

RiskIntegrity™ Standard Formula Roadmap 2019



RiskIntegrity: Roadmap 2019 Pillar 1 and Pillar 3

This presentation provides information on future updates to the product. It includes a retrospective on enhancements, estimated timeline and completed fixes to date.

Published: Feb.15, 2019

START

DISCLAIMER

Information regarding products, features, specifications and functionality in Moody's Analytics product roadmaps is intended to outline Moody's Analytics general product direction but is not guaranteed. Future products will be sold only when and if available. Moody's Analytics reserves its right to change the development, release, and timing of features and functionality discussed in its product roadmap at any time. This document is confidential and remains Moody's Analytics UK Limited and/or its licensors and affiliates exclusive property. This document is © 2019, Moody's Analytics UK Limited and/or its licensors and affiliates. All rights reserved

I AGREE

2019 ROADMAP

General Information

The corrective maintenance for EIOPA Supervisory Reports Configuration Files is being delivered on a monthly basis until end of March 2019 and will be delivered on ad hoc basis after March 2019. During the submission period, a FAQ document will be frequently published through Client Portal to inform on known issues and their related resolution.

RiskIntegrity version 6.2.X will be a minor version incorporating the regulatory updates related to Standard Formula Revision

RiskIntegrity version 7.X will be the reference version for all submissions requiring taxonomy 2.4.0 with potential EIOPA hotfix

Additionally, starting from version 6.2.X, RiskIntegrity will also become available on the Cloud

If any change to the roadmap needs to be reported (e.g. EIOPA planned 2020 SII reporting improvement), an updated version of the roadmap will be issued, otherwise this version of the roadmap will serve as reference throughout the year.



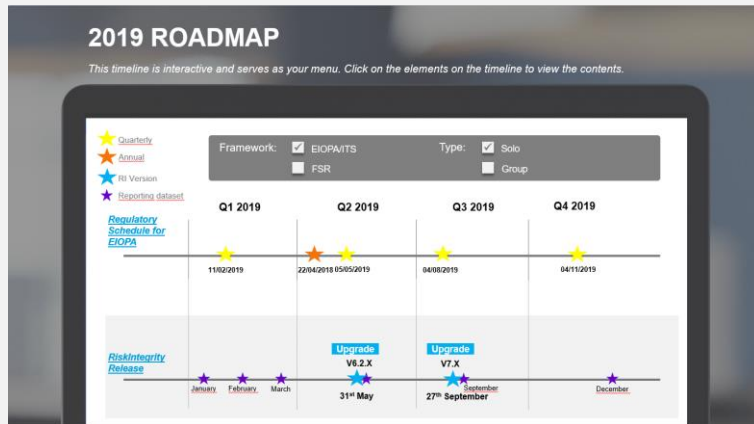
2019 ROADMAP

Since 2018, we have adapted the format of our roadmap document! Take a minute to understand how you can use it to get the information you are looking for.

How to read this document

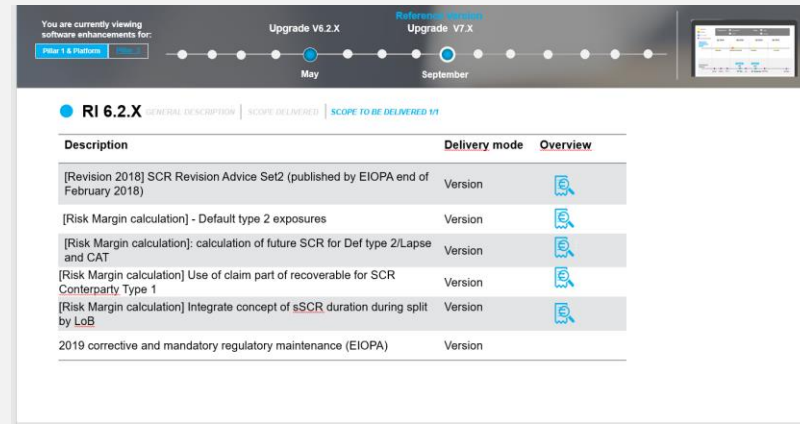
The Regulatory Timeline

This timeline is interactive and serves as your menu. Select a framework and type to view information on your submissions, and on elements to view our software enhancements.







RiskIntegrity Release

Once you click on a milestone on the RI release timeline, you will see the delivery details per period. Toggle between the periods, pillars, and delivered/to be delivered for a comprehensive list.



2019 ROADMAP

This timeline is interactive and serves as your menu. Click on the elements on the timeline to view the contents.

