Workshop “Regulatory Challenges for Digitising Industry”:

Regulatory Initiatives Evaluated under Industry 4.0 Platform DE

Dr. Bernhard Fischer
Chief IP Attorney
SAP SE

Essen, 1 February, 2017
Contribution to the First Stakeholder Meeting
“Digitising European Industry”

This presentation reflects the personal opinion of the author

OUTLINE

- The following presentation wants to highlight selected legal issues where Industry 4.0 initiatives DE have already led to basic recommendations
- It is proposed is to compare Industry 4.0 recommendations with topics where the EU legislator is becoming increasingly active
- This may facilitate a first discussion, in order to create synergies, and to avoid contradictions on the issues

Industry 4.0: What is it all about?

- Industry 4.0 is about **increased connectivity of systems and objects** in manufacturing and distribution processes,

  … where **data exchange takes increasingly place in automated way**,

  … and where **data based services** are being built upon such scenarios

- For business models to remain competitive, and to succeed, **DATA do have economic key value**

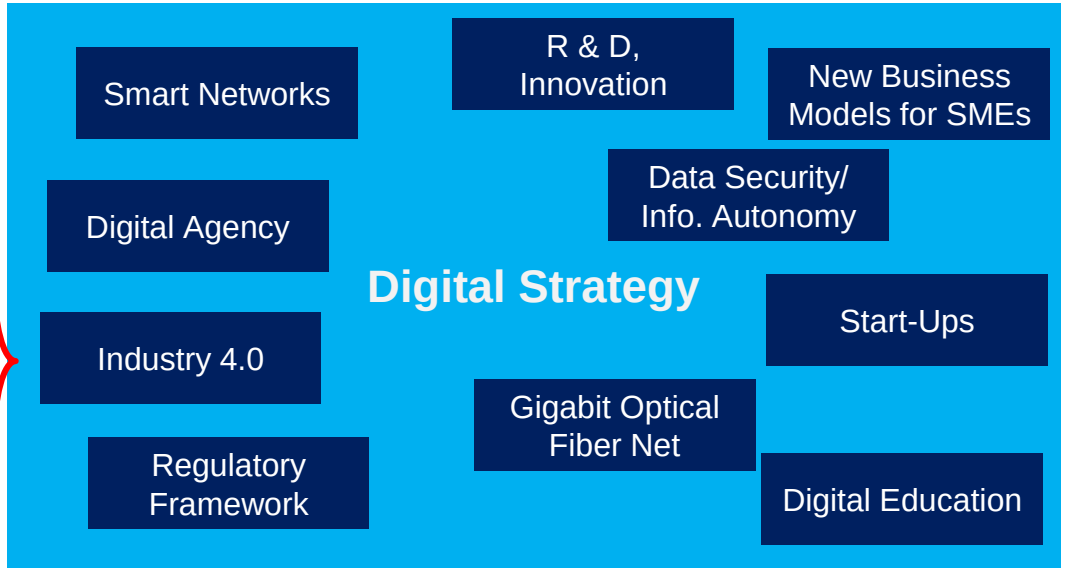
→ From their subject, **Industry 4.0** and the **EU** initiatives around **“Building the European Data Economy” should be congruent, to significant extent**

Industry 4.0 Platform DE: Organisational Framework

✓ **Official recommendations issued at national IT Summit Nov. 16/17, 2016**

- **The IT Summit overviews an ongoing process, as a central platform to drive the Digital Agenda under the auspices of the German Government**
  - Actors are out of ministries, industry, research, and broader society
  - The overall strategy is structured in various initiatives, Industry 4.0 is central part
  - Industry 4.0 itself is split into 5 Working Groups of representatives from business, science, associations, trade unions and federal ministries:

- **WG 1: Reference architectures, standards and norms**
- **WG 2: Research and innovation**
- **WG 3: Security of networked systems**
- **WG 4: Legal framework**
- **WG 5: Work, education and training**



Overview: Regulatory areas covered by Industry 4.0
WG 4 “Legal Framework”

Areas covered	Basic issues (✓) means issue selected for this presentation
Civil Law and Civil Procedure	▪ **Freedom of contract** (✓) ▪ Declaration of intent and concluding contracts
IT and Data Protection Law	▪ **IT Security** (✓) ▪ Data Protection Law
Product Liability	▪ **Violation of legal interests by (defective) products manufactured with Industry 4.0 methods** (✓) ▪ Violations of legal interests in Industry 4.0 facilities
IP Law and Data Ownership	▪ **Protecting Know how** (✓) ▪ Joint ownership and “chains of right” ▪ **Data in context of Industry 4.0** (✓)
Labour Law	▪ Working hours in digitalised industry ▪ Occupational safety and health ▪ Rights of co-determination of the works council ▪ Job security and skill development ▪ Works constitution law in the context of Industry 4.0 ▪ Modified hierarchies in the context of Industry 4.0 ▪ Employee data protection ▪ Effects of Industry 4.0 on employment terminology

„Freedom of contract”

