

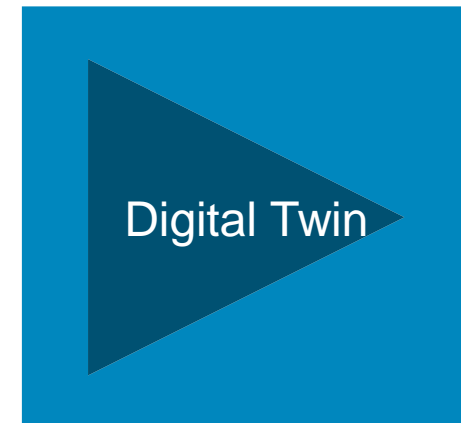
Digital Inventions: A Manufacturing and Infrastructure Perspective

Workshop Law Framework for AI,
Legal and Business Status Quo and Outlook, 11.6.2021
Beat Weibel, Chief IP Counsel Siemens

In midst of a technological transformation

From mechanical over electrical to digital & AI

A digital world needs a smart value driven IP Management & Strategy



Digital Ecosystem

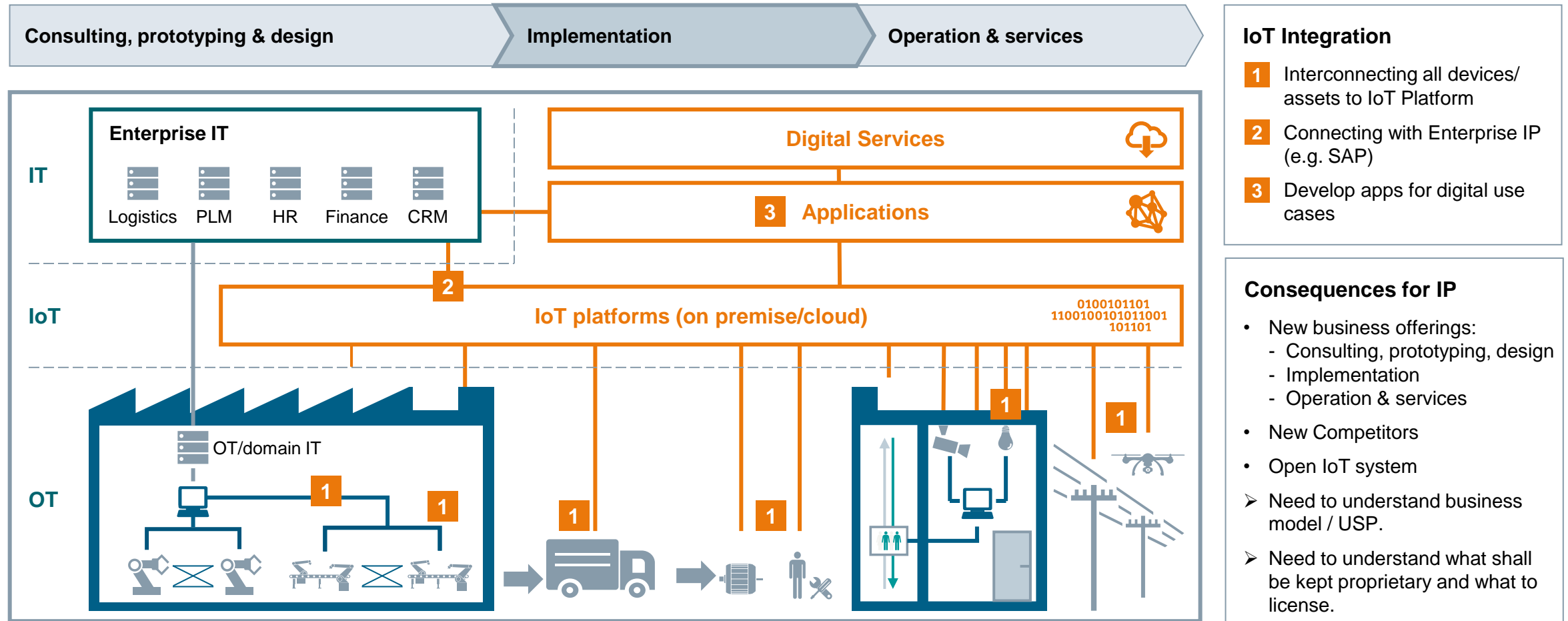


Characteristics

- The world is getting more and more digital and interconnected
 - No company / no research institute / no economy can master all the technologies alone
 - Rather, companies try to focus on their strength and walk away from monolithic conglomerate
 - Successful companies (e.g. hyperscalers) have created successful platforms with a “winner takes it all” characteristics thereby forming an own ecosystem
 - However, the best platforms do not work with contributions from users and third parties
- ⇒ **Success is all about collaboration on the one hand and differentiation on the other**