-  Quarterly
-  Annual
-  RI Version
-  Reporting dataset

Framework: EIOPA/ITS

FSR

Type: Solo

Group

Q1 2019

Q2 2019

Q3 2019

Q4 2019

Regulatory
Schedule for
EIOPA


11/02/2019



 
22/04/2019 05/05/2019




04/08/2019


04/11/2019

RiskIntegrity
Release

 January
 February
 March

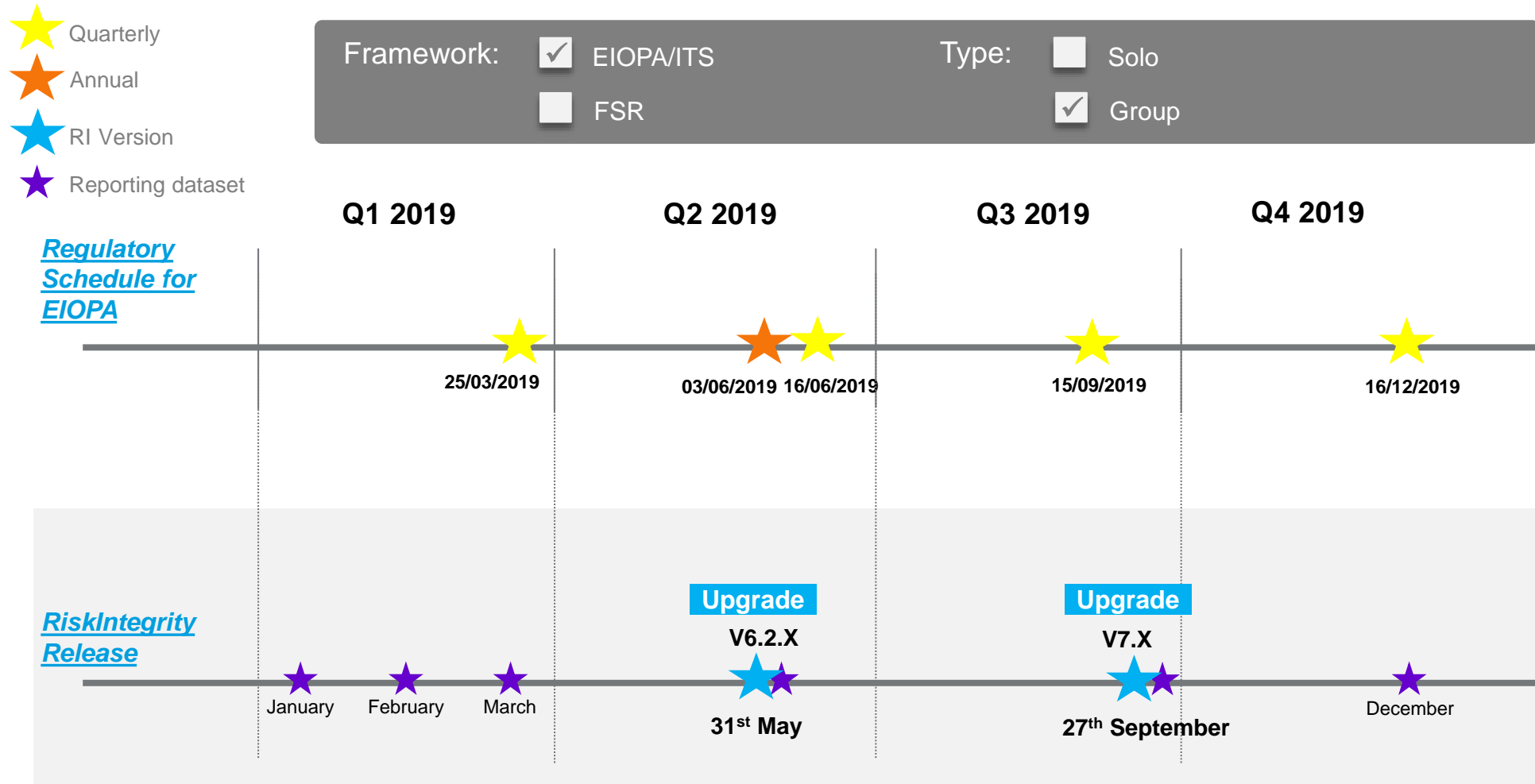
Upgrade
V6.2.X
 
31st May

Upgrade
V7.X
 
27th September

 December

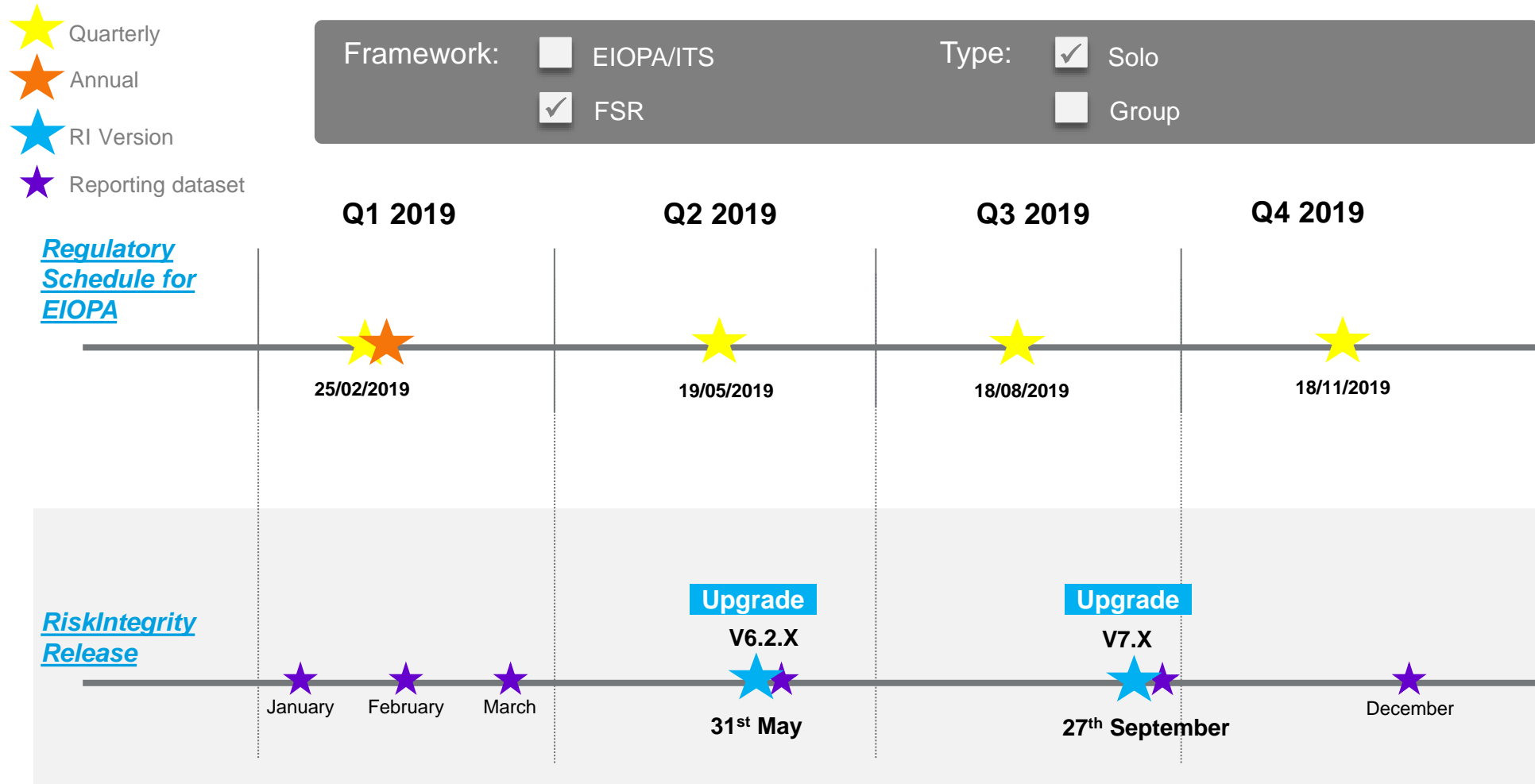
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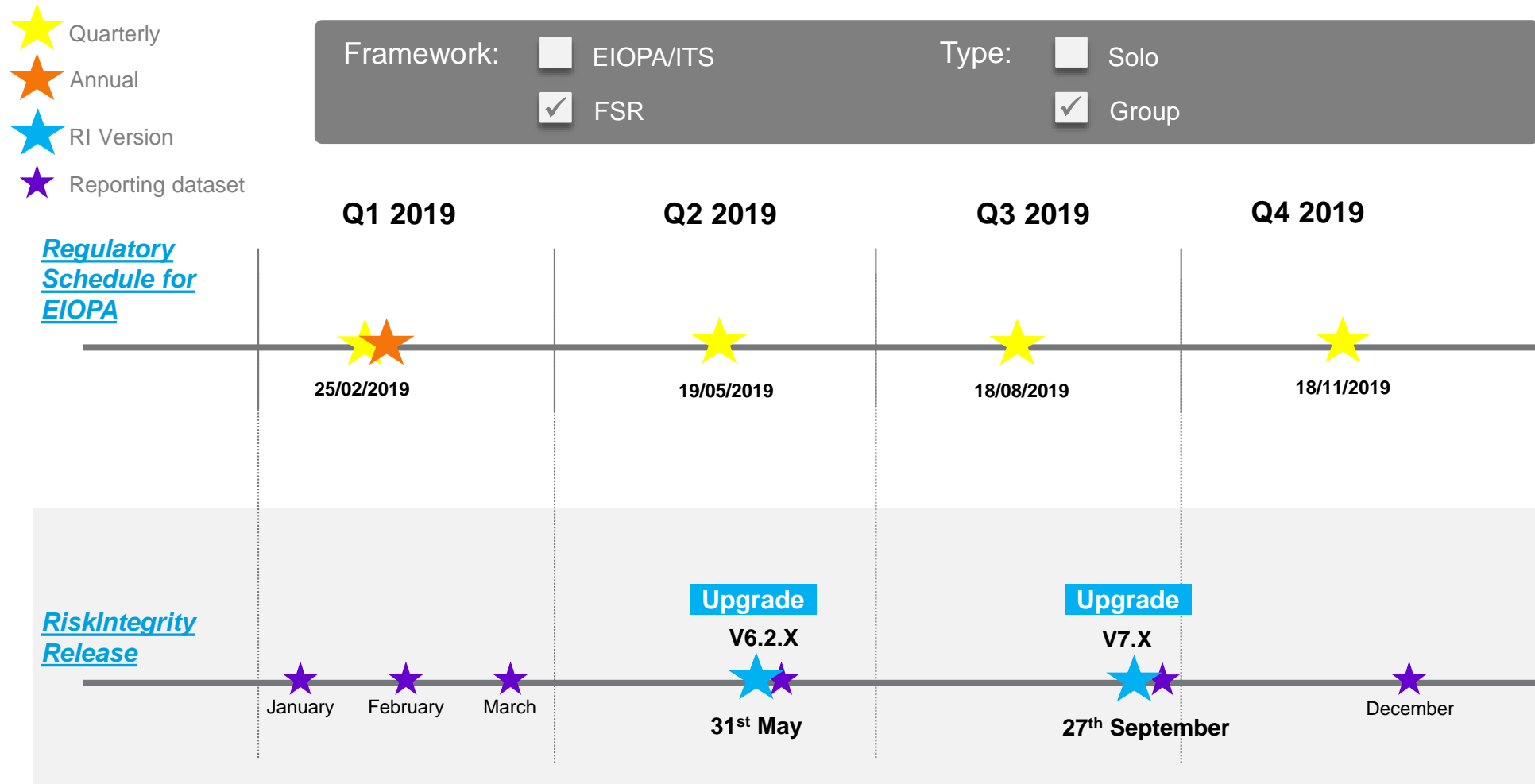
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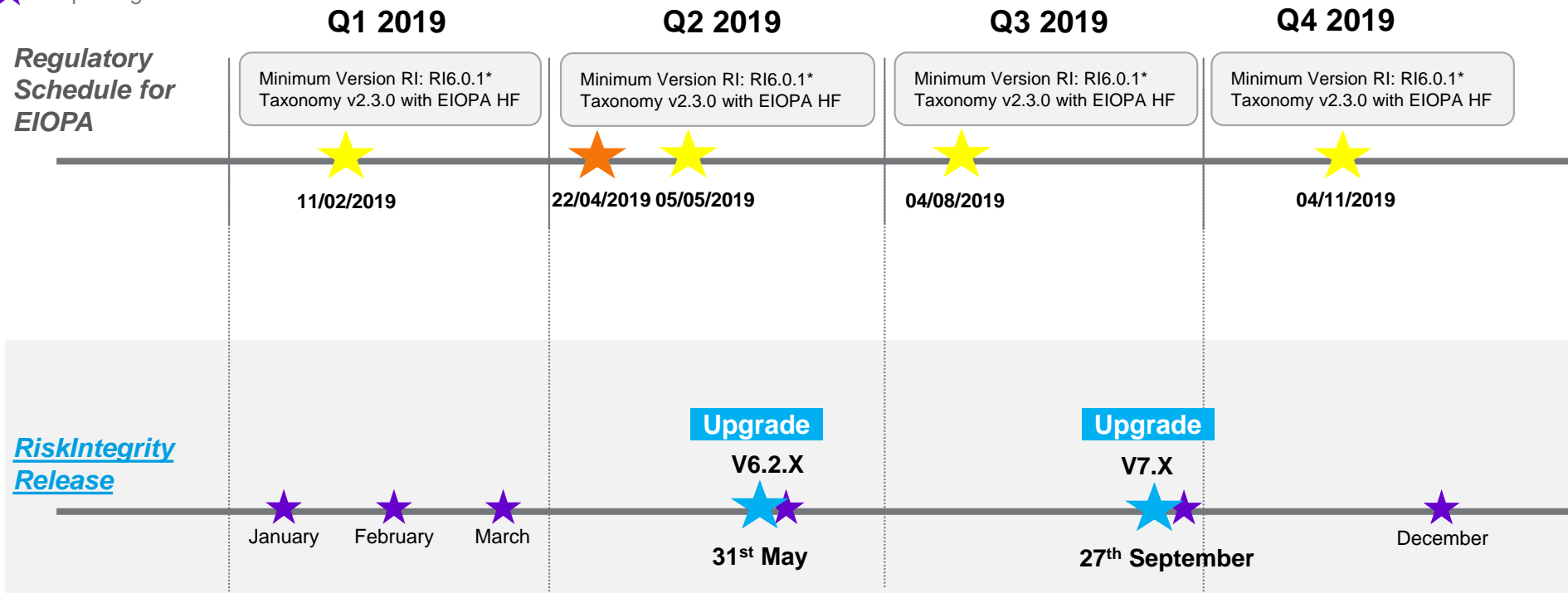
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-  Quarterly
-  Annual
-  RI Version
-  Reporting dataset

