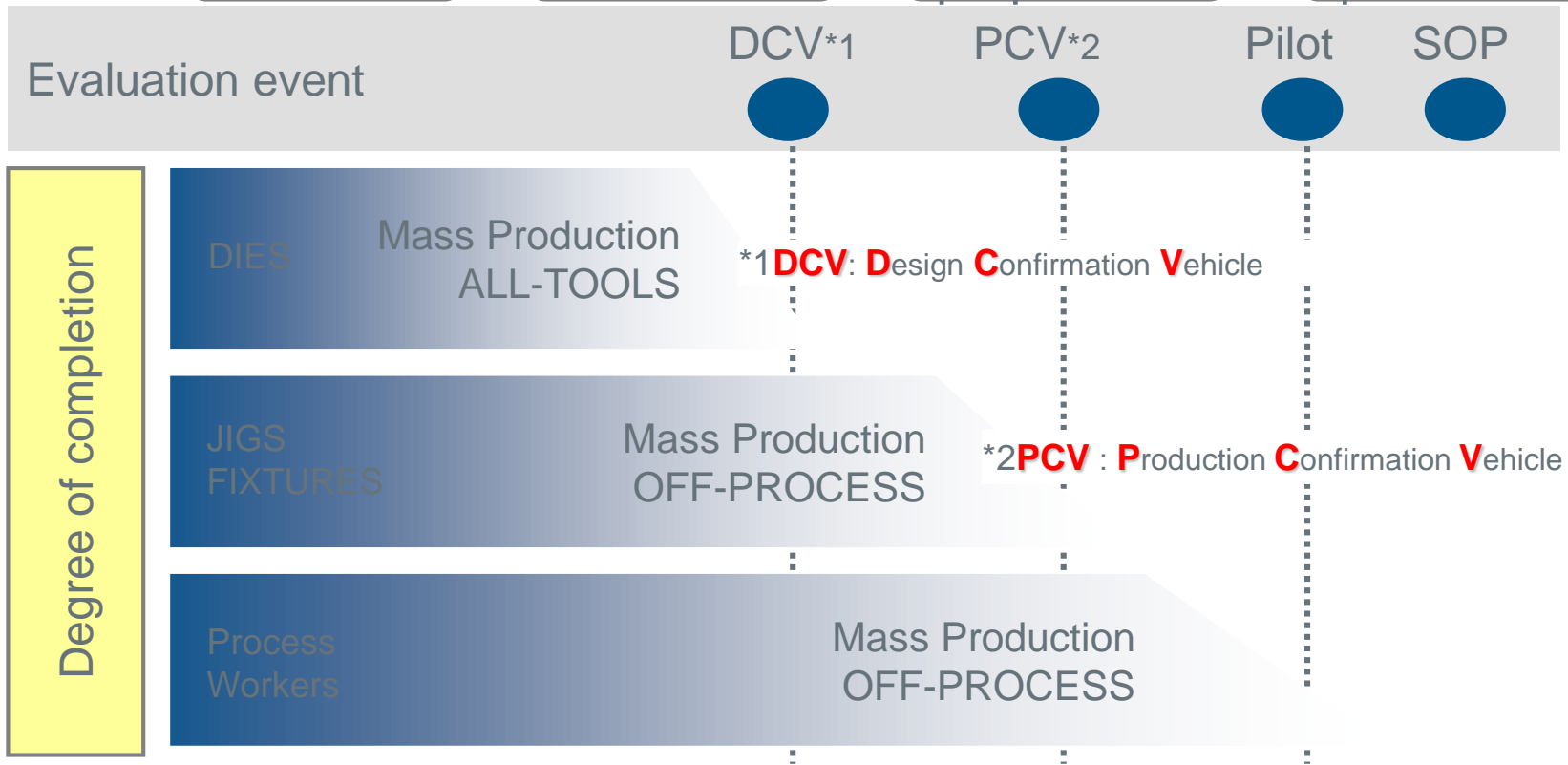
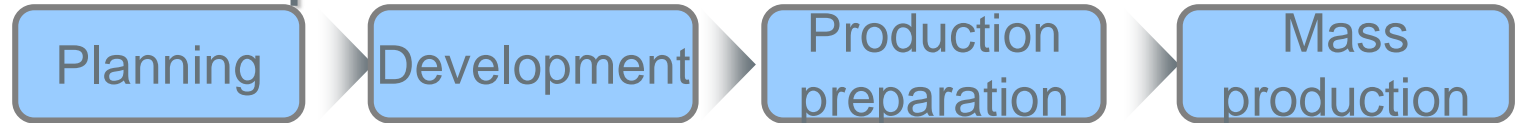
■ Process at **the production preparation** stage



