

Johannes Messer – Consulting GmbH



Find Partners

Foundry/Tool Maker

April 2020

Foundry/Tool Maker

When rivals become partners. This was the title of a German daily newspaper recently with reference to the increasing number of mergers and collaborations in the international automotive industry. This long-standing development has once again gained momentum due to the transformation in the automotive industry with the 4 megatrends: mobility, digitization, autonomous driving and electrification.

In the long term, many experts agree that there are practically no alternatives to partnerships in the automotive industry. Gone are the days when the only driver of such alliances was the desire to reduce costs. Cost reductions still play a role, but a much higher dimension has long been reached. The bare struggle for survival. It is currently not foreseeable where the journey will go. However, it is likely that the global **corona crisis**, including the expected after-effects, will exacerbate the need and thus the trend towards further mergers.

This development can also be seen in the foundry industry. In the beginning, the overall cost optimization and access to the growth markets were also the main reasons for the foundry mergers. Today, the foundries have also reached a new dimension. The upcoming, complex challenges can no longer be tackled alone. The increased need for development (product and process development), the necessary presence on all major world markets and the high investment costs of upcoming new projects are the main drivers of further mergers and partnerships for the foundries.

The high risks associated with the changes also offer opportunities. Foundries that take advantage of the current opportunities to reposition themselves will be the winners at the end of the day.

(https://www.johannes-messer-consulting.de/pdf/Corona_Roadmap.pdf)

Foundry/Tool Maker

Partnerships are one of the most promising future opportunities for foundries. Partnerships between **foundries and tool makers** are an ideal constellation considering technological and economic goals.

Foundry/Tool Maker

Foundry "Corona-Roadmap"

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The Crisis in the Crisis



Phases	Diagnosis: Crisis	Stand - by	Restart
Indicator	Early Warning Systems	Crisis Radar Chart	KPI'S
	Crisis Management Team: All Stakeholder		
	1. Liquidity		
	<ul style="list-style-type: none"> Working Capital Financing Personnel costs Stop of expenditures 		
	2. Strategy, the foundry after Corona		
	<ul style="list-style-type: none"> Customer loyalty Find partners Build flexibility Employee Sales Liquidity Opportunities / Risks 		
	3. Business Excellence		
	<ul style="list-style-type: none"> Operative performance Value chain Flexibility (production) Technology roadmap 		
Target	Secure survival Avert damage	Minimize risks Develop the future (opportunities)	Strengthen quality of results
Status	<input checked="" type="checkbox"/>	<input type="checkbox"/> In progress	<input type="checkbox"/> Planned

Align tasks and responsibilities with the core competencies

- Align product development with the respective know-how
- Adapt market access (use partner's market access)
- Optimize / share investments / capacities (orientation: core competencies)
- Improve time-to-market (partner integration in the process and value chain)
- Raise cost potential (total cost optimization → balancing of common goals / KPIs)
 - Tool costs
 - Tool repair costs
 - Foundry OEE
- Technology and process development (comparison and focus)
- Administrative processes (integrate partners into the process organization: e.g. change management)
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In a second step, additional service partners (e.g. steel suppliers, ...) should be acquired.

Foundry/ Tool Maker

Tool making has traditionally been an integral part of die casting foundries. For different reasons, this has changed in recent years. Many foundries have continuously reduced their internal tool making activities or have not adapted them to the increased tool requirements. Small and medium-sized foundries are almost exclusively limited to the internal repair of the purchased tools. Large foundries only partially have their own tool making department, which also builds part of the required tools itself. The "rest" is bought on the (world) market.

Regardless of this development, the die casting tool has lost none of its importance in the entire process or value chain of the foundries.

The economic and technological success of a die-casting foundry is still very much defined by the topic of tools.

To clarify this statement, the following key figures / comments 1)

- *Up to **14% of the turnover** (depending on the product portfolio) of a die-casting foundry represents in the **tool turnover***
- *Up to **8% of turnover** (depending on the product portfolio) are expenses for **tool repairs***
- *With the average loss of availability in a die-casting foundry of approx. 30%, approx. **15% is due to tool malfunctions, 10% to setting up the tool** and only 5% to machine malfunctions.*
- *The **quality** and the **technological demands** of a casting are significantly influenced by:*
 - *the **tool filling** (sprue and overflow system)*
 - ***solidification** (tool cooling)**and therefore affected by **tool**.*

