

欧州AI Actの影響力

2023年10月31日

国立研究開発法人産業技術総合研究所

杉村領一

ポジション

- ISO/IEC JTC1/SC42 Artificial Intelligence Participating Member
 - WG1～5, JWG 1～5 : 日本は過去・現在でWG2, WG4, JWG1, JWG3の議長
 - ISO/IEC JTC1 SC42国内専門委員会（委員長：1, 幹事：2, 委員：28, エキスパート：9, オブザーバ：4, リエゾン：6）
- CEN/CENELEC JTC21 Artificial Intelligence Observer
 - JISC Representative to CEN/CENELEC JTC21
 - 欧州以外の国でWG含めた前ドキュメントを見れる立場は日本の3名のみ
- Brookings Research: A member of AI Dialogue
- Bilateral Relation
 - ANSI, NIST
 - BSI and Alan Turing Institute
 - SCC
 - AFNOR, DIN,
 - Etc.
- Public Presentation at
 - 国連：AI for Good <https://aiforgood.itu.int/speaker/ryoichi-roy-sugimura/>
 - NIST: Comments for AI- RMF as the head of NB of MC SC42.
 - GPAI: 2022.11.21 at Chinzan-so
 - PAI: 2023.10. 25 at London BBC Centre

SC42国内専門委員会参加組織

委員長：1，幹事：2，委員：28，エキスパート：9，オブザーバ：4，リエゾン：6

産業界

- (株)日立製作所，(株)デンソー，日本電気(株)，(株)東芝，日本マイクロソフト，富士通(株)，(株)ニコン，アズビル(株)，三菱重工業(株)，ソニーグループ(株)，トヨタ自動車株，三菱電機株，SOLIZE(株)，横河電機(株)，(株)デンソークリエイト，日本アイ・ビー・エム(株)，正啓(株)日立製作所，日本オラクル(株)，キャノンメディカルシステムズ(株)

マスコミ

- 日本放送協会

大学等

- 東京大学，日本大学，東北大学，慶応義塾大学，島根大学電気通信大学，情報セキュリティ大学院大学，横浜市立大学，(一社)人工知能学会

官

- 経済産業省，産業技術総合研究所，(一財)日本品質保証機構，(独)情報処理推進機構，大学共同利用機関法人 情報・システム研究機構 国立情報学研究所，(一社)電子情報技術産業協会，(国研)情報通信研究機構