* Timing explained on next slide



Prototype evaluation timing and expected degree of completion



Degree of production process completion increases as development progresses

■ What is expected of suppliers at **the production preparation stage (1)**

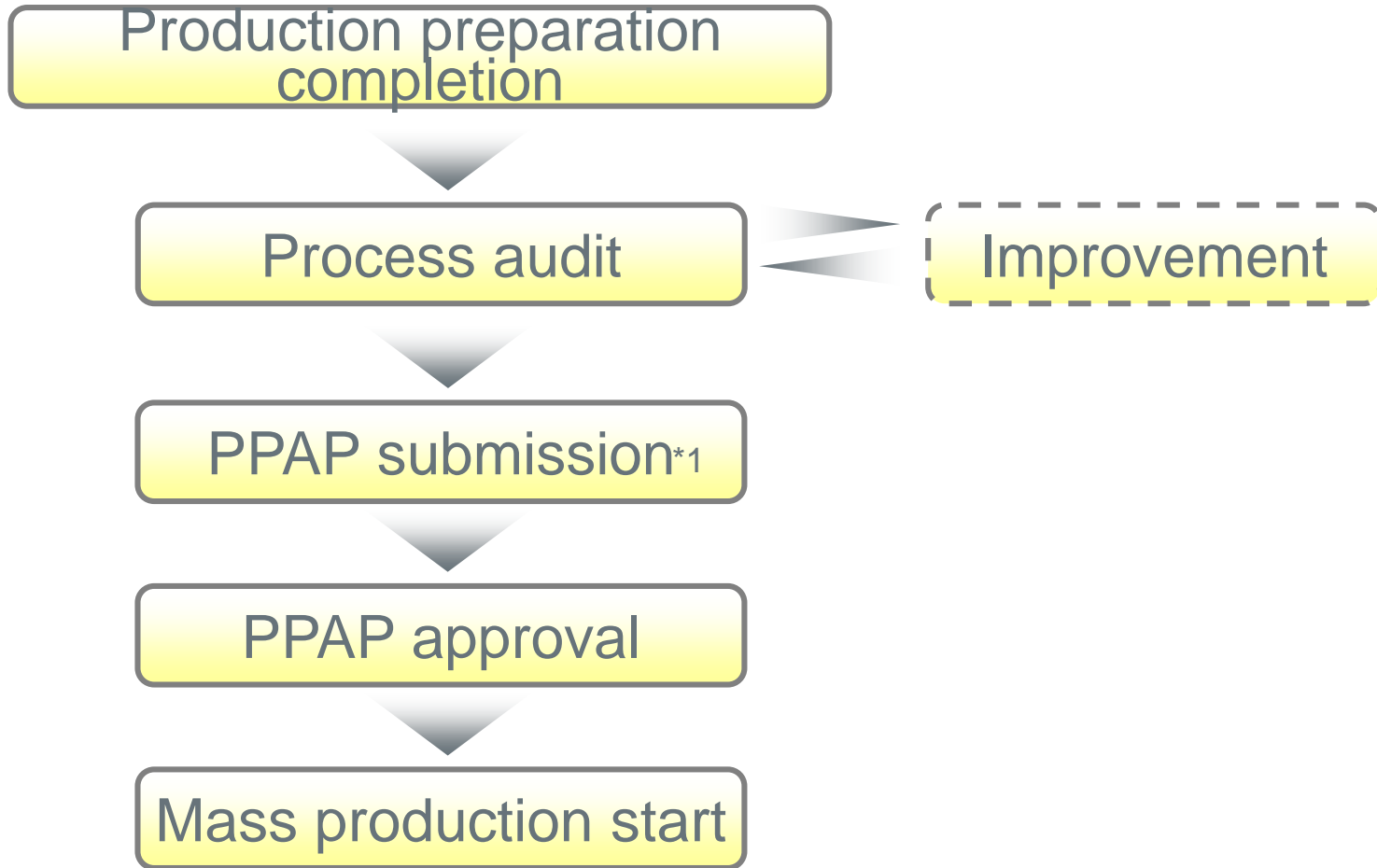
- Timely response to design changes, restraint of cost increases
 - Reliably build in quality while faithfully adhering to the development schedule
- Cost savings
 - Restrain cost increases resulting from design changes etc.
 - Quality
 - Faithful adherence to quality requirements
 - Incorporation into QC process chart and part inspections

■ What is expected of suppliers at **the production preparation** stage (2)

- Timely response to design changes, restraint of cost increases
 - Reliably build in quality while faithfully adhering to the development schedule
- Schedule management
 - Faithful fabrication and installation of dies, jigs, inspection tools and equipment etc.
 - Timely response to design changes
 - Delivery
 - Supply chain management
 - Optimized packaging and logistics



- Process at **the mass-production** stage



*1 **PPAP**: **P**roduction **P**art **A**pproval **P**rocess

- What is expected of suppliers at **the mass-production** stage (1)
 - Build a long-term, friendly partnership based on mutual trust
 - Continue to improve quality, delivery and cost
 - Cost savings
 - Ongoing, proactive cost savings initiatives
 - Quality
 - Maintenance and improvement of quality

