

Security & Privacy as a Solution

IoT, Technology, Security, Data Protection & Compliance As Enablers

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Project Leader AIOTI WG3&WG4 Security in IoT & Privacy in IoT

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Smart Everything

Hyperconnected, accountable Value Chain towards the Customer: B2x, G2x, C2x

Verticals

Digital Services

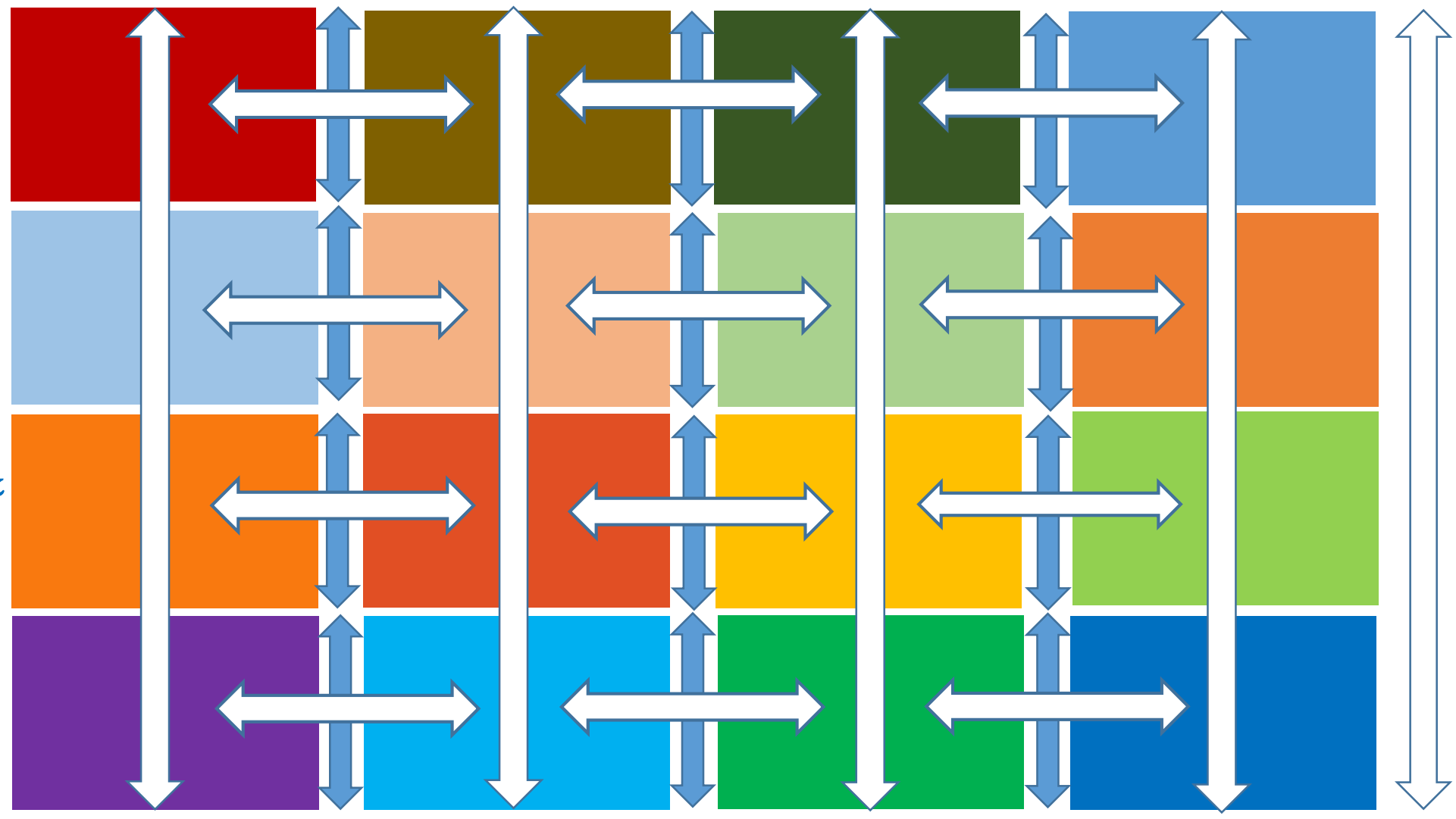
Data

Devices & Software

Infra & Networks

Horizontals

Vertical & Horizontal Value Chains



Main EC Initiatives in IoT

Free Flow of Data

Data Portability

Accountability & Liability

Security & IoT Trust Label

Personal Data Protection

Alliance for IoT Innovation (AIOTI)