12th SC42 Plenary at Vienna Austria 2023





PAI's AI Policy Forum



**Governing AI Globally:
International Standards,
Trade and ...**

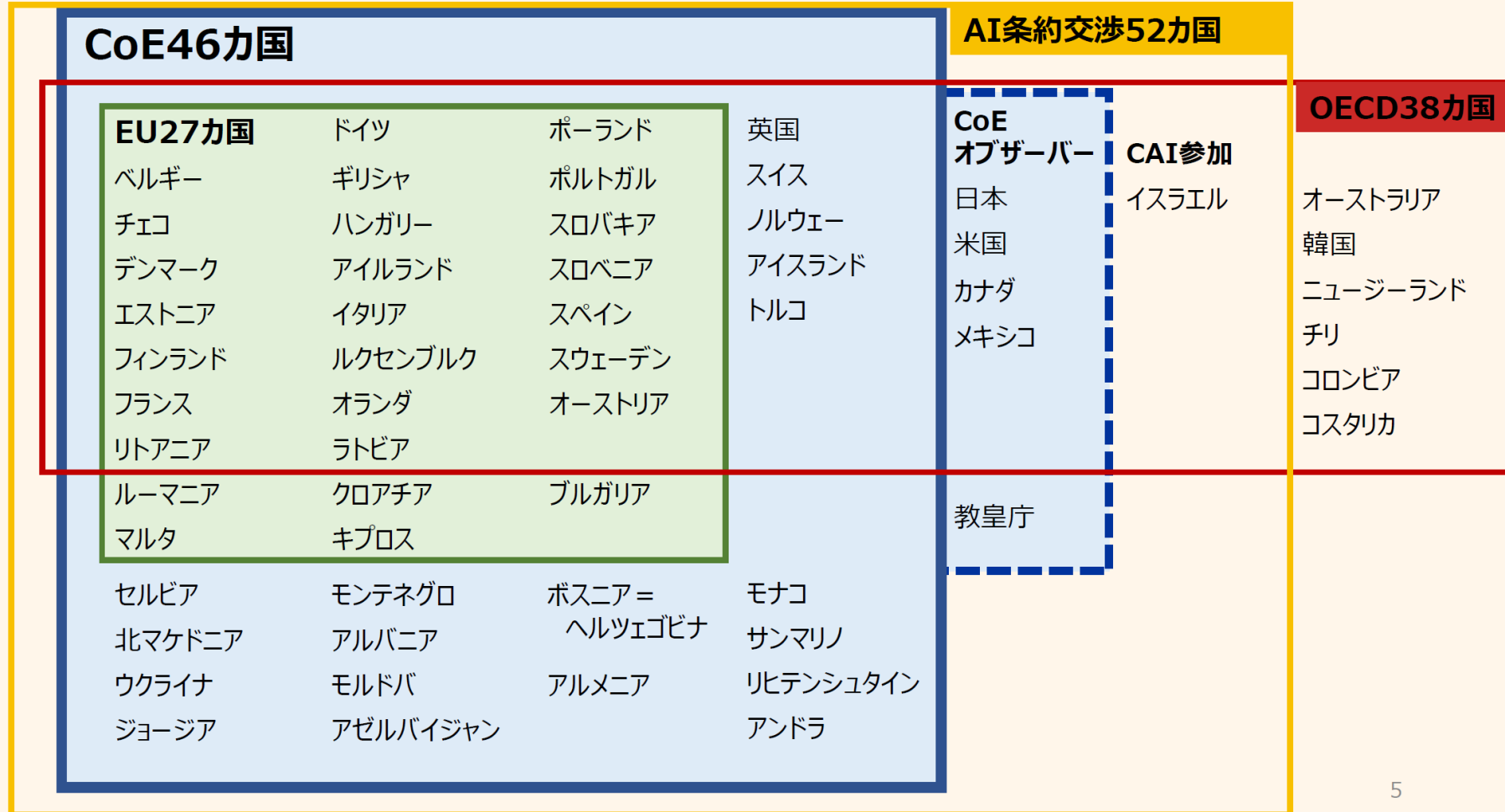
By Roy Sugimura,