Framework: EIOPA/ITS FSR

Type: Solo Group







* With required Hotfixes



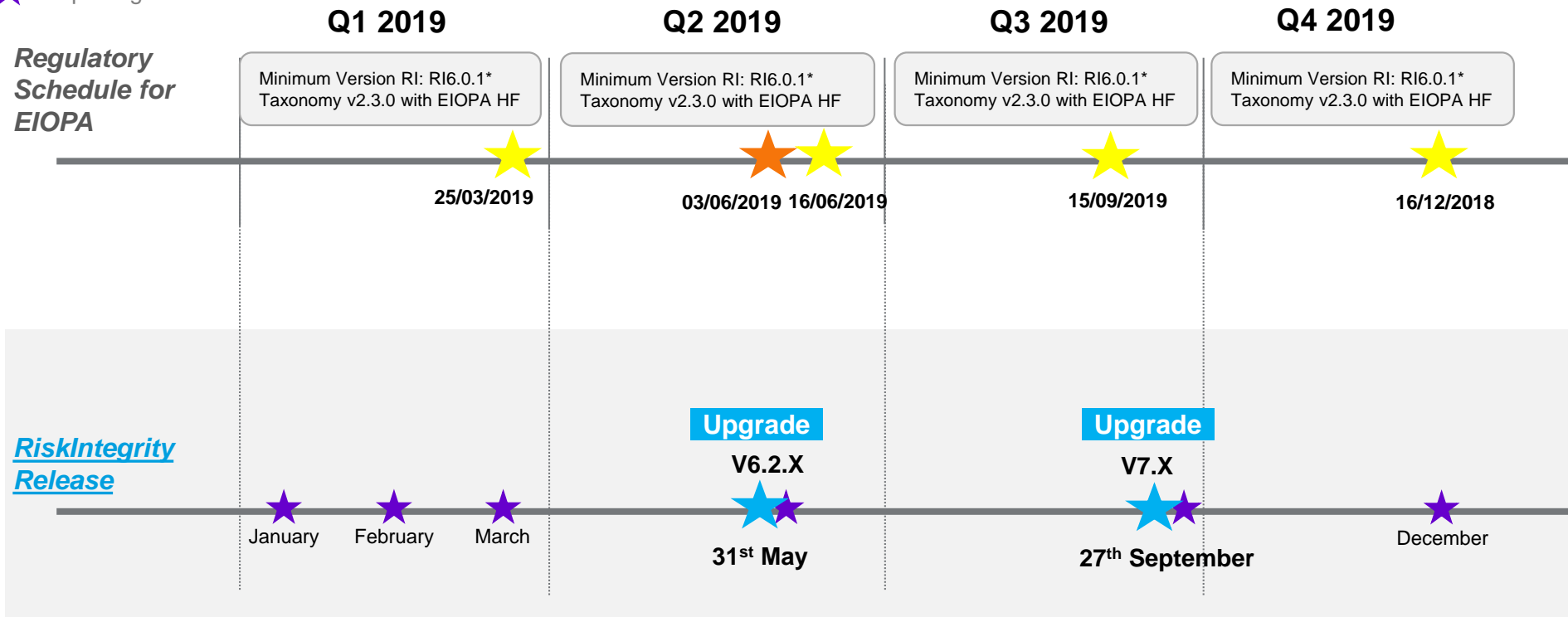
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-  Quarterly
-  Annual
-  RI Version
-  Reporting dataset

Framework: EIOPA/ITS FSR

Type: Solo Group







* With required Hotfixes



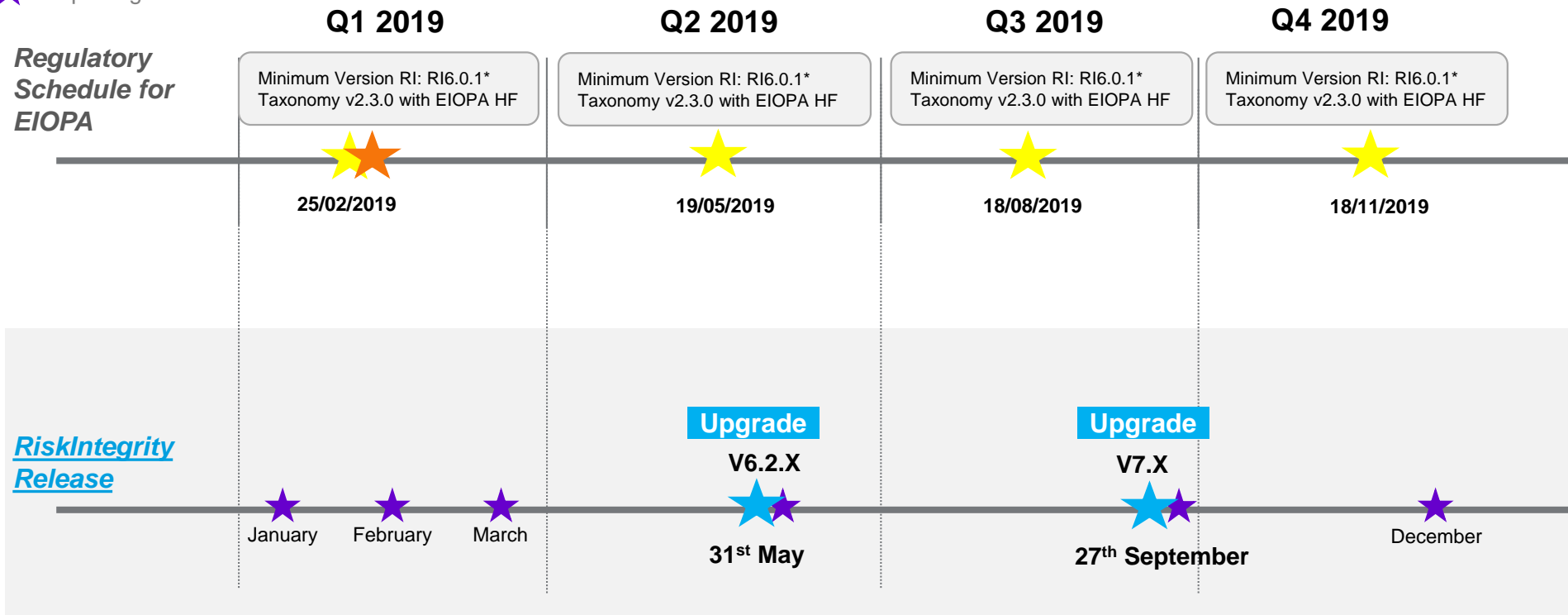
2019 ROADMAP

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-  Quarterly
-  Annual
-  RI Version
-  Reporting dataset

Framework: EIOPA/ITS FSR

Type: Solo Group







* With required Hotfixes



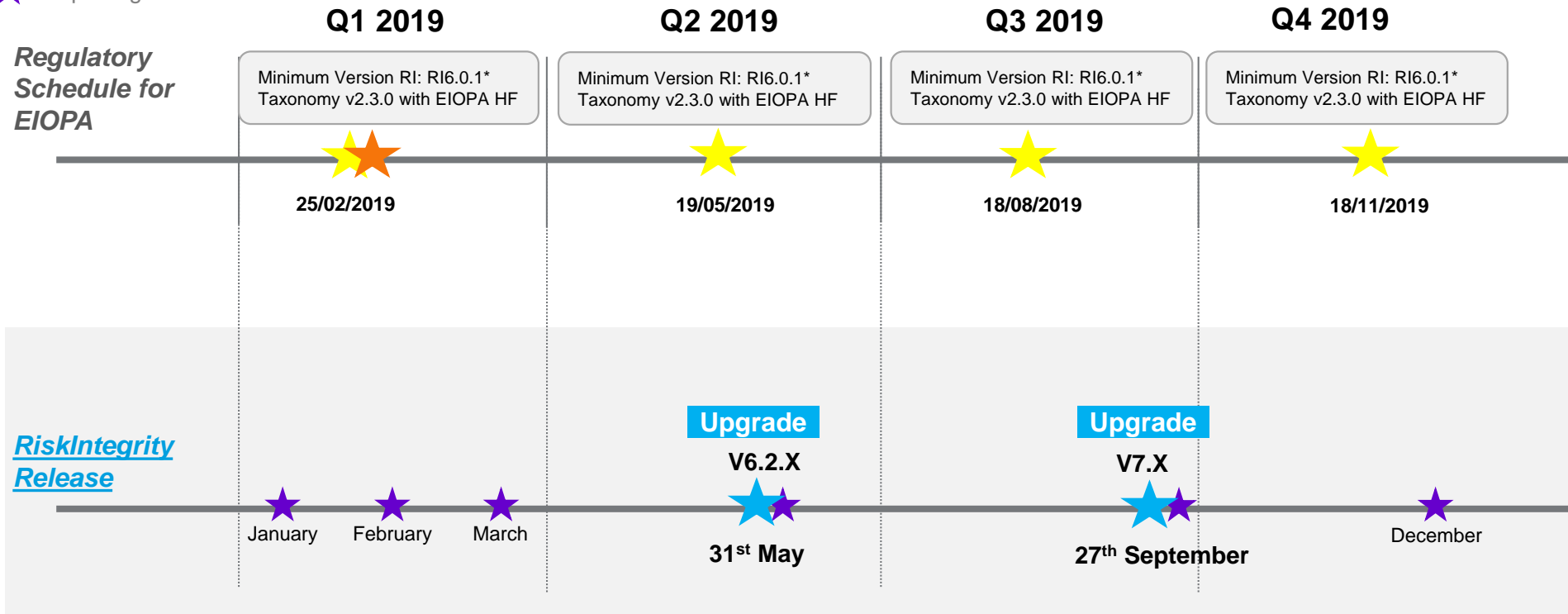
2019 ROADMAP

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-  Quarterly
-  Annual
-  RI Version
-  Reporting dataset