EC Cross-Cutting Cooperations (DGs ENER, MOVE,
CONNECT, JUST, GROWTH, ETSI, CEN, CENELEC, NIST)

EUR 160M Large Scale Pilots



Welcome to AIOTI

ALLIANCE FOR INTERNET OF THINGS INNOVATION

Global Leading
IoT Alliance
Forbes

WG 01	IoT European Research Cluster											
WG 02	Innovation Ecosystems											
WG 03	IoT Standardisation											
WG 04	IoT Policy											
	SME Interests											
		WG 05	WG 06	WG 07	WG 08	WG 09	WG 10	WG 11	WG 12	WG 13		
		Smart Living Environment for Ageing Well	Smart Farming and Food Security	Wearables	Smart Cities	Smart Mobility	Smart Water Management	Smart Manufacturing	Smart Energy	Smart Buildings and Architecture		



Multi-Angled Stakeholders

1. The User
2. Thriving Ecosystems & Society
3. Suppliers (Secure In, Secure Inside, Secure Out)
4. Malicious Actors
5. Act First Seek Forgiveness Later Data Brokers
6. Paying Customers
7. Policy Makers, SDOs & Markets
8. Data Authorities
9. Data Access: Law Enforcement & Intelligence Services

Start with Common Understanding: Definitions

Data is not a four letter word

Data

Data of any form, nature or structure, that can be created, uploaded, inserted in, collected or derived from or with cloud services and/or cloud computing, including without limitation proprietary and non-proprietary data, confidential and non-confidential data, non-personal and personal data, as well as other human readable or machine readable data.

EC Cloud Service Level Agreement Standardisation Guidelines

3D approach | Multi-story of connected data types | Classified data | Sensitive data | Personal data | Derived data | Proprietary data | IPR | Encrypted data, with or without Tokenization | Distributed Data

Every (sub)category of data needs to be addressed separately

Data Travels



The Three T's

1. Transparency

2. Trust

3. Transformation

Data Strategy
Data Segmentation
Data Classification
Data Architecture

Who feels accountable for Privacy?

Who feels accountable for Security?

Who feels accountable for IoT?



Balancing Out Allocation of Risk, Accountability & Liability

Can You Retrofit Security?

Cybersecurity needs to be built into IoT devices, not bolted on.

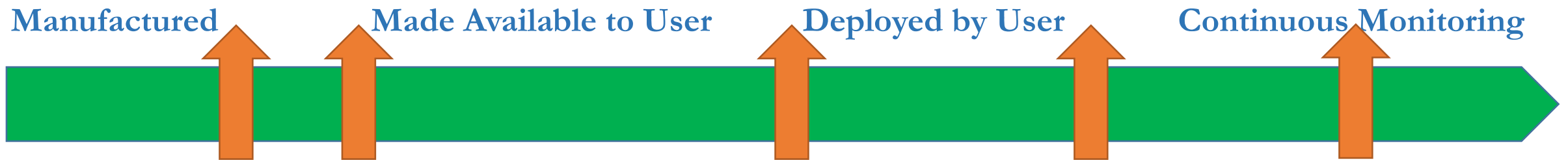
Can You Retrofit Compliance?



