

# Privacy in IoT

Open Webinars by Arthur's Legal, supported by:  
AIOTI WG3 Privacy-in-IoT Taskforce, and  
H2020 CSA CREATE-IoT & LSPs AG Trust in IoT

**Arthur van der Wees**

Managing Director Arthur's Legal, the global tech-by-design law firm & strategic knowledge partner

Expert Advisor to the European Commission (Cloud, IoT, Data Value Chain, Cybersecurity, Privacy & Accountability)

Project Leader H2020 IoT LSPs & CSAs Activity Group on Trust, Security, Privacy, Accountability & Liability

Founding Member, EC's Alliance for IoT Innovation (AIOTI)

Task Force Leader AIOTI Security in IoT & Privacy in IoT



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ALLIANCE FOR INTERNET OF THINGS INNOVATION



**IoT**  
European  
Large-Scale Pilots  
Programme

# Privacy in IoT Open Webinar Series

**Webinar 1: GDPR: Processing, Protection, Security & Strategies**  
Today

**Webinar 2: X-by-Design: Upstream & Downstream Resilience**  
Wednesday 4 April 2018, 10.00 - 11.00 CET

**Webinar 3: State of the Art Privacy Principles & Requirements**  
Wednesday 25 April 2018, 10.00 - 11.00 CET

**Webinar 4: Consent Management & Engagement in IoT**  
Wednesday 2 May 2018, 10.00 - 11.00 CET

**Webinar 5: Compliance, Accountability, Assurance & Penalties**  
Wednesday 9 May 2018, 10.00 - 11.00 CET

**Webinar 6: IoT Ecosystems, Pre-Procurement & Collaboration**  
Wednesday 16 May 2018, 10.00 - 11.00 CET

**Webinar 7: Data Subject Rights & Data Management in IoT**  
Wednesday 23 May 2018, 10.00 - 11.00 CET

Please subscribe to the Privacy in IoT Mailing List at: [www.arthurslegal.com/IoT](http://www.arthurslegal.com/IoT), in which we will keep you up to date with dates, login details and the latest news on the GDPR, Privacy in IoT and related topics.



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**CREATE-IoT**

Webinar Nr. 1

# GDPR Pains & Gains

## The GDPR Plan of Attack

Processing, Protection, Security & Strategies



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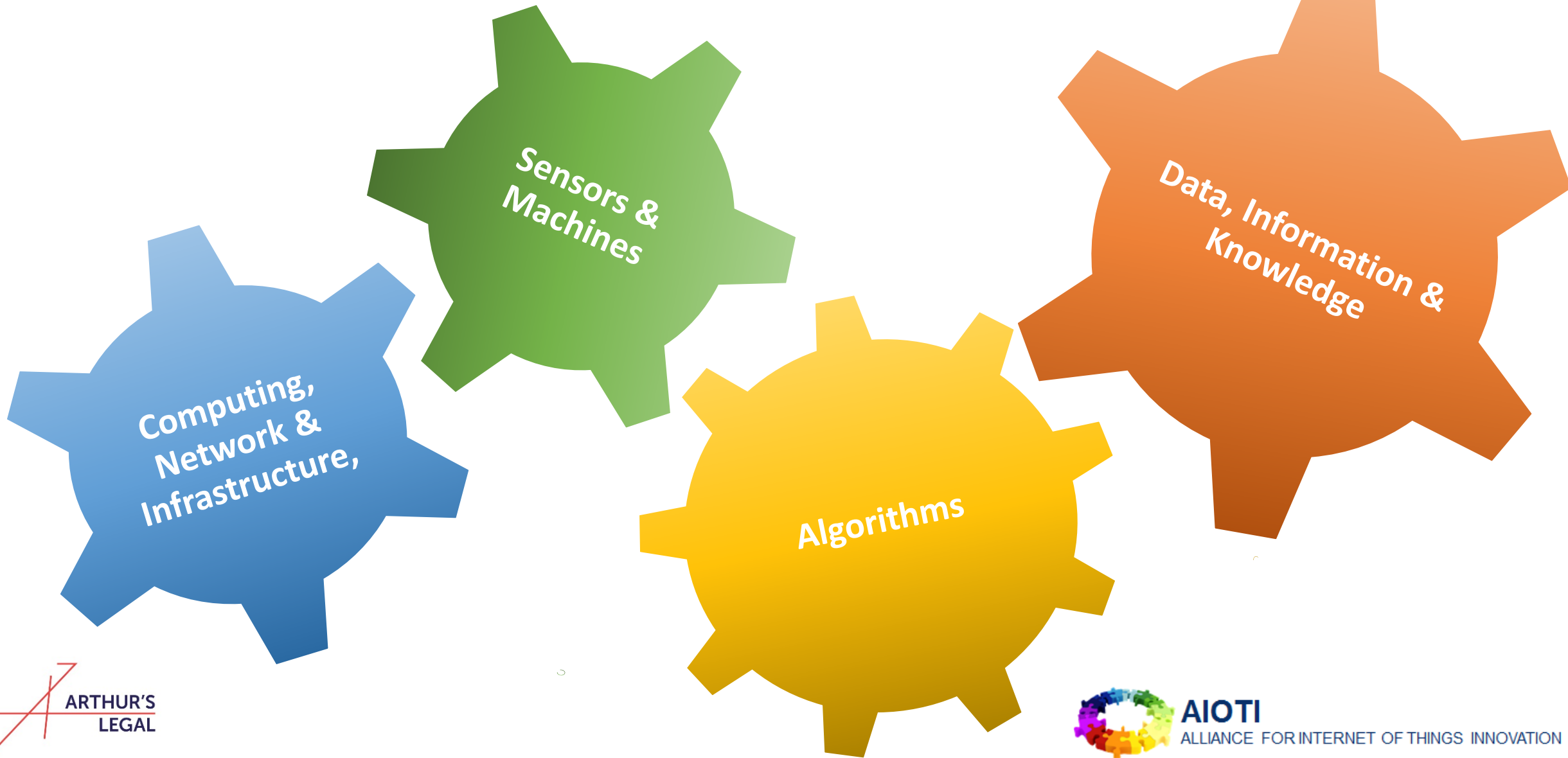