Ph.d, MA in IMPM

Wednesday October 25, 2023 / 11:00 AM - 12:00 PM

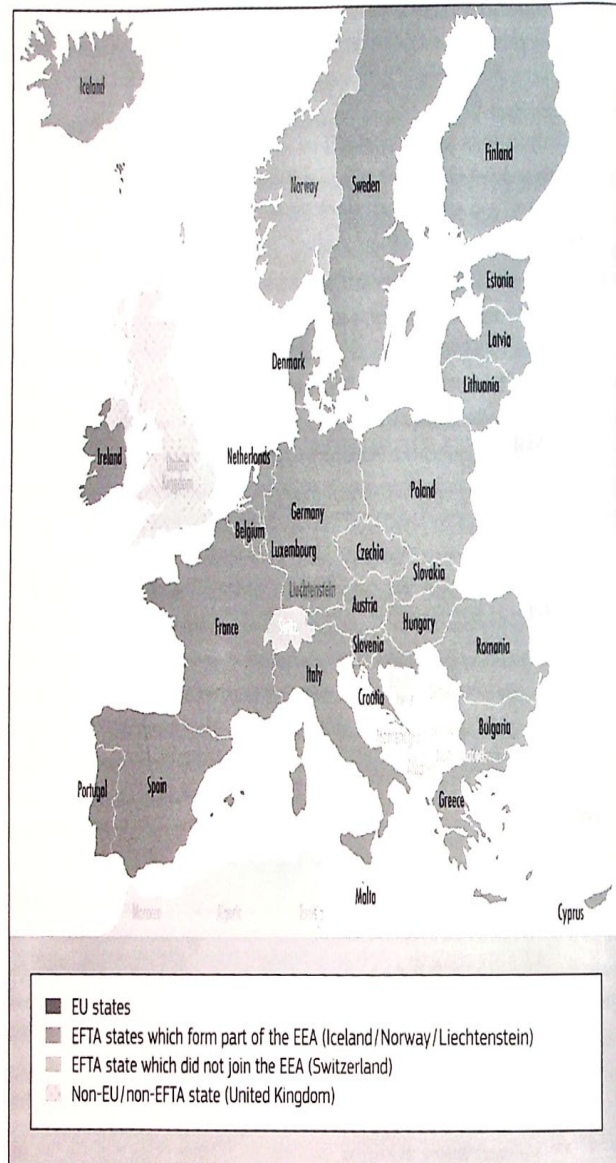
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Broad View around EU

