

WORKING PAPER

```
elif _operation == "MIRROR_Y":  
    mirror_mod.use_x = False  
    mirror_mod.use_y = True  
    mirror_mod.use_z = False  
elif _operation == "MIRROR_Z":  
    mirror_mod.use_x = False  
    mirror_mod.use_y = False  
    mirror_mod.use_z = True  
  
#selection at the end -add back the deselected  
mirror_ob.select= 1  
modifier_ob.select=1  
bpy.context.scene.objects.active = modifier_ob  
print("Selected" + str(modifier_ob)) # modifier ob  
#mirror_ob.select = 0  
Done = bpy.context.selected_objects[0]  
#app.data.path[0] = bpy.context.selected
```

## Changes to competition law in the context of Industrie 4.0

# What changes will be seen in competition law due to Industrie 4.0?



## Introduction

The dynamics of the digital markets are creating potential new competitors and are generating increasing cooperation between competing companies. Data and information are increasingly being shared, not least by self-learning systems. These developments raise questions for German and European competition law: who is allowed to cooperate with whom, and under what conditions? What is the significance of access to data for market power, and when is a dominant position being abused? Who is legally responsible under competition law for the conduct of self-learning machines?

The experts discuss these and other questions in their latest publication; this abridged version highlights a few of their findings.

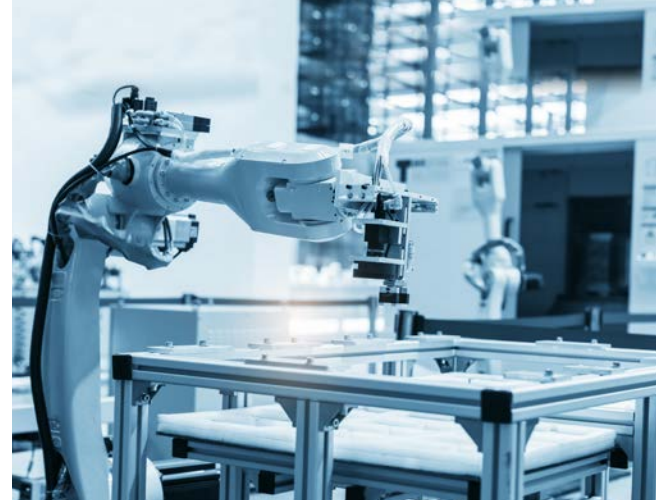
## 1. Market definition and abuse of market power

### Challenges

Digital markets change existing structures. In particular, the markets which are gaining in significance in the digital economy by offering services free of charge are placing a question mark over the traditional approach to defining markets. It is likely that the processes of Industrie 4.0 can contribute to market shares and market power shifting much more quickly than has previously been the case.

### Possible action

The current set of rules offers a suitable and adaptable framework. Within these rules, potential for improvement can be found in a further development of economic methods for assessing various effects in the field of digital markets. Furthermore, it appears useful to supplement certain definitions and sample rules in the German Act against Restraints of Competition in response to the special features of the digital markets.



## 2. Market power from data sovereignty and control

### Challenges

In the world of Industrie 4.0, as in the traditional economy, data and access to them are important factors for competition. The growing production and use of enormous volumes of data (“big data”) make these factors even more important. Data sovereignty means a position of significant power for the purposes of competition law, as it entails the right to decide which third parties are either granted or denied access to the data.

### Possible action

On their own, data sovereignty and control neither generate market power, nor do they automatically imply an abuse of power. Each case needs to be considered on its own merits. But even where market power does exist, the current rules are sufficient. However, as digital markets are subject to rapid change, it is necessary to keep monitoring market conditions in order to pinpoint and counteract possible abuses of market power at an early stage.

## 3. “Robot cartels” and the free flow of data

### Challenges

Artificial intelligence is transforming our understanding of accountability: in the future, it will not be possible to hold human beings accountable for every action. For example, self-learning systems can make decisions falling within the scope of competition law without the direct involvement of a human being. What is the extent of legal accountability in these systems according to competition law?

### Possible action

In order to ensure that decisions by self-learning systems do not result in a lack of accountability, it is necessary to build safety mechanisms into the algorithms used right from the start (“compliance by design”). Further to this, there is a need for an unambiguous definition of security and monitoring duties for users and platform operators, including the possibility to produce reasoned arguments to defend against accusations of abuse.

## 4. Admissible cooperation between companies in the field of Industrie 4.0

### Challenges

Digitalisation and the digital networking of industry results in more cooperation between companies. Cooperation between rivals and potential competitors is also becoming unavoidable. The question arises as to whether the existing rules for data-driven cooperation in the field of Industrie 4.0 are still adequate, or whether new exemptions are required.

### Possible action

On the EU-level, a new block exemption regulation for horizontal cooperation should be enacted, in order to give legal certainty to the companies engaged in cooperation. In addition, clearer rules for different forms of cooperation are desirable, particularly for supplier agreements between competitors. Existing market share thresholds should be raised.

## 5. Platform regulation

### Challenges

Platform networking of human beings and machines, and of machines to machines, is fundamentally changing methods of production. On both the European and national level, the stronger regulation of platforms is under consideration – particularly against the backdrop of the developments on large Business to Consumer (B2C) platforms.

### Possible action

The competitive situation of the Business to Business (B2B) platforms, which are increasingly to be found in the industrial sector, is different from that of B2C platforms. At present, the working group does not see any signs of a critical concentration of power in the field of B2B platforms. For this reason the working group advises, for the time being, against the introduction of any regulation in this context.



## More information



The detailed publication “Industrie 4.0 – Kartellrechtliche Betrachtungen” (Industrie 4.0 – Competition Law Considerations) goes into the issues and the legal assessment by the Working Group on the Legal Framework in detail:



[www.plattform-i40.de/Online-Bibliothek](http://www.plattform-i40.de/Online-Bibliothek)

## EXPERTS

Daniel van Geerenstein, VDMA | Dr. Achim Gronemeyer, Schaeffler AG | Dr. Sebastian Janka, Noerr LLP | Dr. Guido Jansen, Luther Rechtsanwaltsgesellschaft mbH | Prof. Dr. Torsten Körber, Universität zu Köln | Niels Lau, Bundesverband der Deutschen Industrie e.V. | Dr. Silvia Leipelt, Bundesministerium für Wirtschaft und Energie | Dr. Andrea Scheibe, Robert Bosch GmbH | Dr. Ulrike Suchsland, Bundesverband der Deutschen Industrie e.V. | Prof. Dr. Heike Schweitzer, Freie Universität Berlin | Anne Wegner, Luther Rechtsanwaltsgesellschaft mbH | Philipp Werner, Jones Day

This publication is a result of the work of the Working Group on the Legal Framework (Plattform Industrie 4.0).

## Publication data

### **Publisher**

Federal Ministry for Economic  
Affairs and Energy (BMWi)  
Public Relations  
11019 Berlin  
[www.bmwi.de](http://www.bmwi.de)

### **Editorial responsibility**

Plattform Industrie 4.0  
Bertolt-Brecht-Platz 3  
10117 Berlin

### **Current as at:**

October 2018

### **Design and production**

PRpetuum GmbH, Munich

### **Image credits**

Title, p. 3: monsitj – Fotolia  
p. 2: VanReeel – iStock  
p. 3: gorodenkoff – iStock  
p. 3: kynny – iStock  
p. 4: mirexon – Fotolia  
p. 4: Nmedia – Fotolia