IoT drives close integration of IT and OT while increasing number of connected assets significantly

IT, OT, IoT landscape and IoT integration services



Note: IoT platform & digital service offerings not in focus of integration services

1) Incl. adding of sensors and installing / upgrading comm. system 2) Incl. cyber security

Source: CD SD, CD SP, SMC

OT system x Service IoT IT OT

IP Rights in a digital ecosystem: „Do ut des“



One can only share what he or she owns.

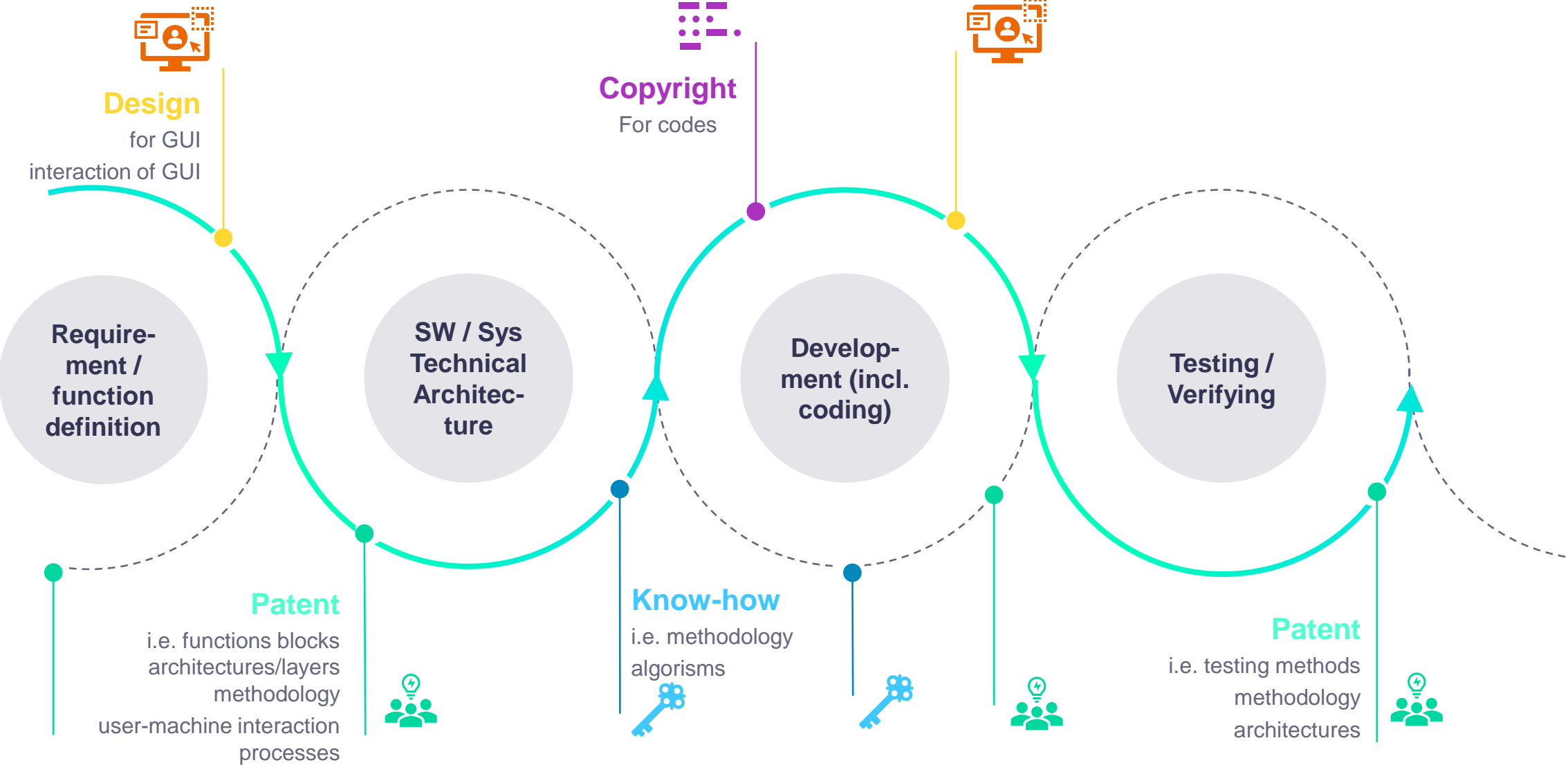
IP Rights

- Define the **ownership** of an intellectual achievement
- Define the **scope** of an intellectual achievement
- The **focus** of IP rights is shifted from monopolizing to documentation and allowing a fair and transparent sharing