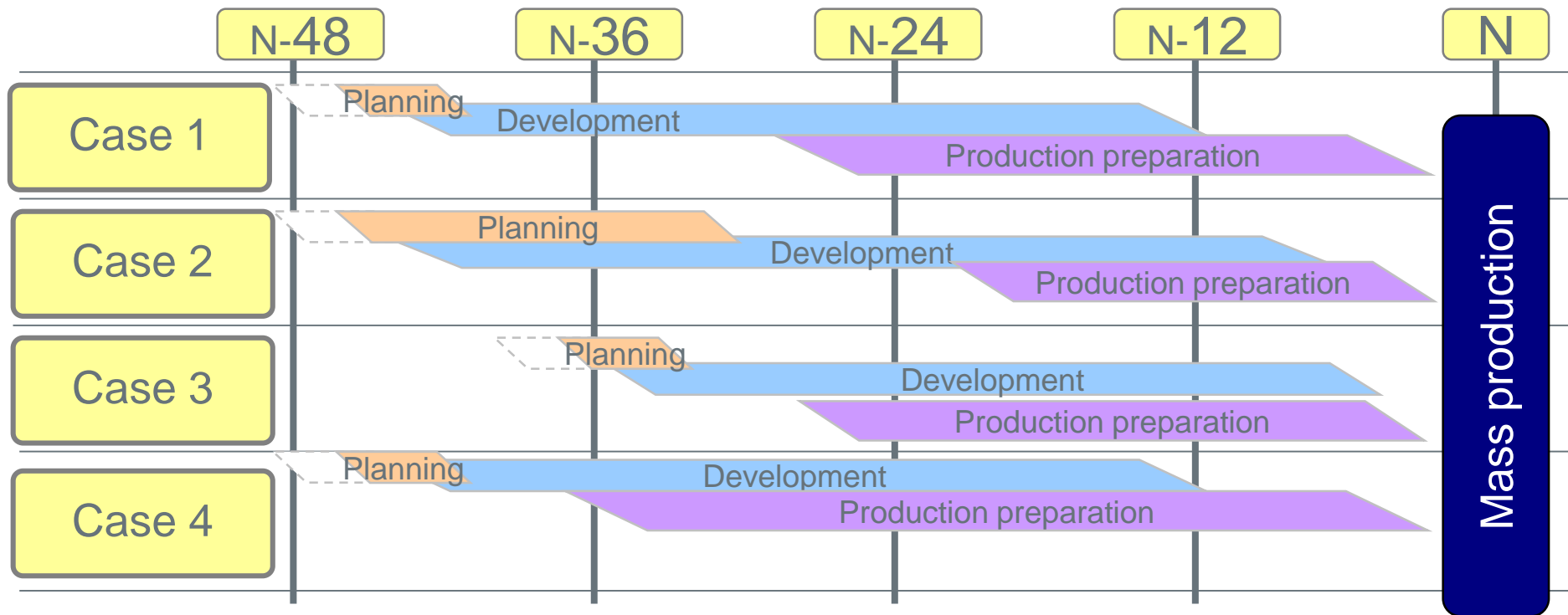


- What is expected of suppliers at **the mass-production** stage (2)
 - Build a long-term, friendly partnership based on mutual trust
 - Continue to improve quality, delivery and cost
- Delivery
 - Stable supplies, including spare parts
 - Timely response to changes in production
 - Timely information sharing and recovery during disasters or other emergencies
- Others
 - Safety, compliance, green sourcing, BCP^{*1}
 - Smooth and timely communication

*1 **BCP** : **B**usiness **C**ontinuity **P**lan

■ General process: Outline of process from planning to mass production for a major change

To give you an idea of the general process and schedule, it requires approximately 40 months for a major change, though the actual amount of time will vary depending upon the manufacturer, model, and scale of development

