

# MASTER PLANNING: FROM BUSINESS STRATEGY, TO SITE-DEVELOPMENT.

A ROADMAP FOR THE FUTURE



BILFINGER TEBODIN



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## Master Planning: From business strategy, to site-development.

*A roadmap for the future*

Your company is successful. Market research indicates that demand for the core-product is set to increase and, diversification is a possibility. Time to think about expansion. However, is the current location suitable for increased production? And how should it be set-up?

### Zoning plan

A key tool for providing answers to just such questions is the creation of a master plan for the site in question. A master plan is a roadmap for the development of the existing company site over the coming ten-to-twenty years. It's actually pretty similar to zoning plans used by municipalities or other authorities, but then specifically for a company, or company site. The document provides a framework for the development of the plant, the assets, and the site. It is therefore an ideal reference-document on which to base the right investment decisions.

### Questions that form the basis for a master plan:

- Where is my company at the moment, and where does it need to be in the future?
- How big do I want to be and what am I going to produce?
- What does the road to the future look like?
- What possibilities do I have and what challenges do I face?
- What are the sensitivities within the business and what risks am I likely to face?
- Do I choose to expand the current site, or do I move to a new location?
- Should I subcontract-out certain tasks or processes?
- What are the best options?
- Which choices should I make?
- What level of investment is necessary?
- What is the timing?

### Scenarios

Many companies generate scenarios for the future of their business, in which the aforementioned questions are tackled. In addition to this, all manner of external factors is thrown into the mix. Socio-economic and technological aspects, developments at competitors, market-trends, legislation, and such-like, provide input for the guiding principles, the vision, and the strategy for the organization. These scenarios form the basis of the market strategy, how the product portfolio should be developed, which new technologies should be implemented, how the products should be marketed, and what the turnover is expected to be.



## In practice

However, despite all these steps, many fail to address how decisions related to the business affect the composition of the site. And that is precisely what the master plan is for – the translation from business strategy, to site-development. Businesses are concentrating more and more on their core-competencies and seldom have the in-house expertise and specialist resources that are required for the generation of a good master plan. Input from many disciplines is required for the generation of a comprehensive master plan and, therefore, it can make good sense to hire external specialists.

Bilfinger Tebodin has built up considerable expertise over the years in the generation of master plans for businesses in diverse sectors, from harbors, to foodstuffs, and has the necessary know-how in-house for the creation of a site-development plan. Bilfinger Tebodin employs numerous specialists - in building and building-development, logistics, equipment, sustainability and engineering - who are involved in the process of master planning. An added bonus is that Bilfinger Tebodin has offices outside the Netherlands, in seventeen countries around the world. If a company is considering expansion or investment abroad, then there is often locally available expertise to call on. Bilfinger Tebodin colleagues abroad often contribute local knowledge covering aspects such as market developments, local legislation, HRM- related aspects, and such like.

This provides a level of detailed support in any decision to expand overseas. And, once the moment arrives for implement of the master plan at location, Bilfinger Tebodin can help with gaining all the necessary approvals, or additional feasibility-studies, or due diligence research, so that, subsequently, the engineering-arm can swing into action.

## Integrated

For every master plan, it is essential that the business is first thoroughly analyzed. By an expansion, for example, one has to look further than just the process installations.

The question should be – are perhaps more resources necessary? And if there is an increase in personnel, are more office units or extra changing-rooms required? How does this sit in relation to approach-routes, parking spaces, etc.? And with existing pipework? Piping corridors take up a lot of space. One could consider putting them underground – but is this possible in a continuous production environment?

Key attention points are of course, safety, health and environment and the energy-efficiency and the maintenance

of each part of the company. Making an investment in expansion creates the ideal moment in which to examine sustainability and circularity aspects in close detail. Are there items that we can subcontract? And what are the organizational and logistical implications for the business?