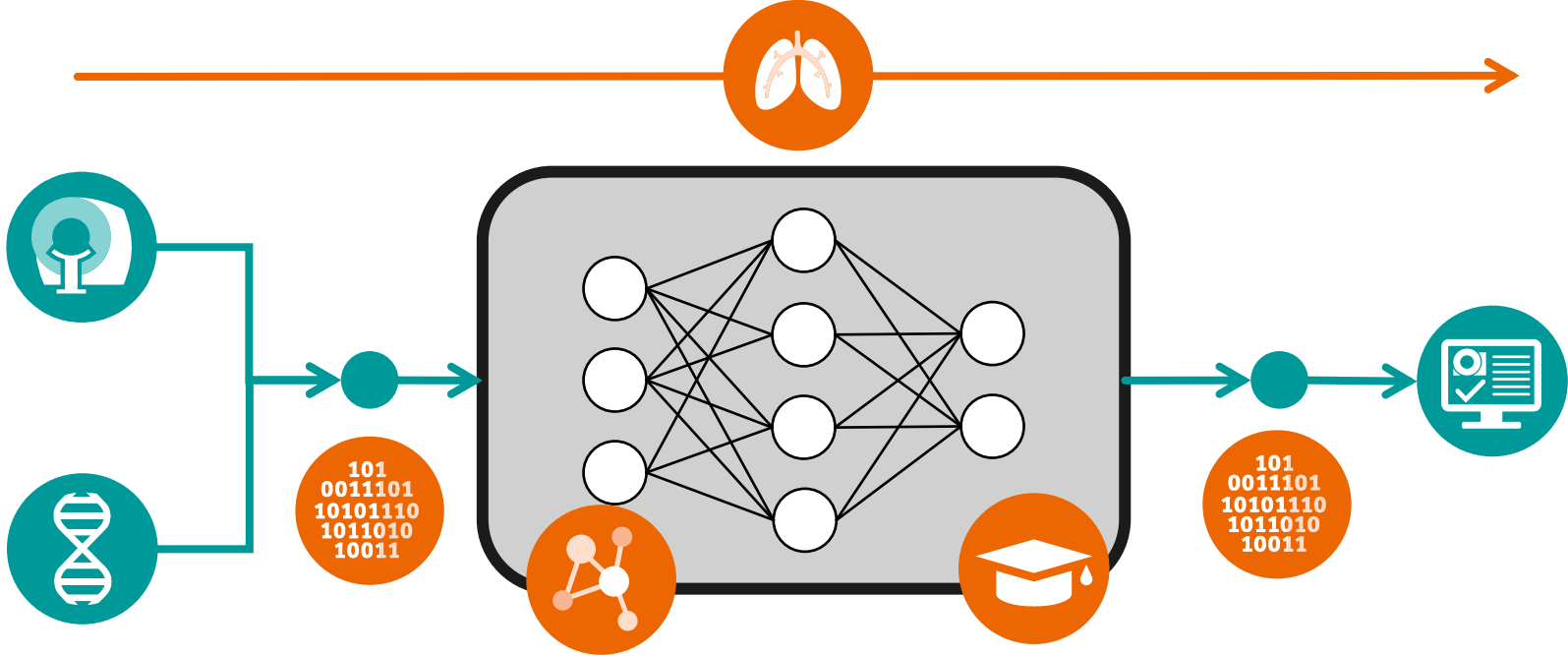
Simulationspatente – G 1/19



Copyright is insufficient for protection along the software production journey



Patentable aspects of machine learning



Training

e.g. approach how training data are employed to generate a neural network suitable for a specific task



Algorithm

e.g. type of algorithm, arrangement and connection of network layers



Pre/postprocessing

e.g. combination of data from different sources, configuration of imaging apparatus



Workflow

e.g. application of ML technology in the clinical workflow or for medical services

detectability / exploitability

Digital Inventor?



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