

**ONLINE SUPPLEMENT**  
**Timeline of Events in RPAS Industry (Dutch, EU and International Relevance)**

Date	Event	Content	Scope	Source(s)
<i>Phase 1: Recognizing Future Potential (2000-2004)</i>				
January 2000	Founding of European industry association UVSi <sup>1</sup>	“Started in 1995, as EURO UVS (European Unmanned Vehicle Systems Association), this non-profit organisation [...] changed its statute and its name to UVS International, in order to better reflect its global character and reach.”	EU	UVS International, General Information
June 2001	EU funded workshop on UAVs	“...increase the awareness in the European community regarding the rationale and the benefits of potential civilian missions using UAV's.”	EU	UAV civilian application workshop: environment/ communication/safety
July 2002	Establishment EASA <sup>2</sup>	Decision by the European Parliament and the Council of the European Union to establish a common European Aviation Safety Agency.	EU	(EC) No. 1592/2002
July 2002	European Commission publishes aerospace policy framework	First recognition and mention of unmanned aircraft systems by the European Commission.	EU	STAR 21, Strategic Aerospace Review for the 21st Century
September 2002	Joint JAA <sup>3</sup> / EUROCONTROL <sup>4</sup> Task Force on UAVs	“A joint Task-force is justified by the close relation between ATM [Air Traffic Management] issues and aircraft issues in the case of UAV. [...] The need for regulatory work was identified both within JAA and EUROCONTROL.”	EU	Presentation “Joint JAA/ EUROCONTROL Task-Force on UAVs” by Yves Morier
September 2003	EASA becomes operational	“Hitherto, certification was the responsibility of the [EU] Member States. In future, the Agency will issue certificates recognised EU-wide. [...] Ultimately, the Agency will develop its know-how in all areas of aviation safety to help the EU establish common rules for [...] the approval of aviation activities...”	EU	<a href="http://europa.eu/rapid/press-release_IP-03-1333_en.htm">http://europa.eu/rapid/press-release_IP-03-1333_en.htm</a> (accessed 24-09-2018)
May 2004	Joint JAA/ EUROCONTROL Task Force publishes final report	“...address a development of a concept for the regulation of civil unmanned aerial vehicles (UAVs), with respect to safety, security, airworthiness (including continued airworthiness), operational approval, maintenance and licensing.”	EU	Final Report – A Concept for European Regulations for Civil Unmanned Aerial Vehicles (UAVs)
<i>Phase 2: Regulatory Bricolage (2005-2010)</i>				
January 2005	UAVnet <sup>5</sup> /CAPECON <sup>6</sup> / USICO <sup>7</sup> publish action plan and strategic research agenda on UAV	“This proposal offers a unique opportunity to further unite and integrate Europe’s aeronautics capabilities and develop a research and technological infrastructure to benefit society.”	EU	25 Nations for an Aerospace Breakthrough, European Civil Unmanned Air Vehicle Roadmap

<sup>1</sup> Unmanned Vehicle Systems International

<sup>2</sup> European Aviation Safety Agency

<sup>3</sup> Joint Aviation Authorities

<sup>4</sup> European Organisation for the Safety of Air Navigation

<sup>5</sup> Civilian UAV Thematic Network: Technologies, Applications, Certification (EU funded initiative)

<sup>6</sup> Civil UAV Applications and Economic Effectivity of Potential Configuration Solutions (EU funded initiative)

<sup>7</sup> UAV Safety Issues for Civil Operations (EU funded initiative)