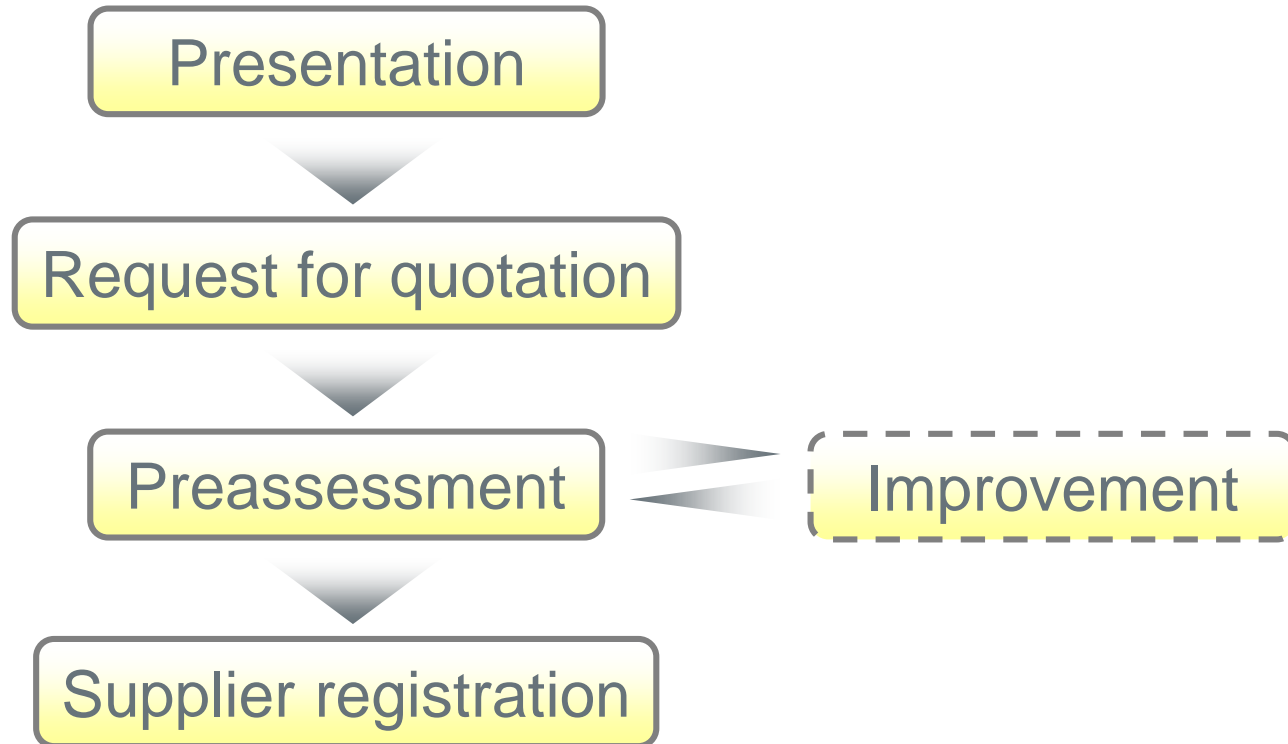


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- ◆ Relationship between the process from vehicle planning to mass production and the selection of suppliers



- Process of **preparatory activities** for supplier registration



Major preparatory activities (1)

Presentation

Request for quotation

Preassessment

Supplier registration

◆ Presentation content, Part 1

Company profile

- History, head office, locations
- Major equipment
- Changes of sales, profit margins, employees
- Capital structure

Products

- Major products, share in industry
- Competing suppliers
- Product strengths and weaknesses
- Price information
- New products, new technologies

Major preparatory activities (2)

Presentation

Request for quotation

Preassessment

Supplier registration

◆ Presentation content, Part 2

Points of appeal

- Major purchasers
- Sales ratios of individual purchasers
- Awards for quality, delivery etc.
- Technology (development track record, evaluation equipment)
- International standards
- Company group, affiliates, partnerships

Major preparatory activities (3)

◆ Content of request for quotation (1)

Presentation

Request for quotation

Preassessment

Supplier registration

Quotation assumptions

- Specifications (specification document, similar-product drawings etc.)
- Volume terms
- Beginning and end of mass production
- Economic base point (foreign-exchange etc.)
- Transactional terms and conditions
Transaction basic contract, claims agreement
 - Quality requirement statement, packaging requirement statement, place of delivery, payment terms, die payment method etc.

Major preparatory activities (4)

Presentation

Request for quotation

Preassessment

Supplier registration

◆ Content of request for quotation (2)

Submission

- Quotation/detailed quotation
- Drawings
 - Specification (if the supplier proposes specifications)
- Other relevant information

Others

- Nondisclosure agreement
- Adherence to submission deadlines

Major preparatory activities (5)

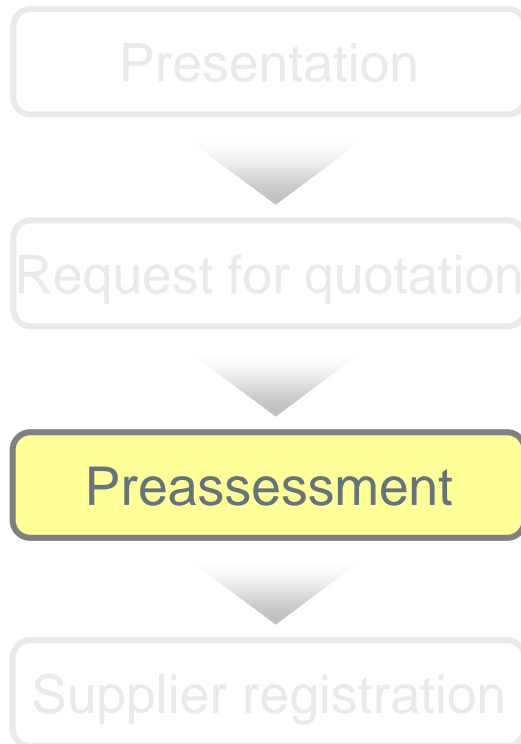


Major items studied (1)