**Trusted Digital  
is a Need to Have,  
not a Nice to Have**

# #Customer Needs

Do users know what to buy, deploy & use?

# Interconnected Vessels



# Risks, Comfort & Trust in Digital Technology

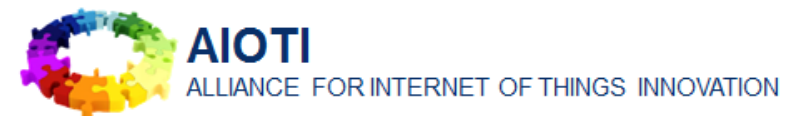
The Four Main Blocking Factors for Using Digital Technology =  
The Main Enablers to Digital Economy & Society:

1. Insufficient knowledge
2. Security
3. (Personal) Data Protection
4. Compliance

Eurostat (EC)

‘We are in a position today,  
in this Digital Age, where  
Technology has outstripped our  
Legal & Standards Framework’

Admiral Michael Rogers, Director NSA & Commander CYBERCOM





# Who is Responsible for Data?



**Balancing Out Allocation of Benefits, Risk, Accountability, Responsibility & Trust**

# GDPR is Trending

## From Hype to Design & Operations

# Brief History of the Origin of the GDPR

1989 Fall of the Berlin Wall

1995 Directive (v1.0)

2011 Start Design Regulation (v1.x)

2018 Regulation (v2.0)

# From 2018, Digital & Data become Highly Regulated Domains

PSD2: 13 January 2018

NIS: 9 May 2018

Identifying operators of 'Essential Services'  
9 November 2018

GDPR: 25 May 2018

Trade Secrets Directive 9 June 2018

e-Privacy Regulation (draft)

Free Flow of Data Regulation (draft)

Cyber Security Act & Certification Scheme (draft)

Public Services Information Directive (revision)