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April 2005	ICAO <sup>8</sup> initiative to discuss RPAS activities	“The first official discussion on RPAs was held at the first meeting of the 169th Session of ICAO Council on 12 April 2005. The Air Navigation Commission was requested a discussion on UAV operations in civil airspace.”	Intl.	ICAO Assembly, 38 <sup>th</sup> Session, Legal Commission (A38-WP/262)
November 2005	EASA publishes proposed policy for Unmanned Aerial Vehicle (UAV) certification	“The purpose of this Advance-Notice of Proposed Amendment (A-NPA) is to propose a policy for the certification of UAV (Unmanned Aerial Vehicle) Systems (the Policy) and is a first step towards more comprehensive UAV regulation.”	EU	Advance-Notice of Proposed Amendment No. 16/2005 (A-NPA-16-2005)
December 2005	Publication of Rules for Model Airplanes ( <i>Regeling Modelvliegen</i> )	“In this regulation, a model airplane means a small aircraft of which the total take-off mass does not exceed 25 kilograms.”	NL	HDJZ/LUV/2005-2297
April 2006	Establishment EUROCAE <sup>9</sup> Working Group 73 on UAS (WG-73)	“As the European UAS expert group, WG-73 will work with EASA in the development of airworthiness criteria and Special Conditions to supplement EASA A-NPA-16 Policy for Unmanned Aerial Vehicle (UAV) Certification.”	EU	Presentation “Unmanned Aircraft Systems, EUROCAE Activities” by Daniel Hawkes (February 2008, Paris)
May 2006	First ICAO exploratory meeting on UAVs	“...to determine the potential role of ICAO in UAV regulatory development work. [...] although there would eventually be a wide range of technical and performance specifications and standards, only a portion of those would need to become ICAO SARPs [Standards and Recommended Practices]. [...] ICAO was not the most suitable body to lead the effort to develop such specifications. However, it was agreed that there was a need for harmonization of terms, strategies and principles with respect to the regulatory framework and that ICAO should act as a focal point.”	Intl.	ICAO Cir 328, Unmanned Aircraft Systems (UAS)
January 2007	Second ICAO informal meeting on UAVs that led to establishment of UASSG <sup>10</sup>	Decision by ICAO for “study group be formed to assist the Secretariat in developing a framework for regulatory development, guiding the SARPs development process within ICAO, and to support a safe, secure and efficient integration of UAS into non-segregated airspace.”	Intl.	ICAO UAS Study Group
February 2007	Establishment of SESAR <sup>11</sup> Joint Undertaking	“The aim of the Joint Undertaking is to ensure the modernisation of the European air traffic management system by federating research & development efforts in the Community.”	EU	<a href="https://ec.europa.eu/transport/modes/air/sesar/sesar_undertaking_en">https://ec.europa.eu/transport/modes/air/sesar/sesar_undertaking_en</a> (accessed 26-09-2018)
October 2007	Founding INOUI <sup>12</sup> Consortium	“The project INOUI focuses on the integration of Unmanned Aircraft Systems (UAS) in non-segregated airspace. [...] INOUI represents a holistic approach to	EU	INnovative Operational

<sup>8</sup> International Civil Aviation Organization

<sup>9</sup> European Organisation for Civil Aviation Equipment

<sup>10</sup> Unmanned Aircraft System Study Group

<sup>11</sup> Single European Sky ATM Research

<sup>12</sup> INnovative Operational UAV Integration

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		UAS integration. Goal of INOUI is to provide a stepwise approach to enable the earliest possible use of UAS applications.”		UAS Integration, Proposal for the Integration of UAS into non-segregated Airspace
December 2007	EASA publishes Common Response Document on “Policy for Unmanned Aerial Vehicle (UAV) certification”	Extensive 270 pages document with detailed responses from EASA to all comments received during the public consultation period between Nov. 2005 and Feb. 2006.	EU	CRD to A-NPA-16-2005
January 2008	European Commission publishes study analysing the current activities in the field of UAV	“Where are we today – the industrial/economical/political situation in Europe and the international interdependencies. [...] What vision can be drawn for Europe in this technology domain and what needs to be done to make it happen.”	EU	Study analysing the current activities in the field of UAV (first and second element), ENTR/2007/065
February 2008	Establishment JARUS <sup>13</sup> (first meeting)	“JARUS’ first meeting took place [...] and began with just a handful of member states.”	Intl.	JARUS press release
February 2008	EASA Basic Regulation	Decision by the European Parliament and the Council of the European Union to refine the competencies of EASA (in addition to (EC) No. 1592/2002 from July 2002).	EU	(EC) No. 216/2008
April 2008	UASSG becomes operational (first meeting)	“...assembled to embark on legislative efforts toward international cooperation, the development of regulation and manuals, technical specifications and the Standards and Recommended Practices (SARPs).”	Intl.	Unmanned Aircraft Systems Study Group (UASSG), First Meeting (UASSG/1-SD) ICAO Assembly, 38 <sup>th</sup> Session, Legal Commission (A38-WP/262)
August 2009	EASA publishes general principles for type certification of UAS	“This policy shall be used by the Agency’s staff when certifying UAS. [...] The policy represents a first step in the development of comprehensive civil UAS regulation.”	EU	Rulemaking Directorate Policy Statement, Airworthiness Certification of Unmanned Aircraft Systems (UAS), E.Y013-01
October 2009	EC DG MOVE <sup>14</sup> first hearing on unmanned aircraft (<150 kg)	“To understand the current European Light UAS industrial base and the current Light UAS applications in Europe; to identify potential obstacles, enablers and best practices in Europe; to exchange directly with the European Light UAS community views and assess the future potential role of EC for the insertion of Light UAS.”	EU	Hearing on Light Unmanned Aircraft Systems (UAS)

