



Relocation of whole or partial production sites

In addition to strategic considerations (proximity to customers and markets, raw materials, general concepts), (calculated) costs of production primarily play a decisive role in relocating production units to places with apparently more favorable conditions.

Standard errors are almost surely repeated, which in retrospect often make the project appear at least suboptimal or even questionable.

1. Transfer of know how

The lower the standardization of the processes (e.g. measured against lean methods), the more important the specialist knowledge of employees. This knowledge has to be documented and then effectively transferred. This rarely succeeds, which leads to start-up problems and complaints. The relocating plant should therefore be thoroughly audited for standards and documentation BEFORE a decision is made to relocate.

2. Cost advantages

Usually this is overestimated. Labor cost advantages cannot always be linked to hourly wages, especially since an upward trend is to be expected, especially in attractive low-cost countries. It is not uncommon for employees from the relocating plant to be called in to keep production going.

Demands from customers to participate in the cost advantage (the articles are often re-advertised), reduce the profit again

A cautious (pessimistic) approach is appropriate in this case.

3. Relocation efforts

Rarely there is a suitable risk assessment being reflected monetarily in the calculation. Risks are mostly underestimated and the budget is usually too low. Supplements are the rule. In addition to financial aspects, the time and effort required from the project team must be considered. It must be ensured that members of the team are burdened to a reasonable extent. Usually there is little experience, which in addition to overloading leads to errors. It is important to agree on an appropriate failure culture and to communicate this transparently. Often team members and management have insufficient authority, which leads to delays in the process.

4. Safety

Safety is and will remain the highest priority. There should never be compromises in this regard. Transports and test runs in particular must be carefully planned and carried out.

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ENGINEERING

Prior to the decision			
1	<p>Are all cost for the relocation known?</p> <ul style="list-style-type: none"> • Social plans, severance payments • Official permits, environmental requirements • Sampling • Transport, damage, total loss, insurance • Modifications to buildings, machines • Induction / training • External service providers • Project team 		
2	<p>Are the benefits seen realistically and given in the long term?</p> <ul style="list-style-type: none"> • Price reductions • Discontinuation of the products • Wage developments etc. / poaching 		
3	<p>Are all customer aspects taken into account?</p> <ul style="list-style-type: none"> • Spare parts obligations • Pre-production • General agreement • Costs for line standstills • Scope of sampling • Other requirements / audits 		
4	<p>Does the project team have sufficient competence, capacity and authority?</p> <ul style="list-style-type: none"> • Worst case scenario • Are all departments involved? • Vacation / sickness • budget? Authority to issue instructions? 		
5	<p>Are all the criteria for a project stop known?</p> <ul style="list-style-type: none"> • Regulatory / environmental requirements • Consequences under labor law / strike • Public / media • National legislation • Customer contracts • Missing timing / financial targets 		
6	<p>Are the machines transportable?</p> <ul style="list-style-type: none"> • Age / condition / spare parts / controls • Restricted export of used machines? • Are there spare parts, fitters on site? • Choice of means of transport 		
7	<p>How is the know-how transfer organised?</p> <ul style="list-style-type: none"> • Audit carried out? • Employees, on-site training • Records • Support relocating plant • All documents / plans up to date? 		



Project			
1	Are all depts, full-time or temporary, involved? • Project management with powers of attorney / budget • Works Council • Human Resources • Technical services / facility • Engineering / planning / logistics • quality • Purchasing / sales • Environment / safety / fire brigade • Production		
2	Is there a time and cost for each activity? Is there a measurable key figure for this?		
3	Are the responsibilities and authorities regulated?		
4	Is there a risk assessment with measures?		
5	Have the plan and budget been clearly communicated and approved? Are there reserves?		
6	Is there time and space for cross-location, regular (virtual) meetings?		
7	Are milestones defined, communicated and accepted?		
8	Is there a substitute for every (!) Position in the event of illness / vacation / dismissal?		

The management of a relocation is a demanding full-time task that requires high interdisciplinary skills and strong leadership / communication under (time) pressure.

The time and administrative effort involved in relocating is always (!) underestimated. The processing "on the side" is a great challenge, often overburdened. Therefore, try to release a team completely for this task!

Employees with general skills and high motivation / resilience are ideal. It is helpful to offer something in return for special efforts.



Staff			
1	Is sufficiently qualified personnel available in the long term as well? Also applies to administrative tasks.		
2	Are any cost advantages secured in the long term?		
3	Are employees from the relocating plant ready to move / support?		
4	Are contracts, for example with the union, included in the plan?		
5	Are new hires at the new location being subsidized by the local authorities?		
6	Is there a resilient qualification matrix?		
7	Does the local mentality match the company?		
8	Can extensive training be carried out in the relocating plant and also at the new location?		

The transfer of knowledge is the most important task of a relocation. Processes are often not adequately documented and work plans are out of date. Old hands know the quirks of their machines in their sleep, know which special operations are necessary and how to “trick the system”.

Complex processes that have "grown" cannot be relocated without long-term training. The GO can only take place if employees from the receiving plant have mastered the old location sustainably and without instruction.

A shift that is only driven by labor costs usually fails due to foreseeable but not calculated developments in the market.

The relocating plant usually provides less support than expected. This always worsens rapidly at the end of closings, sabotage and theft are not uncommon.



