



**Fraunhofer**  
IPA

Fraunhofer Institute for Manufacturing  
Engineering and Automation IPA



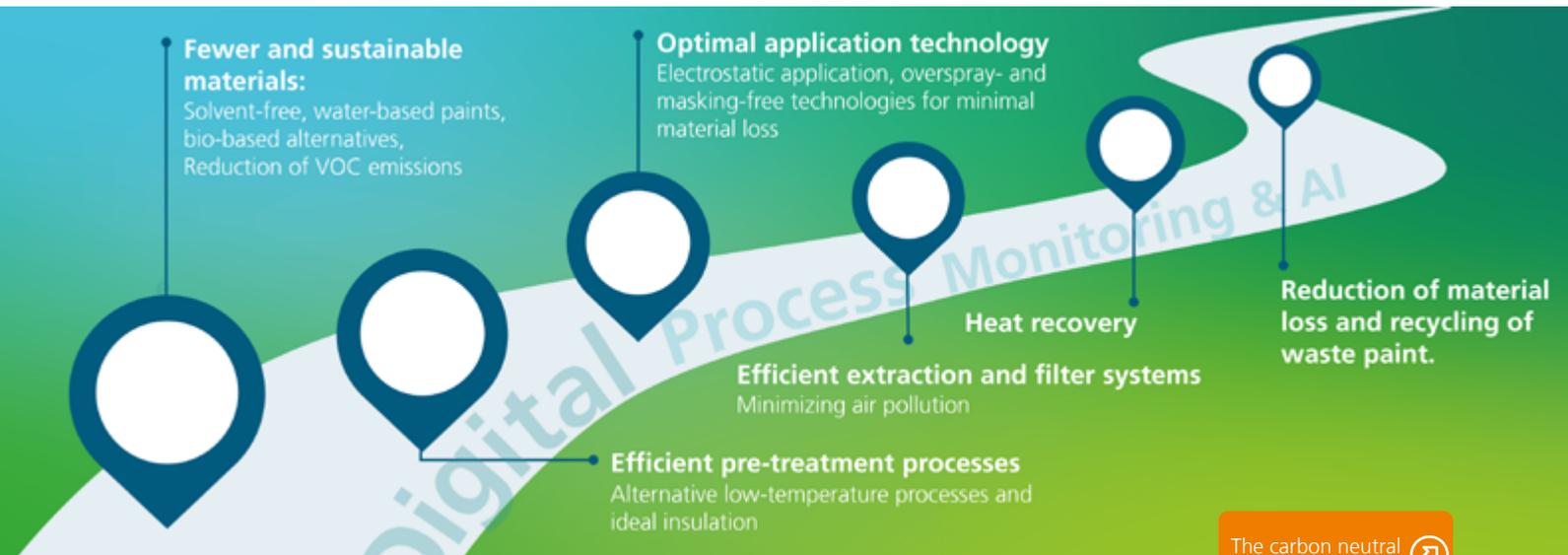
## Efficient and environmentally friendly painting processes

Enhancing quality, reducing costs,  
protecting the environment

## Coating process development



## Efficient & CO<sub>2</sub>-neutral: The painting process of the future



## Cooperation and procedure

### **On-site analysis & quick check**

We carry out an on-site assessment of your company and analyze the potential in terms of productivity, quality, efficiency and sustainability.

### **Consulting and implementation**

We draw up a catalog of measures for your painting process and, if you wish, we can work with you to implement them.

### **Workshops & trainings**

We transfer know-how to your company and bring your specialist staff up to date with the latest painting technology.



## Project packages and painting process planning

PRELIMINARY STUDY	CONCEPTION	FURTHER DEVELOPMENT	DETAIL PLANNING APPROVAL	EXECUTION ACCEPTANCE
Actual state recording	Design of technology variants	Investigation programme	Technical-economic detailed planning	Technical offer comparison
Weak-point analysis, complaints	Conception with CoaTway®	Experiments and development	System description	Award of contracts
Trend analysis requirements	Benefit analysis	Cost and environmental assessment	Authorities hearing	Project planning and assembly
Catalogue of measures optimization	Evaluation of alternatives	Assessment of the alternative	Determination cost, environment, utility	Personnel training
Requirement specification	Delimitation of alternatives	Decision process	Technical specification sheet	Trial operation, acceptance

Info about the Quick Check



More about paint shop planning



## Infrastructure and technical equipment



- Air flow measurement in paint booths including humidity and temperature as well as visualization and digital simulation
- Measurement of environmental pollution (e.g. noise, VOC, dust/particles)
- Quality measurements (coating thickness, gloss, paint film flow, etc.)
- Measurement of conductivity
  - Testing the atomizer quality
- Measurement of pre-treatment parameters, e.g. roughness, pH-value, conductance, filmic contamination, surface energy
- Application center for powder and wet coatings
-  Paint shop
-  Accredited testing laboratory according to DIN EN ISO/IEC 17025

## Our expertise



### **Klaus Schmid**

Head of reasearch team  
Plant- and application engineering

Contact



### **Dirk Michels**

Paint shop planning  
Painting process optimization  
Surface and application technology  
Energy efficiency in painting processes

Contact



### **Metin Kuyucu**

Paint shop planning  
Painting process optimization  
Paint defect analyses  
Materials testing plastics  
VOC emissions

Contact



### **Michael Nazar Bogdan**

Paint shop planning  
Painting process optimization  
Climate Management Officer  
Energy management & CO<sub>2</sub>-balancing in  
painting processes

Contact



## We as a partner

- ✓ Independent, technology-neutral advice
- ✓ Many years of industry experience
- ✓ Professional expertise from paint development to end product
- ✓ Holistic technology assessment (technology, costs, environment, digitalization)
- ✓ Implementation of current research results in industrial painting processes (from lab to fab)
- ✓ Cross-process planning

More Info 

Transform your painting process –  
efficient, sustainable, effective.

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### Fraunhofer Institute for Manufacturing Engineering and Automation IPA

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## #WeKnowCoaTech

Engineering surface innovations

#### Image sources:

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