<sup>13</sup> Joint Authorities for Rulemaking on Unmanned Systems

<sup>14</sup> The European Commission’s Directorate-General for Mobility and Transport

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April 2010	INOUI Consortium publishes final report	“Main objective of the INOUI project was to provide a roadmap to the future of UAS in the context of the ever changing ATM [Air Traffic Management] environment.”	EU	INOUI, Final Activity Report
July 2010	European Commission & European Defence Agency organize European High Level Unmanned Aircraft Systems (UAS) Conference	“...where approximately 450 participants from around the world discussed issues such as how RPAS can support European policies, the different uses of RPAS, and the institutional and infrastructure aspects, which would have to be addressed to allow RPAS to fly in non-segregated airspace.”	EU	RPAS – The European Approach & The Way Forward <a href="https://ec.europa.eu/transport/modes/air/event/conference-uas-unmanned-air-systems_en">https://ec.europa.eu/transport/modes/air/event/conference-uas-unmanned-air-systems_en</a> (accessed 25-09-2018)
<b><i>Phase 3: Focused Efforts (2011-2015)</i></b>				
March 2011	ICAO publishes formal report on unmanned aircrafts	“The goal of ICAO in addressing unmanned aviation is to provide the fundamental international regulatory framework through Standards and Recommended Practices (SARPs), with supporting Procedures for Air Navigation Services (PANS) and guidance material, to underpin routine operation of UAS throughout the world in a safe, harmonized and seamless manner comparable to that of manned operations. This circular is the first step in reaching that goal.”	Intl.	ICAO Circular 328-AN/190
June 2011	European Commission launches UAS Panel (series of five workshops)	“...an imitative to explore the current competitive situation for Unmanned Aircraft Systems (UAS) globally and to identify the key challenges and obstacles which need to be addressed to assist the development and operation of the UAS sector in Europe.”	EU	European Commission Unmanned Aircraft System Panel Process, Report on Workshop
May 2012	Establishment EUROCAE Working Group 93 on Light RPAS (WG-93)	“Develop standards and recommendations for guidance material for the safe operation of Light RPAS, sequenced in order of priority for the Light RPAS community, with output primarily directed towards regulator. [...] Guided by regulators needs and approval oversight such as EASA, JARUS, NAAs [National Aviation Authorities].”	EU	Presentation “EUROCAE RPAS Activities” by unknown
June 2012	Establishment of ULTRA <sup>15</sup> Consortium	“To provide a comprehensive set of recommendations for the incremental insertion of civil Light RPAS (those with an operating mass of up to 150 kg) in the European airspace in the short-term (i.e. within 5 years from now); to provide specific recommendations for selected ‘Use Cases’ to be explored as ‘quick win’ business cases; highlight what needs to be done in order to unlock the full potential of the civil Light RPAS market in the long-term (i.e. 10-15 years from now).”	EU	<a href="https://ultraconsortium.eu/about-us/">https://ultraconsortium.eu/about-us/</a> (accessed 26-09-2018)