1 January 2018



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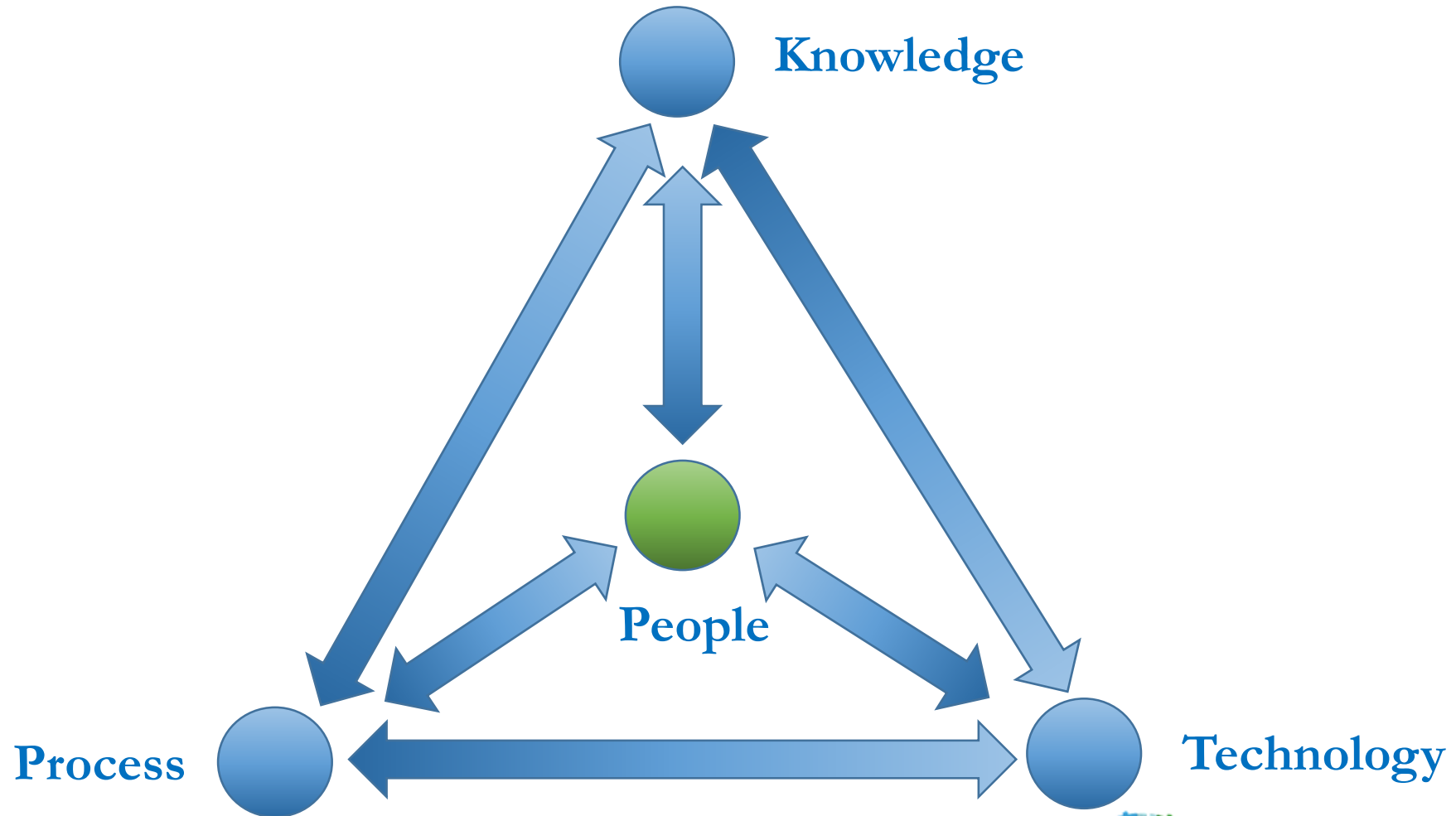


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# People, Process, Technology & Knowledge