- **Freedom of contract is key for innovative business models and new kinds of services to evolve**
- Access and use of non-personal data can be flexibly shaped between market players by negotiating contracts adapted to their business needs, within existing legal boundaries
- In the **B2B area**, an analysis found current **DE case law on “unfair contract terms” to be too restrictive**, preventing parties from relying in that their contracts are legally safe
- Parties are inclined to derogate applicability of DE law, in order to circumvent
- Appropriate legal advice which law to chose is **hard to afford by SMEs and start ups**, in particular
- **INDUSTRY 4.0 RECOMMENDATION** is **to liberalise in this area**, in order to allow new contract models to evolve, to stimulate investment in innovative business models, and to foster competitiveness on international scale
- **FOR DISCUSSION**: Since this is a particular area of national law, **hope is that the European legislator will not counteract envisaged liberalisation in this field**

IT Security

- This is a **broad area**, mainly understood to address **two kinds of risk exposures:**
  - Protect human beings and environments against IT-Systems in the cyber space
  - Protect facilities and products against unauthorised access in the cyber space
- **Main aspects** out of this broad area are **actually covered by existing laws**; this includes **Data Protection**, **IP/ Know how Protection**, and **Product Liability**
- **Other laws do exist, focussing on specific aspects**, but – with reason - **not generally encompassing further aspects of this broad area:**
  - See, e.g., **IT security laws** with focus on protection of critical infrastructures, but not aiming at increased protection of data confidentiality, or at integrity of IT-systems more generally
- **INDUSTRY 4.0 RECOMMENDATION:**
  - **Any further regulatory approach envisaged should be weighed against the freedom of businesses** (incl. the freedom to put appropriate contracts in place) **to ensure IT security the best way** both in their own interest, and in the general interest
- **FOR DISCUSSION:** Basically, the status quo of EU harmonisation re. IT Security is held to be convincing; beyond the above-highlighted main aspects already covered by existing EU legislation, **is there a need for additional regulatory action in this area?**

Violation of legal interests by (defective) products manufactured with Industry 4.0 methods

- In view of **Liability for Defective Products**, Industry 4.0 identified **two basic areas**:
  - *Who is liable (also with respect to evidence) if the **damage during use is clearly attributable solely to a product defect**?*
  - *Who is liable if it is **not clear whether the damage was caused by the product itself or by a mistake related to use** (e.g. by **"intelligent peripherals"**)?*
- Re. the **first area**, this can be subject to either contractual, or to non-contractual claims
  - These cases should be straight forward; **a need for additional legislation is not apparent**
- Re. the **second area**, the following applies:
  - The non-contractual, i,e., tort law bases for claims remain the same, if the manufacturer is involved
  - **If the technical root cause cannot be determined**, under certain circumstances the **injured party may have difficulty identifying the responsible party**
  - However, **this does not structurally distinguish the situation** in context of Industry 4.0 **from the legal risk in other situations** with non-definable circumstances of cause
- **INDUSTRY 4.0 RECOMMENDATIONS:** Re. the 2nd area, if this is perceived as a regulatory gap, one may think about **imposing a strict liability** to one or several parties of the diffuse periphery; **currently, no need for such regulatory action is seen in DE**
- **FOR DISCUSSION:** Compare to ongoing EU initiatives; consider insurance scheme?

Protecting Know how

- Protecting Know how/Trade Secrets (“TS”) becomes **increasingly important in Industry 4.0 scenarios**
  - In particular, SMEs depend on an adequate TS protection regime, since they cannot necessarily afford the cost of specific IP/ patent protection
- There was broad agreement among Industry 4.0 stakeholders that the **EU TS Directive adopted in 2016 is a milestone** in this context
- But **control of TS** becomes **increasingly difficult**, due to complex and automated processing of business/ machine data, and interconnectivity across companies
  - This becomes apparent, e.g., in the use of cloud services, Predictive Maintenance, Condition Monitoring or Big-Data-Analysis
- **INDUSTRY 4.0 RECOMMENDATION:** The **TS Directive should be implemented** in MS **as timely + as uniform as possible**; in addition, **industry should timely create optional cyber security standards** for **factual protection of TS in optimal way**
- **FOR DISCUSSION: Efficient TS protection** as **one main reason to incentivise localisation of data…!?** In any case, the freedom to stipulate **appropriate terms of agreement should be encouraged in this field, in particular**

Data in context of Industry 4.0

- The **analysis and evaluation of machine data will be the business models** –some as yet undiscovered– **of the future**.
- A first challenge is to **differentiate "machine data"** from **"personal data"**. Re. "machine data", the following may be distinguished:
  - Data regarding machines (e.g. from their parameterization)
  - Data generated by machine use
  - Correlating various data records ("Big Data Analytics")
- In this context, it was explored **whether, beyond the scope of existing IPR**, an additional ***"sui generis"* type of protective right should be created for machine data**, at the same time **assigning data ownership to specific stakeholders**
- **INDUSTRY 4.0 RECOMMENDATION: Re. the concept of a *"sui generis"* right, lawmakers should refrain** from any further activity beyond the current legal structure and either not take any action at all, or at least not hastily. Also here, the freedom to stipulate **appropriate agreements will lead to satisfying results** in handling machine data. Distortions can be corrected through the existing rules of competition law.
- **FOR DISCUSSION: *"Sui generis"* right**: In **conflict with free movement of data**?

Thank you for your attention, and for the discussion!