<sup>15</sup> Unmanned Aerial Systems in European Airspace

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July 2012	Establishment of European RPAS Steering Group	“...set up by the European Commission ... on the future of RPAS in Europe. The European RPAS Steering Group received the mandate to establish a roadmap for the safe integration of civil RAS into the European aviation system, aiming at an initial RPAS integration by 2016.”	EU	<a href="https://uvs-international.org/european-matters/european-rpas-roadmap-2013/">https://uvs-international.org/european-matters/european-rpas-roadmap-2013/</a> (accessed 25-09-2018)
August 2012	EASA publishes proposed alignment of the European Common Rules of the Air	“the present NPA includes five major aspects: the certification of the remotely piloted aircraft system (RPAS), including the airworthiness of the remotely piloted aircraft (RPA); the certification of RPAS operators involved in commercial air transport and/or specialised operations (SPO); the licensing of remote pilots; provisions to facilitate the ‘special authorisation’ mandated by Article 8 of the Chicago Convention for international RPAS operations...”	EU	Notice of Proposed Amendment (NPA) 2012-10, Transposition of Amendment 43 to Annex 2 to the Chicago Convention on remotely piloted aircraft systems (RPASs) into common rules of the air
September 2012	European Commission publishes strategy working document	“To reap the full benefits of this new technology for growth and jobs, Europe should remove, in a coordinated way, the existing barriers and support the internal market for civil RPAS services.”	EU	European Commission, Staff Working Document SWD(2012)259, Towards a European strategy for the development of civil applications of Remotely Piloted Aircraft Systems (RPAS)
November 2012	Founding of Dutch industry association DARPAS <sup>16</sup>	“Dutch trade association for professional production and use of unmanned aircraft systems (also called drones, RPAS, UAS or UAV). [...] The aim of the association is to represent the interests of members who are engaged in the research and development, production, use, services and applications of RPAS (drones) in the Netherlands.”	NL	<a href="http://www.darpas.nl/">http://www.darpas.nl/</a> (accessed 25-09-2018)
June 2013	Revision of rules for model airplanes ( <i>Regeling Modelvliegen</i> )	Changes allow to distinguish between recreational and professional use; include general prohibition of use unmanned aircraft up to 150 kg; include prohibition for commercial use model aircraft up to 25 kg (applying for an exemption is possible).	NL	Presentation “Drones, Ontwikkelingen regelgeving in Nederland” by Hanneke van Traa-Engelman
June 2013	European RPAS Steering Group publishes final report	“By presenting a clear way forward towards the integration of RPAS, the Roadmap is expected to facilitate the decisions to be taken by the different organisations involved, provide transparency and efficiency in the planning of different initiatives and support the coordination of the related activities in Europe. [...] The complete document includes 3 annexes entitled: A Regulatory Approach; A Strategic Research Plan; A Study on the Societal Impact”	EU	Roadmap for the integration of civil Remotely-Piloted Aircraft Systems into the European Aviation System, Final report from the European RPAS Steering Group
December 2013	ULTRA Consortium publishes final report	“Analyse current and past work relative to civil RPAS [...] and propose a starting point for Light RPAS operations in the short-term. [...] Develop a business model for civil Light RPAS applications. [...] Perform an in-depth	EU	ULTRA, Unmanned Aerial Systems in European Airspace, Project Full Final Report