Human-Centric Organisations & Systems

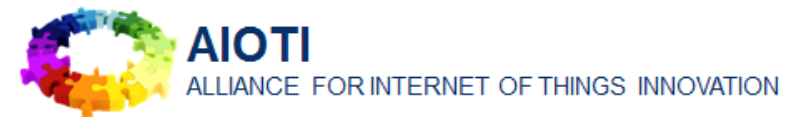


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# 57 Days

## to Effective Date GDPR

### 25 May 2018



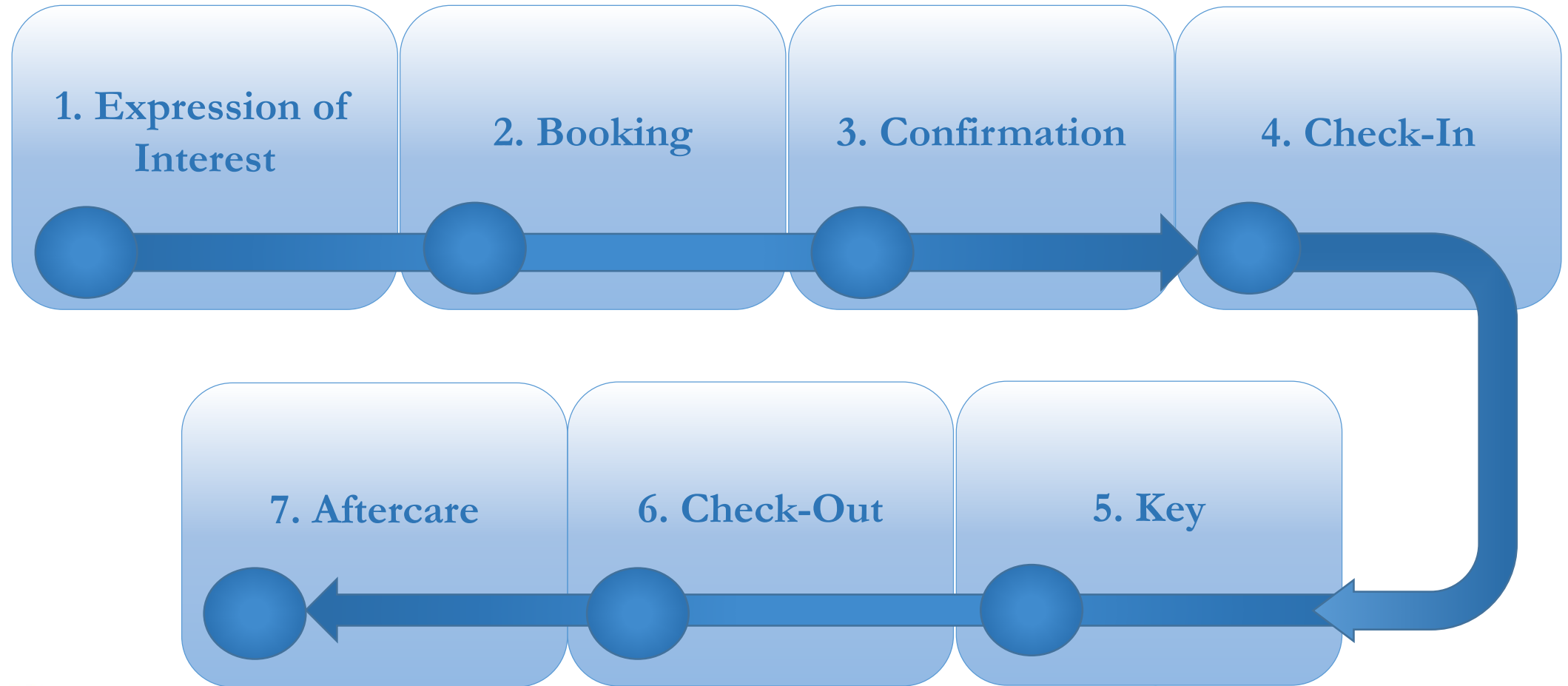
# GDPR is about Digital Transparency & Accountability

Data Collecting  
Data Processing  
Data Protection  
Data Security  
Data Management





# The Initial Guest Journey (Example)



# Changes GDPR (Part 1 of 7)

## 1. Scope & Jurisdiction

- A. EU as geographical region (GDPR is a regulation, so applicable through-out the EU)
- B. EU people are the data subjects. From where ever one targets or other engages with them
- C. Member state jurisdiction is applicable where data subjects resides
- D. One-stop-shop DPA

# What is Personal Data?

## Personal Data

Any information relating to an identified or identifiable natural person ('data subject'); an identifiable person is one who can be identified, directly or indirectly, in particular by reference to an identification number or to one or more factors specific to his physical, physiological, mental, economic, cultural or social identity.

Static Data >  
Dynamic Data

# # Data Travels

# Linear Supply Chain Thinking

#Cross-verticals #Cross-cutting markets #Are banks or other industry a still vertical?