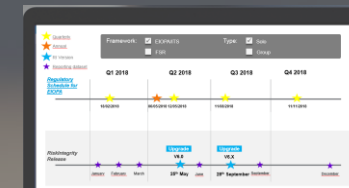
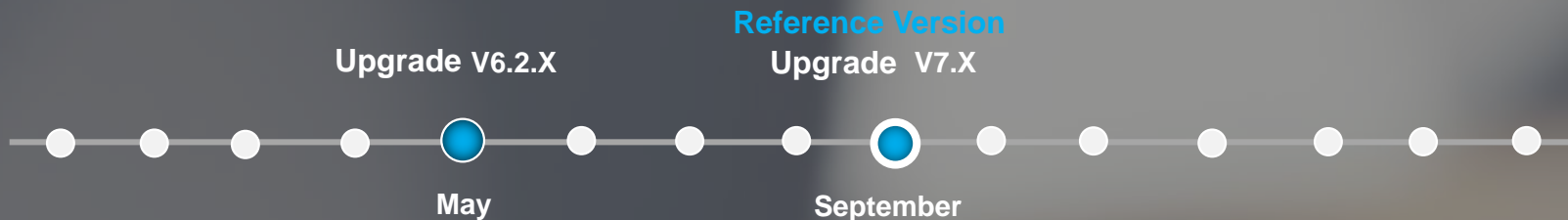
Framework: EIOPA/ITS FSR

Type: Solo Group



* With required Hotfixes





● **RI 6.2.X** *GENERAL DESCRIPTION* | *SCOPE DELIVERED* | *SCOPE TO BE DELIVERED*



RI.6.2.X This version will be used to deliver ahead of Reference Version 7.X and contain mainly SCR Revisions and enhancements for early testing purpose



XBRL Assertion. A new functionality 'XBRL Assertion' on Regulatory Reporting Engine will be incorporated



Pre-requisite. The compatible version of different technical component for RiskFoundation: *(refer to [RFO Matrix Compatibility](#) for more details)*

- Oracle server: ORA 12.1.0.2 or 12.2.0.1
- Java: Oracle JRE 1.8 or Open JDK 8 *(more detail provided in [appendix](#) for Oracle Change on Java component)*
- Windows: Windows 2016 ,windows 10

You are currently viewing software enhancements for:

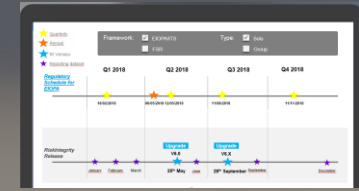
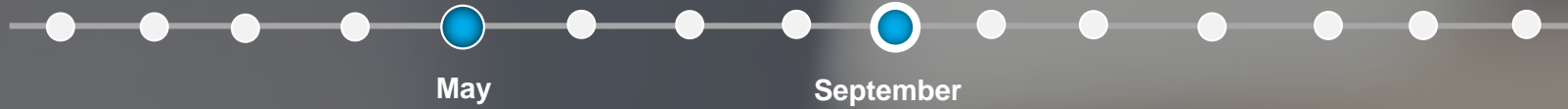
Pillar 1 & Platform

Pillar 3

Upgrade V6.2.X

Reference Version

Upgrade V7.X



RI 6.2.X *GENERAL DESCRIPTION* | *SCOPE DELIVERED* | *SCOPE TO BE DELIVERED*

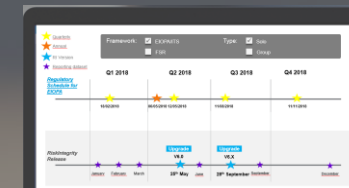
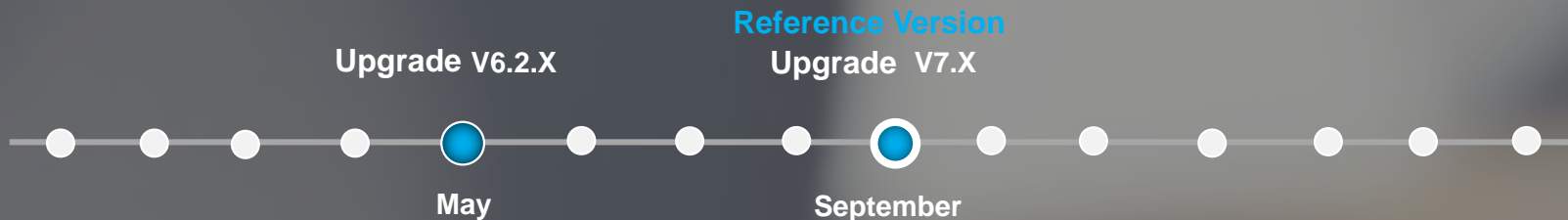
Description	Delivery mode	Overview
[RM Calculation] Default type 2 exposures included to RM Calculation	Version	
[RM Calculation] Enable the selection of a relevant metric for calculation of future SCR	Version	
[RM Calculation] New metric "Recoverable claim" for calculation of future SCR	Version	
[Revision 2018] Standard Formula Revision *	Version	
[SCR Spread] Use of the imported modified duration	Version	
[RM Calculation] Enhancement of the Split by LOB for RM*	Version	
2019 corrective and mandatory regulatory maintenance (EIOPA)	Version	

- *These features could be included in RI 6.2.X only if European commission adopt the draft version before March.2019 and there is no capacity issue . Otherwise, they will be included in the next version RI7,X.*

You are currently viewing software enhancements for:

Pillar 1 & Platform

Pillar 3



[RM Calculation] Default type 2 exposures included to RM Calculation

Regulatory Reference

- Art 37 of Delegated Act

Overview

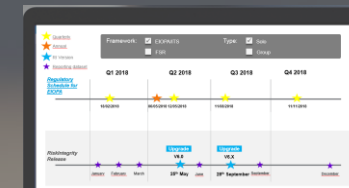
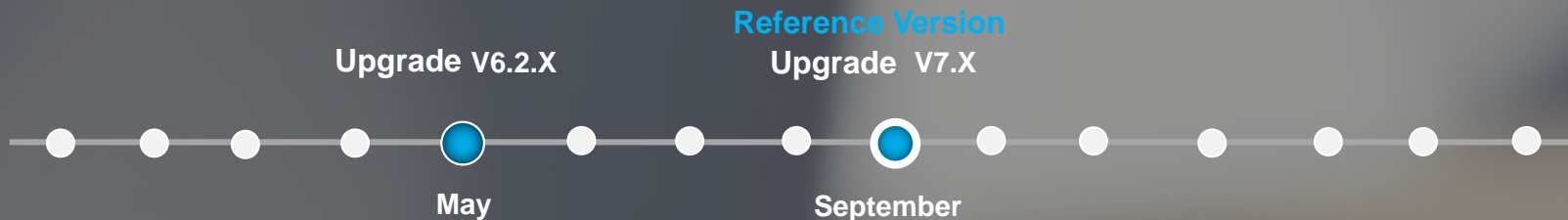
This feature allows to enable the selection of relevant contracts mapped to 'default type 2' exposure risk for the Risk Margin calculation



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[RM Calculation] Enable the selection of a relevant metric for calculation of future SCR

Regulatory Reference

- Art 58 of Delegated Act

Overview

For the RM calculation purpose, it needs to project the future SCR at module or at sub-module level. The software will enable to select the relevant metric that will be used for this projection:

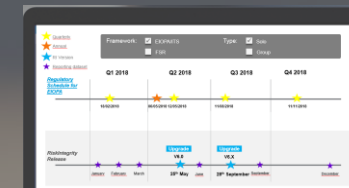
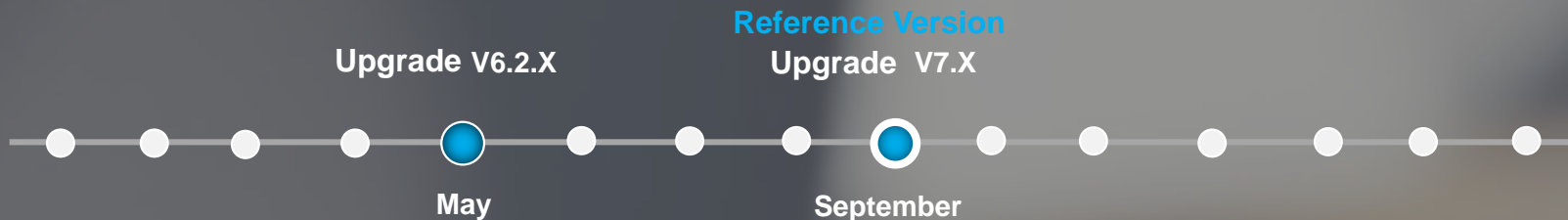
- BEL net
- BEL gross
- Premium
- Recoverable