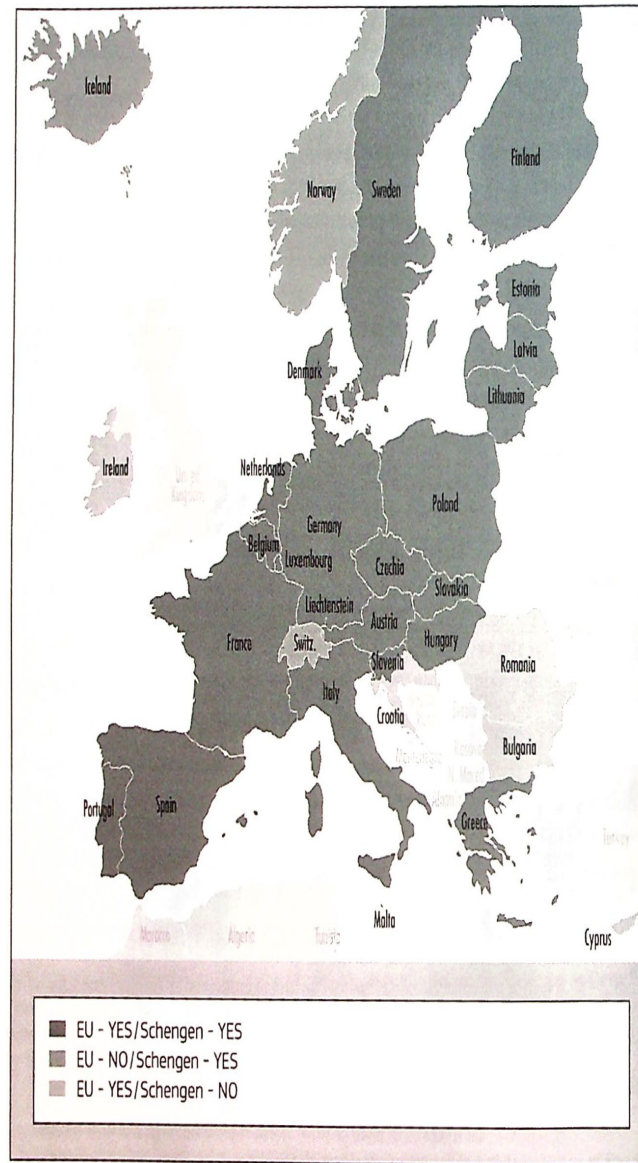
参考 CoEと他の国際機関との加盟国相関図



EU 関連概要



Map 1.1 The EU, the EEA, Switzerland and the UK

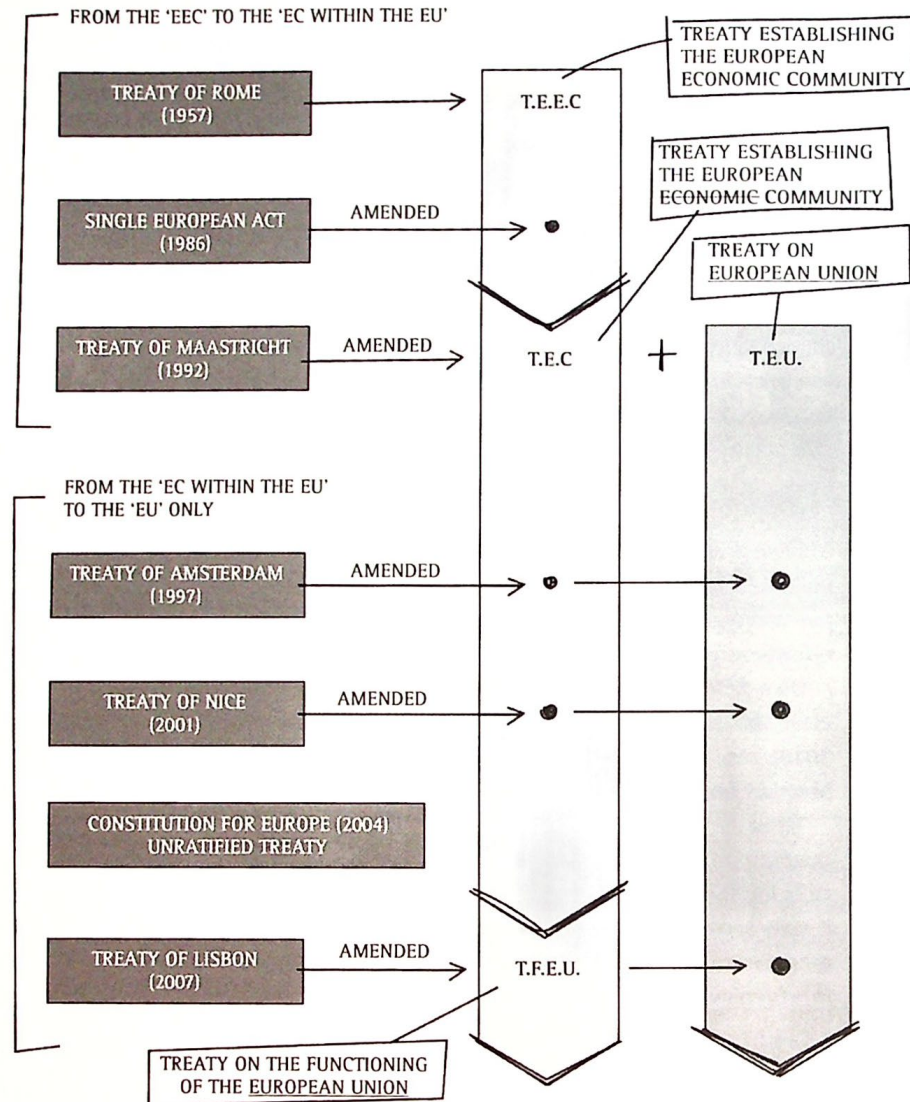


Map 1.2 Membership of the EU and/or of the Schengen Area³¹⁷



Map 1.3 Membership of the EU and of the euro area³²⁷

EU Treaty 経緯



1648年
ヴェストファーレン和平条約
・国家主権 ・内政不干涉

- Two central principles of EU
1. Equal treatment among Member States
 2. Principle of sincere cooperation

(From An introduction to the EU legal order, Elis Muir, Cambridge University Press, 2023, pp 4.)