**Relations** between the developers, vendors, consumers and other stakeholders of the digital economy and society (including but not limited to Internet of Things enabled devices, systems and services) **are non-linear.**

Together, they form a **vast, multi-dimensional network** that can be called a **supply value ecosystem.**

Each party and relation within this multi-dimensional web is relevant and necessary for the design, engineering, manufacturing, deploying and functioning of both a connected device, system and service, as well as hyper-connected (IoT) ones.





You & Your Organisation  
are here. **Good luck!**

[#AlgorithmUp&Downstream](#)  
[#CodeUp&Downstream](#)  
[#DataUp&Downstream](#)





# State of Play > State of the Art



Rule-Based >  
Principle-Based

**Risk-Based >  
Impact-Based**

# Continual > Continuous

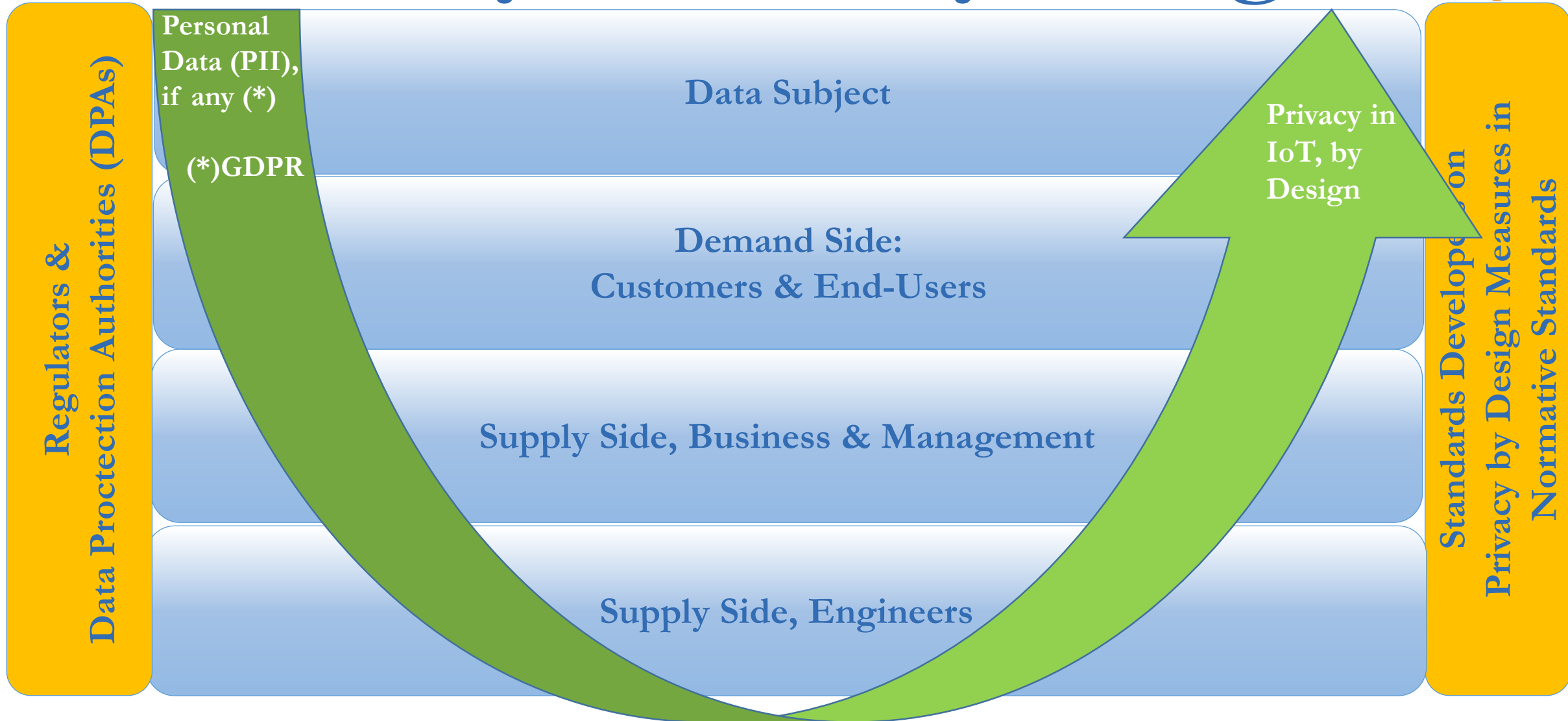
# Compliance > Accountability

Is compliance as we know it dead?