Client			
1	Have written customer approval for the relocation been received?		
2	Have the affected articles been named and coordinated?		
3	Is there a coordinated perspective for the products?		
4	Does the customer expect a price reduction due to the cost advantages?		
5	Digital connection to a new location?		
6	Are all relevant departments of the customer involved? Have the contact persons been named and coordinated? <ul style="list-style-type: none"> • Purchasing, possibly sales • engineering • quality • logistics 		
7	Has the scope of sampling been coordinated?		
8	Is there a coordinated status of drawings and documents?		
9	What amount of preliminary work is required and does it fit the project plan?		
10	Do new article numbers etc. have to be created?		

The customer should be involved right from (before) the start. Under pressure, the customer will always try to pass all costs onto the supplier and realize cost advantages for themselves, for example through labor cost.

As a rule, stricter controls are being carried out under pressure. Audits can create additional tension.



Product			
1	Can a pre-production of about 2x relocation time be ensured?		
2	How many parts require full sampling?		
3	Documents up-to-date and complete? <ul style="list-style-type: none"> • Drawing, parts list • History, complaints • Work plan / flowchart • Control plan • FMEA • Call-offs / classifications / stocks • Packaging regulations 		
4	Logistics efforts <ul style="list-style-type: none"> • Special urgency shipments • Air freight 		
5	Are all raw materials, consumables and supplies available?		
6	Are there service providers on site, e.g. rework, logistics, warehouse, etc.?		
7	Is different packaging needed?		

Unexpected difficulties always arise when relocating. The same machine / material can provide different values at a different location. The search for the causes is often time consuming. The more complex the processes are, the sooner and more often they have to be expected.

Machinery			
1	Do the machines meet the required standard at the destination?		
2	Can used machines be exported / imported?		
3	Can the control be switched off?		
4	Can programming data be saved?		
5	Are the machines transportable? e.g brittle cables etc		
6	All tools available?		
7	Risk assessment?		
8	Customer service of the manufacturer?		
9	Approval by TÜV etc required?		
10	Spare Parts? Tools? Fixtures?		

Only move machinery that have been serviced and are in a technically perfect condition. With old machines there is a high probability of damage to cables / electronics, sensitive mechanics, for example.



Facilities			
1	Is there access for the means of transport (low loader, truck crane, heavy-duty forklift, etc.)		
2	Can the machines be brought into place? Are corridors and gates big enough? Ceiling heights? Load capacity of floors / ceilings		
3	Is the space sufficient and with reserves?		
4	Safety issues <ul style="list-style-type: none"> • Noise • Escape routes • Suction, temperature • lighting 		
5	Is there sufficient cleanliness?		
6	Are there contaminated sites in the ground / in the buildings?		
7	Is there enough energy available? <ul style="list-style-type: none"> • Cable cross-section and length • Distribution • Power outages and fluctuations • High-voltage connection • Gas quantity and quality • Compressed air, pressure and quality • Ventilation / light etc 		
8	Is a gantry crane required / available?		
9	Requirement for an (air-conditioned) warehouse?		
10	Do / can roofs be opened?		

When systems / machinery arrive at their destination, there are often nasty surprises. Gates are too narrow, ceilings too low or the crane cannot stand securely on soft ground. Special attention must be paid to this point, as some of these problems cannot be solved ad hoc or not at all.



Environment			
1	Do climatic conditions permit operation? Humidity, heat (controls etc!)		
2	Are there local regulations regarding noise etc.		
3	Neighbors? Nature reserves? Groundwater?		
4	Is disposal ensured? • Garbage • exhaust gases • Sewage • Auxiliary, consumable and hazardous materials		
5	Can there be lengthy approval procedures?		
6	Are there any subsidiaries for environmental measures?		

Make sure that all permits are in place in advance and on time. Involve all authorities in good time. Often there are significant delays. Laws can also change during the project, which is why this must be carefully monitored.

Network			
1	Authorities: customs, police, environment, employment office, community		
2	Raw materials and part suppliers		
3	Craftsmen		
4	Executives, specialists		
5	Schools, universities		
6	Logistics service providers		
7	Waste disposal companies		
8	Personnel leasing provider		
9	Certification companies		

It is always advisable to have a coordinator in the new plant who is well connected on site. As a stranger, it is often difficult to get things done abroad but even in foreign areas of your own country.



Transport			
1	Is there any damage / loss insurance?		
2	Scenario for a total loss of a machine? Are there replacements?		
3	Requirement for special transport permits (e.g. France, Italy)? Excess dims: bridges, ferries, unpaved roads		
4	Is the selected company qualified, known, proven (references)		
5	Corrosion / vibration damage		
6	Are there unloading facilities on site? • crane • forklift (long fork) • Heavy duty castors • Docking options for trucks / containers		
7	Are all documents complete? • Customs, C €, EUR1, certificate of origin		
8	Have transport delays been included? (Waiting at the border, driver breaks)		
9	Dismantling and assembly by identical personnel?		
10	Documentation and labeling of all parts?		
11	Is safe assembly / dismantling guaranteed? Blocking of the shunting area, provision		
12	Time for acceptance (fire protection, safety, environment, works council, etc.) taken into account?		

The loss and damage of special machinery can have serious consequences. Particular care must be taken during the handling of certain machines. In the case of international transport, it can be important to be familiar with the customs at the border. Transports often stand for days waiting for customs documents.

Always make sure that there is a sufficient transfer area in the factory! Avoid hustle and bustle during transports! Generously cordon off the marshalling and installation areas and provide security personnel!

In particular, onlookers (internal and external) pose a high risk when moving heavy machines. If possible, stop production during transport work!