You are currently viewing software enhancements for:

Pillar 1 & Platform

Pillar 3



[RM Calculation] New metric “Recoverable claim” for calculation of future SCR

Regulatory Reference

- Art 58 of Delegated Act

Overview

For the RM calculation purpose, the projection of future SCR could be at module or at sub-module level. A new metric will be added for the projection of SCR (eg: Counterparty Type 1):

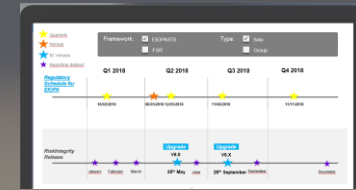
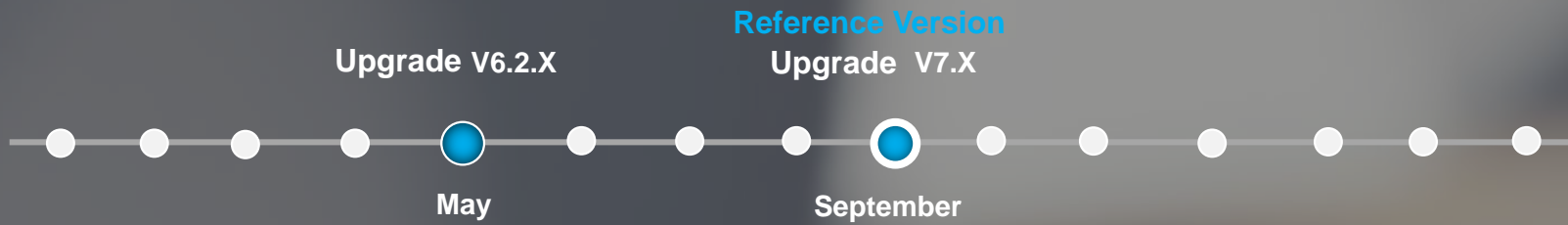
- Recoverable claim.



You are currently viewing software enhancements for:

Pillar 1 & Platform

Pillar 3



[Revision 2018] Standard Formula Revision * (Published by EC December 2018)

Regulatory Reference

- Draft delegated regulation - Ares(2018)5720906*

Overview

The European commission published a draft act of the delegated regulation. The related regulatory updates having an impact on RI will be incorporated. An overview of the relevant regulatory updates is provided in the [Appendix – 2](#)

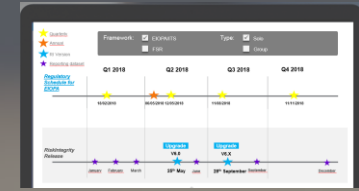
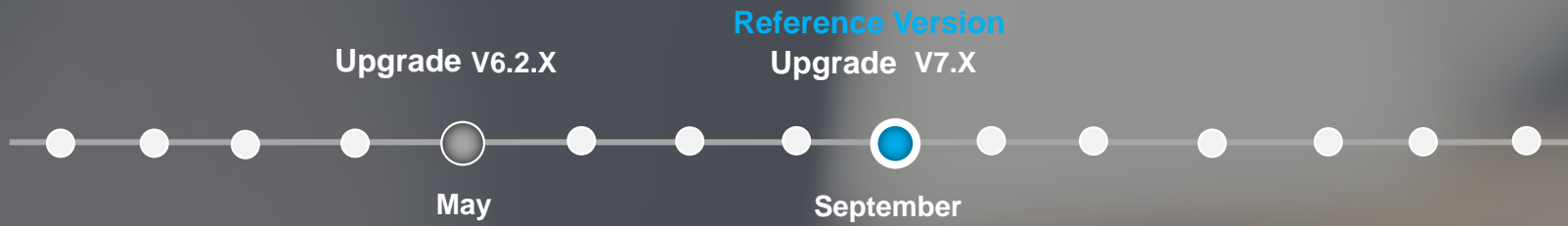
* The European Commission hasn't yet adopted the draft delegated regulation. The scope of this feature will be reviewed if the publication of final version by EC happen on March.2019. The remaining part will be integrated in the version RI7,X



You are currently viewing software enhancements for:

Pillar 1 & Platform

Pillar 3



[SCR Spread] Use of the imported modified duration*

Regulatory Reference

- Art 175 of Delegated Act

Overview

For spread risk, the software will use the imported duration (if any) instead of the computed duration

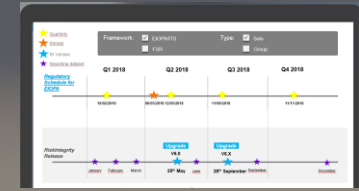
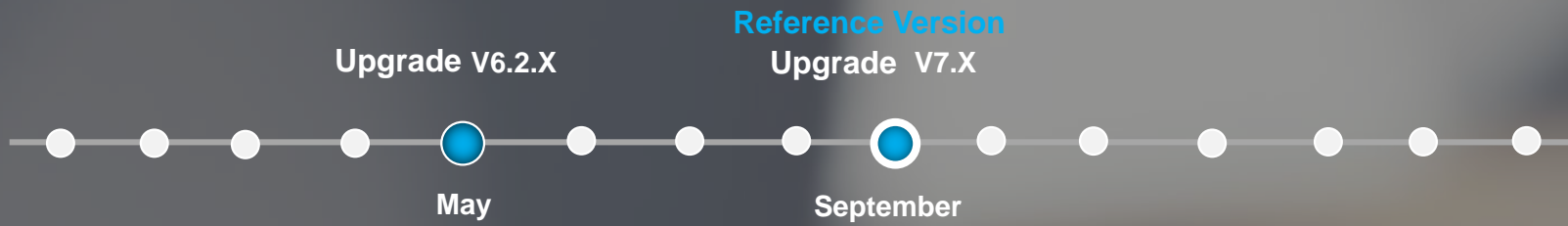
- *These features could be included in RI 6.2.X only if there is no capacity issue . Otherwise, they will be included in the next version RI7,X.*



You are currently viewing software enhancements for:

Pillar 1 & Platform

Pillar 3



[RM Calculation] Enhancement of the Split by Lob for RM*

Regulatory Reference

- Art 37 of Delegated Act

Overview

This feature aims at improving the calculation of RM by consideration the duration of line of business when splitting the RM by LOB.

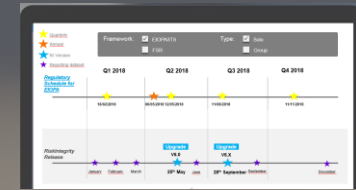
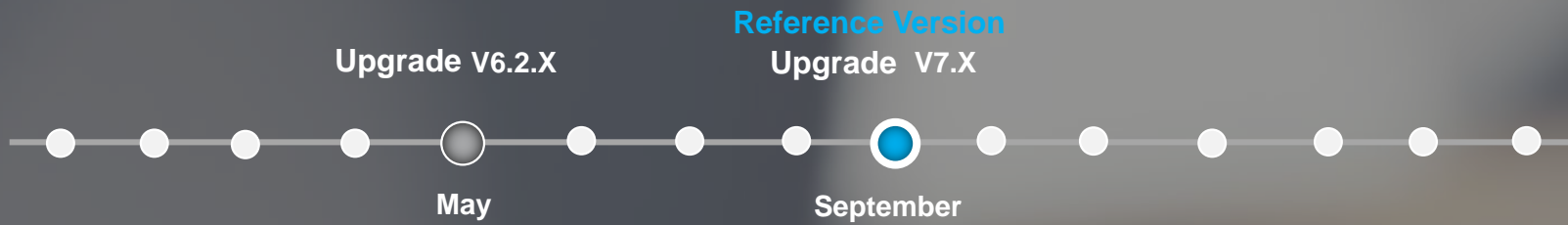
- *These features could be included in RI 6.2.X only if there is no capacity issue . Otherwise, they will be included in the next version RI7,X.*



You are currently viewing software enhancements for:

Pillar 1 & Platform

Pillar 3



RI 7.X

GENERAL DESCRIPTION

SCOPE DELIVERED

SCOPE TO BE DELIVERED 1/1



RI 7.X. version will be the reference version for the EIOPA submission with the EIOPA Taxonomy 2.4.0



RI 7.X. The remaining updates related to Standard Formula Revisions will be included



Pre-requisite. The information about compatibility of technical components for Risk Foundation will be communicated in the coming month

You are currently viewing software enhancements for:

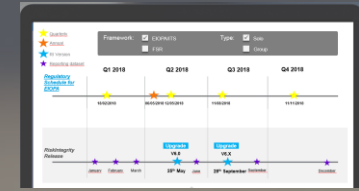
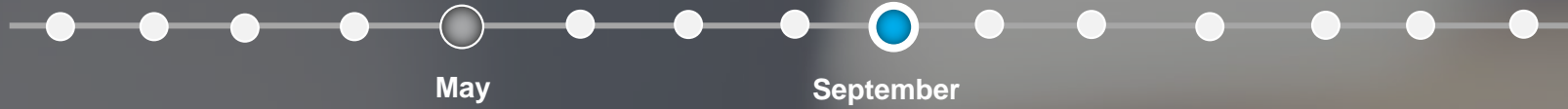
Pillar 1 & Platform

Pillar 3

Upgrade V6.2.X

Reference Version

Upgrade V7.X



● RI 7.X

GENERAL DESCRIPTION

SCOPE DELIVERED

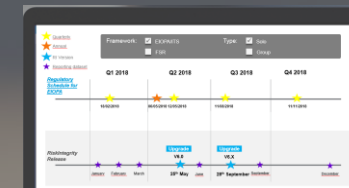
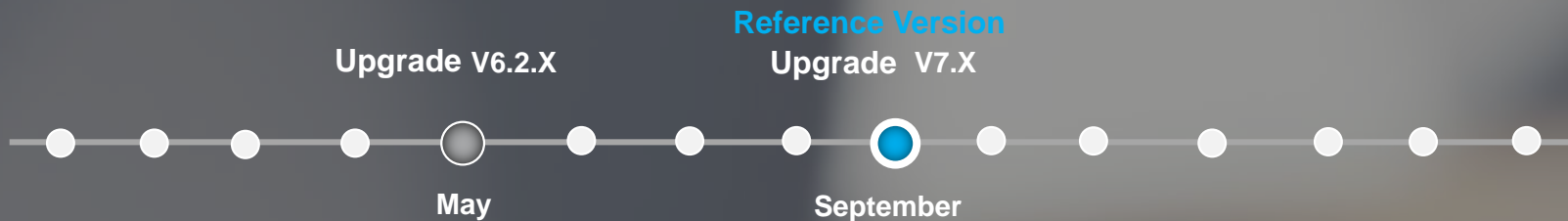
SCOPE TO BE DELIVERED 1/1

Description	Delivery mode	Overview
[Revision 2018] Standard Formula Revision - Remaining	Version	
[Counterparty Def Type 1] Collateral effect on risk mitigation included for LGD Calculation	Version	
New taxonomy XBRL 2.4.0	Version	
2019 corrective and mandatory regulatory maintenance (EIOPA)	Version	

You are currently viewing software enhancements for:

Pillar 1 & Platform

Pillar 3



[Revision 2018] Standard Formula Revision - Remaining

Regulatory Reference

- Draft delegated regulation - Ares(2018)5720906* (to be reviewed)

Overview

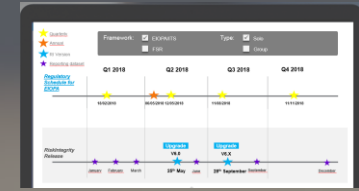
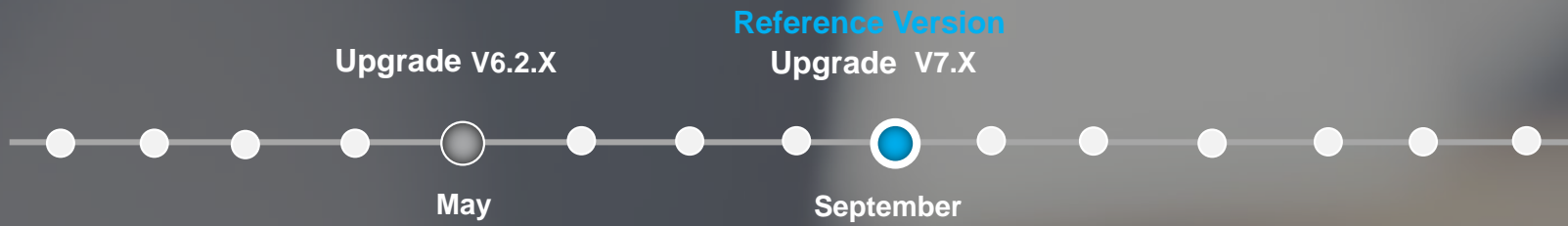
The remaining regulatory updates having an impact on RI will be incorporated.



You are currently viewing software enhancements for:

Pillar 1 & Platform

Pillar 3



[Counterparty Def Type 1] Collateral effect on risk mitigation included for LGD Calculation

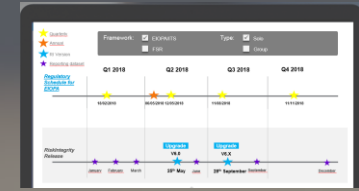
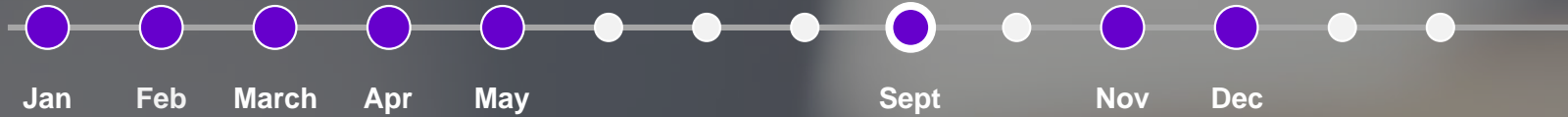
Regulatory Reference

- Art 192 of Delegated Act

Overview

For reinsurance LGD, it will allow to take into account the collateral effect on risk mitigation





Delivery Plan – Regulatory Reporting DELIVERED | TO BE DELIVERED

Content	Delivery Date	Min. Version
[EIOPA] Regulatory Update – HF2.3.0 (Annual)	Jan.2019	RI.6.0.1
[EIOPA] Regulatory Maintenance	Jan.2019	RI.6.0.1
[NST-CBI] Regulatory Update-New Taxonomy 1.3.0 (Annual)	Feb.2019	RI.6.0.1
[EIOPA][NST] Regulatory Maintenance	Feb.2019	RI.6.0.1
[EIOPA][NST] Regulatory Maintenance *	March.2019	RI.6.0.1
[NST-PRA_AIM] New Reports IM (3 reports)	Apr.2019	RI.6.0.1
[EIOPA][NST] Regulatory Maintenance	May.2019	RI.6.0.1
[EIOPA][NST] Regulatory Maintenance	Sept.2019	RI.6.0.1
[EIOPA] Regulatory Update – New taxonomy version 2.4.0	Sept.2019	RI.7.X
[NST-RAN] Regulatory Update – New taxonomy version 1.3.0*	Nov.2019	RI.7.X
[NST-CBI] Regulatory Update – New taxonomy version 1.4.0*	Dec.2019	RI.7.X
[EIOPA][NST] Regulatory Maintenance (Potential HF2.4.0) *	Dec.2019	RI.7.X



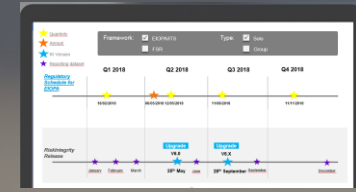
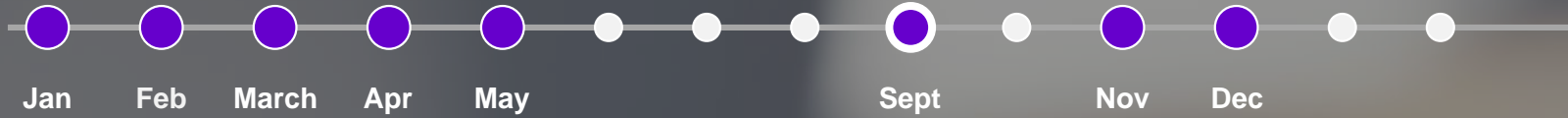
Compatibility Matrix_ RI&CF

* The delivery of the regulatory maintenance or regulatory update remain dependent on customer requirements. or regulation update from supervisor

You are currently viewing software enhancements for:

Pillar 1 & Platform

Pillar 3



Delivery Plan – Jan.2019

DELIVERED

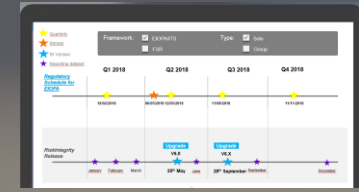
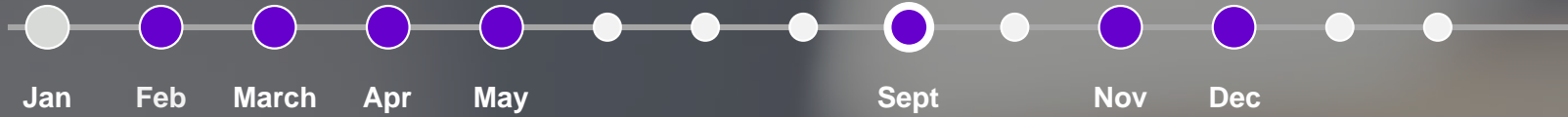
TO BE DELIVERED

Content	Delivery Date	Min. Version
[EIOPA] Regulatory Update – HF2.3.0 (Annual)	Jan.2019	RI.6.0.1
[EIOPA] Regulatory Maintenance	Jan.2019	RI.6.0.1

You are currently viewing software enhancements for:

Pillar 1 & Platform

Pillar 3



Delivery Plan – Feb.2019

DELIVERED

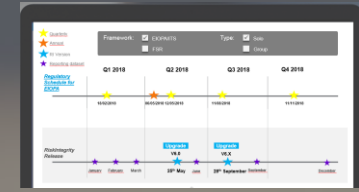
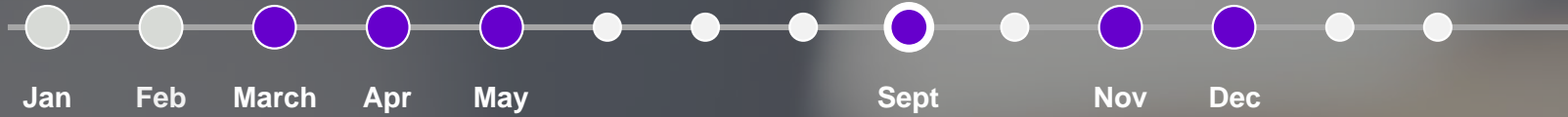
TO BE DELIVERED

Content	Delivery Date	Min. Version
[EIOPA][NST] Regulatory Maintenance	Feb.2019	RI.6.0.1
[NST-CBI] Regulatory Update-New Taxonomy 1.3.0 (Annual)	Feb.2019	RI.6.0.1

You are currently viewing software enhancements for:

Pillar 1 & Platform

Pillar 3



Delivery Plan – March 2019

DELIVERED

TO BE DELIVERED

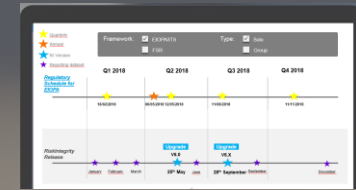
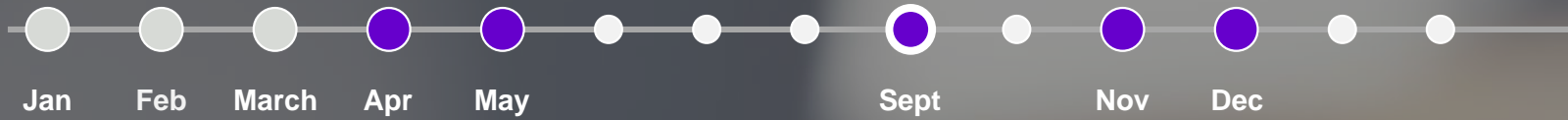
Content	Delivery Date	Min. Version
[EIOPA][NST] Regulatory Maintenance *	March.2019	RI.6.0.1

* The delivery of this regulatory maintenance remains dependent on the severity of the issues raised and customer requirements as it will be close to submission period

You are currently viewing software enhancements for:

Pillar 1 & Platform

Pillar 3



Delivery Plan – Apr.2019

DELIVERED

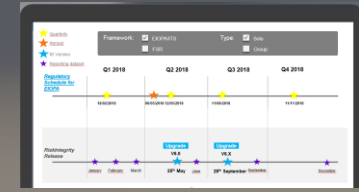
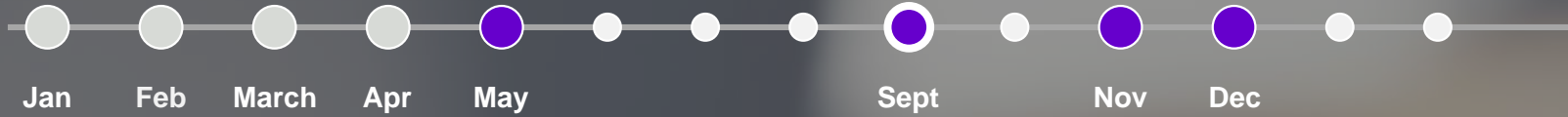
TO BE DELIVERED

Content	Delivery Date	Min. Version
[NST-PRA_AIM] New Reports IM (3 reports)	Apr.2019	RI.6.0.1

You are currently viewing software enhancements for:

Pillar 1 & Platform

Pillar 3



Delivery Plan – May 2019

DELIVERED

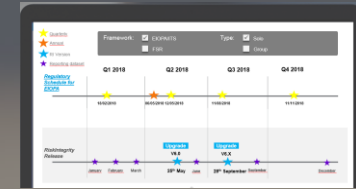
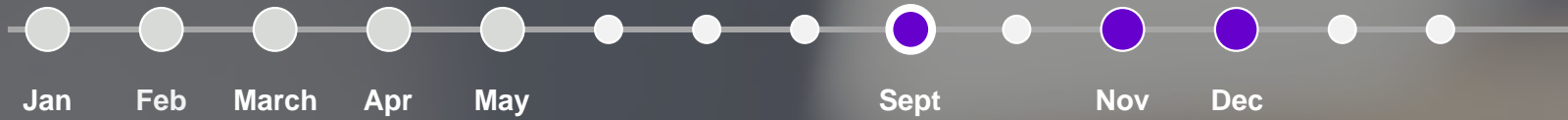
TO BE DELIVERED

Content	Delivery Date	Min. Version
[EIOPA][NST] Regulatory Maintenance	May.2019	RI.6.0.1

You are currently viewing software enhancements for:

Pillar 1 & Platform

Pillar 3



Delivery Plan – Sept.2019

DELIVERED

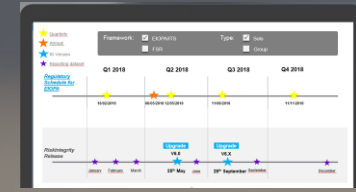
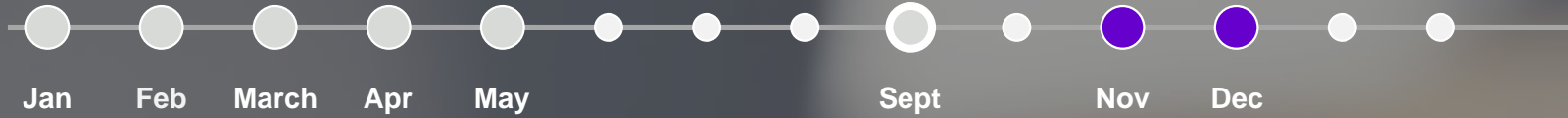
TO BE DELIVERED

Content	Delivery Date	Min. Version
[EIOPA][NST] Regulatory Maintenance	Sept.2019	RI.6.0.1
[EIOPA] Regulatory Update – New taxonomy version 2.4.0	Sept.2019	RI.7.X

You are currently viewing software enhancements for:

Pillar 1 & Platform

Pillar 3



Delivery Plan – Nov.2019

DELIVERED

TO BE DELIVERED

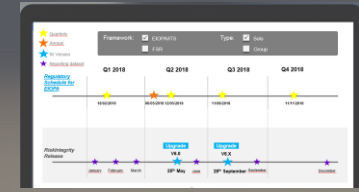
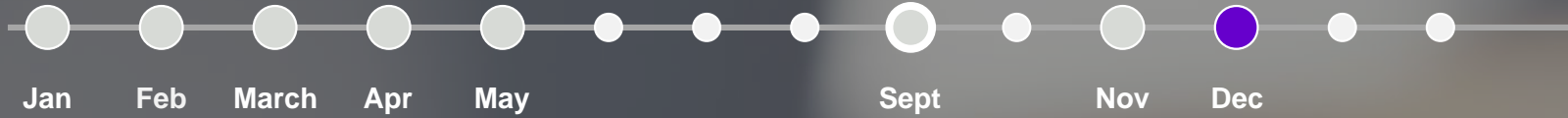
Content	Delivery Date	Min. Version
[NST-RAN] Regulatory Update – New taxonomy version 1.3.0*	Nov.2019*	RI.7.X

* The regulatory update delivery remains dependent on the publication of regulation update from supervisor

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Delivery Plan – Dec.2019

DELIVERED

TO BE DELIVERED

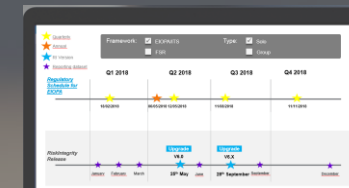
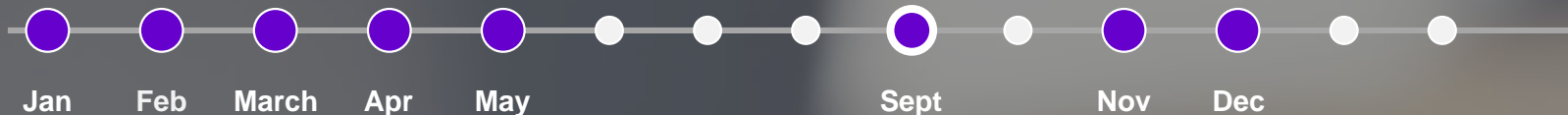
Content	Delivery Date	Min. Version
[NST-CBI] Regulatory Update – New taxonomy version 1.4.0*	Dec.2019	RI.7.X
[EIOPA] Regulatory Maintenance (Potential HF2.4.0) *	Dec.2019	RI.7.X

* The regulatory update delivery remains dependent on the publication of regulation update from supervisor

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Compatibility Matrix - EIOPA/ECB (1/3)