Updatability

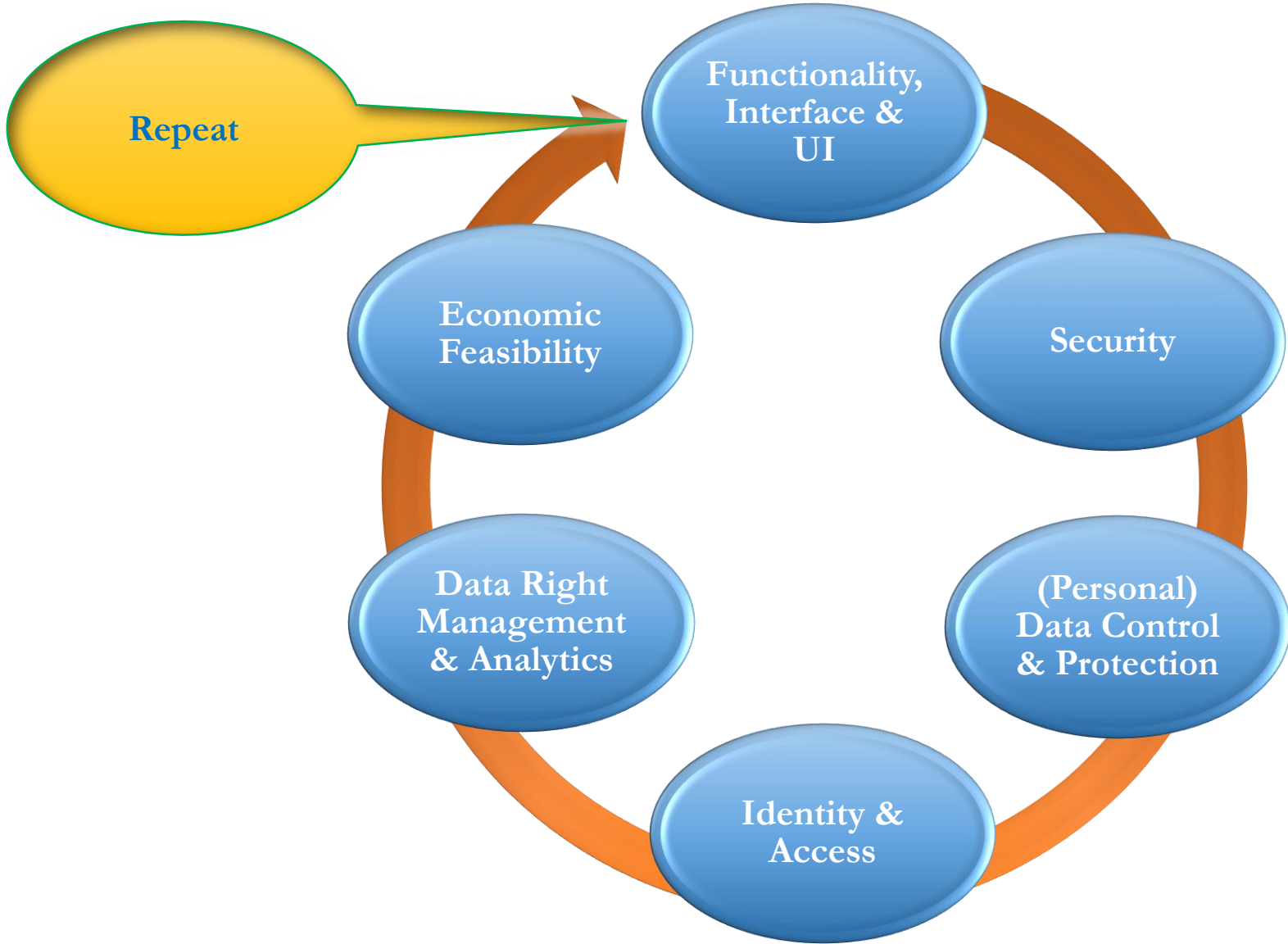
‘Find & Fix’ deficiencies, whether they arise from design, operation, law or deliberate instances.

