

# E-Mas



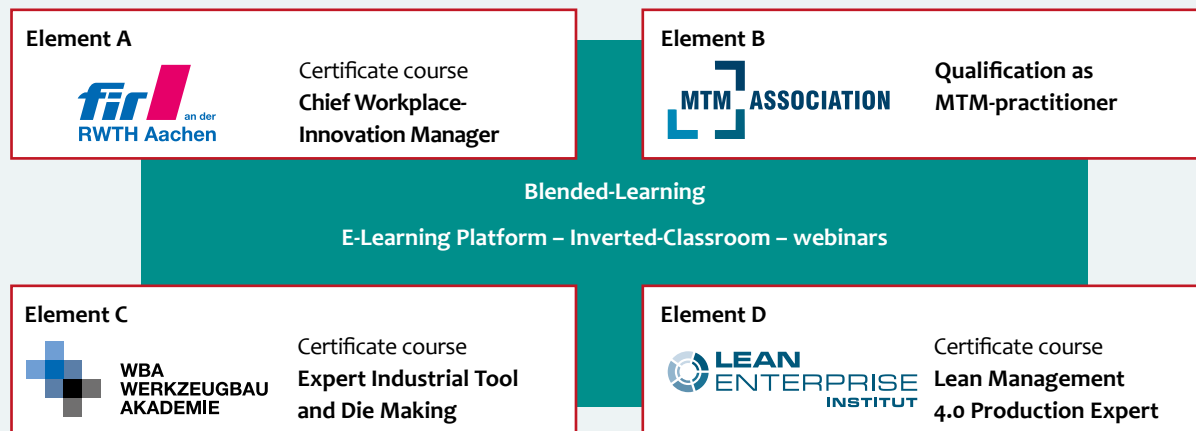
## Continuing Education for the Production Management in the Mexican Automotive Industry

Mexico is becoming one of the five leading automotive industries in the world. We would like to enable your company to reap the benefits of this development! With our training program E-Mas, your employees will be able to learn today what they need to know for an effective and efficient production in Mexico of tomorrow.

# Your way to the top of the mexican automotive industry

The aim of the E-Mas training program is to realize a comprehensive and innovative further education offering in the field of production management for specialists and executives in middle management positions in the Mexican automotive sector. By doing so, the program takes into account the current industrial transformation towards Industrie 4.0 and will be customized according to your company's requirements. Within four courses, participants will learn to increase productivity, continuously improve production processes, implement versatile technical systems and safeguard the health of employees. Accordingly, the Institute for Industrial Management at RWTH Aachen University (FIR), the MTM ASSOCIATION e. V. (MTM), the WBA Aachener Werkzeugbau Akademie (WBA), the Lean Enterprise Institute (LEI) in cooperation with the local partner Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM) provide an innovative blended-learning further education program encompassing highly relevant topics of production management.

## Tactical and operative production management for the transformation towards Industrie 4.0 in the Mexican automotive industry



In cooperation with the Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM)

The E-Mas courses address professionals, operative managers and personnel developers on the middle management level in the Mexican automotive industry. Participating in our continuing education program, they will be prepared for future management tasks and enabled to integrate work-based learning routines for their employees, implement human-oriented productivity management, produce tools according to latest insights as well as apply Industrie 4.0 suitable lean-management-methods.

# Customized continuing education

---

## Your path to an effective and efficient production of tomorrow!

By participating in the E-Mas training program your employees will develop valuable knowledge and important capabilities in tactical and operative production management. Correspondingly, we have combined latest didactical methods and teaching content with proven concepts to an innovative concept. We offer you a blended learning-based further education program in four central topics of production management individually customized to the requirements of your company in Mexico.

The E-Mas training program includes:

- Effective and efficient work design enhancing employees' learning processes (FIR)
- Innovative human-oriented productivity management (MTM)
- Modern tool and die manufacture management (WBA)
- Industrie 4.0 Lean-methods (LEI),

implemented as:

- Blended-learning-offer,
- Customized to your individual requirements in Mexico.

The program addresses to:

- Professionals and managers responsible for production and transformation processes as well as production team and group leaders.



## Integrating competence development and production processes – Designing work prospectively

### What we offer:

The certificate course “Chief Workplace-Innovation Manager” of the Institute for Industrial Management at RWTH Aachen University (FIR) provides participants extensive expertise in the fields of competence development for the transformation towards Industrie 4.0, leading by objectives and creating learning enhancing work environments, integration of competence development and work processes as well as comparative management approaches to successful managing German and Mexican cultural differences.