<sup>16</sup> Dutch Association for Remotely Piloted Aircraft Systems

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		analysis on how to overcome the barriers and mistrust of (Light) RPAS by the general public. [...] Foster the European innovation in terms of aviation automation and provide a path which facilitates access to market for European SMEs. [...] Develop recommendations to support a sustainable civil Light RPAS market in the short-term and to highlight the actions needed in order to unlock the full potential of the (Light) RPAS market in the long-term.”		<a href="https://ultraconsortium.eu/about-us/">https://ultraconsortium.eu/about-us/</a> (accessed 26-09-2018)
March 2014	Dutch Ministry of Justice and Security makes action plan for unmanned vehicles	“The purpose of this research is to gain insight into the implications the use of drones has for legislation and policy. What are the expected possibilities and threats stemming from the use of drones, to what extent does the current legal framework offer room for these possibilities and provides measures against these threats [...]?”	NL	Tweede Kamer der Staten-Generaal, attachment to Kamerstuk 30 806 (No. 21)
May 2014	ICAO replaces UASSG with RPAS Panel	“...serve as the focal point and coordinator of all ICAO RPAS related work, with the aim of ensuring global interoperability and harmonization; develop an RPAS regulatory concept and associated guidance material to support and guide the regulatory process...”	Intl.	Presentation “ICAO RPAS Panel, Working Group 1 – Airworthiness” by Stephen George & Bruno Moitre
December 2014	First Dutch lawsuit against journalist	Journalist was fined 500 Euro for making recordings in the vicinity of Rotterdam-The Hague Airport with his drone. According to the aviation police, the drone was a danger to the airports’ flight path.	NL	<a href="https://nos.nl/artikel/2008469-eerste-drones-rechtszaak-tegen-journalist.html">https://nos.nl/artikel/2008469-eerste-drones-rechtszaak-tegen-journalist.html</a> (accessed 01-10-2018)
March 2015	Riga Declaration	“The European aviation community gathered in Riga to exchange views on how, and under which conditions, drones can help create promising new opportunities in Europe, offering sustainable jobs and new prospects for growth both for the manufacturing industry and for future users of drones in all sectors of society. [...] Five essential principles for future EU focus: RPAS need to be treated as new types of aircraft with proportionate rules based on the risk of each operation; EU rules for the safe provision of RPAS services need to be developed to enable the industry to invest; Technology and standards need to be developed to enable full integration of RPAS into European airspace; Public acceptance is key to the growth of RPAS services; The operator of an RPAS shall be responsible for its use.”	EU	Riga Declaration on Remotely Piloted Aircraft (drone), "Framing the Future of Aviation" Report on the safe use of remotely piloted aircraft systems (RPAS), commonly known as unmanned aerial vehicles (UAVs), in the field of civil aviation, A8-0261/2015
March 2015	ICAO publishes RPAS Manual	“This manual addresses RPAS as one subset of UAS. RPAS are envisioned to be an equal partner in the civil aviation system, able to interact with air traffic control (ATC) and other aircraft on a real-time basis. The scope of ICAO provisions in the next 5 to 10 years is to facilitate integration of RPAS operating in accordance with instrument flight rules (IFR) in controlled airspace and at controlled aerodromes.”	Intl.	ICAO, Manual on Remotely Piloted Aircraft Systems (RPAS), Doc 10019, AN/507