The Life Cycle of an IoT Device/System

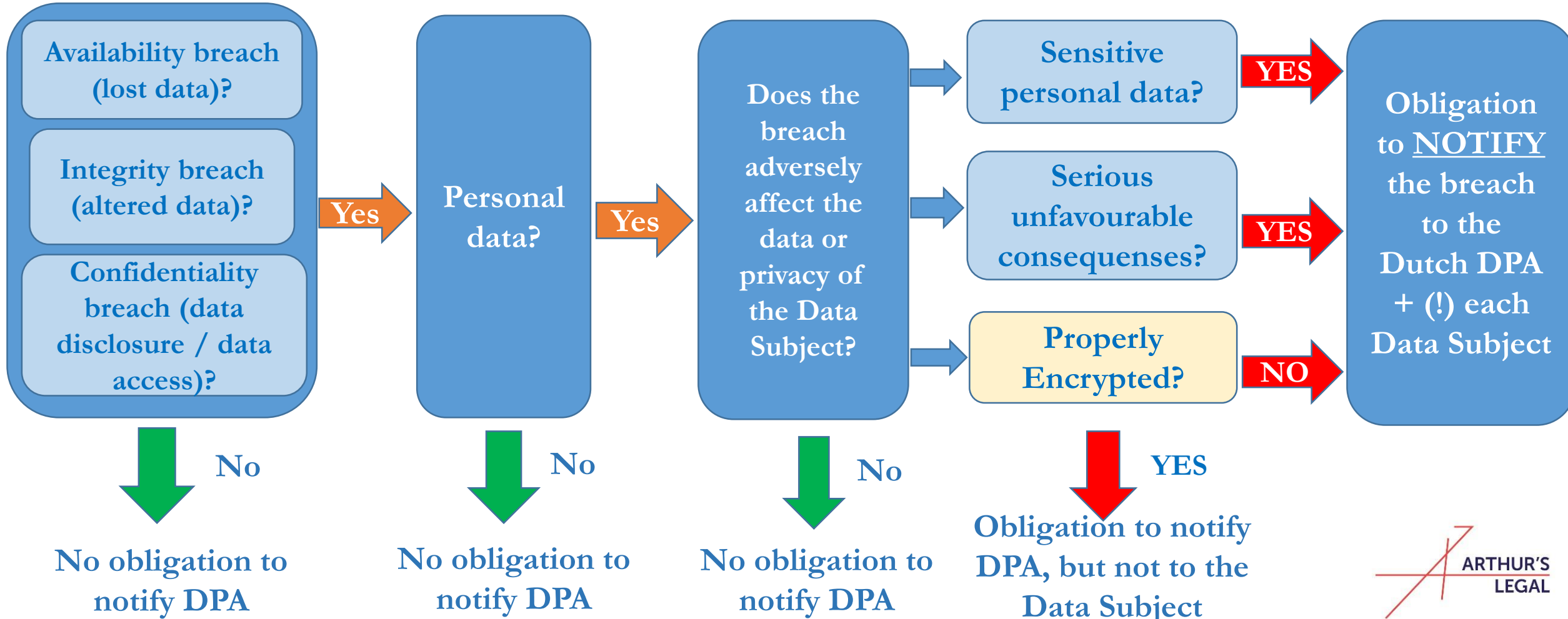


When to verify?

The Co-Creation Cycle: Multi-Angled x-by-Design Development



Data Breach Notification Act NL (as per 1 January 2016)