### Target group:

Specialists and operative executives in the fields of work design, production management and human resources management.

### Course objectives and key competencies to be acquired:

The “Chief Workplace-Innovation Manager” aims at creating crucial knowledge and adequate leadership concepts for the successful industrial transformation towards Industrie 4.0 among operative managers and their staff members. A special focus is placed on enhancing learning in work processes by means of technology-based and classic work integrated learning approaches. Moreover, implications and approaches for dealing with socio-cultural differences between Germany and Mexico will be discussed.



### Participants of the course will learn to:

- understand the changes resulting from the transformation towards Industrie 4.0,
- initiate change processes of existing work systems self-confidently and at the same time to motivate staff members,
- apply adequate leadership concepts,
- evaluate the competences of the staff members professionally and to recognize development potential at an early stage,
- recognize and evaluate learning potentials during the work process,
- select and implement appropriate measures for work-based learning processes,
- identify challenges and potentials in differences between the German (corporate) and Mexican culture,
- overcome cultural differences and create synergies.

## Productive and healthy work

### What we offer:

The MTM ASSOCIATION e. V. (MTM) offers courses to achieve the MTM-practitioner qualification. This starts with training MTM-1, subsequently followed by training in at least a second MTM-process language and – preferably – an application practice for several months. After a successful completion of the training “MTM-practitioner” the participant receives the “Blue Card”. Each training or of the whole qualification as “MTM-practitioner” with the certificate “Blue Card” is offered either as a public or an internal training.

### Target group:

Specialists and operative executives in the fields of industrial engineering, planning, time management, process planning, production, logistics, work safety, product design and operating material design as well as representatives of the works council and other representatives of interest.

### Course objectives and key competencies to be acquired:

The qualification as MTM-practitioner encompasses knowledge and skills to the application of the MTM approach, in particular the application of the individual MTM process languages for planning, composition and optimization of processes, work systems and products.



### The “Blue Card” MTM

- is an internationally recognized quality standard regarding the MTM-training and application,
- is accepted and appreciated by both employer and employee side,
- is embedded in many company agreements in Germany as well as worldwide,
- is regarded as proof of fulfilment with the high standards of companies and works councils regarding the quality of MTM-training and application,
- applies to the completed process languages and is valid for three years.



# Expert Industrial Tool and Die Making

## Technologies and strategies for a sustainable tool and die making

### What we offer:

The certificate course “Expert Industrial Tool and Die Making” of the WBA Aachener Werkzeugbau Akademie comprises essential core elements of the industrial tool and die making and includes detailed concepts and methods by which a traditionally handcrafted tool and die making company can develop into an industrial tool and die making company of international standard.

### Target group:

Assembly technicians and executives operating in tool and die making at automobile manufacturers and suppliers in Mexico.

### Course objectives and key competencies to be acquired:

The aim is to develop competences of specialists and operative executives in Mexican tool and die making as far as possible in order to be able to maintain, repair, develop and produce highly complex tools on site.



### Participants of the course will learn to:

- apply current production and materials technologies to optimize processes in tool and die making,
- identify tool damage and repair it self-sufficiently,
- plan, implement and optimize services in tool and die making by applying adequate models,
- improve and control maintenance strategies,
- plan, control and document tool and die production processes independently,
- apply computer-assisted construction methods and CAD and CAM methods that have been developed in accordance with specific requirements,
- develop and implement automation solutions independently,
- implement numerical methods and simulation proceedings.



# Organizer

---



## Institute for Industrial Management at RWTH Aachen University (FIR)

The FIR does not only offer the above-described course but also coordinates the E-Mas continuing education program. The FIR is a non-profit, intersectoral research and educational institution at RWTH Aachen University with about 120 staff members. For more than 60 years the FIR is considered one of the leading German research institutions in the field of organization and industrial management. Furthermore, it is concerned with the organization of corporate IT aiming at establishing the organizational basis for the digitally integrated industrial enterprise of the future. As an internationally recognized institute and a long-term partner of the German automotive sector, FIR takes over the responsibility as the main contact for the E-Mas program.