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March 2015	EASA publishes concept of operations for drones	“Considering the broad range of operations and types of drones, it is proposed to establish three categories of operations and their associated regulatory regime: Open, Specific and Certified. [...] Harmonisation of drones rules are a must which is recognised by all parties. This concept for a regulatory framework will be proposed to JARUS and ICAO as the European input thus contributing to global harmonisation.”	EU	EASA, Concept of Operations for Drones - A risk based approach to regulation of unmanned aircraft
March 2015	EASA publishes policy initiative	“...update Regulation (EC) No. 216/2008 (the EASA Basic Regulation) in order to make it best respond to changes in the aviation environment and subsequent challenges to its safety.”	EU	EASA Opinion No. 01/2015, European Commission policy initiative on aviation safety and a possible revision of Regulation (EC) No. 216/2008
May 2015	Working Conference on Drones ( <i>Kabinetsstandpunt Drones</i> )	“...the Dutch Ministries of Safety & Justice, Infrastructure & Environment, and Economic Affairs, organised a working conference relative to a recently published joint report reflecting the cabinet’s view on RPAS. The purpose of this event was to comment the report, and with inputs of the attendees, prepare the way ahead. The event, which was attended by 150 Dutch policy makers and industry & research representatives, [...] a few days prior to the first Dutch RPAS regulation coming into force.”	NL	UVS International, Background & Activities, 1998-2015
June 2015	ISO <sup>17</sup> launches Technical Subcommittee 16 on UAS	“Develops international standards in the field of unmanned aircraft systems (UAS) including, but not limited to classification, design, manufacture, operation (including maintenance) and safety management of UAS operations.”	Intl.	ISO/TC 20/SC 16, Unmanned aircraft systems
July 2015	First publication of rules for commercial use of drones ( <i>Regeling op Afstand Bestuurde Luchtvaartuigen</i> ) and revision of rules for model airplanes ( <i>Regeling Modelvliegen</i> )	Commercial use of drones does not require applying for an exemption anymore. However, rules are similar to recreational use and a RPAS Operator Certificate (ROC) is needed. The rules for the recreational use of drones were also tightened.	NL	Ministerie van Veiligheid en Justitie, Letter “Nadere uitwerking kabinetsstandpunt drones”, 661936, August 2015
July 2015	EASA publishes introduction of a regulatory framework for the operation of drones (based on principles of Riga Declaration)	“It follows a risk- and performance-based approach; it is progressive- and operation-centric. It introduces three categories of operations as already proposed in the published EASA Concept of Operations for Drones: ‘Open’ category (low risk); [...] ‘Specific operation’ category (medium risk); [...] ‘Certified’ category (higher risk). [...] This regulatory framework will encompass European rules for all drones in all weight classes.”	EU	Advance-Notice of Proposed Amendment, A-NPA 2015-10

<sup>17</sup> International Organization for Standardization

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September 2015	European Parliament publishes report on safe drone use	“...supports the Commission’s intention to remove the 150kg threshold and to replace it with a coherent and comprehensive EU regulatory framework that would allow national competent authorities, qualified bodies or associations to assume validation and oversight activities; considers that the proportionality of the rules should be complemented by the necessary flexibility in processes and procedures.”	EU	Report on the safe use of remotely piloted aircraft systems (RPAS), commonly known as unmanned aerial vehicles (UAVs), in the field of civil aviation, A8-0261/2015
October 2015	Establishment of DroneRules project	“...aims at building a comprehensive and high quality online presence in order to create THE reference web portal in the European Union (EU) (+ Norway and Switzerland) with the purpose of increasing awareness and facilitating understanding of the legal environment and constraints in relation with light RPAS operations (safety, privacy and data protection, insurance, etc.), and with a focus on non-commercial operators (incl. hobbyists).”	EU	UVS International, Background & Activities, 1998-2015 <a href="http://dronerules.eu/">http://dronerules.eu/</a> (accessed on 01-10-2018)
September 2015	General Consultation by the Dutch House of Representatives	The standing committee for Security and Justice, the standing committee for Economic Affairs and the standing committee for Infrastructure and the Environment consulted Minister of Security and Justice and Secretary of State of Infrastructure and Environment on drone issues.	NL	Tweede Kamer der Staten-Generaal, Algemeen Overleg, Kamerstuk 30 806 (No. 31), Onbemande vliegtuigen (UAV)
December 2015	JARUS establishes Stakeholders Consultation Body (SCB)	“...a self-governing association of aviation industry organizations, established to provide expertise and advice. [...] SCB representatives and alternates represent diverse and evolving Communities of Interest and represent all sectors of the aviation industry. The SCB acts as a forum of stakeholder interests to enable their views to be represented and discussed in an open and constructive manner to facilitate the establishment of balanced and consolidated JARUS deliverables.”	Intl.	UVS International, Background & Activities, 1998-2015 <a href="http://jarus-rpas.org/stakeholders-consultation-body">http://jarus-rpas.org/stakeholders-consultation-body</a> (accessed on 01-10-2018)
December 2015	EASA publishes technical Opinion	“...27 concrete proposals for a regulatory framework and for low-risk operations of all unmanned aircraft irrespective of their maximum certified take-off mass...”	EU	EASA Technical Opinion, Introduction of a regulatory framework for the operation of unmanned aircraft
December 2015	European Commission publishes comprehensive strategy for the European aviation sector	“...as part of the European Commission’s Aviation Strategy to Enhance the Competitiveness of the EU Aviation Sector, the European Commission adopted a new Aviation Strategy. This Aviation Strategy proposal consisted of two documents: communication on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and repealing Regulation (EC) No 216/2008 of the European Parliament and of the Council (23 pages); Annexes 1 to 10 (Annex IX addresses ‘Essential Requirements for Unmanned Aircraft’.”	EU	UVS International, Background & Activities, 1998-2015