Business conditions

- Corporate scale (sales, employees, profit margins)
- Nature of business
 - Products, share in industry, competing suppliers, major purchasers
- Group companies, technology alliances
- Labor relations (labor unions, employment structure)
- Cost management, improvement promotion
- Functional liaisons

■ Major preparatory activities (6)



◆ Major items studied (2)

Quality

- Delivery defect rate
- Quality assurance structures
 - Inspection methods, QC schedule
 - Boundary samples etc.
- Defect policies
- Training programs and organizations

Major preparatory activities (7)

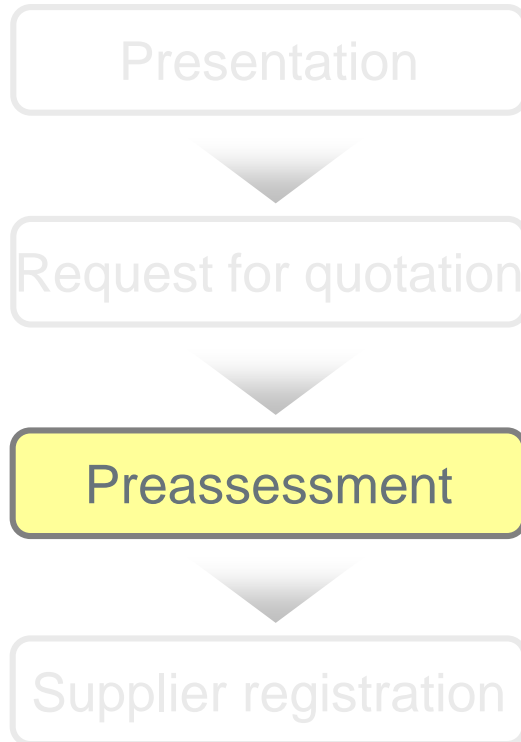


Major items studied (3)

Production

- Production system
 - Processes and equipment, production capacity, internal production rate, maintenance system, working-level management and production management methods
- Production preparation system
 - Number of engineers, leadtime, progress management method
- On-site confirmations
 - Process layout, work standards, posting of production plans and results, inventory counts

■ Major preparatory activities (8)



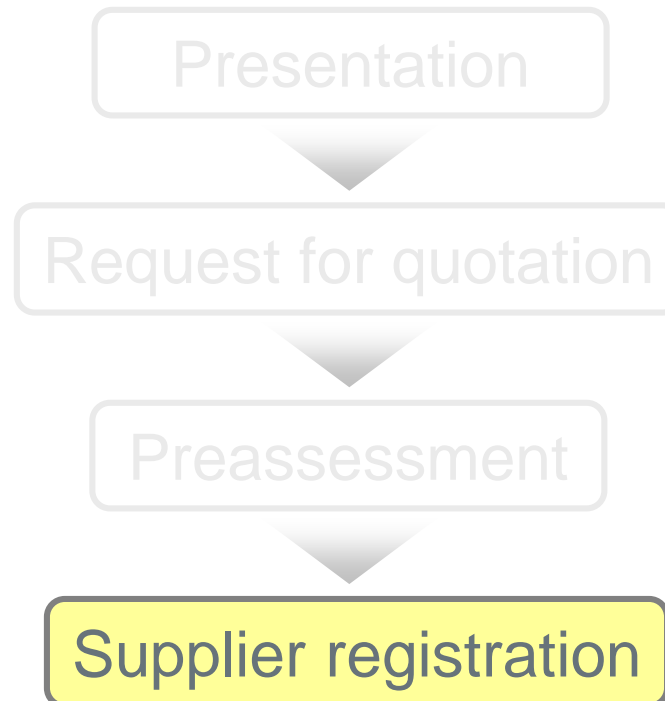
◆ Major items studied (4)

Technology

- Product technology levels
 - Comparison against Japanese products and competing products
- Technology development capacity
 - Design capacity, testing and evaluation equipment
- Track record and form of development with automakers

■ Supplier registration

Supplier registration is based on preassessment results



■ Supplier selection activities

- Patterns of supplier selection and points emphasized
- Timing of supplier selection
- Relationship between units selecting suppliers and development/production locations
- Creating supply scenarios that assume global expansion