## WBA Aachener Werkzeugbau Akademie GmbH (WBA)

The WBA is engaged in the business areas research, industrial consultancy and training and was founded in 2010 as spin-off of the Laboratory for Machine Tools and Production Engineering WZL of the RWTH Aachen University as well as of the Fraunhofer Institute for Production Technology IPT. Together with over 80 member companies (among others Audi, Daimler, Hirschvogel, Rathgeber) the WBA develops innovative solutions for tool and die making. By modelling the complete process chain of tool and die making new concepts and technologies can be developed and piloted in the demonstration world of the WBA on the RWTH Aachen Campus. The WBA can build on vast international experiences within the automotive sector in its field of expertise.



## Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM)

The Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM) is the most important private university in Mexico and supports the implementation of this continuing education program in Mexico. Tecnológico de Monterrey will be available as the local contact and will provide its facilities in the Metropolitan Area of Mexico City (Mexico City Campus, Santa Fe Campus and State of Mexico Campus) as part of the E-Mas program.



## MTM ASSOCIATION e. V. (MTM)

The MTM ASSOCIATION e. V., based in Hamburg, was founded in 1962 as a non-profit, scientific-technical association. MTM has more than 500 members of which approximately 250 member companies represent about 2.75 millions of employees in Germany. MTM's special expertise is the productivity management in industry, services and administration. Hereby the main objective is to reach the optimal combination of efficiency and ergonomics in work processes. In the field of Industrial Engineering, the scientific methods and tools of the MTM rank among the most important international standards in the automotive sector. Considering only the German automotive sector MTM certificates currently about 2.000 participants in their training programs annually.



## Lean Enterprise Institut GmbH

The LEI, which was founded in 2010, aims at supporting and enabling companies from all sectors and their executives on their way to an optimal application of lean methods by means of seminars, business-games and individual coaching. The LEI places a special focus on the development of lean management regarding a successful change towards Industrie 4.0. In addition to open seminars and courses, the LEI offers inhouse-seminars and the joint implementation of lean projects at companies. By this the LEI has established itself as a key partner to the German automobile producers and suppliers in regard to coaching and training in the past years.



# E-Mas offers much more!

---

## E-Mas associated partner network

Get to know the benefits that you receive as E-Mas associated partner! You benefit from:

- Mediation for highly qualified and motivated graduates, as well as, projects and final theses.
- Events for companies, education providers, research institutions and other organizations around the Mexican automotive sector
- Access to continuing education opportunities beyond the E-Mas program
- Provision of dedicated market studies for the automotive sector in Latin America
- Regular newsletters about trends and developments in the Latin American automotive sector
- Qualified consulting service for the automotive sector
- Exchange of knowledge and experiences within E-Mas network



**BOSCH**



**SCHAEFFLER**



## Contact persons

---



Institute for Industrial Management at  
RWTH Aachen University (FIR)  
**Dr. Roman Senderek**  
Campus-Boulevard 55  
52074 Aachen, Germany  
Telephone: +49 241 47705-225  
E-Mail: Roman.Senderek@  
fir.rwth-aachen.de  
www.fir.rwth-aachen.de



MTM ASSOCIATION e. V. (MTM)  
**Prof. Dr. Peter Kuhlang**  
Elbchaussee 352  
22609 Hamburg, Germany  
Telephone: +49 40 822779-0  
E-Mail: peter.kuhlang@dmTM.com  
www.dmtm.com



WBA Aachener Werkzeugbau  
Akademie GmbH (WBA)  
**Carmen Halm**  
Campus-Boulevard 30  
52074 Aachen, Germany  
Telephone: +49 241 99016 316  
E-Mail: c.halm@  
werkzeugbau-akademie.de  
www.werkzeugbau-akademie.de



Lean Enterprise Institut GmbH (LEI)  
**Dr. Gerd Conrads**  
Campus-Boulevard 57  
52074 Aachen , Germany  
Telephone: +49 241 51031 404  
E-Mail: gerd.conrads@  
lean-enterprise-institut.com  
www.lean-enterprise-institut.com

PROMOTED BY



Bundesministerium  
für Bildung  
und Forschung

ADMINISTERED BY



Deutsches Zentrum  
für Luft- und Raumfahrt e.V.  
Projekträger im DLR

[www.e-mas.de](http://www.e-mas.de)  
[www.e-mas.mx](http://www.e-mas.mx)