Figure 1.2 From the EEC to the EU: A succession of treaties

3つの柱

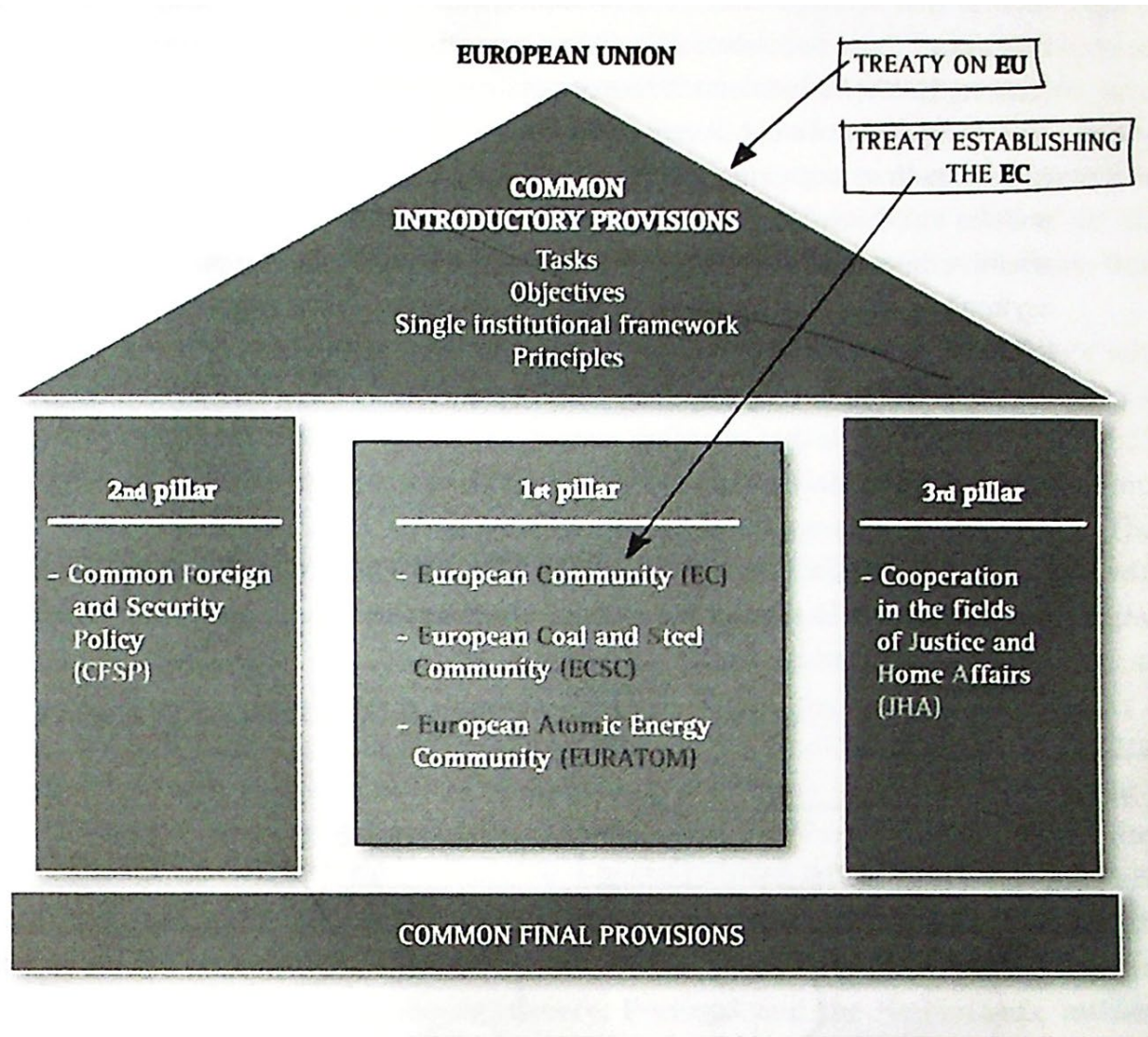


Figure 1.1 The three pillars of the EU (Maastricht, 7 February 1992)

欧州の法体系背景

EU憲法=EU基本条約 + EU基本権憲章

EU基本条約 = EU条約 + EU機能条約

EU立法 = 規則(regulation) +
指令(directive) +
決定(decision)

欧州評議会 : rule of law,
fundamental human rights,
democracy
→ like-minded countries

EU Treaties

- Treaty on European Union(Consolidated version 2016)
- Treaty on the Functioning of the European Union (Consolidated version 2016)
- Treaty establishing the European Atomic Energy Community (Consolidated version 2016)
- Charter of Fundamental Rights of the European Union (2016)

AI 関連の規制

1.EU AI Act: Regulation

2.EU Machinery Regulation:

3.EU AI Liability Act:

4.EU Data Act:

5.EU AI Data Governance Act:

6.EU The Digital Services Act and

7.EU Digital Markets Act

基礎知識：New Legislative Framework

- **New legislative framework**
- Adopted in 2008, the new legislative framework aims to improve the internal market for goods and strengthen the conditions for placing a wide range of products on the EU market. It is a package of measures that aim to improve market surveillance and boost the quality of conformity assessments. It also clarifies the use of CE marking and creates a toolbox of measures for use in product legislation.
- **What does the new legislative framework provide?**
- The package reinforces the application and enforcement of internal market legislation. It:
 - improves [market surveillance](#) rules to better protect both consumers and professionals from unsafe products, including those imported from outside the EU. In particular, this applies to procedures for products which can pose danger to health or the environment;
 - sets clear and transparent rules for the [accreditation](#) of conformity assessment bodies;
 - boosts the quality of and confidence in the [conformity assessment](#) of products through stronger and clearer rules on the requirements for the notification of conformity assessment bodies;
 - clarifies the meaning of [CE marking](#) and enhances its credibility;
 - establishes a common legal framework for industrial products in the form of a toolbox of measures for use in future legislation. This includes definitions of terms commonly used in product legislation, and procedures to allow future sectorial legislation to become more consistent and easier to implement.
- **The new legislative framework consists of**
 - [Regulation \(EC\) 765/2008](#) setting out the requirements for accreditation and the market surveillance of products
 - [Decision 768/2008](#) on a common framework for the marketing of products, which includes reference provisions to incorporate in product legislation revisions. In effect, it is a template for future product harmonisation legislation
 - [Regulation \(EU\) 2019/1020](#) on market surveillance and compliance of products