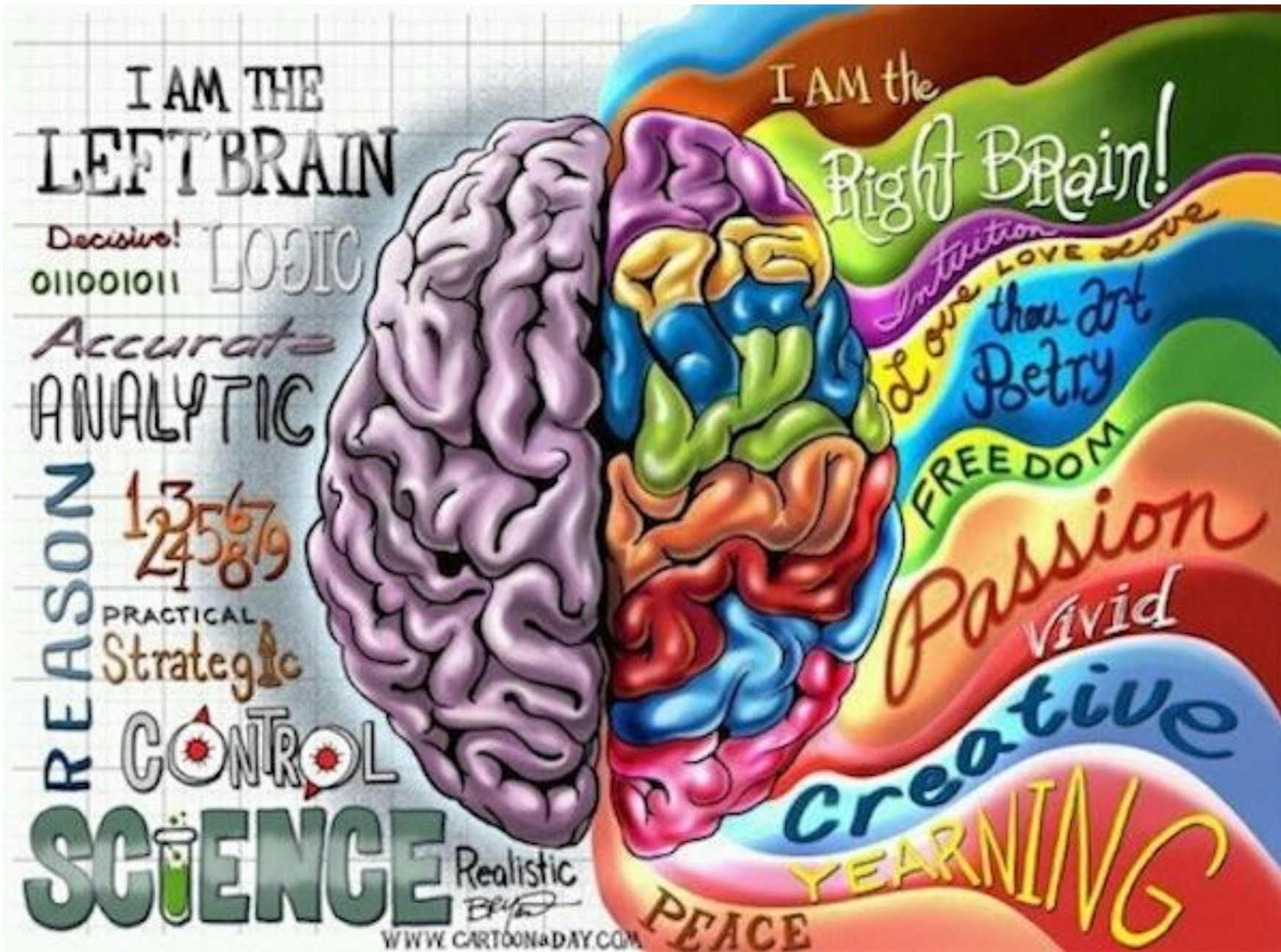


IoT Device Compliance Patch



- ✓ Rule of Law
- ✓ GeoLocation
- ✓ Sectorial
- ✓ Rule Sets

Security & Compliance-As-An-Enabler



Arthur's Legal } Global Tech Law Firm by Design. Est. 2001

Arthur's Legal: Arthur's Legal a global tech law firm by design. 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.

Global Digital Strategy: 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, innovation, data, digital, cybersecurity, (personal) data protection, innovation, standardization & global business. On these topics, its managing director Arthur van der Wees LL.M. is expert advisor to the European Commission, Dutch government as well as other public and private sector organizations and institutes worldwide.

Cloud Computing, CyberSecurity, Digital Data & Internet of Things: Arthur's Legal is Founding Member of European Commission's (EC) Alliance of IoT Innovation (AIOTT), Co-Chair of of AIOTT WG4 (Policy), Project Leader of both the AIOTT 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), and co-author of the IERC Handbook: Digitising the Industry, Internet of Things Connecting the Physical, Digital and Virtual Worlds. 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 consortium partner of EC's H2020 SLA Ready. From 2017 to 2020, Arthur's Legal will lead strategic, trust, data value chain, legal and compliance topics in IoT via EC H2020 project IoT CREATE.

Connected & Hyperconnected: Arthur's Legal has an unique 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 hyperconnected 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.

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