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<i>Phase 4: Working Towards Harmonization (2016-2018)</i>				
May 2016	Publication of Mini Drone Regulation ( <i>Mini Drone Regeling</i> )	Regulation to reduce the rules for RPAS of no more than 4 kg.	NL	Presentation “Drones, Ontwikkelingen regelgeving in Nederland” by Hanneke van Traa-Engelman
September 2016	EUROCAE creates Working Group 105 on Unmanned Aircraft Systems (UAS) by merging Working Groups 73 & 93	“The task of WG-105 is to develop the necessary standards to allow the safe integration of all types of UAS into all types of airspace under all conditions and for each type of operation...”	EU	EUROCAE Broadcast, Edition 6/2017, Message from the Secretary General
October 2016	SESAR Joint Undertaking publishes drone demonstration project results	“Over ten years ago drones or remotely-piloted aircraft systems (RPAS) were not part of the SESAR Definition Phase as it was impossible to predict at that time the exponential growth of these unmanned aircraft. Over time, however, it became clear that if safe, non-segregated, unmanned operations were ever to become commonplace, it would be essential for the SESAR Joint Undertaking (JU) to adapt its research and innovation to developments in this field. It would also require the partnership to show leadership in the air traffic management (ATM) domain, taking advantage of the comprehensive SESAR membership to ensure a coordinated approach to European drone integration.”	EU	Demonstrating RPAS integration in the European aviation system
November 2016	SESAR Joint Undertaking publishes study on economic potential of EU drone market	“Stimulating economic benefits and job opportunities for Europe will require many urgent actions to address the remaining gaps in technology and regulation. [...] To take a global leadership position, fast implementation of a comprehensive EU ‘drone package’ is required to establish a single drone market.”	EU	European Drones Outlook Study, Unlocking the value for Europe
February 2017	EUROCONTROL publishes RPAS Air Traffic Management concept of operations	“...describes the operations of RPAS in European Airspace that are capable of meeting the requirements set per airspace classification including Very Low Level (VLL) operations. The CONOPS [Concept of Operations] is presented from an air traffic management (ATM) perspective...”	EU	EUROCONTROL, RPAS ATM CONOPS
May 2017	EASA publishes proposed operation of drones in the ‘open’ and ‘specific’ categories	“...the regulation of unmanned aircraft systems (UAS) with a maximum take-off mass (MTOM) of less than 150 kg falls within the competence of the European Union (EU) Member States (MSs). This leads to a fragmented regulatory system hampering the development of a single EU market for UAS and cross-border UAS operations. A new proposed Basic Regulation [...] aims to solve this issue, by extending the competence of the EU to regulate all UAS regardless of their MTOM. In view of the adoption of this new Regulation, the objective of this Notice of Proposed Amendment (NPA) 2017-05 is: to ensure	EU	Notice of Proposed Amendment, NPA 2017-05 (A) & (B)