New Legislative Framework

- 法規制の必須要求事項を守るために必要な技術仕様を，欧州規格の整合規格に記載することになっています。
- 整合規格の作り方には，以下のような方法があります
 - 独自に作成
 - ISOから引用
 - ウィーン条約に基づき，ISOと共同で作成
- AI ACT の整合規格策定は，CEN/CENELEC JTC21 へ委託されています。

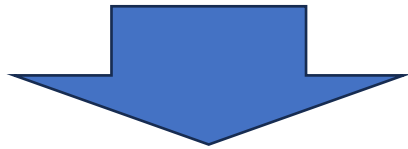
Harmonised standards as a key tool for the implementation of the future AI legislation

Table 21. Summary of the relevant standards for the AIA key requirements (in bold, standards already published or in final draft status)

Requirement	Very high/high operationalisation standards
Data and data governance	ISO/IEC TS 4213, ISO/IEC 5259-2, ISO/IEC 5259-3, ISO/IEC 5259-4, ISO/IEC 5338, ISO/IEC 5469, ISO/IEC 23894.2, ISO/IEC 24027, ISO/IEC 24029-1 , ISO/IEC 24668, ISO/IEC 38507, ISO/IEC 42001, ETSI SAI 002, ETSI SAI 005
Technical documentation	ISO/IEC 23894.2, ISO/IEC 24027, ISO/IEC 42001
Record keeping	ISO/IEC 23894.2
Transparency and information to users	ISO/IEC 23894.2, ISO/IEC 24027, ISO/IEC 24028 , ISO/IEC 38507, ISO/IEC 42001
Human oversight	ISO/IEC 23894.2, ISO/IEC 38507, ISO/IEC 42001
Accuracy robustness and cybersecurity	ISO/IEC TS 4213, ISO/IEC 5338, ISO/IEC 5469, ISO/IEC 23894.2, ISO/IEC 24029-1 , ISO/IEC 24668, ISO/IEC 42001, ETSI SAI 002, ETSI SAI 003, ETSI SAI 005 , ETSI SAI 006
Risk management system	ISO/IEC 5338, ISO/IEC 5469, ISO/IEC 23894.2, ISO/IEC 38507, ISO/IEC 42001
Quality management system	ISO/IEC 5259-3, ISO/IEC 5259-4, ISO/IEC 5338, ISO/IEC 23894.2, ISO/IEC 24029-1 , ISO/IEC 38507, ISO/IEC 42001

AI ACT

- European Commission 欧州委员会
- European Council 欧州理事会
- European Parliament 欧州议会



Trilogue中

April 2021	European Commission presents its proposal for the Artificial Intelligence Act.
December 2022	European Council adopts its common position (“general approach”) on the AI Act.
June 2023	European Parliament MEPs adopt their negotiating position on the AI Act. Trilogues begin.
Late 2023	Political agreement on the AI Act is reached.
Early 2024	The finalized AI Act is adopted.
Late 2025 – Early 2026	Following a likely 18-24-month transition period, the AI Act comes into effect