Submission Name	Framework	Solo/Group	Acronym	Submission date	Taxonomy	6.0.1	6.2.X	7.X
Quarterly 2018	EIOPA/ECB	Solo	Q4-2018 - EIOPA/ECB – Solo	11/02/2019	2.3.0HF	X	X	X
Quarterly 2018	EIOPA	Group	Q4-2018 - EIOPA - Group	25/03/2019	2.3.0HF	X	X	X
Quarterly 2019	EIOPA/ECB	Solo	Q1-2019 - EIOPA/ECB – Solo	05/05/2019	2.3.0HF	X	X	X
Quarterly 2019	EIOPA/ECB	Solo	Q2-2019 - EIOPA/ECB – Solo	04/08/2019	2.3.0HF	X	X	X
Quarterly 2019	EIOPA/ECB	Solo	Q3-2019 - EIOPA/ECB – Solo	04/11/2019	2.3.0HF	X	X	X
Quarterly 2019	EIOPA/ECB	Solo	Q4-2019 - EIOPA/ECB – Solo	04/02/2020	2.4.0(TBC)	NC	NC	X
Quarterly 2019	EIOPA	Group	Q1-2019 - EIOPA - Group	16/06/2019	2.3.0HF	X	X	X
Quarterly 2019	EIOPA	Group	Q2-2019 - EIOPA - Group	15/09/2019	2.3.0HF	X	X	X
Quarterly 2019	EIOPA	Group	Q3-2019 - EIOPA - Group	16/12/2019	2.3.0HF	X	X	X
Quarterly 2019	EIOPA	Group	Q4-2019 - EIOPA - Group	17/03/2020	2.4.0(TBC)	NC	NC	X
Annual 2018	EIOPA/ECB	Solo	Yearly 2018 - EIOPA/ECB – Solo	22/04/2019	2.3.0HF	X	X	X
Annual 2018	EIOPA	Group	Yearly 2018 - EIOPA – Group	03/06/2019	2.3.0HF	X	X	X



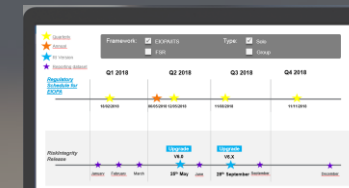
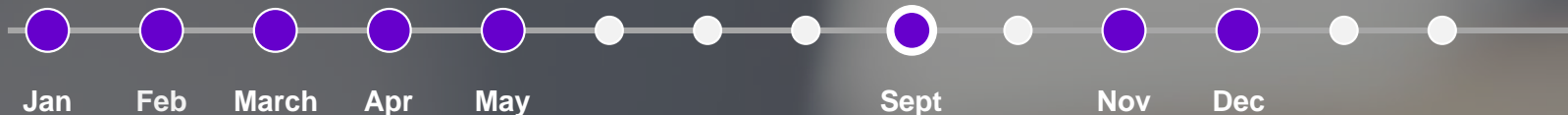
6.2.X 7.X

NC: Not Compatible

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Compatibility Matrix – FSR (2/3)

Submission Name	Framework	Solo/Group	Acronym	Submission date	Taxonomy	6.0.1	6.2.X	7.X
Quarterly 2018	FSR	Solo	Q4-2018 - FSR - Solo	25/02/2019	2.3.0HF	X	X	X
Quarterly 2018	FSR	Group	Q4-2018 - FSR - Group	25/02/2019	2.3.0HF	X	X	X
Quarterly 2019	FSR	Solo	Q1-2019 - FSR - Solo	19/05/2019	2.3.0HF	X	X	X
Quarterly 2019	FSR	Solo	Q2-2019 - FSR - Solo	18/08/2019	2.3.0HF	X	X	X
Quarterly 2019	FSR	Solo	Q3-2019 - FSR - Solo	18/11/2019	2.3.0HF	X	X	X
Quarterly 2019	FSR	Solo	Q4-2019 - FSR - Solo	18/02/2020	2.4.0(TBC)	NC	NC	X
Quarterly 2019	FSR	Group	Q1-2019 - FSR - Group	19/05/2019	2.3.0HF	X	X	X
Quarterly 2019	FSR	Group	Q2-2019 - FSR - Group	18/08/2019	2.3.0HF	X	X	X
Quarterly 2019	FSR	Group	Q3-2019 - FSR - Group	18/11/2019	2.3.0HF	X	X	X
Quarterly 2019	FSR	Group	Q4-2019 - FSR - Group	18/02/2020	2.4.0(TBC)	NC	NC	X
Annual 2018	FSR	Solo	Yearly 2018 - FSR – Solo	25/02/2019	2.3.0HF	X	X	X
Annual 2018	FSR	Group	Yearly 2018 - FSR - Group	25/02/2019	2.3.0HF	X	X	X



6.2.X **7.X**

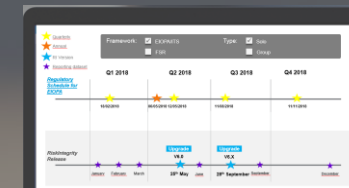
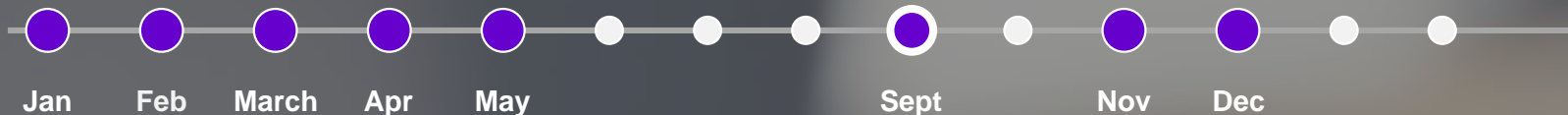
NC: Not Compatible

TBC: To be confirmed - This will depend if the new taxonomy requires a new version of the Regulatory reporting engine

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Compatibility Matrix - 3CB (3/3)

Submission Name	Framework	Solo/Group	Acronym	Submission date	Taxonomy	6.0.1	6.2.X	7.X
Quarterly 2018	3CB	Solo/Group	Q4-2018 - 3CB - Solo/Group	11/02/2019	2.3.0HF	X	X	X
Quarterly 2019	3CB	Solo/Group	Q1-2019 - 3CB - Solo/Group	05/05/2019	2.3.0HF	X	X	X
Quarterly 2019	3CB	Solo/Group	Q2-2019 - 3CB - Solo/Group	04/08/2019	2.3.0HF	X	X	X
Quarterly 2019	3CB	Solo/Group	Q3-2019 - 3CB - Solo/Group	04/11/2019	2.3.0HF	X	X	X
Quarterly 2019	3CB	Solo/Group	Q4-2019 - 3CB - Solo/Group	04/02/2020	2.4.0(TBC)	NC	NC	X
Annual 2018	3CB	Solo/Group	Yearly 2018 - 3CB - Solo/Group	22/04/2019	2.3.0HF	X	X	X

NC: Not Compatible

TBC: To be confirmed - This will depend if the new taxonomy requires a new version of the Regulatory reporting engine



6.2.X 7.X

APPENDIX - 1

1. Risk Foundation – Oracle Changes (see document attached)

- Two major changes in the Oracle licensing agreement
 - Paying model for Oracle's Java SE JDK support

From Jan.2019: Oracle stopped to distribute free public Oracle JDK (Java development kit) Java support and 2 models for JDK support

- Oracle JDK : Payable and need to have a valid active paid subscription
- Open JDK: free open source alternative to Oracle JDK

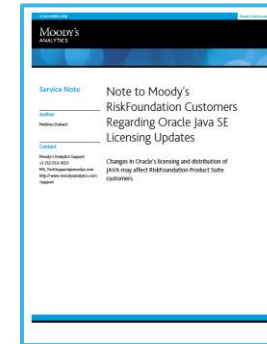
- Change in Cadence of version availability

- Delivering new feature every six month
- The version that will maintained for Open JDK will always be the most recent feature release

- Impact for MA Risk Foundation Product Suite

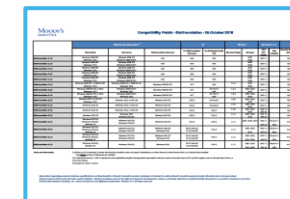
MA is committed to supporting its customers throughout this process and ensure the best solution for their various use cases and technical environment

- Recommend and continue to certify Oracle JDK versions as major compatibility version
- Starting 2019, MA ensure the certification of future major RiskFoundation Product suite version with Open JDK (starting with Open JDK version 8)



2. Risk Foundation – Matrix Compatibility:

- Show the pre-requisite of different technical components for RFO Installation (see document attached)

A screenshot of a compatibility matrix table. The table has multiple columns and rows, detailing the compatibility between various Risk Foundation products and their dependencies. The table is titled "Compatibility Matrix - Risk Foundation - 08/2019/2018".

APPENDIX - 2

3. Standard Formula Revision – Overview of RI Impact

Section	Section description	Set of Advice	Draft Version
Volume measure for premium risk	For multi year contract, 30% of the expected present value of premiums	yes	yes
Catastrophe risk	Natural catastrophe risk - Treatment of contractual limits	yes	yes
	Natural catastrophe risk - Recalibration of Natural Catastrophe Scenarios	yes	yes
	Man Made Risk - Identification of largest man-made catastrophe exposures on gross against net	yes	yes
Market Risk	Concentration Risk - Reverse mapping approach	yes	yes
	Currency Risk - Choose the relevant currency for currency risk sub module at group level	yes	yes
	Reducing reliance on external credit ratings in the standard formula	yes	yes
	Market risk Equity - Long-term investments in equity	no	yes
Counterparty default Risk	LGD on derivative	yes	yes



RiskIntegrity-SF Product Team

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