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		an operation-centric, proportionate, risk- and performance-based regulatory framework for all UAS operations conducted in the open and specific category; to ensure a high and uniform level of safety for UAS; to foster the development of the UAS market; and to contribute to enhancing privacy, data protection, and security.”		
June 2017	Establishment EUSCG <sup>18</sup>	“The EUSCG is a joint coordination and advisory group established to coordinate the UAS-related standardisation activities across Europe, essentially stemming from the EU regulations and EASA rulemaking initiatives. The EUSCG provides a link to bridge the European activities to those at international level.”	EU	<a href="https://www.eurocae.net/about-us/euscg/">https://www.eurocae.net/about-us/euscg/</a> (accessed 27-09-2018)
October 2017	ICAO publishes preliminary version RPAS concept of operations	“This concept of operations (CONOPS) aims to describe the operational environment of manned and unmanned aircraft thereby ensuring a common understanding of the challenges and how the subset that are remotely piloted can be expected to be accommodated and ultimately integrated into the airspace for international instrument flight rules (IFR) operations.”	Intl.	Remotely Piloted Aircraft System (RPAS) Concept of Operations (CONOPS) for International IFR Operations
November 2017	Helsinki Declaration	“...called for clear and simple rules that keep the burden for citizens, operators and authorities as light as possible, and that lower the threshold for entering the EU drone services...”	EU	Drones Helsinki Declaration
January 2018	ACI <sup>19</sup> Europe publishes position paper	“Letting drones into European airports is a complex but feasible endeavour. Necessary adaptations would include ATC [Air Traffic Control] technology & procedures, airport infrastructure & technology and procedures, as well as operator technical & operational profiles.”	EU	ACI Europe Position on Drone Technology
February 2018	EASA publishes first formal Opinion on safe operations for small drones in Europe (Outcome of A-NPA 2015-10)	“The objective of this Opinion is to create a new regulatory framework that defines measures to mitigate the risk of operations in the ‘open’ category [...] and ‘specific’ category. [...] The proposed regulations will provide flexibility to Member States (MSs), mainly by allowing them to create zones within their territories where the use of UAS would be prohibited, limited or, in contrast, facilitated.”	EU	EASA, Opinion No. 01/2018, Introduction of a Regulatory Framework for the Operation of UAS in the “Open” & “Specific” Categories
February 2018	SESAR Joint Undertaking publishes roadmap for drone integration into airspace	“This proposed contribution to the update of the European ATM [Air Traffic Management] Master Plan is an important milestone on that path. It provides a bold vision for the safe integration of drones into all classes of airspace and an ambitious rollout plan, ensuring that the energy of our community is channelled towards clear priorities.”	EU	SESAR Joint Undertaking, European ATM Master Plan: Roadmap for the Safe Integration of Drones into all Classes of Airspace

<sup>18</sup> European UAS Standards Coordination Group

<sup>19</sup> Airports Council International

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**Timeline of Events in RPAS Industry (Dutch, EU and International Relevance)**

March 2018	Hearing/roundtable discussion by Dutch House of Representatives	Organized by the standing committee for Infrastructure and Water Management to get information on the opportunities and problems of the use of drones by professionals and others.	NL	<a href="https://www.tweedekamer.nl/debat_en_vergadering/commissievergaderingen/details?id=2018A00461">https://www.tweedekamer.nl/debat_en_vergadering/commissievergaderingen/details?id=2018A00461</a> (accessed 26-09-2018)
May 2018	International Transport Forum of the OECD <sup>20</sup> publishes report on drones in transportation	“This report investigates the role of drones as part of the future transport mix. It specifically addresses the issues policy makers face in engaging with the emerging private drone sector. [...] With the sector developing at a rapid pace, regulators will want to create frameworks for drone use that allow innovation while ensuring positive overall outcomes.”	Intl.	(Un)certain Skies? Drones in the World of Tomorrow
June 2018	EU adopts new Basic Regulation for aviation	“...adopted updated aviation safety rules, which include a revised mandate for the European Aviation Safety Agency (EASA) and the first ever EU-wide rules for civil drones of all sizes.”	EU	<a href="https://www.uasvision.com/2018/07/03/europe-adopts-new-basic-regulation-for-aviation/">https://www.uasvision.com/2018/07/03/europe-adopts-new-basic-regulation-for-aviation/</a> (accessed 26-09-2018), (EU) 2018/1139

PLEASE NOTE: Although the European Parliament and European Council voted to adopt EU-wide regulation for RPAS in June 2018, the publication of those rules in the Official Journal of the European Union, in which all regulatory binding details are outlined, only occurred in June 2019 (see Regulation (EU) 2019/947 and Regulation (EU) 2019/945).

<sup>20</sup> Organisation for Economic Co-operation and Development