## Layout

Logistics is a key element in a master plan. Any new installation should be installed in a 'logical' place in relation to existing installations. Also, the locations for new storage areas, warehouses, and other new-build, need to be carefully considered. To facilitate this, a so-called floor-plan, or Systematic Layout Plan, is created. The functions and intrinsic relationships between the various departments form the basis for the layout. Departments that work closely together are placed in close proximity to each other. The goal here is to minimize the journey of any product. In addition to this, application of LEAN principles ensures that a site is streamlined. Plans, demands and wishes of all departments have to be thoroughly mapped in order to achieve an optimal layout. It might be that this can have an effect on how departments relate to each other further down the line. It is therefore crucial that all departments are involved in the master planning.

## Company-broad

Bilfinger Tebodin master plans are generated on the basis of a series of workshops. The workshops are attended by representatives from every different department within the company, and various experts from the consultancy. Once all the parties are seated around the table it becomes easier to bring into focus just what implications the business strategy will have for the different departments. This creates a more interactive approach than simply conducting a series of interviews. Because the different disciplines discuss with each other the chance is higher that points are raised that previously might have gone unaddressed. A marketer has a completely different viewpoint than someone in R&D, or operations, and sees completely different developments and trends. In a master plan, decisions are made over as broad a base as possible. Thanks to the company-broad involvement in the development of the plan, the vision for the future of the site is supported by the entire company.

What is crucial here, is that the workshop leader manages to drill down to the question behind the question. Where are the pain-points, where does the cause of the problem lie? And how does this affect the individual departments? This is only possible when the consultant works closely with the client. They must speak the language of the company and know its culture inside-out. They have, as it were, to get inside the client's head.



## Room for decisions

The various future scenarios, and the consequences thereof, are evaluated throughout the master planning process. A layout for the site is created for three different situations: the most-probable, the minimum, and the maximum achievable. It is sometimes said of master plans that they limit a company's future latitude for decision-making. And herein lies the greatest paradox. A master plan sets limits for the decision-making process. It specifies what the possibilities are and how far you can go on the basis of projected future scenarios. However, the site must be laid out to enable flexibility between the 'most-probable', the 'minimum', and the 'maximum' scenario. The market often develops more rapidly than an investment that is made to cover the coming twenty years. Products change and markets are rarely static. A prime example is the foodstuffs industry; a typical sector where product range is constantly diversifying. There are many brands that have a limited market life-span. What are the knock-on effects for the future of a company? The site layout must have the flexibility to adapt to these changing circumstances.

## On-going process

A master plan is built-up in different phases. A subsequent step in the plan is executed once a limit or goal is reached. A plan is, thus, seldom bound by time-frame, but takes into account external factors that can exert an influence on the speed at which a goal can be achieved, or that necessitate adjustment of the plan. A prime example is a change in the political sphere, or in market situation. The fine-tuning of a master plan is an ongoing process. Due to the phased implementation of a master plan, it is possible to define the plan for the short- and the longer-term. This also provides better insights into the financial planning and budgets for the different departments.



## Ad hoc

Not all businesses see the value in generating a master plan. However, there are many examples of ad-hoc decisions that, looking back, didn't work as they perhaps should have. Entrepreneurs that make decisions on the future of the site too lightly, can see their view of a glorious horizon disappear under waves of disappointment and setbacks.

Take Company-X, for example – that needs extra storage space and ends up constructing this at an empty piece of ground, way on the other side of the site. Products and ingredients now have to travel a considerable distance, with a corresponding negative impact on efficiency as a result. In all probability, a better, more central location could have been identified during the master planning phase, by, for example, considering relocation of other existing company units. An integrated approach could have created future efficiency-wins.

Another company had, on the other hand, no space free to construct a warehouse. The site was full. The only possibility was to expand the storage space by raising it up. However, this was easier said than done as the foundation had not been designed to bear a second floor. Strengthening a foundation is no easy matter and the alternative would be to move to another location. Problems like this can be avoided by making a development plan for the site up-front. You can't predict the future, but you can often anticipate what might happen.

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