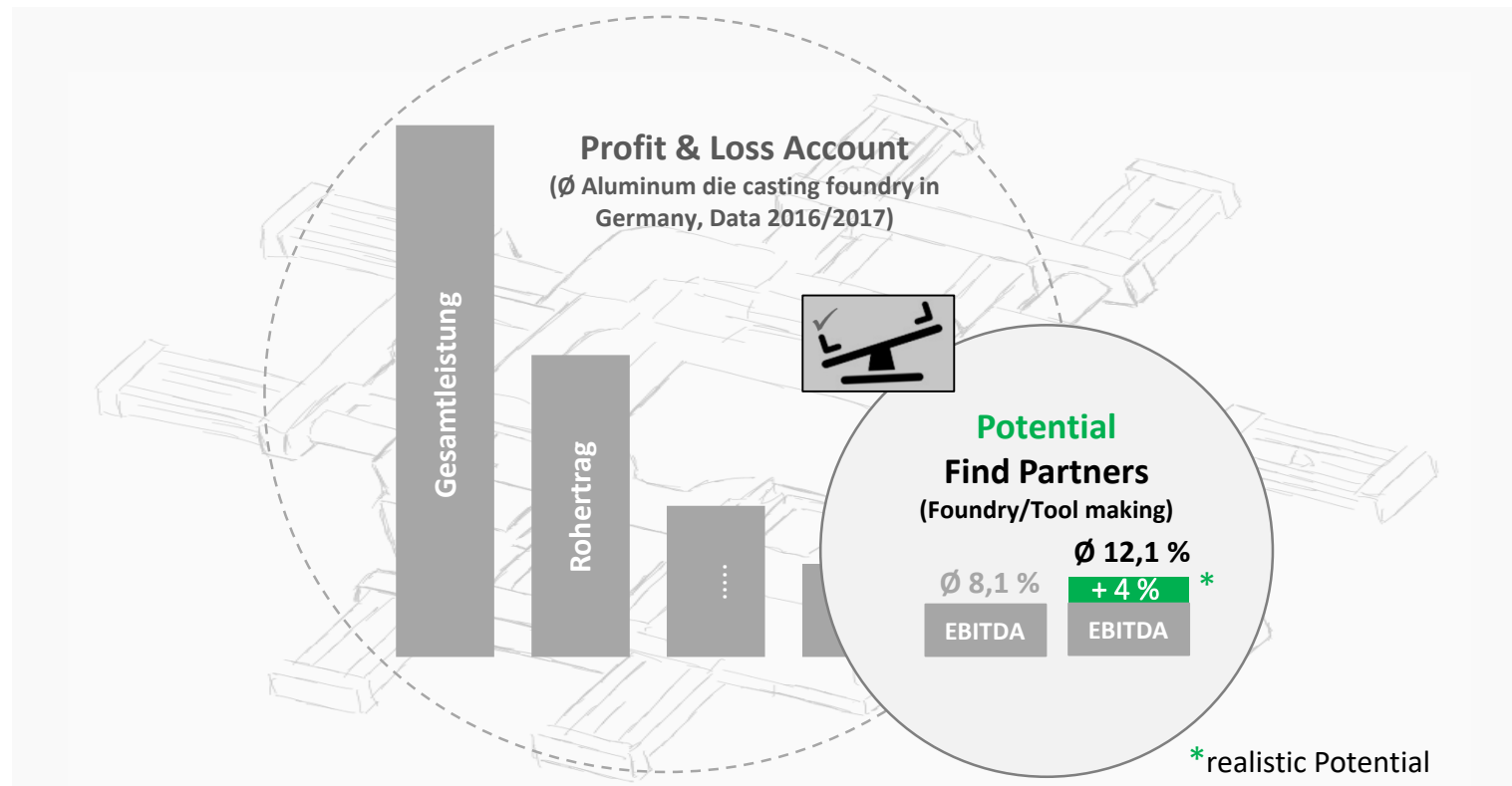
1) Average values of a die-casting foundry

Foundry/ Tool maker

In order to use the essential technological and economic **levers for success**, the tool costs, the tool repair costs and the foundry OEE must be defined as project goals in the development phase of the tool. The existing potential can only be exploited if the entire process chain (product development → tool design → tool construction → casting process → machining) is used.

The decisive **success criterion** at this point is the cooperation between the **foundry** and the **tool making**.

The particular importance of the die-casting tool has become out of focus in recent years. The focus was on other, economically and technologically less relevant topics. **A correction seems urgently necessary.**



Foundry/ Tool Maker

The current situation is of historical importance for the foundries. It is foreseeable that the increasing need for development (product and process development), the necessary presence in all major world markets and the high investment costs of upcoming new projects (product portfolio changes) will present foundries with challenges that have never been seen before.

This **new dimension** of challenges in the context of the expected aftermath of the current crises requires **new approaches**.

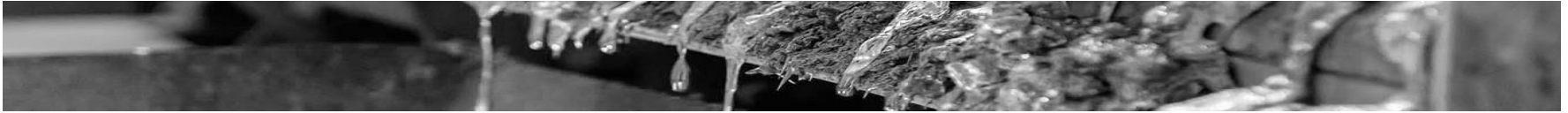
Finding the right **partners** can make the difference at the end of the day.

The **collaboration** or **partnership** between the **foundry** and **tool making** is part of the solution.

The topics:

- *Technological and economic importance of the die casting tool for foundries*
- *Market environment tool making (national, international)*
- *Raise potential*

how we understand and assess them, we would be happy to show you . We develop individual adaptation strategies and suggestions for action for your company and support you with the implementation.



... we will help you



**“Coming together is a beginning
staying together is progress
working together is a success.”**

Henry Ford



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