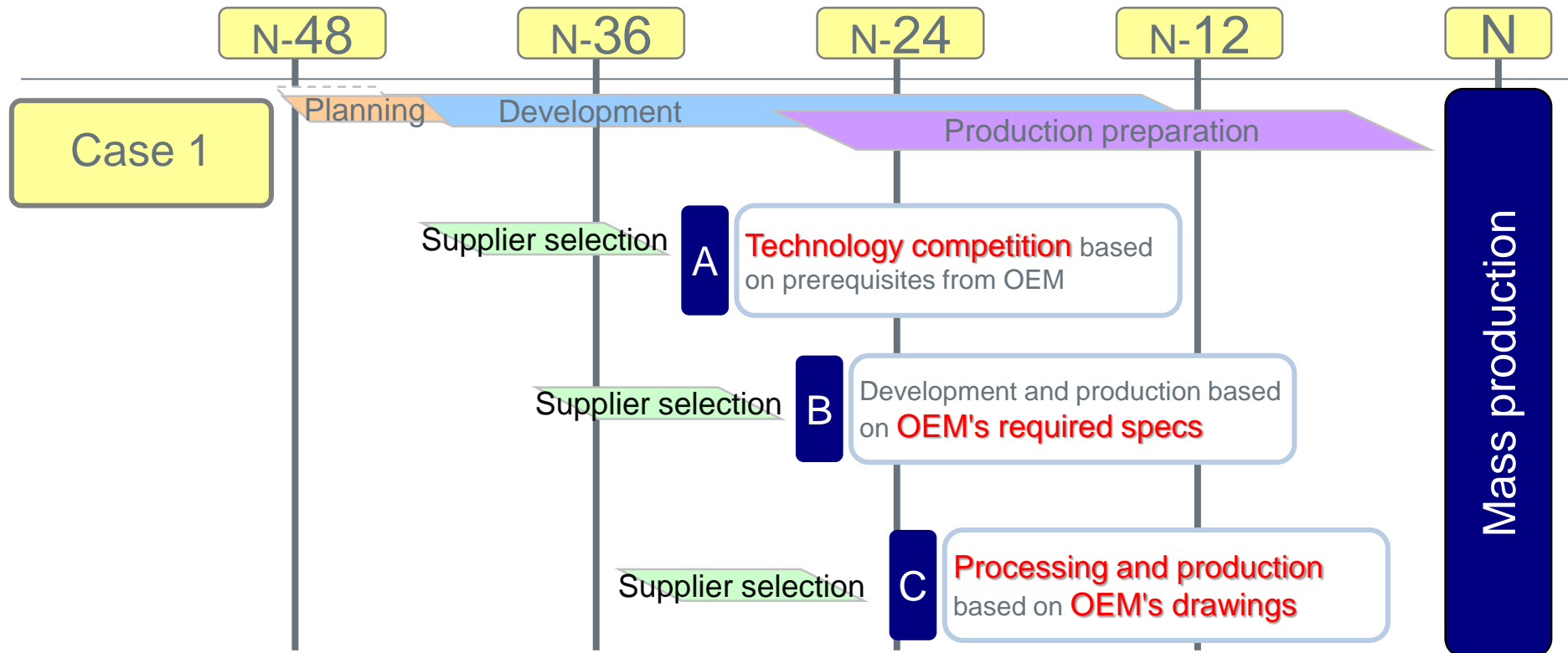
Patterns of **supplier selection** and points emphasized

| Supplier selection pattern | Degree of dependence on supplier in development, degree of difficulty of development | | Selection points | | | Examples of parts | |
|--|--|-------|------------------|-------------------|----------------------|-------------------|---|
| | Large | Small | Drawing creation | Proposal capacity | Development capacity | | Price |
| A Technology competition based on prerequisites from OEM B Development and production based on OEM's required specs C Processing and production based on OEM's drawings | | | Supplier | ◎ | ◎ | ◎ | Turbos, air-conditioners, compressors, exhaust gas treatment systems, injection systems, audio parts etc. |
| | | | | — | ◎ | ◎ | Injection systems, valves, controllers, brake drums, discs, filters, alternators etc. |
| | | | | automaker | — | — | ◎ |

Supplier selection points differ according to the degree of dependence in development and degree of difficulty