# Privacy in IoT, by Default & By Design

Data Collecting  
Data Processing  
Data Protection  
Data Security  
Data Management

# Privacy in IoT, by Design



# Privacy Principles in IoT

## (A) No PII by Default:

Avoid Personal Data (PII) Collection or Creation (\*)

(\*) Exceptions permitted, when & where required

## (B) 'As If' X-by-Design:

Design & Engineer Ecosystems As-If these will (now or in a later phase) process Personal Data

## (C) De-Identification by Default :

De-Identify or Delete Personal Data (\*\*)

(\*\*) As soon as there is no valid legal basis

**A. Technical Measures**

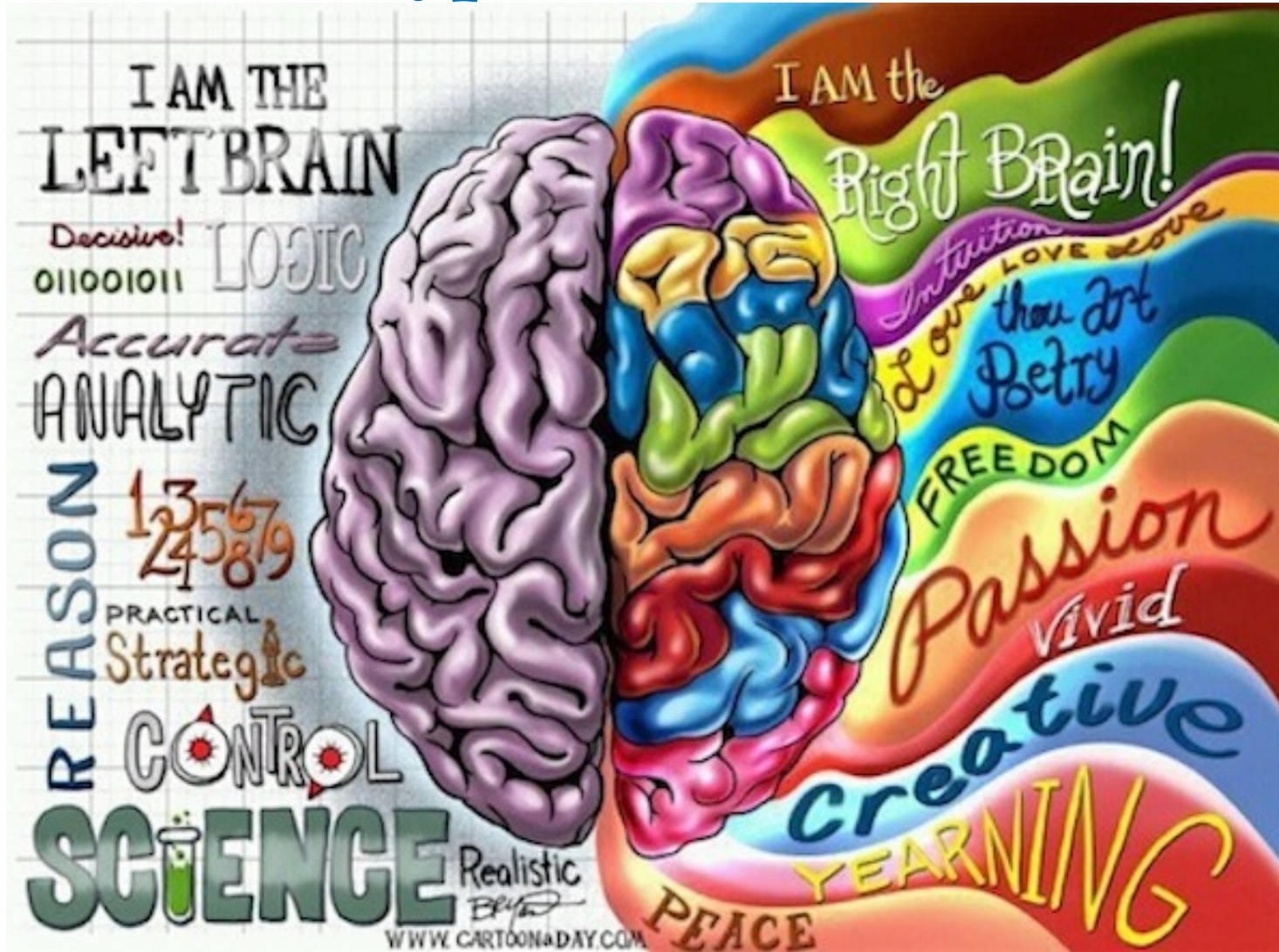
**B. Organisational Measures**

**C. Policies & Documentation**

1 Unit Technical + 3 Units Organisational



# Hyper-connect!

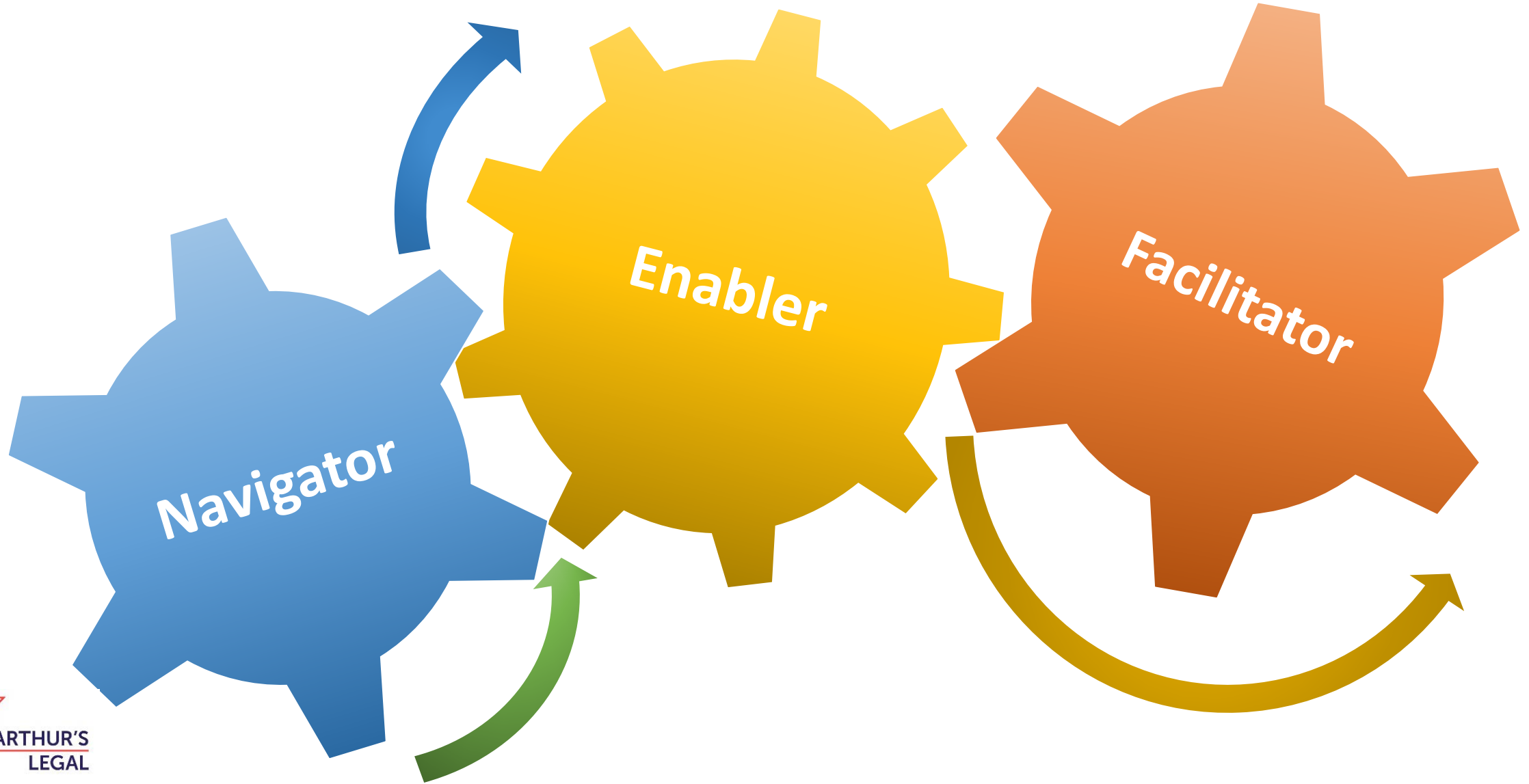


## Thank You

Arthur van der Wees  
vanderwees@arthurslegal.com

Arthurslegal.com  
@Arthurslegal

# Arthur's Legal Vision & Mission



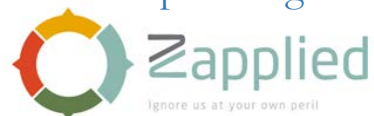
# Arthur's Strategic Services & Systems } Global Tech & Strategies by Design. Est. 2001

**Arthur's Legal:** Arthur's Legal a global tech and strategic x-by-design law firm. Arthur's Legal is founded in 2001 and since its incorporation provides integrated full services, and mainly focuses on local and global private and public organizations that are active as customer, user, vendor, integrator, consultant, legislator or policy maker in the fields of IT, licensing, cloud computing, internet of things, data analytics, cybersecurity, robotics, distributed ledger (block chain) technology and artificial intelligence. Arthur's Legal is also a leading deal making expert; it has already structured and negotiated out more than 5.000 major technology and related deals with and for global Fortune companies as well as other major organizations in the public and private sector worldwide.