議論進捗状況

Not yet allocated to a WG	WG 2: Operational Aspects Emilia Tantar (LU) Ansgar Koene (UK)	WG 3: Engineering Aspects James Davenport (UK) Anders Kofod-Petersen (DK)	WG 4: Foundational and Societal Aspects Laurence Devillers (FR) Secretariat: AFNOR (FR)
<ul style="list-style-type: none"> prCEN/TS 12791 Treatment of unwanted bias in classification and regression machine learning tasks (ISO/IEC TS 12791 - AWI) prCEN 25059 Systems and software Quality Requirements and Evaluation (SQuaRE) Quality model for AI systems (ISO/IEC 25059 - DIS) 	<ul style="list-style-type: none"> TR AI Conformity Assessment (Emilia Tantar, LU) PWI (TR) AI Risks – Check List for AI Risks Management (Renaud Di Francesco, IT) PWI (EN) Adoption of ISO/IEC 42001 AI Management system (Martha Janczarski, IE) 	<ul style="list-style-type: none"> TR Overview of AI tasks and functionalities related to natural language processing (Lauriane Aufrant, FR) PWI (TR) Data Governance and data quality for AI in the European context (Domenico Natale, IT) prCEN 24029-n Assessment of the robustness of neural networks - (ISO/IEC 24029-n DIS) 	<ul style="list-style-type: none"> prEN ISO/IEC 22989 Artificial intelligence concepts and terminology (ISO/IEC 22989:2022) prEN ISO/IEC 23053 Framework for Artificial Intelligence (AI) Systems Using Machine Learning (ML) (ISO/IEC 23053:2022) PWI (EN) AI trustworthiness characterization (Agnes Delaborde, FR / Henri Sohier, FR) TR Green/Sustainable AI (Valerie Livina, UK)
<ul style="list-style-type: none"> prCEN/TR 24027 Bias in AI systems and AI aided decision making (ISO/IEC TR 24027:2021) 	<ul style="list-style-type: none"> prCEN 23894 Guidance on risk management (ISO/IEC 23894 - FDIS) 	<ul style="list-style-type: none"> prCEN 5259-n Data quality for analytics and machine learning (ML) (ISO/IEC 5259-n - CD) 	<ul style="list-style-type: none"> EN AI-Enhanced Nudging (Laurence Devillers, FR) prCEN 12792 Information technology – Artificial intelligence – Transparency taxonomy of AI systems (ISO/IEC 12792 - AWI) – Parallel adoption

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Foreign Affairs, Best Books of 2020

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The Brussels Effect

HOW THE EUROPEAN UNION
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The Brussels Effect

How the European Union
Rules the World

アヌ・ブラッドフォード
庄司克宏 監訳

厳しい規制 + マーケット = 強い商品

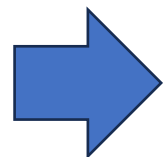
- 米国でマスキー法が廃案同然になった一方で、日本では公害防止を要求する声が大きく、規制は予定通り施行。
- **1978**年には、世界で最も厳しいといわれた「**1978（昭和53）年**排出ガス規制」が施行されました。
- 世界で初めてマスキー法をクリアしたCVCCエンジン搭載のホンダ・シビックに続いて、他の日本メーカーもすべて昭和**53**年規制に適合。
- これにより、日本車は世界一クリーンなクルマとして評価を高めて、日本車の国際的な地位が一気に向上。

最新の議論状況

- ISO/IEC FDIS 42001 AI Management 周辺規格を ISO/IEC JTC1/SC42 WG1 にて検討することを日本から提案. 総会にて確定
- 同時に, 日本から, MSME用の使いやすいガイドブックのようなツールを検討することを提案. これも, WG1にて検討することが確定
- ヨーロッパにとっては, 42001 が重すぎるものになることを懸念していたので, 上記2提案は, 前向きにとらえるべき提案.
- 同時, 欧州独自の道を走らなくても良くなるため, WINWIN.

関係付けの状況

- NIST AI-RMF と ISO/IEC 42001 の対応関係をパブリックに衆知するWSあり。
 - 相互矛盾しないことを強調
- Harmonized Standard としてIEEE 規格の幾つかが利用・参照される可能性もあり。
- AI Act を支える整合規格として，独自とならないように，強い協力関係を通じて規格策定を進める。
- 日本から，マネジメント規格シリーズの提案→SC42にて議論することが確定 (EUにとっても，日本にとっても，世界にとってもWINWIN)



欧州でビジネスを進める企業

種々のRegulation, Directiveを現地語で分析理解. 備える

欧州と関係なく，日本でビジネスを進める企業

ブラッセルエフェクトの影響下の企業との取引に影響あり？

ご静聴ありがとうございました