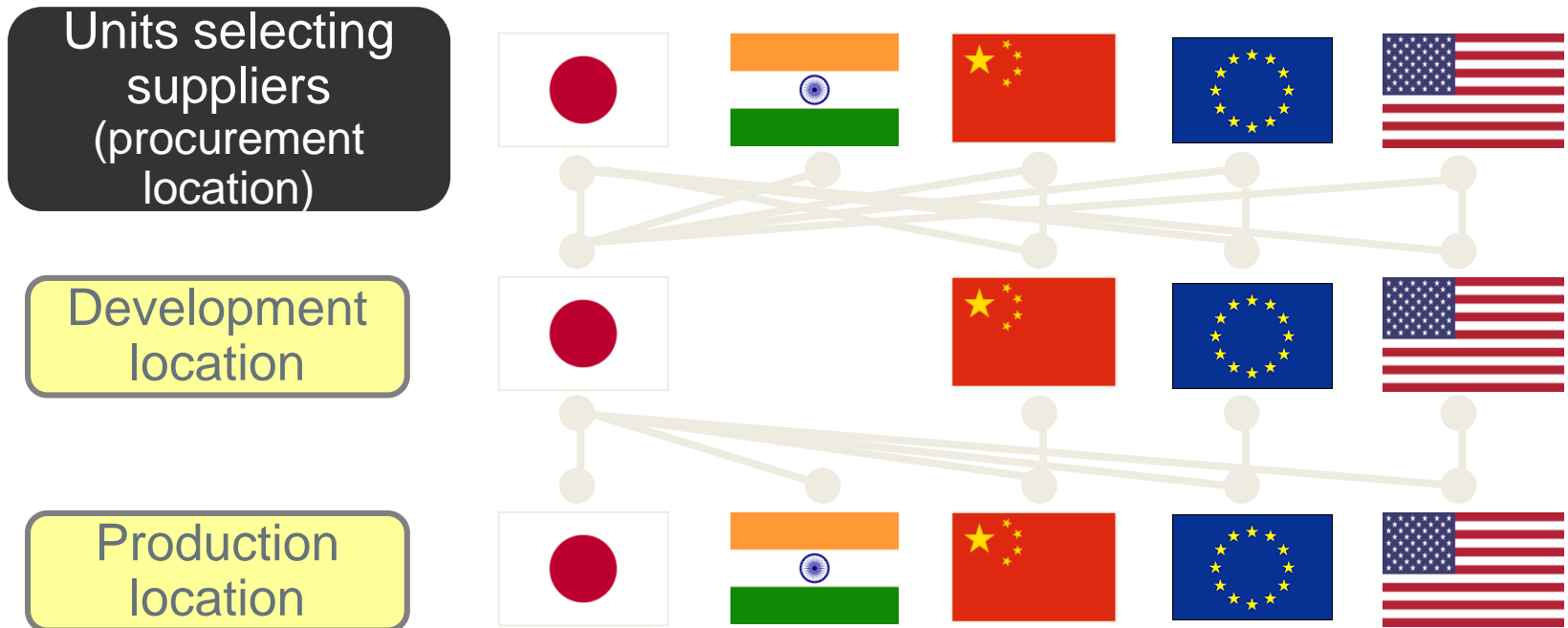
■ Timing of **supplier selection**

The timing of supplier selection also varies depending on the pattern



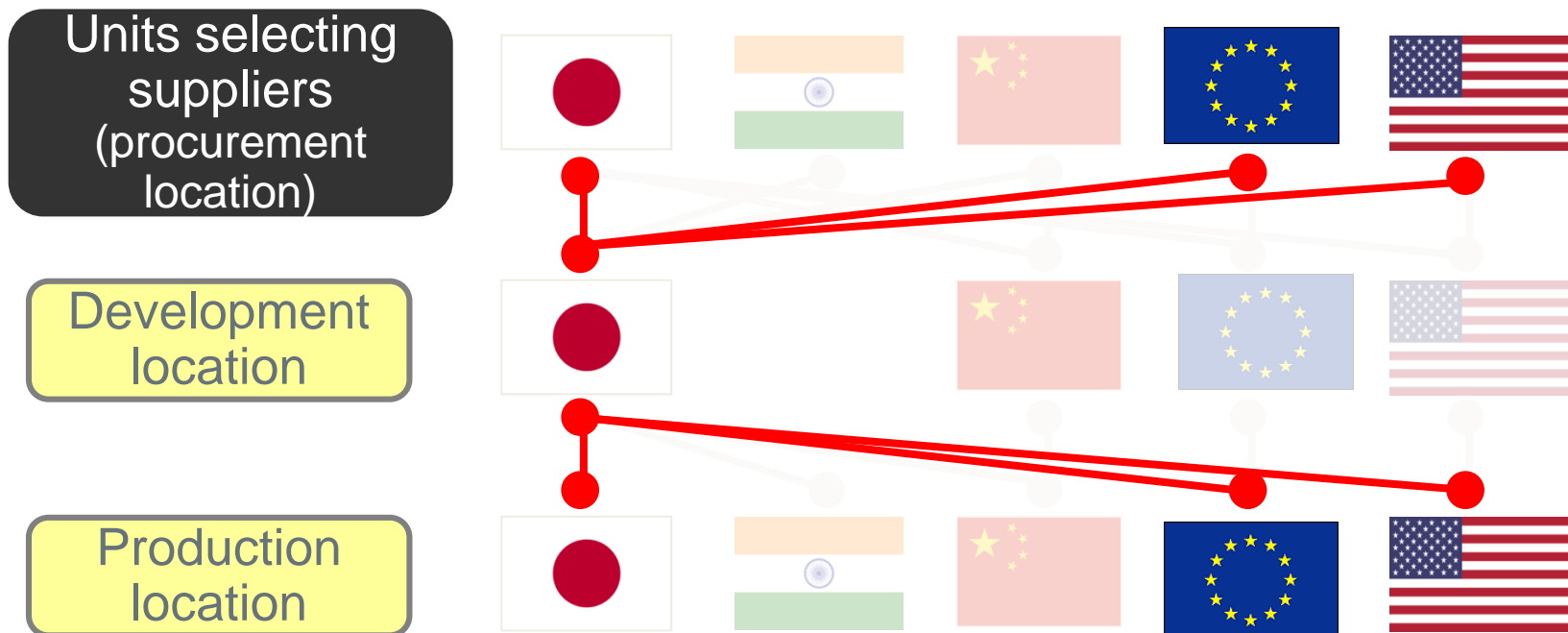
Relationship between **units selecting suppliers** and development/production locations (conceptual diagram)