**Arthur's Global Digital Strategies:** The counsels of Arthur's Legal are legal experts, strategists, technologists, standardization specialists and frequent speakers worldwide, with in-depth experience and are well-connected in the world of technology, combinatoric innovation, data, digital, cybersecurity, (personal) data protection, standardization, risk management & global business. On these topics, its managing director Arthur van der Wees LLM is expert advisor to the European Commission, Dutch government as well as other public and private sector organizations and institutes worldwide.

**Trust, Digital Data, Cybersecurity, Algorithms, AI, Robotics & Internet of Things:** Arthur's Legal is Founding Member of European Commission's (EC) Alliance of IoT Innovation (AIOTI), Co-Chair of AIOTI WG4 (Policy), Project Leader of both the AIOTI Security in IoT and Privacy in IoT taskforces, co-author of EC's Cloud SLA Standardisation Guidelines, co-author of Cloud Security Alliance's Privacy Level Agreement (PLA) 2.0, co-contributor to ISO standards such as ISO/IEC 19086 (Cloud Computing), co-author of the IERC Handbooks 2016 (Strategic & Legal Challenges in IoT) and 2017 (Security & Privacy in IoT), member of ESCO and co-author of the Dutch National Smart Cities Strategy. Arthur's Legal is co-founder of CloudQuadrants on the maturity of cloud offerings, the Cyberchess Institute that landscapes the real-life cybersecurity arena, the Cyber Trust Institute that sets trust trajectories and orbital requirements and parameters for technology-as-a-service, the Institute for Next Generation Compliance that promotes the restructuring and automation of compliance and related procurement, and the Institute for Data and Evidence Based Trust that aims to build and enhance trust and data protection in open, decentralized digital, cyber-physical and virtual ecosystems. Furthermore, Arthur's Legal is EC H2020 project IoT CREATE consortium partner and activity group leader on trust, security, safety, privacy, legal and compliance topics in IoT in five EU large scale pilots on smart healthcare, smart cities, wearables, smart farming, food safety and autonomous vehicles with EUR 250M of accrued EC and other funding. Together with IDC Arthur's Legal is also doing research and policy making for the Commission on data portability & application portability. One can build it's own AI with Zapplied.

**Connected & Hyper-connected:** Arthur's Legal has an unique interdisciplinary 3D-angle & x-by-design approach, connecting vital topics such as usability, security, data management, (personal) data protection, compliance with technology, infrastructure, architecture and global standardization thereof, with the capability and ability to connect those components in hyper-connected ecosystems much earlier (read: pro-active, preventative) than the traditional policy-making, legal and compliance practice does. For upcoming events, key notes and other activities, please check out website, stay up to date via its social media channels, or contact us.



[yanderwees@arthurslegal.com](mailto:yanderwees@arthurslegal.com) | [breeuwsma@arthurslegal.com](mailto:breeuwsma@arthurslegal.com)







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