The globalization of operations has resulted in greater complexity in the unit selecting suppliers, and the promotion of development/production locations



Relationship between **units selecting suppliers** and development/production locations (conceptual diagram)

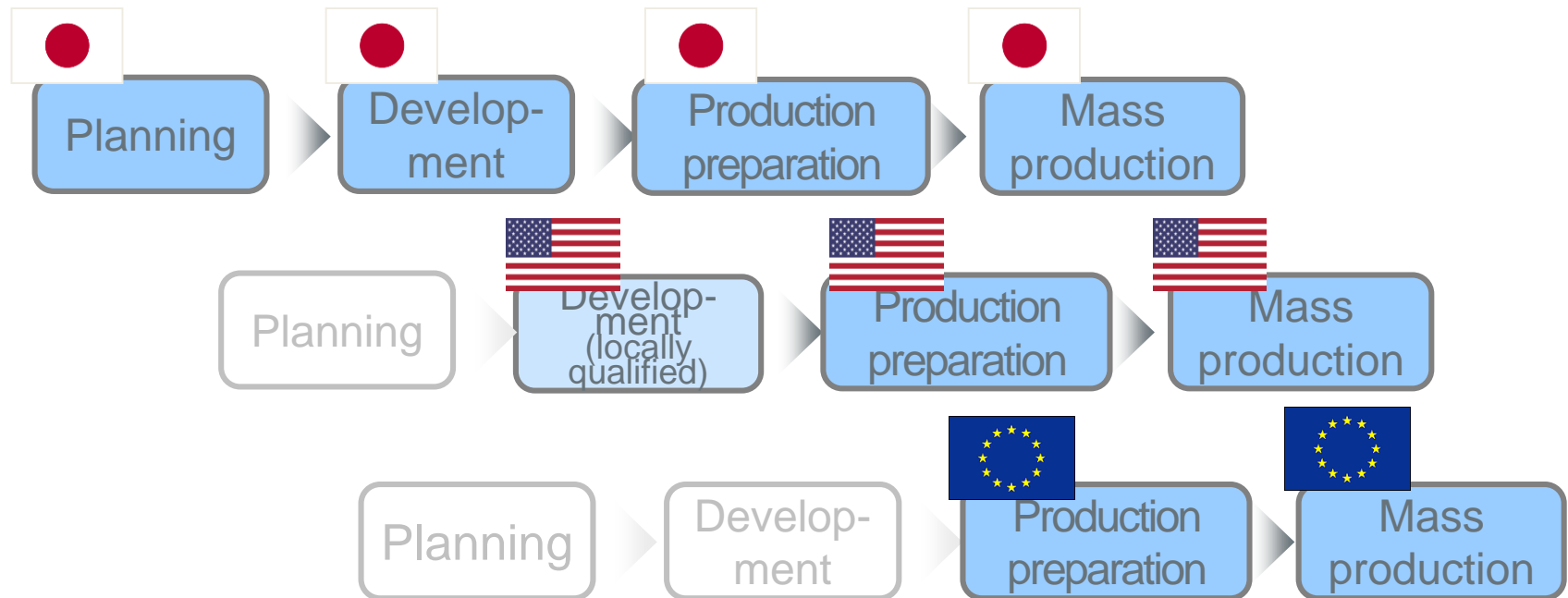
Example: 1 development location, 3 production locations
Development/production locations do not necessarily lead supplier selection



Supply scenarios to respond to global expansion

(conceptual diagram)

As common platforms and modules are developed, there are more cases in which multiple locations are used



Proposals should be based on globally-oriented production and supply systems

■ Requests of suppliers in preparatory activities and supplier selection (1)

Indicate your strengths as quantitatively and specifically as possible

- Cost
 - Advantages compared to competing and conventional products
- Quality/delivery
 - Visual indication of the certainty of quality assurance and delivery management

■ Requests of suppliers in preparatory activities and supplier selection (2)

Indicate your strengths as quantitatively and specifically as possible

- Development capacity, proposal capacity
 - Advantages compared to competing and conventional products
 - Provision of information on product and market trends
- Others
 - Early agreement and execution of transaction basic contract
 - Cooperation with assessments
 - Adherence to deadlines in the selection process (quote deadline etc.)

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- This explanation has covered points that are in common for all JAMA members
- For specifics, individual companies will obviously have individual practices in addition to these common points
- You should consult directly with the company as necessary

- As discussed at the beginning, JAMA members operate on the principles of "open and fair trade," "QCDD perspectives" and "emphasis on safety, environment and compliance"
- We welcome all contacts from the European suppliers who have attended today
- We look forward to seeing you again!



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Thank you for your attention!
ご清聴ありがとうございました。
Grazie per l'attenzione!

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Japanese vehicle manufacturers*